

## Some Applications

Industry	Service	S	R	Liquids pumped
Food industries	Production of any kind of oils, Vegetable or animal fat, syrup Production of chocolate and Edible creams	✓	✓ ✓ ✓ ✓	Oils and fats Syrups and juices Chocolate Creams, mustards
Stock farming and Cattle breeding	Re-circulation Decanting Disposal Moving	✓	✓ ✓ ✓	Liquid manure Concentrated animal food Molasses Animal fats
Fodder industries Cattle feedings	Production Pouring off silos or tanks		✓ ✓	Molasses, waste syrups Vegetable and animal fats
<b>Sugar refineries</b> (from beets or cane)	Washing beets Production Pouring off <b>Chalk water</b> for clarification of juices	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	Recovering / recycling of washing water <b>Molasses and juices</b> Drainages (green and white) Refluxes from depuration Adding of <b>chalk solutions</b> after diffusers
<b>Detergents</b> and cosmetics	Production of intermediates Packaging Homogenizing  Disposal of waste	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	Liquid detergents <b>Silicones</b> Acid fats <b>Sulphonic acids</b> <b>Slurries</b>
Pharmaceutical industries	Production Packaging / disposal	✓ ✓	✓ ✓	Viscous liquids / oils Refluxes from depuration
<b>Ink</b> and printing works	Ink production Transport Feeding printing machines Recycling	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓	Resins <b>Solvents / alcohols</b> Compounds Inks Recycled solvents
<b>Glues</b> , adhesive tapes, stickers	Pumping of basic products Pumping into tanks Smearing on tapes or papers	✓ ✓	✓ ✓ ✓	Resins / glues Solvents Finished products
<b>Paper mills</b>	Charged fluids transfer Fluids after vacuum treatment	✓ ✓		Waste water / disposal Recovering of paper pulp
<b>Leather</b> tanning industries	Additives production Veiling machines Depuration, disposal	✓ ✓	✓ ✓	Oils and fats Paints and varnish Refluxes / waste treatments
<b>Paints</b> , enamels	Production Pouring off Disposal Pumping to and from tanks	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	Resins and additives Oils of any origin Water and solvents based paints Solvents of any kind (only <b>clean</b> ones for <b>R</b> ) Treatment of waste solvents

Industry	Service	S	R	Liquids pumped
Plastic industries	Production of resins Production of solvents Pouring off silos or tanks Disposal	✓ ✓ ✓ ✓	✓ ✓ ✓	Resins <b>Polyols and isocyanates, TDI</b> Solvents of any kind (only <b>clean</b> ones for R) Treatment of waste solvents
Shipyard, on boats	On board Bilge Engines, machines Ballast Fresh water Disposal Various services on board Loading / unloading	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓	Clean and disposal water Dirty and oily (sea) water <b>Fuels, oils and gasoline</b>  Waste and charged liquids of any kind  Raw oil
Harbors, wharves and warehouses	Pouring off Pumping Disposal	✓ ✓ ✓	✓ ✓ ✓	<b>Molasses, syrups</b> Acids or basic products Petrochemical products
Building industries	Draining excavations Sinking ground water Impermeabilization Paving machines	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	Asphalt Bitumen Fuels Ground water / waste water
<b>Marble</b> industries	Manufacture Depuration Disposal	✓ ✓ ✓	✓ ✓	Refrigerant for cutting machines Resins, glues Refluxes from depuration
Washing conglomerates	Washing of sand, gravel and stones Recovering of silt and sand	✓ ✓ ✓	✓ ✓ ✓	Washing water Charged fluids Refluxes from depuration
Road pavers	Continuous road paver	✓	✓	Hot asphalt and bitumen
Drilling machines	Earth drilling Feeding piston pumps	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	Water containing sand and gravel Water + cement Water + bentonite Water for piston pumps
Insulations	Winding of electric motor or Pipes	✓ ✓	✓ ✓	Resins, glues Bitumen coatings

