

POWERDRIVE TAPER LOCK BUSHES, POWERDRIVE HUBS & KEY STEEL



TAPER LOCK BUSHES

INTRODUCTION

THE TAPER LOCK BUSH, ALSO REFERRED TO AS A TAPER BUSH OR TAPER FIT BUSH, IS A LOCKING MECHANISM COMMONLY USED IN POWER TRANSMISSION DRIVES FOR LOCATING PULLEYS, SPROCKETS, AND COUPLINGS TO SHAFTS.

The outside of the bush is tapered to match the component bore that is to be located on the shaft. POWERDRIVE Taperlock bushes are produced from high grade cast iron.

FEATURES

- Manufactured from high grade cast iron.
- Slow cooling process increases resistance to cracking and breaking.
- Available in Metric & Imperial Bores.
- Splined Taperlock bushes also available.
- All bushes surface ground to ensure tolerance.
- Fixed key in relation to grub screw.
- Series range from 1008 – 5050.



IMPERIAL BORES

Bore Dia.	Keyway		Product Code														
	Width	Depth	TL1008	TL1108	TL1210	TL1215	T1610	T1615	TL2012	TL2517	TL3020	TL3525	TL3535	TL4040	TL4535	TL4545	TL5050
3/8	0.125	0.06															
1/2																	
5/8	0.187	0.09															
11/16																	
3/4																	
7/8	0.25	0.12															
15/16																	
1																	
1 1/8	0.312	0.11															
1 1/4																	
1 3/8	0.375	0.11															
1 1/2																	
1 5/8	0.437	0.13															
1 3/4																	
1 7/8	0.500	0.13															
2																	
2 1/8																	
2 1/4	0.625	0.18															
2 3/8																	
2 1/2																	
2 5/8																	
2 3/4	0.75	0.21															
2 7/8																	
3																	
3 1/8																	
3 1/4	0.875	0.26															
3 3/8																	
3 1/2																	
3 3/4	1.000	0.32															
4																	
F	D		35.0	38.0	47.5	47.5	57	57	70	85.5	108	127	127	146	162	162	177.5
	(inches)		7/8"	7/8"	1"	1 1/2"	1"	1 1/2"	1 1/4"	1 3/4"	2"	2 1/2"	3 1/2"	4"	4 1/2"	4 1/2"	5"

METRIC BORES

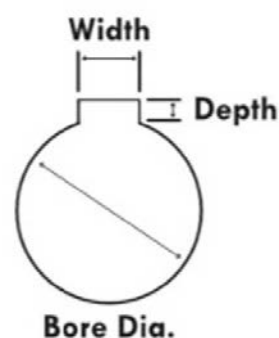
Bore Dia.	Keyway		Product Code																TL5050
	Width	Depth	TL1008	TL1108	TL1210	TL1215	TL1610	TL1615	TL2012	TL2517	TL3020	TL3030	TL3525	TL3535	TL4030	TL4040	TL4535	TL4545	
10	3	1.4																	
11																			
12	4	1.8																	
14																			
15	5	2.3																	
16																			
17																			
18																			
19	6	2.8																	
20																			
22																			
24																			
25	8	3.3																	
26																			
28																			
30																			
32																			
35	10	3.3																	
36																			
38																			
40	12	3.3																	
42																			
45																			
48	14	3.8																	
50																			
55	16	4.3																	
60																			
62	18	4.4																	
65																			
70	20	4.9																	
75																			
80	22	5.4																	
85																			
90	25	5.4																	
95																			
100	28	6.4																	
110																			
115																			
120	32	7.4																	
125																			
F	D	(mm)	35.0	38.0	47.5	47.5	57	57	70	85.5	108	108	127	127	146	146	162	177.5	177.5
			22.2	22.2	25.4	38.1	25.4	38.1	31.75	44.45	50.8	76.2	63.5	88.9	76.2	101.6	114.3	101.6	127



TAPER LOCK BUSH INSTALLATION INSTRUCTIONS

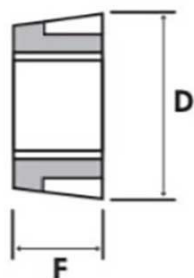
TO ASSEMBLE

- Clean and de-grease the bore and taper surfaces of the bush and the tapered bore of the pulley insert the bush in the pulley hub and line up the holes (half thread holes must line up with half straight holes).
- Lightly oil the grub screws (bush size 1008 to 3030) or the cap screws (bush size 3535 to 5050) and screw them in, do not tighten yet.
- Clean and de-grease the shaft it pulley with taper bush on shaft and locate in desired position.
- When using the key it should be a top clearance between the key and the keyway in the bore.
- Using a hexagon socket wrench (DIN911) gradually tighten the grub/cap screws in accordance with the torques as listed in the schedule of screw tightening torque.
- When the drive has been operating under load for a short period (half to one hour) check and ensure that the screws remain at the appropriate tightening torque.
- In order to eliminate the ingress of dirt ill all empty holes with grease.



