



Submersible slurry pumps for Power Plants, Steel Mills, Quarries, Mines and other abrasive applications.



Slurry pumps:

- Bravo 20
- Bravo 30
- Bravo 40
- Bravo 50
- Bravo 60
- Bravo 70

60 Hz



Submersible slurry pumps for pumping fluids with abrasive solids

Typical applications include dredging, cleaning of settling ponds, coal and ore slurries, bentonite, coal washing water, sewage treatment plants, steel works, quarries, mines and many other industries that requires pumps with very high durability.

Each part of the BRAVO pump is designed for maximum endurance and reliability – an absolute must when pumping slurry. Wear is reduced by using NiHard 4 for all hydraulic components. NiHard 4 is a nickel alloy and one of the hardest materials available today. All Bravo pumps can handle liquids with pH values from 4 up to 10.

A slurry pump is designed for pumping fluids with:

- Sand and gravel
- Bentonite
- Coal and ore slurries
- Coal Runoff Sumps
- Coal Conveyor Sumps
- Abrasive sludge
- Fluids with other abrasive solids
- Drill cuttings
- Mill Scale
- Slag Pits
- Fly Ash/Bottom Ash
- Taconite Fines
- Tailings Ponds
- Lime Slurry
- Sludge Tanks/Ponds





We are creating customer benefits after user requirements

Grindex has supplied reliable and durable pumps to mines, construction sites and other demanding applications for 50 years. With these slurry pumps, we are now reaching other applications with trouble free dewatering. The six models in the series cover most pump requirements within mines, quarries, tunnel sites, process industries, construction sites and other demanding applications. All Grindex pumps are designed to reduce the operation costs.

Grindex - trouble free dewatering



The Bravo pumps are designed for pumping abrasive solids in suspension.



The agitator suspends solids to eliminate accumulation on sump floor.



The slurry pump can be equipped with external water jets to put solids in suspension.

