

CYLINDER VALVES PROTECTION GUARD / CAP

1. INTRODUCTION

Across the Middle East, there are no clear standards on how industrial gas cylinders should be stored and transported to customers under safe conditions. Many gas suppliers and distributors are found to be using, storing & distributing these cylinders without proper valve protection guard / cap from potential hazards / damage, hence putting people's life at risk. Cylinders containing gas or liquid vapour at high pressure **SHALL** be fitted with valve protection guard / cap at all times. Valve protection guard / cap should always be checked for its tightness and replaced, if found defective or damaged. Customers must not alter this arrangement, and should bring back the cylinder with valve guard / cap in place.

The hazards associated for not keeping cylinder valve guard/ cap in place may result in property damage and / or injury / fatality to personnel.

There are different types of valve guards or caps. Mainly they are classified as fixed open type guards and removable closed type cap. Adoption of these standards should mitigate the risks associated with valve damage or cut during accidental fall of cylinder and also minimize property damage, injury to personnel and loss of production.

2. PURPOSE & SCOPE

The aim of this document is to propose all member companies under MEGA to follow strictly keep the empty and full cylinders with valve guard / cap during handling, transportation and storage; the importance such cylinder valve guards / caps play in securing the safety of our customer's properties and personnel.

This document is applied to all cylinders which have the provision of neck ring for cap/guard fixation.

3. TERMS AND DEFINITIONS

For the purposes of this document, the following terms and definitions apply.

Valve Protection Cap (Cap)

Device securely fixed over the valve during handling, transportation and storage and which is removed for access to the valve

Valve Guard (Guard)

Device protecting the valve during handling, transportation, storage; the guard need not be removed to provide access to the valve.

4. General requirements

4.1. Cap

The cap shall be of adequate strength to protect the valve during handling and transportation.

It shall be capable of being securely fixed to the cylinder, either by screwed thread or other suitable means. Provision should be made for assisted fitting or removal of the cap, for example, a hexagonal section. The cap shall be provided with vent hole(s), e.g. by diametrically opposed vent holes of 10 mm diameter (When the cap has no vent hole, the valve outlet passage of the cylinder shall be plugged to prevent leakage and subsequent pressure build up in the cap.)

Note: Cylinder caps without ventilation openings could have gas collected under the cap.

4.2. Guard

The guard shall be of adequate strength to protect the valve during handling and transportation. It shall be fixed so as to prevent easy removal by the end user or dismantling under normal service conditions. The design shall permit ready access for valve operation and assembly of operational equipment. It shall be mounted with the opening aligned with the valve outlet connection.

4.3. Types of valve guards / caps



5. MEGA RECOMMENDATIONS

- As part of supplier responsibility; prior to the dispatch of cylinders, they have to ensure that the cylinders are correctly fitted with protection guard/cap.
- Whenever possible, educating customers on the importance of valve protection guard/cap is required to promote the implementation even at customer sites.

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