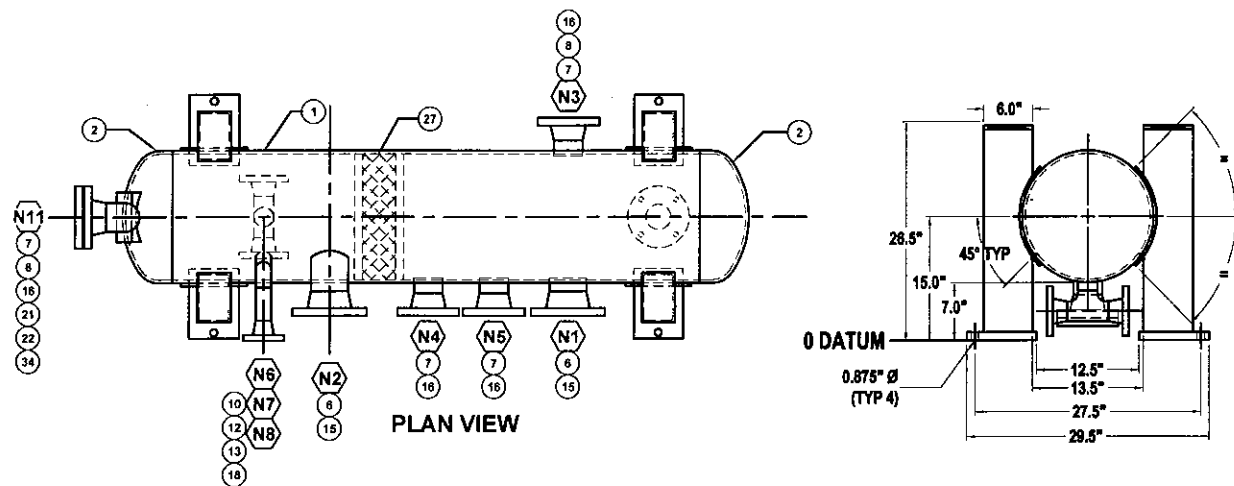
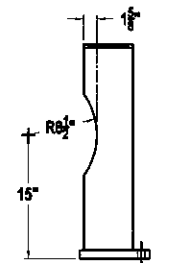


