LANDVÉLAR

ARGAL

CHEMICAL PUMPS

BASIS RANGE
TMB SERIES

magnetic driven pumps

The pumps “TMB” belong to Argal’s BASIS range and feature, single stage, centrifugal impeller and magnetic drive.
The range of TMB pumps includes five models to deliver flows from 15 to 70 l/min.

EXCEPTIONAL CORROSION RESISTANCE

It is made entirely of thermoplastics with outstanding chemical and mechanical resistance namely glassfibre reinforced polypropylene (GFR/PP). Ceramics for the spindle, reinforced PTFE for the bearings and FKM for the OR gasket, are the materials used for the pieces in contact with the liquids pumped.

PRINCIPLE OF OPERATION:

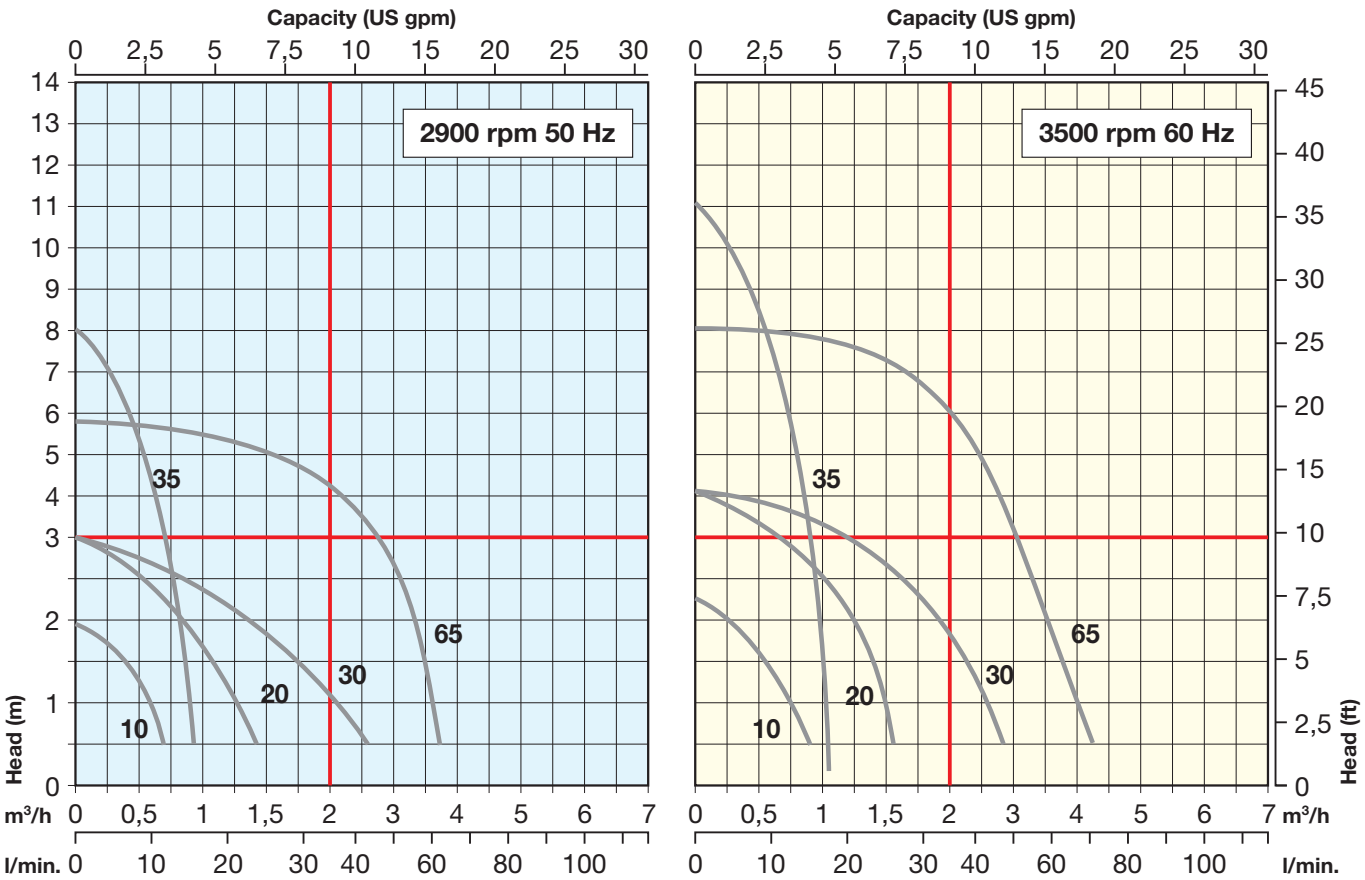
The drive magnet, outside the casing and keyed on the spindle, drives the magnetic impeller inside the hermetic casing. In this way, the traditional shaft seal and the consequent leakage problems are eliminated.
So there is no corrosion of the outer parts (motor and bearings) in the environment.
Compact dimension, low noise, absence of seal device make these pumps ideal for application in any place or plant and can be incorporated into sophisticate equipment or “clean” environment.

