

CVe LIVE®

GLOBAL TOOL MONITORING

From within your plant or across the world,
access tool, production and maintenance data.



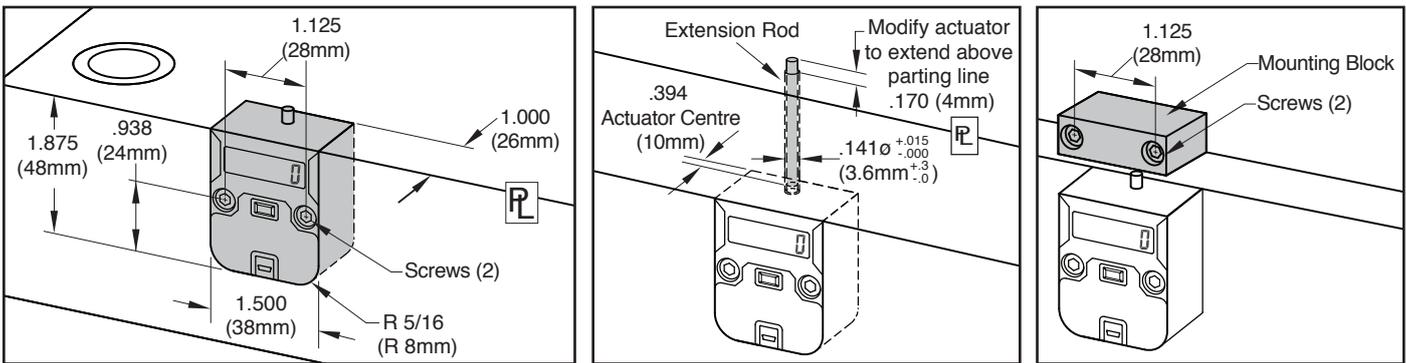
CVE MONITOR®

Developed by sister company AST Technology, the new CVE Monitor v2 tracks tool activity, allowing users to view data on the display or from comprehensive reports using OnDemand or the new CVE Live System. Features include:

- 7-digit LCD display with a push button to move through the display modes.
- 4GB flash drive for file storage and 4+ year battery within monitor.
- Water resistant with an ingress protection rating of IP52.
- Maximum temperature: 190° F (90° C).
- Mount on A or B Plates, not Stripper Plates.
- Dimensional compatibility with Progressive's mechanical CounterViews.
- Mini USB connectivity for data retrieval with cables sold separately.



MOUNTING OPTIONS



CATALOGUE NUMBER	DESCRIPTION
CVE-M	CVE Monitor v2 Mould Maker/Moulder version including #8-32 x 1" SHCS (2) and M4 x 25mm SHCS (2)

CATALOGUE NUMBER	DESCRIPTION
CVE-INT	Internal Extension Rod (8" / 200mm) including a hex key for CVE Monitor set screw removal.
CVE-EXT	External Mounting Block including #8-32 x 1" SHCS (2) and M4 x 25mm SHCS (2)

OEM-specific CVE Monitors are available with additional features. Contact Progressive for more information.

How to Order:

- For installation below parting line (ie. rails as shown in the centre graphic above), order (1) CVE-M and (1) CVE-INT.
- For installation outside of the mould (right graphic), order (1) CVE-M and (1) CVE-EXT.

ON-MOULD DISPLAY MODES

Each device is provided at -25 cycles to allow for mould set up and initialisation of the CVE Monitor. Once it reaches 0, all timers and data will reset on the monitor. During production, users can press the button on the front of the monitor and review the following information on the display:

Cycle Count

Total cycles for the life of the mould is presented on the main screen.



Efficiency Percentage

Percentage of time mould has been actively cycling vs being idle.



Cycle Time

Since the first production cycle, cycle time for the life of the mould.



Efficiency Percentage-Recent

Percentage of time mould has been active in the past 25,000 cycles.



Cycle Time-Recent

Cycle time for the past 25,000 cycles.



Cycle Count Reset

Separate counter can be reset to 0 for interim monitoring of cycles.



A 4GB flash drive is accessible by connecting the CVE Monitor to a PC/Tablet using an industry-standard mini USB cable (sold on the next page). Users press the button to get to the flash drive mode and then the storage area is represented on the PC/Tablet by a new drive letter.



CVe MONITOR®

ALERT MODE

Once data is initialised using the OnDemand software, users will be alerted to different modes on the device:

Preventive Maintenance

During initialisation, the initial preventive maintenance point and the PM interval are entered and saved onto the CVe Monitor. Then, when the PM is within 10% of the initial point, the display will flash "PM Due" as shown at right. Users can then 'snooze' the alert by holding for 2 seconds, returning it to Total Cycles.



