



## BASIS

TMB

**SMALLEST MAG-DRIVEN CENTRIFUGAL  
CHEMICALLY RESISTANT PLASTIC PUMPS**

**MADE OF PP**

**50 - 60 Hz SINGLE PHASE MOTORS**



SINCE 1975

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# CHEMICALLY RESISTANT PLASTIC PUMPS

## SINGLE PHASE MOTORS



The TMB are single stage, and magnetic driven centrifugal pumps. The range includes 5 models with capacities between 15 and 70 l/min.

(\*) 12V. - Available on request

### WORKING PRINCIPLE

The magnetic drive is made through the rotation of a group of magnets along with the motor shaft. This action drives in rotation the second group of magnets directly connected to the impeller. This second group is separated from the first group, and thus from the pumped liquid by a diaphragm. In this way, the leakage issue is eliminated, and no corrosion affect the outer parts.

### MAGNETIC DRIVE

The magnetic drive assembly hauls ferrite magnets, revolves around the rear casing and drives the impeller magnetically. TMB pumps are compact, low noise and no seal device making them ideal for application in any plant. They can also be installed into "clean" or sensitive environment.

### CORROSION RESISTANCE

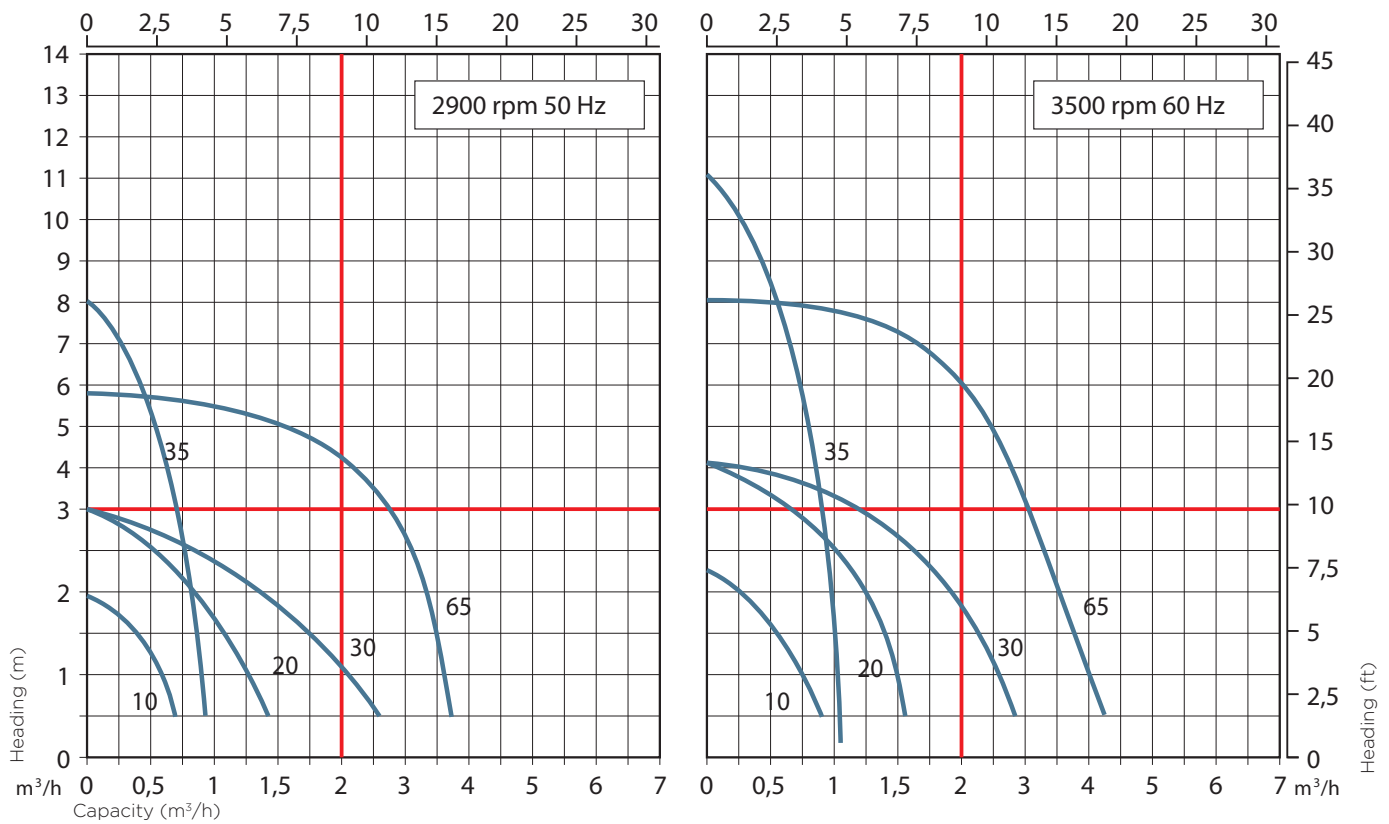
Basis range is entirely made of the thermoplastic Polypropylene reinforced with fiberglass, offering a great chemical resistance and mechanical strength. The shaft is made of ceramics, and the bearings are realised in PTFE whereas the OR gasket in FKM.

