

# Molded Plastic Centrifugal Pump

## » TECHNOLOGY INNOVATION & RELIABILITY

Tapflo is specialised in the design and application for water treatment, pharmaceutical, chemical, petrochemical and refinery applications. We continue every day to lead the way in providing the most reliable sealless pumps available with the latest technology. All Tapflo sealless pumps are engineered to comply with the new environmental rules "1990 EPA Clean Air Act".

## » PUMP BENEFITS

Our Molded Plastic Centrifugal Pump, suited to light-duty transfer applications, ensures reliability and versatility in Chemical, OEM, and Industrial applications where corrosion resistance is crucial.

Crafted with precision using plastic-injected molded technology, these pumps are designed to resist internal and external corrosion, offering exceptional durability.

Filled with fibreglass or fibre carbon materials, they are equipped to handle challenging solutions, including strong acids and difficult chemical compounds. With a commitment to environmental safety, these pumps are engineered to have zero leakages, eliminating dangerous emissions. .



## » FEATURES

- Built with plastic injection moulded technology to resist internal and external corrosion
- Filled with fibreglass or fibre carbon materials, designed to handle strong acids and difficult chemical compounds
- The Molded Plastic Centrifugal Pump maintains head and flow for an extended running period, ensuring consistent performance
- High-torque neodymium magnets
- Channelled PTFEC carbon sleeve bearings resist chemical corrosion
- Modular impeller allows for easy modification of pump performances to suit specific requirements
- Direct starting motors capability
- Close-coupled NEMA and IEC mounting options
- Replaceable adaptor motor flange allows easy adaptation to different motor sizes
- Interchangeable coupling housings between sizes
- External magnet ring (last generation neodymium iron boron sectors)
- Separate Universal Hubs on External Magnet Ring
- External Magnet Ring special design facilitates protection against physical damage
- Optional Dry Run Protection Module

