

Commandair

SINGLE STAGE
RECIPROCATING AIR COMPRESSORS, 1/2 – 3 HP

▶ Sprinkler Applications



▶ Small Industrial Applications



▶ Point of Use

▶ Home Owner

▶ Do-It-Yourselfers



CHAMPION[®]

Commandair

Proven Design...

Now there is a high quality compressor for when you need dependable air power that's a real value, too. Champion's full line of compact Commandair reciprocating air compressors are built to the same exact quality standards as our larger models, but sized for smaller air requirements, such as small industrial plants, schools, small automotive centers and do-it-yourselfers.

COMPRESSOR DIMENSIONS

Model	A1, B1, C1	AV1	BV1	CV1	CW1
A Base width	6 ¹ / ₄	7 ¹ / ₁₆	7 ¹ / ₁₆	7 ¹ / ₁₆	7 ¹⁵ / ₁₆
AA Pipe size	3 ³ / ₈	3 ³ / ₈	3 ³ / ₈	3 ³ / ₈	3 ³ / ₈
AB Overall width	10 ¹ / ₈	18 ¹ / ₄	18 ¹ / ₂	18 ¹ / ₂	24 ¹ / ₂
B Base depth	3	3 ¹ / ₂	3 ¹ / ₂	3 ¹ / ₂	3 ³ / ₄
BA Flywheel to hole	1 ¹³ / ₁₆	1 ¹³ / ₁₆	1 ¹ / ₈	1 ¹ / ₈	1 ⁷ / ₈
C Overall depth	7 ¹ / ₄	8	8	8	8 ³ / ₄
D Base to shaft	3 ¹ / ₁₆	3 ¹ / ₁₆	3 ¹ / ₁₆	3 ¹ / ₁₆	3 ²⁷ / ₃₂
E Hole spacing	2 ³ / ₄	3 ⁵ / ₃₂	3 ⁵ / ₃₂	3 ⁵ / ₃₂	3 ⁵ / ₃₂
F Hole spacing	2 ¹ / ₈	2 ³ / ₄	2 ³ / ₄	2 ³ / ₄	2 ³ / ₄
H Hole dia.	1 ¹¹ / ₃₂	1 ¹¹ / ₃₂	1 ¹¹ / ₃₂	1 ¹¹ / ₃₂	1 ¹¹ / ₃₂
N Flywheel width	1 ³ / ₄	1 ³ / ₄	2 ³ / ₄	2 ³ / ₄	2 ⁵ / ₁₆
O Pump height	14 ¹ / ₂	11 ⁵ / ₈	11 ³ / ₄	11 ³ / ₄	16 ¹ / ₄
P Flywheel dia.	*10 ¹ / ₈	10 ¹ / ₈	10 ¹ / ₈	10 ¹ / ₈	12 ⁵ / ₈
V No. & Sections	1A	1A	2A	2A	2A
W Flywheel to base	1 ³ / ₈	1 ¹ / ₂	3 ³ / ₄	3 ³ / ₄	1 ¹ / ₄

*A1 Pump with pressed steel flywheel - 9" diameter

Single-Stage Electric Driven

The single-stage series of Commandair air compressor units are available from 1/2 through 3 HP, with the option of horizontal, vertical style receivers, and base mounted units. Air pressure ratings are available up to 125 PSIG. Thermal overload protected motors are standard on 1/2 through 1 HP, single phase, 115 Volt units.

- ▶ Unanated aluminum cylinders with cast-iron liners combine maximum wear of iron with cooling efficiency of an aluminum casting. Multi-finned for superior heat dissipation and longer life.
- ▶ Lightweight aluminum alloy pistons ensure proper reciprocating balance. Two compression rings and one oil-control ring are used for better oil control, less air blow-by and higher efficiency.
- ▶ High density, high silicon die-cast aluminum alloy connecting rods minimize reciprocating weight and offer exceptional bearing life. All single-stage models have integral, precision bored crank pin and piston pin bearing to properly distribute bearing loads. (Also applies to first stage of two stage models; second stage has bronze bushing on piston pin end.)
- ▶ High-quality Swedish Steel reed-type valves provide long life. Also, second stage of two-stage models feature single unit (disc valve) design.
- ▶ Tapered roller bearings on two and three-cylinder models provide longer life.
- ▶ Precision balanced flywheel has fan blades for maximum compressor cooling resulting in extended compressor life.
- ▶ Rugged ductile iron crankshaft has large diameter throws for minimum bearing loads, and counterweights to minimize vibration.
- ▶ Rugged cast iron crankcase designed to rigidly support the crankshaft and bearings. Convenient oil level sight gauge on 2 and 3 cylinder models, and large oil drain.
- ▶ Removable cartridge-type intake filter features a 10-micron rated element.

