

CHEM-AD® SERIES DIAPHRAGM METERING PUMPS

WALLACE & TIERNAN® LIQUID FEED SYSTEMS

The Chem-Ad® Series of diaphragm metering pumps are designed to handle the most demanding applications in the treatment of potable water, swimming pools, wastewater and industrial processes. The range of pumps within the Chem-Ad Series offers well-balanced capacities, excellent reproducibility and optimal chemical resistance. The Chem-Ad pump is a positive displacement type metering pump, which incorporates an overload protected motor. Since they are available with two configurations, these pumps can cover any metering requirement.

GENERAL

Chem-Ad pumps are applicable for the dosing of liquid and aggressive fluids. The standard liquid end made of PVDF is resistant to a wide range of chemicals. The Chem-Ad Series of pumps cover a wide range of capacities from 0.2 – 750 l/h. The stroke frequency of the external controlled pumps is adjusted electronically, the stroke length manual. Due to its unique design incorporating pre-feeding and a gasket-free ceramic piston/cylinder unit the Chem-Ad Series A pump can maintain a high reproducibility even when handling very low feed rates at maximum stroke frequency. This pump may be used for outgasing fluids.

Its smooth pulsation characteristics ensure high metering accuracy and long life of diaphragms and valves. Due to its unparalleled low noise and its IP 65 enclosure, the Chem-Ad Series A and B pumps are perfectly suitable for laboratories and humid ambient conditions. Chem-Ad Series C and D pumps are applicable for industries (enclosure IP 55).

Key Benefits

- Applicable for a lot of fluids (water, chemicals, outgasing liquids)
- Accurate metering of smallest quantities
- Reliable metering due to overload resistant motor and smooth pulsation characteristics
- Flexible applicable due to variable electronic and wide control range

TECHNICAL DATA

	Dosing capacity*	Back pressure	Weight	Dimensions
	l/h	(max.)	kg	W x H x D in mm
Series A	0.2	10	2.4	220 x 143 x 221
	0.5			
	0.9			
	1.4			
Series B	1.4	10	2.1	135 x 147 x 221
	2.5	10	2.1	
	4.8	4	2.1	
	4.3	10	2.4	
	7.2	6	2.4	
	7.2	10	3.1	
	11.2	5	3.1	
Series C	16	10	7.4	137 x 371 x 301
	25	10	7.4	137 x 371 x 301
	54	10	7.4	137 x 371 x 303
	80	4	8.6	137 x 371 x 328
	120	3	8.6	137 x 371 x 330
Series D	140	10	25	157 x 442 x 392
	210	8		157 x 442 x 392
	450	6		157 x 442 x 412
	630	4		157 x 442 x 412
	750	3		157 x 442 x 412

* Dosing accuracy: $\pm 3\%$ All data refers to water at 20 °C.

** with clean, wetted valves, 100 % dosing stroke, max. stroke frequency, water 20 °C.

*** 20 % higher dosing capacity with 60 Hz, lower back pressure (-15 for E 00, -20% for E 60).

Suction lift at 100%:** 2 meters

Power supply*:**

230 V, 50 Hz, others on demand

Single models with 100–240 V, 50–60 Hz available

Enclosure:

IP 65 (Series A, Series B)

IP 55 (Series C, Series D)

Ambient temperature: max. 40 °C

Control variations

Depending on the application the Chem-Ad® pumps differ in their dosing range as well as in their control mode. Two different modes are available: E 00 for simple needs and E 60 for complex control tasks. With the control mode E 60 the stroke frequency can be adjusted, alarm signals are displayed, pulse handling as well as empty signal input with level pre-warning are integrated. Analog signals and multiplication or division of the pulse input signal are possible.

