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MECHANICAL DIAPHRAGM METERING PUMPS

Motor UNEL-MEC:

Motor UNEL-MEC standard 3 phase, 50/60Hz. Single phase and ATEX options available. Permits standardization and quick std motor availability on site.

Aluminum anodized casing:

Improved corrosion resistance against aggressive fumes. Extends pump life and lowers life-cycle cost.

Spring return mechanism with oversized bearing.

Extends pump life and lowers life-cycle cost.

Large number of pumphead locking screw (12 pcs in large models).

Reliable and effective sealing during operations.

3pcs threaded connector (PP models), Metric or Inch standard:

BSP or NPT thread allows easy and simple connection to pipeline. Reduces cost and time of installation and maintenance.

Models with flowrate up to 50 l/h double valve standard, optional on request until 155 l/h (Ø108mm):

Increased accuracy when operating at low flow. Enhance application flexibility.



STURDIER

NEW DESIGN

ATEX



ALL models comply to ATEX (2014/34/CE) Group II, Category 3 (zone 2/22).

Injection molded PVDF pumphead:

PVDF pumphead:
Combination of PVDF pumphead, PTFE seats and PYREX check valves provides broad chemical compatibility. Permits standardization on single pump for multiple liquids and applications.



Individual gearbox reducer for each pumphead:
Now you can have pumpheads with different S.P.M.
Enhances application flexibility.

Individual adjustment for each pumphead:
Manual adjustment standard via graduate knob or electric actuator as optional available.
Enhances application flexibility.

Multiple unit:
All possible combination until 10 pumpheads



Multi headed option
(limit according pump size):
- different materials
(metallic and Non metallic)
- different duty points
(max flow rates and pressure)
Enhances application flexibility.

PTFE coated cast iron diaphragm chamber (large models):
Increased resistance in case of liquid spillage to reduce maintenance cost.
Extends pump life and lowers life-cycle cost.

NEW DESIGN

ENHANCED FLEXIBILITY

ATEX



ALL models comply to ATEX
(2014/34/CE) Group II,
Category 3 (zone 2/22).

Duplex unit with manifolds:
To have flowrate up to 1.042 l/h



► Technical data

Ø DIAPH./ STROKE	50 Hz			60 Hz			MAX PRESS. bar	
	TYPE	STROKES / 1	MAX FLOW RATE l/h	TYPE	STROKES / 1	MAX FLOW RATE l/h	3ph	1ph
2 94	M 7	25	7	M 9	30	9	12	12
	M 11	36	11	M 14	43	14		
	M 16	50	16	M 19	60	19		
	M 23	70	23				10	10
	M 31	95	31	M 28	84	28		
	M 37	115	37	M 36	114	36		
4 108	M 50	155	50	M 45	138	45	10	10
	M 35	36	35	M 42	43	42		
	M 49	50	49	M 58	60	58		
	M 75	70	75	M 90	84	90	10	10
	M 101	95	101					
	M 120	115	120	M 118	114	118		
6 138	M 155	155	155	M 145	138	145	8	8
	M 102	36	100	M 119	43	120		
	M 131	50	132					
	M 201	70	197	M 158	60	158	7	7
	M 261	95	260	M 236	84	236		
	M 321	115	320	M 312	114	312		
6 165	M 421	155	420	M 384	138	384	6	6
	M 150	36	150	M 180	43	165	5	5
	M 190	50	200	M 228	60	228		
	M 301	70	300	M 360	84	350		
	M 431	95	435	M 519	114	515	5	4
	M 521	115	520					

► Material of construction

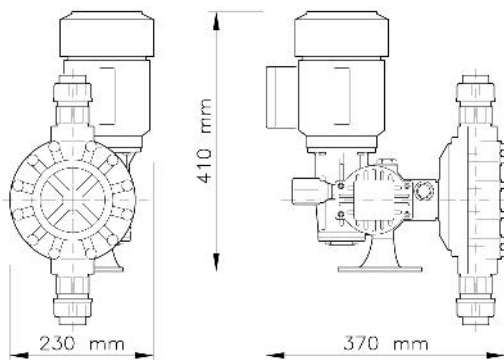
COMPONENTS	A	PP	PP11	PP32	S562
PUMP HEAD	AISI-316L	PP	PP	PP	PVDF
DIAPHRAGM	PTFE	PTFE	PTFE	PTFE	PTFE
VALVE GUIDE	PP	PP	PP	PP	PVDF
VALVE SEAT	AISI-316L	PVC	AISI-316L	INCOLOY-825	PTFE
VALVE (BALL)	AISI-316L	PYREX	AISI-316L	HASTELLOY C-276	PYREX
VALVE HOUSING	AISI-316L	PP	PP	PP	PVDF
VALVE SEAL	FPM	FPM	FPM	FPM	PTFE
FLANGE	AISI-316L	PVC	PVC	PVC	PVDF

