

Continuous Cast Billets

Geometrical parameters

Mill	Nom. size	Max. tolerances	Difference between diagonals/Ovality	Length	Length tolerance	Streightness deviation %	Streightcut deviation
1	240 x 240 mm	±7.0 mm	±9.8 mm	4 – 8.1 m	±50.0 mm	0.3	8.0
1	340 x 340 mm	±8.0 mm	±11.2 mm				15.0
1	360 x 360 mm	±10.0 mm	±14.0 mm				15.0
R	260 x 340 mm	±5.2 x ±6.8mm	±5.0 mm	4 – 10.5 m	+0/-100 mm*	0.5	7.0
2	∅ 150 mm	+3.0/-5.0 mm	≤ 8.0 mm	5.2 – 12 m	+70/-0 mm	0.3	–
4		±4.0 mm	≤ 7.0 mm	5.5 – 12 m	+5.0/-10.0 mm		7.0
1	∅ 156 mm	+4.0/-5.0 mm	**	9 – 11.5 m	±50.0 or ±100.0/-0*	0.3	7.0
2		+3.0/-5.0 mm	≤ 8.0 mm	5.2 – 12 m	+70/-0.0		–
R	∅ 177 mm	+2.0/-4.0 mm	≤ 2/3 of the ultimate O.D. deviation	4-10.5 m	+0/-100 mm*	0.4	7.0
1	∅ 196 mm	+4.0/-5.0 mm	**	8 – 11.5 m	±50.0 or ±100.0/-0*	0.3	7.0
4	∅ 210 mm	±3.0 mm	≤ 2.0 mm	4.5 – 9 m	+70.0 mm	0.3	6.0
1	∅ 228 mm	+4.0/-5.0 mm	**	6 – 11.5 m	±50.0 or ±100.0/-0*	0.3	7.0
R	∅ 250mm	+2.0/-6.0	≤ 2/3 of the ultimate O.D. deviation	4-10.5 m	+0/-100 mm*	0.4	7.0
1	∅ 260 mm	+4.0/-5.0 mm	**	6 – 11.5 m	±50.0 or ±100.0/-0*	0.3	7.0
R	∅ 280 mm	+2.0/-7.0	≤ 2/3 of the ultimate O.D. deviation	4-10.5 m	+0/-100 mm*	0.4	7.0
4	∅ 300 mm	±3.0 mm	≤ 2.0 mm	3.5 - 9 m	+70.0 mm	0.3	7.0
1	∅ 340 mm	±5.0 mm ±4.0 mm	≤ 3/4 of the ultimate O.D. deviation ≤ 7.0 mm	4 – 5.8 m	±50.0 or ±100.0/-0*	0.3	15.0
4				3.5 – 6 m	+50.0/-10.0 mm		7.0
R	∅ 350 mm	+2.0/-7.0	≤ 2/3 of the ultimate O.D. deviation	6-7 m (4-10.5)***	+0.0/-100.0 mm*	0.4	15.0
1	∅ 360 mm	±5.0 mm ±5.0 mm ±4.0 mm	≤ 3/4 of the ultimate O.D. deviation ≤ 7.0 mm	4 – 5.8 m	±50.0 or ±100.0/-0*	0.3	15.0
2				4 – 6.0 m	+70.0/-0.0 mm		–
4				3.5 – 6 m	+50.0/-10.0 mm		7.0
2	∅ 400 mm	±5.0 mm ±4.0 mm	≤ 3/4 of the ultimate O.D. deviation ≤ 7.0	4 – 6.0 m	+70.0/-0.0 mm	0.3	–
4				3.5 – 5.2 m	+50.0/-10.0 mm		7.0
1	∅ 410 mm	+4.0/-6.0 mm	≤ 3/4 of the ultimate O.D. deviation	4 – 5.8 m	±50.0 or ±100.0/-0*	0.3	15.0
K	∅ 5.5"	±0.250"	±0.125"	30 – 40 ft	±4"	0.250" in 5 ft	±0.250"
K	∅ 6.5"	±0.250"	±0.125"	30 – 40 ft	±4"	0.250" in 5 ft	±0.250"

Mill Designation: 1 – Volzhsky/Rus/; 2 – Seversky/Rus/; 4 – TAGMET/Rus/; K – Koppel/US/; R – Resita /Rom/
* up to 10 % in random length ** shall not exceed of the ultimate O.D. deviation *** special cases

Steel Grades according to the following standards:

Volzhsky: ASTM A106, A210, A213, A333, A335, A519, EN 10083-3, 10208-2, 10210-1, 10216-2, 10297-1, DIN 1629, ISO 3183-3;

Seversky: API 5CT, API 5L, ASTM A53, A106;

