

Appendix C

Minimum Equipment Efficiency Standards

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This Appendix is an overview of building and equipment standards in the State of California that have an effect on the baselines used in calculating savings and determining the eligibility of proposed equipment for the Statewide Customized Offering. It contains the minimum equipment efficiency standards that a Project Sponsor must use to establish baseline system models and estimate energy savings for projects that involve the replacement of motors, air compressors, gas furnaces, gas boilers, and cooling equipment. It also describes the minimum standards for T-8 and T-5 linear fluorescent retrofit equipment.

The equipment baselines are based on multiple industry and governmental standards. These include California's Title 24 minimum equipment efficiency standards, NEMA standards, EPACT regulations, DOE's Motor Challenge (Motor Master), and DOE's Air Compressor Challenge (AirMaster+). Some applicable tables have been reproduced or summarized in this section for convenience. Please note that the most current standards take precedence.

Savings from equipment not covered by the standards mentioned above shall be calculated by using the existing equipment as a baseline.

The document "2005 Title 24, Part 6, California's Energy Efficiency Standards for Residential and Non-residential Buildings" can be downloaded from the following Internet address:

<http://www.energy.ca.gov/title24/>

Information concerning the Motor Challenge and Air Compressor Challenge can be found at the following Internet address:

<http://www1.eere.energy.gov/industry/bestpractices/software.html>

C.1 Electrical Motors

Starting December 19, 2010, EAct 1992 requirements were replaced by the 2007 Energy Independence and Security Act. This new Act updated the minimum efficiency standards for motors to meet NEMA Table 12-11 or 12-12. The motors that are affected by this change have been divided into two groups, Subtype I and Subtype II. Subtype I motors are general purpose motors ranging from 1-200 Hp and either NEMA Design A or B. These motors must meet NEMA Table 12-12 (otherwise known as NEMA Premium Efficiency). Subtype I motors also include motors that are general purpose, ranging from 201-500 Hp and are NEMA Design B. These motors must meet NEMA Table 12-11 (otherwise known as EAct Efficiency). Subtype II motors range from 1-200Hp and included Design C motors and 8-pole motors. These motors were not previously covered by EAct 1992 but now they must meet NEMA Table 12-11.

The efficiency values given in the following Tables should be used to determine the baseline motor energy consumption. Motors installed under the Statewide Customized Offering must be more efficient than the standards shown in order to be eligible for incentives.

Table - Motor Subtype Descriptions:




Baseline	Motor Type	Description	Images
Subtype I	1 - 200 HP general purpose (subtype I): Standard operating characteristics and standard mechanical construction for use under usual and unusual service conditions, such as those specified in NEMA Standards Publication MG1–1993, paragraph 14.02, “Usual Service Conditions,” and paragraph 14.03, “Unusual Service Conditions,” and which can be used in most general purpose applications.		
	Design A & B	Design A motors have a higher breakdown torque than Design B motors and are usually designed for a specific use. Slip is 5%, or less. Design B motors account for most of the induction motors sold. Often referred to as general purpose motors, slip is 5% or less.	See Nameplate ("Design")
Subtype II	1 - 200 HP general purpose (subtype II), and Design C: Any motor incorporating the design elements of a general purpose electric motor (subtype I) that are configured as one of the following:		
	U-frame motor	U -Frame motor are defined by NEMA standards prior to 1965 and is the predecessor to the present T - Frame motor; frame size sets important mounting dimensions	See Nameplate or Specification Sheet ("Frame No." i.e. 445U)
	Design C motor	Design C motors have high starting torque with normal starting current and low slip. Slip is 5% or less.	See Nameplate or Specification Sheet ("Design")
	Close-coupled pump motor	The motor drive and pump impeller are on the same shaft.	
	Footless motor	Not footed; uses a different mounting method such as close-coupled (c-face).	
	Vertical solid shaft normal thrust motor	A motor being mounted vertically with a solid shaft (up or down) as in many pump applications.	
	8-pole motor (900 rpm)	The number of poles determines the motor's speed. 8 magnetic poles in the stator winding; synchronous speed is 900 rpm	See Nameplate or Specification Sheet ("Poles" or "900 rpm")
	Poly-phase motor with voltage of not more than 600 volts (other than 230 or 460 volts)	Used where a polyphase (three-phase) power supply is available and is limited primarily to industrial applications.	

Table 1: [Subtype I] Full-Load Efficiencies of General Purpose Electric Motors

Motor horsepower	Nominal full load efficiency					
	Open motors			Enclosed motors		
	6 poles	4 poles	2 poles	6 poles	4 poles	2 poles
	1200 rpm	1800 rpm	3600 rpm	1200 rpm	1800 rpm	3600 rpm
1	82.5	85.5	77	82.5	85.5	77
1.5	86.5	86.5	84	87.5	86.5	84
2	87.5	86.5	85.5	88.5	86.5	85.5
3	88.5	89.5	85.5	89.5	89.5	86.5
5	89.5	89.5	86.5	89.5	89.5	88.5
7.5	90.2	91	88.5	91	91.7	89.5
10	91.7	91.7	89.5	91	91.7	90.2
15	91.7	93	90.2	91.7	92.4	91
20	92.4	93	91	91.7	93	91
25	93	93.6	91.7	93	93.6	91.7
30	93.6	94.1	91.7	93	93.6	91.7
40	94.1	94.1	92.4	94.1	94.1	92.4
50	94.1	94.5	93	94.1	94.5	93
60	94.5	95	93.6	94.5	95	93.6
75	94.5	95	93.6	94.5	95.4	93.6
100	95	95.4	93.6	95	95.4	94.1
125	95	95.4	94.1	95	95.4	95
150	95.4	95.8	94.1	95.8	95.8	95
200	95.4	95.8	95	95.8	96.2	95.4

Table 2: [Subtype I] Full-Load Efficiencies of High HP NEMA Design B General Purpose Electric Motors

Motor horsepower	Nominal full load efficiency							
	Open motors				Enclosed motors			
	8 poles	6 poles	4 poles	2 poles	8 poles	6 poles	4 poles	2 poles
	900 rpm	1200 rpm	1800 rpm	3600 rpm	900 rpm	1200 rpm	1800 rpm	3600 rpm
250	94.5	95.4	95.4	94.5	94.5	95	95	95.4
300		95.4	95.4	95		95	95.4	95.4
350		95.4	95.4	95		95	95.4	95.4
400			95.4	95.4			95.4	95.4
450			95.8	95.8			95.4	95.4
500			95.8	95.8			95.8	95.4

Table 3: [Subtype II] Full-Load Efficiencies of General Purpose Electric Motors

Motor horsepower	Nominal full load efficiency							
	Open motors				Enclosed motors			
	8 poles 900 rpm	6 poles 1200 rpm	4 poles 1800 rpm	2 poles 3600 rpm	8 poles 900 rpm	6 poles 1200 rpm	4 poles 1800 rpm	2 poles 3600 rpm
1	74	80	82.5		74	80	82.5	75.5
1.5	75.5	84	84	82.5	77	85.5	84	82.5
2	85.5	85.5	84	84	82.5	86.5	84	84
3	86.5	86.5	86.5	84	84	87.5	87.5	85.5
5	87.5	87.5	87.5	85.5	85.5	87.5	87.5	87.5
7.5	88.5	88.5	88.5	87.5	85.5	89.5	89.5	88.5
10	89.5	90.2	89.5	88.5	88.5	89.5	89.5	89.5
15	89.5	90.2	91	89.5	88.5	90.2	91	90.2
20	90.2	91	91	90.2	89.5	90.2	91	90.2
25	90.2	91.7	91.7	91	89.5	91.7	92.4	91
30	91	92.4	92.4	91	91	91.7	92.4	91
40	91	93	93	91.7	91	93	93	91.7
50	91.7	93	93	92.4	91.7	93	93	92.4
60	92.4	93.6	93.6	93	91.7	93.6	93.6	93
75	93.6	93.6	94.1	93	93	93.6	94.1	93
100	93.6	94.1	94.1	93	93	94.1	94.5	93.6
125	93.6	94.1	94.5	93.6	93.6	94.1	94.5	94.5
150	93.6	94.5	95	93.6	93.6	95	95	94.5
200	93.6	94.5	95	94.5	94.1	95	95	95

C.2 Cooling, Heating and Air Conditioning Equipment

For the following types of equipment, baseline efficiency ratings are provided in Tables 1 through Table 3 below.

- Air-cooled unitary air conditioners
- Water-cooled and evaporative-cooled unitary air conditioners
- Unitary air-cooled heat pumps
- Air-cooled and water-cooled condensing units
- Water-cooled and air-cooled water chilling packages
- Gas furnaces and boilers

The tables are based on California's Title 24 minimum equipment efficiency standards. Choose the appropriate baseline cooling equipment model for each Project Site.

The efficiency standards in these tables should be used to determine the equipment baseline. All heating and cooling equipment that will be installed under the Statewide Customized Offering must be more efficient than the standard in order to be eligible for Offering incentives. Please note the efficiency standards in Table C2 below are expressed in terms of Energy Efficiency Ratio (EER) or Coefficient of Performance (COP). However, manufacturer efficiency ratings are sometimes expressed as Seasonal Efficiency Ratio (SEER) or kW/Ton Ratio. Some useful conversion factors are:

1 ton = 12,000 Btu/hr; $COP = EER / 3.412$; $COP = 3.517 / (kW/Ton)$;

Please consult manufacturer for SEER to EER conversion.

For water-source, ground-water source, and ground source heat pumps, as well as all other equipment not specifically mentioned in the tables below, please check the standards in "2005 Title 24, Part 6, California's Energy Efficiency Standards for Residential and Non-residential Buildings" found at:

<http://www.energy.ca.gov/title24/>

Table C1 – ELECTRICALLY OPERATED UNITARY AIR CONDITIONERS AND CONDENSING UNITS – MINIMUM EFFICIENCY REQUIREMENTS (TABLE 112-A)

Equipment Type	Size Category	Efficiency ^a		Test Procedure
		Before 1/1/2010	After 1/1/2010	
Air Conditioners, Air Cooled	≥ 65,000 Btu/h and < 135,000 Btu/h	10.3 EER ^b	11.2 EER ^b	ARI 340/360
	≥ 135,000 Btu/h and < 240,000 Btu/h	9.7 EER ^b	11.0 EER ^b	
	≥ 240,000 Btu/h and < 760,000 Btu/h	9.5 EER ^b and 9.7 IPLV ^b	10.0 EER ^b and 9.7 IPLV ^b	
	≥ 760,000 Btu/h	9.2 EER ^b and 9.4 IPLV ^b	9.7 EER ^b and 9.4 IPLV ^b	
Air Conditioners, Water and Evaporatively Cooled	> 240,000 Btu/h	11.0 EER ^b and 10.3 IPLV ^b		ARI 210/240 ARI 340/360
Condensing Units, Air Cooled	≥ 135,000 Btu/h	10.1 EER and 11.2 IPLV		ARI 365
Condensing Units, Water or Evaporatively Cooled	≥ 135,000 Btu/h	13.1 EER and 13.1 IPLV		
^a IPLVs are only applicable to equipment with capacity modulation.				
^b Deduct 0.2 from the required EERs and IPLVs for units with a heating section other than electric resistance heat.				

Table C2 – UNITARY AND APPLIED HEAT PUMPS, MINIMUM EFFICIENCY REQUIREMENTS (TABLE 112-B)

Equipment Type	Size Category	Subcategory or Rating Condition	Efficiency ^a		Test Procedure
			Before 1/1/2010	After 1/1/2010	
Air Cooled (Cooling Mode)	≥ 65,000 Btu/h and < 135,000 Btu/h	Split System and Single Package	10.1 EER ^b	11.0	ARI 340/360
	≥ 135,000 Btu/h and < 240,000 Btu/h		9.3 EER ^b	10.6	
	≥ 240,000 Btu/h		9.0 EER ^b and 9.2 IPLV ^b	9.5 EER ^b and 9.2 IPLV ^b	
Air Cooled (Heating Mode)	≥ 65,000 Btu/h and < 135,000 Btu/h (Cooling Capacity)	47°F db/43°F wb Outdoor Air	3.2 COP	3.3 COP	ARI 210/240
	≥ 135,000 Btu/h (Cooling Capacity)	47°F db/43°F wb Outdoor Air	3.1 COP	3.2 COP	ARI 340/360
^a IPLVs and Part load rating conditions are applicable only to equipment with capacity modulation.					
^b Deduct 0.2 from the required EERs and IPLVs for units with a heating section other than electric resistance heat.					

Table C3 – AIR-COOLED GAS-ENGINE HEAT PUMPS (TABLE 112-C)

Equipment Type	Size Category	Subcategory or Rating Condition	Efficiency	Test Procedure
Air-Cooled Gas-Engine Heat Pump (Cooling Mode)	All Capacities	95° F db Outdoor Air	0.60 COP	ANSI Z21.40.4
Air-Cooled Gas-Engine Heat Pump (Heating Mode)	All Capacities	47° F db/43° F wb Outdoor Air	0.72 COP	ANSI Z21.40.4

Table C-4 – WATER CHILLING PACKAGES – MINIMUM EFFICIENCY REQUIREMENTS (TABLE 112-D)

Equipment Type	Size Category	Efficiency	Test Procedure
Air Cooled, With Condenser, Electrically Operated	< 150 Tons	2.80 COP	ARI 550/590
	≥ 150 Tons	3.05 IPLV	
Air Cooled, Without Condenser, Electrically Operated	All Capacities	3.10 COP 3.45 IPLV	
Water Cooled, Electrically Operated, Positive Displacement (Reciprocating)	All Capacities	4.20 COP 5.05 IPLV	ARI 550/590
Water Cooled, Electrically Operated, Positive Displacement (Rotary Screw and Scroll)	< 150 Tons	4.45 COP 5.20 IPLV	ARI 550/590
	≥ 150 Tons and < 300 Tons	4.90 COP 5.60 IPLV	
	≥ 300 Tons	5.50 COP	
	∞	6.15 IPLV	
Water Cooled, Electrically Operated, Centrifugal	< 150 Tons	5.00 COP 5.25 IPLV	ARI 550/590
	≥ 150 Tons and < 300 Tons	5.55 COP 5.90 IPLV	
	≥ 300 Tons	6.10 COP	
	∞	6.40 IPLV	
Air Cooled Absorption Single Effect	All Capacities	0.60 COP	ARI 560
Water Cooled Absorption Single Effect	All Capacities	0.70 COP	
Absorption Double Effect, Indirect-Fired	All Capacities	1.00 COP 1.05 IPLV	
	All Capacities	1.00 COP 1.00 IPLV	
Water Cooled Gas Engine Driven Chiller	All Capacities	1.2 COP 2.0 IPLV	

Table C-5 – PACKAGED TERMINAL AIR CONDITIONERS AND PACKAGED TERMINAL HEAT PUMPS – MINIMUM EFFICIENCY REQUIREMENTS (TABLE 112-E)

Equipment Type	Size Category (Input)	Subcategory or Rating Condition	Efficiency ^a	Test Procedure
PTAC (Cooling Mode) New Construction	All Capacities	95°F db Outdoor Air	12.5 - (0.213 x Cap/1000) ^a EER	ARI 310/380
PTAC (Cooling Mode) Replacements ^b			10.9 - (0.213 x Cap/1000) ^a EER	
PTHP (Cooling Mode) New Construction			12.3 - (0.213 x Cap/1000) ^a EER	
PTHP (Cooling Mode) Replacements ^b			10.8 - (0.213 x Cap/1000) ^a EER	
PTHP (Heating Mode) New Construction		3.2 - (0.026 x Cap/1000) ^a COP		
PTHP (Heating Mode) Replacements ^b			2.9 - (0.026 x Cap/1000) ^a COP	
SPVAC (Cooling Mode)	<65,000 Btu/h	95°F db / 75°F wb Outdoor Air	9.0 EER	ARI 390
	>=65,000 Btu/h and <135,000 Btu/h		8.9 EER	
	>=135,000 Btu/h and <240,000 Btu/h		8.6 EER	
SPVHP (Cooling Mode)	<65,000 Btu/h		9.0 EER	
	>=65,000 Btu/h and <135,000 Btu/h		8.9 EER	
	>=135,000 Btu/h and <240,000 Btu/h		8.6 EER	
SPVHP (Heating Mode)	<65,000 Btu/h	47°F db / 43°F wb Outdoor Air	3.0 COP	
	>=65,000 Btu/h and <135,000 Btu/h		3.0 COP	
	>=135,000 Btu/h and <240,000 Btu/h		2.9 COP	
^a Cap means the rated cooling capacity of the product in Btu/h. If the unit's capacity is less than 7000 Btu/h, use 7000 Btu/h in the calculation. If the unit's capacity is greater than 15,000 Btu/h, use 15,000 Btu/h in the calculation.				
^b Replacement units must be factory labeled as follows: "MANUFACTURED FOR REPLACEMENT APPLICATIONS ONLY; NOT TO BE INSTALLED IN NEW CONSTRUCTION PROJECTS." Replacement efficiencies apply only to units with existing sleeves less than 16 inches high and less than 42 inches wide.				