CONSTRUCTION

- The drive magnet assembly hauls ferrite magnets, revolves outside the rear casing and drives the impeller magnetically.
- The volute casing is a monolithic injection moulded part made of glass reinforced polypropylene with encapsulated front spindle bearing; the connections can be either hosed or screwed.
- The rear casing is made by the same process and the thermoplastic material of the front casing and hosts the rear spindle’s bearing.
- The coupled volute casing and rear casing realise the leakage proof casing of the pump.
- The polypropylene impeller features built in ceramic spindle and ferrite magnets.

TMB models	**10**	**20 - 30 - 35 - 65**
Execution	**WR**	**WR**
Internal structure	**N_1**	**N_1**
Volute casing	GFR - PP	GFR - PP
Rear casing		
Centrifugal impeller		
Guide bushing	–	GFR/PTFE
Spindle	CER	CER
Thrust bush	GFR/PTFE	CER
OR gasket	FKM	FKM
Screws	Stainless steel	Stainless steel

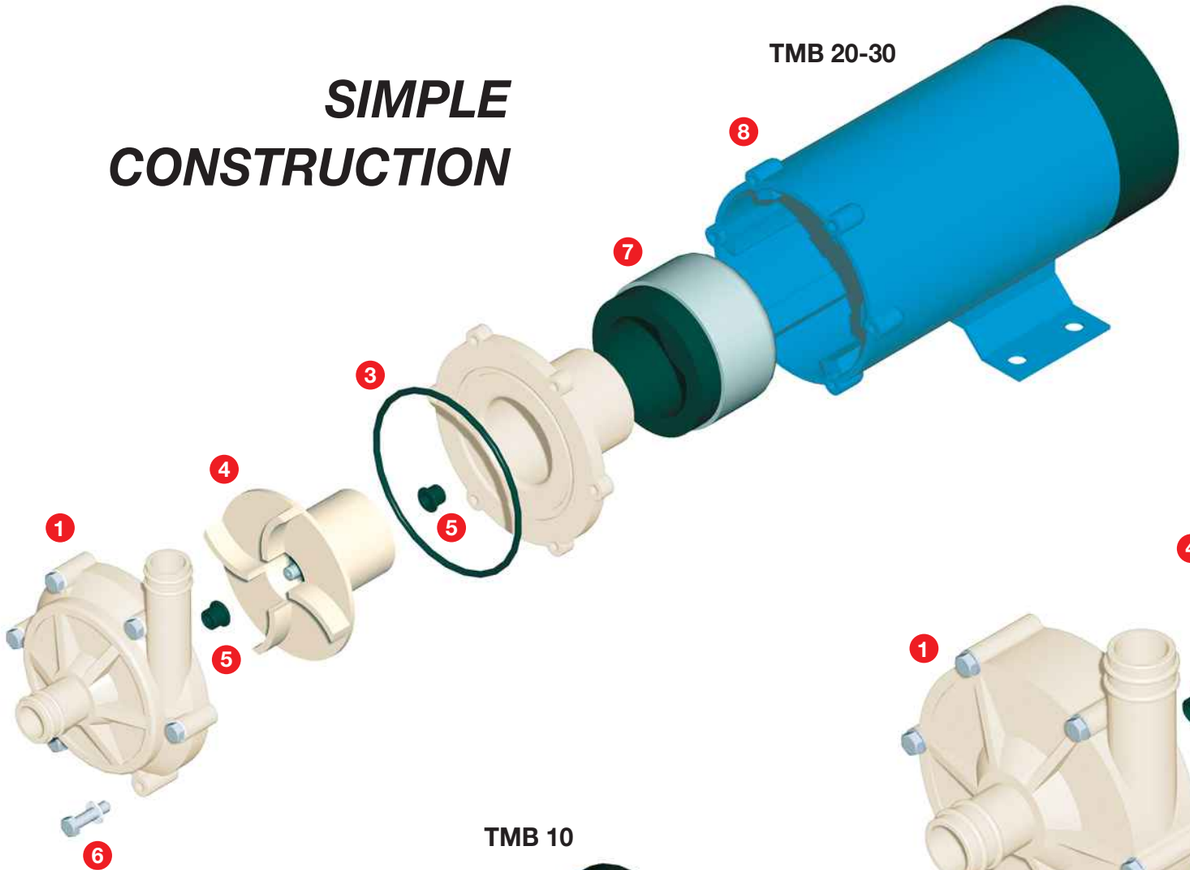
GENERAL PERFORMANCE CURVE



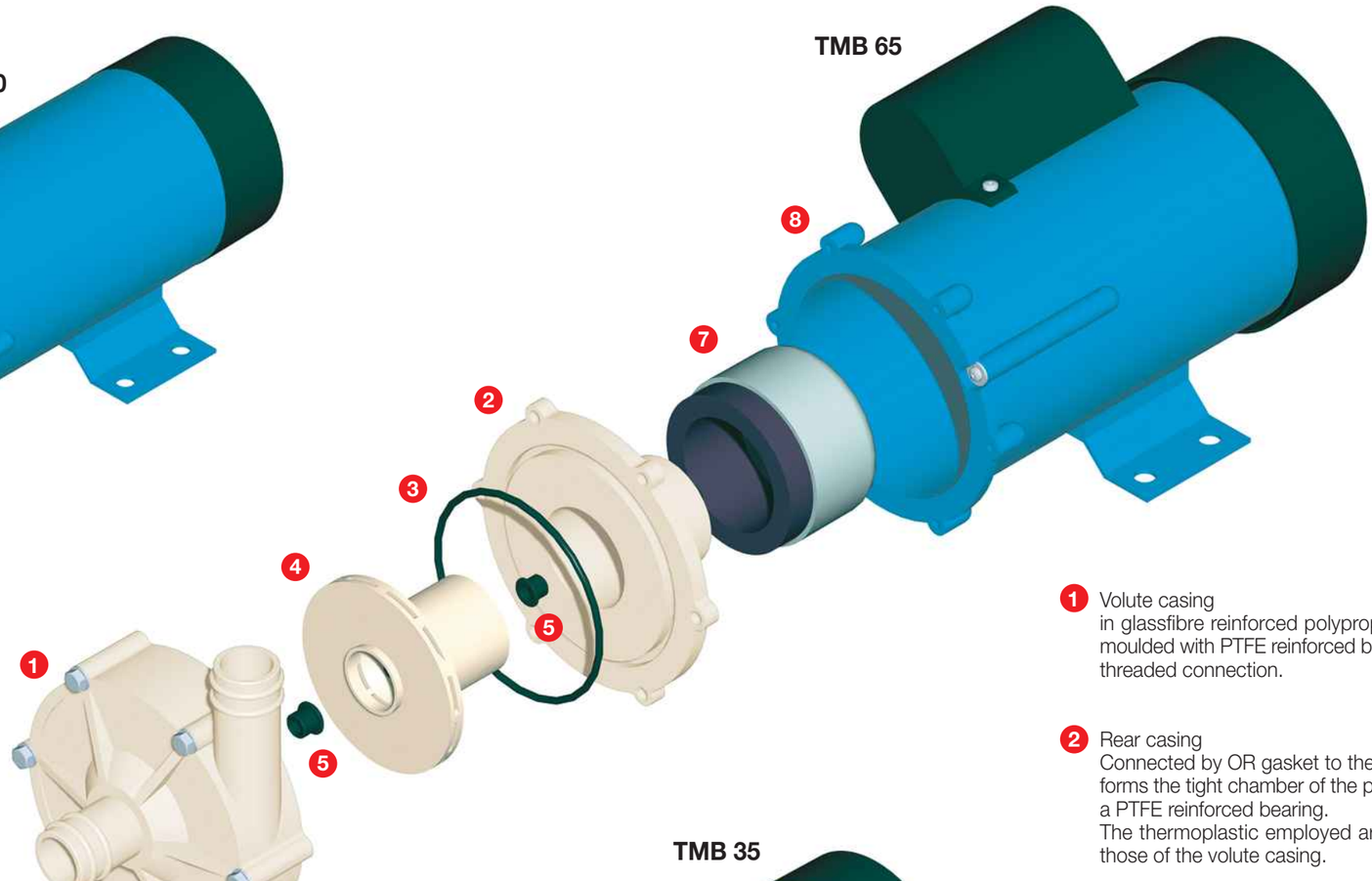
Curves referred to: water et 20 °C - viscosity 1 °E

