

## Maintenance check sheet

## AC Motor Routine Maintenance

E&amp;M form No.

FM-04-010

Rev. 1Sheet 1 of 1Plant system : FCXIEquipment name : BY PASS DAMPEREquipment code : M113Type code MS8054Frame size 80Voltage (V) 220/400S/N No. G1102Rating (kW) 0.75Current (A) 3.5/2.0Manufacturer ETSTOPower Factor 0.76Frequency (Hz) 50Insulation class F (155°C)I.P 54Speed (rpm) 1410

Item	Description	Condition			
1	Cleaning of motor frame	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> NO	
2	Inspection of motor frame	<input type="checkbox"/> Damaged		<input checked="" type="checkbox"/> NO Damaged	
3	Doweling and holding down bolts inspection	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
4	Cooling fan and fan cover cleaning	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> NO	
5	Inspection cooling fan and cover	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
6	Inspection Coupling or pulley	<input type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
7	Inspection cable box and terminal connections	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
8	Inspection grouding wire connections	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
9	Stator winding insulation test	U-G <u>520 MΩ</u>	V-G <u>587 MΩ</u>	W-G <u>641 MΩ</u>	
10	Stator winding resistance test	U-V <u>20.8 Ω</u>	V-W <u>20.8 Ω</u>	U-W <u>20.8 Ω</u>	
11	Running current on load test	U <sub>(A)</sub> <u>-</u>	V <sub>(A)</sub> <u>-</u>	W <sub>(A)</sub> <u>-</u>	

Note ☒ Condition can check☐ Condition can't checkPrepared by Technician : Prempracha. D.Pichet T.Checked by Engineer : SomkiradDate : 7 Jul 2307-Jul-23Date : 7 Jul 23

## Maintenance check sheet

## AC Motor Routine Maintenance

E&amp;M form No.

FM-04-010

Rev. 1Sheet 1 of 1Plant system : FCXIEquipment name : FLUE GAS DAMPEREquipment code : M111Type code MS8054Frame size 80Voltage (V) 220/400S/N No. G1102Rating (kW) 0.75Current (A) 3.5/2.0Manufacturer ETSTOPower Factor 0.76Frequency (Hz) 50Insulation class F (155°C)I.P. 54Speed (rpm) 1420

Item	Description	Condition			
1	Cleaning of motor frame	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> NO	
2	Inspection of motor frame	<input type="checkbox"/> Damaged		<input checked="" type="checkbox"/> NO Damaged	
3	Doweling and holding down bolts inspection	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
4	Cooling fan and fan cover cleaning	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> NO	
5	Inspection cooling fan and cover	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
6	Inspection Coupling or pulley	<input type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
7	Inspection cable box and terminal connections	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
8	Inspection grouding wire connections	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage	
9	Stator winding insulation test	U-G <u>800 MΩ</u>	V-G <u>823 MΩ</u>	W-G <u>814 MΩ</u>	
10	Stator winding resistance test	U-V <u>20.9 Ω</u>	V-W <u>21.0 Ω</u>	U-W <u>20.9 Ω</u>	
11	Running current on load test	U <sub>(A)</sub> <u>-</u>	V <sub>(A)</sub> <u>-</u>	W <sub>(A)</sub> <u>-</u>	

Note ☒ Condition can check☐ Condition can't checkPrepared by Technician : Prempracha D.Pichet T.Checked by Engineer : SomkiradDate : 7 Jul 2307-Jul-23Date : 7 Jul 23

## Maintenance check sheet

## AC Motor Routine Maintenance

E&amp;M form No.

FM-04-010

Rev. 1Sheet 1 of 1Plant system : FCXIEquipment name : FLUE GAS EXTRATION FANEquipment code : M104Type code SQ108M4Frame size 180Voltage (V) 380/660S/N No. G032070Rating (kW) 18.5Current (A) 32.8Manufacturer ELECTRIMPower Factor 0.9Frequency (Hz) 50Insulation class F (155°C)I.P 55Speed (rpm) 1475

Item	Description	Condition					
1	Cleaning of motor frame	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> NO			
2	Inspection of motor frame	<input type="checkbox"/> Damaged		<input checked="" type="checkbox"/> NO Damaged			
3	Doweling and holding down bolts inspection	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
4	Cooling fan and fan cover cleaning	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> NO			
5	Inspection cooling fan and cover	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
6	Inspection Coupling or pulley	<input type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
7	Inspection cable box and terminal connections	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
8	Inspection grouding wire connections	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
9	Stator winding insulation test	U-G	<u>1.483 GΩ</u>	V-G	<u>1.634 GΩ</u>	W-G	<u>1.694 GΩ</u>
10	Stator winding resistance test	U-V	<u>0.50 Ω</u>	V-W	<u>0.50 Ω</u>	U-W	<u>0.50 Ω</u>
11	Running current on load test	U <sub>(A)</sub>	<u>-</u>	V <sub>(A)</sub>	<u>-</u>	W <sub>(A)</sub>	<u>-</u>

Note ☒ Condition can check☐ Condition can't checkPrepared by Technician : Premprach D.Pichet T.Checked by Engineer : SomkiradDate : 7 Jul 2307-Jul-23Date : 7 Jul 23

## Maintenance check sheet

## AC Motor Routine Maintenance

E&amp;M form No.

