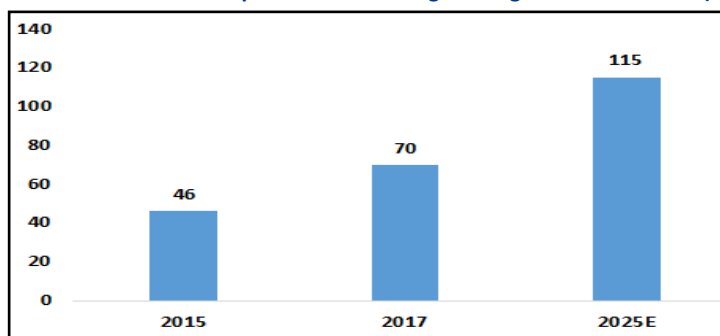


About the Industry: The engineering sector marked as the largest industrial sectors in India, accounts for 27% of the total factories in the industrial sectors and represents 63% of the overall foreign collaborations. India's engineering sector has witnessed a remarkable growth over the last few years driven by increased investment in infrastructure and industrial production. The sector plays an important role in accelerating India's overall development. Capacity creation in sectors such as infrastructure, power, mining, oil & gas, refinery, steel, and consumer durables are driving the demand. The sector has a comparative advantage in terms of manufacturing costs, market knowledge, technology and creativity. Rising competition is driving domestic players to focus on improving their capabilities, become more quality conscious and upgrade their technology base in line with global requirements. Govt measures to make India a manufacturing hub will transcend into a major opportunity for the sector as a whole and engineering in specific due to the nature of product and varied product applications, which caters to automotive, industrials, power generation & consumer durables.

Exhibit 01: Value of Capital Goods and Engineering Turnover in India (USD bn)



Source: Statista.com, Progressive Research

Macro Impact: The impact of the pandemic on global trade was visible with reduced trade flows and collapsing demand across the globe; the severity of it being witnessed on global as well as regional production networks as supply chains were disrupted. Manufacturing and other industries reliant on the imports of heavy machinery and equipments too witnessed a major slowdown. In March 2021, the IHS Markit India Manufacturing Purchasing Managers' Index (PMI) slipped to a seven-month low of 55.4 from 57.5 in Feb, 2021. On the contrary, the manufacturing sector appears to have weathered the storm of Omicron variant showcased by the February PMI that came in at 54.9, up from 54.0 in January, 2022, signaling stronger improvement in the sector, sustained sales growth and new work intakes. The latest geo-political headwinds has led to a global spike in international prices of crude oil, natural gas, coal, nickel, aluminium, etc. which may dent the growth of manufacturing and infrastructure sectors.

Indian Current Scenario: The capital goods sector in India portrays a market size of USD43.2bn. The industry is divided into 10 sub-sectors where electrical and power equipment is the largest sub-sector followed by earthmoving and mining machinery (9.4%), process plant equipment (7.3%), printing and packaging machinery (6.2%), dies and moulds (5.6%), food processing machinery (4.9%), textile machinery (2.5%), machine tools (2.2%), plastic processing machinery (1.4%), and metallurgical machinery (0.6%). As per CARE Ratings, the outlook for capital goods sector remains healthy given the government's thrust on infrastructure development. The Union Budget FY22 has proposed a sharp 34.5% increase in capital expenditure to boost the demand for capital goods in the country. Investments in power equipment's, renewable energy projects, oil & gas distribution, affordable housing, port development, railway DFC corridors, coupled with robust industrial activity will drive the growth in capital goods industry.

SNAPSHOT				
52 week H / L		Mcap (INR mn)		
310/133		1,270		
Face value: 10				
BSE Code		NSE CODE		
517417		-		
Annual Performance				
(Rs mn)	FY19	FY20	FY21	FY22E
Total Revenue	1,509	2,374	2,554	2,978
EBITDA	174	230	260	295
EBITDA (%)	11.5	9.7	10.2	9.9
Other Income	8	19	6	16
Interest	50	72	80	100
Depreciation	26	29	33	46
PBT	105	148	154	165
PAT	73	113	114	124
Equity (Rs mn)	51	51	51	51
EPS (INR)	14	22	22	24
Quarterly Performance				
Parameters (Rs mn)	Mar-21	Jun-21	Sept-21	Dec-21
Sales (Net)	721	483	614	1,132
EBITDA	73	65	67	79
EBITDA (%)	10.1	13.4	10.9	7.0
Other Income	2	2	2	2
Interest	23	23	25	19
Depreciation	9	8	8	8
PAT	30	26	26	40
Equity (Rs mn)	51	51	51	51
Ratio Analysis				
Parameters (Rs mn)	FY19	FY20	FY21	FY22E
EV/EBITDA (x)	8.9	7.3	6.9	6.4
EV/Net Sales (x)	1.0	0.7	0.7	0.6
M Cap/Sales (x)	0.8	0.5	0.5	0.4
M Cap/EBITDA (x)	7.3	5.5	4.9	4.3
Debt/Equity (x)	0.5	0.5	0.6	0.6
ROCE (%)	18	22	21	21
Price/Book Value (x)	1.6	1.4	1.3	1.1
P/E (x)	17.4	11.2	11.2	10.3
Shareholding Pattern as on 31st March, 2022				
Parameters	No of Shares	%		
Promoters	2,439,462	48.1		
Institutions	-	-		
Public	2,630,778	51.8		
TOTAL	5,070,240	100.0		