 II 2 G

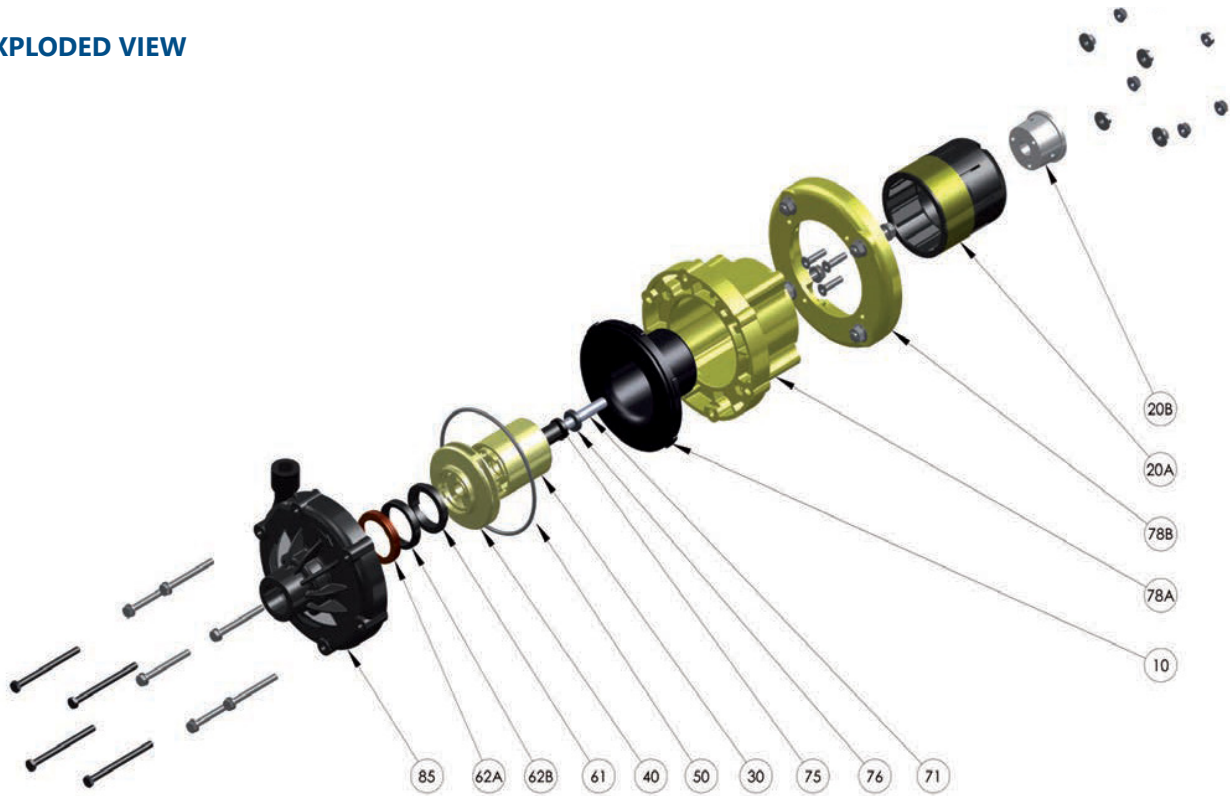
## » SPECIFICATIONS

Tapflo's Molded Plastic Centrifugal Pump can maintain design head and flow for an extended running period.

- **Materials:** Polypropylene (PP), Polyvinylidene (PVDF)
- **Max Capacity:** Up to 30m<sup>3</sup>/hr @ 50 Hz & 40m<sup>3</sup>/hr @ 60 Hz
- **Max Pressure:** Up to 25m @ 50 Hz & up to 36m @ 60 Hz
- **Self-Priming:** No
- **Max Temperature:** Up to 90°C for PVDF & up to 65° C for PP
- **Specific Gravities:** Up to 2kg/dm<sup>3</sup>
- **System Pressure Rating:** 4 Bar



» EXPLODED VIEW

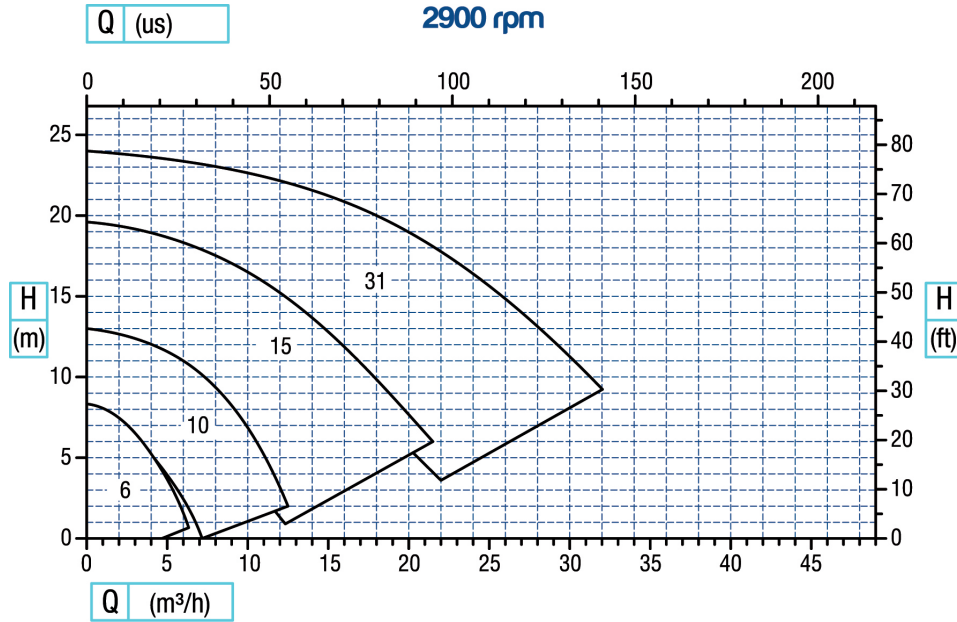


Ref.	Description	Ref.	Description
10	Containment shell	61	Casing thrust bearing cup
20A	External magnet ring	62	Casing thrust bearing
20B	External magnet HUB	71	Shaft
30	Internal magnet ring	75	Sleeve bearing
40	Impeller	76	Rear thrust ring
50	O-Ring	78A	Coupling Housing
61	Front impeller thrust bearing	78B	Adaptor motor flange
		85	Pump casing

