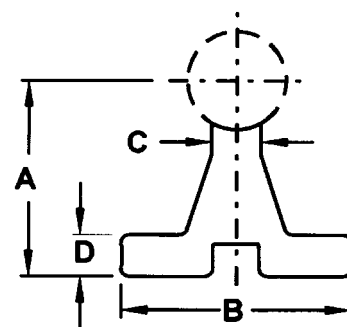


# SHAFT SUPPORT RAILS & TWIN PILLOW BLOCKS

For effective, low cost continuous or intermittent support, extruded aluminum support rail is available in a full range of sizes (see specification chart below). These rails can be supplied with or without mounting holes and can be used vertically or horizontally to provide optimum rigidity. Available in standard lengths of 24" + 0", -1/8"...which can be easily cut to meet shorter length requirements.

## EXTRUDED ALUMINUM SUPPORT RAILS

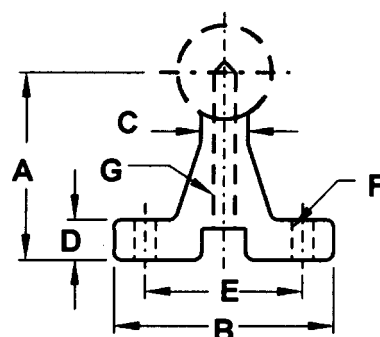
Part No.	Nom. Shaft Size	Price Each	*A ±.002"	B	C	D	*E	*F	*G	Wt. per 24" (ths.)
SR-8	½"	33.82	1.125	1½"	¼"	3/16"	1"	#8	#6 or #8	1.2
SR-10	5/8"	38.90	1.125	1½"	5/16"	¼"	1½"	#8	#6 or #8	1.6
SR-12	¾"	43.80	1.500	1¾"	3/8"	¼"	1¾"	#10	#8 or #10	2.0
SR-16	1"	47.25	1.750	2½"	1/2"	¼"	1½"	1/4"	#10 or 1/4"	2.8
SR-20	1¼"	73.01	2.125	2½"	9/16"	5/16"	1½"	5/16"	1/4 or 5/16"	4.2
SR-24	1½"	88.27	2.500	3"	11/16"	3/8"	2¼"	5/16"	5/16 or 3/8"	5.2
SR-32	2"	130.07	3.250	3¾"	7/8"	1/2"	2¾"	3/8"	3/8 or 1/2"	8.4



- \*A - Dimension will vary with the shaft diameter.
- E - Suggested location for mounting hole.
- F - Maximum mounting bolt size to clear pillow blocks.
- G - Recommended thread for screws to attach shaft.  
NC or NF Class 2 threads may be used.

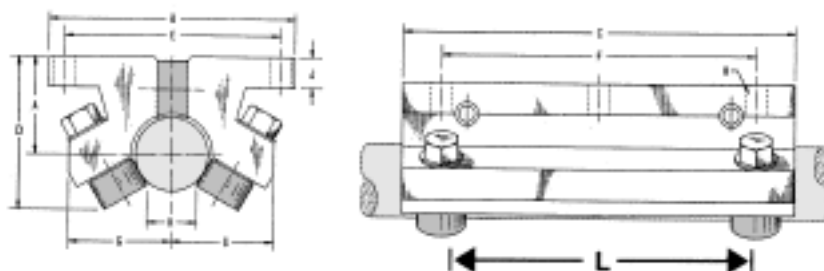
## EXTRUDED ALUMINUM support rails with pre-drilled holes to mate with pre-drilled shafts

