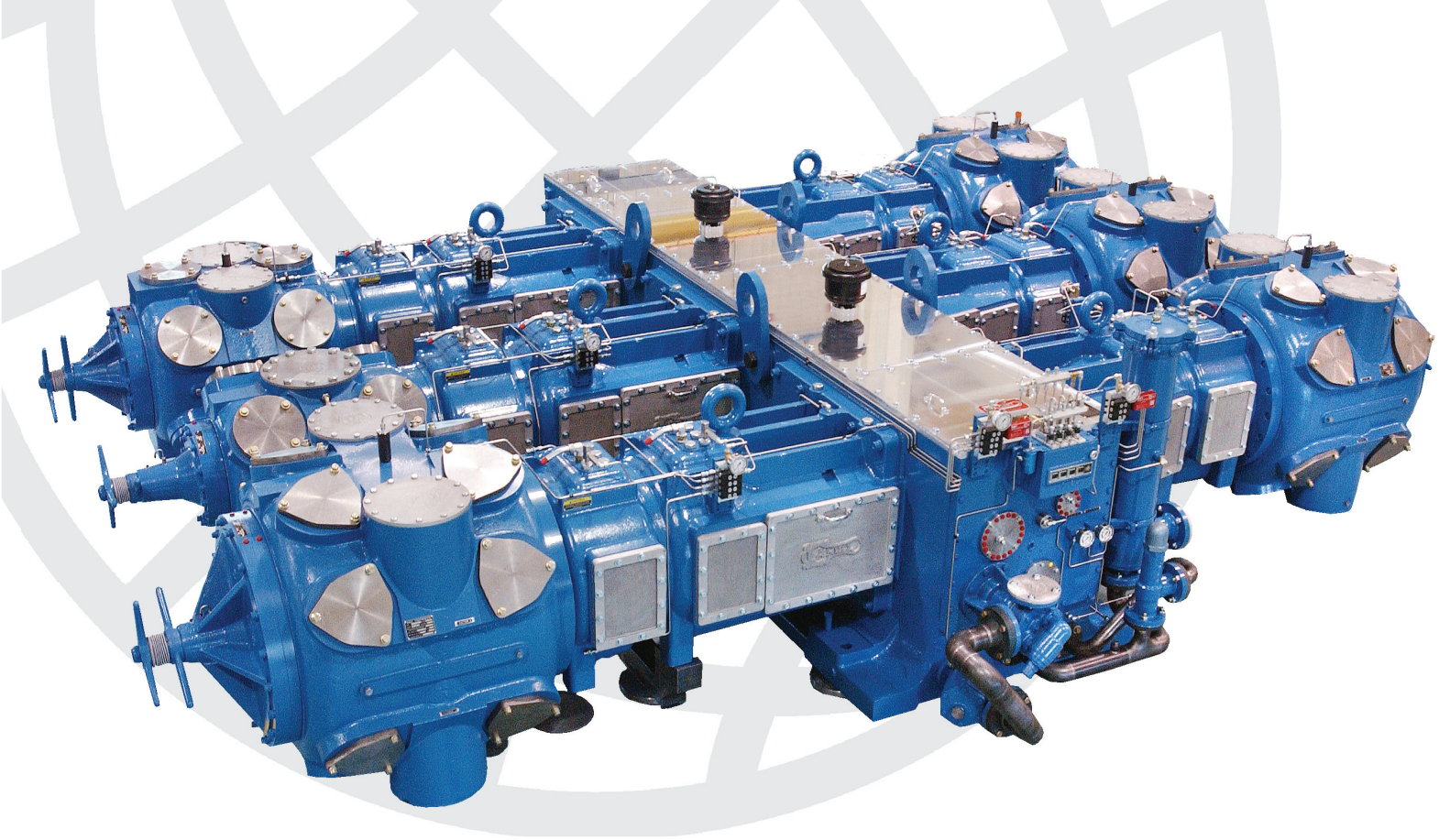


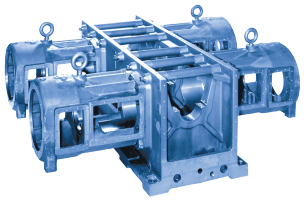
ARIEL JGZ and JGU COMPRESSORS

Frame	JGZ/2	JGZ/4	JGZ/6	JGU/2	JGU/4	JGU/6
Number of throws	2	4	6	2	4	6
Rated Power, BHP	2600	5200	7800	2600	5200	7800
Rated Power, kW	1939	3878	5817	1939	3878	5817
Stroke, inches	6.75	6.75	6.75	5.75	5.75	5.75
Stroke, mm	171	171	171	146	146	146
RPM, maximum	1000	1000	1000	1200	1200	1200
Piston speed, FPM	1125	1125	1125	1150	1150	1150
Piston speed, m/s	5.71	5.71	5.71	5.84	5.84	5.84
Total rod load, lbs.	150000	150000	150000	150000	150000	150000
Total rod load, N	667233	667233	667233	667233	667233	667233
Tension, lbs.	75000	75000	75000	75000	75000	75000
Tension, N	333617	333617	333617	333617	333617	333617
Compression, lbs.	80000	80000	80000	80000	80000	80000
Compression, N	355857	355857	355857	355857	355857	355857
Average weight with cylinders, lbs.	23000	44000	66000	23000	44000	66000
Average weight with cylinders, kg.	10432	19957	29936	10432	19957	29936
Maximum length, inches	89	137	185	89	137	185
Maximum length, mm	2261	3480	4699	2261	3480	4699
Maximum width, inches	210	210	210	210	210	210
Maximum width, mm	5334	5334	5334	5334	5334	5334
Crankshaft ℄ (from bottom), inches	24	24	24	24	24	24
Crankshaft ℄ (from bottom), mm	609.6	609.6	609.6	609.6	609.6	609.6

