General Description

The MEMDOS series is an economical line of motor driven, mechanical diaphragm metering pumps. This versatile line offers two versions to meet a variety of applications. The base model, MEMDOS E, is a manually controlled version. For applications requiring control by an external signal, the intelligent MEMDOS DX offers state-of-the-art microprocessor control. By integrating the speed control, the MEMDOS DX eliminates the need for the further expense of additional variable speed controllers.

High quality mechanics, combined with the proven reliability of our MAGDOS series brains, brings advanced technology to the metering pump industry.

There are two chassis sizes within the MEMDOS E and MEMDOS DX family. The smaller size is rated for capacities up to 42 gph. The larger size is rated for capacities up to 92 gph. Pressure ranges are available to 150 psi, depending on pump capacity. Check valves are double ball or spring-loaded single ball design.

MEMDOS DX

MEMDOS E

MEMDOS E

- Stroke length control features 10:1 turndown
- Capacities up to 92 gph, pressures up to 150 psig

MEMDOS DX

Application Flexibility

- Up to 1400:1 turndown provides more precision in process control
- Automatic or manual control
- NEMA 4X enclosure protects electronics in harsh environments

Microprocessor Control

- Integrated speed control allows for the selection of several control signals:
  - pulse/contact control
  - multiplication/division capabilities
  - analog control...4-20 mA, 0-20 mA
- Remote start/stop capabilities
- Input signal monitoring and output alarms

User Friendly

- Touch pad and LCD display
- Self-diagnostic system for monitoring chemical feed process. Messages displayed for tank low level & loss of analog signal.

Options

- Double diaphragm liquid end
- Automatic stroke length control (E model only)
- Leak detection
- Tank low level indication and alarm (DX model only)

Materials of Construction

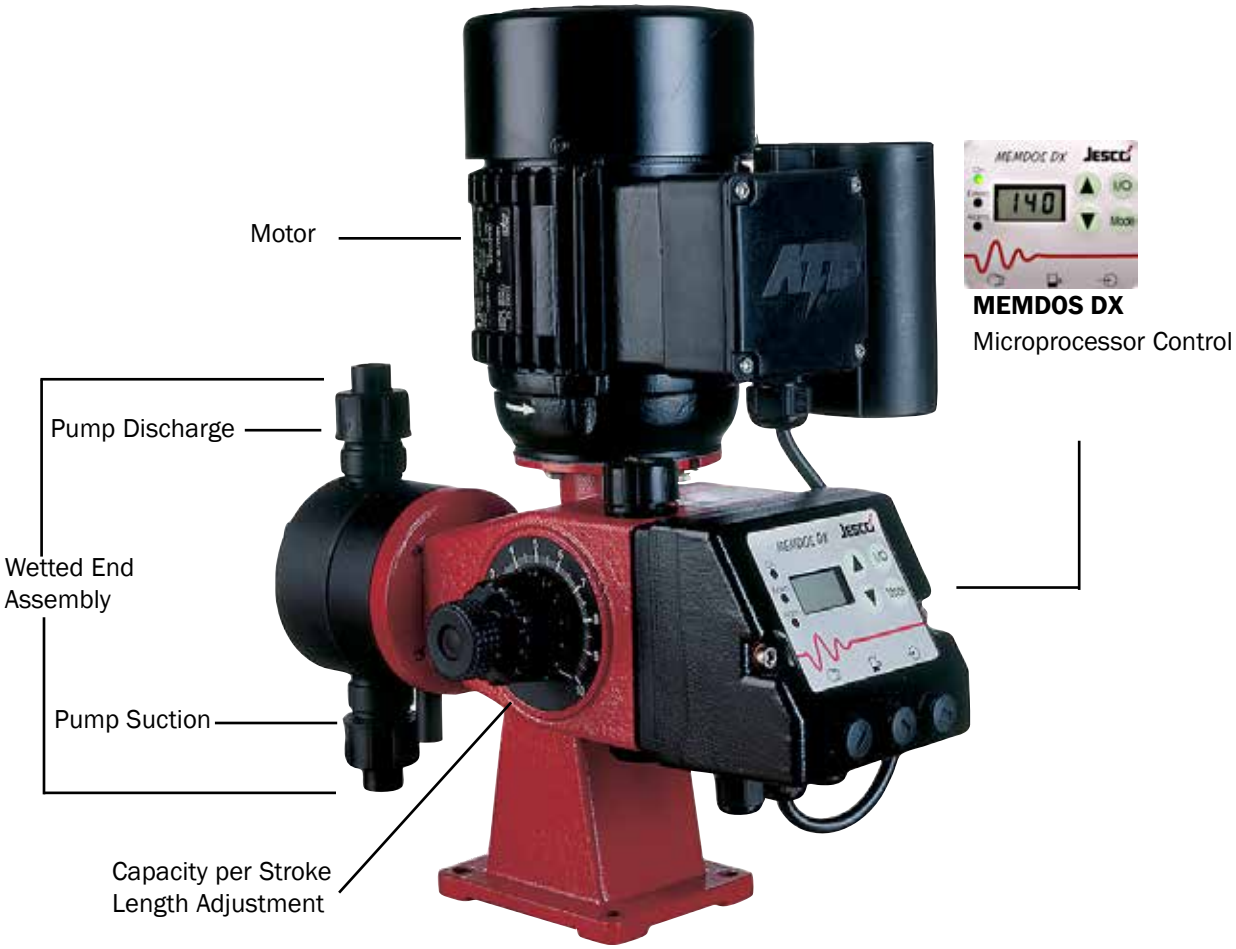
Liquid ends of Polypropylene, PVC, PVDF and 316 Stainless Steel. Diaphragms are PTFE-coated EPDM. Seals of Viton™, Hypalon™ or PTFE are available.

Lutz-JESCO America Corp.

Mechanical Metering Pumps - MEMDOS E/DX

Technical Data

Chassis Size			4 - 156							160 - 300		
Model		**4**	**8**	**15**	**26**	**50**	**76**	**110**	**156**	**160**	**200**	**300**
Capacity	gph	1.2	2.3	4.7	6	15.2	19	33.8	42.2	49	66	92
Capacity	l/h	4.7	8.7	17.7	22.7	57.5	71.9	127.9	159.7	185.4	249	348
Maximum pressure	psig	150						75	60	150		125
Capacity/stroke	ml	2.6				8.5		19		36.5		51.2
Stroke frequency	SPM	32	58	114	140	114	140	114	140	85	114	114
Diaphragm diameter	in.	2.04				2.51		3.54		4.72		5.9
Suction lift	ft H_2O	13				11		10		8		
Stroke length	in.	0.2				0.35				0.393		
Motor - 1-phase E/DX	Hp	1/6								1/3		
Motor - 3-phase E	Hp	1/3								1/2		
Max. ambient temperature	°F	PVC & Polypro: 104°; PVDF: 120°; 316S: 140°										
Gear Ratio		55:1	30:1	15:1	12:1	15:1	12:1	15:1	12:1	20:1	15:1	15:1



MEMDOS DX
Microprocessor Control

Lutz-JESCO America Corp. 55 Bermar Park Rochester, NY 14624 USA Phone: 585-426-0990 Fax: 585-426-4025 E-Mail:mail@jescoamerica.com http://www.lutzjescoamerica.com Toll Free: 1-800-554-2762

General Description

The MEMDOS series is an economical line of motor driven, mechanical diaphragm metering pumps. This versatile line offers two versions to meet a variety of applications. The base model, MEMDOS E, is a manually controlled version. For applications requiring control by an external signal, the intelligent MEMDOS DX offers state-of-the-art microprocessor control. By integrating the speed control, the MEMDOS DX eliminates the need for the further expense of additional variable speed controllers.