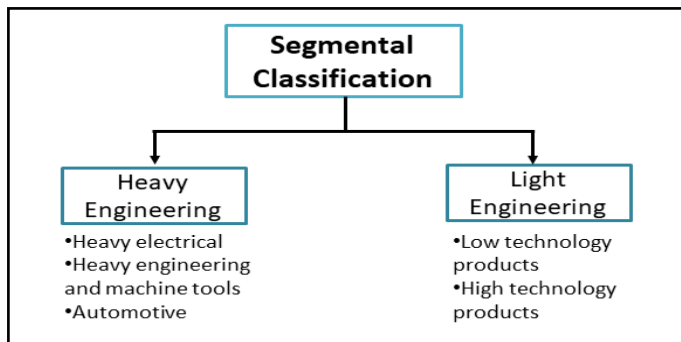
Source: Annual Report, Progressive Research

Note: Data is calculated as on 08th Apr, 2022

About the Industry (contd.):

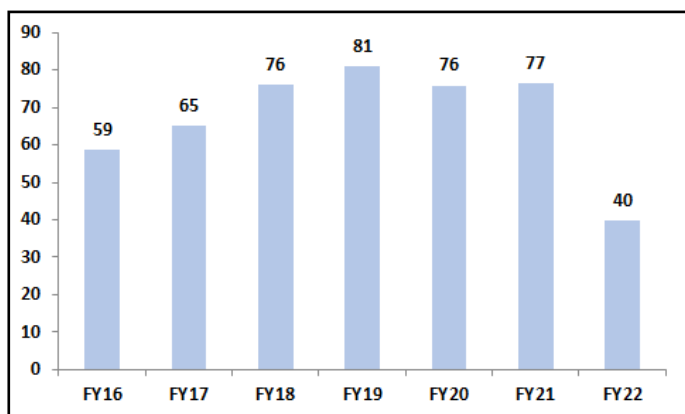
Indian Exports Overview: The year 2021 had seen engineering exports on a pretty positive note amidst the challenges related to higher input costs, supply-chain disruptions and exceptionally higher freight rates. The shipments reported a 37% y-o-y growth in December, 2021 with the total value estimated at USD9.7bn. Engineering exports rose to 54% to USD81.8bn during Apr-Dec, 2021-22 as against USD52.9bn in the same period last year; for 9MFY22, exports stood at USD52.9bn. Holistically, the sector accounted for 27% of the total Indian exports kitty during the period. The United States (14.7%) top the chart to India's exports partner during April-November, 2021, followed by China (5.8%), UAE (5.1%), Italy (4%) & Germany (3.4%). According to the Ministry of Commerce & Industry, the impressive growth in the engineering goods was largely reported on account of the Zero Duty Export Promotion Capital Goods (EPCG) scheme that aids in facilitating the import of capital goods for manufacturing quality goods and to augment the competitiveness of India's exports.

Exhibit 02: Segmental Breakup



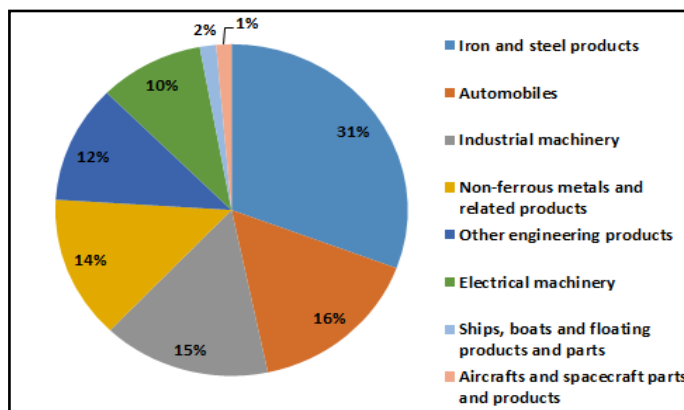
Source: IBEF July, 2021, Progressive Research

Exhibit 03: India's Engineering Exports (USD bn)



Source: IBEF, Progressive Research

Exhibit 04: Engineering Exports Performance (Oct, 2021)



Source: IBEF, Progressive Research

GOI Initiatives: aim at providing boosters to propel growth. Some of the recent initiatives included,

(i) **Make in India:** In May 2016, the Cabinet had approved its first-ever National Capital Goods policy that seeks to reduce reliance on imported equipment by incentivising domestic production. The policy was implemented with the primary agenda to increase production of domestic capital goods from USD31bn in 2014-15 to USD101bn in 2025

(ii) **Reduction in tariff and customs:** The Government has eliminated tariff protection on capital goods and also it has reduced custom duties on a range of engineering equipment. Along with duty protection, local producers are also eligible for benefits like duty free import of specified capital goods. The government has a goal of scaling up the electronics industry including exports to USD400bn by 2025

(iii) **Inter-ministerial committee:** With an aim to strengthen the capital goods sector, the government has set up an inter-ministerial committee that would aid in contributing to the national goal of achieving USD5trn economy and a USD1trn manufacturing sector. The committee aims to have an active involvement in matters pertaining to the capital goods sector including technology development, global value chains, testing, skill training, global standards and custom duties to make this sector globally competitive and to become the manufacturing hub for the world