Specifications

SINGLE STAGE – HORIZONTAL UNITS (ELECTRIC) – MODEL MATRIX CESCAA

HP	Tank Cap	Unit Model	Compressor Pump Model	RPM	90 PSIG		Bores IN. DIA.	Stroke IN.	No. Cyc.	Overall Dimensions L x W x H IN.	Bolt Down L x W IN.	Net WT Approx. LBS.
					CFM Displ	CFM* Del'y						
1/2	30	30A5H	A1	1020	2.8	1.8	1 3/4	2	1	42 x 19 x 35 3/4	20 x 11	122
3/4	30	30B7H	B1	725	3.7	2.4	2 1/2	2	1	42 x 19 x 35 3/4	20 x 11	137
1	30	30C10H	C1	800	5.0	3.1	2 3/4	2	1	42 x 19 x 35 3/4	20 x 11	166
1	30	30AV10H	AV1	935	5.1	2.9	1 3/4	2	2	42 x 21 x 34 1/4	20 x 11	172
1 1/2	30	30BV15H	BV1	780	8.0	5.3	2 1/2	2	2	42 x 21 x 34 1/4	20 x 11	180
2	30	30CV20H	CV1	775	9.7	6.7	2 3/4	2	2	42 x 21 x 34 1/4	20 x 11	188
2	30	30CW20H	CW1	580	10.9	7.2	2 3/4	2	3	42 x 21 x 37 3/4	20 x 11	203
2	60	60CW20H	CW1	580	10.9	7.2	2 3/4	2	3	51 x 22 x 42 3/4	28 x 18	294
3	30	30CV30HS	CV1	940	11.8	7.6	2 3/4	2	2	42 x 21 x 33 1/4	20 x 11	240
3	30	30CW30HS	CW1	895	16.8	10.5	2 3/4	2	3	42 x 21 x 37 3/4	20 x 11	290

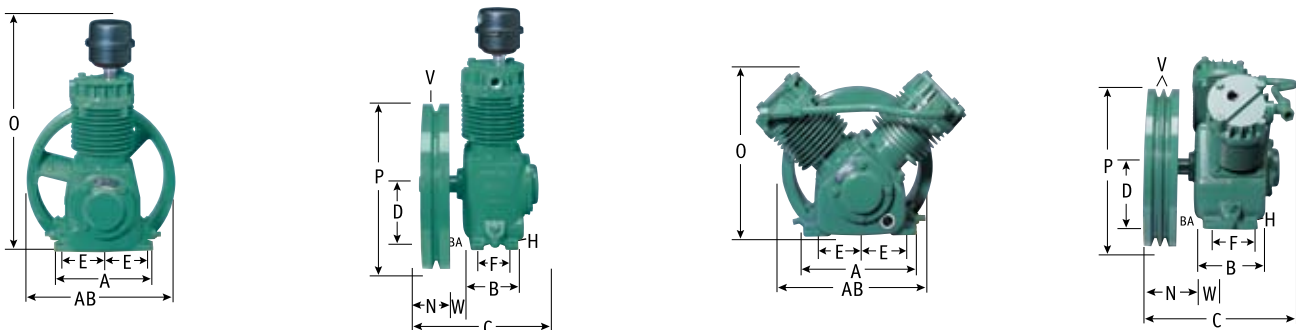
SINGLE STAGE – VERTICAL UNITS (ELECTRIC) – MODEL MATRIX CESCAA

