

STAR – Linear Bushings and Shafts

Supplement

STAR – Linear Bushings and Shafts

Compact Linear Sets, 1029-

Tandem version
closed, regular or stainless steel

Design

- Precision Tandem Linear Set, light-weight series (aluminium)
- two Compact Linear Sets
- two integrated seals
- fully sealed
- pre-greased at factory

Ordering Data

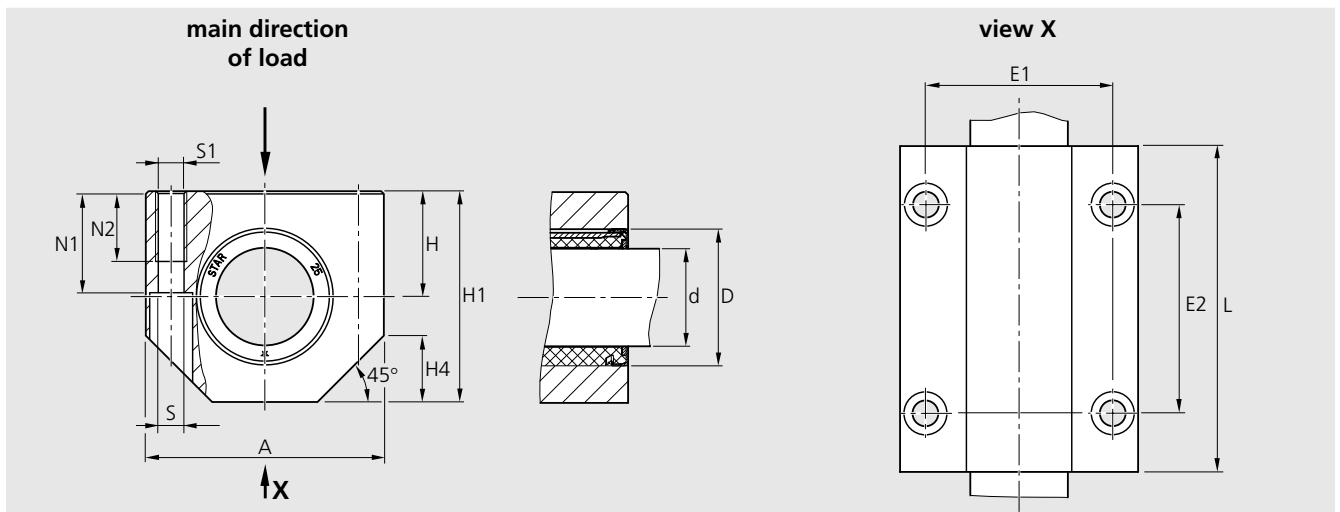
closed



Shaft Ø d (mm)	Part numbers		Mass (kg)
	Compact	Compact stainless ¹⁾	
12	1029-212-44	1029-212-34	0,17
16	1029-216-44	1029-216-34	0,24
20	1029-220-44	1029-220-34	0,31
25	1029-225-44	1029-225-34	0,57
30	1029-230-44	1029-230-34	0,80
40	1029-240-44	1029-240-34	1,54
50	1029-250-44	1029-250-34	2,45

¹⁾ Linear Bushing stainless version (ball bearing steel to DIN 17230 / EN 10088)

The figures for dynamic load capacity have been calculated assuming a nominal travel life of 100,000 m. For a nominal travel life of 50,000 m, the figures in the table must be multiplied by the factor of 1.26.



Ød	D	H	H1	A	L	Dimensions (mm)		S ¹⁾	S1	N1	N2	H4
						E1 ± 0,15	E2 ± 0,15					
12	19	17	33	40	60	29	35	4,3	M5	16	11	11
16	24	19	38	45	65	34	40	4,3	M5	18	11	13
20	28	23	45	53	65	40	45	5,3	M6	22	13	15
25	35	27	54	62	85	48	55	6,6	M8	26	18	17
30	40	30	60	67	105	53	70	6,6	M8	29	18	19
40	52	39	76	87	125	69	85	8,4	M10	38	22	24
50	62	47	92	103	145	82	100	10,5	M12	46	26	30