Table C-6 – Standards for Gas- and Oil-Fired Central Boilers and Electric Residential Boilers

Appliance	Rated Input (Btu/hr)	Minimum Efficiency (%)		
		AFUE		Combustion Efficiency at Maximum Rated Capacity Effective January 1, 1994
		Effective January 1, 1992	Effective September 1, 2012	
Gas steam boilers with single phase electrical supply	< 300,000	75	80 ¹	—
Gas hot water boilers with single phase electrical supply	< 300,000	80	82 ^{1,2}	—
Oil steam boilers with single phase electrical supply	< 300,000	—	82	—
Oil hot water boilers with single phase electrical supply	< 300,000	—	84 ²	—
Electric steam residential boilers		—	NONE	—
Electric hot water residential boilers		—	NONE ²	—
All other boilers with single phase electrical supply	< 300,000	80	—	—
Gas packaged boilers	≥ 300,000	—	—	80
Oil packaged boilers	≥ 300,000	—	—	83

**Table C-7 – PERFORMANCE REQUIREMENTS FOR HEAT REJECTION EQUIPMENT
(TABLE 112-G)**

Equipment Type	Total System Heat Rejection Capacity at Rated Conditions	Subcategory or Rating Condition	Performance Required ^{a,b}	Test Procedure ^c
Propeller or Axial Fan Cooling Towers	All	95°F Entering Water 85°F Leaving Water 75 °F wb Outdoor Air	≥ 38.2 gpm/hp	CTI ATC-105 and CTI STD-201
Centrifugal Fan Cooling Towers	All	95°F Entering Water 85°F Leaving Water 75 °F wb Outdoor Air	≥ 20.0 gpm/hp	CTI ATC-105 and CTI STD-201
Air Cooled Condensers	All	125°F Condensing Temperature R22 Test Fluid 190°F Entering Gas Temperature 15°F Subcooling 95°F Entering Drybulb	≥ 176,000 Btu/h-hp	ARI 460
<p>^a For purposes of this table, cooling tower performance is defined as the maximum flow rating of the tower divided by the fan nameplate rated motor power.</p> <p>^b For purposes of this table air-cooled condenser performance is defined as the heat rejected from the refrigerant divided by the fan nameplate rated motor power. ^c Cooling towers shall be tested using the test procedures in CTI ATC-105. Performance of factory assembled cooling towers shall be either certified as base models as specified in CTI STD-201 or verified by testing in the field by a CTI approved testing agency. Factory assembled cooling towers with custom options added to a CTI certified base model for the purpose of safe maintenance or to reduce environmental or noise impact shall be rated at 90% of the CTI certified performance of the associated base model or at the manufacturer's stated performance, whichever is less. Base models of factory assembled cooling towers are cooling towers configured in exact accordance with the Data of Record submitted to CTI as specified by CTI STD-201. There are no certification requirements for field erected cooling towers.</p>				

Table C-8 – COPS FOR NON-STANDARD CENTRIFUGAL CHILLERS < 150 TONS (TABLE 112-H)

Centrifugal Chillers < 150 Tons								
COP _{std} = 5.0								
			Condenser Flow Rate					
			2 gpm/ton	2.5 gpm/ton	3 gpm/ton	4 gpm/ton	5 gpm/ton	6 gpm/ton
Leaving Chilled Water Temperature (°F)	Entering Condenser Water Temperature (°F)	LIFT ^a (°F)	Required COP					
46	75	29	5.58	5.83	6.03	6.32	6.54	6.70
45	75	30	5.50	5.74	5.92	6.19	6.38	6.53
44	75	31	5.42	5.65	5.82	6.07	6.24	6.37
43	75	32	5.35	5.57	5.72	5.95	6.11	6.23
42	75	33	5.27	5.49	5.64	5.85	6.00	6.11
41	75	34	5.19	5.41	5.56	5.75	5.89	5.99
46	80	34	5.19	5.41	5.56	5.75	5.89	5.99
40	75	35	5.11	5.33	5.48	5.67	5.79	5.88
45	80	35	5.11	5.33	5.48	5.67	5.79	5.88
44	80	36	5.03	5.26	5.40	5.58	5.70	5.79
43	80	37	4.94	5.18	5.32	5.50	5.62	5.70
42	80	38	4.84	5.10	5.25	5.43	5.53	5.61
41	80	39	4.73	5.01	5.17	5.35	5.46	5.53
46	85	39	4.73	5.01	5.17	5.35	5.46	5.53
40	80	40	4.62	4.92	5.09	5.27	5.38	5.45
45	85	40	4.62	4.92	5.09	5.27	5.38	5.45
44	85	41	4.49	4.82	5.00	5.20	5.30	5.38
43	85	42	4.35	4.71	4.91	5.12	5.23	5.30
42	85	43	4.19	4.59	4.81	5.03	5.15	5.22
41	85	44	4.02	4.46	4.70	4.94	5.06	5.14
40	85	45	3.84	4.32	4.58	4.84	4.98	5.06
Condenser DT ^b			14.04	11.23	9.36	7.02	5.62	4.68
^a LIFT = Entering Condenser Water Temperature (°F) – Leaving Chilled Water Temperature (°F) ^b Condenser DT = Leaving Condenser Water Temperature (°F) – Entering Condenser Water Temperature (°F) $K_{adj} = 6.1507 - 0.30244(X) + 0.0062692(X)^2 - 0.000045595(X)^3$ where X = Condenser DT + LIFT $COP_{adj} = K_{adj} * COP_{std}$								

Table C-9 – COPS FOR NON-STANDARD CENTRIFUGAL CHILLERS > 150 TONS, ≤300 TONS (TABLE 112-I)

Centrifugal Chillers > 150 Tons, ≤ 300 Tons								
COP _{adj} = 5.55								
			Condenser Flow Rate					
			2 gpm/ton	2.5 gpm/ton	3 gpm/ton	4 gpm/ton	5 gpm/ton	6 gpm/ton
Leaving Chilled Water Temperature (°F)	Entering Condenser Water Temperature (°F)	LIFT* (°F)	Required COP					
46	75	29	6.17	6.44	6.66	6.99	7.23	7.40
45	75	30	6.08	6.34	6.54	6.84	7.06	7.22
44	75	31	6.00	6.24	6.43	6.71	6.9	7.05
43	75	32	5.91	6.15	6.33	6.58	6.76	6.89
42	75	33	5.83	6.07	6.23	6.47	6.63	6.75
41	75	34	5.74	5.98	6.14	6.36	6.51	6.62
46	80	34	5.74	5.98	6.14	6.36	6.51	6.62
40	75	35	5.65	5.90	6.05	6.26	6.40	6.51
45	80	35	5.65	5.90	6.05	6.26	6.40	6.51
44	80	36	5.56	5.81	5.97	6.17	6.30	6.40
43	80	37	5.46	5.73	5.89	6.08	6.21	6.30
42	80	38	5.35	5.64	5.80	6.00	6.12	6.20
41	80	39	5.23	5.54	5.71	5.91	6.03	6.11
46	85	39	5.23	5.54	5.71	5.91	6.03	6.11
40	80	40	5.10	5.44	5.62	5.83	5.95	6.03
45	85	40	5.10	5.44	5.62	5.83	5.95	6.03
44	85	41	4.96	5.33	5.55	5.74	5.86	5.94
43	85	42	4.81	5.21	5.42	5.66	5.78	5.86
42	85	43	4.63	5.08	5.31	5.56	5.69	5.77
41	85	44	4.45	4.93	5.19	5.46	5.60	5.69
40	85	45	4.24	4.77	5.06	5.35	5.50	5.59
Condenser DT ^b			14.04	11.23	9.36	7.02	5.62	4.68
^a LIFT = Entering Condenser Water Temperature (°F) - Leaving Chilled Water Temperature (°F) ^b Condenser DT = Leaving Condenser Water Temperature (°F) - Entering Condenser Water Temperature (°F) $K_{adj} = 6.1507 - 0.30244(X) + 0.0062692(X)^2 - 0.000045595(X)^3$ where X = Condenser DT + LIFT $COP_{adj} = K_{adj} * COP_{std}$								

Table C-10 – COPS FOR NON-STANDARD CENTRIFUGAL CHILLERS > 300 TONS (TABLE 112-J)

Centrifugal Chillers > 300 Tons								
COP _{std} = 6.1								
			Condenser Flow Rate					
			2 gpm/ton	2.5 gpm/ton	3 gpm/ton	4 gpm/ton	5 gpm/ton	6 gpm/ton
Leaving Chilled Water Temperature (°F)	Entering Condenser Water Temperature (°F)	LIFT* (°F)	Required COP					
46	75	29	6.80	7.11	7.35	7.71	7.97	8.16
45	75	30	6.71	6.99	7.21	7.55	7.78	7.96
44	75	31	6.61	6.89	7.09	7.40	7.61	7.77
43	75	32	6.52	6.79	6.98	7.26	7.45	7.60
42	75	33	6.43	6.69	6.87	7.13	7.31	7.44
41	75	34	6.33	6.60	6.77	7.02	7.18	7.30
46	80	34	6.33	6.60	6.77	7.02	7.18	7.30
40	75	35	6.23	6.50	6.68	6.91	7.06	7.17
45	80	35	6.23	6.50	6.68	6.91	7.06	7.17
44	80	36	6.13	6.41	6.58	6.81	6.95	7.05
43	80	37	6.02	6.31	6.49	6.71	6.85	6.94
42	80	38	5.90	6.21	6.40	6.61	6.75	6.84
41	80	39	5.77	6.11	6.30	6.52	6.65	6.74
46	85	39	5.77	6.11	6.30	6.52	6.65	6.74
40	80	40	5.63	6.00	6.20	6.43	6.56	6.65
45	85	40	5.63	6.00	6.20	6.43	6.56	6.65
44	85	41	5.47	5.87	6.10	6.33	6.47	6.55
43	85	42	5.30	5.74	5.98	6.24	6.37	6.46
42	85	43	5.11	5.60	5.86	6.13	6.28	6.37
41	85	44	4.90	5.44	5.72	6.02	6.17	6.27
40	85	45	4.68	5.26	5.58	5.90	6.07	6.17
Condenser DT ^b			14.04	11.23	9.36	7.02	5.62	4.68

* LIFT = Entering Condenser Water Temperature (°F) – Leaving Chilled Water Temperature (°F)

^b Condenser DT = Leaving Condenser Water Temperature (°F) - Entering Condenser Water Temperature (°F)

$$K_{adj} = 6.1507 - 0.30244(X) + 0.0062692(X)^2 - 0.000045595(X)^3$$

where X = Condenser DT – LIFT

$$COP_{adj} = K_{adj} * COP_{std}$$

Table C-11 – IPLV/NPLV FOR NON-STANDARD CENTRIFUGAL CHILLERS < 150 TONS
(TABLE 112-K)

Centrifugal Chillers < 150 Tons								
IPLV _{std} = 5.25								
			Condenser Flow Rate					
			2 gpm/ton	2.5 gpm/ton	3 gpm/ton	4 gpm/ton	5 gpm/ton	6 gpm/ton
Leaving Chilled Water Temperature (°F)	Entering Condenser Water Temperature (°F)	LIFT ^a (°F)	Required IPLV/NPLV					
46	75	29	5.84	6.10	6.30	6.61	6.84	7.00
45	75	30	5.75	6.00	6.19	6.47	6.68	6.83
44	75	31	5.67	5.91	6.08	6.34	6.53	6.67
43	75	32	5.59	5.82	5.99	6.23	6.39	6.52
42	75	33	5.51	5.74	5.90	6.12	6.27	6.39
41	75	34	5.43	5.66	5.81	6.02	6.16	6.26
46	80	34	5.43	5.66	5.81	6.02	6.16	6.26
40	75	35	5.35	5.58	5.73	5.93	6.06	6.15
45	80	35	5.35	5.58	5.73	5.93	6.06	6.15
44	80	36	5.26	5.50	5.65	5.84	5.96	6.05
43	80	37	5.16	5.42	5.57	5.76	5.87	5.96
42	80	38	5.06	5.33	5.49	5.67	5.79	5.87
41	80	39	4.95	5.24	5.41	5.60	5.71	5.78
46	85	39	4.95	5.24	5.41	5.60	5.71	5.78
40	80	40	4.83	5.14	5.32	5.52	5.63	5.70
45	85	40	4.83	5.14	5.32	5.52	5.63	5.70
44	85	41	4.69	5.04	5.25 ^c	5.43	5.55	5.62
43	85	42	4.55	4.93	5.13	5.35	5.47	5.54
42	85	43	4.38	4.80	5.03	5.26	5.38	5.46
41	85	44	4.21	4.67	4.91	5.17	5.30	5.38
40	85	45	4.01	4.52	4.79	5.06	5.20	5.29
Condenser DT ^b			14.04	11.23	9.36	7.02	5.62	4.68

^a LIFT = Entering Condenser Water Temperature (°F) – Leaving Chilled Water Temperature (°F)
^b Condenser DT = Leaving Condenser Water Temperature (°F) – Entering Condenser Water Temperature (°F)
^c All values shown are NPLV except at conditions of 3 gpm/ton and 41 °F LIFT which is IPLV.
 $K_{adj} = 6.1507 - 0.30244(X) + 0.0062692(X)^2 - 0.000045595(X)^3$
 where X = Condenser DT – LIFT
 $COP_{adj} = K_{adj} * COP_{std}$

Table C-12 – IPLV/NPLV FOR NON-STANDARD CENTRIFUGAL CHILLERS > 150 TONS, < 300 TONS (TABLE 112-L)

Centrifugal Chillers > 150 Tons, < 300 Tons								
IPLV _{std} = 5.9								
			Condenser Flow Rate					
			2 gpm/ton	2.5 gpm/ton	3 gpm/ton	4 gpm/ton	5 gpm/ton	6 gpm/ton
Leaving Chilled Water Temperature (°F)	Entering Condenser Water Temperature (°F)	LIFT ^a (°F)	Required IPLV/NPLV					
46	75	29	6.58	6.87	7.11	7.46	7.71	7.90
45	75	30	6.49	6.76	6.98	7.30	7.53	7.70
44	75	31	6.40	6.66	6.86	7.15	7.36	7.52
43	75	32	6.31	6.56	6.75	7.02	7.21	7.35
42	75	33	6.22	6.47	6.65	6.90	7.07	7.20
41	75	34	6.13	6.38	6.55	6.79	6.95	7.06
46	80	34	6.13	6.38	6.55	6.79	6.95	7.06
40	75	35	6.03	6.29	6.46	6.68	6.83	6.94
45	80	35	6.03	6.29	6.46	6.68	6.83	6.94
44	80	36	5.93	6.20	6.37	6.58	6.72	6.82
43	80	37	5.82	6.11	6.28	6.49	6.62	6.72
42	80	38	5.71	6.01	6.19	6.40	6.53	6.62
41	80	39	5.58	5.91	6.10	6.31	6.44	6.52
46	85	39	5.58	5.91	6.10	6.31	6.44	6.52
40	80	40	5.44	5.80	6.00	6.22	6.35	6.43
45	85	40	5.44	5.80	6.00	6.22	6.35	6.43
44	85	41	5.29	5.68	5.90 ^c	6.13	6.26	6.34
43	85	42	5.13	5.55	5.79	6.03	6.16	6.25
42	85	43	4.94	5.41	5.67	5.93	6.07	6.16
41	85	44	4.74	5.26	5.54	5.82	5.97	6.07
40	85	45	4.52	5.09	5.40	5.71	5.87	5.97
Condenser DT ^b			14.04	11.23	9.36	7.02	5.62	4.68
^a LIFT = Entering Condenser Water Temperature (°F) – Leaving Chilled Water Temperature (°F) ^b Condenser DT = Leaving Condenser Water Temperature (°F) – Entering Condenser Water Temperature (°F) ^c All values shown are NPLV except at conditions of 3 gpm/ton and 41 °F LIFT which is IPLV. $K_{adj} = 6.1507 - 0.30244(X) + 0.0062692(X)^2 - 0.000045595(X)^3$ where X = Condenser DT + LIFT $COP_{adj} = K_{adj} * COP_{std}$								

