Alloy Regenerative Turbine 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.

"1990 EPA Clean Air Act".

BENEFITS

Our Alloy Regenerative Turbine Pumps are precision-engineered Centrifugal Pumps designed for low flow and high head applications. Featuring robust construction features, these pumps offer a reliable solution with zero leakages even in extreme working conditions.

The elimination of mechanical seals or packing glands ensures an environmentally friendly operation, safeguarding workers and the surroundings. Constructed from a range of material options including Stainless Steel AISI 316L, Incoloy 825, Alloy 20, Hastelloy C-276, Duplex/ Super Duplex, Titanium as well as additional materials available on request.

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www.tapflopumps.co.uk | **Tel:** +44 2380 252 325 I **Email:** sales@tapflopumps.co.uk

FEATURES & BENEFITS

- The GPTA series can maintain design head and flow for an extended running period, offering dependable and consistent performance
- The multi-vanes self-balancing impeller eliminates thrust loads, allowing the pump to be started with a completely open discharge valve
- Suitable for thin, non-lubricating mediums with a very low Net Positive Suction Head (NPSH) available value
- Head up to 200 m (656 Feet) @ 50 Hz / up to 240 m (787 Feet) @ 60 Hz Flow up to 16 m^3/h (70 GPM) @ 50 Hz / up to 17 m^3/h (74 GPM) @ 60 Hz
- Operates within an extensive temperature range from -100°C (-150 °F) up to 315°C (600°F)
- Supports specific gravity up to 2 kg/dm^3
- Standard rating at 16 bar (232 PSI), with special designs available for up to 450 bar (6500 PSI) and beyond
- Provides flexibility with reversible rotation for various applications
- Can be used as a mixer for liquids with different characteristics
- Fully encapsulated external magnet
- Bronze rub ring
- Heavy-duty machined pressure parts
- Low maintenance costs resulting from easy removable pedestal for all frames and well-engineered design
- High MTBF (Mean Time Between Failure)
- High Torque Cobalt Samarium Magnets ensures powerful and consistent performance
- In compliance with ATEX regulation category EX II 2 G, ensuring adherence to safety standards

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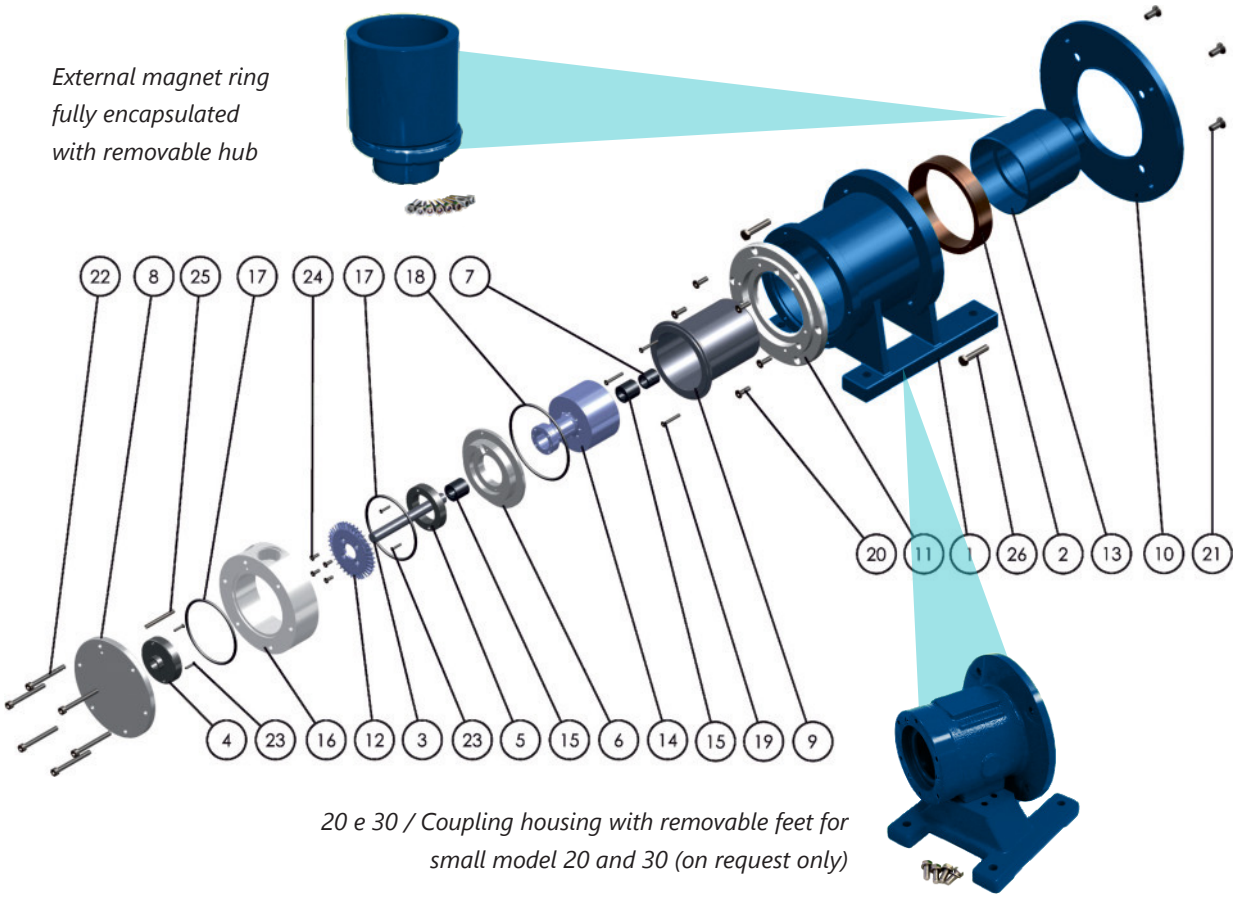
External magnet ring fully encapsulated with removable hub