SIMPLE CONSTRUCTION

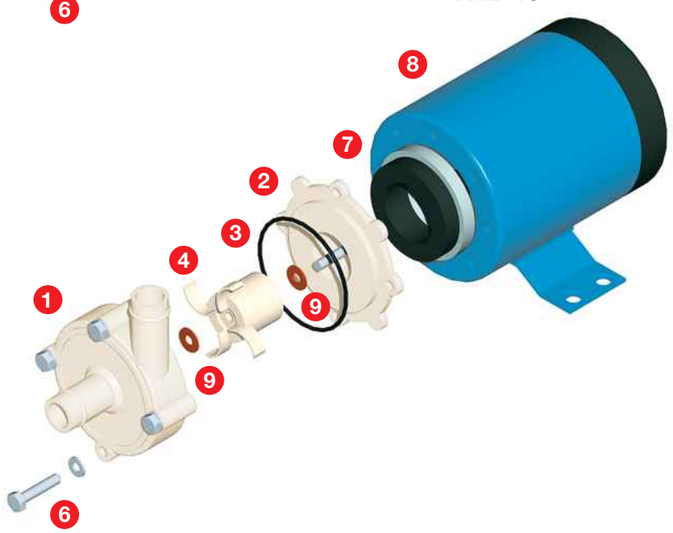
TMB 20-30



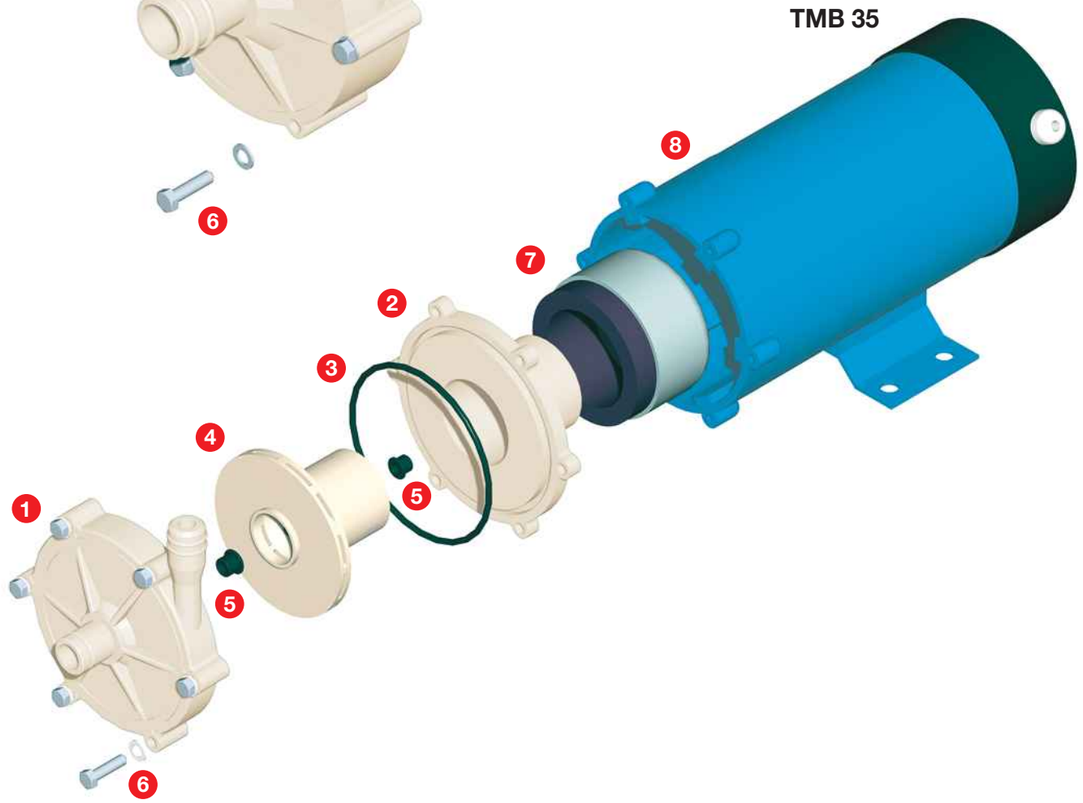
TMB 65



TMB 10



TMB 35



1 Volute casing
in glassfibre reinforced polypropylene injected moulded with PTFE reinforced bearing. Hose or threaded connection.

2 Rear casing
Connected by OR gasket to the front casing, it forms the tight chamber of the pump and hosts a PTFE reinforced bearing.
The thermoplastic employed are the same as those of the volute casing.

3 OR gasket

4 Impeller
The impeller, with the impeller magnet, is made of GFR/PP with in built ceramic spindle.

5 Guide bushings

6 Stainless steel screws

7 Drive magnet
with isotropic ferrite magnet encapsulated in aluminium and mounted on metallic drum.
The drive magnet revolves outside the casing and drives the impeller magnetically.

8 Electric motor
1-phase 220-240V either 50 or 60Hz.
Insulation class E. Enamelled with paint, provided with thermal protector to 120 °C.

9 Thrust bush

SPECIFICATIONS

TMB				10	20	30	35	65
