

# Gedik Engineering



*Joining. For life.*

# INDEX

<b>PAY OFF WIRE ROD PAY OFF</b> _____	4
<b>PAY OFF WIRE PAY OFF FOR SPOOL</b> _____	4
<b>SAND MACHINE WIRE SANDING MACHINE</b> _____	5
<b>DRY DRAWING DRY WIRE DRAWING MACHINE (WITH 10 CAPSTAN)</b> _____	5
<b>DRY DRAWING DRY WIRE DRAWING MACHINE (WITH 6 CAPSTAN)</b> _____	6
<b>WET DRAWING WET WIRE DRAWING MACHINE</b> _____	6
<b>SPOOLER WIRE WINDING MACHINE Ø 800 mm</b> _____	7
<b>SPOOLER WIRE WINDING MACHINE Ø 1000 mm</b> _____	7
<b>WIRE CUT WIRE STRAIGHTENING AND CUTTING MACHINE</b> _____	8
<b>MIXER DRY VERTICAL POWDER MIXER</b> _____	8
<b>MIXER WET MIXING MACHINE FOR FLUX</b> _____	8
<b>ELECTRODE PRESS VERTICAL ELECTRODE PRESS LINE</b> _____	9
<b>FURNACE DRYING FURNACE FOR ELECTRODES</b> _____	9
<b>FURNACE DRYING FURNACE FOR ELECTRODES Double Zones</b> _____	10
<b>WIRE THREATMENT COPPER COATING BATH</b> _____	10
<b>PACKING PRECISION LAYER WINDING MACHINE</b> _____	11
<b>PACKING PRECISION LAYER WINDING MACHINE</b> _____	11
<b>PACKING SEMI AUTOMATIC ELECTRODE PACKING LINE</b> _____	12
<b>ACCESSORIES HYDRAULIC TILTING UNIT</b> _____	12

## WIRE ROD PAY OFF



Technical Features	
Drum Vertical Height	3 m
Maximum Load On Each Drum	3000 kg
Height of pay-off	7 m
Maximum Wire Rod Diameter	6.5 mm
Safety	Wire tangling prevent system

## WIRE PAY OFF FOR SPOOL



Wire pay off machine is mounted on a vertical column as seen on the picture. There are guiding pulleys that takes the wire from the spool located on the flange.

Technical Features	
Spool Diameter	1000 mm
Dimensions	2.6 x 1.7 x 2.8 m



## SANDING MACHINE



This machine is used for the cleaning of the wire that comes from the descaling machine as the surface of the wire has been cleaned away from the particulars roughly, to make fine surface mechanical cleaning to clean the hot, stuck particulars, this brushing machine is used.

Technical Features	
Maximum Wire Diameter	Ø 6.5 mm
Maximum Wire Speed	4 m/s
Dimensions	2.2 x 1.4 m

## DRY DRAWING

### DRY WIRE DRAWING MACHINE (WITH 10 CAPSTAN)

Synchronization of speed controlled by dancers between the drawing capstans. By means of speed control, the negative effects of die wearing out are prevented.

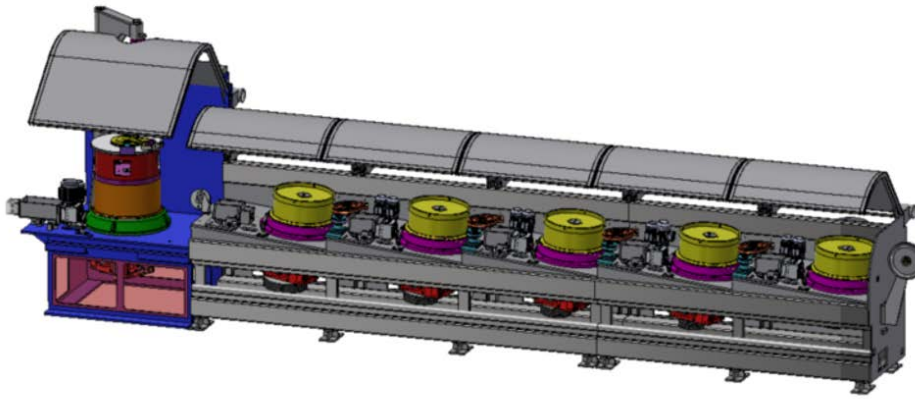
All the wire drawing capstans are tungsten carbide coated. Wire drawing capstans and dies are water cooled. All capstans can start and work either individually or all together. Each motor has separate pneumatic brake system. This machine is designed for the drawing process of low - carbon wires.



