

STAINLESS STEELS

MARTENSITIC STAINLESS STEELS

HIGH QUALITY IS OUR STANDARD ... OUR PRODUCTS CHANGE WITH YOU

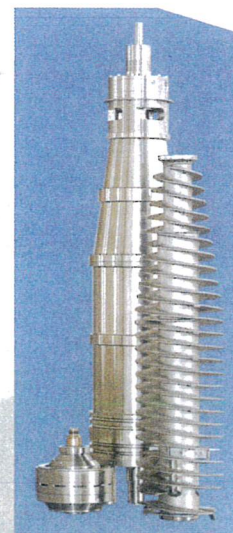
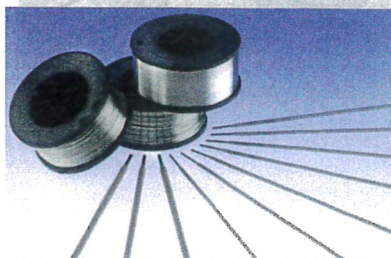
Steels with Chromium content between 10-18%, Carbon up to 2% and with the addition of other elements. In order to improve both mechanical properties and corrosion resistance they are heated to an appropriate temperature, 950° - 1050° C, followed by suitable quenching and tempering.

Martensitic steels are ferromagnetic.

VALBRUNA GRADE	EN NUMBER	AISI NUMBER	UNS NUMBER	EN NAME	BS NUMBER
CMXA	-	440A	S44002	-	-
CMXB	-	440B	S44003	-	-
CMXBM	1.4112	-	-	X90CRM0V18	-
CMXC	1.4125	440C	S44004	X105CRM017	-
CMXC/1	-	440C	S44004	-	-
CMX/DE	1.4037	-	-	X65CR13	-
VAL1	1.4006/1.4011	403/410	S40300/S41000	X12CR13/X12CR12	410S21
VAL1A/2	1.4002	405	S40500	X6CRAL13	-
VAL1B/DE	1.4024	-	-	X15CR13	-
VAL1HS	1.4005	416	S41600	X12CRS13	416S21
VAL1Z	1.4005	416	S41600	X12CRS13	416S21
VAL2A	1.4021	420	S42000	X20CR13	-
VAL2AM	1.4120	-	-	X20CRM013	-
VAL2A/UK	-	-	-	-	420S29
VAL2A/UK2	-	-	-	-	420S37
VAL2B	1.4028	420	S42000	X30CR13	420S45
VAL2C	1.4031	420	S42000	X39CR13	-
VAL2CZ	1.4035	-	-	X46CRS13	-
VAL2D	1.4116	-	-	X50CRM0V15	-
VAL2/DE	1.4034	-	-	X46CR13	-
VAL2/DS	1.4036	-	-	X46CR13	-
VAL2BZ	1.4029	420F	S42020	X29CRS13	-
VAL3	1.4122	-	-	X39CRM017-1	-
VAL3S	1.4122	-	-	X35CRM017	-
VAL4	1.4057	431	S43100	X17CRNI16-2	-
VAL4/UK	-	-	-	-	431S29
X134M	1.4313	-	S41500	X3CRNIMO13-4	-
X134M/1	1.4313/1.4413	-	S41500	X3CRNIMO13-4/X4CRNIMO13-4	-
X134M/3	-	-	S41500	-	-
X164M	1.4418	-	-	X4CRNIMO16-5-1	-

