

GRF

motralec

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Impeller with grinder system



General characteristics

- Impeller with grinder system
- 1,1 ÷ 1,5 kW motor power
- 2 poles
- GAS 1 1/2" - DN32 horizontal delivery port

Electromechanical assembly

Electromechanical assembly in GJL-250 cast iron, for submerged operation. Seal set comprising 2 (two) silicon carbide mechanical seals assembled opposing in inspectable oil sump. Ecological dry motor. Separate pump body. Series with explosion-proof certification.

Applications

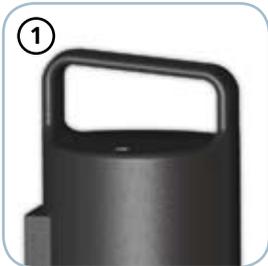
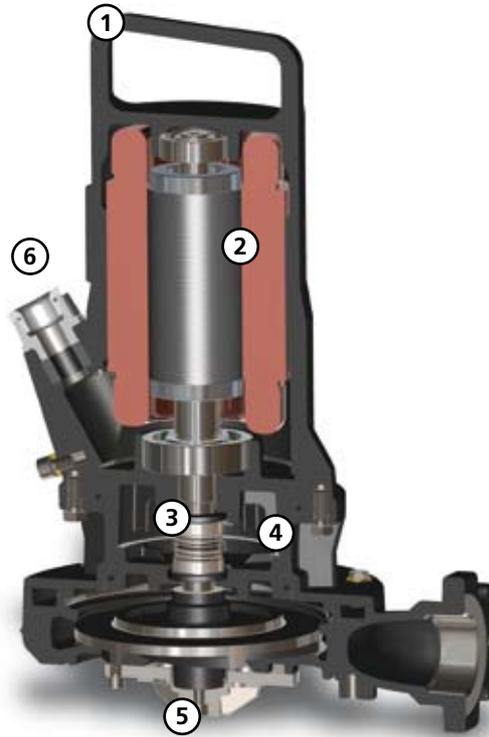
Designed specifically for use where there are traces of flammable liquids or in potentially explosive atmospheres, the GRF is especially recommended for wastewaters containing filaments or fibres, and unstrained civil and industrial wastewaters in general.

Construction materials

Case	Cast Iron EN-GJL 250
Impeller	Cast iron EN-GJL-250
Nuts and bolts	Stainless Steel - Class A2-70
Standard gasket	Rubber - NBR - VITON
Cutter material	Tool Stainless Steel - X102 CrMo17 KU
Cutting disk material	Tool Stainless Steel - X102 CrMo17 KU
Shaft	Stainless Steel - AISI 420
Set of standard mechanical seals	Two Silicon carbide mechanical seals (2SiC)

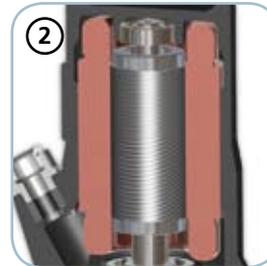
operating limits

Maximum operating temperature	40 °C
PH of treated fluid	6 to 10 pH
Viscosity of treated fluid	1 mm ² /s
Maximum immersion depth	20 m
Density of treated fluid	1 Kg/dm ³
Maximum acoustic pressure	70 dB
max starts per hour	20



Handle/Cable gland

Cast iron lifting and carrying handle. The GAS thread ring-nut can be removed to fix a rigid or flexible duct to the cable gland to protect the power supply cable



Motor

Ecological dry motor with thermal overloads



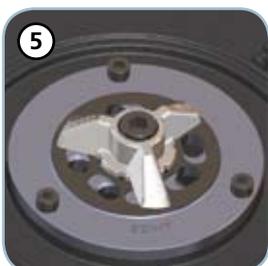
Mechanical seals

Two mechanical seals in silicon carbide (2SiC)



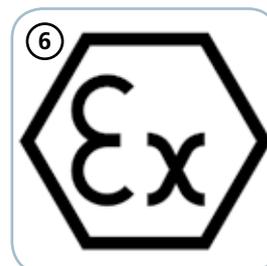
Oil sump

Large oil sump to guarantee longer mechanical seal lifetime



Grinder system

Grinder system comprising a revolving cutter and a plate with holes with sharpened edges that fine-chops filaments, preventing fouling of the impeller



