# HFC-227EA **CYLINDER**

### **CLEAN AGENT** FIRE EXTINGUSHING SYSTEM

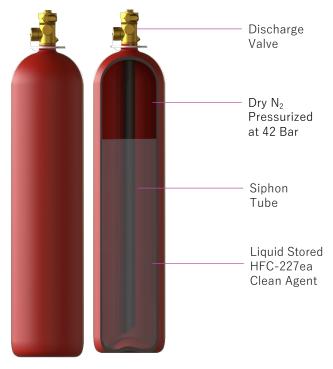
#### Seamless Cylinder

In 42 Bar HFC-227ea System, clean agent is stored as liquid in seamless cylinder designed specifically for the application and charged to a fill density of between 0.5 kg/ltr. (31.5lb/ft3) and 1.0 kg/ltr. (62.9 lb/ft3). To ensure optimal performance, each cylinder is super pressurized with dry nitrogen to 42 bars at 21°C (610psi @ 70°F). An identification label is affixed to the cylinder body indicating the fill quantity of HFC-227ea, charging pressure and date of fill. Many variations in cylinder capacities (Refer Table 2.1.) to select the best as per project requirement.

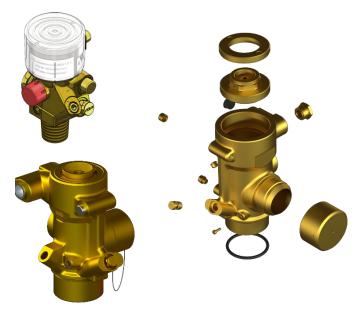
Fire extinguishing systems utilizing HFC-227ea clean agent are designed to be discharged within 6-10 seconds into a room, area, or enclosure with the structural integrity to retain the agent. The HFC-227ea clean agent uniformly mixes throughout the protected area achieving a minimum concentration level in accordance with NFPA-2001.

#### Valve Assembly

The automatic release of HFC-227ea clean agent is controlled by a forged brass, differential pressure operated cylinder valve connected to the neck of the cylinder. Each cylinder and valve assembly are provided with a safety cap and a protection cap which is a safety feature to prevent uncontrolled, accidental discharge. Discharge valve assembly is available in three sizes DN12, DN33 and DN50.



Typical seamless cylinder & valve assembly



General Arrangement of Discharge Valves

## **Approval**



42 Bar HFC-227ea Clean Agent Seamless Cylinders						
	Valve	Cylinder	Cylinder	Empty	System	Filling
Part Number	Size	Volume	Diameter	Weight	Pressure	Range
	mm	liter	mm*	kg**	bar	kg
HSN-HF-US-SM-008-1	12	8	140	10.4		4.0-8.0
HSN-HF-US-SM-013-1	12	13.4	204	19.5		6.7-13.4
HSN-HF-US-SM-026-1	33	26.8	232	32.0		13.4-26.8
HSN-HF-US-SM-040-1		40	267	48.0		20.0-40.0
HSN-HF-US-SM-067-1		67.5	267	73.0	42	33.8-67.6
HSN-HF-US-SM-080-1		80	267	84.0		40.0-80.0
HSN-HF-US-SM-120-1		120	356	115.0		60,0-120,0
HSN-HF-US-SM-180-1	50	180	406	176.0		90.0-180.0
HSN-HF-US-SM-220-1		220	406	162.0		110.0-220.0

<sup>\*</sup>  $\overline{\textit{Cylinder diameters have tolerance}} + \sqrt{-5\%}$  according to  $\overline{\textit{cylinder manufacturer.}}$ 

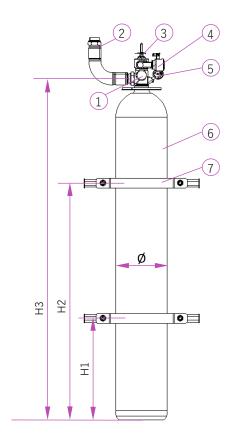
IMPORTANT NOTICE: HFC-227ea clean agent fire extinguishing system equipment's are designed for an operating temperature range of 0°C to 50°C (32°F to 122°F).

