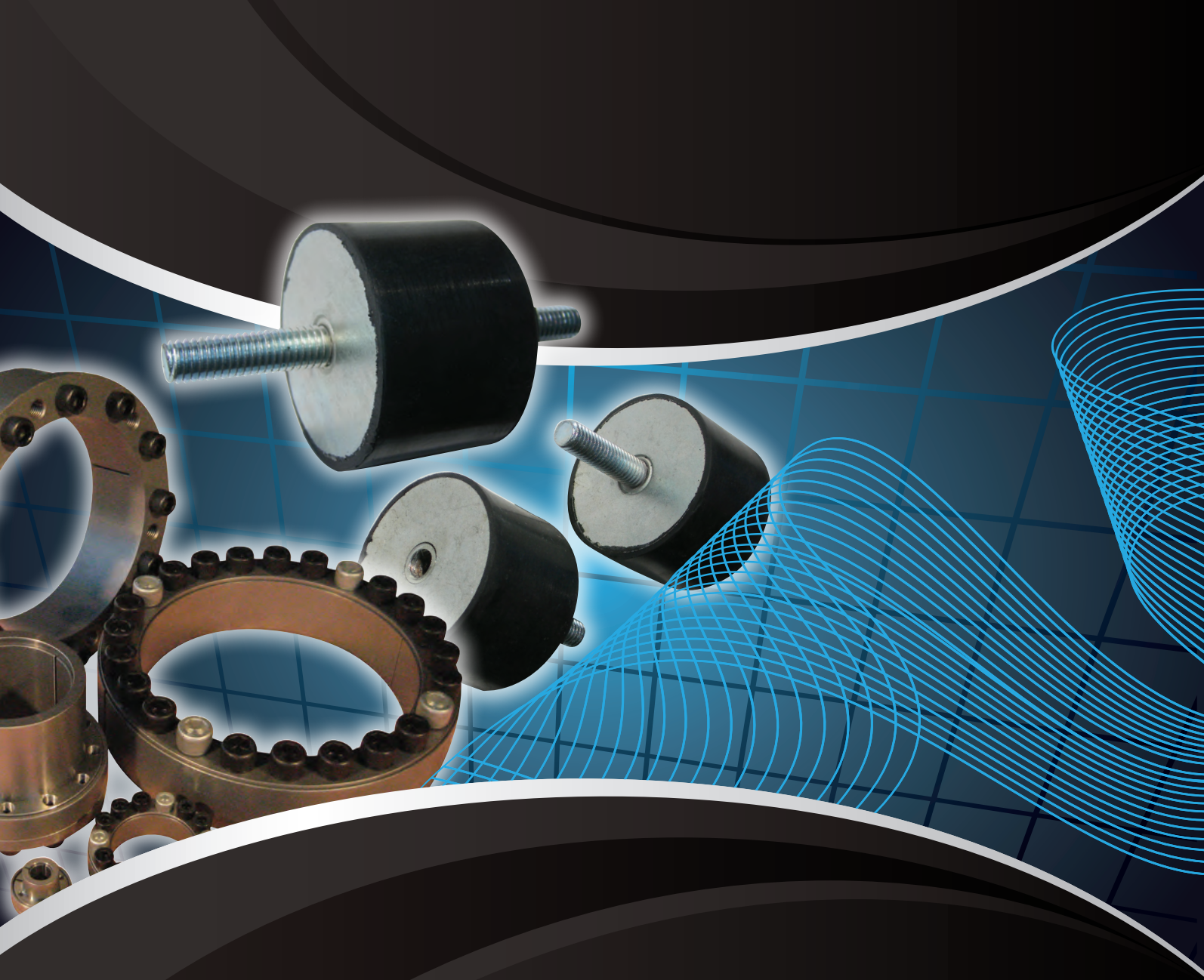


Assortment

Finer Power Transmissions™

Contents

Finer Power Transmissions™

"Why compete against your supplier when you can be our partner"

ASSORTMENT

Chain Tensioners.....14

see Chains section for details

Anti-Vibration Mounts.....224

Key Steel 225

Motor Rails.....226

Self Locking Units.....227

(Type-01).....227

(Type-07).....228

(Type-02).....229

Shaft Collars.....230

Taper Lock Bushes.....231

(metric).....232

(imperial).....233

Torque Limiters 234

Universal Joints.....236

Weld on Hub 237

Anti Vibration Mounts

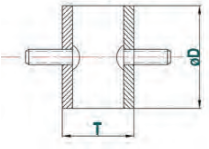
Size/ Part No.	Shore Hardness	Type	Max Compressive Load(kg)	STATIC DEFL (mm)	Thread Size	Bolt/Nut
F 13x13	A	1	4.5	1	3/16"BSW x13L	3/16"BSW x4 Deep
F 16x13	A	3	4.1	1	1/4"BSW x19L	1/4"BSW x6 Deep
F 16x15	A	1	4.1	1	M5x0.8P x12L	M5x0.8P x5 Deep
		2	4.3	1		
		3	4.5	1		
F 19x19	A	1	17	3	M6x1P x18L	M6x1P x6 Deep
	B	2	28	3		
F 20x20	C	1	55	4	M6x1P x15L	M6x1P x5 Deep
		2	55	4		
		3	55	4		
F 20x25	A	1	9.8	3	M6x1P x18L	M6x1P x6 Deep
	B	2	18	3		
	C	3	30	3		
F 25x20	A	1	33.8	3.5	M6x1P x13L	M6x1P x6 Deep
	B	2	55	3.5		
	C	3	80	3.5		
F 25x22	A	2	33.8	3	M8x1.25P x20L	M8x1.25P x6 Deep
F 25x30	A	1	13.8	3	M8x1.25P x18L	M8x1.25P x7 Deep
	B	2	23	3		
	C	3	32	3		
F 30x22	A	1	46	3.5	M8x1.25P x23L	M8x1.25P x7 Deep
		2	46	3.5		
F 30x30	A	1	21	3	M8x1.25P x23L	M8x1.25P x7 Deep
		2	23	3		
		3	23	3		
F 35x25	A	1	15	1.5	M10x1.5P x38L	M10x1.5P x10 Deep
	B	2	27	1.5		
	C		51	1.5		
F 38x25	A	1	65	4	M8x1.25P x18L	M8x1.25P x7 Deep
	B	2	127	4		
	C	3	165	4		
F 38x38	A	1	61	6	M8x1.25P x18L	M8x1.25P x7 Deep
	B		78	6		
	C		100	6		
F 40x30	B	1	108	5	M8x1.25P x23L	M8x1.25P x7 Deep
		2	108	5		
		3	108	5		
F 40x40	A	1	65	6	M10x1.5P x38L	M10x1.5P x10 Deep
	B	2	93	6		
	C	3	132	6		
F 50x40	A	1	83	5	M10x1.5P x22L	M10x1.5P x12 Deep
	B	2	149	5		
	C		204	5		

Size/ Part No.	Shore Hardness	Type	Max Compressive Load(kg)	STATIC DEFL (mm)	Thread Size	Bolt/Nut
F 50x45	B	1	151	7	M10x1.5P x25L	M10x1.5P x12 Deep
F 50x50	A	1	71.5	7	M10x1.5P x22L	M10x1.5P x12 Deep
	B	2	132	7		
	C	3	202	7		
F 55x38	A	1	55	3	M10x1.5P x32L	M10x1.5P x12 Deep
	B	2	89	3		
	C		122	3		
F 60x50	A	1	112	6.5	M12x1.75P x27L	M12x1.75P x15 Deep
	B	2	201	6.5		
	C	3	285	6.5		
F 75x55	A	1	178	6	M12x1.75P x37L	M12x1.75P x15 Deep
	B	2	292	6		
	C	3	443	6		
F 80x60	A	1	230	8	M12x1.75P x30L	M12x1.75P x20 Deep
	B	2	352	8		
	C	3	505	8		
F 100x 55	A	1	324	6	M16x2P x43L	M16x2P x20 Deep
		2	324	6		
		3	324	6		

