

CA BASIC PUMPS

TECHNICAL DATA

Basic Pump				
Model	E50	E57	E71	E15
Stage	2			
Lubrication type	Splash Lubrication			
Oil quantity	1.5 Quarts	2 Quarts	2.5 Quarts	5 Quarts
Valve type	Disc	Channel	Disc	Disc
RPM (min – max) – rpm	500-1050	800-1250	500-1050	500-1050
Pressure Range (min-max) - PSI	80-175	80-175	80-175	80-175
HP (min – max)	3-5	5-7.5	7.5-10	10-15
Bore (LP/HP) – inch	3.15 / 2.56	3.94 / 2.17	3.93 / 3.15	4.72 / 3.93
Stroke – inch	2.36	3.39	2.76	3.15
Inlet size	Rc1	Rc1	Rc1	Rc1
Discharge size	Rc1	Rc1	Rc1	Rc1
Sheave OD	15.75	16.53	11.81	13.86
Sheave PD	15.5	16.28	11.46	13.51
Number of belts	2A	2A	3B	4B
Low oil sight glass	Yes	Yes	Yes	Yes
Unloaders and Method	Suction Head	Suction Head	Suction Head	Suction Head
Noise level – dB(A)	84	84	86	90
Compressor Bearings				
Crankshaft Main Bearings	Ball	Ball	Ball	Ball
Connecting Rod Bearings	Babbitt	Babbitt	Babbitt	Babbitt
Wrist Pin Bearings	Needle	Needle	Needle	Needle
Installation condition				
Allowed ambient temperature min - max - °F	32-104			
Compressor dimensions				
Depth – inch	19.6	16.2	18.9	23.5
Width – inch	22.4	16.3	25.8	30.5
Height – inch	20.3	24	25.4	31
Weight – Lbs.	185	160	300	450

Remark:

1. Capacity (FAD) measured in accordance with ISO 1217, Ed 3, Attachment C 1996, Ref. condition: Dry air, suction pressure 1 bar.
2. Sound Pressure Level in accordance with ISO 2151, edition 2004 with a tolerance of 3dB(A).
3. Due to continuous product development at FS-CURTIS, design and specifications are subject to change without notice.

PERFORMANCE DATA MODEL ES-06 COMPRESSOR

SINGLE STAGE – (2) 2.01” BORE x 1.65” STROKE

Displacement CFM	RPM		Discharge Pressure (PSIG)						
			60	70	80	90	100	110	120
3.0300	500	Free Air Delivered (CFM)	2.08	1.89	1.74	1.65	1.57	1.49	1.40
		HP Required	.45	.47	.49	.50	.51	.52	.53
3.3330	550	Free Air Delivered (CFM)	2.30	2.12	1.99	1.90	1.81	1.71	1.62
		HP Required	.50	.53	.55	.57	.58	.59	.60
3.6360	600	Free Air Delivered (CFM)	2.53	2.33	2.20	2.10	2.00	1.91	1.81
		HP Required	.55	.58	.61	.62	.64	.65	.66
3.9390	650	Free Air Delivered (CFM)	2.77	2.60	2.42	2.33	2.23	2.13	2.02
		HP Required	.60	.64	.67	.68	.70	.72	.73
4.2420	700	Free Air Delivered (CFM)	2.99	2.81	2.64	2.54	2.43	2.33	2.23
		HP Required	.65	.69	.72	.74	.76	.78	.80
4.5450	750	Free Air Delivered (CFM)	3.22	3.05	2.87	2.77	2.66	2.55	2.45
		HP Required	.70	.74	.78	.80	.83	.85	.87
4.8480	800	Free Air Delivered (CFM)	3.45	3.28	3.08	2.99	2.88	2.76	2.66
		HP Required	.75	.79	.84	.86	.89	.91	.94
5.1510	850	Free Air Delivered (CFM)	3.68	3.50	3.30	3.19	3.07	2.98	2.84
		HP Required	.80	.85	.89	.92	.95	.98	1.00
5.4540	900	Free Air Delivered (CFM)	3.88	3.70	3.52	3.42	3.29	3.17	3.05
		HP Required	.84	.90	.95	.98	1.01	1.04	1.07

NOTE:

1. Maximum discharge for *continuous operation is **100 PSIG**.
2. Maximum discharge for *intermittent operation is **120 PSIG**.

