

**July - September 2023 Results**  
**Production and Shipments of Manipulators and Robots by Applications**  
**[JARA Member Companies]**

Number of units, ( ) : million yen

|                   | July - September 2022 | July - September 2023 | Change from 2022   |
|-------------------|-----------------------|-----------------------|--------------------|
| <b>Orders</b>     | 68,315<br>(236,052)   | 40,202<br>(161,038)   | -41.2%<br>(-31.8%) |
| <b>Production</b> | 63,682<br>(223,070)   | 47,390<br>(187,410)   | -25.6%<br>(-16.0%) |

| Shipments<br>Applications        | July - September 2022   |           |           | July - September 2023 |           |           | Change from 2022   |          |          | July - September 2022<br>(percentage distribution) |          |          | July - September 2023<br>(percentage distribution) |          |          |
|----------------------------------|-------------------------|-----------|-----------|-----------------------|-----------|-----------|--------------------|----------|----------|--|----------|----------|--|----------|----------|
|                                  | Domestic shipments      | Exports   | Total     | Domestic shipments    | Exports   | Total     | Domestic shipments | Exports  | Total    | Domestic shipments                                 | Exports  | Total    | Domestic shipments                                 | Exports  | Total    |
|                                  | <b>Plastic moulding</b> | 719       | 819       | 1,538                 | 628       | 617       | 1,245              | -12.7%   | -24.7%   | -19.1%   | 6.4%     | 1.5%     | 2.4%   | 6.4%     | 1.6%     |
| Arc welding                      | 1,257                   | 4,534     | 5,791     | 806                   | 3,828     | 4,634     | -35.9%             | -15.6%   | -20.0%   | 11.2%  | 8.6%     | 9.0%     | 8.2%   | 10.0%    | 9.6%     |
| Spot welding                     | 582                     | 4,707     | 5,289     | 654                   | 5,485     | 6,139     | 12.4%              | 16.5%    | 16.1%    | 5.2%   | 8.9%     | 8.3%     | 6.7%   | 14.3%    | 12.7%    |
| Laser welding                    |                         | 213       | 213       | 4                     | 306       | 310       |                    | 43.7%    | 45.5%    |  | 0.4%     | 0.3%     | 0.0%   | 0.8%     | 0.6%     |
| Others                           | 26                      | 6         | 32        | 9                     | 7         | 16        | -65.4%             | 16.7%    | -50.0%   | 0.2%   | 0.0%     | 0.0%     | 0.1%   | 0.0%     | 0.0%     |
| <b>Welding</b> Units             | 1,865                   | 9,460     | 11,325    | 1,473                 | 9,626     | 11,099    | -21.0%             | 1.8%     | -2.0%    | 16.6%  | 17.9%    | 17.7%    | 15.0%  | 25.1%    | 23.0%    |
| (million yen)                    | (7,896)                 | (22,517)  | (30,414)  | (6,682)               | (25,213)  | (31,895)  | (-15.4%)           | (12.0%)  | (4.9%)   | (16.4%)  | (12.7%)  | (13.5%)  | (14.6%)  | (17.2%)  | (16.6%)  |
| <b>Painting</b>                  | 163                     | 504       | 667       | 142                   | 732       | 874       | -12.9%             | 45.2%    | 31.0%    | 1.5%   | 1.0%     | 1.0%     | 1.4%   | 1.9%     | 1.8%     |