FM-04-010

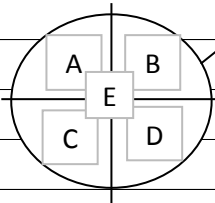
Rev. 1Sheet 1 of 1Plant system : FCXIEquipment name : FLUME GAS EXTRATION FANEquipment code : M107Type code FS-JFrame size 180Voltage (V) 380S/N No. 498Rating (kW) 18.5Current (A) 36.5Manufacturer MISUBISHIPower Factor -Frequency (Hz) 50Insulation class B (130°C)I.P -Speed (rpm) 1460

Item	Description	Condition					
1	Cleaning of motor frame	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> NO			
2	Inspection of motor frame	<input type="checkbox"/> Damaged		<input checked="" type="checkbox"/> NO Damaged			
3	Doweling and holding down bolts inspection	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
4	Cooling fan and fan cover cleaning	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> NO			
5	Inspection cooling fan and cover	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
6	Inspection Coupling or pulley	<input type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
7	Inspection cable box and terminal connections	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
8	Inspection grouding wire connections	<input checked="" type="checkbox"/> OK	<input type="checkbox"/> Loose	<input type="checkbox"/> Damage			
9	Stator winding insulation test	U-G	<u>1.665 GΩ</u>	V-G	<u>1.703 GΩ</u>	W-G	<u>1.784 GΩ</u>
10	Stator winding resistance test	U-V	<u>0.60 Ω</u>	V-W	<u>0.60 Ω</u>	U-W	<u>0.70 Ω</u>
11	Running current on load test	U <sub>(A)</sub>	<u>-</u>	V <sub>(A)</sub>	<u>-</u>	W <sub>(A)</sub>	<u>-</u>

Note ☒ Condition can check☐ Condition can't checkPrepared by Technician : Prempracha D.Pichet T.Checked by Engineer : SomkiradDate : 7 Jul 2307-Jul-23Date : 7 Jul 23

<b>Meyer Aluminium (Thailand)</b>		<b>E&amp;M Department</b>		<u>Mechanical</u>	<b>Section</b>
<b>Monthly maintenance check sheet</b>				<b>E&amp;M form No.</b>	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
<b>Plant</b>	<b>Casting</b>				
<b>Equipment</b>	<b>MFE</b>	<b>#1</b> <input type="checkbox"/>	<b>#2</b> <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

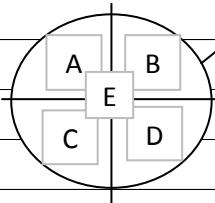
<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	10	11	11	10	10	
Air velocity average $(A+B+C+D+E)/5 =$ <span style="color: blue;">10.4</span> m/s						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description				Follow up by	
	MFE2 Install back exhaust fan after overhaul fan and motor				by subcontractor	
Done by E&M Technician :	Checked by E&M Engineer :		Acceptance by Production Staff :		Approved by Assistant / E&M Manager :	
Somchai	NIKON		NARUPON		NIKON	
Date : 15-JUL-23	Date : 17-JUL-23		Date: 17-JUL-23		Date: 17-JUL-23	

<b>Meyer Aluminium (Thailand)</b>		<b>E&amp;M Department</b>		<u>Mechanical</u>	<b>Section</b>
<b>Monthly maintenance check sheet</b>				<b>E&amp;M form No.</b>	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
<b>Plant</b>	<b>Casting</b>				
<b>Equipment</b>	<b>MFE</b>	<b>#1</b> <input type="checkbox"/>	<b>#2</b> <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

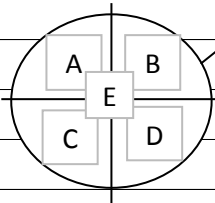


<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	10	11	11	10	10	
Air velocity average $(A+B+C+D+E)/5 =$ <span style="color: blue;">10.4</span> m/s						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description				Follow up by	
	MFE2 Install back exhaust fan after overhaul fan and motor				by subcontractor	
Done by E&M Technician :	Checked by E&M Engineer :		Acceptance by Production Staff :	Approved by Assistant / E&M Manager :		
<span style="color: blue;">Somchai</span>	<span style="color: blue;">NIKON</span>		<span style="color: blue;">NARUPON</span>	<span style="color: blue;">NIKON</span>		
Date : <span style="color: blue;">15-JUL-23</span>	Date : <span style="color: blue;">17-JUL-23</span>		Date: <span style="color: blue;">17-JUL-23</span>	Date: <span style="color: blue;">17-JUL-23</span>		

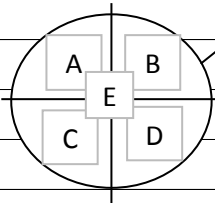
<b>Meyer Aluminium (Thailand)</b>		<b>E&amp;M Department</b>		<u>Mechanical</u>	<b>Section</b>
<b>Monthly maintenance check sheet</b>				<b>E&amp;M form No.</b>	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
<b>Plant</b>	<b>Casting</b>				
<b>Equipment</b>	<b>MFE</b>	<b>#1</b> <input type="checkbox"/>	<b>#2</b> <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	11	10	10	10	10	
Air velocity average $(A+B+C+D+E)/5 =$ <span style="margin-left: 100px;">10.2</span> m/s						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description				Follow up by	
Done by E&M Technician :	Checked by E&M Engineer :		Acceptance by	Approved by		
Somchai	NIKON		Production Staff :	Assistant / E&M Manager :		
Date : 19-AUG-23	Date : 21-AUG-23		NARUPON	NIKON		
			Date: 21-AUG-23	Date: 21-AUG-23		

