

Hydraulic Diaphragm Pump with Cast Iron Monobloc Construction
Positive Return API 675

XL series pumps are hydraulic diaphragm positive return metering pumps, with fixed stroke length. Fluid end flow adjustment is by controlled bypass of the hydraulic oil. This design incorporates a built-in relief valve and mechanically actuated oil replenishing system, in full compliance with API Standard 675. Guaranteed no flow when pump adjustment is set to zero even without backpressure.

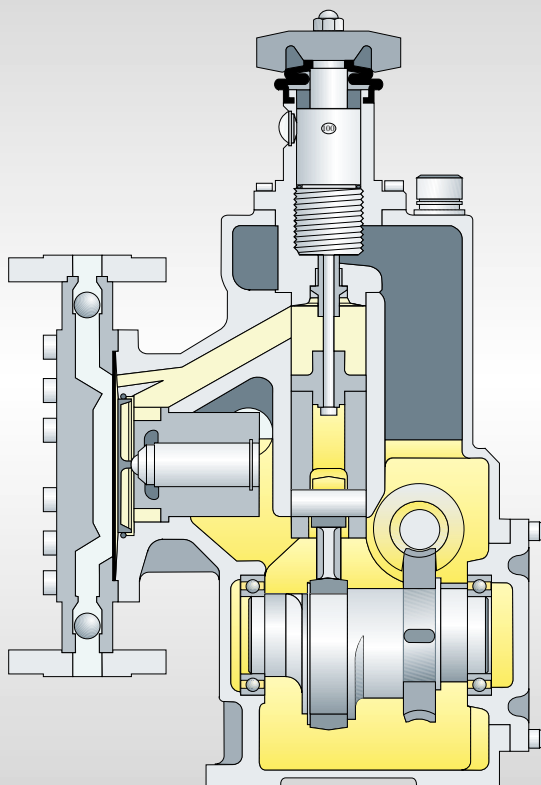


GENERAL FEATURES

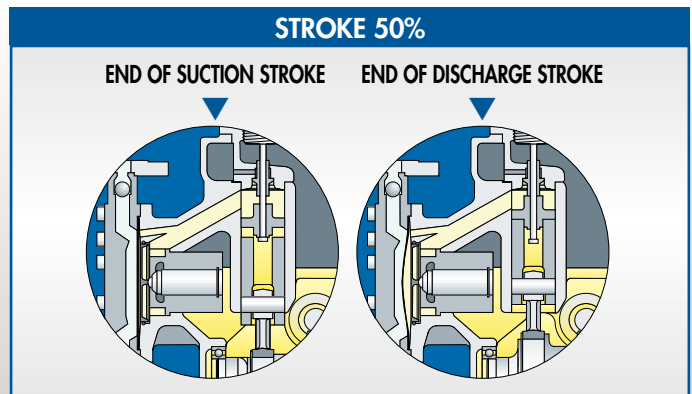
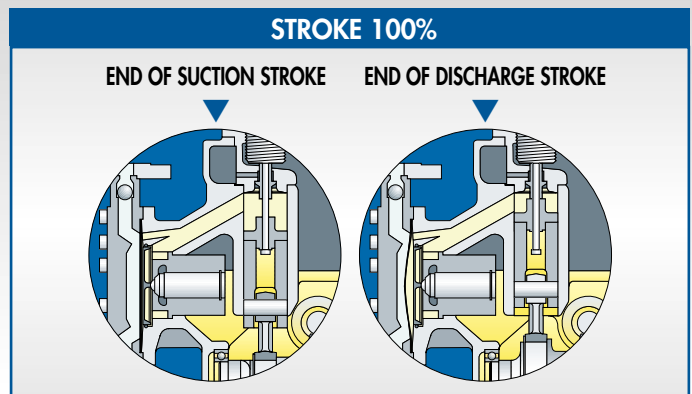
- Maintenance is reduced to a minimum. The plunger operates in an oil bath, without packing, and maintains as-new volumetric efficiency even after 50,000 working hours. The diaphragm protected by the built-in relief valve and mechanically actuated oil-replenishing system, has a working life in excess of 50,000 hours.
- The diaphragm is held independently of the pump head, so that when the head is dismantled, the diaphragm is retained in the body and no oil is lost. This significantly improves the ease of maintenance.
- The inclusion of an integral safety valve results in some 50% cost saving on the installation.
- Excellent value for the money is achieved thanks to the few components mechanism.

