

ETN EVO

Plastic Lined Magnetic Drive Centrifugal Pumps



ETN EVO 50 ETFE

Plastic and Fluoroplastic Lined Magnetic drive Horizontal - Single Stage - Centrifugal pumps Sub-ISO designed
Lining: PP (Polypropylene), ETFE (Ethylene tetrafluoroethylene)
Close-coupled execution



Comply to :
2006/42/CE

Design to :
sub - ISO 2858

ATEX 100 
Directive 2014/34/EU

Flanged
UNI 1092-2 (ISO 7005-2)
PN10RF type B
slotted ANSI 150RF



CDR

Pumps UK Ltd

ETN EVO

Mag drive concept

The synchronous drive configuration is based on an outer magnet ring assembly built to magnetically couple with an inner magnet ring assembly.

These two magnet rings are locked together by the flux of attracting magnet poles flowing through the containment isolation shell.



ETN Evo STANDARD EXECUTION



ETN Evo WITH MOTOR

Versatility

The ETN offer a wide range of materials for the wetted parts :

- PP (Polypropylene)
- ETFE (Ethylene tetrafluoro ethylene)

Reliability

New internal circulation path for top reliability, even under stress conditions

Design

Made with a reliable quality as the UTN but designed for smaller applications (low duty)

Application fields

Basic chemical



Fine Chemical Batch Processing



Waste Water Treatment



Air treatment Scrubber



Tank loading



C.I.P.

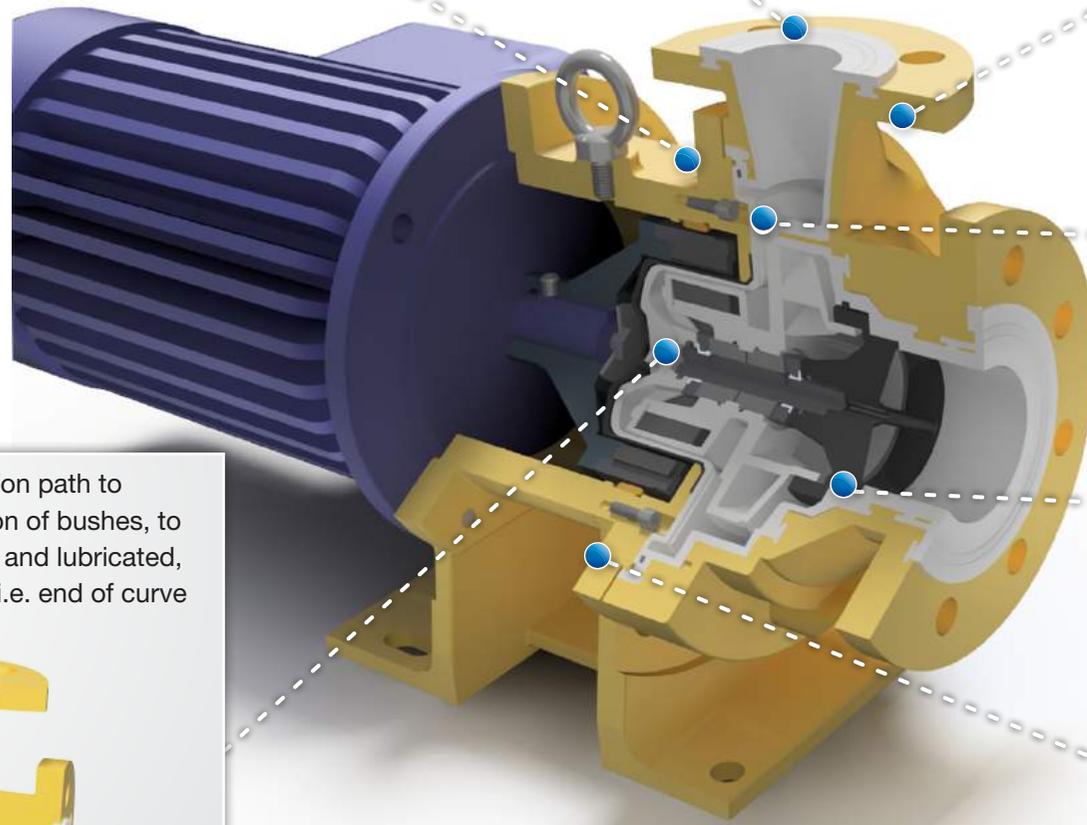


3D VIEW

Inner and Outer magnet are equipped with NdFeB (neodymium iron boron) or SmCo (samarium cobalt) permanent magnets. Patented cage magnet attachment guarantees stability during the operation of the pump.

