

GRINDER 1000-1200-1600

SUBMERSIBLE PUMPS



TECHNICAL DATA

Operating range:

from 3 to 18 m³/h with head up to 23 metres.

Pumped liquid:

water loaded with filamentous matter, paper or textile material, generally for use in domestic or civil sewage waste systems without grids, compatibly with the construction materials.

Liquid temperature range: from 0 °C to 35 °C.

Maximum immersion depth:

20 metres (with cable of appropriate length).

Motor protection class: IP 68.

Insulation class: F.

Standard voltage: 220-240 V - 50Hz single-phase.

380-415 V - 50Hz three-phase.

Power cable: H07RN-F, standard length 10 metres.

Supplied with: UNI 1092 PN 6 flange

Installation: fixed using a coupling device, or free in the vertical position. Continuous duty with completely submerged pump.

APPLICATIONS

Submersible cast iron pump with grinder for lifting water loaded with filamentous matter, paper or textile material, generally for use in domestic or civil sewage waste systems without grids.

CONSTRUCTION FEATURES OF THE PUMP

ENGJL 200 cast-iron cover, motor body, hydraulic body and impeller; AISI 440C grinder.
Double carbon/alumina mechanical seal in oil chamber.

CONSTRUCTION FEATURES OF THE MOTOR

Dry, asynchronous and waterproof motor, cooled by the surrounding liquid.

Continuous S1 duty with completely submerged pump.

Rotor mounted on permanently lubricated ball bearings, oversized to ensure long-term reliability and extended lifetime.

In the single-phase version, the pump is supplied with capacitor housed in an appropriate box with circuit breaker that enables start-up. The automatic version is also supplied with a float.

Single-phase version supplied with float and control panel with overload protection and start-up capacitors.

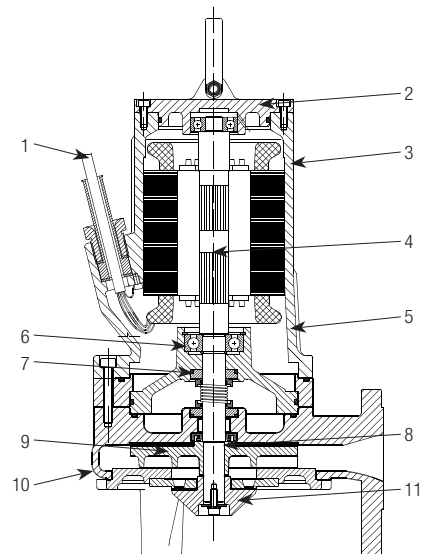
Number of poles: 2

Max starts/hour: 15

MATERIALS

N.	PARTS*	MATERIALS
1	POWER INPUT CABLE	H07RN-F
2	UPPER COVER	EN GJL 200 CAST IRON
3	MOTOR BODY	EN GJL 200 cast iron
4	MOTOR SHAFT	AISI 420
5	OR	NBR
6	BEARING FLANGE	EN GJL 200 cast iron
7	MECHANICAL SEAL	Motor: Carbon graphite - Alumina Pump: Carbon graphite - Alumina
8	RADIAL SEAL	NBR
9	IMPELLER	EN GJL 200 CAST IRON
10	HYDRAULIC BODY	EN GJL 200 CAST IRON
11	GRINDER	HARD AISI 440C STEEL

