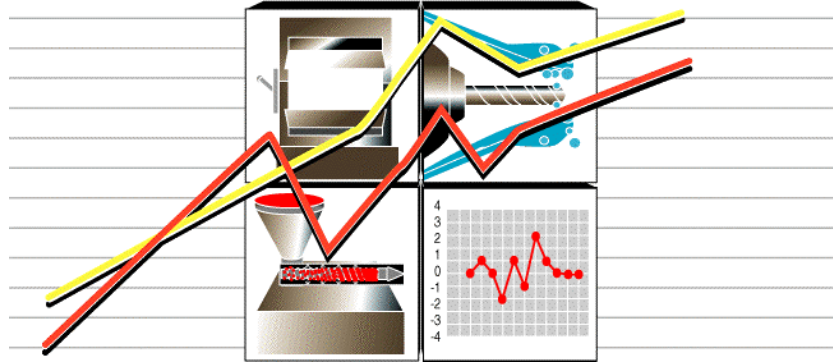




Instructions for Using This Electronic Form



At any time, you may elect to print this document and handwrite your responses, and return by either fax or by mail.

This form is designed to be **completed electronically**. To do so, you will need the newest form of Adobe Acrobat Reader software, version 9.0. A free copy is available for download from their website at <http://get.adobe.com/reader>

You can use your mouse or the tab key to move from one answer box to another. (To make the answer boxes visible, look for and click on the "Highlight Fields" button in the upper right hand corner of your screen.)

If you are using an earlier version of acrobat, please be aware of the following:

You may not have the ability to save your answers as part of the file. Alternatively, you may find that you are able to save your answers **ONLY ONCE** and that if you reopen the file, you are unable to make further changes.

We recommend printing a blank copy of this form as backup or go to www.performancebenchmarking.org to download another copy of this form.

To **submit** your data, you may:

Print a hard copy with your responses and fax or mail it to us.

Save your answers as part of the file and submit by email (using the button in the upper right hand corner). This opens a link to your email service (either outlook or internet mail) in order to create an email message with your responses attached. You may have to then open your email account and manually click the send button.

Save your answers and this file on your computer under another file name and attach it in a separate email to pbs@mmtc.org.

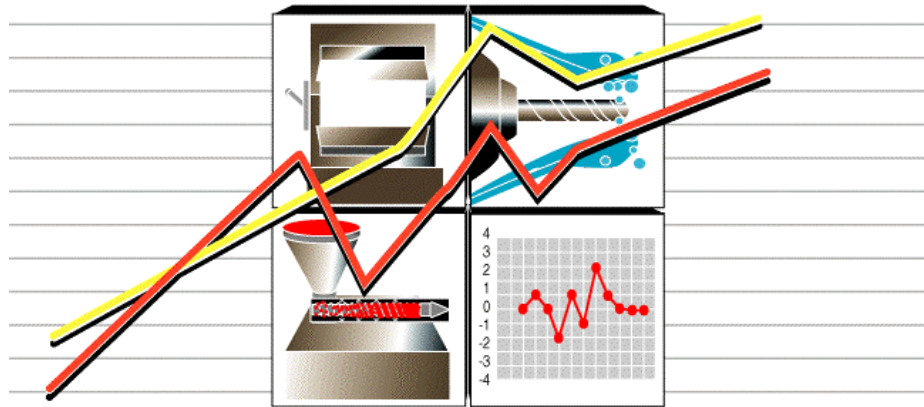
PERFORMANCE BENCHMARKING

For Benchmarking Use Only

Site ID

Svkey

Finishing Services: Plating, Anodizing, & Coating (Questionnaire valid through 4/15/11)



- Please try to report all of your data for the same 12-month period, preferably calendar 2009.
- **This form is for shops that provide plating, coating, anodizing or related services for products made by others. If you make products and do your own finishing, please use this form only if you can treat your finishing operations as a separate line of business, with separate financials and employees.** Otherwise, please select one of our other industry questionnaires (see www.performancebenchmarking.org) and receive a report comparing you to other product makers.
- Please indicate currency units, if not U.S. Dollars: _____
- If you operate more than one plant, please try to provide data for each plant separately.

Company Contact Person

Contact Person: _____

Company Name: _____

(This is how it will appear on your report)

Address: _____

City or Town: _____

State or Province: _____

Country/Postal Code: _____

Phone: _____

Fax: _____

E-Mail: _____

Please return this questionnaire, and direct any questions to:

Performance Benchmarking Service

MMTC

47911 Halyard

Plymouth, MI 48170

(P) 888-414-6682

(F) 734-451-4202

E-mail pbs@mmtc.org

<http://www.performancebenchmarking.org>

Plant Location (If Different)

City or Town: _____

State or Province: _____

Country: _____

Please keep a copy of this questionnaire in the event we need to contact you for clarification. Thanks.