(iv) **De-licensing:** Having a comparative advantage over manufacturing cost, technology and innovation, the sector attracts immense interest from foreign players. With major international players looking for growth opportunities to enter the Indian engineering sector, the industry has been de-licensed and a 100% FDI is permitted via the automatic route. According to the data released by Department for Promotion of Industry and Internal Trade, the FDI inflows in miscellaneous mechanical and engineering sectors stood at USD3,881mn between April 2000 to December 2021

About the Company: Patels Airtemp India Ltd (PAT) is engaged in the manufacturing and selling of heat exchangers such as shell & tube type, finned tube type and air cooled heat exchangers, pressure vessels, air-conditioning and refrigeration equipment. The company was founded in 1973, headquartered in Ahmedabad, India. In 1993, the company strengthened its offering by setting up a new manufacturing facility at Rakanpur, Gujarat, spread over 33,400 sq.mt. of land. The company got listed on the exchange and was renamed to Patels Airtemp (India) Ltd. Today, PAT has a long-standing operational track-record in the business of design and fabrication of process equipment & engineering goods. PAT is an ISO 9001:2015 certified company and it offers customised solution of air cooled and shell type heat exchangers, pressure vessels and special storage tanks for oil and chemical storage. The company also provides air conditioning solutions to industrial and domestic customers. The products offered by PAT are one of the critical components of oil refineries, nuclear reactors and power generation facilities where it helps in transfer of heat from one medium to another without mixing the two. The products are approved by some of the major third-party inspection agencies and consultants like Bureau Veritas, TUV, Engineers India Ltd., SGS India Pvt. Ltd, etc. The clients which the company caters to, enjoy leading position in their respective industry segment which to some extent reduces the counter party credit risks. PAT has a long and established relationship with its reputed clientele (over 550) which includes oil majors as well as reputed EPC players. PAT undertakes tender based work with large order value where top 5 customers contributed around 76% (as against 65% in FY20) of net sales during FY21. Some of the key end clients include, Indian Oil, Reliance Industries, BPCL, ONGC, CPCL, NRL, IFFCO, NexLube, Nova Chemicals, Suncor Energy, Cenovus, TransCanada, MEG Energy etc.; OEMs include Siemens, Cameron, Air Products, Ingersoll Rand, Air Liquide, Exchanger Industries, Croll Reynolds, Burckhardt Compression etc.; PMC/EPC/LSTK include Toyo Engineering, L&T Hydrocarbon, Petrofac, Jacobs, Samsung Engineering, Bechtel, EIL, PDIL etc.

Exhibit 05: Product Portfolio

Air Cooled Heat Exchanger



Shell & Tube Heat Exchanger



Ambient Air Heater



Air Cooled Condenser



Pressure Vessels



Shell & Fin Tube Heat Exchanger



Source: Company Website, Progressive Research

Heat Exchangers (HE) are devices designed to transfer heat between two or more fluids and between solid surfaces of non identical temperatures. The media maybe separated through a solid wall, to intercept mixing. In general, the plate exchangers contain multiple plates installed inside a frame and fluid passes through these plates, allowing heat transfer from the hot to the cold side. The plate heat exchangers must provide adequate velocity across the plate to transfer heat while also controlling pressure drops. Qualities like **viscosity and particle size** help recognize the type of exchanger best for any given application. The heat exchangers are widely used in air conditioning, refrigeration, space heating, food processing, dairy, biochemical processing, pharmaceuticals, chemical plants, petrochemical plants, power stations, sewage treatment, natural-gas processing etc. Some of the major players in this market include Alfa Laval, Accessen Group, Chart Industries, Thermofin GmbH, Hisaka Works. Ltd., Xylem, Koch Industries, Inc., API Heat Transfer, Danfoss A/S, Exchanger Industries Limited etc. Heat exchangers are highly labour-intensive to produce with long welding hours which is the reason for the production being shifted to developing countries where only standard products are manufactured, however, in future, custom-made heat exchangers are anticipated to be produced in India and China.

Exhibit 06: Classification of Heat Exchangers

Type	Application	Material Construction
Shell & Tube	Chemical	Carbon Steel
Plate & Frame	Petrochemical	Stainless Steel
Air Cooled	Oil & Gas	Nickel
Microchannel	HVACR	Others
Others	Food & Beverage	
	Power Generation	
	Paper and Pulp	
	Others	

Source: Company Website, Progressive Research

Investment Rationale:

(A) Business Classification: The operations of the company cater to one segment; viz; **engineering fabrication** with different products under its gamut, like heat exchangers, air cooled heat exchangers, pressure vessels, air-conditioning & refrigeration equipment, turnkey HVAC projects and other miscellaneous products. These products find the requisite applications to industries such as power, refineries, fertilizers, cement, petrochemicals, pharmaceuticals, textile and chemicals. Based on the applications, the market is categorised into chemicals, oil & gas, power generation, HVAC, automobile, pharmaceuticals, food & beverages, etc. As a matter of fact, different chemicals are put to use in different industrial applications (at varying temperatures), which forms an integral part of chemical formation. Industries across the globe produce **waste heat** which can **re-utilise** the high temperature and energies, thereby providing a better profit yield to the owner as the cost per energy unit gets reduced. The **chemical segment** has contributed almost 25% of the global heat exchanger market in 2020. Apart from this, the **oil & gas** and **power** sector too witnessed an uptick attributed to increased energy demand. As far as the **HVAC industry** is concerned, in recent years, it too gathered pace with rising installations at commercial and residential sectors which have ultimately driven the market growth. Similarly, the expansion of the **food and beverages** and automobile industry with rising food production and vehicle demand will open doors for this market. With the increased **adoption of renewable energy** resources i.e. wind, solar, urgency to reduce the greenhouse gas emissions, would contribute towards the growth of global heat exchanger market. In addition to this, the government targets for encouraging renewable energy as a resource would be an additional booster to the heat exchanger market. As per MarketsandMarkets.com, the global HE market is anticipated to reach USD19.9bn by 2026; wherein Europe accounted for the largest market share (30.5% of the global market) in 2020. Among the other noteworthy geographic markets, Japan and Canada, each forecast to grow at 2.9% and 3.4% respectively over the 2020-2027 period. Within Europe, Germany is anticipated to grow at approximately 3.3% CAGR. Increasing demand for technological advancements from the end-users will be the key trigger for rapid growth in the global market. In addition to this, increasing investments in R&D activities, new launches, partnerships, strategic initiatives towards increasing urbanization and industrialization will benefit the market.

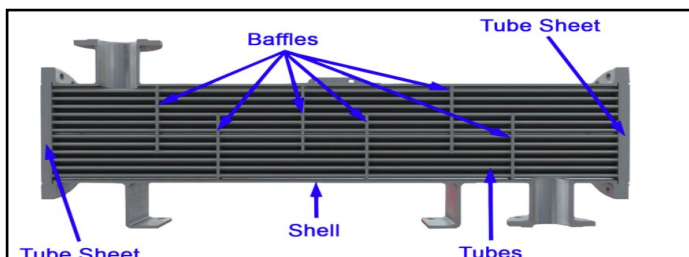
Exhibit 07: Product Parameters

Products	Succession Parameters
Air Cooled Heat Exchanger	Bay: 1000+, Bundles: 2500+, Modular Construction: 150+
Shell & Tube Heat Exchanger	Heat Exchanger: 3000+
Ambient Air Heater	Bundles: 300+, Bays: 150+
Pressure Vessels	Pressure vessels: 1800+
Shell & Plate Type Heat Exchanger	Heat exchangers: 1200+
AC & Refrigeration Equipments	Equipments: 1500+

Source: Company Website, Progressive Research

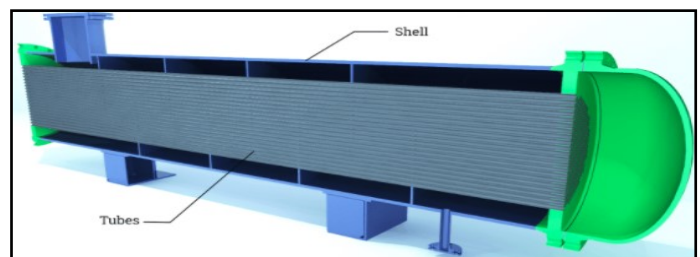
(i) Shell & Tube Heat Exchangers: As per Thermopedia, these are one of the popular types of exchangers. The fluids exchange heat with the help of tubes and shells (due to the flexibility the designer has to allow for a wide range of pressures and temperatures). All the tubes are collectively known as a tube bundle/tube nest. Moreover, each tube passes through chained baffles and tube sheets (which are also known as tube stacks). The flowing medium within the tubes is termed as *tube side medium*, while the one outside the tube is known as *shell side medium*; each medium having one entry and one discharge point. **Shell** is made of pipe or welded metal plates, with materials that withstand extreme temperatures while at the same time possessing a corrosion resistant property. **Tubes** are welded or extruded and most commonly made from carbon, steel, stainless steel, titanium, copper etc. The thickness of the tubes is chosen for pressure, temperature, thermal stress, and resistance to corrosion at lengths of 6 to 24 feet or 2 meters to 7 meters. **Baffles** are considered as metal separators used in the shell side of the exchangers. They act as supporters to the tubes for its proper positioning at the time of assembly and operation execution. In other words, it improvises the heat transfer mechanism between the shell side and tube side process fluids.

Exhibit 08: Shell & Tube Heat Exchanger Components



Source: savree.com/en/encyclopedia/shell-and-tube-type-heat-exchanger

Exhibit 09: Shell Structure

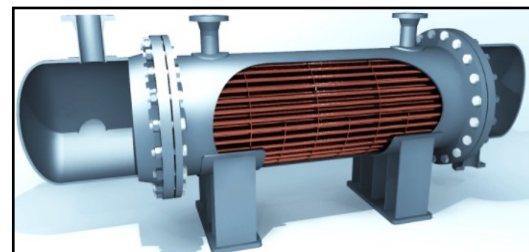


Source: iqsdirectory.com/articles/heat-exchanger/shell-and-tube-heat-exchangers

Investment Rationale (contd.):

