

Elbow Propeller Pump Series RPP

Elbow Propeller Pumps manufactured by EGGER for over 50 years used in:

- **Cellulose industry**
- **Paper industry**
- **Salt industry**
- **Sewage industry**
- **Sugar industry**
- **Phosphoric acid plants**
- **Melamine plants**
- **Various chemical plants**



Applications

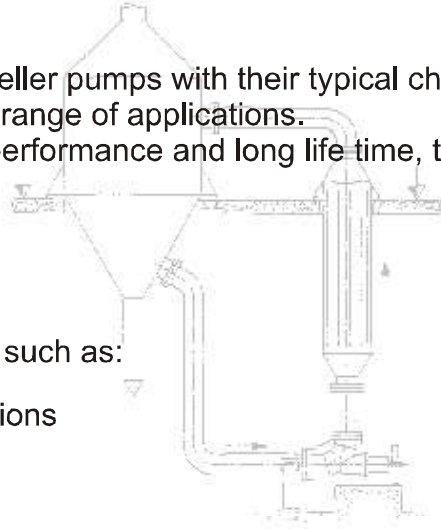
Our axial elbow propeller pumps with their typical characteristic of large flows at low heads are proven in a wide range of applications.

Wellknown for their performance and long life time, they are used in:

- Evaporators
- Reactor circulation
- Pumping stations
- Crystallizers
- Sludge circulation (sewage treatment)

with different liquids, such as:

- Crystalline suspensions
- Paper pulp
- Abrasive media
- Brine and sea water
- Fibrous media
- Aggressive acids and alkalis.