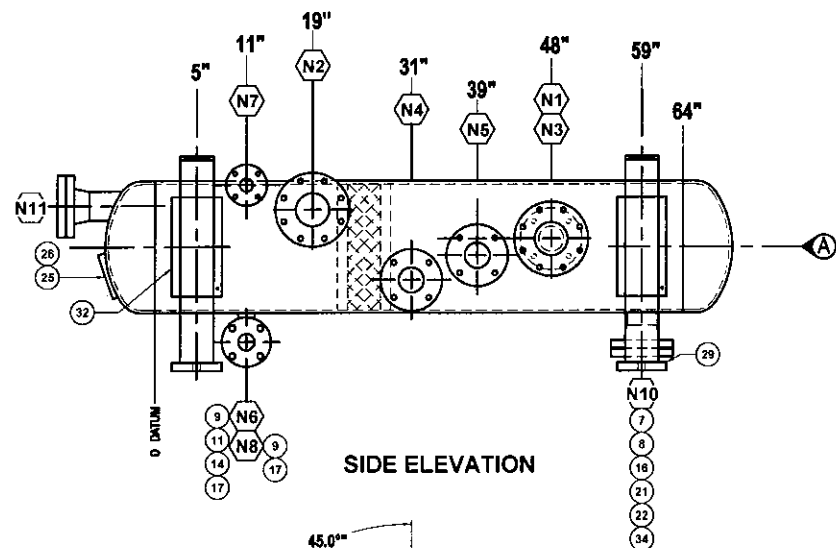
CLOSED END CONFIGURATION  
INSPECTION NOZZLE LOCATED ON SHELL



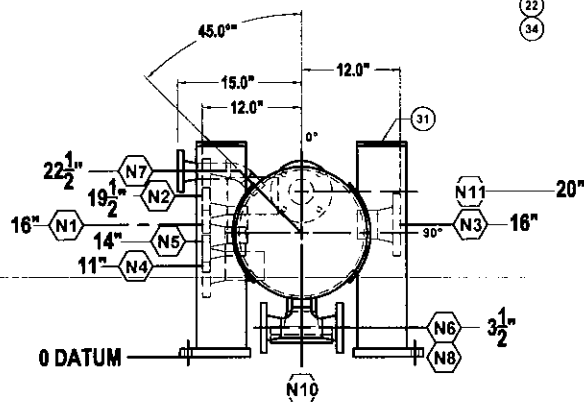
SADDLE SUPPORT  
END VIEW



LEG DETAIL



SIDE ELEVATION



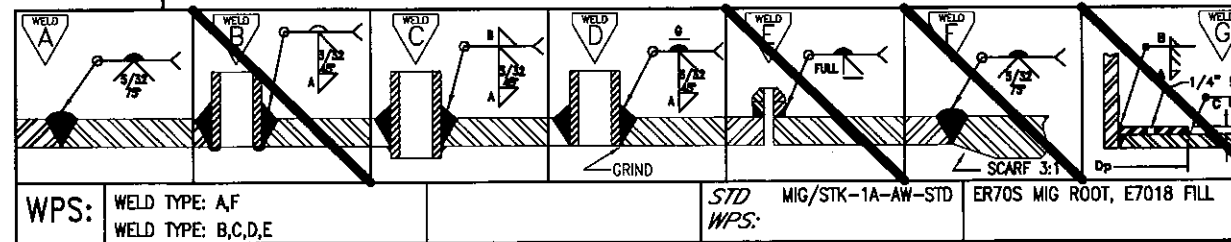
REAR ELEVATION

NOZZLE SCHEDULE:

| REF. | CONNECTION              | NOM. SIZE | RATING CLASS | TYPE | WALL THICK. | PROJECTION |          | WELD DETAILS      | NOZZLE - WELD |             |
|------|-------------------------|-----------|--------------|------|-------------|------------|----------|-------------------|---------------|-------------|
|      |                         |           |              |      |             | INTERNAL   | EXTERNAL |                   | A             | B           |
| N1   | GAS INLET               | 4         | 150#         | RF   | WN FLANGE   | Sch 160    | 0.313    | 1                 | A, C          | 0.375 0.250 |
| N2   | GAS OUTLET (INSPECTION) | 4         | 150#         | RF   | WN FLANGE   | Sch 160    | 0.313    | 2.375 From Center | A, C          | 0.375 0.250 |
| N3   | RECYCLE                 | 3         | 150#         | RF   | WN FLANGE   | Sch 160    | 0.313    | 1.25              | A, C          | 0.375 0.250 |
| N4   | LSHH                    | 3         | 150#         | RF   | WN FLANGE   | Sch 160    | 0.313    | 1.25              | A, C          | 0.375 0.250 |
| N5   | LSH                     | 3         | 150#         | RF   | WN FLANGE   | Sch 160    | 0.313    | 1.25              | A, C          | 0.375 0.250 |
| N6   | DRAIN                   | 2         | 150#         | RF   | WN FLANGE   | XXS        | FLUSH    | 0                 | A, D          | 0.375 -     |
| N7   | LEVEL GAUGE TOP         | 1.5       | 150#         | RF   | WN FLANGE   | XXS        | 0.313    | 4                 | A, C          | 0.375 0.250 |
| N8   | LEVEL GAUGE BOTTOM      | 2         | 150#         | RF   | WN FLANGE   | XXS        | FLUSH    | 0                 | A, D          | 0.375 -     |
| N9   |                         |           |              |      |             |            |          |                   |               |             |
| N10  | INSPECTION PORT         | 3         | 150#         | RF   | WN FLANGE   | Sch 160    | FLUSH    | 1.5               | A, C          | 0.375 -     |
| N11  | INSPECTION PORT         | 3         | 150#         | RF   | WN FLANGE   | Sch 160    | FLUSH    | 3" From Center    | A, C          | 0.375 -     |