- * **CONTINUOUS OPERATION INDICATES SEMI-AUTOMATIC CONTROL BY PILOT VALVE.**
- * **INTERMITTENT OPERATION DICTATED BY FULL AUTOMATIC CONTROL WITH COMPRESSOR PROPERLY SIZED FOR THE CONNECTED LOAD WHEREBY THE COMPRESSOR WILL NOT REQUIRE A RUNNING CYCLE MORE THAN AN AVERAGE OF 65% OF THE TIME.**

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Sales representatives in principle cities

PERFORMANCE DATA MODEL ES-10 COMPRESSOR

SINGLE STAGE – (2) 2.56" BORE x 1.75" STROKE

Displacement CFM	RPM		Discharge Pressure (PSIG)						
			60	70	80	90	100	110	120
5.1450	500	Free Air Delivered (CFM)	3.46	3.32	3.16	3.05	2.97	2.76	2.56
		HP Required	.83	.88	.93	.97	1.02	1.06	1.09
5.6595	550	Free Air Delivered (CFM)	3.82	3.67	3.50	3.39	3.28	3.09	2.90
		HP Required	.89	.94	.99	1.03	1.07	1.10	1.13
6.1740	600	Free Air Delivered (CFM)	4.18	4.02	3.84	3.72	3.59	3.42	3.26
		HP Required	.95	1.00	1.05	1.09	1.12	1.15	1.18
6.6885	650	Free Air Delivered (CFM)	4.55	4.37	4.19	4.05	3.90	3.76	3.60
		HP Required	1.00	1.06	1.11	1.15	1.18	1.20	1.23
7.2030	700	Free Air Delivered (CFM)	4.91	4.71	4.53	4.37	4.20	4.09	3.96
		HP Required	1.06	1.11	1.17	1.20	1.23	1.25	1.27
7.7175	750	Free Air Delivered (CFM)	5.26	5.07	4.87	4.70	4.53	4.42	4.31
		HP Required	1.12	1.18	1.23	1.26	1.29	1.30	1.32
8.2320	800	Free Air Delivered (CFM)	5.46	5.28	5.08	4.92	4.76	4.64	4.50
		HP Required	1.20	1.25	1.30	1.34	1.37	1.40	1.42
8.7465	850	Free Air Delivered (CFM)	5.66	5.48	5.28	5.15	5.00	4.85	4.70
		HP Required	1.27	1.33	1.38	1.43	1.47	1.50	1.53
9.2610	900	Free Air Delivered (CFM)	5.86	5.69	5.50	5.37	5.23	5.06	4.90
		HP Required	1.35	1.40	1.45	1.51	1.56	1.60	1.63
9.7755	950	Free Air Delivered (CFM)	6.06	5.90	5.71	5.60	5.48	5.29	5.10
		HP Required	1.43	1.48	1.53	1.59	1.64	1.70	1.73
10.2900	1000	Free Air Delivered (CFM)	6.28	6.12	5.92	5.81	5.72	5.51	5.31
		HP Required	1.51	1.56	1.61	1.67	1.73	1.79	1.83

NOTE:

1. Maximum discharge pressure for *continuous operation is **100 PSIG**.
2. Maximum discharge pressure for *intermittent operation is **120 PSIG**.

- * **CONTINUOUS OPERATION INDICATES SEMI-AUTOMATIC CONTROL BY PILOT VALVE.**
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PERFORMANCE DATA MODEL ES-20 COMPRESSOR

