

# DELLMECO<sup>®</sup>

AOD DIAPHRAGM PUMPS



**P.H.A.** sas

14 Z.A. LES PIBOULES  
84300 LES TAILLADES  
FRANCE  
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# Applications

FOOD, BEVERAGE  
AND PHARMACEUTICAL



CHEMICAL AND  
PETROCHEMICAL



PAINTS, RESINS  
AND INKS



OIL AND  
AUTOMOTIVE



SURFACE  
TREATMENT



CERAMIC



SEWAGE  
TREATMENT



DRY POWDER  
HANDLING



MINING AND  
CONSTRUCTION



PAPER  
INDUSTRY



## PUMP FEATURES

- Compact, solid design - low space required
- Pumps move everything from water to very viscous materials with solids
- Sealless - are environmentally friendly, no seals or packing to leak
- Safe in hazardous areas - air driven - non sparking
- Can run dry without damage
- Self-priming to over 8 meters
- Variable flow - simply regulate the inlet air supply to adjust the pump flow from zero to max flow
- Pump stalls if discharge is closed and restarts when discharge is opened (no heat build-up, or wear)
- Composite, long life diaphragms for heavy applications (no diaphragm discs). Is smooth and not interrupted by any seals whatever
- Operates without any lubrication
- Easy maintenance

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### SELF PRIMING APPLICATION

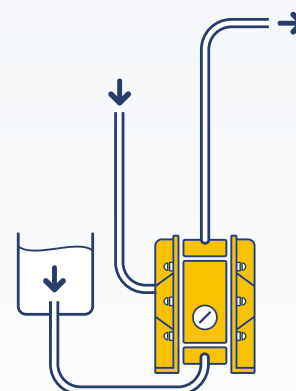
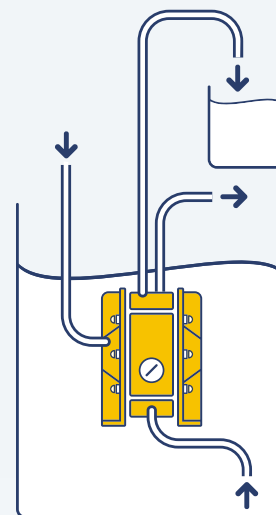
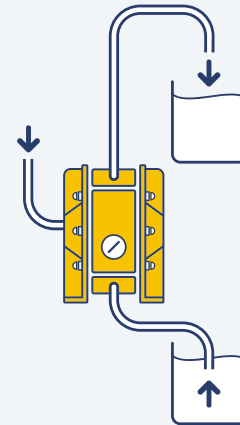
Pumps range in suction lift capability from 6 meters dry. 8 meters can be reached in a primed condition. Suction lift will vary according to materials of construction and application parameters. All data is based on pumping water at 20°C.

### SUBMERGED OPERATION

All pumps can operate in full submersion. Construction materials must be compatible with the surrounding liquid and the exhaust must be placed above the liquid level.

### POSITIVE SUCTION HEAD

Common as a method of drawing off the bottoms of holding tanks or clarifiers. Optimum inlet pressure should be kept at 0.5-0.6 bar.

