STN





STN 30



STN 40

Compact, Plastic Magnetic drive Horizontal - Single Stage - Centrifugal pumps PP-GF (Polypropylene-Glass filled) - CFR - ETFE Close-coupled execution



Comply to: 2006/42/CE

Available upon request:

ATEX 100 Directive 2014/34/CE

Flanges : UNI 1092 PN10RF type B ANSI 150RF



STN

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.



STANDARD EXECUTION with motor

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

• PP-GF (Polypropylene-Glass filled)

Versatilitu

Reliability

Design

Water treatment Nonexchange Ion exchange regeneration

• CFR-ETFE (Carbon filled - Ethylene tetrafluoroethylene) - *only

C.I.P.

Paperindustry

STN ATEX EXECUTION without motor

Galvanic Industry

Suitable for handling corrosive, aggressive and hazardous liquids (low viscosity, clean or slightly contaminated) in the chemical applications.

Made with a reliable quality like the ETN range, but designed for a redeuced and economical requirement profile



3D VIEW - STN 30 / 40

Inner and Outer magnets are equipped with rare earth permanent magnets. Patented cage magnet attachment guarantees stability during the operation of the pump. High chemical resistance employing a performing material as CFR-ETFE.

Alternative available materials for the Wetted parts: PP.

The casing's design is reinforced by a solid rib structure.

The STN are available in close coupled execution, suitable to be coupled with standard electrical motors.

Sealless design.

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

FEATURES - STN 30 / 40



CASING

Available in CFR-ETFE and PP-GF execution.

Standard casing drain for a complete and fast draining of the casing.



IMPELLER ASSEMBLY

- The integral design of the impeller and inner magnet prevents any misalignment problem, also reducing the production cost.
- Standard back vanes reduce axial thrust and seal chamber pressures to guarantee an extraordinary bearing and seal life.



IMPELLER ASSEMBLY

- ETFE Non-metallic double Isolation Shell configuration on wet side, externally reinforced by a Polycarbonate can. As alternative, it is available made by a solid 3 mm PP-GF layer
- Zero Eddy Current Losses thanks to non-metallic execution



SHAFT AND BUSHES

Axial and radial loads are well distributed thanks to the highly reliable rotating parts design.

The static shaft (SiC or Ceramic) is supported in the can and by the lining suction cover.



SECTIONAL DRAWING - STN 30 / 40



Performances 2900 rpm	Q max = 28 m3/h -> H max = 25 mcl
Electric Motors	0.75 kW (motor size 80) -> 4 kW (motor size 112)
Temperature range	 PP-GF : 0°C -> +60°C CFR-ETFE : -15°C -> +80°C
Allowable Pressure Range	 PP: from 6 bar (20°C) to 4 bar (60°C) CFR-ETFE: from 6 bar (20°C) to 4 bar (80°C)
Threaded Connections	STN 30 (G2" X G1") STN 40 (G2"¾ X G1"½) * as option: Flanges ISO 1092 PN10RF or ANSI 150RF
Viscosity	0,5 cSt min - 60 cSt max
Allowable Solids	Max concentration 2 % by weight / Max particle size 0,10 mm

	DIN	Component	Material
	102	Casing	PP-GF / CFR-ETFE
	157	Isolation Shell	PP-GF / ETFE+PC
	183	Support foot	Ryton/Inox
	211	Pump Shaft	SiC / Al2O3
	240	Impeller Assembly	PP/ETFE
	344	Lantern	PP-GF / GS400
	412.1	O-Ring Casing	EPDM / FPM / FKM
	412.5	O-Ring	EPDM / FPM / FKM
	510	Thrust Bearing	SiC / Al2O3
	529	Bearing Sleeve	SIC / PTFE-CARBON / GRAPHITE
	856	Outer Magnet	GS400+Ryton
ŗ	912	Threaded Cap	PTFE

	DIN	Component	Material
	412.3	O-Ring	EPDM /FPM / FKM
Ω Ω	412.4	O-Ring	EPDM / FPM / FKM
	723.1	Suction Flange	PP-STEEL / AISI 304
	723.2	Discharge flange	PP-STEEL / AISI 304
	740.1	Flare connection	PP / ETFE-AISI 304
	740.2	Flare connection	PP / ETFE-AISI 304

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OVERALL DIMENSIONS - STN 30 / 40

STN 30/40 MOTOR SIZE 80/90



STN 30/40 MOTOR SIZE 100/112



STN 30/40 MOTOR SIZE 80/90

Model	DNa	DNm	da	dm	a (mm)	L (mm)	Motor Frame		
STN 30	40	20	G 2"	G 1''	60	370	80 / 90 B5		
STN 40	50	32	G 2 3/4''	G 1 1/2"	67	377	80 / 90 B5		

