

Plastics Technology Top Shops 2021

Thank you for participating in the *Plastics Technology* Top Shops Benchmarking Survey for injection molding which highlights the attributes shared by leading facilities. By fully completing this survey, you will receive a benchmarking report customized for your facility. This survey pertains to injection molding, specifically. **Please proceed only if your facility performs injection molding.**

To take advantage of the many benefits of participating in Top Shops, all you have to do is:

- **1. Fully complete the survey** for maximum value. It's in your best interest for benchmarking and scoring. It may take time to get some data it's worth it. You may have reservations about answering certain questions. Don't worry, all responses will remain confidential.
- **2. Provide your email address** to receive a report customized for your facility, showing where it is strong, on track, and has opportunities.
- 3. Enter your contact info if you want a chance to be profiled in an upcoming issue of *Plastics Technology*.
- **4. Select 'Submit Responses'** on the final page once you do not intend to return to the survey again **before March 1, 2021.** If you get interrupted while completing the survey, you may close and return to it using the same device as many times as you like until you select 'Submit Responses.'

Click here to download a PDF of the survey if you want to review the questions before entering your answers.

Remember to **complete it by March 1, 2021**. If you have questions, please contact Jan Schafer, Director of Market Research, at jschafer@gardnerweb.com or 513-527-8952.

| 1. Which primary processes does your facility perform? Select ALL that apply. |
|---|
| Injection molding |
| Blow molding |
| Thermoforming |
| Extrusion (any type) |
| None of these |
| |



| Of the primary processes performed, which ONE does your facility perform most? Select ONE only. Injection molding |
|--|
| ○ Blow molding |
| Thermoforming |
| Extrusion (any type) |
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Company & Contact Information

| Company & Contac | t illioillation | |
|---------------------------------|--|--|
| 3. To receive a custom address: | n report of your facility's results, please full | y complete the survey and provide your email |
| | | |
| 4. For the option to be | e part of the Top Shops Honors Program, p | lease provide the following information: |
| Your Name: | | |
| Job Title/Position: | | |
| Company Name: | | |
| Address: | | |
| City/Town: | | |
| State/Province: | | |
| ZIP/Postal Code: | | |
| Country: | | |
| Company Website: | | |
| Company Phone Number: | | |
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Before we begin...

Most questions refer to 'your facility,' and here's how we'd like you to think about it...

If your company has more than one location, please answer all survey questions in terms of the scope for which you have the most access to operations and performance data. In some cases, that is multiple locations combined. In other cases, it is just one location.

If you have equal access to data for more than one location, please answer the survey based on the one location that is most representative, or considered most typical, of your business overall.

If you are a captive facility, answer survey questions in the terms your facility uses to report metrics to the broader company. You may have different considerations or use tweaked formulas, but you should be able to provide the information requested.

Most important is that you be consistent throughout the survey as far as the location(s) to which your responses apply.

Please also note that questions pertain to 2020 unless indicated otherwise.



Profile Information

This first section of the survey includes questions pertaining to the general characteristics that help describe your facility. You may need to refer to company data to answer some of the following questions.

| 5. Approximately how many individual pieces did your facility mold in 2020? |
|--|
| Please enter a whole number only; no decimals, commas, or other symbols. |
| |
| 6. Approximately how many active tools did your facility have in 2020? |
| Please enter a whole number only; no decimals, commas, or other symbols. |
| |
| 7. How many injection molding machines are in your facility? |
| Please enter a whole number only; no decimals, commas, or other symbols. |
| |
| 8. What is the average age (in years) of the injection molding machines in your facility? |
| Please enter a whole number only; no decimals, commas, or other symbols. |
| |



