



Product datasheet

KREBS® CycloClean®

Advanced separation technology

KREBS® CycloClean® systems and modules are a step above. Installed as either vessels or inline manifolds, we deliver space saving solutions for your oily water separation applications regardless of the flow rate. Our advanced hydrocyclone and system designs, combined with unparalleled application experience, provide a performance edge that's hard to beat. KREBS CycloClean systems (also known as DeOilers) offer significant performance features in a small complete package to meet a wide range of objectives.

Key benefits

- High performance in a small footprint
- Pure and clean oil and water separation
- Reliable operation and low maintenance
- Easy to install, easy to use
- No debris build-up
- Little to no adjustments needed

Go with the flow - KREBS® CycloClean® systems do the work!

Pure and simple

The deoiling hydrocyclones used on KREBS® CycloClean® systems and modules use centrifugal force to physically separate oil or solids from water or water based solutions.

Water, mixed with oil, is fed tangentially into the hydrocyclone. The oily water starts to spin within the hydrocyclone. As the mixture flows through the unit, it accelerates sending the lighter oil to the center for removal through the overflow. Cleaned water reports to the underflow.

Flexibility

With KREBS vessels, you have the flexibility to add optional features to any hydrocyclone system. From surface skimmers and feed pumps to level switches and recycle valves and with timers. Our systems also include waste oil tanks and air spargers as options.

Each module comes standard with a debris strainer, feed pump (air operated or electric), DeOiling hydrocyclone and base plate. We offer a line of Modules to treat from 8 to 25 gallons per minute. Along with low maintenance reliability and low cost flexibility to handle your separation needs. KREBS vessels are the only way to go.