Identification code

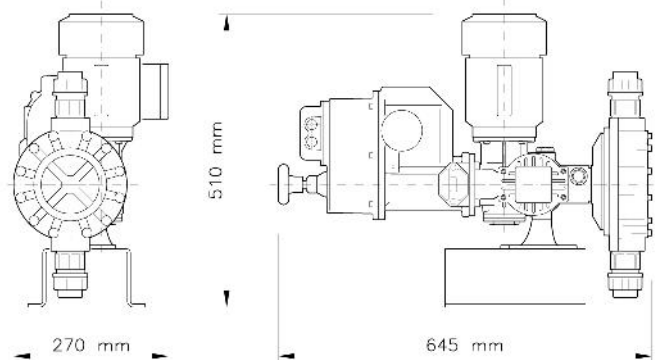
M 236 PP DV FA ZC	
M	PUMP TYPE
236	MAX FLOWRATE l/h
PP	PUMPHEAD EXECUTION
...A...	AISI-316L
...PP...	POLIPROPILENE (PP)
...PP11...	PP + AISI-316L VALVES & SEATS
...PP32...	PP + INCOLOY-825 VALVES & HASTELLOY C-276 SEATS
...S562...	PP + PTFE VALVES & PYREX SEATS
DV	VALVES EXECUTION
...SV...	SINGLE VALVE
...DV...	DOUBLE VALVE
FA	CONNECTIONS
...B...	THREADED BSP f
...N...	THREADED NPT f
...F...	FLANGED UNI-DIN
...FA...	FLANGED ANSI
ZC	ADJUSTMENT
“...”	GRADUATE KNOB AND VERNIER
...W...	PNEUMATIC ACTUATOR
...Z...	ELECTRIC ACTUATOR

Overall dimensions

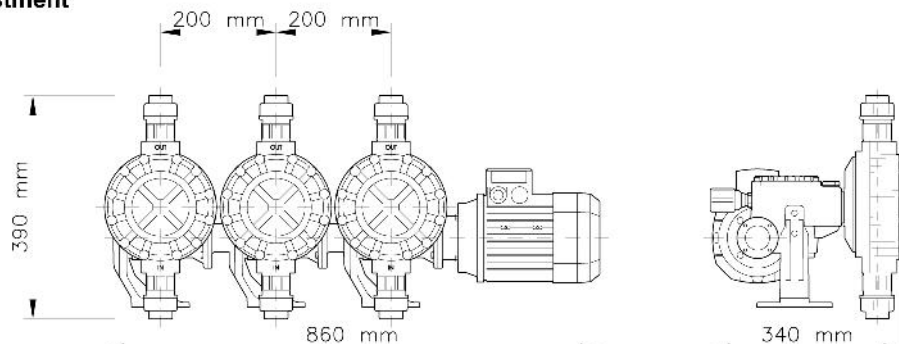
SINGLE PUMP - Manual Adjustment



SINGLE PUMP - Electric Actuator Adjustment



MULTIPLE PUMP - Manual Adjustment



Motor UNEL-MEC:

Motor UNEL-MEC standard 3 phase, 50/60Hz.

Single phase and ATEX options available.

Permits standardization and quick std motor availability on site.

Aluminum anodized casing:

Improved corrosion resistance against aggressive fumes.

Extends pump life and lowers life-cycle cost.

Transparent covers and protection comply to EC directive.

Spring return mechanism with oversized bearing.

Extends pump life and lowers life-cycle cost.

STURDIER

NEW DESIGN

ATEX

ALL models comply to ATEX (2014/34/CE) Group II, Category 2 (zone 1/21) and Group II, Category 3 (zone 2/22).



Models with flowrate up to 18 l/h double valve standard, optional on request untill 150 l/h (Ø43mm):

Increased accuracy when operating at low flow.

Enhance application flexibility.

**Individual adjustment
for each pumphead:**

Manual adjustment standard via
graduate knob or electric actuator
as optional available.

Enhances application flexibility.

Multiple unit:

All possible combination
until 10 pumpheads



**Individual gearbox reducer
for each pumphead:**

Now you can have pumpheads
with different S.P.M.

Enhances application flexibility.



**Multi headed option
(limit according pump size):**
- different materials
(metallic and Non metallic)
- different duty points
(max flow rates and pressure)
Enhances application flexibility.

PTFE coated cast iron yoke:

Increased resistance in case of liquid
spillage to reduce maintenance cost.

