

### General functions and range of applications, intended use

The drainage electric sump pumps “Derby Ex” series are electrical pumps single-impeller with vertical axis and can be used, among the others, for the following purposes:

- emptying rainwater wells collection and infiltration;
- draining of flooded areas;
- raising of water from deep wells, bathtubs and tanks of first collection;
- waterworks of raising for industrial uses;
- sewage system and/or cesspool;
- collecting of leachate in storage tanks;
- removal of condensed water in biogas plants;

The liquids handled can contain solid particles small and average dimension (maximum 10 mm) and/or filamentous particles.

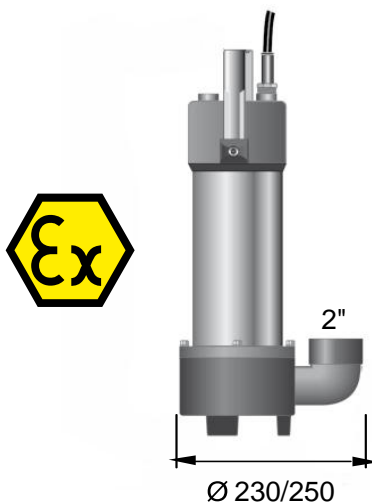
The “Derby Ex” pumps series can normally be used with liquids having from Ph 6 to Ph 14.

### Rated data and performances

- rated voltage: 400V<sub>3</sub>; 230V<sub>1-2</sub>; ± 5%
- connection: star
- rated frequency: 50 Hz
- rated speed: 2850 rpm
- insulation class: F (Δt F)
- maximum altitude of duty: 1000 m a.s.l.
- liquid temperature : -20 ÷ +40°C
- liquid density: < 1200 kg/m<sup>3</sup>
- I<sub>A</sub>/I<sub>N</sub>: 3,8

In order to guarantee the correct operation of the hydraulic parts of the drainage electric submersible pumps “Derby Ex” series, assured that the minimum delivery capacity is at least 5 l/min.

### Construction materials



Pump type	Component	Material
Derby EX	Gaskets	NBR
	Mechanical seal	NBR/Aluminum oxide/ Graphite/SS304
	Cast iron	G25
	Cable	SK or H07RN-F
	Motor case	Stainless steel AISI304
	Bearings support	Cast Iron G25
	External hydraulic part	Cast Iron G25
	Impellers/diffuser	Cast Iron G25

Sample of application

Intrinsically safe active barrier  
for Atex level regulator



Red Line Control Panel



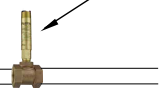
Safe zone

Fiberglass utility cabinet



ATEX zone

Flow switch



ON EX Level Regulator

OFF

El. pump Derby EX

