

October - December 2020 Results
Production and Shipments of Manipulators and Robots by Applications
[JARA Member Companies]

Number of units, () : million yen

| | October - December 2019 | October - December 2020 | Change from 2019 |
|-------------------|-------------------------|-------------------------|------------------|
| Orders | 48,257 (164,170) | 59,824 (222,287) | 24.0% (35.4%) |
| Production | 44,180 (161,138) | 48,661 (173,714) | 10.1% (7.8%) |

| Shipments Applications | October - December 2019 | | | October - December 2020 | | | Change from 2019 | | | October - December 2019 (percentage distribution) | | | October - December 2020 (percentage distribution) | | |
|----------------------------------|-------------------------|-----------|-----------|-------------------------|-----------|-----------|--------------------|----------|----------|--|----------|----------|--|----------|----------|
| | Domestic shipments | Exports | Total | Domestic shipments | Exports | Total | Domestic shipments | Exports | Total | Domestic shipments | Exports | Total | Domestic shipments | Exports | Total |
| Plastic moulding | 761 | 845 | 1,606 | 586 | 870 | 1,456 | -23.0% | 3.0% | -9.3% | 7.5% | 2.5% | 3.7% | 7.0% | 2.2% | 3.1% |
| Arc welding | 986 | 3,593 | 4,579 | 699 | 4,622 | 5,321 | -29.1% | 28.6% | 16.2% | 9.7% | 10.6% | 10.4% | 8.3% | 11.9% | 11.2% |
| Spot welding | 709 | 2,072 | 2,781 | 687 | 2,691 | 3,378 | -3.1% | 29.9% | 21.5% | 7.0% | 6.1% | 6.3% | 8.2% | 6.9% | 7.1% |
| Laser welding | 3 | 127 | 130 | 1 | 22 | 23 | -66.7% | -82.7% | -82.3% | 0.0% | 0.4% | 0.3% | 0.0% | 0.1% | 0.0% |
| Others | 35 | 7 | 42 | 11 | 26 | 37 | -68.6% | 271.4% | -11.9% | 0.3% | 0.0% | 0.1% | 0.1% | 0.1% | 0.1% |
| Welding Units | 1,733 | 5,799 | 7,532 | 1,398 | 7,361 | 8,759 | -19.3% | 26.9% | 16.3% | 17.1% | 17.2% | 17.2% | 16.6% | 18.9% | 18.5% |
| (million yen) | (8,872) | (11,817) | (20,689) | (8,204) | (14,982) | (23,186) | (-7.5%) | (26.8%) | (12.1%) | (18.7%) | (10.5%) | (12.9%) | (20.0%) | (11.7%) | (13.7%) |
| Painting | 95 | 286 | 381 | 110 | 359 | 469 | 15.8% | 25.5% | 23.1% | 0.9% | 0.8% | 0.9% | 1.3% | 0.9% | 1.0% |
| Loading/unloading | 483 | 2,075 | 2,558 | 340 | 974 | 1,314 | -29.5% | -53.1% | -48.6% | 4.8% | 6.1% | 5.8% | 4.0% | 2.5% | 2.8% |
| Mechanical cutting | 2 | 42 | 44 | 8 | 8 | 8 | 300.0% | -100.0% | -81.8% | 0.0% | 0.1% | 0.1% | 0.1% | 0.1% | 0.0% |
| Grinding/deburring | 58 | 14 | 72 | 55 | 77 | 132 | -5.2% | 450.0% | 83.3% | 0.6% | 0.0% | 0.2% | 0.7% | 0.2% | 0.3% |
| Others | 8 | 12 | 20 | 7 | 12 | 19 | -12.5% | | -5.0% | 0.1% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% |
| Machining Units | 551 | 2,143 | 2,694 | 410 | 1,063 | 1,473 | -25.5% | -50.4% | -45.3% | 5.4% | 6.3% | 6.1% | 4.9% | 2.7% | 3.1% |
