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Dr. Gunther Voswinckel
President ITA

Dear colleagues in the pipe industry, dear readers of the ITAtube Journal,

The global pipe industry is currently experiencing an exciting period marked by both promising opportunities and notable challenges.

Following a weak production year in 2024, global pipe output has grown by 4% this year. Geopolitical developments and the demands of climate change - particularly the decarbonization of our industry - continue to shape the global pipe market. Risks to oil and gas supplies in the Middle East have eased, while the new U.S. administration's announcement to significantly increase oil and gas production ("Pump Baby Pump") and new supply agreements with Europe are generating additional demand for OCTG and pipeline products.

In Asia and the United States, the construction sector is gaining importance, with new architectural solutions driving increased use of pipe products.

The transition to green steel pipes requires substantial investment and innovative technical solutions. At the same time, decarbonization is creating entirely new pipe markets. These include new pipeline infrastructure, electromobility, carbon capture, and the planned logistics networks for green hydrogen - each requiring large volumes of pipe products.

However, it is important to note that opportunities for the pipe industry vary significantly by region. Demand patterns and production costs differ widely, and the availability of skilled labor is becoming increasingly challenging. In some cases, political measures must therefore be evaluated individually.

For plant manufacturers, technology providers, and suppliers to the tube industry, these dynamic conditions present considerable market potential. They also open doors for innovative solutions that enhance productivity and customer value - including AI-based technologies that are steadily gaining ground in our sector.

Innovative products and production processes will continue to ensure the sustainability and profitability of our industry.

Against this backdrop, Tube Middle East in Cairo and Tube Bangkok took place at exactly the right moment, offering valuable platforms for exchange within our tube community. The hybrid ITAtube CONFERENCE 2025, with its focus on the North American market, provided another excellent opportunity to discuss the future prospects of our industry.

As an additional service to the tube community, the ITA has just published the ITAtube Buyer's Guide - a global directory designed to offer buyers and suppliers an efficient platform for networking. Buyer`s Guide – ITA International Tube Association (itatube.org)

Yours faithfully

ITA Team

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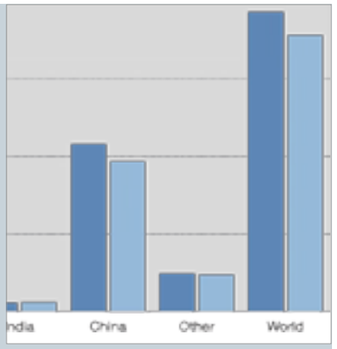

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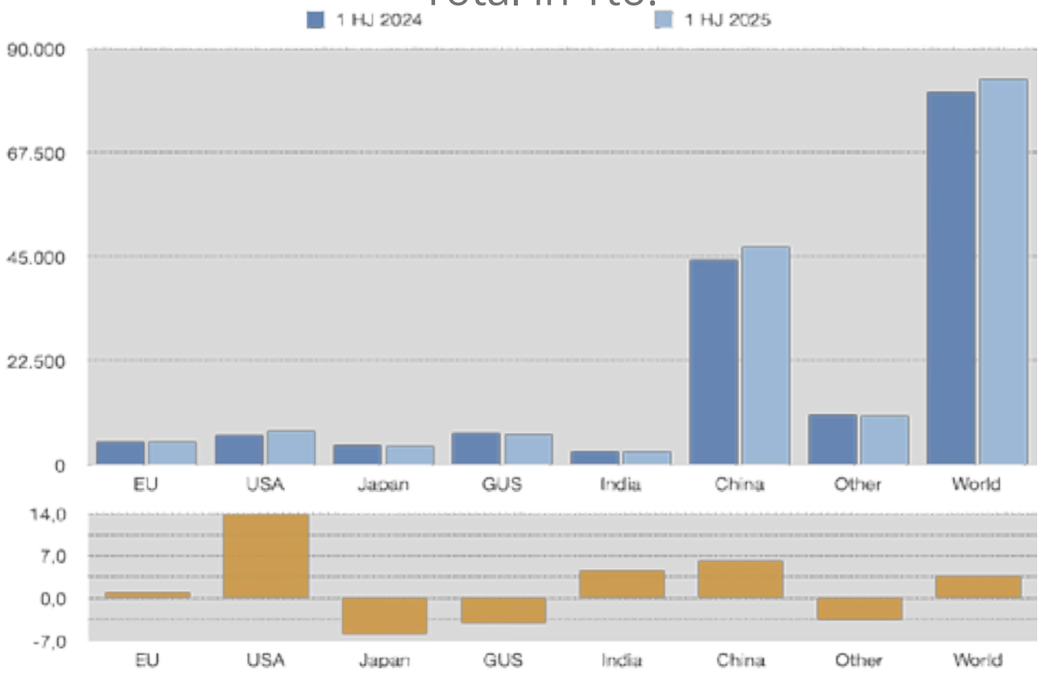
World Steel Tube Production - Review

The first half of 2025 shows varied developments in steel tube production. In the EU, total production remained almost stable at 5,070 Tto, despite a decline in welded tubes >406 mm (-3.9%) and a strong increase in seamless tubes (+28.9%). The USA saw significant growth of 13.8% to 7,400 Tto, driven by all tube types. Japan experienced moderate declines (-5.8%), while the CIS countries fell slightly by 4.0% to 6,550 Tto.

India stands out as a growth region (+4.5% to 3,000 Tto), whereas China increased overall by 6.2% to 47,060 Tto, despite a drop in small welded tubes. Other countries recorded minor decreases (-3.5%).

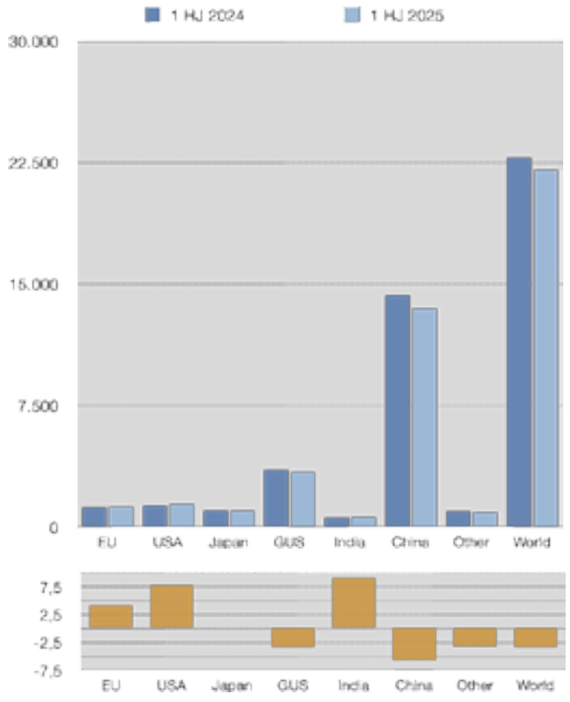
Globally, production rose by 3.6% to 83,600 Tto, mainly driven by China, the USA, and India, while other regions experienced declines.

Total in Tto.

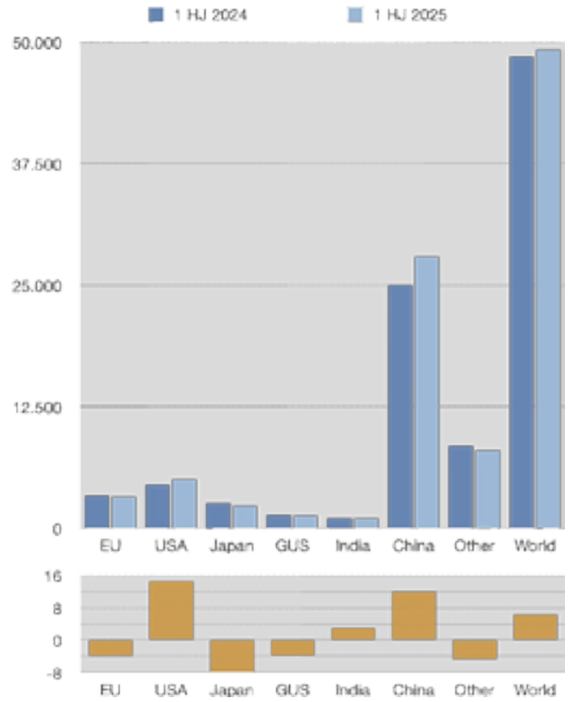


Region/ country	seamless tubes H1 Year 2024	seamless tubes H1 Year 2025	seamless tubes in %	welded tubes <406 H1 Year 2024	welded tubes <406 H1 Year 2025	welded tubes <406 in %	welded tubes >406 H1 Year 2024	welded tubes >406 H1 Year 2025	welded tubes >406 in %	welded tubes H1 Year 2024	welded tubes H1 Year 2025	welded tubes in %	TOTAL H1 Year 2024	TOTAL H1 Year 2025	TOTAL in %
EU	1.210	1.260	4,1	3.360	3.230	-3,9	450	580	28,9	3.810	3.810	0,0	5.020	5.070	1,0
USA	1.300	1.400	7,7	4.450	5.100	14,6	750	900	20,0	5.200	6.000	15,4	6.500	7.400	13,8
Japan	1.000	1.000	0,0	2.550	2.350	-7,8	750	700	-6,7	3.300	3.050	-7,6	4.300	4.050	-5,8
CIS	3.520	3.400	-3,4	1.400	1.350	-3,6	1.900	1.800	-5,3	3.300	3.150	-4,5	6.820	6.550	-4,0
India	550	600	9,1	1.050	1.080	2,9	1.270	1.320	3,9	2.320	2.400	3,4	2.870	3.000	4,5
China	14.300	13.500	-5,6	25.000	28.000	12,0	5.000	5.560	11,2	30.000	33.560	11,9	44.300	47.060	6,2
Other	950	920	-3,2	8.500	8.100	-4,7	1.400	1.450	3,6	9.900	9.550	-3,5	10.850	10.470	-3,5
World	22.830	22.080	-3,3	46.310	49.210	6,3	11.520	12.310	6,9	57.830	61.520	6,4	80.660	83.600	3,6

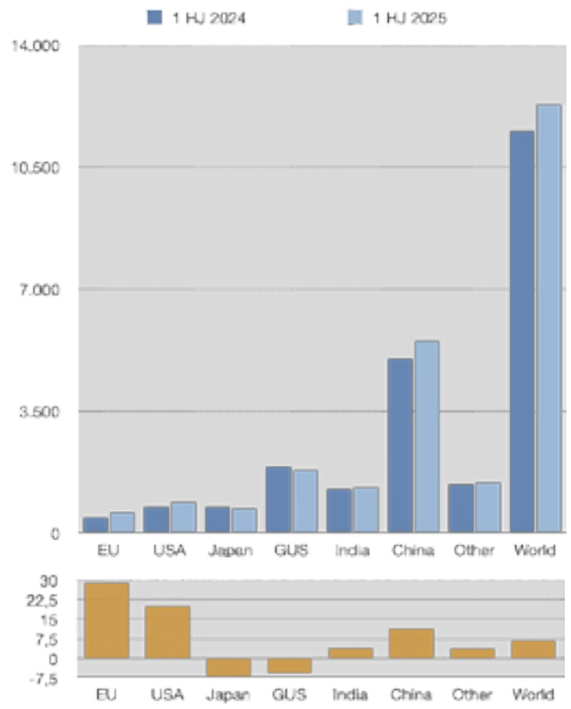
Seamless tubes in Tto.



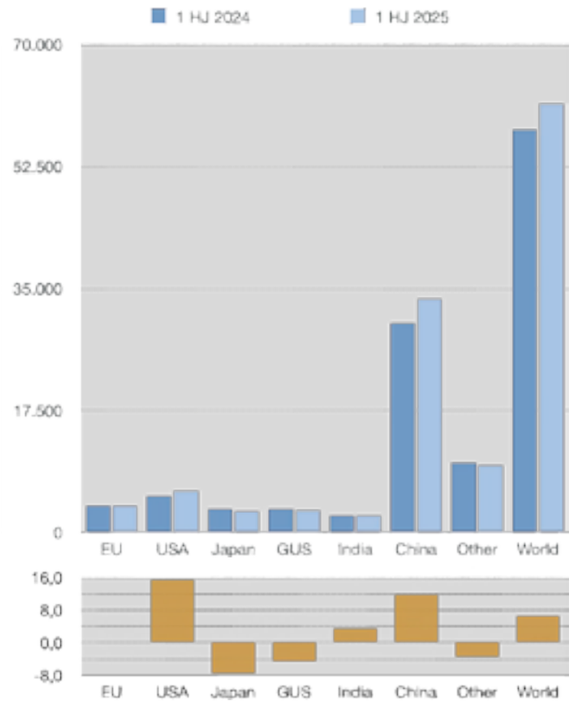
Welded tubes <406 in Tto.



Welded tubes >406 in Tto.



Welded tubes in Tto.



Dr. Gunther Voswinckel, VOSCO GmbH

World Tube & Pipe Market: Factors influencing the current situation

Dr. Gunther Voswinckel – Update as per December 2025

Welcome to ITA's and VOSCO´s regular presentation of the main worldwide economic factors influencing the tube and pipe industry.

The US government intends to continue expanding oil and gas production, sustaining demand for OCTG tubes and pipelines in the US. OPEC+ has increased oil production this year. The Middle East conflict has eased, reducing fears of regional oil and gas shortages. Consequently, oil and gas prices have declined. Ongoing global demand for oil and gas, its transmission via pipelines, and demand for cars, machinery, and construction - especially in regions with high GDP growth - will support demand for tubular products.

New market segments such as CCUS (carbon capture and storage) and hydrogen pipelines will generate additional demand for tubular products, requiring larger quantities of higher-alloyed and stainless-steel tubes. The shift toward customer-centred production will continue to influence the landscape for tube manufacturers. Raw material prices for steel and pipe markets appear to have stabilized, but markets remain nervous with potential for volatility.

