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IPO Note

KRN Heat Exchanger & Refrigeration Ltd

Rating
SUBSCRIBE

Industry: Fin and Tube type heat exchangers
(Heat Ventilation Air Conditioning and Refrigeration)



Date: 24th September 2024

KRN Heat Exchanger & Refrigeration Ltd

Issue Highlights

KRN Heat Exchanger & Refrigeration Ltd IPO is a book built issue of Rs. 341.95 crores. The issue is entirely a Fresh Issue.

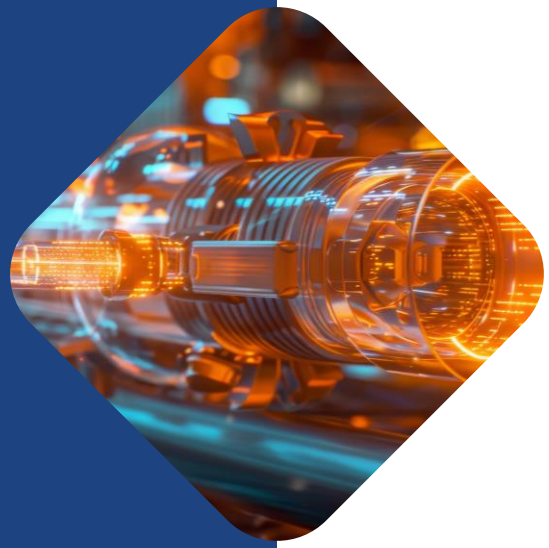
- The Fresh Issue consists of 1.55 crore shares aggregating to Rs. 341.95 crores at the upper end of the price band at Rs. 220 per share.

Objects of the Offer are: The net proceeds of the Fresh Issue are to be utilised in the following manner:

Particulars	Rs. Cr
Investment in wholly owned subsidiary, KRN HVAC Products Pvt Ltd in the form of equity for setting up a new manufacturing facility at Neemrana, Alwar, Rajasthan ("Proposed Project").	242.46
General Corporate Purposes*	[•]
Total	[•]

*KRN, in consultation with the BRLM, has undertaken a Pre-IPO Placement of 4,77,000 Equity Shares aggregating to ₹ 9.54 Crores. The proceeds of the Pre-IPO Placement shall be utilized towards General Corporate purposes and Fresh Issue size disclosed in the Draft Red Herring Prospectus is reduced by 4,77,000 Equity Shares, subject to compliance with Rule 19(2)(b) of the SCRR. The Pre-IPO Placement has not exceeded 20% of the size of the Fresh Issue.

Data Source: Company filings & CSEC Research



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IPO Note

25th Sept 2024 **ISSUE OPENS**

to

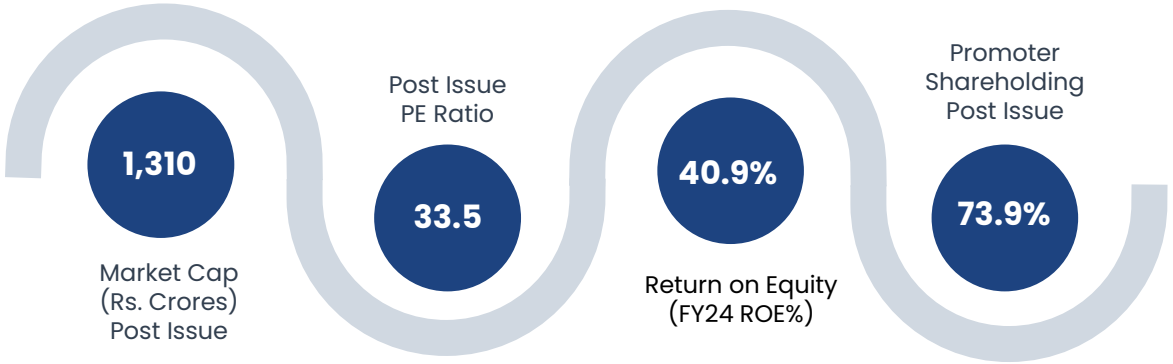
27th Sept 2024 **ISSUE CLOSES**

ISSUE DETAILS	
Price Band	₹209 to ₹220 per share
Face Value	₹10 per share
Total Offer Size	15,543,000 shares (aggregating up to ₹341.95 Cr)
Fresh Issue	15,543,000 shares (aggregating up to ₹341.95 Cr)
Issue Type	Book Built Issue IPO
Minimum lot	65 shares
Listing on	BSE, NSE