Table C-13 – IPLV/NPLV FOR NON-STANDARD CENTRIFUGAL CHILLERS > 300 TONS
(TABLE 112-M)

Centrifugal Chillers > 300 Tons								
IPLV _{std} = 6.4								
			Condenser Flow Rate					
			2 gpm/ton	2.5 gpm/ton	3 gpm/ton	4 gpm/ton	5 gpm/ton	6 gpm/ton
Leaving Chilled Water Temperature (°F)	Entering Condenser Water Temperature (°F)	LIFT* (°F)	Required IPLV/NPLV					
46	75	29	7.15	7.47	7.72	8.10	8.37	8.58
45	75	30	7.05	7.35	7.58	7.93	8.18	8.36
44	75	31	6.95	7.23	7.45	7.77	8.00	8.16
43	75	32	6.85	7.13	7.33	7.63	7.83	7.98
42	75	33	6.75	7.03	7.22	7.49	7.68	7.82
41	75	34	6.65	6.93	7.12	7.37	7.55	7.67
46	80	34	6.65	6.93	7.12	7.37	7.55	7.67
40	75	35	6.55	6.83	7.01	7.26	7.42	7.54
45	80	35	6.55	6.83	7.01	7.26	7.42	7.54
44	80	36	6.44	6.73	6.92	7.15	7.30	7.41
43	80	37	6.32	6.63	6.82	7.05	7.19	7.30
42	80	38	6.20	6.53	6.72	6.95	7.09	7.19
41	80	39	6.06	6.42	6.62	6.85	6.99	7.08
46	85	39	6.06	6.42	6.62	6.85	6.99	7.08
40	80	40	5.91	6.30	6.52	6.76	6.89	6.98
45	85	40	5.91	6.30	6.52	6.76	6.89	6.98
44	85	41	5.75	6.17	6.40 *	6.66	6.79	6.89
43	85	42	5.57	6.03	6.28	6.55	6.70	6.79
42	85	43	5.37	5.88	6.16	6.44	6.59	6.69
41	85	44	5.15	5.71	6.01	6.33	6.49	6.59
40	85	45	4.91	5.53	5.86	6.20	6.37	6.48
Condenser DT ^b			14.04	11.23	9.36	7.02	5.62	4.68

* LIFT = Entering Condenser Water Temperature (°F) – Leaving Chilled Water Temperature (°F)
^b Condenser DT = Leaving Condenser Water Temperature (°F) – Entering Condenser Water Temperature (°F)
^c All values shown are NPLV except at conditions of 3 gpm/ton and 41 °F LIFT which is IPLV.
 $K_{adj} = 6.1507 - 0.30244(X) + 0.0062692(X)^2 - 0.000045595(X)^3$
 where X = Condenser DT – LIFT
 $COP_{adj} = K_{adj} * COP_{std}$

C.3 Chiller Performance Curves and Characteristics

Chiller performance as a function of load, condenser water temperature and flow are legitimate design parameters for which the standard should provide both credit and penalty. Owners, manufacturer's sales representatives and design professionals spend significant time, money and effort to match a machine's performance to the characteristics of a specific plant. This is as legitimate a trade-off as any presently provided in the Performance Method.

California Energy Commission published a new set of seven default curves representing four compressor types and two condenser conditions. These curves were developed under the scrutiny of the public review process and with the cooperation of both ARI and the major manufacturers. These curves are based on recent technology (circa 1993). These curves have been adopted for use in modeling baseline chiller operation for the Statewide Customized Offering.

Table 1: Default Capacity Coefficients - Electric Air-Cooled Chillers

Coefficient	Scroll	Recip	Screw	Centrifugal
a	0.40070684	0.57617295	-0.09464899	N/A
b	0.01861548	0.02063133	0.03834070	N/A
c	0.00007199	0.00007769	-0.00009205	N/A
d	0.00177296	-0.00351183	0.00378007	N/A
e	-0.00002014	0.00000312	-0.00001375	N/A
f	-0.00008273	-0.00007865	-0.00015464	N/A

Table 2: Default Capacity Coefficients - Electric Water-Cooled Chillers

Coefficient	Scroll	Recip	Screw	Centrifugal
a	0.36131454	0.58531422	0.33269598	-0.29861976
b	0.01855477	0.01539593	0.00729116	0.02996076
c	0.00003011	0.00007296	-0.00049938	-0.00080125
d	0.00093592	-0.00212462	0.01598983	0.01736268
e	-0.00001518	-0.00000715	-0.00028254	-0.00032606
f	-0.00005481	-0.00004597	0.00052346	0.00063139

Table 3: Default Efficiency EIR-FT Coefficients - Air-Cooled Chillers

Coefficient	Scroll	Reciprocating	Screw	Centrifugal
a	0.99006553	0.66534403	0.13545636	N/A
b	-0.00584144	-0.01383821	0.02292946	N/A
c	0.00016454	0.00014736	-0.00016107	N/A
d	-0.00661136	0.00712808	-0.00235396	N/A
e	0.00016808	0.00004571	0.00012991	N/A
f	-0.00022501	-0.00010326	-0.00018685	N/A

Table 4: Default Efficiency EIR-FT Coefficients - Water-Cooled Chillers

Coefficient	Scroll	Reciprocating	Screw	Centrifugal
a	1.00121431	0.46140041	0.66625403	0.51777196
b	-0.01026981	-0.00882156	0.00068584	-0.00400363
c	0.00016703	0.00008223	0.00028498	0.00002028
d	-0.00128136	0.00926607	-0.00341677	0.00698793
e	0.00014613	0.00005722	0.00025484	0.00008290
f	-0.00021959	-0.00011594	-0.00048195	-0.00015467

Table 5: Default Efficiency EIR-FPLR Coefficients - Air-Cooled Chillers

Coefficient	Scroll	Recip	Screw	Centrifugal
a	0.06369119	0.11443742	0.03648722	N/A
b	0.58488832	0.54593340	0.73474298	N/A
c	0.35280274	0.34229861	0.21994748	N/A

Table 6: Default Efficiency EIR-FPLR Coefficients - Water-Cooled Chillers

Coefficient	Scroll	Recip	Screw	Centrifugal
a	0.04411957	0.08144133	0.33018833	0.17149273
b	0.64036703	0.41927141	0.23554291	0.58820208
c	0.31955532	0.49939604	0.46070828	0.23737257

Table 7: Minimum Unloading Ratios for Electric Chillers

Chiller Type	Default Unloading Ratio
Reciprocating	25%
Screw	15%
Centrifugal	10%
Scroll	25%

C.4 Air Compressor Equipment

AirMaster+ is an industry standard tool, developed out of the DOE's Compressed Air Challenge effort, designed to assist the end user in improving the performance of compressed air systems. As a part of the AirMaster+ development, industry data was gathered to create generic or typical air compressor units. The Statewide Customized Offering uses these generic energy profiles to specify the allowable baseline energy usage for individual compressors. Rated pressure is psig, rated capacity is acfm, and package power is kW/100 cfm.

Table 2: Minimum Efficiency Ratings for Rotary Screw and Reciprocating Air Compressor Units.

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	5	Inlet modulation w/ unloading	100	19	25.9
single stage lub-injected rotary screw	5	Inlet modulation w/ unloading	125	18	26.3
single stage lub-injected rotary screw	5	Inlet modulation w/ unloading	175	13	37.1
single stage lub-injected rotary screw	5	Inlet modulation w/o unloading	100	18	25.9
single stage lub-injected rotary screw	5	Inlet modulation w/o unloading	125	18	26.3
single stage lub-injected rotary screw	5	Inlet modulation w/o unloading	175	12	37.1
single stage lub-injected rotary screw	5	Load/unload	100	18	25.9
single stage lub-injected rotary screw	5	Load/unload	125	18	26.3
single stage lub-injected rotary screw	5	Load/unload	175	12	37.1
single stage lub-injected rotary screw	5	Variable displacement	100	19	25.9
single stage lub-injected rotary screw	5	Variable displacement	125	18	26.3
single stage lub-injected rotary screw	5	Variable displacement	175	13	37.1
single stage lub-injected rotary screw	7.5	Inlet modulation w/ unloading	100	28	25.4
single stage lub-injected rotary screw	7.5	Inlet modulation w/ unloading	125	26	27.7
single stage lub-injected rotary screw	7.5	Inlet modulation w/ unloading	175	20	34.8
single stage lub-injected rotary screw	7.5	Inlet modulation w/o unloading	100	27	25.4
single stage lub-injected rotary screw	7.5	Inlet modulation w/o unloading	125	25	27.7
single stage lub-injected rotary screw	7.5	Inlet modulation w/o unloading	175	20	34.8
single stage lub-injected rotary screw	7.5	Load/unload	100	27	25.4
single stage lub-injected rotary screw	7.5	Load/unload	125	25	27.7
single stage lub-injected rotary screw	7.5	Load/unload	175	20	34.8
single stage lub-injected rotary screw	7.5	Variable displacement	100	28	25.4
single stage lub-injected rotary screw	7.5	Variable displacement	125	26	27.7
single stage lub-injected rotary screw	7.5	Variable displacement	175	20	34.8
single stage lub-injected rotary screw	10	Inlet modulation w/ unloading	100	41	22.9
single stage lub-injected rotary screw	10	Inlet modulation w/ unloading	125	37	25.5
single stage lub-injected rotary screw	10	Inlet modulation w/ unloading	150	27	34.7

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	10	Inlet modulation w/ unloading	175	30	30.8
single stage lub-injected rotary screw	10	Inlet modulation w/o unloading	100	39	22.9
single stage lub-injected rotary screw	10	Inlet modulation w/o unloading	125	35	25.5
single stage lub-injected rotary screw	10	Inlet modulation w/o unloading	150	26	34.7
single stage lub-injected rotary screw	10	Inlet modulation w/o unloading	175	29	30.8
single stage lub-injected rotary screw	10	Load/unload	100	39	22.9
single stage lub-injected rotary screw	10	Load/unload	125	35	25.5
single stage lub-injected rotary screw	10	Load/unload	150	26	34.7
single stage lub-injected rotary screw	10	Load/unload	175	29	30.8
single stage lub-injected rotary screw	10	Variable displacement	100	41	22.9
single stage lub-injected rotary screw	10	Variable displacement	125	37	25.5
single stage lub-injected rotary screw	10	Variable displacement	150	27	34.7
single stage lub-injected rotary screw	10	Variable displacement	175	30	30.8
single stage lub-injected rotary screw	15	Inlet modulation w/ unloading	100	65	21.8
single stage lub-injected rotary screw	15	Inlet modulation w/ unloading	125	56	25.1
single stage lub-injected rotary screw	15	Inlet modulation w/ unloading	150	50	28.3
single stage lub-injected rotary screw	15	Inlet modulation w/ unloading	175	48	29.2
single stage lub-injected rotary screw	15	Inlet modulation w/o unloading	100	62	21.8
single stage lub-injected rotary screw	15	Inlet modulation w/o unloading	125	54	25.1
single stage lub-injected rotary screw	15	Inlet modulation w/o unloading	150	47	28.3
single stage lub-injected rotary screw	15	Inlet modulation w/o unloading	175	46	29.2
single stage lub-injected rotary screw	15	Load/unload	100	62	21.8
single stage lub-injected rotary screw	15	Load/unload	125	54	25.1
single stage lub-injected rotary screw	15	Load/unload	150	47	28.3
single stage lub-injected rotary screw	15	Load/unload	175	46	29.2
single stage lub-injected rotary screw	15	Variable displacement	100	65	21.8
single stage lub-injected rotary screw	15	Variable displacement	125	56	25.1
single stage lub-injected rotary screw	15	Variable displacement	150	50	28.3
single stage lub-injected rotary screw	15	Variable displacement	175	48	29.2
single stage lub-injected rotary screw	20	Inlet modulation w/ unloading	100	86	21.3
single stage lub-injected rotary screw	20	Inlet modulation w/ unloading	125	74	24.9
single stage lub-injected rotary screw	20	Inlet modulation w/ unloading	150	63	29.1
single stage lub-injected rotary screw	20	Inlet modulation w/ unloading	175	65	28.1
single stage lub-injected rotary screw	20	Inlet modulation w/o unloading	100	82	21.3
single stage lub-injected rotary screw	20	Inlet modulation w/o unloading	125	70	24.9
single stage lub-injected rotary screw	20	Inlet modulation w/o unloading	150	60	29.1

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	20	Inlet modulation w/o unloading	175	62	28.1
single stage lub-injected rotary screw	20	Load/unload	100	82	21.3
single stage lub-injected rotary screw	20	Load/unload	125	70	24.9
single stage lub-injected rotary screw	20	Load/unload	150	60	29.1
single stage lub-injected rotary screw	20	Load/unload	175	62	28.1
single stage lub-injected rotary screw	20	Variable displacement	100	86	21.3
single stage lub-injected rotary screw	20	Variable displacement	125	74	24.9
single stage lub-injected rotary screw	20	Variable displacement	150	63	29.1
single stage lub-injected rotary screw	20	Variable displacement	175	65	28.1
single stage lub-injected rotary screw	25	Inlet modulation w/ unloading	100	107	21.3
single stage lub-injected rotary screw	25	Inlet modulation w/ unloading	115	105	21.7
single stage lub-injected rotary screw	25	Inlet modulation w/ unloading	125	91	24.9
single stage lub-injected rotary screw	25	Inlet modulation w/ unloading	140	86	26.4
single stage lub-injected rotary screw	25	Inlet modulation w/ unloading	150	84	26.9
single stage lub-injected rotary screw	25	Inlet modulation w/ unloading	175	82	27.8
single stage lub-injected rotary screw	25	Inlet modulation w/ unloading	200	61	37.5
single stage lub-injected rotary screw	25	Inlet modulation w/o unloading	100	102	21.3
single stage lub-injected rotary screw	25	Inlet modulation w/o unloading	115	100	21.7
single stage lub-injected rotary screw	25	Inlet modulation w/o unloading	125	87	24.9
single stage lub-injected rotary screw	25	Inlet modulation w/o unloading	140	82	26.4
single stage lub-injected rotary screw	25	Inlet modulation w/o unloading	150	81	26.9
single stage lub-injected rotary screw	25	Inlet modulation w/o unloading	175	78	27.8
single stage lub-injected rotary screw	25	Inlet modulation w/o unloading	200	58	37.5
single stage lub-injected rotary screw	25	Load/unload	100	102	21.3
single stage lub-injected rotary screw	25	Load/unload	115	100	21.7
single stage lub-injected rotary screw	25	Load/unload	125	87	24.9
single stage lub-injected rotary screw	25	Load/unload	140	82	26.4
single stage lub-injected rotary screw	25	Load/unload	150	81	26.9
single stage lub-injected rotary screw	25	Load/unload	175	78	27.8
single stage lub-injected rotary screw	25	Load/unload	200	58	37.5
single stage lub-injected rotary screw	25	Variable displacement	100	107	21.3
single stage lub-injected rotary screw	25	Variable displacement	115	105	21.7
single stage lub-injected rotary screw	25	Variable displacement	125	91	24.9
single stage lub-injected rotary screw	25	Variable displacement	140	86	26.4
single stage lub-injected rotary screw	25	Variable displacement	150	84	26.9
single stage lub-injected rotary screw	25	Variable displacement	175	82	27.8

