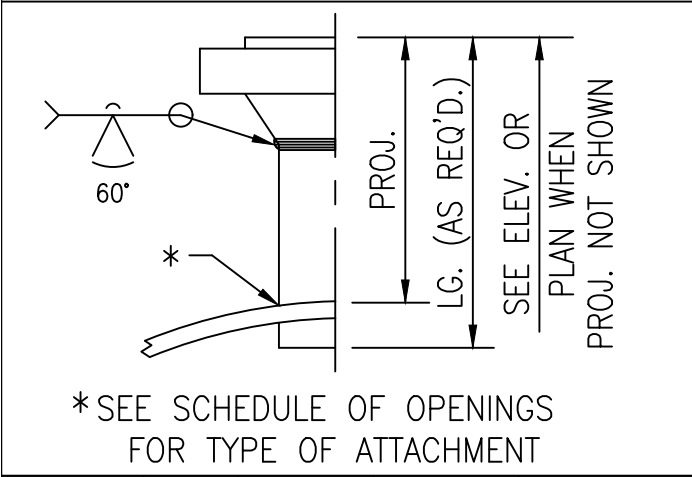
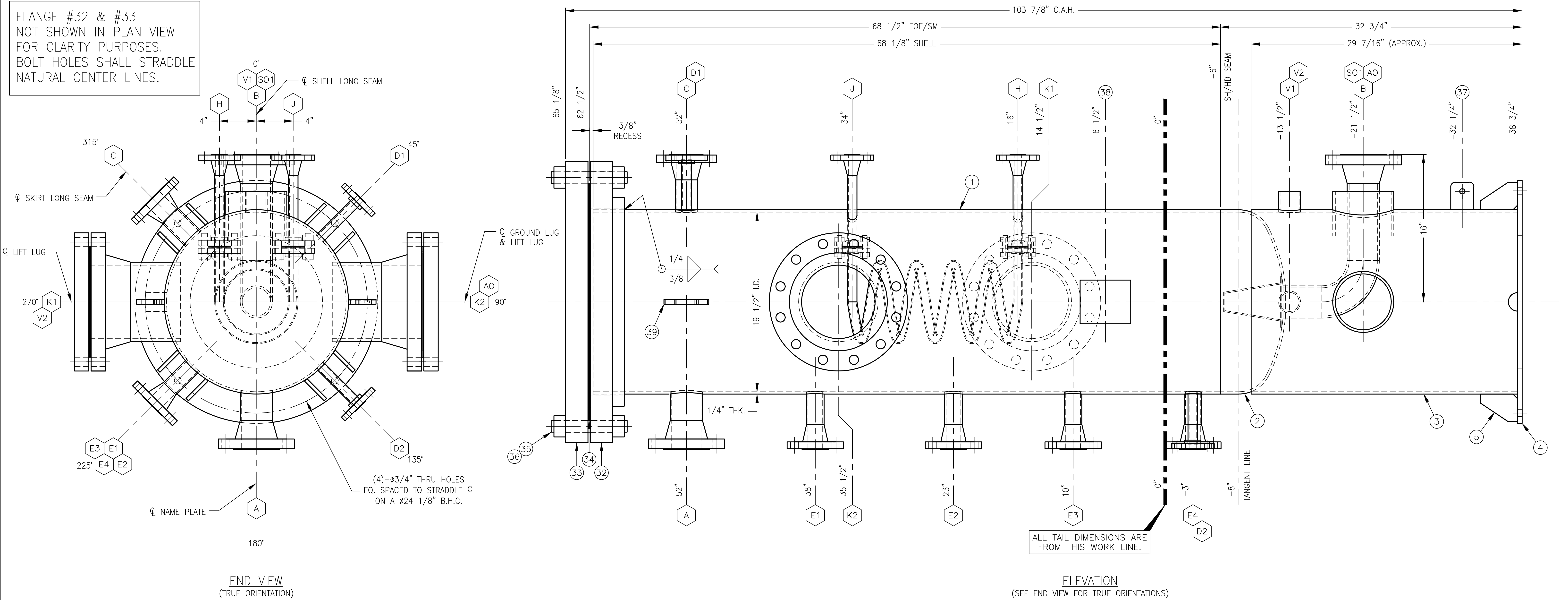
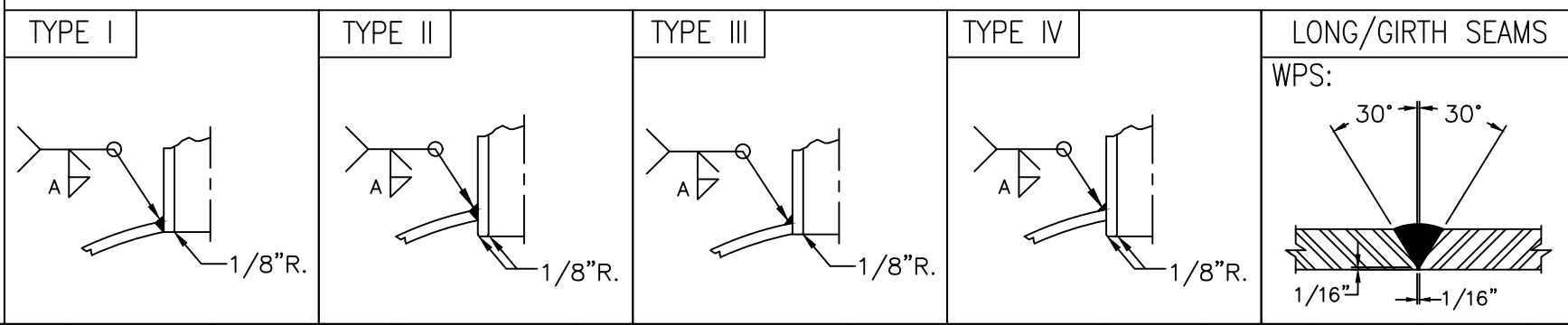


FLANGE #32 & #33  
NOT SHOWN IN PLAN VIEW  
FOR CLARITY PURPOSES.  
BOLT HOLES SHALL STRADDLE  
NATURAL CENTER LINES.



NOTE: ALL NOZZLES TO BE FLUSH WITH SHELL I.D. EXCEPT THOSE CALLED AS SET ON, OR WITH INTERNAL PROJECTION.



|                                 |
|---------------------------------|
| WELDING PROCEDURES              |
| GIRTH WELDS: <u>300</u>         |
| NOZZLE BRANCH WELDS: <u>300</u> |
| FILLET WELDS: <u>300</u>        |

