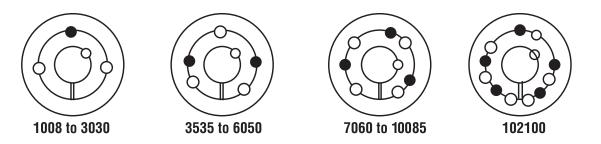


Taper Bushing Installation

IMPORTANT NOTE: Please follow the instructions on this sheet in order for the Martin bushing to perform satisfactorily.



INSTALLATION

- 1. Clean all oil, dirt, and paint from shaft, bushing bore, outside of bushing and component (sprocket, sheave...etc.) bore.
- 2. Insert bushing into component. Match the hole pattern, not the threaded holes (each hole will be threaded on one side only.)
- 3. Thread set or cap screws into those half threaded holes indicated by \bigcirc on above diagram. Mount assembly on shaft.
- 4. Alternately torque set or cap screws* to recommended torque setting in chart below.
- 5. On 3535 and larger bushings use a block, sleeve or drift and hammer large end of bushing (do not hammer bushing directly).
- 6. Repeat steps 4 and 5 until torque wrench reading, after hammering, is the same as before hammering.
- 7. Fill all unoccupied holes with grease.

REMOVAL

1. Remove all set or cap screws.

- 2. Insert set or cap screws in holes indicated by on drawing. Loosen bushing by alternately tightening set or cap screws.
- 3. To reinstall, complete all seven (7) installation instructions.

	RECOMMENDED TORQUE TA	BLE							
Bushing No.	Set or Cap Screw	Wrench Torque in. / Ibs.							
1008, 1108 1210, 1215, 1310 1610, 1615	1/4 - 20 Socket Set Screw 3/8 - 16 Socket Set Screw 3/8 - 16 Socket Set Screw	55 175 175							
2012 2517, 2525 3020, 3030	7/16 - 14 Socket Set Screw 1/2 - 13 Socket Set Screw 5/8 - 11 Socket Set Screw	280 430 800							
3535 4040 4545	1/2 - 13 Socket Head Cap Screw 5/8 - 11 Socket Head Cap Screw 3/4 - 10 Socket Head Cap Screw	1,000 1,700 2,450							
5050 7/8 - 9 Socket Head Cap Screw 3,100 6050, 7060, 8065 1-1/4 -7 Socket Head Cap Screw 7,820 10085, 120100 1 - 1/2 - 6 Socket Head Cap Screw 13,700									
* If two bushings are used on same component and shaft, fully tighten one bushing before working on the other.									



WARNING: USE OF ANTI-SEIZE LUBRICANT ON TAPERED CONE SURFACES OR ON BOLT THREADS WHEN MOUNTING MAY RESULT IN DAMAGE TO SHEAVES AND SPROCKETS. THIS VOIDS ALL MANUFACTURER'S WARRANTIES.

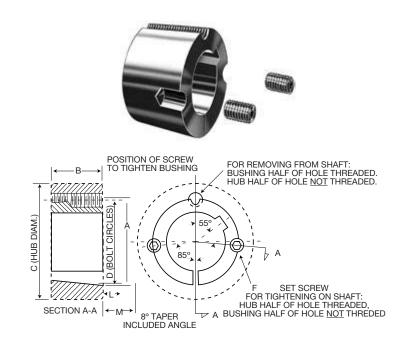
WARNING: Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed: Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions given above must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. All rotating power transmission products when used in a drive are potentially dangerous and must be guarded by the user as required by applicable laws, regulations, standards, and good safety practice. (Refer to ANSI Standard B15.1.)

