



MT-INSPECTION

# INSPECTION REPORT

<b>Inspection Report No:</b>	MT-20260521-001	<b>Date:</b>	May 21th, 2026
<b>Inspection Notification No:</b>	01	<b>Date:</b>	May 14th, 2026
<b>PO No.:</b>	N/A	<b>Date:</b>	N/A
<b>Client:</b>	N/A		
<b>Material on Order:</b>	Aluminum hot mill work roll		
<b>Supplier:</b>	Wuxi Huake Special Steel Co., Ltd	<b>Location:</b>	<b>Wuxi City, Jiangsu Province</b>
<b>Sub-Supplier:</b>	N/A	<b>Location:</b>	N/A
<b>Visit Date (s):</b>	May 21th, 2026	<b>Inspection:</b>	STAGE / <b>FINAL</b>

## A) MANUFACTURER QUALITY PLAN – Inspection Activity Reporting:

<b>MQP POINT No.</b>	<b>ACTIVITY DESCRIPTION</b>	<b>INSPECTION POINT (Hold / Witness / Review)</b>	<b>Performance Date</b>
-	Visual Inspection	W	May 21th, 2026
-	Dimension Measurement	W	May 21th, 2026
-	Hardness Test	W	May 21th, 2026
-	PMI Test	W	May 21th, 2026
-	Ultrasonic Flaw Detection(UT)	W	May 21th, 2026
-	Magnetic Particle Inspection(MT)	W	May 21th, 2026
-	Surface Roughness Inspection	W	May 21th, 2026

## B) MANUFACTURING & ENGINEERING STATUS:

<b>Engineering Hold-up:</b>	Finished
<b>Manufacturing in Process:</b>	Finished
<b>Inspection Status</b> (On hold, in process, etc.):	Finished
<b>PO Completion Date:</b>	<b>May 21th, 2026</b>
<b>New Estimated Completion Date:</b>	N/A

## C) SUPPLIER'S CONTACT:

	<b>Primary Contact</b>	<b>Secondary Contact</b>
<b>Contact Name:</b>	Weng Xiaojie	Mr. Guo



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Title:	Salesman	Manager
Telephone:	+86-13961751912	+86-13915267987
Facsimile / Email:	-	-

## D) MATERIAL OFFERED FOR INSPECTION:

PO ITEM No.	DESCRIPTION OF MATERIAL / EQUIPMENT	Tag / ID No. / S. No.	ORDERED QUANTITY	OFFERED QUANTITY	ACCEPTED QUANTITY
/	Aluminum hot mill work roll	005628-0101-R01	1	1	0

## E) SUPPLIER NON CONFORMANCE:

IF ANY, ENCLOSED REPORT NO.:

N/A

## F) SUMMARY OF QUALITY SURVEILLANCE ACTIVITIES PERFORMED:

### ● TESTS / CHECKS WITNESS:

The inspector arrived at Wuxi Huake Special Steel Co., Ltd. on 21<sup>th</sup> May,2026 and performed blow inspection for Aluminum hot mill work roll as follow:

- The factory provided calibration certificates for all test equipments, the inspector also conducted a zeroing inspection of all test equipments on site, and the results were acceptable.
- The inspector witnessed the visual inspection on site, found some burrs on surface. The result is unacceptable. The factory will fix this problem.
- The inspector witnessed the hardness test on site, the hardness of roll body were HS73.1-75.8 and surface hardness of roll neck were HS43.2-43.9, according to customer and drawing requirements(HS73-76 at roll body and roll neck HS42-45), the result is acceptable.
- The inspector witnessed the PMI test on site, the spectrometer provided by the factory can only test the metal composition(Cr,Mn,Fe,Mo), the test results show that in the metal composition, the test results are within the limits specified in the drawing, according to customer and drawing requirements, the result is pending.