Max flow rate: **480 L/h**
 Max pressure: **15 bar**
 Motors: **0,37 kW - 0,75 kW**

SECTIONAL VIEW



I dati tecnici possono essere modificati senza preavviso



XL pump technically advanced hydraulic diaphragm positive displacement pump, low cost, due to reduced number of components can be used in both process and service applications. PP made pump heads. Equipped with standard motor size 71/80, Frame B14.



CONSTRUCTION CHARACTERISTICS

■ The hydraulic system with its mechanically actuated oil replenishing (smart diaphragm) system overcomes many common suction and discharge problems.

■ Hydraulic diaphragm positive displacement pump (API 675 STD) for continuous operation and extreme running safety (leak-free head) with cast iron monobloc construction.

■ Smooth and linear adjustment, whether stationary or running, by means of a handwheel with 0-100% digital display.

■ ± 1% accuracy within 10 to 100% of the nominal flow rate.

Max Flow Rate: ● 480 l/h

Stroke: ● 25 mm.

Motors: ● Threephase 0,37 kW - 0,75 kW - 230/400 V
50/60 Hz - 4 Poles - IP55 - CL F - IEC38-1

Pump: ● Single - Multiple

Material: ● Cast Iron Casing

Weight: ● 30 Kg

TECHNICAL DATA

XL 50 PP - PP11 - PP22						50 Hz		
TYPE	STROKES/m	FLOW RATE l/h	MAX PRESS. bar			CONNECTIONS		
			PP- PP11- PP22			THREADED	FLANGED	
			EXERCISE	BUILT-IN RELIEF VALVE SET PRESS	kW		UNI	ANSI
XL50	40	105	12	15	0,37	1/2" g.f. BSPF	DN20	3/4"
	60	155	12	15	0,37			
	82	215	12	15	0,75			
	100	260	12	15	0,75	3/4" g.f. BSPF	DN20	3/4"
	123	320	12	15	0,75			
	140	370	11	14	0,75	1" g.f. BSPF	DN25	1"
	160	430	10	13	0,75			
	185	480	8	10	0,75			

XL 50 MA - MMA (max 12bar)						50 Hz		
TYPE	STROKES/m	FLOW RATE l/h	MAX PRESS. bar			CONNECTIONS		
			MA - MMA			THREADED	FLANGED	
			EXERCISE	BUILT-IN RELIEF VALVE SET PRESS	kW		UNI	ANSI
XL50	40	105	12	15	0,37	1/2" g.f. BSPF	DN20	3/4"
	60	155	12	15	0,37			
	82	215	12	15	0,75			
	100	260	12	15	0,75	3/4" g.f. BSPF	DN20	3/4"
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	185	480	8	10	0,75			

XL 50 MP - MMP						50 Hz		
TYPE	STROKES/m	FLOW RATE l/h	MAX PRESS. bar			CONNECTIONS		
			MP - MMP			THREADED	FLANGED	
			EXERCISE	BUILT-IN RELIEF VALVE SET PRESS	kW		UNI	ANSI
XL50	40	105	10	12,5	0,37	DN20	3/4"	
	60	155	10	12,5	0,37			
	82	215	10	12,5	0,37			
	100	260	10	12,5	0,37	DN25	1"	
	123	320	10	12,5	0,75			
	140	370	10	12,5	0,75	DN25	1"	
	160	430	10	12,5	0,75			
	185	480	8	10	0,75			

