EQUIPMENT AND STEEL

Tag	Equipment (drawn by hand as plain solids)	Size
T-101	Break tank, stainless	2000 dia x 3200
P-101A/B/C	End-suction pump sets, duty / assist / standby	DN80 / DN50
T-201	CIP hot water tank, stainless	1400 dia x 2400
P-201	CIP hot water pump set	3 / 2 NPS
E-201	Plate heat exchanger, LTHW to CIP water	1400 x 1200 x 1900
Beam	UKB 457x152x52 on two posts, N 6300	TOS EL +3300

SYSTEMS (LINELIST)

System	Class	Lines	Length m
Process water	FB-E1	10	63.19
CIP hot water	FB-A1L	3	14.51
LTHW to E-201	FB-A1L	2	7.80
Drains	T1	2	5.50

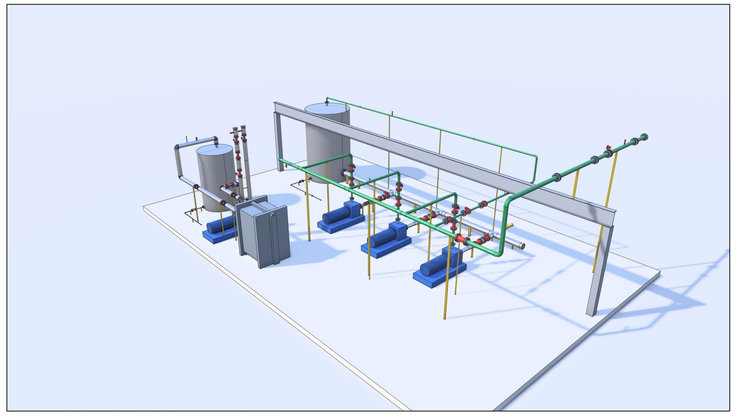
NOZZLES (PIPENOZZLE)

Nozzle	Class	Size	Rating	Facing	E	N	Face EL
T-101/N1	FB-E1	DN150	PN16	East	3300	7600	450
T-101/N2	FB-E1	DN50	PN16	Up	1800	7900	3350
T-101/N3	T1	1	Class 150	South	2200	6500	150
P-101A/N1	FB-E1	DN80	PN16	North	6500	5700	450
P-101A/N2	FB-E1	DN50	PN16	Up	6500	5300	900
P-101B/N1	FB-E1	DN80	PN16	North	9000	5700	450
P-101B/N2	FB-E1	DN50	PN16	Up	9000	5300	900
P-101C/N1	FB-E1	DN80	PN16	North	11500	5700	450
P-101C/N2	FB-E1	DN50	PN16	Up	11500	5300	900
T-201/N1	FB-A1L	3	Class 150	East	2400	2700	450
T-201/N2	FB-A1L	2	Class 150	Up	1600	2400	2550
T-201/N3	T1	1	Class 150	South	1800	1400	150
P-201/N1	FB-A1L	3	Class 150	North	4300	2100	450
P-201/N2	FB-A1L	2	Class 150	Up	4300	1700	900
E-201/N1	FB-A1L	2	Class 150	West	5900	750	1550
E-201/N2	FB-A1L	2	Class 150	West	5900	1050	450
E-201/N3	FB-A1L	2	Class 150	West	5900	1350	1550
E-201/N4	FB-A1L	2	Class 150	West	5900	1650	450

KEY FIGURES

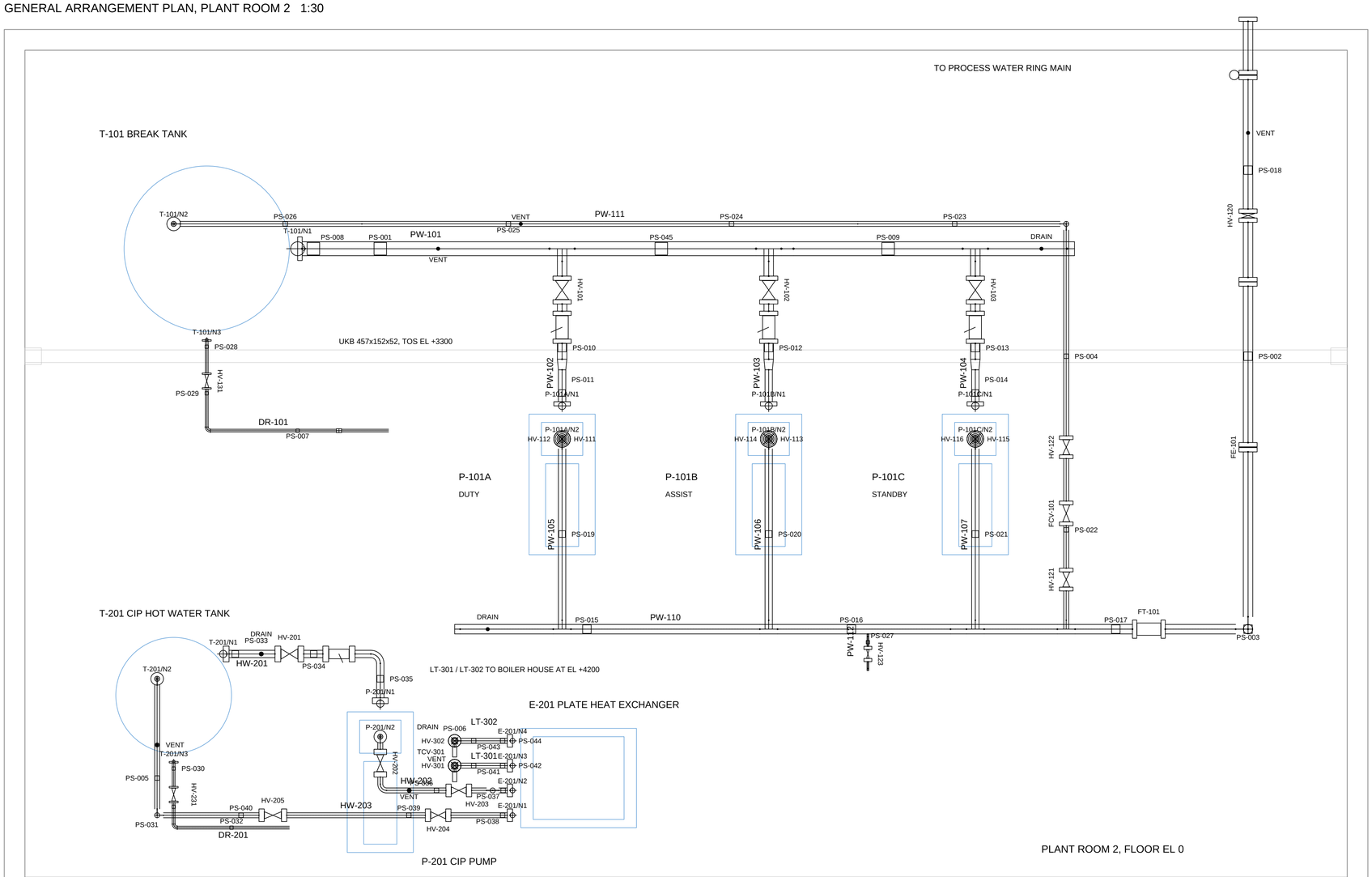
Figure (plugin output file)	Value
Lines (LineList)	17
Pipe centreline length (Areas)	89.067 m
Outside (paint) surface (Areas)	24.611 m2
Cladding surface (Areas)	19.780 m2
Bore volume (Areas)	532.5 L
Butt welds, shop / field (Welds)	175 / 5
Threaded joints (Welds)	12
Weld inches (Welds)	497.50
Flanged joints (Bolts)	81
Valves (MTO valve rows)	24
Supports (Supports)	45
Spools (LineList)	56
Mass in the MTO (pipe, fittings, flanges)	1140 kg
Test packs (TestPacks)	4

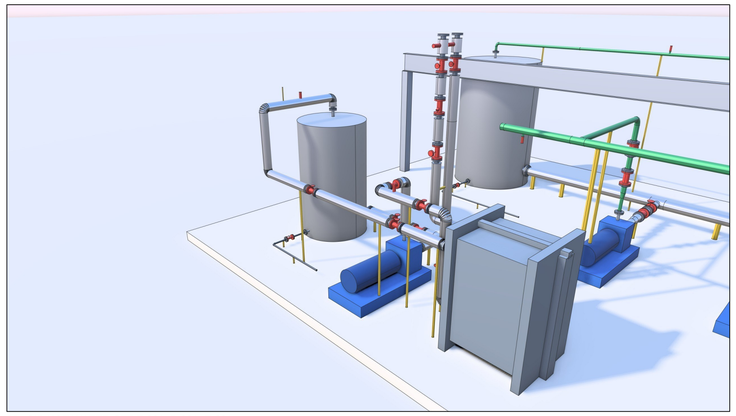
N



3D MODEL (RENDERSTILL, FROM THE SOUTH-EAST)

GENERAL ARRANGEMENT PLAN, PLANT ROOM 2 1:30





3D: CIP HOT WATER SET T-201, P-201, E-201

CHECKS (AS REPORTED)

Command	Result in the command line
PIPECLASH 25	No clashes among 17 lines and 43 solids
PIPECHECK Lines	1 issue: PW-110's spectacle blind has no tag
	(PIPEFITTING Blind takes no tag: FINDINGS)
PIPEROUTE Auto	PW-111 and HW-203: routed round T-101 / T-201,
	50 mm clear; PW-103 left its header square
PIPEROUTE Header	PW-105, PW-106, PW-107 end on header PW-110
PIPESUPPORT Auto	Added 37 supports on 17 lines (+8 by hand)
PIPESPOOL Auto	Added 4 field welds on 3 lines (6 m limit)
PIPEREPORT Wall	21 line sizes OK; drains have no design pressure

NOTES

1. Lines, fittings, valves, vents, drains, supports and nozzles are the Piping & Isometrics plugin's own plan symbols and tags. Equipment, steel, tables and labels are drawn by hand.
2. Process water in project class FB-E1 (P265GH, EN 1092-1 PN16 flanges, DN). CIP hot water and LTHW in FB-A1L (A106 B, ASME B16 Class 150, NPS). Drains in T1 (threaded NPT).
3. EL = pipe centreline, mm above floor. Fictional project, for demonstration only.

Stratal CAD

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TITLE
FELLBROOK CREAMERY, PLANT ROOM 2
GENERAL ARRANGEMENT PLAN

PROJECT	DRAWN		
Fellbrook Creamery PR2 (fictional)	Stratal CAD demo		
DRAWING NO.	SHEET	SCALE	SIZE
STR-PIP-001	1 of 8	1:30	A1
SOFTWARE		DATE	
Stratal CAD 0.1.8, Piping & Isometrics 0.7.0		12 Nov 2026	
STATUS			
DEMONSTRATION DRAWING - NOT FOR MANUFACTURE			

LINE LIST (PIPEREPORT LINELIST) WITH DESIGN DATA

Line	Size	Class	Rating	Service	From	To	Length m	Insul.	Slope	Spools	Welds	FW	DP bar	DT C	TP bar	Pack	Sizes
DR-101	1	T1	Class 150	DR	Nozzle T-101/N3	Open end	3.30		1:100	3	0	0					1 2.94 m
DR-201	1	T1	Class 150	DR	Nozzle T-201/N3	Open end	2.20		1:100	2	0	0					1 1.90 m
HW-201	3	FB-A1L	Class 150	HW	Nozzle T-201/N1	Nozzle P-201/N1	2.50	H50	0	3	10	0	6	95	9	TP-03	3 1.39 m
HW-202	2	FB-A1L	Class 150	HW	Nozzle P-201/N2	Nozzle E-201/N2	4.58	H50	0	3	16	0	6	95	9	TP-03	2 3.20 m
HW-203	2	FB-A1L	Class 150	HW	Nozzle E-201/N1	Nozzle T-201/N2	7.43	H50	0	3	14	0	6	95	9	TP-03	2 6.20 m
LT-301	2	FB-A1L	Class 150	LTHW	Flanged end	Nozzle E-201/N3	3.35	H40	0	4	12	0	6	90	9	TP-04	2 2.09 m
LT-302	2	FB-A1L	Class 150	LTHW	Flanged end	Nozzle E-201/N4	4.45	H40	0	3	9	1	6	90	9	TP-04	2 3.86 m
PW-101	DN150	FB-E1	PN16	PW	Nozzle T-101/N1	Cap	9.40	C25	0	2	16	1	4	30	6	TP-01	DN150 8.34 m
PW-102	DN100	FB-E1	PN16	PW	Branch of PW-101	Nozzle P-101A/N1	1.90	C25	0	3	7	0	4	30	6	TP-01	DN100 0.46 m; DN80 0.39 m
PW-103	DN100	FB-E1	PN16	PW	Branch of PW-101	Nozzle P-101B/N1	1.90	C25	0	3	7	0	4	30	6	TP-01	DN100 0.46 m; DN80 0.39 m
PW-104	DN100	FB-E1	PN16	PW	Branch of PW-101	Nozzle P-101C/N1	1.90	C25	0	3	7	0	4	30	6	TP-01	DN100 0.46 m; DN80 0.39 m
PW-105	DN50	FB-E1	PN16	PW	Nozzle P-101A/N2	Into header PW-110	4.10		0	3	9	0	10	30	15	TP-02	DN50 0.25 m; DN80 2.69 m
PW-106	DN50	FB-E1	PN16	PW	Nozzle P-101B/N2	Into header PW-110	4.10		0	3	9	0	10	30	15	TP-02	DN50 0.25 m; DN80 2.69 m
PW-107	DN50	FB-E1	PN16	PW	Nozzle P-101C/N2	Into header PW-110	4.10		0	3	9	0	10	30	15	TP-02	DN50 0.25 m; DN80 2.69 m
PW-110	DN100	FB-E1	PN16	PW	Cap	Flanged end	18.50		0	7	35	1	10	30	15	TP-02	DN100 16.03 m
PW-111	DN50	FB-E1	PN16	PW	Branch of PW-110	Nozzle T-101/N2	16.79		0	6	17	2	10	30	15	TP-02	DN50 15.34 m
PW-112	DN15	FB-E1	PN16	PW	Branch of PW-110	Cap	0.50		0	2	3	0	10	30	15	TP-02	DN15 0.20 m

