



Accreditation No: 15773

Accredited for compliance with
ISO/IEC 17025 - Testing

WILO France_t_a_WILO SE
80 Bd de l'Industrie - CS 90527
53005 Laval Cedex
FR

Client Account Number: A01610786610
Eurofins Quote Number: NSF6PH23010601

Eurofins Sample Number NJ23AA8425-1

Original Received Date:	13-Jul-2023
Description:	Yonos PICO-Z 15/0, 5-4 130; Product Range: Yonos PICO-Z 20/0, 5-4 130; Yonos PICO-Z 20/0, 5-4 140; PICO-Z 20/0, 5-4 150; Yonos PICO-Z 20/0, 5-6 150; Yonos PICO-Z 20/0, 5-6 158; Yonos PICO-Z 20/0, 5-8 150; Yonos PICO-Z 25/0, 5-4 180; Yonos PICO-Z 25/0, 5-6 130; Yonos PICO-Z 25/0, 5-6 180
Containers Submitted:	4 Unit(s)

Analysis

AS/NZS 4020:2018 Compliance Testing

Refer to Attachment # 1

Subcontracted Testing (if performed) is not covered under NATA Accreditation 15773.

NATA accreditation is associated with the testing methods to
which the GLP report relates.

Method: AS/NZS 4020, Appendix A and in-house method TMP 191100 & TMP 191101

Analysis Date: 01-Aug-2023

Sample Compliance Assessment

NJ23AA8425-1 meets the requirement(s) for all listed test(s) where specifications were applied.

Supplemental Information

Samples were tested as received. Specifications (if) reported are as provided by the client.

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Contracted Company: Eurofins ams Laboratories (Sydney)

179 Magowar Road, Girraween, NSW 2145 Australia

SampleReceiptAMS@eurofins.com

TGA Licence No: MI-2021-LI-08995-1 APVMA Licence No: 6241

Questions about this report should be directed to your project manager or the general email listed above.

1. SAMPLE INFORMATION:

Methodology: AS/NZS 4020, *Appendix A* and in-house method TMP-191100 & TMP-191101

Cross Reference No.:	Not Applicable
Interim Reporting:	Not Applicable
Batch No./ Manufacturing Date:	2023
Product Manufacturer:	WILO SE 80 Bd de l'Industrie – CS 90527, 53005 Laval Cedex - France
Sampling Organisation:	WILO SE 80 Bd de l'Industrie – CS 90527, 53005 Laval Cedex - France
General Composition:	Refer to Section 9
Product Use:	In-Line
Product Range:	Yonos PICO-Z 20/0, 5-4 130; Yonos PICO-Z 20/0, 5-4 140; PICO-Z 20/0, 5-4 150; Yonos PICO-Z 20/0, 5-6 150; Yonos PICO-Z 20/0, 5-6 158; Yonos PICO-Z 20/0, 5-8 150; Yonos PICO-Z 25/0, 5-4 180; Yonos PICO-Z 25/0, 5-6 130; Yonos PICO-Z 25/0, 5-6 180
Temperature Range:	(0 - 65)°C
Previous Testing:	Not Applicable
Sample selection for tests:	As provided by the Submitting Organisation

Sample storage conditions:	Prepared and controlled as per AS/NZS 4020, <i>Appendix A</i>
Extracts:	Prepared as per AS/NZS 4020, <i>Appendices C, D, E, F, G & H</i>
Testing procedure:	Testing is based on the recommended 'in-the-product' exposure of 1 x Yonos PICO-Z 15/0, 5-4 130 with a scaling factor of 0.1 (1/10) applied at (65 ± 2)°C to cover a cold and hot water application up to ~65°C. Refer to Section 9 for product details.
Volume retention:	~100mL

