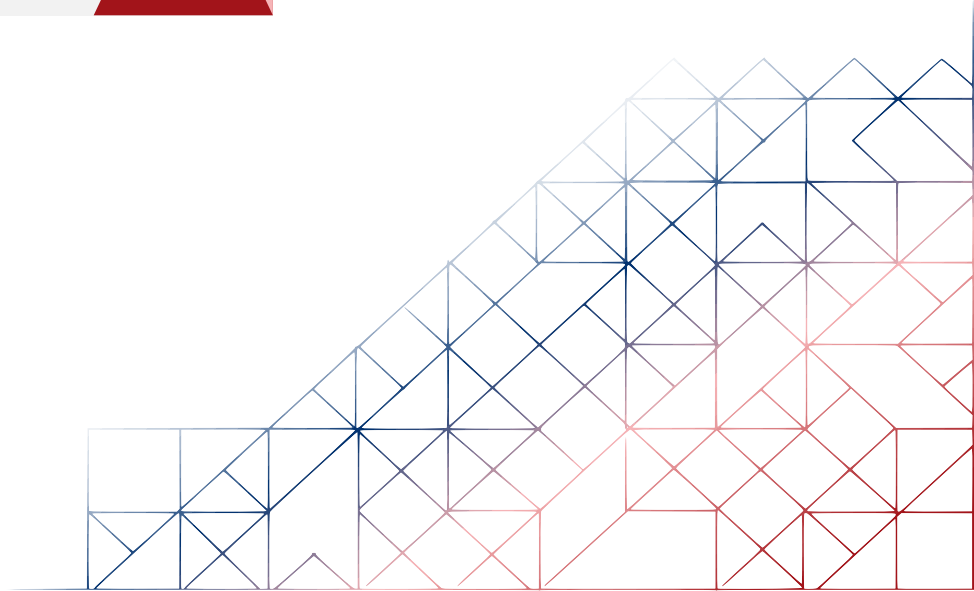




**Dee Development Engineers Limited
("DEE")**



Introduction to DEE



DEE | An engineering company providing specialized process piping solutions



Largest player in process piping solutions in India, in terms of installed capacity*

DEE currently is ranked as one of the leading process pipe solution providers in the world, in terms of technical capability*

Large global market (for process piping systems) of ~USD 38bn*; Indian market of ~INR 25,800 crores*

Wide range of specialized product offerings and services making DEE a comprehensive solution provider for its diversified customers

Long-standing customer relationships

6 strategically located manufacturing facilities at Palwal in Haryana, Anjar in Gujarat, Barmer in Rajasthan, Bangkok in Thailand, with three manufacturing facilities located at Palwal, Haryana

Integrated manufacturing partner providing 'design-led-manufacturing' solutions



Over three and a half decades
Of manufacturing experience



India



Thailand



Thermax
Babcock & Wilcox
Energy Solutions Ltd.



FY23

₹ 5,954.95mn

Revenue from Contracts with Customers

₹ 5,633.53mn

Order Book

₹ 691.76mn

EBITDA

₹ 129.72mn

Restated Profit for the year

0.75

Net Debt : Total Equity

Major events and milestones

2020

- Commenced business operations at Anjar Heavy Fabrication Facility in Gujarat

2014

- Commenced receiving orders for production of HP piping from a client for a power project at Meja.

2010

- Established Unit II, Palwal Facility

2023

- Collaboration agreement with a multinational oil and gas company which is expected to have a positive impact on revenue on a sustainable basis

2022

- Commenced business operations at Anjar Facility I in Gujarat
- Commenced business operations at the Barmer Facility in Rajasthan

2017

- Commenced business operations at Bangkok Facility
- Commenced supply of piping material for a petroleum refinery and polypropylene plant in Nigeria

2013

- Established Unit III, Palwal Facility for manufacturing of other fabricated metal products and the processing/re-rolling of metal scraps

2006

- Established Unit I, Palwal Facility

1988

- Originally incorporated as "DE Development Engineers Private Limited"

Wide range of specialized product offerings and services...



Piping Spools



Modular Piping (Skids and Modules)



Induction Pipe Bends



Pipe Fittings



Industrial Stacks and Wind Turbine Towers



Pressure Vessels

DEE handles complex metals such as varying grades of carbon steel, stainless steel, super duplex stainless steel, alloy steel and other materials including inconel and hastelloy in our manufacturing processes

...across a spectrum of industries



Oil & Gas



Power (including Nuclear)



Process industries (incl. sugar, specialty chemicals & distilleries)



Chemical



Recently expanded into new business vertical of design, engineering, fabrication and manufacturing of **Pilot Plants**.
DEE intends to develop pilot plants which cater to the **R&D needs of companies in the Oil and Gas, Petrochemicals, Refineries, Specialty Chemicals, Pharmaceuticals and Nuclear sectors, as well towards the R&D needs of educational research institutions**

DEE operates two biomass power generation plants in Abohar and Muktsar, Punjab

Abohar Biomass Power Plant



- Abohar Biomass Power Plant spans an area of **approximately 205,681.48 square meters**
- Abohar Biomass Power Plant is 8 MW which is fully contracted for under the **Power Purchase Agreement (“PPA”)** entered into with **the Punjab State Power Corporation Limited (“PSPCL”)** on March 4, 2011.
- PPA is valid for **30 years** commencing February 5, 2009
- PSPCL has permitted the Company to interconnect the Abohar Biomass Power Plant and **operate it in parallel with the PSPCL’s/ Punjab State Transmission Corporation Limited’s (“PSTCL”)** system.

Muktsar Biomass Power Plant



- Muktsar Biomass Power Plant spans an area of **approximately 141,829.67 square meters.**
- Operated by DEE’s **wholly owned subsidiary, MPPL.**
- **Aggregate capacity of Muktsar Biomass Power Plant is 6 MW** which is fully contracted for under the **Power Purchase Agreement (“PPA”)** entered into by MPPL with the Punjab State Electricity Board on February 19, 2004
- The **PPA is valid for 20 years** commencing April 27, 2005
- PSPCL has permitted the biomass power plant to interconnect the Muktsar Biomass Power Plant and operate it in parallel with the PSPCL’s system.

Largest player in process piping solutions in India, in terms of installed capacity providing specialized process piping solutions



Strategically located manufacturing facilities

- ✓ The Barmer Satellite Facility is a dedicated facility set up to cater to the piping and erection requirements of the **HPCL Rajasthan Refinery Limited**.
- ✓ Facilities at Anjar, Gujarat are located at a **distance of approximately 24 kms from the Deendayal Port Trust (Kandla Port)** and at a distance of approximately **75 kms from the Adani Ports and Special Economic Zone (Mundra Port)**.
- ✓ Bangkok Facility is located at a **distance of approximately 62 kms from the Bangkok Port**.

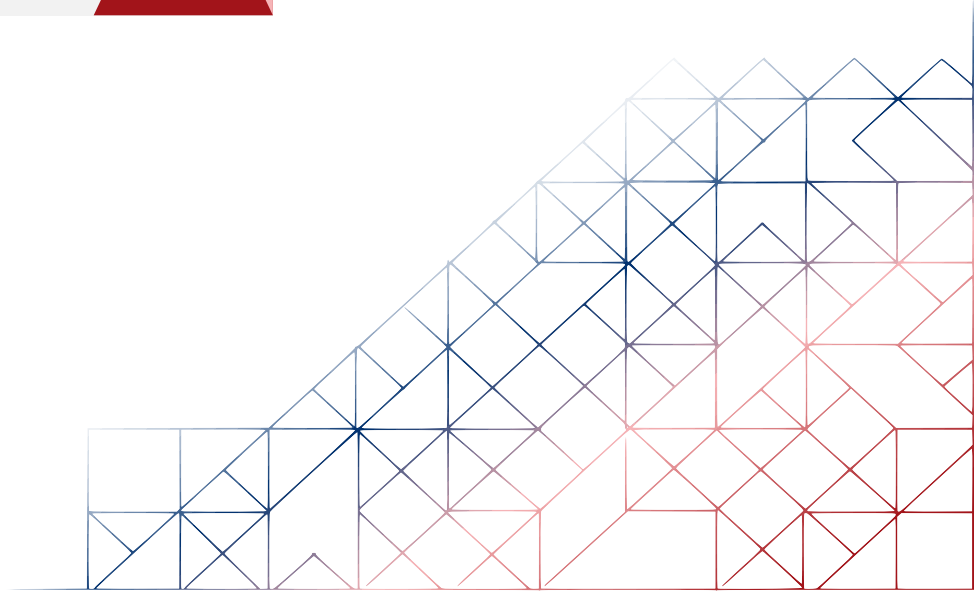
Equipped with modern equipment and systems

- ✓ **Fully automated** robotic welding systems
- ✓ **In-house** non-destructive examination facilities
- ✓ **Semi-automatic** shot blasting machines
- ✓ Fabrication shops for stainless steel and a **clean room/ dust free manufacturing facility**.
- ✓ **Chennai Engineering Facility** is focused on engineering of specialized process piping solutions,

Stringent quality and safety standards and processes

- ✓ **Multiple ISO certifications**
- ✓ **National Accreditation Board for Testing and Calibration Laboratories accredited** physical and chemical testing laboratory
- ✓ Manufacture industrial pipe fittings registered under the **Canadian Registration Number**
- ✓ **Quality assurance certificates** with respect to the Pressure Equipment Directive 2014/68/EU.

