



better together

CIVIL/INDUSTRIAL



SUBMERSIBLE ELECTRIC PUMPS  
FOR DRAINAGE, CIVIL AND  
INDUSTRIAL LIFTING SYSTEMS

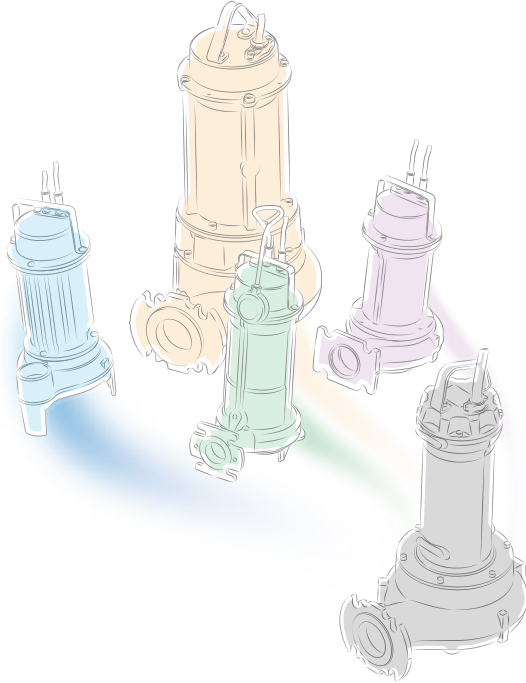
series  
**Grey**

zenit.com

EN

## Why Grey?

The Zenit **Grey series** is a new solution for pumping clear wastewaters and black waters in civil, residential and industrial applications.



# series Grey

The **Grey series** updates the offering with efficient, reliable products, while also **rationalising** the range.

The **Grey** project features completely **redesigned** hydraulics and motors, to guarantee high performance, low consumption and outstanding versatility.

This means clearer choices for end users selecting their products, and more efficient industrialisation.

And greater efficiency means even better reliability and lower costs, all benefiting customers.

It's easily, with the **Grey series**.

### Grey series

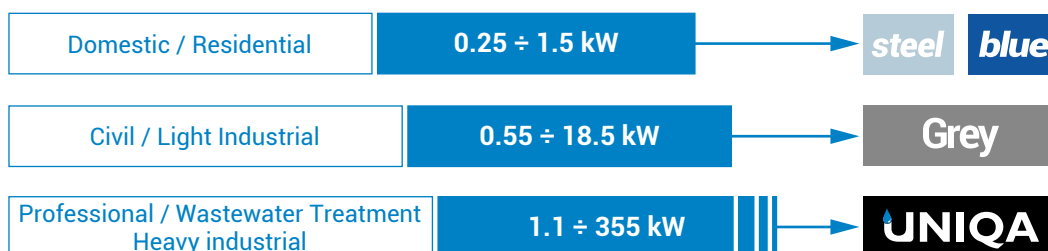
**Motors**

from 0.55 to 18.5 kW operating at 50 and 60 Hz  
double mechanical seal in oil chamber

**Hydraulics**

- vortex (**DGG**)
- channel (**DRG**)
- grinding (**GRG**)
- high head (**APG**)

## Development of the Zenit range for global water treatment



# One range, a thousand applications

Thanks to its versatility, the **Grey series** can be used in a very wide variety of sectors, from civil/residential to industrial installations.

These units' strong points lie in the key principles that inspired and guided the design team throughout their development.



## Innovation

The **Grey series** is highly innovative from many points of view.

It is new in its practical, functional design.

New in its colour, standing out from the competition and other Zenit models.

New in its operation, thanks to leading-edge engineering, efficient motors and completely redesigned hydraulics that deliver excellent performances.



## Reliability

A submersible pump must guarantee trouble-free continuous service.

Exceptionally reliable, the **Grey series** needs far fewer repairs, cutting the relative costs.

Running costs will be lower and there will be fewer plant stoppages, meaning less inconvenience and more effective service scheduling.



