



POMP DIRECT

Water & Wastewater

# Grinder pumps

High head & super high head



50Hz

# Grinder pumps

## High head & super high head In cast iron, stainless steel & duplex

Grinder pumps in pressure sewer systems are the only practical solution for single house dewatering in remote areas. The limited amount of water available at these single houses calls for small discharge pipes. Not only to reduce the cost for the discharge pipes, but also to reduce smelling and corrosion problems at the discharge points. Only with small pipes the time that the sewage stays in the discharge pipes can be limited to avoid digestion of the sewage while still inside the pipes. At the same time the acceleration of the total mass of water in the discharge pipes can be fast enough so that the required minimum flow velocities -to bring settled solids in suspension again- are met, before the pump runs out of water.

The further away from urban areas or in hilly areas, the higher heads are required. This is where the grinder pumps of ITT W&WW Alphen fit in perfectly. Our grinders are unmatched in head generated per kW. The use of the self-contained tandem arrangement can eliminate the need for an intermediate pump sump or booster pump station. The availability of other materials than cast iron makes these pumps extremely suitable for agricultural and industrial applications.

### Unique features

- ▶ Very effective cutting device
- ▶ Proven reliability
- ▶ High heads: for single pumps up to 54 m
- ▶ Self-contained tandem arrangement, for super high heads: 108 m with less than 2x4 kW
- ▶ Optimum pump selection from a full range 0.65–4 kW. All parts identical, except for impeller, stator and rotor.
- ▶ Available in cast iron, stainless steel AISI 316 and duplex AISI 329
- ▶ Adapters and couplings available in cast iron, stainless steel and duplex stainless steel

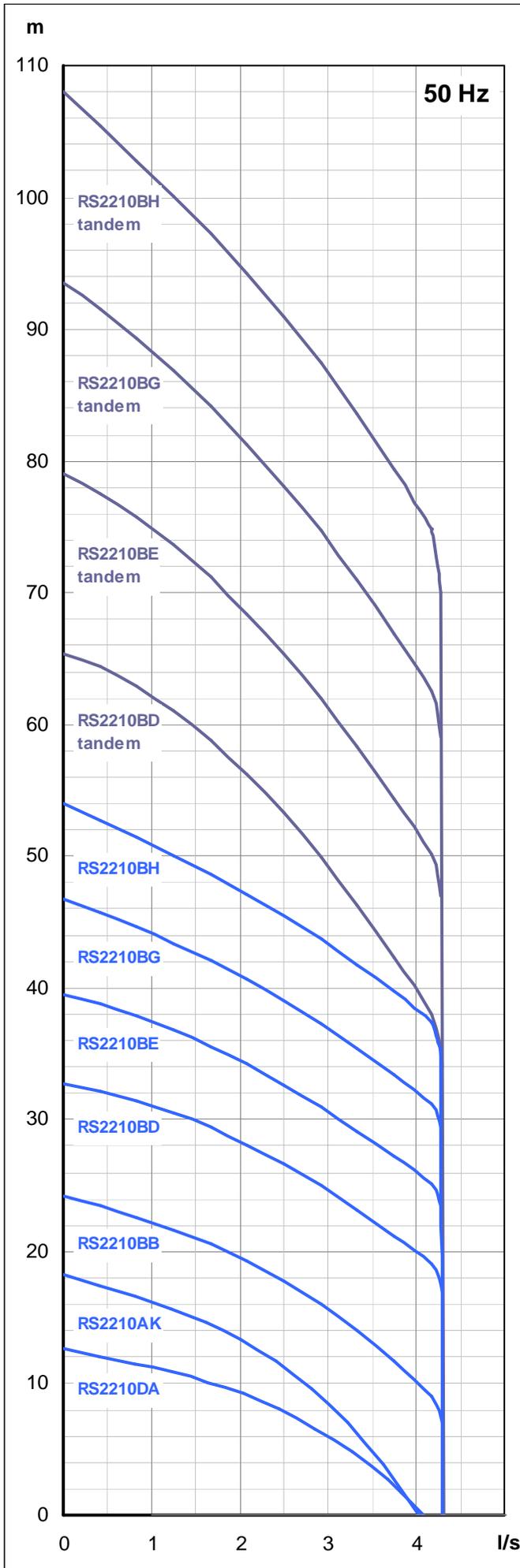
### Very effective grinder

The multi cutting edges on rotor and stationary part are on the inside of the grinder unit. Hence clogs, plastic bags and other fibrous debris cannot wrap around the rotor. The special design of the rotor face together with the battlemented stationary part eliminates a full coverage of the suction opening and with that a full break in the inflow of water. Once inside the grinder the solids are gradually but steadily shredded time after time until the parts are small enough to leave through the 6 mm wide passage ways through the grinder.

The cutting edges located on the inside of the grinder are also well protected for damages by external hard objects.

Our grinder pumps are recognized in the market as effective and very reliable. For that reason they caught the attention of our customers and competitors as well. Thousands of units proved this since the first introduction in the mid eighties. Not only in our home market are they the first choice for pressure sewage systems, but in many other countries world wide.





### Super high head with 2 pumps in tandem

For more than 10 years we successfully supplied grinder pumps in tandem. This arrangement is excellent in hilly terrains or with long discharges as it can eliminate the need for an intermediate pump sump or booster pump station. With 2x4 kW heads up to 108 m TDH are possible.



### High head with single pump

The ITT WWW Alphen grinder pumps are typically high head pumps. With a single pump up to 54 m head is available with only 4 kW motor.



The RS2210 series is limited in flow to just over 4 l/s (15 m<sup>3</sup>/h). With this flow the flow velocities are sufficient in discharge pipes with 80 mm bore or less. It is recommended not to select duty points on the vertical part of the QH-curves. Short term running on these sections is allowed.