



TỔNG CÔNG TY DẦU VIỆT NAM


DỰ ÁN

MỞ RỘNG KHO XĂNG DẦU NGHI SƠN GIAI ĐOẠN 2

GÓI THẦU

THIẾT KẾ, CUNG CẤP VẬT TƯ, THIẾT BỊ VÀ THI CÔNG XÂY DỰNG CÔNG TRÌNH (EPC)

BẢNG DỮ LIỆU CHO VẬT TƯ ĐẶC BIỆT CỦA ĐƯỜNG ỐNG

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| A | 4/10/2024 | Xuất bản để xem xét | | | | | |
| LXB | Ngày | Mô tả | Thực hiện | Kiểm tra | Phê duyệt | PTSC | PV OIL |
|  | | LIÊN DANH NHÀ THẦU | | | Số tài liệu: | | |
| | | (PTSC THANH HOA/ TAM MINH) | | | PVOIL.NS-DD-PI-DAS-002 | | |
| | | | | | Tổng trang: 11 (bao gồm trang bìa) | | |

DATASHEET FOR PIPING SPECIALITY ITEMS

| | |
|-------------------------|------------------|
| Tag No. : FT-107 | Client : |
| Service : DO | Plant Location : |
| P & ID No. : | Facility : |
| Specification No. : | No. of Units : |

SERVICE DESCRIPTION:

| | | | | | |
|----|--|---|--|--|--|
| 1 | DESIGN REQUIREMENTS | | | | |
| 2 | Description | : | Basket Filter with 1" drain ball valve on body and 1/2" vent ball valve | | |
| 3 | | : | on the cover blind flange | | |
| 4 | Size | : | 8" | | |
| 5 | Design / Construction | : | Design to ASME VIII Div.1 and ASME B16.5 | | |
| 6 | | : | Straight Pattern, removable sieve | | |
| 7 | Mesh size | : | 40 (Vendor to confirm) | | |
| 8 | Tag No. | : | FT-107 | | |
| 9 | Quantity | : | 1 pcs | | |
| 10 | Flow rate (m3 / h) | : | 80 | | |
| 11 | Viscosity (cP) | : | 0.64 | | |
| 12 | Max. allowable press. drop (bar) | : | 0.3 | | |
| 13 | Pressure Design (bar) | : | 19.6 | | |
| 14 | Temperature Design (⁰ C) | : | 100 | | |
| 15 | Piping Class | : | 1A1 | | |
| 16 | Inlet and outlet Connection | : | 8" RF Flange Flange Class 150 to ASME B16.5 | | |
| 17 | Drain connection | : | 1" Ball valve, Class 800#, socket weld to connect to body at lowest point (Note 8) | | |
| 18 | Vent connection | : | 1/2" Ball valve, Class 800#, socket weld to connect to cover blind flange (Note 8) | | |
| 19 | Face to Face Standard | : | Manufacturer's standard | | |
| 20 | Corrosion Allowance | : | 3mm | | |
| 21 | Drawing detail | : | Vendor shall submit Purchaser drawings for evaluation | | |
| 22 | | | | | |
| 23 | MATERIAL REQUIREMENT | | | | |
| 24 | Body / Shell | : | ASTM A105 or A216 Gr.WCB | | |
| 25 | Cover blind flange | : | ASTM A105 | | |
| 26 | Ball valve | : | Body: ASTM A105; Ball: SS316; Seat: PTFE (Note 8) | | |
| 27 | Pipe pups | : | SCH 80, ASTM A106 Gr.B or A53 Gr. B | | |
| 28 | Sieve / mesh | : | SS316 | | |
| 29 | Bolting | : | ASTM A193 Gr. B7 / A194 Gr. 2H hot-dip galvanized or PTFE coated | | |
| 30 | Gaskets | : | Spiral wound, graphite filler, 4.5 mm thickness 316 SS winding, SS inner ring | | |
| 31 | | : | and CS outer ring | | |
| 32 | | | | | |
| 33 | SUPPLEMENTARY REQUIREMENTS | | | | |
| 34 | Painting | : | Yes, Accordance with Doc. No.: PVOIL.NS-DD-PI-SPC-003 Painting Specification | | |
| 35 | Certification requirements | : | Yes, to BS EN ISO 10204 Type 3.1 | | |
| 36 | Marking | : | Yes, to MSS-SP-25 | | |
| 37 | | | | | |
| 38 | INSPECTION AND TESTING REQUIREMENTS | | | | |
| 39 | Visual Examination | : | Yes, 100% for All components | | |
| 40 | Magnetic Particle Examination | : | Yes, 100% for all carbon steel components | | |
| 41 | Liquid Penetrant Examination | : | Yes, 100% for all stainless steel components | | |
| 42 | Radiographic Examination | : | Yes, 100% All Bodies / shells | | |
| 43 | Pressure Test | : | Yes, 100% for All Bodies / shells (1.5 times pressure design) | | |
| 44 | Toughness Tests | : | Yes, ASME B31.3 chapter III, Table 323.2.2 and ASTM | | |
| 45 | Positive Material Identification | : | Yes, 100% PMI for all stainless steel components | | |
| 46 | | | | | |
| 47 | NOTES | | | | |
| 48 | 1. Tag No., size and flange rating to be clearly die stamped on the body and SS316 tag stamped fixed with SS wire | | | | |
| 49 | 2. Raised Face (RF) Flange end connections shall have surface roughness between 3.2 µm and 6.3 µm | | | | |
| 50 | 3. Flow arrow indication shall be shown on the body | | | | |
| 51 | 4. Vendor to confirm and advise the all material components of basket filter to suit the gasoline, diesel and ethanol services | | | | |
| 52 | 5. Any material testing requirement shall be complied with relative ASTM and ASME / ANSI | | | | |
| 53 | 6. Vendor to supply 1 each additional gasket for spare | | | | |
| 54 | 7. For general material requirements, refer to Doc. No.: PVOIL.NS-DD-PI-SPC-001 Piping Material Class Specification | | | | |
| 55 | 8. Ball valve shall be supplied by basket filter vendor to meet the requirements of doc. No. PVOIL.NS-DD-PI-DAS-001 | | | | |
| 56 | Vable Code: VB8-001 and doc. No. PVOIL.NS-DD-PI-SPC-002 | | | | |
| 57 | 9. Basket filter shall be fitted with lifting lugs for installation and maintenance | | | | |

