

Additional features new to the CVe version 2.0:

Alert Mode:

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

Preventative Maintenance

During initialisation the initial PM (preventative maintenance) point and the PM intervals is saved onto the CVe Monitor. When the PM is within 10% of the initial point, the display will flash "PM Due". Users can "snooze" the alert by holding the button in for two seconds, returning it to Total Cycles.



When a PM is performed and noted using On Demand software, the alert stops until 10% of the next PM point is reached.

Low Battery

The CVe Monitor has a battery life of approximately 4½ years in typical moulding environment, where temperatures are controlled to less than 50°C, at 7 000 Run Hours per year.



When the battery life is within 6 months of its expected life, the display will flash as shown on the right. Again, users can "snooze" the alert, but it will re-appear every 30 days as a reminder to transfer the stored data to a new CVe Monitor.

Retrofitting and Removal

During initialisation, moulders can start the cycle count with the tool's actual cycle count from an existing Counter View, 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.



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

Removal Monitoring

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



PROGRESSIVE
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There are four ways of obtaining information from your new CVe Monitor:

1) By pressing the button you cycle through the following modes:

Cycle Count: Total cycles for the life of the monitor is presented on the main screen of the CVe Monitor.



Cycle Time: From the first production cycle, the cycle time is shown in seconds for the life of the mould.



Cycle Time - Recent: Cycle time over the last 25 000 cycles.



Efficiency Percentage: The percentage of time the mould has been active versus idle or in sleep mode for the life of the mould.



Efficiency Percentage - Recent: The percentage of time the mould has been active in the past 25 000 cycles.



Cycle Count Reset: A separate counter that can be reset to 0 for interrim monitoring of cycles.



Embedded Flash Drive: Allows storage of mould maintenance guidelines, tool design PDFs, and mould set up sheets. Users can access the 4 GB drive using an industry standard mini USB cable.



2) By making use of CVe OnDemand Software:

Drive comprehensive reporting using data from the Cve Monitor when running the On Demand software.

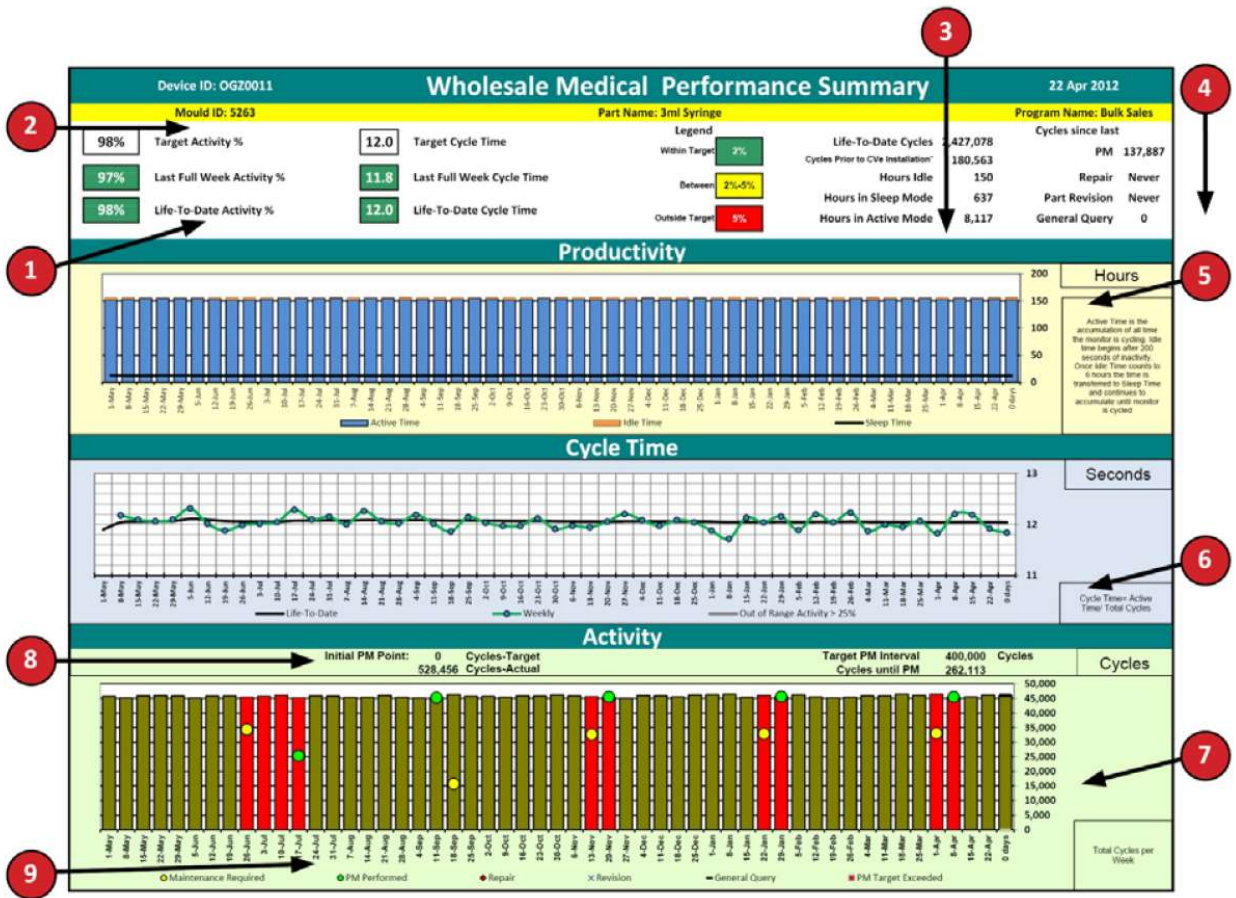
OnDemand is reporting software provided **free of charge** by Ast Technology once you purchase your first CVe. Whether you are an OEM wanting to monitor cycle times for off-site tooling, a moulder wanting to decrease down time, or a mould maker requiring proof of maintenance for warranty issues, OnDemand was created for you.