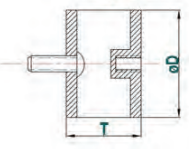
Shore Hardness	
A	40.50
B	55.65
C	65.75

Method of Ordering				
F	25	30	A	2
F	D	T	Shore Hardness	Type

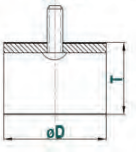
Type 1



Type 2



Type 3

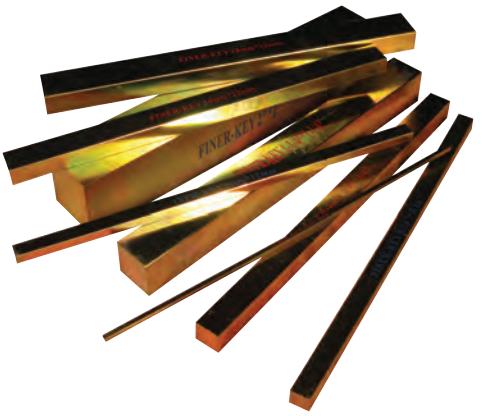


Key Steel

Finer Power Transmissions carries a wide range of Key Steel in both Metric and Imperial Sizes. Individual pieces are clearly marked for quick identification.

Specifically manufactured from steel designed for keyways, it can be used in situations where a shaft has a keyed drive running off it.

Finer Key Steel is fully zinc coated to further protect it from environmental factors.



IMPERIAL

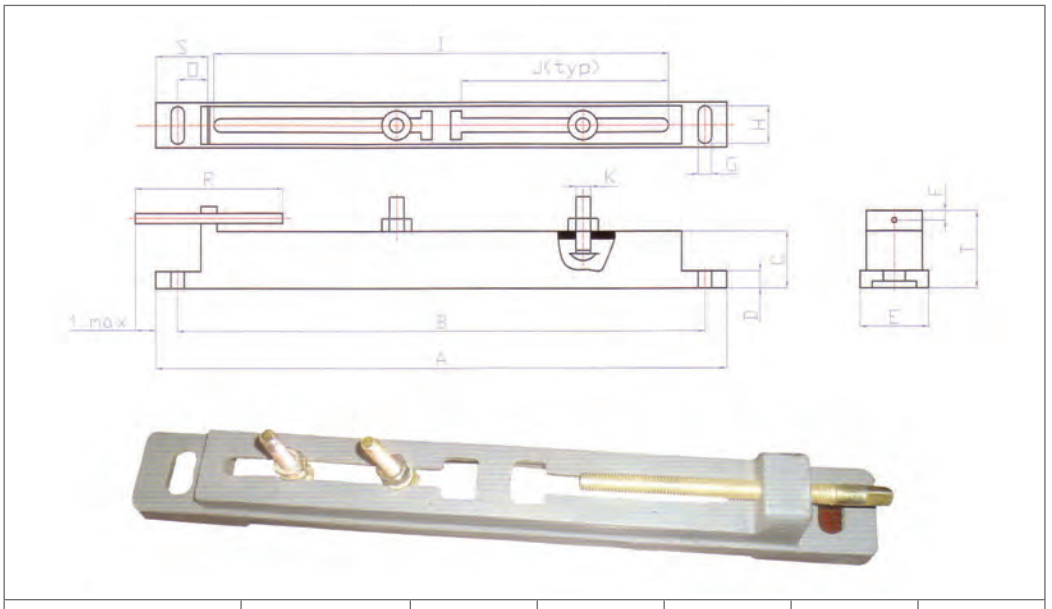
Size	App. Kg
1/8 x 1/8	0.02
3/16 x 3/16	0.05
3/16 x 1/4	0.07
1/4 x 1/4	0.10
1/4 x 5/16	0.12
1/4 x 3/8	0.14
5/16 x 5/16	0.15
5/16 x 3/8	0.18
5/16 x 7/16	0.21
5/16 x 1/2	0.24
3/8 x 3/8	0.22
3/8 x 1/2	0.29
7/16 x 7/16	0.30
7/16 x 1/2	0.34
7/16 x 5/8	0.42
1/2 x 1/2	0.39
1/2 x 5/8	0.48
1/2 x 3/4	0.58
9/16 x 9/16	0.49
5/8 x 5/8	0.60
5/8 x 3/4	0.72
5/8 x 7/8	0.84
3/4 x 3/4	0.87
3/4 x 1	1.16
7/8 x 7/8	1.18
7/8 x 1-1/4	1.69
1 x 1	1.00
1-1/8 x 1-1/8	1.95
1 x 1-1/2	2.32
1-1/4 x 1-1/4	2.41
1-1/2 x 1-1/2	3.47
1-3/4 x 1-3/4	4.73
2 x 2	6.17

METRIC

Size	App. Kg
4 x 4mm	0.04
5 x 5mm	0.06
6 x 6mm	0.08
7 x 7mm	0.13
7 x 8mm	0.13
8 x 8mm	0.15
8 x 10mm	0.19
8 x 12mm	0.23
9 x 14mm	0.30
10 x 10mm	0.24
10 x 12mm	0.28
10 x 16mm	0.38
11 x 18mm	0.47
12 x 12mm	0.34
12 x 20mm	0.57
14 x 14mm	0.46
14 x 22mm	0.73
14 x 25mm	0.82
16 x 16mm	0.60
16 x 28mm	1.06
18 x 18mm	0.76
18 x 32mm	1.36
20 x 20mm	0.94
20 x 36mm	1.70
22 x 22mm	1.14
25 x 25mm	OA
22 x 40mm	2.07

Supplied in 30cm/12" lengths.

Motor Rail

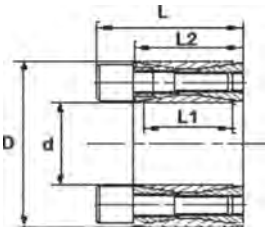


Frame Size	MR08090	MR100132	MR160180	MR220225	MR250280	MR315355
A	380	475	567	790	945	1220
B	328	425	515	780	870	1115
C	30	37	48	60	70	125
D	15	19	19	32	38	40
E	48	70	72	92	105	122
F	10	10	11	18	16	22
G	15	14	18	20	21	30
H	25	35	35	20	21	30
I	245	340	380	610	725	920
J	95	150	162	285	305	420
K	8	10	12	16	20	24
M	75	135	115	200	240	285
N	25	26	28	30	35	50
O	40	42	57	60	70	105
R	145	200	200	290	380	450
S	65	68	85	90	105	155
T	50	62	70	92	110	170
Weight KGS	3	8.5	10	22	40	105

Self Locking Units (Type-01)

Locking Assemblies provide reliable, high strength keyless connections by converting locking screw clamp loads into radial contact pressures applied simultaneously to both the shaft and the bore of the mounted component. The resulting zero-backlash mechanical interference fit will accommodate high torque, thrust, bending and/or radial loads, and unlike other mounting technologies will never wear or pound out, even for high cycle fluctuating or reversing loads.