TEST PACKS (PIPEREPORT TESTPACKS)

Pack	Lines	TP bar g	DP bar g	High EL	Low EL	At low pt	Water L	Welds	FW	Flanged	Valves	Vents	Drains
TP-01	PW-101; PW-102; PW-103; PW-104	6	4	450	450	6.00	222.2	37	1	16	3	1	1
TP-02	PW-105; PW-106; PW-107; PW-110; PW-111; PW-112	15	10	4200	900	15.32	254.0	82	3	31	11	2	1
TP-03	HW-201; HW-202; HW-203	9	6	2790	450	9.23	37.1	40	0	18	5	2	1
TP-04	LT-301; LT-302	9	6	4200	450	9.37	16.7	21	1	10	3	1	1
(none)	DR-101; DR-201			150	117		2.5	0	0	6	2	0	0

(none): lines with no test pack (PIPEPROPS Test pack); 2 lines have no test pressure; no vent on its lines (PIPEFITTING Vent at the high points); no drain on its lines (PIPEFITTING Drain at the low points)

PROJECT CLASSES (PIPESPEC EXPORT)

Class	Material	Rating	Sched.	Flanges	Wall code	Allowable (MPa at C)	Test x DP	CA mm
FB-E1	P265GH	PN16	Medium	EN 1092-1 PN16 T11	EN 13480	170 at 20.0, 150 at 100.0	1.43	1
FB-A1L	A106B	Class 150	STD	ASME B16.5 Cl 150	ASME B31.3	138 at 38.0, 138 at 204.0	1.5	1.5
T1	A106B	Class 150	80	B16.5 Cl 150 thd	none	none		1.5

AREAS AND VOLUMES (PIPEREPORT AREAS)

Line	Size	OD mm	Length m	Paint m2	Insul. mm	Cladding m2	Bore L
PW-101	DN150	168.3	9.400	4.970	25	6.447	182.2
PW-102	DN100	114.3	1.235	0.443	25	0.637	10.8
PW-102	DN80	88.9	0.500	0.140	25	0.218	2.6
PW-103	DN100	114.3	1.235	0.443	25	0.637	10.8
PW-103	DN80	88.9	0.500	0.140	25	0.218	2.6
PW-104	DN100	114.3	1.235	0.443	25	0.637	10.8
PW-104	DN80	88.9	0.500	0.140	25	0.218	2.6
PW-110	DN100	114.3	18.344	6.587			159.8
PW-105	DN50	60.3	0.350	0.066			0.8
PW-105	DN80	88.9	3.579	1.000			18.4
PW-106	DN50	60.3	0.350	0.066			0.8
PW-106	DN80	88.9	3.579	1.000			18.4
PW-107	DN50	60.3	0.350	0.066			0.8
PW-107	DN80	88.9	3.579	1.000			18.4
PW-111	DN50	60.3	16.568	3.139			36.7
PW-112	DN15	21.3	0.405	0.027			0.1
DR-101	1	33.4	3.275	0.344			1.5
DR-201	1	33.4	2.175	0.228			1.0
HW-201	3	88.9	2.439	0.681	50	1.447	11.6
HW-202	2	60.3	4.437	0.841	50	2.235	9.6
HW-203	2	60.3	7.320	1.387	50	3.686	15.8
LT-301	2	60.3	3.299	0.625	40	1.454	7.1
LT-302	2	60.3	4.411	0.836	40	1.944	9.5
Total			89.067	24.611		19.780	532.5

WALL THICKNESS (PIPEREPORT WALL)

Line	Size	OD	Nominal	Min.	DP bar	DT C	S MPa	t mm	CA	Req. mm	Result	Code
PW-101	DN150	168.3	5.60	4.90	4	30	167.5	0.20	1.00	1.20	OK	EN 13480
PW-102	DN100	114.3	4.50	3.94	4	30	167.5	0.14	1.00	1.14	OK	EN 13480
PW-102	DN80	88.9	4.00	3.50	4	30	167.5	0.11	1.00	1.11	OK	EN 13480
PW-103	DN100	114.3	4.50	3.94	4	30	167.5	0.14	1.00	1.14	OK	EN 13480
PW-103	DN80	88.9	4.00	3.50	4	30	167.5	0.11	1.00	1.11	OK	EN 13480
PW-104	DN100	114.3	4.50	3.94	4	30	167.5	0.14	1.00	1.14	OK	EN 13480
PW-104	DN80	88.9	4.00	3.50	4	30	167.5	0.11	1.00	1.11	OK	EN 13480
PW-110	DN100	114.3	4.50	3.94	10	30	167.5	0.34	1.00	1.34	OK	EN 13480
PW-105	DN50	60.3	3.60	3.15	10	30	167.5	0.18	1.00	1.18	OK	EN 13480
PW-105	DN80	88.9	4.00	3.50	10	30	167.5	0.26	1.00	1.26	OK	EN 13480
PW-106	DN50	60.3	3.60	3.15	10	30	167.5	0.18	1.00	1.18	OK	EN 13480
PW-106	DN80	88.9	4.00	3.50	10	30	167.5	0.26	1.00	1.26	OK	EN 13480
PW-107	DN50	60.3	3.60	3.15	10	30	167.5	0.18	1.00	1.18	OK	EN 13480
PW-107	DN80	88.9	4.00	3.50	10	30	167.5	0.26	1.00	1.26	OK	EN 13480
PW-111	DN50	60.3	3.60	3.15	10	30	167.5	0.18	1.00	1.18	OK	EN 13480
PW-112	DN15	21.3	2.60	2.27	10	30	167.5	0.06	1.00	1.06	OK	EN 13480
DR-101	1										no DP	
DR-201	1										no DP	
HW-201	3	88.9	5.49	4.80	6	95	138	0.19	1.50	1.69	OK	ASME B31.3
HW-202	2	60.3	3.91	3.42	6	95	138	0.13	1.50	1.63	OK	ASME B31.3
HW-203	2	60.3	3.91	3.42	6	95	138	0.13	1.50	1.63	OK	ASME B31.3
LT-301	2	60.3	3.91	3.42	6	90	138	0.13	1.50	1.63	OK	ASME B31.3
LT-302	2	60.3	3.91	3.42	6	90	138	0.13	1.50	1.63	OK	ASME B31.3

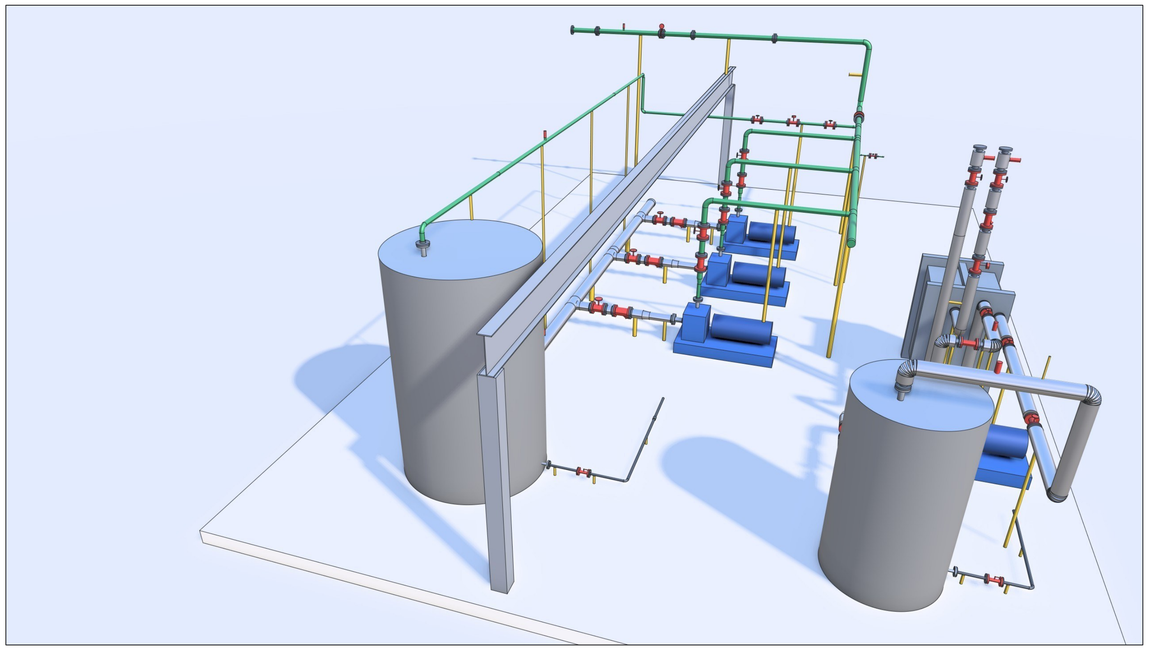
LOADS BY LINE (FROM LOADS)

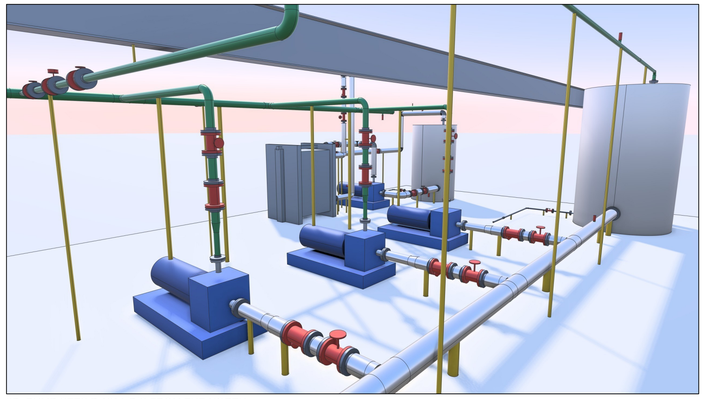
Line	Supp.	Empty kg	Oper. kg	Test kg
DR-101	3	16.8	0.0	18.4
DR-201	3	12.7	0.0	13.8
HW-201	3	74.8	86.0	86.3
HW-202	2	56.0	65.3	65.6
HW-203	4	76.6	92.2	92.6
LT-301	2	56.8	63.7	63.9
LT-302	3	44.6	53.8	54.0
PW-101	4	246.6	428.9	428.9
PW-102	2	71.4	85.0	85.0
PW-103	1	71.4	85.0	85.0
PW-104	2	71.4	85.0	85.0
PW-105	1	73.6	92.6	92.6
PW-106	1	73.6	92.6	92.6
PW-107	1	73.6	92.6	92.6
PW-110	6	312.1	471.9	471.9
PW-111	6	124.2	160.9	160.9
PW-112	1	3.8	3.9	3.9

PIPECHECK ALL (CSV, AS WRITTEN)