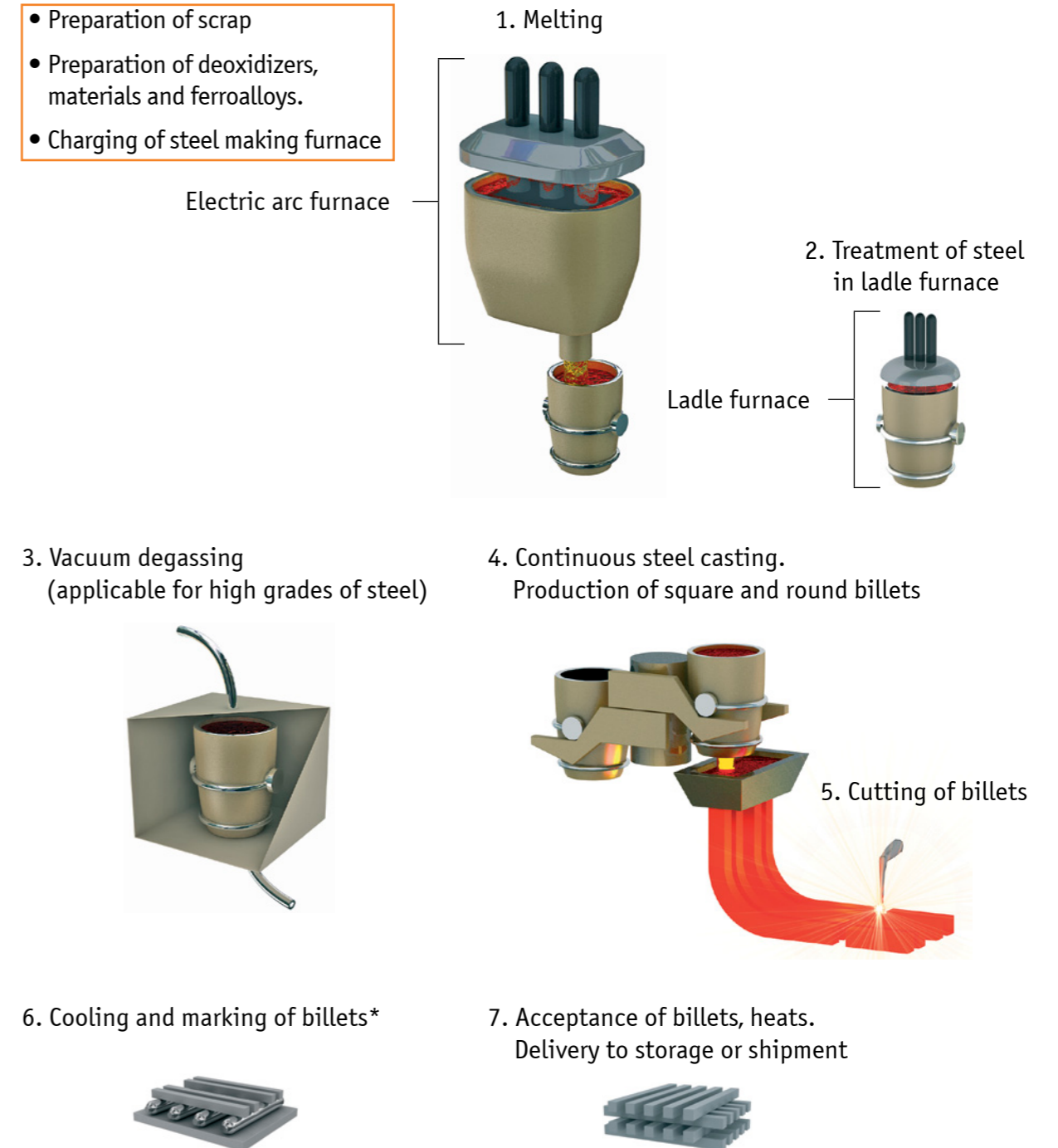
TAGMET: API 5D, API 5CT, ASTM A53, A106, A333, ASME SA 106, EN 10210-1, 10216-1, 10255;

Koppel: API 5CT, API 5L, ASTM A53B, A106, A210, A333, ANSI;

Resita: API 5CT, API 5L, ASTM A106, A519, EN 10210, 10216-1/2/3/4, 10305, DIN 1629, 2391, 17175, ISO 2938.

Steel Melting and Casting Flowchart

- Preparation of scrap
- Preparation of deoxidizers, materials and ferroalloys.
- Charging of steel making furnace



*Turning of round billets is performed if required.

Controlled parametres: scrap weight, chemical composition and sizes; materials gravimetric and chemical composition, humidity, weight; metal temperature; vacuum degree, cooling regimes, casting rate; cut length and quality; billetwise traceability, outside surface, geometrical sizes, billet quality, macrostructure.