

ISOPLAN - PSV Software

Calibration Management PSV Station

Main Screens Presentation

Register of Valve

The screenshot shows a software window titled 'Instruments' with a menu bar (Main, Settings) and a toolbar (New, Save, Delete, Cancel, Copy, Paste, Edit, Close, Help). Below the toolbar is a 'Registered Instruments' section with a dropdown menu showing 'CRN 06715550' and a camera icon. The main area has three tabs: 'Register' (selected), 'Data Sheet', and 'Photo'. The 'Register' tab contains several fields:

REG. NUMBER	Instrument Type	
CRN 06715550	SAFETY VALVE	
Manufacturer Serial Number	Manufacturer	
	HANSEN USA	
Model	Tags (Read Only)	
H5600A GA	PSV-1231004	
Scales		
<input type="checkbox"/> Inactive	<input type="checkbox"/> In Maintenance	<input type="checkbox"/> Reserve

Registration Valve Serial number, Manufacturer, Model...

Register of Valve

The screenshot shows the 'Instruments' software window. The title bar reads 'Instruments'. Below the title bar are two tabs: 'Main' and 'Settings'. A menu bar contains icons for New, Save, Delete, Cancel, Copy, Paste, Edit, Close, and Help. Below the menu bar is a 'Registered Instruments' section with a dropdown menu showing 'CRN 06715550' and a group icon. Below this are three tabs: 'Register', 'Data Sheet', and 'Photo'. The 'Register' tab is active. It contains an 'Add' button, a dropdown menu with 'Fixed Assets' selected, an ellipsis button, and a 'Remove' button. Below these controls is a table with two columns: 'property' and 'Value'. The table contains the following data:

property	Value
Fixed Assets	N/A
Input Connections	2 1/2"
Output Connection	3"
Threaded or Flanged Connection	FLANGED
Fluid	AIR
Body Material	STEEL
Disco Material	STAINLESS STEEL
Pressure Class	150#
Manufacturing Standard	ASME VIII
Hole	F