<b>Meyer Aluminium (Thailand)</b>		<b>E&amp;M Department</b>		<u>Mechanical</u>	<b>Section</b>
<b>Monthly maintenance check sheet</b>				<b>E&amp;M form No.</b>	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
<b>Plant</b>	<b>Casting</b>				
<b>Equipment</b>	<b>MFE</b>	<b>#1</b> <input type="checkbox"/>	<b>#2</b> <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

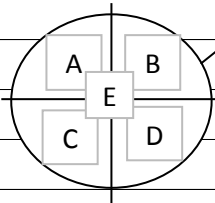
<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	11	10	10	10	10	
Air velocity average $(A+B+C+D+E)/5 =$ <span style="color: blue;">10.2</span> m/s						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description	Follow up by				
Done by E&M Technician :	Checked by E&M Engineer :	Acceptance by Production Staff :		Approved by Assistant / E&M Manager :		
<u>Somchai</u>	<u>NIKON</u>	<u>NARUPON</u>		<u>NIKON</u>		
Date : <u>19-AUG-23</u>	Date : <u>21-AUG-23</u>	Date: <u>21-AUG-23</u>		Date: <u>21-AUG-23</u>		



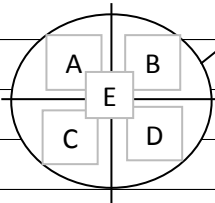
Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><u>For Melting furnace maintenance</u></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>3</u>	
Plant		Casting			
Equipment	MFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)							
Bearing greasing (EP0= 4 stroke)							
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____					
Belt condition and tension check.							
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____				
Fan unit visual for vibration and noise .							
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____				
<b>14 Furnace common fume fan;</b> (check only MFE1)							
Belt condition and tension check.							
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____				
Fan unit visual for vibration and noise .							
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____				
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)							
Check at suction duct on fume hood.							
Position	A	B	C	D	E		
Air velocity (m/s)	10	10	10	10	10		
Air velocity average $(A+B+C+D+E)/5 =$ 10 m/s							
<b><u>Conclusion.</u></b>							
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.							
Item	Description				Follow up by		
Done by E&M Technician :		Checked by E&M Engineer :		Acceptance by		Approved by	
Somchai		NIKON		NARUPON		NIKON	
Date : 25-SEP-23		Date : 16-SEP-23		Date: 16-SEP-23		Date: 16-SEP-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><u>For Melting furnace maintenance</u></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>3</u>	
Plant		Casting			
Equipment	MFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

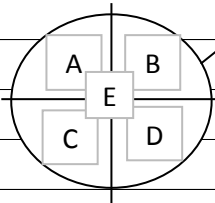
<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)							
Bearing greasing (EP0= 4 stroke)							
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____					
Belt condition and tension check.							
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____				
Fan unit visual for vibration and noise .							
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____				
<b>14 Furnace common fume fan;</b> (check only MFE1)							
Belt condition and tension check.							
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____				
Fan unit visual for vibration and noise .							
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____				
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)							
Check at suction duct on fume hood.							
Position	A	B	C	D	E		
Air velocity (m/s)	10	10	10	10	10		
Air velocity average $(A+B+C+D+E)/5 =$ 10 m/s							
<b><u>Conclusion.</u></b>							
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.							
Item	Description				Follow up by		
Done by E&M Technician :		Checked by E&M Engineer :		Acceptance by		Approved by	
Somchai		NIKON		NARUPON		NIKON	
Date : 25-SEP-23		Date : 16-SEP-23		Date: 16-SEP-23		Date: 16-SEP-23	

<b>Meyer Aluminium (Thailand)</b>		<b>E&amp;M Department</b>		<b><u>Mechanical</u> Section</b>	
<b>Monthly maintenance check sheet</b>				<b>E&amp;M form No.</b>	
<b><u>For Melting furnace maintenance</u></b>				<b>Rev. <u>2</u> Sheet <u>1</u> of <u>3</u></b>	
<b>Plant</b>		<b>Casting</b>			
<b>Equipment</b>	<b>MFE</b>	<b>#1</b> <input type="checkbox"/>	<b>#2</b> <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak remark _____

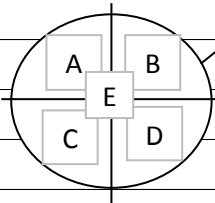
<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	



<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	9	9	9	9	9	
Air velocity average (A+B+C+D+E)/5 = 9 m/s						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description	Follow up by				
Done by E&M Technician :	Checked by E&M Engineer :	Acceptance by Production Staff :		Approved by Assistant / E&M Manager :		
Somchai	NIKON	NARUPON		NIKON		
Date : 14-OCT-23	Date : 16-OCT-23	Date: 16-OCT-23		Date: 16-OCT-23		

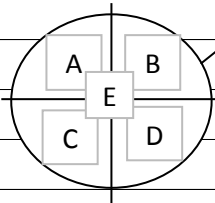
<b>Meyer Aluminium (Thailand)</b>		<b>E&amp;M Department</b>		<u>Mechanical</u>	<b>Section</b>
<b>Monthly maintenance check sheet</b>				<b>E&amp;M form No.</b>	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
<b>Plant</b>	<b>Casting</b>				
<b>Equipment</b>	<b>MFE</b>	<b>#1</b> <input type="checkbox"/>	<b>#2</b> <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	9	9	9	9	9	
Air velocity average (A+B+C+D+E)/5 = 9 m/s						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description	Follow up by				
Done by E&M Technician :	Checked by E&M Engineer :	Acceptance by Production Staff :		Approved by Assistant / E&M Manager :		
Somchai	NIKON	NARUPON		NIKON		
Date : 14-OCT-23	Date : 16-OCT-23	Date: 16-OCT-23		Date: 16-OCT-23		