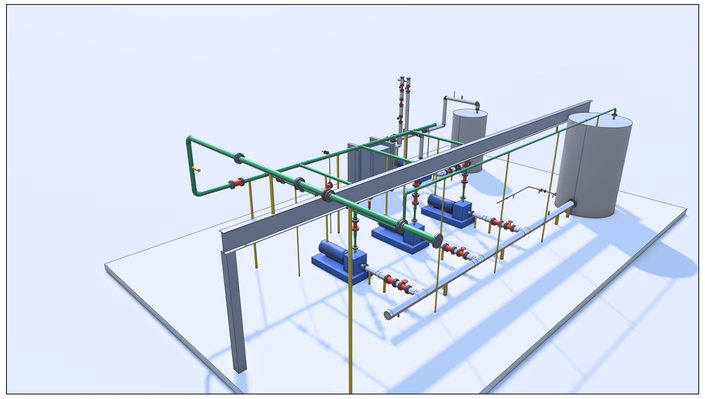
Line	Rule	Issue	At mm	E	N	EL
PW-110	tag	Spectacle blind at 17800 has no tag	17800	14800	9700	4200
	not on the P&ID	3D line PW-101 is not on the P&ID				
	not on the P&ID	3D line PW-102 is not on the P&ID				
	not on the P&ID	3D line PW-103 is not on the P&ID				
	not on the P&ID	3D line PW-104 is not on the P&ID				
	not on the P&ID	3D line PW-110 is not on the P&ID				
	not on the P&ID	3D line PW-105 is not on the P&ID				
	not on the P&ID	3D line PW-106 is not on the P&ID				
	not on the P&ID	3D line PW-107 is not on the P&ID				
	not on the P&ID	3D line PW-111 is not on the P&ID				
	not on the P&ID	3D line PW-112 is not on the P&ID				
	not on the P&ID	3D line DR-101 is not on the P&ID				
	not on the P&ID	3D line DR-201 is not on the P&ID				
	not on the P&ID	3D line HW-201 is not on the P&ID				
	not on the P&ID	3D line HW-202 is not on the P&ID				
	not on the P&ID	3D line HW-203 is not on the P&ID				
	not on the P&ID	3D line LT-301 is not on the P&ID				

3D: BREAK TANK T-101 FROM THE WEST





3D: PUMP SETS P-101A/B/C FROM THE NORTH



3D: HEADER PW-110 TO THE RING MAIN

NOTES

1. Tables are the plugin's CSV files (PIPEREPORT LineList, Wall, TestPacks, Areas) as written; DP, DT, TP and pack come from Wall and TestPacks.
2. Allowable stresses in FB-E1 and FB-A1L are example values typed in by the designer for this demo, not from a standard; the plugin bundles none. Wall: EN 13480-3 for FB-E1, ASME B31.3 for FB-A1L.
3. Fictional project, for demonstration only.

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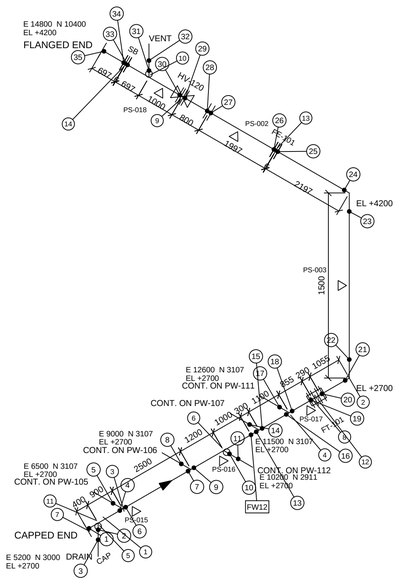
TITLE

FELLBROOK CREAMERY, PLANT ROOM 2
LINE LIST, DESIGN DATA AND TEST PACKS

PROJECT	DRAWN		
Fellbrook Creamery PR2 (fictional)	Stratal CAD demo		
DRAWING NO.	SHEET	SCALE	SIZE
STR-PIP-002	2 of 8	NTS	A1
SOFTWARE		DATE	
Stratal CAD 0.1.8, Piping & Isometrics 0.7.0		12 Nov 2026	

STATUS

DEMONSTRATION DRAWING - NOT FOR MANUFACTURE



NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 34 SHOP, 1 FIELD (FW).
WELD INCHES 115.75, NDE 10% OF BUTT WELDS.
SUPPORTS: 6 (TAGS ON THE SHEET).

N

BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	16.03 m	Pipe, sch Medium, P265GH	DN100
2	2	Elbow 90 LR, BW, sch Medium, P265GH	DN100
3	3	Tee reducing, BW, sch Medium, P265GH	DN100xDN80
4	1	Tee reducing, BW, sch Medium, P265GH	DN100xDN50
5	2	Branch outlet fitting (weld-on olet), P265GH	DN100xDN20
6	1	Branch outlet fitting (weld-on olet), P265GH	DN100xDN15
7	1	Cap, BW, sch Medium, P265GH	DN100
8	11	Flange weld neck, PN16, P265GH	DN100
9	1	Butterfly valve, flanged, PN16, gear operated	DN100
10	1	Vent valve, ball, socket weld or threaded, with plug, PN16	DN20
11	1	Drain valve, ball, socket weld or threaded, with plug, PN16	DN20
12	1	Inline meter, flanged, PN16	DN100
13	1	Orifice plate, PN16, P265GH	DN100
14	1	Spectacle blind, PN16, P265GH	DN100
15	9	Gasket, flat ring, PN16	DN100
16	5	Bolt set 8 x M16 x 100, stud bolts with nuts, PN16	DN100
17	2	Bolt set 8 x M16 x 105, stud bolts with nuts, PN16	DN100
18	5	Pipe shoe for DN100	DN100
19	1	Guide for DN100	DN100

CUT LIST

SPOOL	PIECE	SIZE	LENGTH
S01	P1	DN100	1126
S01	P2	DN100	2286
S01	P3	DN100	2093
S02	P1	DN100	193
S02	P2	DN100	886
S02	P3	DN100	694
S03	P1	DN100	851

CUT LIST (CONT.)

SPOOL	PIECE	SIZE	LENGTH
S03	P2	DN100	1200
S03	P3	DN100	1994
S04	P1	DN100	1890
S05	P1	DN100	665
S06	P1	DN100	1562
S07	P1	DN100	592

WELDS

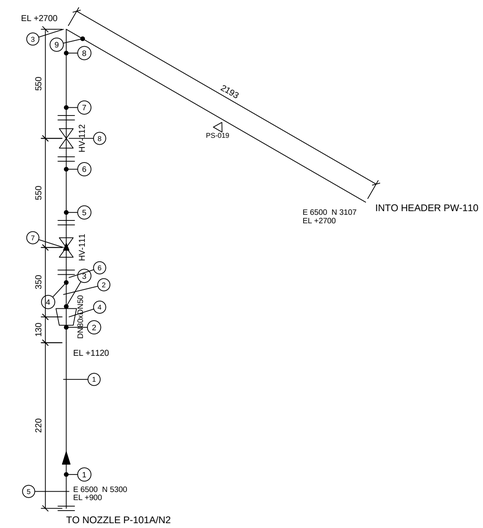
WELD	SIZE	TYPE	SPOOL
1	DN100	SHOP	S01
2	DN20	SHOP	S01
3	DN20	SHOP	S01
4	DN100	SHOP	S01
5	DN80	SHOP	S01
6	DN100	SHOP	S01
7	DN100	SHOP	S01
8	DN80	SHOP	S01
9	DN100	SHOP	S01
10	DN15	SHOP	S01
11	DN15	SHOP	S01
12	DN100	FIELD	S01
13	DN100	SHOP	S02
14	DN80	SHOP	S02
15	DN100	SHOP	S02
16	DN100	SHOP	S02
17	DN50	SHOP	S02
18	DN100	SHOP	S02

WELDS (CONT.)

WELD	SIZE	TYPE	SPOOL
19	DN100	SHOP	S02
20	DN100	SHOP	S03
21	DN100	SHOP	S03
22	DN100	SHOP	S03
23	DN100	SHOP	S03
24	DN100	SHOP	S03
25	DN100	SHOP	S03
26	DN100	SHOP	S04
27	DN100	SHOP	S04
28	DN100	SHOP	S05
29	DN100	SHOP	S05
30	DN100	SHOP	S06
31	DN20	SHOP	S06
32	DN20	SHOP	S06
33	DN100	SHOP	S06
34	DN100	SHOP	S07
35	DN100	SHOP	S07

PIPING ISOMETRIC

LINE	PW-110
SPOOL	ALL (7 SPOOLS)
CLASS	FB-E1 PN16
SIZE	DN100 P265GH
SERVICE	PW
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2



NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 9 SHOP, 0 FIELD (FW).
WELD INCHES 26.75, NDE 10% OF BUTT WELDS.
SUPPORTS: 1 (TAGS ON THE SHEET).

N

BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	0.25 m	Pipe, sch Medium, P265GH	DN50
2	2.69 m	Pipe, sch Medium, P265GH	DN80
3	1	Elbow 90 LR, BW, sch Medium, P265GH	DN80
4	1	Reducer concentric, BW, sch Medium, P265GH	DN80xDN50
5	1	Flange weld neck, PN16, P265GH	DN50
6	4	Flange weld neck, PN16, P265GH	DN80
7	1	Check valve, flanged, PN16	DN80
8	1	Gate valve, flanged, PN16, handwheel operated	DN80
9	1	Gasket, flat ring, PN16	DN50
10	4	Gasket, flat ring, PN16	DN80
11	1	Bolt set 4 x M16 x 90, stud bolts with nuts, PN16	DN50
12	4	Bolt set 8 x M16 x 95, stud bolts with nuts, PN16	DN80
13	1	Pipe shoe for DN80	DN80

CUT LIST

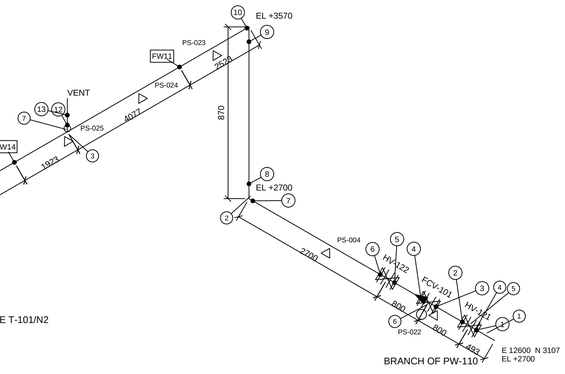
SPOOL	PIECE	SIZE	LENGTH
S01	P1	DN50	252
S01	P2	DN80	121
S02	P1	DN80	218
S03	P1	DN80	274
S03	P2	DN80	2073

WELDS

WELD	SIZE	TYPE	SPOOL
1	DN50	SHOP	S01
2	DN50	SHOP	S01
3	DN80	SHOP	S01
4	DN80	SHOP	S01
5	DN80	SHOP	S02
6	DN80	SHOP	S02
7	DN80	SHOP	S03
8	DN80	SHOP	S03
9	DN80	SHOP	S03

PIPING ISOMETRIC

LINE	PW-105
SPOOL	ALL (3 SPOOLS)
CLASS	FB-E1 PN16
SIZE	DN50 / DN80 P265GH
SERVICE	PW
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2



NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 15 SHOP, 2 FIELD (FW).
WELD INCHES 31.50, NDE 10% OF BUTT WELDS.
SUPPORTS: 6 (TAGS ON THE SHEET).

N

BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	15.34 m	Pipe, sch Medium, P265GH	DN50
2	3	Elbow 90 LR, BW, sch Medium, P265GH	DN50
3	1	Branch outlet fitting (weld-on olet), P265GH	DN50xDN20
4	7	Flange weld neck, PN16, P265GH	DN50
5	2	Gate valve, flanged, PN16, handwheel operated	DN50
6	1	Control valve, flanged, PN16, actuator operated	DN50
7	1	Vent valve, ball, socket weld or threaded, with plug, PN16	DN20
8	7	Gasket, flat ring, PN16	DN50
9	7	Bolt set 4 x M16 x 90, stud bolts with nuts, PN16	DN50
10	5	Pipe shoe for DN50	DN50
11	1	Hanger for DN50	DN50

CUT LIST

SPOOL	PIECE	SIZE	LENGTH
S01	P1	DN50	355
S02	P1	DN50	514
S03	P1	DN50	514
S04	P1	DN50	2487
S04	P2	DN50	720
S04	P3	DN50	2448
S05	P1	DN50	6000
S06	P1	DN50	2202
S06	P2	DN50	100

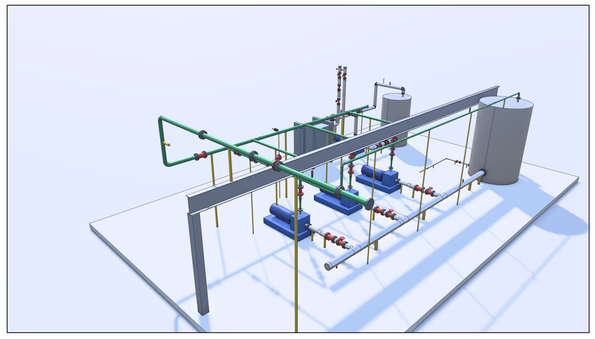
WELDS

WELD	SIZE	TYPE	SPOOL
1	DN50	SHOP	S01
2	DN50	SHOP	S02
3	DN50	SHOP	S02
4	DN50	SHOP	S03
5	DN50	SHOP	S03
6	DN50	SHOP	S04
7	DN50	SHOP	S04
8	DN50	SHOP	S04
9	DN50	SHOP	S04
10	DN50	SHOP	S04
11	DN50	FIELD	S04
12	DN20	SHOP	S05
13	DN20	SHOP	S05
14	DN50	FIELD	S05
15	DN50	SHOP	S06
16	DN50	SHOP	S06
17	DN50	SHOP	S06

PIPING ISOMETRIC

LINE	PW-111
SPOOL	ALL (6 SPOOLS)
CLASS	FB-E1 PN16
SIZE	DN50 P265GH
SERVICE	PW
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2

3D: HEADER PW-110, FROM THE NORTH-EAST



NOTES

1. Isometric sheets as the plugin draws them (PIPEISO Line): its ISO A3 frame, bill of materials, cut list, weld list and title block, placed here at 91 % (1:1.1).
2. Not to scale: dimensions in mm along the pipe, weld numbers and BOM balloons in circles, field welds in boxes, supports PS-nnn, coordinates E, N, EL at ends and branches.
3. PW-105 to PW-107 end on header PW-110 (INTO HEADER); PW-111 was routed by PIPEROUTE Auto round T-101.
4. Fictional project, for demonstration only.

