

## **Crossed Roller Way**

**Anti-Creep Cage Crossed Roller Way**

**Anti-Creep Cage Crossed Roller Way H**

**Crossed Roller Way**

**Anti-Creep Cage Crossed Roller Way Unit**

**Crossed Roller Way Unit**

CRW(G)(...H)  
CRWU(G)

# A wide variety of series products including mechanism are available! Features of

IKO Crossed Roller Way is a linear motion rolling guide incorporating a roller cage between two ways whose two V-shaped surfaces are used as track groove. Arrangement of cylindrical rollers by orthogonalizing them alternately allows receiving of loads in any direction and executes extremely high-accuracy and smooth linear motion.

## Crossed Roller Way CRW·CRWM



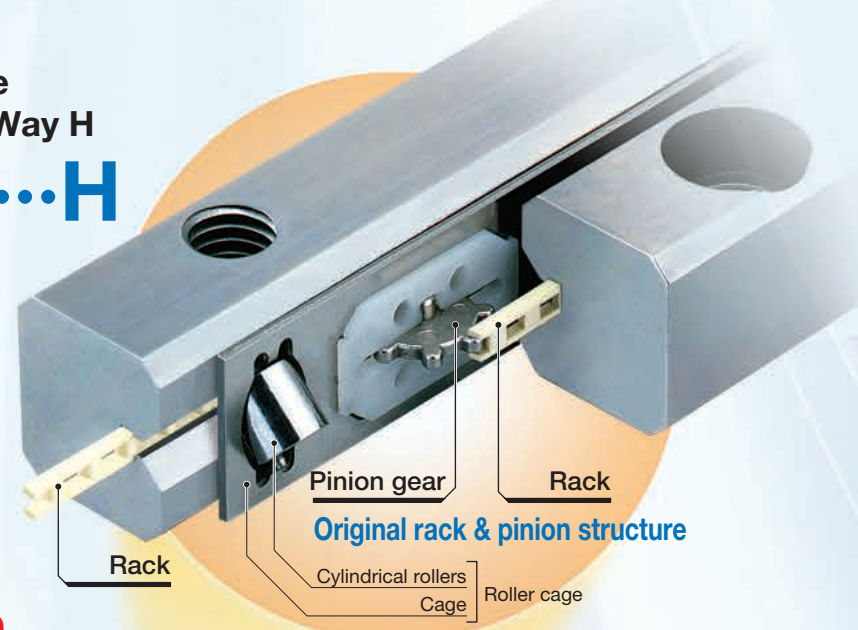
## Crossed Roller Way Unit CRWU



## Anti-Creep Cage Crossed Roller Way CRWG

IKO Anti-Creep Cage Crossed Roller Way CRWG is a product with a cage creep proof function using a rack and pinion mechanism originated from the Crossed Roller Way CRW featuring smooth linear motion with super high accuracy. CRWG ... H is high load capacity type of CRWG, which has achieved greatly increased load rating by redesigning of raceway of CRWG.

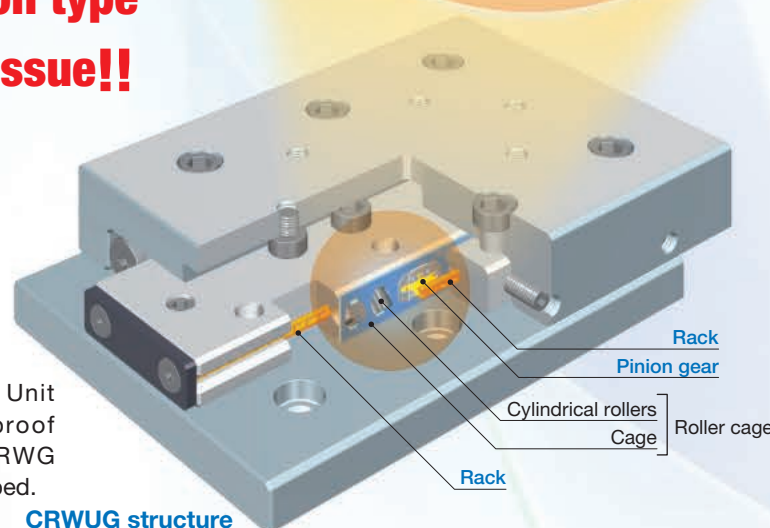
## Anti-Creep Cage Crossed Roller Way H CRWG...H



**Built-in rack & pinion type  
Solves cage creep issue!!**

## Anti-Creep Cage Crossed Roller Way Unit CRWUG

IKO Anti-Creep Cage Crossed Roller Way Unit CRWUG is a product with a cage creep proof function-provided Crossed Roller Way CRWG mounted into a ground-finished rigid table and bed.



CRWUG structure

# cage misalignment prevention Crossed Roller Way

## Features of Built-in Rack & Pinion Type

### Solves Cage Creep Issue!

Perfect solution for cage creep issues by a built-in rack and pinion mechanism as an original design.

#### Freedom in Mounting

This series is reliable for applications such as vertical axis where Crossed Roller Way may have chances of cage creep.

#### High-Speed and High-Tact Operation

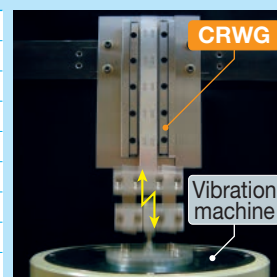
Any corrective operation for cage creep is not necessary even for high velocity operation.

#### Saving Energy

No remedy motion of cage is necessary even in long term operation.

### No cage creep even under high-tact operation in vertical axis!

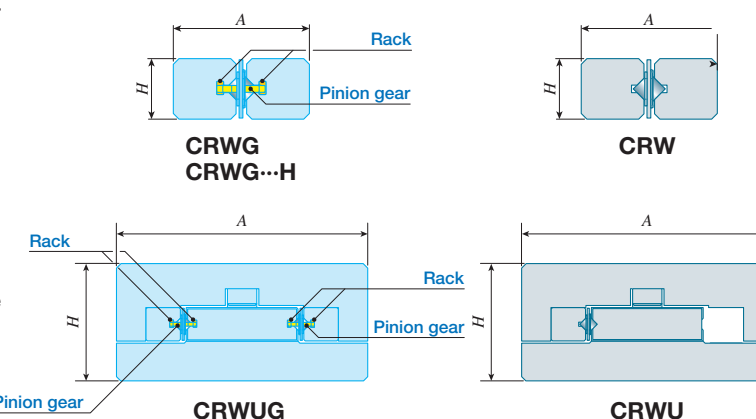
| Test conditions |                        |          |
|-----------------|------------------------|----------|
| Model number    | CRWG3                  |          |
| Test method     | Vibration test machine |          |
| Condition       | Posture                | Vertical |
|                 | Maximum velocity       | 827 mm/s |
|                 | Acceleration           | 15 G     |
|                 | Number of cycle        | 31 Hz    |
|                 | Stroke length          | 8 mm     |
| Total cycles    | Mass of moving part    | 330 g    |
|                 | 100,000,000 cycles     |          |



《Result》 No cage creep nor material damage in any component is found.

### Interchangeable in Mounting Dimensions!

Adoption of original structure of arranging a rack inside the way keeps the same mounting dimensions as conventional Crossed Roller Way CRW.



#### Easy Replacement

Since they have the same external dimensions to those of the existing Crossed Roller Way and Crossed Roller Way Unit, existing Crossed Roller Way and Crossed Roller Way Unit can be replaced without any mounting dimensions modification.

### Smooth and Extremely-High Accurate Operation!

Combination of precisely finished raceways and non-recirculating type linear motion rolling guide with super high precision rollers provides superbly smooth motion with very high accuracy.

#### Improved Running Accuracy

Extremely high running accuracy can be achieved without run deflection by recirculating type linear motion rolling guide.

#### Suitable for Micro-Feeding

Improvement of precision positioning accuracy and superior corresponding feature to micro-feeding command can be expected because of the linear motion without stick-slip by extremely small frictional resistance.

Anti-Creep Cage  
Crossed Roller Way

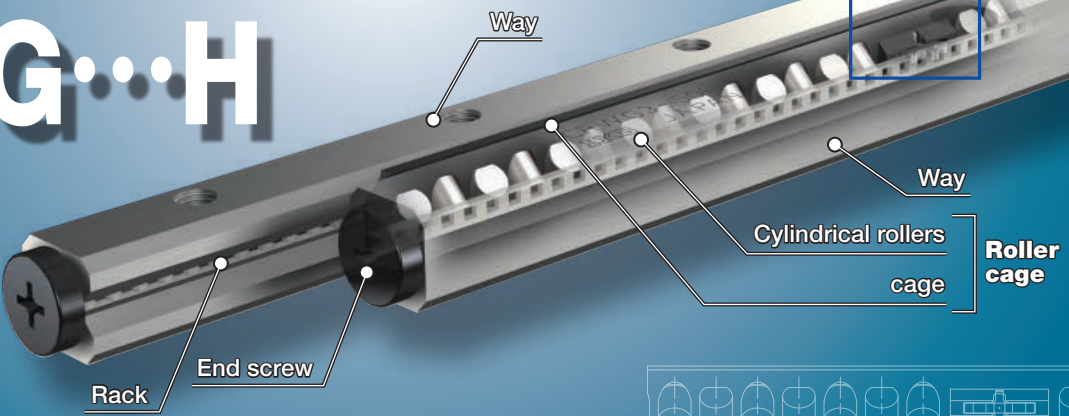
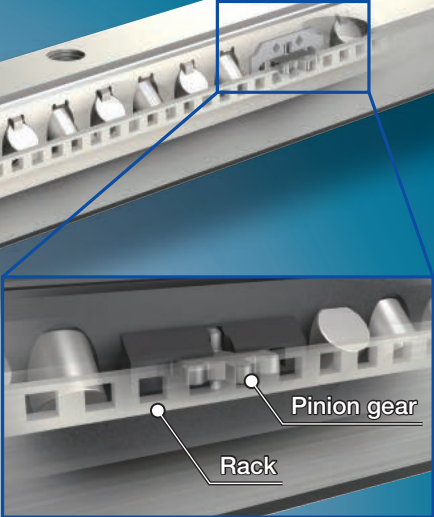
CRWG

Anti-Creep Cage  
Crossed Roller Way H

CRWG···H

Crossed Roller Way

CRW/CRWM



Points

1 Superior load balance

This unit has a roller cage with cylindrical rollers alternately orthogonalized between two ways whose two V-shaped surfaces are used as track groove, which allows receiving of loads in any direction.

2 Solves cage creep problem

CRWG and CRWG···H units, which have originally-designed rack and pinion mechanism built-in, solve the cage creep issue and support high-speed & high-tact operation and vertical axis application.

3 High load capacity type CRWG···H

CRWG···H has achieved greatly increased load rating by redesigning of raceway of CRWG, thereby downsizing the machine and equipment and prolonging their lifetime.

4 Standard type and module type

There are two types in the CRW: one is standard type of using four ways and two roller cages in combination as a set and the other is module type of integrating two internal ways in a single structure.

5 Easy mounting

The mounting holes of the way are provided with boring and female thread, so that the mounting structure is not restricted. The module type with two internal ways integrated in a single structure is simple in mounting structure, thus producing high accuracy linear motion.

6 Stainless steels superior in corrosion resistance are listed on lineup.

Products made of stainless steel are highly resistance to corrosion, so that they are suitable for applications where rust prevention oil is not preferred, such as in a cleanroom environment.

Identification Number and Specification

Example of an identification number

The specifications of CRWG series, CRWG···H series, and CRW series are indicated by the identification number. Indicate the identification number, consisting of a model code, a dimension, a part code, a material code, a classification symbol, and any supplemental codes for each specification to apply.

|                 | 1    | 2 | 3         | 1 | 4   | 5  | 6  | 7  |
|-----------------|------|---|-----------|---|-----|----|----|----|
| CRWG series     | CRWG | 3 | - 150     | H |     |    | SP | /B |
| CRWG···H series |      |   |           |   |     |    |    |    |
| CRW series      | CRW  | 3 | - 150     |   | C20 | SL | SP | /U |
| Standard type   |      |   |           |   |     |    |    |    |
|                 | CRW  | 3 | - 250×300 |   | C36 | SL | SP | /U |
| Module type     | CRWM | 3 | - 150     |   | C20 |    | SP | /U |
|                 | CRWM | 3 | - 250×150 |   | C20 |    | SP | /U |

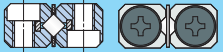
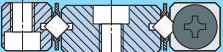
|                                 |                       |              |
|---------------------------------|-----------------------|--------------|
| 1 Model                         | Model code            | Page II - 9  |
| 2 Size                          | Dimensions            | Page II - 9  |
| 3 Way length                    | Part code             | Page II - 10 |
| 4 Number of cylindrical rollers |                       |              |
| 5 Material type                 | Material code         | Page II - 10 |
| 6 Accuracy class                | Classification symbol | Page II - 11 |
| 7 Special specification         | Supplemental code     | Page II - 11 |

CRW(G)(···H)  
CRW(G)

Identification Number and Specification —Model · Size—

|   |       |                                                        |                                              |
|---|-------|--------------------------------------------------------|----------------------------------------------|
| 1 | Model | Anti-Creep Cage Crossed Roller Way (CRWG series)       | : CRWG                                       |
|   |       | Anti-Creep Cage Crossed Roller Way H (CRWG···H series) | : CRWG···H                                   |
|   |       | Crossed Roller Way (CRW series)                        | Standard type : CRW                          |
|   |       | Module type                                            | : CRWM                                       |
|   |       | For applicable models and sizes, see Fig. 1.           |                                              |
| 2 | Size  | 1, 2, 3, 4, 6, 9, 12, 15, 18, 24                       | For applicable models and sizes, see Fig. 1. |

Table 1 Models and Sizes of CRWG series, CRWG···H series, and CRW series

| Series   | Shape                                                                                              | Material               | Model    | Size |   |   |   |   |   |    |    |    |    |
|----------|----------------------------------------------------------------------------------------------------|------------------------|----------|------|---|---|---|---|---|----|----|----|----|
|          |                                                                                                    |                        |          | 1    | 2 | 3 | 4 | 6 | 9 | 12 | 15 | 18 | 24 |
| CRWG     |                   | High carbon steel made | CRWG     | —    | ○ | ○ | ○ | ○ | — | —  | —  | —  | —  |
| CRWG···H |                   | High carbon steel made | CRWG···H | —    | ○ | ○ | ○ | — | — | —  | —  | —  | —  |
| CRW      | Standard type<br> | High carbon steel made | CRW      | ○    | ○ | ○ | ○ | ○ | ○ | ○  | ○  | ○  | ○  |
|          |                                                                                                    | Stainless steel made   | CRW···SL | ○    | ○ | ○ | ○ | ○ | — | —  | —  | —  | —  |
|          | Module type<br> | High carbon steel made | CRWM     | ○    | ○ | ○ | ○ | — | — | —  | —  | —  | —  |

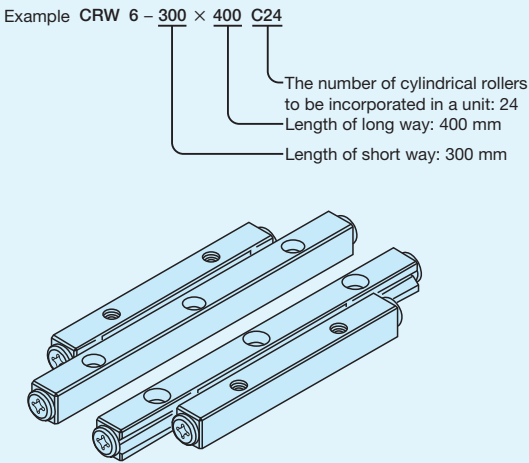
—Way length · Number of Cylindrical Rollers · Material Type—

|   |            |     |                                                                                                                                                                                |
|---|------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | Way length | ○   | The way length is indicated in mm. The CRW series can be combined with a way of different length. For details of way length, see the dimension tables on pages II-27 to II-54. |
|   |            | ○×○ |                                                                                                                                                                                |

Specifying the combination of different way lengths

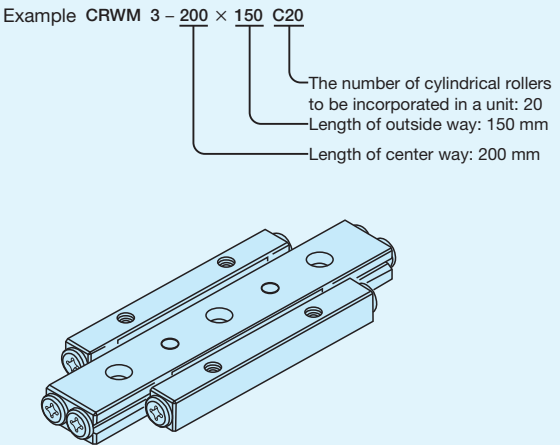
Combination of standard type

This combination consists of two short ways, two long ways, and two roller cages, as a set.  
The number of rollers incorporated into a roller cage shall be standard number of short ways (number described in the dimension table) but the number of rollers may be specified.



Combination of module type

This combination consists of one center way, two ways, and two roller cages, as a set.  
The number of rollers incorporated into a roller cage shall be standard number of short ways (number described in the dimension table) but the number of rollers may be specified.



|   |                               |                                    |                                                                                                                                                                                                                    |
|---|-------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Number of cylindrical rollers | : No symbol                        | This represents the number of cylindrical rollers incorporated into a CRW series cage. If not directed, the number of cylindrical rollers indicated in the dimension table shall be incorporated in a roller cage. |
|   |                               | : C○                               |                                                                                                                                                                                                                    |
| 5 | Material type                 | High carbon steel made : No symbol | For applicable models and sizes, see Fig. 1.                                                                                                                                                                       |
|   |                               | Stainless steel made : SL          |                                                                                                                                                                                                                    |

|   |                |                 |             |                                                                                                                                        |
|---|----------------|-----------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 6 | Accuracy class | Standard        | : No symbol | For parallelism of the raceway to reference mounting surface and the tolerance of the parallelism of two raceways of CRWM, see Fig. 1. |
|   |                | Super precision | : SP        |                                                                                                                                        |

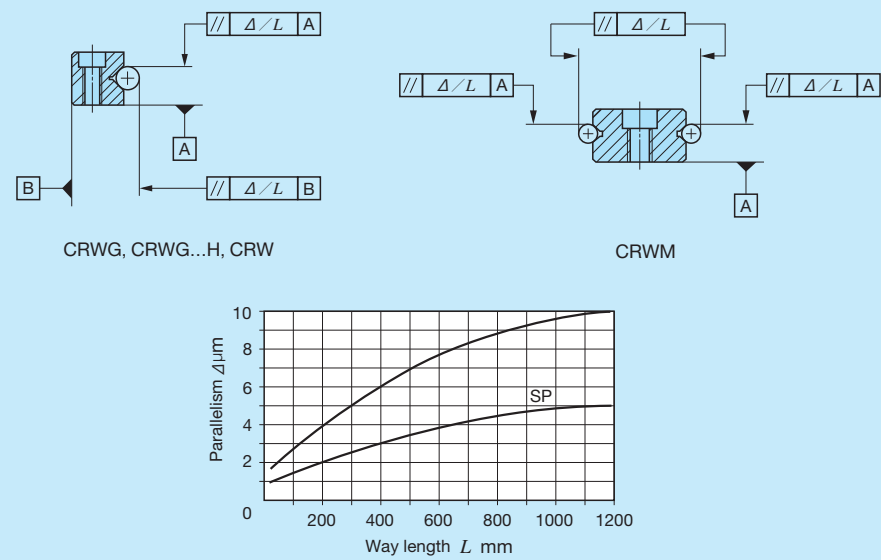


Fig. 1 Accuracy

|   |                       |                 |                                                                                                                                                                                             |
|---|-----------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7 | Special specification | B, M, SA, SB, U | For applicable special specifications, see Table 2.<br>For combination of multiple special specifications, see Table 3.<br>For details of special specifications, see pages II-12 to II-14. |
|   |                       |                 |                                                                                                                                                                                             |

Table 2 Application of special specifications

| Special specification                                   | Supplemental code | Size |   |   |   |   |   |    |    |    |    |
|---------------------------------------------------------|-------------------|------|---|---|---|---|---|----|----|----|----|
|                                                         |                   | 1    | 2 | 3 | 4 | 6 | 9 | 12 | 15 | 18 | 24 |
| Special mounting screw                                  | /B                | —    | — | ○ | ○ | ○ | ○ | ○  | ○  | ○  | ○  |
| High rigidity roller cage <sup>(1)</sup> <sup>(2)</sup> | /M                | —    | — | — | — | ○ | ○ | ○  | ○  | ○  | ○  |
| End stopper SA <sup>(2)</sup>                           | /SA               | —    | ○ | ○ | ○ | ○ | ○ | ○  | ○  | ○  | ○  |
| End stopper SB <sup>(2)</sup>                           | /SB               | —    | ○ | ○ | ○ | ○ | ○ | ○  | ○  | ○  | ○  |
| Wiper seal <sup>(2)</sup>                               | /U                | —    | ○ | ○ | ○ | ○ | ○ | ○  | ○  | ○  | ○  |

Notes <sup>(1)</sup> Not applicable to module type.  
<sup>(2)</sup> Not applicable to CRWG series and CRWG...H series.

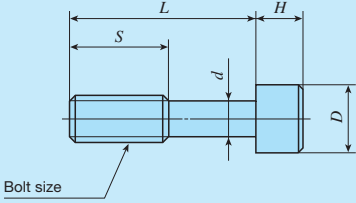
Table 3 Combination of special specifications

|    |   |   |    |    |
|----|---|---|----|----|
| M  | ○ |   |    |    |
| SA | ○ | ○ |    |    |
| SB | ○ | ○ | —  |    |
| U  | ○ | ○ | —  | —  |
|    | B | M | SA | SB |

Remarks 1. The combination of "—" shown in the table is not available.  
2. When using multiple types for combination, please indicate by arranging the symbols in alphabetical order.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Special mounting screw /B</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Preload adjusting-side way can be moved by adjusting the preload. Allowance for movement is required between a way fixing screw and mounting hole, but special mounting screws are provided for the cases where enough allowance is not provided or a fixing screw should be mounted from the way side as shown in Fig. 2.<br>This special mounting screw can also be used for the case where the mounting hole for mounting the fixed-side way and positioning accuracy of female thread are not enough. This special mounting screw is high carbon steel-made only. |

Table 4 Dimensions of special mounting screw



| unit: mm |           |      |      |    |    |    |
|----------|-----------|------|------|----|----|----|
| Size     | Bolt size | d    | D    | H  | L  | S  |
| 3        | M 3       | 2.3  | 5    | 3  | 12 | 5  |
| 4        | M 4       | 3.1  | 6    | 4  | 15 | 6  |
| 6        | M 5       | 3.9  | 8    | 5  | 20 | 8  |
| 9        | M 6       | 4.6  | 8.5  | 6  | 30 | 12 |
| 12       | M 8       | 6.2  | 11.5 | 8  | 40 | 17 |
| 15       | M10       | 7.9  | 14   | 10 | 45 | 16 |
| 18       | M12       | 9.6  | 16   | 12 | 50 | 19 |
| 24       | M14       | 11.2 | 19.5 | 14 | 70 | 26 |

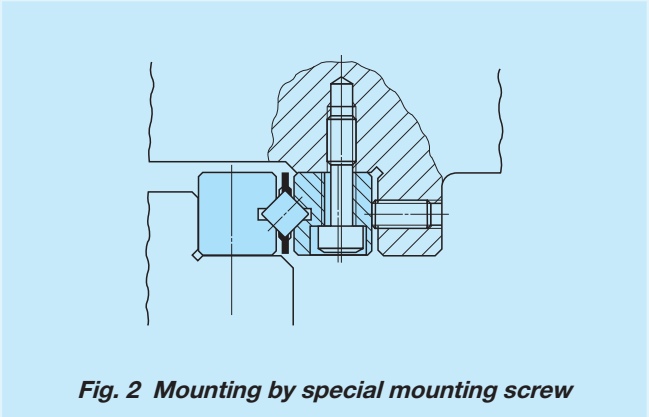
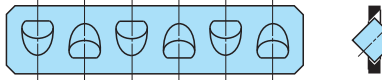


Fig. 2 Mounting by special mounting screw

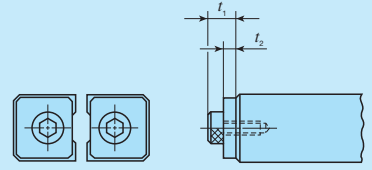
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|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>High rigidity roller cage /M</b>                                                   |                                                                                                                                                                                                                                                                                                                                                             |
|  | <p>The cage is changed into a high rigidity copper alloy-made cage designed to suit vertical axis application. This cage has a structure to prevent a roller from dropping off in one-side direction.</p> <p>For using a high rigidity roller cage for vertical axis application, it is recommended to use the cage in combination with end stopper SB.</p> |

End stopper SA /SA

When the stroke frequency is high and cage creep may be caused by the vibration and non-uniformly varying load, the end screw is changed into end stopper SA.

For the series of size 1, an end stopper SA according end stopper SA is included as standard.

Table 5 Dimensions of end stopper SA



| Size | $t_1$ | $t_2$ |
|------|-------|-------|
| 2    | 4.5   | 2     |
| 3    | 5     | 2     |
| 4    | 7     | 3     |
| 6    | 8     | 3     |
| 9    | 10    | 4     |

unit: mm

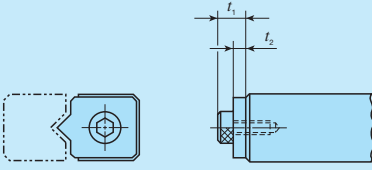
| Size | $t_1$ | $t_2$ |
|------|-------|-------|
| 12   | 11    | 5     |
| 15   | 14    | 6     |
| 18   | 14    | 6     |
| 24   | 16    | 6     |

End stopper SB /SB

When using a high rigidity roller cage for vertical axis application, the end screw is changed into end stopper SB to regulate the cage stroke at the end.

The end stopper SB cannot be mounted on all way ends. Standard mounting positions are shown in Fig. 3. The mounting positions can be changed by loosening the screw.

Table 6 Dimensions of end stopper SB



| Size | $t_1$ | $t_2$ |
|------|-------|-------|
| 2    | 4.5   | 2     |
| 3    | 5     | 2     |
| 4    | 7     | 3     |
| 6    | 8     | 3     |
| 9    | 10    | 4     |

unit: mm

| Size | $t_1$ | $t_2$ |
|------|-------|-------|
| 12   | 11    | 5     |
| 15   | 14    | 6     |
| 18   | 14    | 6     |
| 24   | 16    | 6     |

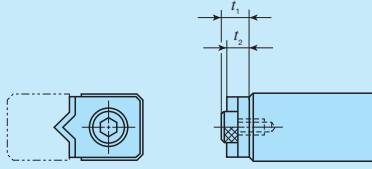
Fig. 3 Arrangement of end stopper SB

Wiper seal /U

In order to prevent foreign substances from entering into a raceway, the wiper seal is changed into the one with a function of end stopper SB.

