

Software Recording Capability:

The Software of the REC4 and REC4 Open systems is built to address all criteria required for recording the hydrostatic test.

Data Entry

Cylinder information can be pre-entered, entered at test. Manual entry or code entry.

Pre-entered cylinders are populated by serial number

Pre-entry can be done remotely



REC4 Settings Add/Edit S/Ns Write FV Visual Hydro Results

All Data Ready 0 % OK Pressure 0 PSI 0.0 %

Calibration Data Entry Graph Diagram

1 Jacket Ready

Customer/Manufacturer Information

S/N P3222736
MFG P3222736
MFG Date P3222735
Customer P3222734
Gas SVC Oxygen
Cylinder Properties
Code M A1
Cylinder Size 5.25x13.87
DOT Rating 3AA-2015
R.E.E. Source C5
Pretest Parameters
Target Press 0 PSI 0
Hold Time
Qualification Test Parameters
Target Press 3360 PSI
Hold Time
REE 118.2
Fail % Perm 10
Plus / Star Yes / Yes
Test Remark

2 Jacket Ready

Customer/Manufacturer Information

S/N
MFG
MFG Date
Customer
Gas SVC
Cylinder Properties
Code M A1
Cylinder Size 5.25x13.87
DOT Rating 3AA-2015
R.E.E. Source C5
Pretest Parameters
Target Press 0 PSI 0
Hold Time
Qualification Test Parameters
Target Press 3360 PSI
Hold Time
REE 18.2
Fail % Perm 10
Plus / Star - / -
Test Remark 10

Enter Cylinder Data

Cylinder S/N P3222734
MFG Galiso
MFG Date 01/03
Customer Galiso
Gas SVC Oxygen
Code A1
REE 118
REE Source S

Optional Jacket Assignment

Jacket Position
Plus/Star Options
Allow Plus No
Allow Star No

Multipoint Options

MP ID
MP Position

Save Cancel Delete

Press Control + S to Save Records ; Press Control + N or Control + Z to Add a New Record

REC4 Settings Add/Edit S/Ns Write FV Visual Hydro Results

All Data Ready 0 % OK Pressure 0 PSI 0.0 %

Calibration Data Entry Graph Diagram

1 Jacket Ready

Customer/Manufacturer Information

S/N P3222736
MFG P3222736
MFG Date P3222735
Customer P3222734
Gas SVC Oxygen
Cylinder Properties
Code M A1
Cylinder Size 5.25x13.87
DOT Rating 3AA-2015
R.E.E. Source C5
Pretest Parameters
Target Press 0 PSI 0
Hold Time
Qualification Test Parameters
Target Press 3360 PSI
Hold Time
REE 118.2
Fail % Perm 10
Plus / Star Yes / Yes
Test Remark

2 Jacket Ready

Customer/Manufacturer Information

S/N
MFG
MFG Date
Customer
Gas SVC
Cylinder Properties
Code M A1
Cylinder Size 5.25x13.87
DOT Rating 3AA-2015
R.E.E. Source C5
Pretest Parameters
Target Press 0 PSI 0
Hold Time
Qualification Test Parameters
Target Press 3360 PSI
Hold Time
REE 18.2
Fail % Perm 10
Plus / Star - / -
Test Remark 10

Data Entry

REC4 Settings Add/Edit S/Ns Write FV Visual Hydro Results Proof Clear

All Data Ready 0 % OK Pressure 0 PSI 0.0 % Restart Start Abort

Calibration Data Entry Graph Diagram

1 Jacket Ready

Customer/Manufacturer Information

S/N
MFG
MFG Date
Customer
Gas SVC
Cylinder Properties
Code M A1
Cylinder Size 5.25x13.87
DOT Rating 3AA-2015
R.E.E. Source C5
Pretest Parameters
Target Press 0 PSI 0
Hold Time
Qualification Test Parameters
Target Press 3360 PSI
Hold Time
REE 18.2
Fail % Perm 10
Plus / Star - / -
Test Remark

