

Development of the German Machine Tool Industry 2015 - 2020

<i>in Mill. EUR</i>	2015	2016	2017	2018	2019	2020	%-18/17	%-19/18	%-20/19
Production	15 087	15 007	16 006	17 125	17 040	12 203	+7	-0	-28
Cutting + physico-chemical process machine tools*	8 456	8 169	8 806	9 347	9 598	6 603	+6	+3	-31
Forming + separating machine tools	2 752	2 943	3 004	3 239	3 043	2 227	+8	-6	-27
Parts, accessories	2 583	2 540	2 753	3 032	2 881	2 220	+10	-5	-23
Installation, repair/maintenance	1 295	1 355	1 442	1 506	1 518	1 153	+4	+1	-24
Order intake	14 950	15 950	17 220	17 460	12 280	8 600	+1	-30	-30
Domestic	4 860	4 850	5 340	5 600	4 110	2 610	+5	-27	-36
Foreign	10 090	11 100	11 880	11 860	8 170	5 990	-0	-31	-27
Production (excl. installation, repair/maintenance)	13 791	13 652	14 563	15 619	15 523	11 050	+7	-1	-29
– Exports	9 506	9 374	10 292	10 757	10 010	7 280	+5	-7	-27
= Domestic sales	4 286	4 278	4 271	4 862	5 512	3 769	+14	+13	-32
+ Imports	3 431	3 420	3 593	4 080	3 775	2 448	+14	-7	-35
= Domestic consumption	7 717	7 697	7 864	8 942	9 287	6 217	+14	+4	-33
<i>Index 2015=100</i>									
Production (nominal)	100.0	99.5	106.1	113.5	112.9	80.9	+7.0	-0.5	-28.4
Order intake (nominal)	100.0	106.7	115.2	116.8	82.1	57.5	+1.4	-29.7	-30.0
Producer prices	100.0	101.4	102.5	104.4	106.2	107.4	+1.8	+1.7	+1.1
Employment (<i>thousands</i>)**	68.5	69.0	70.9	73.5	73.4	70.0	+3.6	-0.2	-4.5
Export rate (%)	68.9	68.7	70.7	68.9	64.5	65.9			
Import rate (%)	44.5	44.4	45.7	45.6	40.6	39.4			
Capacity utilization (%)**	88.2	88.0	91.6	93.9	88.4	70.9			
<i>in Bill. EUR</i>									
World production (excl. parts, install., repair/maint.)***	73.0	71.5	76.0	78.2	72.3	58.0			
China	19.9	21.1	21.7	19.9	17.3	16.9			
Germany	11.2	11.1	11.8	12.6	12.6	8.8			
Japan	12.0	10.9	11.5	12.3	11.8	8.2			
USA	4.7	5.0	5.5	6.1	5.9	4.7			
Italy	5.3	4.7	4.8	5.4	4.5	4.0			

* from 2019 incl. Additive Manufacturing

** Average of year

*** 2020 = preliminary

Sources: VDW, VDMA, German Statistical Office, National Associations, Ifo-Institute



The German Machine Tool Industry Data and Facts 2020

Machine tool industry share 2020 (%)

	Production	Exports	Employment
in total manufacturing industry	0.90	0.66	1.30
in mechanical engineering	6.00	4.52	6.87

Structure by size groups 2020 (%)

Number of employees	Companies	Employment	Production
1 - 50	10.7	0.6	0.6
51 - 100	7.1	1.0	1.3
101 - 250	26.2	9.1	10.9
251 - 500	31.0	23.5	20.2
501 - 1000	13.1	20.2	21.4
> 1000	11.9	45.5	45.6

Geographical distribution 2020 (%)

German Countries	Companies	Employment	Production
Baden-Württemberg	40.5	44.9	50.9
North Rhine-Westphalia	16.7	15.2	17.8
Bavaria	15.5	29.3	20.7
Thuringia	8.3	4.2	5.5
Saxony	7.1	3.3	2.6
Others	11.9	3.0	2.4

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German Machine Tool Production and Trade by Machinery Groups 2020*