High quality mechanics, combined with the proven reliability of our MAGDOS series brains, brings advanced technology to the metering pump industry.

There are two chassis sizes within the MEMDOS E and MEMDOS DX family. The smaller size is rated for capacities up to 42 gph. The larger size is rated for capacities up to 92 gph. Pressure ranges are available to 150 psi, depending on pump capacity. Check valves are double ball or spring-loaded single ball design.

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Materials of Construction

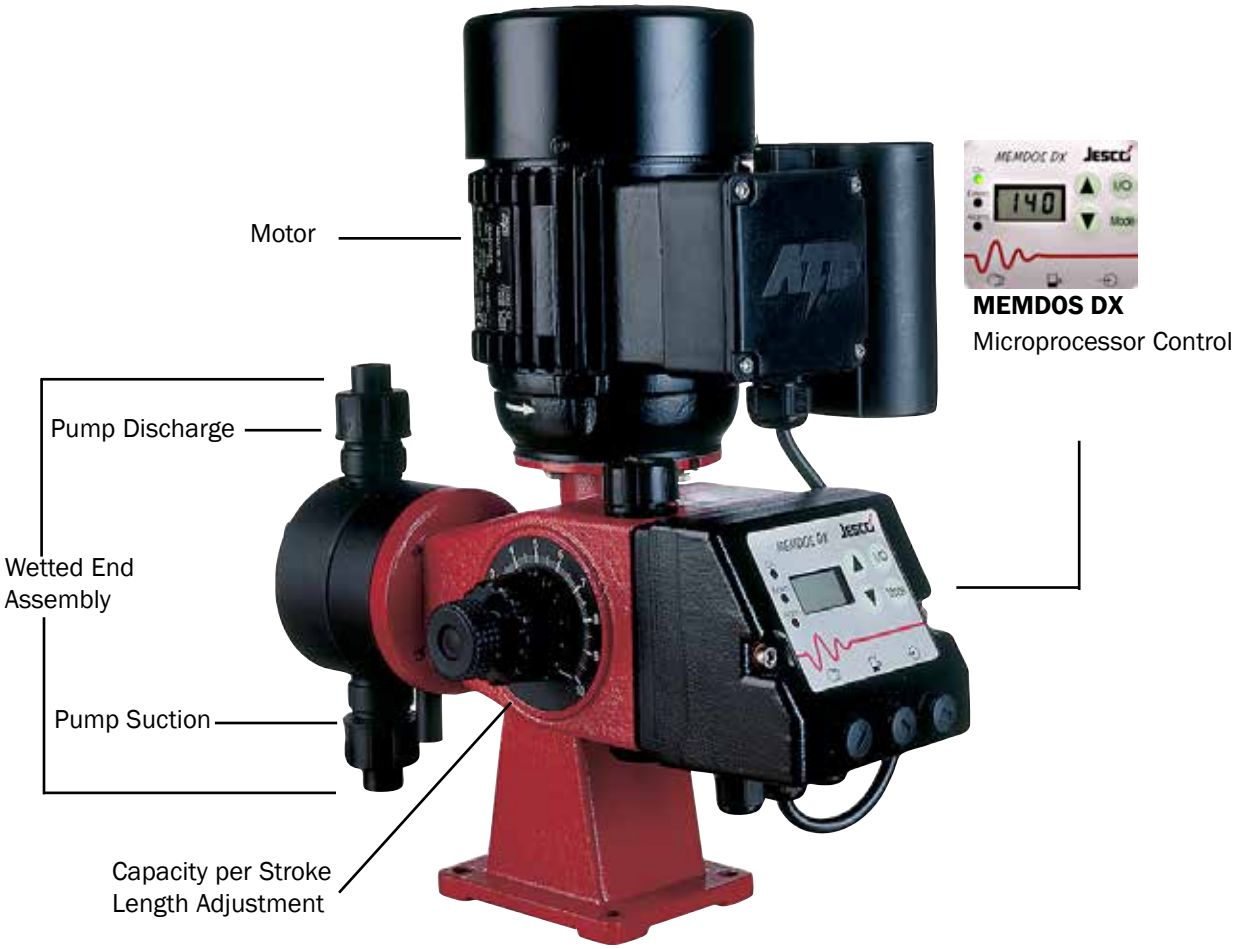
Liquid ends of Polypropylene, PVC, PVDF and 316 Stainless Steel. Diaphragms are PTFE-coated EPDM. Seals of Viton™, Hypalon™ or PTFE are available.

Lutz-JESCO America Corp.

Mechanical Metering Pumps - MEMDOS E/DX

Technical Data

Chassis Size			4 - 156							160 - 300		
Model		**4**	**8**	**15**	**26**	**50**	**76**	**110**	**156**	**160**	**200**	**300**
Capacity	gph	1.2	2.3	4.7	6	15.2	19	33.8	42.2	49	66	92
Capacity	l/h	4.7	8.7	17.7	22.7	57.5	71.9	127.9	159.7	185.4	249	348
Maximum pressure	psig	150						75	60	150		125
Capacity/stroke	ml	2.6				8.5		19		36.5		51.2
Stroke frequency	SPM	32	58	114	140	114	140	114	140	85	114	114
Diaphragm diameter	in.	2.04				2.51		3.54		4.72		5.9
Suction lift	ft H_2O	13				11		10		8		
Stroke length	in.	0.2				0.35				0.393		
Motor - 1-phase E/DX	Hp	1/6								1/3		
Motor - 3-phase E	Hp	1/3								1/2		
Max. ambient temperature	°F	PVC & Polypro: 104°; PVDF: 120°; 316S: 140°										
Gear Ratio		55:1	30:1	15:1	12:1	15:1	12:1	15:1	12:1	20:1	15:1	15:1



MEMDOS DX
Microprocessor Control

Lutz-JESCO America Corp. 55 Bermar Park Rochester, NY 14624 USA Phone: 585-426-0990 Fax: 585-426-4025 E-Mail:mail@jescoamerica.com http://www.lutzjescoamerica.com Toll Free: 1-800-554-2762

General Description

Double diaphragm metering pumps of the MEMDOS GMR series can be supplied as single or duplex metering pumps. The pumps are used to meter large quantities at relatively low back pressures. They are frequently used in waste-water treatment to meter pH-regulating chemicals or flocculent. The metering pumps are available in three sizes as single metering pumps for 528 to 1,057 gph.

