ASCOMETAL offers:

› A comprehensive network based in France;
› Complementary production processes (continuous casting and ingot process);
› Diversified sources of supply;
› Fully controlled process and quality tracking.

2 manufacturing facilities: Fos-sur-Mer, Hagondange.

The Dunes factory specializes in products with large cross-sections, heat treatments and cold finishing.
Products

<table>
<thead>
<tr>
<th>Type</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolled round bars</td>
<td>80 to 300mm</td>
</tr>
<tr>
<td>Peeled round bars</td>
<td>76 to 300mm</td>
</tr>
</tbody>
</table>

Main markets
Mechanical and Energy Industries.
The Dunes mill finishes products of large diameters and long lengths, delivered throughout the world. Dunes offers customized contract processing including heat treatment, testing and peeling.

Heat treatments
- **10 AMS 2750 and API 6A** compliant installations: quenching, tempering, stress relieving.
- Annealing furnaces (normalizing, softening, spheroidized annealing, isothermal annealing...).

Finishing and inspections
- Straightening, roller burnishing and sawing equipments with tight tolerances: from 80mm to 310mm.
- Peeling capacity from 80mm to 300mm in h10.
- **The optional ultrasonic bench controls 100% of the volume and detects faults of type AVG 1** (with angle beams). It meets the most demanding specifications according to API 7.1. On-line checks: surface defects by eddy current, magnetic particle inspection.
- Inspections and tests: all tests of mechanical characteristics, micro and macro cleanliness and structure controls are carried out in our **ISO CEI 17025** laboratory.

Certifications
- ISO 9001
- IATF 16949
- ISO 14001
- OHSAS 18001
- CE138
- ISO CEI 17025
- ISO 50001

Accreditations
- ABS
- Bureau Veritas
- DNV
- Germanischer Lloyd
- LRS
- RINA
- TÜV

AMONG OUR CUSTOMERS
- BECK CRESPEL
- CATERPILLAR
- CNH/IVECO
- ENERGY ALLOYS
- HOWCO
- MG-VALDUNES
- ROLLS-ROYCE
- SANDVIK
- SEW USOCOME
- WÄRTSILÄ
- ZF WIND

Access map

GPS position
N 51.054983
E 2.457721
ASCOMETAL offers:

› A comprehensive network based in France;
› Complementary production processes (continuous casting and ingot process);
› Diversified sources of supply;
› Fully controlled process and quality tracking.

2 manufacturing facilities: Fos-sur-Mer, Hagondange.

The Hagondange mill specializes in the manufacture of small-section products.
Products

<table>
<thead>
<tr>
<th>Type</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolled round bars</td>
<td>16 to 100mm</td>
</tr>
</tbody>
</table>

Main markets

Automotive, Forging, Bearings, Mechanical Engineering.

Metallurgical processing

› 90 MVA - 110 t UHP electric-arc furnace.
› Vacuum tank degassing.
› Complementary sourcing Concast blooms and ingot route billets

Casting process

› 4-strand vertical continuous caster producing 240mm square blooms, magnetic stirring.

Heat treatments

› Continuous annealing furnaces: spheroidizing, pearlitic, stress relieving, isothermal, normalizing...
› Quenching and tempering furnaces with different quenching media available (water, polymer, oil) as well as induction heat treat.

Finishing and inspections

› Non-destructive testing (dimensional checks, surface defect detection, internal soundness examination, anti-mix), preparation for dispatch.
› Automated finishing and inspection lines: straightening, non-destructive testing (dimensional checks, anti-mix/structure check, surface defect detection, internal soundness examination), preparation for dispatch.