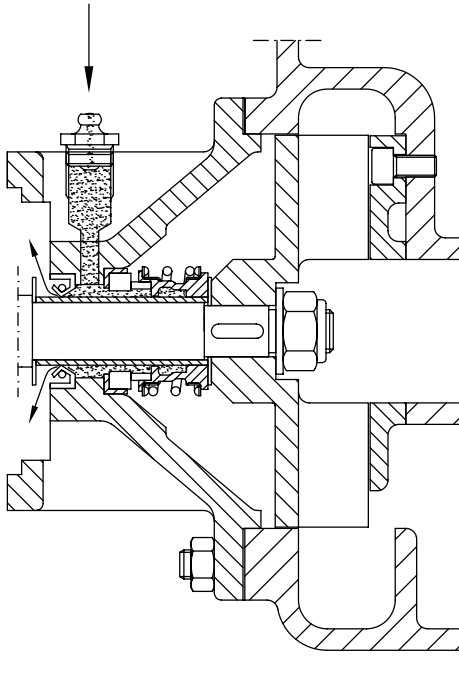
**Note:** somehow, to better fulfil proposed duty, **S** pumps need particular improvements, like cutter devices, etc.

Version Version	Construction Construction	Typical Applications Applications typiques
G 31	<b>Cast iron</b> pump with <b>NBR</b> gaskets.  <i>Pompe en fonte avec joints en NBR.</i>	Water containing sand, mud, solids in suspensions with pH from 5 to 13; smoke scrubbers; cooling water circulation in steel mills or drawing mills; neutralizing liquid dosage; pumping out settled sludge; sump pumping; liquid manure transfer and circulation.  <i>Pompage d'eau chargée, boue, sable ou autres solides avec pH allant de 5 à 13; abattage des fumées; circulation d'eau de réfrigération dans les aciéries ou tréfileries; injection de liquides neutralisants; aspiration de boues de décantation; assèchement de puits drainants; transfert et circulation de purins.</i>
G 312	<b>Cast iron</b> pump with <b>FPM</b> gaskets.  <i>Pompe en fonte avec joints en FPM.</i>	Water circulation in paint spray booths; stripping fuel tanks; water emulsion circulation for machine tools or grinders; cutting or quenching fluid circulation.  <i>Circulation d'eau dans les cabines de vernissage; nettoyage du fond des citernes à carburants; circulation d'eau émulsionnée dans les machines-outils ou machines à rectifier; circulation d'huile de coupe ou de trempe.</i>
G 38	<b>Cast iron</b> pump with <b>PTFE</b> gaskets. <i>Pompe en fonte avec joints en PTFE.</i>	Recovery of dirty solvents. <i>Récupération de solvants sales.</i>
G 30	<b>Cast iron</b> pump with <b>NBR</b> gaskets, self-lubricated seal. <i>Pompe en fonte avec joints en NBR et garniture mécanique autolubrifiant.</i>	For clean non corrosive liquids. <i>Pour produits propres et non corrosifs.</i>
G 302	<b>Cast iron</b> pump with <b>FPM</b> gaskets, <b>self-lubricated</b> seal. <i>Pompe en fonte avec joints en FPM et garniture mécanique autolubrifiant.</i>	Transfer of light petroleum products such as diesel fuel, kerosene and petrol (gasoline). <i>Transfert de produits pétroliers légers tels que gas-oil, kérosène et essences.</i>
F 312	<b>Stainless steel</b> fitted <b>cast iron</b> pump with <b>FPM</b> gaskets. <i>Pompe en fonte et acier inoxydable avec joints en FPM.</i>	Liquid fertilizer transfer, circulation and spraying. <i>Transfert, circulation et pulvérisation de fertilisants liquides.</i>
Q 31	<b>Bronze</b> fitted <b>cast iron</b> pump.  <i>Pompe en fonte et bronze.</i>	Brackish or sea water, washing, cooling or fire fighting in ports; auxiliary duties on board. <i>Pour eau saumâtre, nettoyage dans les ports, réfrigération ou anti-incendies portuaires, pour services auxiliaires de bord.</i>
K 312(17)	<b>Stainless steel</b> pump with <b>FPM</b> gaskets. <i>Pompe en acier inoxydable avec joints en FPM.</i>	Pumping out acid waste water. <i>Aspiration d'eaux résiduares.</i>
K 38(14,142)	<b>Stainless steel</b> pump with <b>PTFE</b> gaskets. <i>Pompe en acier inoxydable avec joints en PTFE.</i>	Recovery of spills from chemical plants. <i>Récupération d'égouttures de fuites des industries chimiques.</i>

