

January - December 2008 Results
Production and Shipments of Manipulators and Robots by Application Areas (based on Value)
(JARA Member Companies)

(Unit: million yen)

Production	January - December 2007	January - December 2008	Change from 2007
	575,755	512,784	-10.9%

Shipments	January - December 2007			January - December 2008			Change from 2007			January - December 2007 (percentage distribution)			January - December 2008 (percentage distribution)		
	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total	Domestic shipments	Exports	Total
Application area															
Plastic moulding	14,832	12,667	27,499	13,102	12,958	26,060	-11.7%	2.3%	-5.2%	7.0%	3.4%	4.7%	6.9%	3.8%	4.9%
Arc welding	(29,327)	(24,882)	(54,209)	(29,265)	(25,322)	(54,587)	-0.2%	1.8%	0.7%	13.8%	6.7%	9.3%	15.5%	7.3%	10.2%
Spot welding	(21,723)	(33,589)	(55,312)	(20,148)	(31,737)	(51,885)	-7.3%	-5.5%	-6.2%	10.2%	9.0%	9.4%	10.7%	9.2%	9.7%
Gas welding	(3)		(3)												
Laser welding	(29)	(14)	(43)	(21)	(13)	(34)									
Others	(71)	(49)	(121)	(61)	(24)	(85)									
Welding	51,153	58,535	109,688	49,494	57,096	106,590	-3.2%	-2.5%	-2.8%	24.0%	15.7%	18.7%	26.2%	16.5%	20.0%
Loading/unloading	(6,407)	(5,224)	(11,632)	(6,356)	(5,084)	(11,440)									
Mechanical cutting	(14)		(14)	(304)		(304)									
Grinding/deburring	(817)	(46)	(863)	(849)	(45)	(894)									
Others	(146)	(45)	(191)	(164)	(19)	(183)									
Machining	7,384	5,315	12,699	7,673	5,148	12,821	3.9%	-3.1%	1.0%	3.5%	1.4%	2.2%	4.1%	1.5%	2.4%
General Assembly	16,497	8,027	24,524	14,859	8,074	22,934	-9.9%	0.6%	-6.5%	7.7%	2.2%	4.2%	7.9%	2.3%	4.3%
Surface Mount Technology	49,624	213,570	263,193	42,168	166,642	208,810	-15.0%	-22.0%	-20.7%	23.3%	57.2%	44.9%	22.3%	48.3%	39.1%
Other Assembly	957	728	1,685	682	805	1,487	-28.8%	10.5%	-11.8%	0.4%	0.2%	0.3%	0.4%	0.2%	0.3%
(Bonding)	(7)		(7)												
(Soldering)															
(Sealing/glueing)	(907)	(690)	(1,597)	(643)	(780)	(1,423)									
(Screwing)	(13)		(13)	(15)		(15)									
(Others)	(30)	(38)	(68)	(24)	(25)	(49)									
Assembly	67,078	222,325	289,403	57,709	175,521	233,230	-14.0%	-21.1%	-19.4%	31.5%	59.6%	49.4%	30.5%	50.8%	43.7%
Material handling	16,229	21,805	38,034	16,779	27,054	43,833	3.4%	24.1%	15.2%	7.6%	5.8%	6.5%	8.9%	7.8%	8.2%
Painting	10,369	12,035	22,404	11,642	10,685	22,327	12.3%	-11.2%	-0.3%	4.9%	3.2%	3.8%	6.2%	3.1%	4.2%
(FPD)	(16,748)	(21,671)	(38,420)	(9,337)	(40,519)	(49,855)	-44.3%	87.0%	29.8%	7.9%	5.8%	6.6%	4.9%	11.7%	9.3%
(Semiconductor)	(12,404)	(8,025)	(20,429)	(8,636)	(4,693)	(13,329)	-30.4%	-41.5%	-34.8%	5.8%	2.2%	3.5%	4.6%	1.4%	2.5%
(Others)	(3)		(3)												
Cleanroom	29,155	29,696	58,851	17,973	45,211	63,184	-38.4%	52.2%	7.4%	13.7%	8.0%	10.0%	9.5%	13.1%	11.8%
Other applications	16,678	10,756	27,434	14,627	11,539	26,166	-12.3%	7.3%	-4.6%	7.8%	2.9%	4.7%	7.7%	3.3%	4.9%
Total	212,878	373,134	586,012	188,999	345,212	534,211	-11.2%	-7.5%	-8.8%	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.

January - December 2008 Results
Shipments of Manipulators and Robots by Industrial Branches (based on Value)
(JARA Member Companies)

Industrial branches	2007	2008	Change from 2007	Percentage distribution	
	million yen	million yen		2007	2008
Metal products	6,372	6,644	4.3%	3.0%	3.5%
Construction Machinery	(2,513)	(2,927)	16.5%	1.2%	1.5%
Metalworking machinery	(1,758)	(1,520)	-13.5%	0.8%	0.8%
Other machinery and equipment	(6,449)	(4,966)	-23.0%	3.0%	2.6%
Machinery and equipment	10,720	9,413	-12.2%	5.0%	5.0%
Computers	(3,748)	(934)	-75.1%	1.8%	0.5%
Consumer electrical machinery	(1,056)	(1,042)	-1.3%	0.5%	0.6%
Industrial electrical machinery	(9,201)	(9,287)	0.9%	4.3%	4.9%
Info-communications equipment	(30,201)	(20,147)	-33.3%	14.2%	10.7%
VTR	(484)	(449)	-7.3%	0.2%	0.2%
Electronic components/devices	(17,736)	(11,637)	-34.4%	8.3%	6.2%
Other electrical machinery	(15,655)	(13,788)	-11.9%	7.4%	7.3%
Electrical machinery	78,081	57,284	-26.6%	36.7%	30.3%
Precision and optical instruments	3,140	2,973	-5.3%	1.5%	1.6%
Motor vehicles	(32,378)	(34,623)	6.9%	15.2%	18.3%
Auto parts	(46,755)	(46,421)	-0.7%	22.0%	24.6%
Motor vehicles and auto parts	79,133	81,043	2.4%	37.2%	42.9%
Food products, beverages, and tobacco products	2,455	2,744	11.8%	1.2%	1.5%
Plastic products	14,235	12,531	-12.0%	6.7%	6.6%
EMS companies (Subconstructors)	370	169	-54.3%	0.2%	0.1%
Non-manufacturing	1,320	2,158	63.5%	0.6%	1.1%
Other industries	17,053	14,040	-17.7%	8.0%	7.4%
Total domestic shipments	212,878	188,999	-11.2%	100.0%	100.0%
				(36.3%)	(35.4%)
Export	373,134	345,212	-7.5%	(63.7%)	(64.6%)
Grand total	586,012	534,211	-8.8%	(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.