Hardware for 8 & 13.4L Cylinders					
No.	Description	Part Number			
1	DN12 Solenoid Mounted Discharge Valve	HSN-VLV-EU-112			
2	Discharge Hose DN12, L:400mm	HSN-DH-12-400			
3	Manual Actuator for DN12 Valve	HSN-ACT-M02			
4.1	Ø50mm contacted pressure gauge 38bar NO	HSN-PGV-NOC-3880			
4.2	Ø50mm contacted pressure gauge 38bar NC	HSN-PGV-NCC-3880			
5.1	8L Seamless TPED Cylinder Set	HSN-HF-US-SM-008-1			
5.2	13.4L Seamless TPED Cylinder Set	HSN-HF-US-SM-013-1			
6.1	8L Seamless Cylinder Strap	HSN-BRC-140			
6.2	13.4L Seamless Cylinder Strap				

Dimensions for 8 & 13.4L Cylinders						
Туре	H1 (mm)	H2 (mm)	H3 (mm)	Ø (mm)		
8L	N/A	450	680	140		
13.4L	N/A	750	1085	140		



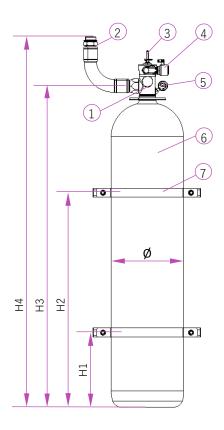
<sup>\*\*</sup> Cylinder weights are approximately.



Hardware for 26, 40, 67, 80 & 120L Cylinders				
No.	Description	Part Number		
1	DN33 Discharge Valve	HSN-VLV-EU-133		
2	Discharge Hose DN33, L:400mm	HSN-DH-33-400		
3	Manual Actuator	HSN-ACT-M01		
4	Solenoid Actuator, 24V DC	HSN-ACT-S03		
5.1	Ø50mm contacted pressure gauge 38bar NO	HSN-PGV-NOC-3880		
5.2	Ø50mm contacted pressure gauge 38bar NC	HSN-PGV-NCC-3880		
6.1	26L Seamless TPED Cylinder Set	HSN-HF-US-SM-026-1		
6.2	40L Seamless TPED Cylinder Set	HSN-HF-US-SM-040-1		
6.3	67L Seamless TPED Cylinder Set	HSN-HF-US-SM-067-1		
6.4	80L Seamless TPED Cylinder Set	HSN-HF-US-SM-080-1		
6.5	120L Seamless TPED Cylinder Set	HSN-HF-US-SM-120-1		
7.1	26L Seamless Cylinder Strap	HSN-BRC-219		
7.2	40L Seamless Cylinder Strap			
7.3	67L Seamless Cylinder Strap	HSN-BRC-267		
7.4	80L Seamless Cylinder Strap			
7.5	120L Seamless Cylinder Strap	HSN-BRC-356		

General Arrangement of Assembly of 26, 40, 67, 80 & 120L System

Dimensions for 26, 40, 67, 80, & 120L Cylinders						
Туре	H1 (mm)	H2 (mm)	H3 (mm)	<b>Ø</b> (mm)		
26L	N/A	600	880	219		
40L	N/A	1000	1330	219		
67L	400	1100	1500	267		
80L	400	1250	1740	267		
120L	400	1200	1500	356		



Hardware for 180L & 220L Cylinders					
No.	Description	Part Number			
1	DN50 Discharge Valve	HSN-VLV-EU-150			
2	Discharge Hose DN50, L:400mm	HSN-DH-50-400			
3	Manual Actuator	HSN-ACT-M01			
4	Solenoid Actuator, 24V DC	HSN-ACT-S03			
5.1	Ø50mm contacted pressure gauge	HSN-PGV-NOC-3880			
	38bar NO				
5.2	Ø50mm contacted pressure gauge	HSN-PGV-NCC-3880			
	38bar NC				
6.1	180L Seamless TPED Cylinder Set	HSN-HF-US-SM-180-1			
6.2	220L Seamless TPED Cylinder Set	HSN-HF-US-SM-220-1			
7.1	180L Seamless Cylinder Strap	HSN-BRC-406			
7.2	220L Seamless Cylinder Strap				

General Arrangement of Assembly of 180L & 220L System

Dimensions for 180L & 220L Cylinders						
Туре	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	<b>Ø</b> (mm)	
180L	500	1350	1700	2100	406	
220L	500	1650	2050	2450	406	

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