2 Jacket Ready

Customer/Manufacturer Information

S/N
MFG
MFG Date
Customer
Gas SVC
Cylinder Properties
Code M A1
Cylinder Size 5.25x13.87
DOT Rating 3AA-2015
R.E.E. Source C5
Pretest Parameters
Target Press 0 PSI 0
Hold Time
Qualification Test Parameters
Target Press 3360 PSI
Hold Time
REE 18.2
Fail % Perm 10
Plus / Star - / -
Test Remark 10

Jacket 1 Status

Cylinder S/N
Target Press 0
Actual Press
Hold Time
Calibration Test Parameters
Total Exp Min
Total Exp Max
Expansion 0.0

Expansion Results

Total Exp
Perm Exp
Act % Perm
Fail % Perm
Elastic Exp
REE
Test Result
Disposition

Jacket 2 Status

Cylinder S/N
Target Press 0
Actual Press
Hold Time
Calibration Test Parameters
Total Exp Min
Total Exp Max
Expansion 0.0

Expansion Results

Total Exp
Perm Exp
Act % Perm
Fail % Perm
Elastic Exp
REE
Test Result
Disposition

Cylinder Codes

REC4 Settings

File Edit Tools View About

CAL Cylinders Proof Gauges Customers MFG Codes Pressure Units Gas SVC Ref Ring

Code	Dimension	DOT_Rating	TCRating	REE_Source	Liner_Type	PT_Target_Pressure	PT_Hold_Time
A1	5.25x13.87	3AA-2015		C5			
A10	7.12x30	3A-2215		C5			
A11	7.12x30	3AA-2215		C5			
A12	7x43	3A-2015		C5			
A13	7x43 (CR-MO)	3A-2015		C5			
A14	7x43	3AA-2015		C5			
A15	7x43 (CR-MO)	3A-2265		C5			
A16	7x43	3AA-2265		C5			
A17	7.37x46.12	3AA-2015		C5			
A18	9x51	3A-1800		C5			
A19	9x51	3AA-1800		C5			

Cylinder Properties

Code A1
Dimension 5.25x13.87
DOT Rating 3AA-2015
REE Source C5
Liner Type
Capacity
Thread Size
Remark
Cyl Lifespan
Next Test (yrs)
SVC Press
TC Rating

Autofretage/Pre-test Parameters

of Pretests 0
Target Press
Hold Time
Perm Exp Min
Perm Exp Max
PT Fail % Perm N
PT REE N
Post Bleed Time 15
Fixed Post Bleed
Automatic to QT
Skip Bleed

Qualification Test Parameters

Target Press 3360 PSI
Hold Time 30
REE 18.2
Fail % Perm 10
Post Bleed Time 15
Fixed Post Bleed
Proof Pressurization Parameters
Stabilization (s)
Press Timeout(s)

Weigh Test Parameters

EW Min
EW Max
FW Min
FW Max
Vol Min
Vol Max

Software Recording Capability:

The Software of the REC4 and REC4 Open systems is built to address all criteria required for recording the hydrostatic test.

Data Entry

New Proof Test Section of software allows you to Proof Test or Water Jacket Test with the same console and get professional computerized test results. Proof can have up to 4 cylinders on a manifold tested at the same time and pressure test results recorded.

Visual Inspection – Visual inspection can be recorded and visual failure can be recorded

The screenshot shows a software window titled "Failed Visual/Failed Visual Eddy Entry Form". It contains several sections for data entry:

- Customer/MFG Information:** Fields for Cylinder S/N, MFG, MFG Date, Customer, and Gas Service.
- Last Test Information:** Last Date (1/24/2024) and Valve Treatment (Valve).
- Cylinder Properties:** Cylinder Code (A1), Cylinder Size (5.25x13.87), DOT Rating (3AA-2015), R.E.E. Source (C5).
- Pretest Parameters:** Target Press (PSI), Hold Time.
- Qualification Test Parameters:** Target Press (3360 PSI), Hold Time (30), R.E.E. (18.2), Fail % Perm (10).
- Reasons for Failed Visual:** A grid of checkboxes for various failure modes: Will Not Hold Press, Altered Ser #, Int Corrosion, Ext Corrosion, Sidewall Stamp, Arc Burn, % Perm Exp, Neck Crack, Internal Pitting, External Pitting, Bad Threads, Altered Press, Fire Damage, Dent/Gouge, and Other/Spec.
- Test Remark (20 char. max):** A text field for notes.
- Failed Visual Reason Code:** A legend defining codes like WNHP, %P, AP, ASN, NC, DG, IC, EC, FD, IP, EP, SS, AB, BT.
- Write Data:** A button at the bottom.