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	25	Variable displacement	200	61	37.5
single stage lub-injected rotary screw	30	Inlet modulation w/ unloading	100	139	19.4
single stage lub-injected rotary screw	30	Inlet modulation w/ unloading	115	129	21
single stage lub-injected rotary screw	30	Inlet modulation w/ unloading	125	118	22.8
single stage lub-injected rotary screw	30	Inlet modulation w/ unloading	140	107	25.3
single stage lub-injected rotary screw	30	Inlet modulation w/ unloading	150	110	24.6
single stage lub-injected rotary screw	30	Inlet modulation w/ unloading	175	98	27.6
single stage lub-injected rotary screw	30	Inlet modulation w/ unloading	200	77	35
single stage lub-injected rotary screw	30	Inlet modulation w/o unloading	100	133	19.4
single stage lub-injected rotary screw	30	Inlet modulation w/o unloading	115	123	21
single stage lub-injected rotary screw	30	Inlet modulation w/o unloading	125	113	22.8
single stage lub-injected rotary screw	30	Inlet modulation w/o unloading	140	102	25.3
single stage lub-injected rotary screw	30	Inlet modulation w/o unloading	150	105	24.6
single stage lub-injected rotary screw	30	Inlet modulation w/o unloading	175	93	27.6
single stage lub-injected rotary screw	30	Inlet modulation w/o unloading	200	74	35
single stage lub-injected rotary screw	30	Load/unload	100	133	19.4
single stage lub-injected rotary screw	30	Load/unload	115	123	21
single stage lub-injected rotary screw	30	Load/unload	125	113	22.8
single stage lub-injected rotary screw	30	Load/unload	140	102	25.3
single stage lub-injected rotary screw	30	Load/unload	150	105	24.6
single stage lub-injected rotary screw	30	Load/unload	175	93	27.6
single stage lub-injected rotary screw	30	Load/unload	200	74	35
single stage lub-injected rotary screw	30	Variable displacement	100	139	19.4
single stage lub-injected rotary screw	30	Variable displacement	115	129	21
single stage lub-injected rotary screw	30	Variable displacement	125	118	22.8
single stage lub-injected rotary screw	30	Variable displacement	140	107	25.3
single stage lub-injected rotary screw	30	Variable displacement	150	110	24.6
single stage lub-injected rotary screw	30	Variable displacement	175	98	27.6
single stage lub-injected rotary screw	30	Variable displacement	200	77	35
single stage lub-injected rotary screw	40	Inlet modulation w/ unloading	100	187	19.5
single stage lub-injected rotary screw	40	Inlet modulation w/ unloading	115	174	21
single stage lub-injected rotary screw	40	Inlet modulation w/ unloading	125	158	23
single stage lub-injected rotary screw	40	Inlet modulation w/ unloading	140	151	24.1
single stage lub-injected rotary screw	40	Inlet modulation w/ unloading	150	142	25.6
single stage lub-injected rotary screw	40	Inlet modulation w/ unloading	175	127	28.6
single stage lub-injected rotary screw	40	Inlet modulation w/ unloading	200	116	31.4

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	40	Inlet modulation w/o unloading	100	178	19.5
single stage lub-injected rotary screw	40	Inlet modulation w/o unloading	115	166	21
single stage lub-injected rotary screw	40	Inlet modulation w/o unloading	125	151	23
single stage lub-injected rotary screw	40	Inlet modulation w/o unloading	140	144	24.1
single stage lub-injected rotary screw	40	Inlet modulation w/o unloading	150	136	25.6
single stage lub-injected rotary screw	40	Inlet modulation w/o unloading	175	122	28.6
single stage lub-injected rotary screw	40	Inlet modulation w/o unloading	200	111	31.4
single stage lub-injected rotary screw	40	Load/unload	100	178	19.5
single stage lub-injected rotary screw	40	Load/unload	115	166	21
single stage lub-injected rotary screw	40	Load/unload	125	151	23
single stage lub-injected rotary screw	40	Load/unload	140	144	24.1
single stage lub-injected rotary screw	40	Load/unload	150	136	25.6
single stage lub-injected rotary screw	40	Load/unload	175	122	28.6
single stage lub-injected rotary screw	40	Load/unload	200	111	31.4
single stage lub-injected rotary screw	40	Variable displacement	100	187	19.5
single stage lub-injected rotary screw	40	Variable displacement	115	174	21
single stage lub-injected rotary screw	40	Variable displacement	125	158	23
single stage lub-injected rotary screw	40	Variable displacement	140	151	24.1
single stage lub-injected rotary screw	40	Variable displacement	150	142	25.6
single stage lub-injected rotary screw	40	Variable displacement	175	127	28.6
single stage lub-injected rotary screw	40	Variable displacement	200	116	31.4
single stage lub-injected rotary screw	50	Inlet modulation w/ unloading	100	237	18.9
single stage lub-injected rotary screw	50	Inlet modulation w/ unloading	110	240	18.6
single stage lub-injected rotary screw	50	Inlet modulation w/ unloading	115	215	20.8
single stage lub-injected rotary screw	50	Inlet modulation w/ unloading	125	208	21.6
single stage lub-injected rotary screw	50	Inlet modulation w/ unloading	140	190	23.5
single stage lub-injected rotary screw	50	Inlet modulation w/ unloading	150	186	24.1
single stage lub-injected rotary screw	50	Inlet modulation w/ unloading	175	166	27
single stage lub-injected rotary screw	50	Inlet modulation w/ unloading	200	134	33.4
single stage lub-injected rotary screw	50	Inlet modulation w/o unloading	100	226	18.9
single stage lub-injected rotary screw	50	Inlet modulation w/o unloading	110	229	18.6
single stage lub-injected rotary screw	50	Inlet modulation w/o unloading	115	205	20.8
single stage lub-injected rotary screw	50	Inlet modulation w/o unloading	125	198	21.6
single stage lub-injected rotary screw	50	Inlet modulation w/o unloading	140	182	23.5
single stage lub-injected rotary screw	50	Inlet modulation w/o unloading	150	177	24.1
single stage lub-injected rotary screw	50	Inlet modulation w/o unloading	175	158	27

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	50	Inlet modulation w/o unloading	200	128	33.4
single stage lub-injected rotary screw	50	Load/unload	100	226	18.9
single stage lub-injected rotary screw	50	Load/unload	110	229	18.6
single stage lub-injected rotary screw	50	Load/unload	115	205	20.8
single stage lub-injected rotary screw	50	Load/unload	125	198	21.6
single stage lub-injected rotary screw	50	Load/unload	140	182	23.5
single stage lub-injected rotary screw	50	Load/unload	150	177	24.1
single stage lub-injected rotary screw	50	Load/unload	175	158	27
single stage lub-injected rotary screw	50	Load/unload	200	128	33.4
single stage lub-injected rotary screw	50	Variable displacement	100	237	18.9
single stage lub-injected rotary screw	50	Variable displacement	110	240	18.6
single stage lub-injected rotary screw	50	Variable displacement	115	215	20.8
single stage lub-injected rotary screw	50	Variable displacement	125	208	21.6
single stage lub-injected rotary screw	50	Variable displacement	140	190	23.5
single stage lub-injected rotary screw	50	Variable displacement	150	186	24.1
single stage lub-injected rotary screw	50	Variable displacement	175	166	27
single stage lub-injected rotary screw	50	Variable displacement	200	134	33.4
single stage lub-injected rotary screw	60	Inlet modulation w/ unloading	100	286	18.8
single stage lub-injected rotary screw	60	Inlet modulation w/ unloading	115	276	19.4
single stage lub-injected rotary screw	60	Inlet modulation w/ unloading	125	262	20.5
single stage lub-injected rotary screw	60	Inlet modulation w/ unloading	140	243	22.1
single stage lub-injected rotary screw	60	Inlet modulation w/ unloading	150	238	22.6
single stage lub-injected rotary screw	60	Inlet modulation w/ unloading	175	201	26.7
single stage lub-injected rotary screw	60	Inlet modulation w/o unloading	100	273	18.8
single stage lub-injected rotary screw	60	Inlet modulation w/o unloading	115	264	19.4
single stage lub-injected rotary screw	60	Inlet modulation w/o unloading	125	250	20.5
single stage lub-injected rotary screw	60	Inlet modulation w/o unloading	140	232	22.1
single stage lub-injected rotary screw	60	Inlet modulation w/o unloading	150	227	22.6
single stage lub-injected rotary screw	60	Inlet modulation w/o unloading	175	192	26.7
single stage lub-injected rotary screw	60	Load/unload	100	273	18.8
single stage lub-injected rotary screw	60	Load/unload	115	264	19.4
single stage lub-injected rotary screw	60	Load/unload	125	250	20.5
single stage lub-injected rotary screw	60	Load/unload	140	232	22.1
single stage lub-injected rotary screw	60	Load/unload	150	227	22.6
single stage lub-injected rotary screw	60	Load/unload	175	192	26.7
single stage lub-injected rotary screw	60	Variable displacement	100	286	18.8

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	60	Variable displacement	115	276	19.4
single stage lub-injected rotary screw	60	Variable displacement	125	262	20.5
single stage lub-injected rotary screw	60	Variable displacement	140	243	22.1
single stage lub-injected rotary screw	60	Variable displacement	150	238	22.6
single stage lub-injected rotary screw	60	Variable displacement	175	201	26.7
single stage lub-injected rotary screw	75	Inlet modulation w/ unloading	100	383	17.5
single stage lub-injected rotary screw	75	Inlet modulation w/ unloading	110	372	18
single stage lub-injected rotary screw	75	Inlet modulation w/ unloading	115	346	19.4
single stage lub-injected rotary screw	75	Inlet modulation w/ unloading	125	326	20.6
single stage lub-injected rotary screw	75	Inlet modulation w/ unloading	140	302	22.2
single stage lub-injected rotary screw	75	Inlet modulation w/ unloading	150	287	23.4
single stage lub-injected rotary screw	75	Inlet modulation w/ unloading	165	240	28
single stage lub-injected rotary screw	75	Inlet modulation w/ unloading	175	265	25.4
single stage lub-injected rotary screw	75	Inlet modulation w/o unloading	100	365	17.5
single stage lub-injected rotary screw	75	Inlet modulation w/o unloading	110	355	18
single stage lub-injected rotary screw	75	Inlet modulation w/o unloading	115	331	19.4
single stage lub-injected rotary screw	75	Inlet modulation w/o unloading	125	311	20.6
single stage lub-injected rotary screw	75	Inlet modulation w/o unloading	140	288	22.2
single stage lub-injected rotary screw	75	Inlet modulation w/o unloading	150	274	23.4
single stage lub-injected rotary screw	75	Inlet modulation w/o unloading	165	229	28
single stage lub-injected rotary screw	75	Inlet modulation w/o unloading	175	253	25.4
single stage lub-injected rotary screw	75	Load/unload	100	365	17.5
single stage lub-injected rotary screw	75	Load/unload	110	355	18
single stage lub-injected rotary screw	75	Load/unload	115	331	19.4
single stage lub-injected rotary screw	75	Load/unload	125	311	20.6
single stage lub-injected rotary screw	75	Load/unload	140	288	22.2
single stage lub-injected rotary screw	75	Load/unload	150	274	23.4
single stage lub-injected rotary screw	75	Load/unload	165	229	28
single stage lub-injected rotary screw	75	Load/unload	175	253	25.4
single stage lub-injected rotary screw	75	Variable displacement	100	383	17.5
single stage lub-injected rotary screw	75	Variable displacement	110	372	18
single stage lub-injected rotary screw	75	Variable displacement	115	346	19.4
single stage lub-injected rotary screw	75	Variable displacement	125	326	20.6
single stage lub-injected rotary screw	75	Variable displacement	140	302	22.2
single stage lub-injected rotary screw	75	Variable displacement	150	287	23.4
single stage lub-injected rotary screw	75	Variable displacement	165	240	28

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	75	Variable displacement	175	265	25.4
single stage lub-injected rotary screw	100	Inlet modulation w/ unloading	100	495	18.1
single stage lub-injected rotary screw	100	Inlet modulation w/ unloading	110	489	18.3
single stage lub-injected rotary screw	100	Inlet modulation w/ unloading	115	457	19.6
single stage lub-injected rotary screw	100	Inlet modulation w/ unloading	125	435	20.5
single stage lub-injected rotary screw	100	Inlet modulation w/ unloading	140	424	21.1
single stage lub-injected rotary screw	100	Inlet modulation w/ unloading	150	377	23.7
single stage lub-injected rotary screw	100	Inlet modulation w/ unloading	165	358	25
single stage lub-injected rotary screw	100	Inlet modulation w/ unloading	175	364	24.6
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	100	473	18.1
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	110	467	18.3
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	115	436	19.6
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	125	416	20.5
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	140	405	21.1
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	150	360	23.7
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	165	342	25
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	175	348	24.6
single stage lub-injected rotary screw	100	Inlet modulation w/o unloading	200	320.19	26.67166
single stage lub-injected rotary screw	100	Load/unload	100	473	18.1
single stage lub-injected rotary screw	100	Load/unload	110	467	18.3
single stage lub-injected rotary screw	100	Load/unload	115	436	19.6
single stage lub-injected rotary screw	100	Load/unload	125	416	20.5
single stage lub-injected rotary screw	100	Load/unload	140	405	21.1
single stage lub-injected rotary screw	100	Load/unload	150	360	23.7
single stage lub-injected rotary screw	100	Load/unload	165	342	25
single stage lub-injected rotary screw	100	Load/unload	175	348	24.6
single stage lub-injected rotary screw	100	Variable displacement	100	495	18.1
single stage lub-injected rotary screw	100	Variable displacement	100	495	18.1
single stage lub-injected rotary screw	100	Variable displacement	110	489	18.3
single stage lub-injected rotary screw	100	Variable displacement	115	457	19.6
single stage lub-injected rotary screw	100	Variable displacement	125	435	20.5
single stage lub-injected rotary screw	100	Variable displacement	140	424	21.1
single stage lub-injected rotary screw	100	Variable displacement	150	377	23.7
single stage lub-injected rotary screw	100	Variable displacement	165	358	25
single stage lub-injected rotary screw	100	Variable displacement	175	364	24.6
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	100	577	19.2

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	110	611	18.2
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	115	592	18.8
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	125	573	19.4
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	140	526	21.1
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	150	494	22.5
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	175	447	24.8
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	200	372	29.9
single stage lub-injected rotary screw	125	Inlet modulation w/ unloading	165	465	23.87097
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	100	551	19.2
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	110	584	18.2
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	115	565	18.8
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	125	547	19.4
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	140	502	21.1
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	150	472	22.5
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	175	427	24.8
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	200	355	29.9
single stage lub-injected rotary screw	125	Inlet modulation w/o unloading	165	448	23.66072
single stage lub-injected rotary screw	125	Load/unload	100	551	19.2
single stage lub-injected rotary screw	125	Load/unload	110	584	18.2
single stage lub-injected rotary screw	125	Load/unload	115	565	18.8
single stage lub-injected rotary screw	125	Load/unload	125	547	19.4
single stage lub-injected rotary screw	125	Load/unload	140	502	21.1
single stage lub-injected rotary screw	125	Load/unload	150	472	22.5
single stage lub-injected rotary screw	125	Load/unload	175	427	24.8
single stage lub-injected rotary screw	125	Load/unload	200	355	29.9
single stage lub-injected rotary screw	125	Variable displacement	100	577	19.2
single stage lub-injected rotary screw	125	Variable displacement	110	611	18.2
single stage lub-injected rotary screw	125	Variable displacement	115	592	18.8
single stage lub-injected rotary screw	125	Variable displacement	125	573	19.4
single stage lub-injected rotary screw	125	Variable displacement	140	526	21.1
single stage lub-injected rotary screw	125	Variable displacement	150	494	22.5
single stage lub-injected rotary screw	125	Variable displacement	175	447	24.8
single stage lub-injected rotary screw	125	Variable displacement	200	372	29.9
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	100	764	17.3
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	110	739	17.9
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	115	703	18.8

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	125	673	19.7
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	140	615	21.5
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	150	608	21.8
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	165	558	23.7
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	175	530	25
single stage lub-injected rotary screw	150	Inlet modulation w/ unloading	200	461	28.7
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	100	729	17.3
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	110	706	17.9
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	115	671	18.8
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	125	642	19.7
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	140	587	21.5
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	150	581	21.8
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	165	533	23.7
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	175	506	25
single stage lub-injected rotary screw	150	Inlet modulation w/o unloading	200	440	28.7
single stage lub-injected rotary screw	150	Load/unload	100	729	17.3
single stage lub-injected rotary screw	150	Load/unload	110	706	17.9
single stage lub-injected rotary screw	150	Load/unload	115	671	18.8
single stage lub-injected rotary screw	150	Load/unload	125	642	19.7
single stage lub-injected rotary screw	150	Load/unload	140	587	21.5
single stage lub-injected rotary screw	150	Load/unload	150	581	21.8
single stage lub-injected rotary screw	150	Load/unload	165	533	23.7
single stage lub-injected rotary screw	150	Load/unload	175	506	25
single stage lub-injected rotary screw	150	Load/unload	200	440	28.7
single stage lub-injected rotary screw	150	Variable displacement	100	764	17.3
single stage lub-injected rotary screw	150	Variable displacement	110	739	17.9
single stage lub-injected rotary screw	150	Variable displacement	115	703	18.8
single stage lub-injected rotary screw	150	Variable displacement	125	673	19.7
single stage lub-injected rotary screw	150	Variable displacement	140	615	21.5
single stage lub-injected rotary screw	150	Variable displacement	150	608	21.8
single stage lub-injected rotary screw	150	Variable displacement	165	558	23.7
single stage lub-injected rotary screw	150	Variable displacement	175	530	25
single stage lub-injected rotary screw	150	Variable displacement	200	461	28.7
single stage lub-injected rotary screw	200	Inlet modulation w/ unloading	100	1009	17.3
single stage lub-injected rotary screw	200	Inlet modulation w/ unloading	110	983	17.7
single stage lub-injected rotary screw	200	Inlet modulation w/ unloading	115	933	18.7