Chemical analysis(PMI)(%)						
Chemical element	Sample 1	Sample 2	Sample 3	Sample 4	Sample 6	Sample 6
C:0.4~0.6%	-	-	-	-	-	-
Si:0.4~0.8%	-	-	-	-	-	-
Mn:0.5-0.8%	0.55	0.59	0.74	0.71	0.53	0.56
P,S:≤002%	-	-	-	-	-	-
Cr:4.5~5.5%	4.48	4.62	4.39	4.50	4.49	4.55
Ni:≤0.6%	-	-	-	-	-	-



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Mo:0.4~0.8%	0.44	0.41	0.43	0.42	0.40	0.41
V:≤0.3%	-	-	-	-	-	-
Fe:%	94.54	94.38	94.44	94.37	94.58	94.47

- The inspector witnessed the Ultrasonic Flaw Detection(UT) for roll body on site,gain 64.0dB, step 6.0, sound path 1300.0mm, speed of sound 3230m/s, before the test, the surface of the equipment should be cleaned to remove paint, rust, oil stains and other contaminants. Then, a coupling agent should be evenly applied to the surface. The UT was conducted using an ultrasonic flaw detector. During the test, the a-scan waveform on the monitor was monitored and no abnormalities were observed. according to customer and drawing requirements, the result is acceptable.
- The inspector witnessed the Magnetic Particle Inspection(MT) for roll body on site,the test voltage 220V and current 3A, no cracks or other defects were found surface the product through testing, according to customer and drawing requirements, the result is acceptable.
- The inspector witnessed the surface roughness inspection on site, **found the roughness of roll body is about 0.798-0.946um(the requirement is 0.4um)** and roughness of roll neck is 0.339-1.28um(the requirement is 0.8um/1.6um),**The result is unacceptable.**
- The inspector witnessed the Dimension Measurement on site, dimensional deviation within the limits specified in the drawing, according to customer and drawing requirements, the result is acceptable. The detailed size records are as follows:

## Dimension Measurement Records

The image shows a technical drawing of a roll body with various dimensions and inspection notes. The drawing includes a main view, a cross-section view, and a detail view. The dimensions are measured in millimeters (mm). The drawing is labeled with '10H-1010-829500' and '32'. The drawing is titled '技术要求' (Technical Requirements).

**技术要求**

1. 零件应在右视图中所示的位置上制造或装配, 以保证零件内腔充分圆滑。
2. 零件不允许存在白点、内部裂纹和夹杂物。
3. 零件化学成分质量百分比: C%0.4~0.6, Si%0.4~0.8, Mn%0.5~0.8, P, S% < 0.02, Cr%4.5~5.5, Ni% < 0.6, Mo%0.4~0.8, V% < 0.3, 并符合 GB/T 1420-2017 标准。
4. 零件经整体调质处理, 硬度 HSD42-45。
5. 经 700 度淬火, 硬度 HSD73-76, 硬度均匀性: 硬度 > 2mm, 零件内表面硬度 < 0.1mm, 硬度 475 快速回火 HSD42-45。
6. 超声波探伤要求按 GB/T 1420-2017 标准执行。
7. 经表面磁粉探伤, 按 GB/T 1597-2005 标准。
8. 零件表面不允许有毛刺、麻点, 油污及异物。
9. 成品用防锈油防锈, 防锈油防锈时间 > 1 个月。

Handwritten notes on the drawing include: '左 20.08', '左 20.08', '左 20.14', '左 65.12', '左 65.12'. There are also some circular diagrams and arrows indicating measurement points.

Technical drawing details include: 10H-1010-829500, 32, 其余, 技术要求, 超声波探伤, 磁粉探伤, 防锈油防锈, 防锈油防锈时间 > 1 个月.

Company information: 无锡华特机械有限公司, 005628-0101-R01, 50Cr5MoV(C5%)



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## ● DOCUMENTS REVIEWED

- The inspector reviewed test equipment qualification certificate, it was validity period, the result was acceptable.
- The inspector reviewed the material specification provided by the supplier. The specification was consistent with the product information, and the result was acceptable.

## G) REFERENCE DOCUMENTS:

Document No.	Rev. No.	Description	Approved Code
005628-0101-R01(2)	-	Drawing 1	-
005628-0101-R01(铝热轧机工作辊% c700X1475X3350)25.10.23(2)	-	Drawing 2	-

## H) REMARKS:

(Quality Surveillance Activity Narrative Summation)

## I) IDENTIFICATION:

MQP POINT No.	ACTIVITY DESCRIPTION	INSPECTION POINT (Hold / Witness / Review)	Result
-	Visual Inspection	W	REJ.
-	Dimension Measurement	W	ACC.
-	Hardness Test	W	ACC.
-	PMI Test	W	ACC.
	Ultrasonic Flaw Detection(UT)	W	ACC.
	Magnetic Particle Inspection(MT)	W	ACC.
	Surface Roughness Inspection	W	REJ.