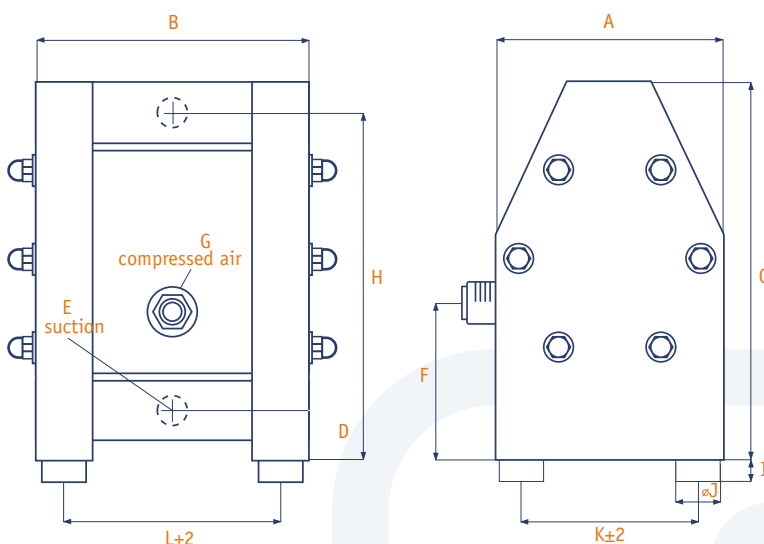


# Model DM

08/10, 10/25, 15/55, 25/125, 40/315, 50/565



## DIMENSIONAL DRAWING



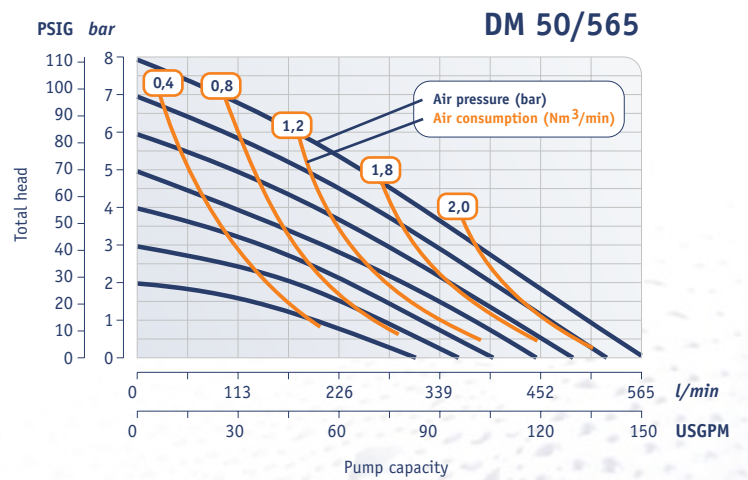
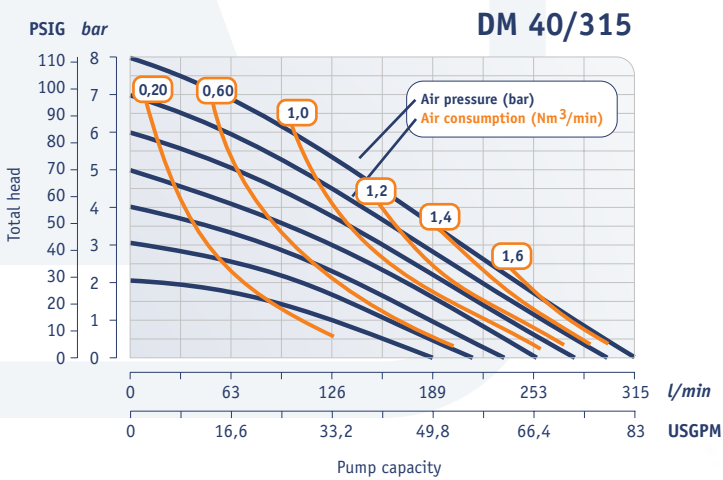
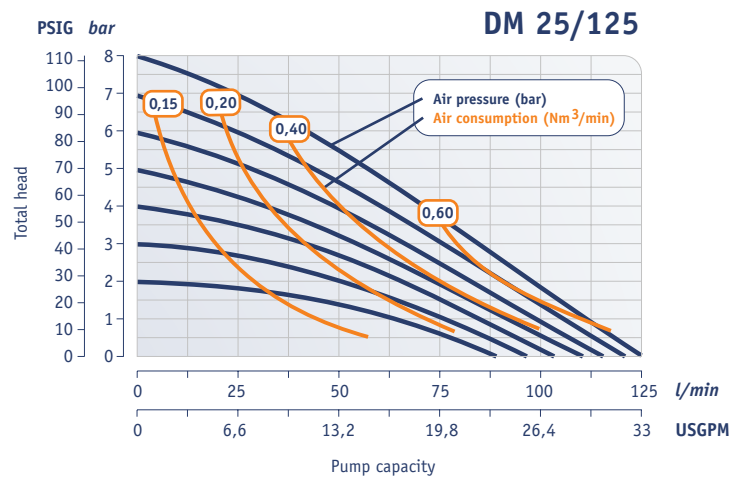
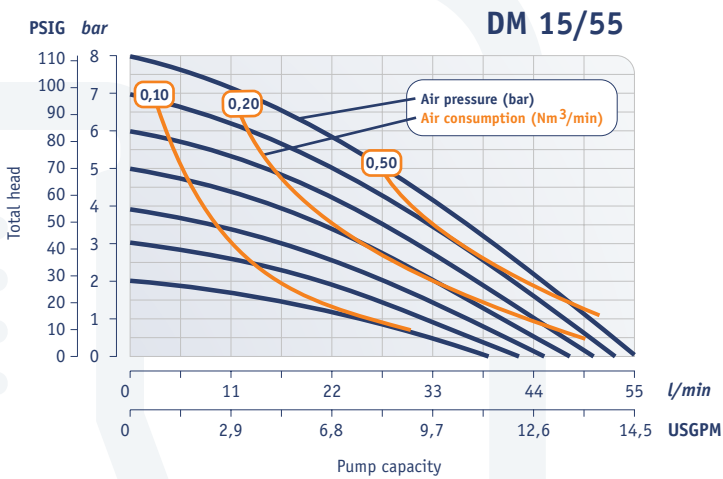
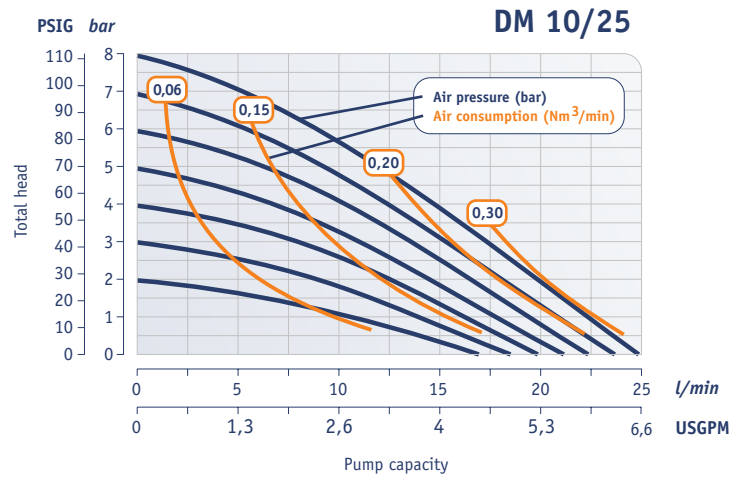
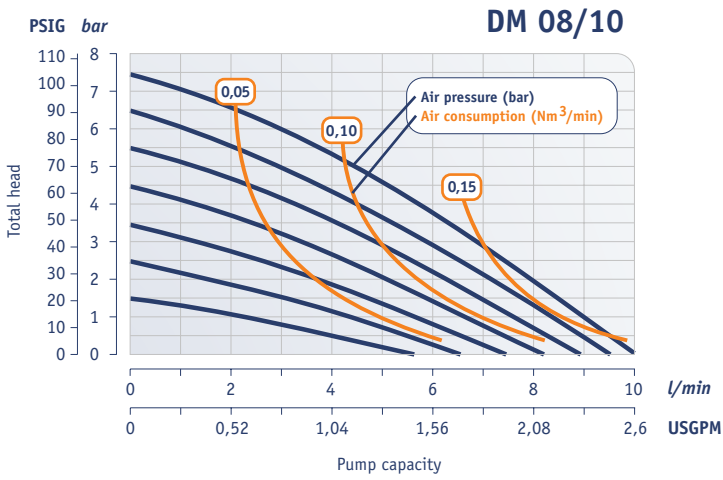
DIMENSIONS	A	B	C	D	E	F	G	H	I	∅J	K	L
DM 08/10	70	101	118	15	1/4"	58	R1/8"	107	10	15	50	78
DM 10/25	105	120	163	19	3/8"	78	R1/8"	150	10	15	75	89
DM 15/55	150	166	235	27	1/2"	152	R1/4"	217	18	30	112	126
DM 25/125	200	222	312	35	1"	207	R1/4"	287	18	30	140	161
DM 40/315	270	310	426	42	1 1/2"	206	R1/2"	388	28	40	210	220
DM 50/565	350	383	530	45	2"	266	R1/2"	485	28	40	280	273

