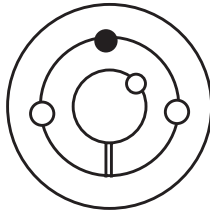
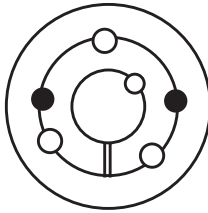


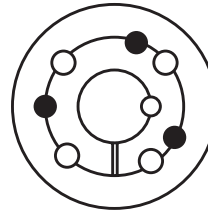
**IMPORTANT NOTE:** Please follow the instructions on this sheet in order for the Martin bushing to perform satisfactorily.



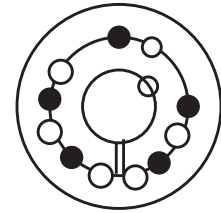
1008 to 3030



3535 to 6050



7060 to 10085



102100

### 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 ○ 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 TABLE

Bushing No.	Set or Cap Screw	Wrench Torque in. / lbs.
1008, 1108	1/4 - 20 Socket Set Screw	55
1210, 1215, 1310	3/8 - 16 Socket Set Screw	175
1610, 1615	3/8 - 16 Socket Set Screw	175
2012	7/16 - 14 Socket Set Screw	280
2517, 2525	1/2 - 13 Socket Set Screw	430
3020, 3030	5/8 - 11 Socket Set Screw	800
3535	1/2 - 13 Socket Head Cap Screw	1,000
4040	5/8 - 11 Socket Head Cap Screw	1,700
4545	3/4 - 10 Socket Head Cap Screw	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.

### CAUTION

**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.**

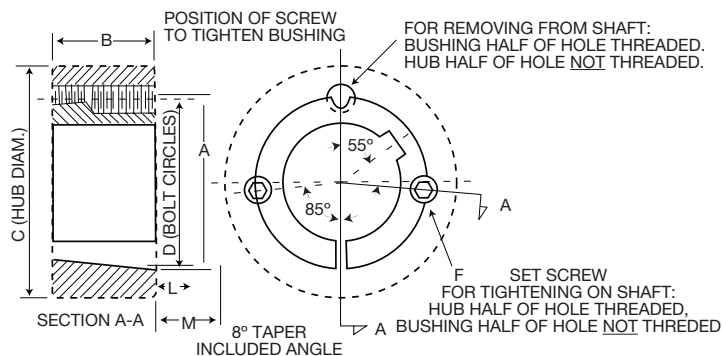
**WARNING:** Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed: Products must be used in accordance with the engineering information specified in the catalog. Proper installation, 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

*Martin*

## No. 1008 to 3030 Taper Bushings

Bushing Number	Bore	Wt. lbs (appr)	Bushing Keyseat	Shaft Keyseat
1008	1/2 to 9/16	.27	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	.21	3/16 x 3/32	3/16 x 3/32
	15/16 to 1	.16	1/4 x 1/16 ▼	1/4 x 1/8
1108	1/2 to 9/16	.33	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	.27	3/16 x 3/32	3/16 x 3/32
	15/16 to 1	.22	1/4 x 1/8	1/4 x 1/8
	1-1/16 to 1-1/8	.17	1/4 x 1/16 ▼	1/4 x 1/8
1210	1/2 to 9/16	.61	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	.55	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	.49	1/4 x 1/8	1/4 x 1/8
1215	1/2 to 9/16	.8	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	.7	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	.6	1/4 x 1/8	1/4 x 1/8
1310	1/2 to 9/16	.7	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	.7	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	.6	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	.6	5/16 x 5/32	5/16 x 5/32
1610	1/2 to 9/16	.9	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	.8	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	.7	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	.7	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-1/2	.6	3/8 x 3/16	3/8 x 3/16
	1-9/16 to 1-5/8	.5	3/8 x 1/8 ▼	3/8 x 3/16
1615	1/2 to 9/16	1.2	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	1.1	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	1.0	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	.8	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-1/2	.7	3/8 x 3/16	3/8 x 3/16
	1-9/16 to 1-5/8	.6	3/8 x 1/8 ▼	3/8 x 3/16
2012	1/2 to 9/16	1.7	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	1.6	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	1.5	1/4 x 1/8 ▼	1/4 x 1/8
	1-5/16 to 1-3/8	1.4	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-3/4	1.2	3/8 x 3/16	3/8 x 3/16
	1-13/16 to 1-7/8	1.0	1/2 x 1/4	1/2 x 1/4
2517	1-15/16 to 2	1.0	1/2 x 3/16 ▼	1/2 x 1/4
	1/2 to 9/16	3.5	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	3.4	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	3.3	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	3.2	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-3/4	3.0	3/8 x 3/16	3/8 x 3/16
	1-13/16 to 2-1/4	2.4	1/2 x 1/4	1/2 x 1/4
2525	2-5/16 to 2-1/2	1.9	5/8 x 3/16 ▼	5/8 x 5/16
	3/4 to 7/8	4.9	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	4.7	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	4.5	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-3/4	4.2	3/8 x 3/16	3/8 x 3/16
	1-13/16 to 2-1/4	3.3	1/2 x 1/4	1/2 x 1/4
3020	2-5/16 to 2-1/2	2.5	5/8 x 3/16 ▼	5/8 x 5/16
	15/16 to 1-1/4	6.5	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	6.3	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-3/4	6.0	3/8 x 3/16	3/8 x 3/16
	1-13/16 to 2-1/4	5.3	1/2 x 1/4	1/2 x 1/4
	2-5/16 to 2-3/4	4.5	5/8 x 5/16	5/8 x 5/16
	2-13/16 to 3	3.9	3/4 x 1/4 ▼	3/4 x 3/8
3030	15/16 to 1-1/4	9.2	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	8.9	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-3/4	8.6	3/8 x 3/16	3/8 x 3/16
	1-13/16 to 2-1/4	7.6	1/2 x 1/4	1/2 x 1/4
	2-5/16 to 2-3/4	6.2	5/8 x 5/16	5/8 x 5/16
	2-13/16 to 3	5.0	3/4 x 1/4 ▼	3/4 x 3/8