The wiper seal cannot be mounted on all way ends. Standard mounting positions are shown in Fig. 4. The mounting positions can be changed by loosening the screw.

Table 7 Dimensions of wiper seal



| Size | $t_1$ | $t_2$ |
|------|-------|-------|
| 2    | 4.5   | 4     |
| 3    | 5     | 4     |
| 4    | 7     | 6     |
| 6    | 8     | 6     |
| 9    | 10    | 7.5   |

unit: mm

| Size | $t_1$ | $t_2$ |
|------|-------|-------|
| 12   | 11    | 8.5   |
| 15   | 14    | 11    |
| 18   | 14    | 11    |
| 24   | 16    | 11    |

Fig. 4 Arrangement of wiper seal

Load Rating and Allowable Load

Basic dynamic load rating  $C$ , basic static load rating  $C_0$ , and allowable load  $F$  of the CRWG series and CRWG...H series show values for downward loads in case of parallel arrangement of four ways and two pairs of roller cages as one set. (Refer to Fig. 5) In addition, the upward and lateral load rating is the same as downward load rating.

For the CRW series, since the number of cylindrical rollers that share load of each direction varies, the load rating for each load direction and allowable load must be obtained. In addition, basic dynamic load rating  $C_u$ , basic static load rating  $C_{0u}$ , and allowable load  $F_u$  in the dimension table show values per cylindrical roller.

Basic dynamic load rating  $C$ , basic static load rating  $C_0$ , and allowable load  $F$  of the CRW series are obtained based on the equation indicated in Table 8.1 and Table 8.2.

For more information on the definition of load rating and calculated load, see page III-3.

Allowable load

Allowable load refers to load of smooth rolling motion on contact surface to which maximum contact stress is applied and the sum of whose elastic deformation of rolling elements and raceway is small.

Therefore, use applied load within the allowable load range if very smooth rolling motion and high accuracy are required.

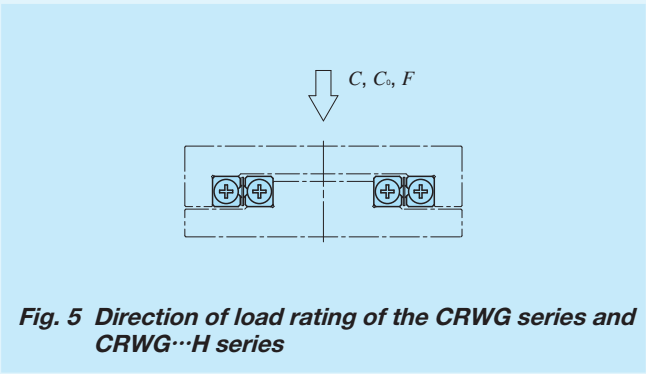


Fig. 5 Direction of load rating of the CRWG series and CRWG...H series

Table 8.1 Calculating formula of load rating and allowable load of standard type CRW series

| Load direction                 | Upward and downward load <sup>(1)</sup>                                                                                                    |                                                                                                                            | Lateral load                                                                                                                       |  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--|
|                                |                                                                                                                                            |                                                                                                                            |                                                                                                                                    |  |
| Basic dynamic load rating $C$  | N                                                                                                                                          | $C_r = \left\{ \left( \frac{Z}{2} - 1 \right) 2p \right\}^{1/36} \left( \frac{Z}{2} \right)^{3/4} C_u \dots\dots\dots (1)$ | $C_a = \left\{ \left( \frac{Z}{2} - 1 \right) 2p \right\}^{1/36} \left( \frac{Z}{2} \right)^{3/4} 2^{7/9} C_u \dots\dots\dots (4)$ |  |
| Basic static load rating $C_0$ | N                                                                                                                                          | $C_{0r} = \left( \frac{Z}{2} \right) C_{0u} \dots\dots\dots (2)$                                                           | $C_{0a} = 2 \left( \frac{Z}{2} \right) C_{0u} \dots\dots\dots (5)$                                                                 |  |
| Allowable load $F$             | N                                                                                                                                          | $F_r = \left( \frac{Z}{2} \right) F_u \dots\dots\dots (3)$                                                                 | $F_a = 2 \left( \frac{Z}{2} \right) F_u \dots\dots\dots (6)$                                                                       |  |
| Code description               | $C_r$ : Basic dynamic load rating in case upward and downward load is applied N                                                            |                                                                                                                            |                                                                                                                                    |  |
|                                | $C_a$ : Basic dynamic load rating in case lateral load is applied N                                                                        |                                                                                                                            |                                                                                                                                    |  |
|                                | $C_{0r}$ : Basic static load rating in case upward and downward load is applied N                                                          |                                                                                                                            |                                                                                                                                    |  |
|                                | $C_{0a}$ : Basic static load rating in case lateral load is applied N                                                                      |                                                                                                                            |                                                                                                                                    |  |
|                                | $F_r$ : Allowable load in case upward and downward load is applied N                                                                       |                                                                                                                            |                                                                                                                                    |  |
|                                | $F_a$ : Allowable load in case lateral load is applied N                                                                                   |                                                                                                                            |                                                                                                                                    |  |
|                                | $Z$ : The number of cylindrical rollers incorporated in a roller cage<br>(omit the figures after the decimal fractions for $\frac{Z}{2}$ ) |                                                                                                                            |                                                                                                                                    |  |
|                                | $p$ : Inter-pitch dimensions of cylindrical rollers mm                                                                                     |                                                                                                                            |                                                                                                                                    |  |
|                                | $C_u$ : Basic dynamic load rating per cylindrical roller N                                                                                 |                                                                                                                            |                                                                                                                                    |  |
|                                | $C_{0u}$ : Basic static load rating per cylindrical roller N                                                                               |                                                                                                                            |                                                                                                                                    |  |
|                                | $F_u$ : Allowable load per cylindrical roller N                                                                                            |                                                                                                                            |                                                                                                                                    |  |

Note <sup>(1)</sup> : In case of parallel arrangement in this load direction, calculation must be performed based on the equations (7) , (8) , and (9) in Table 8.2.

Table 8.2 Calculating formula of load rating and allowable load of module type CRW series

| Load direction                 | Upward and downward load                                                                                                                   |                                                                                                                                    | Lateral load                                                                                                                        |  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--|
|                                |                                                                                                                                            |                                                                                                                                    |                                                                                                                                     |  |
| Basic dynamic load rating $C$  | N                                                                                                                                          | $C_r = \left\{ \left( \frac{Z}{2} - 1 \right) 2p \right\}^{1/36} \left( \frac{Z}{2} \right)^{3/4} 2^{7/9} C_u \dots\dots\dots (7)$ | $C_a = \left\{ \left( \frac{Z}{2} - 1 \right) 2p \right\}^{1/36} \left( \frac{Z}{2} \right)^{3/4} 2^{7/9} C_u \dots\dots\dots (10)$ |  |
| Basic static load rating $C_0$ | N                                                                                                                                          | $C_{0r} = 2 \left( \frac{Z}{2} \right) C_{0u} \dots\dots\dots (8)$                                                                 | $C_{0a} = 2 \left( \frac{Z}{2} \right) C_{0u} \dots\dots\dots (11)$                                                                 |  |
| Allowable load $F$             | N                                                                                                                                          | $F_r = 2 \left( \frac{Z}{2} \right) F_u \dots\dots\dots (9)$                                                                       | $F_a = 2 \left( \frac{Z}{2} \right) F_u \dots\dots\dots (12)$                                                                       |  |
| Code description               | $C_r$ : Basic dynamic load rating in case upward and downward load is applied N                                                            |                                                                                                                                    |                                                                                                                                     |  |
|                                | $C_a$ : Basic dynamic load rating in case lateral load is applied N                                                                        |                                                                                                                                    |                                                                                                                                     |  |
|                                | $C_{0r}$ : Basic static load rating in case upward and downward load is applied N                                                          |                                                                                                                                    |                                                                                                                                     |  |
|                                | $C_{0a}$ : Basic static load rating in case lateral load is applied N                                                                      |                                                                                                                                    |                                                                                                                                     |  |
|                                | $F_r$ : Allowable load in case upward and downward load is applied N                                                                       |                                                                                                                                    |                                                                                                                                     |  |
|                                | $F_a$ : Allowable load in case lateral load is applied N                                                                                   |                                                                                                                                    |                                                                                                                                     |  |
|                                | $Z$ : The number of cylindrical rollers incorporated in a roller cage<br>(omit the figures after the decimal fractions for $\frac{Z}{2}$ ) |                                                                                                                                    |                                                                                                                                     |  |
|                                | $p$ : Inter-pitch dimensions of cylindrical rollers mm                                                                                     |                                                                                                                                    |                                                                                                                                     |  |
|                                | $C_u$ : Basic dynamic load rating per cylindrical roller N                                                                                 |                                                                                                                                    |                                                                                                                                     |  |
|                                | $C_{0u}$ : Basic static load rating per cylindrical roller N                                                                               |                                                                                                                                    |                                                                                                                                     |  |
|                                | $F_u$ : Allowable load per cylindrical roller N                                                                                            |                                                                                                                                    |                                                                                                                                     |  |

# Selection of CRW Series

For selection of CRW series specifications, stroke length and the number of cylindrical rollers, as well as accuracy, load rating and allowable load, must be determined.

## Stroke length and the number of cylindrical rollers

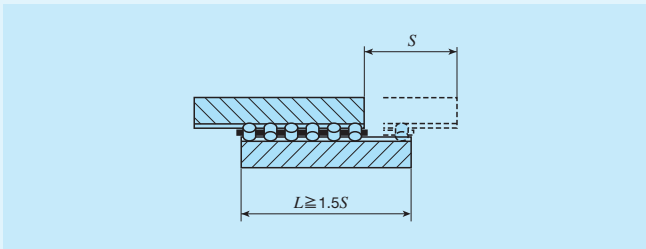
Stroke length of the CRW series affects the way length and the number of cylindrical rollers. Therefore, select specifications by following the procedure below taking into account the stroke length used and applied load.

### ① Calculation of way length

The way length, which should be 1.5 times longer than the stroke length used, is obtained from the equation below.

$$L \geq 1.5S \quad \text{..... (13)}$$

Where  $L$ : Way length mm  
 $S$ : Stroke length used mm



### ② Calculation of maximum stroke length

Ideally the stroke length used should be less than 80% of the maximum stroke length, which is obtained from the equation below.

$$S_1 \geq \frac{1}{0.8} S \quad \text{..... (14)}$$

Where  $S_1$ : Maximum stroke length mm  
 $S$ : Stroke length used mm

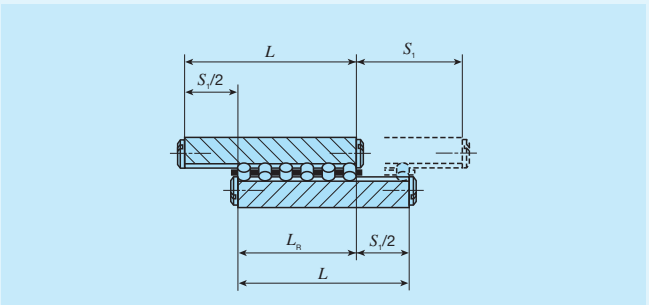
### ③ Calculation of cage length and the number of rollers

With the way length and maximum stroke length determined, the allowable length for cage can be calculated. Calculation method of the cage length varies depending on specifications of end screws and end stopper fitted to the way end.

(1) With standard end screws and end stopper SA (excluding Size 1 series)  
The dimensions between rollers at both ends is obtained from the following equation by using a value obtained by subtracting a half of the maximum stroke length from the way length.

$$L_R = L - \frac{S_1}{2} \quad \text{..... (15)}$$

Where  $L_R$ : Allowable dimensions between rollers at both ends mm  
 $L$ : Way length mm  
 $S_1$ : Maximum stroke length mm



The number of rollers to be incorporated in a roller cage is obtained by the following equation.

$$Z = \frac{L_R - D_w}{p} + 1 \quad \text{..... (16)}$$

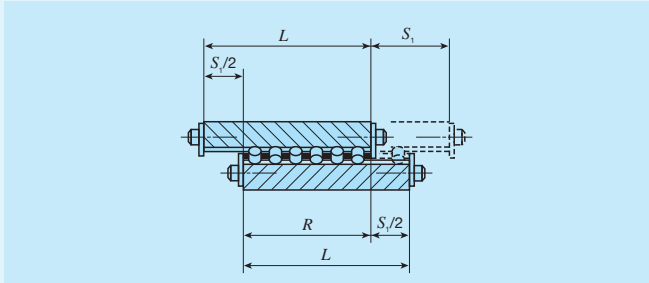
Where  $Z$ : Number of cylindrical rollers (figures after the decimal fractions are omitted)  
 $L_R$ : Allowed dimensions between rollers at both ends mm  
 $D_w$ : Diameter of cylindrical rollers (refer to the dimension table) mm  
 $p$ : Inter-pitch dimensions of cylindrical rollers (refer to the dimension table) mm

(2) For Size 1 series

The stroke length is regulated by cage and end stopper and the cage length is obtained by the following equation.

$$R = L - \frac{S_1}{2} \quad \text{..... (17)}$$

Where  $R$ : Allowable cage length mm  
 $L$ : Way length mm  
 $S_1$ : Maximum stroke length mm



The number of rollers to be incorporated in a roller cage is obtained by the following equation.

$$Z = \frac{R - 2e}{p} + 1 \quad \text{..... (18)}$$

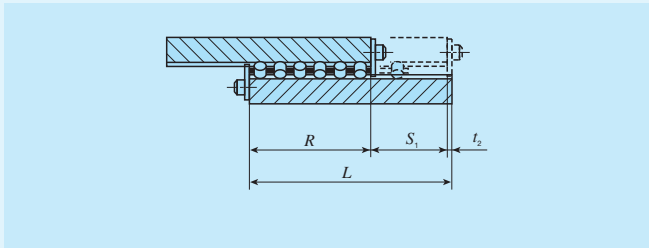
Where  $Z$ : Number of cylindrical rollers (figures after the decimal fractions are omitted)  
 $R$ : Allowable cage length mm  
 $e$ : End dimension of cage (refer to the dimension table) mm  
 $p$ : Inter-pitch dimensions of cylindrical rollers (refer to the dimension table) mm

(3) For end stopper SB and wiper seal

The stroke length is regulated by cage and end stopper or wiper seal and the cage length is obtained by the following equation.

$$R = L - t_2 - S_1 \quad \text{..... (19)}$$

Where  $R$ : Allowable cage length mm  
 $L$ : Way length mm  
 $S_1$ : Maximum stroke length mm  
 $t_2$ : Thickness of end stopper SB or wiper seal mm  
(See Table 6 in page II-13, and Table 7 in page II-14)



The number of rollers to be incorporated in a roller cage is obtained by the equation (18) as with the Size 1 series.

## Calculation examples

Form of use ..... CRW 6  
Applied load .....  $P = 7000 \text{ N}$   
Stroke length .....  $S = 195 \text{ mm}$

Select specifications for parallel use of Crossed Roller Way under the above conditions (refer to Fig. 26 in page II-23).

### ① Calculation of way length

The way length  $L$  is calculated from the equation (13).

$$L \geq 1.5S = 1.5 \times 195 = 292.5$$

Therefore, select  $L = 300 \text{ mm}$  based on the standard length in the dimension table.

### ② Calculation of maximum stroke length

The maximum stroke length  $S_1$  is calculated from the equation (14).

$$S_1 \geq \frac{1}{0.8} S = \frac{1}{0.8} \times 195 \div 244$$

Allowable dimensions between rollers at both ends  $L_R$  is calculated from the equation (15).

$$L_R = L - \frac{S_1}{2} = 300 - \frac{244}{2} = 178$$

### ③ Calculation of the number of rollers

The number of cylindrical rollers  $Z$  is calculated from the equation (16). However,  $D_w$  and  $p$  in this form are  $D_w = 6 \text{ mm}$ ,  $p = 9 \text{ mm}$  according to the dimension table.

$$Z = \frac{L_R - D_w}{p} + 1 = \frac{178 - 6}{9} + 1 \div 20.1$$

Therefore, it should be  $Z = 20$  by omitting figures after the decimal fractions.

### ④ Calculation of allowable load

Allowable load in parallel arrangement  $F$  is calculated from equation (9) described in Table 8.2 in page II-16. However, allowable load per cylindrical roller  $F_U$  is  $F_U = 769 \text{ N}$  according to the dimension table.

$$F = 2 \left( \frac{Z}{2} \right) F_U = 2 \left( \frac{20}{2} \right) \times 769 = 15380$$

Therefore, allowable load  $F$  is larger than applied load  $P = 7000 \text{ N}$ . When allowable load becomes smaller than applied load, it is necessary to increase the number of cylindrical rollers by extending way length, or increase the cylindrical roller diameter.

### ⑤ Determination of specifications

Specifications obtained in accordance with the above is CRW6-300 and the number of cylindrical rollers is 20.

Lubrication

Grease is not pre-packed in the CRWG series, CRWG...H series and CRW series, so please perform adequate lubrication as needed.

Both of oil lubrication and grease lubrication are available in the CRWG series, CRWG...H series and CRW series. Generally, oil lubrication should be selected for high speed or low frictional resistance, and grease lubrication for low speed. For grease lubrication, use of high-quality lithium-soap base grease is recommended. For light load and low speed, apply grease or oil to raceway, rack and pinion gear first and then reapply accordingly. However, the structure as indicated in the Fig. 6 allows for easy reapplication. In addition, since the clearance between ways is small for CRWG...H series, apply grease or oil directly to raceway for re-greasing.

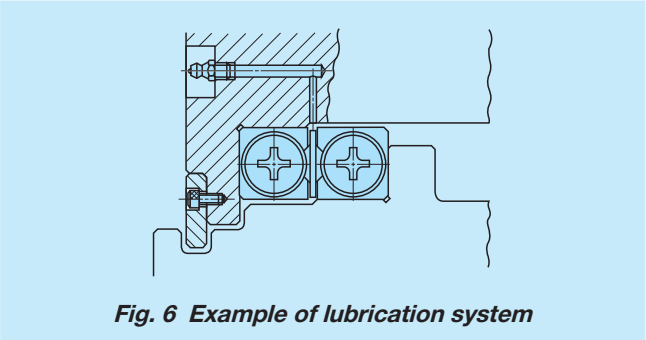


Fig. 6 Example of lubrication system

Dust Protection

Since the CRWG series, CRWG...H series and CRW series are finished with high accuracy, harmful foreign substances such as dust and particles entering into the bearing will cause low life or impaired accuracy. To prevent harmful foreign substances such as dust, particles and water from outside from entering, it is recommended to attach non-contact type labyrinth seal as indicated in Fig. 7, or contact type wiper seal as indicated in the Fig. 8 to both sides.

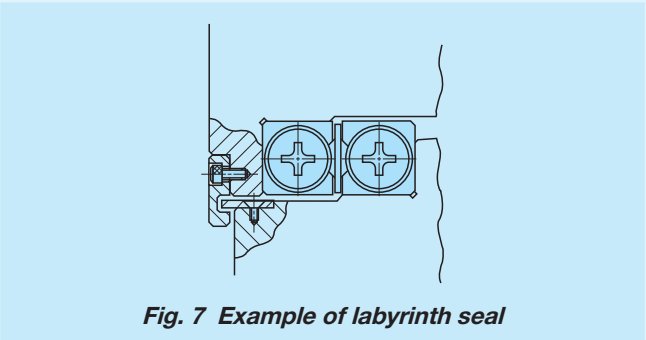


Fig. 7 Example of labyrinth seal

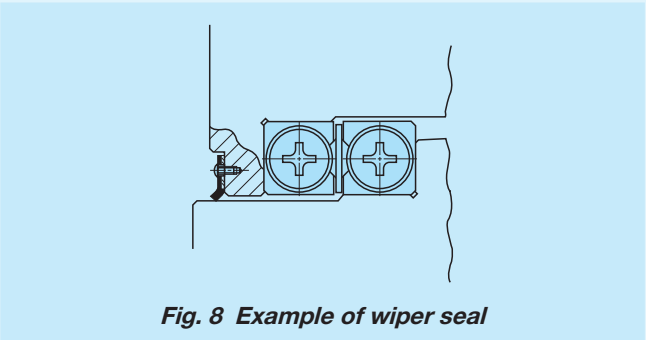


Fig. 8 Example of wiper seal

Precaution for Use

① Handling

As the CRWG series, CRWG...H series and CRW series are designed highly precisely, take extra care for handling. A pinion gear and cylindrical roller are incorporated with the cage for the CRWG series and CRWG...H series. When the cage is dropped or handled roughly, the pinion gear and cylindrical roller may come off. Especially for CRWG...H, grabbing the cylindrical roller may take it off, so be sure to hold the cage body for handling. In addition, do not cut off the cage as doing so may cause pinion gear coming off and breakage of gear joint section.

A rack is incorporated with the way for the CRWG series and CRWG...H series. In operation, take note that the rack may come off when the end screw is removed. Though the cage for the CRW series may cut off to necessary length, handle it with care not to deform it when cutting.

② Accuracy of mounting part

Examples of typical mounting surface processing are shown in Fig. 9.1 and Fig. 9.2.

General processing accuracy of mounting surface is according to Table 9. However, care should be exercised as mounting surface accuracy directly affects running accuracy. Especially when high running accuracy is required, the processing accuracy higher than that indicated in Table 9 is required.

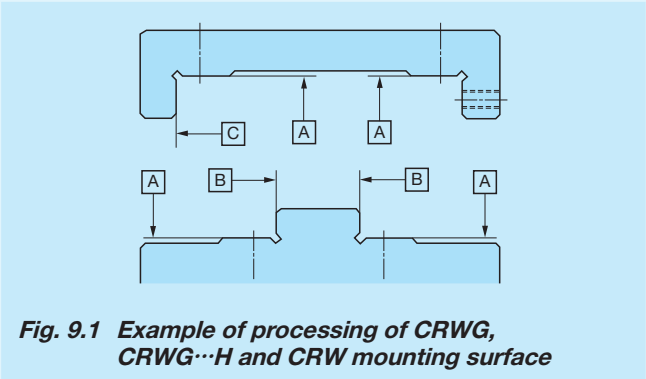


Fig. 9.1 Example of processing of CRWG, CRWG...H and CRW mounting surface

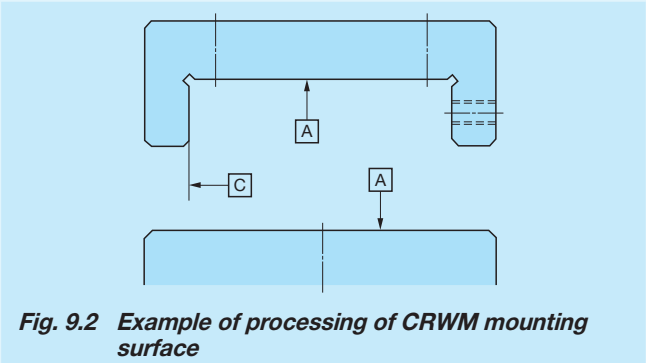


Fig. 9.2 Example of processing of CRWM mounting surface

Table 9 Accuracy of mounting part

|                              |                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy of A surface        | · Directly affects running accuracy.<br>For the flatness of two mounting surfaces on table and bed sides, allowable value approximate to the parallelism indicated in Fig. 1 in page II-11 is recommended.                                                                                                                                                     |
| Accuracy of B and C surfaces | · Flatness<br>Affects preload (refer to ④ Preload adjustment mechanism).<br>II-11 Allowable value approximate to the parallelism indicated in Fig. 1 in page II-11 is recommended.<br>· Squareness<br>Affects rigidity in preload direction of the mounting part of the CRWG series, CRWG...H series and CRW series.<br>Process to sufficiently high accuracy. |

③ Shape of mounting part

For the opposite corner of the mating reference mounting, it is recommended to have relieved fillet as indicated in Fig. 10.

In addition, a clearance of 0.5 mm or higher should be made between the way and the mating member material.

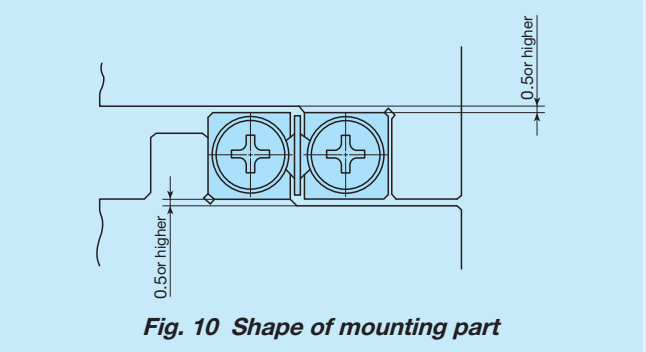


Fig. 10 Shape of mounting part

④ Preload adjustment mechanism

For use with preload, use the preload adjusting screw as indicated in Fig. 11 as a general way. Preload adjusting screw nominal dimensions and mounting position should be in accordance with the way fixing bolt dimensions and position. Press the center of the way H dimensions.

Preload amount varies depending on operational conditions of your machine and device. However, as excessive preload may lead to short life and damage on the raceway, it is typically ideal to adjust to zero clearance or slight preload state. When accuracy and rigidity are required, use a push plate or tapered jib as indicated in Fig. 12 and Fig. 13, respectively.

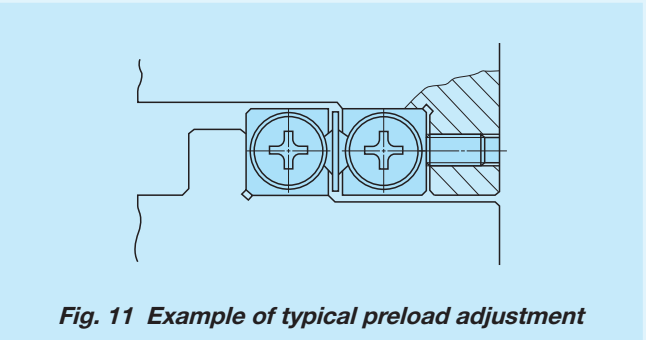


Fig. 11 Example of typical preload adjustment

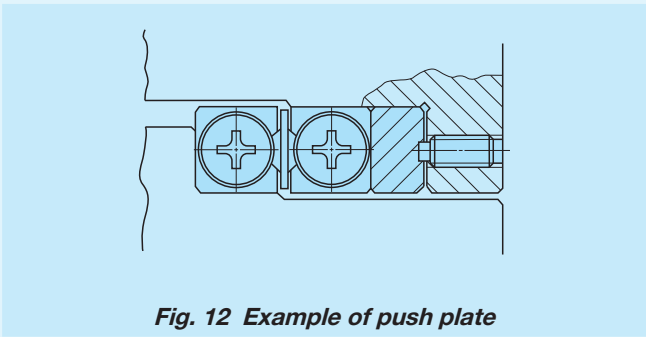


Fig. 12 Example of push plate

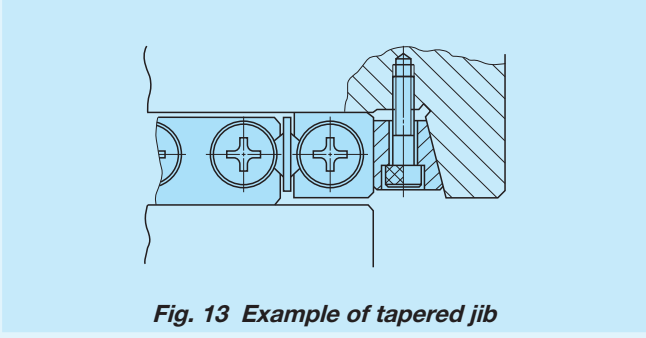


Fig. 13 Example of tapered jib

⑤ Operating temperature

As synthetic resin components are used for the CRWG series and CRWG...H series, the maximum operating temperature is 120°C, while it should be lower than 100°C for continuous use. When it exceeds 100°C, contact **IKO**.

