#### HITEC

Testing technologies





# MT 1

# **SIEVE RESIDUE TESTING DEVICE**

# Test set MT 1 testing station for the analysis of sieve residue - compliant to ISO 787-18

The MT 1 is a testing device for the determination of sieve residue after mechanical water flushing of pigments, extenders and other powder materials in general (known also as Mocker apparatus).

# **Functional principle**

Inside the testing device the pigment or extender to be tested is brought into a circular movement by a water jet rotor which is situated inside the vessel. The fine materials are separated from the coarse materials by the water and the fine particles are flushed through a sieve. The sieve residue is dried and gravimetrically analyzed according to the guidelines. Appropriate sieves (main range ISO 565) must be used according to the different testing guidelines. Furthermore, the recommendations of the DIN EN ISO 787-18 shall be used.

The percentage of the components of impurities is specifically prescribed and is analyzed in order to maintain the desired product quality. The test set MT 1 quickly provides the result which can be adjusted to the prescribed limiting values within the quality control.

#### **Examples for application**

The test set MT 1 is used worldwide for the testing of inorganic pigments, aerosils, silanes and carbons and also for materials like zinc oxide, titanium dioxide and other powder materials. Applications for organic polymers are possible in selected cases.

# **Key features**

• Design according to DIN EN ISO 787-18

- Measurement ranges from 0,020 mm to 0,8 mm
- Programmable digital timer
- Handy sieves (diameter 50 mm, weight from 5 g) available with stainless steel or plastic ring
- · Easy sieve positioning and removal
- Absolute reproducibility of screening results
- No dust forming due to sealed construction
- Glass vessel for observation of process
- Reliable and durable technology
- Easy servicing
- Compact space saving design
- Automatic lifting system for vessel lid
- Low noise level

#### **Customer satisfaction promise**

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# MT 1 CHARACTERISTICS

# Accessory

• Additional filling funnel including agitator

Taking liters tool for quality control

Precision tool for nozzle control

• Sieve holder (classification for 2 sieves of different size)

• Pump for pressure increase

#### **Performance features**

Range of application: Wet sieving, separation, cleansing

from mud, screen cut

Input materials: Powder, suspension and mud

Number of fractions: Standard 1 (max. 2)

Charge/solid matter

amount:

5 to 200 g

# **Device components**

- Quick, clean and simple fastening due to a quick fastening system
- Screen observation through a glass vessel
- Automatic water switch off clock for flushing time limiting
- Water filter protects against external impurities
- Pressure reducing valve for constant pressure conditions
- Manometer for pressure control
- Flow meter for water flow control
- Automatic lifting device for vessel lid

#### Sieves according to ISO 565 DIN 3310-1

Sieves with a diameter of 50 mm with or without an impact tongue are used according to different test methods. These screens make the handling for the user very simple and allow the weighing by using standard analytical balances. The sieves are supplied either with plastic rings (Type A – Weight 5 g) or stainless steel rings (Type B- Weight 20 g). The sieve fabric is testing sieve fabric according to DIN 9044 ISO 4783. It is possible to obtain testing certificates (3.1 B according to DIN EN 10204 or factory certificates 2.2.)

\*All product, product specifications and data are subject to change without notice to improve reliability, function or design.

## Technical Data\*

**Housing:** Stainless steel

Analysis sample vessel: Stainless steel / Glass

Pressure reducing valve

brass, adjustable:

0 - 6 bar

Water pressure standard

set up:

3 bar - according to ISO

787-18

Flow meter: 60 - 600 L/h

Typical flow at the

nozzles:

145 L/h

Typical total flow rate:  $\sim 340 l/h$ 

**Input funnel:** stainless steel

Discharge unit w / hose: stainless steel

**Emission value EN ISO** 

3740:

L pA eq = < 50 dB (A)