XL 50 PP - PP11 - PP22						60 Hz		
TYPE	STROKES/m	FLOW RATE l/h	MAX PRESS. bar			CONNECTIONS		
			PP- PP11- PP22			THREADED	FLANGED	
			EXERCISE	BUILT-IN RELIEF VALVE SET PRESS	kW		UNI	ANSI
XL50	48	126	12	15	0,37	1/2" g.f. BSPF	DN20	3/4"
	72	186	12	15	0,75			
	96	258	12	15	0,75			
	121	312	12	15	0,75	3/4" g.f. BSPF	DN20	3/4"
	144	384	11	14	0,75			
	168	444	10	13	0,75	1" g.f. BSPF	DN25	1"

XL 50 MA - MMA (max 12bar)						60 Hz		
TYPE	STROKES/m	FLOW RATE l/h	MAX PRESS. bar			CONNECTIONS		
			MA - MMA			THREADED	FLANGED	
			EXERCISE	BUILT-IN RELIEF VALVE SET PRESS	kW		UNI	ANSI
XL50	48	126	12	15	0,37	1/2" g.f. BSPF	DN20	3/4"
	72	186	12	15	0,75			
	96	258	12	15	0,75			
	121	312	12	15	0,75	3/4" g.f. BSPF	DN20	3/4"
	144	384	11	14	0,75			
	168	444	10	13	0,75	1" g.f. BSPF	DN25	1"

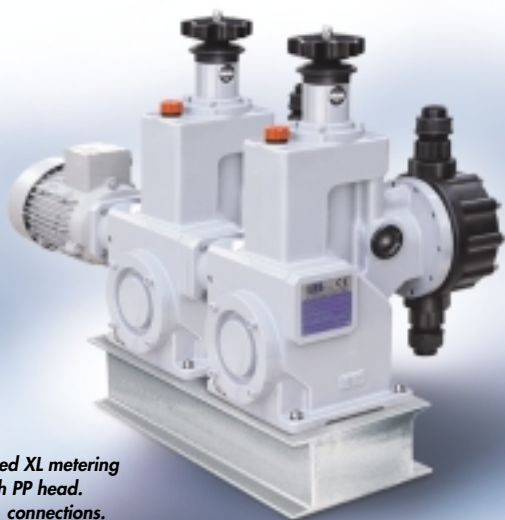
XL 50 MP - MMP						60 Hz		
TYPE	STROKES/m	FLOW RATE l/h	MAX PRESS. bar			CONNECTIONS		
			PP- PP11- PP32			THREADED	FLANGED	
			EXERCISE	BUILT-IN RELIEF VALVE SET PRESS	kW		UNI	ANSI
XL50	48	126	10	12,5	0,37	DN20	3/4"	
	72	186	10	12,5	0,75			
	96	258	10	12,5	0,75			
	121	312	10	12,5	0,75	DN25	1"	
	144	384	10	12,5	0,75			
	168	444	10	12,5	0,75	DN25	1"	

MODEL NUMBER

KEY TO SYMBOLS	
XL	PUMP TYPE
50	Ø PLUNGER
PP	PP VERSION
120	PP11 PP+ AISI-316L VALVE & VALVE SEAT
F	Z 4÷20 mA OBL ELECTRIC ACTUATOR
Z	W 3÷15 PSI PNEUMATIC ACTUATOR
...	... THREADED CONNECTIONS
F	F UNI-DIN FLANGED CONNECTIONS
FA	FA ANSI FLANGED CONNECTIONS
N°	N° STROKES PER MINUTE

MULTIPLE PUMP UNITS

- **XL** metering pumps can be built as multiple units.
- Each pump, in a multiple unit, can have a separate stroke adjustment, adjustable either stationary or while running.
- Each pump head can have a separate stroke rate since each has its own reduction gear.
- A multiple unit is driven by a single motor with total power up to 1,5 kW.



