

AL-6XN[®] Alloy Advantages

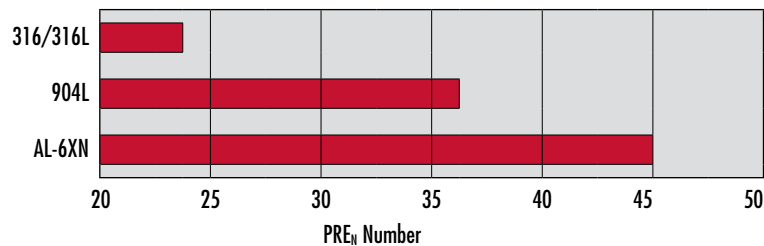
- AL-6XN is utilized for its greatly improved pitting and crevice resistance in chlorides compared to 316/316L and 904L stainless steels.
- Increased levels of molybdenum and the addition of nitrogen are responsible for improving the resistance of AL-6XN over 904L.
- AL-6XN has a lower copper content. Through field testing, copper is believed to be detrimental and decreases an alloy's resistance to chlorides.
- AL-6XN possesses approximately 10-15% greater strength than 904L and is also ASME approved up to 800°F, whereas 904L is approved up to 700°F.
- AL-6XN has been assigned to P Number 45 in Section IX of the ASME Boiler & Pressure Vessel code, Group 4 and uses 625 weld filler.

Chemical Composition, %

	Cr	Ni	Mo	Si	Mn	N	C	Cu	Fe
AL-6XN [®] UNS N08367	20.5	24	6.3	0.4	0.3	0.22	0.02	0.1	48
904L UNS N08904	20.5	24.5	4.5	0.5	1.6	—	0.015	1.5	47

PRE_N Table

*PRE_N = Cr + 3.3Mo + 16N



ASME Design Stresses

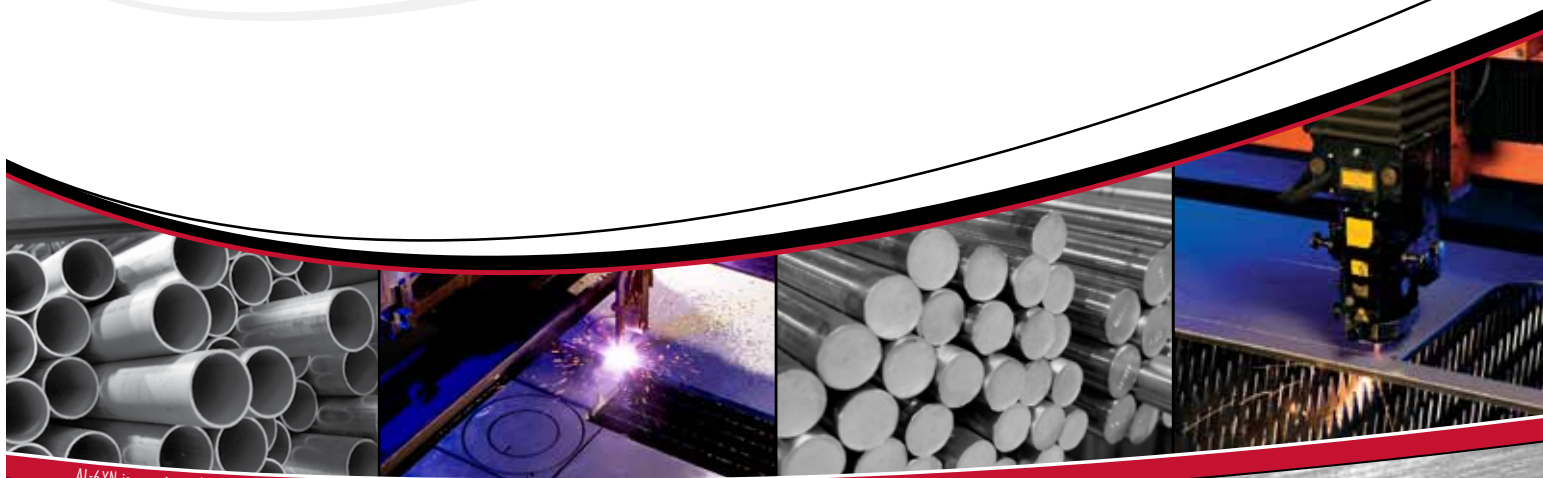
Temperature	°F	100	200	300	400	500	600	700	800
AL-6XN	ksi	27.1	26.2	23.8	21.9	20.5	19.4	18.6	18.0
904L	ksi	20.3	16.7	15.1	13.8	12.7	11.9	11.4	—

AL-6XN Inventory Range

Form	Size Range	Types
Sheet	10, 11, 12, 14, 16, 18, 22, 24 (gauge)	—
Plate	3/16" - 4"	—
Round Bar	3/8" - 4"	—
Conc Reducers	1 1/2" x 1" - 6" x 4"	Schedule 10, Schedule 40
Elbows (45°/90°)	1/2" - 8"	Schedule 10, Schedule 40
Tees	3/8" - 8"	Schedule 10, Schedule 40
Couplings (3000#)	1/4" - 2"	Schedule 10, Schedule 40
Flanges (150#)	3/4" - 8"	RF, RFWN, RFSO, Blind, Schedule 40



The Global Leader in Specialty Metals



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