| (million yen) | (1,745) | (4,457) | (6,201) | (1,319) | (1,671) | (2,989) | (-24.4%) | (-62.5%) | (-51.8%) | (3.7%) | (3.9%) | (3.9%) | (3.2%) | (1.3%) | (1.8%) |
| Surface Mount Technology | 353 | 2,934 | 3,287 | 228 | 4,257 | 4,485 | -35.4% | 45.1% | 36.4% | 3.5% | 8.7% | 7.5% | 2.7% | 10.9% | 9.5% |
| General Assembly | 1,826 | 8,209 | 10,035 | 1,575 | 6,325 | 7,900 | -13.8% | -22.9% | -21.3% | 18.0% | 24.3% | 22.9% | 18.7% | 16.2% | 16.7% |
| Other Assembly | 145 | 104 | 249 | 148 | 58 | 206 | 2.2% | -44.2% | -17.2% | 1.4% | 0.3% | 0.6% | 1.8% | 0.1% | 0.4% |
| Bonding | | | 2 | | | | -100.0% | | -100.0% | 0.0% | | 0.0% | | | |
| Soldering | 2 | | | | | | | | | | | | | | |
| Sealing/glueing | 15 | 73 | 88 | 38 | 43 | 81 | 153.3% | -41.1% | -8.0% | 0.1% | 0.2% | 0.2% | 0.5% | 0.1% | 0.2% |
| Screwing | 2 | 4 | 6 | 2 | 2 | 4 | | -50.0% | -33.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Others | 126 | 27 | 153 | 108 | 13 | 121 | -14.2% | -51.9% | -20.8% | 1.2% | 0.1% | 0.3% | 1.3% | 0.0% | 0.3% |
| Assembly Units | 1,971 | 8,313 | 10,284 | 1,723 | 6,383 | 8,106 | -12.6% | -23.2% | -21.2% | 19.5% | 24.6% | 23.4% | 20.5% | 16.4% | 17.1% |
| (million yen) | (5,424) | (8,594) | (14,017) | (4,856) | (6,323) | (11,180) | (-10.5%) | (-26.4%) | (-20.2%) | (11.4%) | (7.6%) | (8.7%) | (11.8%) | (4.9%) | (6.6%) |
| Palletizing/depalletizing | 439 | 533 | 971 | 407 | 610 | 1,017 | -7.2% | 14.5% | 4.7% | 4.3% | 1.6% | 2.2% | 4.8% | 1.6% | 2.1% |
| Material handling | 2,307 | 7,523 | 9,830 | 1,611 | 12,681 | 14,292 | -30.2% | 68.6% | 45.4% | 22.8% | 22.3% | 22.4% | 19.1% | 32.6% | 30.2% |
| FPD | 27 | 149 | 176 | 35 | 83 | 118 | 29.6% | -44.3% | -33.0% | 0.3% | 0.4% | 0.4% | 0.4% | 0.2% | 0.2% |
| Semiconductor | 1,319 | 1,609 | 2,928 | 1,364 | 2,222 | 3,586 | 3.4% | 38.1% | 22.5% | 13.0% | 4.8% | 6.7% | 16.2% | 5.7% | 7.6% |
| Others | | 38 | 38 | | 128 | 128 | | 236.8% | 236.8% | 0.1% | 0.1% | 0.1% | 0.3% | 0.3% | 0.3% |
| Cleanroom Units | 1,346 | 1,796 | 3,142 | 1,399 | 2,433 | 3,832 | 3.9% | 35.5% | 22.0% | 13.3% | 5.3% | 7.2% | 16.6% | 6.2% | 8.1% |
| (million yen) | (4,538) | (5,314) | (9,852) | (5,067) | (5,539) | (10,606) | (11.7%) | (4.2%) | (7.7%) | (9.6%) | (4.7%) | (6.1%) | (12.4%) | (4.3%) | (6.3%) |
| Other applications | 485 | 983 | 1,468 | 391 | 819 | 1,210 | -19.3% | -16.7% | -17.6% | 4.8% | 2.9% | 3.3% | 4.6% | 2.1% | 2.6% |
| Unspecified | 93 | 2,623 | 2,716 | 153 | 2,110 | 2,263 | 64.5% | -19.6% | -16.7% | 0.9% | 7.8% | 6.2% | 1.8% | 5.4% | 4.8% |
| Total Units | 10,133 | 33,778 | 43,911 | 8,416 | 38,946 | 47,362 | -16.9% | 15.3% | 7.9% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| (million yen) | (47,504) | (112,954) | (160,458) | (41,024) | (128,302) | (169,326) | (-13.6%) | (13.6%) | (5.5%) | (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.

