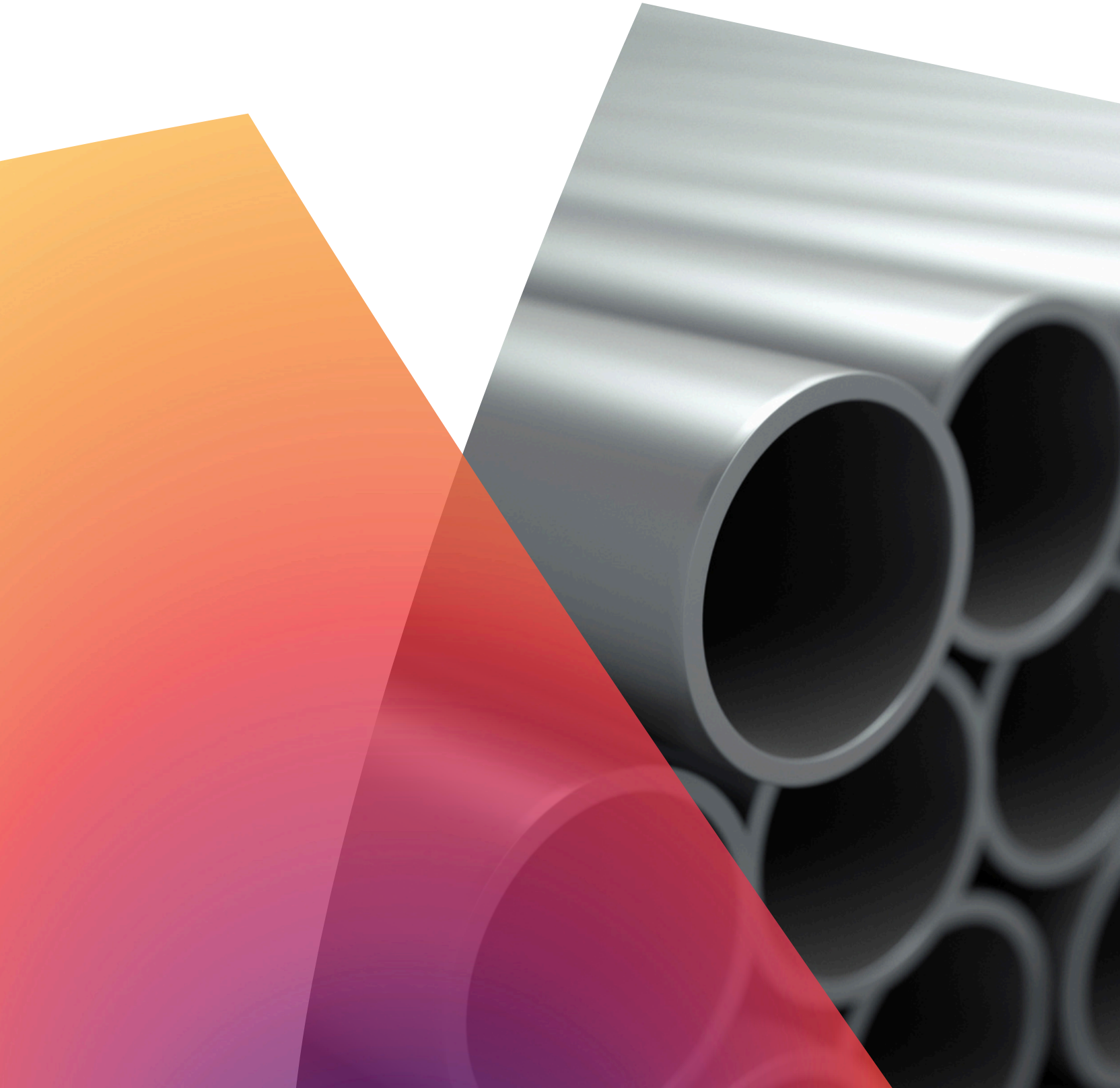


ArcelorMittal South Africa



ArcelorMittal

Tubular Products



About Us

Worth 95 years of experience, ArcelorMittal South Africa is the largest steel producer in sub-Saharan Africa. It boasts 6 production parks across 4 provinces in South Africa, with an installed crude steel capacity exceeding 5 million tonnes. With a local employment base of about 10 000 people, we produce the broad spectrum of primary flat and long steel products, in a wide variety of grades and dimensions and with compliance to international specifications. Our products are used across over 20 market segments, predominantly in the African region but also in Europe, Asia and the Americas.

