

APPROVED S.A.E. STANDARD DIMENSIONS FOR SHAFTS 3/4 TO 3 INCHES IN DIAMETER

MARINE PROPELLER SHAFT END DIMENSIONS

Nom Shaft Diameter	Diameter Small End		Taper Length	Keyway Width			Keyway Side Depth		Keyway Fillet Radius (ii)	Thread (iii)		End of Taper to End of Thread	Ext. Beyond Taper	Undercut		Dia. of Pin End	Length of Pin End	Cotter-Pin Hole		Cotter-Pin		Nuts (iv)		Keyway Length	
	Min.	Max.		Min.	Max.	Min.	Max.	Min.		Max.	Min.			Max.	Min.			Max.	Min.	Max.	Min.	Max.	Min.		Max.
3/4	0.624	0.626	2	0.1865	0.1875	3/32	0.095	0.097	1/32	1/2	13	1-1/16	1-5/16	25/64	1/8	1/4	1-9/64	9/64	1/8	3/4	1/2	1-1/2	1-1/2	1-25/32	2-1/8
7/8	0.726	0.728	2	0.249	0.250	1/8	0.125	0.127	1/32	5/8	11	1-1/4	1-3/4	19/32	1/8	1/4	1-21/64	9/64	1/8	3/4	1/2	1-3/4	1-3/4	2-1/8	2-1/8
1	0.827	0.829	2-3/4	0.249	0.250	1/8	0.125	0.127	1/32	3/4	10	1-7/16	1-3/4	19/32	1/8	1/2	1-33/64	9/64	1/8	1	1/2	1-3/4	1-3/4	2-1/8	2-1/8
1-1/8	0.929	0.931	3-1/8	0.249	0.250	1/8	0.125	0.127	1/32	3/4	9	1-7/16	1-3/4	19/32	1/8	1/2	1-33/64	9/64	1/8	1	1/2	1-3/4	1-3/4	2-1/8	2-1/8
1-1/4	1.030	1.032	3-1/2	0.3115	0.3125	5/32	0.157	0.160	1/16	7/8	9	1-5/8	2	23/32	1/8	3/8	1-23/32	11/64	1/8	1-1/4	1/2	1-3/4	1-3/4	2-1/8	2-1/8
1-3/8	1.132	1.134	3-7/8	0.3115	0.3125	5/32	0.157	0.160	1/16	1	8	1-13/16	2-1/4	13/16	1/8	3/4	1-29/32	11/64	5/32	1-1/2	1/2	1-8	1-8	3-3/16	3-3/16
1-1/2	1.233	1.235	4-1/4	0.374	0.375	3/16	0.189	0.192	1/16	1-1/8	7	1-1/2	2-7/16	29/32	3/16	7/8	1-1/2	1-33/64	5/32	1-1/2	1-1/2	1-1/8	1-1/8	3-1/2	3-1/2
1-3/4	1.437	1.439	5	0.4365	0.4375	7/32	0.219	0.222	1/16	1-1/4	7	2-1/8	3-1/8	1-1/32	3/16	1-1/4	2-23/64	13/64	3/16	1-3/4	1/2	1-1/4	1-1/4	4-7/32	4-7/32
2	1.640	1.642	5-3/4	0.499	0.500	1/4	0.251	0.254	1/16	1-1/2	6	2-5/8	3-1/8	1-1/4	1/4	1-1/4	2-47/64	13/64	3/16	2	1/2	1-1/2	1-1/2	4-15/16	4-15/16
2-1/4	1.843	1.845	6-1/2	0.5610	0.5625	9/32	0.281	0.284	3/32	1-3/4	5	3	3-1/2	1-3/8	3/16	1-3/8	3-9/64	17/64	1/4	2-1/4	1/2	1-3/4	1-3/4	5-5/8	5-5/8
2-1/2	2.046	2.048	7-1/4	0.6235	0.625	5/16	0.312	0.315	3/32	1-3/4	5	3	3-1/2	1-7/16	3/16	1-7/16	3-9/64	17/64	1/4	2-1/4	1/2	1-3/4	1-3/4	6-3/32	6-3/32
2-3/4	2.254	2.259	8-1/8	0.6235	0.625	5/16	0.313	0.316	3/32	2	4	3-1/2	4-3/8	1-1/16	1/4	1-1/16	3-41/64	17/64	1/4	2-1/2	1/2	2-4-1/2	2-4-1/2	6-21/32	6-21/32
3	2.460	2.462	8-5/8	0.7485	0.750	3/32	0.311	0.314	3/32	2-1/4	4	3-7/8	4-3/8	1-5/16	1/4	1-5/16	4-1/64	17/64	1/4	3	1/2	2-25-4-5	2-25-4-5	7-11/32	7-11/32

