

**KRP-5000
Expert****Automatic fuel cleaning and treatment system**

Krampitz®



	Area of Application/Media			Transportation/Installation	
	E12 hazardous to groundwater	E5 diesel/heating oil	E7 highly flammable	E3 cleaned transportable	E9 indoor installation

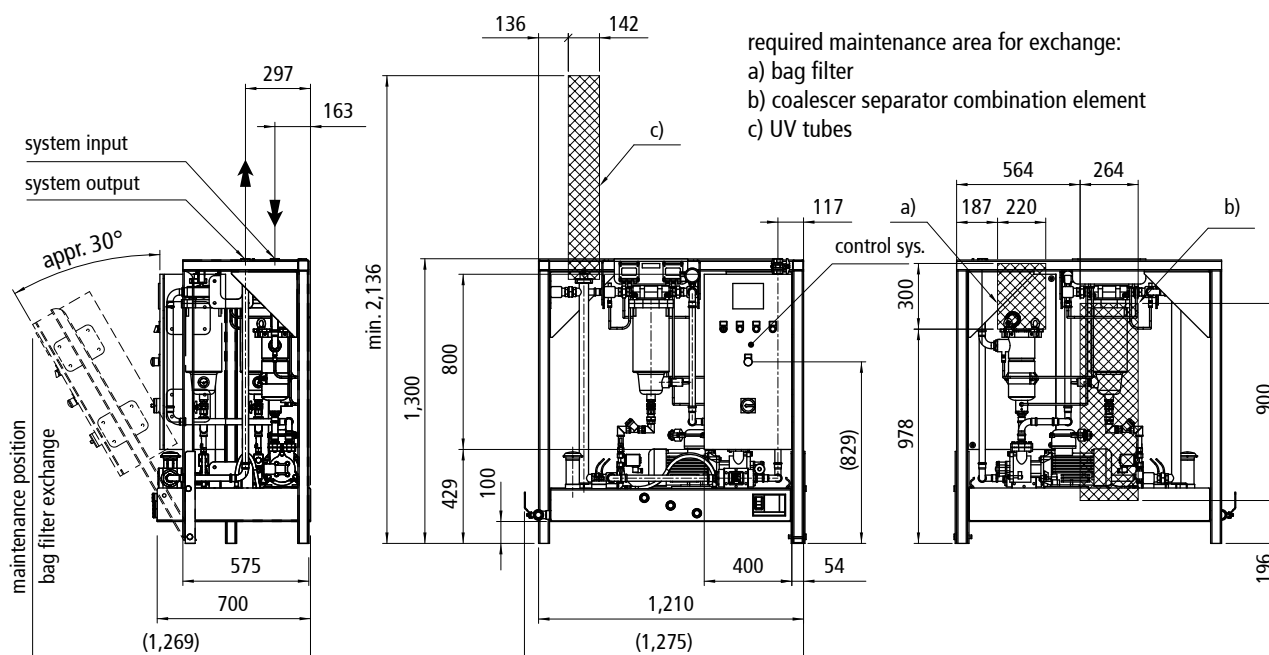
The automatic fuel cleaning and treatment system is used to separate water, sediments and microbes, in order to ensure a uniform quality of stored liquids, such as diesel, and, above all, to kill and separate microbes that may form during longer storage periods.

The cleaning and treatment system has been designed in such a way that it achieves a throughput of 5,000 l/h, so that a volume of 40 m³ can be cleaned within 8 hours. The flow causes a circulation inside the tank so that its entire content is cleaned after 24 hours of circulation.

Essential characteristics of the automatic fuel cleaning and treatment system are:

- filter/water separator with high separating efficiency of water and sediments out of the diesel fuel, as comparable standard diesel filter; maximum throughput capacity of the separator 4 times higher than required
- UV system with 3-fold security: radiation duration of the UV tubes are 3 times longer than required
- automatic condensate discharge from filter/water separator into the waste water collection tank
- high quality fuel delivery aggregate: industrial gear pump, suitable for endurance run and extremely resilient
- automatic alarm signaling to control room

type	cleaning throughput	filter fineness pre-filter/separator	main filter coalescer	connection cleaning cycle	power consumption	recommended tank size
KRP-5000-Expert	approx. 100 l/min	25 µm/10 µm	5 µm	NW 40 (1.1/2")	appr. 2.2 kW	up to 50 m³



electrical supply voltage: AC voltage Y 400 / 230 V, fuse: 16 A

overall dimension: length - approx. 1,210 mm, width - ca. 730 mm, height - ca. 1,300 mm, weight - ca. 300 kg

