



Alfa Laval CIP 200L, CIP 400L and CIP 600L

Stainless steel Cleaning in Place units for heat exchangers



A problem frequently encountered in almost all applications is the build-up of deposits on heat transfer surfaces. Alfa Laval supplies a wide range of cleaning agents suitable for removing most of these troublesome deposits and restoring performance to optimal levels. The time-consuming work of opening plate heat exchangers can thus often be avoided by using an Alfa Laval Cleaning in Place (CIP) unit. These are available in a wide range of standard sizes that include reversible flow capability. Alfa Laval CIP units are designed for gasketed, welded and brazed plate heat exchangers, but may be used for other types as well with some limitations.

Concept

Alfa Laval CIP units are easy to use:

- Connect the Alfa Laval CIP unit to the heat exchanger
- Mix the cleaning agent with water in the tank and heat it up
- Circulate the cleaning solution
- Drain and rinse
- Disconnect the CIP unit
- The heat exchanger is back to proper performance capacity

Alfa Laval CIP units are a cost-effective way to achieve better performance, and the cleaning agents in themselves are environmentally friendly.

In addition to restoring the performance of the heat exchangers, using Alfa Laval Performance Audit optimize the operating time between cleaning cycles as well as prolonging the overall lifetime of the heat exchangers, without damaging the plates or gaskets.

Features and benefits

- Connected to the heat exchanger inlet and outlet, this avoids any need to open the heat exchanger, which in turn minimizes downtime and prolongs the working lifetime of the gasket.
- Wetted parts in the operating unit, as well as the pump and valves, are made of AISI 304 or AISI 316 stainless steel.
- Rapid cleaning at optimal temperatures, due to built-in electric heater.
- Valve arrangement for reversible flow direction and emptying the heat exchanger via the CIP pump. This makes it possible to remove the solid particles rapidly and is easy to operate and empty without the need to rearrange the connection hoses.

Technical specifications

	Alfa Laval CIP 200L	Alfa Laval CIP 400L	Alfa Laval CIP 600L
Circulation pump	Centrifugal	Centrifugal	Centrifugal
Pump capacity max. (50 Hz)	10.5 m ³ /h at 43.5 m head	10.5 m ³ /h at 43.5 m head	10.5 m ³ /h at 43.5 m head
Pump capacity max. (60 Hz)	10.7 m ³ /h at 42.2 m head	10.7 m ³ /h at 42.2 m head	10.7 m ³ /h at 42.2 m head
Voltage (50 Hz)	380–420 V/3-phase	380–420 V/3-phase	380–420 V/3-phase
Voltage (60 Hz)	440–480 V/3-phase	440–480 V/3-phase	440–480 V/3-phase
Pump motor size (50/60 Hz)	2.2 kW	2.2 kW	2.2 kW
Total heating power	12 kW	12 kW	12 kW
Heating time approximately	1h	2 h	3h
Max. operating temperature	85°C / 185°F	85°C / 185°F	85°C / 185°F
Volume	200 L / 53 US gallons	400 L / 106 US gallons	600 L / 159 US gallons
Modules	1 pump module + 1 tank	1 pump module + 2 tanks	1 pump module + 3 tanks
Weight empty pump module	100 kg	100 kg	100 kg
Weight empty tank module	98 kg	98 kg per tank	98 kg per tank
Size of pump module H x W x L (mm)	945 x 555 x 1803	945 x 555 x 1803	945 x 555 x 1803
Size of tank closed lid H x W x L (mm)	1359 x 504 x 1125	1359 x 504 x 1125	1359 x 504 x 1125
Size of tank open lid H x W x L (mm)	1885 x 504 x 1125	1885 x 504 x 1125	1885 x 504 x 1125
Gross weight packed pump module	320 kg	320 kg	320 kg
Gross weight packed tank module	270 kg	270 kg per tank	270 kg per tank
Packed size of pump module H x W x L (mm)	1400 x 850 x 2110	1400 x 850 x 2110	1400 x 850 x 2110
Packed size of tank module H x W x L (mm)	1760 x 900 x 2210	1760 x 900 x 2210	1760 x 900 x 2210
Number of hoses	5	7	9
Hose length	4 m	4 m	4 m
Hose material inside/outside	UPE/EPDM	UPE/EPDM	UPE/EPDM
Connection standard	DIN 11851/DN 40	DIN 11851/DN 40	DIN 11851/DN 40
Material for wetted parts	Stainless steel AISI 304/316	Stainless steel AISI 304/316	Stainless steel AISI 304/316
Pump gaskets	FPM	FPM	FPM
Pump seal	C/SiC	C/SiC	C/SiC
Connection and valve gaskets	EPDM	EPDM	EPDM
ATEX/Eexd (explosion-proof)	Contact: nonstd.cip@alfalaval.com	Contact: nonstd.cip@alfalaval.com	Contact: nonstd.cip@alfalaval.com

Spare parts list available in the configuration tools.

- In CIP Sizing, after choosing CIP model, in the left-hand menu: Spares & Optionals.
- In Anytime / Configure / Cleaning Equipment / CIP PHE
 - After choosing CIP model – in Configuration step (2), bottom tab -Parts list