



# CASE HISTORY

## AL-6XN<sup>®</sup> Alloy

UNS N08367

### *AL-6XN ALLOY SOLVES SEAWATER DESALINATION CORROSION PROBLEMS*

The Waterfields Company Ltd., of Nassau, Bahamas owns and operates a seawater reverse osmosis desalination facility on the Bahamian island of New Providence. Built by DESALCO, of Georgetown, Grand Cayman, this 2.64 million gallon per day facility provides 20% of the Nassau's fresh water needs. The plant consists of a four train operation, utilizing diesel generator powered high pressure positive displacement pumps.

The seawater at this location contains 39,000 ppm total dissolved solids. After as little as six months operation, the original 316L stainless steel piping began to fail by corrosive attack. The 316L was replaced by AL-6XN Alloy pipe to solve these corrosion problems and eliminate costly downtime and repairs. The AL-6XN material has performed faultlessly since 1997.

Other AL-6XN seawater desalination installations include:

Tampa Bay, Florida	Curacao
Margarita Island, Venezuela	Trinidad
Las Palmas, Canary Islands	Ashkelon, Israel

AL-6XN is a Super-Austenitic Stainless Steel with a nominal composition of 24% nickel, 20% chromium, 6.2% molybdenum, and 0.22% nitrogen. The alloy was developed specifically for seawater use. Since 1985, AL-6XN has provided successful service in a wide variety of operating conditions from power plants, heat exchangers, to offshore oil platforms.

Rolled Alloys supplies AL-6XN in all popular products forms including pipe, fittings, flanges, plate, sheet and bar.



**AL6XN Products Available From Inventory**

	ASTM/ASME	Sizes range from:
<b>Plate</b>	B688 SB-688	3/16" to 3"
<b>Sheet</b>	B688 SB-688	10 to 24 gauge
<b>Bar</b>	B691 SB-691	3/8" to 8" diameter

**Pipe & Fittings**

	ASTM/ ASME	Wall	NPS
<b>Welded Pipe</b>	B675 SB-675	Schedule 10S, 40S & 80S	1/2" to 8"
<b>Concentric Reducers Butt Weld</b>	B366 SB-366	Schedule 10S, & 40S	1-1/2" x 1" to 6" x 4"
<b>Equal Tees Butt Weld</b>	B366 SB-366	Schedule 10S, & 40S	3/4" to 6"
<b>Long Radius Elbows Butt Weld</b>	B366 SB-366	Schedule 10S, & 40S 45 & 90 degree	1/2" to 8"
<b>Flanges 150# Raised Face</b>	B462 SB462	RF Blind, Slip On RF Weld Neck, Sch 40S Bore	3/4" to 8" 1" to 6"
<b>Stub Ends MSSA</b>	B366 SB-366	Schedule 10S, & 40S	1/2" to 8"
<b>Couplings 3000# Threaded</b>	B691 SB-691	Full Half	1/4" to 2" 1/4" to 1"


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