



A trademark owned by
SUPTEK A.S.

Brief Introduction



- **Rubber** parts manufacturer for automotive, home appliance, defense and machinery industries
- Private incorporated company since 1967
- 150 employees
- 2 shifts & 6 days/week



MORE THAN 50 YEARS EXPERIENCE IN RUBBER!

Quality Management



- ISO 9001, IATF 16949, AS9100; ISO 14001 and ISO 45001 based quality system
- Rubber material meeting RoHS environmental criteria
- Part dimensions and tolerances set according to international norms (DIN 3760, DIN 3761 and ISO 6194)
- Occupational health and safety board effective. Company collaborating with a COHA (common health and safety agency) to meet legal requirements



▪ Rotary Shaft Seals

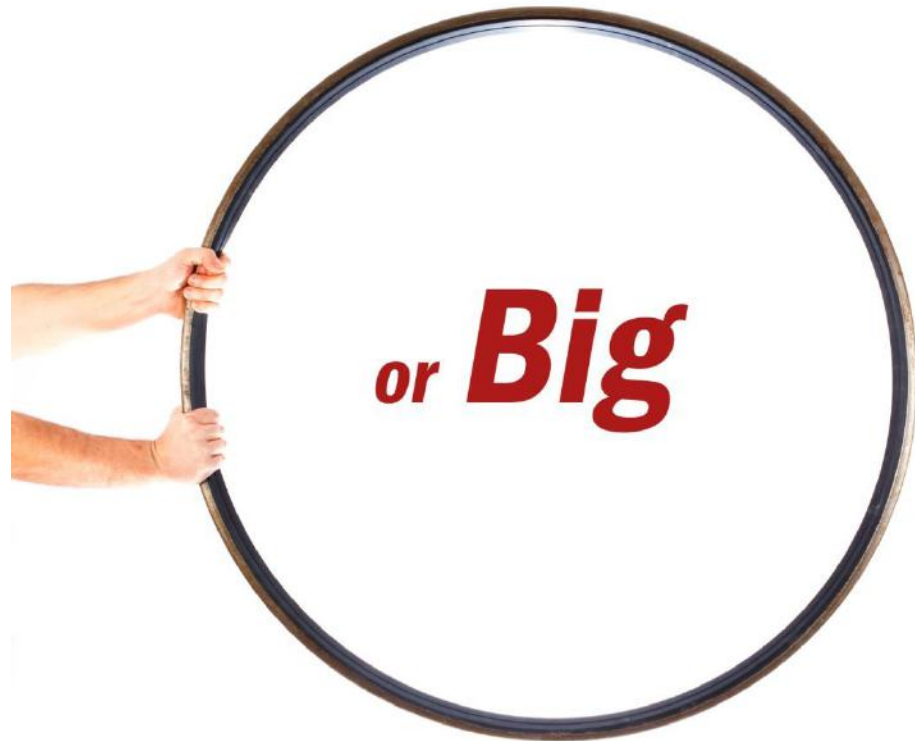


- Minimum
RSS size
4.5x16x7 mm
- Maximum
RSS size
960x1020x25
mm

Whether small,



or Big



Products (General industrial)



Non-pressure nitrile seals

0.5 bar pressure differential,
10 m/s rotational speed
-30/+110°C temperature range



Non-pressure fluorocarbon seals

0.5 bar pressure differential,
20 m/s rotational speed
-25/+225°C temperature range



Non-pressure silicone seals

0.5 bar pressure differential,
15 m/s rotational speed
-60/+200°C temperature range



Special (e.g. mixer) seals

No positive pressure,
1.0 m/s rotational speed,
-30/+110°C temperature range

Products (Automotive)



Flanged PTFE-lip crankshaft seal

**0.5 bar pressure differential,
30 m/s rotational speed
-20/+275°C temperature range**



Axle seal

**0.5 bar pressure differential,
20 m/s rotational speed
-25/+225°C temperature range**



Cassette seal for crankshaft

**0.5 bar pressure differential,
20 m/s rotational speed
-25/+225°C temperature range**



Transmission seal

**0.5 bar pressure differential,
20 m/s rotational speed
-25/+225°C temperature range**

Products (Caliper)



Nitrile dust cover

No positive pressure,
1 m/s linear speed,
-30/+110°C temperature range



Silicone dust cover

No positive pressure,
1 m/s linear speed
-60/+200°C temperature range



Caliper housing gasket

No positive pressure,
Static sealing,
-30/+110°C temperature range

Products (White goods)



Nitrile washing machine seal

**No positive pressure,
2 m/s rotational speed,
-30/+110°C temperature range**



EPDM washing machine seal

**No positive pressure,
2 m/s rotational speed,
-50/+150°C temperature range**



Bellows for fridge compressor

**No positive pressure,
Static sealing,
-25/+225°C temperature range**

Products (Agriculture)