|                |      |        |        |           |         |            |          |               |            |            |      |   |   |                   |                     |
|----------------|------|--------|--------|-----------|---------|------------|----------|---------------|------------|------------|------|---|---|-------------------|---------------------|
| V2             | 1    | 2"     | —      | —         | 270     | 2"         | —        | SA312—TP316/L | —          | III        | 1/4" | — | — | 19                | VENT                |
| V1             | 1    | 2"     | —      | —         | 0°      | 2"         | —        | SA312—TP316/L | —          | III        | 1/4" | — | — | 19                | VENT                |
| A0             | 1    | 6"     | —      | —         | 90°     | 2"         | 2"       | SA312—TP316/L | —          | IV         | 1/4" | — | — | 25                | ACCESS OPNENING     |
| SO1            | 1    | 6"     | —      | —         | 0°      | 2"         | 2"       | SA312—TP316/L | —          | IV         | 1/4" | — | — | 25                | SKIRT OPNENING      |
| K2             | 1    | 8"     | 300#   | RFWN      | 90°     | 8"         | 1/2"     | SA312—TP316/L | —          | II         | 3/8" | — | — | 26 – 31           | HANDHOLE            |
| K1             | 1    | 8"     | 300#   | RFWN      | 270°    | 8"         | 1/2"     | SA312—TP316/L | —          | II         | 3/8" | — | — | 26 – 31           | HANDHOLE            |
| J              | 1    | 3/4"   | 300#   | RFWN      | 0°      | SEE DTL.   | SEE DTL. | SA312—TP316/L | —          | II         | 1/4" | — | — | 8 – 14            | COIL OUTLET         |
| H              | 1    | 3/4"   | 300#   | RFWN      | 0°      | SEE DTL.   | SEE DTL. | SA312—TP316/L | —          | II         | 1/4" | — | — | 8 – 14            | COIL INLET          |
| E4             | 1    | 1 1/2" | 300#   | RFWN      | 225°    | 6"         | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 15, 16            | TE CONNECTIONS      |
| E3             | 1    | 1 1/2" | 300#   | RFWN      | 225°    | 6"         | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 15, 16            | TE CONNECTIONS      |
| E2             | 1    | 1 1/2" | 300#   | RFWN      | 225°    | 6"         | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 15, 16            | TE CONNECTIONS      |
| E1             | 1    | 1 1/2" | 300#   | RFWN      | 225°    | 6"         | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 15, 16            | TE CONNECTIONS      |
| D2             | 1    | 3/4"   | 300#   | RFSW      | 135°    | 6"         | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 6, 7              | CATALYST ACTIVATION |
| D1             | 1    | 3/4"   | 300#   | RFSW      | 45°     | 6"         | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 6, 7              | CATALYST ACTIVATION |
| C              | 1    | 2"     | 300#   | RFWN      | 315°    | 6"         | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 17, 18            | PSV                 |
| B              | 1    | 3"     | 300#   | RFWN      | 0°      | ELEV.      | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 20, 22 – 24       | GAS OUTLET          |
| A              | 1    | 3"     | 300#   | RFWN      | 180°    | 6"         | —        | SA312—TP316/L | —          | I          | 1/4" | — | — | 20, 21            | GAS INLET           |
| MK             | QTY. | SIZE   | RATING | FLG. TYPE | ORIENT. | O.S.       | I.S.     | NOZZLE NECK   | REINF. PAD | TYPE       | A    | B | C | B.O.M. ITEM No's. | SERVICE/REMARKS     |
|                |      |        |        |           |         | PROJECTION |          |               |            | ATTACHMENT |      |   |   |                   |                     |
| NOZZLE DETAILS |      |        |        |           |         |            |          |               |            |            |      |   |   |                   |                     |

SHEET 1 OF 5

REFERENCE DRAWINGS

HV-2112003CB-02\_\_\_\_\_BOM, DESIGN DATA, NOTES  
HV-2112003CB-03\_\_\_\_\_NOZZLE & LUG DETAILS  
HV-2112003CB-04\_\_\_\_\_SKIRT & NOZ. "B" DETAILS  
HV-2112003CB-05\_\_\_\_\_NOZZLE "H" & "J" DETAILS

## FOR FABRICATION

|                        |       |      |
|------------------------|-------|------|
| HVM BY: Kevin Griffith | DATE: | INI: |
| QA/QC BY: Russ Granger | DATE: | INI: |

P.O. NO.: P0110862/63

|                                                                                                                                                                                                                                                                                                   |            |                          |  |                                                                                                                                           |  |  |  |      |      |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|------|------|-------|
|                                                                                                                                                                                                                                                                                                   |            |                          |  |                                                                                                                                           |  |  |  |      |      |       |
| 0                                                                                                                                                                                                                                                                                                 | 01/15/2022 | RELEASED FOR FABRICATION |  |                                                                                                                                           |  |  |  | I.T. | K.G. | G.C.  |
| REV                                                                                                                                                                                                                                                                                               | DATE       | DESCRIPTION              |  |                                                                                                                                           |  |  |  | DRN. | CKD. | APPD. |
| THIS INFORMATION IS CONFIDENTIAL AND THE PROPERTY OF HOUSTON VESSEL MANUFACTURING, INC. AND IS RELEASED ON CONDITION THAT NONE OF THE INFORMATION SHALL BE DISCLOSED TO ANY THIRD PARTY OR REPRODUCED IN WHOLE OR PART WITHOUT THE PRIOR CONSENT IN WRITING OF HOUSTON VESSEL MANUFACTURING, INC. |            |                          |  |                                                                                                                                           |  |  |  |      |      |       |
| CUSTOMER: BAYOTECH                                                                                                                                                                                                                                                                                |            |                          |  |                                                                                                                                           |  |  |  |      |      |       |
| <div>DRAWING TITLE:</div> <div>20" O.D. x 68 3/8" FOF/SM<br/>HIGH TEMP SHIFT REACTOR<br/>GENERAL ARRANGEMENT</div>                                                                                                                                                                                |            |                          |  |                                                                                                                                           |  |  |  |      |      |       |
| DRAWN BY: I. TORRES                                                                                                                                                                                                                                                                               |            | DATE: 07/19/21           |  | <div><br/>Houston Vessel<br/>Manufacturing LLC</div> |  |  |  |      |      |       |
| CHECKED BY: K. GRIFFITH                                                                                                                                                                                                                                                                           |            | DATE:                    |  | JOB NO. HV-2112003<br>SCALE: 1" = 5"                                                                                                      |  |  |  |      |      |       |
| APPROVED BY: G. CASCO                                                                                                                                                                                                                                                                             |            | DATE:                    |  | DRAWING HV-2112003CB-01 REVISION 0                                                                                                        |  |  |  |      |      |       |



TACK NAMEPLATE TO  
VESSEL @ 4 CORNERS

| NAME PL. TABLE |          |            |
|----------------|----------|------------|
| NB #           | SERIAL # | TAG #      |
| LATER          | 8390     | 600-R-1001 |
| LATER          | 8391     | 600-R-1001 |

38 NAMEPLATE  
ONE REQUIRED

DESIGN DATA:

CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASME SECTION VIII DIV. 1 2019  
CODE STAMP IS REQ'D. NATIONAL BD. REG. IS REQ'D.  
DESIGN PRESS. (INTERNAL) 225 P.S.I.G. @ 840 °F  
DESIGN PRESS. (EXTERNAL) — P.S.I. @ — °F  
M.A.W.P. 225 P.S.I.G. @ 840 °F LIMITED BY DESIGN  
HYDROSTATIC TEST 372 P.S.I.G. (NEW) IN HORIZONTAL POSITION  
CORROSION ALLOWANCE: SHELL 0" HEADS 0" NOZZLES 0"  
RADIOGRAPHY: SHELL(LONG SM) — WELDED PIPE  
SHELL(GIRTH SM) —  
HEAD/SHELL SPOT UW-11(b)/ TYPE 1  
JOINT EFF.: HEADS 0.85 SHELL(LONG SM) 0.85 SHELL(GIRTH SM) 0.85  
OTHER NDE EXAM. —  
—  
—  
P.W.H.T. (STRESS RELIEVE) — MINUTES AT — °F CODE CYCLE  
WEIGHTS & CAPACITY  
EMPTY 2,000 LBS. HYDRO 2,800 LBS. CAPACITY 95 US GAL

NOTES:

1. FLANGE BOLT HOLES SHALL STRADDLE NORMAL VESSEL CENTERLINES UNLESS NOTED.
2. WELDS SHALL BE NEAT IN APPEARANCE, FREE OF SLAG, UNDERCUTS, AND OTHER DEFECTS.
3. NOZZLE AND TAIL DIMENSION TOLERANCES SHALL BE  $\pm 1/8$  INCH UNLESS OTHERWISE NOTED.
4. VESSEL SHALL BE CLEANED OF SCALE, OIL, WELD SPATTER, AND ALL OTHER FOREIGN MATTER BEFORE HYDROSTATIC TESTING.
5. COAT ALL NOZZLE GASKET SURFACES WITH PROTECTIVE LUBRICANT BEFORE BLANKING FOR SHIPMENT.
7. EXPOSED INSIDE EDGES SHALL BE CHAMFERED OR ROUNDED.
8. ALL BUTT WELDS ARE TO BE FULL PENETRATION WELDS.
9. FLANGE SHALL BE PARALLEL WITHIN  $0.5^\circ$  IN ANY PLANE.
10. IF RE-ENFORCING PADS ARE TO BE SEGMENTED THEN THE FOLLOWING RULES MUST BE FOLLOWED.  
EACH BUTT WELD IS RADIOGRAPHED OR ULTRASONICALLY EXAMINED TO CONFIRM FULL PENETRATION, OR FOR OPENINGS IN CYLINDERS, THE WELD IS ORIENTED AT LEAST  $45^\circ$  FROM THE LONGITUDINAL AXIS OF THE CYLINDER. EACH SEGMENT TO HAVE ONE  $1/4"$  NPT TELL TALE HOLE.
11. SPREADER BAR SHALL BE USED FOR VESSEL LIFTS.

