



**Quality Products
Engineered to Last**

VRC-2

GAS COMPRESSOR SPECIFICATIONS



ARROW™

ENGINE COMPANY

A Tradition of Excellence

Since 1955

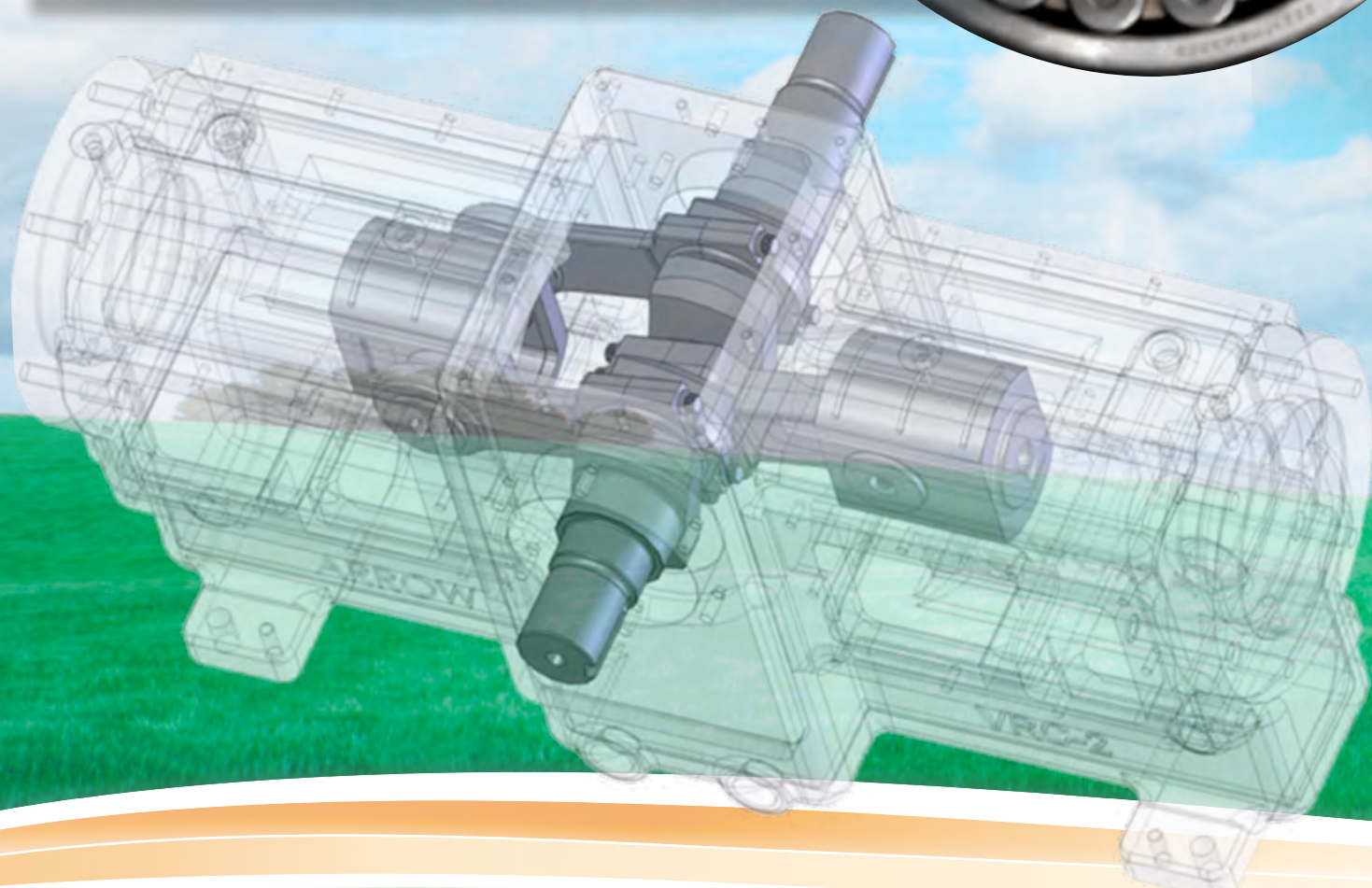
VRC-2 GAS COMPRESSOR

Double-Acting Cylinder Data

Bore In	Flange Size In/Rating	CE CLR. %	HE CLR. %	Valve Type (Hoerbiger)	Lift Area Suct/Disch Sq/In	Valve Lift Suct/Disch In.	Added HE Clearance Max %	MAWP PSIG	RDP PSIG
2.5	1.5"/900#	42	26	42 CRO	0.76/0.65	.055/.047	44 W/HD SPACERS	1500	1350
3.0	1.5"/900#	28	20	42 CRO	0.76/0.65	.055/.047	40 W/HD SPACERS	1500	1350
3.5	2"/600#	34	28	60 CRO	1.84/1.23	.071/.047	56 W/VVCP	1000	900
4.0	2"/600#	26	22	60 CRO	1.84/1.23	.071/.047	42 W/VVCP	1000	900
4.5	2.5"/600#	26	23	70 CRO	2.39/1.60	.071/.047	52 W/VVCP	750	675
5.0	2.5"/600#	22	19	70 CRO	2.39/1.60	.071/.047	42 W/VVCP	750	675
5.5	3"/300#	26	24	88 CRO	3.41/2.64	.071/.055	52 W/VVCP	500	450
6.0	3"/300#	22	21	88 CRO	3.41/2.64	.071/.055	44 W/VVCP	500	450
6.5	4"/300#	26	25	105 CRO	3.98/3.98	.055/.055	59 W/VVCP	400	360
7.0	4"/300#	23	22	105 CRO	3.98/3.98	.071/.055	52 W/VVCP	400	360
7.5	4"/300#	21	20	105 CRO	5.10/3.98	.071/.055	59 W/VVCP	200	180
8.0	4"/300#	19	18	105 CRO	5.10/3.98	.071/.055	52 W/VVCP	200	180

Steeple Cylinder Data

Bore SACE x SAHE In	Flange Size In/Rating	CE CLR %	HE CLR %	Valve Type (Hoerbiger)	Lift Area Suct/Disch Sq/In	Valve Lift Suct/Disch In.	Added HE Clearance Max %	MAWP CE HE PSIG	RDP CE HE PSIG
3.5 X 2.25	2.0"/600# X 1.5"/1500#	34	42	60 CRO 42 CRO	1.84/1.23 0.76/0.65	.071/.047 .055/.047	26 W/HD SPACERS	1000 2250	900 2025
4.0 X 2.25	2.0"/600# X 1.5"/1500#	26	42	60 CRO 42 CRO	1.84/1.23 0.76/0.65	.071/.047 .055/.047	26 W/HD SPACERS	1000 2250	900 2025