2. SUMMARY OF RESULTS:

APPENDIX	RESULTS
C - TASTE (CLAUSE 6.2)	PASSED at 'in-the-product' exposure with a scaling factor of 0.1 (1/10) applied
D – APPEARANCE (COLOUR AND TURBIDITY) (CLAUSE 6.3)	PASSED at 'in-the-product' exposure with a scaling factor of 0.1 (1/10) applied
D – APPEARANCE (ORGANIC COMPOUNDS) (CLAUSE 6.8)	PASSED at 'in-the-product' exposure with a scaling factor of 0.1 (1/10) applied
E - GROWTH OF AQUATIC MICRO-ORGANISMS (CLAUSE 6.4)	PASSED at 'total immersion' exposure
F - CYTOTOXIC ACTIVITY (CLAUSE 6.5)	PASSED at 'in-the-product' exposure with a scaling factor of 0.1 (1/10) applied
G - MUTAGENIC ACTIVITY (CLAUSE 6.6)	PASSED at 'in-the-product' exposure with a scaling factor of 0.1 (1/10) applied
H - METALS (CLAUSE 6.7)	PASSED at 'in-the-product' exposure with a scaling factor of 0.1 (1/10) applied

Based on completion and evaluation of all tests on 24/10/2023, the product, Yonos PICO-Z 15/0, 5-4 130; fully complied with the test requirements of AS/NZS 4020:2018 to cover a cold and hot water application up to ~65°C, at the recommended 'in-the-product' exposure of 1 x Yonos PICO-Z 15/0, 5-4 130 with a scaling factor of 0.1 (1/10) applied at (65 ± 2)°C

Testing although determined by the relevant product Standard, is generally recognised for up to 5 years by the certifying body, providing the testing procedures remain the same, and the background information on all wetted parts and the product are adequately documented. Also, the results stated in the report relate to the samples of the product submitted for testing. Any changes in the material formulation and supplier/manufacturer of all wetted items, the process of manufacture, the method of application, or the surface area-to-volume ratio in the end-use, could affect the suitability of the product for use in contact with drinking water, and re-testing may be required before this actual time frame, governed by the completion and evaluation date.

3. **TASTE:**

Methodology: AS/NZS 4020, *Appendix C* and in-house method TMP-191130.

Exposure: 'in-the-product'; 1 x Yonos PICO-Z 15/0, 5-4 130

Extraction temperature: (65 ± 2)°C **Scaling factor:** 0.1 (1/10) **Number of Panellists:** 5

No. of samples for Chlorine-free extract: 1 **No. of samples for Chlorinated extract:** 1

Description	Extract	Test Water	Taste (+ / -)	Taste Description (No. of tasters)	Test Dilution *(Taste intensity)
Test Blank	First 24h	Chlorine-free	NA	NA	NA
	Final 9-day	Chlorine-free	—	—	—
Sample	First 24h	Chlorine-free	NA	NA	NA
	Final 9-day	Chlorine-free	—	—	—
Test Blank	First 24h	Chlorinated	NA	NA	NA
	Final 9-day	Chlorinated	—	—	—
Sample	First 24h	Chlorinated	NA	NA	NA
	Final 9-day	Chlorinated	—	—	—

+ Taste detected — No taste detected NA Not applicable

AS/NZS 4020 test requirement: Minimum of 4 tasters with no discernible taste at the first 1/2 dilution.

Figure in brackets is the number of panellists detecting a taste at this dilution.

Note:

1. Tasters are given a 14-point scale to describe its intensity, with minimum of 1 as extremely weak, and maximum of >14 as extremely strong. An average of all tasters represents taste intensity.
2. First extract becomes final extract.

EVALUATION:

On the basis of these results the samples of this product referred to in this report have complied with the test requirements of AS/NZS 4020:2018, Taste; *Appendix C*.

4.A. APPEARANCE: COLOUR AND TURBIDITY

Methodology: AS/NZS 4020, *Appendix D* and in-house methods TMP-191140 and TMP-191106.