At the route of the monitoring system is the CVe. Existing counters tell you how many times your mould has opened and closed, however, a CVe Monitor with OnDemand software will tell a complete story, including:

- Average cycle time for the current week, each of the past 52 weeks, during the last 25 000 cycles and for the life of the mould.
- Mould downtime while in the machine for the current week, each of the past 52 weeks, during the last 25 000 cycles and for the life of the mould.
- Mould out-of-service time for the current week, each of the past 52 weeks and for the life of the mould.
- Mould Activity Tracking keeps a record of mould shut-downs for preventative maintenance (PM), repairs and revisions.

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





Activity Monitors indicate changes in idle times, alerting personnel to downtime issues.

- 1 **Cycle Time Monitors** quickly call attention to increases and decreases in Cycle Times and Activity vs. defined targets entered during Cve initialisation.
- 2 **Mould Data Panel** allows all stakeholders to quickly identify the mould being viewed.
- 3 **Service History** displays hours that your mould has been run and Lifetime Cycle Counts.
- 4 **Tool Activity Panel** displays the current cycle count of the most recent PM (preventive maintenance), repair, part revision and general query.
- 5 **Productivity graph** shows the amount of downtime on your mould.
- 6 **Cycle Time Graph** alerts individuals to changes in cycle time by comparing weekly and historical data. Weekly average cycle times that are further than 25% from historical values are shown as a grey bar.
- 7 **Activity Graph** presents historical weekly cycle counts to allow accurate machine time assessments.
- 8 **Maintenance Alert** displays when initial PM occurred and number of cycles until the next PM is scheduled.
- 9 **Activity Tracking** graphically displays when the tool received PM, Repairs, Part Revisions and Queries. Sessions in which a tool is operated beyond required maintenance levels are indicated with a change in the colour of the bar. For example a red colour indicates operation outside of the required PM limit.



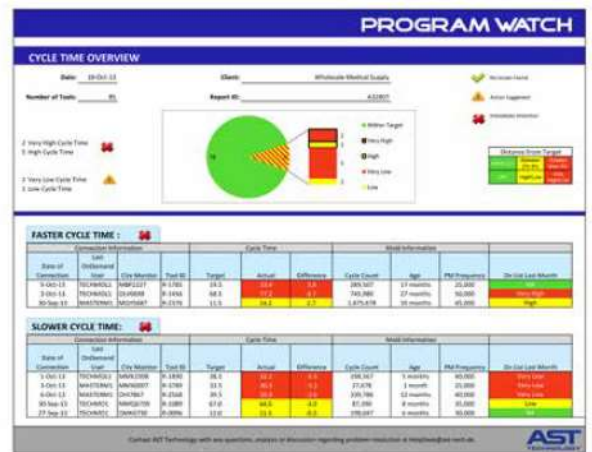
3) Program Watch:

Because it is not uncommon for an OEM program to be in production at multiple moulder locations, AST Technology developed **Program Watch**, a system for providing the OEM with information and metrics to ensure that a program is on its intended targets for production, performance and maintenance.

While the OEM can have access to each supplier's reports, it would require numerous, ongoing check-ins to truly monitor all of the tools throughout the program's life.

