

The Current Condition of the Japanese Machine Tool Industry

Monthly Machine Tool Orders (March 2020)

The total value of machine tool orders in March was 77.45 billion yen. This was an increase of 0.3% compared to February 2020 and marked the first month of month-on-month growth in three months. However, this figure represented a decrease of 40.7% compared to the same month of the previous year and marked the eighteenth consecutive month of year-on-year decline. The total amount of orders fell below 80 billion yen for two consecutive months. The impact of COVID-19 achieves critical mass worldwide, and low-level orders are continuing. There are concerns over the impact both domestic and overseas markets, and we would like to pay close attention to the trends.

Domestic orders rose by 7.0% over February, amounting to 34.25 billion yen. This marked the second consecutive month of month-on-month growth. Although, this figure was a decline of 36.5% from the same month of the previous year and marked the sixteenth consecutive months of year-on-year decline. Looking at major industries, orders compared to February rose by 17.5% in industrial machinery, fell by 17.7% in motor vehicles, rose by 2.1% in electrical & precision machinery, and by 87.9% in aircraft, shipbuilding & transport equipment.

Foreign orders fell by 4.5% from February to 43.20 billion yen, marked the third consecutive month of month-on-month decline. Furthermore, foreign orders showed a decrease of 43.7% from the same month of the previous year, and this marked the eighteenth consecutive month of year-on-year decline. By region, orders from Asia rose by 18.0% over February to 19.10 billion yen. This was a decrease of 39.1% from the same month of the previous year. Orders from Europe fell by 34.0% from February to 7.21 billion yen. This was a decrease of 61.4% from the same month of the previous year. Orders from North America fell by 6.7% from February, amounting to 16.18 billion yen. This figure was a decline of 34.3% from the same month of the previous year.

