



**CASTING
SOLUTIONS.
FORGING
BONDS.**





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WORLD CLASS INTEGRATION FOR NEXT LEVEL SOLUTIONS

With our 100% in-house testing facility and stringent compliance to quality at every step, we ensure all our products are of world class standards.

SOLUTIONS THAT MEET PRESENT REQUIREMENTS AND KEEP INNOVATING FOR FUTURE ONES

Wind energy, power, transmission, oil and gas, aerospace and machine tools – diverse industries and applications that have one need in common. Solutions. Cutting edge solutions that not only increase productivity and reduce wastage but are also environmentally conscious. Solutions that meet

present requirements and keep innovating for future requirements. At SEFORGE, we deliver perfect end-to-end solutions that not only meet but regularly exceed customer expectations... thus taking them to the next level every day.

Incorporated in the year 2006, we are a fully-fledged casting and forging company with in-house competence in pattern making, moulding, pouring, fettling, ring-rolling, heat treatment, machining, painting and packaging. This helps us meet customer requirements more efficiently through integrated process management and shorter lead times.

With our 100% in-house testing facility and stringent compliance to quality at every step, we ensure all our products are of world class standards. We thus establish next level precision and unchallenged quality.





**END-TO-END
SOLUTIONS**



**INTEGRATED PROCESS
MANAGEMENT**



**SHORTER
LEAD TIMES**



**STRINGENT
QUALITY COMPLIANCES**



**100% IN-HOUSE
TESTING**





OUR MISSION

Our Mission is to meet customer expectations by continuously improving our infrastructure, technologies, processes and fostering employee engagement.



OUR VISION

Our Vision is to be the preferred global supplier of large, high-precision castings and forgings by employing path-breaking technological innovation and environment friendly processes that contribute positively towards value enhancement of all stakeholders.



OUR VALUES

EXCELLENCE We excel in delivering superior performance which consistently surpasses all expectations.

CONTINUOUS IMPROVEMENT We bring continuous improvement in everything we do.

INNOVATION We are proactive in developing new and creative approaches and implementing them swiftly.

AGILITY We are prompt in taking decisions at the earliest, keeping all stakeholders in mind.

INTEGRITY We believe in upholding highest ethical standards and moral principles in all our actions.



CASTS THAT LAST

Our Casting Division sets a global benchmark for high-precision castings by harnessing the latest technology and efficient processes, while ensuring that all environmental norms and safety standards are met.

We make large, complex, ductile and grey iron castings – in the weight range of 5,000 kg to 25,000 kg – which are fully-machined, painted and delivered ready for assembly.

Located in a Special Economic Zone (SEZ) in Coimbatore, India, and close to the Indian ports of Chennai and Tuticorin, the foundry is able to serve global customers efficiently.

