BNS – wide, normal, standard height

Ball runner block made of steel
R1671 ... 2.
Dynamic characteristics
Travel speed: v_{max} = 5 m/s
Acceleration: a_{max} = 500 m/s²
(If $F_{comb} > 2.8 \cdot F_{pr}$: a_{max} = 50 m/s²)
Note on lubrication:
- Pre-lubricated

Further ball runner blocks BNS
- Corrosion resistant ball runner blocks see below

Order example
Options:
- Ball runner blocks BNS
- Sizes 25/70
- Preload class C1
- Accuracy class H
- With standard seal, without ball chain

Material number:
R1671 213 20

Options and material numbers

Size	Ball runner blocks with size	Preload class		Accuracy class			Seals on ball runner blocks			
							without ball chain		with ball chain	
		C0	C1	N	H	P	SS	DS	SS	DS
20/40[1]	R1671 5	9		4	3	–	20	–	22	–
			1	4	3	2	20	2Z	22	2Y
25/70	R1671 2	9		4	3	–	20	–	22	–
			1	4	3	2	20	2Z	22	2Y
E.g.:	R1671 2		1		3		20			

Ball runner block, Resist CR
R1671 ... 7.

Note on lubrication:
- Pre-lubricated

Order example
Options:
- Ball runner blocks BNS
- Sizes 25/70
- Preload class C0
- Accuracy class H
- With standard seal, without ball chain

Material number:
R1671 293 70

Options and material numbers

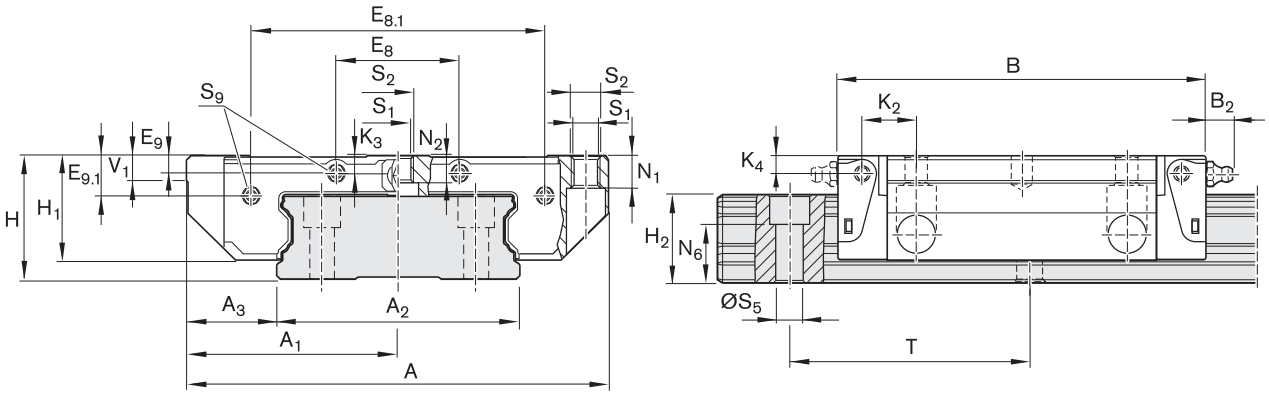
Size	Ball runner blocks with size	Preload class	Accuracy class	Seals on ball runner blocks			
				without ball chain		with ball chain	
		C0	H	SS	DS	SS	DS
20/40[1]	R1671 5	9	3	70	7Z	72	7Y
25/70	R1671 2	9	3	70	7Z	72	7Y
E.g.:	R1671 2	9	3	70			

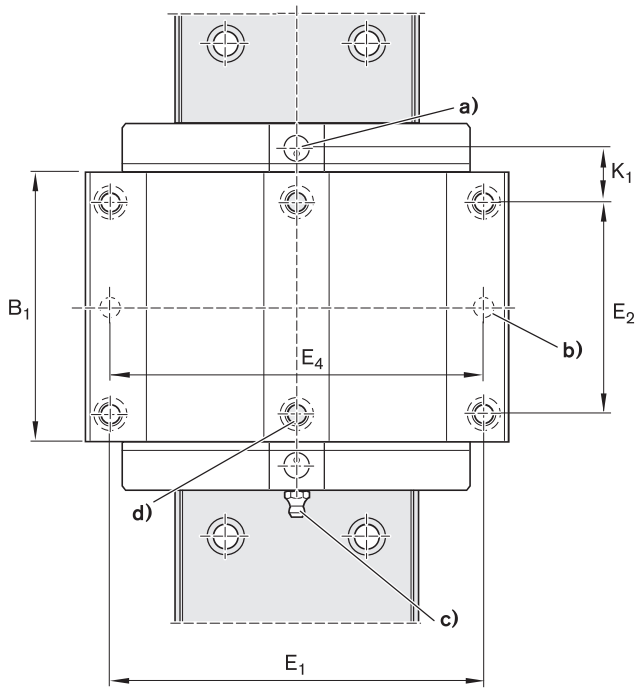
1) Caution: Ball runner blocks, not combinable with ball guide rail R167.8.. ..!

