

INSPECTION CERTIFICATE

Quality System Compliance :-
 EN 10204:2004 - 3.1
 ISO 9001
 EN/AS/JISQ 9100
 IATF 16949 (by agreement)
 TÜV Approval to AD - Merkblatt W01TRD 100
 RR9000: SABRe Approval No. 1506
For tests performed by IncoTest :-
 ISO/IEC 17025 — UKAS

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Customer's Order No. / Contract No.

SMW Sales Order - Item No. : 525763 - 10

SMW Batch No. : XEH8907-03

Cast No. : XEH8907

Product Description and Dimensions :

MONEL alloy K-500.Extruded Round.Machined.Solution Treated
 45 Dia x 4,000 / 7,000 mm NOMINAL

Advice Note No. - Item	Quantity / Unit	Piece Identities
80874874 - 10	684 Kg	

Specification(s)

This material complies with the following specification(s) :

- ASTM B865 - 04 UNS N05500
- BRITISH STANDARDS 3076 NA18
- NACE MR 0175 ISO 15156 2015 UNS N05500
- PER TABLES A34,A35 & A37
- PER TABLES A34,A35 & A37
- per tables A34, A35 and A37
- NACE MR0103-2012 UNS N05500

HEAT CHEMISTRY RESULTS.

Chemical Composition

Test Component	UOM	Min Limit	Max Limit	Sample ID	Test Result	Test Verdict
Test Type CHEMISTRY						
C	pct		0.18	B-01	0.13	PASS
	pct			T-01	0.13	PASS
Si	pct		0.5	B-01	0.2	PASS
	pct			T-01	0.2	PASS
Mn	pct		1.5	B-01	0.8	PASS
	pct			T-01	0.8	PASS
S	pct		0.010	B-01	<0.001	PASS
	pct			T-01	<0.001	PASS
Al	pct	2.3	3.2	B-01	2.9	PASS
	pct			T-01	3.0	PASS

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Test Component	UOM	Min Limit	Max Limit	Sample ID	Test Result	Test Verdict
Co	pct		2.0	B-01	0.1	PASS
	pct			T-01	0.1	PASS
Cu	pct	27.0	33.0	B-01	28.0	PASS
	pct			T-01	27.9	PASS
Fe	pct		2.0	B-01	1.2	PASS
	pct			T-01	1.2	PASS
Ni	pct			B-01	66.1	PASS
	pct			T-01	66.1	PASS
Ti	pct	0.35	0.85	B-01	0.63	PASS
	pct			T-01	0.64	PASS
Ni+Co	pct	63.0		B-01	66.2	PASS
	pct			T-01	66.2	PASS

MECHANICAL TEST RESULTS

Mechanical Tests

Test Component	UOM	Min Limit	Max Limit	Sample ID	Test Result	Test Verdict
Test Type		RT TENSILE				
Test temperature		20 degC				
Standard testing method		BS EN ISO 6892-1:2016 (A2.2.4)				
Test Piece H/T		16 hours 590 C furnace cool @ 11 C per hour cool to 480 C then air cool				
0.2Proof stress	MPa	585		90617	589	PASS
EL 4D	pct	20.0		90617	31.6	PASS
EL 5.65/A	pct	20		90617	31	PASS
UTS	MPa	900		90617	1004	PASS
Test Type		STANDARD HARDNESS				
Standard testing method		ASTM E10-18 (TYPE A)				
Type of test name		HARDNESS - BRINELL				
Hardness (Brinell)	HB		185	90616	142	PASS