Valve Data Sheet info

Register of Valve

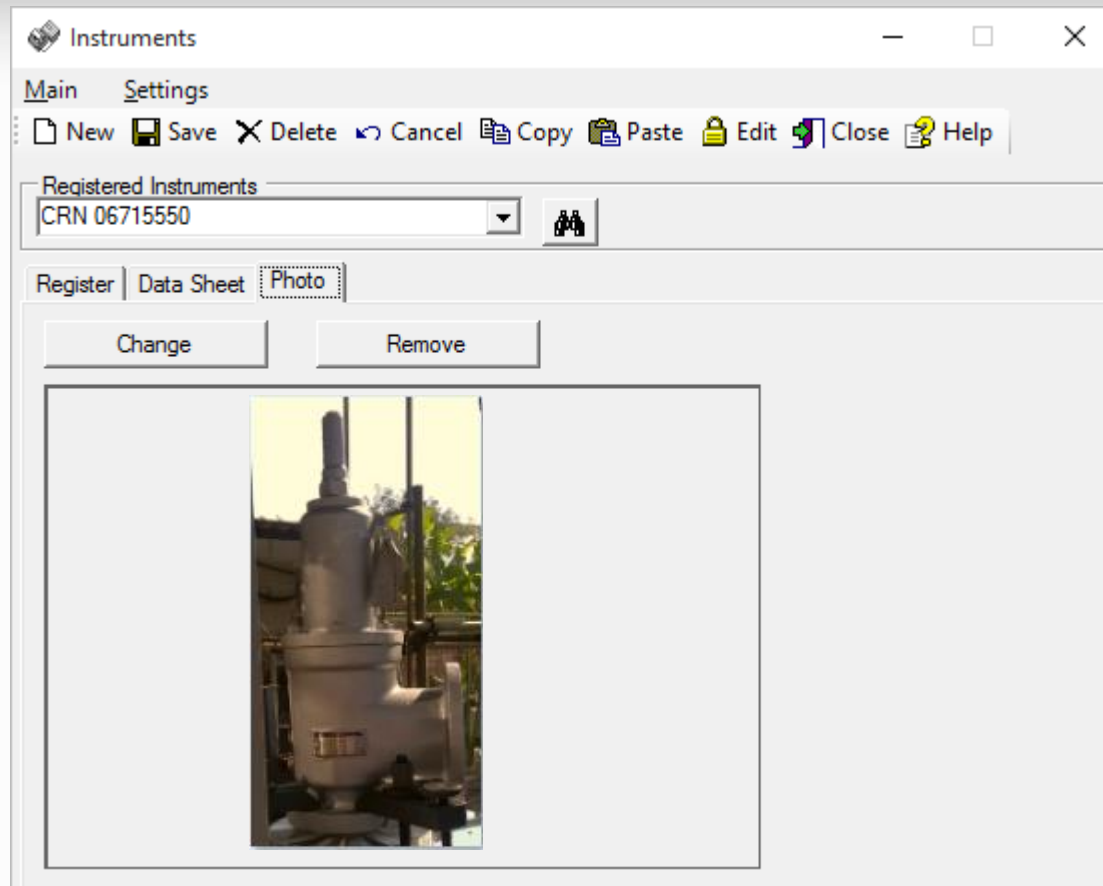


Photo of Valve

Register of TAG

The screenshot displays the 'Tags' application window. The interface includes a menu bar with 'Main' and 'Reports' options, and a toolbar with standard file operations: New, Save, Delete, Cancel, Copy, Paste, Edit, Close, and Help. The main content area is divided into several sections:

- Registered Tags:** A dropdown menu showing 'PSV-1231004' with a search icon.
- SECTOR:** A dropdown menu showing '\PLANT A\BOILER 1' with a search icon.
- Tag Information:**
 - Tag Name:** PSV-1231004
 - Cal./Verf.:** Calibration
 - Criticality:** SECURITY
 - Instrument:** CRN 06715550
 - Inactive
- Function / Interval:** A tabbed interface with 'Function / Interval' selected. It contains:
 - Period:** 12 Months, with a 'Calculate' button.
 - Last:** 18/09/2015 09:05:55
 - Next:** 18/09/2016
 - Function:** BOILER PROTECTION
 - Procedure:** P-CO-04 Procedure of Calibration/Re Calibration of PSV

Main Tag information of valve in the process

Register of TAG

The screenshot shows a software window titled "Tags" with a menu bar (Main, Reports) and a toolbar (New, Save, Delete, Cancel, Copy, Paste, Edit, Close, Help). The interface is divided into several sections:

- Registered Tags:** A dropdown menu showing "PSV-2112".
- Client:** A dropdown menu showing "Newcrest Lihir Island".
- Area:** A dropdown menu showing "\1. Berg calibrations".
- Tag Details:**
 - Tag Name: PSV-2112
 - Cal./Verif.: Calibration
 - Criticality: A
 - Instrument: BERG PSV001
 - Inactive
- Function / Interval | Instrument | Calibration | Strategy | Photo | Create Calibration** (tabbed interface)
- Reference:** An empty text box.
- Scale:**
 - Scale: Pressure PSV-psi
 - Min: 0, Max: 9999999.9, Dec: 1
 - 0 to 80 Man
- Options Presys Calibrators:**
 - Sensor P1: None

Calibration Range

Register of TAG

The screenshot shows the 'Tags' software interface with the following details:

- Client:** Newcrest Lihir Island
- Area:** \1. Berg calibrations
- Criticality:** A
- Instrument:** BERG PSV001
- Inactive

Navigation tabs: Function / Interval | Instrument | Calibration | Strategy | Photo | Create Calibration

Calibration Points:

- Buttons: Add, Remove
- Legend: PSV Insert 2 Points, Min = Reseat, Max = Set

	Value (psi)	Accept. Crit. (psi)	
▶	60	6	Reseating
	70	2	Set

Calibration Settings:

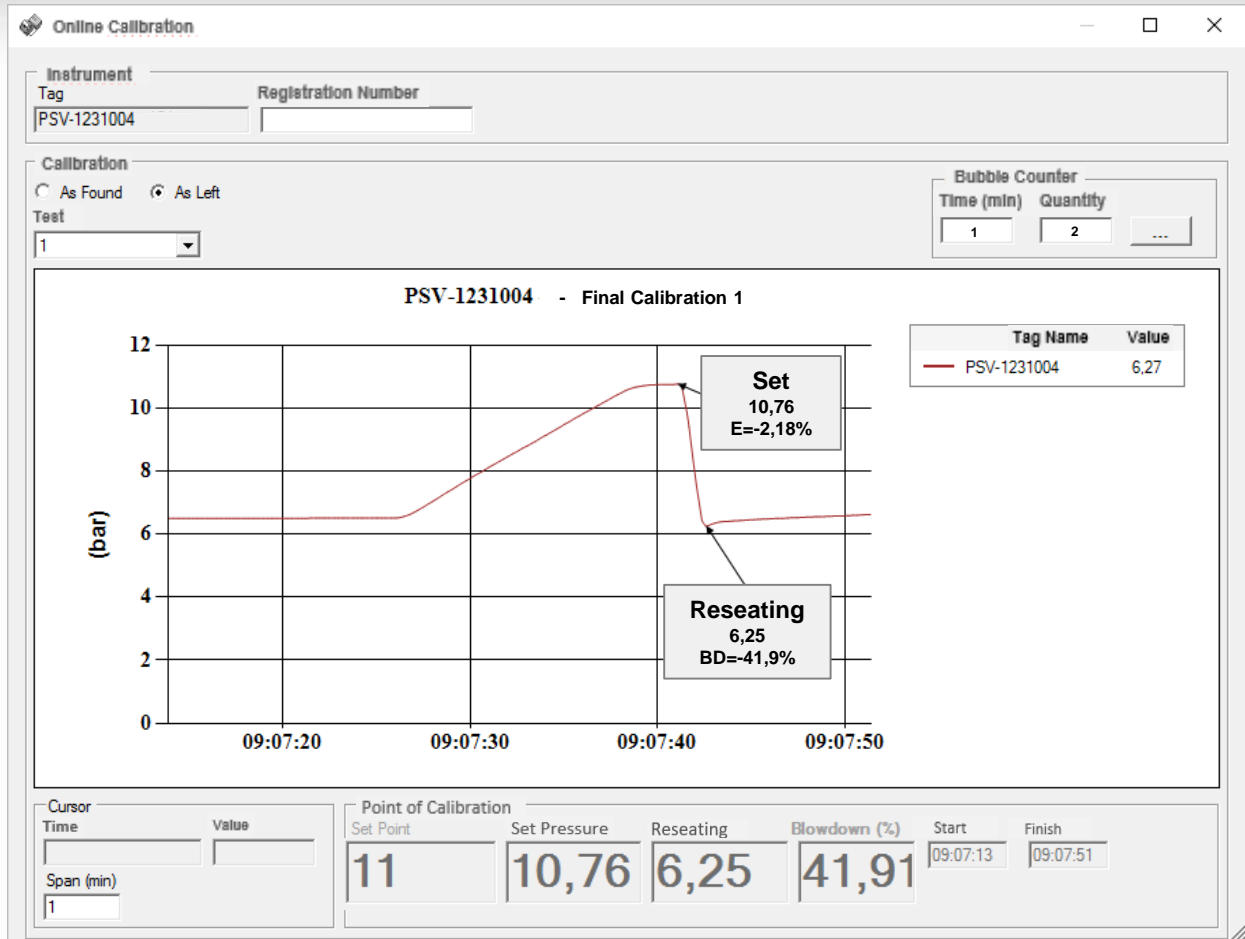
- Compensate Standard Error
- Valve Type: Safety Valve
- Observation: [Empty field]

Accept. Crit.: Error Plus Uncertainty

Auxiliary Calculation: ASME Section VIII (Gas) Constant, 0 (%) Reading (+) 0 Calculate

Calibration Set Points, Strategy and Acceptance Criteria

Online Acquisition



Online Acquisition during calibration

Results Analysis

Calibrations Results - Tag

Main Report

Save Delete Cancel Edit Close Help

Tag: PSV-1231004 Registration N.: CRN 06715550

Tags Strategy Environment / Settings Photos Diagnosis Signatures

Strategy: 1 Strategy:1 Pressure PSV 0 to 11 (bar) => Pressure PSV 0 to 11 (bar)

Values Standards / Operation Diagnosis Observations PSV

Point	Calibration	Reference	Corr. Cal.	Corrected Ref.	Value	Error
1	6,50	6,50	6,50	6,50	6,25	-0,25
2	11,00	11,00	11,00	11,00	10,76	-0,24
3	6,50	6,50	6,50	6,50	6,06	-0,44
4	11,00	11,00	11,00	11,00	10,74	-0,26
5	6,50	6,50	6,50	6,50	6,16	-0,34
6	11,00	11,00	11,00	11,00	10,74	-0,26

As Found (Initial) As Left (Final)