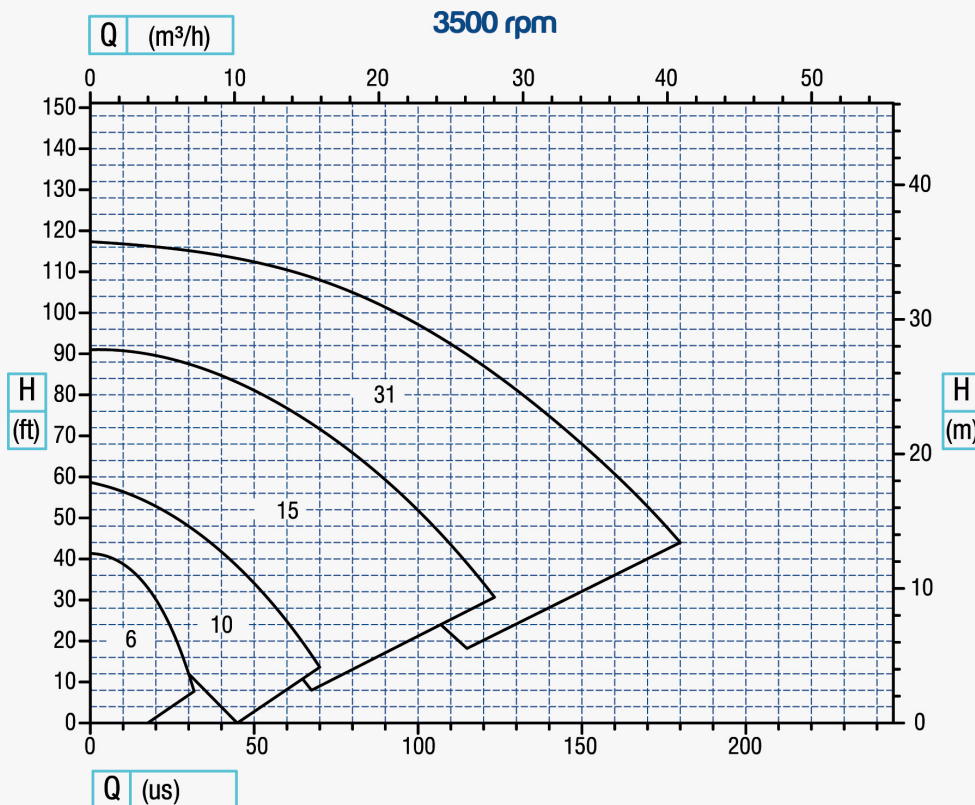
Typical services	
<ul style="list-style-type: none"> <li>• Light Duty Services</li> <li>• Liquid Transfer</li> <li>• Industrial Cleaning</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial Cleaning</li> <li>• OEM Filter system Manufacturing</li> <li>• Electroplating</li> </ul>