Industry Overview



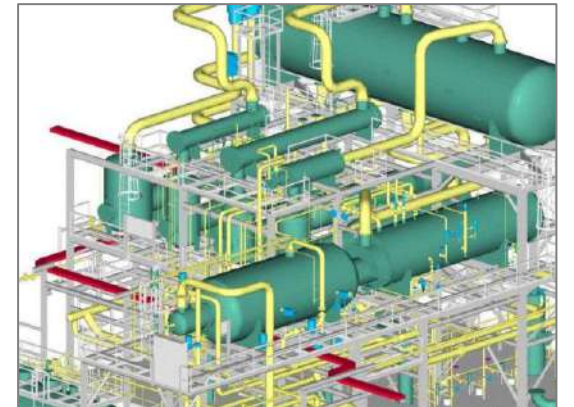
Process Piping

A process piping system is a specialized piping system that is exclusively used in an industrial plant for transporting input materials that goes into the actual production process.

Process piping system typically consists of a network of interlinked piping system comprising different components such as pipes, tubes, pressure hoses, valves, separators, traps, flanges, fittings, gaskets, strainers, and control instruments among others

Depending on their application process piping systems may be simple and limited in scope, or extensive and complex.

Process piping systems are widely used across diverse industries such as chemical and pharmaceutical, oil & gas, semiconductor, paper, textiles etc.



The global market for process piping systems is expected to reach USD 54.5bn by 2030*

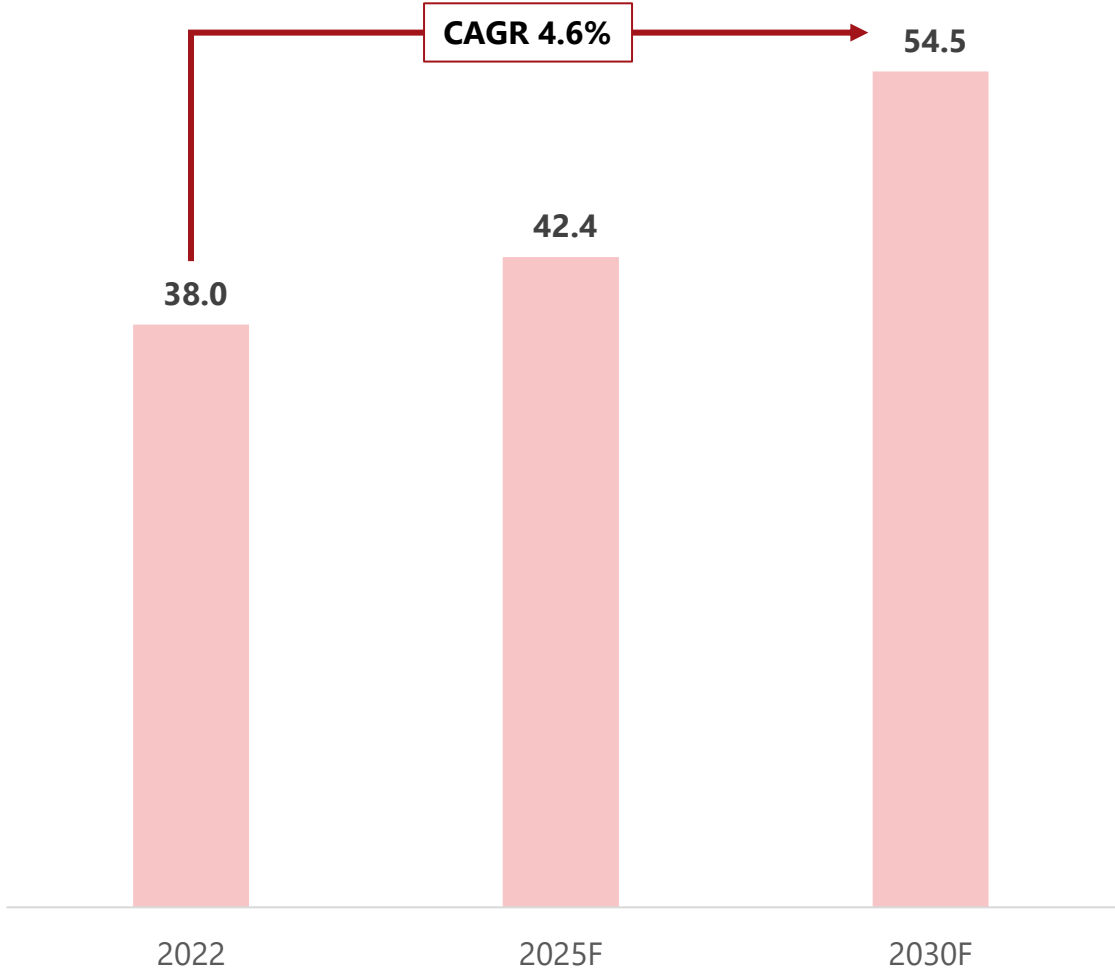
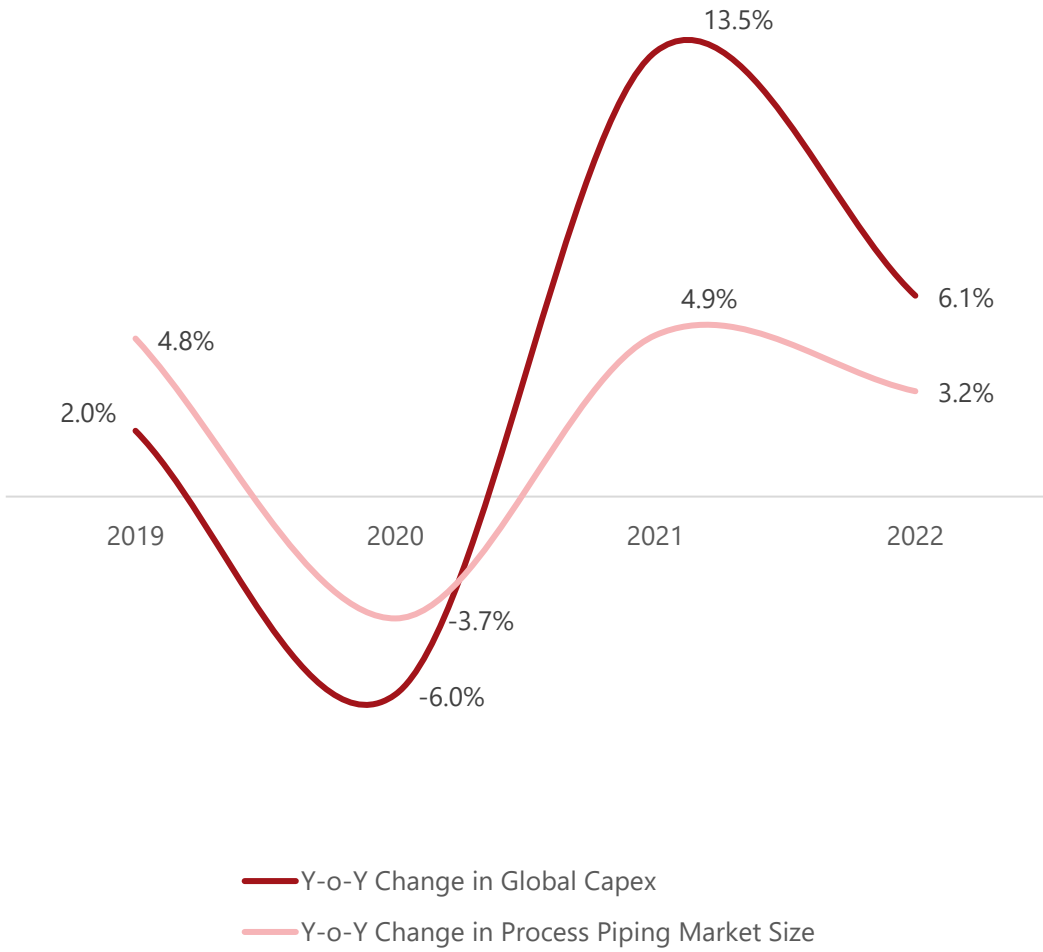


Demand for process piping is triggered by capacity expansion projects in industrial sector

Global Process Piping solutions market is valued at ~USD 38bn in 2022

Year-on-Year Change : Global Capital Spending v/s Process Piping Industry Turnover (%)