TO REMOVE

- Slacken all screws. Depending on the size of the bush remove one or two. After oiling point and thread of grub screws or under head and thread of cap screws insert them into the jacking off hole(s) in bush.
- Tighten screw(s) uniformly and alternately until the bush is loose in the hub and pulley is free on the shaft.
- Remove the pulley bush assembly from shaft.



TORQUE SETTINGS

Bush	Screw tightening Torques (Nm)	SCREW	
		Quantity	Size
1008	5.6	2	1/4" BSW
1108			
1310			
1315	20	2	3/8" BSW
1210			
1215			
1610	20	2	3/8" BSW
1615			
2012			
2517	48	2	1/2" BSW
3020			
3030			
3535	90	3	1/2" BSW
4040			
4545			
5050	271	3	7/8" BSW

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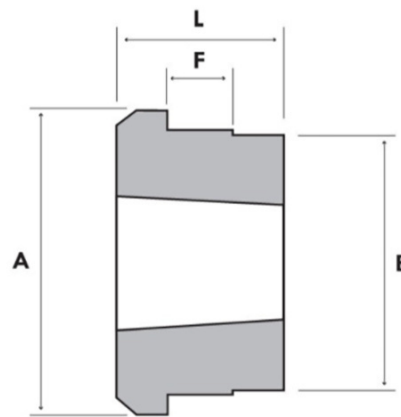
CODE	Description	Bore
TL1610-1 3/8 SP	Taperlock Bush 1610	1 3/8" 6 spline
TL2012-1 3/8 SP	Taperlock Bush 2012	1 3/8" 6 spline
TL2517-1 3/8 SP	Taperlock Bush 2517	1 3/8" 6 spline





MADE FROM HIGH-QUALITY C45 STEEL, WELD IN HUBS ARE USED TO ADAPT PULLEYS, SPROCKETS, PLATE WHEELS, ROTORS, IMPELLERS, AND MANY OTHER DEVICES SO THAT THEY CAN BE FIRMLY ATTACHED TO A SHAFT.

The hubs are taper-bored, tapped and drilled, to receive standard taper-bore bushes.

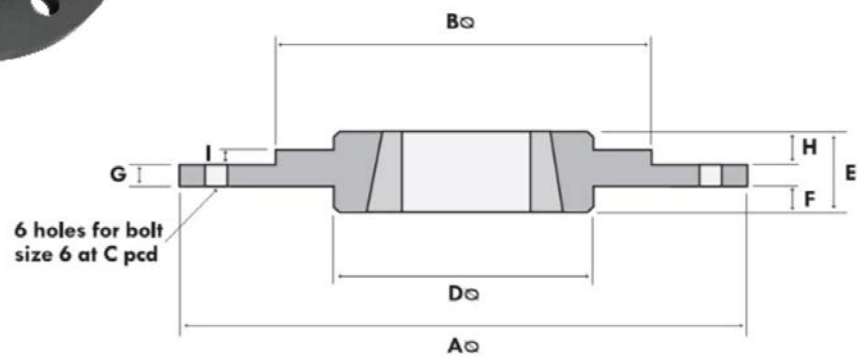


Hub Reference	Bush Size	A	B+O - 0.05	F	L
WH12	1210	70	65	10	25
WH16	1610	80	75	10	25
WH20	2012	95	90	12	32
WH25	2517	115	110	15	44
WH30	3020	145	140	15	50
WH35	3525	190	180	25	65
WH40	4030	200	190	30	76
WH45	4535	210	200	30	89
WH50	5040	230	220	35	102

INTRODUCTION



BOLT IN HUBS PERFORM A SIMILAR ROLE AS THE PREVIOUSLY DESCRIBED WELD IN HUBS BUT, AS THE NAME SUGGESTS, THE HUB IS SECURED TO THE DEVICE BEING SECURED TO THE SHAFT BY BOLTS, RATHER THAN BEING WELDED.