Taper Bushings Dimensions



No. 1008 to 3030 Taper Bushings

				Sinnys
Bushing Number	Bore	Wt. lbs (appr)	Bushing Keyseat	Shaft Keyseat
	1/2 to 9/16	.27	1/8 × 1/16	1/8 × 1/16
1008	5/8 to 7/8	.21	3/16 × 3/32	3/16 × 3/32
	15/16 to 1	.16	1/4 × 1/16 ▼	1/4 × 1/8
	1/2 to 9/16	.33	1/8 × 1/16	1/8 × 1/16 3/16 × 3/32
1108	5/8 to 7/8 15/16 to 1	.27 .22	3/16 × 3/32 1/4 × 1/8	1/4 × 1/8
	1-1/16 to 1-1/8	.22	1/4 × 1/16 ▼	1/4 × 1/8
	1/2 to 9/16	.61	1/8 × 1/16	1/4 × 1/16
1010	5/8 to 7/8	.55	3/16 × 3/32	3/16 × 3/32
1210	15/16 to 1-1/4	.49	1/4 × 1/8	1/4 × 1/8
	1/2 to 9/16	.8	1/8 × 1/16	1/8 × 1/16
1215	5/8 to 7/8	.7	3/16 × 3/32	3/16 × 3/32
	15/16 to 1-1/4	.6	1/4 × 1/8	1/4 × 1/8
	1/2 to 9/16	.7	1/8 × 1/16	1/8 × 1/16
1310	5/8 to 7/8 15/16 to 1-1/4	.7	3/16 × 3/32 1/4 × 1/8	3/16 × 3/32
	1-5/16 to 1-1/4	.6 .6	5/16 × 5/32	1/4 × 1/8 5/16 × 5/32
	1/2 to 9/16	.0	1/8 × 1/16	1/8 × 1/16
	5/8 to 7/8	.8	3/16 3/32	3/16 3/32
1010	15/16 to 1-1/4	.7	$1/4 \times 1/8$	$1/4 \times 1/8$
1610	1-5/16 to 1-3/8	.7	5/16 × 5/32	5/16 × 5/32
	1-7/16 to 1-1/2	.6	3/8 × 3/16	3/8 × 3/16
	1-9/16 to 1-5/8	.5	3/8 × 1/8 ▼	3/8 × 3/16
	1/2 to 9/16	1.2	1/8 × 1/16	1/8 × 1/16
	5/8 to 7/8	1.1	3/16 × 3/32	3/16 × 3/32
1615	15/16 to 1-1/4	1.0	1/4 × 1/8	1/4 × 1/8
	1-5/16 to 1-3/8	.8	5/16 × 5/32	$5/16 \times 5/32$
	1-7/16 to 1-1/2 1-9/16 to 1-5/8	.7 .6	3/8 × 3/16 3/8 × 1/8 ▼	3/8 × 3/16 3/8 × 3/16
	1/2 to 9/16	1.7	1/8 × 1/16	1/8 × 1/16
	5/8 to 7/8	1.6	3/16 × 3/32	3/16 × 3/32
	15/16 to 1-1/4	1.5	1/4 × 1/8 ▼	1/4 × 1/8
2012	1-5/16 to 1-3/8	1.4	5/16 × 5/32	5/16 × 5/32
	1-7/16 to 1-3/4	1.2	3/8 × 3/16	3/8 × 3/16
	1-13/16 to 1-7/8	1.0	1/2 × 1/4	1/2 × 1/4
	1-15/16 to 2	1.0	1/2 × 3/16 ▼	1/2 × 1/4
	1/2 to 9/16	3.5	1/8 × 1/16	1/8 × 1/16
	5/8 to 7/8 15/16 to 1-1/4	3.4 3.3	3/16 × 3/32 1/4 × 1/8	3/16 × 3/32 1/4 × 1/8
2517	1-5/16 to 1-3/8	3.2	5/16 × 5/32	$5/16 \times 5/32$
2317	1-7/16 to 1-3/4	3.0	3/8 × 3/16	3/8 × 3/16
	1-13/16 to 2-1/4	2.4	$1/2 \times 1/4$	$1/2 \times 1/4$
	2-5/16 to 2-1/2	1.9	5/8 × 3/16 ▼	5/8 × 5/16
	3/4 to 7/8	4.9	3/16 × 3/32	3/16 × 3/32
	15/16 to 1-1/4	4.7	1/4 × 1/8	1/4 × 1/8
2525	15-/16 to 1-3/8	4.5	5/16 × 5/32	5/16 × 5/32
2020	1-7/16 to 1-3/4	4.2	3/8 × 3/16	3/8 × 3/16
	1-13/16 to 2-1/4	3.3	1/2 × 1/4	1/2 × 1/4
	2-5/16 to 2-1/2	2.5	5/8 × 3/16 ▼	5/8 × 5/16
	15/16 to 1-1/4	6.5	1/4 × 1/8 5/16 × 5/32	1/4 × 1/8
	1-5/16 to 1-3/8 1-7/16 to 1-3/4	6.3	$3/8 \times 3/16$	5/16 × 5/32 3/8 × 3/16
3020	1-13/16 to 2-1/4	6.0 5.3	3/8 × 3/16 1/2 × 1/4	$3/8 \times 3/16$ $1/2 \times 1/4$
	2-5/16 to 2-3/4	4.5	5/8 × 5/16	5/8 × 5/16
	2-13/16 to 3	3.9	3/4 × 1/4 ▼	$3/4 \times 3/8$
	15/16 to 1-1/4	9.2	$1/4 \times 1/8$	1/4 × 1/8
	1-5/16 to 1-3/8	8.9	5/16 × 5/32	5/16 × 5/32
3030	1-7/16 to 1-3/4	8.6	3/8 × 3/16	3/8 × 3/16
3030	1-13/16 to 2-1/4	7.6	1/2 × 1/4	1/2 × 1/4
	2-5/16 to 2-3/4	6.2	5/8 × 5/16	5/8 × 5/16
	2-13/16 to 3	5.0	3/4 × 1/4 ▼	3/4 × 3/8



