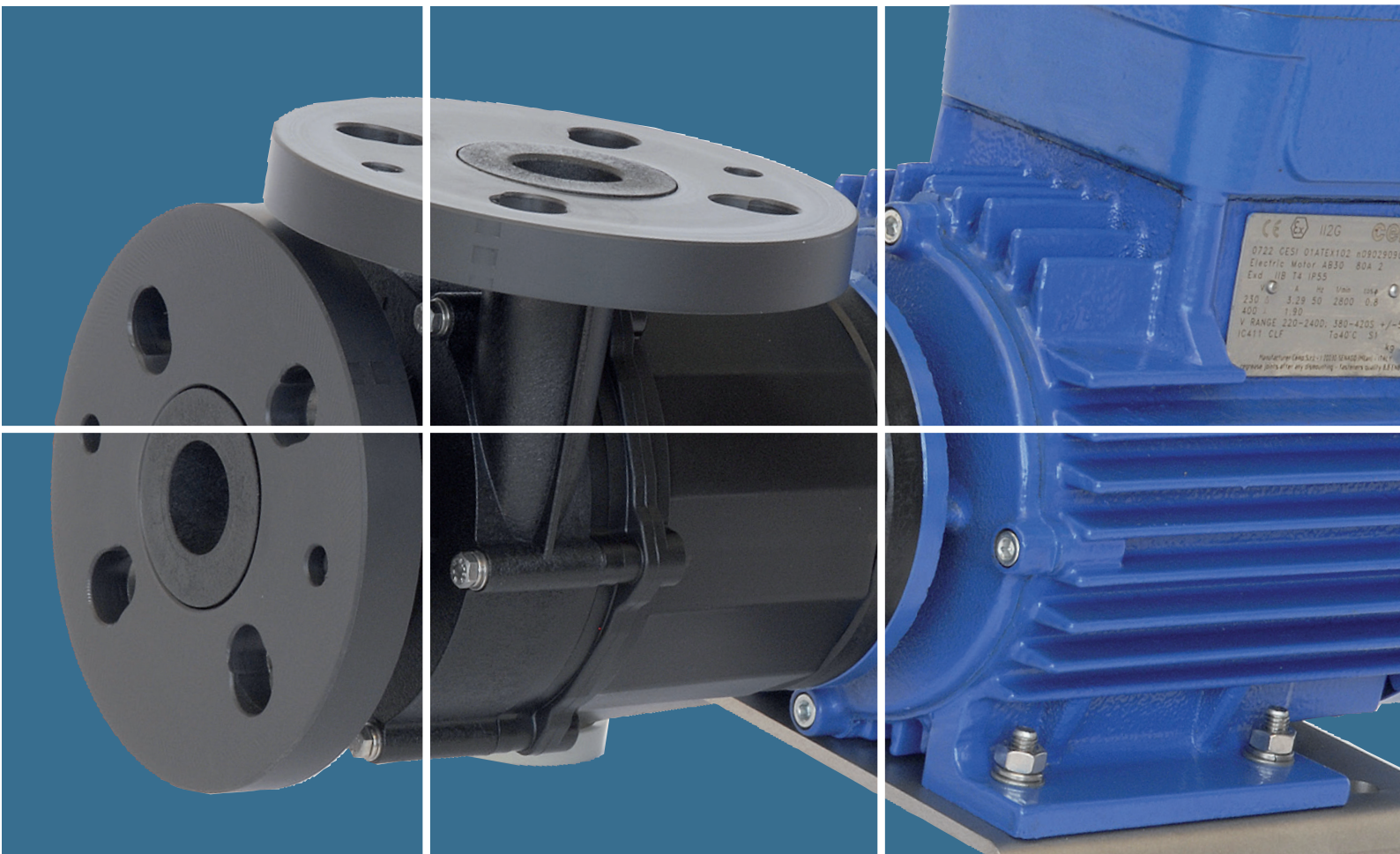




## PRIMA

TMP

**MAG-DRIVEN CENTRIFUGAL PUMPS  
FOR HANDLING CORROSIVE FLUIDS**

MADE OF PP · E-CTFE

**ATEX VERSION**

50 - 60 Hz



SINCE 1975

EN

# MAG-DRIVEN CENTRIFUGAL PUMPS

## FOR HANDLING CORROSIVE LIQUIDS

### PRIMA RANGE

WR version



### CONSTRUCTION

The pumps of the **TMP** serie are mag-driven centrifugal, horizontal axis, close-coupled types, the pump casings 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”.

### VERSATILITY

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..

### HERMERTIC SYSTEM

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

The drive magnetic system finally excludes any type of rotating seal. Special solutions and employed materials occasionally allow dry running operation, avoiding any damages inside the TMP pumps. These solutions require an internal structure “**R**”.