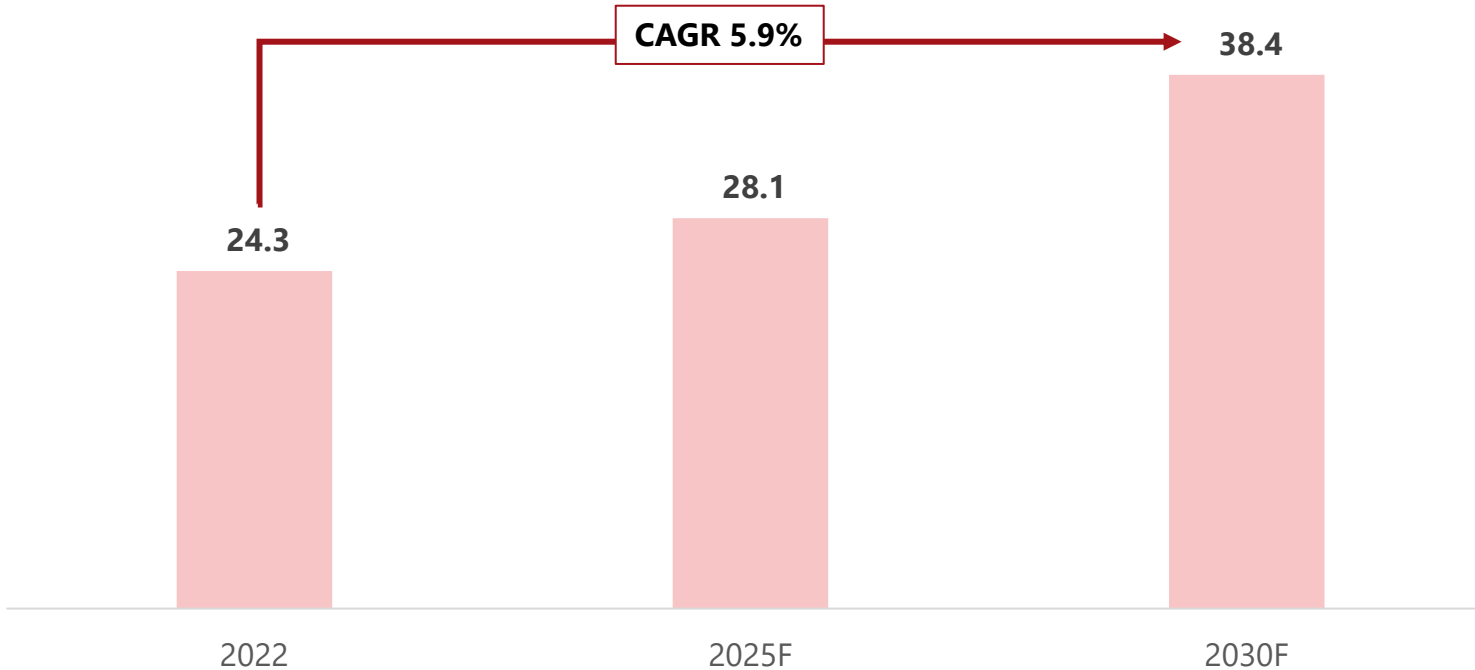
Global Process Piping Industry (in USD bn)



Indian process piping solutions market is expected to register a CAGR of nearly 6% between FY2022 and FY2030

By 2030, Indian market for process piping solutions is expected to reach INR 38,400 crs

Indian Process Piping Industry (in INR 000 crore)

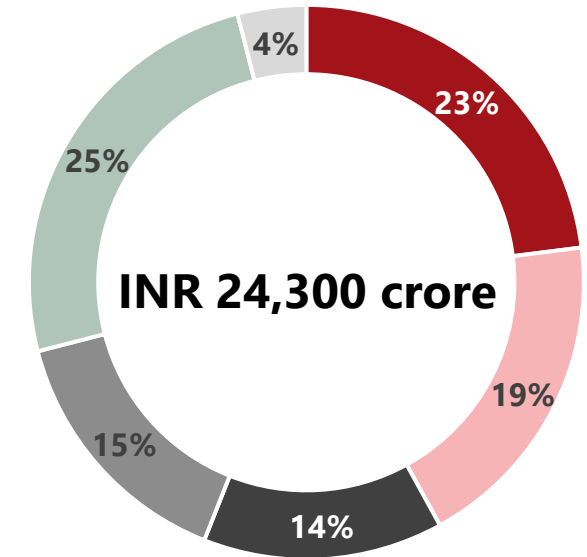


Key demand driver

₹ Improving capital expenditure landscape in India with **new capital investment projects worth INR 31,23,000 crore** announced in FY2023

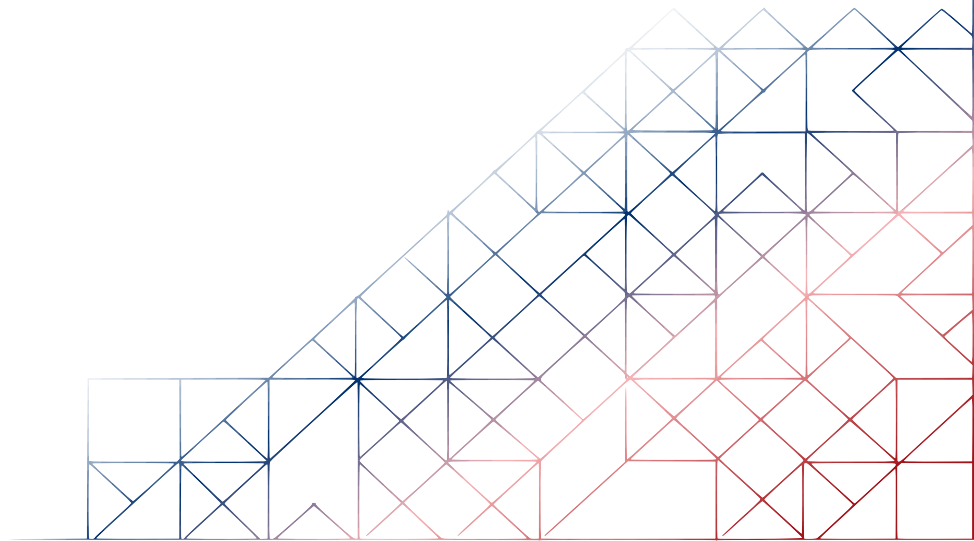
Indian Process Piping Industry – segmentation

Indian Process Piping Industry – Segmentation by End-Use Industry (2022)



- Oil Refineries
- F&B Manufacturing Plants
- Paper Mills
- Power Plants
- Chemical & Pharmaceutical
- Others

Key Investment Highlights

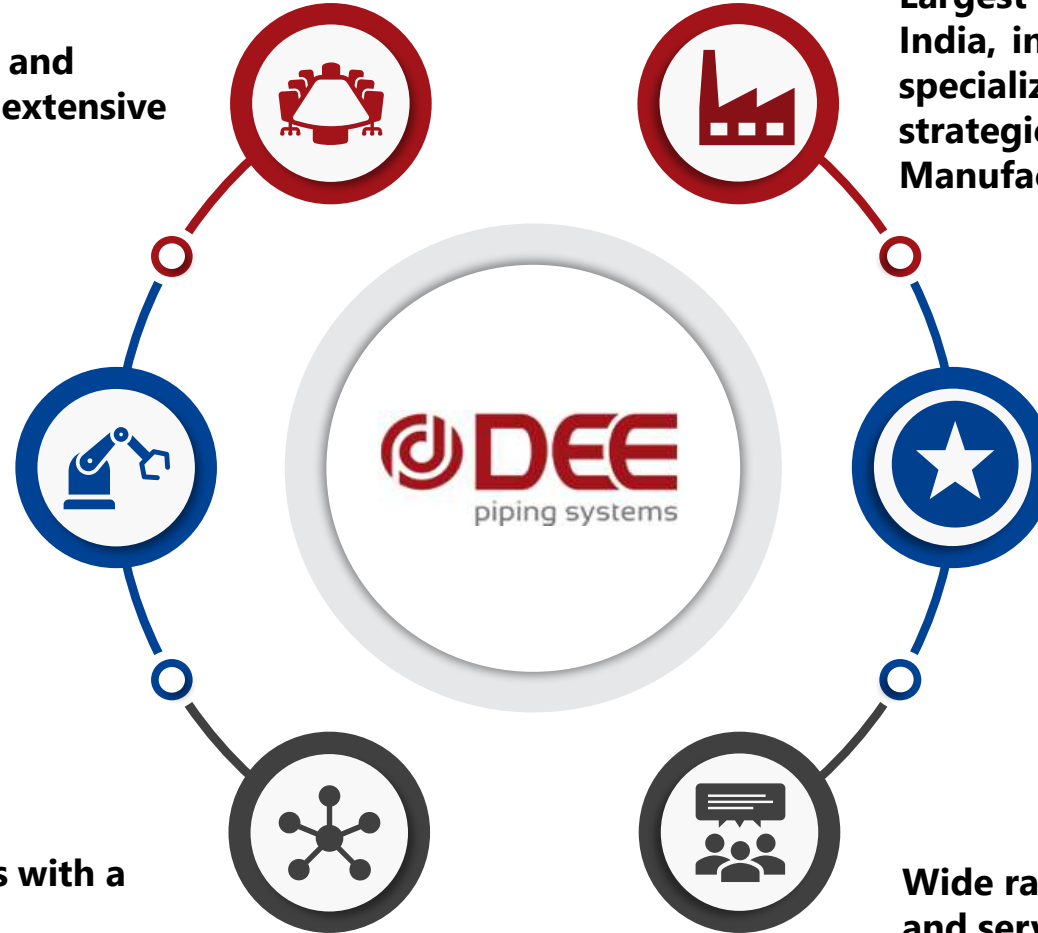


Key Investment Highlights

Experienced and dedicated promoter and professional management team with extensive domain knowledge

Strong focus on automation and process excellence with an experienced engineering team to drive operational efficiencies

Long standing customer relationships with a strong order book



Largest player in process piping solutions in India, in terms of installed capacity, providing specialized process piping solutions with strategically located state-of-the-art Manufacturing Facilities

Leading player in an industry with significant barriers to entry

Wide range of specialized product offerings and services making DEE a comprehensive solution provider



Leadership



Largest player in process piping solutions in India, in terms of installed capacity *



Currently **ranked as one of the leading process pipe solution providers** in the world, **in terms of technical capability** to address complex process piping requirement arising from **multiple industrial segments.***



Scale



6 strategically located Manufacturing facilities at Palwal in Haryana, Anjar in Gujarat, Barmer in Rajasthan and Bangkok in Thailand, with three manufacturing facilities located at Palwal, Haryana



In process of enhancing manufacturing capabilities by **setting up a new facility at Numaligarh** as well as a new **facility at Anjar, Gujarat**



Cumulative installed capacity of 94,500 MT per annum**



Served customers across **Canada, Thailand, United States of America, Switzerland, Italy, Malaysia, Nigeria, Germany, Japan ****

Leading player in an industry with significant barriers to entry (2/2)

Barriers to entry



Requirement of skilled labour with complex manufacturing technology



High capital investment



Presence of robust design and execution capability.



