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admen.design

Galvalume Steel for Solar Structures

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JSW Steel Coated Products Ltd.- CIN: U27100mh1985plc037346





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JSW Group



A \$13 billion conglomerate, with presence across India, USA, Italy, South America & Africa. The JSW Group is a part of the O.P. Jindal Group with strong footprints across core economic sectors, namely, Steel, Energy, Infrastructure, Cement, also in Ventures and Sports. The Group is paving the way for India's development as a global superpower.



JSW Steel is India's leading steel producer and among the world's most illustrious steel companies. It is one of the fastest growing companies in India with state-of-the-art manufacturing facilities located across the nation.



JSW Energy is one of the earliest private entrants into the power sector positioned strongly as a full-spectrum integrated power company with a presence across the power sector value chain. It is one of the most efficient Power Companies in the country. It is one of the country's largest open cast mining operation by volume and one of the largest private sector Hydro Operators in India.



JSW Cement creates the building blocks of India with its environment friendly products. JSW Infrastructure is contributing to the nation's development by providing world class services to clients through state of-the-art ports, terminals, shipyards and other facilities.



JSW Sports runs the Sports Excellence Program (SEP) to identify, nurture and develop Indian athletes to ensure that they bring sporting glory to the nation on the global stage. JSW Sports also runs the Bengaluru Football Club, Delhi Capitals cricket team and the Haryana Steelers kabaddi team.

Spread over 42 acres in Vijayanagar, Karnataka, The Inspire Institute of Sport (IIS) is a unique initiative led by the JSW Group. It is India's first privately-funded High Performance Training Centre that trains talented young athletes across five Olympic disciplines - wrestling, boxing, judo, athletics and swimming.

JSW Foundation, the Group's CSR and Sustainability arm, is in constant pursuit of making life better for communities with its various initiatives in the fields of health, education, livelihood and sports, along with art and culture. The JSW Group is committed to creating more smiles at every step of the journey. JSW Group is proud to be charting a course to excellence that creates opportunities for every Indian and leads to the creation of a sustainable, dynamic and developed nation.



JSW Paints is a greenfield venture of the JSW group backed by cutting-edge technology, automation and scale that is comparable to leading players in the Indian paints sector. The company manufactures and markets both industrial coatings as well as decorative paints. In the Decorative paints segment, the company offers a complete range of only water-based paints for various surfaces in Interior & Exterior walls and also for wood & metal surfaces.

JSW Ventures is an early-stage, tech-focused, venture capital fund of JSW Group. JSW Ventures extends its partnership not just through capital, but through a commitment to build exceptional companies by developing growth strategies, improving financial functions, and providing access to the investor community and support from JSW Group's extensive resources.



JSW Steel Ltd.

The flagship company of USD 13 billion JSW Group, Over the last three decades, JSW Steel has grown from a single manufacturing unit to become India's leading integrated steel company with capacity of 28 MTPA in India & USA (including capacities under joint control).

JSW Steel, certified as Great Places To Work in 2021, has emerged as an organization with a strong cultural foundation and great potential to be among the Top 100 companies. It is one of the fastest growing companies in India with a footprint in over 140 countries with state-of-the-art manufacturing facilities located in Karnataka, Tamil Nadu and Maharashtra, it is recognized for its innovation and quality.

JSW offers a wide gamut of steel products that includes Hot Rolled, Cold Rolled, Bare & Pre-Painted Galvanized & Galvalume®, TMT Rebars, Wire Rods, Special Steel, Electrical Steel and Tinplate.

JSW Steel continues to enhance its capabilities to meet the rapidly changing global market needs. To stay on the leading edge of technical advancement, JSW has entered into technological collaboration with JFE Steel Corp, Japan to manufacture high strength and advanced high strength steel for the automobile sector. JSW Steel has also entered into a joint venture with Marubeni-Itochu Steel Inc. Tokyo, to set up a state-of-the-art steel processing centers.

