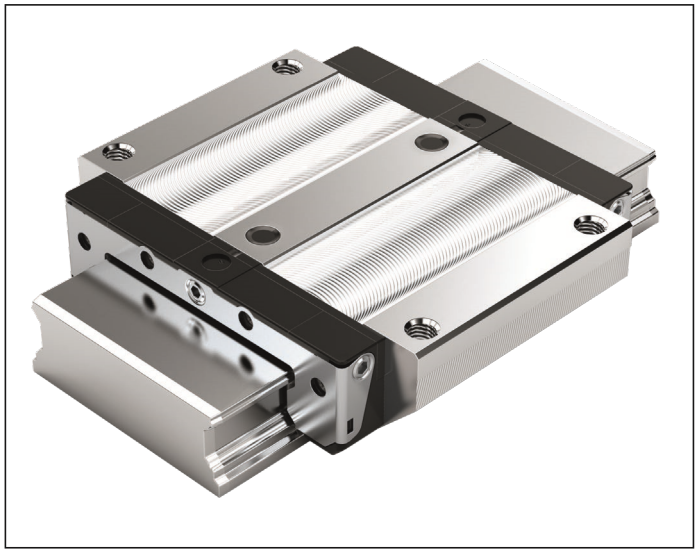
BNS – Wide, normal, standard height



Steel ball runner blocks
R1671 ... 2.
Dynamic characteristics
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
- See below for corrosion-resistant ball runner blocks

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

Part number:
R1671 213 20

Options and part numbers

Size	Ball runner block with size	Preload class		Accuracy class			Seal with 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			

Resist CR ball runner block
R1671 ... 7.

Note on lubrication:
- Pre-lubricated

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

Part number:
R1671 293 70

Options and part numbers

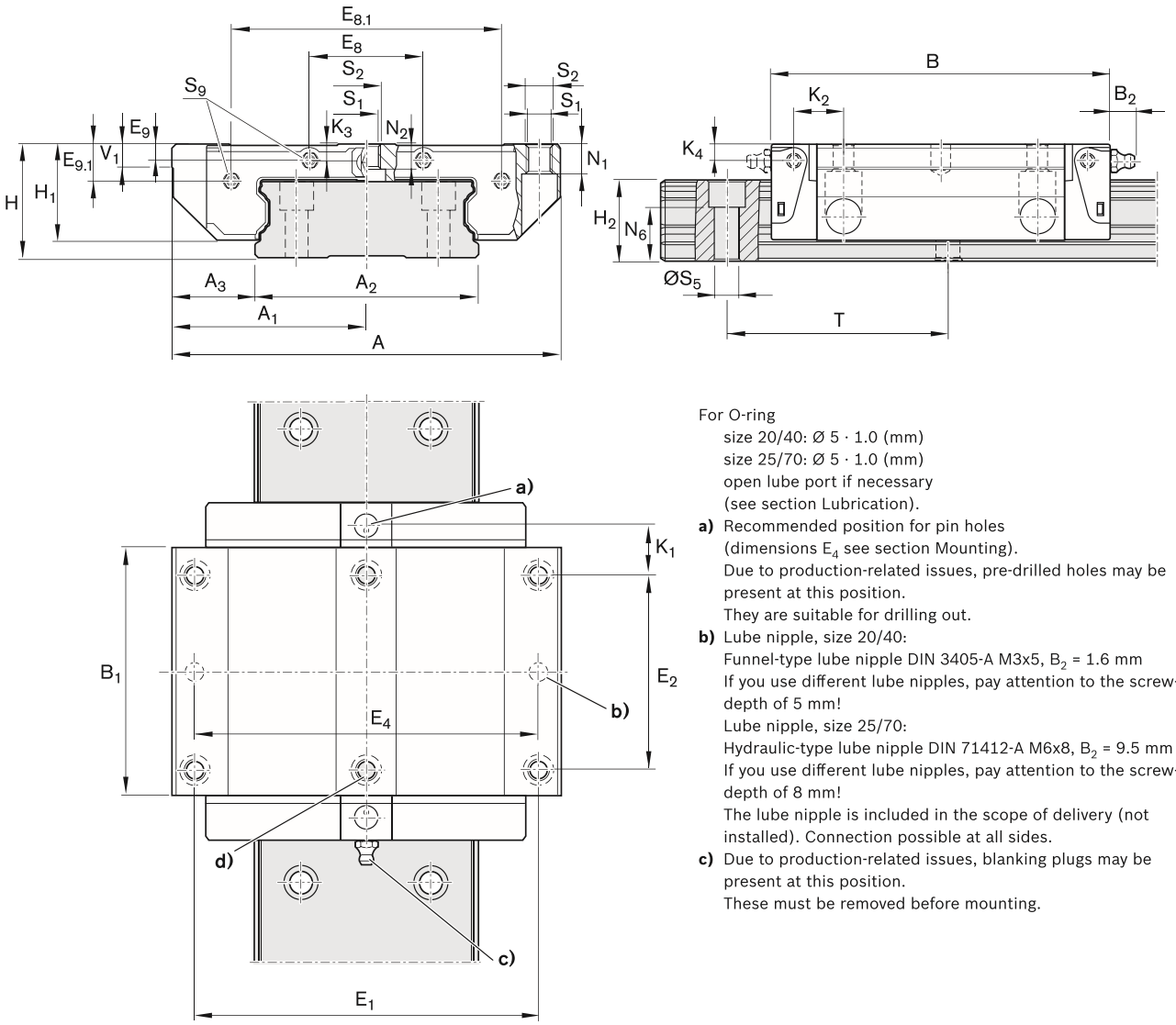
Size	Ball runner block with size	Preload class	Accuracy class	Seal with ball runner blocks			
				without ball chain		with ball chain	
		C0	H	SS	DS	SS	DS
20/40[1]	R1671 5	9	3	70	7Z	72	7Y
25/70	R1671 2	9	3	70	7Z	72	7Y
e.g.	R1671 2	9	3	70			