<b>Meyer Aluminium (Thailand)</b>		<b>E&amp;M Department</b>		<u>Mechanical</u>	<b>Section</b>
<b>Monthly maintenance check sheet</b>				<b>E&amp;M form No.</b>	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
<b>Plant</b>	<b>Casting</b>				
<b>Equipment</b>	<b>MFE</b>	<b>#1</b> <input checked="" type="checkbox"/>	<b>#2</b> <input type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

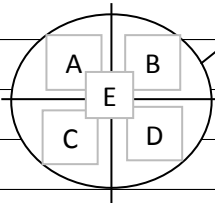
<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	9	9	10	9	9	
Air velocity average $(A+B+C+D+E)/5 =$ <span style="color: blue;">9.2</span>						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description	Follow up by				
Done by E&M Technician :	Checked by E&M Engineer :	Acceptance by Production Staff :		Approved by Assistant / E&M Manager :		
<u>Somchai</u>	<u>NIKON</u>	<u>NARUPON</u>		<u>NIKON</u>		
Date : <u>16-NOV-23</u>	Date : <u>17-NOV-23</u>	Date: <u>17-NOV-23</u>		Date: <u>17-NOV-23</u>		

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><u>For Melting furnace maintenance</u></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>3</u>	
Plant		Casting			
Equipment	MFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

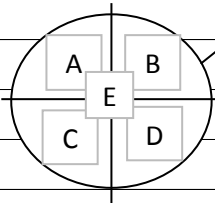


<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	9	9	9	9	9	
Air velocity average $(A+B+C+D+E)/5 =$ 9 m/s						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description				Follow up by	
Done by E&M Technician :	Checked by E&M Engineer :		Acceptance by Production Staff :	Approved by Assistant / E&M Manager :		
Somchai	NIKON		NARUPON	NIKON		
Date : 16-NOV-23	Date : 17-NOV-23		Date: 17-NOV-23	Date: 17-NOV-23		

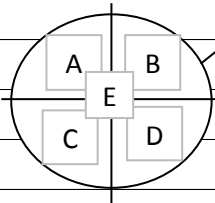
Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><u>For Melting furnace maintenance</u></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>3</u>	
Plant		Casting			
Equipment	MFE	#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable      remark _____	
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak      remark _____	
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable      remark _____	
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable      remark _____	
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/> not leak		remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/> not leak		remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable      remark _____	
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable      remark _____	
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak      remark _____	
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak      remark _____	
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak      remark _____	

<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	9	10	9	9	9	
Air velocity average $(A+B+C+D+E)/5 =$ <span style="color: blue;">9.2</span>						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description	Follow up by				
Done by E&M Technician :	Checked by E&M Engineer :	Acceptance by Production Staff :		Approved by Assistant / E&M Manager :		
<u>Somchai</u>	<u>NIKON</u>	<u>NARUPON</u>		<u>NIKON</u>		
Date : <u>16-DEC-23</u>	Date : <u>18-DEC-23</u>	Date: <u>18-DEC-23</u>		Date: <u>18-DEC-23</u>		

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><u>For Melting furnace maintenance</u></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>3</u>	
Plant		Casting			
Equipment	MFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
<b>2 Flue gas fan;</b>					
Bearing greasing (EP0= 4 stroke)					
<input checked="" type="checkbox"/> greasing		<input type="checkbox"/> cleaning		remark _____	
Coupling visual for vibration check					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan unit visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
Fan impeller cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Suction flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
Discharge flexible joint check leak					
<input type="checkbox"/> leak		<input checked="" type="checkbox"/>		<input type="checkbox"/> not leak      remark _____	
<b>3 Flue gas duct reversal valve ;</b>					
For burner #1 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
For burner #2 reversal valve function check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable      remark _____
<b>4 Regenerative ball box unit ;</b>					
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Hot air leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____
Suction flexible joint check leak					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak      remark _____

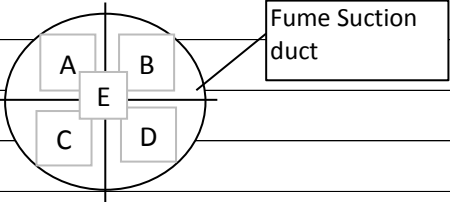
<b>5 Damper;</b>				
Wire rope sling function and damage check				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check				
<input type="checkbox"/> low	<input checked="" type="checkbox"/>	<input type="checkbox"/> mid	<input type="checkbox"/> high	refill _____
<b>6 Charging door;</b>				
Check condition for door seal and clamp condition				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
All Steel block lining condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.				
<input type="checkbox"/> damage	<input type="checkbox"/> changed	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____		
<b>7 Male spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<b>8 Female down spout;</b>				
Air cylinder for door closing check leak and function				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>9 Furnace tilting cylinder;</b>				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)				
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
<b>10 All furnace Gas pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
<b>11 All furnace air pipe leak check and cleaning ;</b>				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
remark _____				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
<b>12 Furnace roof general cleaning;</b>				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