ArcelorMittal South Africa forms part of the ArcelorMittal Group, producing about 70 million tonnes of crude steel, transacting in over 155 countries and employing over 150 thousand people globally. The group is the largest by innovation and a leading producer in the Americas, Europe and Africa. The group is leader in all major global markets including Automotive, Construction, household appliance and packaging, with leading R&D and technology, as well as sizeable captive supplies of raw materials and outstanding distribution networks. Through this association, ArcelorMittal South Africa has access to world-class research and development, best practice processes, extensive procurement contracts and international market leverage to ensure the company remains at the cutting edge of the international steel industry.

Our Purpose

Championing Africa's industrial ambitions through sustainable steel.

Our Values



Success starts with training, empowering and keeping all our employees safe.

Local leadership through visionary thinking and willingness to challenge the status quo and be open to doing things differently.



Quality is essential to our competitive edge.

Sustainability through our strive and actions to remaining competitive in the world of tomorrow.



Our Footprint



Pretoria Works

- Small section mill
- Focus on smaller long steel profiles for the windows and fencing industries

On care and maintenance



ArcelorMittal Rail and Structures (AMRAS)

- Heavy section rolling mill
- Heavy gauge mainline rail
- Focus on universal column and beams



Vanderbijlpark Works

- Two blast furnaces; three basic oxygen furnaces
- Slabs, plates
- Hot-rolled coil, cold-rolled coil, electrogalvanized steel, colour coated steel



Vereeniging Works

- Electric Arc Furnaces
- Long steel operation focusing on speciality steel products
- Seamless tube mill
- Forge



Newcastle Works

- One blast furnace; Two ladle furnaces
- Three basic oxygen furnaces
- RH Degasser
- Wire rod, structural Steel, reinforcing Steel
- Mining and Siding Rails



Saldanha Works

- Corex, Midrex continuous process
- Hot rolled coil

On care and maintenance



Commercial Coke and By - Products

- Pretoria, Newcastle & Vanderbijlpark
- Commercial coke production for Ferro-Alloy industry; metallurgical and steel by-products beneficiation, including coal tar





ArcelorMittal South Africa

Tubular Products

ArcelorMittal South Africa Tubular Products manufactures internationally recognized seamless carbon and alloy steel tubing and is the sole producer of hot rolled and cold drawn seamless tube products in South Africa which is equipped with a threading and coupling line. The facility employs up to 250 staff, fully committed to serving our customer's needs for projects and regular stock. Our facility includes a pipe mill capable of producing 100 000 tons of final product per annum, of which some 80% is exported. The facility also has a cold drawn pipe plant with a 5 000 tons per annum capacity.

ArcelorMittal South Africa Tubular Products has a proud track record of conducting business with leading project contractors throughout the world. We have remained at the forefront of approved manufacturer's lists (AMLs) of the major end-users.

