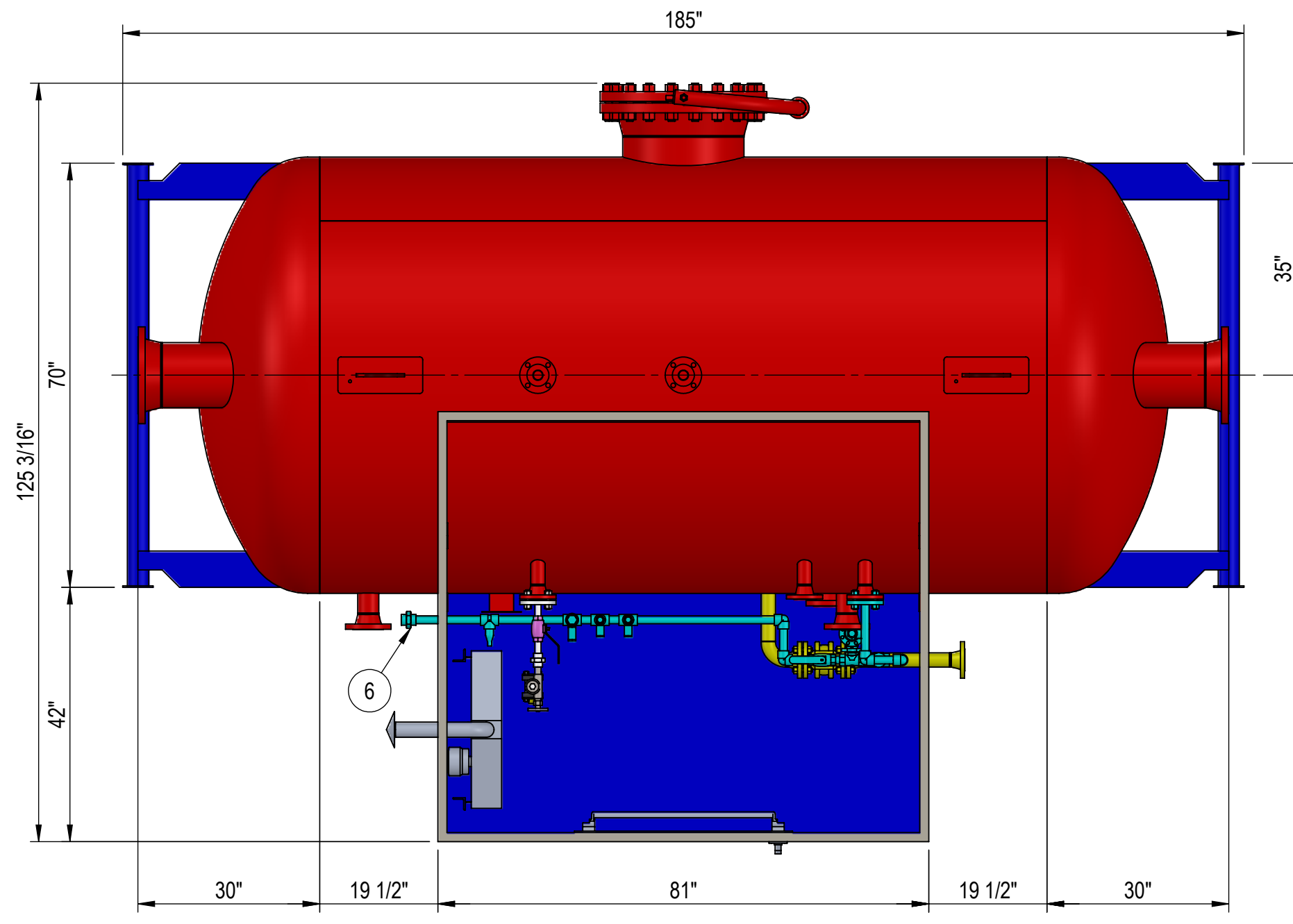
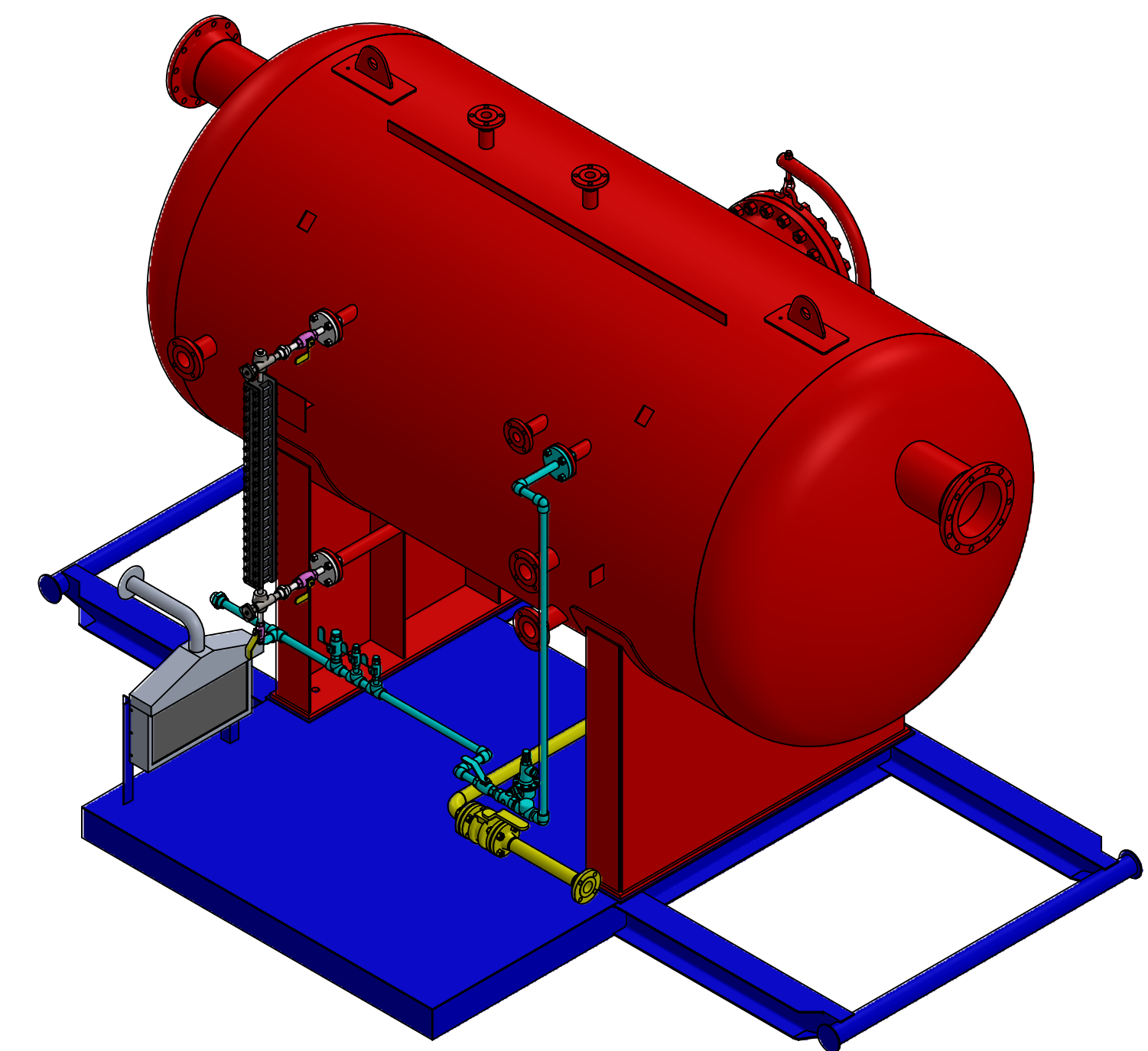
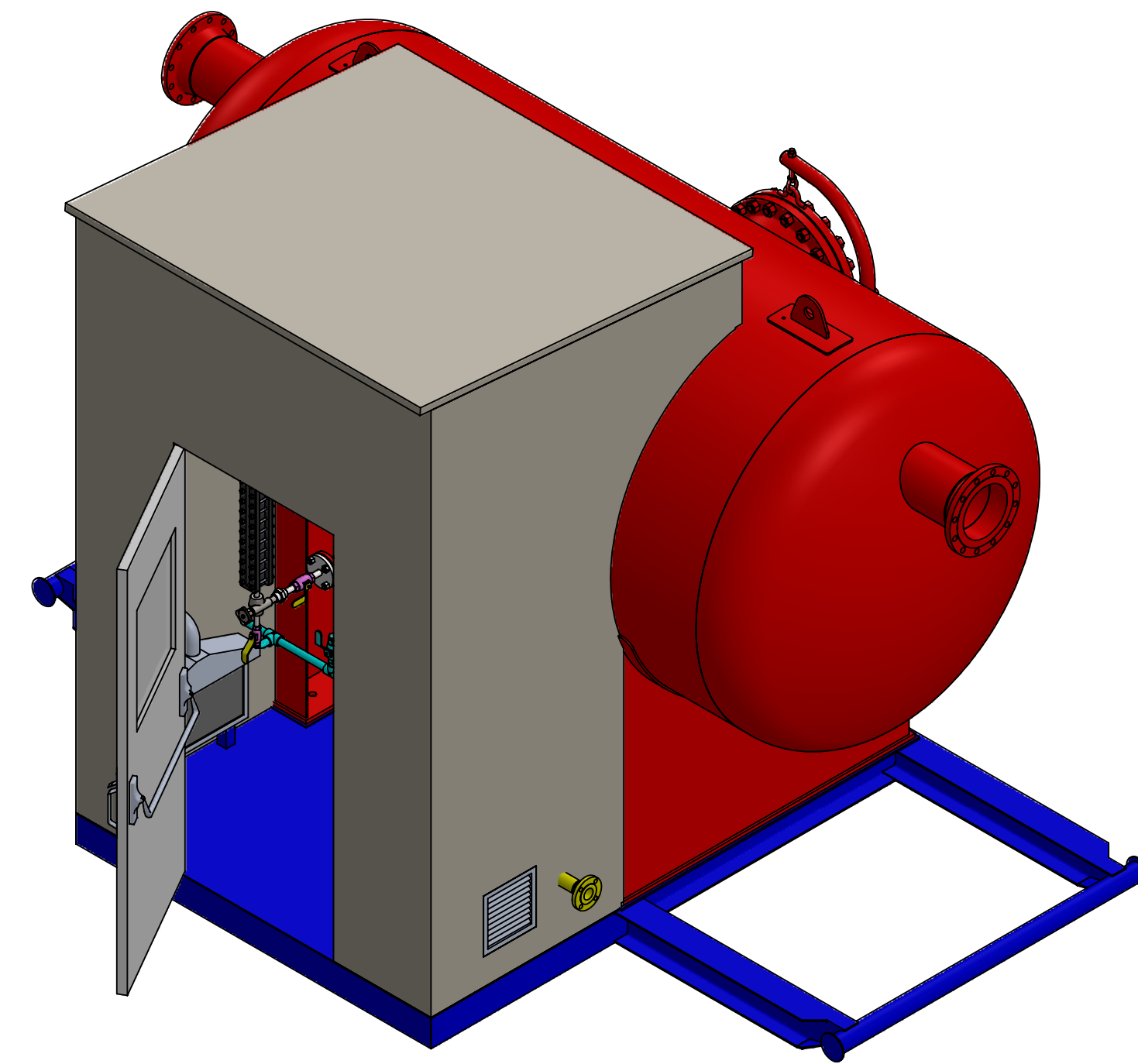