DATASHEET FOR PIPING SPECIALITY ITEMS

| | | | |
|-------------------|----------|----------------|---|
| Tag No. | : FT-113 | Client | : |
| Service | : DO | Plant Location | : |
| P & ID No. | : | Facility | : |
| Specification No. | : | No. of Units | : |

SERVICE DESCRIPTION:

| | | | | |
|----|----------------------------------|---|--|--|
| 1 | DESIGN REQUIREMENTS | | | |
| 2 | Description | : | Basket Filter with 1" drain ball valve on body and 1/2" vent ball valve | |
| 3 | | : | on the cover blind flange | |
| 4 | Size | : | 4" | |
| 5 | Design / Construction | : | Design to ASME VIII Div.1 and ASME B16.5 | |
| 6 | | : | Straight Pattern, removable sieve | |
| 7 | Mesh size | : | 40 (Vendor to confirm) | |
| 8 | Tag No. | : | FT-113 | |
| 9 | Quantity | : | 1 pcs | |
| 10 | Flow rate (m3 / h) | : | 45 | |
| 11 | Viscosity (cP) | : | 0.91 | |
| 12 | Max. allowable press. drop (bar) | : | 0.3 | |
| 13 | Pressure Design (bar) | : | 19.6 | |
| 14 | Temperature Design (°C) | : | 100 | |
| 15 | Piping Class | : | 1A1 | |
| 16 | Inlet and outlet Connection | : | 4" RF Flange Flange Class 150 to ASME B16.5 | |
| 17 | Drain connection | : | 1" Ball valve, Class 800#, socket weld to connect to body at lowest point (Note 8) | |
| 18 | Vent connection | : | 1/2" Ball valve, Class 800#, socket weld to connect to cover blind flange (Note 8) | |
| 19 | Face to Face Standard | : | Manufacturer's standard | |
| 20 | Corrosion Allowance | : | 3mm | |
| 21 | Drawing detail | : | Vendor shall submit Purchaser drawings for evaluation | |

| | | | | |
|----|-----------------------------|---|---|--|
| 22 | | | | |
| 23 | MATERIAL REQUIREMENT | | | |
| 24 | Body / Shell | : | ASTM A105 or A216 Gr.WCB | |
| 25 | Cover blind flange | : | ASTM A105 | |
| 26 | Ball valve | : | Body: ASTM A105; Ball: SS316; Seat: PTFE (Note 8) | |
| 27 | Pipe pups | : | SCH 80, ASTM A106 Gr.B or A53 Gr. B | |
| 28 | Sieve / mesh | : | SS316 | |
| 29 | Bolting | : | ASTM A193 Gr. B7 / A194 Gr. 2H hot-dip galvanized or PTFE coated | |
| 30 | Gaskets | : | Spiral wound, graphite filler, 4.5 mm thickness 316 SS winding, SS inner ring | |
| 31 | | : | and CS outer ring | |

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|----|-----------------------------------|---|--|--|
| 32 | | | | |
| 33 | SUPPLEMENTARY REQUIREMENTS | | | |
| 34 | Painting | : | Yes, Accordance with Doc. No.: PVOIL.NS-DD-PI-SPC-003 Painting Specification | |
| 35 | Certification requirements | : | Yes, to BS EN ISO 10204 Type 3.1 | |
| 36 | Marking | : | Yes, to MSS-SP-25 | |

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|----|--|---|---|--|
| 37 | | | | |
| 38 | INSPECTION AND TESTING REQUIREMENTS | | | |
| 39 | Visual Examination | : | Yes, 100% for All components | |
| 40 | Magnetic Particle Examination | : | Yes, 100% for all carbon steel components | |
| 41 | Liquid Penetrant Examination | : | Yes, 100% for all stainless steel components | |
| 42 | Radiographic Examination | : | Yes, 100% All Bodies / shells | |
| 43 | Pressure Test | : | Yes, 100% for All Bodies / shells (1.5 times pressure design) | |
| 44 | Toughness Tests | : | Yes, ASME B31.3 chapter III, Table 323.2.2 and ASTM | |
| 45 | Positive Material Identification | : | Yes, 100% PMI for all stainless steel components | |

| | | | | |
|----|--|--|--|--|
| 46 | | | | |
| 47 | NOTES | | | |
| 48 | 1. Tag No., size and flange rating to be clearly die stamped on the body and SS316 tag stamped fixed with SS wire | | | |
| 49 | 2. Raised Face (RF) Flange end connections shall have surface roughness between 3.2 µm and 6.3 µm | | | |
| 50 | 3. Flow arrow indication shall be shown on the body | | | |
| 51 | 4. Vendor to confirm and advise the all material components of basket filter to suit the gasoline, diesel and ethanol services | | | |
| 52 | 5. Any material testing requirement shall be complied with relative ASTM and ASME / ANSI | | | |
| 53 | 6. Vendor to supply 1 each additional gasket for spare | | | |
| 54 | 7. For general material requirements, refer to Doc. No.: PVOIL.NS-DD-PI-SPC-001 Piping Material Class Specification | | | |
| 55 | 8. Ball valve shall be supplied by basket filter vendor to meet the requirements of doc. No. PVOIL.NS-DD-PI-DAS-001 | | | |
| 56 | Vavle Code: VB8-001 and doc. No. PVOIL.NS-DD-PI-SPC-002 | | | |
| 57 | 9. Basket filter shall be fitted with lifting lugs for installation and maintenance | | | |