The Tubular Exchanger Manufacturers Association (TEMA) and American Society of Mechanical Engineers (ASME) are the main standards that are put to use to design and fabricate the exchangers. The TEMA standard also defines the classes and main configuration styles of exchangers. The standards are classified into 3 categories: **Class B** (chemical processing), **Class C** (commercial applications), and **Class R** (petroleum and large scale applications). The classification of a shell & tube heat exchanger is determined by the construction and structure of the shell and the type of service it provides. Shell & Tube exchangers meet the needs of industries ranging from food, beverage, dairy and pharmaceutical industries for the production of consumer related products while at the same time ensure that they are safe and effective. Apart from having an exhaustive list of benefits; maintaining efficiency, versatility, easy to clean and repair and bearing a compact size and cost (much lesser as compared to the plate type coolers) are other qualities of these products. As per HNY Research Report, the global shell & tube exchanger market was valued at USD1.113bn in 2020 and anticipated to grow at a CAGR of 3.78% from 2020-27. These exchangers are considered to gain prominence in the future and are expected to grow at a CAGR of 5.9% by 2030. The significant growth is anticipated owing to easy maintenance, lower price and maintaining efficiency. Also they are best put to use with high operating temperatures and pressures, thus having vital applications in power generation, oil & gas, chemical process industries. Moreover, shell & tube type of heat exchangers offers a relatively large ratio of heat transfer area to volume and weight.

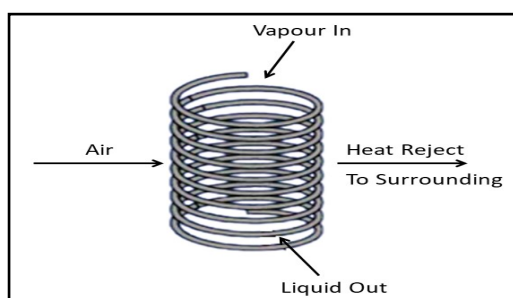
Exhibit 10: Tube Structure



Source: iqsdirectory.com/articles/heat-exchanger/shell-and-tube-heat-exchangers

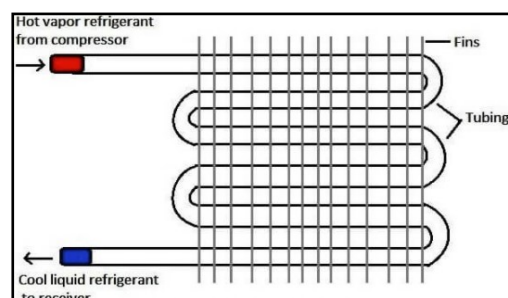
(ii) Condensers: act as a heat exchanger which convert vapour to a liquid form. The heat from the system is rejected either to atmosphere air or to water which is used as a cooling medium which in term rejects the heat to the atmosphere. The applications of condensers involve self-contained units such as home refrigerators, freezer cabinets, water coolers and air room conditioners. Condensers generally are further sub-divided into **Air Cooled Condenser (ACC)**, Water cooled condenser and Evaporative condenser where **PAT caters to ACC**. These condensers comprise of steel, copper or aluminium tubings with fins where heat is detached by air either by using the natural or forced circulation. When high-temperature steam/vapour flows through the tube, the steam transfers the heat into the surroundings due to the connection of air to the tube. ACC have applications in small capacity refrigeration systems like water coolers, split ACs, etc.

Exhibit 11: Process of Air Cooled Condenser



Source: engineersrail.com/condenser/, Progressive Research

Exhibit 12: Air Cooled Condenser Structure



Source: mechanicaljungle.com/different-types-of-condensers/

(iii) Pressure Vessels: are closed containers that are used to hold gases/liquids at a pressure level substantially higher or lower than the ambient pressure. The industrial applications spread across petrochemicals, oil & gas, chemical and food processing segments. Certain examples include glassware, autoclaves, compressed gas cylinders, compressors (including refrigeration), vacuum chambers and custom designed laboratory vessels. Some of the well-known standards are the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME BPVC) Section VIII, and the American Petroleum Industry (API) 510 Pressure Vessel Inspection Code. The global pressure vessel market size is estimated to reach at USD53.3bn by 2025 from earlier USD42.7bn in 2020, CAGR of 4.5%. Considering higher demand from chemical, oil & gas industries, worldwide increase in energy consumption, acceptance of new technology, environmental awareness pertaining to mining activities, etc. all of these are expected to drive the growth in the near term. Asia Pacific is expected to be the largest market for pressure vessel due to the rapid expansion of power sector in this region.

- (iv) Ambient Air Heater:** mainly used to heat up LNG, propane, butane and all other cryogenes and liquefied gases.
- (v) Shell & Fin Tube Type Heat Exchangers:** are utilized when high heat transfer is required. These products are compiled under various product range (inter cooler, after cooler, oil cooler) having compact size compared to normal heat exchanger.
- (vi) Air Conditioning & Refrigeration Equipments:** Since inception PAT leads the domestic air conditioning market.

