



JOKWANG I.L.I CO.,LTD.

**DATA SHEETS
FOR
QUOTATION**

PRESSURE SAFETY & RELIEF VALVE SPECIFICATIONS

Doc.No. : 160708-004

PROJECT NAME:

PROJECT NO. :
(HULL NO)

CLIENT :

SITE :

Head Office & Plant

#37, Sanmakgongdanbuk 10-gil, Yangsan-si, Gyeongsangnam-do, Korea

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| 0 | 2016. 07. 08. | Quotation | S.W JUNG | J.B.SO | S.C.KIM | | |
|------|---------------|-------------|----------|--------|---------|--------|------|
| REV. | DATE | DESCRIPTION | PREP'D | CHK'D | APP'D | APP'D | DATE |
| | | | | | | CLIENT | |



Pressure Safety & Relief Valve Specifications

| | | | |
|--------------|---------------|----------|----------|
| Sheet No. | 1 of 1 | Rev.No. | 0 |
| Project Name | | | |
| Project No. | | | |
| Date | 2016. 07. 08. | By | S.W JUNG |
| Checked | J.B.SO | Approved | S.C.KIM |

| | | | |
|----------------------------|---------------------------------|-------|--------------------------------|
| GENERAL | P&ID No. | 1 | |
| | Tag No. | 2 | |
| | Service Line | 3 | |
| | Number Required | 4 | 32 |
| | Nozzle Type, Full or Semi | 5 | Full Nozzle |
| | Design Type | 6 | Conventional |
| | A. Conventional or Bellows | | Low Lift Type |
| | B. Full Bore, Low or High Lift | | |
| Bonnet Type. Open or Close | 7 | Close | |
| CONNECTION | Size. Inlet / Outlet | 8 | 015X020 |
| | Inlet. Rating / Facing | 9 | JIS PT |
| | Outlet. Rating / Facing | 10 | JIS PT |
| MATERIALS | Body | 11 | C 3771 |
| | Bonnet | 12 | BC 6 |
| | Seat | 13 | C 3771 |
| | Disc | 14 | C 3771 |
| | Guide | 15 | - |
| | Gasket | 16 | N/A |
| | Spring | 17 | SWOSC |
| | Bellows | 18 | |
| ACCESSORY | Cap. Type | 19 | Plain |
| | Lever. Plain or Packed | 20 | Plain Lever |
| | Test Gag | 21 | No |
| | Paint Color | 22 | None |
| BASIC | Code | 23 | KS B 6216 |
| | Fire | 24 | No |
| | Sizing Basis | 25 | |
| SERVICE | Fluid and State | 26 | Air |
| | Required Capacity | 27 | kg/h |
| | Mol. Weight or Specific Gravity | 28 | 28.96 |
| | Viscosity | 29 | |
| | Operating / Set Pressure | 30 | 9.5 Kg/cm ² g |
| | Operating / Blowout Temp | 31 | / 20 °C |
| | Constant Back Pressure | 32 | Kgf/cm ² g |
| | Variable Back Pressure | 33 | Kgf/cm ² g |
| | Built-up Back Pressure | 34 | Kgf/cm ² g |
| | Total Back Pressure | 35 | 0 Kg/cm ² g |
| | Closing Pressure | 36 | Min. 8.55 Kg/cm ² g |
| | Hydrostatic Test | 37 | 14.25 Kg/cm ² g |
| | Allowable Overpressure | 38 | 10 % |
| | Compressibility Factor | 39 | 1 |
| Ratio of Specific Heat | 40 | 1.4 | |
| ORIFICE | Calculated Area | 41 | 0.00 mm ² |
| | Selected Area | 42 | 62.832 mm ² |
| | Orifice Dia.(mm) | 43 | D1 |
| | Valve Capacity | 44 | 518 kg/h |
| | Model No. | 45 | JSV-LT12 |
| Cert. | Approved by | 46 | KOSHA/ |

CALCULATION

* Calculation of Area

$$A1 = W1 / (C * Kd * (P * 1.10 + 1) * \sqrt{(M/ZT) * 0.9})$$

$$= 0 / (2.65 * 0.96 * (9.5 * 1.10 + 1) * \sqrt{(28.96 / (1 * 293) * 0.9)})$$

$$= \underline{\underline{0.00}} \text{ mm}^2$$

* Calculation of Capacity

$$W = C * Kd * A * (P * 1.10 + 1) * \sqrt{(M/ZT) * 0.9}$$

$$= 2.65 * 0.96 * 62.832 * (9.5 * 1.10 + 1) * \sqrt{(28.96 / (1 * 293) * 0.9)}$$

$$= \underline{\underline{518}} \text{ kg/h}$$

| | |
|--|--------------------------|
| W = Valve Capacity | 518.00 kg/h |
| W1 = Required Capacity | 0.00 kg/h |
| P = Set Pressure | 9.5 Kg/cm ² g |
| A1 = Calculated Area | 0.00 mm ² |
| A = Selected Area | 62.832 mm ² |
| Kd = Coefficient of Discharge | 0.96 |
| C = Coefficient base on Ratio of Specific Heat | 2.650 |
| T = Kelvin Temperature..... | 293 |
| M = Molecular Weight..... | 28.96 |
| Z = Compressibility Factor..... | 1 |

Remark

*CDTP : 9.5 Kg/cm²g