

**July - September 2015 Results**  
**Production and Shipments of Manipulators and Robots by Applications**  
**[JARA Member Companies]**

Number of units, ( ): million yen

Production	July - September 2014	July - September 2015	Change from 2014
		33,342 (135,200)	34,708 (133,643)

Shipments	July - September 2014			July - September 2015			Change from 2014			July - September 2014 (percentage distribution)			July - September 2015 (percentage distribution)		
	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
<b>Applications</b>															
<b>Plastic moulding</b>	661	1,307	1,968	725	1,138	1,863	+9.7%	-12.9%	-5.3%	8.7%	5.0%	5.9%	8.9%	4.2%	5.3%
Arc welding	985	4,217	5,202	925	3,640	4,565	-6.1%	-13.7%	-12.2%	12.9%	16.3%	15.5%	11.4%	13.4%	12.9%
Spot welding	1,024	4,415	5,439	828	5,083	5,911	-19.1%	+15.1%	+8.7%	13.5%	17.1%	16.2%	10.2%	18.7%	16.8%
Laser welding	7	74	81	8		8									
Others	10	13	23	20		20									
<b>Welding</b> Units	2,026	8,719	10,745	1,781	8,723	10,504	-12.1%	+0.0%	-2.2%	26.6%	33.7%	32.1%	21.9%	32.1%	29.8%
(million yen)	(8,263)	(22,182)	(30,445)	(8,620)	(23,926)	(32,546)	(+4.3%)	(+7.9%)	(+6.9%)	(24.3%)	(22.3%)	(22.8%)	(23.0%)	(24.7%)	(24.2%)
<b>Painting</b>	163	337	500	186	428	614	+14.1%	+27.0%	+22.8%	2.1%	1.3%	1.5%	2.3%	1.6%	1.7%
Loading/unloading	393	1,237	1,630	526	1,577	2,103	+33.8%	+27.5%	+29.0%	5.2%	4.8%	4.9%	6.5%	5.8%	6.0%
Mechanical cutting		10	10	2	3	5									
Grinding/deburring	38	12	50	40	17	57									
Others	9	3	12	12		12									
<b>Machining</b> Units	440	1,262	1,702	580	1,597	2,177	+31.8%	+26.5%	+27.9%	5.8%	4.9%	5.1%	7.1%	5.9%	6.2%
(million yen)	(1,011)	(1,932)	(2,944)	(1,513)	(2,716)	(4,229)	(+49.6%)	(+40.6%)	(+43.7%)	(3.0%)	(1.9%)	(2.2%)	(4.0%)	(2.8%)	(3.1%)
<b>Surface Mount Technology</b>	354	2,707	3,061	296	2,014	2,310	-16.4%	-25.6%	-24.5%	4.7%	10.5%	9.1%	3.6%	7.4%	6.6%
General Assembly	1,266	4,259	5,525	1,649	4,022	5,671	+30.3%	-5.6%	+2.6%	16.6%	16.5%	16.5%	20.3%	14.8%	16.1%
Other Assembly	20	56	76	31	107	138	+55.0%	+91.1%	+81.6%	0.3%	0.2%	0.2%	0.4%	0.4%	0.4%
Bonding															
Soldering	1		1												
Sealing/glueing	10	54	64	12	52	64									
Screwing	1		1	6		6									
Others	8	2	10	13	55	68									
<b>Assembly</b> Units	1,286	4,315	5,601	1,680	4,129	5,809	+30.6%	-4.3%	+3.7%	16.9%	16.7%	16.7%	20.7%	15.2%	16.5%
(million yen)	(8,919)	(48,907)	(57,826)	(9,102)	(39,526)	(48,627)	(+2.0%)	(-19.2%)	(-15.9%)	(26.3%)	(49.1%)	(43.3%)	(24.3%)	(40.7%)	(36.2%)
<b>Palletizing/depalletizing</b>	242	374	616	216	597	813	-10.7%	+59.6%	+32.0%	3.2%	1.4%	1.8%	2.7%	2.2%	2.3%
<b>Material handling</b>	1,438	5,352	6,790	1,521	6,064	7,585	+5.8%	+13.3%	+11.7%	18.9%	20.7%	20.3%	18.7%	22.3%	21.5%
FPD	35	102	137	53	243	296	+51.4%	+138.2%	+116.1%	0.5%	0.4%	0.4%	0.7%	0.9%	0.8%
Semiconductor	634	774	1,408	705	1,443	2,148	+11.2%	+86.4%	+52.6%	8.3%	3.0%	4.2%	8.7%	5.3%	6.1%
Others					1	1									
<b>Cleanroom</b> Units	669	876	1,545	758	1,687	2,445	+13.3%	+92.6%	+58.3%	8.8%	3.4%	4.6%	9.3%	6.2%	6.9%
(million yen)	(3,331)	(3,349)	(6,680)	(4,840)	(5,966)	(10,806)	(+45.3%)	(+78.1%)	(+61.8%)	(9.8%)	(3.4%)	(5.0%)	(12.9%)	(6.1%)	(8.0%)
<b>Other applications</b>	333	638	971	374	757	1,131	+12.3%	+18.7%	+16.5%	4.4%	2.5%	2.9%	4.6%	2.8%	3.2%
<b>Total</b> Units	7,612	25,887	33,499	8,117	27,134	35,251	+6.6%	+4.8%	+5.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
(million yen)	(33,939)	(99,514)	(133,453)	(37,480)	(97,017)	(134,497)	(+10.4%)	(-2.5%)	(+0.8%)	(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 2015 Results**  
**Shipments of Manipulators and Robots by Industries**  
**[JARA Member Companies]**