| 9. Which materials does your facility process? Select ALL that apply. | | |
|---|--|--|
| Liquid Silicone Rubber | | |
| Thermoplastic Elastomers | | |
| Bioplastics | | |
| Recycled plastics | | |
| None of these | | |
| 11. How many different resins (not grades) did your facility process in 2020? Please enter a whole number only; no decimals, commas, or other symbols. | | |
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| Profile Information | | |
|---|---|--|
| 12. Which secondary processes does your facility perform? Select ALL that apply. | | |
| Assembly | Welding/joining | |
| Decoration (hot stamping, pad printing) | CNC machining | |
| Plating | Annealing | |
| Painting | None of these | |
| | | |
| 13. Which, if any, value-added services did your facilit | y offer in 2020? Select ALL that apply. | |
| Additive manufacturing | Product testing | |
| Contract manufacturing | Shipping/packaging/labeling | |
| Inventory stocking/logistics | | |
| Product design | | |
| Other (please specify) | | |
| | | |
| No value-added services offered | | |
| | | |
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| Profile Information | | |
|--|---|--|
| 14. Which of the following industries does your facility | y primarily serve? Select ALL that apply. | |
| Automotive | Industrial | |
| Building & Construction | Medical/Healthcare | |
| Consumer Goods | Military/Defense | |
| Electrical/Electronic | Packaging | |
| Other (please specify) | | |
| | | |
| | | |
| 15. Which category best describes your facility's relat | tion to its customer base? Select ONE only. | |
| Captive (component of a larger company) | | |
| Custom/Contract (independent) | | |
| | | |
| 16. What is your company's ownership model? Sele | ct ONE only. | |
| Private equity owned | | |
| Privately held | | |
| Publicly traded | | |
| | | |



| Profile Information |
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| 17. Which of the following, if any, describe your company? Select ALL that apply. |
| Family owned |
| Minority owned |
| Veteran owned |
| Woman owned |
| None of these |
| 18. As of the end of 2020, about how many years had your facility been in business? Please enter a whole number only; no decimals, commas or other symbols. |
| 19. What is the total square footage of your entire building? Enter your best estimate if you do not have the |
| measurements handy. |
| Please enter a whole number only; no decimals, commas or other symbols. |
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Injection Molding

This section of the survey includes questions pertaining to practices directly involved in injection molding.

| 20. What ONE type Horizontal molding | e of injection molding machine does your facility use most? Select ONE only. | |
|---------------------------------------|---|--|
| percentages should a | e percentage of your facility's injection molding machines that are each type. Y dd up to 100. a whole number. Percent signs, decimals and non-numeric characters are not | |
| Hydraulic | | |
| All-electric | | |
| Hybrid | | |
| Other | | |



| Injection Molding |
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| 22. What is the clamp force range considering all of your facility's injection molding machines? Select ALL that apply. |
| 0 - 100 tons |
| 101 - 500 tons |
| 501 - 1000 tons |
| Over 1000 tons |
| |
| 23. Which, if any, specialty injection molding technologies does your facility offer? (Select ALL that apply) |
| 2-shot |
| Gas/water-assist |
| MuCell microcellular foam |
| Inmold labeling/inmold decoration |
| Insert molding |
| Other (please specify) |
| |
| None |
| 24. Does your facility have an in-house tool room ? |
| ○ Ves |