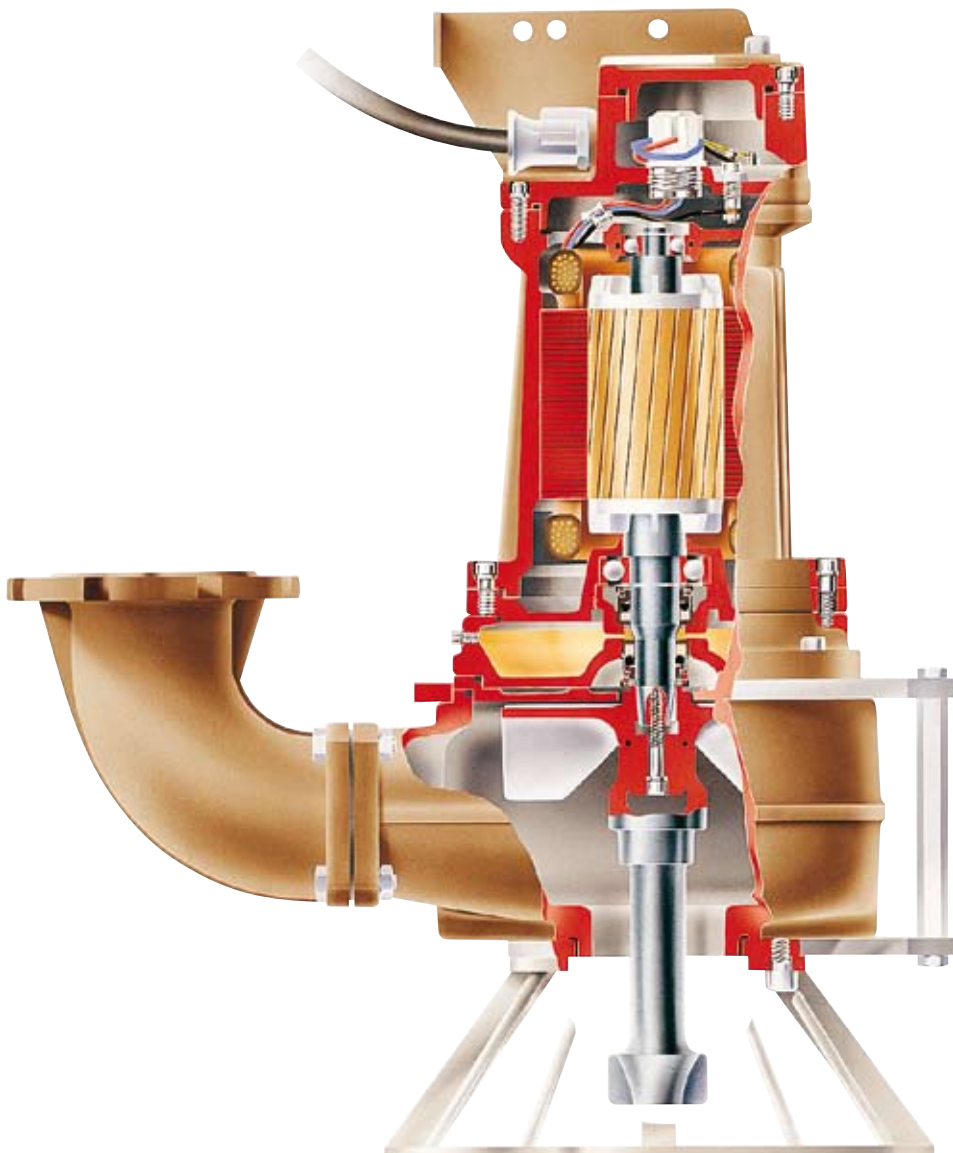


Bravo - ready for dredging on the bottom of a lake.



Impeller and Agitator Design keep sumps clean

The specially designed recessed impeller creates a vortex in the fluid that carries the abrasive solids through the pump volute. With this design, the hard metal impeller has less contact with the abrasive solids minimizing undesired wear leading to longer life and less maintenance costs. The wear on the impeller will be evenly distributed which will help avoid excessive vibration for increased mechanical seal and bearing life. The recessed impeller is set out of the fluid path allowing large solids to pass through the pump. A built-in agitator breaks up and mixes settled solids in the fluid to create a slurry that is fed to the impeller. The solids are then moved through the pump helping to prevent expensive manual sump clean-up.





Features and Benefits

Wear resistant design

All hydraulic components in NiHard 4

Power cable entry box

Prevent water ingress

Rugged motor housing

Can withstand tough treatment

Low speed motor

4-pole motor means less wear
Thermal contacts in stator windings

Heavy duty bearings

Greased for life

Mechanical shaft seals

in oil bath for cooling and lubrication

Vortex impeller

Non-clog design
Backvanes to prevent solids build-ups

Agitator (option)

For suspension of solids

Technical data

Classification

Electrical submersible slurry pump
Protection class: IP68

Electrical motor

Squirrel cage induction motor
Insulation class: H (IEC 85)

Cable

SUBCAB, 66 ft.

Discharge connection

Hose, BSP or NPT

Shaft Seals

Mechanical Seal

- Upper: Carbon/Ceramic
- Lower: Silicon Carbide/Silicon Carbide

Material

Motor housing: Cast iron
Wear plate: NiHard 4 (HBr600)
Pump housing: NiHard 4 (HBr600)
Hose adapter: NiHard 4 (HBr600)
Impeller: NiHard 4 (HBr600)
Agitator: NiHard 4 (HBr600)
Shaft: Stainless steel, SS316
Fittings: Stainless steel, SS316
Electrical cable: Neoprene

Options

Motor and surveillance protection

Limitations

Max submersion; 66 ft.
Max liquid temperature: 104 °F
Max concentration solids by weight: 60%
Allowed pH range: 4-10

Specifications can be changed without notice.