## Economy

Every installation and maintenance engineer needs to cut submersible pump purchasing, assembly and maintenance times and costs.

With the **Grey series** all this is possible thanks to a wide choice of models and the use of immediately available standard components, which deliver optimisation of any application, shorter installation times and slashed maintenance costs.

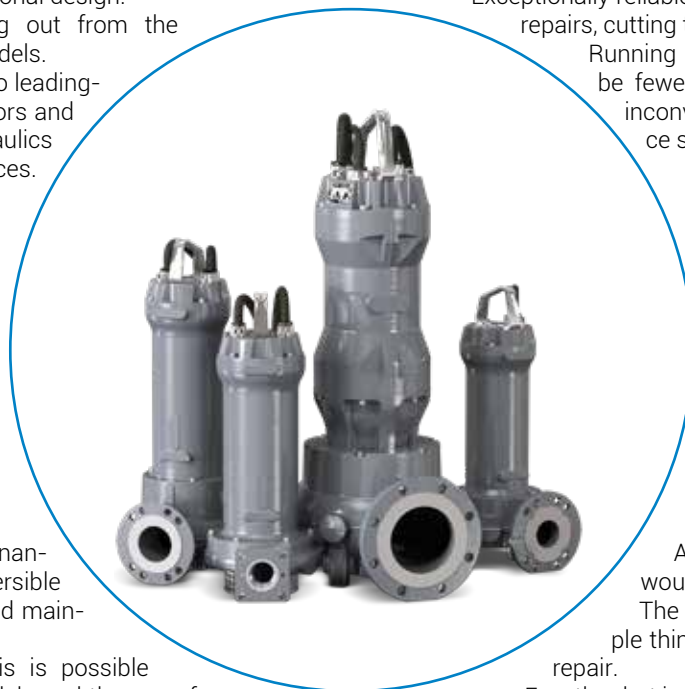


## Simplicity

A good motto for the **Grey series** would be "the strength of simplicity".

The Zenit engineers realised that simple things are unlikely to fail and easy to repair.





Exactly what installers, plumbers, heating engineers and everyone else who uses these pumps needs: machines that are easy to install and use, built to facilitate maintenance and compatible with existing systems.



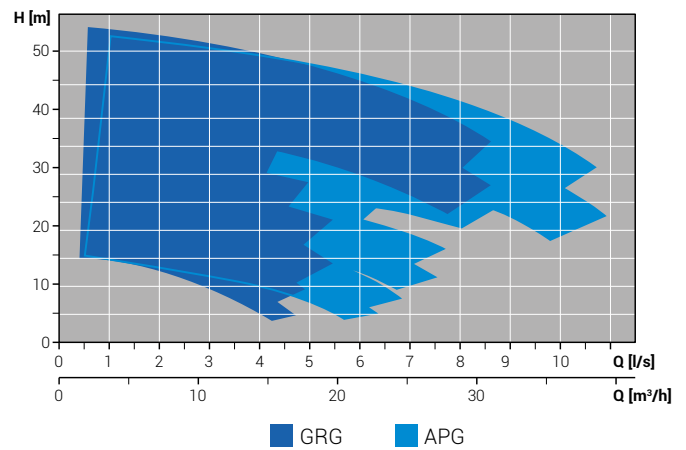
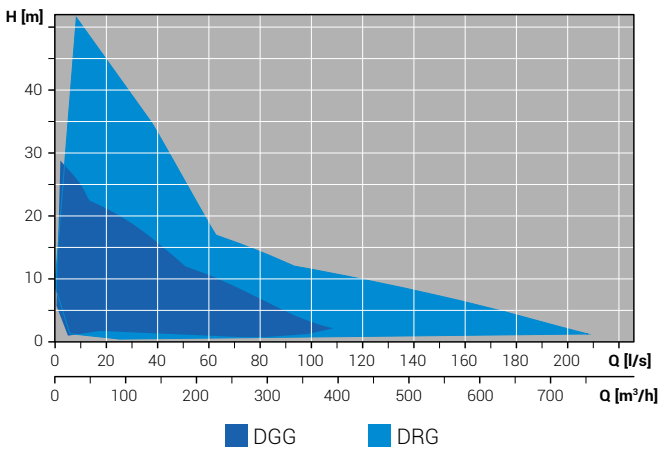
# Characteristics

