



CO₂





ΕN







ABC IN CO₂ INDUSTRY

Since the early 70's, ABC manufactures a wide range of CO_2 compressors: from the CO_2 recovery for breweries, to a variety of applications for gas producers. In close cooperation with engineering companies, ABC compressors are customized according to the project requirements, delivering complete units: compressor and electric cabinet on skid or bare compressors to be packaged by the engineering company responsible for the turn-key system.

CONFIGURATION

Piston compressors with up to 3 pairs of double-acting cylinders, with or without lubrication. Up to 6 stages of compression, mounted on a structural steel skid.

GASES

Air, Hydrogen, Nitrogen, Methane, Carbon dioxide, Freon, Natural Gas, Vinyl chloride, Methyl chloride, Ethylene, Propylene, Sulphur dioxide, Butadiene, Isobutene, Isobutane, Butane, Propane, Carbon monoxide, Synthesis gas, Biogas and Syngas... except for Oxygen and Acetylene.

POWER

Up to 1.200 kW

PREASSURE

Up to 150 bar

EFFICIENT DESIGN

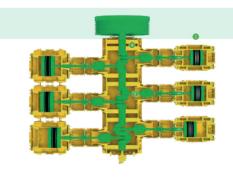
- Cylinders are horizontally opposed, with crankpins displaced by 180°, cancelling out the inertia loads.
- · Virtually without vibrations.
- Longer life of mechanical parts as they do not transmit excessive force or produce fatigue on structural parts of the compressor, 20 years machine lifetime.
- No anti-vibration pads of special foundations are required, +2kg/cm².
- Excellent adaptation to fequency converter up to 55%.
- · Double acting.
- Refrigeration / Inter and final coolers.



MODULAR DESIGN

100% INTERCHANGEABLE PARTS

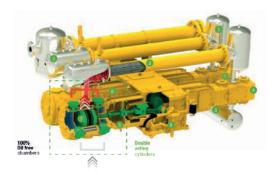
ABC CO_2 compressors are designed using interchangeable cylinders. Thanks to that, ABC compressors share the same spare parts, allowing a cost effective and easy maintenance.



OIL FREE AND CORROSION PROOF

ABC compressors are totally oil free thanks to long blocks betwen casing and cylinders: cylinder side chamber is large enough to avoid the piston rod part in contact with the mechanical elements could get in contact with the packing. An oil thrower at the rod avoids the oil to advance along the piston rod.

 CO_2 range is prepared to compress saturated gas. The gas circuit, condensates separators and heat exchangers are in stainless steel, avoiding corrosions and providing longer life to parts.



- · Stainless steel valves.
- Inter and after coolers: stainless steel bundles, dilatable, demountable.
- Stainless steel separators, dampeners as option.
- · Cylinders with thermostatic valves.
- B-type distance piece assuring completely OIL FREE compression.
- CO₂ venting for packings and distance blocks.
- · Aluminium pistons.
- · Shaft driven oil pump.

REGULATION

0-50-100% STEP REGULATION provides half of the nominal flow.

- Thanks to the all double acting cylinders.
- By using either gas or air.
- Remarkable energy consumption adjustment.
- 0-25-50-100% regulation possibility.
- Flip-flop operation option.

VARIABLE SPEED DRIVE, VSD provides continuous flow adjustment

- · Avoids the starting intensity peaks.
- · Perfect energy consumption adjustment.
- Reduces the CO₂ balloon size requirements.
- ABC compressors take full advantage of the VSD, as the rotational speed can be reduced to half.

Operation with VSD provides double benefit:

Optimizing the energy consumption when the compressor is not at its full capacity while improving the mechanical and electrical working conditions. It can be retrofitted at a later date.

COMPACT SOLUTIONS

Compressors sets specifically developed for smaller flows installations, producing up to 600 kg/h.



- Cost aware conception.
- Requires reduced footprint, suitable for being integrated in self contained packages.
- · Compact and simple to be interconnected.
- High energy efficiency.
- V-type cylinders arrangement.
- · Single acting operation.
- Three compression stages for better performance and low temperature operation.
- Either air or water cooled inter and after coolers.
- 0-100% regulation.
- Large passage surface valves.
- Gas and lubricating circuits in stainless steel.



TECHNICAL DATA

CO₂ Compressors technical data

	FLOW	MOTOR		CYLINDERS	STAGES	FRAME
	kg/h	kW	Нр	mm		
e ^{coo} 19X	170	19	25	220-120	2	ECOO - 2X2
e coo 22 X	180	22	30	220-120	2	ECOO - 2X2
C COO 30X	250	30	40	220-120	2	ECOO - 2X4
e coo 37X	300	37	50	220-120	2	ECOO - 2X4
e coo 45X	450	45	60	245-170-120	3	ECOO - 3X4
e coo 55 X	550	55	75	245-170-120	3	ECOO - 3X4
e coo 75 X	600	75	100	245-170-120	3	ECOO - 3X4
C COO 75A	800	75	100	320-160	2	ECOO HA 2
C COO 90A	1000	90	125	320-160	2	ECOO HA 2
C COO 110 A	1300	110	150	320-160	2	ECOO HA 2
C COO 132A	1400	132	180	320-160	2	ECOO HA 2
C COO 160A	1700	160	220	320-160	2	ECOO HA 2
C COO 132B	1500	132	180	320-160	2	ECOO HA 4
e coo 160B	1800	160	220	320-160	2	ECOO HA 4
CCOO 200B	2100	200	270	320-160	2	ECOO HA 4
e ^{coo} 250B	2500	250	340	320-160	2	ECOO HA 4
C COO 280B	3000	280	380	320-160	2	ECOO HA 4
e ^{coo} 250C	2900	250	340	320-160	2	ECOO HA 6
e coo 280C	3100	280	380	320-160	2	ECOO HA 6
e ^{coo} 315C	3600	315	425	320-160	2	ECOO HA 6
e ^{coo} 355C	3800	355	480	320-160	2	ECOO HA 6
e coo 400C	4000	400	545	320-160	2	ECOO HA 6
C ^{COO} 450C	5000	450	610	320-160	2	ECOO HA 6

GLOBAL SERVICE NETWORK

Ask more information about CO, COMPRESSORS to our sales department: abc@abc-compressors.com

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