

Diamond Anvils



TD Diamond Anvils

Why diamond?

Diamond is used as a material to produce anvils because diamond has the highest compressive strength as compared to other materials known by man. For this reason diamond anvils can withstand the extreme compressive forces developed during tests in high pressure research. Besides its hardness diamond has the property of being transparent to most of the spectrum; from visible to far in the infrared.

Why Technodiamant?

Technodiamant has been producing highly specialized diamond tools used for precision machining and other applications since 1968 in The Netherlands. In 2002 we acquired a diamond gem manufacturing facility, and we are now producing diamond anvils in this facility in Belgium. By combining the polishing talents of gem diamond craftsmen and craftswomen in Belgium with the precision equipment and expertise used in producing and measuring precision diamond tools in The Netherlands, we are able to produce extremely precise diamond anvils made of the highest quality diamond.

Not all diamonds are appropriate to be polished into a diamond anvil!

The rough diamonds are carefully selected before they are polished into diamond anvils.

Technodiamant uses type IA or type IIA diamonds without fracture, inclusions or imperfections.

All of the diamonds we use for anvils are low birefringence. We can provide anvils with low or ultra low fluorescence and birefringence if required.

We provide a full repair service for anvils produced by any manufacturer, with turnaround time within a few weeks. Severely damaged anvils can be partially or fully repolished into smaller diamonds.

On request Technodiamant can produce anvils made of synthetic diamond (type IB) or semi-conducting diamond (type IIB).



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Prices and shipping FOB Tranquility, NJ
Please contact us to evaluate a set of anvils,
with payment only after your approval.

Technodiamant provides standard 16 sided anvils, modified brilliant, conical, and all sorts of variations depending on customer requirements. For example, If you want a steeper pavillion angle or shorter girdle thickness, you can specify what you require and we can send a drawing for review before proceeding. Typically we can get drawings for review within a day or two, and delivery time for new or repaired anvils is typically within a few weeks.

All of our rough diamonds are carefully selected before they are polished. For type 1A anvils, we use only near-gem quality light yellow "Cape" diamond with no visible inclusions. If required, we can select for ultralow fluorescence (ULF) and ultralow birefringence (ULB). We only provide anvils in the [100] orientation, as this gives the highest achievable compressive strength. Parallelism between table and culet is held to within .1 degree.

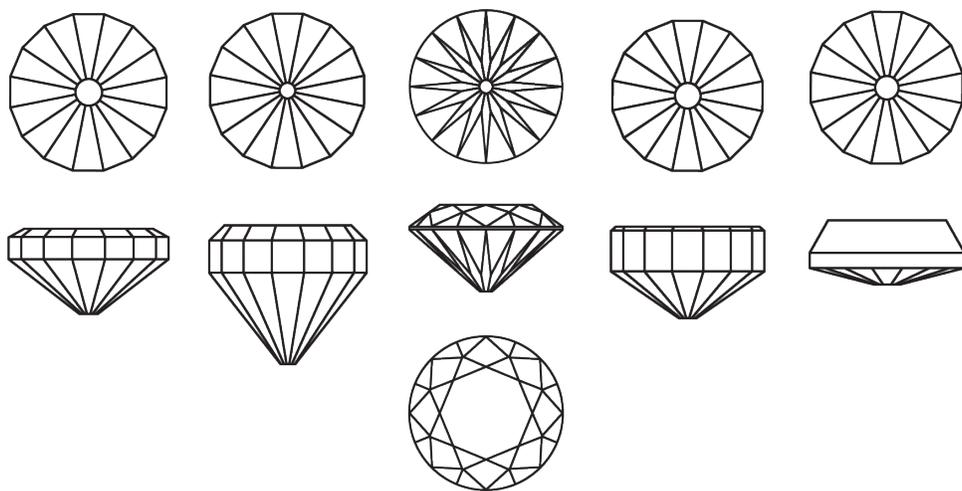
Culet sizes are held to whatever customer requires - typically to size within +/-10 microns, and matched pairs within 5 microns. Culets are extremely symmetrical, and bevels and double bevels are offered.

Type 2A diamond is also available - we can currently provide MCCVD diamond that has the same optical characteristics of natural type 2A diamond in sizes up to 3.25mm girdle diameter and -1.9mm height.

Single crystal synthetic diamond is also available, which has higher levels of nitrogen which give it an amber yellow color. This material is a less expensive alternative to natural diamond.

For the North American market, all of our anvils are shipped from our Tranquility NJ sales office, so there are no delays or additional costs incurred with US Customs.

Anvils available in type 1A and type 2A natural diamond and synthetic diamond



Drukker standard

Drukker modified

Brilliant standard

Minimum undercut

Conical (Boehler)

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