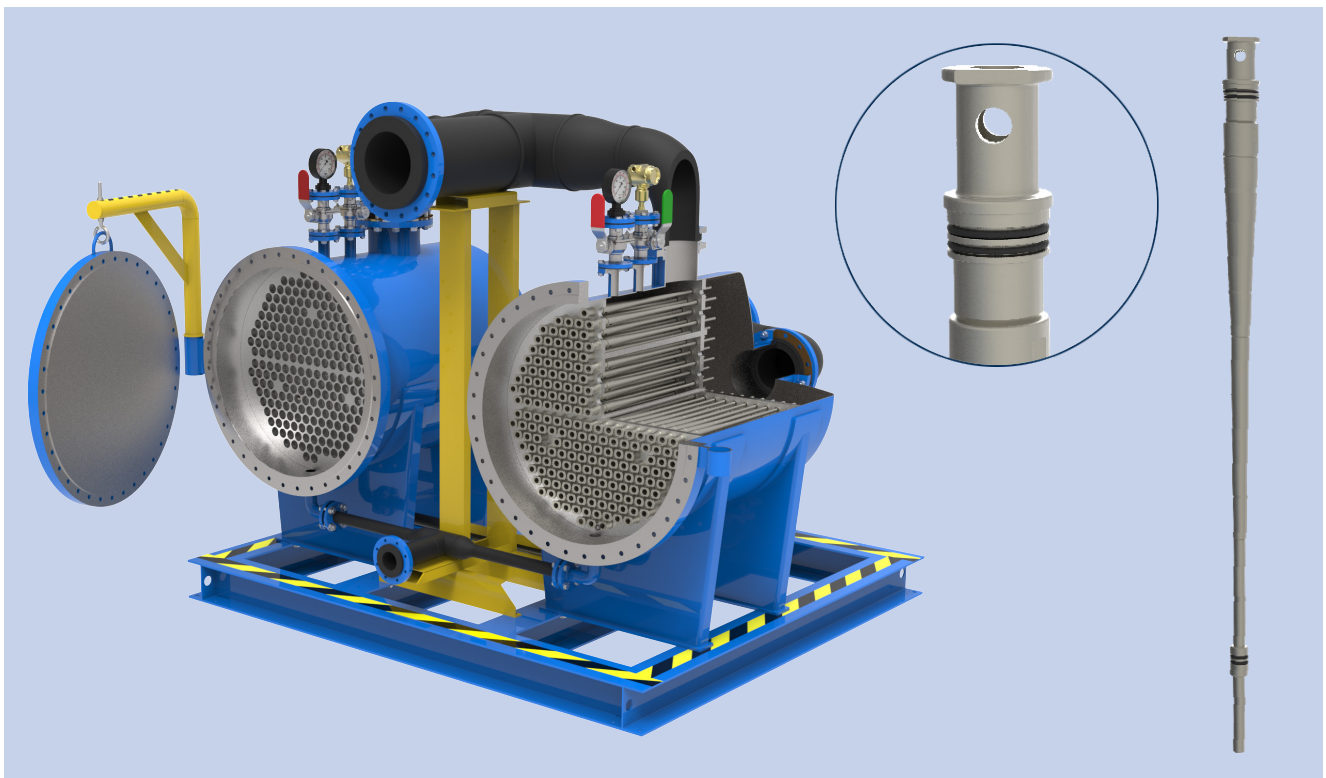
Wide range of applications

Oil refinery and petrochemical applications for KREBS DeOiler vessels include:

- Separation of oil and hydrocarbons from produced water
- Hydrocarbon recovery
- Oil removal from desalter brine
- Coke blowdown/sour water treatment
- Waste water clean-up

DeOiler Vessels are ideal for these applications:

- Removing oil from wash-down and runoff water
- Removing oil from quench water in steel mills
- Removing oil from coolant in machining processes
- Removing oil from cutting fluids
- Removing oil from bilge water
- Removing organic from electrolyte and raffinate in SX applications
- Removing organics from ballast water



Section view of a dual DeOiler Vessel System and closeup of one of the many hundreds of hydrocyclones in the vessels.

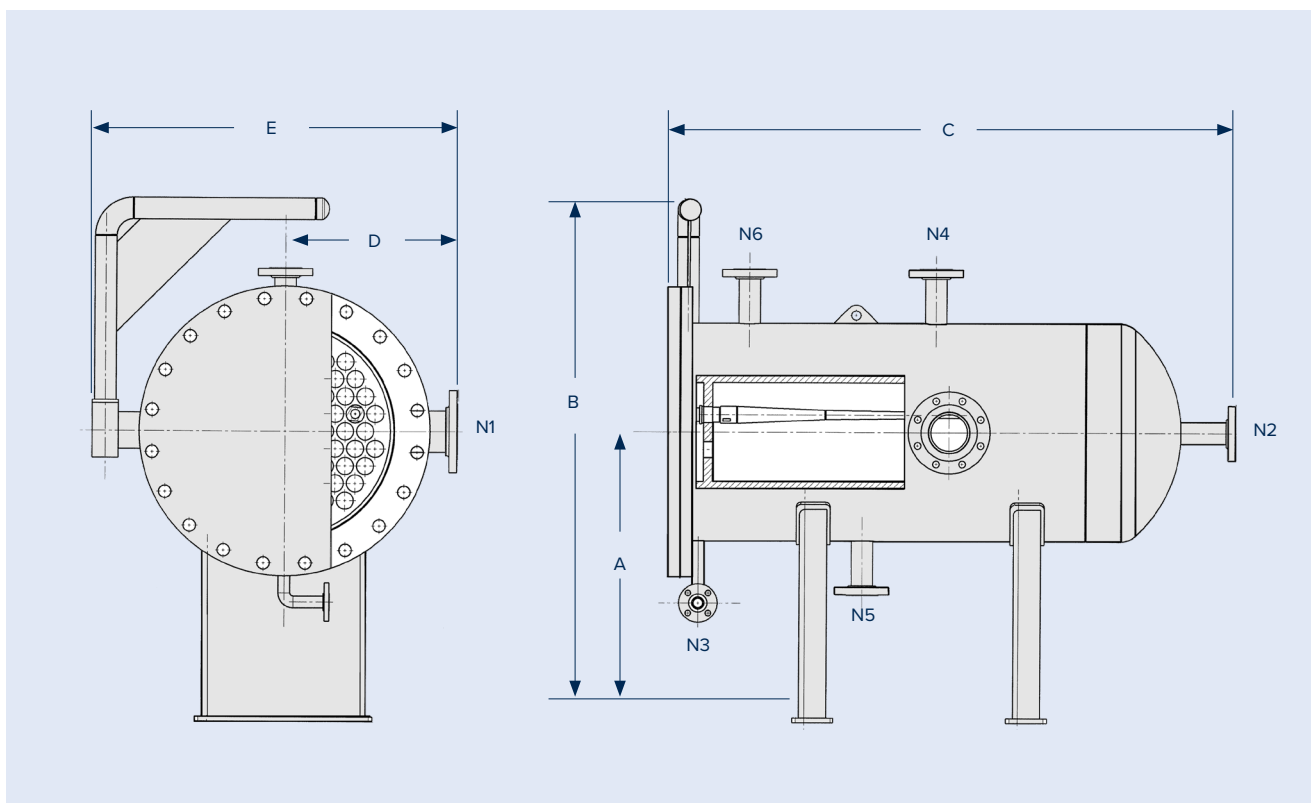
CycloClean[®] systems leave the competition standing still