COATINGS:

INTERIOR:  
SURFACE N/A  
COATING: N/A  
COLOR: N/A

EXTERIOR:  
SURFACE PREP: SUGAR BLAST  
FIRST COAT: N/A  
FINISH COAT: N/A  
COLOR: N/A

INSULATION: N/A

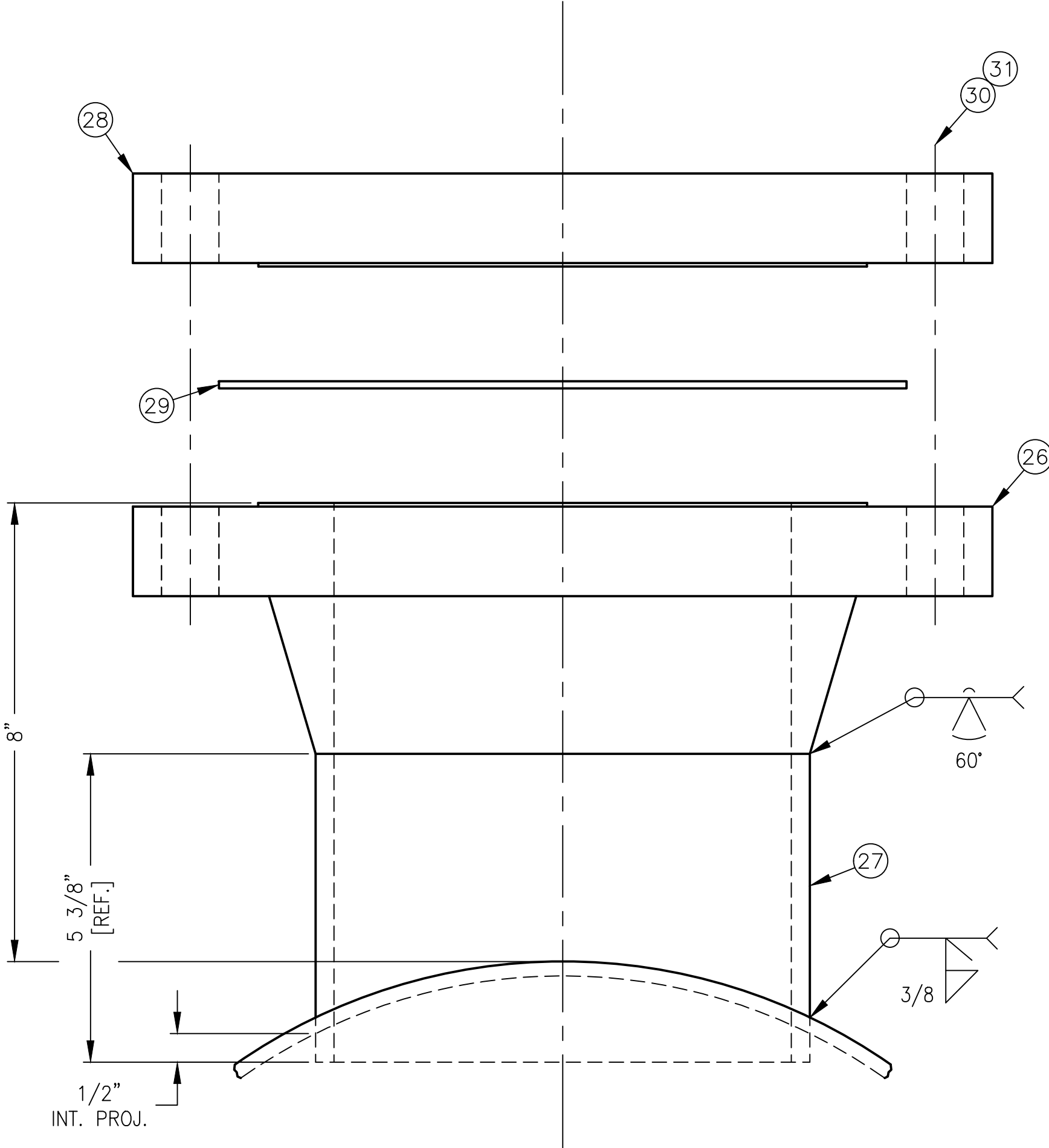
| BILL OF MATERIAL PER VESSEL / (2) REQ'D |                        |      |                                          |                         |                    |                                                                                                      |
|-----------------------------------------|------------------------|------|------------------------------------------|-------------------------|--------------------|------------------------------------------------------------------------------------------------------|
| ITEM                                    | HVM P/N                | QTY. | DESCRIPTION                              | DIMENSIONS              | MATERIAL           | REMARKS                                                                                              |
| 1                                       | PIP-20-S10-W-SFAD      | 1    | PIPE,20",S10                             | 68 1/8" SM/SM           | SA312-TP316/L WLD  | SHELL; BOE, 1/16" LANDS                                                                              |
| 2                                       | HE-20-O-D-SBAD         | 1    | HEAD,ELLIP,20"ODX1/4"NOM                 | -                       | SA240-316/L        | 0.1661" MIN. W/ 2" S.F. (7 1/8" OAH)                                                                 |
| 3                                       | PIP-20-S10-W-SFAD      | 1    | PIPE,20",S10                             | 36" LG.                 | SA312-TP316/L WLD  | SKIRT; PBE, CUT AS REQ'D.                                                                            |
| 4                                       | PLT-H-SBAD             | 1    | PLATE,1/2"THK                            | 26 3/8" OD X 14 3/8" ID | SA240-316/L        | SKIRT BASE RING                                                                                      |
| 5                                       | PLT-F-SBAD             | 8    | PLATE,3/8"THK                            | 3" X 4" LG.             | SA240-316/L        | SKIRT GUSSET                                                                                         |
| 6                                       | FSW-L-03-S40-SDAD      | 2    | FLANGE,RFSW,3/4",300#,S40                | -                       | SA182-F316/L       | -                                                                                                    |
| 7                                       | PIP-L-S40-W-SFAD       | 2    | PIPE,3/4",S40                            | 5 5/8" LG.              | SA312-TP316/L WLD  | 0.113" WALL, PBE                                                                                     |
| 8                                       | FWN-L-03-S40-SDAD      | 2    | FLANGE,RFWN,3/4",300#,S40                | -                       | SA182-F316/L       | 0.824" BORE                                                                                          |
| 9                                       | PIP-L-S40-W-SFAD       | 2    | PIPE,3/4",S40                            | 7 3/8" LG.              | SA312-TP316/L WLD  | 0.113" WALL, PBE                                                                                     |
| 10                                      | PIP-L-S40-SFAD         | 1    | PIPE,3/4",S40                            | -                       | SA312-TP316/L SMLS | 0.113" WALL, BBE; FORM PIPE INTO COIL, COIL DIA. = 8", COIL HEIGHT = 18" C-C, 4.5 COILS AT 4" SPACES |
| 11                                      | FSO-L-03-SDAD          | 4    | FLANGE,RFSO,3/4",300#                    | -                       | SA182-F316/L       | -                                                                                                    |
| 12                                      | GSKT-SW-L-03-B-CG-316  | 2    | GASKET,SPIRAL WOUND,3/4",300#,1/8"THK,CG | -                       | 316SS/GRAPHITE     | -                                                                                                    |
| 13                                      | STU-J-UNC-3-HSH        | 8    | STUD,5/8",UNC,3"LONG                     | -                       | SA193-B8M          | -                                                                                                    |
| 14                                      | NUT-HX-HVY-J-UNC-HSI   | 16   | NUT,HEX,HVY,5/8",UNC                     | -                       | SA194-8M           | -                                                                                                    |
| 15                                      | FWN-1H-03-S40-SDAD     | 4    | FLANGE,RFWN,1-1/2",300#,S40              | -                       | SA182-F316/L       | 1.610" BORE                                                                                          |
| 16                                      | PIP-1H-S40-SFAD        | 4    | PIPE,1-1/2",S40                          | 3 5/8" LG.              | SA312-TP316/L SMLS | 0.145" WALL, BOE                                                                                     |
| 17                                      | FWN-2-03-S40-SDAD      | 1    | FLANGE,RFWN,2",300#,S40                  | -                       | SA182-F316/L       | 2.067" BORE                                                                                          |
| 18                                      | PIP-2-S40-SFAD         | 1    | PIPE,2",S40                              | 3 9/16" LG.             | SA312-TP316/L SMLS | 0.154" WALL, BOE                                                                                     |
| 19                                      | PIP-2-S40-SFAD         | 2    | PIPE,2",S40                              | 2 5/16" LG.             | SA312-TP316/L SMLS | 0.154" WALL, BOE                                                                                     |
| 20                                      | FWN-3-03-S40-SDAD      | 2    | FLANGE,RFWN,3",300#,S40                  | -                       | SA182-F316/L       | 3.068" BORE                                                                                          |
| 21                                      | PIP-3-S40-SFAD         | 1    | PIPE,3",S40                              | 3 5/16" LG.             | SA312-TP316/L SMLS | 0.216" WALL, BOE                                                                                     |
| 22                                      | PIP-3-S40-SFAD         | 1    | PIPE,3",S40                              | 8 3/8" LG.              | SA312-TP316/L SMLS | 0.216" WALL, BOE                                                                                     |
| 23                                      | E90-3-S40-LR-SHAD      | 1    | ELBOW,BW,90",3",S40,LR                   | -                       | SA403-316/L        | 0.216" WALL, BBE                                                                                     |
| 24                                      | PIP-3-S40-SFAD         | 1    | PIPE,3",S40                              | 4 3/16" LG.             | SA312-TP316/L SMLS | 0.216" WALL, BOE                                                                                     |
| 25                                      | PIP-6-S40-W-SFAD       | 2    | PIPE,6",S40                              | 4 13/16" LG.            | SA312-TP316/L WLD  | 0.432" WALL, PBE                                                                                     |
| 26                                      | FWN-8-03-S40-SDAD      | 2    | FLANGE,RFWN,8",300#,S40                  | -                       | SA182-F316/L       | 7.981" BORE                                                                                          |
| 27                                      | PIP-8-S40-W-SFAD       | 2    | PIPE,8",S40                              | 5 3/8" LG.              | SA312-TP316/L WLD  | 0.322" WALL, BOE                                                                                     |
| 28                                      | FB-8-03-SDAD           | 2    | FLANGE,RFB,8",300#                       | -                       | SA182-F316/L       | -                                                                                                    |
| 29                                      | GSKT-SW-8-03-B-CG-316  | 2    | GASKET,SPIRAL WOUND,8",300#,1/8"THK,CG   | -                       | 316SS/GRAPHITE     | -                                                                                                    |
| 30                                      | STU-N-UNC-5L-HSC       | 24   | STUD,7/8",UNC,5-3/4"LONG                 | -                       | SA193-B8M          | -                                                                                                    |
| 31                                      | NUT-HX-HVY-N-UNC-HSD   | 48   | NUT,HEX,HVY,7/8",UNC                     | -                       | SA194-8M           | -                                                                                                    |
| 32                                      | FSO-20-03-SDAD         | 1    | FLANGE,RFSO,20",300#                     | -                       | SA182-F316/L       | -                                                                                                    |
| 33                                      | FB-20-03-SDAD          | 1    | FLANGE,RFB,20",300#                      | -                       | SA182-F316/L       | -                                                                                                    |
| 34                                      | GSKT-SW-20-03-B-CG-304 | 1    | GASKET,SPIRAL WOUND,20",300#,1/8"THK,CG  | -                       | 304SS/GRAPHITE     | -                                                                                                    |
| 35                                      | STU-1D-8UN-8D-HSC      | 24   | STUD,1-1/4",8UN,8-1/4"LONG               | -                       | SA193-B8           | -                                                                                                    |
| 36                                      | NUT-HX-HVY-1D-8UN-HSD  | 48   | NUT,HEX,HVY,1-1/4",8UN                   | -                       | SA194-8            | -                                                                                                    |
| 37                                      | PLT-D-SBAD             | 1    | PLATE,1/4"THK                            | 2 1/2" X 3" LG.         | SA240-316/L        | GROUNDING LUG                                                                                        |
| 38                                      | V4-2000006             | 1    | NAMEPLATE,ASME                           | -                       | 316 SS             | -                                                                                                    |
| 39                                      | -                      | 2    | LUG,LIFTING,SMALL SERIES,PHOENIX FORGE   | -                       | 316 SS             | -                                                                                                    |
| 40                                      | -                      | 1    | STRAINER,4",150#                         | -                       | 316 SS             | BASKET STRAINER                                                                                      |

