Filter Cartridges for Oil and Gas

Removes solid particulate and deformable matter to maintain fluid cleanliness

Eliminates foaming, fouling and off-spec products, reduces energy consumption, reduces chemical/solvent make-ups

Results in improved process economics, reduced operation and maintenance issues

Filtration products for oil and gas, refinery, petrochemicals, chemical, and power generation industries
Filtration for Oil and Gas

Filtration applications in amine treatment process

Filtration applications in gas dehydration process
Filtration Applications for Oil and Gas

Amine Sweetening
Contaminants in the re-circulating amine cause foaming, fouling and plugging of contactor trays, resulting in amine carry-over, reduced throughput, increased amine make-up, higher differential pressure and reduced adsorptive capacity. Moreover, there are losses due to higher energy consumption and poor heat transfer in the heat exchangers. Contaminants include iron oxides, iron sulfides and other particulate matter.

Sedifilt Filters for amine sweetening give excellent results in terms of amine clarity that becomes transparent visually with excellent removal of total suspended solid impurities

Glycol Dehydration
Sedifilt Filters at the absorber gas inlet will eliminate solids and prevent foaming, and will protect the recirculating glycol stream resulting in better efficiency of the dehydration process. Filtration removes scale, corrosion and dust particulates to keep the recirculating glycol clean and clear.

Produced Water (well water injection and disposal water filtration)
Solid contaminants such as iron oxides, iron sulfides, and asphaltines (tar-like particulate) can cause reduced porosity of the injection well, resulting in premature plugging or other damage to equipment. Filtration of produced water maintains the porosity and injectivity of the well formation, reducing the risk of expensive workovers.

Coalescer
The innovative design of Sedifilt Coalescer cartridges dramatically reduces the cost of filtration with enhanced performance. The high-bulk, stable, three-dimensional random structure comprising multi-lobal filaments results in direct interception and coalescence of dispersed liquid phase. Applications include removal of aerosols and condensates from natural gas streams, also removing particulate contaminants down to 0.6 microns.

Gas Distribution Systems (condensate removal)
Sedifilt Coalescer cartridge is ideal for condensate removal and oil adsorption in both liquid/liquid and liquid/gas applications.

Lube Oil
Filtration of lubricating oils before final packing ensures consistent clarity and removes any solid residues. Sedifilt polyester media filter cartridges with galvanized steel core provide superior contaminant retention for lube oil filtration.

Process Water
It is important to filter process water to remove silt, sand and other suspended solid contaminants and other impurities from process water for reliable and efficient performance of softeners, deionizers and heat exchangers.

Sedifilt extractable-free media cartridges produce excellent silt density index (SDI) results for membrane pre-filtration on RO systems, reducing membrane fouling and cleaning costs, and increased membrane performance and life.
Superior Filtration Technology

Sedifilt Filters for Oil and Gas applications have proven exceptional performance. A wide chemical compatibility and customization possibilities result in improved economics tailored to the individual application. Sedifilt Filters improve process efficiency and also provide process protection by removing suspended solids such as dirt, iron particulates and deformable gel type contaminants. Sedifilt Oil and Gas Filters are available for particulate filtration and coalescing.

True graded density structure of Sedifilt cartridges ensure higher dirt holding capacity, longer service life, and fewer change outs.

Features
- 100% polypropylene – inert material, excellent micro-organism resistance.
- No chemicals to leach-out with new melt spinning and yarn forming process.
- No media migration because the yarn consists of continuous filaments.
- True graded density – new winding technology gives denser winding in inner layers and coarser winding in outer layers.
- High dirt holding capacity and longer life as particles are trapped throughout the entire cross section of the filter.
- Better performance – multi-lobal cross section filaments with random 3-dimensional media structure captures more particles compared to conventional filters.
- High bulk media having improved void to solid ratio gives higher flow rates with low pressure drop.
- High structural stability, i.e., no shifting of media, excellent knife-edge sealing.
- Structural firmness results in greater resistance to particle unloading and hence more consistent performance.
- Incinerates to trace ash with no hazardous volatiles for environmentally friendly disposal.

Chemical Compatibility
Sedifilt filters for oil and gas applications meet chemical compatibility requirements for most processes. Please consult our chemical resistance guide for chemical compatibility information on our filter media and core material.

Sedifilt Media
Sedifilt media has high bulk, stable, three-dimensional random structure comprising continuous filaments.
Pure polypropylene Sedifilt filter cartridges are free from any extractables and contain no lubricants, wetting agents, emulsifiers, anti-oxidants or anti-static agents, etc. The standard pure polypropylene cartridge is engineered for superior filtration performance. Available in up to 72 inch (1829 mm) length and up to 6 inch (152 mm) diameter.

Innovative Sedifilt Coalescer cartridges are available in standard lengths of 24 and 36 inches to fit into standard coalescer housings (from most manufacturers). Coalescer cartridges with galvanized steel core, metal end caps with neoprene gaskets and cotton covering are also available in customized lengths up to 72 inch and diameters up to 6 inch (152 mm).

End Adapters
Polypropylene end adapters are thermally-welded to the pure polypropylene Sedifilt filter. The positive weld assures bypass-proof performance and structural integrity without adhesives or additives, maintaining cartridge purity. All adapters are molded of the same polypropylene as the cartridge for chemical compatibility and ease of disposal.

Filter Cores
Filter cores are available in polypropylene, stainless steel (304/316L) and galvanized carbon steel, in regular, extended and tapered configurations.
Filter Cartridge Test Results

Ratings are based on laboratory tests for 10 inch cartridges as per ASTM F795 standard at ambient temperature and 3 gpm (US) water flow rate. Flow rate vs. pressure drop data is based on clean water at an ambient temperature of 25 °C. Results in actual use will be influenced by the type of fluid and contaminant as well as flow rate and temperature.

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Coalescer Cartridge Test Results

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Ordering Information

Sedifilt cartridges can also be made to order in customized sizes (I.D, O.D, and lengths) in various filter media and core material, and tailored density gradings.

<table>
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<th>Length</th>
<th>Outer Diameter</th>
<th>Number per box (standard packing)</th>
<th>Gross weight per box (kg)</th>
<th>Quantity per 20 ft. Container Load (non-palletized)</th>
<th>Quantity per 20 ft. Container Load (on pallets)</th>
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</tbody>
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When ordering for the first time, please specify all details in writing. Media, actual length, micron rating, outer and inner diameters, and core material are required. End adapters are optional. Contact us for further information.

For a standard Sedifilt 5 micron 40 inch long (nominal) filter cartridge the product code will be S40-5A.
An example of a cartridge with all options specified is SL40A-5AE222/C-G35.