| SLAM SHUT OFF VALVE | | | | | | | | | | Rev. | |
|---|------------|---------|-------------------------------------|----------------------|-----------|--------------------------------|---------------------------------|----------------------------------|---------|--|--|
| | | 1 | Tag Numbers | | | | Refer Below Table | | | | |
| GENERAL | | 2 | Quantity | | | | Refe | Below Table | | | |
| <u> </u> | i i | 3 | Service | | | | Downstream pressure protection | | | | |
| <u>π</u> | i | 4 | Enclosure Certification | | | | IP65 | | | | |
| ا ق |) | 5 | Sensing Type | | | | External | | | | |
| | - | 6 | Line Size & Schedule | | | | * | | | | |
| | | 7 | Fluid | State | | | Natural Gas | Ga | S | | |
| · | : [| 8 | Flow Gas | Min. | Nor. | Max. | | * | | | |
| Α | | 9 | Inlet Pressure | | | | | * | | | |
| | i | 10 | Pressure Drop at Various Flow Rates | | | | | * | | | |
| SS | 2004F | 11 | Shut Off Pressure | | | | | * | | | |
| PROCESS DATA | | 12 | Temp. | Oper. | | Max. | | * | | | |
| | | | Oper S.G | Mol Wt. | | | | * | | | |
| | | | Cp/Cv | Compre | ess. Fact | or | | * | | | |
| | | 15 | | | | | | | | | |
| | | | Type of Valve | | | | S | lam Shut | | | |
| | | | Body Size | Port Siz | ze | | * | | | | |
| | | 18 | End Conn: Flgd. Size | & Rating | | | As per SOR | | | | |
| | - | 10 | Facing & Finish | | | | | description | | | |
| BODY | ; - | | Facing & Finish Body Material | | | | | Flanged & RF SS 316 or better | | | |
| | | 21 | Trim Material | | | | 33 . | SS 316 | | | |
| l " | ' - | | Other Wetted Parts | | | | SS 316 | | | | |
| | - | | Leakage Class | | | | Class VI as per FCI 70.2 | | | | |
| | - | | Closing Time | | | | | than 2 secs | | | |
| | - | 25 | Olosing Time | | | | Losc | 111011 2 3003 | | | |
| | | | Pilot Operated | | | | Integra | Pilot Required | | | |
| | - | 27 | Manual Reset | | | | Required | | | | |
| | ŀ | | Failure Position | | | | Close | | | | |
| | - | | Limit Switch | | | | 2 Nos. (Open/Close) | | | | |
| v. | , | | Cable Entry | | | | Required | | | | |
| Z | : | 31 | Valve Position Indicator (Local) | | | | Required | | | | |
| SNOILL | : | 32 | Radiography | | | | Required | | | | |
| O G | ; [| | Charpy V-Notch | | | | | Required | | | |
| | <u> </u> | | Impulse Tubing/Fittings | | | | | Required | | | |
| | | 35 | Pressure Indicator | | | | In the ser | sing line required | | | |
| | | 36 | Installation | | | | H | lorizontal | | | |
| | | 37 | | | | | | | | | |
| | | | Kg or Cg Min. | Kg or C | g Max. | | * | | | | |
| | | | Kg or Cg Selected | | | | * | | | | |
| ن | ; L | | Predicted Sound Leve | | | | less than 85 dBA | | | | |
| MISC | } | 41 | Inlet Velocity (meters/ | | | | | | | | |
| 2 | : | 42 | Valve Setpoint Adjustable Range | | | | | | | | |
| | L | | Model No. Make | | | | | | | | |
| | | 44 | | | | | | | | | |
| S.No. | | Service | | Line/Equipmen No. | t T | Design emperature (degC) | Pressure (bar) (Nor/Max/Des) | Range (bar) | Remarks | | |
| 1 | | | Natural Gas | * | | -29 to 65 | - / - / 49 - 19 | * | | | |
| | | | | | | | | | | ļ | |
| | | | | | | | | | | | |
| Note | <u>٠</u> . | | | | | | <u> </u> | <u> </u> | | | |
| - | | Didda | >r | | | | | | | | |
| 1 * By Bidder Tagplate (SS 316) stamped with instrument number and service in 10mm characters shall be attached via SS (1 mm). | | | | | | | | | | | |
| | (1 m | ım). | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | <u></u> | | | |