SHEET 2 OF 5  
P.O. NO.: P0110862/63

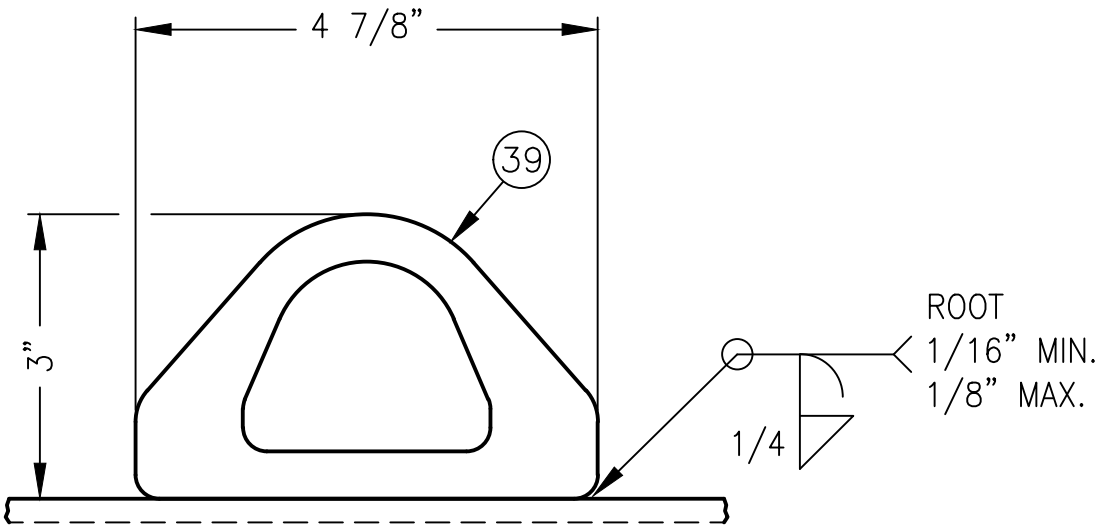
[illegible]



NOTE: SEE SHT. HV-2112003CB-04  
FOR NOZZLE "B" DETAILS.  
SEE SHT. HV-2112003CB-05  
FOR NOZZLE "H" & "J" DETAILS.