Developed in collaboration with the Aluminum Anodizers Council (AAC)

Services & Markets: What services do you provide at this plant? Using what processes? For what types of customers?	1. (You <u>must</u> provide a written description here.)		
Please enter your industry code (whether U.S. SIC, NAICS, or other classification system), if you know it.	2. _____ <input type="checkbox"/> SIC <input type="checkbox"/> NAICS <input type="checkbox"/> Other _____		
Is this the only location of your company? [If no:] How many people work at your company, at all of its locations world-wide?	3. Only location? <input type="checkbox"/> Yes <input type="checkbox"/> No 4. [If no:] Total company employment (check one box): <input type="checkbox"/> 1-19 <input type="checkbox"/> 20-99 <input type="checkbox"/> 100-499 <input type="checkbox"/> 500+		
Consider your typical or most representative order or job during the past year. Roughly what was the per-unit price of the services you provided for this order? What about your lowest-unit-price order or job? What about your highest-unit-price order?	Typical/Average-Price Pieces 5. \$ _____	Low-Price Pieces 6. \$ _____	High-Price Pieces 7. \$ _____
For a typical product or job, roughly how many units of a particular product do you make? For very long-term orders or products, please answer based on annual volumes.	8. (Check only one.) <input type="checkbox"/> One or very few <input type="checkbox"/> A dozen, or several dozen, or hundreds <input type="checkbox"/> Thousands or tens of thousands, or more <input type="checkbox"/> No such thing as "typical" – our volumes are unpredictable and can vary from a few to many thousands		
In the past year, roughly what percent of your sales were from:	<ul style="list-style-type: none"> • Short-term, non-repeating orders (orders you see only once or sporadically) 9. _____% • Long-term, repeating orders (regular, ship-to-release-type work) 10. _____% <p style="text-align: right;">Total (should sum to 100) _____%</p>		
Are you a captive shop (i.e., 100% of your sales are to one customer?)	11. <input type="checkbox"/> Yes <input type="checkbox"/> No		
On which materials do you do finishing work?	Do finishing on: 12. Metal? <input type="checkbox"/> Yes <input type="checkbox"/> No 13. Plastic? <input type="checkbox"/> Yes <input type="checkbox"/> No 14. Other? <input type="checkbox"/> Yes <input type="checkbox"/> No		
In the past year, approximately what percent of sales were to consumers, institutions, wholesalers, or retailers (i.e., NOT to other manufacturers)?	15. _____ % sales NOT to other manufacturers		
In the past year, roughly what percent of your sales were:	<ul style="list-style-type: none"> • Defense/military-related? 16. _____% • Medical/healthcare-related? 17. _____% 		
In the past year, roughly what percent of your sales were to customers in the following industries?	<ul style="list-style-type: none"> • Automotive 18. _____% • Aircraft/Aerospace 19. _____% • Computer, Communications, or Electronic Equipment 20. _____% • Plumbing 21. _____% • Architectural 22. _____% 		
In the past year, what percent of your sales were from:	<ul style="list-style-type: none"> • Services you didn't provide three years ago? 23. _____% • Customers you didn't serve three years ago? 24. _____% • Industries you didn't serve three years ago? 25. _____% 		
In the past year, what percent of your sales were shipped to locations outside your home continent or trade area (e.g., North America/NAFTA, European Union, Asia/Pacific, etc.)?	26. _____ % sales exported beyond trade area		
Financial: What were your total sales at this location in the past year? How about 2 years earlier (i.e., calendar or FY2007)?	27. Most Recent Year (e.g., calendar 2009 or most recent fiscal year) \$ _____ 28. Two years earlier (2007)? \$ _____		
Receivables On average during the past year, what were your receivables – the amount that your customers owed you?	29. \$ _____ average receivables		
Labor Costs What was your total payroll in the past year? (Include payments for Social Security, Medicare, bonuses, and overtime. Exclude payments for health care, pension plans, and other fringe benefits. Also, exclude any payments made to people who are not your employees.) How much of payroll was for:	30. Hourly people who work on the shop floor? \$ _____ 31. All others who work in the shop or factory (e.g., foremen & supervisors) plus all lab/engineering staff? \$ _____ 32. Non-shop, non-lab/engineering employees? \$ _____ 33. Total Payroll (Q30+Q31+Q32) \$ _____		
What was the average wage rate, <u>excluding</u> overtime, for hourly shop workers (from Q30)? Please include all skill/seniority levels in this average.	34. Avg. hourly wage \$ _____ per hour		

