

## SAPPHIRE 42 BAR

### Features and Benefits

- LPCB approved and VdS pending
- Fully meets EN 12094
- Designs according to EN 15004, ISO 14520, NFPA 2001
- VdS flow calculation software
- Selector valve systems
- Fitted with pressure monitoring (optional)
- Can be operated electronically, pneumatically or manually
- Operating range -20°C to 50°C
- Manufactured in EU
- Longer pipe runs
- Smaller pipe diameters

### Applications

Conventional SAPPHIRE systems use a storage pressure of 25 bar, which is suitable for many applications. The 42 bar system was developed to provide the designer with more flexibility when planning the layout of the system. The higher pressure permits the containers to be placed further from the hazard area (if required), the use of smaller pipe diameters and allows the use of selector valves, enabling multiple areas to be protected using one bank of containers.

### Description

The storage pressure of the SAPPHIRE system is determined by the quantity of nitrogen added to the container during the filling process to reach a state of super pressurisation. The greater the quantity of nitrogen added to the container results in a higher storage pressure capable of driving the agent further, leading to a greater flexibility during the planning and layout of the system.

### Approvals

- LPCB
- VdS
- RINA
- CE marked



### Specifications

#### Environmental data

<b>Ozone Depletion Potential (ODP):</b>	0
<b>Global Warming Potential (GWP):</b>	1
<b>Atmospheric Life Time (ALT):</b>	3-5 days
<b>Operating temperature (system):</b>	-20 °C to +50 °C
<b>Storage temperature (system):</b>	-20 °C to +50 °C

#### Physical properties of Novec™ 1230

Properties	Unit	Value
<b>Molecular mass</b>	-	316.04
<b>Boiling point at 1,013 bar (absolute)</b>	°C	49.2
<b>Freezing point</b>	°C	-108.0
<b>Vapour pressure 20 °C</b>	Bar abs*	0.3260
<b>Liquid density 20 °C</b>	g/ml	1.616
<b>Saturated vapour density 20°C</b>	Kg/m <sup>3</sup>	4.3305
<b>Heat of vaporization at boiling point</b>	KJ/Kg	88.0
<b>Chemical formula</b>	CF <sup>3</sup> CF <sup>2</sup> C(O)CF(CF <sup>3</sup> ) <sup>2</sup>	
<b>Chemical name</b>	Dodecafluoro-2-methylpentan-3-one	

\* 1 bar = 0.1 MPa = 10<sup>5</sup> Pa; 1 MPa = 1 N/mm<sup>2</sup>.

### Ordering Information

Part No.	Description
303.207.085	106L Container Assembly (TPED)
303.207.086	147L Container Assembly (TPED)
314.207.058	Container Label 106/147L (Hygood)
314.207.063	Container Label in German 106/147L VdS (Hygood)
311.209.004	106/147L Bracket
305.207.001	Supervisory pressure switch (NO/NC)