

บริษัทกระดาษสหไทย
(Thai Union Paper-SCG Group)

- The machine is Turbine/Generator.
- The existing system is Shinakawa, but only at NDE Turbine.
- Some existing cards were failed and the spare parts are very high cost, moreover, they need to monitor whole Turbine locations as well.
- AST awarded to replace the failed existing system as well as installing a new system for whole Turbine locations.
- The new system is Rockwell Protection System which is certified API 670, the only standard for Turbine Vibration Protection System.



Overview

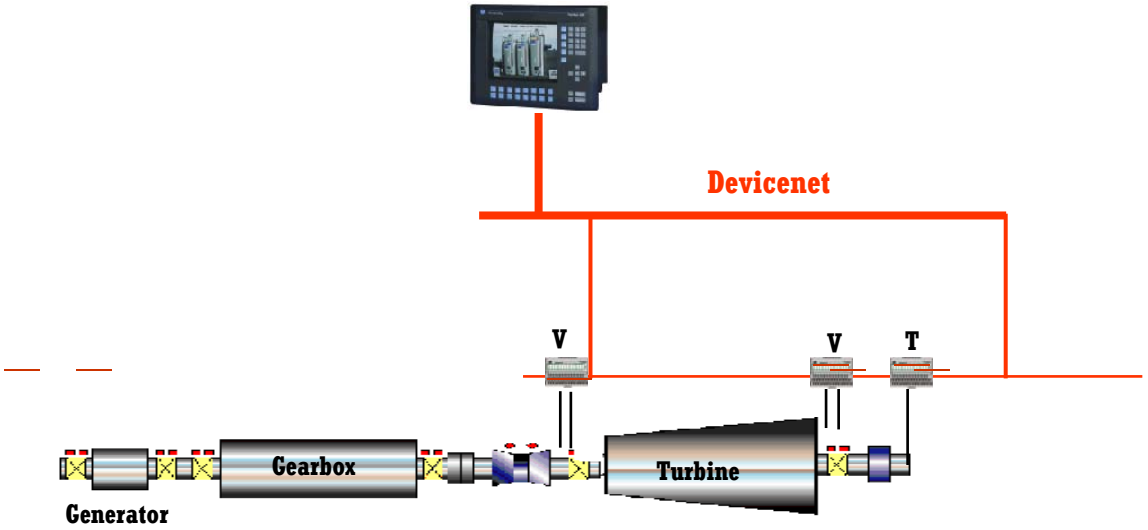
The protection and supervisory system described in this section relates to the solution for a single turbine. The following measurement regime has been assumed.

For Steam Turbine:-

Relative Vibration	4 channels (2-off X & Y)
Thrust	1 channel (dual redundant)

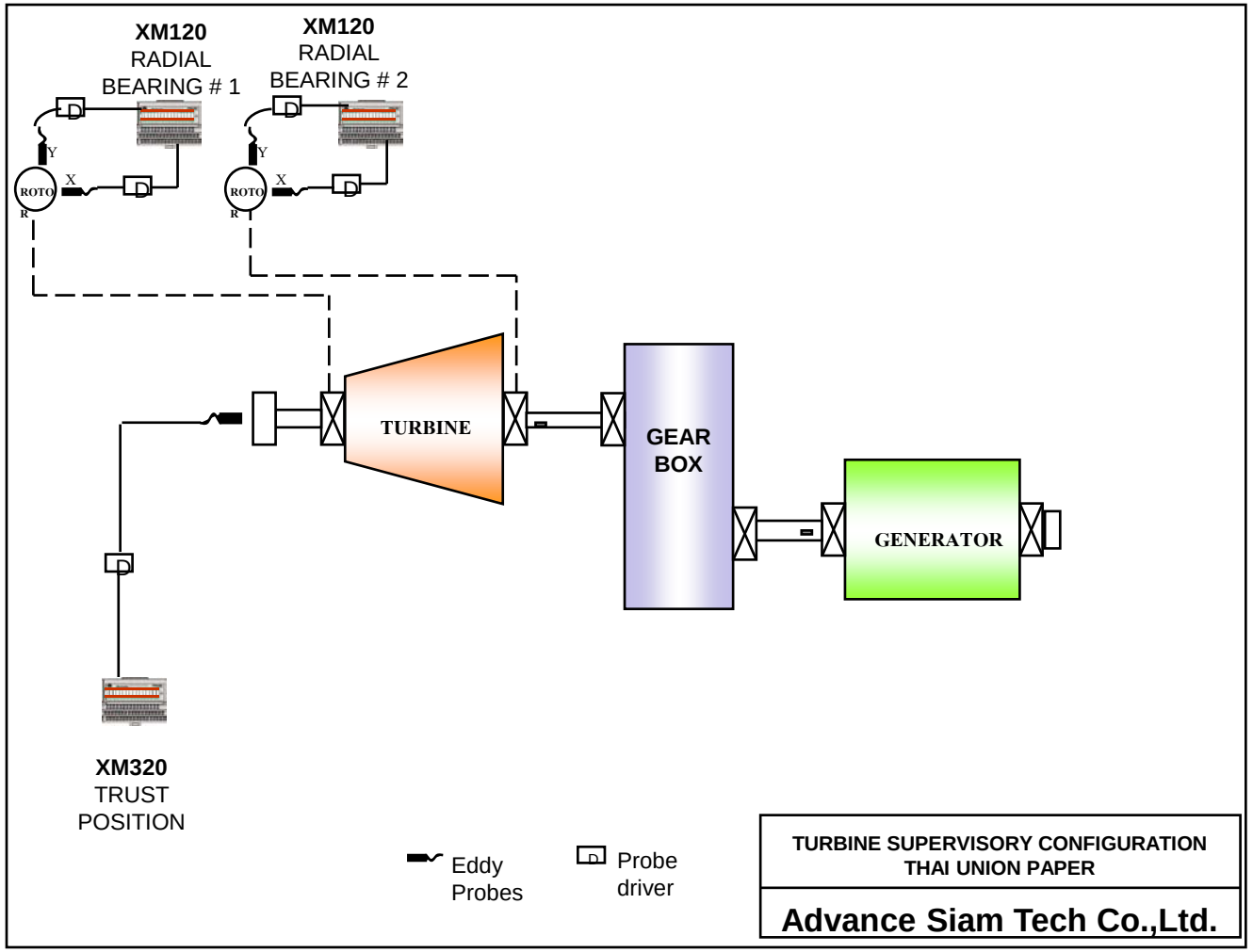
Facilities for dual 4-20mA current outputs per channel and module alarm relay contacts will interface with plant DCS system.