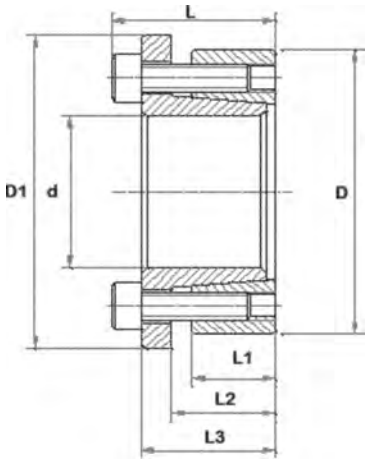
Locking Assemblies provide reliable, high strength keyless connections for shaft driven devices. When the Locking Units bolts are tightened plates engage with both the shaft and the inside circumference of the driven component. The locking assembly distributes the applied pressure evenly. No keyways or grubscrews are required with this device.



Dimensions					Performance		Pressure		Clamping Screws DIN912-12.9		
Φd	ΦD	L1	L2	L	Transmissible Torque KN	Transmissible Axial Force Nm	Shaft Surface Pressure N/mm2	Hub Surface Pressure N/mm2	No.	Size	Screws Tightening Torque Nm
20	47	17	20	26	31	313	272	116	8	M6x18	14.9
25	50	17	20	26	35	441	245	123	9	M6x18	14.9
30	55	17	20	26	39	588	227	124	10	M6x18	14.9
35	60	17	20	26	47	822	233	136	12	M6x18	14.9
38	65	17	20	26	55	1042	250	146	14	M6x18	14.9
40	65	17	20	26	55	1097	238	146	14	M6x18	14.9
45	75	20	24	32	83	1864	271	163	12	M8x22	35
48	80	20	24	32	83	1988	254	153	12	M8x22	35
50	80	20	24	32	83	2071	244	153	12	M8x22	35
55	85	20	24	32	97	2658	259	168	14	M8x22	35
60	90	20	24	32	97	2900	238	158	14	M8x22	35
65	95	20	24	32	110	3587	250	171	16	M8x22	35
70	110	24	28	38	153	5345	268	171	14	M10x25	69
75	115	24	28	38	153	5727	250	163	14	M10x25	69
80	120	24	28	38	153	6108	235	156	14	M10x25	69
85	125	24	28	38	175	7417	252	172	16	M10x25	69
90	130	24	28	38	175	7854	238	165	16	M10x25	69
95	135	24	28	38	196	9326	254	179	18	M10x25	69
100	145	26	33	45	227	11362	258	178	14	M12x30	123.3
110	155	26	33	45	227	12498	234	166	14	M12x30	123.3
120	165	26	33	45	260	15578	245	178	16	M12x30	123.3
130	180	34	38	50	325	21095	217	156	20	M12x35	123.3
140	190	34	38	50	357	24993	221	163	22	M12x35	123.3
150	200	34	38	50	390	29217	225	169	24	M12x35	123.3
160	210	34	38	50	422	33756	229	174	26	M12x35	123.3
170	225	38	44	58	465	39483	212	160	22	M14x40	187
180	235	38	44	58	507	45606	218	167	24	M14x40	187
190	250	46	52	66	591	56163	199	152	28	M14x45	187
200	260	46	52	66	633	63342	203	156	30	M14x45	187
210	275	OA	OA	OA					OA		
220	285	50	56	72	745	81960	200	154	26	M16X50	290
240	305	50	56	72	860	103162	211	166	30	M16X50	290
250	315	OA	OA	OA					OA		

Self Locking Units (Type-07)
(Self Centering)

Dimensions							Transmissible Torque KN	Transmissible Axial Force Nm	Pressure		Clamping Screws DIN912-12.9		
Φd	ΦD	ΦD1	L1	L2	L3	L			Shaft Surface Pressure N/mm²	Hub Surface Pressure N/mm²	No.	Size	Screws Tightening Torque Nm
20	47	56	17	22	28	34	26	256	222	94	5	M6x20	17
25	50	59	17	22	28	34	31	383	213	106	6	M6x20	17
30	55	64	17	22	28	34	31	460	177	97	6	M6x20	17
35	60	69	17	22	28	34	41	716	203	118	8	M6x20	17
38	65	74	17	22	28	34	41	778	187	109	8	M6x20	17
40	65	74	17	22	28	34	41	819	178	109	8	M6x20	17
45	75	84	20	25	33	41	65	1458	212	127	7	M8x25	41
48	80	OA	OA	OA	OA	OA							
50	80	89	20	25	33	41	65	1620	191	119	7	M8x25	41
55	85	94	20	25	33	41	74	2037	199	129	8	M8x25	41
60	90	99	20	25	33	41	74	2223	182	121	8	M8x25	41
65	95	104	20	25	33	41	83	2710	189	129	9	M8x25	41
70	110	119	24	30	40	50	120	4203	211	134	8	M10x30	83
75	115	124	24	30	40	50	120	4754	197	128	8	M10x30	83
80	120	129	24	30	40	50	120	4804	184	123	8	M10x30	83
85	125	134	24	30	40	50	135	5742	195	133	9	M10x30	83
90	130	139	24	30	40	50	135	6080	184	128	9	M10x30	83
95	135	144	24	30	40	50	150	7131	194	137	10	M10x30	83
100	145	154	26	32	44	56	175	8732	198	137	8	M12x35	145
110	155	164	26	32	44	56	175	9605	180	128	8	M12x35	145
120	165	174	26	32	44	56	196	11787	186	135	9	M12x35	145
130	180	189	34	40	52	64	262	17024	175	126	12	M12x35	145
140	190	199	34	40	54	68	267	18703	166	122	9	M14x40	230
150	200	209	34	40	54	68	297	22259	172	129	10	M14x40	230
160	210	219	34	40	54	68	326	26119	177	135	11	M14x40	230
170	225	234	44	50	64	78	356	30276	140	106	12	M14x40	230
180	235	244	44	50	64	78	356	32057	133	102	12	M14x40	230



Self Locking Units (Type-02)
(Self Centering)

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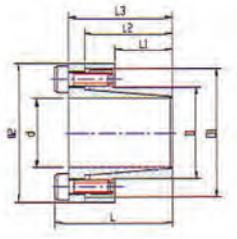
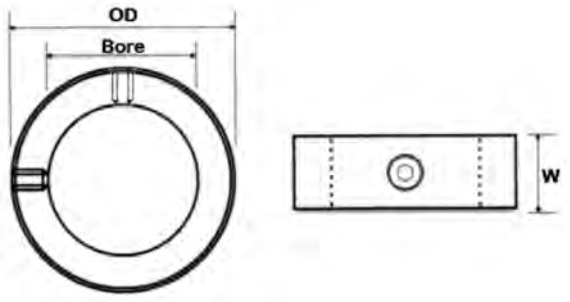