To strengthen its global network, The company has acquired steel manufacturing facilities at Texas & Ohio in USA & in Piomboni, Italy. Going forward, JSW Steel aims to increase the annual production to 40 million tons within a span of 10 years.

Vijayanagar Works



Salem Works



Dolvi & Salav Works





Vasind Works



Tarapur Works



Kalmeshwar Works

JSW Steel Coated Products Ltd.

JSW Steel Coated Products Limited is 100% subsidiary company of JSW Steel, having state-of-the-art manufacturing facilities in the state of Maharashtra, MP & Punjab.

JSW Steel Coated Products Ltd. is India's largest manufacturer and exporter of Coated Steel as well as Colour Coated Steel. The production facilities, Tarapur and Vasind Works, are located in the vicinity of major ports. The company's Kalmeshwar Works is centrally located near Nagpur to serve across regions.

JSW is an ISO 9001: 2008 Certified Organization and the first licensee producer for Galvalume® in India. The Tarapur plant is specialized in manufacturing ultra-thin Coated Products. The company is also a manufacturer of appliance grade Colour Coated products. JSW's Kalmeshwar Works is the first producer of Galvanized and Colour Coated Steel in India. JSW also has established India's first Appliance Grade Line to manufacture Pre Coated and Vinyl Coated Metal.



Blast Furnace - IV



Steel Melting Shop

Setting Benchmarks

- First continuous annealing line in India
- Widest Cold Rolling Mill (upto 1870 mm width)
- India's largest Coated Steel producer
- First Licensee Galvalume® producer in India
- JSW Steel Salem works is the largest integrated Alloy and Special Steel plants in India
- One of the widest Hot Strip Mills in India
- India's most modern and largest Vertical Caster-300/260/220 x 2200 mm
- India's only Multi-Radii Bloom Caster operational at Salem works
- ZERO EFFLUENT discharge for greener & cleaner environment
- India's largest Long Steel producer by installed capacity



Awards & Recognitions

Business & Operations

JSW Steel Recognised as "Best Brand - 2021" by The Economic Times
 IIM National Sustainability Award under the 'Large Integrated Steel Plants' category, 2019
 CII Prestigious National Supply Chain and Logistics Excellence (SCALE) Award, 2019
 CII Exim Bank Awards for Business Excellence, 2018
 The 25th Steel Minister's Trophy for the best performing integrated steel plant, 2016-17
 IMC RBNQA Performance Excellence Trophy, 2016

Management

BHEL Best Supplier Award, 2019
 Business Standard CEO of the Year Award, 2018
 Outstanding Business Leader of the Year CNBC-TV18, 2018
 Chief Finance Officer of the Year, 2018

Sustainability

Sustainability Performance in Corporate Governance & Sustainability Vision Awards, 2020
 Environmental Responsibility / Stewardship award by Fastmarkets AMM, 2019
 Ability Champion Award, 2019
 CII 19th National Award for Excellence in Energy Management, 2018
 Apex India Energy Efficiency Award, 2018
 Golden Peacock Environment Management Award, 2018
 CII - National Energy Management Award, 2017



JSW Steel wins the prestigious Deming Prize for its excellence in TQM.

The JSW Vijayanagar Works is the largest single location integrated steel plant in the world to be awarded the prestigious Deming Prize for excellence in Total Quality Management (TQM) presented by the Union of Japanese Scientists and Engineers (JUSE).

Manufacturing Facilities

Vasind Works

Vasind works is located 70 kms from Mumbai. It is a full fledged complex with Cold Rolling, Galvanising and Colour Coating facilities. Vasind works has India's first appliance grade Colour Coating line, the grades of this line are approved by major white good manufacturers. It sources HR steel from Dolvi & Vijayanagar works to manufacture value added steel products.

