

# **EBS RAY**

## **AUSTRALIA**

### **All purpose CENTRIFUGAL PUMPS**

- o General industries
- o Buildings
- o Booster system
- o Airconditioning
- o Firefighting
- o Farms

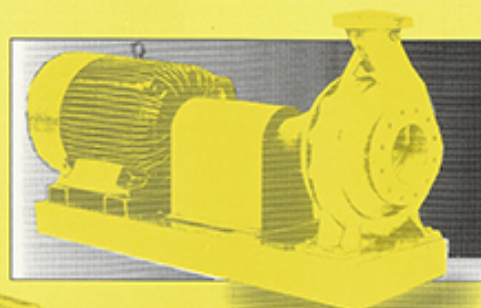
#### **Specification**

Maximum capacity	150 l/s
Maximum head	150 m
Maximum working pressure	1600kPa
	on most models
Temperature range	-10°C to 105°C
Direction of rotation	Clockwise viewed from drive end

#### **Materials of construction**

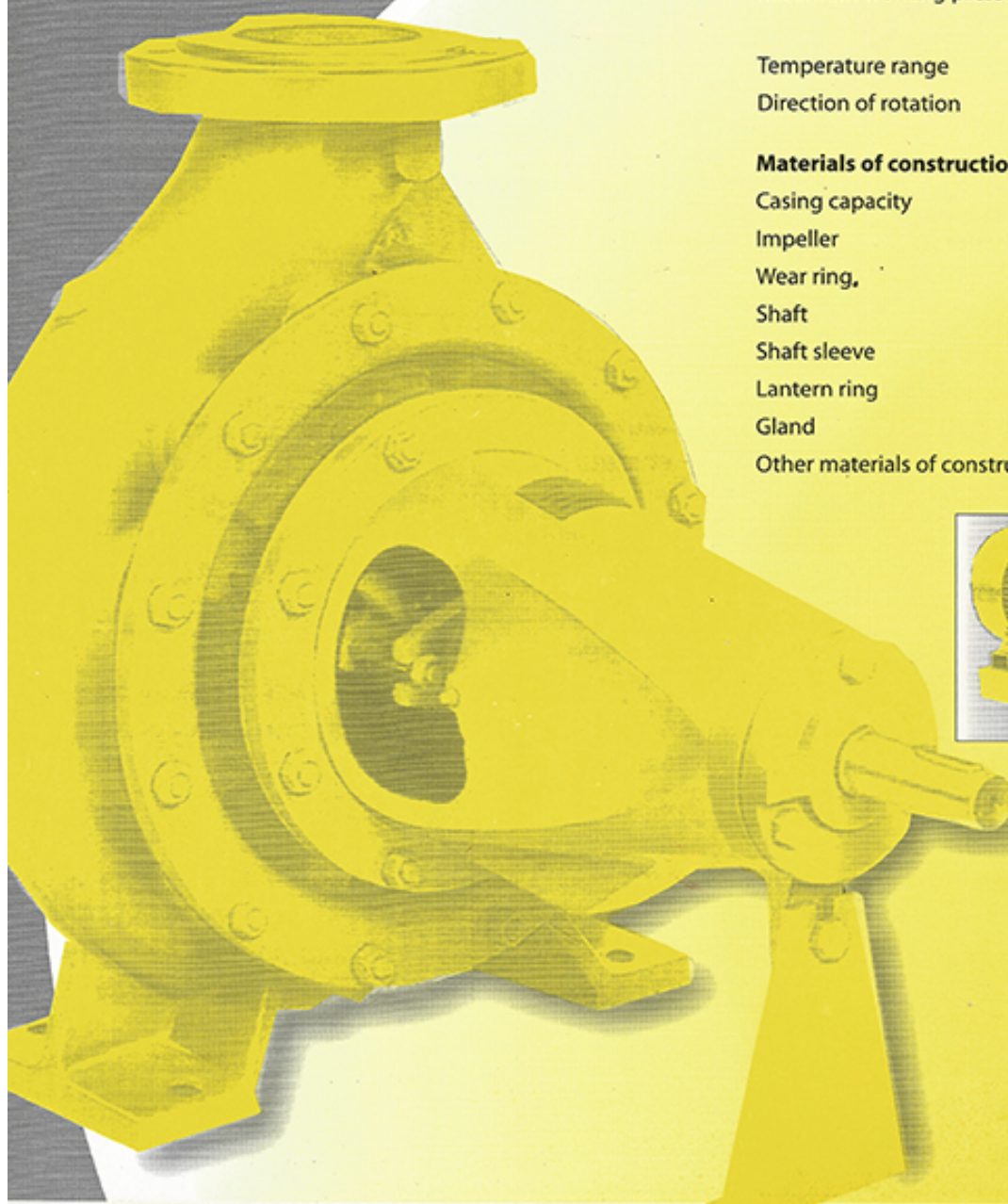
Casing capacity	Cast iron
Impeller	Bronze
Wear ring,	Cast iron
Shaft	Stainless steel
Shaft sleeve	Stainless steel
Lantern ring	Cast iron
Gland	Cast iron

