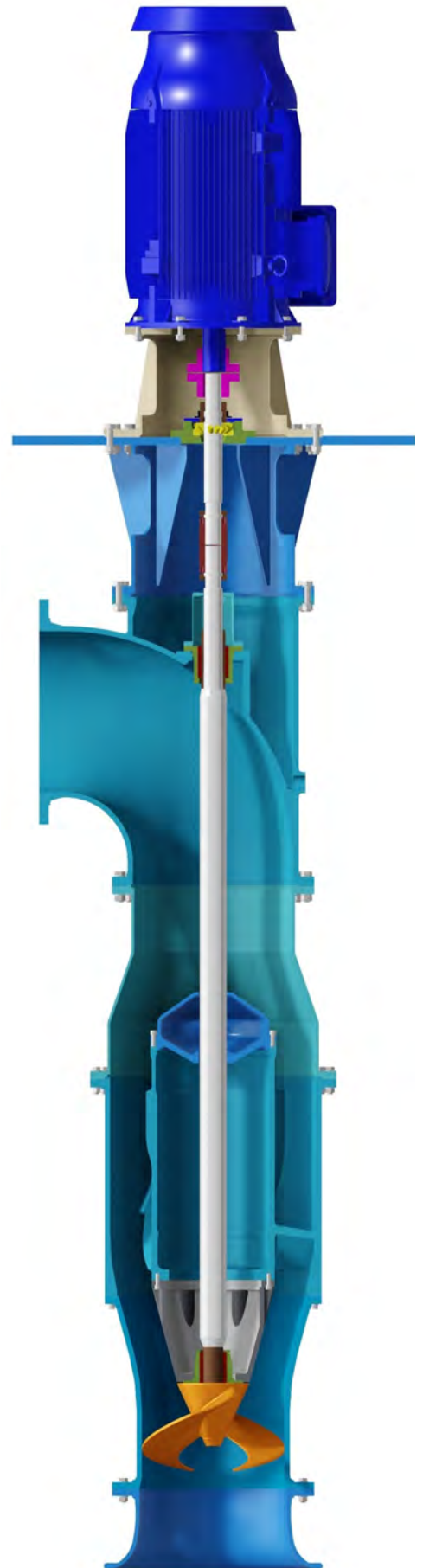


# FISH FRIENDLY PUMPS

## DAF/DBF RANGE

Bedford Pumps' direct drive range of Fish Friendly pumps cover from 400 to 9,000 litres per second at 2m to 14m head.

Larger capacity pumps can also be designed to meet specific requirements.