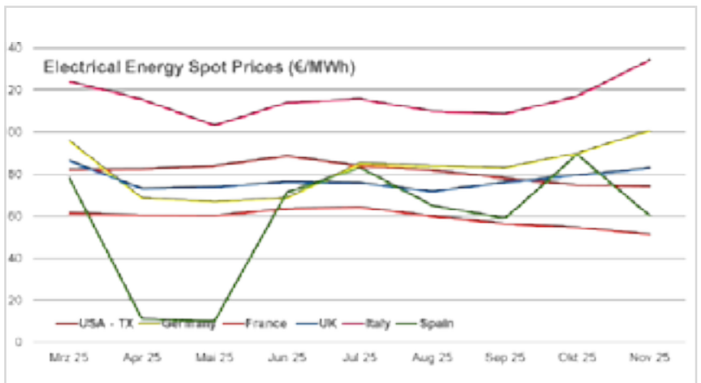


Figure 1: Selected spot prices of industrial electrical energy until November 2025 in €/MWh
Source: Kallanish.com, Statista.com

A potential risk arises if climate-change policies are not implemented with balance, potentially shifting energy-intensive industries to regions with lower energy costs. Nevertheless, supply-demand balance in the pipe industry has largely been restored, resulting in calmer price volatility.

The shift to environmentally friendly pipe production with a low carbon footprint has gained importance. Pipe manufacturers are converting facilities from gas to electricity. Geopolitical and logistical risks, as well as current and future energy costs, are central considerations.

Regions such as the USA, India, Turkey, the Middle East, and China benefit from lower energy costs. Political interventions and regulations increasingly influence industry strategies. The dynamic nature of developments makes timely responses challenging. Some manufacturers are reducing involvement in high-cost regions like Europe due to high costs, while seeking political countermeasures to offset cost disadvantages.

All supply sources are under scrutiny; there is hope that international trade will not be adversely affected.

Disruptive times also create opportunities: beyond oil and gas, new markets such as electromobility, production-site productivity improvements, and enhanced customer service tied to environmentally friendly practices offer opportunities. Skilled personnel availability is increasingly challenging in some regions like the US. Technology providers are expanding portfolios to include green, robotic, and digital solutions.

The availability of economical energy is decisive. We monitor energy costs in selected regions worldwide (Figure 1).

Geopolitical turbulences, regulations, and energy sources influence electricity costs. Prices remain volatile at roughly 15–135 €/MWh depending on country (Figure 1), reflecting the large increase over the last 20 years and consequent economic uncertainties for energy-intensive industries. November 2025 values (Figure 2) illustrate the challenges for our energy intensive industry.

Europe exhibits wide price variation and rising costs. Sweden, France, and Spain are relatively better positioned than Italy and Germany. Countries with substantial nuclear or other low-cost base-load energy sources retain cost advantages. For example, US Texas electricity costs at about 75 €/MWh are ~30% lower than many European levels; tariffs further enhance competitiveness for tubular investments. The new US administration has signaled actions to further reduce energy costs.

Countries such as Saudi Arabia offer electricity at around 40 €/MWh or less. Unfavorable European regulations or grid costs could worsen the gap, driving relocation of production to lower-energy-cost regions. The energy-intensive industry's concentration at the start of the production chain risks downstream impacts in regions with high electricity costs.

Natural gas remains a key energy source influencing the steel-tube market. Gas exploration and transport underpin tubular demand. Despite CO2-reduction efforts, gas remains important for many applications. Gas prices declined to around 2.75 USD/MMBtu in 2025, then strengthened to about 4.50 USD/MMBtu (Figure 3).

Geopolitical conflicts and US market expectations contribute to volatility.

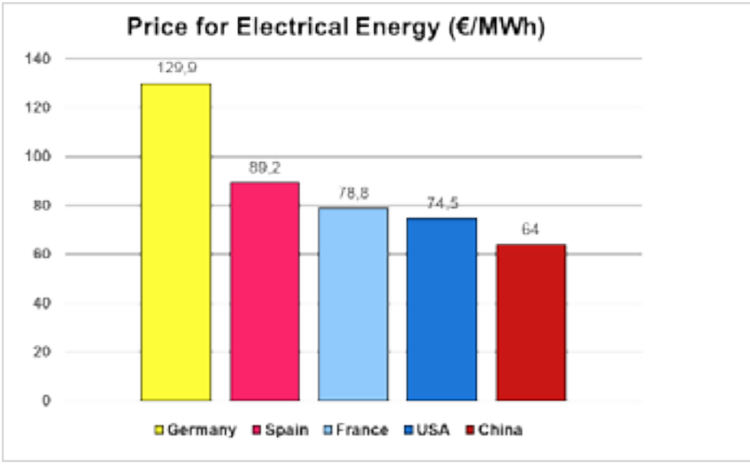


Figure 2: Selected Prices of Industrial Electrical Energy for Companies with a consumption of more than 150 Mio. kWh per year in 2025 in €/kWh.
Source: Frontier Economics, Statista, MediaPioneer.com (November 2025)

Figure 3: Natural Gas price development as of 30th of November 2025
Source: Trading Economics.com

Figure 4: The largest Producers of Natural Gas as of 30th of November 2025
Source: TheMerchantsNews.substack.com

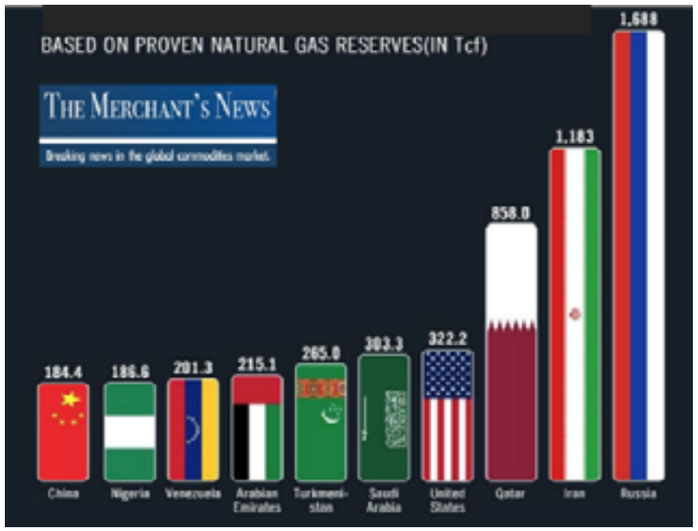


Figure 5: The Top 10 Countries ranked by proven Gas Reserves as per 2025
Source: TheMerchantsNews.substack.com

The US, at ~934 bcm today, is the largest gas producer and a gas superpower with growth potential (Figure 4). Domestic consumption is about 88% of production; 12% is exported as LNG.

Russia (~702 bcm) is the second-largest gas producer and the largest pipeline exporter, but sanctions and disrupted flows have created a structural disadvantage.

It must be realized that Russia has the largest reservoir of proven gas reserves with about 1.688 Tcf (Trillion Feet^3) compared to only 322,2 Tcf in the US (Figure 5).

Iran and Qatar hold also large reserves; Qatar is expanding LNG capacity; Iran's reserves are constrained by sanctions and infrastructure.

Key takeaways:

- US LNG terminals dominate Atlantic Basin flows
- Qatar continues to anchor long-term supply agreements in Asia.
- Russia has largely lost its influence as Europe restructures its gas imports.
- Asia, including China, is becoming a structurally long-term LNG buyer.
- Middle Eastern exporters are rising as flexible swing suppliers.

The remaining global surplus has created the fastest-growing export engine in the energy sector.

Future gas security will be shaped primarily by two poles: the United States, offering flexibility, and Qatar, providing reliability.

Regions such as Europe, which lack adequate connections to international natural gas pipeline networks, are now heavily dependent on LNG. These regions face significantly higher prices for LNG compared with pipeline gas.

LNG consumers encounter cost levels of roughly 11–13 USD/MMBtu, which is approximately 300% higher than typical pipeline-supplied natural gas (Figure 6).

These additional costs affect regions that cannot access affordable pipeline gas, making LNG a predominantly short-term solution to secure supply. The recently

concluded agreement between the U.S. and Europe foresees energy deliveries worth about USD 750 billion over three years. In 2024, Europe imported roughly USD 80 billion in energy products from the U.S., including 36 million tons of LNG and a record 74.5 million tons of crude oil. Tripling such flows will be challenging, given recent growth rates. Although this agreement strengthens Europe's supply security, it comes at elevated LNG prices. In the long term, Europe should consider alternative energy sources, including renewed evaluation of cost-effective pipeline options.

Political institutions in Europe have so far rejected additional pipeline projects, and the damaged Nord Stream 1 and 2 lines remain inactive. Alternative projects are under expert review, but political reluctance persists, despite potential cost advantages.

The long-term strategy to replace natural gas with green hydrogen is also increasingly questioned. Industrial-scale electrolysis requires substantial amounts of clean water and continuous electrical power - approximately 55 MW per ton of hydrogen - and the process is sensitive to fluctuations in electricity supply, which significantly reduces electrolyser stack lifetimes. As a result, economically viable green hydrogen production is limited to regions with stable and low-cost renewable or nuclear power. In most parts of Europe, such conditions are not yet achievable. Exceptions include Norway and Sweden. Hydrogen transport pipelines would create additional demand for alloyed steel tubes.

Sweden, with reliable hydro and nuclear baseload capacity, is uniquely positioned to produce green energy at competitive cost levels (Figure 7).

Some experts, including those from the OECD, advocate producing hydrogen in regions with abundant, low-cost electricity (e.g., the Middle East, North Africa, or parts of Central America). Energy-intensive intermediate products - such as DRI - could be manufactured near the energy source and then transported to industrial centers such as in Europe or Asia. This approach would preserve technological

Figure 6: LNG Global Price development compared to Natural Gas
1 year up to November 2025
Source: S&P Platts, ICE, CME

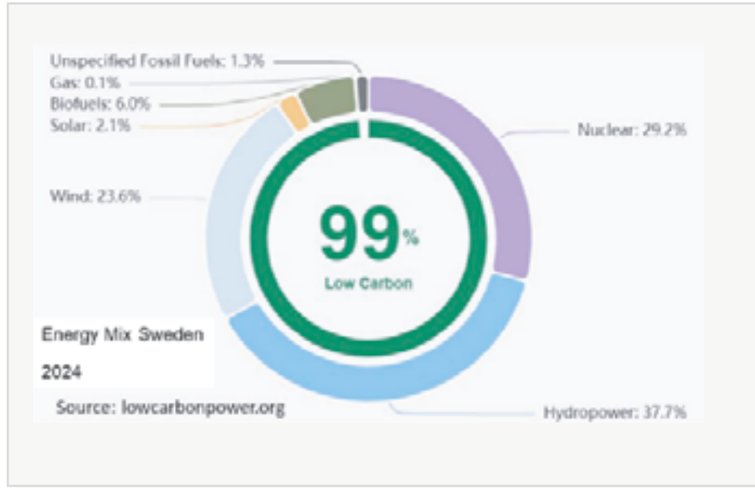


Figure 7: Energy Mix of Sweden in 2024
Source: lowcarbonpower.org

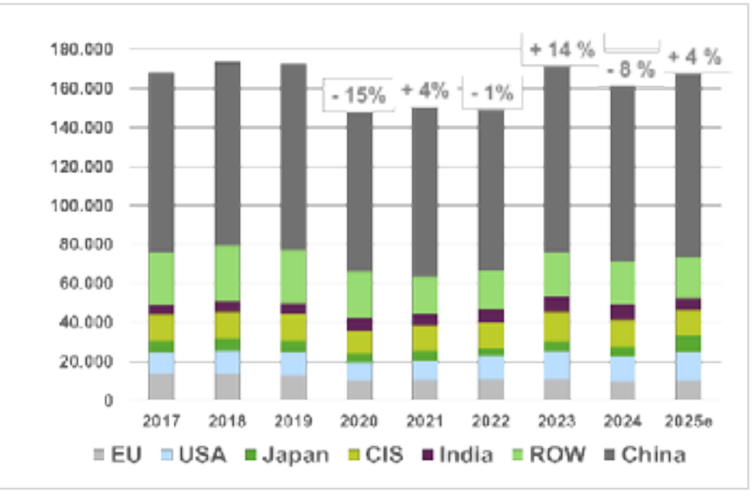


Figure 8: World Tube and Pipe Production 2017 – 2025e (extrapolated)
Source: Wirtschaftsvereinigung Stahlrohre, ITA

expertise and employment in downstream metallurgical processes. However, these concepts receive limited political support, with potential negative consequences for European metallurgical and tubular industries.

Global tube and pipe production in the first half of 2025 reached 83.6 million tons (full-year estimate: 167.2 million tons). After 161.2 million tons in 2024, this reflects a 3.7% recovery (Figure 8).