Exposure: 'in-the-product'; 1 x Yonos PICO-Z 15/0, 5-4 130

Extraction temperature: (65 ± 2)°C

Scaling factor: 0.1 (1/10)

No. of samples tested: 1

	a) TRUE COLOUR: Hazen Units (HU)		b) TURBIDITY: Nephelometric Turbidity Units (NTU)	
	First 24h	Final 9-day	First 24h	Final 9-day
Sample Extract pH (9-day) = 5.73	NA	<2	NA	0.09
Test Blank pH (9-day) = 5.97	NA	<2	NA	0.06
FINAL RESULT	NA	<2	NA	0.03
AS/NZS 4020 Test sample requirements	≤5		≤0.5	

< = less than

≤ = less than or equal to

NA Not applicable

First extract becomes final extract

For test a), test extractions were performed by Eurofins | ams. The test extracts were subsequently subcontracted to Eurofins | Environment Testing for assessment (NATA Accreditation No. 1261), Report No. 1016635-W-V2. In-house Method based on APHA 2120 B.

EVALUATION:

On the basis of these results the samples of this product referred to in this report have complied with the test requirements of AS/NZS 4020:2018, Appearance (Colour & Turbidity); *Appendix D*.

4.B. APPEARANCE: ORGANIC COMPOUNDS

Methodology: AS/NZS 4020, *Appendix D* and in-house methods TMP-191140 and TMP-191106.

Refer to Section 4.A for testing conditions (Exposure, Extraction temperature, Scaling factor & No. of Samples tested)

Extract: 9-day

No.	Organic Compound	Drinking Water Guideline Maximum Allowable Concentration mg/L (ppm)	Limit of Reporting mg/L (ppm)	Test Blank mg/L (ppm)	Sample Extract I mg/L (ppm)	FINAL RESULT I mg/L (ppm)
Volatiles						
1	¹ Benzene	0.001*	0.001	<0.001	<0.001	<0.001
2	¹ Carbon tetrachloride	0.003*	0.001	<0.001	<0.001	<0.001
3	¹ Chlorobenzene	0.3*	0.00001	<0.00001	<0.00001	<0.00001
4	¹ 1,2-dichloroethane	0.003*	0.00001	<0.00001	<0.00001	<0.00001
5	¹ 1,1-dichloroethene	0.03*	0.001	<0.001	<0.001	<0.001
6	¹ Cis 1,2-dichloroethene	0.06*	0.00001	<0.00001	<0.00001	<0.00001
7	¹ Trans 1,2-dichloroethene	0.06*	0.001	<0.001	<0.001	<0.001
8	¹ Dichloromethane (methylene chloride)	0.004*	0.00002	0.00004	0.00003	<0.00002
9	¹ Ethylbenzene	0.3*	0.001	<0.001	0.001	0.001
10	¹ Styrene (Vinylbenzene)	0.03*	0.001	0.005	0.006	0.001
11	¹ Tetrachloroethene	0.05*	0.00002	<0.00002	<0.00002	<0.00002
12	¹ Toluene	0.8*	0.001	<0.001	<0.001	<0.001
13	¹ Trichlorobenzenes	0.03*	0.0005	<0.0005	<0.0005	<0.0005
14	¹ Trichloroethene	0.02**	0.00001	<0.00001	<0.00001	<0.00001
15	¹ Vinyl chloride	0.0003*	0.00005	<0.00005	<0.00005	<0.00005
16	¹ Xylene	0.6*	0.003	<0.003	<0.003	<0.003
Volatiles (Trihalomethanes)						
17	¹ Bromodichloromethane***	0.06**	0.001	<0.001	<0.001	<0.001
18	¹ Bromoform***	0.1*	0.001	<0.001	<0.001	<0.001
19	¹ Chloroform***	0.25*	0.005	<0.005	<0.005	<0.005
20	¹ Dibromochloromethane***	0.15**	0.001	<0.001	<0.001	<0.001
Chlorinated Hydrocarbons						
21	¹ Hexachlorobutadiene	0.0007*	0.0005	<0.0005	<0.0005	<0.0005
22	¹ Plasticisers di(2-ethylhexyl) (Phthalate)	0.009**	0.0005	<0.005	<0.005	<0.005
23	¹ 2-chlorophenol	0.3*	0.00001	<0.00001	<0.00001	<0.00001
24	¹ 2, 4-dichlorophenol	0.2*	0.00001	<0.00001	<0.00001	<0.00001
25	¹ 2, 4, 6-trichlorophenol	0.02*	0.00002	<0.00002	<0.00002	<0.00002
26	¹ 1,2-dichlorobenzene	1.5*	0.0005	<0.005	<0.005	<0.005
27	¹ 1,4-dichlorobenzene	0.04*	0.0005	<0.005	<0.005	<0.005
28	¹ Benzo-(a)-pyrene (PAHs)	0.00001*	0.00001	<0.00001	<0.00001	<0.00001
Epichlorohydrin by EPA 524.2 Modified						
29	² Epichlorohydrin	0.0005 *	0.0004	<0.0004	<0.0004	<0.0004
Nitrosamines						
30	³ N-Nitrosodimethylamine (NDMA)	0.0001*	0.00001	0.01030	0.01010	<0.00001