Technical Features	
Number of Blocks	10
Maximum Wire Inlet Diameter	Ø 6.50 mm
Minimum Wire Outlet Diameter	Ø 1.90 mm
Maximum Speed	15 m/s
Capstan Diameters	First block 630mm, rest 560 mm
Dimensions	14 x 2.4 m

## WIRE DRAWING MACHINE (WITH 6 CAPSTAN)

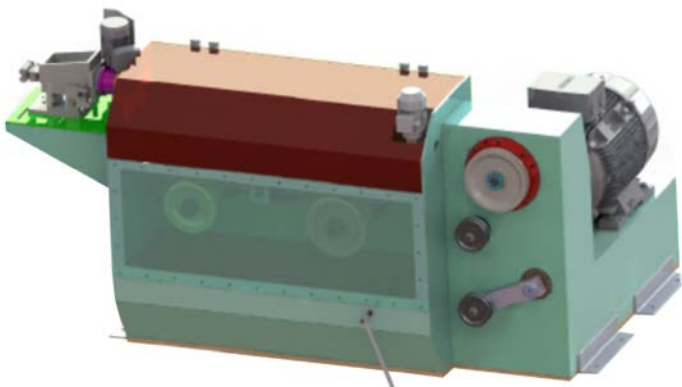
Technical Features	
Maximum Speed	6
Wire Material	Low Carbon Wires For Electrode
Wire Inlet Diameter	Max. Ø 5.50 mm
Wire Outlet Diameter	Min. Ø 2 mm
Machine Speed	Max. 14 mt/sec.
Diameter Of Blocks	First blocks' diameter is 630 mm and others are 560 mm



## WET DRAWING

### WET WIRE DRAWING MACHINE

It is an oblique constructed wire drawing machine which works on liquid lubricant with pumps and excessive lubricant tank. Wire drawing rings and wire drawing block are tungsten carbide



Technical Features	
Maximum Speed	15 m/s
Maximum Wire Inlet Diameter	Ø 2.10 mm
Minimum Wire Outlet Diameter	Ø 0.60 mm
Lubricant Tank Size	1500 liters
Dimensions	2.2 x 2 x 1.3 m

## WIRE WINDING MACHINE Ø 800 mm



The wire on the drawing machine is electronically and mechanically synchronized and wound on the spool which is located on wire winding machine.

Technical Features	
Maximum Speed	30 m/s
Spool Information	Max. 800 mm and it will be in accordance with DIN 46397
Travers	Driven by main motor

## WIRE WINDING MACHINE Ø 1000 mm



The wire on the drawing machine is electronically and mechanically synchronized and wound on the spool which is located on wire winding machine.

Technical Features	
Maximum Speed	15 m/s
Spool Information	Max. Ø 1000 mm and it will be in accordance with DIN 46397
Dimensions	2.3 x 2 m

