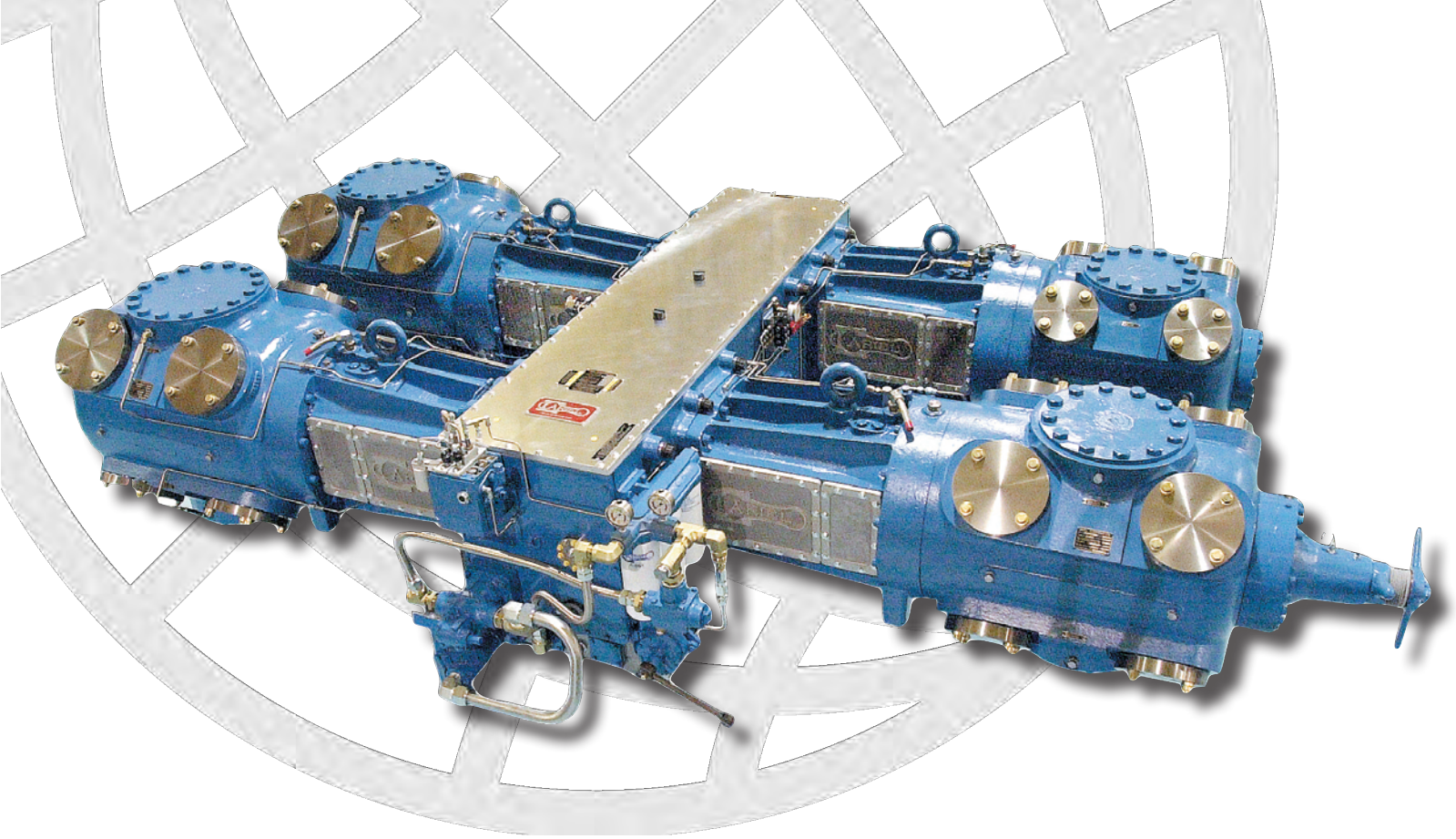


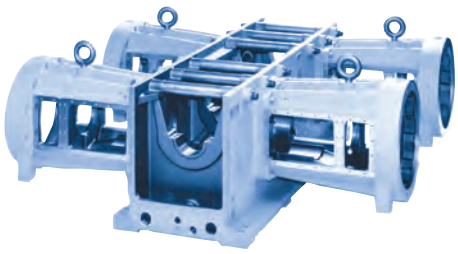
ARIEL JGK and JGT COMPRESSORS

Frame	JGK/2	JGK/4	JGK/6	JGT/2	JGT/4	JGT/6
Number of throws	2	4	6	2	4	6
Rated power, BHP	1270	2540	3810	1300	2600	3900
Rated power, kW	947	1894	2841	969	1939	2908
Stroke, inches	5.5	5.5	5.5	4.5	4.5	4.5
Stroke, mm	140	140	140	114	114	114
RPM, maximum	1200	1200	1200	1500	1500	1500
Piston speed, ft/min	1100	1100	1100	1125	1125	1125
Piston speed, m/s	5.59	5.59	5.59	5.72	5.72	5.72
Total rod load, lbs	74000	74000	74000	74000	74000	74000
Total rod load, N	329168	329168	329168	329168	329168	329168
Tension, lbs	37000	37000	37000	37000	37000	37000
Tension, N	164584	164584	164584	164584	164584	164584
Compression, lbs	40000	40000	40000	40000	40000	40000
Compression, N	177929	177929	177929	177929	177929	177929
Average weight with cylinders, lbs	12500	25000	38000	12500	25000	38000
Average weight with cylinders, kg	5670	11340	17237	5670	11340	17237
Maximum length, inches	52	97	142	51	97	142
Maximum length, mm	1321	2464	3607	1295	2464	3607
Nominal width, inches	169	169	169	169	169	169
Nominal width, mm	4293	4293	4293	4293	4293	4293
Crankshaft centerline, from bottom, inches	17	17	17	17	17	17
Crankshaft centerline, from bottom, mm	432	432	432	432	432	432

FEATURES

The JGK is a large, separable, reciprocating compressor, designed for high BHP and rod load applications. Based on the proven Ariel design in use throughout the world, it pairs well with modern gas engines, turbines and electric motor drivers.

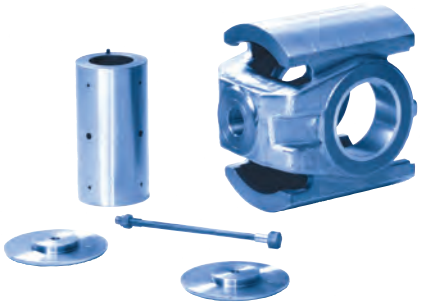
- **Serviceability** - Entire unit is designed for ease of repair. All components are readily accessible.
- **Standardization** - Many components are interchangeable throughout the various lines.
- **Full Pressure Lubrication** - A frame-driven lube oil pump provides pressurized, cooled oil through a full flow oil filter to all moving parts in the frame. A divider block distribution system supplies metered oil to cylinder bores and rod packing. Stainless steel tubing is used throughout the cylinder lubrication system.
