

Q-M Matrix : JENOPTIK CRANK SHAFT GAGE OP 118

Machine Group	MEASURING SET UP	MEASURING SETUP	
Machine components	Measuring Probe	Measuring Probe	
Parameters	Refer to schematic diagram for tolerances	100% Clear of Debris	
Measuring instruments	Allen Wrench Set	Cleaning Brush Ethanol Detergent	
Specifications	P33,P34	P35	
Frequency	As Needed	4500 Cycles	
Responsibility	MTTM	MTTM	
Q Points			
Operating Instructions	P33,P34	P35	

		Level of Analysis 1 = Original 2 = After Improvements						
		1	2	1	2	1	2	
5QFZD	Is the condition clear and visible?	Fixed specification range is defined	1					
		An easy to check method exists						
		Visual - Easy to see at any time			1			
	Is it easy to set?	Difficult to set, measure by hands						
		Easy to adjust, fixed position	1					
		Preset, automatic set up for each product type			1			
	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					
		The Periodical inspection system has more than 90% probability to see the deviation occurred			1			
		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	0	0	
		20%	0%	20%	0%	0%	0%	
Before Total Score								
After Total Score								
Total Points		600						