*Australian Drinking Water Guideline

**NZ Drinking Water Guideline

4.B. APPEARANCE: ORGANIC COMPOUNDS CONT.:

¹ Test extractions were performed by Eurofins | ams. The test extracts were subsequently subcontracted to Eurofins | Environment Testing, NATA Accreditation No. 1261, Report No. 1015925-W-V2. In-house Method based on USEPA 522, 8260D & 8270E.

² (Epichlorohydrin) Test extractions were performed by Eurofins | ams. The test extracts were subsequently subcontracted to Eurofins | Eaton, ANSI-ASQ National Accreditation Board/ANAB Accreditation No. AT 1807, Report No. 380-58929-1. In-house Method based on USEPA 524.2 Modified.

³ Test extractions were performed by Eurofins | ams. The test extracts were subsequently subcontracted to Sydney Water, NATA Accreditation No. 63, Report No. 289822. In-house Method based on USEPA 521.

EVALUATION:

On the basis of these results the samples of this product referred to in this report have complied with the test requirements of AS/NZS 4020:2018, Appearance (Organic Compounds); Appendix D.

5. GROWTH OF AQUATIC MICRO-ORGANISMS:

Methodology: AS/NZS 4020, *Appendix E* and in-house method TMP-191150.

Incubation temperature: (30 ± 1)°C

Exposure: 'total immersion'

No. of Samples: 1

Component Name	Testing Exposure	Inoculum (mL)	* MEAN DISSOLVED OXYGEN DIFFERENCE (MDOD) in mg/L
i) Pump Gasket (Part # 4008336) + Rotor Shaft (Part # 4244942) + Thrust Bearing Support (Part # 4210054)	1 of each / 1L	100	<0.01
ii) Impeller (Part # 4249615) + Thrust Bearing (Part # 2084259) + Floating Ring (Part # 4171502) + Front Bearing (Part # 4178834)	1 of each / 1L	100	<0.01
Negative Reference Control (glass plate)	~15,000mm ² / 1L	100	<0.01
Positive Reference Control (paraffin waxed glass plate)	~15,000mm ² / 1L	100	6.39
Test Blank	Blank / 1L	100	6.13 in mg/L as mean dissolved oxygen

* Difference from test blank and represents mean of five readings (weeks 5, 5 ½, 6, 6 ½ & 7)

AS/NZS 4020 test sample requirements: Less than or equal to 2.4 for MDOD

In-house Method based on APHA 4500 OG.

EVALUATION:

On the basis of these results the samples of this product referred to in this report have complied with the test requirements of AS/NZS 4020:2018, Growth of Aquatic Micro-organisms; *Appendix E*.

6. CYTOTOXIC ACTIVITY:

Methodology: AS/NZS 4020, *Appendix F* and in-house method TMP-191160.

