



# Data Sheet

# Magnetically coupled pump – 47l/min

**RS stock number 445-986**

## General description

The **RS** magnetically coupled centrifugal pump is rated for continuous duty and is ideally suited for recirculation applications. The unit can be used with mild acids or alkalis, since the only components in contact with the pumped fluid are plastic and ceramic with a viton O-ring. (See 'Chemical compatibility'.)

Magnetically coupled pumps offer a number of advantages over conventional centrifugal pump types:

- leak paths are eliminated and friction and power consumption are reduced as there are no rotating seals
- all 'wetted' components are formed from advanced plastic materials and have a high resistance to aggressive fluids
- transmission of heat from the pumped fluid to the motor is reduced.

## Motor specification

Supply voltage \_\_\_\_\_ Single phase 220/240V 50Hz  
 Input power \_\_\_\_\_ 95W  
 Output power \_\_\_\_\_ 60W  
 Maximum flow rate \_\_\_\_\_ 47 l/min

## Installation

The pump can be connected to pipework using 1/2in BSP fittings. Flexible hoses may be used on inlet and outlet ports (avoid overtightening as this may cause damage to the ports). The pump and pipework should be adequately supported and correctly fitted to avoid shock loading and strain on the pump and its ports. The pump should not be mounted vertically with the ports below the motor.



Figure 1 Dimensions

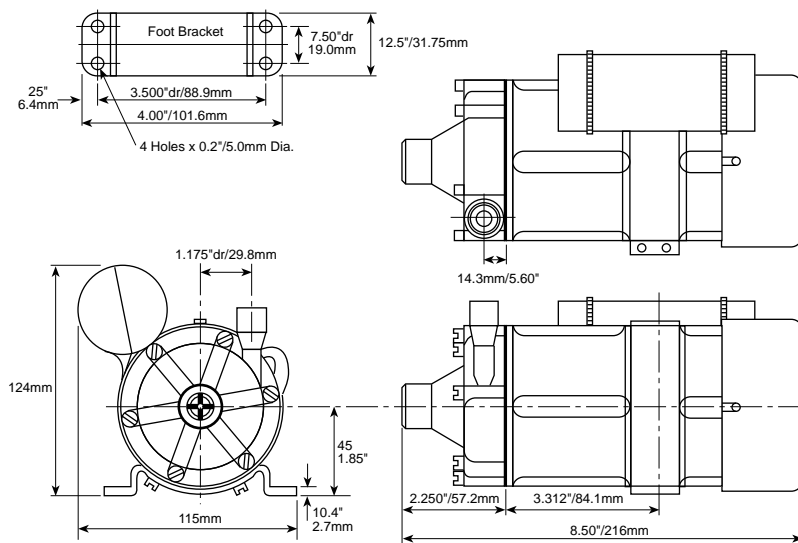
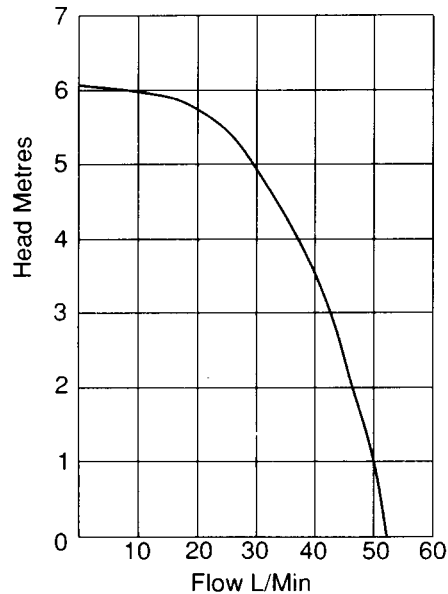


Figure 2 Pump performance



### Operation and maintenance

The pump should have flooded suction since it does not self prime. Filters or restrictions should not be situated before the pump inlet. When priming, operate the pump in short 10 second cycles to facilitate the clearing of air. Ensure that there are no leaks or blockages in the associated pipework. The pump should not be operated against a closed valve for longer than 30 seconds. Where the pumped fluid causes coating or deposition, periodic cleaning of pump internals may be necessary. This can be achieved by flushing through with an appropriate cleaning agent. The pump casing should be adequately ventilated to avoid overheating the motor. The motor is protected by the magnetic coupling should the impeller stall.

**Do not run pump dry.**

### Chemical compatibility list

Aluminium chloride (10%)  
 Ammonium sulphate (50%)  
 Aniline  
 Antimony trichloride  
 Arsenic acid  
 Barium chloride  
 Boric acid  
 Calcium chloride  
 Castor oil  
 Chromic acid  
 Citric acid  
 Cod liver oil  
 Copper sulphate  
 Cresols  
 Diesel oil  
 Diethylene Glycol  
 Ferric chloride  
 Formaldehyde (40%)  
 Freon - 113  
 Furfural  
 Glycerol  
 Hexane  
 Hydrochloric acid (10%)  
 Hydrochloric acid (36%)  
 Hydrogen peroxide (35%)  
 Hydrogen sulphide gas  
 Iso-propanol  
 Lactic acid (90%)  
 Linseed oil  
 Lubricating oil  
 Magnesium chloride  
 Mercuric chloride  
 Molasses  
 Nickel chloride  
 Oleic acid  
 Olive oil  
 Paraffin oil  
 Petrol  
 Potassium cyanide  
 Potassium permanganate (25%)  
 Potassium sulphate  
 Rapeseed oil  
 Silicone fluids  
 Silver nitrate  
 Sodium carbonate (10%)  
 Sodium chloride (25%)  
 Sodium cyanide  
 Sodium nitrate  
 Stannic chloride  
 Sulphur dioxide  
 Tetrachloroethane  
 Tricesyl phosphate  
 Water (distilled)  
 Water (sea)  
 White spirit  
 Wine  
 Zinc chloride (aq sol)