BILL OF MATERIALS:

| REF. | QTY | ITEM                  | NOM. SIZE                                                          | NOM. THK     | LENGTH | DESCRIPTION                               |        |                  | MATERIAL                     |
|------|-----|-----------------------|--------------------------------------------------------------------|--------------|--------|-------------------------------------------|--------|------------------|------------------------------|
| 1    | 1   | SHELL                 | 16                                                                 | 0.375        | 64     | SMLS PIPE, Sch 30 (STD)                   |        |                  | SA-108B                      |
| 2    | 2   | HEAD                  | 16                                                                 | 0.375        | 6      | 2:1 SE, 0.313" MTA, 30° BEVEL, 2" STR FLG |        |                  | SA-516-70N                   |
| 3    |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| REF. | QTY | ITEM                  | NOM. SIZE                                                          | RATING CLASS | TYPE   | BORE                                      |        | NOZZLE REFERENCE | MATERIAL                     |
|      |     |                       |                                                                    |              |        | FITTING                                   | NOZZLE |                  |                              |
| 4    |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| 5    |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| 6    | 2   | FLANGE                | 4                                                                  | 150#         | RF     | WN FLANGE                                 | -      | 160              | N1, N2 SA-105N               |
| 7    | 5   | FLANGE                | 3                                                                  | 150#         | RF     | WN FLANGE                                 | -      | 160              | N3, N4, N5, N10, N11 SA-105N |
| 8    | 2   | BLIND FLANGE          | 3                                                                  | 150#         | RF     | BLIND FLANGE                              | -      | -                | N10, N11 SA-105N             |
| 9    | 2   | FLANGE                | 2                                                                  | 150#         | RF     | WN FLANGE                                 | -      | XXS              | N6, N8 SA-105N               |
| 10   | 1   | FLANGE                | 1.5                                                                | 150#         | RF     | WN FLANGE                                 | -      | XXS              | N7 SA-105N                   |
| 11   | 1   | WELD TEE              | 2                                                                  | -            | -      | BW TEE                                    | XXS    | -                | N6, N8 SA-234 WPB            |
| 12   | 1   | ELBOW, LR 45°         | 1.5                                                                | -            | -      | BW LR 45°                                 | XXS    | -                | N7 SA-234 WPB                |
| 13   | 1   | NIPPLE PBE            | 1.5                                                                | -            | -      | NIPPLE                                    | XXS    | -                | N7 SA-108B                   |
| 14   | 1   | NIPPLE PBE            | 2                                                                  | -            | -      | NIPPLE                                    | XXS    | -                | N6, N8 SA-108B               |
| 15   | CTS | PIPE, SMLS (0.531 WT) | 4                                                                  | -            | -      | SMLS                                      | 160    | -                | N1, N2 SA-108B               |
| 16   | CTS | PIPE, SMLS (0.438 WT) | 3                                                                  | -            | -      | SMLS                                      | 160    | -                | N3, N4, N5, N10, N11 SA-108B |
| 17   | CTS | PIPE, SMLS (0.436 WT) | 2                                                                  | -            | -      | SMLS                                      | XXS    | -                | N6, N8 SA-108B               |
| 18   | CTS | PIPE, SMLS (0.400 WT) | 1.5                                                                | -            | -      | SMLS                                      | XXS    | -                | N7 SA-108B                   |
| 19   |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| 20   |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| REF. | QTY | ITEM                  | DESCRIPTION                                                        |              |        |                                           |        |                  | MATERIAL                     |
| 21   | 8   | STUDS                 | STUD BOLTS, 0.625" X 3.5"                                          |              |        |                                           |        |                  | SA-193 B7M                   |
| 22   | 16  | NUTS                  | HEX NUTS, 0.625"                                                   |              |        |                                           |        |                  | SA-194 2HM                   |
| 23   |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| 24   |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| 25   | 1   | NAMEPLATE             | 6.5" X 4.5" X 0.0625" PLATE                                        |              |        |                                           |        |                  | 316 SS                       |
| 26   | 1   | NAMEPLATE BRACKET     | 7 X 4.75 X 0.125 (HORIZONTAL MOUNT)                                |              |        |                                           |        |                  | SA-36/44W                    |
| 27   | 1   | MISTPAD               | OD 15.25", THICKNESS 4", DENSITY # 9                               |              |        |                                           |        |                  | 316 SS                       |
| 28   | 4   | LEG                   | 6" X 4" X 0.25" HSS - CUT AS PER DETAIL                            |              |        |                                           |        |                  | 44W                          |
| 29   | 8   | BASE PLATE            | 8.5" X 6" X 1" PLATE                                               |              |        |                                           |        |                  | SA-36/44W                    |
| 30   |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| 31   | 4   | TOP CAP               | 8" X 4" X 0.5" PLATE                                               |              |        |                                           |        |                  | SA-36/44W                    |
| 32   | 4   | PLATE                 | ROLLED PLATE 16" ID 8" X 14" (0.375" THK) - CUT AND FORM TO VESSEL |              |        |                                           |        |                  | SA-516-70N                   |
| 33   |     |                       |                                                                    |              |        |                                           |        |                  |                              |
| 34   | 3   | GASKET                | GASKET, 3" - 150# RF, 1/8" SPIRAL WOUND                            |              |        |                                           |        |                  | 316SS                        |
| 35   |     |                       |                                                                    |              |        |                                           |        |                  |                              |



