



# MOLD MONITORING SYSTEM



# MOLD • MACHINE • FACTORY

# **SmartM@Id**

# **MOLD MONITORING SYSTEM**

SmartMOLD is a cloud-based software platform developed by the molding experts at Mold-Master, DME and Milacron, dedicated to the plastics industry providing real-time data to drive injection molding innovation. Process data is collected from sensors embedded within the injection mold which offers feedback and insights that drive enhanced productivity. Our solution is the first step towards predictive and autonomous capabilities within your facility.

Although SmartMOLD is focused on the mold, it also has the potential to pull data from injection molding machines. SmartMOLD is compatible with any brand of equipment.

## **POWERED BY THE CLOUD**

- Real time data
- Accessible 24/7 with reporting and analytics
- Ensures you always have the latest version (no manual updates required)
- Does not require customers to have their own IT team in order to support
- Enables the path to predictive and other powerful capabilities

## **DATA SYSTEM INTEGRATION**

- Pull data into existing ERP/MES systems
- API's available for any system
- Export data in various formats (Excel, csv, xml, net, etc)

## **FLEXIBLE & ECONOMICAL**

- · Compatible with any brand of mold and/or machine
- Connect molds only, injection machines only or connect everything
- Users can scale the system to their facility and budget requirements
- Only pay for what you use

## **A GLOBAL SOLUTION**

- Server facilities operating in several major regions
- Compliance with local data privacy laws
- Enhances data response times
- Unlimited data storage
- Global installation and technical support

# **ROBUST DATA SECURITY**

- Compliant with ISO 27000 and regional Laws (Chinese Internet Law, GDPR)
- Complete data privacy and confidentiality
- Guaranteed end-to-end protection
- Private and dedicated servers
- Redundancy, backup and fail-over
- Maintain 24x7 availability to your data
- Unlimited data storage
- Customers own their own data





# SmartM@Id

| ITEM NUMBER | DESCRIPTION                                      |  |  |
|-------------|--|--|--|
| SMMODULEKIT | SMARTMOLD MOLD CONNECTION STARTER KIT            |  |  |
| SMV3M0DULE  | SMARTMOLD HUB                                    |  |  |
| 110-526     | SM HUB POWER SUPPLY 24V DC, INTERNAL HARNESS     |  |  |
| 110-533     | SM HUB POWER SUPPLY 24V DC, EXTERNAL CABLE - 10M |  |  |
| 135-714     | SM HUB TC CONNECTION HEADER                      |  |  |
| 110-528     | ETHERNET CABLE 4.5/15'                           |  |  |
| 655-001     | PROXIMITY SENSOR ASSY                            |  |  |
| 245-047     | PROXIMITY SENSOR                                 |  |  |



See critical details of your facilities and molds from a global perspective. Filter allows users to focus on certain projects/regions.

#### **INDIVIDUAL VIEW**



Compare productivity shift to shift. Track downtime and scrap.

## **ANALYTICS & REPORTING**



Visual charts make information easy to digest. Reports can be pulled on almost anything and scheduled to be run at regular intervals.

| ITEM NUMBER | DESCRIPTION                             |  |  |
|-------------|---|--|--|
| 245-048     | PROXIMITY MOUNTING BRACKET              |  |  |
| 030-6037    | PROXIMITY MOUNTING BLOCK                |  |  |
| 655-002     | HUMIDITY SENSOR ASSEMBLY, ENVIRONMENTAL |  |  |
| 245-049     | ENVIRONMENTAL HUMIDITY SENSOR           |  |  |
| 245-050     | WATER FLOW/TEMP SENSOR                  |  |  |
| COTS0062    | PRESS MODULE - RED BOX                  |  |  |
| COTS0059    | GATEWAY MODULE - GREEN BOX              |  |  |
| 325-065     | MODULE 24V DC POWER ADAPTER WALL PLUG   |  |  |
| 60J723      | J-TYPE THERMOCOUPLE                     |  |  |

#### PLANT PRODUCTION OVERVIEW



A simple high-level view with icons to quickly identify issues.

