

October - December 2010 Results
Production and Shipments of Manipulators and Robots by Application Areas (based on Value)
(JARA Member Companies)

(Unit: million yen)

| Production | October - December 2009 | October - December 2010 | Change from 2009 |
|------------|-------------------------|-------------------------|------------------|
| | 62,247 | 120,659 | 93.8% |

| Shipments | October - December 2009 | | | October - December 2010 | | | Change from 2009 | | | October - December 2009 (percentage distribution) | | | October - December 2010 (percentage distribution) | | |
|----------------------------------|-------------------------|--------------------|---------|-------------------------|--------------------|----------|------------------|--------------------|---------|--|--------------------|---------|--|--------------------|---------|
| | Application area | Domestic shipments | Exports | Total | Domestic shipments | Exports | Total | Domestic shipments | Exports | Total | Domestic shipments | Exports | Total | Domestic shipments | Exports |
| Plastic moulding | 1,414 | 1,074 | 2,488 | 1,565 | 2,243 | 3,808 | 10.7% | 108.8% | 53.0% | 8.0% | 2.4% | 4.0% | 5.2% | 2.6% | 3.3% |
| Arc welding | (1,853) | (2,944) | (4,797) | (3,826) | (6,995) | (10,821) | 106.5% | 137.6% | 125.6% | 10.5% | 6.5% | 7.6% | 12.8% | 8.2% | 9.4% |
| Spot welding | (816) | (3,976) | (4,792) | (1,852) | (7,666) | (9,518) | 126.9% | 92.8% | 98.6% | 4.6% | 8.8% | 7.6% | 6.2% | 9.0% | 8.3% |
| Gas welding | | | | | | | | | | | | | | | |
| Laser welding | | | | (28) | (2) | (30) | | | | | | | | | |
| Others | (84) | (10) | (94) | (28) | (29) | (57) | | | | | | | | | |
| Welding | 2,753 | 6,930 | 9,683 | 5,734 | 14,693 | 20,427 | 108.3% | 112.0% | 111.0% | 15.6% | 15.3% | 15.4% | 19.2% | 17.2% | 17.7% |
| Painting | 427 | 395 | 822 | 546 | 1,764 | 2,310 | 27.7% | 346.7% | 180.9% | 2.4% | 0.9% | 1.3% | 1.8% | 2.1% | 2.0% |
| Loading/unloading | (576) | (600) | (1,176) | (847) | (1,710) | (2,556) | | | | | | | | | |
| Mechanical cutting | | | | | | | | | | | | | | | |
| Grinding/deburring | (31) | (10) | (41) | (110) | (33) | (142) | | | | | | | | | |
| Others | (46) | (4) | (50) | (68) | (3) | (71) | | | | | | | | | |
| Machining | 653 | 614 | 1,267 | 1,024 | 1,745 | 2,770 | 57.0% | 184.1% | 118.6% | 3.7% | 1.4% | 2.0% | 3.4% | 2.0% | 2.4% |
| General Assembly | 1,195 | 1,237 | 2,432 | 2,055 | 2,478 | 4,533 | 71.9% | 100.3% | 86.4% | 6.8% | 2.7% | 3.9% | 6.9% | 2.9% | 3.9% |
| Surface Mount Technology | 3,038 | 23,871 | 26,909 | 5,363 | 41,856 | 47,219 | 76.5% | 75.3% | 75.5% | 17.3% | 52.8% | 42.8% | 18.0% | 48.9% | 40.9% |
| Other Assembly | 49 | 119 | 168 | 348 | 252 | 600 | 609.7% | 112.2% | 257.5% | 0.3% | 0.3% | 0.3% | 1.2% | 0.3% | 0.5% |
| (Bonding) | | | | (237) | | (237) | | | | | | | | | |
| (Soldering) | | | | | | | | | | | | | | | |
| (Sealing/glueing) | (43) | (57) | (100) | (58) | (86) | (145) | | | | | | | | | |
| (Screwing) | | | | (9) | (4) | (13) | | | | | | | | | |
| (Others) | (6) | (62) | (68) | (43) | (161) | (205) | | | | | | | | | |
| Assembly | 4,282 | 25,226 | 29,508 | 7,766 | 44,586 | 52,352 | 81.3% | 76.7% | 77.4% | 24.3% | 55.8% | 47.0% | 26.0% | 52.1% | 45.4% |
| Palletizing/depalletizing | 1,307 | 810 | 2,117 | 1,673 | 1,594 | 3,267 | 28.0% | 96.8% | 54.3% | 7.4% | 1.8% | 3.4% | 5.6% | 1.9% | 2.8% |
| Material handling | 1,679 | 2,688 | 4,367 | 3,340 | 7,636 | 10,976 | 98.9% | 184.1% | 151.3% | 9.5% | 5.9% | 7.0% | 11.2% | 8.9% | 9.5% |
| (FPD) | (2,537) | (5,961) | (8,497) | (2,677) | (7,420) | (10,097) | 5.5% | 24.5% | 18.8% | 14.4% | 13.2% | 13.5% | 9.0% | 8.7% | 8.8% |
| (Semiconductor) | (2,011) | (1,031) | (3,042) | (4,088) | (2,272) | (6,360) | 103.3% | 120.4% | 109.1% | 11.4% | 2.3% | 4.8% | 13.7% | 2.7% | 5.5% |
| (Others) | (61) | | (61) | (306) | | (306) | | | | | | | | | |
| Cleanroom | 4,608 | 6,992 | 11,600 | 7,071 | 9,692 | 16,762 | 53.4% | 38.6% | 44.5% | 26.2% | 15.5% | 18.5% | 23.7% | 11.3% | 14.5% |
| Other applications | 483 | 467 | 950 | 1,132 | 1,556 | 2,688 | 134.4% | 233.3% | 183.0% | 2.7% | 1.0% | 1.5% | 3.8% | 1.8% | 2.3% |
| Total | 17,606 | 45,197 | 62,803 | 29,849 | 85,510 | 115,359 | 69.5% | 89.2% | 83.7% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Note)