<p>What were your expenses for health care, pension plans, workers' comp, and other fringe benefits not included in payroll? How much of those expenses were for:</p> <ul style="list-style-type: none"> • Factory employees (those who work in the shop, plus lab/engineering staff)? • Non-factory employees? 	<p>35. \$ _____ factory employees</p> <p>36. \$ _____ non-factory employees</p>
<p>What did you spend for temporary personnel (i.e., people who are not your own employees) in the past year?</p> <p>How much of your spending was for:</p> <ul style="list-style-type: none"> • Factory temps (working in the shop, even if in engineering)? • Non-factory temps? 	<p>37. \$ _____ factory temps</p> <p>38. \$ _____ non-factory temps</p>
<p>Purchases from Other Firms and Locations</p> <p>In the past year, how much did you spend on purchased raw material, parts, supplies, and perishable tools? (Do not include energy costs here.) Approximately what percent of these purchases were from supplier locations outside your home continent or trade area (e.g., North America/NAFTA, European Union, Asia/Pacific, etc.)?</p>	<p>39. \$ _____ raw material, parts, supplies</p> <p>40. _____% not from home continent or trade area</p>
<p>In the past year, how much did you spend on services that you paid others to provide? How much of this spending was for:</p> <ul style="list-style-type: none"> • Manufacturing-related services (e.g., subcontracted processing, outside repair & maintenance, engineering services, packaging, waste disposal, etc.)? Please include factory insurance and property taxes here. • Non-manufacturing-related services? (Include: accounting, legal, payroll services, phone, postage, shipping, sales commissions to non-employees, etc.) 	<p>41. \$ _____ manufacturing services</p> <p>42. \$ _____ non-manufacturing services</p> <p>43. \$ _____ total</p>
<p>Energy Costs and Consumption</p> <p>In the past year, how much did you spend on energy, across all fuels (electricity, natural gas, fuel oil, etc.)? Approximately what percent of that was for the factory (i.e., <i>not</i> for the office)?</p>	<p>44. \$ _____ energy costs</p> <p>45. _____ % for factory</p>
<p>How much of your total energy expense (Q44) was for electricity? How many kWh did you consume? (Self check: your average price for electricity should be in the range of \$.05-\$.15 per kWh.)</p>	<p>46. \$ _____ electricity costs</p> <p>47. _____ electricity use (kWh)</p>
<p>How much of your energy costs were for natural gas? How much natural gas did you consume? Please be careful of your units. Gas use is usually measured either as hundreds of cubic feet (Ccf), or as millions of Btu (MMBtu). Note that 1 MMBtu = 1000 cubic feet = 10 Ccf = 1 Mcf. Your average price for natural gas should be \$.30-\$1.50 per Ccf, or \$3-\$15 per MMBtu.</p>	<p>48. \$ _____ natural gas costs</p> <p>49. _____ gas use <input type="checkbox"/> Ccf or <input type="checkbox"/> MMBtu</p>
<p>In the past year, how many gallons of water did you consume?</p>	<p>50. _____ gallons water</p>
<p>Plant & Equipment Costs</p> <p>In the past year, what were your expenses for depreciation, rent, and leases? Be sure to include: 1) depreciation & amortization of factory buildings & equipment you own; 2) factory rent; and 3) factory equipment lease payments.</p>	<p>51. \$ _____ depreciation, rent, and lease payments</p>
<p>Roughly what is the replacement value of all the equipment you use? Please include the value of equipment that you <u>lease</u> as well as what you <u>own</u>. By replacement value, we mean that if you have a 20-year-old piece of equipment, how much it would cost to replace it with a roughly identical 20-year-old piece of equipment. (Please do NOT include the value of your building or land, and do NOT report book value.)</p>	<p>52. \$ _____ equipment replacement value</p>
<p>Environmental Services</p> <p>In the past year, how much did you spend on waste disposal and treatment? How much of that was for:</p> <ul style="list-style-type: none"> • Waste disposal/treatment services provided by other firms or locations (i.e., part of your answer to Q41, above)? • On-site waste treatment? Please provide an estimate of your costs for labor, materials, and depreciation for on-site treatment equipment. 	<p>53. \$ _____ waste disposal, treatment</p> <p>54. \$ _____ on-site waste treatment</p>
<p>What were your estimated environmental compliance costs during the past year? Do NOT include waste disposal or waste treatment costs. Include only permit fees and monitoring and reporting costs.</p>	<p>55. \$ _____ environmental compliance costs</p>
<p>Order Processing, Scheduling and Delivery:</p> <p>In the past year, what percent of your deliveries were made on time?</p> <p>What percent of deliveries from your suppliers were made on time?</p>	<p>56. _____ % deliveries you made on time</p> <p>57. _____ % deliveries your suppliers made on time</p>

