

P7.0 OXYVAC-GSS

✉ oxyvacindia@gmail.com
🌐 www.oxyvacindia.com
☎ 9726024747



GAS SAFETY SYSTEM



Important

This Equipment should be operated & maintained only by technicians who are suitably trained, experienced with Industrial gas filling plant and fully conversant with the specifications.

In pursuing a policy of continuous improvement, the company reserves the right to alter the specification of any product without prior notification

Description

General

Oxyvac is the Indigenous Manufacturer of Gas Safety System related to Gas Cylinder filling and Gas use of Different application especially Flammable gas / Hydrogen. We manufacture Safety System Equipment supply to client in complete compliance with industry standards using best quality materials. Prior to supply and installation stringently tested on standard quality parameters

All the components and equipments are meeting the Technical Standards/Specifications.

Features:

- Robust construction
- Longer service life
- Smooth operation
- Elevated durability

Safety Concern :

(a) Asphyxiation:

H₂ is non-toxic however leakage of H₂ in the enclosed space can reduce concentration of Oxygen in the air which may lead to death.

(b) Fire:

H₂ can be ignited by electrical spark, heat, open flame and static electricity.
H₂ has a wide range of flammable concentration in air.
It is 4 to 75%. H₂ burns with almost invisible flame

(c) Explosion:

Sudden release of H₂ in air within flammability range and then ignited.
Density of H₂ being low, it can accumulate on the roof top or other higher enclosed areas.

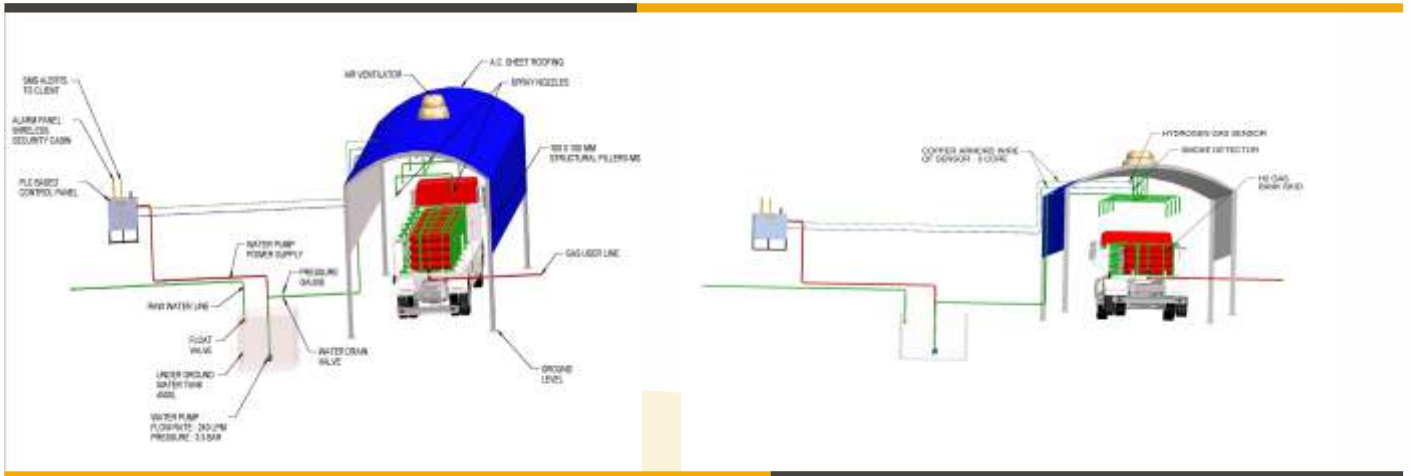
(d) Embrittlement:

Some metals can become brittle when exposed to H₂. This parameter should be kept in mind while designing the system.

(e) Leakage:

Leakage of H₂ can lead to fire (Invisible) due to formation of flammable mixture which can ignite due to frictional heat developed after coming in contact with air while release.

Hydrogen Gas Safety System : System Overview



Function:

When Hydrogen Gas Leak from any Joint of Piping due to any reason , It moves naturally upward Direction due to light weight and Air Flow of natural ventilation Fan, The H₂ Gas detector set PPM level detection of Hydrogen Gas and Give signal to Control Panel To start Water pump, Water spray from spray nozzle , which fitted in the top of Bank. Also the control panel give a Light Blinking signal, Hooters and SMS alert to Client. Water spray prevent the Fire , Explosion of Cylinders, Bank Due to Compressed Hydrogen Gas.

SYSTEM MAIN PARTS

- (1) H₂ Gas Detector: Uniphos (UPL) or Other reputed Brand with PPM level Detection.
- (2) Smoke Detector: Honeywell or Other reputed Brand with PPM level Detection.
- (3) Control Panel: PLC based Fully automatic Control Panel with alarm, hooters and SMS alerts.
- (4) Water Pump: Submersible Pump CRI Make.
- (5) Spray Nozzles: UL Listed / FM Approved of HD fire with GI Piping.

Hydrogen Gas Safety System :

Features and Benefits:

- ① Fully Automatic control by PLC Based Control System
- ① System With Fully Flameproof Enclosures sensors and Gas detectors with resolution of PPM level Gas Leak detection
- ① Alarm Blinking and Hooters system
- ① Water sprinkler System operated by Control Panels Automatically
- ① Raw water Feeding by Auto Float valve in water Tank
- ① Brass Spray Nozzles with FM and UL approved for Fire fighting Applications.

Applications:

- ① Hydrogen Gas Vehicle Mounted Bank-Skid Protections at the time of Filling and Decanting of Hydrogen Gas
- ① Hydrogen and Flammable Gases Cylinder Storage Area Safety System
- ① Flammable Gas Manifold and PRS system Safety protection
- ① Gas Application Reactors and Tanks Protections
- ① Gas Compression Unit and Cylinder Filling Plants Safety