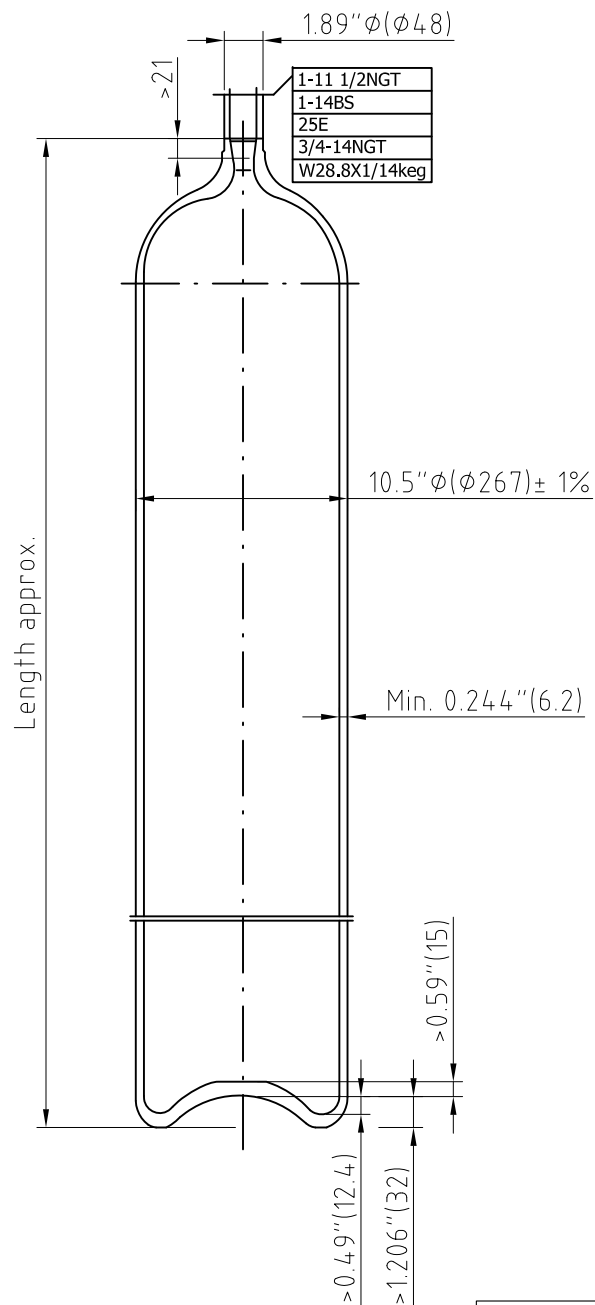




Technical requirements

1. Application standard: DOT3AA-178.37
2. Filling contents: permanent gas or liquefied gas
3. Environmental climate: -20°C ~ 60°C
4. Material: 37Mn steel
5. Heat treatment (quenched & tempered)

Quench		Quench contents	Temper	
Temperature	Time	Water	Temperature	Time
840±20°C	≥45Min.	additive	650±25°C	≥70Min.

6. Magnetic test after heat treatment
7. Hydraulic test pressure: 3625PSI
8. Maximum working pressure: 2175PSI

Chemical %	C	Mn	Si	S	P
Composition	≤0.40	1.35-1.65	0.10-0.30	≤0.05	≤0.04

10. Mechanical Properties	Tensile strength	Yield stress	Elongation	Wall stress
	≥104.4 KSI	≥88.7 KSI	≥20%(2")	67088 PSI

11. Specification	Valumetric (water) capacity	4150cu.in (68L)
	Length approx.	59 (1500mm)
	Tare weight approx.	171.6 lb(78Kg)

12. Spun-tube cylinder

Product Supplier :



Trade Mark :

ISS / CO2

CE certificate # 24581

In accordance with the following applicable standards:
EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

45 Kg. CO2 Cylinder

PART NO.

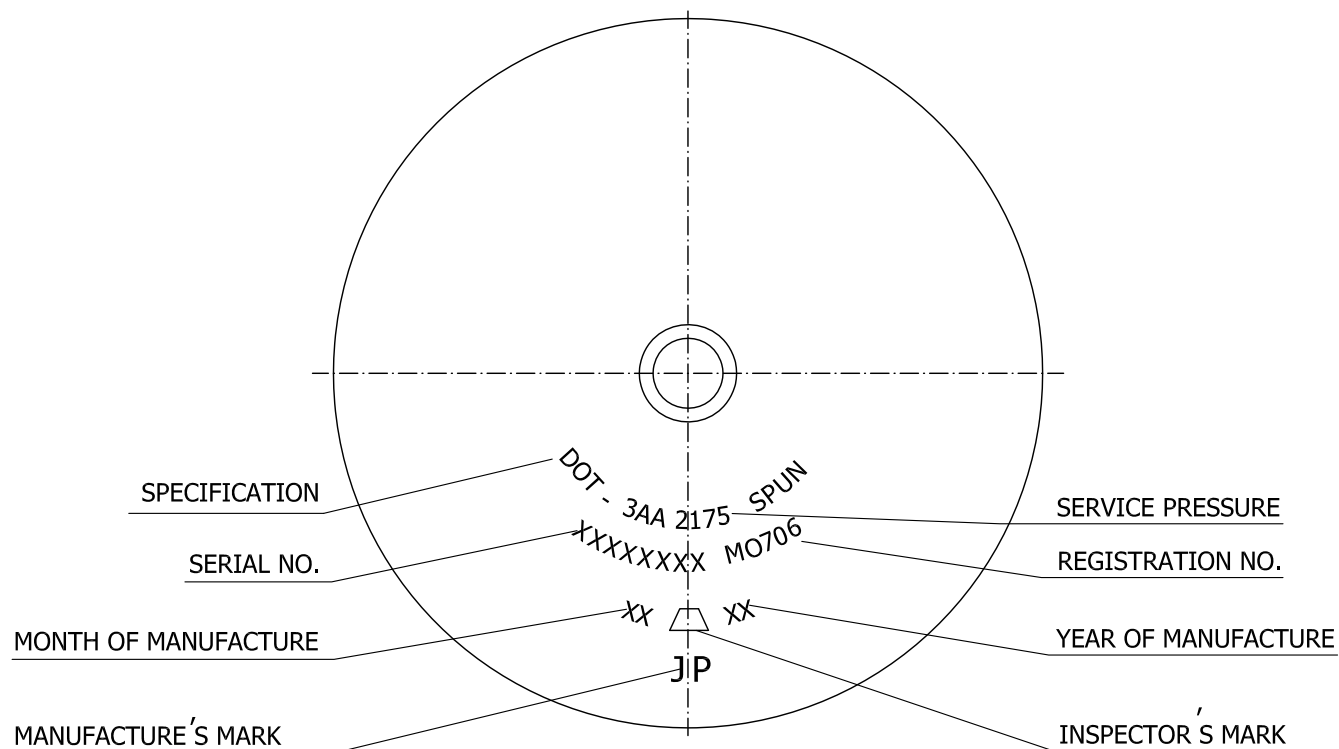
EGY - CO2 - 45

SHEET. NO.