Tarapur Works

JSW's Tarapur works is the largest coated steel plant in a single location specializing in the manufacturing of ultra-thin coated products. The plant offers coated products catering to several sectors and located about 100 km from Mumbai. The plant produces Pre-Painted Galvanised / Galvalume, Galvanised, and Bare Galvalume steel. It has a unique service center facility to meet the customised requirements of various segments. The plant has a zero discharge facility having multi-effect evaporator system for effluent treatment.



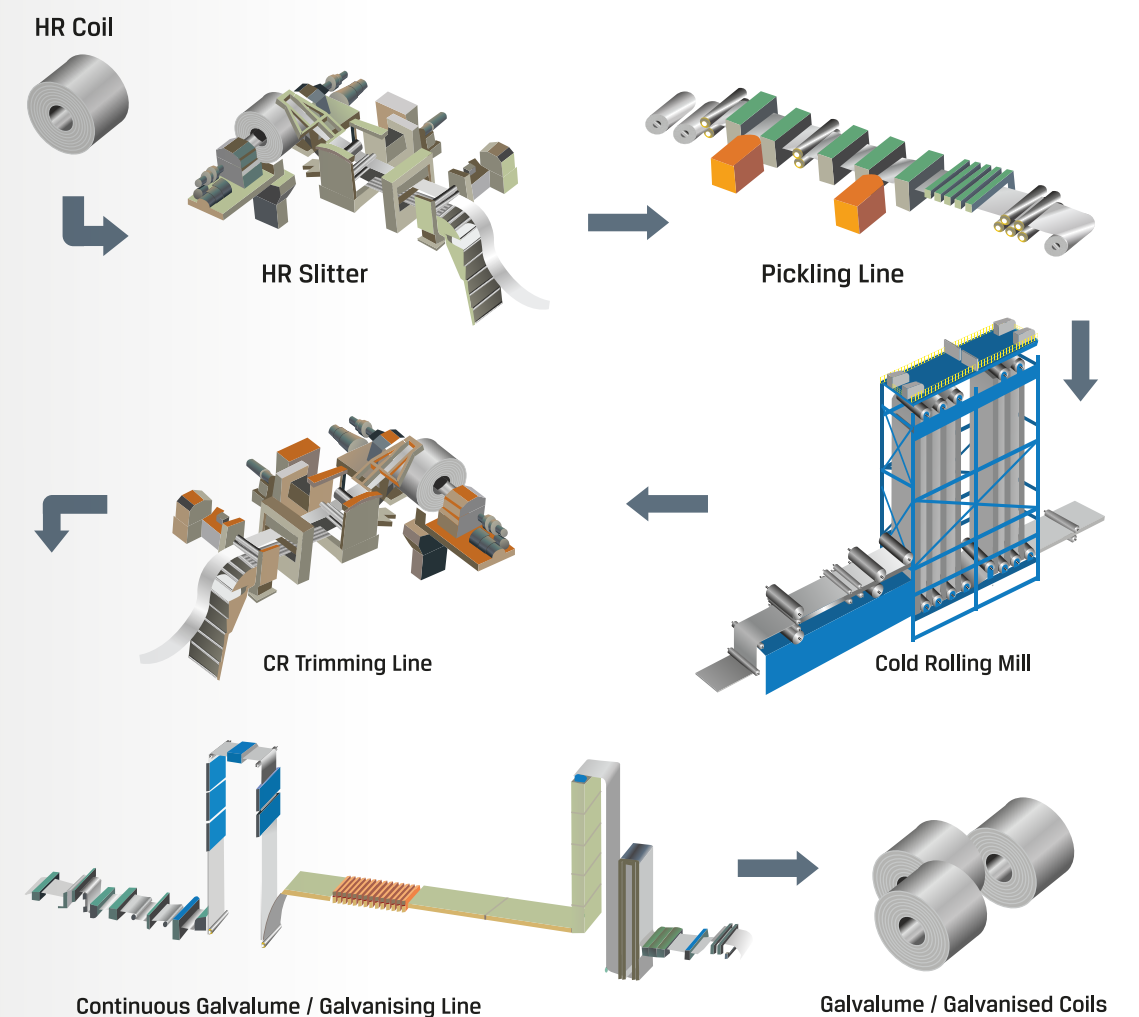
Kalmeshwar Works

JSW Steel Kalmeshwar works is centrally located 30 kms from Nagpur to cater the requirements from all regions. It has galvanising capabilities to produce higher thickness and higher coating. The strict adherence to standards of excellence in quality has lead to attain many world renowned certifications to Kalmeshwar works. JSW Kalmeshwar works is India's first coated steel manufacturing facility. It produces Galvanised, Galvalume, Pre-Painted Galvanised / Galvalume steel.

Manufacturing Process

Galvalume® steel composition, which combines the galvanic corrosion resistance of zinc with the barrier corrosion resistance of aluminium, this product was discovered by Bethlehem Steel Corporation after an extensive research program. The coating's unique microstructure embeds zinc rich areas within an aluminium rich matrix which, while allowing zinc to provide galvanic protection, restricts its dissolution.

Galvalume® steel can be used for roofs of all types and pitches, and can be employed for walls. It is recommended for any new building where a cost-effective maintenance for roofing system is required. Excellent resistance to corrosion and good heat reflectivity make Galvalume® steel the preferred choice for farm building, roofing, and siding applications. The appearance can be further enhanced with the use of pre-painted Galvalume® sheet.





JSW Galvos

Complete Solution for Solar Structures