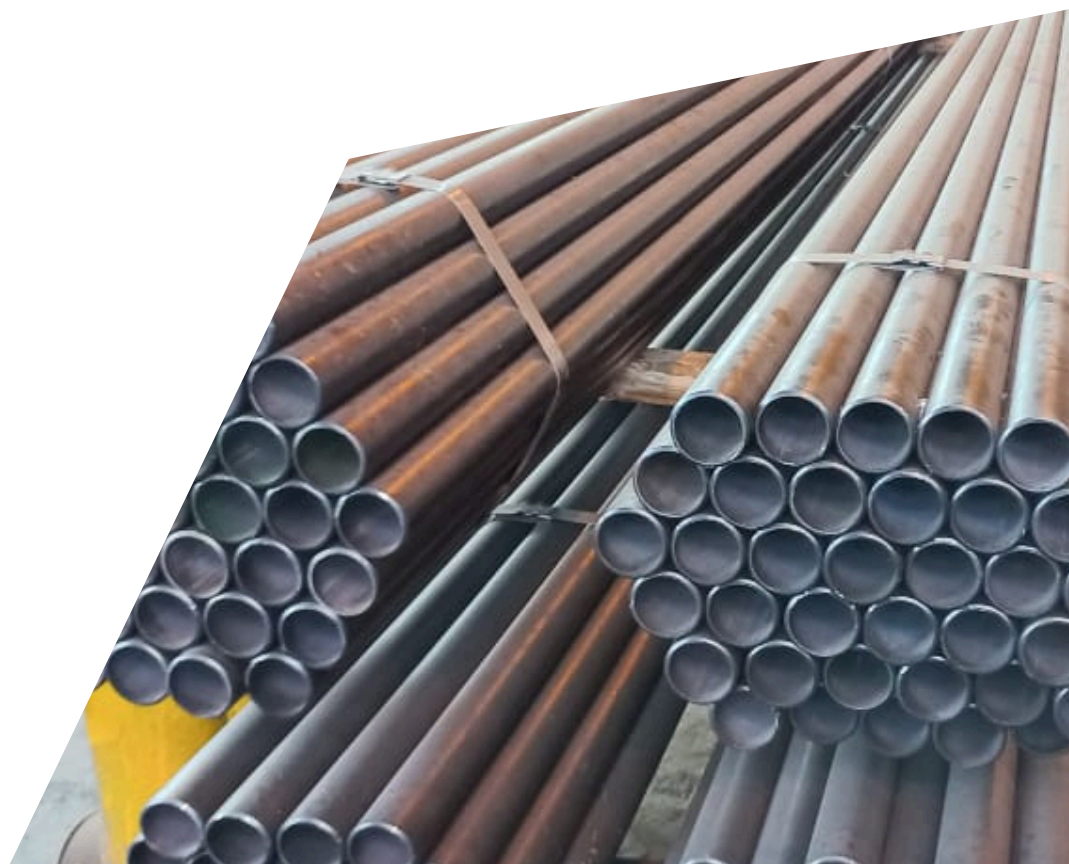
Quality Assurance

The Quality Management system of the facility conforms to requirements of API Q1, ISO 9001 and the European Pressure Equipment Directive (PED). The Environmental Management and Occupational Health and Safety systems are certified to ISO 14001 and ISO 45001, respectively. The majority of the hot rolled products are supplied under the API Monogram License programs for Line Pipe and OCTG products. ArcelorMittal South Africa Tubular Products also holds accreditation with world-class companies such as KOC, ADCO and Saudi Aramco.

Seamless tubes are manufactured and tested following EN, ISO and API specifications, and meet the requirements of the petrochemical oil and gas industries. The seamless product range includes Line Pipe for use in Oil and Gas transportation, Carbon and Low Alloy for use in process and pressure piping applications, OCTG products and precision tube for mechanical applications.

ArcelorMittal South Africa Tubular Products holds certifications, licences and approvals from various certifying bodies and customers. We ensure that our products meet customer requirements by working closely with them.

Knowledge sharing of best practices and technical expertise across our business enables us to be aligned with the latest market developments and offer competitive solutions to our customers.



Serving the Industry

Petrochemical Industry

ArcelorMittal South Africa Tubular Products is a major supplier to many petrochemical producers around the world. Working closely with major international stockists who are intermediaries between us and end-users, we have established ourselves as a supplier of choice to many of the leading petrochemical companies.

