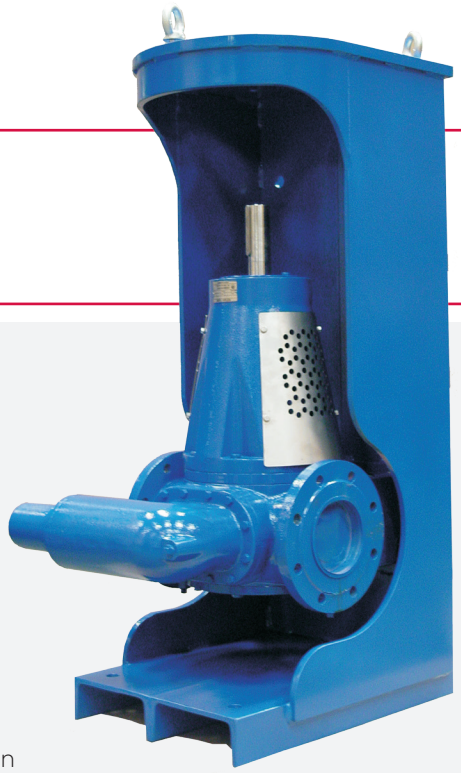
# ROTAN® HD Vertical



Heavy Duty Gear Pumps

## Key features and benefits

- Flexible sealing options
- Back and front pull-out design
- Opposing inlet and outlet connections with oversized ports
- Shaft supported by two ball bearings in single sealed configuration
- Low NPSH requirements
- No speed reduction required in the six smallest sizes
- Complete heating/cooling jacketing available

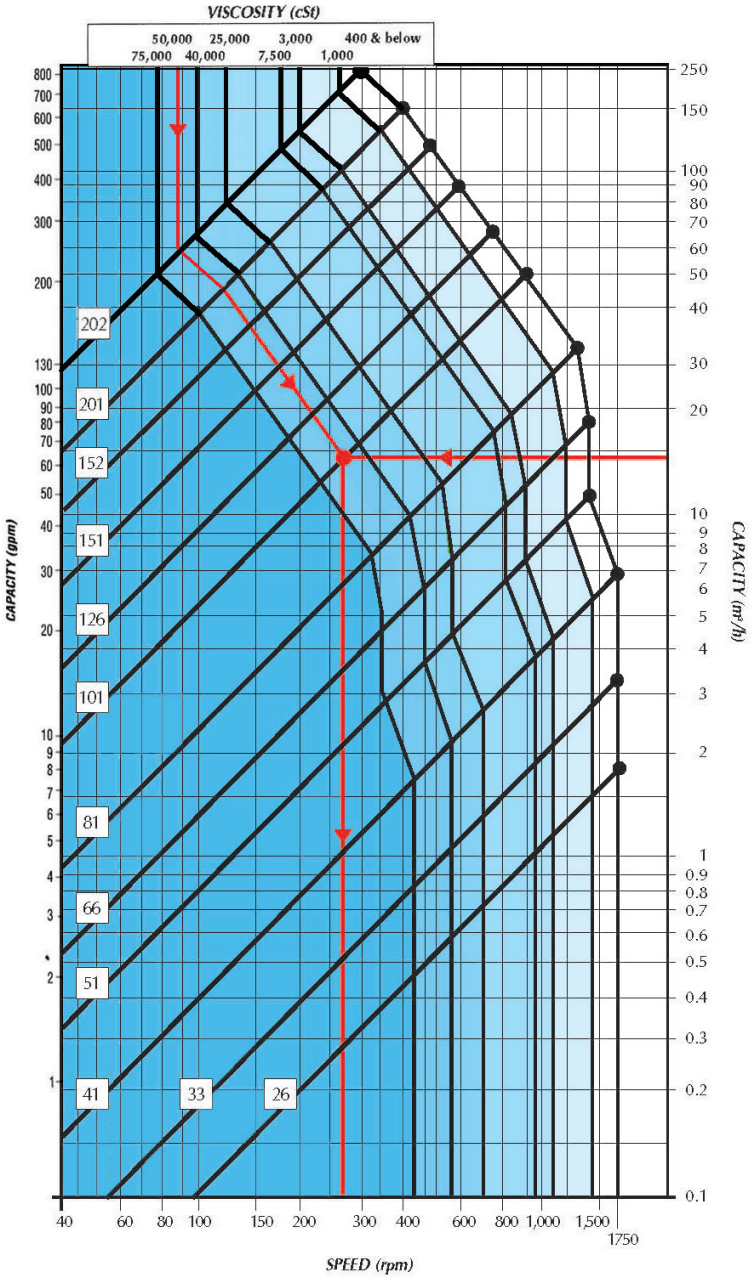
Vertical design is advantageous when the floor space is limited.
The back pull-out design in combination with spacer coupling leads to easier servicing. Dismounting of the complete rear end incl. bracket, rear cover, rotor and shaft without moving neither pump casing nor drive unit / motor and gear.

The vertical position leaves enough space for dismounting of the front cover, idler pin and idler. This means that the back pull-out and front pull-out design make it possible to disassemble the complete pump without touching pipe system, pump casing and drive unit.

GP/HD/CD/PD pumps are available in both vertical & horizontal design.

| | |
|---|---|
| Capacity Range | Up to 250 $m^3/h$ / 1100 gpm |
| Speed | Up to 1750 rpm |
| Differential Pressure | Up to 16 bar / 232 psi |
| Suction Lift | Up to 0.5 bar / 7.25 psi vacuum while priming<br>Up to 0.8 bar / 11.6 psi vacuum while pumping |
| Viscosity Range | Up to 250,000 cSt |
| Temperature | Up to 250°C / 482°F |
| Pumping of:<br>Oil, Asphalt, Chocolate, Paint/Lacquer, Molasses, Soap, Additives, Polyol, Viscose, Sulphate Soap, Maltose, Grease, Pitch, Base Oil, Bitumen, Polyester | |

# Selection of Pump Size




PLEASE NOTE!
ED: Capacity curve up to pump size 151
GP: Capacity curve up to pump size 101

To select the pump size by means of this table, you only need to know:

- The capacity
- The viscosity

Start at the top of the table with the viscosity, and draw a line down, staying within the colour of the selected viscosity range (see example).

Then start at the right of the table, drawing a horizontal line starting with the required capacity (see example).

The point where these two lines meet determines the pump size, defined by the diagonal lines in the table. If you do not hit one of these pump lines exactly, increase the capacity a bit. The speed is found vertically below the point of intersection (see example).

The maximum speed of each pump is found vertically below the end of each pump line (indicated with the small black dot). This maximum speed must be reduced to max. 50% when pumping strongly abrasive liquids or emulsions.

When the differential pressure is known, the shaft power is calculated by:

E(KW) = 0,07 x flow ($m^3$/h) x differential pressure (bar)

The requested shaft power has to be increased by up to 35% when using a small ROTAN® pump in combination with high viscosity (Above 10,000 cSt).

The requested shaft power has to be decreased by up to 35% when using a big ROTAN® pump in combination with low viscosity (Under 500 cSt).