



First In RELIABILITY - First In CHOICE

METALEX CRYOGENICS LTD.

An ISO 9001:2008 and CE certified Engineering Company focused on providing value added Industrial Refrigeration Solutions - The company commenced manufacturing REFRIGERATION COMPRESSORS at Chakan near Pune in Maharashtra in the year 2000 and today it is one of the leading producer of Compressors, Valves, Ice Machines for various industrial applications with 100% success.

METALEX, 35 years of experience in Pressure Vessel Fabrication under Pressure Equipments Directives (PED), Latest CNC Machining Techniques, Designing, Installation and Commissioning of Refrigeration Systems with a team of highly qualified and experienced Engineers and several backup offices meets the need of the Cold Chain in India & Abroad. Metalex Mx Series 1 to 12 Cylinder Compressors in single & two stage are performing optimum & saving power in varied applications. Recognizing the need to be energy efficient & cater to water conserving industries in India, METALEX has successfully introduced AIR COOLED COMPRESSORS: IS-Series in Single Stage 2, 3, 4 and 6 Cylinders version.

METALEX VALVES as a division of the company manufactures High Quality Valves which are Individually tested for performance in Fabrication & Casted Design. The Range includes Globe Valves from 3/4" to 6" and Angle Valves from 3/4" to 6". Additional Application Valves like NON-RETURN VALVE & Liquid Level Gauges are manufactured adhering to International Standards. METALEX TUBE ICE MACHINES are available from 5 ton to 60 tons as individual freezers and complete solutions.

Customer satisfaction is paramount at Metalex & we welcome you to be part of our exponential growth.

Reciprocating
Compressors

Ammonia Valves

Tube Ice Machine

Performance
Spare Parts

Turnkey Projects

Service Network



Ice Plants Cold Storages Distillery & Brewries Dairy Industry Marine & Fisheries Food Processing Pharmaceuticals Chilling Plants

The MX-Series: compressors are manufactured by one of India's leading refrigeration companies using the most modern computerized, calculations & simulations techniques. Intense communication with customers, production specialist and constant research has lead to a design which will suit the needs of customers now and in future.

MX Series is a range of high quality, heavy duty, open type reciprocating refrigeration compressors. These are designed to operate with Ammonia, R22, R134a, R404A, and other common new refrigerants.

- Six Single Stage models with swept volumes from 135 m³/h for the cylinder to 1195 m³/h for the nine cylinder model.
- Six Two Stage models with different LP/HP volume ratio's and LP swept volumes from 265 m³/h up to 929 m³/h.



Package Unit

Single Stage	Ammonia (Nh3)		Freon (R-22)		Ice making capacity		Two Stage	Ammonia (NH ₃) *		Freon (R-22) **	
	@ 1000 rpm in ideal running condition*				Tonnes/24 Hrs. with NH ₃			Capacity TR	Power Consumption KW	Capacity TR	Power Consumption KW
	Capacity TR	Power Consumed HP	Capacity TR	Power Consumed HP	TPD	KW					
MX - 100	50	25.0	40.0	25.0	8.0	20.0	MX - 210	18.8	34.0	11.8	33.2
MX - 200	100	51.5	81.3	55.0	17.6	39.5	MX - 310	26.8	47.1	16.9	45.2
MX - 300	150	76.5	121.9	82.0	26.4	58.0	MX - 420	37.4	65.9	23.6	64.2
MX - 400	200	101.5	162.6	108.0	35.2	75.0	MX - 510	40.2	72.1	25.6	69.0
MX - 600	300	151.22	242.0	161.0	52.8	110.2	MX- 630	55.7	97.0	35.0	95.0
MX - 900	450	230.0	364.0	246.0	74.4	166.0	MX - 720	60.4	104.0	37.9	100.0

DIMENSIONAL DATA

Type of Compressor	MX100	MX200	MX300	MX400	MX600	MX900		MX210	MX310	MX420/MX510	MX630/MX720	
Cylinder Arrangement	Vertical	V	W	2 X V	2 X W	3 X W		1 X W	2 X V	2 X W	3 X W	
Number of Cylinders	1	2	3	4	6	9		3	4	6	9	
Cylinder bore	(160 mm)						(160 mm)					
Piston Stroke	(110 mm)						(110 mm)					
Permissible speed RPM	Min. 500 RPM		V - BELT DRIVE			Max. 1000 RPM		Min. 500 RPM		V - BELT DRIVE Max. 1000 RPM		
TECHNICAL DATA												
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)	Two Stage	156.88 (265.9)	235.11 (398.5)	313.34 (531.1)	461.7 (796.2)	
							Low Stage	Nil	Nil (664.2)	391.86 (664.2)	538.7 (928.9)	
Wt. of Compressor with flywheel in Pounds (kg)	714 (324)	1260 (572)	1340 (609)	1534 (697)	1950 (886)	2816 (1280)		1177 (535)	1463 (665)	1980 (900)	2893 (1315)	
Direction of Rotation/ looking from oil pump side	CLOCKWISE						CLOCKWISE					
Maximum discharge pressure (Bar)	16						16					