Superior support, it's all part of the process. For over 70 years KREBS has been the leader in hydrocyclone solutions. Our engineering support is recognized throughout the process industry for exceptional technical competence and responsive customer service.

Industrial-Strength Dependability

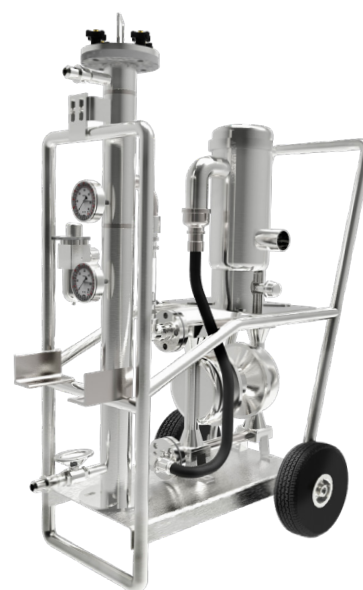
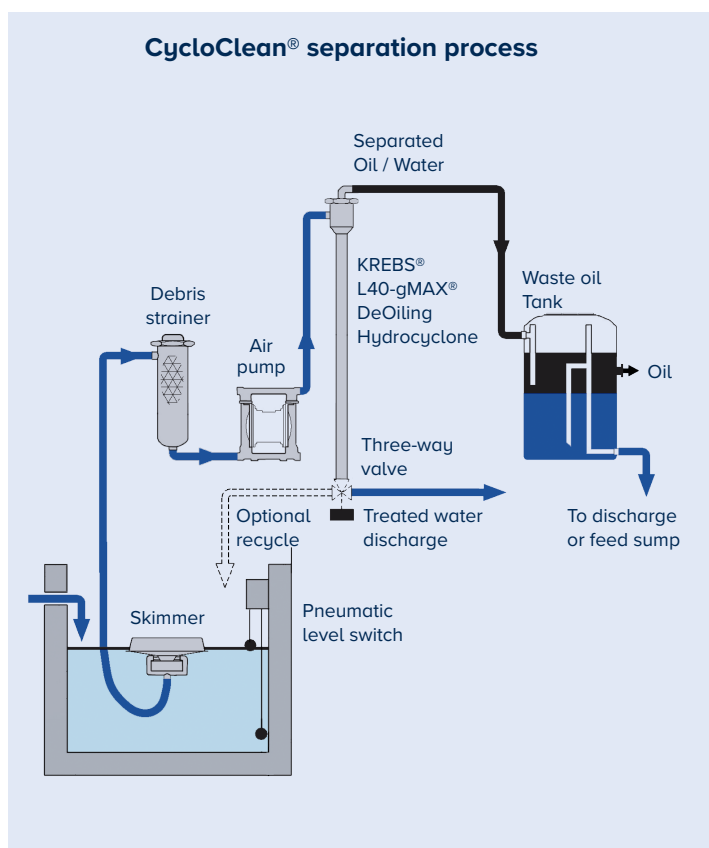
KREBS hydrocyclones have proven themselves for reliable operation time and again. Our hydrocyclone technology is the standard in many industries - a testament to the durability and dependability of our equipment even in the most demanding process environments.