O No





| Injection Molding | | |
|---|--|--|
| 29. What types of automation does your facility use? Select ALL that apply. | | |
| Articulated arm | | |
| Cartesian | | |
| Sprue picker | | |
| Other (please specify) | | |
| | | |
| L | | |
| 30. Which types of inspection equipment does you | r facility use? Select ALL that apply. | |
| CMM in quality department | Portable measuring arms | |
| Laser trackers | Vision systems | |
| Microscopes | None of these | |
| Plant floor CMMs | | |
| _ | | |
| 31. Which software does your facility use? Select A | LL that apply. | |
| Process monitoring | | |
| Production monitoring | | |
| Enterprise resource planning (ERP) | | |
| None of these | | |
| | | |
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| Injection Molding | | |
|---|---|--|
| 32. Which methodologies does your facility use to impre | ove operations? Select ALL that apply. | |
| 5S workplace organization | PCI Certification | |
| Benchmarking | Poka yoke (error prevention) | |
| Continuous improvement program | Quality certs (i.e. ISO, NADCAP, etc.) | |
| Customer surveys | Single-minute exchange of dies (SMED) | |
| Decoupled Molding/Scientific Molding | Six sigma | |
| Design of Experiments | Theory of constraints | |
| Just-in-time movement of materials | Total productive maintenance | |
| Kaizen events/blitzes | Total quality management | |
| Kanban and pull systems | Value-stream mapping | |
| Lean Manufacturing | No formal methodology | |
| Overall Equipment Effectiveness (OEE) | | |
| | | |
| 33. How many hours per week was your facility open for | • | |
| Please enter a whole number only; no decimals, commas, | or other symbols. | |
| | | |
| | | |
| 34. What was your facility's average machine usage in 20 | 020, defined as the number of nours machines are in | |
| production in a 24 hour day. | | |
| Your answer should be between 1 and 24. You may enter a decimal, but no other signs or symbols. | | |
| Example: For 8 hours, you would enter 8. For 8 1/2 hours, you would enter 8.5. | | |
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| 35. What was your facility's average capacity utilization in 2020? | | |
|---|--|--|
| There is no single formula that fits how every facility figures capacity utilization. For this question, please | | |
| think about what you consider to be at full capacity for your facility. Then enter as a percentage, the degree to | | |
| which your facility's capacity was typically in use relative to being at full capacity in 2020. | | |
| You may enter a decimal, but no other signs or symbols. | | |
| Example: if your facility was typically using capacity that represented 85% of full capacity in 2020, meaning | | |
| your facility typically had 15% capacity available, you would enter 85 for capacity utilization. | | |
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| Injection Molding |
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| 36. What was your facility's average setup/startup time in 2020? Please respond in terms of minutes and enter a whole number only; no decimals, commas, or other symbols. |
| 37. What was your facility's average number of changeovers per day in 2020? You may enter a decimal, but no other signs or symbols. Example: For 6 changeovers you would enter 6. For 6 1/2 changeovers you would enter 6.5. |
| 38. What was your facility's average mold-change time in 2020? Please respond in terms of <u>minutes</u> and enter a whole number only; no decimals, commas, or other symbols. |
| 39. What was your facility's finished product first-pass quality yield in 2020, defined as the <u>percentage of products</u> passing inspection on the first attempt? Enter your number without a % sign. You may enter a decimal, but no other signs or symbols. Example: For 80%, you would enter 80. For 80.5%, you would enter 80.5 |
| 40. What was your facility's scrap rate in 2020, defined as the <u>number</u> of parts scrapped internally as a <u>percentage of total parts</u> ? Enter a number between 0 and 100 without a % sign. You may enter a decimal, but no other signs or symbols. Example: If you molded 1000 parts and 83 were scrapped, you would enter 8.3. |
| 41. Did your facility process in-house scrap material in 2020? Yes No |



| Injection Molding |
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| 42. What <u>percentage</u> of your facility's scrap material is reused or diverted from landfills ? Enter your number without a % sign. |
| You may enter a decimal, but no other signs or symbols. |
| Example: For 80% you would enter 80. for 80.5% you would enter 80.5. |
| |
| 43. Did the average price your facility paid per pound of resin increase, stay about the same, or decrease in 2020 compared to 2019? |
| Increased |
| Stayed about the same |
| Decreased |
| 44. What was your facility's order lead time in 2020, defined as the average <u>number of days</u> from receipt of order to delivery to customer. Please enter a whole number only; no decimals, commas, or other symbols. |
| 45. What was your facility's on-time delivery rate in 2020, defined as the number of shipments made on or before scheduled ship date as a percentage of the total number of shipments. Enter your number without a % sign. |
| You may enter a decimal, but no other signs or symbols. |
| Example: For 80%, you would enter 80. For 80.5%, you would enter 80.5. |
| 46. Did your facility have any accident incidents in 2020? |
| Yes |
| |



Injection Molding

47. What was your facility's **accident incident rate for plant floor employees** in 2020, defined as the number of plant floor accident incidents as a percentage of the typical number of plant floor staff. Enter your number without a % sign.

