

FAC 8921 INSTALLATION GAS PRODUCTION PLANT

FY22 SUC: \$24,663.42 EA

Source: Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 8921 INSTALLATION GAS PRODUCTION PLANT

Release 2021 Qtr 3
Zip Code Prefix 222
Type MR

UM EA
Design Life 55
Average Size 1.0

SUC \$24,663.42

Adjusted Occurences are the occurrences remaining after subtracting Repair/Replacement Overlaps. Overlap reduction removes a repair when it occurs the same year as a replacement.

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace pipe and fittings, oxygen	25	800.00 L.F.	\$20,738.85	\$24,975.66	2.2000	2	2	\$49,951.33	\$49,951.33	
General maintenance pipe & fittings, compressed air	2	1.20 M.L.F.	\$44.32	\$55.43	27.5000	27	27	\$1,496.53	\$1,496.53	
Replace 25 H.P. compressor	25	10.00 Ea.	\$249,771.68	\$290,005.47	2.2000	2	2	\$580,010.95	\$580,010.95	
Check operation compressed air systems	1	1.00 Ea.	\$23.90	\$29.89	55.0000	55	55	\$1,643.79	\$1,643.79	
Replace 275 gallon fuel oil storage tank	30	4.00 Ea.	\$3,781.51	\$4,487.78	1.8333	1	1	\$4,487.78	\$4,487.78	
Install new 2" gasket, 1 per M.L.F. natural gas, steel/iron	30	8.00 Ea.	\$1,030.61	\$1,279.70	1.8333	1	1	\$1,279.70	\$1,279.70	
Install new 3" gasket, 1 per M.L.F. natural gas, steel/iron	30	4.00 Ea.	\$603.67	\$750.02	1.8333	1	1	\$750.02	\$750.02	
Replace 10' of buried 2" diam steel pipe/M.L.F. natural gas	12	12.00 Ea.	\$8,069.65	\$9,962.42	4.5833	4	4	\$39,849.70	\$39,849.70	
Check gas pressure natural gas, pressure reducing valve	5	4.00 Ea.	\$38.67	\$48.36	11.0000	11	11	\$531.99	\$531.99	
Replace pressure regulator 2" diam. pipe natural gas	14	4.00 Ea.	\$3,538.31	\$4,069.29	3.9286	3	3	\$12,207.88	\$12,207.88	
Replace 10' steel pipe 2" diam. M.L.F. LPG distribution	12	4.00 Ea.	\$1,905.66	\$2,344.61	4.5833	4	4	\$9,378.43	\$9,378.43	
Rebuild 4" diameter reduced pressure backflow preventer	10	1.00 Ea.	\$664.67	\$779.78	5.5000	5	5	\$3,898.92	\$3,898.92	
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	55.0000	55	55	\$2,361.08	\$2,361.08	
Replace sprinkler head	20	6.00 Ea.	\$513.14	\$631.14	2.7500	2	2	\$1,262.27	\$1,262.27	
Maintenance and inspection lighting panel, indoor	3	1.00 Ea.	\$40.64	\$50.92	18.3333	18	18	\$916.59	\$916.59	
Maintenance and repair breaker, molded case, 480 V, 1 pole	20	4.00 Ea.	\$287.05	\$359.63	2.7500	2	2	\$719.27	\$719.27	
Replace circuit breaker molded case, 480 V, 1 pole circuit breaker	50	4.00 Ea.	\$2,193.16	\$2,554.82	1.1000	1	1	\$2,554.82	\$2,554.82	
Repair failed breaker, molded case, 600 V, 3 pole	10	2.00 Ea.	\$744.14	\$885.26	5.5000	5	5	\$4,426.31	\$4,426.31	
Replace circuit breaker molded case, 600 V, 3 pole circuit breaker	50	2.00 Ea.	\$10,377.85	\$11,878.98	1.1000	1	1	\$11,878.98	\$11,878.98	
Replace metal halide ballast, 175 W	10	8.00 Ea.	\$1,187.88	\$1,426.41	5.5000	5	5	\$7,132.04	\$7,132.04	
Replace metal halide fixture lamp, 175 W	5	8.00 Ea.	\$399.90	\$489.23	11.0000	11	11	\$5,381.52	\$5,381.52	
Repair smoke detector	10	5.00 Ea.	\$281.94	\$348.57	5.5000	5	4	\$1,742.85	\$1,394.28	
Check operation smoke detector	1	5.00 Ea.	\$80.97	\$101.45	55.0000	55	55	\$5,579.48	\$5,579.48	
Replace smoke detector	15	5.00 Ea.	\$1,421.19	\$1,697.31	3.6667	3	3	\$5,091.93	\$5,091.93	
Check and repair manual pull station	10	4.00 Ea.	\$350.79	\$431.32	5.5000	5	4	\$2,156.61	\$1,725.28	
Replace manual pull station	15	2.00 Ea.	\$406.94	\$489.88	3.6667	3	3	\$1,469.65	\$1,469.65	
			\$308,531.38	\$360,176.27				MR Subtotal	\$757,380.51	
									MR Per Year	\$13,770.55
									PM Total	\$10,892.87
									Subtotal	\$24,663.42
									Total Per Unit	\$24,663.42