MX 100 / MX 200



MX 300 / MX 210



MX 400 / MX 310



MX 600 / MX 420 / MX 510



MX 900 / MX 630 / MX 720

METALEX SOLUTIONS ARE FOCUSED TO ACHIEVE LOW LIFECYCLE COST

The Mx-Series at a glance:

- Better price/ Performance Ratio
- Compact
- Robust
- Reliable
- Efficient
- Service Friendly
- Low Noise Factor
- Light Weight > Cast Iron

Intelligent Flow Technology

Cast steel construction, accepts flow in both directions. Can be used for most refrigerants including ammonia & non-corrosive gases. Available in "L" and "Y" type with direct welded option, and are tested at 30 bar pressure & operating temp. range of -40 °C to +120 °C. Sizes available are from ½ inch to 6 inches. All Valves undergo a Strict Quality audit process to meet the IS:11132-1985 Standards.

CXWG SERIES



Casted Globe Weldable

CXWA SERIES



Casted Angle Weldable

FXWG SERIES



Fabricated Globe Weldable

FXFA SERIES



Fabricated Angle Flanged

FXFG SERIES



Fabricated Globe Flanged



[email:sales@metalexgroup.com](mailto:sales@metalexgroup.com)



Metalex Valve Salient Features

- Full Port Opening
- Special O rings for leak prevention
- Replaceable Teflon Valve Seat
- Stainless Steel Spindles
- Low Torque & Pressure Drops
- Optional Backseat Arrangement
- Corrosion Resistant Hand Wheels
- Optional Electronics Controls
- 100% Factory Tested



Liquid Level Glasses Features

- Available for Ammonia
- Temp. Range -10 / 100 °C
- Special Hardened Glass
- Operating Pressure up to 25 Bar g
- Available from 7 1/4 to 61 Inches
- In-built Safety Device
- Available with non asbestos Gasket
- Counter sunk allen screws for easy insulation

Check Valves Salient Features

- Standard available from ½ to 5 Inches
- Ensures correct direction of flow
- Steel Valve housing
- Available for 40 bar g working pressure
- Damping piston for reducing vibration

For detailed Valve range please call: +91 020 32342299

Effective Process Implementation to Get MAXIMUM PERFORMANCE

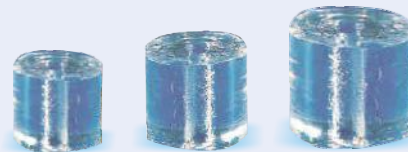


Actual Photo of CIX20


•Metalex Tube Ice Machines are designed specifically to Freeze Ice automatically in vertical tubes, hot pressure gas thaws tubes and the ice is cut by specially designed cutter. All surfaces in contact with water or ice are of stainless steel or other rust - resistant materials. Heavy duty framing, automatic operation optional PLC and the best guarantee in the business makes Metalex TIX machines the **FIRST CHOICE** for perfect ice applications.

• Manufactured in accordance with the A.S.M.E. Code.

• Environmentally Friendly Refrigerant R404A.
Metalex Tube Ice are suitable for application like Fish Seafood Processing, Chemicals and Dye Processing and Produce Cooling Application.

Standard Sizes of Tube ice


• 16mm • 25mm • 36mm

for Specific Tube Ice requirement Please contact our sales

TUBE ICE COMPONENTS

Motors (HP)							
	05 Tons		10 Tons	15 Tons	20 Tons	30 Tons	60 Tons
Tube Ice Model		TIX-05	TIX-10	TIX-15	TIX-20	TIX-30	TIX-60
Compressors Model		Mx100	Mx200	Mx300	Mx400	Mx600	Mx900
Compressor Motor	(HP)	25	50	75	100	150	250
Cooling Tower	(TR)	30	60	80	100	150	250
Water Storage Recommended	(Ltrs)	10,000	20,000	30,000	40,000	60,000	1,20,000

*Note: The Machine Performance data is just a guideline for specific details please contact us.



Tube Ice Machine

Advantages of MX Tube Ice

- PLC based controls
- Variable speed cutter
- Turbulence free tank designs
- Special separators for Ice tube consistency
- Uniform gas flow design
- Series of machines combinations possible



Low Power Consumption

Chill Water Conservation

Crystal Clear, Perfect Cut & Hygienic Ice

Available in 3 sizes

U.S.P.

