

N2 Blanketing Valve

INSTRUCTION MANUAL



CONTENTS

- ◆ General Description
- ◆ Installation
- ◆ Operation
- ◆ Maintenance

K.S.P.C

488-1 Wolha-ro, Tongjin-eup, Gimpo-si, Gyeonggi-Do, Korea

Tel : +82-31-998-3825~7

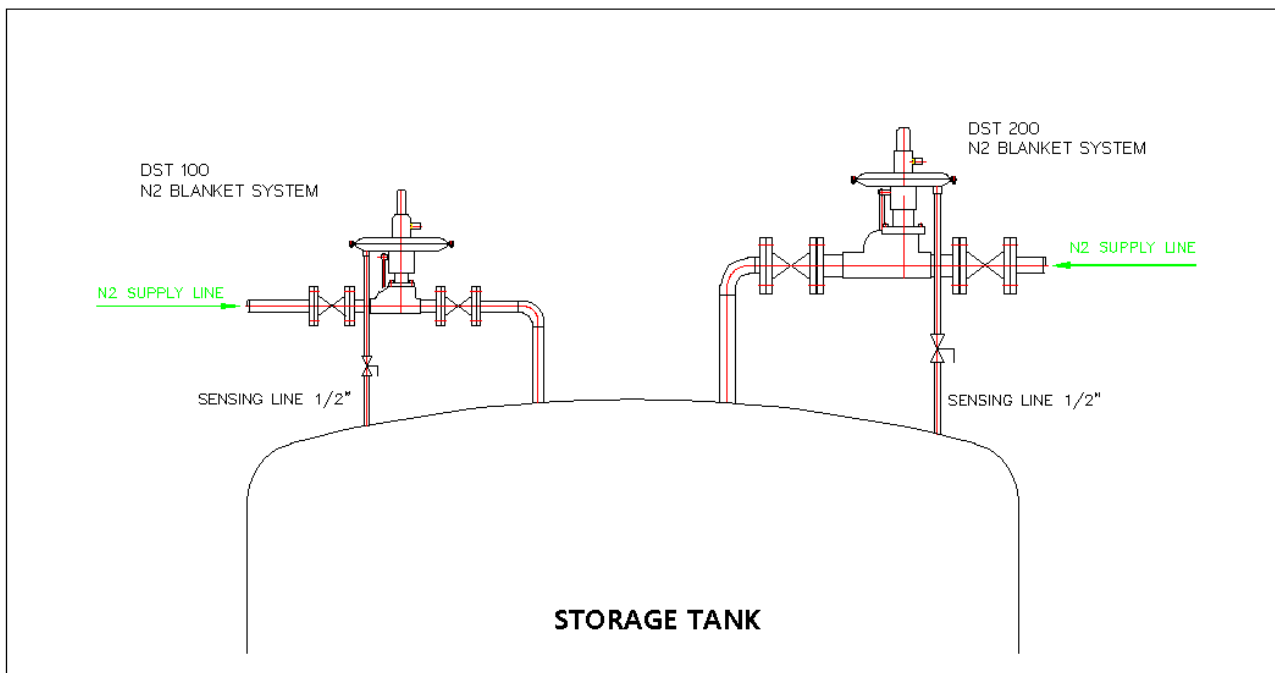
Fax: +82-31-998-3828

Web Site : www.ikspc.com



Section 1. General Description

- 1-1 N2 Blanketing Valve of MODEL DST is designed, manufactured, and tested in accordance with API 2000 & KSPC standards.
- 1-2 N2 Blanketing Valve is one of the principal devices installed on storage tank to protect the tank and its content vapor.
Typically nitrogen or inert gas is used to displace the tank product vapors.
- 1-3 It shall exclude atmospheric contaminants and moisture, prevent tank corrosion and product contamination.
- 1-4 It maintains a positive pressure when fluid is pumped out or as fluid temperature decreases.



Section 2. Installation

2-1 KSPC N2 Blanketing Valve designed in simple type.