Ød (mm)	Radial clearance (µm) Shaft		Tolerance for dim. H ²⁾ (µm)	Load Capacities (N) ³⁾			
	h6	h7		Compact		Compact stainless	
				dyn. C	stat. C ₀	dyn. C	stat. C ₀
12	+32 0	+37 +2	± 12	1310	980	920	780
16	+32 0	+37 +2	± 12	1700	1140	1180	920
20	+33 -1	+38 +2	+13 -12	2290	1800	1610	1440
25	+36 0	+42 +2	+13 -12	4760	3900	3330	3120
30	+36 0	+42 +2	+13 -12	6250	5580	4385	4460
40	+42 -1	+48 +2	+14 -12	10360	9300	7260	7440
50	+42 -1	+48 +2	+14 -12	11660	10700	8170	8560

¹⁾ Mounting bolts to ISO 4762-8.8.

²⁾ Relative to shaft nominal dimension d.

³⁾ The load capacities stated are valid for the main direction of load.

In other cases the load capacities have to be multiplied by the factors:

shaft-Ø 12 and 16: $f = 0,90$ $f_0 = 0,86$ / shaft-Ø 20 to 50: $f = 0,79$ $f_0 = 0,68$

STAR – Linear Bushings and Shafts

Compact Linear Sets, 1707-, stainless steel

closed

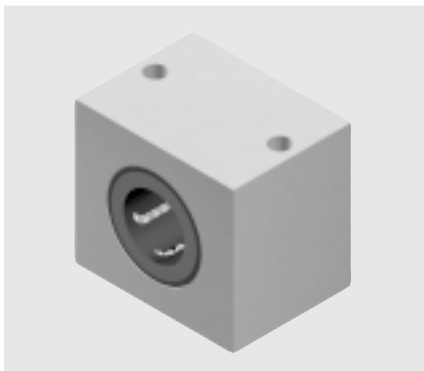
Applications

- Clean design for use in the industry sectors, food processing and food packaging, semiconductor, pharmaceutical, medical and chemical.

Design

- Precision housing made of rust and acid proof CrNi-steel
- stainless Compact-Linear Bushing¹⁾
- two integrated seals
- fully sealed

Ordering data

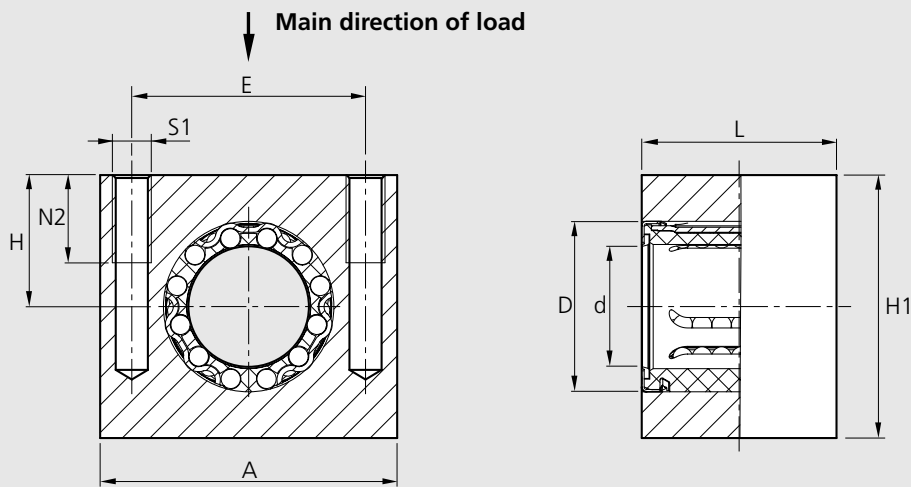


shaft Ø d (mm)	Part numbers	Mass (kg)
12	1707-212-30	0,25
16	1707-216-30	0,32
20	1707-220-30	0,43
25	1707-225-30	0,78
30	1707-230-30	1,13
40	1707-240-30	2,20

The Compact Linear Sets type 1707- must be lubricated before use.
For information and recommendations please see the Star lubrication guide.

