

What Are Machine-Ready Blanks and Are They Right for Your Shop?

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TCI Precision Metals, Southern California has been providing manufacturers with precision machine-ready blanks for the past 57 years. There are still many successful shops who do not know what machine-ready blanks are exactly, or if and when they should be considered. The following is meant to shed light on the subject and provide some thought provoking questions to help you determine whether or not precision blanks are right for your next job.

What are Machine-Ready Blanks?

TCI's machine-ready blanks are square, rectangular or round aluminum, stainless steel, or other alloy blanks that are ground and milled to tight-tolerances enabling a CNC machine to get right to final machining. This eliminates the need for squaring up the material prior to finishing the part. This also eliminates 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 time. This increases shop capacity without adding overhead. Machine-ready blanks arrive to specifications and are ready to go directly from your receiving dock onto your CNC machines.

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. Since each machine-ready blank is made to order, there are no minimum quantities. As your job ramps to production you can order the quantity needed, to be delivered as you need them.

Production Machining

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.

Standard Blanks

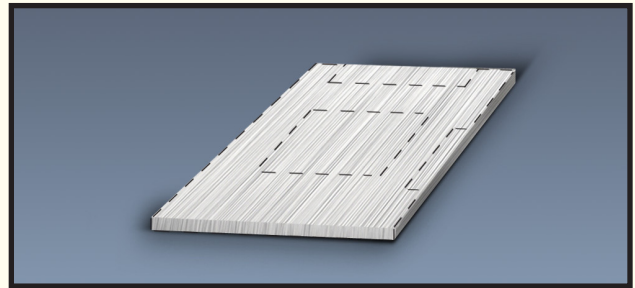
Straight forward machining operations typically use square, rectangular or round stock milled to custom specifications, +/- .0005” dimensionally and as close as .0002” flatness, squareness and parallelism. Each blank is deburred, cleaned and individually packaged.

Feature-Added Blanks

Feature-added blanks are milled to the same tight tolerances as standard blanks, but include one or more features specified by the customer. A typical added feature might be a large amount of material removal; e.g. milling all six sides of a rectangular machine-ready blank with opposing steps. TCI machine-ready blanks are double disk ground and/or duplex milled so two sides of a part are cut at the same time, this translates into a cost savings over facing only one side of raw stock at a time. When the machine-ready blanks arrive with additional features added, less in-house machine time is required.

Customer Furnished Blanks

Quite often there can be a feature on a part that is very time consuming to complete in your shop; e.g. hogging off 13-8 material. TCI Precision Metals uses specialty duplex milling to reduce the cutting time to a fraction of what it would typically take on a job shop floor. End costs are reduced by not having to buy expensive cutting tools or inserts and production bottlenecks are avoided, which leads to increased shop capacity.



Are Machine-Ready Blanks Right for You?

10 Questions to Ask Yourself

1. Are you a production shop 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 much time and equipment resources are used in prepping material?
4. How often do you experience production bottle necks associated with prepping material?
5. If you eliminated material prep work, how much more production could you move through your shop?
6. How much money could you save by eliminating scrap prior to finish machining?
7. Would your business benefit from being able to ship faster?
8. Do you have part features you would like to see included in a custom Machine-Ready Blank, ready for finish machining? E.g., hog-outs, hog-offs.
9. If you could have precision machine-ready blanks with guaranteed tolerances delivered to your receiving dock, ready to load onto your CNC machines, how would that benefit your business?
10. How much could you reduce cycle times by only machining critical features?