Size								Passing Axis Pressure	Passing Torque	Contracting Pressure		DIN912-12.9 Locking screw		
										Axis	Hub			Locking Torque
Φd	ΦD	L1	L2	L3	L	D2	D1	Ft KN	Mt Nm	P N/ mm²	P1 N/ mm²	Quantity	Size	Ts Nm
8	15	12	21	24	28	28	25	10	39	299	159	4	M4x10	5.2
9	16	14	23	27	31	32	28	10	44	227	128	4	M4x12	5.2
10	16	14	23	27	31	32	28	10	49	205	128	4	M4x12	5.2
11	18	14	23	27	31	34	30	10	53	186	114	4	M4x12	5.2
12	18	14	23	27	31	34	30	10	58	171	114	4	M4x12	5.2
13	23	OA	OA	OA	OA	OA	OA							
14	23	14	23	27	31	39	35	10	68	146	89	4	M4x12	5.2
15	24	16	29	36	42	45	40	16	120	196	123	3	M4x18	17
16	24	16	29	36	42	45	40	16	128	184	123	3	M4x18	17
17	26	OA	OA	OA	OA	OA	OA							
18	26	18	31	38	44	47	42	21	191	194	134	4	M4x18	17
19	27	18	31	38	44	48	43	21	202	183	129	4	M4x18	17
20	28	18	31	38	44	49	44	21	213	174	124	4	M4x18	17
22	32	25	38	45	51	54	48	21	234	114	78	4	M4x18	17
24	34	25	38	45	51	56	50	21	255	105	74	4	M4x18	17
25	34	25	38	45	51	56	50	21	266	100	74	4	M4x18	17
28	39	25	38	45	51	61	55	27	373	112	81	5	M4x18	17
30	41	25	38	45	51	63	57	32	480	126	92	6	M4x18	17
32	43	30	43	50	56	65	59	32	511	98	73	6	M4x18	17
35	47	30	43	50	56	69	63	43	747	120	89	8	M4x18	17
38	50	30	43	50	56	72	66	43	811	110	84	8	M4x18	17
40	53	32	45	52	58	75	69	48	959	110	83	9	M4x18	17
42	55	32	45	52	58	77	71	48	1007	105	80	9	M4x18	17
45	59	40	56	64	72	85	79	79	1781	130	99	8	M4x22	42
48	62	40	56	64	72	88	82	79	1900	122	94	8	M4x22	42
50	65	50	66	74	82	92	85	99	2473	117	90	10	M4x22	42
55	71	50	66	74	82	98	91	99	2721	106	82	10	M4x22	42
60	77	50	66	74	82	104	97	99	2968	97	76	10	M4x22	42
65	84	50	66	74	82	111	104	99	3215	90	69	10	M4x22	42
70	90	60	80	91	101	122	115	127	4430	89	69	8	M4x25	84
75	95	60	80	91	101	126	119	142	5338	93	74	9	M4x25	84
80	100	65	85	96	106	131	124	190	7595	108	86	12	M4x25	84
85	106	65	85	96	106	137	130	190	8069	101	81	12	M4x25	84
90	112	65	85	96	106	143	136	222	9968	112	90	14	M4x25	84
95	120	65	85	96	106	153	144	222	10522	106	84	14	M4x25	84
100	125	65	89	102	114	162	153	273	13651	124	99	12	M4x30	145
110	140	70	94	107	119	177	168	273	15016	105	82	12	M4x30	145
120	155	90	114	127	139	195	185	364	21844	99	77	16	M4x30	145
130	165	90	114	127	139	205	195	364	23664	92	72	16	M4x30	145
140	175	90	114	127	139	215	205	364	25485	85	68	16	M4x30	145
150	185	90	114	127	139	225	215	364	27305	80	64	16	M4x30	145

Shaft Collars

Set screw collars are most effective when used on a shaft made of a material which is softer than the set screw.



Metric Shaft Collars

Part No.	Bore	O.D.	W	Screw Size	Approx Kg
FSC-6	6.0	12.0	8.0	M4*4	0.01
FSC-10	10.0	20.0	10.0	M6*6	0.02
FSC-12	12.0	22.0	12.0	M6*6	0.03
FSC-16	16.0	28.0	12.0	M6*6	0.04
FSC-20	20.0	32.0	14.0	M6*6	0.05
FSC-22	22.0	36.0	14.0	M6*6	0.07
FSC-25	25.0	40.0	16.0	M6*6	0.10
FSC-28	28.0	45.0	16.0	M8*8	0.11
FSC-30	30.0	45.0	16.0	M8*8	0.15
FSC-32	32.0	50.0	16.0	M8*8	0.16
FSC-35	35.0	56.0	16.0	M8*8	0.18
FSC-38	38.0	56.0	16.0	M8*8	0.21
FSC-40	40.0	63.0	18.0	M10*12	0.30
FSC-45	45.0	70.0	18.0	M10*12	0.35
FSC-50	50.0	80.0	18.0	M10*12	0.40

Bore Tolerances	
Bore	Tolerances
All	+.01mm
	0.05mm

Width Tolerance	
All	+0.08
	-0.25

Imperial Shaft Collars

Part No.	Bore	O.D.	W	Screw Size	Approx Kg
FSC-1/4	0.250	0.500	0.281	M4*4	0.01
FSC-3/8	0.375	0.750	0.375	M6*5	0.01
FSC-1/2	0.500	1.000	0.438	M6*5	0.03
FSC-5/8	0.625	1.125	0.500	M6*6	0.04
FSC-3/4	0.750	1.250	0.563	M6*6	0.05
FSC-7/8	0.875	1.500	0.563	M6*6	0.07
FSC-1	1.000	1.625	0.625	M6*6	0.10
FSC-1-1/8	1.125	1.750	0.625	M8*6	0.11
FSC-1-1/4	1.250	2.000	0.688	M8*8	0.16
FSC-1-3/8	1.375	2.125	0.750	M8*8	0.18
FSC-1-1/2	1.500	2.250	0.750	M8*8	0.21
FSC-1-5/8	1.625	2.500	0.813	M8*8	0.29
FSC-1-3/4	1.750	2.750	0.875	M10*12	0.32
FSC-1-7/8	1.875	2.750	0.875	M10*12	0.35
FSC-2	2.000	3.000	0.875	M10*12	0.45

Bore Tolerances	
Bore	Tolerances
Upto 1"	+0.0005"
	+0.002"
1 1/8" to 2"	+0.0005
	-0.003

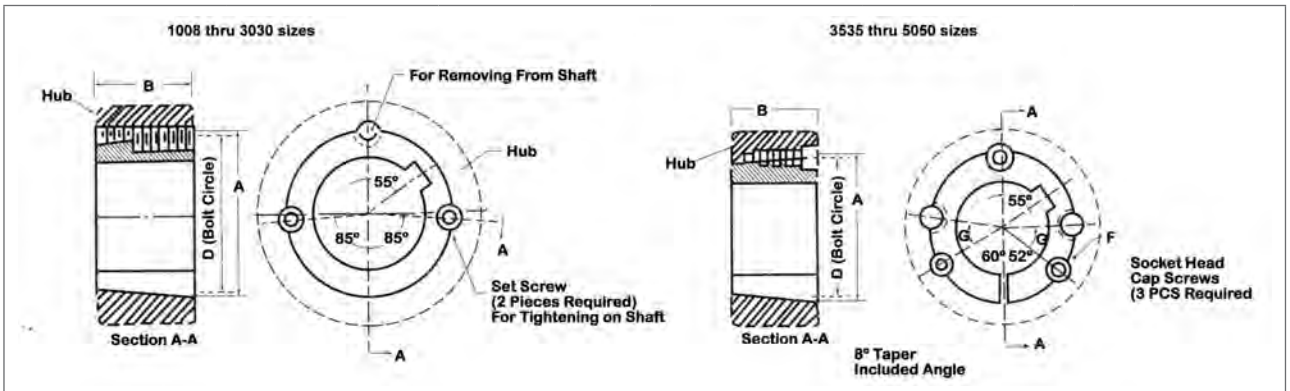
Width Tolerance	
All	+0.003"
	-0.010"

Taper Lock Bush

The Taper Lock Bush is a tried and proven method for fixing a driven device to a shaft. The simple design allows for easy maintenance, it is a simple easy-on, easy-off process.

Finer Power Transmissions stocks a range of items that are used in conjunction with Taper Lock Bushes, including: sprockets, pulleys and couplings.

Taper Lock Bushes come in a variety of bore sizes, in both metric and imperial.



