UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND DESCRIPTION	**TURBALOY® 502** **MC-GRADE** **GTAW SOLID BARE WELDING WIRE** **IRON BASE**	**ISSUED** JANUARY 2007 REVISION NO. A	**DATA SHEET** 6466 (20)

CROSS-REFERENCE CONFORMANCE SPECIFICATIONS

AMS 6466
UNS S50280
AWS A5.9 ER502

5.2Cr 0.55Mo 0.10C
(BS2901 A34)

METALLURGICAL BACKGROUND INFORMATION

TURBALOY® 502 is a moderately corrosion resistant steel. The final wire is manufactured by special lubricant-free, roller-die forming followed by surface abrasion and cleaning processes.
These manufacturing processes ensure consistent metallurgical integrity of the alloy with regard to control of trace elements and physical purity of the weld wire surface.

TURBALOY® 502 is used for welding material of similar composition, usually in the form of piping and tubing. The alloy is an air-hardening material, and therefore, when welding with this filler metal, preheating and postweld heat treatment are required.

MATERIALS TO BE WELDED AND APPLICATIONS

ASTM A537, A155, A335, (P5), A199 (T5), A213, A217, (C5), A387/5, UNS 50100.

Pressure vessel steam systems.
Steam turbine components.
Oil refinery components.

WIRE CHEMISTRY WT%

Carbon	-	0.10	Chromium	4.50	6.00
Manganese	-	0.60	Nickel	-	0.60
Silicon	0.25	0.60	Molybdenum	0.45	0.65
Sulfur	-	0.03	Copper	-	0.35
Phosphorus	-	0.03	Iron		Balance

Residuals, tramp elements and interstitials can be closely controlled by alternate metallugical & melting methods when requested by the customer.

WELD PROPERTIES

SIZES AND FORMS AVAILABLE

STRAIGHT LENGTHS	SPOOLED WIRE
5 lb. (2.2kg) packs 36” (914mm) lengths Flag tagged for traceability. (Double tagging and other lengths on request) Wide range of diameters.	Precision layer wound, with controlled cast and helix 12” (300mm) diameter spools standard 8” (200mm), 4” (100mm) and proprietary spool sizes on request. Wide range of diameters and spool weights.

PACKAGING

Sealed, air-evacuated, argon purged Vapor Barrier e nvelopes with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.

DISTRIBUTED BY:

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