Regional trends vary significantly (Figure 9):

- United States: After a moderate 2024, 2025 production is expected to grow by 14%, driven by increased exploration. Tubes under 16” rose by 15%, and line pipes above 16” by 20%. Some producers are fully booked into 2026. It is anticipated that despite tariffs only further imports can scarify the US demand.
- India: After a record 2024, first-half 2025 production declined 23%, with welded tubes under 16” down 40%. But attention, historically, India reports low first-half figures that recover later.
- Europe: Production remains at the low 2024 level, with only 2% growth in early 2025. Line pipes >16” increased 16%,

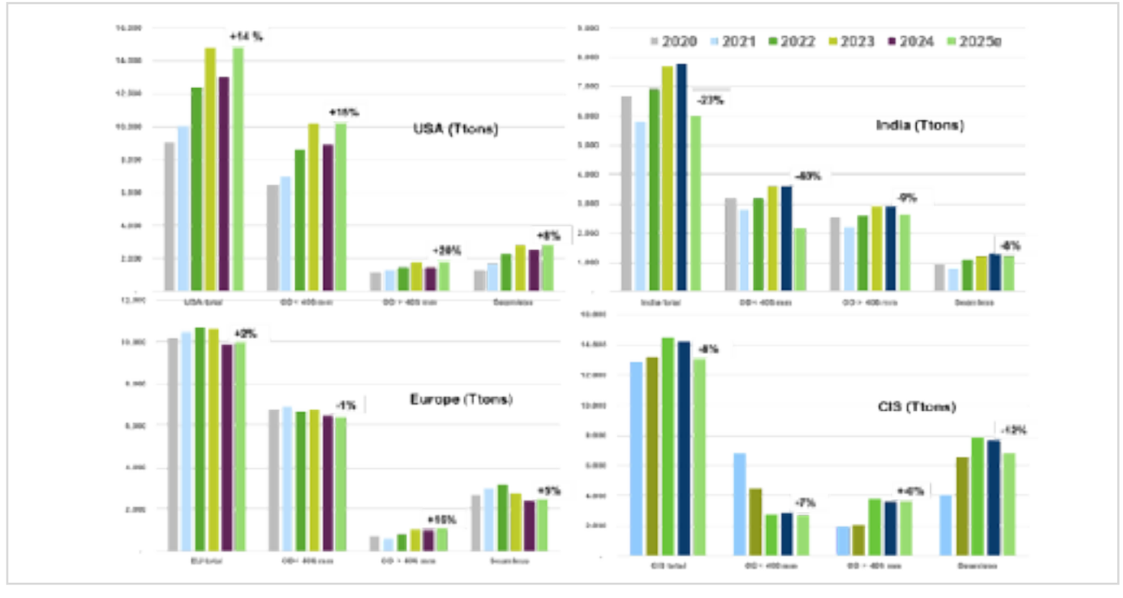


Figure 9: Pipe Production of selected Regions 2020- 2025e
Source: Wirtschaftsvereinigung Stahlrohre, ITA

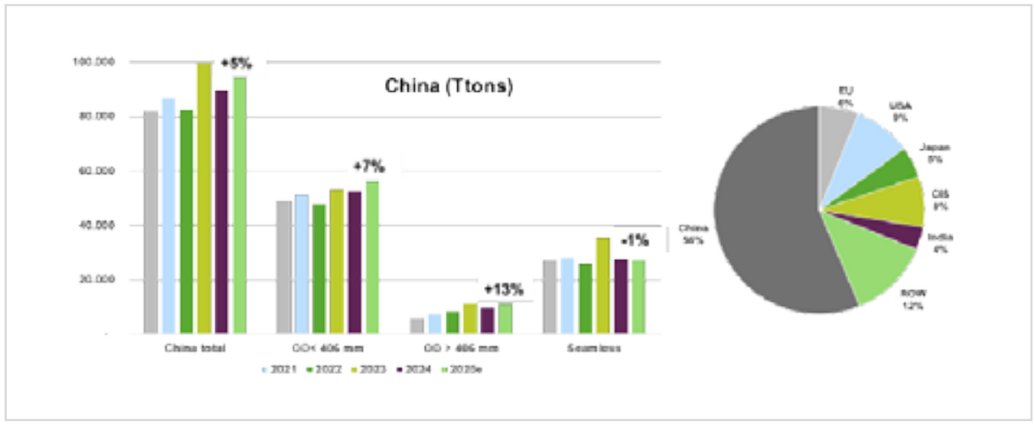


Figure 10: Pipe Production China 2020- 2025e and World Production 2025e
Source: Wirtschaftsvereinigung Stahlrohre, ITA

and seamless production recovered 5% after earlier cuts.

- CIS: Total output declined 7% in 2024 and 8% in the first half of 2025. Seamless tubes were down by 12%.
- China: Accounting for 56% of global output, China grew 5% in the first half of 2025 (Figure 10). Line pipes >16” rose 13% and tubes <16” by 7%, with strong activity in the Middle East compensating for U.S. trade restrictions (Figure 10).

Prices for OCTG and structural tubes appear to have stabilised in 2025. Figure 11 shows price development for:

- P110 OCTG casing (5.5”)
- S235 structural pipe

After peaking at ~USD 3,900/ton in October 2022, P110 prices declined by ~58% to ~USD 1,650/ton by August 2024. They have since stabilized around USD 2,000/ton, with potential for renewed increases given strong US demand.

S235 structural pipe prices remained comparably stable at ~USD 600/ton, supported by infrastructure projects.

About 74% of global pipe production is welded (~123 million tons in 2025), making producers highly dependent on hot-rolled coil (HRC) prices. US HRC prices fell from about USD 940/ton in March 2025 to USD 800/ton in September, then recovered to around USD 850/ton (Figure 12). Further increases are likely.

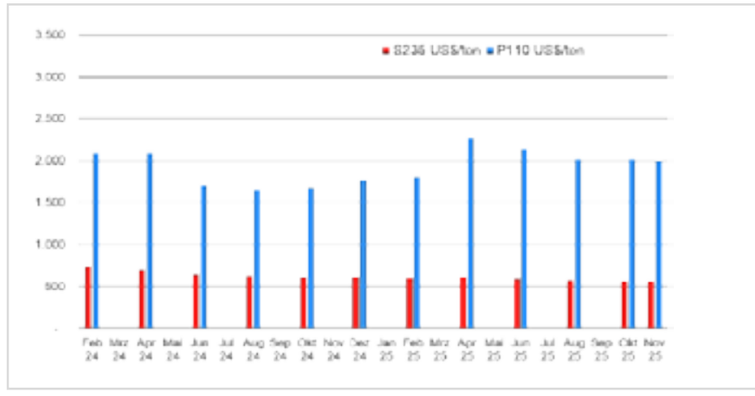


Figure 11: Representative Steel Tube and Pipe Prices (OCTG – P110 USA and Structural S235 Turkey)
Source: Kallanish.com

Figure 12: Hot-Rolled Coil Steel prices 1 Year until July 2025
Source: tradingeconomics.com

In contrast, Turkey (~USD 540/ton) and India (~USD 510/ton) trade at significantly lower HRC levels (Figure 13).

Narrow margins in welded tube production, including occasional negative margins, remain a structural challenge. Specialty grades for OCTG are increasingly expensive and difficult to source.

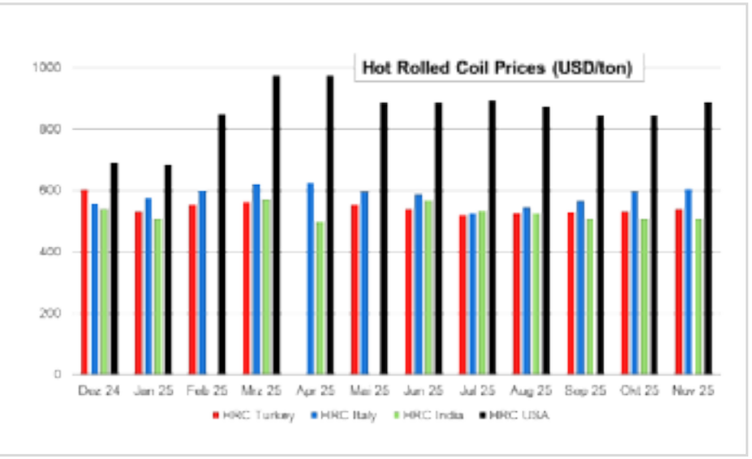


Figure 13: Hot-Rolled Coil Steel prices for selected countries until November 2025
Source: Kallanish.com

Figure 14: Oil price WTI development 1 year up to December 2025 (US$/Bbl.)
Source: US Energy Information Administration

The oil and gas sector accounts for roughly 51% of global tube and pipe demand. OCTG consumption correlates strongly with oil prices (Figure 14). OPEC+ struggled to maintain oil prices above USD 90/Bbl despite voluntary cuts of 2 million Bbl/day, extended into March 2025. The group has since reversed its strategy, gradually increasing output and deciding to fully revoke the 2.2 million Bbl/day cuts as of November 2025, citing global economic stabilization and potential concerns about rising US production.

US oil output rose from 12.0 million Bbl/day in August 2022 to 13.4 million Bbl/day in July 2025 (+11.2%). The US Energy Information Administration (EIA) now forecasts a record 13.61 million Bbl/day for 2025 and 13.53 million Bbl/day for 2026. US oil exports reached a record 5.5 million Bbl/day, equal to 41.6% of global crude production. According to Oilprice.com, US rig count for oil declined from 480 in January to 412 in December 2025 (-14%), this despite enlarged output but caused by improved rig productivity. Number of gas rigs in the same period increased from 98 to 129, mainly driven by shale gas. US policy continues to prioritize fossil fuels and nuclear energy, with reduced focus on wind and solar.

At the same time, expected global oil demand for 2025 is rising by 100,000 to 20.6 million bpd, while the EIA expects stagnation for 2026. The EIA expects a global surplus of up to 4.09 million Bbl/day next year.

Prices are projected to remain low in 2025 at average USD 65.32/Bbl (WTI) and USD 68.91/Bbl (Brent). Demand for tubular products will remain strong as energy security concerns persist.

Corrosion and wear continue to challenge OCTG performance, particularly in H_2S/CO_2-rich environments. As a result, demand is rising for tubular products made from corrosion-resistant alloys (CRA) and clad materials, offering manufacturers opportunities for differentiation.

Despite delays in pipeline projects, demand remains high (Figure 15).

The significant rise in line-pipe output in 2025 confirms this trend. Geopolitical and economic developments require substantial investments in oil and gas transport networks.

Carbon Capture, Utilisation and Storage (CCUS) represent an emerging market requiring extensive pipeline infrastructure. CO_2 transport demands higher-alloyed materials due to corrosive conditions. Developing CO_2 pipeline networks will be essential for large-scale deployment and cost reduction, although challenges remain in permitting, investment, and public acceptance. Adoption is increasing in the U.S., the Middle East, and beyond.

The automotive sector represents about 15% of global tube demand. According to IHS, global light-vehicle production declined to 89.5 million units in 2024 and is expected to fall slightly to 89.2 million in 2025 (Figure 16).

A modest recovery is expected only by 2026. North America and Europe face production cuts of 2.4% and 2.6%, respectively, while South America and China are projected to grow by 3.4% and 0.1%. Higher US tariffs and supply chain disruptions raise manufacturing costs. Battery-Electric Vehicles (BEVs), however, are expected to grow by ~30% to 15.1 million units, creating new applications for tubular products in frames and body structures.

Mechanical engineering accounts for roughly 9% of global tube output. Market volume is expected to grow from USD 3.3 trillion in 2024 to USD 3.7 trillion in 2030 (+12%), driven mainly by China, the US, and Europe (Figure 17).

Construction represents about 5% of tube demand. According to NMSC (June 2025), the global construction market reached USD 11.4 trillion in 2024 and is expected to exceed USD 16.1 trillion by 2030 (+41%)

Population growth and major infrastructure initiatives - especially in the Gulf states and emerging markets - are key drivers.

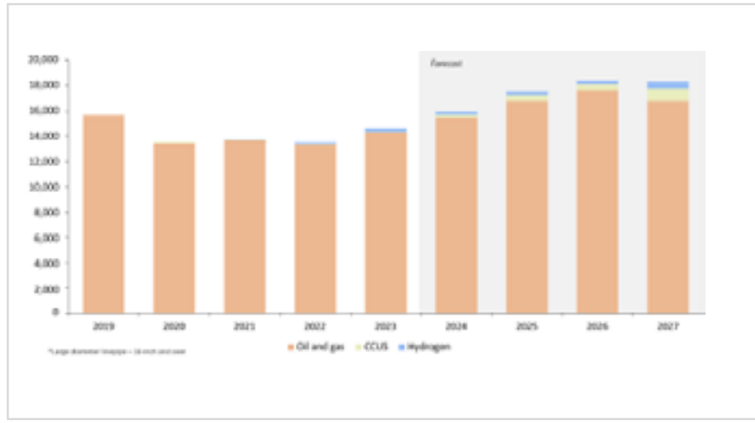


Figure 15: The Global Demand for Line pipe Market 2019-2027 (million tons)
Source: Rystad Energy

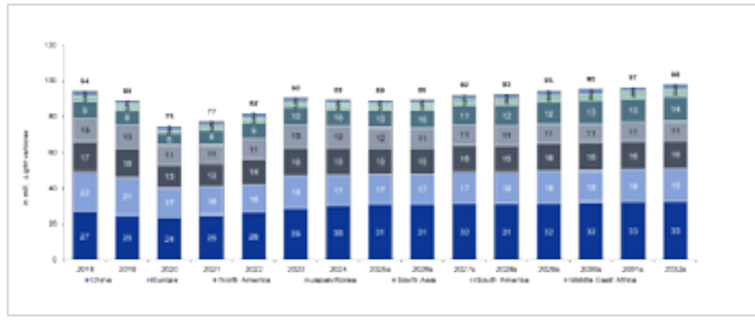


Figure 16: Global Production of Automotive Light Vehicles 2018-2032 (million untis)
Source: HIS (June 2025)

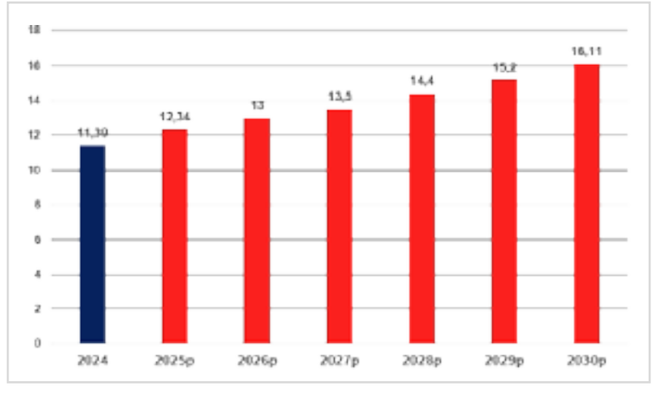


Figure 17: Global Construction Industry Sales Forecast 2024-2030p (Trillion US$)
Source: NMSC (June 2025), Dr. H.J. Büchner

Market information

Adoption of structural tubes in construction varies globally. North America and parts of Asia widely use tubular structures, whereas Europe continues to rely mainly on concrete and open-section steel structures. The tube industry must promote the advantages of tubular profiles, including flexible geometry, high mechanical performance, smooth surfaces, and suitability for long spans. Alloyed steels may offer additional benefits. From a sustainability perspective, tubes produced from scrap in EAFs using green power significantly reduce carbon footprint. Additional capacity is particularly needed in India to meet growing demand.