Top centerline discharge for air handling, self-venting.

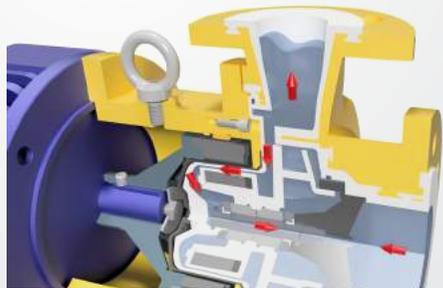
All wetted parts have a high chemical resistance employing a performing material as ETFE of at least 3 mm thickness. Alternative available materials for the Wetted parts: PP.



ETFE Non-metallic double Isolation Shell configuration standard on all ETN series.

Vacuum resistant housing ETFE lining is made through Transfer Moulding process.

ETN Evo: new internal circulation path to improve flushing and lubrication of bushes, to keep bushes and shaft cooled and lubricated, even under stress conditions, i.e. end of curve and/or cavitation conditions



Sealless design
Total containment, essential for hazardous, aggressive or valuable product.



CASING

The ductile cast iron armour protects the fluoroplastic peripheral surfaces of the pump from pipe strain, vibration, external shocks and during the handling; moreover it allows the casing to be Vacuum resistant.



IMPELLER ASSEMBLY

The integral design of the impeller and inner magnet prevents any misalignment problem, reducing also the production cost.

Standard back vanes reduce axial thrust and seal chamber pressures to guarantee an extraordinary bearing and seal life.

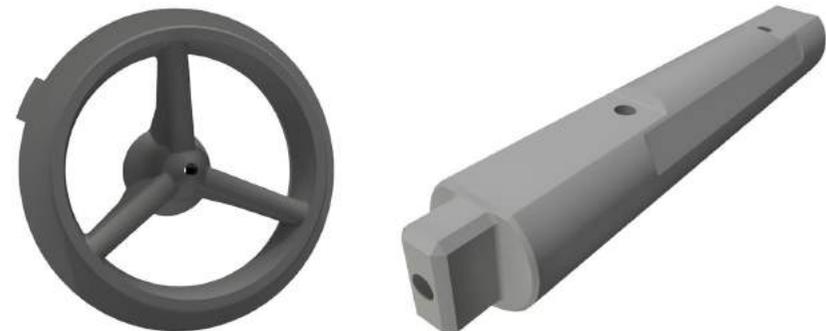


ISOLATION SHELL

- ETFE on wet side externally reinforced by Polycarbonate reinforcement.
- Zero Eddy Current losses thanks to non-metallic execution.
- Generous flushing canals on shaft support.