JSW is the first Indian company to produce Galvalume® coated steel - the coated product renowned for its excellent corrosion resistance and heat reflectivity - under a technology licence from BIEC International Inc. USA.

The technology licence qualifies JSW Steel to continually access the latest product innovations and process refinements through BIEC and the ZAC Association of which the company is a member. This ensures that JSW Steel's product will meet the highest international standards. The alloy coated product nominally contains 55% aluminum, 43.5% zinc and 1.5% silicon by weight. Applied by the hot-dipping process, the product is ideal for applications requiring superior corrosion resistance and heat reflectivity, typically required for building construction, appliances, agricultural equipment and several non-exposed automotive components. The product's shiny spangled appearance is attractive and can be used without painting. Word 'GALVOS', symbolizes a synergy of high quality, high durability & high corrosive resistant steel and the power of Sun. With thicknesses ranging from 0.70 mm to 2.2 mm and Yield Strength from 350 to 550 mpa, JSW GALVOS is designed to meet the complete requirements of Solar Structures (Purlin, Rafter, Bracers etc).



Technical Specifications

Reference Standard	Grade	Yield Strength (Mpa), Minimum	Tensile Strength (Mpa)	% Elongation	Thickness	Width (mm) - Mill edge , Tolerance -0/+5 mm	Slit Width	AZ Coating (GSM)
			Minimum	Minimum	mm As per Standard		Tolerance -0/+0.5 mm	
ASTM A792	Grade 50 Class -1	340	450	12	0.70 To 3.00 mm	1550 Max	As per customer Requirement	AZ150 / AZ200
	Grade 50 Class -4	340	410	12	0.70 To 3.00 mm	1550 Max	As per customer Requirement	AZ150 / AZ200
	Grade 80 Class -1	550	570	NA	0.70 To 3.00 mm	1550 Max	As per customer Requirement	AZ150
IS 15961	YS 300	300	340	20	0.70 To 3.00 mm	1550 Max	As per customer Requirement	AZ150 / AZ200
	YS 350	350	420	15	0.70 To 3.00 mm	1550 Max	As per customer Requirement	AZ150 / AZ200
	YS 450	450	480	8	0.70 To 3.00 mm	1550 Max	As per customer Requirement	AZ150 / AZ200
	YS 550	550	550	NA	0.70 To 3.00 mm	1550 Max	As per customer Requirement	AZ150

