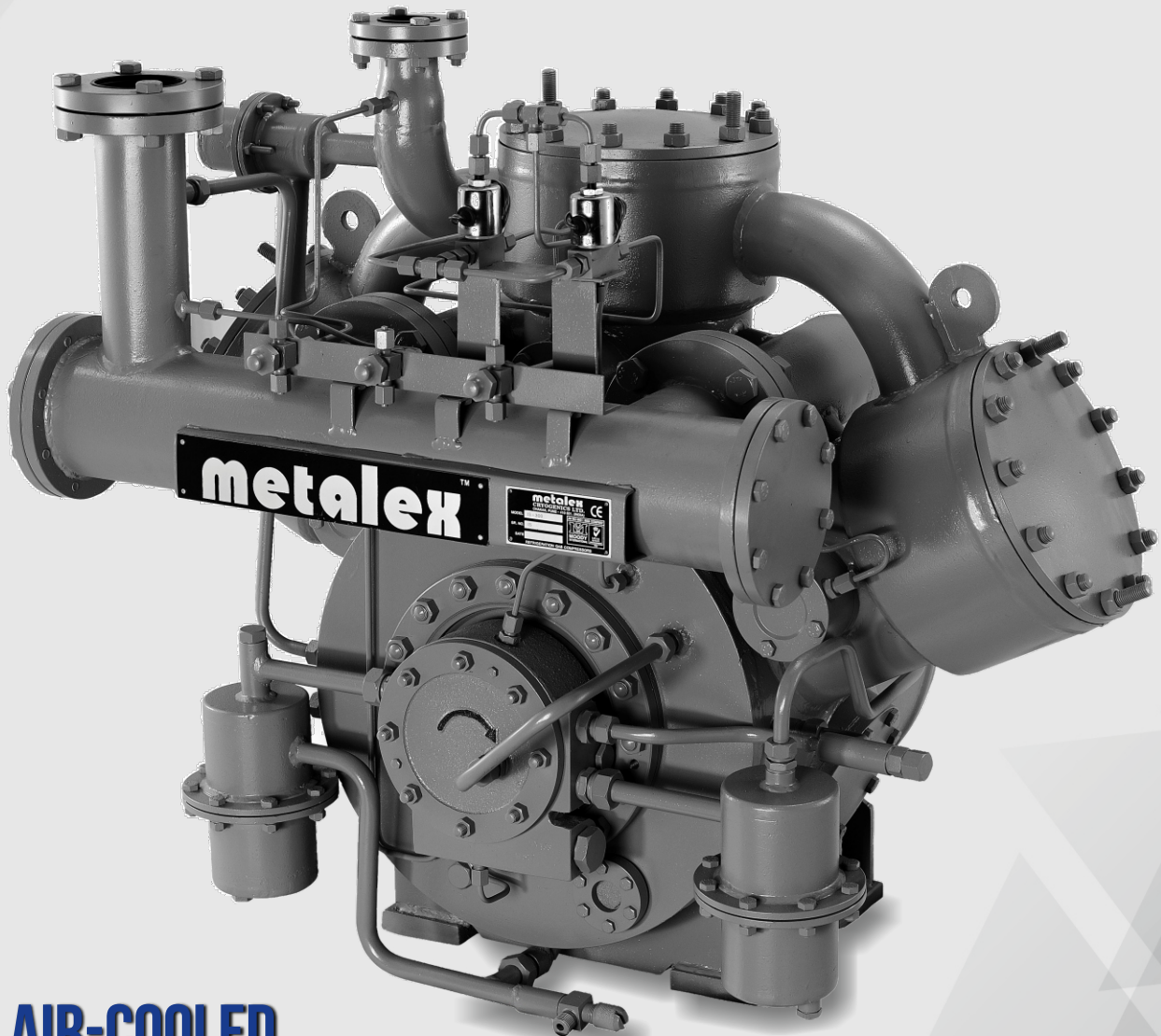


# metalex™

**ENERGIZING  
EFFICIENCIES**

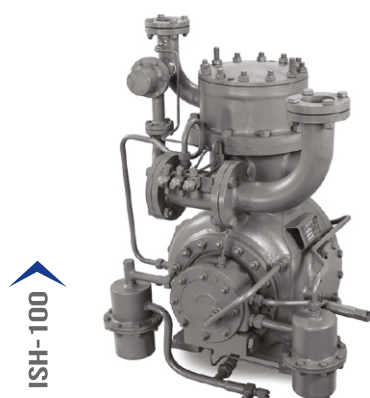


**AIR-COOLED  
COMPRESSOR**

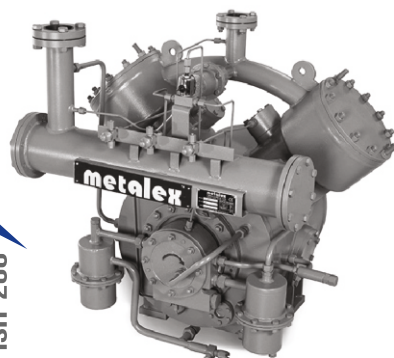


**Metalex Cryogenics Limited**  
[www.metalexgroup.com](http://www.metalexgroup.com)

# REFRIGERATION AIR-COOLED PISTON COMPRESSORS



ISH-100



ISH-200

## REFRIGERATION CAPACITIES

Single Stage	Ammonia (NH3)	
	Capacity KW TR	Shaft Power BKw
ISH-100	110.40	31.38
ISH-200	220.81	62.77
ISH-300	331.28	94.18
ISH-400	441.71	125.58
ISH-600	662.67	188.39
ISH-900	993.95	282.57
ISH-1200	1325.35	376.79

\* Air Cooled Compressors available in all single stage models

- Compressor Speed: 1000 rpm. • Evaporating Temp: 0 Deg. C.
- Condensing Temp: 40 Deg. C.
- Quick Reference Capacity table, for details Contact us.

## TECHNICAL DATA

Type of Compressor	ISH-100	ISH-200	ISH-300	ISH-400	ISH-600	ISH-900	ISH-1200
Cylinder Arrangement	Vertical	V	W	2 x V	2 x W	3 x W	4 x W
Number of Cylinders	1	2	3	4	6	9	12
Cylinder Bore	(160mm)						
Piston Stroke	(110mm)						
Permissible Speed RPM	Min. 500 RPM V-BELT DRIVE Max. 1000 RPM						
Swept Volume of Suction Gas at 1000 RPM cu. ft./min (Cu.m/hr.)	78 (135)	156.88 (265.9)	235.11 (398.5)	313.34 (531.1)	469.93 (796.5)	692.6 (1195)	939.86 (1621.6)
Wt. of Compressor with Flywheel in Pounds(Kg)	714 (324)	1260 (572)	1340 (609)	1534 (697)	1950 (886)	2816 (1280)	3900 (1772.7)
Direction of Rotation/ from Oil Pump side	Clockwise						
Maximum Discharge Pressure (Bar)	16						

## UNIQUE FEATURES

### Series ISH - At a glance :

- Minimum Energy cost
- Minimum Maintainance
- Maximum Reliability
- Easy Installation
- Increase Efficiency
- Service Friendly
- Low Noise Factor

## BENEFITS

- Most Power Efficient
- Modular Design
- Interchangeability of components accross range