Stratal CAD
cad.stratal.co.uk

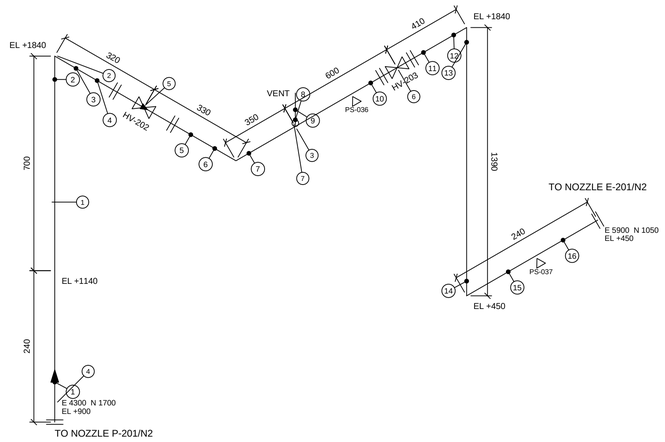
TITLE
FELLBROOK CREAMERY, PLANT ROOM 2
ISOMETRICS: PW-110, PW-105, PW-111

PROJECT	DRAWN
Fellbrook Creamery PR2 (fictional)	Stratal CAD demo

DRAWING NO.	SHEET	SCALE	SIZE
STR-PIP-003	3 of 8	AS SHOWN	A1

SOFTWARE	DATE
Stratal CAD 0.1.8, Piping & Isometrics 0.7.0	12 Nov 2026

STATUS
DEMONSTRATION DRAWING - NOT FOR MANUFACTURE



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	3.20 m	Pipe, sch STD, A106B	2
2	4	Elbow 90 LR, BW, sch STD, A106B	2
3	1	Branch outlet fitting (weld-on olet), A106B	2x1
4	6	Flange weld neck, Class 150, A106B	2
5	1	Check valve, flanged, Class 150	2
6	1	Gate valve, flanged, Class 150, handwheel operated	2
7	1	Vent valve, ball, socket weld or threaded, with plug, Class 150	1
8	6	Gasket, flat ring, Class 150	2
9	6	Bolt set 4 x M16 x 85, stud bolts with nuts, Class 150	2
10	2	Pipe shoe for 2	2

CUT LIST

SPOOL	PIECE	SIZE	LENGTH
S01	P1	2	800
S01	P2	2	76
S02	P1	2	86
S02	P2	2	718
S03	P1	2	178
S03	P2	2	1238
S03	P3	2	100

WELDS

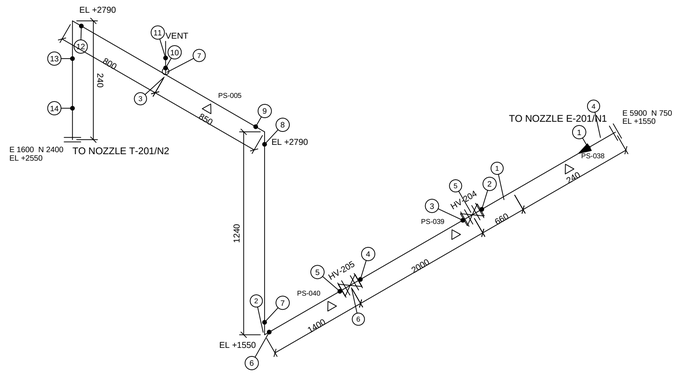
WELD	SIZE	TYPE	SPOOL
1	2	SHOP	S01
2	2	SHOP	S01
3	2	SHOP	S01
4	2	SHOP	S01
5	2	SHOP	S02
6	2	SHOP	S02
7	2	SHOP	S02
8	1	SHOP	S02
9	1	SHOP	S02
10	2	SHOP	S02
11	2	SHOP	S03
12	2	SHOP	S03
13	2	SHOP	S03
14	2	SHOP	S03
15	2	SHOP	S03
16	2	SHOP	S03

N

NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 16 SHOP, 0 FIELD (FW).
INSULATION H 50 MM.
WELD INCHES 30.00, NDE 10% OF BUTT WELDS.
SUPPORTS: 2 (TAGS ON THE SHEET).

PIPING ISOMETRIC

LINE	HW-202
SPOOL	ALL (3 SPOOLS)
CLASS	FB-A1L Class 150
SIZE	2 A106B
SERVICE	HW
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	6.20 m	Pipe, sch STD, A106B	2
2	3	Elbow 90 LR, BW, sch STD, A106B	2
3	1	Branch outlet fitting (weld-on olet), A106B	2x1
4	6	Flange weld neck, Class 150, A106B	2
5	1	Gate valve, flanged, Class 150, handwheel operated	2
6	1	Globe valve, flanged, Class 150, handwheel operated	2
7	1	Vent valve, ball, socket weld or threaded, with plug, Class 150	1
8	6	Gasket, flat ring, Class 150	2
9	6	Bolt set 4 x M16 x 85, stud bolts with nuts, Class 150	2
10	3	Pipe shoe for 2	2
11	1	Spring hanger for 2	2

CUT LIST

SPOOL	PIECE	SIZE	LENGTH
S01	P1	2	681
S02	P1	2	1676
S03	P1	2	1156
S03	P2	2	1088
S03	P3	2	1498
S03	P4	2	100

WELDS

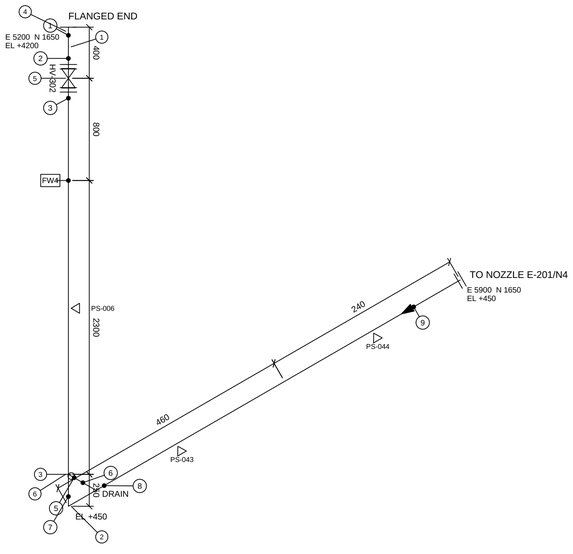
WELD	SIZE	TYPE	SPOOL
1	2	SHOP	S01
2	2	SHOP	S01
3	2	SHOP	S02
4	2	SHOP	S02
5	2	SHOP	S03
6	2	SHOP	S03
7	2	SHOP	S03
8	2	SHOP	S03
9	2	SHOP	S03
10	1	SHOP	S03
11	1	SHOP	S03
12	2	SHOP	S03
13	2	SHOP	S03
14	2	SHOP	S03

N

NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 14 SHOP, 0 FIELD (FW).
INSULATION H 50 MM.
WELD INCHES 26.00, NDE 10% OF BUTT WELDS.
SUPPORTS: 4 (TAGS ON THE SHEET).

PIPING ISOMETRIC

LINE	HW-203
SPOOL	ALL (3 SPOOLS)
CLASS	FB-A1L Class 150
SIZE	2 A106B
SERVICE	HW
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	3.86 m	Pipe, sch STD, A106B	2
2	1	Elbow 90 LR, BW, sch STD, A106B	2
3	1	Branch outlet fitting (weld-on olet), A106B	2x1
4	4	Flange weld neck, Class 150, A106B	2
5	1	Gate valve, flanged, Class 150, handwheel operated	2
6	1	Drain valve, ball, socket weld or threaded, with plug, Class 150	1
7	3	Gasket, flat ring, Class 150	2
8	3	Bolt set 4 x M16 x 85, stud bolts with nuts, Class 150	2
9	1	Trunnion for 2	2
10	2	Pipe shoe for 2	2

CUT LIST

SPOOL	PIECE	SIZE	LENGTH
S01	P1	2	181
S02	P1	2	644
S03	P1	2	2474
S03	P2	2	560

WELDS

WELD	SIZE	TYPE	SPOOL
1	2	SHOP	S01
2	2	SHOP	S01
3	2	SHOP	S02
4	2	FIELD	S02
5	1	SHOP	S03
6	1	SHOP	S03
7	2	SHOP	S03
8	2	SHOP	S03
9	2	SHOP	S03

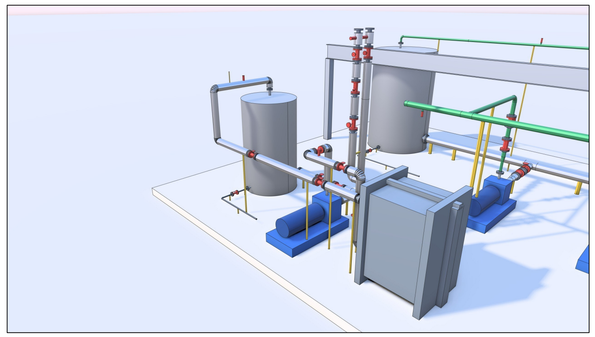
N

NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 8 SHOP, 1 FIELD (FW).
INSULATION H 40 MM.
FLOW FROM THE LINE'S END TO ITS START (SEE ARROW).
WELD INCHES 16.00, NDE 10% OF BUTT WELDS.
SUPPORTS: 3 (TAGS ON THE SHEET).

PIPING ISOMETRIC

LINE	LT-302
SPOOL	ALL (3 SPOOLS)
CLASS	FB-A1L Class 150
SIZE	2 A106B
SERVICE	LTHW
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2

3D: CIP HOT WATER SET, FROM THE SOUTH-EAST



NOTES

1. Isometric sheets as the plugin draws them (PIPEISO Line): its ISO A3 frame, bill of materials, cut list, weld list and title block, placed here at 91 % (1:1.1).
2. Not to scale: dimensions in mm along the pipe, weld numbers and BOM balloons in circles, field welds in boxes, supports PS-nnn, coordinates E, N, EL at ends and branches.
3. Class FB-A1L (ASME B16 Class 150, NPS), insulated. LT-302 was routed against its flow; PIPEPROPS Flow End to start turns its arrow and notes.
4. Fictional project, for demonstration only.