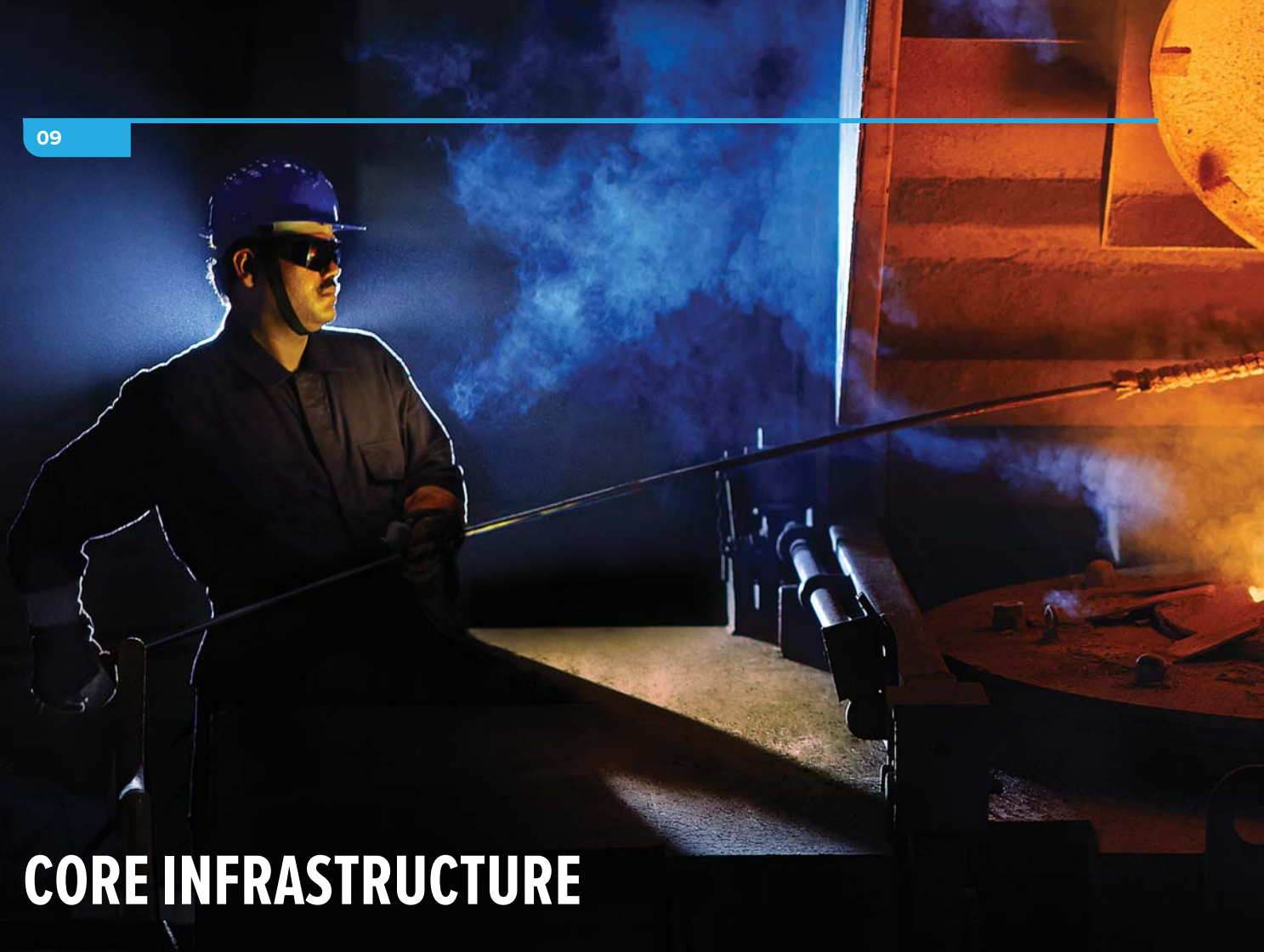
FULLY-FINISHED, INNOVATIVE, NEXT LEVEL CASTING SOLUTIONS

Spread over an area of 2,40,000 sq. metres, our Casting Division is one of the largest, fully-integrated foundries in India with an annual pouring capacity of 80,000 tonnes of fully-machined and ready to assemble castings. Our advanced facilities impart to our products a definitive technological edge through the amalgamation of latest machineries, efficient and ergonomic processes, state-of-the-art software and in-depth human expertise. The usage of in-house machines ensures superior finished product quality and reduced cycle time.

We take pride in the fact that each section of our Casting Division – be it the machine shop, the moulding and core shop, the fettling and finishing shop or the quality testing – individually and collectively work towards fulfilling the company's promise of exceptional quality and on-time delivery. We work simultaneously with customers to provide end-to-end solutions including design and development of parts, pattern design, process and quality planning.

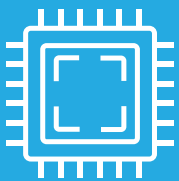
We adhere to highest health and safety standards stringently and meet our social responsibility by using environmental friendly processes.





CORE INFRASTRUCTURE

MOULDING



1. Sand mixers: Movable and stationary PLC controlled continuous sand mixers ensure good quality of mixed sand.

- Capacity: 25 – 50 MT/hour

2. Sand reclamation plant: Our sand reclamation plant is environment friendly with the capacity to reclaim 90% of the used sand.

3. Mould shake-out machines

- Capacity: 30 - 60 MT/hour

MELTING & POURING



1. Melting furnaces: 3 pairs of dual track medium frequency induction furnaces consisting of 6 crucibles of 12 MT capacity each.

2. Melting process control room: Spectrometers for testing chemical composition of molten metal, which can analyse 28 different elements.

3. Charging system: Individual charging system for each crucible for charging raw materials.

4. Ladles: Ladles of varying capacity with ladle pre-heaters.

- Capacity: 7 – 20 MT.

FETTLING



Shot blasting machines

- Capacity: 7 – 30 MT/hour



MACHINE SHOP



CNC Double column vertical machining centre.

- Table size: 5,000 mm x 3,000 mm

CNC Floor type horizontal boring and milling centre.

