

Standard Available in forms :

- ASTM A182/ ASME SA182 Stainless Steel Pipe Fittings
- ASTM A213 / ASME SA213 Seamless Stainless Steel Pipes
- ASTM A240/ ASME SA240 Stainless Steels Sheets / Plates
- ASTM A249/ ASME SA249 Stainless Steel Welded Tubes
- ASTM A269/ ASME SA269 Stainless Steel Tubes
- ASTM A270/ ASME SA270 Stainless Steel Sanitary Tubes
- ASTM A312/ ASME SA312 Stainless Steel Pipes
- ASTM A403/ ASME SA403 Stainless Steel Pipe Fittings
- ASTM A554/ ASME SA554 Stainless Steel Welded Tubes
- ASTM A731/ ASME SA731 Stainless Steel Pipes
- ASTM A789/ ASME SA789 Stainless Steel Tubes
- ASTM A790/ ASME SA790 Stainless Steel Pipes
- ASTM A791/ ASME SA791 Stainless Steel Tubes

Products Available in forms :

- SS 317LMN, Type 317LMN, WNR 1.4439, UNS S31726, AISI 317LMN Plates
- SS 317LMN, Type 317LMN, WNR 1.4439, UNS S31726, AISI 317LMN Pipes
- SS 317LMN, Type 317LMN, WNR 1.4439, UNS S31726, AISI 317LMN Round Bar
- SS 317LMN, Type 317LMN, WNR 1.4439, UNS S31726, AISI 317LMN Tube
- SS 317LMN, Type 317LMN, WNR 1.4439, UNS S31726, AISI 317LMN Flanges
- SS 317LMN, Type 317LMN, WNR 1.4439, UNS S31726, AISI 317LMN Wire
- SS 317LMN, Type 317LMN, WNR 1.4439, UNS S31726, AISI 317LMN Fittings

Applications

The following are some of the major applications of Grade 317LMN stainless steel:

- Paper pulp industry
- Textile industry
- Food processing industry
- Process equipment industry.

Manufacturing process

- The properties of 317LMN is similar to other conventional austenitic stainless steels, and can therefore be fabricated in a manner similar to alloys 304 and 306.
- The alloy is machined using heavy feeds and slow speeds and welded using all common methods.
- The material is initially forged at temperatures ranging from 1150 to 1205°C [2100-2200°F].
- It is then annealed at 1080 to 1175°C [1975 to 2150°F] followed by air cooling or water quenching.
- The alloy can be hardened only by cold working.

Corrosion Resistance

- The combination of high molybdenum and nitrogen gives Type 317LMN excellent resistance to chloride pitting and crevice corrosion.
- It has been applied for many years in the bodies, structural members, and internals for scrubbers for flue gas desulfurization.
- It is also a versatile and cost effective material in a wide range of chemical processing applications requiring a stainless steel with corrosion resistance better than that of 316L and 317L.

Heat Treatment

- Type 317LMN is solution annealed by heating to 1900°F minimum and followed by water quenching or rapidly cooling by other means.
- 317LMN should not be “stress relieved” by heat treatment other than a full solution anneal.
- 317LMN cannot be hardened by heat treatment

Workability

Cold Working

- Type 317LMN is readily formed and fabricated through the full range of cold working operations typically applied to the common austenitic stainless steels.
- It can be used in heading, drawing, bending, and upsetting.
- Because of its nitrogen content, 317LMN will be slightly stronger and work harden slightly faster than 316L.

Hot Working

- Type 317LMN can be hot formed in the 1700-2200°F range.
- For maximum corrosion resistance, parts that have been hot formed should be subsequently annealed at 1900°F minimum and water quenched or rapidly cooled by other means by other means.

Welding

- Type 317LMN is readily welded by a full range of conventional welding procedures [except
- To produce a fusion zone with corrosion resistance similar to that of the base metal, filler metals of Alloy 625 or its lower carbon version, are commonly used with 317LMN.

Machinability

- Type 317LMN is a very tough austenitic stainless steel subject to work hardening during deformation and is resistant to chip breaking.
- The higher molybdenum and the nitrogen make the chip abrasive, increasing tool wear.
- The best machining results are achieved with slower speeds, heavier feeds, excellent lubrication, sharp tooling, and powerful, rigid equipment



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