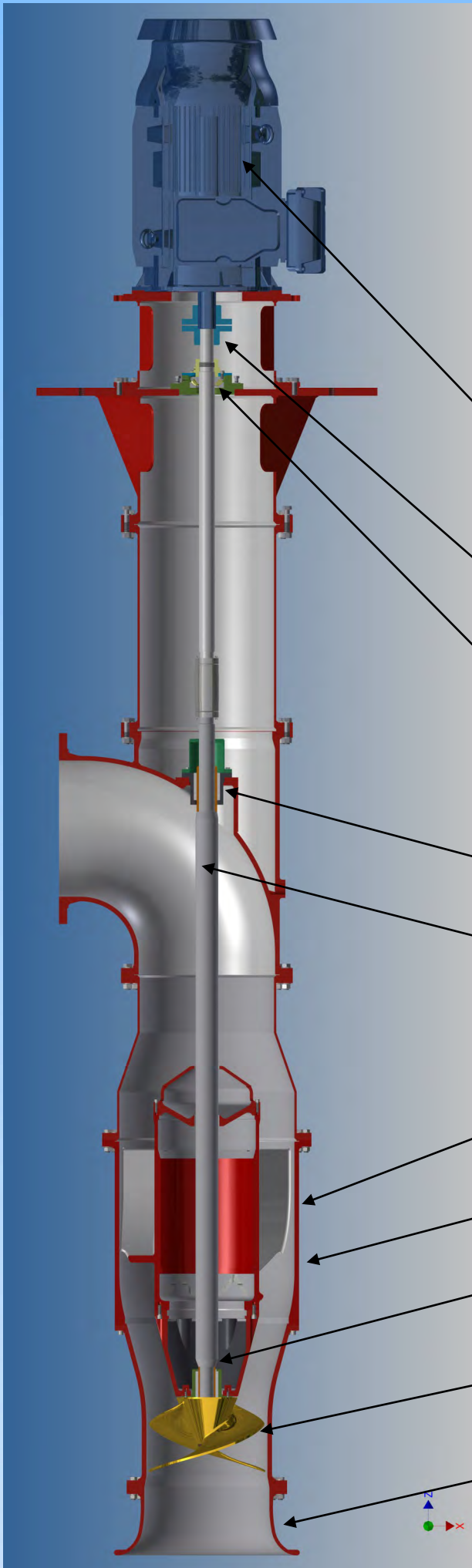


## TYPICAL APPLICATIONS

- **Land Drainage**
- **Surface & Storm Water**
- **Flood Defence**
- **River Abstraction**
- **Fish Farms**
- **Return Activated Sludge**

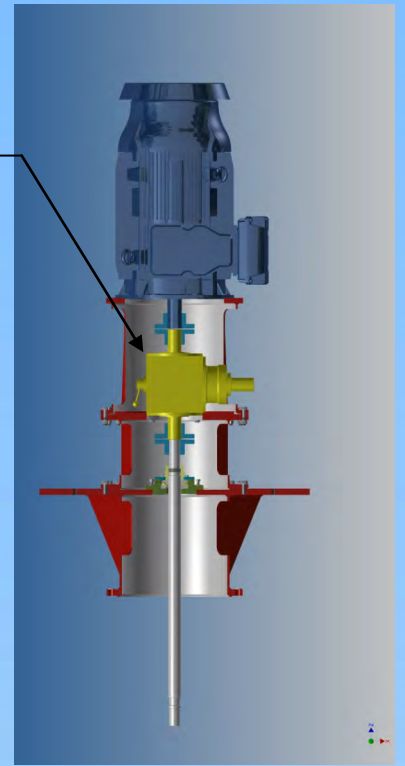


*Bedford Pumps' Fish Friendly pumps are also available as a submersible variant.*



**Gear Drive**

Optional bevel Power Take Off gear drive. Provides facility for driving pump using farm tractor under mains failure conditions.



**Motor**

Standard squirrel cage induction design, TEFC, Class F insulation with Class B temperature rise IP55 enclosure with weather cowl, or to meet clients' requirements. High efficiency EFF1 machines optional.

**Coupling**

Flexible compensating pin & bush type drive coupling offering maintenance free operation. Alternative couplings are available. Similar arrangements can also be used.

**Bearing**

Rolling element grease lubricated thrust bearing. Designed for minimum of 50,000 hours with re-lubricating facility.

**Gland**

Optional Soft packed, mechanical seal or control leakage design as required.

**Shaft**

Optional steel or stainless steel. with tunnel tube.

**Shaft Sleeves**

Shaft sleeves are fitted under gland and journal bearings. Alternatively grease lubricated bearings with tunnel tube.

**Pump Casing**

Solid Cast Iron construction with swept profiled guide vanes designed to minimise fish damage.