- Table size: 2,000 mm x 2,000 mm

PAINT SHOP



Facilities for washing, cleaning, grit blasting, painting and drying with motorized ground trolleys and an overhead electric monorail material handling system

Paint types: Thermal zinc spray, Epoxy and Polyurethane

TESTING FACILITIES



Mechanical lab: UTM with 600KN capacity, impact testing machine and hardness testing machine

Metallography lab: Spectrometer (Spectro Max & Lab), Microscope (40 MAT) with camera and image analyser

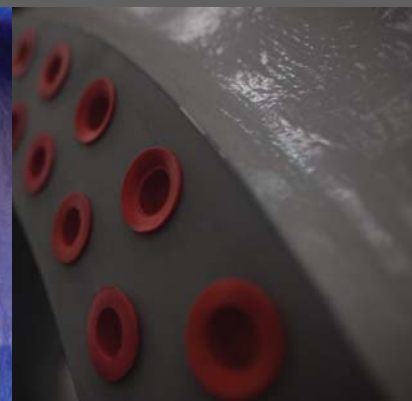
Non-destructive testing: Ultrasonic testing equipment to find internal soundness of the castings (GE & OLYMBUS), magnetic particle inspection to find surface and sub surface defects (Yoke-Y7)

Portable CMM

EDGE faro arm: 12 Feet Arm Length, Scanner Attachment for 3D scanning. Accuracy – 64 microns

Laser tracker: Range – 70 m, Accuracy - 0.17 mm

METALLURGICAL ANALYSIS SOFTWARE



Novacast: ATAS – To predict and ensure tendency of shrinkage of metal in casting even before pouring.

Casting simulation software

Novacast: Novaflow & Solid-Metal Filling and Solidification Simulation Software. To simulate casting defects at tooling design stage itself



QUALITY ACCREDITATIONS

ISO 9001:2015

Certificate	
Standard	ISO 9001:2015
Certificate Register No.	01 100 096963
Certificate Holder:	SEFORGE Limited Plot No.1, Aspen Infrastructure Limited - SEZ, Karumathampatti, Kittampalayam Village, Coimbatore - 641 659, Tamilnadu, India.
Scope:	Manufacture of Grey Alloy and Ductile Iron Castings with Machining and Coating.
	Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.
Validity:	The certificate is valid from 2024-05-21 until 2027-05-20. First certification 2019
2024-05-09	
TÜV Rheinland Certification Body www.tuv.com	

ISO 14001:2015

Certificate	
Standard	ISO 14001:2015
Certificate Register No.	01 104 1836306
Certificate Holder:	SEFORGE Limited Plot No.1, Aspen Infrastructure Limited - SEZ, Karumathampatti, Kittampalayam Village, Coimbatore - 641 659, Tamilnadu, India.
Scope:	Manufacture of Grey Alloy and Ductile Iron Castings with Machining and Coating.
	Proof has been furnished by means of an audit that the requirements of ISO 14001:2015 are met.
Validity:	The certificate is valid from 2024-05-21 until 2027-05-20. First certification 2019
2024-05-09	
TÜV Rheinland Certification Body www.tuv.com	

ISO 45001:2018

Certificate	
Standard	ISO 45001:2018
Certificate Register No.	01 213 1836306
Certificate Holder:	SEFORGE Limited Plot No.1, Aspen Infrastructure Limited - SEZ, Karumathampatti, Kittampalayam Village, Coimbatore - 641 659, Tamilnadu, India.
Scope:	Manufacture of Grey Alloy and Ductile Iron Castings with Machining and Coating.
	Proof has been furnished by means of an audit that the requirements of ISO 45001:2018 are met.
Validity:	The certificate is valid from 2024-05-21 until 2027-05-20. First certification 2019 (ISO 45001:2018)
2024-05-09	
TÜV Rheinland Certification Body www.tuv.com	





FORGING YOUR NEEDS

Spread over a vast expanse of 1,65,000 sq. metres, our Forging Division is fully equipped to meet the demands from diverse industries including wind energy, oil and gas, power, construction and heavy machinery, bearings, transportation, aerospace, mining and defence.

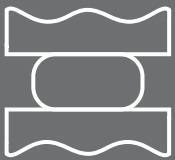
The stringent process control ensures consistent levels of quality while reducing production cycle time and eliminating human error.

This plant has an installed annual capacity to manufacture 42,000 large and high-precision fully machined rings of different material grades up to a diameter of 5 metres.

Raw material grades:

- All carbon steel grades
- All bearing steel grades
- All stainless steel grades
- Major alloy steel grades

Located in a Special Economic Zone (SEZ) in Vadodara, India, and close to the Indian ports of Mumbai, Kandla and Mundra, the forging unit is able to serve global customers efficiently.