Connections	Thread	Ø inlet	BSP / NPT	–	3/4"	3/4"	1/2"	1"
		Ø outlet	BSP / NPT	–	3/4"	3/4"	3/8"	1"
	Hose	Ø inlet	mm	14	18	20	18	26
		Ø outlet	mm	14	17	20	18	26
Motor	Power IN	(50 / 60Hz)	W	25 / 21	29 / 39	57 / 73	57 / 73	97 / 134
	Power OUT	(50 / 60Hz)		8 / 7	15 / 21	30 / 43	30 / 43	63 / 87
	Phases		No.	1				
	Std voltage		V	AC 220~240 - 50/60Hz				
	Current	(50 / 60Hz)	A	0,12 / 0,10	0,13 / 0,18	0,24 / 0,36	0,24 / 0,35	0,45 / 0,63
	Speed	(50 / 60Hz)	r.p.m.	2700 / 3200	2800 / 3200	2700 / 3100	2700 / 3100	2800 / 3300
Pump	Max head	(50 / 60Hz)	M	1,8 / 2,2	3,0 / 4,0	3,4 / 4,5	8,0 / 11,0	6,0 / 8,2
	Max capacity	(50 / 60Hz)	L/min	12 / 14	21 / 25	41 / 45	16 / 18	62 / 70
	Weight		Kg	0,9	2,2	3	3	5

TMB	10U	20U *	30U *	35U *	65U *
* Compliant to UL regulation	AC 120V - 60 Hz				

OPERATING LIMITS

- The admitted temperature of the liquid pumped is from 0 to 60 °C.
- The max viscosity up to 20 cPt.
- The specific weight not above 1,1 Kg/dm^3 (at the max flow).
- The environmental temperature between 0 and 45 °C.