As synthetic resin components are not used for the CRW series, it may be used at high temperature. However, when it exceeds 100°C, contact **IKO**.

⑥ Maximum velocity

Operating velocity should be lower than 50 m/min for the CRWG series and CRWG...H series, and lower than 30 m/min for the CRW series.

⑦ Tightening torque for fixing screw

Typical tightening torque for mounting of the CRWG series, CRWG...H series and CRW series is indicated in Table 10. When vibration and shock are large or moment load is applied, it is recommended to fix by using the torque 1.3 times larger than that indicated in the table. In addition, when high running accuracy is required with no vibration and shock, it may be fixed by using torque smaller than that indicated in the table, however, it is recommended to use adhesive agent to fasten the screw, or to use stop bolts.

Table 10 Tightening torque for fixing screw

| Bolt size | Tightening torque<br>N · m | Remark                                                                                                                      |
|-----------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| M 2×0.4   | 0.40                       | When fixing screws used on the table side and bed side are not identical, fasten them all to the smaller tightening torque. |
| M 3×0.5   | 1.4                        |                                                                                                                             |
| M 4×0.7   | 3.2                        |                                                                                                                             |
| M 5×0.8   | 6.4                        |                                                                                                                             |
| M 6×1     | 10.9                       |                                                                                                                             |
| M 8×1.25  | 26.1                       |                                                                                                                             |
| M10×1.5   | 51.1                       |                                                                                                                             |
| M12×1.75  | 88.2                       |                                                                                                                             |
| M14×2     | 140                        |                                                                                                                             |
| M16×2     | 215                        |                                                                                                                             |

## Mounting of CRWG series and CRWG...H series

Typical mounting structure is shown in Fig. 14. For mounting at this point, generally follow the procedure below.

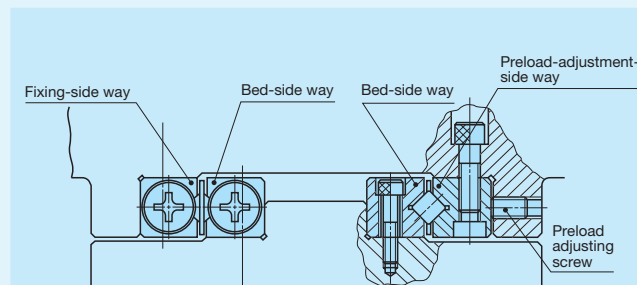


Fig. 14 Mounting example of CRWG and CRWG...H

### 1 Preparation for mounting

- Products are packed by set (4 ways and 2 pairs of roller cages). Be careful not to mix with other sets.
- Remove end screws and end stopper, clean up each part with clean wash fluid and then apply rust prevention and lubrication oil.

### 2 Cleanup of mounting surface

- Remove burrs and blemishes on the machine mounting surface with an oil-stone, etc. Be careful about corner groove on the mounting surface, too.
- Wipe off dust and dirt with clean cloth and apply rust prevention and lubrication oil lightly.

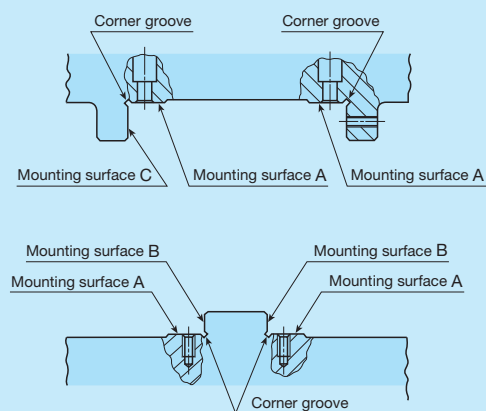


Fig. 15 Mounting surface

### 3 Mounting of bed-side way

- Properly align the way with mounting surface and temporarily tighten fixing screws evenly to the tightening torque.
- While making the way sticking to B surface (refer to Fig. 15) tight, fully tighten the screws to the specified torque.
- When high running accuracy is required, fully and evenly tighten them to the specified torque while checking the parallelism of the raceway along the full length of the way.
- Typical tightening torque for fixing screw is according to Table 10 in page II-20.

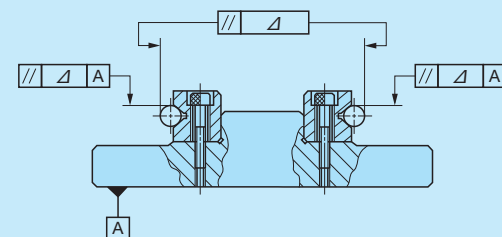


Fig. 16 Accuracy of way mounting

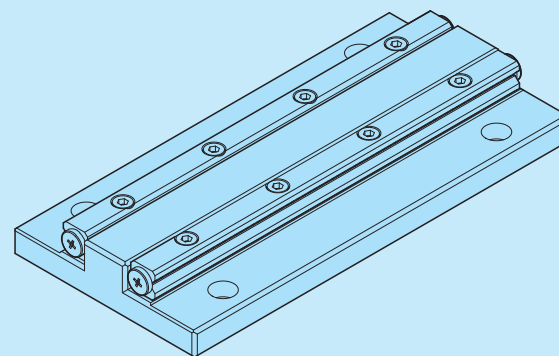


Fig. 17

### 4 Operation of table and bed

- Position the roller cages at the stroke end positions of the bed-side way. (Refer to Fig. 18)
- Mate the pinion gear at the center of the cage and the rack of the way.
- At this point, be careful not to deform the cage.

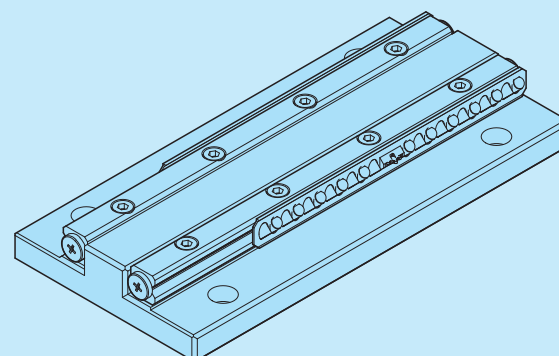


Fig. 18

- Position the table-side way in the stroke end position. (Refer to Fig. 19)
- Mate the pinion gear at the center of the cage and the rack of the table-side way.

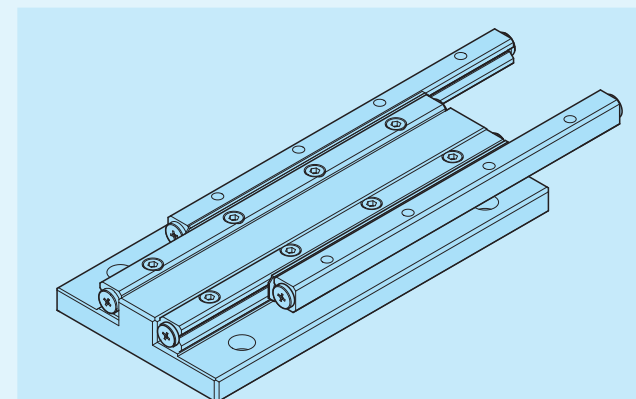


Fig. 19

- Position the table-side way approximately in the stroke center position. (Refer to Fig. 20)

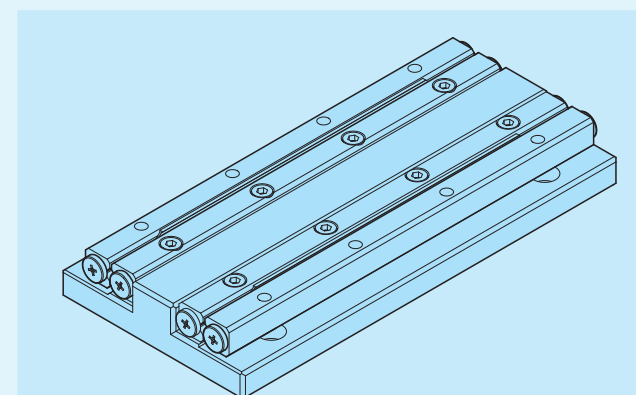


Fig. 20

- Position the table while holding the way to prevent it from moving. (Refer to Fig. 21)

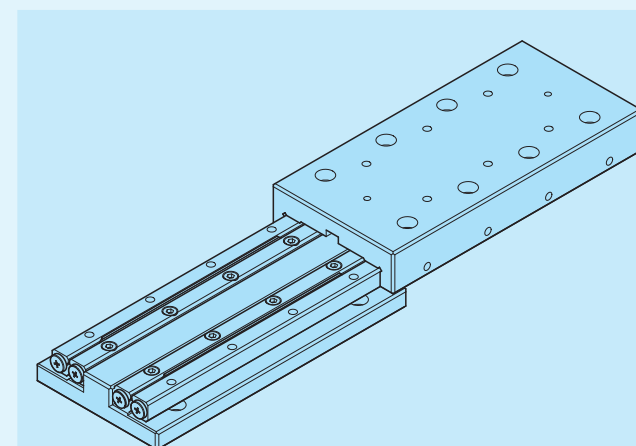


Fig. 21

- Temporarily tighten the table fixing screws. (Refer to Fig. 22)

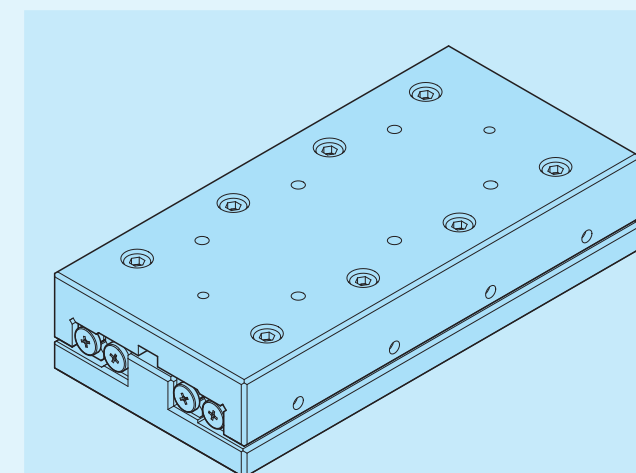


Fig. 22

- Fully stroke the table softly and check that it is within the stroke range used and cylindrical rollers on both ends of the cage do not contact with end screws of the way. If they make contact, take the procedure again. (Refer to Fig. 23)

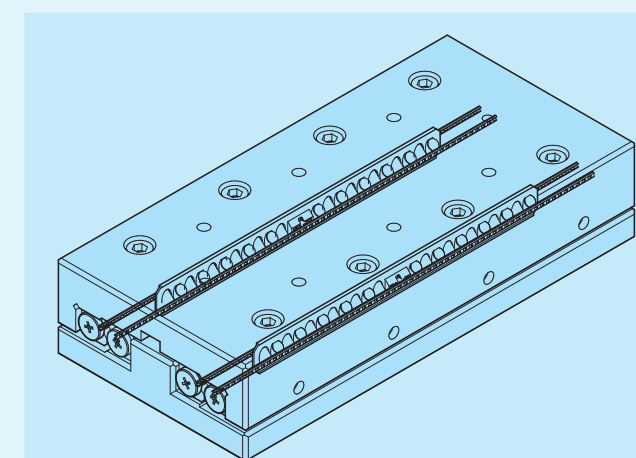


Fig. 23

## 5 Preload adjustment

- Preload adjustment is performed with fixing screws of the table-side way tightened temporarily.
- Preload adjustment is started from the preload adjusting screw at the center of way length and then both ends in turn.
- While measuring the clearance on the table sides, tighten the preload adjusting screws subsequently until deflection of the dial gauge stops. Measure the tightening torque for preload adjusting screws at this point.
- When adjusting preload adjusting screw near either end, stroke the table softly and check that the cylindrical roller is on the preload adjusting screw section.
- After the above procedure, the clearance becomes zero or in slight preload state, but preload is still not adjusted evenly. With the same procedure again, re-adjust all the preload adjusting screws evenly to the torque previously measured.

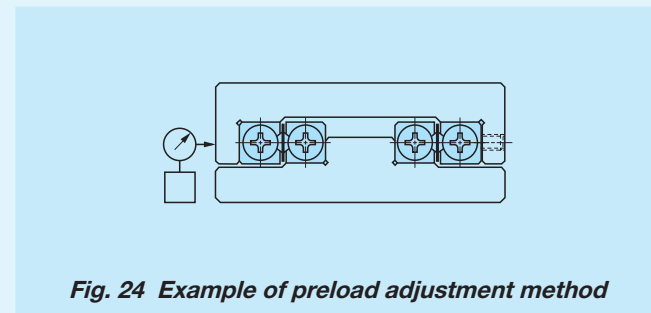


Fig. 24 Example of preload adjustment method

## 6 Full tightening of preload-adjustment-side way

- Fixing screws are lightly tightened to even torque. As with preload adjusting screws, temporarily fix them to torque similar to the specified torque in turn from the way center to both ends.
- When tightening fixing screws near either end, stroke the table softly and check that the cylindrical roller is on fixing screw section.
- Finally with the same procedure, fully tighten all the fixing screws evenly to the specified torque.

## 7 Check after assembly

- Fully stroke the table softly and check that running is smooth without abnormal noise.
- Measure the table upper and side surfaces with dial gauge or the like and check the running accuracy.

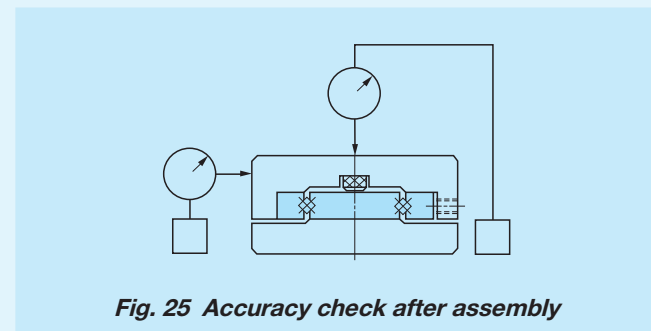


Fig. 25 Accuracy check after assembly

## Mounting of standard type CRW series

Typical mounting structure is shown in Fig. 26. For mounting at this point, generally follow the procedure below.

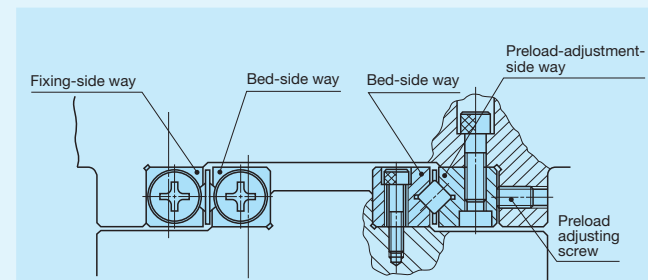


Fig. 26 Mounting example of standard type CRW series

## 1 Preparation for mounting

- Products are packed by set (4 ways and 2 pairs of roller cages). Be careful not to mix with other sets.
- Remove end screws and end stopper, clean up each part with clean wash fluid and then apply rust prevention and lubrication oil.

## 2 Cleanup of mounting surface

- Remove burrs and blemishes on the machine mounting surface with an oil-stone, etc. Be careful about corner groove on the mounting surface, too.
- Wipe off dust and dirt with clean cloth and apply rust prevention and lubrication oil lightly.

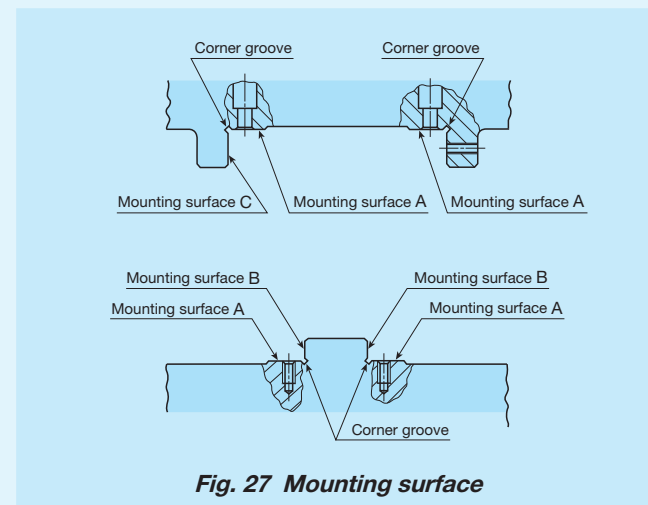


Fig. 27 Mounting surface

## 3 Mounting of bed-side way

- Properly align the way with mounting surface and temporarily tighten fixing screws evenly to the tightening torque.
- While making the way sticking to B surface (refer to Fig. 27) tight, fully tighten the screws to the specified torque.
- When high running accuracy is required, fully and evenly tighten them to the specified torque while checking the parallelism of the raceway along the full length of the way.
- Typical tightening torque for fixing screw is according to Table 10 in page II-20.

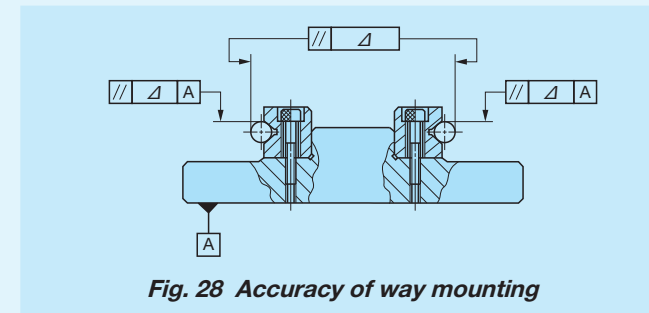


Fig. 28 Accuracy of way mounting

## 4 Mounting of table-side way

- Properly align the fixing-side way with mounting surface and temporarily tighten fixing screws evenly to the tightening torque.
- While making the fixing-side way sticking to C surface tight, fully tighten the screws to the specified torque.
- Set back the preload adjusting screws in advance, make the preload-adjusting-side way sticking to the mounting surface, and then temporarily tighten fixing screws lightly to the even torque.

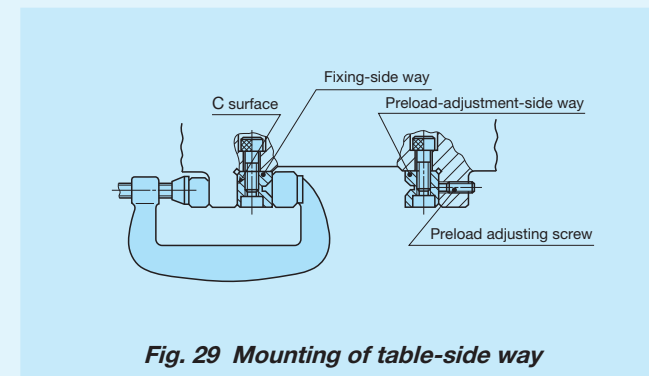


Fig. 29 Mounting of table-side way

## 5 Operation of table and bed

- Make alignment of the position in height and cross direction so that the roller cage can be inserted between the table-side way and bed-side way.
- Carefully insert the roller cage and assembly it at approximate center of the way length. At this point, be careful not to deform the cage.
- Mount end screws and end stopper of each way.
- Push the entire table against the preload adjusting screws and tighten the preload adjusting screws to make temporary adjustment until the clearance between ways becomes zero.
- Fully stroke the table softly and correct the roller cage position to the center.

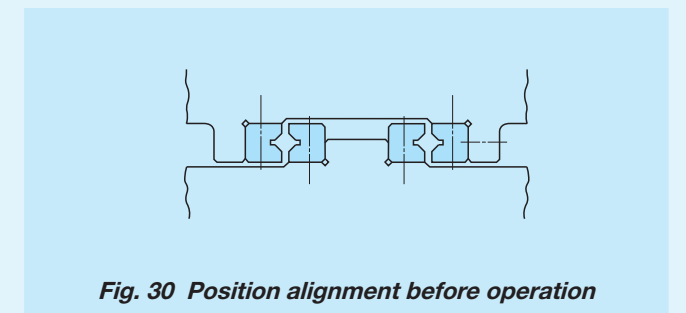


Fig. 30 Position alignment before operation

## 6 Preload adjustment

- Preload adjustment is performed with fixing screws of the preload-adjusting-side way tightened temporarily.
- Preload adjustment is started from the preload adjusting screw at the center of way length and then both ends in turn.
- While measuring the clearance on the table sides, tighten the preload adjusting screws subsequently until deflection of the dial gauge stops. Measure the tightening torque for preload adjusting screws at this point.
- When adjusting preload adjusting screw near either end, stroke the table softly and check that the cylindrical roller is on the preload adjusting screw section.
- After the above procedure, the clearance becomes zero or in slight preload state, but preload is still not adjusted evenly. With the same procedure again, re-adjust all the preload adjusting screws evenly to the torque previously measured.

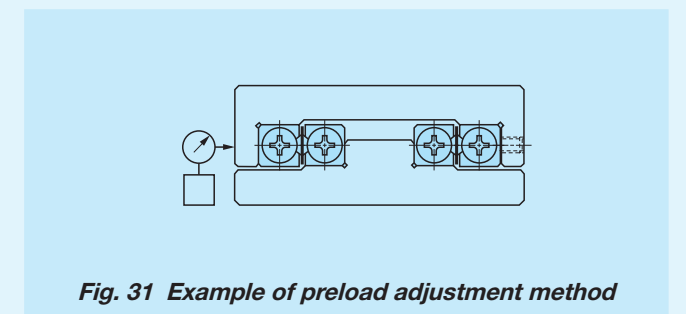


Fig. 31 Example of preload adjustment method

## 7 Full tightening of preload-adjustment-side way

- Fixing screws are lightly tightened to even torque. As with preload adjusting screws, temporarily fix them to torque similar to the specified torque in turn from the way center to both ends.
- When tightening fixing screws near either end, stroke the table softly and check that the cylindrical roller is on fixing screw section.
- Finally with the same procedure, fully tighten all the fixing screws evenly to the specified torque.

## 8 Check after assembly

- Fully stroke the table softly and check that running is smooth without abnormal noise.
- Measure the table upper and side surfaces with dial gauge or the like and check the running accuracy.

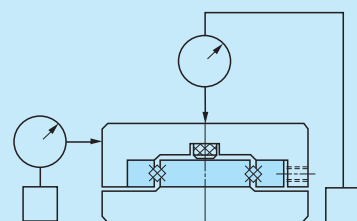


Fig. 32 Accuracy check after assembly

## Mounting of module type CRW series

Typical mounting structure of CRWM is shown in Fig. 33. For mounting at this point, generally follow the procedure below.

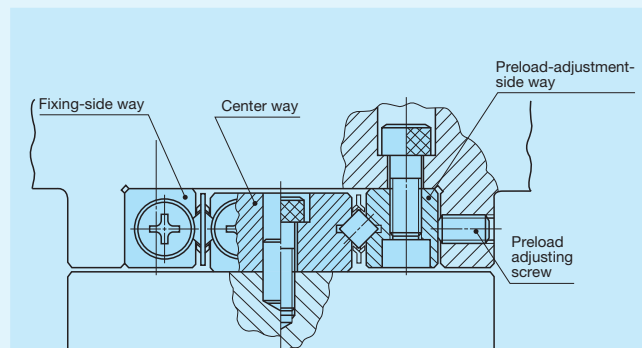


Fig. 33 Example of mounting of CRWM

### 1 Preparation for mounting

- Crossed Roller Way is packed by set (1 center way, 2 ways and 2 pairs of roller cages). Be careful not to mix with other sets.
- Remove end screws and end stopper, clean up each part with clean wash fluid and then apply rust prevention and lubrication oil.

### 2 Cleanup of mounting surface

- Remove burrs and blemishes on the machine mounting surface with an oil-stone, etc. Be careful about corner groove on the mounting surface, too.
- Wipe off dust and dirt with clean cloth and apply rust prevention and lubrication oil lightly.

### 3 Mounting of center way

- Roughly align the center way to the mounting surface and lightly fix it with fixing screws.
- While measuring mounting parallelism of the center way and raceway to the reference surface of running parallelism for position correction, temporarily tighten the fixing screws to the even tightening torque.
- Evenly tighten all the fixing screws to the specified tightening torque.

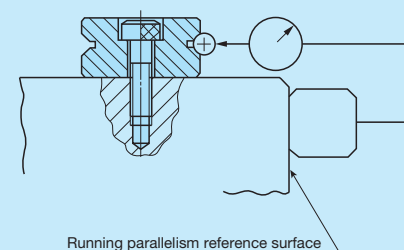


Fig. 34 Mounting accuracy check for center way

## 4 Processing of dowel pin hole

- When dowel pins are used, machine holes on the bed in alignment with dowel pin holes near either end of the center way.
- Dowel pin hole of the center way is finished for H7. Finish bed holes in the same way.
- Diameter and its allowance of dowel pin hole of the center way vary depending on the dimension table.
- Eliminate cutting chips and clean up again as necessary. When machines for mounting of the center way are large, clean them up with the center way removed and then reassemble.
- Load the dowel pins and check the parallelism of the reference surface of the running parallelism and the raceway of the center way again.

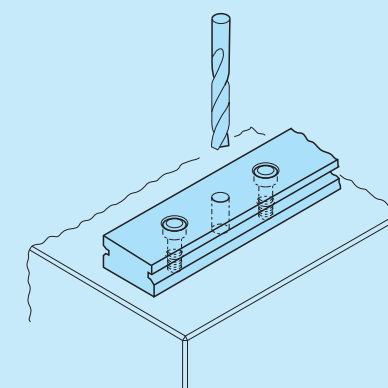


Fig. 35 Machining of dowel pin hole

## 5 Mounting of table-side way

- Follow the mounting of standard type CRW series.

## 6 Operation of table and bed

- Follow the mounting of standard type CRW series.

## 7 Preload adjustment

- Follow the mounting of standard type CRW series.