01

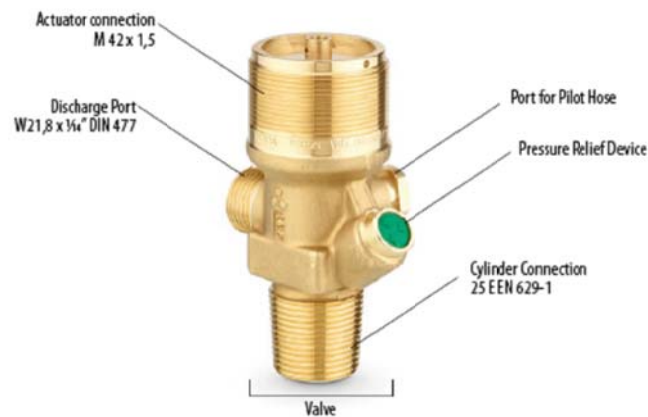
NO. OF SHEETS

1 / 2



Top View Plan

Product Supplier : 	Trade Mark :	CE certificate # 24581		In accordance with the following applicable standards: EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008, EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010	
	ISS / CO2		Description :	PART NO.	SHEET. NO.
	CO2 Cylinder Marking			EGY - CO2 - 45	01
					NO. OF SHEETS
					2 / 2



SPECIFICATIONS

Product code	B04800110
Discharge type	Total
Max. working pressure	250 bar
Orifice size	Ø 12 mm
Inlet connection	25E EN-629-1
Outlet connection	W21,8x1/14\"DIN 477
Actuator connection	M42 x 1,5
Dip tube connection	M10 x 0,75
Burst disc pressure	250 bar
Valve body	Brass

B04425131

	With diode
Valve connection	M42 x 1,5
Nominal voltage	24 VDC
Electrical connection	-
Nominal current	0,5 A
Protection Class	IP65
Height	135 mm
Diameter	Ø 65 mm

Product Supplier :



Trade Mark :

ISS / CO2

CE certificate # 24581

In accordance with the following applicable standards:
EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

CO2 Master Solenoid Valve

PART NO.

EGY - SV - 24

SHEET. NO.

02

NO. OF SHEETS

1 / 1

ROTAREX THE VALVE EXPERT FOR CO2 SYSTEM

Rotarex is the world leader in high-performance cylinder valves for fixed extinguishing systems as well as Ultra High Purity, Medical, Cryogenic, Automotive and LPG applications. They leverage 90-year expertise, vast R&D infrastructure and global scale to provide the most technically advanced and dependable fire suppression valves in the market. Trust Rotarex valves to perform when it most counts.



Series B0480



	manual	manual / pneumatic		pneumatic	
product code	B04420100	B04420065	B04420116	B04420066	B04420076
technology	single piston	single piston	double piston	single piston	double piston
max pressure	300	300 bar	300 bar	300 bar	300
valve connection	M42 x 1,5	M42 x 1,5	M42 x 1,5	M42 x 1,5	M42 x 1,5
pneumatic connection	-	G1/8"	G1/8"	G1/8"	G1/8"
actuation force / pressure	<	< 150 N / 20 bar	< 150 N / 10 bar	20 bar	10 bar
body material	Brass	Brass	Brass	Brass	Brass
height	54	136,5	156,5	60	71
diameter	050	050	050	050	050



Specifications

product code	B04800110
discharge type	Total
max. working pressure	250 bar
orifice size	Ø 12 mm
inlet connection	25E EN-629-1
outlet connection	W21.8x1/14" DIN 477
actuator connection	M42 x 1,5
dip tube connection	M10 x 0,75
burst disc pressure	250 bar
valve body	Brass

Product Supplier :



Trade Mark :

ISS / CO2



certificate # 24581

In accordance with the following applicable standards:
EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

CO2 Slave Valve

PART NO.

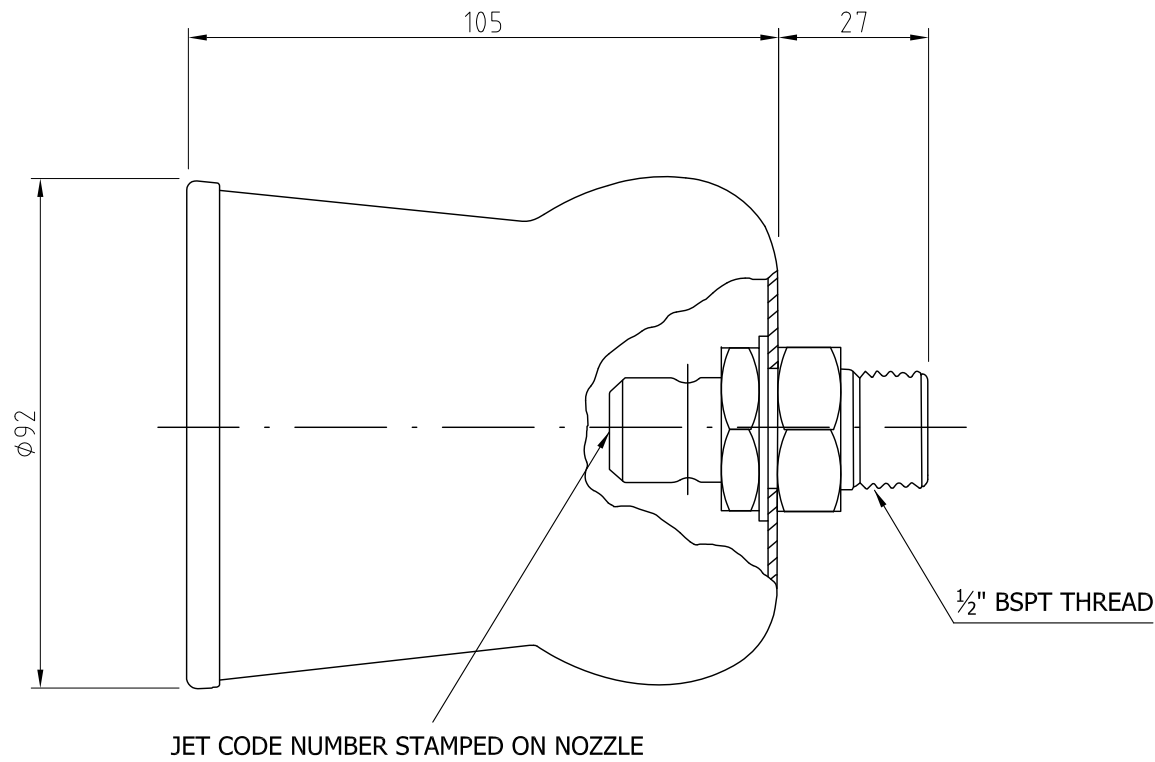
EGY - SV

SHEET. NO.

03

NO. OF SHEETS

1 / 1



MATERIALS

HORN - MILD STEEL BS 1449 CR1

ZINE PLATED AND PASSIVATED

NOZZLE - BRASS BS 2874 CZ121M

WEIGHT - 0.35kg.