## Design Curves

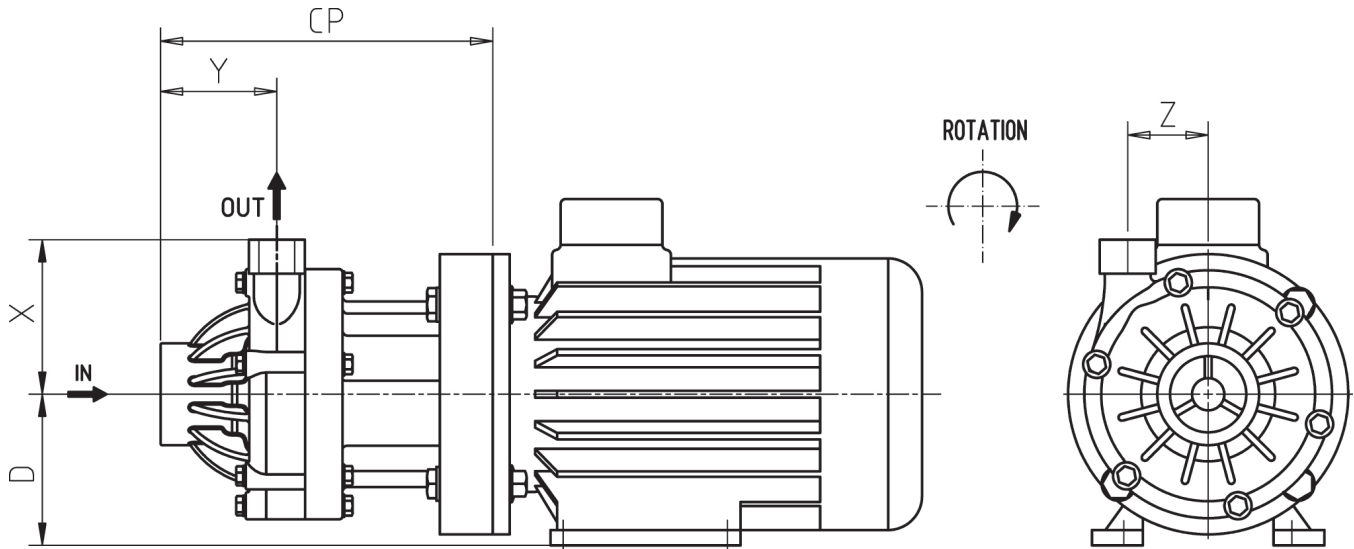


» Molded Plastic Centrifugal Pump  
**2900 rpm**



» Molded Plastic Centrifugal Pump  
**3500 rpm**

## Overall Dimentions



MODELS		IMP.	SUCTION	DISCHARGE	D	X	Y	Z	CP
6	(mm)	81	1"G	3/4"G	63	91	58.5	46	172
	(in)	3.18	1"NPT	3/4"NPT	2.48	3.58	2.30	1.81	6.77
10	(mm)	98	1 1/2"G	1"G	71	91	68.5	47.5	184.5
	(in)	3.85	1 1/2"NPT	1"NPT	2.79	3.58	2.69	1.87	7.26
15	(mm)	123.5	1 1/2"G	1 1/4"G	80	125	81.5	62.5	242.5
	(in)	4.86	1 1/2"NPT	1 1/4"NPT	3.14	4.92	3.20	2.46	9.54
31	(mm)	133	2"G	1 1/2"G	90	140	91	66.5	253
	(in)	5.23	2"NPT	1 1/2"NPT	3.54	5.51	3.58	2.61	9.96