High quality standards and stringent specifications of customers & resources and time involved for a customer to change its suppliers are relatively high

DEE



Manufacturing Facilities have a **good mix of automation and manual processes**



DEE has made and expects to continue making **capital expenditure.**



As of June 30, 2023, DEE has a team of **717 personnel working on design, engineering and product development**



Through the **three and a half decades** of business operations, DEE has **established long-term relationships** with customers across industries

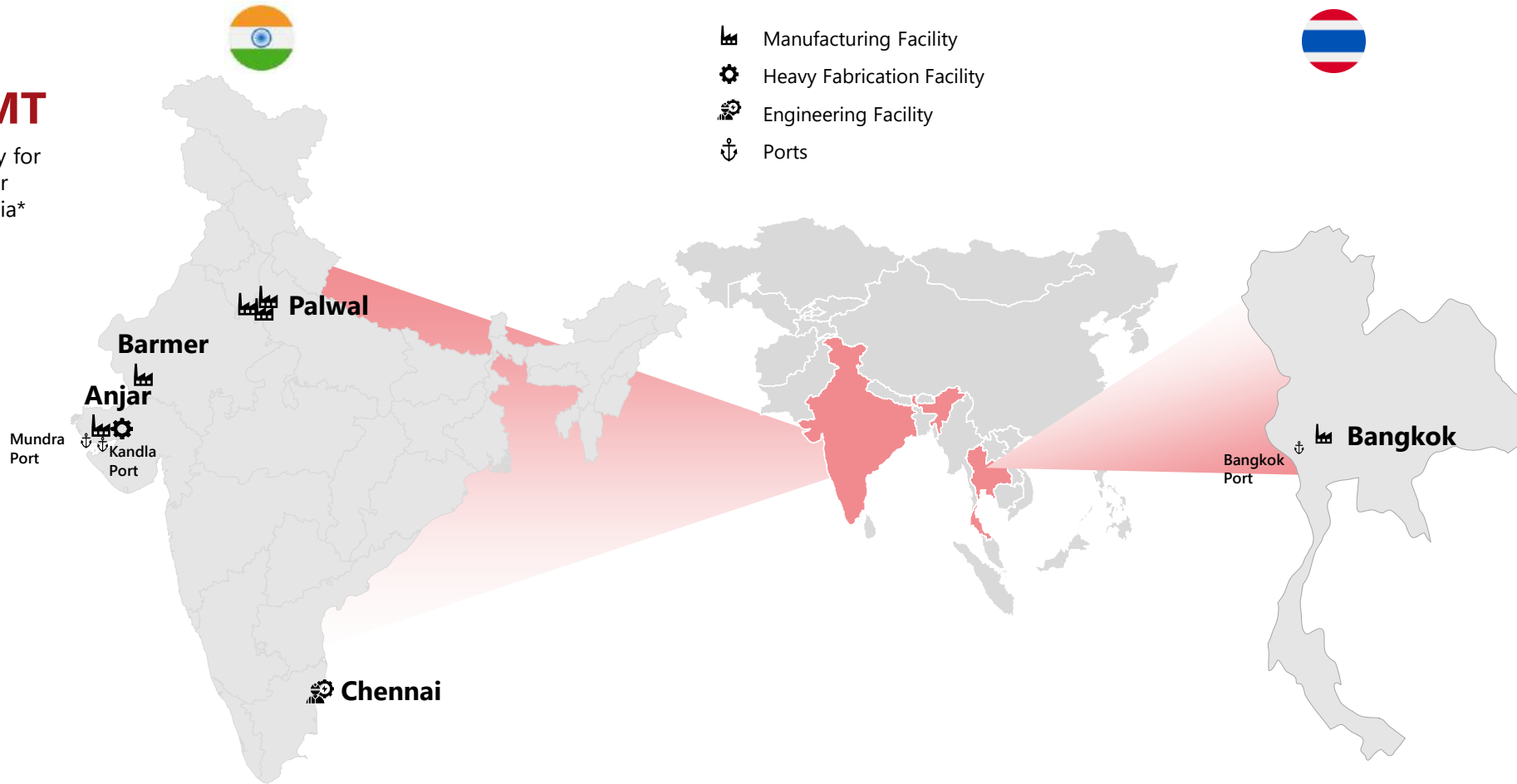


DEE operates through strategically located state-of-the-art manufacturing facilities...

Six strategically located Manufacturing Facilities at Palwal in Haryana, Anjar in Gujarat, Barmer in Rajasthan and Bangkok in Thailand

80,000 MT

Installed Capacity for Fiscal 2023 for Facilities in India*



14,500 MT

Bangkok Facility Installed Capacity For Fiscal 2023

Anjar Facility I, Anjar Heavy Fabrication Facility, Proposed New Anjar Facility in Gujarat and Bangkok Facility are **strategically located with access to ports to cater to overseas customers**

...equipped with a good mix of automation and manual processes...

DEE's manufacturing facilities have a good mix of automation and manual processes



Fully automated robotic welding systems



Automatic GMAW Welding System



Fully CNC heat treatment furnaces (gas and electric)



