CTU 1000 Series
Contamination Test Unit

Description

The HYDAC Cleanliness Test Unit CTU 1000 is the latest addition to the existing CTU 2000 series. Designed to determine the technical cleanliness especially present on minor contaminated components.

The cause for the development are the increased demand for system cleanliness and for monitoring and optimizing the cleanliness, especially of smaller components during production, storage and system assembly.

By determining the type, size and quantity of the contamination, quality standards can be checked and documented and the necessary steps towards optimization can be taken.

Applications

- Automotive suppliers
- Gear box builders
- Engine builders
- Suppliers of hydraulic and lubrication component

Benefits to You

- Cost reduction through lower production failure rates
- Identification and elimination of weak process steps
- Optimization of both internal and external handling processes
- Establishing of cleanliness standards both internal and external
- Documentation of component cleanliness
- Survey of fluid cleanliness and filtration concepts

Technical Details

Overall dimensions *(height x width x length)*	CTU10xx - 1800 mm x 1000 mm x 900 mm CTU12xx - 1800 mm x 1000 mm x 1100 mm
Weight	CTU10xx approx. 595 lbs (270 kg) approx. 640 lbs (290 kg) (*with ultrasonic)* CTU12xx approx. 685 lbs (310 kg)
Type	Mobile *(mounted on castors)*
Power Consumption	600 W *(800 W with ultrasonic)*
Ambient Temperature	59° to 82°F (15° to 28°C)
Cleanroom Module	
Material of cleanroom	polished stainless steel
Filling with analysis fluid	via analysis cabinet
Control	PC controlled with user-friendly software, rinse options and rinsing volume programmable
Reservoir and Filtration Module	
Membrane holder	for Ø 47 to 50 mm filter membranes
Vacuum strainer	for quicker filtration of the analysis fluid
Diffuser	Distribution of analysis fluid on the membrane
Operating pressure	-12 to 87 psi (-0.8 to 6 bar)
Analysis fluid reservoir	2x 20 l *(1x reservoir, 1x suction reservoir)*
Reservoir change-over	automatic
Filtration of analysis fluid	Fine filtration according ISO 4406 min. ISO 12/9
Filter clogging indicator	1 bar pressure setting
Filter size, filtration rating	2x LF BN/HC 60, 3 µm (1xx0 series) 2x MRF-1-E/1, 1µm (1xx1 series)
Integrated drip tray	25 liter with drainage
Services to be provided by operator*	
Compressed air	Air Filtered (min. 5µm) and dry compressed air, max. 6 bar Air flow rate: 60 l/min, Supply connection: DN 7.2
Power Supply	according to order

*not supplied

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

Model Code

CTU 1 0 0 0 - M - Z - Z

Series
CTU = Contamination Test Unit

Model
1 = Analysis cabinet *(clean room)*

Installation Size
0 = Dimensions analysis cabinet: 300 mm x 800 mm x 400 mm *(effective height x width x length)*
2 = Dimensions analysis cabinet: 550 mm x 800 mm x 650 mm *(effective height x width x length)*

Analysis
0 = with Analysis Membrane

Analysis Fluid
0 = Solvent A III Class *(Flashpoint > 60°C, lower explosion limit > 0.6 Vol.%)*
1 = Water with surfactants, admissible pH-range 6 to 10, no deionized / demineralized water

Supply Voltage
K = 120 V AC / 60Hz / 1 Phase USA / CDN
M = 230 V AC / 50Hz / 1 Phase Europe
N = 240 V AC / 50Hz / 1 Phase UK

Extraction Process
Z = Rinsing *(medium pressure)*
U = Rinsing *(medium pressure)* plus ultrasonic

Supplementary Details
Z = series
R = external rinsing connections Ø 6mm, between the hand holes

Blank Control Values

All data depends on ambient conditions

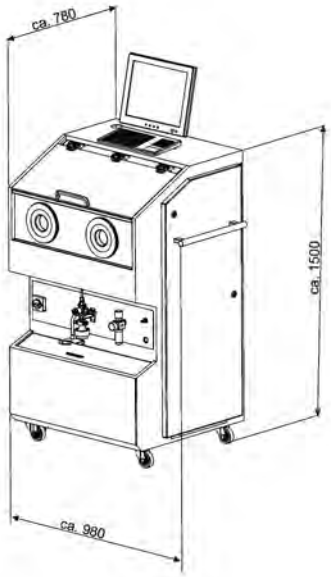
Ambient	CTU 1xxx
Cleanroom	0.4 to 0.6 mg
Laboratory	0.6 to 1.0 mg
Separate sampling room	0.6 to 1.2 mg
Workshop	1.0 to 1.4 mg

Max. particle size (µm)	Time and effort	Cleaning time [h] after a short standstill period (≤ 24 h)	Cleaning time [h] after a long standstill period (> 24 h)
100*	high	1.5 to 4	3 to 5
150*	medium	1 to 2	2 to 4
250*	low	0.5 to 1.5	1 to 3

*with maximum membrane load of 0.8 mg

Dimensions

CTU10XX



CTU12XX

Dimensions are millimeters and for general information only, all critical dimensions should be verified by requesting a certified print.