Oil Country Tubular Goods

ArcelorMittal South Africa Tubular Products has been supplying seamless "green pipe" to threading and coupling processors since 1994 and continues to do so. In addition to the standard API 5CT steel grades, we can supply steel with modifications to the chemical or mechanical properties to suit the requirements of end-users.

Projects

Closely linked to the day-to-day supply to the petrochemical industry is the project business, which is required from time to time. ArcelorMittal South Africa Tubular Products has a proud track record of conducting business with leading project contractors throughout the world. We have remained at the forefront of approved manufacturer's lists (AMLs) of the major end-users.

Major project contractors which AMSA Tubular Products has supplied to include (but not limited to) Van Leeuwen Pipe and Tube, KOC, ADCO, Phocenne, Bechtel, Lurgi, Flour/Daniel, Brown & Root and Technip.



Hot Rolled Products



Hot Rolled Products

Line Pipe

Line pipe is used for the conveyance of water, gaseous and liquid hydrocarbons in the oil and gas industry. Seamless line pipes supplied by ArcelorMittal South Africa Tubular Products are manufactured following relevant API, ISO, ASTM and EN specifications.

Steel Grades

The majority of our supply is certified to multiple specifications to cater for the stockist business. The combination of specifications for multi-certified products is based on the ability to fulfil the requirements of all specifications involved. The popular grades offered per specification are listed as follows:

Specification	Grades
API 5L PSL1	L245/B/X42 and L360/X52
API 5L PSL2	L245N/BN/X42N and L360N/X52N
ASTM A106	B and C
API 5L PSL2 Annex H	L245NS/BNS/X42NS and L360NS/X52NS
ASTM A53	B
EN 10216-2 TC1/TC2	P235GH, P265GH, 16Mo3

Chemical and Mechanical Properties

Heat analysis is performed for all grades produced to ensure compliance with the requirements. A chemical analysis of the final product is also done, and the results are made available to the purchaser on request. Mechanical properties evaluated and reported are tensile and impact testing. Tests such as HIC and SSC can be performed at external testing facilities when required for an order.

Dimensions

Our standard supply ranges from 33.4 mm to 168.3 mm OD. The wall thicknesses applicable to the various ODs are reflected in the table.

Nominal bore	OD	Wall Thickness				
		SCH40	SCH80	SCH120	SCH160	XXS
25	33.4	3.38	4.55		6.35	
32	42.2	3.56	4.85		6.35	
40	48.3	3.68	5.08		7.17	
50	60.3	3.91	5.54		8.74	11.07
65	73	5.16	7.01		9.53	14.02
80	88.9	5.49	7.62		11.13	15.24
90	101.6	5.74	8.08			
100	114.3	6.02	8.56	11.13	13.49	17.12
125	141.3	6.55	9.53		15.88	19.05
150	168.3	7.11	10.97	14.27	18.26	21.95

Casing and Tubing

At ArcelorMittal South Africa we are committed to being a supplier of choice for "green pipe" for casing and tubing to the oil and gas industry. ArcelorMittal South Africa Tubular Products has recognised that by supplying heat-treatable grades of steel to the customer's specification and dimensional requirements. We are able to provide those companies who specialise in threading, upsetting and heat treating, a product that they can add value to with competitive input material.

Our stringent testing and commitment to uncompromising quality standards ensure that the products supplied are fit for their purpose.

Casing and tubing produced by ArcelorMittal South Africa Tubular Products are manufactured in accordance with the API 5CT specifications. The casing and tubing are supplied with plain ends and is limited to a maximum outside diameter of 177.8 mm (7 in).

Steel Grades

Casing and Tubing are produced with plain carbon and low-alloy steel grades according to API 5CT Group 1, H40, J55, K55 and N80 Type 1.

Chemical Analysis

Group 1 product analysis of each heat used is done on the final product. The results of the product analysis are made available to the purchaser on request.