**Sleeve Bearing**

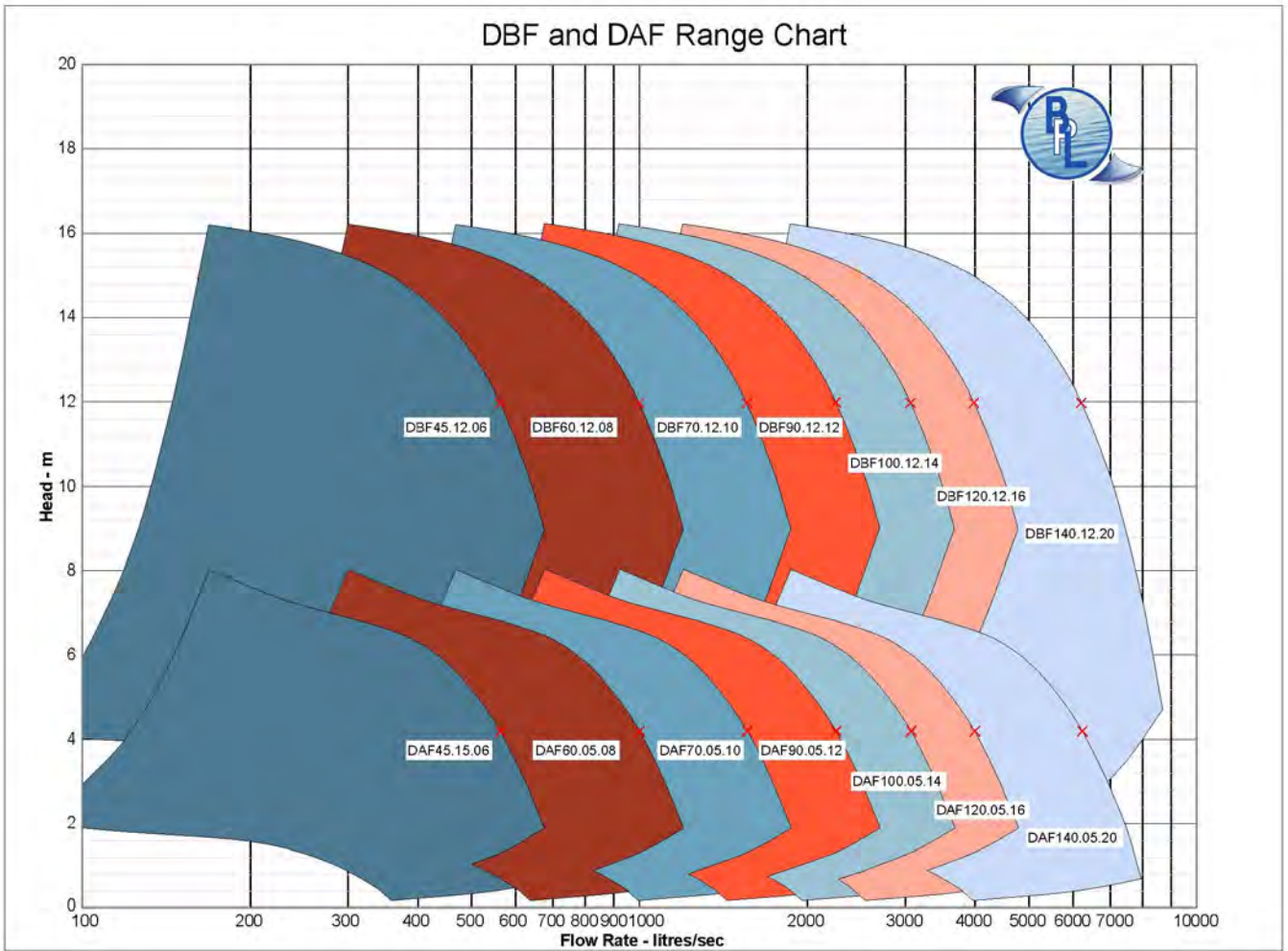
Low friction, self lubricating, dimensionally stable journal bearings. Designed specifically to run dry during start-up.

**Impeller**

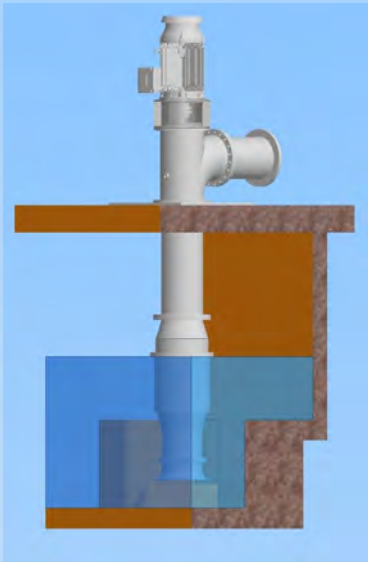
High efficiency, Aluminium Bronze, two bladed open design of cast construction. Statically & dynamically balanced prior to assembly