The screenshot shows a software window titled "Recortest 4 Visual Entry - Operator/Supervisor". It features a navigation bar with tabs: Hydro, Results, Visual, Proof, and Clear. The main form includes:

- Customer/MFG Information:** S/N (987654), MFG (Coynce), MFG Date (0199), Customer (Galiso), Gas SVC (Carbon Dioxide).
- Cylinder Properties:** Code (EAL), Cylinder Size (4.38x25.2), DOT Rating (3AL2015).
- Last Test Information:** Last Date (1/24/2024).
- Visual Inspection Results:** A list of inspection items with dropdown menus: Corrosion/Pitting (Pass), Dents (Pass), Cuts/Gouges (Pass), Leaks (Pass), Fire Damage (Pass), Bulges (Pass), Neck Defects (Fail), Attachments (Pass).
- Visual Disposition (PV/FV):** A dropdown menu set to FV.
- Test Remark (20 char. max):** A text field containing "Neck Crack".
- Write Data:** A button at the bottom.

Visual Inspection

Cylinder failure is most often determined by visual inspection. The visual inspection screen allows you to record the reason for failing the cylinder and any notes the operator may have on the cylinder.



Software Recording Capability:

The Software of the REC4 and REC4 Open systems is built to address all criteria required for recording the hydrostatic test.

Data Entry

The Data Entry Screen allows testing of the cylinder with as little as 3 inputs (S/N , Manufacture Date, and Gas Service) The cylinder codes can be used to fill in other data. The cylinder codes are editable so you can add your own codes or revise the ones in the system. The Customer and Manufacturer can default from the previous test. Cylinder serial #'s and information can be pre-entered so the operator can start typing the cylinder and a list will come up of cylinders with those s/n's. Once the cylinder is picked the rest of the data is applied automatically..

The screenshot shows the REC4 software interface with the following data entry fields:

- Exp:** -3.6 cc, 100.1 %
- Pressure:** -1 PSI, 0.0 %
- Jacket 1 Status:** 94.84
- Cylinder S/N:** SCC1610-1449
- Target Press:** 3000
- Actual Press:** 3007
- Hold Time:** 30.00
- Expansion Results:** Total Exp 33.5, Perm Exp 0, Act % Perm 0, Fail % Perm 0, Elastic Exp 33.5, REE 0, Disposition: PASS
- Jacket 2 Status:** (Empty)
- Calibration Test Parameters:** Total Exp Min 33.3, Total Exp Max 33.9
- Exp Stability Parameters:** Exp Stability (s) 10, Exp Variability 0.1
- Diagram:** A schematic diagram of the hydrostatic test setup with a pressure gauge showing -3.6 and 404.8, and a 'Zero' button.

The screenshot shows the 'Create Report' dialog box with the following options:

- Report Format:** 014 Open Report
- Select From All Available Dates:** May 2024
- Individual Test Data:** Test Number 1
- Customer/MFG Information:** S/N SCC1610-1449, Gas SVC, MFG Date 12/5/2016, Customer
- Cylinder Properties:** Code, Dimension, DOT Rating, REE Source, TC Rating
- Disposition Criteria:** All Tests, Failed Tests, Failed % Perm, Failed Elastic Expansion, Failed Visual Tests, Failed Proof Pressure, Passed Tests, Include PDF
- Selected Records:** (Empty)

Cylinder Requalification Report Galiso, Inc
 DOT/CTC Registration # 22 Ponderosa Ct, Montrose, CO 81401

Codes Has Three Letters: 1st Letter: Visual Test, 2nd Letter: % Perm Exp Test, 3rd Letter: REE Test
 Letter Code: F=Passed, P=Failed, N=Not Applicable, A=Aborted Example: PFF=Passed Visual, Passed % Perm, Passed REE

Operator Signature: _____ Date Signed: _____
 Supervisor Signature: _____ Date Signed: _____

I hereby certify that all the following tests were made under my supervision and in accordance with DOT/CTC regulations.