DATASHEET FOR PIPING SPECIALITY ITEMS

| | | | |
|-------------------|-----------------|----------------|---|
| Tag No. | : SP-506 | Client | : |
| Service | : FF | Plant Location | : |
| P & ID No. | : | Facility | : |
| Specification No. | : | No. of Units | : |

SERVICE DESCRIPTION:

| | | | | |
|----|--------------------------------------|---|--|--|
| 1 | DESIGN REQUIREMENTS | | | |
| 2 | Description | : | Y-Strainer with drain 3/4" hexagon plug threaded on the cover blind flange | |
| 3 | Size | : | 3" | |
| 4 | Tag No. | : | SP-506 | |
| 5 | Quantity | : | 1 pcs | |
| 6 | Design / Construction | : | Design to ASME B31.3 and ASME B16.5 | |
| 7 | | : | Straight Pattern, removable sieve | |
| 8 | Mesh size | : | 40 (Vendor to confirm) | |
| 9 | Flow rate (m3 / h) | : | 80 | |
| 10 | Viscosity (cP) | : | 0.89 | |
| 11 | Max. allowable press. drop (bar) | : | 0.326 | |
| 12 | Pressure Design (bar) | : | 19.6 | |
| 13 | Temperature Design (⁰ C) | : | 0 | |
| 14 | Piping Class | : | 1A2 | |
| 15 | Inlet and outlet Connection | : | 3" RF Flange Flange Class 150 to ASME B16.5 | |
| 16 | Drain connection | : | Hole 3/4" FNPT on cover blind flange with hexagon plug threaded | |
| 17 | Face to Face Standard | : | Manufacturer's standard | |
| 18 | Corrosion Allowance | : | 295mm | |
| 19 | Drawing detail | : | Vendor shall submit Purchaser drawings for evaluation | |
| 20 | | : | | |
| 21 | | : | | |

| | | | | |
|----|-----------------------------|---|---|--|
| 22 | MATERIAL REQUIREMENT | | | |
| 23 | Body | : | ASTM A105 or A216 Gr.WCB | |
| 24 | Cover blind flange | : | ASTM A105 | |
| 25 | Hexagon plug | : | ASTM A105 | |
| 26 | Sieve / mesh | : | SS316 | |
| 27 | Bolting | : | ASTM A193 Gr. B7 / A194 Gr. 2H hot-dip galvanized or PTFE coated | |
| 28 | Gaskets | : | Spiral wound, graphite filler, 4.5 mm thickness 316 SS winding, SS inner ring | |
| 29 | | : | and CS outer ring | |
| 30 | | : | | |
| 31 | | : | | |

| | | | | |
|----|-----------------------------------|---|--|--|
| 32 | SUPPLEMENTARY REQUIREMENTS | | | |
| 33 | Painting | : | Yes, Accordance with Doc. No.: PVOIL.NS-DD-PI-SPC-003 Painting Specification | |
| 34 | Certification requirements | : | Yes, to BS EN ISO 10204 Type 3.1 | |
| 35 | Marking | : | Yes, to MSS-SP-25 | |
| 36 | | : | | |
| 37 | | : | | |

| | | | | |
|----|--|---|--|--|
| 38 | INSPECTION AND TESTING REQUIREMENTS | | | |
| 39 | Visual Examination | : | Yes, 100% for All components | |
| 40 | Magnetic Particle Examination | : | Yes, 100% for all carbon steel components | |
| 41 | Liquid Penetrant Examination | : | Yes, 100% for all stainless steel components | |
| 42 | Radiographic Examination | : | Yes, 100% All Bodies | |
| 43 | Pressure Test | : | Yes, 100% for all bodies (1.5 times pressure design) | |
| 44 | Toughness Tests | : | Yes, ASME B31.3 chapter III, Table 323.2.2 and ASTM | |
| 45 | Positive Material Identification | : | Yes, 100% PMI for all stainless steel components | |
| 46 | | : | | |

| | | | | |
|----|---|--|--|--|
| 47 | NOTES | | | |
| 48 | 1. Tag No., size and flange rating to be clearly die stamped on the body and SS316 tag stamped fixed with SS wire | | | |
| 49 | 2. Raised Face (RF) Flange end connections shall have surface roughness between 3.2 µm and 6.3 µm | | | |
| 50 | 3. Flow arrow indication shall be shown on the body | | | |
| 51 | 4. Vendor to confirm and advise the all material components of Y-Strainer to suit the fire water and fire foam services | | | |
| 52 | 5. Any material testing requirement shall be complied with relative ASTM and ASME / ANSI | | | |
| 53 | 6. Vendor to supply 1 each additional gasket for spare | | | |
| 54 | 7. For general material requirements, refer to Doc. PVOIL.NS-DD-PI-SPC-001 Piping Material Class Specification | | | |
| 55 | | | | |