BILL OF MATERIALS

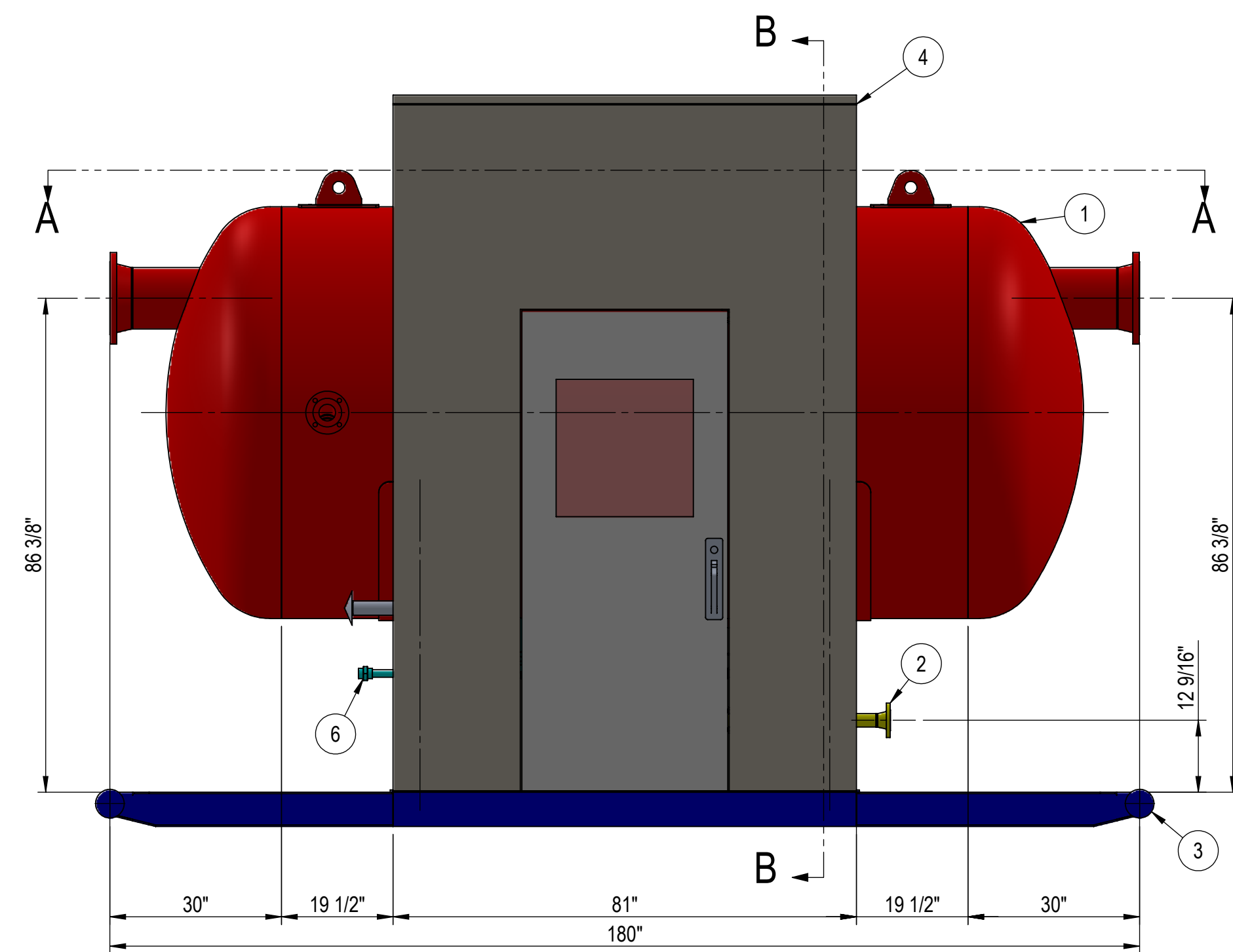
ITEM	PART NUMBER	QTY	DESCRIPTION	WEIGHT (lbs)
1	50KO-1001	1	72" OD x 10'-0" S/S x 50 PSI MAWP VESSEL	6436
2	50KO-1002	1	PUMP-OUT PIPING	90
3	50KO-1003	1	SKID ASSEMBLY	1452
4	50KO-1004	1	BUILDING ASSEMBLY	410
5	50KO-1005	1	LEVEL GAUGE ASSEMBLY	50
6	50KO-1006	1	FUEL GAS SUPPLY	78
7	HT-19662	1	HEATER: CATADYNE WX12x24 (12V Natural Gas) c/w CONTROLS & VENT HOOD	21



