TPS

TOTAL PLASTIC SOLUTIONS

Solving complex engineering problems with elegant contract manufacturing solutions

www.total-ps.com

Total Plastic Solutions

Contract Manufacturing Solutions center stemming from plastic injection molding core competencies

Privately held with no long-term debt

Markets Served

- Medical
- Aerospace
- Consumer Products
- Automotive
- Military/Industrial

220+ employees

122,500 square feet of climate-controlled production floorspace

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Total Plastic Solutions History

In 1968, Henry Beck started the Beck Machinery Corp. in Skaneateles, NY

Tessy Plastics was founded in 1973 in a single small location in Elbridge, New York

Tessy Plastics Virginia Established in 1996

In 2022, Ken Beck rebrands Tessy Plastics Virginia as Total Plastic Solutions

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Growth, Expansion, Investment

Managed growth averaging 9% annually over the last 5 years

2019 - 35,000 square foot expansion including production and warehousing space

2022 - New 10,000 square foot Class 8 Cleanroom – Planning Stages

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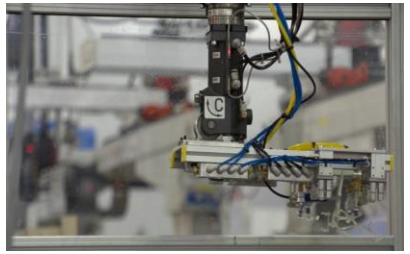
Manufacturing Technologies
Molding Capabilities

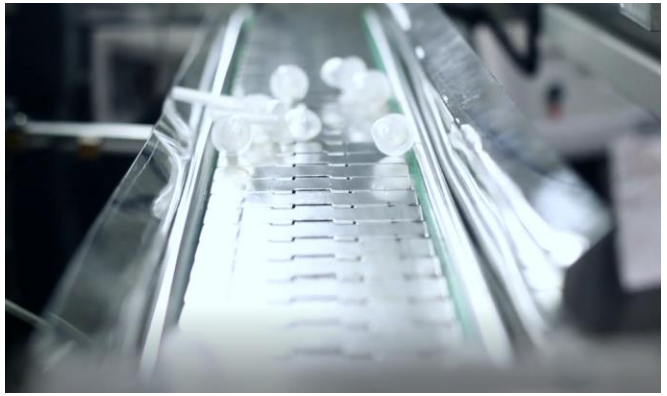


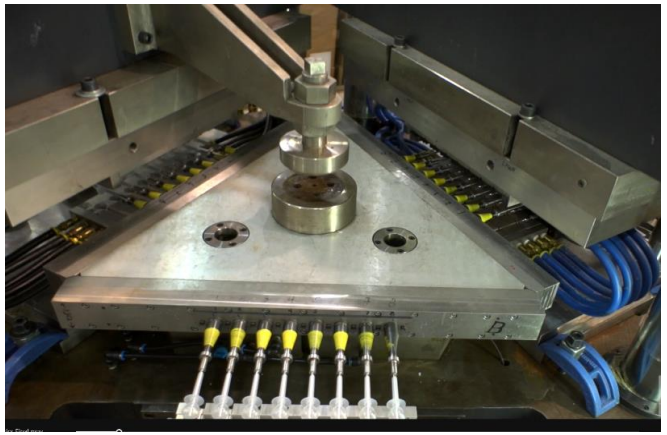
Machines equipped with Robots and application specific End of Arm Tooling

- Injection Molding - 40 to 720 Ton
- Injection Blow Molding – 80 Ton
- Two Shot Molding
- Insert Molding
- Over-molding

Manufacturing Environment

- Predictive maintenance program
- Utilize 5S Lean Principals
- White-room – controlled space
- Class 8 Clean Rooms – molding & assembly