| | | | SELF ACTUATED | OPRESSURE CO | ONTROL VALVE | | | Rev | | | |
|--|-------|-------------------------------|--|---------------------|---|--------------------|---------|--------|--|--|--|
| | 1 | Tag Numbers | | | Refer Below Table | | | | | | |
| ļ | 2 | Quantity | | | | | | + | | | |
| GENERAL | 3 | Service | | | Down stroom | n proceure protec | tion | + | | | |
| 뿌 | | Enclosure Certification | _ | | Down stream pressure protection | | | - | | | |
| įμ | 4 | | 1 | | IP65 | | | - | | | |
| O | 5 | Sensing Type | | | External | | | _ | | | |
| | 6 | Line Size & Schedule | | | | * | | | | | |
| | 7 | | | | | | | | | | |
| | 8 | Fluid State | | | Natural Gas Gas | | | | | | |
| ⋖ | 9 | Flow Gas | Min. | Nor. Max. | | * | | | | | |
| PROCESS DATA | 10 | Inlet Pressure | | | | * | | | | | |
| | 11 | Pressure Drop at Vari | ous Flow Rates | | * | | | | | | |
| SS | 12 | Shut Off Pressure | | | * | | | | | | |
| 3 | 13 | Temp. | Oper. | Max. | | * | | | | | |
| Ŏ | | Oper S.G Mol Wt. | | | * | | | + | | | |
| 8 | | Cp/Cv | Compress | . Factor | * | | | + | | | |
| | 16 | | | | | | | +- | | | |
| | | Type of Valve | | | Self Actuation | n Pressure Reduc | rtion | + | | | |
| | | Body Size | Port Size | | Self Actuating Pressure Reduction | | | + | | | |
| | | End Conn: Flgd. Size & Rating | | | As now COD | | | + | | | |
| | 19 | Ena Conn. Figa. Size | & Railing | | As per SOR specifications | | | | | | |
| _ | 20 | Facing & Finish | | | Flanged & RF | | | + | | | |
| Δ | | Body Material | | | SS 316 or better | | | + | | | |
| вору | | Trim Material | | | SS 316 of better SS 316 | | | +- | | | |
| ш | | Other Wetted Parts | | | SS 316 SS 316 | | | + | | | |
| | | | | | | | | + | | | |
| | | Leakage Class | | | Class VI as per FCI 70.2 | | | | | | |
| | | Closing Time | | | Less than 2 secs | | | | | | |
| | 26 | | | | | | | | | | |
| | | Pilot Operated | | | * | | | | | | |
| | | Manual Reset | | | Required | | | | | | |
| | | Failure Position | | | Close | | | | | | |
| | 30 | Limit Switch | | | | N/A | | | | | |
| <u>8</u> | 31 | Cable Entry | | | | Required | | | | | |
| OPTIONS | 32 | Valve Position Indicate | or (Local) | | | Required | | | | | |
| Ě | 33 | Radiography | | | | Required | | | | | |
| Р | | Charpy V-Notch | | | Required | | | + | | | |
| | | Impulse Tubing/Fitting | ıs | | | Required | | + | | | |
| | | Pressure Indicator | ,- | | In the sensing line required | | | + | | | |
| | | Installation | | | Horizontal | | | +- | | | |
| | 38 | motanation | | | Honzona | | | + | | | |
| | | Kg or Cg Min. | Kg or Cg N | lov | * | | | + | | | |
| | | | rky or Cy i | viax. | * | | | + | | | |
| | | Kg or Cg Selected | 1 (-IDA) | | | | | _ | | | |
| MISC. | | Predicted Sound Leve | | | less than 85 dBA | | | _ | | | |
| ₽ | 42 | Inlet Velocity (meters/ | | | | | | | | | |
| _ | 43 | Valve Setpoint | Adjustable | | | | | | | | |
| | | Make | N | Model No. | | | | | | | |
| | 45 | | | | | | | | | | |
| | | | Lin = / =in = t | Design | D (b) | D | | | | | |
| S.No. | | | Line/Equipment | Temperature | Pressure (bar) | Range | Remarks | | | | |
| | | Service | No. | (degC) | (Nor/Max/Des) | (bar) | | | | | |
| 1 | | Natural Gas | * | -29 to 65 | - / - / 49 - 19 | * | | + | | | |
| ' | | rvatarar Oas | | 20 10 00 | 7 7 43 13 | + | | + | | | |
| | | | | | | | | +- | | | |
| | | | | | | | | + | | | |
| | | | | | | | | | | | |
| N | | | | | | | | | | | |
| Notes: | | | | | | | | | | | |
| 1 * By Bidder Tagplate (SS 316) stamped with instrument number and service in 10mm characters shall be attached via SS wi | | | | | | | | | | | |
| | | | | | | | | | | | |
| ² (1 m | mm). | | | | | | | | | | |
| 3 Pres | ssure | regulator valves shall b | e fail open type. | | | | | | | | |
| | | | | .5% of the set pres | sure for the entire inlet pr | essure and flow r | ange. | | | | |
| Pres | | | gulation shall be better than 2.5% of the set pressure for the entire inlet pressure and flow range. e valve shall be selected by the bidder considering the given set points (staggered set point of the two | | | | | | | | |
| regulators and the Slam Shut valves) and the given inlet pressure conditions. | | | | | | | | | | | |
| Rea | | | | | ure condition and the minimum flow at the maximum | | | \top | | | |
| | | condition | | | | | 1 | | | | |
| | | | olaced at minimum 4F |) distance downstra | eam of active regulator fo | r it to perform sm | oothly | +- | | | |

VENDOR LIST

SS FITTINGS / TUBING

(No other makes shall be acceptable)

- Swagelok (USA)
- Parker (USA)
- Hoke (USA)
- Sandvik

PRESSURE REGULATOR AND SLAM SHUT VALVE

- Pietro Fiorentini S.P.A. (Italy)
- Emerson Process Management (USA)
- RMG-Regel Messtechnik (Germany)
- Mokveld Valves BV (Netherlands)
- Schlumberger (USA)
- Gorter Controls B V (Netherlands)
- Instromet International NV
- Emerson Process Management Asia Pacific Pte Ltd.
- Nirmal Industrial Controls Pvt Ltd. (up to 6" size only)
- ESME Valves Ltd
- Kaye & Macdonald Inc.
- Nuovo Pignone S.P.A (Italy) (GE Oil Co.)
- Richards Industries (Formerly Treloar)
- Samson AG Mess-und Regeltechnik
- Tormene Gas Technology