## TECHNICAL DATA

	08/10	10/25	15/55	25/125	40/315	50/565
Max capacity (l/min)	10	25	55	125	315	565
Max pressure (bar)	8					
Nominal port size	1/4"	3/8"	1/2"	1"	1 1/2"	2"
Air connection	R 1/8"	R 1/8"	R 1/4"	R 1/4"	R 1/2"	R 1/2"
Suction lift dry (mWC)	1	2	3	4	4	5
Suction lift wet (mWC)	9					
Max diameter solids (mm)	2	3	4	7	10	12
Temperature limits - PE (°C)	70	70	70	70	70	70
Temperature limits - PTFE (°C)	110	110	120	120	120	120
Weight - PE (kg)	0.9	1.4	5	9	23	42
Weight - PTFE (kg)	1.4	2.4	7	16	43	87
Material of pump housing	PE, PE conductive, PTFE, PTFE conductive					
Diaphragm options	PTFE	NBR, EPDM or TFM/PTFE				
Valve balls	PTFE	NBR, EPDM, PTFE, AISI 316, PU			NBR, EPDM, PTFE, PU	
Rod valves	PE or PTFE					
O-rings	FEP/FPM, PTFE+EPDM, or PTFE+FPM					

The above figures represent EPDM-fitted pump capabilities. It can vary for PTFE-fitted diaphragm.