Calibration Logger

It is not allowed to change data

Results Analysis

Values | Standards / Operation | Diagnosis | Observations | PSV

Initial Diagnosis <input type="radio"/> No Diagnosis <input type="radio"/> Approved <input checked="" type="radio"/> Reproved	Final Diagnosis <input type="radio"/> No Diagnosis <input checked="" type="radio"/> Approved <input type="radio"/> Reproved	Settings <input type="checkbox"/> Correct Standards <input checked="" type="checkbox"/> Show Initial <input type="checkbox"/> Insert page break before of the strategy Acceptance Criteria Type Only Error No Scheduling
Errors Initial Calibration Accept. Crit. 0,3 bar Max (U + E) 0,6 bar Max (E) -0,5 bar	Errors Final calibration Accept. Crit. 0,3 bar Max (U + E) 0,5 bar Max (E) -0,3 bar	

Tags | Strategy | Environment / Settings | Photos | Diagnosis | Signatures

Strategy 1 **Strategy:1 Pressure PSV 0 to 11 (bar) => Pressure PSV 0 to 11 (bar)**

Values | Standards / Operation | Diagnosis | Observations | PSV

Observations
- Used Norm: ASME VIII (Gas)

Results Analysis

Values | Standards / Operation | Diagnosis | Observations | PSV

Services Performed

Service	Description
PARTS REPLACED	SEATS
SEAT	GRINDING, LAPPING
STEM	POLISHED
CLEANING	SOLVENT, SANDBLASTED
PAINTING	SILVER
NOZZLE	MACHINED,
SPRING	VERIFIED
UPPER SEALING	SEALED
▶ LOWER SEALING	SEALED

Valve Tests

Leakage
LEAKING (in Initial Test)

Internal State
GOOD

Stem Displacement
GOOD

Nom
ASME Section VIII (Gas)

