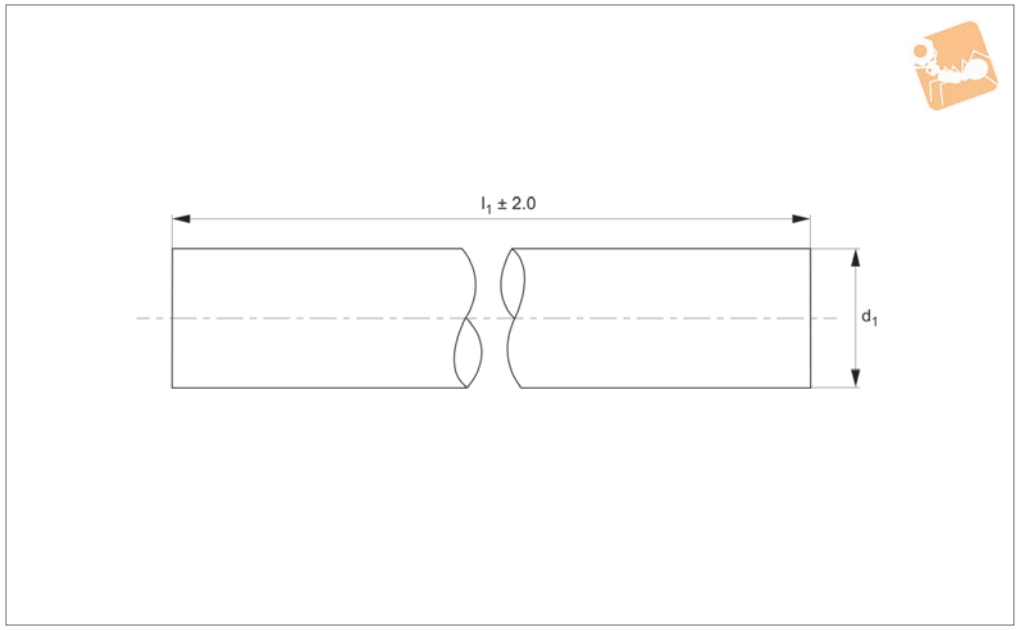

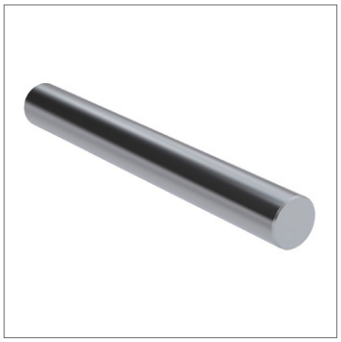

L1770.06

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 0,3mm/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 tol. h6	l_1	Depth of hardness min.	Weight kg
L1770.06-0100	6	100	0.4	0.023
L1770.06-0150	6	150	0.4	0.035
L1770.06-0200	6	200	0.4	0.046
L1770.06-0250	6	250	0.4	0.058
L1770.06-0300	6	300	0.4	0.069
L1770.06-0350	6	350	0.4	0.081
L1770.06-0400	6	400	0.4	0.092
L1770.06-0450	6	450	0.4	0.104
L1770.06-0500	6	500	0.4	0.115
L1770.06-0550	6	550	0.4	0.127
L1770.06-0600	6	600	0.4	0.138
L1770.06-0650	6	650	0.4	0.150
L1770.06-0700	6	700	0.4	0.161
L1770.06-0750	6	750	0.4	0.173
L1770.06-0800	6	800	0.4	0.184
L1770.06-0850	6	850	0.4	0.196
L1770.06-0900	6	900	0.4	0.207
L1770.06-0950	6	950	0.4	0.219
L1770.06-1000	6	1000	0.4	0.230
L1770.06-1050	6	1050	0.4	0.242
L1770.06-1100	6	1100	0.4	0.253
L1770.06-1150	6	1150	0.4	0.265
L1770.06-1200	6	1200	0.4	0.276
L1770.06-1250	6	1250	0.4	0.288
L1770.06-1300	6	1300	0.4	0.299
L1770.06-1350	6	1350	0.4	0.311
L1770.06-1400	6	1400	0.4	0.322
L1770.06-1450	6	1450	0.4	0.334
L1770.06-1500	6	1500	0.4	0.345
L1770.06-1550	6	1550	0.4	0.357
L1770.06-1600	6	1600	0.4	0.368

