

Maintenance check sheet

AC Motor Routine Maintenance

E&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 _(A)	<u>-</u>	V _(A)	<u>-</u>	W _(A)	<u>-</u>

Note ☒ Condition can check☐ Condition can't checkPrepared by Technician : Premprach. D.Pichet T.Checked by Engineer : SomkieadDate : 3 Feb 2310-Feb-23Date : 9 Feb 23

Maintenance check sheet

AC Motor Routine Maintenance

E&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 _(A) <u>-</u>	V _(A) <u>-</u>	W _(A) <u>-</u>	

Note ☒ Condition can check☐ Condition can't checkPrepared by Technician : Prempracha. D.Pichet T.Checked by Engineer : SomkieadDate : 3 Feb 2310-Feb-23Date : 9 Feb 23

Maintenance check sheet

AC Motor Routine Maintenance

E&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 _(A)	<u>-</u>	V _(A)	<u>-</u>	W _(A)	<u>-</u>

Note ☒ Condition can check☐ Condition can't checkPrepared by Technician : Premprach. D.Pichet T.Checked by Engineer : SomkieadDate : 3 Feb 2310-Feb-23Date : 9 Feb 23

Maintenance check sheet

AC Motor Routine Maintenance

E&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 _(A) <u>-</u>	V _(A) <u>-</u>	W _(A) <u>-</u>	

Note ☒ Condition can check☐ Condition can't checkPrepared by Technician : Premprach. D.Pichet T.Checked by Engineer : SomkieadDate : 3 Feb 2310-Feb-23Date : 9 Feb 23

Maintenance check sheet

AC Motor Routine Maintenance

E&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 _(A) <u>-</u>	V _(A) <u>-</u>	W _(A) <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&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 _(A) <u>-</u>	V _(A) <u>-</u>	W _(A) <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&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 _(A)	<u>-</u>	V _(A)	<u>-</u>	W _(A)	<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&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 _(A) <u>-</u>	V _(A) <u>-</u>	W _(A) <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

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) 7.80	V(A) 7.51	W(A) 7.64
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.

11 Jan 23

Pichet T.

26 Jan 23

Supervisor

Date

Somkiead

25 Jan 23

FM-04-188

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		
								DE	Remarks	NDE	Remarks	Test on load		
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) 9.9	V(A) 10.2	W(A) 9.8
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)

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	-	

To make line in square box.

E&M Department			
Checked	<u>PremprachaoD.</u>	Pichet T.	Supervisor
Date	<u>13 Feb 23</u>	23 Feb 23	<u>Somkiead</u>
			<u>22 Feb 23</u>

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) 19.4	V(A) 19.1	W(A) 19.2
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.

13 Mar 23

Pichet T.

24 Mar 23

Supervisor

Date

Somkiead

22 Mar 23

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) 19.4	V(A) 19.1	W(A) 19.2
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

Premprachad.

7 Apr 23

Pichet T.

2 May 23

Supervisor

Date

Somkiead

2 May 23

FM-04-188

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) 12.7	V(A) 12.6	W(A) 12.4
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)

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	-	

To make line in square box.

E&M Department			
Checked	<u>PremprachaD.</u>	Pichet T.	Supervisor
Date	<u>8 May 23</u>	27 May 23	<u>Somkiead</u>
			<u>25 May 23</u>

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		12.7		12.6	12.4	
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		0	0	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		0	0	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		0	0	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	8 Jun 23	28 Jun 23	Date
			Somkiead
			28 Jun 23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <u>For Melting furnace maintenance</u>				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"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (check only MFE1)

Bearing greasing (EP0= 4 stroke)

☒ greasing ☐ cleaning remark _____

Belt condition and tension check.

☐ swing ☒ good tension ☐ replacement remark _____

Fan unit visual for vibration and noise .

☐ vibration ☐ noise ☒ acceptable remark _____

14 Furnace common fume fan; (check only MFE1)

Belt condition and tension check.

☐ swing ☒ good tension ☐ replacement remark _____

Fan unit visual for vibration and noise .

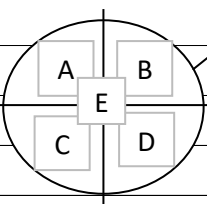
☐ vibration ☐ noise ☒ acceptable remark _____

15 Furnace door fume duct air velocity check; (normal average at ≥ 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



Conclusion.

