

General Description

The CENTRAN G3 pump was designed to meet the continuous demand of the marketplace.

Excess friction is eliminated by controlling the impeller movement through the use of an additional magnetic field. This patented solution is called the bi-directional self alignment system.



Features

The CENTRAN G3 is defined as “sealless” because the rear casing divides the two magnetic units, creating a sealless hermetic case all around the impeller.

The drive magnet system excludes any type of rotating seal. The only needed seal is provided by an O-ring gasket between the volute casing and the rear casing.

The Patent System

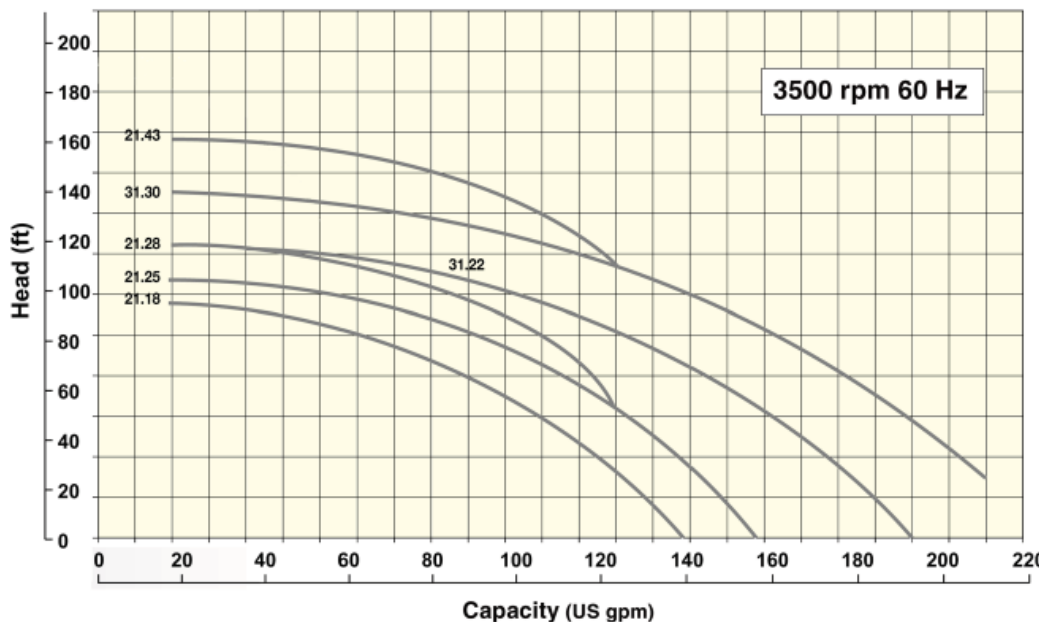
The principle of bi-directional self-alignment is used in order to define a neutral position without friction. With the use of an extra magnetic field and two work areas (one anterior and one posterior), the impeller can liberally choose to work referring to hydrodynamic loads which are determined by duty point (flow/head) on the performance curve. During standard operation, two rings, which are the limiting device of axial excursion, fix the work-space engaged by the impeller. In the case of anomalies due to pressure loss while dry running, the always active extra magnetic field counteracts the axial pushes, returning the impeller to the neutral position.

The CENTRAN G3 is defined as a sealless pump because the only seal between the volute casing and the back casing is a static o-ring type gasket, eliminating any rotating component of the seal.

Another benefit of the CENTRAN G3 is that it allows the pumping of any chemical, at low or medium temperature, with pumps made of GFR-PP (glass fibre reinforced polypropylene) or CFF-E-CTFE (Etylene-Chloro TrifluoroEtylene carbon fiber filled). Due to the internal materials of the pump, you can pump both clean fluids and mediums with solids in suspension, or those that are moderately abrasive. Liquids with a specific gravity of 1.05, 1.35, and 1.8 can be pumped at maximum flow with the correct

corresponding pump: N-standard, P-powered or S-strong-powered, respectively.

The volute casing can be rotated 90° to obtain various discharge positions. The pump's impeller is balanced in order to reduce the need for maintenance. Separating the bladed part from the magnetic portion of the pump



Materials

Version	WR	GF	GX*
Reinforced Polymers	GFR/PP	CFF/ E-CTFE	CFF/ E-CTFE
Minimum Temperature	23°F (-5°C)	-22°F (-30°C)	-22°F (-30°C)
Maximum Temperature	176°F (80°C)	230°F (110°C)	230°F (110°C)
Environmental Temperature	32/104°F (0/40°C)	-4/104°F (-20/40°C)	-4/104°F (-20/40°C)

Note: Maximum inlet pressure: 84' of head

*Compliant to ATEX 94/9/EC regulations

(driving and axial control) allows for significant money savings in case of impeller substitution.