Stratal CAD
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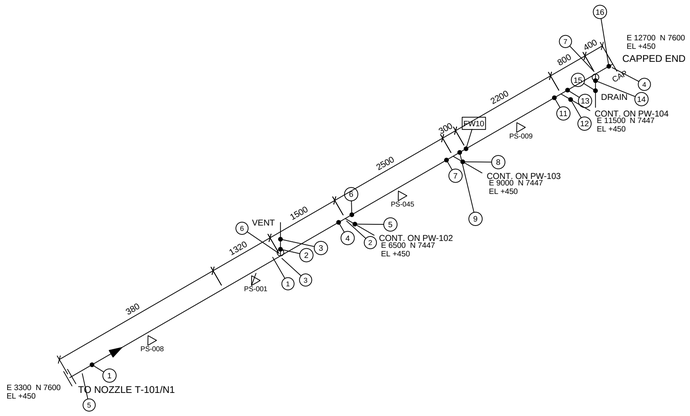
TITLE
FELLBROOK CREAMERY, PLANT ROOM 2
ISOMETRICS: HW-202, HW-203, LT-302

PROJECT	DRAWN
Fellbrook Creamery PR2 (fictional)	Stratal CAD demo

DRAWING NO.	SHEET	SCALE	SIZE
STR-PIP-004	4 of 8	AS SHOWN	A1

SOFTWARE	DATE
Stratal CAD 0.1.8, Piping & Isometrics 0.7.0	12 Nov 2026

STATUS
DEMONSTRATION DRAWING - NOT FOR MANUFACTURE



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	8.34 m	Pipe, sch Medium, P265GH	DN150
2	3	Tee reducing, BW, sch Medium, P265GH	DN150xDN100
3	2	Branch outlet fitting (weld-on olet), P265GH	DN150xDN20
4	1	Cap, BW, sch Medium, P265GH	DN150
5	1	Flange weld neck, PN16, P265GH	DN150
6	1	Vent valve, ball, socket weld or threaded, with plug, PN16	DN20
7	1	Drain valve, ball, socket weld or threaded, with plug, PN16	DN20
8	1	Gasket, flat ring, PN16	DN150
9	1	Bolt set 8 x M20 x 115, stud bolts with nuts, PN16	DN150
10	3	Pipe shoe for DN150	DN150
11	1	Anchor for DN150	DN150

CUT LIST

SPOOL	PIECE	SIZE	LENGTH
S01	P1	DN150	2992
S01	P2	DN150	2194
S01	P3	DN150	147
S02	P1	DN150	2047
S02	P2	DN150	956

WELDS

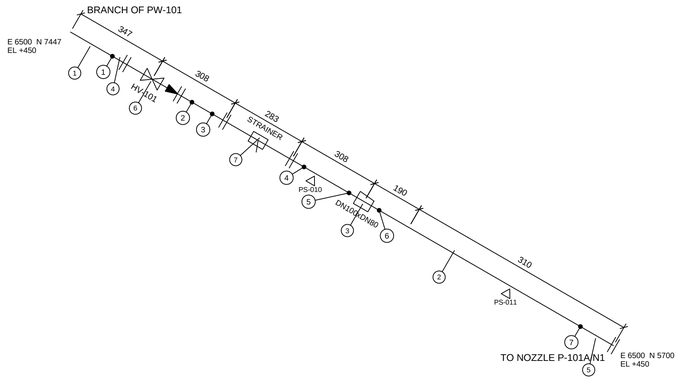
WELD	SIZE	TYPE	SPOOL
1	DN150	SHOP	S01
2	DN20	SHOP	S01
3	DN20	SHOP	S01
4	DN150	SHOP	S01
5	DN100	SHOP	S01
6	DN150	SHOP	S01
7	DN150	SHOP	S01
8	DN100	SHOP	S01
9	DN150	SHOP	S01
10	DN150	FIELD	S01
11	DN150	SHOP	S02
12	DN100	SHOP	S02
13	DN150	SHOP	S02
14	DN20	SHOP	S02
15	DN20	SHOP	S02
16	DN150	SHOP	S02

N

NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 15 SHOP, 1 FIELD (FW).
INSULATION C 25 MM.
WELD INCHES 69.00, NDE 10% OF BUTT WELDS.
SUPPORTS: 4 (TAGS ON THE SHEET).

PIPING ISOMETRIC

LINE	PW-101
SPOOL	ALL (2 SPOOLS)
CLASS	FB-E1 PN16
SIZE	DN150 P265GH
SERVICE	PW
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	0.46 m	Pipe, sch Medium, P265GH	DN100
2	0.39 m	Pipe, sch Medium, P265GH	DN80
3	1	Reducer eccentric, BW, sch Medium, P265GH	DN100xDN80
4	4	Flange weld neck, PN16, P265GH	DN100
5	1	Flange weld neck, PN16, P265GH	DN80
6	1	Gate valve, flanged, PN16, handwheel operated	DN100
7	1	Y-strainer, flanged, PN16	DN100
8	4	Gasket, flat ring, PN16	DN100
9	1	Gasket, flat ring, PN16	DN80
10	4	Bolt set 8 x M16 x 100, stud bolts with nuts, PN16	DN100
11	1	Bolt set 8 x M16 x 95, stud bolts with nuts, PN16	DN80
12	1	Pipe shoe for DN100	DN100
13	1	Pipe shoe for DN80	DN80

CUT LIST

SPOOL	PIECE	SIZE	LENGTH
S01	P1	DN100	178
S02	P1	DN100	86
S03	P1	DN100	191
S03	P2	DN80	386

WELDS

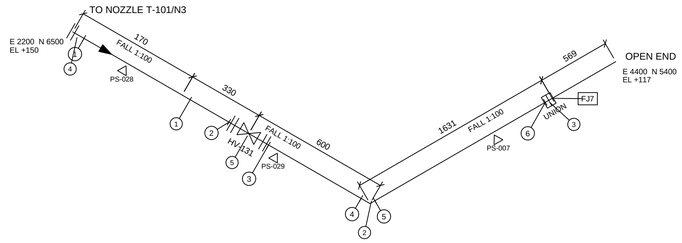
WELD	SIZE	TYPE	SPOOL
1	DN100	SHOP	S01
2	DN100	SHOP	S02
3	DN100	SHOP	S02
4	DN100	SHOP	S03
5	DN100	SHOP	S03
6	DN80	SHOP	S03
7	DN80	SHOP	S03

N

NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 7 SHOP, 0 FIELD (FW).
INSULATION C 25 MM.
WELD INCHES 26.50, NDE 10% OF BUTT WELDS.
SUPPORTS: 2 (TAGS ON THE SHEET).

PIPING ISOMETRIC

LINE	PW-102
SPOOL	ALL (3 SPOOLS)
CLASS	FB-E1 PN16
SIZE	DN100 / DN80 P265GH
SERVICE	PW
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	3.05 m	Pipe, sch 80, A106B	1
2	1	Elbow 90, THD, Class 3000, A106B	1
3	1	Union, THD, Class 3000, A106B	1
4	3	Flange threaded, Class 150, A106B	1
5	1	Ball valve, flanged, Class 150, lever operated	1
6	3	Gasket, flat ring, Class 150	1
7	3	Bolt set 4 x M16 x 80, stud bolts with nuts, Class 150	1
8	2	Pipe shoe for 1	1
9	1	U-bolt for 1	1

CUT LIST

SPOOL	PIECE	SIZE	LENGTH
S01	P1	1	418
S02	P1	1	492
S02	P2	1	1559
S03	P1	1	586

WELDS

WELD	SIZE	TYPE	SPOOL
1	1	SHOP THD	S01
2	1	SHOP THD	S01
3	1	SHOP THD	S02
4	1	SHOP THD	S02
5	1	SHOP THD	S02
6	1	SHOP THD	S02
7	1	FIELD THD	S02

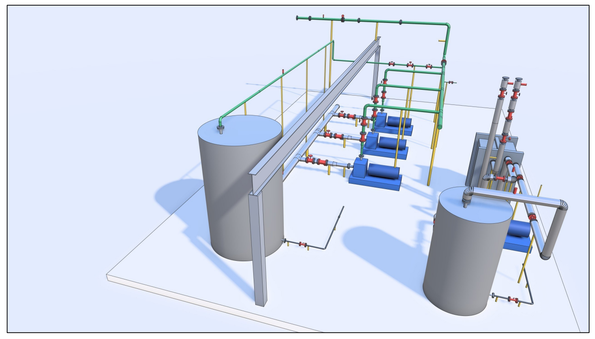
N

NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 0 SHOP, 0 FIELD (FW).
THREADED JOINTS (THD): 6 SHOP, 1 FIELD (FJ, AT UNIONS).
SLOPE 1:100 IN THE DIRECTION OF FLOW.
THREADED (NPT) FITTINGS, CLASS 3000. CUT LENGTHS INCLUDE EACH END'S THREAD ENGAGEMENT (HAND-TIGHT PLUS WRENCH MAKE-UP).
SUPPORTS: 3 (TAGS ON THE SHEET).

PIPING ISOMETRIC

LINE	DR-101
SPOOL	ALL (3 SPOOLS)
CLASS	T1 Class 150
SIZE	1 A106B
SERVICE	DR
SHEET	1 OF 1
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2

3D: BREAK TANK T-101 AND DRAIN DR-101



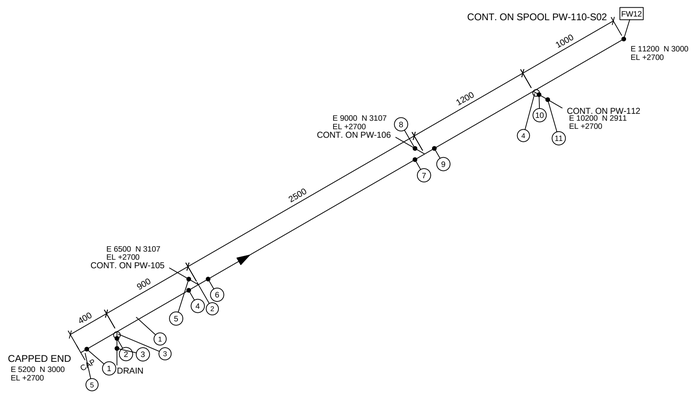
NOTES

1. Isometric sheets as the plugin draws them (PIPEISO Line): its ISO A3 frame, bill of materials, cut list, weld list and title block, placed here at 91 % (1:1.1).
2. Not to scale: dimensions in mm along the pipe, weld numbers and BOM balloons in circles, field welds in boxes, supports PS-nnn, coordinates E, N, EL at ends and branches.
3. PW-101 is the DN150 suction header; PW-102 one of three suction branches; DR-101 is threaded (T1), joints THD and a union at its field joint.
4. Fictional project, for demonstration only.

Stratal CAD
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TITLE
FELLBROOK CREAMERY, PLANT ROOM 2
ISOMETRICS: PW-101, PW-102, DR-101

PROJECT	DRAWN		
Fellbrook Creamery PR2 (fictional)	Stratal CAD demo		
DRAWING NO.	SHEET	SCALE	SIZE
STR-PIP-005	5 of 8	AS SHOWN	A1
SOFTWARE		DATE	
Stratal CAD 0.1.8, Piping & Isometrics 0.7.0		12 Nov 2026	
STATUS			
DEMONSTRATION DRAWING - NOT FOR MANUFACTURE			



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	5.50 m	Pipe, sch Medium, P265GH	DN100
2	2	Tee reducing, BW, sch Medium, P265GH	DN100xDN80
3	1	Branch outlet fitting (weld-on olet), P265GH	DN100xDN20
4	1	Branch outlet fitting (weld-on olet), P265GH	DN100xDN15
5	1	Cap, BW, sch Medium, P265GH	DN100

CUT LIST

PIECE	SIZE	LENGTH
P1	DN100	1126
P2	DN100	2286
P3	DN100	2093

WELDS

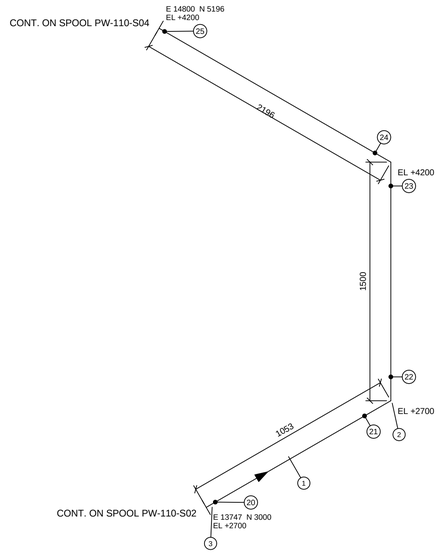
WELD	SIZE	TYPE	SPOOL
1	DN100	SHOP	S01
2	DN20	SHOP	S01
3	DN20	SHOP	S01
4	DN100	SHOP	S01
5	DN80	SHOP	S01
6	DN100	SHOP	S01
7	DN100	SHOP	S01
8	DN80	SHOP	S01
9	DN100	SHOP	S01
10	DN15	SHOP	S01
11	DN15	SHOP	S01
12	DN100	FIELD	S01

NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 11 SHOP, 1 FIELD (FW).
WELD INCHES 33.00, NDE 10% OF BUTT WELDS.