#	Test Date Test Time	Operator	Serial Number Cyl Owner	Size Service	Cyl MFG MFG Date	REE Source	Rating UNE	Specified Actual	Test Time	Total Elastic	Perm Percent	VE Ref Ring	Disposition Remark
1	10/13/2011 13:22	Dennis	GPH00113478 CHE1	HEAD H2O	GALISO SD/10	0	NA PSI	10000 4685	30	920.9 0.0	0.0		FAA GHHG12
2	10/13/2011 13:28	Dennis	GPH00113478 CHE1	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10026	30	132.3 0.0	0.0		FFN GHHG12
3	10/13/2011 13:29	Dennis	GPH00113478 CHE1	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10044	30	132.3 0.0	0.0		FFN GHHG12
4	10/13/2011 13:31	Dennis	GPH00113478 CHE1	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10099	30	132.9 0.0	0.0		FFN GHHG12
5	10/13/2011 13:32	Dennis	GPH00113478 CHE1	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10114	30	133.0 0.0	0.0		FFN GHHG12
12	10/14/2011 13:06	Dennis	GPH00211980 PK77	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10120	30	133.6 0.0	0.0		FFN GHHG12
13	10/14/2011 13:07	Dennis	GPH00211980 PK77	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10157	30	133.9 0.0	0.0		FFN GHHG12
14	10/14/2011 13:09	Dennis	GPH00211980 PK77	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10207	30	132.7 0.0	0.0		FFN GHHG12
15	10/14/2011 13:10	Dennis	GPH00211980 PK77	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10053	30	132.3 0.0	0.0		FFN GHHG12
16	10/14/2011 13:11	Dennis	GPH00211980 PK77	HEAD H2O	GALISO SD/10	0	NA PSI	10000 10060	30	132.4 0.0	0.0		FFN GHHG12

Test Dates: 10/13/2011 - 10/14/2011
 Page 1 of 1

Test Report lists all of the cylinder information and test results. These results can be sorted by Date, Customer, Pass/Fail, Operator. The reports can be exported to multiple locations if part of an intranet.

