

HPCO₂ Component Description



25 - 50 lbm Capacity Carbon Dioxide Cylinder & Valve Assemblies

Effective: June 2020
K-81-1020 Rev AE

FEATURES

- *US DOT 3AA-2015 Specification*
- *TC 3AM-154 Specification*
- *Type I Valve, 1/2"*
- *Bent Siphon Tube*
- *Underwriters' Laboratories Listed - File Number EX923*
- *United States Coast Guard Approved*
- *FM Approved, Standard 5420*

DESCRIPTION

Kidde Fire Systems' High-Pressure Carbon Dioxide (CO₂) Fire Suppression Systems use seamless steel cylinders to store carbon dioxide agent. The agent is stored under its own vapor pressure as a non-flammable compressed gas. Due to the physical properties of CO₂, both the vapor and liquid state are present within the cylinder. Each assembly is factory fitted with a discharge valve and siphon tube. A US DOT compliant safety relief device, protecting the cylinder from over pressurization, is provided as part of the discharge valve assembly.

For shipment, a standard shipping cap is included, which mates to external threads on the cylinder neck to protect the discharge valve from inadvertent damage. Prior to removing the shipping cap, each cylinder shall be properly secured using cylinder straps or Framing/Oak Rack Kits as required.

The discharge valve cannot dispense the cylinder contents without a properly attached discharge head. This feature provides an enhanced safeguard during transport. A discharge flex hose connects the discharge head to the system manifold. Alternatively, a swivel adapter may be used in place of a discharge flex hose to connect to the system manifold. One or more control heads will be required to actuate a manifold of cylinders.

After discharge, charging accessories are required to safely vent any residual pressure to service the discharge valve and then re-fill the cylinder.

SPECIFICATIONS

Service Pressure, Max: 2300-psi (158-bar)
Temperature, Min: 0°F (-17°C)
Temperature, Max: 130°F (55°C)

REFERENCED COMPONENTS

Description	Reference Data Sheet
Discharge Head, Plain Nut	K-81-1060
Discharge Head, Grooved Nut	K-81-1070
Hose, 1/2" Outlet Discharge	K-81-1080
Adapter, Swivel	K-81-1105
Strap, Single Cylinder	K-81-1230
Strap, Dual Cylinder	K-81-1240
Framing Kit, Steel	See manual 81-CO2MAN-001
Rack Kit, Oak	See manual 220610
Control Head, Electric	K-81-8010*
Control Head, Cable Operated	K-81-6020*
Valve, 1/2" Type I (spare only)	K-81-1040
Fixture, Blow-Off	K-81-9110
Adapter, Charging	
* Typical listed, see referenced manuals for all applicable control heads.	

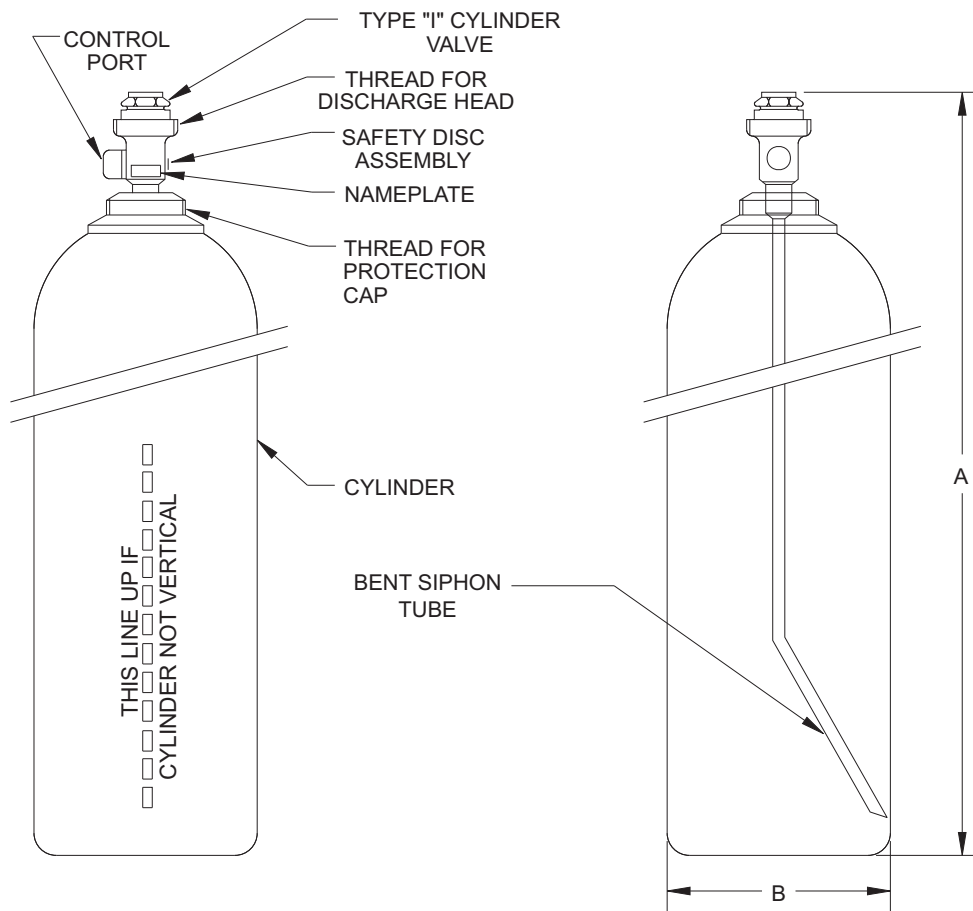


Figure 1. Cylinder

DIMENSIONS

Cylinder Capacity (lbm)	A Height (in.)	B Dia. (in.)
50	55.0	8.5
35	40.0	
25	30.0	

ORDERING INFORMATION

Description	Application	Approvals	Part Number
Cylinder & Valve Assembly, 50-lbm	Industrial & Marine	UL/ULC FM Approvals USCG Various Class Societies	81-982548-000
Cylinder & Valve Assembly, 35-lbm			81-982547-000
Cylinder & Valve Assembly, 25-lbm			81-870486-000

EXPORT INFORMATION (USA)

Jurisdiction: EAR
Classification: EAR99

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