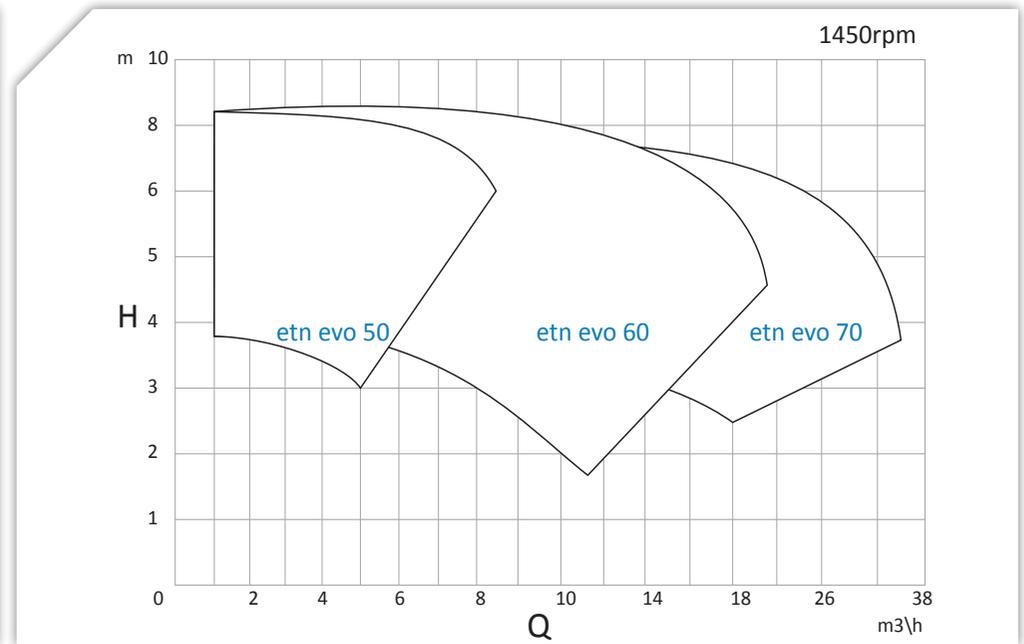
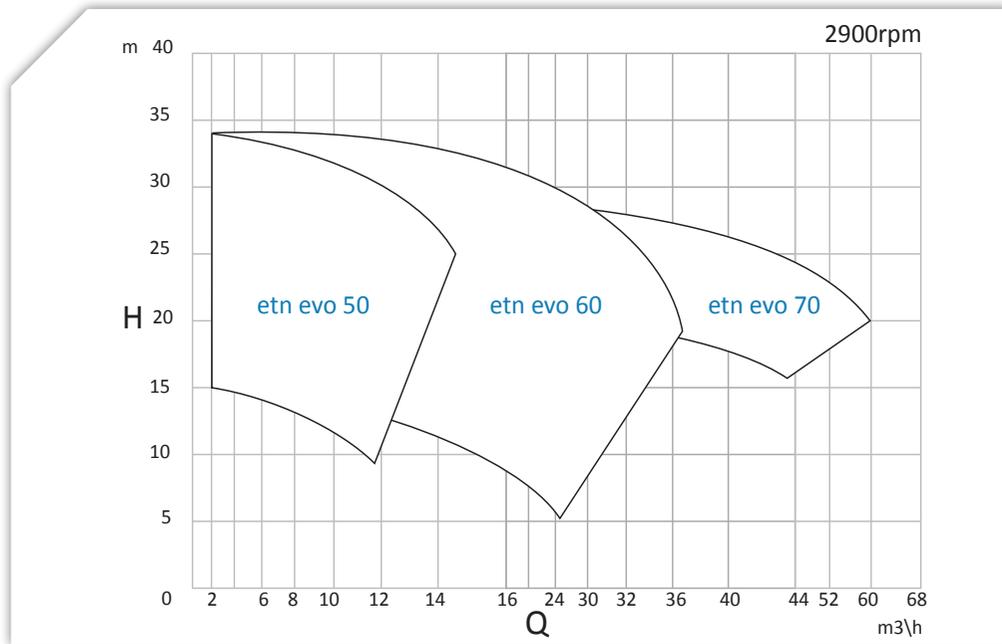
NEW SHAFT AND SUCTION COVER

New execution with central and secondary paths, for optimal bushes lubrication and heat removal.