Hydraulic Characteristics

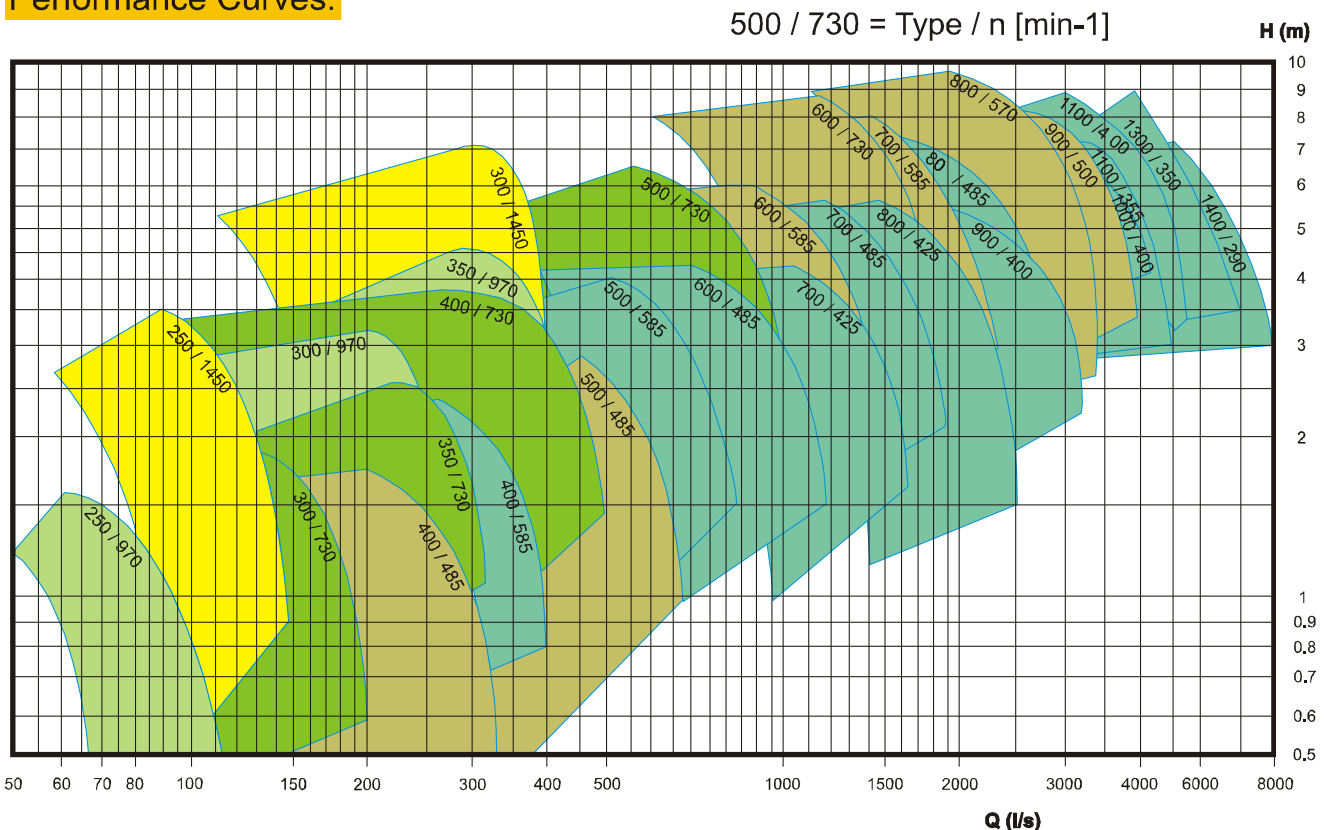


Impeller : Axial flow impeller
 Diameter : DN 250 - DN 1400
 Flow rate : 70 l/s - 7000 l/s
 Head : ≤9m

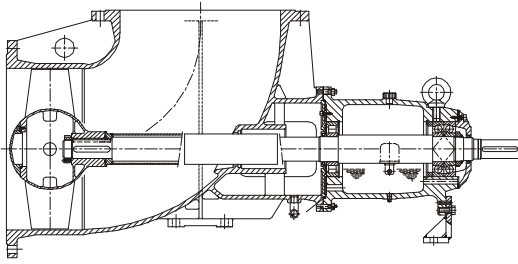
Vanes

- 4 vanes fixed to the duty point during manufacture on the propeller head.
- Thick profiles for long life times, especially for abrasive liquids (e.g. crystals in evaporators)
- Rounded shape on inlet edge on demand for liquids containing fibrous material.
- Improved hydraulics for high efficiencies.

Performance Curves:

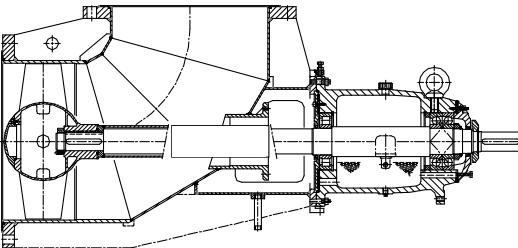


Design



Type: RPG - CASTED

Sizes	: DN 250 - DN 700
Max. service pressure	: 6 bar
Max. service temp.	: 140 °C
Materials	: GG / GGG; Ni-Resist D2B; 1.4409; 1.4517; 1.4588



Type: RPP - WELDED

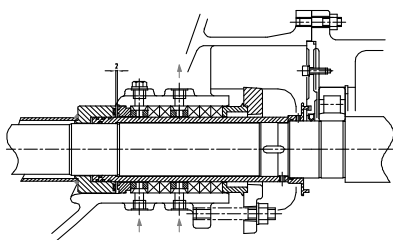
Sizes	: DN 250 - DN 1400
Max. service pressure	: 6 bar (up to DN 500)
Max. service temp.	: 4 bar (from DN 600)
Materials	: 140 °C Steel; 1.4404; 1.4529; Monell 400; Inconell; Hastelloy; other materials (up to Titan on demand)

Technical Description

- Cantilever shaft: No bearings inside the liquid.
With or without protection pipe.
- Welded elbow: Ideal for corrosive liquids.
Dimensions can be designed to custom requirements.
- Flanges: DIN PN 6/10 or Ansi 150 lbs.
Others can be realised.
- Bearing housing: Externally mounted heavy duty execution incorporating angular contact ball and roller bearings for a long life time.
- Lubrication: Greased, with radial shaft seals.
On demand oil-dip with radial shaft seals or with labyrinth seal.
- Supply options:
 - High temperature / high pressure designs.
 - Heating / cooling jackets.
 - Certified for hazardous areas acc. ATEX guidelines.
 - Special custom requirements.