Mechanical Properties

Steel Grade	Ultimate Tensile Strength (min)	Yield Strength (min)	Yield Strength (max)
H40	414 MPa [60 000 psi]	276 MPa [40 000 psi]	552 MPa [80 000 psi]
J55	517 MPa [75 000 psi]	379 MPa [55 000 psi]	552 MPa [80 000 psi]
K55	655 MPa [95 000 psi]	379 MPa [55 000 psi]	552 MPa [80 000 psi]
N80 Type 1	689 MPa [100 000 psi]	552 MPa [80 000 psi]	758 MPa [110 000 psi]

Dimensions

Outside Diameter (mm)			Wall Thickness (mm)			Plain End Weight (kg/m)
Nominal	Min	Max	Nominal	Min	Max	
60.3	59.51	61.09	4.24	3.71	4.88	5.86
			4.83	4.23	5.55	6.61
			6.45	5.64	7.42	8.57
			7.49	6.55	8.61	9.75
			8.53	7.46	9.81	10.89
73	72.21	73.79	5.51	4.82	6.34	9.17
			7.01	6.13	8.06	11.41
			7.82	6.84	8.99	12.57
			8.64	7.56	9.94	13.71
			9.96	8.72	11.45	15.49
			11.18	9.78	12.86	17.05

Dimensions

	Outside Diameter (mm)			Wall Thickness (mm)			Plain End Weight (kg/m)
	Nominal	Min	Max	Nominal	Min	Max	
	88.9	88.11	89.69	5.49	4.80	6.31	11.29
				6.45	5.64	7.42	13.12
				7.34	6.42	8.44	14.76
				9.53	8.34	10.96	18.64
	114.3	113.51	115.09	6.88	6.02	7.91	18.23
Tubing				8.56	7.49	9.84	22.32
				9.65	8.44	11.10	24.90
				10.92	9.56	12.56	27.84
	114.3	113.51	115.09	5.21	4.56	5.99	14.02
Casing				5.69	4.98	6.54	15.24
				6.35	5.56	7.30	16.91
				7.37	6.45	8.48	19.44
				8.56	7.49	9.84	22.32

Dimensions

Outside Diameter (mm)			Wall Thickness (mm)			Plain End Weight (kg/m)
Nominal	Min	Max	Nominal	Min	Max	
139.7	138.91	140.49	6.98	6.11	8.03	22.85
			7.72	6.76	8.88	25.13
177.8	177.01	178.59	8.05	7.04	9.26	33.70
			9.19	8.04	10.57	38.21
			10.36	9.07	11.91	42.78



Dimensions

	Outside Diameter (in)			Wall Thickness (in)			Plain End Weight (lb/ft)
	Nominal	Min	Max	Nominal	Min	Max	
	2.375	2.344	2.406	0.167	0.146	0.192	3.94
				0.190	0.166	0.219	4.44
				0.254	0.222	0.292	5.76
				0.292	0.258	0.339	6.56
				0.336	0.294	0.386	7.32
	2.875	2.844	2.906	0.217	0.190	0.250	6.17
				0.276	0.242	0.317	7.67
				0.308	0.270	0.354	8.45
				0.340	0.298	0.391	9.21
				0.392	0.343	0.451	10.40
				0.440	0.385	0.506	11.45

Dimensions

	Outside Diameter (in)			Wall Thickness (in)			Plain End Weight (lb/ft)
	Nominal	Min	Max	Nominal	Min	Max	
	3.500	3.469	3.531	0.216	0.189	0.248	7.58
				0.254	0.222	0.292	8.81
				0.289	0.253	0.332	9.92
				0.375	0.328	0.431	12.53
	4.500	4.469	4.531	0.271	0.237	0.312	12.25
Tubing				0.337	0.295	0.388	15.00
				0.380	0.333	0.437	16.77
				0.430	0.376	0.495	18.71
	4.500	4.469	4.531	0.205	0.179	0.236	9.41

