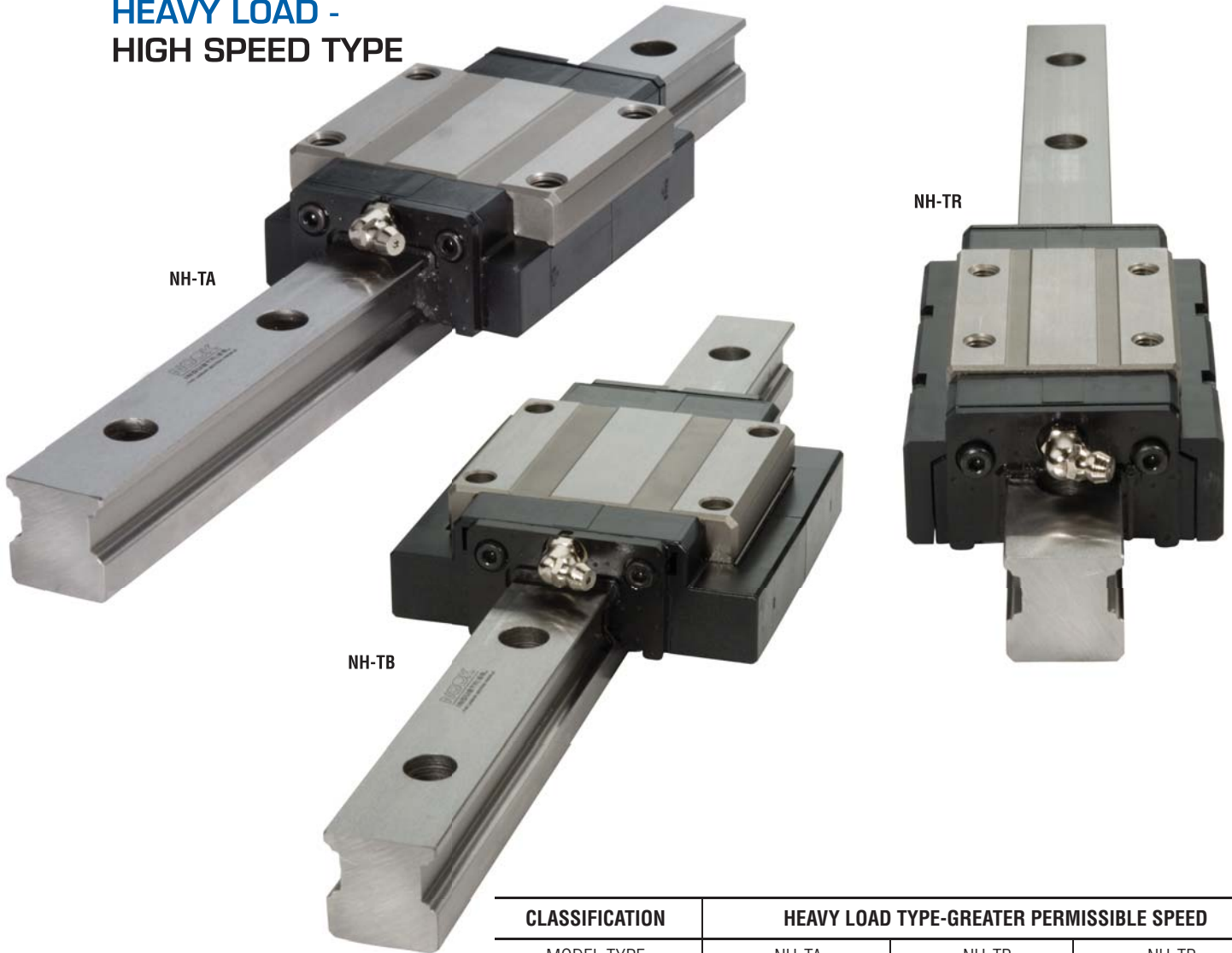


HEAVY LOAD - HIGH SPEED TYPE



CLASSIFICATION	HEAVY LOAD TYPE-GREATER PERMISSIBLE SPEED		
MODEL TYPE	NH-TA	NH-TB	NH-TR
Mounting Direction			
Main Features	Heavy Load Type-Greater Permissible Speed		
Permissible speed (m/min)	200	200	200
Accuracy	C001-C7	C001-C7	C001-C7
Preload	T-T3	T-T3	T-T3
Vibration Behaviors	◎	◎	◎
Noise	◎	◎	◎

