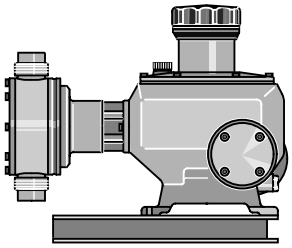
ProMinent® Makro TZ Diaphragm Metering Pumps

Overview: Makro TZ

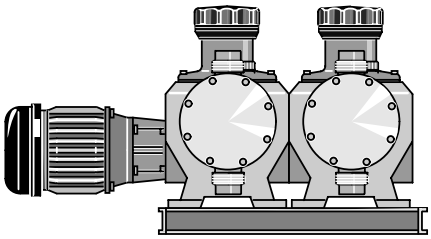


Ideal for high volume and high pressure applications

(see page 141 for spare parts)

The ProMinent® Makro TZMb is a mechanically or hydraulically actuated motor driven diaphragm metering pump.

The stroke length can be adjusted by means of the shift ring mechanism from 0-10 mm (TZMb), with 0.5 % accuracy. The 5-speed gearbox is encased in a cast, seawater resistant, acrylic resin lacquered housing. Liquid ends are available in different material combinations to suit differing applications. The suction lift varies according to the density and viscosity of the medium, the dimension of the pipework and the pump stroke rate. Reproducibility of metering is better than ±2 % in the stroke length range from 30 % -100 % subject to defined conditions and correct installation. (You must follow the instructions in the operating instruction manual).



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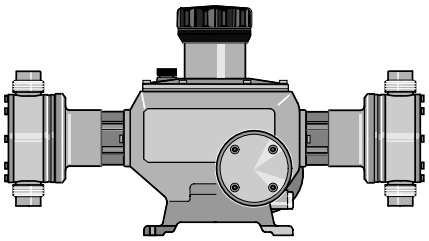
ProMinent® Makro TZ TZMbA Add-On Pumps

The ProMinent® Makro TZ main diaphragm metering pump can be converted to a duplex or triplex pump with the ProMinent® Makro TZ add-on diaphragm pump (several add-on pumps can be operated at reduced back pressure). Multiplex pumps can also be retrofitted by the operator; all the necessary components and fittings are included with the TZMbA. Different stroke rates can be achieved with the add-on pump independently of the main pump as each TZMbA has its own reducing gear. The main power end can be fitted for this purpose with a more powerful drive motor. A base frame is required when using add-on power ends.



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ProMinent® Makro TZ Double Head Version TZMbD/TZMbB

The double head version of the ProMinent® Makro TZ is similar to the simplex pump. It is, however, fitted with a second liquid end.

The liquid ends work in push-pull mode by means of a coupling element in the gearbox.

ProMinent® Makro TZ Diaphragm Metering Pumps

Identcode Ordering System (TZMb)

TZMb	Drive Type:												
	H	Main Drive											
		Pump Type:											
		120260	82 gph, 174 psi			070720	228 gph, 100 psi						
		120340	108 gph, 174 psi			070860	272 gph, 100 psi						
		120430	136 gph, 174 psi			040840	266 gph, 58 psi						
		120510	162 gph, 174 psi			041100	348 gph, 58 psi						
		070430	136 gph, 100 psi			041400	443 gph, 58 psi						
		070570	180 gph, 100 psi			041670	529 gph, 58 psi						
			Liquid end material:										
			PC	PVC									
			PP	Polypropylene									
			SS	Stainless Steel									
			TT	PTFE + 25% carbon									
				Seal material:									
				T	PTFE								
					Positive displacement element:								
					1	Standard composit diaphragm with rupture indicator							
						Liquid end version:							
						0	No valve springs						
						1	With valve springs						
							Hydraulic connection:						
							0	Standard connection	3	PVDF union nut and insert			
							1	PVC union nut and insert	4	SS union nut and insert			
							2	PP union nut and insert					
								Versions:					
								0	with ProMinent® logo				
									Electrical power supply:				
									0	add-on drive unit without electrical connection			
									4	No motor, with 56 C flange			
										Enclosure rating:			
										0	IP 55 (Standard) ISO class F		
											Stroke sensor:		
											0	No stroke sensor	
											1	With stoke sensor (Namur)	
												Stroke length adjustment:	
												0	0 Stroke length adjustment, man.
												1	230 V stroke actuator
												2	115 V stroke actuator
												3	230 V 0-20 mA stroke controller
												4	230 V 4-20 mA stroke controller
												5	115 V 0-20 mA stroke controller
												6	115 V 4-20 mA stroke controller
													Applications
													0 Standard
TZMb	**H**	**120260**	**PC**	**T**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