These statistics include dedicated type (Surface Mount Technology / Bonding).

These statistics are 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 2010 Results
Shipments of Manipulators and Robots by Industrial Branches (based on Value)
(JARA Member Companies)

| Industrial branches | 2009 | 2010 | Change from 2009 | Percentage distribution | |
|---|---------------|----------------|---------------------|-------------------------|-----------------|
| | million yen | million yen | | 2009 | 2010 |
| Metal products | 499 | 906 | 81.6% | 2.8% | 3.0% |
| Construction Machinery | (84) | (140) | 66.5% | 0.5% | 0.5% |
| Metalworking machinery | (141) | (161) | 14.7% | 0.8% | 0.5% |
| Other machinery and equipment | (314) | (517) | 64.8% | 1.8% | 1.7% |
| Machinery and equipment | 539 | 818 | 52.0% | 3.1% | 2.7% |
| Computers | (16) | (69) | 322.8% | 0.1% | 0.2% |
| Consumer electrical machinery | (550) | (617) | 12.2% | 3.1% | 2.1% |
| Industrial electrical machinery | (134) | (714) | 431.8% | 0.8% | 2.4% |
| Info-communications equipment | (2,598) | (3,190) | 22.8% | 14.8% | 10.7% |
| VTR | (53) | (93) | 75.5% | 0.3% | 0.3% |
| Electronic components/devices | (2,499) | (5,173) | 107.0% | 14.2% | 17.3% |
| Other electrical machinery | (2,873) | (5,059) | 76.1% | 16.3% | 16.9% |
| Electrical machinery | 8,722 | 14,915 | 71.0% | 49.5% | 50.0% |
| Precision and optical instruments | 237 | 174 | -26.9% | 1.3% | 0.6% |
| Motor vehicles | (1,068) | (2,491) | 133.2% | 6.1% | 8.3% |
| Auto parts | (2,432) | (4,175) | 71.7% | 13.8% | 14.0% |
| Motor vehicles and auto parts | 3,500 | 6,665 | 90.4% | 19.9% | 22.3% |
| Food products, beverages, and tobacco products | 653 | 725 | 10.9% | 3.7% | 2.4% |
| Plastic products | 1,472 | 1,585 | 7.7% | 8.4% | 5.3% |
| EMS companies (Subconstructors) | 16 | 27 | 68.8% | 0.1% | 0.1% |
| Non-manufacturing | 170 | 1,620 | 853.8% | 1.0% | 5.4% |
| Other industries | 1,799 | 2,415 | 34.2% | 10.2% | 8.1% |
| Total domestic shipments | 17,606 | 29,849 | 69.5% | 100.0% | 100.0% |
| | | | | (28.0%) | (25.9%) |
| Export | 45,197 | 85,510 | 89.2% | (72.0%) | (74.1%) |
| Grand total | 62,803 | 115,359 | 83.7% | (100.0%) | (100.0%) |

Note) These statistics include dedicated type (Surface Mount Technology / Bonding).
These statistics are 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.