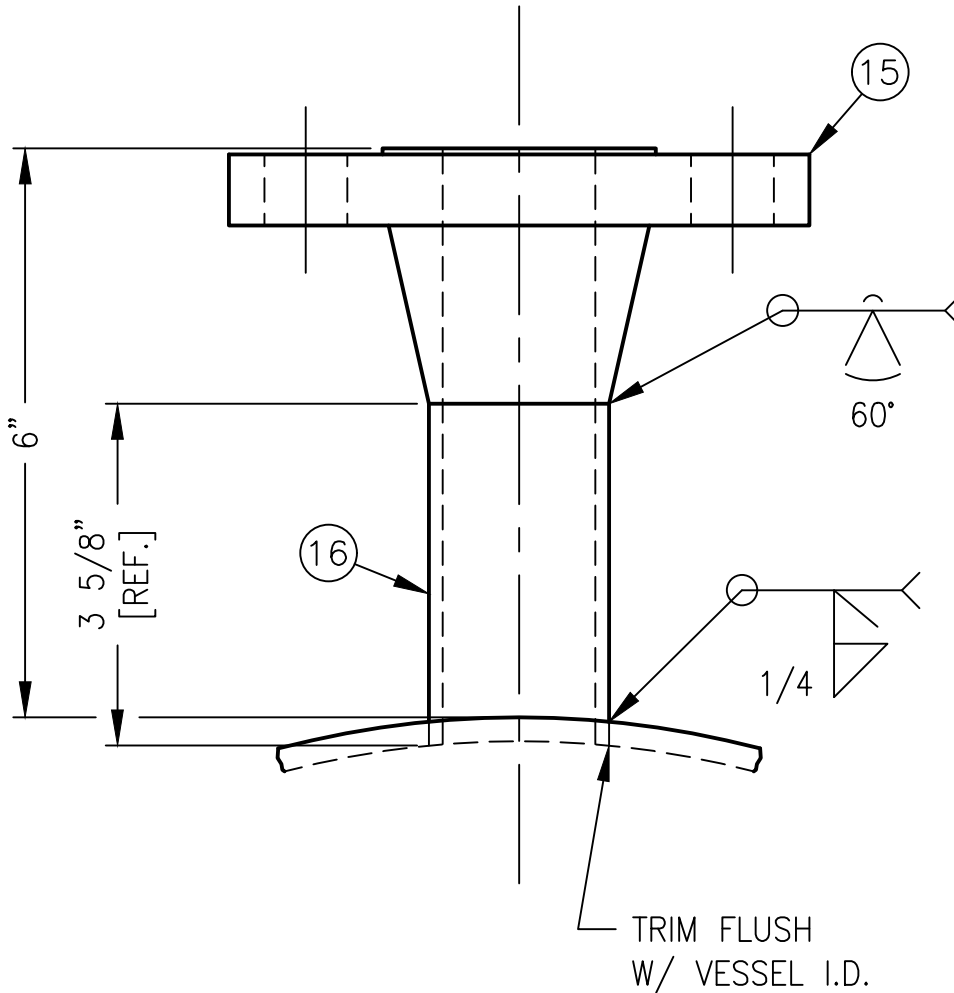
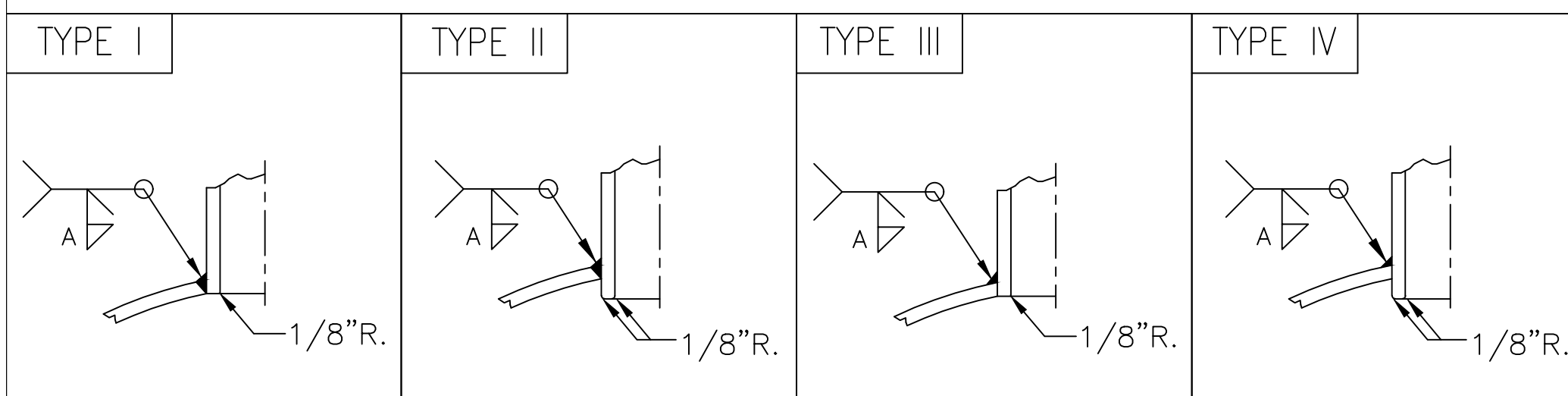


NOZZLE 'K1', 'K2' DETAIL  
TYPE II NOZZLE  
(2 REQ'D.)

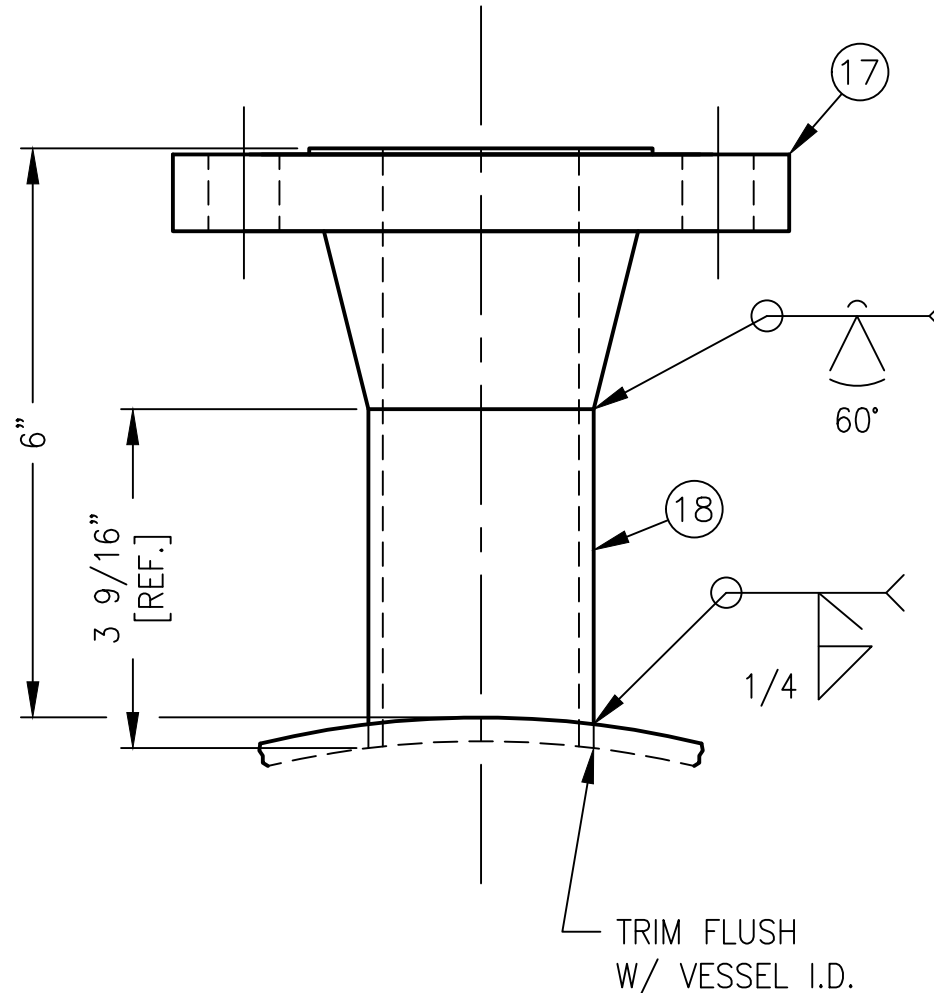


LIFTING LUG DETAIL  
(2 REQ'D.)