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○ Low

◎ Very Low

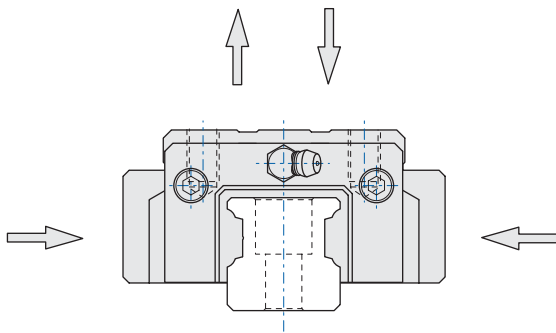
FEATURES

NOOK Profile Rail Design

NOOK Heavy Load and High Speed Type Runner Blocks recirculate the balls via a tube. The four rows of balls on the inner runner block are arranged 2 rows each on either side facing each other and contacting at a 45° angle. As the load is transmitted the balls contact the track at two points at an inclusive angle of 90°. In turn, the contact with the outer track is the same making a square load force configuration.

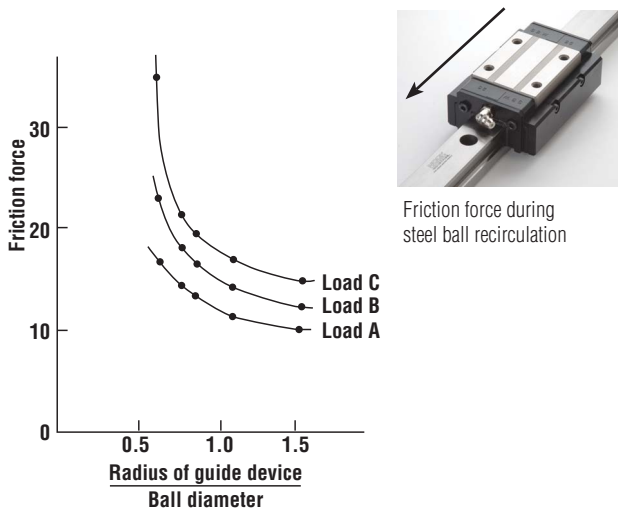
Equal Load in Four Directions

The shape of NOOK runner blocks have an equal rated load capacity in any direction. Equal rigidity is therefore obtained in any of the four loading directions making NOOK runner blocks ideal for single or combination loads.



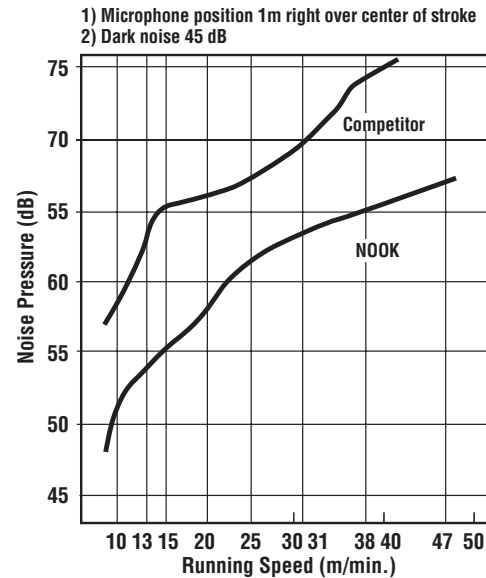
Ratio Ball Recirculation Method

Experiments have shown that a ratio of the ball diameter to the return curvature radius of 1.5:1 results in reduced friction with lower noise signature and lower vibration and less variation in friction at high speeds when compared to normal return ratios of 0.6:1 to 1.1:1 as found in standard systems. NOOK high-speed runner blocks utilize this ratio.



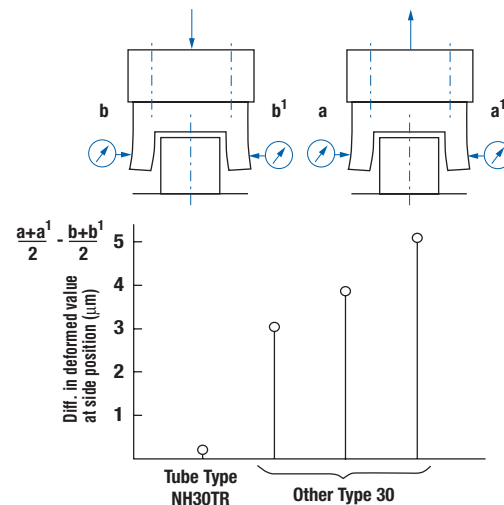
Noise

As a result of the reduction in friction, the noise vibration signature decreases during travel and consequently reduces the audible noise.