SINGLE STAGE – (3) 2.56" BORE x 1.89" STROKE

Displacement CFM	RPM		Discharge Pressure (PSIG)						
			60	70	80	90	100	110	120
8.450	500	Free Air Delivered (CFM)	5.80	5.50	5.15	5.00	4.80	4.65	4.50
		HP Required	1.35	1.42	1.49	1.53	1.56	1.61	1.65
9.295	550	Free Air Delivered (CFM)	6.40	6.05	5.70	5.50	5.30	5.10	4.90
		HP Required	1.46	1.53	1.60	1.64	1.68	1.74	1.79
10.140	600	Free Air Delivered (CFM)	7.10	6.70	6.35	6.00	5.80	5.60	5.35
		HP Required	1.55	1.64	1.70	1.76	1.81	1.87	1.92
10.985	650	Free Air Delivered (CFM)	7.70	7.35	6.95	6.60	6.35	6.10	5.85
		HP Required	1.64	1.73	1.81	1.89	1.95	2.01	2.07
11.830	700	Free Air Delivered (CFM)	8.20	7.85	7.45	7.15	6.75	6.45	6.20
		HP Required	8.20	7.85	7.45	7.15	6.75	6.45	6.20
12.675	750	Free Air Delivered (CFM)	8.70	8.35	8.00	7.60	7.20	6.90	6.65
		HP Required	1.88	1.97	2.04	2.11	2.18	2.27	2.36
13.520	800	Free Air Delivered (CFM)	9.20	8.80	8.35	8.00	7.60	7.30	7.00
		HP Required	1.99	2.07	2.15	2.22	2.29	2.38	2.46
14.365	850	Free Air Delivered (CFM)	9.65	9.20	8.75	8.40	8.00	7.70	7.35
		HP Required	2.10	2.19	2.26	2.33	2.40	2.49	2.58
15.210	900	Free Air Delivered (CFM)	10.15	9.60	9.15	8.75	8.40	8.10	7.70
		HP Required	2.22	2.30	2.37	2.44	2.51	2.60	2.69
16.055	950	Free Air Delivered (CFM)	10.60	10.00	9.45	9.10	8.74	8.35	8.00
		HP Required	2.35	2.41	2.48	2.56	2.64	2.72	2.80
16.900	1000	Free Air Delivered (CFM)	11.00	10.40	9.85	9.40	9.00	8.60	8.25
		HP Required	2.47	2.53	2.59	2.67	2.75	2.82	2.91

NOTE:

1. Maximum discharge pressure for *continuous operation is **100 PSIG**.
2. Maximum discharge pressure for *intermittent operation is **120 PSIG**.

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PERFORMANCE DATA MODEL ES-30 COMPRESSOR

SINGLE STAGE – (2) 3.15" BORE x 2.36" STROKE

Displacement CFM	RPM		Discharge Pressure (PSIG)						
			60	70	80	90	100	110	120
10.650	500	Free Air Delivered (CFM)	8.45	8.00	7.40	7.30	7.15	6.85	6.50
		HP Required	1.86	1.92	1.97	2.03	2.08	2.13	2.22
11.715	550	Free Air Delivered (CFM)	9.15	8.70	8.25	8.00	7.80	7.50	7.25
		HP Required	2.04	2.13	2.20	2.26	2.32	2.38	2.44
12.780	600	Free Air Delivered (CFM)	9.80	9.40	9.00	8.70	8.40	8.20	7.95
		HP Required	2.20	2.31	2.41	2.49	2.56	2.63	2.68
13.845	650	Free Air Delivered (CFM)	10.45	10.10	9.85	9.40	9.00	8.85	8.65
		HP Required	2.37	2.50	2.62	2.71	2.80	2.85	2.90
14.910	700	Free Air Delivered (CFM)	11.40	11.00	10.60	10.20	9.90	9.55	9.25
		HP Required	2.55	2.67	2.79	2.90	3.00	3.07	3.12
15.975	750	Free Air Delivered (CFM)	12.35	11.90	11.45	11.10	10.70	10.25	9.90
		HP Required	2.72	2.84	2.97	3.08	3.17	3.27	3.32
17.040	800	Free Air Delivered (CFM)	13.25	12.73	12.25	11.80	11.37	10.90	10.48
		HP Required	2.91	3.05	3.17	3.28	3.38	3.47	3.54
18.105	850	Free Air Delivered (CFM)	14.18	13.53	13.00	12.50	12.00	11.55	11.10
		HP Required	3.14	3.27	3.40	3.50	3.60	3.68	3.77
19.170	900	Free Air Delivered (CFM)	14.85	14.30	13.75	13.20	12.60	12.15	11.70
		HP Required	3.36	3.44	3.61	3.71	3.80	3.89	3.98
20.235	950	Free Air Delivered (CFM)	15.55	14.95	14.30	13.80	13.30	12.70	12.22
		HP Required	3.51	3.64	3.75	3.86	3.96	4.06	4.16
21.300	1000	Free Air Delivered (CFM)	16.30	15.62	14.90	14.40	13.95	13.40	12.85
		HP Required	3.66	3.79	3.92	4.03	4.12	4.26	4.40

NOTE:

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2. Maximum discharge pressure for *intermittent operation is **120 PSIG**.