¹⁾ Ball bearing steel to DIN 17230 / EN 10088

The figures for dynamic load capacity have been calculated assuming a nominal travel life of 100,000 m. For a nominal travel life of 50,000 m, the figures in the table must be multiplied by the factor of 1.26.



Ød	D	H	Dimensions (mm)				L	E ± 0,15	S1 ¹⁾	N2
			H1	A						
12	19	17	33	40		28	29	M 5	11	
16	24	19	38	45		30	34	M 5	11	
20	28	23	45	53		30	40	M 6	13	
25	35	27	54	62		40	48	M 8	18	
30	40	30	60	67		50	53	M 8	18	
40	52	39	76	87		60	69	M 10	22	

Ød (mm)	Radial clearance (µm) Shaft		Tolerance for dim. H ²⁾ (µm)	Load capacities (N) ³⁾ Compact stainless	
	h6	h7		dyn. C	stat. C ₀
12	+32 0	+37 +2	± 12	570	390
16	+32 0	+37 +2	± 12	730	460
20	+33 -1	+38 +2	+13 -12	990	720
25	+36 0	+42 +2	+13 -12	2050	1560
30	+36 0	+42 +2	+13 -12	2700	2230
40	+42 -1	+48 +2	+14 -12	4470	3720

¹⁾ For mounting from below drill through hole in diameter of the core hole.

²⁾ Relative to nominal diameter d

³⁾ The load capacities stated are valid for the main direction of load.

In other cases the load capacities have to be multiplied by the factors:

shaft-Ø 12 and 16: $f = 0,90$ $f_0 = 0,86$ / shaft-Ø 20 to 50: $f = 0,79$ $f_0 = 0,68$

STAR – Linear Bushings and Shafts

Compact Shaft Support Blocks, 1059-, stainless steel

To be used with Linear Bushings or with Compact-Linear-Sets.

Applications

- Clean design for use in the industry sectors food processing and food packaging, semiconductor, pharmaceutical, medical and chemical.

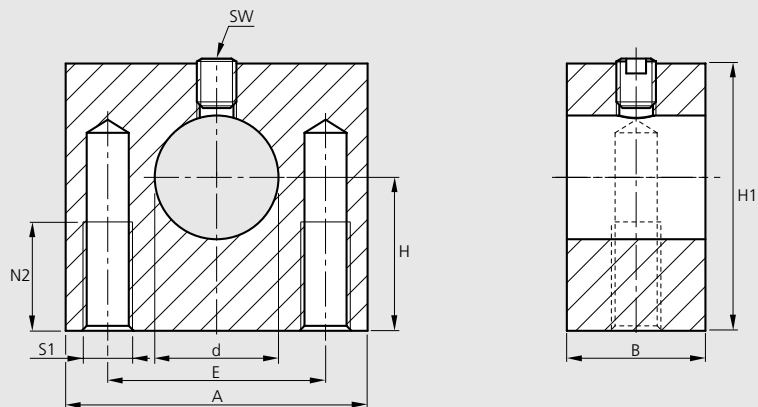
Design

- Precision housing made of rust and acid proof CrNi-steel
- Compact Shaft Support Blocks help to build space saving structures as they have been tailored to match the small outer dimensions of Compact Linear Sets

Ordering data



Shaft Ø d (mm)	Part numbers	Mass (kg)
12	1059-012-00	0,16
16	1059-016-00	0,23
20	1059-020-00	0,37
25	1059-025-00	0,59
30	1059-030-00	0,73
40	1059-040-00	1,60



Ød	d H7	Dimensions (mm)							
		H ¹⁾ ± 0,01	H1	A	B	E ± 0,15	N2	S1 ²⁾	SW
12	12	19	33	40	18	27	13	M 6	3
16	16	22	38	45	20	32	13	M 6	3
20	20	25	45	53	24	39	18	M 8	4
25	25	31	54	62	28	44	22	M 10	4
30	30	34	60	67	30	49	22	M 10	4
40	40	42	76	87	40	66	26	M 12	5


¹⁾ Relative to nominal shaft diameter d.

²⁾ For a through hole from above please use core diameter.

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RE 83 154/2001-03