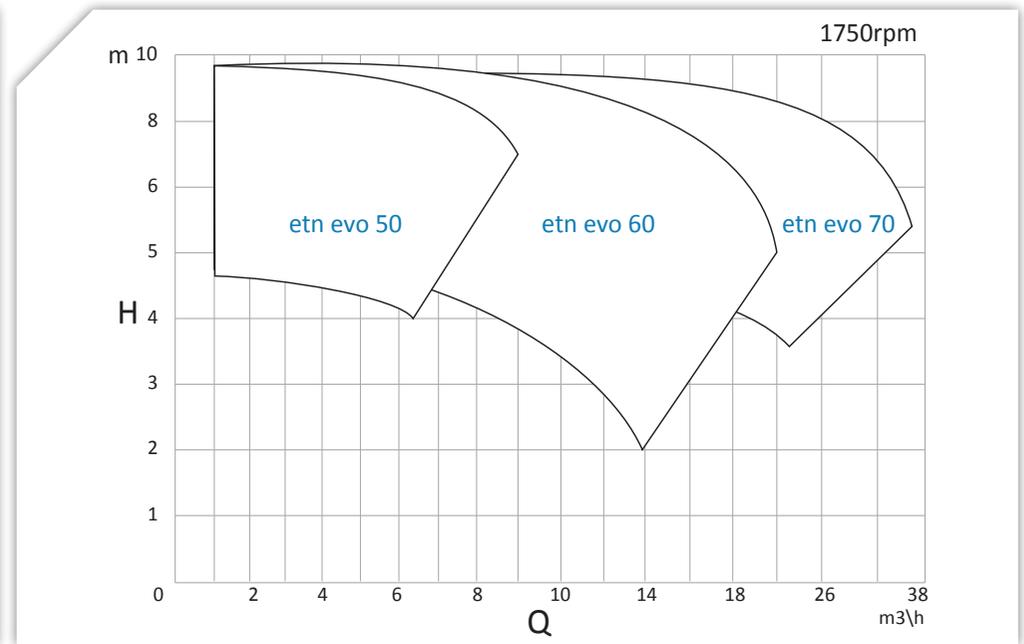
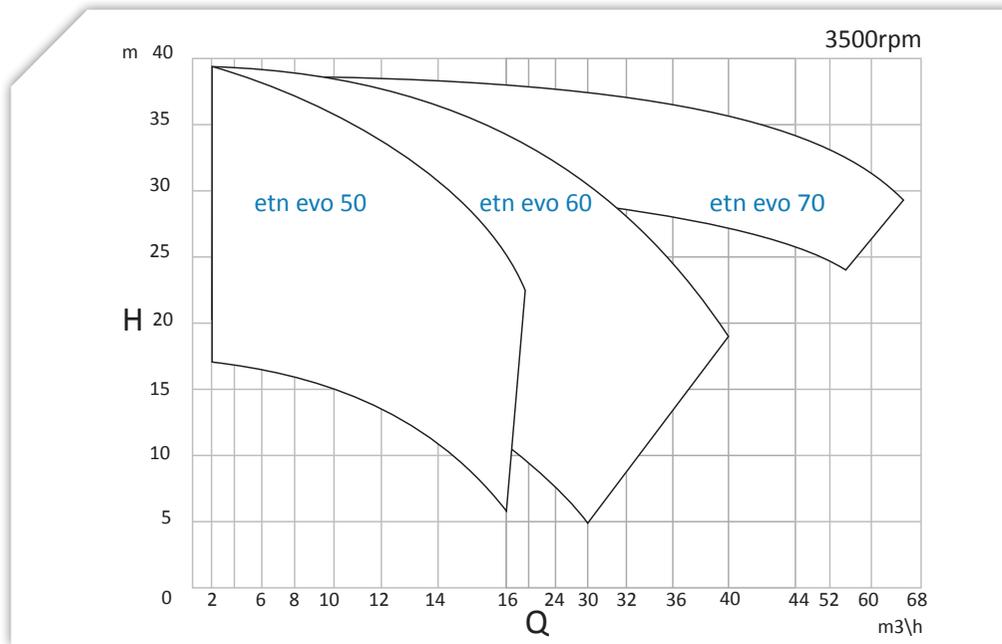