Dimensions

				CØ				L۶	ł	M 7	**
Bushing Number	A	В	Class 20 Gray Iron	Class 30 Gray Iron	Steel	D	F†	Standard Hex. Key	Short Key ‡	Standard Hex. Key	Short Key ‡
1008	1.386	7/8	2-3/8	2-3/16	1-15/16	1-21/64	1/4 × 1/2	1-1/8	5/8	1-1/4	3/4
1108	1.511	7/8	2-1/2	2-5/16	2-1/16	1-29/64	$1/4 \times 1/2$	1-1/8	5/8	1-1/4	3/4
1210	1-7/8	1	3-5/8	3-1/4	2-7/8	1-3/4	$3/8 \times 5/8$	1-3/8	13/16	1-5/8	1-1/16
1215	1-7/8	1-1/2	3-1/8	2-7/8	2-5/8	1-3/4	$3/8 \times 5/8$	1-3/8	13/16	1-5/8	1-1/16
1310	2	1	3-3/4	3-3/8	3	1-7/8	$3/8 \times 5/8$	1-3/8	13/16	1-5/8	1-1/16
1610	2-1/4	1	4	3-5/8	3-1/4	2-1/8	$3/8 \times 5/8$	1-3/8	13/16	1-5/8	1-1/16
1615	2-1/4	1-1/2	3-1/2	3-1/4	3	2-1/8	$3/8 \times 5/8$	1-3/8	13/16	1-5/8	1-1/16
2012	2-3/4	1-1/4	4-3/4	4-3/8	3-7/8	2-5/8	7/16 × 7/8	1-9/16	15/16	2	1-3/8
2517	3-3/8	1-3/4	5-1/2	4-7/8	4-3/8	3-1/4	1/2 × 1	1-5/8	1	2-1/4	1-5/8
2525	3-3/8	2-1/2	4-3/4	4-1/2	4-1/4	3-1/4	$1/2 \times 1$	1-5/8	1	2-1/4	1-5/8
3020	4-1/4	2	7	6-1/4	5-5/8	4	5/8 × 1-1/4	1-13/16	1-3/16	2-11/16	2-1/16
3030	4-1/4	3	6-1/4	5-3/4	5-3/8	4	5/8 × 1-1/4	1-13/16	1-3/16	2-11/16	2-1/16

Bushings cannot be bored larger than largest bore listed.