N

PIPING ISOMETRIC

LINE	PW-110
SPOOL	PW-110-S01
CLASS	FB-E1 PN16
SIZE	DN100 P265GH
SERVICE	PW
SHEET	1 OF 7
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	4.04 m	Pipe, sch Medium, P265GH	DN100
2	2	Elbow 90 LR, BW, sch Medium, P265GH	DN100
3	2	Flange weld neck, PN16, P265GH	DN100

CUT LIST

PIECE	SIZE	LENGTH
P1	DN100	851
P2	DN100	1200
P3	DN100	1994

WELDS

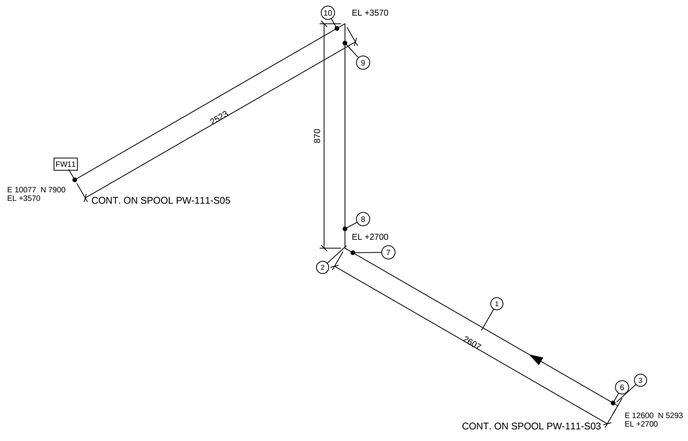
WELD	SIZE	TYPE	SPOOL
20	DN100	SHOP	S03
21	DN100	SHOP	S03
22	DN100	SHOP	S03
23	DN100	SHOP	S03
24	DN100	SHOP	S03
25	DN100	SHOP	S03

NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 6 SHOP, 0 FIELD (FW).
WELD INCHES 24.00, NDE 10% OF BUTT WELDS.

N

PIPING ISOMETRIC

LINE	PW-110
SPOOL	PW-110-S03
CLASS	FB-E1 PN16
SIZE	DN100 P265GH
SERVICE	PW
SHEET	3 OF 7
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2



BILL OF MATERIALS

PT	QTY	DESCRIPTION	SIZE
1	5.66 m	Pipe, sch Medium, P265GH	DN50
2	2	Elbow 90 LR, BW, sch Medium, P265GH	DN50
3	1	Flange weld neck, PN16, P265GH	DN50

CUT LIST

PIECE	SIZE	LENGTH
P1	DN50	2487
P2	DN50	720
P3	DN50	2448

WELDS

WELD	SIZE	TYPE	SPOOL
6	DN50	SHOP	S04
7	DN50	SHOP	S04
8	DN50	SHOP	S04
9	DN50	SHOP	S04
10	DN50	SHOP	S04
11	DN50	FIELD	S04

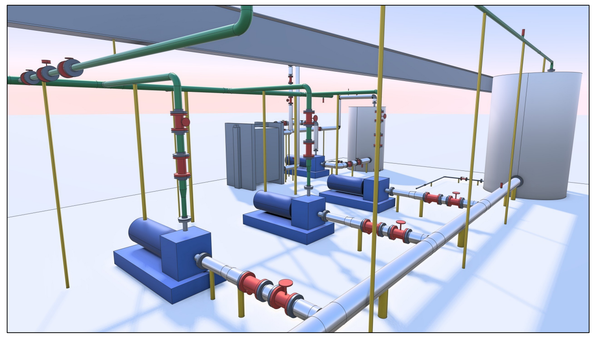
NOT TO SCALE. DIMENSIONS IN MM, CENTRE TO CENTRE ALONG THE PIPE.
WELDS: 5 SHOP, 1 FIELD (FW).
WELD INCHES 12.00, NDE 10% OF BUTT WELDS.

N

PIPING ISOMETRIC

LINE	PW-111
SPOOL	PW-111-S04
CLASS	FB-E1 PN16
SIZE	DN50 P265GH
SERVICE	PW
SHEET	4 OF 6
REV	P2
PROJECT	Fellbrook Creamery Plant Room 2

3D: PUMP SETS AND DISCHARGE RISERS



NOTES

1. Isometric sheets as the plugin draws them (PIPEISO Line): its ISO A3 frame, bill of materials, cut list, weld list and title block, placed here at 91 % (1:1.1).
2. Not to scale: dimensions in mm along the pipe, weld numbers and BOM balloons in circles, field welds in boxes, supports PS-nnn, coordinates E, N, EL at ends and branches.
3. Spool sheets as PIPEISO Spools draws them (one per spool): PW-110 has seven spools and PW-111 six; they break at flanged joints, valves and field welds (PIPESPOOL Auto, longest spool 6 m).
4. Fictional project, for demonstration only.

Stratal CAD
cad.stratal.co.uk

TITLE
FELLBROOK CREAMERY, PLANT ROOM 2
SPOOL SHEETS: PW-110-S01, S03, PW-111-S04

PROJECT	DRAWN
Fellbrook Creamery PR2 (fictional)	Stratal CAD demo

DRAWING NO.	SHEET	SCALE	SIZE
STR-PIP-006	6 of 8	AS SHOWN	A1

SOFTWARE	DATE
Stratal CAD 0.1.8, Piping & Isometrics 0.7.0	12 Nov 2026

STATUS
DEMONSTRATION DRAWING - NOT FOR MANUFACTURE

MATERIAL TAKE-OFF (PIPEREPORT MTO)

Item	Description	Size	Qty	Unit	kg
pipe	Pipe, sch Medium, P265GH	DN150	8.336	m	187.3
pipe	Pipe, sch Medium, P265GH	DN100	17.397	m	212.0
pipe	Pipe, sch Medium, P265GH	DN80	9.216	m	77.2
pipe	Pipe, sch Medium, P265GH	DN50	16.097	m	81.0
pipe	Pipe, sch Medium, P265GH	DN15	0.201	m	0.2
pipe	Pipe, sch 80, A106B	1	5.037	m	16.3
pipe	Pipe, sch STD, A106B	3	1.393	m	15.7
pipe	Pipe, sch STD, A106B	2	15.343	m	83.4
elbow 90	Elbow 90 LR, BW, sch Medium, P265GH	DN100	2	ea	5.7
elbow 90	Elbow 90 LR, BW, sch Medium, P265GH	DN80	3	ea	4.7
elbow 90	Elbow 90 LR, BW, sch Medium, P265GH	DN50	3	ea	1.8
elbow 90	Elbow 90, THD, Class 3000, A106B	1	2	ea	0.4
elbow 90	Elbow 90 LR, BW, sch STD, A106B	3	1	ea	2.0
elbow 90	Elbow 90 LR, BW, sch STD, A106B	2	9	ea	5.9
tee	Tee reducing, BW, sch Medium, P265GH	DN150xDN100	3	ea	31.0
tee	Tee reducing, BW, sch Medium, P265GH	DN100xDN80	3	ea	11.8
tee	Tee reducing, BW, sch Medium, P265GH	DN100xDN50	1	ea	3.9
olet	Branch outlet fitting (weld-on olet), P265GH	DN150xDN20	2	ea	0.2
olet	Branch outlet fitting (weld-on olet), P265GH	DN100xDN20	2	ea	0.2
olet	Branch outlet fitting (weld-on olet), P265GH	DN100xDN15	1	ea	0.1
olet	Branch outlet fitting (weld-on olet), P265GH	DN50xDN20	1	ea	0.1
olet	Branch outlet fitting (weld-on olet), A106B	3x1	1	ea	0.2
olet	Branch outlet fitting (weld-on olet), A106B	2x1	4	ea	0.8
reducer eccentric	Reducer eccentric, BW, sch Medium, P265GH	DN100xDN80	3	ea	3.9
reducer concentric	Reducer concentric, BW, sch Medium, P265GH	DN80xDN50	3	ea	2.1
cap	Cap, BW, sch Medium, P265GH	DN150	1	ea	2.0
cap	Cap, BW, sch Medium, P265GH	DN100	1	ea	0.8
cap	Cap, BW, sch Medium, P265GH	DN15	1	ea	0.0
union	Union, THD, Class 3000, A106B	1	1	ea	0.6
flange	Flange weld neck, PN16, P265GH	DN150	1	ea	11.9
flange	Flange weld neck, PN16, P265GH	DN100	23	ea	150.1
flange	Flange weld neck, PN16, P265GH	DN80	15	ea	80.7
flange	Flange weld neck, PN16, P265GH	DN50	10	ea	34.2
flange	Flange weld neck, PN16, P265GH	DN15	2	ea	1.8
flange	Flange threaded, Class 150, A106B	1	6	ea	7.0
flange	Flange weld neck, Class 150, A106B	3	6	ea	31.5
flange	Flange weld neck, Class 150, A106B	2	24	ea	71.0
valve gate	Gate valve, flanged, PN16, handwheel operated	DN100	3	ea	
valve butterfly	Butterfly valve, flanged, PN16, gear operated	DN100	1	ea	
valve check	Check valve, flanged, PN16	DN80	3	ea	
valve gate	Gate valve, flanged, PN16, handwheel operated	DN80	3	ea	
valve gate	Gate valve, flanged, PN16, handwheel operated	DN50	2	ea	
valve control	Control valve, flanged, PN16, actuator operated	DN50	1	ea	
valve needle	Needle valve, flanged, PN16	DN15	1	ea	
valve ball	Ball valve, flanged, Class 150, lever operated	1	2	ea	
valve gate	Gate valve, flanged, Class 150, handwheel operated	3	1	ea	
valve check	Check valve, flanged, Class 150	2	1	ea	
valve gate	Gate valve, flanged, Class 150, handwheel operated	2	4	ea	
valve globe	Globe valve, flanged, Class 150, handwheel operated	2	1	ea	
valve control	Control valve, flanged, Class 150, actuator operated	2	1	ea	
vent valve	Vent valve, ball, socket weld or threaded, with plug, PN16	DN20	3	ea	
vent valve	Vent valve, ball, socket weld or threaded, with plug, Class 150	1	3	ea	
drain valve	Drain valve, ball, socket weld or threaded, with plug, PN16	DN20	2	ea	
drain valve	Drain valve, ball, socket weld or threaded, with plug, Class 150	1	2	ea	
strainer	Y-strainer, flanged, PN16	DN100	3	ea	
strainer	Y-strainer, flanged, Class 150	3	1	ea	
strainer	Y-strainer, flanged, Class 150	2	1	ea	
meter	Inline meter, flanged, PN16	DN100	1	ea	
orifice	Orifice plate, PN16, P265GH	DN100	1	ea	
blind	Spectacle blind, PN16, P265GH	DN100	1	ea	
gasket	Gasket, flat ring, PN16	DN150	1	ea	
gasket	Gasket, flat ring, PN16	DN100	21	ea	
gasket	Gasket, flat ring, PN16	DN80	15	ea	
gasket	Gasket, flat ring, PN16	DN50	10	ea	
gasket	Gasket, flat ring, PN16	DN15	2	ea	
gasket	Gasket, flat ring, Class 150	1	6	ea	
gasket	Gasket, flat ring, Class 150	3	6	ea	
gasket	Gasket, flat ring, Class 150	2	22	ea	
bolt set	Bolt set 8 x M20 x 115, stud bolts with nuts, PN16	DN150	1	ea	
bolt set	Bolt set 8 x M16 x 100, stud bolts with nuts, PN16	DN100	17	ea	
bolt set	Bolt set 8 x M16 x 95, stud bolts with nuts, PN16	DN80	15	ea	
bolt set	Bolt set 8 x M16 x 105, stud bolts with nuts, PN16	DN100	2	ea	
bolt set	Bolt set 4 x M16 x 90, stud bolts with nuts, PN16	DN50	10	ea	
bolt set	Bolt set 4 x M16 x 80, stud bolts with nuts, PN16	DN15	2	ea	
bolt set	Bolt set 4 x M16 x 80, stud bolts with nuts, Class 150	1	6	ea	
bolt set	Bolt set 8 x M16 x 95, stud bolts with nuts, Class 150	3	6	ea	
bolt set	Bolt set 4 x M16 x 85, stud bolts with nuts, Class 150	2	22	ea	
support shoe	Pipe shoe for DN150	DN150	3	ea	
support anchor	Anchor for DN150	DN150	1	ea	
support shoe	Pipe shoe for DN100	DN100	8	ea	
support shoe	Pipe shoe for DN80	DN80	5	ea	
support guide	Guide for DN100	DN100	1	ea	
support shoe	Pipe shoe for DN50	DN50	5	ea	
support hanger	Hanger for DN50	DN50	1	ea	
support shoe	Pipe shoe for DN15	DN15	1	ea	
support shoe	Pipe shoe for 1	1	5	ea	
support ubolt	U-bolt for 1	1	1	ea	
support shoe	Pipe shoe for 3	3	3	ea	
support shoe	Pipe shoe for 2	2	9	ea	
support spring	Spring hanger for 2	2	1	ea	
support trunnion	Trunnion for 2	2	1	ea	