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## J) PHOTOGRAPH ATTACHED:



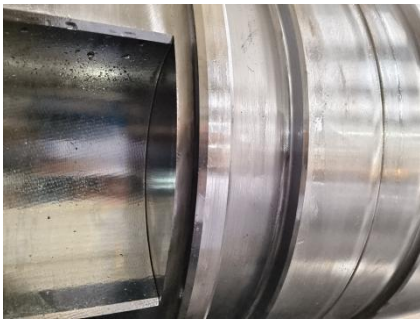
Pic.1 Visual inspection



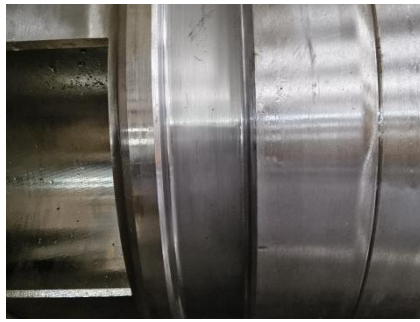
Pic.2 Visual inspection



Pic.3 Visual inspection



Pic.4 Visual inspection



Pic.5 Visual inspection



Pic.6 Visual inspection



Pic.7 Visual inspection



Pic.8 Visual inspection



Pic.9 Visual inspection



Pic.10 Visual inspection



Pic.11 Visual inspection



Pic.12 Visual inspection

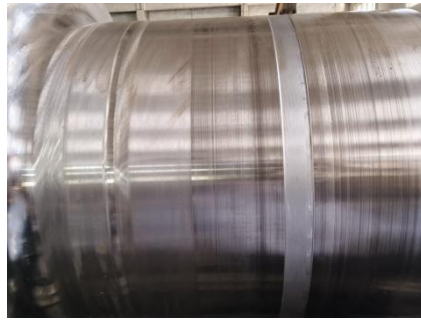


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Pic.13 Visual inspection



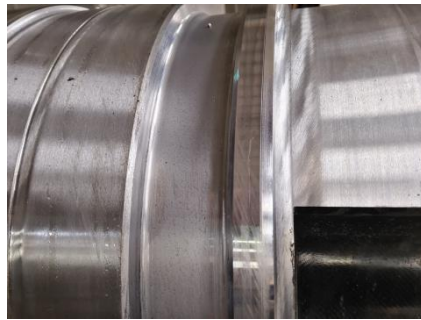
Pic.14 Visual inspection



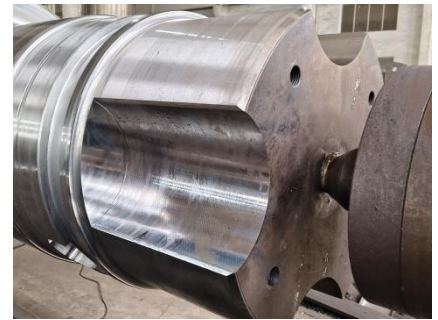
Pic.15 Visual inspection



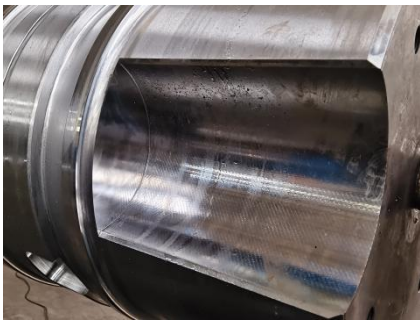
Pic.16 Visual inspection



Pic.17 Visual inspection



Pic.18 Visual inspection



Pic.19 Visual inspection



Pic.20 Visual inspection



Pic.21 Visual inspection



Pic.22 Visual inspection



Pic.23 Visual inspection



Pic.24 Visual inspection



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Pic.25 Visual inspection-Burr