Date: 24th September, 2024

Outlook

- The company does not have any direct listed competitors, as the market is primarily composed of private or unorganized entities.
- With long-standing relationships with clients like Daikin, Schneider Electric, and Blue Star, KRN stands to benefit from strong customer retention and high repeat business.
- The rapid growth of the HVAC industry in India, expected to reach USD 23.5 billion by 2029, and the shift toward energy-efficient systems, provide a strong demand outlook for KRN's products.
- This IPO represents a concept-driven investment opportunity, and we foresee potential traction.
- We have issued a "SUBSCRIBE" rating for KRN Heat Exchanger & Refrigeration Ltd's IPO for listing gains.



Indicative Timeline

On or before

Finalization of Basis of Allotment	Monday, Sept 30, 2024
Unblocking of Funds	Tuesday, October 1, 2024
Credit of shares to Demat Account	Tuesday, October 1, 2024
Listing on exchange	Thursday, October 3, 2024

IPO Reservation

QIB Shares	Not more than 50.00% of the Offer
HNI Shares	Not less than 15.00% of the Net Issue
Retail Shares	Not less than 35.00% of the Net Issue

Lot Size

Application	Lots	Shares	Amount
Retail (Min)	1	65	₹14,300
Retail (Max)	13	845	₹1,85,900
S-HNI (Min)	14	910	₹2,00,200
S-HNI (Max)	69	4,485	₹9,86,700
B-HNI (Min)	70	4,550	₹10,01,000

Data Source: Company filings & CSEC Research | Post Issue PER calculated with FY24 PAT

Company Overview

KRN Heat Exchanger and Refrigeration Ltd is a leading manufacturer in the HVAC&R (Heat Ventilation Air Conditioning and Refrigeration) industry, specializing in fin and tube type heat exchangers. Utilizing non-ferrous metals such as copper and aluminum, the company produces a diverse range of heat exchangers, including condenser coils, evaporator units, evaporator coils, fluid and steam coils, and sheet metal parts. These products are customized in various shapes and sizes, with heat exchanger tube diameters ranging from 5mm to 15.88mm, to meet the specific requirements of the market. The company's offerings are designed for a wide array of applications, including residential and commercial air conditioning, refrigeration systems, process cooling, white goods, and medical equipment, positioning KRN as a versatile player in the HVAC&R sector.

- **Product Range and Applications:** KRN Heat Exchanger and Refrigeration Ltd manufactures a wide array of heat exchangers that cater to different sectors such as air conditioning, refrigeration, process cooling, and others. The company's product portfolio includes condenser coils, evaporator coils, header/copper parts, and sheet metal components, all produced using non-ferrous metals like copper and aluminum. These products are integral to various applications, including residential and commercial HVAC systems, precision air conditioning, data center cooling, automotive air conditioning, and defense air conditioning systems. Additionally, KRN serves the refrigeration sector by manufacturing components for commercial refrigeration, beverage coolers, chest freezers, and vending machines. The company's heat exchangers are also used in process cooling applications in civil construction, as well as in white goods such as washing machines and dryers. Furthermore, KRN produces specialized heat exchangers for medical equipment and swimming pool heat pumps, highlighting the diversity and adaptability of its product range.
- **Technological Advancements:** To ensure the durability and efficiency of its heat exchangers, KRN Heat Exchanger and Refrigeration Ltd applies advanced coating technologies such as nano coating and powder coating. These coatings are used on copper tubes, brazing joints, and fin sheets to enhance corrosion resistance and extend the lifespan of the products. The protective barrier created by these coatings allows the heat exchangers to perform efficiently under harsh environmental conditions, minimizing maintenance costs and optimizing operational performance. This technological focus on product longevity and efficiency sets KRN apart in a highly competitive market, ensuring that its products meet the rigorous demands of modern HVAC&R applications.
- **Forward Integration Strategy:** In 2023, KRN expanded its business by incorporating a wholly owned subsidiary, KRN HVAC Products Private Limited. This strategic move is part of the company's forward integration plan aimed at increasing the value-added products within its existing portfolio. KRN HVAC Products Private Limited focuses on manufacturing additional types of heat exchangers that were not previously produced by the parent company. These new products include bar and plate heat exchangers and oil cooling units, which are used in specialized applications such as railway locomotives, defense vehicles, and heavy earth-moving machinery. By venturing into forward integration, KRN aims to control its distribution channels, enhance its marketing reach, and capture a larger share of the value chain. This initiative also positions the company to establish direct connections with end customers, thereby increasing brand visibility and customer loyalty.

