

Wide Ball Rail Systems made of steel and Resist CR

BNS – Wide, normal, standard height

Ball Runner Blocks made of steel R1671 ... 2.

Dynamic characteristics

Travel speed: $v_{\max} = 5 \text{ m/s}$

Acceleration: $a_{\max} = 500 \text{ m/s}^2$

(If $F_{\text{comb}} > 2.8 \cdot F_{\text{pr}}$: $a_{\max} = 50 \text{ m/s}^2$)

Note on lubrication

- Pre-lubricated

Further Ball Runner Blocks BNS

- See below for corrosion-resistant ball runner blocks

Note

Can be used on all Ball Guide Rails BNS.



Options and part numbers

Size	Ball runner block with size	Preload class			Accuracy class			Seal for ball runner block			
		C0	C1		N	H	P	without ball chain		with ball chain	
							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			

Ordering example

Options:

- Ball Runner Block BNS
- Size 25/70
- Preload class C1
- Accuracy class H
- With standard seal, without ball chain

Part number: R1671 213 20

Ball Runner Blocks, Resist CR R1671 ... 7.

Note on lubrication

- Pre-lubricated

Note

Can be used on all Ball Guide Rails BNS.

Ordering example

Options:

- Ball Runner Block BNS
- Size 25/70
- Preload class C0
- Accuracy class H
- With standard seal, without ball chain

Part number: R1671 293 70

Preload classes

C0 = without preload

C1 = preload 2% C

Options and part numbers

Size	Ball runner block with size	Preload class		Accuracy class		Seal for ball runner block			
		C0		H		without ball chain		with ball chain	
						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: New Ball Runner Block not combinable with existing Ball Guide Rail R167. 8.. ..!

Seals

SS = standard seal

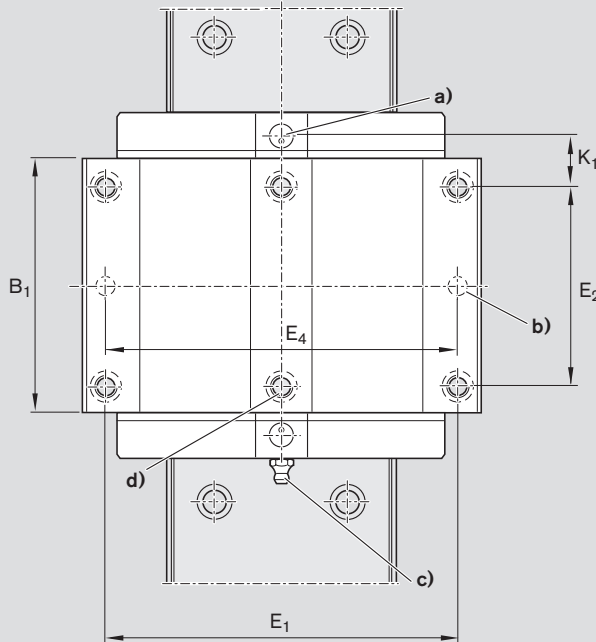
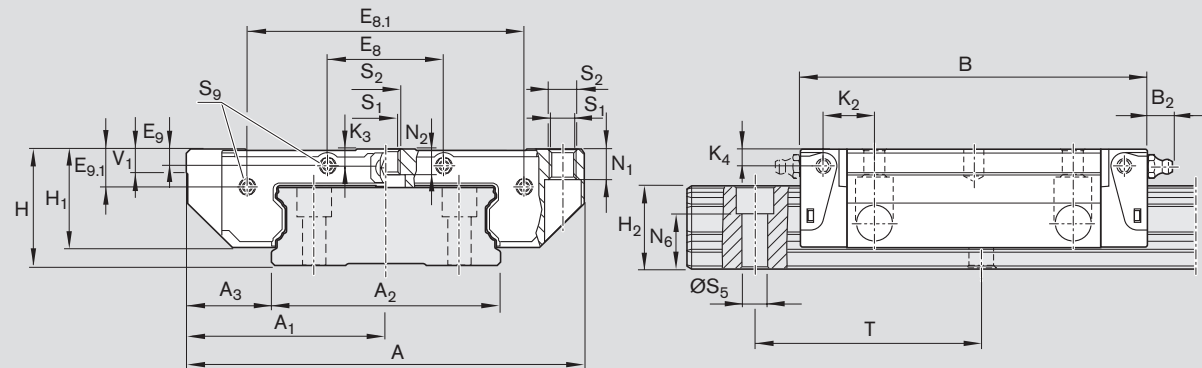
DS = double-lipped seal

Key to table

Gray numbers

= version/combination not preferred
(longer delivery times in some cases)

Ball Runner Blocks BNS



- a) For O-ring
Size 20/40: $\varnothing 5 \cdot 1.0$ (mm)
Size 25/70: $\varnothing 5 \cdot 1.0$ (mm)
Open lube bore as required (☞ 258).
- b) Recommended position for pin holes (dimensions E_4 ☞ 239).
Due to manufacturing reasons, there may be rough-drilled holes at the recommended positions. These may be bored open to accommodate the locating pins.
- c) Lube nipple, size 20/40:
Funnel-type lube nipple DIN 3405-A M3x5,
 $B_2 = 1.6$ mm
If another lube nipple is used: observe 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 another lube nipple is used: observe the screw-in depth of 8 mm!
Lube nipples are provided (unmounted).
Connection possible at all sides.
- d) For manufacturing reasons, there may be plugs at these positions. 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	14.3	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 ^{±0.5}	S ₁	S ₂	S ₅	S ₉	T	V ₁	C		C ₀	M _t	M _{l0}	M _L	M _{L0}	
20/40	7.70	3.70	12.5	5.3	M6	4.4	M2.5x1.5 ⁺³	60	6.0	0.45	13 650	19 675	310	450	95	135	
25/70	9.35	7.05	14.4	6.7	M8	7.0	M3x2 ^{+4.5}	80	7.5	1.70	29 000	42 500	1 080	1 580	305	450	

1) Load capacities and moments for Ball Runner Block **without** ball chain. Load capacities and moments for Ball Runner Block **with** ball chain ☞ 8. Determination of the dynamic load capacities and moments is based on a travel life of 100,000 m per ISO 14728-1. Often only 50,000 m are actually stipulated. For comparison: Multiply values **C**, **M_t** and **M_L** from the table by 1.26.