**Bellmouth**

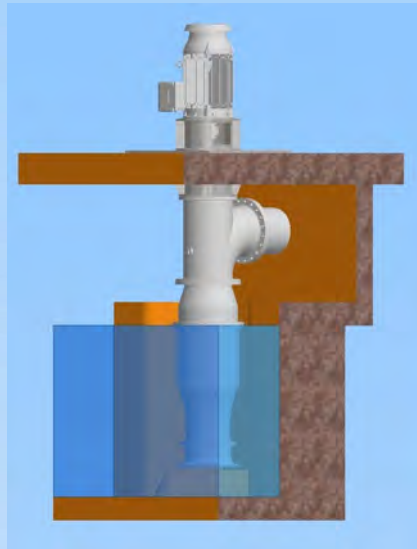
Low loss, high efficiency bellmouth entry, to optimise velocity profile



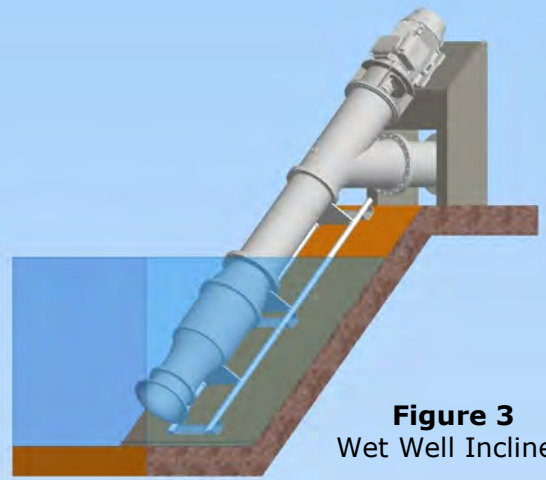
## TYPICAL ARRANGEMENTS



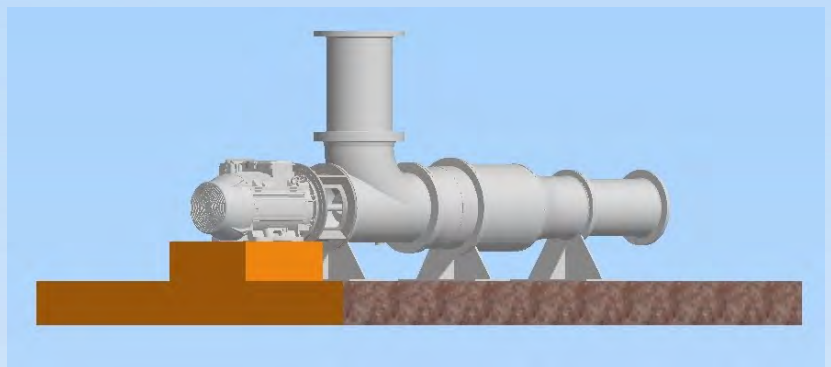
**Figure 1**  
Optional above or below floor discharge



**Figure 2**



**Figure 3**  
Wet Well Inclined

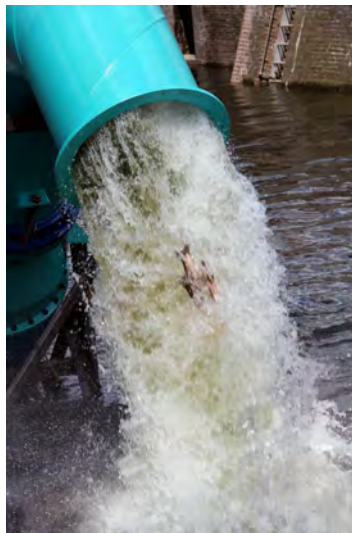


**Figure 4**  
Dry Well Horizontal



Bedford Pumps' Fish Friendly range has been stringently tested by independent consultants VisAdvies BV, and awarded an "Excellent" rating for their ability to pump pass fish and eels without mortality.

The pump is acknowledged as being the best Fish Friendly pump on the market.



**Bedford Pumps are the UK's leading manufacturer of large submersible and conventional pumps to the Land Drainage/Flood Defence industry**



**BEDFORD PUMPS LTD.**  
Part of the *hidralstal* group of companies



DAF DBF 04-2011

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