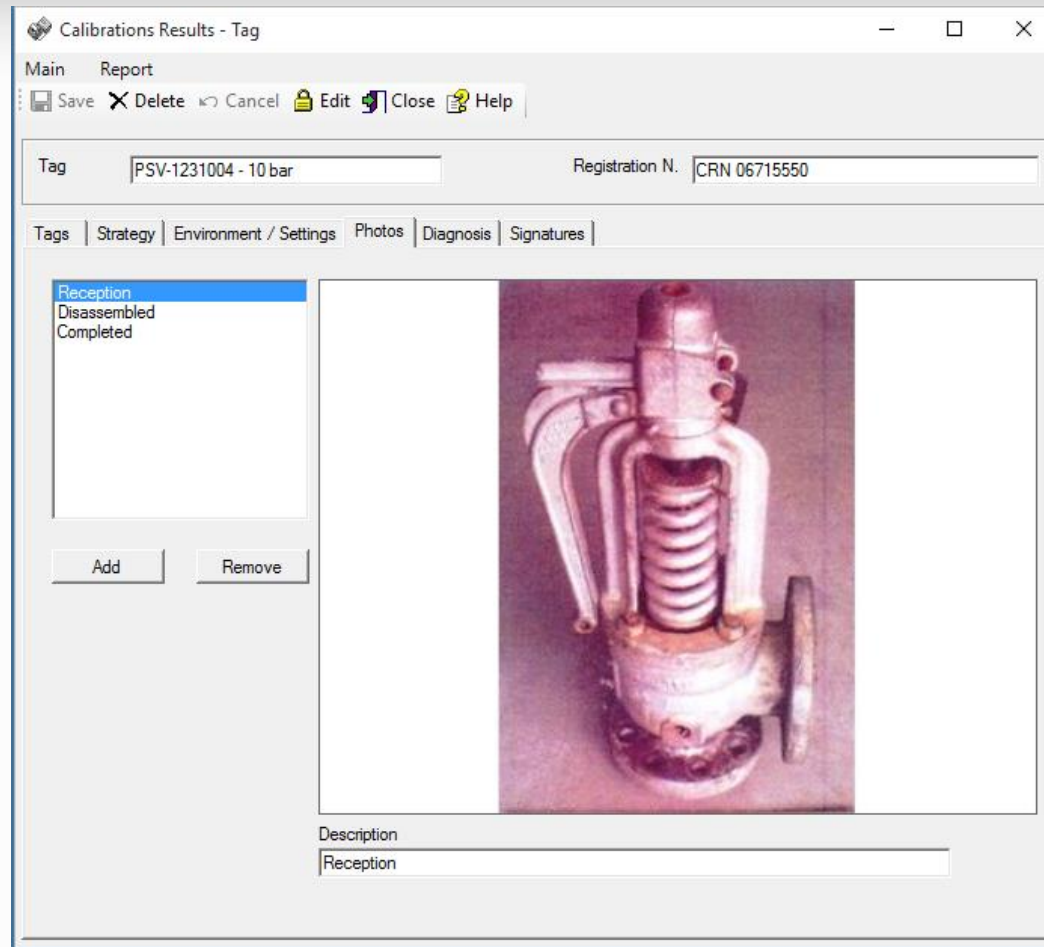
Valve Type
Security Valve

Sealing Test

Fluid Air	Number of Bubbles 2	Duration Minutes 1
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Addition of extra information for the certificate(API 527)

Results Analysis




Addition of photos at reception of valve

Results Analysis

Tags | Strategy | Environment / Settings | Photos | Diagnosis | Signatures

Reception
Disassembled
Completed

Add Remove



Description
Disassembled


Addition of photos: disassembled valve

Results Analysis

Tags | Strategy | Environment / Settings | Photos | Diagnosis | Signatures

Reception
Disassembled
Completed

Add Remove



Description
Completed

The image shows a software interface for photo management. At the top, there are navigation tabs: 'Tags', 'Strategy', 'Environment / Settings', 'Photos', 'Diagnosis', and 'Signatures'. On the left side, there is a list of tags: 'Reception', 'Disassembled', and 'Completed', with 'Completed' selected. Below the list are two buttons: 'Add' and 'Remove'. The main area displays a photograph of a silver metal valve assembly. The photo has a red date stamp in the bottom right corner that reads '26 2 2008'. Below the photo, there is a 'Description' field containing the text 'Completed'.

Addition of photos: Final

Results Analysis

Tags | Strategy | Environment / Settings | Photos | **Diagnosis** | Signatures

Failures

- 104-Valve Cleaning and Adjust
- 105-Lapping

Initial Diagnosis

No Diaq.
 Approved
 Reproved

Final Diagnosis

No Diaq.
 Approved
 Reproved

Maintenance

Preventive
 Corrective
 Not Authorized

Comments

Used Norm: ASME VIII (Gas)

Tags | Strategy | Environment / Settings | Photos | **Diagnosis** | Signatures

Signatures / Certificate Number

Operator


Responsible


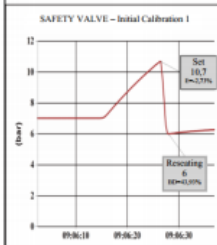
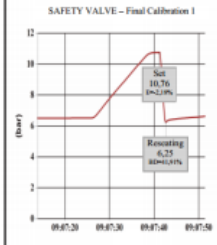
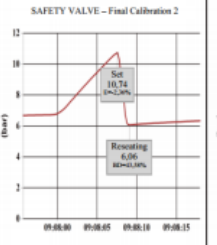
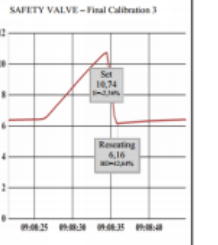
Certificate Number

