



A WORLD OF COMPRESSORS FOR A WORLD OF DIFFERENCE

For more than 90 years, Carlyle is a leader in development of compressors for all sizes and types of refrigeration applications. Our current product lines include open drive and semi-hermetic reciprocating and screw compressors.

Today, with worldwide concern about the possible effects of chlorofluorocarbons (CFC) on the ozone layer, we have applied our technological capabilities to the development of compressors designed to use alternative, environmentally safe refrigerants—while still meeting the need for reliable, efficient operation and low life costs.

In addition to product innovation, Carlyle means worldwide reach. With sales in 130 countries, and facilities in Brazil, China, France, India, Japan, Mexico, South Korea, and the U.S.A., we are truly a global supplier who is prepared to address your needs wherever you and customers are in the world.

Compressor Product Lines Capacity Range (MBTUH)	
Semi-Hermetic & Open Drive Screw	51—416
Semi-Hermetic Reciprocating	17.3—412
Open Drive Reciprocating	32.7—1,532
Compound Cooling 2 stage	25—170

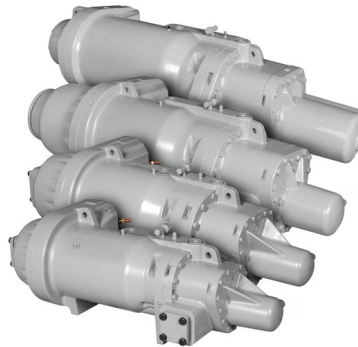
PARAGON TWIN SCREW COMPRESSORS

Innovative Design

Carlyle's Paragon Twin Screw compressor combines our vast refrigeration and cooling experience with sophisticated technology. Paragon's patented motor profile and optimized housing geometry design, result in exceptional efficiency and reliability.

Superior Serviceability

Paragon is designed with fewer parts that could be easily disassembled and reassembled by service personnel for troubleshooting and product maintenance.



Efficient Oil Management

There are multiple options for close-coupled oil separators offered to match design requirements, as well as external, easy-to-service oil filters, level sensors and heaters to reduce installation labor and eliminate the need for an accessory oil pump.

Continuous Unloading

All Paragon models utilize a continuous slide valve unloading system for capacity modulation from 25 percent to 100 percent for load matching and superior seasonal energy.

Model No.	CFM	R-134A Standard Operations				R-134A Economized Operations				R-404A Standard Operations		R-404A Economized Operations	
		+30/120 ⁰ F	+45/120 ⁰ F	-1.1/49 ⁰ C	+30/120 ⁰ F	+30/120 ⁰ F	+45/120 ⁰ F	-1.1/49 ⁰ C	+30/120 ⁰ F	-25/105 ⁰ F	-45/105 ⁰ F	-25*105 ⁰ F	-45/105 ⁰ F
		60 Hz		50 Hz		60 Hz		50 Hz		60 Hz		50 Hz	
06TS**137	137	28.2	39.3	23.2	32.5	35.2	46.1	28.8	37.9	16.4	8.3	19.2	10.7
06TS**155	155	31.5	44.1	26.0	36.5	39.6	52.3	32.8	43.3	19.0	9.9	21.2	12.2
06TS**186	186	37.3	52.2	31.0	43.6	47.4	62.5	39.2	51.9	23.6	12.9	25.0	15.3
06TT**266	266	58.4	81.3	48.1	67.2	72.7	95.6	60.1	79.3	35.6	18.8	38.9	22.4
06TT**301	301	65.6	91.3	54.3	75.8	82.6	109.0	68.4	90.5	41.0	22.0	45.7	27.0
06TT**356	356	77.1	107.4	64.2	89.6	98.5	130.2	81.6	108.2	50.2	27.9	52.8	32.4
06TU**483	483	104.4	145.0	87.1	121.2	130.5	171.9	108.8	143.6	X	X	X	X
06TU**554	554	118.1	164.3	98.5	137.3	145.7	192.1	121.3	160.3	X	X	X	X

SEMI-HERMETIC RECIPROCATING COMPRESSORS



Efficient Performance by Design

The Carlyle design begins with a 2-cylinder model at 2 horsepower (HP) and quickly increases to a 4-cylinder at 3 HP and the 6-cylinder at 6.5HP. This design shifts the pumping action from in-line to “V” and “W” piston movement to provide lower vibration, sound and internal operating temperatures. It permits 50 percent capacity reduction as small as 3 HP.

Efficient Capacity Control

The optional suction cut-off system prevents refrigerant from entering the cylinder to control the compressor capacity. This design eliminates the recompression of refrigerant, as used by competitors, reducing operating costs and assuring consistent capacity reduction in all ambient conditions.



Reliability by Design

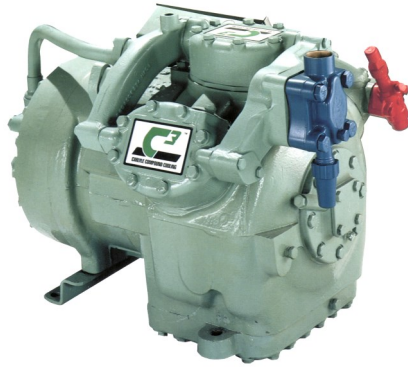
Our crankcase venting system, combined with an oversized sump, results in equalized internal start-up pressures to eliminate nuisance oil trips and assures oil return to the compressor. The positive oil lubrication system extends the full range down to the 2 HP model and combines high flow oil pump with an oil pressure regulator. This assures reliable lubrication with minimum oil circulation in the system.