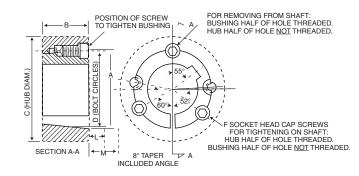
For detail dimensions required for machining hubs, consult factory.

- Key furnished for these sizes only.
- Ø For general reference. Severe conditions may require larger hub. Heavy well-located web may permit smaller hub. Hub diameter required depends on the particular application. Consult *Illiatua* giving full information on the proposed design. Hub diameters shown are based on 20,000, 30,000, and 50,000 P.S.I. minimum ultimate tensile strength respectively for Class 20 gray iron, Class 30 gray iron, and steel hubs.
- † 2 screws required. Use in positions shown for tightening bushing on shaft. In removing bushing from shaft, remove screws and use one of them in the other hole. Bushing price includes screws.
- ★ Space required to tighten bushing. Also space required to loosen screws to permit removal of hub by puller.
- $\star\star$ Space required to loosen bushing using one screw as jackscrew no puller required.
- ‡ Standard hex key cut to minimum usable length.



Taper Bushings Dimensions





No. 3535 to 5050 Bushings

Bushing			Bushing	Shaft				CØ				-	
Number	Bore	Weight	Keyseat	Keyseat	A	В	Class 20 Gray Iron	Class 30 Gray Iron	Steel	D	F†	G	R
	1-3/16 to 1-1/4	14	1/4 × 1/8	1/4 × 1/8									
	1-5/16 to 1-3/8	14	5/16 × 5/32	5/16 × 5/32									
	1-7/16 to 1-3/4	13	3/8 × 3/16	3/8 × 3/16									
3535	1-13/16 to 2-1/4	12	1/2 × 1/4	$1/2 \times 1/4$	5	3-1/2	7-3/4	7	6-1/2	4.83	1/2 × 1-1/2	39°	
0000	2-5/16 to 2-3/4	11	5/8 × 5/16	5/8 × 5/16									
	2-13/16 to 3-1/4	9	3/4 × 3/8	$3/4 \times 3/8$									
	3-5/16 to 3-1/2	8	▼ 7/8 × 1/4	7/8 × 7/16									
	1-7/16 to 1-3/4	22	3/8 × 3/16	3/8 × 3/16									
	1-13/16 to 2-1/4	21	1/2 × 1/4	1/2 × 1/4									
	2-5/16 to 2-3/4	19	5/8 × 5/16	5/8 × 5/16									
4040	2-13/16 to 3-1/4	17	3/4 × 3/8	$3/4 \times 3/8$	5-3/4	4	9-1/2	8-1/2	7-3/4	5.54	5/8 × 1-3/4	40°	
4040	3-5/16 to 3-5/8	15	7/8 × 7/16	7/8 × 7/16									
	3-11/16 to 3-3/4	14	▼ 1 × 1/4	7/8 × 7/16									
	3-13/16 to 4	13	▼ 1 × 1/4	1 × 1/2									
	1-15/16 to 2-1/4	30	1/2 × 1/4	1/2 × 1/4									
	2-5/16 to 2-3/4	28	5/8 × 5/16	5/8 × 5/16									
	2-13/16 to 3-1/4	26	3/4 × 3/8	$3/4 \times 3/8$	6-3/8	4-1/2	10-1/2	9-1/2	8-3/4	6.13	3/4 × 2	40°	
4545	3-5/16 to 3-3/4	23	7/8 × 7/16	7/8 × 7/16	0-3/8	4-1/2	10-1/2	9-1/2	0-3/4	0.15	J/4 X Z	40	
	3-13/16 to 4-1/4	20	1 × 1/2	1 × 1/2									
	4-5/16 to 4-1/2	18	▼ 1 × 1/4	1 × 1/2									
	2-5/16 to 2-3/4	38	5/8 × 5/16	5/8 × 5/16									
	2-13/16 to 3-1/4	35	3/4 × 3/8	$3/4 \times 3/8$									
5050	3-5/16 to 3-3/4	32	7/8 × 7/16	7/8 × 7/16	7	5	11-1/2	10-1/2	9-1/2	6.72	7/8 × 2-1/4	37°	
5050	3-13/16 to 4-1/2	27	1 × 1/2	1 × 1/2									
	4-9/16 to 5	24	▼ 1-1/4 × 7/16	1-1/4 × 5/8									