Bush	A	B	D	Tightening Torque (Nm)	Set Crews Dia. x Len.
1008	35.2	22.3	33.73	5.6	1/4 x 1/2
1108	38.38	22.3	36.92	5.6	1/4 x 1/2
1210	47.62	25.4	44.44	20	3/8 x 5/8
1215	47.62	38.1	44.44	20	3/8 x 5/8
1610	57.15	25.4	53.97	20	3/8 x 5/8
1615	57.15	38.1	53.97	20	3/8 x 5/8
2012	69.85	31.8	66.68	30	7/16 x 7/8
2017	69.85	44.5	-	30	
2517	85.73	44.5	82.55	50	1/2 x 1
2525	85.73	63.5	82.56	50	1/2 x 1
3020	107.96	50.8	101.6	90	5/8 x 1-1/4
3030	107.96	76.2	101.6	90	5/8 x 1-1/4
3535	127	89	122.68	115	1/2 x 1-1/2
4040	146.05	101.5	140.72	170	5/8 x 1-3/4
4545	161.93	114.3	155.7	190	3/4 x 2
5050	177.8	127	170.69	270	7/8 x 2-1/4

Note: 1008 – 3030 require two screws
3535 – 5050 requires three screws

Taper Lock Bush (metric)

Bush	Bore	Keyway (W x D)	App. Kg
1008	10	4x4	0.13
	12	4x4	0.13
	14	5x5	0.13
	15	5x5	0.13
	16	5x5	0.12
	18	6x6	0.12
	19	6x6	0.1
	20	6x6	0.1
	22	6x6	0.1
	24	8x7	0.09
	25	8x7	0.08
1108	10	4x4	0.16
	11	4x4	0.16
	12	4x4	0.16
	14	5x5	0.16
	15	5x5	0.15
	16	5x5	0.14
	18	6x6	0.14
	19	6x6	0.13
	20	6x6	0.13
	22	6x6	0.12
	24	8x7	0.11
	25	8x7	0.1
	28	8x7	0.09
1210	11	4x4	0.3
	12	4x4	0.28
	14	5x5	0.28
	15	5x5	0.27
	16	5x5	0.27
	18	6x6	0.26
	19	6x6	0.25
	20	6x6	0.25
	22	6x6	0.23
	24	8x7	0.22
	25	8x7	0.21
	28	8x7	0.19
	30	8x7	0.17
	32	10x8	0.15
1215	11	4x4	0.41
	12	4x4	0.4
	14	5x5	0.39
	16	5x5	0.38
	18	6x6	0.37
	19	6x6	0.36
	20	6x6	0.35
	22	6x6	0.33
	24	8x7	0.31
	25	8x7	0.29
	28	8x7	0.26
	30	8x7	0.24
	32	10x8	0.22

Bush	Bore	Keyway (W x D)	App. Kg
1610	14	5x5	0.42
	16	5x5	0.41
	18	6x6	0.4
	19	6x6	0.4
	20	6x6	0.39
	22	6x6	0.38
	24	8x7	0.36
	25	8x7	0.35
	28	8x7	0.33
	30	8x7	0.31
	32	10x8	0.29
	35	10x8	0.26
	38	10x8	0.24
	40	12x8	0.22
	42	12x8	0.2
1615	14	5x5	0.6
	16	5x5	0.58
	18	6x6	0.56
	19	6x6	0.54
	20	6x6	0.54
	22	6x6	0.52
	24	8x7	0.5
	25	8x7	0.49
	28	8x7	0.47
	30	8x7	0.44
	32	10x8	0.41
	35	10x8	0.38
	38	10x8	0.33
	40	12x8	0.31
	42	12x8	0.28
2012	14	5x5	0.79
	15	5x5	0.78
	16	5x5	0.78
	18	6x6	0.77
	19	6x6	0.76
	20	6x6	0.76
	22	6x6	0.74
	24	8x7	0.73
	25	8x7	0.71
	28	8x7	0.68
	30	8x7	0.66
	32	10x8	0.64
	34	10x8	0.61
	35	10x8	0.61
	38	10x8	0.57
	40	12x8	0.54
	42	12x8	0.51
	45	14x9	0.47
	48	14x9	0.42
	50	14x9	0.37
2017	24	8x7	
	25	8x7	
	28	8x7	
	30	8x7	
	32	10x8	
	35	10x8	
	38	10x8	
	40	12x8	
	42	12x8	
	45	14x9	
	50	14x9	

Bush	Bore	Keyway (W x D)	App. Kg
2517	16	5x5	1.75
	18	6x6	1.71
	19	6x6	1.66
	20	6x6	1.62
	22	6x6	1.58
	24	8x7	1.56
	25	8x7	1.56
	28	8x7	1.5
	30	8x7	1.49
	32	10x8	1.46
	35	10x8	1.42
	38	10x8	1.35
	40	12x8	1.31
	42	12x8	1.26
	45	14x9	1.2
	48	14x9	1.14
	50	14x9	1.1
	55	16x10	0.95
	60	18x11	0.82
	65	18x11	
2525	28	8x7	2.09
	30	8x7	2.05
	32	10x8	2.01
	35	10x8	1.94
	38	10x8	1.86
	40	12x8	1.8
	42	12x8	1.74
	45	14x9	1.64
	48	14x9	1.55
	50	14x9	1.48
	55	16x10	1.29
	60	18x11	1.08
3020	24	8x7	2.89
	25	8x7	2.93
	28	8x7	2.88
	30	8x7	2.85
	32	10x8	2.84
	35	10x8	2.77
	38	10x8	2.71
	40	12x8	2.67
	42	12x8	2.6
	45	14x9	2.56
	48	14x9	2.47
	50	14x9	2.2
	55	16x10	2.15
	60	18x11	2.07
	65	18x11	1.93
	70	20x12	1.7
	75	20x12	1.5
3030	35	10x8	3.97
	38	10x8	3.89
	40	12x8	3.8
	42	12x8	3.65
	45	14x9	3.4
	48	14x9	3.5
	50	14x9	3.42
	55	16x10	3.2
	60	18x11	2.95
	65	18x11	2.67
	70	20x12	2.45
	75	20x12	2.1

Bush	Bore	Keyway (W x D)	App. Kg
3535	35	10x8	4.96
	38	10x8	4.88
	40	12x8	4.82
	42	12x8	4.76
	45	14x9	4.67
	48	14x9	4.57
	50	14x9	4.5
	55	16x10	4.31
	60	18x11	4.1
	65	18x11	3.88
	70	20x12	3.64
	75	20x12	3.38
	80	22x14	3.1
	85	22x14	2.8
	90	25x14	2.49
4030	70	20x12	8.2
	75	20x12	7.7
4040	40	12x8	10.46
	42	12x8	10.07
	45	14x9	9.77
	48	14x9	9.64
	50	14x9	9.5
	55	16x10	9.25
	60	18x11	8.9
	65	18x11	8.5
	70	20x12	8.2
	75	20x12	7.7
	80	22x14	7.4
	85	22x14	6.9
	90	25x14	6.4
	95	25x14	5.95
	100	28x16	5.5
4545	55	16x10	13.2
	60	18x11	12.9
	65	18x11	12.4
	70	20x12	12
	75	20x12	11.5
	80	22x14	10.9
	85	22x14	10.5
	90	25x14	9.9
	95	25x14	9.5
	100	28x16	8.9
	105	28x16	8.2
	110	28x16	7.4
5050	70	20x12	17
	75	20x12	16.3
	80	22x14	15.6
	85	22x14	15
	90	25x14	14.4
	95	25x14	13.6
	100	28x16	12.9
	110	28x16	11.5
	120	32x18	9.8
	125	32x18	8.9

Taper Lock Bush (imperial)

Finer Power Transmissions™

"Why compete against your supplier when you can be our partner"

