

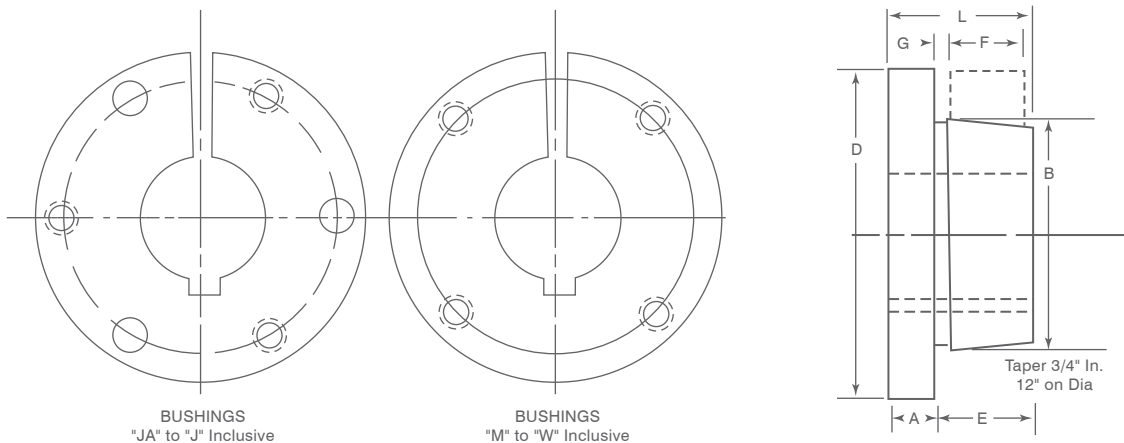
QTL Taper bushing

The "QTL" Bushing easily fits over the tapered hub and a tight press can be produced on the shaft by tightening capscrews. The bushing is easily removed from the hub by using the pull-up bolts as jack bushing in the holes tapped in the rim of bushing. All hubs "JA" through "J" are drilled for REVERSE MOUNTING.



* F = Length of Mating Bore

** G = Gap Between " QTL " Bushing and Mating Hub



STOCK QTL BUSHINGS DIMENSIONS

Bush- ing	DIMENSIONS(Inches)								Cap Screws Required	STOCK BORE RANGE			Average Weight (Approv.)
	A	B	D	E	* F	** G	L	Bolt Circle		Mini- mum	MAXIMUM		
											Standard Keyway	Shallow Keyway	
JA	5/16	1.375	2	11/16	9/16	0.20	1	1.656	3-10x1	3/8	1	13/16	.9
SH	7/16	1.871	2 11/16	7/8	13/16	0.23	15/16	2 1/4	3 1/4x1 3/8	1/2	13/8	15/8	1
SDS	7/16	2.187	3 1/8	7/8	3/4	0.23	15/16	2 11/16	3 1/4x1 3/8	1/2	15/8	1 15/16	1
SD	7/16	2.187	3 1/8	13/8	1 1/4	0.23	1 13/16	2 11/16	3 1/4x1 3/8	1/2	15/8	1 15/16	1.5
SK	9/16	2.812	3 7/8	13/8	1 1/4	0.23	1 15/16	3 5/16	3 5/16x2	1/2	2 1/8	2 1/2	2
SF	5/8	3.125	4 5/8	1 7/16	1 1/4	0.23	2 1/16	3 7/8	3 3/8x2	1/2	2 1/4	2 7/8	4
E	7/8	3.834	6	1 7/8	1 5/8	9/32	2 3/4	5	3 1/2x2 3/4	7/8	2 7/8	3 1/2	10.5
F	1	4.437	6 5/8	2 3/4	2 1/2	11/32	3 3/4	5 5/8	3 9/16x3 5/8	1	3 1/4	3 15/16	15
J	1 1/8	5.148	7 1/4	3 1/2	3 3/16	5/16	4 5/8	6 1/4	3 5/8x4 1/2	1 1/2	3 13/16	4 1/2	23
M	1 1/4	6.494	9	5 1/2	5 3/16	11/32	6 3/4	7 7/8	4 3/4x6 3/4	2	4 11/16	5 1/2	55
N	1 1/2	6.992	10	6 5/8	6 1/4	9/16	8 1/8	8 1/2	4 7/8x8	2 7/16	5 1/16	5 7/8	73
P+	1 3/4	8.242	11 3/4	7 5/8	7 1/4	5/8	9 3/8	10	4 1x9 1/2	2 15/16	5 13/16	7	120
W+	2	10.437	15	9 3/8	9	11/16	11 3/8	12 3/4	4-1 1/8x11 1/2	4	7 1/2	8 1/2	250
S+	3 1/4	12.125	17 3/4	12 1/2	12	3/4	15 3/4	15	5-1 1/4x15 1/2	6	8 1/4	10	400