Exposure: 'in-the-product'; 1 x Yonos PICO-Z 15/0, 5-4 130

Extraction temperature: (65 ± 2)°C

Scaling factor: 0.1 (1/10)

Extracts: 24h, 48h & 72h

No. of samples tested: 1

The test sample extracts from the product, as well as the test blank (test water) were used to prepare a nutrient growth medium, subsequently utilised to grow a monkey kidney cell line (VERO ATCC CCL 81).

Microscopic Examination	Test Sample Extract (24h, 48h and 72h)	Test Blank (24h, 48h and 72h)
Cell Morphology:	Satisfactory	Satisfactory
Monolayer: Confluence/Healthy Growth as ~%	100%	100%

NA = Not applicable

Cytotoxicity was detected with Zinc Sulphate, used as a positive control and analysed at 0.4mM of Zinc.

Water for Irrigation was included with the test blank as negative control.

AS/NZS 4020 test sample requirements: 1) Non-cytotoxic response- confluent monolayer similar to test blank.

2) Cytotoxic response- irregularly shaped cells & cell death similar to positive control 0.4mM Zinc Sulphate.

EVALUATION:

On the basis of these results the samples of this product referred to in this report have complied with the test requirements of AS/NZS 4020:2018, Cytotoxic Activity; *Appendix F*.

7. MUTAGENIC ACTIVITY:

Methodology: AS/NZS 4020, *Appendix G* and in-house method TMP-191170.

Exposure: 'in-the-product'; 1 x Yonos PICO-Z 15/0, 5-4 130

Extraction temperature: (65 ± 2)°C

Scaling factor: 0.1 (1/10)

Extract: 24h

No. of samples tested: 1

-S9	<i>Salmonella typhimurium</i> TA98	Mean	Std Deviation	+ S9	<i>Salmonella typhimurium</i> TA98	Mean	Std Deviation
-ve c	64 66 64	65	1	-ve c	71 79 78	76	4
2,4-DNPH	150 174 158	161	12	2-AA	220 226 224	223	3
T.BLK	72 59 63	65	7	T.BLK	74 77 73	75	2
Sample	67 68 54	63	8	Sample	59 58 77	65	11

-S9	<i>Salmonella typhimurium</i> TA102	Mean	Std Deviation	+ S9	<i>Salmonella typhimurium</i> TA102	Mean	Std Deviation
-ve c	600 940 464	668	245	-ve c	536 648 640	608	62
2,4-DNPH	1176 1144 1040	1120	71	Benzo(a)pyrene	1056 1216 1056	1109	92
T.BLK	616 648 816	693	107	T.BLK	912 736 888	845	95
Sample	480 656 752	629	138	Sample	672 576 600	616	50

+ S9 = * Metabolic Activator

NA = Not applicable

> = greater than

2,4-DNPH = 2, 4-dinitrophenylhydrazine

2-AA = 2-aminoanthracene-ve c = Negative Control

TA98 & TA102: Base-pair substitution type

AS/NZS 4020 test sample requirements: (The differences in the mean number of revertants between either of the negative controls and test sample extracts should not exceed two standard deviations (for triplicate analysis)).

Positive response: If mean revertants for sample extract outside the range of spontaneous revertants for test strain.

EVALUATION:

On the basis of these results the samples of this product referred to in this report have complied with the test requirements of AS/NZS 4020:2018, Mutagenic Activity; *Appendix G*.

8. METALS:

Methodology: AS/NZS 4020, *Appendix H* and in-house methods TMP-191180 and TMP-191230.