Pic.26 Visual inspection-Burr



Pic.27 Visual inspection-Burr



Pic.28 Dimension measurement



Pic.29 Dimension measurement



Pic.30 Dimension measurement



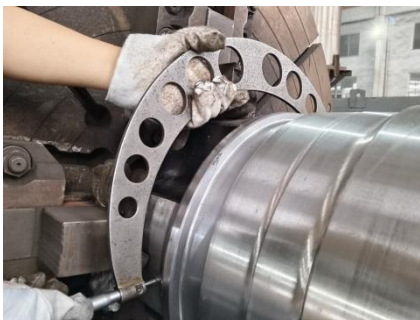
Pic.31 Dimension measurement



Pic.32 Dimension measurement



Pic.33 Dimension measurement



Pic.34 Dimension measurement



Pic.35 Dimension measurement



Pic.36 Dimension measurement



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Pic.37 Dimension measurement



Pic.38 Dimension measurement



Pic.39 Dimension measurement



Pic.40 Dimension measurement



Pic.41 Dimension measurement



Pic.42 Dimension measurement



Pic.43 Dimension measurement



Pic.44 Dimension measurement



Pic.45 Dimension measurement



Pic.46 Dimension measurement



Pic.47 Dimension measurement



Pic.48 Dimension measurement



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Pic.49 Dimension measurement



Pic.50 Dimension measurement



Pic.51 Dimension measurement



Pic.52 Dimension measurement



Pic.53 Dimension measurement



Pic.54 Dimension measurement



Pic.55 Dimension measurement



Pic.56 Dimension measurement



Pic.57 Dimension measurement



Pic.58 Dimension measurement



Pic.59 Dimension measurement



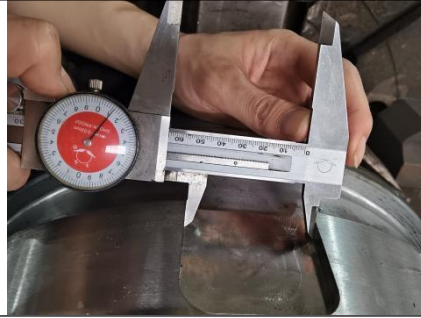
Pic.60 Dimension measurement



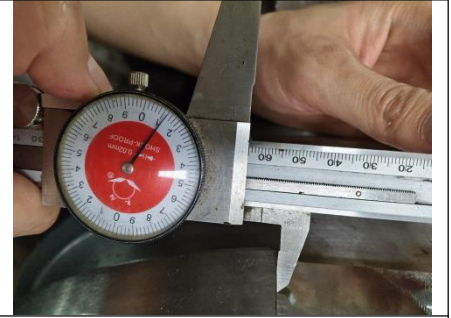
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Pic.61 Dimension measurement



Pic.62 Dimension measurement



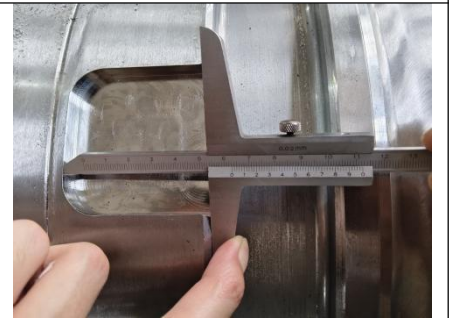
Pic.63 Dimension measurement



Pic.64 Dimension measurement



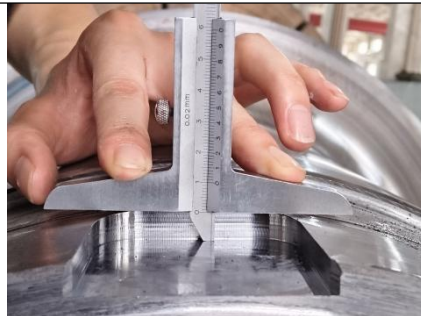
Pic.65 Dimension measurement



Pic.66 Dimension measurement



Pic.67 Dimension measurement



Pic.68 Dimension measurement



Pic.69 Dimension measurement



Pic.70 Dimension measurement



Pic.71 Dimension measurement



Pic.72 Dimension measurement





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Pic.73 Dimension measurement