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Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Unit heater, gas radiant, annualized	2.00	2.02	\$2.93	\$101.31	\$0.00	\$104.25	\$134.93	\$165.77
Air compressor, reciprocating, 5 to 40 H.P., annualized	10.00	48.56	\$970.56	\$2,907.30	\$0.00	\$3,877.86	\$4,847.11	\$5,864.88
Steam humidification system, annualized	1.00	2.54	\$25.78	\$152.41	\$0.00	\$178.19	\$226.50	\$276.09
Backflow prevention device, up to 4", annualized	1.00	0.33	\$13.40	\$19.82	\$0.00	\$33.22	\$40.50	\$48.46
Extinguishing system, wet pipe, annualized	1.00	11.34	\$68.24	\$678.37	\$0.00	\$746.61	\$956.95	\$1,170.70
Circuit breaker, high voltage air, annualized	4.00	1.88	\$60.62	\$124.32	\$0.00	\$184.94	\$228.30	\$274.69
Transformer, oil pad mounted, annualized	1.00	1.08	\$0.08	\$71.48	\$0.00	\$71.57	\$93.02	\$114.48
Panelboard, 225 A and above, annualized	2.00	0.88	\$46.39	\$58.02	\$0.00	\$104.41	\$126.46	\$150.82
Motor control center, over 400 A, annualized	1.00	0.39	\$23.20	\$25.90	\$0.00	\$49.10	\$59.19	\$70.44
Battery system and charger, annualized	1.00	8.73	\$19.95	\$518.00	\$0.00	\$537.95	\$695.34	\$853.74
Light, emergency, hardwired system, annualized	2.00	0.50	\$15.46	\$29.53	\$0.00	\$44.99	\$55.40	\$66.57
Hydraulic lift, loading dock, annually	1.00	0.82	\$16.27	\$27.81	\$0.00	\$44.08	\$54.05	\$64.83
Hoist / winch, chain / cable, electric, annually	2.00	3.30	\$307.13	\$116.01	\$0.00	\$423.14	\$488.66	\$569.53
Vacuum, annualized	1.00	1.23	\$20.51	\$41.86	\$0.00	\$62.37	\$76.98	\$92.62
Blower, aerator, annualized	1.00	10.31	\$245.49	\$501.50	\$0.00	\$746.99	\$921.99	\$1,109.26
						\$7,209.67	\$9,005.37	\$10,892.87

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Modeled Component List

CostWorks Release 2021 Qtr 3

D20 Plumbing

Compressed Air Systems, Compressors, 25 H.P.	10.0 Ea.
Compressed Air Systems, Compressors, Check operation	1.0 Ea.

D30 HVAC

Fuel Oil Storage Tank, 275 Gallon	4.0 Ea.
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D40 Fire Protection

Backflow Preventer	1.0 Ea.
Sprinkler System, Fire Suppression, sprinkler head	6.0 Ea.

D50 Electrical

Load Center, 100 A, maintenance & inspection	1.0 Ea.
Circuit Breaker, molded case, 480 V, 1 pole	4.0 Ea.
Circuit Breaker, molded case, 600 V, 3 pole	2.0 Ea.
Smoke Detector	5.0 Ea.
Manual Pull Station	2.0 Ea.

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Sustainment by Year
CostWorks Release 2021 Qtr 3