Part No.	Shaft Diameter	Net Price	*A ±.002"	B	C	D	E	F		*G		Approx. Wt. In Lbs Per 24"
								Bolt	Hole	Screw	Hole	
SR-8-PD	1/2"	61.05	1.125	1½"	¼"	3/16"	1"	6	.169	6-32x7/8	.169	1.2
SR-10-PD	5/8"	71.20	1.125	1½"	5/16"	¼"	1½"	8	.193	8-32x7/8	.193	1.6
SR-12-PD	3/4"	83.63	1.500	1¾"	3/8"	¼"	1¾"	10	.221	10-32x1¼"	.221	2.0
SR-16-PD	1"	93.40	1.750	2½"	1/2"	¼"	1½"	1/4"	.281	1/4-20x1½"	.281	2.8
SR-20-PD	1¼"	116.77	2.125	2½"	9/16"	5/16"	1½"	5/16"	.343	5/16-18x1¼"	.343	4.2
SR-24-PD	1½"	131.38	2.500	3"	11/16"	3/8"	2¼"	5/16"	.343	3/8-16x2"	.406	5.2
SR-32-PD	2"	175.20	3.250	3¾"	7/8"	1/2"	2¾"	3/8"	.406	1/2-13x2½"	.531	8.4



Pre-drilled support rails are stocked for immediate delivery in standard 24" lengths, but can be easily cut to size. When longer shafts are to be supported, the rails can be continuously mounted end-to-end or intermittently mounted to any desired length.

## DIMENSIONS & LOAD RATINGS FOR TWIN PILLOW BLOCKS



Twin Pillow Block Model Number	Shaft Diameter		Price Each	Dynamic Load Rating (Pounds)	Wt. (Lbs)	A ±.003	B	C	D	E ±.005	F ±.005	G	H		J ±.005	K	L ±.005
	Nom.	Max.											Bolt	Hole			
TWN-8-OPN	½"	.4995	228.13	800	.5	.687	2	3½"	1½"	1.688	2.500	1½"	#6	5/16"	.240	5/16"	1.500
TWN-10-OPN	5/8"	.6245	191.32	1000	.9	.875	2½"	4	1½"	2.125	3.000	1½"	#8	3/16"	.270	3/16"	2.125
TWN-12-OPN	¾"	.7495	193.35	1200	1.2	.937	2¾"	4½"	1½"	2.375	3.500	1½"	#8	3/16"	.300	3/16"	2.500
TWN-16-OPN	1"	.9995	218.75	1910	2.3	1.187	3"	6	2	2.875	4.500	1½"	#10	7/32"	.360	1/16"	3.750
TWN-20-OPN	1¼"	1.2495	296.07	2800	3.8	1.500	4	7½"	2½"	3.500	5.500	1½"	#10	7/32"	.424	1/16"	4.625
TWN-24-OPN	1½"	1.4994	344.62	3320	6.5	1.750	4¾"	9	2½"	4.125	6.500	1½"	1/4"	5/32"	.474	1/16"	5.500
TWN-32-OPN	2"	1.9994	546.34	4800	12.8	2.125	6	12	3"	5.250	10.500	2½"	3/8"	13/32"	.600	1"	8.250

## WILLIAM T. HUTCHINSON CO.

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# FRACTIONAL CASE HARDENED AND GROUND SHAFTING

## SOLID AISI C-1060 CASE HARDENED STEEL SHAFTS (ROCKWELL 60 to 65 C)

Nominal Diameter	Tolerance Code					Price Per Inch of Length		Weight Per Inch (Lb.)	Min. Depth of Hardness	Max. Length (feet)
	A	B	R	M	g6	Codes A, B & g6	Code R & M			
1/4	.2485/.2490	.2490/.2495	.2498/.2500	—	.2494/.2498	.49	.55	.014	.040	8
3/8	.3735/.3740	.3740/.3745	.3748/.3750	—	.3744/.3748	.55	.67	.031	.040	14
1/2	.4985/.4990	.4990/.4995	.4998/.5000	—	.4993/.4998	.58	.82	.055	.060	15
5/8	.6235/.6240	.6240/.6245	.6248/.6250	—	.6243/.6248	.72	.97	.086	.060	15
3/4	.7485/.7490	.7490/.7495	.7498/.7500	—	.7492/.7497	.93	1.03	.125	.060	15
7/8	—	.8740/.8745	.8748/.8750	—	—	1.14	1.29	.170	.060	12
1	.9985/.9990	.9990/.9995	.9998/1.0000	1.0000/1.0003	.9992/.9997	1.23	1.53	.222	.080	15
1 1/8	—	1.1240/1.1245	1.1248/1.1250	—	—	1.45	1.75	.281	.080	12
1 1/4	1.2485/1.2490	1.2490/1.2495	1.2498/1.2500	1.2500/1.2503	1.2490/1.2497	1.89	2.16	.348	.080	15
1 3/8	—	1.3740/1.3745	1.3747/1.3750	—	—	2.51	2.59	.420	.080	11
1 1/2	1.4984/1.4989	1.4989/1.4994	1.4997/1.5000	1.5000/1.5003	1.4990/1.4997	2.40	2.69	.500	.080	15
1 3/4	—	1.7490/1.7495	1.7497/1.7500	—	—	3.88	4.81	.681	.100	15
2	1.9980/1.9987	1.9987/1.9994	1.9997/2.0000	2.0000/2.0003	1.9989/1.9996	4.16	5.43	.890	.100	15
2 1/2	2.4977/2.4985	2.4985/2.4993	2.4996/2.5000	—	—	6.12	7.88	1.391	.100	15
3	2.9974/2.9983	2.9983/2.9992	2.9996/3.0000	—	—	8.64	10.40	2.003	.100	12