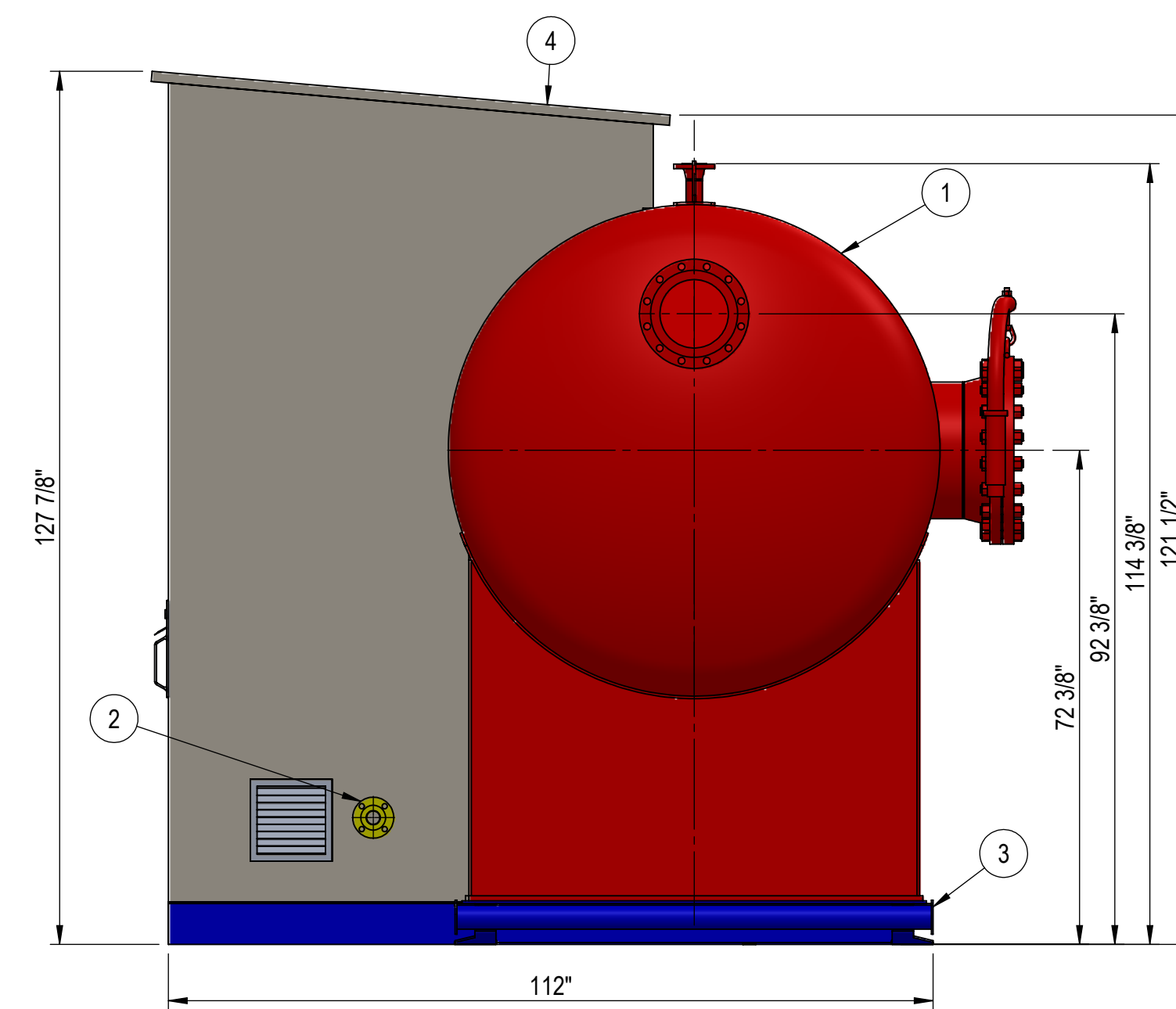
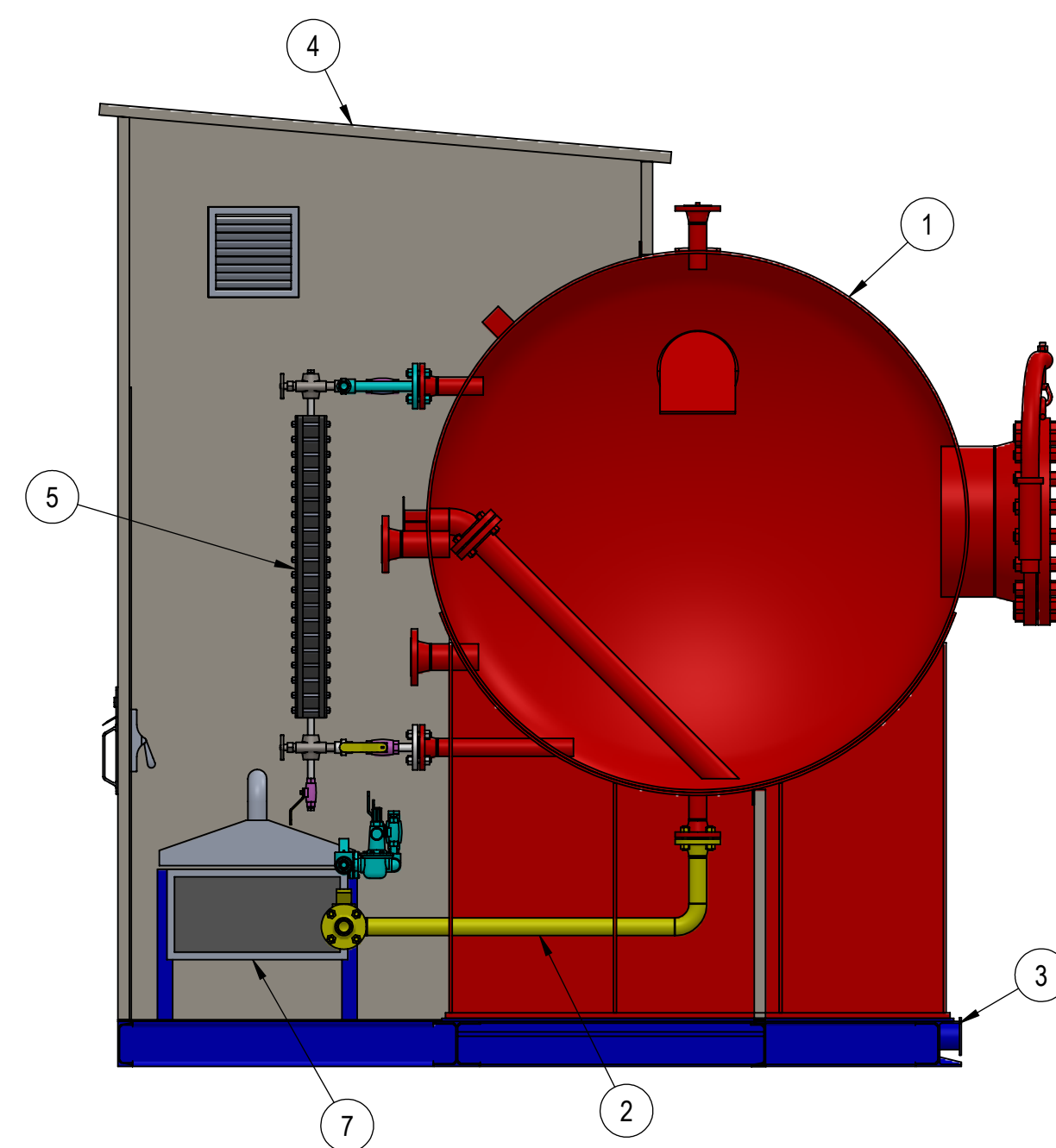
SECTION A-A



BUILDING HIDDEN FOR CLARITY



SECTION B-B



50 BBL FLARE KNOCKOUT DRUM

- SIZE: 72" OD x 10'-0" S/S - 50 PSI MAWP
- EXTERNAL FINISH:
 - PIPING & VESSEL:
 - PREPARATION: SSPC-SP3 POWER TOOL CLEAN
 - FINISH: CLOVERDALE PRIMER & WARM GREY FINISH COAT
 - SKID:
 - PREPARATION: SSPC-SP3 POWER TOOL CLEAN (MINIMUM)
 - FINISH: CLOVERDALE PRIMER & WARM GREY FINISH COAT
- INTERNAL FINISH:
 - VESSEL:
 - PREPARATION: NIL
 - COATING: NIL
 - PIPING:
 - PREPARATION: NIL
 - COATING: NIL
- INSULATION:
 - VESSEL: 1 1/2" THK MINERAL WOOL w/ 0.020" ALUMINUM CLADDING
 - ENCLOSURE: 1 1/2" THK THERMAL PANEL
 - U/S SKID: 2" THK URETHANE FIRE RETARDANT SPRAY FOAM
- PACKAGE SHIPPING DIMENSIONS: 125 3/16" W x 185" LG x 127 7/8" HIGH
- PACKAGE SHIPPING WEIGHT: 8537 lbs