20 e 30 / Coupling housing with removable feet for small model 20 and 30 (on request only)

Ref.	Description	Ref.	Description
1	Coupling housing	**14**	Internal magnet ring
2	Rub ring screw	**15**	Int. mag. ring front/rear bearing
3	Impeller shaft	**16**	Pump casing
4	Front thrust bearing	**17**	Front/intermediate O-Ring
5	Rear thrust bearing	**18**	Rear O-Ring
6	Rear ring	**19**	Rub ring screw
7	Containment shell bearing	**20**	Coupl. hous. front flange screw
8	End cover	**21**	Coupl. hous. rear flange screw
9	Containment shell	**22**	End cover screw
10	Coupling housing flange	**23**	Front-rear thrust bearing screw
11	Coupling housing front flange	**24**	Impeller screw
12	Impeller	**25**	Alignment end cover pin
13	External magnet ring	**26**	Coupling housing feet screws

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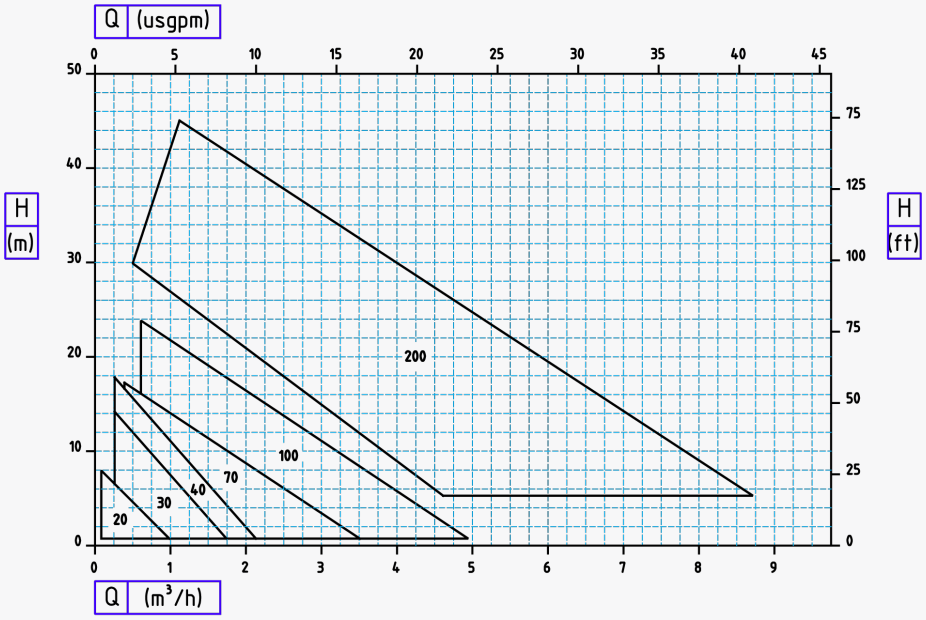
Design Curves