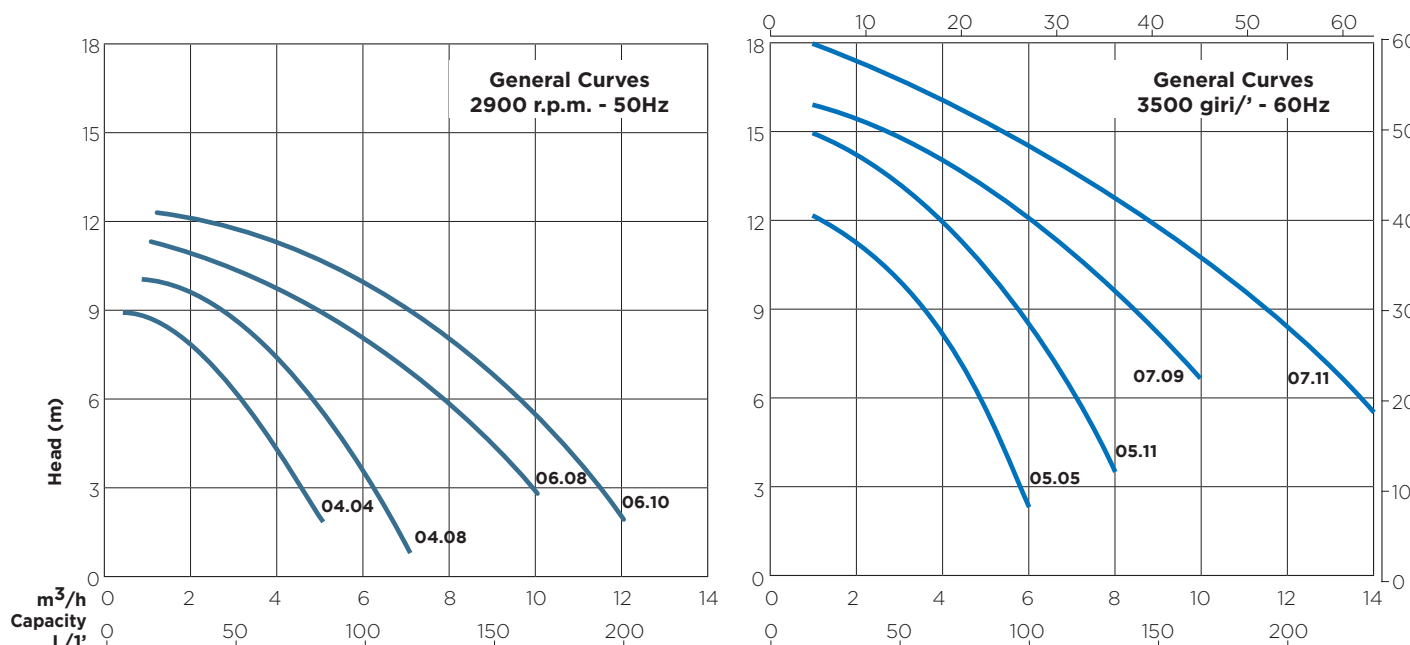
### ATEX

**PRIMA** pumps made of PP or E-CTFE + carbon fiber are perfect for operating into **Explosive Atmospheres**. They can run in **Group II** areas and **category 1, 2, 3** according to the level of protection. Thanks to the carbon fiber, they are ideal for gaseous atmospheres (**Zone 1, Zone 2**).

### MATERIALS

| VERSION   | REINFORCED POLYMERS | MIN. TEMP.   | MAX TEMP.     | ENVIRONMENT TEMP.   |
|-----------|---------------------|--------------|---------------|---------------------|
| <b>WR</b> | CFF/E-CTFE          | -20°C (-4°F) | 100°C (212°F) | 0÷40°C (14÷104°F)   |
| <b>GF</b> |                     |              |               | -20÷40°C (-4÷104°F) |
| <b>GX</b> |                     |              |               |                     |

## GENERAL CURVES 50Hz - 60Hz



NOTES: All curves are referred to: water at 20°C - viscosity 1 °E - specific gravity 1 kg/dm<sup>3</sup> pt

## PUMP SPECIFICATIONS

| Connections |      | TMP    |       |       |       |          |       |          |       |
|-------------|------|--------|-------|-------|-------|----------|-------|----------|-------|
| Thread      |      | 04.04  | 05.05 | 04.08 | 05.11 | 06.08    | 07.09 | 06.10    | 07.11 |
| DeM         | BSP  | 3/4" m |       | 1" m  |       | 1 1/4" m |       | 1 1/4" m |       |
| DeA         | BSP  | 3/4" f |       | 1" m  |       | 1 1/4" m |       | 1 1/4" m |       |
| Flange      |      |        |       |       |       |          |       |          |       |
| DnM-DnA     | ISO  |        |       | 25    |       | 32       |       | 32       |       |
| DnM-DnA     | ANSI |        |       | 1"    |       | 1 1/4"   |       | 1 1/4"   |       |

