# 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 0.48 kg/ltr. (30.2lb/ft3) and 1.12 kg/ltr. (70.0 lb/ft3). To ensure optimal performance, each cylinder is super pressurized with dry nitrogen to 42 bar at 21°C (610psi @ 70°F).

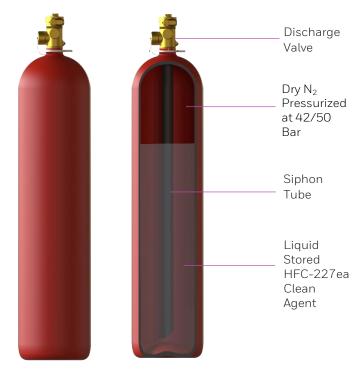
In 50 Bar HFC-227ea System, clean agent is stored as liquid in seamless cylinder designed specifically for the application and charged to a fill density of between 0.48 kg/ltr. (30.2lb/ft3) and 1.05 kg/ltr. (65.5 lb/ft3). To ensure optimal performance, each cylinder is super pressurized with dry nitrogen to 50 bar at 21°C (725 psi at  $70\,^{\circ}\text{F}$ ).

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 EN15004-5.

# 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 two sizes DN33 and DN50.



Typical seamless cylinder & valve assembly



General Arrangement of Discharge Valves

# **Approval**



42/50 Bar HFC-227ea Clean Agent Seamless Cylinders								
	Valve	Cylinder	Cylinder	Empty	System	Filling	System	Filling
Part Number	Size	Volume	Diameter	Weight	Pressure	Range	Pressure	Range
	mm	liter	mm*	kg**	bar	kg	bar	kg
HSN-HF-EU-		26.8	219	31		12.8-30.3		12.8-30.3
SM-026-1		20.0	213	31		12.0-30.3		12.0-30.3
HSN-HF-EU-		40	219	44		19.2-46.0		19.2-42.0
SM-040-1		40	219	44		19.2-40.0		19.2-42.0
HSN-HF-EU-		67	267	69		32.1-77.0		32.1-70.3
SM-067-1	- 33	07	201	09		32.1-11.0		32.1-70.3
HSN-HF-EU-		80	267	79		38.4-92.0		38.4-84.0
SM-080-1		00	201	19	42	36.4-92.0	50	30.4-04.0
HSN-HF-EU-		120	356	126	42	57.6-138.0	30	57.6-126.0
SM-120-1		120	330	120		37.0-136.0		37.0-120.0
HSN-HF-EU-		150	356	150		72.0-172.5		72.0-157.5
SM-150-1		150	350	150		12.0-112.5		72.0-157.5
HSN-HF-EU-	- 50	1.00	4.00	175		00 / 007 0		06 / 100 0
SM-180-1		180	406	175		86.4-207.0		86.4-189.0
HSN-HF-EU-		220	420	222		1056 2520		105 6 221 0
SM-220-1		220	420	222		105.6-253.0		105.6-231.0

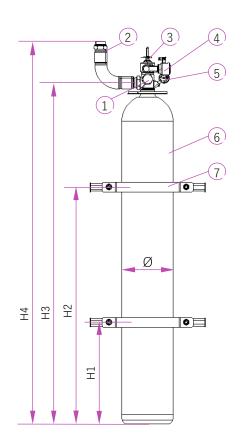
<sup>\*</sup> Cylinder diameters have tolerance +/- 1% according to cylinder manufacturer. \*\*

HFC-227ea clean agent fire extinguishing system equipment's are designed for an operating temperature range of  $0^{\circ}$ C to  $50^{\circ}$ C ( $32^{\circ}$ F to  $122^{\circ}$ F).

Dimensions for 26, 40, 67, 80, 120 & 150L Cylinders							
Type	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	Ø (mm)		
26L	N/A	515	937	1155	219		
40L	300	1000	1332	1550	219		
67L	395	1095	1522	1740	267		
80L	515	1215	1762	1980	267		
120L	400	1100	1532	1750	356		
150L	565	1275	1862	2080	356		



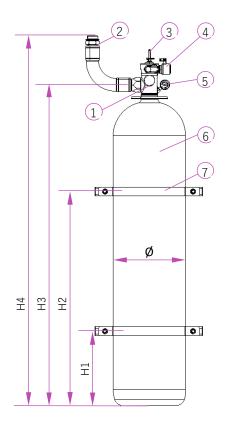
Cylinder weights are approximately.