It can be installed between PIPE LINE and LINE on the upper part of storage vessel, without using various kinds of control system, or complex pilot and blanket valve.

2-2 When installation, to protect from damage of product, user should use a adequate LIFTING JIG.

2-3 The regulator inlet and outlet connections are 1"/2" JIS / ANSI /DIN flange.

The regulator must be installed level, the direction of the flow is marked on the Name Plate.

2-4 The regulator is to be connected to the tank or vessel with a maximum 2 Meter tubing sense line.

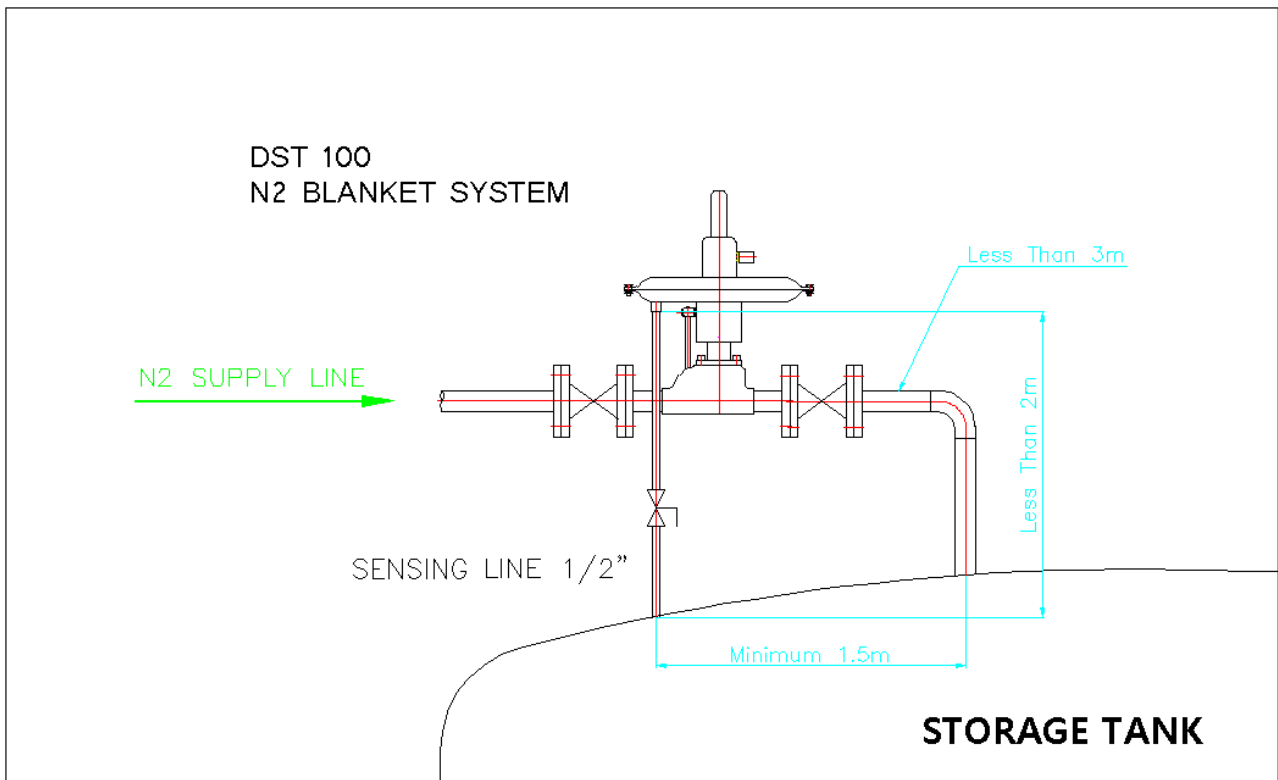
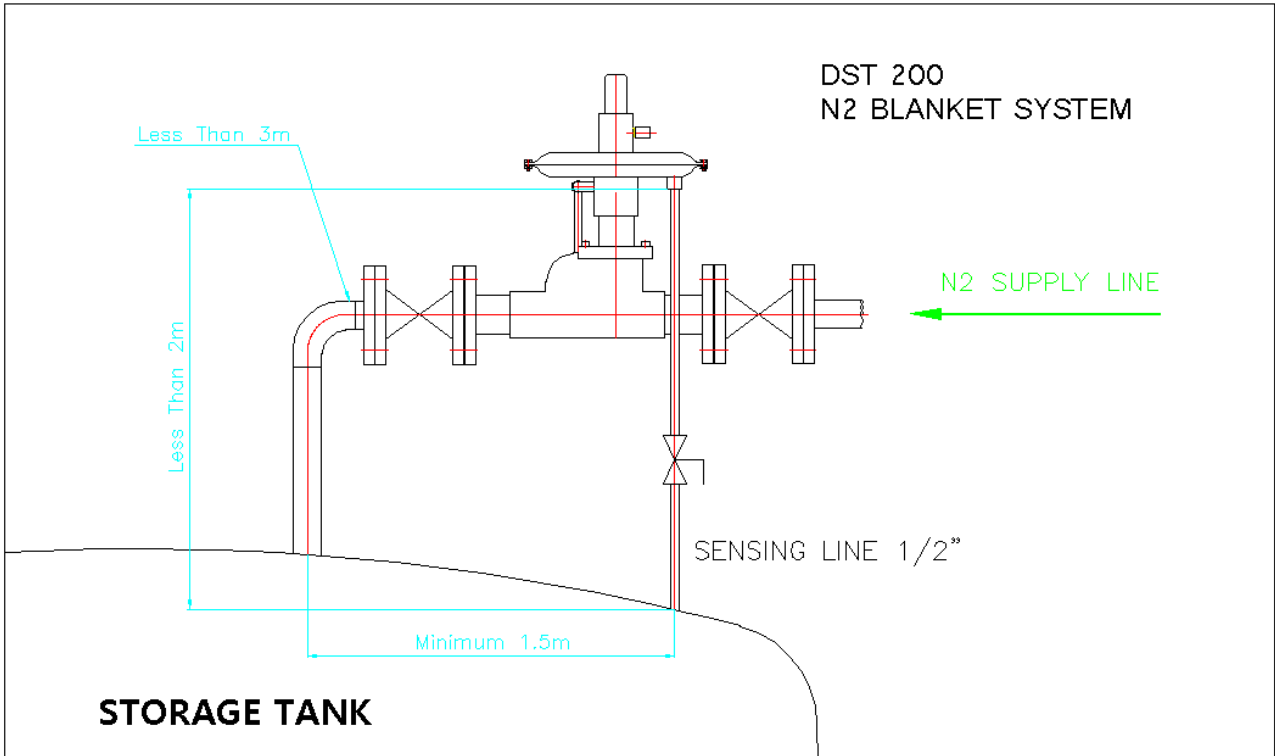
This line must be kept open and unobstructed to ensure that the regulator senses the actual tank pressure.

