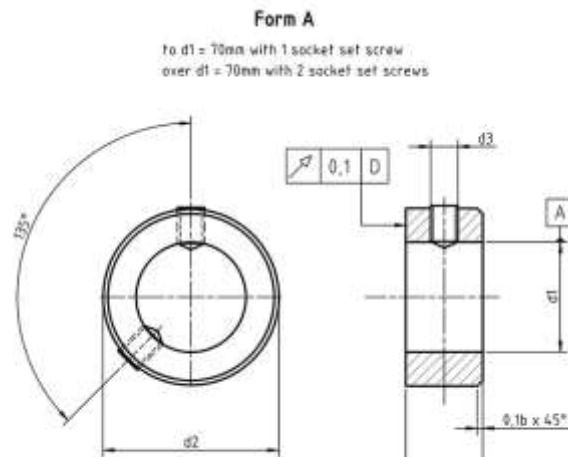


Metric DIN 705 Adjusting Ring (Shaft Collar) with Set Screws

Visit our [online store](#) for product availability



Dimensions of Metric DIN 705

d1 H8		b	d2	d3	d4	Set screw	optional		Weight (7.85 kg/dm ³) pieces in kg per Piece	
Series 1	Series 2	js14	h13		h11		notch pin	taper pin	Form A	Form B.C
2		3.5	6	M2	0.6	M2x3	-	0.6x6	0.069	0.065
2.5		4	7	M2	0.8	M2x3	-	0.8x6	0.105	0.096
3		5	7	M2	0.8	M2x3	-	0.8x6	0.123	0.115
	3.5	5	8	M2.5	1	M2.5x3	-	1x8	0.162	0.155
4		5	8	M2.5	1	M2.5x3	-	1x8	0.152	0.145
	4.5	6	10	M3	1.5	M3x4	1.5x10	1.5x10	0.296	0.289
5		6	10	M3	1.5	M3x10	1.5x10	1.5x10	0.28	0.273
	5.5	6	12	M4	1.5	M4x5	1.5x12	1.2x12	0.432	0.414
6		8	12	M4	1.5	M4x12	1.2x12	1.5x12	0.548	0.526
	7	8	12	M4	1.5	M4x5	1.5x12	1.5x12	0.488	0.464
8		8	16	M4	2	M4x6	2x16	2x16	0.94	0.92
10		10	20	M5	3	M5x8	3x20	3x20	1.85	1.8

cont...

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d1 H8		b	d2	d3	d4	Set screw	optional		Weight (7.85 kg/dm ³) pieces in kg per Piece	
Series 1	Series 2	js14	h13		h11		notch pin	taper pin	Form A	Form B.C
12		12	22	M6	4	M6x8	4x22	4x20	2.52	2.44
14		12	25	M6	4	M6x8	4x24	4x24	3.17	3.09
	15	12	25	M6	4	M6x8	4x24	4x24	2.98	2.88
16		12	28	M6	4	M6x8	4x26	4x26	3.84	3.76
18		14	32	M6	5	M6x8	5x32	5x30	6	5.84
20		14	32	M6	5	M6x8	5x32	5x30	5.3	5.2
22		16	36	M6	5	M6x10	5x36	5x36	6.9	6.79
	24	16	40	M8	6	M8x12	6x40	6x40	10	9.8
25		16	40	M8	6	M8x10	6x40	6x40	9.56	9.32
	26	16	40	M8	6	M8x10	6x40	6x40	9.05	8.83
28		16	45	M8	6	M8x12	6x45	6x45	12.2	11.9
	30	16	45	M8	6	M8x10	6x45	6x45	11.1	10.8
32		16	50	M8	8	M8x12	8x50	8x50	14.5	14
	35	16	56	M8	8	M8x12	8x55	8x55	18.7	18.2
36		16	56	M8	8	M8x12	8x55	8x55	18	17.6

Metric DIN 705 adjusting ring / shaft collar with set screws are solid rings placed on a shaft and held in place with a single or multiple set screws tightened against the shaft. They are often used as mechanical stops on shafts or to space or attach components to axles/shafts and are most effective when the shaft is softer than the set screw. Diameters ranging from M3 to M10 are available. View available parts by clicking on the following link: [Metric DIN 705 adjusting ring / shaft collar with set screws](#)

DIN (**D**eutsches **I**nstitut für **N**ormung - German Institute for Standardization) standards are issued for a variety of components including industrial fasteners as Metric DIN 705 adjusting ring / shaft collar with set screws. The DIN standards remain common in Germany, Europe and globally even though the transition to ISO standards is taking place. DIN standards continue to be used for parts which do not have ISO equivalents or for which there is no need for standardization.