Model	L4008	L4012	L4016	L4018	L4020	L4024	L4030	L4036	L4042	L4048
No. of Cyclones		7	19	33	44	55	85	134	202	276
Vessel diameter, in.		8	12	16	18	20	24	30	36	42
Nominal flow, gpm		59	160	277	370	462	714	1,126	1,697	2,318
Dry weight, lb.	550	840	1,090	1,220	1,550	1,860	2,910	4,240	5,200	7,400
Flooded weight, lb.	650	1,125	1,500	2,050	2,500	3,360	4,840	6,700	8,400	11,000
A	24	24	24	30	30	30	40	40	40	46
B	48	48	48	54	54	54	72	72	72	80
C	60	60	60	65	65	65	67	67	67	70
D	8	10	14	15	16	18	21	24	27	30
E	24	28	36	38	42	46	54	62	67	72
N1 feed	2	3	4	4	6	6	8	8	10	12
N2 clean aqueous	2	3	4	4	6	6	8	8	10	12
N3 organic	1.5	1.5	1.5	1.5	2	2	2	2	2	2
N4 vent	2	2	2	2	2	2	2	2	2	2
N5 drain	2	2	2	2	2	2	2	2	2	2
N6 PSV	1	1	1	1	1	1	1	1	1	1



KREBS® CycloClean® modules

Model	KCM-8	KCM-8P	KCM-16	KCM-16P	KCM-25	KCM-25P
Nominal flow, gpm	8	8	16	16	25	25
Maximum allowable water temp °F	110° F	110° F	110° F	110° F	110° F	110° F
Fluid PH	09.maj	09.maj	09.maj	09.maj	09.maj	09.maj
Maximum discharge oil pressure	7 psi (50kPa)	7 psi (50kPa)	7 psi (50kPa)	7 psi (50kPa)	7 psi (50kPa)	7 psi (50kPa)
Maximum discharge water pressure	22 psi (150kPa)	22 psi (150kPa)	22 psi (150kPa)	22 psi (150kPa)	22 psi (150kPa)	22 psi (150kPa)
Air usage at 65 psi (450kPaa) (scfm)	12	12	15	15	20	20
Typical compressor capacity (scfm)	15	15	22	22	30	30
Height	49" 1,245 mm	49" 1,245 mm	49" 1,245 mm	49" 1,245 mm	49" 1,245 mm	49" 1,245 mm
Width	15" 381 mm	18" 457 mm	17" 432 mm	20" 508 mm	17" 432 mm	20" 508 mm
Length	22" 559 mm	25" 635 mm	28" 711 mm	33" 838 mm	28" 711 mm	33" 838 mm
Feed inlet connection	1" 25 mm	1" 25 mm	2" 50 mm	2" 50 mm	2" 50 mm	2" 50 mm
Water outlet connection	1" 25 mm	1" 25 mm	1" 25 mm	1" 25 mm	1" 25 mm	1" 25 mm
Oil outlet connection	1" 25 mm	1" 25 mm	1" 25 mm	1" 25 mm	1" 25 mm	1" 25 mm
Bare weight	127# 58 kg	327# 148 kg	226# 103 kg	426# 193 kg	226# 103 kg	426# 193 kg



Put us to the test

The proof of the product is in the performance. That is why we offer multi-level testing in both on-site and off-site settings.

We invite you to put us to the test in your process operation. For more information on our test program for Separation Solutions, call +1-520-744-8200 or visit our website www.flsmidth.com

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