Preload classes
C0 = Without preload (clearance)
C1 = Moderate preload

Seals
SS = Standard seal
DS = Double-lip seal

Key
gray numbers
= No preferred variant / combination
(partially longer delivery times)





a) For O-ring
Size 20/40: Ø 5 · 1.0 (mm)
Size 25/70: Ø 5 · 1.0 (mm)
Open lube port if necessary (see section entitled “Lubrication”).

b) Recommended position for pin holes
(dimensions E_4 see chapter Mounting).
Pre-drilled holes may be present at this position for manufacturing reasons.
They are suitable for drilling out.

c) Lube nipple size 20/40:
Funnel-type lube nipple DIN 3405-A, M3x5, B_2 = 1.6 mm
When other lube nipples are used
Note 5 mm screw-in depth!
Lube nipple size 25/70:
Hydraulic-type lube nipple DIN 71412-A M6x8, B_2 = 9.5 mm
When other lube nipples are used
Note 8 mm screw-in depth!
The lube nipple is included in the scope of delivery (not installed).
Connection is possible on all sides.

d) Sealing plugs may be present at this position for manufacturing reasons.
Remove before mounting.

Size	**Dimensions** (mm)																		
	A	**A_1**	**A_2**	**A_3**	**B**	**B_1**	**E_1**	**E_2**	**E_8**	**$E_{8.1}$**	**E_9**	**$E_{9.1}$**	**H**	**H_1**	**H_2**	**K_1**	**K_2**	**K_3**	**K_4**
20/40	80	40	42	19.0	73	51.3	70	40	18	53.4	3.4	8.1	27	22.50	18.30	10.6	11.0	3.5	3.5
25/70	120	60	69	25.5	105	76.5	107	60	35	83.5	4.9	11.3	35	29.75	23.55	15.4	15.5	5.2	5.2

Size	**Dimensions** (mm)									**Mass** (kg)	**Load capacities**[1] (N)		**Load moments**[1] (Nm)			
	N_1	**N_2**	**$N_6^{\pm 0.5}$**	**S_1**	**S_2**	**S_5**	**S_9**	**T**	**V_1**		**C**	**C_0**	**M_t**	**M_{t0}**	**M_L**	**M_{L0}**
20/40	7.70	3.70	12.5	5.3	M6	4.4	M2.5x1.5^{+3}	60	6.0	0.4	14900	20600	340	470	140	190
25/70	9.35	7.05	14.4	6.7	M8	7.0	M3x2$^{+4.5}$	80	7.5	1.2	36200	50200	1 350	1870	490	680

1) Load ratings and load moments for ball runner block **without** ball chain. Load ratings and load moments for ball runner block **with** ball chain ☞ 14
Determination of the dynamic load capacities and load moments is based on a stroke travel of 100,000 m according to DIN ISO 14728-1. Often only 50,000 m are actually stipulated. For comparison: Multiply the values **C**, $\mathbf{M}_t$ and $\mathbf{M}_L$ by 1.26 according to the table.

BNS – wide, normal, standard height

Ball runner block made of steel
R1671 ... 1.

Dynamic characteristics
Travel speed: v_{max} = 3 m/s
Acceleration: a_{max} = 250 m/s²
(If $F_{comb} > 2.8 \cdot F_{pr}$: a_{max} = 50 m/s²)

Note on lubrication:
- No initial lubrication

Further ball runner blocks BNS
- Corrosion-resistant ball runner blocks see below

Order example
Options:
- Ball runner blocks BNS
- Sizes 35/90
- Preload class C1
- Accuracy class H
- With standard seal, without ball chain

Material number:
R1671 313 10

Options and material numbers

Size	Ball runner blocks with size	Preload class			Accuracy class			Seals on ball runner blocks without ball chain
		C0	C1	C2	N	H	P	SS
35/90	R1671 3	9			4	3	–	10
			1		4	3	2	10
				2		3	2	10
E.g.:	R1671 3		1			3		10

Ball runner block, Resist CR
R1671 ... 6.