Corrections


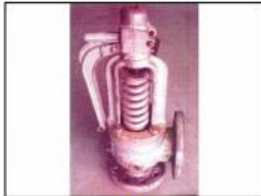




Diagnosis, Maintenance Type,
Electronic Signatures of Executant and Responsible

Calibration Certificate

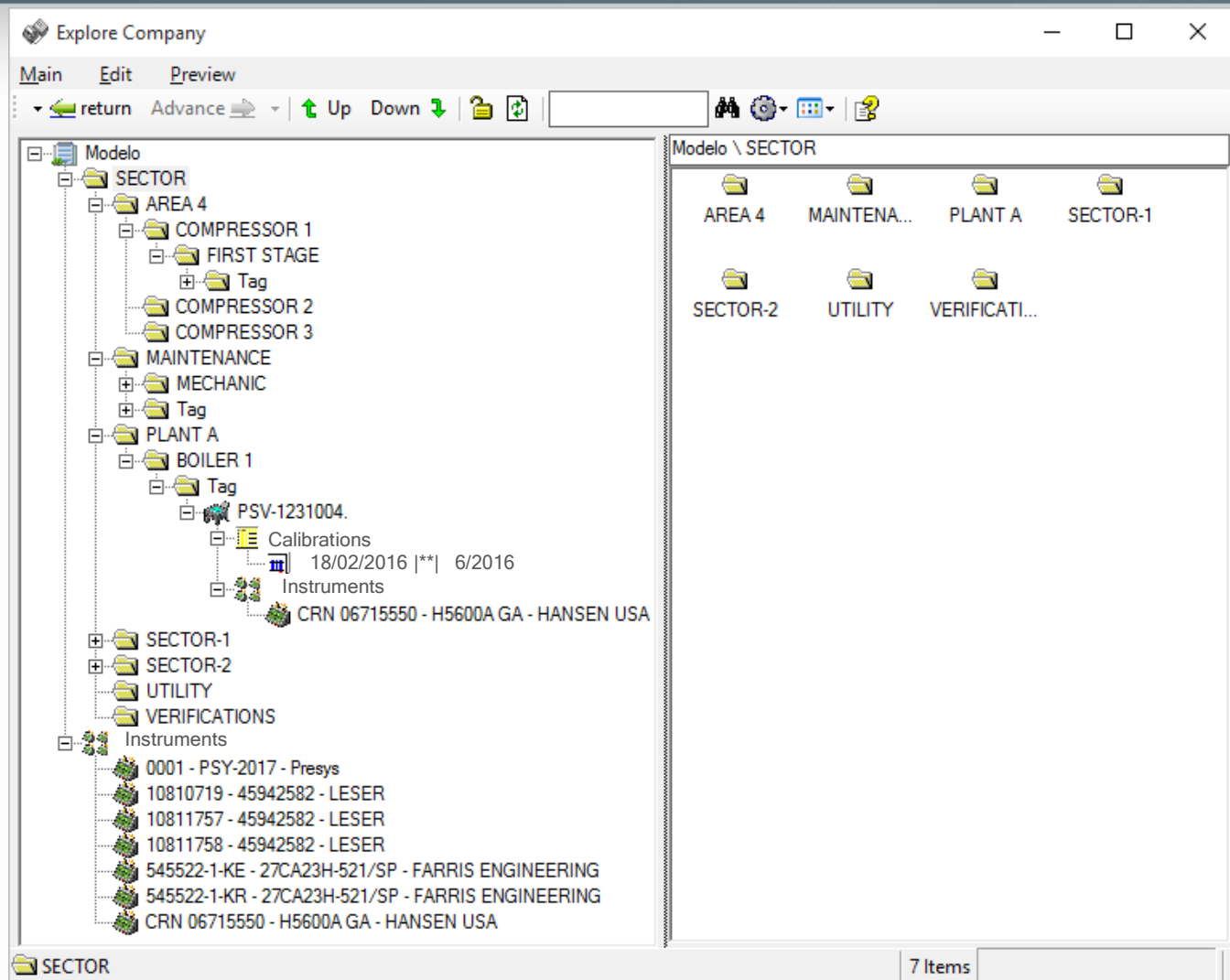
 Reliance Industries Limited <small>Growth in Life</small>		Calibration Certificate N.: 5/2016								
COMPANY: RELIANCE INDUSTRIES LIMITED INSTRUMENT: SAFETY VALVE FUNCT.: BOILER PROTECTION SECTOR: PLANT ABOILER 1 CRITICALITY: SECURITY O.S.: SAP004		REG. NUMBER: CRN 06715550 TAG: PSV-1231004 - 10 bar CALIBRATION PERIOD: 12 Months PROC.: P-CO-04								
PROCESS OPERATION INFORMATION										
Associated Equipment: B-403		Operating Temperature: Not Informed								
Operating Pressure: Not Informed		PMTP: Not Informed								
INSTRUMENT SPECIFICATION										
Manufacturer: HANSEN USA		Fluid: AIR								
Model: HANSEN USA		Body Material: STEEL								
Fixed Asset: N/A		Seat Material: STAINLESS STEEL								
Input Connection: 2 1/2"		Pressure Class: 150#								
Output Connection: 3"		Manufacturing Standard: ASME VIII								
Threaded or Flanged Connection: FLANGED		Hole: F								
CALIBRATION AND ADJUSTMENT										
INITIAL CALIBRATION										
	Reference (bar)	Reading 1 (bar)	Average (bar)	Error (bar)	Blowdown (%)	U (bar)	k	Accp. Crt. (bar)		
SET PRESSURE	11,00	10,70	10,70	0,30	43,93	0,14	2,000	0,33		
RESEATING PRESSURE	6,50	6,00	6,00	-0,50		0,14	2,000	0,34		
Leakage: LEAKING				Internal State: GOOD						
FINAL CALIBRATION										
	Reference (bar)	Reading 1 (bar)	Reading 2 (bar)	Reading 3 (bar)	Average (bar)	Error (bar)	Blowdown (%)	U (bar)	k	Accp. Crt. (bar)
SET PRESSURE	11,00	10,76	10,76	10,74	10,75	-0,25	42,71	0,14	2,000	0,33
RESEATING PRESSURE	6,50	6,25	6,06	6,16	6,16	-0,34		0,20	2,197	0,34
COMMENTS:										
Used Norm: ASME VIII (Gas)										
SUMMARY OF PERFORMED SERVICES										
PARTS REPLACED: SEATS					NOZZLE: MACHINED,					
SEAT: GRINDING, LAPPING					SPRING: VERIFIED					
STEM: POLISHED					UPPER SEALING: SEALED					
CLEANING: SOLVENT, SANDBLASTED					LOWER SEALING: SEALED					
PAINTING: ALUMINUM 600°C										
LEAK TEST										
FLUID: AIR			NUMBER OF BUBBLES: 2			MINUTES DURATION: 1				
SHIFTING LIFT										
GOOD										
CALIBRATION CONDITIONS										
LOCATION: RELIANCE MAINTENANCE LABORATORY				TEMPERATURE: 25 °C						
HUMIDITY: 65%				PRESS: 1 atm						
USED STANDARDS										
MODEL: DMY-2017-4-light-1112-0-0-3-0-1 S.N.: 005.09.15 Cert. N.: R3060.07.15 Nest Calh.: 1509/2016 Scale: Pressure PSV (bar) IDe (I)										
INITIAL DIAG.: Not Approved					FINAL DIAG.: Approved					
CALIBRATION: 18/02/2016					NEXT: 18/02/2017					
COMMENTS										
Used Norm: ASME VIII (Gas)										