- NOTES:
- UNLESS OTHERWISE SPECIFIED:
1. DIMENSIONS SHOWN IN INCHES.
  2. ALL DIMENSIONAL TOLERANCES ARE  $\pm 1/16"$ .
  3. ALL INTERNAL EDGES TO BE CHAMFERED OR ROUNDED TO  $1/8"$ .
  4. ALL DIMENSIONAL WELD TOLERANCES ARE  $\pm 1/16"$ .
  5. ALL ANGULAR WELD TOLERANCES ARE  $\pm 10^\circ$ .
  6. ALL GROOVE WELDS ARE TO BE FULL PENETRATION.
  7. ALL STRUCTURAL WELDS ARE TO BE  $1/4"$  FILLET, CONTINUOUS AND SEAL WELDED.
  8. INTERNAL SURFACE PREPARATION: SSPC-SP-6 (PRIOR TO REMOVABLE MIST PAD GRID INSTALLATION)
  9. EXTERNAL SURFACE PREPARATION: SSPC-SP-6 (AFTER PWHT, IF APPLICABLE)
  10. PRIME: (1) ONE COAT  
PRIME CODE #: ENDURA INTERMIX EPOXY  
PRIME BATCH #: ENDURA EP-2C PRIMER SEALER
  11. PAINT: (2) TWO COAT  
RAL 7030  
PRIME CODE #: GENERAL PAINT  
PRIME BATCH #: INDURETHANE
  12. 44W REPRESENTS CSA G41 21-44W / CSA G41.21-300W
  13. NDE REQUIREMENTS: PRIOR TO ANY INTERNAL COATING APPLICATION  
RT 2 - SPOT  
MPI - INTERNAL (WHERE APPLICABLE) WET FLOURSCENT  
- NOZZLE: ROOT PASS  
- ATTACHMENT / FILLET WELDS
  14. MPI REQUIRED ON ANY BACKGROUGED ROOT PASS.
  15. UT ALL CAT D WELDS - 100%
  16. HYDROTEST PERFORMED AT 1.3X MAWP.