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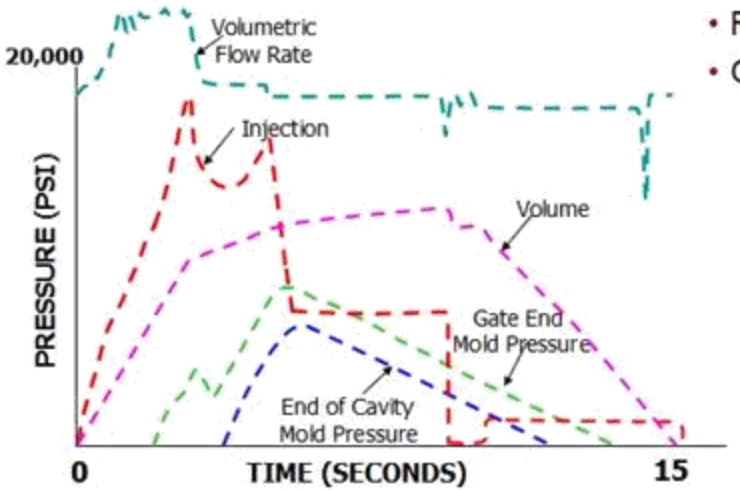
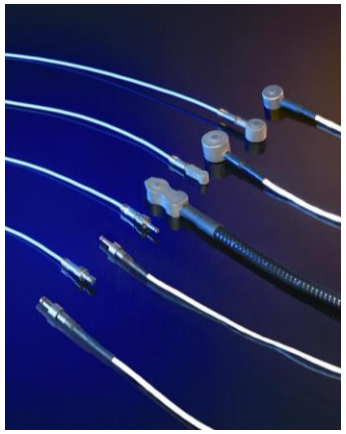
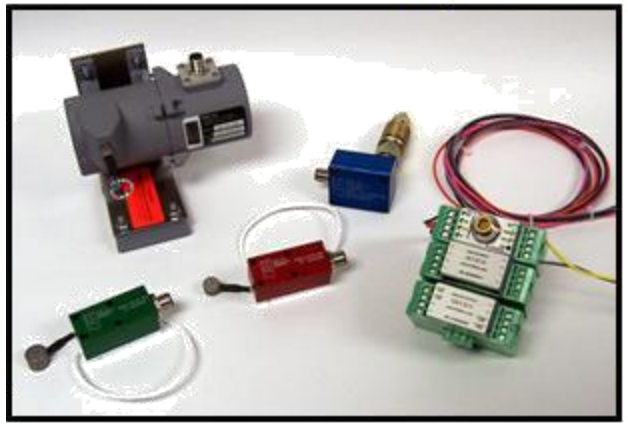
Manufacturing Technologies
Scientific Molding

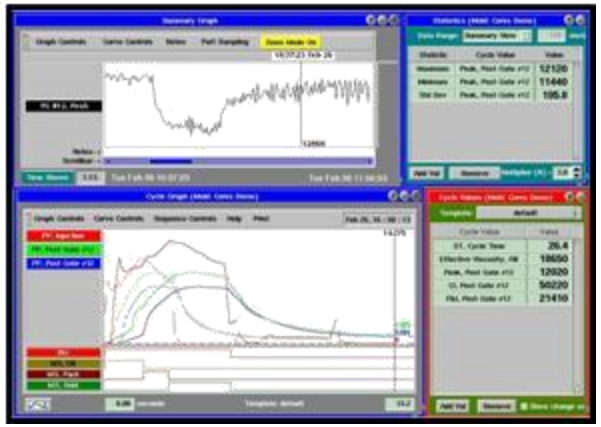


- Imbalance
- Rheology
- Gate Seal

Develop a machine independent process
Document with a process template







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Manufacturing Technologies

Process Monitoring & Control

Electronic Podiums at all injection molding machines

Paperless production environment

Real Time Process Monitoring at press & remote access

Integrated ERP system

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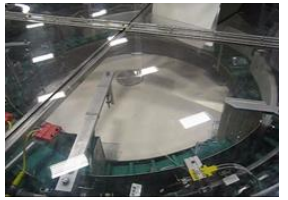
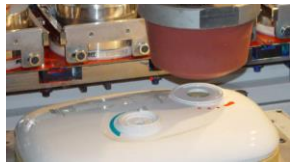
Manufacturing Technologies

Vertical Integration

Automated gate trim
Ultrasonic Welding
Vibration Welding
Dielectric Testing
Manual Assembly
Machining/Drilling
Semi-Auto Assembly
Automated Assembly

Cleanroom Assembly
Contact Forming
Gluing/Bonding
Leak Testing
Pad Printing
Burst Testing
Laser Engraving
Electrical Testing
Hot Stamp / Hot Decal





