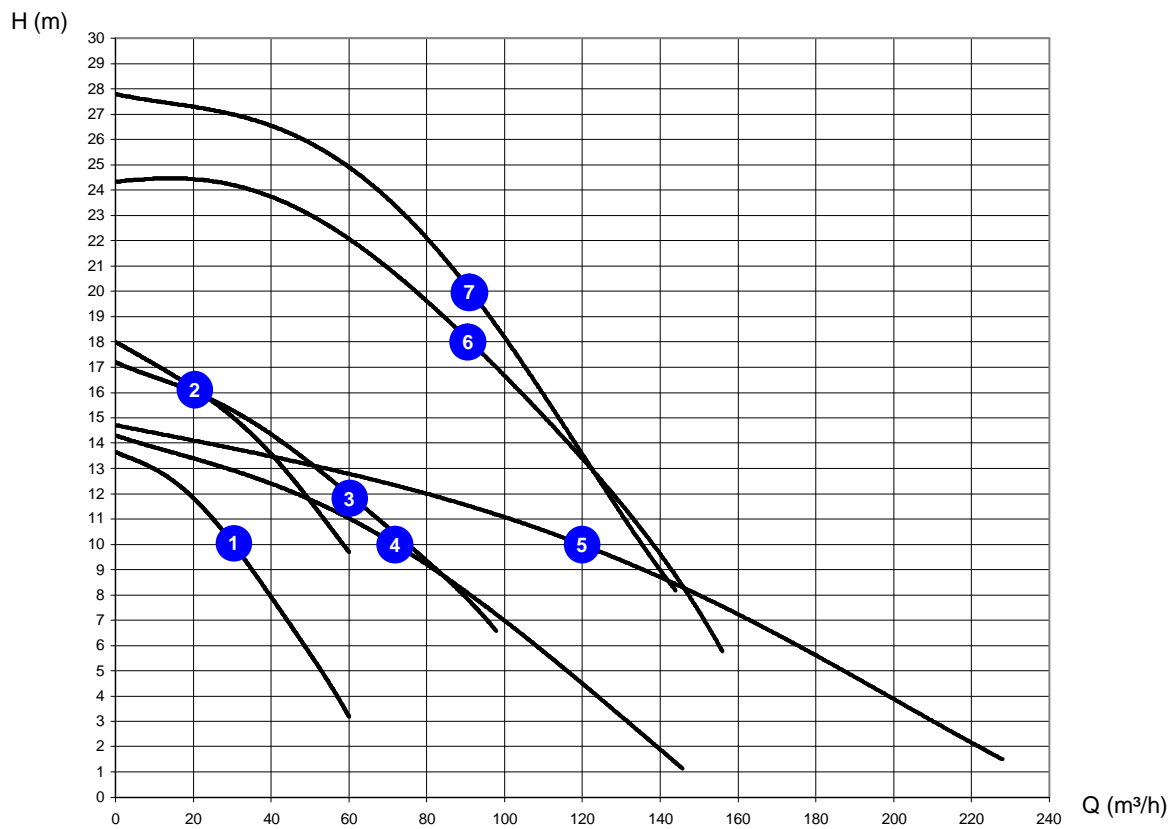


Toyo

Wear resistant pumps with agitator

TECHNICAL SPECIFICATIONS
GR PUMPS

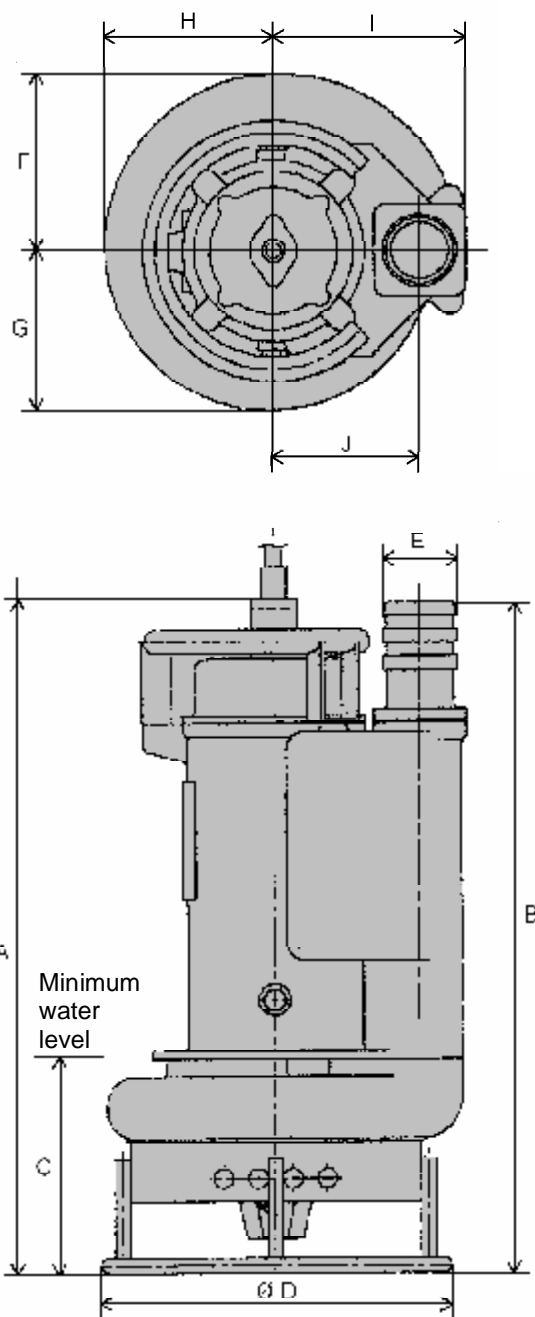
Performance curves



Nr	Type	Outlet (inch)(mm)	Capacity (m³/h)	Manom. head (m)	Particle size (mm)	Power (kW)	Revolution (1/min) 50Hz	Current (A) 400V	Electr. cable	Weight (kg)
1	GR 3	3 80	30	10	22	2.2	1425	5.5	4x6mm ²	115
2	GR 5	3 80	30	15	22	3.7	1445	8.5	4x6mm ²	135
3	GR 7.5	4 100	60	12	25	5.5	1425	11	4x6mm ²	145
4	GR 10-100	4 100	72	10	35	7.5	1435	15	4x6mm ²	180
5	GR 10	6 150	120	10	35	7.5	1435	15	4x6mm ²	180
6	GR 15	4 100	90	18	30	11	1445	23	4x10 mm ²	270
7	GR 15H	4 100	90	20	25	11	1445	23	4x10 mm ²	270

DIMENSIONS

Toyo



DIMENSIONS		A	B	C	D	E	F	G	H	I	J
1	GR 3	677	673	235	384	80	195	175	185	210	160
2	GR 5	742	738	235	384	80	195	175	185	210	160
3	GR 7.5	757	760	250	396	100	213	188	200	225	170
4	GR 10-100	800	843	250	396	100	250	200	225	275	195
5	GR 10	800	843	250	396	150	250	200	225	275	195
6	GR 15	890	823	280	488	100	254	240	242	272	215
7	GR 15H	890	823	280	488	100	254	240	242	272	215

TECHNICAL DATA

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• Concept :

The TOYO GR range of submersible pumps with agitator has been specially designed to handle heavy and abrasive slurries.

These centrifugal pumps, with semi-open impeller, feature a unique agitator design. This agitator lifts sediments into suspension, creating a slurry mixture. GR pumps enable continuous pumping of sludge with a density of 1.15 kg/dm³.

Robust construction, careful selection of materials and unique contour components, have produced a pump with excellent abrasion resistance. These characteristics ensure long service life and economical operation. The impeller, the wear plates and the agitator are manufactured in cast chrome iron (24 to 28 % Cr).