## WIRE STRAIGHTENING AND CUTTING MACHINE

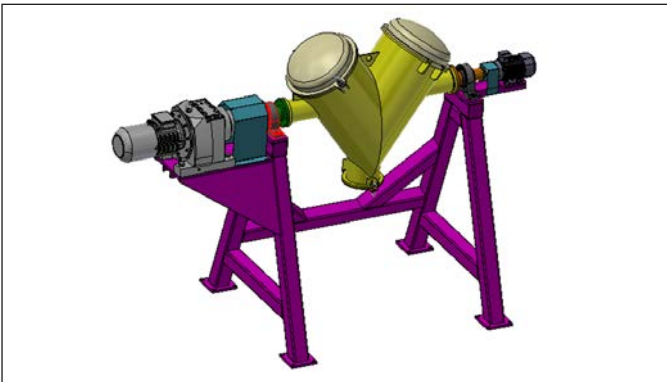


### Technical Features

Wire Cutting Diameters	Ø 2.00 mm - Ø 5.00 mm
Wire Cutting Speed	Max. 350 m/min

## MIXER

### DRY VERTICAL POWDER MIXER



### Technical Features

Diameter of the Container	500 mm
Length of the Container	650 mm

### WET MIXING MACHINE FOR FLUX

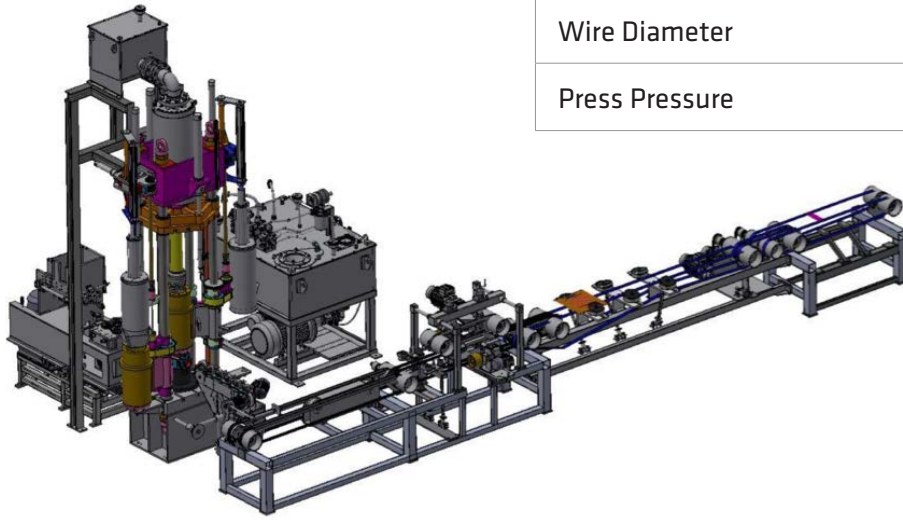


### Technical Features

Batch Total Capacity	750 Liter
Dimension (closed)	1500 x 1900 x 2400 mm



## VERTICAL ELECTRODE PRESS LINE



Technical Features	
Wire Feeding Capacity	85 - 950 pcs / min
Wire Diameter	Ø 2,00 - Ø 5,00 mm
Press Pressure	Max. 350 bar

## FURNACE

### DRYING FURNACE FOR ELECTRODES



The wire on the drawing machine is electronically and mechanically synchronized and wound on the spool which is located on wire winding machine.

Technical Features	
Dimensions of the Furnace	27 x 2.7 x 3.5 m
Heating	Natural Gas
Gas Power	250 kW
Capacity of the Furnace	2500 kg / h
Power of Fan	5.5 kW, 7.5 kW
No. of Fans	8
Trolley Movement	Rack & Pinion Pushing

## DRYING FURNACE FOR ELECTRODES Double Zones



Technical Features	
Heating	Natural Gas
Gas Power	150 kW X 2
Maximum Temperature	450 °C
Temperature Control	PID Control
Capacity of the Furnace	150,000 pcs per Charge
Power of Fan	22 kW x 2

## WIRE TREATMENT

### COPPER COATING BATH



This bath is used for the copper coating process of the wire which comes out from the wet drawing line. Copper coating bath consists of 3 units. Each unit has a circulation pump. Wire is cleaned by air valves before leaving each bath.

Technical Features	
Construction	The base of the bath is made of AISI 316 stainless steel, and the body of the bath will be made of polypropylene. There are also protection covers on the bath.
Units	<ol style="list-style-type: none"> <li>1. Acid cleaning</li> <li>2. Copper coating</li> <li>3. Water rinsing of copper coated wire</li> </ol>
Pulleys	All pulleys the are ceramic

## PRECISION LAYER WINDING MACHINE



The body of this machine is made of very strong construction to resist the high speed. As seen on the drawing that this is the most important part of the whole system.

