



## LowViscosity Unit Coalescer Diesel LVU-CD-40

### Description

The LowViscosity Unit LVU is intended for offline filtration. The LVU removes solid particle contamination and free water from diesel fuel.

Diesel fuel is often subject to long storage periods, especially in tanks which may be used infrequently. As a result, solid particles and water are often deposited on the bottom of the tank and can then damage pumps and sensitive components when the engine is switched on.

In addition, over an extended period of time free water in a tank provides a breeding ground for diesel fuel pests (microorganisms such as bacteria, algae and fungus).

Deposits and pests can both quickly lead to blockage of the machine filter and to damage to diesel injection system components. The consequence: impermissibly high levels of dangerous emissions from the combustion engine. This leads to high costs for downtime, spare parts, maintenance and repairs.

Using the LowViscosity Unit LVU minimises contamination to a system and prevents expensive system downtime. It also eliminates the need for early and expensive disposal of diesel fuel.

### Fields of Application

- Mobile & stationary emergency generators e.g. in hospitals, shopping centres, power plants
- Tanks on mobile machines e.g. harvesting and construction machinery
- Storage tanks e.g. in agriculture, construction, mining
- Yachts and leisure boats
- Test benches

### Advantages

- Increased system availability
- Reduced risk of diesel pests thanks to separation of free water from diesel fuel
- Care and dewatering possible even when the combustion engine is turned off
- Can be used flexibly thanks to adjustable transfer pumping function (continuous or time-programmed)
- Optional automatic drainage of water from the coalescing housing for increased convenience and greater process reliability

### Technical data

Dewatering performance	
Water separation efficiency	>95%
Achievable water content	<200 ppm free water
Dewatering rate	50 l/h at 5% water in the diesel
Hydraulic specifications	
Nominal flow	40 l/min
Permitted fluids	Diesel, biodiesel B0 to B100, fuel oil
Limit of application	Maximum 10% free water
Permitted fluid temperature range	5 to 50 °C*
Operating pressure	Maximum 6 bar
Permissible pressure at suction port	-0.9 to 0.2 bar
Permissible pressure at pressure port	0 to 3 bar
Permissible pressure at water drain	0 bar
Connection (suction and pressure side)	G 1" acc. to ISO 228
Connection (water drain)	G ½" acc. to ISO 228
Electrical data	
Power consumption	750 W
Connection cable length/plug	Eco = 5 m / CEE Standard/Premium = 0.5 m / CEE
Protection class	IP55
General data	
Dimensions	510 x 630 x 1440 mm
Weight when empty	Eco ≈ 80 kg Standard/Premium ≈ 90 kg
Permitted ambient temperature range	0 to 50 °C*

\* and at least 10 °C below the flash point of the fluid used/deployed.

### Preferred models (with shorter delivery times)

Model code	Part no.:
LVU-CD-40-1-GM-12P-Z-D4-1	4062321
LVU-CD-40-1-GM-11E-Z-BM-1	3923862
LVU-CD-40-1-GN-21E-Z-BM-1	3918489

## Model code

LVU-C D - 40 - 1 - G N - 1 1 E - Z - BM - 1/-

### Type

LVU = LowViscosity Unit

### Function

C = filtering and coalescing

### Operating fluid

D = diesel

### Nominal flow rate

40 = 40 l/min

### Design

1 = stationary

### Pump version

G = gear pump

### Supply voltage

M = 230 V AC, 50 Hz, 1 Ph

N = 400 V AC, 50 Hz, 3 Ph

X = others (on request)

### Pre-filter

1 = pre-filter element size 10"

2 = pre-filter element size 20"

### Water drain

1 = manual (for control type E only)

2 = automatic (for control type S or P only)

### Control type

E = Eco (see control type table)

S = Standard (see control type table)

P = Premium (see control type table)

### Measurement equipment

Z = without

### Clogging indicator

BM = differential pressure indicator, visual

D4 = clogging indicator, visual/electrical  
(only for control type S and P)

### Type code

1 = (you always receive the latest type)

## Control type

Choose between the following control types:

	Eco	Standard	Premium
Water drain	Manual	Automatic	Automatic
Clogging indicator	Visual	Visual	Electrical
Float switch in the collecting pan	X	✓	✓
Remote control input on / off	X	✓	✓
Timer control	X	X	✓

## Scope of delivery

- LVU-CD-40, ready for connection (without coalescing element set and pre-filter element)
- Operating and maintenance instructions

Coalescing element set and pre-filter element must be ordered separately and installed on site before initial commissioning.

