



# Drainage and sludge pumps for corrosive applications

INOX is a completely new series of electrical submersible drainage and sludge pumps made of acid-proof stainless steel. This enables the pumps to operate in applications that would destroy aluminium pumps in matter of weeks or even days. The INOX pumps are designed to meet the tough requirements from mines, power plants and other worksites that deal with corrosive water and sludge.

These pumps are also ideal in applications where salt-water is pumped, like shipyards, construction works in harbours and offshore projects. All INOX pumps can be equipped with zinc anodes for extra protection. All casted parts in the pumps are made of acid-proof stainless steel. The INOX pumps can handle pH values from 2 - 10.





## **Translating user requirements into product features**

Grindex has supplied mines, constructions sites, quarries and other demanding industries with durable and reliable pumps for some 50 years. The INOX pumps allow other markets to discover trouble-free dewatering. The six pumps in the range cover almost any application within building and construction, mining, quarries and tunneling as well as municipal and other demanding industries. The new pumps are designed to dramatically reduce operational costs.

#### Dependability you can rely on

The INOX pumps offer all the benefits you have come to expect from Grindex pumps.

- Reliability thanks to:
- Air valve that cools the pump should it run dry.
- SMART motor protection system, protects the pump from damage caused by different power failures.
- All in the head:
- Built-in start equipment in all pumps, no need of external start equipment.

#### **Grindex - Trouble-free dewatering**



**Air valve**Cools the pump should
it run dry



**Built-in start equipment**Plug and pump



Master in action



Sandy in action



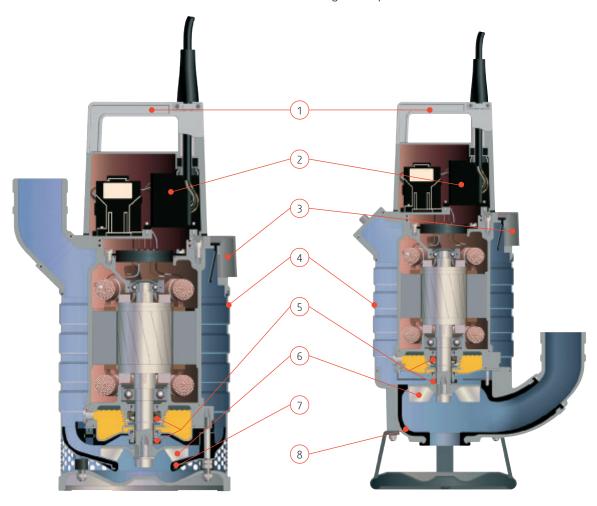
# **Drainage and sludge pumps for corrosive applications**

# A drainage pump (Minette INOX – Master INOX) is designed for pumping:

- Water with particles in suspensions up to the size of the strainer holes
- Water which contain abrasive particles

# A sludge pump (Salvador INOX - Sandy INOX) is designed for pumping:

- Water with high content of solids up to the size of the pump inlet opening diameter
- Water which contain abrasive particles
- Different types of mud and sludge
- Light slurry



# This is what makes our stainless steel pumps unique

- 1 Steel parts of stainless steel
  All steel parts are made of
  stainless steel. This gives a pH
  handling of 2-10, as well as
  capabilities to handle salt-water.
- **2 SMART motor protection**Protects the pump from damage caused by different power failures.
- **3 Air valve**Cools the pump should it run dry.
- 4 Outer casing in corrugated stainless steel
  Handles rough treatment.

5. Aquatite INOX - Double

- mechanical shaft seals
  Double mechanical shaft seals
  with an oil compartment between
  the seals.
- **6. Stainless steel impeller**The casted acid-proof stainless steel impeller ensures pumping capacities in corrosive fluids.
- 7. Adjustable diffusers (drainage pumps)

The diffusers are rubber lined and adjustable to maintain optimum pumping performance.

# 8. Rubber lined pump housing (sludge pumps)

Highly abrasive-resistant, oilresistant rubber lined pump housing offers a longer life.





### Technical data

#### **DRAINAGE PUMPS**

#### **Shaft seals**

Double mechanical shaft seals with an oil compartment between the seals

Material lower seal: Silicon carbide - silicon carbide Material upper seal: Carbon - silicon carbide

#### **Materials**

Casted parts: Stainless steel (EN 10283-1.14412)
Outer casing: Stainless steel (EN 10088-3-1.14436)
Motor shaft: Stainless steel (EN 10088-3-1.14460)
Impeller: Stainless steel (EN 10283-1.14412)

Screws and nuts: Stainless steel (A4)

O-rings: Viton rubber
Diffusers: Nitrile rubber

#### Water specifications

Max. submersion depth: 20m Max. liquid temperature: 40°C Max. liquid density: 1100 kg/m³

pH of the liquid: 2-10

#### **Accessories**

Zinc anodes Low suction collar Float switch

Specifications can be changed without notice.