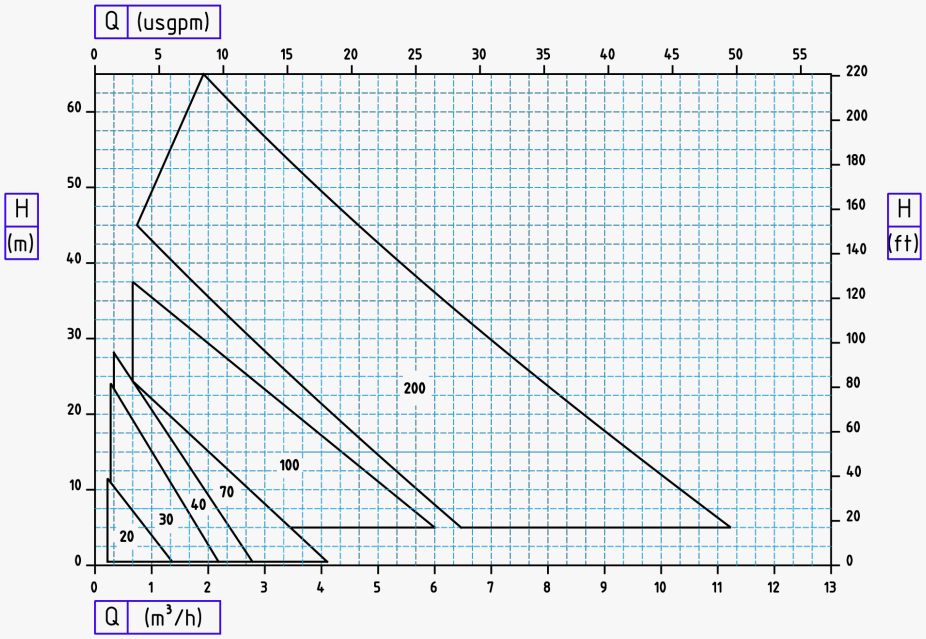
Alloy Turbine Pump

1450 rpm 50hz



Alloy Turbine Pump

1750 rpm 60hz



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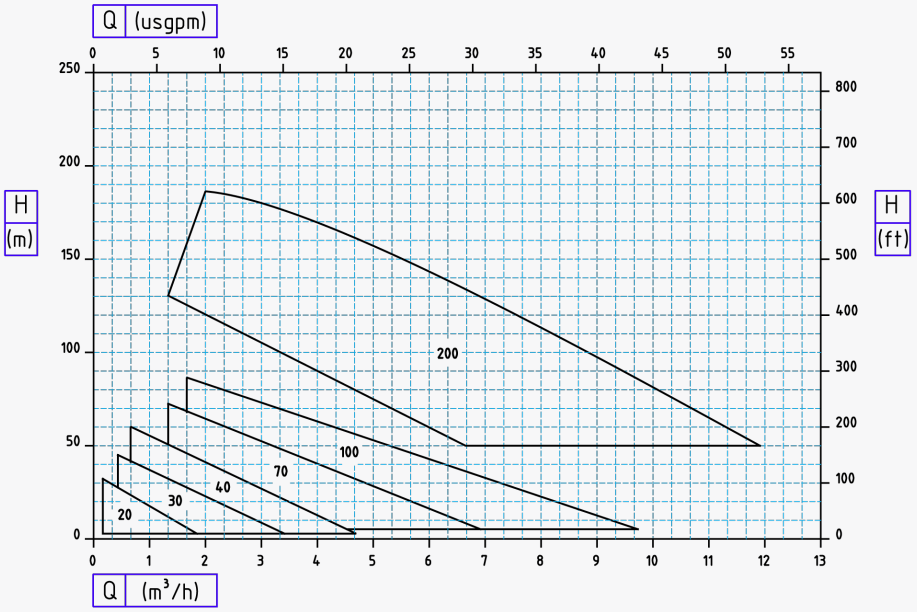
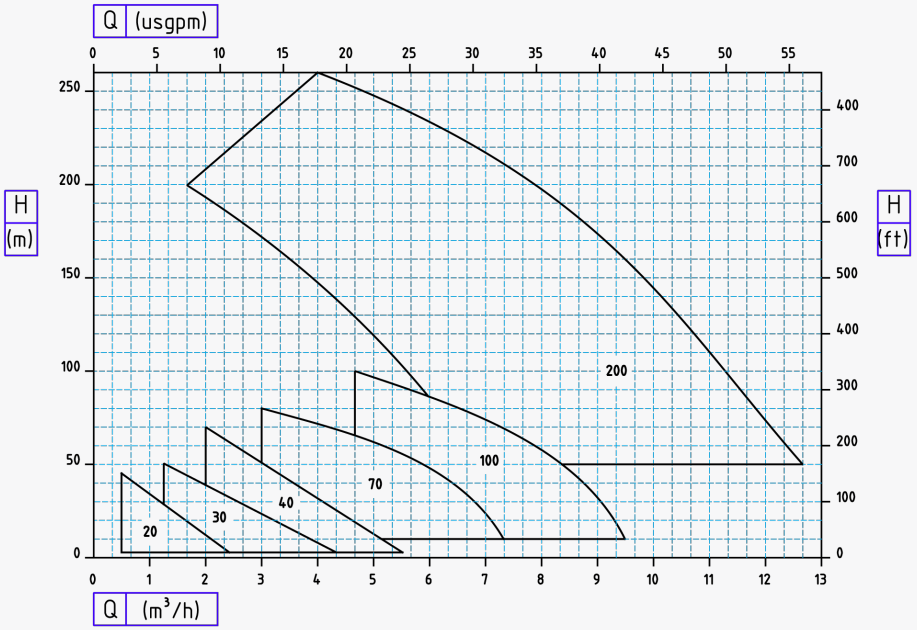