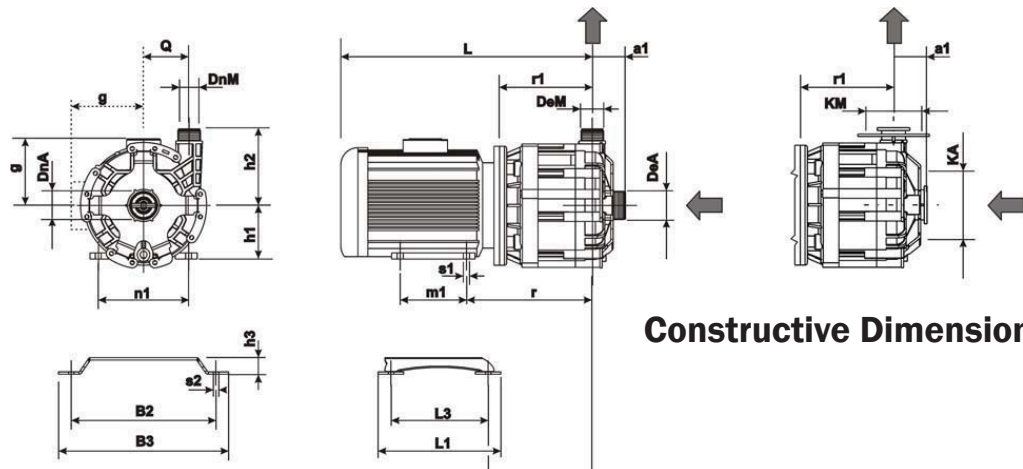
The CENTRAN G3 allows connections with NPT and ANSI flanges. The pump's motor can be installed and removed easily without dismantling or opening the volute casing (standard motors are NEMA). A stainless steel guard plate is optional on all models in order to protect the front casing from mechanical impact and piping stress. The pump base is stainless steel with ground terminals of chemical-resistant thermoplastic materials and can be supplied upon request.

Construction

TMR Version	WR	GF	GX
Volute Casing	GFR/PP	CFF/ E-CTFE	CFF/E-CTFE
Rear Casing			
Centrifugal Impeller			
O-Ring Gasket	FKM (1)	FKM (1); (2)	FKM (1); (2)

Guide Systems	R1	X1	N1	R2	X2	N2	R2
Guide Bushing	Carbon HD	SiC	GRF/ PTFE	Carbon HD	SiC	GRF/ PTFE	Carbon HD
Thrust Bush	CER		SiC		SiC		
Shaft	CER		SiC		SiC		

Note: Available upon request (1) EPDM, (2) FFKM



Constructive Dimensions

Dimension with NEMA Motors - 60 Hz

Model	21.18		21.25			21.28		21.43	31.22		31.30	05.55
Motor Size	184T	213T	184T	213T	215T	213T	215T	215T	213T	215T	215T	215T
a1	2-3/4		2-3/4			2-3/4		2-3/4	2-3/4		2-3/4	2-3/4
L	20-13/16	23-1/8	20-13/16	23-1/8			23-1/8	23-1/8	23-1/8	23-1/8	23-1/8	23-1/8
L3	3-3/4		3-3/4			3-3/4		3-3/4	3-3/4		3-3/4	3-3/4
h1	4-1/2	5-1/4	4-1/2	5-1/4			5-1/4	5-1/4	5-1/4	5-1/4	5-1/4	5-1/4
h2	6-1/2		6-1/2			6-1/2		6-1/2	6-1/2		6-1/2	6-1/2
B2	12	14-1/8	12	14-1/8			14-1/8	14-1/8	14-1/8	14-1/8	14-1/8	14-1/8
B3	14-1/8	16-7/8	14-1/8	16-7/8			16-7/8	16-7/8	16-7/8	16-7/8	16-7/8	16-7/8
h3	2-5/32		2-5/32			2-5/32		2-5/32	2-5/32		2-5/32	2-5/32
DeM	1-1/2 MNPT											
DeA	2 MNPT											
ANSI Flanged KM	3-7/8		3-7/8			3-7/8		3-7/8	3-7/8		3-7/8	3-7/8
ANSI Flanged KA	4-3/4		4-3/4			4-3/4		4-3/4	4-3/4		4-3/4	4-3/4

Dimensions in inches