No. 4030 to 5040 Short Taper Bushings

Bushing	_		Bushing	Shaft	_	_		CØ		_			_
Number	Bore	Weight	Keyseat	Keyseat	A	В	Class 20 Gray Iron	Class 30 Gray Iron	Steel	D	F†	G	R
	1-7/16 to 1-3/4	24	3/8 × 3/16	3/8 × 3/16									
	1-13/16 to 2-1/4	21	1/2 × 1/4	1/2 × 1/4									
	2-5/16 to 2-3/4	20	5/8 × 5/16	5/8 × 5/16									
	2-13/16 to 3-1/4	18	3/4 × 3/8	$3/4 \times 3/8$	5-3/4	3	9-1/2	8-1/2	7-3/4	5.54	5/8 × 1-3/4	39°	
4030	3-5/16 to 3-11/16	15	7/8 × 7/16	7/8 × 7/16	3-3/4	5	J-1/2	0-1/2	7-0/4	5.54	5/0 × 1-5/4	0.5	
	3-3/4	13	▼ 7/8 × 1/4	7/8 × 7/16									
	3-13/16	13	1 × 1/2	1 × 1/2									
	3-7/8 to 4-7/16	13	1 × 1/4	1 × 1/2									
	1-15/16 to 2-1/4	31	1/2 × 1/4	1/2 × 1/4									
	2-5/16 to 2-3/4	29	5/8 × 5/16	5/8 × 5/16									
	2-13/16 to 3-1/4	25	3/4 × 3/8	$3/4 \times 3/8$									
4535	3-5/16 to 3-11/16	23	7/8 × 7/16	7/8 × 7/16	6-3/8	3-1/2	10-1/2	91/2	8-3/4	6.13	3/4 × 2	40°	
4555	3-13/16 to 4-1/4	20	1 × 1/2	1 × 1/2									
	4-3/8 to 4-1/2	17	▼ 1 × 1/4	1 × 1/2									
	4-3/4 to 4-15/16	15	▼ 1-1/4 × 1/4	1-1/4 × 5/8									
	2-7/16 to 2-3/4	40	5/8 × 5/16	5/8 × 5/16									
	2-13/16 to 3-1/4	37	3/4 × 3/8	$3/4 \times 3/8$									
5040	3-5/16 to 3-3/4	33	7/8 × 7/16	7/8 × 7/16	7	4	11-1/2	10-1/2	9-1/2	6.72	7/8 × 2-1/4	37°	
5040	3-13/16 to 4-1/2	29	1 × 1/2	1 × 1/2									
	4-3/4 to 5	23	▼ 1-1/4 × 1/4	1-1/4 × 5/8									

Bushings cannot be bored larger than largest bore listed.

For detail dimensions required for machining hubs, consult factory.

▼ Key furnished for these sizes only.

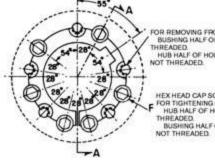
Ø For general reference. Severe conditions may require larger hub. Heavy well located web may permit smaller hub. Hub diameter required depends on the particular application. Consult factory giving full information on the proposed design. Hub diameters shown are based on 20,000, 30,000, and 50,000 P.S.I. minimum ultimate tensile strength respectively for Class 20 gray iron, Class 30 gray iron, and steel hubs. † 3 screws required. Use in positions shown for tightening bushing on shaft. In removing bushing from shaft, remove screws and use two of them in the other two holes. Bushing price includes screws. See following footnote.

