

Ball-Ended Thrust Screws • headless, flat-faced ball

EH 22720.



Product Description

Ball-ended thrust screws with thermoplastic ball are used for pressure sensitive pieces. Ball-ended thrust screws can also be used for clamping, tightening or supporting of non-parallel surfaces.

The flat-faced, movable ball enables a flat load transmission.

Material

Ball

- Ball-bearing steel, hardened
- Stainless steel, hardened
- Thermoplastic POM, red

Screw

- Heat-treated steel, $1200 \pm 100 \text{ N/mm}^2$
- Stainless steel 1.4305

More information

Notes

Ball not secured against rotating. Special types on request.

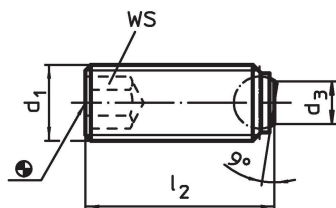
References

Thread lock on request, please refer to appendix - Technical Data -

Further products

- Ball-Ended Thrust Screws, headless, ball protected against rotating
- Ball-Ended Thrust Screws, headless, with fine-pitch thread
- Ball-Ended Thrust Screws, headless, short
- Ball-Ended Thrust Screws, headless, flat-faced ball and hexalobular socket

Drawing





Order information

Dimensions			Ball diameter	WS	Load capacity for static load ¹⁾ max.	Temperature		Weight	Art. No.
d ₁	l ₂	d ₃				min.	max.		
[mm]				[mm]	[kN]	[°C]		[g]	
bearing surface plain, Heat-treated steel									
M 4	5.6	1.8	2.5	2.0	3.5	–	250	0.3	22720.0542
M 4	7.6	1.8	2.5	2.0	3.5	–	250	0.4	22720.0543
M 4	9.6	1.8	2.5	2.0	3.5	–	250	0.6	22720.0544
M 4	11.6	1.8	2.5	2.0	3.5	–	250	0.7	22720.0545
M 4	15.6	1.8	2.5	2.0	3.5	–	250	1.0	22720.0546
M 5	7.5	2.2	3.0	2.5	4.5	–	250	0.6	22720.0552
M 5	9.5	2.2	3.0	2.5	4.5	–	250	0.9	22720.0553
M 5	11.5	2.2	3.0	2.5	4.5	–	250	1.1	22720.0554
M 5	15.5	2.2	3.0	2.5	4.5	–	250	1.6	22720.0555
M 5	19.5	2.2	3.0	2.5	4.5	–	250	2.0	22720.0556
M 5	24.5	2.2	3.0	2.5	4.5	–	250	2.6	22720.0558
M 6	10.0	3.2	4.0	3.0	9.0	–	250	1.3	22720.0562
M 6	12.0	3.2	4.0	3.0	9.0	–	250	1.6	22720.0563
M 6	16.0	3.2	4.0	3.0	9.0	–	250	2.3	22720.0564
M 6	20.0	3.2	4.0	3.0	9.0	–	250	3.0	22720.0565
M 6	25.0	3.2	4.0	3.0	9.0	–	250	3.8	22720.0566
M 8	10.0	4.5	5.5	4.0	15.0	–	250	2.4	22720.0581
M 8	12.0	4.5	5.5	4.0	15.0	–	250	2.8	22720.0582
M 8	16.0	4.5	5.5	4.0	15.0	–	250	4.1	22720.0583



¹⁾ Statements on load capacity are not valid for the stainless steel type (except the type fitted with thermoplastic balls).