HP	Tank Cap	Unit Model	Compressor Pump Model	RPM	90 PSIG		Bores IN. DIA.	Stroke IN.	No. Cyc.	Overall Dimensions L x W x H IN.	Bolt Down L x W IN.	Net WT Approx. LBS.
					CFM Displ	CFM* Del'y						
1/2	30	30A5V	A1	1020	2.8	1.8	1 3/4	2	1	24 x 22 x 58 2 3/4	4 on 18" BC	136
3/4	30	30B7V	B1	725	3.7	2.4	2 1/2	2	1	24 x 22 x 58 2 3/4	4 on 18" BC	148
1	30	30C10V	C1	800	5.0	3.1	2 3/4	2	1	24 x 22 x 58 2 3/4	4 on 18" BC	152
1	30	30AV10V	AV1	935	5.1	2.9	1 3/4	2	2	30 x 22 x 57 1/4	4 on 18" BC	158
1 1/2	30	30BV15V	BV1	780	8.0	5.3	2 1/2	2	2	30 x 22 x 57 1/4	4 on 18" BC	182
2	30	30CV20V	CV1	775	9.7	6.7	2 3/4	2	2	30 x 22 x 57 1/4	4 on 18" BC	190
3	30	30CV30VS	CV1	940	11.8	7.6	2 3/4	2	2	30 x 22 x 57 1/4	4 on 18" BC	245
3	30	30CW20VS	CW1	895	16.8	10.5	2 3/4	2	3	30 x 24 x 61 2 3/4	4 on 18" BC	295

SINGLE STAGE – BASE-MOUNTED UNITS (ELECTRIC) – MODEL MATRIX CEBCAA

HP	Unit Model	Compressor Pump Model	RPM	90 PSIG		Bores IN. DIA.	Stroke IN.	No. Cyc.	Overall Dimensions L x W x H IN.	Bolt Down L x W IN.	Net WT Approx. LBS.
				CFM Displ	CFM* Del'y						
1/2	BMA5	A1	1020	2.8	1.8	1 3/4	2	1	18 1/2 x 10 1/4 x 18	17 x 7 1/4	56
3/4	BMB7	B1	725	3.7	2.4	2 1/2	2	1	18 1/2 x 10 1/4 x 18 1/2	17 x 7 1/4	63
1	BMC10	C1	800	5.0	3.1	2 3/4	2	1	18 1/2 x 10 1/4 x 18 1/2	17 x 7 1/4	76
1	BMAV10	AV1	935	5.1	2.9	1 3/4	2	2	20 1/2 x 10 1/4 x 16 1/4	17 x 7 1/4	79
1 1/2	BMBV15	BV1	780	8.0	5.3	2 1/2	2	2	20 1/2 x 10 1/4 x 17	17 x 7 1/4	82
2	BMCV20	CV1	775	9.7	6.7	2 3/4	2	2	20 1/2 x 10 1/4 x 17	17 x 7 1/4	86
2	BMCW30	CW1	580	10.9	7.2	2 3/4	2	3	21 1/2 x 13 x 9 1/2	25 1/2 x 10 1/4	93

*Units tested in accordance with CAGI/PNEUROP acceptance test code PN2CPTC2 or PN2CPTC3



Specifications

SPRINKLER SYSTEMS: 40 PSIG SYSTEM (30 MINUTES MAXIMUM PUMPING TIME) – MODEL MATRIX CEWCAA

HP	Max Volume Gallons	Unit Model	Comp Pump Model	RPM	CFM Displ	CFM/FA* Del'y	Dimensions in Inches								I-NPT
							A	B	C	D	E	F	G	H	
1/2	265	BMB-5SS	B1	845	4.3	3.2	18½	8¾	16¾	½	15	NA	2½	12¼	½
¾	350	BMC-7SS	C1	845	5.3	4.2	18½	8¾	16¾	½	15	NA	2½	12¼	½
1	600	BMBV-10SS	BV1	965	9.9	7.3	27	13¾	14½	½	19½	10¼	2½	7¾	½
1½	745	BMCV-15SS	CV1	960	12.0	9.0	27	13¾	14½	½	19½	10¼	2½	7¾	½
2	1050	BMCW-20SS	CW1	900	16.9	12.7	29½	13¾	18¾	½	19½	10¼	2½	9½	½
3	1625	BS-3SS	S-20	655	25.1	19.7	29¼	16¼	23	½	26	14¼	4	6½	¾
5	2180	BS-5SS	S-20	980	37.5	26.4	29¼	16¼	23	½	26	14¼	4	6½	¾

*Units tested in accordance with CAGI/PNEUROP acceptance test code PN2CPTC2 or PN2CPTC3



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