SUPPORTS AND LOADS (SUPPORTS, LOADS)

Tag	Kind	Line	Size	E	N	EL	Empty kg	Oper. kg	Test kg	Test kN
PS-001	Anchor	PW-101	DN150	4300	7600	450	51.6	92.3	92.3	0.91
PS-002	Pipe shoe	PW-110	DN100	14800	6300	4200	58.5	85.8	85.8	0.84
PS-003	Guide	PW-110	DN100	14800	3000	3450	45.2	72.2	72.2	0.71
PS-004	Hanger	PW-111	DN50	12600	6300	2700	21.9	28.3	28.3	0.28
PS-005	Spring hanger	HW-203	2	1600	1200	2790	14.8	19.1	19.2	0.19
PS-006	Trunnion	LT-302	2	5200	1650	2000	32.9	39.3	39.5	0.39
PS-007	U-bolt	DR-101	1	3300	5400	128	6.6		7.5	0.07
PS-008	Pipe shoe	PW-101	DN150	4300	7600	450	14.5	25.0	25.0	0.25
PS-009	Pipe shoe	PW-101	DN150	10445	7600	450	92.2	162.5	162.5	1.59
PS-010	Pipe shoe	PW-102	DN100	6500	6405	450	38.6	45.8	45.8	0.45
PS-011	Pipe shoe	PW-102	DN80	6500	5855	450	4.5	6.7	6.7	0.07
PS-012	Pipe shoe	PW-103	DN100	9000	6405	450	39.6	47.3	47.3	0.46
PS-013	Pipe shoe	PW-104	DN100	11500	6405	450	38.6	45.8	45.8	0.45
PS-014	Pipe shoe	PW-104	DN80	11500	5855	450	4.5	6.7	6.7	0.07
PS-015	Pipe shoe	PW-110	DN100	6800	3000	2700	40.8	68.7	68.7	0.67
PS-016	Pipe shoe	PW-110	DN100	10000	3000	2700	40.9	68.8	68.8	0.67
PS-017	Pipe shoe	PW-110	DN100	13200	3000	2700	54.4	78.3	78.3	0.77
PS-018	Pipe shoe	PW-110	DN100	14800	8550	4200	72.3	98.1	98.1	0.96
PS-019	Pipe shoe	PW-105	DN80	6500	4150	2700	29.6	39.9	39.9	0.39
PS-020	Pipe shoe	PW-106	DN80	9000	4150	2700	29.6	39.9	39.9	0.39
PS-021	Pipe shoe	PW-107	DN80	11500	4150	2700	29.6	39.9	39.9	0.39
PS-022	Pipe shoe	PW-111	DN50	12600	4201	2700	32.3	36.0	36.0	0.35
PS-023	Pipe shoe	PW-111	DN50	11250	7900	3570	16.2	23.4	23.4	0.23
PS-024	Pipe shoe	PW-111	DN50	8550	7900	3570	13.6	19.6	19.6	0.19
PS-025	Pipe shoe	PW-111	DN50	5850	7900	3570	13.7	19.7	19.7	0.19
PS-026	Pipe shoe	PW-111	DN50	3150	7900	3570	10.8	15.5	15.5	0.15
PS-027	Pipe shoe	PW-112	DN15	10200	2842	2700	3.8	3.9	3.9	0.04
PS-028	Pipe shoe	DR-101	1	2200	6415	149	2.5		2.6	0.03
PS-029	Pipe shoe	DR-101	1	2200	5852	144	6.7		7.2	0.07
PS-030	Pipe shoe	DR-201	1	1800	1315	149	2.6		2.7	0.03
PS-031	Pipe shoe	DR-201	1	1800	852	145	5.3		5.6	0.06
PS-032	Pipe shoe	DR-201	1	2500	600	135	3.8		4.4	0.04
PS-033	Pipe shoe	HW-201	3	2545	2700	450	13.8	16.4	16.4	0.16
PS-034	Pipe shoe	HW-201	3	3495	2700	450	37.1	41.8	42.0	0.41
PS-035	Pipe shoe	HW-201	3	4300	2400	450	14.1	17.1	17.2	0.17
PS-036	Pipe shoe	HW-202	2	4980	1050	1840	29.4	33.9	34.1	0.33
PS-037	Pipe shoe	HW-202	2	5786	1050	450	9.9	12.3	12.3	0.12
PS-038	Pipe shoe	HW-203	2	5780	750	1550	8.2	9.6	9.6	0.09
PS-039	Pipe shoe	HW-203	2	4645	750	1550	19.6	23.0	23.1	0.23
PS-040	Pipe shoe	HW-203	2	2615	750	1550	24.4	29.3	29.5	0.29
PS-041	Pipe shoe	LT-301	2	5430	1350	1550	52.2	58.5	58.7	0.58
PS-042	Pipe shoe	LT-301	2	5780	1350	1550	2.4	2.9	2.9	0.03
PS-043	Pipe shoe	LT-302	2	5430	1650	450	7.1	9.3	9.3	0.09
PS-044	Pipe shoe	LT-302	2	5780	1650	450	2.4	2.9	2.9	0.03
PS-045	Pipe shoe	PW-101	DN150	7700	7600	450	77.8	137.4	137.4	1.35

BOLTING (FROM BOLTS)

Size	Rating	Bolting	Gasket	Joints
DN150	PN16	8 x M20 x 115	flat ring	1
DN100	PN16	8 x M16 x 100	flat ring	17
DN80	PN16	8 x M16 x 95	flat ring	15
DN100	PN16	8 x M16 x 105	flat ring	2
DN50	PN16	4 x M16 x 90	flat ring	10
DN15	PN16	4 x M16 x 80	flat ring	2
1	Class 150	4 x M16 x 80	flat ring	6
3	Class 150	8 x M16 x 95	flat ring	6
2	Class 150	4 x M16 x 85	flat ring	22

CUT LIST (CUTLIST)

Line	Spool	Pc	Size	mm
PW-101	S01	P1	DN150	2992
PW-101	S01	P2	DN150	2194
PW-101	S01	P3	DN150	147
PW-101	S02	P1	DN150	2047
PW-101	S02	P2	DN150	956
PW-102	S01	P1	DN100	178
PW-102	S02	P1	DN100	86
PW-102	S03	P1	DN100	191
PW-102	S03	P2	DN80	386
PW-103	S01	P1	DN100	178
PW-103	S02	P1	DN100	86
PW-103	S03	P1	DN100	191
PW-103	S03	P2	DN80	386
PW-104	S01	P1	DN100	178
PW-104	S02	P1	DN100	86
PW-104	S03	P1	DN100	191
PW-104	S03	P2	DN80	386
PW-110	S01	P1	DN100	1126
PW-110	S01	P2	DN100	2286
PW-110	S01	P3	DN100	2093
PW-110	S02	P1	DN100	193
PW-110	S02	P2	DN100	886
PW-110	S02	P3	DN100	694
PW-110	S03	P1	DN100	851
PW-110	S03	P2	DN100	1200
PW-110	S03	P3	DN100	1994
PW-110	S04	P1	DN100	1890
PW-110	S05	P1	DN100	665
PW-110	S06	P1	DN100	1562
PW-110	S07	P1	DN100	592

(CONT.)

Line	Spool	Pc	Size	mm
PW-105	S01	P1	DN50	252
PW-105	S01	P2	DN80	121
PW-105	S02	P1	DN80	218
PW-105	S03	P1	DN80	274
PW-105	S03	P2	DN80	2073
PW-106	S01	P1	DN50	252
PW-106	S01	P2	DN80	121
PW-106	S02	P1	DN80	218
PW-106	S03	P1	DN80	274
PW-106	S03	P2	DN80	2073
PW-107	S01	P1	DN50	252
PW-107	S01	P2	DN80	121
PW-107	S02	P1	DN80	218
PW-107	S03	P1	DN80	274
PW-107	S03	P2	DN80	2073
PW-111	S01	P1	DN50	355
PW-111	S02	P1	DN50	514
PW-111	S03	P1	DN50	514
PW-111	S04	P1	DN50	2487
PW-111	S04	P2	DN50	720
PW-111	S04	P3	DN50	2448
PW-111	S05	P1	DN50	6000
PW-111	S06	P1	DN50	2202
PW-111	S06	P2	DN50	100
PW-112	S01	P1	DN15	118
PW-112	S02	P1	DN15	83
DR-101	S01	P1	1	418
DR-101	S02	P1	1	492
DR-101	S02	P2	1	1559
DR-101	S03	P1	1	586

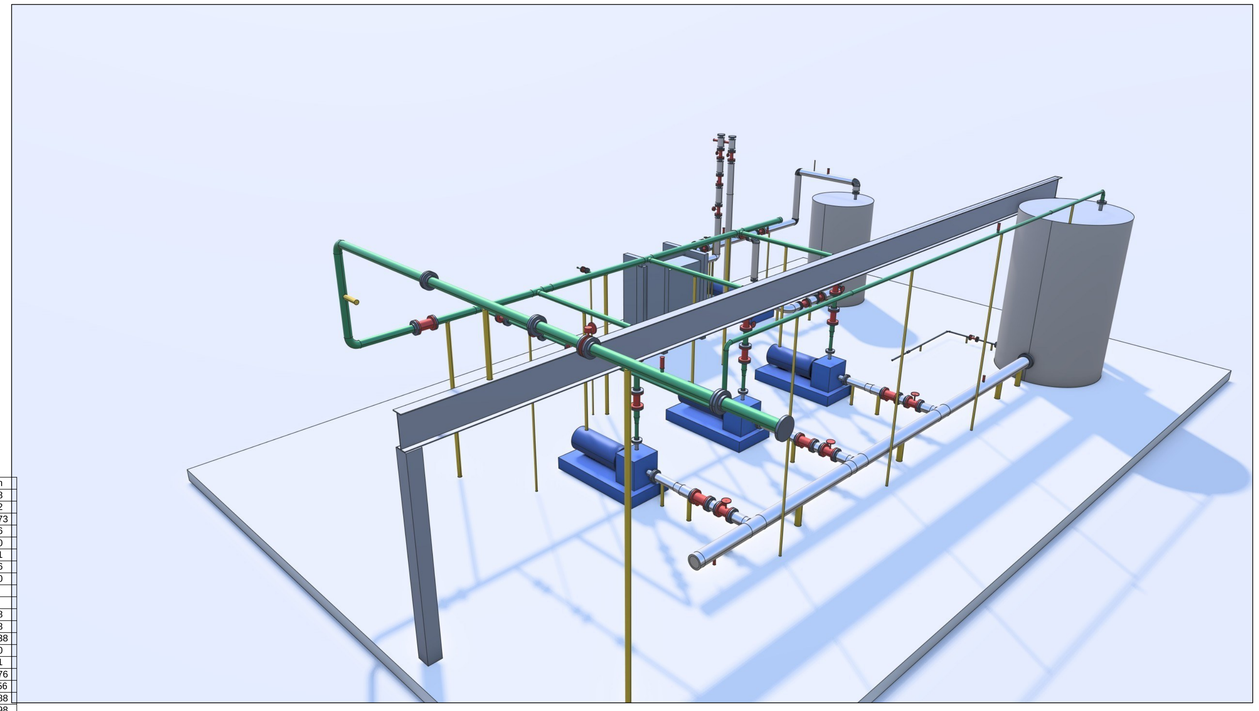
(CONT.)

Line	Spool	Pc	Size	mm
DR-201	S01	P1	1	318
DR-201	S02	P1	1	292
DR-201	S02	P2	1	1373
HW-201	S01	P1	3	556
HW-201	S02	P1	3	230
HW-201	S03	P1	3	191
HW-201	S03	P2	3	416
HW-202	S01	P1	2	800
HW-202	S01	P2	2	76
HW-202	S02	P1	2	86
HW-202	S02	P2	2	718
HW-202	S03	P1	2	178
HW-202	S03	P2	2	1238
HW-202	S03	P3	2	100
HW-203	S01	P1	2	681
HW-203	S02	P1	2	1676
HW-203	S03	P1	2	1156
HW-203	S03	P2	2	1088
HW-203	S03	P3	2	1498
HW-203	S03	P4	2	100
LT-301	S01	P1	2	181
LT-301	S02	P1	2	226
LT-301	S03	P1	2	314
LT-301	S04	P1	2	807
LT-301	S04	P2	2	560
LT-302	S01	P1	2	181
LT-302	S02	P1	2	644
LT-302	S03	P1	2	2474
LT-302	S03	P2	2	560

WELDS (FROM WELDS)

Line	Shop	Field	THD	Weld in.
DR-101	0	0	7	0.00
DR-201	0	0	5	0.00
HW-201	10	0	0	26.00
HW-202	16	0	0	30.00
HW-203	14	0	0	26.00
LT-301	12	0	0	22.00
LT-302	8	1	0	16.00
PW-101	15	1	0	69.00
PW-102	7	0	0	26.50
PW-103	7	0	0	26.50
PW-104	7	0	0	26.50
PW-105	9	0	0	26.75
PW-106	9	0	0	26.75
PW-107	9	0	0	26.75
PW-110	34	1	0	115.75
PW-111	15	2	0	31.50
PW-112	3	0	0	1.50
Total	175	5	12	497.50

3D: HEADER PW-110 AND THE RING MAIN BRANCH



NOTES

1. MTO, Supports, Loads, Bolts, CutList and Welds are the plugin's CSV files (PIPEREPORT), rows as written; the bolting and weld summaries are counted from them. Masses are the plugin's estimates; valves are left to the maker.
2. Loads by the lever rule: a layout guide, not a stress analysis (as the command says).
3. Fictional project, for demonstration only.