PERFORMANCE FIELDS

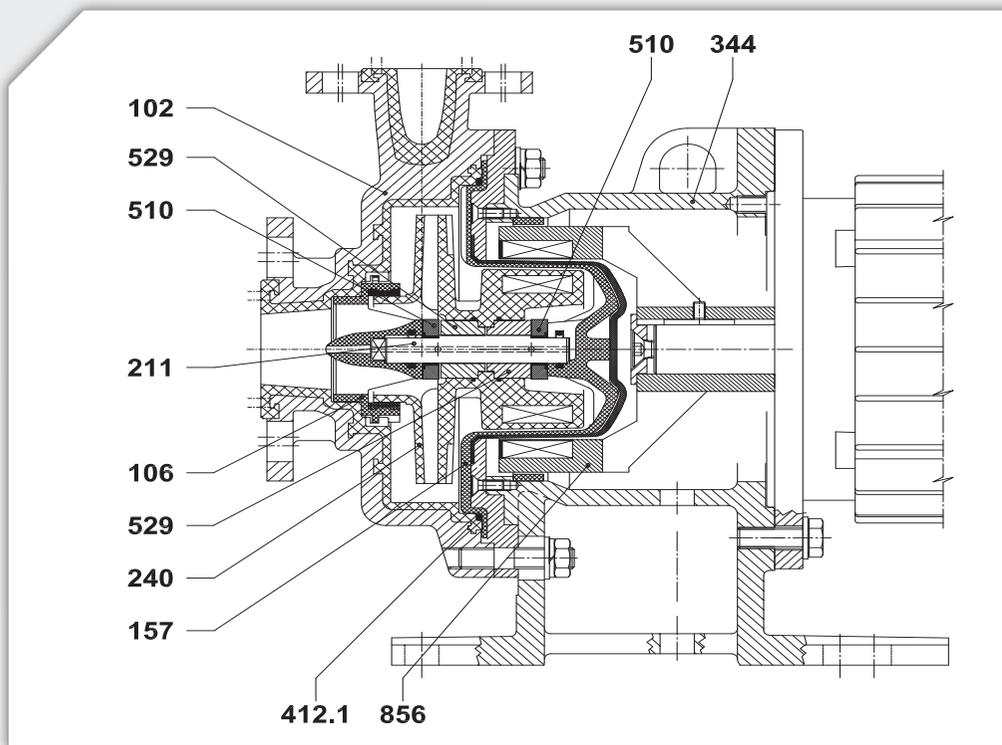
50Hz



60Hz



SECTIONAL DRAWING



Part list

DIN	Components	Materials
102	Casing	PP lined / ETFE lined
106	Suction casing	ETFE+CF
157	Isolation shell	ETFE+PC+PP
211	Shaft	SSiC / Al2O3 / RunSafeSSiC
240	Impeller	PP / ETFE
344	Lantern	GS400
412.1	O-Ring (Casing)	EPDM / FPM / FPM-FEP
510	Thrust Bearing	SSiC / Al2O3 /RunSafeSSiC
529	Bearing sleeve	SSiC / Al2O3 / Graphite /RunSafeSSiC
856	Outer magnet	GS400+Ryton

Technical Specifications

Performances 2900 rpm	Q max = 60 m3/h -> H max = 34 mcl
Electric motors	0.75 kW (motor size 80) -> 7,5 kW motor size 132)
Temperature range	<ul style="list-style-type: none"> • PP: - 10 °C -> + 60 °C • ETFE: - 15 °C -> + 90 °C
Allowable pressure range	<ul style="list-style-type: none"> • PP: from 6 bar (20 °C) to 4 bar (60 °C) • ETFE : from 6 bar (20 °C) to 4 bar (95 °C)
Suction / Delivery	<ul style="list-style-type: none"> • ETN EVO 50: DN40/DN25 ETN EVO 60 : DN65/DN40 • ETN EVO 70: DN80/DN50
Flange connections	UNI 1092-2 / ISO 7005-2 PN 16, type B slotted to ASME /ANSI class 150
Viscosity	0,5 cSt min - 60 cSt max
Allowable solids	Max concentration 2 % by weight Max particles size 0,10 mm