Main Statistics of Metal Cutting Machine Tools

Value in Millions of Yen

Period	ORDERS								PRODUCTION				SALES		INVENTORY		EXPORTS		IMPORTS		EMPLOYEES	WHOLE-SALE
	Total Value	%	Domestic Value	%	Foreign Value	%	Sales Value	Order Backlog Value	Unites	Weight ton	Value	%	Unites	Value	Unites	Weight ton	Value	%	Value	%	No. of Persons	PRICE INDEX
C.Y. 2004	1,236,192	145.2	672,839	152.4	563,353	137.6	1,025,726	555,840	79,500	361,935	878,082	127.2	76,091	879,589	4,092	17,384	683,066	121.1	88,245	166.0	22,141	101.6
2005	1,363,203	110.3	746,709	111.0	616,494	109.4	1,275,637	644,180	92,385	453,038	1,110,257	126.4	88,719	1,125,758	5,049	23,025	815,110	119.3	107,453	121.8	22,907	100.0
2006	1,436,970	105.4	733,009	98.2	703,961	114.2	1,407,258	684,266	100,171	492,096	1,211,230	109.1	94,383	1,232,261	6,963	26,930	921,456	113.0	135,649	126.2	23,503	101.1
2007	1,589,991	110.6	726,424	99.1	863,567	122.7	1,522,632	758,815	106,282	515,268	1,303,164	107.6	98,752	1,317,226	9,662	32,006	892,032	96.8	72,601	53.5	24,624	100.6
2008	1,301,147	81.8	566,820	78.0	734,327	85.0	1,472,029	574,383	95,310	492,188	1,249,184	95.9	88,319	1,267,372	11,436	31,685	874,723	98.1	60,226	83.0	25,323	101.5
2009	411,809	31.6	159,648	28.2	252,161	34.3	596,920	382,592	28,281	180,025	486,283	38.9	29,894	514,793	9,547	22,656	321,399	36.7	28,717	47.7	24,542	100.2
2010	978,622	237.6	307,527	192.6	671,095	266.1	851,272	508,446	67,607	302,376	813,002	167.2	67,954	820,517	10,464	24,489	608,551	189.3	30,579	106.5	23,380	100.0
2011	1,326,188	135.5	421,599	137.1	904,589	134.8	1,179,316	653,138	85,483	432,693	1,149,394	141.4	87,452	1,170,069	10,437	28,720	855,195	140.5	43,442	142.1	24,348	102.5
2012	1,212,445	91.4	375,822	89.1	836,623	92.5	1,329,650	543,736	93,649	429,207	1,151,980	100.2	95,824	1,173,114	9,894	34,483	945,594	110.6	51,080	117.6	25,524	102.7
2013	1,117,049	92.1	400,803	106.6	716,246	85.6	1,094,673	566,113	56,780	320,904	886,372	76.9	62,518	911,286	7,890	31,779	766,495	81.1	63,016	123.4	24,716	101.2
2014	1,509,397	135.1	496,391	123.8	1,013,006	141.4	1,422,184	652,213	99,407	454,866	1,186,293	133.8	102,231	1,221,172	9,924	34,308	961,862	125.5	78,087	123.9	25,188	104.0
2015	1,480,592	98.1	586,240	118.1	894,352	88.3	1,532,603	607,499	102,101	489,253	1,258,087	106.1	105,147	1,310,282	11,274	38,620	932,123	96.9	91,580	117.3	25,826	100.0
2016	1,250,003	84.4	530,545	90.5	719,458	80.4	1,280,584	522,527	67,991	374,124	1,012,810	80.5	73,443	1,058,471	9,321	35,371	666,519	71.5	78,249	85.4	26,252	100.5
2017	1,645,554	131.6	629,369	118.6	1,016,185	141.2	1,467,285	694,231	88,644	426,841	1,129,823	111.6	92,174	1,181,505	9,936	33,453	786,221	118.0	72,276	92.4	26,161	99.3
2018	1,815,771	110.3	750,343	119.2	1,065,428	104.8	1,684,768	826,197	84,803	454,619	1,236,790	109.5	90,160	1,297,087	9,167	31,553	881,700	112.1	90,574	125.3	27,348	101.1
2019	1,229,900	67.7	493,188	65.7	736,712	69.1	1,501,633	561,265	62,220	380,214	1,071,910	86.7	66,250	1,118,606	9,494	33,828	735,108	83.4	85,996	94.9	27,470	103.7
F.Y. 2015	1,398,968	88.6	579,295	109.9	819,673	77.9	1,471,868	548,277	90,060	453,903	1,185,130	94.0	94,378	1,233,552	9,761	34,724	844,991	82.4	87,710	111.1	26,036	100.4
2016	1,289,310	92.2	531,575	91.8	757,735	92.4	1,251,224	531,962	67,060	366,470	989,202	83.5	70,973	1,028,610	9,212	32,928	649,014	76.8	75,944	86.6	26,196	100.2
2017	1,780,339	138.1	687,975	129.4	1,092,364	144.2	1,578,249	727,486	97,915	457,502	1,203,453	121.7	102,009	1,259,109	9,532	30,607	867,434	133.7	74,455	98.0	26,436	99.5
2018	1,689,133	94.9	703,366	102.2	985,767	90.2	1,666,400	751,183	76,122	438,155	1,209,598	100.5	81,140	1,272,059	9,171	29,803	841,164	97.0	94,726	127.2	27,415	101.8
2019	1,099,541	65.1	446,639	63.5	652,902	66.2	1,367,888	490,671														104.5
2017 4-6	406,555	130.0	156,212	121.5	250,343	136.0	317,028	620,525	22,260	101,610	265,123	114.1	22,567	268,381	9,920	35,641	188,702	114.9	16,072	88.1	26,256	99.1
