

# Metric Ground And Polished Shafting

PRECISION TOLERANCE h9 (SLIP FIT) IN 3m (9.84') LENGTHS

12L14 STEEL AND 304 STAINLESS STEEL

DIAMETER mm	WEIGHT		DIAMETER INCHES	TOLERANCE
	kg/m	lbs/ft		
4	0.10	0.07	0.1575	+0 / -0.030 mm +0 / -0.0012"
5	0.16	0.10	0.1969	
6	0.22	0.15	0.2362	+0 / -0.036 mm +0 / -0.0014"
7	0.30	0.20	0.2756	
8	0.40	0.26	0.3150	+0 / -0.043 mm +0 / -0.0017"
9	0.50	0.34	0.3543	
10*	0.62	0.41	0.3937	
11	0.75	0.50	0.4331	
12	0.89	0.60	0.4724	
13	1.05	0.70	0.5118	
14	1.22	0.81	0.5512	
15	1.40	0.93	0.5906	+0 / -0.052 mm +0 / -0.0020"
16*	1.59	1.06	0.6299	
17	1.79	1.20	0.6693	
18	2.01	1.34	0.7087	
19	2.23	1.50	0.7480	
20*	2.48	1.66	0.7874	
21	2.72	1.83	0.8268	
22	3.00	2.00	0.8661	+0 / -0.062 mm +0 / 0.0024"
23	3.29	2.19	0.9055	
24	3.55	2.39	0.9449	
25*	3.85	2.59	0.9843	
26	4.17	2.80	1.0236	
27	4.49	3.02	1.0630	
28	4.83	3.25	1.1024	
29	5.19	3.48	1.1417	+0 / -0.074 mm +0 / -0.0029"
30*	5.55	3.73	1.1811	
32	6.31	4.24	1.2598	
33	6.71	4.51	1.2992	
35*	7.55	5.08	1.3780	
36	7.99	5.37	1.4173	
38	8.90	5.98	1.4961	
40* <sup>2</sup>	9.86	6.63	1.5748	+0 / -0.074 mm +0 / -0.0029"
42	10.90	7.38	1.6535	
45	12.50	8.39	1.7717	
48	14.20	9.61	1.8898	
50	15.40	10.40	1.9685	
52	16.70	11.20	2.0472	
55	18.70	12.50	2.1654	
56	19.30	13.00	2.2047	
58	20.70	13.90	2.2835	+0 / -0.074 mm +0 / -0.0029"
60	22.20	14.90	2.3622	
65	26.00	17.50	2.5591	
70	30.20	20.30	2.7559	
75	34.70	23.30	2.9528	
80	39.50	26.50	3.1496	
85	44.50	29.66	3.3465	

Special modifications available upon request.

\* 12L14 steel available in 3.7 m (12 ft.) lengths.

<sup>2</sup> Available in 1144 steel.

# Precision Case Hardened And Ground Shafting\*

HARDNESS: HRc 60 • TOLERANCE: h6 • 1m LENGTHS

Diameter mm	Weight		Depth of Hardness mm	Diametrical Tolerance (h6) µm	Concentricity µm	Cylindricity µm
	kg/m	lbs/m				
8	0.0395	0.0869	0.6-1	0-9	4	6
12	0.0888	0.1954	1.1-1.7	0-11	5	8
16	0.1580	0.3476	1.1-1.7	0-11	5	8
20	0.2465	0.5423	1.8-2.1	0-13	6	10
25	0.3850	0.8470	1.8-2.1	0-13	6	10
30	0.5550	1.2210	2.2	0-13	6	10
40	0.9860	2.1692	2.2	0-16	8	12
50	1.5410	3.3902	2.2	0-16	8	12

1 µm (micrometer) = 0.001 mm (millimeter) • Concentricity relates to the degree of roundness • Cylindricity relates to the degree of taper, convexity (crowing) and concavity

\*Inquire for linear shafting.

