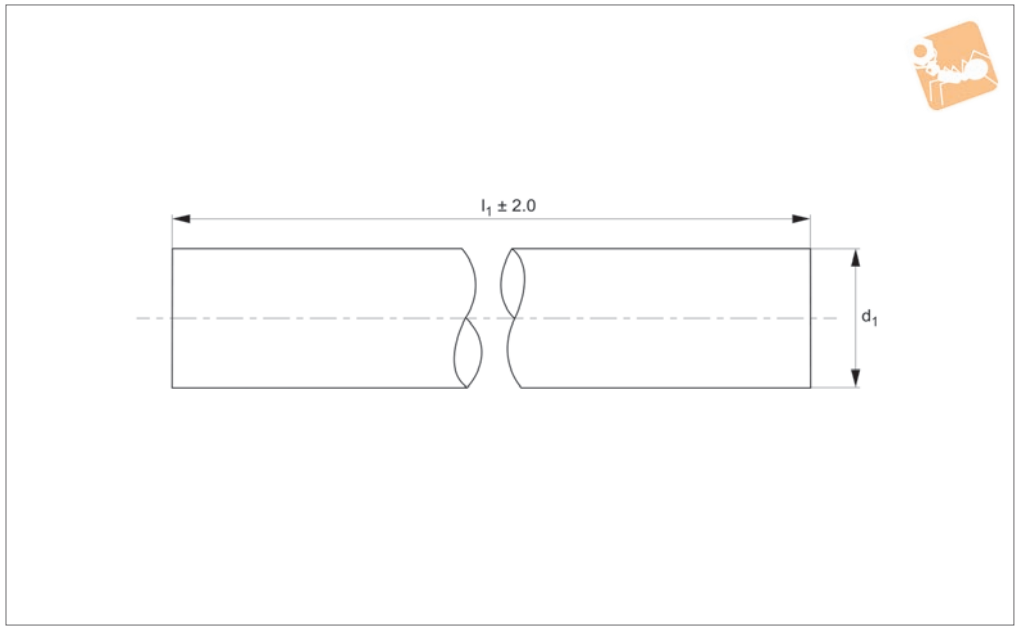

L1774.10

Material
Stainless steel (AISI 316, A4). Surface finish 0.3-0.6µ Ra, ground and polished to 8-12 cla.
Yield stress: >205 N/mm^2, tensile strength: >515 N/mm^2.

Technical Notes
Tolerance, h6 standard, other tolerances on request.
Straightness 0,2mm/m.

Tips
Modifications, drilled and tapped holes, circlip grooves, special coatings etc. available.
Shafts lengths are cut to typically ± 2mm.
To be used with ceramic or other bearings not containing hardened ball bearings.

Order No.	d_1 tol. h6	l_1	Tolerance µ tol. h6	Depth of hardness
L1774.10-0100	10	100	+0,-10	1.0
L1774.10-0150	10	150	+0,-10	1.0
L1774.10-0200	10	200	+0,-10	1.0
L1774.10-0250	10	250	+0,-10	1.0
L1774.10-0300	10	300	+0,-10	1.0
L1774.10-0350	10	350	+0,-10	1.0
L1774.10-0400	10	400	+0,-10	1.0
L1774.10-0450	10	450	+0,-10	1.0
L1774.10-0500	10	500	+0,-10	1.0
L1774.10-0550	10	550	+0,-10	1.0
L1774.10-0600	10	600	+0,-10	1.0
L1774.10-0650	10	650	+0,-10	1.0
L1774.10-0700	10	700	+0,-10	1.0
L1774.10-0750	10	750	+0,-10	1.0
L1774.10-0800	10	800	+0,-10	1.0
L1774.10-0850	10	850	+0,-10	1.0
L1774.10-0900	10	900	+0,-10	1.0
L1774.10-0950	10	950	+0,-10	1.0
L1774.10-1000	10	1000	+0,-10	1.0
L1774.10-1050	10	1050	+0,-10	1.0
L1774.10-1100	10	1100	+0,-10	1.0
L1774.10-1150	10	1150	+0,-10	1.0
L1774.10-1200	10	1200	+0,-10	1.0
L1774.10-1250	10	1250	+0,-10	1.0
L1774.10-1300	10	1300	+0,-10	1.0
L1774.10-1350	10	1350	+0,-10	1.0
L1774.10-1400	10	1400	+0,-10	1.0
L1774.10-1450	10	1450	+0,-10	1.0
L1774.10-1500	10	1500	+0,-10	1.0