1) Note: Ball runner block cannot be combined with ball guide rail R167 8.. ..

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

Seals
SS = standard seal
DS = double-lipped seal

Key
Gray digits
= No preferred variant/ combination
(Some delivery times may be longer)



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 Lubrication).

a) Recommended position for pin holes
(dimensions E_4 see section Mounting).
Due to production-related issues, pre-drilled holes may be present at this position.
They are suitable for drilling out.

b) Lube nipple, size 20/40:
Funnel-type lube nipple DIN 3405-A M3x5, B_2 = 1.6 mm
If you use different lube nipples, pay attention to the screw-in depth of 5 mm!
Lube nipple, size 25/70:
Hydraulic-type lube nipple DIN 71412-A M6x8, B_2 = 9.5 mm
If you use different lube nipples, pay attention to the screw-in depth of 8 mm!
The lube nipple is included in the scope of delivery (not installed). Connection possible at all sides.

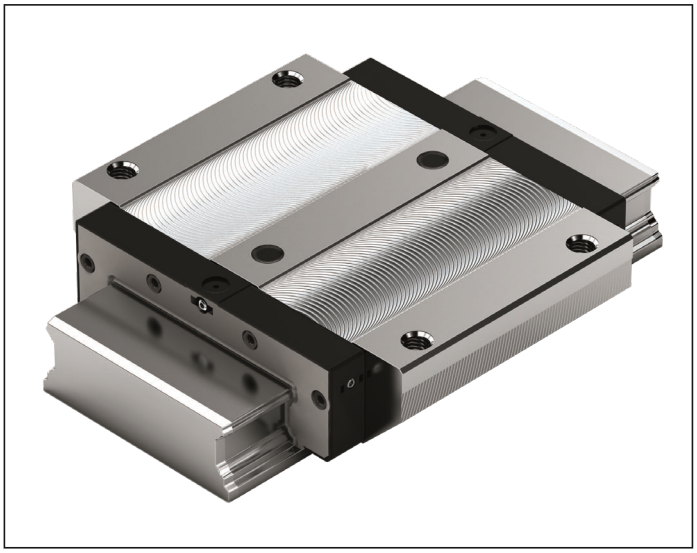
c) Due to production-related issues, blanking plugs may be present at this position.
These must be removed before mounting.

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)									**Weight** (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	14 900	20 600	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	36 200	50 200	1 350	1 870	490	680

1) Load capacities and load moments for ball runner blocks **without** ball chain. Load capacities and load moments for ball runner blocks **with** ball chain ☞ 14
Determination of the dynamic load capacities and load moments is based on a 100,000 m travel life according to DIN ISO14728-1. Often only 50,000 m are actually stipulated. For comparison: Multiply values **C**, $\mathbf{M}_t$ and $\mathbf{M}_L$ by 1.26 according to the table.

BNS – Wide, normal, standard height



Steel ball runner blocks
R1671 ... 1.

