

June 2017

1. STATION DESCRIPTION

1.1 Description

This pressure reduction and/or metering and/or shutoff station is a group of several pressurized pieces of equipment that are assembled to form an integrated and functional whole.

It is designed so that the assembled elements are adaptable and reliable under the intended service conditions, become integrated correctly, and are assembled properly.

The standard pressurized pieces of equipment are in conformity with directive PED 2014/68/UE (if $P_u > 0.5$ bar).

This station ensures one or more of the following functions: filtering, pressure reduction, metering, safety pressure, electrical insulation, shutoff, etc.

The fluid used is gas (natural gas, compressed air, nitrogen, etc.).

1.2 Station Design

The station design is either provided in the appendix, or it can be consulted in the "Pressure reduction and pressure reduction metering stations" catalogue for applicable stations. It indicates clearly the types of upstream and downstream connections and the limits of the station.

1.3 List of Principal Elements

See station design.

1.4 Essential Admissible Limits

The essential admissible limits are indicated on the design.

In general:

Upstream PMS = P_u

Downstream PMS = P_d (0.5 bar if $P_d \leq 0.4$ bar).

The ambient temperature range is $-20^{\circ}/60^{\circ}\text{C}$.

2. WARNINGS

WARNING

Upon receipt:

Verify that the equipment has not been damaged during transport or handling. Damage to the packaging must be reported to the carrier.

Verify that the equipment does indeed correspond to the order.

Before startup:

The user must ensure that the delivery network of the gas supplier has protection to prevent exceeding of the admissible limits of the station (upstream PMS and ambient temperature range).

The user must verify that the fluid used is a clean gas (upstream filtration necessary if not present in the station), dry, and non corrosive.

The user must verify that all the elements located upstream of the station have been perfectly cleaned, dried, and are free of dust, welding specks, etc., before startup.

Verify the proper functioning of the elements constituting the station (see corresponding notes).

Installation in an area that is subject to vibrations may result in an undesirable closing of the safety valve(s).

Avoid subjecting the station to shock.

Provide for maintenance of the station protection as needed for its environment.

The station must normally not be subjected to the action of flames.

Comply with the handling conditions.

Check contacting adjacent pipes to prevent any axial cutting force, or a bending torque.

Station Instructions

The user must not make any changes to the constitution of the station, or intervene on its structure (perforation, welding, grinding, etc.).

This assembly is not designed to withstand earthquakes.

This assembly is not designed to withstand lightning. Provide adequate protection.

It is absolutely necessary to connect the equipotential connection of the station to the ground.

If necessary, the user must provide ducts for vents, and provide protection against entering water.

3. STORAGE INSTRUCTIONS

The connection elements for the station are delivered in closed form.

Storage position: see the indications on the packaging (if none, store in the operating position).

Storage time without protection under delivery conditions: maximum 15 calendar days.

4. HANDLING / LIFTING

Handle by means of slings with the lifting rings included in the delivery, or with a forklift.

The weight of the station is reported on the delivery slip.

A station that is delivered vertically must not be inclined by more than 15° during its handling.

5. INSTALLATION / MOUNTING

CAUTION

The connection of the station to the inlet and outlet pipes on the site must be carried out and verified by qualified personnel, according to qualification procedures pursuant to the applicable regulations and/or the procedures.

During the upstream and downstream connection process, verify that the contact with pipes causes no stress on the pipes.

The station must be fixed.

6. STARTUP

CAUTION

Any intervention on the equipment must be carried out by competent, certified, and trained persons.

Reminder: In general, any manoeuvres on valves, cocks, etc., must be carried out slowly.

The network must receive gas before setting and startup. The output of gas must be carried out by personnel who have adequate control equipment.

The safety device settings must be verified before startup.

The startup is carried out component-by-component in the direction of the gas flow: refer to the station design and to notes for each component.

Before opening the sectioning device upstream of the station, make sure that the downstream network conditions are completely safe for receiving gas.

7. MAINTENANCE / SPARE PARTS

WARNING

Any maintenance intervention must be carried out without gas, after the station has been decompressed, and by certified and trained persons.

See the notes for the constitutive elements of the station.

Station Instructions

Table 1. Standard Settings for Single Line Stations

STATION	TYPE OF REGULATOR	Pu MAXIMUM (barg)	Pd (mbar)	SLAM SHUT		RELIEF VALVE (mbar)
				Maximum (mbar)	Minimum (mbar)	
CUSTOMER	Type B	4	21			30
			27			35
			300			
	Direct Action	4	21	35	10	30
			27	40	15	35
			300	400	200	
1000			1200	800		
NETWORK	Direct Action	4	21	32		
			27	40		
	Pilot Operated	4	21*	32		
			27*	40		
	Direct Action	8	4000	4200		
	Pilot Operated	25	4000*	4200		

* Factory setpoint setting - Regulator delivered without setting

Table 2. Standard Settings for Double Line Stations

STATION	TYPE D'APPAREIL	Pu MAXIMUM (barg)	Principal Pd (mbar)	Secondary Pd (mbar)	PRINCIPAL SLAM SHUT		SECONDARY SLAM SHUT		RELIEF VALVE (mbar)
					Maximum (mbar)	Minimum (mbar)	Maximum (mbar)	Minimum (mbar)	
CUSTOMER	Type B	4	21	19					30
			27	25					35
			300	280					
	Direct Action	4	21	19	35	15	40	10	30
			27	25	40	45	150	35	
			300	280	400	200	450	150	
1000			800	1200	800	1400	600		
NETWORK	Direct Action	4	21	19	32		40		
			27	25	40		45		
	Pilot Operated	4	21*	19*	32		40		
			27*	25*	40		45		
	Direct Action	8	4000	3600	4400		4800		
	Pilot Operated	25	4000*	3600*	4400		4800		

* Factory setpoint setting - Regulator delivered without setting

Station Instructions

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