

Triple Cross Head TQu



TROESTER

EXCELLENCE IN EXTRUSION.

Triple Cross Head TQu

The TROESTER Triple Cross Head (TQu) is used for the simultaneous extrusion of the inner semiconductor layer, the insulation layer and the outer semiconductor layer.

The TROESTER TQu can produce single-core cables in voltage classes of 5 kV up to 1000 kV. The TQu is employed in catenary lines (CCV), vertical lines (VCV), long-die systems (MDCV) and silane lines. Depending on the area of application, it can be designed for XLPE, EPR or Rubber compounds.

The outstanding characteristic of all TROESTER Triple Cross Heads is the conical construction of the material distribution flow channels, resulting in an absolute precision fit, together with excellent sealing and easy installation/disassembly.

Temperature control of the TQu is via pressurized water or oil. The six separate temperature control zones guarantees ideal flow characteristics for the compound, in addition to rapid heating up to operating temperature and an exact separation of the temperatures for the three melt streams. In addition, the TQu is well insulated against heat emanating from the CV tube.

The cross head is equipped with three computer-optimized material flow channels. The flow channels are optimally matched in shape and depth to the viscosities of the insulation and semiconductor materials. The very low wall thickness tolerances for the insulation and semiconductor layers results in material savings for the customer. Continuous optimization and development of the cross head to adjust the dies at the front of the head, enabling convenient and short tool changeover times.

The know-how gained from over 350 TROESTER Triple Cross Heads reassures customers that the design of the cross head tooling and flow channels guarantees a perfect material flow to avoid scorch within the head. This contributes to uninterrupted, maximum possible production times.

After initial centering, the design of the Triple Cross Head ensures that the outer semiconductor does not require re-centering – even if the dimensions of the cable have been completely changed. The use of dial gauges allows an outstanding reproducibility of the centering, thus further minimizing operating costs. The TQu is supplied with hardened material flow channels to prevent any damage during head cleaning.

Extruder arrangement and connection to the cross head is flexible, according to on-site space conditions.

TQu on maintenance carriage with hydraulic swinging and turning device



Technical Data

Triple Cross Head	Cross Section Range mm ²	max. Cable Diameter mm
TQu 30	6 - 300	45
TQu 40	16 - 630	80
TQu 50	25 - 1000	90
TQu 65	50 - 1600	105
TQu 80	95 - 2500	140
TQu 90	240 - 3000	145
TQu 100	240 - 3500	150

Main Advantages of TROESTER Triple Cross Heads TQu

- > Long life and low maintenance design
- > Big product range with one TQu only
- > Perfect sealing and positional accuracy due to conical design
- > Optimized distribution flow channels minimize layer thickness tolerances, thereby saving insulation and semiconductor material
- > Short tooling changeover times
- > Outer semiconductor centering not necessary after initial centering
- > Hardened material flow channel parts for easy cleaning
- > Minimal re-centering using dial gauges
- > Rapid heating up to operating temperature
- > Exact separation of the temperatures for the three melt streams
- > Optimal also for application in MDCV lines