Semi-automatic shot blasting and painting machines



In-house non-destructive examination facilities

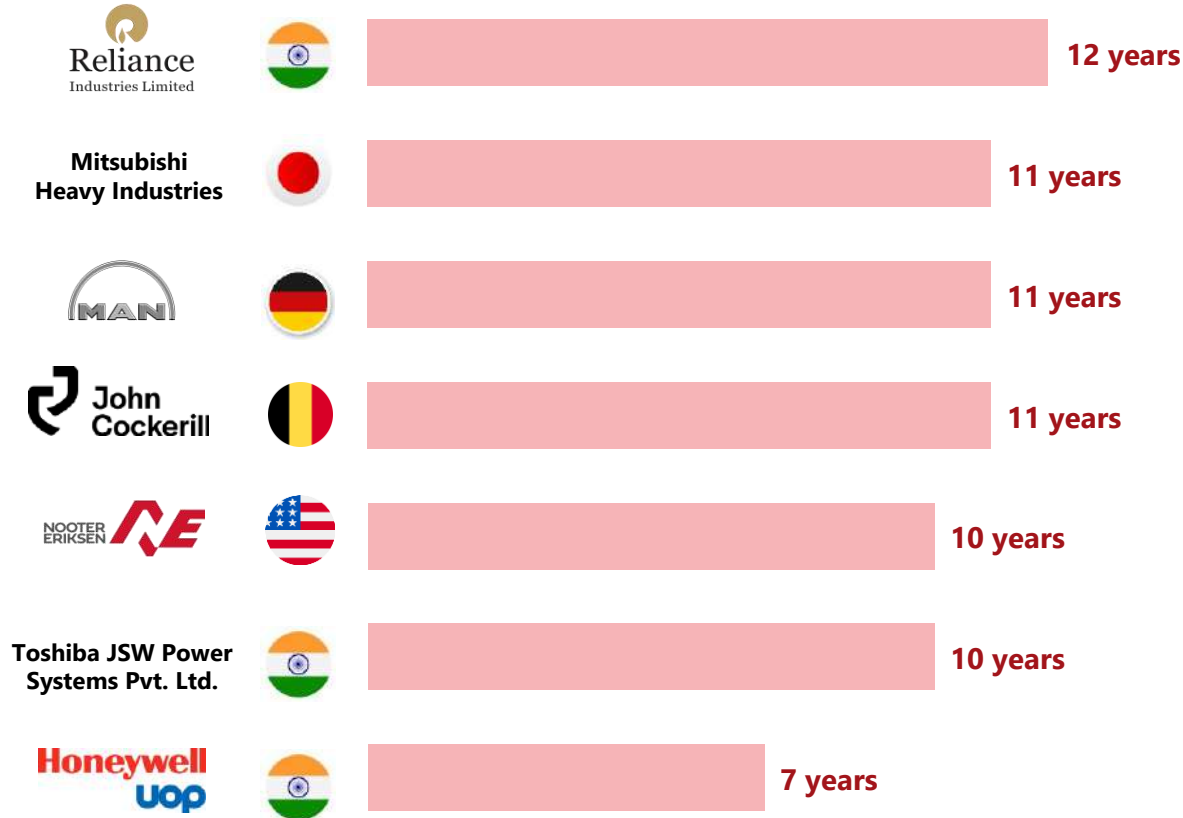


Induction bending process

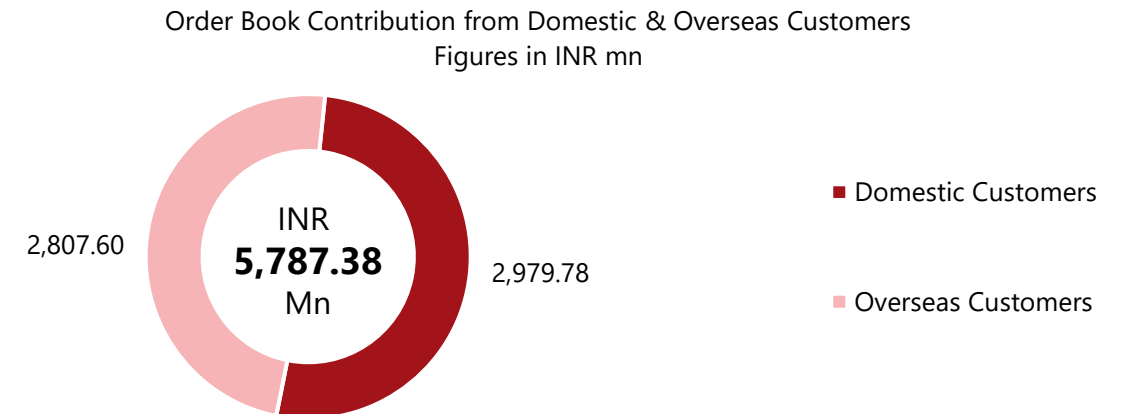
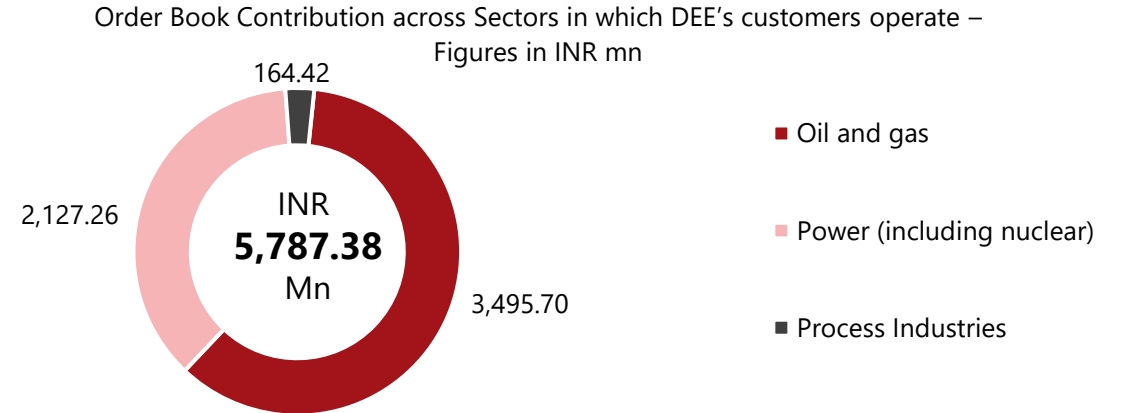
Automation capabilities enable DEE to combine operations and eliminate multiple operators in the production process to increase productivity, while controlling costs and maintaining consistent product quality

Long standing customer relationships with a strong order book...

Length of Relationship in years with key customers



As of June 30, 2023 – DEE had an order book of INR 5,787.38 mn



Long-term association with customers offers DEE significant competitive advantages such as **revenue visibility, industry goodwill, a deep understanding of the requirements of DEE's customers and is a testament to the quality of the Company's products and services.**

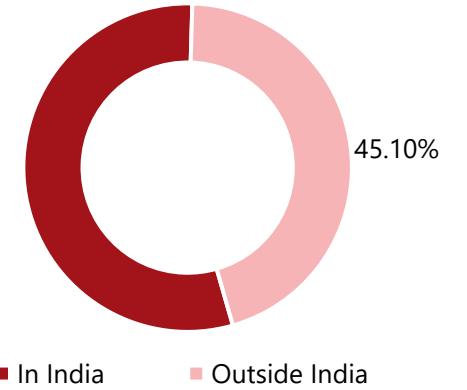
...supplemented by diversified customers spread across geographies and sectors

As of March 31, 2023, DEE has served customers across 27 countries

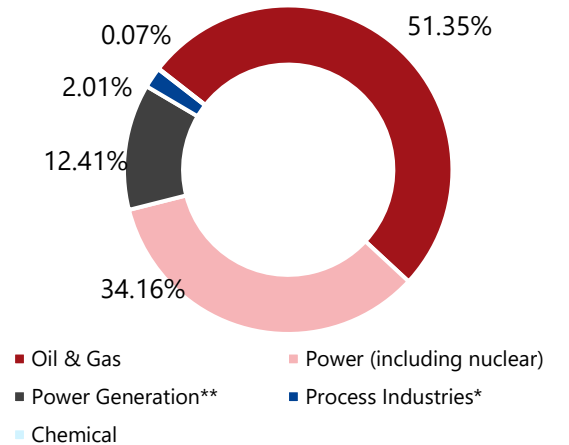
Select Countries served in Fiscal 2023



Revenue from Contracts with Customers Split by Geography (FY23)



Revenue from Contracts with Customers Split by Sectors served (FY23)



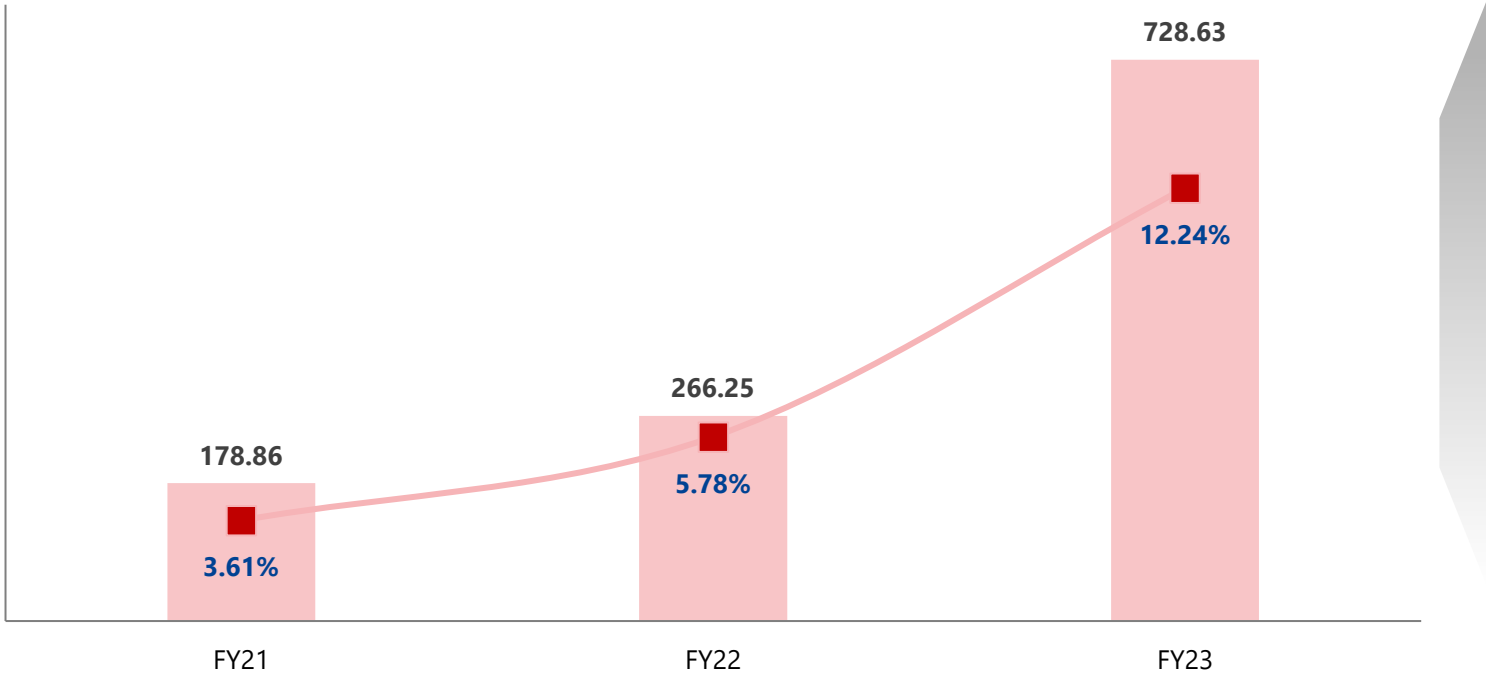
DEE's Products and engineering services have applications across a spectrum of industries such as oil and gas, power (including nuclear), process industries and chemicals.