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PERFORMANCE DATA MODEL ES-50 COMPRESSOR

SINGLE STAGE – (3) 3.15" BORE x 2.36" STROKE

Displacement CFM	RPM		Discharge Pressure (PSIG)						
			60	70	80	90	100	110	120
15.950	500	Free Air Delivered (CFM)	12.40	11.95	11.50	11.20	10.85	10.30	9.80
		HP Required	2.62	2.65	2.69	2.71	2.74	2.82	2.90
17.545	550	Free Air Delivered (CFM)	13.70	13.25	12.75	12.30	11.90	11.40	10.85
		HP Required	2.82	2.83	2.85	2.96	3.08	3.15	3.20
19.140	600	Free Air Delivered (CFM)	15.00	14.50	14.00	13.50	13.50	12.60	11.70
		HP Required	3.00	3.08	3.12	3.30	3.45	3.48	3.54
20.735	650	Free Air Delivered (CFM)	16.40	15.85	15.20	14.70	14.10	13.50	12.85
		HP Required	3.13	3.32	3.45	3.63	3.78	3.81	3.85
22.330	700	Free Air Delivered (CFM)	17.50	16.90	16.35	15.60	14.85	14.50	14.10
		HP Required	3.22	3.41	3.61	3.83	4.04	4.14	4.21
23.925	750	Free Air Delivered (CFM)	18.60	18.10	17.55	17.00	16.40	15.90	15.40
		HP Required	3.28	3.53	3.78	4.04	4.30	4.45	4.60
25.520	800	Free Air Delivered (CFM)	19.85	19.25	18.60	17.90	17.15	16.65	16.10
		HP Required	3.780	3.92	4.15	4.35	4.56	4.67	4.78
27.115	850	Free Air Delivered (CFM)	21.10	20.40	19.70	18.80	17.90	17.40	16.85
		HP Required	4.13	4.34	4.55	4.68	4.83	4.92	5.01
28.710	900	Free Air Delivered (CFM)	22.30	21.60	21.00	20.10	19.10	18.50	17.90
		HP Required	4.56	4.78	5.00	5.16	5.27	5.38	5.48
30.305	950	Free Air Delivered (CFM)	23.50	22.80	22.10	21.30	20.40	19.70	19.05
		HP Required	5.00	5.20	5.42	5.58	5.72	5.82	5.92
31.900	1000	Free Air Delivered (CFM)	24.70	24.00	23.40	22.50	21.60	20.80	20.15
		HP Required	5.42	5.65	5.86	6.03	6.17	6.28	6.40

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PERFORMANCE DATA MODEL ES-100 COMPRESSOR

SINGLE STAGE – (3) 3.94” BORE x 2.75” STROKE

Displacement CFM	RPM		Discharge Pressure (PSIG)						
			60	70	80	90	100	110	120
29.100	500	Free Air Delivered (CFM)	21.35	20.90	20.25	19.85	19.20	18.65	18.15
		HP Required	4.75	4.95	5.12	5.30	5.50	5.65	5.85
32.010	550	Free Air Delivered (CFM)	24.40	23.75	22.85	22.20	21.50	20.85	20.25
		HP Required	5.20	5.50	5.75	5.95	6.15	6.35	6.50
34.920	600	Free Air Delivered (CFM)	27.45	26.45	25.45	24.65	24.05	23.20	22.35
		HP Required	5.83	6.10	6.35	6.60	6.80	7.00	7.20
37.830	650	Free Air Delivered (CFM)	30.20	29.15	28.04	27.50	26.60	25.50	24.40
		HP Required	6.40	6.88	7.00	7.20	7.45	7.70	7.85
40.740	700	Free Air Delivered (CFM)	32.50	31.40	30.20	29.35	28.45	27.45	26.45
		HP Required	6.90	7.20	7.50	7.70	7.95	8.10	8.38
43.650	750	Free Air Delivered (CFM)	34.70	33.55	32.25	31.25	30.30	29.40	28.45
		HP Required	7.35	7.70	8.00	8.25	8.50	8.70	8.90
46.560	800	Free Air Delivered (CFM)	36.60	35.40	34.15	33.10	32.10	31.05	30.00
		HP Required	7.87	8.20	8.50	8.75	9.00	9.22	9.45
49.470	850	Free Air Delivered (CFM)	38.50	37.25	36.00	34.95	33.95	32.70	31.50
		HP Required	8.40	8.70	9.00	9.28	9.51	9.75	10.00
52.380	900	Free Air Delivered (CFM)	40.40	39.05	37.75	36.65	35.70	34.40	33.05
		HP Required	8.88	9.25	9.55	9.80	10.05	10.28	10.53
55.290	950	Free Air Delivered (CFM)	42.45	41.15	39.85	38.75	37.60	36.30	35.05
		HP Required	9.55	9.90	10.25	10.50	10.75	11.00	11.24
58.200	1000	Free Air Delivered (CFM)	44.60	43.20	41.85	40.70	39.50	38.50	37.05
		HP Required	10.20	10.58	10.90	11.20	11.50	11.68	11.90