## Dimensions

Bushing Number	A	B	C Ø			D	F †	L ★		M ★★	
			Class 20 Gray Iron	Class 30 Gray Iron	Steel			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 x 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 x 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 x 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 x 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 x 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 x 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 x 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 x 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 x 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 x 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 x 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 x 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.

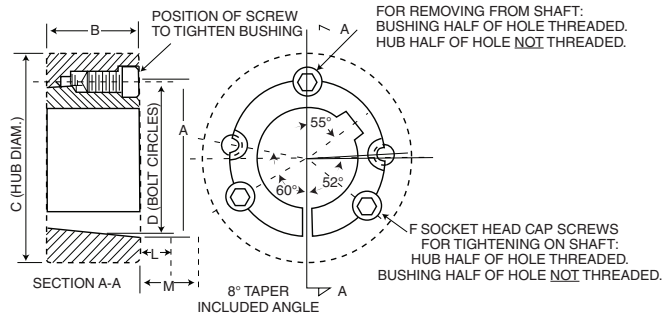
Ø For general reference. Severe conditions may require larger hub. Heavy well-located web may permit smaller hub. Hub diameter required depends on the particular application. Consult *Martin* giving full information on the proposed design. Hub diameters shown are based on 20,000, 30,000, and 50,000 P.S.I. 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.

★★ Space required to loosen bushing using one screw as jackscrew — no puller required.

‡ Standard hex key cut to minimum usable length.



## No. 3535 to 5050 Bushings

Bushing Number	Bore	Weight	Bushing Keyseat	Shaft Keyseat	A	B	C Ø			D	F †	G	R
							Class 20 Gray Iron	Class 30 Gray Iron	Steel				
3535	1-3/16 to 1-1/4	14	1/4 x 1/8	1/4 x 1/8	5	3-1/2	7-3/4	7	6-1/2	4.83	1/2 x 1-1/2	39°	▲
	1-5/16 to 1-3/8	14	5/16 x 5/32	5/16 x 5/32									
	1-7/16 to 1-3/4	13	3/8 x 3/16	3/8 x 3/16									
	1-13/16 to 2-1/4	12	1/2 x 1/4	1/2 x 1/4									
	2-5/16 to 2-3/4	11	5/8 x 5/16	5/8 x 5/16									
	2-13/16 to 3-1/4	9	3/4 x 3/8	3/4 x 3/8									
	3-5/16 to 3-1/2	8	▼ 7/8 x 1/4	7/8 x 7/16									
4040	1-7/16 to 1-3/4	22	3/8 x 3/16	3/8 x 3/16	5-3/4	4	9-1/2	8-1/2	7-3/4	5.54	5/8 x 1-3/4	40°	▲
	1-13/16 to 2-1/4	21	1/2 x 1/4	1/2 x 1/4									
	2-5/16 to 2-3/4	19	5/8 x 5/16	5/8 x 5/16									
	2-13/16 to 3-1/4	17	3/4 x 3/8	3/4 x 3/8									
	3-5/16 to 3-5/8	15	7/8 x 7/16	7/8 x 7/16									
	3-11/16 to 3-3/4	14	▼ 1 x 1/4	7/8 x 7/16									
	3-13/16 to 4	13	▼ 1 x 1/4	1 x 1/2									
4545	1-15/16 to 2-1/4	30	1/2 x 1/4	1/2 x 1/4	6-3/8	4-1/2	10-1/2	9-1/2	8-3/4	6.13	3/4 x 2	40°	▲
	2-5/16 to 2-3/4	28	5/8 x 5/16	5/8 x 5/16									
	2-13/16 to 3-1/4	26	3/4 x 3/8	3/4 x 3/8									
	3-5/16 to 3-3/4	23	7/8 x 7/16	7/8 x 7/16									
	3-13/16 to 4-1/4	20	1 x 1/2	1 x 1/2									
	4-5/16 to 4-1/2	18	▼ 1 x 1/4	1 x 1/2									
5050	2-5/16 to 2-3/4	38	5/8 x 5/16	5/8 x 5/16	7	5	11-1/2	10-1/2	9-1/2	6.72	7/8 x 2-1/4	37°	▲
	2-13/16 to 3-1/4	35	3/4 x 3/8	3/4 x 3/8									
	3-5/16 to 3-3/4	32	7/8 x 7/16	7/8 x 7/16									
	3-13/16 to 4-1/2	27	1 x 1/2	1 x 1/2									
	4-9/16 to 5	24	▼ 1-1/4 x 7/16	1-1/4 x 5/8									

