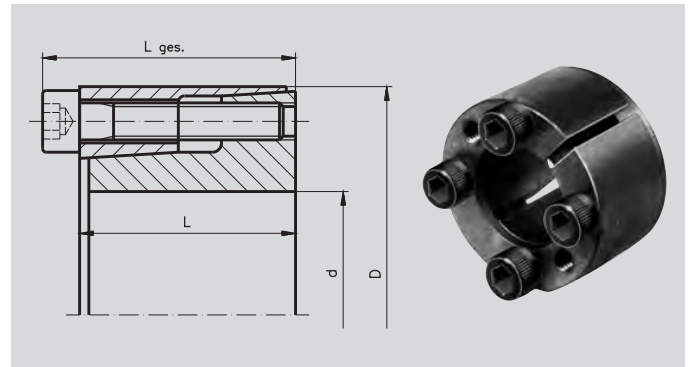


Clamping Sets BAR

Material: 11SMnPb37.

- For fixing a hub (e.g. drive wheel, rotor or similar) on a shaft.
- For medium torques.
- Self-centering.
- Slight axial offset possible during assembly.



Ordering Details: e.g.: Product No. 615 405 00, Clamping Set BAR 5 mm

Product No.	d mm	D mm	L mm	L ges. mm	At M_A transmittable		Surface Pressure at Shaft		Pressure at Hub		Tensioning Screw DIN 912-12.9		Weight kg
					M_t Nm	F_{ax} kN	P_W N/mm ²	P_N N/mm ²	Size	Fastening Torque M_A [Nm]	Amount		
615 405 00	5	16	11	13.5	6	2	150	55	M 2.5 x 10	1.2	3	0.012	
615 406 00	6	16	11	13.5	6	2	150	55	M 2.5 x 10	1.2	3	0.012	
615 406 35	6.35	16	11	13.5	6	2	140	55	M 2.5 x 10	1.2	3	0.012	
615 407 00	7	17	11	13.5	8	2	125	55	M 2.5 x 10	1.2	3	0.013	
615 408 00	8	18	11	13.5	10	2.5	110	50	M 2.5 x 10	1.2	3	0.015	
615 409 00	9	20	13	15.5	15	3	120	55	M 2.5 x 12	1.2	4	0.020	
615 409 53	9.53	20	13	15.5	15	3	110	55	M 2.5 x 12	1.2	4	0.020	
615 410 00	10	20	13	15.5	15	3	110	55	M 2.5 x 12	1.2	4	0.019	
615 411 00	11	22	13	15.5	18	3	100	50	M 2.5 x 12	1.2	4	0.024	
615 412 00	12	22	13	15.5	20	3	90	50	M 2.5 x 12	1.2	4	0.022	
615 414 00	14	26	17	20	35	5	105	55	M 3 x 16	2.1	4	0.039	
615 415 00	15	28	17	20	40	5	100	50	M 3 x 16	2.1	4	0.044	
615 416 00	16	32	17	21	70	8	130	65	M 4 x 16	4.9	4	0.067	
615 417 00	17	35	21	25	75	8	120	60	M 4 x 20	4.9	4	0.090	
615 418 00	18	35	21	25	80	8	115	60	M 4 x 20	4.9	4	0.087	
615 419 00	19	35	21	25	85	8	110	60	M 4 x 20	4.9	4	0.083	
615 420 00	20	38	21	26	150	15	140	75	M 5 x 20	9.7	4	0.100	
615 422 00	22	40	21	26	160	14	130	70	M 5 x 20	9.7	4	0.110	
615 424 00	24	47	26	32	250	20	140	75	M 6 x 25	16.5	4	0.200	
615 425 00	25	47	26	32	260	20	135	75	M 6 x 25	16.5	4	0.190	
615 428 00	28	50	26	32	440	30	185	100	M 6 x 25	16.5	6	0.220	
615 430 00	30	55	26	32	470	30	175	95	M 6 x 25	16.5	6	0.270	
615 432 00	32	55	26	32	500	30	165	95	M 6 x 25	16.5	6	0.250	
615 435 00	35	60	31	37	730	40	165	95	M 6 x 30	16.5	8	0.360	
615 438 00	38	65	31	37	800	40	155	90	M 6 x 30	16.5	8	0.430	
615 440 00	40	65	31	37	840	40	145	90	M 6 x 30	16.5	8	0.400	
615 442 00	42	75	36	44	1200	55	165	90	M 8 x 35	40	6	0.670	
615 445 00	45	75	36	44	1300	55	155	90	M 8 x 35	40	6	0.630	
615 448 00	48	80	36	44	1850	75	195	115	M 8 x 35	40	8	0.740	
615 450 00	50	80	36	44	1900	75	185	115	M 8 x 35	40	8	0.700	

Fit, Surface

Due to the special design of the BAR clamping set even rough fits can be bridged with excellent self centering capacity.

Shaft and hub up to Quality h9/H9.

Surface finish for shaft and hub < 12µm.

Mounting

Slightly oil the clamping set before mounting, do not use molybdenum disulphide or fat. Tighten the screws evenly and crosswise in several steps.

Important

The clamping set has to sit inside the bore by at least the measure „L“.

Demounting

Loosen the screws crosswise.

Simple design

Ideal load distribution
among shaft and hub

Large clamping area

Very good centering capacity
and concentricity

No special tools
No self-locking capacity

cost efficient

middle transmittable
torque

shaft and hub up to
quality h9/H9

shaft and hub without
special concentricity toler-
ance

simple mounting
trouble-free demounting

Hub Calculation

$$D_N \geq D \cdot \sqrt{\frac{\sigma_{N 0.2} + P_N \cdot C}{\sigma_{N 0.2} - P_N \cdot C}}$$

D_N = hub diameter in mm

$\sigma_{N 0.2}$ = elastic limit of the hub material = 350 N/mm² for C45

C = 0.6 at hub width 2 x L

C = 1.0 at hub width 1 x L

Please take D , P_N and L from the table