Rigidity of Runner Block

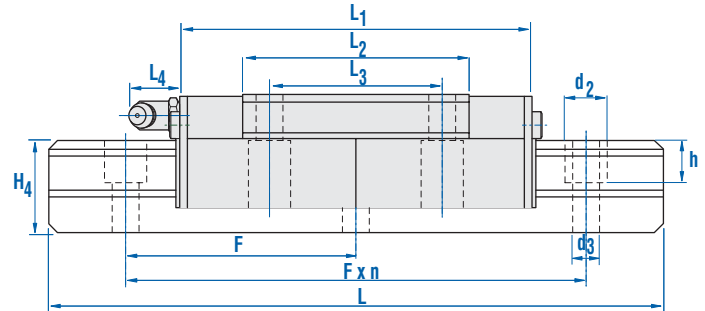
The "Tube" Type NOOK runner block has a solid structure with no return holes for balls as with the conventional runner block. The tube type design offers a stronger construction, giving the advantage of near equal resistance to deformation in both the radial and reverse radial loaded directions at the sides of the runner block.



Consistent Travelling Accuracy

High Speed Type runner blocks have a simple machined form offering continuity of movement at elevated speeds.

NH-TB series
heavy load • high speed
four through holes

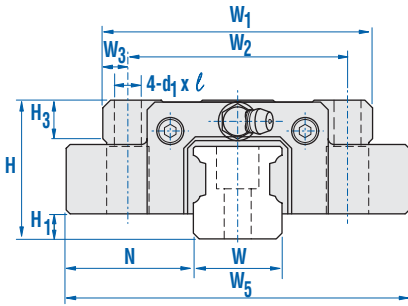


NOOK Precision Profile Rail Systems provide stable and efficient linear motion guidance under variable speeds and high load conditions.

- Interchangeable with other manufacturers
- NH-TB provides Heavy Load with Higher Speeds
- Precision Class: C0001 - C7
- Preload: T - T3
- Maximum Rail Length:
 15, 20, 45, 55, 65 - 3000mm
 25, 30, 35 - 4000mm

Model	assembly dimensions			runner block dimensions										grease fitting
	height H	width W ₁	length L ₁	W ₂	W ₅	L ₃	d ₁ xℓ	L ₂	H ₃	L ₄	W ₃	H ₁		
NH15TB	24	47	71	38	60	30	4.5x7	41	5	0	4.5	4.6	NAS516-1A	
NH20TB	30	63	91	53	79	40	6x10	58	8	0	5	5.0	NAS516-1A	
NH25TB	36	70	97	57	89	45	7x12	59	10	10	6.5	6.5	B-M6F	
NH30TB	42	90	111	72	112	52	9x14	68	11	10	9	7.0	B-M6F	
NH35TB	48	100	128	82	123	62	9x16	80	13	10	9	8.0	B-M6F	
NH45TB	60	120	158	100	147	80	11x19	102	15	12	9	11	B-PT 1/8	
NH55TB	70	140	189	116	171	95	14x23	124	17	12	12	14	B-PT 1/8	
NH65TB	85	170	225	142	207	110	16x29	148	20	12	14	14	B-PT 1/8	

See unit conversion on page 48



rail dimensions					load ratings									weights		
height H ₄	width W	pitch N	pitch F	pitch d ₃ x d ₂ x h	basic load ratings				static moment ratings						block	rail
					C		C ₀		M _A		M _B		M _C		kg	kg/m
					kN	lbf	kN	lbf	kN-m	lb-in	kN-m	lb-in	kN-m	lb-in		
17	15	16.0	60	4.5 x 7.5 x 7	8.43	1,896	13.53	3,041	0.07	608	0.07	608	0.13	1,128	0.21	1.7
21	20	21.5	60	6 x 9.5 x 11	13.92	3,130	23.83	5,157	0.16	1,389	0.16	1,389	0.26	2,344	0.4	2.8
24	23	23.5	60	7 x 11 x 11	20.00	4,496	34.41	7,736	0.27	2,430	0.27	2,430	0.44	3,906	0.69	3.7
28	28	31.0	80	9 x 14 x 14	28.24	6,347	46.86	10,535	0.43	3,819	0.43	3,819	0.72	6,336	1.0	5.3
32	34	33.0	80	9 x 14 x 15	37.55	8,441	62.55	14,061	0.64	5,642	0.64	5,642	1.13	9,982	1.5	7.5
42	45	37.5	105	14 x 20 x 21	60.20	13,532	95.71	21,510	1.30	11,544	1.30	11,544	2.30	20,398	2.7	12.9
48	53	43.5	120	16 x 23 x 24	90.02	20,232	137.09	30,811	2.22	19,617	2.22	19,617	4.25	37,671	4.4	17.3
58	63	53.5	150	18 x 26 x 25	141.11	31,714	215.15	48,354	4.21	37,237	4.21	37,237	7.38	65,360	8.4	24.9

The specifications and data in this publication are believed to be accurate and reliable. However, it is the responsibility of the product user to determine the suitability of Nook Industries products for a specific application. While defective products will be replaced without charge if promptly returned, no liability is assumed beyond such replacement.