



SAE J514

THE CAST 37° STANDARDIZED FITTINGS
AN EASY ASSEMBLY
A KNOWN PRODUCT, SAFE AND RELIABLE

AVAILABLE IN CARBON AND STAINLESS STEEL

THEORY OF OPERATION

The CAST S.p.A. fitting according to the norms ISO 8434-2/ SAE J514, is a mechanical fitting traditionally used for high pressure oleo-dynamic systems. The sealing is made by the contact between two metal surfaces, with no deformation of the single components.

The coupling between the body of the fitting and the flared tube (cone angle 74°) is guaranteed by the tightening nut and by the pressure sleeve on the inside. This allow to realize a fast assembling-disassembling tube making the easiest realization of complex oleo-dynamic systems.

COUPLING SYSTEM SAE J514

Reference prescriptions:

ST 37.4 tube
DIN 1630-2391

Pressure sleeve
ISO 8434-2/SAE J514

Nut
ISO 8434-2/SAE J514

37° cone

Fitting body
ISO 8434-2

Flat washer housing
ISO 1179-2.2

Threaded end
ISO 1179-2.2

Traceability decoding

CAST =
Manufacturer

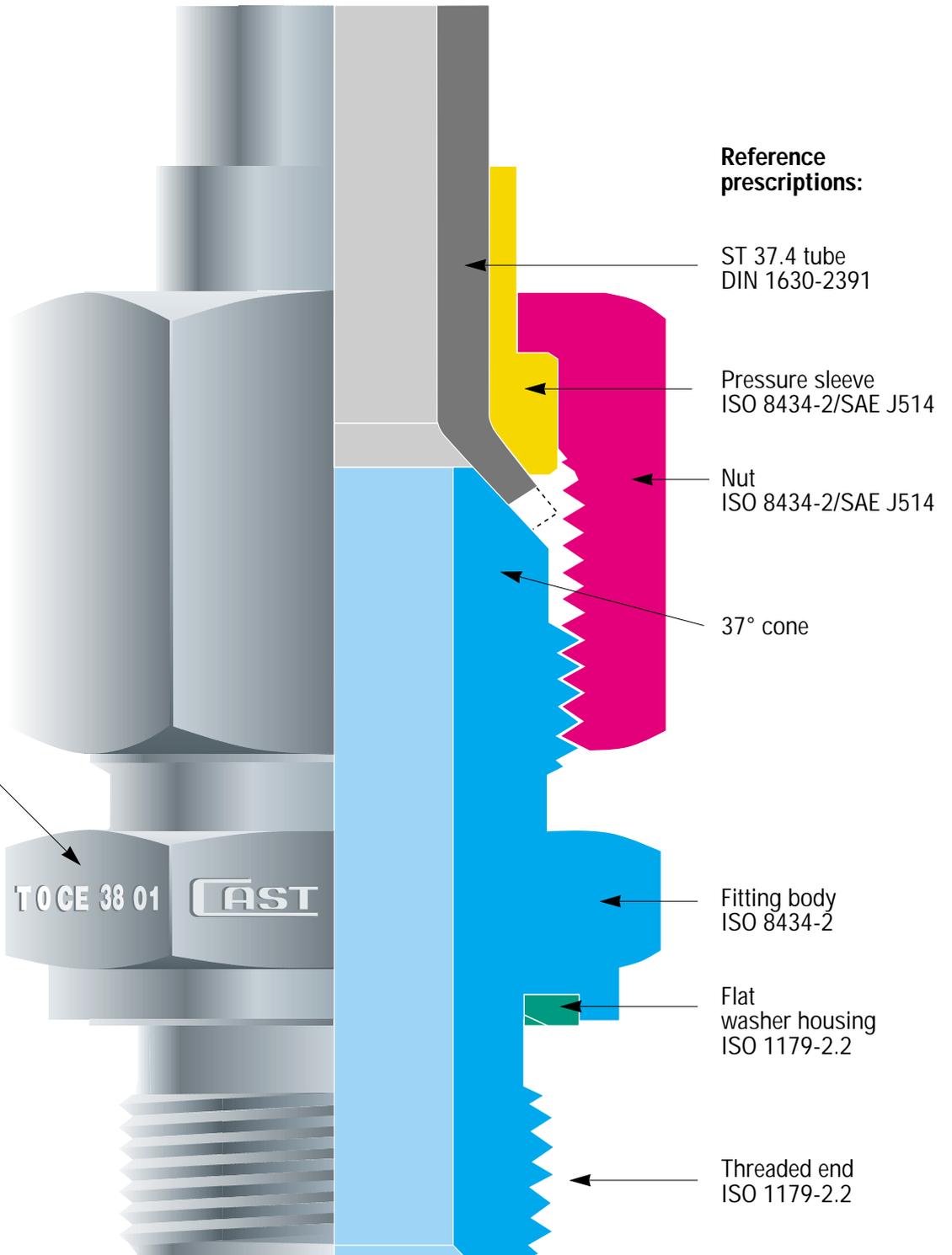
• T =
Production plant

• 0 =
Year manufactured

• CE =
Made in EEC

• 38 =
Type of steel used

• 01 =
Heat number of the steel used



TOCE 38 01 **CAST**

TECHNICAL CHARACTERISTICS

The CAST S.p.A. 37° fitting grants a perfect sealing of the system independently from the used fluid, as long as corrosive fluids are not used and all the specific prescription for this type of fitting are complied with.