## 8 Full tightening of preload-adjustment-side way

- Follow the mounting of standard type CRW series.

## 9 Check after assembly

- Follow the mounting of standard type CRW series.

## Mating marks module type CRW series

CRWM has mating marks to ensure the best running accuracy after mounting based on the parallelism measurement result of reference mounting surface and raceway. When assembling the ways, align the mating marks of ways with the same end side as indicated in Fig. 36.

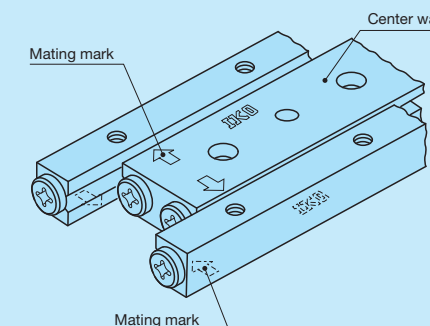
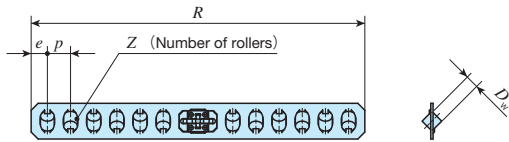
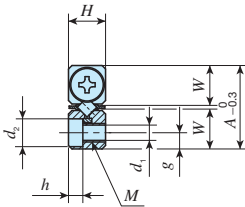
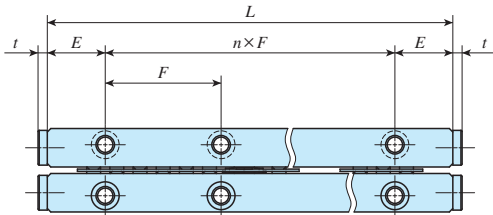


Fig. 36 Mating marks of CRWM

IK Anti-Creep Cage Crossed Roller Way

|       |                                                                                   |   |   |   |
|-------|-----------------------------------------------------------------------------------|---|---|---|
| Shape | CRWG                                                                              |   |   |   |
|       |  |   |   |   |
| Size  | 2                                                                                 | 3 | 4 | 6 |

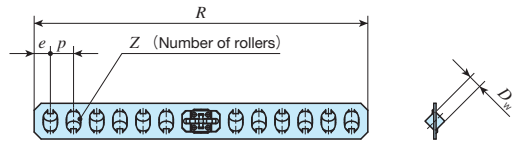
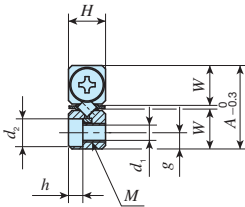
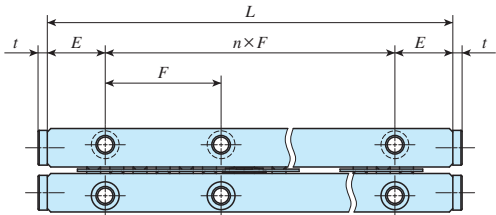


| Identification number | Mass (Ref.)        |                            | Nominal dimensions mm |   |           |      |                          |       |   |                     |   |     |     |     |                |                |     |     |     | Maximum stroke length | Basic dynamic load rating | Basic static load rating | Allowable load |
|-----------------------|--------------------|----------------------------|-----------------------|---|-----------|------|--------------------------|-------|---|---------------------|---|-----|-----|-----|----------------|----------------|-----|-----|-----|-----------------------|---------------------------|--------------------------|----------------|
|                       | Way <sup>(1)</sup> | Roller cage <sup>(2)</sup> | Boundary dimensions   |   |           |      | Dimension of roller cage |       |   | Mounting dimensions |   |     |     |     |                |                |     |     |     |                       |                           |                          |                |
|                       |                    |                            | A                     | H | L(n×F)    | E    | D <sub>w</sub>           | R     | Z | p                   | e | W   | g   | M   | d <sub>1</sub> | d <sub>2</sub> | h   | t   |     |                       |                           |                          |                |
|                       | g                  | g                          |                       |   |           |      |                          |       |   |                     |   |     |     |     |                |                |     |     |     | mm                    | N                         | N                        | N              |
| CRWG 2- 30            | 6.53               | 0.38                       | 12                    | 6 | 30(1×15)  | 7.5  | 2                        | 25.6  |   | 4                   | 4 | 2.8 | 5.5 | 2.5 | M3             | 2.55           | 4.4 | 2   | 1.5 | 9                     | 913                       | 1 180                    | 392            |
| CRWG 2- 45            | 9.53               | 0.72                       |                       |   | 45(2×15)  |      |                          | 41.6  |   | 8                   |   |     |     |     |                |                |     |     |     | 7                     | 1 570                     | 2 350                    | 783            |
| CRWG 2- 60            | 12.5               | 0.88                       |                       |   | 60(3×15)  |      |                          | 49.6  |   | 10                  |   |     |     |     |                |                |     |     |     | 21                    | 1 860                     | 2 940                    | 979            |
| CRWG 2- 75            | 15.5               | 1.22                       |                       |   | 75(4×15)  |      |                          | 65.6  |   | 14                  |   |     |     |     |                |                |     |     |     | 19                    | 2 420                     | 4 110                    | 1 370          |
| CRWG 2- 90            | 18.5               | 1.39                       |                       |   | 90(5×15)  |      |                          | 73.6  |   | 16                  |   |     |     |     |                |                |     |     |     | 33                    | 2 680                     | 4 700                    | 1 570          |
| CRWG 2-105            | 21.5               | 1.72                       |                       |   | 105(6×15) |      |                          | 89.6  |   | 20                  |   |     |     |     |                |                |     |     |     | 31                    | 3 190                     | 5 880                    | 1 960          |
| CRWG 2-120            | 24.5               | 1.89                       |                       |   | 120(7×15) |      |                          | 97.6  |   | 22                  |   |     |     |     |                |                |     |     |     | 45                    | 3 440                     | 6 460                    | 2 150          |
| CRWG 2-135            | 27.5               | 2.22                       |                       |   | 135(8×15) |      |                          | 113.6 |   | 26                  |   |     |     |     |                |                |     |     |     | 43                    | 3 910                     | 7 640                    | 2 550          |
| CRWG 2-150            | 30.5               | 2.39                       |                       |   | 150(9×15) |      |                          | 121.6 |   | 28                  |   |     |     |     |                |                |     |     |     | 57                    | 4 150                     | 8 230                    | 2 740          |
| CRWG 3- 50            | 22.8               | 1.69                       | 18                    | 8 | 50(1×25)  | 12.5 | 3                        | 42    |   | 6                   | 5 | 3.5 | 8.3 | 3.5 | M4             | 3.3            | 6   | 3.1 | 2   | 13                    | 2 740                     | 3 660                    | 1 220          |
| CRWG 3- 75            | 33.3               | 2.71                       |                       |   | 75(2×25)  |      |                          | 62    |   | 10                  |   |     |     |     |                |                |     |     |     | 23                    | 4 080                     | 6 090                    | 2 030          |
| CRWG 3-100            | 43.8               | 3.72                       |                       |   | 100(3×25) |      |                          | 82    |   | 14                  |   |     |     |     |                |                |     |     |     | 33                    | 5 300                     | 8 530                    | 2 840          |
| CRWG 3-125            | 54.4               | 4.74                       |                       |   | 125(4×25) |      |                          | 102   |   | 18                  |   |     |     |     |                |                |     |     |     | 43                    | 6 440                     | 11 000                   | 3 660          |
| CRWG 3-150            | 64.9               | 5.75                       |                       |   | 150(5×25) |      |                          | 122   |   | 22                  |   |     |     |     |                |                |     |     |     | 53                    | 7 530                     | 13 400                   | 4 470          |
| CRWG 3-175            | 75.4               | 6.77                       |                       |   | 175(6×25) |      |                          | 142   |   | 26                  |   |     |     |     |                |                |     |     |     | 63                    | 8 570                     | 15 800                   | 5 280          |
| CRWG 3-200            | 85.9               | 7.78                       |                       |   | 200(7×25) |      |                          | 162   |   | 30                  |   |     |     |     |                |                |     |     |     | 73                    | 9 580                     | 18 300                   | 6 090          |
| CRWG 3-225            | 96.4               | 8.80                       |                       |   | 225(8×25) |      |                          | 182   |   | 34                  |   |     |     |     |                |                |     |     |     | 83                    | 10 600                    | 20 700                   | 6 910          |
| CRWG 3-250            | 107                | 9.81                       |                       |   | 250(9×25) |      |                          | 202   |   | 38                  |   |     |     |     |                |                |     |     |     | 93                    | 11 500                    | 23 200                   | 7 720          |

Notes <sup>(1)</sup> The value shows the mass of a piece of way.  
<sup>(2)</sup> The value shows the mass of a roller cage.  
<sup>(3)</sup> This is the value when a combination of four ways and two roller cages is used in parallel arrangement.

IK Anti-Creep Cage Crossed Roller Way

|       |                                                                                   |   |   |   |
|-------|-----------------------------------------------------------------------------------|---|---|---|
| Shape | CRWG                                                                              |   |   |   |
|       |  |   |   |   |
| Size  | 2                                                                                 | 3 | 4 | 6 |



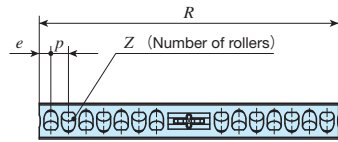
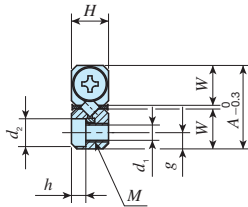
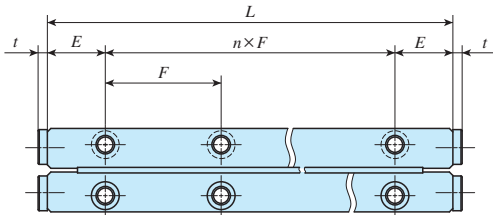
| Identification number | Mass (Ref.)        |                            | Nominal dimensions mm |    |           |    |                          |     |  |                     |   |   |    |     |    |                |                |     |   | Maximum stroke length | Basic dynamic load rating | Basic static load rating | Allowable load |
|-----------------------|--------------------|----------------------------|-----------------------|----|-----------|----|--------------------------|-----|--|---------------------|---|---|----|-----|----|----------------|----------------|-----|---|-----------------------|---------------------------|--------------------------|----------------|
|                       | Way <sup>(1)</sup> | Roller cage <sup>(2)</sup> | Boundary dimensions   |    |           |    | Dimension of roller cage |     |  | Mounting dimensions |   |   |    |     |    |                |                |     |   |                       |                           |                          |                |
|                       |                    |                            | A                     | H  | L(n×F)    | E  | D <sub>w</sub>           | R   |  | Z                   | p | e | W  | g   | M  | d <sub>1</sub> | d <sub>2</sub> | h   | t |                       |                           |                          |                |
| g                     | g                  |                            |                       |    |           |    |                          |     |  |                     |   |   |    |     |    |                |                |     |   | mm                    | N                         | N                        | N              |
| CRWG 4- 80            | 59.6               | 9.70                       | 22                    | 11 | 80(1×40)  | 20 | 4                        | 73  |  | 8                   | 7 | 5 | 10 | 4.5 | M5 | 4.3            | 7.5            | 4.1 | 2 | 14                    | 6 690                     | 9 400                    | 3 130          |
| CRWG 4-120            | 88.0               | 12.0                       |                       |    | 120(2×40) |    |                          | 101 |  | 12                  |   |   |    |     |    |                |                |     |   | 38                    | 9 180                     | 14 100                   | 4 700          |
| CRWG 4-160            | 116                | 14.3                       |                       |    | 160(3×40) |    |                          | 129 |  | 16                  |   |   |    |     |    |                |                |     |   | 62                    | 11 500                    | 18 800                   | 6 270          |
| CRWG 4-200            | 145                | 16.7                       |                       |    | 200(4×40) |    |                          | 157 |  | 20                  |   |   |    |     |    |                |                |     |   | 86                    | 13 700                    | 23 500                   | 7 830          |
| CRWG 4-240            | 173                | 20.1                       |                       |    | 240(5×40) |    |                          | 199 |  | 26                  |   |   |    |     |    |                |                |     |   | 82                    | 16 700                    | 30 600                   | 10 200         |
| CRWG 4-280            | 201                | 22.5                       |                       |    | 280(6×40) |    |                          | 227 |  | 30                  |   |   |    |     |    |                |                |     |   | 106                   | 18 700                    | 35 300                   | 11 800         |
| CRWG 4-320            | 230                | 24.8                       |                       |    | 320(7×40) |    |                          | 255 |  | 34                  |   |   |    |     |    |                |                |     |   | 129                   | 20 600                    | 40 000                   | 13 300         |
| CRWG 6-100            | 147                | 12.0                       | 31                    | 15 | 100(1×50) | 25 | 6                        | 75  |  | 6                   | 9 | 6 | 14 | 6   | M6 | 5.3            | 9.5            | 5.2 | 3 | 48                    | 11 200                    | 13 800                   | 4 610          |
| CRWG 6-150            | 216                | 22.6                       |                       |    | 150(2×50) |    |                          | 129 |  | 12                  |   |   |    |     |    |                |                |     |   | 40                    | 19 300                    | 27 700                   | 9 230          |
| CRWG 6-200            | 285                | 29.7                       |                       |    | 200(3×50) |    |                          | 165 |  | 16                  |   |   |    |     |    |                |                |     |   | 68                    | 24 100                    | 36 900                   | 12 300         |
| CRWG 6-250            | 353                | 36.8                       |                       |    | 250(4×50) |    |                          | 201 |  | 20                  |   |   |    |     |    |                |                |     |   | 96                    | 28 700                    | 46 100                   | 15 400         |
| CRWG 6-300            | 422                | 43.9                       |                       |    | 300(5×50) |    |                          | 237 |  | 24                  |   |   |    |     |    |                |                |     |   | 124                   | 33 000                    | 55 400                   | 18 500         |
| CRWG 6-350            | 491                | 51.0                       |                       |    | 350(6×50) |    |                          | 273 |  | 28                  |   |   |    |     |    |                |                |     |   | 151                   | 37 200                    | 64 600                   | 21 500         |

Notes <sup>(1)</sup> The value shows the mass of a piece of way.  
<sup>(2)</sup> The value shows the mass of a roller cage.  
<sup>(3)</sup> This is the value when a combination of four ways and two roller cages is used in parallel arrangement.

CRW(G)(...H)  
CRW(G)

IK Anti-Creep Cage Crossed Roller Way H

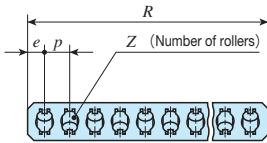
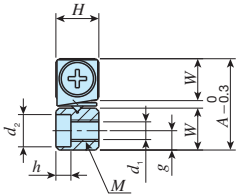
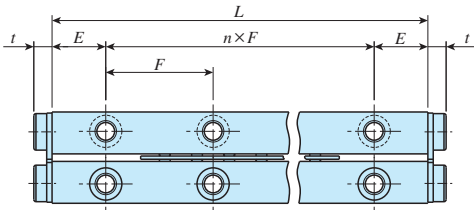
|       |                                                                                   |   |   |  |
|-------|-----------------------------------------------------------------------------------|---|---|--|
| Shape | CRWG...H                                                                          |   |   |  |
|       |  |   |   |  |
| Size  | 2                                                                                 | 3 | 4 |  |



| Identification number | Mass (Ref.)        |                            | Nominal dimensions mm |       |                 |          |                          |       |          |                     |     |        |        |        |       |       |     |     |     | Maximum stroke length | Basic dynamic load rating<br>$C^{(3)}$ | Basic static load rating<br>$C_0^{(3)}$ | Allowable load<br>$F^{(3)}$ |
|-----------------------|--------------------|----------------------------|-----------------------|-------|-----------------|----------|--------------------------|-------|----------|---------------------|-----|--------|--------|--------|-------|-------|-----|-----|-----|-----------------------|----------------------------------------|-----------------------------------------|-----------------------------|
|                       | Way <sup>(1)</sup> | Roller cage <sup>(2)</sup> | Boundary dimensions   |       |                 |          | Dimension of roller cage |       |          | Mounting dimensions |     |        |        |        |       |       |     |     |     |                       |                                        |                                         |                             |
|                       |                    |                            | $A$                   | $H$   | $L(n \times F)$ | $E$      | $D_w$                    | $R$   | $Z$      | $p$                 | $e$ | $W$    | $g$    | $M$    | $d_1$ | $d_2$ | $h$ | $t$ |     |                       |                                        |                                         |                             |
|                       | g                  | g                          |                       |       |                 |          |                          |       |          |                     |     |        |        |        |       |       |     |     |     | mm                    | N                                      | N                                       | N                           |
| CRWG 2- 30H           | 6.53               | 0.40                       | 12                    | 6     | 30(1×15)        | 7.5      | 2                        | 21.7  |          | 6                   | 2.5 | 1.6    | 5.5    | 2.5    | M3    | 2.55  | 4.4 | 2   | 1.5 | 12                    | 1 090                                  | 1 500                                   | 500                         |
| CRWG 2- 45H           | 9.53               | 0.73                       |                       |       | 45(2×15)        |          |                          | 36.7  |          | 12                  |     |        |        |        |       |       |     |     |     | 12                    | 1 860                                  | 3 000                                   | 1 000                       |
| CRWG 2- 60H           | 12.5               | 0.95                       |                       |       | 60(3×15)        |          |                          | 46.7  |          | 16                  |     |        |        |        |       |       |     |     |     | 22                    | 2 330                                  | 4 000                                   | 1 330                       |
| CRWG 2- 75H           | 15.5               | 1.27                       |                       |       | 75(4×15)        |          |                          | 61.7  |          | 22                  |     |        |        |        |       |       |     |     |     | 22                    | 2 980                                  | 5 500                                   | 1 830                       |
| CRWG 2- 90H           | 18.5               | 1.38                       |                       |       | 90(5×15)        |          |                          | 66.7  |          | 24                  |     |        |        |        |       |       |     |     |     | 42                    | 3 190                                  | 6 000                                   | 2 000                       |
| CRWG 2-105H           | 21.5               | 1.71                       |                       |       | 105(6×15)       |          |                          | 81.7  |          | 30                  |     |        |        |        |       |       |     |     |     | 42                    | 3 790                                  | 7 500                                   | 2 500                       |
| CRWG 2-120H           | 24.5               | 1.93                       |                       |       | 120(7×15)       |          |                          | 91.7  |          | 34                  |     |        |        |        |       |       |     |     |     | 52                    | 4 180                                  | 8 500                                   | 2 830                       |
| CRWG 2-135H           | 27.5               | 2.26                       |                       |       | 135(8×15)       |          |                          | 106.7 |          | 40                  |     |        |        |        |       |       |     |     |     | 52                    | 4 740                                  | 10 000                                  | 3 330                       |
| CRWG 2-150H           | 30.5               | 2.48                       |                       |       | 150(9×15)       |          |                          | 117.5 |          | 44                  |     |        |        |        |       |       |     |     |     | 2                     | 62                                     | 5 100                                   | 11 000                      |
| CRWG 3- 50H           | 22.8               | 1.58                       |                       |       | 18              |          |                          | 8     | 50(1×25) | 12.5                | 3   | 41.8   |        | 8      | 3.8   | 2.5   | 8.6 | 3.5 | M4  | 3.3                   | 6                                      | 3.1                                     | 2                           |
| CRWG 3- 75H           | 33.7               | 2.28                       | 75(2×25)              | 57    |                 |          | 12                       |       | 29       |                     |     | 5 840  | 9 730  | 3 240  |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 3-100H           | 44.7               | 3.33                       | 100(3×25)             | 79.8  |                 |          | 18                       |       | 33       |                     |     | 8 000  | 14 600 | 4 870  |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 3-125H           | 55.7               | 4.02                       | 125(4×25)             | 95    |                 |          | 22                       |       | 53       |                     |     | 9 350  | 17 800 | 5 950  |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 3-150H           | 66.7               | 5.07                       | 150(5×25)             | 117.8 |                 |          | 28                       |       | 57       |                     |     | 11 300 | 22 700 | 7 570  |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 3-175H           | 77.6               | 5.69                       | 175(6×25)             | 133   |                 |          | 32                       |       | 77       |                     |     | 12 500 | 26 000 | 8 650  |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 3-200H           | 88.6               | 6.81                       | 200(7×25)             | 155.8 |                 |          | 38                       |       | 81       |                     |     | 14 300 | 30 800 | 10 300 |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 3-225H           | 99.6               | 7.85                       | 225(8×25)             | 178.6 |                 |          | 44                       |       | 86       |                     |     | 16 000 | 35 700 | 11 900 |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 3-250H           | 111                | 8.55                       | 250(9×25)             | 193.8 |                 |          | 48                       |       | 105      |                     |     | 17 100 | 38 900 | 13 000 |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 4- 80H           | 61.4               | 4.35                       | 22                    | 11    |                 | 80(1×40) | 20                       |       | 4        |                     |     | 59.4   |        | 10     |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 4-120H           | 92.7               | 6.80                       |                       |       | 120(2×40)       | 88.2     |                          |       |          | 16                  | 45  | 15 200 | 27 300 | 9 100  |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 4-160H           | 124                | 9.25                       |                       |       | 160(3×40)       | 117      |                          |       |          | 22                  | 68  | 19 500 | 37 500 | 12 500 |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 4-200H           | 155                | 11.7                       |                       |       | 200(4×40)       | 145.8    |                          |       |          | 28                  | 90  | 23 500 | 47 800 | 15 900 |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 4-240H           | 186                | 15.0                       |                       |       | 240(5×40)       | 184.2    |                          |       |          | 36                  | 93  | 28 600 | 61 400 | 20 500 |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 4-280H           | 218                | 17.4                       |                       |       | 280(6×40)       | 213      |                          |       |          | 42                  | 116 | 32 200 | 71 700 | 23 900 |       |       |     |     |     |                       |                                        |                                         |                             |
| CRWG 4-320H           | 249                | 19.9                       |                       |       | 320(7×40)       | 241.8    |                          |       |          | 48                  | 138 | 35 700 | 81 900 | 27 300 |       |       |     |     |     |                       |                                        |                                         |                             |

Notes <sup>(1)</sup> The value shows the mass of a piece of way.  
<sup>(2)</sup> The value shows the mass of a roller cage.  
<sup>(3)</sup> This is the value when a combination of four ways and two roller cages is used in parallel arrangement.

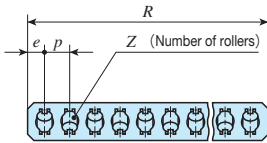
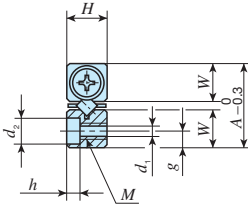
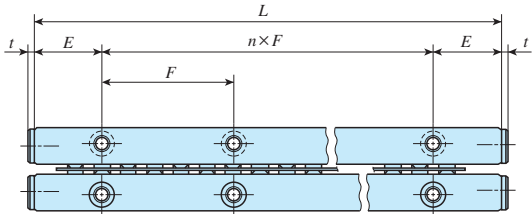
| Standard type |                 |    |    |    |    |  |
|---------------|-----------------|----|----|----|----|--|
| Shape         | CRW<br>CRW...SL |    |    |    |    |  |
|               |                 |    |    |    |    |  |
| Size          | 1               | 2  | 3  | 4  | 6  |  |
|               | 9               | 12 | 15 | 18 | 24 |  |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions mm |     |                 |     |                          |      |  |     |                     |      |     |     |     |       |       |     |     | Basic dynamic load rating<br>$C_u^{(3)}$<br>N | Basic static load rating<br>$C_{0u}^{(3)}$<br>N | Allowable load<br>$F_u^{(3)}$<br>N |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------|----------------------------|---------------------------------|-----------------------|-----|-----------------|-----|--------------------------|------|--|-----|---------------------|------|-----|-----|-----|-------|-------|-----|-----|-----------------------------------------------|-------------------------------------------------|------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions   |     |                 |     | Dimension of roller cage |      |  |     | Mounting dimensions |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                            |                                 | $A$                   | $H$ | $L(n \times F)$ | $E$ | $D_w$                    | $R$  |  | $Z$ | $p$                 | $e$  | $W$ | $g$ | $M$ | $d_1$ | $d_2$ | $h$ | $t$ |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 20             | 0.12                       | 0.38                            | 8.5                   | 4   | 20 (1×10)       | 5   | 1.5                      | 16.5 |  | 5   | 3                   | 2.25 | 3.9 | 1.8 | M2  | 1.65  | 3     | 1.4 | 1.7 | 125                                           | 120                                             | 39.8                               |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 20 SL          |                            |                                 |                       |     |                 |     |                          |      |  |     |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 30             |                            |                                 |                       |     | 30 (2×10)       |     |                          | 25.5 |  | 8   |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 30 SL          |                            |                                 |                       |     |                 |     |                          |      |  |     |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 40             |                            |                                 |                       |     | 40 (3×10)       |     |                          | 31.5 |  | 10  |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 40 SL          |                            |                                 |                       |     |                 |     |                          |      |  |     |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 50             |                            |                                 |                       |     | 50 (4×10)       |     |                          | 37.5 |  | 12  |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 50 SL          |                            |                                 |                       |     |                 |     |                          |      |  |     |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 60             |                            |                                 |                       |     | 60 (5×10)       |     |                          | 43.5 |  | 14  |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 60 SL          |                            |                                 |                       |     |                 |     |                          |      |  |     |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 70             |                            |                                 |                       |     | 70 (6×10)       |     |                          | 52.5 |  | 17  |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 70 SL          |                            |                                 |                       |     |                 |     |                          |      |  |     |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 80             |                            |                                 |                       |     | 80 (7×10)       |     |                          | 61.5 |  | 20  |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 1- 80 SL          |                            |                                 |                       |     |                 |     |                          |      |  |     |                     |      |     |     |     |       |       |     |     |                                               |                                                 |                                    |  |  |  |  |  |  |  |  |  |  |  |  |  |

Notes <sup>(1)</sup> The value shows the mass per meter of a way.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.