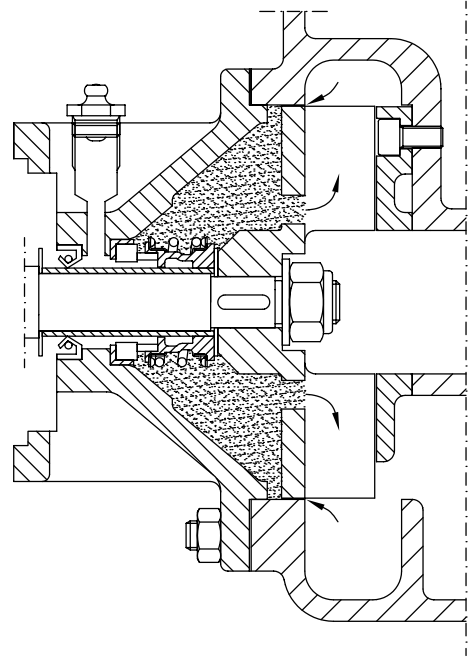
NBR nitrile-butadiene-rubber (Buna N, Nitril Rubber)  
 FPM fluor-polymer (Viton)  
 PTFE polytetrafluoroethylene (Teflon)

*nitrile-butadiene-caoutchouc (Buna N, Nitrile caoutchouc)*  
*fluor-polymer (Viton)*  
*polytetrafluoroethylene (Téflon)*

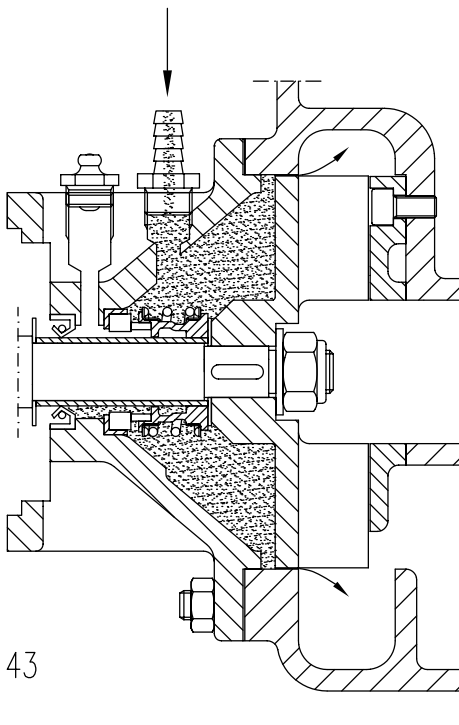
Std.



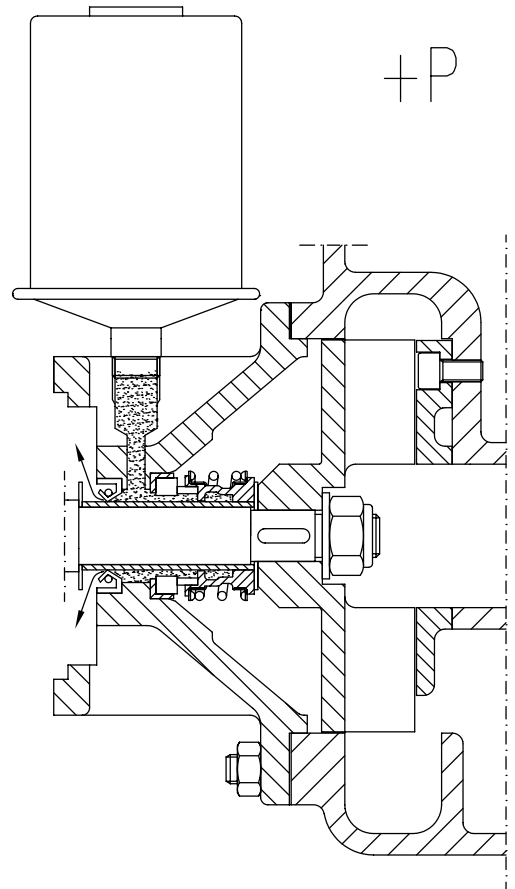
.N.



.R.