7-9	416,280	136.3	168,011	120.1	248,269	150.1	408,029	628,824	24,416	113,136	298,176	121.5	25,917	318,685	9,514	32,076	211,049	125.2	19,215	111.7	26,194	99.7
10-12	465,059	148.3	174,397	131.8	290,662	160.2	394,003	694,231	24,151	115,399	301,192	122.4	24,834	313,076	9,936	33,453	221,293	146.5	19,086	84.5	26,169	99.3
2018 1-3	492,445	137.7	189,355	144.8	303,090	133.6	459,189	727,486	27,088	127,357	338,962	127.8	28,691	358,967	9,532	30,607	246,390	149.2	20,081	112.2	27,123	99.8
4-6	471,600	116.0	194,388	124.4	277,212	110.7	390,124	808,962	20,437	108,721	294,341	111.0	21,449	298,271	9,559	34,290	219,335	116.2	19,814	123.3	27,400	101.5
7-9	444,980	106.9	194,217	115.6	250,763	101.0	419,902	834,040	19,155	111,159	305,640	102.5	20,678	322,923	9,193	32,470	219,327	103.9	22,039	114.7	27,448	101.5
10-12	406,746	87.5	172,383	98.8	234,363	80.6	415,553	826,197	18,123	107,382	297,847	98.9	19,342	316,926	9,167	31,553	196,648	88.9	28,640	150.1	27,421	101.5
2019 1-3	365,807	74.3	142,378	75.2	223,429	73.7	440,821	751,183	18,407	110,893	311,770	92.0	19,671	333,939	9,171	29,803	205,854	83.5	24,233	120.7	27,391	102.9
4-6	316,119	67.0	123,934	63.8	192,185	69.3	351,564	715,738	15,597	94,090	263,920	89.7	16,494	265,575	9,518	33,984	187,244	85.4	21,169	106.8	27,596	103.1
7-9	288,738	64.9	124,777	64.2	163,961	65.4	375,809	628,667	14,957	92,884	262,844	86.0	16,263	278,378	9,247	32,609	178,320	81.3	20,601	93.5	27,505	103.4
10-12	259,236	63.7	102,099	59.2	157,137	67.0	333,439	561,265	13,259	82,347	233,376	78.4	13,822	240,714	9,494	33,828	163,690	83.2	19,993	69.8	27,387	105.5
2020 1-3	235,448	64.4	95,829	67.3	139,619	62.5	307,076	490,671														106.0
2018 10	139,619	99.3	57,655	101.7	81,964	97.6	123,462	850,197	6,016	34,284	93,143	102.8	6,155	96,349	9,419	33,427	62,730	94.4	10,883	171.6	27,435	99.6
11	131,605	83.0	57,576	106.0	74,029	71.1	140,074	841,728	6,164	37,171	104,411	105.3	6,488	110,827	9,505	33,215	64,994	91.0	9,440	145.6	27,438	103.2
12	135,522	81.7	57,152	90.2	78,370	76.4	152,017	826,197	5,943	35,927	100,293	90.0	6,699	109,750	9,167	31,553	68,923	82.6	8,318	132.9	27,389	101.7
2019 1	125,401	81.2	46,772	84.1	78,629	79.6	115,549	836,049	5,525	32,383	89,319	95.1	5,515	91,191	9,611	33,443	51,287	80.0	9,086	130.7	27,388	103.4
2	109,742	70.7	41,668	71.6	68,074	70.2	130,770	815,021	5,937	35,550	96,602	89.9	6,173	97,982	9,767	34,216	69,272	92.0	7,620	121.3	27,355	103.2
3	130,664	71.5	53,938	71.4	76,726	71.5	194,502	751,183	6,945	42,960	125,849	91.4	7,983	144,766	9,171	29,803	85,295	79.8	7,527	109.9	27,429	102.1
4	108,656	66.6	43,524	63.5	65,132	68.9	104,410	755,429	5,249	30,155	85,086	91.5	5,235	83,266	9,545	31,724	64,085	87.6	6,496	131.1	27,627	102.6
5	108,535	72.7	42,710	67.9	65,825	76.2	121,706	742,258	5,162	31,937	87,723	92.8	5,776	90,007	9,361	32,592	61,890	95.3	8,435	97.1	27,620	102.5
6	98,928	62.1	37,700	59.9	61,228	63.6	125,448	715,738	5,186	31,998	91,111	85.3	5,483	92,302	9,518	33,984	61,268	75.4	6,237	101.0	27,540	104.1
7	101,278	67.0	41,171	61.1	60,107	71.8	114,849	702,167	4,914	30,313	84,177	81.3	5,092	84,438	9,687	35,646	61,300	82.8	6,972	95.0	27,537	103.3
8	88,487	63.0	37,541	60.2	50,946	65.3	112,872	677,782	4,712	28,372	79,462	85.6	4,651	81,697	10,079	35,839	58,354	84.2	7,288	104.6	27,505	103.7
9	98,973	64.5	46,065	71.5	52,908	59.4	148,088	628,667	5,331	34,199	99,205	90.7	6,520	112,243	9,247	32,609	58,666	77.2	6,341	82.0	27,474	103.3
10	87,453	62.6	33,423	58.0	54,030	65.9	95,698	620,422	4,452	26,248	73,626	79.0	4,162	69,336	9,814	35,380	52,211	83.2	6,608	60.7	27,446	105.9
11	81,669	62.1	31,369	54.5	50,300	67.9	105,787	596,304	4,235	27,454	75,730	72.5	4,568	79,531	9,750	35,474	54,465	83.8	6,733	71.3	27,464	105.8
12	90,114	66.5	37,307	65.3	52,807	67.4	131,954	561,265	4,572	28,645	84,020	83.8	5,092									

