

		Potential	Potential Effect	Potential Cause /						Risk	Recommended		Pos	st Ri	sk
S. No.	Item / Function	Failure Mode	of Failure	Mechanism of Failure	Current Control	Reference Document no.	S	0	D	Priority Number (S*O*D)	Actions (if any)	S	0	D	RPN S*O*D
1.	Size/Dimension of Machine/Comp onents may differ from specification	May lead to unavailability of space or Machine may not be installed into the area	Productivity may be effected due to space constrant	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment is already been installed Equipment/Mach ine is in operation for production 		3	2	2	12	Installation Qualification shall be performed and size/dimensio n shall verified in IQ	3	1	1	3
2.	Functionality of machine may differ from specification	Machine may be Malfunction	Dust may not be extracted from the workplace.	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Mach ine is in operation for production Equipments covered in PM Program 		4	3	3	36	Operational Qualification shall be performed and functionality shall be verified	4	1	1	4
3.	Unavailability of vendor documents like operation and maintenance	It may lead to Lack of information of the Machine	During preparation of In-House Qualification documents, it	 Person Negligency Unavailability of qualification documents 	 Performane Qualification has been performed Standard Operating 		4	3	3	36	All related In- house documents shall be prepared and	4	1	1	4



		Potential	Potential Effect	Potential Cause /						Risk	Recommended		Po	st R	isk
S. No.	Item / Function	Failure Mode	of Failure	Mechanism of Failure	Current Control	Reference Document no.	S	0	D	Priority Number (S*O*D)	Actions (if any)	S	0	D	RPN S*O*D
	manual, functional specification and design specification may happen		may not cover all required test/Script	 Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	Procedure is in PlaceEquipment/Mach ine is in operation for production						shall be exeuted				
4.	Unavailability of GA drawing, Electrical drawings, components certificates and MOC certificates may happen	Arrangement of components and electrical wiring may not be identified	During any maintenance/B reakdown activity, Engineer may face problems related to components and wiring arrangement	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Mach ine is in operation for production 		3	3	3	27	Availablity for drawing to be check by Engineering/V endor	3	1	1	3
5.	Safety parameters like noise level, surface finish and limit switch may not be available	Machine may not have safety features	May lead to effect on Operator/Perso nnel safety	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Mach ine is in operation for production 		4	3	2	24	If equipment is sound producing in that case noise lavel shall be verified in OQ and surface finish and limit switch shall be verified in IQ	4	1	1	4



QUALITY ASSURANCE DEPARTMENT

		Potential	Potential Effect	Potential Cause /						Risk	Recommended		Po	st Ri	isk
S. No.	Item / Function	Failure Mode	of Failure	Mechanism of Failure	Current Control	Reference Document no.	S	0	D	Priority Number (S*O*D)	Actions (if any)	S	0	D	RPN S*O*D
				not much established for qualification											
6.	Utility requirements for the machine may differ from specification	May lead to abnormal behavior of the Machine	Electrical/Mec hanical Fault in the Machine may be happen	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Mach ine is in operation for production 		4	1	3	12	Equipment was using since many years still utility shall be verified in IQ	4	1	1	4
7.	Operating parameters (e.g. Min-max speed) may not be fixed or validated	Machine may be Malfunction	Standard Quality of tablet not meet as per requirement – may cause complaint.	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Mach ine is in operation for production 		5	2	4	40	All Operating parameters shall be verified in OQ	5	1	1	5



		Potential	Potential Effect	Potential Cause /						Risk	Recommended		Po	st R	isk
S. No.	Item / Function	Failure Mode	of Failure	Mechanism of Failure	Current Control	Reference Document no.	S	0	D	Priority Number (S*O*D)	Actions (if any)	S	0	D	RPN S*O*D
8.	Machine Functions keys may not be work or work different	May lead to abnormal behavior of the Machine and may results in effects on Product/Huma n safety	Electrical/Mec hanical Fault in the Machine may be happen	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Mach ine is in operation for production Equipments covered in PM Program 		4	2	3	24	Operational Qualification shall be performed and functionality shall be verified in OQ	4	1	1	4
9.	SOP may not be available or may not drafted accordingly	Operation and Cleaning of machine may effected	Dust may not be extracted from the workplace.	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Mach ine is in operation for production 		4	1	1	4	NA	N A	N A	N A	NA



QUALITY ASSURANCE DEPARTMENT

		Potential	Potential Effect	Potential Cause /						Risk	Recommended		Pos	st Ri	sk
S. No.	Item / Function	Failure Mode	of Failure	Mechanism of Failure	Current Control	Reference Document no.	S	0	D	Priority Number (S*O*D)	Actions (if any)	S	0	D	RPN S*O*D
10.	Safety interlocks may not work (Door or emergency)	Machine may not follow safety requirements	May lead to effect on Operator/Perso nnel safety	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Mach ine is in operation for production 		4	3	2	24	Safety interlocks shall be verified in OQ (If Applicable)	4	1 1	L	4



