Die & Mold

Tungaloy Corporation
Door Opening Solutions for Ultimate Die and Mold Machining
Ask for More of Tungaloy’s Door Opening Solutions
Ultimate tools for Die & Mold from Tungaloy

Daily products, such as plastic bottles and cell phones and many automotive components, are manufactured via “Die and Mold” machining. Tungaloy’s exceptional cutting tools contribute significantly to the Die & Mold machining process.
Die & Mold Components

1. TUNG MILL
   Plates for components

2. DO FEED MINI
   Cavity plates

3. TUNG MEISTER
   Cores

4. TUNG DRILL TWISTED
   Injection plates / Mold bases

Mold assemblies
1. Face milling of plates

As a leading provider of milling tools, Tungaloy has a great deal of experience with regards to machining plates and providing innovative new products to enhance customers’ productivity levels.

TungMills are suitable for machining all kinds of plate materials such as carbon steel, alloy steel, stainless steel and aluminum alloys. Right-hand and left-hand cutters are available so the cutters can be used on any type of machining centres.
With double sided inserts and 10 cutting corners, the DoPent face milling cutter reduces tooling costs drastically while demonstrating highly productive and economical machining.

**Special Surface Technology**

Smooth insert surface prevents chip adhesion and improves chip flow.

**T3130 P**

CVD coated grade for steel milling. The combination of a new coating layer and unique substrate ensures excellent wear and impact resistance.

**AH120 P**

PVD coated grade for general steel milling applications.

**NS740 P**

Unique cermet grade for steel milling that provides excellent surface finishes.

**AH130 M**

PVD coated grade for general stainless steel milling applications. Provides well-balanced wear and chipping resistance.

**AH140 M**

PVD coated grade for tough stainless steel milling applications with remarkable chipping resistance.
2. Cavity plate machining

Roughing operations

Tungaloy’s cutting tools provide high productivity levels in roughing operations while improving tool life.

**High Productivity**

DoFeedMini is one of latest high feed milling cutters suitable for small component machining with a diameter from ø0.625" - ø1.250". This cutter has double sided inserts and 4 cutting edges to improve economy and tool costs.

**DoFeed**

DoFeed is one of latest high feed milling cutters available for medium range machining between ø1.250" - ø3.000" diameter. With 4 cutting edges and double sided inserts, the DoFeed is very economical.

**RoundSplit**

Serrated cutting edges significantly reduce chattering even when machining with a long overhang.

**MillFeed**

MillFeed is the pioneer of high feed milling cutters, reducing the machining time in rough profiling operations.
Shoulder milling / Slotting

There is a wide variety of shoulder milling and slotting applications in the die and mold industry. Tungaloy has a vast selection of cutters available to meet the needs of the end user.

**TECMILL**
Tangential insert with tough cutting edges. Large rake angle and inclination reduce cutting forces.

**TUNGREC**
Highly productive semi-finish milling cutter with high accuracy 90 degree shoulders. Applicable for rough to finish machining with .0008" straightness. The range offers a wide variation of solutions with 3 sizes of insert, 2 types of cutter body length and 2 types of pitch available. Tool diameter range is ø.500" ~ ø6.000".

**HYBRID TAC MILL**
High precision indexable endmills with low cutting forces now offer a viable replacement for solid carbide endmills. Applicable for highly accurate shoulder milling with .0008" straightness. Regrinding is not necessary.
3. Die engraving

Usually, solid carbide endmills are used for die engraving. Tungaloy now proposes its innovative new indexable endmills, the “TungMeister”

This effective tooling solution offers the option of hundreds of tools with 3 kinds of shank material that include steel, carbide and heavy metal. Tool changeovers can be measurably reduced and regrinding is unnecessary. The accuracy of less than .0016” guarantees consistent performance.
Die and mold components often require a lot of holes. To this end, Tungaloy proposes a number of new highly productive holemaking tools that can deliver reduced machining times.

**TungDrill Twisted**
Highly economical indexable drills applicable for diameters from ø.500" ~ ø2.000" with reduced machining time and costs.

**Giga Mini Drill**
DSM type small diameter solid drills reduce cutting time and improve tool life when machining in the ø.004" ~ ø.118" diameter range.

**Solid Drill**
Tool diameter range: ø.118 ~ ø.630 mm. Suitable for high quality and productive drilling of carbon steels, alloy steels and cast iron. Unique cutting edge geometries provide highly stable tool life without sudden chipping.
4. The machining of cooling holes in mold bases

There are many deep-hole-drilling operations in die and mold, such as cooling holes. For such applications, Tungaloy now offers a vast range of gundrilling solutions.

**GunDrill**

Standard GunDrills are available from ø.071" ~ ø1.181" diameter and 200 x D machining depth. The SF type GunDrills can double productivity levels. The SD type solid GunDrills are suitable for small and deep hole processing with diameters from ø.035". Additionally, the R-GunDrills are available for spherical hole making to prevent heat cracks.

**TungGun**

TungGun is the innovative new indexable gundrill with a unique connection system that is exchangeable over 15 times.
Tooling system for a wide variety of unique functions

TUNGHOLD
Tooling system for unique function and wide variation

TUNGSHRINK
Thermal shrinking holder
Available in various adapters for quick changeovers.

TUNGDHYDRO
Hydraulic chuck
A run-out of less than .0001".

TUNGBORE
TUNGDRIIIITWIISTED
Tool diameter adjustable holder
The tool diameter can be adjusted when used on a machining center