**CONNECTIONS: THREADED UNI ISO 228/1  
AVAILABLE WITH FLANGE CONNECTIONS**

### Construction materials

- Polypropylene - PP

- Polyvinylidene Fluoride - PVDF

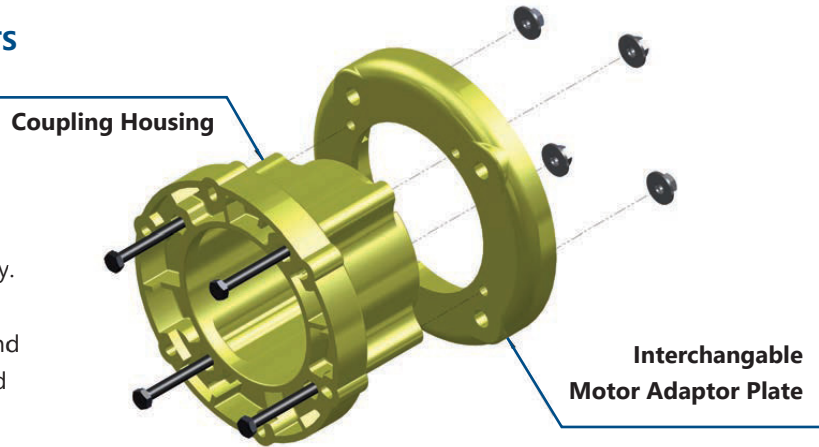
### Options & special executions

- ATEX Execution

» COUPLING HOUSING FEATURES AND BENEFITS

The revolutionary new design of the coupling housing allows IEC and NEMA motor adaptor plate plug-and-play, keeping the same coupling housing, with considerable reduction of inventory costs and improvement of flexibility.

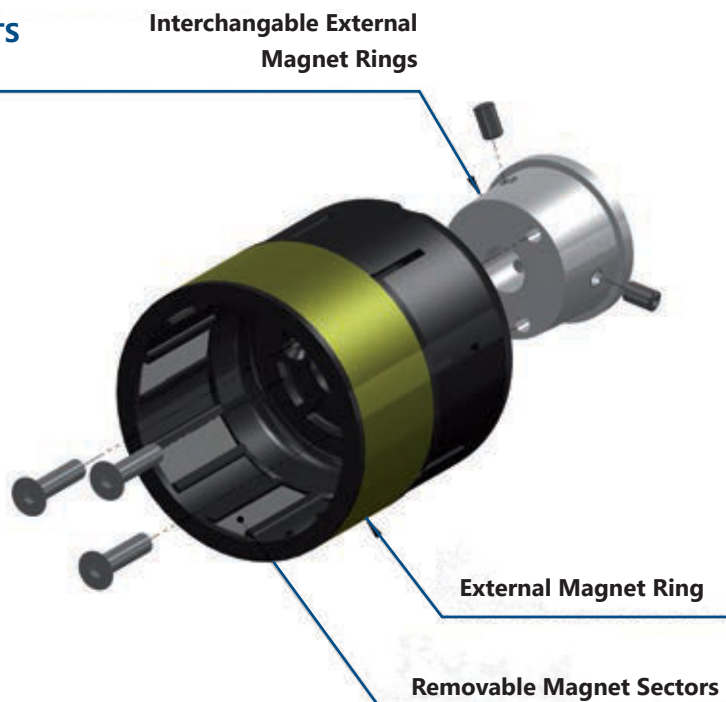
The Molded Plastic Centrifugal Pump coupling housing and all the pump parts are manufactured with injected molded technology and do not require any further machining, increasing the pump global quality. Coupling housings are interchangeable between sizes 6 and 10 and between 15 and 30.



» EXTERNAL MAGNET FEATURES AND BENEFITS

Last generation external magnet, with neodymium iron boron sectors providing high torque and easy sectors replacement. In case of impact during assembling and disassembling operations, the external magnet inner configuration does not allow damage of magnet sectors and containment shell. The exceptionally new external magnet ring design allows the motor coupling hub disassembly without any further balancing.

Interchangeable hub permits the fitting of IEC or NEMA motors without changing the external magnet ring, besides it allows different motor sizes, thereby reducing inventory costs dramatically and increasing flexibility. External magnet rings are interchangeable between 6 and 10 and between 15 and 30.



## Dry Running Protector

### Dry Run Protector

- Compact design
- Two internal current transformers
- Wide range current adjustment
- Definite trip time characteristic
- Manual (immediate) / Electric remote reset



	PD - 05	PD - 30	PD - 60
Current range	0.5 - 6 A	3.0 - 20 A	5.0 - 60 A
Trip time setting	0.2 - 30 sec.		
Power supply	3 phase 220V AC		
Output relay	3A 250V AC		