										Risk			Po	st Ri	sk
S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure	Current Control	Reference Document no.		0		Priority Number (S*O*D)	Recommended Actions (if any)	S	0	D	RPN S*O*D
1.	Size/Dimension of Machine/Comp onents may differ from specification	May lead to unavailability of space or Machine may not be installed into the area	Productivity may be effected due to space constrant	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment is already been installed Equipment/Machine is in operation for production 		3	2	2	12	Installation Qualification shall be performed and size/dimension shall verified in IQ	3	1	1	3
2.	Functionality of machine may differ from specification	Machine may be Malfunction	Dust may not be extracted from the workplace.	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production Equipment covered in Preventive Maintenance Program 		4	3	3	36	Operational Qualification shall be performed and functionality shall be verified	4	1	1	4
3.	Unavailability of vendor documents like operation and	It may lead to Lack of information of the Machine	During preparation of In-House Qualification	Person NegligencyUnavailablity of qualification	 Performane Qualification has been performed Standard Operating 		4	3	3	36	All related In- house documents shall be prepared and shall be	4	1	1	4



										Risk			Pos	t Ri	sk
S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure	Current Control	Reference Document no.		0		Priority Number (S*O*D)	Recommended Actions (if any)	S	0	D	RPN S*O*D
	maintenance manual, functional specification and design specification may happen		documents, it may not cover all required test/Script	 documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Procedure is in Place Equipment/Machine is in operation for production 						exeuted				
4.	Unavailability of GA drawing, Electrical drawings, components certificates and MOC certificates may happen	Arrangement of components and electrical wiring may not be identified	During any maintenance/Bre akdown activity, Engineer may face problems related to components and wiring arrangement	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		3	3	3	27	Availablity for drawing to be check by Engineering/Vend or	3	1	1	3
5.	Safety parameters like noise level, surface finish and limit switch may not be available	Machine may not have safety features	May lead to effect on Operator/Person nel safety	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	3	2	24	If equipment is sound producing in that case noise lavel shall be verified in OQ and surface finish and limit switch shall be verified in IQ	4	1	1	4



										Risk			Pos	st Ri	sk
S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure	Current Control	Reference Document no.		0		Priority Number (S*O*D)	Recommended Actions (if any)	S	0	D	RPN S*O*D
				 in qualification Procedure was not much established for qualification 											
6.	Utility requirements for the machine may differ from specification	May lead to abnormal behavior of the Machine	Electrical/Mecha nical Fault in the Machine may be happen	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	1	3	12	Equipment was using since many years still utility shall be verified in IQ	4	1	1	4
7.	Equipment may not be included in the Equipment master list, Preventive Maintenance Planner and Calibration Planner	Machine may not be scheduled for preventive maintenance and calibration	Dust may not be extracted from the workplace.	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		5	4	4	80	Master list of equipment, Calibration planner, PM Planner shall be verified in IQ for equipment presense	5	1	1	5



										Risk			Pos	st Ri	sk
S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure	Current Control	Reference Document no.	S	0	D	Priority Number (S*O*D)	Recommended Actions (if any)	S	0	D	RPN S*O*D
				qualificationPerson Negligency											
8.	Machine Functions keys may not be work or work different	May lead to abnormal behavior of the Machine and may results in effects on Product/Huma n safety	Electrical/Mecha nical Fault in the Machine may be happen	 Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has beer performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 	1	4	2	3	24	Operational Qualification shall be performed and functionality shall be verified in OQ	4	1	1	4
9.	SOP may not be available or may not drafted accordingly	Operation and Cleaning of machine may effected	Dust may not be extracted from the workplace.	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	1	1	4	NA	N A	NA	N A	NA



QUALITY ASSURANCE DEPARTMENT

S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure		Reference Document no.		0		Risk Priority Number (S*O*D)		S	Pos	st Ris D	RPN S*O*D
10.	Safety interlocks may not work (Door or emergency)	Machine may not follow safety requirements	May lead to effect on Operator/Person nel safety	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	3	2	24	Safety interlocks shall be verified in OQ (If Applicable)	4	1	1	4



										Risk			Pos	st Ri	sk
S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure	Current Control	Reference Document no.		0		Priority Number (S*O*D)	Recommended Actions (if any)	S	0	D	RPN S*O*D
1.	Size/Dimension of Machine/Comp onents may differ from specification	May lead to unavailability of space or Machine may not be installed into the area	Productivity may be effected due to space constrant	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment is already been installed Equipment/Machine is in operation for production 		3	2	2	12	Installation Qualification shall be performed and size/dimension shall verified in IQ	3	1	1	3
2.	Functionality of machine may differ from specification	Machine may be Malfunction	Dust may not be extracted from the workplace.	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	3	3	36	Operational Qualification shall be performed and functionality shall be verified	4	1	1	4
3.	Unavailability of vendor documents like operation and	It may lead to Lack of information of the Machine	During preparation of In-House Qualification	Person NegligencyUnavailability of qualification	 Performane Qualification has been performed Standard Operating 	h	4	3	3	36	All related In- house documents shall be prepared and shall be	4	1	1	4