- Cast iron structure
- Three-phase motor from 0.55 to 18.5 kW
- Insulation: class H (180°C)
- Protection rating: IP68
- 50 Hz and 60 Hz versions
- Thermal protection devices incorporated in stator
- AISI 431 drive shaft
- Two silicon carbide mechanical seals in large oil chamber
- Discharge from DN32 to DN250
- Large free passage



Range with ATEX certification:    Ex db IIB T4 Gb  
 Ex h IIB T4 Gb

## Overview of operating ranges



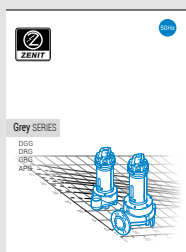
## Construction materials

Motor casing	Cast iron GJL-250
Impeller	Cast iron GJL-250
Mechanical seals	Two in silicon carbide (2SiC)
Nuts and bolts	Stainless steel - class A2-70
Standard gaskets	NBR
Drive shaft	AISI 431 Stainless Steel
Chopper knife	Chromium steel (GRG)
Painting	Bicomponent epoxy paint with high resistance to corrosion

## Operating specifications

Max operating temperature	40°C
pH of liquid	6 ÷ 14
Max submergence	20 m
Max liquid density	1.1 kg/dm³
Max acoustic pressure	<70 dB
Max. starts/hour	20 (<10 kW) 15 (>10 kW)

The data provided are not binding.  
Zenit reserves the right to modify any product without notice.