Bush	Bore	Keyway (W x D)	App. Kg
1008	3/8	1/8 x 1/8	0.15
	1/2	1/8 x 1/8	0.14
	5/8	3/16 x 3/16	0.12
	3/4	3/16 x 3/16	0.1
	7/8	1/4 x 1/4	0.09
	1	1/4 x 1/4	0.08
1108	3/8	1/8 x 1/8	0.16
	1/2	1/8 x 1/8	0.16
	5/8	3/16 x 3/16	0.14
	3/4	3/16 x 3/16	0.13
	7/8	1/4 x 1/4	0.12
	1	1/4 x 1/4	0.1
	1 1/8	5/16 x 5/16	0.09
1210	1/2	1/8 x 1/8	0.28
	5/8	3/16 x 3/16	0.27
	3/4	3/16 x 3/16	0.25
	7/8	1/4 x 1/4	0.23
	1	1/4 x 1/4	0.21
	1 1/8	5/16 x 5/16	0.19
	1 1/4	5/16 x 5/16	0.18
1215	5/8	3/16 x 3/16	0.38
	3/4	3/16 x 3/16	0.35
	7/8	1/4 x 1/4	0.33
	1	1/4 x 1/4	0.29
	1 1/8	5/16 x 5/16	0.26
	1 1/4	5/16 x 5/16	0.22
	1/2	1/8 x 1/16	0.44
1610	5/8	3/16 x 3/16	0.41
	3/4	3/16 x 3/16	0.4
	7/8	1/4 x 1/4	0.38
	1	1/4 x 1/4	0.35
	1 1/8	5/16 x 5/16	0.31
	1 1/4	5/16 x 5/16	0.29
	1 3/8	3/8 x 3/8	0.26
	1 1/2	3/8 x 3/8	0.24
	1 5/8	7/16 x 7/16	0.2
	1/2	1/8 x 1/8	0.6
1615	5/8	3/16 x 3/16	0.58
	3/4	3/16 x 3/16	0.56
	7/8	1/4 x 1/4	0.52
	1	1/4 x 1/4	0.49
	1 1/8	5/16 x 5/16	0.47
	1 1/4	5/16 x 5/16	0.44
	1 3/8	3/8 x 3/8	0.38
	1 1/2	3/8 x 3/8	0.33
	1 5/8	7/16 x 7/16	0.3

Bush	Bore	Keyway (W x D)	App. Kg
2012	5/8	3/16 x 3/16	0.78
	3/4	3/16 x 3/16	0.76
	7/8	1/4 x1/4	0.74
	1	1/4 x1/4	0.7
	1 1/8	5/16 x 5/16	0.67
	1 1/4	5/16 x 5/16	0.64
	1 3/8	3/8 x 3/8	0.61
	1 1/2	3/8 x 3/8	0.57
	1 5/8	7/16 x 7/16	0.54
	1 3/4	7/16 x 7/16	0.47
	1 7/8	1/2 x 1/2	0.42
	2	1/2 x 1/2	0.37
2017	1	1/4 x1/4	
	1 1/8	5/16 x 5/16	
	1 1/4	5/16 x 5/16	
	1 3/8	3/8 x 3/8	
	1 1/2	3/8 x 3/8	
	1 3/4	7/16 x 7/16	
	2	1/2 x 1/2	
2517	7/8	1/4 x1/4	1.58
	3/4	3/16 x 3/16	1.66
	1	1/4 x 1/8	1.56
	1 1/8	5/16 x 5/16	1.5
	1 1/4	5/16 x 5/16	1.46
	1 3/8	3/8 x 3/8	1.42
	1 1/2	3/8 x 3/8	1.35
	1 5/8	7/16 x 7/16	1.27
	1 3/4	7/16 x 7/16	1.2
	1 7/8	1/2 x 1/2	1.14
	2	1/2 x 1/2	1.1
	2 1/8	5/8 x 5/8	0.95
	2 1/4	5/8 x 5/8	0.82
	2 3/8	5/8 x 5/8	0.69
	2 1/2	5/8 x 5/8	0.63
2525	1	1/4 x1/4	2.15
	1 1/8	5/16 x 5/16	2.09
	1 1/4	5/16 x 5/16	2.01
	1 3/8	3/8 x 3/8	1.94
	1 1/2	3/8 x 3/8	1.86
	1 5/8	7/16 x 7/16	1.74
	1 3/4	7/16 x 7/16	1.65
	1 7/8	1/2 x 1/2	1.55
	2	1/2 x 1/2	1.48
	2 1/8	5/8 x 5/8	1.29
	2 1/4	5/8 x 5/8	1.23
	2 3/8	5/8 x 5/8	1.17
	2 1/2	5/8 x 5/8	1.1

Bush	Bore	Keyway (W x D)	App. Kg
3020	1 1/8	5/16 x 5/16	2.85
	1 1/4	5/16 x 5/16	2.84
	1 3/8	3/8 x 3/8	2.77
	1 1/2	3/8 x 3/8	2.71
	1 5/8	7/16 x 7/16	2.6
	1 3/4	7/16 x 7/16	2.56
	1 7/8	1/2 x 1/2	2.47
	2	1/2 x 1/2	2.2
	2 1/8	5/8 x 5/8	2.15
	2 1/4	5/8 x 5/8	2.1
	2 3/8	5/8 x 5/8	2.07
	2 1/2	5/8 x 5/8	1.93
	2 5/8	3/4 x 3/4	1.93
	2 3/4	3/4 x 3/4	1.7
	2 7/8	3/4 x 3/4	1.5
	3	3/4 x 3/4	1.45
3030	1 1/4	5/16 x 5/16	4.04
	1 3/8	3/8 x 3/8	3.97
	1 1/2	3/8 x 3/8	3.89
	1 5/8	7/16 x 7/16	3.65
	1 3/4	7/16 x 7/16	3.4
	1 7/8	1/2 x 1/2	3.5
	2	1/2 x 1/2	3.42
	2 1/8	5/8 x 5/8	3.2
	2 1/4	5/8 x 5/8	3
	2 3/8	5/8 x 5/8	2.67
	2 1/2	5/8 x 5/8	2.45
	2 5/8	3/4 x 3/4	2.38
	2 3/4	3/4 x 3/4	2.3
	2 7/8	3/4 x 3/4	2.2
	3	3/4 x 3/4	2.1
3535	1 1/4	5/16 x 5/16	6.2
	1 3/8	3/8 x 3/8	6.5
	1 1/2	3/8 x 3/8	6.6
	1 5/8	7/16 x 7/16	6.6
	1 3/4	7/16 x 7/16	6.25
	1 7/8	1/2 x 1/2	6.1
	2	1/2 x 1/2	6
	2 1/8	5/8 x 5/8	5.77
	2 1/4	5/8 x 5/8	5.55
	2 3/8	5/8 x 5/8	5.45
	2 1/2	5/8 x 5/8	5.35
	2 5/8	3/4 x 3/4	5.15
	2 3/4	3/4 x 3/4	4.8
	2 7/8	3/4 x 3/4	4.55
	3	3/4 x 3/4	4.45
	3 1/8	7/8 x 7/8	4.25
	3 1/4	7/8 x 7/8	4.06
	3 3/8	7/8 x 7/8	3.63
	3 1/2	7/8 x 7/8	