10Ø Stainless AISI 316 Shafts
soft

Order No.	d_1 tol. h6	l_1	Tolerance μ tol. h6	Depth of hardness
L1774.10-1550	10	1550	+0,-10	1.0
L1774.10-1600	10	1600	+0,-10	1.0
L1774.10-1650	10	1650	+0,-10	1.0
L1774.10-1700	10	1700	+0,-10	1.0
L1774.10-1750	10	1750	+0,-10	1.0
L1774.10-1800	10	1800	+0,-10	1.0
L1774.10-1850	10	1850	+0,-10	1.0
L1774.10-1900	10	1900	+0,-10	1.0
L1774.10-1950	10	1950	+0,-10	1.0
L1774.10-2000	10	2000	+0,-10	1.0
L1774.10-2050	10	2050	+0,-10	1.0
L1774.10-2100	10	2100	+0,-10	1.0
L1774.10-2150	10	2150	+0,-10	1.0
L1774.10-2200	10	2200	+0,-10	1.0
L1774.10-2250	10	2250	+0,-10	1.0
L1774.10-2300	10	2300	+0,-10	1.0
L1774.10-2350	10	2350	+0,-10	1.0
L1774.10-2400	10	2400	+0,-10	1.0
L1774.10-2450	10	2450	+0,-10	1.0
L1774.10-2500	10	2500	+0,-10	1.0
L1774.10-2550	10	2550	+0,-10	1.0
L1774.10-2600	10	2600	+0,-10	1.0
L1774.10-2650	10	2650	+0,-10	1.0
L1774.10-2700	10	2700	+0,-10	1.0
L1774.10-2750	10	2750	+0,-10	1.0
L1774.10-2800	10	2800	+0,-10	1.0
L1774.10-2850	10	2850	+0,-10	1.0
L1774.10-2900	10	2900	+0,-10	1.0
L1774.10-2950	10	2950	+0,-10	1.0
L1774.10-3000	10	3000	+0,-10	1.0
L1774.10-3050	10	3050	+0,-10	1.0
L1774.10-3100	10	3100	+0,-10	1.0
L1774.10-3150	10	3150	+0,-10	1.0
L1774.10-3200	10	3200	+0,-10	1.0
L1774.10-3250	10	3250	+0,-10	1.0
L1774.10-3300	10	3300	+0,-10	1.0
L1774.10-3350	10	3350	+0,-10	1.0
L1774.10-3400	10	3400	+0,-10	1.0
L1774.10-3450	10	3450	+0,-10	1.0
L1774.10-3500	10	3500	+0,-10	1.0
L1774.10-3550	10	3550	+0,-10	1.0
L1774.10-3600	10	3600	+0,-10	1.0
L1774.10-3650	10	3650	+0,-10	1.0
L1774.10-3700	10	3700	+0,-10	1.0
L1774.10-3750	10	3750	+0,-10	1.0
L1774.10-3800	10	3800	+0,-10	1.0
L1774.10-3850	10	3850	+0,-10	1.0
L1774.10-3900	10	3900	+0,-10	1.0
L1774.10-3950	10	3950	+0,-10	1.0
L1774.10-4000	10	4000	+0,-10	1.0
L1774.10-4050	10	4050	+0,-10	1.0
L1774.10-4100	10	4100	+0,-10	1.0
L1774.10-4150	10	4150	+0,-10	1.0
L1774.10-4200	10	4200	+0,-10	1.0
L1774.10-4250	10	4250	+0,-10	1.0
L1774.10-4300	10	4300	+0,-10	1.0
L1774.10-4350	10	4350	+0,-10	1.0
L1774.10-4400	10	4400	+0,-10	1.0
L1774.10-4450	10	4450	+0,-10	1.0
L1774.10-4500	10	4500	+0,-10	1.0
L1774.10-4550	10	4550	+0,-10	1.0
L1774.10-4600	10	4600	+0,-10	1.0
L1774.10-4650	10	4650	+0,-10	1.0
L1774.10-4700	10	4700	+0,-10	1.0
L1774.10-4750	10	4750	+0,-10	1.0
L1774.10-4800	10	4800	+0,-10	1.0
L1774.10-4850	10	4850	+0,-10	1.0
L1774.10-4900	10	4900	+0,-10	1.0

Order No.	d_1 tol. h6	l_1	Tolerance μ tol. h6	Depth of hardness
L1774.10-4950	10	4950	+0,-10	1.0
L1774.10-5000	10	5000	+0,-10	1.0
L1774.10-5050	10	5050	+0,-10	1.0
L1774.10-5100	10	5100	+0,-10	1.0
L1774.10-5150	10	5150	+0,-10	1.0
L1774.10-5200	10	5200	+0,-10	1.0
L1774.10-5250	10	5250	+0,-10	1.0
L1774.10-5300	10	5300	+0,-10	1.0
L1774.10-5350	10	5350	+0,-10	1.0
L1774.10-5400	10	5400	+0,-10	1.0
L1774.10-5450	10	5450	+0,-10	1.0
L1774.10-5500	10	5500	+0,-10	1.0
L1774.10-5550	10	5500	+0,-10	1.0
L1774.10-5600	10	5600	+0,-10	1.0
L1774.10-5650	10	5650	+0,-10	1.0
L1774.10-5700	10	5700	+0,-10	1.0
L1774.10-5750	10	5750	+0,-10	1.0
L1774.10-5800	10	5800	+0,-10	1.0
L1774.10-5850	10	5850	+0,-10	1.0
L1774.10-5900	10	5900	+0,-10	1.0
L1774.10-5950	10	5950	+0,-10	1.0
L1774.10-6000	10	6000	+0,-10	1.0

Linear Shafts from Automotion Components

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.

Linear Shafts from Automotion Components

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