4.5 X 2.50	2.5"/600# X 1.5"/1500#	26	34	70 CRO 42 CRO	2.39/1.60 0.76/0.65	.071/.047 .055/.047	26 W/HD SPACERS	750 2250	675 2025
4.5 X 3.0	2.5"/600# X 1.5"/900#	26	43	70 CRO 60 CRO	2.39/1.60 1.64/1.23	.071/.047 .063/.047	26 W/HD SPACERS	750 1500	675 1350
4.5 X 3.5	2.5"/600# X 1.5"/900#	26	31	70 CRO 60 CRO	2.39/1.60 1.64/1.23	.071/.047 .063/.047	26 W/HD SPACERS	750 1500	675 1350
5.0 X 2.50	2.5"/600# X 1.5"/1500#	22	34	70 CRO 42 CRO	2.39/1.60 0.76/0.65	.071/.047 .055/.047	26 W/HD SPACERS	750 2250	675 2025
5.0 X 3.0	2.5"/600# X 1.5"/900#	22	43	70 CRO 60 CRO	2.39/1.60 1.64/1.23	.071/.047 .063/.047	26 W/HD SPACERS	750 1500	675 1350
5.0 X 3.5	2.5"/600# X 1.5"/900#	22	31	70 CRO 60 CRO	2.39/1.60 1.64/1.23	.071/.047 .063/.047	26 W/HD SPACERS	750 1500	675 1350
5.5 X 3.0	3.0"/300# X 1.5"/900#	26	43	88 CRO 60 CRO	3.41/2.64 1.64/1.23	.071/.055 .063/.047	26 W/HD SPACERS	500 1500	450 1350
5.5 X 3.5	3.0"/300# X 1.5"/900#	26	31	88 CRO 60 CRO	3.41/2.64 1.64/1.23	.071/.055 .063/.047	26 W/HD SPACERS	500 1500	450 1350
6.0 X 3.0	3.0"/300# X 1.5"/900#	22	43	88 CRO 60 CRO	3.41/2.64 1.64/1.23	.071/.055 .063/.047	26 W/HD SPACERS	500 1500	450 1350
6.0 X 3.5	3.0"/300# X 1.5"/900#	22	31	88 CRO 60 CRO	3.41/2.64 1.64/1.23	.071/.055 .063/.047	26 W/HD SPACERS	500 1500	450 1350
6.5 X 4.0	4.0"/300# X 2.0"/600#	26	31	105 CRO 70 CRO	3.98/3.98 2.12/1.60	.055/.055 .063/.047	26 W/HD SPACERS	400 1000	360 900
6.5 X 4.5	4.0"/300# X 2.0"/600#	26	25	105 CRO 70 CRO	3.98/3.98 2.12/1.60	.055/.055 .063/.047	26 W/HD SPACERS	400 1000	360 900
7.0 X 4.0	4.0"/300# X 2.0"/600#	23	31	105 CRO 70 CRO	3.98/3.98 2.12/1.60	.055/.055 .063/.047	26 W/HD SPACERS	400 1000	360 900
7.0 X 4.5	4.0"/300# X 2.0"/600#	23	25	105 CRO 70 CRO	3.98/3.98 2.12/1.60	.055/.055 .063/.047	26 W/HD SPACERS	400 1000	360 900