| Loading/unloading                | 638                     | 2,562     | 3,200     | 435                   | 3,229     | 3,664     | -31.8%             | 26.0%    | 14.5%    | 5.7%   | 4.8%     | 5.0%     | 4.4%   | 8.4%     | 7.6%     |
| Mechanical cutting               | 9                       |           | 9         | 5                     |           | 5         | -44.4%             |          | -44.4%   | 0.1%   |          | 0.0%     | 0.1%   |          | 0.0%     |
| Grinding/deburring               | 37                      | 103       | 140       | 35                    | 370       | 405       | -5.4%              | 259.2%   | 189.3%   | 0.3%   | 0.2%     | 0.2%     | 0.4%   | 1.0%     | 0.8%     |
| Others                           | 6                       | 21        | 27        | 17                    | 21        | 38        | 183.3%             |          | 40.7%    | 0.1%   | 0.0%     | 0.0%     | 0.2%   | 0.1%     | 0.1%     |
| <b>Machining</b> Units           | 690                     | 2,686     | 3,376     | 492                   | 3,620     | 4,112     | -28.7%             | 34.8%    | 21.8%    | 6.2%   | 5.1%     | 5.3%     | 5.0%   | 9.4%     | 8.5%     |
| (million yen)                    | (2,110)                 | (4,693)   | (6,803)   | (1,841)               | (6,778)   | (8,619)   | (-12.8%)           | (44.4%)  | (26.7%)  | (4.4%)   | (2.6%)   | (3.0%)   | (4.0%)   | (4.6%)   | (4.5%)   |
| <b>Surface Mount Technology</b>  | 317                     | 3,992     | 4,309     | 271                   | 2,751     | 3,022     | -14.5%             | -31.1%   | -29.9%   | 2.8%   | 7.6%     | 6.7%     | 2.8%   | 7.2%     | 6.3%     |
| General Assembly                 | 1,815                   | 5,753     | 7,568     | 1,582                 | 3,175     | 4,757     | -12.8%             | -44.8%   | -37.1%   | 16.2%  | 10.9%    | 11.8%    | 16.1%  | 8.3%     | 9.9%     |
| Other Assembly                   | 207                     | 376       | 583       | 142                   | 106       | 248       | -31.4%             | -71.8%   | -57.5%   | 1.8%   | 0.7%     | 0.9%     | 1.4%   | 0.3%     | 0.5%     |
| Bonding                          | 2                       | 1         | 3         |                       |           |           | -100.0%            | -100.0%  | -100.0%  | 0.0%   | 0.0%     | 0.0%     | 0.0%   | 0.0%     | 0.0%     |
| Soldering                        | 2                       |           | 2         |                       |           |           | -100.0%            |          | -100.0%  | 0.0%   |          | 0.0%     | 0.0%   |          | 0.0%     |
| Sealing/glueing                  | 62                      | 70        | 132       | 42                    | 61        | 103       | -32.3%             | -12.9%   | -22.0%   | 0.6%   | 0.1%     | 0.2%     | 0.4%   | 0.2%     | 0.2%     |
| Screwing                         | 26                      |           | 26        | 10                    | 3         | 13        | -61.5%             |          | -50.0%   | 0.2%   |          | 0.0%     | 0.1%   | 0.0%     | 0.0%     |