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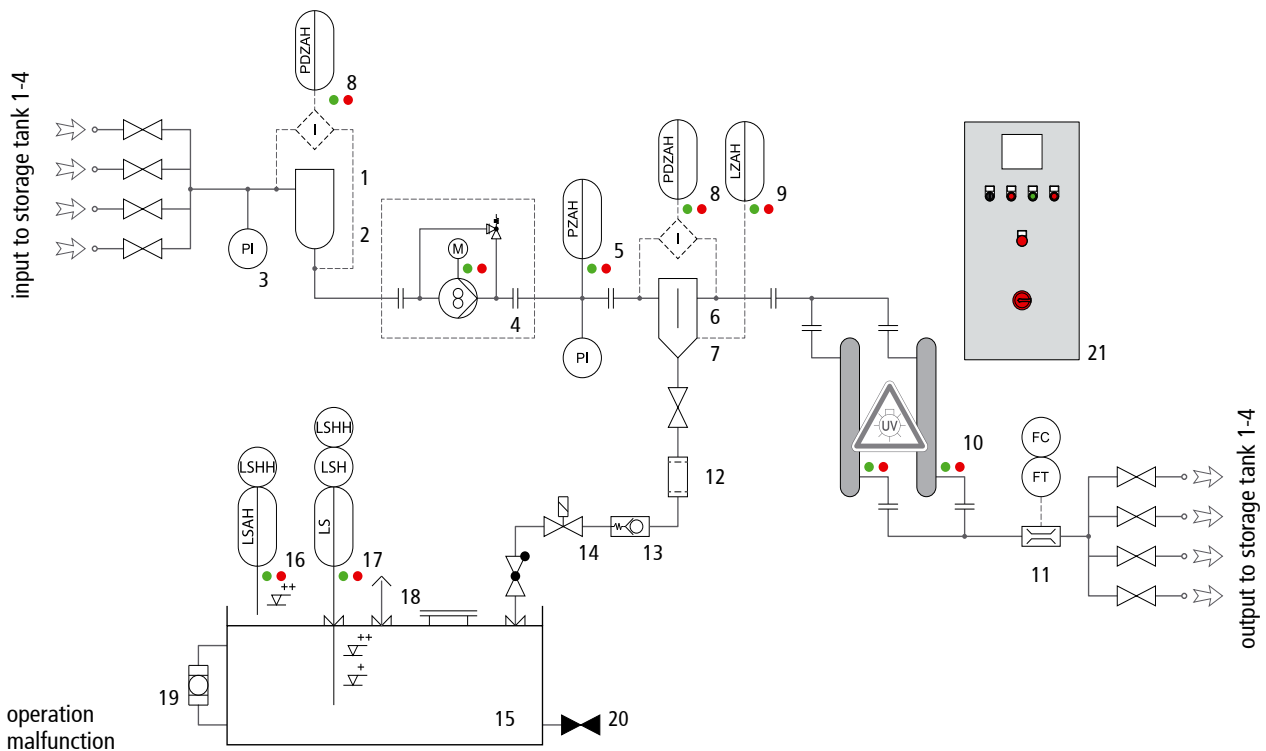
Technical details are subject to change!

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**CUBIC
GOOD**

Pos.	Quantity	Art no.	Description
1	1	AM-103	bag filter housing
2	1	AM-104	bag filter, type P 0-025, fineness 25 µm
3	1	AM-8400.97	pressure gauge with Bourdon tube, -1.0 to 9.0 bar
4	1	EX-PG-100-001	rotary pump, approx. 100 l/min
5	1	AE-25/85-001	pressure switch, DRSD 10B, 1 to 10 bar
6	2	FI-FBO-14-001	filter/water separator housing
7	2	FI-FBO-14-002	coalescer separator combination element, fineness 10 µm
8	2	AE-24-011	digital differential pressure transmitter, 0–1.6 bar
9	2	AE-029	filling level control, water detection sensor
10	4	FA-KRP-08	UV radiation treatment tubes, 2500 E Pro 90 W
	1	AE-K-001	lamp extension cable for FA-KRP-08
11	1	ZW-P-K-600/4	pulser, electrical flow meter
12	2	F-MS-12-020	dirt trap, fineness 400 µm
13	2	F-MS-34-044	balancing valve, approx. 0.6–2.4 l/min, flow limiter
14	2	AE-293	2/2 ways magnetic valve 1/2", direct-acting
15	1	TTE-Spezial	dirty water collection tank, approx. 70 l cap area builds a drip tray
16	1	AE-303.1	leak monitoring, optoelectronic probe, oil detector OM5
17	2	AE-100-E	level transmitter, float switch (LSH, LSHH)
18	1	AM-911	ventilation nozzle, vent hood, venting pipe
19	3	AM-AL-25-001	filling level display, inspection glass, natural glass
20	1	F-MS-1-036	draining, ball valve with handhold
21	1		"Expert" control of the fuel cleaning and treatment system with control system, control cabinet 400 x 800 x 300 mm