## No. 4030 to 5040 Short Taper Bushings

Bushing Number	Bore	Weight	Bushing Keyseat	Shaft Keyseat	A	B	C Ø			D	F †	G	R
							Class 20 Gray Iron	Class 30 Gray Iron	Steel				
4030	1-7/16 to 1-3/4	24	3/8 x 3/16	3/8 x 3/16	5-3/4	3	9-1/2	8-1/2	7-3/4	5.54	5/8 x 1-3/4	39°	▲
	1-13/16 to 2-1/4	21	1/2 x 1/4	1/2 x 1/4									
	2-5/16 to 2-3/4	20	5/8 x 5/16	5/8 x 5/16									
	2-13/16 to 3-1/4	18	3/4 x 3/8	3/4 x 3/8									
	3-5/16 to 3-11/16	15	7/8 x 7/16	7/8 x 7/16									
	3-3/4	13	▼ 7/8 x 3/16	7/8 x 7/16									
	3-13/16	13	1 x 1/2	1 x 1/2									
4535	3-7/8 to 4-7/16	13	1 x 1/4	1 x 1/2	6-3/8	3-1/2	10-1/2	9-1/2	8-3/4	6.13	3/4 x 2	40°	▲
	1-15/16 to 2-1/4	31	1/2 x 1/4	1/2 x 1/4									
	2-5/16 to 2-3/4	29	5/8 x 5/16	5/8 x 5/16									
	2-13/16 to 3-1/4	25	3/4 x 3/8	3/4 x 3/8									
	3-5/16 to 3-11/16	23	7/8 x 7/16	7/8 x 7/16									
	3-13/16 to 4-1/4	20	1 x 1/2	1 x 1/2									
	4-3/8 to 4-1/2	17	▼ 1 x 1/4	1 x 1/2									
5040	4-3/4 to 4-15/16	15	▼ 1-1/4 x 1/4	1-1/4 x 5/8	7	4	11-1/2	10-1/2	9-1/2	6.72	7/8 x 2-1/4	37°	▲
	2-7/16 to 2-3/4	40	5/8 x 5/16	5/8 x 5/16									
	2-13/16 to 3-1/4	37	3/4 x 3/8	3/4 x 3/8									
	3-5/16 to 3-3/4	33	7/8 x 7/16	7/8 x 7/16									
	3-13/16 to 4-1/2	29	1 x 1/2	1 x 1/2									
	4-3/4 to 5	23	▼ 1-1/4 x 1/4	11/4 x 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.