Strong focus on automation and process excellence with an experienced engineering team



DEE has made and expects to continue making capital expenditure

Capital expenditure INR Mn Capital expenditure as a % of revenue from contracts with customers



Focusing on **design capabilities for complex and critical piping projects** which has enabled DEE to **maintain its position in the oil and gas sector** and power sector and is **enabling expansion** in the chemicals and nuclear power sector



Focus on **upgrading processes and technology** has enabled DEE to manufacture products in an **energy and cost-efficient manner**



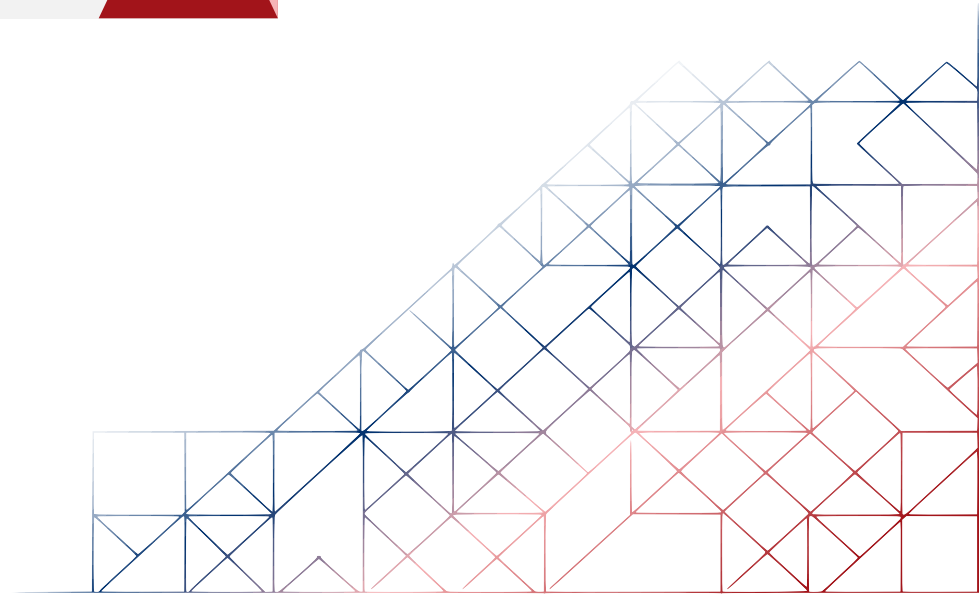
Focus on **process innovation** through **continuous engineering** as well as **deployment of modern technology** has been instrumental in the growth of DEE's business and **improved its ability to customize products for DEE's customers**

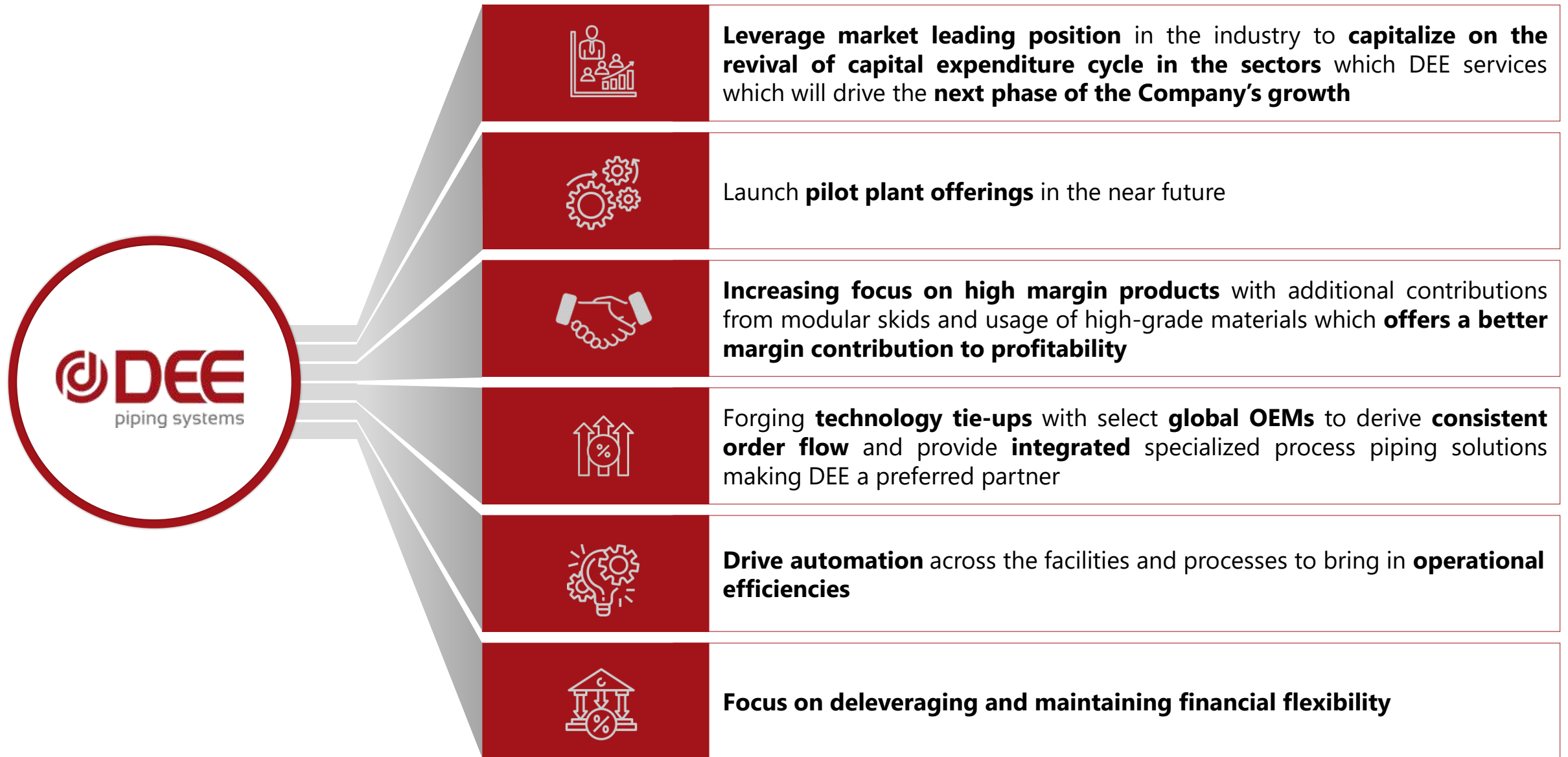
DEE's engineering expertise and technology driven processes has enabled it to deliver on projects in accordance with the designs, specifications and timelines of each project



As of June 30, 2023, DEE has a team of **717 personnel working on design, engineering and product development**, including **165 production cum welding engineers, 46 project engineers, 148 quality assurance and quality control engineers.**

Key Strategies







Leading player in India with several barriers to entry. Largest player in process piping solutions in India, in terms of installed capacity, providing specialized process piping solutions & is ranked as one of the leading process pipe solution providers in the world, in terms of technical capability



Strategically located state-of-the-art Manufacturing Facilities



Long standing customer relationships. balanced mix of domestic and overseas customers including certain Fortune 500 companies in India and various multinational corporations



Wide range of specialized product offerings and services making DEE a comprehensive solution provider

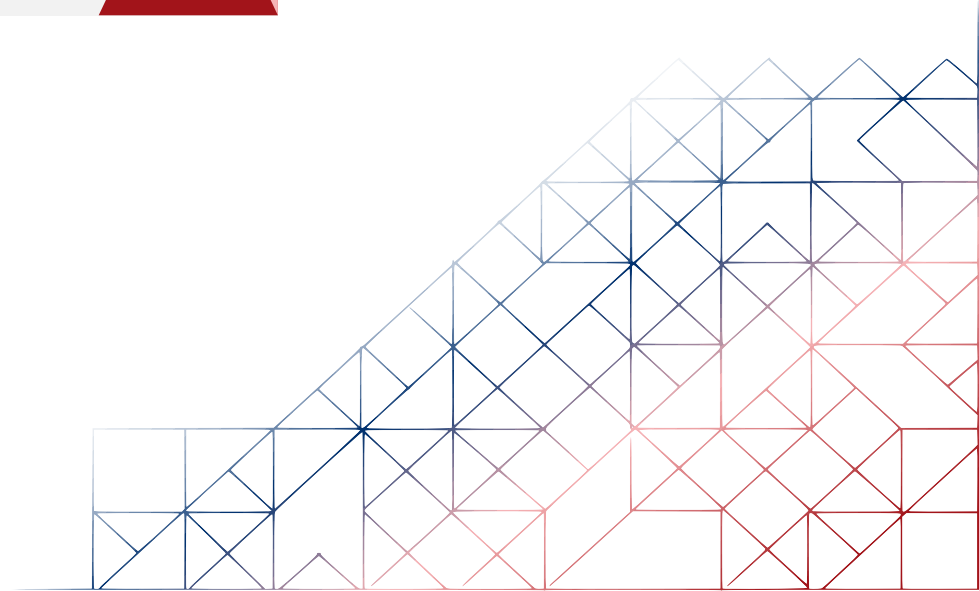


Strong focus on automation and process excellence with an experienced engineering team to drive operational efficiencies



Experienced and dedicated promoter and professional management team with extensive domain knowledge

Annexure - strategies



Leverage market leading position in the industry to capitalize on the revival of capital expenditure cycle...



