



TC Pump

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Team Warman
THE TOTAL SLURRY SOLUTION



Warman TC Pump

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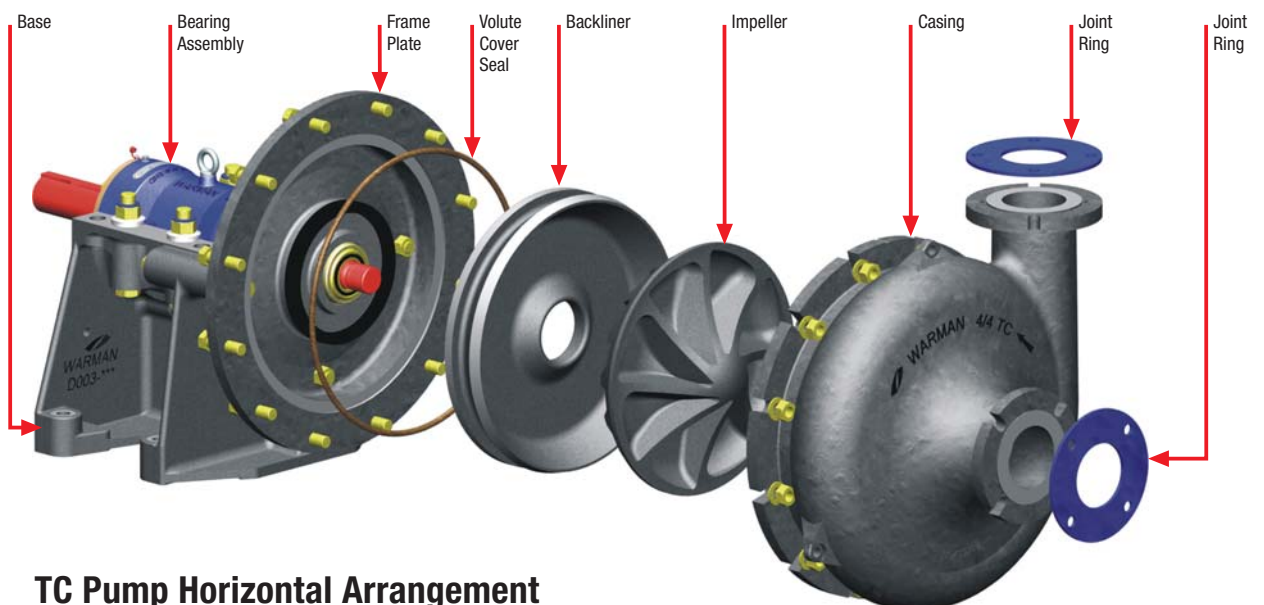
The Warman range of TC Pumps is designed specifically for continuous use in slurry type applications with larger or breakage sensitive particles. This range of vortex pumps is capable of handling large as well as very soft particles, especially where particle degradation is of concern. The large volume internal profiles, combined with the recessed open impeller design, reduce particle interaction and limit potential blockages.

Design and Unique Features

1. The unlined all-metal design of the wet-end components is suitable for both horizontal and vertical design configurations.
2. The unique recessed impeller design sets up an internal vortex, which transfers the energy to the medium being pumped. This "soft" transfer of energy limits the amount of particle degradation significantly when compared to conventional pumps.
3. Equally sized inlets and outlets determine the maximum particle size that the pump can handle limiting potential blockages that could arise when pumping large particles.
4. The large volume casing design reduces velocities further decreasing wear and particle degradation.
5. Robust Warman bearing assemblies, consisting of heavy-duty taper rollers, minimum shaft overhang and rigid large diameter shafts contribute to trouble free operation on both horizontal and vertical configurations.
6. The unique "-10" (dash 10) end-cover assembly comprising V-Seals, double piston rings and an external flinger with grease lubricated labyrinths is standard in the horizontal bearing assemblies.
7. Availability of vertical spindle arrangements is standard and shaft lengths vary as per the normal Warman SP and SPR pump ranges.

Product Range

The heavy-duty Warman TC (Vortex) pump range caters for both horizontal and vertical drive arrangements. This allows the plant designer optimum flexibility when applying the pump to specific application requirements.