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1) Mechanical properties of stainless steel for metric DIN 705 adjusting ring / shaft collar with set screws

Stainless steels can be divided into three groups of steel - austenitic, ferritic and martensitic. Austenitic steel is by far the most common type (>90% of commercial fasteners). The steel groups and strength classes are designated by a four-digit sequence of letters and numbers (eg A2-70) as shown in the following table. DIN EN ISO 3506 governs screws and nuts made from stainless steel.

Steel group	Steel grade	Strength class	Screws, Nuts and Bolts			
			Tensile strength N/mm ²	Tensile strength PSI	Dia range	Nut Load N/mm ²
Austenitic	A2 and A4	50	500	70,000	<=M39	500
		70	700	100,000	<=M20	700
		80	800	118,000	<=M20	800

The tensile stress is calculated with reference to the tensile stress area (see DIN EN ISO 3506-1979). Nuts to be paired with same grade of stainless steel screws

Steel group	Property Strength class	Made From	Characteristics
Austenitic	50	A1, A2	Soft; cold worked, turned and soft pressed fasteners
	70	A2, A4	Cold worked, normal strength formed fasteners
	80	A2, A4	Extreme cold worked, high strength, special applications

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2) Chemical composition of stainless steel metric DIN 705 adjusting ring / shaft collar with set screws

Grade	USA Grade	Material designation	Material no.	C %	Si ≤ %	Mn ≤ %	Cr %	Mo %	Ni %
A 2	304	X 5Cr Ni 1810	1.4301	≤ 0.07	1.0	2.0	17.5 to 19.5	-	8.0 to 10.5
		X 2 Cr Ni 1811	1.4306	≤ 0.03	1.0	2.0	18.0 to 20.0	-	10 to 12.0
		X 8 Cr Ni 19/10	1.4303	≤ 0.07	1.0	2.0	17.0 to 19.0	-	11.0 to 13.0
A 4	316	X 5 Cr Ni Mo 1712	1.4401	≤ 0.07	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10.0 to 13.0
		X 2 Cr Ni Mo 1712	1.4404	≤ 0.03	1.0	2.0	16.5 to 18.5	2.0 to 2.5	10 to 13

3) Chemical composition of steel metric DIN 705 adjusting ring / shaft collar with set screws

PROPERTY CLASS	MATERIAL AND TREATMENT	CHEMICAL COMPOSITION LIMITS %				TEMPERING TEMP °C MIN.
		C		P	S	
		min.	max.	max.	max.	
4.6, 4.8, 5.8, 6.8	Low or medium carbon steel	-	0.55	0.05	0.06	-
8.8	Medium carbon steel quenched, tempered	0.25	0.55	0.04	0.05	425
9.8	Medium carbon steel quenched, tempered	0.25	0.55	0.04	0.05	425
10.9	Medium carbon steel additives e.g. boron, Mn, Cr or Alloy steel - quenched, tempered	0.20	0.55	0.04	0.05	425
12.9	Alloy steel - quenched, tempered	0.20	0.50	0.035	0.035	380

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4) Mechanical properties of steel for metric DIN 705 adjusting ring / shaft collar with set screws

MECHANICAL PROPERTY		PROPERTY CLASS									
		4.8	5.6	5.8	6.8	8.8		9.8	10.9	12.9	
						Up to M 16	Over M 16				
Tensile Strength (Rm, N/mm ²)	nom.	400	500		600	800		900	1000	1200	
	min.	420	500	520	600	800	830	900	1040	1220	
Vickers Hardness	min.	130	155	160	190	250	255	290	320	385	
	max.	250				320	336	360	380	435	
Brinell Hardness	min.	124	147	152	181	319	242	266	295	353	
	max.	238				385	319	342	363	412	
Rockwell Hardness	min. HR	71	79	82	89	-					
	HRC	-	-	-	-	20	23	28	32	39	
	HR	95				99	-				
	max. HRC	-	-	-	-	32	34	37	39	44	
Yield Stress ReL. N/mm ²	nom.	320	300	400	480	-					
	min.	340	300	420	480	-					
Stress at permanent set limit N/mm ²	nom.	-				640		720	900	1080	
	min.	-				640	660	720	940	1100	

5) Metric DIN 705 adjusting ring / shaft collar with set screws available at Aspen Fasteners

(click to view available sizes and prices)



Stainless Steel

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Disclaimer

Dimensional data and technical information for Metric DIN 705 adjusting ring / shaft collar with set screws was obtained from publicly available sources and not acquired through standards agencies. It has been completed and compiled for reference purposes only; where discrepancies are found they are subject to change without notice. Aspen Fasteners makes no warranties or representations regarding the accuracy and validity of the compiled information and data. Contact the relevant standards authorities for accurate and detailed information.

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