Note: Special high-pressure steeple cylinders are available for applications up to 6,000 PSID.



Arrow Engine Company
2301 East Independence, Tulsa, Oklahoma 74110

www.ArrowEngine.com

toll free (800) 331-3662 local (918) 583-5711
local fax (918) 699-2202

VRC-2 FEATURES

The Arrow VRC-2 is a two-throw separable reciprocating gas compressor. The horizontally opposed cylinders are accurately balanced for smooth running and long lasting durability at 1800 RPM. Unlike many other reciprocating compressors, the VRC-2 has a unique three-throw crankshaft configuration that eliminates opposing cylinder off-set and the vibration associated with traditional designs.

The use of a pressurized lubrication system, highly efficient Hoerbiger valves, industry proven accessories, innovative engineering design, and close attention to quality make the Arrow VRC-2 gas compressor unequalled in the industry.

Arrow Engine also sells standard skids and bottles, as well as ASME Code vessels. Call us for more information.

VRC-2 SPECIFICATIONS

SPECIFICATIONS

Rated Horsepower Hp (Kw)	150 (112)
Maximum Speed RPM	1800
Number of Throws	2
Rod Load - Tension Lb (Kg)	7000 (3175)
Rod Load - Compression Lb (Kg)	7000 (3175)
Rod Load - Combined Lb (Kg)	14,000 (6350)
Stroke In (mm)	3 (76.2)
Piston Speed Ft/min (M/s)	900 (4.57)
Crankshaft Diameter In (mm)	2.50 (63.50)
Crankshaft Height To CI In (mm)	12.75 (323.85)
Overall Length w/cyls. In (M)	22.5 (.57)
Overall Width w/cyls. In (M)	95 (2.41)
Unit Weight w/cyls. Lb (Kg)	1700 (771)
Oil Pump Capacity (Gpm) (Lpm)	4 (15)
Oil Heat Rejection BTU/hr (Kcal/hr)	3750 (945)
Oil Sump Capacity Gal. (Liter)	4 (15)

COMPONENTS

Crankshaft Main Bearing Diameter In (mm)	3.346 (84.988)
Crankpin Diameter In (mm)	2.447 (62.154)
Main Bearing Type	Spherical Roller
Connecting Rod Length CI-CI In (mm)	7.375 (187.325)
Connecting Rod Bearing Width (Single) In (mm)	1.604 (40.742)
Connecting Rod Bushing Width (Single) In (mm)	1.750 (44.45)
Connecting Rod Bolts (Single)	(Four) 1/2"
Connecting Rod Bearing Width (Double) In (mm)	0.802 (20.371)
Connecting Rod Bushing Width (Double) In (mm)	0.875 (22.225)
Connecting Rod Bolts (Double)	(Two) 1/2"
Crosshead Surface In (mm)	5.25 X 3.5 (133.35 X 88.90)
Floating Crosshead Pin Diam. In (mm)	2.235 (56.769)
Piston Rod Diameter In (mm)	1.125 (28.575)

MATERIALS

Frame	Class 40 Gray Iron
Crankshaft	Forging With Induction Hardened Journals
Connecting Rods	Forging
Connecting Rod Bearings	Tri-metal
Crossheads	65-45-12
Crosshead Pins	Ductile Iron SAE 8620
Crosshead Pin Bushings	Carburized SAE 660 Bronze
Piston Rods	SAE 4140 Induction Hardened



toll free (800) 331-3662

www.ArrowEngine.com