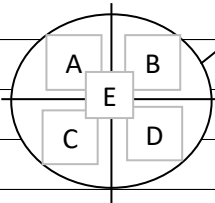
☒ no need follow up. ☐ need follow up.

Item	Description	Follow up by
	Common fume gas fan modification fan pulley	U-SERVICE

Done by E&M Technician : <u>Somchai</u> Date : <u>17-JUN-23</u>	Checked by E&M Engineer : <u>NIKON</u> Date : <u>19-JUN-23</u>	Acceptance by Production Staff : <u>NARUPON</u> Date: <u>19-JUN-23</u>	Approved by Assistant / E&M Manager : <u>NIKON</u> Date: <u>19-JUN-23</u>
---	--	---	--

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <u>For Melting furnace maintenance</u>				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"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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
8 Female down spout;				
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
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
9 Furnace tilting cylinder;				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
11 All furnace air pipe leak check and cleaning ;				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (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 _____			
14 Furnace common fume fan; (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 _____			
15 Furnace door fume duct air velocity check; (normal average at ≥ 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 = 10.2 m/s						
<u>Conclusion.</u>						
<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		Assistant / E&M Manager : NIKON
Date : 16-FEB-23		Date : 17-FEB-23		Date: 17-FEB-23		Date: 17-FEB-23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <u>For Melting furnace maintenance</u>				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"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (check only MFE1)

Bearing greasing (EP0= 4 stroke)

☒ greasing ☐ cleaning remark _____

Belt condition and tension check.

☐ swing ☒ good tension ☐ replacement remark _____

Fan unit visual for vibration and noise .

<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____
------------------------------------	--------------------------------	--	--------------

14 Furnace common fume fan; (check only MFE1)

Belt condition and tension check.

☐ swing ☒ good tension ☐ replacement remark _____

Fan unit visual for vibration and noise .

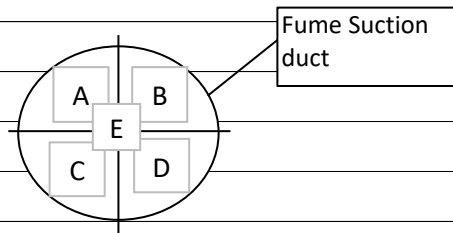
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____
------------------------------------	--------------------------------	--	--------------

15 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)		Fume Suction duct
--	---	-------------------

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	m/s
--------------------------------------	------	-----



Conclusion.

☒ no need follow up. ☐ need follow up.

[illegible]

Done by E&M Technician :
Somchai
Date : 17-MAR-23

Checked by E&M Engineer :

NIKON

Date : 18-MAR-23

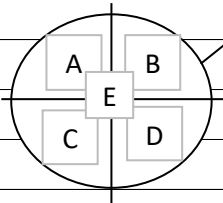
Acceptance by
Production Staff
NARUPON
e: 18-MAR-2

Approved by
stant / E&M Ma
NIKON
18-MAR

Assistant / E&M Manager :
 NIKON
 Date: 18-MAR-23

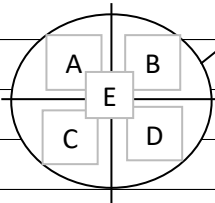
Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <u>For Melting furnace maintenance</u>				E&M form No. Rev. <u>2</u> Sheet <u>1</u> of <u>3</u>	
Plant		Casting			
Equipment	MFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (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 _____				
14 Furnace common fume fan; (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 _____				
15 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)							
Check at suction duct on fume hood.							
Position	A	B	C	D	E		
Air velocity (m/s)	10	9	10	10	11		
Air velocity average $(A+B+C+D+E)/5 =$ 10 m/s							
<u>Conclusion.</u>							
<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 : 18-APR-23		Date : 19-APR-23		Date: 19-APR-23		Date: 19-APR-23	

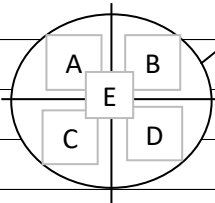
Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u>	Section
Monthly maintenance check sheet				E&M form No.	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
Plant	Casting				
Equipment	MFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (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 _____			
14 Furnace common fume fan; (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 _____			
15 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)						
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 m/s						
<u>Conclusion.</u>						
<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>17-MAY-23</u>	Date : <u>18-MAY-23</u>	Date: <u>18-MAY-23</u>		Date: <u>18-MAY-23</u>		