Environmentally Friendly

Carlyle reciprocating compressors have proven reliable in applications with Hydrofluorocarbons (HCF)/Polyolester (POE) system requirements. Special design considerations in the valve plate, venting and lubrication areas have also improved performance when applied with R-507, R-404A, R-407C, R-134A, R-410A and POE oils.

Model No.	CFM	R-507/ R-404A				R-407C		R-134A		R-410a		
		-25/105 ⁰ F	+15/110 ⁰ F	-32/40 ⁰ C	-10/43 ⁰ C	+40/120 ⁰ F	+4/49 ⁰ C	+20/110 ⁰ F	-7/43 ⁰ C	-20/110 ⁰ F	+20/110 ⁰ F	+45/130 ⁰ F
		60 Hz Btu/Hr		50 Hz KW		60Hz Btu/Hr	50Hz KW	60HZ Btu/Hr	50Hz KW	60HZ Btu/Hr		
06D**18	18	59,300	20,450	14.48	5.00	77,3000	18.89	36,600	8.93	X	X	X
06D**820	20	73,500	22,300	17.94	5.46	N/A	N/A	40,700	9.94	X	X	X
06D**725	25	83,500	23,600	20.38	5.75	99,600	24.31	46,600	11.39	X	X	X
06D**228	28	101,400	31,200	24.77	7.61	119,300	29.13	56,100	13.7	X	X	X
06D**37	37	134,300	42,200	32.80	10.25	160,500	39.18	76,700	18.74	X	X	X
06D**41	41	143,900	46,100	35.14	11.26	N/A	N/A	N/A	N/A	X	X	X
06E**50	50	157,000	55,500	38.33	13.56	206,000	50.29	85,500	20.87	X	X	X
06E**65	65	211,300	67,300	51.60	16.43	282,400	68.95	113,500	27.72	X	X	X
06E**75	75	244,300	78,600	59.64	19.19	312,300	76.25	135,400	33.05	X	X	X
06E**99	99	337,100	102,000	82.32	24.89	412,700	100.78	180,800	44.16	X	X	X
06M**015	15	X	X	X	X	X	X	X	X	22,300	64,000	106,500
06M**018	18	X	X	X	X	X	X	X	X	27,200	77,200	127,700
06M**021	21	X	X	X	X	X	X	X	X	32,600	93,100	152,800
06M**024	24	X	X	X	X	X	X	X	X	40,200	110,000	178,200

COMPOUND COOLING 2-STAGE COMPRESSORS



Innovative Technology

Carlyle's innovative design makes it literally two compressors in one, with both high and low stages built into one compressor. Our new narrow-seat valve design makes it a more efficient, lower temperature compressor for HFC applications from the 5 HP to 30 HP range

Higher Efficiency

Compound Cooling, 2-stage compressors are dedicated to low temperature applications, operating down to -40°F (-40°C). Low compression increases capacity, reduces system HP requirement and lowers applied costs on condensers and controls.

Optimized System Operation

Compatible with HFC refrigerants and POE oil in single, multiplexed, and parallel system design configurations. Utilizing liquid sub-cooling minimizes liquid temperature fluctuation to TXV's on systems incorporating floating condensing temperatures.

Greater Reliability

Compound Cooling, 2-stage compressors are tolerant to increases in condensing temperatures with little change in capacity resulting in stable suction pressures. This eliminates stressful short cycling and therefore no need to use liquid injection into cylinder as other manufacturers have embraced.

Model No.	CFM	R-507/R-404A				R-407A			
		$-25/110^{\circ}\text{F}$	$-15/110^{\circ}\text{F}$	$-32/43^{\circ}\text{C}$	$-26/43^{\circ}\text{C}$	$-25/110^{\circ}\text{F}$	$-15/110^{\circ}\text{F}$	$-32/43^{\circ}\text{C}$	$-26/43^{\circ}\text{C}$
		60 Hz Btu/HR		50 Hz KW		60 Hz Btu/HR		50 Hz KW	
06CC**017	17	25,000	30,400	5.9	7.4	22,800	28,400	5.6	6.9
06CC**125	25	32,600	41,000	7.8	10.0	24,900	30,900	6.1	7.5
06CC**228	28	37,700	47,600	9.0	11.6	29,700	36,900	7.3	9.0
06CC**337	37	52,500	64,300	12.5	15.7	40,300	50,000	9.8	12.2
06CC**550	50	63,500	82,700	15.2	20.2	48,700	67,200	11.9	16.4
06CC**665	65	92,000	114,900	22.0	28.1	62,000	79,700	15.1	19.5
06CC**675	75	103,000	128,700	24.6	31.4	75,500	98,000	18.4	24.0
06CC**899	99	137,300	170,300	32.8	41.6	89,000	116,300	21.9	28.4

OPEN DRIVE RECIPROCATING COMPRESSORS



Money Saving Flexibility

The automatic unloaded start capability makes expensive high-torque motors unnecessary, reducing initial expense.