Bush	Bore	Keyway (W x D)	App. Kg
4030	2 1/4	5/8x5/8	9.25
4040	1 3/4	7/16 x7/16	9.77
	1 7/8	1/2 x1/2	9.64
	2	1/2 x1/2	9.5
	2 1/8	5/8 x 5/8	9.35
	2 1/4	5/8 x 5/8	9.25
	2 3/8	5/8 x 5/8	8.9
	2 1/2	5/8 x 5/8	8.3
	2 5/8	3/4 x 3/4	8.2
	2 3/4	3/4 x 3/4	8.1
	2 7/8	3/4 x 3/4	8.95
	3	3/4 x 3/4	7.7
	3 1/8	7/8 x 7/8	7.4
	3 1/4	7/8 x 7/8	7.3
	3 3/8	7/8 x 7/8	6.9
	3 1/2	7/8 x 7/8	6.4
	3 3/4	1 x 1	5.95
	4	1 x 1	5.5
4545	2 1/4	5/8 x 5/8	13.2
	2 1/2	5/8 x 5/8	12.9
	2 5/8	3/4 x 3/4	12.4
	2 3/4	3/4 x 3/4	12
	2 7/8	3/4 x 3/4	11.5
	3	3/4 x 3/4	10.9
	3 1/8	7/8 x 7/8	10.7
	3 1/4	7/8 x 7/8	10.6
	3 3/8	7/8 x 7/8	10.5
	3 1/2	7/8 x 7/8	10
	3 3/4	1 x 1	9.5
	4	1 x 1	8.9
	4 1/8	1 1/4 x 1 1/4	8.2
	4 1/4	1 1/4 x 1 1/4	7.9
	4 1/2	1 1/4 x 1 1/4	7.4
5050	2 3/4	3/4 x 3/4	17
	3	3/4 x 3/4	16.8
	3 1/4	7/8 x 7/8	15.5
	3 1/2	7/8 x 7/8	15.3
	4	1 x 1	12.9
	4 1/4	1 1/4 x 1 1/4	12.2
	4 1/2	1 1/4 x 1 1/4	10.6
	5	1 1/4 x 1 1/4	8.9

Finer Power Transmissions™

"Australia's Only Genuine Wholesaler"

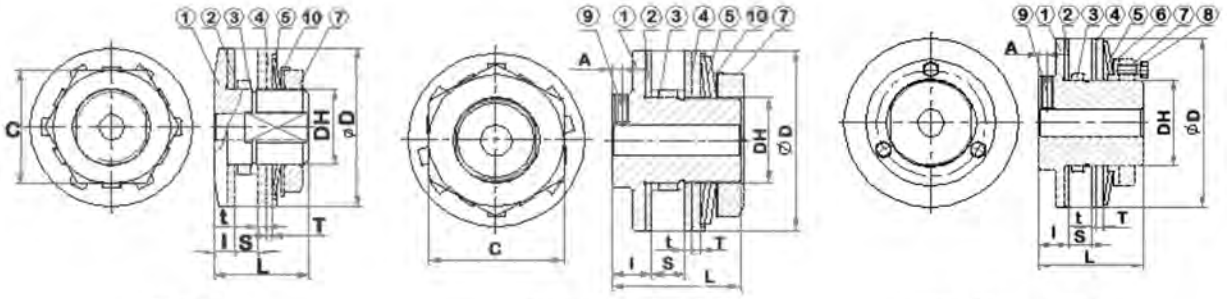
Torque Limiters

The Finer Torque Limiter has been designed to protect drive systems from unnecessary overload. When too much torque is transmitted through a drive, the Torque Limiter automatically slips on its shaft when a predetermined torque level is reached.

This device is suitable in situations where there is excessive and unpredictable shock loads, overloads or machine jams. When the problem in the system is overcome or removed, the Torque Limiter automatically reengages, unlike other devices, such as those with shear pin mechanisms, which have to be manually reset.

Torque Limiters not only prevent damage to drive systems but also eliminates unnecessary downtime due to system resets.

The Torque Limiter utilizes spring loaded friction surfaces, the slip torque is preset by the adjustment of the spring force, this is as simple as tightening or loosening the appropriate nut or bolt.



1) Hub	3) Bushing	5) Disc Spring	7) Adjustment Nut	9) Set Screw
2) Friction Facing	4) Pressure Plate	6) Pilot Plate	8) Adjustment Bolt	10) Lock Washer

Size	Torque Range (kgf~m)	Plain Bore	Max Bore	Bush Length	OD of Bush		Bore for Centre Member		D	DH	L	L	T	t	S (Max)	A	C	Adjust. Nut	Adjust. Bolt	Set Screw	(kg)
RTL50-1	0.3 ~ 1.0	8	14	3.8 6	30	-0.020 -0.041	30	+0.033 0	50	24	29	6.5	1.6	2.5	7	-	36	M24 P1.0	-	-	0.248
RTL50-2	0.7 ~ 2.0																				0.256
RTL65-1	0.7 ~ 2.8	10	22	6 8	41	-0.025 -0.050	41	+0.039 0	65	35	48	16	4	3.2	9	4	50	M35 P1.5	-	M5	0.721
RTL65-2	1.4 ~ 5.5																				0.739
RTL89-1	2.0 ~ 7.6	17	25	6 8 9.5 14.5	49	-0.025 -0.050	49	+0.039 0	89	42	62	19	4	3.2	16	5	65	M42 P1.5	-	M6	2.417
RTL89-2	3.5 ~ 15.2																				2.477
RTL127-1	4.8 ~ 21.4	20	42	6 8 9.5 14.5	74	-0.030 -0.060	74	+0.046 0	127	65	76	22	6	3.2	16	6	-	M65 P1.5	M8 P1.0 3pcs	M8	3.692
RTL127-2	9.0 ~ 42.9																				3.858
RTL178-1	11.8 ~ 58.1	30	64	8 9.5 14.5 17 22	105	-0.036 -0.071	105	+0.054 0	178	95	98	24	7	3.2	29	6.5	-	M95 P1.5	M10 P1.25 3pcs	M10	9.033
RTL178-2	22.8 ~ 111																				9.436

Selection

Determine the required slip torque from the loading conditions or from the design strength of the machine. If the loading conditions of the machine are unknown, set the required slip torque of the torque limiter to 1.5~2 times the torque that the motor produces on the shaft where the torque limiter is mounted.

Select a Torque Limiter that has enough torque range and bore range.

Determine the proper bushing length from the thickness of the centre member to be inserted between the friction facings. Always choose the largest bushing which does not exceed the width of the centre member, shown as S Max in the dimension table.

Centre Member

The centre member should be machined on its rubbing surface to obtain the rated torque and be flat, parallel, square with the bore and free from rust, scale and oil. Surface finish recommended is Ra1.6. If the centre member is not in accordance with these specifications, the slip torque will be erratic.

The Max. Bore of the centre member is listed below. Also shown is the Min. number of sprocket teeth to be used and the bushing length.

Size	Bore of Centre Member (mm)	9.525-06B		12.7-08B		15.875-10B		19.05-12B		25.4-16B		31.75-20B		38.1-24B	
		Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)	Spr. Min. Teeth	Bush Length (mm)
RTL50	30	20	3.8	16	6	-	-	-	-	-	-	-	-	-	-
RTL65	41	-	-	20	6	17	8	-	-	-	-	-	-	-	-
RTL89	49	-	-	26	6	21	8	18	9.5	15	14.5	-	-	-	-
RTL127	74	-	-	35	6	29	8	25	9.5	19	14.5	-	-	-	-
RTL178	105	-	-	-	-	39	8	33	9.5	26	14.5	21	17	18	22

Torque Settings

The torque setting of the Torque Limiter is manipulated by tightening or loosening the adjustment nut and/or the adjustment bolts. RTL 50 – RTL 89 use an adjustment nut, RTL 127 – RTL 178 use adjustment bolts.

