



New Thomson 60 Case™ QUICK™ Shafts



60 Case™ QUICK™ Shafts

The QUICK shaft program was developed in response to the need for immediate availability of hardened and ground linear bearing inner races. Thomson 60 Case QUICK Shaft is the **preferred LinearRace™ for all linear bearing applications**. Each hardened and precision ground shaft is manufactured to world class quality standards. The surface finish is enhanced by the Thomson MicroBrite™ finishing process which optimizes Ball Bushing™ bearing performance. QUICK Shafts are supplied in a specially designed package which provides extended shelf life.

60 Case QUICK Shafts are also **cost-effective answers to nonlinear bearing applications**. From piston rods to tie rods and spindles, 60 Case QUICK Shafts provide improved performance and function. Every diameter and length is prepackaged ready for immediate use and available from Quality Bearings & Components. Please contact us today for your next shafting requirement, by calling: **Sales at 1-888-276-4787.**

For immediate Application Engineering assistance, contact **Quality Bearings & Components**
Phone: 516-616-0436 Fax: 516-616-0443

Thomson 60 Case LinearRace Shafting Benefit Summary:

- **Longer Life**
- **Optimum Performance**
- **Greater Accuracy**
- **Manufactured in an ISO 9002 registered facility**



All Thomson Industries Manufacturing Locations
are ISO 9000 Certified and Manufacturing Facilities
Operate to QS-9000 Standards.
General Motors Supplier of the year since 1995

ISO 9000



60 Case™ QUICK™ Shafts for Ball Bushing™ and Other Applications

The shaft on which Ball Bushing™ bearings operate acts as the inner bearing race. To assure long service for all but lightly loaded applications, the shaft should be hardened to HRC 60 minimum to an adequate depth. To provide smooth operation and the required precision, the surface should be smooth, round and straight. Thomson hardened and ground 60 Case™ shafts are manufactured for this specific purpose. This material is of extremely high quality and fills all requirements.

Because of the tolerance on the bore diameter of Ball Bushing™ bearings, the shaft diameter should always be smaller than the nominal dimension. For example, the bore diameter of the 1/2" shaft, precision series A, Ball Bushing™ Bearing (TA81420) is .5000" + .0000" - .0005". Since the bore can go as small as .4995" and an operating clearance of .0005" is generally recommended, the shaft diameter should not exceed .4990". Tolerances for the various sizes and types of Ball Bushing™ bearings are given on their product pages.

Other Applications

In addition to their use as QUICK™ Shafts for Ball Bushing™ bearings, 60 Case™ shafts are also used for many other industrial applications, such as guide rods, rolls, piston rods, spindles and mandrels. All shafts listed in this catalog are available from stock at [Quality Bearings & Components](#).

Specifications

Hardness

60 Case™ QUICK™ Shafts of high carbon alloy are case hardened to HRC 60 minimum. Our 440C Stainless Steel 60 Case™ QUICK™ Shafts are hardened to HRC 50-55. Tubular 60 Case™ QUICK™ Shafts are hardened to HRC 58-63. Depth of case is listed on the individual product pages.

Surface Finish

60 Case™ QUICK™ Shafts have a surface finish of 8 μin R_a, or better, except on surfaces with machining or adjacent to annealed areas.

Straightness

60 Case™ QUICK™ Shafts are very straight, within .001" per foot cumulative (.002" TIR). Even straighter parts can be supplied at a slight extra charge.

Length Tolerance

60 Case™ QUICK™ Shafts are cut to the required length within plus or minus 1/32" for shafts up to 2" diameter (±1/16" for shafts 2" diameter and over). Closer length tolerances can be maintained on special orders.

Chamfered Ends

Ends are chamfered about 1/16" x 45°. Precision chamfers can also be done.

Special Alloys

Many times special alloys are specified when not needed. In most applications, 60 Case™ QUICK™ Shafts will prove entirely adequate.

Stainless Steel

60 Case™ QUICK™ Shafts are also available in 440C Stainless Steel. See page 35 and 38.

Special Machining

Complete facilities are available for special machine work. When special machine work is required, send a sketch or print with your request for quotation.

Standard Lengths

Class L high carbon alloy steel 60 Case™ QUICK™ Shafts in 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1-1/4", 1-1/2", 1-3/4" and 2" diameters are immediately available from [Quality Bearings & Components](#) in lengths from 6 inches through 72 inches. See page 32.

Metric Shafts

Class L high carbon alloy steel 60 Case™ QUICK™ Shafts in 5, 8, 10, 12, 16, 20, 25, 30 and 40 mm diameters are immediately available from [Quality Bearings & Components](#) in lengths from 200 to 2000 mm. See page 33.

Roundness

60 Case™ QUICK™ Shaft roundness is within .000080" (Class L).

Taper

60 Case™ QUICK™ Shaft maximum taper is .0001" over the entire length of the QUICK™ Shaft.