

# Molding Efficiencies

Injection Molding

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Global Application Development and  
Technical Services

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Performance by design.  
Caring by choice.™



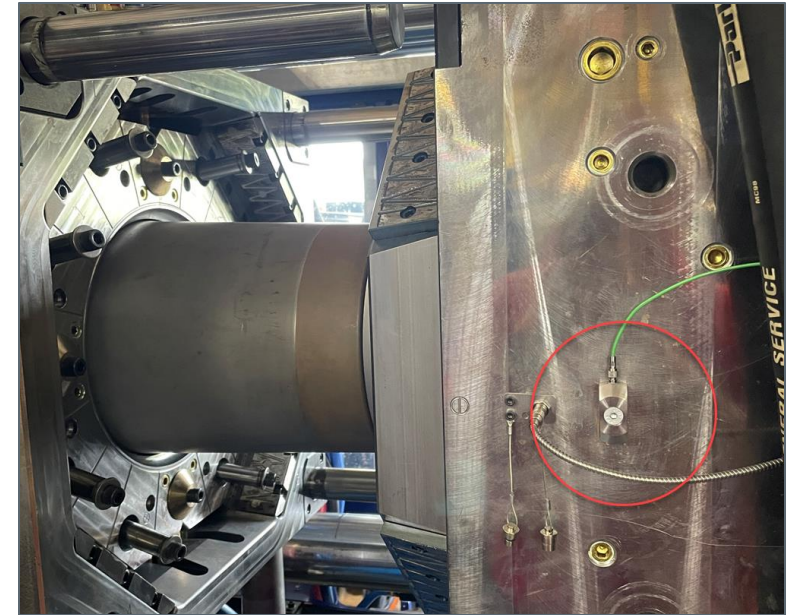
# Injection Molding Innovation in Processing

Monitor mold for proper processing

- Internal Pressure Transducer
- External Strain Gauge (less cost / correlates with PT)

Monitor proper processing

- Predict part size for each shot
- Alarm when part size prediction out of specification
- Lab normally tests size every 3-4 hours.
  - If off specification, 3 to 4 hours of lost production
  - This technology allows operator/robot to see drift and react immediately. Eliminate scrap!



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# Strain Gauge Monitoring

ComoNeo
227 0 227 [0 1]
Setup [5 Gallon Pail 2019]
administrator
Dec 12, 2022 11:05 AM
KISTLER
measure. analyze. innovate.

Home
Cycle Viewer
Reference

Analysis

---

Trend

---

Cycle

---

Evaluation Objects

---

MULTIFLOW

---

Delta Time

---

PREDICT Evaluation

---

Monitoring

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Control

---

Mold

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Device

---

IT Administration

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Maintenance

Analysis > Cycle > Cycle Viewer

Cycle  ◀ ▶ ▶ Dec 7, 2022 1:14:19 PM

Graph settings

Cursor

Comments

Cavity Display Highlight

01

| Sensors   | Pressure                            | Temperature                         |
|-----------|-------------------------------------|-------------------------------------|
| PostGate  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| User1     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| User2     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| EndOfFill | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Machine Signal

- 1 ScrewPosition -----
- 2 eMachinePressure 1 -----
- 3 SwitchOverPoint 1 -----

# 5 Gallon Pail Dimension 9006, 9004, 5360,5340



| Conditions              | MI   | Size (OD) | Out of round | Hieght | Curl width | Curl height | Weight (Gram) | Violated Monitored Thresholds |
|-------------------------|------|-----------|--------------|--------|------------|-------------|---------------|-------------------------------|
| 9004 ( Normal, in spec) | 4.5  | 11.88     | 0.02         | 14.71  | 0.295      | 0.21        | 938           | NO                            |
| 9004                    | 3.9  | 11.82     | 0.03         | 14.69  | 0.286      | 0.186       | 924           | YES                           |
| 9004 ( +125 PSI HOLD)   | 3.9  | 11.87     | 0.04         | 14.68  | 0.3        | 0.216       | 933           | NO                            |
| 5340 W1                 | 3.7  | 11.87     | 0.09         | 14.72  | 0.298      | 0.215       | 937           | NO                            |
| 9006 ( Normal, in spec) | 6.49 | 11.87     | 0.03         | 14.74  | 0.294      | 0.208       | 937           | NO                            |
| 9006                    | 7.15 | 11.86     | 0.01         | 14.75  | 0.303      | 0.215       | 940           | NO                            |
| 5360 W1                 | 5.6  | 11.89     | 0.05         | 14.76  | 0.3        | 0.218       | 938           | NO                            |
| 5360 W1 (+50 PSI HOLD)  | 5.6  | 11.87     | 0.16         | 14.76  | 0.3        | 0.222       | 940           | NO                            |

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# Questions