



**METERING
PUMPS**

Water Division

M



PUMP HEAD ▶

FLOW RATE ▶

DESCRIPTION ▶

▶ **Mechanical diaphragm**

TYPE	M
L/h	800

- Casing with cataphoresis treatment (anti-acid coating);
- Simple and robust spring return mechanical diaphragm pump;
- Uses mechanically actuated diaphragm to combine the characteristics of a plunger pump (linear flow rate) with the sealing advantages of a diaphragm pump;
- Minimal maintenance required;
- ATEX STD compliance (2014/34/CE), group II category 3 (zone 2/22);
- Single and multiple arrangement.

CHARACTERISTICS ▶

M	L/h	7	11	31	75	101	132	260	320	420	520	660	800
	bar max	12	12	10	10	10	8	7	6	6	5	3,5	3

R



▶ Plunger

TYPE	R
L/h	300

- Casing with cataphoresis treatment (anti-acid coating);
- Simple and robust spring return plunger pump;
- Cost effective design, due to reduced number of components;
- Ideal for metering of mild non-aggressive fluids;
- Plunger sealing via adjustable packing or lip seal;
- ATEX STD compliance (2014/34/CE), group II category 2 (zone 1/21) and group II category 3 (zone 2/22).
- Single and multiple arrangement.

R	L/h	4	11	20	30	55	90	120	160	200	250	300
	bar max	40	40	40	40	26	12	10	9	8	6	5
R TS	L/h	2	2,8	4	5	6	7	10	15	18	-	-
	bar max	100	100	100	100	100	100	100	80	60	-	-

RH



▶ Plunger

TYPE	RH
L/h	620

- Cast Iron painted casing;
- Simple and robust spring return plunger pump;
- Cost effective design, due to reduced number of components;
- Ideal for metering of mild non-aggressive fluids;
- ATEX STD compliance (2014/34/CE), group II category 2 (zone 1/21) and group II category 3 (zone 2/22).

RH	L/h	44	60	64	86	150	176	240	300	410	500	620
	bar max	40	35	32	23	12	10	8	7	5	4	3,5

XRN



▶ Hydraulic diaphragm

TYPE	XRN
L/h	105

- Black Anodized Aluminum Casing;
- Technically advanced hydraulic diaphragm process pump;
- Combines the simplicity and economy of the mechanism with the advantages of a technically advanced hydraulic system with an innovative oil replenishing system;
- Built-in relief valve on the oil circuit to protect the pump against over pressure;
- API 675 like performance with on-site adjustable pressure relief valve;
- Minimal maintenance required;
- ATEX STD compliance (2014/34/CE), group II category 2 (zone 1/21) and group II category 3 (zone 2/22).

XRN	L/h	0,6	1,5	2	4,5	6	10	13	20	26	32
	bar max	20	20	40	40	40	40	40	20	13	13
	L/h	42	50	66	105	-	-	-	-	-	-
	bar max	13	8	6	6	-	-	-	-	-	-

Process Division

X9



PUMP HEAD ▶

FLOW RATE ▶

DESCRIPTION ▶

▶ **Hydraulic diaphragm**

TYPE	LY X9	LK X9	LN X9	LP X9
L/h	270	1050	2600	3700

- Double diaphragm process metering pump (API 675 3rd edition);
- Extreme reliability and durability thank to positive return mechanism and double hydraulic diaphragm with mechanically actuated replenishing (smart diaphragm);
- Sealless ceramic plunger guarantees low NPSHr and minimum maintenance;
- Enhanced safety thanks to built-in safety valve and innovative double diaphragm design;
- SS 316L sandwich diaphragm available on demand, diaphragm rupture detection as standard;
- ATEX STD compliance (2014/34/CE), group II category 2 (zone 1/21) and group II category 3 (zone 2/22).
- Multiple pump configuration even with different sizes, materials and strokes/1' ; combination with other pump models also possible

CHARACTERISTICS ▶

LY X9	L/h	0,5	1,5	3	10	33	15	25	100	170	270
	bar max	125	125	125	125	90	60	40	30	22	14
LK X9	L/h	49	143	87	211	137	330	230	560	520	1050
	bar max	70	43	40	28	25	18	15	11	10	5,5
LN X9	L/h	60	160	230	415	648	500	1050	900	1660	2600
	bar max	100	80	60	32	25	22	16	15	8	5
LP X9	L/h	90	235	415	295	650	1095	1450	2590	2090	3700
	bar max	100	100	80	60	48	30	15	11	12	8
LY X9 TS	L/h	2,5	4	6	7	-	-	-	-	-	-
	bar max	250	250	250	200	-	-	-	-	-	-
LK X9 TS	L/h	3	5	7	9	11	18	22	-	-	-
	bar max	300	300	300	300	270	250	235	-	-	-
LN X9 TS	L/h	30	35	43	54	63	80	100	120	150	-
	bar max	220	220	220	200	200	180	160	110	100	-
LP X9 TS	L/h	30	35	42	52	60	76	95	120	185	230
	bar max	350	350	350	350	350	330	310	220	155	140

XL



► Hydraulic diaphragm

TYPE	XLA	XLB	XLC
L/h	20	480	1500

- Technically advanced hydraulic diaphragm positive return pump (API 675 3rd edition);
- Cost effective design, with reduced number of components;
- Extreme reliability and durability due to positive return and double hydraulic diaphragm with mechanically actuated replenishing (smart diaphragm);
- Built-in relief valve on the oil circuit to protect the pump against over pressure;
- Can be used in both process and service applications;
- Minimal maintenance required;
- ATEX STD compliance (2014/34/CE), group II category 2 (zone 1/21) and group II category 3 (zone 2/22).
- Multiple pump configuration even with different sizes, materials and strokes/1' ; combination with other pump models also possible.