DATASHEET FOR PIPING SPECIALITY ITEMS

| | |
|--|------------------|
| Tag No. : SP-9001, SP-1013, SP-1014 | Client : |
| Service : DO | Plant Location : |
| P & ID No. : | Facility : |
| Specification No. : | No. of Units : |

SERVICE DESCRIPTION:

| | | | | | |
|----|-------------------------------|---|---|--|--|
| 1 | DESIGN REQUIREMENTS | | | | |
| 2 | Description | : | Flexible metal hose with flange RF Flange connection | | |
| 3 | Size | : | 8" | | |
| 4 | Tag No. | : | SP-9001, SP-1013, SP-1014 | | |
| 5 | Quantity | : | 3 pcs | | |
| 6 | Design / Construction | : | Design to Manufacturer's standard and ASME B16.5 | | |
| 7 | | : | Straight Pattern | | |
| 8 | | : | Corrugated hose and braid | | |
| 9 | | : | End sleeve | | |
| 10 | | : | | | |
| 11 | Pressure Design (bar) | : | 19.0 | | |
| 12 | Temperature Design (°C) | : | 100 | | |
| 13 | Piping Class | : | 1A1 | | |
| 14 | Inlet & Outlet Connection | : | 8" RF Flange Flange Class 150 to ASME B16.5 | | |
| 15 | Overall length (Face to Face) | : | 600 mm | | |
| 16 | Max. lateral offset motion | : | Vendor to advise | | |
| 17 | Drawing detail | : | Vendor shall submit Purchaser drawings for evaluation | | |
| 18 | | : | | | |
| 19 | | : | | | |

MATERIAL REQUIREMENT

| | | | | | |
|----|-----------------|---|---------------------|--|--|
| 21 | Corrugated hose | : | ASTM A240 Gr. 316 | | |
| 22 | Braid | : | SS 316 | | |
| 23 | End Sleeve | : | ASTM A312 Gr. TP316 | | |
| 24 | Flange | : | ASTM A182 Gr. F316 | | |
| 25 | | : | | | |
| 26 | | : | | | |
| 27 | | : | | | |

SUPPLEMENTARY REQUIREMENTS

| | | | | | |
|----|----------------------------|---|----------------------------------|--|--|
| 29 | Painting | : | N/A | | |
| 30 | Certification requirements | : | Yes, to BS EN ISO 10204 Type 3.1 | | |
| 31 | Marking | : | Yes, to MSS-SP-25 | | |
| 32 | | : | | | |
| 33 | | : | | | |

INSPECTION AND TESTING REQUIREMENTS

| | | | | | |
|----|----------------------------------|---|--|--|--|
| 35 | Visual Examination | : | Yes, 100% for All components | | |
| 36 | Magnetic Particle Examination | : | N/A | | |
| 37 | Liquid Penetrant Examination | : | Yes, 100% for all stainless steel components | | |
| 38 | Radiographic Examination | : | Yes, 100% All welded components | | |
| 39 | Pressure Test | : | Yes, 100% for all bodies (1.5 times pressure design) | | |
| 40 | Toughness Tests | : | Yes, ASME B31.3 chapter III, Table 323.2.2 and ASTM | | |
| 41 | Positive Material Identification | : | Yes, 100% PMI for all stainless steel components | | |
| 42 | | : | | | |

NOTES

| | | | | | |
|----|--|--|--|--|--|
| 44 | 1. Tag No., size and flange rating to be clearly die stamped on the body and SS316 tag stamped fixed with SS wire | | | | |
| 45 | 2. Raised Face (RF) Flange end connections shall have surface roughness between 3.2 µm and 6.3 µm | | | | |
| 46 | 3. Vendor to confirm and advise the all material components of flexible hose to suit the gasoline, diesel, ethanol | | | | |
| 47 | fire water and fire foam services | | | | |
| 48 | 4. Any material testing requirement shall be complied with relative ASTM and ASME / ANSI | | | | |
| 49 | 5. For general material requirements, refer to Doc. No. PVOIL.NS-DD-PI-SPC-001 Piping Material Class Specification | | | | |
| 50 | | | | | |
| 51 | | | | | |
| 52 | | | | | |
| 53 | | | | | |
| 54 | | | | | |

DATASHEET FOR PIPING SPECIALITY ITEMS

| | |
|--------------------------|------------------|
| Tag No. : SP-9002 | Client : |
| Service : DO | Plant Location : |
| P & ID No. : | Facility : |
| Specification No. : | No. of Units : |

SERVICE DESCRIPTION:

| | | | | | |
|----|-------------------------------|---|---|--|--|
| 1 | DESIGN REQUIREMENTS | | | | |
| 2 | Description | : | Flexible metal hose with flange RF Flange connection | | |
| 3 | Size | : | 6" | | |
| 4 | Tag No. | : | SP-9002 | | |
| 5 | Quantity | : | 1 pcs | | |
| 6 | Design / Construction | : | Design to Manufacturer's standard and ASME B16.5 | | |
| 7 | | : | Straight Pattern | | |
| 8 | | : | Corrugated hose and braid | | |
| 9 | | : | End sleeve | | |
| 10 | | : | | | |
| 11 | Pressure Design (bar) | : | 19.0 | | |
| 12 | Temperature Design (°C) | : | 100 | | |
| 13 | Piping Class | : | 1A1 | | |
| 14 | Inlet & Outlet Connection | : | 6" RF Flange Flange Class 150 to ASME B16.5 | | |
| 15 | Overall length (Face to Face) | : | 600 mm | | |
| 16 | Max. lateral offset motion | : | Vendor to advise | | |
| 17 | Drawing detail | : | Vendor shall submit Purchaser drawings for evaluation | | |
| 18 | | : | | | |
| 19 | | : | | | |

