

In this catalog Argal proposes the range of PRIMA pumps, magnetical driven, inclusive of centrifugal serie named **TMP** and the self-priming volumetric execution named **TMA** of the ALIFTER range.

Single stage, close-coupled execution, strongly built through an injection-moulding process and ready to fit normalized motors. Argal operates with ISO 9001:2000 Quality System certified by SQS-IQNet.



View of TMP and TMA pumps in different materials.

TMP PUMPS SERIE

The pumps of the **TMP** serie, magnetically driven, have been developed following the idea of previous AM serie, but trying to give a more concise answer to the actual demands of the market. These pumps are centrifugal, horizontal axis, close-coupled types, the bodies are entirely built with reinforced thermoplastic polymers, and materials for internal components are: ceramic oxides, HD carbon, fluorinated elastomers: which mean any contact of metallic parts with the pumped fluid is avoided. This combination of materials is correctly chosen to obtain the best in the performances and on a small scale: "chemical pumps".

MAIN FEATURES

Versatility and performances.

You can practically pump all the chemicals at low and medium temperatures with all the bodies in GFR-PP (glass fibre reinforced polypropylene) or CFF-E-CTFE (Etylene-ChloroTrifluoroEtylene carbon fibre filled).

Strong magnetic coupling made up of rare-earth materials (Neodimium Iron Boron) and "N" (standard), "P" (powered) or "S" (strong-powered) versions allow to pump, also at maximum flow, liquids with 1.05 - 1.35 - 1.8 specific gravity respectively.

R-N-X: three internal configuration of constructive materials for many applications: from clean water to waste and slightly

abrasive liquids, strong alkali or salts such as sodium hypochlorite, and acids such as chromic, nitric, sulphuric, etc..

"Hermetic" pump

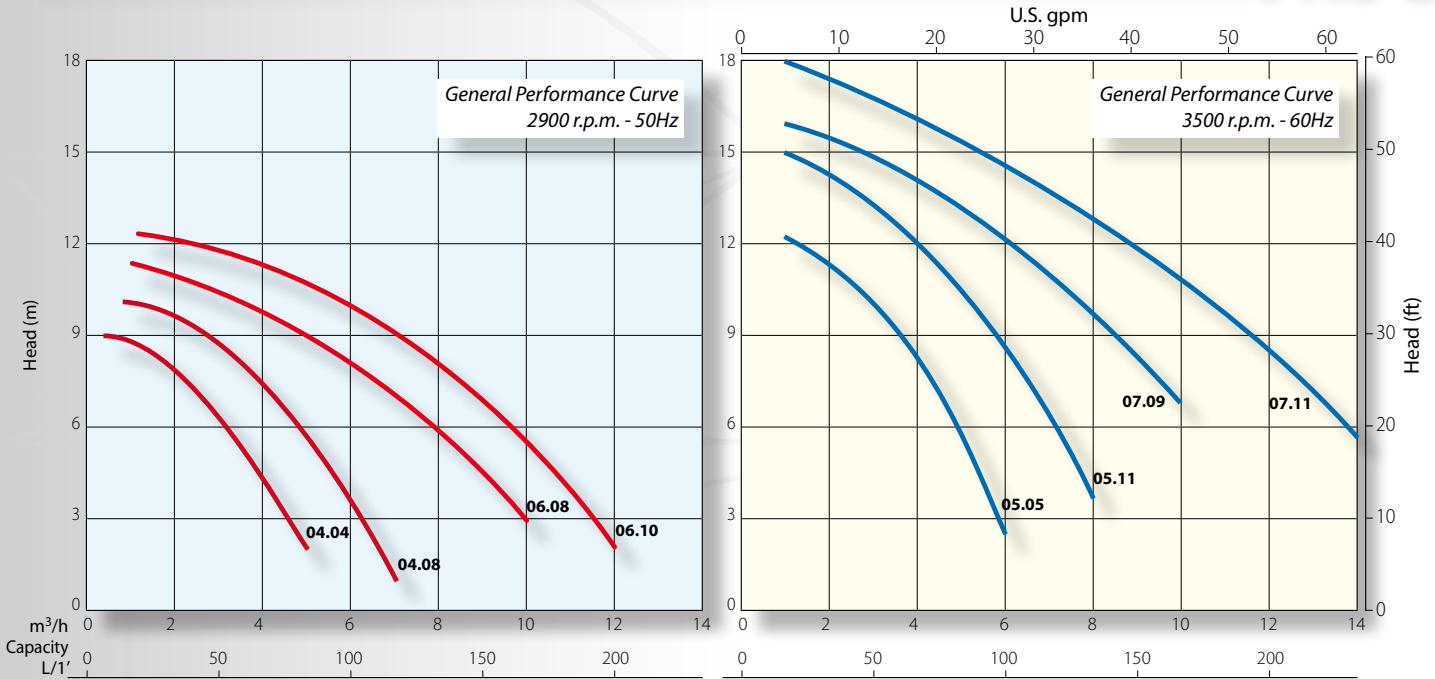
The outlet magnet assembly driven by the motor shaft, produces a magnetic torque dragging up in rotation the inside magnet assembly on which the impeller is over moulded.

