

Special Hazard Fire Suppressions Systems

EXAMPLE OF CO2 PRE ASSEMBLED PROJECT





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REQUEST FOR QUOTATION DOCUMENT:

SYSTEM DESCRIPTION:

-Project name: _____ -Project Number: _____

-Protected area name: _____

-Extinguishing medium: Novec 1230___ FM 200___ CO2___ Water Mist___ Nitrogen___

Argonite___ Inergen___

-Other: _____

-Dimension (m___) or (ft___): Width ___ Length ___ Height ___ // Volume: _____

- Design ambient temperature: ___ C or ___ F

- Minimum design concentration requested: ___ % // Number of set: _____

- Cylinder bank: Main only: ___ Main & reserve not connected: ___ Main & reserve connected: ___

-Area classification: Standard___ Explosion Proof___ Other: _____

-CYLINDER RACK:

-Cylinder support: Wall mount___ Free standing___ Open Skid___ Closed skid___

-For skid, precise the color of paint requested: _____

-DISTRIBUTION PIPING:

- Prefabricated: Yes___ No___, special paint: Yes___ No___, If yes Color: _____

-NOTE: _____

Hydraulic Calculation in Accordance with NFPA 2001



**High Pressure CO2 Hydraulic Flow Calculation Program
Results**

Chemetron HPCO2 Flow Calculation Software Version 10.0.1.18

Project Name: Generator Enclosure	Date: 10/21/14 13:27:10
Location: Jakarta	Project Number: GE-55286
Hazard Name: Caterpillar 427	Revision:

System Information

Amount of CO2 per Cylinder (kg): 45.36	Storage Pressure: BAR 51.70
Quantity of Cylinders: 4	Initial Pipe Temperature (C): 32.2
Total kg of CO2: 181.4	
Excluded Pipe Size 1: None	Excluded Pipe Size 2: None

Hazard Information

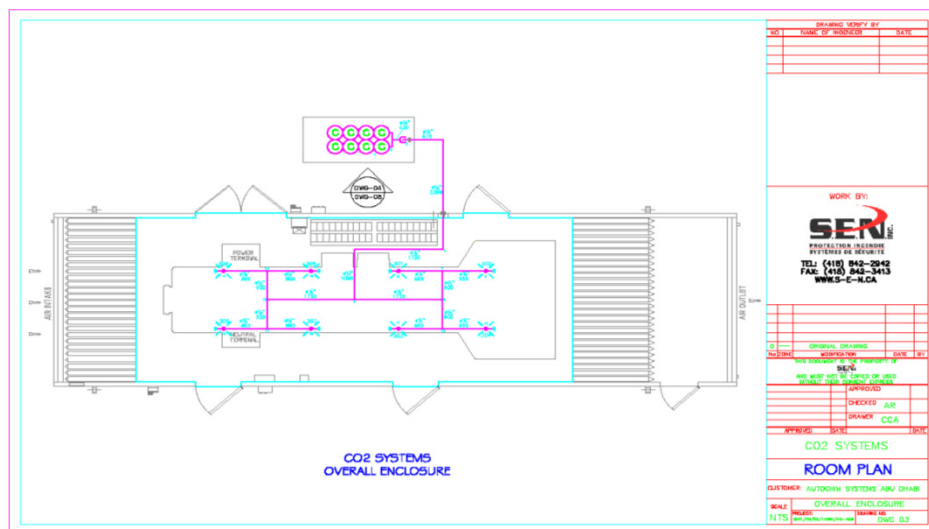
Hazard: Overall Enclosure	Hazard Type: TF DeepSeated
Concentration Required: 50.00	Hazard Temp. (C): 32.2
Nozzle(s): 301 Radial 4-Port	Dimensions (m): 8.63 X 3.8 X 3.6
302 Radial 4-Port	0.0 X 1.0 X 1.0
303 Radial 4-Port	Total Agent Required: 172.72 kgs
304 Radial 4-Port	
305 Radial 4-Port	
306 Radial 4-Port	
307 Radial 4-Port	
308 Radial 4-Port	