<b>13 Furnace common stack fan;</b> (check only MFE1)						
Bearing greasing (EP0= 4 stroke)						
<input checked="" type="checkbox"/> greasing	<input type="checkbox"/> cleaning	remark _____				
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>14 Furnace common fume fan;</b> (check only MFE1)						
Belt condition and tension check.						
<input type="checkbox"/> swing	<input checked="" type="checkbox"/> good tension	<input type="checkbox"/> replacement	remark _____			
Fan unit visual for vibration and noise .						
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____			
<b>15 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	9	9	9	9.5	9	
Air velocity average $(A+B+C+D+E)/5 =$ <span style="margin-left: 100px;">9.1</span> m/s						
<b><u>Conclusion.</u></b>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description				Follow up by	
	Overhaul Exhayst blower, change bearing and shaft alignment				by U-Service	
Done by E&M Technician :	Checked by E&M Engineer :		Acceptance by		Approved by	
Somchai	NIKON		NARUPON		NIKON	
Date : 16-DEC-23	Date : 18-DEC-23		Date: 18-DEC-23		Date: 18-DEC-23	



Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

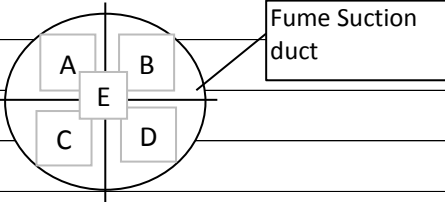
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check; (normal average at &gt;=10 m/s)</b>					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	11	10	11	10
Air velocity average (A+B+C+D+E)/5 =					10.4



<b><u>Conclusion.</u></b>				
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.				
Item	Description	Follow up by		
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :	
Somchai	Nikon	NARUPON	NIKON	
Date : 20-JUL-23	Date : 21-JUL-23	Date: 21-JUL-23	Date: 21-JUL-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

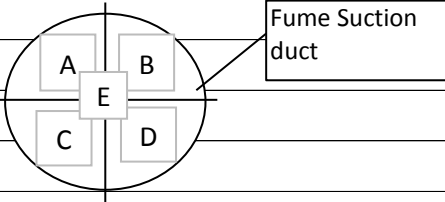
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	10	10	10	10
Air velocity average $(A+B+C+D+E)/5 =$					10



<b><u>Conclusion.</u></b>			
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.			
Item	Description	Follow up by	
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :
Somchai	Nikon	NARUPON	NIKON
Date : 21-JUL-23	Date : 22-JUL-23	Date: 22-JUL-23	Date: 22-JUL-23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

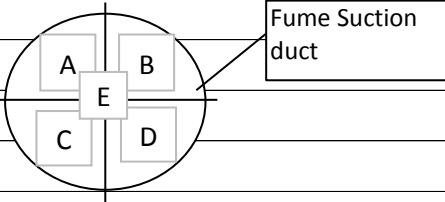
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check; (normal average at &gt;=10 m/s)</b>					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	11	11	10	10
Air velocity average (A+B+C+D+E)/5 =					10.4



<b><u>Conclusion.</u></b>			
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.			
Item	Description	Follow up by	
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :
Somchai	Nikon	NARUPON	NIKON
Date : 16-AUG-23	Date : 17-AUG-23	Date: 17-AUG-23	Date: 17-AUG-23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check; (normal average at &gt;,=10 m/s)</b>					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	10	10	10	11
Air velocity average (A+B+C+D+E)/5 =					10.2

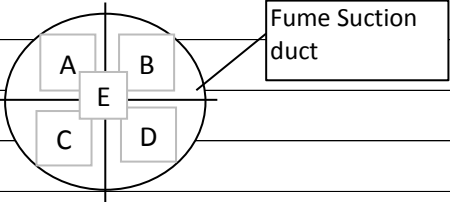


<b><u>Conclusion.</u></b>				
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.				
Item	Description	Follow up by		
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by	Approved by	
Somchai	Nikon	Production Staff :	Assistant / E&M Manager :	
		NARUPON	NIKON	
Date : 19-AUG-23	Date : 22-AUG-23	Date: 22-AUG-23	Date: 22-AUG-23	



Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <i>For Holding Furnace maintenance</i>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant	Casting				
Equipment	HFE	#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>		
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/>	Clean	<input type="checkbox"/>	not clean	remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/>	vibration	<input type="checkbox"/>	noise	<input checked="" type="checkbox"/>	acceptable      remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	not leak      remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/>	damage	<input type="checkbox"/>	changed	<input checked="" type="checkbox"/>	acceptable      remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/>	low	<input checked="" type="checkbox"/>	mid	<input type="checkbox"/>	high      refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/>	damage	<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	acceptable      remark _____
All Steel block lining condition check					
<input type="checkbox"/>	damage	<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	acceptable      remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/>	damage	<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	acceptable      remark _____
Leak at _____		<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	not leak      remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/>	damage	<input type="checkbox"/>	changed	<input checked="" type="checkbox"/>	acceptable      remark _____
<input type="checkbox"/>	greasing	<input type="checkbox"/>	cleaning	<input checked="" type="checkbox"/>	acceptable      remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/>	damage	<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	acceptable      remark _____
Leak at _____		<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	not leak      remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/>	damage	<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	acceptable      remark _____
Leak at _____		<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	not leak      remark _____
Refractory condition check					
<input type="checkbox"/>	damage	<input type="checkbox"/>	repaired	<input checked="" type="checkbox"/>	acceptable      remark _____

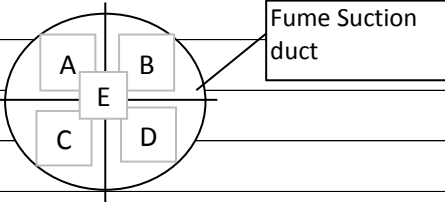
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check; (normal average at &gt;=10 m/s)</b>					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	11	11	10	11	10
Air velocity average (A+B+C+D+E)/5 =					10.6