Hub Reference	Bush Size	Dimensions									
		A Dia	B dia	C dia	D dia	E nominal	F nominal	G nominal	H nominal	I nominal	J clearance for
BF12	1210	120	N/A	100	80°	25	10	5.5	9.5	N/A	M6
BF16	1610	130	N/A	110	90°	25	10	6.5	8.5	N/A	M6
BF20	2012	145	N/A	125	100°	32	13	8.5	10.5	N/A	M8
BF25	2517	185	130°	155	120	44	20	11.5	12.5	2.5	M10
BF30	3020	220	165°	190	147	50	20	11.3	18.7	2.5	M12

WE ARE PROUD TO ANNOUNCE WE NOW STOCK A RANGE OF KEY STEEL TO COMPLEMENT OUR STOCK OF TAPER BUSHES, PULLEYS, SPROCKETS, AND COUPLINGS.

Code	Name
KSM2214-304	KEY STEEL - Metric - 22mm x 14mm x 304mm
KSM1208-304	KEY STEEL - Metric - 12mm x 8mm x 304mm
KSM1212-304	KEY STEEL - Metric - 12mm x 12mm x 304mm
KSM1409-304	KEY STEEL - Metric - 14mm x 9mm x 304mm
KSM1610-304	KEY STEEL - Metric - 16mm x 10mm x 304mm
KSM1811-304	KEY STEEL - Metric - 18mm x 11mm x 304mm
KSM1818-304	KEY STEEL - Metric - 18mm x 18mm x 304mm
KSM2012-304	KEY STEEL - Metric - 20mm x 12mm x 304mm
KSM1010-304	KEY STEEL - Metric - 10mm x 10mm x 304mm
KSM2514-304	KEY STEEL - Metric - 25mm x 14mm x 304mm
KSM2816-304	KEY STEEL - Metric - 28mm x 16mm x 304mm
KSM3218-304	KEY STEEL - Metric - 32mm x 18mm x 304mm
KSM1409-40-2RE	KEY STEEL - Metric - 14mm x 9mm x 40mm 2RE
KSI1414-12	KEY STEEL - Imperial - 1/4" x 1/4" x 12 Inch
KSI51614-12	KEY STEEL - Imperial - 5/16" x 1/4" x 12 Inch
KSI516516-12	KEY STEEL - Imperial - 5/16" x 5/16" x 12 Inch
KSI3814-12	KEY STEEL - Imperial - 3/8" x 1/4" x 12 Inch
KSM0404-304	KEY STEEL - Metric - 4mm x 4mm x 304mm
KSM1811-35	KEY STEEL - Metric - 18mm x 11mm x 35mm
KSM0807-304	KEY STEEL - Metric - 8mm x 7mm x 304mm
KSM0807-20-2RE	KEY STEEL - Metric - 8mm x 7mm x 20mm 2RE
KSI1212-4	KEY STEEL - Imperial - 1/2" x 1/2" x 4 Inch
KSM0807-40-2RE	KEY STEEL - Metric - 8mm x 7mm x 40mm 2RE
KSM1208-32-1RE	KEY STEEL - Metric - 12mm x 8mm x 32mm 1RE
KSM1409-200	KEY STEEL - Metric - 14mm x 9mm x 200mm
KSM1409-25-2RE	KEY STEEL - Metric - 14mm x 9mm x 25mm 2RE
KSM1008-304	KEY STEEL - Metric - 10mm x 8mm x 304mm
KSM2012-70-RE	KEY STEEL - Metric - 20mm x 12mm x 70mm 2RE
KSM2012-50-2RE	KEY STEEL - Metric - 20mm x 12mm x 50mm 2RE
KSM4525-200-	KEY STEEL - Metric - 45mm x 25mm x 200mm
KSI5812-70MM	KEY STEEL - Imperial - 5/8" x 1/2" x 70MM 2RE
KSI5858-12	KEY STEEL - Imperial - 5/8" x 5/8" x 12 INCH
KSI58716-60MM	KEY STEEL - Imperial - 5/8" x 7/16" x 60MM
KSI134-458-2RE	KEY STEEL - Imperial - 1" x 3/4" x 4 & 5/8 Inch

Key steel, used in general engineering applications, and used to hold taper bushes, pulleys, sprockets, and couplings to drive shafts. Made from carbon steel, this bright drawn steel comes in square and flat bars and comes available in both imperial and metric sizes.



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