Different metering heads can be connected to the duplex metering pumps. The metering heads are then operating in a reciprocating mode and the quantity metered is set for both heads at the same time.

Standard designs consist of a single metering pump with a left-hand metering head arrangement and duplex metering pumps with two metering heads.

Metering Head

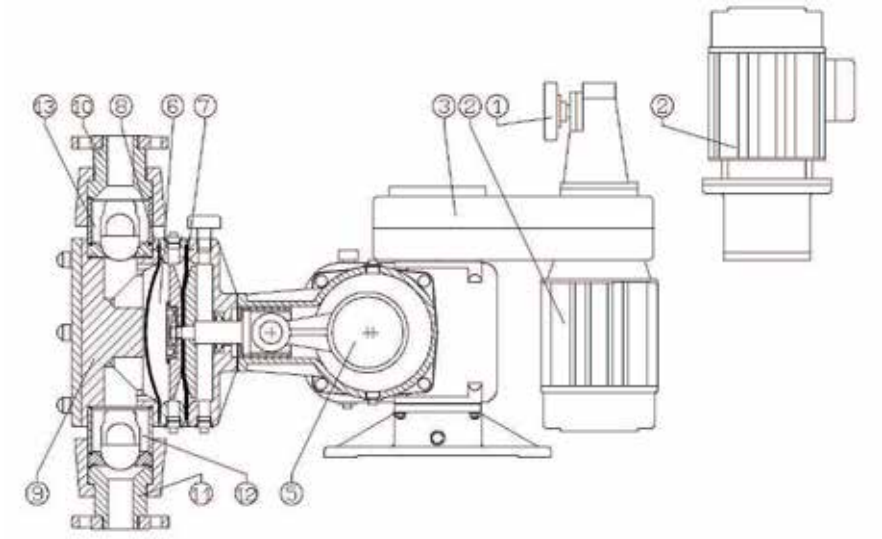
The characteristic feature is the duplex diaphragm (7+8). The eccentric (5) guides the diaphragm (7) almost following the sine wave over the constant stroke. Since the large supporting disks always carry the whole surface of the diaphragm (7) in the maximum eccentric positions, a piston-like displacement effect is achieved. This results in a very high metering accuracy for diaphragm metering pumps independent of the back pressure. The front supporting disk for the suction stroke must not get into touch with the medium because of chemical resistance and possible abrasiveness. Therefore, a second diaphragm (8) is provided, which has a merely separating function and is therefore neutral in respect to forces. The medium side of the EPDM separating diaphragm (8) is coated with PTFE.

A precisely dimensioned glycerin filling (6) acts as hydraulic push rod and thus the distance between the two diaphragms remains constant. Also the rear diaphragm chamber is partly filled with glycerin for lubrication purposes. The suction (12) and discharge valves (13) are spring-loaded flat seat valves. The suction (11) and discharge connections (10) are available in plastic or stainless steel design.

Drive

There are two possibilities to drive the eccentric (5):

1. By means of a variable speed belt drive (3) with three-phase motor (2). The control range is approximately 1:6. The drive may only be adjusted while the motor is rotating (2).
2. By means of a three phase AC motor (2). The speed of this motor can be controlled within a range of 1:10 via also available frequency inverters.



Legend

1 Handwheel for speed adjustment
2 Three-phase AC motor
3 Belt gearbox
5 Eccentric
6 Glycerin filling
7 Rear diaphragm
8 Front diaphragm
9 Metering head
10 Discharge connection
11 Suction connection
12 Suction valve
13 Discharge valve

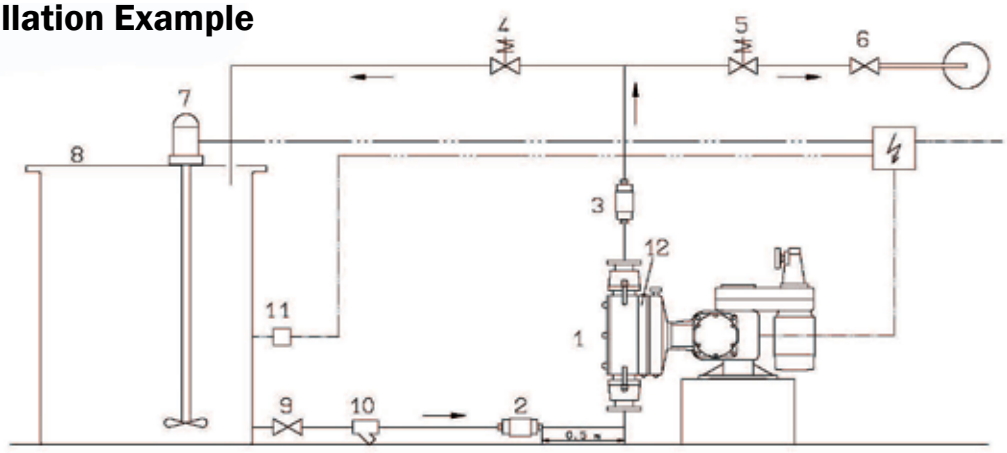
Additional Components

Upon request, the MEMDOS GMR can be equipped with an inductive probe which samples the crankshaft to count the strokes. For diaphragm rupture detection, the front glycerin chamber can be monitored by means of a conductivity probe.

Technical Data

MEMDOS GMR			2000	3000	4000
Max. pressure		psig	4	3	2
Stepless control drive	Delivery rate	gph	82 - 528	122 - 793	164 - 1057
	Stroke frequency	min^{-1}	11 – 55	11 – 66	11 – 68
	Stroke volume	ml/stroke	680	750	980
Three phase motor drive at 2,850 min^{-1}	Delivery rate	gph	423	634	845
	Stroke frequency	min^{-1}	58		
	Stroke volume	ml/stroke	680	750	980
Engine power		kW	2.2		
Diaphragm diameter		in	8.346	9.921	
Stroke length		mm	23	26	32
Suction lift		ft H2O	4		
Max. supply pressure (Σ static and dynamic)		mbar	500		
Maximum ambient temperature		°F	104		
Max. temperature of the medium		°F	40		
Weight	Plastic dosing head	lb	320	364	
	Stainless steel dosing head	lb	342	430	

Installation Example



Legend

1. Metering pump.....GMR MB 1 06 01
2. Pulsation dampener f. suction pipe.....MB 1 27 01
3. Pulsation dampener f. discharge pipe.....MB 1 27 01
4. Relief valve .....MB 1 25 01
5. Backpressure valve.....MB 1 25 01

Use shown fittings when required.

6. Injection nozzle .....MB 1 23 01
7. Agitator.....MB 1 36 01
8. PE tank.....MB 1 20 01
9. Ball valve
10. Dirt trap (filter).....MB 1 22 02
11. Dry run protection .....MB 4 10 00
12. Diaphragm failure monitoring .....Part No. 41028906

Reliable dosing of chemicals

Motor-driven diaphragm dosing pumps play an important role in the reliable and accurate dosing of liquids in process cycles. They are appropriate for low-pressure applications and high dosing quantities.