Piping Model Results

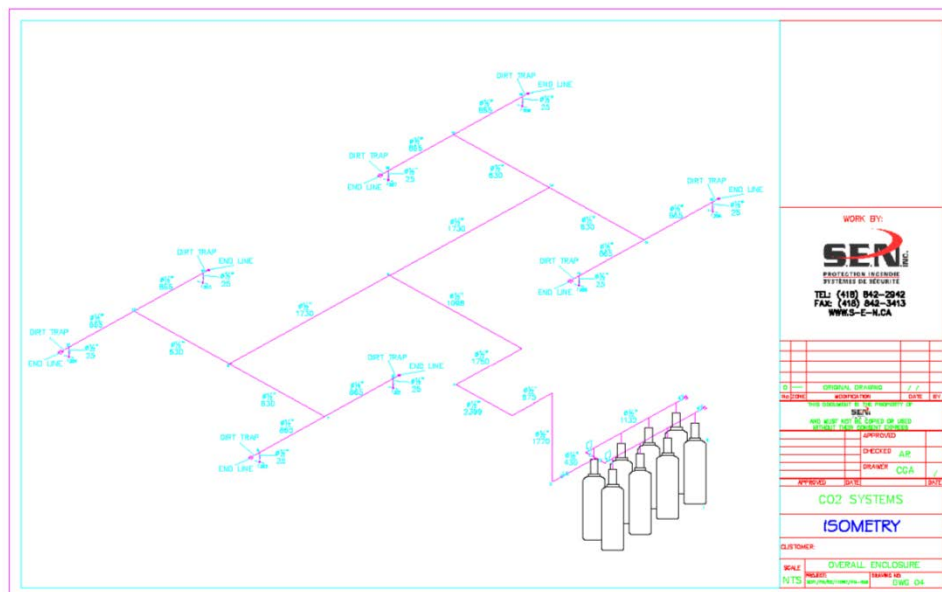
Section		Pipe Size		Length (m)	Elev (m)	EQL (m)	Section		Nozzle Flow	Orifice Code
Start	End	in (mm)	sch				Flow	PSIG		
1	2	* 1/2 (15)	T40	0.0	1.8	9.2	20.0	51.2	0.0	0.00
2	3	* 1/2 (15)	T80	1.6	0.0	3.7	80.0	47.4	0.0	0.00
3	4	* 1/2 (15)	T80	4.8	1.8	6.2	80.0	37.2	0.0	0.00
4	5	* 1/2 (15)	T80	2.9	0.0	3.7	80.0	27.3	0.0	0.00
5	6	* 1/2 (15)	T80	1.7	0.0	2.6	40.0	24.8	0.0	0.00
6	7	* 1/2 (15)	T80	0.6	0.0	2.0	20.0	24.2	0.0	0.00
7	8	* 1/2 (15)	T80	0.9	0.0	2.2	10.0	24.1	0.0	0.00
8	301	* 1/2 (15)	T80	0.0	0.0	0.9	10.0	24.0	10.0	4.94
7	9	* 1/2 (15)	T80	0.9	0.0	1.8	10.0	24.1	0.0	0.00
9	302	* 1/2 (15)	T80	0.0	0.0	0.9	10.0	24.1	10.0	4.93
6	10	* 1/2 (15)	T80	0.6	0.0	1.5	20.0	24.3	0.0	0.00
10	11	* 1/2 (15)	T80	0.9	0.0	1.8	10.0	24.2	0.0	0.00

Design and construction drawing for acceptance by your client.

