



CASE STUDY

Duplex SA789 U-Bend Bundles

Metalforms Ltd. | Motiva Chemical Plant Retube Project



14 U-Bend Bundles
difficult testing, bending and annealing requirements

Project Snapshot

PRODUCT Duplex stainless U-bend bundles	MATERIAL SA789 S31803 / S32205	SCOPE 14 U-bend bundles	END USE Chemical plant condenser/retube service
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Overview

Metalforms Ltd. required Ameritube to support a demanding duplex U-bend bundle package for a Motiva chemical plant retube project. The job required coordination of raw material traceability, supplier qualification, bending, annealing, inspection, third-party testing, and final quality documentation.

Why This Project Mattered

The bundle design required tight control over bend geometry, heat treatment, hardness, corrosion resistance, and nondestructive testing. Ameritube managed the commercial and technical supply chain and delivered a completed package suitable for customer review and plant installation planning.

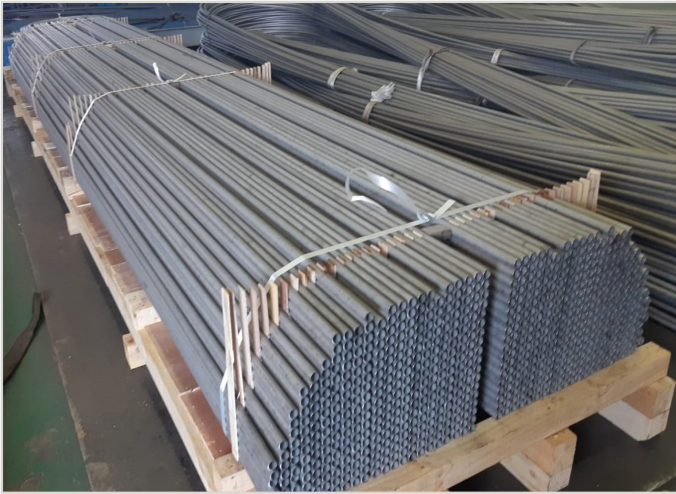
Technical Control SA789 material requirements, bend schedule conformity, heat treatment, hydrostatic testing, dimensional checks, and quality package review.	Documentation Raw and final MTRs, PMI records, A923 testing, hardness reports, hydrostatic records, dimensional inspection, and heat treatment records.	Project Execution Ameritube sourced, qualified suppliers, managed inspection requirements, and coordinated delivery of a complex 14-bundle retube project.
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Technical Execution & Quality Package

Duplex SA789 U-bend bundles for chemical plant condenser retube service



Manufacturing & Packaging Evidence



Technical Requirements Managed

Requirement Area	Execution / Documentation
Material / Grade	SA789 S31803 / S32205 duplex stainless tubing
Bending / Geometry	U-bend bundles produced to bend schedule and dimensional requirements
Heat Treatment	Solution annealing / electric resistance stress relief of selected U-bends and tangent length
NDE / Pressure Testing	Eddy current testing per SA-789 and hydrostatic records
Metallurgical Testing	ASTM A923 Method A and C testing, ferric chloride corrosion test, tensile, flaring, flattening, and hardness checks
Documentation	Raw/final MTRs, PMI, dimensional inspection, heat treatment records, and quality package

Quality Records Included



A923 / Corrosion



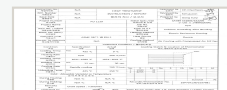
PMI



Dimensional



Hydrostatic



Heat Treatment