1. Complete Line of Products.
2. Single Source Solution for the system
3. Low Maintenance
4. High Energy efficiency
5. Skid mounted options available.
6. Screw Conveyor Collection bin.

For technical details please contact us.

Complete Refrigeration Solution - Efficient Savings Ensure

Metalex aims to be the solution provider of first choice for Turnkey Projects.

With successful completion of nearly 10 projects in cold storage application, the project team is all geared up to execute in Ice & Chilling Application, Process Cooling plants and Dairies etc.

Complete Solution from design to deliverance is implemented by team of professional with total focus on providing Best life cycle cost resulting in Global Standards Design, hassle free operation of your plant and however running and maintenance cost.

In House manufacturing of all key components for your Turnkey Projects guarantees complete - 100% Quality Assurance and minimum start up time.

Cold Storages

Ice Plants

Tube Ice Packages

Milk Chilling Units

Fish Processing Plant

Meat Processing Plants

CO₂ Bottlers & Breweries



MX L. P. Receivers Advantages

- Even refrigerant distribution
- Compressors Protection from Liquid Hammer
- Evaporator hot gas defrosting without disturbing the system
- Protection from fluctuating ambient & condensing conditions
- Pressure drops prevention in system
- Ease of operation & Low maintenance

Metalex make Low Pressure & High Pressure Receivers

The Metalex liquid ammonia circulation systems are developed keeping in view the rugged Indian atmosphere and operating conditions.

Please contact our sales office for your requirement in various sizes



For best price turnkey project solution
email: projectsupport@metalexgroup.com

Quality and Reliability is Integral at Metalex.

Project Solutions - from Design to Delivery

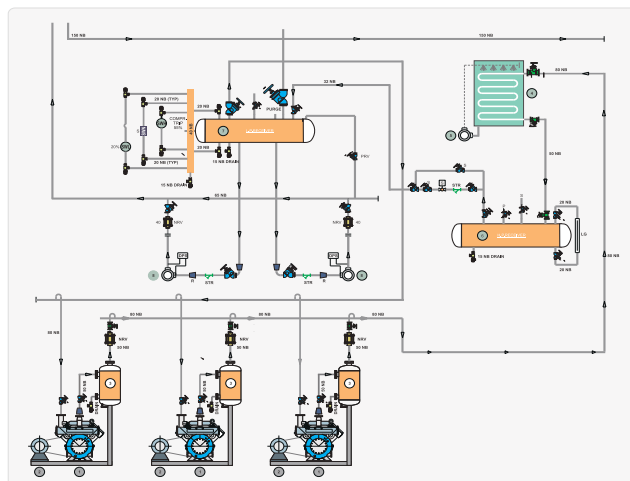
Competitive Price/Savings Ratio

Designing Complete Solution

Implementation & Monitoring

Cost Effective Designs

Confirms to NHB & GR Norms



metalex™ offers the complete range of spares parts for the MX-series and other reciprocating compressors.

metalex™ parts are 100 % guaranteed to perform and yield better results.

Each **metalex™** component is thoroughly tested & inspected by trained quality control personnel.

metalex™ guarantee for all parts will be free from defects in material and workmanship.

Professional Service Support 24 hrs-7days-365 days.

Easy Availability in all major centers within India. All Spares can be ordered online through www.metalexgroup.com

- ▶ Packed in Metalex monogram Green-Blue Boxes & Polypouch.
- ▶ Each Spare Parts with MX-Hologram and Pre-printed Company Label
- ▶ Kits for Regular/Preventive & SOS usage
- ▶ Stacked Stocking with minimum space

Network

Mumbai

Akhurath Co Op. Hsg Society
Shop No. 30, Plot No. - 11,
Sector No. - 14, Sanpada Vashi,
New Mumbai - 400 705.
022-32243031
022- 27812710/74

Delhi

Office No. - 206, Nitika Tower
IInd, Commercial Complex,
Plot no. C-1/4, Naniwala Bagh,
Azad Pur, Delhi - 110 033.
Ph. No. - 011 - 27682429.
Mob: 093123 33986.

Agra

Agra: D-1, Phase II, Transyamauna
Colony, (Nr. Goyal Hospital)
N.H.2, Rambagh, Agra - 282006
Ph.No.: 0562 - 4031765
Mob.: 09358515570

Kolkata

29A, Weston Street,
Ground Floor,
Kolkata - 700 012
Ph No. 033 - 32522779
Mb No. 09331136250.



Constant Innovation & Development of Better PRODUCT RANGE

Contact:

Metalex Cryogenics Ltd.

407, Bhakti Plaza, Bremen Square,
Aundh, Pune - 411 007. MH. India.
Phone: + 91 - 20 - 32342299/88
Telefax: + 91 - 20 - 25881117/8
Email: sales@metalexgroup.com



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