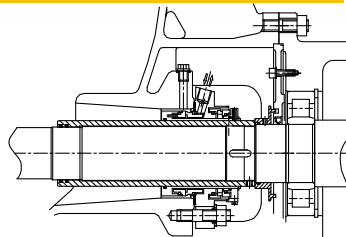
Shaft Seal Arrangements

Stuffing box



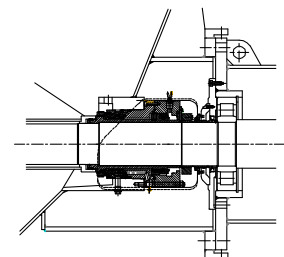
- For a wide range of liquids
- Single or double flushing arrangement.
- Stationary seal option:
Gland packing replacement simple without draining the entire system.

Cartridge mech. seals



- Big choice of types and manufacturers.
- With / without flushing.
- Single or double seal.
- Seal springs external to the liquid.

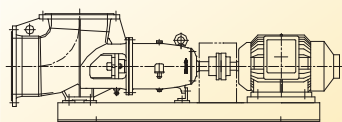
Heavy duty mech. seals



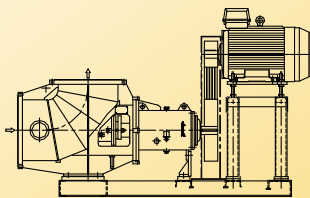
- Adapted to the application.
- Especially made for liquids with high contents of solids.
- High temperature / high pressure designs.
High life-time.

Typical Axial Flow Pumps Arrangements

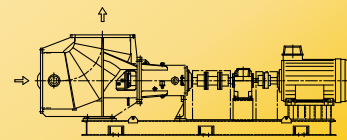
Foot mounted on base plate



Direct coupled

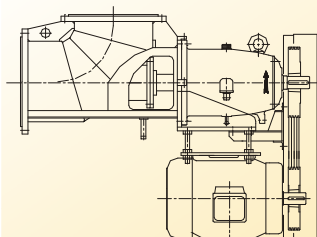


V-belt driven

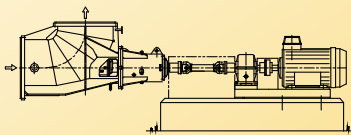


Gear box driven

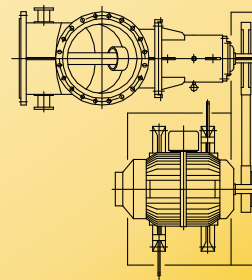
Suspended in the pipe



Suspended with motor
V-belt driven

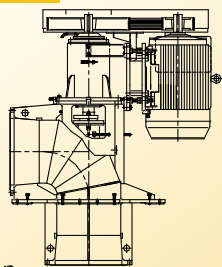


Cardan shaft driven
with gear-box

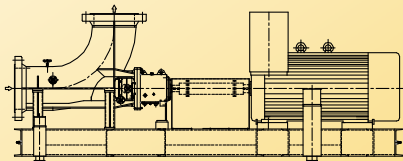


Motor laterally on
slide rails

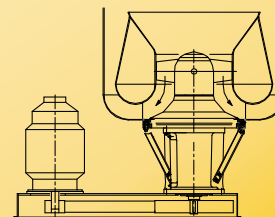
Specialities



Vertical
V-belt driven



Spring mounted base plate
Centreline supported casing



VPE design, internal
vessel circulation

EGGER Elbow Propeller Pumps available from 250 mm to 1400 mm elbow dia.



EGGER Elbow Propeller Pumps are operating in many parts of the world.

EGGER Elbow Propeller Pump in an evaporation plant - Asia



- Temperature: 80 - 120°C
- Motor power: 250 kW
- Capacity: 10'000 m³hr at 3.5 m
- Material: Monel 400



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