Filtrex
The One Trip Remedial Sand Control System

One trip thru-tubing keyhole remedial sand control

Sand control remediation accounts for 7% of all intervention trips, caused during either the completion or production phase. It is most commonly as a result of erosion and/or hot spots within the existing completion.

The challenge to regain sand free production in existing completions without the requirement to perform a workover can be both costly and time consuming using traditional methodologies, with no single methodology offering benefits across all measures. To address this challenge, Tendeka designed the Filtrex system.

The Filtrex one trip remedial sand control system provides the flexibility to be installed thru-tubing, through the tightest of restrictions and expand into the casing ID filling all annular gaps.

The first of its kind, Filtrex provides the ability to perform sand clean out during the deployment run providing significant time savings over conventional systems. Once set, the tool requires no further intervention.

Using a multi-layer porous compressible filter media known as a sand baffle, the system is run in hole compressed and deployed in well as a slick assembly, complete with high expansion anchor system. Once set, the sand baffle expands to conform with the ID of the wellbore. Sand baffles are fully protected during deployment and will not be exposed until at the correct depth. The process of expansion aids in the centralisation of the assembly allowing other sections to be easily stacked on top. Filtrex will remain at depth and retain sand whilst allowing fluid flow through the porous filter media during its time in hole. The entire system can be easily retrieved should full bore access be required in the future.

Filtrex system permits the use of larger base pipes to be used maximising productivity, and not impeding flow. The standard tool has been designed to be run through 4.500" tubing and has the flexibility to set in casing/liner sizes ranging from 4.500" to 7.00". Filtrex can be utilised in wells with temperatures up to 110°C (230°F).

### Features
- High expansion anchor sub
- One trip system - sand clean out and sand control repair
- Sand baffles - multi-layered porous compressible filter media
- Compatible in reservoirs up to 110°C
- Compatible with all wellbore fluids

### Benefits
- Revives production
- Complaint to wellbore
- Thru-tubing design
- Retrievable
- Sized to retain sand
- Can be run through a 4.5" tubing nipple and set in 6.625"/7.000" casing

### Applications
- Remedial sand control in production wells
- Remedial sand control in injector wells utilising Tendeka Cascade³ technology

### Technical Specification

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tool OD</td>
<td>3.500&quot;</td>
</tr>
<tr>
<td>Min tubing size</td>
<td>4.500&quot;</td>
</tr>
<tr>
<td>Min nipple profile</td>
<td>3.688&quot;</td>
</tr>
<tr>
<td>Casing / liner setting range</td>
<td>4.500&quot; through to 7.00&quot;</td>
</tr>
<tr>
<td>Section length</td>
<td>6ft upwards*</td>
</tr>
<tr>
<td>Max temp</td>
<td>230°F (110°C)</td>
</tr>
<tr>
<td>Metallurgy</td>
<td>L80</td>
</tr>
<tr>
<td>Base pipe ports</td>
<td>2.65in² / ft</td>
</tr>
</tbody>
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*Multiple lengths and the ability to stack provides extensive coverage

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Filtrex, the One Trip Remedial Sand Control System, provides the flexibility to be installed thru tubing, through the tightest of restrictions and expand into the casing ID filling all annular gaps regaining sand control. The first of its kind, the system provides the ability to perform sand clean out whilst installing the tool in one trip. Once set, the tool requires no further intervention.

Stage 1
An existing screen or perforations can become damaged, and provide a sand breakthrough point. Once damaged, there is no sand control and sand is free to fill the wellbore. This can lead to issues on surface and can result in well abandonment.

Stage 2
The Filtrex system is run in hole to depth using a running tool with compression outer sleeve. Prior to expansion of the system, the jetting nozzles will activate and commence sand clean out.

Stage 3
Sand clean out is complete, and the Filtrex system is ready to be expanded. The anchor sub is activated and locked into the casing. As the running tool is then pulled from the assembly it removes the outer protecting sleeve, allowing the multi-layer sand baffle to expand to confirm to the ID of the casing or liner.

Stage 4
The running tool is fully removed allowing the full filter section to expand to the damaged section. Anchors are locked in casing and centralizer is released. Running tool is pulled out of hole.