## SOLID AISI 440C CASE HARDENED STAINLESS STEEL SHAFTS (ROCKWELL 50 to 55 C)

Nominal Diameter	Tolerance Code			Price per Inch of Length	Weight Per Inch	Minimum Depth of Hardness	Maximum Length (feet)
	A	B	g6				
1/4	.2485/.2490	.2490/.2495	.2494/.2498	1.67	.014	.040	12
3/8	.3735/.3740	.3740/.3745	.3744/.3748	1.68	.031	.040	14
1/2	.4985/.4990	.4990/.4995	.4993/.4998	1.72	.055	.060	15
5/8	.6235/.6240	.6240/.6245	.6243/.6248	2.23	.086	.060	12
3/4	.7485/.7490	.7490/.7495	.7492/.7497	2.45	.125	.060	12
1	.9985/.9990	.9990/.9995	.9992/.9997	3.20	.222	.080	12
1 1/4	1.2485/1.2490	1.2490/1.2495	1.2490/1.2497	4.94	.348	.080	12
1 1/2	1.4984/1.4989	1.4989/1.4994	1.4990/1.4997	6.37	.500	.080	12
2	1.9980/1.9987	1.9987/1.9994	1.9989/1.9996	12.06	.890	.100	12

**PRICING INFORMATION**

To determine the price of a shaft, use the price per inch and when a shaft length ends in a fraction, price to the next full inch. However, there is a minimum charge of \$3.00 per shaft.

There is a \$15.00 set-up charge per diameter per shipment to cover cutoff, handling and boxing.

**STANDARD SHAFT SPECIFICATIONS**

Solid AISI C-1060 Steel Shafts are case hardened to Rockwell 60 to 65 C, and AISI 440C Stainless to Rockwell 50 to 55 C. Tubular 52100 shafts are case hardened to Rockwell 56 to 63 C.

Shafts up to 1 1/4" diameter are cut to required lengths within ± 1/32" and to within ± 1/16" for 1 3/8" to 2" diameter, and to within ± 1/8" for 2 1/2" & 3".

Except for 1/4" and 3/8" diameters, straightness is held to within .001" to .002" per foot cumulative and surface finish is maintained between 10 and 16 micro inches RMS.

## WILLIAM T. HUTCHINSON CO.

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# METRIC CASE HARDENED AND GROUND SHAFTING

## METRIC DIAMETER SOLID AISI C-1060 CASE HARDENED STEEL SHAFTS (ROCKWELL 60 to 65 C)

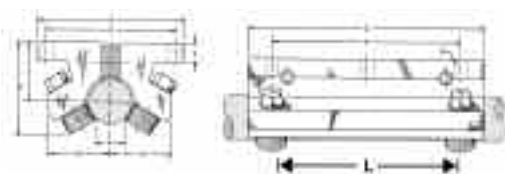
Nominal Diameter (mm)	Metric Tolerance (inch)	Price per Inch of Length	Weight Per Inch	Minimum Depth of Hardness	Maximum Length (feet)
8	.3146/.3150	.86	.022	.040	11
10	.3932/.3937	.57	.034	.040	15
12	.4720/.4724	.72	.050	.060	15
16	.6295/.6299	.72	.088	.060	15
20	.7869/.7874	1.02	.138	.060	15
25	.9838/.9843	1.24	.216	.080	15
30	1.1806/1.1811	1.60	.311	.080	15
40	1.5743/1.5748	3.08	.553	.080	15
50	1.9679/1.9685	4.76	.864	.100	15