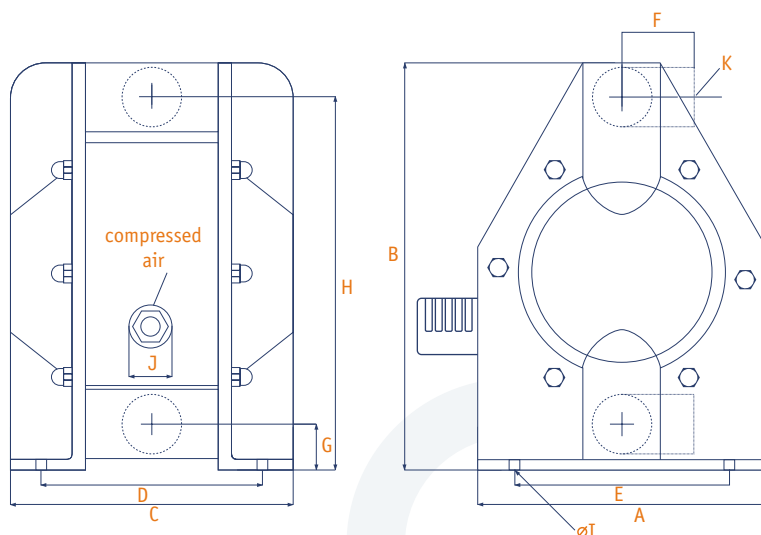


# Model DM

15/25, 20/75, 25/125, 40/315, 50/565



## DIMENSIONAL DRAWING



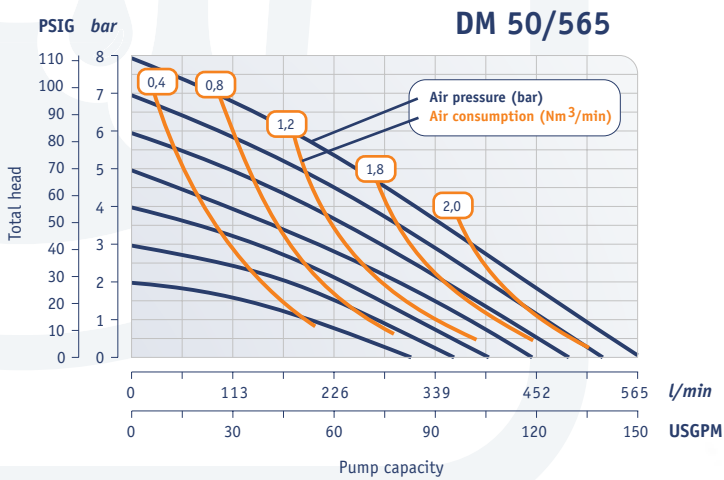
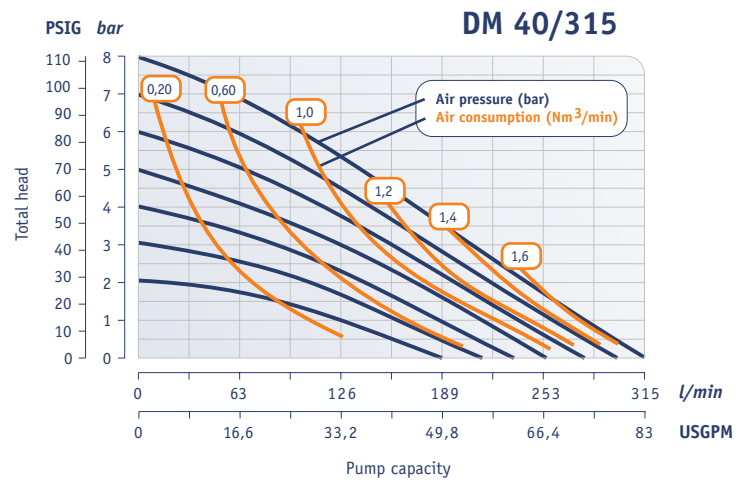
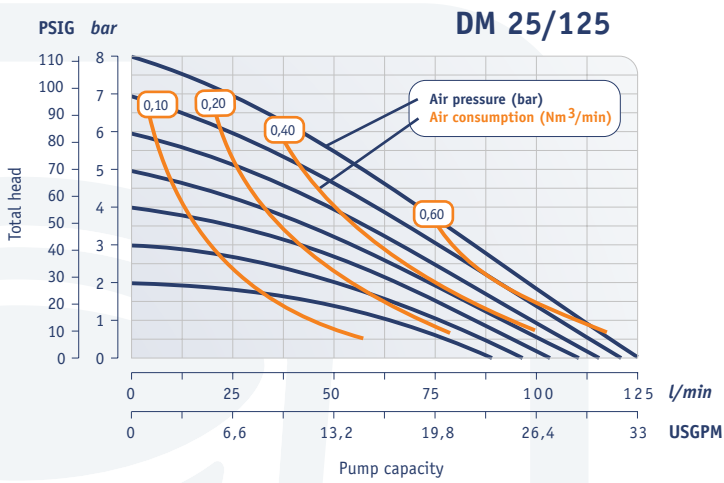
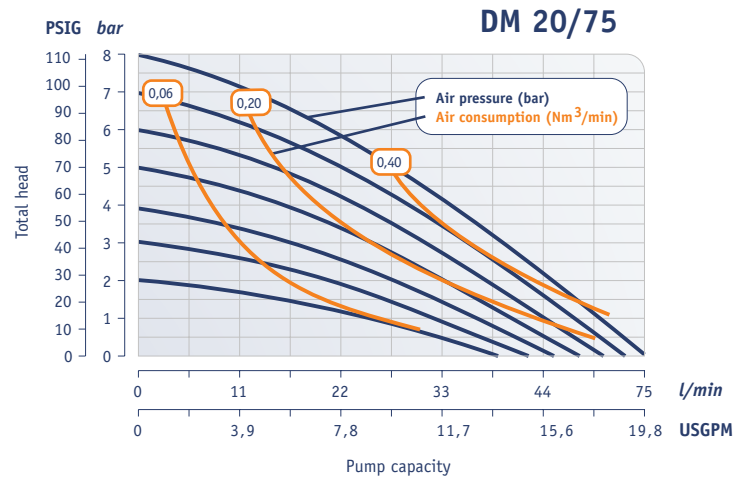
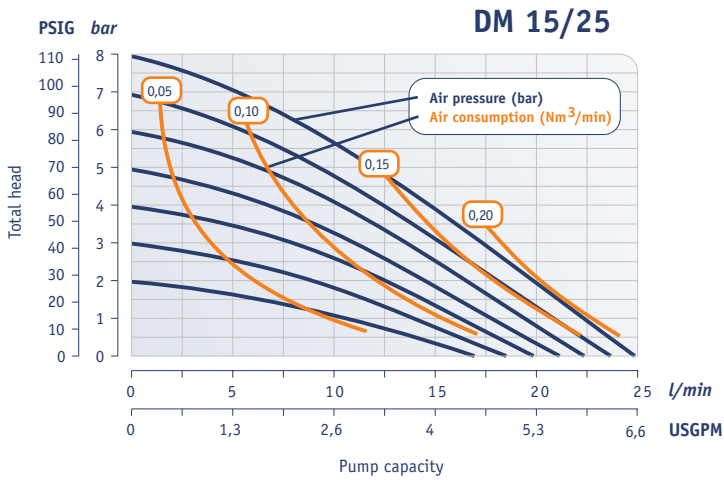
DIMENSIONS	A	B	C	D	E	F	G	H	øI	J	K
DM 15/25	105	160	123	95	84	20	15	147	6,5	1/8"	1/2"
DM 20/75	150	228	172	107	116	31	19	204	6,5	1/4"	3/4"
DM 25/125	200	302	201	163	160	34	27	279	8,5	1/4"	1"
DM 40/315	270	412	267	212	220	45	34	380	8,5	1/2"	1 1/2"
DM 50/315	350	535	347	283	280	58	46	495	8,5	1/2"	2"