Number of units, ( ): million yen

Industries	2014 Jul-Sep	2015 Jul-Sep	Change from 2014	Percentage distribution	
				2014	2015
<b>Metal products</b>	<b>366</b>	<b>574</b>	<b>+56.8%</b>	<b>4.8%</b>	<b>7.1%</b>
Construction and mining machinery	39	37	-5.1%	0.5%	<b>0.5%</b>
Metalworking machinery	192	156	-18.8%	2.5%	1.9%
Other machinery and equipment	168	398	+136.9%	2.2%	4.9%
<b>Machinery and equipment</b>	<b>399</b>	<b>591</b>	<b>+48.1%</b>	<b>5.2%</b>	<b>7.3%</b>
Units				<b>(3.4%)</b>	<b>(8.8%)</b>
(million yen)	<b>(1,162)</b>	<b>(3,282)</b>	<b>(+182.5%)</b>		
Electronic computers	32	35	+9.4%	0.4%	0.4%
Consumer electrical machinery	171	407	+138.0%	2.2%	5.0%
Industrial electrical machinery	119	161	+35.3%	1.6%	2.0%
Communication equipment	229	182	-20.5%	3.0%	2.2%
Video and audio equipment	0	0		0.0%	0.0%
Electronic components/devices/circuits	691	678	-1.9%	9.1%	8.4%
Other electrical machinery	691	797	+15.3%	9.1%	9.8%
<b>Electrical machinery</b>	<b>1,933</b>	<b>2,260</b>	<b>+16.9%</b>	<b>25.4%</b>	<b>27.8%</b>
Units				<b>(32.9%)</b>	<b>(29.5%)</b>
(million yen)	<b>(11,167)</b>	<b>(11,066)</b>	<b>(-0.9%)</b>		
<b>Precision instruments</b>	<b>88</b>	<b>103</b>	<b>+17.0%</b>	<b>1.2%</b>	<b>1.3%</b>
Motor vehicles	1,007	1,010	+0.3%	13.2%	12.4%
Auto parts	1,827	1,758	-3.8%	24.0%	21.7%
<b>Motor vehicles and auto parts</b>	<b>2,834</b>	<b>2,768</b>	<b>-2.3%</b>	<b>37.2%</b>	<b>34.1%</b>
Units				<b>(34.7%)</b>	<b>(33.6%)</b>
(million yen)	<b>(11,774)</b>	<b>(12,588)</b>	<b>(+6.9%)</b>		
<b>Other transport equipment</b>	<b>(49)</b>	<b>(60)</b>	<b>(+22.4%)</b>	<b>(0.6%)</b>	<b>(0.7%)</b>
<b>Food products, beverages, and tobacco products</b>	<b>192</b>	<b>131</b>	<b>-31.8%</b>	<b>2.5%</b>	<b>1.6%</b>
<b>Chemical products</b>	<b>126</b>	<b>75</b>	<b>-40.5%</b>	<b>1.7%</b>	<b>0.9%</b>
<b>Plastic products</b>	<b>688</b>	<b>282</b>	<b>-59.0%</b>	<b>9.0%</b>	<b>3.5%</b>
<b>Other industries</b>	<b>937</b>	<b>1,228</b>	<b>+31.1%</b>	<b>12.3%</b>	<b>15.1%</b>
<b>Non-manufacturing industry</b>	<b>0</b>	<b>45</b>		<b>0.0%</b>	<b>0.6%</b>
<b>Total domestic shipments</b>	<b>7,612</b>	<b>8,117</b>	<b>+6.6%</b>	<b>100.0%</b>	<b>100.0%</b>
Units				<b>22.7%</b>	<b>23.0%</b>
(million yen)	<b>(33,939)</b>	<b>(37,480)</b>	<b>(+10.4%)</b>	<b>(100.0%)</b>	<b>(100.0%)</b>
<b>Export</b>	<b>25,887</b>	<b>27,134</b>	<b>+4.8%</b>	<b>77.3%</b>	<b>77.0%</b>
Units				<b>(74.6%)</b>	<b>(72.1%)</b>
(million yen)	<b>(99,514)</b>	<b>(97,017)</b>	<b>(-2.5%)</b>		
<b>Grand total</b>	<b>33,499</b>	<b>35,251</b>	<b>+5.2%</b>	<b>100.0%</b>	<b>100.0%</b>
Units				<b>(100.0%)</b>	<b>(100.0%)</b>
(million yen)	<b>(133,453)</b>	<b>(134,497)</b>	<b>(+0.8%)</b>		

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

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