## METRIC DIAMETER SOLID AISI 440C CASE HARDENED STAINLESS STEEL SHAFTS (ROCKWELL 50 to 55 C)

Nominal Diameter (mm)	Metric Tolerance (inch)	Price per Inch of Length	Weight Per Inch	Minimum Depth of Hardness	Maximum Length (feet)
8	.3146/.3150	1.84	.022	.040	14
10	.3932/.3937	1.87	.034	.040	14
12	.4720/.4724	1.88	.050	.060	15
16	.6295/.6299	2.43	.088	.060	12
20	.7869/.7874	2.72	.138	.060	12
25	.9838/.9843	3.81	.216	.080	12
30	1.1806/1.1811	5.88	.311	.080	12
40	1.5743/1.5748	6.90	.553	.080	12
50	1.9679/1.9685	15.12	.864	.100	12

## METRIC DIAMETER SOLID AISI C-1060 CASE HARDENED STEEL SHAFTS (ROCKWELL 60 to 65 C)

WITH PRE-DRILLED AND TAPPED MOUNTING HOLES



Nominal Diameter (mm)	Metric Tolerance (inch)	Price per Inch of Length	"X" Hole spacing ± .015 Non-cumulativeU	Tap Size	Maximum Length (feet)
12 PD	.4720/.4724	3.29	75 mm	M4 x .7	15
16 PD	.6295/.6299	3.35	100 mm	M5 x .8	15
20 PD	.7869/.7874	3.65	100 mm	M6 x 1	15
25 PD	.9838/.9843	3.72	120 mm	M8 x 1.25	15
30 PD	1.1806/1.1811	3.95	150 mm	M10 x 1.50	15
40 PD	1.5743/1.5748	5.07	200 mm	M10 x 1.50	15
50 PD	1.9679/1.9685	6.50	200.mmm	M12 x 1.75	15

### PRICING INFORMATION

To determine the price of a shaft, use the price per inch and when a shaft length ends in a fraction, price to the next full inch. However, there is a minimum charge of \$3.00 per shaft.

There is a \$15.00 set-up charge per diameter per shipment to cover cutoff, handling and boxing.

### STANDARD SHAFT SPECIFICATIONS

Solid AISI C-1060 Steel Shafts are case hardened to Rockwell 60 to 65 C, and AISI 440C Stainless to Rockwell 50 to 55 C. Tubular 52100 shafts are case hardened to Rockwell 56 to 63 C.

Shafts up to 1 1/4" diameter are cut to required lengths within ± 1/32" and to within ± 1/16" for 1 3/8" to 2" diameter, and to within ± 1/8" for 2 1/2" & 3".

Except for 1/4" and 3/8" diameters, straightness is held to within .001" to .002" per foot cumulative and surface finish is maintained between 10 and 16 micro inches RMS.

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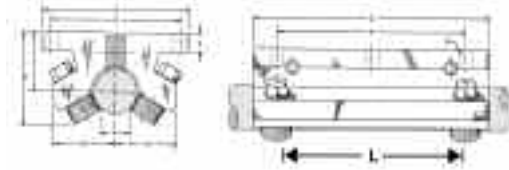
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# PRE-DRILLED SHAFTS & SUPPORT RAILS

## PRE-DRILLED SHAFTS

Solid AISI C-1060 AND 440 C Stainless Steel Case Hardened Shafts with pre-drilled and tapped mounting holes



