

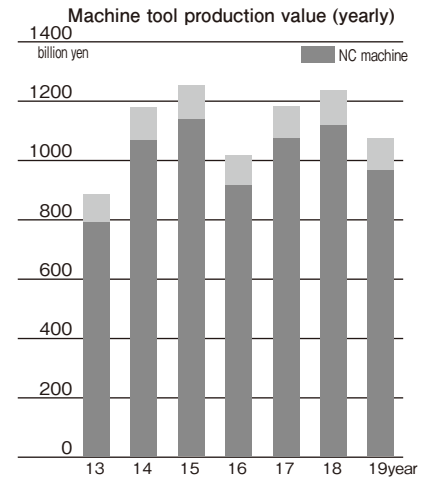
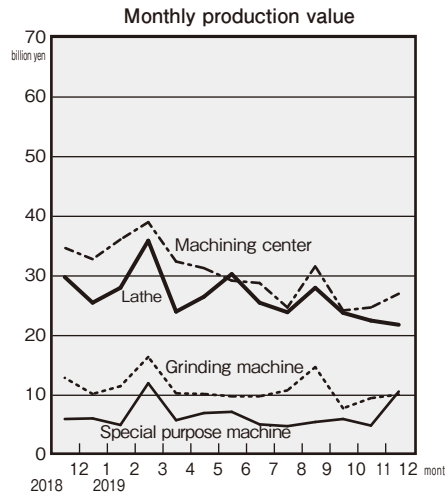
[December, 2019] Japanese FA related products' Production

Unit: million yen

Machine tool

| | Dec., 2019 | monthly growth | yearly growth |
|-------------------------|---------------------------|----------------|------------------------|
| Machine tool | 84,020 | 110.9 | 83.7 |
| Lathe | 22,110 | 96.6 | 73.4 |
| NC lathe | 19,625 | 97.1 | 74.9 |
| Vertical | 2,135 | 107.9 | 69.0 |
| Horizontal | 17,490 | 96.0 | 75.7 |
| Grinding machine | 10,401 | 105.6 | 78.6 |
| Special purpose machine | 10,960 | 207.9 | 173.5 |
| Machining center | 27,310 | 108.9 | 78.0 |
| NC drilling machine | 169 | 93.9 | 46.6 |
| NC boring machine | 937 | 102.5 | 128.0 |
| NC milling machine | 490 | 124.4 | 72.0 |
| NC EDM | 2,345 | 99.1 | 69.6 |
| Total | 19/Jan.-Dec. 1,071,910 | | yearly growth 86.8% |

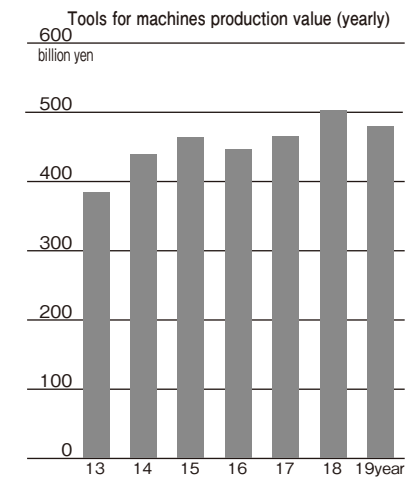
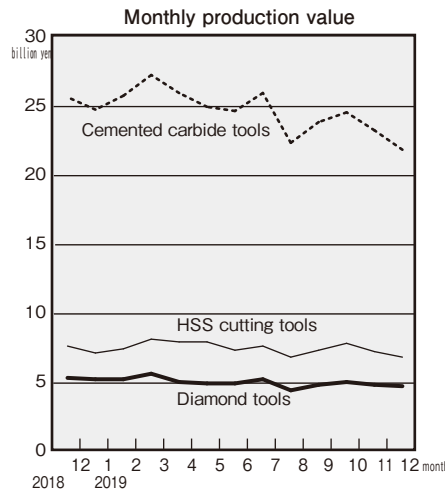
Source : Ministry of Economy, Trade and Industry



Cutting tool

| | Dec., 2019 | monthly growth | yearly growth |
|------------------------|-------------------------|----------------|------------------------|
| Tools for machines | 35,997 | 94.5 | 86.3 |
| HSS | 7,021 | 93.7 | 89.9 |
| Drills | 1,433 | 94.6 | 87.0 |
| Milling cutters | 545 | 90.7 | 69.8 |
| Gear cutters | 740 | 95.7 | 89.4 |
| Taps and dies | 2,977 | 90.9 | 94.5 |
| Diamond tools | 4,987 | 98.8 | 89.4 |
| Segments tools | 560 | 111.1 | 108.5 |
| CBN tools | 1,945 | 94.6 | 80.1 |
| Cemented carbide tools | 22,042 | 93.9 | 85.2 |
| Carbide chips | 10,673 | 95.2 | 81.5 |
| Milling cutter | 824 | 110.3 | 101.6 |
| Total | 19/Jan.-Dec. 478,881 | | yearly growth 95.4% |

Source : Ministry of Economy, Trade and Industry



Industrial robot

| | Dec., 2019 | monthly growth | yearly growth |
|--|-------------------------|----------------|------------------------|
| Industrial robot | 45,856 | 109.7 | 91.4 |
| Playback robots | 20,576 | 100.3 | 89.9 |
| Playback (unit.) | 10,185 | 103.7 | 90.9 |
| NC | 19,617 | 122.8 | 94.7 |
| NC(unit.) | 2,164 | 101.0 | 60.0 |
| Parts, accessory for industrial robots | 3,611 | 101.5 | 80.1 |
| Total | 19/Jan.-Dec. 539,085 | | yearly growth 82.8% |

*Due to the decrease in the number of sites surveyed, data on sequence robots and intelligent robots have been closed to the public since January 2019.

Source : Ministry of Economy, Trade and Industry