 Reliance Industries Limited <small>Growth in Life</small>		Calibration Certificate N.: 5/2016	
COMPANY: RELIANCE INDUSTRIES LIMITED INSTRUMENT: SAFETY VALVE FUNCT.: BOILER PROTECTION SECTOR: PLANT ABOILER 1 CRITICALITY: SECURITY O.S.: SAP004		REG. NUMBER: CRN 06715550 TAG: PSV-1231004 - 10 bar CALIBRATION PERIOD: 12 Months PROC.: P-CO-04	
CALIBRATION GRAPHIC			
SAFETY VALVE - Initial Calibration 1			
			
SAFETY VALVE - Final Calibration 1			
			
SAFETY VALVE - Final Calibration 2			
			
SAFETY VALVE - Final Calibration 3			
			

Calibration Certificate

 Reliance Industries Limited <small>Growth is Life</small>	Calibration Certificate N.: 5/2016
COMPANY: RELIANCE INDUSTRIES LIMITED	REG. NUMBER: CRN 06715550
INSTRUMENT: SAFETY VALVE	TAG: PSV-1231004 - 10 bar
FUNCT.: BOILER PROTECTION	CALIBRATION PERIOD: 12 Months
SECTOR: PLANT ABOLTER 1	PROC: P-CO-04
CRITICALITY: SECURITY	
O.S.: SAP004	
PHOTOGRAPHIC REPORT	
	
Reception	
	
Disassembled	
	
Completed	
 Sandeep Nath Executive 18/02/2016 17:10:08	 Sandeep Nath Responsible 18/02/2016 17:16:12

Company Explorer



Calibration Plan



Calibration Plan - Tags

01/01/2016 to 31/12/2016

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COMPANY: RELIANCE INDUSTRIES LIMITED

Calibration not performed, deadline not expired

Area: \AREA 4\COMPRESSOR 1\FIRST STAGE

Tag	Function	Last Calibration	Planned Date	Reg. No.	Initial Diagnosis	Final Diagnosis
PSV-1231004	Proteção do Vaso de Ar		15/09/2016	545522-1-KE		
PSV-1231004-psi	Proteção do Vaso de Ar	15/09/2015	15/09/2016	545522-1-KE	Approved	Approved
PSV-1231004 - 8,8 bar	Proteção do Vaso de Ar		15/09/2016	545522-1-KE		
PSV-1231004 - 8,8 bar Well	Proteção do Vaso de Ar	16/09/2015	16/09/2016	545522-1-KR	Reproved	Approved
PSV-1231004 - 127,6psi	Proteção do Vaso de Ar		16/09/2016	545522-1-KR		