Class 1 - Min YS 340mpa and TS 450mpa
Class 2 - Min YS 340mpa and TS not defined

JSW Galvos Applications

suitable for all parts of Module Mounting Structure

Parts of MMSg	Current weight in the structure (%)	Thickness of HDG (mm)	Thickness of GI (mm)	Thickness from GL (mm)
Column post	14%	2-3	Not Used	1.8-2.5
Rafters	14%	2-2.5	1.6-2	1.2-1.6
Purlins	65%	2-2.5	1-1.5	0.8-1.4
Bracings	5%	2-2.5	1.6-2	1.2-1.6
Connection chips	2%	Thickness is 4 – 5 mm so HR material is forged and used		

Case study for a 1 MW project – JSW Galvos is better choice in any aspect

Parameters	Description	HDG	JSW Galvos
Projects where material is preferred	-	Ground mounted Rooftop Tracking structures	Ground mounted Rooftop Tracking structures
Per MW requirement	Lower usage is preferred	30-35 T	20-25 T
Thickness of material	Lower thickness preferred	2 to 3 mm	0.8 to 1.2 mm
Thickness of coating	Lower thickness preferred	80 to 160 microns	40 microns
Strength	Higher strength preferred	345 Mpa	550 Mpa
Life of material	Higher life expected	15 years (with Galvanizing)	25 years
Location constraint	-	Cannot be used near sea shores	None

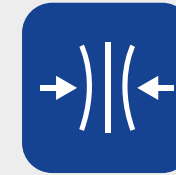


The JSW Galvos Promise



Branded BGL with Liner Marking of JSW GALVOS

- The assurance of the genuineness of the product



Close & customized Tolerances

- Flexibility in product tolerances, within the capability of the plant
- Customized product in line with the design requirements of the structures



Prioritized Order Scheduling

- Timely supply of all parts.
- Fast-tracked orders
- Priority over other orders in line with project timelines



Rush order support

- Sudden project requirements support
- Agile and time bound project delivery



Customized Supply Schedules

- Manufacturing customized product thickness and proportions (ranging from 0.8 to 2mm)
- Customized supply schedules



In-House NABL Certified Testing

- Fully equipped plants with NABL certified testing equipment,
- Ensuring high degree of accuracy



10 Years Warranty*

- Premium 10 year Warranty
- Assurance of the long life of product

*Subject to project site conditions



Storage, Handling and Maintenance

Do's	Don'ts
 <p>Make sure that sheets are stored indoors in a clean and dry area. The sheets should be placed on a balanced surface or resting on the wooden blocks.</p>	 <p>Do not keep your sheets in an open area. Avoid compactly packing your sheets to provide enough breathing space for air circulation.</p>
 <p>Wear clean dry gloves.</p>	 <p>Avoid walking on the roofing sheet with hard shoes to prevent it from damaging.</p>
 <p>Inspect the storage site regularly. Always keep the stacked/bundled product completely dry.</p>	 <p>Avoid direct contact of sheets with wet lime, cement or soil.</p>
 <p>Ensure that dust and debris do not settle on the sheet. Dust it with a broom and wash it with water regularly.</p>	 <p>Don't slide the roof on a rough surface.</p>

Marking & Packaging

Marking, in concept, leads to product accountability and verification at the time of production, transportation and delivery. Considering the vast product range at JSW, labelling practices ensure a foolproof identification and traceability.

JSW offers effective packaging as per your requirements and complies with international norms. Emphasis is placed to ensure durability, prevention of any damage during transportation, and better storage.

