

CLIENT: TRANSIERRA S.A
JOB: GASYRG VILLAMONTES COMPRESSION STATION

FT-0201

GENERAL

| | | | |
|---------------|--|-----------------|------------------------|
| SERVICE: | NATURAL GAS FROM SAN ANTONIO PLANT | QUANTITY: | 1 (ONE) |
| TYPE: | HORIZONTAL FILTER SEPARATOR | INSULATION: | NO |
| MANUFACTURER: | Q.B. JOHNSON MANUFACTURING, INC. | EXTERNAL PAINT: | Epoxy Type Manuf. Std. |
| MODEL: | 54" ID x 17'-6" S-S x 16" OD x 15'-6" S-S | INTERNAL PAINT: | NO |
| DESCRIPTION: | It shall remove 99.8% of particles both liquid and solid, sized 1 µm and larger, with an overall efficiency of 99.98% by weight. | | |

OPERATING DATA:

| | | |
|-------------------|------------------------|---------------------|
| PRESSURE: | kg/cm ² (g) | 60/71.7 |
| TEMPERATURE: | °C | 36/57 |
| FLUID: | NATURAL GAS | LIQUID HC AND WATER |
| DESIGN FLOW: | MMSCMD | 21 |
| DENSITY: | kg/m ³ | 48/53 |
| VISCOSITY: | cP | 0,0133 |
| MOLECULAR WEIGHT: | | 18,33 |

DESIGN DATA:

| | | | |
|--------------------|------------------------------------|----------------------|---|
| CODE: | ASME VIII DIV. 1 Ed. 1998 Ad. 2000 | DESIGN PRESSURE: | 100 kg/cm ² (g) @ -10/ 60 °C |
| CODE STAMP: | YES | CORROSION ALLOWANCE: | 3.2 mm |
| RX: | AS PER CODE | | |
| THERMAL TREATMENT: | AS PER CODE | | |
| CLOSURE TYPE: | YOKE TYPE QUICK OPENING | | |

MATERIALS

| | |
|---------------|--|
| HEADS: | ASTM A 516 Gr 70N |
| SHELL: | ASTM A 516 Gr 70N |
| FORGINGS | ASTM A 105 |
| PIPES: | ASTM A 106 Gr B |
| STUDS / NUTS: | ASTM A 193 B7 / 194 2H |
| GASKETS: | BUNA "N" O- ring for Quick Opening Spiral Wound SS (Non Asbestos) for 20" Manway |

INTERNALS

| | |
|-------------------------|---|
| FILTER ELEMENTS: | |
| TYPE: | Coalescer |
| MODEL: | JFG- 372 UF |
| QUANTITY: | 85 |
| SIZE: LENGTH / DIAMETER | 72" x 4 5/ 8" |
| MATERIAL: | Fibers Glass |
| SECOND STAGE: | |
| TYPE: | Mist Extractor |
| MATERIALS: | Vane 22 gauge 304 SS Vane Box ASTM A 516 Gr 70 |

NOZZLES

| NOZZ. | QTY. | DIAM. | TYPE | RATING | SCH. | PROJ. | SERVICE |
|-------|------|-------|--------------|--------|------|-------|-----------------------------------|
| A | 1 | 30 " | WNRF | 600 # | - | mm | GAS INLET |
| B | 1 | 30 " | WNRF | 600 # | - | mm | GAS OUTLET |
| C 1-2 | 2 | 2 " | WNRF | 600 # | - | mm | LIQUID OUTLET (AUTOMATIC DRAIN) |
| D 1-2 | 2 | 2 " | WNRF | 600 # | - | mm | DRAIN (MANUAL) |
| E | 1 | 2" | WNRF | 600 # | - | mm | SAFETY VALVE |
| F | 1 | 1 " | SWRF | 600 # | - | mm | MANUAL VENT |
| G | 1 | 2 " | WNRF | 600 # | - | mm | UPPER BARREL DRAIN |
| H 1-2 | 2 | 1 " | SWRF | 600 # | - | mm | DIFFERENCIAL PRESSURE TRANSMITTER |
| I | 1 | 1 " | SWRF | 600 # | - | mm | PRESSURE INDICATOR |
| J | 1 | 1 " | SWRF | 600 # | - | mm | PRESSURE TRANSMITTER |
| K | 1 | 1½ " | SWRF | 600 # | - | mm | TEMPERATURE INDICATOR |
| L | 1 | 1½ " | SWRF | 600 # | - | mm | TEMPERATURE TRANSMITTER |
| M 1-4 | 4 | 1" | SWRF | 600 # | - | mm | LEVEL TRANSMITTER (LIC, LAH, LAL) |
| N 1-4 | 4 | 1" | SWRF | 600 # | - | mm | LEVEL TRANSMITTER (LAHH, LALL) |
| O 1-4 | 4 | 1 " | SWRF | 600 # | - | mm | LEVEL INDICATOR |
| P1 | 1 | 54 " | Full Opening | 600 # | - | mm | CLOSURE |
| P2 | 1 | 20 " | WNRF | 600 # | - | mm | MANWAY (DAVITED) (Note 1) |
| Q | 1 | 1½ " | SWRF | 600 # | - | mm | BLOW DOWN |
| R 1-2 | 2 | 2" | - | - | - | mm | CROSSOVER |
| S 1-2 | 2 | 4" | - | - | - | mm | CROSSOVER |

NOTES

- 1), 20" ID 600 # WNRF Flanged Manway with Davit, shall be included.
- 2) Vane Sections, shall be removable
- 3) One extra set of filters elements for start up, shall be provided.
- 4) Two O- ring gaskets for quick opening closure for start up, shall be supplied.