

DN SERIES

Marley Pump Solutions

Bare Shaft End Suction

Centrifugal Pumps DIN 24255



DN Series - Bare Shaft Pumps

Design Features

The DN range of pumps complies fully to the international standard DIN 24255. This standard covers both performance and dimensions.

This pump includes the back pull-out design, and when a suitable spacer coupling is fitted to a direct coupled unit, the casing and motor can remain in position while all other pump parts can be removed for simple and quick maintenance.

The volute casing is fitted with a replaceable wear ring and has a suction vane to give smooth flow into the double shrouded hydraulically balanced impeller.

Only three shaft assemblies are required to cover the total range, and this gives many common interchangeable parts for pumps fitted to the same shaft.

Standard pump is fitted with a packed stuffing box incorporating a lantern ring which includes internal flushing by the liquid being pumped, or can be converted to external flushing, and all of these pumps can be fitted with a mechanical seal.

Pumps can be supplied as a bare shaft unit, or in many other arrangements, including complete with coupling, guard, baseplate and either electric motor or engine.

MAXIMUM TEMPERATURE

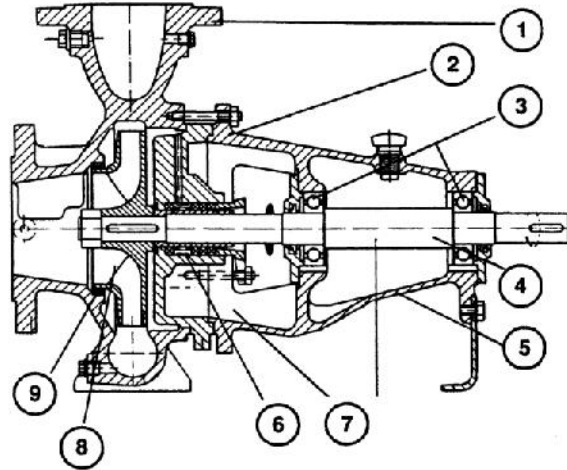
- With standard packed gland - minus 10°C to 105°C.
- Maximum with cooled stuffing box -160°C.
- With mechanical seal - maximum depends upon seal used.

MAXIMUM PRESSURE

- Maximum operating pressure 1600kPa.
- Maximum test pressure up to 2100kPa.
- (Maximum pressures will vary depending on particular pump model - higher ratings available on application).

MAXIMUM SPEED

- Maximum direct coupled speed for pumps varies between 3600 RPM and 1800 RPM, depending upon pump size, and method of drive.



- ① Cast iron casing with integrally cast feet.
- ② Back-pullout facility permits removal of back cover, stuffing box and impeller without disturbance of suction and delivery pipework. Drive motor can also remain in place if a spacer coupling is fitted.
- ③ Shaft carried in grease lubricated bearings.
- ④ Just three shaft modules cover the entire range and all pumps common to one shaft module have identical bearings, shaft sleeves, seals and impeller fastenings.
- ⑤ Cast iron bearing housing secured to cover plate and volute. Only three sizes cover the entire range.
- ⑥ Shaft sealing by soft packed gland with stainless steel shaft sleeve. Alternatively, by mechanical seals.
- ⑦ For liquid temperatures over 105°C and up to 160°C a gland cooling chamber can be formed by the addition of a cover plate.
- ⑧ Double shrouded design of impeller with back balancing vanes or, on larger diameters, hydraulically balanced by incorporating replaceable wear rings and balance holes.
- ⑨ Replaceable wear rings fitted to all volutes and also to back covers of larger pumps.

Applications

- Circulation of Liquids
- Condenser Water
- Heating Water
- Irrigation
- HVAC

Material Options

| CODE | CASING | IMPELLER | SHAFT | SLEEVE | WEAR RING |
|------|-----------|-----------|-----------------|-----------------|-----------|
| 2 | Cast Iron | Bronze | Stainless Steel | Stainless Steel | Cast Iron |
| 1 | Cast Iron | Cast Iron | Stainless Steel | Stainless Steel | Cast Iron |



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