QUALITY ASSURANCE DEPARTMENT

										Risk			Pos	st Ri	sk
S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure	Current Control	Reference Document no.		0		Priority Number (S*O*D)	Recommended Actions (if any)	S	0	D	RPN S*O*D
	maintenance manual, functional specification and design specification may happen		documents, it may not cover all required test/Script	 documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Procedure is in Place Equipment/Machine is in operation for production 						exeuted				
4.	Unavailability of GA drawing, Electrical drawings, components certificates and MOC certificates may happen	Arrangement of components and electrical wiring may not be identified	During any maintenance/Bre akdown activity, Engineer may face problems related to components and wiring arrangement	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		3	3	3	27	Availablity for drawing to be check by Engineering/Vend or	3	1	1	3
5.	Safety parameters like noise level, surface finish and limit switch may not be available	Machine may not have safety features	May lead to effect on Operator/Person nel safety	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	3	2	24	If equipment is sound producing in that case noise lavel shall be verified in OQ and surface finish and limit switch shall be verified in IQ	4	1	1	4



										Risk		Post Risk			
S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure	Current Control	Reference Document no.		0	D	Priority Number (S*O*D)	Recommended Actions (if any)	S	0	D	RPN S*O*D
				 in qualification Procedure was not much established for qualification 											
6.	Utility requirements for the machine may differ from specification	May lead to abnormal behavior of the Machine	Electrical/Mecha nical Fault in the Machine may be happen	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	1	3	12	Equipment was using since many years still utility shall be verified in IQ	4	1	1	4
7.	Equipment may not be included in the Equipment master list, Preventive Maintenance Planner and Calibration Planner	Machine may not be scheduled for preventive maintenance and calibration	Dust may not be extracted from the workplace.	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		5	4	4	80	Master list of equipment, Calibration planner, PM Planner shall be verified in IQ for equipment presense	5	1	1	5



QUALITY ASSURANCE DEPARTMENT

										Risk		Post Risk			
S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure		t Control Reference Document S no.		0		Priority Number (S*O*D)	Recommended Actions (if any)	S	0	D	RPN S*O*D
		May lead to		 qualification Person Negligency Unavailablity of qualification 	Performane										
8.	Machine Functions keys may not be work or work different	abnormal behavior of the Machine and may results in effects on Product/Huma n safety	Electrical/Mecha nical Fault in the Machine may be happen	 documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	2	3	24	Operational Qualification shall be performed and functionality shall be verified in OQ	4	1	1	4
9.	SOP may not be available or may not drafted accordingly	Operation and Cleaning of machine may effected	Dust may not be extracted from the workplace.	 Person Negligency Unavailablity of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 		4	1	1	4	NA	N A	N A	N A	NA



QUALITY ASSURANCE DEPARTMENT

S. No.	Item / Function	Potential Failure Mode	Potential Effect of Failure	Potential Cause / Mechanism of Failure		Reference Document S no.	0		Risk Priority Number (S*O*D)	Recommended Actions (if any)	S	Pos	t Ris D	RPN S*O*D
10.	Safety interlocks may not work (Door or emergency)	Machine may not follow safety requirements	May lead to effect on Operator/Person nel safety	 Person Negligency Unavailability of qualification documents Involvement of Untrained persons/Vendor in qualification Procedure was not much established for qualification 	 Performane Qualification has been performed Standard Operating Procedure is in Place Equipment/Machine is in operation for production 	4	3	2	24	Safety interlocks shall be verified in OQ (If Applicable)	4	1	1	4

S. No.	Recommended Action	Responsible Person	Target Date of Completion
1.	All identified qualification documents which are not available or not		
	executed, shall be prepared and executed.		
2.	Further New equipments shall be qualified as per current SOP		
	checklist.		
3.	GA/Electrical Drawing shall be prepared/arranged		
4.	Training shall be imparted to all concerned persons to ensure the		
	adequacy, accuracy, completeness and correctness of the documents.		
5.	URS and SOP for the equipment shall be preparaed/Updated		
	equired/Not required): Not required d mentioned the CAPA No.: NA		





RISK ASSESSMENT FOR COMPRESSED AIR

Quality Risk Management Tea	am	Reviewed By	Approved By		
Name	Department	Sign &	Date	Head Operations Sign & Date	Head QA Sign & Date
Name of facility/ Equipement			1	ATION SUMMARY REPORT ent for GAPs Identified in Qualifi	ication Documents as ner
Preparation:	/Ounty/System/Activity/	1 loccuare/ Clift		trol No	ication Documents as per
				er No	
Verification of recommended	action:				
Remark (if any):					

For Product Contact Equipments: All the product contact Machine/Equipment, which are covered in this risk assessment are procured from the vendor as on such basis and were used for routine production after performance qualification, Hence there is no significant impact on product quality due to identified GAPs in Qualification Documents.

Process Validation: All identified equipments in this quality risk assessment are also covered in many process validation batches of OSD area. On behalf of our process validation study, it can be concluded that there is no significant impact on product quality due to identified GAPs in Qualification Documents.

Verified By: Officer/Executive QA (Sign & Date) Approved By: Head QA (Sign & Date)