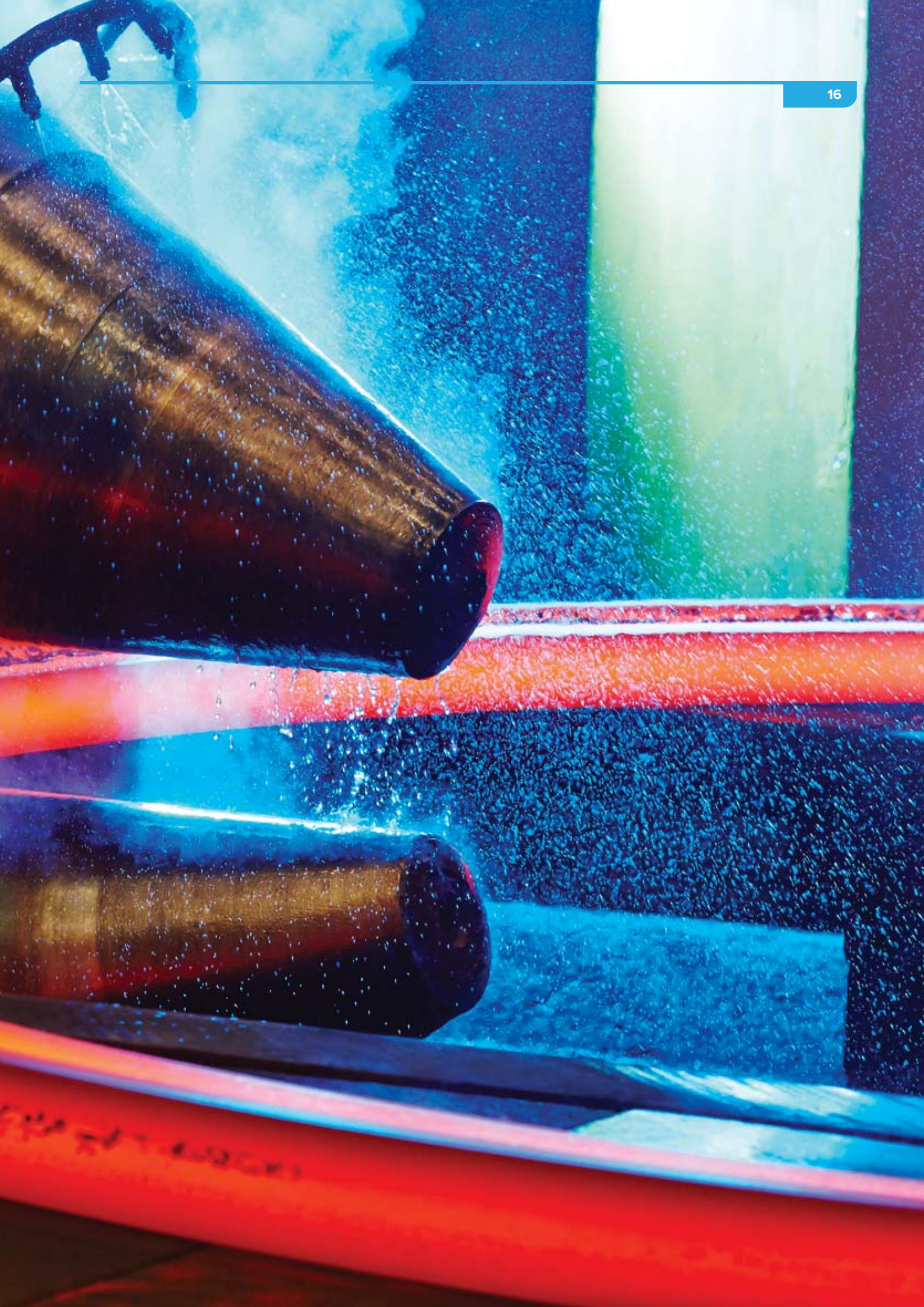
AXIAL PROFILING FOR NEAR NET SHAPE FORGING SOLUTIONS

Equipped with state-of-the-art infrastructure and modern technology, our Forging Division ensures that all products are fully- finished and consistently meet global quality standards. The fully-integrated ring-rolling facility with rotary hearth furnace having auto indexing system ensures uniform and consistent heating. In addition, the automatic process control from billet cutting to the heat treatment shop ensures consistent levels of quality, efficiency and

productivity while reducing production cycle time and eliminating human error.

We take pride in the precision of all our processes including ring-rolling, heat treatment, CNC machining, painting and export worthy packaging. With our superior Axial profiling capabilities, we can roll the rings with weld neck profile directly in forge shape. Due to this, yield is improved to 7 % and machining time is reduced by 15 to 20 % based on the depth of profiling.

Comprehensive in-house testing facilities ensure our products meet international quality standards. All aspects of the product cycle, from engineering to process planning, quality management and manufacturing, come together seamlessly to develop the right products the very first time.

