

Keeping Molten Sulphur Warm

CP Pump Systems advanced pumping solutions for safe and efficient sulphur operations

Handling molten sulphur is one of the main challenges in the sulphur production process. It is all about temperature: Once sulphur cools down or heats up too much it changes its physical properties. It solidifies and hardens in the pump and cannot be liquefied again. Keep your production running with CP's pumping solutions: CP's sealless magnetic drive pumps are evenly heated to keep your sulphur exactly as warm as it needs to be.

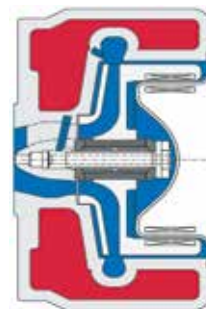
How to handle molten sulphur safely? With heat, but without leakage and contamination

The optimal heating is key

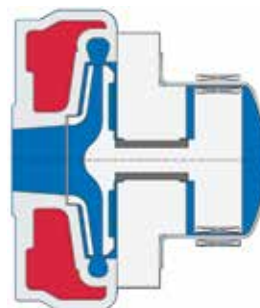
All tanks in which molten sulphur is stored and all pipes through which it is pumped must be heated. This is necessary to guarantee and maintain the desired temperature of the medium within the process. While pipes and tanks are quite easy to heat, the pump can be the bigger challenge: Your production requires a fully jacketed pump in which the complete fluid chamber can be heated.

The patented reverse drive principle of CP's stainless steel magnetic drive MKP and MKTP pumps with heating jackets permit a complete heating of the pumps, even in the area behind the impeller and rotor. This unique design ensures a constant desired temperature in the process.

For even more safety CP has developed its temperature monitoring probe that indirectly measures the medium temperature exactly at the point on the shroud, at which it is highest due to eddy current losses. Any temperature change or dry running in the pump cause measurable results within an extremely short time. Thus, your operators can switch off the pump before the sulphur reaches a critical temperature.



CP design with heating: whole fluid chamber heated



Conventional design with heating: fluid chamber not completely heated

Safe and reliable operations without leakage

Standard pumps fitted with mechanical seals run the risk of leaking when not in operation, as the hydrodynamic sealing only functions effectively during operation. Escaping sulphur leads to solid deposits on seal faces – a significant source of leakage and danger. With CP's sealless magnetic drive molten sulphur pumps you do not have to worry about leakage anymore. Designed for the even most demanding applications, CP pumps have been proven leakage free. Furthermore, they considerably simplify maintenance, as no seals need to be maintained.



As pure as pure can be

Vertically installed pumps with mechanical seals hold the danger that the molten sulphur can be contaminated with thermal oil, heating steam, condensate or air. The heating jacket of CP's molten sulphur pumps has been specially designed, so that no contamination by the heating medium can occur. The heating circulation is highly optimized. Thus, it is impossible for the medium to escape.

Keeping your production running – no matter, if horizontal or vertical

If your tanks are mounted above ground, the molten sulphur needs to be pumped out horizontally at the lowest point of the tank. That is when your horizontal pump meets its limit. But CP's MKP can fill this gap: As an evenly heated, hermetically sealed magnetic drive horizontal pump, CP's MKP can meet your requirements and deliver outstanding results.

For tanks mounted below ground CP offers the proven and tested MKTP. It is suitable for the efficient emptying of tanks that do not have a drain at the bottom. The pump is available with a submersion depth of up to 4 m. It is also available with a double-walled, heatable riser pipe to stabilize the temperature of the challenging medium, sulfur.

Molten sulphur handling at its best. CP Pump Systems offers you two ways to handle molten sulphur safely and efficiently



MKP – Heatable stainless steel magnetic drive molten sulphur pump	
Capacities	0.25 to 1300 m ³ /h
Heads	3 to 230 m
Temperatures	–100 to +350 °C
316, 304, Uranus® B6, Hastelloy®, Duplex, Titanium, Nickel	

MKTP – Stainless steel magnetic drive molten sulphur sump pump	
Capacities	0.25 to 250 m ³ /h
Heads	3 to 100 m Follow us on:
Temperatures	–20 to +175 °C
316, 304	

Both pump models are equipped with special bearings for molten sulphur as standard. The most frequently used casing material is 1.4581.

CP Pump Systems – your experienced partner for advanced pumping solutions since over 75 years

We understand your requirements

CP's team of experts leverages its unrivalled knowledge in handling the even most critical applications, its innovative thinking and state-of-the-art technologies to find a solution customized exactly to your needs.



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