d ₁	Dimensions			WS	Load capacity for static load ¹⁾ max.	 min. — max.		 [g]	Art. No.
	l ₂	d ₃	Ball diameter			[°C]			
[mm]			[mm]	[kN]					
M 8	20.0	4.5	5.5	4.0	15.0	–	250	5.1	22720.0584
M 8	25.0	4.5	5.5	4.0	15.0	–	250	6.7	22720.0585
M 8	30.0	4.5	5.5	4.0	15.0	–	250	8.2	22720.0586
M10	12.0	6.0	7.0	5.0	20.0	–	250	4.5	22720.0601
M10	16.0	6.0	7.0	5.0	20.0	–	250	5.9	22720.0602
M10	20.0	6.0	7.0	5.0	20.0	–	250	7.8	22720.0603
M10	25.0	6.0	7.0	5.0	20.0	–	250	10.0	22720.0604
M10	30.0	6.0	7.0	5.0	20.0	–	250	13.0	22720.0605
M10	35.0	6.0	7.0	5.0	20.0	–	250	15.0	22720.0606
M10	40.0	6.0	7.0	5.0	20.0	–	250	18.0	22720.0608
M12	16.0	7.2	8.5	6.0	30.0	–	250	8.8	22720.0621
M12	20.0	7.2	8.5	6.0	30.0	–	250	11.0	22720.0622
M12	25.0	7.2	8.5	6.0	30.0	–	250	14.0	22720.0623
M12	30.0	7.2	8.5	6.0	30.0	–	250	18.0	22720.0624
M12	40.0	7.2	8.5	6.0	30.0	–	250	25.0	22720.0626
M12	50.0	7.2	8.5	6.0	30.0	–	250	32.0	22720.0628
M16	20.0	10.7	12.0	8.0	60.0	–	250	21.0	22720.0661
M16	25.0	10.7	12.0	8.0	60.0	–	250	26.0	22720.0662
M16	35.0	10.7	12.0	8.0	60.0	–	250	40.0	22720.0664
M16	50.0	10.7	12.0	8.0	60.0	–	250	60.0	22720.0666
M20	30.0	13.5	15.0	10.0	90.0	–	250	50.0	22720.0702
M20	40.0	13.5	15.0	10.0	90.0	–	250	71.0	22720.0704
M20	50.0	13.5	15.0	10.0	90.0	–	250	92.0	22720.0705
M20	60.0	13.5	15.0	10.0	90.0	–	250	111.0	22720.0706
M24	35.0	15.8	18.0	12.0	120.0	–	250	85.0	22720.0742
M24	50.0	15.8	18.0	12.0	120.0	–	250	129.0	22720.0744
M24	80.0	15.8	18.0	12.0	120.0	–	250	218.0	22720.0746
bearing surface plain , Stainless steel									
M 4	5.6	1.8	2.5	2.0	3.5	–	250	0.3	22720.0827
M 4	7.6	1.8	2.5	2.0	3.5	–	250	0.4	22720.0828
M 4	9.6	1.8	2.5	2.0	3.5	–	250	0.6	22720.0829
M 4	11.6	1.8	2.5	2.0	3.5	–	250	0.7	22720.0830
M 4	15.6	1.8	2.5	2.0	3.5	–	250	1.0	22720.0832
M 5	7.5	2.2	3.0	2.5	4.5	–	250	0.6	22720.0833
M 5	9.5	2.2	3.0	2.5	4.5	–	250	0.9	22720.0834
M 5	11.5	2.2	3.0	2.5	4.5	–	250	1.1	22720.0835
M 5	15.5	2.2	3.0	2.5	4.5	–	250	1.6	22720.0836
M 5	19.5	2.2	3.0	2.5	4.5	–	250	2.0	22720.0837
M 5	24.5	2.2	3.0	2.5	4.5	–	250	2.6	22720.0838
M 6	10.0	3.2	4.0	3.0	9.0	–	250	1.3	22720.0840
M 6	12.0	3.2	4.0	3.0	9.0	–	250	1.6	22720.0842
M 6	16.0	3.2	4.0	3.0	9.0	–	250	2.3	22720.0844
M 6	20.0	3.2	4.0	3.0	9.0	–	250	3.0	22720.0845
M 6	25.0	3.2	4.0	3.0	9.0	–	250	3.8	22720.0846
M 8	10.0	4.5	5.5	4.0	15.0	–	250	2.4	22720.0850
M 8	12.0	4.5	5.5	4.0	15.0	–	250	2.8	22720.0852
M 8	16.0	4.5	5.5	4.0	15.0	–	250	4.1	22720.0853
M 8	20.0	4.5	5.5	4.0	15.0	–	250	5.1	22720.0854
M 8	25.0	4.5	5.5	4.0	15.0	–	250	6.7	22720.0855
M 8	30.0	4.5	5.5	4.0	15.0	–	250	8.2	22720.0856
M10	12.0	6.0	7.0	5.0	20.0	–	250	4.5	22720.0860
M10	16.0	6.0	7.0	5.0	20.0	–	250	5.9	22720.0862
M10	20.0	6.0	7.0	5.0	20.0	–	250	7.8	22720.0863
M10	25.0	6.0	7.0	5.0	20.0	–	250	10.0	22720.0864
M10	30.0	6.0	7.0	5.0	20.0	–	250	13.0	22720.0865
M10	35.0	6.0	7.0	5.0	20.0	–	250	15.0	22720.0866
M10	40.0	6.0	7.0	5.0	20.0	–	250	18.0	22720.0868
M12	16.0	7.2	8.5	6.0	30.0	–	250	8.8	22720.0870
M12	20.0	7.2	8.5	6.0	30.0	–	250	11.0	22720.0872
M12	25.0	7.2	8.5	6.0	30.0	–	250	14.0	22720.0873