- **Unloading Devices** - Manual head-end variable volume clearance pockets, pneumatic fixed volume clearance pockets and pneumatic suction valve unloaders are available on a limited optional basis.
- **Heavy Duty Crankshaft** - Forged steel precision machined with integral counterweights.
- **Rugged Crankcase** - Heavily ribbed (with spacer bars for stiffening), high-strength cast iron base with removable, lightweight aluminum top cover and removable end covers for ease of access.
- **Precision Bearing Shells** - Precision-machined, tri-metal main and connecting rod bearings.
- **Rugged Crossheads and Guides** - Cast iron crosshead guides, external ribbing and removable side covers. One piece, long life crossheads with direct full pressure lubrication at top and bottom for minimum wear. Hardened and ground steel crosshead pins.
- **Rigid Connecting Rods** - Forged steel four bolt, heavy duty "H" section.
- **Quiet Auxiliary Drive** - Fully enclosed and continuously lubricated chain drive adjusted by positive positioning eccentric vernier.
- **Oil and Dust Seal** - Foolproof, non-contacting crankshaft oil seal plus reliable non-wearing dust seal.
- **Proven Cylinder Design** - Non-cooled compressor cylinders with ample nozzles and large gas passages. Cylinder bodies are ion-nitride hardened and drilled for indicator ports.
- **High Strength Bolting** - Grade 8 bolts or B-7 studs on all pressurized components. All bolting designed for accessibility.
- **Efficient Valving** - Ariel uses plate-type valves designed for modern speeds utilizing non-metallic sealing elements as standard. Selected to adhere to established, low valve velocity standards.
- **Durable Pistons** - Wear-resistant ductile or gray iron with wear bands.
- **Stout Piston Rods** - Short, stiff, precision-ground alloy steel piston rods with locking crosshead nut. Rolled threads are 1/4" under rod diameter for easy installation through packing.