Area: \MAINTENANCE

Tag	Function	Last Calibration	Planned Date	Reg. No.	Initial Diagnosis	Final Diagnosis
PSV-0002	Válvula de Segurança	15/09/2015	15/09/2016	0001	Approved	Approved

Area: \MAINTENANCE\MECHANIC

Tag	Function	Last Calibration	Planned Date	Reg. No.	Initial Diagnosis	Final Diagnosis
PSV-1261814	Alívio de vaso de pressao	11/11/2015	11/11/2016	10810719	Approved	Approved
PSV-1261842	Alívio de vaso de pressao		11/11/2016	10811758		
PSV-1261841	Alívio de vaso de pressao		11/11/2016	10811757		


Area: \PLANTA\BOILER 1

Tag	Function	Last Calibration	Planned Date	Reg. No.	Initial Diagnosis	Final Diagnosis
PSV-1231004.	BOILER PROTECTION	18/09/2015	18/09/2016	CRN 06715550	Approved	Approved

Total (deadline not expired):10

Grand Total:16

Calibration Plan

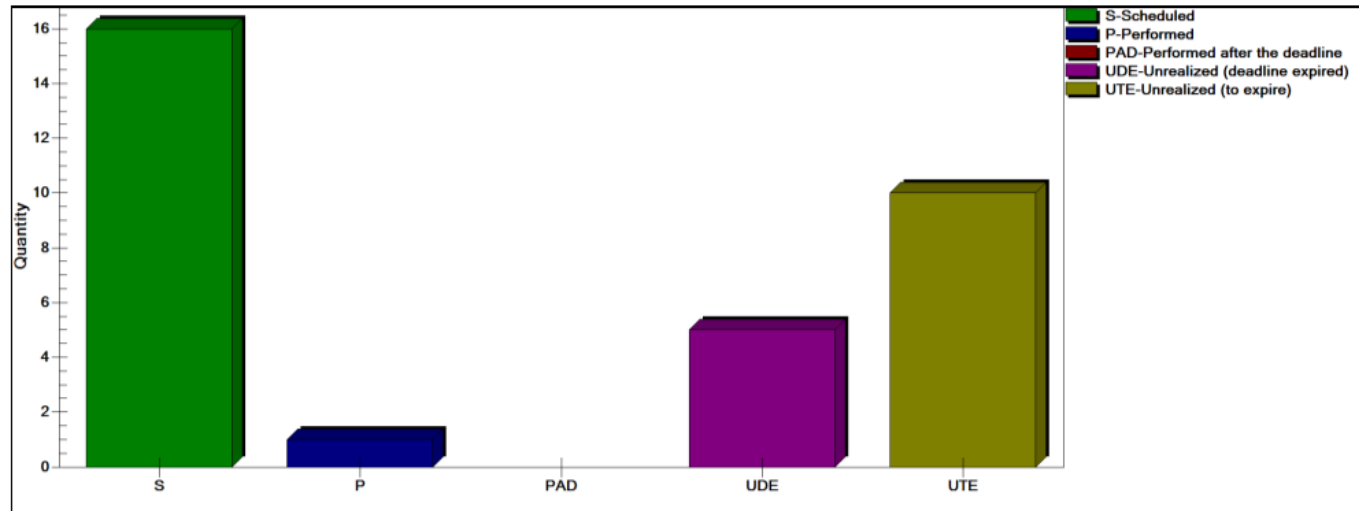
 Reliance Industries Limited Growth is Life	Calibration Plan - Tags					Page: 1.2	
01/01/2016 to 31/12/2016							
COMPANY: RELIANCE INDUSTRIES LIMITED							
Calibration not performed, deadline not expired							
Area: \PLANTA\BOILER 1							
Tag	Function	Last Calibration	Planned Date	Reg. No.	Initial Diagnosis	Final Diagnosis	
PSV-1231004.	BOILER PROTECTION	18/09/2015	18/09/2016	CRN 06715550	Approved	Approved	
Total (deadline not expired):1							
Grand Total:1							

Calibration Plan

Calibration Plan - Tags

01/01/2016 to 31/12/2016

COMPANY: RELIANCE INDUSTRIES LIMITED



14/04/2016

Date

Sandeep Nath

Operator

Responsible

PRESYS

www.presys.com.br

marc@presys.com.br