- **Strong Market Presence:** KRN Heat Exchanger and Refrigeration Ltd has built a robust market presence, both domestically and internationally, serving a broad customer base across multiple industries. The company's key clients include renowned names such as Daikin Airconditioning India Pvt Ltd, Schneider Electric IT Business India Pvt Ltd, Kirloskar Chillers Pvt Ltd, Blue Star Limited, and Frigel Intelligent Cooling Systems India Pvt Ltd. KRN's manufacturing facility, located in the industrial area of Neemrana, Rajasthan, is fully equipped to handle end-to-end production processes, ensuring that the company can meet growing demand while maintaining strict quality standards.
- **Diversified Customer Base:** In FY24, KRN Heat Exchanger served over 115 customers, with its top 10 clients contributing to approximately 75.94% of the company's revenue. While the company has a strong focus on maintaining relationships with its key customers, it also seeks to reduce its client dependency by expanding its reach into new markets.
- **Expanding Product Base and Global Footprint:** KRN aims to further expand its global footprint by increasing its market presence in regions where it already operates while also venturing into new geographies. The company's strategy involves diversifying its product portfolio and maintaining close interactions with customers to understand their needs. KRN's expansion into new regions and product categories is expected to bolster its market share, particularly in Europe, where the company has seen significant growth.
- **Leadership:** The company is led by Mr. Santosh Kumar Yadav, the Chairman and Managing Director, who brings over 19 years of experience in the heat exchanger manufacturing industry. Mr. Yadav holds a Diploma in Business Management from the Institute of Management Technology, Ghaziabad, and a Diploma in Mechanical Engineering from the Board of Technical Education, Rajasthan. His extensive experience, including a decade-long tenure at Lloyd Electric & Engineering Limited, where he managed production and quality standards, and a two-year deputation at the Luvata Czech plant, further underscores his strategic vision for KRN. Mr. Yadav's technical expertise and leadership have been pivotal in streamlining production processes and ensuring the company's commitment to delivering solutions that meet international standards.
- **Financial Performance and Growth:** KRN's financial performance has shown consistent growth, particularly in its export markets. Export revenue grew at a compound annual growth rate (CAGR) of 44.71% over the past three years, highlighting the company's increasing international footprint. The company's investments in advanced machinery have expanded its production capacity, while strategic pricing decisions have led to an increase in the average sales price of its heat exchangers. The company has also strategically adjusted its product portfolio and expanded its customer base, contributing to its strong financial position.
- **Supply Chain and Inventory Management:** The company maintains long-established relationships with over 510 suppliers. The top supplier accounted for 14.94% of total purchases in FY 2023-24. They import a significant portion of its raw materials from countries such as Malaysia and Vietnam. To ensure consistent supply and cost efficiency, the company places bulk orders to account for the 30 to 45-day transit period, preventing any disruptions to its manufacturing processes. This strategic approach has enabled KRN to manage its growing production requirements effectively. The company's inventory levels have increased significantly, from ₹21.31 Crores in FY22 to ₹84.41 Crores as of March 31, 2024. This growth reflects the company's efforts to meet rising demand while maintaining operational efficiency.
- **Competitive Advantage:** KRN Heat Exchanger and Refrigeration Ltd operates in a highly specialized industry that requires technical expertise in manufacturing heat exchangers. The company faces limited competition in the Indian market due to the critical manufacturing processes involved, allowing it to capitalize on the growing demand for its products. Its scale of operations and ability to meet diverse customer requirements provide a competitive edge in the fragmented HVAC&R industry.

