



LICAT was founded in Turin in 1961 by Vittorio Apicella, and our first factory was situated in

the well-known industrial area of "Borgo San Paolo". As a chosen supplier to major national manufacturers, the company has always specialised both in the construction of special transmission parts and in the manufacture of precision gearing systems. The rapid growth of the company during the following years forced LICAT to transfer to a larger site and in 1967 the company moved to the new industrial area in Grugliasco, just outside Turin, and later, in 1974 a second plant was built in Alpignano, which specialised in the manufacture of ground racks and large size gears and pinions. Then, in 1996, the two production units were brought together in an extensive new site near Rivoli. Finally in 2009, all production activities were transferred to our own new factory in the industrial area of Orbassano, with this site having two separate sectors, one dedicated to standard high precision linear transmission systems, with the other setup for specific products as requested by customers.

Usually, The use of both these new production facilities has made it possible for LICAT to increase and update its machinery, equipment and productive capacity. LICAT is especially competitive in supplying high precision gears, racks and pinions, complete solutions for linear transmission systems, worm gears, spline shafts, toothed sectors, couplings and frontal inserts, both as a small series or as individual items.

LICAT is normally capable of satisfying total customer needs, including material supply, heat treatment, complete machining and testing. Orders can also be taken for specific process operations, with material supplied by the customer. LICAT frequently works with internationally recognised organisations such as the Registro Italiano Navale, Lloyd's Register of Shipping, American Bureau of Shipping, the Italian Navy, Italian Railways, etc. and is directly responsible for destructive / non-destructive testing and inspection, using internal personnel in accordance with the SNT regulations.

LICAT also applies its own Quality Management Manual, while the Quality System is in compliance with the ISO 9001:2008 and EN 9100:2009 standards.

The firm and the product





Working Methods

- Straight, helical, double-helical external-toothed gears, finished using MAAG machinery, max. outside diameter 3000 mm, max width 450 mm.
- Straight or helical external-toothed gears, with trimmed profile, max. outside diameter 2000 mm, max width 200 mm.
- Straight or helical external-toothed gears, with ground profile, max. outside diameter 1600 mm, max width 700 mm.
- Internal gears, max. inside diameter 2500 mm, max. width 200 mm · Worm screw gearing with max. diameter 1400 mm
- Gears for all types of chains and timing belts, max. diam. 2000 mm · Gleason straight, spiral and Zerol gears
- Trapezoidal screws with max. length 3000 mm or above
- Standard and special worm screws
- All types of splined shafts, max. trimmed length 3000 mm, ground up to a length of 2000 mm in the splined part
- All types of toothed joints up to 1200 mm diameter
- Complete heavy overhaul for gearboxes, multipliers and transmission units, with return to as new condition, together with technical upgrades and/or requested modifications, for heavy duty machine tools, naval propulsion units, power plant in general and railway use
- Milled racks, max. length 3500 mm, max width 350 mm, max mod. 24
- Ground racks, length 2600 mm, width 350 mm, max. mod. 14 High precision ground frontal joints
- Toothing from mod. 0.2 to 30 and above, with non-standard pressure angle and proportions.
- Calculations and checking of toothing technical data
- Spare parts for machine tools, presses, marine engines
- Toothed conical punches
- Toothed sectors
- Slots and keyways, max. width 430 mm on max. 7000 mm high parts
- Helical milling on drums and cylinders
- Flat cam milling
- Frontal and involute toothing
- -Toothing with swell and profile correction