#### **SLUDGE PUMPS**

#### Shaft seals

Double mechanical shaft seals with an oil compartment between the seals

Material lower seal: Silicon carbide - silicon carbide Material upper seal: Carbon - silicon carbide

#### Materials

Casted parts: Stainless steel (EN 10283-1.14412)
Outer casing: Stainless steel (EN 10088-3-1.14436)
Motor shaft: Stainless steel (EN 10088-3-1.14460)
Impeller: Stainless steel (EN 10283-1.14412)

Screws and nuts: Stainless steel (A4)

O-rings: Viton rubber

Pump housing: Nitrile rubber

#### Water specifications

Max. submersion depth: 20m Max. liquid temperature: 40°C Max. liquid density: 1100 kg/m³

pH of the liquid: 2-10

#### **Accessories**

Zinc anodes Float switch

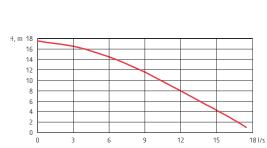
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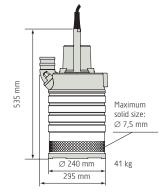


## **DRAINAGE PUMPS: MINETTE - MASTER**

### **MINETTE INOX**

Technical data	
Discharge connection	3"
Rated power	2.0 kW
Max power consumption	2.7 kW
Shaft speed	2715 RPM
Rated current at 400 V	4.4 A
Rated current at 500 V	3.4 A

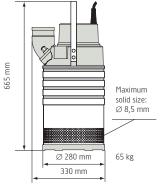




### **MAJOR INOX**

Technical data		
	N	Н
Discharge connection	4"	3"
Rated power	6.3 kW	6.3 kW
Max power consumption	7.3 kW	7.3 kW
Shaft speed	2840 RPM	2840 RPM
Rated current at 400 V	12 A	12 A
Rated current at 500 V	9.4 A	9.4 A

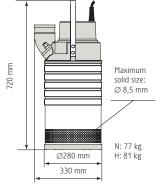




## **MASTER INOX**

Technical data		
	N	Н
Discharge connection	4"	3"
Rated power	8.0 kW	8.0 kW
Max power consumption	9.4 kW	9.4 kW
Shaft speed	2800 RPM	2800 RPM
Rated current at 400 V	15 A	15 A
Rated current at 500 V	12 A	12 A



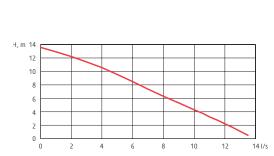


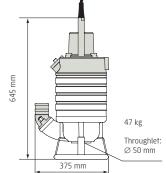


## **SLUDGE PUMPS: SALVADOR - SANDY**

### **SALVADOR INOX**

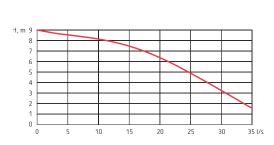
Technical data	
Discharge connection	3″
Rated power	2.0 kW
Max power consumption	2.7 kW
Shaft speed	2800 RPM
Rated current at 400 V	4.4 A
Rated current at 500 V	3.4 A

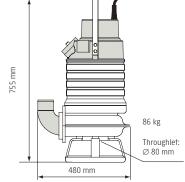




### **SENIOR INOX**

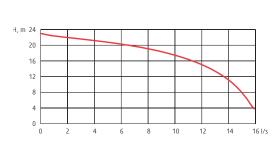
Technical data	
Discharge connection	4"
Rated power	4.1 kW
Max power consumption	5.2 kW
Shaft speed	1350 RPM
Rated current at 400 V	8.0 A
Rated current at 500 V	7.0 A

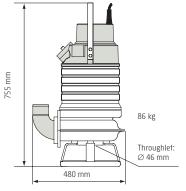




## **SANDY INOX**

Technical data	
Discharge connection	3"
Rated power	6.3 kW
Max power consumption	7.3 kW
Shaft speed	2840 RPM
Rated current at 400 V	12 A
Rated current at 500 V	9.4 A







### The Grindex team.

For some 50 years, Grindex has specialised in designing and manufacturing electrical submersible pumps for professionals. Durable and dependable, they are used in the most demanding and specialised 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 serve your every need. Through our global network of sales and service centres, 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