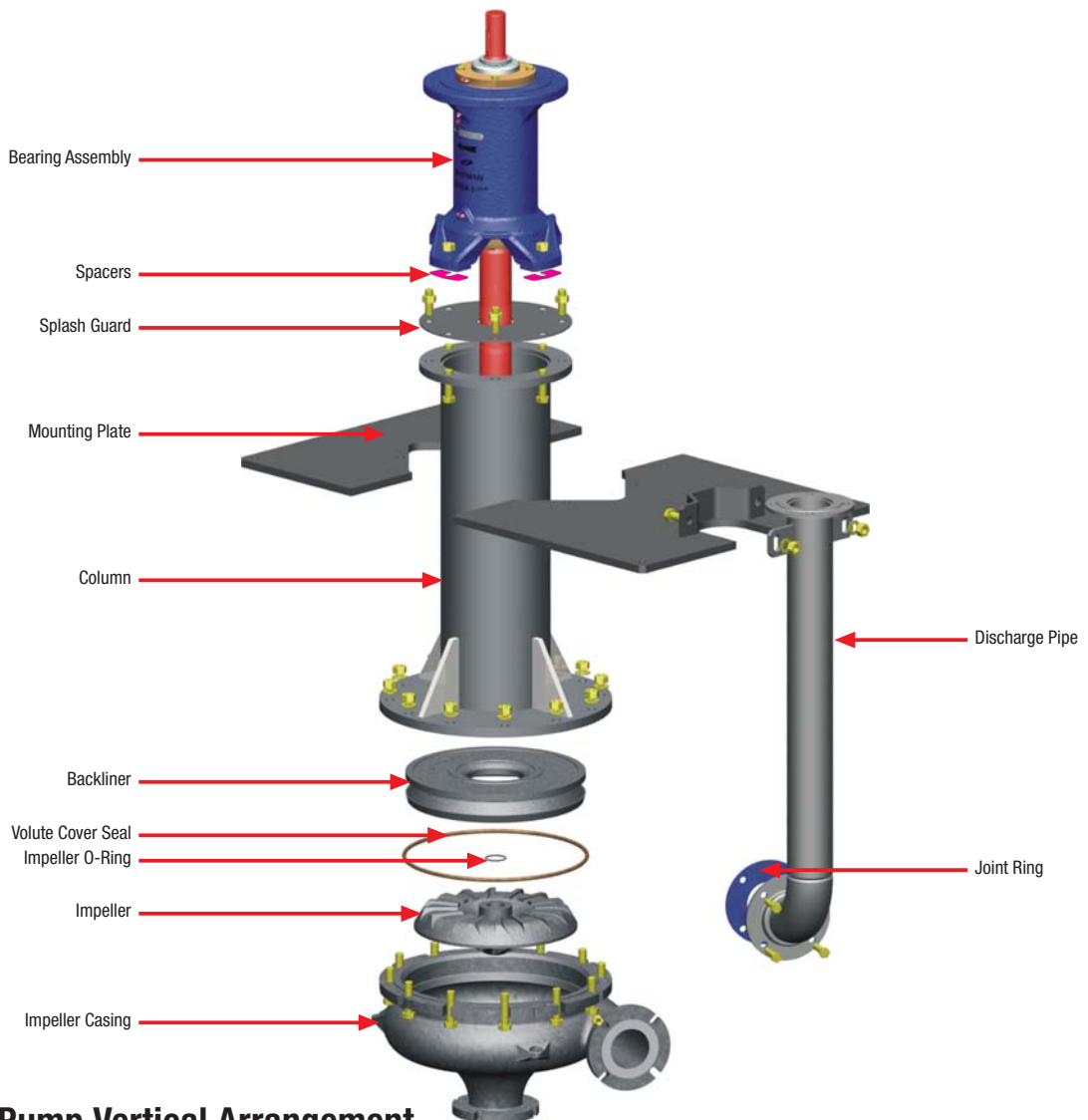
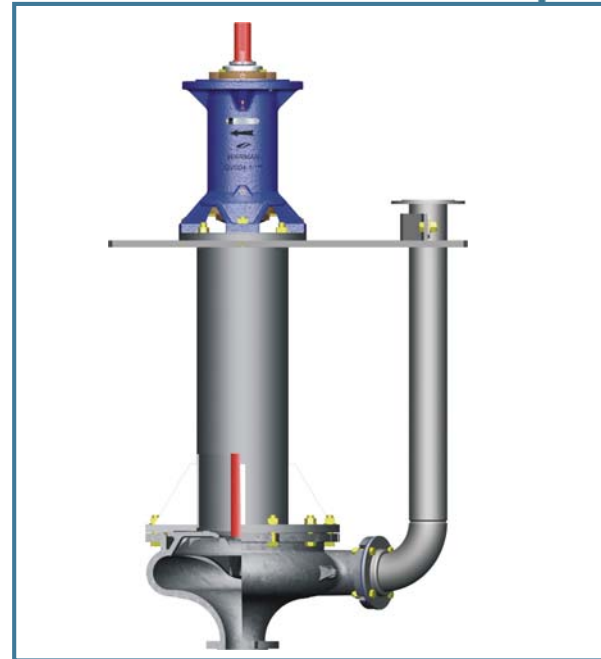
No Direct Vane Interaction

The recessed impeller design, together with the large volume casing, has allowed the impeller vanes to be positioned outside of the general flowpath of the fluid. This results in the pump's large particle handling capability as well as very low particle degradation due to the limited vane interaction with the medium being pumped.