* In contact with the liquid



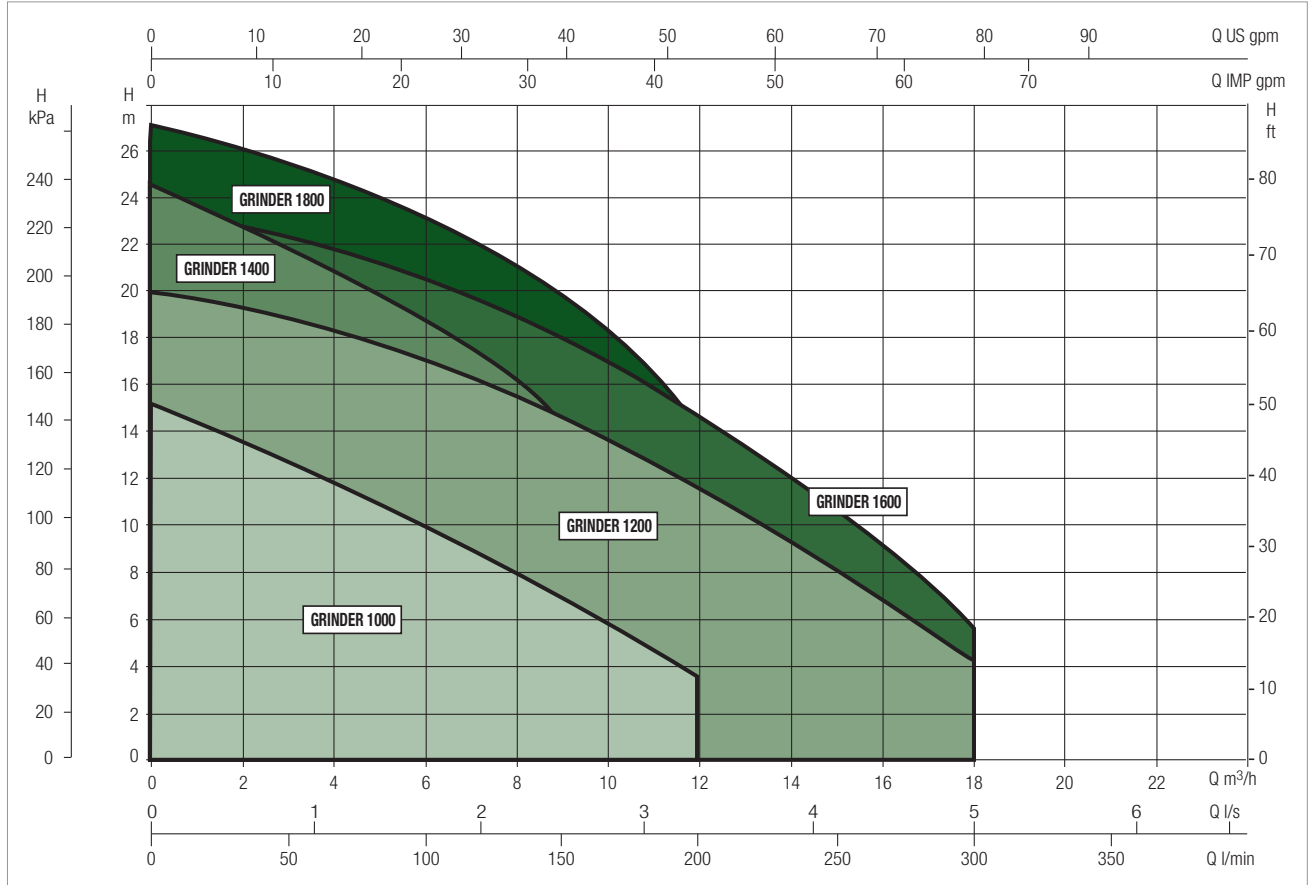
GRINDER RANGE

SUBMERSIBLE PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

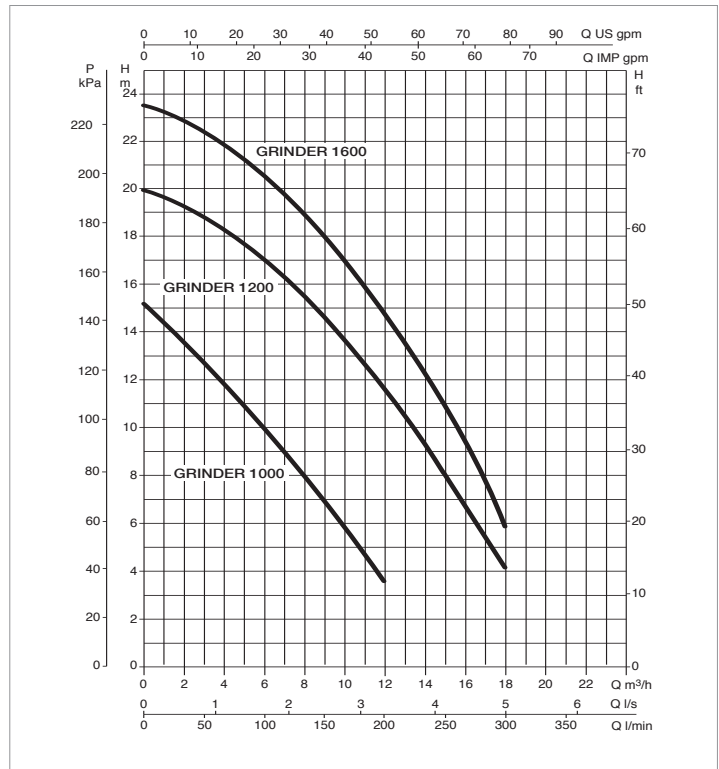
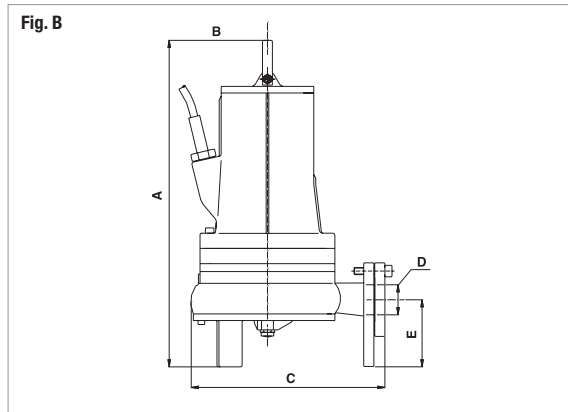
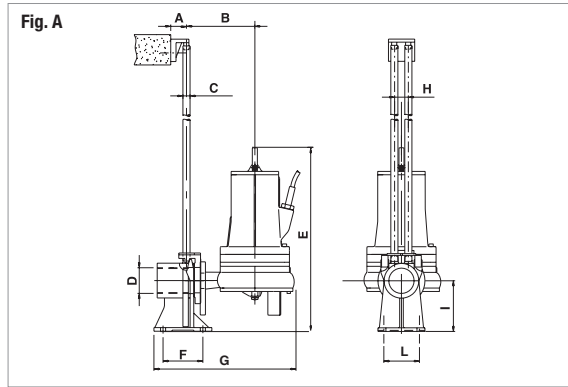


SELECTION TABLE - GRINDER 1000-1200-1600

MODEL	Q= m ³ /h	0	3	6	9	12	15	18
	Q=l/min	0	50	100	150	200	250	300
GRINDER 1000 M-T	H (m)	15.2	12.9	10	6.9	3.6		
GRINDER 1200 M-T		20	18.9	17	14.7	11.7	8.1	4.2
GRINDER 1600 M-T		23.5	22.3	20.6	18	14.8	11	5.7

GRINDER 1000-1200-1600 - SUBMERSIBLE PUMPS FOR LIFTING WASTE WATER FOR GRINDING

Liquid temperature range: from 0 °C to +35 °C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

MODEL	POWER INPUT 50 Hz	P1 MAX kW	ELECTRICAL DATA		In A	CAPACITOR	
			P2 NOMINAL			μF	Vc
			kW	HP			
GRINDER 1000 M-A	1 x 220 - 240V ~	1.5	1	1.3	8	30+40	450