How much did you spend in the past year on "premium freight" charges for which customers did not reimburse you?	58. \$ _____ premium freight																														
In the past year, to what extent did you "bump" work from your planned production schedules in order to get "rush" or "hot" jobs done on time? That is, roughly what percent of lots or jobs required bumping another previously- scheduled lot or job?	59. _____ % of lots/jobs that bumped scheduled jobs [If you do not schedule production, enter NA.]																														
What percent of your sales (from Q27) were accounted for by orders received over the internet? What percent of your purchases (from Q39 & Q43) were made over the internet?	60. _____ % of sales received over internet 61. _____ % of purchases made over internet																														
Is your order entry and/or production scheduling system(s) integrated with EDI or the internet, so that orders can be processed and scheduled automatically, without human intervention?	62. <input type="checkbox"/> Yes <input type="checkbox"/> No																														
Quoting & Estimating: Which cost components do you calculate separately for each new job? Which costs do you sometimes calculate, but only for unusual jobs? Which costs do you roll into your hourly billing rates? Check NA for any costs to do not apply to your business, or for items that are bought and owned by your customers ("consigned"). - direct material & supplies - racks, fixtures, part holders, etc. - engineering labor - factory indirect labor - order processing costs	<table border="0"> <thead> <tr> <th></th> <th>Calculated Separately for Each Job</th> <th>Calculated for Special Jobs</th> <th>Included in Usual Hourly Billing Rates</th> <th>NA</th> </tr> </thead> <tbody> <tr> <td>63. <input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>64. <input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>65. <input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>66. <input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>67. <input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Calculated Separately for Each Job	Calculated for Special Jobs	Included in Usual Hourly Billing Rates	NA	63. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	64. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	65. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	66. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	67. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Processing: How large is your production area?	68. _____ square feet																														
How many distinct processing lines or systems do you have in regular use? How many of these lines: <ul style="list-style-type: none"> • Require wholly manual operation? • Are automatic return-type or straight line machine (with either automatic or manual loading/unloading)? • Have automated loading/unloading? • Have programmable control of key process parameters, such as: chemical concentrations, temperature, pressure, duration, spray characteristics, amperage, etc.? 	69. _____ number of distinct processing lines or systems Number of lines: 70. _____ that are wholly manual 71. _____ that are automatic return or straight line 72. _____ with automated loading/unloading 73. _____ that have programmable process control																														
Equipment Utilization How many hours was your shop open for production last year? <i>Example: Two 8-hr shifts per day * 5 days per week * 50 weeks = 4000.</i> In the past year, how many total hours were your lines available for production? By "available," we mean that your intent was to be in production mode, and you had scheduled work shifts accordingly. Please answer for precisely the same lines you included in your answer to Q69, above. <i>Example: The plant has 4 processing lines. Three of them were scheduled for two 8-hr shifts per day, 5 days per week, 50 weeks per year. The last line was only used one shift per day. Thus the total number of available process-line-hours were:</i> [3 lines x 16 hours/day x 250 days/year] or 12,000 hours + [1 line x 8 hours/day x 250 days/year] or 2000 hours = Total of 14,000 processing-line-hours	74. _____ hours shop open last year 75. _____ available processing-line-hours																														
How many of those available hours (from Q75) were those processing lines/systems actually running product? [Do NOT include any hours that the equipment was idle or waiting, such as changeover time, maintenance time, time spent resolving quality problems, etc.]	76. _____ running processing-line-hours																														
Have you re-engineered any of your processes in the past 2 years in order to reduce the purchase or output of hazardous or toxic materials?	77. <input type="checkbox"/> Yes <input type="checkbox"/> No																														
Plating and Anodizing In the past year, what percent of your sales are from plating services? What percent of your sales were from anodizing services?	78. _____ % of sales plating 79. _____ % of sales anodizing [If Q78+Q79<10%, Skip to Q89.]																														
What percent of your plating/anodizing sales were from rack (as opposed to basket or barrel) processing?	80. _____ % Rack																														

