

Application Focus

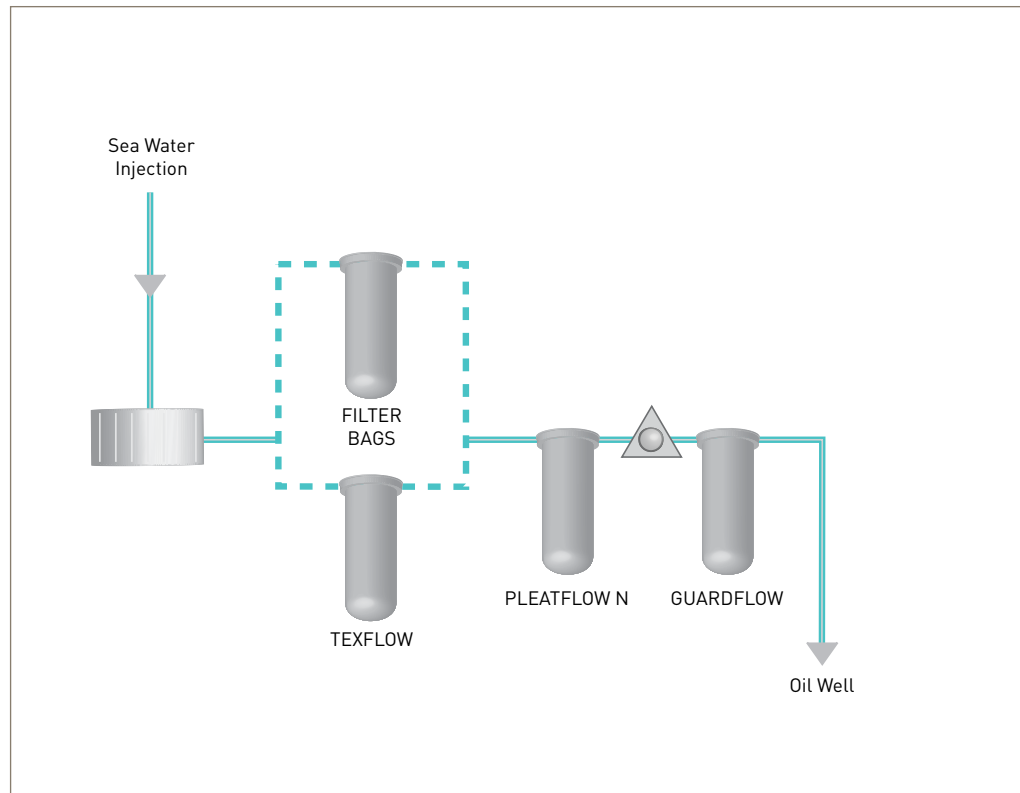
The Filtration of Injection Water Used in Oil Production



Making Use of Natural Resource

The use of injection water in oil production can considerably increase the amount of oil removed from a reservoir. Sea water is often used for this purpose, however particles of dirt and algae present in the sea water, can damage the reservoir bringing about plugging and affecting its permeability leading to severe reduction in the productivity of the well.

A filtration system is necessary to prevent any induced damage caused by unclean injection water. Following the removal of the larger dirt particles with a filter press, final polishing of the sea water is achieved using an absolute rated cartridge. This cartridge can be protected by a prefiltration stage using a bag filter or nominally rated cartridge filters. A high pressure filter element can also be used as a pre-caution for final absolute wellhead filtration.



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Benefits:

- Reduces produced water steam to below regulatory standards
- Retrofit existing hardware
- Treats fluids sufficiently to allow for re-injection or disposable

Features:

- Absolute rated cartridges
- High dirt holding capacity
- Wide chemical compatibility



ENGINEERING YOUR SUCCESS.

TEXFLOW



- Protection of absolute filters
- High dirt holding capacity
- Wide chemical compatibility
- Filter ratings from 0.5 to 100 microns

TEXFLOW precision wound depth filter cartridges are manufactured to give a considerable dirt holding capacity coupled with high flow rates and low pressure loss.

TEXFLOW elements consist of a perforated support core of plastic or metal onto which yarn is wound at a pre-set rate, providing each rating of element with its own distinctive winding pattern and performance. During the winding process the yarn is usually brushed (or napped). This has the effect of increasing the working area of the elements thus providing a higher dirt holding capacity whilst maintaining the rigid structure.

Although the cartridges are mainly for liquid filtration, they can also be employed for gases. Other fibres such as polyester, cotton, nylon and rayon can operate at higher temperatures and have differing chemical compatibility. For very high temperatures and for very strong oxidising agents, baked glass fibre elements are used. Glass fibre elements are fitted with voiles as standard, other cartridges can also be fitted with voiles where necessary.

PLEATFLOW N



- Optimised for oil field applications
- Beta 5000 rated
- Glass fibre, polypropylene or cellulose media
- 2, 5, 10, 20 and 50 micron absolute ratings available

PLEATFLOW cartridges are manufactured in accordance with our ISO9001 / 2000 QA system and utilise high performance filter media which is routinely evaluated for porosity, retention efficiency, dirt capacity and pressure loss to provide high performance in terms of cost per barrel filtered.

Cartridges are offered in industry standard lengths and with end fittings to suit existing filter housings.

GUARDFLOW



- Protection of absolute filters
- High dirt holding capacity
- Wide chemical compatibility
- Filter ratings from 0.5 to 100 microns
- For use in high pressure environments

GUARDFLOW absolute rated pleated filter elements are designed for use in the high pressure / differential pressure environments of the oil and gas industries.

Typical applications include high pressure well stimulation using acids, organic solvents etc, injection testing with seawater and continuous water injection in the secondary and tertiary oil production phases where line pressure of 5000 psig and differential pressures of 150 psi are not uncommon.

Parker domnick hunter have supplied low and high pressure elements into oil and gas applications for many years and currently supply a large proportion of the consumables used worldwide. This experience has aided the evolution of the GUARDFLOW series enabling design which optimises service life, filtrate quality with unit cost. GUARDFLOW has been designed to provide maximum usable filter area with the durable construction required to guarantee filter integrity even in the most demanding conditions.