Pic.74 Dimension measurement



Pic.75 Dimension measurement



Pic.76 Hardness Test



Pic.77 Hardness Test



Pic.78 Hardness Test



Pic.79 Dimension measurement



Pic.80 Dimension measurement



Pic.81 Dimension measurement



Pic.82 Dimension measurement



Pic.83 Dimension measurement



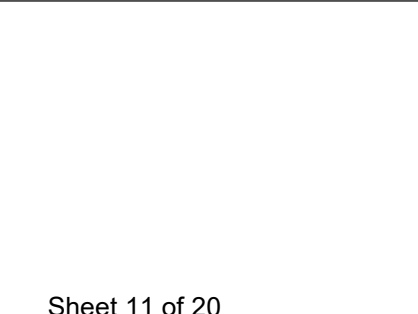
Pic.84 Dimension measurement



Pic.85 Dimension measurement



Pic.86 Dimension measurement



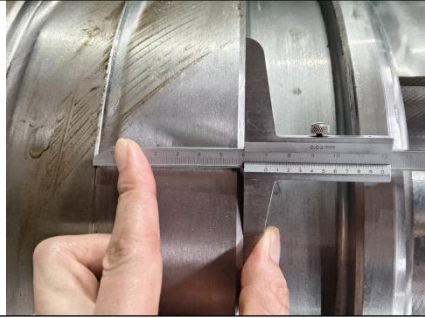
Pic.87 Dimension measurement





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Pic.88 Dimension measurement



Pic.89 Dimension measurement



Pic.90 Dimension measurement



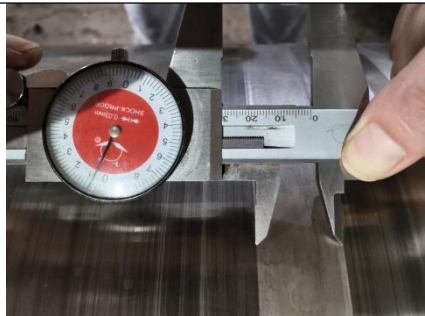
Pic.91 Dimension measurement



Pic.92 Dimension measurement



Pic.93 Dimension measurement



Pic.94 Dimension measurement



Pic.95 Dimension measurement



Pic.96 Dimension measurement



Pic.97 Dimension measurement



Pic.98 Dimension measurement



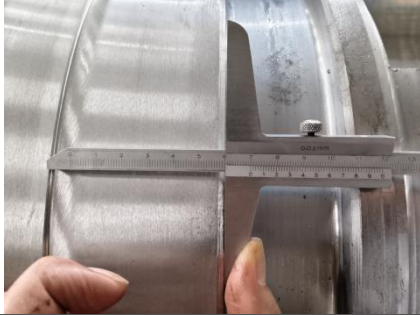


Pic.99 Dimension measurement





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Pic.100 Dimension measurement	Pic.101 Dimension measurement	Pic.102 Dimension measurement
		
Pic.103 Dimension measurement	Pic.104 Dimension measurement	Pic.105 Dimension measurement
		
Pic.106 Dimension measurement	Pic.107 Dimension measurement	Pic.108 Dimension measurement
		
Pic.109 Dimension measurement	Pic.110 Dimension measurement	Pic.111 Dimension measurement
		
Pic.112 Dimension measurement	Pic.113 Dimension measurement	Pic.114 Dimension measurement



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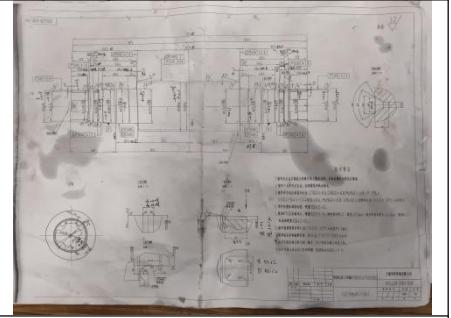
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Pic.115 Dimension measurement