## Key/Flat Stock

ISO-TOLERANCE h9 (SLIP FIT)

MATERIAL: C 1045

DIN 6880

Size mm	Size mm
2X2	18X18
3X3	7X18
4X4	10X20
3X5	12X20
5X5	20X20
4X6	8X20
6X6	14X22
7X7	22X22
5X8	9X22
7X8	14X25
8X8	22X25
10X10	25X25
6X10	16X28
8X10	18X32
12X12	20X36
6X12	22X40
8X12	25X45
14X14	28X50
6X14	32X56
9X14	32X63
10X16	36X70
16X16	40X80
7X16	45X90
11X18	50X100

1 Meter Lengths (39")

0.5 m (500 mm) Lengths (19.7")

0.25 m (250 mm) Lengths (9.8")

3 m lengths available in some sizes

1.4571 Stainless Steel

(AISI 316 TI)

Size mm	Size mm
2X2	7X16*
3X3	11X18
4X4	7X18
3X5	12X20
5X5	8X20
4X6	14X22
6X6	9X22
5X8	14X25
7X8	16X28
8X8	18X32
10X10	20X36
6X10	22X40
8X10	25X45
12X12	
6X12	
8X12	
6X14	
9X14	
10X16	

\* = W.Nr.1.4541 (AISI 321)

## Hex Rod

MATERIAL: C 1045

(replaces former C1028)

Size mm
7
8
9
10
13
16
17
19
22
24
27
30
32
36
41
46
50
55

1 Meter Lengths (39")

NOTE: 3m lengths available in some sizes. Some sizes only currently available in C1028. Check before heat treating.

# Metric Linear Shafting



**Solid\*Steel Shafts, Induction Hardened to HRC 62±2**  
**Material: ISO CF-53 (1.1213)/ANSI 1050**

Part No.	Shaft o/d Ø mm	Weight per meter kg/m	Max Production Lengths mm	Depth of Hardened Zone DIN 50190 mm	Standard Tolerance ISO h6 µm
WV 5	5	0.154	4000	0.8	0 -8
WV 6	6	0.222	4000	0.8	0 -9
WV 8	8	0.395	5000	1	0 -9
WV 10	10	0.617	5000	1	0 -11
WV 12	12	0.888	6000	1.3	0 -11
WV 14	14	1.208	6000	1.3	0 -11
WV 15	15	1.387	6000	1.3	0 -11
WV 16	16	1.578	6000	1.6	0 -13
WV 18	18	1.998	6000	1.6	0 -13
WV 20	20	2.466	6500	1.6	0 -13
WV 22	22	2.984	6500	1.8	0 -13
WV 25	25	3.853	6500	1.8	0 -16
WV 30	30	5.549	6500	2	0 -16
WV 35	35	7.553	6500	2.5	0 -19
WV 40	40	9.865	6500	2.5	0 -19
WV 45	45	12.480	6500	2.5	0 -19
WV 50	50	15.410	6500	3	0 -19
WV 55	55	-	-	-	-
WV 60	60	22.200	6500	3	0 -19
WV 65	65	-	-	-	-
WV 70	70	30.210	6500	3	0 -19
WV 75	75	-	-	-	-
WV 80	80	39.460	6500	3	0 -19
WV 100	100	61.650	6500	3.3	0 -22

**Solid\*Shafts, Hard-Chrome Plated 5-10µm Thickness, Hardness HV 900/1100**  
**Material: ISO CF-53 (1.1213)/ANSI 1050**

Part No.	Shaft o/d Ø mm	Weight per meter kg/m	Max Production Lengths mm	Depth of Hardened Zone DIN 50190 mm	Standard Tolerance ISO h6 µm
WV1 8	8	0.395	5000	1	0 -15
WV1 10	10	0.617	5000	1	0 -18
WV1 12	12	0.888	6000	1.3	0 -18
WV1 14	14	1.208	6000	1.3	0 -18
WV1 15	15	1.387	6000	1.3	0 -18
WV1 16	16	1.578	6000	1.6	0 -18
WV1 20	20	2.466	6500	1.6	0 -21
WV1 25	25	3.853	6500	1.8	0 -21
WV1 30	30	5.549	6500	2	0 -21
WV1 32	32	6.313	6500	2	0 -21
WV1 35	35	7.553	6500	2.5	0 -25
WV1 40	40	9.865	6500	2.5	0 -25
WV1 50	50	15.410	6500	3	0 -25
WV1 60	60	22.200	6500	3	0 -25
WV1 70	70	-	-	-	-
WV1 80	80	39.460	6500	3	0 -30
WV1 100	100	-	-	-	-

**Note: Linear Shafting sold in 0.1m (100 mm) length segments. Shafting can be cut to exact mm lengths +/- 5 mm but billed by the next largest 0.1m (100 mm) length. For example if you order Ø25 mm x 1360 mm Linear Shafting your order will state:**

(1) ea WV 25x1.4m Hardened and Ground Shafting  
 (Cut to 1,360 mm)