Capability Matrix

1. **Evaporator Coils:** Evaporator coils are essential in cooling systems, such as air conditioners and refrigeration units. They extract heat from indoor air, transferring it to refrigerant in copper tubes. Fins on the coils increase surface area, improving heat transfer efficiency. As air passes over the coil, the refrigerant absorbs heat, cools the air, and continues its cycle through the system. Regular maintenance ensures optimal cooling and energy efficiency.
2. **Condenser Coils:** Condenser coils in HVAC and refrigeration systems transfer heat from refrigerant to the surrounding air, enabling the refrigerant to change from gas to liquid. Bent coils with end plates maximize heat dissipation and reduce leakage risks, optimizing efficiency. This compact design is suitable for both domestic and industrial applications, enhancing overall system performance.
3. **Fluid and Steam Coils:** Fluid coils in HVAC systems heat or cool air by transferring thermal energy from water or glycol, efficiently maintaining indoor temperatures. Steam coils, used in industrial applications, transfer heat from steam to air, or extract heat through chilled water. These coils are valued for their ability to handle large airflow and precise temperature control.
4. **Condensing Units and Air-cooling Units:** KRN custom-manufactures condensing and air-cooling units to meet specific project needs. These units, composed of a compressor, condenser coil, and fan motor, ensure precise temperature control and operational efficiency. KRN's flexibility in design and size ensures the units meet diverse industry requirements.
5. **Headers and Copper Parts:** KRN uses advanced CNC technology to manufacture headers and copper parts, ensuring precision and consistency in bending, forming, and punching. These high-quality components are crucial for efficient heat exchanger performance, contributing to reliability in HVAC systems.
6. **Sheet Metal Parts:** KRN produces both standard and custom sheet metal parts, including end plates for evaporator and condenser coils. Equipped with advanced CNC punching machines, the company ensures precise customization to meet client specifications. KRN's ability to deliver high-quality, tailored solutions strengthens its position in the HVAC industry.

Evaporator Coils

Condenser Coils

Fluid and Steam Coils

Condensing Units and Air-cooling Units

Headers and Copper Parts

Sheet Metal Parts

Data Source: Company filings & CSEC Research

Risks



- **Customer Concentration Risk:** A significant portion of KRNs revenue is derived from a small number of key customers. In Financial Years 2024, 2023, and 2022, the company derived 33.34%, 32.85%, and 32.28% of its revenue, respectively, from its single largest customer, Daikin Airconditioning India Private Limited. Additionally, the top 10 customers contributed 72.31%, 70.87%, and 75.82% of the company's revenue in the same period. Any delay, reduction, or cancellation of orders by one or more of these key customers could materially affect the company's financial performance, as the top five customers alone accounted for 55.12%, 55.82%, and 59.79% of revenues over the past three fiscal years.
- **Lack of Long-term Contracts with Customers:** KRN does not have long-term agreements with its customers and relies on purchase orders issued on a short-term basis. The absence of long-term commitments introduces significant uncertainty, as customers may cancel or alter their orders due to changes in market demand, inventory management, or strategic shifts. This lack of predictability makes it difficult for the company to forecast revenue and production, leading to fluctuations in sales.
- **Supplier Dependency Risk:** KRN's operations are dependent on a limited number of suppliers for raw materials, with the largest supplier accounting for 14.94%, 17.29%, and 17.46% of total raw material purchases in FY 2024, 2023, and 2022, respectively. The top five suppliers contributed 57.73%, 57.98%, and 52.38% of raw materials in the same period. The company procured 78.17% of its raw materials from overseas vendors in FY 2024, making it vulnerable to supply chain disruptions, price fluctuations, and country-specific risks.
- **Volatility in Raw Material Prices:** KRN's cost structure is highly exposed to fluctuations in the prices of key raw materials, such as aluminum foils, copper foils, galvanized sheets, and copper tubes, which accounted for 73.96% of revenue in FY 2024. Although the company passes on price increases to its customers on a quarterly basis, any inability to do so could compress profit margins.

Risks

- **Geographical and Manufacturing Concentration Risk:** KRN's revenue is highly concentrated in the state of Rajasthan, with 41.24%, 43.79%, and 49.19% of its total revenue from operations generated in this region for FY 2024, 2023, and 2022, respectively. Additionally, all the company's manufacturing units are located in Neemrana, Rajasthan. Any adverse local, political, or economic developments in this region, including natural disasters or infrastructure disruptions, could severely impact the company's ability to operate and generate revenue.
- **Working Capital Requirements:** The company's business model requires substantial working capital to finance inventory and raw material purchases. In FY 2024, KRN's working capital was ₹131.76 crore, compared to ₹63.87 crore in FY 2023 and ₹26.45 crore in FY 2022. The company relies heavily on bank borrowings to fund its working capital needs.
- **Competitive Pressures:** KRN operates in a fragmented and highly competitive industry, facing competition from both domestic and international players such as Prijai Heat Exchangers Private Limited, Spirotech Heat Exchangers Private Limited, and Alfa Laval India Private Ltd. The competitive nature of the HVAC industry may lead to pricing pressures, reduced profit margins, and loss of market share, particularly as competitors with greater financial resources invest in advanced technologies and innovations.
- **Government Policy and Incentives Risk:** KRN benefits from various government incentives and export promotion schemes, such as the Duty Drawback Scheme, RoDTEP, EPCG, and the Rajasthan Investment Promotion Scheme (RIPS). Any changes in government policies or a failure to comply with scheme requirements could lead to the loss of these benefits. For example, the company's export obligations under the EPCG scheme mandate that it exports goods worth six times the duty saved on imported capital goods within six years. Non-compliance could result in the reversal of these benefits, adversely affecting the company's financial performance.