Investment Rationale (contd.):

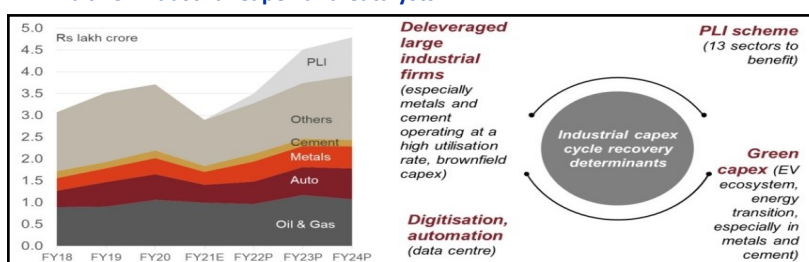
(B) Ahead of the Curve: PAT has been one of the stronger players in the domain for manufacturing and selling heat exchangers such as shell & tube type, finned tube type, air cooled heat exchangers, pressure vessels, air-conditioning and refrigeration equipment which clearly indicates the company has an edge in terms of technology when compared to some of its peers.

Technology Absorption: As per industry specifications, the ASME Boiler and Pressure Vessel Code provides a framework for pressure bearing components regarding their materials, design, fabrication, examination, inspection, testing, certification and pressure relief. ASME pressure vessels and pressure vessel accessories are certified with the ASME stamp and are divided into different types of components (steam boilers, heating boilers, and pressure vessels), fabrication and testing processes (welding), materials, etc. These stamps stand out on few important parameters of **reducing risks** (in cases of reimbursement of insurance claims), **quality** (enabling to carry out third party inspections) and **safer pressure products**. Although there are many sub-categories of ASME stamps, but on a broader basis, the most prominent ones are ASME R (indicated for the alteration and/or repair of pressure vessels, boilers), ASME S, and ASME U (indicated for use of pressure vessel certification and acceptance).

As reiterated earlier, PAT has a diversified portfolio and acts as a single stop solution provider for multiple heat and mass transfer applications. The company has established a well-equipped testing and Non-Destructive Evaluation (NDE) laboratory with the number of sophisticated instruments for testing and non-destructive examination of the products which are manufactured. Over the years, the company has been consistent in technology upgradation and product systems. PAT possesses an ISO 9001-2015 certification, ASME (U2, U, S, NB and R stamps). The entire product basket has an ASME authorization to its credit. Apart from this, the company has Heat Transfer Research, Inc. (HTRI) membership agreement for Category- II which entails in updating heat transfer technology from the USA. An investment of ~Rs2163mn (in FY21) has been made on plant and equipment in order to upgrade the high tech equipments and increase the built up area. Updating technology is a continuous process at PAT which is absorbed, implemented and adapted for innovation. The R&D team continuously put in efforts to develop new products required by the engineering industry. The in-house systems and operations are constantly innovated to deliver better quality and to perform as per customers' requirement. To increase the productivity, the company has invested in high tech finning machine and simultaneously has efforts to cater to in-house developments for better quality and serve its marquee clients. The company adheres to strict quality standards while developing products that match excellence with international standards. These quality standard and checks are maintained from the initial stage of production to the final product to ensure manufacturing of high end product.

Some more **external triggers** which act as tailwinds include the anticipated growth in the capital goods business. Here, the projects are generally with longer gestation period, wherein the order inflow is considered confirmed once the corporates/end user industries are confident of a stronger demand in the near term. The capex cycle was muted for last couple of years driven by pandemic led lockdown and overall sluggishness in the economy. However, with the latest thrust on government's bet on infrastructure spend (Rs7.5lk-cr outlay for FY23E) would augur well for sectors such as capital goods, cement, metals, oil & gas. As per Crisil, the industrial capex is anticipated to rise 1.3x over FY22-24E; with recovery determinants attributed to digitization/automation, green capex, PLI schemes. PAT is involved in manufacturing process equipments for oil refineries, petrochemical plants, fertilizer plants, chemical plants etc. Thus, the growth of the company is linked to the growth of some of the major end-user players of the capital goods sector. In addition to this, the growth prospects of the company are dependent on new as well as maintenance capex budgets these large players are engaged in. The near-term capex (both brownfield as well as greenfield) in refining sector is directly proportional to the fuel demand which is dependent on a number of global and geo-political factors. The associated risk to this business could be the declining demand of fuel and petroleum products owing to which, the existing refining players may put their investments decisions on hold for considerable future. In the current scenario, investments in these sectors are seen in Asia (especially in India) due to rising demand of petroleum products; the investments in oil refineries and petrochemical plants in Europe and North America are seen growing at a very slow pace. In India, there are huge investments underway in oil & gas industry from public as well as private sector players (over next 5 to 7 years). The outlook for capital goods sectors continues to remain stable with a slow recovery (in the medium term) via expansion plans of public sector entities and some large private players in the domain of oil & gas, petroleum refineries, chemicals & fertilizers etc. this growth when it starts surfacing can provide growth opportunities to specialised capital goods fabricators.

Exhibit 13: Industrial Capex and Catalysts



Source: Crisil Report Oct 2021 (stage set for private investment cycle)

Financials: The operations of the company as well as margins come under pressure due to issues related to increase in cost of materials and increased competition (from bigger as well as unorganized players). In the current scenario PAT is looking at increasing the profitability via various initiatives in the domain of product development, marketing, distribution and trade promotions.

