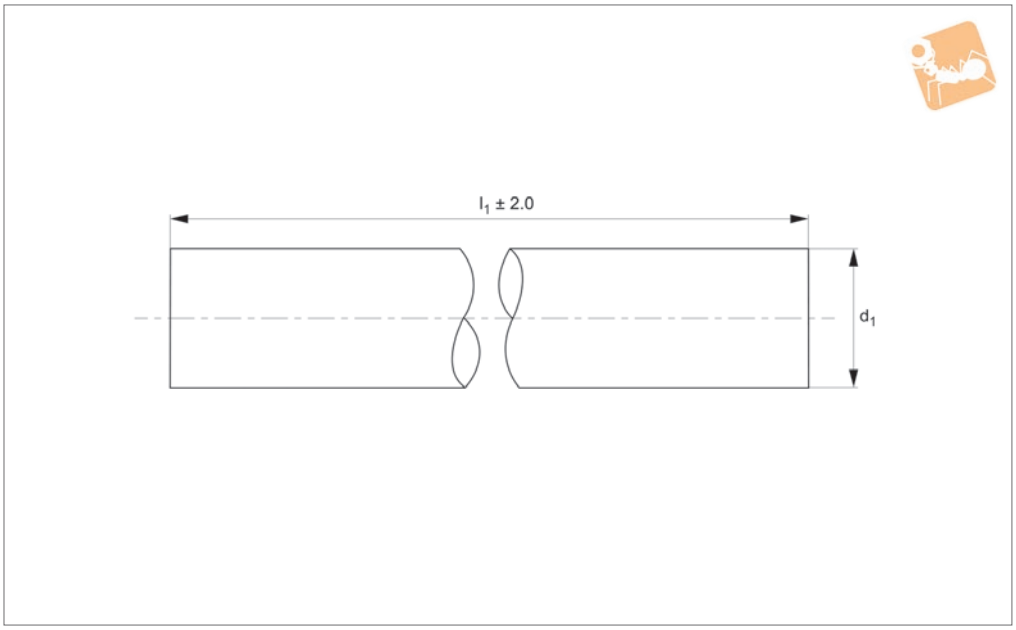

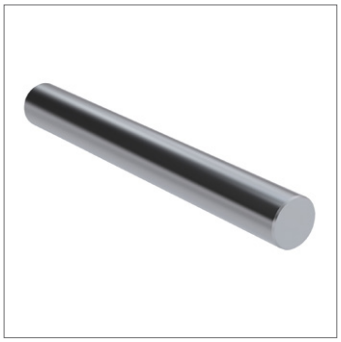

L1770.30

Material
Carbon steel (070M55,Cf53 - DIN 1.1213), Surface hardness 60-66 HRC. Surface finish 0.3-0.6µ Ra, ground and polished to 8-12 cla.
Yield stress: >325 N/mm^2, tensile strength: >630 N/mm^2.

Technical Notes
Tolerance, h6 standard, special tolerances upon request.
Suitable for use with linear bearings.
Straightness 0,1mm/m.

Tips
Modifications, drilled and tapped holes, retainer grooves, special coatings etc. are available.
Shaft lengths are cut to typically ± 2mm, ends are not hardened.

Order No.	d_1	l	l_1	Depth of hardness min.	Weight kg
L1770.30-0100	30	100	100	1.5	0.555
L1770.30-0150	30	150	150	1.5	0.833
L1770.30-0200	30	200	200	1.5	1.110
L1770.30-0250	30	250	250	1.5	1.388
L1770.30-0300	30	300	300	1.5	1.665
L1770.30-0350	30	350	350	1.5	1.943
L1770.30-0400	30	400	400	1.5	2.220
L1770.30-0450	30	450	450	1.5	2.498
L1770.30-0500	30	500	500	1.5	2.775
L1770.30-0550	30	550	550	1.5	3.053
L1770.30-0600	30	600	600	1.5	3.330
L1770.30-0650	30	650	650	1.5	3.608
L1770.30-0700	30	700	700	1.5	3.885
L1770.30-0750	30	750	750	1.5	4.163
L1770.30-0800	30	800	800	1.5	4.440
L1770.30-0850	30	-	850	1.5	4.718
L1770.30-0900	30	-	900	1.5	4.995
L1770.30-0950	30	-	950	1.5	5.273
L1770.30-1000	30	-	1000	1.5	5.550
L1770.30-1050	30	-	1050	1.5	5.828
L1770.30-1100	30	-	1100	1.5	6.105
L1770.30-1150	30	-	1150	1.5	6.383
L1770.30-1200	30	-	1200	1.5	6.660
L1770.30-1250	30	-	1250	1.5	6.938
L1770.30-1300	30	-	1300	1.5	7.215
L1770.30-1350	30	-	1350	1.5	7.493
L1770.30-1400	30	-	1400	1.5	7.770
L1770.30-1450	30	-	1450	1.5	8.048
L1770.30-1500	30	-	1500	1.5	8.325
L1770.30-1550	30	-	1550	1.5	8.603
L1770.30-1600	30	-	1600	1.5	8.880