DOCKOTA EQUIPMENT

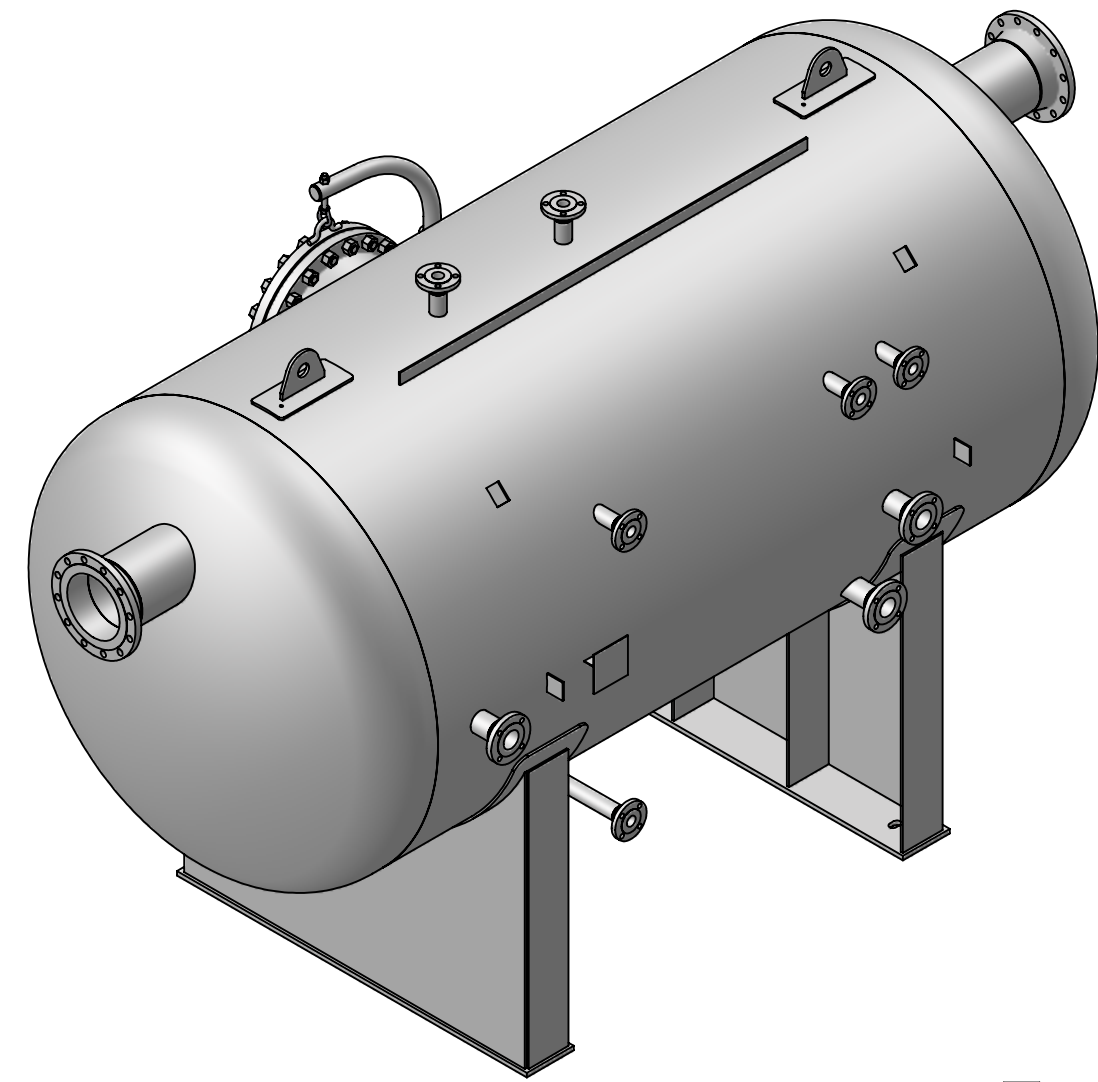
50 BBL FLARE KNOCKOUT DRUM

50 BBL FLARE KNOCKOUT DRUM GENERAL ARRANGEMENT

Drawn By:
Dan Griffiths
Date:
01/17/22
Checked By:
Redfox Project No:
RF22034

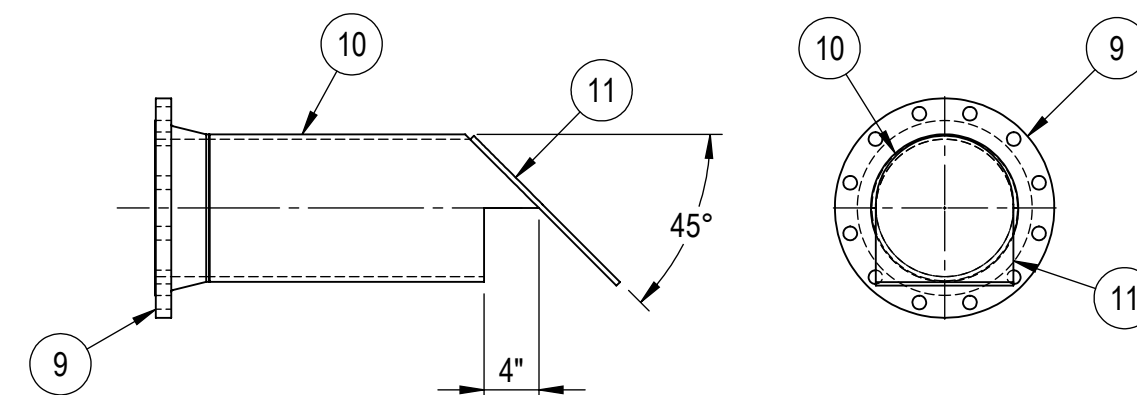
Envision Project No:
22023
Drawing Number:
CODE-50BBL-72x120 LAYOUT
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0

UNLESS NOTED OTHERWISE	DIMENSIONS & TOLERANCES	
ALL DIMENSIONS IN INCHES	FRACTIONAL ±1/8	POSITION ±0.005in
REMOVE (ALL) SHARP EDGES & BURRS	OVERALL LENGTH ±1/4	CONCENTRICITY \odot 0.005in TIR
SURFACE FINISHES 125 μ in MAX	ANGULAR ±1°	STRAIGHTNESS — 0.005in/5 INCHES
FILLET RADII 0.06"	0.0 ±0.030	FLATNESS ∇ 0.005in/5 INCHES
CHAMFERS 0.06" x 45°	0.00 ±0.015	PARALLELISM \parallel 0.010in/5 INCHES
3RD ANGLE PROJECTION	0.000 ±0.005	PERPENDICULARITY \perp 0.010in/10 INCHES

