

Martensitic Steel

July 2016 - rev.1.0

KLEINOX 4005

DIN X12CrS13

ASTM F899

CHEMICAL COMPOSITION %

C%	Si%	Mn%	P%	S%	Cr%	Mo%	Fe%
0,08	Max	Max	Max	0,15	12,00	Max	balance
0,15	1,00	1,25	0,04	0,35	14,00	0,60	

USES AND APPLICATIONS

KLEINOX 4005 (AISI 416) martensitic hardenable free machining stainless steel. It has an increased S content to improve and enhance machining, better than any martensitic stainless steel. Its corrosion resistance is only satisfactory if the parts are previously quenched, polished and passivated. It is well indicated for production of turned parts, screws, bolts, gears and for agro food industries.

EXECUTIONS

Diameters	1.00 - 15.00 mm
Tolerances	ISO h8 (up to h5)
Delivery conditions	in cold drawn or ground bars 3m and Coils

MECHANICAL PROPERTIES

Before hardening

Tensile Strength	ca. 880 - 990 N/mm ² , depends on diameter
Heat treatment	hardening: 950 - 1050°C
Hardness Max	38 - 42 HRC
Cutting speed	40 - 60 m/min
Lubrificant-cooling fluid i.e.	INOX or ORTHO Motorex

OTHER INFORMATION

Diagrams, treatment tabs or other information on request.