Raw Material Sourcing: The prices of steel and sub types are basically driven by demand and supply with strong links to the global market. The basic raw materials used for fabrication of process equipment by PAT include metal sheets (mild-steel as well as stainless-steel), plates, tubes, pipes and other components. These raw materials have immense volatility in terms of prices which can impact the profitability of the company as the price fluctuations can impact the inventory of raw materials as well as finished goods. As the company is aware of the issues, PAT has back-to-back arrangement for booking of raw materials with the orders in an effort to mitigate the price fluctuation risk (to some extent). The company also sources some grades of raw material from international markets, which is a natural hedge to balance the fluctuations in forex.

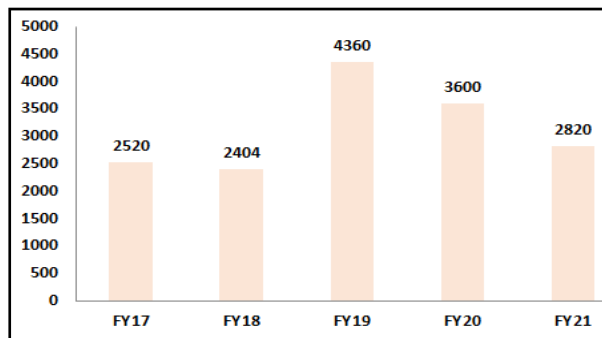
Order Book Positioning: Being involved in an engineering driven business domain, the company has a diverse industrial exposure and caters to manufacturing/fabrication of tailor made machines. In many such cases, the order book position provides a vision for the growth chart which can be anticipated in the upcoming quarters or on a yearly basis. The confirmed order book of ~Rs2820mn (as on 1st August 2021) provides visibility of revenue for the next 3-4 quarters. While the Management is bullish on repeating its past performance, they are cautious and not willing to compromise on growth, quality, and profitability.

Geographical Presence: PAT's exposure is more skewed towards the domestic domain with over 75-80% share and the balance as exports with Nigeria having almost 13-15% of the overall share, followed by Canada having ~5-7% of the overall share over the past 3-4 years. Exports in the developed countries like USA, Canada & Europe and other countries like Nigeria, Indonesia, Zambia etc. is expected to provide large impetus of engineering exports after obtaining the ASME U/ U2/ S stamp authorization.

Capex: The company has added a new greenfield project at Dudhai unit (Gujarat) having a total outlay of Rs191mn indicated for manufacturing of air cooled heat exchanger/air fin coolers for a total land area of ~11acre (where ~1.45acres is used). The said operations has already been commenced and operationalized with 2 bays having lifting capacity of 40 tonnes each and ASME U stamp authorization. This capex plan would enable the company to execute larger complex orders. With this establishment, PAT has created an additional infrastructure required for the purpose of maintenance of production process while resolving the issues related to space constraints. Now, the company is in a position to carry out the assembly operations in a cost effective and efficient manner. This greenfield project has created more opportunities for the company in terms of product enhancements, foray into newer markets (both internal and external) and industrial sectors.

Working Capital Assistance: PAT has access to these facilities from Bank of Baroda and Axis Bank. In purview of the same, in FY18, the banks had enhanced additional credit facility of Rs50mn from each of these banks to scale it up to Rs1120mn under consortium arrangement. During FY21, these limits were enhanced by Rs570mn to Rs1690mn.

Exhibit 14: Order Book Matrix (Rs mn)



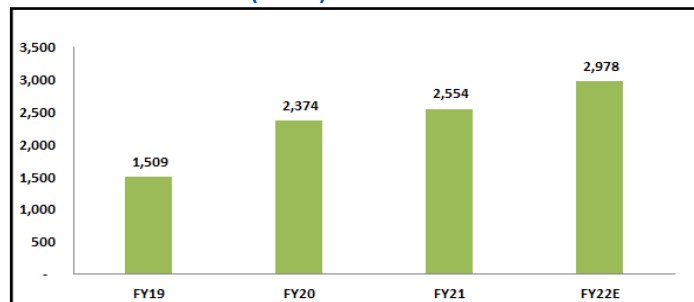
Source: Annual Reports, Progressive Research

Exhibit 15: Geographical Revenues (Rs mn)

Geographical Presence	FY18	FY19	FY20	FY21
Within India	1436	1314	1813	1876
Canada	21	47	166	106
Nigeria	62	105	309	433
Indonesia	3	4	3	0.2
USA	-	-	-	12
Zambia	4	-	-	-
Kazakhstan	-	-	-	-
Saudi Arabia	-	-	-	37
Philippines	-	-	5	-
United Kingdom	-	-	27	31
Dubai (UAE)	-	-	-	-
Thailand	-	3	-	-

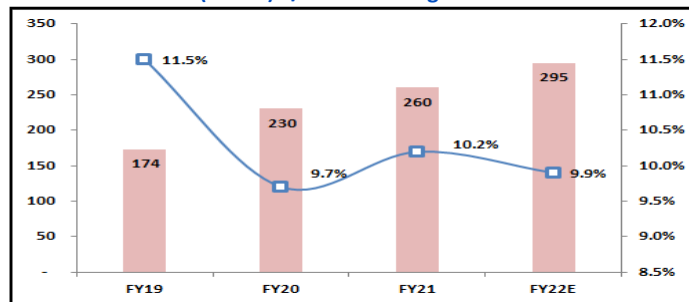
Source: Annual Reports, Progressive Research

Exhibit 16: Sales Trend (Rs mn)