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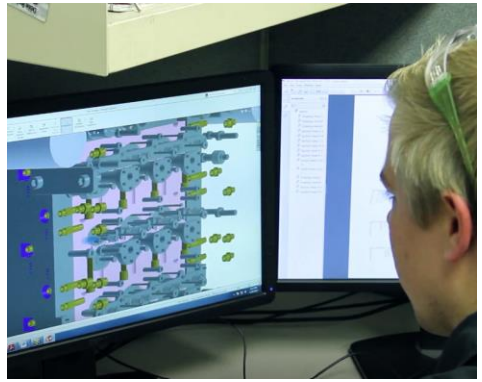
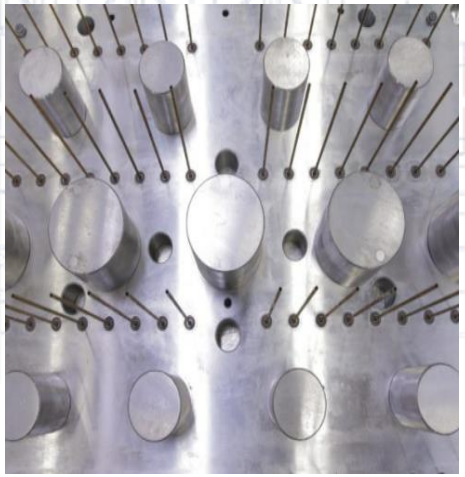
Manufacturing Technologies
Tool Design & Construction

Equipment

- CNC Wire EDM
- CNC Sinker EDM's
- High Speed milling
- CNC Milling
- Micro Welding
- 3D Printing Technology
- Laser Welding





Capabilities/Staff

- Complete Tool Build
- CAD/CAM design
- Tool Designers on staff
- 24/5 Tool Maintenance
- Up to 72 cavity tools
- Design Assistance

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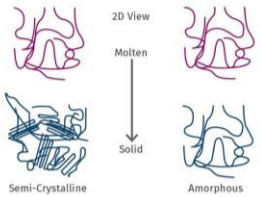
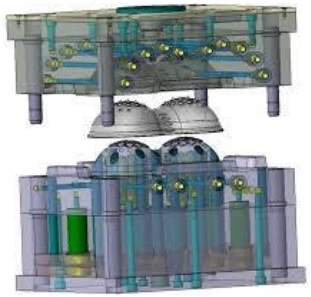
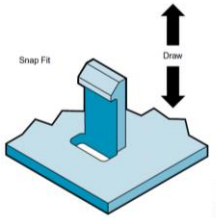
Manufacturing Support

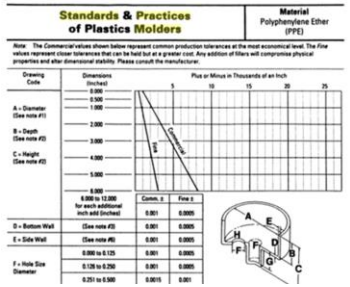
Engineering, Design, Analysis

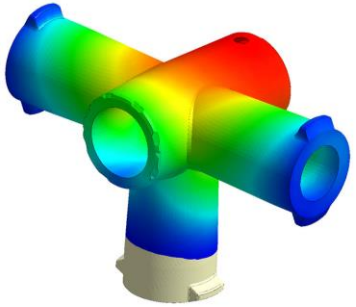
- Design For Manufacturability assessment
  - Prototyping – trials to initial production
    - Material testing and characterization
      - New product development support
        - Metal-to-plastic parts conversion
          - Specialty materials experience
            - Mold flow and warp analysis
              - Plastic part design expertise
                - Multiple part consolidation
                  - 2D & 3D CAD assistance
                    - Specifications Review
                      - Integrated assemblies
                        - Tolerance Stack-up
                          - Sonic Weld detail
                            - Living hinges
                              - Snap fits
                                - No job is too small...

