

BILL OF MATERIALS (THIS SHEET SET)

NO	ITEM	QTY	UNIT	NPS	DESCRIPTION
1	PIPE	85.4	ft	12	Pipe 12 in STD (0.375 in), API 5L X52 PSL2, BE, 3-coat paint
2	FITTING	6	ea	12	Elbow 90 LR, B16.9, MSS SP-75 WPHY-52, STD (0.375 in)
3	FITTING	1	ea	12	Tee straight, B16.9 / MSS SP-75 WPHY-52, STD (0.375 in)
4	FITTING	2	ea	12	Elbow 45 LR, B16.9, MSS SP-75 WPHY-52, STD (0.375 in)
5	FITTING	2	ea	12	Tee reducing 12x10, B16.9 / MSS SP-75 WPHY-52, STD (0.375 in)
6	FITTING	1	ea	12	Cap, B16.9, WPHY-52, 0.375 in
7	FITTING	1	ea	2	Weldolet, MSS SP-97, A105, 2 in x run
8	FITTING	6	ea	3/4	Sockolet, MSS SP-97, A105, Class 6000, 3/4 in
9	FLANGE	9	ea	12	WN flange, 12 in Class 600 RF, A105N (CVN at -20 F), bore to match 0.375 in wall
10	GASKET	8	ea	12	Spiral-wound gasket, 12 in Class 600, 316 / flexible graphite, CS outer ring, 316 inner ring (ASME B16.20)
11	BOLT	8	ea	12	Stud bolt set, 12 in Class 600 (20 studs 1.25 in dia x 8.75 in), A193 B7 with 2 A194 2H nuts, PTFE coated
12	VALVE	4	ea	3/4	Gate valve, 3/4 in, Class 800, A105, SW x NPT, with hex plug (LPD)
13	VALVE	1	ea	3/4	Gate valve, 3/4 in, Class 800, A105, SW x NPT, with hex plug (DEB bleed)
14	VALVE	1	ea	3/4	Gate valve, 3/4 in, Class 800, A105, SW x NPT, with hex plug (HPV)
15	PIPE NIPPLE	6	ea	3/4	Nipple, 3/4 in Sch 160, A106 B, PBE x 4 in
16	VALVE	1	ea	12	HV-103B: Ball valve API 6D full bore trunnion, RF Class 600, gear operator (see LST-003)
17	VALVE	1	ea	12	HV-103C: Ball valve API 6D full bore trunnion, RF Class 600, gear operator (see LST-003)
18	VALVE	1	ea	12	HV-103D: Ball valve API 6D full bore trunnion, RF Class 600, gear operator (see LST-003)

PIPE AND COMPONENT WEIGHT EXCLUDING VALVES (APPROX.): 8,742 lb. Pipe quantities are net centerline take-off; the MTO (mto/mechanical_mto.csv) adds a 5 % allowance.

PIPE CUT LIST (NET, EXCL. ROOT GAP)

PiECE	NPS	CUT LENGTH	WELDS	LOC
1003-A1	12	0'-5 3/4"	1 / 2	AG
1003-A2	12	3'-0"	3 / 4	AG
1003-A3	12	6'-3"	5 / 6	AG
1003-A4	12	0'-9 5/8"	7 / 8	AG
1003-A5	12	3'-0 3/4"	9 / 10	AG
1003-A6	12	4'-6 1/2"	11 / 12	AG
1003-A7	12	0'-0 1/8"	13 / 14	AG
1003-A8	12	20'-11 7/8"	15 / 16	AG
1003-A9	12	11'-6"	17 / 18	AG
1003-A10	12	0'-11 3/4"	19 / 20	AG
1004-A1	12	2'-0 3/4"	21 / 22	AG
1004-A2	12	1'-9 5/8"	23 / 24	AG
1004-A3	12	16'-2 3/8"	25 / 26	AG
1004-A4	12	4'-8"	27 / 28	AG
1010-A1	12	2'-7 3/4"	29 / 30	AG
1010-A2	12	6'-4"	31 / 32	AG
1010-A3	12	0'-1"	33 / 34	AG