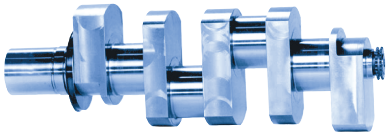
FEATURES

The JGZ and JGU are large, medium speed, reciprocating, separable compressors. Since their introduction in 2002, they have proven to be one of the most cost effective methods of compression for pipeline transmission, power generation, refrigeration, processing, and all other applications requiring large horsepower drivers and compression capacity.

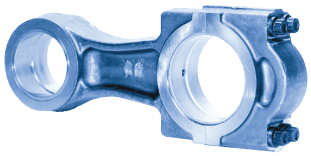
- **Serviceability** - Entire unit is designed for ease of repair. All components are readily accessible.
- **Standardization** - Many components are interchangeable throughout the various lines.
- **Full Pressure Lubrication** - A frame-driven lube oil pump provides pressurized, cooled oil through a 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.



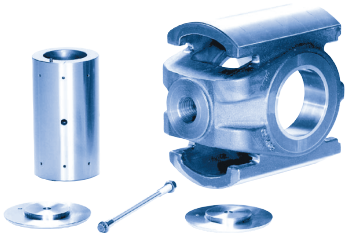
JGZ frame



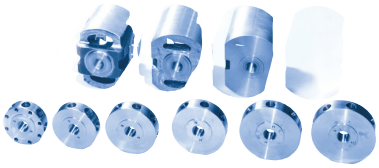
JGZ/2 crankshaft



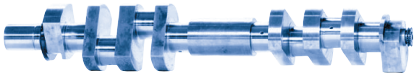
Forged steel JGZ connecting rod



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



JGZ/4 crankshaft

CYLINDERS

	Class	BORE inches	BORE mm	MAWP psi	MAWP bar	Material
Double-Acting	4-5/8Z:U-VS	4.250, 4.375, 4.625	108, 111, 117	6000	414	Forged Steel
	4-5/8Z:U-TR-VS	4.250, 4.625	108, 117	6700	462	Forged Steel
	5-3/8Z:U-VS	5.000, 5.375	127, 137	6000	414	Forged Steel
	6-1/4Z:U	5.875, 6.250	149, 159	2435	168	Ductile Iron
	6-1/4Z:U-VS	5.875, 6.250	149, 159	4500	310	Forged Steel
	7-1/4Z:U	6.750, 7.250	171, 184	2400	166	Ductile Iron
	7-1/4Z:U-VS	6.750, 7.000, 7.250	171, 178, 184	3500	241	Forged Steel
	8-3/8Z:U	7.875, 8.375	200, 213	2400	165	Ductile Iron
	9-5/8Z:U	9.125, 9.625	232, 244	1900	131	Ductile Iron
	11Z:U	10.500, 11.000	267, 279	1270	88	Ductile Iron
	12-1/2Z:U	12.000, 12.500	305, 318	800	55	Ductile Iron
	14-1/8Z:U	13.625, 14.125	346, 359	815	56	Ductile Iron
	15-7/8Z:U	15.375, 15.875	391, 403	635	44	Ductile Iron
	17-7/8Z:U	17.375, 17.875	441, 454	445	31	Ductile Iron
	20-1/8Z:U	19.625, 20.125	498, 511	325	22	Ductile Iron
	22Z:U	22.000	559	285	20	Ductile Iron
	24-1/8Z:U	24.125	613	275	19	Ductile Iron
	26-1/2Z:U	26.500	673	230	16	Ductile Iron
	9-1/4ZK:UK	8.75, 9.25	222, 235	2200	152	Ductile Iron
	9-3/4ZM:UM:ZL:UL	8.75, 9.25, 9.75	222, 235, 248	1690	117	Ductile Iron
	10-3/8ZM:UM:ZL:UL	9.875, 10.375	251, 264	1900	131	Ductile Iron
	11ZM:UM:ZL:UL	10.250, 10.750, 11.000	260, 273, 279	1690	117	Ductile Iron
	11-3/8ZM:UM:ZL:UL	10.875, 11.375	276, 289	1690	117	Ductile Iron
	12-3/8ZM:UM:ZL:UL	11.250, 11.750, 12.375	286, 298, 314	1690	117	Ductile Iron
	12-1/2ZM:UM:ZL:UL	12.000, 12.250, 12.500	305, 311, 318	1350	93	Ductile Iron
	13-5/8ZM:UM:ZL:UL	13.125, 13.625	333, 346	1085	75	Ductile Iron
	13CN	13.000	330	1350	93	Ductile Iron

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)

Ariel is the only manufacturer to use an ion-nitride furnace to increase surface hardness of all cylinders. This extra step reduces cylinder bore wear to an absolute minimum. To ensure complete reliability in the field, Ariel pressure-tests each cylinder to 150% of maximum allowable working pressure (MAWP) during manufacture.



JGZ cylinders

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 JGZ/4 in Snyder, Texas, being used for carbon dioxide injection.

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.

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