

Contamination Test Module – Extraction Flushing CTM-EF-1x0x

Description

The Contamination Test Module CTM is a modular system designed to analyze the technical cleanliness of components. The particle contamination is washed off the surface of the component and transferred to a membrane for subsequent analysis.

The CTM-EF extraction module is used for flushing in conjunction with a suitable module.

Applications

- Automotive and supplier industry
- Gearbox and engine builders
- Mobile hydraulics
- Manufacture of hydraulic and lubrication system components
- Aircraft Industry

Advantages

- Cost reductions as a result of fewer production failures
- Identification and elimination of weak points in processes
- Reduction in start-up breakdowns
- Optimization of internal and external processes
- Customized documentation of the technical cleanliness of components

Technical data

General data	
Ambient temperature	15 to 28°C
Membrane holder	for Ø 47 mm filter membranes
Weight	≈ 53 kg (empty)
Dimensions (Height x Width x Depth)	1.82 x 0.42 x 0.65 m
Self-cleaning	with an integrated nozzle
Fill level monitoring	Ultrasonic sensor
Reservoir volume	≈ 5 litres/8 litres
Reservoir material	Polished stainless steel 1.4301
Housing material	S235JR powder-coated
Hydraulic connection	Quick release coupling
Built-in drip tray	8 litres with drain
Electrical data	
Protection class to DIN 40050	IP 54
Supply voltage, module	24 V DC of CTM-SC 10 W maximum

Blank values

All data is dependent on the ambient conditions

Environment	CTM-EF 1200	CTM-EF 1400
Clean room	0.1 mg	0.1 mg
Laboratory	0.1 mg	0.1 mg
Separate sampling room	0.1 mg	0.1 mg
Factory building	0.1 mg	0.1 mg

CTM-EF 1200 / CTM-EF 1400

Max. particle size (metallic) [µm]	Time and effort	Cleaning time [h] after brief shutdown (≤ 24 h)	Cleaning time [h] after extended shutdown (≥ 24 h)
70	high	1 ... 4	1 ... 4
100	medium	1 ... 2	1 ... 2
150	low	0.5	0.5

Model code

CTM EF 12 0 0 - Z - Z - Z / -

Type

CTM = Contamination Test Module

Module

EF = Extraction Flushing

Volume, reservoir

12 = nominal, volume: 5 litres

14 = nominal, volume: 8 litres

Filtration

0 = Version 2009

Analysis fluid

0 = Solvent Solvent cleaner (G60 Spezial, flash point > 60°C, lower explosion limit > 0.6 Vol.%)

1 = water with surfactants, permitted pH values 6 - 10, no deionised water

Supply voltage of option

K = 120 V AC / 60 Hz / 1 phase USA/Canada

M = 230 V AC / 50 Hz / 1 phase Europe

N = 240 V AC / 50 Hz / 1 phase UK

O = 240 V AC / 50 Hz / 1 phase Australia

P = 100 V AC / 50 Hz / 1 phase Japan

Z = without

Extraction method

Z = spray, medium pressure

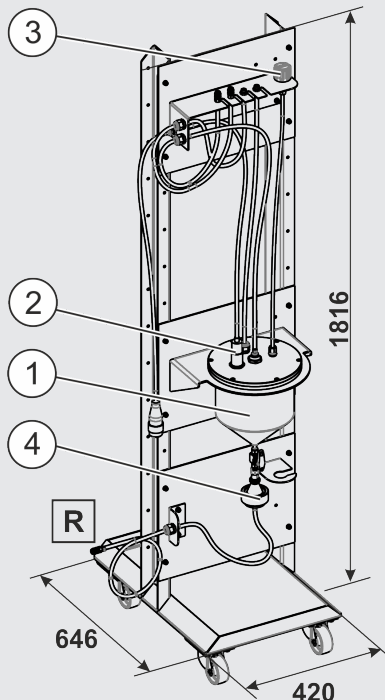
Supplementary details

Z = standard

Modifications

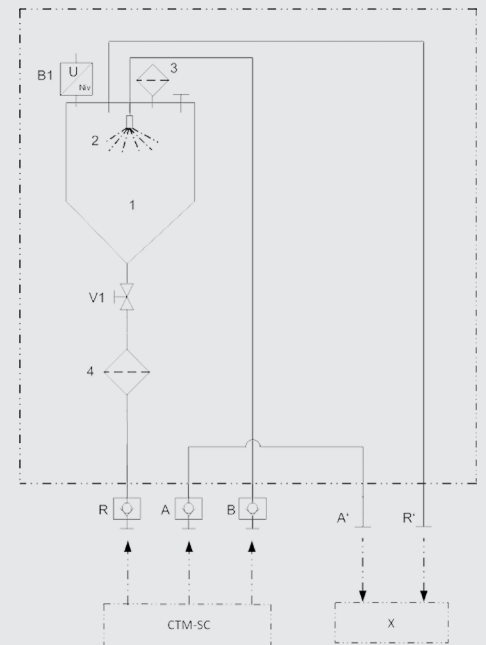
- = without modifications

Dimensions (all dimensions in mm)



Item	Designation
A	Quick release coupling "A"
B	Quick release coupling "B"
R	Quick release coupling "R"
A'	Male thread G 1/4"
R'	Male thread G 1/4"
B1	Fluid level sensor
1	Reservoir
2	Flushing of inner chamber
3	Breather filters
4	Membrane holder
x	Test item
V1	Ball valve

Hydraulic circuit



Items supplied

- CTM-EF
- Technical documentation

Note

The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

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