# **MAINTENANCE SCHEDULE & HISTORY**



Ensure proper maintenance guidelines are followed and tracked what's been completed.

## **PHONE APP & QR CODE ID TAGS**



View production status and enter data on the go. Quickly identify and pull up equipment information. Set email/sms alerts on almost anything.

## **OR-CODE BASED MOLD TAGS - SMARTER ASSET MANAGEMENT**

SmartMOLD QR-Code ID tags are available as a standalone asset management tool that allows users to keep track of maintenance schedules and documents. Even as molds travel from location to location, their documentation and service history is always on hand. Mold information can be viewed on our dedicated mobile app or on our desktop platform.

#### **KEY FEATURES**:

#### **ONLINE DOCUMENT STORAGE**

- Store documentation such as drawings, BOMs, user manuals and other technical documents
- Supports a range of file formats
- Unlimited capacity enables thepath to predictive and other powerful capabilities

#### **MOLD INFORMATION**

- Complete as-designed mold information
- Easily reference detailed info
- · View what can't fit on a standard printed mold tag

#### **COMPLETE FLEXIBILITY**

- Attached to any brand of equipment
- Option to add advanced capabilities at anytime

| Maintenance Schedule History Documents   |                 |          |           |              |           |
|--|-----------------|----------|-----------|--------------|-----------|
| TAIK   | INTERVAL        | PROGRESS | REMAINING | DATEDUE      | COMPLETED |
| Service A  | 10.000          | 274      | 3 2.700   | 6/21/2021    |           |
| () Chean and visually leavest gate components (replac                                    | e é recencer el |          |           |              | 0         |
| () Clean and cleanify impact sprine building   |                 |          |           |              | 0         |
| (2) Performance meter shock on all electricals against the provided electrical schematic |                 |          |           |              | 0         |
| Service B  | 201000          | 105      | 3 25.000  | - INUE 70041 |           |
| D Remove clang plate, Vouely Impect for plants loakage                                   |                 |          |           |              | 0         |
| () Romani autim hitings and clock for commission depositio within channels               |                 |          |           |              | 0         |
| () Chann and chanadia (majorit locating ring   |                 |          |           |              | 0         |
| Service C  | 38,000          | (C. M.   | 1 dan     | 6/31/3031    |           |
| D Researce transfields, and mainless from plates. Clean and import well channels         |                 |          |           |              | 0         |
| D Replace pressure (Inte   |                 |          |           |              | 0         |
| (2) Replace work gate components (solution laws 1)                                       |                 |          |           |              | 0         |
| D Reptace Decreasionality  |                 |          |           |              | 0         |

#### SMART CONNECT NETWORK OPTIONS



#### SERVICE & MAINTENENCE SUPPORT

- Set maintenance schedules and tasks
- Set time-based reminders (email/text)
- · Linear service history records
- Enter service notes



Set time-based reminders (email/text) to ensure maintenance is completed on time.

Set-up Tasks to ensure proper maintenance guidelines are followed and track what's been completed.

#### SUITABLE FOR GLOBAL OPERATIONS

SmartMOLD QR-Code ID tags are powered by "the Cloud". Our servers are located in several key global locations to support our diverse customer base. Since the system is cloud based, your documents and information is available on our secure network 24/7. Best of all, we manage the systems for you, so its one less task that your IT team needs to manage.

#### **SPECIFICATIONS**

| Mold Sensor Options | Cycle Count/Time - Mold Temperature (x8)<br>Cooling Temperature - Cooling Flow - Humidity |  |  |
|---------------------|---|--|--|
| Sensor Options      | Digital / Analog  |  |  |
| Communications      | OPC-UA  |  |  |
| Requirements        | Mold Machine  |  |  |
| System Connections  | Ethernet  |  |  |
| Requirements        | Internet Connection<br>24V DC Power   |  |  |
| Install Placement   | Electrical Box  |  |  |
| Dimensions (HxWxD)  | 106 x 141 x 55  |  |  |



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