

Code	X90CrMoV18
US standard (AISI) 293b89	440B
Composition Alloying components [%]	<ul style="list-style-type: none"> ■ C: 0.85 - 0.95 ■ Cr: 17.00 - 19.00 ■ Mn: 0 - 1.00 ■ Mo: 0.90 - 1.30 ■ P: 0 - 0.04 ■ S: 0 - 0,015 (0.030*) ■ Si: 0 - 1.00 ■ V: 0.07 - 0.12 ■ Remainder: Fe
Stainless steel grade	C-
Density [g/cm ³]	7.7
Yield point Rp0.2 [N/mm ²]	≥550
Tensile strength Rm [N/mm ²]	≤800
Corrosion resistance	<ul style="list-style-type: none"> ■ Medium ■ Resistant to freshwater and water vapour
Machinability	poor
Weldability	not suitable
Other properties	<ul style="list-style-type: none"> ■ Nickel-free martensitic ferromagnetic structure ■ Stainless tool steel with high resistance to wear ■ Temperable to 58 - 60 HRC (Rm: 1800 - 2000 N/mm²) ■ Can be mechanically polished to a brilliant sheen ■ Suitability for electropolishing: medium
Main uses	<p>Predominantly used for equipment and parts that are subject to heavy wear stress and require a high level of hardness:</p> <ul style="list-style-type: none"> ■ Knives ■ Surgical cutting tools, mould inserts and active elements for plastics processingworkinvolvingchemicallyaggressivemouldingcompounds ■ Shaped and flat knives for processing food and fish ■ Hardened valve seats