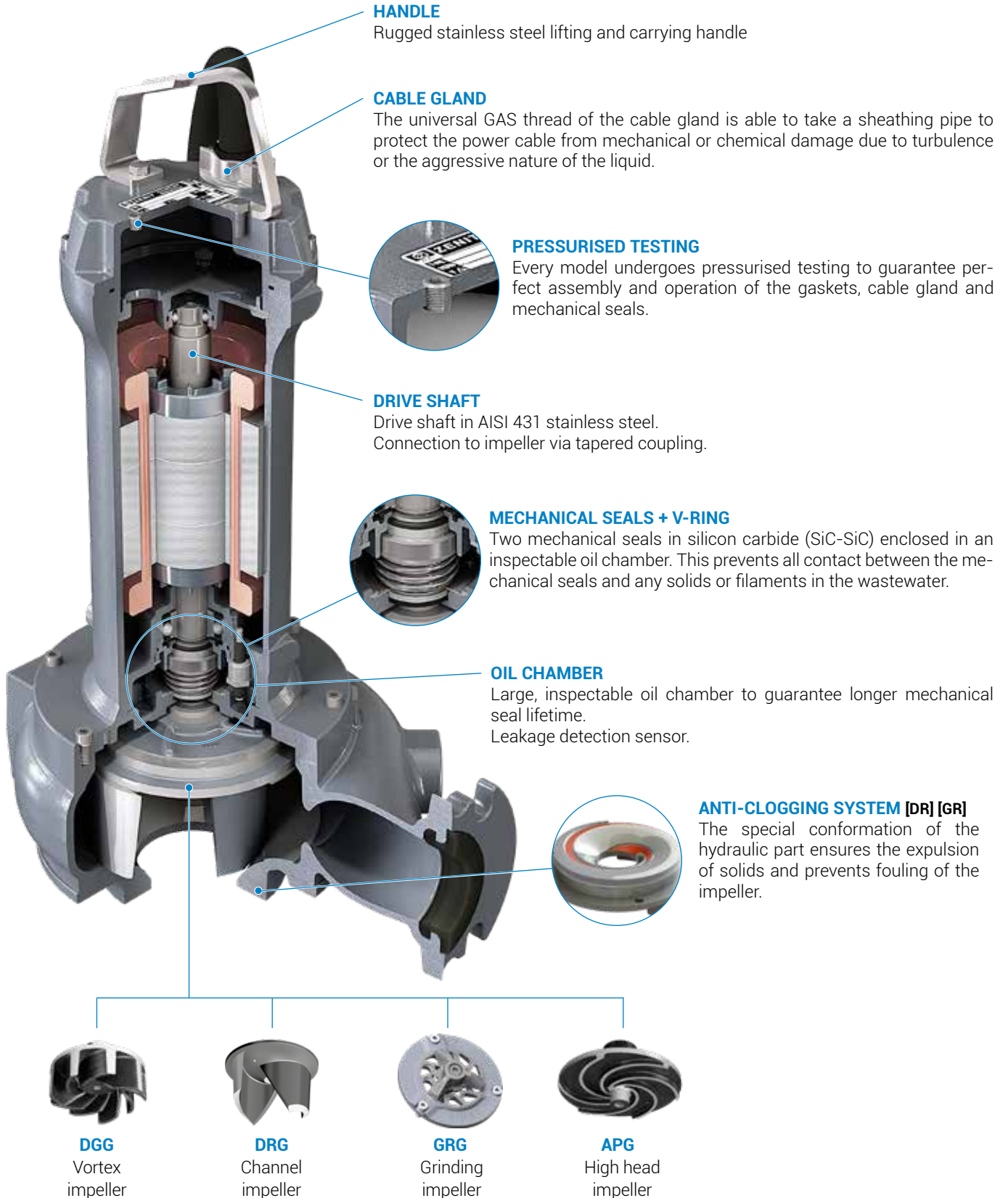


The technical **Data Booklet** complete with duty curves is available for download in the download area of [zenit.com](http://zenit.com)

To select the pump best suited to your needs we advise you to use the **Zeno Pump Selector** configuration tool on the [zenit.com](http://zenit.com) website



# Your guide to Grey



**HANDLE**  
Rugged stainless steel lifting and carrying handle

**CABLE GLAND**  
The universal GAS thread of the cable gland is able to take a sheathing pipe to protect the power cable from mechanical or chemical damage due to turbulence or the aggressive nature of the liquid.

**PRESSURISED TESTING**  
Every model undergoes pressurised testing to guarantee perfect assembly and operation of the gaskets, cable gland and mechanical seals.

**DRIVE SHAFT**  
Drive shaft in AISI 431 stainless steel.  
Connection to impeller via tapered coupling.

**MECHANICAL SEALS + V-RING**  
Two mechanical seals in silicon carbide (SiC-SiC) enclosed in an inspectable oil chamber. This prevents all contact between the mechanical seals and any solids or filaments in the wastewater.

**OIL CHAMBER**  
Large, inspectable oil chamber to guarantee longer mechanical seal lifetime.  
Leakage detection sensor.

**ANTI-CLOGGING SYSTEM [DR] [GR]**  
The special conformation of the hydraulic part ensures the expulsion of solids and prevents fouling of the impeller.

**DGG**  
Vortex impeller

**DRG**  
Channel impeller

**GRG**  
Grinding impeller

**APG**  
High head impeller

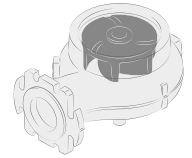
# DGG

## Hydraulics

- Vortex impeller
- Full free passage

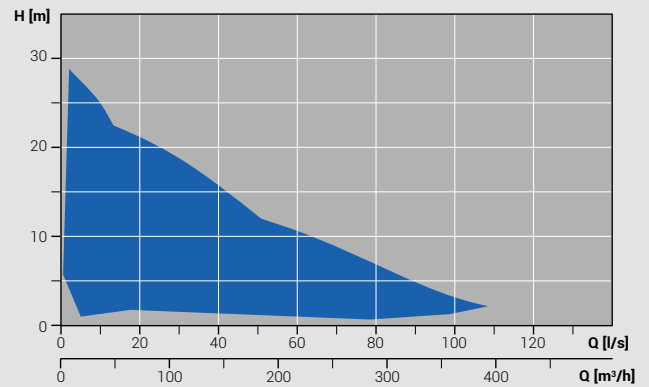
## Suitable for

- Biological liquids and wastewater
- Civil and industrial lifting
- Wastewater treatment plants and livestock farms