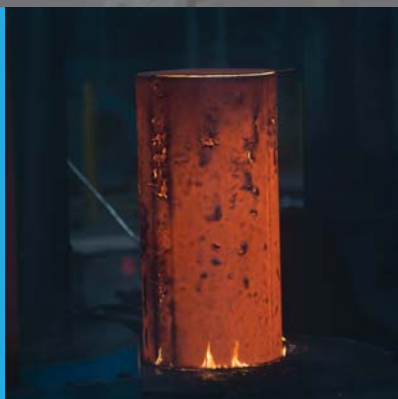
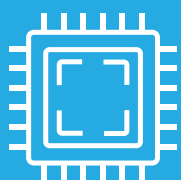


CORE INFRASTRUCTURE

SCALING

HYDRAULIC PRESS

HEAT TREATMENT



1. High speed sawing centre:

Billets range:

- Diameter: 250 - 700 mm
- Weight: 200 - 4,500 Kgs

2. Rotary hearth furnace:

Natural gas fired furnace with heating capacity of 30 MT/hour with auto indexing system.

3. Material handling robot:

Automatic handling of billets up to 4,500 Kgs capacity from rotary hearth furnace to ring-rolling machine.

4. Hydraulic Press:

5,000 MT hydraulic press for upsetting and piercing billets.

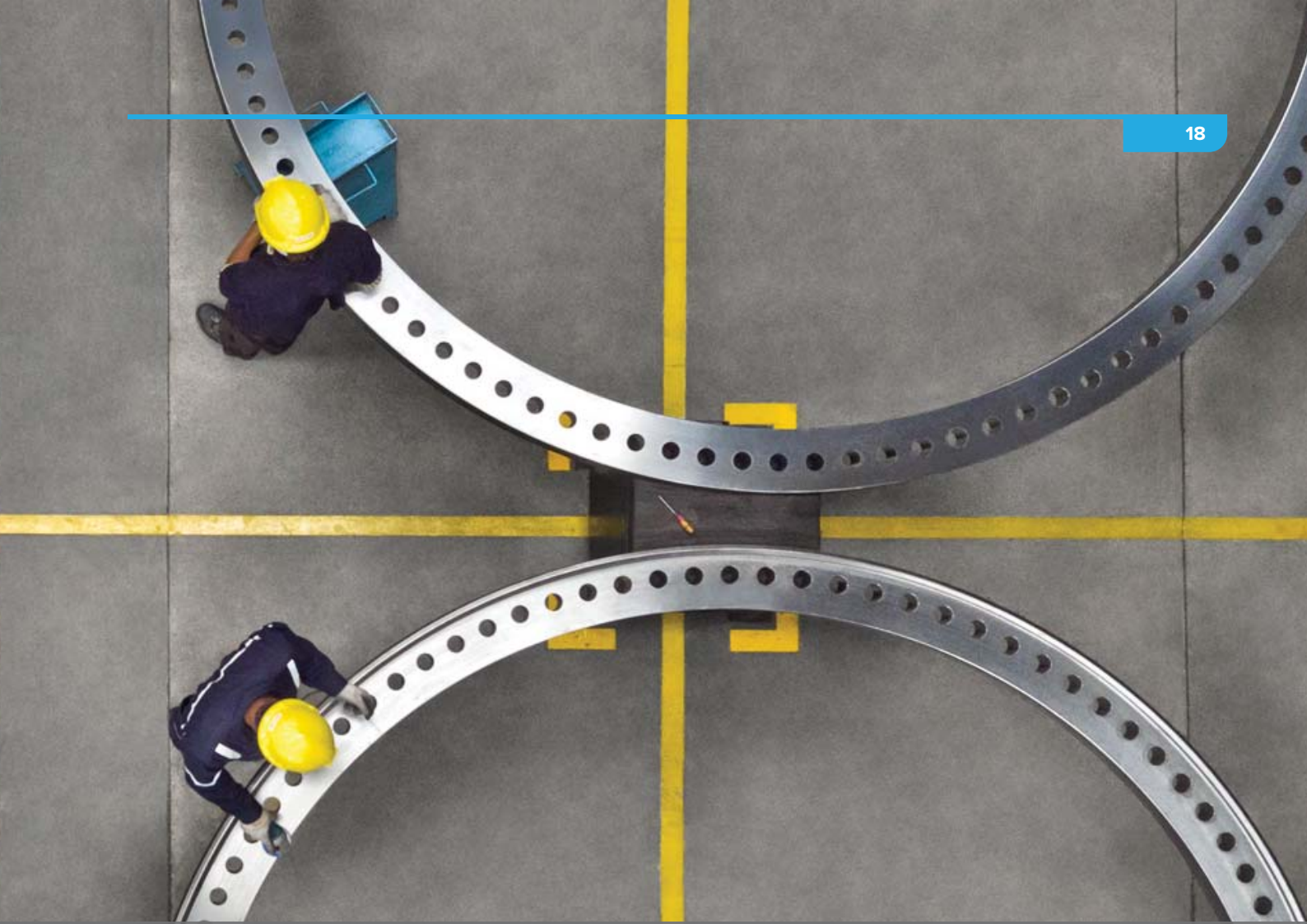
5. Ring-rolling machine:

Rolling of near net shape forged rings from 500 to 5000 mm OD and 30 to 550 mm height.