NOTE:

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PERFORMANCE DATA MODEL ES-150 COMPRESSOR

SINGLE STAGE – (3) 4.72” BORE x 3.15” STROKE

Displacement CFM	RPM		Discharge Pressure (PSIG)						
			60	70	80	90	100	110	120
47.800	500	Free Air Delivered (CFM)	36.10	34.65	33.55	32.60	31.10	29.90	28.60
		HP Required	8.10	8.35	8.70	8.85	9.10	9.30	9.60
52.580	550	Free Air Delivered (CFM)	39.40	38.10	36.80	35.50	34.40	33.10	31.90
		HP Required	8.70	9.10	9.45	9.70	10.00	10.30	10.55
57.360	600	Free Air Delivered (CFM)	42.70	41.30	40.50	38.70	37.60	36.40	35.20
		HP Required	9.40	9.85	10.25	10.60	10.85	11.20	11.55
62.140	650	Free Air Delivered (CFM)	45.80	44.50	43.20	42.05	40.80	39.70	38.60
		HP Required	10.10	10.50	11.00	11.45	11.85	12.20	12.50
66.920	700	Free Air Delivered (CFM)	49.60	48.20	46.70	45.50	44.20	43.05	41.50
		HP Required	11.10	11.65	12.05	12.40	12.75	13.15	13.55
71.700	750	Free Air Delivered (CFM)	53.35	51.70	50.30	48.90	47.50	46.20	44.60
		HP Required	12.05	12.55	13.05	13.45	13.85	14.20	14.60
76.480	800	Free Air Delivered (CFM)	56.40	54.90	53.30	51.70	50.30	48.80	47.30
		HP Required	12.85	13.40	13.85	14.30	14.70	15.10	15.50
81.260	850	Free Air Delivered (CFM)	59.40	57.90	56.50	54.70	53.30	51.70	50.05
		HP Required	13.70	14.20	14.65	15.20	15.60	16.05	16.40
86.040	900	Free Air Delivered (CFM)	62.70	61.00	59.50	57.70	56.05	54.50	52.60
		HP Required	14.50	15.00	15.50	16.05	16.50	16.90	17.30
90.820	950	Free Air Delivered (CFM)	65.90	64.20	62.70	60.90	59.10	57.30	55.60
		HP Required	15.35	15.90	16.40	16.95	17.40	17.80	18.25
95.600	1000	Free Air Delivered (CFM)	69.10	67.40	65.70	63.90	62.20	60.30	58.30
		HP Required	16.20	16.80	17.25	17.80	18.25	18.70	19.15

NOTE:

1. Maximum discharge pressure for *continuous operation is **100 PSIG**.
2. Maximum discharge pressure for *intermittent operation is **120 PSIG**.

- * **CONTINUOUS OPERATION INDICATES SEMI-AUTOMATIC CONTROL BY PILOT VALVE.**
- * **INTERMITTENT OPERATION DICTATED BY FULL AUTOMATIC CONTROL WITH COMPRESSOR PROPERLY SIZED FOR THE CONNECTED LOAD WHEREBY THE COMPRESSOR WILL NOT REQUIRE A RUNNING CYCLE MORE THAN AN AVERAGE OF 65% OF THE TIME.**

CURTIS – TOLEDO, INC.

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Sales representatives in principle cities