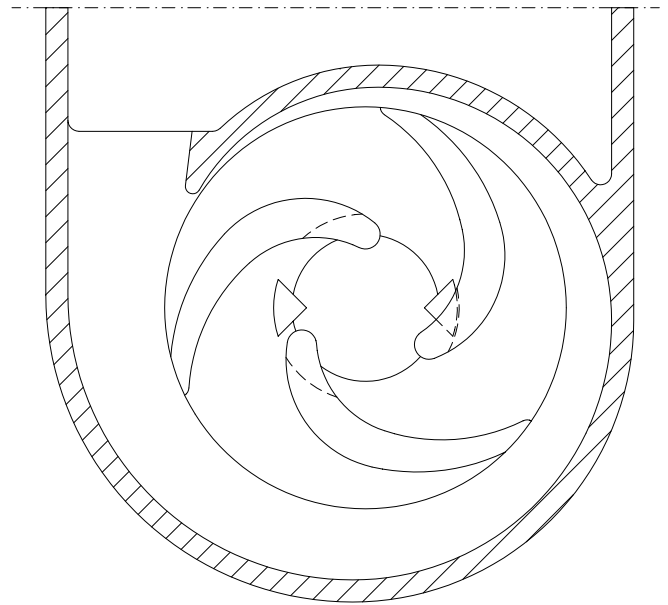
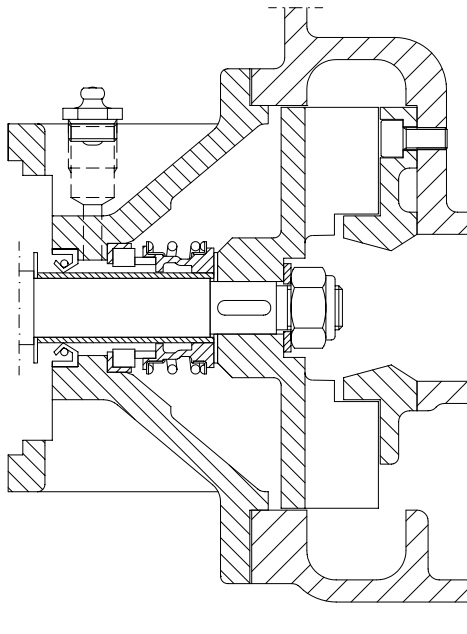


+P

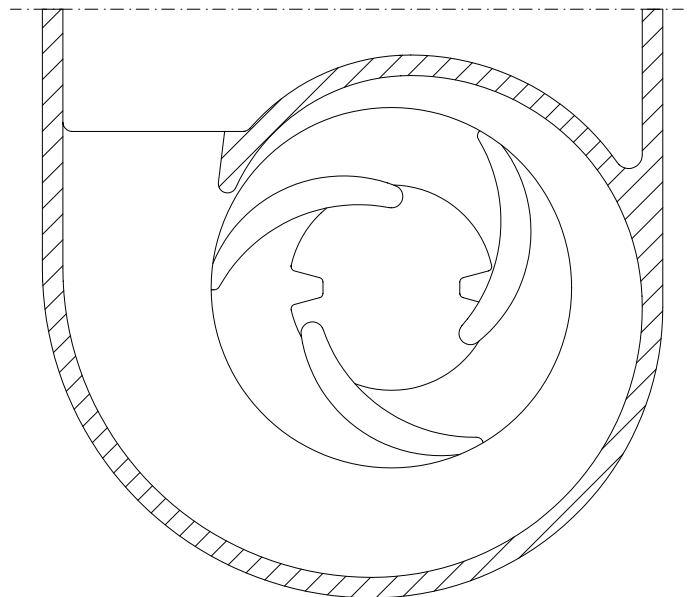
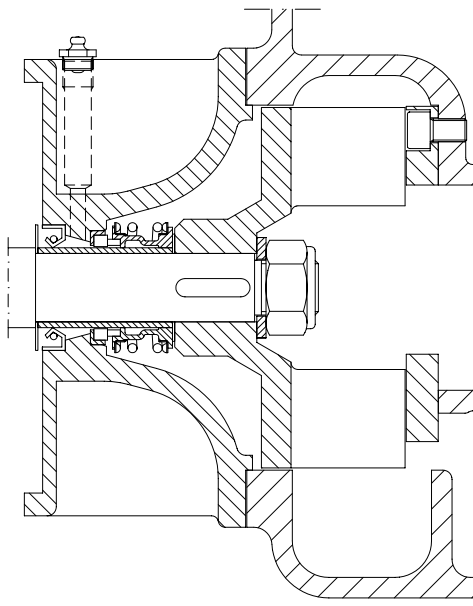


S 764143

Axial Cutter



Radial Cutter (\*)



S 304061

The Cutter Device is suggested when large but soft pieces could clog impeller inlet.