Program Watch incorporates the use of the C/Ve Monitor System in tandem with its Spec Implementation program and OnDemand software to seamlessly back up all data and reports generated by each supplier. For a small monthly subscription fee, this information is then compiled monthly by an AST engineer who emails a snapshot of all the tools to the OEM.

Several aspects of a mould's activity are highlighted in the monthly reports, including alerts for exceptions, such as mould cycle time deviations and PM requirements. It places critical mould data at the OEM's fingertips to ensure moulding programs are running at optimum levels.



PROGRAM WATCH
OEM: ABC Part Specialties
Program: Mocha
Quantity of Tools: 43

Exception Reporting					Cycle Time								Activity Percentages				Qty of Tool	Qty General Query	Qty of Part Rec	Qty of Repair Pulls
Moulder	Part ID	Mould ID	Device ID	Days Since Last Connection	Total Cycles	Target	Current	Last Week	LTD	Target	Current	Last Week	LTD							
ABC Molding	79-8056-9739-0	276	OGA0067	12	1,831,039	14.8	15.8	15.5	14.0	98.0%	98.8%	98.2%	98.0%	12	46	2	0			
ABC Molding	79-8056-9739-15	287	OGA0093	4	1,294,395	25.0	17.2	16.9	26.1	97.0%	97.0%	99.0%	98.2%	9	35	0	1			
XYZ Products	1532064437-A	42851	OGA0018	19	69,023	128.5	98.2	105.8	124.9	98.0%	99.0%	99.8%	98.2%	1	1	0	0			
XYZ Products	1532064432-A	42888	OGA0026	23	132,759	17.5	12.8	14.2	15.5	98.0%	99.0%	99.0%	99.0%	2	3	0	0			
XYZ Products	1532064433-B	42903	OGA0029	15	1,718,310	8.9	9.8	9.9	8.6	98.0%	99.9%	98.1%	98.9%	14	46	1	1			
XYZ Products	1532064432-A	42879	OGA0004	24	1,294,512	18.2	17.6	17.8	18.9	99.0%	99.5%	99.5%	99.3%	12	32	0	0			
ABC Molding	79-8056-9739-5	269	OGA0069	26	240,961	134.0	133.3	138.0	174.8	98.0%	99.5%	98.7%	94.7%	3	8	0	0			

Mould Information				Performance Alerts				Repairs/ Maintenance Activity		
Moulder	Quantity of Tools in Program	Last Connection: More Than 28 Days Ago	Compared to last month	Quantity of Tools with Exception	Compared to last month	Exceptions: Faster Cycle Time	Exceptions: Slower Cycle Time	Exceptions: Activity % Variance	Quantity of Unscheduled Mould Stoppage	Compared to last month
ABC Molding	22	1	🟡	3	🟢	2	0	1	1	🟢
XYZ Products	21	2	🔴	4	🟢	0	3	1	0	🟢
Totals	43	3		7		2	3	1	0	



PROGRESSIVE COMPONENTS

4) View Live Data from around the world:

The Live View gives you actual **real-time information**, allowing you to monitor production from anywhere in the world.

Using a website interface, the Cve Monitor enables tool owners to view information such as cycle times, quantity of cycles and maintenance for tools running around the globe.

Cve Live provides users with the added ability to:

- See alerts if maintenance is due or overdue
- Generate real-time graphs and reports on the activity of a specific tool or group of tools
- View a comparison of the graphs and reports from specific tooling programs using the Program Watch module.

These new features provide supply chain/logistics personnel with up-to-the-minute information on the inventory levels in the supply chain.

The upgraded Cve Monitor device incorporates more new features including tamper evidence and maintenance countdowns, enabling robust reporting within OnDemand, the system monitoring software.

Hardware and website access is supplied by AST Technology, enabling the Cve to transmit live information directly to your desktop!

