

Akmermer boru

Spiral Welded Steel Pipe

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AKMERMER DEMİR ÇELİK TİCARET ve SAN. LTD. ŞTİ.

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We as Akmermer Boru started commercial activities in 1977 with the trade of construction materials in Demirciler Sitesi in Ankara as a sole private company Mustafa Kemal Akmermer Unlimited Company continued with iron and steel trade, rolling mill investment and steel production between 1987 and 1997 in Payas/İskenderun .Our company was converted into a limited company in 1994 and moved to Ankara in 1997.

Akmermer Boru has taken its place in the sector in Ostim/Ankara as iron steel trade and laser-plasma cutting center by targeting the maximum customer satisfaction with its wide range of products.

Akmermer Boru has become a preferred place in the iron and steel industry due to its sector experience and customer satisfaction.

Akmermer Boru has started spiral welded steel pipe production in 2017 with its investment in Başkent Organized Industrial Zone in 2016.

Akmermer Boru has transferred its experience in iron and steel industry to spiral welded pipe production and keeps every factor that ensures customer satisfaction foremost Quality Control at the highest level.

Akmermer Boru has been increasing its products variety and market share by following the latest technologies and current standards and supplying high quality spiral welded steel pipes to the global market.

AKMERMER PIPE VISION

We as AKMERMER Boru aim to be a reliable and good brand with its high quality, reliable, socially beneficial and environmentally sensitive products and services.

AKMERMER PIPE MISSION

We as AKMERMER Boru aim to provide benefits to our business partners as well as to the economy by producing high value added products, and to focus on sustainable and profitable growth in all our activities.

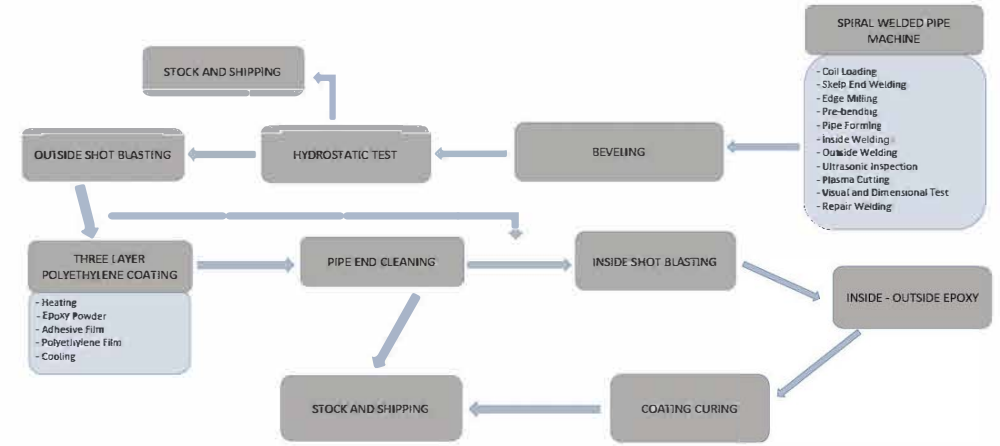


SPIRAL WELDED STEEL PIPE

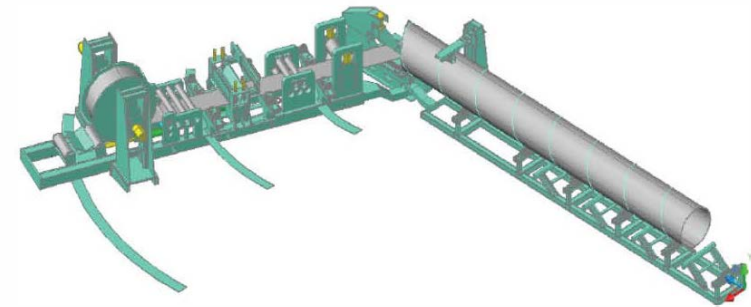
Spiral welded steel pipes are produced from high quality hot rolled steel coil. Steel coils supplied according to customer requirements are subjected to chemical and mechanical input tests, firstly visual and dimensional tests. Test results is checked by comparing it with the test certificates from the steel manufacturer and the relevant standards. The spiral pipe production process is realized by calculating the spiral angle according to the coil width and the pipe diameter to be produced. The steel coil to be produced is first opened and placed in the coil loading section of the spiral pipe machine. The straightened coil in the flattening unit is brought to a constant width by passing through the edge milling units and prepare strip edge bevelled. The pre-bending rollers bend the strip edges and provide a suitable joining form before welding. In the forming unit; The front and back forming rollers and the top forming head are adjusted to the desired diameter. Single or tandem wire submerged arc welding method is used for internal welding of the pipe. Then the external welding of the pipe is carried out by the same methods after the pipe has fed. On-line automatic ultrasonic inspection method is performed on pipe outlet conveyor. The pipe is cut to the desired length by plasma cutting method, and each pipe produced to provide traceability is numbered. Thus, the production process in the spiral pipe machine ends.



