



fil compressors

HIGH PRESSURE CO₂ RECIPROCATING COMPRESSOR



Superior High-Pressure
Performance



High Energy
Efficiency



Minimal Oil
Carryover



Sustainable
To The Environment



Lower Initial
Cost



TECHNICAL SPECIFICATIONS

Model		FIL-502C	FIL-504C	FIL-506C	FIL-508C
No. of Cylinders		2	4	6	8
Max. RPM		1750	1750	1750	1750
Bore & Stroke	Inch	3.156"x3.437"	3.156"x3.437"	3.156"x3.437"	3.156"x3.437"
	mm	80.16x87.29	80.16x87.29	80.16x87.29	80.16x87.29
Suction connection	Inch(mm)	2-1/2"(63.5)	2-1/2"(63.5)	3.0"(76.2)	3.0"(76.2)
Discharge connection	Inch(mm)	1-1/2"(38.1)	1-1/2"(38.1)	2.0"(50.8)	2.0"(50.8)
Standard steps of unloading	%	0	50/100	33/66/100	25/50/75/100
Oil Charge	Ga(Lts)	5.5(21)	7.5(29)	7.5(29)	7.5(29)

Note: All specification are subject to change without notice.

CO₂ RECIPROCATING COMPRESSOR

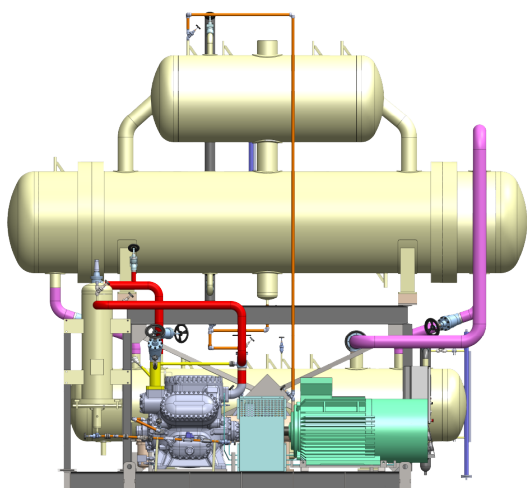
FIL 500C Series High Pressure CO₂ Reciprocating Compressor are engineered to meet the stringent demands of modern carbon dioxide industrial applications. Combining a rugged, positive-displacement piston design with proven mechanical architecture, this system delivers exceptional volumetric efficiency, high pressure ratios, and reliable 24/7 continuous operation. It delivers a superior safety margin with a rugged casing built to withstand a maximum burst pressure of 120 bar. It is constructed with an ultra-rigid, heavy-duty ductile iron frame designed to evenly absorb mechanical loads and minimize vibration. Masterfully handles demanding high-pressure subcritical gas cycles with a continuous rated working pressure reaching up to 40 bar.

CAPACITY DATA OF CO₂ CASCADE APPLICATION

MODEL	SST °C	CMH (CFM)	SDT (-)15 °C		SDT (-)10 °C		SDT (-)5 °C	
			Cooling Capacity kW (TR)	Power BkW (BHP)	Cooling Capacity kW (TR)	Power BkW (BHP)	Cooling Capacity kW (TR)	Power BkW (BHP)
FIL-502C	-50	76 (45)	87.3 (24.8)	20.7 (27.8)	80.8 (23.0)	22.9 (30.8)	74.3 (21.1)	25.6 (34.4)
	-45		111.0 (31.6)	21.1 (28.3)	103.5 (29.4)	23.8 (31.9)	95.9 (27.3)	27.1 (36.3)
	-40		138.2 (39.3)	21.0 (28.2)	129.4 (36.8)	24.2 (32.4)	120.5 (34.3)	27.9 (37.5)
	-35		174.2 (49.5)	20.2 (27.0)	163.6 (46.5)	23.9 (32.0)	153.3 (43.6)	28.1 (37.7)
	-30		213.3 (60.7)	18.5 (24.8)	201.1 (57.2)	22.7 (30.5)	189.0 (53.7)	27.6 (37.1)
FIL-504C	-50	153 (90)	171.2 (48.7)	47.1 (63.2)	158.2 (45.0)	51.8 (69.5)	145.4 (41.3)	56.7 (76.0)
	-45		217.9 (62.0)	47.9 (64.2)	202.8 (57.7)	53.5 (71.7)	187.9 (53.4)	59.4 (79.7)
	-40		271.3 (77.1)	47.6 (63.8)	253.8 (72.2)	54.2 (72.7)	236.5 (67.2)	61.1 (81.9)
	-35		342.1 (97.3)	46.1 (61.8)	321.3 (91.4)	53.6 (71.9)	300.7 (85.5)	61.6 (82.6)
	-30		419.2 (119.2)	43.3 (58.1)	394.9 (112.3)	51.6 (69.2)	371.0 (105.5)	60.6 (81.3)
FIL-506C	-50	229 (135)	256.8 (73.0)	64.9 (87.0)	237.3 (67.5)	72.6 (97.4)	218.2 (62.0)	80.6 (108.1)
	-45		326.9 (92.9)	66.0 (88.5)	304.2 (86.5)	75.0 (100.6)	281.8 (80.1)	84.4 (113.2)
	-40		407.0 (115.7)	65.6 (88.0)	380.7 (108.2)	75.9 (101.8)	354.7 (100.9)	86.8 (116.4)
	-35		513.2 (145.9)	63.6 (85.3)	481.9 (137.0)	75.1 (100.7)	451.1 (128.3)	87.5 (117.3)
	-30		628.8 (178.8)	59.7 (80.1)	592.4 (168.4)	72.3 (97.0)	556.5 (158.2)	86.0 (115.3)
FIL-508C	-50	306 (180)	367.0 (104.4)	89.0 (119.3)	339.4 (96.5)	98.2 (131.7)	312.2 (88.8)	106.5 (142.8)
	-45		466.9 (132.8)	90.8 (121.8)	434.7 (123.6)	101.9 (136.6)	402.9 (114.6)	112.4 (150.7)
	-40		580.9 (165.2)	90.2 (121.0)	543.6 (154.6)	103.4 (138.7)	506.8 (144.1)	116.1 (155.7)
	-35		732.2 (208.2)	86.8 (116.4)	687.9 (195.6)	102.0 (136.8)	644.1 (183.1)	117.0 (156.9)
	-30		896.9 (255.0)	80.3 (107.7)	845.3 (240.3)	97.5 (130.7)	794.3 (225.8)	114.8 (153.9)

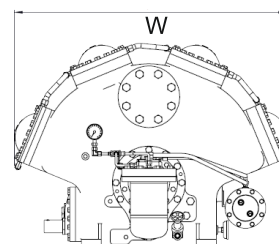
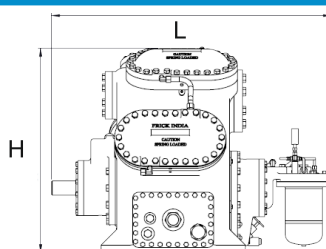
Note: For any different operating conditions & refrigerant please contact us.

CO₂ CASCADE SYSTEM EXAMPLE



Note: This drawing is only for marketing & illustration purposes.

DIMENSIONS



Model	L	W	H	Block Weight
FIL-502C	48"	29"	37"	820 Kg
FIL-504C	48"	29"	35"	1185 Kg
FIL-506C	48"	29"	37"	1350 Kg
FIL-508C	48"	29"	35"	1450 Kg

Note: Dimensions are given in Inches and weight in Kg.

- To know the dimensions of the package, contact us.
- The dimensions of the product may change without notice due to improvements to the product.



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