ProMinent® Makro TZ Diaphragm Metering Pumps

Capacity Data (TZMbH)

	with 1800 rpm motor at 60 Hz Pump Capacity at Max. backpressure					Max. Stroke Frequency	- Suction Lift	Connection Suction Discharge Side	Shipping Weight PP, PC/TT,SS
Pump type TZMbH	**gph**	**l/h**	**psi**	**bar**	**ml/ stroke**	**strokes/ min.**	**ft (m)**	**in (DN)**	**lb (kg)**
120260	82	312	174	12	60	86	13.1 (4)	1 1/2 (25)	102/119 (46/54)
120340	108	408	174	12	60	115	13.1 (4)	1 1/2 (25)	102/119 (46/54)
120430	136	516	174	12	60	144	13.1 (4)	1 1/2 (25)	102/119 (46/54)
120510	162	612	174	12	60	173	13.1 (4)	1 1/2 (25)	102/119 (46/54)
120650	–	–	174	12	60	–	13.1 (4)	1 1/2 (25)	102/119 (46/54)
070430	136	516	100	7	99	86	11.5 (3.5)	2 (32)	110/141 (50/64)
070570	180	684	100	7	99	115	11.5 (3.5)	2 (32)	110/141 (50/64)
070720	228	864	100	7	99	144	11.5 (3.5)	2 (32)	110/141 (50/64)
070860	272	1032	100	7	99	173	11.5 (3.5)	2 (32)	110/141 (50/64)
071070	–	–	100	7	99	–	11.5 (3.5)	2 (32)	110/141 (50/64)
040840	266	1008	58	4	194	86	9.8 (3)	2 1/4 (40)	124/177 (56/80)
041100	348	1320	58	4	194	115	9.8 (3)	2 1/4 (40)	124/177 (56/80)
041400	443	1680	58	4	194	144	9.8 (3)	2 1/4 (40)	124/177 (56/80)
041670	529	2004	58	4	194	173	9.8 (3)	2 1/4 (40)	124/ 177 (56/80)
042100	-	-	58	4	194	-	9.8 (3)	2 1/4 (40)	124/177 (56/80)

Stroke length 10 mm

The admissible priming pressure on the suction side is 50 % of the maximum back pressure.

(Note: Capacities and suction lift refer to pumps tested on water at 115 VAC, 60 Hz, and an ambient temperature of 70*F (20*C). Higher specific gravity fluids will reduce suction lift. Capacities will be slightly reduced from published ratings if pumps are skid mounted).

Materials In Contact With Chemical In Version

			DN 25 Ball Valves		DN 32/DN 40 Plate Valves**			
	Pump Head	**Suction/ Discharge Connector**	**Seals**	**Valve Balls**	**Valve Seat**	**Seals**	**Valve Plate/ Valve Spring**	**Valve Seat**
PPT	Polypropylene	PVDF	PTFE	Ceramic	PTFE	PTFE	Ceramic/ Hast. C + CTFE**	PTFE
PCT	PVC	PVDF	PTFE	Ceramic	PTFE	PTFE	Ceramic/ Hast. C + CTFE**	PTFE
TTT	PTFE with carbon	PTFE with carbon	PTFE	Ceramic	PTFE	PTFE	Ceramic/ Hast. C + CTFE**	PTFE
SST	Stainless steel	Stainless steel	PTFE	Stainless steel	PTFE	PTFE	Stainless steel Hast. C + CTFE*	PTFE

Multi-layer safety diaphragm with PTFE coating.

** The valve spring is coated with CTFE (similar to PTFE)
Custom designs available to order.