## Coalescing element set

Designation	Part no.
N20ON-DCZ-CB1F	3917919

## Pre-filter elements

### Size 10"

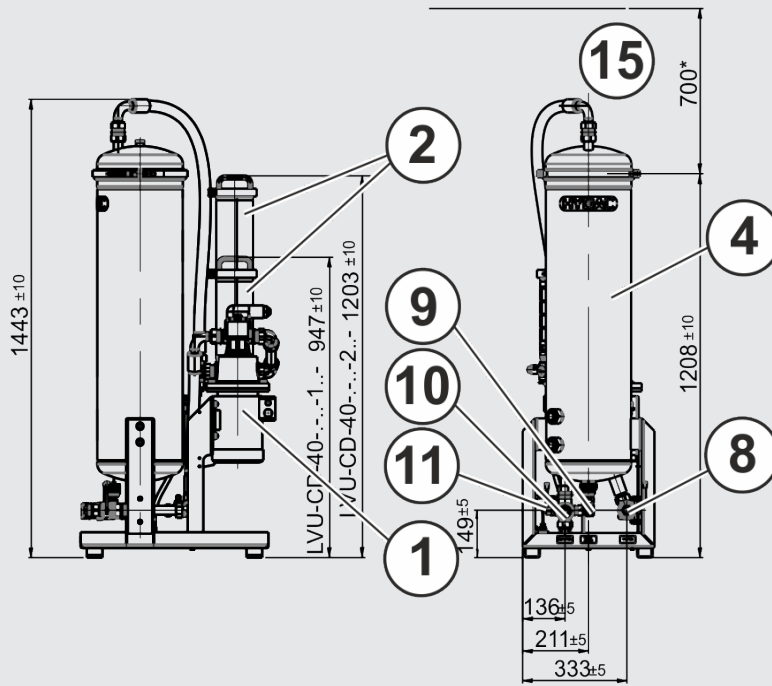
Designation	Part no.:
3 µm N10ON-DF003-FA41F	3917981
5 µm N10ON-DF005-FA41F	3917982
10 µm N10ON-DF010-FA41F	3917983

## Pre-filter elements

### Size 20"

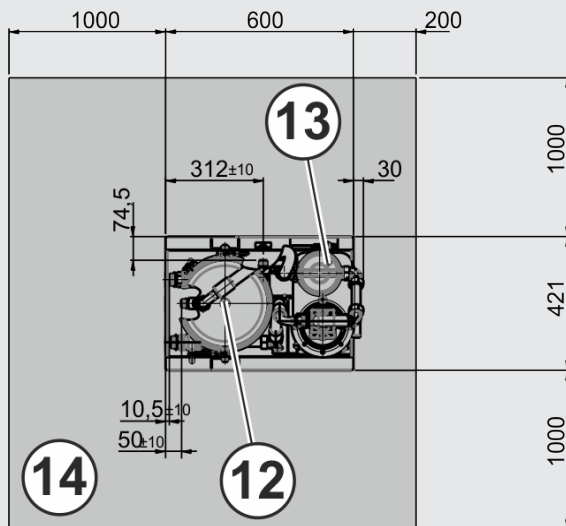
Designation	Part no.:
3 µm N20ON-DF003-FA41F	3918332
5 µm N20ON-DF005-FA41F	3918333
10 µm N20ON-DF010-FA41F	3918334

## Dimensions LVU-CD-40 Eco



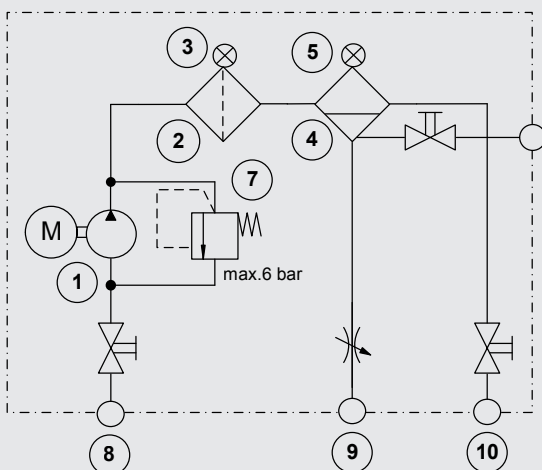
## Legend

Item	Designation
1	Motor pump assembly
2	Pre-filter
3	Clogging indicator, pre-filter
4	Coalescing housing
5	Clogging indicator, coalescing housing
7	Pressure relief valve
8	Inlet, fuel, G 1"
9	Water drain, G 1/2"
10	Outlet, fuel, G 1"
11	Drain, coalescing housing
12	Air vent, coalescing housing
13	Air vent, pre-filter
14	Recommended working area for operating and service staff
15	Removal height for filter and coalescing elements