After the pipes are cut, visual and dimensional controls are carried out internally and externally according to the relevant standards. Repair of the defects on automatic submerged arc welding is completed and rechecked. Then the pipe ends are bevelled and hydrostatic tests are carried out according to the customer requirements. If the pipes are bare, they are sent to the storage area for shipment or to the corresponding coating section for coating. After cleaning the surface with internal and external shot blasting, coating processes are performed. After finishing the coating process, pipe end cleaning and, if required, pipe end expanding, production process ends. In each of these processes, visual and dimension inspections, both destructive and non-destructive inspection procedures are carried out in accordance with relevant standards, specifications and customer requirements.

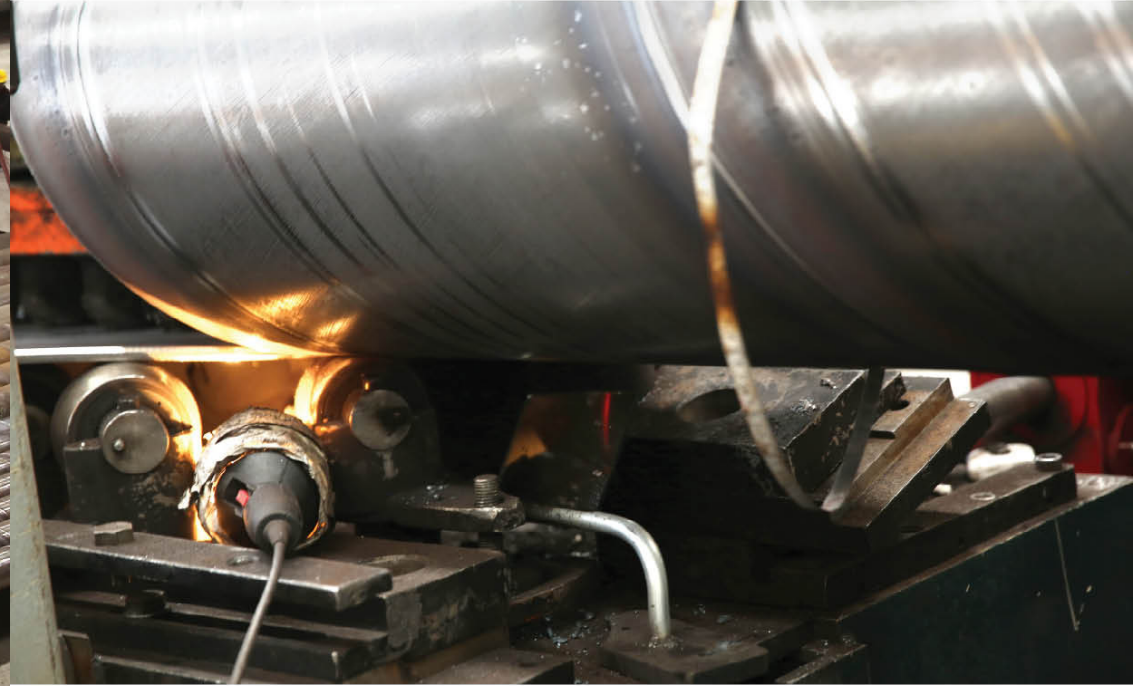


1. SPIRAL WELDED STEEL PIPE MACHINE



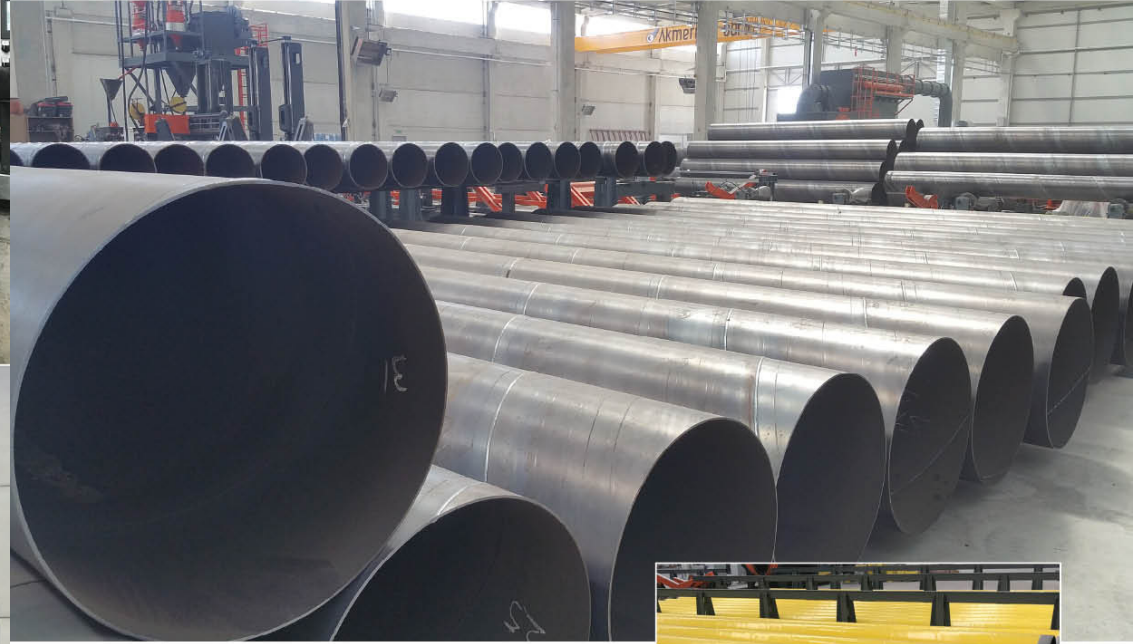


- Water Line Pipes
- Tubular Piles
- Hydroelectric Power Plant Projects
- Sewage Pipes
- Steel Structural Piles
- Drilling Pipes
- Geothermal Pipes





Annual Production	: 50.000 ton
Pipe Diameter	: Ø219,1 - Ø1422,4 mm.(2032 mm acc. to ASTM 252/EN 10219-1/2)
Wall Thickness	: 4,0 - 20 mm
Pipe Joint Type	: Bevelled , cylindrical socket, spherical socket
Row Material	: Hot rolled steel coil
Welding Process	: Internal and external submerged arc welding (SAW)
Row Material	: EN 10025-02 S235JR-S355K2 , API 5L GrB - X70
Production Standards	: TS EN 10217-1, TS EN 10219-2, TS EN 10224, ASTM A53, ASTM A252
Three Layer Polyethylene Coating	: DIN 30670 , TS 5139 , AWWA C215 , NF A 49 - 710
Internal and External Epoxy Coating	: TS EN 10289 , AWWA C210 , NF A 49 - 709



COATING AND LINING

External Polyethylene Coating
AWWA C 215,DIN 30670,TS 5139,NF A 49710

External Polypropylene Coating
AWWA C 215,DIN 30678,TS 5139,NF A 49711

INTERNAL & EXTERNAL COAL-TAR ENAMEL COATING
AWWA C 203,BS 4164

INTERNAL & EXTERNAL EPOXY COATING
AWWA C 210,TS EN 10289, NF A 49709

INTERNAL&EXTERNAL POLYURETHANE COATING
EN 10290





Surface Cleaning

Before the coating, the inner and outer surfaces of the pipe are cleaned from the materials such as rust, oil and dust which are found on the surface of the skelp or from the pipe production processes and the surface roughness required for the coating is provided. This process is carried out with shotblasting turbines that rotate at high speed by using grit and steel shot in internal and external shotblasting machines. Internal surface cleaning of small diameter pipes is performed by pneumatic blasting method. Sa 2½ - Sa 3 surface quality is achieved and the required tests are performed according to the relevant standards.