| Others                           | 115                     | 305       | 420       | 90                    | 42        | 132       | -21.7%             | -86.2%   | -68.6%   | 1.0%   | 0.6%     | 0.7%     | 0.9%   | 0.1%     | 0.3%     |
| <b>Assembly</b> Units            | 2,022                   | 6,129     | 8,151     | 1,724                 | 3,281     | 5,005     | -14.7%             | -46.5%   | -38.6%   | 18.0%  | 11.6%    | 12.7%    | 17.5%  | 8.5%     | 10.4%    |
| (million yen)                    | (5,992)                 | (7,317)   | (13,308)  | (5,822)               | (4,957)   | (10,779)  | (-2.8%)            | (-32.3%) | (-19.0%) | (12.4%)  | (4.1%)   | (5.9%)   | (12.7%)  | (3.4%)   | (5.6%)   |
| <b>Palletizing/depalletizing</b> | 342                     | 815       | 1,157     | 292                   | 602       | 894       | -14.6%             | -26.1%   | -22.7%   | 3.1%   | 1.5%     | 1.8%     | 3.0%   | 1.6%     | 1.9%     |
| <b>Material handling</b>         | 1,826                   | 18,930    | 20,756    | 1,942                 | 13,016    | 14,958    | 6.4%               | -31.2%   | -27.9%   | 16.3%  | 35.8%    | 32.4%    | 19.8%  | 33.9%    | 31.0%    |
| FPD                              | 21                      | 86        | 107       | 9                     | 56        | 65        | -57.1%             | -34.9%   | -39.3%   | 0.2%   | 0.2%     | 0.2%     | 0.1%   | 0.1%     | 0.1%     |
| Semiconductor                    | 2,457                   | 4,212     | 6,669     | 2,126                 | 1,895     | 4,021     | -13.5%             | -55.0%   | -39.7%   | 21.9%  | 8.0%     | 10.4%    | 21.6%  | 4.9%     | 8.3%     |
| Others                           |                         | 154       | 154       |                       | 45        | 45        |                    | -70.8%   | -70.8%   |  | 0.3%     | 0.2%     |  | 0.1%     | 0.1%     |
| <b>Cleanroom</b> Units           | 2,478                   | 4,452     | 6,930     | 2,135                 | 1,996     | 4,131     | -13.8%             | -55.2%   | -40.4%   | 22.1%  | 8.4%     | 10.8%    | 21.7%  | 5.2%     | 8.6%     |
| (million yen)                    | (8,178)                 | (12,219)  | (20,397)  | (7,140)               | (6,331)   | (13,470)  | (-12.7%)           | (-48.2%) | (-34.0%) | (17.0%)  | (6.9%)   | (9.0%)   | (15.6%)  | (4.3%)   | (7.0%)   |
| <b>Other applications</b>        | 635                     | 1,653     | 2,288     | 527                   | 1,302     | 1,829     | -17.0%             | -21.2%   | -20.1%   | 5.7%   | 3.1%     | 3.6%     | 5.4%   | 3.4%     | 3.8%     |
| <b>Unspecified</b>               | 154                     | 3,433     | 3,587     | 202                   | 868       | 1,070     | 31.2%              | -74.7%   | -70.2%   | 1.4%   | 6.5%     | 5.6%     | 2.1%   | 2.3%     | 2.2%     |
| <b>Total</b> Units               | 11,211                  | 52,873    | 64,084    | 9,828                 | 38,411    | 48,239    | -12.3%             | -27.4%   | -24.7%   | 100.0%   | 100.0%   | 100.0%   | 100.0%   | 100.0%   | 100.0%   |
| (million yen)                    | (48,146)                | (177,874) | (226,021) | (45,755)              | (146,333) | (192,087) | (-5.0%)            | (-17.7%) | (-15.0%) | (100.0%)   | (100.0%) | (100.0%) | (100.0%)   | (100.0%) | (100.0%) |

