



Low Viscosity Housing Coalescer Diesel LVH-CD

Description

The Low Viscosity Housing Coalescer Diesel LVH-CD is mainly used for the dewatering of diesel. It is especially suitable for applications with large amounts of water that need to be removed in just a single pass.

The Optimicron® coalescer and separator elements ensure that a high volume of water will be separated within just a single pass.

Available in various sizes, the housings can be optimally integrated into new or existing systems.

The filters are configured in accordance with PED 2014/68/EU as standard. Configuration to ASME is also possible.

Fields of application

- Diesel filtration for high flow rates

Advantages

- Excellent filtration efficiency in a single pass
- Low pressure losses due to innovative element technology
- Easy to service thanks to intelligent element design
- Easy to adapt to filter housings for the removal of contamination in diesel fuels

Technical Data

General data			
Sizes	118	120/140	240 to 1940
Material, housing	Aluminium	Stainless steel	Stainless steel or carbon steel*
Connection, inlet/outlet	G 1½"	M52/DN 50	DN 50 to 300
Maximum operating pressure (ship version**)	10 bar	10 bar (7 bar)	10 bar
Permitted temperature range	0 ... 60 °C	0 ... 60 °C	0 ... 60 °C
Sealing material	FKM (FPM, Viton®)		
Water separation efficiency	>95%		
Filter elements			
Filter elements used	Optimicron® Diesel		

*Housing finish in carbon steel as per ISO 12944 class C3

**Pressure vessel class III

Housing design

Size	Maximum flow rate (l/min)	Orientation	Weight when empty (kg)	Housing volume (l)
LVH-CD-118	60	Vertical	≈ 7	≈ 6
LVH-CD-120	135	Vertical	≈ 53	≈ 30
LVH-CD-140	270	Vertical	≈ 60	≈ 50
LVH-CD-240	500	Vertical	≈ 240	≈ 200
		Horizontal	*	*
LVH-CD-440	800	Vertical	≈ 400**	≈ 470
		Horizontal	*	*
LVH-CD-640	1200	Vertical	≈ 560**	≈ 670
		Horizontal	*	*
LVH-CD-940	1800	Vertical	≈ 680	≈ 1190
		Horizontal	≈ 880	≈ 1225
LVH-CD-1240	2400	Horizontal	*	*
LVH-CD-1940	3600	Horizontal	*	*

*On request

Preferred models (with shorter delivery times)

Size	Part no.	Model code
LVH-CD-118	4032257	LVH-CD-118-AV-BF-FD48
LVH-CD-118	4184138	LVH-CD-118-AV-BF-FA
LVH-CD-120	4644712	LVH-CD-120-EV-BM52-FA
LVH-CD-140	4657396	LVH-CD-140-EV-BM52-FA

Model code

LVH - C D - 4 40 - E V - B V - F A / - Z A

Type

LVH = Low Viscosity Housing

Function

C = coalescence

Operating fluid

D = diesel

Size

- 1 = 1 combination element (filtration/coalescence and separation element)
- 2 = 2 coalescing elements + 1 separation element
- 4 = 4 coalescing elements + 3 separation elements
- 6 = 6 coalescing elements + 4 separation elements
- 9 = 9 coalescing elements + 6 separation elements
- 12 = 12 coalescing elements + 9 separation elements
- 19 = 19 coalescing elements + 15 separation elements

Filter element length

- 18 = 18" (only for size 1)
- 20 = 20" (only for size 1)
- 40 = 40"

Body material

- A = aluminium (only sizes 118)
- C = carbon steel (only sizes 240 to 1940)
- E = stainless steel (not for size 118)

Design

- V = vertical (not for sizes 1240 or 1940)
- H = horizontal (only sizes 240 to 1940)

Pressure range

B = 10 bar (ship version: pressure vessel class III ≤ 7 bar)

