

Standard Machine-Ready Blanks

Technical Information

- Reduce material prep time
- Produce more parts, faster
- Reduce bottlenecks
- Reduce scrap



Standard Machine-Ready Blanks

Standard Machine-Ready Blanks are pre-machined materials produced square, flat, and parallel, making them ready for finish machining, and eliminating the need for in-house material prep. Two types of Standard Blanks are available in hundreds pre-configured dimension and alloy combinations.

Save Time

By starting with machine-ready blanks you eliminate the need for specialized machines or tying up machines that are better served performing other operations. Bottlenecks created by time consuming setup and squaring operations are avoided, saving even more time. This increases shop capacity without adding overhead.

Machine-ready blanks arrive ready to go directly from your receiving dock onto your CNC machines. By ending prep time and minimizing setup time, your operators and machines get to the high-value work of finish machining, faster.

Consistent tolerances from blank-to-blank reduce operator and machine time spent adjusting setups and work holding fixtures, which saves valuable spindle time.

Improve Quality

Machine-ready blanks are made flat and designed to stay that way. Flatness is especially important as it eliminates the tendency for movement during the machining process, especially with large surface area parts.

Demand for flat material that resists movement during machining is high for two reasons, one, part movement can turn parts into scrap, and two, creating flat material, on your shop floor, that resists movement is harder than many people might think. The top and bottom surfaces of machine-ready blanks are processed simultaneously, which maintains flatness and reduces hidden stress introduced into the material during milling.



Two Types of Standard Machine-Ready Blanks

Available in Various Aluminum and Stainless Steel Alloys

1. **2-Side Precision Blanks**— Each blank is precision ground or milled 2-sides for thickness and flatness to $\pm .002$ ". Width and length are saw cut to $\pm .060$ ".

2. **6-Side Precision Blanks**— Each blank is precision ground or milled 2-sides for thickness and flatness, and milled 4-sides for width and length. All dimensions $\pm .002$ ".



When to Consider Machine-Ready Blanks

First Articles

The decision to use machine-ready blanks should be made in the materials planning phase of the job. Using machine-ready blanks to produce first articles, then continue right through production is the best way to insure consistency of process.

Production Machining

Although they are also well-suited for prototype and tooling applications, machine-ready blanks are best suited for production machining jobs where the efficiency and time savings from using them can be projected over multiple parts—the more the better. The value of using machine-ready blanks increases with part count as your shop is able to push out more finished parts, faster, by virtually eliminating bottlenecks associated with time consuming material prep work.

Are Machine-Ready Blanks Right for You?

Questions to Ask Yourself

1. Are you a custom precision manufacturing company that could benefit from greater efficiency and increased capacity?
2. How much of your expensive high tech equipment is doing low tech prep work?
3. How often do you experience production bottle necks associated with prepping material?

4. If you eliminated material prep work, how much more production could you move through your shop?
5. Do you experience challenges with post-machining part movement?
6. Would your business benefit from being able to ship faster?
7. If you could have precision machine-ready blanks with guaranteed tolerances delivered to your receiving dock, ready to load onto your CNC machines, how much would that benefit your business?

Custom Machine-Ready Blanks

When tolerances need to be even tighter, net- or near-net-size custom machine-ready blanks provide all the benefits of standard blanks, but are produced to customer specified dimensions as close as $\pm .0005$ " dimensionally and as close as $.002$ " in flatness, squareness, and parallelism. Custom machine-ready blanks can be quoted and special ordered through Grainger Sourcing at www.grainger.com/content/find-mro.

All machine-ready blanks arrive deburred, cleaned and vacuum packaged to eliminate the possibility of any damage in handling and shipping.



Standard Machine-Ready Blanks

Specifications

Available Material Sizes

- Material Thickness 0.063" – 7.500"

Width and Length

- Many standard sizes to choose from

Dimensional Tolerances

- **2-Side Precision Blanks**
Ground or milled 2-sides for thickness and flatness to $\pm .002''$. Saw cut length and width to $\pm .060''$
- **6-Side Precision Blanks**
Ground or milled 2-sides for thickness and flatness to $\pm .002''$. Milled 4-sides width and length to $\pm .002''$

Aluminum Plate Stock

Alloy Types

- 2024
- 3003
- 5052
- 6061
- 7075

Stainless Steel Plate Stock

Alloy Types

- 304
- 316

Delivery Packaging

All machine-ready blanks arrive deburred, clean and individually packaged to eliminate the possibility of any damage in handling and shipping.

Machine-Ready Blanks are Flat and Made to Stay That Way

Precision Machine-Ready Blank

Flat $\pm .002''$
Unseen stress minimized through two-sided processing

Finished machined part remains flat with no part movement

Flatness and unseen stress left unchecked

Finished machined part has moved and is distorted out of tolerance

Rough Cut Material

Order Today

Call a materials specialist at TCI Precision Metals to discuss your next job.



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