30Ø Hardened Steel Shafts

Order No.	d_1	l	l_1	Depth of hardness min.	Weight kg
L1770.30-1650	30	-	1650	1.5	9.158
L1770.30-1700	30	-	1700	1.5	9.435
L1770.30-1750	30	-	1750	1.5	9.713
L1770.30-1800	30	-	1800	1.5	9.990
L1770.30-1850	30	-	1850	1.5	10.268
L1770.30-1900	30	-	1900	1.5	10.545
L1770.30-1950	30	-	1950	1.5	10.823
L1770.30-2000	30	-	2000	1.5	11.100
L1770.30-2050	30	-	2050	1.5	11.378
L1770.30-2100	30	-	2100	1.5	11.655
L1770.30-2150	30	-	2150	1.5	11.933
L1770.30-2200	30	-	2200	1.5	12.210
L1770.30-2250	30	-	2250	1.5	12.488
L1770.30-2300	30	-	2300	1.5	12.765
L1770.30-2350	30	-	2350	1.5	13.043
L1770.30-2400	30	-	2400	1.5	13.320
L1770.30-2450	30	-	2450	1.5	13.598
L1770.30-2500	30	-	2500	1.5	13.875
L1770.30-2550	30	-	2550	1.5	14.153
L1770.30-2600	30	-	2600	1.5	14.430
L1770.30-2650	30	-	2650	1.5	14.708
L1770.30-2700	30	-	2700	1.5	14.985
L1770.30-2750	30	-	2750	1.5	15.263
L1770.30-2800	30	-	2800	1.5	15.540
L1770.30-2850	30	-	2850	1.5	15.818
L1770.30-2900	30	-	2900	1.5	16.095
L1770.30-2950	30	-	2950	1.5	16.373
L1770.30-3000	30	-	3000	1.5	16.650
L1770.30-3050	30	-	3050	1.5	16.928
L1770.30-3100	30	-	3100	1.5	17.205
L1770.30-3150	30	-	3150	1.5	17.483
L1770.30-3200	30	-	3200	1.5	17.760
L1770.30-3250	30	-	3250	1.5	18.038
L1770.30-3300	30	-	3300	1.5	18.315
L1770.30-3350	30	-	3350	1.5	18.593
L1770.30-3400	30	-	3400	1.5	18.870
L1770.30-3450	30	-	3450	1.5	19.148
L1770.30-3500	30	-	3500	1.5	19.425
L1770.30-3550	30	-	3550	1.5	19.703
L1770.30-3600	30	-	3600	1.5	19.980
L1770.30-3650	30	-	3650	1.5	20.258
L1770.30-3700	30	-	3700	1.5	20.535
L1770.30-3750	30	-	3750	1.5	20.813
L1770.30-3800	30	-	3800	1.5	21.090
L1770.30-3850	30	-	3850	1.5	21.368
L1770.30-3900	30	-	3900	1.5	21.645
L1770.30-3950	30	-	3950	1.5	21.923
L1770.30-4000	30	-	4000	1.5	22.200
L1770.30-4050	30	-	4050	1.5	22.478
L1770.30-4100	30	-	4100	1.5	22.755
L1770.30-4150	30	-	4150	1.5	23.033
L1770.30-4200	30	-	4200	1.5	23.310
L1770.30-4250	30	-	4250	1.5	23.588
L1770.30-4300	30	-	4300	1.5	23.865
L1770.30-4350	30	-	4350	1.5	24.143
L1770.30-4400	30	-	4400	1.5	24.420
L1770.30-4450	30	-	4450	1.5	24.698
L1770.30-4500	30	-	4500	1.5	24.975
L1770.30-4550	30	-	4550	1.5	25.253
L1770.30-4600	30	-	4600	1.5	25.530
L1770.30-4650	30	-	4650	1.5	25.808
L1770.30-4700	30	-	4700	1.5	26.085
L1770.30-4750	30	-	4750	1.5	26.363
L1770.30-4800	30	-	4800	1.5	26.640
L1770.30-4850	30	-	4850	1.5	26.918
L1770.30-4900	30	-	4900	1.5	27.195
L1770.30-4950	30	-	4950	1.5	27.473
L1770.30-5000	30	-	5000	1.5	27.750