<b><u>Conclusion.</u></b>				
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.				
Item	Description	Follow up by		
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :	
Somchai	Nikon	NARUPON	NIKON	
Date : 20-SEP-23	Date : 21-SEP-23	Date: 21-SEP-23	Date: 21-SEP-23	

Meyer Aluminium (Thailand)		E&M Department		Mechanical Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

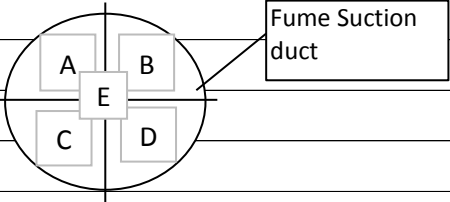
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check; (normal average at &gt;=10 m/s)</b>					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	9	9	9	9	10
Air velocity average (A+B+C+D+E)/5 = <u>9.2</u>					



<b><u>Conclusion.</u></b>			
<input checked="" type="checkbox"/> no need follow up.		<input type="checkbox"/> need follow up.	
Item	Description	Follow up by	
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :
Somchai	Nikon	NARUPON	NIKON
Date : 20-sep-23	Date : 21-SEP-23	Date: 21-SEP-23	Date: 21-SEP-23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <i>For Holding Furnace maintenance</i>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

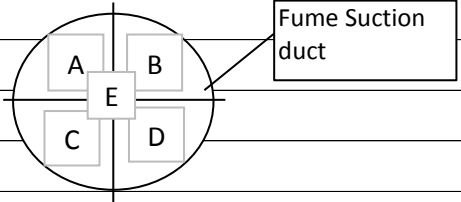
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak      remark _____		
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check; (normal average at &gt;=10 m/s)</b>					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	10	10	11	10
Air velocity average (A+B+C+D+E)/5 = <u>10.2</u>					



<b><u>Conclusion.</u></b>			
<input checked="" type="checkbox"/> no need follow up.		<input type="checkbox"/> need follow up.	
Item	Description	Follow up by	
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :
Somchai	Nikon	NARUPON	NIKON
Date : 20-OCT-23	Date : 24-OCT-23	Date: 24-OCT-23	Date: 24-OCT-23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	9	10	9	9	9
Air velocity average $(A+B+C+D+E)/5 =$					9.2

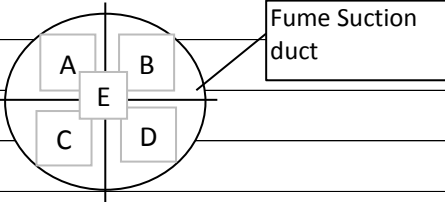


<b>Conclusion.</b>			
<input checked="" type="checkbox"/> no need follow up.		<input type="checkbox"/> need follow up.	
Item	Description	Follow up by	
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :
Somchai	Nikon	NARUPON	NIKON
Date : 20-OCT-23	Date : 21-OCT-23	Date: 21-OCT-23	Date: 26-21-OCT-23



Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

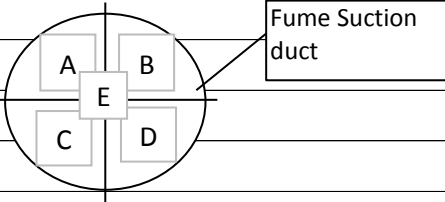
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	10	10	10	10
Air velocity average $(A+B+C+D+E)/5 =$					10



<b><u>Conclusion.</u></b>				
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.				
Item	Description	Follow up by		
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :	
Somchai	Nikon	NARUPON	NIKON	
Date : 18-NOV-23	Date : 20-NOV-23	Date: 20-NOV-23	Date: 20-NOV-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

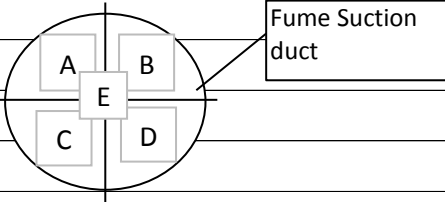
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check; (normal average at &gt;,=10 m/s)</b>					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	9	9	9	9	9
Air velocity average (A+B+C+D+E)/5 =					9



<b><u>Conclusion.</u></b>				
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.				
Item	Description	Follow up by		
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by	Approved by	
Somchai	Nikon	Production Staff :	Assistant / E&M Manager :	
		NARUPON	NIKON	
Date : 18-NOV-23	Date : 20-NOV-23	Date: 20-NOV-23	Date: 20-NOV-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE		#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

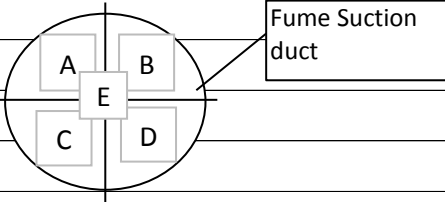
<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	10	10	11	10
Air velocity average $(A+B+C+D+E)/5 =$					10.2