TABLE A.4.7.4.4.3. EQUIVALENT ORIFICE SIZES

Orifice Code No.	EQUIVALENT SINGLE-ORIFICE DIAMETER		EQUIVALENT SINGLE-ORIFICE AREA	
	in.	mm	in. ²	mm ²
1	1/32	0.79	0.0008	0.49
1.5	3/64	1.19	0.0017	1.11
2	1/16	1.59	0.0031	1.98
2.5	5/64	1.98	0.0047	3.09
3	3/32	2.38	0.0069	4.45
3.5	7/64	2.78	0.0094	6.06
4	1/8	3.18	0.0123	7.94
4.5	9/64	3.57	0.0155	10.00
5	5/32	3.97	0.0192	12.39
5.5	11/64	4.37	0.0232	14.97
6	3/16	4.76	0.0276	17.81
6.5	13/64	5.16	0.0324	20.90
7	7/32	5.56	0.0376	24.26
7.5	15/64	5.95	0.0431	27.81
8	1/4	6.35	0.0491	31.68
8.5	17/64	6.75	0.0554	35.74
9	9/32	7.14	0.0621	40.06
9.5	19/64	7.54	0.0692	44.65
10	5/16	7.94	0.0767	49.48
11	11/32	8.73	0.0928	59.87
12	3/8	9.53	0.1105	71.29
13	13/32	10.32	0.1296	83.61
14	7/16	11.11	0.1503	96.97
15	15/32	11.91	0.1725	111.29
16	1/2	12.70	0.1964	126.71
18	9/16	14.29	0.2485	160.32
20	5/8	15.88	0.3068	197.94
22	11/16	17.46	0.3712	239.48
24	3/4	19.05	0.4418	285.03
32	1	25.40	0.785	506.45
48	1 1/2	38.40	1.765	1138.71
64	2	50.80	3.14	2025.80

THE BOWL HORN NOZZLE IS USED FOR LOCAL APPLICATION SYSTEMS.
SEE SHEET 5 FOR NOZZLE PERFORMANCE DETAILS

Product Supplier :



Trade Mark :

ISS / CO2



certificate # 24581

In accordance with the following applicable standards:

EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
 EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

Discharge Nozzle
 (Local Application)

PART NO.

EGY - LN

SHEET. NO.

04

NO. OF SHEETS

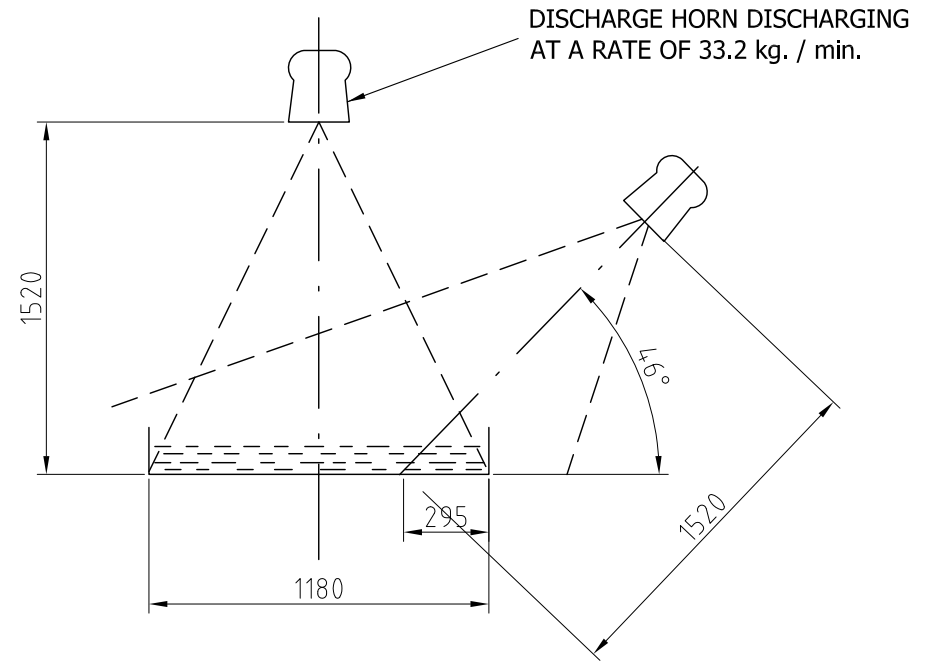
1 / 2

NOZZLE PERFORMANCE DATE

EXAMPLE OF AIMING POSITION FOR ANGLED DISCHARGE HORNS

LOCAL APPLICATION SYSTEMS

DISCHARGE HORN		COATED SURFACE (meters)	LIQUID SURFACE (meters)
HEIGHT (m)	RATE (kg/min.)	SIDE OF SQUARE	SIDE OF SQUARE
0.60	14.0	1.08	0.91
0.68	15.7	1.11	0.94
0.76	17.3	1.14	0.96
0.84	19.3	1.17	0.99
0.91	20.5	1.19	1.01
0.99	21.6	1.22	1.03
1.07	23.6	1.25	1.05
1.14	25.2	1.27	1.08
1.22	26.8	1.30	1.09
1.30	28.4	1.33	1.12
1.37	30.0	1.35	1.14
1.45	31.6	1.37	1.16
1.52	33.2	1.40	1.18
1.60	34.8	1.42	1.20
1.67	36.4	1.44	1.22
1.75	38.0	1.46	1.23
1.83	39.5	1.48	1.26
1.90	41.1	1.50	1.27
1.98	42.7	1.53	1.29
2.06	44.3	1.55	1.31
2.13	46.0	1.57	1.33
2.21	47.5	1.59	1.34
2.29	49.1	1.61	1.36
2.36	50.7	1.61	1.36
2.44	52.3	1.61	1.36
2.51	53.9	1.61	1.36
2.59	55.5	1.61	1.36
2.67	57.0	1.61	1.36
2.74	58.6	1.61	1.36



DISCHARGE ANGLE	AIMING FACTOR
45° TO 60°	0.25
60° TO 75°	0.25 TO 0.375
75° TO 90°	0.375 TO 0.5
90°	0.5

THE AIMING POINT IS POSITIONED BY MULTIPLYING
THE AIMING FACTOR IN THE ABOVE TABLE BY THE
WIDTH OF THE AREA PROTECTED BY THE HORN

Product Supplier :



Trade Mark :

ISS / CO2



certificate # 24581

Description :

Discharge Nozzle
(Local Application)

In accordance with the following applicable standards:
EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

PART NO.

EGY - LN

SHEET. NO.

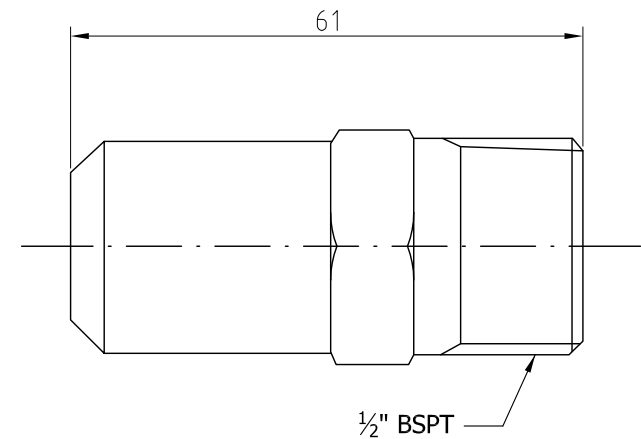
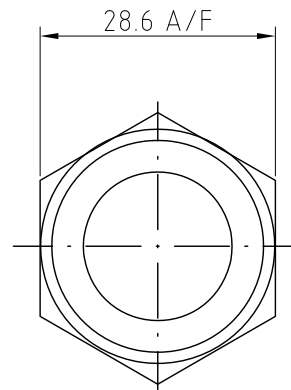
04