Order example
Options:
- Ball runner blocks BNS
- Sizes 35/90
- Preload class C1
- Accuracy class H
- With standard seal, without ball chain

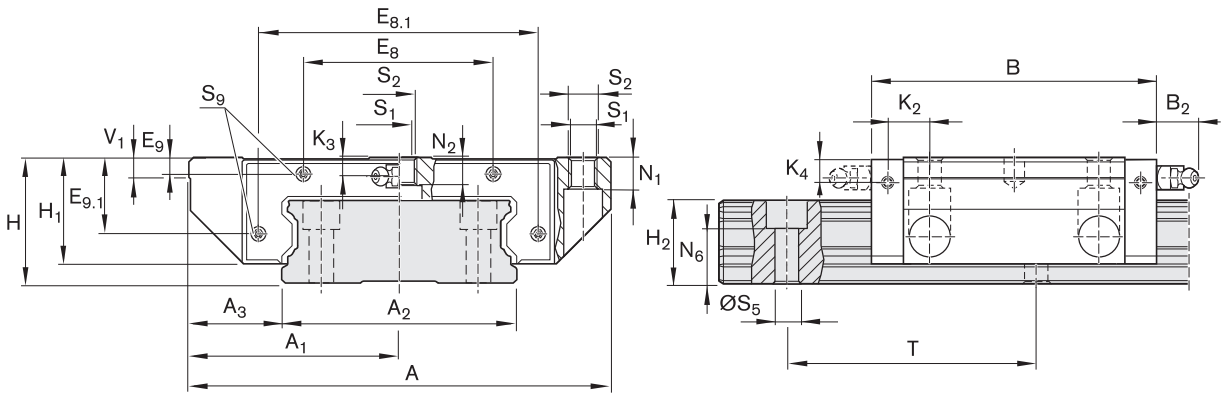
Material number:
R1671 313 60

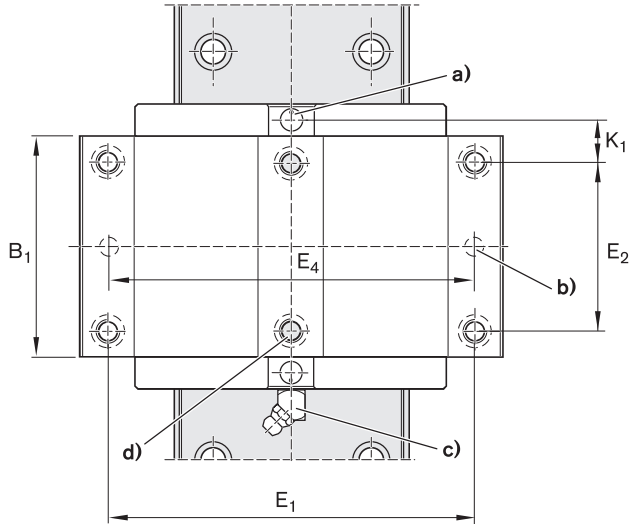
Options and material numbers

Size	Ball runner blocks with size	Preload class		Accuracy class	Seals on ball runner blocks without ball chain
		C0	C1	H	SS
35/90	R1671 3	9	1	3	60
E.g.:	R1671 3		1	3	60

Preload classes
C0 = Without preload (clearance)
C1 = Moderate preload

Seals
SS = Standard seal





a) For O-ring
Size 35/90: Ø 6 · 1.5 (mm)
Open lube port if necessary (see section entitled “Lubrication”).

b) Recommended position for pin holes
(dimensions E_4 see chapter Mounting).
Pre-drilled holes may be present at this position for production reasons.
They are suitable for drilling out.

c) Lube nipple size 35/90:
Hydraulic-type lube nipple DIN 71412-B M6x8, B_2 = 16 mm
When other lube nipples are used
Note 8 mm screw-in depth!
The lube nipple is included in the scope of delivery (not installed).
Connection is possible on all sides.

d) Sealing plugs may be present at this position for manufacturing reasons.
Remove before mounting.

Size	**Dimensions** (mm)																
	A	**A_1**	**A_2**	**A_3**	**B**	**B_1**	**E_1**	**E_2**	**E_8**	**$E_{8.1}$**	**E_9**	**$E_{9.1}$**	**H**	**H_1**	**H_2**	**K_1**	**K_2**
35/90	162	81	90	36	142	113.6	144	80	79	116	6.8	29.9	50	42.5	31.85	22.8	24.8

Size	**Dimensions** (mm)											**Mass** (kg)	**Load capacities**[1] (N)		**Load moments**[1] (Nm)			
	K_3	**K_4**	**N_1**	**N_2**	**$N_6^{\pm 0.5}$**	**S_1**	**S_2**	**S_5**	**S_9**	**T**	**V_1**		**C**	**C_0**	**M_t**	**M_{t0}**	**M_L**	**M_{L0}**
35/90	9	9	14	12	20.5	8.4	M10	9	M3x5	80	8.0	3.70	70700	126000	3500	6240	1470	2620

1) Load ratings and load moments for ball runner block **without** ball chain.
Determination of the dynamic load capacities and load moments is based on a stroke travel of 100,000 m according to DIN ISO 14728-1. Often only 50,000 m are actually stipulated. For comparison: Multiply the values **C**, $\mathbf{M}_t$ and $\mathbf{M}_L$ by 1.26 according to the table.