The torque setting is adjusted after the Torque Limiter is mounted on the shaft, once the Torque Limiter is mounted:

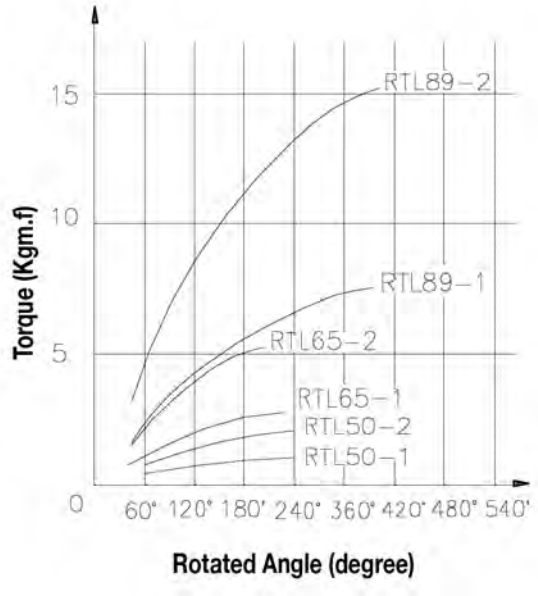
RTL 50 – RTL 89

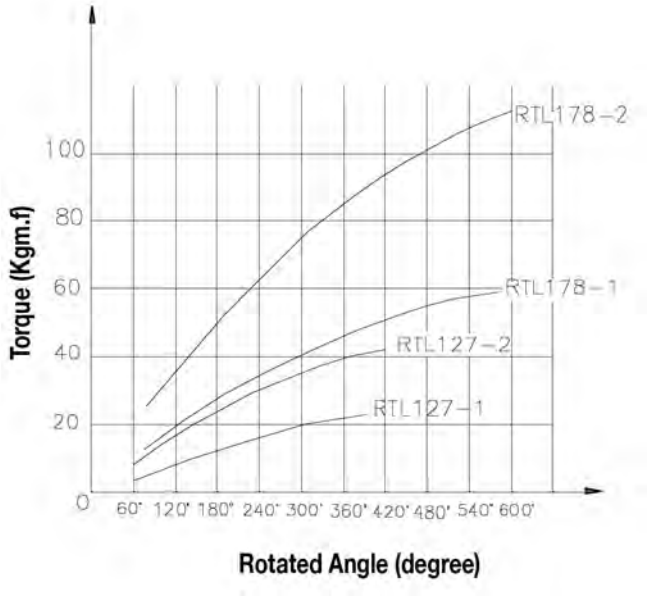
First, rotate the adjustment nut tightly by hand so that the disk spring fits the plate. Then tentatively tighten the nut by about 60 degrees with a wrench.

RTL 127 – RTL 178

First, rotate the nut for fixing the disk spring to the plate, and then tighten each adjustment bolt by about 60 degrees. Then, if the Torque Limiter slips under normal loading conditions, tighten the bolts gradually until the Torque Limiter stops slipping. Always tighten or loosen the blots evenly. You may have to make several adjustments to find the appropriate setting for the machine. For your guidance the below chart shows the relation between the effective rotated angle and preset torque.

For precise torque setting, run-in of the Torque Limiter is recommended, eg: 500 revolution at 50~60rpm with a rotated angle of 45 degrees of the adjustment bolts.

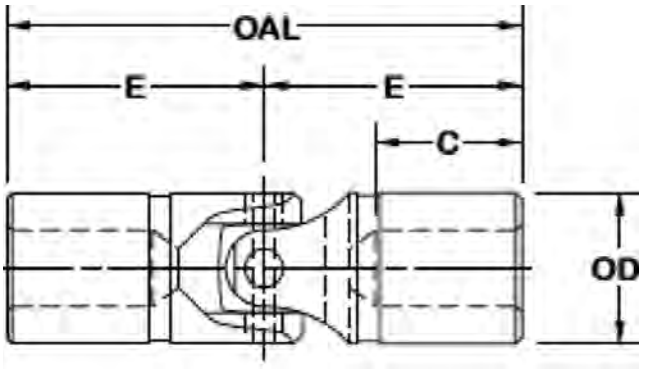




Universal Joints

Finer Power Transmissions stock a range of Universal joints in D Type blank bores; the blank bore allows for any bore diameter up to the recommended maximum.

- **D Type:**
  Multi-purpose industrial type, standard pin and block design.

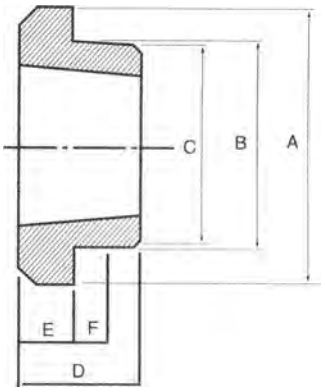


U- joint Size	Max. Bore No Keyway		Max. Bore with Keyway		Max. Square/ Hex Hole		OD	OAL	Bore Depth		Static Breaking Torques		App. Weight Kg
Solid	in	mm	in	mm	in	mm	in	in	C	E	in-lb	Nm	Solid
D-1	0.25	6			0.19	4	0.38	1.75	0.56	0.88	110	12	0.02
D-2	0.38	9			0.25	6	0.50	2.00	0.62	1.00	378	42	0.05
D-3	0.50	12	0.25	6	0.31	8	0.62	2.25	0.68	1.12	540	61	0.07
D-4	0.62	15	0.44	11	0.38	9	0.75	2.68	0.88	1.34	768	86	0.14
D-5	0.69	17	0.50	12	0.44	11	0.88	3.00	0.88	1.50	1176	132	0.21
D-6	0.75	19	0.56	13	0.50	12	1.00	3.38	1.00	1.68	1560	176	0.29
D-7	0.88	22	0.62	15	0.56	14	1.12	3.50	1.00	1.75	2880	325	0.38
D-8	1.00	25	0.75	18	0.62	15	1.25	3.75	1.06	1.88	5220	589	0.50
D-10	1.12	28	0.88	21	0.75	19	1.50	4.25	1.18	2.12	7920	895	0.82
D-11	1.25	31	1.00	25	0.88	22	1.75	5.00	1.38	2.50	10680	1206	1.36
D-12	1.50	38	1.19	30	1.00	25	2.00	5.44	1.50	2.75	15600	1762	1.90
D-13	1.75	44	1.50	39	1.12	28	2.50	7.00	2.00	3.50	33120	3742	3.86
D-14	2.00	50	1.81	48	1.38	35	3.00	9.06	2.75	4.53	65400	7389	7.25

Weld on Hub

Taper Bore Weld-on Hubs are drilled, tapped and bored to receive standard taper bushings. The extended flange provides a convenient means for welding devices, which must be firmly fastened to a shaft.

- **Type W**
  The 'W' Type Weld-on-Hub is designed for applications with a relatively high demand torque. The taper bore has a recess machined in the centre to prevent distortion of the taper when a heavy weld bead is applied.



Hub Ref.	Bush No.	A	B	C	D	E	F
W12	1215	73.03	63.5	62.71	38.1	15.88	9.53
W16	1615	82.55	73.03	72.24	38.1	15.88	9.53
W20	2017	101.6	88.9	88.11	44.45	19.05	14.45
W25	2517	127	111.13	110.34	44.45	19.05	14.45
W30	3030	149.86	133.35	132.56	76.2	25.4	19.05
W35	3535	184.15	158.75	157.96	88.9	31.75	25.4
W40	4040	225.43	196.85	196.06	101.6	31.75	31.75
W45	4545	254	222.25	221.46	114.3	38.1	38.1
W50	5050	276	234	226	126	38.1	75

- **Type WH**
  The 'WH" Type Weld-on-Hub is designed for applications with a relatively low torque, requiring only moderate weld strength. A heavy run of weld on the WH hub may cause some distortion of the taper bore.

Hub Ref.	Bush No.	A	B	C	D	E	F
WH12	1210	70	65	64.5	25	9	10
WH16	1610	80	75	74.5	25	9	10
WH20	2012	95	90	89.5	32	12	12
WH25	2517	115	110	109.5	44	19	15
WH30	3020	145	140	139.5	50	20	15
WH35	3525	190	180	179.5	65	25	25
WH45	4545	210	200	199.5	114	40	30