NO. OF SHEETS

2 / 2

TOTAL FLOOD SYSTEMS

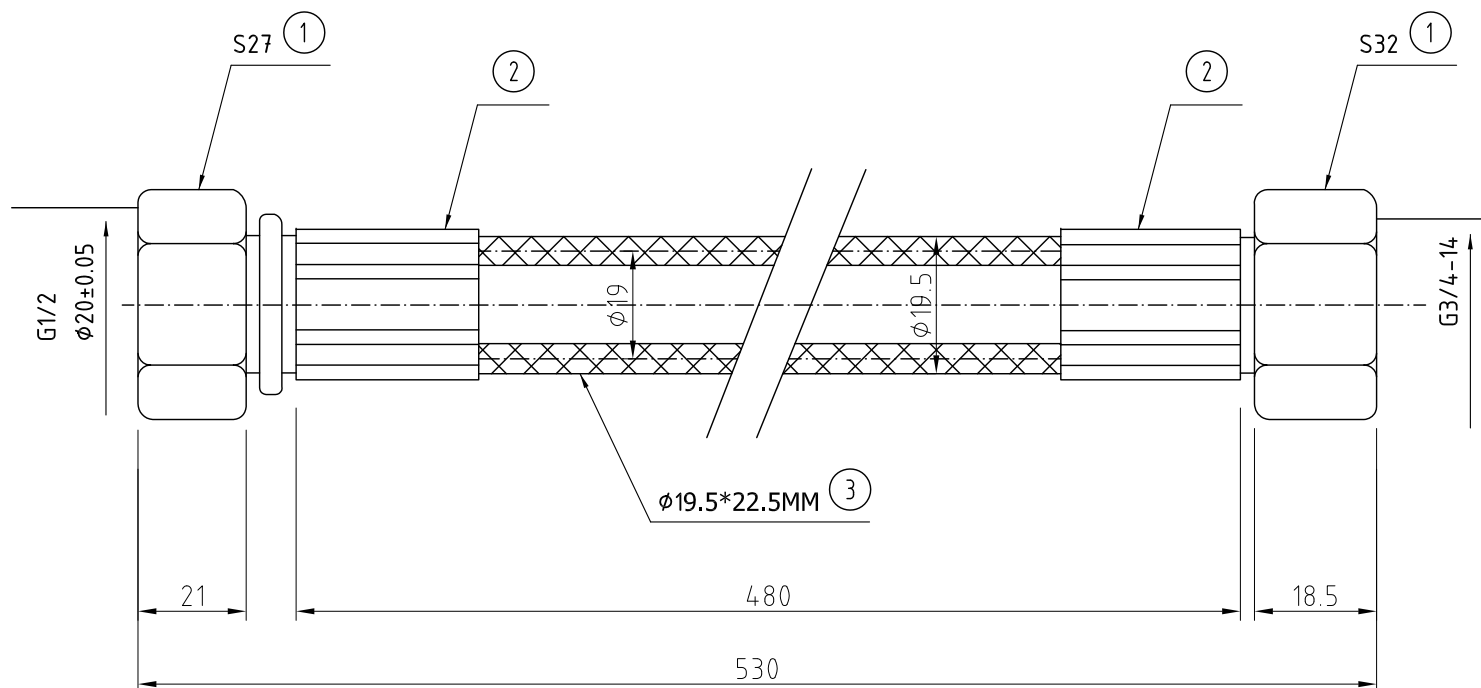
FOR ROOMS UP TO 5m HIGH HORNS SHOULD BE INSTALLED AT A HEIGHT OF 2.5m AND AN ANGLE OF 45° HORNS SHOULD BE SPACED APPROXIMATELY 6m APART. THE AVERAGE THROW IS 4m.
FOR ROOMS OF 5m TO 10m HEIGHT HORNS SHOULD BE INSTALLED AT 1/3 HEIGHT FROM THE FLOOR. FOR ROOMS HIGHER THAN 10m HORNS SHOULD BE INSTALLED AT 1/3 AND 2/3 HEIGHT FROM THE FLOOR.



STANDARD ORIFICE (ins)	TOTAL AREA (sq ins)	HOLES	PART NUMBER
1/2	0.3464	4	EGY - TN

THE CO2 NOZZLE IS DESIGNED FOR TOTAL FLOODING SYSTEMS
ORIFICE SIZE IS SELECTED BY OUR CO2 COMPUTER CALCULATION PROGRAM.

Product Supplier : 	Trade Mark : ISS / CO2		In accordance with the following applicable standards: EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008, EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010		
	Description : Discharge Nozzle (Total Flooding)		PART NO. EGY - TN	SHEET. NO. 05	NO. OF SHEETS 1 / 1



THE 15 MM CO₂ OUTLET HOSE IS MANUFACTURED FROM NEOPRENE COVERED NITRILE TUBE HOUSING A HIGH TENSILE STEEL WIRE BRAID REINFORCEMENT. COUPLINGS ARE STEEL ZINC PASSIVATED AND SEALING WASHERS 18 MM X 12 MM X 1 MM COPPER. THE ASSEMBLY COMES COMPLETE WITH SWIVEL FEMALE COUPLINGS FOR EASE OF INSTALLATION IN ANY ORIENTATION.

1	FEMALE ADAPTOR
2	SWAGE ON
3	HOSE

BURST PRESSURE 552 BAR
 MAX TEST PRESSURE 206 BAR
 ASSEMBLY WEIGHT 1.5 KG.

Product Supplier :



Trade Mark :

ISS / CO₂

CE certificate # 24581

In accordance with the following applicable standards:
 EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
 EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

Discharge Hose

PART NO.

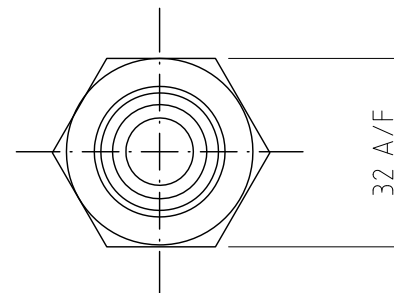
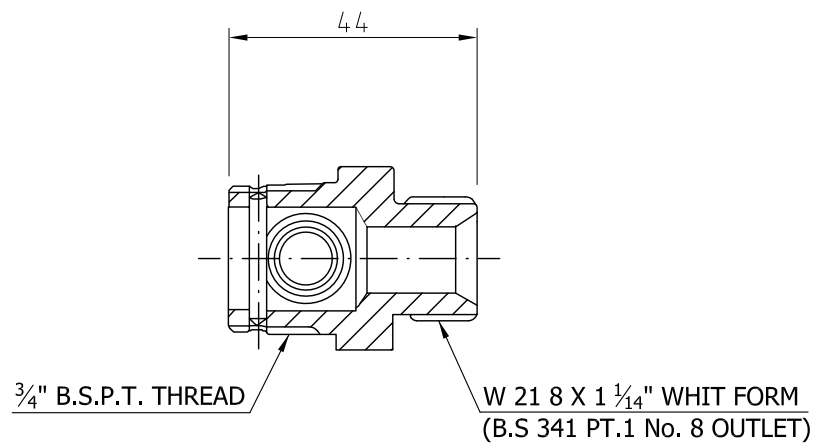
EGY - DH

SHEET. NO.