Source: Annual Reports, Progressive Research

Exhibit 17: Ebitda (Rs mn) v/s Ebitda Margins



Source: Annual Reports, Progressive Research

April 11, 2022

PICK OF THE MONTH

VOL-8, NO-06

Industry: Industrial Equipments

Patels Airtemp (India) Limited

BUY

CMP: Rs.250

TARGET PRICE: Rs.325

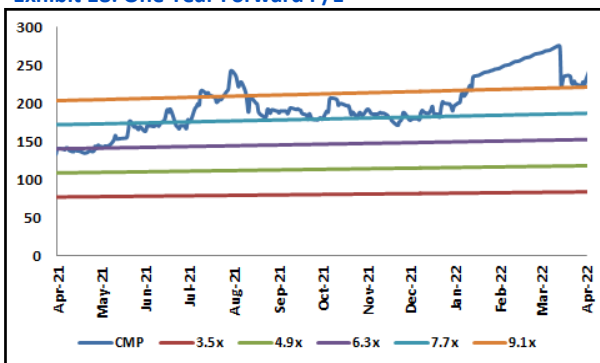
TIME : 12 months

Risks and Concerns: Operational risk, marketing risk, systematic risk etc. are an integral part of every business and PAT tries its best to balance the risk and rewards, while delivering value to its stakeholders. Since the company is involved in manufacturing engineering products, some of the common issues related to high inflation, purchasing power of consumers', demand of product in the market, challenges related to supply chain management etc. are faced by PAT as well. **Rising prices of raw materials** can adversely impact the margins in the short run. PAT is also exposed to large **working capital requirements**. Any slowdown in **capital goods industry** can directly or indirectly affect the company's growth. PAT faces immense competition from bigger established players in the industry as well as from the unorganized players; however the quality of products manufactured differentiates it from others. Additionally, the company is **not insulated from freight and logistics issues** (evident from its inability to fulfil the orders to the tune of ~Rs370mn in June 2021, which was a spill over to the next quarters). PAT is involved in and undertakes **tender based** work with large value orders. These orders are offered by customers who have a legacy relationship with the company; thus the **risk of concentration of the customers** is slightly higher. The clients which the company caters to, enjoy leading position in their respective industry segment which to some extent reduces the counter party credit risks. In view of related party transactions during the year FY21, PAT accepted deposits {those being exempted from the purview of Sec 2(1)(c)(viii) of the Companies Rules, 2014} from the Directors. Apart from this, unsecured loans or deposits were also introduced into the system in terms of enhancing additional long term funds; a requirement being imposed by the company's bankers (Bank of Baroda), while reviewing working capital facilities. The equity shares of the company are listed only on the BSE.

Outlook and Recommendation:

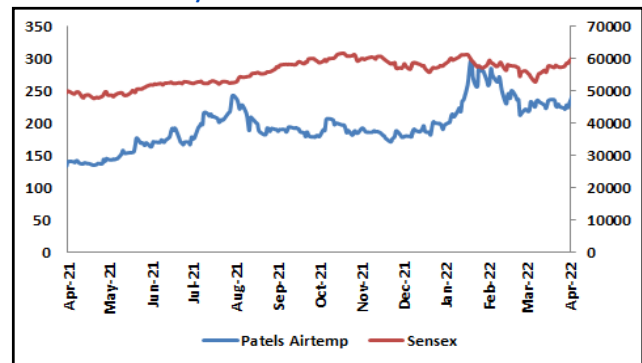
India is poised towards a recovery path in the engineering segment post the issues related to Covid-19 which will gradually boost the manufacturing activities. PAT is primarily engaged in the business of engineering fabrication and is exposed to a diversified product basket that caters to different end user industries such as power, refineries, fertilizers, cement, petrochemicals, pharmaceuticals, textile and chemicals. Over the past 3-4 decades, PAT has been able to establish itself as one of the most reliable and resourceful organization with most modern manufacturing setup while handling a vast range of medium to heavy engineered equipments. Being in the capital goods industry, order lumpiness prevails, leading to a slower execution cycle. At the company level, the order book kitty has been growing decently over the past financial years. As per regulatory requirements, in order to undertake the engineering fabrication business, an ASME stamp authorization is the key that serves as a quality and safety check and PAT's entire list of products has an ASME authorization to its credit; it being one of only 3 organizations in India to acquire the authorizations. Any uptick in the end user industries that the company caters to would augur well in the near term. The recent greenfield project at Dudhai unit would open more opportunities for the company in terms of product enhancements, foray into newer markets (both internal and external) and industrial sectors. This project has helped the company create additional infrastructure while removing the space constraints enabling the working of assembly operations in a cost effective and efficient manner. The company has consistently being delivering decent operational and profitability numbers with double digit ROEs and ROCEs while trying to maintain a payout policy of ~22-25% over the past financial years. Overall, the company appears to be a strong candidate to reap the benefits which may arise due to the green shoots and smart capex seen in the engineering domain with a focused Management team trying to create sustainable value for the stakeholders and its shareholders via strong technology moats and quality consciousness; thus we initiate a buy on the stock with a target of Rs325 over 12 months horizon.

Exhibit 18: One Year Forward P/E



Source: Ace Equity, Progressive Research

Exhibit 19: Price v/s Sensex



Source: Ace Equity, Progressive Research

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