Currently **ranked as one of the leading process pipe solution providers** in the world, **in terms of technical capability** to address complex process piping requirement arising from **multiple industrial segments**.*



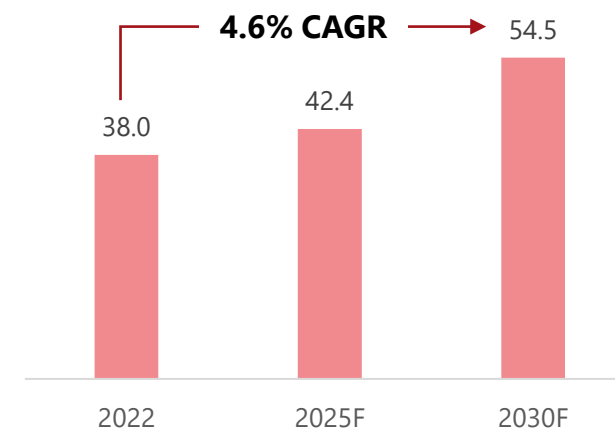
Largest player in process piping solutions in India, in terms of **installed capacity** *

Due to **DEE's market leadership**, customer relationships, expertise, infrastructure and skilled manpower, it is well positioned to **capitalize on market opportunities**

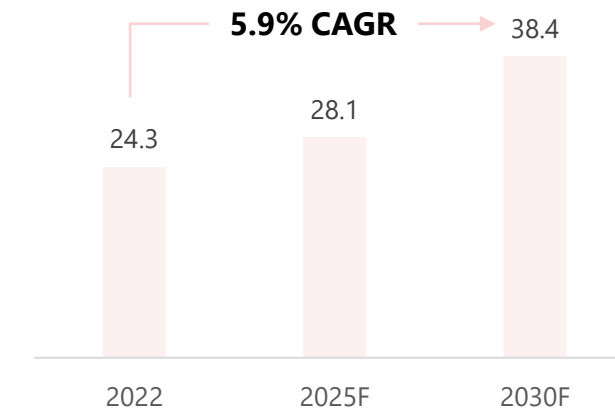
Year-on-Year Change : Global Capital Spending v/s Process Piping Industry Turnover



Global Process Piping Industry - In USD Bn



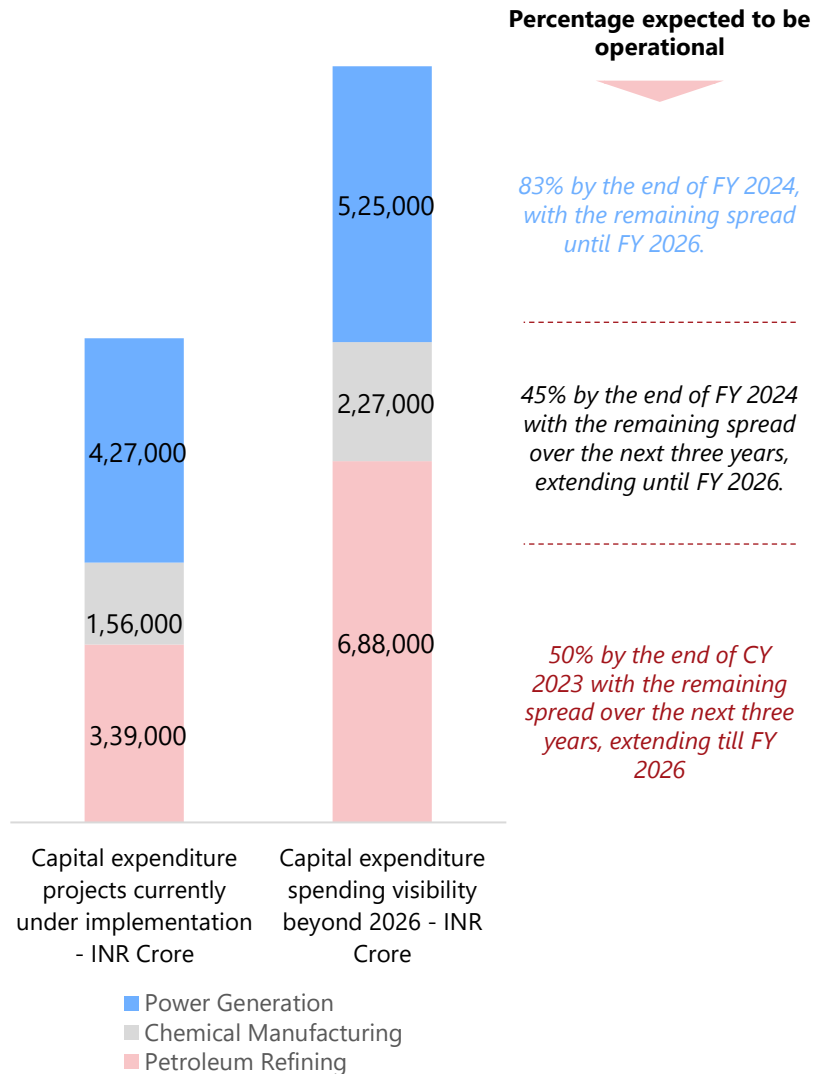
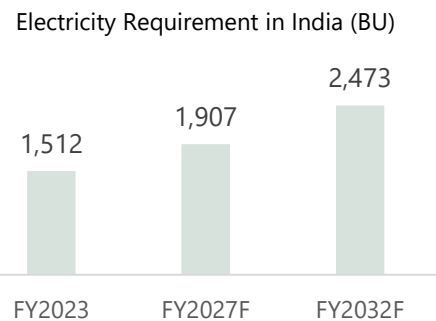
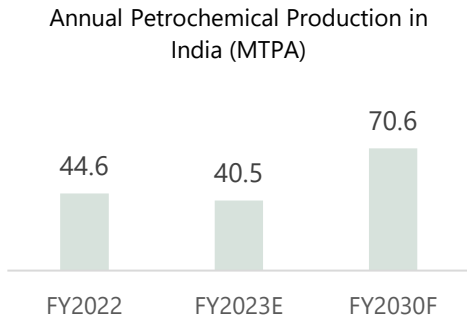
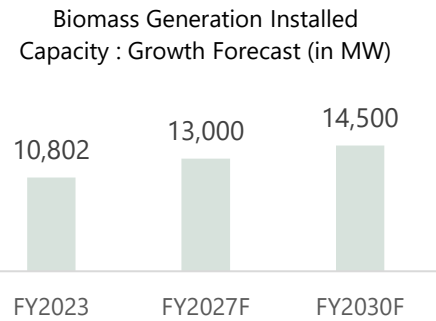
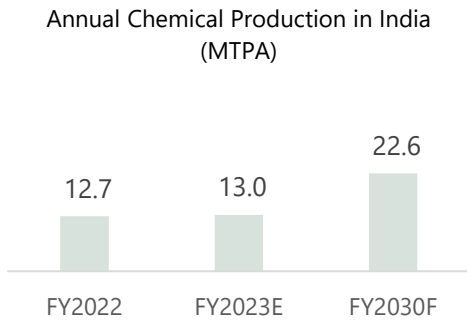
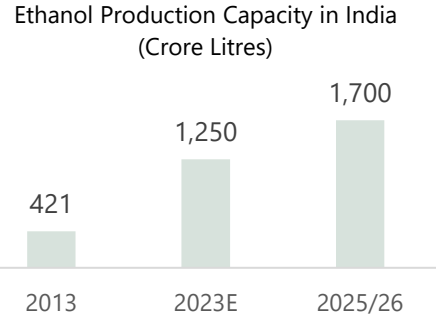
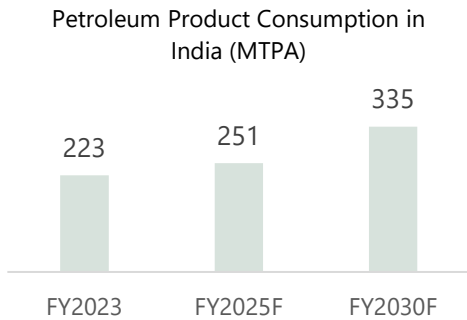
Indian Process Piping Industry – In INR '000 crore



...in the sectors which DEE services which will drive the next phase of the Company's growth



Increase in demand, production & consumption will give rise to capital expenditure across Industries



INR 5,787.38mn
Order book as on June 30, 2023

DEE is enhancing its manufacturing facilities by setting up Numaligarh Facility with **a capacity of 6,000MTPA**; and the New Anjar Facility, which will increase the total capacity of Anjar Facilities (excluding heavy fabrication) from **3,000MTPA to 15,000MTPA**

Launch pilot plant offerings in the near future

DEE recently expanded its business by entering a new business vertical of design, engineering, fabrication and manufacturing of pilot plants



As part of **DEE's growth strategy**, the Company has recently **expanded its business** by entering a new business vertical of design, engineering, fabrication and manufacturing of pilot plants which acts as a pre-commercial production system to evaluate the feasibility of certain processes before the start of full-scale production



Pilot plants are small-scale process plants which act as a **pre-commercial production** system to **evaluate the feasibility** of certain processes before the start of full-scale production



DEE intends to develop pilot plants which cater to the research and development needs of companies in the **oil and gas, petrochemicals, refineries, specialty chemicals, pharmaceuticals and nuclear sectors**, as well towards the **research and development needs of educational research institutions**



Intend to provide a **one stop solution** for pilot plant requirements of DEE's customers which will range from **conceptualisation to commissioning of a pilot plant**, and will include 3-D modelling, process simulation, control engineering, design, fabrication and construction of a pilot plant, followed by installation of the pilot plant at the site specified by the customer