Order No.	d_1	l	l_1	Depth of hardness min.	Weight kg
L1770.30-5050	30	-	5050	1.5	28.028
L1770.30-5100	30	-	5100	1.5	28.305
L1770.30-5150	30	-	5150	1.5	28.583
L1770.30-5200	30	-	5200	1.5	28.860
L1770.30-5250	30	-	5250	1.5	29.138
L1770.30-5300	30	-	5300	1.5	29.415
L1770.30-5350	30	-	5350	1.5	29.693
L1770.30-5400	30	-	5400	1.5	29.970
L1770.30-5450	30	-	5450	1.5	30.248
L1770.30-5500	30	-	5500	1.5	30.525
L1770.30-5550	30	-	5550	1.5	30.803
L1770.30-5600	30	-	5600	1.5	31.080
L1770.30-5650	30	-	5650	1.5	31.358
L1770.30-5700	30	-	5700	1.5	31.635
L1770.30-5750	30	-	5750	1.5	31.913
L1770.30-5800	30	-	5800	1.5	32.190
L1770.30-5850	30	-	5850	1.5	32.468
L1770.30-5900	30	-	5900	1.5	32.745
L1770.30-5950	30	-	5950	1.5	33.023
L1770.30-6000	30	-	6000	1.5	33.300

Technical Information

Linear shaft bars

Hardened steel linear shafting (L1770 – L1771)

Carbon steel to BS 070M55 hardened to 60-65 HRC. Carbon Steel B.S. 070M55 is a medium carbon steel which is used when greater strength and hardness is desired than in it's as rolled condition. Extreme size accuracy, straightness and concentricity are combined to minimise wear in high speed applications. Suitable for use with all types of linear bushings.

Corrosion resistant steel (L1772)

440C is a high carbon chromium martensitic stainless steel, generally supplied in the annealed condition with a maximum hardness of 50-55 HR_C. Characterised by good corrosion resistance in mild domestic and industrial environments, including fresh water, organic materials, mild acids, various petroleum products, coupled with extreme high strength, hardness and wear resistance when in the hardened and tempered condition. Used for parts requiring a combination of excellent wear resistance, plus reasonable corrosion resistance. Typical applications are: ball bearings and races, bushings, cutlery, chisels, knife blades, pump parts, surgical instruments, valve seats etc. Material magnetic in all conditions. Suitable for use with all types of linear bushings.

Stainless steel AISI 303 (L1773)

303 is a free machining chromium-nickel austenitic stainless steel with good strength and good corrosion resistance, as supplied in the annealed condition. Characterised by excellent machinability and non galling properties due to its higher sulphur content, which has the effect of slightly lowering its corrosion resistance. It is however, fairly resistant to general atmospheric corrosion, general foodstuffs, sterilizing solutions, dyestuffs, most organic chemicals, plus some inorganic chemicals. But has very limited resistance to acids. 303 cannot be hardened by thermal treatment, but strength and hardness can be increased substantially by cold working, with subsequent reduction in ductility. It is used primarily for production runs involving extensive machining, or complex parts requiring excellent machinability. Typical uses are: architectural components, food processing equipment, dairy equipment, dying industry, hardware and kitchenware manufacturing and allied industries. Commonly used to manufacture bolts and nuts, bushes, gears, shafts, valve bodies and fittings etc. Material is non magnetic in the annealed condition, but can become mildly magnetic following heavy cold working. Annealing is required to rectify if necessary.

Not suitable for use with linear ball bushings, please use ceramic bearings.

Stainless steel AISI 303 (L1774)

316 is a chromium-nickel-molybdenum austenitic stainless steel with good strength and excellent corrosion resistance, as supplied in the annealed condition. Characterised by high corrosion resistance in marine and industrial atmospheres, it exhibits excellent resistance to chloride attack and against complex sulphur compounds employed in the pulp and paper processing industries. The addition of 2% to 3% of molybdenum increases its resistance to pitting corrosion and improves its creep resistance at elevated temperatures. Also it displays good oxidation resistance at elevated temperatures and has excellent weldability. AISI 316 cannot be hardened by thermal treatment, but strength and hardness can be increased substantially by cold working, with subsequent reduction in ductility. It is used extensively by the marine, chemical, petrochemical, pulp and paper, textile, transport, manufacturing and allied industries. Typical uses are: architectural components, textile equipment, pulp and paper processing equipment, marine equipment and fittings, photographic equipment and x-ray equipment etc. Material non magnetic in the annealed condition, but can become mildly magnetic following heavy cold working. Annealing is required to rectify if necessary.

Note: Optimum corrosion resistance is achieved in the annealed condition. Not suitable for use with linear ball bushings; please use ceramic bearings.

L1770 - Hardened steel shafts

For use with linear bearings.

Ø6 to Ø60

L1771 - Hardened hollow shafts

For use with linear bearings. Hollowed for lighter weight.

Ø12 to Ø50

L1772 - Hardened Stainless shafts

For use with linear bearings

Anti-corrosion.

Ø6 to Ø60

L1773 - Stainless 303 shafts

Soft stainless, high anti-corrosion.

Not for use with ball bush linear bearings.

Ø6 to Ø60

L1774 - Stainless 316 shafts

Soft stainless, very high anti-corrosion.

Not for use with ball bushing linear bearings.

Ø6 to Ø60

L1778 - Aluminium shafts

Light weight, non-magnetic.

Ø10 to Ø50

Linear Shafts from Automotion Components

Automotion AN ESSENTRA COMPANY
0333 207 4498
sales@automotioncomponents.co.uk