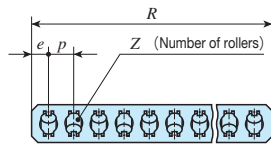
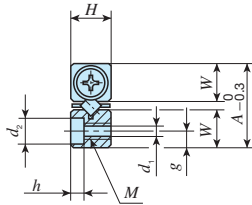
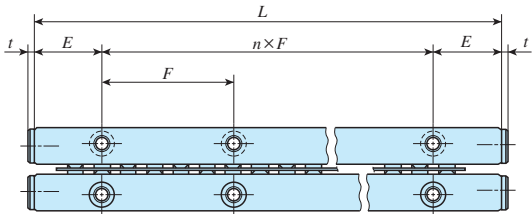
| Standard type |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Shape         | CRW<br>CRW···SL                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|               |  |  |  |  |  |
| Size          | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 6                                                                                 |
|               | 9                                                                                 | 12                                                                                | 15                                                                                | 18                                                                                | 24                                                                                |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions mm |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     | Basic dynamic<br>load rating<br>$C_U^{(3)}$<br>N | Basic static<br>load rating<br>$C_{0U}^{(3)}$<br>N | Allowable<br>load<br>$F_U^{(3)}$<br>N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------|----------------------------|---------------------------------|-----------------------|-----|-----------------|-----|--------------------------|-------|--|-----|-----|-----|---------------------|-----|-----|-------|-------|-----|-----|--------------------------------------------------|----------------------------------------------------|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions   |     |                 |     | Dimension of roller cage |       |  |     |     |     | Mounting dimensions |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                            |                                 | $A$                   | $H$ | $L(n \times F)$ | $E$ | $D_w$                    | $R$   |  | $Z$ | $p$ | $e$ | $W$                 | $g$ | $M$ | $d_1$ | $d_2$ | $h$ | $t$ |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 30             | 0.24                       | 0.98                            | 12                    | 6   | 30 ( 1×15)      | 7.5 | 2                        | 29.6  |  | 7   | 4   | 2.8 | 5.5                 | 2.5 | M3  | 2.55  | 4.4   | 2   | 1.5 | 293                                              | 294                                                | 97.9                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 30 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 45             |                            |                                 |                       |     | 45 ( 2×15)      |     |                          | 41.6  |  | 10  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 45 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 60             |                            |                                 |                       |     | 60 ( 3×15)      |     |                          | 53.6  |  | 13  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 60 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 75             |                            |                                 |                       |     | 75 ( 4×15)      |     |                          | 65.6  |  | 16  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 75 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 90             |                            |                                 |                       |     | 90 ( 5×15)      |     |                          | 77.6  |  | 19  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2- 90 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-105             |                            |                                 |                       |     | 105 ( 6×15)     |     |                          | 89.6  |  | 22  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-105 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-120             |                            |                                 |                       |     | 120 ( 7×15)     |     |                          | 101.6 |  | 25  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-120 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-135             |                            |                                 |                       |     | 135 ( 8×15)     |     |                          | 113.6 |  | 28  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-135 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-150             |                            |                                 |                       |     | 150 ( 9×15)     |     |                          | 125.6 |  | 31  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-150 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-165             |                            |                                 |                       |     | 165 (10×15)     |     |                          | 137.6 |  | 34  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-165 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-180             |                            |                                 |                       |     | 180 (11×15)     |     |                          | 149.6 |  | 37  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRW 2-180 SL          |                            |                                 |                       |     |                 |     |                          |       |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

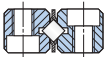
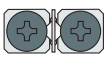
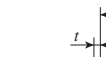
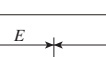
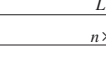
Notes <sup>(1)</sup> The value shows the mass per meter of a way.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.

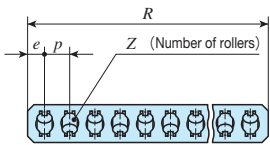
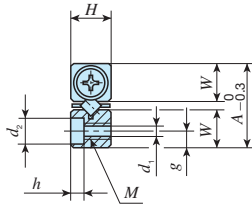
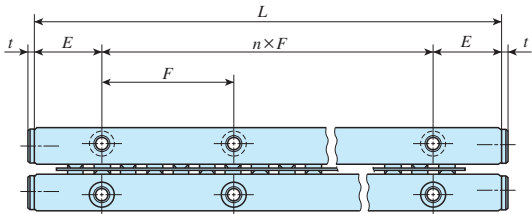
| Standard type |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Shape         | CRW<br>CRW...SL                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|               |  |  |  |  |  |
| Size          | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 6                                                                                 |
|               | 9                                                                                 | 12                                                                                | 15                                                                                | 18                                                                                | 24                                                                                |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions mm |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     | Basic dynamic<br>load rating<br>$C_U^{(3)}$<br>N | Basic static<br>load rating<br>$C_{0U}^{(3)}$<br>N | Allowable<br>load<br>$F_U^{(3)}$<br>N |
|-----------------------|----------------------------|---------------------------------|-----------------------|-----|-----------------|------|--------------------------|-----|--|-----|---------------------|-----|-----|-----|-----|-------|-------|-----|-----|--------------------------------------------------|----------------------------------------------------|---------------------------------------|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions   |     |                 |      | Dimension of roller cage |     |  |     | Mounting dimensions |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
|                       |                            |                                 | $A$                   | $H$ | $L(n \times F)$ | $E$  | $D_w$                    | $R$ |  | $Z$ | $p$                 | $e$ | $W$ | $g$ | $M$ | $d_1$ | $d_2$ | $h$ | $t$ |                                                  |                                                    |                                       |
| CRW 3- 50             | 0.50                       | 2.96                            | 18                    | 8   | 50 ( 1×25)      | 12.5 | 3                        | 42  |  | 8   | 5                   | 3.5 | 8.3 | 3.5 | M4  | 3.3   | 6     | 3.1 | 2   | 638                                              | 609                                                | 203                                   |
| CRW 3- 50 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3- 75             |                            |                                 |                       |     | 75 ( 2×25)      |      |                          | 62  |  | 12  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3- 75 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-100             |                            |                                 |                       |     | 100 ( 3×25)     |      |                          | 82  |  | 16  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-100 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-125             |                            |                                 |                       |     | 125 ( 4×25)     |      |                          | 102 |  | 20  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-125 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-150             |                            |                                 |                       |     | 150 ( 5×25)     |      |                          | 122 |  | 24  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-150 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-175             |                            |                                 |                       |     | 175 ( 6×25)     |      |                          | 142 |  | 28  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-175 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-200             |                            |                                 |                       |     | 200 ( 7×25)     |      |                          | 162 |  | 32  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-200 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-225             |                            |                                 |                       |     | 225 ( 8×25)     |      |                          | 182 |  | 36  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-225 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-250             |                            |                                 |                       |     | 250 ( 9×25)     |      |                          | 202 |  | 40  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-250 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-275             |                            |                                 |                       |     | 275 (10×25)     |      |                          | 222 |  | 44  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-275 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-300             |                            |                                 |                       |     | 300 (11×25)     |      |                          | 242 |  | 48  |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 3-300 SL          |                            |                                 |                       |     |                 |      |                          |     |  |     |                     |     |     |     |     |       |       |     |     |                                                  |                                                    |                                       |

Notes <sup>(1)</sup> The value shows the mass per meter of a way.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.

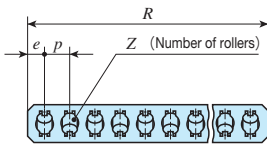
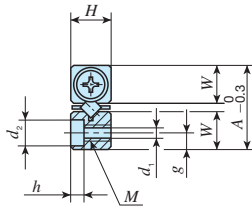
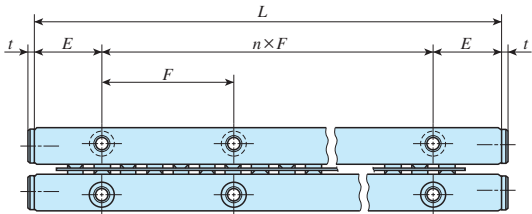
| Standard type |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Shape         | CRW<br>CRW...SL                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|               |  |  |  |  |  |
| Size          | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 6                                                                                 |
|               | 9                                                                                 | 12                                                                                | 15                                                                                | 18                                                                                | 24                                                                                |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions mm |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     | Basic dynamic<br>load rating<br>$C_U^{(3)}$<br>N | Basic static<br>load rating<br>$C_{0U}^{(3)}$<br>N | Allowable<br>load<br>$F_U^{(3)}$<br>N |
|-----------------------|----------------------------|---------------------------------|-----------------------|-----|-----------------|-----|--------------------------|-----|--|-----|-----|-----|---------------------|-----|-----|-------|-------|-----|-----|--------------------------------------------------|----------------------------------------------------|---------------------------------------|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions   |     |                 |     | Dimension of roller cage |     |  |     |     |     | Mounting dimensions |     |     |       |       |     |     |                                                  |                                                    |                                       |
|                       |                            |                                 | $A$                   | $H$ | $L(n \times F)$ | $E$ | $D_w$                    | $R$ |  | $Z$ | $p$ | $e$ | $W$                 | $g$ | $M$ | $d_1$ | $d_2$ | $h$ | $t$ |                                                  |                                                    |                                       |
| CRW 4- 80             | 0.82                       | 6.91                            | 22                    | 11  | 80 ( 1×40)      | 20  | 4                        | 73  |  | 10  | 7   | 5   | 10                  | 4.5 | M5  | 4.3   | 7.5   | 4.1 | 2   | 1 230                                            | 1 180                                              | 392                                   |
| CRW 4- 80 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-120             |                            |                                 |                       |     | 120 ( 2×40)     |     |                          | 101 |  | 14  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-120 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-160             |                            |                                 |                       |     | 160 ( 3×40)     |     |                          | 136 |  | 19  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-160 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-200             |                            |                                 |                       |     | 200 ( 4×40)     |     |                          | 164 |  | 23  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-200 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-240             |                            |                                 |                       |     | 240 ( 5×40)     |     |                          | 199 |  | 28  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-240 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-280             |                            |                                 |                       |     | 280 ( 6×40)     |     |                          | 227 |  | 32  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-280 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-320             |                            |                                 |                       |     | 320 ( 7×40)     |     |                          | 262 |  | 37  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-320 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-360             |                            |                                 |                       |     | 360 ( 8×40)     |     |                          | 297 |  | 42  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-360 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-400             |                            |                                 |                       |     | 400 ( 9×40)     |     |                          | 325 |  | 46  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-400 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-440             |                            |                                 |                       |     | 440 (10×40)     |     |                          | 360 |  | 51  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-440 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-480             |                            |                                 |                       |     | 480 (11×40)     |     |                          | 388 |  | 55  |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |
| CRW 4-480 SL          |                            |                                 |                       |     |                 |     |                          |     |  |     |     |     |                     |     |     |       |       |     |     |                                                  |                                                    |                                       |

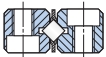
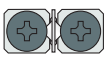
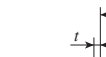
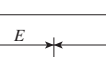
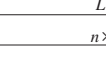
Notes <sup>(1)</sup> The value shows the mass per meter of a way.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.

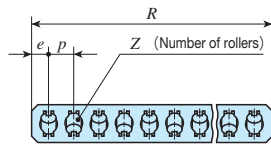
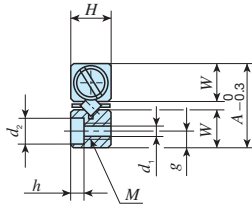
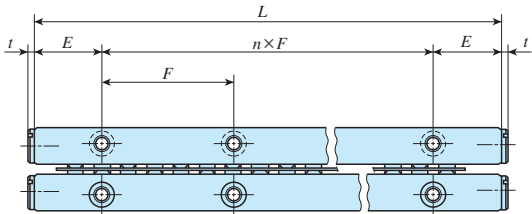
| Standard type |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Shape         | CRW<br>CRW...SL                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|               |  |  |  |  |  |
| Size          | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 6                                                                                 |
|               | 9                                                                                 | 12                                                                                | 15                                                                                | 18                                                                                | 24                                                                                |



| Identification number | Mass (Ref.)        |                            | Boundary dimensions |     |                 |     |       | Dimension of roller cage |    |     |     |     | Nominal dimensions mm |     |     |       |       |     |     | Basic dynamic load rating<br>$C_U^{(3)}$<br>N | Basic static load rating<br>$C_{0U}^{(3)}$<br>N | Allowable load<br>$F_U^{(3)}$<br>N |
|-----------------------|--------------------|----------------------------|---------------------|-----|-----------------|-----|-------|--------------------------|----|-----|-----|-----|-----------------------|-----|-----|-------|-------|-----|-----|-----------------------------------------------|-------------------------------------------------|------------------------------------|
|                       | Way <sup>(1)</sup> | Roller cage <sup>(2)</sup> | $A$                 | $H$ | $L(n \times F)$ | $E$ | $D_w$ | $R$                      |    | $Z$ | $p$ | $e$ | Mounting dimensions   |     |     |       |       |     |     |                                               |                                                 |                                    |
|                       | kg/m               | g                          |                     |     |                 |     |       |                          |    |     |     |     | $W$                   | $g$ | $M$ | $d_1$ | $d_2$ | $h$ | $t$ |                                               |                                                 |                                    |
| CRW 6-100             | 1.57               | 20.3                       | 31                  | 15  | 100 ( 1×50)     | 25  | 6     | 84                       |    | 9   | 9   | 6   | 14                    | 6   | M6  | 5.3   | 9.5   | 5.2 | 3   | 2 570                                         | 2 310                                           | 769                                |
| CRW 6-100 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-150             |                    |                            |                     |     | 150 ( 2×50)     |     |       |                          | 14 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-150 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-200             |                    |                            |                     |     | 200 ( 3×50)     |     |       |                          | 18 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-200 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-250             |                    |                            |                     |     | 250 ( 4×50)     |     |       |                          | 23 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-250 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-300             |                    |                            |                     |     | 300 ( 5×50)     |     |       |                          | 27 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-300 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-350             |                    |                            |                     |     | 350 ( 6×50)     |     |       |                          | 31 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-350 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-400             |                    |                            |                     |     | 400 ( 7×50)     |     |       |                          | 36 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-400 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-450             |                    |                            |                     |     | 450 ( 8×50)     |     |       |                          | 40 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-450 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-500             |                    |                            |                     |     | 500 ( 9×50)     |     |       |                          | 45 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-500 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-550             |                    |                            |                     |     | 550 (10×50)     |     |       |                          | 49 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-550 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-600             |                    |                            |                     |     | 600 (11×50)     |     |       |                          | 54 |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |
| CRW 6-600 SL          |                    |                            |                     |     |                 |     |       |                          |    |     |     |     |                       |     |     |       |       |     |     |                                               |                                                 |                                    |

Notes <sup>(1)</sup> The value shows the mass per meter of a way.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.

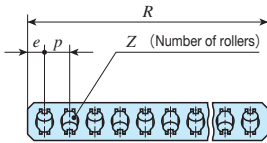
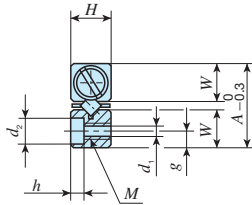
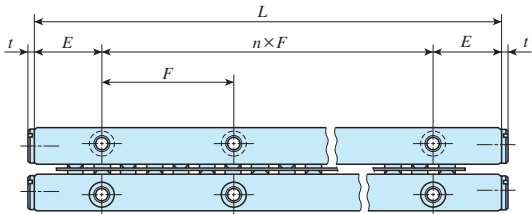
| Standard type |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Shape         | CRW                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|               |  |  |  |  |  |
| Size          | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 6                                                                                 |
|               | 9                                                                                 | 12                                                                                | 15                                                                                | 18                                                                                | 24                                                                                |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions mm |     |                 |     |                          |     |    |     |     |     |                     |     |     |       |       |     |     | Basic dynamic load rating<br>$C_U^{(3)}$<br>N | Basic static load rating<br>$C_{0U}^{(3)}$<br>N | Allowable load<br>$F_U^{(3)}$<br>N |  |
|-----------------------|----------------------------|---------------------------------|-----------------------|-----|-----------------|-----|--------------------------|-----|----|-----|-----|-----|---------------------|-----|-----|-------|-------|-----|-----|-----------------------------------------------|-------------------------------------------------|------------------------------------|--|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions   |     |                 |     | Dimension of roller cage |     |    |     |     |     | Mounting dimensions |     |     |       |       |     |     |                                               |                                                 |                                    |  |
|                       |                            |                                 | $A$                   | $H$ | $L(n \times F)$ | $E$ | $D_w$                    | $R$ |    | $Z$ | $p$ | $e$ | $W$                 | $g$ | $M$ | $d_1$ | $d_2$ | $h$ | $t$ |                                               |                                                 |                                    |  |
|                       |                            |                                 |                       |     |                 |     |                          |     |    |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9- 200            | 3.3                        | 64.8                            | 44                    | 22  | 200 ( 1×100)    | 50  | 9                        | 173 |    | 12  | 14  | 9.5 | 20.2                | 9   | M 8 | 6.8   | 10.5  | 6.2 | 3   | 7 190                                         | 6 600                                           | 2 200                              |  |
| CRW 9- 300            |                            |                                 |                       |     | 300 ( 2×100)    |     |                          | 257 | 18 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9- 400            |                            |                                 |                       |     | 400 ( 3×100)    |     |                          | 327 | 23 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9- 500            |                            |                                 |                       |     | 500 ( 4×100)    |     |                          | 411 | 29 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9- 600            |                            |                                 |                       |     | 600 ( 5×100)    |     |                          | 495 | 35 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9- 700            |                            |                                 |                       |     | 700 ( 6×100)    |     |                          | 565 | 40 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9- 800            |                            |                                 |                       |     | 800 ( 7×100)    |     |                          | 649 | 46 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9- 900            |                            |                                 |                       |     | 900 ( 8×100)    |     |                          | 733 | 52 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9-1000            |                            |                                 |                       |     | 1 000 ( 9×100)  |     |                          | 817 | 58 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9-1100            |                            |                                 |                       |     | 1 100 (10×100)  |     |                          | 887 | 63 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 9-1200            |                            |                                 |                       |     | 1 200 (11×100)  |     |                          | 971 | 69 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12- 200           | 5.57                       | 146                             | 58                    | 28  | 200 ( 1×100)    | 50  | 12                       | 168 |    | 9   | 18  | 12  | 26.9                | 12  | M10 | 8.5   | 13.5  | 8.2 | 3   | 14 700                                        | 13 600                                          | 4 540                              |  |
| CRW 12- 300           |                            |                                 |                       |     | 300 ( 2×100)    |     |                          | 258 | 14 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12- 400           |                            |                                 |                       |     | 400 ( 3×100)    |     |                          | 330 | 18 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12- 500           |                            |                                 |                       |     | 500 ( 4×100)    |     |                          | 420 | 23 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12- 600           |                            |                                 |                       |     | 600 ( 5×100)    |     |                          | 492 | 27 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12- 700           |                            |                                 |                       |     | 700 ( 6×100)    |     |                          | 564 | 31 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12- 800           |                            |                                 |                       |     | 800 ( 7×100)    |     |                          | 654 | 36 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12- 900           |                            |                                 |                       |     | 900 ( 8×100)    |     |                          | 726 | 40 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12-1000           |                            |                                 |                       |     | 1 000 ( 9×100)  |     |                          | 816 | 45 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12-1100           |                            |                                 |                       |     | 1 100 (10×100)  |     |                          | 888 | 49 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |
| CRW 12-1200           |                            |                                 |                       |     | 1 200 (11×100)  |     |                          | 978 | 54 |     |     |     |                     |     |     |       |       |     |     |                                               |                                                 |                                    |  |

Notes <sup>(1)</sup> The value shows the mass per meter of a way.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.

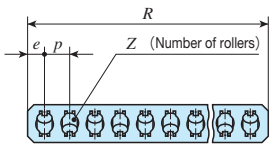
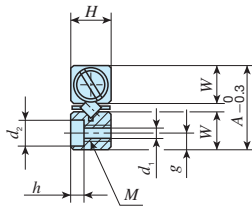
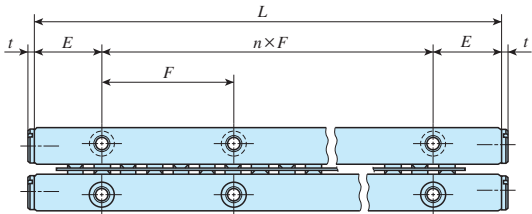
| Standard type |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Shape         | CRW                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|               |  |  |  |  |  |
| Size          | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 6                                                                                 |
|               | 9                                                                                 | 12                                                                                | 15                                                                                | 18                                                                                | 24                                                                                |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions mm |     |                 |     |                          |     |  |     |     |      |                     |     |     |       |       |      |     | Basic dynamic<br>load rating<br>$C_U^{(3)}$<br>N | Basic static<br>load rating<br>$C_{0U}^{(3)}$<br>N | Allowable<br>load<br>$F_U^{(3)}$<br>N |
|-----------------------|----------------------------|---------------------------------|-----------------------|-----|-----------------|-----|--------------------------|-----|--|-----|-----|------|---------------------|-----|-----|-------|-------|------|-----|--------------------------------------------------|----------------------------------------------------|---------------------------------------|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions   |     |                 |     | Dimension of roller cage |     |  |     |     |      | Mounting dimensions |     |     |       |       |      |     |                                                  |                                                    |                                       |
|                       |                            |                                 | $A$                   | $H$ | $L(n \times F)$ | $E$ | $D_w$                    | $R$ |  | $Z$ | $p$ | $e$  | $W$                 | $g$ | $M$ | $d_1$ | $d_2$ | $h$  | $t$ |                                                  |                                                    |                                       |
| CRW 15- 300*          | 8.75                       | 273                             | 71                    | 36  | 300 ( 2×100)    | 50  | 15                       | 261 |  | 11  | 23  | 15.5 | 33                  | 14  | M12 | 10.5  | 16.5  | 10.2 | 5   | 23 800                                           | 21 900                                             | 7 300                                 |
| CRW 15- 400*          |                            |                                 |                       |     | 400 ( 3×100)    |     |                          | 330 |  | 14  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 15- 500*          |                            |                                 |                       |     | 500 ( 4×100)    |     |                          | 422 |  | 18  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 15- 600*          |                            |                                 |                       |     | 600 ( 5×100)    |     |                          | 491 |  | 21  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 15- 700*          |                            |                                 |                       |     | 700 ( 6×100)    |     |                          | 583 |  | 25  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 15- 800*          |                            |                                 |                       |     | 800 ( 7×100)    |     |                          | 652 |  | 28  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 15- 900*          |                            |                                 |                       |     | 900 ( 8×100)    |     |                          | 744 |  | 32  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 15-1000*          |                            |                                 |                       |     | 1 000 ( 9×100)  |     |                          | 813 |  | 35  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 15-1100*          |                            |                                 |                       |     | 1 100 (10×100)  |     |                          | 905 |  | 39  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 15-1200*          |                            |                                 |                       |     | 1 200 (11×100)  |     |                          | 974 |  | 42  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18- 300*          | 11.3                       | 447                             | 83                    | 40  | 300 ( 2×100)    | 50  | 18                       | 262 |  | 9   | 28  | 19   | 38.5                | 18  | M14 | 12.5  | 18.5  | 12.2 | 5   | 35 800                                           | 32 700                                             | 10 900                                |
| CRW 18- 400*          |                            |                                 |                       |     | 400 ( 3×100)    |     |                          | 346 |  | 12  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18- 500*          |                            |                                 |                       |     | 500 ( 4×100)    |     |                          | 430 |  | 15  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18- 600*          |                            |                                 |                       |     | 600 ( 5×100)    |     |                          | 514 |  | 18  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18- 700*          |                            |                                 |                       |     | 700 ( 6×100)    |     |                          | 570 |  | 20  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18- 800*          |                            |                                 |                       |     | 800 ( 7×100)    |     |                          | 654 |  | 23  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18- 900*          |                            |                                 |                       |     | 900 ( 8×100)    |     |                          | 738 |  | 26  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18-1000*          |                            |                                 |                       |     | 1 000 ( 9×100)  |     |                          | 822 |  | 29  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18-1100*          |                            |                                 |                       |     | 1 100 (10×100)  |     |                          | 906 |  | 32  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |
| CRW 18-1200*          |                            |                                 |                       |     | 1 200 (11×100)  |     |                          | 990 |  | 35  |     |      |                     |     |     |       |       |      |     |                                                  |                                                    |                                       |

Notes <sup>(1)</sup> The value shows the mass per meter of a way.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.  
Remark: The identification numbers with \* are our semi-standard items.

| Standard type |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Shape         | CRW                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|               |  |  |  |  |  |
| Size          | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 6                                                                                 |
|               | 9                                                                                 | 12                                                                                | 15                                                                                | 18                                                                                | 24                                                                                |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions mm |     |                 |     |                          |     |    |     |     |     |                     |     |     |       |       |      |     | Basic dynamic load rating<br>$C_U^{(3)}$<br>N | Basic static load rating<br>$C_{ou}^{(3)}$<br>N | Allowable load<br>$F_U^{(3)}$<br>N |
|-----------------------|----------------------------|---------------------------------|-----------------------|-----|-----------------|-----|--------------------------|-----|----|-----|-----|-----|---------------------|-----|-----|-------|-------|------|-----|-----------------------------------------------|-------------------------------------------------|------------------------------------|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions   |     |                 |     | Dimension of roller cage |     |    |     |     |     | Mounting dimensions |     |     |       |       |      |     |                                               |                                                 |                                    |
|                       |                            |                                 | $A$                   | $H$ | $L(n \times F)$ | $E$ | $D_w$                    | $R$ |    | $Z$ | $p$ | $e$ | $W$                 | $g$ | $M$ | $d_1$ | $d_2$ | $h$  | $t$ |                                               |                                                 |                                    |
| CRW 24- 400*          | 20.6                       | 1 060                           | 110                   | 55  | 400 ( 3×100)    | 50  | 24                       | 336 |    | 9   | 36  | 24  | 51.5                | 24  | M16 | 14.5  | 22.5  | 14.2 | 5   | 69 600                                        | 63 500                                          | 21 200                             |
| CRW 24- 500*          |                            |                                 |                       |     | 500 ( 4×100)    |     |                          |     | 11 |     |     |     |                     |     |     |       |       |      |     |                                               |                                                 |                                    |
| CRW 24- 600*          |                            |                                 |                       |     | 600 ( 5×100)    |     |                          |     | 14 |     |     |     |                     |     |     |       |       |      |     |                                               |                                                 |                                    |
| CRW 24- 700*          |                            |                                 |                       |     | 700 ( 6×100)    |     |                          |     | 16 |     |     |     |                     |     |     |       |       |      |     |                                               |                                                 |                                    |
| CRW 24- 800*          |                            |                                 |                       |     | 800 ( 7×100)    |     |                          |     | 18 |     |     |     |                     |     |     |       |       |      |     |                                               |                                                 |                                    |
| CRW 24- 900*          |                            |                                 |                       |     | 900 ( 8×100)    |     |                          |     | 20 |     |     |     |                     |     |     |       |       |      |     |                                               |                                                 |                                    |
| CRW 24-1000*          |                            |                                 |                       |     | 1 000 ( 9×100)  |     |                          |     | 23 |     |     |     |                     |     |     |       |       |      |     |                                               |                                                 |                                    |
| CRW 24-1100*          |                            |                                 |                       |     | 1 100 (10×100)  |     |                          |     | 25 |     |     |     |                     |     |     |       |       |      |     |                                               |                                                 |                                    |
| CRW 24-1200*          |                            |                                 |                       |     | 1 200 (11×100)  |     |                          |     | 27 |     |     |     |                     |     |     |       |       |      |     |                                               |                                                 |                                    |

Notes <sup>(1)</sup> The value shows the mass per meter of a way.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.  
Remark: The identification numbers with \* are our semi-standard items.