FINANCIALS

Income Statement (Rs. Cr)	FY24	FY23	FY22
Revenue from Operations	308.3	247.5	156.1
Other Income	5.2	2.4	2.1
Total Income	**313.5**	**249.9**	**158.2**
Expenses	249.8	198.2	139.2
EBITDA	**58.5**	**49.3**	**16.9**
Depreciation	4.0	3.2	2.5
EBIT	**54.5**	**46.1**	**14.4**
Finance Cost	4.0	3.1	1.5
PBT	**55.7**	**45.5**	**15.0**
Tax	16.7	13.2	4.4
PAT	**39.0**	**32.3**	**10.6**
EPS (In Rs.)	**0.08**	**0.07**	**0.24**

Balance Sheet (Rs. Cr)	FY24	FY23	FY22
Equity And Liabilities			
Share Capital	46.1	44.0	4.4
Other Equity and Reserves	85.5	15.6	21.1
Borrowings	87.0	36.6	22.1
Other Liabilities	39.8	52.5	45.1
TOTAL EQUITY AND LIABILITIES	**258.4**	**148.7**	**92.8**
Assets			
Fixed Assets	81.7	32.1	21.3
CWIP	4.5	-	-
Cash & Cash Equivalents	16.0	15.5	14.2
Other Assets	156.2	101.1	57.3
TOTAL ASSETS	**258.4**	**148.7**	**92.8**

Notable Ratios

Particulars	FY24	FY23	FY22
EBITDA Margins (%)	18.98%	19.92%	10.85%
Return on Equity (RoE%)	40.86%	75.94%	54.88%
Return on Capital Employed (RoCE%)	31.21%	50.46%	34.65%
Return on Net Worth (%)	29.68%	54.24%	41.48%

Notable Ratios

Particulars	FY24	FY23	FY22
Net Working Capital Days	88	65	36
Inventory Turnover Days	112	76	38
Operating Cash Flows (Rs. Cr)	2.75	5.07	4.48
Net Fixed Assets Turnover (In Times)	5.48	7.70	7.32
Debt Service Coverage Ratio	8.64	8.46	6.16

Data Source: Company filings & CSEC Research

Revenue Generated from Domestic & Export Sales

Particulars	FY24 (Consolidated)		FY23 (Standalone)		FY22 (Standalone)	
	Rs. Cr	%	Rs. Cr	%	Rs. Cr	%
(A) Domestic Sales						
Rajasthan	127.1	41%	108.4	44%	76.8	49%
Maharashtra	34.0	11%	15.6	6%	10.4	7%
Karnataka	29.0	9%	28.5	12%	17.6	11%
Haryana	26.3	9%	12.3	5%	8.8	6%
Uttarakhand	11.8	4%	11.2	5%	5.1	3%
Himachal Pradesh	10.9	4%	19.9	8%	4.2	3%
Gujarat	7.7	3%	6.8	3%	7.3	5%
Uttar Pradesh	4.7	2%	8.2	3%	4.8	3%
Diu Daman & Dadar Nagar	4.1	1%	3.5	1%	1.7	1%
Others	7.3	2%	4.8	2%	4.5	3%
Total Domestic Sales	**262.9**	**85%**	**219.2**	**89%**	**141.1**	**90%**
(B) Exports						
United Arab Emirates	25.9	8%	14.4	6%	13.8	9%
USA	10.6	3%	7.5	3%	0.1	0%
Italy	7.2	2%	5.6	2%	0.8	0%
Others	1.6	1%	0.7	0%	0.2	0%
Total Exports Sales	**45.3**	**15%**	**28.3**	**11%**	**14.9**	**10%**
Total Sales	**308.3**	**100%**	**247.5**	**100%**	**156.1**	**100%**