When a PM is performed using OnDemand and noted as such, the date/time will be written to the CVe Monitor and then the alert is stopped- until reaching 10% of the next PM point. If no PM is performed, the CVe Monitor will continue to alert the user until snoozed or the PM is ultimately recorded.

Low Battery

The CVe Monitor has a battery life of approximately 4.5 years in typical moulding environments where temperatures are controlled. When the battery is within 6 months of its expected end of life, the display will flash as shown at right. Users can then 'snooze' the alert by holding for 2 seconds, returning it to the Total Cycles. The alert will appear every 30 days as a reminder to transfer the stored data to a new CVe Monitor.



RETROFITTING AND REMOVAL

Users can view additional data by double-clicking the button on the monitor:

Retrofit CVe for CounterView Tools

During initialisation, moulders can start the cycle count with the tool's actual cycle count from an existing CounterView or known cycles from maintenance records. Once entered, the user can see the total cycles for the tool, which includes the count of the cycles from the counter and those run with the CVe Monitor.



In the graphic at right, the tool had 1,000,000 cycles on it originally, but ran 507,288 after the CVe Monitor was installed.



Removal Monitoring

When the CVe Monitor is removed from the tool for any reason (ie. cleaning) the pins on the back of the device will record an event of its removal. After viewing the retrofit number above, the display will move into the screen shown at right, designating the number of times the monitor was removed from the mould.



CABLES AND CONNECTIVITY

OnDemand Activity Log [Software Version 2.0/2.0.1/2.2]											
CVe Install Date	May 27, 2013	June 20, 2013									
Device ID	MKK1234	MKK1234									
Tool ID	8755B	8755B									
Blower Feeding	Blower Feeding	Blower Feeding									
Part ID	ABT57	ABT57									
Program Name	Mocha	Mocha									
Customer	Crimson Fan	Crimson Fan									
Target Efficiency %	N/A	94%									
Target Cycle Time	N/A	7.5									
Initial PDI Point	50000	50000									
Target PDI Interval	100000	100000									
Cycles Prior to CVe Installation	0	0									
OBM ID	N/A	AB13									
Serial ID	N/A	0355-5636									
Reason for connecting CVe Monitor											
Date/Time	Battery	Cycles	CD User	Conn. By	Company	Checklist on	App	PM	Sub	Other	Notes
April 7, 2014	OK	507,288	FAECM	Blake/Fa	rejection Tech	Checked@crimson.com	N	N	Y	N	0
April 7, 2014	OK	506,524	FAECM	Blake/Fa	rejection Tech	Checked@crimson.com	N	N	Y	N	0
March 23, 2016	OK	491,276	FAECM	Blake/Fa	rejection Tech	Checked@crimson.com	N	N	Y	N	0
March 19, 2014	OK	482,567	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0
December 30, 2013	OK	354,001	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0
December 2, 2013	OK	314,856	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0
October 30, 2013	OK	707,007	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0
October 6, 2013	OK	211,563	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0
September 23, 2013	OK	193,068	FAECM	Blake/Fa	rejection Tech	Checked@crimson.com	N	N	Y	N	0
August 11, 2013	OK	136,135	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0
July 14, 2013	OK	56,725	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0
June 28, 2013	OK	9,265	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0
May 27, 2013	OK	0	INCLM/DJL	Check to use	Multi-Pass	Checked@crimson.com	N	N	N	N	0

Above: OnDemand allows users to view data and keep a record of reports run, outlining the reason for the report generation including PM, General Queries, Revision Changes, and Repairs. Notes can be included and OnDemand records the person generating the document for accurate history.



CABLE CATALOGUE NUMBER	DESCRIPTION
CVE-USB-6	USB 2.0 to Type B Mini, 6 Ft Long
CVE-USB-15	USB 2.0 to Type B Mini, 15 Ft Long

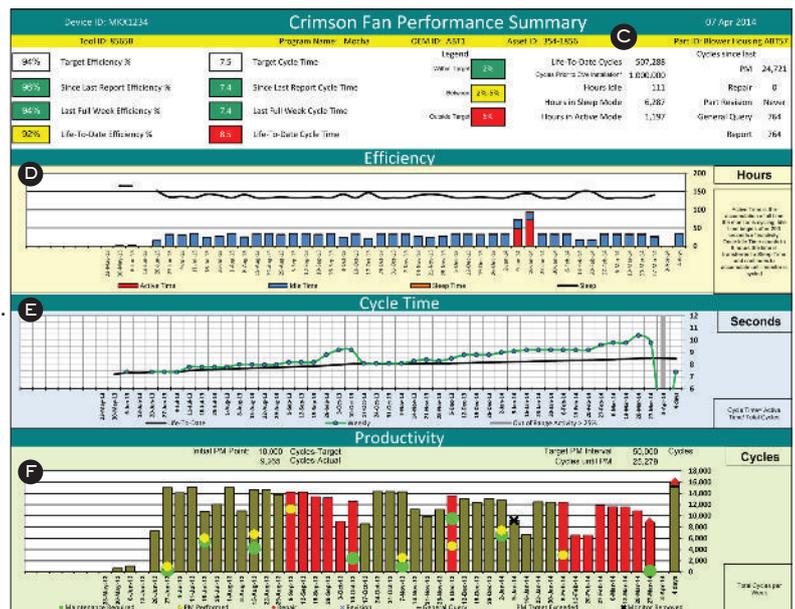
Above: Cables are available for use with the CVe Monitor and are required for both connecting to the computer for OnDemand and for the CVe Live system.