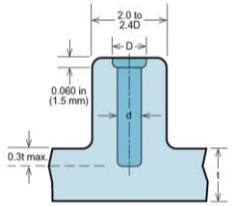


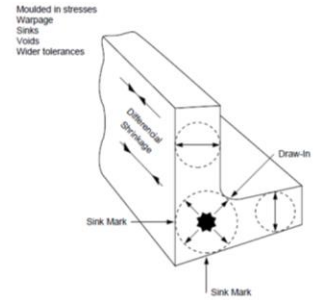












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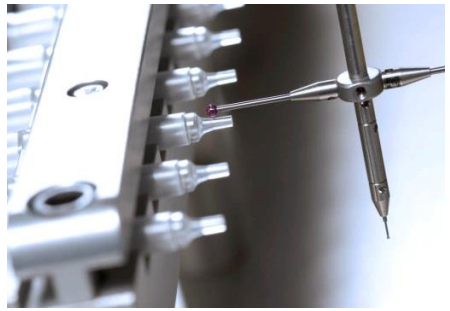
Manufacturing Quality

Certifications

- ISO 13485
- ISO 9001:2015 with Design
- AS9100:2016
- FDA Compliant
- GMP Compliant
- UL Approved

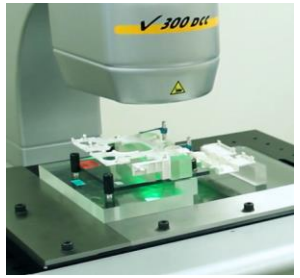


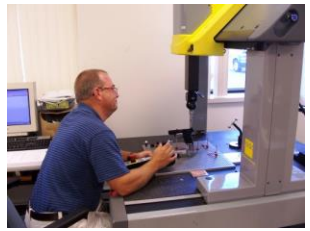
Tools

- OGP Optical Measuring System
- Particle Counter to .5 to 5.0 Microns
- Computrac Max 2000 Moisture analyzer
- Mitutoyo optical comparator
- Mitutoyo dial indicator
- X-Rite spectro photometer
- Data Color 400 Spectrophotometer
- Brown & Sharp CMM
- Tesa Hite Measuring System
- Dynisco Melt Flow Index Tester

Support

- Validation (PPAP, IQ OQ PQ)
- Quality Manager
- QA Staffing round the clock
- Continuous QA Training
- Custom Quality Plans to support your program requirements
- Device History Record Management





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Manufacturing Management

Planning Capabilities

Fully integrated ERP software system reviewed frequently

Active Inventory Control

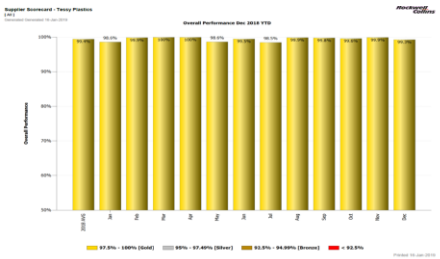
- Work Order Lot traceability
- Kanban
- First In/First Out
- Safety Stock
- Barcode Inventory Tracking

Customer Response Specialist

Dedicated service professional assigned to individual customers. We train to our customers systems to facilitate understanding and clarity of communication.

Supplier Management

Develop suppliers, monitor material certification and drive supplier performance. Quality team audits manufacturing process per agreed upon specifications.



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Manufacturing Efficiency
ISO 14001 Initiatives

ENERGY CONSERVING EFFORTS

- ✓ Skylights installed for natural lighting to reduce electric usage
- ✓ Plant lighting converted to LED
- ✓ Employees are required to turn off all office equipment completely before they leave each day

REDUCING WASTE AND EVIRONMENTAL IMPACT

- ✓ Implemented paperless delivery system
- ✓ All electric Nissan Leaf company vehicle
- ✓ High speed air hand dryers installed to eliminate paper waste
- ✓ Expanding our use of electronic transactions with customers and vendors to reduce paper waste

RECYCLING EFFORTS

- ✓ Set up parts and melt purge are pelletized for reprocessing or sold for recycle
- ✓ Our staff recycles shrink-wrap and cardboard whenever possible

CREATIVE REUSE

- ✓ Used shipping pallets are being reconditioned and reused in the TPS warehouse

INITIATIVES ON THE HORIZON

- ✓ Motion-detecting light switches and high-efficiency light bulbs and fixtures being installed
- ✓ Replace all computer monitors with more efficient and eco-friendly LCD's
- ✓ Sensor flush valves that control water flow to be installed in restrooms

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