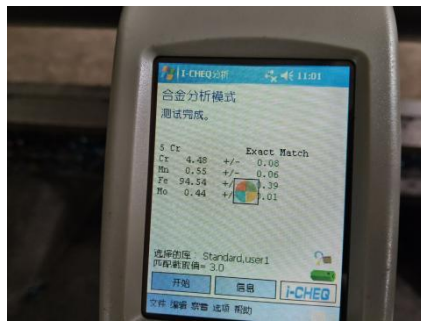
Pic.116 Dimension measurement



Pic.117 Dimension measurement



Pic.118 PMI Test



Pic.119 PMI Test



Pic.120 PMI Test



Pic.121 PMI Test



Pic.122 PMI Test



Pic.123 PMI Test



Pic.124 PMI Test



Pic.125 PMI Test



Pic.126 PMI Test



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Pic.127 PMI Test



Pic.128 Hardness Test



Pic.129 Hardness Test



Pic.130 Hardness Test



Pic.131 Hardness Test



Pic.132 Hardness Test



Pic.133 Hardness Test



Pic.134 Hardness Test



Pic.135 Hardness Test



Pic.136 Hardness Test



Pic.137 Hardness Test



Pic.138 Hardness Test



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Pic.139 Hardness Test



Pic.140 Hardness Test



Pic.141 Hardness Test



Pic.142 Hardness Test



Pic.143 Hardness Test



Pic.144 Hardness Test



Pic.145 Hardness Test



Pic.146 Hardness Test



Pic.147 Hardness Test



Pic.148 Hardness Test



Pic.149 Hardness Test



Pic.150 Hardness Test



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Pic.151 Hardness Test



Pic.152 Hardness Test



Pic.153 Hardness Test



Pic.154 Hardness Test



Pic.155 Hardness Test



Pic.156 Hardness Test



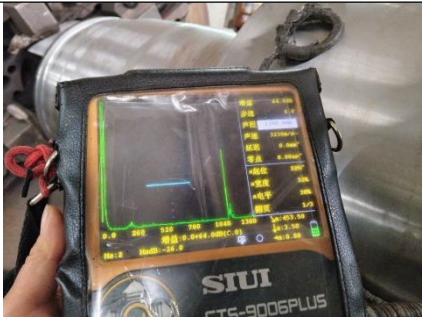
Pic.157 Hardness Test



Pic.158 UT Test



Pic.159 UT Test



Pic.160 UT Test



Pic.161 UT Test



Pic.162 MT Test



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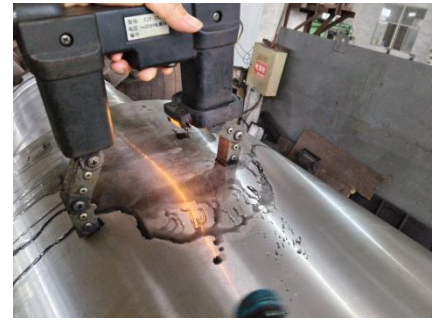
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Pic.163 MT Test



Pic.164 MT Test



Pic.165 MT Test



Pic.166 MT Test



Pic.167 MT Test



Pic.168 MT Test



Pic.169 Surface Roughness Inspection



Pic.170 Surface Roughness Inspection



Pic.171 Surface Roughness Inspection



Pic.172 Surface Roughness Inspection



Pic.173 Surface Roughness Inspection



Pic.174 Surface Roughness Inspection



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Pic.175 Surface Roughness Inspection



Pic.176 Surface Roughness Inspection



Pic.177 Surface Roughness Inspection



Pic.178 Surface Roughness Inspection



Pic.179 Surface Roughness Inspection



Pic.180 Surface Roughness Inspection



Pic.181 Surface Roughness Inspection



Pic.182 Surface Roughness Inspection



Pic.183 Surface Roughness Inspection



Pic.184 Surface Roughness Inspection



Pic.185 Surface Roughness Inspection



Pic.186 Surface Roughness Inspection

**K) DOCUMENT ATTACHED:**



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L) PO STATUS:

## INSPECTION REPORT

PARTIAL

COMPLETE

M) FURTHER INSPECTION:

YES (Tentative On: TBD)

NO

N) RESULTS OF INSPECTION:

NO REASON FOR OBJECTION

WITH OBJECTION (See Remarks)

SUPPLIER REPRESENTATIVE	INSPECTION AGENCY
Name: Mr.Guo	Name: Allen
Signature:-	Signature:-
Date: May 21th, 2026	Date: May 21th, 2026