## TECHNICAL DATA

	15/25	20/75	25/125	40/315	50/565
Max capacity (l/min)	25	75	125	315	565
Max pressure (bar)	8				
Nominal port size	1/2"	3/4"	1"	1 1/2"	2"
Air connection	R 1/8"	R 1/4"	R 1/4"	R 1/2"	R 1/2"
Suction lift dry (mWC)	2	3	4	4	5
Suction lift wet (mWC)	9				
Max diameter solids (mm)	3	4	7	10	12
Temperature limits - NBR, EPDM (°C)	80				
Temperature limits - PTFE (°C)	120				
Weight - PE (kg)	1.9	4.9	8	18	33
Material of pump housing	Aluminium, Aluminium coated with PTFE, AISI 316, cast iron				
Diaphragm options	NBR, EPDM or TFM/PTF				
Valve balls	NBR, EPDM, PTFE, AISI 316, PU			NBR, EPDM, PTFE, PU	
O-rings	NBR, EPDM, or PTFE				

The above figures represent EPDM-fitted pump capabilities. It can vary for PTFE-fitted diaphragm.



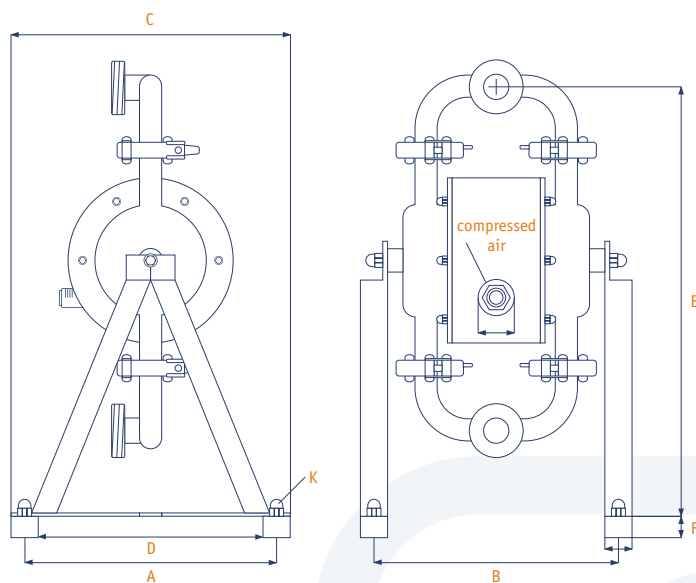


# Model 316L

25/75, 40/125, 50/315, 65/565



## DIMENSIONAL DRAWING



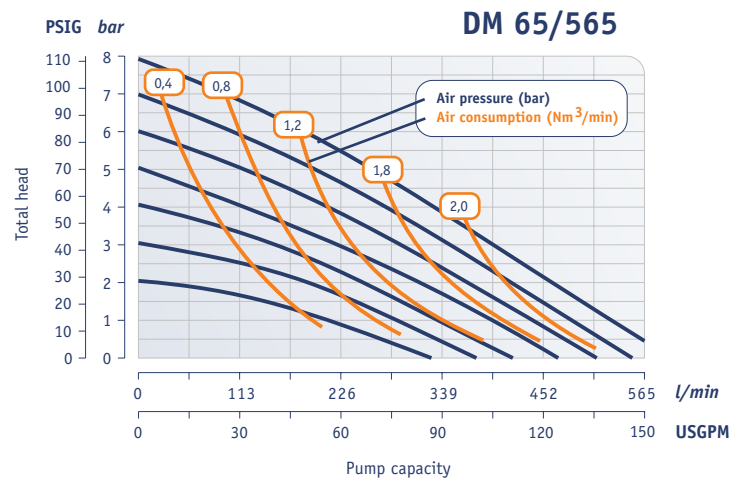
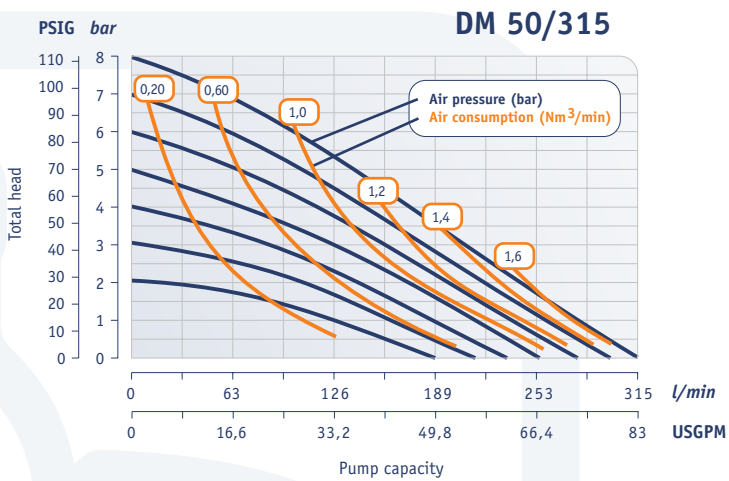
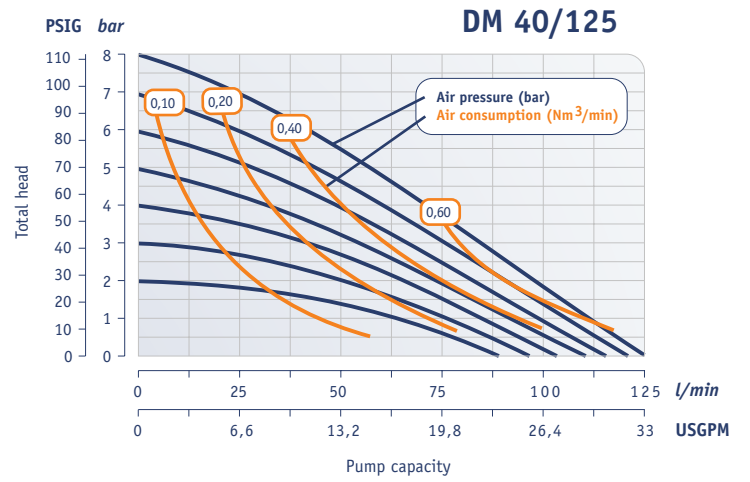
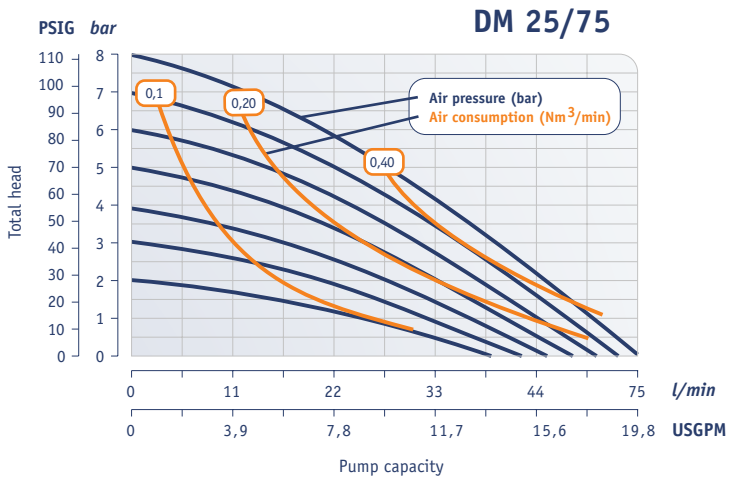
DIMENSIONS	A	B	C	D	E	F	øJ	øK
25/75	233	223	250	83	385	18	TC 1", DIN 25, SMS 25	8
40/125	230	240	260	85	445	18	TC 1 1/2", DIN 40, SMS 38	8
50/315	300	280	330	90	490	23	TC 2", DIN 50, SMS 51	8
65/565	370	320	400	95	550	23	TC 2 1/2", DIN 65, SMS 63,5	8