Dependable Performance

Positive pressure lubrication extends the life of the compressor. Compressors can be operated as a direct drive or belt drive with the ability to use a variety of motors—electrical, natural gas, and diesel. Available in both internal hydraulic and external electric control configurations.

Low-cost maintenance

The design of the crankcase casting, cylinder heads and valve plates allow for a smooth, unrestricted flow of refrigerant through the compressor, resulting in greater operating efficiencies.

Energy Efficient Operation

The design of the crankcase casting, cylinder heads and valve plates allow for a smooth, unrestricted flow of refrigerant through the compressor, resulting in greater operating efficiencies.

Environmentally Friendly

Compatible with HCFC and HFC refrigerants.

Model No.	CFM	R-507/R-404A				R-134A	
		-25/105° F	-15/110° F	-32/40° C	-10/43° C	+40/110° F	+4/43° C
		60 Hz Btu/HR		50 Hz KW		60 Hz Btu/HR	50 Hz KW
05K**12	12.4	16,000	20,000	3.9	4.9	42,500	10.5
05K**24	24.7	32,000	40,000	7.8	9.8	85,800	21.1
05G**41	41.0	47,700	62,100	11.9	15.5	138,000	34.2
05F**40	39.8	33,000	104,500	8.09	25.61	121,700	29.75
05F**60	59.6	49,700	157,000	12.18	38.47	182,200	44.54
05H**40	92.4	79,800	245,900	19.57	60.25	288,500	70.51
05H**60	138.4	120,100	36,900	29.45	90.43	432,700	105.77
05H**80	184.7	160,600	492,400	39.36	120.65	576,700	140.96
05H**120	276.8	241,300	738,500	59.17	180.96	866,200	211.73

SEMI-HERMETIC & OPEN DRIVE SCREW



Unique Design—Efficient and Durable

Carlyle's small-space screw compressor provides better performance and reliability than reciprocating compressors without sacrificing energy. The twin-screw design is tolerant to liquid flood-back and its ability to utilize liquid heat exchangers on all temperature applications, providing increased capacity and stabilized system performance.

Compact Size and Weight

The semi-hermetic and open drive screw are 15 percent smaller and lighter than comparable reciprocating compressors, yet have up to 50 percent higher capacities reducing space required for mechanical rooms and reducing applied cost. Careful engineering minimizes vibration and sound levels while maximizing reliability.

Application Flexibility

Built new from the ground up, this product meets the needs of both commercial and industrial applications ranging from high to low temperatures in single, parallel, and externally compounded system designs. Our step up gear design is ideal for variable speed capacity control systems. Our C-Flange package reduces open-drive alignment to less than an hour.

Environmental Compatibility

All Carlyle screw compressors offer full compatibility with environmentally friendly refrigerants such as R-134A, R-507, and R-404A. HFC/POE approved.

Model No.	CFM	R-507/ R-404A				R-134A	
		-25/105 F	+15/110 F	-32/40 C	-10/43 C	+40/110 F	+4/43 C
		60 Hz		50 Hz		60 Hz	50 Hz
06T**033	33	66,800	141,700	16.31	34.66	131,950	32.22
06T**039	39	81,700	173,850	19.91	42.52	160,300	39.07
06T**044	44	92,500	196,600	22.52	48.08	181,100	44.14
06T**048	48	103,050	218,850	25.08	53.35	196,900	48.00
06T**054	54	117,350	249,150	28.61	60.83	225,000	54.84
06T**065	65	147,150	312,250	35.87	76.36	282,700	68.91
06T**078	78	177,300	317,800	43.22	90.92	339,500	82.75
06T**088	88	200,100	416,100	48.78	101.76	383,200	93.41
06T**108	90	X	X	57.36	121.88	X	X



The roots of Carlyle Compressor run deep into the beginnings of the refrigeration and air conditioning industries. Originally formed by Dr. Willis H. Carrier and J. Irvine Lyle, to be the “compressor arm” of Carrier Engineering Company, its inventions and achievements in technology are reflected in most of the products and services now taken for granted by modern society. The name ‘Carlyle’ was derived from a combination of the last names of Dr. Carrier and his partner, Mr. Lyle. Foresight and strategic planning have been Carlyle’s bench marks of the last ninety years, always a gracious acknowledgement of its proud past.



The company’s engineering contributions have impacted all of the known compressor designs, including centrifugal, reciprocating (open drive, semi-hermetic, and hermetic), and screw technologies. Since Dr. Carrier invented the centrifugal refrigerating machine in 1921, the centrifugal compressor has been the focus of continual product enhancements to maintain its leadership position. The company’s major innovations and refinements are well documented and have resulted in the industry’s most advanced product offerings.

Carlyle Compressors
1440 Rock Mountain Blvd.
Stone Mountain, GA 30083
carlyle.marketing@carrier.utc.com

For additional product information, please visit www.carlylecompressor.com