Provide sufficient space to tighten and loosen bushing. Width across flats of screw head is same as screw diameter which is shown in column F.

Taper Bushings Dimensions

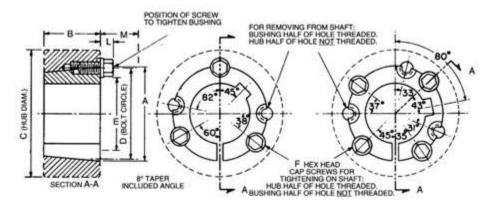






FOR REMOVING FROM SHAFT: BUSHING HALF OF HOLE THREADED. HUB HALF OF HOLE NOT THREADED.

HEX HEAD CAP SCREWS FOR TIGHTENING ON SHAFT: HUB HALF OF HOLE THREADED. BUSHING HALF OF HOLE



No 6050 to 120100 Taper Bushings

Bushing			Bushing	Shaft				CØ						
Number	Bore	Weight	Keyseat	Keyseat	A	В	Class 20 Gray Iron	Class 30 Gray Iron	Steel	D	E	F†	L*	M★★
	3-13/16 to 4-1/2	60	1 × 1/2	1 × 1/2										
6050	49/16 to 5-1/2	55	$1-1/4 \times 5/8$	1-1/4 × 5/8	9-1/4	5	17	15-1/2	13-1/2	9	6-3/4	1-1/4 × 3-1/2	1-5/8	4-3/8
	5-9/16 to 6	50	$1-1/2 \times 3/4$	1-1/2 × 3/4										
	4-9/16 to 5-1/2	85	1-1/4 × 5/8	1-1/4 × 5/8										
7060	5-9/16 to 6-1/2	75	1-1/2 × 3/4	1-1/2 × 3/4	10-1/4	6	18-1/2	17	14-3/4	10	7-3/4	1-1/4 × 3-1/2	1-5/8	4-3/8
	6-9/16 to 7	65	$1-3/4 \times 3/4$	1-3/4 × 3/4										
	5-1/16 to 5-1/2	120	1-1/4 × 5/8	1-1/4 × 5/8										
Ф 8065	5-9/16 to 6-1/2	105	1-1/2 × 3/4	1-1/2 × 3/4	11-1/4	6-1/2	19	17-1/2	15-1/2	11	8-3/4	1-1/4 × 3-1/2	1-5/8	4-3/8
\$ 0005	6-9/16 to 7-1/2	90	$1-3/4 \times 3/4$	$1-3/4 \times 3/4$	11-1/4	0-1/2	15	17-1/2	10-1/2		0-0/4	1-1/4 × 0-1/2	1-5/0	4-0/0
	7-9/16 to 8	75	2 × 3/4	2 × 3/4										
	6-9/16 to 7-1/2	260	$1-3/4 \times 3/4$	$1-3/4 \times 3/4$										
Φ 10085	7-9/16 to 9	230	2 × 3/4	2 × 3/4	14-3/4	8-1/2	23-1/2	22	19-1/2	14-1/2	11-3/4	1-1/2 × 4-1/4	2	5-3/8
	9-1/16 to 10	190	2-1/2 × 7/8	2-1/2 × 7/8										
	7-9/16 to 9	410	$2 \times 3/4$	$2 \times 3/4$										
Φ 120100	9-1/16 to 11	360	2-1/2 × 7/8	2-1/2 × 7/8	17-1/4	10	28	26	23	17	14-1/4	1-1/2 × 4-1/4	2	5-3/8
	11-1/16 to 12	290	3 × 1	3 × 1										

Bushings cannot be bored larger than largest bore listed.

For detail dimensions required for machining hubs, consult Matin.

- For general reference. Severe conditions may require larger hub. Heavy well Ø located web may permit smaller hub. Hub diameter required depends on the particular application. Consult Matin giving full information on the proposed design. Hub diameters shown are based on 20,000, 30,000, and 50,000 P.S.I. minimum ultimate tensile strength respectively for Class 20 gray iron, Class 30 gray iron, and steel hubs.
- t 3 screws for 6050; four for 7060 to 10085; six for 120100. Use in positions shown for tightening bushing on shaft. In loosening bushing, remove screws and use all except one in the other holes. Bushing price includes screws.

