



Large vertical column pumps

The most energy-efficient pumps on the market



Flygt



ITT Industries
Engineered for life

Higher efficiency, bigger savings

Large pumps consume significant quantities of energy. So even a small increase in efficiency translates into a considerable decrease in costs.

Flygt's large wet-pit column pumps are the most efficient pumps available. Backed up by over 125 years of experience as Allis-Chalmers, Flygt pumps are quite simply better designed and better made.

On top of this, we tailor our pumps to the exact duty point of your application. And that means even larger energy savings.

More reliable, less downtime

The unique hydraulic thrust-relief design for high heads results in low thrust values from maximum flow to shut-off head. This prolongs the service life of the thrust bearing. To reach high pressure heads the pumps can be arranged in a one-, two- or three-stage configuration.

You decide

An extensive range of hydraulic units are available with various performance and design characteristics to handle different types of media. This makes it possible to customize pumps to meet the precise needs of your application.

Large pumps for a wide range of applications

- Circulating water
- Service water
- Make-up water
- Water supply
- Process cooling
- Flood control
- Wastewater

Cost-effective installation

The column and discharge elbow can be cast or fabricated. The elbow can be installed either above or below the floor discharge. This allows for more flexible installation options and may even offer lower installation costs. A vertical configuration takes a minimum of valuable floor space.

The column pipe is made in sections so that intermediate bearings can be used if required.



Three compelling advantages:

• *Top-rated efficiency*

• *Unsurpassed reliability*

• *Simple maintenance*

From 700 to 25,000 l/s 10,000 – 400,000 USgpm

Flygt has the widest range of large wet-pit column pumps on the market. Our largest models deliver an incredible 25,000 l/s (400,000 USgpm) and heads up to 60 m (200 ft) in a single stage. We also have the most complete portfolio of wastewater pumps available. So, no matter what your need, we can recommend the best solution for your application.

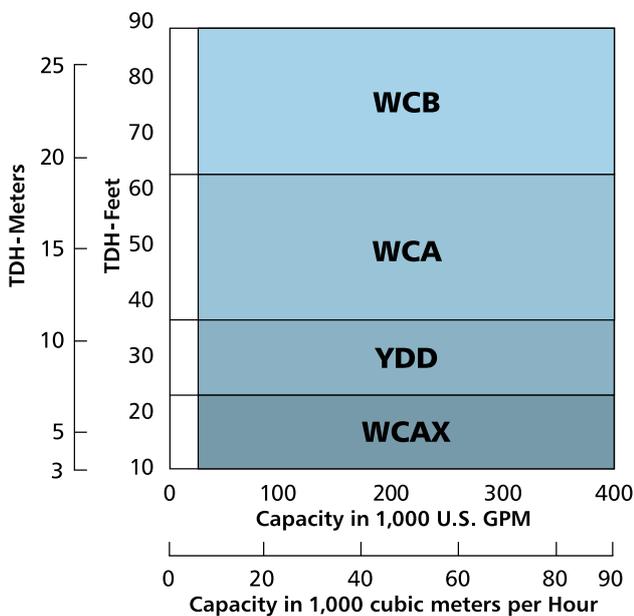
Pull-out for faster servicing

With pull-out functionality, you can remove the all internal parts without disturbing the suction bell, column, discharge elbow, or discharge piping. This optional feature substantially reduces maintenance and downtime costs by eliminating the need to drain or enter the sump during maintenance.

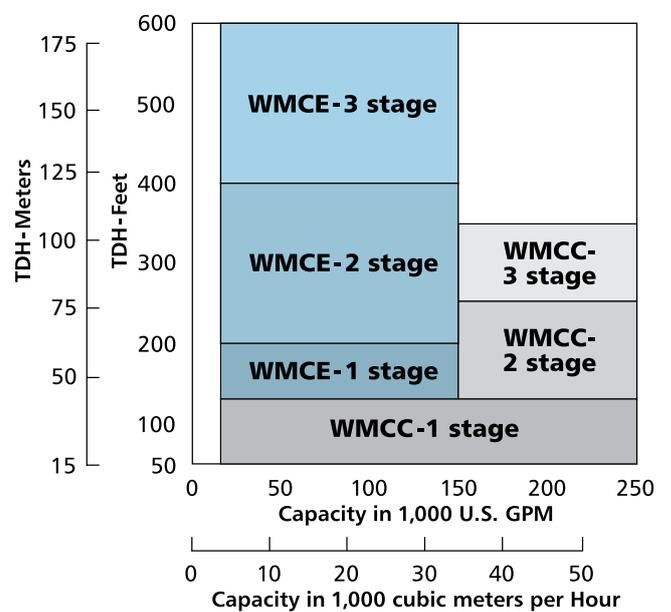


The back pull-out design gives you fast access to the wet end without having to disconnect the piping.