6. Ring expander:

Ensures concentricity of rings after rolling process.

Natural gas/LPG fired furnaces with automatic material-handling system for normalizing, hardening and tempering processes.



TESTING

**1. Mechanical testing:**

The fully-equipped metallurgical lab for testing various mechanical properties like UTS, tensile strength and impact testing for -70°, jominy testing and other ambient conditions.

2. Micro-structure analysis:

The spectrometer to analyse and ensure micro-structure, grain size and purity as per design specifications.

3. Ultrasonic testing:

UT testing by qualified level-II operators under the supervision of an NDT level-III expert.

MACHINING

**1. Machining line for forged rings/flanges:**

CNC controlled VTL and Drilling machines for rings/flanges up to 5000 mm OD

2. Machining line for bearings rings:

CNC controlled VTL and Drilling machines for rings up to 2500 mm OD

DIMENSIONAL MEASUREMENT



- In-process dimensional measurements by mobile FARO equipment
- 3D CMM machine (size-4x3x1.6 m) with profile tracing facility

EXPORT WORTHY PACKAGING



- Packaging processes that protect dimensional integrity and prevent corrosion



QUALITY ACCREDITATIONS

EN 9100:2018

ISO 9001:2015

ISO 14001:2015

Certificate

Standard

EN 9100:2018

Equivalent to AS 9100 and JIS Q 9102:2016, including ISO 9001:2015

Certificate Register No.

01 111 103750

Single Site

Certificate Holder:

SE Forge Limited

Aerospac Business Line

Plot No-1, SEZ Unit in AsperPark Infra Vadodra Pvt. Ltd.

Piparia, Taluka Vaghodia,

Vadodra, Gujarat 391780

India

Scope:

Forging and Machining of rings up to 5000 mm outer diameter, up to 600 mm Height and up to Weight 4.3 MT/Piece

An audit was performed in compliance with EN 9104:2013. Proof has been furnished that the requirements according to EN 9100:2018 are fulfilled.

Validity:

Issue date: 2024-01-22

Expiry date: 2027-01-17

First certification: 2018

2025-01-22



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Presumably Right.

Certificate

Standard

ISO 9001:2015

Certificate Register No.

01 109 050902

Certificate Holder:

SE Forge Limited

Plot No-1, SEZ Unit in AsperPark Infra Vadodra Pvt. Ltd.

Piparia, Taluka Vaghodia,

Vadodra, Gujarat, India

Scope:

Manufacture of Forging and Machining of Standard Flanges, Non-Standard Flanges and other rings up to 5000 mm OD, up to 600 mm Height and Weight up to 4500 Kg/Piece

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity:

The certificate is valid from 2024-01-18 until 2027-01-17.

First certification: 2009

2024-06-14



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Presumably Right.

Certificate

Standard

ISO 14001:2015

Certificate Register No.

01 104 110336

Certificate Holder:

SE Forge Limited

Plot No-1, SEZ Unit in AsperPark Infra Vadodra Pvt. Ltd.

Piparia, Taluka Vaghodia,

Vadodra, Gujarat, India

Scope:

Manufacture of Forging and Machining of Standard Flanges, Non-Standard Flanges and other rings up to 5000 mm OD, up to 600 mm Height and Weight up to 4500 Kg/Piece

Proof has been furnished by means of an audit that the requirements of ISO 14001:2015 are met.

Validity:

The certificate is valid from 2024-01-18 until 2027-01-17.

First certification: 2012

2024-06-24



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Presumably Right.

ISO 45001:2018

Certificate

Standard

ISO 45001:2018

Certificate Register No.

01 213 110336

Certificate Holder:

SE Forge Limited

Plot No-1, SEZ Unit in AsperPark Infra Vadodra Pvt. Ltd.

Piparia, Taluka Vaghodia,

Vadodra, Gujarat, India

Scope:

Manufacture of Forging and Machining of Standard Flanges, Non-Standard Flanges and other rings up to 5000 mm OD, up to 600 mm Height and Weight up to 4500 Kg/Piece

Proof has been furnished by means of an audit that the requirements of ISO 45001:2018 are met.

Validity:

The certificate is valid from 2024-01-18 until 2027-01-17.

First certification: 2012

2024-06-14



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Presumably Right.





BONDS FORGED SERVICE DELIVERED

With our capability of meeting customer needs across various sectors, we take pride in our long term association with some of the leading global players.