Space required to tighten bushing. Also space required to loosen screws to permit removal of hub by puller.

Space required to loosen bushing using screws as jackscrews- no puller ** required.

Φ Not currently stocked — Available on order.



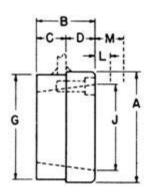
TAPER BUSHED TYPE S-TYPE W WELD-ON HUBS DIMENSIONS

Martin Taper Bushed Type S Weld-On Hubs are suitable for use in many applications such as for welding to plate steel sprockets. The outside diameters of these hubs have been reduced to a minimum. This is permissible because of the reinforcing strength of the items to which they are to be welded. Cases where the attached item is of small dimensions should be referred to **Martin**.

Type S Weld-On Hubs are made of steel, drilled, tapped, and taper bored for Tapered Bushings. Their small size and the convenience and advantages of Taper Bushed construction make them of great value on many devices for use on shafts.

Bushing Number	For Use with Bushing Number	Max. Bore of Bushing	Weight	A	BΦ	C **	D 🔻	G	J
S16-4	1610	1-5/8	.9	3	1	.275	.725	2-7/8 †	2-1/4
S16-6	1610	1-5/8	.9	3	1	.450	.550	2-7/8 †	2-1/4
S20-6	2012	2	1.8	3-9/16	1-1/4	.450	.800	3-7/16 †	2-3/4
S20-8	2012	2	1.4	3-9/16	1-1/4	.570	.680	3-7/16 †	2-3/4
S25-6	2517	2-1/2	2.6	4-1/4	1-3/4	.450	1.300	4-1/8 †	3-3/8
S25-8	2517	2-1/2	2.6	4-1/4	1-3/4	.565	1.185	4-1/8 †	3-3/8
S25-10	2517	2-1/2	2.5	4-1/4	1-3/4	.685	1.065	4-1/8 †	3-3/8
S25-16	2517	2-1/2	2.4	4-1/4	1-3/4	1.090	.660	4-1/8 †	3-3/8
S30-10	3020	3	4.3	5-1/4	2	.675	1.325	5-1/8 †	4-1/4
S30-16	3020	3	4.2	5-1/4	2	1.090	.910	5-1/8 †	4-1/4
S35	3535	3-1/2	12.8	6-1/2	3-1/2	1.160	2.340	6-3/8 Ø	5





See dimension tables on preceding page for bushing data and wrench space required.

† + .000-.002 Φ + .005-.010

Ø + .005-.010 Ø + .001-.003

▼ + .001-.003

****** + .010-.010

Type WA Weld-On Hubs are made of steel, drilled, tapped, and taper bored to receive Tapered Bushings. They are very useful for welding into fan rotors, pulleys, plate sprockets, impellers, agitators, and many other devices which must be firmly fastened to the shaft.

Bushing Number	For Use with Bushing Number	Max. Bore of Bushing	Weight	A	В	C	D	F	G	Н	J	к
WA12	1215	1-1/4	1.3	2-7/8	1-1/2	3/8	5/8	3/8	2-1/2 †	2-3/8	1-7/8	2-5/8
WA16	1615	1-5/8	1.5	3-1/4	1-1/2	3/8	5/8	3/8	2-7/8 †	2-3/4	2-1/4	3
WA25	2517	2-1/2	4.0	4-7/8	1-3/4	1/2	3/4	3/8	4-3/8 †	4-1/4	3-3/8	4-5/8
WA30	3030	3	8.6	5-1/2	3	3/4	3/4	1/4	5-1/8 †	4-13/16	4-1/8	5
WA35	3535	3-1/2	15	6-3/4	3-1/2	1-1/4	1	3/8	6-1/4 †	5-15/16	5	6
WA40	4040	4	29	7-3/4	4	1-1/2	1	3/8	7-1/4 †	6-7/8	5-3/4	7
WA45	4545	4-1/2	42	8-3/4	4-1/2	1-3/4	1	3/8	8†	7-5/8	6-3/8	8
WA50	5050	5	57	9-1/2	5	1-3/4	1	3/8	8-3/4 •	8-3/8	7	8-3/4
WA60	6050	6	115	13-1/4	5	1-3/4	1-1/4	-	12-1/4 ★	11-7/8	9-1/4	-
WA70	7060	7	155	14-1/2	6	2-1/4	1-1/4	-	13-1/2 ★	13-1/4	10-1/4	-
WA80	8065	8	180	15-1/4	6-1/2	2-1/4	1-1/4	-	14-1/4 ★	14	11-1/4	-
WA100	10085	10	340	19-3/4	8-1/2	3-1/2	1-1/2	-	18-3/4 ★	18-1/4	14-3/4	-