Hydraulic connection

	118	120	140	240	440	640	940	1240	1940
F = G1½"	●								
M52 = M52 x 2		●	●						
J = DIN DN 50		●	●	●	●	●	●		
R = DIN DN 100				●	●	●	●	●	
V = DIN DN 150					●	●	●	●	●
W = DIN DN 200					○	●	●	●	●
Y = DIN DN 300						○	○	○	●

○ = Dimensions available on request

Version with ANSI flanges*

	118	120	140	240	440	640	940	1240	1940
4 = 3"				●	●	●	●	●	
5 = 4"				●	●	●	●	●	●
7 = 6"					●	●	●	●	●
8 = 8"					○	●	●	●	●
9 = 10"						○	○	○	●

○ = Dimensions available on request

* -150 must be entered under supplementary details

Sealing material

F = FKM (FPM, Viton®)

Clogging indicator

For housing material A

- A = no indicator with holder G ½" for differential pressure indicator 2 bar
- D48 = differential pressure indicator, visual

For housing material C and E

- A = no indicator with holder G ½" for differential pressure indicator (0.8 bar for size 240 to 1940; 2 bar for size 120 and 140)
- D43 = differential pressure gauge, visual
- D44 = differential pressure gauge, visual/electrical
- Z = no holder for clogging indicator

Supplementary details (only for sizes 240 to 1940)

- Z = inspection certificate 3.1 in acc. with EN 10204 (material certificate)
- ZA = inspection certificate 3.1 in acc. with EN 10204 (material certificate) + ASME calculation
- ZM = ship version without approval (only for sizes 120 and 140; brief information required on the classification society)
- ZMA = ship version with approval (only for sizes 120 and 140; brief information required on the classification society)

Classification society:

- LR = Lloyd's Register, BV = Bureau Veritas, DNV = Det Norske Veritas
- 150 = 150 lbs (flange pressure range; for ASME housing dimensioning)

Scope of delivery

- LVH-CD (without filter elements)
 - Installation and Maintenance Instructions
- Filter elements must be ordered separately and installed before initial operation on site.

Accessories

Designation	Part no.
LVH-CD-118	
Sight glass (G1")	6060303
Automatic water drainage	4101239
LVH-CD-120 and 140	
Sight glass (G½")	6225498
Automatic water drain (not for ship version)	4734418
Water sensor (standard)	4651720
Water sensor (ship version)	4651719
LVH-CD-240 ... 1940	
Sight glass with 3.1 certificate	6199678
Automatic water drainage	
1. LVH-CD-240/440	4266307
2. LVH-CD-640/940	4266082
3. LVH-CD-1240/1940	4266082

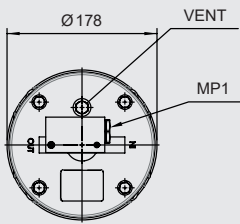
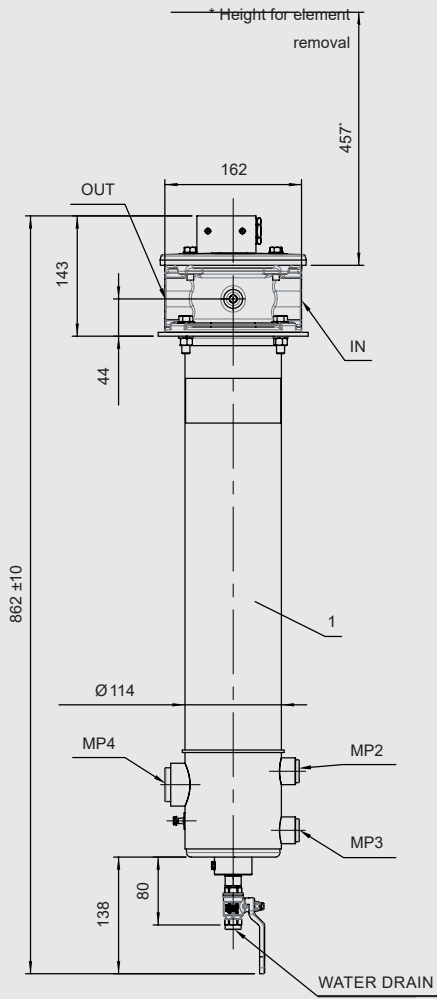
Combination element