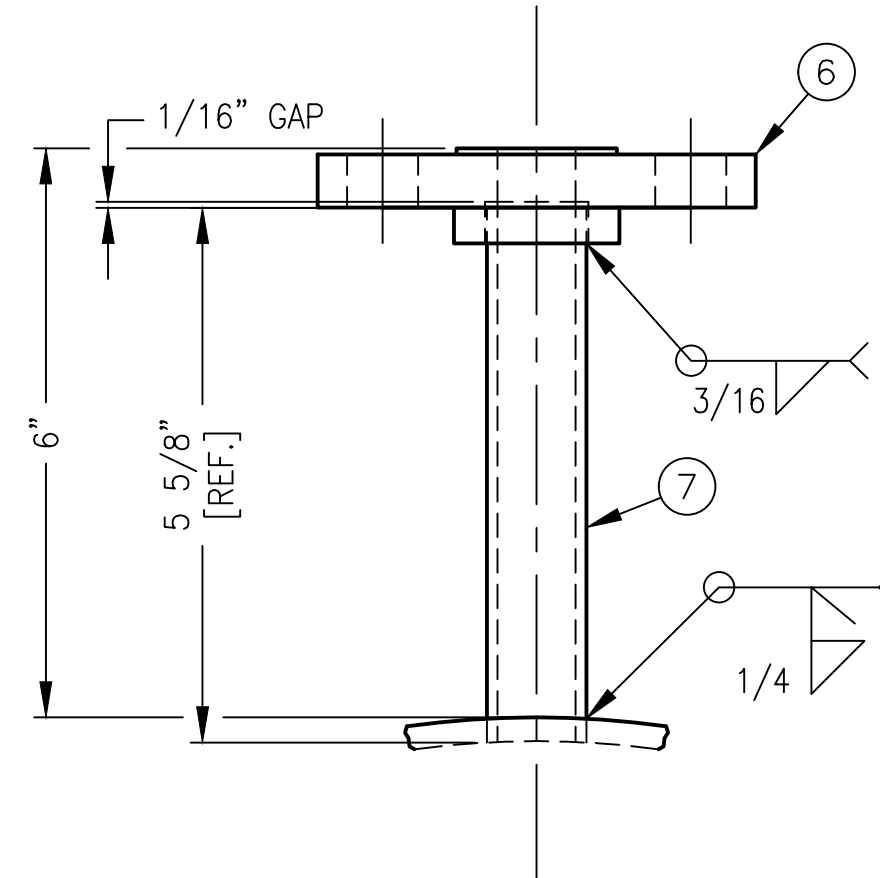
NOTE: ALL NOZZLES TO BE FLUSH WITH SHELL I.D. EXCEPT THOSE CALLED AS SET ON, OR WITH INTERNAL PROJECTION.



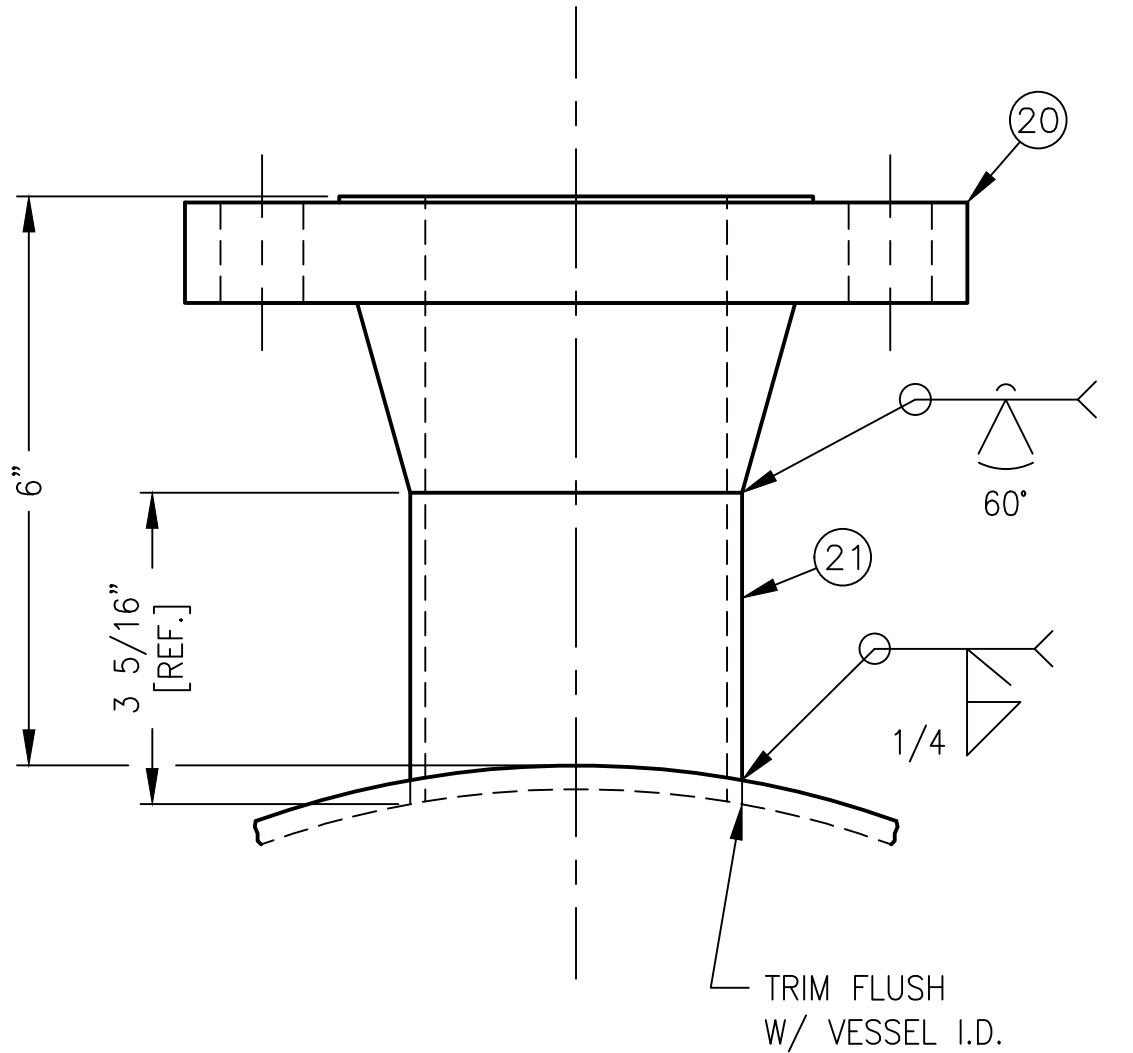
NOZZLE 'E1', 'E2', 'E3', 'E4' DETAIL  
TYPE I NOZZLE  
(4 REQ'D.)



NOZZLE 'C' DETAIL  
TYPE I NOZZLE  
(1 REQ'D.)



NOZZLE 'D1', 'D2' DETAIL  
TYPE 1 NOZZLE  
(2 REQ'D.)

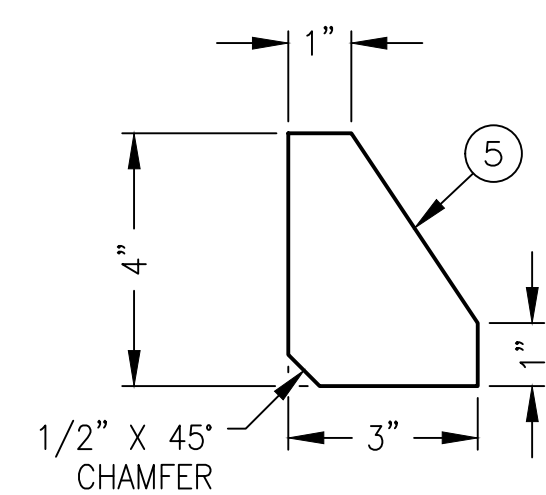


NOZZLE 'A' DETAIL  
TYPE I NOZZLE  
(1 REQ'D.)