06

NO. OF SHEETS

1 / 1

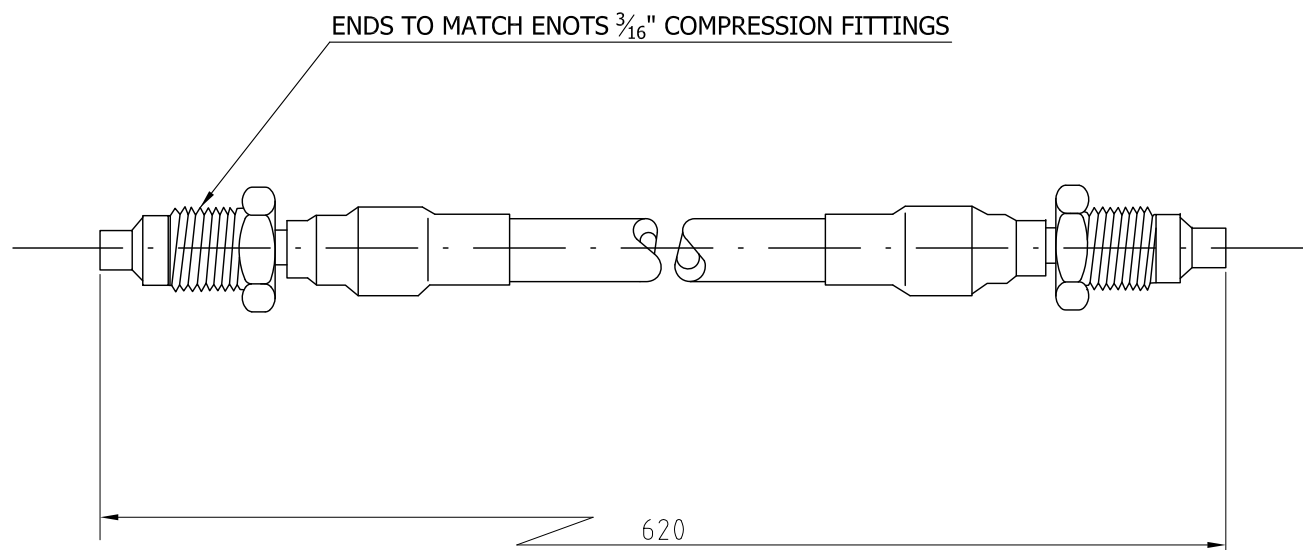


MATERIALS = BODY - BRASS B.S. 2874 CZ121M
 BALL - CHROME STEEL
 RETAINING PIN - STAINLESS STEEL.

WEIGHT = 0.12 Kg.

THE CHECK VALVE IS FITTED TO THE INLET PORTS OF
 THE MANIFOLD.
 THEIR PURPOSE IS TO PREVENT LOSS OF GAS FROM THE
 MANIFOLD IN THE EVENT OF THE SYSTEM OPERATING
 WITH ONE OR MORE CYLINDERS REMOVED FOR MAINTENANCE.

Product Supplier : 	Trade Mark : ISS / CO2	 certificate # 24581	In accordance with the following applicable standards: EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008, EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010		
	Description : Manifold Check Valve		PART NO. -	SHEET. NO. 07	NO. OF SHEETS 1 / 1



MATERIAL

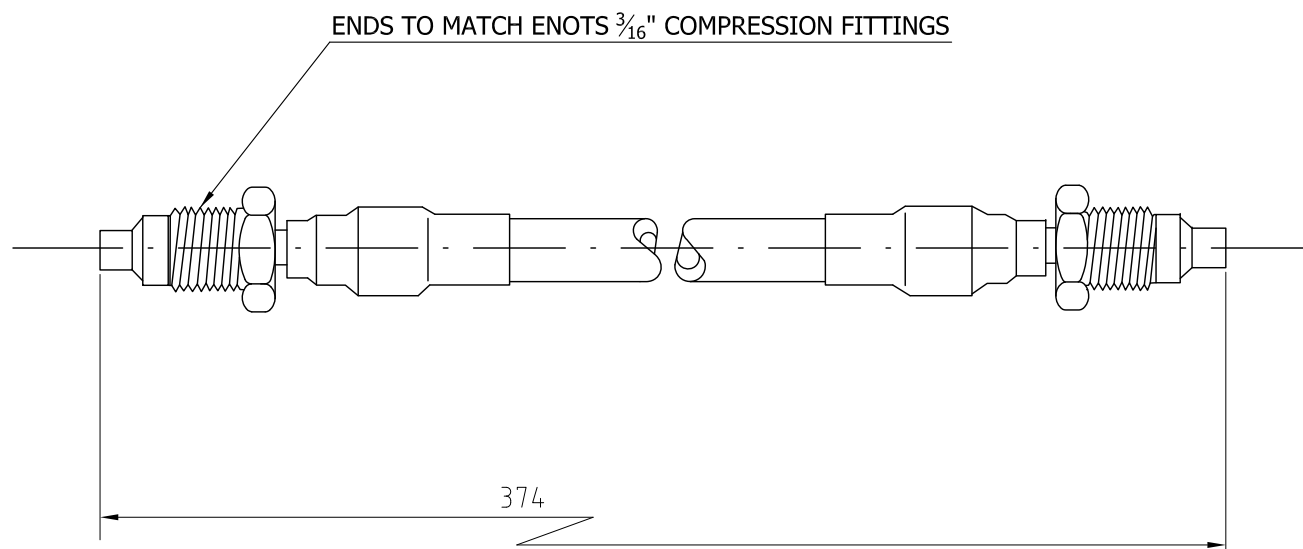
END FITTINGS . BRASS

HOSE - THERMOPLASTIC HYDRAULIC HOSE

POLYMER MIN BURST PRESSURE AT 132°C 345 BAR

THIS LONG PILOT HOSE IS USED FOR CONNECTING THE
LAST CYLINDER OF THE RAW TO THE PRESSURE SWITCH.

Product Supplier : 	Trade Mark : ISS / CO2	 certificate # 24581	In accordance with the following applicable standards: EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008, EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010		
	Description : Pilot Hose (Long)		PART NO. EGY - HL	SHEET. NO. 08	NO. OF SHEETS 1 / 1



MATERIAL

END FITTINGS . BRASS

HOSE - THERMOPLASTIC HYDRAULIC HOSE

POLYMER MIN BURST PRESSURE AT 132°C 345 BAR

THIS SHORT PILOT HOSE IS USED FOR CONNECTING
CYLINDER TO OPERATE PNEUMATICALLY

Product Supplier :



Trade Mark :

ISS / CO2



certificate # 24581

In accordance with the following applicable standards:

EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

Pilot Hose (Short)

PART NO.

EGY - HS

SHEET. NO.