XLA	L/h	1	1,5	2,2	2,3	4,5	5,3	6,5	8,1	9	11
	bar max	130	130	130	130	130	130	130	130	100	100
	L/h	14,5	18	22,5	-	-	-	-	-	-	-
	bar max	80	60	60	-	-	-	-	-	-	-
XLB	L/h	63	105	155	215	260	320	370	430	480	
	bar max	30	30	30	30	30	30	25	20	10	
XLC	L/h	350	550	750	920	1150	1300	1500	-	-	
	bar max	20	20	20	17	15	12	10	-	-	

L



► Plunger

TYPE	LY	LK	LN	LP
L/h	400	1300	3800	5500

- API 675 3rd edition positive return plunger pump;
- Heavy-duty construction designed for continuous (24 hour) industrial operation;
- Suitable for high pressure applications where accuracy and reliability are essential;
- ATEX STD compliance (2014/34/CE), group II category 2 (zone 1/21) and group II category 3 (zone 2/22).
- Multiple pump configuration even with different sizes, materials and strokes/1' ; combination with other pump models also possible.

LY	L/h	1,5	4,5	6,5	15	20	45	110	175	300	400
	bar max	150	100	100	100	70	40	18	11	8	6,5
LK	L/h	30	48	62	90	165	250	550	850	1000	1300
	bar max	100	90	80	70	35	25	12	7	6	4
LN	L/h	150	230	420	650	900	1500	2150	2700	3200	3800
	bar max	90	50	50	20	16	8	6	5	4	3,5
LP	L/h	230	340	540	750	1100	1800	2500	3200	4500	5500
	bar max	90	80	55	40	27	15	10	9	6	5
LY TS	L/h	2	3	4	5,5	6,5	10	13	-	-	-
	bar max	300	300	300	300	160	150	140	-	-	-
LK TS	L/h	3,5	5	7	10	15	20	25	30	42	-
	bar max	400	400	400	350	230	220	160	140	120	-
LN TS	L/h	14	20	21	26	34	40	48	58	75	105
	bar max	400	400	375	350	260	250	230	200	150	110
LP TS	L/h	48	58	70	75	90	105	135	165	195	-
	bar max	400	370	350	250	230	220	165	160	150	-

Accessories

Back Pressure Valve



Prevents siphoning by creating a counter-pressure on the system and eliminates the possibility of varying flowrates in case of downstream pressure fluctuation.

Pulsation Dampener



Effectively eliminates the pulsating flow of reciprocating metering pumps. Installation of a pulsation damper includes many benefits:

- Protects the pump from pressure peaks.
- The flow becomes continuous with linear flow, increasing the reliability of the dosing process.
- Reduces vibration on the flow pipe.
- Decreases the noise of the pump.

Pressure Safety Valve



Installation of a safety valve is highly recommended to protect the pump and system in case of overpressure on the discharge line. The safety valve should be installed close to the metering pump on the system discharge pipe.



GENUINE SPARE PARTS



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LEARN MORE AT www.oblblackline.com



Repairing your blackline pump is simple. Check out the detailed service videos that show you how to carry out maintenance on your obl pump. Follow the advice of our experienced team.

Actuators

Kit PRO



Designed to suit the most critical applications with solid construction and a comprehensive control interface providing ease-of-process management”

OBL's new flexible solution for remotely controlling your Blackline 2.0 metering pump. High quality materials and enhanced user-friendly interface makes controlling your pump simple.

10 different operating modes to fit any type of dosing application: CONSTANT / BATCH / PAUSE-WORK / WEEKLY PROGRAM / ANALOG mA / ANALOG Volt / PPM PERCENTAGE / MLQ (millilitres per quintal) / PULSE.

Safe Area



All OBL pumps can be optionally equipped with Z type electrical actuator, with following characteristics:

- IP 66 STD
- Manual emergency override
- Anticondensation heater (on demand)
- Non standard voltages and frequencies
- External automatic/manual selector

Flow rate is adjusted according to following input signals:

- 4-20 mA, 0-20 A, 20-4 mA e 0-10 V
- Pulses (0÷2 Hz - 0÷30 Hz)
- RS 485 protocol
- PROFIBUS DP - VØ

Hazardous Area: ATEX version



All Process API 675 pumps and selected Water Division models can additionally fit :

- ATEX II 2GD EEx-d IIB T4
- ATEX II 2GD EEx-d IIC T4
- 115/230V - 1 - 50/60 Hz
- 230/400V - 3 - 50/60 Hz
- 4-20 mA signal and feedback
- Manual emergency override
- Anticondensation heater (on demand)

SAVE MONEY BY ORDERING PART KITS

Ordering parts kits as opposed to individual components:

- Reduces frequency of repairs
- Reduced downtime
- Reduces cost
- Increases uptime
- Improves parts availability
- Extends service life



OBL Genuine Spare Parts, keep your pump running at optimal levels.

OBL has built a reputation for superior reliability by supplying carefully designed high-quality products. However, even the best equipment requires minimal preventative maintenance.

OBL offers KOPKITS designed to avoid unnecessary downtime and guarantee the highest level of efficiency and uninterrupted service from your OBL pump.

Many Pump models have a unique KOPKIT containing all the parts necessary to ensure reliable operation. KOPKITS come in two variants: KOPKIT light and KOPKIT full.

the KOPKIT is your best friend when it comes to breakdowns, it will get you back in business fast! Preventative maintenance will ensure continued high performance from your pump. OBL ensures ready availability of KOPKITS for most pumps.

