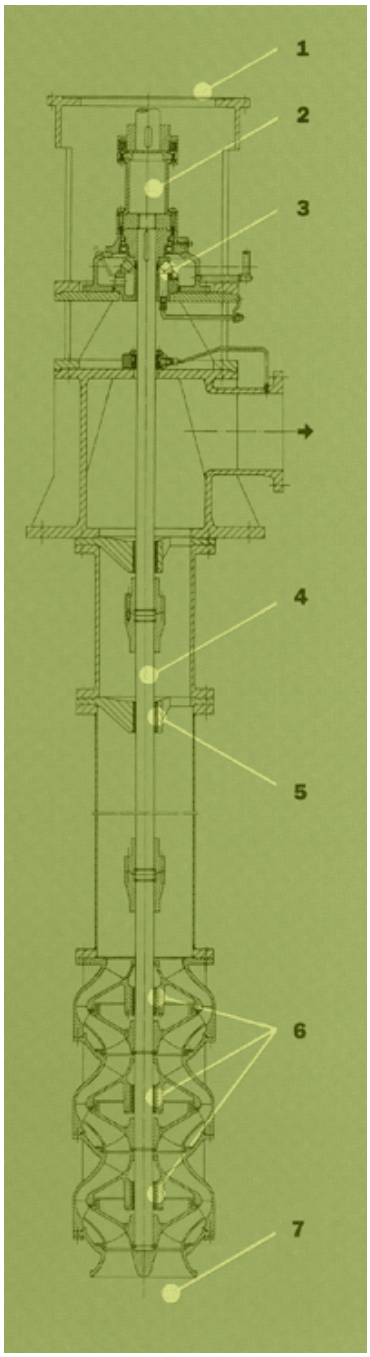
Vertical Turbine Pump

Type CVLS

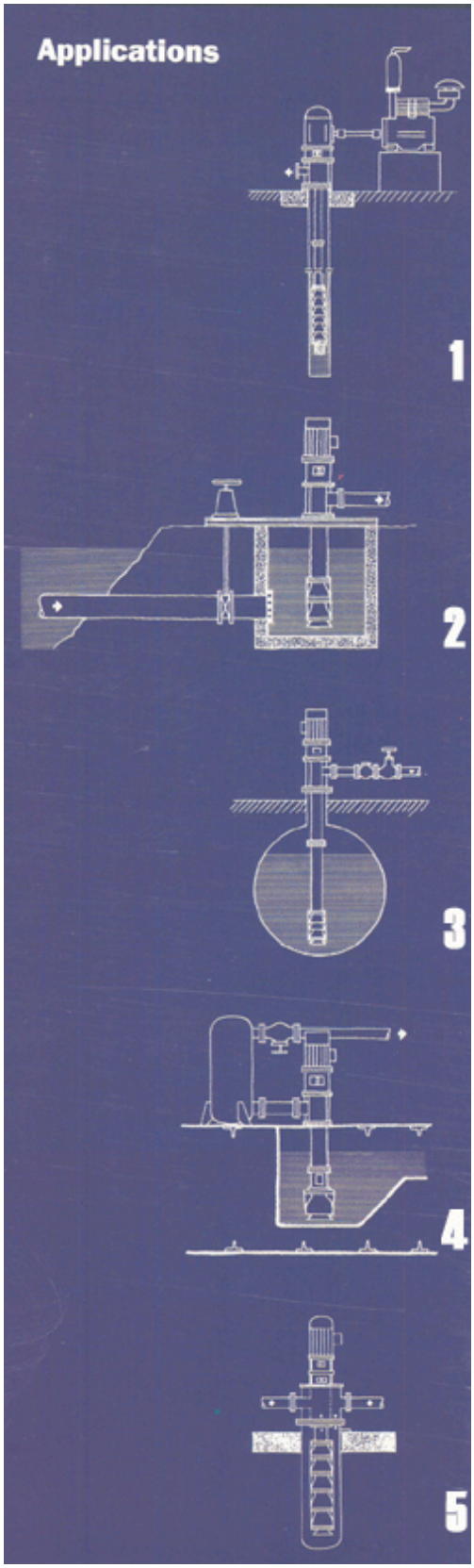
The CVLS vertical turbine pump is designed for a very vide range of applications. The construction is based on a module concept. Number of column pipes and stages, types of impellers and bowls, sealing systems, bearing arrangements and the material selection will meet any requirement within its working area.