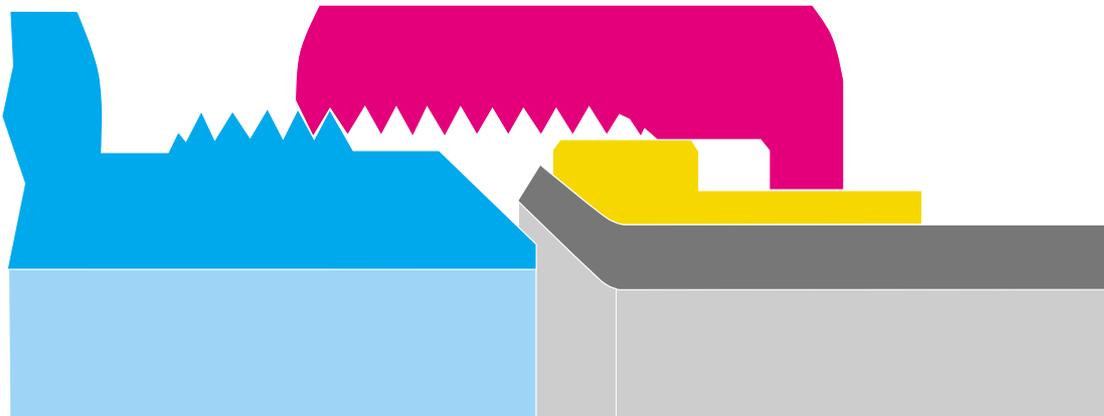
These fittings are manufactured in a single series defined "UNIVERSAL" since the body and the nut of the fitting remain the same even when switching from a inches sized tube to a metric tube, and since there are no doubles of diameters with different working pressures.

Vibrations, in the norm, do not alter the functionality of this type of fitting, also at the top level of the quoted values, and therefore keeps the best characteristics of absolute guarantee, safety and reliability. For these specific reasons this fitting may be used in hard working conditions.

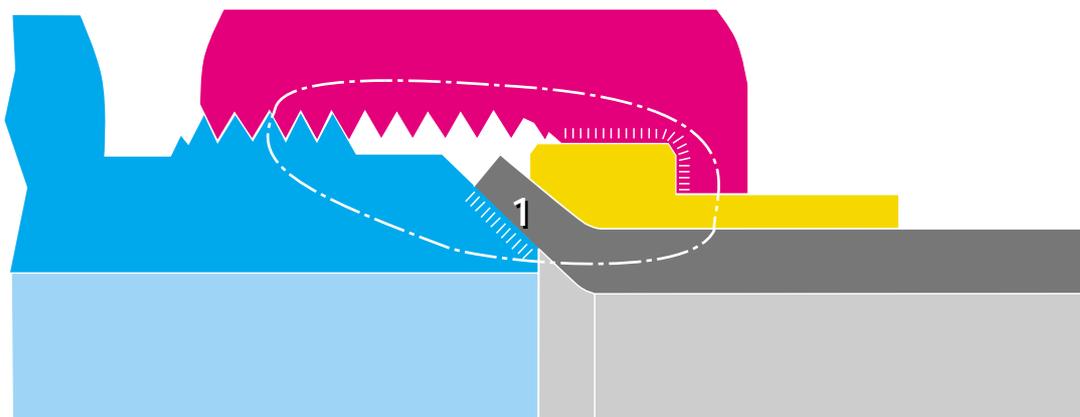
Under the mechanical strength given by the tightening of the nut on the fitting body, the flared 37° part of the tube couples with the conical 37° part of the fitting body giving birth to a metal to metal seal.

The pressure sleeve hosted in the inside part of the nut assures the correct alignment of the system diminishing the vibrations and avoiding any possible trouble or damaging of the tube during the assembly phase.

Before assembly on the metal tube



After assembly on the metal tube



Field of force after assembly



Pressure surfaces after assembly



Sealing points

1

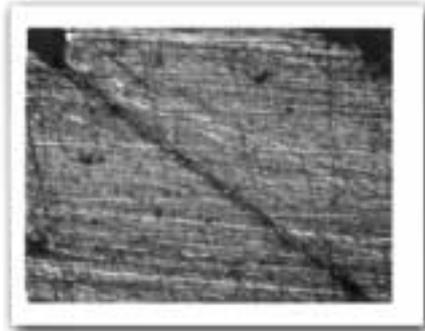
DETAIL 37° CONE SEALING POINTS

Tube: Ø25x2

Assembly: as per tightening torque indicated on this catalogue (160Nm)

Magnifying: Microscope x5

Detail scale: 0,5

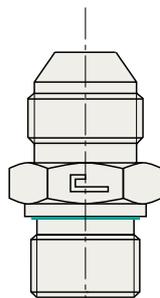


180. SEALING POINT 1 – 37° CONE

PRODUCT MATURITY

For many years now, there has been an increasing imperative market demand for fluid system components able to guarantee three main factors: safety, easy assembly, leakage-free tightness.

These elements, now considered essential for safety of the working environment (Law 626/94), product liability (Presidential Decree 224-EEC 85/374) and for the entire environmental protection system make the 37° flared fitting an effective response to all the above-mentioned problems.



Standard SAE J514 fitting
with no elastomeric
seal available on scheduled
orders only.