Dosing pumps are used in many branches of industry that work with liquid chemicals - not excluding toxic and highly-aggressive media.

Riding on the crest of the waves

Two sizes of the MEMDOS LB series are available. A large coverage in terms of performance and chemical resistance is available, thanks to the variety of dosing heads, combined with a wide range of dosing head materials.

The performance ranges from 0 - 325 gph. The maximum permitted pressure, depending on the size, is between 58 and 232 psig.

Thanks to the sturdy tappet drive with manual or automatic capacity adjustment, the conveyed media such as acids, lyes, coagulants and flocculants are dosed reliably and precisely.

On request, the MEMDOS LB pumps can also be supplied with a double diaphragm system, therefore avoiding uncontrolled leakage of media if the dosing diaphragm wears out.

Versatile and flexible

The MEMDOS LB can be used when the integration of the pump into external controls or control circuits is required.

For constant dosing without a controller, the power-cord of the MEMDOS LB is directly connected to the terminal box. A variety of three-phase and single-phase motors is available for this purpose.

To adjust the dosing capacity, either the stroke length can be adjusted mechanically/automatically or the speed of the three-phase motor can be regulated by means of a separate variable frequency drive.

In Short

- Capacity range 0 to 325 gph, up to 232 psig
- Minor dependence of the backpressure
- Infinitely variable stroke frequency from 0 to 100%
- Tappet drive with manual and automatic capacity adjustment
- Materials available: PVC, PP, PVDF and stainless steel
- Compact design, low space requirement
- Material consistency for the pumps and accessories
- A variety of three-phase and single-phase motors are available
- Double-diaphragm system (optional)
- ATEX versions for Zones 1 and 2 are available
- Also suitable for variable frequency drive operation

Lutz-JESCO America Corp.

Motor-driven Diaphragm Dosing Pump - MEMDOS LB

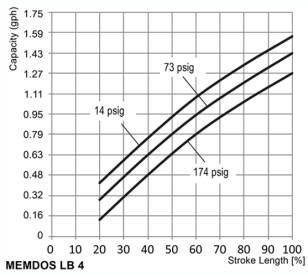
Technical Data

MEMDOS LB			4	4-HP	10	10-HP	20	20-HP	35	60	80	150
Delivery capacity at maximum backpressure	50 Hz	gph	1.06	2.22	3.70	6.35	5.82	9.52	9.52	16.67	23.81	41.27
	60 Hz		1.3	2.7	4.4	7.6	7.0	11.4	11.4	20	29	50
	ml/stroke		2.7	5.4	2.7	5.4	2.7	5.4	8.6	8.6	21.4	21.4
Max. back pressure		psig	174	232	174	232	174	232	145		72	
Max. stroke frequency	50 Hz	RPM	26		72		120		72	120	72	120
	60 Hz		31.2	31.2	86.4		144		86.4	144	86.4	144
Suction head for non-gassing media		ftH_2O	29						26		23	
Max. inlet pressure		psig	7.3 PSI									
Stroke length		mm	0.3"						0.4"			
Nominal valve width			DN4						DN6		DN10	
Voltage supply			115V (230V optional)									
Motor efficiency			Greater than 90% (energy efficiency class IE4)									
Protection class			IP 55									
Insulation class			F									
Weight (without a motor)	PVC	lb	9.9								13	
	PP		9.9								13	
	PVDF		10.6								16.5	
	Stainless Steel		13.2								24.7	
Max. ambient temperature		°F	PVDF, Stainless Steel 41-113° (104° with PVC parts)									
Max. temperature of the medium		°F	176° (with PVC parts 95°; with PP parts 140°)									

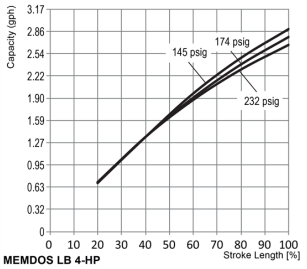
MEMDOS LB			110	160	210	260	310	400	510	760	1010
Delivery capacity at maximum backpressure	50 Hz	gph	30.2	38.1	55.6	69.8	77.8	103.2	133.3	196.8	269.8
	60 Hz		36	46	67	84	93	124	160	236	324
	ml/stroke		21.4		38.1		55.3		170		
Max. back pressure		psig	145				116	87	58		44
Max. stroke frequency	50 Hz	RPM	96	120	96	120	96	120	53	76	107
	60 Hz		115	144	115	144	115	144	64	92	128
Suction head for non-gassing media		feet	23		19		14		3		
Max. inlet pressure		psig	7.3 PSI								
Stroke length		mm	0.4"						0.5"		
Nominal valve width			DN10		DN15				DN25		
Voltage supply			115V (230V optional)								
Motor efficiency			Greater than 90% (energy efficiency class IE4)								
Protection class			IP 55								
Insulation class			F								
Weight (without a motor)	PVC	lb	19.8		21.6		25.4		39		
	PP		19.8		21.6		25.4		30		
	PVDF		21.2		23.6		28.7		35.7		
	Stainless Steel		31.5		38.4		51.1		79.4		
Max. ambient temperature		°F	41-113° (104° with PVC parts)								
Max. temperature of the medium		°F	PVDF, Stainless Steel 176° (with PVC parts 95°; with PP parts 140°)								

Delivery Characteristic Curves

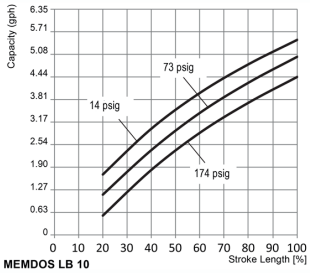
The supply performance graph is valid for 20°C (68°F) for water at 100% stroke frequency. The delivered capacity depends on the medium (density and viscosity) and temperature. Dosing must therefore be calibrated during practical use.