¹⁾ Statements on load capacity are not valid for the stainless steel type (except the type fitted with thermoplastic balls).

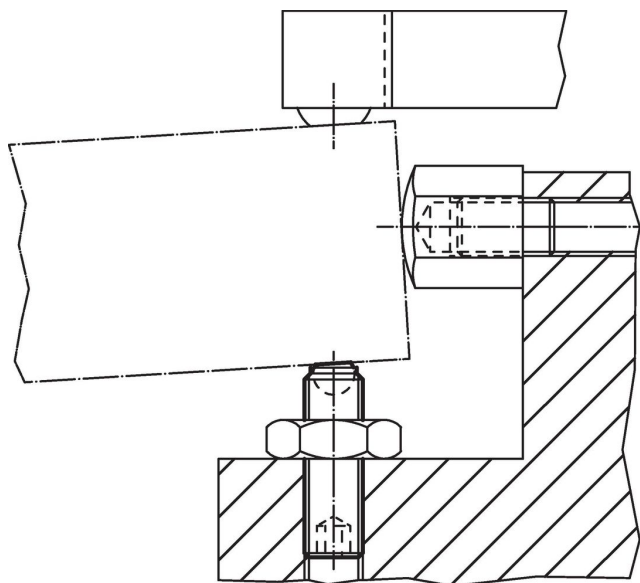
d ₁	Dimensions			WS [mm]	Load capacity for static load ¹⁾ max. [kN]	 min. max. [°C]		 [g]	Art. No.	
	l ₂	d ₃	Ball diameter							
[mm]										
M12	30.0	7.2	8.5	6.0	30.0	-	250	18.0	22720.0874	
M12	40.0	7.2	8.5	6.0	30.0	-	250	25.0	22720.0876	
M12	50.0	7.2	8.5	6.0	30.0	-	250	32.0	22720.0878	
M16	20.0	10.7	12.0	8.0	60.0	-	250	21.0	22720.0880	
M16	25.0	10.7	12.0	8.0	60.0	-	250	26.0	22720.0882	
M16	35.0	10.7	12.0	8.0	60.0	-	250	40.0	22720.0884	
M16	50.0	10.7	12.0	8.0	60.0	-	250	60.0	22720.0886	
flat-faced ball from thermoplastic, bearing surface plain (protected against rotating), Heat-treated steel										
M 4	5.9	1.8	2.5	2.0	0.3	-30	80	0.4	22720.0452	
M 4	7.9	1.8	2.5	2.0	0.3	-30	80	0.3	22720.0453	
M 4	9.9	1.8	2.5	2.0	0.3	-30	80	0.5	22720.0454	
M 4	11.9	1.8	2.5	2.0	0.3	-30	80	0.7	22720.0455	
M 4	15.9	1.8	2.5	2.0	0.3	-30	80	0.9	22720.0456	
M 5	7.8	2.1	3.0	2.5	0.5	-30	80	0.6	22720.0462	
M 5	9.8	2.1	3.0	2.5	0.5	-30	80	0.8	22720.0463	
M 5	11.8	2.1	3.0	2.5	0.5	-30	80	1.0	22720.0464	
M 5	15.8	2.1	3.0	2.5	0.5	-30	80	1.5	22720.0465	
M 5	19.8	2.1	3.0	2.5	0.5	-30	80	1.9	22720.0466	
M 5	24.8	2.1	3.0	2.5	0.5	-30	80	2.5	22720.0467	
M 6	10.3	3.0	4.0	3.0	0.9	-30	80	1.1	22720.0472	
M 6	12.3	3.0	4.0	3.0	0.9	-30	80	1.4	22720.0473	
M 6	16.3	3.0	4.0	3.0	0.9	-30	80	2.1	22720.0474	
M 6	20.3	3.0	4.0	3.0	0.9	-30	80	2.8	22720.0475	
M 6	25.3	3.0	4.0	3.0	0.9	-30	80	3.6	22720.0476	
M 8	10.4	4.2	5.5	4.0	1.5	-30	80	1.9	22720.0482	
M 8	12.4	4.2	5.5	4.0	1.5	-30	80	2.3	22720.0483	
M 8	16.4	4.2	5.5	4.0	1.5	-30	80	3.4	22720.0484	