Eye to Sky Packing



Eye to Wall Packing



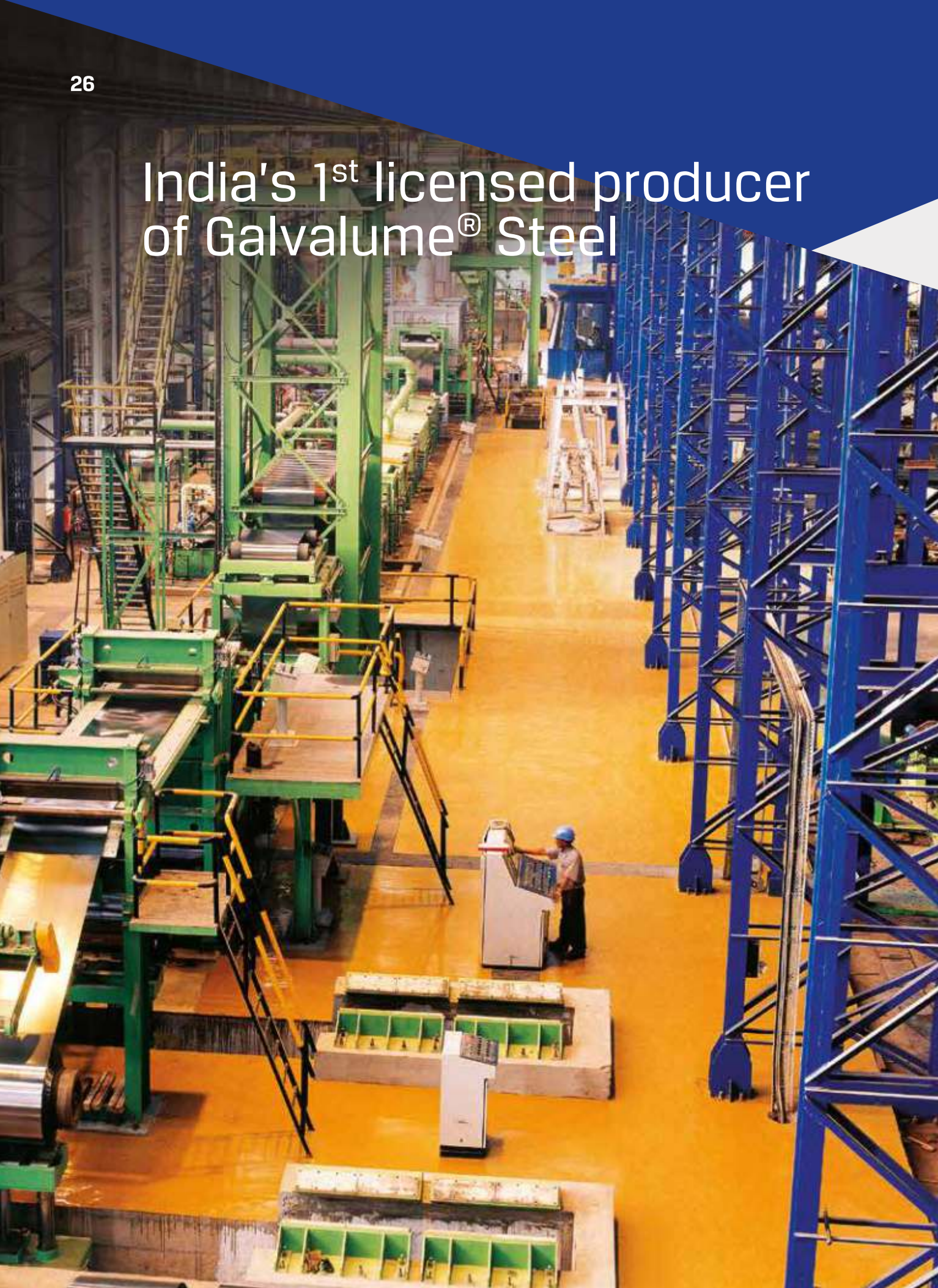
Slit - Master Coil Packing



Sheet Packing



India's 1st licensed producer of Galvalume[®] Steel



Clientele

Utility Scale Project Developers



SB Energy

ReNew
POWER



Solar EPC Providers



Offices

Corporate Head Office

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Bengaluru - 560 042
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Harrington Road, Chetpet,
Chennai - 600 031
Tel: 044-28297420, 28297422

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Coimbatore - 641 002
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Tel: (011) 48178600

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Ghaziabad - 201 009
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Jaipur

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Patna - 800 020
Tel: 08002230517

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