Certifications

› ISO 9001
› IATF 16949
› ISO 14001
› OHSAS 18001
› ISO 50001

Accreditations

› TÜV

Among our customers

› AUDI
› BOSCH
› DAIMLER
› DELPHI
› DENSO
› FIAT
› FORD
› FRAUENTHAL GmbH
› GKN
› GROUPE WALOR
› HIRSCHVOGEL
› HIRSCHVOGEL
› JTEKT
› MUSASHI
› NTN-SNR
› PSA
› RENAULT
› SCHAEFFLER
› SETFORGE
› SIFCOR
› SKF
› TOYOTA
› VW

Access map

GPS position

› N 49.243499
› E 6.159301
ASCOMETAL offers:

› A comprehensive network based in France;
› Complementary production processes (continuous casting and ingot process);
› Diversified sources of supply;
› Fully controlled process and quality tracking.

2 manufacturing facilities: Fos-sur-Mer, Hagondange.

Cold finishing center of excellence for automotive component manufacturing.

Address:
ASCOMETAL Custines - Le Marais
252, rue du Pré-à-Varois BP 12 54670 Custines

Tel.: +33 3 83 92 60 00
Fax: +33 3 83 24 33 66
Services

<table>
<thead>
<tr>
<th>Type</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peeling, burnishing (Bars)*</td>
<td>Ø 13 - 83mm, up to tolerance band h9</td>
</tr>
<tr>
<td>Grinding (Bars)*</td>
<td>Ø 10 - 80mm, up to tolerance band h8</td>
</tr>
<tr>
<td></td>
<td>(h7 for Ø &lt; 30mm on demand)</td>
</tr>
<tr>
<td>Sawing, chanfering (Bars)*</td>
<td>Ø 15 - 80mm, length 2,500 - 10,000mm</td>
</tr>
<tr>
<td>Sawing (Slug)*</td>
<td>Ø 10 to 105mm, length 30mm to 2,000mm, chamfering machine, center hole, threading, marking</td>
</tr>
<tr>
<td>Sawing, grinding (Slug)</td>
<td>Ø 18 - 30mm, up to tolerance band h7, length 350 - 1,000mm</td>
</tr>
</tbody>
</table>

* Feasible on tubes.

Finishing equipment

- Peeling: Kieserling lathes, Calow;
- Cutting to length: Ohler saw;
- Centerless grinding: Lidköping, R4B;
- Sawing and machining: Wagner, Rattunde;
- Controls: surface defects (eddy-current, MPI), anti-mix, dimensional controls.

Certifications

- ISO 9001
- IATF 16949
- ISO 14001
- OHSAS 18001
- ISO 50001

AMONG OUR CUSTOMERS

- GKN
- KUHN
- PSA
- SCHAEFFLER
- SETFORGE
- SOGEFI
- TK PRESTA
- TOYOTA

Access map

GPS position

- N 48.786743
- E 6.134924

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ASCOMETAL France Holding SAS
Avenue de France 57300 Hagondange
www.ascometal.com

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ASCOMETAL offers:

› A comprehensive network based in France;
› Complementary production processes (continuous casting and ingot process);
› Diversified sources of supply;
› Fully controlled process and quality tracking.

2 manufacturing facilities: Fos-sur-Mer, Hagondange.

Cold finishing center of excellence for automotive component manufacturing.

Postal address:
ASCOMETAL Custines - Le Marais
Etablissement du Marais
9, rue Bénevent BP 50723 — 42950 Saint-Étienne Cedex 1

Plant address:
ASCOMETAL Custines - Le Marais
Etablissement du Marais
9, rue Bénevent — 42000 Saint-Étienne
Tel.: +33 4 77 45 50 50 | Fax: +33 4 77 45 50 97
Services

