



*Goodwin*

**100 mm DWHH** 90kW 50Hz  
**DIRTY WATER HIGH HEAD  
SUBMERSIBLE PUMP**

**NUMBER ONE FOR RELIABILITY, STRENGTH & ENDURANCE**

**TECHNICAL DATA SHEET**

snorkel

XTREME

wheelwash

GLOBE

SUMMIT

Goodwin

Gallegos

CASECO

KLARIVISION

ROBUSTEC

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# 100 mm DWHH

## SUBMERSIBLE PUMP

90kW 50Hz

Goodwin submersible pumps have been manufactured since 1982 and are recognised as market leaders in terms of performance and reliability. The pumps have been continually developed over 4 decades resulting in machines that can perform in the most demanding environments.

### Standard Engineering Features

- Single piece cast iron motor housing to enhance rigidity and reduce wear
- 3 phase electric motor runs in oil bath to lubricate and cool the motor parts
- Cooling assisted by the pumped fluid passing through the pump body
- Twin volute casing design to reduce rotational imbalance and increase lifetime of bearings and seals
- Carefully chosen wear resistant materials to maximise service lifetime
- Multiple stage, closed vane impellers
- Precision bearings
- Non pressurised mechanical seal

### Applications

- High wall pumping (open pit) applications
- Construction of buildings, dams & harbour walls
- Long distance pumping applications (up to 4 km)
- Agriculture - irrigation water
- Mine dewatering
- Flood level control - industrial, municipal, mining & marine
- Emergency and environmental control

### Pump Performance

|                                     |                        |
|-------------------------------------|------------------------|
| Design fluid handled                | Dirty Water            |
| Maximum fluid SG                    | 1.1 kg/l               |
| Maximum fluid solids content        | 10 % by weight         |
| Maximum particle size               | 10 mm                  |
| Maximum fluid temperature           | 90 °C                  |
| Recommended pH range                | 4-10                   |
| Power                               | 90 kW                  |
| Speed                               | 1450 rpm               |
| Weight                              | 1940 kg                |
| Outlet Diameter                     | 100 mm                 |
| Maximum Flow                        | 195 m <sup>3</sup> /hr |
| Maximum Head                        | 130 m (12.8 bar)       |
| Impeller diameter                   | 485 mm                 |
| Impeller tip speed                  | 37 m/s                 |
| Peak efficiency                     | 38 %                   |
| Maximum submergence depth*          | 28 m                   |
| Shut off head at maximum pump speed | 130 m                  |

\* as standard, can be deeper if required

### Electrical Data

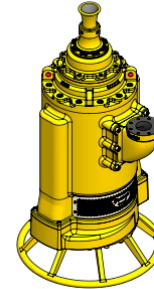
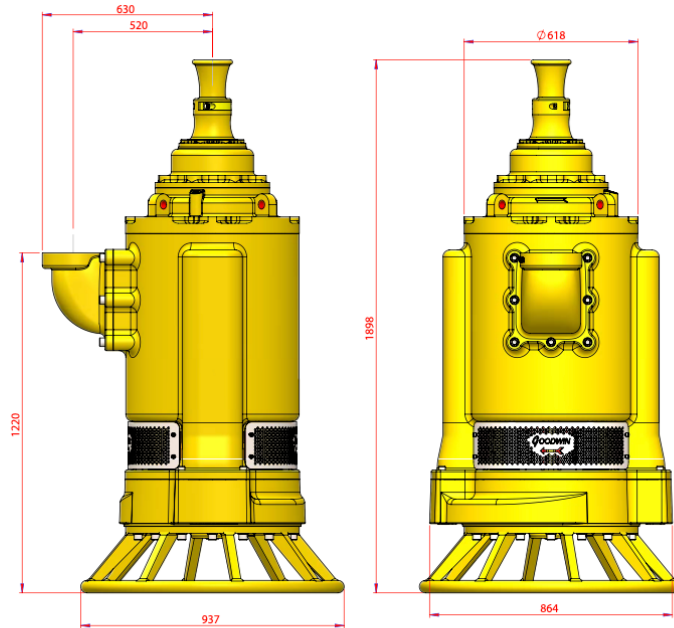
|                                      |                                                                                  |
|--------------------------------------|----------------------------------------------------------------------------------|
| Motor Type                           | Squirrel-cage induction motor                                                    |
| Frequency                            | 50Hz                                                                             |
| Phase                                | 3                                                                                |
| Motor rating                         | IEC 60034-1                                                                      |
| IP protection rating                 | IP68                                                                             |
| Starting method                      | Direct on-line, Soft Start, Variable Speed Drive. Note: Star Delta not available |
| Number of starts per hour            | 10                                                                               |
| Voltage variation                    | ± 6%                                                                             |
| Voltage imbalance between phases     | Max 2%                                                                           |
| Insulation Code                      | H (180°C)                                                                        |
| Motor Overload Factor                | 2.2                                                                              |
| Duty Rating                          | S1                                                                               |
| Efficiency Class                     | IE exempt (integral with pump)                                                   |
| Oil Type                             | Mineral uninhibited to IEC 60269 (04)                                            |
| Standards complied with              | IEEE 112-2004, IEC 60034-1-2, AS60034-1, IEC 37                                  |
| Noise level at 1m when not submerged | 78 dB                                                                            |
| Motor efficiency                     | 82%                                                                              |



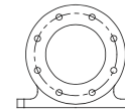


## Weights & Dimensions

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**SUBMERSIBLE PUMP**

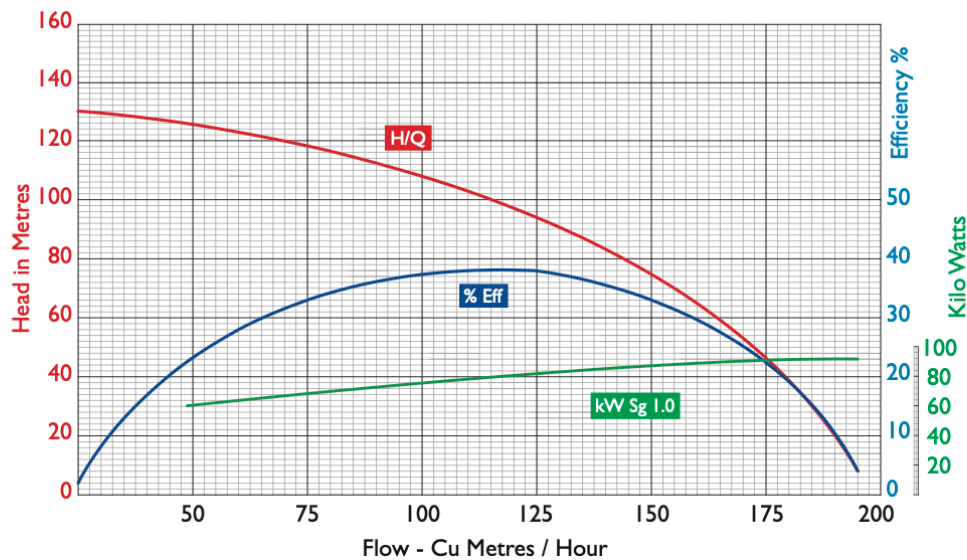


100mm  
DWHH Flange  
Connections



DN100 - PN16  
M16\*2.0P  
8 Places ø180mm PCD

## Pump Curve



All pump designs and information is subject to upgrade and revision.

DocRef 100DWHH 50 ENGVI 10/2020

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