Note)

Data includes dedicated type (Surface Mount Technology / Bonding).

Data is collected in unit of 10,000 yen. However, the results are shown in unit of million yen by rounding the figures of 100,000 yen.

**July - September 2023 Results**  
**Shipments of Manipulators and Robots by Industries**  
**[JARA Member Companies]**

Number of units, ( ) : million yen

| Industries  | 2022<br>Jul. - Sep. | 2023<br>Jul. - Sep. | Change<br>from 2022 | Percentage distribution |                 |
|---|---------------------|---------------------|---------------------|-------------------------|-----------------|
|   |                     |                     |                     | 2022                    | 2023            |
| <b>Metal products</b>                                 | <b>641</b>          | <b>687</b>          | <b>7.2%</b>         | <b>5.7%</b>             | <b>7.0%</b>     |
| Construction and mining machinery                     | 45                  | 45                  |                     | 0.4%                    | 0.5%            |
| Metalworking machinery                                | 233                 | 201                 | -13.7%              | 2.1%                    | 2.0%            |
| Other machinery and equipment                         | 1,011               | 720                 | -28.8%              | 9.0%                    | 7.3%            |
| <b>Machinery and equipment</b> Units                  | <b>1,289</b>        | <b>966</b>          | <b>-25.1%</b>       | <b>11.5%</b>            | <b>9.8%</b>     |
| (million yen)   | <b>(5,118)</b>      | <b>(4,383)</b>      | <b>(-14.4%)</b>     | <b>(10.6%)</b>          | <b>(9.6%)</b>   |
| Electronic computers                                  | 4                   | 5                   | 25.0%               | 0.0%                    | 0.1%            |
| Consumer electrical machinery                         | 286                 | 185                 | -35.3%              | 2.6%                    | 1.9%            |
| Industrial electrical machinery                       | 391                 | 303                 | -22.5%              | 3.5%                    | 3.1%            |
| Communication equipment                               | 394                 | 220                 | -44.2%              | 3.5%                    | 2.2%            |
| Video and audio equipment                             | 14                  | 15                  | 7.1%                | 0.1%                    | 0.2%            |
| Electronic components/devices/circuits                | 1,905               | 1,764               | -7.4%               | 17.0%                   | 17.9%           |
| Other electrical machinery                            | 693                 | 628                 | -9.4%               | 6.2%                    | 6.4%            |
| <b>Electrical machinery</b> Units                     | <b>3,687</b>        | <b>3,120</b>        | <b>-15.4%</b>       | <b>32.9%</b>            | <b>31.7%</b>    |
| (million yen)   | <b>(16,433)</b>     | <b>(15,361)</b>     | <b>(-6.5%)</b>      | <b>(34.1%)</b>          | <b>(33.6%)</b>  |
| <b>Precision instruments</b>                          | <b>80</b>           | <b>59</b>           | <b>-26.3%</b>       | <b>0.7%</b>             | <b>0.6%</b>     |
| Motor vehicles  | 1,192               | 863                 | -27.6%              | 10.6%                   | 8.8%            |
| Auto parts  | 2,167               | 2,086               | -3.7%               | 19.3%                   | 21.2%           |
| <b>Motor vehicles and auto parts</b> Units            | <b>3,359</b>        | <b>2,949</b>        | <b>-12.2%</b>       | <b>30.0%</b>            | <b>30.0%</b>    |
| (million yen)   | <b>(14,032)</b>     | <b>(13,140)</b>     | <b>(-6.4%)</b>      | <b>(29.1%)</b>          | <b>(28.7%)</b>  |
| <b>Other transport equipment</b>                      | <b>84</b>           | <b>53</b>           | <b>-36.9%</b>       | <b>0.7%</b>             | <b>0.5%</b>     |
| <b>Food products, beverages, and tobacco products</b> | <b>215</b>          | <b>198</b>          | <b>-7.9%</b>        | <b>1.9%</b>             | <b>2.0%</b>     |
| <b>Chemical products</b>                              | <b>110</b>          | <b>93</b>           | <b>-15.5%</b>       | <b>1.0%</b>             | <b>0.9%</b>     |
| <b>Plastic products</b>                               | <b>238</b>          | <b>231</b>          | <b>-2.9%</b>        | <b>2.1%</b>             | <b>2.4%</b>     |
| <b>Other industries</b>                               | <b>707</b>          | <b>657</b>          | <b>-7.1%</b>        | <b>6.3%</b>             | <b>6.7%</b>     |
| <b>Non-manufacturing industry</b>                     | <b>84</b>           | <b>96</b>           | <b>14.3%</b>        | <b>0.7%</b>             | <b>1.0%</b>     |
| <b>Unspecified</b>                                    | <b>717</b>          | <b>719</b>          | <b>0.3%</b>         | <b>6.4%</b>             | <b>7.3%</b>     |
| <b>Total domestic shipments</b> Units                 | <b>11,211</b>       | <b>9,828</b>        | <b>-12.3%</b>       | <b>100.0%</b>           | <b>100.0%</b>   |
| (million yen)   | <b>(48,146)</b>     | <b>(45,755)</b>     | <b>(-5.0%)</b>      | <b>17.5%</b>            | <b>20.4%</b>    |
|   |                     |                     |                     | <b>(100.0%)</b>         | <b>(100.0%)</b> |
|   |                     |                     |                     | <b>(21.3%)</b>          | <b>(23.8%)</b>  |
| <b>Export</b> Units                                   | <b>52,873</b>       | <b>38,411</b>       | <b>-27.4%</b>       | <b>82.5%</b>            | <b>79.6%</b>    |
| (million yen)   | <b>(177,874)</b>    | <b>(146,333)</b>    | <b>(-17.7%)</b>     | <b>(78.7%)</b>          | <b>(76.2%)</b>  |
| <b>Grand total</b> Units                              | <b>64,084</b>       | <b>48,239</b>       | <b>-24.7%</b>       | <b>100.0%</b>           | <b>100.0%</b>   |
| (million yen)   | <b>(226,021)</b>    | <b>(192,087)</b>    | <b>(-15.0%)</b>     | <b>(100.0%)</b>         | <b>(100.0%)</b> |

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