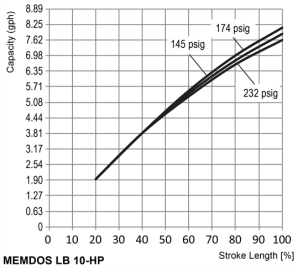
MEMDOS LB 4



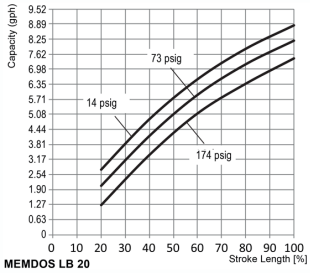
MEMDOS LB 4-HP



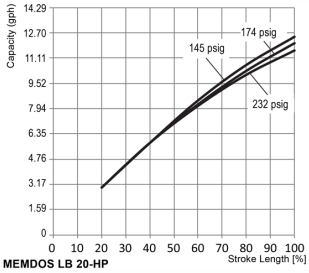
MEMDOS LB 10



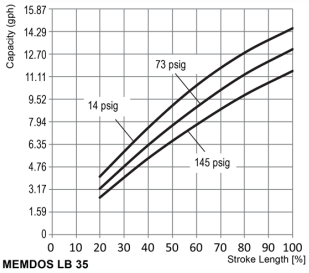
MEMDOS LB 10-HP



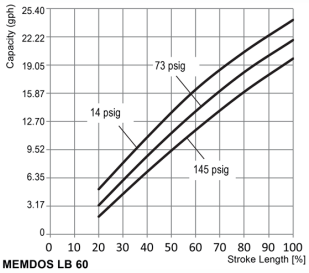
MEMDOS LB 20



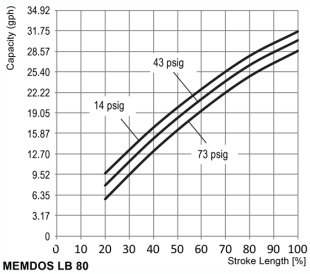
MEMDOS LB 20-HP



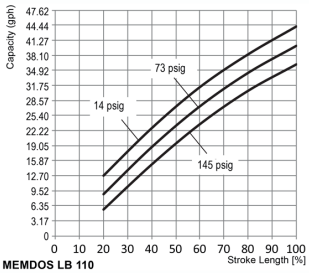
MEMDOS LB 35



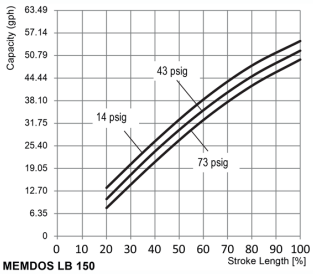
MEMDOS LB 60



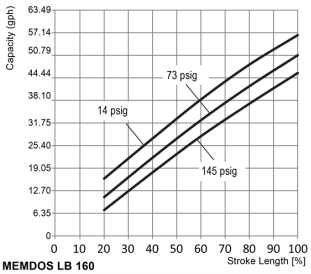
MEMDOS LB 80



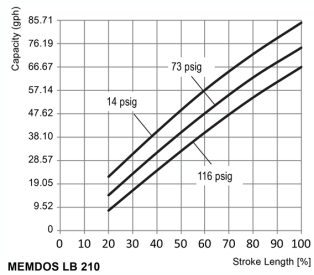
MEMDOS LB 110



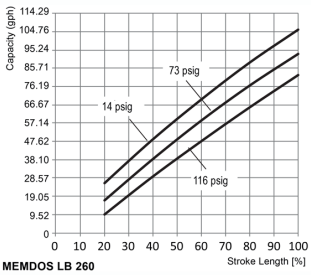
MEMDOS LB 150



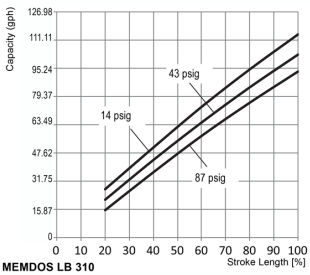
MEMDOS LB 160



MEMDOS LB 210



MEMDOS LB 260



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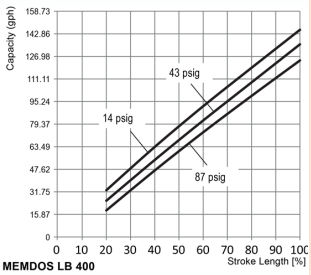
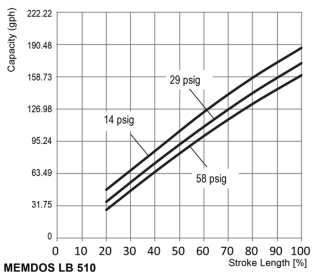
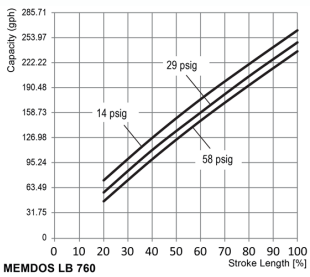


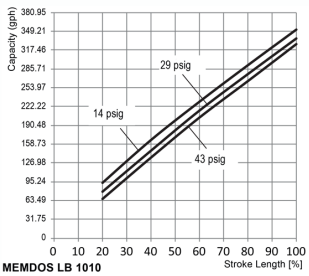
MEMDOS LB 400



MEMDOS LB 510



MEMDOS LB 760

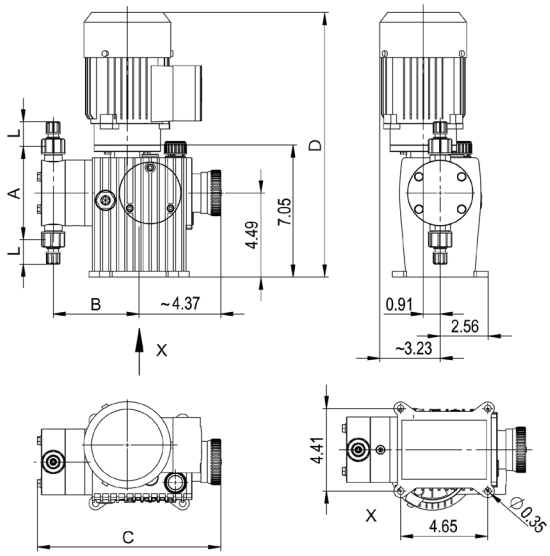


MEMDOS LB 1010

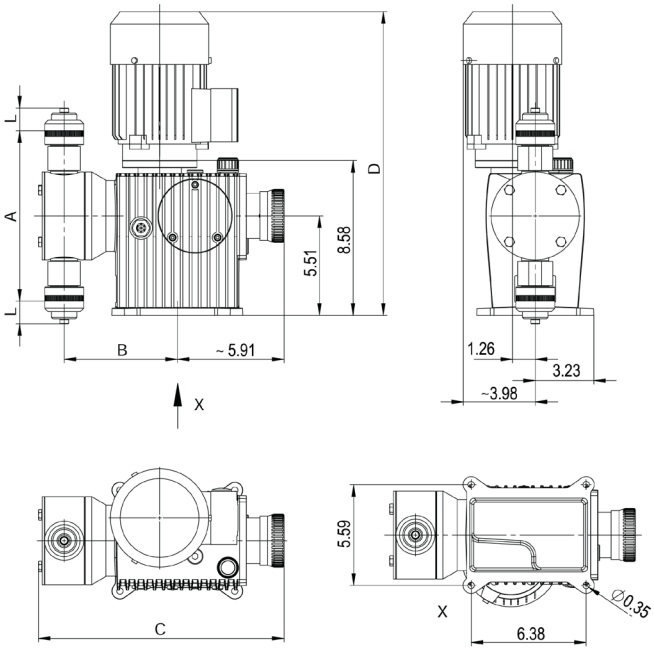
Lutz-JESCO America Corp.