<table>
<thead>
<tr>
<th>Type</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peeling, burnishing (bars)*</td>
<td>Ø 15 - 78mm up to tolerance band h9</td>
</tr>
<tr>
<td>Sawing*</td>
<td>Ø 10 - 105mm, finished length 30 - 2,000mm</td>
</tr>
<tr>
<td>Sawing with weight control</td>
<td>Ø 35 - 150mm, length 25 - 80mm</td>
</tr>
<tr>
<td>Grinding (slug)</td>
<td>Ø 20 - 50mm up to tolerance band h7, length 500 - 1,100mm</td>
</tr>
<tr>
<td>Machining (slug)</td>
<td>Ø 10 - 46mm, length 100 - 1,000mm</td>
</tr>
<tr>
<td>Drilling</td>
<td>(hole) Ø 6 - 20mm, length max. 750mm - (slug) Ø 20 - 35mm</td>
</tr>
<tr>
<td>Straightening (slug)</td>
<td>Ø 20 - 40mm, length 500 - 1,000mm</td>
</tr>
</tbody>
</table>

* Feasible on tubes

Certifications

› ISO 9001
› IATF 16949
› ISO 14001
› OHSAS 18001
› ISO 50001

AMONG OUR CUSTOMERS

› JTEKT
› NTN-SNR
› SIFCOR
› USOCOME

Access map

GPS position

› N 45.459998
› E 4.393981

Finishing equipment

› Peeling: Kieserling lathes;
› Cutting to length: Wagner saws, Coni, Kasto;
› Boring: TBT, Mollart;
› Machining: Mori Seikilathes and Nakamura;
› Sawing and machining: Rattunde;
› Centerless grinding: Cincinnati;
› Surface defect testing.
ASCOMETAL offers:

- A comprehensive network based in France;
- Complementary production processes (continuous casting and ingot process);
- Diversified sources of supply;
- Fully controlled process and quality tracking.

2 manufacturing facilities: Fos-sur-Mer, Hagondange.

The Fos-sur-Mer mill produces bearing and engineering steels.
Products

<table>
<thead>
<tr>
<th>Type</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingots</td>
<td>5.3t to 10t</td>
</tr>
<tr>
<td>Billets and blooms</td>
<td>80 to 400mm</td>
</tr>
<tr>
<td>Rectangular rolled bloom</td>
<td>70 to 600mm</td>
</tr>
<tr>
<td>Large-diameter rolled rounds bars supplied as-rolled or heat-treated</td>
<td>80 to 325mm</td>
</tr>
<tr>
<td>Wire rod</td>
<td>5 to 32mm</td>
</tr>
<tr>
<td>Drawn wire</td>
<td>1 to 22mm</td>
</tr>
</tbody>
</table>

Main markets
Bearings, Forging, Mechanical Engineering, Oil and Gas.

Metallurgical processing
› 100 MVA – 120 t UHP electric-arc furnace.
› RH-type vacuum degassing stand.

Casting process
Ingot casting, square big-end up moulds from 5.3t and 10t.

Heat treatments
› Bar heat treatment installations
  Quenching and tempering: austenitizing furnace for long lengths (max length for bars: 13m), water or polymer quenching, fully automatic inspection line.
› Wire rod heat treatment installations
  Annealing in a protected atmospheric furnace (spheroidizing and stress relieving): 3 continuous furnaces and 1 batch furnace.

Finishing and inspections
› In-line inspection of bars
  Ultrasonic examination, surface quality inspection by infra-red thermography, “Spectrotest”, anti-mix check, visual and dimensional checks.
› Wire rod finishing
  High performance wire drawing installations, producing a very large range of sizes (1 to 22mm diameter) with various coatings. Eddy current control during rolling, 100% anti-mix check, magnetic particle detection of coil ends.

Certifications
› ISO 9001
› IATF 16949
› ISO 14001
› OHSAS 18001
› ISO 50001
› CE 138

Accreditations
› ABS
› Bureau Veritas
› DNV
› Germanischer Lloyd
› LRS
› TÜV

AMONG OUR CUSTOMERS
› FOMAS
› MASSUCCO
› MANOIR INDUSTRIES
› NSK-AKS
› NTN-SNR
› SCHAEFFLER
› SETFORGE
› SIFCOR
› SKF
› TK GERLACH
› TÜV
› NAKASHIMA
› VALLOUREC
› BEARING TUBE

Access map
GPS position
› N 43.44238
› E 4.84632