



*Your Request,  
Our Priority*

MEGA CREST

# High Purity Tubing

- High vacuum application
- Food sanitary, Pharmaceutical
- Fluid transportation
- Semiconductor application





MEGA CREST is specialized in sanitary tubing for F&B, pharmaceuticals, and high purity tubing for semiconductors and other related since 2005. Providing quality ASTM A269/A270 that meets demanding chemical, manufacturing environments & specifications.

- ASTM A269 General Services
- ASTM A270 Sanitary / Pharmaceutical

## Product Range

	OD (mm)	OD (inch)	WT mm (inch)	
			Minimum	Maximum
Minimum	6.35	1/4"	0.6 (> 0.028")	
Maximum	165.2	6 1/2"		3.4 (< 0.109")

## Certification

ISO 14001
ISO 9001
Mechanical Polish
Polishing Equipment
Superior Company Award
3A
EN 10217-7
BV (Ship Classification, France)
ABS (Ship Classification, USA)
WPS-KR (Ship Classification, Korea)
AD 2000 (W0/W2)
CE-PED

# MEGA CREST



## High Purity Stainless Steel Tubing for Dairy, Food & Beverage, Pharmaceuticals and Other Semiconductor related processes



Mega Crest is the most economical choice of welded stainless steel tubing product per quality guaranteed and manufactured according to ASTM A269/A270-S2 with the specific purpose of servicing food & beverage and semiconductor related industries.

The tubing sizes are imperial and range primarily between 0.5" (12.7mm) ~ 6.0" (152.4mm) in outside diameter with the wall thickness specified to gauge of 0.065" (1.65mm) to 0.109" (2.77mm).

Mega Crest is perfectly-bead-removed to the similar quality level of seamless tube, exceeds the superior inside diameter surface without any mechanical polish and serves as the most cost-effective product for various sanitary & semiconductor applications.

Mega Crest is offered in 3 types of surface finishes: 1) bright annealed BA (unpolished inner & polished 32ra outer), 2) BAP (polished 32ra inside and outside) and 3) MP (polished inside 20ra and outside 32ra entirely).

Code	Specifications	Surface Finish			Surface Treatment	Grit
BA	A249/A269/A270-S2	ID	< 32 RA	< 0.8 $\mu$ m	Unpolished	2B
		OD	< 32 RA	< 1.0 $\mu$ m	Polished	>240
BAP	A249/A269/A270-S2	ID	< 32 RA	< 0.8 $\mu$ m	Polished	> 240
		OD	< 32 RA	< 0.8 $\mu$ m	Polished	> 240
MP	A249/A269/A270-S2	ID	< 20 RA	< 0.5 $\mu$ m	Polished	> 320
		OD	< 32 RA	< 0.8 $\mu$ m	Polished	> 240

# SPECIFICATION



**PED**  
PRESSURE EQUIPMENT



## MATERIAL

TP304/304L/316L (controlled sulfur content of 0.005%~0.017% are available from stock)

Other materials can be readily prepared on request.

## BRIGHT ANNEALED WITH

99.99% hydrogen gas at the minimum temperature level of 1060 with sufficient holding time for proper crystallization and rapidly quenched to achieve the maximum cold-finish effect.

## MINOR BUT IMPORTANT PROCESS

Weld ends are corner-cut at 90 degrees to the tube length, offering superior repeatability for automatic orbital welding and manual weld. De-ionized water is used thoroughly in rinsing process.

## TEST PROCEDURES

- ▶ Verification of test certificate
- ▶ Verification of dimensions
- ▶ 100% visual inspection
- ▶ Eddy current testing (ECT)
- ▶ Surface Roughness Measurements
- ▶ Corner Cut Angle Measurements

## REQUIRED MECHANICAL AND OPTIONAL TESTS

- ▶ Flattening
- ▶ Reverse Bend
- ▶ Flange
- ▶ Hardness
- ▶ Tension
- ▶ Reverse Flattening

## STANDARD LINEMARKING

MEGA CREST A269/A270 TP304L WELDED 1.0"\*0.065"\*20' HEAT NUMBER

## PACKAGING AND BOXES

Individually sealed with PE sleeve and ends are closed with PE caps.

Tubes are normally delivered in protective tri-walled corrugated cartons.

Protective wooden boxes are also available on a special request.



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## CHEMICAL COMPOSITION (A270-S2)

ELEMENTS		304L (%)	316L (%)
C	CARBON	0.035	0.035
Mn	MANGANESE	2.0	2.0
P	PHOSPHORUS	0.045	0.045
S	SULFUR	0.030	0.005-0.017
Si	SILICON	1.0	1.0
Ni	NICKEL	8.0-12.0	10.0-14.0
Cr	CHROMIUM	18.0-20.0	16.0-18.0
Mo	MOLYBDENUM	-	2.00-3.00

## DIMENSIONAL TOLERANCES

OD(inch)		WT	Wall	Length
1/2"	±0.005	0.065"	±10.0%	UP TO 3" +1/8"-0
3/4"	±0.005	0.065"		
1"	±0.005	0.065"		
1-1/2"	±0.008	0.065"		
2"	±0.008	0.065"		
2-1/2"	±0.010	0.065"		
3"	±0.010	0.065"		4" TO 6" +3/16"-0
4"	±0.015	0.065"		
4"	±0.015	0.083"		
6"	±0.030	0.083"		
6"	±0.030	0.109"		



## Quality Inspection and Tests



- ▶ Verification of material grade (PMI)
- ▶ 100% visual inspection (with endoscope)
- ▶ Eddy current testing (ECT)
- ▶ ID Surface Roughness Measurements
- ▶ Corner Cut Measurements
- ▶ Verification of Dimension
- ▶ Hydrostatic Test
- ▶ Air Under Water Leak Test
- ▶ Intergranular Corrosion Test (Optional)
- ▶ Weld Decay Test (Optional)



STANDARD NO.

GRADE

MANUFACTURED  
METHOD

SIZE

HEAT NO.

LOT NO.