Typical Applications

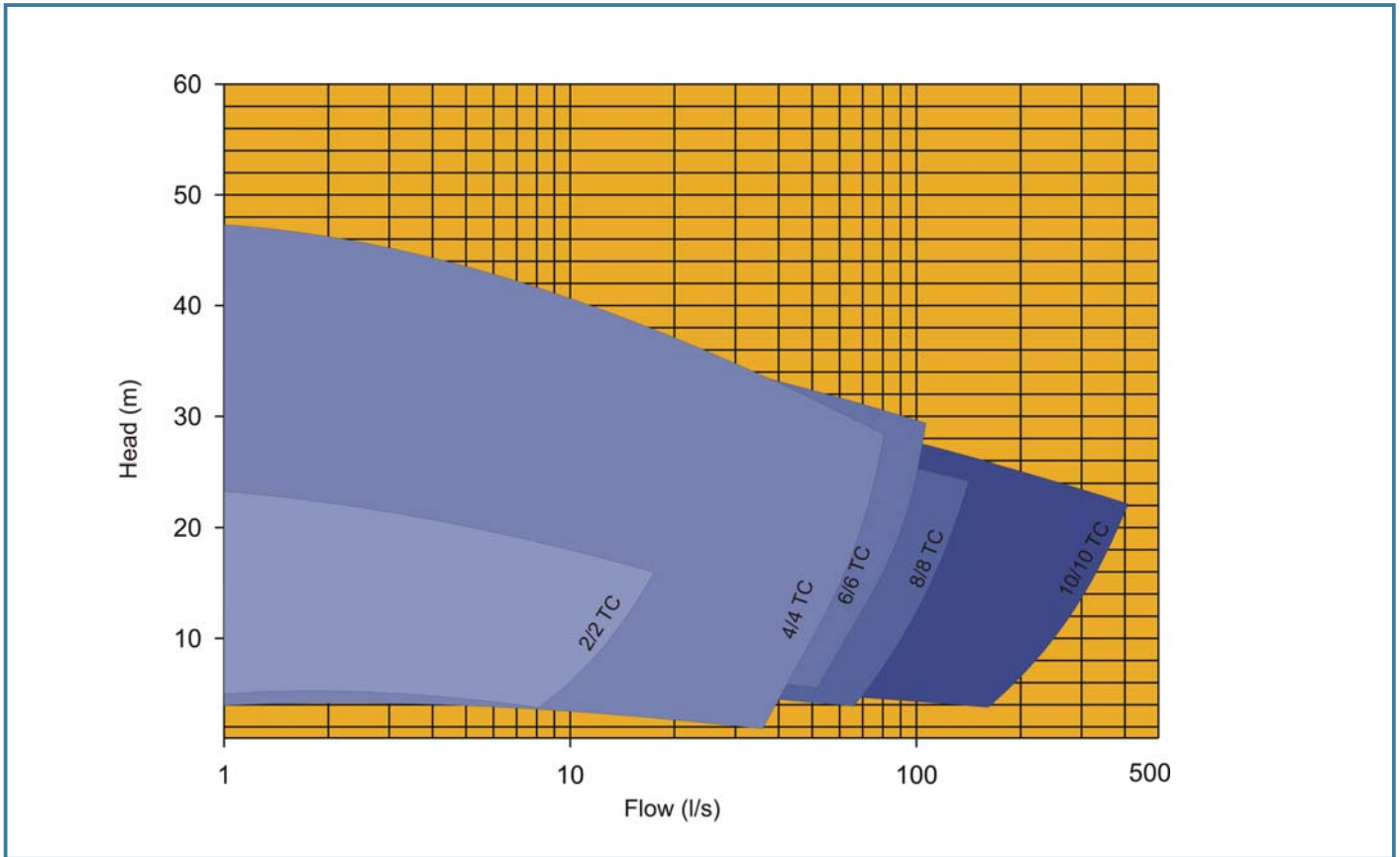
- Carbon Transfer Duties
- "Soft" Particles
- Sewage and Effluent
- Sugar Beet
- Diamond Concentrate
- Low Shear Duties
- Food Industry
- General Spillage

Cross section to show recessed impeller design



TC Pump Vertical Arrangement

Selection Chart



The selection chart should be used as a basic guide only.

It indicates the range and quality and head available from Warman pumps with standard impellers. It can also, however, be used to obtain a preliminary pump selection providing the user is able to estimate the quantity of slurry to be pumped and the developed head required.

Materials of Construction

	CASING	IMPELLERS	BASE	EXPELLER	EXPELLER RING	SHAFT SLEEVE	SEALS
Standard	High Chrome Alloy	High Chrome Alloy	SG Iron or Mild Steel (Vertical)	Chrome Alloy or SG Iron (Horizontal)	High Chrome Alloy or SG Iron (Horizontal)	SG Iron (Horizontal)	Natural Rubber



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