Motor-driven Diaphragm Dosing Pump - MEMDOS LB

Dimensions



MEMDOS LB 4 - 80 and 150



MEMDOS LB 110, 160 - 1010

Size	4-20	35-60	80, 150	110, 160	210-260	310-400	510-1010
A	4.96	5.87	9.80	9.45	10.55	12.30	13.86
B	4.57	4.78	5.24	6.30	6.70	6.89	7.28
C	9.96	10.24	11.18	12.80	13.19	13.39	14.37
D (standard motor)	15.31	15.31	15.31	17.20	17.20	17.20	17.72
L	Depends on the connection type and size						

All dimensions in inches

Accessories

Suitable sets of accessories, which consists of a suction line, a pressure line and an injection nozzle, are available for the dosing pumps. Even the best pump can still be improved - namely by the right accessories. To make your dosing pump into an efficient dosing system, we recommend using the following accessories:

- Injection nozzles – to dose the medium in the main line and to prevent it flowing back into the pressure line
- Pressure loading and relief valves – to increase dosing accuracy or to protect the system against excessive pressure
- Pulsation dampener – to dampen supply currents as well as to reduce the flow resistance in long pipelines.
- Priming aids – to significantly ease priming of dosing pumps with low supply volumes per stroke, for large suction heights, for highly viscous dosing media or for initial priming or when priming after the system has been laying idle
- Suction pressure regulator – to prevent medium flow when the dosing pump is not running or to prevent a vacuum being formed in the event of a pipe burst

For further accessories for your dosing pump, please refer to our dosing pump brochure.

Reliable dosing of chemicals

Motor-driven diaphragm dosing pumps play an important role in the reliable and accurate dosing of liquids in process cycles. They are appropriate for low-pressure applications and high dosing quantities.

Dosing pumps are used in many branches of industry that work with liquid chemicals - not excluding toxic and highly-aggressive media.

Riding on the crest of the waves

Two sizes of the MEMDOS LP series are available. A large coverage in terms of performance and resistance is available, thanks to the variety of dosing heads, combined with a wide range of dosing head materials.

The performance ranges up to 41 gph for the first size, up to 270 gph for the second size. The maximum permitted pressure, depending on the size, is between 58 and 232 psig.

Thanks to the sturdy tappet drive with manual or automatic capacity adjustment, the conveyed media such as acids, lyes, coagulants and flocculants are dosed reliably and precisely.

On request, the MEMDOS LP pumps can also be supplied with a double-diaphragm system. Then uncontrolled leakage of media is avoided even if the dosing diaphragm wears out.

Versatile and flexible

The MEMDOS LP is used when the integration of the pump into controls or control circuits is required. For integration into demanding automation networks, a version with an Ethernet-based MODBUS interface is available.

The MEMDOS LP doesn't just impress with its elegant design; the graphical display with a multi-language menu as well as the dosing pump's operation using the integrated keyboard simplifies its use.

If required, the dosing pump can be controlled via an analogue or pulse input. To react to any variations in the control circuit, the pump has many additional functions; stroke remote reporting, external operation consent, level monitoring, fault reporting via a relay as well as diaphragm rupture monitoring.

In Short

- Capacity range up to 270 gph, at up to 232 psig
- Minor dependence of the backpressure
- Graphical display with multi-language menu
- Precise pump adjustments using the keyboard
- Supply amount displayed in various units
- Infinitely variable stroke frequency from 0 to 100%
- Calibration functionality
- External control via standard signal 0/4 – 20 mA
- External control via floating contacts with impulse increase and reduction
- Materials available: PVC, PP, PVDF and stainless steel
- Diaphragm breakage detection and reporting (optional)
- Compact design, low space requirement
- Material consistency for the pumps and accessories
- Double-diaphragm system (optional)
- Ethernet interface (optional)
- Batch dosing with interval and timer function

Lutz-JESCO America Corp.

Motor-driven Diaphragm Dosing Pump - MEMDOS LP

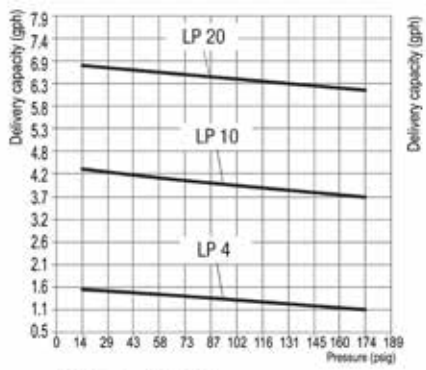
Technical Data

MEMDOS LP			4	4-HP	10	10-HP	20	20-HP	35	60	80	150
Delivery capacity at maximum backpressure (50/60 Hz)		gph	1.1	2.2	3.7	6.0	5.8	9.6	9.5	16.7	24	41
Max. supply pressure		psig	174	232	174	232	174	232	145		72	
Max. stroke frequency (50/60 Hz)		SPM	26	26	72	72	120	120	72	120	72	120
Suction head for non-gassing media		feet H_2O	29						26		23	
Max. supply pressure		psi	7.3 PSI									
Stroke length		inch	0.3"						0.4"			
Stroke volume		ml/stroke	2.7	5.4	2.7	5.4	2.7	5.4	8.6	8.6	19.3	21.4
Nominal valve width			DN4						DN6		DN10	
Voltage supply			230V									
Motor efficiency			Greater than 90% (energy efficiency class IE4)									
Protection class			IP 55									
Insulation class			F									
Weight (without a motor)	PVC	lb	24								27	
	PP		24								27	
	PVDF		24								30	
	1.4571		27								38	
Max. ambient temperature		°F	41-113°F (104°F with PVC parts)									
Max. temperature of the medium		°F	176°F (with PVC parts 95°F; with PP parts 140°F)									

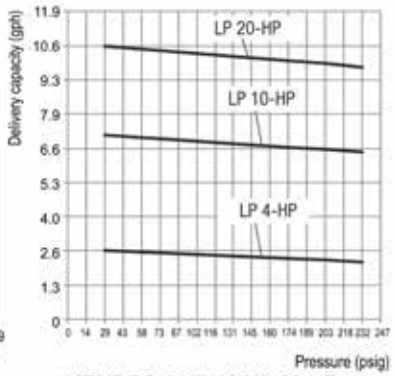
MEMDOS LP			110	160	210	260	310	400	510	760	1010
Delivery capacity at maximum backpressure (50/60 Hz)		gph	30	38	56	70	78	103	133	197	270
Max. supply pressure		psig	145				116	87	58		44
Max. stroke frequency (50/60 Hz)		SPM	96	120	96	120	96	120	53	76	107
Suction head for non-gassing media		feet H_2O	23		19		14		3		
Max. supply pressure		psi	7.3 PSI								
Stroke length		inch	0.4"						0.5"		
Stroke volume		ml/stroke	2.7	5.4	2.7	5.4	2.7	5.4	8.6	8.6	19.3
Nominal valve width			DN10		DN15				DN25		
Voltage supply			230V								
Motor efficiency			Greater than 90% (energy efficiency class IE4)								
Protection class			IP 55								
Insulation class			F								
Weight (without a motor)	PVC	lb	43.4		45.6		50		67.2		
	PP		43.4		45.6		50		67.2		
	PVDF		44.1		46.7		51.5		71		
	1.4571		55		64.5		75.8		115		
Max. ambient temperature		°F	41-113°F (104°F with PVC parts)								
Max. temperature of the medium		°F	176°F (with PVC parts 95°F; with PP parts 140°F)								

Flow curves

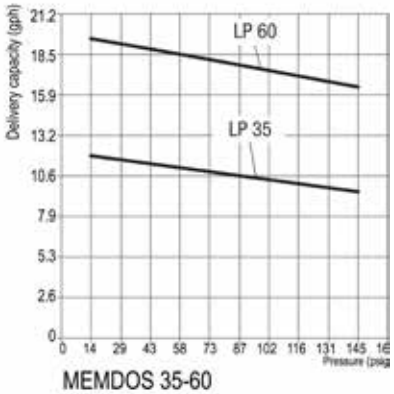
The flow curves are valid for ambient temperatures of 68 °F (20 °C) and dosing water at 100% stroke frequency. The delivery capacities depend on the medium (density and viscosity) and temperature.