**Extends pump life and lowers
life-cycle cost.**

NEW DESIGN

ENHANCED FLEXIBILITY

ATEX



ALL models comply to ATEX (2014/34/CE)
Group II, Category 2 (zone 1/21) and Group II,
Category 3 (zone 2/22).

**Duplex unit with
manifolds:**

To to have flowrate
up to 600 l/h



Technical data

TYPE	50 Hz		60 Hz		PUMPHEAD WITH GLAND NUT								PUMPHEAD WITHOUT GLAND NUT				MOTOR kW											
	STROKES / 1	MAX FLOW RATE l/h	STROKES / 1	MAX FLOW RATE l/h	MAX PRESS. bar			CONNECTIONS				MAX PRESS. bar		THREADED CONNECTIONS														
								THREADED		FLANGED																		
					A	A-TL	P	A/A-TL	P	A/A-TL	P	A	P	A	P	3ph			1ph									
R 6	50	0,8	43	0,7	/	40	10 ●	1/4" BSP f	1/4" BSP f DIRECT CONNECT. (NO RING NUT)	DN 15 - 1/2" ANSI	DN 15 - 1/2" ANSI	/	/	/	0,25 kW NO TL	0,25 kW NO TL												
	70	1,2	60	1								/	/	/			/											
	95	1,8	84	1,5																								
	115	2,2	114	2,2																								
R 10	36	2	30	1,6	10	40	10 ●	1/4" BSP f	1/4" BSP f DIRECT CONNECT. (NO RING NUT)			DN 15 - 1/2" ANSI	DN 15 - 1/2" ANSI	/	/		/	/										
	50	3	43	2,5	10	40	10																					
	70	4	60	3,4																								
	95	5,5	84	4,8																								
115	7	114	7																									
R 16	36	5	43	6	10	40	10	3/8" BSP f	3/8" BSP f					DN 15 - 1/2" ANSI	DN 15 - 1/2" ANSI		10	10	3/8" BSP f	3/8" BSP f								
	50	7	60	9,5																								
	70	11	84	13																								
	95	15	114	18																								
R 25	36	15	43	16	10	40	10	3/8" BSP f	3/8" BSP f								DN 15 - 1/2" ANSI	DN 15 - 1/2" ANSI	10	10	3/8" BSP f	3/8" BSP f						
	50	20	60	24																								
	70	30	84	33																								
	95	38	114	45																								
R 30	36	20	43	24	10	40	10	3/8" BSP f	3/8" BSP f										DN 15 - 1/2" ANSI	DN 15 - 1/2" ANSI	10	10	3/8" BSP f	3/8" BSP f				
	50	30	60	34																								
	70	40	84	48																								
	95	55	114	65																								
R 43	36	40	43	50	10	12	10	1/2" BSP f	1/2" BSP f												DN 15 - 1/2" ANSI	DN 15 - 1/2" ANSI	10	10	1/2" BSP f	1/2" BSP f		
	50	55	60	78																								
	70	90	84	100																								
	95	115	114	150																								
R 50	36	58	43	70	10	/	10	1/2" BSP f	1/2" BSP f														DN 15 - 1/2" ANSI	DN 15 - 1/2" ANSI	10	10	1/2" BSP f	1/2" BSP f
	50	80	60	102	10		10																		10	10		
	70	120	84	140	9		9																		9	9		
	95	160	114	200	8		8			8	8																	
R 62 ◆	36	90	43	105	10	/	10	3/4" BSP f	3/4" BSP f	DN 20 - 3/4" ANSI	DN 20 - 3/4" ANSI					8									8	1/2" BSP f	1/2" BSP f	
	50	125	60	152	10		10									10									10			
	70	175	84	205	8		8									8									8			
	95	250	114	300	6		6					6	6															
115	300			5	5	5	5																					

Material of construction

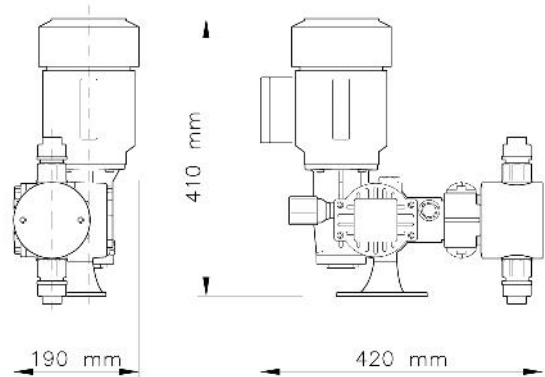
PUMPHEAD WITH GLAND NUT					
COMPONENTS	A	A-TL	P	P11	AC
PUMP HEAD	AISI-316L	AISI-316L	PVC	PVC	AISI-316L
PLUNGER	AISI-316L	AISI-316L	CERAMIC	CERAMIC	CERAMIC
PLUNGER PACKING	PTFE	PTFE	PTFE	PTFE	PTFE
VALVE GUIDE	PP/AISI-316L	AISI-316L	PP	PP	AISI-316L
VALVE SEAT	AISI-316L	AISI-316L	● CERAMIC/PVC	AISI-316L	AISI-316L
VALVE (BALL)	AISI-316L	AISI-316L	● CERAMIC/PVC	AISI-316L	AISI-316L
VALVE SEAL	FPM	FPM	FPM	FPM	FPM