1-Top view with anodes in reference with hydraulic calculation

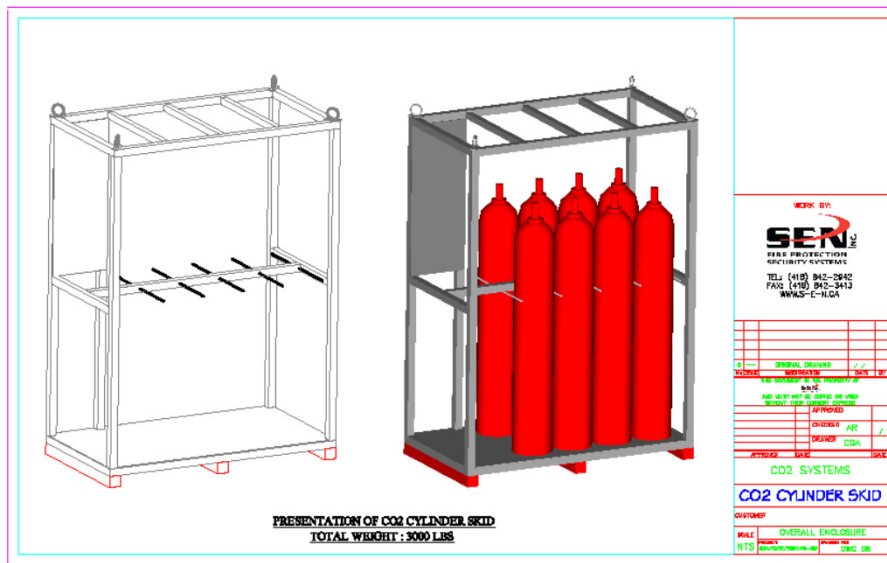


2-Isometric view showing the piping routing.

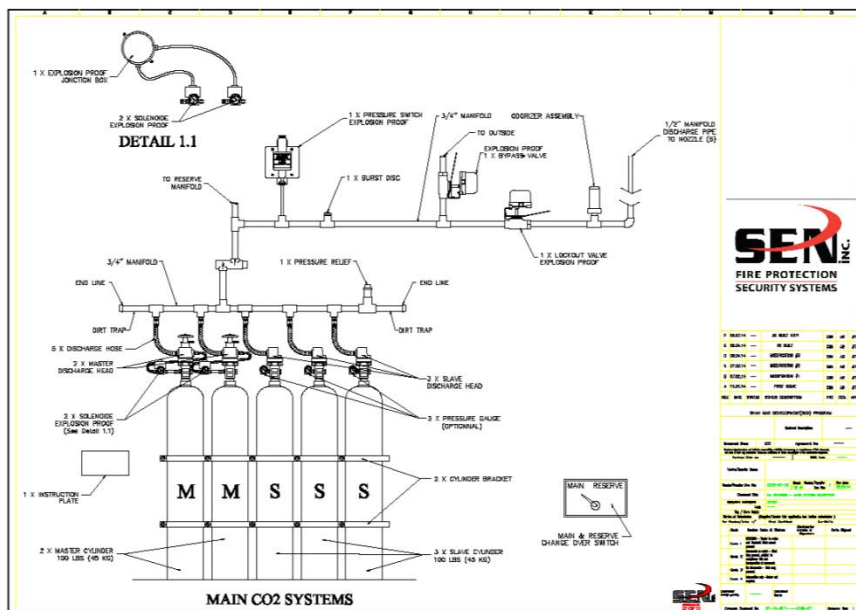


Design and manufacturing of cylinder skid

Isometric showing the cylinders skid



Elevation drawing of cylinders and accessories



FINAL PRODUCT:

- After the manufacturing process, see different pictures of systems ready to be installed at your client site.
- This picture show a complete skid with special paint for cylinders & skid.



-This picture show a complete skid with 5 Main & 5 reserves cylinders connected, ready to be used without special painting.



-This picture show a complete skid with 2 Main & 2 reserves cylinders connected ready to be used with special painting.



- Transportation packaging and exportation documents complying with the transportation of dangerous goods regulations. The pre fabricated piping is tagged in accordance to the installation drawing.



We are the difference, because we manufacture fire extinguishing systems, sold pre assembled, whatever the product your customers want to use. View others pictures of projects completed.

- Sonatrach, Algeria 2010, 35 000 pounds of Novec 1230 in 55 cylinders. Project value: \$ 917 000.00 CDN



- Coast Guard, Canada 2008, 5 000 pounds of FM-200 and 3 500 pounds of CO2 for protection of several areas. Project value: \$ 465 000.00 CDN



- United Arab Emirate 2014, Fire protection of generators enclosures for the earth islands, 12 watermist systems in a project of 21. Project value: \$ 302 000.00 USD



- Military base, Europe 2014, Foam systems, 17 000 liters of foam in 5 tanks, for the protection of Heliport.
Project value: \$ 568 000.00 USD



- Egypte 2012, Inergen extinguishing systems, 150 cylinders, Main and Reserve connected, for the protection of 6 Sub-Stations, using the same bank of cylinders. Project value: \$ 780 000.00 CDN