Low to medium head pumps Range chart



High head pumps Range chart



Quality in every detail

1. Driver pedestal

Substantial openings provide easy access to the adjustable coupling and stuffing box.

2. Stuffing box

The box is packed with graphite impregnated Teflon to reduce resistance and prolong the life of the shaft sleeve.

3. Shaft tube

Shaft tubes protect shafts from the pumped fluid and provide a passage for bearing lubrication. Open lineshaft pumps (without shaft tubes) can be provided for self-lubricated pumping applications.

4. Intermediate coupling

This solid sleeve provides a rigid transmission of power and torque through the shafts. The coupling is positively driven via coupling keys and transmits thrust loads via the split thrust ring design.

5. Bearings

A wide range of bearings are available including water lubricated rubber or elastomeric bearings or grease lubricated bronze bearings. Bearings are provided in the lower bowl assembly, in the stuffing box, and at intermediate locations as the application may require. Bearing spacing is conservatively designed using a lateral critical speed analysis. Intermediate bearing supports are used to support bearings in the pipe columns at the designed locations.

6. Shaft sleeves

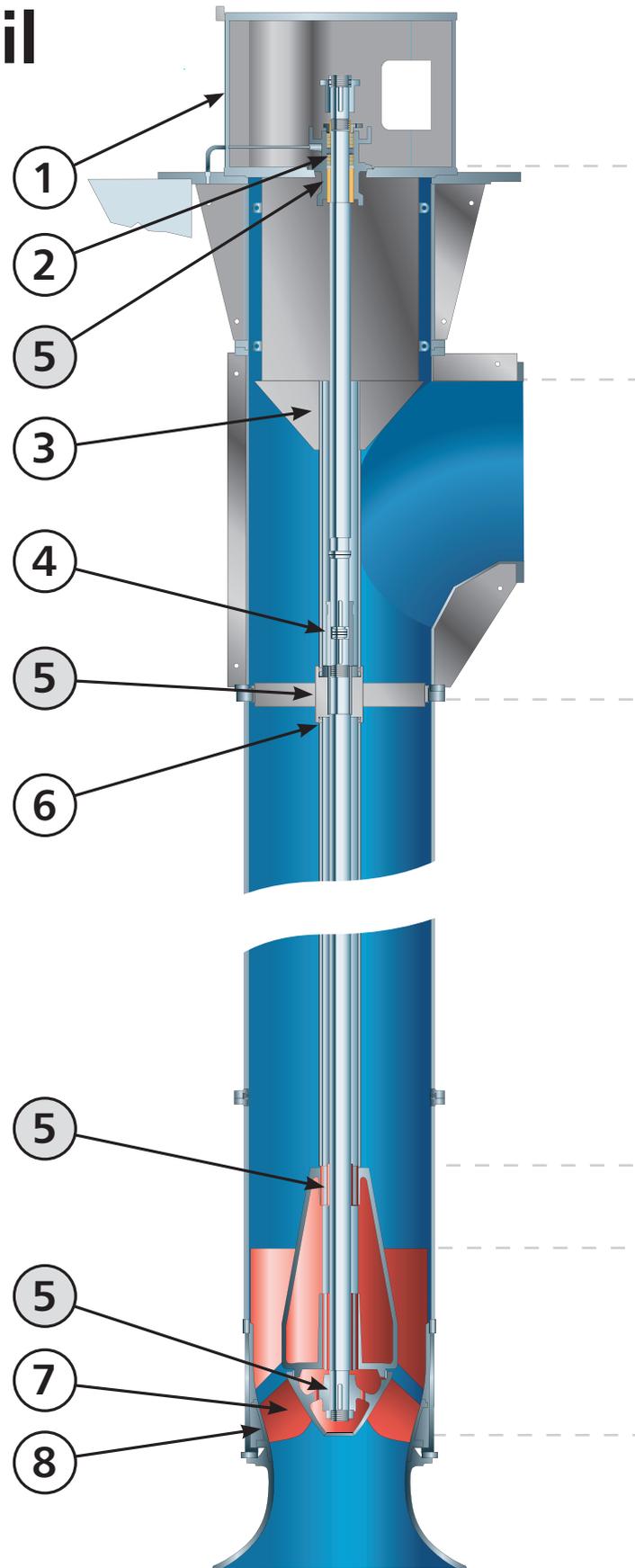
Shaft sleeves are provided under the packing and at all bearing locations. The shaft sleeves provide extended wear life and are designed for easy and low cost replacement/renewal of the wearing surfaces.

