



Diamond Filters

INSTALLATION AND OPERATING INSTRUCTIONS

IMPORTANT - PLEASE READ CAREFULLY BEFORE INSTALLING YOUR FILTER

INSTALLATION: A process system can generally be associated with many varying conditions such as water hammer, pressure shock, vibration and thermal expansion due to temperature change. Stress and strain within the pipeline will result and unless such conditions are allowed for at the system design and installation stages, the filter and pipe assembly may be damaged. When installing the filter into a pipe assembly system, careful consideration must be made to ensure good alignment and adequate support for the weight of the filter and pipe assembly by means of framework and pipe clip fasteners. For future maintenance, always make allowance for pipe movement within the pipe assembly (by releasing clips etc) to allow access to the filter seals / coupling seals.

FILTERS WITH FITTINGS: Filters fitted with end connections do not require dismantling prior to installation.

FILTERS WITH PLAIN ENDS FOR BUTT WELDING: If welding the filter directly into the pipeline, the filter should be fully dismantled and all seals and the filter element removed. Please follow the Weld In Place Procedure below. This will prevent heat damage to the seals and filter element. The alignment and squareness of the butt weld joints is important to ensure correct operation and leak tightness of the filter. Gas backed TIG welding is recommended, a minimum weld bead should be produced to reduce the risk of heat distortion within the filter body.

ATEX / EQUIVALENT UK REGULATIONS

Please refer to the separate document titled "*Diamond Side Entry, Y Type & Pump Protection Filter Installation & Maintenance: ATEX Directive 2014/34/EU & The Equipment & Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016 SI 1107*" which is to be used in conjunction with this document when installing or maintaining filters that support the "Ex" symbol. This additional information is essential to the safe operation of your filter in hazardous environments. **CONNECTING PIPEWORK MUST BE EARTHED.**

WELDING IN PLACE PROCEDURE

1. Remove the filter element by unscrewing the end cap nut (Side Entry & Y Type Filters) or releasing the body clamp (Pump Protection Filters). Remove the end cap and lift out the filter element.
2. Remove the cap / body seal and the lower body seal from inside the filter body using a suitable implement.
3. Prepare the tube / filter ends for welding using your welding procedure accordingly.
4. Tack the filter body butt weld ends to your pipe, ensuring correct alignment, then weld fully. Leave to cool.
5. Replace all seals and the filter element. Make sure that the filter element is correctly aligned in the filter body to ensure correct re-assembly, then replace the filter end cap.
6. Tighten the end cap nut (Side Entry & Y Type Filters) or body clamp (Pump Protection Filters).
7. Pressure test the filter in-line prior to use where ever possible. Follow your in-house test procedures, maximum operating pressure is 10 bar.

FILTER SPARES KITS

The user should establish a maintenance programme dependant upon the product and frequency of use. Spares kits (part numbers below) with full maintenance instructions are available from DPL.

Filter Size:	Side Entry & Y Type Spares Kit Part No.	Pump Protection Filter Spares Kit Part No.	* Suffix denotes seal material:
1.0"	KFL10*	KPF10*	E - EPDM
1.5"	KFL15*	KPF15*	N - Nitrile
2.0"	KFL20*	KPF20*	S - Silicone
2.5"	KFL25*	KPF25*	V - Viton
3.0"	KFL30*	KPF30*	P - PTFE

The Pressure Equipment Directive 2014/68/EU & The UK Pressure Equipment (Safety) Regulations 2016 SI 1105: Sound Engineering Practise (SEP) applies to this product for non-group 1 use and at pressures not exceeding 10 bar.



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