## Range characteristics

<b>Type of impeller</b>	Vortex	
<b>Power (P2)</b>	0.55 ÷ 15 kW	
<b>Poles</b>	2 / 4	
<b>Discharge</b>	<b>V</b>	GAS 1½" / GAS 2½"
	<b>H</b>	GAS 2" DN32 ÷ DN150
<b>Free passage</b>	max 125 mm	
<b>Max flow rate</b>	108 l/s	
<b>Max head</b>	29 m	



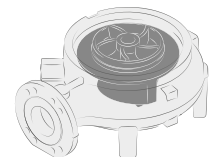
# DRG

## Hydraulics

- Channel impeller
- Large free passage

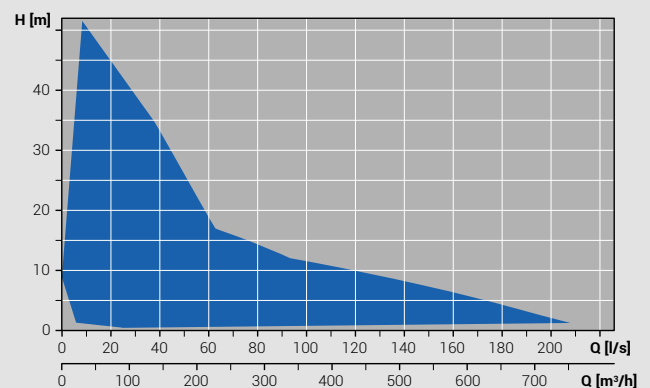
## Suitable for

- Recirculation of industrial and process waters
- Civil lifting
- Drainage and lifting of water from first rainfall tanks



## Range characteristics

<b>Type of impeller</b>	Channel	
<b>Power (P2)</b>	0.55 ÷ 18.5 kW	
<b>Poles</b>	2 / 4 / 6	
<b>Discharge</b>	<b>V</b>	GAS 1½" ÷ GAS 2½"
	<b>H</b>	GAS 1½" DN32 ÷ DN250
<b>Free passage</b>	max 100x70 mm	
<b>Max flow rate</b>	208 l/s	
<b>Max head</b>	51.8 m	



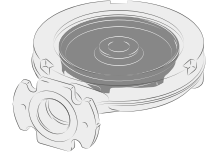
# GRG

## Hydraulics

- Multi-channel open impeller
- Grinding system with rotary knife

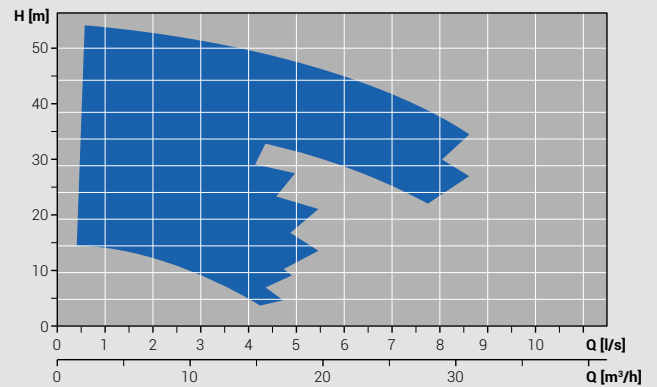
## Suitable for

- Lifting of liquids containing fibres and filaments
- Professional and industrial applications
- Livestock farms



## Range characteristics

<b>Type of impeller</b>	Grinder	
<b>Power (P2)</b>	1.1 ÷ 7.5 kW	
<b>Poles</b>	2	
<b>Discharge</b>	<b>V</b>	-
	<b>H</b>	GAS 1½" DN32 / GAS 2" DN50
<b>Free passage</b>	-	
<b>Max flow rate</b>	8.6 l/s	
<b>Max head</b>	54 m	