Design features

1. The pump is coupled to a flange type motor.
   As an option extra other types of prime movers can be mounted.
2. Coupling between motor and pumps:
   Size 65-100: Flexible
   Size 200-400: Spacer
   Size 400-600: Flexible & split seal
3. Lubrication of bearings in motor bracket:
   Size 65-100: Grease lubricated (nipple).
   Size 200-400: Lubricated by the medium pumped. Oil bath (water and aggressive liquids).
   Size 400-600: Grease lubricated (nipple).
4. Distance shafts and couplings are of stainless steel AISI 329.
5. Bearings in column pipes are lubricated by the liquid pumped.
   As an option extra:
   External lubrication of bearings can be fitted to long pump versions when operating infrequently. Also pumps handling liquids containing impurities will need external lubrication. Brackets/bearings as well as distance shafts can be assembled up-side down to extend the life time of the shafts four times.
6. The impellers are fitted with interchangeable sleeve bearings. Wear rings are standard.
7. A strainer can be fitted to the inlet port of the pumps.

Test certificates according to DIN 1944 II.
Certificates according to requirements of classification societies.
Surface treatment according to customers requirements.



Bore hole pump
Pumping of water from the underground.
- Drinking water
- Field watering
- Drainage applications

Well pump
Pumping of fresh water or sea water.
- Cooling water
- Raw water intake
- Fire fighting
- Fish farming

Tank pump
Emptying of tanks installed above or below ground level.
- Oil
- Liquified chemicales

Cooling pump / Lub oil pump
- Main engine onboard vessels
- Cooling of pistons
- Motors in power stations

Condensate pump
For the increase of the NPSH available in system. The pump is submerged in a tank.

Max. values

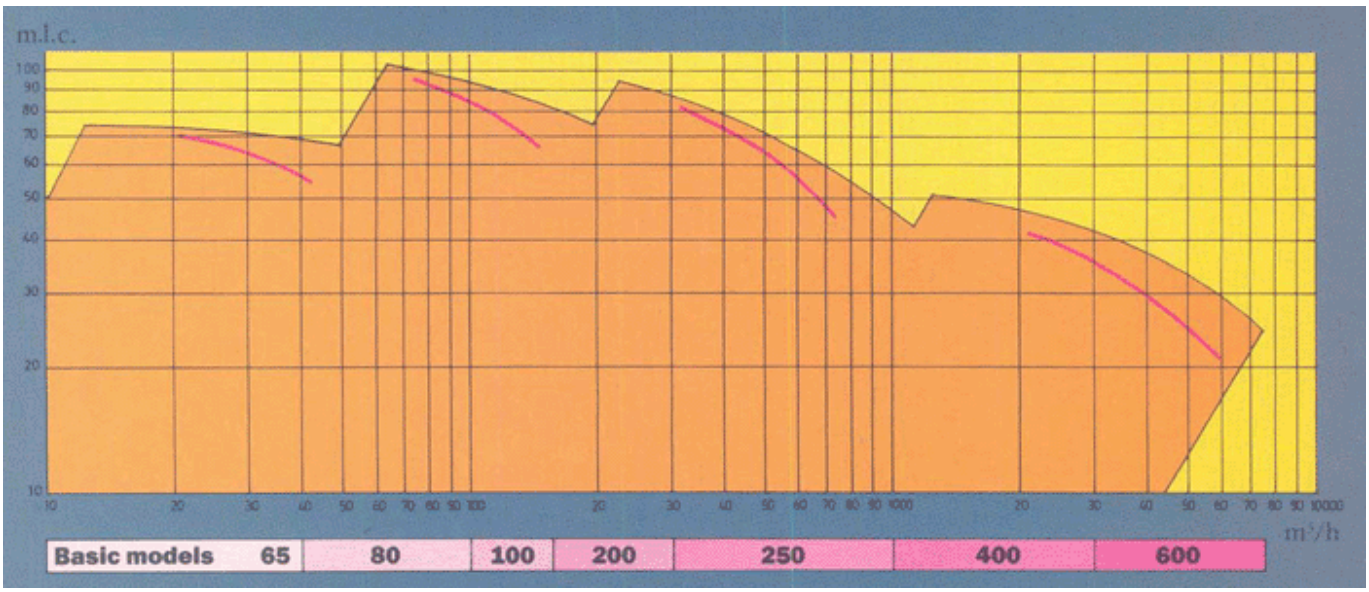
Pump size	65-100	200-400	400-600
Capacity (m^3/h)	100	1200	6000
Differential pressure (bar)	12	10	6
Speed (rpm)	3600	1800	1200
Temperature (°C)	100	100	60
Length of pump (metre) approx.	20	20	20

The maximum values mentioned above are a combination of the stated parameters.