WELDING

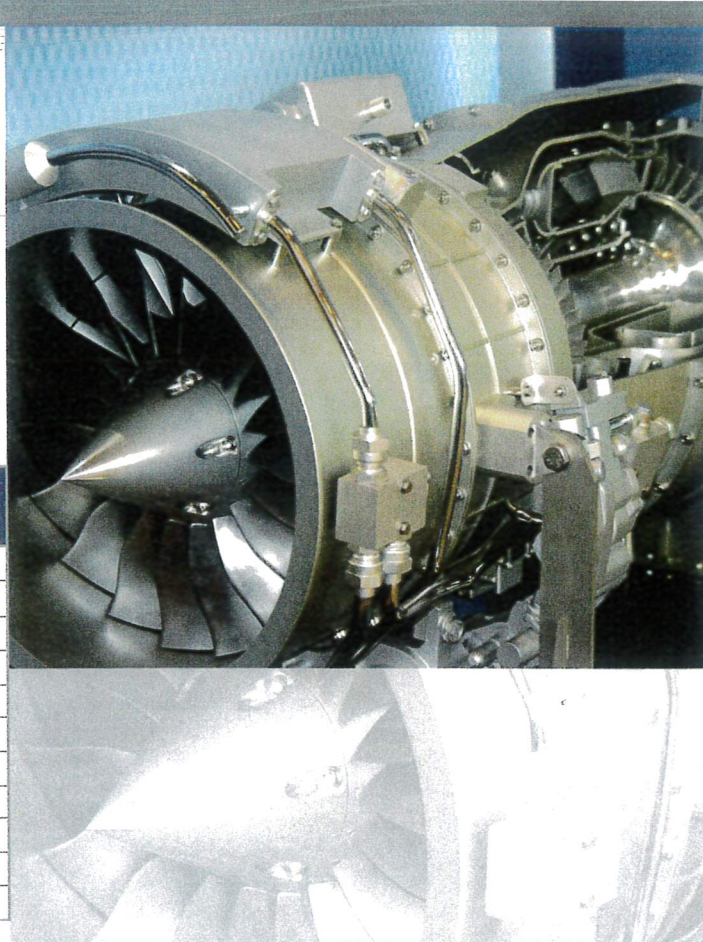
VALBRUNA GRADE	EN NUMBER	AISI NUMBER	UNS NUMBER	EN NAME
X134/EL	1.4313	-	S41500	X3CRNIMO13-4



PRECIPITATION HARDENING

These steels with a minimum of 10.5% Cr have exceptional strength due to treatment at various temperatures that induces precipitation hardening (also known as aging). This process allows a sub microscopic precipitation of phase rich in elements coherent with the matrix (for example Cu) that greatly increases the mechanical properties of the steel.

VALBRUNA GRADE	EN NUMBER	AISI NUMBER	UNS NUMBER	EN NAME
AV177AL	1.4568	631	S17700	X7CRNiAl17-7
V138	1.4534	XM-13	S13800	X3CRNiMoAl13-8-2
V157M	1.4574	632	S15700	-
V145	-	XM-25	S45000	-
V145/1	1.4594	-	-	X5CRNiMoCuNb14-5
V155	1.4545	XM-12	S15500	X5CRNiCuNb15-5
V174	1.4542	630	S17400	X5CRNiCuNb16-4
V174/1	1.4548	630	S17400	X5CRNiCuNb17-4-4
V174LC*	1.4542	630	S17400	X5CRNiCuNb16-4
V176T	-	635	S17600	-
V154MU/2	1.4594	-	-	X5CRNiMoCuNb14-5



or load cells or higher Rp02/Rm ratio



FERRITIC STAINLESS STEELS

These steels with a chromium content higher than 10.5% and a Carbon of 0.15% maximum. Unlike austenitic steels these grades cannot be stiffened by quench hardening but only through cold working (e.g. cold drawing). Ferritic steels are ferromagnetic.

VALBRUNA GRADE	EN NUMBER	AISI NUMBER	UNS NUMBER	EN NAME	BS NUMBER
VAL1LC	-	-	S40940	-	-
VAL1LCNI	-	-	S40976	-	-
VAL1NI	-	414	S41400	-	-
VAL1PT	1.4512	409	S40900	X2CrTi12	-
X7AL	1.4713	-	-	X10CrAlSi7	-
X11L	1.4003	-	S41003	X2CrNi12/X2Cr11	-
X17AL	1.4742	-	-	X10CrAlSi18/X10CrAl18	-
X17L	1.4016	430	S43000	X6Cr17	430S11/430S18
X17M	1.4113	434	S43400	X6CrMo17-1	434S20
X17MZ	1.4105	430F	S43020	X6CrMoS17	-
X17NBL	1.4511	-	-	X3CrNb17	-
X17T	1.4510	430Ti	S43036	X3CrTi17	-
X17Z	-	430F	S43020	-	-
X17Z/DE	1.4104	-	-	X14CrMoS17	-
X18DZ	-	XM-34	S18200	-	-
X24AL	1.4762	-	-	X10CrAlSi25/X10CrAl24	-
X25R	-	446	S44600	-	-
X182N	1.4521	444	S44400	X2CrMoTi18-2	-

