

Product Offer

Saint-Saulve, May 2023

- SAARSTAHL ASCOVAL produces green steel coming out of an electric route
- We supply continuous cast rounds (CCR) in various diameters (from 180 mm to 310 mm), rectangular blooms (255*300 and 300*365 mm) and billets (currently 155 mm² and 180 mm²)
- In carbon and alloy steel up to 5% Chromium
- With recognized capabilities in low carbon and high cleanliness
- Typical segments are : rails, mechanical engineering, heavy construction equipment, oil and gas, boilers, automotive, bearing
- Please visit our web site for more details : <u>www.ascoval.fr</u>



Available profiles

Rounds :	Ø180, 220, 250, 260, 270, 280, 310, 325 mm
Blooms :	255 mm x 330 mm , 300 mm x 365 mm
Billets :	155 mm x 155 mm , 180 mm x 180 mm

Possible developments

Billets : up to 240 mm x 240 mm (6 months lead time)

Minimum order quantity

6 heats per grade and shape, possible 3 heats if grade can be combined with other grade(s)

Length

From 4,5 to 12,4 m



Product Portfolio - Typical grades

Element minimum (%) Except * maximum	С	Mn	Si	S	Ρ*	Ni	Cr	Мо	V
	Steel grades according to EN 13674-1 to 4 and EN 14811: R200, R220, R260, R320 Cr, R350HT, R400HT								
Rails	0,38% to 1,07%	Up to 1,35%	Up to 1,2%				Up to 1,25%	0,02%	
Industry: Automobile,	Mechanical grades, Resulfurized grades, High yield grades : S355, C45, C55, 50CrMo4, 42CrMo4, 34CrNiMo6, 20Mn4-5-6, 18MnCr5								
mechanical, construction	0,07% to 0,7%	0,3% to 1,6%	Up to 1,3%	Up to 0,2%	0,01%	Up to 4%	Up to 2,5%	Up to 0,85%	Up to 0,24%
Oil and Gas application and accessories : Bars and Tubes	API5CT carbon steels and chromium steels : L80, P110, T95, 5%cr, 4130, 4140, Line pipes API5L X52								
	0,005% to 0,4%	0,3% to 1,4%	0,1% to 2%		0,01%	Up to 6%	0,2% to 5%	0,2% to 2,3%	
Electrical power	TÜV products, ASTM grades B, C, T11, T22, T24, S355, P5								
plants/ Boilers	0,05% to 0,12%	0,3% to 0,6%	0,1% to 2%		0,01%	0,1% to 1,1%	0,8% to 5%	0,05% to 1%	0,20%
Bearing steel	100Cr6								
	0,93%	0,3% to 0,7%	0,20%		0,01%		1,30%		

Micro alloys possible depending on customer needs : B, Ti, V, Nb, ...



Chemical analysis:

H measurement (Hydris method) in the tundish. 2 ppm is possible (except on first half of first heat of sequence)

On a case to case basis, 1,5 to 1 ppm is reachable In-house testing with optical emission spectrometer equipment In-house testing with combustion method for C, S, O and N

Macro-cleanliness : based on SEP 1584 method C : max 5 mm/dm² is possible **Micro-cleanliness**: based on ASTM E45 method A or SEP 1571, depending on customer requirements

For example :	Sulfide		Alumina		Silicate		Oxides	
	A Thin	A Thick	B Thin	B Thick	C Thin	C Thick	D Thin	D Thick
	Depends on S content		1	0,5	0	0	1	0,5

Oxygen content: below 20 ppm (and below 10 ppm for bearings steels)

Internal quality: based on the acid/macro etching method ASTM E381, performance is C2, R2, S2

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Thank You