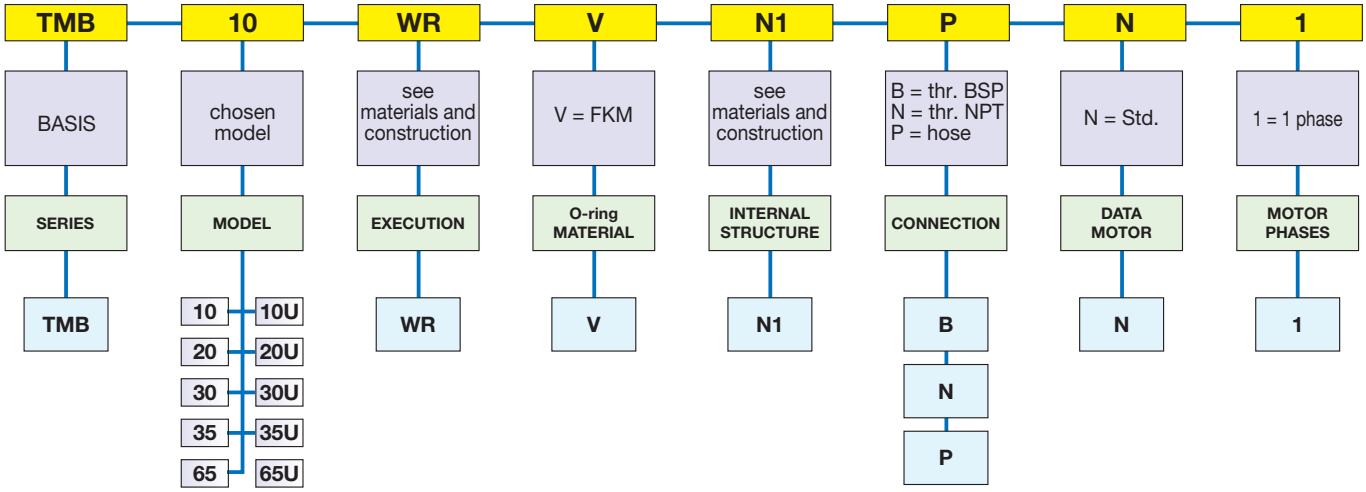
WARNINGS

- TMB pumps do not run dry and have to be flooded.
- Pumping dirty liquid or liquid containing abrasive solids in suspension may reduce the operating life and/or impair the performances of these pumps.