### COMPONENTS

- The volute casing is realised with Polypropylene reinforced with fiberglass, by a monolithic injection in the mould and with an encapsulated front shaft bearing. The connections can be hoses or screwed.
- The rear casing is obtained through the same process and hosts the rear shaft bearing.
- The coupled volute and rear casing are realised to be leakage proof.
- The impeller is made of Polypropylene reinforced with GFR.

TMB Model	10	20 - 30 - 35(*) - 65
Execution	WR	WR
Internal structure	N <sub>1</sub>	N <sub>1</sub>
Pump casing	GFR- PP	GFR-PP
Rear casing		
Impeller		
Guide bushings	-	GFR   PTFE
Shaft	CER	CER
Thrust bush	GFR   PTFE	CER
OR gasket	FKM	FKM
Screws	Stainless steel	Stainless steel

(\*) Also available in CFF-E-CTFE



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 connections	Ø inlet	mm	14	18	20	18	26
		Ø outlet	mm	14	17	20	18	26
Motor	Power IN (50 - 60 Hz)		W	25/21	29/39	57/73	57/73	97/134
	Power IN (50 - 60Hz)			8/7	15/21	30/43	30/43	63/87
	Phases		n° 1	1				
	Std tension		V	AC 220 - 240 - 50-60Hz				
	Power (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)		rpm	2700/3200	2800/3200	2700/3100	2800/3300	
Pumps	Max. heading (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

**1 Volute casing**  
Made of PP reinforced with fiberglass, realised with mould injection.  
Hose or threaded connections

**2 Rear casing**  
It is connected to the volute casing throughout OR gaskets. It is realised like the volute casing, throughout mould injection and with the same material of construction.

**3 OR gasket**

**4 Impeller**  
The impeller, along with its magnet, is made of PP reinforced with fiberglass. The shaft is made of Ceramics.