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	200	Inlet modulation w/ unloading	125	895	19.5
single stage lub-injected rotary screw	200	Inlet modulation w/ unloading	140	812	21.5
single stage lub-injected rotary screw	200	Inlet modulation w/ unloading	150	799	21.8
single stage lub-injected rotary screw	200	Inlet modulation w/ unloading	165	739	23.6
single stage lub-injected rotary screw	200	Inlet modulation w/ unloading	200	637	27.4
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	100	963	17.3
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	110	939	17.7
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	115	891	18.7
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	125	855	19.5
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	140	775	21.5
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	150	763	21.8
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	165	705	23.6
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	200	608	27.4
single stage lub-injected rotary screw	200	Inlet modulation w/o unloading	175	672	24.77678
single stage lub-injected rotary screw	200	Load/unload	100	963	17.3
single stage lub-injected rotary screw	200	Load/unload	110	939	17.7
single stage lub-injected rotary screw	200	Load/unload	115	891	18.7
single stage lub-injected rotary screw	200	Load/unload	125	855	19.5
single stage lub-injected rotary screw	200	Load/unload	140	775	21.5
single stage lub-injected rotary screw	200	Load/unload	150	763	21.8
single stage lub-injected rotary screw	200	Load/unload	165	705	23.6
single stage lub-injected rotary screw	200	Load/unload	200	608	27.4
single stage lub-injected rotary screw	200	Variable displacement	100	1009	17.3
single stage lub-injected rotary screw	200	Variable displacement	110	983	17.7
single stage lub-injected rotary screw	200	Variable displacement	115	933	18.7
single stage lub-injected rotary screw	200	Variable displacement	125	895	19.5
single stage lub-injected rotary screw	200	Variable displacement	140	812	21.5
single stage lub-injected rotary screw	200	Variable displacement	150	799	21.8
single stage lub-injected rotary screw	200	Variable displacement	165	739	23.6
single stage lub-injected rotary screw	200	Variable displacement	200	637	27.4
single stage lub-injected rotary screw	250	Inlet modulation w/ unloading	100	1261	17.4
single stage lub-injected rotary screw	250	Inlet modulation w/ unloading	110	1241	17.7
single stage lub-injected rotary screw	250	Inlet modulation w/ unloading	115	1141	19.2
single stage lub-injected rotary screw	250	Inlet modulation w/ unloading	125	1127	19.5
single stage lub-injected rotary screw	250	Inlet modulation w/ unloading	140	979	22.4
single stage lub-injected rotary screw	250	Inlet modulation w/ unloading	150	1007	21.8

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	250	Inlet modulation w/ unloading	165	864	25.4
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	100	1204	17.4
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	110	1185	17.7
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	115	1089	19.2
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	125	1076	19.5
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	140	935	22.4
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	150	961	21.8
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	165	825	25.4
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	175	810	25.82716
single stage lub-injected rotary screw	250	Inlet modulation w/o unloading	200	735	28.46259
single stage lub-injected rotary screw	250	Load/unload	100	1204	17.4
single stage lub-injected rotary screw	250	Load/unload	110	1185	17.7
single stage lub-injected rotary screw	250	Load/unload	115	1089	19.2
single stage lub-injected rotary screw	250	Load/unload	125	1076	19.5
single stage lub-injected rotary screw	250	Load/unload	140	935	22.4
single stage lub-injected rotary screw	250	Load/unload	150	961	21.8
single stage lub-injected rotary screw	250	Load/unload	165	825	25.4
single stage lub-injected rotary screw	250	Variable displacement	100	1261	17.4
single stage lub-injected rotary screw	250	Variable displacement	110	1241	17.7
single stage lub-injected rotary screw	250	Variable displacement	115	1141	19.2
single stage lub-injected rotary screw	250	Variable displacement	125	1127	19.5
single stage lub-injected rotary screw	250	Variable displacement	140	979	22.4
single stage lub-injected rotary screw	250	Variable displacement	150	1007	21.8
single stage lub-injected rotary screw	250	Variable displacement	165	864	25.4
single stage lub-injected rotary screw	300	Inlet modulation w/ unloading	100	1485	17.6
single stage lub-injected rotary screw	300	Inlet modulation w/ unloading	110	1475	17.7
single stage lub-injected rotary screw	300	Inlet modulation w/ unloading	115	1367	19.1
single stage lub-injected rotary screw	300	Inlet modulation w/ unloading	125	1319	19.8
single stage lub-injected rotary screw	300	Inlet modulation w/ unloading	140	1150	22.7
single stage lub-injected rotary screw	300	Inlet modulation w/ unloading	150	1192	22
single stage lub-injected rotary screw	300	Inlet modulation w/ unloading	200	974	26.9
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	100	1417	17.6
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	110	1408	17.7
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	115	1304	19.1
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	125	1259	19.8
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	140	1098	22.7

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	150	1137	22
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	200	930	26.9
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	165	1030	24.24272
single stage lub-injected rotary screw	300	Inlet modulation w/o unloading	175	985	25.35025
single stage lub-injected rotary screw	300	Load/unload	100	1417	17.6
single stage lub-injected rotary screw	300	Load/unload	110	1408	17.7
single stage lub-injected rotary screw	300	Load/unload	115	1304	19.1
single stage lub-injected rotary screw	300	Load/unload	125	1259	19.8
single stage lub-injected rotary screw	300	Load/unload	140	1098	22.7
single stage lub-injected rotary screw	300	Load/unload	150	1137	22
single stage lub-injected rotary screw	300	Load/unload	200	930	26.9
single stage lub-injected rotary screw	300	Variable displacement	100	1485	17.6
single stage lub-injected rotary screw	300	Variable displacement	110	1475	17.7
single stage lub-injected rotary screw	300	Variable displacement	115	1367	19.1
single stage lub-injected rotary screw	300	Variable displacement	125	1319	19.8
single stage lub-injected rotary screw	300	Variable displacement	140	1150	22.7
single stage lub-injected rotary screw	300	Variable displacement	150	1192	22
single stage lub-injected rotary screw	300	Variable displacement	200	974	26.9
single stage lub-injected rotary screw	350	Inlet modulation w/ unloading	100	1768	17.2
single stage lub-injected rotary screw	350	Inlet modulation w/ unloading	115	1631	18.6
single stage lub-injected rotary screw	350	Inlet modulation w/ unloading	125	1571	19.3
single stage lub-injected rotary screw	350	Inlet modulation w/ unloading	140	1458	20.9
single stage lub-injected rotary screw	350	Inlet modulation w/ unloading	150	1306	23.3
single stage lub-injected rotary screw	350	Inlet modulation w/ unloading	200	1093	27.8
single stage lub-injected rotary screw	350	Inlet modulation w/o unloading	100	1687	17.2
single stage lub-injected rotary screw	350	Inlet modulation w/o unloading	115	1557	18.6
single stage lub-injected rotary screw	350	Inlet modulation w/o unloading	125	1500	19.3
single stage lub-injected rotary screw	350	Inlet modulation w/o unloading	140	1391	20.9
single stage lub-injected rotary screw	350	Inlet modulation w/o unloading	150	1247	23.3
single stage lub-injected rotary screw	350	Inlet modulation w/o unloading	200	1043	27.8
single stage lub-injected rotary screw	350	Inlet modulation w/o unloading	165	1195	24.27615
single stage lub-injected rotary screw	350	Inlet modulation w/o unloading	175	1140	25.44737
single stage lub-injected rotary screw	350	Load/unload	100	1687	17.2
single stage lub-injected rotary screw	350	Load/unload	115	1557	18.6
single stage lub-injected rotary screw	350	Load/unload	125	1500	19.3
single stage lub-injected rotary screw	350	Load/unload	140	1391	20.9

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	350	Load/unload	150	1247	23.3
single stage lub-injected rotary screw	350	Load/unload	200	1043	27.8
single stage lub-injected rotary screw	350	Variable displacement	100	1768	17.2
single stage lub-injected rotary screw	350	Variable displacement	115	1631	18.6
single stage lub-injected rotary screw	350	Variable displacement	125	1571	19.3
single stage lub-injected rotary screw	350	Variable displacement	140	1458	20.9
single stage lub-injected rotary screw	350	Variable displacement	150	1306	23.3
single stage lub-injected rotary screw	350	Variable displacement	200	1093	27.8
single stage lub-injected rotary screw	400	Inlet modulation w/ unloading	100	1987	17.5
single stage lub-injected rotary screw	400	Inlet modulation w/ unloading	125	1749	19.9
single stage lub-injected rotary screw	400	Inlet modulation w/ unloading	140	1629	21.3
single stage lub-injected rotary screw	400	Inlet modulation w/ unloading	150	1500	23.2
single stage lub-injected rotary screw	400	Inlet modulation w/o unloading	100	1897	17.5
single stage lub-injected rotary screw	400	Inlet modulation w/o unloading	125	1669	19.9
single stage lub-injected rotary screw	400	Inlet modulation w/o unloading	140	1555	21.3
single stage lub-injected rotary screw	400	Inlet modulation w/o unloading	150	1432	23.2
single stage lub-injected rotary screw	400	Inlet modulation w/o unloading	115	1750	18.94857
single stage lub-injected rotary screw	400	Inlet modulation w/o unloading	165	1300	25.50769
single stage lub-injected rotary screw	400	Inlet modulation w/o unloading	175	1230	26.95935
single stage lub-injected rotary screw	400	Inlet modulation w/o unloading	200	1070	30.99065
single stage lub-injected rotary screw	400	Load/unload	100	1897	17.5
single stage lub-injected rotary screw	400	Load/unload	125	1669	19.9
single stage lub-injected rotary screw	400	Load/unload	140	1555	21.3
single stage lub-injected rotary screw	400	Load/unload	150	1432	23.2
single stage lub-injected rotary screw	400	Variable displacement	100	1987	17.5
single stage lub-injected rotary screw	400	Variable displacement	125	1749	19.9
single stage lub-injected rotary screw	400	Variable displacement	140	1629	21.3
single stage lub-injected rotary screw	400	Variable displacement	150	1500	23.2
single stage lub-injected rotary screw	450	Inlet modulation w/ unloading	100	2050	19
single stage lub-injected rotary screw	450	Inlet modulation w/ unloading	115	2134	18.2
single stage lub-injected rotary screw	450	Inlet modulation w/ unloading	125	1886	20.6
single stage lub-injected rotary screw	450	Inlet modulation w/ unloading	140	1833	21.2
single stage lub-injected rotary screw	450	Inlet modulation w/o unloading	100	1957	19
single stage lub-injected rotary screw	450	Inlet modulation w/o unloading	115	2037	18.2
single stage lub-injected rotary screw	450	Inlet modulation w/o unloading	125	1800	20.6
single stage lub-injected rotary screw	450	Inlet modulation w/o unloading	140	1750	21.2

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage lub-injected rotary screw	450	Inlet modulation w/o unloading	150	1700	21.82353
single stage lub-injected rotary screw	450	Inlet modulation w/o unloading	165	1620	22.90123
single stage lub-injected rotary screw	450	Inlet modulation w/o unloading	175	1550	23.93548
single stage lub-injected rotary screw	450	Inlet modulation w/o unloading	200	1400	26.5
single stage lub-injected rotary screw	450	Load/unload	100	1957	19
single stage lub-injected rotary screw	450	Load/unload	115	2037	18.2
single stage lub-injected rotary screw	450	Load/unload	125	1800	20.6
single stage lub-injected rotary screw	450	Load/unload	140	1750	21.2
single stage lub-injected rotary screw	450	Variable displacement	100	2050	19
single stage lub-injected rotary screw	450	Variable displacement	115	2134	18.2
single stage lub-injected rotary screw	450	Variable displacement	125	1886	20.6
single stage lub-injected rotary screw	450	Variable displacement	140	1833	21.2
single stage lub-injected rotary screw	500	Inlet modulation w/ unloading	100	2580	16.8
single stage lub-injected rotary screw	500	Inlet modulation w/ unloading	125	2200	19.7
single stage lub-injected rotary screw	500	Inlet modulation w/ unloading	150	1830	23.7
single stage lub-injected rotary screw	500	Inlet modulation w/o unloading	100	2463	16.8
single stage lub-injected rotary screw	500	Inlet modulation w/o unloading	125	2100	19.7
single stage lub-injected rotary screw	500	Inlet modulation w/o unloading	150	1747	23.7
single stage lub-injected rotary screw	500	Inlet modulation w/o unloading	115	2230	18.58296
single stage lub-injected rotary screw	500	Inlet modulation w/o unloading	140	1890	21.92593
single stage lub-injected rotary screw	500	Inlet modulation w/o unloading	165	1590	26.06289
single stage lub-injected rotary screw	500	Inlet modulation w/o unloading	175	1480	28
single stage lub-injected rotary screw	500	Inlet modulation w/o unloading	200	1265	32.75889
single stage lub-injected rotary screw	500	Load/unload	100	2463	16.8
single stage lub-injected rotary screw	500	Load/unload	125	2100	19.7
single stage lub-injected rotary screw	500	Load/unload	150	1747	23.7
single stage lub-injected rotary screw	500	Variable displacement	100	2580	16.8
single stage lub-injected rotary screw	500	Variable displacement	125	2200	19.7
single stage lub-injected rotary screw	500	Variable displacement	150	1830	23.7
two stage lub-injected rotary screw	100	Inlet modulation w/ unloading	100	560	16
two stage lub-injected rotary screw	100	Inlet modulation w/ unloading	115	515	17.4
two stage lub-injected rotary screw	100	Inlet modulation w/ unloading	125	504	17.8
two stage lub-injected rotary screw	100	Inlet modulation w/ unloading	140	470	19
two stage lub-injected rotary screw	100	Inlet modulation w/ unloading	200	336	26.6
two stage lub-injected rotary screw	100	Inlet modulation w/ unloading	150	445.95	20.06952
two stage lub-injected rotary screw	100	Inlet modulation w/ unloading	165	412.983	21.67159

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	100	Inlet modulation w/ unloading	175	391.055	22.88681
two stage lub-injected rotary screw	100	Inlet modulation w/o unloading	100	535	16
two stage lub-injected rotary screw	100	Inlet modulation w/o unloading	115	492	17.4
two stage lub-injected rotary screw	100	Inlet modulation w/o unloading	125	481	17.8
two stage lub-injected rotary screw	100	Inlet modulation w/o unloading	140	449	19
two stage lub-injected rotary screw	100	Inlet modulation w/o unloading	200	321	26.6
two stage lub-injected rotary screw	100	Inlet modulation w/o unloading	150	426.285	20.03355
two stage lub-injected rotary screw	100	Inlet modulation w/o unloading	165	394.989	21.62086
two stage lub-injected rotary screw	100	Inlet modulation w/o unloading	175	374.25	22.81897
two stage lub-injected rotary screw	100	Load/unload	100	535	16
two stage lub-injected rotary screw	100	Load/unload	115	492	17.4
two stage lub-injected rotary screw	100	Load/unload	125	481	17.8
two stage lub-injected rotary screw	100	Load/unload	140	449	19
two stage lub-injected rotary screw	100	Load/unload	200	321	26.6
two stage lub-injected rotary screw	100	Load/unload	150	426.285	20.03355
two stage lub-injected rotary screw	100	Load/unload	165	394.989	21.62086
two stage lub-injected rotary screw	100	Load/unload	175	374.25	22.81897
two stage lub-injected rotary screw	100	Variable displacement	100	560	16
two stage lub-injected rotary screw	100	Variable displacement	115	515	17.4
two stage lub-injected rotary screw	100	Variable displacement	125	504	17.8
two stage lub-injected rotary screw	100	Variable displacement	140	470	19
two stage lub-injected rotary screw	100	Variable displacement	200	336	26.6
two stage lub-injected rotary screw	100	Variable displacement	150	445.95	20.06952
two stage lub-injected rotary screw	100	Variable displacement	165	412.983	21.67159
two stage lub-injected rotary screw	100	Variable displacement	175	391.055	22.88681
two stage lub-injected rotary screw	125	Inlet modulation w/ unloading	100	691	16.1
two stage lub-injected rotary screw	125	Inlet modulation w/ unloading	115	637	17.4
two stage lub-injected rotary screw	125	Inlet modulation w/ unloading	125	621	17.9
two stage lub-injected rotary screw	125	Inlet modulation w/ unloading	140	580	19.1
two stage lub-injected rotary screw	125	Inlet modulation w/ unloading	200	414	26.8
two stage lub-injected rotary screw	125	Inlet modulation w/ unloading	150	550.895	20.14903
two stage lub-injected rotary screw	125	Inlet modulation w/ unloading	165	510.23	21.75489
two stage lub-injected rotary screw	125	Inlet modulation w/ unloading	175	483.195	22.97209
two stage lub-injected rotary screw	125	Inlet modulation w/o unloading	100	659	16.1
two stage lub-injected rotary screw	125	Inlet modulation w/o unloading	115	608	17.4
two stage lub-injected rotary screw	125	Inlet modulation w/o unloading	125	593	17.9