M 8	20.4	4.2	5.5	4.0	1.5	-30	80	4.6	22720.0485	
M 8	25.4	4.2	5.5	4.0	1.5	-30	80	6.2	22720.0486	
M 8	30.4	4.2	5.5	4.0	1.5	-30	80	7.8	22720.0487	
flat-faced ball from thermoplastic, bearing surface plain (protected against rotating), Stainless steel										
M 4	5.9	1.8	2.5	2.0	0.3	-30	80	0.4	22720.0492	
M 4	7.9	1.8	2.5	2.0	0.3	-30	80	0.3	22720.0493	
M 4	9.9	1.8	2.5	2.0	0.3	-30	80	0.5	22720.0494	
M 4	11.9	1.8	2.5	2.0	0.3	-30	80	0.7	22720.0495	
M 4	15.9	1.8	2.5	2.0	0.3	-30	80	0.9	22720.0496	
M 5	7.8	2.1	3.0	2.5	0.5	-30	80	0.6	22720.0502	
M 5	9.8	2.1	3.0	2.5	0.5	-30	80	0.8	22720.0503	
M 5	11.8	2.1	3.0	2.5	0.5	-30	80	1.0	22720.0504	
M 5	15.8	2.1	3.0	2.5	0.5	-30	80	1.5	22720.0505	
M 5	19.8	2.1	3.0	2.5	0.5	-30	80	1.9	22720.0506	
M 5	24.8	2.1	3.0	2.5	0.5	-30	80	2.5	22720.0507	
M 6	10.3	3.0	4.0	3.0	0.9	-30	80	1.1	22720.0512	
M 6	12.3	3.0	4.0	3.0	0.9	-30	80	1.4	22720.0513	
M 6	16.3	3.0	4.0	3.0	0.9	-30	80	2.1	22720.0514	
M 6	20.3	3.0	4.0	3.0	0.9	-30	80	2.8	22720.0515	
M 6	25.3	3.0	4.0	3.0	0.9	-30	80	3.6	22720.0516	
M 8	10.4	4.2	5.5	4.0	1.5	-30	80	1.9	22720.0522	
M 8	12.4	4.2	5.5	4.0	1.5	-30	80	2.3	22720.0523	
M 8	16.4	4.2	5.5	4.0	1.5	-30	80	3.4	22720.0524	
M 8	20.4	4.2	5.5	4.0	1.5	-30	80	4.6	22720.0525	
M 8	25.4	4.2	5.5	4.0	1.5	-30	80	6.2	22720.0526	
M 8	30.4	4.2	5.5	4.0	1.5	-30	80	7.8	22720.0527	
bearing surface ribbed, Heat-treated steel										
M 8	10.0	4.5	5.5	4.0	15.0	-	250	2.4	22720.0891	
M 8	12.0	4.5	5.5	4.0	15.0	-	250	2.7	22720.0892	
M 8	16.0	4.5	5.5	4.0	15.0	-	250	3.9	22720.0893	
M 8	20.0	4.5	5.5	4.0	15.0	-	250	5.1	22720.0894	
M 8	25.0	4.5	5.5	4.0	15.0	-	250	6.7	22720.0895	
M 8	30.0	4.5	5.5	4.0	15.0	-	250	8.2	22720.0896	