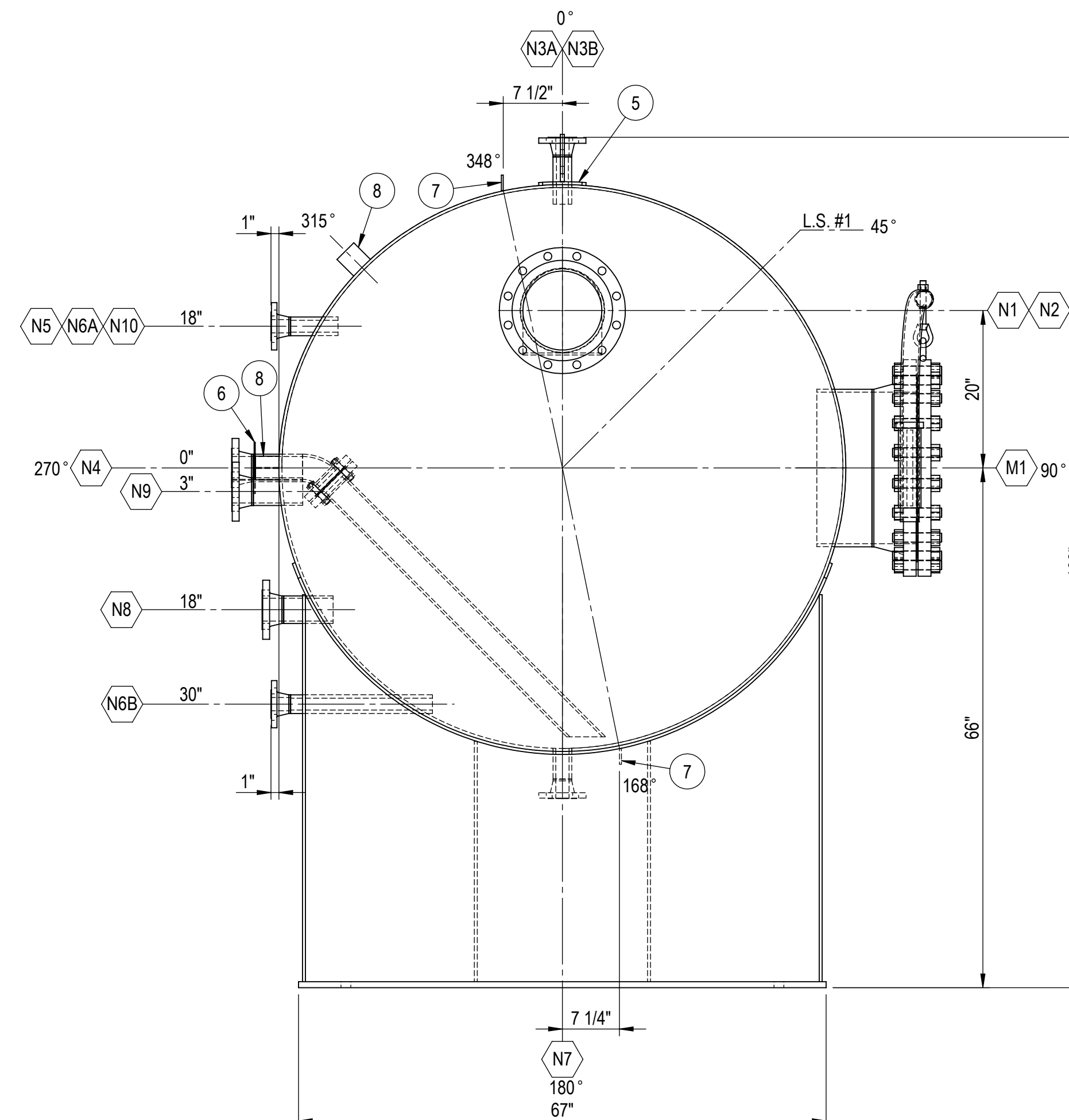
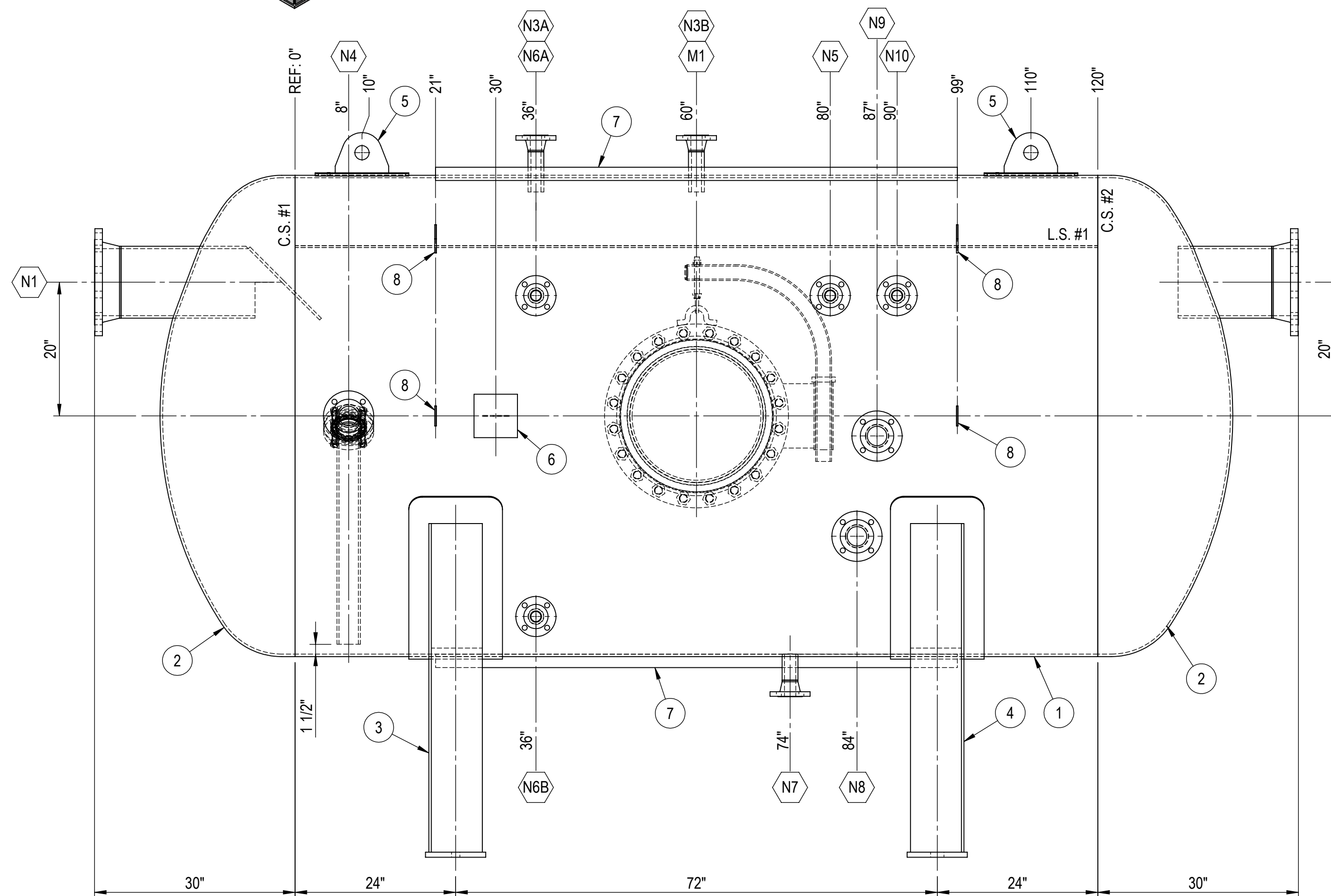


NOZZLE SCHEDULE													
MARK	SERVICE	NPS	SCH	CLASS	TYPE	EXT. PROJ.	INT. PROJ.	WELD DETAIL	WELD A	WELD B	WELD C	WELD D	BILL OF MATERIAL ITEM NUMBERS
N1	INLET	10	STD	150	RFWN	AS SHOWN	-	2,4	3/8	-	-	-	9,10,11
N2	OUTLET	10	STD	150	RFWN	AS SHOWN	-	2,4	3/8	-	-	-	9,12
N3A/B	RELIEF VENT	2	160	150	RFWN	6"	-	2,4	3/8	-	-	-	13,14
N4	TRUCK-OUT	3	XH	150	RFWN	6"	AS SHOWN	2,3,4	3/8	-	-	-	15,16,17,18,19
N5	PRESSURE INDICATOR	2	160	150	RFWN	AS SHOWN	-	2,4	3/8	-	-	-	13,14
N6A	LEVEL GAUGE	2	160	150	RFWN	AS SHOWN	-	2,4	3/8	-	-	-	13,14
N6B	LEVEL GAUGE	2	160	150	RFWN	AS SHOWN	-	2,4	3/8	-	-	-	13,20
N7	PUMP-OUT	2	160	150	RFWN	6"	FLUSH	2,5	3/8	-	-	-	13,21
N8	LEVEL SWITCH	3	XH	150	RFWN	6"	-	2,4	3/8	-	-	-	15,16
N9	LEVEL SWITCH	3	XH	150	RFWN	6"	-	2,4	3/8	-	-	-	15,16
N10	PURGE GAS	2	160	150	RFWN	AS SHOWN	-	2,4	3/8	-	-	-	13,14
M1	MANWAY	20	STD	150	RFWN	9"	-	2,4	3/8	-	-	-	22,23,24,25,26,27,28