PTFE-lip cassette seal for crankshaft
0.5 bar pressure differential,
30 m/s rotational speed
-35/+150°C temperature range

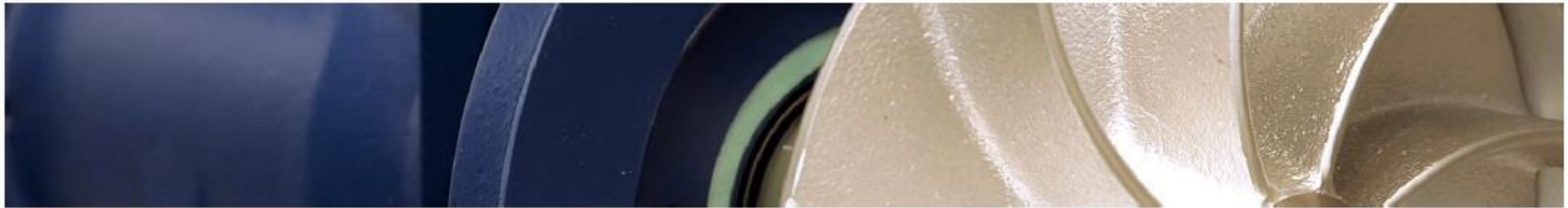


Sensor shaft seal
No positive pressure,
No complete rotation,
-25/+80°C temperature range



Diaphragm for agrochemical pump
50 bar pressure,
30 m/s rotational speed,
-30/+110°C temperature range

Products (PTFE-lip seals)



Clamped PTFE-lip seal, carbon reinforced

35 bar pressure,
30 m/s rotational speed,
-150/+250°C temperature range



Clamped PTFE-lip seal, virgin PTFE

35 bar pressure,
30 m/s rotational speed,
-250/+225°C temperature range



AEM-bonded PTFE-lip seal

0.5 bar pressure,
30 m/s rotational speed,
-35/+150°C temperature range

Hydraulic & Pneumatic Seals



Products (Hydraulic)



Compact piston seals

400 bar pressure,
0.5 m/s linear speed,
-30/+110°C temperature range



PU rod seals

400 bar pressure,
0.5 m/s linear speed,
-25/+80°C temperature range



PU wipers

1 m/s linear speed,
-25/+80°C temperature range,



Wear rings

1 m/s linear speed,
-40/+110°C temperature range,

Products (Pneumatic)



Compact piston seal

15 bar pressure,
1.0 m/s linear speed,
-30/+110°C temperature range



NBR piston seal

10 bar pressure,
1.0 m/s linear speed,
-30/+110°C temperature range



PU piston seal

15 bar pressure,
1.0 m/s linear speed,
-25/+80°C temperature range



Rod and dust seal

15 bar pressure,
1.0 m/s linear speed,
-25/+80°C temperature range

Products (Static)