|             |                  |                                     |
|-------------|------------------|-------------------------------------|
| DESIGN DATA | MAWP             | 200 PSI @ 300 °F                    |
|             | MDMT             | -20 °F @ 200 PSI                    |
|             | MAWP (EXT.)      | 15 PSI @ 300 °F                     |
|             | DESIGN TEMP.     | 300 °F @ 200 PSI                    |
|             | SERVICE          | SWEET                               |
|             | SHELL THK. NOM.  | 0.375 INCH                          |
|             | HEAD THK. NOM.   | 0.375 INCH                          |
|             | HEAD THK. MIN.   | 0.313 INCH                          |
|             | CORR ALLOWANCE   | 0.125 INCH                          |
|             | HEAT TREAT       | N/A                                 |
|             | VOLUME           | 7.8 CU. FT.                         |
|             | WEIGHT           | 850 LBS                             |
|             | HYDROSTATIC TEST | 280 PSI                             |
|             | IMPACTS EXEMPT   | EXEMPT PER UG-20(f), UCS 66(b)      |
|             | PROCEDURES       | AQP-1120, WPS-798.2                 |
|             | RADIOGRAPHY      | RT-2 SPOT                           |
|             | ASME CODE        | SECTION VIII, DIV. 1, 2004 EDITION  |
|             | REVISED TO       | SECTION VIII, DIV. 1, 2005 ADDENDUM |
|             | CRN NO.          | U1084.2                             |
|             | CRN DRAWING NO.  | H16-G6 Rev.0A                       |

|     |          |                         |     |     |      |     |     |   |   |
|-----|----------|-------------------------|-----|-----|------|-----|-----|---|---|
| 1   | D5-24-07 | ISSUED FOR CONSTRUCTION | TR  | -   | -    | -   | -   | - | - |
| REV | MM-DD-YY | DESCRIPTION             | DWN | CHK | DSGN | APP | ECN |   |   |

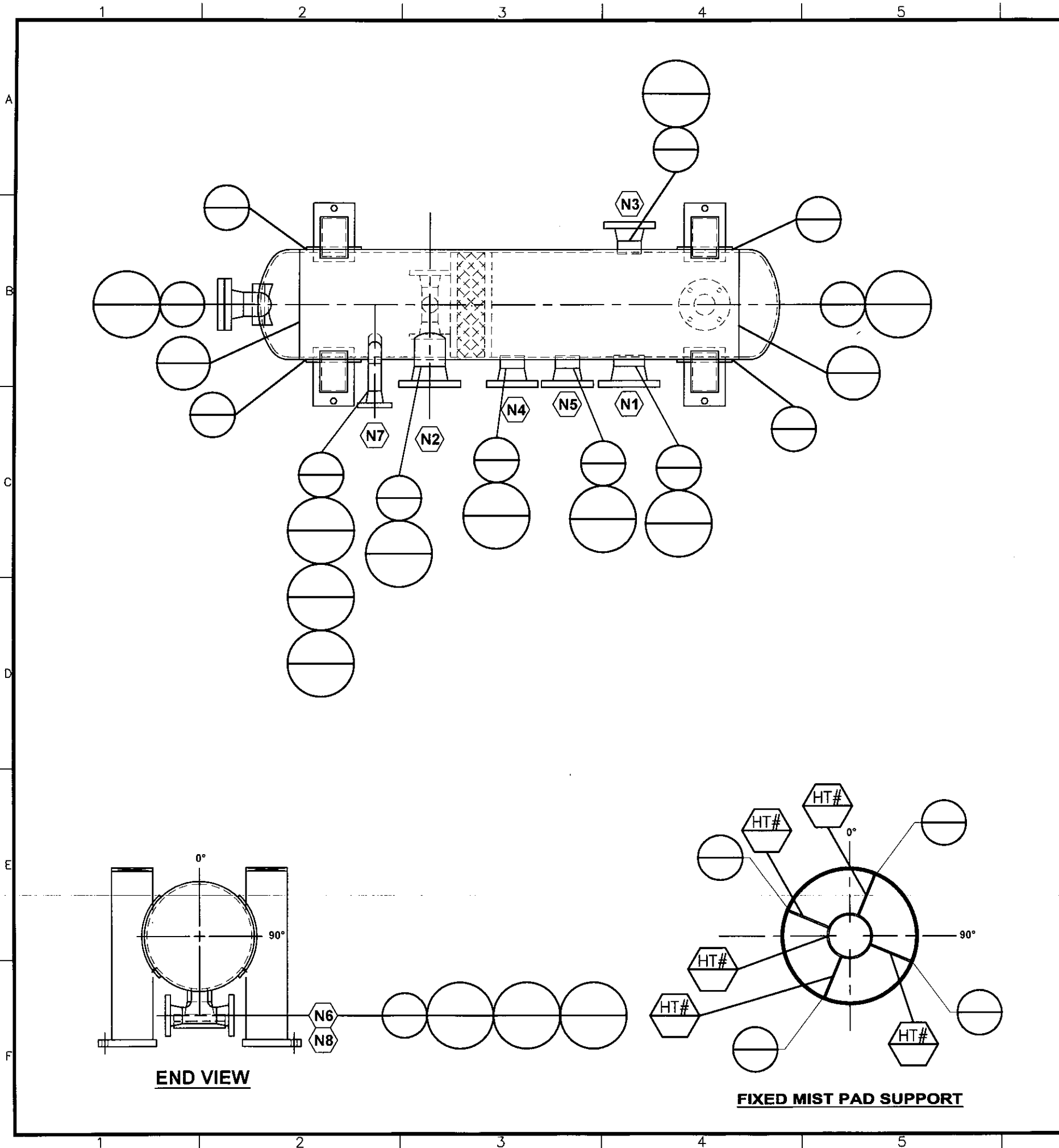
**A P O R T E C H**  
energy services inc.