STN 30/40 MOTOR SIZE 100/112

Model	DNa	DNm	da	dm	a (mm)	b (mm)	h1 (mm)	L (mm)	f1 (mm)	m (mm)	n (mm)	Motor Frame
GTNLDD	40	20	G 2''	G 1"	60	63	100	438	173	180	200	100 B3 / B14
STN 30	40	20	G 2''	G 1''	60	70	112	443	173	190	240	112 B3 / B14
	50	32	G 2 -3/4''	G 1-1/2"	67	63	100	443	173	180	200	100 B3 / B14
SIN 40	50	32	G 2-3/4''	G 1-1/2''	67	70	112	450	173	190	240	112 B3 / B14

FLANGED EXECUTION





3D VIEW - STN 70

Inner and Outer magnets are equipped with rare earth permanent magnets. Patented cage magnet attachment guarantees stability during the operation of the pump.



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. The casing's design is reinforced by a solid rib structure.

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

FEATURES - STN 70



CASING

Available in PP-GF execution

• Standard casing drain for a complete and fast draining of the casing.



IMPELLER ASSEMBLY

- The integral design of the impeller and inner magnet prevents any misalignment problem, also reducing the production cost.
- Standard back vanes reduce axial thrust and seal chamber pressures to guarantee an extraordinary bearing and seal life.



ISOLATION SHELL

Available made by a solid 3 mm PP-GF layer Zero Eddy Current Losses thanks to non-metallic execution



SHAFT AND BUSHES

Axial and radial loads are well distributed thanks to the highly reliable rotating parts design.

The static shaft (SiC or Ceramic) is supported in the can and by the lining suction cover.

Interchangeability of bushes, axial thrusts and shaft between ETN EVO and STN 70

Bushes available in PTFE/Carbon.



SECTIONAL DRAWING - STN 70

1				DIN	Component	Material						
	510 ્			102	Casing	PP-GF						
				157	Isolation shell	PP						
	102			211	Shaft	SiC / Al2O3						
				240	Impeller assembly	PP						
				344	Lantern	GS400						
	211		L.	412.1	O-ring casing	EPDM / FPM						
	529		Part Lis	412.5	O-Ring	EPDM / FPM						
				510	Thrust Bearing	SiC / Al2O3						
	,			529	Bearing Sleeve	PTFE/carbon/SIC/graphite						
	/ 240) 412.1 157 344	Pul	856	Outer Magnet	GS400+Ryton						
	Performances 2900 rpm	Q max = 62 m3/h -> H max = 30 mcl		The m	netal surfaces are protecte	d by a high performance three						
	Electric Motors	0.75 kW (motor size 80) -> 7,5kW motor size 132		layers	coating (240 micron total)							
	Temperature range	● PP-GF : 0°C -> +60°C	lalit	• Epo:	xy zinc paint							
	Allowable Pressure Range	 PP : from 6 bar (20°C) to 4 bar (60°C) 	ng Qu	• Epo; • Epo;	 Epoxy amidic modified vinyl Epoxy enamel paint or aliphatic acrylic polyurethane. Available upon request : EN ISO 12944-5 C5M and C5I protecting paint system grades RAL 1017 							
	Threaded Connections	STN 70 Threaded execution = DN 80 / DN 50 Flanged execution = DN 80 / DN 65 * as option: flanges ISO 1092 PN16RF or ANSI 150RF	ing Coati	• Avai pain • RAL								
	Viscosity	1cSt min - 100 cSt max	aint									
	Allowable Solids	Max concentration 2 % by weight / Max particle size 0,10 mm	ů.									

STN

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OVERALL DIMENSIONS - STN 70



Pump	DNo	DN	New	E.		To.		E.		E.		E.		Fa Fa I		da da		a a		a1 B2		c	Ød	h1	h2	h3	L2	L3	L5			F1				Weight
Model	DNa	DNIII		га		riii	da	da	am	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Мо	otor Si	ze		Motor Frame	pump (w\o								
																					80	90	100	112	132	Tunc	motor)									
STN 70	80	50	Dn80	UNI EN 1092-1 PN 10RF or ANSI 150	Dn65	UNI EN 1092-1 PN 10RF or ANSI 150	G 3"	G 2"1/2	98	133	190	152	2	17	180	187	229	47	216	10	mm	mm	mm	mm	mm		kg									
				TORE OF ANSI 150			_ 1/2													178	178	178	178	196	B5	32										

*M dimension is according to installed motor manufacturer



PERFORMANCE FIELDS



No binding data refers to water at room temperature. For specific performance curve contact CDR Pompe S.R.L.

50Hz

60Hz



For further info, please visit: www.cdrpompe.com





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Technical Characteristics: The technical data and characteristics stated in this General Cataloque are not binding. CDR Pompe S.r.l. reserves the right to make

TB - STN 2019 - 00