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PRO AT FLUID CONTROL



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1) Introduction

This procedure specifies the requirement of Quality Assurance for **Identification of materials** during the project order processing.

2) Scope

To carry out **Positive Material identification**, using **X-Ray Fluorescent (XRF)** Technology. It is to measure the concentration of elements without causing any damage to the component being examined.

3) Equipment

The equipment used is **Thermo Fisher Scientific Niton XL2-202218 Analyzer** for verification of elements composition in various types of materials. The instrument is a fully portable analyzer with an integrated computer, within the **Standard Thermo Scientific™ Niton Data Transfer (NDT™)** analysis program for display / view spectra and save data.

Thermo Fisher Scientific Niton XL2-202218 Analyzer can measure different elements regardless of concentration basing on the testing scheme **1 hit x material heat**.

4) Testing Procedure

After checking the instrument proper calibration, place probe on the material / sample to be tested and press the trigger keeping the probe on the sample / material during the entire measurement. The display will indicate the composition on each element in percentage with deviation and also the common alloy detected, i.e. 316/ 304/ etc. Measurements will be stored in the Instrument memory. Stored measurement data can be printed for evaluation and reporting. Each hit for every material heat is performed for a minimum duration of 6 seconds.

5) Traceability

Spot or area tested could be identified by reference pictures or as per applicable specification.

6) Reporting

All tests shall be provided according to the last revision of the company standard inspection report format (see point No. 7 below)





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7))valveIT - PMI Certificate Sample



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PMI Test Certificate

XL2-202218

Reading No 39
Mode General Metals
Time 2023-11-24 08:00
Duration 8.74
Units %
Sigma Value 2
Sequence Final
Alloy1 SS-316 ; *2.45
SAMPLE DFV300.UPN10.DI.SS.E+SQ
HEAT H2021
LOT SFAX SWRO 100 MLD
BATCH 220926012022140
MISC POS.19 (QC)

Ele	%	+/-	$\pm 2\sigma$
Mo	2.234	+/-	0.055
Zr	0.165	+/-	0.016
Cu	0.233	+/-	0.103
Ni	*9.235	+/-	0.375
Co	0.628	+/-	0.292
Fe	70.040	+/-	0.537
Cr	17.094	+/-	0.302

Verified by valveIT QA/QC Dept.: _____