Schematic Diagram



V : Vibration Measurement Module
S : Speed Measurement Module
T : Thrust Position Module

Block Diagram



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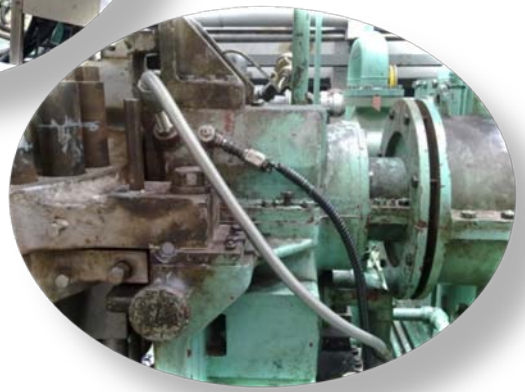






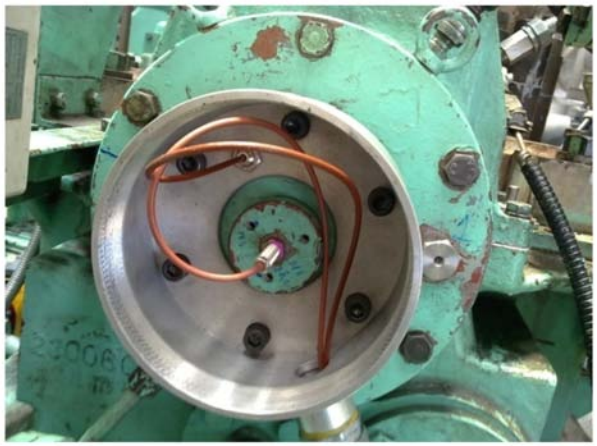






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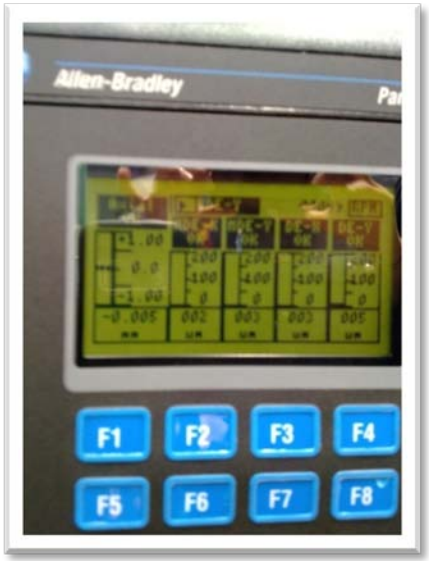




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Allen-Bradley
Panel View 3
Main
Axial OK
11944 RPM
+1.00
+0.50
0.0
-0.50
-1.00
-0.006
mm
Gap
-9.133 V
DG
AL


Main
RELAY STATUS
11931 RPM
R1 NDE DANGER
R2 DE DANGER
R3 AX ALARM
R4 SPEED ALARM
RESET R1-R4 F4
R5 AX DANGER F5
R6 NDE ALARM F6
R7 DE ALARM F7


Allen-Bradley
Panel View
Axial OK
NDE-X
11937 RPM
NDE-X OK
NDE-Y OK
DE-X OK
DE-Y OK
+1.00
0.0
-1.00
100
50
0
-0.004
mm
019
um
021
um
020
um
017
um
F3
F4


DE-Y
DE-X OK
11954 RPM
DG
AL
100
75
50
25
0
020
Um
Gap
-9.028 V