Matteo Braggiotti

Retrofitting ERW Lines for High-Performance Hollow Sections – Insights with Matteo Braggiotti from SMS group

“Global trends show that manufacturers are pursuing greater independence.”

Matteo Braggiotti
Vice President Automation, Service and Digital Solutions for Long Products at SMS group and Chairman of SMS group Technical Services UK.

This interview explores targeted retrofit strategies that enable existing ERW lines to produce larger-diameter, high-performance hollow sections. The discussion highlights key market drivers – including product flexibility, higher throughput, sustainability and digitalization – and outlines practical measures such as mechanical, hydraulic, roll-geometry and control upgrades to meet modern benchmarks.

We speak with Matteo Braggiotti, Vice President Automation, Service and Digital Solutions for Long Products at SMS group and Chairman of SMS group Technical Services UK. With his many years of hands-on experience in commissioning, project management and service, he brings a pragmatic, application-oriented perspective on modernization and digital solutions.

Looking ahead, we map how emerging demand translates into concrete retrofit steps, delivering actionable roadmaps and measurable targets for diameter range, throughput and efficiency that plant owners can implement in the near term.

ITA: Matteo, given the market shift toward larger-diameter structural tubes, which specific customer needs and market drivers are supporting investments in ERW technology today?

M. Braggiotti: Demand is driven by ongoing developments in construction and infrastructure: stadiums, skyscrapers, bridges and urban projects require large-diameter, high-quality tubes. ERW plants provide the required capacity and product flexibility to serve these markets efficiently. In addition, supply chain resilience favors domestically sourced ERW tubes, reducing reliance on imports and mitigating geopolitical risks.

ITA: SMS supplied Zekelman Industries with the world’s largest continuous ERW tube welding line in 2022. What technical factors make it the industry benchmark for large-diameter ERW production?

M. Braggiotti: Over many years, SMS has developed a coherent, market-aligned concept for highly efficient, high-performance and flexible ERW pipe welding lines. Now we have applied this concept to a 28-inch pipe welding line. For the first time, this line can produce wall thicknesses of up to 1 inch (25.4 mm) using an ERW process. This sets a new benchmark and demonstrates SMS’s ability to maintain a consistent portfolio of market-driven solutions and innovative concepts to meet current industry requirements.

ITA: Are there any targeted retrofit measures to bring brownfield ERW tube welding lines close to RD 710 performance? What outcomes can plant operators expect?

M. Braggiotti: We deliver the full range of capabilities necessary to modernize existing plants in line with market dynamics and customer requirements. The scope and potential benefits of modernization are defined by our customers’ objectives, and our team works closely with them to define and tailor a wide range of options. We view this as the start or continuation of a close, value-driven partnership aimed at achieving the best possible result together.

ITA: During a brownfield retrofit, which technical levers deliver the largest performance improvements and why?

M. Braggiotti: There are numerous ways to enhance a plant’s performance: modernizing or replacing equipment, increasing capacity, refining component geometry, upgrading control systems, and optimizing process flows, among others. One effective option is converting to quick-change equipment with X-Pact® Quicksetting controls, which enable rapid, automatic and reproducible changeover and positioning of pipe-welding lines. Many such improvements have already been implemented successfully on existing plants of various sizes.

ITA: What role do rapid automatic roll-setting systems, such as X-Pact® Quicksetting, play within a targeted upgrade program?

M. Braggiotti: The SMS quick-change concept, coordinated by the X-Pact® Quicksetting system, is a proven solution deployed across all SMS ERW pipe welding lines. It allows dimensional adjustments to be performed rapidly, simply, accurately, and reliably, fulfilling current market demands for powerful, flexible and precise ERW welding equipment. These solutions can be supplied as full systems or modular upgrades for existing installations, offering a cost-effective way to enhance efficiency and competitiveness.

ITA: From a commercial and operational perspective, what advantages do targeted upgrades offer compared with building a new ERW line?

M. Braggiotti: Pipe production operates in a highly competitive, price-driven market. Each pipe manufacturer must sustain its market position through ongoing adjustments and improvements. Requirements are shaped by a multitude of local cost factors. New plants entering the market set a higher bar and frequently achieve substantially greater efficiency than existing facilities. As a result, operators of existing plants will, sooner or later, need to adjust to remain competitive. The impact of these adjustments varies with their scope and can include expanded dimensions or product ranges, quality improvements, cost savings or higher production efficiency.

ITA: Which customer segments and specific applications should prioritize upgrades, and what product mix or margins can they expect after modernization?

M. Braggiotti: Global trends show that manufacturers are pursuing greater independence, and customers are seeking increased flexibility in product offerings. Priority customers are those facing frequent size changes, high scrap costs or capacity constraints. After modernization, they can expect a broader product mix, reduced changeover times, higher margins through lower scrap rates and greater

throughput, and faster response to large project bids. Structural and piling tube producers, suppliers to heavy construction and infrastructure projects, and manufacturers of large hollow sections for urban development all benefit. Our focus remains on sectors where diameter range, wall thickness, and production capacity matter most.

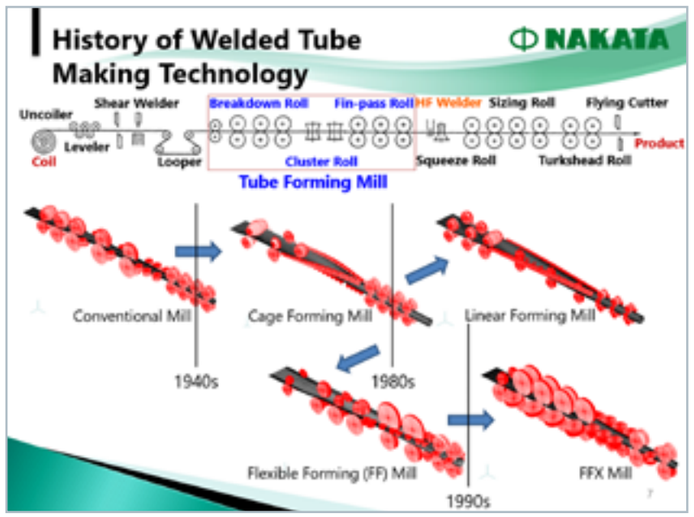
ITA: How do you expect markets and customer needs to evolve, and how will SMS respond?

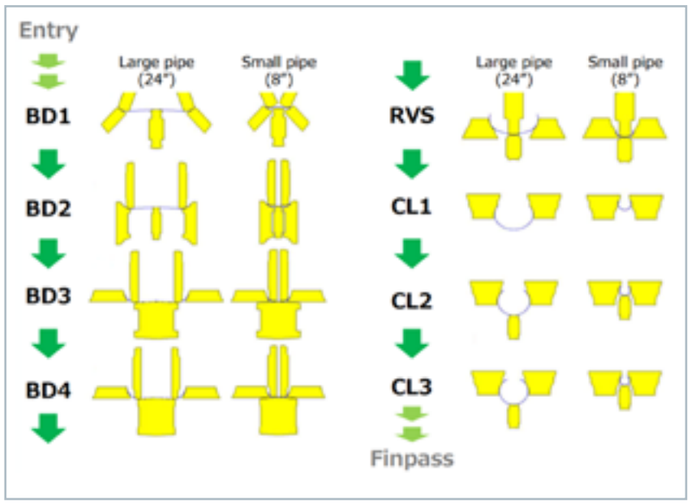
M. Braggiotti: We see steady global growth led by energy, water and infrastructure projects. We know that customers want certified, high-quality products, faster delivery, and digital after-sales services. To respond, we apply a clear strategy: engage customers early in projects with long-term contracts and solution-based offers focused on lifecycle costs and service. We build regional teams close to customers and expand local service locations to shorten delivery times. Digital solutions support predictive maintenance and inspections. Cost risks are managed through supplier contracts and energy hedging. Sustainability drives innovation in production and product coatings. This approach ensures we remain competitive, client-focused, and ready for future market shifts.

These were engaging insights into the ERW plant industry and its outlook for the coming years. For more information, visit the SMS group website: www.sms-group.com.

NAKATA MFG.Co. Ltd.

NAKATA FFX : Innovation in Forming machine technology and recent development of IIOT software





The NAKATA FF (Flexible Forming) concept had been develop diverging from the conventional cage forming mill system and subsequently evolved into the FFX mill. Compared with classic cage forming mills, the FFX mill adopts a more rigid BD(breakdown) stands and much shorter CL (cag style rollers) stands.

While conventional mills require roll changes for each pipe size, FF and FFX technologies enable production using only ONE SET of forming rolls to cover a wide range of pipe diameters—in principle, up to a 1:3 outer-diameter ratio— within a single mill line.

The FFX mill employs a set of universal rolls, enabled by the adoption of unique involute roll profiles and an embraced bending method applied across multiple BD stands. As a result, the FFX mill achieves superior edge-forming capability and stable forming conditions. This concept contributes to reduced forming loads, lower stress in the strip, and improved dimensional accuracy of the finished pipe.

A key differentiating factor of NAKATA's FFX technology is that it is backed by FEM-based forming simulation, the core source code of which was originally developed by NAKATA engineers. Through extensive FEM simulation results, NAKATA can predict the stress and strain generated in the strip during the forming process, allowing optimization of forming conditions—such as maintaining excellent strip straightness from the very top end of the coil—together with well-qualified roll profiles.

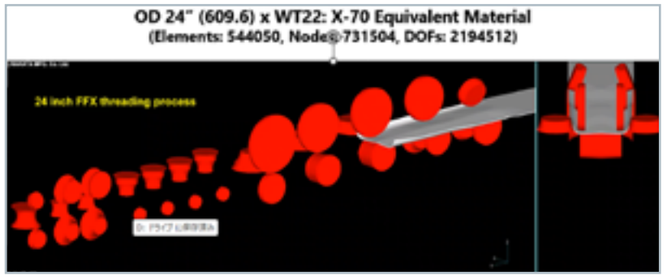
NAKATA FFX 24" line "simulation graphic image result

This capability also enables NAKATA to minimize trial-and-error forming tests during on-site commissioning, significantly reducing startup time and risk.

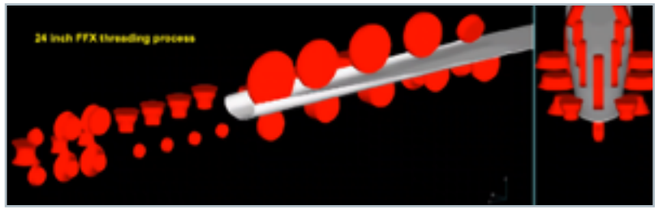
As a representative example, simulation results for a 24-inch OD pipe with 22 mm wall thickness using X70-equivalent material were presented

NAKATA also introduced its newly developed FFX mill design. In this configuration, the FFX forming rolls are non-driven, while universally designed pinch-roll (PR) stands are installed between each FFX BD stand to provide the driving force. In addition, each FFX BD stand can be pulled out toward the operator side, significantly improving accessibility for maintenance work such as roll position recalibration.

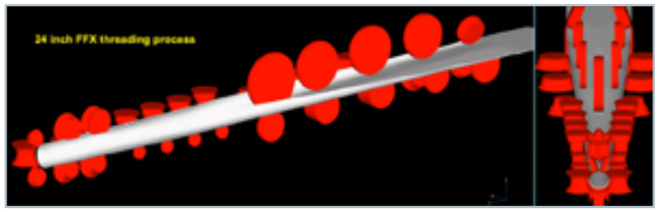
In addition to the FFX system, NAKATA presented its latest development of another universal roll system, the ROLL BOX, which is applied in the shaping section. This system supports a wide range of square and rectangular sizes and has already been applied to mill lines from 5 inches up to 24 inches.



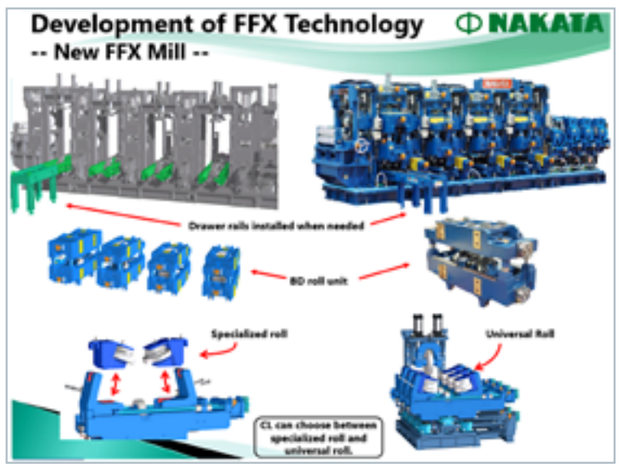
Good strip top-end threading to FFX section



Stable strip traveling to CL section



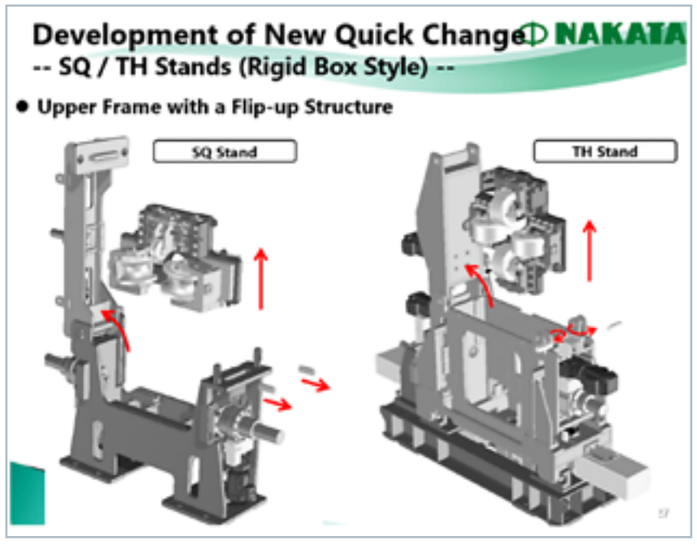
Smooth strip top-end threading in to SQ stand (important KEY point for coil-to-coil mill line)



Customers who are producing both round pipes and hollow sections highly appreciate this system, as it reduces the number of required roll sets and shortens downtime during size changes.