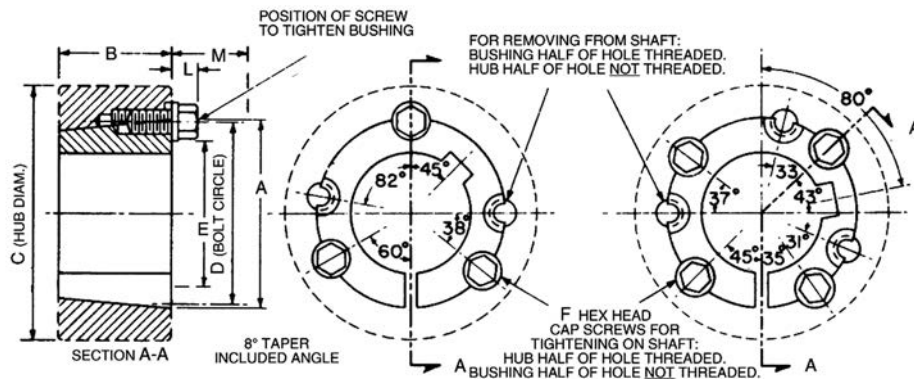
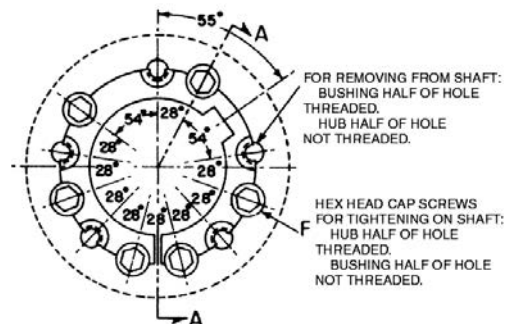
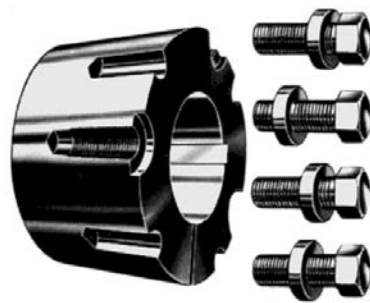
○ For general reference. Severe conditions may require larger hub. Heavy well located web may permit smaller hub. Hub diameter required depends on the particular application. Consult factory giving full information on the proposed design. Hub diameters shown are based on 20,000, 30,000, and 50,000 P.S.I. 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

*Martin*



## No 6050 to 120100 Taper Bushings

Bushing Number	Bore	Weight	Bushing Keyseat	Shaft Keyseat	A	B	C Ø			D	E	F †	L ★	M ★★
							Class 20 Gray Iron	Class 30 Gray Iron	Steel					
6050	3-13/16 to 4-1/2	60	1 × 1/2	1 × 1/2										
	49/16 to 5-1/2	55	1-1/4 × 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 × 3/4	1-1/2 × 3/4										
7060	4-9/16 to 5-1/2	85	1-1/4 × 5/8	1-1/4 × 5/8										
	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 × 3/4	1-3/4 × 3/4										
Φ 8065	5-1/16 to 5-1/2	120	1-1/4 × 5/8	1-1/4 × 5/8										
	5-9/16 to 6-1/2	105	1-1/2 × 3/4	1-1/2 × 3/4										
	6-9/16 to 7-1/2	90	1-3/4 × 3/4	1-3/4 × 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
	7-9/16 to 8	75	2 × 3/4	2 × 3/4										
Φ 10085	6-9/16 to 7-1/2	260	1-3/4 × 3/4	1-3/4 × 3/4										
	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										
Φ 120100	7-9/16 to 9	410	2 × 3/4	2 × 3/4										
	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 *Martin*.

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 *Martin* 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 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.

*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	B Φ	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 + .001-.003  
▼ + .000-.005  
★★ + .010-.010

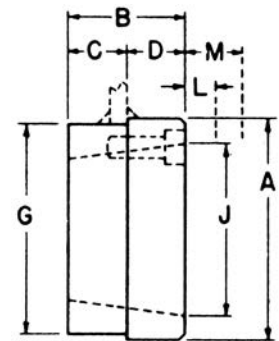
Type WA Weld-On Hubs are made of steel, drilled, tapped, and taper bored to receive Tapered Bushings. They are very useful for welding into fan rotors, pulleys, plate sprockets, impellers, agitators, and many other devices which must be firmly fastened to the shaft.

Bushing Number	For Use with Bushing Number	Max. Bore of Bushing	Weight	A	B	C	D	F	G	H	J	K
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	—

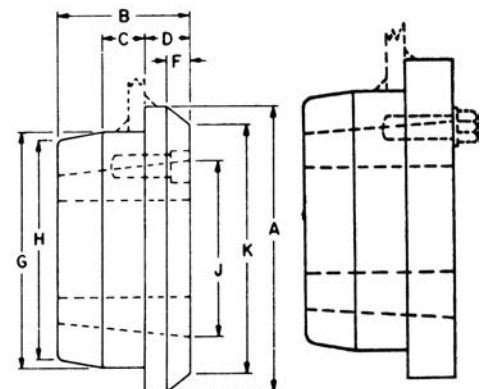
See dimension tables on preceding page for bushing data and wrench space required.

† + .000-.002  
• + .000-.003  
★ + .000-.004

### Type S



### Type WA





# Taper Bushings Metric and Reborable



## Stock Taper Bushings With Metric Bores and Keyways

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

Sintered Steel		Gray Iron		Steel		Stainless 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	2525	2-1/8	2517	1/2	2517	1/2
				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.