In order to protect the steel pipe surface against corrosion, epoxy paint systems on the inner and outer surfaces of the pipe are the preferred application. This coating is one of the most common types of coating used in water line pipes, sewage pipes, piles and hydroelectric power plant projects. The application is carried out automatically with airless paint pumps. According to customer requirements, purpose of application and thickness; epoxy primer, zinc-rich epoxy, solvent-free epoxy, epoxy coal-tar and other epoxy topcoat paints are applied in one or several layers of paint.



Outside Epoxy Powder Coating

Epoxy powder coating applied as a single layer on the outer surfaces of pipes is an economical coating application which provides resistance against corrosion in places where impact resistance is not desired.

**Polyethylene Coating**

In polyethylene coating, PE raw material is used as a thermoplastic polymer. This type of coating, which has two types of low or high density polyethylene, is highly resistant to impacts and corrosion. Polyethylene coating; epoxy powder , adhesive and polyethylene are applied as three layers. Coating Processes:

- . Heating
- . Epoxy Powder
- . Adhesive Film
- . Polyethylene Film
- . Cooling
- . Holiday Test
- . Pipe and Cleaning (Cut-back)



QUALITY CONTROL

Quality control processes include destructive and non-destructive inspections, from the raw material input to the final product stage. It covers all activities that guarantee of the product within the scope of customer requirements and related standards.



Main Quality Control Activities

- Hydrostatic Test
- On-Line Ultrasonic Inspection
- Manual Ultrasonic Inspection
- Liquid Penetrant Testing
- Mechanical tests
- Visual and Dimensional Inspection
- Blasting Material Salt Test
- Surface Comparison Test
- Surface Roughness Test
- Surface Salt/Dust Test
- Ambient Conditions and Pipe Temperature Control
- Holiday Test
- Wet and Dry Film Thickness Control
- Polyethylene Adhesion Test
- Hardness Test
- Painting Adhesion Test

TRANSPORTATION

Following the completion of the production, the Steel pipes are shipped in safe to end users
by trucks,by railway,by containers,by vessels.



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