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	125	Inlet modulation w/o unloading	140	554	19.1
two stage lub-injected rotary screw	125	Inlet modulation w/o unloading	200	395	26.8
two stage lub-injected rotary screw	125	Inlet modulation w/o unloading	150	525.89	20.15631
two stage lub-injected rotary screw	125	Inlet modulation w/o unloading	165	486.8855	21.77103
two stage lub-injected rotary screw	125	Inlet modulation w/o unloading	175	460.8075	23.0031
two stage lub-injected rotary screw	125	Load/unload	100	659	16.1
two stage lub-injected rotary screw	125	Load/unload	115	608	17.4
two stage lub-injected rotary screw	125	Load/unload	125	593	17.9
two stage lub-injected rotary screw	125	Load/unload	140	554	19.1
two stage lub-injected rotary screw	125	Load/unload	200	395	26.8
two stage lub-injected rotary screw	125	Load/unload	150	525.89	20.15631
two stage lub-injected rotary screw	125	Load/unload	165	486.8855	21.77103
two stage lub-injected rotary screw	125	Load/unload	175	460.8075	23.0031
two stage lub-injected rotary screw	125	Variable displacement	100	691	16.1
two stage lub-injected rotary screw	125	Variable displacement	115	637	17.4
two stage lub-injected rotary screw	125	Variable displacement	125	621	17.9
two stage lub-injected rotary screw	125	Variable displacement	140	580	19.1
two stage lub-injected rotary screw	125	Variable displacement	200	414	26.8
two stage lub-injected rotary screw	125	Variable displacement	150	550.895	20.14903
two stage lub-injected rotary screw	125	Variable displacement	165	510.23	21.75489
two stage lub-injected rotary screw	125	Variable displacement	175	483.195	22.97209
two stage lub-injected rotary screw	150	Inlet modulation w/ unloading	100	826	16
two stage lub-injected rotary screw	150	Inlet modulation w/ unloading	115	755	17.5
two stage lub-injected rotary screw	150	Inlet modulation w/ unloading	125	743	17.8
two stage lub-injected rotary screw	150	Inlet modulation w/ unloading	140	693	19.1
two stage lub-injected rotary screw	150	Inlet modulation w/ unloading	200	495	26.7
two stage lub-injected rotary screw	150	Inlet modulation w/ unloading	150	657.365	20.14102
two stage lub-injected rotary screw	150	Inlet modulation w/ unloading	165	609.0515	21.73872
two stage lub-injected rotary screw	150	Inlet modulation w/ unloading	175	576.9425	22.94856
two stage lub-injected rotary screw	150	Inlet modulation w/o unloading	100	788	16
two stage lub-injected rotary screw	150	Inlet modulation w/o unloading	115	721	17.5
two stage lub-injected rotary screw	150	Inlet modulation w/o unloading	125	709	17.8
two stage lub-injected rotary screw	150	Inlet modulation w/o unloading	140	662	19.1
two stage lub-injected rotary screw	150	Inlet modulation w/o unloading	200	473	26.7
two stage lub-injected rotary screw	150	Inlet modulation w/o unloading	150	627.65	20.12268
two stage lub-injected rotary screw	150	Inlet modulation w/o unloading	165	581.57	21.71708

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	150	Inlet modulation w/o unloading	175	550.9	22.92612
two stage lub-injected rotary screw	150	Load/unload	100	788	16
two stage lub-injected rotary screw	150	Load/unload	115	721	17.5
two stage lub-injected rotary screw	150	Load/unload	125	709	17.8
two stage lub-injected rotary screw	150	Load/unload	140	662	19.1
two stage lub-injected rotary screw	150	Load/unload	200	473	26.7
two stage lub-injected rotary screw	150	Load/unload	150	627.65	20.12268
two stage lub-injected rotary screw	150	Load/unload	165	581.57	21.71708
two stage lub-injected rotary screw	150	Load/unload	175	550.9	22.92612
two stage lub-injected rotary screw	150	Variable displacement	100	826	16
two stage lub-injected rotary screw	150	Variable displacement	115	755	17.5
two stage lub-injected rotary screw	150	Variable displacement	125	743	17.8
two stage lub-injected rotary screw	150	Variable displacement	140	693	19.1
two stage lub-injected rotary screw	150	Variable displacement	200	495	26.7
two stage lub-injected rotary screw	150	Variable displacement	150	657.365	20.14102
two stage lub-injected rotary screw	150	Variable displacement	165	609.0515	21.73872
two stage lub-injected rotary screw	150	Variable displacement	175	576.9425	22.94856
two stage lub-injected rotary screw	200	Inlet modulation w/ unloading	100	1098	15.9
two stage lub-injected rotary screw	200	Inlet modulation w/ unloading	115	992	17.6
two stage lub-injected rotary screw	200	Inlet modulation w/ unloading	125	990	17.6
two stage lub-injected rotary screw	200	Inlet modulation w/ unloading	140	924	18.9
two stage lub-injected rotary screw	200	Inlet modulation w/ unloading	200	660	26.4
two stage lub-injected rotary screw	200	Inlet modulation w/ unloading	150	873.795	19.95892
two stage lub-injected rotary screw	200	Inlet modulation w/ unloading	165	810.132	21.52736
two stage lub-injected rotary screw	200	Inlet modulation w/ unloading	175	767.615	22.71972
two stage lub-injected rotary screw	200	Inlet modulation w/o unloading	100	1048	15.9
two stage lub-injected rotary screw	200	Inlet modulation w/o unloading	115	947	17.6
two stage lub-injected rotary screw	200	Inlet modulation w/o unloading	125	945	17.6
two stage lub-injected rotary screw	200	Inlet modulation w/o unloading	140	882	18.9
two stage lub-injected rotary screw	200	Inlet modulation w/o unloading	200	630	26.4
two stage lub-injected rotary screw	200	Inlet modulation w/o unloading	150	834.405	19.95434
two stage lub-injected rotary screw	200	Inlet modulation w/o unloading	165	773.703	21.51989
two stage lub-injected rotary screw	200	Inlet modulation w/o unloading	175	733.16	22.70991
two stage lub-injected rotary screw	200	Load/unload	100	1048	15.9
two stage lub-injected rotary screw	200	Load/unload	115	947	17.6
two stage lub-injected rotary screw	200	Load/unload	125	945	17.6

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	200	Load/unload	140	882	18.9
two stage lub-injected rotary screw	200	Load/unload	200	630	26.4
two stage lub-injected rotary screw	200	Load/unload	150	834.405	19.95434
two stage lub-injected rotary screw	200	Load/unload	165	773.703	21.51989
two stage lub-injected rotary screw	200	Load/unload	175	733.16	22.70991
two stage lub-injected rotary screw	200	Variable displacement	100	1098	15.9
two stage lub-injected rotary screw	200	Variable displacement	115	992	17.6
two stage lub-injected rotary screw	200	Variable displacement	125	990	17.6
two stage lub-injected rotary screw	200	Variable displacement	140	924	18.9
two stage lub-injected rotary screw	200	Variable displacement	200	660	26.4
two stage lub-injected rotary screw	200	Variable displacement	150	873.795	19.95892
two stage lub-injected rotary screw	200	Variable displacement	165	810.132	21.52736
two stage lub-injected rotary screw	200	Variable displacement	175	767.615	22.71972
two stage lub-injected rotary screw	250	Inlet modulation w/ unloading	100	1390	15.8
two stage lub-injected rotary screw	250	Inlet modulation w/ unloading	125	1249	17.5
two stage lub-injected rotary screw	250	Inlet modulation w/ unloading	140	1167	18.8
two stage lub-injected rotary screw	250	Inlet modulation w/ unloading	200	950	23.1
two stage lub-injected rotary screw	250	Inlet modulation w/ unloading	115	1301.152	16.8466
two stage lub-injected rotary screw	250	Inlet modulation w/ unloading	150	1124	19.50178
two stage lub-injected rotary screw	250	Inlet modulation w/ unloading	165	1062.103	20.63831
two stage lub-injected rotary screw	250	Inlet modulation w/ unloading	175	1025.512	21.37468
two stage lub-injected rotary screw	250	Inlet modulation w/o unloading	100	1327	15.8
two stage lub-injected rotary screw	250	Inlet modulation w/o unloading	125	1192	17.5
two stage lub-injected rotary screw	250	Inlet modulation w/o unloading	140	1114	18.8
two stage lub-injected rotary screw	250	Inlet modulation w/o unloading	200	907	23.1
two stage lub-injected rotary screw	250	Inlet modulation w/o unloading	115	1241.255	16.8539
two stage lub-injected rotary screw	250	Inlet modulation w/o unloading	150	1071.53	19.52349
two stage lub-injected rotary screw	250	Inlet modulation w/o unloading	165	1012.216	20.66754
two stage lub-injected rotary screw	250	Inlet modulation w/o unloading	175	977.1475	21.40925
two stage lub-injected rotary screw	250	Load/unload	100	1327	15.8
two stage lub-injected rotary screw	250	Load/unload	125	1192	17.5
two stage lub-injected rotary screw	250	Load/unload	140	1114	18.8
two stage lub-injected rotary screw	250	Load/unload	200	907	23.1
two stage lub-injected rotary screw	250	Load/unload	150	1071.53	19.52349
two stage lub-injected rotary screw	250	Load/unload	165	1012.216	20.66754
two stage lub-injected rotary screw	250	Load/unload	175	977.1475	21.40925

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	250	Variable displacement	100	1390	15.8
two stage lub-injected rotary screw	250	Variable displacement	125	1249	17.5
two stage lub-injected rotary screw	250	Variable displacement	140	1167	18.8
two stage lub-injected rotary screw	250	Variable displacement	200	950	23.1
two stage lub-injected rotary screw	250	Variable displacement	115	1301.152	16.8466
two stage lub-injected rotary screw	250	Variable displacement	150	1124	19.50178
two stage lub-injected rotary screw	250	Variable displacement	165	1062.103	20.63831
two stage lub-injected rotary screw	250	Variable displacement	175	1025.512	21.37468
two stage lub-injected rotary screw	300	Inlet modulation w/ unloading	100	1707	15.3
two stage lub-injected rotary screw	300	Inlet modulation w/ unloading	125	1476	17.7
two stage lub-injected rotary screw	300	Inlet modulation w/ unloading	140	1428	18.3
two stage lub-injected rotary screw	300	Inlet modulation w/ unloading	200	1143	22.9
two stage lub-injected rotary screw	300	Inlet modulation w/ unloading	115	1577.57	16.58247
two stage lub-injected rotary screw	300	Inlet modulation w/ unloading	150	1346.85	19.4231
two stage lub-injected rotary screw	300	Inlet modulation w/ unloading	165	1270.32	20.59324
two stage lub-injected rotary screw	300	Inlet modulation w/ unloading	175	1226.75	21.32464
two stage lub-injected rotary screw	300	Inlet modulation w/o unloading	100	1629	15.3
two stage lub-injected rotary screw	300	Inlet modulation w/o unloading	125	1409	17.7
two stage lub-injected rotary screw	300	Inlet modulation w/o unloading	140	1363	18.3
two stage lub-injected rotary screw	300	Inlet modulation w/o unloading	200	1091	22.9
two stage lub-injected rotary screw	300	Inlet modulation w/o unloading	115	1506.495	16.5749
two stage lub-injected rotary screw	300	Inlet modulation w/o unloading	150	1287.15	19.39945
two stage lub-injected rotary screw	300	Inlet modulation w/o unloading	165	1214.445	20.56083
two stage lub-injected rotary screw	300	Inlet modulation w/o unloading	175	1173.075	21.28594
two stage lub-injected rotary screw	300	Load/unload	100	1629	15.3
two stage lub-injected rotary screw	300	Load/unload	125	1409	17.7
two stage lub-injected rotary screw	300	Load/unload	140	1363	18.3
two stage lub-injected rotary screw	300	Load/unload	200	1091	22.9
two stage lub-injected rotary screw	300	Load/unload	150	1287.15	19.39945
two stage lub-injected rotary screw	300	Load/unload	165	1214.445	20.56083
two stage lub-injected rotary screw	300	Load/unload	175	1173.075	21.28594
two stage lub-injected rotary screw	300	Variable displacement	100	1707	15.3
two stage lub-injected rotary screw	300	Variable displacement	125	1476	17.7
two stage lub-injected rotary screw	300	Variable displacement	140	1428	18.3
two stage lub-injected rotary screw	300	Variable displacement	200	1143	22.9
two stage lub-injected rotary screw	300	Variable displacement	115	1577.57	16.58247

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	300	Variable displacement	150	1346.85	19.4231
two stage lub-injected rotary screw	300	Variable displacement	165	1270.32	20.59324
two stage lub-injected rotary screw	300	Variable displacement	175	1226.75	21.32464
two stage lub-injected rotary screw	350	Inlet modulation w/ unloading	100	1945	15.6
two stage lub-injected rotary screw	350	Inlet modulation w/ unloading	125	1760	17.3
two stage lub-injected rotary screw	350	Inlet modulation w/ unloading	140	1669	18.2
two stage lub-injected rotary screw	350	Inlet modulation w/ unloading	200	1366	22.2
two stage lub-injected rotary screw	350	Inlet modulation w/ unloading	115	1833.115	16.57834
two stage lub-injected rotary screw	350	Inlet modulation w/ unloading	150	1607.4	18.90631
two stage lub-injected rotary screw	350	Inlet modulation w/ unloading	165	1525.215	19.92506
two stage lub-injected rotary screw	350	Inlet modulation w/ unloading	175	1475.275	20.59955
two stage lub-injected rotary screw	350	Inlet modulation w/o unloading	100	1857	15.6
two stage lub-injected rotary screw	350	Inlet modulation w/o unloading	125	1680	17.3
two stage lub-injected rotary screw	350	Inlet modulation w/o unloading	140	1593	18.2
two stage lub-injected rotary screw	350	Inlet modulation w/o unloading	200	1304	22.2
two stage lub-injected rotary screw	350	Inlet modulation w/o unloading	115	1750.022	16.57693
two stage lub-injected rotary screw	350	Inlet modulation w/o unloading	150	1534.3	18.90764
two stage lub-injected rotary screw	350	Inlet modulation w/o unloading	165	1455.873	19.9262
two stage lub-injected rotary screw	350	Inlet modulation w/o unloading	175	1408.262	20.59985
two stage lub-injected rotary screw	350	Load/unload	100	1857	15.6
two stage lub-injected rotary screw	350	Load/unload	125	1680	17.3
two stage lub-injected rotary screw	350	Load/unload	140	1593	18.2
two stage lub-injected rotary screw	350	Load/unload	200	1304	22.2
two stage lub-injected rotary screw	350	Load/unload	150	1534.3	18.90764
two stage lub-injected rotary screw	350	Load/unload	165	1455.873	19.9262
two stage lub-injected rotary screw	350	Load/unload	175	1408.262	20.59985
two stage lub-injected rotary screw	350	Variable displacement	100	1945	15.6
two stage lub-injected rotary screw	350	Variable displacement	125	1760	17.3
two stage lub-injected rotary screw	350	Variable displacement	140	1669	18.2
two stage lub-injected rotary screw	350	Variable displacement	200	1366	22.2
two stage lub-injected rotary screw	350	Variable displacement	115	1833.115	16.57834
two stage lub-injected rotary screw	350	Variable displacement	150	1607.4	18.90631
two stage lub-injected rotary screw	350	Variable displacement	165	1525.215	19.92506
two stage lub-injected rotary screw	350	Variable displacement	175	1475.275	20.59955
two stage lub-injected rotary screw	400	Inlet modulation w/ unloading	100	2236	15.5
two stage lub-injected rotary screw	400	Inlet modulation w/ unloading	125	2057	16.9