Painting Coating Quality

PAINTING COATING QUALITY

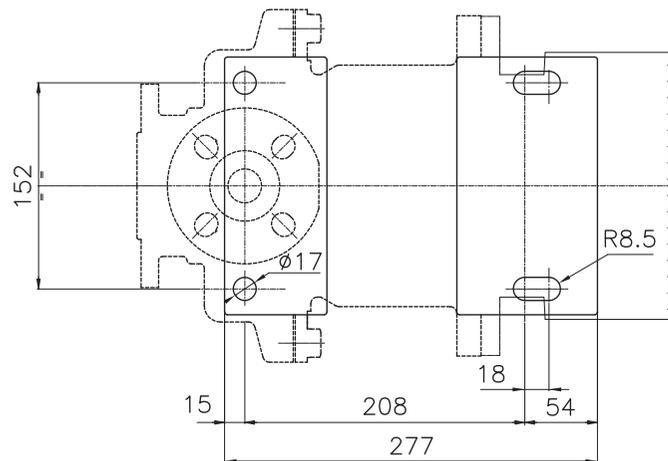
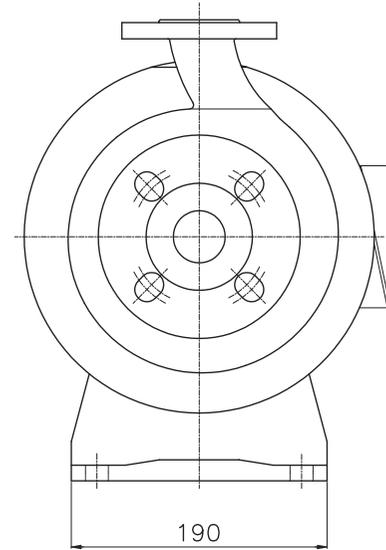
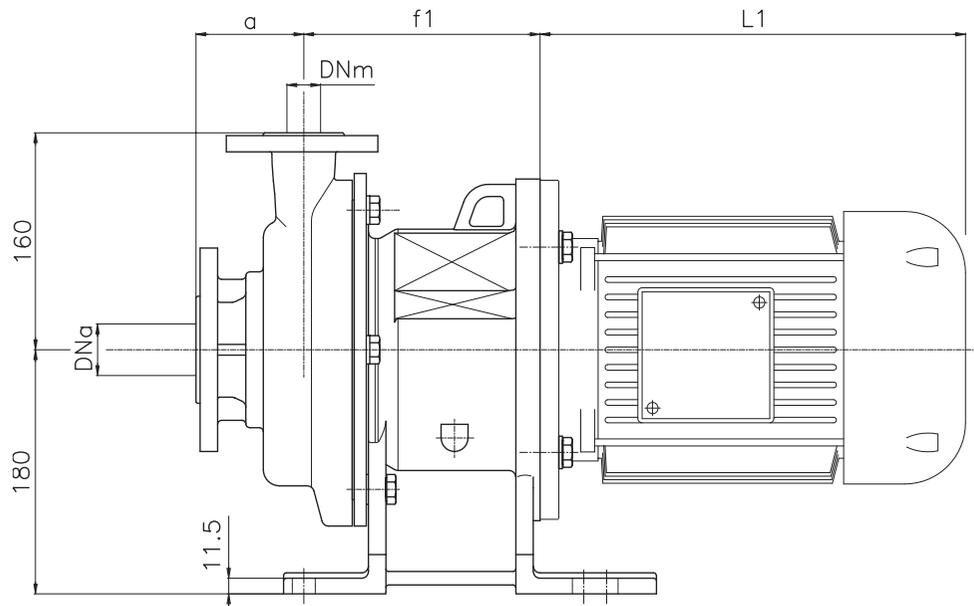
The metal surfaces are protected by a high performance three layers coating (240 micron total)

- Epoxy zinc paint
- Epoxy amidic modified viny
- Epoxy enamel paint or aliphatic acrylic polyurethane

Available upon request :

EN ISO 12944-5 C5M and C5I protecting paint system grades

OVERALL DIMENSIONS



Model	DNa**	DNm**	a (mm)
ETN EVO 50 PP / ETFE	40	25	80
	40	25	80
ETN EVO 60 PP / ETFE	65	40	80
	65	40	80
	65	40	80
ETN EVO 70 PP / ETFE	80	50	100
	80	50	100

B5 MOTOR	FRAME	f1 (mm)
	80	175.5
	90	175.5
	90	175.5
	100	175.5
	112	175.5
	132	193.5

*L1 dimension is according to installed motor manufacturer

** Flanges dimensions according to UNI 1092-2 slotted ANSI 150 RF



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Technical Characteristics:

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