MATERIAL REQUIREMENT

| | | | | | |
|----|-----------------|---|---------------------|--|--|
| 21 | Corrugated hose | : | ASTM A240 Gr. 316 | | |
| 22 | Braid | : | SS 316 | | |
| 23 | End Sleeve | : | ASTM A312 Gr. TP316 | | |
| 24 | Flange | : | ASTM A182 Gr. F316 | | |
| 25 | | : | | | |
| 26 | | : | | | |
| 27 | | : | | | |

SUPPLEMENTARY REQUIREMENTS

| | | | | | |
|----|----------------------------|---|----------------------------------|--|--|
| 29 | Painting | : | N/A | | |
| 30 | Certification requirements | : | Yes, to BS EN ISO 10204 Type 3.1 | | |
| 31 | Marking | : | Yes, to MSS-SP-25 | | |
| 32 | | : | | | |
| 33 | | : | | | |

INSPECTION AND TESTING REQUIREMENTS

| | | | | | |
|----|----------------------------------|---|--|--|--|
| 35 | Visual Examination | : | Yes, 100% for All components | | |
| 36 | Magnetic Particle Examination | : | N/A | | |
| 37 | Liquid Penetrant Examination | : | Yes, 100% for all stainless steel components | | |
| 38 | Radiographic Examination | : | Yes, 100% All welded components | | |
| 39 | Pressure Test | : | Yes, 100% for all bodies (1.5 times pressure design) | | |
| 40 | Toughness Tests | : | Yes, ASME B31.3 chapter III, Table 323.2.2 and ASTM | | |
| 41 | Positive Material Identification | : | Yes, 100% PMI for all stainless steel components | | |
| 42 | | : | | | |

NOTES

| | | | | | |
|----|--|--|--|--|--|
| 44 | 1. Tag No., size and flange rating to be clearly die stamped on the body and SS316 tag stamped fixed with SS wire | | | | |
| 45 | 2. Raised Face (RF) Flange end connections shall have surface roughness between 3.2 µm and 6.3 µm | | | | |
| 46 | 3. Vendor to confirm and advise the all material components of flexible hose to suit the gasoline, diesel, ethanol | | | | |
| 47 | fire water and fire foam services | | | | |
| 48 | 4. Any material testing requirement shall be complied with relative ASTM and ASME / ANSI | | | | |
| 49 | 5. For general material requirements, refer to Doc. No. PVOIL.NS-DD-PI-SPC-001 Piping Material Class Specification | | | | |
| 50 | | | | | |
| 51 | | | | | |
| 52 | | | | | |
| 53 | | | | | |
| 54 | | | | | |

DATASHEET FOR PIPING SPECIALITY ITEMS

| | |
|-------------------------|------------------|
| Tag No. : SP-520 | Client : |
| Service : FF | Plant Location : |
| P & ID No. : | Facility : |
| Specification No. : | No. of Units : |

SERVICE DESCRIPTION:

| | | | | | |
|----|-------------------------------|---|---|--|--|
| 1 | DESIGN REQUIREMENTS | | | | |
| 2 | Description | : | Flexible metal hose with flange RF Flange connection | | |
| 3 | Size | : | 2" | | |
| 4 | Tag No. | : | SP-520 | | |
| 5 | Quantity | : | 1 pcs | | |
| 6 | Design / Construction | : | Design to Manufacturer's standard and ASME B16.5 | | |
| 7 | | : | Straight Pattern | | |
| 8 | | : | Corrugated hose and braid | | |
| 9 | | : | End sleeve | | |
| 10 | | : | | | |
| 11 | Pressure Design (bar) | : | 19.0 | | |
| 12 | Temperature Design (°C) | : | 100 | | |
| 13 | Piping Class | : | 1A2 | | |
| 13 | Inlet Connection | : | 2" RF Flange Flange Class 150 to ASME B16.5 | | |
| 14 | Outlet Connection | : | Quick coupling male adapter | | |
| 15 | Overall length (Face to Face) | : | 500mm | | |
| 16 | Max. lateral offset motion | : | Vendor to advise | | |
| 17 | Drawing detail | : | Vendor shall submit Purchaser drawings for evaluation | | |
| 18 | | : | | | |
| 19 | | : | | | |

MATERIAL REQUIREMENT

| | | | | | |
|----|-----------------|---|---------------------|--|--|
| 21 | Corrugated hose | : | ASTM A240 Gr. 316 | | |
| 22 | Braid | : | SS 316 | | |
| 23 | End Sleeve | : | ASTM A312 Gr. TP316 | | |
| 24 | Flange | : | ASTM A182 Gr. F316 | | |
| 25 | | : | | | |
| 26 | | : | | | |
| 27 | | : | | | |

SUPPLEMENTARY REQUIREMENTS

| | | | | | |
|----|----------------------------|---|----------------------------------|--|--|
| 29 | Painting | : | N/A | | |
| 30 | Certification requirements | : | Yes, to BS EN ISO 10204 Type 3.1 | | |
| 31 | Marking | : | Yes, to MSS-SP-25 | | |
| 32 | | : | | | |
| 33 | | : | | | |