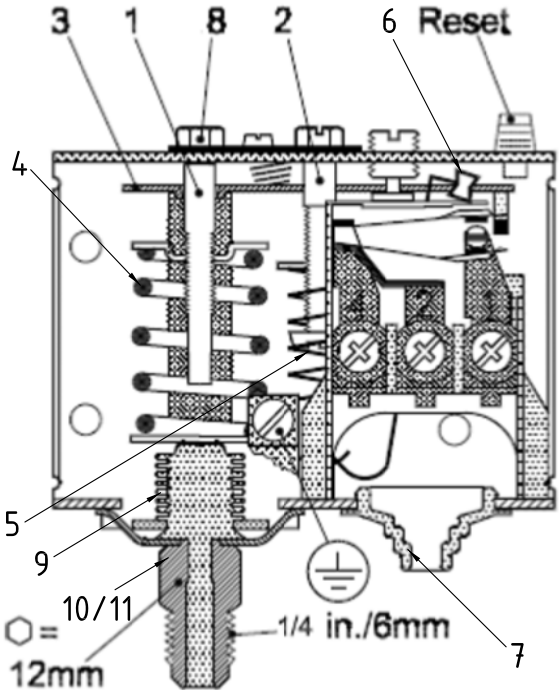
09

NO. OF SHEETS

1 / 1

DESCRIPTION

The pressure switch connects to the carbon dioxide discharge piping and operates when the system discharges. The switch may be wired with contacts in the open or closed position. Operation causes the electrical switch contacts to reverse position. Switches can be used to confirm system discharge, to operate alarms, to shutdown motors, pumps, fans and conveyors, to release magnetic door holders, etc., automatically when the system discharges. The switch may be mounted in any position, but preferred installation in with the pressure connection (CO2 supply line) entering from the bottom. The switch enclosure is rated for standard and weatherproof conditions. When the line load of the equipment to be operated is greater than the switch rating, the switch should be used to break a relay holding-coil circuit.



- 1. LOW PRESSURE (LP) SETTING SPINDLE
- 2. DIFFERENTIAL SETTING SPINDLE, LP
- 3. MAIN ARM
- 4. MAIN SPRING
- 5. DIFFERENTIAL SPRING
- 6. TUMBLER
- 7. CABLE ENTRY
- 8. LOCKING PLATE
- 9. BELLOWS
- 10. LP CONNECTION
- 11. HP CONNECTION

Product Supplier :  MOBIAK[®] FIRE FIGHTING EQUIPMENT INDUSTRIAL AND MEDICAL GASES MEDICAL EQUIPMENT - HOME CARE	Trade Mark : ISS / CO2	 certificate # 24581	In accordance with the following applicable standards: EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008, EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010		
	Description : Discharge Pressure Switch		PART NO. EGY - DS	SHEET. NO. 10	NO. OF SHEETS 1 / 1

Direction/Stop Valves

Directional valves can be manually actuated in two ways; either at the valve with the hand lever or remotely with a manual cable pull station attached to a sector located on the directional valve.

Before installing the valve in the carbon dioxide discharge piping, make certain there is enough clearance for either the hand lever to swing freely or the sector to rotate properly.

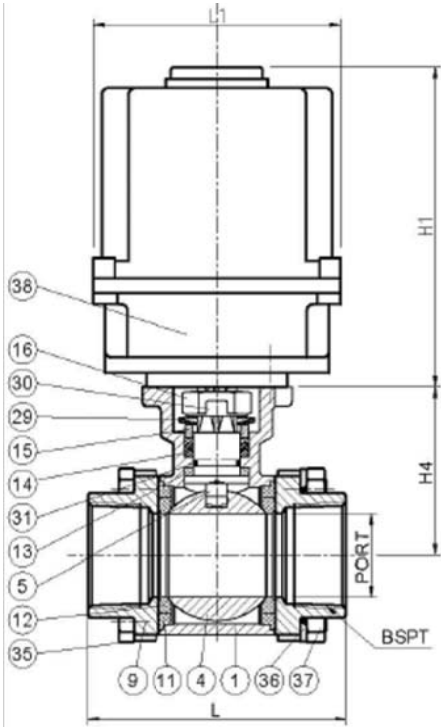
See Figure 28 for dimension information.

NOTICE

Maximum distance a manual cable pull station can be located from the sector on the directional valve is 125 ft (38.1 m). Operating force must be a maximum of 40 lb and require no more than 14 in. (35 cm) of travel to open valve.

THREAD: NPT, DIN259/DIN2999, ISO228, BSPT, BSP.
SIZE : 1/2"-2" 1000PSI, 2 1/2" - 4" 800PSI.
End Connections Female Threaded End, Butt Weld End, Socket Weld End
Threaded Type: NPT, DIN259/DIN2999, ISO228, BSPT, BSP.
Working Pressure: 1/2" - 2" 1000PSI, 2 1/2" - 4" 800PSI.

V-258/E		DIMENSIONS() unit: mm				
SIZE	L	H	ACTUATOR			
1/2"	75	42.1	MDEU-1	MDEC-005	ITQ-0040	
3/4"	80	45	MDEU-1	MDEC-005	ITQ-0040	
1"	90	55.5	MDEU-1	MDEC-005	ITQ-0040	
1 1/4"	110	62.4	MDEU-2	MDEC-005	ITQ-0040	
1 1/2"	120	79	MDEU-2	MDEC-005	ITQ-0040	
2"	140	88.9	MDEU-3	MDEC-005	ITQ-0040	
2 1/2"	155	109.5	MDEU-3	MDEC-008	ITQ-0080	
3"	205	115.5	MDEU-4	MDEC-010	ITQ-0100	
4"	240	133.4	MDEU-4	MDEC-015	ITQ-0160	



PRESSURE: 1/4"-2" 1000PSI
2 1/2"-4" 800PSI

MATERIALS LIST		
NO.	PART NAME	MATERIAL
1	BODY	A351 CF8M
4	BALL	316
5	SETM	316
9	END CAP	A351 CF8M
11	BODY SEAL	PTFE
12	SEATS	PTFE
13	THRUSH WASHER	PTFE
14	STEM PACKING	PTFE
15	GLAND	304
29	BELLEVILLE WASHER	304
30	TAB WASHER	304
31	O-RING	VITON
35	BODY BOLT	304
36	BOLT WASHER	304
37	BOLT NUT	304
38	Electric actuator	MDEU

DIMENSIONS							unit:mm
SIZE	PORT	L	L1	H1	H4	Electric actuator	
DN25	1"	25	86.2	112	145	56.6	MDEU-1
DN40	1-1/2"	38	119.4	112	145	77.5	MDEU-1



Product Supplier :



Trade Mark :

ISS / CO2



certificate # 24581

Description :

Directional Valve

In accordance with the following applicable standards:
EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

PART NO.