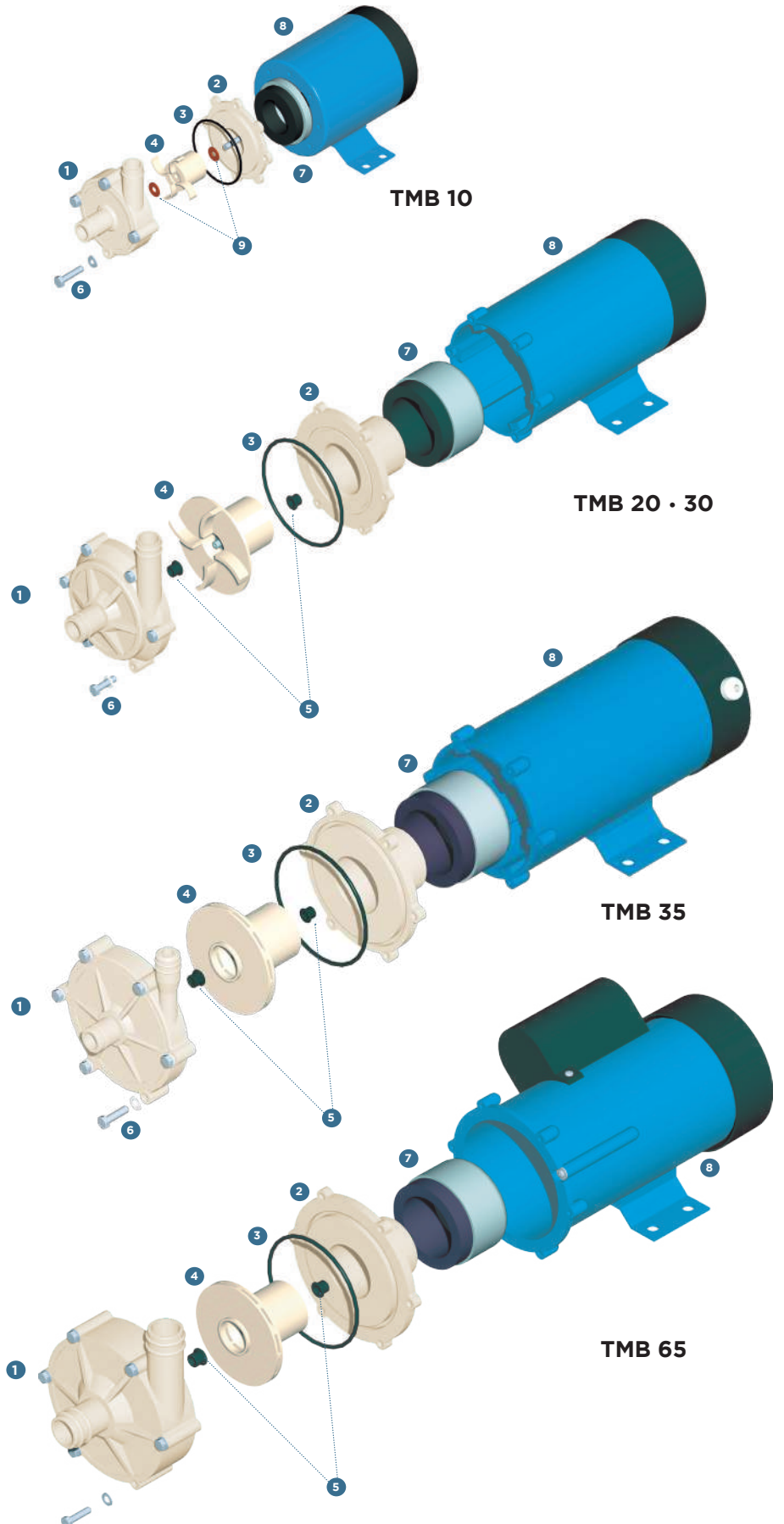
**5 Guide bushings**

**6 Stainless steel screws**

**7 Magnet**  
Made of isotropic ferrite, the magnet is encapsulated in the shaft.

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

**9 Thrust bush**

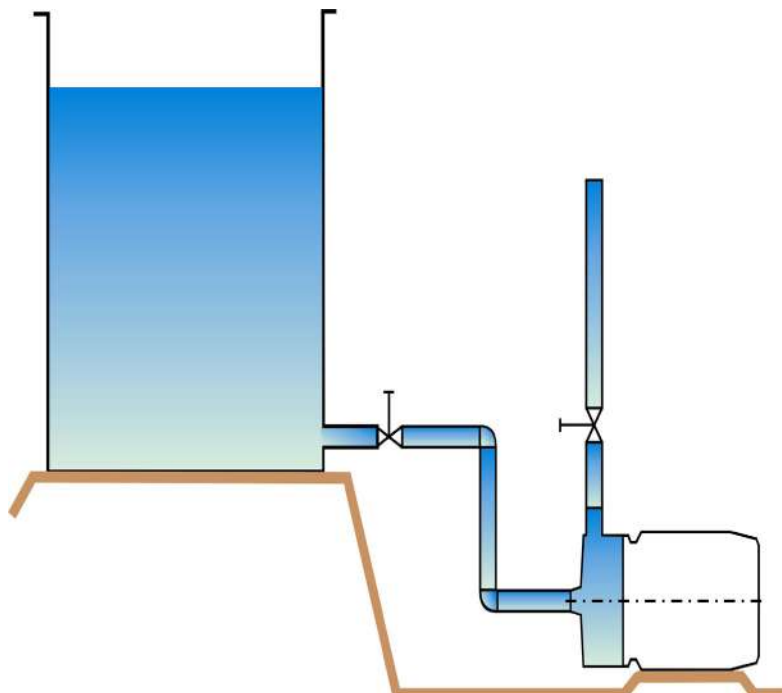


## MAIN APPLICATIONS

- Water treatments
- Aquarium
- 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

## TYPES OF INSTALLATION

The **TMB** pumps can be installed to operate as recirculation, filtration, mixing, heating, cooling or cleaning plumps for clean liquids from a process to another.



## WARNING

- **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.

## WORKING CONDITIONS

- Admitted temperature of the liquid pumped is from 0 to 60 °C.
- Max viscosity up to 20 cPt.
- Specific weight not above 1,1 Kg/dm<sup>3</sup> (at the max flow).
- Environmental temperature 0°C ÷ 45 °C.

MAG-DRIVE &  
MECH-SEALED  
CENTRIFUGAL  
PUMPS

PNEUMATIC  
AODD &  
METERING  
PUMPS  
PULSATION  
DAMPENERS

SUBMERSIBLE  
PUMPS



SELF-PRIMING  
PUMPS

VERTICAL  
SUMP PUMPS

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