October - December 2020 Results
Shipments of Manipulators and Robots by Industries
[JARA Member Companies]

Number of units, () : million yen

| Industries | 2019 Oct. - Dec. | 2020 Oct. - Dec. | Change from 2019 | Percentage distribution | |
|---|---------------------|---------------------|---------------------|-------------------------|-----------------|
| | | | | 2019 | 2020 |
| Metal products | 779 | 439 | -43.7% | 7.7% | 5.2% |
| Construction and mining machinery | 38 | 39 | 1.5% | 0.4% | 0.5% |
| Metalworking machinery | 179 | 105 | -41.3% | 1.8% | 1.2% |
| Other machinery and equipment | 729 | 521 | -28.5% | 7.2% | 6.2% |
| Machinery and equipment Units | 946 | 665 | -29.7% | 9.3% | 7.9% |
| (million yen) | (3,965) | (2,984) | (-24.7%) | (8.3%) | (7.3%) |
| Electronic computers | 5 | 37 | 640.0% | 0.0% | 0.4% |
| Consumer electrical machinery | 329 | 181 | -45.1% | 3.3% | 2.2% |
| Industrial electrical machinery | 85 | 180 | 111.1% | 0.8% | 2.1% |
| Communication equipment | 338 | 266 | -21.3% | 3.3% | 3.2% |
| Video and audio equipment | 9 | 6 | -33.3% | 0.1% | 0.1% |
| Electronic components/devices/circuits | 1,181 | 1,175 | -0.5% | 11.7% | 14.0% |
| Other electrical machinery | 849 | 518 | -39.0% | 8.4% | 6.2% |
| Electrical machinery Units | 2,796 | 2,363 | -15.5% | 27.6% | 28.1% |
| (million yen) | (13,873) | (11,024) | (-20.5%) | (29.2%) | (26.9%) |
| Precision instruments | 109 | 78 | -28.4% | 1.1% | 0.9% |
| Motor vehicles | 1,011 | 1,206 | 19.3% | 10.0% | 14.3% |
| Auto parts | 2,476 | 1,630 | -34.2% | 24.4% | 19.4% |
| Motor vehicles and auto parts Units | 3,487 | 2,836 | -18.7% | 34.4% | 33.7% |
| (million yen) | (15,182) | (13,620) | (-10.3%) | (32.0%) | (33.2%) |
| Other transport equipment | 49 | 42 | -14.8% | 0.5% | 0.5% |
| Food products, beverages, and tobacco products | 198 | 178 | -10.1% | 2.0% | 2.1% |
| Chemical products | 71 | 96 | 35.2% | 0.7% | 1.1% |
| Plastic products | 263 | 318 | 20.9% | 2.6% | 3.8% |
| Other industries | 714 | 634 | -11.2% | 7.0% | 7.5% |
| Non-manufacturing industry | 109 | 92 | -15.6% | 1.1% | 1.1% |
| Unspecified | 611 | 675 | 10.5% | 6.0% | 8.0% |
| Total domestic shipments Units | 10,133 | 8,416 | -16.9% | 100.0% | 100.0% |
| (million yen) | (47,504) | (41,024) | (-13.6%) | (23.1%) | (17.8%) |
| Export Units | 33,778 | 38,946 | 15.3% | (76.9%) | (82.2%) |
| (million yen) | (112,954) | (128,302) | (13.6%) | (70.4%) | (75.8%) |
| Grand total Units | 43,911 | 47,362 | 7.9% | (100.0%) | (100.0%) |
| (million yen) | (160,458) | (169,326) | (5.5%) | (100.0%) | (100.0%) |

Note)

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