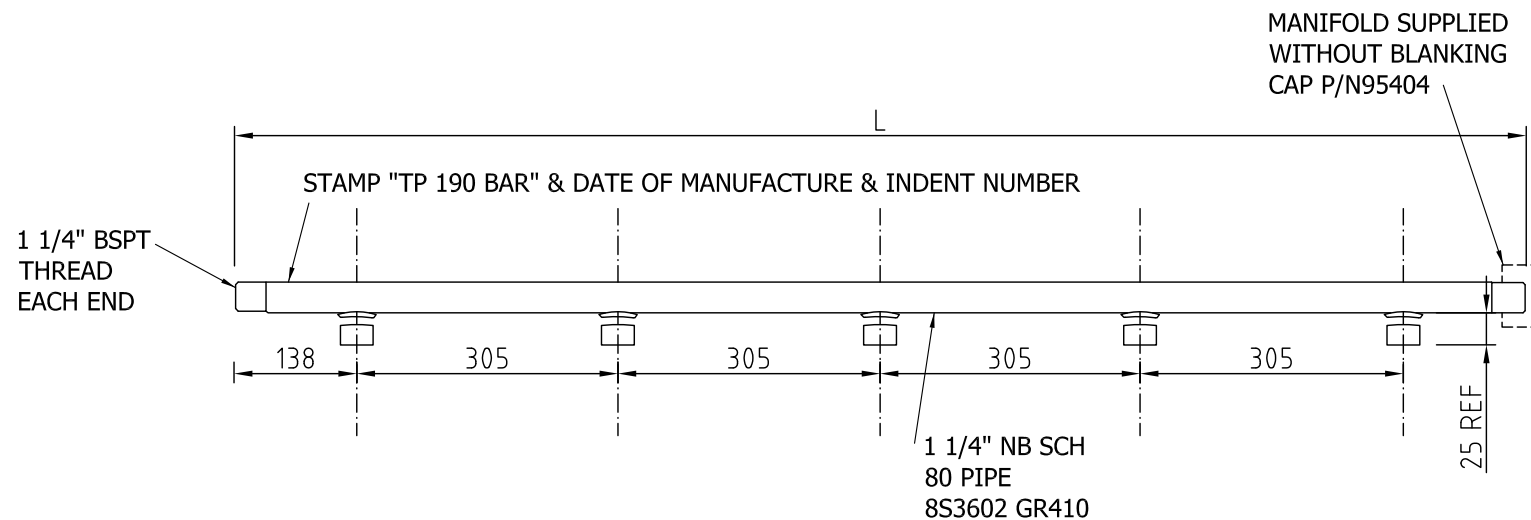
EGY - DV

SHEET. NO.

11

NO. OF SHEETS

1 / 1



WHEN USING THESE MANIFOLDS AND TAKING THE CO₂ DISCHARGE FROM THE END OF THE MANIFOLD THE MAXIMUM NUMBER OF CYLINDERS TO BE DISCHARGED INTO THE MANIFOLDS IS TEN. IF MORE THAN TEN CYLINDERS ARE REQUIRED THEN THE TAKE OFF SHOULD BE A TEE INCREASING ON THE OUTLET OR A LARGER BARE MANIFOLD SHOULD BE USED.

PART NO.	DESCRIPTION	DIM L	WEIGHT
SL 93844	2 CYLINDER MANIFOLD	581	3.47 KG
SL 93845	3 CYLINDER MANIFOLD	886	4.87 KG
SL 93846	4 CYLINDER MANIFOLD	1191	6.27 KG
SL 93847	5 CYLINDER MANIFOLD	1496	7.67 KG

Product Supplier :



Trade Mark :

ISS / CO₂

CE certificate # 24581

In accordance with the following applicable standards:
EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

Manifold

PART NO.

-

SHEET. NO.

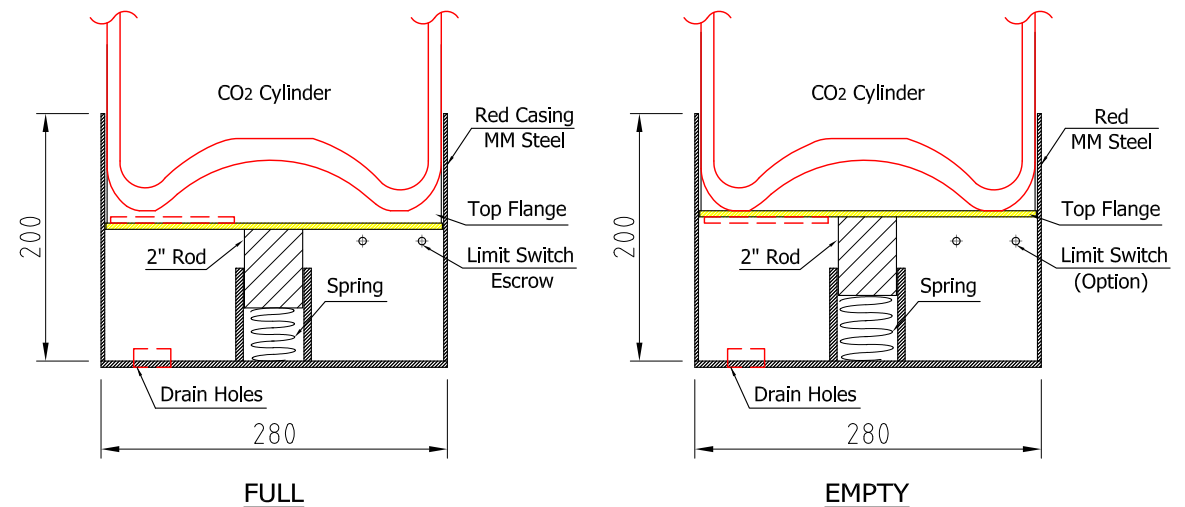
12

NO. OF SHEETS

1 / 1

Part # : EGY - WD

- CE mark certificate # 24581
- Weighting scale mechanism
- Unique design by ISS - R&D engineers to minimize heavy construction required for the traditional cylinder hanging .
- Visual indication on bottom of cylinder.
- Optional limit switch with EMPTY / FULL LED lamps require 9 - 24 Vdc.
- Can be connected to a control system , fire alarm panel or directly to siren for immediate alert when cylinder is empty.



Product Supplier :



Trade Mark :

ISS / CO2



certificate # 24581

In accordance with the following applicable standards:
EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

Weighting Device

PART NO.

EGY - WD

SHEET. NO.

13

NO. OF SHEETS

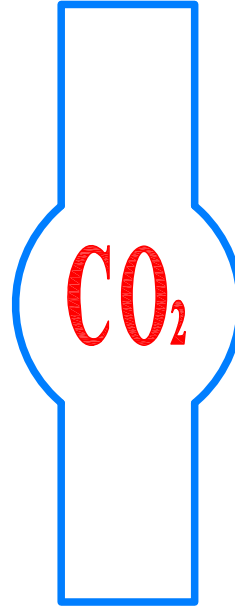
1 / 1

CAUTION !

Do NOT enter unless
CO2 system is locked

When alarm sounds
evacuate hazard area

After CO2 discharge
do NOT re - enter until
thoroughly ventilated



تحذير !

ممنوع الدخول قبل التأكد
من إغلاق نظام الإطفاء

في حالة سماع الإنذار
برجاء إخلاء المكان فوراً

بعد تفريغ إسطوانات الإطفاء
ممنوع دخول الغرفة قبل
التأكد من تهويه الغرفة جيداً.

Product Supplier :



Trade Mark :

ISS / CO2



certificate # 24581

Description :

Warning Sign

In accordance with the following applicable standards:
EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

PART NO.