**HUSKEY ENERGY**  
C/O IMV PROJECTS

**TANK VRU**  
JOB #: 5252C  
LSD: 11-36-49-20 W3M

**HORIZONTAL 16" SUCTION SCRUBBER**

N.T.S. **H16-S133** **1 OF 3** **1**



NOZZLE SCHEDULE:

| REF. | CONNECTION              | NOM. SIZE | RATING CLASS | TYPE | FITTING BORE | MATERIAL | HEAT NO.   | NOZZLE   | MATER             |
|------|-------------------------|-----------|--------------|------|--------------|----------|------------|----------|-------------------|
| N1   | GAS INLET               | 4         | 150#         | RF   | WN FLANGE    | Sch 160  | SA-105N    | 44039    | 4 Sch 160 SA-105N |
| N2   | GAS OUTLET (INSPECTION) | 4         | 150#         | RF   | WN FLANGE    | Sch 160  | SA-105N    | 44039    | 4 Sch 160 SA-105N |
| N3   | RECYCLE                 | 3         | 150#         | RF   | WN FLANGE    | Sch 160  | SA-105N    | AC018    | 3 Sch 160 SA-105N |
| N4   | LSHH                    | 3         | 150#         | RF   | WN FLANGE    | Sch 160  | SA-105N    | 78578B   | 3 Sch 160 SA-105N |
| N5   | LSH                     | 3         | 150#         | RF   | WN FLANGE    | Sch 160  | SA-105N    | AC018    | 3 Sch 160 SA-105N |
| N6   | DRAIN                   | 2         | 150#         | RF   | WN FLANGE    | XXS      | SA-105N    | 26495    | 2 XXS SA-105N     |
| 11   | WELD TEE                | 2         | -            | -    | BWTEE        | XXS      | SA-234 WPB | 624550MT |                   |
| 14   | NIPPLE                  | 2         | -            | -    | NIPPLE       | XXS      | SA-106B    | 526998   |                   |
| N7   | LEVEL GAUGE TOP         | 1.5       | 150#         | RF   | WN FLANGE    | XXS      | SA-105N    | 161A5    | 1.5 XXS SA-105N   |
| 12   | ELBOW, LR 45°           | 1.5       | -            | -    | BWLR 45°     | XXS      | SA-234 WPB | 504395   |                   |
| 13   | NIPPLE                  | 1.5       | -            | -    | NIPPLE       | XXS      | SA-106B    | 32374    |                   |
| N8   | LEVEL GAUGE BOTTOM      | 2         | 150#         | RF   | WN FLANGE    | XXS      | SA-234 WPB | 26495    | 2 XXS SA-105N     |
| N10  | INSPECTION PORT         | 3         | 150#         | RF   | WN FLANGE    | Sch 160  | SA-105N    | AC018    | 3 Sch 160 SA-105N |
| 8    | FLANGE                  | 3         | 150#         | RF   | BLIND FLANGE | -        | SA-105N    |          |                   |
| N11  | INSPECTION PORT         | 3         | 150#         | RF   | WN FLANGE    | Sch 30   | SA-105N    | 40647    | 3 Sch 30 SA-105N  |
| 8    | FLANGE                  | 3         | 150#         | RF   | BLIND FLANGE | -        | SA-105N    |          |                   |