SHEET 3 OF 5  
P.O. NO.: P0110862/63

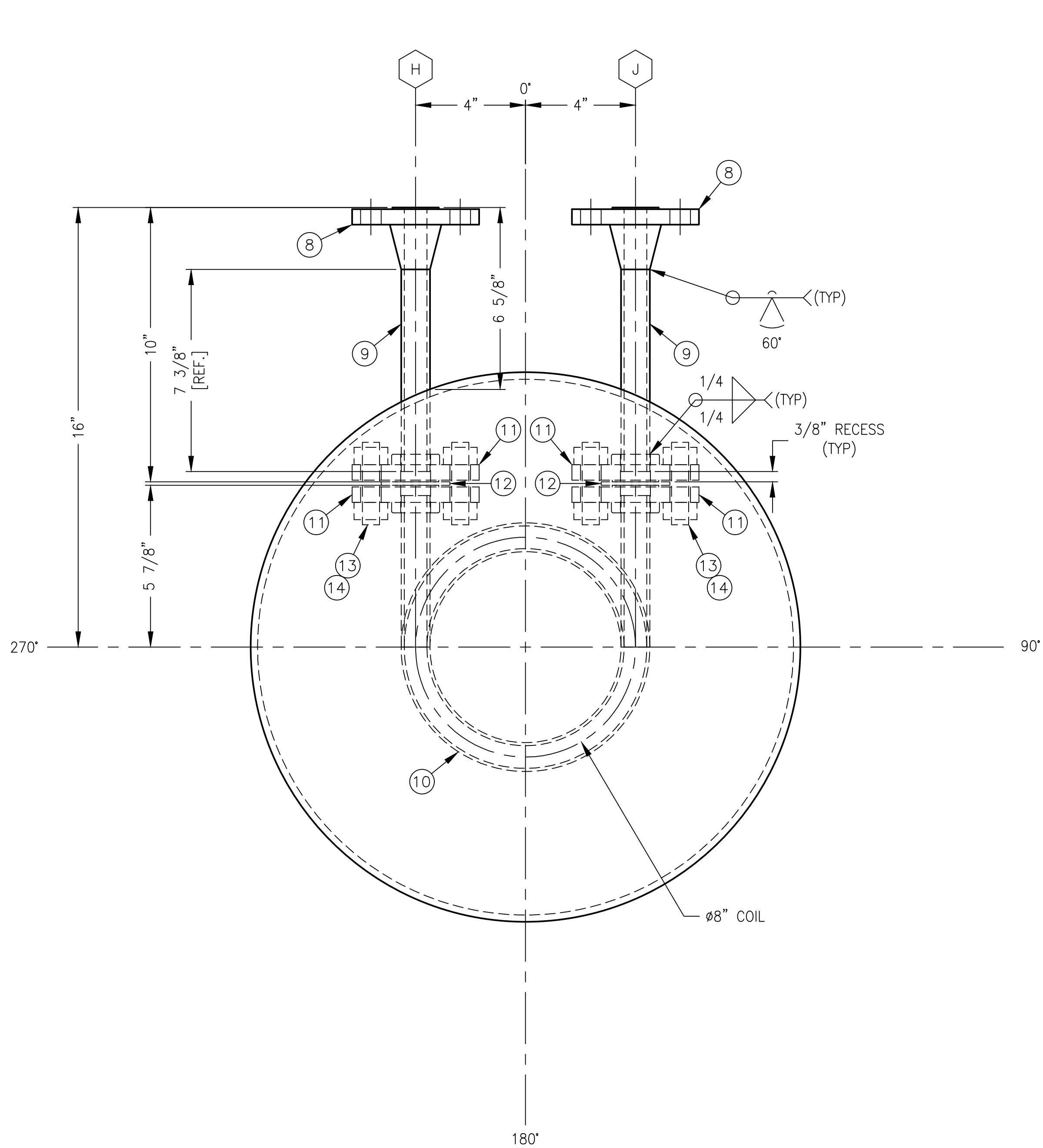
| 0                                                                                                                                                                                                                                                                                                 | 01/15/2022  | RELEASED FOR FABRICATION |          | I.T.    | K.G.            | G.C.  |                                                                                                                           |  |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------|----------|---------|-----------------|-------|---------------------------------------------------------------------------------------------------------------------------|--|------------|
| REV                                                                                                                                                                                                                                                                                               | DATE        | DESCRIPTION              |          | DRN     | CKD             | APPD. |                                                                                                                           |  |            |
| THIS INFORMATION IS CONFIDENTIAL AND THE PROPERTY OF HOUSTON VESSEL MANUFACTURING, INC. AND IS RELEASED ON CONDITION THAT NONE OF THE INFORMATION SHALL BE DISCLOSED TO ANY THIRD PARTY OR REPRODUCED IN WHOLE OR PART WITHOUT THE PRIOR CONSENT IN WRITING OF HOUSTON VESSEL MANUFACTURING, INC. |             |                          |          |         |                 |       |                                                                                                                           |  |            |
| CUSTOMER:                                                                                                                                                                                                                                                                                         | BAYOTECH    |                          |          |         |                 |       |                                                                                                                           |  |            |
| DRAWING TITLE:                                                                                                                                                                                                                                                                                    |             |                          |          |         |                 |       | <br>Houston Vessel Manufacturing LLC |  |            |
| 20" O.D. x 68 3/8" FOF/SF                                                                                                                                                                                                                                                                         |             |                          |          |         |                 |       |                                                                                                                           |  |            |
| HIGH TEMP SHIFT REACTOR                                                                                                                                                                                                                                                                           |             |                          |          |         |                 |       |                                                                                                                           |  |            |
| NOZZLE & LUG DETAILS                                                                                                                                                                                                                                                                              |             |                          |          |         |                 |       |                                                                                                                           |  |            |
|                                                                                                                                                                                                                                                                                                   |             |                          |          |         |                 |       |                                                                                                                           |  |            |
|                                                                                                                                                                                                                                                                                                   |             |                          |          |         |                 |       |                                                                                                                           |  |            |
|                                                                                                                                                                                                                                                                                                   |             |                          |          |         |                 |       |                                                                                                                           |  |            |
| DRAWN BY:                                                                                                                                                                                                                                                                                         | I. TORRES   | DATE:                    | 01/15/22 | JOB NO. | HV-2112003      |       |                                                                                                                           |  |            |
| CHECKED BY:                                                                                                                                                                                                                                                                                       | K. GRIFFITH | DATE:                    |          | SCALE:  | 1" = 2"         |       |                                                                                                                           |  |            |
| APPROVED BY:                                                                                                                                                                                                                                                                                      | G. CASCO    | DATE:                    |          | DRAWING | HV-2112003CB-03 |       |                                                                                                                           |  | REVISION 0 |