7. Impeller

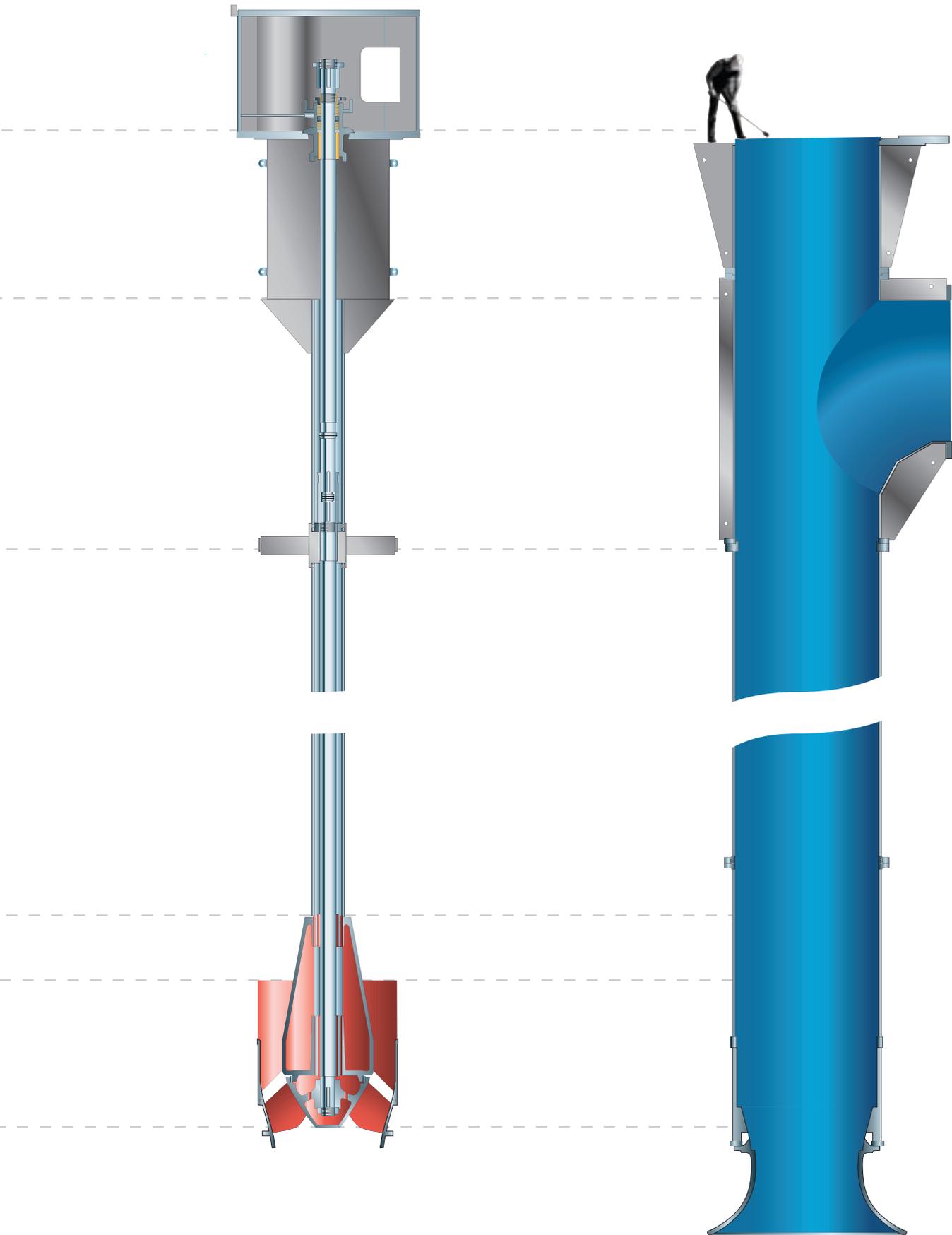
The special design of the impeller ensures optimal pumping efficiency.