Furthermore, a compact and rigid box-style design has been adopted for the SQ (squeeze) and TH (sizing/straightening) stands. This design enables the HF induction coil to be positioned closer to the SQ roll center, thereby improving weld quality, while also providing stable and highly repeatable pipe straightening performance at the TH stands.

NAKATA also presented lately developed IIOT-related software, which grouped by below four sections.



1) Automation Network & RSS

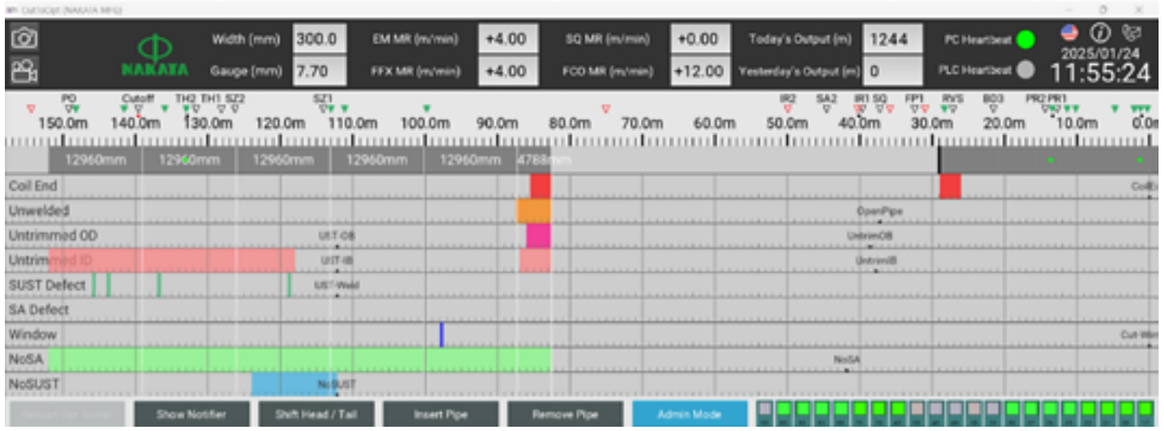
Newly developed automation network which integrates Server, Engineering Station, Defect Tracking System, Aided System of Cutting Management and other IIOT units, along with normal production.

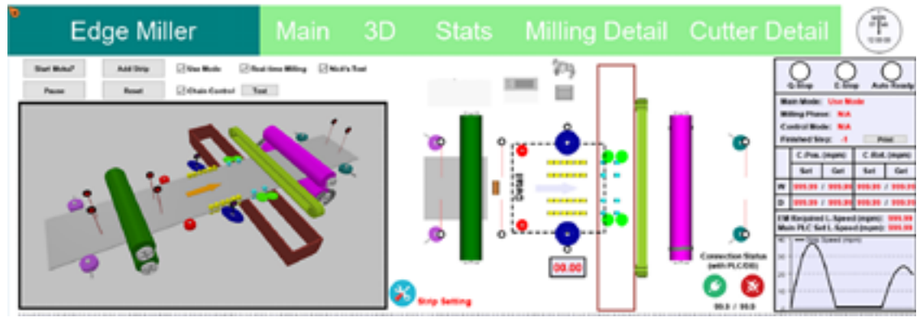
One advantage of this architecture is to guarantee the data flow in the production control layer and the information collection layer independent of each other. At same time, as a data collection and analysis platform, RSS (Remote Service System) is also integrated, which aims to allow customer and NAKATA to work together remotely and efficiently.

2 Defect Tracking & Optimal Cutting System

By real-time communication with PLC, coil head and tail, as well as defects, including coil joint, unwelded open pipe, untrimmed OD and ID bead and cutting window, etc. shall be tracked continuously from the entry of mill line to FCO (Flying Cutoff).

The purpose of this software is to help the operators easily understand defects distribution/positions during production, especially offering the convenience and guidance to manually or automatically cutting the pipe longer or shorter than “set-length”. Besides, by interacting with “optimal cut program”, this system can also offer the optimized length pipe cut to maximize production yield.





3) Process Verification by Digital Twin Technology

By modelling necessary units and simulating their motions inside of virtual simulation environment, it is convenient for engineers to verify the correctness of newly designed process or control plan by visualization.

This verification would be even done prior to on-site commissioning which shall significantly save the time and cost for commissioning.

4) Cutting Aided System

As aided system coping with FCO, by combining information from pipe, saw blade and related mechanism (= “orbital motion” and blade “feeding motion” in case of multiple blades “orbital cutting machine”), this software is designed to generate highly-optimized trajectory and velocity for cutting process.

NAKATA lately developed new program to control the blade position with verifying the characteristics boundary (velocity, acceleration & jerk) which resulting in prolongation of blade life and maintain a stable cutting process as much as possible.

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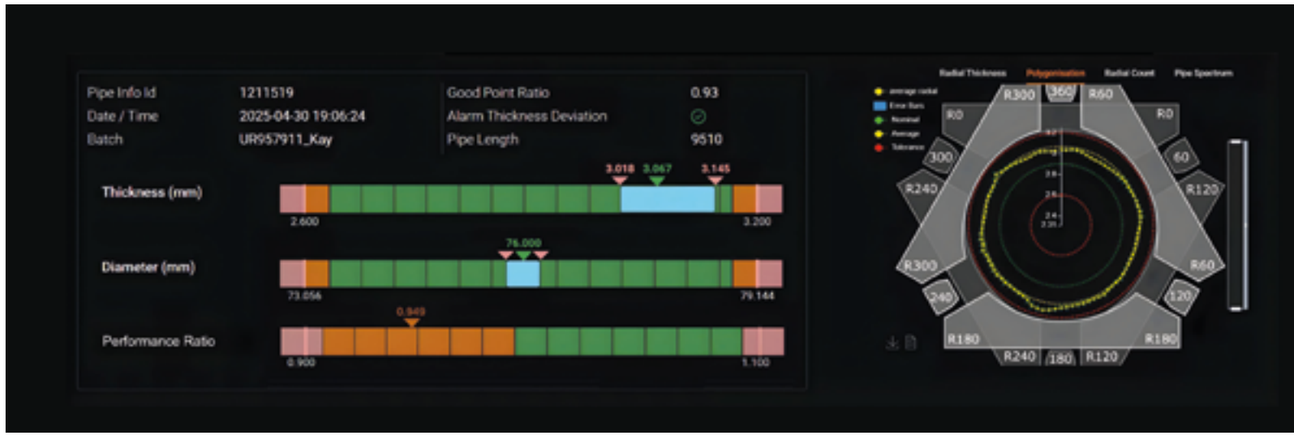
Tecnar

Real-Time Wall Thickness Measurement with Lut 2.0: A Game Changer for Welded Pipe Production

Welded pipe mills, particularly electric resistance welding (ERW) plants, have long relied on the assumption that accurate wall thickness naturally follows from consistent input coil thickness and well-maintained forming and reduction equipment. However, recent industrial use of Tecnar's Lut 2.0 has demonstrated that this assumption often conceals inefficiencies that can be remedied only through real-time wall-thickness measurement.

In a typical ERW process, a steel coil is formed, welded, reheated, reduced, and cut into fixed lengths before cooling. Despite careful mechanical control, geometric deviations frequently arise. Variations in weld heat, roll alignment, or material flow can produce circumferential thickness differences, or "eccentricities," that reduce dimensional consistency. Without online measurement, these irregularities go undetected until after production, forcing operators to maintain large safety margins to avoid out-of-tolerance pipe, an approach that consumes more steel than necessary and lowers yield.

The introduction of Tecnar's Lut 2.0 into welded pipe mills provides a practical remedy. As the only non-contact ultrasonic system specifically designed for hot steel pipe, the Lut 2.0 continuously measures wall thickness and eccentricity at full production



speed. By offering direct, absolute measurements unaffected by temperature or pipe motion, it delivers reliable data where traditional gauges cannot. When paired with an outer-diameter gauge, the system provides a complete real-time picture of pipe geometry, allowing operators to fine-tune process parameters immediately and maximize yield from each coil.

Recent installations of the Lut 2.0 in an ERW plant show how its data-driven interface transforms production oversight. The operator display presents wall thickness, outer diameter, and a "production efficiency ratio" that compares the achieved thickness to the target (see figure). Green, orange, and red color codes make tolerance status instantly visible, while blue bars indicate variation along the pipe. The goal is to keep both the average value and its spread within the green zone, minimizing material use without risking non-compliance. A polar chart complements this view, showing where thickness deviates around the pipe circumference, helping operators balance quality and efficiency through precise mill adjustments.

The business implications are clear. Real-time measurement eliminates the guesswork and over-compensation that traditionally undermine welded pipe production. Tecnar's Lut 2.0 enables mills to operate closer to their true process limits, reducing raw material costs, improving product uniformity, and increasing throughput. Beyond being a precision instrument, the Lut 2.0 represents a shift toward modern, data-driven manufacturing, where every meter of pipe and every kilogram of steel is used to its fullest potential.

For more information on how real-time non-contact ultrasonic thickness measurement for hot pipe can improve efficiency and yield in your production line, contact Tecnar at sales@tecnar.com or visit www.lut.tecnar.com.

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SMS group GmbH

Transforming ERW Mills for Tomorrow's Demands

SMS group transforms existing ERW mills using advanced technologies, enabling companies like the Spanish customer Tuflesa to enhance efficiency and quality while meeting future industry demands.

Adapting and renewing existing facilities is crucial to meet the evolving demands of tomorrow's customers. Our company is dedicated to providing customized solutions that address the changing product portfolios and unique conditions of each facility, ensuring efficiency and reliability for many years to come.

One of our notable collaborations is with Tuflesa, where we successfully implemented edge-bending calibration and enhanced guidance in the forming process. The result: a more stable production line, improved seam quality, and significantly lower investment costs compared with acquiring a new machine – all while minimizing downtime.

Our planning tool, the Digital Forming Process Model, embodies years of focused research and development. SMS has extensively explored the computer-assisted design of roll calibrations using Finite Element Methods (FEM) and the pre-calculation of optimal setting parameters. The insights gained are built into this highly reliable analytical tool, enabling precise roll calibration and on-demand calculation and optimization of setting parameters.

For existing facilities, our model serves as a strategic guide for planning upgrades and expansions. With the X-Pact® Quickset-ting system, we can visualize the forming process, ensuring stable forming across a wide range of dimensions.

"The modernization of our RD 220 ERW line has strengthened Tuflesa's market position by enabling us to meet the growing demand for high-strength, thin-walled tubular solutions, particularly in the solar energy sector. The upgraded equipment and tailored solutions have boosted our production efficiency and product quality. SMS group's support throughout the project was instrumental in achieving these improvements."

Juan Bornay, CEO, Tuflesa

(From left to right): Nico Goessens (SMS group), Axel Windbrake (SMS group), Juan Bornay (Bornay Group), José Boogen (J.B. Equipos para Industrias S.L.), Paco Ortuno (Tuflesa)

With these advanced technologies, we empower clients such as Tuflesa to optimize production and enhance product quality. These solutions reflect our commitment to tackling future challenges with innovative expertise.

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Boehlerit

Together. Worldwide. Effective – The Brucklacher Group's WeCare Action Weeks 2025

Sustainability starts small - and grows with every good deed. This year, the employees of the three sister companies Leitz, Boehlerit and Bilz once again committed themselves to this guiding principle as part of the company-wide WeCare Action Weeks. What began in 2022 as a Group-wide initiative to pool existing local sustainability projects has since developed into a firmly established tradition. Today, WeCare stands for practising responsibility in a global network that connects people across borders, inspires them and motivates them to get involved.

Record participation in the WeCare Action Weeks 2025

With 154 projects in 33 countries, this year's Action Weeks reached a new dimension: 2230 employees volunteered and contributed a total of over 3420 hours to a wide range of initiatives - from regional environmental measures to social aid campaigns. The results were impressive: over two tonnes of donations in material form were collected, 109 litres of blood were donated, 4,900 trees were planted and 621 square metres of flowering areas were created.

The donations and financial contributions totalling 77,000 euros also sent a strong signal of solidarity. This also benefits charitable organisations in the regions of the participating companies and around the world.

The shareholder and the management of the three companies recognise the extraordinary commitment of employees around the globe: "In 2025, WeCare has once again shown what is possible when many people pull together. The diversity and creativity of the projects clearly show how deeply rooted sustainability and cooperation are in our corporate culture. This commitment fills me with great gratitude and pride," emphasises Dr Cornelia Brucklacher, Chairwoman of the Supervisory Board and shareholder.

WeCare is an impressive example of how many small contributions can have a big impact. The commitment of our employees makes it clear that sustainable action is not only possible, but a reality at the Brucklacher Group - for a future worth living, today and tomorrow.

About the Brucklacher Group

The three legally independent sister companies Leitz, Boehlerit and Bilz together form the globally active Brucklacher Group. As a manufacturing service provider, the Leitz Group is the world's leading manufacturer of tools for machining wood, wood-based materials and state-of-the-art materials. The fifth-generation family business was founded in Oberkochen, Germany, in 1876 and is characterised by long-term thinking and sustainable action. As a carbide pioneer, the Boehlerit Group is one of the world's leading manufacturers of wear protection solutions and cutting tools for machining metal and composite materials. The Bilz Group is the global specialist for precise clamping, defined movement and manual quick-change of precision tools. Thanks to the vertical integration of the sister companies, they offer their customers coordinated and optimised solutions from a single source. The joint strength of the sister companies is continuously expanded through the realisation of synergies and targeted joint research and development. With a total of 16 production sites, its own sales and service companies in 38 countries with 139 locations and an exclusive worldwide partner network, the Brucklacher Group is a global player represented on every continent. The Brucklacher Group employs over 4,000 people worldwide and generates an annual turnover of around 450 million euros.