## CONSTRUCTION

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

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

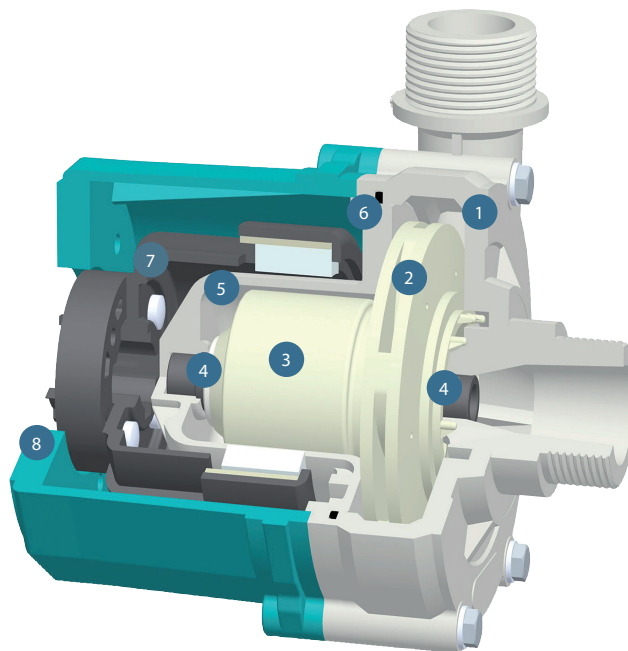
## TMP

### MOTOR SPECIFICATIONS 50Hz

|                    |     | 04.04                         |      |      | 04.08 |      |      | 06.08 |      |      | 06.10 |      |     |
|--------------------|-----|-------------------------------|------|------|-------|------|------|-------|------|------|-------|------|-----|
|                    |     | N                             | P    | S    | N     | P    | S    | N     | P    | S    | N     | P    | S   |
| Power (IEC) 50 Hz  | kW  | 0.18                          | 0.25 | 0.37 | 0.25  | 0.37 | 0.55 | 0.37  | 0.55 | 0.75 | 0.55  | 0.75 | 1.1 |
| Motor size         | IEC | 63A                           | 63B  | 71A  | 63B   | 71A  | 71B  | 71A   | 71B  | 80A  | 71B   | 80A  | 80B |
| Phases             | N.  | 3phase - 1phase               |      |      |       |      |      |       |      |      |       |      |     |
| Std. voltage (IEC) | V   | 400 ± 5% 50Hz - 220 ± 5% 50Hz |      |      |       |      |      |       |      |      |       |      |     |
| Motor protection   | IP  | 55                            |      |      |       |      |      |       |      |      |       |      |     |

### MOTOR SPECIFICATIONS 60Hz

|                    |     | 05.05                           |      |      | 05.11 |      |      | 07.09 |      |     | 07.11 |     |   |
|--------------------|-----|---------------------------------|------|------|-------|------|------|-------|------|-----|-------|-----|---|
|                    |     | N                               | P    | S    | N     | P    | S    | N     | P    | S   | N     | P   | S |
| Power (IEC) 60 Hz  | kW  | 0.25                            | 0.37 | 0.55 | 0.37  | 0.55 | 0.75 | 0.55  | 0.75 | 1.1 | 0.75  | 1.1 |   |
| Motor size         | IEC | 63B                             | 71A  | 71B  | 71A   | 71B  | 80A  | 71B   | 80A  | 80B | 80A   | 80B |   |
| Phases             | N.  | 3phase - 1phase                 |      |      |       |      |      |       |      |     |       |     |   |
| Std. voltage (IEC) | V   | 460 ± 10% 60Hz - 230 ± 10% 60Hz |      |      |       |      |      |       |      |     |       |     |   |
| Motor protection   | IP  | 55                              |      |      |       |      |      |       |      |     |       |     |   |



1 ..... Volute casing

2 ..... Centrifugal impeller (covered type)

3 ..... Centrifugal impeller (magnetic part)

4 ..... Guide bushing

5 ..... Rear casing

6 ..... OR gasket

7 ..... Drive magnet assembly

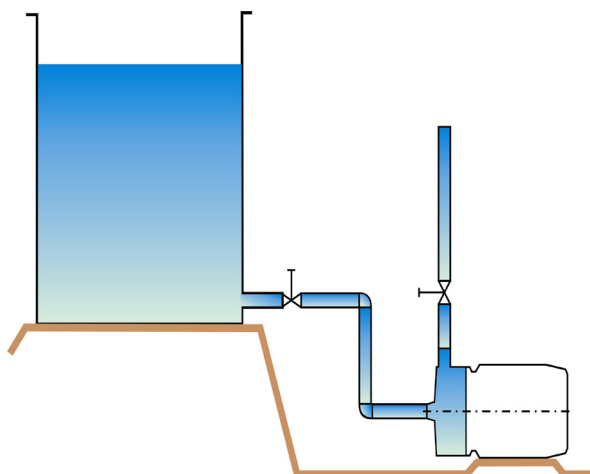
8 ..... Bracket

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



**TMP 06.08**

GX with flange



MAG-DRIVE &  
MECH-SEALED  
CENTRIFUGAL  
PUMPS

PNEUMATIC  
AODD &  
METERING  
PUMPS  
PULSATION  
DAMPENERS

SUBMERSIBLE  
PUMPS



SELF-PRIMING  
PUMPS

VERTICAL  
SUMP PUMPS

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