Gearbox end cover

0.5 bar pressure differential,
Static sealing,
-30/+110°C temperature range



Bearing cover

No positive pressure,
Static sealing,
-30/+110°C temperature range



Bonded washer

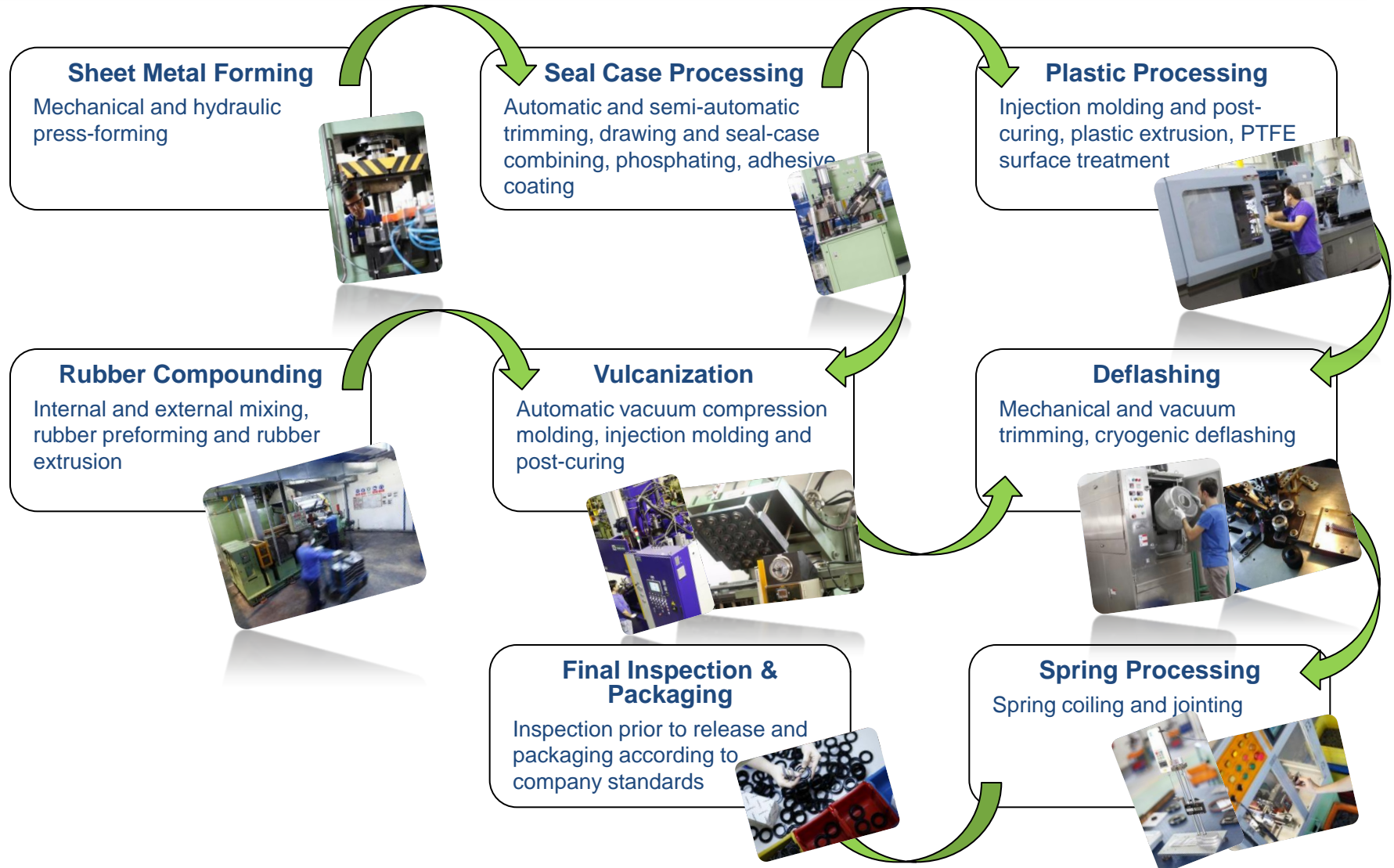
>500 bar pressure differential,
Static sealing,
-25/+225°C temperature range



Nitrile square ring

No positive pressure,
Static sealing,
-30/+110°C temperature range

Process Map

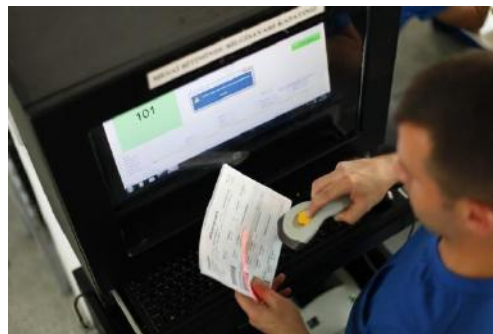


Machinery Park-Compound



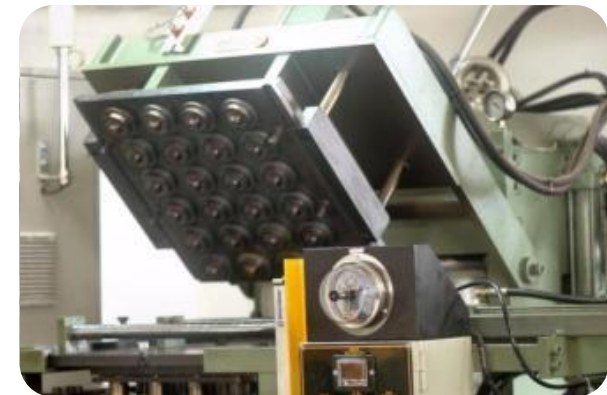
- Banbury: One line
- Open Mixer: Three lines
- Coloured Compound Available
- NBR, NR, SBR, VMQ, FKM, AEM, ACM, EPDM, HNBR, ECO, CR, CSM

Machinery Park-Vulcanization



Rubber Injection
Rubber Compression
Rubber Extrusion
Plastic Injection

16– 350 t



ERP Integrated Production

Machinery Park-Metal Forming



**Eccentric Presses
Hydraulic Presses**

30– 315 t



Machinery Park-Metal Surface Treatment



Phosphate coating

Zinc-phosphate coating



Adhesive coating

rubber-to-metal bonding for nitrile, FKM and silicone



Sandblasting

sandblasting to support adhesion



PTFE surface treatment

vacuum plasma at 0.20 mbar and wet etching

Machinery Park-Spring Coilers&Jointers



Spring Coiler



Spring Jointer



Spring Force Measurement

Machinery Park-Other



Mechanical and vacuum trimming



Cryogenic deflashing



Washing&Drying



PTFE Etching

The Factory (finishing)