Example: if you had 2 accident incidents in 2020 and your plant floor staff typically totals 30, you would enter 6.67.

| You ma | y enter | а | decimal, | but | no | other | signs | or | symbols. |
|--------|---------|---|----------|-----|----|-------|-------|----|----------|
| | | | | | | | | | |



Business Strategy & Performance

The next section of the survey includes questions pertaining to financial, operational and customer information.

| 48. Which supply chain strategies does your facility use? Select ALL that apply. | | |
|--|--|--|
| Certification of major suppliers | Just-in-time deliveries to customers | |
| Collaborative design with customers | Utilizing customer forecasts | |
| Collaborative design with suppliers | Vendor-managed or -owned inventories | |
| Customer satisfaction surveys | Vendor-managed or -owned inventories for customers | |
| Just-in-time deliveries from suppliers | None of these | |
| | | |



Business Strategy & Performance

| 49. Please provide your plant's total revenue for 2020 in US dollars. Providing your plant's revenue |
|--|
| confidentially enables us to perform useful calculations on your behalf. |
| Please enter a whole number only; no decimals, commas, or other symbols. |
| |
| 50. Please provide your plant's 2020 gross sales per machine in US dollars. |
| Round to the nearest dollar and enter without any signs or symbols. |
| Example: If your gross sales were \$5000 and you have 5 machines, you would enter 1000. |
| |
| |
| 51. Please provide your plant's 2020 gross sales per employee in US dollars. |
| Round to the nearest dollar and enter without any signs or symbols. |
| Example: If your gross sales were \$5000 and you have 20 employees, you would enter 250. |
| Example: If your gross sales were \$6000 and you have 20 employees, you would enter 200. |
| |
| |
| 52. Please provide your plant's percent change in annual sales from <u>2019 to 2020</u> using the following |
| formula. Round to the nearest whole number, using a minus sign if necessary. |
| Formula = [(2020 gross sales - 2019 gross sales) / 2019 gross sales] * 100 |
| Example: If your 2019 sales were \$4000 and your 2020 sales were \$5000, you would enter 25. |
| |
| 53. Were any capital investments made in your facility in 2020? |
| Yes |
| ○ No |



Business Strategy & Performance 54. How much did your facility spend (in US dollars) on capital equipment in 2020? Round to the nearest dollar and enter without any signs or symbols. 55. Please provide your plant's 2020 capital equipment expenditure as a percentage of gross sales. Round to the nearest whole number and enter without a % sign. Formula = [(2020 cap equip exp / 2020 gross sales) * 100] Example: If your capital equipment expenditure was \$500 and your gross sales were \$5000, you would enter 10. 56. Please provide your plant's 2020 **overall profit margin percentage**, defined as your plant's <u>net income</u> (after tax) relative to gross sales, rounded to the nearest whole number. Include a minus sign if your number is negative. Formula = [(2020 net income / 2020 gross sales) * 100] Example: If your 2020 net income was negative \$300 and your gross sales were \$5000, you would enter -6. 57. Please provide your plant's 2020 ROA, defined as your plant's net income (after tax) relative to total assets, rounded to the nearest whole number. Include a minus sign if your number is negative. Formula = [(2020 net income / 2020 total assets) * 100] Example: If your 2020 net income was negative \$300 and your total assets were \$5000, you would enter -6.



Business Strategy & Performance

58. Please use the drop down boxes to select the **machine-hour rate** for custom injection molding that applies to each machine in your facility. You may choose to provide the machine-hour rate with an operator, without an operator, or both. If your facility does not have that machine, please select N/A.

| | With Operator | Without Operator |
|------------------|---------------|------------------|
| <50 ton press | \$ | \$ |
| 50 – 99 tons | \$ | \$ |
| 100 – 299 tons | \$ | \$ |
| 300 – 499 tons | \$ | \$ |
| 500 – 749 tons | \$ | \$ |
| 750 – 999 tons | \$ | \$ |
| 1000 – 1499 tons | \$ | • |
| 1500 – 1999 tons | • | • |
| 2000 – 2999 tons | \$ | \$ |
| 3000+ tons | \$ | \$ |