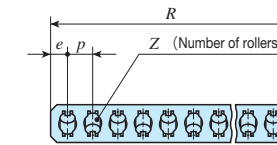
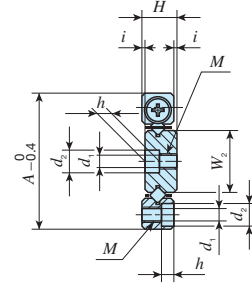
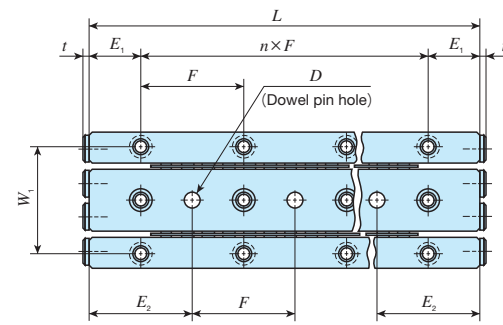
| Module type |      |   |   |   |
|-------------|------|---|---|---|
| Shape       | CRWM |   |   |   |
|             |      |   |   |   |
| Size        | 1    | 2 | 3 | 4 |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions and tolerances mm |     |                 |     |                          |       |     |     |                     |       |       |       |       |     |       |       |     |     |                  | Basic dynamic load rating<br>$C_u^{(3)}$<br>N | Basic static load rating<br>$C_{0u}^{(3)}$<br>N | Allowable load<br>$F_u^{(3)}$<br>N |      |
|-----------------------|----------------------------|---------------------------------|--------------------------------------|-----|-----------------|-----|--------------------------|-------|-----|-----|---------------------|-------|-------|-------|-------|-----|-------|-------|-----|-----|------------------|-----------------------------------------------|-------------------------------------------------|------------------------------------|------|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions                  |     |                 |     | Dimension of roller cage |       |     |     | Mounting dimensions |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
|                       |                            |                                 | $A$                                  | $H$ | $L(n \times F)$ | $i$ | $D_w$                    | $R$   | $Z$ | $p$ | $e$                 | $W_1$ | $W_2$ | $E_1$ | $E_2$ | $M$ | $d_1$ | $d_2$ | $h$ | $D$ | Dim. D tolerance | $t$                                           |                                                 |                                    |      |
| CRWM 1- 20            | 0.49                       | 0.38                            | 17                                   | 4.5 | 20 ( 1×10)      | 0.5 | 1.5                      | 16.5  | 5   | 3   | 2.25                | 13.4  | 7.8   | 5     | 10    | M2  | 1.65  | 3     | 1.4 | 2   | +0.010<br>0      | 1.7                                           | 125                                             | 120                                | 39.8 |
| CRWM 1- 30            |                            |                                 |                                      |     | 30 ( 2×10)      |     |                          | 25.5  | 8   |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 1- 40            |                            |                                 |                                      |     | 40 ( 3×10)      |     |                          | 31.5  | 10  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 1- 50            |                            |                                 |                                      |     | 50 ( 4×10)      |     |                          | 37.5  | 12  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 1- 60            |                            |                                 |                                      |     | 60 ( 5×10)      |     |                          | 43.5  | 14  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 1- 70            |                            |                                 |                                      |     | 70 ( 6×10)      |     |                          | 52.5  | 17  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 1- 80            |                            |                                 |                                      |     | 80 ( 7×10)      |     |                          | 61.5  | 20  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2- 30            | 0.99                       | 0.98                            | 24                                   | 6.5 | 30 ( 1×15)      | 0.5 | 2                        | 29.6  | 7   | 4   | 2.8                 | 19    | 11    | 7.5   | 15    | M3  | 2.55  | 4.4   | 2   | 3   | +0.010<br>0      | 1.5                                           | 293                                             | 294                                | 97.9 |
| CRWM 2- 45            |                            |                                 |                                      |     | 45 ( 2×15)      |     |                          | 41.6  | 10  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2- 60            |                            |                                 |                                      |     | 60 ( 3×15)      |     |                          | 53.6  | 13  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2- 75            |                            |                                 |                                      |     | 75 ( 4×15)      |     |                          | 65.6  | 16  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2- 90            |                            |                                 |                                      |     | 90 ( 5×15)      |     |                          | 77.6  | 19  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2-105            |                            |                                 |                                      |     | 105 ( 6×15)     |     |                          | 89.6  | 22  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2-120            |                            |                                 |                                      |     | 120 ( 7×15)     |     |                          | 101.6 | 25  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2-135            |                            |                                 |                                      |     | 135 ( 8×15)     |     |                          | 113.6 | 28  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2-150            |                            |                                 |                                      |     | 150 ( 9×15)     |     |                          | 125.6 | 31  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2-165            |                            |                                 |                                      |     | 165 (10×15)     |     |                          | 137.6 | 34  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |
| CRWM 2-180            |                            |                                 |                                      |     | 180 (11×15)     |     |                          | 149.6 | 37  |     |                     |       |       |       |       |     |       |       |     |     |                  |                                               |                                                 |                                    |      |

Notes <sup>(1)</sup> The value shows the total mass per meter of a set of three ways.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.

| Module type |                                                                                                  |   |   |   |
|-------------|--------------------------------------------------------------------------------------------------|---|---|---|
| Shape       | <b>CRWM</b><br> |   |   |   |
|             | 1                                                                                                | 2 | 3 | 4 |
| Size        | 1                                                                                                | 2 | 3 | 4 |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions and tolerances mm |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     | Basic dynamic load rating<br>$C_U^{(3)}$<br>N | Basic static load rating<br>$C_{ou}^{(3)}$<br>N | Allowable load<br>$F_U^{(3)}$<br>N |
|-----------------------|----------------------------|---------------------------------|--------------------------------------|-----|-----------------|-----|--------------------------|------|-----|-----|---------------------|-------|-------|-------|-------|-----|-------|-------|-----|-----|------------------|-----|-----------------------------------------------|-------------------------------------------------|------------------------------------|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions                  |     |                 |     | Dimension of roller cage |      |     |     | Mounting dimensions |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
|                       |                            |                                 | $A$                                  | $H$ | $L(n \times F)$ | $i$ | $D_w$                    | $R$  | $Z$ | $p$ | $e$                 | $W_1$ | $W_2$ | $E_1$ | $E_2$ | $M$ | $d_1$ | $d_2$ | $h$ | $D$ | Dim. D tolerance | $t$ |                                               |                                                 |                                    |
| CRWM 3- 50            | 1.99                       | 2.96                            | 36                                   | 8.5 | 50 ( 1×25)      | 0.5 | 3                        | 42   | 8   | 5   | 3.5                 | 29    | 16.6  | 12.5  | 25    | M4  | 3.3   | 6     | 3.1 | 4   | $+0.012_0$       | 2   | 638                                           | 609                                             | 203                                |
| CRWM 3- 75            |                            |                                 |                                      |     | 75 ( 2×25)      |     |                          | 62   | 12  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-100            |                            |                                 |                                      |     | 100 ( 3×25)     |     |                          | 82   | 16  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-125            |                            |                                 |                                      |     | 125 ( 4×25)     |     |                          | 102  | 20  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-150            |                            |                                 |                                      |     | 150 ( 5×25)     |     |                          | 122  | 24  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-175            |                            |                                 |                                      |     | 175 ( 6×25)     |     |                          | 142  | 28  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-200            |                            |                                 |                                      |     | 200 ( 7×25)     |     |                          | 162  | 32  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-225            |                            |                                 |                                      |     | 225 ( 8×25)     |     |                          | 182  | 36  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-250            |                            |                                 |                                      |     | 250 ( 9×25)     |     |                          | 202  | 40  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-275            |                            |                                 |                                      |     | 275 (10×25)     |     |                          | 222  | 44  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 3-300            |                            |                                 |                                      |     | 300 (11×25)     |     |                          | 242  | 48  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4- 80            |                            |                                 |                                      |     | 3.28            |     |                          | 6.91 | 44  |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-120            | 120 ( 2×40)                | 101                             | 14                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-160            | 160 ( 3×40)                | 136                             | 19                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-200            | 200 ( 4×40)                | 164                             | 23                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-240            | 240 ( 5×40)                | 199                             | 28                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-280            | 280 ( 6×40)                | 227                             | 32                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-320            | 320 ( 7×40)                | 262                             | 37                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-360            | 360 ( 8×40)                | 297                             | 42                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-400            | 400 ( 9×40)                | 325                             | 46                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-440            | 440 (10×40)                | 360                             | 51                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |
| CRWM 4-480            | 480 (11×40)                | 388                             | 55                                   |     |                 |     |                          |      |     |     |                     |       |       |       |       |     |       |       |     |     |                  |     |                                               |                                                 |                                    |

Notes (1) The value shows the total mass per meter of a set of three ways.

(2) The value shows the mass of a roller cage with ten cylindrical rollers.

(3) The value shows the load of a cylindrical roller.

| Module type |          |
|-------------|----------|
| Shape       | CRWM...A |
| Size        | 4        |



| Identification number | Mass (Ref.)                |                                 | Nominal dimensions and tolerances mm |      |                 |     |                          |     |     |     |                     |       |       |       |       |     |       |       |     |     |                     | Basic dynamic<br>load rating<br>$C_U^{(3)}$<br>N | Basic static<br>load rating<br>$C_{0U}^{(3)}$<br>N | Allowable<br>load<br>$F_U^{(3)}$<br>N |     |
|-----------------------|----------------------------|---------------------------------|--------------------------------------|------|-----------------|-----|--------------------------|-----|-----|-----|---------------------|-------|-------|-------|-------|-----|-------|-------|-----|-----|---------------------|--------------------------------------------------|----------------------------------------------------|---------------------------------------|-----|
|                       | Way <sup>(1)</sup><br>kg/m | Roller cage <sup>(2)</sup><br>g | Boundary dimensions                  |      |                 |     | Dimension of roller cage |     |     |     | Mounting dimensions |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
|                       |                            |                                 | $A$                                  | $H$  | $L(n \times F)$ | $i$ | $D_w$                    | $R$ | $Z$ | $p$ | $e$                 | $W_1$ | $W_2$ | $E_1$ | $E_2$ | $M$ | $d_1$ | $d_2$ | $h$ | $D$ | Dim. D<br>tolerance | $t$                                              |                                                    |                                       |     |
| CRWM 4- 80A*          | 3.96                       | 6.91                            | 48                                   | 12.5 | 80 ( 1×40)      | 0.5 | 4                        | 73  | 10  | 7   | 5                   | 38    | 22    | 20    | 40    | M5  | 4.3   | 8     | 4.1 | 5   | +0.012<br>0         | 2                                                | 1 230                                              | 1 180                                 | 392 |
| CRWM 4-120A*          |                            |                                 |                                      |      | 120 ( 2×40)     |     |                          | 101 | 14  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-160A*          |                            |                                 |                                      |      | 160 ( 3×40)     |     |                          | 136 | 19  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-200A*          |                            |                                 |                                      |      | 200 ( 4×40)     |     |                          | 164 | 23  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-240A*          |                            |                                 |                                      |      | 240 ( 5×40)     |     |                          | 199 | 28  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-280A*          |                            |                                 |                                      |      | 280 ( 6×40)     |     |                          | 227 | 32  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-320A*          |                            |                                 |                                      |      | 320 ( 7×40)     |     |                          | 262 | 37  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-360A*          |                            |                                 |                                      |      | 360 ( 8×40)     |     |                          | 297 | 42  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-400A*          |                            |                                 |                                      |      | 400 ( 9×40)     |     |                          | 325 | 46  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-440A*          |                            |                                 |                                      |      | 440 (10×40)     |     |                          | 360 | 51  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |
| CRWM 4-480A*          |                            |                                 |                                      |      | 480 (11×40)     |     |                          | 388 | 55  |     |                     |       |       |       |       |     |       |       |     |     |                     |                                                  |                                                    |                                       |     |

Notes <sup>(1)</sup> The value shows the total mass per meter of a set of three ways.  
<sup>(2)</sup> The value shows the mass of a roller cage with ten cylindrical rollers.  
<sup>(3)</sup> The value shows the load of a cylindrical roller.  
Remark: The identification numbers with \* are our semi-standard items.

Anti-Creep Cage  
Crossed Roller Way Unit

CRWUG



Points

High rigidity and high accuracy

Since CRWG or CRW with excellent load balance is incorporated with grounded high rigidity table and bed, elastic deformation is small for load in every direction, leading to highly accurate and stable linear motion.

Solves cage creep issue

As CRWG with cage creep proof function is incorporated with CRWUG, there is no risk of cage creep and it works reliable in high-speed and high-tact operation, or in vertical axis.

Wide variation

Three types of CRWU with different sectional shapes are available with many size variations. You can select an optimal linear bushing for the specifications of your machine and device.

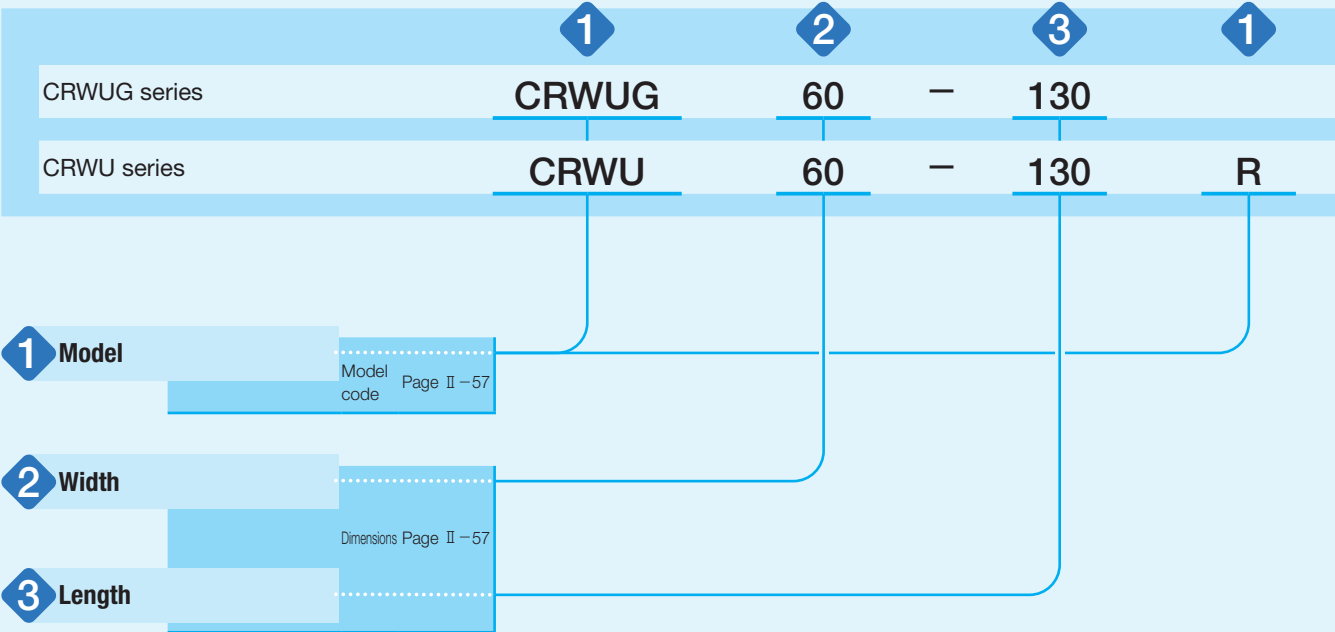
Easy mounting

Mounting surface is precisely grounded. In addition, female screws and boring are used for table and bed, respectively to ensure appropriate preload state. Therefore, highly reliable linear motion can be achieved just by fitting them to the machine and device.

Identification Number and Specification

Example of an identification number

The specification of CRWUG and CRWU series is indicated by the identification number. Indicate the identification number, consisting of a model code, dimensions for each specification to apply.



CRW(G)(...H)  
CRW(G)

Identification Number and Specification

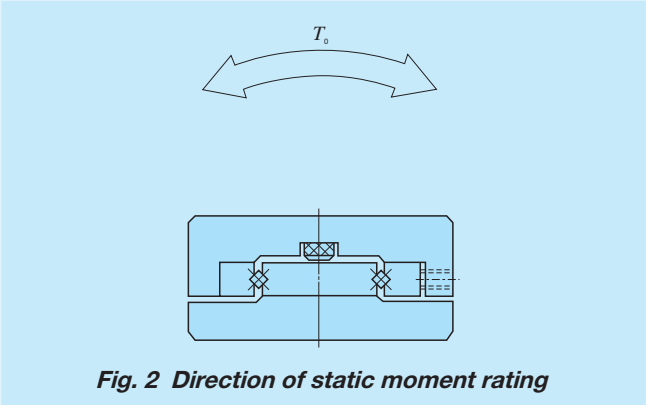
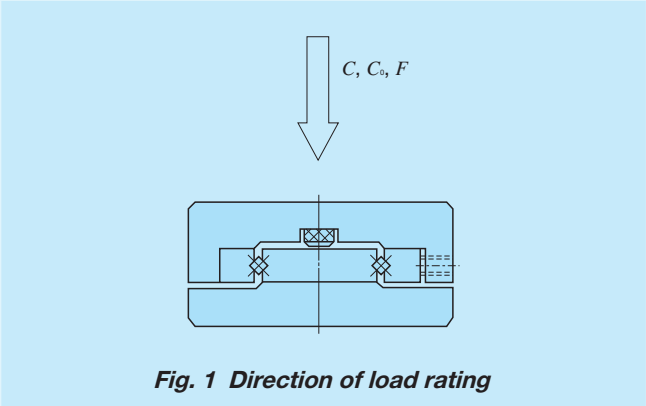
|   |        |                                                                |                                                                                 |
|---|--------|----------------------------------------------------------------|---------------------------------------------------------------------------------|
| 1 | Model  | Anti-Creep Cage Crossed Roller Way Unit (CRWUG series) : CRWUG |                                                                                 |
|   |        | Crossed Roller Way Unit (CRWU series) : CRWU                   |                                                                                 |
|   |        | : CRWU...R                                                     |                                                                                 |
|   |        | : CRWU...RS                                                    |                                                                                 |
|   |        | For applicable models and width, see Fig. 1.                   |                                                                                 |
| 2 | Width  | 20, 30, 40, 60, 80, 100, 145                                   | Indicate the table width in mm.<br>For applicable models and width, see Fig. 1. |
| 3 | Length |                                                                | Indicate the table length in mm.                                                |

Table 1 Models and width of CRWUG series and CRWU series

| Series | Shape | Model     | Characteristics                                                                                                                                                                                                                                                    | Width |    |    |    |    |     |     |
|--------|-------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----|----|----|----|-----|-----|
|        |       |           |                                                                                                                                                                                                                                                                    | 20    | 30 | 40 | 60 | 80 | 100 | 145 |
| CRWUG  |       | CRWUG     | A unit with cage creep proof function that realizes complete compatibility with CRWU in mounting dimensions. As external dimensions are the same, this can replace machine or device using CRWU without changing mounting dimensions, as well as new applications. | —     | —  | ○  | ○  | ○  | —   | —   |
|        |       | CRWU      | An ordinary type unit to be fixed to machine or device with bolts as it is, thanks to table and bed mounted to high accuracy.                                                                                                                                      | —     | ○  | ○  | ○  | ○  | ○   | ○   |
| CRWU   |       | CRWU...R  | Low height unit without CRWU bed. Linear motion with stable accuracy and high rigidity can be achieved for load in every direction.                                                                                                                                | —     | ○  | ○  | ○  | ○  | ○   | ○   |
|        |       | CRWU...RS | A compact and light unit of very simple structure. This may be used as a high-accuracy unit with small motion inertia by moving the center way.                                                                                                                    | ○     | ○  | ○  | —  | —  | —   | —   |
|        |       |           |                                                                                                                                                                                                                                                                    |       |    |    |    |    |     |     |

Load Rating and Allowable Load

Indicate values for down direction for load rating of CRWUG and CRWU series.  
In addition, the upward and lateral load rating is the same as downward load rating.  
For more information on the definition of load rating and calculated load, see page III-3.



Allowable load

Allowable load refers to load of smooth rolling motion on contact surface to which maximum contact stress is applied and the sum of whose elastic deformation of rolling elements and raceway is small.  
Therefore, use applied load within the allowable load range if very smooth rolling motion and high accuracy are required.

Accuracy

Accuracy of CRWUG series and CRWU series is indicated in Table 2. Parallelism at the center of the table represents parallelism of height when the table is stroked.  
Parallelism at the side of the table represents parallelism of the side (preload adjusting screw side) when the table is stroked.  
In addition, though allowance of unit height *H* is designed as ±0.1 mm, units with height variation of less than 0.01 mm among multiple units are also available. When special accuracy is needed, contact **IKO**.

Table 2 Running accuracy

| unit: μm                |       |                                 |                               |
|-------------------------|-------|---------------------------------|-------------------------------|
| Unit length <i>L</i> mm |       | Parallelism at the table center | Parallelism on the table side |
| Over                    | Incl. |                                 |                               |
| —                       | 50    | 2                               | 4                             |
| 50                      | 100   | 2                               | 5                             |
| 100                     | 160   | 3                               | 6                             |
| 160                     | 310   | 3                               | 7                             |
| 310                     | 510   | 4                               | 8                             |
| 510                     | 710   | 4                               | 9                             |
| 710                     | —     | 5                               | 10                            |

Lubrication

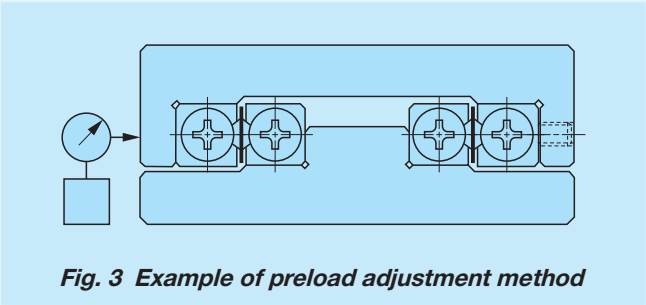
Grease is not pre-packed in the CRWUG series and CRWU series, so please perform adequate lubrication as needed. Both of oil lubrication and grease lubrication are available in the CRWUG series and CRWU series. Generally, oil lubrication should be selected for high speed or low frictional resistance, and grease lubrication for low speed. For grease lubrication, use of high-quality lithium-soap base grease is recommended.

Dust Protection

Since the CRWUG series and CRWU series are finished with high accuracy, harmful foreign substances such as dust and particles entering into the bearing will cause low life or impaired accuracy. For applications in other than clean environment, cover the entire unit with a protective case, etc. to prevent harmful foreign substances such as dust, particles and water from outside from entering.

Precaution for Use

- 1 Handling**  
As the CRWUG series and CRWU series are designed highly precisely, take extra care for handling. Cage of the CRWUG series has a pinion gear incorporated. When the cage is dropped or handled roughly, the pinion gear may come off. In addition, do not cut off the cage as doing so may cause pinion gear coming off and breakage of gear joint section. Way of the CRWUG series has a rack incorporated. In operation, take note that the rack may come off when the end screw is removed. For the CRWU series, the cage may be deviated from the right position due to offset load or irregular and high-velocity motion, etc. Fully stroke it once in certain operating time or certain number of reciprocating motion to correct the cage position.
- 2 Preload re-adjustment**  
Preload amount of the CRWUG series and CRWU series is adjusted to zero or slight preload state, so they may be used as they are. Preload amount of the CRWUG series, CRWU, and CRWU...R may be re-adjusted by following the procedure below. Preload adjustment is started from the preload adjusting screw at the center of way length and then both ends in turn, with fixing screws of the preload adjusting side way temporarily fixed. While measuring the clearance on the table sides, tighten the preload adjusting screws subsequently until deflection of the dial gauge stops. Measure the tightening torque for preload adjusting screws at this point. When adjusting preload adjusting screw near either end, stroke the table softly and check that the cylindrical roller is on the preload adjusting screw section. After the above procedure, the clearance becomes zero or in slight preload state, but preload is still not adjusted evenly. With the same procedure again, re-adjust all the preload adjusting screws evenly to the torque previously measured.



- 3 Operating temperature**  
As synthetic resin components are used for the CRWUG series, the maximum operating temperature is 120°C, while it should be lower than 100°C for continuous use. When it exceeds 100°C, contact **IKO**. As synthetic resin components are not used for the CRWU series, it may be used at high temperature. However, when it exceeds 100°C, contact **IKO**.
- 4 Maximum velocity**  
Operating velocity should not exceed 30 m/min during operation.

- 5 Tightening torque for fixing screw**  
Table 3 shows typical tightening torque for mounting CRWUG Series and CRWU Series. When vibration and shock are large or moment load is applied, it is recommended to fix by using the torque 1.3 times larger than that indicated in the table. In addition, when high running accuracy is required with no vibration and shock, it may be fixed by using torque smaller than that indicated in the table, however, it is recommended to use adhesive agent to fasten the screw, or to use stop bolts.

Table 3 Tightening torque for fixing screw

| Bolt size  | Tightening torque<br>N · m |
|------------|----------------------------|
| M 2 ×0.4   | 0.40                       |
| M 2.5×0.45 | 0.80                       |
| M 3 ×0.5   | 1.4                        |
| M 4 ×0.7   | 3.2                        |
| M 5 ×0.8   | 6.4                        |
| M 6 ×1     | 10.9                       |
| M 8 ×1.25  | 26.1                       |

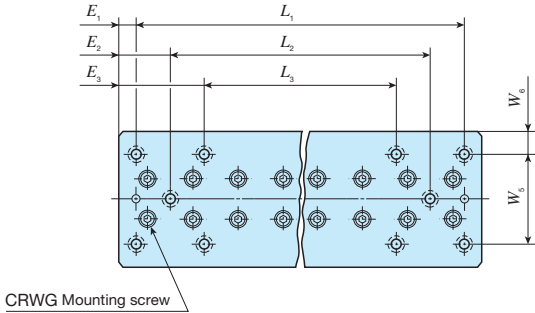
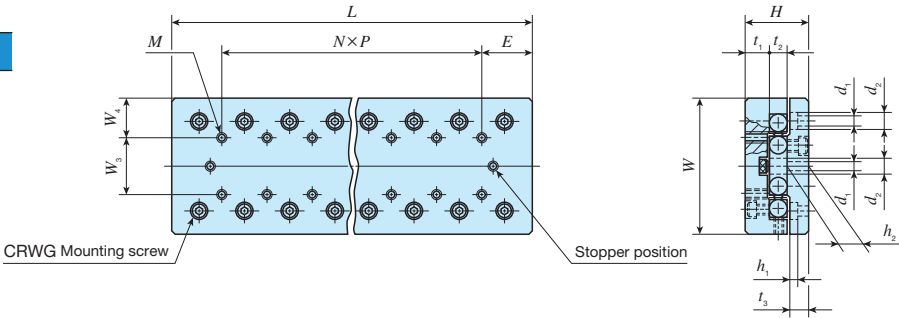
- 6 Dowel pin hole of CRWU...R**  
A dowel pin hole is machined on the center way of the CRWU...R. When a dowel pin is used, machine a hole on the mounting surface of the machine after mounting of the center way. Refer to the dimension table for diameter and its tolerances of dowel pin hole of the center way.
- 7 Mounting part dimensions of CRWU...R**  
Not to allow the table to interfere with the mounting surface, it is necessary to set mounting surface height referring to the dimensions  $H_1$  and  $H$  in the dimension table. Example bed mounting dimensions are indicated in Table 4.

