

RESEARCH BULLETIN

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Number of 300mm IC Wafer Fabs Expected to Reach 121 in 2019

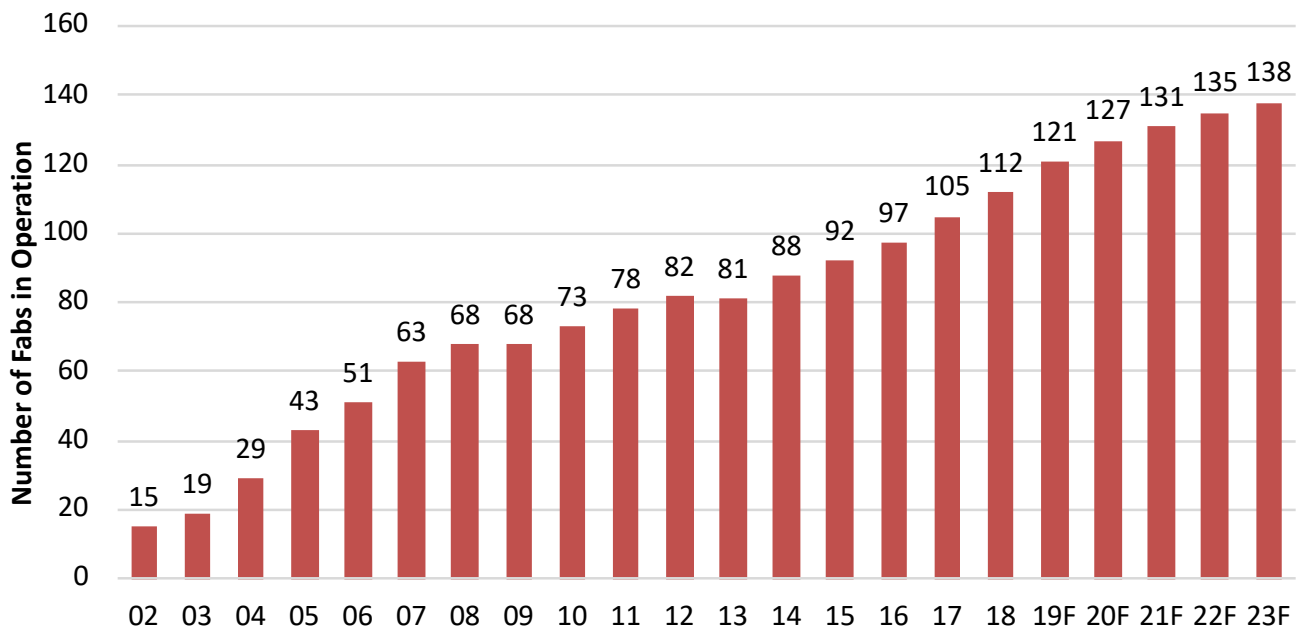
Nine new 300mm wafer fabs scheduled to open in 2019, five of them in China.

IC Insights recently released its *Global Wafer Capacity 2019-2023* report that provides in-depth analyses and forecasts of IC industry capacity by wafer size, by process geometry, by region, and by product type through 2023. The newest edition of the *Global Wafer Capacity* report shows that 300mm wafers took over as the industry's primary wafer size in terms of total surface area used in 2008. Furthermore, the number of 300mm wafer fabrication facilities in operation continues to increase. With nine new 300mm wafer fabs scheduled to open in 2019, the worldwide number of operational 300mm wafer fabs is expected to climb to 121 this year (Figure 1) and grow to a total of 138 fabs at the end of the forecast period.

MORE INFORMATION CONTACT

Bill McClean
 President
 Phone: +1-480-348-1133
 Email: bill@icinsights.com

Number of IC Fabs Processing 300mm Wafers



Includes pilot- and volume-production-class, but not R&D, fab facilities (IC fabs only). Significantly sized phases are counted as separate fabs (e.g., TSMC's Fab 14 has seven phases for a total of 370K w/m).

Source: IC Insights

Figure 1

Some highlights regarding 300mm wafer fabs are shown below.

- At the end of 2018, there were 112 production-class IC fabs utilizing 300mm wafers (there are R&D fabs and several high-volume fabs around the globe that make “non-IC” products using 300mm wafers, but these are not included in the count).
- There are nine 300mm wafer fabs scheduled to open in 2019 (five of them located in China) following seven that opened in 2018. Nine new fabs in 2019 would be the most opened in a single year since 12 were opened in 2007. Another six are scheduled to open in 2020. All of the new fabs coming in 2019 and 2020 will be for DRAM and flash memory or for foundry capacity.
- The number of active volume-production 300mm fabs declined for the first time in 2013 when ProMOS closed two large fabs and two other fabs that were scheduled to open in 2013 where delayed until 2014. The quantity of 300mm fabs has risen every year since.
- By the end of 2023 there are expected to be 26 more fabs in operation than in 2018, bringing the total number of 300mm fabs used for IC production to 138. For comparison, at the end of 2018 there were 150 volume-production 200mm wafer fabs in operation (the peak number of 200mm fabs was 210).

Report Details: *Global Wafer Capacity 2019-2023*

IC Insights’ *Global Wafer Capacity 2019-2023—Detailed Analysis and Forecast of the IC Industry’s Wafer Fab Capacity* report assesses the IC industry’s capacity by wafer size, minimum process geometry, technology type, geographic region, and device type through 2023. The report includes detailed profiles of the companies with the greatest fab capacity and gives comprehensive specifications on existing wafer fab facilities. *Global Wafer Capacity 2019-2023* is priced at \$4,890 for an individual user license. A multi-user worldwide corporate license is available for \$7,590.

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Web Site: www.icinsights.com • **Phone:** +1-480-348-1133 • **E-mail:** info@icinsights.com