Hardware for 26, 40, 67, 80, 120 & 150L Cylinders					
No.	Description	Part Number			
1	DN33 Discharge Valve	HSN-VLV-EU-033			
2	Discharge Hose DN33, L:400mm	HSN-DH-33-400			
3	Manual Actuator	HSN-ACT-M01			
4	Solenoid Actuator, 24V DC	HSN-ACT-S02			
5.1	0-100 Bar Pressure gauge without low pressure switch	HSN-PGV-NPS-100			
5.2	0-100 Bar Pressure gauge with low pressure switch 38bar (NO)	HSN-PGV-NOC-100			
5.3	0-100 Bar Pressure gauge with low pressure switch 38bar (NC)	HSN-PGV-NCC-100			
5.4	0-100 Bar Pressure gauge with low pressure switch 45bar (NO)	HSN-PGV-NOC-200			
5.5	0-100 Bar Pressure gauge with low pressure switch 45bar (NC)	HSN-PGV-NCC-200			
6.1	26L Seamless Cylinder, TPED	HSN-HF-EU-SM-026-1			
6.2	40L Seamless Cylinder, TPED	HSN-HF-EU-SM-040-1			
6.3	67L Seamless Cylinder, TPED	HSN-HF-EU-SM-067-1			
6.4	80L Seamless Cylinder, TPED	HSN-HF-EU-SM-080-1			
6.5	120L Seamless Cylinder, TPED	HSN-HF-EU-SM-120-1			
6.6	150L Seamless Cylinder, TPED	HSN-HF-EU-SM-150-1			
7.1	26L Seamless Cylinder Strap	HSN-STP-EU-SM-026			
7.2	40L Seamless Cylinder Strap	HSN-STP-EU-SM-040			
7.3	67L Seamless Cylinder Strap	HSN-STP-EU-SM-067			
7.4	80L Seamless Cylinder Strap	HSN-STP-EU-SM-080			
7.5	120L Seamless Cylinder Strap	HSN-STP-EU-SM-120			
7.6	150L Seamless Cylinder Strap	HSN-STP-EU-SM-150			

General Arrangement of Assembly of 26, 40, 67, 80, 120L & 150L System

Dimensions for 26, 40, 67, 80, 120 & 150L Cylinders							
Туре	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	Ø (mm)		
26L	N/A	515	937	1155	219		
40L	300	1000	1332	1550	219		
67L	395	1095	1522	1740	267		
80L	515	1215	1762	1980	267		
120L	400	1100	1532	1750	356		
150L	565	1275	1862	2080	356		



Hard	Hardware for 180L & 220L Cylinders					
No.	Description	Part Number				
1	DN50 Discharge Valve	HSN-VLV-EU-050				
2	Discharge Hose DN50, L:400mm	HSN-DH-50-400				
3	Manual Actuator	HSN-ACT-M01				
4	Solenoid Actuator, 24V DC	HSN-ACT-S02				
5.1	0-100 Bar Pressure gauge without low pressure switch	HSN-PGV-NPS-100				
5.2	0-100 Bar Pressure gauge with low pressure switch 38bar (NO)	HSN-PGV-NOC-100				
5.3	0-100 Bar Pressure gauge with low pressure switch 38bar (NC)	HSN-PGV-NCC-100				
5.4	0-100 Bar Pressure gauge with low pressure switch 45bar (NO)	HSN-PGV-NOC-200				
5.5	0-100 Bar Pressure gauge with low pressure switch 45bar (NC)	HSN-PGV-NCC-200				
6.1	180L Seamless Cylinder, TPED	HSN-HF-EU-SM-180-1				
6.2	220L Seamless Cylinder, TPED	HSN-HF-EU-SM-220-1				
7.1	180L Seamless Cylinder Strap	HSN-STP-EU-SM-180				
7.2	220L Seamless Cylinder Strap	HSN-STP-EU-SM-220				

General Arrangement of Assembly of 180L & 220L System

Dimensions for 180L & 220L Cylinders							
Туре	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	Ø (mm)		
180L	415	1185	1792	2066	406		
220L	525	1295	2012	2286	420		

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THE FUTURE

WHAT

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