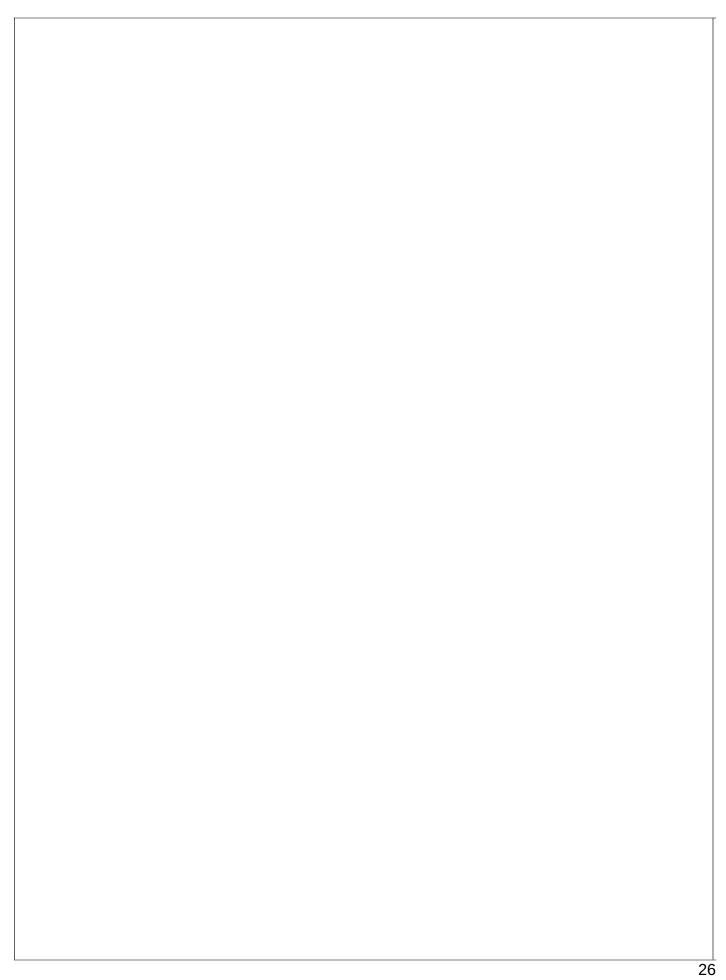
| Business Strategy & Performance |
|--|
| 59. Do your machine-hour rates include profit margin? |
| Yes |
| ○ No |
| |
| 60. On average, did your machine-hour rates increase, stay about the same, or decrease in 2020 compared to 2019? |
| ☐ Increased |
| Stayed about the same |
| Decreased |
| 61. Did your facility manufacture any proprietary products for direct resale in 2020? Yes No |



| Business Strategy & Performance |
|--|
| 62. What percentage of your facility's 2020 revenue came from proprietary products? Please enter a whole number only; no decimals, commas, or other symbols. |
| 63. How many active customers did your facility have in 2020? |
| Please enter a whole number only; no decimals, commas, or other symbols. |
| 64. What was your customer retention rate for 2020? This is the number of customers in 2020 who were also customers in 2019, as a percentage of your 2019 total customer base. Enter your number without a % sign. Example: If you had 50 customers in 2020 who were also customers in 2019, and a total of 60 customers in 2019, your customer retention rate would be 83%, and you would enter 83. You may enter decimals but no other signs or symbols. |
| 65. What percentage of new business quoted in 2020 was actually booked ? Enter your number without a % sign. |
| Example: if you quoted 80 new jobs in 2020 and booked 40, you would enter 50. You may enter decimals but no other signs or symbols. |