Nom. Diameter	Diameter Tolerance	Price per inch		Max Length (FEET)	"X" Hole Spacing±.015 (non-cumulative)	Tap Size (to center of shaft)
		C-1060	440 C			
1/2" PD	.4990/.4995"	2.73	4.07	15	4"	6-32
5/8" PD	.6240/.6245"	2.80	4.35	12	4"	8-32
3/4" PD	.7490/.7495	2.91	4.37	12	6"	10-32
1" PD	.9990/.9995"	3.23	5.34	12	6"	1/4-20
1 1/4" PD	1.2490/1.2495"	3.80	7.30	12	6"	5/16-18
1 1/2" PD	1.4989/1.4994"	4.27	8.29	12	8"	3/8-16
2" PD	1.9987/1.9994"	6.82	15.23	12	8"	1/2-13

### PRICING INFORMATION

To determine the price of a shaft, use the price per inch and when a shaft length ends in a fraction, price to the next full inch. However, there is a minimum charge of \$3.00 per shaft.

There is a \$15.00 set-up charge per diameter per shipment to cover cutoff, handling and boxing.

### STANDARD SHAFT SPECIFICATIONS

Solid AISI C-1060 Steel Shafts are case hardened to Rockwell 60 to 65 C, and AISI 440C Stainless to Rockwell 50 to 55 C.

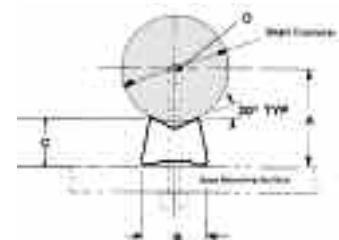
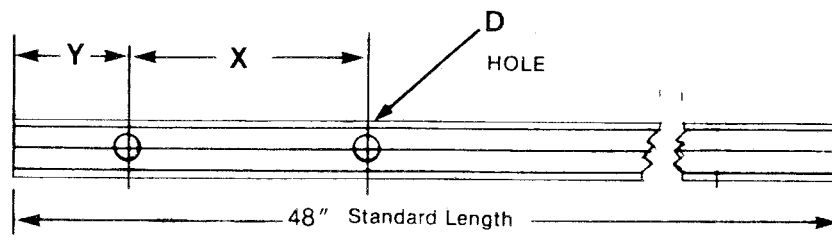
Shafts up to 1 1/4" diameter are cut to required lengths within ± 1/32" and to within ± 1/16" for 1 3/8" to 2" diameter, and to within ± 1/8" for 2 1/2" & 3".

Straightness is held to within .001" to .002" per foot cumulative and surface finish is maintained between 10 and 16 micro inches RMS.

## LOW SHAFT SUPPORT RAILS

Part No.	Shaft Diameter	Net Price Each	A ±.002"	B ±.005	C (Ref.)	D		Hole spacing		Approx. Wt. In Lbs Per 48"
						Screw	Hole	X	Y	
LSR-8	.500	12.40	.562	.370	.341	6-32	.169	4	2	1.32
LSR-8-PD		52.98								
LSR-10	.625	15.99	.687	.450	.412	8-32	.193	4	2	1.46
LSR-10-PD		56.13								
LSR-12	.750	16.33	.750	.510	.420	10-32	.221	6	3	2.25
LSR-12-PD		62.95								
LSR-16	1.000	23.18	1.000	.690	.560	1/4-20	.281	6	3	4.25
LSR-16-PD		69.23								
LSR-20	1.250	30.65	1.187	.780	.626	5/16-18	.343	6	3	5.08
LSR-20-PD		89.16								
LSR-24	1.500	37.88	1.375	.930	.703	3/8-16	.406	8	4	6.72
LSR-24-PD		99.65								
LSR-32	2.000	50.59	1.750	1.180	.845	1/2-13	17/32	8	4	11.00
LSR-32-PD		129.54								

Low shaft support rails permit the design of compact linear motion systems with more than a 40% lower profile. The low shaft support rails are made of AISI C-1010 steel. Continuous or intermittent support is permissible when using linear roller bearing pillow blocks or the open-type linear ball bearing pillow blocks as made by Thomson Industries. LSR-PD rails have pre-drilled mounting holes to match the holes in the pre-drilled and tapped holes in the PD Series shafts described above. Standard length for all low shaft rails is 48".



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