Design Curves

Alloy Turbine Pump
2900 rpm 50hz



Alloy Turbine Pump
3500 rpm 60hz



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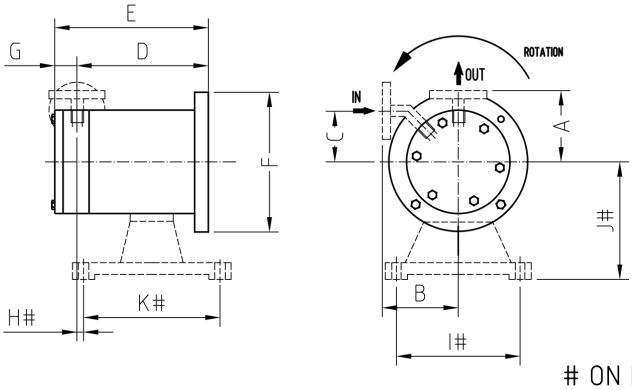
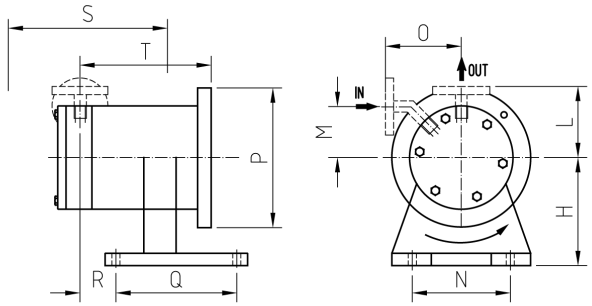
Overall Dimentions