Exposure: 'in-the-product'; 1 x Yonos PICO-Z 15/0, 5-4 130

Extraction temperature: (65 ± 2)°C

Scaling factor: 0.1 (1/10)

Extracts: 9-day

No. of samples for I: 1

No. of samples for II: 1

Element	AS/NZS 4020: Maximum Allowable Concentration mg/L (ppm)	Limit of Reporting mg/L (ppm)	Test Blank mg/L (ppm)	Sample Extract I mg/L (ppm)	Sample Extract II mg/L (ppm)	FINAL RESULT I mg/L (ppm)	FINAL RESULT II mg/L (ppm)
Aluminium ¹ (Al)	0.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Antimony ¹ (Sb)	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic ¹ (As)	0.01	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium ¹ (Ba)	0.7	0.001	<0.001	0.001	0.001	0.001	0.001
Boron ¹ (B)	1.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium ¹ (Cd)	0.002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chromium ¹ (Cr)	0.05	0.001	<0.001	<0.001	0.001	<0.001	0.001
Copper ¹ (Cu)	2	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron ¹ (Fe)	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lead ¹ (Pb)	0.01	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese ¹ (Mn)	0.1	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury ¹ (Hg)	0.001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum ¹ (Mo)	0.05	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nickel ¹ (Ni)	0.02	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium ¹ (Se)	0.01	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silver ¹ (Ag)	0.1	0.001	<0.001	<0.001	<0.001	<0.001	<0.001

< = less than mg/L = milligram per litre ¹ = ICPMS – In-house Method Code: LTM-MET 3040

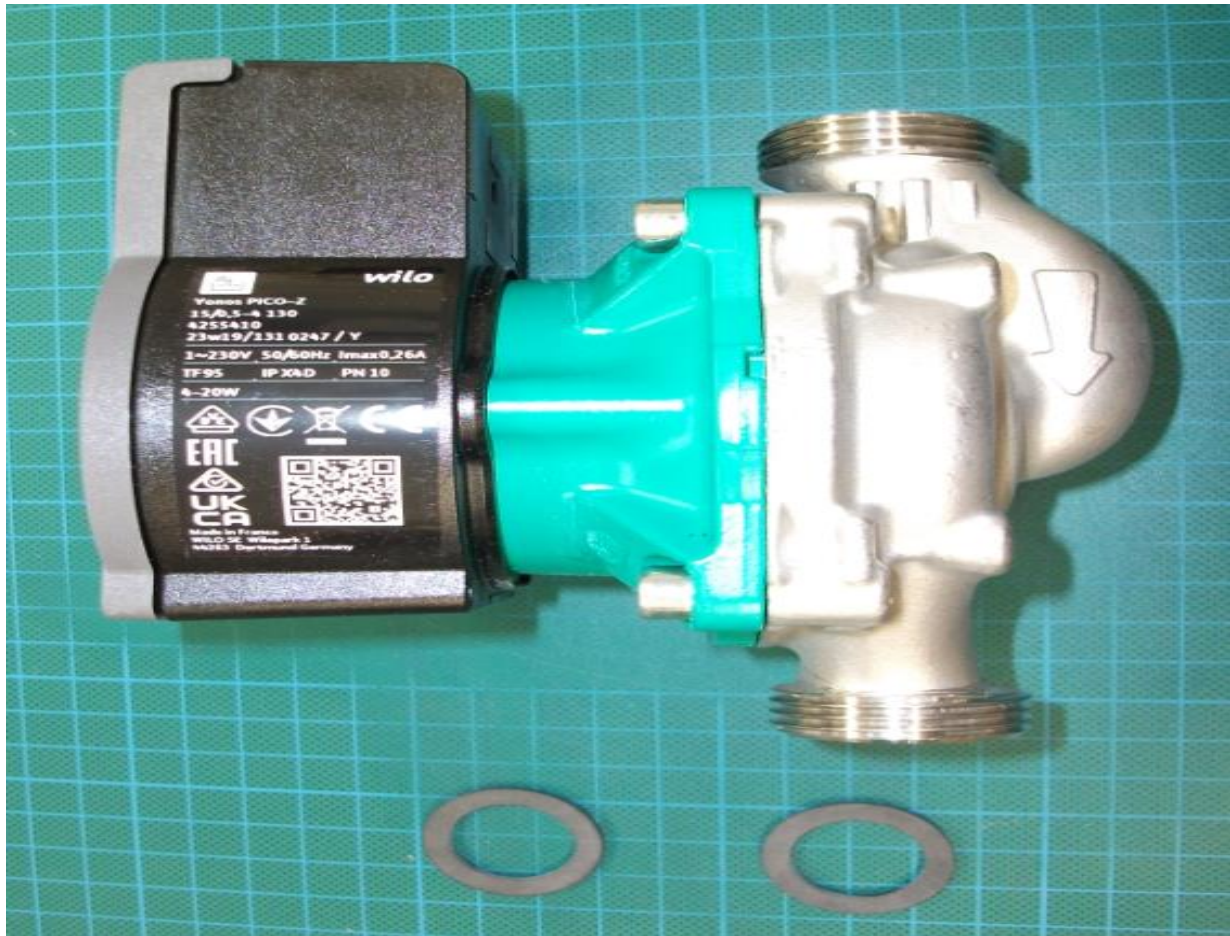
First extract becomes final extract. NA = Not applicable