(one meter 1m = 1,000 mm)

# Metric Linear Shafting



## Rust and Acid Resistant HRC 51-55

Material: X-40Cr13 (1.4034)/ANSI 420B

Part No.	Shaft o/d Ø mm	Weight per meter kg/m	Max Production Lengths mm	Depth of Hardened Zone DIN 50190 mm	Standard Tolerance ISO h6 µm
WRS1 6	6	0.222	3900	0.7	0 -9
WRS1 8	8	0.395	3900	0.9	0 -9
WRS1 10	10	0.617	3900	1.1	0 -11
WRS1 12	12	0.888	4900	1.3	0 -11
WRS1 14	14	1.208	4900	1.5	0 -11
WRS1 15	15	1.387	4900	1.6	0 -11
WRS1 16	16	1.578	4900	1.6	0 -11
WRS1 20	20	2.466	4900	1.8	0 -13
WRS1 25	25	3.853	4900	2	0 -13
WRS1 30	30	5.549	4900	2.4	0 -13
WRS1 40	40	9.865	4900	2.6	0 -13
WRS1 50	50	15.410	4900	2.9	0 -13
WRS1 60	60	22.200	4900	3	0 -16

## Stainless Steel, Acid Resistant HRC 52-56

Material: X-90CrMoV18 (1.4112)

Part No.	Shaft o/d Ø mm	Weight per meter kg/m	Max Production Lengths mm	Depth of Hardened Zone DIN 50190 mm	Standard Tolerance ISO h6 µm
WRS2 5	5	0.154	3800	0.7	0 -8
WRS2 8	8	0.395	3800	0.9	0 -9
WRS2 10	10	0.617	3800	1.1	0 -11
WRS2 12	12	0.888	7800	1.3	0 -11
WRS2 14	14	1.208	7800	1.5	0 -11
WRS2 15	15	1.387	7800	1.6	0 -11
WRS2 16	16	1.578	7800	1.6	0 -11
WRS2 20	20	2.466	7800	1.8	0 -13
WRS2 25	25	3.853	7800	2	0 -13
WRS2 30	30	5.549	7800	2.4	0 -13
WRS2 40	40	9.865	7800	2.6	0 -13
WRS2 50	50	15.410	7800	2.9	0 -13
WRS2 60	60	22.200	7800	3	0 -16

## Stainless Steel, Acid Resistant HRC 52-56

Material: X105CrMo17 (1.41252)/ANSI

Part No.	Shaft o/d Ø mm	Weight per meter kg/m	Max Production Lengths mm	Depth of Hardened Zone DIN 50190 mm	Standard Tolerance ISO h6 µm
WRS3 5	5	-	-	-	-
WRS3 8	8	-	-	-	-
WRS3 10	10	-	-	-	-
WRS3 12	12	0.888	6000	1.3	0 -11
WRS3 14	14	1.208	6000	1.5	0 -11
WRS3 15	15	1.387	6000	1.6	0 -11
WRS3 16	16	1.578	6000	1.6	0 -11
WRS3 20	20	2.466	6000	1.8	0 -13

## Hollow/Tubular Shafts, Induction Hardened HRC 62±2

Material: C60 or 100Cr 6(1.0601)/ANSI 52100

Part No.	Shaft o/d Ø mm	Weight per meter kg/m	Max Production Lengths mm	Depth of Hardened Zone DIN 50190 mm	Standard Tolerance ISO h6 µm
WH 12X3.5	12	0.790	6000	1.3	0 -11
WH 16X8	16	1.280	6000	1.6	0 -11
WH 20X12	20	1.250	6000	1.8	0 -13
WH 25X14	25	2.350	6000	2	0 -13
WH 30X19	30	3.500	6000	2.4	0 -13
WH 40X26	40	4.990	6000	2.6	0 -16
WH 50X35	50	9.910	6000	2.9	0 -16
WH 60X36	60	14.200	6000	3	0 -19
WH 80X53	80	19.430	6000	3.2	0 -19

Note: Linear Shafting sold in 0.1m (100 mm) length segments. Shafting can be cut to exact mm lengths +/- 5 mm but billed by the next largest 0.1m (100 mm) length. For example if you order Ø25 mm x 1360 mm Linear Shafting your order will state:

(1) ea WV 25x1.4m Hardened and Ground Shafting  
(Cut to 1,360 mm)

(one meter 1m = 1,000 mm)