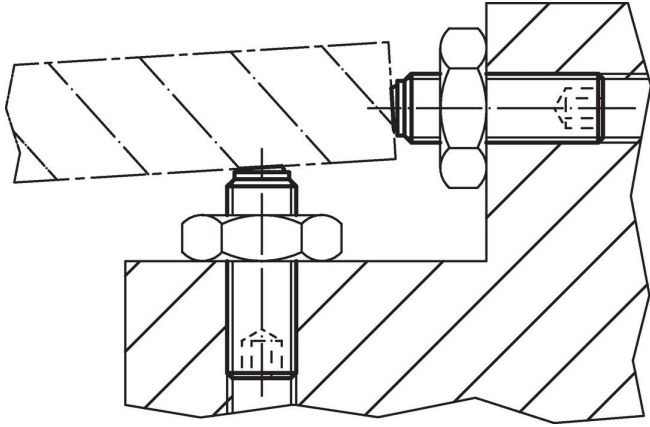
¹⁾ Statements on load capacity are not valid for the stainless steel type (except the type fitted with thermoplastic balls).

d ₁	Dimensions			WS [mm]	Load capacity for static load ¹⁾ max. [kN]	 min. max. [°C]		 [g]	Art. No.
	l ₂	d ₃	Ball diameter						
	[mm]								
M10	12.0	6.0	7.0	5.0	20.0	–	250	4.5	22720.0901
M10	16.0	6.0	7.0	5.0	20.0	–	250	5.8	22720.0902
M10	20.0	6.0	7.0	5.0	20.0	–	250	7.7	22720.0903
M10	25.0	6.0	7.0	5.0	20.0	–	250	10.0	22720.0904
M10	30.0	6.0	7.0	5.0	20.0	–	250	13.0	22720.0905
M10	35.0	6.0	7.0	5.0	20.0	–	250	15.0	22720.0906
M10	40.0	6.0	7.0	5.0	20.0	–	250	17.0	22720.0908
M12	16.0	7.2	8.5	6.0	30.0	–	250	8.8	22720.0921
M12	20.0	7.2	8.5	6.0	30.0	–	250	10.0	22720.0922
M12	25.0	7.2	8.5	6.0	30.0	–	250	14.0	22720.0923
M12	30.0	7.2	8.5	6.0	30.0	–	250	18.0	22720.0924
M12	40.0	7.2	8.5	6.0	30.0	–	250	25.0	22720.0926
M12	50.0	7.2	8.5	6.0	30.0	–	250	32.0	22720.0928
M16	20.0	10.7	12.0	8.0	60.0	–	250	21.0	22720.0961
M16	25.0	10.7	12.0	8.0	60.0	–	250	26.0	22720.0962
M16	35.0	10.7	12.0	8.0	60.0	–	250	40.0	22720.0964
M16	50.0	10.7	12.0	8.0	60.0	–	250	60.0	22720.0966
M20	30.0	13.5	15.0	10.0	90.0	–	250	49.0	22720.0972
M20	40.0	13.5	15.0	10.0	90.0	–	250	70.0	22720.0974
M20	50.0	13.5	15.0	10.0	90.0	–	250	91.0	22720.0975
M20	60.0	13.5	15.0	10.0	90.0	–	250	111.0	22720.0976
M24	35.0	15.8	18.0	12.0	120.0	–	250	84.0	22720.0982
M24	50.0	15.8	18.0	12.0	120.0	–	250	125.0	22720.0984
M24	80.0	15.8	18.0	12.0	120.0	–	250	217.0	22720.0986

¹⁾ Statements on load capacity are not valid for the stainless steel type (except the type fitted with thermoplastic balls).

Application example





Compliance

For detailed compliance information please select the desired article number.