Typical application:

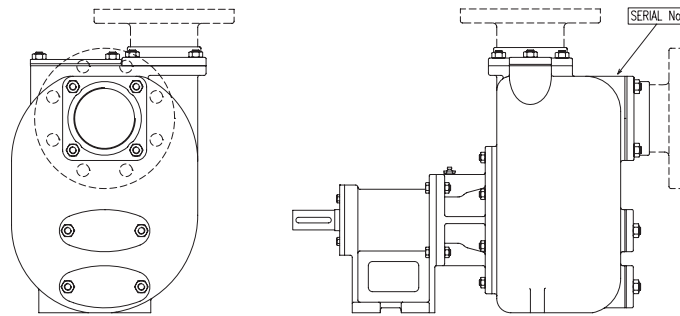
- animal sewage with straw,
- fruit and vegetable rests,
- paper labels from bottles washing machines and similar,
- toilette waste black waters on shipboard.

The Cutter Device cannot be used with wood or metal pieces, resistant cloths, stones and similar.

The Cutter Device consists of an axial or radial overhang on the wear plate, producing a scissors effect by close running impeller.

The Cutter Device is available for cast iron pumps type S 40, 50, 80, 100\*, 150\* and for stainless steel pumps type S 41\*, 51\*.

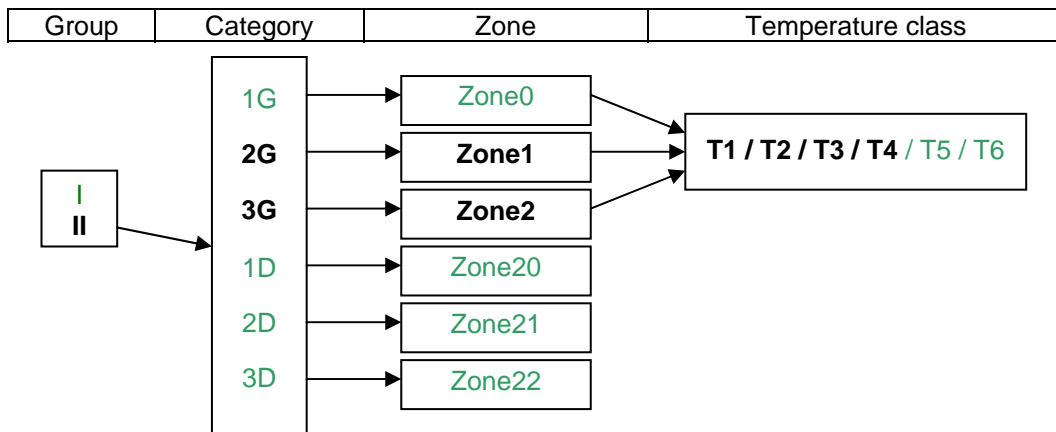
## INFO FOR ATEX



To avoid risk of explosions in an Ex-Zone, when you mount a **S** self-priming centrifugal pump you have to check the following information:

### 1. EX - ZONE

1.1. The **S** self-priming centrifugal pumps can be used in the zones and categories signed in bold:

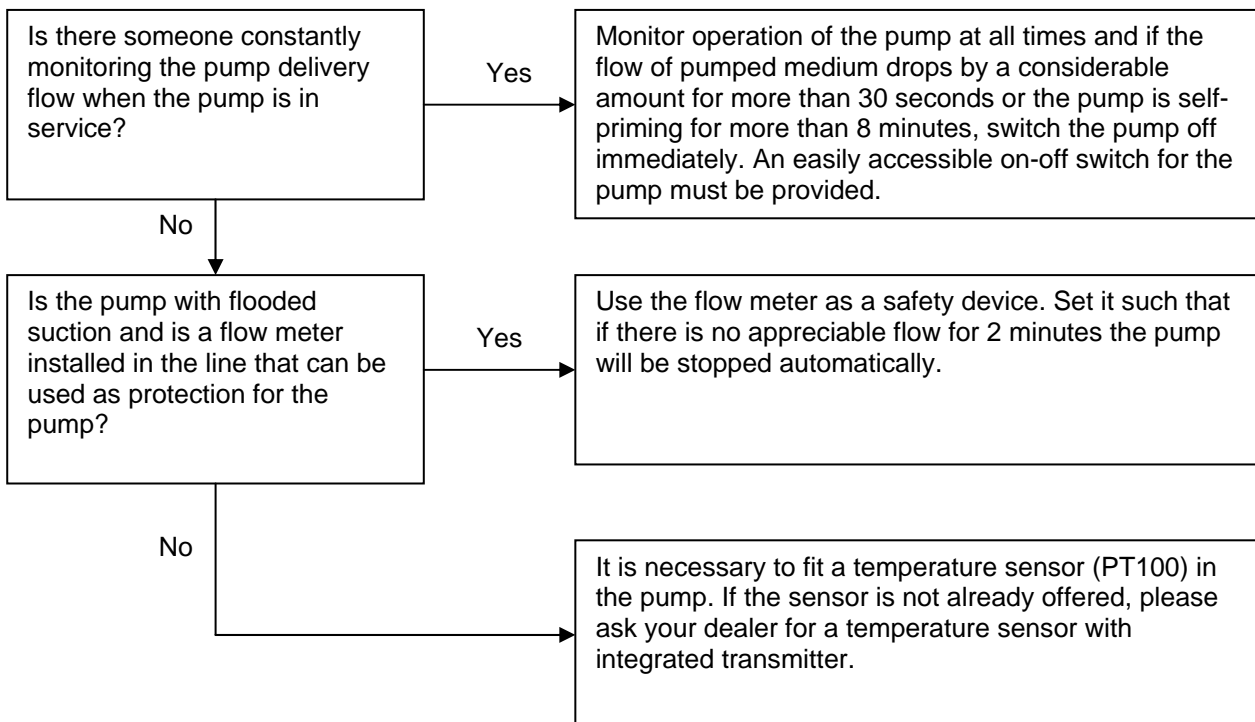


### 2. ATEX REQUIREMENTS

- 2.1. The pump and the bearings has to be inspected monthly.
- 2.2. The pump has a mechanical seal that can leak. If the pumped liquid is inflammable in the outside of the pump you have to declare a zone 1 (Category 2).
- 2.3. In the case of mechanical seals type .31., .38. and .14. the automatic lubricator (+P, +PK, +PS) for the mechanical seal must be present and activated. The cartridge must be replaced every year.
- 2.4. The pump has to be earthed.
- 2.5. There is a danger of electrostatic charging if the paint on the unit has a coating thickness of more than 0.2 mm.
- 2.6. With solids in the liquid the pump can block. It is therefore necessary to mount for the electric motor an automatic switch (PTC if used with inverter).
- 2.7. Use the pump only in the authorized performances levels indicated in performance curve, technical datasheet and instructions! The liquid should never be pumped on the limit of vaporisation, crystallisation, polymerisation or solidification. If the pump has to be used in a different duty not indicated in the request form or in the technical datasheet of the pump, please check the use and ask for authorisation of use from the manufacturer.

## INFO FOR ATEX

- 2.8. The pump-materials have to be compatible with the liquid. This responsibility can not be taken by the manufacturer.
- 2.9. The operating temperature of the pump must not exceed 90°C with mechanical seal type .31., .38. and .14. or 75°C with mechanical seal type .30. or .35. If a pumped medium is capable of reaching this temperature, it is not permitted to put the pump into service. A temperature sensor can be used for checking.
- 2.10. It is not permitted to start the pump with closed suction and/or discharge line. The user should take efforts to avoid this situation.
- 2.11. Measures such as are listed below should be taken against dry running or against blocked lines:



### 3. TEMPERATURE SENSOR

- 3.1. The sensor monitors temperature changes in the pumped medium. This means that a closed pressure line or abnormal wear in the pump can be monitored by means of a temperature increase. When the limit temperature is exceeded, the sensor trips to shut off power to the pump drive and the pump stops.
- 3.2. The shut off device and associated wiring are not included in the scope of supply of the pump. The pump owner is required to have this installed himself by a suitably qualified technician.
- 3.3. Victor Pumps delivers the temperature sensor with integrated transmitter. The transmitter is regulated as follows:

Temperature range	OUT-Signal	Current
0-150 °C	4 - 20 mA, linear	8 - 30 VDC