Stratal CAD
cad.stratal.co.uk

TITLE
FELLBROOK CREAMERY, PLANT ROOM 2
MTO, SUPPORTS, LOADS, CUT LIST AND WELDS

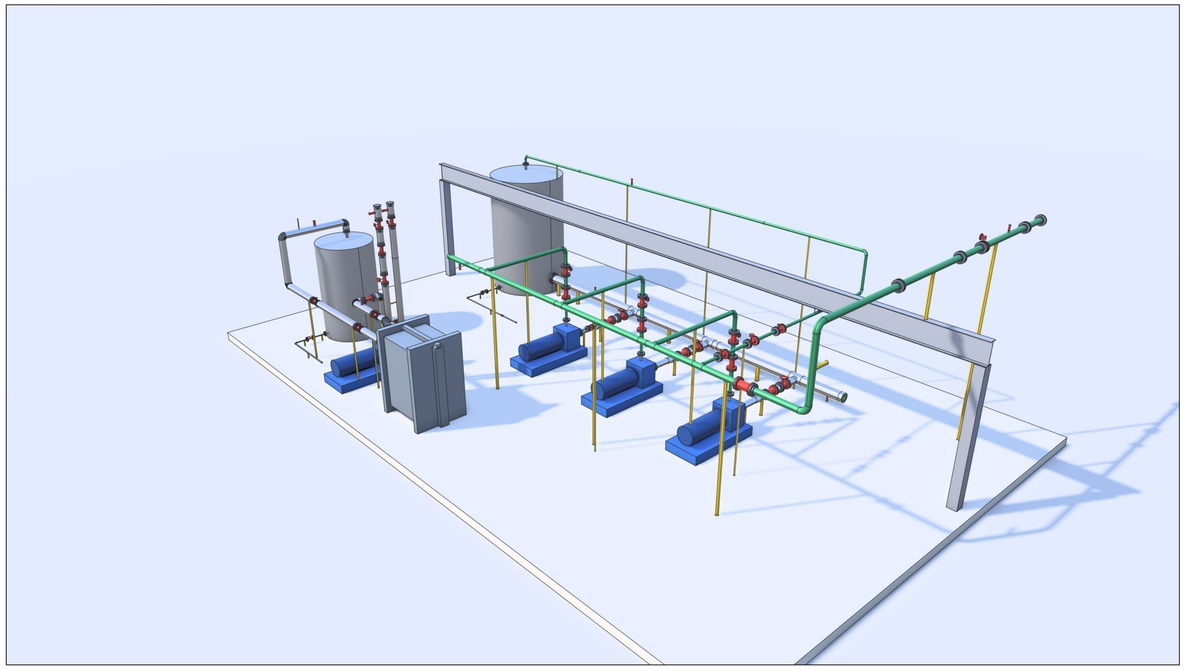
PROJECT	DRAWN
Fellbrook Creamery PR2 (fictional)	Stratal CAD demo

DRAWING NO.	SHEET	SCALE	SIZE
STR-PIP-007	7 of 8	NTS	A1

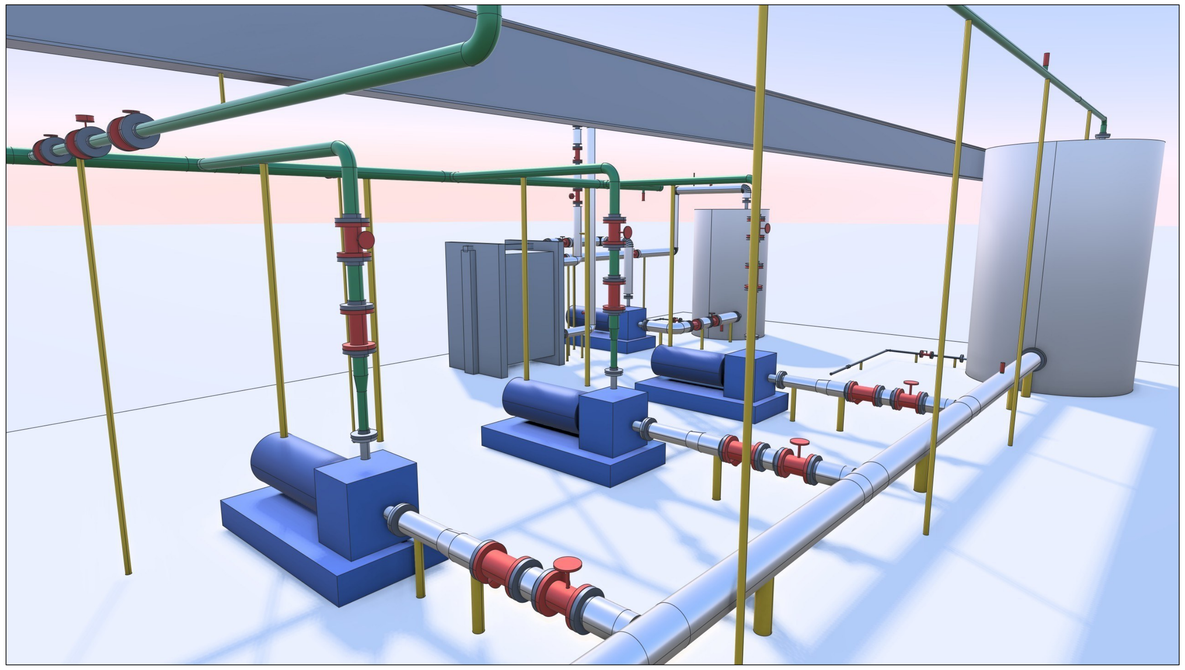
SOFTWARE	DATE
Stratal CAD 0.1.8, Piping & Isometrics 0.7.0	12 Nov 2026

STATUS
DEMONSTRATION DRAWING - NOT FOR MANUFACTURE

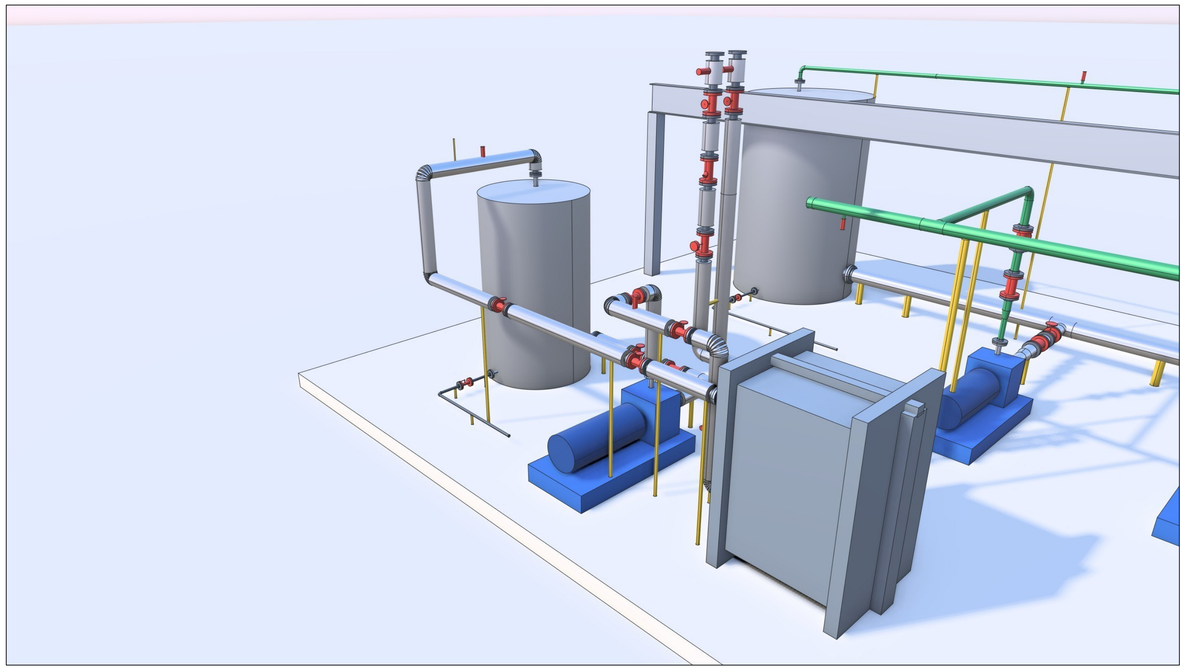
3D: FROM THE SOUTH-EAST



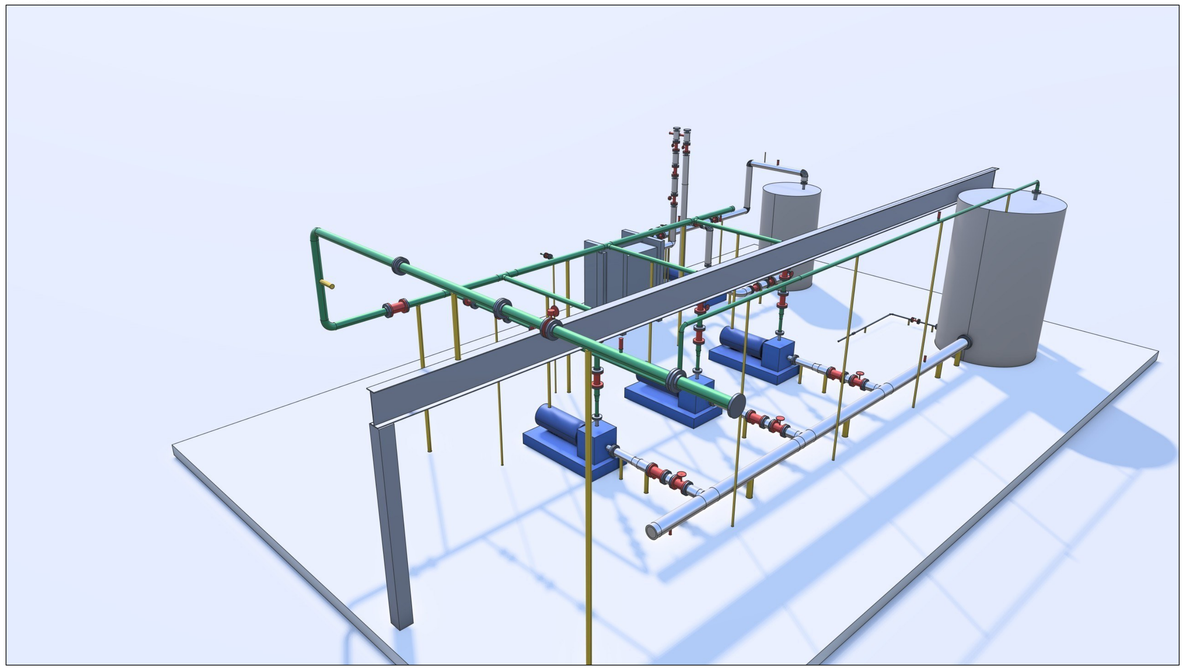
3D: PUMP SETS FROM THE NORTH



3D: CIP HOT WATER SET



3D: FROM THE NORTH-EAST



NOTES

1. RENDERSTILL from saved cameras, 2560 x 1440; looks by part kind (P-VALVE-3D, P-FLANGE-3D, P-SUPPORT-3D, P-INSUL) and pipe colour by service. Fictional project.

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TITLE
FELLBROOK CREAMERY, PLANT ROOM 2
3D MODEL VIEWS

PROJECT		DRAWN	
Fellbrook Creamery PR2 (fictional)		Stratal CAD demo	
DRAWING NO.	SHEET	SCALE	SIZE
STR-PIP-008	8 of 8	NTS	A1
SOFTWARE		DATE	
Stratal CAD 0.1.8, Piping & Isometrics 0.7.0		12 Nov 2026	

STATUS
DEMONSTRATION DRAWING - NOT FOR MANUFACTURE