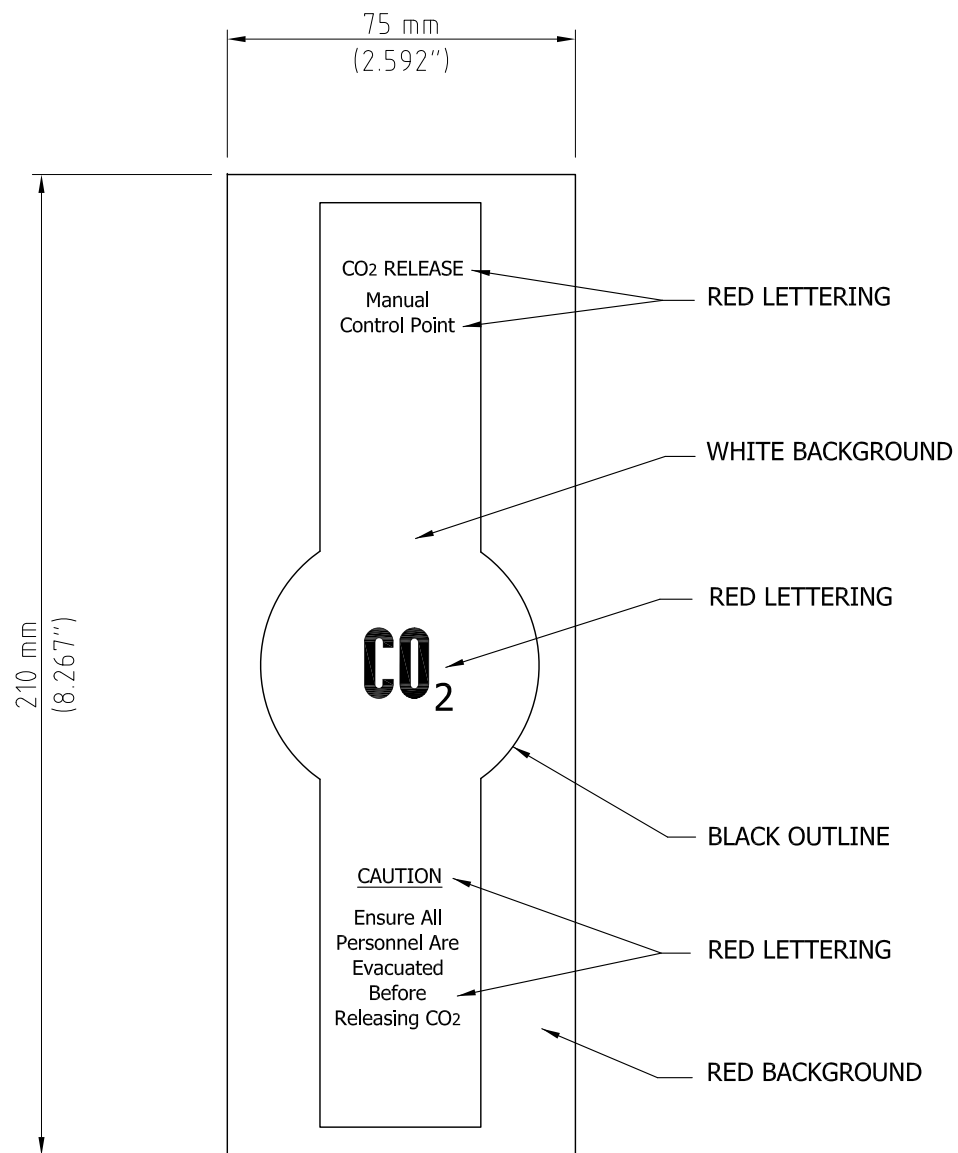
EGY - CS

SHEET. NO.

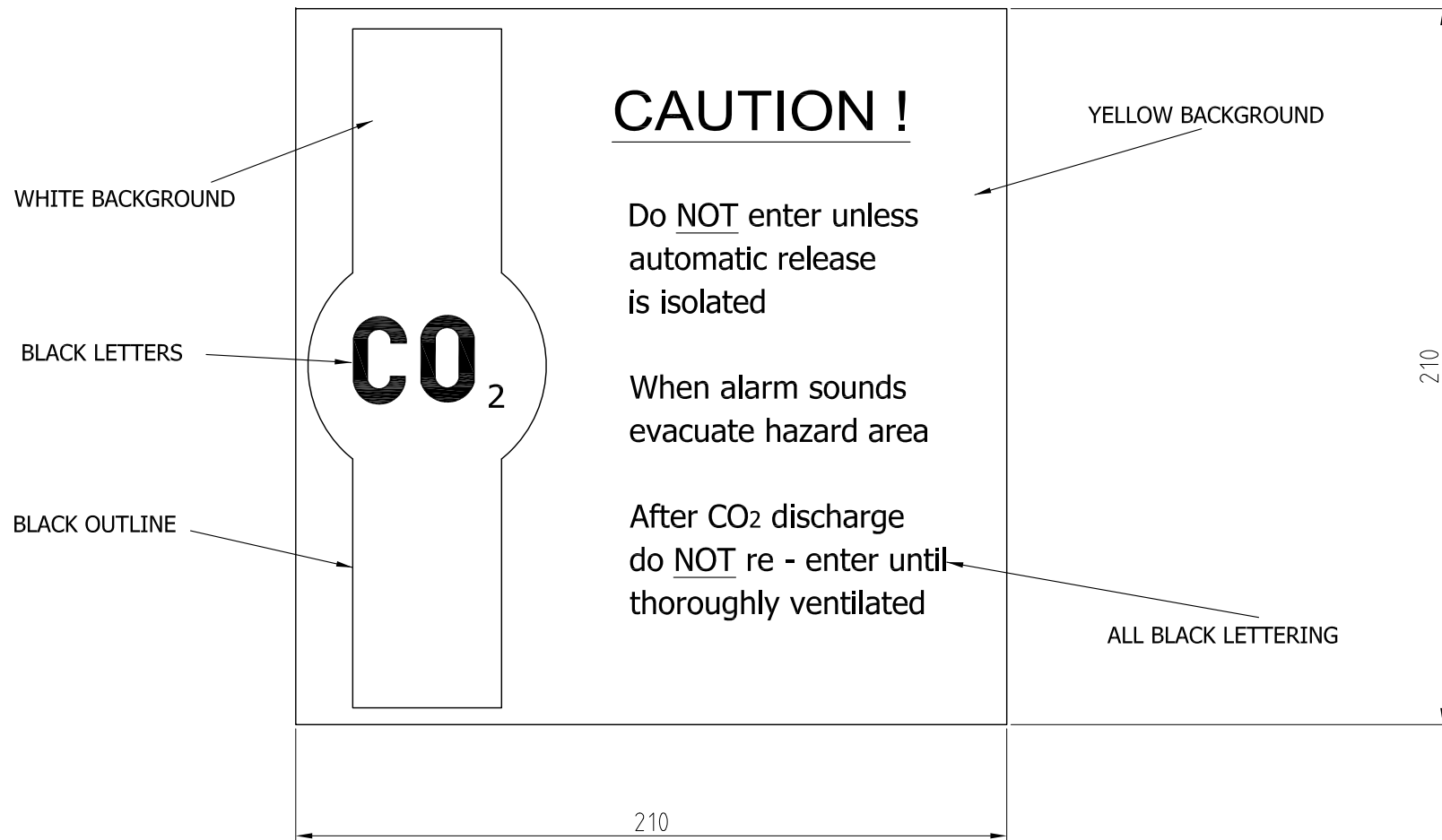
14

NO. OF SHEETS

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Product Supplier : 	Trade Mark : ISS / CO2	 certificate # 24581	In accordance with the following applicable standards: EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008, EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010		
	Description : Warning Sign		PART NO. EGY - CS	SHEET. NO. 14	NO. OF SHEETS 2 / 3



THIS LABEL IS TO BE DISPLAYED AT ALL HAZARD ENTRANCES

Product Supplier :



Trade Mark :

ISS / CO₂



certificate # 24581

In accordance with the following applicable standards:

EN 334:2005+A1:2009, EN 1866-3:2013, EN 676:2003+A2:2008,
EN 12542:2010, EN 1093-2:2006+A1:2008, EN 12753:2005+A1:2010

Description :

Warning Sign

PART NO.

EGY - CS

SHEET. NO.

14

NO. OF SHEETS

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