INSPECTION AND TESTING REQUIREMENTS

| | | | | | |
|----|----------------------------------|---|--|--|--|
| 35 | Visual Examination | : | Yes, 100% for All components | | |
| 36 | Magnetic Particle Examination | : | N/A | | |
| 37 | Liquid Penetrant Examination | : | Yes, 100% for all stainless steel components | | |
| 38 | Radiographic Examination | : | Yes, 100% All welded components | | |
| 39 | Pressure Test | : | Yes, 100% for all bodies (1.5 times pressure design) | | |
| 40 | Toughness Tests | : | Yes, ASME B31.3 chapter III, Table 323.2.2 and ASTM | | |
| 41 | Positive Material Identification | : | Yes, 100% PMI for all stainless steel components | | |
| 42 | | : | | | |

NOTES

| | | | | | |
|----|--|--|--|--|--|
| 44 | 1. Tag No., size and flange rating to be clearly die stamped on the body and SS316 tag stamped fixed with SS wire | | | | |
| 45 | 2. Raised Face (RF) Flange end connections shall have surface roughness between 3.2 µm and 6.3 µm | | | | |
| 46 | 3. Vendor to confirm and advise the all material components of flexible hose to suit the gasoline, diesel, ethanol | | | | |
| 47 | fire water and fire foam services | | | | |
| 48 | 4. Any material testing requirement shall be complied with relative ASTM and ASME / ANSI | | | | |
| 49 | 5. For general material requirements, refer to Doc. No. PVOIL.NS-DD-PI-SPC-001 Piping Material Class Specification | | | | |
| 50 | | | | | |
| 51 | | | | | |
| 52 | | | | | |
| 53 | | | | | |
| 54 | | | | | |

DATASHEET FOR PIPING SPECIALITY ITEMS

| | |
|-------------------------|------------------|
| Tag No. : SP-519 | Client : |
| Service : FF | Plant Location : |
| P & ID No. : | Facility : |
| Specification No. : | No. of Units : |

SERVICE DESCRIPTION:

| | | | | | |
|----|-------------------------------|---|---|--|--|
| 1 | DESIGN REQUIREMENTS | | | | |
| 2 | Description | : | Flexible metal hose with flange RF Flange connection | | |
| 3 | Size | : | 3" | | |
| 4 | Tag No. | : | SP-519 | | |
| 5 | Quantity | : | 1 pcs | | |
| 6 | Design / Construction | : | Design to Manufacturer's standard and ASME B16.5 | | |
| 7 | | : | Straight Pattern | | |
| 8 | | : | Corrugated hose and braid | | |
| 9 | | : | End sleeve | | |
| 10 | | : | | | |
| 11 | Pressure Design (bar) | : | 19.0 | | |
| 12 | Temperature Design (°C) | : | 100 | | |
| 13 | Piping Class | : | 1A2 | | |
| 13 | Inlet Connection | : | 3" RF Flange Flange Class 150 to ASME B16.5 | | |
| 14 | Outlet Connection | : | Quick coupling male adapter | | |
| 15 | Overall length (Face to Face) | : | 500mm | | |
| 16 | Max. lateral offset motion | : | Vendor to advise | | |
| 17 | Drawing detail | : | Vendor shall submit Purchaser drawings for evaluation | | |
| 18 | | : | | | |
| 19 | | : | | | |

MATERIAL REQUIREMENT

| | | | | | |
|----|-----------------|---|---------------------|--|--|
| 21 | Corrugated hose | : | ASTM A240 Gr. 316 | | |
| 22 | Braid | : | SS 316 | | |
| 23 | End Sleeve | : | ASTM A312 Gr. TP316 | | |
| 24 | Flange | : | ASTM A182 Gr. F316 | | |
| 25 | | : | | | |
| 26 | | : | | | |
| 27 | | : | | | |

SUPPLEMENTARY REQUIREMENTS

| | | | | | |
|----|----------------------------|---|----------------------------------|--|--|
| 29 | Painting | : | N/A | | |
| 30 | Certification requirements | : | Yes, to BS EN ISO 10204 Type 3.1 | | |
| 31 | Marking | : | Yes, to MSS-SP-25 | | |
| 32 | | : | | | |
| 33 | | : | | | |

INSPECTION AND TESTING REQUIREMENTS

| | | | | | |
|----|----------------------------------|---|--|--|--|
| 35 | Visual Examination | : | Yes, 100% for All components | | |
| 36 | Magnetic Particle Examination | : | N/A | | |
| 37 | Liquid Penetrant Examination | : | Yes, 100% for all stainless steel components | | |
| 38 | Radiographic Examination | : | Yes, 100% All welded components | | |
| 39 | Pressure Test | : | Yes, 100% for all bodies (1.5 times pressure design) | | |
| 40 | Toughness Tests | : | Yes, ASME B31.3 chapter III, Table 323.2.2 and ASTM | | |
| 41 | Positive Material Identification | : | Yes, 100% PMI for all stainless steel components | | |
| 42 | | : | | | |

NOTES

| | | | | | |
|----|--|--|--|--|--|
| 44 | 1. Tag No., size and flange rating to be clearly die stamped on the body and SS316 tag stamped fixed with SS wire | | | | |
| 45 | 2. Raised Face (RF) Flange end connections shall have surface roughness between 3.2 µm and 6.3 µm | | | | |
| 46 | 3. Vendor to confirm and advise the all material components of flexible hose to suit the gasoline, diesel, ethanol | | | | |
| 47 | fire water and fire foam services | | | | |
| 48 | 4. Any material testing requirement shall be complied with relative ASTM and ASME / ANSI | | | | |
| 49 | 5. For general material requirements, refer to Doc. No. PVOIL.NS-DD-PI-SPC-001 Piping Material Class Specification | | | | |
| 50 | | | | | |
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DATASHEET FOR INSTRUMENT - PRESSURE SAFETY VALVE

| | | | |
|---------------------|-------------------|-----------------|---|
| Tag No. | : See table below | Client | : |
| Service | : DO | Plant Location: | |
| P & ID No. | : | Facility | : |
| Specification No. : | | No. of Units | : |