Test extractions were performed by Eurofins ams Laboratories Pty. Ltd. The test extracts were subsequently subcontracted to Eurofins | Environment Testing for assessment (NATA Accreditation No. 1261), Report No. 1016635-W-V2. In-house Method based on US EPA Method 3010A & US EPA Method 6020B.

EVALUATION:

On the basis of these results the samples of this product referred to in this report have complied with the test requirements of AS/NZS 4020:2018, Metals; *Appendix H*.




9.I. PHOTOS OF TEST SAMPLE:



9.IV. DESCRIPTION OF PRODUCT RANGE:

'DESCRIPTION OF THE PRODUCT RANGE YONOS PICO-Z & STRATOS PICO-Z 2.0				4261459 <small>P:1/13</small>	
Stratos PICO-Z Yonos PICO-Z	20 / 0,5 - 6 20 / 0,5 - 6	150	Pipe to pipe distance (mm) Default (180 mm) or value		
			Maximum manometric height		
			Minimum manometric height		
			Ø of pipe connection (mm)		
MODEL NAME (Yonos with HEM display / Stratos PICO-Z with TFT display)					
<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>LISTING DES PRODUITS:</p> <p>Yonos PICO-Z 15/0,5-4 130</p> <p>Yonos PICO-Z 15/0,5-4 140</p> <p>Yonos PICO-Z 20/0,5-4 150</p> <p>Yonos PICO-Z 20/0,5-6 150</p> <p>Yonos PICO-Z 20/0,5-6 158</p> <p>Yonos PICO-Z 20/0,5-8 150</p> <p>Yonos PICO-Z 25/0,5-4 180</p> <p>Yonos PICO-Z 25/0,5-6 130</p> <p>Yonos PICO-Z 25/0,5-6 180</p> <p>Stratos PICO-Z 20/0,5-4</p> <p>Stratos PICO-Z 20/0,5-6</p> <p>Stratos PICO-Z 20/0,5-8</p> <p>Stratos PICO-Z 25/0,5-4</p> <p>Stratos PICO-Z 25/0,5-6</p> <p>Stratos PICO-Z 25/0,5-8</p> <p>Stratos PICO-Z 30/0,5-4</p> <p>Stratos PICO-Z 30/0,5-6</p> <p>Stratos PICO-Z 30/0,5-8</p> </div>					
02	3/05/2023		H,LEMESLE	H. BOUILLY	
01	24/11/2022		H,LEMESLE	H. BOUILLY	
Ed	Date	N° AC	Etabli par	Visa	Vérifié par Visa

9.V. METALLURGICAL TEST REPORT:

	UNIVERSAL SCIENTIFIC LABORATORY PTY LTD <small>ABN 76 093 281 764</small> UNIT 12, 65 MARIGOLD STREET, REVESBY NSW 2212, AUSTRALIA PO BOX 49, MILPERRA NSW 2214, AUSTRALIA TELEPHONE: +61(2) 9771 5592 • FACSIMILE: +61(2) 9771 2482 EMAIL: info@usl.com.au WEBSITE: www.usl.com.au																						
<h2 style="margin: 0;">ANALYSIS REPORT</h2>																							
ORIGIN: AMS LABORATORIES P/L DESCRIPTION: Housing of "Wilo" Recirculating Pump. ORDER NO: 7903 ALLOY CODE A351 CF8M	REPORT NO: 23/2904 REPORT DATE 12 /10/23 LOG BOOK NO: 230362 HEAT NO: COLOUR CODE																						
Sample No.	UNITS W/W %																						
#1	<table border="0" style="width: 100%; font-family: monospace;"> <tr> <td style="width: 5%;">C</td><td style="width: 5%;">S</td><td style="width: 5%;">P</td><td style="width: 5%;">Si</td><td style="width: 5%;">Mn</td><td style="width: 5%;">Cr</td><td style="width: 5%;">Ni</td><td style="width: 5%;">Cu</td><td style="width: 5%;">Mo</td><td style="width: 5%;">V</td><td style="width: 5%;">Ti</td> </tr> <tr> <td>.03</td><td><.01</td><td>.02</td><td>.61</td><td>.78</td><td>18.9</td><td>9.9</td><td>.32</td><td>2.2</td><td>.06</td><td>.01</td> </tr> </table>	C	S	P	Si	Mn	Cr	Ni	Cu	Mo	V	Ti	.03	<.01	.02	.61	.78	18.9	9.9	.32	2.2	.06	.01
C	S	P	Si	Mn	Cr	Ni	Cu	Mo	V	Ti													
.03	<.01	.02	.61	.78	18.9	9.9	.32	2.2	.06	.01													
MAX:	<table border="0" style="width: 100%; font-family: monospace;"> <tr> <td colspan="11" style="text-align: center;">SPECIFICATION LIMITS</td> </tr> <tr> <td>.08</td><td>.040</td><td>.040</td><td>-</td><td>1.50</td><td>21.0</td><td>12.0</td><td></td><td>3.0</td><td></td><td></td> </tr> </table>	SPECIFICATION LIMITS											.08	.040	.040	-	1.50	21.0	12.0		3.0		
SPECIFICATION LIMITS																							
.08	.040	.040	-	1.50	21.0	12.0		3.0															
MIN:	<table border="0" style="width: 100%; font-family: monospace;"> <tr> <td></td><td></td><td></td><td></td><td></td><td>18.0</td><td>9.0</td><td></td><td>2.0</td><td></td><td></td> </tr> </table>						18.0	9.0		2.0													
					18.0	9.0		2.0															
ANALYTICAL TECHNIQUE(S)																							
Method	<table border="0" style="width: 100%; font-family: monospace;"> <tr> <td>P016</td><td>P016</td><td>E353</td><td>M100</td><td>M100</td><td>M100</td><td>M100</td><td>M100</td><td>M100</td><td>M100</td><td>M100</td> </tr> </table>	P016	P016	E353	M100	M100	M100	M100	M100	M100	M100	M100											
P016	P016	E353	M100	M100	M100	M100	M100	M100	M100	M100													
MU																							
MU= Measurement Uncertainty																							
REMARKS: WIL NJ23AA8425-1/-2																							
This analysis was performed at: 12, 65 Marigold St., Revesby To the best knowledge of the company the results on this report are correct, however no legal responsibility will be accepted for or arising from their use. Samples were tested as received unless stated otherwise. The report shall not be reproduced unless in full. Measurement uncertainty data are available on request.																							
	<div style="text-align: center;">  WILLIAM TING AUTHORISING OFFICER </div> <div style="text-align: right; margin-top: 20px;"> <i>checked</i> <i>N.S.</i> 14/10/23 </div>																						