

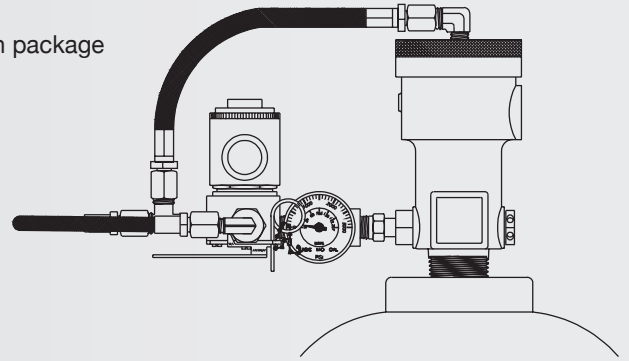
MASTER CYLINDER ACTUATION PACKAGE

The NAFFCO Carbon Dioxide Master Cylinder Valve can be actuated by two methods of operation:

- Manual / Mechanical actuator
- Electric solenoid actuator (12VDC or 24VDC)

The 12VDC and 24VDC Master Cylinder actuation package contain the following items:

- 12VDC or 24VDC electric solenoid
- Manual Actuator
- (2) Stainless Steel Flexible hoses
- Stainless Steel connector
- (2) ¼" (8mm) X 90 Brass elbows
- 14" (8mm) Brass tee



Ex-Proof Solenoid with Pressure Gauge

The 12VDC and 24VDC solenoids meet the requirements of N.E.C Class 1, Group C & D and Class II Group E, F & G applications. A manual actuator is provided for local "override" purposes. For manifold cylinder applications, the manual actuators can provide simultaneous discharge of the master cylinders by connecting together. After Operation, the electric or manual actuator can be reset without tool. For service, maintenance and inspection purposes, the master actuation package can be removed from the valve / cylinder even when the cylinder is full.

DESCRIPTION	
Part Number	C85-113 12VDC Master Cylinder Actuation Package C85-114 24VDC Master Cylinder Actuation Package C85-115 12VDC Solenoid w/Pressure Gauge C85-123 24VDC Solenoid w/Pressure Gauge
Materials	Brass and Stainless Steel
Temperature Range	0°F to 130°F (-18°C to 54°C)
Approvals	U.L. Ex4447 Factory Mutual U.L.C. CEx 1312

CO₂ MANUAL/PNEUMATIC RELEASE ACTUATOR

The CO₂ manual/pneumatic release is device required for slave actuation. This is a dual-purpose device, can be used as mechanical manual actuation or thru pilot line. It has an actuation piston to upset the discharge head valve when pilot pressure is applied to a piston. With the pressure applied through the pilot connection or by pulling, the lever of the pneumatic manual actuator presses the pressure differential head valve piston, thereby opening the cylinder to discharge its content.

MATERIAL	
Valve Body	Brass
Inlet Connection	M42 X 1.5
Pneumatic Connection	G 1/8"

OPERATING PARAMETER	
Working Pressure	
20 Bar for 300 Bar System	Pmax = 340 Bar
15 bar for CO₂ and 200 Bar System	Pmax = 250 Bar
10 Bar for System	Pmax = 150 Bar



CO₂ PNEUMATIC RELEASE ACTUATOR

The pneumatic actuator has a piston and it connected to a pin at the top of pressure differential head valve. When pilot pressure is applied to the piston pressure press the pin pushing the head valve diaphragm, thereby causing cylinder head valve to open.

MATERIAL	
Valve Body	Brass
Inlet Connection	M42 X 1.5
Pneumatic Connection	G 1/8"

OPERATING PARAMETER	
Working Pressure	
20 Bar for 300 Bar System	Pmax = 340 Bar
15 bar for CO ₂ and 200 Bar System	Pmax = 250 Bar
10 Bar for System	Pmax = 150 Bar



CO₂ FLEXIBLE DISCHARGE HOSE



The flexible discharge hoses are made to convey the CO₂ gas from the cylinder head valves to the main manifold for gas distribution to nozzle piping network. The Discharge Hoses are equipped with an internal check valves to prevent the back flow of CO₂ gas from the manifold to other cylinders.

MATERIAL	
Hose	Rubber
Coupling	Steel S 300 Cadmied

PRESSURE RATING	
Service Pressure	240 Bar
Test Pressure	400 Bar
Bursting Pressure	960 Bar

DIMENSION	
Connection	21.7 x 1.814
Diameter Nominal	10 mm

CO₂ FLEXIBLE PILOT HOSE



The pilot flexible hose is used to interconnect the ports of the pressure actuators. The CO₂ gas pressure applied on the pressure actuators open the cylinder valve simultaneously.

MATERIAL	
Hose	Rubber
Coupling	Steel S 300 Cadmied
Connection	1/8" BSP

PRESSURE RATING	
Service Pressure	240 Bar
Test Pressure	400 Bar
Bursting Pressure	960 Bar