Dynamic characteristics
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:
- Not pre-lubricated

Further ball runner blocks BNS
- See below for corrosion-resistant ball runner blocks

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

Part number:
R1671 313 10

Options and part numbers

Size	Ball runner block with size	Preload class		Accuracy class			Seal with ball runner blocks without ball chain
		C0	C1	N	H	P	SS
35/90	R1671 3	9		4	3	–	10
			1	4	3	2	10
e.g.	R1671 3		1		3		10

Resist CR ball runner block
R1671 ... 6.

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

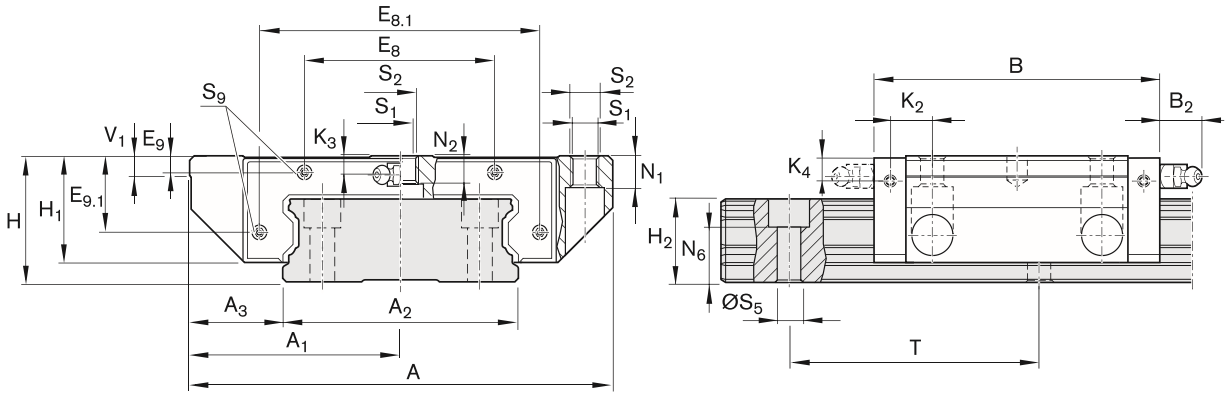
Part number:
R1671 313 60

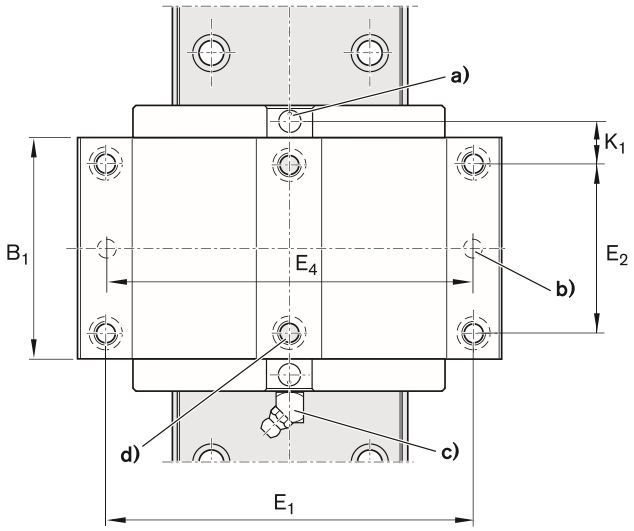
Options and part numbers

Size	Ball runner block with size	Preload class		Accuracy class	Seal with 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





For O-ring
size 35/90: Ø 6 · 1.5 (mm)
open lube port if necessary
(see section Lubrication).

a) Recommended position for pin holes
(dimensions E_4 see section Mounting).
Due to production-related issues, pre-drilled holes may be present at this position.
They are suitable for drilling out.

b) Lube nipple, size 35/90:
Hydraulic-type lube nipple DIN 71412-B M6x8, B_2 = 16 mm
If you use different lube nipples, pay attention to the screw-in depth of 8 mm!
The lube nipple is included in the scope of delivery (not installed). Connection possible at all sides.

c) Due to production-related issues, blanking plugs may be present at this position.
These must be removed 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)											**Weight** (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	70 700	126 000	3 500	6 240	1 470	2 620

1) Load capacities and load moments for ball runner blocks **without** ball chain.
Determination of the dynamic load capacities and load moments is based on a 100,000 m travel life according to DIN ISO14728-1. Often only 50,000 m are actually stipulated. For comparison: Multiply values **C**, $\mathbf{M}_t$ and $\mathbf{M}_L$ by 1.26 according to the table.