GRINDER 1000 M-NA	1 x 220 - 240V ~	1.5	1	1.3	8	30+40	450
GRINDER 1000 T	3 x 400V ~	1.6	1	1.3	2.8	-	-
GRINDER 1200 M-A	1 x 220 - 240V ~	2.8	1.5	2	12.7	35+40	450
GRINDER 1200 M-NA	1 x 220 - 240V ~	2.8	1.5	2	12.7	35+40	450
GRINDER 1200 T	3 x 400V ~	2.7	1.5	2	4.7	-	-
GRINDER 1600 M-A	1 x 220 - 240V ~	3.8	1.8	2.4	16.8	35+40	450
GRINDER 1600 M-NA	1 x 220 - 240V ~	3.8	1.8	2.4	16.8	35+40	450
GRINDER 1600 T	3 x 400V ~	3.3	1.8	2.4	5.8	-	-

MODEL (FIG. A)	A	B	C Ø	D	E	F	G	H	I	L
GRINDER 1000	50	160	¾"	2"G	540	85	410	38	130	94
GRINDER 1200	50	160	¾"	2"G	540	85	410	38	130	94
GRINDER 1600	50	160	¾"	2"G	540	85	410	38	130	94

MODEL (FIG. B)	A	B	C	E	DNM GAS	PACKING DIMENSIONS			VOLUME (m ³)	WEIGHT kg
						L/A	L/B	H		
GRINDER 1000	445	145	270	110	2"	680	330	446	0.1	38
GRINDER 1200	445	145	270	110	2"	680	330	446	0.1	39
GRINDER 1600	445	145	270	110	2"	680	330	446	0.1	40