A strong short shaft, supported by a series of carefully selected bearings and a double mechanical seal, operating in an oil bath, ensure tightness in hardest of conditions.

The axial flow of the pumped liquid allows the reduction of the outer diameter of pump and hoses assembly.

The cooling of the electric class F motor is assured with the environment.

Servicing the pumps and maintaining good working order is easy. One adjustable wear plate allows optimizing hydraulic efficiency of the pump.

The GR pumps are equipped with a thermal protection in standard version.

• Operating conditions :

GR pumps can handle slurries with solid contents of up to 30 % by weight, particle sizes up to 35 mm and liquid temperatures up to 60°C with pH levels between 4 and 9.5. The maximum operating depth is 30 m.

• Electric power requirements* :

Pump type	Power kVA	Amp. 400 V
GR 3	6	5.5
GR 5	12	8.5
GR 7.5	15	11
GR 10-100	20	15
GR 10	20	15
GR 15	30	23
GR 15H	30	23

*These figures are given as an indication.

• Electric cable :

The standard cable type to be used for connecting the pump is HO7RN-F and its specifications should correspond to the following :

Pump type	Section	Outer diam. mm	Max. length m / 400V
GR 3	4 x 6 mm ²	19	500
GR 5	4 x 6 mm ²	19	340
GR 7.5	4 x 6 mm ²	19	260
GR 10-100	4 x 6 mm ²	19	190
GR 10	4 x 6 mm ²	19	190
GR 15	4x10 mm ²	23	180
GR 15H	4x10 mm ²	23	180

• Control panel :

For 1 to 10 HP GR pumps, we recommend to use a control panel equipped with a direct starter.

For 15 HP GR pumps, we recommend to use a control panel equipped with a statoric starter.



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