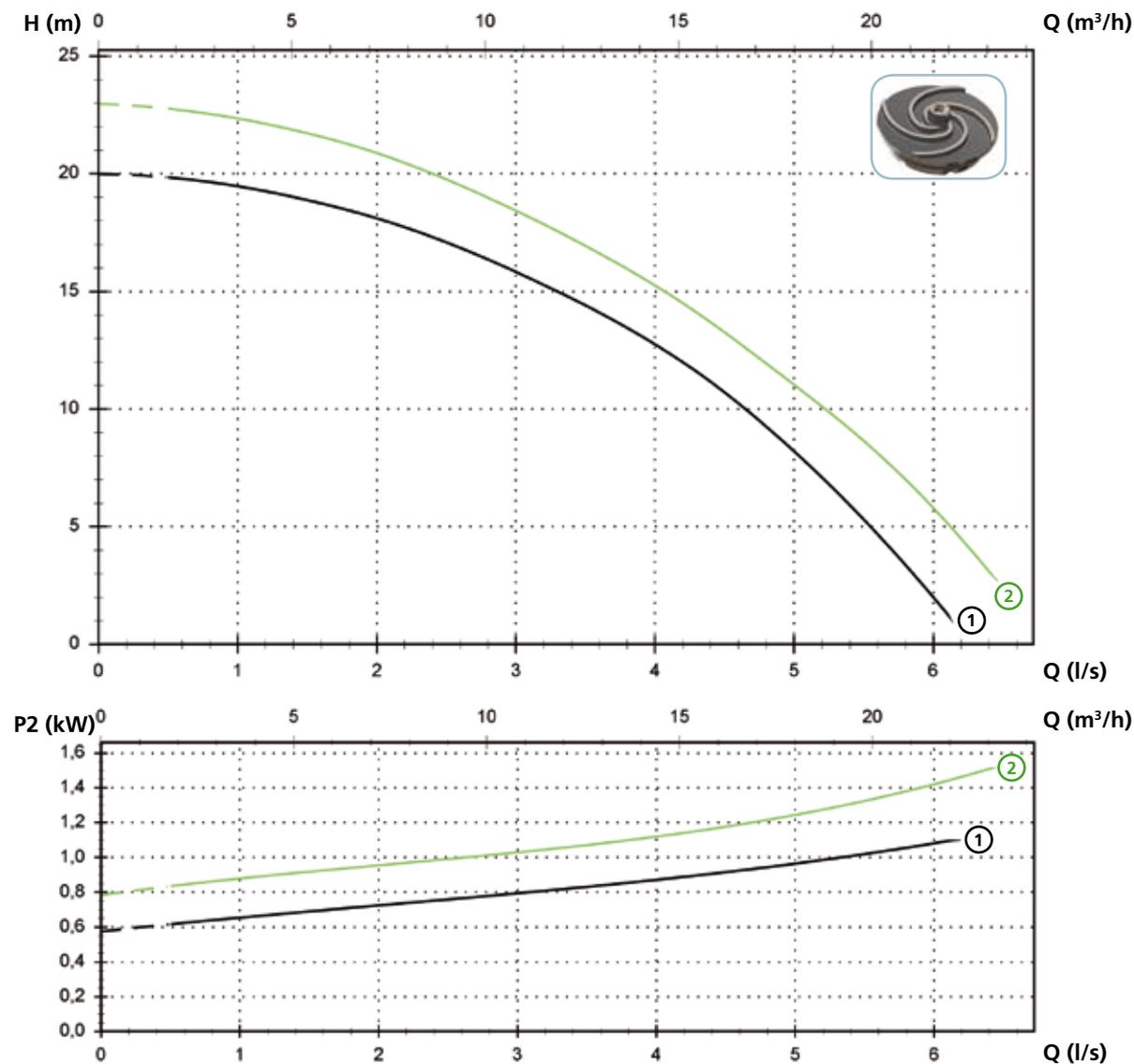
EX

Models with ATEX certification, suitable for installation in the presence of potentially explosive gases, powders and liquids

GRF

Models with horizontal GAS 1 1/2" threaded - DN32 PN6 flanged delivery port - 2 poles

Performances



Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Ø	Cable (*)	Free passage
① GRF 150/2/G40H A1CM/50	230	1	1.6	1.1	7.2	2900	G 1 1/2"-DN32 PN6	A	-
② GRF 200/2/G40H A1CM/50	230	1	2.2	1.5	9.8	2900	G 1 1/2"-DN32 PN6	A	-