WELD LIST (NDE PER [REDACTED] SPC-SPC-008)

	LINE	NPS	TYPE	S/F	NDE	LOCATION
1	1003	12	BW	SHOP	RT 100 %	WN/pipe
2	1003	12	BW	SHOP	RT 100 %	pipe/ell
3	1003	12	BW	SHOP	RT 100 %	ell/pipe
4	1003	12	BW	SHOP	RT 100 %	pipe/ell
5	1003	12	BW	SHOP	RT 100 %	ell/pipe
6	1003	12	BW	SHOP	RT 100 %	pipe/ell
7	1003	12	BW	SHOP	RT 100 %	ell/pipe
8	1003	12	BW	SHOP	RT 100 %	pipe/valve
9	1003	12	BW	SHOP	RT 100 %	valve/pipe
10	1003	12	BW	SHOP	RT 100 %	pipe/tee
11	1003	12	BW	SHOP	RT 100 %	tee/pipe
12	1003	12	BW	SHOP	RT 100 %	pipe/ell45
13	1003	12	BW	SHOP	RT 100 %	ell45/pipe
14	1003	12	BW	SHOP	RT 100 %	pipe/ell45
15	1003	12	BW	SHOP	RT 100 %	ell45/pipe
16	1003	12	BW	SHOP	RT 100 %	pipe/ell
17	1003	12	BW	FIELD	RT 100 %	ell/pipe
18	1003	12	BW	SHOP	RT 100 %	pipe/ell
19	1003	12	BW	SHOP	RT 100 %	ell/pipe
20	1003	12	BW	SHOP	RT 100 %	pipe/WN
21	1004	12	BW	FIELD	RT 100 %	branch to tee
22	1004	12	BW	SHOP	RT 100 %	pipe/valve
23	1004	12	BW	SHOP	RT 100 %	valve/pipe
24	1004	12	BW	SHOP	RT 100 %	pipe/valve
25	1004	12	BW	SHOP	RT 100 %	valve/pipe
26	1004	12	BW	SHOP	RT 100 %	pipe/ell
27	1004	12	BW	SHOP	RT 100 %	ell/pipe
28	1004	12	BW	FIELD	RT 100 %	end weld (to tee / J)
29	1010	12	BW	SHOP	RT 100 %	WN/pipe
30	1010	12	BW	SHOP	RT 100 %	pipe/tee
31	1010	12	BW	SHOP	RT 100 %	tee/pipe
32	1010	12	BW	SHOP	RT 100 %	pipe/tee
33	1010	12	BW	SHOP	RT 100 %	tee/pipe
34	1010	12	BW	SHOP	RT 100 %	pipe/cap

WELD SUMMARY: 34 welds (31 shop / 3 field). Weld numbers match sheet 1. Instrument and small-bore branch welds (olets, SW) are additional, counted in the MTO.

NOTES / REFERENCES

1. QUANTITIES TAKEN FROM THE SAME PIPING MODEL AS THE GA PIP-DWG-001 AND THE MTO.
2. VALVE DATA PER MEC-LST-003 AND MEC-DS-006 / DS-007.
3. SUPPORT ITEMS NOT INCLUDED; SEE MEC-CAL-005.
REF: PIP-SPC-001
REF: mto/mechanical_mto.csv

REVISIONS

REV	DATE	DESCRIPTION	BY	CHK	APP
A	2026-09-29	ISSUED FOR REVIEW (IFR)			

PRELIMINARY - ISSUED FOR REVIEW - NOT FOR CONSTRUCTION

ENGINEER OF RECORD SEAL

PE NO. _____

NOT SEALED
PRELIMINARY

PROJECT

120 MMSCFD RECEIPT INTO _____

_____, _____
DISCIPLINE: PIPING
SCALE: NTS

ISOMETRIC LINES 1003 / 1010

BILL OF MATERIALS, CUT LIST, WELD LIST

DRAWN: _____ CHECKED: _____ APPROVED: _____

DWG NO.

PIP-DWG-011

SHEET 2 OF 2 REV A