



L1774.10

Material

Stainless steel (AISI 316, A4). Surface finish 0.3-0.6µ Ra, ground and polished to

Yield stress: >205 N/mm², tensile strength: >515 N/mm².

Technical Notes

Tolerance, h6 standard, other tolerances

on request. Straightness 0,2mm/m.

Modifications, drilled and tapped holes, circlip grooves, special coatings etc. available.

10Ø Stainless AISI 316 Shafts

Shafts lengths are cut to typically ± 2mm. To be used with ceramic or other bearings not containing hardened ball bearings.

Order No.	d	1	Tolerance µ	Depth of hardness
Order No.	d ₁ tol. h6	l ₁	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



Linear Shaft Bars

10Ø Stainless AISI 316 Shafts



1,774,10-1550 10 1550 +0-10 10 10 11,774,10-150 10 1650 +0-10 10 10 11,774,10-150 10 1700 +0-10 10 10 11,774,10-150 10 1700 +0-10 10 10 11,774,10-150 10 1700 +0-10 10 10 11,774,10-150 10 1750 +0-10 10 10 11,774,10-150 10 1850 +0-10 10 10 11,774,10-150 10 1850 +0-10 10 10 11,774,10-150 10 1500 +0-10 10 10 11,774,10-150 10 1500 +0-10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 10 10 11,774,10-150 10 10 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 10 11,774,10-150 10 10 10 10 10 10 11,774,10-150 10 10 10 10 10 11,774,10-150 10 10 10 10 10 11,774,10-150 10 10 10 10 10 10 10	Order No.	d ₁ tol. h6	I_1	Tolerance μ tol. h6	Depth of hardness
1,1774,10-150 10 150 1650 +0,-10 1.0 1.1774,10-1750 10 1.750 +0,-10 1.0 1.1774,10-1750 10 1.750 +0,-10 1.0 1.1774,10-1800 10 1800 +0,-10 1.0 1.1774,10-1800 10 1800 +0,-10 1.0 1.1774,10-1800 10 1800 +0,-10 1.0 1.0 1.1774,10-1850 10 1950 +0,-10 1.0 1	L1774.10-1550	10	1550	+0,-10	1.0
1,174,10-1700 10 1700 +0,-10 1.0 1.174,10-1750 10 1750 +0,-10 1.0 1.174,10-1800 10 1800 +0,-10 1.0 1.174,10-1800 10 1800 +0,-10 1.0 1.174,10-1800 10 1800 +0,-10 1.0 1.0 1.174,10-1800 10 1900 +0,-10 1.0 1.0 1.174,10-1800 10 1900 +0,-10 1.0	L1774.10-1600	10	1600	+0,-10	1.0
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11774_10-1900					
11774.10-2500					
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L1774.10-4900 10 4900 +0,-10 1.0					
	L1774.10-4900	10	4900	+0,-10	1.0



10Ø Stainless AISI 316 Shafts



Order No.	d ₁	I_1	Tolerance µ	Depth of hardness
	tol. h6		tol. h6	
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



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.



Linear Shafts

Overview

L1770 - Hardened steel shafts L1771 - Hardened hollow shafts For use with linear bearings. For use with linear bearings. Hollowed for lighter weight. Ø12 to Ø50 Ø6 to Ø60 L1772 - Hardened Stainless shafts L1773 - Stainless 303 shafts For use with linear bearings Soft stainless, high anti-corrosion. Anti-corrosion. Not for use with ball bush linear bearings. Ø6 to Ø60 Ø6 to Ø60 L1774 - Stainless 316 shafts L1778 - Aluminium shafts Soft stainless, very high anti-corrosion. Light weight, non-magnetic. Not for use with ball bushing linear bearings. Ø10 to Ø50 Ø6 to Ø60



ov-linear-shafts-overview-rnh - Updated - 28-02-2023