<b><u>Conclusion.</u></b>				
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.				
Item	Description	Follow up by		
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :	
Somchai	Nikon	NARUPON	NIKON	
Date : 20-DEC-23	Date : 22-DEC-23	Date: 22-DEC-23	Date: 22-DEC-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
<b>Monthly maintenance check sheet</b> <b><i>For Holding Furnace maintenance</i></b>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>2</u>	
Plant		Casting			
Equipment		HFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
<b>1 Combustion fan;</b>					
Air inlet filter cleaning					
<input checked="" type="checkbox"/> Clean		<input type="checkbox"/> not clean		remark _____	
Fan impeller visual for vibration and noise					
<input type="checkbox"/> vibration		<input type="checkbox"/> noise		<input checked="" type="checkbox"/> acceptable	remark _____
Flexible joint leak check					
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>2 Damper;</b>					
Wire rope sling function and damage check					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
Gear drive for damper control lube oil level check					
<input type="checkbox"/> low		<input checked="" type="checkbox"/> mid	<input type="checkbox"/> high		refill _____
<b>3 Charging door;</b>					
Check condition for door seal and clamp condition					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
All Steel block lining condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Wire rope sling condition check and paint grease.					
<input type="checkbox"/> damage		<input type="checkbox"/> changed		<input checked="" type="checkbox"/> acceptable	remark _____
<input type="checkbox"/> greasing		<input type="checkbox"/> cleaning		<input checked="" type="checkbox"/> acceptable	remark _____
<b>4 Male spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
<b>5 Female down spout;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____
Leak at _____		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> not leak	remark _____
Refractory condition check					
<input type="checkbox"/> damage		<input type="checkbox"/> repaired		<input checked="" type="checkbox"/> acceptable	remark _____

<b>6 Spout lid;</b>					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
<b>7 Furnace tilting cylinder;</b>					
Hydraulic cylinder check leak					
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
Hydraulic cylinder turning point greasing for dowel pin and bush (EP0= 3 stroke)					
<input type="checkbox"/> greasing	<input type="checkbox"/> cleaning	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>8 Hydraulic main tank;</b>					
Hydraulic system check leak					
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
Hydraulic pump visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
Hydraulic pump coupling visual check for vibration and noise.					
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____		
<b>9 All furnace Gas pipe leak check and cleaning ;</b>					
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>10 All furnace air pipe leak check and cleaning ;</b>					
Leak at _____	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____		
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>11 Furnace roof general cleaning;</b>					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
<b>12 Furnace door fume duct air velocity check;</b> (normal average at $\geq 10$ m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	9	9	9.5	9	9
Air velocity average $(A+B+C+D+E)/5 = 9.1$					



<b><u>Conclusion.</u></b>			
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.			
Item	Description	Follow up by	
Done by E&M Technician:	Checked by E&M Engineer :	Acceptance by Production Staff :	Approved by Assistant / E&M Manager :
Somchai	Nikon	NARUPON	NIKON
Date : 20-DEC-23	Date : 21-DEC-23	Date: 21-DEC-23	Date: 21-DEC-23



## Routine check

Plant:

Casting Plant

E&amp;M form No.

FM-04-188

AC.Motor and Aux. monthly check

Machine Name

Extraction Fan System

Rev. 0 Sheet 1 of 1

## AC Motor condition check

Item	Description	Condition frame Cooling fan&cover	Remarks	Bolt & Nut Base Motor	Remarks	Cable gland Terminal cover	Remarks	Bearing noise				Running current Test on load		
								DE	Remarks	NDE	Remarks			
1	Flue gas extraction fan M104	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 28.9A	U(A) 0	V(A) 0	W(A) 0
2	Flume gas extraction fan M107	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 32.1A	U(A) 0	V(A) 0	W(A) 0
3	Flue Gas Damper M111	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 3.1A	U(A) 0	V(A) 0	W(A) 0
4	By pass damper M113	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 3.1A	U(A) 0	V(A) 0	W(A) 0
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A)	V(A)	W(A)
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A)	V(A)	W(A)
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A)	V(A)	W(A)
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A)	V(A)	W(A)
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A)	V(A)	W(A)
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A)	V(A)	W(A)
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A)	V(A)	W(A)

## AC Motor Contactor and Overload set point condition check

Item	Description	Good	Damage	Motor Rate Current (A)	Overload Set point (A)	Remark
1	Flue gas extraction fan Contactor (Good/Damage)	Good		32.8A	38.5	
2	Flume gas extraction fan Contactor (Good/Damage)	Good		36.5A	24.5	
3	Flue Gas Damper Contactor (Good/Damage)	Good		2A	2	
4	By pass damper Contactor (Good/Damage)	Good		2A	2	

## All equipment in the machine condition check

Item	Description	Action	Remark
1	Control Panel Cleaning Inside and Outside	Cleaning inside and outside	
2	PLC Cleaning and tightening	Cleaning and tightening	
3	Sensor and limit SW. Cleaning and tightening	Cleaning and tightening	
4	AC Drive Cleaning	-	

Remarks :



To make line in square box.

## E&amp;M Department

Checked

Premprachad.

Date

7 Jul 23

Pichet T.

28 Jul 23

Supervisor

Somkiead

Date

28 Jul 23

AC Motor condition check														
Item	Description	Condition frame Cooling fan&cover	Remarks	Bolt & Nut Base Motor	Remarks	Cable gland Terminal cover	Remarks	Bearing noise				Running current Test on load		
								DE	Remarks	NDE	Remarks			
1	Flue gas extraction fan M104	<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK	Limit 80% Load 28.9A	U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok		<input type="checkbox"/> 0		<input type="checkbox"/> 0	<input type="checkbox"/> 0	
2	Flume gas extraction fan M107	<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK	Limit 80% Load 32.1A	U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok		<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
3	Flue Gas Damper M111	<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK	Limit 80% Load 3.1A	U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok		<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
4	By pass damper M113	<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK		<input checked="" type="checkbox"/> OK	Limit 80% Load 3.1A	U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok		<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok				
		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok				
		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok				
		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok				
		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok				
		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		<input type="checkbox"/> OK		U(A)	V(A)	W(A)
		<input type="checkbox"/> Not OK		<input type="checkbox"/> Not OK		<input type="checkbox"/> Loose		<input type="checkbox"/> Not Ok		<input type="checkbox"/> Not Ok				