<p>During the past year, approximately what percent of your plating/anodizing lines used the following metals?</p> <ul style="list-style-type: none"> • Hexavalent Chrome, Cadmium • Nickel, Copper, Trivalent Chrome • Tin, Zinc, Aluminum • Silver, Gold, Platinum, or other precious metals 	<p>81. _____ % hexavalent, chrome, cadmium</p> <p>82. _____ % nickel, copper, trivalent chrome</p> <p>83. _____ % tin, zinc, aluminum</p> <p>84. _____ % silver, gold, platinum, etc.</p>
<p>In the past year, did this plant have an on-site lab for formulating/analyzing bath chemistry?</p>	<p>85. <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>In the past year, did you regularly recover metal via ion exchange, reverse osmosis, electrolytic recovery, etc?</p>	<p>86. <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>[FOR ANODIZERS ONLY:] What percent of your sales of <i>anodized</i> output were:</p>	<p>87. Sealed using nickel seal tanks? _____ %</p> <p>88. Clear (i.e., not color)? _____ %</p>
<p>Coating What percent of your sales are from coating services? (Do not include anodizing as part of coating. Include it in Q79, above.)</p>	<p>89. _____ % of Sales</p> <p>[IF LESS THAN 10%, SKIP TO QUESTION 96.]</p>
<p>Which, if any, of the following coating processes do you use?</p>	<p>90. Flow, Dip, or Curtain Coating <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>91. Powder Coat/Fluidized Bed <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>92. Electro Deposition (E-Coat, Electrocoating) <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>93. Spray or Flocking Gun <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>94. UV Curing <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>In the past year, what percent (by weight) of the paint or coatings you purchased ended up as waste? Waste includes unusable and expired material, as well as waste that was cleaned up from the work area.</p>	<p>95. _____ % of paint/coatings discarded as waste</p>
<p>Human Resources: On average in the past year, how many individuals worked at this location at a given time? Please include positions that you filled with part-time and contract labor. (If your employment counts changed significantly over the past year, please be careful to report average, <i>not year-end</i> counts.)</p>	<p>96. _____ average number of individuals working at this location</p>
<p>How many of the personnel from your answer to Q96 were contractors or temps, rather than people on your own payroll?</p>	<p>97. _____ positions filled by temps or contract personnel</p>
<p>Over the past year, how many different people did you have <u>on your payroll</u> for at least one day? That is, how many W2's did you generate?</p>	<p>98. _____ people on payroll for at least one day <i>Cannot be less than Q96 minus Q97.</i></p>
<p>How many of your total personnel (from Q96) were hourly people who worked on the shop floor? How many of these shop floor workers (from Q99):</p> <ul style="list-style-type: none"> • Were represented by labor unions? • Were covered by company-subsidized health insurance, for which you paid at least \$3000 per worker? 	<p>99. _____ hourly shop workers</p> <p>Number of these shop floor workers:</p> <p>100. _____ in unions</p> <p>101. _____ for whom you paid >=\$3000/yr in health premiums</p>
<p>On average in the past year, how many hours per week did these shop workers (from Q99) work?</p>	<p>102. _____ shop hours/week, per worker</p>
<p>In the past year, roughly what percent of your shop labor time was spent doing work manually or with hand tools? That is, what percent was spent doing manual or hand-tool assembly, packaging, finishing, or other light manufacturing work?</p>	<p>103. _____ shop labor time doing manual or hand-tool work</p>
<p>In the past year, what percent of your personnel at this location (from Q96) used a computer or programmable machine controller at least once a week as part of their job?</p>	<p>104. _____ % using computer or programmable machine</p>
<p>Quality Assurance: In the past year, what was your scrap rate? By "scrap," we mean work you rejected internally due to errors, not unavoidable material loss. If you can, please provide the dollar value of output scrapped (costs for wasted labor and machine time plus cost for ruined material). Otherwise, provide the proportion (% or PPM) of units or output scrapped. (Answer either Q105 and Q106, or just Q107)</p>	<p>Scrap Due to Errors (Do NOT Include Offal or Design Scrap):</p> <p>105. \$ _____ cost of material ruined due to errors</p> <p>106. \$ _____ total scrap cost (ruined material plus cost of wasted labor and machine time)</p> <p>OR</p> <p>107. _____ units or output scrapped <input type="checkbox"/> % <input type="checkbox"/> PPM (Check % or PPM.)</p>
<p>In the past year, what percent of shop labor time was spent doing reprocessing or rework of output that was not done right the first time?</p>	<p>108. _____ % shop labor time spent doing reprocessing/rework</p>
<p>In the past year, what proportion (% or PPM) of the units you shipped were initially rejected for quality reasons or not-to-spec condition? [NOTE: Even if your customers accept or reject entire lots, enter % or parts per million bad if you know it.]</p>	<p>109. _____ <input type="checkbox"/> % <input type="checkbox"/> PPM (Check % or PPM.)</p>