PRODUCT DATASHEET

Multi-Pass Filter Test Rig (ISO 16889)

Multi-pass testing of filter elements: filtration ratio, capacity and pressure drop

Product page





Close-up: test filter housing, flow meter and the upstream and downstream particle counters

OVERVIEW

The Tech Inc. Multi-Pass Filter Test Rig (ISO 16889) is a complete test stand for rating hydraulic, lubricating oil and fuel filter elements by the multi-pass method.

TYPICAL DESIGN DATA

Test methods	ISO 16889:2022; ISO 23369:2022 (cyclic flow); ISO 4548-12:2017; ISO 19438:2023; ISO 4406 cleanliness codes reported
Test contaminant	ISO medium test dust (ISO MTD, ISO 12103-1 A3), injected continuously from the injection system
Upstream contaminant levels	Base upstream gravimetric levels of 3, 10 and 15 mg/L, as set out in ISO 16889
Codes and standards	ISO 16889, ISO 23369, ISO 4548-12, ISO 19438; CE marking
Particle counting	Two online automatic particle counters, upstream and downstream, calibrated to ISO 11171, with dilution where the contaminant level calls for it
Results	Filtration ratio β(c) at each particle size against time, contaminant capacity, pressure drop against time and ISO 4406 codes, with an automatic test report

MODELS AND CAPACITIES

- **TI-MPT-H** – hydraulic filter elements to ISO 16889, with the ISO 23369 cyclic-flow option
- **TI-MPT-F** – diesel and petrol filters to ISO 19438
- **TI-MPT-L** – engine lubricating oil filters to ISO 4548-12
- **TI-MPT-C** – combined rig with several test loops covering more than one standard

Multi-pass rigs are built to the elements, flows and standards you test to.

ORDERING CODE

Example **TI-MPT-H-150-1**: **H** standard: H hydraulic (ISO 16889), L lubricating oil (ISO 4548-12), F fuel (ISO 19438), C combined; **150** largest test flow in L/min; **1** number of test loops.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** additional test loops for other flow ranges; cyclic-flow (ISO 23369) package; bottle sampling points for laboratory counts.

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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