Designation	Part no.
LVH-CD-118	
N18ON-DCZ-CC63F	4032259
LVH-CD-120	
Only dewatering N20ON-DCZ-CD65F	4295019
With filtration 3 µm N20ON-DC003-CD65F	4379416
With filtration 10 µm N20ON-DC010-CD65F	4379417
With filtration 20 µm N20ON-DC020-CD65F	4379418
LVH-CD-140	
Only dewatering N40ON-DCZ-CD65F	4294900
With filtration 3 µm N40ON-DC003-CD65F	4379223
With filtration 10 µm N40ON-DC010-CD65F	4379224
With filtration 20 µm N40ON-DC020-CD65F	4379415

Coalescing element/ separation element LVH-CD-240 ... LVH-CD-1940

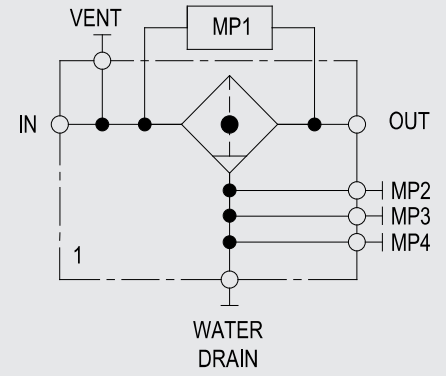
Designation	Part no.
Separation element N32ON-DSZ-SA80F	3910259
Coalescing element N42ON-DCZ-CA60F	3910257

Dimensions LVH-CD-118



All dimensions in mm

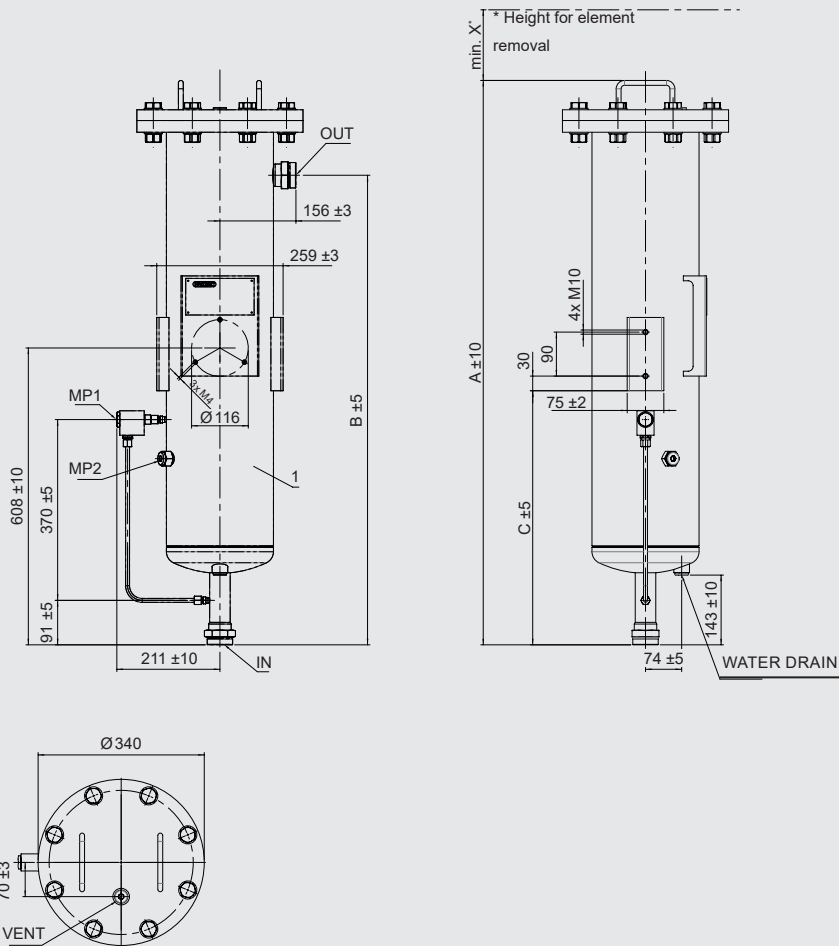
Hydraulic diagram



Legend

LVH-CD-118-AV	
1	Coalescing housing
IN	Inlet
OUT	Outlet
VENT	Venting
WATER DRAIN	Water drain
MP1	Connection for clogging indicator (optional)
MP2	Connection for water sensor, top
MP3	Connection for water sensor, bottom
MP4	Connection for sight glass (accessory)