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Boehlerit

Future-proof performance with carbide rods from Boehlerit

As a premium manufacturer, Boehlerit supplies the carbide base for high-precision, rotating solid carbide tools in demanding machining processes.

As a European premium manufacturer, Boehlerit has always set standards in the development of high-performance carbide solutions. The company provides the material basis for maximum performance and precision, particularly in the field of rotary solid carbide tools for the most demanding applications. The company offers a wide range of carbide grades with different grain sizes. In addition to the proven ultra-fine grain grade HB30F, two ultra-fine grain grades are available: HB20UF and HB44UF. HB20UF is particularly suitable for machining composite materials and for HSC applications from 60 HRC. HB44UF is designed for rotary tools that machine hardened steels up to 62 HRC. A real highlight is the HB40T grade, which has been specially developed for roughing titanium. Titanium - known for its extreme strength and thermal stress - requires a cutting material with exceptional toughness and wear resistance. HB40T delivers exactly that - and as a bar material is perfectly suited for the production of robust shank tools. Typical fields of application: Aerospace, medical technology, chemical and energy technology.

XS10 - The grade for diamond-coated tools

With XS10, Boehlerit has a carbide grade in its range that has been specially developed for diamond coating. Typical areas of application include precise graphite machining in mould making, the production of graphite electrodes and PCB machining in the electronics industry. However, XS10 also impresses with its tool life when machining composite materials, non-ferrous metals, aluminium alloys, cast materials or hardened steels. The XS10 grade is available from stock in diameters of 4, 5, 6, 8, 10 and 12 millimetres - either sintered or h6 ground.

The company

As a carbide pioneer, the Boehlerit Group is one of the world's leading manufacturers of wear protection solutions and cutting tools for machining metal and composite materials. With cutting materials, semi-finished products, precision tools and tool systems for milling, turning, grooving and forming, the family-owned company has been ensuring process reliability and efficiency worldwide since 1932. Around 800 employees offer customers comprehensive expertise in all aspects of metallurgy in order to realise process-optimised production technologies, the highest quality and a head start in tool productivity. With three production sites in Europe and Asia, international subsidiaries and a network of sales partners, the carbide and tool specialist has a global presence. Together with its two legally independent sister companies Leitz and Bilz, the Boehlerit Group forms the globally active Brucklacher Group, in which over 4,000 employees generate an annual turnover of around 450 million euros.

Our commitment to a sustainable future

At Boehlerit, sustainability is not just a promise, but a lived reality and deeply rooted in our corporate culture. We set standards in environmental protection and occupational safety and are committed to a future that conserves resources. We focus on the development and construction of durable and recyclable quality products, environmentally friendly manufacturing processes and minimising the environmental impact of our products.

Boehlerit

THETAtec 25N Feed: High feed milling redefined

Boehlerit has already set standards with its positive high feed systems. Now the company is expanding its high feed portfolio and launching its new tool concept on a negative basis. Like its positive systems, this innovative THETAtec 25N Feed tool system enables higher cutting rates and thus maximum performance and efficiency in a single application.

High-performance cutting (HPC) has become established for machining operations with high removal rates, such as those required for roughing steel, cast iron and stainless materials. Maximum feed rates maximise the volume of chips removed and thus reduce machine occupancy times. This is advantageous in terms of the increasingly cost-relevant energy efficiency of processes and creates additional production capacity. High-performance cutting thus brings productivity increases and measurable cost reductions at the same time. With the new THETAtec 25N Feed, Boehlerit now also offers another high-end tool system for this machining strategy. In contrast to its positive counterparts from Boehlerit, the THETAtec 25N Feed now uses a negative cutting insert concept with 8 realistically usable cutting edges for the first time, without compromising on performance, as a great deal of knowledge has been gained in high feed applications over the years. During the development of this new system, the best-implemented simulation software was used in order to respond even more specifically to the multitude of applications and the materials to be machined, thereby further optimising the cutting behaviour. 'We achieved the uncompromising combination of a negative indexable insert concept and cutting ease through, among other things, a specially defined arrangement of clearance areas and the coordination of macro geometries,' explains Patrick Schwaiger, Product Manager for Milling. The result is extremely stable milling tools with optimally coordinated indexable inserts, which, thanks to sophisticated cutting geometries and innovative cutting materials, are character-

ised by excellent fatigue strength, ideal chip flow and precise concentricity. Coordinated down to the last detail Despite its negative design, a key feature of the THETAtec 25N Feed is the positive cutting geometry of the tools, which ensures easy cutting. 'Thanks to the explicitly coordinated milling geometry, this also applies to HFC milling in full grooves,' adds Schwaiger. Specially arranged radii across the cutting edge enable optimum absorption and distribution of the axial cutting forces. This means that considerable tooth feeds (fz) of up to 1.4 mm are possible during high-feed milling, even with a plate size of 09. Thanks to the coordinated

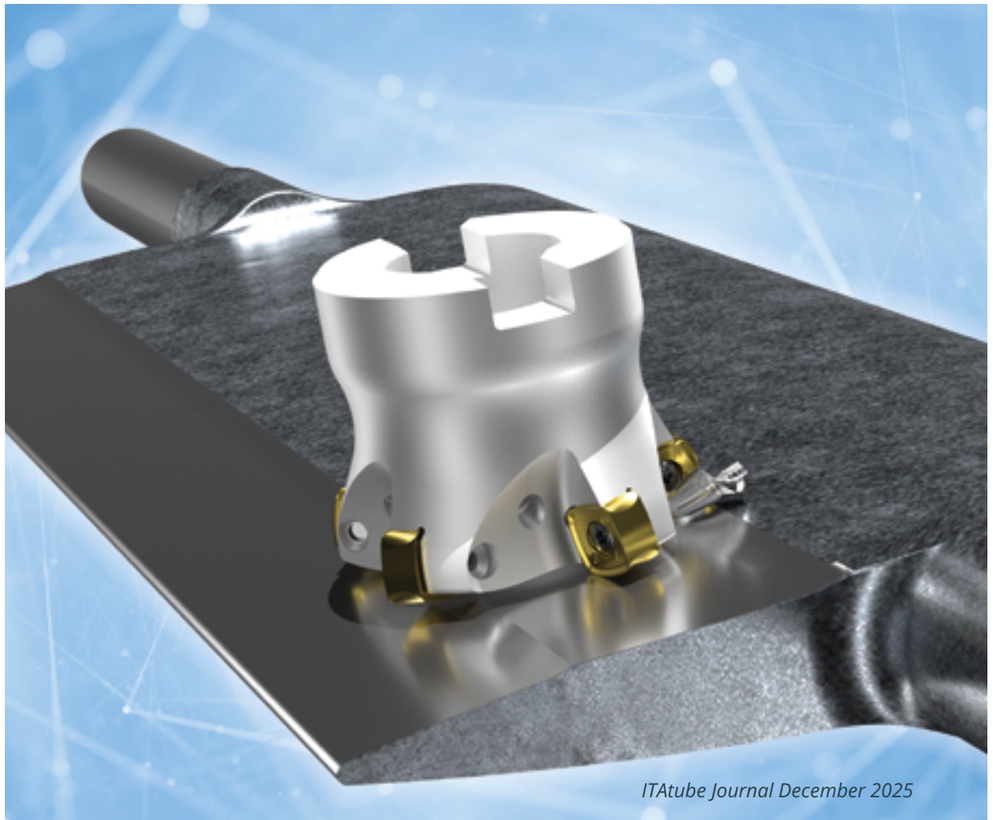
clearance areas, it is also possible to ramp into the solid material linearly and helically without any compromises. 'At the start of the new development, it was extremely important to us not to lose any machining options here,' emphasises Patrick Schwaiger.

Wide variety of cutting materials for a broad range of applications

The exceptional performance of the THETAtec 25N Feed milling tool systems and their suitability for a wide range of applications are also made possible by a variety of cutting materials that are well established on the market. One highlight here is the proven Boehlerit fine grain grades in combination with high-tech HIPIMS PVD coatings.

At the start of the new launch, Boehlerit is focusing on a total of 5 cutting material grades in order to be able to machine materials from the P, M, K, H and S material groups in the best possible way.

The new high feed system is available as a shell milling cutter in diameters from 40 to 100 mm for insert size 09, as a shank milling cutter in diameters from 25 to 32 mm and as a screw-in milling cutter in diameters from 25 to 42 mm. As with the DELTAtec 90P Feed, the THETAtec 25N Feed system also features axially and radially optimised tools with different numbers of teeth and the proven uneven pitch to generate stability and reduce vibrations to a minimum. The screw-in milling cutters can also be used with solid carbide extensions up to projection lengths of 300 mm.



The innovative THETAtec 25N Feed tool system achieves significantly higher cutting rates, ensuring maximum performance and efficiency in use.

GL Control GmbH

Inner geometry and straightness of pipes

Circular Triangulation Sensor "CiTriS"

Using the Circular Triangulation Sensor (CiTriS, see Fig. 2) from GL Control GmbH, the inner geometry of tubes, pipes, tanks and other cavities can be measured. The radial laser beam measures the inner geometry around 360° in 3600 angle steps. The result is a precise inner cross section, and a 3D-model of the inner surface profile can be generated from the data obtained. Using this technology, the verification of tolerances is easy.

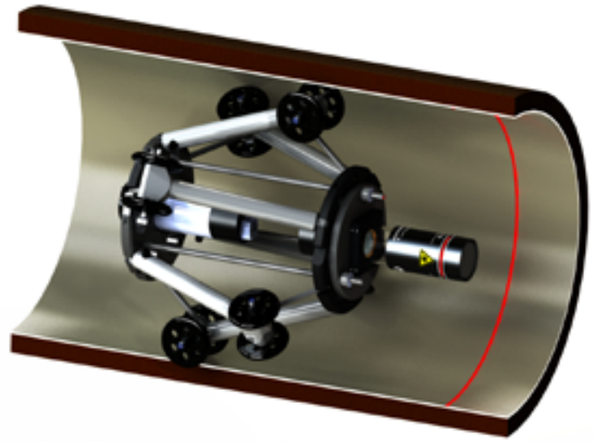


Fig.1 3D inspection system "Crawler"

The sensor, which has no rotating parts, projects a 360° radial laser beam on the target inner surface and measures the contour. The projected laser line is imaged by a high-resolution image sensor. Using image analysis, the 2D contour of the cross section is created. In a single scan 3600 radii along the circumference are measured with a speed of up to 60 scans per second. The resultant radial resolution is 10µm.

Operating at 60 scans per second, a 10 m pipes can be inspected in 180 seconds with over 10000 cross sections. More than 38 million measurement points provide a detailed surface inspection.

Depth determination

To correlate the measured cross sections with the axial position of the scanner inside the pipe, a distance signal is used to trigger sensor measurements.

The distance signal can be produced by an encoder. Each movement of the sensor will trigger a cross sectional measurement. The integration of the encoder with the scanner is dependent upon the deployment method of the scanner. When mounting the CiTriS on a roller skid, the encoder can be mounted on a measuring wheel. In the case of small-bore holes and operation with sliding

Fig. 2: Circular Triangulation Sensor (CiTriS)

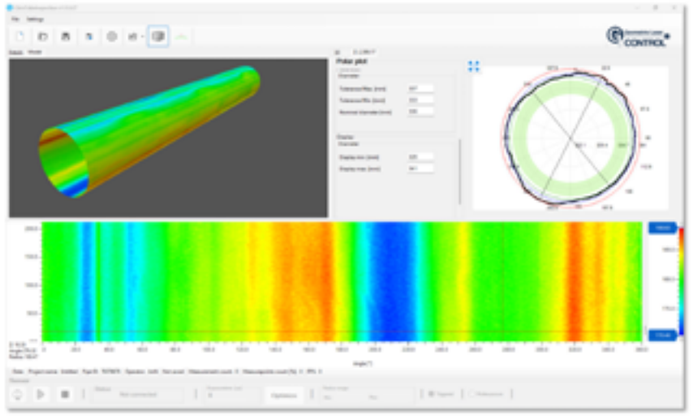


Fig. 3: 3D-point cloud of the pipe's inner surface.

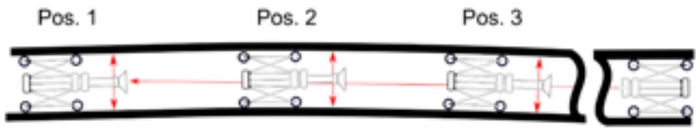


Fig 4: measuring unit for determining streightness

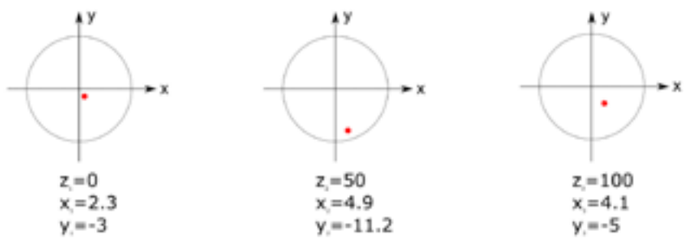


Fig 5: straigtness measurement

sleeves, the cable length inserted into the bore hole will be measured for information on distance. A special cable guide with integrated encoder is available.

In the case of mounting the CiTriS on a lance, which is inserted into the bore, the encoder will be mounted directly on the lance guide.

3D-measurement

By using this information, software can assemble all cross sections with precise depth information to create a point cloud of the inner surface of the pipe. The result is a complete 3D-model of the pipe.

The complete model can be dimensioned and analysed, with the ability to highlight and dimension defects. For the application of third party external 3D analysis software, STL-export is available.

Straightness determination

To determine the straightness of a pipe, an additional point laser is radiated through the pipe from the opposite opening as a benchmark.

CiTriS will be guided slidable and approximately centrical, e.g.mounted on a roller carriage, into the bore opening.

A module consisting of a camera and a focusing screen is attached to the front of the CiTriS to detect the directional laser.