DIMENSIONS OF SHAFTS FROM 3-1/4 TO 8 INCHES IN DIAMETER

Nom Shaft Diameter	Diameter Small End		Taper Length	Keyway Width			Keyway Side Depth		Keyway Fillet Radius	Thread		End of Taper to End of Thread	Ext. Beyond Taper	Undercut		Dia. of Pin End	Length of Pin End	Cotter-Pin Hole		Nuts		Sleeve Drive (v)	Clearance	Keyway Length	
	Min.	Max.		Min.	Max.	Min.	Max.	Min.		Max.	Min.			Max.	Min.			Max.	Min.	Max.	Min.				Max.
3-1/4	2.663	2.665	9-3/8	0.7185	0.750	5/16	0.311	0.314	1/8	2-1/2	4	4-3/8	5-1/8	2-1/8	3/8	2-1/8	4-37/64	3/8	3	2-1/2-4	2-1/2	3-872	3/8	8-1/2	
3-1/2	2.866	2.868	10-1/8	0.8735	0.875	5/16	0.310	0.313	1/8	2-1/2	4	4-3/8	5-1/8	2-1/8	3/8	2-1/8	4-37/64	3/8	3	2-1/2-4	2-1/2	4-122	3/8	9-1/4	
3-3/4	3.069	3.071	10-7/8	0.8735	0.875	5/16	0.310	0.313	1/8	2-3/4	4	4-3/4	5-1/2	2-3/8	3/8	2-3/8	4-61/64	3/8	3-1/2	2-3/4-4	2-3/4	4-371	3/8	10	
4	3.272	3.274	11-5/8	0.9985	1.000	5/16	0.309	0.312	1/8	3	4	5-1/8	6-3/8	2-1/2	3/8	2-1/2	5-21/64	3/8	3-1/2	3-4	3-4	4-619	3/8	10-1/2	
4-1/2	3.877	3.879	13-3/4	1.123	1.125	3/8	0.373	0.376	5/32	3-1/4	4	6-3/8	7-1/8	3-1/4	3/8	2-3/4	6-3/4	5-1/4	4	4-1/4-4	3-1/4	1-7/8	5-245	1/2	9-5/8
5	4.249	4.251	12	1.124	1.125	3/8	0.343	0.346	3/16	3-3/4	4	6-3/8	7-1/8	3-1/4	3/8	3-1/4	6-3/4	5-1/4	4	3-3/4-4	3-3/4	2-1/8	5-993	1/2	10-7/8
5-1/2	4.671	4.673	13-1/4	1.248	1.250	7/16	0.435	0.438	3/16	4	4	6-3/4	7-3/4	3-1/2	1/2	3-1/2	7-1/4	6-7/8	4	4-4	4-4	2-1/4	6-992	1/2	12-1/8
*6	4.791	4.793	14-1/2	1.373	1.375	1/2	0.493	0.496	7/32	4-1/4	4	7-1/2	8-1/2	3-7/8	1/2	3-7/8	7-1/2	7-1/2	4	4-1/4-4	4-1/4	2-1/4	6-994	1/2	13-1/4
*6-1/2	5.187	5.189	15-3/4	1.373	1.375	1/2	0.494	0.497	7/32	4-1/2	4	8-1/4	9-1/4	4-3/8	1/2	4-3/8	7-1/2	7-1/2	4	4-1/2-4	4-1/2	2-1/2	7-992	1/2	14-3/8
*7	5.582	5.584	17	1.498	1.500	9/16	0.555	0.558	1/4	5	4	9	10	4-7/8	1/2	4-7/8	8-1/2	8-1/2	5	5-4	5	2-3/4	8-120	1/2	15-5/8
*7-1/2	5.978	5.980	18-1/4	1.498	1.500	9/16	0.556	0.559	1/4	5-1/2	4	9-3/8	10-3/8	5-1/8	1/2	5-1/8	8-1/2	8-1/2	5	5-1/2-4	5-1/2	3-1/8	8-616	1/2	16-7/8
*8	6.374	6.376	19-1/2	1.748	1.750	9/16	0.553	0.556	1/4	5-3/4	4	9-3/4	10-3/4	5-3/8	1/2	5-3/8	8-1/2	8-1/2	5	5-3/4-4	5-3/4	3-1/8	9-240	1/2	18-1/8

* 6" through 8" shaft has 1 inch per foot taper; 1/12" per inch taper. Angle with centerline is 2° 23' 9".

(i) Fillets are recommended for keyways in shafts through 2" in diameter. Fillets are mandatory for shafts above 2" in diameter.

(ii) Keyway shall be cut parallel to taper.

(iii) Threads are Unified and American Standard, Class 3A.

(iv) Nuts are to be semi-finished stock, American Standard B18.2.

(v) The shaft sleeve shown is recommended practice, but the use of a sleeve is optional.

PROPELLER BORING

To insure retention of inherent factory accuracy, order your propeller factory-bored whenever possible. When bored in the field, propellers should be bored to the pilot hole, NOT to the hub or blade edges.

*6" through 8" shaft has 1 inch per foot taper, 1/12" per inch taper. Angle with centerline is 2° 23' 9". Overseas specifications on request.