Annex B
(informative)

Guidelines for further treatment (including heat treatment) in fabrication

B.1 The guidelines given in Tables B.1 to B.5 are intended for hot forming and heat treatment.

B.2 Thermal cutting may adversely affect edge areas; where necessary, they should be machined.

B.3 As the corrosion resistance of stainless steels is only ensured with a metallically clean surface, layers of scale and annealing colours formed during hot forming, heat treatment or welding should be removed as far as possible before use. Finished parts made of steels with approximately 13 % Cr also require the best surface condition (e.g. polished) in order to achieve maximum resistance to corrosion.

Table B.1 — Guidelines on the temperatures for hot forming and heat treatment [a] of austenitic corrosion resistant steels

Steel designation		**Hot forming**		**Heat treatment symbol**	**Solution annealing**	
Name	Number	Temperature °C	Type of cooling		Temperature [b, c, d] °C	Type of cooling
Standard grades						
X10CrNi18-8	1.4310	1200 to 900	Air	+AT	1000 to 1100	water, air [e]
X2CrNi18-9	1.4307				1000 to 1100	
X8CrNiS18-9	1.4305				1000 to 1100	
X6CrNiCuS18-9-2	1.4570	1150 to 900			1000 to 1100	
X2CrNiN18-10	1.4311	1200 to 900			1000 to 1100	
X5CrNi18-10	1.4301				1000 to 1100	
X6CrNiTi18-10	1.4541				1020 to 1120	
X3CrNiCu18-9-4	1.4567				1000 to 1100	
X2CrNi19-11	1.4306				1000 to 1100	
X4CrNi18-12	1.4303				1000 to 1100	
X2CrNiMoN17-11-2	1.4406				1020 to 1120	
X2CrNiMo17-12-2	1.4404				1020 to 1120	
X5CrNiMo17-12-2	1.4401				1020 to 1120	
X6CrNiMoTi17-12-2	1.4571				1020 to 1120	
X2CrNiMo17-12-3	1.4432				1020 to 1120	
X3CrNiMo17-12-3	1.4436				1020 to 1120	
X2CrNiMoN17-13-3	1.4429				1020 to 1120	
X2CrNiMo18-14-3	1.4435				1020 to 1120	
X2CrNiMoN17-13-5	1.4439				1020 to 1120	
X1NiCrMoCu25-20-5	1.4539	1200 to 900			1050 to 1150	