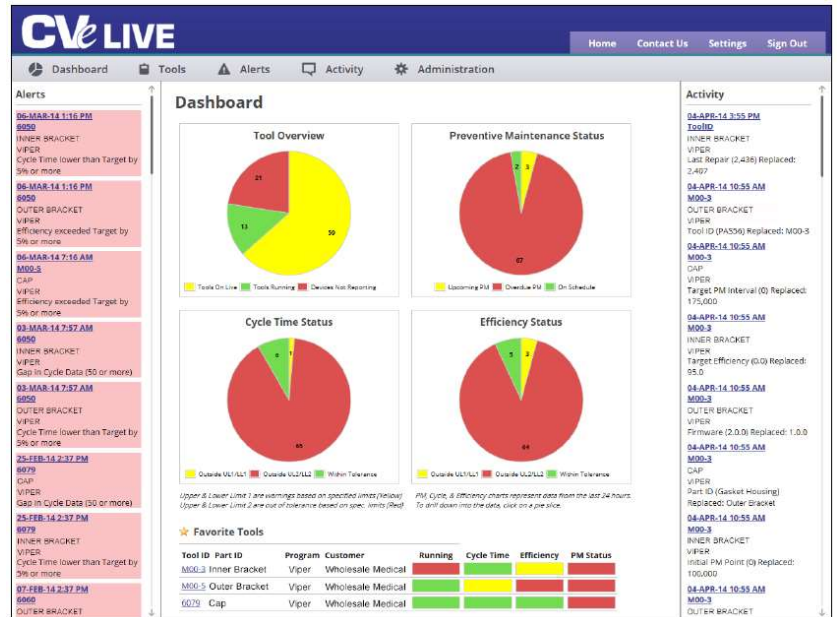


CVe Live Website

The website interface that works in conjunction with the CVe Monitor enables tool owners to view information for tools running around the globe.

It offers:

- Secure access for OEMs and moulders, that is set up at the time of installation of the hardware above.
- The dashboard gives information at a glance and allows authorised users to drill down into specifics for each tool.
- Users can mark "favourites" and save searches for monitoring specific programs or suppliers.
- Graphs for cycle times efficiencies and preventative maintenance (PM) can be shown and saved.
- Administration and security levels are controlled by the user and access can be given to subcontractors to upload information or to initialise the CVe Monitors to begin submitting data.



Requirements:

1) A Press Module per moulding machine

- Power supply included (US/International)
- Sends Data to the Gateway every few cycles
- Serves as a node on the network for moulds running with a CVe monitor



Press Module

2) One Gateway per facility

- Collects data from all Press Modules installed via RF Transmissions
- Power Supply (US/International) and CAT5 Ethernet cable included.
- Accesses the internet - AST technicians will work with your IT department for installation.
- Sends data to the website every 15 minutes.



Gateway

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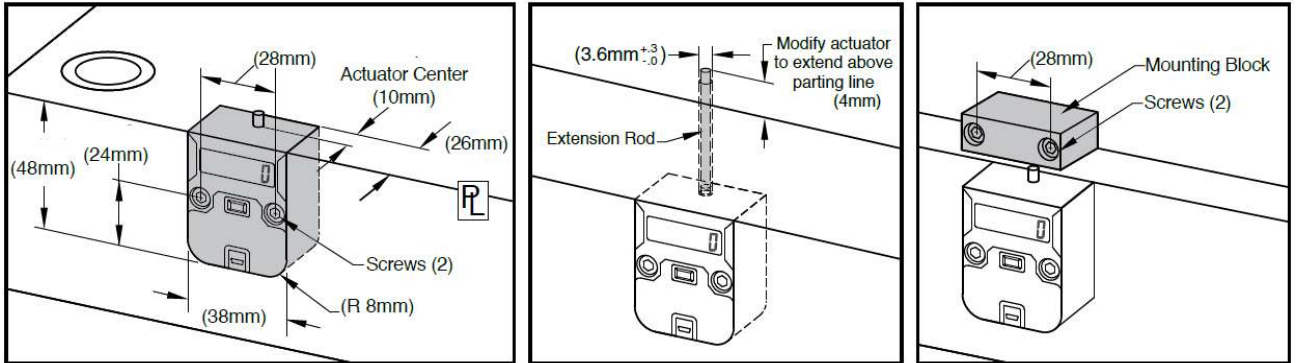


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Mounting Options:



CATALOG NUMBER	DESCRIPTION
CVE-M	CVe Monitor v2 Mold Maker/Molder version including #8-32 x 1" SHCS (2) and M4 x 25mm SHCS (2)
CVE-O	CVe Monitor v2 OEM version including #8-32 x 1" SHCS (2) and M4 x 25 SHCS (2)

CATALOG NUMBER	DESCRIPTION
CVE-INT	Internal Extension Rod (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)

The new CVE v2.0 Monitor is identical in size to the CVE v1.0 Monitor and the mechanical CVPL 100/200 CounterViews. This ensures that retro-fitting is not a problem.

The CVE v2.0 features a custom O-ring seal around the monitor, increasing water resistance, while the housing is now manufactured using a more durable material. The actuator, whilst smaller, is stronger than the previous model.

Drawings for the unit can be downloaded from the Progressive Components website at: www.procomps.com

Cables and Connectivity:

On Demand allows users to view data and keep records or reports run, outlining the reason for the report, including General Queries, Revision Changes and Repairs. Notes can be included and On Demand records the person generating the document for accurate history.

The unit uses a mini-USB cable which will be required for connecting to the computer for On Demand and for the Live System.



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