SERVICE DESCRIPTION:

| | | | | | |
|----|----------------------|-----------------------------------|-----------------------------------|-----|---|
| 1 | GENERAL | Tag Number | TRV-1003 | | |
| 2 | | Line Number / Vessel Number | | | |
| 3 | | Line size & Schedule | 3/4" / 1" | | |
| 4 | | Equip./Vessel Protected | | | |
| 5 | | Safety Or Thermal | Thermal | | |
| 6 | | P&ID No. | | | |
| 7 | SERVICE CONDITION | Fluid & Fluid State | DO | | |
| 8 | | Corrosive Constituents | Yes | | |
| 9 | | Required Capacity kg/h | - | | |
| 10 | | SG. @ Rel. Temp. Mol. WT. | 0.792 | | |
| 11 | | Pressure (Min/Max) Barg | ATM | | |
| 12 | | Temp. (Min/Max) °C | AMB | | |
| 13 | | Valve Discharges To | Tank | | |
| 14 | | Back Pressure : Const. /Variable | Variable | | |
| 15 | | Set Pressure Barg | 10 | | |
| 16 | | Cold Bench Test Pressure | VTA | | |
| 17 | | % Over Pressure | % Blown Dwn | 10% | - |
| 18 | | Compressibility Factor | - | | |
| 19 | | C _p /C _v | - | | |
| 20 | | Viscosity @ Rel Temp Cp | 0.91 | | |
| 21 | | Vessel Wall Temp | Surf. Area cm2 | - | - |
| 22 | VALVE | Type | Conventional | | |
| 23 | | Nozzle | Full nozzle | | |
| 24 | | Bonnet Type | Closed | | |
| 25 | | Inlet Connection : Size & Rating | 3/4" & 150# | | |
| 26 | | Outlet Connection : Size & Rating | 1" & 150# | | |
| 27 | | Facing & Finish | Flanged, RF Serrated | | |
| 28 | | Cap Over Adjusting Bolt | Reqd | | |
| 29 | | Lever | VTA | | |
| 30 | | Test Gag | If Reqd | | |
| 31 | MATERIAL | Body & Bonnet Material | ASTM A216 WBC | | |
| 32 | | Nozzle & Disc | SS 304 | | |
| 33 | | Bellows | N/A | | |
| 34 | | Spring | SS 304 | | |
| 35 | | Resilient Seat Seal | SS 304 Stellite | | |
| 36 | BASIS | Code | N/A | | |
| 37 | | Basis Of selection | Blocked Outlet/ Thermal Expansion | | |
| 38 | ORIFICE | Calculated Area cm2 | VTA | | |
| 39 | | Selected Area cm2 | VTA | | |
| 40 | | Orifice Designation | VTA | | |
| 41 | | No. Of Valve Selected For Cap. | 1 | | |
| 42 | | Total Area cm2 | VTA | | |
| 43 | | Actual Capacity kg/h | VTA | | |
| 44 | PURCHASE | Manufacturer | VTA | | |
| 45 | | Model | VTA | | |
| 46 | | Certificate | VTA | | |

Notes:

1.VTA: Vendor to Advise

2. 316SS tag stamped with Tag No., service, PO No. and manufacturers name plate in 15mm characters shall be permanently

3. Refer piping datasheet

DATASHEET FOR INSTRUMENT - PRESSURE SAFETY VALVE

| | | | |
|---------------------|-------------------|-----------------|---|
| Tag No. | : See table below | Client | : |
| Service | : DO | Plant Location: | |
| P & ID No. | : | Facility | : |
| Specification No. : | | No. of Units | : |

SERVICE DESCRIPTION:

| | | | | | |
|----|----------------------|-----------------------------------|-----------------------------------|-----|---|
| 1 | GENERAL | Tag Number | PRV-1004 | | |
| 2 | | Line Number / Vessel Number | | | |
| 3 | | Line size & Schedule | 2" / 3" | | |
| 4 | | Equip./Vessel Protected | | | |
| 5 | | Safety Or Thermal | Thermal | | |
| 6 | | P&ID No. | | | |
| 7 | SERVICE CONDITION | Fluid & Fluid State | DO | | |
| 8 | | Corrosive Constituents | Yes | | |
| 9 | | Required Capacity kg/h | - | | |
| 10 | | SG. @ Rel. Temp. Mol. WT. | 0.84 | | |
| 11 | | Pressure (Min/Max) Barg | ATM | | |
| 12 | | Temp. (Min/Max) °C | AMB | | |
| 13 | | Valve Discharges To | Tank | | |
| 14 | | Back Pressure : Const. /Variable | Variable | | |
| 15 | | Set Pressure Barg | 5 | | |
| 16 | | Cold Bench Test Pressure | VTA | | |
| 17 | | % Over Pressure | % Blown Dwn | 10% | - |
| 18 | | Compressibility Factor | - | | |
| 19 | | C _p /C _v | - | | |
| 20 | | Viscosity @ Rel Temp Cp | 4.2 | | |
| 21 | | Vessel Wall Temp | Surf. Area cm2 | - | - |
| 22 | VALVE | Type | Conventional | | |
| 23 | | Nozzle | Full nozzle | | |
| 24 | | Bonnet Type | Closed | | |
| 25 | | Inlet Connection : Size & Rating | 2" & 150# | | |
| 26 | | Outlet Connection : Size & Rating | 3" & 150# | | |
| 27 | | Facing & Finish | Flanged, RF Serrated | | |
| 28 | | Cap Over Adjusting Bolt | Reqd | | |
| 29 | | Lever | VTA | | |
| 30 | | Test Gag | If Reqd | | |
| 31 | MATERIAL | Body & Bonnet Material | ASTM A216 WBC | | |
| 32 | | Nozzle & Disc | SS 304 | | |
| 33 | | Bellows | N/A | | |
| 34 | | Spring | SS 304 | | |
| 35 | | Resilient Seat Seal | SS 304 Stellite | | |
| 36 | BASIS | Code | N/A | | |
| 37 | | Basis Of selection | Blocked Outlet/ Thermal Expansion | | |
| 38 | ORIFICE | Calculated Area cm2 | VTA | | |
| 39 | | Selected Area cm2 | VTA | | |
| 40 | | Orifice Designation | VTA | | |
| 41 | | No. Of Valve Selected For Cap. | 1 | | |
| 42 | | Total Area cm2 | VTA | | |
| 43 | | Actual Capacity kg/h | VTA | | |
| 44 | PURCHASE | Manufacturer | VTA | | |
| 45 | | Model | VTA | | |
| 46 | | Certificate | VTA | | |

Notes:

1.VTA: Vendor to Advise

2. 316SS tag stamped with Tag No., service, PO No. and manufacturers name plate in 15mm characters shall be permanently

3. Refer piping datasheet

DATASHEET FOR INSTRUMENT - PRESSURE SAFETY VALVE

| | | | |
|-------------------|-------------------|----------------|---|
| Tag No. | : See table below | Client | : |
| Service | : FF | Plant Location | : |
| P & ID No. | : | Facility | : |
| Specification No. | : | No. of Units | : |

SERVICE DESCRIPTION:

| | | | | | |
|----|----------------------|-----------------------------------|-----------------------------------|-----|---|
| 1 | GENERAL | Tag Number | PSV-5001 | | |
| 2 | | Line Number / Vessel Number | | | |
| 3 | | Line size & Schedule | 1" / 2" | | |
| 4 | | Equip./Vessel Protected | | | |
| 5 | | Safety Or Thermal | Thermal | | |
| 6 | | P&ID No. | | | |
| 7 | SERVICE CONDITION | Fluid & Fluid State | Fire Fighting | | |
| 8 | | Corrosive Constituents | Yes | | |
| 9 | | Required Capacity kg/h | - | | |
| 10 | | SG. @ Rel. Temp. Mol. WT. | 0.84 | | |
| 11 | | Pressure (Min/Max) Barg | ATM | | |
| 12 | | Temp. (Min/Max) °C | AMB | | |
| 13 | | Valve Discharges To | Tank | | |
| 14 | | Back Pressure : Const. /Variable | Variable | | |
| 15 | | Set Pressure Barg | 9 | | |
| 16 | | Cold Bench Test Pressure | VTA | | |
| 17 | | % Over Pressure | % Blown Dwn | 10% | - |
| 18 | | Compressibility Factor | - | | |
| 19 | | C _p /C _v | - | | |
| 20 | | Viscosity @ Rel Temp Cp | 4.2 | | |
| 21 | | Vessel Wall Temp | Surf. Area cm2 | - | - |
| 22 | VALVE | Type | Conventional | | |
| 23 | | Nozzle | Full nozzle | | |
| 24 | | Bonnet Type | Closed | | |
| 25 | | Inlet Connection : Size & Rating | 1" & 150# | | |
| 26 | | Outlet Connection : Size & Rating | 2" & 150# | | |
| 27 | | Facing & Finish | Flanged, RF Serrated | | |
| 28 | | Cap Over Adjusting Bolt | Reqd | | |
| 29 | | Lever | VTA | | |
| 30 | | Test Gag | If Reqd | | |
| 31 | MATERIAL | Body & Bonnet Material | ASTM A216 WBC | | |
| 32 | | Nozzle & Disc | SS 304 | | |
| 33 | | Bellows | N/A | | |
| 34 | | Spring | SS 304 | | |
| 35 | | Resilient Seat Seal | SS 304 Stellited | | |
| 36 | BASIS | Code | N/A | | |
| 37 | | Basis Of selection | Blocked Outlet/ Thermal Expansion | | |
| 38 | ORIFICE | Calculated Area cm2 | VTA | | |
| 39 | | Selected Area cm2 | VTA | | |
| 40 | | Orifice Designation | VTA | | |
| 41 | | No. Of Valve Selected For Cap. | 1 | | |
| 42 | | Total Area cm2 | VTA | | |
| 43 | | Actual Capacity kg/h | VTA | | |
| 44 | PURCHASE | Manufacturer | VTA | | |
| 45 | | Model | VTA | | |
| 46 | | Certificate | VTA | | |

| | |
|----|---|
| 47 | Notes: |
| 48 | 1.VTA: Vendor to Advise |
| 49 | 2. 316SS tag stamped with Tag No., service, PO No. and manufacturers name plate in 15mm characters shall be permanently |
| 50 | 3. Refer piping datasheet |
| 51 | |