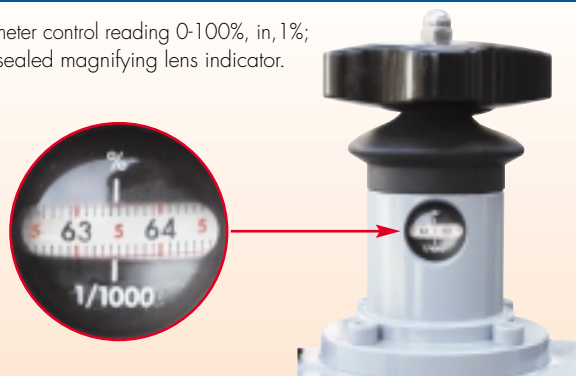
Two headed XL metering pump with PP head. Threaded connections.

CONTROL SYSTEMS

- **Manual:**
 - Handwheel with 0-100% digital display.
- **Electric:**
 - 4÷20 mA electric positioner, type Z, designed by OBL.
- **Pneumatic:**
 - 3÷15 PSI pneumatic positioner, type WA.
- Pumps can, on request, be fitted with stroke counters.

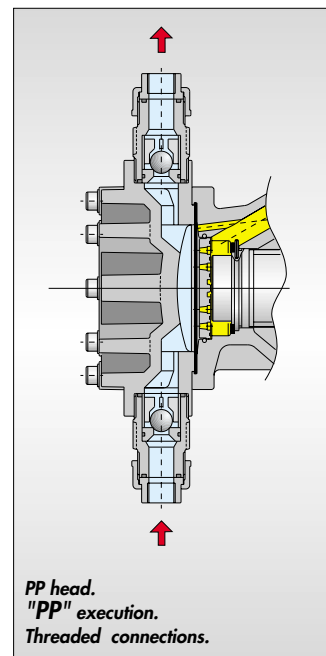
MANUAL ADJUSTMENT

- Micrometer control reading 0-100%, in, 1%;
- Steps sealed magnifying lens indicator.



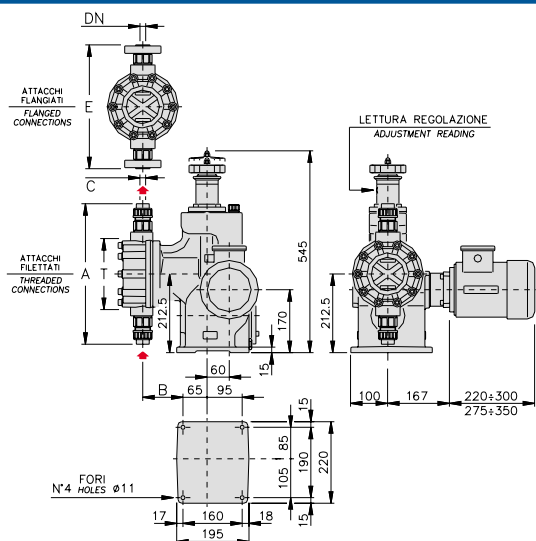
PUMP HEADS

- Execution with single ball.
- Suction and discharge connections can be threaded or flanged.
- Low NPSH R: as low as 6÷9 m in recommended installation conditions. However the worst suction conditions will not harm the pump.
- Maximum temperature of pumped liquid:
 - 60 °C with stainless steel pump heads.
 - 40 °C with PP pump heads.



PP head. "PP" execution. Threaded connections.

OVERALL DIMENSIONS



TYPE	FLOW RATE		PP					DN	
	50Hz	60Hz	A	B	C G.F.	E	TØ	UNI 2223/29	ANSI B16.5
XL 50	105 155 215	126 186	379	108.5	1/2"	334	192	20	3/4"
	260 320	258 312	379	108.5	3/4"	334	192	20	3/4"
	370 430 480	384 444	384	108.5	1"	334	192	25	1"

MATERIALS OF CONSTRUCTION

PARTS	PP	PP 11	PP 32
LIQUID END	PP	PP	PP
DIAPHRAGM	TEFLON (PTFE)	TEFLON (PTFE)	TEFLON (PTFE)
VALVE SEAT	PVC	AISI 316L	INCOLOY 825
VALVE GUIDE	PP	PP	PP
VALVE	PIREX	AISI 316L	CARPENTER 20
VALVE HOUSING	PP	PP	PP
VALVE SEAL	FPM	FPM	FPM