Other materials of construction are available



#### **Special package units**

Pumps can be supplied units or as complete package units incorporating baseplate, coupling, coupling guard and driven by electric motor, diesel or petrol engine.



**Stuffing box**  
Standard arrangement includes packing with incorporating internal lantern ring flushing. The stuffing box can be connected for external liquid flush or for fitting a cyclone separator. Pump can be supplied with a mechanical seal, and if required, field conversion from packed stuffing box to mechanical seal, or from mechanical seal to packing.

**Bearings housings**  
Only three bearing housings are required for the total pump range. It gives high interchangeability of parts across the complete range.

**Bearings**  
Grease lubricated and fitted with grease nipples that allow periodic regreasing of the bearings for longer life.

**Shaft sleeve**  
Replaceable stainless steel positively driven shaft sleeve is of substantial advantage when pump requires maintenance. Any damage under the gland packing can be quickly corrected by replacing the sleeve, not the whole shaft.

**Support foot**  
Removable. Fitted at the drive for greater rigidity and easy maintenance.

**Wear rings**  
Replaceable wear rings are fitted to all casings and also to back covers on larger pumps. This considerably cuts time and maintenance cost.

**Impellers**

Of double shrouded type. Hydraulically balanced on smaller diameters by back vanes and on larger diameters by replaceable wear rings. Twisted vane design gives optimum fluid flow into the impeller eye, enhancing suction performance and efficiency.

**Shaft**  
Of stainless steel. Seated at the impeller by dome-type locking nut.

**Volute casing**  
Has integrity cast feet, axial suction and robust vertical top center-line discharge. Inlet has cast vane to improve flow into impeller eye.

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**From 32mm to 150mm discharge**

Complies fully with the International Standard DIN 24255, the performance and dimensions standard. Thirty-three models have grease lubricated bearings. Four models have oil lubricated bearings with a wide hydraulic coverage at both two and four pole speeds from 50 Hz and 670 Hz. Most models are suitable for 16 bar working pressure.

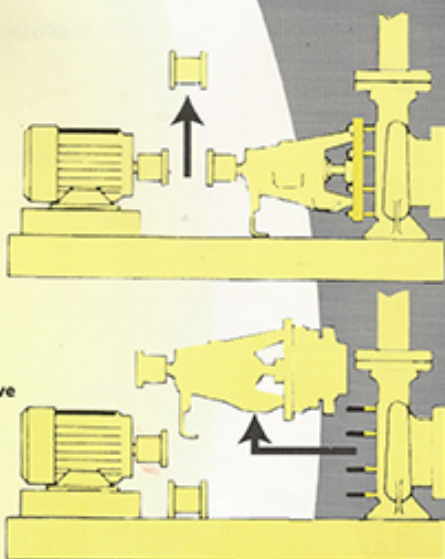
**Back pull-out feature**  
With the back pull-out feature, the complete rotating element bearing housing assembly can be removed without disturbing the suction and discharge pipework connections. If a spacer coupling with adequate spacer length is fitted, the motor can also remain in position. Maintenance is made simpler and the pump downtime is drastically reduced if a spare rotating element is available.

To remove the rotating assembly, the coupling spacer is withdrawn and the nuts holding the bearing frame to the casing removed. Any auxiliary pipework and the support foot are then disconnected and the rotating assembly removed. If a spare rotating assembly is available this can immediately be fitted and the pump can be back in service while maintenance is carried out on the original unit. There is no need to realign the coupling when rotating element is replaced.

**Seal plate**

**Mechanical seal**

**Shaft sleeve**



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