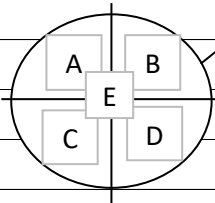
Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u>	Section
Monthly maintenance check sheet				E&M form No.	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
Plant	Casting				
Equipment	MFE	#1 <input type="checkbox"/>	#2 <input checked="" type="checkbox"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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
8 Female down spout;				
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
Refractory condition check				
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
9 Furnace tilting cylinder;				
Hydraulic cylinder check leak				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____		
11 All furnace air pipe leak check and cleaning ;				
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/>	<input type="checkbox"/> not leak
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (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 _____			
14 Furnace common fume fan; (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 _____			
15 Furnace door fume duct air velocity check; (normal average at ≥ 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						
<u>Conclusion.</u>						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description				Follow up by	
	Common fume gas fan modification fan pulley				U-SERVICE	
Done by E&M Technician :	Checked by E&M Engineer :		Acceptance by		Approved by	
Somchai	NIKON		NARUPON		NIKON	
Date : 17-JUN-23	Date : 19-JUN-23		Date: 19-JUN-23		Date: 19-JUN-23	

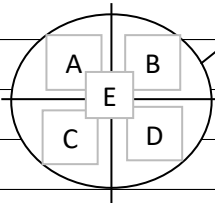
Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet				E&M form No.	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u> Sheet <u>1</u> of <u>3</u>	
Plant	Casting				
Equipment	MFE	#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (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 _____			
14 Furnace common fume fan; (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 _____			
15 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	11	11	11	11	10	
Air velocity average $(A+B+C+D+E)/5 =$ 10.8						
<u>Conclusion.</u>						
<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-JAN-23	Date : 17-JAN-23	Date: 17-JAN-23		Date: 17-JAN-23		

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet				E&M form No.	
<u>For Melting furnace maintenance</u>				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"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (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 _____			
14 Furnace common fume fan; (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 _____			
15 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	11	10	10	11	11	
Air velocity average $(A+B+C+D+E)/5 =$ 10.6						
<u>Conclusion.</u>						
<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-FEB-23	Date : 17-FEB-23		Date: 17-FEB-23		Date: 17-FEB-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet				E&M form No.	
<u>For Melting furnace maintenance</u>				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"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (check only MFE1)

Bearing greasing (EP0= 4 stroke)

☒ greasing ☐ cleaning remark _____

Belt condition and tension check.

☐ swing ☒ good tension ☐ replacement remark _____

Fan unit visual for vibration and noise .

<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/> acceptable	remark _____
------------------------------------	--------------------------------	--	--------------

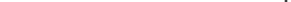
14 Furnace common fume fan; (check only MFE1)

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 .

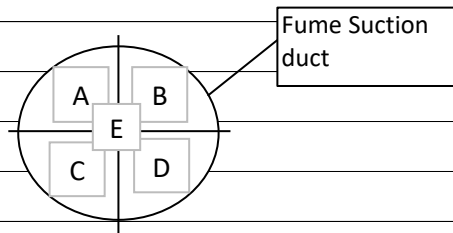
<input type="checkbox"/> vibration	<input type="checkbox"/> noise	<input checked="" type="checkbox"/>	<input type="checkbox"/> acceptable	remark _____
------------------------------------	--------------------------------	-------------------------------------	-------------------------------------	--------------

15	Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)		Fume Suction duct
----	--	---	-------------------

Check at suction duct on fume hood.

	Position	A	B	C	D	E	
	Air velocity (m/s)	10	11	11	10	11	

Air velocity average (A+B+C+D+E)/5 =	10.6
--------------------------------------	------



Conclusion.

☒ no need follow up. ☐ need follow up.

[illegible]

Done by E&M Technician :
Somchai
Date : 17-MAR-23

Checked by E&M Engineer :

NIKON
Date : 18-MAR-23

Acceptance by
Production Staff
NARUPON
e: 18-MAR-2

Production Staff :
NARUPON
Date: 18-MAR-23

Approved by
stant / E&M Ma
NIKON
18-MAR

Assistant / E&M Manager :
NIKON
 Date: 18-MAR-23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet				E&M form No.	
<u>For Melting furnace maintenance</u>				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"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (check only MFE1)

Bearing greasing (EP0= 4 stroke)

☒ greasing ☐ cleaning remark _____

Belt condition and tension check.