The laser beam serves as an absolutely straight reference line. The detection unit is moved along this reference line in the pipe. Here, the offset to the reference line is continuously measured by the local detection of the laser point on the screen. A possible displacement of the detection unit from the center of the bore hole can be corrected using the measurement values from CiTriS.

The result provides the offset of the center point of the respective tube cross-section to the reference line at each measurement position. This corresponds to the straightness of the tube.

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Tecnar

Tecnar Commissions Lut 2.0 Wall Thickness Gauge at JingJiang Special Steel, China

Tecnar is proud to announce the successful commissioning of a Lut 2.0 wall thickness gauge at JingJiang Special Steel, a subsidiary of the CITIC Pacific Group in China. This new installation represents another important milestone in the adoption of Tecnar's laser-ultrasonic technology for process optimization in the seamless tube and pipe industry.

The new Lut 2.0 Dual Probe Scanning (DPS) has been installed at the exit of the extractor mill on an SMS PQF® (Premium Quality Finishing) line. In this configuration, two probes move rapidly back and forth across the tube to scan the wall thickness at the mill exit. Successive scans build a high-resolution circumferential profile of the wall thickness as the tube advances, allowing operators to easily detect any roll misalignment or setting deviations within the PQF mill. Lut 2.0's accuracy and scanning speed make it ideally suited to capture the complex circumferential thickness variations typical of three-roll mills, providing a direct path to improved process control and yield stability.

This installation also marks the first introduction of Tecnar's Digital Twin technology into a production environment. The Digital Twin is an advanced post-processing of the data acquired from the Lut 2.0 sensors, providing enhanced visualization of both average and min–max wall-thickness profiles. This powerful analytical layer gives operators a clearer understanding of process trends and enables more responsive mill adjustments. Together, Lut 2.0 and its Digital Twin interface set a new benchmark for real-time process monitoring and yield improvement in tube manufacturing.

At the core of Lut 2.0 is Tecnar's proprietary laser-ultrasonic technology, a non-contact ultrasonic measurement technique. In this approach, a pulsed laser generates ultrasonic waves on the tube surface, while a second laser detects the resulting vibrations without any physical coupling. By accurately measuring the propagation time of these ultrasonic waves through the tube wall, Lut 2.0 provides direct and absolute wall-thickness measurements that remain unaffected by temperature variations, tube motion or vibration, and the presence of a mandrel inside the tube—significantly expanding the range of positions along the mill where reliable online thickness monitoring can be performed. This makes laser-ultrasonic technology the most reliable and versatile method for online wall-thickness measurement in hot tube and pipe processes, seamless and welded.

About Tecnar

Founded in 1989, Tecnar Automation Ltée designs, develops, and manufactures advanced sensing systems for industrial process monitoring and control. Based near Montreal, Canada, Tecnar serves industries worldwide through four specialized divisions covering online wall-thickness gauges for hot seamless and welded tube and pipe mills, automated shop spool welding systems, advanced monitoring solutions for thermal and cold spray processes, and laser-based real-time analysis of molten metal composition. With over 70 employees dedicated to innovation and customer success, Tecnar continues to deliver robust, high-precision solutions that help manufacturers optimize quality, efficiency, and yield.

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Danieli & C. S.p.A.

Hengyang Valin expands seamless pipe project with Danieli cutting lines

Two SDM cutting saw lines to serve large-diameter pipe production in China

Hengyang Valin has awarded Danieli the supply of two SDM cutting lines to be integrated into the world's largest seamless pipe mill, currently under construction in China.

The new lines—one for billet cutting with 2 machines and one for tube layer cutting—will be connected to the FQM™ retained mandrel mill production line, designed for annual production of over 800,000 tons of seamless pipes from 323.8 to 610 mm in diameter and wall thicknesses up to 65 mm.

Each cutting line will feature SDM vertical sawing units, cut-to-length systems, hydraulic stations, and automatic crop discharge. Automation and process control will be provided by Danieli Automation.

Startup is scheduled for 2026.

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www.danieli.com/

SMS group GmbH

Plant Assessment Tool for customized decarbonization at worldsteel Breakthrough Technology Conference

SMS group showcases customized decarbonization pathways at worldsteel's Breakthrough Technology Conference in Singapore

The data-driven Plant Assessment Tool identifies the most viable decarbonization strategies, balancing sustainability and profitability

The steel industry is at a turning point: decarbonization and competitiveness must go hand in hand. At this year's worldsteel Breakthrough Technology Conference, SMS group reaffirmed its role as a trusted partner in driving this transformation.

Tailored technological pathways for individual challenges

SMS designs and builds technologies that adapt to the specific conditions of each steelmaker—whether it's related to energy use, iron ore quality, or regulatory frameworks. "Decarbonization is not a one-size-fits-all solution. It requires approaches that solve what truly matters for our customers," emphasized Jochen Burg, CEO of SMS group, in his opening address.

Insights from SMS CTO Thomas Hansmann

In his presentation "Reimagining Decarbonization: Unveiling Global Innovations and Regional Dynamics," Thomas Hansmann, CTO of SMS group, stressed the need for region-specific strategies and diverse technologies for global decarbonization, with a particular focus on Asia's rapid industrial growth. He highlighted the upcoming deployment of SMS's innovative Paul Wurth

(Jochen Burg, CEO of SMS group, during his opening statement at the worldsteel Breakthrough Technology Conference).

(Thomas Hansmann, CTO of SMS group, delivering a presentation on "Reimagining Decarbonization: Unveiling Global Innovations and Regional Dynamics" at the worldsteel Breakthrough Technology Conference).

EASyMelt (electric-assisted syngas smelter) technology at Tata Steel's Jamshedpur plant in India. This retrofit will significantly reduce CO_2 emissions by electrifying existing blast furnaces—a flexible alternative to the direct reduction route and a milestone in the iron-making process transformation. "The blast furnace and its associated retrofits remain predominant under current price conditions and will continue to play a relevant role even in evolving future contexts," said Thomas Hansmann.

Expert consulting: combining sustainability and profitability

Decarbonization success depends on numerous variables, and solutions that are feasible today may not remain viable in the future. That is why SMS provides a data-driven decision-making tool to support steelmakers in navigating the complex path toward decarbonization: the Plant Assessment Tool (PAT).

PAT uses live-simulated models and sensitivity analyses to calculate the most viable decarbonization pathways. It considers key factors such as energy prices, raw material availability, and carbon footprint implications across scopes 1, 2, and 3. PAT enables detailed CAPEX and OPEX evaluations, allowing steel producers to compare scenarios and make informed decisions that drive sustainable and economically sound transformation.

Tim Ochel, Head of Green Steel at SMS, states, "With PAT, we provide our customers with clarity. It enables us to jointly identify the best available technologies—ensuring both sustainability and economic viability."

(SMS group booth at the worldsteel Breakthrough Technology Conference).

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Tube Middle East Africa 2025

wire & Tube Middle East Africa 2025 A Successful Industry Showcase in Cairo

Cairo
06-08 Sep 2025

The wire & Tube Middle East Africa (MEA) trade fair concluded successfully at the Egypt International Exhibition Center in New Cairo, forming a key part of the Metal & Steel Egypt 2025 exhibition programme. The three-day event brought together professionals from the wire, cable and tubular goods industries to explore emerging markets and exchange insights on technological developments across the Middle East and Africa.

Organised by Messe Düsseldorf in partnership with local host AGEX, wire & Tube MEA ran alongside other major industry events, offering suppliers, manufacturers and decision-makers a strategic platform for business engagement and networking. The fair featured a wide range of product categories including wire and tube manufacturing machinery, process technology, materials and control technologies.

Across the three days, attendees benefited from direct access to the latest equipment, innovations and industry expertise, reinforcing the importance of the MEA region as a hub for infrastructure development and industrial growth. Egypt's role as a gateway to broader Middle East and African markets was emphasised by exhibitors and visitors alike, underlining strong regional demand for advanced technologies in power transmission, construction, and materials handling.

The event also highlighted macro-economic trends such as expanding demand for energy and control cables and the increasing importance of tubular products for water, gas and industrial applications — factors that continue to drive investment and innovation across related sectors.

wire & Tube MEA 2025 closed with positive feedback from exhibitors and attendees, many of whom reported productive meetings and new business opportunities. The organisers reaffirmed their commitment to continuing the series and supporting industry growth in the MEA region.

FABTECH 2025

Chicago Confirms Its Role as a Global Manufacturing Hub

Chicago
08-11 Sep 2025

FABTECH 2025 concluded successfully at McCormick Place in Chicago, once again confirming its position as North America's key trade fair for metal forming, fabrication, welding and finishing technologies, according to post-event trade media and exhibitor feedback. The exhibition attracted approximately 42,000 attendees and over 1,700 exhibitors across 885,000 square feet, including around 300 first-time participants and more than 800 new product launches.

The show highlighted automation, digital manufacturing, and robotic solutions, with live demonstrations drawing strong interest from visitors. Advanced metrology and quality-control technologies were also prominently featured, offering improvements in production precision and efficiency. The event included over 200 conference sessions covering topics such as digitalisation, materials, workforce development, and process optimisation, providing both practical insights and networking opportunities.

Exhibitors reported high-quality visitor engagement and promising business leads, particularly in the automotive, aerospace, and general fabrication sectors. Overall, post-event reporting and exhibitor statements indicate a positive market sentiment, with FABTECH 2025 reinforcing its role as a central hub for innovation, industry insights, and professional exchange in the manufacturing sector.

Daniel Ryfisch and Hans-Joerg Braun

Always nice to meet ITA friends from all over the world

Iwao Nakata, Hans-Joerg Braun and Mitsuru Nakata


Nelson-Abbey Fives-Bronx and Hans-Joerg Braun

ITAtube Conference 2025

International Industry Experts Discuss the Future of the Tube and Pipe Industry

Hybrid
8 October 2025

The ITAtube Conference 2025, held on 8 October 2025 in a hybrid format, brought together leading experts from the tube and pipe industry to discuss current market trends, technological innovations, and global challenges. Under the motto "Tube and Pipe Industry Outlook – focus North America", the conference provided a comprehensive overview of the sector's most important developments and future perspectives.

The International Tube Association (ITA), together with the ITA North American Board, organised the hybrid conference with senior experts from the US and Europe to discuss the commercial consequences and opportunities arising from new geopolitical developments. The focus was on the US market, although challenges for other regions were also highlighted. Specialists from nine countries participated in the event.

Organised by the ITA, the event attracted professionals from over nine countries and placed particular emphasis on the North American market, which plays a central role in the global industry. In addition to presentations on market analyses and geopolitical developments, panels addressed topics such as the OCTG market, line pipe market, and current challenges such as skills shortages.

Speakers & Presentations – Conference Highlights

Dr Gunther Voswinckel
Welcome | Global Tube Market

ITA President, welcomed participants and provided an overview of the global tube and pipe market.

Dr Heinz-Jürgen Büchner
Commodity Consultant and former Managing Director Industrials & Automotive at IKBank
European/Asian Tube Industry Outlook

Sarados Milios
CEO of Welspun Corp. Limited
Line Pipes – A Fast-developing US Market Segment

Christian Haferkamp
General Manager Technical Sales & Technology Tube & Pipe Plants at SMS group
OCTG Casing Market: Bridging Skills, Technology & Market Demands

Edson Eufrasio
EEndt consulting, formerly Director of NDT for Vallourec &
Matthew Rutledge
VP of PITCO LLC
The New Era of MFL Testing in OCTG – Non-destructive testing (NDT) experts presented modern Magnetic Flux Leakage testing methods for OCTG.

Panel Discussion – North America Tube and Pipe Industry Outlook

A panel of six international tube industry specialists discussed the trends and challenges facing the industry. Key points included:

- Increasing demand for specific material properties is creating growing challenges regarding raw material supply in the US.
- Line pipe demand is so high that even investment in additional local US capacity will not be enough to serve the market.
- Prices are expected to continue increasing.
- Despite tariffs, line pipe imports are projected to rise again.

A key theme of the conference was the industry's adaptation to decarbonisation and the growing importance of renewable energy, including green hydrogen projects. Experts discussed how innovations in production technologies, artificial intelligence, and sustainable materials are transforming the market.

The ITAtube Conference 2025 offered participants not only up-to-date market insights but also the opportunity to make valuable contacts and exchange experiences.

"The conference demonstrates how internationally connected our industry is and the opportunities arising from the transformation of global markets," said Dr Gunther Voswinckel, President of the ITA.

> "The discussions were truly inspiring and energizing – a clear sign that we're moving forward with a positive outlook for our industry."
>
> *Christian Haferkamp, SMS group*

Tube South East Asia

The Definitive Platform for South-east Asia's Tube and Pipe Industries

Bangkok
17-19 Sep 2025

wire and Tube Southeast Asia 2025 concludes with strong international participation and positive business momentum

After three dynamic days at BITEC Bangkok, wire and Tube Southeast Asia 2025 concluded successfully, welcoming 7,435 visitors from 62 countries and regions—an increase of nearly 20% compared with 2023—reinforcing its status as ASEAN's leading platform for the wire, cable, tube, and pipe industries.

The event's international profile was strengthened by over 35 visiting groups and delegations from sectors including electrical engineering, construction, automotive, energy, die and mould, and industrial supply chains. Around 30% of visitors came from overseas, including representatives from HECA, IIEE, and the Philippine Die and Mould Association.

Gernot Ringling, Managing Director of Messe Düsseldorf Asia, said: "wire and Tube Southeast Asia 2025 highlighted ASEAN's role as a fast-growing market and a hub for global industrial collaboration. Co-located with GIFA and METEC Southeast Asia, the fairs created a platform connecting technology providers and buyers while fostering discussions on competitiveness, sustainability, and the future of the industry."

Over 400 exhibitors from more than 30 countries presented innovations across the industrial value chain—from wire and tube production to foundry, casting, and metallurgical solutions—enabling suppliers and buyers to exchange ideas, form partnerships, and drive growth in sectors such as construction, automotive, energy, and advanced manufacturing.