6Ø Hardened Steel Shafts

Order No.	d_1 tol. h6	l_1	Depth of hardness min.	Weight kg
L1770.06-1650	6	1650	0.4	0.380
L1770.06-1700	6	1700	0.4	0.391
L1770.06-1750	6	1750	0.4	0.403
L1770.06-1800	6	1800	0.4	0.414
L1770.06-1850	6	1850	0.4	0.426
L1770.06-1900	6	1900	0.4	0.437
L1770.06-1950	6	1950	0.4	0.449
L1770.06-2000	6	2000	0.4	0.460
L1770.06-2050	6	2050	0.4	0.472
L1770.06-2100	6	2100	0.4	0.483
L1770.06-2150	6	2150	0.4	0.495
L1770.06-2200	6	2200	0.4	0.506
L1770.06-2250	6	2250	0.4	0.518
L1770.06-2300	6	2300	0.4	0.529
L1770.06-2350	6	2350	0.4	0.541
L1770.06-2400	6	2400	0.4	0.552
L1770.06-2450	6	2450	0.4	0.564
L1770.06-2500	6	2500	0.4	0.575
L1770.06-2550	6	2550	0.4	0.587
L1770.06-2600	6	2650	0.4	0.598
L1770.06-2650	6	2650	0.4	0.610
L1770.06-2700	6	2700	0.4	0.621
L1770.06-2750	6	2750	0.4	0.633
L1770.06-2800	6	2800	0.4	0.644
L1770.06-2850	6	2850	0.4	0.656
L1770.06-2900	6	2900	0.4	0.667
L1770.06-2950	6	2950	0.4	0.679
L1770.06-3000	6	3000	0.4	0.690
L1770.06-3050	6	3050	0.4	0.702
L1770.06-3100	6	3100	0.4	0.713
L1770.06-3150	6	3150	0.4	0.725
L1770.06-3200	6	3200	0.4	0.736
L1770.06-3250	6	3250	0.4	0.748
L1770.06-3300	6	3300	0.4	0.759
L1770.06-3350	6	3350	0.4	0.771
L1770.06-3400	6	3400	0.4	0.782
L1770.06-3450	6	3450	0.4	0.794
L1770.06-3500	6	3500	0.4	0.805
L1770.06-3550	6	3550	0.4	0.817
L1770.06-3600	6	3600	0.4	0.828
L1770.06-3650	6	3650	0.4	0.840
L1770.06-3700	6	3700	0.4	0.851
L1770.06-3750	6	3750	0.4	0.863
L1770.06-3800	6	3800	0.4	0.874
L1770.06-3850	6	3850	0.4	0.886
L1770.06-3900	6	3900	0.4	0.897
L1770.06-3950	6	3950	0.4	0.909
L1770.06-4000	6	4000	0.4	0.920
L1770.06-4050	6	4050	0.4	0.932
L1770.06-4100	6	4100	0.4	0.943
L1770.06-4150	6	4150	0.4	0.955
L1770.06-4200	6	4200	0.4	0.966
L1770.06-4250	6	4250	0.4	0.978
L1770.06-4300	6	4300	0.4	0.989
L1770.06-4350	6	4350	0.4	1.001
L1770.06-4400	6	4400	0.4	1.012
L1770.06-4450	6	4450	0.4	1.024
L1770.06-4500	6	4500	0.4	1.035
L1770.06-4550	6	4550	0.4	1.047
L1770.06-4600	6	4600	0.4	1.058
L1770.06-4650	6	4650	0.4	1.070
L1770.06-4700	6	4700	0.4	1.081
L1770.06-4750	6	4750	0.4	1.093
L1770.06-4800	6	4800	0.4	1.104
L1770.06-4850	6	4850	0.4	1.116
L1770.06-4900	6	4900	0.4	1.127
L1770.06-4950	6	4950	0.4	1.139
L1770.06-5000	6	5000	0.4	1.150

Order No.	d_1 tol. h6	l_1	Depth of hardness min.	Weight kg
L1770.06-5050	6	5050	0.4	1.162
L1770.06-5100	6	5100	0.4	1.173
L1770.06-5150	6	5150	0.4	1.185
L1770.06-5200	6	5200	0.4	1.196
L1770.06-5250	6	5250	0.4	1.208
L1770.06-5300	6	5300	0.4	1.219
L1770.06-5350	6	5350	0.4	1.231
L1770.06-5400	6	5400	0.4	1.242
L1770.06-5450	6	5450	0.4	1.254
L1770.06-5500	6	5500	0.4	1.265
L1770.06-5550	6	5550	0.4	1.277
L1770.06-5600	6	5600	0.4	1.288
L1770.06-5650	6	5650	0.4	1.300
L1770.06-5700	6	5700	0.4	1.311
L1770.06-5750	6	5750	0.4	1.323
L1770.06-5800	6	5800	0.4	1.334
L1770.06-5850	6	5850	0.4	1.346
L1770.06-5900	6	5900	0.4	1.357
L1770.06-5950	6	5950	0.4	1.369
L1770.06-6000	6	6000	0.4	1.380

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

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