NET NEW ORDERS – METAL CUTTING MACHINE TOOLS IN JAPAN

(Value: in Millions of Yen)

Industry \ Period		Total 2019	19/18 (%)	19/10-19/12	20/01-20/03	Previous Quarter (%)	year-to-year (%)	20/01-20/03	year-to-year (%)	March '20	Mar. 20/Feb. 20 (%)	Mar. 20/Mar. 19 (%)
1. Primary Metals		15,087	60.4	3,071	4,008	130.5	92.4	4,008	92.4	1,216	96.3	65.0
2. Fabricated Metal Products		32,024	89.9	6,852	6,102	89.1	67.4	6,102	67.4	2,794	157.7	72.8
Machinery & Equipment Industries	3. Industrial Machinery	202,203	68.0	39,355	39,426	100.2	65.8	39,426	65.8	15,558	117.5	68.9
	(of which construction machinery)	11,535	89.9	2,200	2,629	119.5	58.6	2,629	58.6	1,057	107.0	71.9
	(of which dies and molds)	20,987	74.2	3,769	3,663	97.2	63.2	3,663	63.2	1,476	129.0	65.0
	4. Motor Vehicles	139,762	56.3	29,803	25,588	85.9	63.3	25,588	63.3	7,473	82.3	49.3
	(of which auto parts)	101,224	61.2	21,495	15,259	71.0	53.5	15,259	53.5	4,332	76.4	38.6
	5. Electrical Machinery	23,549	51.6	4,424	5,572	125.9	77.0	5,572	77.0	1,928	109.7	67.0
	6. Precision Machinery	19,476	66.2	3,533	3,647	103.2	58.8	3,647	58.8	1,165	91.5	59.5
	5 – 6. Electrical & Precision Machinery (Sub Total)	43,025	57.3	7,957	9,219	115.9	68.6	9,219	68.6	3,093	102.1	64.0
	7. Aircraft, Shipbuilding & Transport equipment	24,425	91.3	7,043	3,985	56.6	67.3	3,985	67.3	1,509	187.9	67.6
	(of which aircraft)	11,980	82.2	3,353	2,303	68.7	69.2	2,303	69.2	900	1058.8	78.9
3 – 7. Sub total		409,415	63.2	84,158	78,218	92.9	65.3	78,218	65.3	27,633	105.6	61.7
8. Other Machinery & Equipment		15,777	79.5	3,067	3,147	102.6	76.7	3,147	76.7	1,139	94.4	78.9
9. Government, Public Agencies & Schools		2,510	84.6	887	396	44.6	107.0	396	107.0	71	82.6	473.3
10. Others		12,051	101.1	2,890	2,543	88.0	87.2	2,543	87.2	965	103.4	81.2
11. Trading Companies		6,324	83.0	1,174	1,415	120.5	74.4	1,415	74.4	428	74.4	54.5
1-11. Domestic Total		493,188	65.7	102,099	95,829	93.9	67.3	95,829	67.3	34,246	107.0	63.5
12. Foreign		736,712	69.1	157,137	139,619	88.9	62.5	139,619	62.5	43,201	95.5	56.3
1-12. Grand Total		1,229,900	67.7	259,236	235,448	90.8	64.4	235,448	64.4	77,447	100.3	59.3
(of which: NC machines)		1,206,231	67.6	254,596	230,942	90.7	64.4	230,942	64.4	75,719	99.4	59.1
Sales		1,501,633	89.1	333,439	307,076	92.1	69.7	307,076	69.7	126,681	137.2	65.1
(of which: NC machines)		1,474,295	89.0	327,228	300,594	91.9	69.5	300,594	69.5	123,628	136.6	64.8
Order Backlog		561,265	67.9	561,265	490,671	87.4	65.3	490,671	65.3	490,671	90.9	65.3
(of which: NC machines)		542,212	67.8	542,212	473,594	87.3	65.3	473,594	65.3	473,594	90.8	65.3

