Corrective Action Report	
This report apply for: ☐ System ■ Product ☐ Process Inspector: Di Nan Confirmed By: Liang Zhang	**Order Number: 122482** Issue Date: 2014.5.23

General Information:

P.N.:	Description:BOSS,SENSOR OXYGE	Company: Nanjing Best Internaional Co., Ltd.	Reject Rate: 2.25%

The reason for this report:
☐ internal QA FAIL ■ Customer Inspection FAIL ☐ Customer Complaint ☐ others:

Defect Problem Description:
M18×1.5-6H internal thread failed in thread go/no go gage

1) Problem Definition and Analysis.

What (what the problem is about, how describes it, what it is, etc)	M18×1.5-6H internal thread go gage cannot go, no go gage goes.
How (how it was presented, how it happens, how is explained, etc)	Customers found above problem in the thread inspection, and feedback to us in the form of email to our company. At the same time, some of the substandard products will also be giving back for analyzing.
When (When it was seen first time, how long it has been identified, etc)	Customer feedback on 23rd, May 2014(feedback one time on 4th, April, due to the small rate(actual rate is 0.3%) our company did not cause enough attention)
Where (In which machine, which areas, physical place, location, etc)	The customer found the problem at their side.
How Much (magnitude, quantities, amounts, dollars, metrics affected, etc)	135pcs

2) Teamwork Building.
Total documentation of the resources involved in problem solving methodology.

Name *	Position (Employee position)	Role (in the team)
Liang Zhang	technical engineer	Responsible for product development related technology

Qin Ma	director the of production department	Responsible for product production schedule
Di Nan	inspection engineer	Responsible for product inspection
Yun Chen	purchasing engineer	Responsible for purchasing and outsourcing related work

3) Containment Actions.

Summary of provisional actions and/or remedies that suspend immediate and absolutely the effects of the problem avoiding consecutive claims

Containment Action *	Date	Resp.
Recall the outsourced surface treatment products (if the product has been surface treated, then quarantine after handling)	2014-5-26	Yun Chen
Quarantine all made products and spot check products under making.	2014-5-27	Nan Di
Purchase new machining tools and thread gauge, do full theck on thread for following machined products	2014-5-30	Yun Chen

4) Root Cause Analysis.

Identification of original cause and capable to eliminate the problem and all secondary effects, also removes immediate containment actions mentioned below

Problem Analysis (Logic to conclude the root cause)	1、 after threading, residue at teeth bottom were not cleaned enough, leading go gage cannot go 2、 wear of tool and thread go gage, resulting in go gage cannot go 3. Fail to quarantine debugged products from productiong parts effectively when device was debugging after tool change 3、 Inadequate sampling ratio, failed to detect defective products timely
Root Cause	1、teeth bottom were not cleaned enough; 2、wear of tool and thread gage; 3、when device was debugging, faile to quarantine debugged products effectively
Root Cause Verification (Verify through Experimentation that the root cause detected could provoke that the problem shows up or not)	1、teeth bottom were not cleaned enough; 2、wear of tool and thread go gage; 3、when device was debugging, faile to quarantine debugged products effectively

5) Permanent Corrective Actions.

1、 Add the thread teeth bottom residue removal process;
2、 Make time schedule for change of tools and gages;
3. Make work instructions for debugging equipment
4. To train operators and inspectors;
5. Increase product sampling rate, if necessary, do full inspection

Action *	Date	Resp.

Defect Occurrence Corrective Action 1、 Add the thread teeth bottom residue removal process; 2、 To train workers to operate strictly according to operation instructions	2014-5-30	Liang Zhang Qin Ma
Defect Detection Corrective Action To scrap or quarantine the out-of-tolerance products	Long-term effective	Di Nan

6) Corrective Actions Verification.

Describe the way in which you verify that all actions have been implemented.

Verification *	Date	Resp.
After adding thread bottom residue removal process, can feel the go gage screw in smoothly	2014-5-30	Liang Zhang Qin Ma Di Nan

7) Recurrence Prevention.

Describes which is the way in which you will be preventing that root causes like this could be originated again.

Action *	Document	Date	Resp.
1、 update the product operation instruction; 2. Strengthen the operator training and process inspection 3. full check products with go/no go gage	Employee trainning records Operation instruction	2014-5-31	Liang Zhang Qin Ma Di Nan

8) Effectiveness Tracing

According to customer feedback by E-mail, the qualification rate of thread go/no go gage check was improved, but still can not completely eliminate the issue.

Confirm:	According to the result of customer feedback, although qualification rate of thread check was improved, but still can not completely eliminate the issue. The main reason should be caused by operator's inertial thinking after analysis of related departments.
Date:	16th, June, 2014
Engineer:	Liang Zhang, Di Nan, Yun Chen