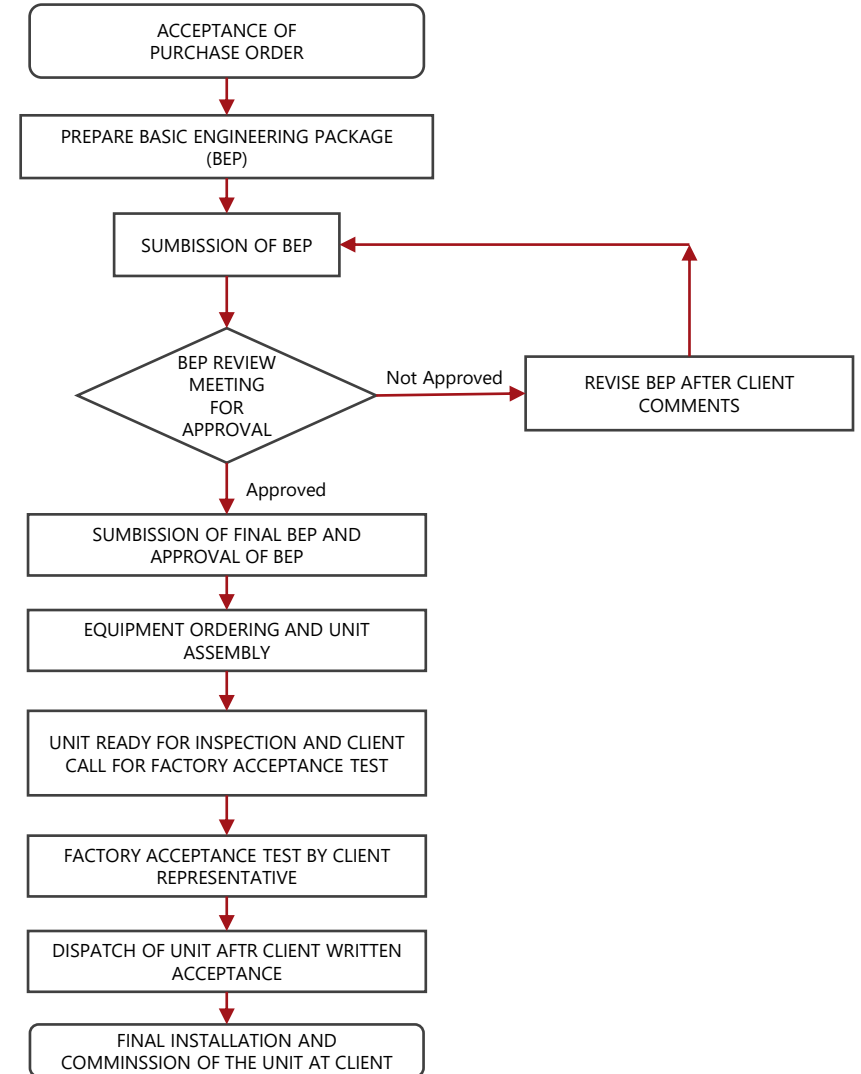


DEE believes **it has the required technical capabilities** and **infrastructure** set up which enables it to bid **for projects in the pilot plant sector**



DEE's **order book from pilot plants as of August 31, 2023 is ₹ 105.60 million**

Process to manufacture pilot plants





Increasing focus on high margin products with additional contributions from modular skids and usage of high-grade materials which offers a better margin contribution to profitability

- DEE continually evaluates product and service opportunities enabling movement towards higher value-addition and improving margin profile of its revenue portfolio
- Focus on higher gross margin products coupled with process and procurement efficiency has led to consistent improvement in gross margins and growth in gross profits.
- DEE intends to sustain and increase the growth of DEE's piping division through a combination of measures including by increasing contributions from modular skid components, usage of higher-grade materials and focusing on customer retention



Drive automation across the facilities and processes to bring in operational efficiencies

- DEE is focused on using appropriate cost-effective technologies for different volumes and varieties of products, to continue to be a comprehensive solution provider to DEE's customers for their different process piping requirements
- DEE intends to increase the level of automation at the Company's upcoming manufacturing facilities at Numaligarh and Anjar as compared to the current levels of automation at existing Manufacturing Facilities.
- DEE further intends to leverage its design, engineering and manufacturing capabilities to increase its focus on advanced technology products



Forging technology tie-ups with select global OEMs to derive consistent order flow and provide integrated specialized process piping solutions making DEE a preferred partner

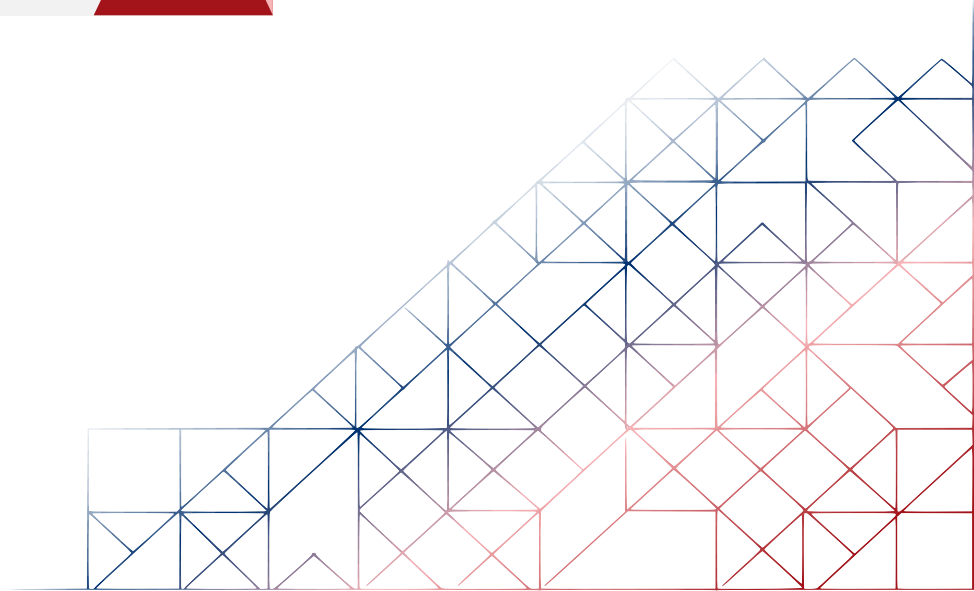
- DEE intends to augment its scale of operations through inorganic expansion strategies, including selectively evaluating targets for technical alliances, in order to consolidate its position as an integrated, comprehensive solution for providing specialized process piping solutions.
- DEE and a multinational oil and gas company have entered into the Collaboration Agreement in order to use and/ or incorporate each other's intellectual property for mutual business benefits in relation to a pipe fabrication automation trial/ test by utilising certain automation equipment. Each party shall bear its own fees, expenses and/or costs of any kind in respect of its roles and responsibilities



Focus on deleveraging and maintaining financial flexibility

- As of July 31, 2023 The Company's total fund and non-fund based outstanding indebtedness amounted to ₹ 6,502.40 million. DEE intends to utilize ₹ 1,750.00 million of the Net Proceeds towards the repayment or prepayment of all or a portion of certain borrowings availed by DEE and its Subsidiaries, DEE Piping Systems (Thailand) Company Limited and DEE Fabricom India Private Limited.
- As part of DEE's strategic initiatives, DEE intends to deleverage itself through repayment or re-financing of existing debt or an equity injection. The savings in interest costs are expected to increase its profitability and return on equity to shareholders. As DEE's operations mature, it may also seek opportunities to maintain an efficient capital structure with high balance sheet flexibility

Annexures – Others



Key awards, accreditations, certifications and recognitions received



Year	Particulars
2023	Certificate on DIN EN ISO 3834-2 issued to the Palwal Facility
2023	ISO 9001:2015 certificate for manufacture of wind turbine towers, heavy fabricated structures for power plant and infrastructure projects issued to Anjar Heavy Fabrication Facility
2023	ISO 14001:2015 certificate for manufacture of wind turbine towers, heavy fabricated structures for power plant and infrastructure projects issued to Anjar Heavy Fabrication Facility
2022	Certificate of authorisation from the American Society of Mechanical Engineers for the (i) manufacture and assembly of power boilers, (ii) manufacture of Class I and Class 2 pressure vessels and (iii) fabrication and assembly of pressure piping issued to Unit II, Palwal Facility
2022	Certificate of accreditation in accordance with the standard ISO/IEC 17025:2017, general requirements for the competence of testing and calibration laboratories issued to the Quality Control Lab, Palwal facility in the field of testing on by the National Accreditation Board for Testing and Calibration Laboratories
2022	Letter of validation granted by the Canadian Welding Bureau providing certification for fusion welding of steels in division 2 as per Canadian Standards Association ("CSA") W47.1, including fabrication of structural steel piping supports for petroleum industry, issued to the Company
2022	Certificate on DIN EN ISO 3834-2 issued to the Anjar Heavy Fabrication Facility
2021	Certificate of authorisation from the American Society of Mechanical Engineers for the (i) manufacture and assembly of power boilers and (ii) fabrication and assembly of pressure piping issued to Unit I, Palwal Facility
2021	Pressure Equipment Directive 2014/68/EU ("PED") Quality Assurance certificate for manufacture and supply of forged, seamless and welded fittings issued to the Palwal Facility by TUV Nord Systems GmbH & Co.
2020	ISO 9001:2015 certificate for design and manufacture of pressure vessels and manufacture of pipe fittings and piping systems to National/International standards and customer specifications issued to Palwal Facility, Bangkok Facility, Anjar Facility I and Barmer Facility
2020	ISO 14001:2015 certificate for design and manufacture of pressure vessels and manufacture of pipe fittings and piping systems to National/International standards and customer specifications issued to Palwal Facility, Bangkok Facility, Anjar Facility I and Barmer
2020	ISO 45001:2018 certificate for design and manufacture of pressure vessels and manufacture of pipe fittings and piping systems to National/International standards and customer specifications issued to Palwal Facility, Bangkok Facility, Anjar Facility I and Barmer
2018	Star Performer Award for the year 2016-17 in the product group – Miscellaneous general purpose machinery (Large Enterprise) by National Award for Export Excellence, EEPC India
2014	Pressure Equipment Directive 2014/68/EU ("PED") Quality Assurance certificate meeting the requirement of Module H of the PED for design, manufacture, final product inspection and testing of piping systems issued to Unit II, Palwal Facility by Hartford Steam Boiler Ireland Limited
2013	Construction Industry Development Council ("CIDC") Vishwakarma Award 2013 for Best Professionally Managed Company (Turnover ₹ 100-500 crores) by CIDC
2007	Certificate of appreciation in recognition of invaluable contribution to the success of Thermax, by Thermax