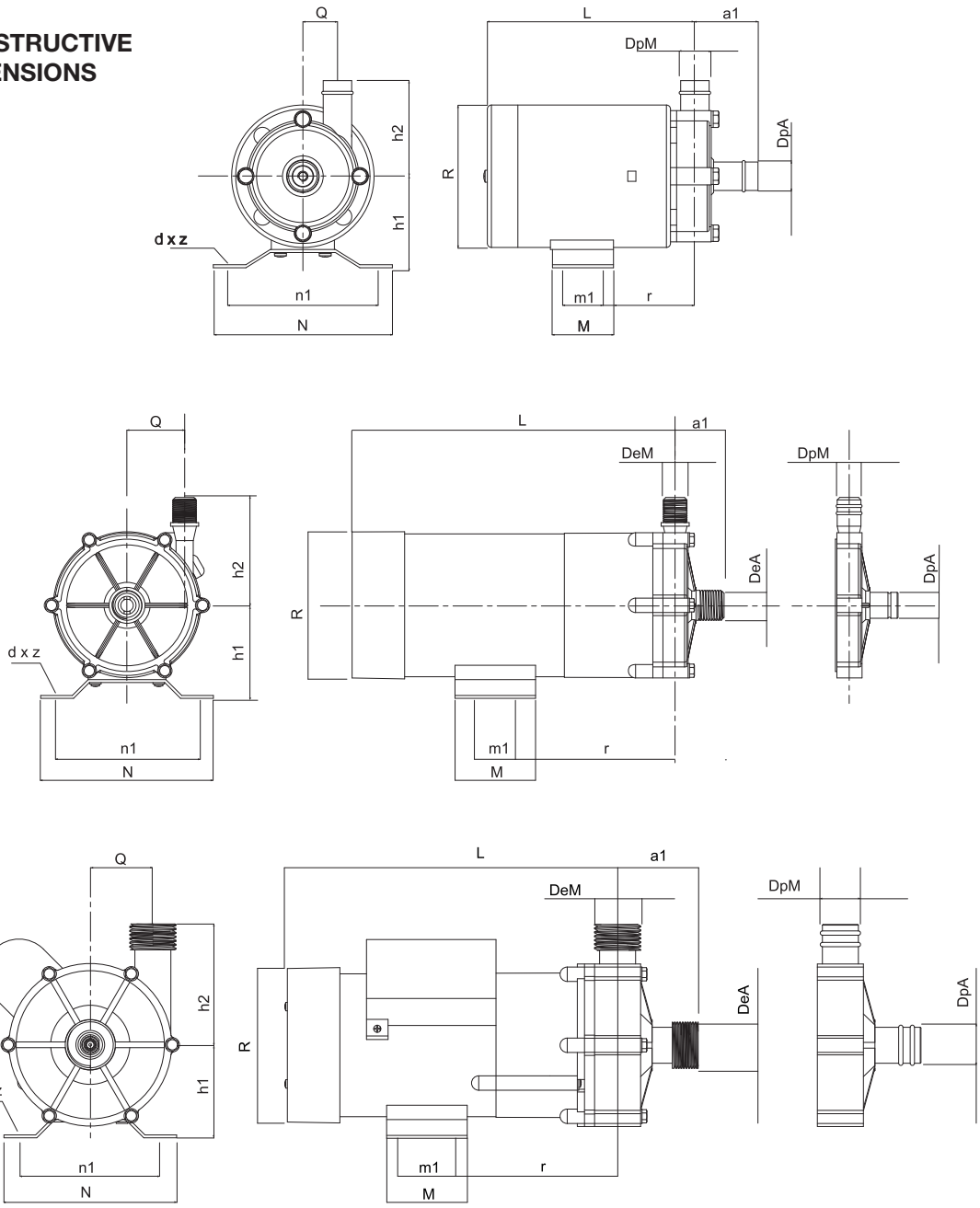
MAIN APPLICATIONS

Water treatment
Aquariums (water games)
Graphic art machinery
Cosmetic industry
Dyeing equipment
Etching equipment
Medical equipment
Photographic developing process
Chemical laboratories
Storage batteries manufacturer
Electroplating
Silver recovery
Metalwork machinery
Descaling
Fungicide and pesticide
Solar systems
Laser systems
Boats mounted refrigerator
Refrigerator
Ice making machines
Beverage vending machine
Corrosive chemical solutions
Toxic liquid
Sea Water
Pure water (demineralised water)
Chemicals to preserve food
Laundry

PUMP IDENTIFICATION LABEL



CONSTRUCTIVE DIMENSIONS



SPECIFICATIONS

TMB	10	20	30	35	65
a1	31	37	48	34	62
h1	45	55	60	60	67
h2	47	74	75	75	84
L	100	181	206	206	222
m1	16	30	40	40	40
M	30	50	64	64	68
n1	78	70	100	100	120
N	90	92	120	120	144
Q	17	30	32	40	45
r	46,5	75	94	94	115
R	71	90	90	90	115
d x z	Ø 5x4	Ø 6x4	Ø 8x4	Ø 8x4	Ø 8x4
DeA	–	3/4"	3/4"	1/2"	1"
DeM	–	3/4"	3/4"	3/8"	1"
DpA	14	18	20	18	26
DpM	14	17	20	18	26

ARGAL CHEMICAL PUMPS

Member of AIB associazione industriale bresciana

IT - 25125 BRESCIA - Via Labirinto, 159
Tel. +39 030 3507011 - Fax +39 030 3507077
Export dpt. Tel. +39 030 3507033
Web: www.argal.it - E-mail: export@argal.it