CASTINGS

WIND GE (India & USA), Vestas, Gamesa, Suzlon, Senvion, Wind World and ZF

POWER GE Jenbacher

FORGINGS

WIND OEM'S GE, Vestas, Gamesa, Suzlon, Regen, Wind World

WIND TOWER MANUFACTURERS Gestamp, Windar, GWPL; Eurpoe: Max Boegl, KGW, SIAG; Australia: Ottoway

BEARING OEM'S SKF, Rothe Erde, IMO, Laulagun, ABC Bearing

OIL & GAS GE, IPI, Cameron through IPI

POWER & INDUSTRIAL GE Alstom, VOITH

DEFENCE MIDHANI, DRDO, ASL

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ACCURATE



WHY SEFORGE?

- Certified with the highest international standards and quality accreditations
- Audited and certified by major global customers
- End to end capability in providing finished products
- 100% in-house testing facilities to ensure quality compliance from raw material to finished goods
- A skilled, trained and dedicated workforce committed to delivering superior solutions
- Excellent track record in on-time delivery
- Sourcing of con-cast raw material from reputed global steel mills
- Complete adherence to highest levels of environment, health and safety standards





SEFORGE LIMITED

FORGING DIVISION

Vadodara

Plot No.1, SEZ Unit in ASPEN Infrastructures Ltd,

Village: Piparia, Taluka: Waghodia

District: Vadodara 391 760, Gujarat, India.