CVe ONDEMAND™

Drive comprehensive reporting using data from the CVe Monitor when running OnDemand software, available at no charge from CVeMonitor.com.

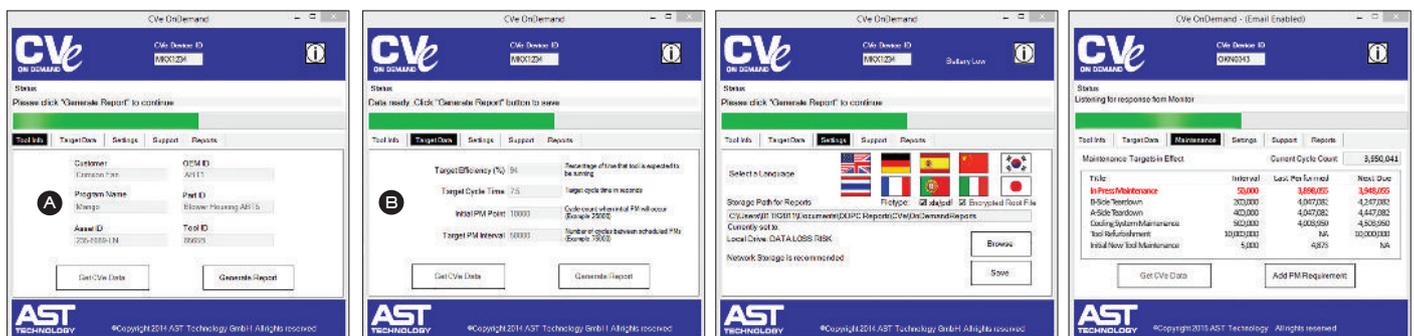
OnDemand software enables the user to generate Adobe Acrobat (.pdf), Excel (.xls), and encrypted (.enc) reports to share with customers and other colleagues with these metrics:

- A:** When the CVe is initialised, users can identify their tool and align with the device serial number which is tracked on reports utilising different field options.
- B:** The target cycle times and efficiency percentages can be entered. OnDemand also supports ten languages: English, German, Mandarin, Spanish, French, Italian, Japanese, Korean, Portuguese and Thai. Reports, generated in the chosen language, compare actual values to targets, providing a quick view of any variances.
- C:** Statistics are provided to show quantity of total cycles and inactivity for the life of the tool.
- D:** Weekly sessions are presented graphically to show production efficiency levels.
- E:** Weekly cycle time tracking identifies tools with variances over the past year.
- F:** The productivity portion of the report takes the target preventive maintenance (PM) points set by the moulder and compares them to actual maintenance pulls.



CVe OnDemand is developed and supported by AST Technology, sister company of Progressive Components.

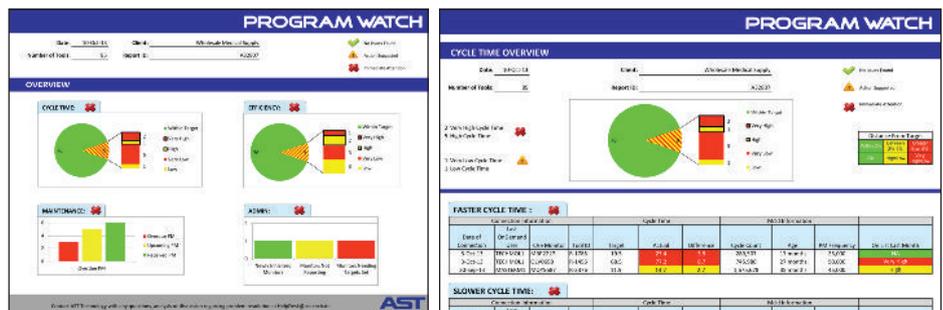
The New Maintenance Tab has 9 user-definable PM points (Incremental or Absolute). It provides an overview of when each type of PM was performed to a tool and when it is next due. It also allows the user to customise PM forms and checklists for their maintenance program.



PROGRAM WATCH™

OEMs and tool owners can view details and variances on their tools by purchasing the software Program Watch from AST Technology.