Table 4 Example of mounting dimensions of CRWU...R bed

| unit: μm              |             |                |                |
|-----------------------|-------------|----------------|----------------|
| Identification number | h (minimum) | W <sub>3</sub> | W <sub>4</sub> |
| CRWU 30 ...R          | 0.5         | 13             | —              |
| CRWU 40-35R           | 0.5         | 18             | —              |
| CRWU 40 ...R          |             | 13             |                |
| CRWU 60 ...R          | 0.5         | 26.5           | —              |
| CRWU 80 ...R          | 0.5         | 38             | 16             |
| CRWU100 ...R          | 0.5         | 42             | 14             |
| CRWU145 ...R          | 1.0         | 68.5           | 28.5           |

IK Anti-Creep Cage Crossed Roller Way Unit

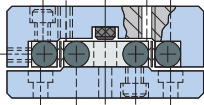
|       |       |    |    |
|-------|-------|----|----|
| Shape | CRWUG |    |    |
|       |       |    |    |
| Size  | 40    | 60 | 80 |

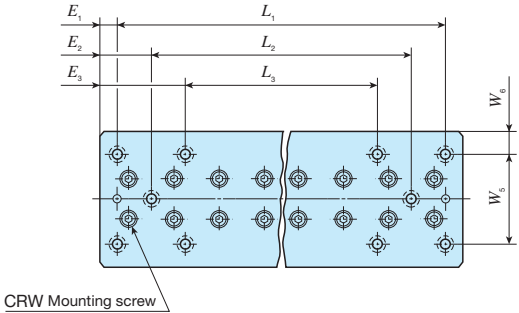
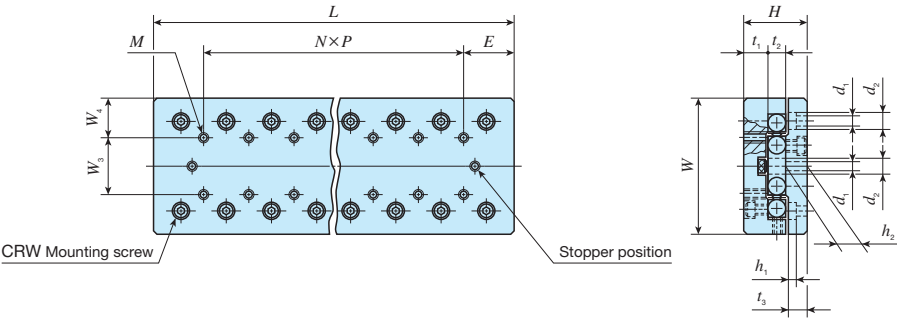


| Identification<br>number | Mass<br>(Ref.)<br><br>kg | Nominal dimensions and tolerances<br>mm |                     |    |                     |     |                |                |                | Table mounting dimensions<br>mm |                |                |      |      |    | Bed mounting dimensions<br>mm |                |                |                |                |                |                |                |                |                |                |                | Basic dynamic<br>load rating | Basic static<br>load rating | Allowable<br>load | Static moment<br>rating |                |       |       |       |      |       |       |       |      |
|--------------------------|--------------------------|-----------------------------------------|---------------------|----|---------------------|-----|----------------|----------------|----------------|---------------------------------|----------------|----------------|------|------|----|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------------|-----------------------------|-------------------|-------------------------|----------------|-------|-------|-------|------|-------|-------|-------|------|
|                          |                          | W                                       | Dim. W<br>tolerance | H  | Dim. H<br>tolerance | L   | t <sub>1</sub> | t <sub>2</sub> | t <sub>3</sub> | Maximum<br>stroke length        | W <sub>3</sub> | W <sub>4</sub> | N×P  | E    |    | M                             | W <sub>5</sub> | W <sub>6</sub> | L <sub>1</sub> | E <sub>1</sub> | L <sub>2</sub> | E <sub>2</sub> | L <sub>3</sub> | E <sub>3</sub> | d <sub>1</sub> | d <sub>2</sub> | h <sub>1</sub> | h <sub>2</sub>               | C                           | C <sub>0</sub>    | F                       | T <sub>0</sub> |       |       |       |      |       |       |       |      |
|                          |                          |                                         |                     |    |                     |     |                |                |                |                                 |                |                |      |      |    |                               |                |                |                |                |                |                |                |                |                |                |                |                              | N                           | N                 | N                       | N · m          |       |       |       |      |       |       |       |      |
| CRWUG 40- 35             | 0.21                     | 40                                      | ±0.1                | 21 | ±0.1                | 35  | 8              | 6              | 6.5            | 18                              | 15             | 12.5           | —    | 17.5 | M3 | 30                            | 5              | 25             | 5.0            | —              | —              | —              | —              | 3.5            | 6              | 3.2            | 6              | 913                          | 1 180                       | 392               | 10.6                    |                |       |       |       |      |       |       |       |      |
| CRWUG 40- 50             | 0.30                     |                                         |                     |    |                     | 50  | 7              | 8              | 5.5            | 30                              |                |                | 1×15 |      |    |                               |                | 40             |                |                |                |                |                |                |                |                |                | 20                           | 2 000                       | 2 440             | 813                     | 17.7           |       |       |       |      |       |       |       |      |
| CRWUG 40- 65             | 0.36                     |                                         |                     |    |                     | 65  |                |                |                | 40                              |                |                | 2×15 |      |    |                               |                | 55             |                |                |                |                |                |                |                |                |                |                              | 2 000                       | 2 440             | 813                     | 17.7           |       |       |       |      |       |       |       |      |
| CRWUG 40- 80             | 0.47                     |                                         |                     |    |                     | 80  |                |                |                | 50                              |                |                | 3×15 |      |    |                               |                | 70             |                |                |                |                |                |                |                |                |                |                              | 3 430                       | 4 880             | 1 630                   | 35.3           |       |       |       |      |       |       |       |      |
| CRWUG 40- 95             | 0.53                     |                                         |                     |    |                     | 95  |                |                |                | 60                              |                |                | 4×15 |      |    |                               |                | 85             |                |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                | 2 740 | 3 660 | 1 220 | 26.5 |       |       |       |      |
| CRWUG 40-110             | 0.63                     |                                         |                     |    |                     | 110 |                |                |                | 70                              |                |                | 5×15 |      |    |                               |                | 100            |                |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                |       |       |       |      | 4 080 | 6 090 | 2 030 | 44.2 |
| CRWUG 40-125             | 0.70                     |                                         |                     |    |                     | 125 |                |                |                | 80                              |                |                | 6×15 |      |    |                               |                | 115            |                |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                |       |       |       |      |       |       |       |      |
| CRWUG 60- 55             | 0.67                     | 60                                      | ±0.1                | 28 | ±0.1                | 55  | 10.5           | 8              | 9              | 30                              | 25             | 17.5           | —    | 27.5 | M4 | 40                            | 10             | 35             | 10.0           | —              | —              | —              | —              | 4.5            | 7.5            | 4.5            | 9.5            | 2 000                        | 2 440                       | 813               | 35.3                    |                |       |       |       |      |       |       |       |      |
| CRWUG 60- 80             | 0.99                     |                                         |                     |    |                     | 80  |                |                |                | 45                              |                |                | 1×25 |      |    |                               |                | 60             |                |                |                |                |                |                |                |                |                | 3 430                        | 4 880                       | 1 630             | 70.7                    |                |       |       |       |      |       |       |       |      |
| CRWUG 60-105             | 1.28                     |                                         |                     |    |                     | 105 |                |                |                | 60                              |                |                | 2×25 |      |    |                               |                | 85             |                |                |                |                |                |                |                |                |                | 4 700                        | 7 310                       | 2 440             | 106                     |                |       |       |       |      |       |       |       |      |
| CRWUG 60-130             | 1.57                     |                                         |                     |    |                     | 130 |                |                |                | 75                              |                |                | 3×25 |      |    |                               |                | 110            |                |                |                |                |                |                |                |                |                | 5 300                        | 8 530                       | 2 840             | 124                     |                |       |       |       |      |       |       |       |      |
| CRWUG 60-155             | 1.86                     |                                         |                     |    |                     | 155 |                |                |                | 90                              |                |                | 4×25 |      |    |                               |                | 135            |                |                | 85             | 35             |                |                |                |                |                | 6 440                        | 11 000                      | 3 660             | 159                     |                |       |       |       |      |       |       |       |      |
| CRWUG 80- 85             | 1.78                     | 80                                      | ±0.1                | 35 | ±0.1                | 85  | 13             | 11             | 10.5           | 50                              | 40             | 20             | —    | 42.5 | M5 | 60                            | 10             | 65             | 10.0           | —              | —              | —              | —              | 5.5            | 9.5            | 6              | 11             | 5 350                        | 7 050                       | 2 350             | 145                     |                |       |       |       |      |       |       |       |      |
| CRWUG 80-125             | 2.56                     |                                         |                     |    |                     | 125 |                |                |                | 75                              |                |                | 1×40 |      |    |                               |                | 80             |                |                |                |                |                |                |                |                |                | 7 960                        | 11 800                      | 3 920             | 241                     |                |       |       |       |      |       |       |       |      |
| CRWUG 80-165             | 3.34                     |                                         |                     |    |                     | 165 |                |                |                | 105                             |                |                | 2×40 |      |    |                               |                | 120            |                |                |                |                |                |                |                |                |                | 9 180                        | 14 100                      | 4 700             | 289                     |                |       |       |       |      |       |       |       |      |
| CRWUG 80-205             | 4.12                     |                                         |                     |    |                     | 205 |                |                |                | 135                             |                |                | 3×40 |      |    |                               |                | 160            |                |                |                |                |                |                |                |                |                | 80                           | 62.5                        | 11 500            | 18 800                  | 6 270          | 385   |       |       |      |       |       |       |      |

CRW(G)(...H)  
CRWU(G)

IK Crossed Roller Way Unit

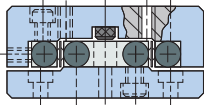
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|-------|-----------------------------------------------------------------------------------|----|----|----|-----|-----|
| Shape | CRWU                                                                              |    |    |    |     |     |
|       |  |    |    |    |     |     |
| Size  | 30                                                                                | 40 | 60 | 80 | 100 | 145 |

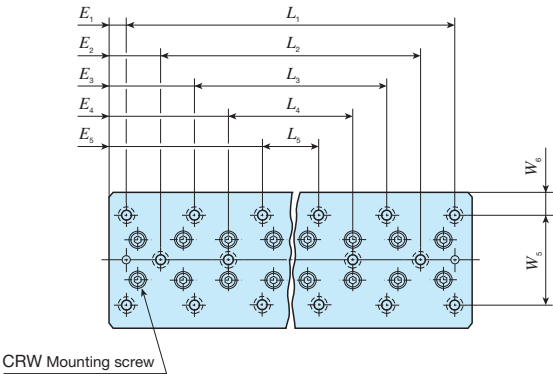
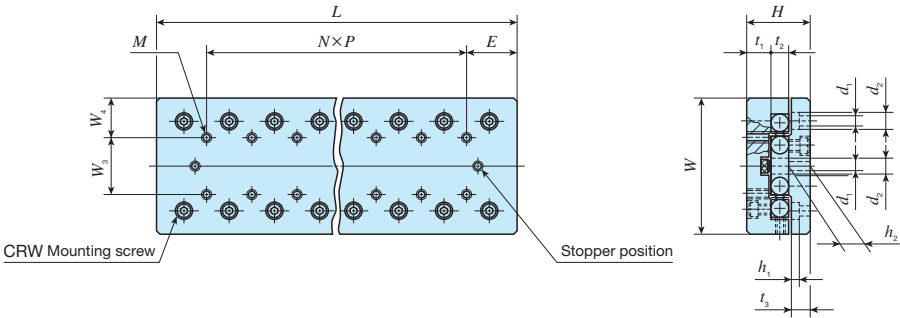


| Identification<br>number | Mass<br>(Ref.)<br><br>kg | Nominal dimensions and tolerances<br>mm |                     |    |                     |     |                |                |                | Table mounting dimensions<br>mm |                |                |      |      |    | Bed mounting dimensions<br>mm |                |                |                |                |                |                |                |                |                |                |                | Basic dynamic<br>load rating | Basic static<br>load rating | Allowable<br>load | Static moment<br>rating |                |       |       |       |      |
|--------------------------|--------------------------|-----------------------------------------|---------------------|----|---------------------|-----|----------------|----------------|----------------|---------------------------------|----------------|----------------|------|------|----|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------------|-----------------------------|-------------------|-------------------------|----------------|-------|-------|-------|------|
|                          |                          | W                                       | Dim. W<br>tolerance | H  | Dim. H<br>tolerance | L   | t <sub>1</sub> | t <sub>2</sub> | t <sub>3</sub> | Maximum<br>stroke length        | W <sub>3</sub> | W <sub>4</sub> | N×P  | E    |    | M                             | W <sub>5</sub> | W <sub>6</sub> | L <sub>1</sub> | E <sub>1</sub> | L <sub>2</sub> | E <sub>2</sub> | L <sub>3</sub> | E <sub>3</sub> | d <sub>1</sub> | d <sub>2</sub> | h <sub>1</sub> | h <sub>2</sub>               | C                           | C <sub>0</sub>    | F                       | T <sub>0</sub> |       |       |       |      |
|                          |                          |                                         |                     |    |                     |     |                |                |                |                                 |                |                |      |      |    |                               |                |                |                |                |                |                |                |                |                |                |                |                              | N                           | N                 | N                       | N · m          |       |       |       |      |
| CRWU 30- 25              | 0.09                     | 30                                      | ±0.1                | 17 | ±0.1                | 25  | 7              | 4              | 5.5            | 12                              | 10             | 10             | —    | 12.5 | M2 |                               | 22             | 4              | 18             | 3.5            | —              | —              | 28             | 13.5           | 2.55           | 4.1            | 2.5            | 6                            | 380                         | 478               | 159                     | 3.2            |       |       |       |      |
| CRWU 30- 35              | 0.13                     |                                         |                     |    |                     | 35  |                |                |                | 18                              |                |                | 1×10 |      |    |                               |                |                | 28             |                |                |                |                |                |                |                |                |                              | 525                         | 717               | 239                     | 4.8            |       |       |       |      |
| CRWU 30- 45              | 0.17                     |                                         |                     |    |                     | 45  |                |                |                | 25                              |                |                | 2×10 |      |    |                               |                |                | 38             |                |                |                |                |                |                |                |                |                              | 659                         | 956               | 319                     | 6.5            |       |       |       |      |
| CRWU 30- 55              | 0.20                     |                                         |                     |    |                     | 55  |                |                |                | 32                              |                |                | 3×10 |      |    |                               |                |                | 48             |                |                |                |                |                |                |                |                |                              | 786                         | 1 200             | 398                     | 8.1            |       |       |       |      |
| CRWU 30- 65              | 0.24                     |                                         |                     |    |                     | 65  |                |                |                | 40                              |                |                | 4×10 |      |    |                               |                |                | 58             |                |                |                |                |                |                |                |                |                              | 906                         | 1 430             | 478                     | 9.7            |       |       |       |      |
| CRWU 30- 75              | 0.28                     |                                         |                     |    |                     | 75  |                |                |                | 45                              |                |                | 5×10 |      |    |                               |                |                | 68             |                |                |                |                |                |                |                |                |                              | 1 020                       | 1 670             | 558                     | 11.3           |       |       |       |      |
| CRWU 30- 85              | 0.32                     |                                         |                     |    |                     | 85  |                |                |                | 50                              |                |                | 6×10 |      |    |                               |                |                | 78             |                |                |                |                |                |                |                |                |                              | 1 140                       | 1 910             | 638                     | 12.9           |       |       |       |      |
| CRWU 40- 35              | 0.21                     | 40                                      | ±0.1                | 21 | ±0.1                | 35  | 8              | 6              | 6.5            | 18                              | 15             | 12.5           | —    | 17.5 | M3 |                               | 30             | 5              | 25             | 5              | —              | —              | 40             | 20             | 3.5            | 6              | 3.5            | 6                            | 896                         | 1 180             | 392                     | 10.6           |       |       |       |      |
| CRWU 40- 50              | 0.30                     |                                         |                     |    |                     | 50  |                |                |                | 30                              |                |                | 1×15 |      |    |                               |                |                | 40             |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                | 2 710 | 3 660 | 1 220 | 26.5 |
| CRWU 40- 65              | 0.37                     |                                         |                     |    |                     | 65  |                |                |                | 40                              |                |                | 2×15 |      |    |                               |                |                | 55             |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                | 2 710 | 3 660 | 1 220 | 26.5 |
| CRWU 40- 80              | 0.48                     |                                         |                     |    |                     | 80  |                |                |                | 50                              |                |                | 3×15 |      |    |                               |                |                | 70             |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                | 4 050 | 6 090 | 2 030 | 44.2 |
| CRWU 40- 95              | 0.54                     |                                         |                     |    |                     | 95  |                |                |                | 60                              |                |                | 4×15 |      |    |                               |                |                | 85             |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                | 3 400 | 4 880 | 1 630 | 35.3 |
| CRWU 40-110              | 0.65                     |                                         |                     |    |                     | 110 |                |                |                | 70                              |                |                | 5×15 |      |    |                               |                |                | 100            |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                | 4 680 | 7 310 | 2 440 | 53.0 |
| CRWU 40-125              | 0.72                     |                                         |                     |    |                     | 125 |                |                |                | 80                              |                |                | 6×15 |      |    |                               |                |                | 115            |                |                |                |                |                |                |                |                |                              |                             |                   |                         |                | 4 680 | 7 310 | 2 440 | 53.0 |
| CRWU 60- 55              | 0.68                     | 60                                      | ±0.1                | 28 | ±0.1                | 55  | 10.5           | 8              | 9              | 30                              | 25             | 17.5           | —    | 27.5 | M4 |                               | 40             | 10             | 35             | 10             | —              | —              | —              | —              | 4.5            | 7.5            | 4.5            | 9.5                          | 2 710                       | 3 660             | 1 220                   | 51.2           |       |       |       |      |
| CRWU 60- 80              | 1.0                      |                                         |                     |    |                     | 80  |                |                |                | 45                              |                |                | 1×25 |      |    |                               |                |                | 60             |                |                |                |                |                |                |                |                |                              | 4 050                       | 6 090             | 2 030                   | 85.3           |       |       |       |      |
| CRWU 60-105              | 1.3                      |                                         |                     |    |                     | 105 |                |                |                | 60                              |                |                | 2×25 |      |    |                               |                |                | 85             |                |                |                |                |                |                |                |                |                              | 5 270                       | 8 530             | 2 840                   | 119            |       |       |       |      |
| CRWU 60-130              | 1.6                      |                                         |                     |    |                     | 130 |                |                |                | 75                              |                |                | 3×25 |      |    |                               |                |                | 110            |                |                |                |                |                |                |                |                |                              | 5 860                       | 9 750             | 3 250                   | 137            |       |       |       |      |
| CRWU 60-155              | 1.9                      |                                         |                     |    |                     | 155 |                |                |                | 90                              |                |                | 4×25 |      |    |                               |                |                | 135            |                |                |                |                |                |                |                |                |                              | 6 970                       | 12 200            | 4 060                   | 171            |       |       |       |      |
| CRWU 60-180              | 2.2                      |                                         |                     |    |                     | 180 |                |                |                | 105                             |                |                | 5×25 |      |    |                               |                |                | 160            |                |                |                |                |                |                |                |                |                              | 8 040                       | 14 600            | 4 880                   | 205            |       |       |       |      |
| CRWU 60-205              | 2.5                      |                                         |                     |    |                     | 205 |                |                |                | 130                             |                |                | 6×25 |      |    |                               |                |                | 185            |                |                |                |                |                |                |                |                |                              | 8 550                       | 15 800            | 5 280                   | 222            |       |       |       |      |

CRW(G)(...H)  
CRWU(G)

IK Crossed Roller Way Unit

|       |                                                                                   |    |    |    |     |     |
|-------|-----------------------------------------------------------------------------------|----|----|----|-----|-----|
| Shape | CRWU                                                                              |    |    |    |     |     |
|       |  |    |    |    |     |     |
| Size  | 30                                                                                | 40 | 60 | 80 | 100 | 145 |

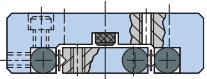


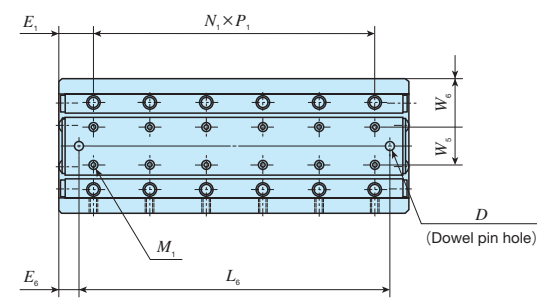
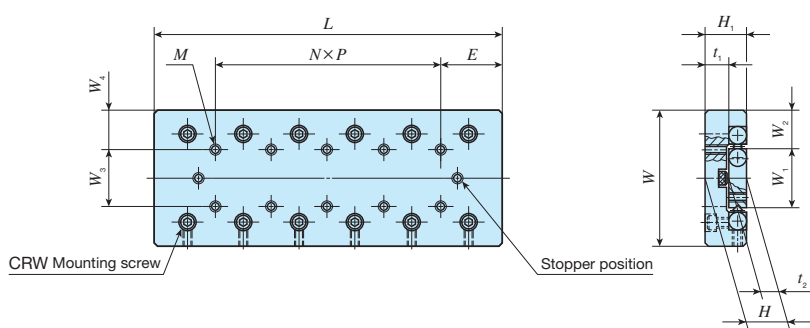
| Identification<br>number | Mass<br>(Ref.)<br><br>kg | Nominal dimensions and tolerances<br>mm |                     |    |                     |     |                |                |                | Table mounting dimensions<br>mm |                |                |       |      | Bed mounting dimensions<br>mm |                |                |  |                |                |                |                |                |                |                |                |                |                |                |                |                |                | Basic dynamic<br>load rating | Basic static load<br>rating | Allowable<br>load | Static moment<br>rating |      |   |   |   |   |     |     |   |    |        |        |        |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------|--------------------------|-----------------------------------------|---------------------|----|---------------------|-----|----------------|----------------|----------------|---------------------------------|----------------|----------------|-------|------|-------------------------------|----------------|----------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------------|-----------------------------|-------------------|-------------------------|------|---|---|---|---|-----|-----|---|----|--------|--------|--------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                          |                          | W                                       | Dim. W<br>tolerance | H  | Dim. H<br>tolerance | L   | t <sub>1</sub> | t <sub>2</sub> | t <sub>3</sub> | Maximum<br>stroke length        | W <sub>3</sub> | W <sub>4</sub> | N×P   | E    | M                             | W <sub>5</sub> | W <sub>6</sub> |  | L <sub>1</sub> | E <sub>1</sub> | L <sub>2</sub> | E <sub>2</sub> | L <sub>3</sub> | E <sub>3</sub> | L <sub>4</sub> | E <sub>4</sub> | L <sub>5</sub> | E <sub>5</sub> | d <sub>1</sub> | d <sub>2</sub> | h <sub>1</sub> | h <sub>2</sub> | C                            | C <sub>0</sub>              | F                 | T <sub>0</sub>          |      |   |   |   |   |     |     |   |    |        |        |        |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                          |                          |                                         |                     |    |                     |     |                |                |                |                                 |                |                |       |      |                               |                |                |  |                |                |                |                |                |                |                |                |                |                |                |                |                |                | N                            | N                           | N                 | N · m                   |      |   |   |   |   |     |     |   |    |        |        |        |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 80- 85              | 1.8                      | 80                                      | ±0.1                | 35 | ±0.1                | 85  | 13             | 11             | 10.5           | 50                              | 40             | 20             | —     | 42.5 | M5                            | 60             | 10             |  | 65             | 10             | 22.5           | —              | —              | —              | —              | —              | —              | —              | 5.5            | 9.5            | 6              | 11             | 6 640                        | 9 400                       | 3 130             | 188                     |      |   |   |   |   |     |     |   |    |        |        |        |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 80-125              | 2.6                      |                                         |                     |    |                     | 125 |                |                |                | 75                              |                |                | 1× 40 |      |                               |                |                |  | 80             | 22.5           |                |                |                |                |                |                |                |                |                |                |                |                | —                            | —                           | —                 | 80                      | 62.5 | — | — | — | — | 5.5 | 9.5 | 6 | 11 | 9 130  | 14 100 | 4 700  | 282 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 80-165              | 3.4                      |                                         |                     |    |                     | 165 |                |                |                | 105                             |                |                | 2× 40 |      |                               |                |                |  | 120            |                |                |                |                |                |                |                |                |                |                |                |                |                |                              |                             |                   |                         |      |   |   |   |   |     |     |   |    | 10 300 | 16 500 | 5 480  | 329 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 80-205              | 4.2                      |                                         |                     |    |                     | 205 |                |                |                | 135                             |                |                | 3× 40 |      |                               |                |                |  | 160            |                |                |                |                |                |                |                |                |                |                |                |                |                |                              |                             |                   |                         |      |   |   |   |   |     |     |   |    | 12 500 | 21 200 | 7 050  | 423 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 80-245              | 5.1                      |                                         |                     |    |                     | 245 |                |                |                | 155                             |                |                | 4× 40 |      |                               |                |                |  | 200            |                |                |                |                |                |                |                |                |                |                |                |                |                |                              |                             |                   |                         |      |   |   |   |   |     |     |   |    | 14 700 | 25 900 | 8 620  | 517 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 80-285              | 5.9                      |                                         |                     |    |                     | 285 |                |                |                | 185                             |                |                | 5× 40 |      |                               |                |                |  | 240            |                |                |                |                |                |                |                |                |                |                |                |                |                |                              |                             |                   |                         |      |   |   |   |   |     |     |   |    | 16 700 | 30 600 | 10 200 | 611 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 80-325              | 6.7                      |                                         |                     |    |                     | 325 |                |                |                | 215                             |                |                | 6× 40 |      |                               |                |                |  | 280            |                |                |                |                |                |                |                |                |                |                |                |                |                |                              |                             |                   |                         |      |   |   |   |   |     |     |   |    | 18 700 | 35 300 | 11 800 | 705 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 100-110'            | 3.6                      | 100                                     | ±0.15               | 45 | ±0.1                | 110 | 16             | 15             | 13             | 60                              | 50             | 25             | —     | 55   | M6                            | 60             | 20             |  | 90             | 10             | —              | —              | —              | —              | —              | —              | —              | —              | 7              | 11             | 6.5            | 14             | 13 900                       | 18 500                      | 6 150             | 415                     |      |   |   |   |   |     |     |   |    |        |        |        |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CRWU 100-160'            | 5.2                      |                                         |                     |    |                     | 160 |                |                |                | 95                              |                |                | 1× 50 |      |                               |                |                |  | 140            |                |                |                |                |                |                |                |                |                |                |                |                |                | 10                           | —                           | —                 | —                       | —    | — | — | — | — | —   | —   | — | —  | —      | —      | —      | —   | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

Remark: The identification numbers with \* are our semi-standard items.