The strong visitor turnout translated into meaningful engagement for both exhibitors and visitors, affirming the exhibition's role in business development and knowledge exchange. The programme included technical sessions on green transformation, digitalisation, and energy efficiency, along with expert panels on ASEAN's industrial future.

With 7,435 visitors from 62 countries, wire and Tube Southeast Asia 2025 reinforced Southeast Asia's position as a hub for industrial growth. As ASEAN economies accelerate investment in infrastructure, digitalisation, and green industrialisation, the exhibitions remain a key gateway connecting global innovation with regional opportunity.

Iwao Nakata


Yang Yuxuan

Tube Forming Tech Paper Session @ Tube & Wire Southeast Asia 2025

Summary Report (Tube & Wire–Focused Industry Trends)

Tube & Wire Southeast Asia 2025 was held at BITEC (Bangkok International Trade & Exhibition Centre) in Bangkok, Thailand, from September 17 to 19, 2025, positioning itself as the largest specialized exhibition for tube and wire industries in Southeast Asia.

NAKATA participated in this tech paper session in BITEC two times, our first time was in 2023.

Same as last time, the exhibition in Thailand was vibrant and many exhibitors appeared young and energetic. While there were relatively few for new or groundbreaking technologies on display, it was evident that exhibitors are actively and earnestly working on improvements in on-site production technologies. Overall, the event gave the impression of a dynamic and forward-looking industry, with a notably large presence of younger visitors throughout the venue.

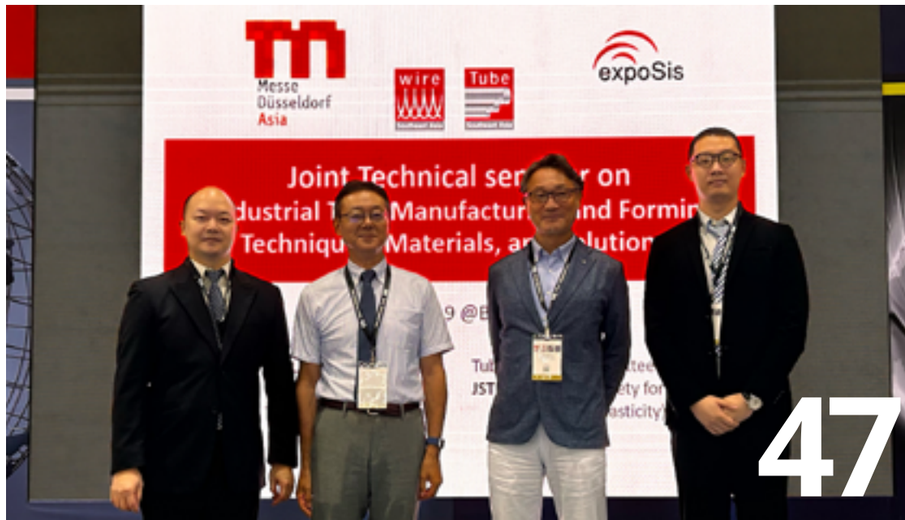
This BITEC show is more than an exhibition, which offered us a great opportunity and platform to stay ahead of the curve in the tube and pipe industry, by gaining valuable insights from experts and leaders from all over the world. Besides, the conferences and forums also offered not only us but all attendees a chance for knowledge sharing, discussion and debate, which definitely helped us deepen our understanding of the latest trends, technologies and practices in industry.

A glimpse of NAKATA latest technology development *(summary of tech paper session in Tube South East Asia, Bangkok in Sep. 2025)*

NAKATA presented in a technical paper session in BITEC, Bangkok, Thailand which was held during 17-19th September 2025.

An international trade fair that brings together every sector across the entire metal industry supply chain — from manufacturers, distributors, importers-exporters, engineers, and designers to top-level procurement and sourcing executives.

At this fair, technical paper session was held and NAKATA presented its latest machine design developments, highlighting the technological evolution of the FFX mill, which represents the core product within NAKATA's machine lineup.



Tube 2026, Düsseldorf

Leading International Trade Fair Focuses on Innovation, Sustainability and Digitalization

Tube Düsseldorf

Düsseldorf
13-17 April 2026

Tube 2026 will take place from 13 to 17 April 2026 in Düsseldorf and is recognised as one of the world's leading trade fairs for the tube and pipe industry. Held in parallel with the wire trade fair, it provides an international platform for manufacturers, suppliers, service providers and users across the entire value chain.

Key Exhibition Topics

The trade fair covers a wide range of technologies and applications. Core areas include machinery, equipment and systems for the production, further processing and testing of tubes and pipes. This includes forming, cutting and joining technologies, surface treatment processes, as well as measuring and testing technology. The exhibition programme is complemented by solutions for automation and process optimisation.

Sustainability and Resource Efficiency

A major focus of Tube 2026 is the sustainable orientation of industrial production processes. Within initiatives such as ecoMetals, materials, technologies and processes aimed at improving energy efficiency, conserving resources and enhancing recyclability will be presented. For exhibitors, this provides an opportunity to showcase relevant developments and applications to an international professional audience.

Energy and Hydrogen Infrastructure

Another key topic is tube and pipeline systems for energy infrastructure. Applications related to hydrogen, including transport, storage and distribution, are becoming increasingly important. Tube 2026 addresses these developments and offers a forum for technical exchange on materials, standards and engineering requirements.

Digitalisation and Automation

The digitalisation of industrial processes represents a cross-cutting theme of the trade fair. Exhibits will include connected production systems, data-driven process control, intelligent machinery, and solutions for quality assurance and efficiency improvement. These topics are particularly relevant for exhibitors offering digital technologies and Industry 4.0 solutions for tube and pipe manufacturing.

Technical Exchange and Supporting Programme

In addition to the exhibition, a supporting programme with technical forums, presentations and discussion formats is planned. The focus will be on current technical issues, standards, market and technology trends, and future requirements for the tube industry. The programme offers exhibitors and visitors structured opportunities for knowledge transfer and professional exchange.

Positioning within the International Trade Fair Environment

Running in parallel with the wire trade fair, Tube 2026 benefits from thematic overlaps and synergies, particularly in areas such as automation, energy, e-mobility and digital manufacturing. This creates additional visibility for exhibitors among a professionally related audience.

Further Information

Information on exhibiting, stand concepts and organisational details is available on the official trade fair websites www.tube.de and www.wire.de

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VISIT US
at Hall 1
Stand C05

Tube events

Events for Business, Technology, Education and Networking

Diary of world class tube events

January 2026

26 - 29 MECOC Expo www.mecocexpo.com

April 2026

13 - 17 Tube Düsseldorf tube-tradefair.com

May 2026

06 - 07 Duplex World Conference & Expo stainless-steel-world-duplex.com

September 2026

21 - 24 Tube China www.messe-duesseldorf.de/de/Tube_China

23 - 24 Green Steel World Conference www.greensteelworld.com

October 2026

14 - 15 Stainless Steel World Asia www.stainless-steel-world-asia.com

November/December 2026

30 - 02 Tube India www.tube-india.com

February 2027

Tube Mexico www.wire-tube-mexico.com

April 2027

Tube Eurasia www.wire-tube-mexico.com

June 2027

21 - 25 METEC www.metec.de

September 2027

13 - 16 FABTECH www.fabtechexpo.com

15 - 17 Tube Southeast Asia www.tube-southeastasia.com

Obituary

Heinrich Weiss

Heinrich Weiss, entrepreneur and long-standing CEO of SMS group, dies at 83

SMS group mourns the loss of Heinrich Weiss. The entrepreneur and former CEO of SMS group passed away on September 8 surrounded by his family.

Jochen Burg, CEO of SMS group: “Heinrich Weiss was a true role model. An extraordinary entrepreneur, he transformed a mid-sized Siegerland company into a global market leader in machine and plant engineering for the steel industry. Our thoughts are with his family, and he will be greatly missed.”

Johannes Frauendörfer, Chairman of the Weiss Family Foundation Board: “Heinrich Weiss was not only a significant entrepreneur but also a person of clarity, integrity, and passion. His life’s work is inextricably linked to SMS. As the Foundation Board, we will carry forward his legacy responsibly, with future generations in mind.”

Georg Weiss, son of Heinrich Weiss and board member of the Weiss Family Foundation: “My father dedicated his life to the company. For our family, it is a matter of great importance to preserve his legacy and to lead SMS into the future in his spirit.”

Heinrich Weiss remained closely involved in the company’s development until recently. For more than five decades, he led the family business as its fourth-generation head. The company’s origins trace back to his great-grandfather, Carl Eberhard Weiss, who opened a forge in Siegerland in 1871 that eventually became Siemag (Siegener Maschinenbau) AG. After completing engineering studies in Munich, Heinrich Weiss joined the company in 1968 and was appointed Chairman of the Managing Board in 1971. Under his leadership, the company entered a period of strong growth and global expansion. 1973 marked the company’s merger with Schloemann, based in Düsseldorf. The company’s further development was shaped by major acquisitions, notably Mannesmann Demag in 1999 and Luxembourg-based Paul Wurth in 2021.

Until 2024, Heinrich Weiss served as the sole chairman of the Family Foundation and carefully prepared the generational transition.

Beyond his dedication to the company, Heinrich Weiss also served for decades on economic policy bodies, leading the China Working Group of the Asia-Pacific Committee of German Business from 1982 to 1997, acting as Federal Chairman of the CDU Economic Council from 1983 to 1988, and presiding over the Federation of German Industries (BDI) from 1991 to 1992. Among other appointments, he served on the supervisory boards of Deutsche Bahn, Commerzbank and Bertelsmann, and on the Board of Directors of Bombardier.

ITA media plan 2026

Make the most of your **ITA membership!**

Tube Düsseldorf

ITATUBE Journal 1/26

April

13 -17 **Tube Düsseldorf**, Düsseldorf
www.tube-tradefair.com
ITA stand Hall 1, C05

16 **ITAtube Forum 2026** at Tube Düsseldorf
Forum stand Hall 1, A47
deadline speaker application:
January 16th, 26

speaker slots exclusive for **ITA members | free**

Tube China

ITATUBE Journal 2/26

September

21 - 24 **Tube China**, Shanghai
www.tubechina.net/en
application deadline: May 31st, 2026
ITA stand tba

22 **China International Steel Tube & Pipe Summit**, Shanghai
ITA keynote organized by MC-CCPIT
deadline speaker application:
June 22nd, 26

speaker slots exclusive for **ITA members | free**

Tube India

ITATUBE Journal 3/26

November/December

30 - 02 **Tube India**, Mumbai
www.tube-india.com
ITA stand tba

tba **ITA Conference India Chapter hybrid** at Tube India online
tba at Tube India
deadline speaker application:
September 30th, 26
deadline registration:
November 27th, 26

speaker slots exclusive for **ITA members | free**

Marketing opportunities 2026

ITAtube Journal

Magazine for the tube industry

- latest tube & pipe market information
- interesting news from the tube industry
- worldwide Tube show reviews & previews
- diary of tube events worldwide

- publish press release
- publish technical paper
  free of costs for ITA members
- place advertisement
  50% discount for ITA members

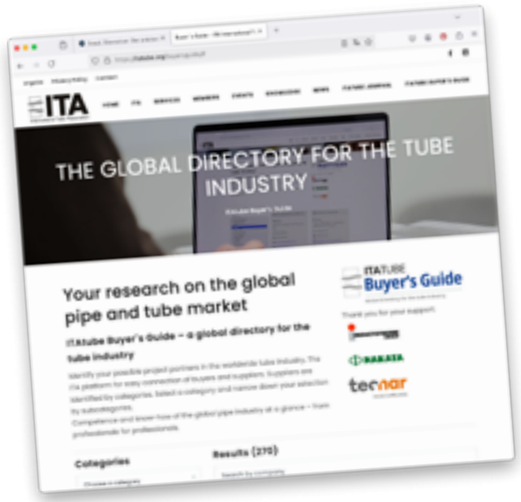
1/26 Tube Düsseldorf 2026
preview Tube China
deadline: February 20th, 2026

2/26 Tube China
review Tube Düsseldorf, preview Tube India
deadline: July 24th , 2026

3/26 Tube India
review Tube China, preview 2027
deadline: September 30th, 2026

ITATUBE Journal
Magazine for the tube industry

Link to ITAtube Journal latest edition



ITATUBE Buyer's Guide
Global directory for the tube industry

ITAtube Buyer's Guide

Global directory for the tube industry

Identify your possible project partners in the worldwide tube industry. The ITA platform for easy connection of buyers and suppliers. Select a category and narrow down your selection by subcategories. This platform with free information as a matchmaker between buyers and suppliers is a great opportunity to present your products and services. Take advantage of the ITA network and get connected.

Find your business partner and present your company! Choose your package:

FREE for ITA corporate members — **Basic package 500€ p.a.**
(company details, 1 contact person)

ONLY 200 € p.a. for ITA members — **Additional tile for regional sub 300€ p.a.**

ONLY 350 € p.a. for ITA members — **Premium package + 500€ p.a.**
(basic + logo + 2 contact person + 5 product pictures)

Imprint

Next Issue Deadline: February 20th, 2026

List of advertisers

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artworkshop.de
(Graphics and Print Design)

Look at our next issue:

- Tube Düsseldorf 2026
- preview Tube China

Grant me the serenity to accept the things
I cannot change,
the courage to change the things I can,
and the wisdom to know the difference.
- Reinhold Niebuhr -

On behalf of the ITA team we wish you
a wonderful year ending and peaceful celebrations!

We are looking forward to meet you
at Tube Düsseldorf in 2026!

Best wishes

Your ITA

Dr. Gunther Voswinckel
President

Cornelia Buesing
Executive Secretary

Kallanish

YOUR MARKETS OUR VIEWS

Read the Kallanish Steel Weekly

Stay informed without the overwhelm – the Kallanish Steel Weekly gives you a concise, expert-led roundup of global steel market developments, perfect for busy professionals who need to stay ahead.

Our weekly publication that analyses the global steel markets by regions: Asia (China & India), Europe, Middle East, CIS, Americas and every week we have a Feature article highlighting the most important changes in the steel industry.

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