



2023

**SSAW PIPE
MACHINE LINE**



**SPIRAL STEEL PIPE
SUBMERGED ARC
WELDING MACHINERY**



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TECHNICAL SPECIFICATIONS

In the spiral welded steel pipe machine, the pipes are produced by making the sheets loaded into the machine in roll form spiraling with the sheet bending system we have specially designed, and by welding the sheet that is bent from the spiral line with the submerged arc welding method, internally and externally.

Spiral Arc Welding Machine cuts the pipes with plasma cutting while production line doesn't stop.

Thanks to this, maximum performance is achieved.

SUBJECT	:SPIRAL STEEL PIPE MACHINE
PIPE DIAMETER	: Ø 609-4000 mm
SHEET STEEL THICKNESS	:6 -25,4mm

COILSPECIFICATIONS

MATERIAL	:Upto X70
PIPE THICKNESS	:6 mm- 25,4mm
COIL INSIDE DIAMETER	:500-900 mm
COIL WIDTH	:750-2000mm
COIL WEIGHT	:35Tons

ELECTRICAL INFORMATION

ELECTRICAL INFORMATION AND POWER REQUIREMENT

Electricity Distribution System

: 3 Phase + Neutral + Grounding Voltage

Itage and Frequency

: 3 x 380 V ($\pm 5\%$), 50 Hz.

Power Factor (Cos ϕ)

: 0.7 - max. 1

MACHINE COMPONENTS

UNCOILER SECTION



In this section, Bobbins are taken to holder by bobbin car. Then, Hydraulic cylinder pushes the sides to be closed and lifts the bobbin up to finish loading. Moving slide of sides are covered with bronze plates.

SIDE SUPPORT



Side support, operating like a guide, ensures that sheet metal is transferred to pre-feeder. By doing this, sheet is transferred to next section of the line in preferred direction.

MAIN CHARGER



Sheet is passed to forming unit by specially designed drive system that has planetary gearreducer.

BAND STRAIGHTENIN

In this part, fluctuations in the sheet are removed and the surface is flattened. This process is carried out by applying pressure to the sheet between the upper and lower rollers, by hydraulic cylinders at the top.



FORMING UNIT



This section is where sheet metal is formed. Sheet is bent at the desired rate and inner welds done here

PLASMA CUTTING

Bent and welded pipes are cut at the desired length in this section. Plasma Cutter's torch is mounted here. As soon as the pipe reaches to desired length, a switch turns on the plasmacutter automatically. And cutting operation begins.

Pipe cutting: Hypertherm Max 200 plasma



END WELDING MACHINE

It is the part where two consecutive sheets are welded to each other. If the production shall continue at the same extent when the first loaded roll is finished, the new roll is welded to the end of the finished roll in this part to ensure the continuation of production.



BAND EDGE MILLING FEATURES

It is the part where the welding mouth is opened on both sides of the sheet. This process takes place by removing chips from both sides of the sheet by special cutting bits rotating around their own axis while the sheet is moving on the line.



VSUPPORT

This section ensures that pipe moves linearly in the production line.



OUTSIDE WELDING



It is the part where outer part of the pipe is welded with submerged arc welding method. The torch can move in 5 different axes. The system is mounted on the outsourcing tower.

PIPE OUTLET SECTION

In this section, pipes that are cut with plasma cutter are sent to stand section.



UNCOLIER SECTION

MATERIAL : Upto X70

PIPE THICKNESS :6,00mm-25,4mm

COIL INSIDE DIAMETER : 500-900 mm COIL

WIDTH :750- 2000mm

COIL WEIGHT :35 Tons

AUXILIARY CHARGER

DRIVEPOWER : 22 KW AC X 2

PIECESREDUCERTYPE -DRIVECONNECTION

:PLANET-POSTx2

PRESSUREPISTON :Ø250

ROLLER DIAMETER :Ø340 MM

SPEED :max 2,5 m/min

BAND STRAIGHTENIN

PRESSUREPISTON :Ø250xØ160MM
ROLLERDIAMETER :Ø360MM
NUMBEROF ROLLER : BOTTOM3x4TOPPIECES

SIDE SUPPORT

ROLLER MATERIAL : 42 CrMo4
SURFACE : HARD AND
GROUNDADJUSTMENT MECHANISM :
HYDRAULIC PISTON

END WELDING

MOVEMENTGUIDES :LINEARSLIDE
CLAMPMOVEMENT : HYDRAULICPISTONCUTTING
:PLASMA CUTTING
WELDING :SUBMERGED ARC
Cutting : Hypertherm Max 200 plasma
Welding : Lincoln DC1500 Tandem

BAND EDGE MILLING FEATURES

COIL WIDTH CAPACITY : 750-2000 MMCOIL
THICKNESS :MAX 30 MM

MAIN CHARGER FEATURES

DRIVEPOWER : 55 KW AC X 2 PIECES
REDUCERTYPE -DRIVE CONNECTION: PLANET
ROLLERDIAMETER :Ø500 MM
SPEED :max 2,5 m/min
ROLLS MATERIAL 4140
SURFACE : 4-8 mm deep,induction hardened with 55-60 HRC4-8 mm
deep,inductionhardened with 55-60 HRC

HYDROTEST

- PIPE DIAMETER :Ø609 mm, Ø4000 mm
- PIPE LENGHT : 6 mt ile 12 mt
- 3000 tons



BEVELING

- PIPE DIAMETER :Ø609 mm, Ø4000 mm
- PIPE LENGHT : 6 mt ile 16 mt
- PIPE THICKNESS : 6 mm ile 25 mm
- 30° ± 5,0 tolerance