Dimensions LVH-CD-120 ... 140

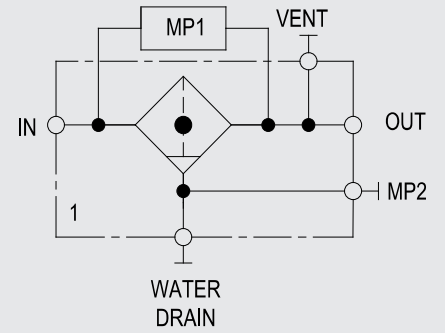


LVH-CD	A	B	C	X'
120	1155	961	520	650
140	1625	1431	746	1150

* Height for element removal

All dimensions in mm

Hydraulic diagram

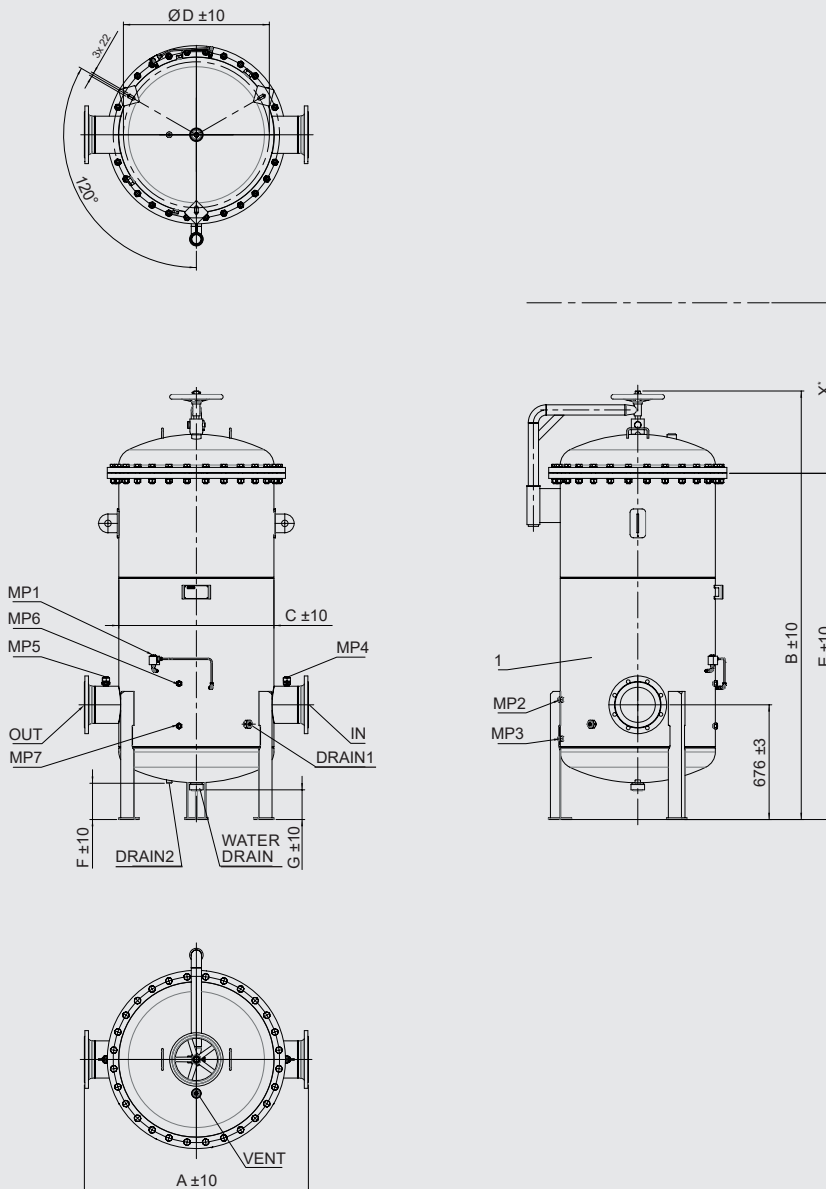


Legend

LVH-CD-120 ... 140

1	Coalescing housing
IN	Inlet
OUT	Outlet
VENT	Venting
WATER DRAIN	Water drain
MP1	Connection for clogging indicator (optional)
MP2	Connection for water sensor or sight glass

Dimensions LVH-CD-240 ... 940 vertical



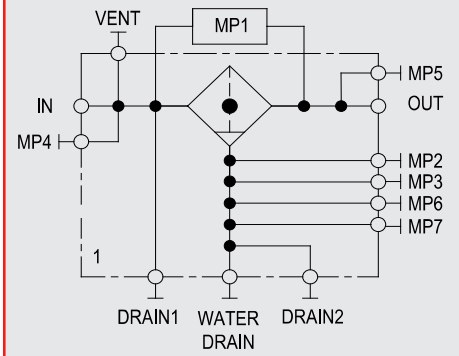
Dimensions in mm

LVH-CD	A	B	C	D	E	F	G	X*
240	740	2290	Ø 406	Ø 352	2020	325	285	1000
440	1010	2290	Ø 610	Ø 560	2020	285	235	
640	1120	2320	Ø 711	Ø 662	2040	260	215	
940	1320	2525	Ø 914	Ø 867	2045	220	175	