Phone: +91 2668 245086 – 89







SEFORGE LIMITED

CASTING DIVISION

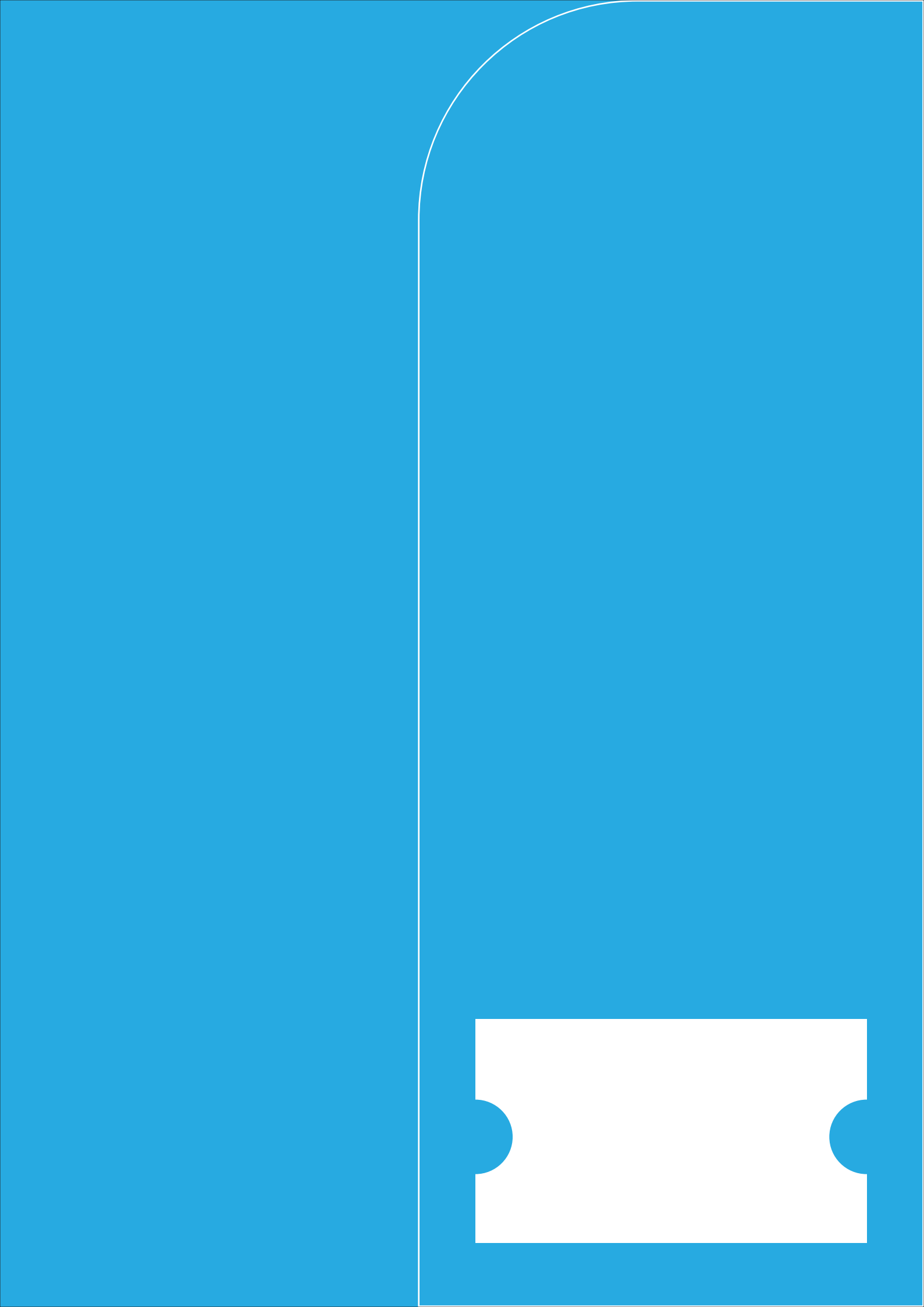
Coimbatore

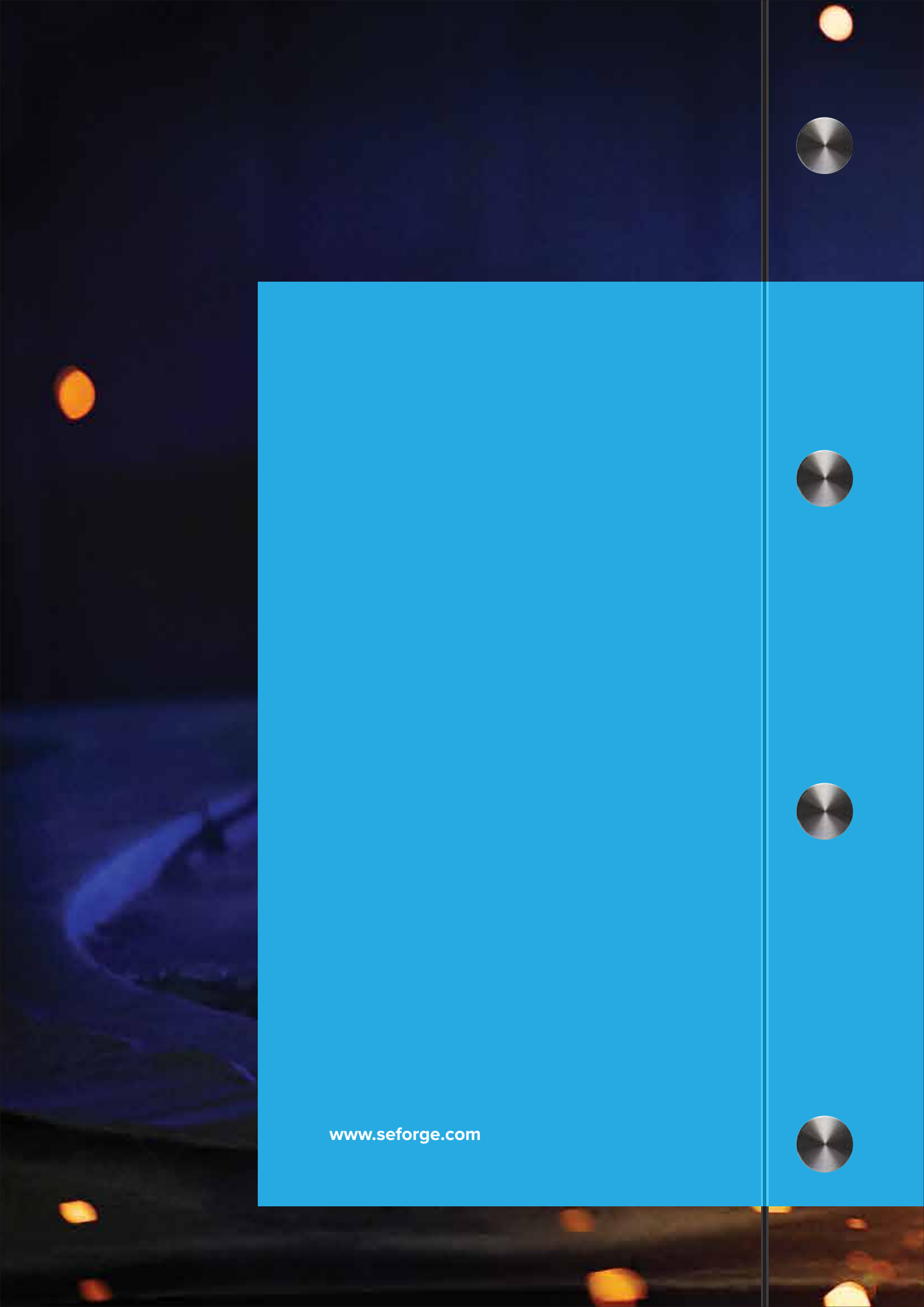
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