Dimensions

	Outside Diameter (in)			Wall Thickness (in)			Plain End Weight (lb/ft)
	Nominal	Min	Max	Nominal	Min	Max	
Casing				0.224	0.196	0.258	10.23
				0.250	0.219	0.288	11.36
				0.290	0.254	0.334	13.05
				0.337	0.295	0.388	15.00
	5.500	5.469	5.531	0.275	0.241	0.316	15.36
				0.304	0.266	0.350	16.89
	7.000	6.969	7.031	0.317	0.277	0.365	22.65
				0.362	0.317	0.416	25.69
				0.408	0.357	0.469	28.75

Pipe Finishing and Testing

Pipe ends are finished in compliance with specific product requirements. All tubes with an outside diameter less than 60.3 mm are square cut. Tubes with an outside diameter of 60.3 mm and larger are bevelled to an angle of 30 ° (+5, -0), with a root face of 1.59 mm (± 0.79 mm). All casing and tubing are finished with square-cut ends on the hot rolling mill. Some casing and tubing products can be supplied with threaded ends.

Our cutting edge threading facilities can thread casing and tubing material in accordance with the API 5CT standards. The threading facilities can process material in the size range of 114.3mm (4.500") to 244.48 mm (9.625") OD and 12m (40 ft) lengths. The types of threads that can be done include but are not limited to STC (Short Thread Coupled), BTC (Buttress Thread Coupled) and LTC (Long Thread Coupled). All threaded casing and tubing are subsequently inspected for quality assurance.

Testing

Visual and dimensional inspection is performed on all tubes to ensure compliance to dimensional requirements and workmanship. All tubes are also subjected to non-destructive testing (NDE), in addition to any other specified statutory metallurgical tests. Our modern NDE inspection facilities include automatic Electromagnetic Inspection (EMI) equipment for both longitudinal and transverse detection of discontinuities and defects on tubes.

The technologically advanced Ultrasonic Test (UT) equipment is used for verification of the wall thickness and eccentricity. The UT equipment is also capable of detecting transversal flaws on tubes. Hydrostatic testing is also performed for verification of leak tightness when specified by order.

Coating

Tubes are coated with a black primer for protection against rust.

Lengths

All lengths are cut to a tolerance of -0mm, + 50mm.

Marking

Identification marking is applied on every pipe by paint stencilling along the length of the pipe. Colour band marking is applied in accordance with the specification and customer requirements.

Additional information pertaining to the bundle is printed on a weatherproof plastic label which is attached to the bundle.

Cold Drawn Products



Cold Drawn Products

Our cold rolling operation specialises in the production of tubes with tight dimensional tolerances and non-standard sizes. Products from this plant are strictly for the South African local market. Our target markets include the automotive industry, power generation plants and drilling operations.

The cold drawn plant is unique in that it offers some level of freedom due to its ability to produce tubes with custom dimensional tolerances. The facility is equipped with two continuous furnaces, which enable us to offer various heat treatment conditions.

Steel Grades

The most popular grades supplied include the following:

Specification	Grades
EN 10216-2 TC1/TC2	P235GH, P265GH, 16Mo3, 10CrMo9-10, 13CrMo4-5
ASTM/ASME A/SA 179	
ASTM/ASME A/SA 192	
ASTM/ASME A/SA 210	A1, C
ASTM/ASME A/SA 213	T2, T11, T12, T22
ASTM/ASME A/SA 335	P1, P2, P11, P12, P22
EN 10305-1	E235, E355
JIS G3445	STKM12, STKM13
ASTM A519	1012, 1018, 1035, 4140

Testing

Similar to hot-finished tubes, cold drawn tubes are subjected to visual and dimensional inspection to ensure compliance to the dimensional requirements and workmanship.

Additionally, tubes are tested using Ultrasonic Testing (UT) equipment for inspection of transversal flaws on tubes. Hydrostatic testing can be performed for verification of leak-tightness on specific orders where it is required.