STRUCTURAL COMPONENTS:

| REF. | DESCRIPTION       | MATERIAL  | HEAT NO. | REF. | DESCRIPTION | MATERIAL |
|------|-------------------|-----------|----------|------|-------------|----------|
| 25   | NAMEPLATE BRACKET | SA-36/44W | 670310   |      |             |          |

NOTES:

1.

|     |    |                         |          |     |
|-----|----|-------------------------|----------|-----|
| 1   | TR | ISSUED FOR CONSTRUCTION | 05-24-07 |     |
| REV | BY | DESCRIPTION             | MM-DD-YY | CHK |

CONSTRUCTION MAP

(A/000) WELDERS STAMP  
WELD X-RAY NUMBER

(A/0) WELDERS STAMP  
MATERIAL STAMP



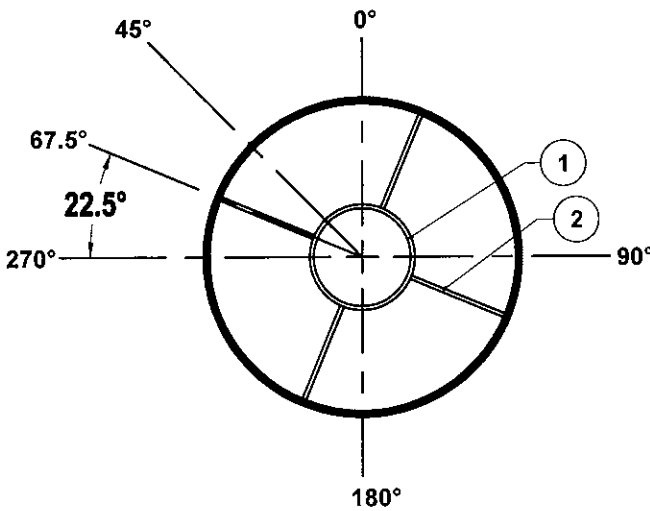
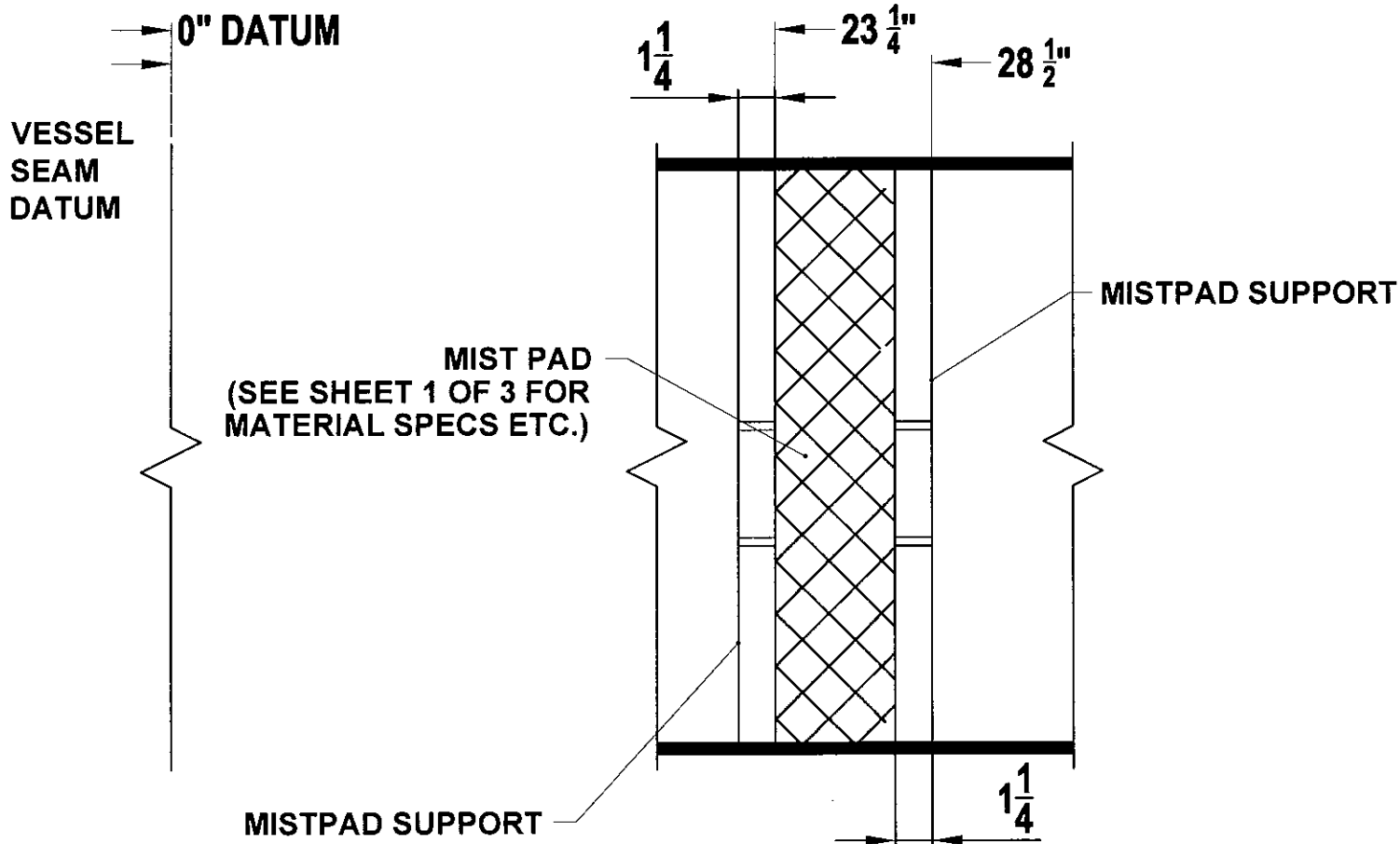
HUSKEY ENERGY  
C/O IMV PROJECTS

