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.
Ultimate tools for Die & Mold from Tungaloy

1. TUNG MILL
   Plates for components

2. DOFEED MINI
   Cavity plates

3. TUNG MEISTER
   Cores

4. TUNG DRILL TWISTED
   Injection plates / Mold bases

Die & Mold Components

Mold assemblies
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 aluminium 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

High Productivity

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

**DoFeedMini**

DoFeedMini is one of latest high feed milling cutters suitable for small component machining with a diameter from ø16 – ø32 mm. 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 ø32 – ø80 mm 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.
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.

**TEC MILL**
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 20 µm 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 ø16 mm – ø160 mm.

**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 20 µm straightness. Regrinding is not necessary.

**EPH type**
Highly accurate endmill

**EVH type**
Multi functional endmill

**EXH type**
High feed milling endmill
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 40 µm guarantees consistent performance.
4. Holemaking in injection plates

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 ø12.5 mm ~ ø54 mm with reduced machining time and costs.

**GigaJetDrill**

DSX type solid carbide drills with oil hole, available in ø3 mm ~ ø20 mm diameter and 3xD and 5xD depth enable the end user to reduce machining times significantly.

**GigaPowerDrill**

DSE type solid drills are suitable for highly productive holemaking without the requirement for an internal coolant supply.

**GigaMiniDrill**

DSM type small diameter solid drills reduce cutting time and improve tool life when machining in the ø0.1 mm ~ ø3.0 mm diameter range.
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 ø1.8 mm ~ ø30 mm 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 ø0.9 mm. Additionally, the R-GunDrills are available for spherical hole making to prevent heat cracks.

**TUNG GUN**

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

**TUNG HOLD**
Tooling system for unique function and wide variation

**TUNG SHRINK**
Thermal shrinking holder
Available in various adapters for quick changeovers.

**TUNG HYDRO**
Hydraulic chuck
A run-out of less than 0.003 mm.

**TUNG BORE**
Tool diameter adjustable holder
The tool diameter can be adjusted when used on a machining center.
Tungaloy Corporation
11-1 Yoshima-Kogyodanchi, Iwaki, 970-1144 Japan
http://www.tungaloy.co.jp/

ISO 9001 certified
ISO 14001 certified
EC 9251023
Tungaloy Corporation
Japan site and Asian production site
18/10/1996
26/11/1997
Aug. 2011 (TJ)