Top Customers

Particulars	FY24		FY23		FY22	
	Rs. Cr	% of Rev	Rs. Cr	% of Rev	Rs. Cr	% of Rev
Top 1 Customer	102.8	33.3%	81.3	32.9%	50.4	32.3%
Top 5 Customers	169.9	55.1%	138.1	55.8%	93.3	59.8%
Top 10 Customers	222.9	72.3%	175.4	70.9%	118.4	75.8%

Top Suppliers

Particulars	FY24		FY23		FY22	
	Rs. Cr	%	Rs. Cr	%	Rs. Cr	%
Top 1 Supplier	37.6	14.9%	36.3	17.3%	24.3	17.5%
Top 5 Suppliers	145.3	57.7%	121.8	57.9%	72.8	52.4%
Top 10 Suppliers	196.2	77.9%	164.9	78.5%	97.3	70.1%

Product-wise Units Produced & Sold

Particulars	FY24	FY23	FY22
Total Quantity Sold (in Units)			
Evaporator Coils	2,02,273	1,13,182	1,07,564
Condenser Coils	2,45,950	2,74,890	2,25,063
Headers/ Copper Parts	1,29,580	96,630	14,977
Sheet Metal Parts	1,141	7,138	652
Total Quantity Produced (In units)			
Evaporator Coils	2,20,152	1,13,027	1,07,356
Condenser Coils	2,56,264	3,05,944	2,26,300
Headers/ Copper Parts	6,06,854	4,85,552	3,60,118
Sheet Metal Parts	4,77,557	4,22,214	3,34,090

Data Source: Company filings & CSEC Research

Revenue Generated from Products

Products	FY24 (Consolidated)		FY23 (Standalone)		FY22 (Standalone)	
	Rs. Cr	% of Rev	Rs. Cr	% of Rev	Rs. Cr	% of Rev
Evaporator Coils	115.6	37%	71.5	29%	51.4	33%
Condenser Coils	170.3	55%	152.3	62%	99.5	64%
Headers/ Copper Parts	4.7	2%	1.8	1%	0.6	0%
Sheet Metal Parts	0.1	0%	0.2	0%	0.1	0%
Other Operating Revenues	17.6	6%	21.7	9%	4.6	3%
Total Revenue	**308.3**	**100%**	**247.5**	**100%**	**156.1**	**100%**

Revenue generated in different continents

Continents	FY24 (Consolidated)		FY23 (Standalone)		FY22 (Standalone)	
	Rs. Cr	% of Export Rev	Rs. Cr	% of Export Rev	Rs. Cr	% of Export Rev
Europe	7.9	17.5%	6.2	22.0%	1.0	6.4%
North America	10.6	23.5%	7.5	26.7%	0.1	0.9%
Asia*	26.7	59.0%	14.5	51.3%	13.8	92.7%
Total Exports Sales	45.3	100%	28.2	100%	14.9	100%
Total Revenue	**308.3**	**100%**	**247.5**	**100%**	**156.1**	**100%**

**Asia Sales does not include Sales made in India (Domestic Sales)*

Financial Indicators of Peers as of FY23

Company Name	Rev from Ops (Rs Cr.)	EBITDA Margin (%)	PAT (Rs Cr.)
KRN Heat Exchanger & Refrigeration	247.5	19.90%	32.3
Alfa Laval India Pvt. Ltd	1,687.3	17.90%	210.2
Danfoss Power Solutions India Pvt Ltd.	451.7	14.30%	35
Kelvion India Pvt Ltd	290.8	6.00%	-20
Prijai Heat Exchangers Pvt Ltd	187.4	7.00%	5.4
Rex Heat Exchangers India Pvt. Ltd	0.8	12.40%	0.1
Spirotech Heat Exchangers Pvt Ltd.	435.8	11.20%	24.4

Data Source: Company filings & CSEC Research

Industry Outlook

The global heat exchanger market was valued at USD 16.8 billion in 2023, growing at a CAGR of 6.4% from 2019 to 2023. This expansion was driven by the increasing global demand for cost-effective, sustainable, and low-energy solutions. Industries are adopting innovative technologies, in line with Industry 4.0, to reduce costs and enhance efficiency. Heat exchangers play a pivotal role in this transition, particularly in improving thermal efficiency and reducing carbon emissions, aligning with global sustainability goals. Traditional markets for heat exchangers, such as North America and Europe, are strong, but there is a shift towards emerging economies like India and China. Large-scale industrialization in the Asia-Pacific (APAC) region has spurred demand for heat exchangers in power generation, oil and gas, and chemical processing, positioning APAC as a key growth market.