☐ swing ☒ good tension ☐ replacement remark _____

Fan unit visual for vibration and noise .

☐ vibration ☐ noise ☒ acceptable remark _____

14 Furnace common fume fan; (check only MFE1)

Belt condition and tension check.

☐ swing ☒ good tension ☐ replacement remark _____

Fan unit visual for vibration and noise .

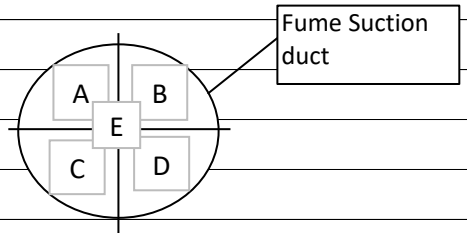
☐ vibration ☐ noise ☒ acceptable remark _____

15 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)		Fume Suction duct
--	---	-------------------

Check at suction duct on fume hood.

	Position	A	B	C	D	E
	Air velocity (m/s)	11	11	11	10	11

Air velocity average $(A+B+C+D+E)/5 = 10.8$



Conclusion.

☒ no need follow up. ☐ need follow up.[illegible]

Done by E&M Technician :	Checked by E&M Engineer :	Acceptance by	Approved by
--------------------------	---------------------------	---------------	-------------

Somchai

Checked by E&M Engineer :	Acceptance by	Approved by
---------------------------	---------------	-------------

NIKON

Acceptance by	Approved by
---------------	-------------

Production Staff :	Assistant / E&M Manager :
--------------------	---------------------------

NARUPON	NIKON

NARUPON	NIKON

Approved by

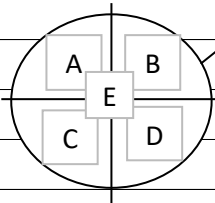
Assistant / E&M Manager :

NIKON

NIKON

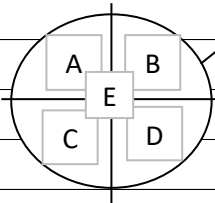
Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet				E&M form No.	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u> Sheet <u>1</u> of <u>3</u>	
Plant	Casting				
Equipment	MFE	#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (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 _____			
14 Furnace common fume fan; (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 _____			
15 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	11	10	11	10	10	
Air velocity average $(A+B+C+D+E)/5 =$ 10.4						
<u>Conclusion.</u>						
<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 : 17-MAY-23	Date : 18-MAY-23		NARUPON	NIKON		
			Date: 18-MAY-23	Date: 18-MAY-23		

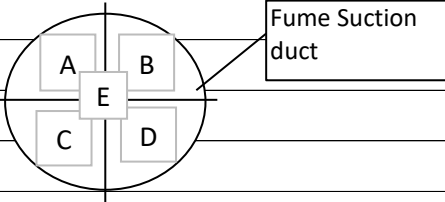
Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u>	Section
Monthly maintenance check sheet				E&M form No.	
<u>For Melting furnace maintenance</u>				Rev. <u>2</u>	Sheet <u>1</u> of <u>3</u>
Plant	Casting				
Equipment	MFE	#1 <input checked="" type="checkbox"/>	#2 <input type="checkbox"/>		
1 Combustion fan;					
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 _____
2 Flue gas fan;					
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 _____	
3 Flue gas duct reversal valve ;					
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 _____
4 Regenerative ball box unit ;					
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 _____

5 Damper;				
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 _____
6 Charging door;				
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 _____		
7 Male spout;				
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 _____				
8 Female down spout;				
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 _____
9 Furnace tilting cylinder;				
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 _____
10 All furnace Gas pipe leak check and cleaning ;				
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 _____		
11 All furnace air pipe leak check and cleaning ;				
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 _____	
12 Furnace roof general cleaning;				
<input checked="" type="checkbox"/>	<input type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____	