| Business Strategy & Performance | | | |
|--|---|--|--|
| 66. Below are business practices that your plant n to have been in place at your plant in 2020. | nay or may not apply. Please select ALL that you consider | | |
| Regularly scheduled, formal review of the state of the business | | | |
| Periodic, informal review of the state of the business | | | |
| Business metric goal setting | | | |
| Business strategy development | | | |
| Regularly scheduled management/department head meetings | | | |
| Occasional management/department head meetings | | | |
| Steering board/committee including outside membership | | | |
| None of these | | | |
| | | | |
| 67. Which of the following sales/marketing tools did | your company use in 2020? Select ALL that apply. | | |
| Company website | Print advertising (e.g. magazines) | | |
| Blogs | Print directory listing | | |
| Email promotions | Sales personnel | | |
| Online videos | Customer tours of your facility | | |
| Online advertising | Open houses | | |
| Online directory listing | Trade shows/events | | |
| Online keyword advertising (Google) | None of these | | |
| Brochures/catalogs | | | |
| | | | |
| 68. Which social media outlets did your company | use in 2020 to generate business? Select ALL that apply. | | |
| Twitter | Snapchat | | |
| LinkedIn | YouTube | | |
| Facebook | None of these | | |
| Instagram | | | |





Human Resources

| The final section of the survey pertains to employees, training, and safety. | | | |
|--|--|--|--|
| 69. Which benefits does your facility offer full-time employees? Select ALL that apply. | | | |
| Leader/supervisor development | | | |
| Paid medical benefits | | | |
| Profit- or revenue-sharing plan | | | |
| Teaming/team-building practices | | | |
| Training/certification programs | | | |
| None of these | | | |
| | | | |
| 70. Which statement best describes your plant as far as skills relative to needs in 2020? Select ONE only. We experienced a shortage of skills needed and took action. We experienced a shortage of skills needed but did not take action. We did not experience a shortage of skills needed. | | | |
| ו | | | |



| Human Resources | |
|--|---|
| | ess a shortage of skills your plant needs? Select ALL that Outreach program to broader populations (e.g. completed rehab; released from incarceration) Billboard advertising Television advertising Radio advertising |
| | Rewards for referrals Increased automation Provide, pay for, or subsidize transportation to/from plant Temp agency assistance Temporary-to-permanent hiring |
| Other (please specify) 72. Does your facility partner with any area schools fo Yes | or things like open houses or staff recruitment? |
| No No | |



Human Resources

| 73. How many total people did your facility employ in 2020 at the location(s) to which your answers apply? | |
|---|--|
| Please enter a whole number only; no decimals, commas or other symbols. | |
| | |
| 74. How many employees were directly involved in plant floor operations in 2020 at the location(s) to | |
| which your answers apply? | |
| Please enter a whole number only; no decimals, commas or other symbols. | |
| | |
| 75. What is the average age of your facility's plant floor employees? | |
| Please enter a whole number only; no decimals, commas or other symbols. | |
| | |
| 76. What is the average years of plastics processing/manufacturing experience of your facility's plant | |
| floor employees? | |
| Please enter a whole number only; no decimals, commas or other symbols. | |
| | |



Human Resources

| 77. What was your plant's annual labor turnover rate of plant floor employees in 2020? This is the number of voluntary plus involuntary separations of plant floor employees as a percentage of the total usual number of plant floor staff. Enter your number between 0 and 100 without a % sign. You may enter a decimal, but no other signs or symbols. |
|--|
| Example: If 6 plant floor employees left in 2020 and your usual plant floor staff totals 30, you would enter 20. |
| 78. During 2020, did the size of your facility's full-time plant staff increase, decrease, or stay the same? Selection ONE only. |
| ☐ Increased |
| Stayed the same |
| Decreased |
| 79. What was the approximate average hourly wage rate in US dollars, without overtime, for non-nanagement plant floor employees in 2020? You may enter a decimal, but no other signs or symbols. |
| 80. On average, about how many hours of operations training did each hourly paid, non-management plan floor employee receive in 2020? <i>Select ONE only.</i> |
| Less than 8 hours |
| 8-20 hours |
| 21-40 hours |
| More than 40 hours |



Almost finished!

This is the final page of the survey. Please double-check your responses for accuracy and completeness before you continue.

Before you click **Submit Responses**, you may close and return to the survey on this device to make changes as many times as you like until the deadline on March 1, 2021. Once you click **Submit Responses** on this page, you will be taken to the *Plastics Technology* website. Your survey will be locked and submitted and you will not be able to change any of your answers.