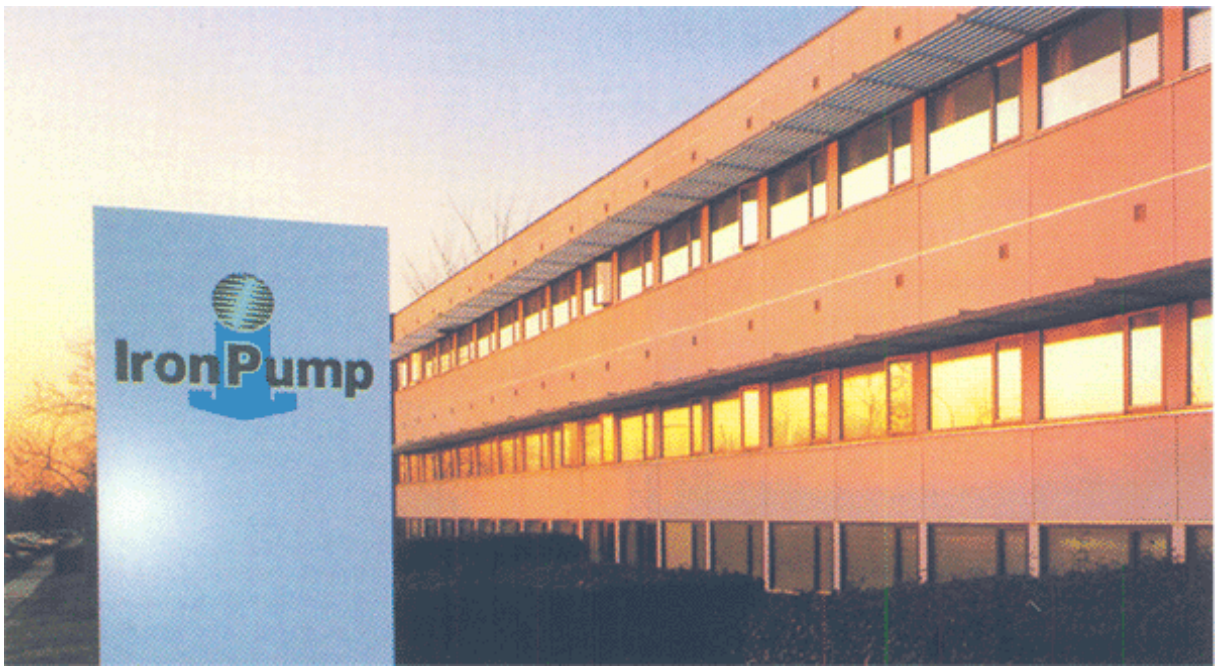
Material selection

	Fresh water	Sea water	Aggressive liquids
Pump bowls	Cast iron	Bronze	S.S. AISI 316
Impellers/wear rings	NiAl bronze	NiAl bronze	S.S. AISI 316
Shafts	S.S. AISI 316	S.S. AISI 316	S.S. AISI 316
Discharge casing	Cast iron	Bronze	S.S. AISI 316
Column pipes	Cast iron	S.S. AISI 316	S.S. AISI 316

Material selection to customers requirements can be offered.



The velosity in the pipe system can be maintained when increase in capacity by fitting an enlarged discharge port corresponding the pipe work. When pumping lub oil or any other viscous liquids volume will drop to increased friction loss (max. 400 cST.).



Since Maskinfabriken IRON A/S was founded in 1906 speciel attention has been given to the marine industry. The knowledge acquired during these many years today forms an important part of the company's foundation.

The majority of all IRON pumps are to found floating around the oceans of the world installed in a wide variety of vessels including tankers, container ships and cruise liners.

The IRON programme comprising centrifugal and positive displacement pumps is tailor made for the marine industry. The strength continues to be supplying package solutions of pump sets for an extensive range of applications onboard vessels.

World-wide service is offered by our experienced staff team both office based and mobile.

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