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PRETORIA METAL PRESSINGS
a division of Denel (Pty) Ltd

**SPECIFICATION FOR Ø 7,5mm STAINLESS STEEL
ROD BASED ON ALLOY WN 1.4104 (DIN EN10088-3)**

DOCUMENT No: 750 2104

ISSUE 2

DBS: B11
CODE: 07750210400

INFORMATION
DATE 2021-07-12
COPY NO
ISSUED BY L. DUP

(1245.doc)

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AMENDMENT HISTORY SHEET

ISSUE	DETAILS	ECP No	DONE BY	DATE
1	Specification retyped in new format.	E2/047/03MC	I.P.	03-05-07
2	Change tensile strength to 700 MPa.	E2/195/04MC	I.P.	04-11-22

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1. SCOPE

1.1 This specification covers stainless steel rod alloy WN 1,4104 that conforms to this specification.

2. APPLICABLE DOCUMENTS

ASTM E8
DIN EN10088-3

3. REQUIREMENTS

3.1 General material requirements

The material shall be supplied as cold drawn, soft annealed and ground rods.

3.2 Product characteristics

3.2.1 The material shall be supplied with plain ends in lengths of 3 m \pm 5 cm.

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3.2.2 The diameter shall be 7,5 mm - 0,022 mm.

3.2.3 The straightness deviation shall not exceed 1,5 mm/meter.

3.2.4 Out of roundness shall not exceed 0,01 mm.

3.3 Chemical, mechanical and metallurgical properties

3.3.1 Chemical composition (Cast analysis)

ELEMENT	SPECIFICATION (%)
Carbon (C)	0,10 - 0,17 maximum
Silicon (Si)	1,0 maximum
Manganese (Mn)	1,50 maximum
Sulphur (S)	0,15 - 0,35 AJM : 0,22 - 0,35
Phosphorus (P)	0,040 maximum
Chromium (Cr)	15,50 - 17,50
Molybdenum	0,20 - 0,60

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3.3.2 Mechanical properties

Tensile strength: 700 MPa maximum (AIM: 680 MPa max).

3.3.3 Metallurgical properties

The material must be in the annealed condition.

3.4 Workmanship

3.4.1 The material must be free from cracks and eddy current tested in the as delivered condition.

3.4.2 Cracks, piping and porosity are not acceptable.

3.4.3 The material must be free from rust, kinks and handling marks.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection

4.1.1 Unless otherwise specified in the contract or order, the supplier is responsible for the performance of all inspection requirements as specified herein.

4.1.2 Except as otherwise specified, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements.

4.1.3 The purchaser or his representative reserves the right of inspection of Laboratory Certificates of raw materials and components used for the manufacture of the material.

4.1.4 The supplier shall be responsible for making available to the purchaser all facilities necessary if required, for inspection of the material.

4.1.5 The supplier will be responsible for the implementation of an applicable quality management system to assure the appropriate quality of the product. The purchaser reserves the right to audit the supplier's production facilities at all times to ascertain whether quality requirements are being met.

4.2 Special tests and examinations

Eddy current test for cracks.

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