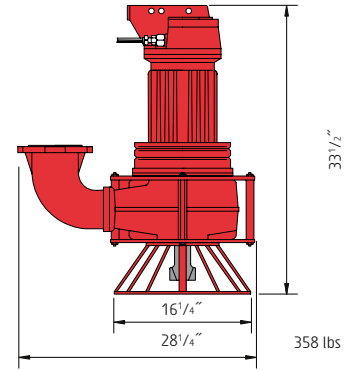
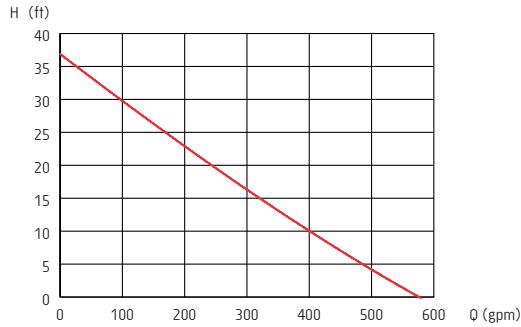


SLURRY PUMPS: BRAVO 20 - BRAVO 30 - BRAVO 40

BRAVO 20

Technical data

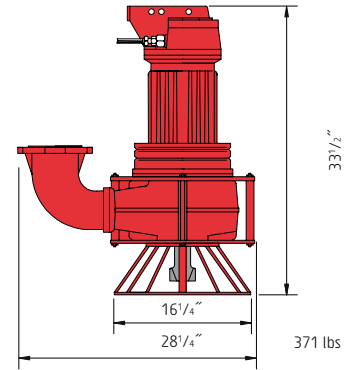
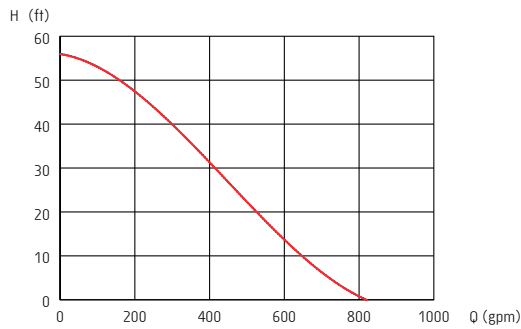
Discharge connection	4"
Rated output	5.4 HP
Max power consumption	5.1 kW
Shaft speed	1750 RPM
Rated current at 460 V	8.7 A
Rated current at 575 V	7.0 A
Solid passage with/without agitator	1 $\frac{1}{4}$ " / 3"



BRAVO 30

Technical data

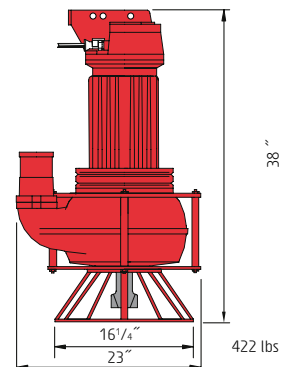
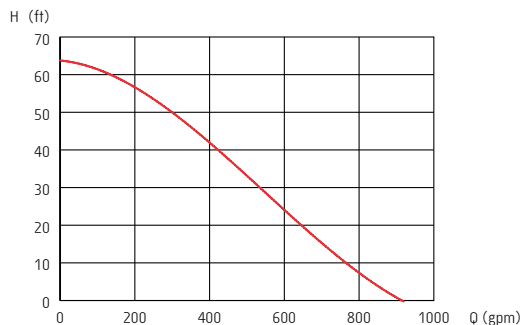
Discharge connection	4"
Rated output	11.5 HP
Max power consumption	10.6 kW
Shaft speed	1750 RPM
Rated current at 460 V	15.3 A
Rated current at 575 V	12.3 A
Solid passage with/without agitator	1 $\frac{1}{4}$ " / 3"



BRAVO 40

Technical data

Discharge connection	4"
Rated output	20 HP
Max power consumption	17.5 kW
Shaft speed	1750 RPM
Rated current at 460 V	26 A
Rated current at 575 V	21 A
Solid passage with/without agitator	1 $\frac{1}{2}$ " / 4"