CAUTION

The regulator is to be connect to the tank or vessel with a maximum 2 Meter tubing sense line.
Long sense lines may take place blanket gas supply failure.

When installed regulator, the length between gas inlet of storage tank/vessel and inlet
of sense line should be with a minimum 1.5Meter.





Section 3. Operation

3-1 The regulator controls the flow of blanketing gas to the vapor space in the vapor space in the storage tank.

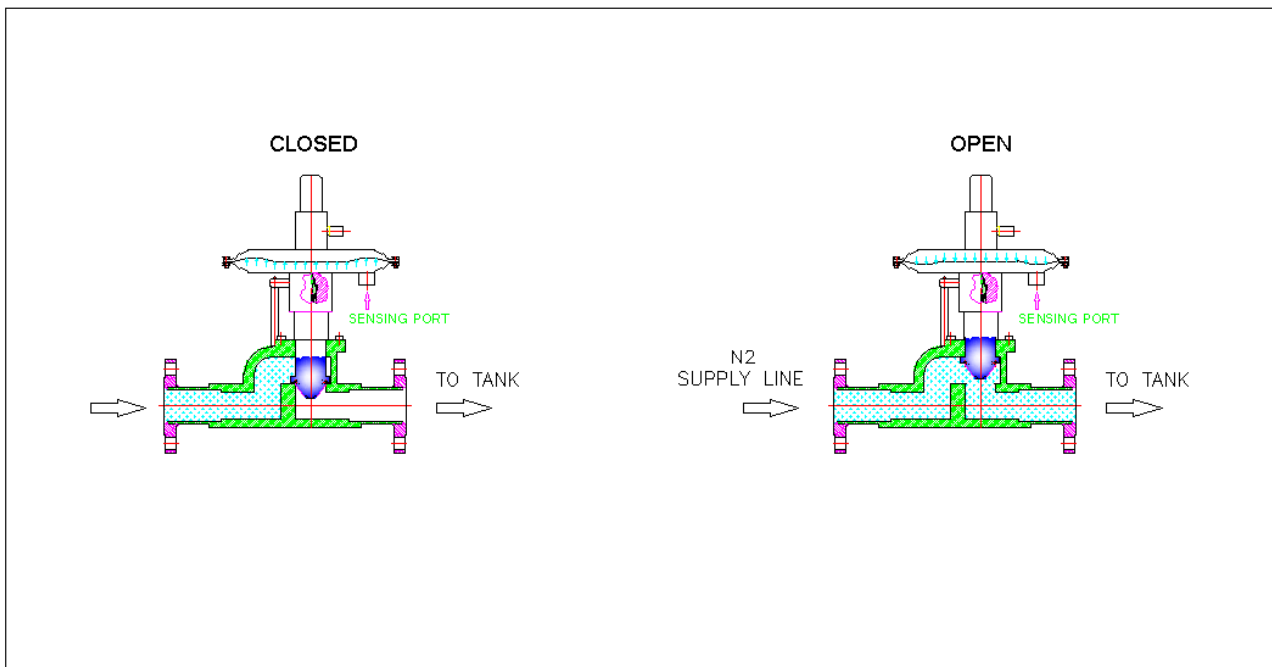
3-2 They feature a balanced piston, with diaphragm actuation and spring return.

3-3 OPERATION OF DST TYPE

3-3-1 When the internal pressure of the tank is at or above set pressure, the diaphragm force exceeds the spring force and the regulator is shut off bubble tight.

3-3-2 When the tank pressure falls below the set point, the spring force opens the regulator and blanket gas flows into the tank.

(See below figures)



3-4 OPERATION OF DST TYPE

The KSPC Model DST regulators provide high flow capacity for tank blanketing applications.

3-5 N2 BLANKETING REGULATOR has pressure control bolt (LOCK DOWN SCREW), and you should avoid free control.

Section 4. Maintenance

4-1 GENERAL

4-1 Periodically, while in service, examine the regulator for leakage at leakage at bolted connections, adjusting screws, etc.

CAUTION

While regular inspection, you should check whether gas inlet pressure guage displays specified pressure.

Set point of pressure guage is adjusted KSPC, do NOT attempt to readjust the set point.

4-2 THE SAFETY RULES OF THE MAINTENANCE WORK

4-2-1 The maintenance job should be done, after depressurized in the tank/vessel and close gas pouring main valve.

4-2-2 Recommend to be used spark free tools while maintenance.

CAUTION

All maintenance job should be done after sufficient prevention management for safety or poisonous state of liquid.

4-3 THE PROCEDURE DISASSEMBLY AND ASSEMBLY

The following cases takes places, consult factory for recommendations.

- (1) Gas flowing at tank pressure above specified set point.
- (2) Gas not flowing at tank pressure below specified set point.
- (3) Gas leaking from upper vent or bonnet flange.
- (4) Blanket gas leaking from lower body seal or actuator housing vent.
- (5) Tank pressure or vacuum exceeds vent setting during pump out or pump in



 NOTE

While this manual cannot cover all possible contingencies, these guidelines should provide safe, reliable regulator performance.