8. Impeller cone

The impeller cone is a separately cast component thus permitting economical renewal of impeller design clearances.



Typical section view showing pull-out type design



Removable inner element

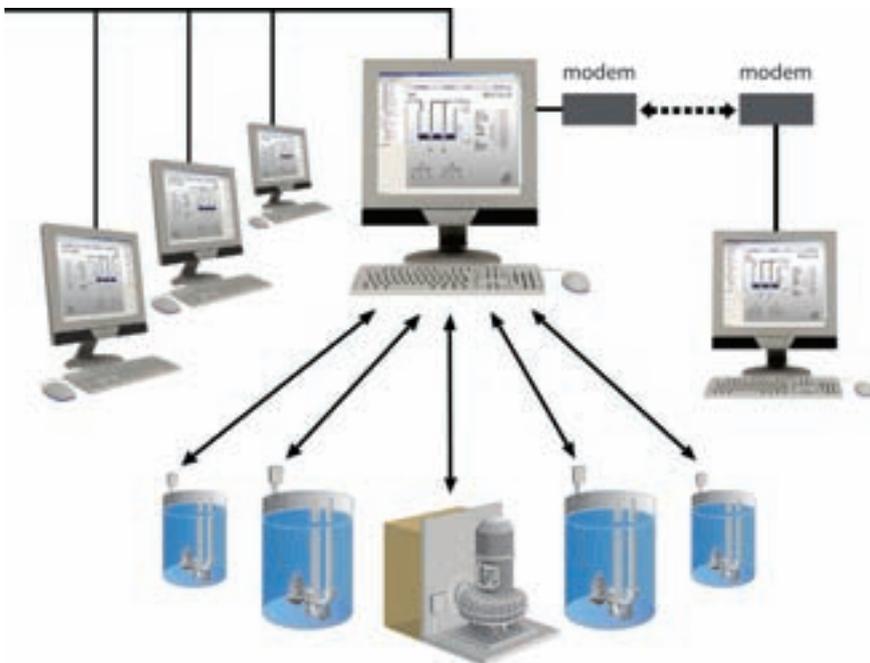
Column pipe, discharge elbow and suction bell remain undisturbed

Tailoring total solutions

No other supplier can so perfectly meet your pumping needs as Flygt. We offer the widest range of pumps on the market: everything from a fractional kW output submersible to the world's largest vertical column pump. We have unmatched resources, both in terms of manpower and facilities. For instance, we operate the largest water tank in North America for testing our pumps. Flygt is also a one-stop supplier, with a full range of auxiliary equipment including variable speed drives, monitoring and control equipment, expansion joints and control valves. And then we have the experience and know-how to translate your needs into reality.



Reduce service visits and emergency call-outs



Monitoring and control

With a well designed monitoring and control system, service costs can be radically reduced. For example, unnecessary service checks can be eliminated with the help of automatically generated service alerts. And armed with detailed information, you'll be able to slash the number of emergency call-outs.

At Flygt we supply both the hardware and software for complete systems: everything from pump controllers, sensors and start equipment, to the software for running the system. With Flygt's SCADA supervision software, AquaView, you get a complete picture of your fluid handling processes.

World-wide service, world-class value

Because no two pumping stations or systems are alike, we let you choose the type of support package that best matches your needs.

At one end, we help in selecting the right pump for a new application. At the other end, we can provide full service assistance that includes everything from system planning and design, through construction and commissioning, to operation and maintenance.

With a world-wide network of authorised service centres, you always get the support you need: whether it's a question of planned maintenance, or express delivery of a part.

Extensive spare parts guarantee

We guarantee the availability of spare parts 20 years after we stop production of a pump model. This is just one of the ways we demonstrate long-term commitment to our customers.



As a leading supplier of fluid handling solutions, Flygt can supply everything you need to design, build and operate pump systems in a safe and cost-effective way.

Our products are used in water supply, wastewater treatment, sewage systems, mines,

construction, process industries and numerous other applications.

Flygt is represented in over 130 countries and has more than 40 sales companies around the world.



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