AC Motor Contactor and Overload set point condition check						
Item	Description	Good	Damage	Motor Rate Current (A)	Overload Set point (A)	Remark
1	Flue gas extraction fan Contactor (Good/Damage)	Good		32.8A	38.5	
2	Flume gas extraction fan Contactor (Good/Damage)	Good		36.5A	24.5	
3	Flue Gas Damper Contactor (Good/Damage)	Good		2A	2	
4	By pass damper Contactor (Good/Damage)	Good		2A	2	

All equipment in the machine condition check			
Item	Description	Action	Remark
1	Control Panel Cleaning Inside and Outside	Cleaning inside and outside	
2	PLC Cleaning and tightening	Cleaning and tightening	
3	Sensor and limit SW. Cleaning and tightening	Cleaning and tightening	
4	AC Drive Cleaning	-	

Remarks : ☒ To make line in square box.

E&M Department			
Checked	Premprachad.	Pichet T.	Supervisor
Date	31 Aug 23	1 Sep 23	Date
			Somkiead
			31 Aug 23



AC Motor condition check														
Item	Description	Condition frame Cooling fan&cover	Remarks	Bolt & Nut Base Motor	Remarks	Cable gland Terminal cover	Remarks	Bearing noise				Running current Test on load		
								DE	Remarks	NDE	Remarks			
1	Flue gas extraction fan M104	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 28.9A	U(A) 11.0	V(A) 10.1	W(A) 10.2
2	Flume gas extraction fan M107	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 32.1A	U(A) 0	V(A) 0	W(A) 0
3	Flue Gas Damper M111	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 3.1A	U(A) 0	V(A) 0	W(A) 0
4	By pass damper M113	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 3.1A	U(A) 0	V(A) 0	W(A) 0
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 

AC Motor Contactor and Overload set point condition check						
Item	Description	Good	Damage	Motor Rate Current (A)	Overload Set point (A)	Remark
1	Flue gas extraction fan Contactor (Good/Damage)	Good		32.8A	38.5	
2	Flume gas extraction fan Contactor (Good/Damage)	Good		36.5A	24.5	
3	Flue Gas Damper Contactor (Good/Damage)	Good		2A	2	
4	By pass damper Contactor (Good/Damage)	Good		2A	2	

All equipment in the machine condition check			
Item	Description	Action	Remark
1	Control Panel Cleaning Inside and Outside	Cleaning inside and outside	
2	PLC Cleaning and tightening	Cleaning and tightening	
3	Sensor and limit SW. Cleaning and tightening	Cleaning and tightening	
4	AC Drive Cleaning	-	

**Remarks :**

☒ To make line in square box.

**E&M Department**

Checked
Date

PremprachaoD.
20 Oct 23

Pichet T.
1 Nov 23

Supervisor
Date

Somkiead
30 Oct 23

FM-04-188

Revise 0 / 14-Nov-08

FM-04-188

Rev. 0 Sheet 1 of 1

Checked Date	<u>Premprachad.</u> <u>19 Nov 23</u>	Pichet T. 28 Nov 23	Supervisor Date	<u>Somkhead</u> <u>27 Nov 23</u>
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Routine check

AC.Motor and Aux. monthly check

Plant:

Machine Name

Casting Plant

Extraction Fan System

E&M form No.

Rev. 0

FM-04-188

Sheet 1 of 1

AC Motor condition check														
Item	Description	Condition frame Cooling fan&cover	Remarks	Bolt & Nut Base Motor	Remarks	Cable gland Terminal cover	Remarks	Bearing noise				Running current Test on load		
								DE	Remarks	NDE	Remarks			
1	Flue gas extraction fan M104	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 28.9A	U(A) 11.2	V(A) 11.6	W(A) 11.3
2	Flume gas extraction fan M107	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 32.1A	U(A) 0	V(A) 0	W(A) 0
3	Flue Gas Damper M111	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 3.1A	U(A) 0	V(A) 0	W(A) 0
4	By pass damper M113	<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not OK		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Loose		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input checked="" type="checkbox"/> OK <input type="checkbox"/> Not Ok	Limit 80% Load 3.1A	U(A) 0	V(A) 0	W(A) 0
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 
		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Not OK		<input type="checkbox"/> OK <input type="checkbox"/> Loose		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		<input type="checkbox"/> OK <input type="checkbox"/> Not Ok		U(A) 	V(A) 	W(A) 

AC Motor Contactor and Overload set point condition check						
Item	Description	Good	Damage	Motor Rate Current (A)	Overload Set point (A)	Remark
1	Flue gas extraction fan Contactor (Good/Damage)	Good		32.8A	38.5	
2	Flume gas extraction fan Contactor (Good/Damage)	Good		36.5A	24.5	
3	Flue Gas Damper Contactor (Good/Damage)	Good		2A	2	
4	By pass damper Contactor (Good/Damage)	Good		2A	2	

All equipment in the machine condition check			
Item	Description	Action	Remark
1	Control Panel Cleaning Inside and Outside	Cleaning inside and outside	
2	PLC Cleaning and tightening	Cleaning and tightening	
3	Sensor and limit SW. Cleaning and tightening	Cleaning and tightening	
4	AC Drive Cleaning	-	

Remarks :

☒ To make line in square box.

E&M Department

Checked

Date

PremprachaoD.

18 Dec 23

Pichet T.

20 Dec 23

Supervisor

Date

Somkiead

18 Dec 23