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Ø	Cable (*)	Free passage
① GRF 150/2/G40H A1CT/50	400	3	1.7	1.1	2.9	2900	G 1 1/2"-DN32 PN6	A	-
② GRF 200/2/G40H A1CT/50	400	3	2.1	1.5	3.7	2900	G 1 1/2"-DN32 PN6	A	-

(*) A = NSSHOU-J 4G1.5+2x0.75 - 10 m

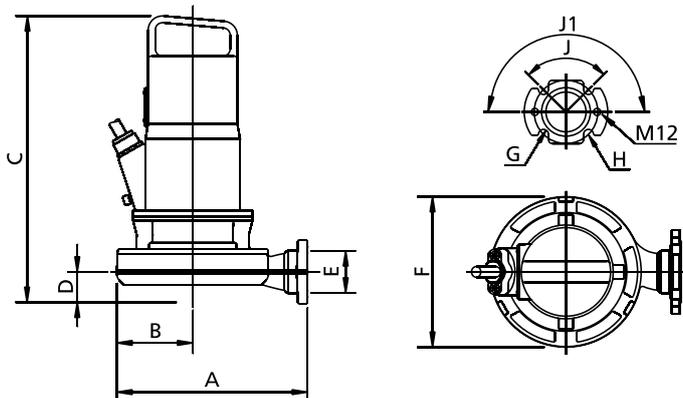
Versions available

(Key to versions on page 15)

	Electrical variants											Cooling		Mechanical seals			
	N A E	T	T C D	T C D T	T C D G T	T C S T	T C S G T	T R S	T R G	T R G T	C G F T	N	CC	2SIC	SICM	SICAL	2SICAL
GRF 150/2/G40H A1CM/50			●									●		●			
GRF 200/2/G40H A1CM/50			●									●		●			
GRF 150/2/G40H A1CT/50	●											●		●			
GRF 200/2/G40H A1CT/50	●											●		●			

NOTE: For single phase pumps thermal protections into the winding have to be connected to the electrical panel.
Capacitor and circuit breaker supplied but not connected to the pump cable.
The use of an electrical panel as circuit breaker housing is mandatory.
For installation please see use and maintenance instructions booklet.

Overall dimensions and weights



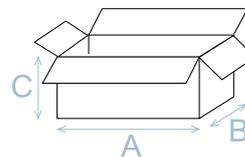
	A	B	C	D	E	F	G	H	J	J1	kg
GRF 150/2/G40H A1CM(T)/50	265	105	405	45	G 1 1/2"	215	14	90	90°	180°	32
GRF 200/2/G40H A1CM(T)/50	265	105	405	45	G 1 1/2"	215	14	90	90°	180°	34

Measurements in mm

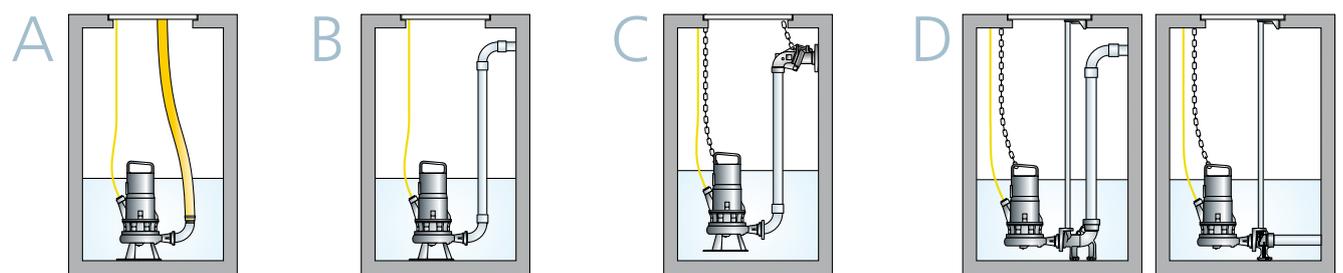
Packaging dimension

	A	B	C
GRF 150/2/G40H A1CM(T)/50	580	310	310
GRF 200/2/G40H A1CM(T)/50	580	310	310

Dimension in mm



Installations available



Dry installation available for specified models. Contact Customer Service for more information.

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