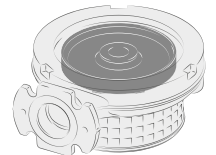
# APG

## Hydraulics

- Multi-channel open impeller
- High manometric head

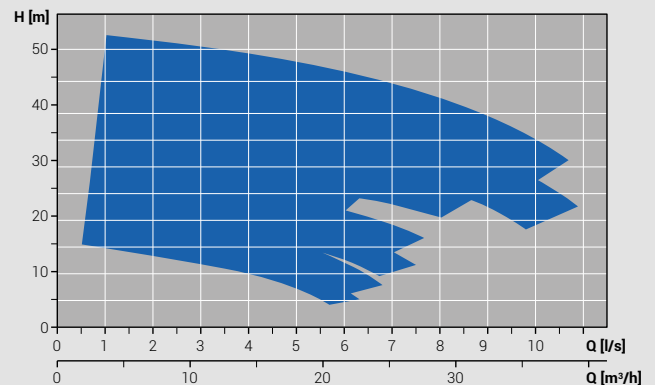
## Suitable for

- Industrial applications and car-washes
- Clean water in fountains and water features
- Irrigation and fish farming



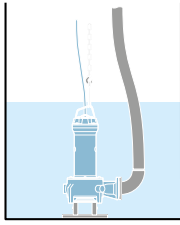
## Range characteristics

<b>Type of impeller</b>	High head	
<b>Power (P2)</b>	1.1 ÷ 7.5 kW	
<b>Poles</b>	2	
<b>Discharge</b>	<b>V</b>	-
	<b>H</b>	GAS 1½" DN32 / GAS 2" DN50
<b>Free passage</b>	max 10 mm	
<b>Max flow rate</b>	10.9 l/s	
<b>Max head</b>	52.5 m	

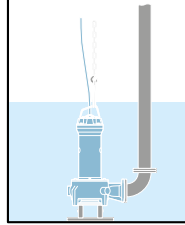


# Installations and accessories

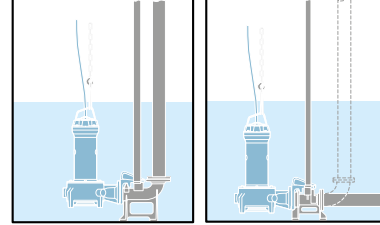
A full range of **accessories** supplied as standard simplifies any **installation**



FREE installation



PERMANENT installation



Installation with BOTTOM COUPLER



### Bottom couplers

- Cast iron body - steel metal fasteners
- Vertical and horizontal discharge
- GAS 1½" - GAS 2" / DN65 - DN250



### Discharge bends

- In cast iron or galvanised steel
- Full free passage
- DN 65 - DN 250



### Ball check valves

- Cast iron body - steel metal fasteners
- Rubber ball
- GAS 1½" - GAS 2" / DN65 - DN250



### Base plates

- In cast iron or galvanized steel
- Ideal for free installation



### Gate valves

- Cast iron body with bronze seats
- Full free passage



### Chains

- In stainless and galvanised steel
- Ø 5mm, 8mm, 12mm

# Maintenance and Service

Grey models allow **easy maintenance** thanks to their simple, rational construction



The **Grey series** has been designed and built to facilitate the routine replacement of parts subject to wear and tear, to extend the life-cycle and cut operating costs.

Installation Engineers and Authorised Service Centres are provided with full documentation and detailed installation diagrams, to offer unbeatable maintenance service and ensure high product quality standards.



Full territorial coverage and an efficient organisation assure the **customer** support in all phases of the process, from design to shipping arrangements.



### BEFORE-SALES

- Product selection
- Customisation
- Cost and consumption estimate



### CONSULTING

- Evaluation of solutions
- Design of system
- Presence on site



### AFTER-SALES

- Support during installation
- Assistance during testing
- Authorised service centres