BILL OF MATERIALS					
ITEM	PART NUMBER	QTY	DESCRIPTION	LENGTH	MATERIAL
1	PV-35308	1	SHELL - 3/8" THK x 72" OD x 10'-0" LG		SA-516-70N
2	PV-35310	2	HEAD - 3/8" THK (0.3125" MIN) x 72" OD 2:1 SE, 2" SF (HOT FORM)		SA-516-70N
3	50KO-1101	1	FIXED SADDLE ASSEMBLY		
4	50KO-1102	1	SLIDING SADDLE ASSEMBLY		
5	50KO-1103	2	LIFT LUG ASSEMBLY		
6	NP-19695	1	VENDOR STANDARD NAMEPLATE BRACKET c/w NAMEPLATE		SA-36
7	50KO-2036	2	FB 2" x 1/4"	78"	G40.21 44W
8	50KO-2009	4	PL 1/4" x 3" x 3"		G40.21 44W
9	FL-05210	2	FLANGE - 10" CLASS 150 RFWN SCH STD		SA-350-LF2 CL1
10	50KO-2010	1	PIPE - 10" SCH STD (0.3650")	24"	SA-333-GR6
11	50KO-2011	1	PL 3/8" x 10" x 15 1/16"		G40.21 44W
12	50KO-2012	1	PIPE - 10" SCH STD (0.3650")	14"	SA-333-GR6
13	FL-05244	7	FLANGE - 2" CLASS 150 RFWN SCH 160		SA-350-LF2 CL1
14	50KO-2013	5	PIPE - 2" SCH 160 (0.3440")	6"	SA-333-GR6
15	FL-05226	3	FLANGE - 3" CLASS 150 RFWN SCH XH		SA-350-LF2 CL1
16	50KO-2014	3	PIPE - 3" SCH XH (0.3000")	6 1/4"	SA-333-GR6
17	FL-04434	1	FLANGE - 3" CLASS 150 RFSDO		SA-350-LF2 CL1
18	EL-03636	1	ELBOW - 3" x 45° LR BW SCH XH		SA-420-WPL6
19	50KO-1104	1	TRUCK-OUT DOWNCOMER		
20	50KO-2016	1	PIPE - 2" SCH 160 (0.3440")	18"	SA-333-GR6
21	50KO-2017	1	PIPE - 2" SCH 160 (0.3440")	3 7/8"	SA-333-GR6
22	FL-05215	1	FLANGE - 20" CLASS 150 RFWN SCH STD		SA-350-LF2 CL1
23	50KO-2018	1	PIPE - 20" SCH STD (0.3750")	7"	SA-333-GR6
24	FL-04081	1	FLANGE - 20" CLASS 150 RF BLIND		SA-350-LF2 CL1
25	GK-09721	1	GASKET - 20" CLASS 150 FLEXICARB "CG"		316-SS
26	ZZ-10116	20	STUD - 1 1/8" DIA x 6 1/4" LG		SA-193-B7M
27	ZZ-10338	40	NUT - 1 1/8" DIA HEX		SA-194-2HM
28	DV-20774	1	DAVIT ARM ASSEMBLY - 20" CL150		



INLET DIVERTER



GENERAL NOTES

- QUALITY PROGRAM NUMBER: AQP-1584
- WELDING PROCEDURE REGISTRATION NUMBER: WP-3603.2
- CAPACITY: 347 Cu.Ft
- SERVICE: HYDROCARBONS
- ALL EXPOSED INSIDE OR OUTSIDE EDGES OF NOZZLES OR OPENINGS SHALL BE ROUNDED (1/8") AS PER UG-76(c).
- ALL INSIDE/OUTSIDE PROJECTIONS MEASURE ALONG SHORT SIDE OF NOZZLES IN SHELL OR HEADS.
- ALL REPADS/WEAR PADS SHALL HAVE A 1/4" NPT WEEP HOLE.
- ALL BOLT HOLES TO STRADDLE CENTERLINES.
- CLEAN AND COVER ALL OPENINGS FOR SHIPMENT.
- USE WELD PROCEDURE ENV-1 FOR ALL TACK WELDS.
- VESSEL TO BE PREPPED FOR INTERNAL COATING AT A LATER DATE. ALL INTERNAL COATED VESSELS REQUIRE 1/4" BACK WELD.
- SURFACE PREPARATION: SSPC-SP3 POWER TOOL CLEAN (MINIMUM)
- CLOVERDALE PRIMER AND WARM GREY FINISH COAT.

DESIGN SPECIFICATIONS

DESIGN & FABRICATE TO: ASME SECTION VIII, DIVISION 1, 2019 EDITION	
DESIGN PRESSURE: 50 PSIG @ 350° F	
MAWP: 50 PSIG @ 350° F	MDMT: -20° F @ 50 PSIG
IMPACT TESTS: EXEMPT PER UG-20(f)(1-5), FLANGES PER UCS-66(b)(1)(b)	
STUDS PER FIG. UCS-66 NOTE C	
RADIOGRAPHY: RT-1 AS PER UW-11(a)	
PWHT PER UCS-56: NONE	
CORROSION ALLOWANCE: 1/8"	PRE-HEAT: NIL
HYDROTEST PRESSURE: 75 PSIG	VOLUME: 341 FT³ (9.65 m³)
WEIGHT EMPTY: 6,450 lbs	WEIGHT FULL: 27,750 lbs
CRN DRAWINGS: 5162-1 Rev 2, 5162-2 Rev 2, 5162-3 Rev 2	
CRN CALCULATION: 72-2-0050-5162-1-R2 & 72-2-0050-5162-2-R2	
CRN: Y3900.213	SERIAL NO.:

DOCKOTA EQUIPMENT

50 BBL FLARE KNOCKOUT DRUM

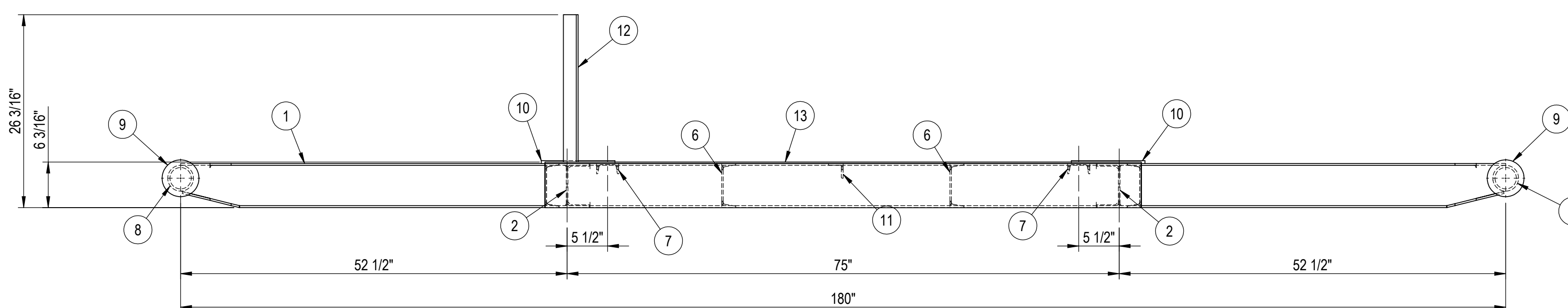
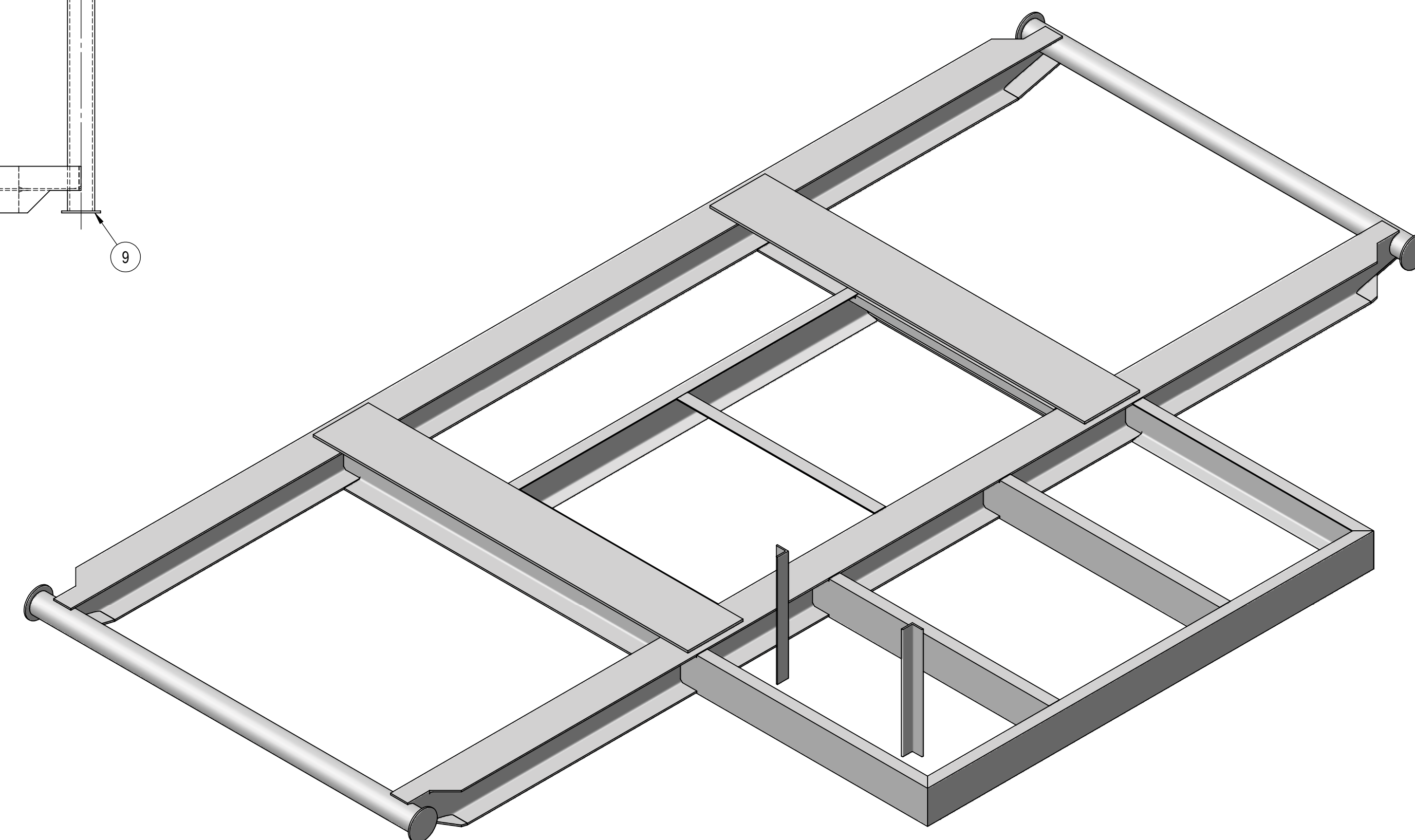
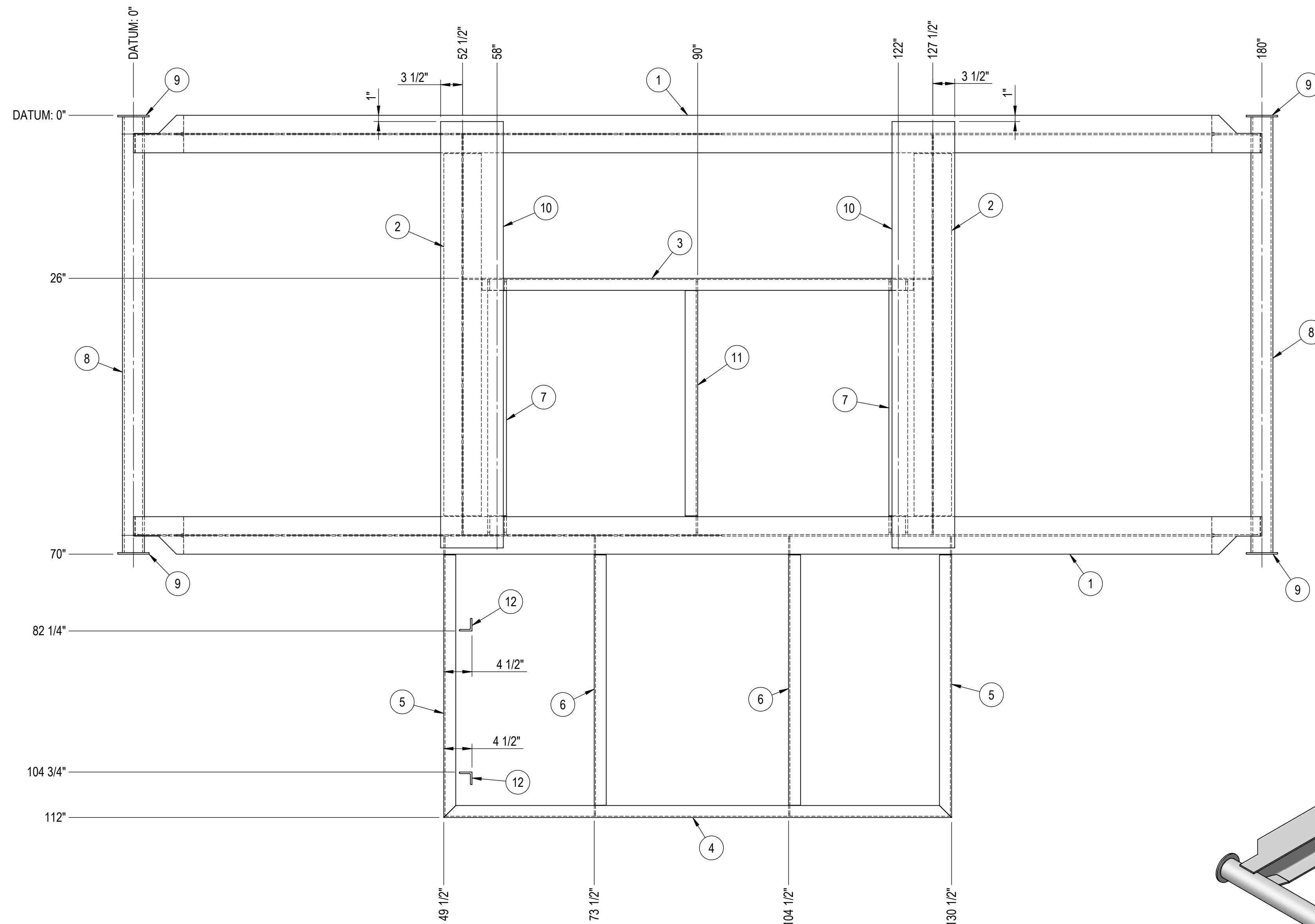
72" OD x 10'-0" S/S x 50 PSI MAWP VESSEL

1	2	3	4	5	6	7	8
SEAMS WPS: ENV-1, ENV-2	RFWN WPS: ENV-1, ENV-2	RFSO WPS: ENV-1, ENV-2	NOZZLE NECK WPS: ENV-1, ENV-2 (α=40°(±15°))	NOZZLE NECK WPS: ENV-1, ENV-2 EXPOSED INSIDE EDGES SHALL BE CHAMFERED AS PER UG-76(c)	SADDLE WPS: ENV-1, ENV-2	LIFT LUG WPS: ENV-1, ENV-2	REPAD WPS: ENV-1, ENV-2
α=40°(±15°) G=1/8"(±1/16") h=±13/32"	α=40°(±15°) G=1/8"(±1/16")		EXPOSED INSIDE EDGES SHALL BE CHAMFERED AS PER UG-76(c)	α=40°(±15°) G=1/8"(±1/16") h=1/16"(±1/16")			

Drawn By: Dan Griffiths	50 BBL FLARE KNOCKOUT DRUM		
Date: 01/17/22	72" OD x 10'-0" S/S x 50 PSI MAWP VESSEL		
Checked By:	Redfox Project No: RF22034	Envision Project No: 22023	Drawing Number: CODE-50BBL-72x120 TANK FAB
			Sheet 3 of 10 Rev: 0

BILL OF MATERIALS

ITEM	PART NUMBER	QTY	DESCRIPTION	LENGTH	MATERIAL
1	50KO-2022	2	W6 x 15	180"	G40.21 50W
2	50KO-2023	2	W6 x 15	63 3/4"	G40.21 50W
3	50KO-2024	1	C6 x 8.2	74 3/4"	G40.21 44W
4	50KO-2025	1	C6 x 8.2	81"	G40.21 44W
5	50KO-2026	2	C6 x 8.2	44 7/8"	G40.21 44W
6	50KO-2027	2	C6 x 8.2	44 11/16"	G40.21 44W
7	50KO-2028	2	C3 x 4.1	40 11/16"	G40.21 44W
8	50KO-2029	2	PIPE - 3" SCH XH	69 1/2"	SA-106B
9	50KO-2030	4	PL 1/4" x 5" OD		G40.21 44W
10	50KO-2031	2	FB 10" x 3/8"	68"	G40.21 44W
11	50KO-2032	1	L 2" x 2" x 1/4"	40 11/16"	G40.21 44W
12	50KO-2033	2	L 2" x 2" x 1/4"	20"	G40.21 44W
13	50KO-2034	1	CHK'D PL 3/16" x 86" x 81"		G40.21 44W



GENERAL NOTES

1. REMOVE ALL SHARP EDGES & BURRS.
2. ALL WELDING TO COMPLY WITH CSA-W59
3. ALL FILLET WELDS TO BE 1/4" CONTINUOUS U.N.O.
4. ALL BEVEL WELDS TO BE 1/4" CONTINUOUS U.N.O.
5. WELDS ARE NOT TO EXCEED MATERIAL THICKNESS.
6. STICK AND FLUX CORE WELDING PROCEDURES ARE INTERCHANGEABLE ON AN EQUIVALENT BASIS.
7. NDE REQUIREMENTS - MPI AS SHOWN & 100% VISUAL.