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Essential components of the automatic fuel cleaning and treatment system:**Pre-filter/bag filter**

- theoretical maximum flow rate: 6 m³/h (depending on the filter element/liquid)
- filter surface: 0.07 m² / fineness: 25 µm
- operating conditions:
 - max. permissible pressure: 10 bar
 - max. permissible temperature: 55 °C
- material of the bag filter housing: stainless steel 1.4408/1.4571
- material of the filter bag: polypropylene
- sealing material: Viton (FKM)

Gear pump

- capacity: approx. 100 l/min
- pressure delivery: 1.7 bar
- voltage: Y 400 V/Δ 230 V, frequency: 50/60 Hz
- power input: 1.1 kW, IP code: IP55

Filter/water separator with coalescing element

- quantity: 2x with 50 l/min throughput
- flow rate: approx. 100 l/min, medium: diesel
- permissible maximum pressure: 10 bar
- operating temperature: -30 °C ... +50 °C
- material filter housing: steel-coated
- sealing material: Viton (FKM)
- fineness 5 µm

Separator equipped with

- filter separator, filter fineness: 10 µm
- max. permissible differential pressure: 1.0 bar
- separator complies with the requirements of DIN and API/IP

Counter/electronic oval wheel meter

- calculation of the actually cleaned/conveyed fuel quantity (for informative purposes only)
- accuracy: ± 0.5 % in the flow-through area
- flow rate: 15 - 150 l/min
- connection: 1.1/2"

UV light treatment tubes

- 4x UV tubes with 90 W for the flow rate of 100 l/min
- microbe death rate at least 98 %
- diesel film thickness: 2 mm (distance between UV light output at quartz tube surface and housing)
- electrical connection: 230 V/50 Hz

Casing

- dimensions: approx. 1,200x800x1,300mm
- weight: approx. 88 kg
- material: stainless steel 1.4301

Digital differential pressure transmitter

- interfering signal output (filter clogging) for filter/water separator and bag filter
- measurement range: 0 - 1.6 bar
- permissible maximum operating differential pressure 1.0 bar
- voltage: 24 V AC/DC

Waste water collection tank

- TTE-SPEZIAL day fuel tank single-wall
- volume: 70 l
- tank roof designed as a drip tray for drip quantities
- tank level indication through 3 sight glasses
- monitored with a type approved leak detector
- interference signal at the maximum filling level
- material: stainless steel 1.4301

Electrical control**EXPERT:**

- graphical display with touchscreen for depiction of the current status, system diagram, operating conditions and malfunctions
- forwarding of individual messages and faults to the control system
- current status of the entire system, including the current cleaning path and displaying malfunctions such as:
 - failure of the circulating pump
 - emergency shutdown
 - pre-filter/bag filter clogged up
 - main filter clogged up
 - UV tubes faulty
 - magnetic valve faulty
 - waste water tank full
 - limiting value transmitter of the tanks triggered
- permissible maximum pressure difference 1.0 bar
- voltage: 24 V AC/DC

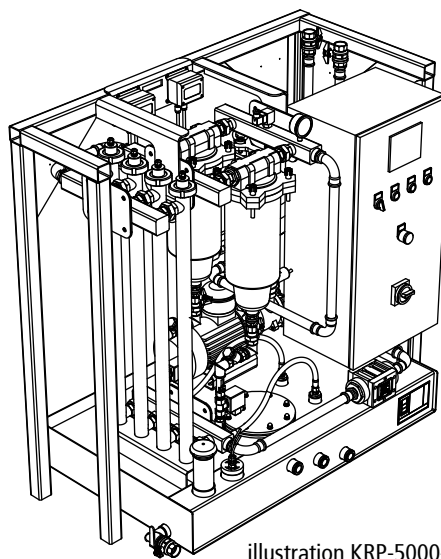


illustration KRP-5000-Expert

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