

# Corrosion Resistant Tubing for Desalination Thermal Technology

## Applications

- Multi-Stage Flash Distillation (MSF)
- Multi-Effect Distillation (MED)
- Vapor Compression Distillation (VCD)
- Seawater Reverse Osmosis (SWRO)

## Alloys

- Titanium
  - Grade 2
  - Grade 12
- Super Duplex
  - Zeron® 100
  - 2507®
- 6-Moly
  - 6-Moly 6XN® (N08367)
  - 6-Moly 254-SMO® (S31254)

## Advantages

- Excellent corrosion and pressure resistance
- Comprehensive quality control program
- Local RathGibson representatives provide “real solutions in real time”



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# RathGibson's Tubing for the Desalination Industry

As populations in water-stressed regions continue to escalate, so does the need for the superior quality and performance of RathGibson's tubing for desalination applications. RathGibson's high internal standards help maintain high levels of consistency to meet the demands of the desalination industry. RathGibson representatives are positioned throughout the world to bring customized answers to local challenges. Make the connection to RathGibson to see why we are a global leader in precision welded, seamless, and welded and drawn tubing in straight lengths, coil, and U-Bend configurations.

## Composition of RathGibson 6-Moly Tubing

Grade	6XN	254-SMO
UNS Designation	N08367	S32154
Nickel (Ni)	23.5-25.5	17.5-18.5
Chromium (Cr)	20.0-22.0	19.5-20.5
Iron (Fe)	Balance	Balance
Molybdenum (Mo)	6.0-7.0	6.0-6.5
Copper (Cu) Max.	0.75	0.50-1.00
Manganese (Mn) Max.	2.00	1.00
Carbon (C) Max.	0.030	0.020
Nitrogen (N) Max.	0.18-0.25	0.18-0.25
Silicon (Si) Max.	1.00	0.80
Sulfur (S) Max.	0.03	0.01
Phosphorous (P) Max.	0.04	0.03

## Composition of RathGibson Titanium Tubing

Grade	Titanium Grade 2	Titanium Grade 12
UNS Designation	R50400	R53400
Nickel (Ni)	—	0.8
Iron (Fe)	0.3 Max.	0.3
Molybdenum (Mo)	—	0.3
Titanium (Ti) Max.	Balance	Balance
Carbon (C) Max.	0.08	0.08
Nitrogen (N) Max.	0.03	0.03
Oxygen (O) Max.	0.25	0.25
Hydrogen (H) Max.	0.015	0.015
Others, Each Max.	—	0.10
Others, Total Max.	—	0.40

## Composition of RathGibson Super Duplex Tubing

Grade	Zeron 100	2507
UNS Designation	S32760	S32750
Nickel (Ni)	6.0-8.0	6.0-8.0
Chromium (Cr)	24.0-26.0	24.0-26.0
Iron (Fe)	Balance	Balance
Molybdenum (Mo)	3.0-4.0	3.0-5.0
Tungsten (W)	0.50-1.00, 40 min.*	—
Copper (Cu) Max.	0.5-1.0	0.5
Manganese (Mn) Max.	1.00	1.20
Carbon (C) Max.	0.05	0.03
Nitrogen (N) Max.	0.20-0.30	0.24-0.32
Silicon (Si) Max.	1.00	0.80
Sulfur (S) Max.	0.01	0.02
Phosphorous (P) Max.	0.030	0.035

\*40 min. = % Cr + 3.3% Mo + 16% N

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