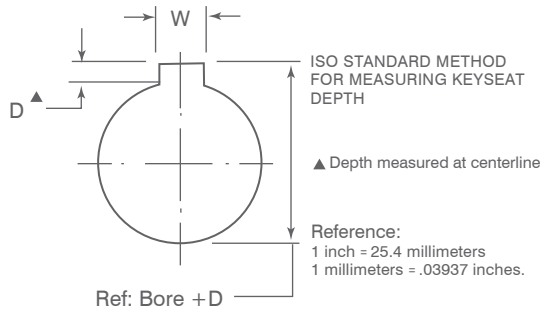
+ Consult Factory

QTL Taper bushing

QTL BUSHING DIMENSIONS AND RANGES FOR INNER BORES AND KEYWAYS

Bushing	Bores Key Seat	Bushing	Bores	Key Seat	Bushing	Bores	Key Seat	
JA	3/8-7/16	None	SF	1/2-2 1/4	Std.	M	2-4 11/16	
	1/2-1	Std.		25/16-2 1/2	5/8x3/16		43/4-5 1/2	1 1/4x1/4
	1 1/16-13/16	1/4x1/16		29/16-23/4	5/8x1/16	N	27/16-5 1/16	Std.
	1 1/4	None		2 13/16-27/8	3/4x1/16		5 1/8-5 1/2	1 1/4x1/4
SH	1/2-13/8	Std.	E	2 15/16	None	P	59/16-57/8	1 1/2x1/4
	17/16-15/8	3/8x1/16		7/8-27/8	Std.		2 15/16-5 13/16	Std.
SDS SD	1 11/16	None	F	2 15/16-3 1/4	3/4x1/8	W	57/8-6 1/2	1 1/2x1/4
	1/2-15/8	Std.		3 5/16-3 1/2	7/8x1/16		69/16-7	1 3/4x1/8
	1 11/16-13/4	3/8x1/8		1-3 1/4	Std.	W	4-7 1/2	Std.
	1 13/16	1/2x1/8		3 5/16-3 3/4	7/8x3/16		79/16-8 1/2	2x1/4
SK	17/8-1 15/16	1/2x1/16	J	4	None			
	2	None		1 1/2-3 13/16	Std.			
	1/2-2 1/8	Std.		37/8-4 1/2	1x1/8			
	23/16-2 1/4	1/2x1/8						
	25/16-2 1/2	5/8x1/16						
	29/16-2 5/8	None						

STANDARD KEYWAY & KEY DIMENSION



Bores	Key Seat	Key
1/2-9/16	1/8x1/16	1/8x1/8
5/8-7/8	3/16x3/32	3/16x3/16
15/16-1 1/4	1/4x1/8	1/4x1/4
1 5/16-1 3/8	5/16x5/32	5/16x5/16
1 7/16-1 3/4	3/8x3/16	3/8x3/8
1 11/16-2 1/4	1/2x1/4	1/2x1/2
2 5/16-2 3/4	5/8x5/16	5/8x5/8
2 13/16-3 1/4	3/4x3/8	3/4x3/4
3 5/16-3 3/4	7/8x7/16	7/8x7/8
3 13/16-4 1/2	1x1/2	1x1
4 9/16-5 1/2	1 1/4x5/8	1 1/4x1 1/4
5 9/16-6 1/2	1 1/2x3/4	1 1/2x1 1/2
6 9/16-7 1/2	1 3/4x7/8	1 3/4x1 3/4