13 Furnace common stack fan; (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 _____			
14 Furnace common fume fan; (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 _____			
15 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)						
Check at suction duct on fume hood.						
Position	A	B	C	D	E	
Air velocity (m/s)	11	10	11	10	10	
Air velocity average $(A+B+C+D+E)/5 =$ 10.4						
Conclusion.						
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.						
Item	Description				Follow up by	
	Machine not run				plan to run MFE2 only	
Done by E&M Technician :	Checked by E&M Engineer :		Acceptance by		Approved by	
Somchai	NIKON		NARUPON		NIKON	
Date : 17-JUN-23	Date : 19-JUN-23		Date: 19-JUN-23		Date: 19-JUN-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

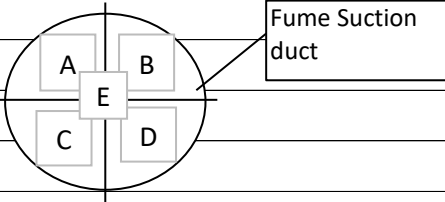
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >, =10 m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	11	10	10	11
Air velocity average (A+B+C+D+E)/5 =					10.4



<u>Conclusion.</u>				
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.				
Item	Description	Follow up by		
	Change gasket of pneumatic valve cylinder of door seal	SPL		
Done by E&M Technician:		Checked by E&M Engineer :	Acceptance by	Approved by
Somchai		Nikon	Production Staff :	Assistant / E&M Manager :
Date : 19-JAN-23		Date : 20-JAN-23	Date: 20-JAN-23	Date: 20-JAN-23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

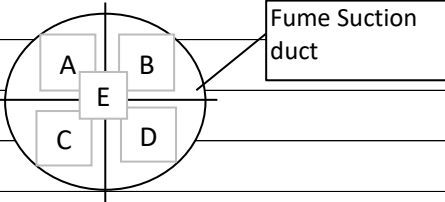
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)					
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



<u>Conclusion.</u>				
<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-FEB-23	Date : 20-FEB-23	Date: 20-FEB-23	Date: 20-FEB-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

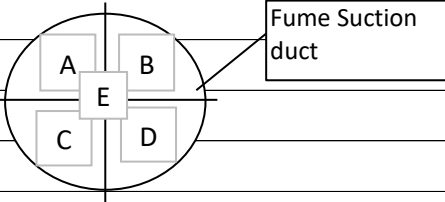
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >,=10 m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	11	10	10	10	11
Air velocity average (A+B+C+D+E)/5 =					10.4



<u>Conclusion.</u>				
<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-MAR-23	Date : 21-MAR-23	Date: 21-MAR-23	Date: 21-MAR-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

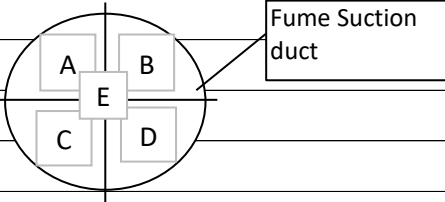
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >, =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



<u>Conclusion.</u>				
<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-APR-23	Date : 21-APR-23	Date: 21-APR-23	Date: 21-APR-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

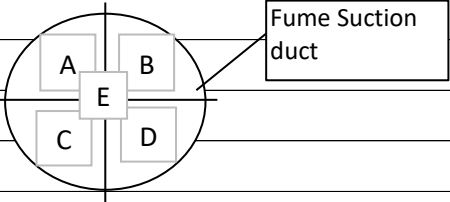
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >,=10 m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	9	10	11	10	9
Air velocity average (A+B+C+D+E)/5 =					9.8



<u>Conclusion.</u>				
<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 : 19-MAY-23	Date : 20-MAY-23	Date: 20-MAY-23	Date: 20-MAY-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

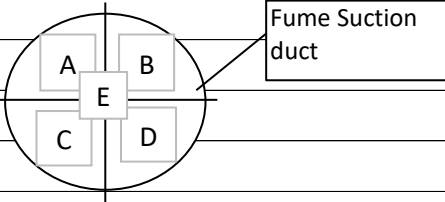
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >, =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



<u>Conclusion.</u>				
<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-JUN-23	Date : 22-JUN-23	Date: 22-JUN-23	Date: 22-JUN-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

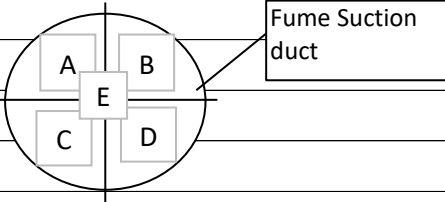
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >, =10 m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	10	11	10	10	11
Air velocity average (A+B+C+D+E)/5 =					10.4