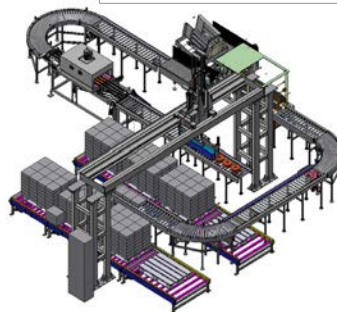
Technical Features	
Speed	30 m/s
Spool Capacity	Max Ø 800 mm. According to DIN 46397
Spool Types	K300, BS300, Plastic Spools 300/180/90
Wire Diameter Range	0.6 – 1.6 mm
Traveler	Servo motor
Brake	Pneumatic Disc

## PRECISION LAYER WINDING MACHINE

The automatic cartesian palletizers have 2 servo controlled linear axes which picks up the unpacked product to the conveyor. Unpacked products are packed by stretching and boxing unit. Product boxes are rotated to right direction according to the recipe. And placed to the new pallet vertically or horizontally.



Technical Features	
Capacity	330 spools/h
Repeatability:	± 2 mm
Horizontal Axis Speed:	1.5 m/s
Vertical Axis Speed:	0.6 m/s





## SEMI AUTOMATIC ELECTRODE PACKING LINE

Electrode counter and grouper Box Shrinking Unit



## ACCESSORIES

### HYDRAULIC TILTING UNIT

Tilting unit changes the direction of spool from horizontal position to vertical position. The unit will be mounted at the level of ground elevation







 **Gedik Welding**

Ankara Cad. No: 306 Şeyhli 34906  
İstanbul / Turkey  
T +90 216 378 50 00  
F +90 216 378 20 44  
[www.gedikwelding.com](http://www.gedikwelding.com)



 **Gedik Advanced Casting Technologies**

Ankara Caddesi No: 306 Şeyhli 34906  
İstanbul / Turkey  
T +90 216 307 12 62  
F +90 216 307 28 68-69

**Factory**  
Sakarya 2.OSB 11 No'lu Yol No: 6 54300  
Hendek Sakarya/ Türkiye  
T +90 264 290 12 00  
F +90 264 290 12 21  
[www.gedikcasting.com.tr](http://www.gedikcasting.com.tr)



 **Gedik Thermo Valve**

Ankara Caddesi No: 306 Şeyhli 34906  
İstanbul / Turkey  
T +90 216 307 12 62  
F +90 216 307 28 68-69

**Factory**  
Sakarya 2.OSB 11 No'lu Yol No: 6 54300  
Hendek Sakarya/ Türkiye  
T +90 264 290 12 00  
F +90 264 290 12 21  
[www.gediktermovalve.com](http://www.gediktermovalve.com)



 **Gedik Education Foundation**

Ankara Caddesi No: 306  
C Blok Şeyhli 34906  
İstanbul / Turkey  
T +90 216 378 50 00  
F +90 216 378 20 44  
[www.gedikgitimvakfi.org.tr](http://www.gedikgitimvakfi.org.tr)



 **Gedik Test Center**

Ankara Cad. No: 306 Şeyhli 34906  
İstanbul / Turkey  
T +90 216 378 50 00  
F +90 216 378 20 44  
[www.gediktest.com](http://www.gediktest.com)



 **Gedik University**

Cumhuriyet Mahallesi,  
İlkbahar Sk. No: 1-3-5  
34876 Yakacık / Kartal  
İstanbul/ Turkey  
T +90 216 452 45 85  
444 5 438  
F +90 216 452 87 17  
[www.gedik.edu.tr](http://www.gedik.edu.tr)



# Gedik Engineering

Ankara Caddesi No: 306 Şeyhli 34906 İstanbul / Türkiye  
T +90 216 307 12 62 • F +90 216 307 28 68-69  
[info@gedikengineering.com](mailto:info@gedikengineering.com)



**Gedik Holding**  
*since 1963...*