	Production			Exports			Imports		
	Mill. EUR	%-20/19	%-share	Mill. EUR	%-20/19	%-share	Mill. EUR	%-20/19	%-share
Laser, ultrasonic, ion/plasma beam machines	574	-25	4.7	770	-27	10.6	360	-29	14.7
Electrical discharge machines	37	-37	0.3	58	-28	0.8	41	-44	1.7
3D printers for additive manufacturing	148	-6	1.2	-	-	-	-	-	-
Machining centers (incl. flexible systems)	1 499	-38	12.3	1 403	-31	19.3	239	-47	9.8
Transfer lines and unit construction machines	1 019	-18	8.4	141	-17	1.9	36	-40	1.5
Turning machines, turning centers	940	-38	7.7	690	-31	9.5	309	-45	12.6
Drilling machines	45	-27	0.4	41	-46	0.6	23	-8	0.9
Boring machines, boring-milling machines	100	-46	0.8	138	-17	1.9	50	-40	2.0
Milling machines	775	-29	6.3	253	-24	3.5	53	-22	2.2
Grinding, honing, polishing and lapping machines	848	-30	6.9	705	-31	9.7	218	-46	8.9
Gear cutting and finishing machines	383	-33	3.1	302	-34	4.2	33	-53	1.3
Sawing and cutting-off machines	172	-24	1.4	114	-29	1.6	35	-26	1.4
Other metal cutting machine tools	63	-45	0.5	69	-41	0.9	8	+19	0.3
Metal cutting + physico-chemical process machine tools	6 603	-31	54.1	4 684	-30	64.3	1 404	-41	57.3
NC controlled	5 975	-32	49.0	4 184	-30	57.5	1 203	-42	49.2
Hammers and forging machines (incl. presses)	158	-7	1.3	75	-26	1.0	31	+4	1.3
Bending, folding and straightening machines (incl. presses)	575	-34	4.7	357	-19	4.9	132	-23	5.4
Shearing, punching and notching machines (incl. presses)	382	-26	3.1	256	-31	3.5	66	-47	2.7
Other presses	442	-26	3.6	282	-28	3.9	80	-6	3.3
Wire working machines (excl. wire drawing machines)	205	-23	1.7	-	-	-	31	-8	1.3
Other metal forming machine tools	465	-19	3.8	326	-15	4.5	26	-24	1.1
Metal forming + separating machine tools	2 227	-27	18.3	1 297	-23	17.8	366	-23	15.0
NC controlled	979	-32	8.0	690	-28	9.5	189	-30	7.7
Metal working machine tools	8 830	-30	72.4	5 981	-29	82.2	1 770	-38	72.3
NC controlled	6 955	-34	57.0	4 874	-30	66.9	1 393	-40	56.9
Parts and accessories	2 220	-23	18.2	1 299	-21	17.8	678	-27	27.7
Installation, repair/maintenance (only production)	1 153	-24	9.5						
Machine tools total	12 203	-28	100.0	7 280	-27	100.0	2 448	-35	100.0

German Machine Tool Trade 2020

	Machines		Parts		Total	
	Mill. EUR	%-20/19	Mill. EUR	%-20/19	Mill. EUR	%-20/19
Exports	5 981	-27	1 299	-27	7 280	-27
China	1 116	-33	166	-33	1 282	-33
USA	749	-17	177	-17	925	-17
France	290	-26	65	-26	355	-26
Poland	292	-25	54	-25	347	-25
Austria	272	-28	69	-28	341	-28
Italy	277	-34	63	-34	340	-34
Switzerland	199	-27	102	-27	301	-27
Russia	201	-5	23	-5	224	-5
Czech Republic	166	-40	47	-40	213	-40
United Kingdom	172	-24	38	-24	211	-24
Netherlands	127	-23	75	-23	202	-23
Sweden	177	-5	23	-5	201	-5
Mexico	149	-36	31	-36	180	-36
Turkey	151	-4	24	-4	175	-4
Spain	146	-35	27	-35	173	-35
Hungary	119	-39	40	-39	159	-39
India	115	-33	26	-33	141	-33
Japan	118	-33	21	-33	139	-33
South Korea	97	-26	16	-26	113	-26
Slovakia	86	-45	21	-45	107	-45
Imports	1 770	-35	678	-35	2 448	-35
Switzerland	518	-38	106	-38	624	-38
Italy	152	-39	73	-39	225	-39
Japan	183	-42	42	-42	225	-42
Austria	103	-19	58	-19	161	-19
China	119	-26	35	-26	154	-26
Czech Republic	84	-41	48	-41	132	-41
South Korea	104	-43	5	-43	108	-43
USA	60	-30	39	-30	98	-30
Poland	39	-36	42	-36	81	-36
Spain	68	-23	11	-23	78	-23

Sources: VDW, VDMA, German Statistical Office, National Associations, Ifo-Institute
Trade figures include used and complete overhauled machines.