904L
UNS N08904

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DESCRIPTION

A low-carbon, high-alloy austenitic stainless steel engineered for severe corrosive environments. Fully austenitic by design, 904L resists precipitation ferrite and sigma phases better than conventional high-molybdenum grades. Originally developed for dilute sulfuric acid, it provides proven, exceptional general corrosion resistance in both sulfuric and phosphoric conditions.

LIMITING CHEMICAL COMPOSITION (%)

C	CR	CU	MN	MO	NI	P	S	SI
MAX 0.02	19.0-23.0	1.0-2.0	MAX 2.0	4.0-5.0	23.0-28.0	MAX 0.045	MAX 0.035	MAX 1.0

TYPICAL APPLICATIONS

- Production and transport of sulfuric acid
- Metal pickling in sulfuric acid
- Production and concentrations of phosphoric acid
- Use in seawater, brackish water, condensers, heat exchangers and general pipe work
- Paper and allied industries
- Gas washing

TENSILE REQUIREMENTS

TENSILE STRENGTH KSI (MIN.)	YIELD STRENGTH KSI (MIN.)
70	25

PRODUCT CAPABILITIES

J&J Alloys produces a wide selection of fittings, flanges, and custom components tailored to customer specifications and technical drawings. For custom inquiries or additional details, please contact your J&J Alloys sales representative.

PRODUCT	SIZE (NPS)	PRODUCT	SIZE (NPS)	PRODUCT	SIZE (NPS)
SW/THRD Couplings	1/8” - 8”	SW/THRD 90s	1/2” - 4”	BW Tees	1/2” - 10”
SW/THRD Half Couplings	1/8” - 8”	SW/THRD 90s (Block Pattern)	1/2” - 4”	BW LR/SR 90s (Block Pattern)	1/2” - 4”
THRD Plugs (Hex/Round/Square)	1/8” - 6”	SW/THRD Tees	1/2” - 4”	BW Cross (Block Pattern)	1/2” - 12”
THRD Hex Bushings	1/8” - 6”	SW/THRD Cross (Block Pattern)	1/2” - 4”	Pipe Nipples	1/4” - 8”
SW/THRD Inserts	1/8” - 4”	SW/THRD Caps	1/2” - 6”	Studding Outlets (Flat Bottom)	1/2” - 24”
BW/SW/THRD Unions	1/8” - 4”	BW Caps (Dome Shaped)	1/2” - 24”	ASME B16.5 (dims) Flanges	1/2” - 24”
Olets (TOL, SOL, WOL, EOL, LOL)	1/8” - 24”	MSS (Short) Stub Ends	1/2” - 60”	ASME B16.47 Flanges Series A&B	26” - 60”
Conc/Ecc Swages	1/2” - 8”	ASA (Long) Stub Ends	1/2” - 60”	Taper Bore BW 45s	1/2” - 30”
SW/THRD 45s	1/2” - 4”	BW Concentric Reducers	3/4” - 30”	Taper Bore BW 90s	1/2” - 30”
SW/THRD 45s (Block Pattern)	1/2” - 4”	BW Eccentric Reducers	3/4” - 24”	Taper Bore BW Tees	1/2” - 30”

NOTE: The information on this sheet have been compiled from a variety of sources, and should be considered as a general guide only. The information and data included are accurate to the best of our knowledge, and may be revised at any time without notice. J&J Alloys assumes no responsibility for the accuracy of this information.

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