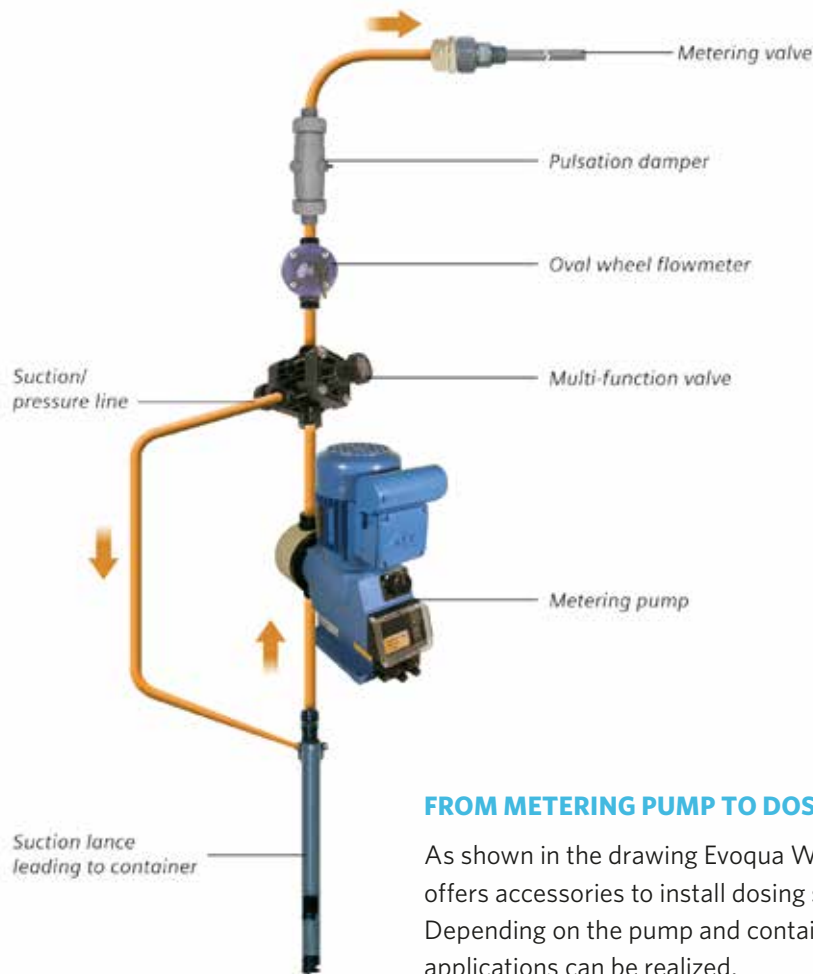
E 00:

- Mechanical stroke adjustment

E 60:

- LED display, four keys
- Operation modes:
 - Internal (strokes/min, per cent, l/h)
 - External (pulse, norm signal, batch)
- Empty input with level pre-warning
- Mechanical stroke adjustment
- Dosing control with stroke signal output or external dosing control possible
- Chemical consumption data logging
- Calibration function

	Series A	Series B	Series C	Series D
E 00			X	X
E 60	X	X	X	X



FROM METERING PUMP TO DOSING STATION

As shown in the drawing Evoqua Water Technologies offers accessories to install dosing stations as well. Depending on the pump and container size various applications can be realized.

Example of an dosing station, here with Chem-Ad Series C pump

MATERIALS (DEPENDING ON TYPE OF PUMP AND FLUID)

Pump head:

PVDF/PP/VA

Metering piston/cylinder (only Chem-Ad A):

Ceramic/PEEK

Diaphragm:

PTFE-EPDM composite

Valve springs:

2.4610 (optional)

Valve balls:

Ceramic/PTFE/VA

Special versions on request.

SPARES AND ACCESSORIES

For every model of the Chem-Ad® Series metering pumps, a corresponding maintenance kit is available. This package contains all spare and wear parts for prompt and quick maintenance of the liquid end. Additional accessories are available like suction lances and multi-function valves.



Chem-Ad Series A



Chem-Ad Series B



Chem-Ad Series C



Chem-Ad Series D