



## Bitumen Transfer

*For centuries, Bitumen has been known for its properties in waterproofing and construction. Today, approximately 80% of Bitumen in the UK is used in the production of materials for roads and pavements. The handling of Bitumen is not without its problems...*

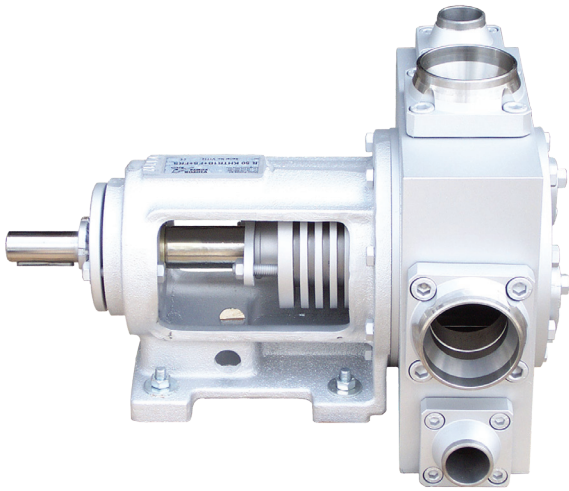
Viscous, high temperature



*Verdergear pumps in a bitumen production plant*

### Industry examples

- Road construction
- Roofing
- Softener in rubber blends
- Waterproofing



### Process points

Bitumen is a sticky, black and viscous substance (between 100 and 5000 cSt), which can be very difficult to handle across a production process.

Bitumen is normally handled between 150-200°C so requires a consistent temperature throughout the handling process to maintain a proportionate viscosity.

The consistent temperature and viscosity is critical to planning the working life, maintenance cycle and energy consumption of the pump for running costs over the life of the pump.

The Bitumen may also contain small abrasive particles depending on refinement and if the material is virgin. Bitumen may also be vulnerable to structural change with how it is handled during the pumping process.

### Pumping Solution

A pump is needed that can handle fluids at various viscosities and temperatures, which can pump a high capacity of fluid with a very efficient consumption of energy.

The pump must also be extremely robust and reliable with high resistance to leaks.

The Verdergear range of internal rotary gear pumps can provide an extremely suitable pumping solution for the transfer of bitumen up to 350m<sup>3</sup>/h.

The working principle of the Verdergear range is ideal for liquids that are viscous or extremely viscous (up to 25,000 cPs) depending on the operating speed of the pump unit.

Models in the Verdergear range can handle temperatures of up to 300°C. Thanks to the working principle of the Verdergear range, it is possible to handle Bitumen and similar media with a low consumption of energy, comparative to other pumps.

With just two moving parts in the pumping action, there is no foaming or churning of the Bitumen. The working gears generate a non-pulsating, constant flow so there is no vibration on fittings valves or coupling.

A heating jacket accessory is also available with all Verdergear pumps which maintains the heat of the Bitumen and working gears.

For peace of mind, all Verdergear pumps are simple to strip-down and reassemble. The pump casing may be rotated and is available with 90° or 180° (in-line) ports.

The Verdergear range can pump bitumen, tar, oil, fuels and many other viscous substances.