<u>Conclusion.</u>				
<input checked="" type="checkbox"/> no need follow up. <input type="checkbox"/> need follow up.				
Item	Description	Follow up by		
	Change gasket of pneumatic valve cylinder of door seal	SPL		
Done by E&M Technician:		Checked by E&M Engineer :	Acceptance by	Approved by
Somchai		Nikon	Production Staff :	Assistant / E&M Manager :
Date : 19-JAN-23		Date : 20-JAN-23	Date: 20-JAN-23	Date: 20-JAN-23

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

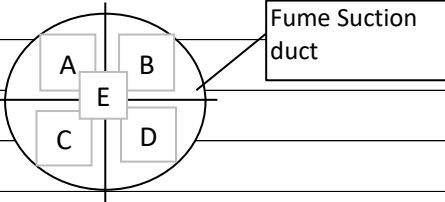
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)					
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



<u>Conclusion.</u>				
<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-FEB-23	Date : 20-FEB-23	Date: 20-FEB-23	Date: 20-FEB-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

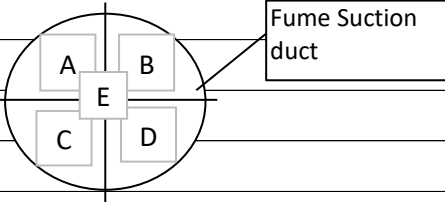
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >,=10 m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	11	10	10	10	11
Air velocity average (A+B+C+D+E)/5 =					10.4



<u>Conclusion.</u>				
<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-MAR-23	Date : 21-MAR-23	Date: 21-MAR-23	Date: 21-MAR-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

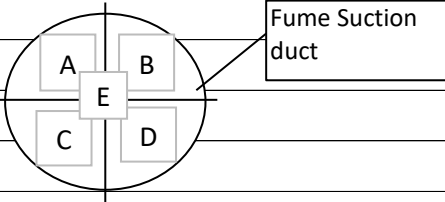
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >, =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



<u>Conclusion.</u>				
<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-APR-23	Date : 21-APR-23	Date: 21-APR-23	Date: 21-APR-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

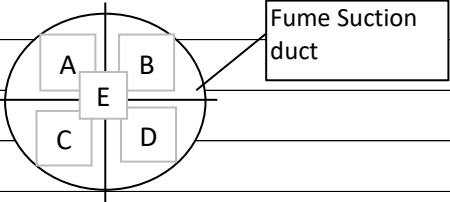
6 Spout lid;					
Air cylinder for door closing check leak and function					
<input type="checkbox"/> damage	<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> acceptable	remark _____		
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at ≥ 10 m/s)					
Check at suction duct on fume hood.					
Position	A	B	C	D	E
Air velocity (m/s)	9	10	11	10	9
Air velocity average $(A+B+C+D+E)/5 =$					9.8



<u>Conclusion.</u>				
<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 : 19-MAY-23	Date : 20-MAY-23	Date: 20-MAY-23	Date: 20-MAY-23	

Meyer Aluminium (Thailand)		E&M Department		<u>Mechanical</u> Section	
Monthly maintenance check sheet <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 type="checkbox"/>	#2 <input checked="" type="checkbox"/>	
1 Combustion fan;					
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 _____
2 Damper;					
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 _____
3 Charging door;					
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 _____
4 Male spout;					
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 _____
5 Female down spout;					
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 _____

6 Spout lid;					
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 _____	
7 Furnace tilting cylinder;					
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 _____		
8 Hydraulic main tank;					
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 _____		
9 All furnace Gas pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
10 All furnace air pipe leak check and cleaning ;					
Leak at _____		<input type="checkbox"/> repaired	<input checked="" type="checkbox"/> not leak	remark _____	
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
11 Furnace roof general cleaning;					
<input checked="" type="checkbox"/> clean	<input type="checkbox"/> not clean	remark _____			
12 Furnace door fume duct air velocity check; (normal average at >, =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



<u>Conclusion.</u>				
<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-JUN-23	Date : 22-JUN-23	Date: 22-JUN-23	Date: 22-JUN-23	