Coating

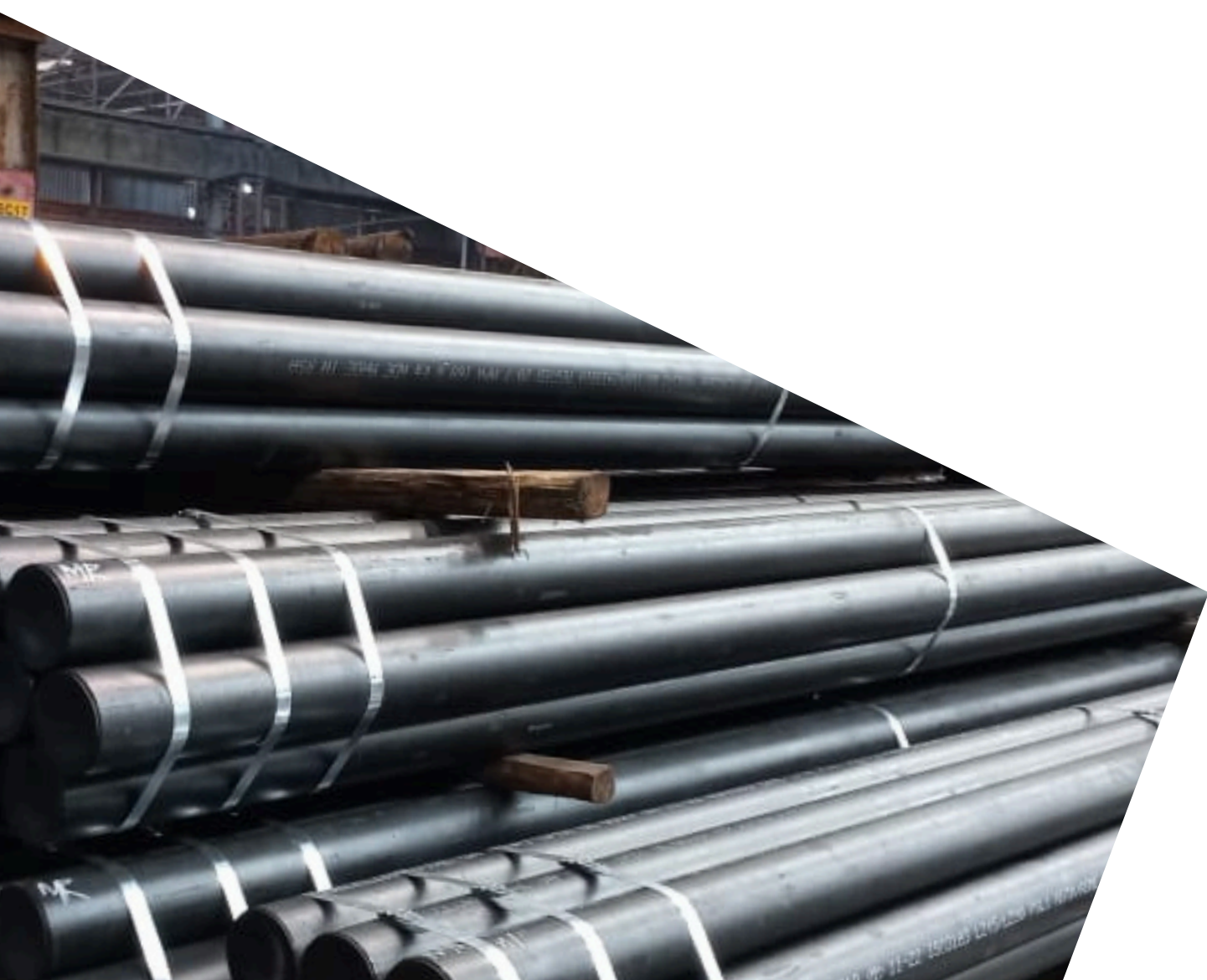
Tubes can either be supplied bare (without coating) or be coated with either a black primer or oil for protection against rust.

Lengths

All lengths are cut to a tolerance of -0mm, + 25mm.

Marking

Identification marking is applied on every pipe by paint stencilling along the length of the pipe. Additional information pertaining to the bundle is printed on a weatherproof plastic label which is attached to the bundle.







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