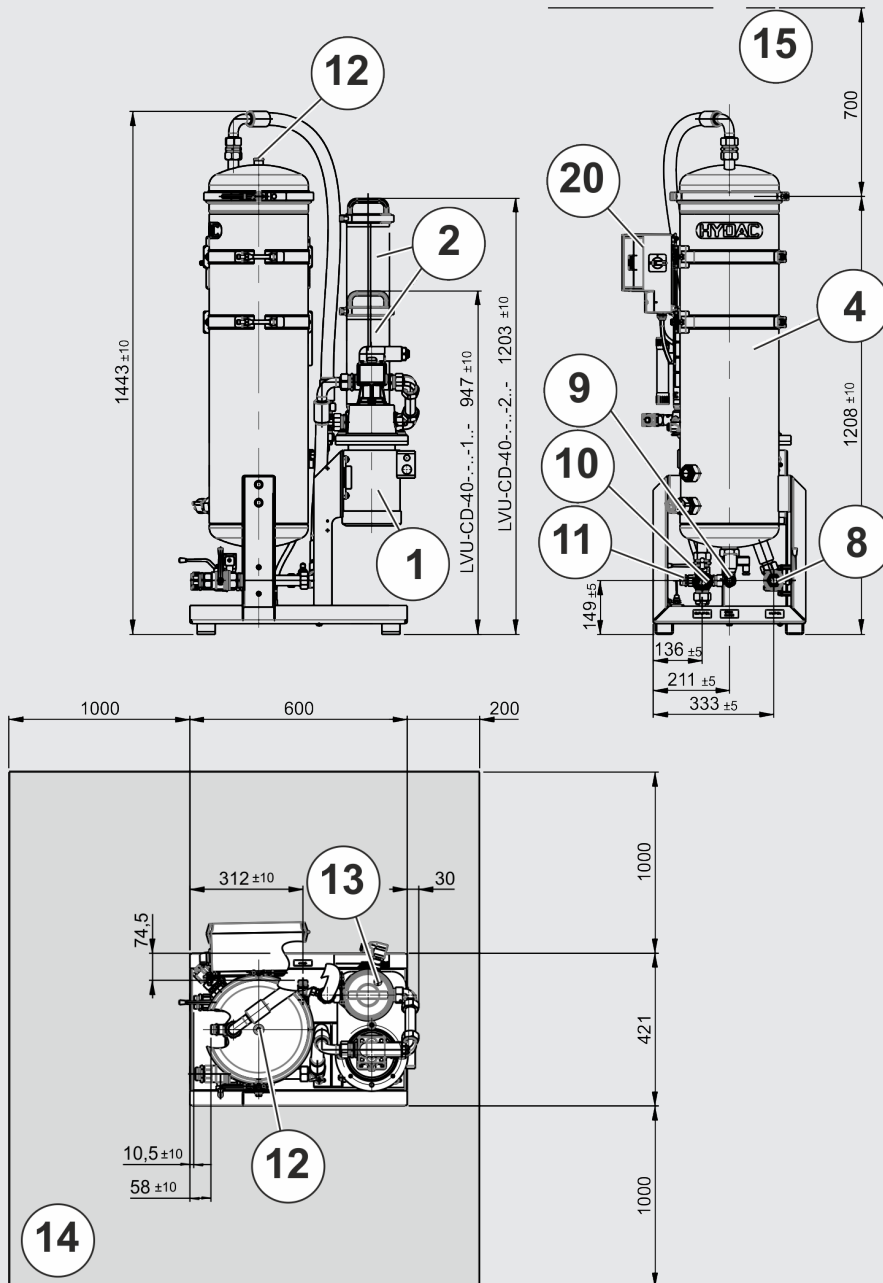


All dimensions in mm

## Hydraulic diagram LVU-CD-40 Eco

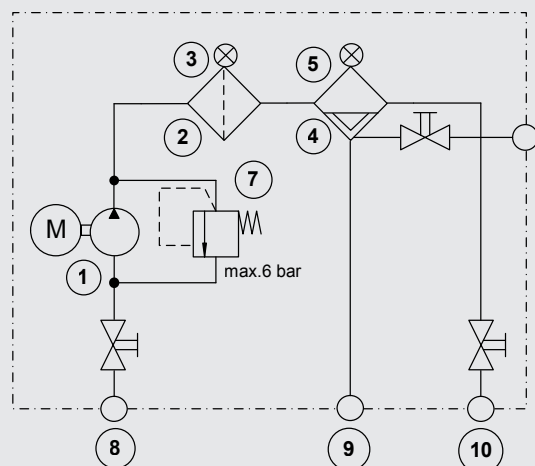


## Dimensions LVU-CD-40 Standard/Premium



All dimensions in mm

## Hydraulic diagram LVU-CD-40 Standard/Premium



## Legend

Item	Designation
1	Motor pump unit
2	Pre-filter
3	Clogging indicator, pre-filter
4	Coalescing housing
5	Clogging indicator, coalescing housing
7	Pressure relief valve
8	Inlet, fuel, G 1"
9	Water drain, G 1/2"
10	Outlet, fuel, G 1"
11	Drain, coalescing housing
12	Air vent, coalescing housing
13	Air vent, pre-filter
14	Recommended working area for operating and service staff
15	Removal height for filter and coalescing elements
20	Control system

## 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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