## TECHNICAL DATA

	25/75	40/125	50/315	65/565
Max capacity (l/min)	75	125	315	565
Max pressure (bar)	8			
Nominal port size	DN 25	DN 40	DN 50	DN 65
Optional connections	Tri-Clamp standard, DIN II 850, SMS			
Air connection	R 1/4"	R 1/4"	R 1/2"	R 1/2"
Suction lift dry (mWC)	3	4	4	5
Suction lift wet (mWC)	9			
Max diameter solids (mm)	5	8	11	14
Temperature limits - NBR, EPDM (°C)	80			
Temperature limits - PTFE (°C)	120			
Material of pump housing	AISI 316L			
Material of centre housing	PE, PE conductive			
Diaphragm options	NBR, EPDM or TFM/PTF			
Valve balls	NBR, EPDM, PTFE, AISI 316			
Gaskets	Silicone, PTFE, EPDM, NBR			

The above figures represent EPDM-fitted pump capabilities.  
It can vary for PTFE-fitted diaphragm.





# Other applications



## BARRIER CHAMBER

This barrier is installed between two diaphragms on both sides of the pump. In the chamber is placed a conductivity sensor which monitor the conductivity of a fluid between chambers. In the case of damage of any diaphragm, conductivity will change, which the sensor detects. We offer this solution, where safety is very important and possible leakage can be a problem.



## WHERE ATEX IS REQUIRED

The plastic pumps manufactured of conductive PE and PTFE are constructed to enable grounding of non-metallic pumps. This feature allows the pump to safely transfer solvents, alcohols and other volatile liquids without the danger of static electricity build-up. These features apply also to the aluminium and AISI 316 pumps.





## DRUM PUMPS

DELLMECO drum pumps are available in the following materials: PE, PTFE (also conductive), aluminium and AISI 316L for optimum fluid compatibility. They can work with liquids with different viscosities; available up to 1".

## OTHER OPTIONS

- Flange connections,
- Stroke counter (for counting strokes of diaphragms, for dosing, filling etc.)
- Diaphragm monitoring – inform the user about the failure of a diaphragm,
- Pulsation dampeners – for smoother flow. Through-flow dampeners for different applications. They are self-adjusting.
- Filter Press Pumps,
- Twin ported pumps - 2 in 1 out, 2 in 2 out, 1 in 2 out.

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