JGK frame



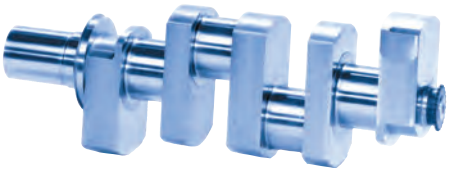
Forged steel JGK connecting rod



Ductile iron crossheads, babbitted shoe surface, full-floating crosshead pin with "through-bolt" and end caps



Full array of crossheads and nuts for precise balancing of opposing pistons



Forged steel crankshafts

CYLINDERS A COMPLETE LIST OF CYLINDERS IS AVAILABLE IN THE ARIEL COMPRESSOR PERFORMANCE PROGRAM

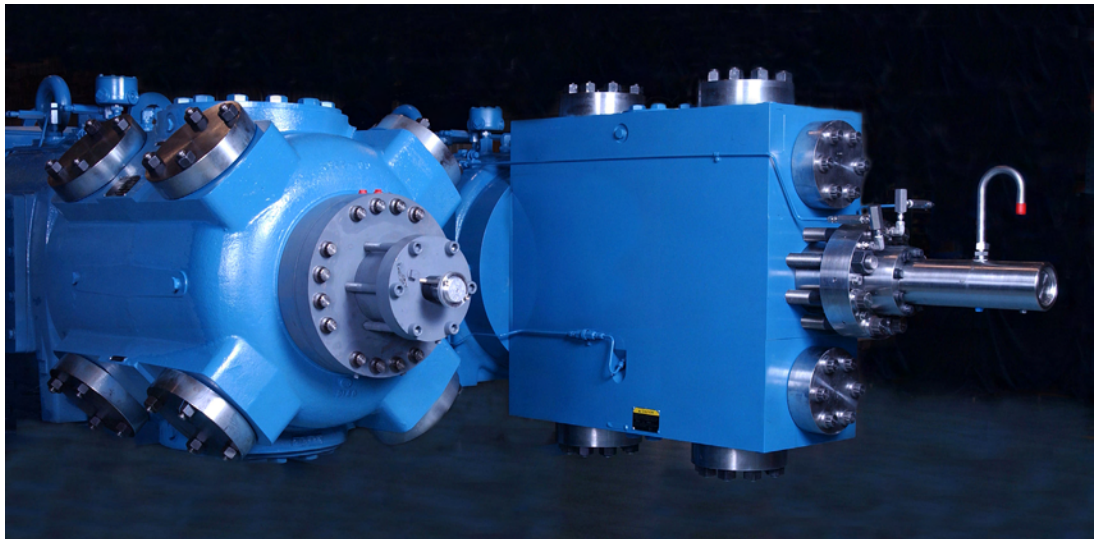
	Class	BORE inches	BORE mm	MAWP psi	MAWP bar	Material
Double-Acting	3-7/8K:T-VS	3.500, 3.875	89, 98	6700	462	Forged Steel
	3-7/8K:T-TR-VS	3.500, 3.875	89, 98	6700	462	Forged Steel
	4-3/8K:T-VS	4.250, 4.375	108, 111	6000	414	Forged Steel
	4-3/8K:T-TR-VS	4.250, 4.375	108, 111	6700	462	Forged Steel
	5-3/8 K:T-DW	5.000, 5.375	127, 137	2515	173	Ductile Iron
	5-3/8 K:T-VS	5.000, 5.375	127, 137	3600	248	Forged Steel
	6-1/4 K:T	5.875, 6.250	149, 159	2435	168	Ductile Iron
	7-1/4 K:T	6.750, 7.250	171, 184	2415	167	Ductile Iron
	8-3/8 K:T	7.875, 8.375	200, 213	2400	165	Ductile Iron
	9-5/8 K:T	9.125, 9.625	232, 244	1900	131	Ductile Iron
	11 K:T	10.500, 11.000	267, 279	1270	88	Ductile Iron
	12-1/2 K:T	12.000, 12.500	305, 318	800	55	Ductile Iron
	14-1/8 K:T	13.625, 14.125	346, 359	815	56	Ductile Iron
	15-7/8 K:T	15.375, 15.875	391, 403	635	44	Ductile Iron
	17-7/8 K:T	17.375, 17.875	441, 454	445	31	Ductile Iron
	20-1/8 K:T	19.625, 20.125	498, 511	345	24	Ductile Iron
	22 K:T	22.000	559	285	20	Ductile Iron
	24-1/8 K:T	24.125	613	275	19	Ductile Iron
	26-1/2 K:T	26.500	673	230	16	Ductile Iron
	9-1/4 KK:TK	8.75, 9.25	222, 235	2400	166	Ductile Iron
	9-3/4 KM:TM:KL:TL	8.75, 9.25, 9.75	222, 235, 248	1700	117	Ductile Iron
	10-3/8 KM:TM:KL:TL	9.875, 10.375	251, 264	1900	131	Ductile Iron
	11 KM:TM:KL:TL	10.250, 10.750, 11.000	260, 273, 279	1690	117	Ductile Iron
	11-3/8 KM:TM:KL:TL	10.875, 11.375	276, 289	1700	117	Ductile Iron
	12-3/8 KM:TM:KL:TL	11.250, 11.750, 12.375	286, 298, 314	1690	117	Ductile Iron
	12-1/2 KM:TM:KL:TL	12.000, 12.250, 12.500	305, 311, 318	1350	93	Ductile Iron
	13-5/8 KM:TM:KL:TL	13.125, 13.625	333, 346	1085	75	Ductile Iron
	14-3/4 KM:TM:KL:TL	14.250, 14.750	362, 375	600	41	Ductile Iron
Tandem*	2-5/8 K:T-FS-HE	2.500, 2.625	64, 67	7800	538	Forged Steel
	3 K:T-FS-HE	3.000	76	6500	448	Forged Steel
	5-3/8 K:T-VS-CE	5.000, 5.375	127, 137	3600	248	Forged Steel
	5-3/8 K:T-FS-HE	5.000, 5.375	127, 137	2500	172	Forged Steel
	9-5/8 K:T-CE	9.125, 9.625	232, 244	1390	96	Ductile Iron

