

# Custom Machine-Ready Blanks

## Technical Information

### Available in Various Aluminum, Stainless Steel, and Other Alloys

- Eliminate Material Prep
- Reduce Set Up Time
- Shorten Cycle Time by 25%



### Custom Machine-Ready Blanks

Custom Machine-Ready Blanks are made-to-order pre-machined materials produced square, flat, and parallel, making them ready for finish machining, and eliminating the need for in-house material prep. Machine-Ready Blanks are excellent for production machining applications and can be supplied all at once or in batch, just-in-time, to match production scheduling.

### 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.



# Custom Machine-Ready Blanks

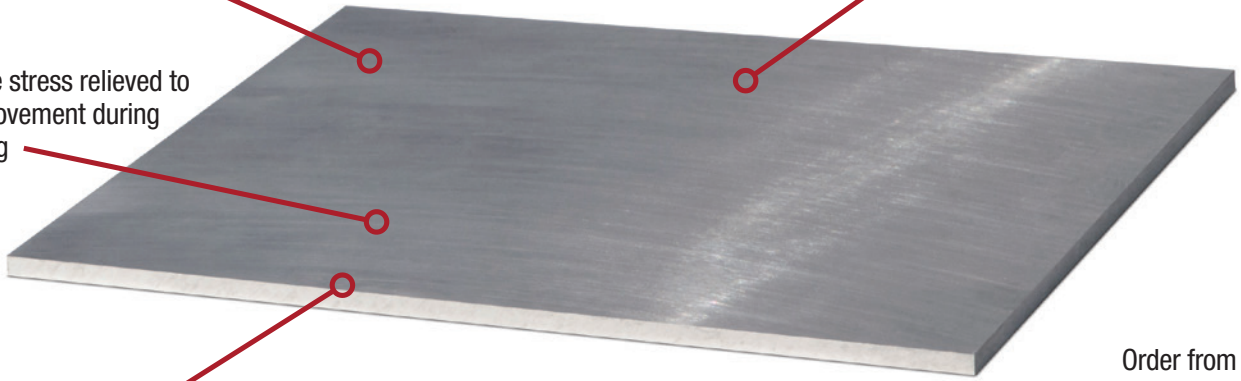
Machine-Ready Blanks are custom made to your net specifications

As close as  $\pm .0005$ " dimensionally and  $.0002$ " flatness, squareness and parallelism

Flat Blanks are stress relieved to reduce part movement during CNC machining

Each Blank is deburred, clean and individually packaged for shipping

Order from one to thousands with quick turnaround



## 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?

### Standard Machine-Ready Blanks

When standard sizes fit the job, TCI Precision Metals and our distribution partners offer a large selection of Machine-Ready Blanks of fixed sizes in carbon steel and various aluminum and stainless steel alloys. Standard Blanks are processed as:

- **2-Side Precision Blanks**— Each blank is precision ground or milled 2-sides for thickness and flatness to  $\pm .002$ ". Width and length for aluminum are saw cut or waterjet cut to  $\pm .063-0$ ". Width and length for stainless steel are saw cut or waterjet cut to  $\pm .125-0$ ".
- **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  $\pm .002$ ".
- **Round Precision Blanks**— Each blank is precision ground to  $\pm .002$ " on thickness; diameter based on stock.
- **Aluminum Strip Blanks**— Thickness based on stock; saw cut to  $\pm .063-0$ " on width and length.

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



# Custom Machine-Ready Blanks

## Specifications

### Available Material Sizes

- Material Thickness 0.063" – 8.00"
- Other sizes may be available upon request

### Width and Length

- 42.5" x 42.5", up to 64" diagonally
- Larger sizes are available special order

### Dimensional Tolerances

- Ground or milled 6- sides to customer specifications

### Available Materials (Various alloys)

- Aluminum
- Stainless Steel
- Titanium
- Carbon Steel
- Other materials available on request
- Customer supplied materials can also be processed
- Brass
- Copper
- Nickel Based Alloys
- Plastic

### 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 +/- .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.



800-234-5613

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