In India, the heat exchanger market was valued at USD 689 million in 2023, growing at a CAGR of 10% between 2019 and 2023. The market was impacted by the COVID-19 pandemic, with growth slowing to 6% in 2020, but demand rebounded, leading to an average revenue growth of 11% per year from 2021 to 2023. Rapid industrialization, urbanization, and infrastructure development are key drivers of demand, with heat exchangers playing a crucial role in energy efficiency and carbon reduction efforts. The increasing focus on sustainable energy use is expected to further drive demand for heat exchangers in the country.

Shell and tube heat exchangers dominated the Indian market, accounting for 53% of revenue in 2023, followed by finned tube heat exchangers at 21%. The chemical and oil & gas industries were the largest consumers of heat exchangers, each accounting for roughly 20% of total industry turnover. Other key sectors include power & energy, HVAC, and metallurgy, which together accounted for 80% of industry revenue in 2023. The demand for heat exchangers in these sectors is driven by the need for precise temperature control and efficient heat transfer, particularly in industrial processes.

The Indian HVAC market generated USD 9.1 billion in annual turnover in 2023 and is expected to grow at a CAGR of 14.5%, reaching USD 20.5 billion by 2029. This growth is supported by rising incomes, urbanization, and increasing demand for energy-efficient systems in residential and commercial segments. The shift towards smart HVAC solutions, with advanced controls and IoT integration, is further driving market demand. The Indian government's focus on infrastructure development, including smart cities and green building initiatives, is boosting the adoption of HVAC systems, which in turn drives demand for heat exchangers as a critical component of these systems.

In the refrigeration sector, the rising demand for advanced consumer appliances and energy-efficient models has spurred growth in the use of heat exchangers in refrigeration systems, particularly in condensers and evaporators. This trend is further supported by increasing household incomes, urbanization, and the shift towards nuclear families. The integration of heat exchangers in refrigeration systems enhances energy efficiency, which is becoming a key purchasing factor for consumers.

The Indian government's investment of USD 1.45 trillion in infrastructure over the next five years, coupled with the planned construction of 80 new airports, will significantly drive demand for HVAC and heat exchanger systems. This growth is further supported by the expansion of data centres, office spaces, shopping malls, and hospitality projects, with key players like DLF and Blackstone leading major developments. These infrastructure projects, along with initiatives like Make in India and the Production Linked Incentive (PLI) scheme, are expected to boost local manufacturing and reduce import dependency.

The chemical manufacturing industry is the largest consumer of heat exchangers in India, driven by ambitious capacity expansion plans. The government's efforts to position India as a global chemical manufacturing hub are expected to increase demand for heat exchangers in the coming years. The chemical sector's consumption of heat exchangers is expected to reach USD 337.6 million by 2030, growing at a CAGR of 12.8%. Similarly, the HVAC sector's growth will significantly boost demand for finned tube heat exchangers, with the market expected to grow from USD 146 million in 2023 to USD 326 million by 2029, driven by strong demand in real estate, manufacturing, and transportation sectors.

Overall, the Indian heat exchanger industry is poised for significant growth, driven by rapid industrialization, infrastructure development, and the increasing emphasis on energy efficiency across multiple sectors. The government's infrastructure investments and focus on sustainability will play a key role in shaping the future demand for heat exchangers in the country.

Data Source: Company filings & CSEC Research

Cholamandalam Securities Limited Member: BSE, NSE, MSE, NSDL, CDSL

Regd. Office: Chola Crest, C54 – 55 & Super B-4, Thiru-Vi-Ka Industrial Estate, Guindy, Chennai – 600032.

Website: www.cholasecurities.com | **Email id** – csecsupport@chola.murugappa.com | CIN U65993TN1994PLC028674

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RESEARCH			
Dharmesh Kant	Head of Equity Research	+91- 44 - 4004 7360	dharmeshkt@chola.murugappa.com
Balaji H	Compliance Officer	044 - 30007226	balajih@chola.murugappa.com
Sriram V	Customer service	1800 425 4477	sriramv@chola.murugappa.com

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