► Identification code

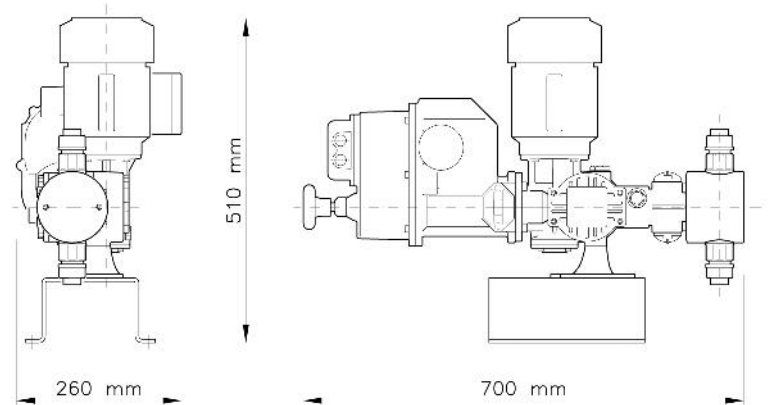
R 16 A 70 DV TL FA ZC	
R	PUMP TYPE
16	PLUNGER DIAMETER
A	PUMPHEAD EXECUTION
	...A... AISI-316L
	...P... PVC
70	PLUNGER STROKER PER MINUTE
DV	VALVES EXECUTION
	...SV... SINGLE VALVE
	...DV... DOUBLE VALVE
TL	PUMPHEAD VERSION
	“...” WORKING PRESSURE UP TO 10 bar
	...TL... WORKING PRESSURE UP TO 10÷40 bar
	...TS... WORKING PRESSURE UP TO 40÷100 bar
	...RF... FRONTAL HEATING JACKET
FA	CONNECTIONS
	...B... THREADED BSP f
	...N... THREADED NPT f
	...F... FLANGED UNI-DIN
	...FA... FLANGED ANSI
ZC	ADJUSTMENT
	“...” GRADUATE KNOB AND VERNIER
	...W... PNEUMATIC ACTUATOR
	...Z... ELECTRIC ACTUATOR

► Overall dimensions

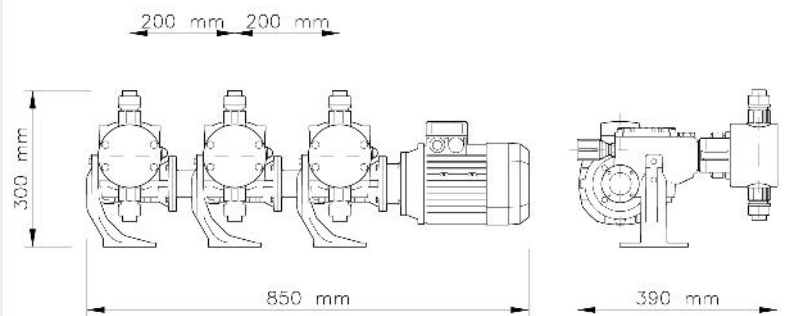
SINGLE PUMP - Manual Adjustment



SINGLE PUMP - Electric Actuator Adjustment



MULTIPLE PUMP - Manual Adjustment



PUMPHEAD WITHOUT GLAND NUT

COMPONENTS	PAE	PCF	PCV	AAF	AAE	ACE	ACV	ACF
PUMP HEAD	PVC	PVC	PVC	AISI-316L	AISI-316L	AISI-316L	AISI-316L	AISI-316L
PLUNGER	AISI-316L	CERAMIC	CERAMIC	AISI-316L	AISI-316L	CERAMIC	CERAMIC	CERAMIC
PLUNGER PACKING	EPDM	FPM	VULKOL.	FPM	EPDM	EPDM	VULKOL.	FPM
VALVE GUIDE	PP	PP	PP	PP	PP	I		
VALVE SEAT	AISI-316L	PVC	AISI-316L	AISI-316L	AISI-316L	AISI		
VALVE (BALL)	AISI-316L	PYREX	AISI-316L	AISI-316L	AISI-316L	AISI		
VALVE SEAL	FPM	FPM	FPM	FPM	FPM	F		

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