* Height for element removal

All dimensions in mm

Hydraulic diagram

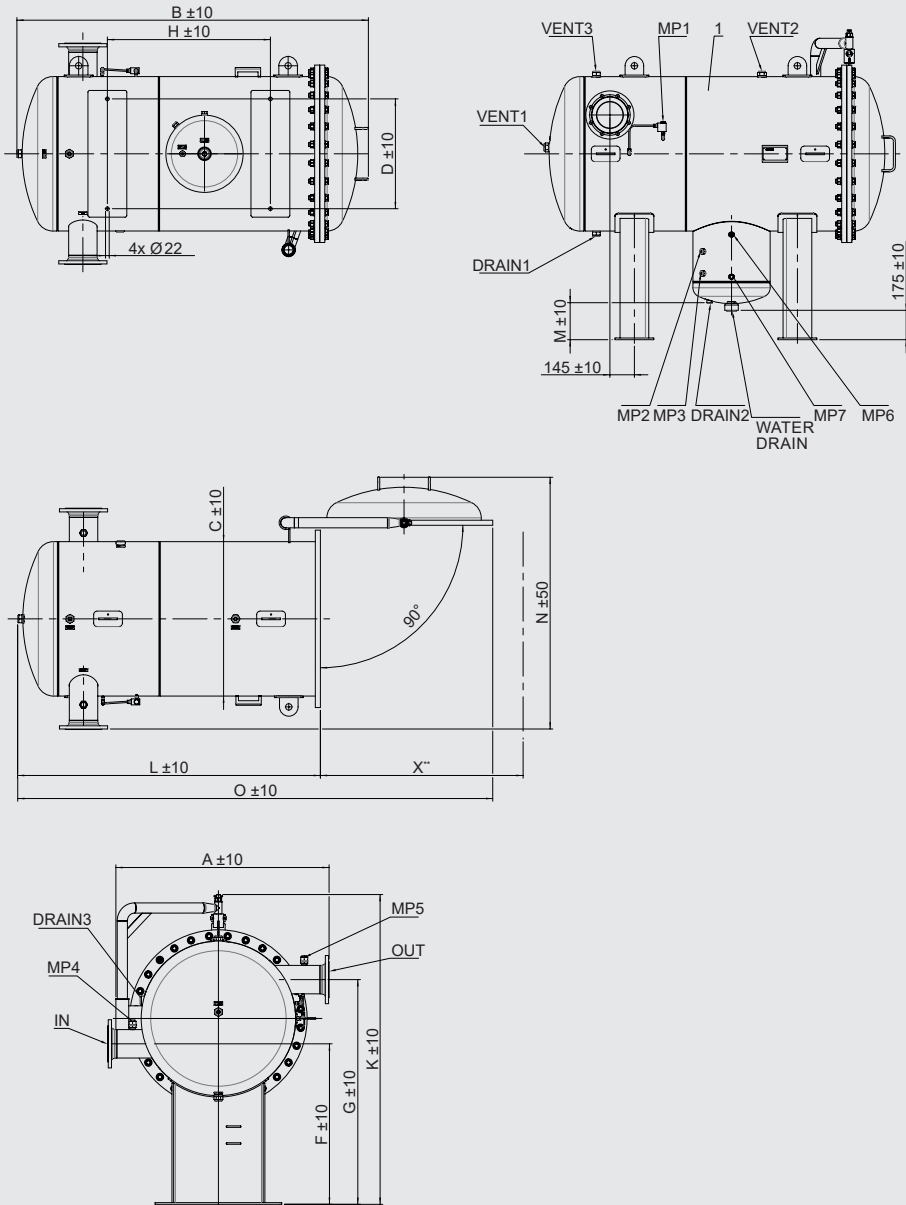


Legend

LVH-CD-240 ... 940 vertical

1	Coalescing housing
IN	Inlet
OUT	Outlet
VENT	Venting
WATER DRAIN	Water drain
DRAIN1	Drain
DRAIN2	Drain
MP1	Connection for clogging indicator (optional)
MP2	Connection for water sensor, top
MP3	Connection for water sensor, bottom
MP4	Measuring point, inlet
MP5	Measuring point, outlet
MP6	Connection for sight glass, top (accessory)
MP7	Connection for sight glass, bottom (accessory)

Dimensions LVH-CD-240 ... 1940 horizontal



Dimensions in mm

LVH-CD	A	B	C	F	G	D
240	660	1780	Ø406	700	850	320
440	*	*	Ø610	*		*
640	1000	1870	Ø711	865	1185	600
940	1310	2070	Ø914	950	1330	650
1240	*	*	*	*	*	*
1940	*	*	*	*	*	*

* On request

** Height for element removal

Dimensions in mm

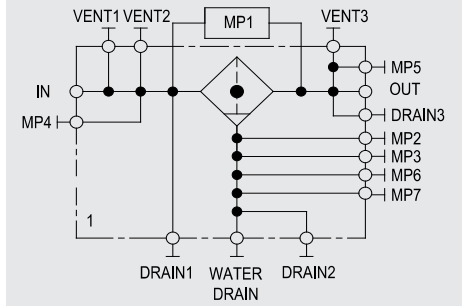
LVH-CD	H	K	L	M	N	O	X**
240	965	1185	1680	205	740	2150	1200
440	*	*	*	*		*	
640	965	1610	1750	225	1010	2480	
940	965	1835	1795	215	1490	2810	
1240	*	*	*	*	*	*	
1940	*	*	*	*	*	*	

* On request

** Height for element removal

All dimensions in mm

Hydraulic diagram



Legend

LVH-CD-240 ... 940 horizontal

1	Coalescing housing
IN	Inlet
OUT	Outlet
VENT1	Venting
VENT2	Venting
VENT3	Venting
WATER DRAIN	Water drain
DRAIN1	Drain
DRAIN2	Drain
DRAIN3	Drain
MP1	Connection for clogging indicator (optional)
MP2	Connection for water sensor, top
MP3	Connection for water sensor, bottom
MP4	Measuring point, inlet
MP5	Measuring point, outlet
MP6	Connection for sight glass, top (accessory)
MP7	Connection for sight glass, bottom (accessory)

Note

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

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

Subject to technical modifications.

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