See dimension tables on preceeding page for bushing data and wrench space required.

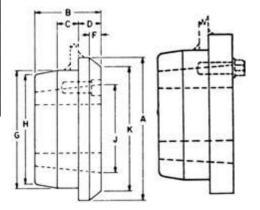
† + .000-.002

• + .000-.003

★ + .000-.004

Type WA





Type S

Taper Bushings Metric and Reborable



Stock Taper Bushings With Metric Bores and Keyways

★ Metric Bores	★ Metric Keyway		Taper Bush	ing Number	
14, 16	5 × 2.3	1008	1108	1210	
14, 10	5 X 2.5	1215	1610	1615	
18, 19	6 × 2.8	1008	1108	1210	1215
20, 22	0 X 2.0	1610	1615	2012	2517
24	8 × 3.3	1108	1210	1215	
24	8 X 3.3	1610	1615	2012	2517
25	8 × 3.3	1210	1215	1610	
20	0 X 3.3	1615	2012	2517	
28, 30	8 × 3.3	1210	1215	1610	
20, 30	0 X 3.3	1615	2012	2517	3020
32	10 × 3.3	1610	1615		
32	10 x 3.3	2012	2517	3020	
35	10 × 3.3	1610	1615		
	10 x 3.3	2012	2517	3020	
38	10 × 3.3	1610	1615		
30	10 x 3.3	2012	2517	3020	
40, 42	12 × 3.3	2012			
40, 42	12 × 3.3	2517	3020		
45 40	14	2012			
45, 48	14 × 3.8	2517	3020		
50	14 × 3.8	2517	3020		
55	16 × 4.3	2517	3020		

★ Millimeter Bores and Keyways from ISO Std. R773. 1" = 25.4 millimeters

NOTE: For other metric bore sizes consult factory.

Stock Reborable Taper Bushings With No Keyways

Sin	tered Steel		Gray Iron	St	eel	Stainle	ss Steel
1008	9/16			1008	1/2	1008	1/2
1108	1/2			1108	1/2	1108	
1210	9/16			1210	1/2	1210	1/2
1215	1/2			1215	1/2	1215	
1310	1/2			1310		1310	
1610	1/2 1-5/16			1610	1/2	1610	1/2
1615	1/2 1-5/16			1615	1/2	1615	
2012	1/2			2012	1/2	2012	1/2
2517	1/2 1-9/16			2517	1/2	2517	1/2
		2525	2-1/8	2525		2525	
3020	15/16 1-11/16	3020	15/16 1-7/16 2-15/16	3020	15/16	3020	15/16
		3030	15/16 2-7/16 2-15/16	3030		3030	
		3535	1-3/16 2-7/16 2-15/16	3535		3535	
		4040	1-7/16 3-7/16 3-15/16	4040		4040	
		4545	3-15/16 4-7/16	4545		4545	
		5050	2-7/16 3-15/16				
		6050	3-7/16 5-7/16				
		7060	3-15/16				
		8065	4-7/16				
		10085	7				
		H120100	8				

★ Not currently stocked. Consult factory for availability and pricing.