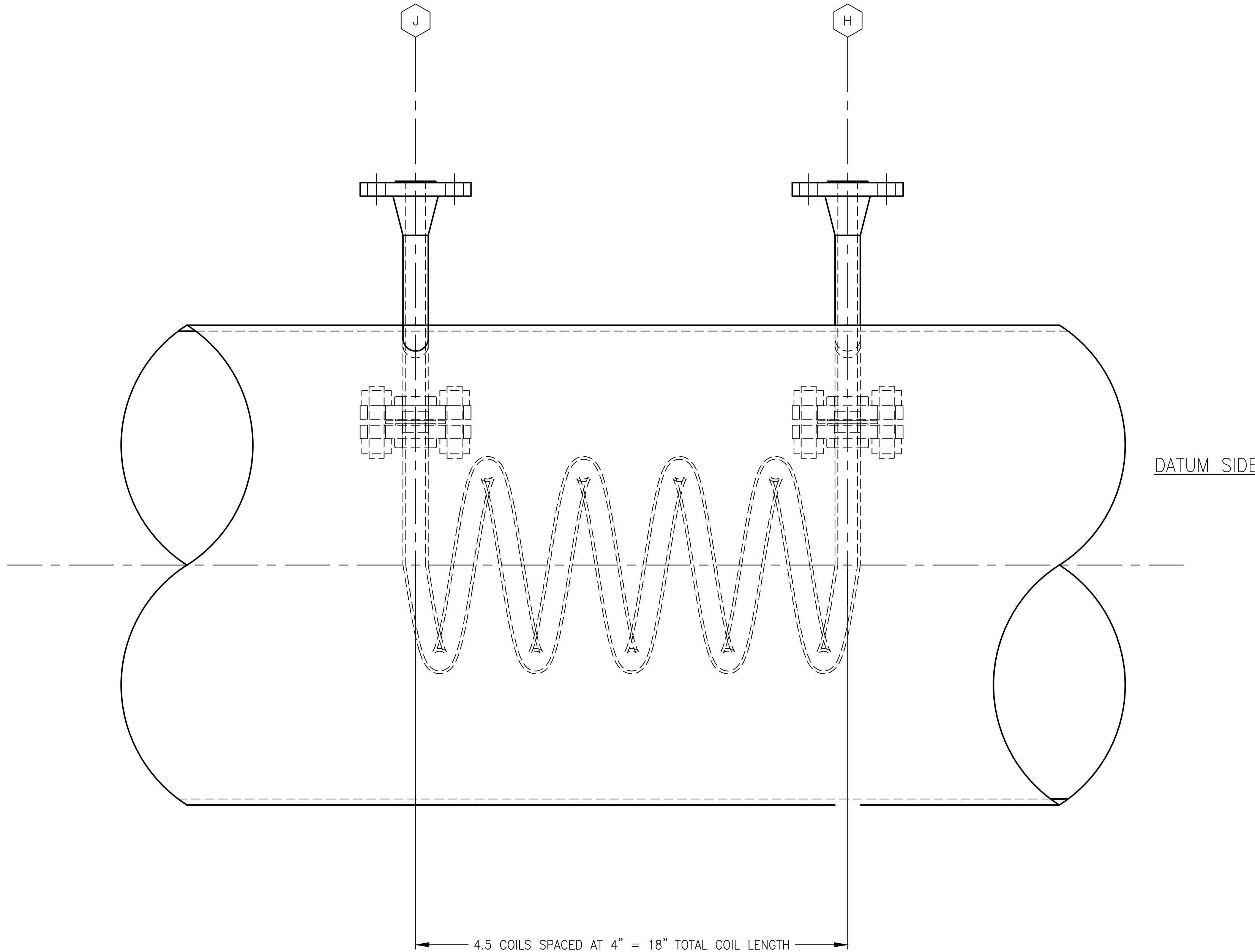


|                                                                                                                                                                                                                                                                                                   |             |                          |                                                                                                                                      |         |                 |       |  |  |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|-------|--|--|------------|
|                                                                                                                                                                                                                                                                                                   |             |                          |                                                                                                                                      |         |                 |       |  |  |            |
| 0                                                                                                                                                                                                                                                                                                 | 01/15/2022  | RELEASED FOR FABRICATION |                                                                                                                                      | I.T.    | K.G.            | G.C.  |  |  |            |
| REV                                                                                                                                                                                                                                                                                               | DATE        | DESCRIPTION              |                                                                                                                                      | DRN.    | CKD.            | APPD. |  |  |            |
| THIS INFORMATION IS CONFIDENTIAL AND THE PROPERTY OF HOUSTON VESSEL MANUFACTURING, INC. AND IS RELEASED ON CONDITION THAT NONE OF THE INFORMATION SHALL BE DISCLOSED TO ANY THIRD PARTY OR REPRODUCED IN WHOLE OR PART WITHOUT THE PRIOR CONSENT IN WRITING OF HOUSTON VESSEL MANUFACTURING, INC. |             |                          |                                                                                                                                      |         |                 |       |  |  |            |
| CUSTOMER: BAYOTECH                                                                                                                                                                                                                                                                                |             |                          |                                                                                                                                      |         |                 |       |  |  |            |
| DRAWING TITLE:<br><br>20" O.D. x 68 3/8" FOF/SM<br>HIGH TEMP SHIFT REACTOR<br>SKIRT & NOZ. "B" DETAILS                                                                                                                                                                                            |             |                          | <br><b>Houston Vessel<br/>Manufacturing LLC</b> |         |                 |       |  |  |            |
| DRAWN BY:                                                                                                                                                                                                                                                                                         | I. TORRES   | DATE:                    | 01/15/22                                                                                                                             | JOB NO: | HV-2112003      |       |  |  |            |
| CHECKED BY:                                                                                                                                                                                                                                                                                       | K. GRIFFITH | DATE:                    |                                                                                                                                      | SCALE:  | 1" = 3"         |       |  |  |            |
| APPROVED BY:                                                                                                                                                                                                                                                                                      | G. CASCO    | DATE:                    |                                                                                                                                      | DRAWING | HV-2112003CB-04 |       |  |  | REVISION 0 |





PLAN VIEW  
(TRUE ORIENTATION)



ELEVATION  
(SEE PLAN VIEW FOR TRUE ORIENTATIONS)

SHEET 5 OF 5  
P.O. NO.: P0110862/63

|                                                                                                                                                                                                                                                                                                   |             |                          |                                                                                                                              |         |                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|
|                                                                                                                                                                                                                                                                                                   |             |                          |                                                                                                                              |         |                 |
|                                                                                                                                                                                                                                                                                                   |             |                          |                                                                                                                              |         |                 |
|                                                                                                                                                                                                                                                                                                   |             |                          |                                                                                                                              |         |                 |
| 0                                                                                                                                                                                                                                                                                                 | 01/15/2022  | RELEASED FOR FABRICATION |                                                                                                                              | I.T.    | K.G. G.C.       |
| REV                                                                                                                                                                                                                                                                                               | DATE        | DESCRIPTION              |                                                                                                                              | DRN.    | CKD. APPD.      |
| THIS INFORMATION IS CONFIDENTIAL AND THE PROPERTY OF HOUSTON VESSEL MANUFACTURING, INC. AND IS RELEASED ON CONDITION THAT NONE OF THE INFORMATION SHALL BE DISCLOSED TO ANY THIRD PARTY OR REPRODUCED IN WHOLE OR PART WITHOUT THE PRIOR CONSENT IN WRITING OF HOUSTON VESSEL MANUFACTURING, INC. |             |                          |                                                                                                                              |         |                 |
| CUSTOMER: BAYOTECH                                                                                                                                                                                                                                                                                |             |                          |                                                                                                                              |         |                 |
| DRAWING TITLE:                                                                                                                                                                                                                                                                                    |             |                          | <br>Houston Vessel<br>Manufacturing LLC |         |                 |
| 20" O.D. x 68 3/8" FOF/SM                                                                                                                                                                                                                                                                         |             |                          |                                                                                                                              |         |                 |
| HIGH TEMP SHIFT REACTOR                                                                                                                                                                                                                                                                           |             |                          |                                                                                                                              |         |                 |
| NOZZLE "H" & "J" DETAILS                                                                                                                                                                                                                                                                          |             |                          |                                                                                                                              |         |                 |
| DRAWN BY:                                                                                                                                                                                                                                                                                         | I. TORRES   | DATE:                    | 01/15/22                                                                                                                     | JOB NO. | HV-2112003      |
| CHECKED BY:                                                                                                                                                                                                                                                                                       | K. GRIFFITH | DATE:                    |                                                                                                                              | SCALE:  | 1" = 3"         |
| APPROVED BY:                                                                                                                                                                                                                                                                                      | G. CASCO    | DATE:                    |                                                                                                                              | DRAWING | HV-2112003CB-05 |
|                                                                                                                                                                                                                                                                                                   |             |                          |                                                                                                                              |         | REVISION 0      |