For additional information, please contact your account manager, Customer Service or email AST directly at orderdesk@asttech.com



US Patent No. 4,151,072. Germany Patent No. 202010018048.1. CVe Monitor is a trademark of AST Technology.

CVe LIVE®

For real time monitoring of tools, AST Technology provides hardware and website access for OEMs and moulders utilising the CVe Monitors.

Features:

- Unique frequency hopping transmission algorithm provides for security against eavesdropping of RF signals.
- Transmits on 2.4 GHz network and automatically sets channels used to avoid conflicts with other systems transmitting on the same frequency.
- Best in class providers are used to secure and store your data.
- Intranet version available for clients requiring solutions that restrict data leaving the facilities network.
- Use of the cellular network allows installation without the involvement of IT resources, simplifying the installation process.
- Hardware manufactured in the USA.

CVe Live is developed and supported by AST Technology, a wholly owned subsidiary of Progressive Components.



Press Module

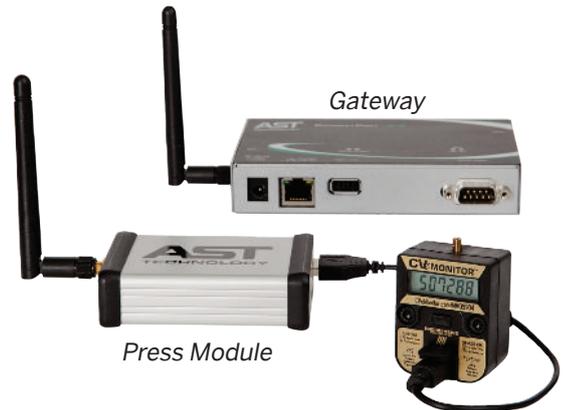
- 1 per press, connects to the CVe Monitor via cables.
- Transmits moulding data to the Gateway.

Gateway

- 1 per facility, communicates with Press Modules.
- Sends data using a cellular connection to the CVe Live database.

CVe Live Website Features:

- Easy to install and intuitive website design assures all employees are able to easily understand and use CVe Live.
- Real time performance of your mould including cycle time and efficiency.
- CVe Live Dashboard provides an overview of your fleet of tools.
- Alerts, issued when the tool isn't performing as expected, can be texted to designated recipients.
- Projected Output calculates actual production rates and compares them to expected production rates for a tool.
- PM Tracking allows users to create maintenance checklists and provides a countdown to required upcoming Preventive Maintenance. Completed checklists are stored for the life of the mould and can be easily accessed.
- Work Order system to track open and completed work orders allowing users to spot trends.
- Mould Downtime and Reject tracking give visibility to common issues and trends.
- Mobile content allows users to view streamlined actionable data from a smart phone.
- Automated Data Exporter Application allows users to automatically export any data collected by CVe Live to existing computer programs.
- File cabinet system allows users to store their tools documents, setup sheets, process sheets, pictures or any other documents in a centralized location and to set individual's permissions to view, alter or delete the documents.
- Asset Tracking shows where and when the CVe Monitor was last connected to a CVe Live network.
- All features are included with a CVe Live subscription. Each user account is easily customized so they only view information that is needed for their roll.



Responsive software design enables users to view data from any mobile device or PC, and the intuitive interface is easy to use and understand.

For a CVe Live installation or for CVe Live website access, contact your account manager, Customer Service, or email AST directly at orderdesk@ASTtech.com.

CVe LIVE®

Reject and Downtime tracking allows users to input codes for specific events and track them by occurrences, duration and type.

Performance tracking and history aggregates data by mould and machine allowing the user to schedule moulds for presses they run best in, which optimises the production output.

Work Order tracking enables users to track and identify recurring issues as well as unscheduled maintenance.

Special Tablet content allows specific moulding presses to be assigned to the tablet. The tablet is then assigned to the person responsible for the specified machines. Using the tablets simple interface, machine operators enter rejects and code downtime events in real time using predefined selections.

“We have 200 tools here. When you consider all the valuable data we can download from this system, it is well worth integrating it into our systems. It’s been one of the hardest things to do—track all the activity from tooling. The CVE now is making it better for all of us on the shop floor.”

~ Dave McLachlan, Rayconnect International SAS

“To achieve high-precision mould performance, we specify CVE Monitors on every mould. We store processing specs and drawings on the device, and later history can be gathered to ensure proper maintenance and profitability is achieved.”

~ Chuck Klingler, Janler Corporation

“We specify the CVE Monitor as a standard on our moulds. We see it as complementing our maintenance manuals because it tracks the data we need to ensure that our moulds are being cared for as they should be for the best performance. There’s no questioning whether counts are missed or something is being misinterpreted. It’s beneficial to both Cavaform and our customers.”

~ Chuck Massie, Cavaform International