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	400	Inlet modulation w/ unloading	140	1924	18.1
two stage lub-injected rotary screw	400	Inlet modulation w/ unloading	200	1543	22.5
two stage lub-injected rotary screw	400	Inlet modulation w/ unloading	115	2120.272	16.37997
two stage lub-injected rotary screw	400	Inlet modulation w/ unloading	150	1862.2	18.64998
two stage lub-injected rotary screw	400	Inlet modulation w/ unloading	165	1759.922	19.73382
two stage lub-injected rotary screw	400	Inlet modulation w/ unloading	175	1694.512	20.49557
two stage lub-injected rotary screw	400	Inlet modulation w/o unloading	100	2134	15.5
two stage lub-injected rotary screw	400	Inlet modulation w/o unloading	125	1964	16.9
two stage lub-injected rotary screw	400	Inlet modulation w/o unloading	140	1837	18.1
two stage lub-injected rotary screw	400	Inlet modulation w/o unloading	200	1473	22.5
two stage lub-injected rotary screw	400	Inlet modulation w/o unloading	115	2024.026	16.38319
two stage lub-injected rotary screw	400	Inlet modulation w/o unloading	150	1778.235	18.6477
two stage lub-injected rotary screw	400	Inlet modulation w/o unloading	165	1680.621	19.7308
two stage lub-injected rotary screw	400	Inlet modulation w/o unloading	175	1618.12	20.49292
two stage lub-injected rotary screw	400	Load/unload	100	2134	15.5
two stage lub-injected rotary screw	400	Load/unload	125	1964	16.9
two stage lub-injected rotary screw	400	Load/unload	140	1837	18.1
two stage lub-injected rotary screw	400	Load/unload	200	1473	22.5
two stage lub-injected rotary screw	400	Load/unload	150	1778.235	18.6477
two stage lub-injected rotary screw	400	Load/unload	165	1680.621	19.7308
two stage lub-injected rotary screw	400	Load/unload	175	1618.12	20.49292
two stage lub-injected rotary screw	400	Variable displacement	100	2236	15.5
two stage lub-injected rotary screw	400	Variable displacement	125	2057	16.9
two stage lub-injected rotary screw	400	Variable displacement	140	1924	18.1
two stage lub-injected rotary screw	400	Variable displacement	200	1543	22.5
two stage lub-injected rotary screw	400	Variable displacement	115	2120.272	16.37997
two stage lub-injected rotary screw	400	Variable displacement	150	1862.2	18.64998
two stage lub-injected rotary screw	400	Variable displacement	165	1759.922	19.73382
two stage lub-injected rotary screw	400	Variable displacement	175	1694.512	20.49557
two stage lub-injected rotary screw	450	Inlet modulation w/ unloading	100	2405	16.2
two stage lub-injected rotary screw	450	Inlet modulation w/ unloading	125	2245	17.3
two stage lub-injected rotary screw	450	Inlet modulation w/ unloading	140	2099	18.5
two stage lub-injected rotary screw	450	Inlet modulation w/ unloading	200	1739	22.4
two stage lub-injected rotary screw	450	Inlet modulation w/ unloading	115	2296.302	16.92722
two stage lub-injected rotary screw	450	Inlet modulation w/ unloading	150	2047.27	18.98626
two stage lub-injected rotary screw	450	Inlet modulation w/ unloading	165	1948.492	19.94876

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	450	Inlet modulation w/ unloading	175	1885.29	20.61752
two stage lub-injected rotary screw	450	Inlet modulation w/o unloading	100	2296	16.2
two stage lub-injected rotary screw	450	Inlet modulation w/o unloading	125	2143	17.3
two stage lub-injected rotary screw	450	Inlet modulation w/o unloading	140	2004	18.5
two stage lub-injected rotary screw	450	Inlet modulation w/o unloading	200	1660	22.4
two stage lub-injected rotary screw	450	Inlet modulation w/o unloading	115	2192.256	16.92321
two stage lub-injected rotary screw	450	Inlet modulation w/o unloading	150	1954.585	18.98101
two stage lub-injected rotary screw	450	Inlet modulation w/o unloading	165	1860.301	19.94301
two stage lub-injected rotary screw	450	Inlet modulation w/o unloading	175	1799.97	20.61145
two stage lub-injected rotary screw	450	Load/unload	100	2296	16.2
two stage lub-injected rotary screw	450	Load/unload	125	2143	17.3
two stage lub-injected rotary screw	450	Load/unload	140	2004	18.5
two stage lub-injected rotary screw	450	Load/unload	200	1660	22.4
two stage lub-injected rotary screw	450	Load/unload	150	1954.585	18.98101
two stage lub-injected rotary screw	450	Load/unload	165	1860.301	19.94301
two stage lub-injected rotary screw	450	Load/unload	175	1799.97	20.61145
two stage lub-injected rotary screw	450	Variable displacement	100	2405	16.2
two stage lub-injected rotary screw	450	Variable displacement	125	2245	17.3
two stage lub-injected rotary screw	450	Variable displacement	140	2099	18.5
two stage lub-injected rotary screw	450	Variable displacement	200	1739	22.4
two stage lub-injected rotary screw	450	Variable displacement	115	2296.302	16.92722
two stage lub-injected rotary screw	450	Variable displacement	150	2047.27	18.98626
two stage lub-injected rotary screw	450	Variable displacement	165	1948.492	19.94876
two stage lub-injected rotary screw	450	Variable displacement	175	1885.29	20.61752
two stage lub-injected rotary screw	500	Inlet modulation w/ unloading	100	2675	16.2
two stage lub-injected rotary screw	500	Inlet modulation w/ unloading	125	2425	17.9
two stage lub-injected rotary screw	500	Inlet modulation w/ unloading	140	2265	19.2
two stage lub-injected rotary screw	500	Inlet modulation w/ unloading	200	1873	23.2
two stage lub-injected rotary screw	500	Inlet modulation w/ unloading	115	2514.135	17.27035
two stage lub-injected rotary screw	500	Inlet modulation w/ unloading	150	2190.35	19.82332
two stage lub-injected rotary screw	500	Inlet modulation w/ unloading	165	2077.085	20.9043
two stage lub-injected rotary screw	500	Inlet modulation w/ unloading	175	2010.075	21.60118
two stage lub-injected rotary screw	500	Inlet modulation w/o unloading	100	2554	16.2
two stage lub-injected rotary screw	500	Inlet modulation w/o unloading	125	2315	17.9
two stage lub-injected rotary screw	500	Inlet modulation w/o unloading	140	2162	19.2
two stage lub-injected rotary screw	500	Inlet modulation w/o unloading	200	1788	23.2

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-injected rotary screw	500	Inlet modulation w/o unloading	115	2399.715	17.26872
two stage lub-injected rotary screw	500	Inlet modulation w/o unloading	150	2090	19.82775
two stage lub-injected rotary screw	500	Inlet modulation w/o unloading	165	1981.715	20.91118
two stage lub-injected rotary screw	500	Inlet modulation w/o unloading	175	1917.675	21.6095
two stage lub-injected rotary screw	500	Load/unload	100	2554	16.2
two stage lub-injected rotary screw	500	Load/unload	125	2315	17.9
two stage lub-injected rotary screw	500	Load/unload	140	2162	19.2
two stage lub-injected rotary screw	500	Load/unload	200	1788	23.2
two stage lub-injected rotary screw	500	Load/unload	150	2090	19.82775
two stage lub-injected rotary screw	500	Load/unload	165	1981.715	20.91118
two stage lub-injected rotary screw	500	Load/unload	175	1917.675	21.6095
two stage lub-injected rotary screw	500	Variable displacement	100	2675	16.2
two stage lub-injected rotary screw	500	Variable displacement	125	2425	17.9
two stage lub-injected rotary screw	500	Variable displacement	140	2265	19.2
two stage lub-injected rotary screw	500	Variable displacement	200	1873	23.2
two stage lub-injected rotary screw	500	Variable displacement	115	2514.135	17.27035
two stage lub-injected rotary screw	500	Variable displacement	150	2190.35	19.82332
two stage lub-injected rotary screw	500	Variable displacement	165	2077.085	20.9043
two stage lub-injected rotary screw	500	Variable displacement	175	2010.075	21.60118
two stage lub-injected rotary screw	600	Inlet modulation w/ unloading	100	3242	16.1
two stage lub-injected rotary screw	600	Inlet modulation w/o unloading	100	3095	16.1
two stage lub-injected rotary screw	600	Load/unload	100	3095	16.1
two stage lub-injected rotary screw	600	Variable displacement	100	3242	16.1
two stage lub-free rotary screw	50	Load/unload	75	221	18.7
two stage lub-free rotary screw	50	Load/unload	100	195	21.8
two stage lub-free rotary screw	50	Load/unload	110	186	22.9
two stage lub-free rotary screw	50	Load/unload	115	182	23.5
two stage lub-free rotary screw	50	Load/unload	125	174	24.6
two stage lub-free rotary screw	50	Load/unload	135	163	26.2
two stage lub-free rotary screw	50	Load/unload	150	153	27.9
two stage lub-free rotary screw	60	Load/unload	75	274	18.2
two stage lub-free rotary screw	60	Load/unload	100	249	20.6
two stage lub-free rotary screw	60	Load/unload	110	239	21.4
two stage lub-free rotary screw	60	Load/unload	115	231	22.2
two stage lub-free rotary screw	60	Load/unload	125	220	23.3
two stage lub-free rotary screw	60	Load/unload	135	208	24.7

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-free rotary screw	60	Load/unload	150	194	26.4
two stage lub-free rotary screw	75	Load/unload	75	368	16.9
two stage lub-free rotary screw	75	Load/unload	100	331	19.4
two stage lub-free rotary screw	75	Load/unload	110	316	20.3
two stage lub-free rotary screw	75	Load/unload	115	308	20.8
two stage lub-free rotary screw	75	Load/unload	125	291	22
two stage lub-free rotary screw	75	Load/unload	135	276	23.2
two stage lub-free rotary screw	75	Load/unload	150	259	24.8
two stage lub-free rotary screw	100	Load/unload	75	523	15.9
two stage lub-free rotary screw	100	Load/unload	100	464	18.4
two stage lub-free rotary screw	100	Load/unload	110	443	19.3
two stage lub-free rotary screw	100	Load/unload	115	431	19.8
two stage lub-free rotary screw	100	Load/unload	125	417	20.5
two stage lub-free rotary screw	100	Load/unload	135	390	21.9
two stage lub-free rotary screw	100	Load/unload	150	384	22.2
two stage lub-free rotary screw	125	Load/unload	75	709	14.5
two stage lub-free rotary screw	125	Load/unload	100	622	17
two stage lub-free rotary screw	125	Load/unload	110	589	18
two stage lub-free rotary screw	125	Load/unload	115	573	18.5
two stage lub-free rotary screw	125	Load/unload	125	548	19.3
two stage lub-free rotary screw	125	Load/unload	135	522	20.3
two stage lub-free rotary screw	125	Load/unload	150	482	22
two stage lub-free rotary screw	150	Load/unload	75	841	14.6
two stage lub-free rotary screw	150	Load/unload	100	749	16.9
two stage lub-free rotary screw	150	Load/unload	110	710	17.8
two stage lub-free rotary screw	150	Load/unload	115	689	18.3
two stage lub-free rotary screw	150	Load/unload	125	657	19.2
two stage lub-free rotary screw	150	Load/unload	135	627	20.1
two stage lub-free rotary screw	150	Load/unload	150	586	21.6
two stage lub-free rotary screw	200	Load/unload	75	1115	14.5
two stage lub-free rotary screw	200	Load/unload	100	996	16.7
two stage lub-free rotary screw	200	Load/unload	110	949	17.5
two stage lub-free rotary screw	200	Load/unload	115	924	18
two stage lub-free rotary screw	200	Load/unload	125	882	18.9
two stage lub-free rotary screw	200	Load/unload	135	844	19.7
two stage lub-free rotary screw	200	Load/unload	150	803	20.7

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-free rotary screw	250	Load/unload	75	1434	14.2
two stage lub-free rotary screw	250	Load/unload	100	1303	16.1
two stage lub-free rotary screw	250	Load/unload	110	1234	17
two stage lub-free rotary screw	250	Load/unload	115	1206	17.3
two stage lub-free rotary screw	250	Load/unload	125	1151	18.2
two stage lub-free rotary screw	250	Load/unload	135	1099	19
two stage lub-free rotary screw	250	Load/unload	150	1037	20.2
two stage lub-free rotary screw	300	Load/unload	75	1693	14.3
two stage lub-free rotary screw	300	Load/unload	100	1541	16.2
two stage lub-free rotary screw	300	Load/unload	110	1473	17
two stage lub-free rotary screw	300	Load/unload	115	1440	17.3
two stage lub-free rotary screw	300	Load/unload	125	1380	18.1
two stage lub-free rotary screw	300	Load/unload	135	1328	18.8
two stage lub-free rotary screw	300	Load/unload	150	1256	19.9
two stage lub-free rotary screw	350	Load/unload	75	1907	14.8
two stage lub-free rotary screw	350	Load/unload	100	1752	16.6
two stage lub-free rotary screw	350	Load/unload	110	2363	12.3
two stage lub-free rotary screw	350	Load/unload	115	1633	17.8
two stage lub-free rotary screw	350	Load/unload	125	1567	18.5
two stage lub-free rotary screw	350	Load/unload	135	1503	19.3
two stage lub-free rotary screw	400	Load/unload	75	2350	13.7
two stage lub-free rotary screw	400	Load/unload	100	2126	15.6
two stage lub-free rotary screw	400	Load/unload	110	2027	16.4
two stage lub-free rotary screw	400	Load/unload	115	1975	16.8
two stage lub-free rotary screw	400	Load/unload	125	1877	17.7
two stage lub-free rotary screw	400	Load/unload	135	1793	18.5
two stage lub-free rotary screw	400	Load/unload	150	1683	19.7
two stage lub-free rotary screw	450	Load/unload	75	2640	13.7
two stage lub-free rotary screw	450	Load/unload	100	2382	15.6
two stage lub-free rotary screw	450	Load/unload	110	2264	16.4
two stage lub-free rotary screw	450	Load/unload	115	2211	16.8
two stage lub-free rotary screw	450	Load/unload	125	2108	17.6
two stage lub-free rotary screw	450	Load/unload	135	2013	18.4
two stage lub-free rotary screw	450	Load/unload	150	1882	19.7
two stage lub-free rotary screw	500	Load/unload	75	2847	14.1
two stage lub-free rotary screw	500	Load/unload	100	2578	16.1

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage lub-free rotary screw	500	Load/unload	110	2460	16.8
two stage lub-free rotary screw	500	Load/unload	115	2400	17.3
two stage lub-free rotary screw	500	Load/unload	125	2318	17.9
two stage lub-free rotary screw	500	Load/unload	135	2221	18.7
two stage lub-free rotary screw	500	Load/unload	150	2080	19.9
single stage recip	5	Load/unload	30	36	10.9
single stage recip	5	Load/unload	40	32	12.9
single stage recip	5	Load/unload	50	30	14.6
single stage recip	5	Load/unload	60	27	16.1
single stage recip	5	Load/unload	70	25	17.7
single stage recip	5	Load/unload	80	23	19.3
single stage recip	5	Load/unload	90	22	21
single stage recip	5	Load/unload	100	20	22.6
single stage recip	5	Load/unload	110	19	24.1
single stage recip	5	Load/unload	120	18	25.7
single stage recip	5	Load/unload	125	17	26.4
single stage recip	7.5	Load/unload	30	54	10.7
single stage recip	7.5	Load/unload	40	48	12.7
single stage recip	7.5	Load/unload	50	44	14.3
single stage recip	7.5	Load/unload	60	41	15.8
single stage recip	7.5	Load/unload	70	38	17.4
single stage recip	7.5	Load/unload	80	35	18.9
single stage recip	7.5	Load/unload	90	33	20.6
single stage recip	7.5	Load/unload	100	31	22.2
single stage recip	7.5	Load/unload	110	29	23.7
single stage recip	7.5	Load/unload	120	27	25.2
single stage recip	7.5	Load/unload	125	26	25.9
single stage recip	10	Load/unload	30	72	10.6
single stage recip	10	Load/unload	40	65	12.6
single stage recip	10	Load/unload	50	59	14.1
single stage recip	10	Load/unload	60	55	15.6
single stage recip	10	Load/unload	70	50	17.2
single stage recip	10	Load/unload	80	47	18.7
single stage recip	10	Load/unload	90	43	20.4
single stage recip	10	Load/unload	100	41	22
single stage recip	10	Load/unload	110	38	23.4

