For additional information, please call 1-800-Go Carlyle (1-800-462-2759)
Carlyle Compressor, Division of Carrier Corp.,
PO Box 4808, Syracuse, NY 13221, USA

A World of Compressors, for a World of Difference

For over 80 years, Carlyle has led the development of compressors for all sizes and types of refrigerant applications. Our current product lines include open drive and semi-hermetic reciprocating and screw compressors.

Today, with the worldwide concern over the possible effects of CFCs on the ozone layer, we've 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 first and life costs.

In addition to product innovation, Carlyle means worldwide reach. With sales in over 130 countries, and facilities in Brazil, China, France India, Japan, Mexico, South Korea, and the USA, we are truly a global supplier – prepared to address your needs wherever you and your 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 - 1532
Compound Cooling	24.7 - 173.2

Includes 50 Hz and 60 Hz data over a wide range of refrigerants

Semi-Hermetic & Open Drive Screw

Unique Design – Efficient & Rugged

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 floodback and it's ability to utilize liquid heat exchangers on all temperature applications provides increased capacity and stabilized system performance.

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.

Compact Size & Weight

They're 15% smaller and lighter than comparable reciprocating compressors, yet have up to 50% 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.

Model No.	CFM	R-507/R-404A				R-22				R-134A	
		-25/105°F	+15/110°F	-32/40°C	-10/43°C	-25/105°F	+15/110°F	-32/40°C	-10/43°C	+40/110°F	+4/43°C
		60Hz		50Hz		60Hz		50Hz		60Hz	50Hz
06T**033	33	66,800	141,700	16.31	34.66	51,900	120,100	12.67	29.39	131,950	32.22
06T**039	39	81,700	173,850	19.91	42.52	64,350	146,500	15.68	35.82	160,300	39.07
06T**044	44	92,500	196,600	22.52	48.08	73,350	165,500	17.88	40.49	181,100	44.14
06T**048	48	103,050	218,850	25.08	53.53	81,700	183,900	19.92	44.99	196,900	48.00
06T**054	54	117,350	249,150	28.61	60.83	93,400	209,800	22.77	51.32	225,000	54.84
06T**065	65	147,150	312,250	35.87	76.36	116,200	261,900	28.32	64.05	282,700	68.91
06T**078	78	177,300	371,800	43.22	90.92	137,750	314,500	33.58	76.92	339,500	82.75
06T**088	88	200,100	416,100	48.78	101.76	152,200	353,100	37.10	86.36	383,200	93.41
06T**108	90	X	X	57.36	121.88	X	X	45.58	102.70	X	X

Semi-Hermetic Reciprocating Compressors

Efficient Performance By Design

The Carlyle design begins with a 2-cylinder model at 2HP and quickly increases to a 4-cylinder at 3HP 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, lower sound lower internal operating temperatures and permits 50% capacity reduction on models as small as 3HP.

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 2HP model and combines a 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 both HCFC and HFC//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 and R-134a and POE oils.

Model No.	CFM	R-507/R-404A				R-22			
		+20/110°F	-25/110°F	-7/43°C	-32/43°C	+20/110°F	-25/110°F	-7/43°C	-32/43°C
		60Hz		50Hz		60Hz		50Hz	
06D**18	18	59,300	20,450	14.48	5.00	53,900	17,200	13.16	4.21
06DR820	20	73,500	22,300	17.94	5.46	63,800	20,300	15.59	4.97
06DR725	24	83,500	23,600	20.38	5.75	74,000	21,400	18.06	5.21
06DR228	28	101,400	31,200	24.77	7.61	87,200	25,500	21.28	6.23
06D**37	37	134,300	42,000	32.80	10.25	115,500	34,400	28.20	8.40
06DR41	41	143,900	46,100	35.14	11.26	135,000	38,900	32.96	9.49
06E**50	50	157,000	55,500	38.33	13.56	146,900	41,200	35.87	10.06
06E**65	65	211,300	67,300	51.60	16.43	196,500	52,200	47.98	12.76
06E**75	75	244,300	78,600	59.64	19.19	218,700	65,800	53.39	16.06
06E**99	99	337,100	102,000	82.32	24.89	292,000	82,100	71.29	20.05