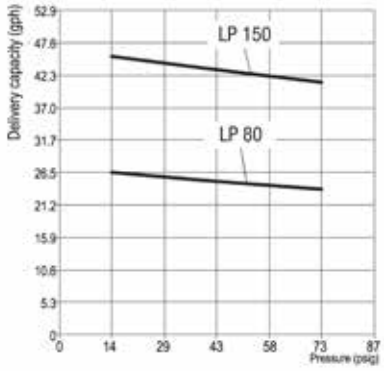
MEMDOS 4-10-20



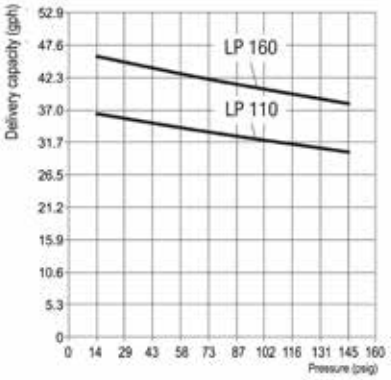
MEMDOS 4-HP-10-HP-20-HP



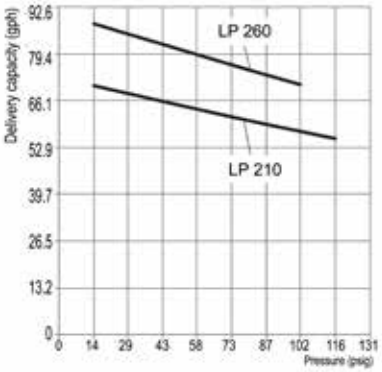
MEMDOS 35-60



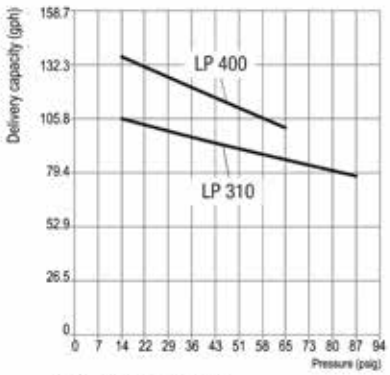
MEMDOS 80-150



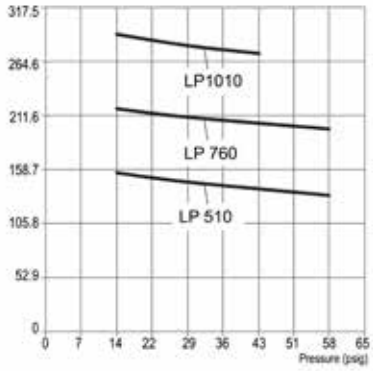
MEMDOS 110-160



MEMDOS 210-260



MEMDOS 310-400



MEMDOS 510-760-1010

Lutz-JESCO America Corp.

Motor-driven Diaphragm Dosing Pump - MEMDOS LP

Dimensions

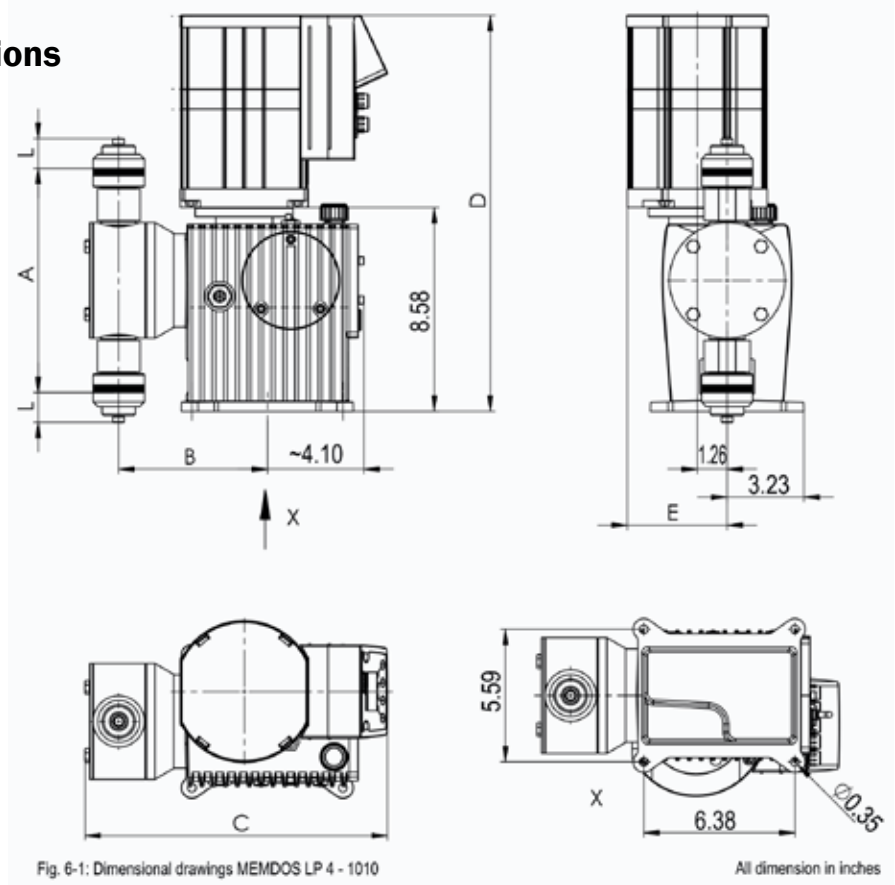


Fig. 6-1: Dimensional drawings MEMDOS LP 4 - 1010

All dimension in inches

Accessories

Suitable sets of accessories, which consists of a suction line, a pressure line and an injection nozzle, are available for the dosing pumps. Even the best pump can still be improved - namely by the right technical periphery. To make your dosing pump into an efficient dosing system, we recommend using the following accessories:

- Injection nozzles – to dose the medium in the main line and to prevent it flowing back into the pressure line
- Pressure loading and relief valves – to increase dosing accuracy or to protect the system against too high a pressure
- Pulsation dampener – to damp supply currents as well as to reduce the flow resistance in long pipelines.
- Priming aids – to significantly ease priming of dosing pumps with low supply volumes per stroke, for large suction heights, for highly-viscous dosing media or for initial priming or when priming after the system has been laying idle
- Suction pressure regulator – to prevent medium flow when the dosing pump is not running or to prevent a vacuum being formed in the event of a pipe burst

Size	4-20	35-60	80, 150	110, 160
A	4.96	5.87	9.80	9.80
B	4.57	4.78	5.24	6.30
C	10.87	11.14	12.09	12.80
D	16.22	16.22	16.22	16.93
E	3.90			4.21
L	Depends on the connection type and size			

Size	210-260	310-400	510-1010
A	10.55	12.30	13.86
B	6.69	6.89	7.28 (6.83*)
C	13.19	13.39	14.37 (13.33*)
D	16.93	16.93	18.11
E	4.21		
L	Depends on the connection type and size		

* with dosing head of stainless steel
All dimensions in inches

For further accessories for your dosing pump, please refer to our dosing pump brochure.