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage recip	10	Load/unload	120	36	24.9
single stage recip	10	Load/unload	125	35	25.6
single stage recip	15	Load/unload	30	109	10.6
single stage recip	15	Load/unload	40	97	12.6
single stage recip	15	Load/unload	50	89	14.1
single stage recip	15	Load/unload	60	82	15.6
single stage recip	15	Load/unload	70	76	17.2
single stage recip	15	Load/unload	80	70	18.7
single stage recip	15	Load/unload	90	65	20.4
single stage recip	15	Load/unload	100	61	22
single stage recip	15	Load/unload	110	57	23.4
single stage recip	15	Load/unload	120	54	24.9
single stage recip	15	Load/unload	125	52	25.6
single stage recip	20	Load/unload	30	149	10.1
single stage recip	20	Load/unload	40	133	11.9
single stage recip	20	Load/unload	50	122	13.4
single stage recip	20	Load/unload	60	113	14.8
single stage recip	20	Load/unload	70	104	16.3
single stage recip	20	Load/unload	80	96	17.8
single stage recip	20	Load/unload	90	89	19.3
single stage recip	20	Load/unload	100	84	20.8
single stage recip	20	Load/unload	110	79	22.3
single stage recip	20	Load/unload	120	74	23.7
single stage recip	20	Load/unload	125	72	24.3
single stage recip	25	Load/unload	30	187	10
single stage recip	25	Load/unload	40	166	11.8
single stage recip	25	Load/unload	50	152	13.3
single stage recip	25	Load/unload	60	141	14.7
single stage recip	25	Load/unload	70	130	16.2
single stage recip	25	Load/unload	80	121	17.6
single stage recip	25	Load/unload	90	112	19.2
single stage recip	25	Load/unload	100	105	20.7
single stage recip	25	Load/unload	110	98	22.1
single stage recip	25	Load/unload	120	92	23.5
single stage recip	25	Load/unload	125	90	24.1
single stage recip	30	Load/unload	30	224	9.9

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage recip	30	Load/unload	40	199	11.7
single stage recip	30	Load/unload	50	183	13.2
single stage recip	30	Load/unload	60	169	14.6
single stage recip	30	Load/unload	70	156	16.1
single stage recip	30	Load/unload	80	145	17.5
single stage recip	30	Load/unload	90	134	19
single stage recip	30	Load/unload	100	126	20.5
single stage recip	30	Load/unload	110	118	21.9
single stage recip	30	Load/unload	120	111	23.3
single stage recip	30	Load/unload	125	108	23.9
single stage recip	40	Load/unload	30	309	9.7
single stage recip	40	Load/unload	40	276	11.4
single stage recip	40	Load/unload	50	253	12.8
single stage recip	40	Load/unload	60	233	14.2
single stage recip	40	Load/unload	70	216	15.5
single stage recip	40	Load/unload	80	201	16.9
single stage recip	40	Load/unload	90	189	18.1
single stage recip	40	Load/unload	100	179	19.4
single stage recip	40	Load/unload	110	169	20.6
single stage recip	40	Load/unload	120	159	21.8
single stage recip	40	Load/unload	125	156	22.3
single stage recip	50	Load/unload	30	386	9.5
single stage recip	50	Load/unload	40	344	11.2
single stage recip	50	Load/unload	50	316	12.6
single stage recip	50	Load/unload	60	291	14
single stage recip	50	Load/unload	70	270	15.3
single stage recip	50	Load/unload	80	252	16.6
single stage recip	50	Load/unload	90	237	17.8
single stage recip	50	Load/unload	100	224	19
single stage recip	50	Load/unload	110	211	20.3
single stage recip	50	Load/unload	120	199	21.5
single stage recip	50	Load/unload	125	194	22
single stage recip	60	Load/unload	30	516	8.5
single stage recip	60	Load/unload	40	453	10.3
single stage recip	60	Load/unload	50	409	11.7
single stage recip	60	Load/unload	60	366	13.3

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage recip	60	Load/unload	70	335	14.8
single stage recip	60	Load/unload	80	310	16.2
single stage recip	60	Load/unload	90	288	17.6
single stage recip	60	Load/unload	100	272	18.9
single stage recip	60	Load/unload	110	254	20.2
single stage recip	60	Load/unload	120	239	21.5
single stage recip	60	Load/unload	125	232	22
single stage recip	75	Load/unload	30	645	8.5
single stage recip	75	Load/unload	40	566	10.3
single stage recip	75	Load/unload	50	511	11.7
single stage recip	75	Load/unload	60	458	13.3
single stage recip	75	Load/unload	70	419	14.8
single stage recip	75	Load/unload	80	387	16.2
single stage recip	75	Load/unload	90	360	17.6
single stage recip	75	Load/unload	100	339	18.9
single stage recip	75	Load/unload	110	318	20.2
single stage recip	75	Load/unload	120	298	21.5
single stage recip	75	Load/unload	125	291	22
single stage recip	100	Load/unload	30	910	8.1
single stage recip	100	Load/unload	40	801	9.7
single stage recip	100	Load/unload	50	722	11
single stage recip	100	Load/unload	60	662	12.3
single stage recip	125	Load/unload	30	1144	8
single stage recip	125	Load/unload	40	1007	9.5
single stage recip	125	Load/unload	50	908	10.9
single stage recip	150	Load/unload	30	1344	8.1
single stage recip	150	Load/unload	40	1183	9.7
single stage recip	150	Load/unload	50	1066	11.1
single stage recip	200	Load/unload	30	1727	8.3
single stage recip	200	Load/unload	40	1531	9.8
single stage recip	200	Load/unload	50	1387	11.2
single stage recip	200	Load/unload	60	1277	12.4
single stage recip	250	Load/unload	30	2158	8.3
single stage recip	250	Load/unload	40	1914	9.9
single stage recip	250	Load/unload	50	1734	11.3
single stage recip	250	Load/unload	60	1597	12.5

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
single stage recip	300	Load/unload	30	2583	8.3
single stage recip	300	Load/unload	40	2287	9.9
single stage recip	300	Load/unload	50	2072	11.3
single stage recip	300	Load/unload	60	1905	12.5
single stage recip	350	Load/unload	30	3013	8.3
single stage recip	350	Load/unload	40	2668	9.8
single stage recip	350	Load/unload	50	2418	11.2
single stage recip	350	Load/unload	60	2223	12.4
two stage recip	5	Load/unload	80	27	17.1
two stage recip	5	Load/unload	100	25	18.6
two stage recip	5	Load/unload	110	24	19.5
two stage recip	5	Load/unload	125	23	20.2
two stage recip	5	Load/unload	135	22	20.8
two stage recip	5	Load/unload	150	21	21.6
two stage recip	7.5	Load/unload	80	40	16.8
two stage recip	7.5	Load/unload	100	37	18.3
two stage recip	7.5	Load/unload	110	35	19.2
two stage recip	7.5	Load/unload	125	34	19.9
two stage recip	7.5	Load/unload	135	33	20.4
two stage recip	7.5	Load/unload	150	32	21.2
two stage recip	10	Load/unload	80	54	16.6
two stage recip	10	Load/unload	100	49	18.1
two stage recip	10	Load/unload	110	47	19
two stage recip	10	Load/unload	125	46	19.7
two stage recip	10	Load/unload	135	44	20.2
two stage recip	10	Load/unload	150	43	21
two stage recip	15	Load/unload	80	81	16.6
two stage recip	15	Load/unload	100	74	18.1
two stage recip	15	Load/unload	110	71	19
two stage recip	15	Load/unload	125	68	19.7
two stage recip	15	Load/unload	135	66	20.2
two stage recip	15	Load/unload	150	64	21
two stage recip	20	Load/unload	80	111	15.8
two stage recip	20	Load/unload	100	102	17.2
two stage recip	20	Load/unload	110	97	18
two stage recip	20	Load/unload	125	94	18.7

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage recip	20	Load/unload	135	91	19.2
two stage recip	20	Load/unload	150	88	19.9
two stage recip	25	Load/unload	80	139	15.6
two stage recip	25	Load/unload	100	127	17
two stage recip	25	Load/unload	110	122	17.9
two stage recip	25	Load/unload	125	117	18.5
two stage recip	25	Load/unload	135	114	19
two stage recip	25	Load/unload	150	110	19.8
two stage recip	30	Load/unload	80	168	15.3
two stage recip	30	Load/unload	100	154	16.8
two stage recip	30	Load/unload	110	148	17.5
two stage recip	30	Load/unload	125	141	18.4
two stage recip	30	Load/unload	135	136	18.9
two stage recip	30	Load/unload	150	132	19.6
two stage recip	40	Load/unload	80	225	15.5
two stage recip	40	Load/unload	100	205	17
two stage recip	40	Load/unload	110	197	17.6
two stage recip	40	Load/unload	125	188	18.5
two stage recip	40	Load/unload	135	182	19.1
two stage recip	40	Load/unload	150	176	19.8
two stage recip	50	Load/unload	80	281	15.2
two stage recip	50	Load/unload	100	256	16.7
two stage recip	50	Load/unload	110	246	17.3
two stage recip	50	Load/unload	125	234	18.2
two stage recip	50	Load/unload	135	227	18.8
two stage recip	50	Load/unload	150	220	19.4
two stage recip	60	Load/unload	80	337	15.2
two stage recip	60	Load/unload	100	307	16.7
two stage recip	60	Load/unload	110	296	17.3
two stage recip	60	Load/unload	125	281	18.2
two stage recip	60	Load/unload	135	273	18.8
two stage recip	60	Load/unload	150	264	19.4
two stage recip	75	Load/unload	80	463	13.8
two stage recip	75	Load/unload	100	417	15.4
two stage recip	75	Load/unload	110	398	16.1
two stage recip	75	Load/unload	115	390	16.4

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage recip	75	Load/unload	125	375	17.1
two stage recip	75	Load/unload	130	366	17.5
two stage recip	75	Load/unload	140	355	18.1
two stage recip	75	Load/unload	150	348	18.4
two stage recip	75	Multi-step unloading	80	463	13.8
two stage recip	75	Multi-step unloading	100	417	15.4
two stage recip	75	Multi-step unloading	110	398	16.1
two stage recip	75	Multi-step unloading	115	390	16.4
two stage recip	75	Multi-step unloading	125	375	17.1
two stage recip	75	Multi-step unloading	130	366	17.5
two stage recip	75	Multi-step unloading	140	355	18.1
two stage recip	75	Multi-step unloading	150	348	18.4
two stage recip	100	Load/unload	80	597	14.3
two stage recip	100	Load/unload	100	544	15.7
two stage recip	100	Load/unload	110	522	16.4
two stage recip	100	Load/unload	115	515	16.6
two stage recip	100	Load/unload	125	498	17.2
two stage recip	100	Load/unload	130	488	17.5
two stage recip	100	Load/unload	140	475	18
two stage recip	100	Load/unload	150	463	18.5
two stage recip	100	Multi-step unloading	80	597	14.3
two stage recip	100	Multi-step unloading	100	544	15.7
two stage recip	100	Multi-step unloading	110	522	16.4
two stage recip	100	Multi-step unloading	115	515	16.6
two stage recip	100	Multi-step unloading	125	498	17.2
two stage recip	100	Multi-step unloading	130	488	17.5
two stage recip	100	Multi-step unloading	140	475	18
two stage recip	100	Multi-step unloading	150	463	18.5
two stage recip	125	Load/unload	80	786	13.5
two stage recip	125	Load/unload	100	706	15
two stage recip	125	Load/unload	110	673	15.7
two stage recip	125	Load/unload	115	660	16.1
two stage recip	125	Load/unload	125	634	16.7
two stage recip	125	Load/unload	130	619	17.1
two stage recip	125	Load/unload	140	599	17.7
two stage recip	125	Load/unload	150	581	18.2

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage recip	125	Multi-step unloading	80	786	13.5
two stage recip	125	Multi-step unloading	100	706	15
two stage recip	125	Multi-step unloading	110	673	15.7
two stage recip	125	Multi-step unloading	115	660	16.1
two stage recip	125	Multi-step unloading	125	634	16.7
two stage recip	125	Multi-step unloading	130	619	17.1
two stage recip	125	Multi-step unloading	140	599	17.7
two stage recip	125	Multi-step unloading	150	581	18.2
two stage recip	150	Load/unload	80	949	13.3
two stage recip	150	Load/unload	100	847	14.9
two stage recip	150	Load/unload	110	808	15.6
two stage recip	150	Load/unload	115	791	16
two stage recip	150	Load/unload	125	761	16.6
two stage recip	150	Load/unload	130	739	17.1
two stage recip	150	Load/unload	140	716	17.6
two stage recip	150	Load/unload	150	694	18.2
two stage recip	150	Multi-step unloading	80	949	13.3
two stage recip	150	Multi-step unloading	100	847	14.9
two stage recip	150	Multi-step unloading	110	808	15.6
two stage recip	150	Multi-step unloading	115	791	16
two stage recip	150	Multi-step unloading	125	761	16.6
two stage recip	150	Multi-step unloading	130	739	17.1
two stage recip	150	Multi-step unloading	140	716	17.6
two stage recip	150	Multi-step unloading	150	694	18.2
two stage recip	200	Load/unload	80	1180	14.1
two stage recip	200	Load/unload	100	1071	15.5
two stage recip	200	Load/unload	110	1029	16.2
two stage recip	200	Load/unload	115	1010	16.5
two stage recip	200	Load/unload	125	972	17.1
two stage recip	200	Load/unload	130	955	17.4
two stage recip	200	Load/unload	140	925	18
two stage recip	200	Load/unload	150	897	18.6
two stage recip	200	Multi-step unloading	80	1180	14.1
two stage recip	200	Multi-step unloading	100	1071	15.5
two stage recip	200	Multi-step unloading	110	1029	16.2
two stage recip	200	Multi-step unloading	115	1010	16.5

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage recip	200	Multi-step unloading	125	972	17.1
two stage recip	200	Multi-step unloading	130	955	17.4
two stage recip	200	Multi-step unloading	140	925	18
two stage recip	200	Multi-step unloading	150	897	18.6
two stage recip	250	Load/unload	80	1584	13.2
two stage recip	250	Load/unload	100	1440	14.5
two stage recip	250	Load/unload	110	1383	15.1
two stage recip	250	Load/unload	115	1357	15.4
two stage recip	250	Load/unload	125	1309	16
two stage recip	250	Multi-step unloading	80	1584	13.2
two stage recip	250	Multi-step unloading	100	1440	14.5
two stage recip	250	Multi-step unloading	110	1383	15.1
two stage recip	250	Multi-step unloading	115	1357	15.4
two stage recip	250	Multi-step unloading	125	1309	16
two stage recip	300	Load/unload	80	1965	12.7
two stage recip	300	Load/unload	100	1786	14
two stage recip	300	Load/unload	110	1716	14.6
two stage recip	300	Load/unload	115	1675	14.9
two stage recip	300	Load/unload	125	264	94.7
two stage recip	300	Multi-step unloading	80	1965	12.7
two stage recip	300	Multi-step unloading	100	1786	14
two stage recip	300	Multi-step unloading	110	1716	14.6
two stage recip	300	Multi-step unloading	115	1675	14.9
two stage recip	300	Multi-step unloading	125	264	94.7
two stage recip	350	Load/unload	80	2235	13
two stage recip	350	Load/unload	100	2034	14.3
two stage recip	350	Load/unload	110	1955	14.8
two stage recip	350	Load/unload	115	1906	15.2
two stage recip	350	Load/unload	125	1841	15.8
two stage recip	350	Multi-step unloading	80	2235	13
two stage recip	350	Multi-step unloading	100	2034	14.3
two stage recip	350	Multi-step unloading	110	1955	14.8
two stage recip	350	Multi-step unloading	115	1906	15.2
two stage recip	350	Multi-step unloading	125	1841	15.8
two stage recip	400	Load/unload	80	2510	13.2
two stage recip	400	Load/unload	100	2293	14.5

Compressor Type	HP	Control Type	Rated Pressure (psig)	Rated Capacity (acfm)	Package Power (kW/100acfm)
two stage recip	400	Load/unload	110	2207	15
two stage recip	400	Load/unload	115	2167	15.3
two stage recip	400	Load/unload	125	2097	15.8
two stage recip	400	Multi-step unloading	80	2510	13.2
two stage recip	400	Multi-step unloading	100	2293	14.5
two stage recip	400	Multi-step unloading	110	2207	15
two stage recip	400	Multi-step unloading	115	2167	15.3
two stage recip	400	Multi-step unloading	125	2097	15.8

C.5 Linear T8 Fluorescent Generational Definition

T8 and T5 Fluorescent Lamps must meet the Color Rendering Index and Rated Lamp Life standards listed in Table 1 below:

Table 1: **Eligible Fluorescent Lamp Characteristics**

Lamp Type & Size	Ballast Type	CRI	Minimum Rated Lamp Life (3 hrs/start)
T8 – 2-ft, 3-ft, 4-ft	Programmed Start/ Programmed Rapid-start	>= 80	24,000 hours
T8 – All Sizes	Instant Start	>= 80	18,000 hours
T5 – All Sizes	Programmed Start/ Programmed Rapid-start	>= 82	20,000 hours