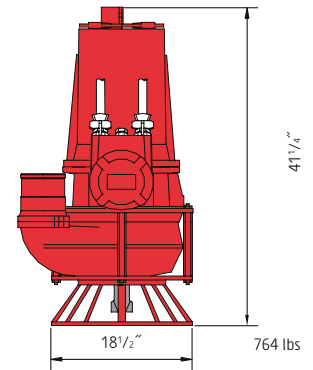
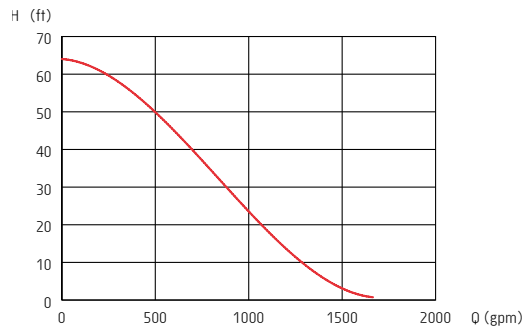


SLURRY PUMPS: BRAVO 50 - BRAVO 60 - BRAVO 70

BRAVO 50

Technical data

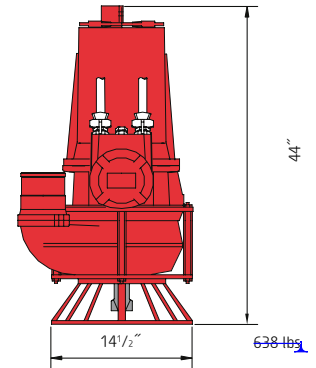
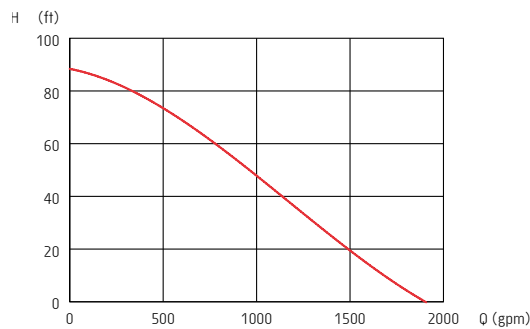
Discharge connection	6"
Rated output	33.5 HP
Max power consumption	29.8 kW
Shaft speed	1750 RPM
Rated current at 460 V	46,1 A
Rated current at 575 V	36,4 A
Solid passage with/without agitator	2" / 4"



BRAVO 60

Technical data

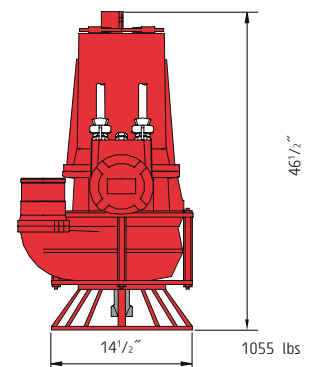
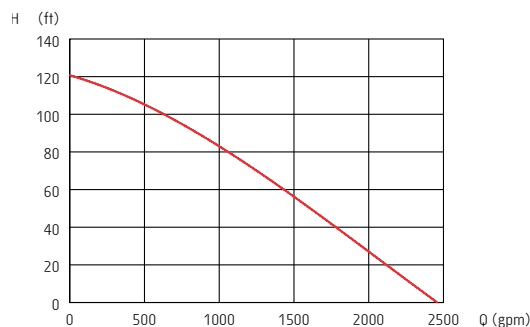
Discharge connection	6"
Rated output	52.3 HP
Max power consumption	45.4 kW
Shaft speed	1750 RPM
Rated current at 460 V	66.2 A
Rated current at 575 V	52.9 A
Solid passage with/without agitator	2" / 4"



BRAVO 70

Technical data

Discharge connection	6"
Rated output	73.7 HP
Max power consumption	62.5 kW
Shaft speed	1750 RPM
Rated current at 460 V	86.1 A
Rated current at 575 V	68.9 A
Solid passage with/without agitator	2" / 4"





The Grindex team.

For some 50 years, Grindex has specialized in designing and manufacturing electrical submersible pumps for professionals. Durable and dependable, they are used in the most demanding and specialized applications worldwide. We have delivered over 300,000 pumps in more than 100 countries.

We offer pumps for almost any application. Our range includes drainage pumps, sludge pumps, slurry pumps and stainless steel pumps.

When you are running a Grindex pump, you can rest assured that a dedicated team is watching your back. Our experts are always there to see to your every need. Through our global network of sales and service centers, we provide the best level of support possible – day and night, seven days a week.

It's all part of the service.

For more information, please visit www.grindex.com/us