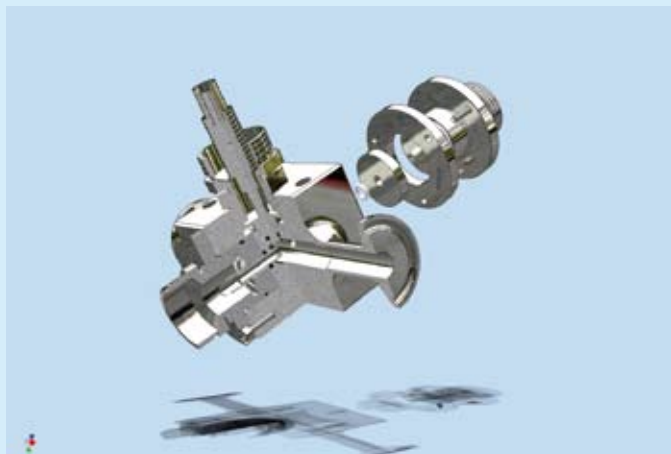


From HPLC via preparative LC up to dissolution testing: flow cells of J&M are in use worldwide.



The RVP flowcell was specially designed to guarantee reproducible path lengths and can be adapted to changing operation conditions fast and reliable.

The optical path length is variable from 0.5 mm to 10 mm and can be reproduced with a precision of 1%.



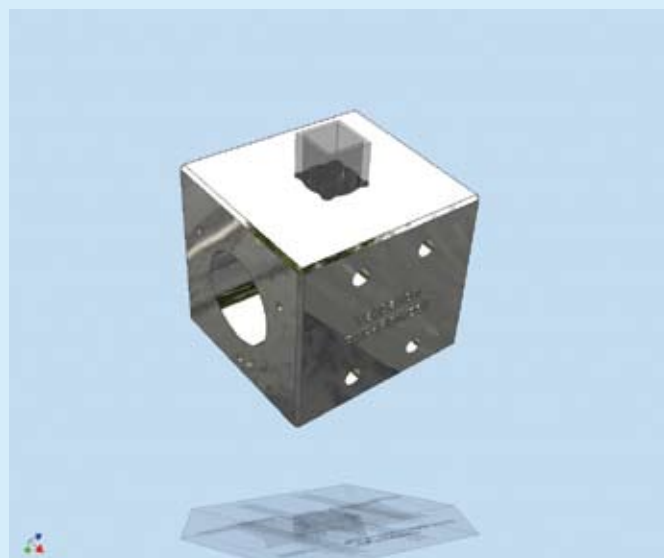
**Fig.1: Online installation for cleaning validation in a pharmaceutical process**

## FEATURES:

- Controllable, reproducible path lengths
- Simple validation with standard cuvettes
- Integrated temperature sensor
- Three measurement ports

Three measurements ports allow an analysis either of transmission/absorption as well as fluorescence. As an alternative the integration of a temperature sensor is also possible.

All optics are made of quartz, allowing measurements at wavelengths below 250 nm.



**Fig.2: Schematic picture, validation cell**

The unique, robust design and the consistent material selection permit most various use variants: online or in the bypass, from cleaning validation in the pharmaceutical production via quality control in the food industry up to process monitoring e.g. beverage industry.

## RVP Flowcell - technical data

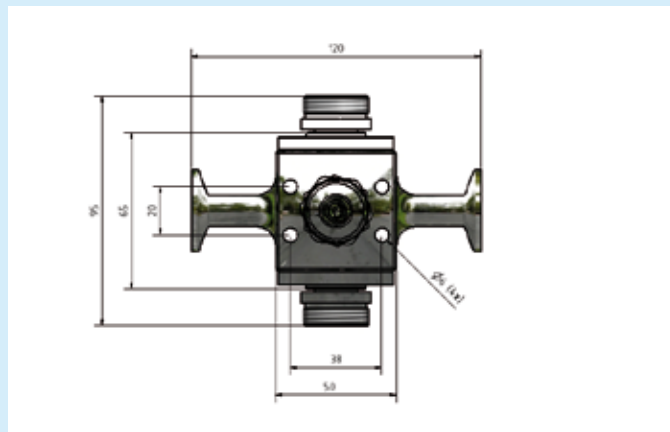


Fig.3: Dimensions of cell with TC

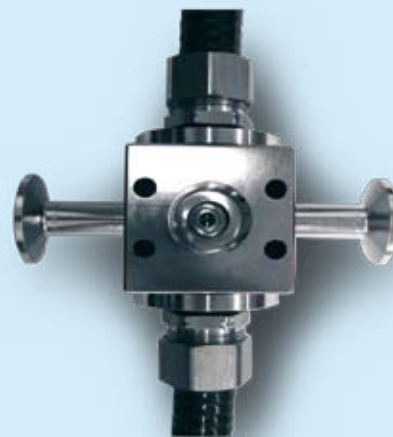


Fig.4: RVP flowcell with TN-connectors

## Specifications RVP:

<b>Optical Data</b>	
- Spectral range	190 nm - 2200 nm
- optical path length	0,5 - 10 mm
- Reproducibility of optical path length	± 1%
- Spot Diameter	2,5 mm
- Optical window	Saphir glas
<b>Flow through data</b>	
- Total cell volume	4,8 ml
- Cell volume at spot	2,5 - 59 µl
- Death volume	negligible
- Flow through	n.a. *
- Pressure	Up to 15 bar
<b>Connections</b>	
- Light guiding fibres	SMA / SMA
- Sample connection	Swagelok, TC
- Protective sheathing	Possible
<b>General details</b>	
- Dimensions	85,8 x 91,9 up to 121,8 x 100,3 mm
- Weight	ca. 1300 g
- Case	SS 316L
- Sealing	Kalrez®
- Working Temperature	5 - 140°C
- Accessories	Calibration set, protective sheathing

Customer specific configuration on request