Mechanical trimming

vacuum and collet chuck cutting



Cryogenic deflashing

as low as -130°C



Spring coiling & jointing

up to 1,600 mm automatic coiling and 300 mm jointing



Tool production

machining up to 1 m in diameter

Final Processes



Spring Assembly



Final inspection and packaging stations



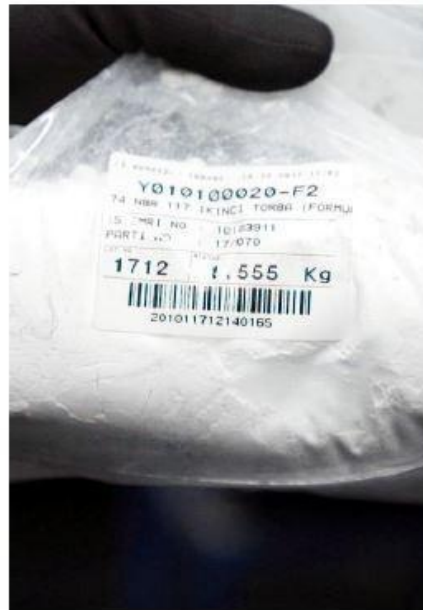
%100 visual quality control

The Factory (infrastructure)



ERP-based planning & production

work orders data collected on integrated terminals



Tracability in raw materials

traceability of materials from finished part to ingredients



Extensive inventory of tools

thousands of steel forming and rubber/plastic molding tools



FIFO-based inventory management

all barcoded finished products, stored and released as per FIFO



CNC Presses

**Inhouse CAD/CAM
supported tooling**

**More than 90% of the
tools are supplied
inhouse**

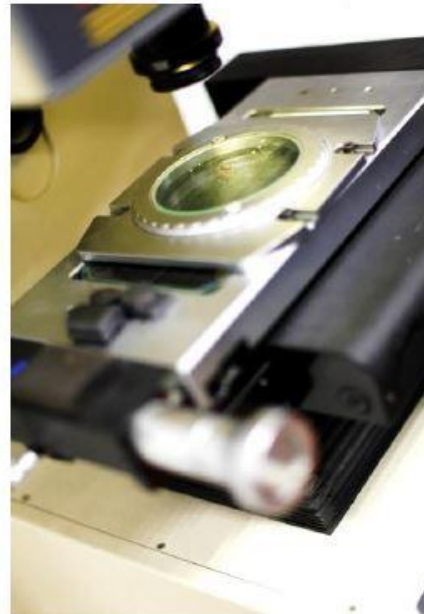


The Factory (measurement)



Materials lab

all rheological, mechanical and aging tests



Dimensional measurement

CS profiling, radial force reading, endoscopic imagery



Spring tensile testing

inspection for F_0 , F_5 and F_{10} of the extension springs



Performance & life testing

pressurized rotary shaft, reciprocating hydraulic

Suptek has an



T.C. SANAYİ VE
TEKNOLOJİ BAKANLIĞI

Approved R&D Center.

What can we measure about materials?

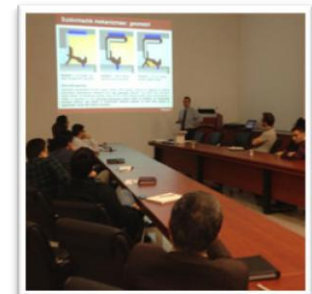
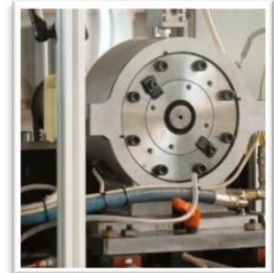
- rheological data
- hardness
- density
- ash content
- tensile strength
- elongation
- tear strength
- bonding strength
- abrasion resistance
- compression set
- rebound resilience
- flex fatigue
- water resistance
- steam resistance
- chemical aging
- thermal aging



all done in-house!

Our engineering capabilities

- cross-section profiling
- radial force measurement
- surface roughness measurement
- thermal camera reading
- stereo-microscopic inspection
- endoscope imagery
- CAD/CAM supported tooling
- proprietary apparatus design
- new product development according to IATF 16949
- rotary seal life testing
- hydraulic seal life testing



all done in-house!

- customer on-site training

References-Industry



Domestic exclusive dealer network throughout the entire country

 **arçelik**

VESTEL

gorenje *Life Simplified*



Ege Fren
 MERITOR.

IVECO

Otokar

**ANADOLU
MOTOR**

Daima yanında

aselsan

 **roketsan**


HAVELSAN®

References-Other

 **Suptex**



ERKUNT
ÇİFTÇİNİN GÜCÜ