Dimensions:inch

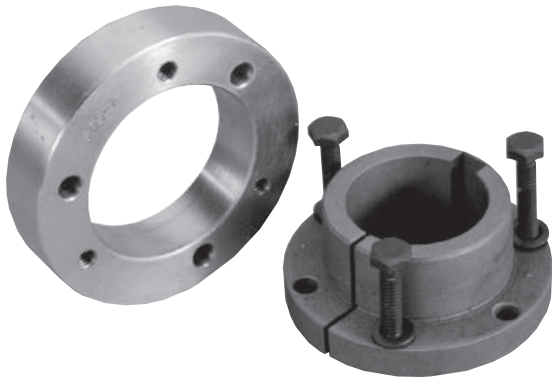
BORE RANGE FOR QTL BUSHING

Bush.	Min. Bore	Max. Bore with:		
		Full Keyway	Shallow Keyway	No Keyway
JA	3/8	1	1 3/16	1 1/4
SH	1/2	1 3/8	1 5/8	1 11/16
SDS	1/2	1 5/8	1 15/16	2
SD	1/2	1 5/8	1 15/16	2
SK	1/2	2 1/8	2 1/2	2 5/8-29/16
SF	1/2	2 1/4	2 7/8	2 15/16
E	7/8	2 7/8	3 1/2	—
F	1	3 1/4	3 15/16	4
J	1 1/2	3 13/16	4 1/2	—
M	2	4 11/16	5 1/2	—
N	2 7/16	5 1/16	5 7/8	—
P	2 15/16	5 13/16	7	—
W	4	7 1/2	8 1/2	—
S	6	8 1/4	10	—

SHALLOW KEY DIMENSION

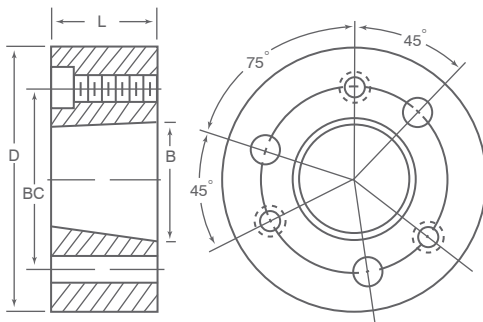
Key Seat	Key	Key Seat	Key
3/8x1/16	3/8x1/4	7/8x3/16	7/8x5/8
3/8x1/8	3/8x5/16	1x1/16	1x9/16
1/2x1/32	1/2x9/32	1x1/8	1x5/8
1/2x1/16	1/2x5/16	1 1/4x1/4	1 1/4x3/4
1/2x1/8	1/2x3/8	1 1/4x1/4	1 1/4x7/8
5/8x1/16	5/8x3/8	1 1/2x1/8	1 1/2x1
5/8x3/16	5/8x1/2	1 3/4x3/8	1 3/4x3/4
3/4x1/8	3/4x1/2	1 3/4x3/8	1 3/4x1
7/8x1/16	7/8x1/2	2x5/16	2x1

Dimensions:inch

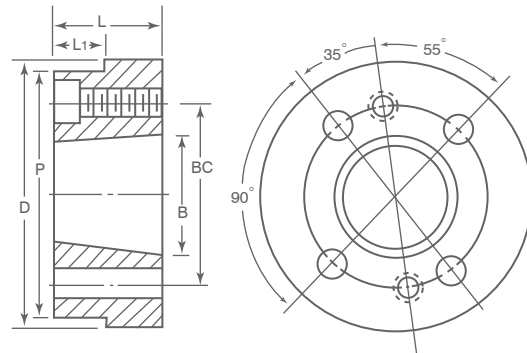


QTL WELD-ON HUBS

QTL weld-on hubs are suitable in many applications, such as welding to steel plate wheels. Weld-on hubs are made of steel. Drilled, tapped and taper bored to receive QTL bushing.



TYPE1



TYPE2

QTL TYPE 1 AND TYPE 2 WELD- ON HUBS

Catalog Number	Dimensions-Inches						Type Drilling BC	Torque Transmitted Bolt Stress in Pounds Per Sq.In			Weight Pounds
	D*	L	B	P+	L1	BC		6.000	9.000	12.000	
SH-A	3.000	13/16	1.871	—	—	2 1/4	1	950	1,425	1,900	1
SDS-A	3.500	3/4	2.188	—	—	2 11/16	1	1,130	1,695	2,260	1.30
SK-A	4.375	1 1/4	2.813	—	—	3 5/16	1	2,400	3,600	4,800	3
SF-A	5.000	1 1/4	3.125	—	—	3 7/8	1	4,060	6,090	8,120	4
E-A	6.250	1 5/8	3.832	—	—	5	1	9,240	13,860	18,480	9
F-A	7.000	2 1/2	4.437	—	—	5 5/8	1	13,960	20,940	27,920	16
J-A	7.750	3 3/16	5.140	—	—	6 1/4	1	19,550	29,325	39,100	25
M-A	9.500	5 3/16	6.494	9.250	3 9/16	7 7/8	2	49,000	73,500	98,000	50
N-A	10.500	6 1/4	6.990	10.250	4 1/2	8 1/2	2	73,200	109,800	146,400	75

*Tolerance of "D" - "SH" thru "J" = (+.000 -.002)

+Tolerance of "P"- "M" and "N" = (+.000-.003)