DOCKOTA EQUIPMENT

50 BBL FLARE KNOCKOUT DRUM

SKID ASSEMBLY

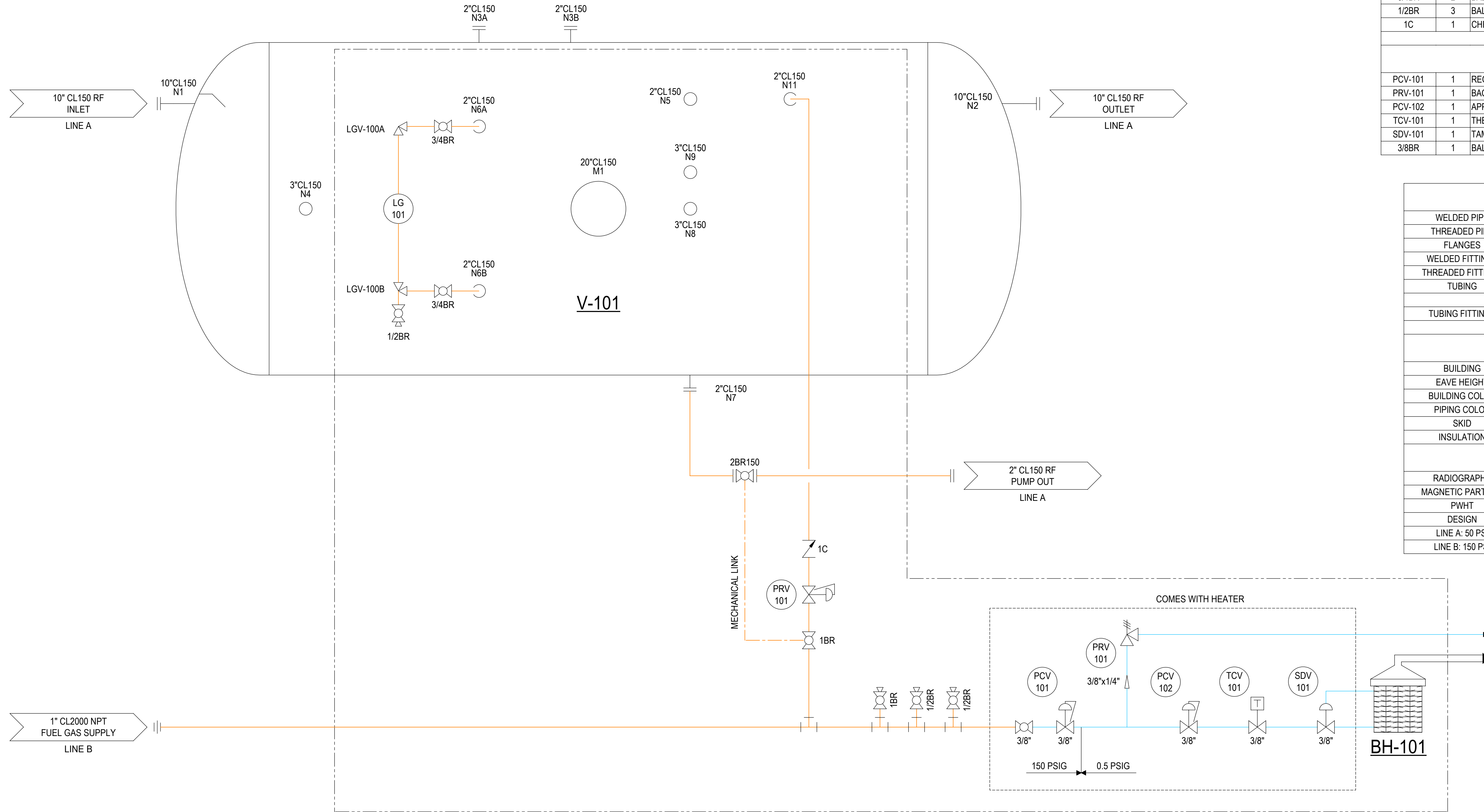
1	2	3	4	5
FULL DEPTH CONN.	PARTIAL DEPTH CONN.	CHK'D PLATE EDGE	CHK'D PL - CROSSMEMBER	TYPICAL ATTACHMENTS

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01/17/22
Checked By:
-
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V-101
 50 BBL FLARE KNOCKOUT DRUM
 SIZE: 72" OD x 10'-0" S/S
 DESIGN PRESSURE: 50 PSI
 DESIGN TEMPERATURE: -20 °F/200 °F
 C.A.: 1/8"

BH-101
 BUILDING HEATER
 NATURAL GAS
 SIZE: 12" x 24"
 12VDC START c/w 30'-0" START CABLE
 GRILL, HOOD & VENT



BILL OF MATERIALS		
TAG	QTY	DESCRIPTION
LG-101	1	LEVEL GAUGE - PENBERTHY 3TM8, SOUR
LGV-100A/B	1	GAUGE COCKS - PENBERTHY 330J, SOUR
PRV-101	1	REGULATOR - FISHER 627, 5-20 PSI, 3/8" ORIFICE
2BR150	1	BALL VALVE - 2" CL150RF, REG PORT
1BR	2	BALL VALVE - 1" NPT CL2000, REG PORT
3/4BR	2	BALL VALVE - 3/4" NPT CL2000, REG PORT
1/2BR	3	BALL VALVE - 1/2" NPT CL2000, REG PORT
1C	1	CHECK VALVE - 1" NPT CL2160

BUILDING HEATER		
PCV-101	1	REGULATOR - FISHER 912, SET @ 11" WC, 3/8" NPT (OR EQUIVALENT)
PRV-101	1	BACK PRESSURE RELIEF - FISHER 289U, 5-25" WC, 1/4" NPT (OR EQUIVALENT)
PCV-102	1	APPLIANCE REGULATOR - AC-R-ES404-7, 3/8" NPT
TCV-101	1	THERMOSTAT TEMPERATURE CONTROL VALVE - AC-TC, 3/8" NPT
SDV-101	1	TAMPER PROOF SAFETY SHUT-OFF VALVE - ASV-NT, 3/8" NPT
3/8BR	1	BALL VALVE - 3/8" NPT CSA RATED APPLIANCE SHUT OFF VALVE

PIPING NOTES	
WELDED PIPE	2" - 6" TO BE SA-106-B SCH STD
THREADED PIPE	2" AND UNDER TO BE SA-106-B SCH XH
FLANGES	SA-105N RFWN
WELDED FITTINGS	SA-234-WPB
THREADED FITTINGS	CL2000 SA-105-N
TUBING	3/8" 316 SS WELDED 0.035" WALL
	1/2" 316 SS WELDED 0.049" WALL
TUBING FITTINGS	SWAGelok SS
	LOW TEMP FITTINGS OUTSIDE OF BUILDING

GENERAL NOTES	
BUILDING	6'-9" LONG, 7'-2" WIDE THERMAL PANEL
EAVE HEIGHT	9'-6" HIGH EAVE, 1:12 PITCH
BUILDING COLOR	STONE GREY EXTERIOR, WHITE INTERIOR
PIPING COLOR	GREY
SKID	15'-0" LONG, 5'-10" WIDE
INSULATION	1 1/2" MINERAL WOOL WITH 0.020" ALUMINUM CLADDING

NDE/TESTING		
RADIOGRAPHY	RT-1	
MAGNETIC PARTICLE	N/A	
PWHT	N/A	
DESIGN	HYDROTEST	PNEUMATIC TEST
LINE A: 50 PSI	LINE A: 75 PSI	LINE A: 55 PSI
LINE B: 150 PSI	LINE B: 225 PSI	LINE B: 165 PSI

DOCKOTA EQUIPMENT			
50 BBL FLARE KNOCKOUT DRUM			
P&ID			
Drawn By: Dan Griffiths	Envision Project No: 22023	Drawing Number: CODE-50BBL-72x120 PID	Sheet 10 of 10 Rev: 0
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Checked By:			