TANK VRU  
JOB #: 5252C  
LSD: 11-36-49-20 W3M

VESSEL NDE

BILL OF MATERIALS:

| REF. | QTY | ITEM           | DESCRIPTION                         | MATERIAL   |
|------|-----|----------------|-------------------------------------|------------|
| 1    | 2   | CENTER SUPPORT | NPS 3", S-80, SMLS PIPE 1 1/4" LONG | SA-106B    |
| 2    | 8   | FIXED BRACE    | 3/8" X 1 1/4" X 5 7/8" FLAT BAR     | SA-516-70N |



FIXED MIST PAD SUPPORT

- NOTES:
- 1. ALL STRUCTURAL WELDS ARE TO BE 3/16" FILLET, CONTINUOUS SEAL WELDED UNLESS NOTED.
  - 2. ITEMS #1 AND 2 SHALL BE COATED WITH THE SAME COATING AS THE VESSEL.

|     |    |                         |          |     |
|-----|----|-------------------------|----------|-----|
| 1   | TR | ISSUED FOR CONSTRUCTION | 05-24-07 | —   |
| REV | BY | DESCRIPTION             | MM-DD-YY | CHK |



HUSKEY ENERGY  
C/O IMV PROJECTS

TANK VRU  
JOB #: 5252C  
LSD: 11-36-49-20 W3M

FIXED MISTPAD DETAILS

|        |          |        |   |
|--------|----------|--------|---|
| N.T.S. | H16-S133 | 3 OF 3 | 1 |
|--------|----------|--------|---|