

# Our product offer

## Product sizes

Products	Plant	Feasibility	Length	Tolerances
<b>Non rolled / Semi-finished products</b>				
Continuous cast products	Hagondange	240 <sup>2</sup> CC Blooms		
Ingots	Fos-sur-Mer	5.3t – 6.2t – 7.5t – 10.4t: Square ingot 3.3t: Round ingot		
<b>Hot rolled products</b>				
Rolled blooms and billets	Fos-sur-Mer	80 to 400mm	From 3 to 12m	± 1% to ± 3% of diameter
Rectangular rolled blooms	Fos-sur-Mer	70 to 600mm	From 3 to 12m depending on diameter	
Bars	Dunes	80 to 300mm	From 4 to 12m (> 12m on request)	± 0.3% to ± 1% of diameter depending on diameter
	Hagondange	16 to 100mm	From 3 to 12m	
	Fos-sur-Mer	80 to 325mm	From 3 to 12m	
Wire rod	Fos-sur-Mer	5 to 32mm		+0.20 / -0.20mm or ± 1%
<b>Cold finished products</b>				
Peeled bars	Dunes	76 to 300mm	From 4 to 12.5m	Classe 10
	Le Marais	20 to 78mm	From 3.5 to 7.5m	Classe 9
	Custines	15 to 85mm		Classes 10 to 9
Ground bars	Custines	10 to 80mm		Classes 8 to 7
Cold drawn wire rod	Fos-sur-Mer	1 to 22mm		
Semi-finished parts	Le Marais		<ul style="list-style-type: none"> <li>› Sawing: Ø 10 - 150mm</li> <li>› Sawing, chanfering: Ø 10-105mm</li> <li>› Grinding (Bars): Ø 10 - 80mm</li> <li>› Centerless grinding (Slug): Ø 20 - 50mm</li> <li>› Drilling (Slug): Hole Ø 6-20mm; Slug Ø 20-35mm</li> <li>› Machining (Slug): Ø 10-46mm</li> </ul>	
	Custines			

# Standard grades

**ASCOMETAL** offers a **full range of carbon and alloy steels** compliant with the national and international standards requirements.

In addition to these conventional grades, **which can be tailored to better suit individual customer specifications, ASCOMETAL** offers also a wide range of specialty products, fulfilling the most severe requirements of each market and stemming from its R&D work.

Grades	Specialties
<b>METASCO®</b>	<b>steels suitable for hot forging treatment (bainitic and AFP steels)</b>
METASCO® 38 and 44	ferrite-pearlitic up to Rm = 1,000 MPa
METASCO® BA	bainitic; Rm < 1,000 MPa
METASCO® BAE75	bainitic steel with Re > 750 MPa, Rm ≤ 1,000 Mpa for induction heat treatment
METASCO® MC, MC2, 1200	bainitic up to Rm = 1,200 MPa
METASCO® HCl	bainitic steel for induction heat treatment and mechanical strengthening up to Rm = 1,150 MPa
<b>ASCOWELL®</b>	<b>steels for oil and gas drilling and well completion</b>
ASCOWELL® C	extended life in corrosive environments
ASCOWELL® TJC	for Forged Tool Joints resisting to corrosion
ASCOWELL® HS	high yield strength with excellent resilience and fatigue resistance
ASCOWELL® HT	high resilience at low temperature with Re > 1,000 MPa
<b>ENDURASCO®</b>	<b>high-endurance bearing steels</b>
<b>JOMASCO®</b>	<b>case-hardening steels with optimized Jominy and enhanced quenchability, low nickel alloyed</b>
<b>To manufacture transmission parts</b>	
JOMASCO® 23 (20 – 23MnCrMo5)	steel with optimized Jominy quenching and for technical gains in case-hardening
JOMASCO® 23 Mod (23MnCrMo5 mod.)	adapted to replace Ni grades, improved Jominy quenching and case-hardening, compatible with low pressure case-hardening/gas quenching
<b>To manufacture cones and drilling parts</b>	
JOMASCO® DB	low Ni, improved Jominy quenching and case-hardening
<b>ASCOROC®</b>	<b>steels for the mining industry</b>
<b>NITRASCO®</b>	<b>nitriding steels</b>

Grades	Specialties
<b>ASCOFLEX® 20.6</b>	<b>Cost saving, adaptable case-hardening grade with properties equivalent to molybdenum grades</b>
<b>VITAC® et SUPERVITAC®</b>	<b>steels with improved machinability and proven levels of performance</b>
<b>SPLITASCO®</b>	<b>steels for splittable connecting rods</b>
SPLITASCO® 38	high fatigue resistance
SPLITASCO® 70	C70S6 grade with improved machinability
SPLITASCO® HC	very high mechanical properties: Re > 750 MPa et Rm 1,000 – 1,150 MPa
SPLITASCO® XS	bainitic steel for splittable connecting rods meeting very high mechanical properties: Re > 950 MPa and Rm > 1100 MPa

## Standard grades

- › Alloy and carbon steels;
- › Through and surface hardening steels;
- › Case-hardening steels;
- › Induction hardening steels;
- › Spring steels;
- › Bearing steels;
- › Nitriding steels.

## Finishing and control

**ASCOMETAL** ensures a wide range of finishing operations, including:

### Heat treatments

**Several quenching facilities (water, polymer, oil, induction)** and furnaces enabling to perform several heat treatments: annealing, stress relieving, spheroidizing, isothermal, normalizing, pearlitic.

### Cold finishing operations

- › Straightening;
- › Peeling;
- › Shearing;
- › Cutting to length;
- › End finishing, beveling, end machining, drilling, boring.

### Inspection and Control

As soon as a grade of steel is produced, it undergoes numerous checks and inspections to guarantee its conformity with specifications (cleanliness, machinability, geometry...).

**ASCOMETAL** ensures a wide range of inspection operations, including:

- › Internal soundness (ultrasonic inspection at 100% of volume);
- › Internal cleanliness inspections (ultrasonic inspection in tank, wide field image analysis...);
- › Surface quality inspections (eddy currents, magnetic dispersion leakage flux, magnetic particle inspection...);
- › Conventional laboratory tests (analysis, mechanical tests, metallographic examinations);
- › Dimensional and anti-mix inspections.