Lutz-JESCO America Corp. 55 Bermar Park Rochester, NY 14624 USA Phone: 585-426-0990 Fax: 585-426-4025 E-Mail:mail@jescoamerica.com http://www.lutzjescoamerica.com Toll Free: 1-800-554-2762

General Description

The design of the 2300 Series mechanically actuated diaphragm metering pump is compact, modular, and state-of-the-art. Simplex and duplex models are available. The rugged design makes this pump ideal for most municipal or industrial water treatment chemical applications.

This pump has a metering head designed with a separation chamber behind the diaphragm that protects the body of the pump should the diaphragm rupture or crack due to wear. Any leakage will drain harmlessly back to the tank or an alternate location. Escaping leakage may be detected by a probe, which can be used to shut off the pump or send an alarm.

Performance

Nine different models are available, offering maximum capacities from 17 to 310 gph and a maximum pressure rating of 150 psig.

The drive consists of a single stage reduction worm gear and is lubricated for long life. It includes a 120 VAC single-phase or 230/460 VAC 3-phase TE or XP motor.

The stroke length may be either manually or automatically adjusted from 0-100%. The 2300 Series is designed with low stroking speeds for long term reliability.

Materials of Construction

The 2300 Series can be supplied with 316 Stainless Steel and Polypropylene wetted ends. All diaphragms are PTFE-coated EPDM for severe chemical duty applications. Models 2310-2360 are supplied with double ball type check valves on both the suction and discharge side. In these models, optional spring-loaded single ball checks are available for metering chemicals with higher viscosities. Models 2370-2390 are supplied with check valves of spring-loaded single poppet design. Cemented and NPT pipe connections are standard.

Features

- A micrometer stroke length adjustment allows for in-motion capacity control of 0-100%
- Power Supply - 120 VAC single-phase or 230/460 VAC 3-phase TE or XP motor
- All internal mechanics are oil lubricated

Options

- Electronic Capacity Adjustment (ECA) to control pump stroke length in response to a 4-20 mA signal
- Automatic AC or DC motor speed control by analog input signal
- Double diaphragm system protects environment and pump components in case of diaphragm failure
- Injection nozzles and foot valves
- Wall Bracket
- Splash Guards

Applications

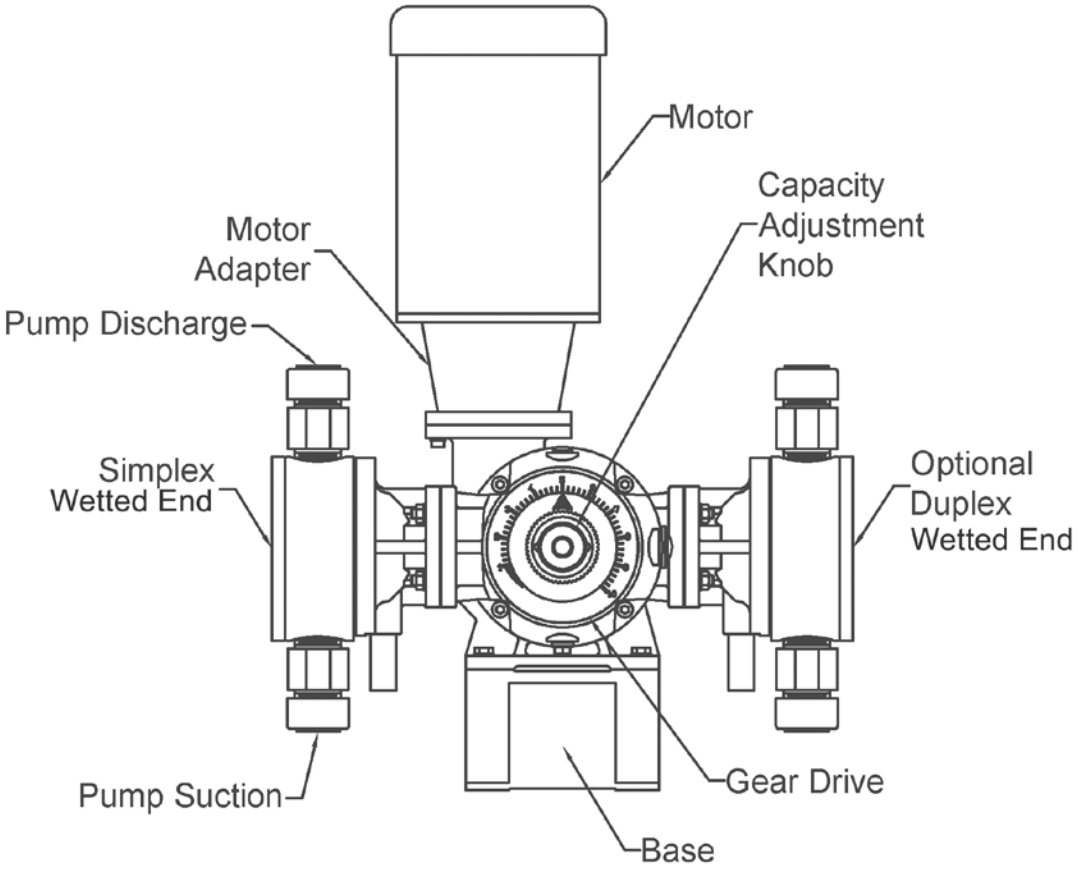
- Municipal water and wastewater treatment
- Industrial chemical applications

Lutz-JESCO America Corp.

Mechanical Metering Pumps - 2300 Series

Technical Data

Model			2311	2321	2331	2341	2351	2361	2371	2381	2391
Capacity per head @ maximum pressure		gph	17	28	43	51	76	92	139	203	310
Maximum pressure		psig	150						75		60
Stroke frequency		SPM	58	86	124	86	124		58	86	124
Diaphragm diameter		in	3.50			4.70		5.90	7.30		
Suction lift		ft H_2O	9						6		
Motor		Hp	1/2				3/4	1	3/4	1	
Max. temperature of process fluid		^{0}F	PP: 120^0, 316SS: 175^0								
Weight (including motor)	Simplex	lbs.	62			66			84		
Plastic Head	Duplex	lbs.	84			88			110		
Weight (including motor)	Simplex	lbs.	75			95			106		
316SS Head	Duplex	lbs.	106			117			132		



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