CRW(G)(...H)  
CRWU(G)

IK Crossed Roller Way Unit

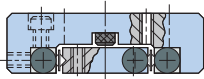
|       |                                                                                   |    |    |    |     |     |
|-------|-----------------------------------------------------------------------------------|----|----|----|-----|-----|
| Shape | CRWU...R                                                                          |    |    |    |     |     |
|       |  |    |    |    |     |     |
| Size  | 30                                                                                | 40 | 60 | 80 | 100 | 145 |

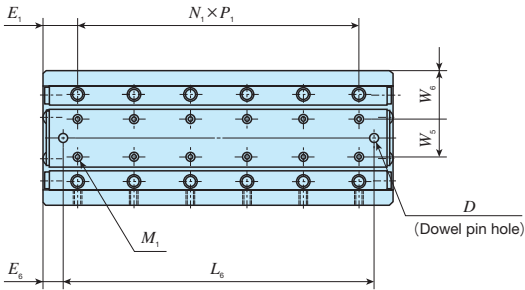
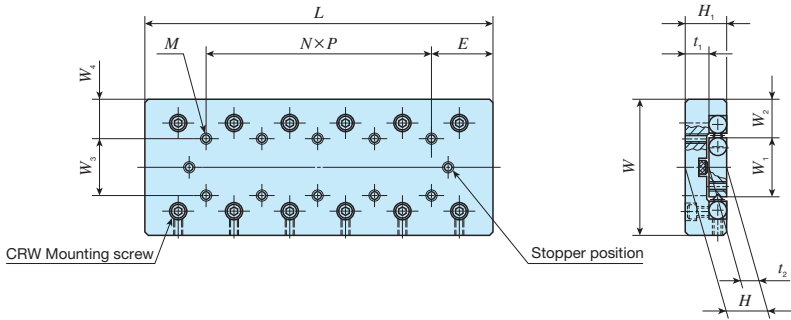


| Identification<br>number | Mass<br>(Ref.)<br><br>kg | Nominal dimensions and tolerances<br>mm |                     |      |                     |     |                          | Table mounting dimensions<br>mm |                |      |      |    |                |                |  | Center way mounting dimensions and tolerances<br>mm |                |                                |                |                |   |                     |                |                |                |                |                |       | Basic dynamic<br>load rating | Basic static<br>load rating | Allowable<br>load | Static moment<br>rating |      |     |      |       |     |      |
|--------------------------|--------------------------|-----------------------------------------|---------------------|------|---------------------|-----|--------------------------|---------------------------------|----------------|------|------|----|----------------|----------------|--|-----------------------------------------------------|----------------|--------------------------------|----------------|----------------|---|---------------------|----------------|----------------|----------------|----------------|----------------|-------|------------------------------|-----------------------------|-------------------|-------------------------|------|-----|------|-------|-----|------|
|                          |                          | W                                       | Dim. W<br>tolerance | H    | Dim. H<br>tolerance | L   | Maximum<br>stroke length | W <sub>3</sub>                  | W <sub>4</sub> | N×P  | E    | M  | H <sub>1</sub> | t <sub>1</sub> |  | W <sub>5</sub>                                      | W <sub>6</sub> | N <sub>1</sub> ×P <sub>1</sub> | E <sub>1</sub> | M <sub>1</sub> | D | Dim. D<br>tolerance | L <sub>6</sub> | E <sub>6</sub> | W <sub>1</sub> | W <sub>2</sub> | t <sub>2</sub> | C     | C <sub>0</sub>               | F                           | T <sub>0</sub>    |                         |      |     |      |       |     |      |
|                          |                          |                                         |                     |      |                     |     |                          |                                 |                |      |      |    |                |                |  |                                                     |                |                                |                |                |   |                     |                |                |                |                |                | N     | N                            | N                           | N · m             |                         |      |     |      |       |     |      |
| CRWU 30- 25R             | 0.06                     | 30                                      | ±0.1                | 11   | ±0.1                | 25  | 12                       | 10                              | 10             | —    | 12.5 | M2 | 11             | 7              |  | —                                                   | 15             | 1×10                           | 7.5            | M2             | — | —                   | —              | —              | 12.8           | 8.6            | 4              | 380   | 478                          | 159                         | 3.2               |                         |      |     |      |       |     |      |
| CRWU 30- 35R             | 0.08                     |                                         |                     |      |                     | 35  | 18                       |                                 |                | 1×10 |      |    |                |                |  |                                                     |                | 2×10                           |                |                |   |                     |                |                |                |                |                | 525   | 717                          | 239                         | 4.8               |                         |      |     |      |       |     |      |
| CRWU 30- 45R             | 0.11                     |                                         |                     |      |                     | 45  | 25                       |                                 |                | 2×10 |      |    |                |                |  |                                                     |                | 3×10                           |                |                |   |                     |                |                |                |                |                | 659   | 956                          | 319                         | 6.5               |                         |      |     |      |       |     |      |
| CRWU 30- 55R             | 0.13                     |                                         |                     |      |                     | 55  | 32                       |                                 |                | 3×10 |      |    |                |                |  |                                                     |                | 2                              |                |                |   |                     | +0.020<br>0    | 30             |                |                |                | 12.5  | 1020                         | 1670                        | 558               | 1140                    | 1910 | 638 | 12.9 |       |     |      |
| CRWU 30- 65R             | 0.16                     |                                         |                     |      |                     | 65  | 40                       |                                 |                | 40   |      |    |                |                |  |                                                     |                |                                |                |                |   |                     |                | 786            |                |                |                |       |                              |                             |                   |                         |      |     |      | 1 200 | 398 | 8.1  |
| CRWU 30- 75R             | 0.18                     |                                         |                     |      |                     | 75  | 45                       |                                 |                | 50   |      |    |                |                |  |                                                     |                |                                |                |                |   |                     |                | 906            |                |                |                |       |                              |                             |                   |                         |      |     |      | 1 430 | 478 | 9.7  |
| CRWU 30- 85R             | 0.21                     |                                         |                     |      |                     | 85  | 50                       |                                 |                | 60   |      |    |                |                |  |                                                     |                |                                |                |                |   |                     |                | 1 020          |                |                |                |       |                              |                             |                   |                         |      |     |      | 1 670 | 558 | 11.3 |
| CRWU 40- 35R             | 0.13                     | 40                                      | ±0.1                | 14   | ±0.1                | 35  | 18                       | 15                              | 12.5           | —    | 17.5 | M3 | 14             | 8              |  | —                                                   | 20             | 1×15                           | 10             | M3             | — | —                   | —              | —              | 17             | 11.5           | 6              | 896   | 1 180                        | 392                         | 10.6              |                         |      |     |      |       |     |      |
| CRWU 40- 50R             | 0.21                     |                                         |                     | 50   |                     | 30  | 1×15                     |                                 |                | 2×15 |      |    | 2 710          | 3 660          |  |                                                     |                | 1 220                          |                |                |   |                     |                |                |                |                |                | 26.5  |                              |                             |                   |                         |      |     |      |       |     |      |
| CRWU 40- 65R             | 0.26                     |                                         |                     | 65   |                     | 40  | 2×15                     |                                 |                | 2×15 |      |    | 17.5           | 2 710          |  |                                                     |                | 3 660                          | 1 220          |                |   |                     |                |                | 26.5           |                |                |       |                              |                             |                   |                         |      |     |      |       |     |      |
| CRWU 40- 80R             | 0.34                     |                                         |                     | 80   |                     | 50  | 3×15                     |                                 |                | 3    |      |    | +0.020<br>0    | 45             |  |                                                     |                | 17.5                           | 13.1           |                |   |                     |                |                | 13.45          | 8              |                | 4 050 | 6 090                        | 2 030                       | 44.2              |                         |      |     |      |       |     |      |
| CRWU 40- 95R             | 0.38                     |                                         |                     | 95   |                     | 60  | 4×15                     |                                 |                |      |      |    |                |                |  |                                                     |                | 4×15                           |                |                |   |                     |                |                |                |                |                | 3 400 | 4 880                        | 1 630                       | 35.3              |                         |      |     |      |       |     |      |
| CRWU 40-110R             | 0.46                     |                                         |                     | 110  |                     | 70  | 5×15                     |                                 |                |      |      |    |                | 5×15           |  |                                                     |                | 4 680                          |                |                |   |                     |                |                |                |                |                | 7 310 | 2 440                        | 53.0                        |                   |                         |      |     |      |       |     |      |
| CRWU 40-125R             | 0.50                     |                                         |                     | 125  |                     | 80  | 6×15                     |                                 |                |      |      |    |                | 5×15           |  |                                                     |                | 25                             |                |                |   |                     |                |                |                |                |                | 4 680 | 7 310                        | 2 440                       | 53.0              |                         |      |     |      |       |     |      |
| CRWU 60- 55R             | 0.44                     | 60                                      | ±0.1                | 18.5 | ±0.1                | 55  | 30                       | 25                              | 17.5           | —    | 27.5 | M4 | 18.5           | 10.5           |  | 17                                                  | 21.5           | 1×25                           | 15             | M4             | 4 | +0.020<br>0         | 35             | 10             | 26.6           | 16.7           | 8              | 2 710 | 3 660                        | 1 220                       | 51.2              |                         |      |     |      |       |     |      |
| CRWU 60- 80R             | 0.66                     |                                         |                     |      |                     | 80  | 45                       |                                 |                | 1×25 |      |    |                |                |  |                                                     |                | 2×25                           |                |                |   |                     | 60             |                |                |                |                | 4 050 | 6 090                        | 2 030                       | 85.3              |                         |      |     |      |       |     |      |
| CRWU 60-105R             | 0.85                     |                                         |                     |      |                     | 105 | 60                       |                                 |                | 2×25 |      |    |                |                |  |                                                     |                | 3×25                           |                |                |   |                     | 85             |                |                |                |                | 5 270 | 8 530                        | 2 840                       | 119               |                         |      |     |      |       |     |      |
| CRWU 60-130R             | 1.1                      |                                         |                     |      |                     | 130 | 75                       |                                 |                | 3×25 |      |    |                |                |  |                                                     |                | 4×25                           |                |                |   |                     | 110            |                |                |                |                | 5 860 | 9 750                        | 3 250                       | 137               |                         |      |     |      |       |     |      |
| CRWU 60-155R             | 1.3                      |                                         |                     |      |                     | 155 | 90                       |                                 |                | 4×25 |      |    |                |                |  |                                                     |                | 5×25                           |                |                |   |                     | 135            |                |                |                |                | 6 970 | 12 200                       | 4 060                       | 171               |                         |      |     |      |       |     |      |
| CRWU 60-180R             | 1.5                      |                                         |                     |      |                     | 180 | 105                      |                                 |                | 5×25 |      |    |                |                |  |                                                     |                | 6×25                           |                |                |   |                     | 160            |                |                |                |                | 8 040 | 14 600                       | 4 880                       | 205               |                         |      |     |      |       |     |      |
| CRWU 60-205R             | 1.7                      |                                         |                     |      |                     | 205 | 130                      |                                 |                | 6×25 |      |    |                |                |  |                                                     |                | 7×25                           |                |                |   |                     | 185            |                |                |                |                | 8 550 | 15 800                       | 5 280                       | 222               |                         |      |     |      |       |     |      |

CRW(G)(...H)  
CRWU(G)

IK Crossed Roller Way Unit

|       |                                                                                   |    |    |    |     |     |
|-------|-----------------------------------------------------------------------------------|----|----|----|-----|-----|
| Shape | CRWU...R                                                                          |    |    |    |     |     |
|       |  |    |    |    |     |     |
| Size  | 30                                                                                | 40 | 60 | 80 | 100 | 145 |

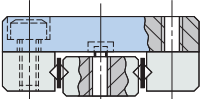


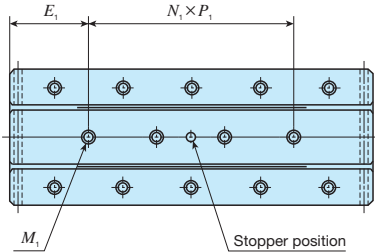
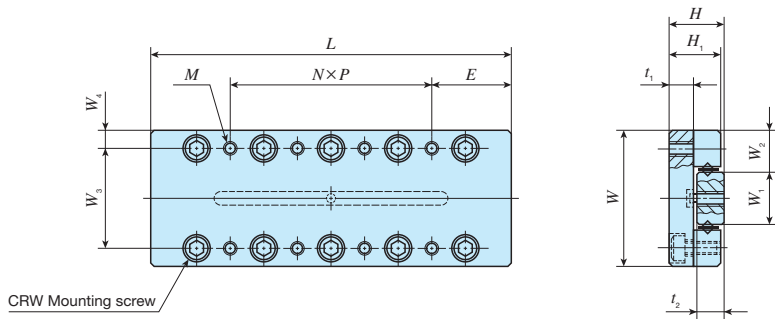
| Identification<br>number | Mass<br>(Ref.)<br><br>kg | Nominal dimensions and tolerances<br>mm |                     |      |                     |     |                          | Table mounting dimensions<br>mm |                |      |        |        |                |                |    | Center way mounting dimensions and tolerances<br>mm |                |                                |                |                |             |                     |                |                |                |                |                |        | Basic dynamic<br>load rating | Basic static<br>load rating | Allowable<br>load | Static moment<br>rating |
|--------------------------|--------------------------|-----------------------------------------|---------------------|------|---------------------|-----|--------------------------|---------------------------------|----------------|------|--------|--------|----------------|----------------|----|-----------------------------------------------------|----------------|--------------------------------|----------------|----------------|-------------|---------------------|----------------|----------------|----------------|----------------|----------------|--------|------------------------------|-----------------------------|-------------------|-------------------------|
|                          |                          | W                                       | Dim. W<br>tolerance | H    | Dim. H<br>tolerance | L   | Maximum<br>stroke length | W <sub>3</sub>                  | W <sub>4</sub> | N×P  | E      | M      | H <sub>1</sub> | t <sub>1</sub> |    | W <sub>5</sub>                                      | W <sub>6</sub> | N <sub>1</sub> ×P <sub>1</sub> | E <sub>1</sub> | M <sub>1</sub> | D           | Dim. D<br>tolerance | L <sub>6</sub> | E <sub>6</sub> | W <sub>1</sub> | W <sub>2</sub> | t <sub>2</sub> | C      | C <sub>0</sub>               | F                           | T <sub>0</sub>    |                         |
|                          |                          |                                         |                     |      |                     |     |                          |                                 |                |      |        |        |                |                |    |                                                     |                |                                |                |                |             |                     |                |                |                |                |                | N      | N                            | N                           | N · m             |                         |
| CRWU 80- 85R             | 1.2                      | 80                                      | ±0.1                | 24   | ±0.1                | 85  | 50                       | 40                              | 20             | —    | 42.5   | M5     | 24             | 13             | 27 | 26.5                                                | 1×40           | 22.5                           | M5             | 5              | +0.020<br>0 | 55                  | 15             | 38             | 21             | 11             | 6 640          | 9 400  | 3 130                        | 188                         |                   |                         |
| CRWU 80-125R             | 1.8                      |                                         |                     |      |                     | 125 | 75                       |                                 |                | 1×40 |        |        |                |                |    |                                                     | 2×40           |                                |                |                |             | 95                  |                |                |                |                | 9 130          | 14 100 | 4 700                        | 282                         |                   |                         |
| CRWU 80-165R             | 2.3                      |                                         |                     |      |                     | 165 | 105                      |                                 |                | 2×40 |        |        |                |                |    |                                                     | 3×40           |                                |                |                |             | 135                 |                |                |                |                | 10 300         | 16 500 | 5 480                        | 329                         |                   |                         |
| CRWU 80-205R             | 2.9                      |                                         |                     |      |                     | 205 | 135                      |                                 |                | 3×40 |        |        |                |                |    |                                                     | 4×40           |                                |                |                |             | 175                 |                |                |                |                | 12 500         | 21 200 | 7 050                        | 423                         |                   |                         |
| CRWU 80-245R             | 3.5                      |                                         |                     |      |                     | 245 | 155                      |                                 |                | 4×40 |        |        |                |                |    |                                                     | 5×40           |                                |                |                |             | 215                 |                |                |                |                | 14 700         | 25 900 | 8 620                        | 517                         |                   |                         |
| CRWU 80-285R             | 4.0                      |                                         |                     |      |                     | 285 | 185                      |                                 |                | 5×40 |        |        |                |                |    |                                                     | 6×40           |                                |                |                |             | 255                 |                |                |                |                | 16 700         | 30 600 | 10 200                       | 611                         |                   |                         |
| CRWU 80-325R             | 4.6                      |                                         |                     |      |                     | 325 | 215                      |                                 |                | 6×40 |        |        |                |                |    |                                                     | 7×40           |                                |                |                |             | 295                 |                |                |                |                | 18 700         | 35 300 | 11 800                       | 705                         |                   |                         |
| CRWU 100-110R*           | 2.4                      |                                         |                     |      |                     | 100 | ±0.15                    |                                 |                | 31   |        |        |                |                |    |                                                     | ±0.1           |                                |                |                |             | 110                 |                |                |                |                | 60             | 50     | 25                           | —                           | 55                | M6                      |
| CRWU 100-160R*           | 3.6                      | 160                                     | 95                  | 1×50 | 2×50                |     |                          | 120                             | 16 600         |      | 23 100 | 7 690  | 519            |                |    |                                                     |                |                                |                |                |             |                     |                |                |                |                |                |        |                              |                             |                   |                         |
| CRWU 100-210R*           | 4.7                      | 210                                     | 130                 | 2×50 | 3×50                |     |                          | 170                             | 21 600         |      | 32 300 | 10 800 | 727            |                |    |                                                     |                |                                |                |                |             |                     |                |                |                |                |                |        |                              |                             |                   |                         |
| CRWU 100-260R*           | 5.9                      | 260                                     | 165                 | 3×50 | 4×50                |     |                          | 220                             | 26 300         |      | 41 500 | 13 800 | 934            |                |    |                                                     |                |                                |                |                |             |                     |                |                |                |                |                |        |                              |                             |                   |                         |
| CRWU 100-310R*           | 7.0                      | 310                                     | 200                 | 4×50 | 5×50                |     |                          | 270                             | 30 800         |      | 50 700 | 16 900 | 1 140          |                |    |                                                     |                |                                |                |                |             |                     |                |                |                |                |                |        |                              |                             |                   |                         |
| CRWU 100-360R*           | 8.1                      | 360                                     | 235                 | 5×50 | 6×50                |     |                          | 320                             | 35 100         |      | 60 000 | 20 000 | 1 350          |                |    |                                                     |                |                                |                |                |             |                     |                |                |                |                |                |        |                              |                             |                   |                         |
| CRWU 100-410R*           | 9.3                      | 410                                     | 265                 | 6×50 | 7×50                |     |                          | 370                             | 37 200         |      | 64 600 | 21 500 | 1 450          |                |    |                                                     |                |                                |                |                |             |                     |                |                |                |                |                |        |                              |                             |                   |                         |
| CRWU 145-210R*           | 9.4                      | 145                                     | ±0.2                | 42.5 | ±0.1                |     |                          | 210                             | 130            |      | 85     | 30     | —              | 105            | M8 | 43                                                  |                | 21                             | 46             | 49.5           | 1×100       | 55                  | M8             | 5              | +0.020<br>0    | 150            | 30             |        |                              | 68.4                        |                   |                         |
| CRWU 145-310R*           | 13.9                     |                                         |                     |      |                     | 310 | 180                      | 1×100                           | 2×100          | 250  |        |        | 61 200         |                |    |                                                     | 92 300         |                                |                |                | 30 800      |                     |                |                |                | 3 320          |                |        |                              |                             |                   |                         |
| CRWU 145-410R*           | 18.4                     |                                         |                     |      |                     | 410 | 350                      | 2×100                           | 3×100          | 350  |        |        | 67 900         |                |    |                                                     | 106 000        |                                |                |                | 35 200      |                     |                |                |                | 3 800          |                |        |                              |                             |                   |                         |
| CRWU 145-510R*           | 23.0                     |                                         |                     |      |                     | 510 | 450                      | 3×100                           | 4×100          | 450  |        |        | 74 400         |                |    |                                                     | 119 000        |                                |                |                | 39 600      |                     |                |                |                | 4 270          |                |        |                              |                             |                   |                         |
| CRWU 145-610R*           | 27.5                     |                                         |                     |      |                     | 610 | 550                      | 4×100                           | 5×100          | 550  |        |        | 87 100         |                |    |                                                     | 145 000        |                                |                |                | 48 400      |                     |                |                |                | 5 220          |                |        |                              |                             |                   |                         |
| CRWU 145-710R*           | 32.0                     |                                         |                     |      |                     | 710 | 650                      | 5×100                           | 6×100          | 650  |        |        | 99 200         |                |    |                                                     | 172 000        |                                |                |                | 57 200      |                     |                |                |                | 6 170          |                |        |                              |                             |                   |                         |
| CRWU 145-810R*           | 36.6                     |                                         |                     |      |                     | 810 | 750                      | 6×100                           | 7×100          | 750  |        |        | 111 000        |                |    |                                                     | 198 000        |                                |                |                | 66 000      |                     |                |                |                | 7 120          |                |        |                              |                             |                   |                         |

Remark: The identification numbers with \* are our semi-standard items.

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IK Crossed Roller Way Unit

|       |                                                                                   |    |    |
|-------|-----------------------------------------------------------------------------------|----|----|
| Shape |  |    |    |
| Size  | 20                                                                                | 30 | 40 |



| Identification number | Mass<br>(Ref.)<br><br>kg | Nominal dimensions and tolerances<br>mm |                     |    |                     |     |                          | Table mounting dimensions<br>mm |                |      |      |  |      |                |                | Center way mounting dimensions<br>mm |                |                                |                |                |                | Basic dynamic<br>load rating | Basic static<br>load rating | Allowable<br>load | Static moment<br>rating |
|-----------------------|--------------------------|-----------------------------------------|---------------------|----|---------------------|-----|--------------------------|---------------------------------|----------------|------|------|--|------|----------------|----------------|--------------------------------------|----------------|--------------------------------|----------------|----------------|----------------|------------------------------|-----------------------------|-------------------|-------------------------|
|                       |                          | W                                       | Dim. W<br>tolerance | H  | Dim. H<br>tolerance | L   | Maximum<br>stroke length | W <sub>3</sub>                  | W <sub>4</sub> | N×P  | E    |  | M    | H <sub>1</sub> | t <sub>1</sub> | W <sub>1</sub>                       | W <sub>2</sub> | N <sub>1</sub> ×P <sub>1</sub> | E <sub>1</sub> | M <sub>1</sub> | t <sub>2</sub> | C                            | C <sub>0</sub>              | F                 | T <sub>0</sub>          |
|                       |                          |                                         |                     |    |                     |     |                          |                                 |                |      |      |  |      |                |                |                                      |                |                                |                |                |                | N                            | N                           | N                 | N · m                   |
| CRWU 20- 25RS         | 0.03                     | 20                                      | ±0.1                | 8  | ±0.1                | 25  | 12                       | 14                              | 3              | 1×18 | 3.5  |  | M2.5 | 7.5            | 3.5            | 7                                    | 6.5            | 2× 7.5                         | 5              | M2.5           | 4              | 380                          | 478                         | 159               | 1.8                     |
| CRWU 20- 35RS         | 0.05                     |                                         |                     |    |                     | 35  | 18                       |                                 |                | 1×28 |      |  |      |                |                |                                      |                | 2×10                           | 7.5            |                |                | 525                          | 717                         | 239               | 2.8                     |
| CRWU 20- 45RS         | 0.06                     |                                         |                     |    |                     | 45  | 25                       |                                 |                | 1×20 | 3×10 |  |      |                |                |                                      |                | 659                            |                |                |                | 956                          | 319                         | 3.7               |                         |
| CRWU 20- 55RS         | 0.07                     |                                         |                     |    |                     | 55  | 32                       |                                 |                | 1×30 | 4×10 |  |      |                |                |                                      |                | 786                            | 1 200          |                |                | 398                          | 4.6                         |                   |                         |
| CRWU 30- 65RS         | 0.20                     | 30                                      | ±0.1                | 12 | ±0.1                | 65  | 40                       | 22                              | 4              | 1×30 | 17.5 |  | M3   | 11.5           | 5.5            | 12                                   | 9              | 3×15                           | 10             | M3             | 6              | 1 850                        | 2 940                       | 979               | 19.1                    |
| CRWU 30- 80RS         | 0.24                     |                                         |                     |    |                     | 80  | 50                       |                                 |                | 1×45 |      |  |      |                |                |                                      |                | 4×15                           |                |                |                | 2 130                        | 3 530                       | 1 180             | 22.9                    |
| CRWU 30- 95RS         | 0.29                     |                                         |                     |    |                     | 95  | 60                       |                                 |                | 2×30 |      |  |      |                |                |                                      |                | 5×15                           |                |                |                | 2 410                        | 4 110                       | 1 370             | 26.7                    |
| CRWU 40-105RS         | 0.58                     | 40                                      | ±0.1                | 16 | ±0.1                | 105 | 60                       | 30                              | 5              | 1×50 | 27.5 |  | M4   | 15.5           | 7.5            | 16                                   | 12             | 3×25                           | 15             | M4             | 8              | 4 680                        | 7 310                       | 2 440             | 63.6                    |
| CRWU 40-130RS         | 0.72                     |                                         |                     |    |                     | 130 | 75                       |                                 |                | 1×75 |      |  |      |                |                |                                      |                | 4×25                           |                |                |                | 5 860                        | 9 750                       | 3 250             | 84.8                    |
| CRWU 40-155RS         | 0.85                     |                                         |                     |    |                     | 155 | 90                       |                                 |                | 2×50 |      |  |      |                |                |                                      |                | 5×25                           |                |                |                | 6 970                        | 12 200                      | 4 060             | 106                     |

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