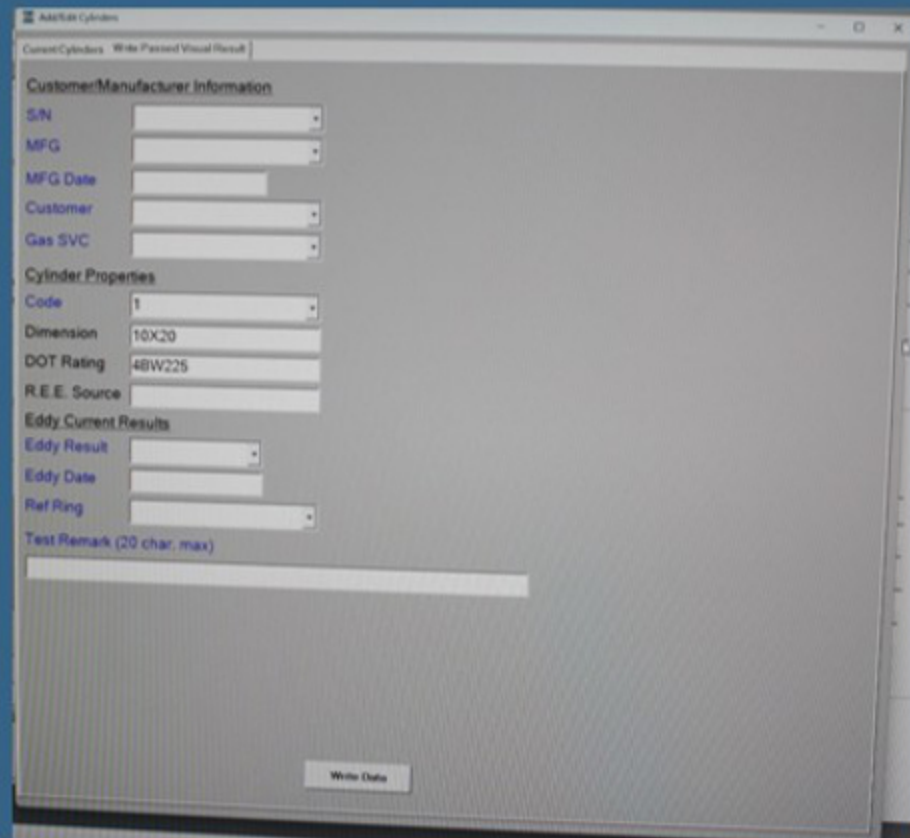
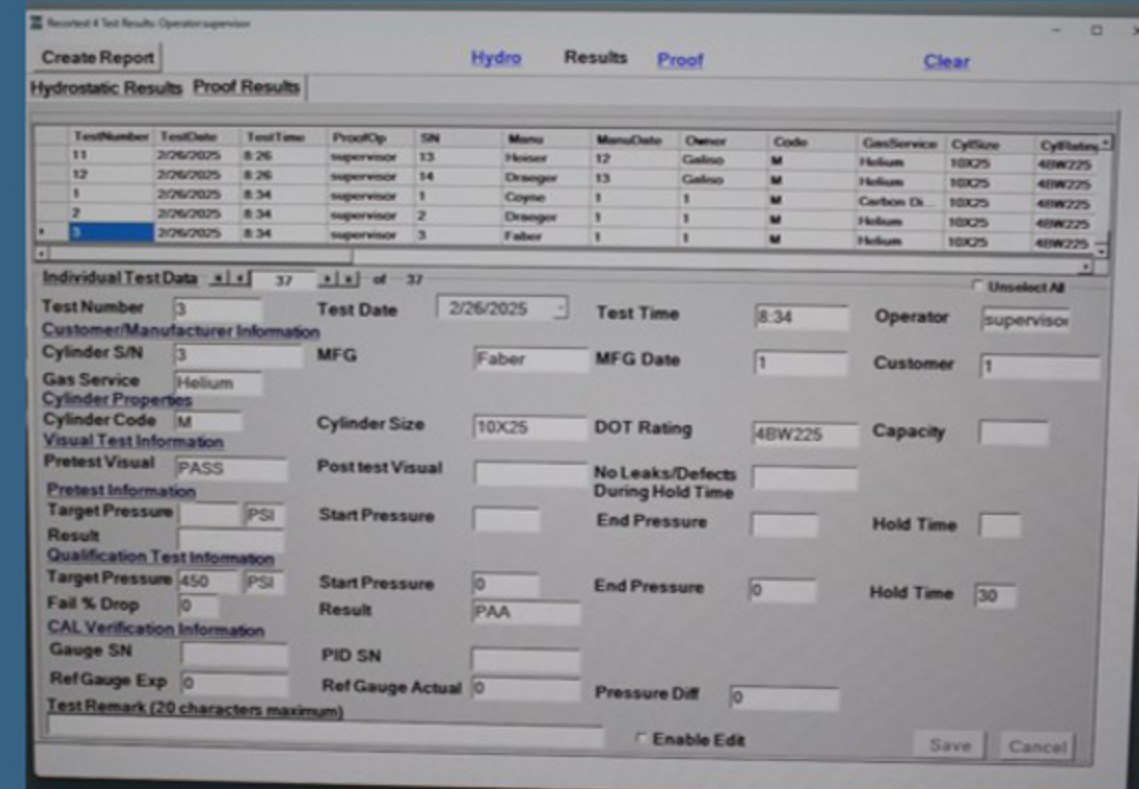


Proof Recording Capability:

The Software of the REC4 and REC4 Open systems is built to address all criteria required for recording the hydrostatic test.

Data Entry

The Data Entry Screen allows testing of up to 6 cylinders at a time with a proof test manifold. The cylinder codes can be used to fill in specific cylinder data. The cylinder codes are editable so you can add your own codes or revise the ones in the system. When using the proof test manifold cylinder data is added according to the quantity of cylinders tested. Once tested all records are updated for that quantity of cylinders at once.



Test Report lists all of the cylinder information and test results. These results can be sorted by Date, Customer, Pass/Fail, Operator. The reports can be exported to multiple locations if part of an intranet.