NET NEW ORDERS BY DESTINATION

(Value in Millions of yen)

2020		Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sep.		Oct.		Nov.		Dec.		Total 2020					
			%		%		%		%		%		%		%		%		%		%		%		%		%				
Asia	East Asia	Korea	2,000	128.7	1,767	73.7	1,432	76.9																			5,199	89.5			
		Taiwan	1,801	97.9	1,243	78.6	1,417	72.0																				4,461	82.8		
		China	10,742	64.6	7,380	52.4	11,299	56.2																				29,421	57.9		
		Other	1	-	23	-	10	-																				34	-		
		East Asia Total	14,544	72.7	10,413	57.7	14,158	59.2																				39,115	63.1		
	Other Asia	Thailand	987	46.6	2,058	97.9	1,475	122.6																				4,520	83.4		
		Malaysia	167	16.3	698	167.8	1,241	232.4																				2,106	106.8		
		Singapore	257	59.4	168	34.9	475	73.8																				900	57.8		
		Philippine	176	33.1	129	29.9	261	-																					566	63.7	
		Indonesia	812	116.5	516	81.8	368	51.8																					1,696	83.2	
Vietnam		718	49.1	866	79.5	257	17.2																					1,841	45.5		
India		1,847	31.3	1,338	34.9	860	29.4																					4,045	32.0		
Other	3	0.4	1	33.3	3	33.3																					7	0.9			
Other Asia Total	4,967	38.5	5,774	64.2	4,940	66.4																					15,681	53.4			
Sub Total	19,511	59.3	16,187	59.8	19,098	60.9																					54,796	60.0			
Europe	U E	Germany	3,141	79.2	2,348	50.2	1,349	33.7																				6,838	54.1		
		U. K.	1,555	88.2	1,339	46.3	796	31.8																					3,690	51.5	
		Italy	1,681	67.1	764	32.6	521	17.5																					2,966	37.9	
		France	1,004	38.7	795	59.6	425	22.4																					2,224	38.2	
		Central Europe	1,276	106.0	1,724	74.4	787	49.6																					3,787	74.1	
		Other	2,113	48.4	2,307	86.4	1,886	60.3																					6,306	62.0	
		Sub Total	10,770	65.7	9,277	57.2	5,764	35.8																					25,811	53.0	
	Other West Europe	Turkey	357	57.5	673	217.8	422	82.3																					1,452	100.6	
		Switzerland	559	45.4	500	60.2	320	31.4																					1,379	44.8	
		East Europe	51	16.6	175	81.4	-4	-																					222	23.7	
		Russia - Other	543	70.9	177	52.4	571	106.3																						1,291	78.7
		Sub Total	12,367	63.8	10,915	60.3	7,205	38.6																					30,487	54.3	
		Other West Europe	1,003	52.7	1,286	98.5	874	54.5																						3,163	65.7
North America & Central America	U. S. A.	16,147	80.6	15,202	84.5	12,196	54.3																					43,545	72.0		
	Canada	1,111	63.4	1,277	68.5	644	64.8																					3,032	65.8		
	Mexico	915	32.5	862	59.7	3,339	285.6																					5,116	94.3		
Sub Total	18,173	73.9	17,341	81.4	16,179	65.7																						51,693	73.3		
South America	Brazil	377	105.0	313	68.6	210	21.8																					900	50.6		
	Other	59	368.8	34	25.0	21	14.8																					114	38.8		
	Sub Total	436	116.3	347	58.6	231	20.9																					1,014	48.9		
Oceania	Australia	324	59.2	234	49.6	300	67.3																					858	58.6		
	Other	2	1.8	10	9.5	0	-																					12	5.6		
Sub Total	326	49.7	244	42.3	300	67.1																						870	51.8		
Middle East	336	81.2	185	58.2	130	29.4																						651	55.5		
Africa	42	14.7	8	5.6	58	100.0																						108	22.2		
Grand Total	51,191	65.1	45,227	66.4	43,201	56.3																						139,619	62.5		
Of which NC	50,721	65.5	45,064	67.1	42,726	56.5																						138,511	62.9		

(Note) It will be described as "-", if the actual value is "negative" or "0" or no actual value.

Japan Machine Tool Builders' Association