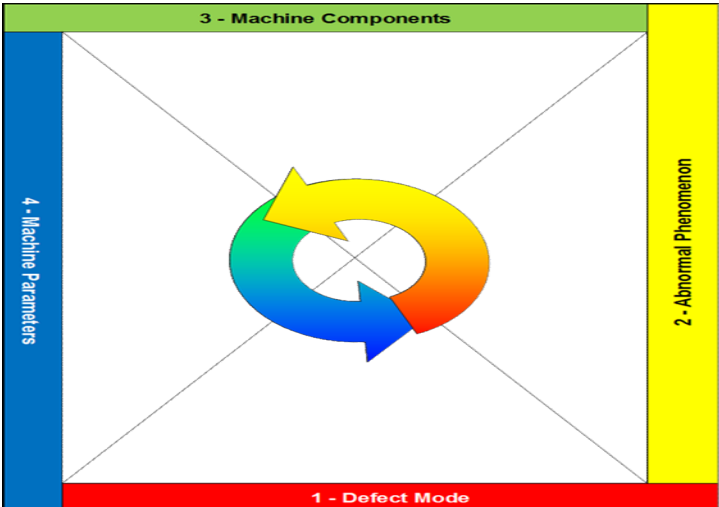


X		IPS Inspection System Test Ring			X	
X		Optisense Lense		X		
		3 - Machine Component				
Optisense & IPS Inspection System Cleaning	4 - Machine Parameters		2 - Abnormal Phenomenon	Dirty lense	Dirty Test Ring	
100% clear of debris		1 - Defect Mode				
X		Optisens & IPS Inspection System issues or errors		X	X	

Q-M Matrix : JENOPTIK BORE GAGE OP 68

Machine Group	OPTISENSE	IPS INSPECTION SYSTEM
Machine components	LENSE	TEST RING
Parameters	100% Free of Debris	100% Free of Debris
Measuring instruments	JENOPTIK Cleaning Kit - 10047070	JENOPTIK Cleaning Kit - 10047070
Specifications	P21	P21
Frequency	14,400 Cycles	14,400 Cycles
Responsibility	MTTM	MTTM
Q Points		
Operating Instructions	P21	P21

Level of Analysis 1 = Original 2 = After Improvements

5QFZD			1	2	1	2
Is the condition clear and visible?	Fixed specification range is defined		1		1	
	An easy to check method exists					
	Visual - Easy to see at any time					
Is it easy to set?	Difficult to set, measure by hands					
	Easy to adjust, fixed position		1		1	
	Preset, automatic set up for each product type					
Is the value varying outside the specification range ?	During normal production in less than 1 shift					
	Modified at each set up					
	Exceptionally		1		1	
Is the variation visible ?	Low probability to see it		1		1	
	The Periodical inspection system has more than 90% probability to see the deviation occurred					
	A continuous monitoring ensuring immediate alert					
Is it easy to restore?	Difficult, almost an art, requires technical skills and downtime					
	Easy once a person is qualified		1		1	
	Automatic adjustment (closed loop)					
TOTAL			5	0	5	0
			20%	0%	20%	0%
Before Total Score						
After Total Score						
Total Points			600			