The rear casing, having appropriate shape and joined to the volute casing, divides the two magnetic units, making an hermetic case all around the impeller.

Safety and life

The drive magnetic system finally excludes any type of rotating seal. The only need of the seal is guaranteed thanks to an O-ring static gasket, in the connection between volute casing and rear casing.

Special solutions and employed materials occasionally allow dry running operation (starting from 15 min. up to many hours in function of working conditions), avoiding any damages inside the TMP pumps. These solutions require an internal structure "R".



NOTES: All curves are referred to: water at 20°C - viscosity 1 °E - specific gravity 1 kg/dm2 pt

THE MATERIALS

table 1

VERSION	REINFORCED POLYMERS	MIN. TEMP.	MAX TEMP.	ENVIRONMENT TEMP.
WR	GFR/PP	-5°C (23°F)	80°C (176°F)	0÷40°C (14÷104°F)
GF	CFF/E-CTFE	-20°C (-4°F)	100°C (212°F)	-20÷40°C (-4÷104°F)
GX*				

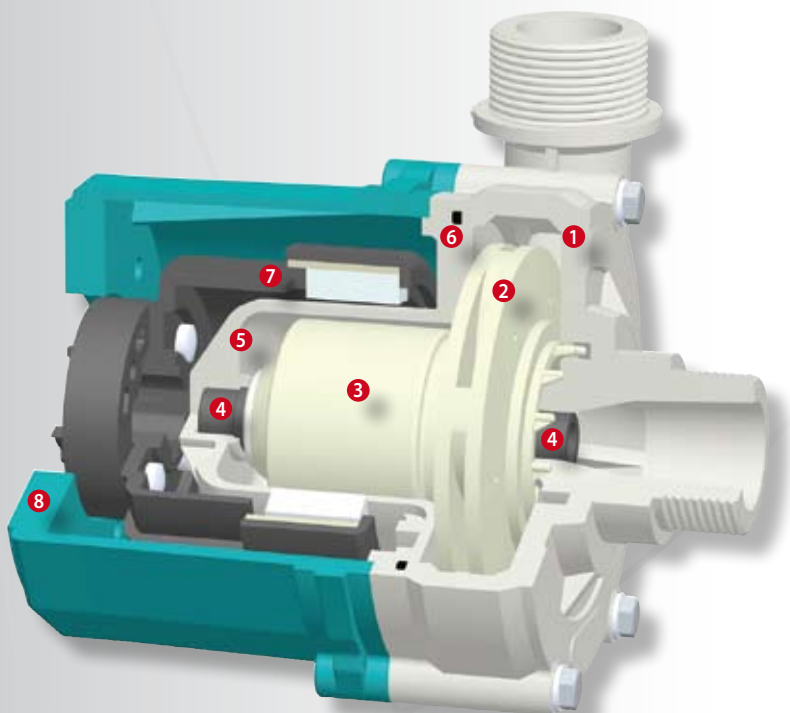
Note: Maximum inlet pressure: 1,5 bar - (*) Compliant to ATEX 94/9/EC regulations

THE CONSTRUCTIONS

table 2

VERSION	WR			GF			GX*	
	R1	X1	N1	R2	X2	N2	R2	N2
Volute casing	GFR-PP			CFF-E-CTFE				
Rear casing	GFR-PP			CFF-E-CTFE				
Centrifugal impeller	GFR-PP			CFF-E-CTFE				
Guide bushing	CARB.HD	SiC	GFR-PTFE	CARB.HD	SiC	GFR-PTFE	CARB.HD	GFR-PTFE
Shaft	CER			SiC				
Thrust bush	CER			SiC				
OR gasket	FKM (1)			FKM (1) (2)				
Screws	Stainless steel							

Upon request:(1)EPDM and (2) FFKM - * Compliant to ATEX 94/9/EC regulations



TMP - SECTION VIEW

- 1 - Volute casing
- 2 - Centrifugal impeller (covered type)
- 3 - Centrifugal impeller (magnetic part)
- 4 - Guide bushings
- 5 - Rear casing
- 6 - OR gasket
- 7 - Drive magnet assembly
- 8 - Bracket