Model No.	CFM	R-407C		R-134A	
		+40/120°F	+4/49°C	+20/110°F	-7/43°C
		60Hz	50Hz	60Hz	50Hz
06D**18	18	77,300	18.89	36,600	8.93
06DR820	20	NA	NA	40,700	9.94
06D**25	24	99,600	24.31	46,600	11.39
06D**28	28	119,300	29.13	56,100	13.70
06D**37	37	160,500	39.18	76,700	18.74
06E**50	50	206,000	50.29	85,500	20.87
06E**65	65	282,400	68.95	113,500	27.72
06E**75	75	312,300	76.25	135,400	33.05
06E**99	99	412,700	100.78	180,800	44.16

Compound Cooling™ Compressors

New Technology Applied

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 the most efficient low temperature compressor on the market in both HCFC and HFC applications in the 6½HP to 30HP range.

Optimizes System Operation

Compatible with HFC refrigerants and POE oil in single, multiplexed and parallel system design configurations. Utilizing liquid subcooling minimizes liquid temperature fluctuation to TXVs on systems incorporating floating condensing temperatures.

Higher Efficiency

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

Greater Reliability

Compound Cooling compressors are tolerant to increases in condensing temperatures with little change in capacity resulting in stable suction pressures. Eliminates stressful short cycling and does not need to use liquid injection into the cylinder as other manufacturers have embraced. Liquid injected directly into the compressor cylinder reduces efficiency and decreases compressor reliability.

Model No.	CFM	R-507/R-404A				R-22			
		-25/110°F	-15/110°F	-32/43°C	-26/43°C	-25/110°F	-15/110°F	-32/43°C	-26/43°C
		60Hz		50Hz		60Hz		50Hz	
06CC125	24	32,200	40,500	7.87	9.90	25,000	31,800	6.13	7.76
06CC228	28	37,200	46,900	9.07	11.45	29,900	38,000	7.33	9.28
06CC337	37	51,800	63,400	12.65	15.49	40,400	51,400	9.92	12.56
06CC550	50	62,700	81,600	15.30	19.92	56,900	76,900	13.99	18.79
06CC665	65	90,900	113,300	22.19	27.67	72,200	91,300	17.75	22.29
06CC675	75	101,800	126,900	24.84	30.98	81,500	103,900	20.03	25.37
06CC899	99	135,600	168,000	33.11	41.01	104,600	133,200	25.71	32.55

Open Drive Reciprocating Compressors

Money Saving Flexibility

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

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.

Dependable Performance

Positive pressure lubrication extends compressor life. Compressors can be operated as a direct drive or belt drive and various motors can be used – electrical, natural gas, diesel, etc. Available in both internal hydraulic, and external electric capacity control configurations.

Simple To Maintain

Designed to be completely rebuilt on-site, including cylinder wall replacement.

Environmentally Friendly

Compatible with HCFC and HFC refrigerants.

Model No.	CFM	R-507/R-404A				R-22				R-134A	
		-25/105°F	+15/110°F	-32/40°C	-10/43°C	-25/100°F	+15/110°F	-32/38°C	-10/43°C	+40/110°F	+4/43°C
		60Hz		50Hz		60Hz		50Hz		60Hz	50Hz
5F40	39.8	33,000	104,500	8.09	25.61	32,800	107,200	8.02	26.19	121,700	29.75
5F60	59.6	49,700	157,000	12.18	38.47	49,000	161,400	11.97	39.45	182,200	44.54
5H40	92.4	79,800	245,900	19.57	60.25	78,300	259,100	19.15	63.34	288,500	70.51
5H60	138.4	120,100	36,900	29.45	90.43	117,200	389,000	28.65	95.08	432,700	105.77
5H80	184.7	160,600	492,400	39.36	120.65	157,300	518,400	38.44	126.71	576,700	140.96
5H120	276.8	241,300	738,500	59.17	180.96	235,300	778,700	57.52	190.34	866,200	211.73

Carlyle: The Complete Compressor Company

The roots of Carlyle Compressor wind deep into the very 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 over the last 80 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 in reciprocating technology over the last 80+ years are well documented and have resulted in the industry's most advanced product offerings.

Carlyle™

Visit our website for compressor selection tools, bulletins, application and installation instructions.
www.carlylecompressor.com