ON REQUEST ONLY

PUMP TIPE	OVERALL DIMENSION											PORTS		mm / inches WEIGHT
	A	B	C	D	E	F	G	H	I	J	K	TRD	FLG	
20	88 / 3"1/2	88 / 3"1/2	54 / 2"1/8	150 / 6"5/8	198 / 8"3/8	160 / 6"5/8	23 / 7/8"	37 / 1.456"	140 / 5.512"	117 / 4.606"	160 / 6.3"	1/2"FPT / 1/2"NPT	DN 15 / DN 1/2"	5 Kg / lbs11
30	100 / 4"	98 / 3"7/8	61 / 2"3/8	155 / 6"3/4	207 / 8"5/8	200 / 6"5/8	25 / 1"	31 / 1.22"	140 / 5.512"	126 / 4.961"	160 / 6.3"	3/4"FPT / 3/4"NPT	DN 20 / DN 3/4"	6Kg / lbs14



PUMP TIPE	OVERALL DIMENSION										PORTS		mm / inches WEIGHT
	H	L	M	N	O	P	Q	R	S	T	TRD	FLG	
40	136 / /	111 / 4"3/8	66 / 2"5/8	155 / /	111 / 4"3/8	200 / 7"7/8	192 / /	69 / 2"3/4	244 / 9"5/8	186 / 7"1/2	1"FPT / 1"NPT	DN 25 / DN 1"	15 Kg / lbs32
70 100	175 / 6"7/8	133 / 5"1/4	86 / 3"3/8	220 / 8"5/8	133 / 5"1/4	250 / 9"7/8	250 / 9"7/8	55 / 2"1/4	272 / 11"1/8	214 / 9"	1"FPT / 1"NPT	DN 25 / DN 1"	19Kg / lbs42

Construction materials	
• **Stainless Steel SS316L**	• **Duplex / Superduplex**
• **Incoloy 825™**	• **Titanium**
• **Alloy 20™**	• **Other materials on request**
• **Hastelloy C-276™**	

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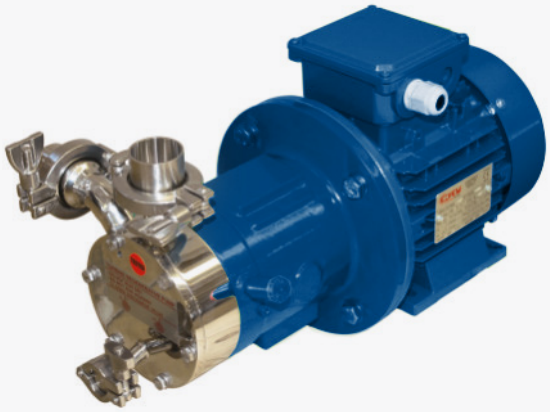
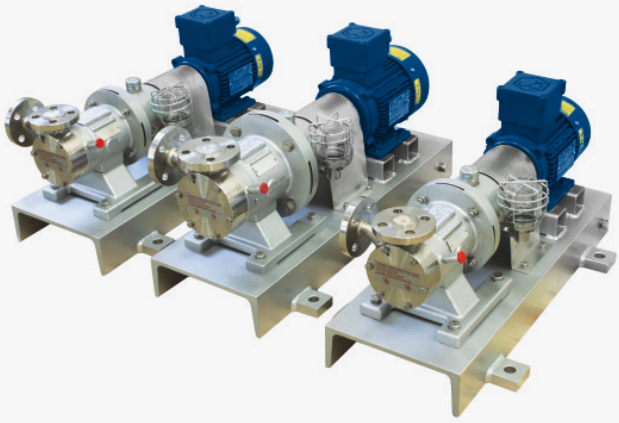
Typical services
• Pumping dangerous and radioactive liquids • Transfer of solvents, acids, alkalis, refrigerants • Heat transfer oil and explosive fluids • Pilot plants • Mechanical seal flushing • Chemical processing • Hydrocarbon processing/Refining • Municipal (scrubber system) • Biofuels • Pulp and Paper • Pharmaceutical • Biochemical

Options & special executions
• Flanged ports ISO/ANSI • Tri-clamp ports • High-temperature design • Low-temperature design • High-pressure design • Special polished finishing • Jacketed coupling housing • Jacketed end cover • Thermowell



Close coupled pump for hygienic applications



Special execution for high temperature