Note: ET Cylinders can also be mounted on the JGT Frame.

** HE=Head End, CE=Crank End*

More than 35 years ago, Ariel introduced an innovative cylinder design that eliminated water cooling from the cylinder jacket. This proven design yields significant advantages over water-cooled cylinders:

- higher efficiency
- larger gas passages
- reduced pressure-drop losses
- lower maintenance (no scaling or corrosion)



Pictured above are the 9-5/8K:T and 4-5/8K:T-TR-VS cylinders. The 9-5/8K:T cylinder is shown with our pneumatically operated, fixed volume clearance pocket. The 4-5/8K:T is a vertically configured, forged steel (stainless steel for NACE applications) cylinder body with outboard tail rod. This cylinder can be applied to discharge pressures of 6700 psi (462 Bar) MAWP.

THE ARIEL NETWORK

Ariel's success is based on strong relationships built on mutual respect and trust. Employees, vendors, distributors, and end users are all part of the Ariel Network.

Ariel Compressors are marketed and packaged through a long-established network of elite compression system engineering companies. Ariel's Authorized Distributors integrate the compressor with a structural skid, a prime mover, piping, pulsation control, cooling systems, process valving, and control systems.

- All Ariel distributors adhere to Ariel's strict packaging standards.
- Ariel's large network offers the most complete service and parts coverage available in the world.



Model JGK/4, two stage, variable speed, electric motor driven compressor in service at the E.ON Hanse AG Kraak, Germany underground gas storage facility. This JGK/4 is equipped with two 6-3/4" (171 mm) first stage cylinders and two 5" (127 mm) forged steel, second stage cylinders and is designed to inject 20,000 Nm3/h, at a discharge pressure of 155 Bar (2250 psi).

CUSTOMER SERVICE

We are committed to supporting our compressors for life. If there is a problem with an Ariel compressor, we'll help you solve it — now.

- The Ariel Network is composed of more than 1000 Ariel-trained field servicemen and technicians, worldwide.
- Ariel's policy has always been to routinely ship standard parts within 24 hours of receiving an order.
- Ariel gas compressors are backed by more than 100 parts and service outlets close to every major natural gas field.
- Ariel's Service and Technical Schools are held frequently, free of charge, for engineers and field servicemen. These courses are taught by Ariel engineers and technicians directly involved in the subject material.
- The availability of Ariel manufactured parts at competitive prices will ensure your Ariel compressor's maximum reliability and productivity.
- Ariel's goal is to offer the best customer care and service. Our warranty and our treatment of warranty issues clearly show our commitment to this goal.

ARIEL CORPORATION
WORLD HEADQUARTERS
35 Blackjack Road
Mount Vernon, Ohio 43050 USA
Telephone: 740-397-0311
Fax: 740-397-3856

24-HOUR SUPPORT
North America: 888-397-7766
Worldwide: +1 740 397 3602

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