- Less Torque Ensure no Load starting Required

## DESIGN FEATURES

### Piston/Connecting Rod Assembly

The three compression and two oil scrapper rings on each piston assures perfect sealing and lowest oil consumption. The connecting rod is drilled through for pressure lubrication of the piston pin and monitored flow.

### Cylinder Liner and Suction valve

Cylinder liners are made of fine-grained, centrifugally cast, alloy iron and process o fine boring and honing results in a mirror smooth running surface to ensure better operation. A hydraulic mechanical suction valve lifting mechanism on each cylinder achieves loading and unloading.

### Capacity Control

Factory preset automatically operating solenoid valve ensures complete unloaded start of the ISH Compressor.

### Crankshaft and Main Bearings

Each crankshaft is dynamically balanced and precise engineering process is carried out to reaffirm the longest operational life and efficient working. Intermediate bearing blocks with split type bearing shell and the main bearings are white metal lined steel bushes, pressed into the cast iron bearing covers.

### Lubrication System

Modified designed Pump incorporates two differential pressure regulators to provide separate pressures for the controlled oil system and the internal lubrication system.

### Oil Filter

Finest quality Suction Filter element result in enhancing the filtering capacity of the oil and thereby ensuring longer maintenance free operation.

### Discharge Valve Assembly

Three concentric discharge valve rings ensure ample gas passage at low lifting height. The specially designed precision machined, lapped surface Springs results in longevity.

**Metalex Cryogenics Ltd.**

**EQUIPMENT MANUFACTURING & PROJECT ENGINEERING COMPANY.**



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