

VF4

Design Guide for Mini Angle Lifter System

Angles

Mini Angle Lifter system best works with angles from 5° to 10°. Angles greater than 10° will need a lifter guide unit at the back of the support plate. Guide units for rectangular blades will need to be made by the mould maker. Standard Lifter Guide Units for the round shaft are available.

Choosing the right size:

- ◆ Mini Angle Lifter systems come in different series of sizes. Each Mini Angle Lifter assembly consists of a Lifter Blade, U-Coupling and a T-Gib. Make sure to select all components of an assembly from the same series.
- ◆ Width and Thickness of blades are usually supplied with 0.25mm extra stock to be able to grind and suit the pocket sizes.
- ◆ Blade hardness is 38-42 HRC which is 10° above the P20 and 10° below the H13 standard hardened tool steel to maintain differential hardness to avoid seizing.
- ◆ Higher hardness can be achieved through surface treatment or coating post machining.
- ◆ Width and thickness also can be ground below the nominal sizes up to the minimum width W1 and minimum thickness T1.
- ◆ When two undercuts are close by, you can choose one wide blade to cover both undercuts.

Profile machining and locking angle

- ◆ Part profile can be machined directly on the lifter blade with or without creating locking angle.
- ◆ Lifter blade can be ground to create a locking angle or locking seat to resist injection pressure.
- ◆ Make sure that the blade is machined equally on both sides to maintain the symmetry with radius profile.

Height Adjustment

- ◆ Bottom face of the T-Gib is supplied with 0.25mm extra stock to grind and adjust the lifter assembly height.
- ◆ When further adjustment is needed, a spacer can be placed underneath the T-Gib.

Assembly of Mini Angle Lifter System

- ◆ Recommended position for the T-Gib is to cut pocket in the Ejector Retainer and fit it in there. Put the bolts through the Ejector Plate as shown in the figure.
- ◆ Blade can be assembled from the front of the core. Push the Ejector Retainer forward so that the back of the blade protrudes out the of the Ejector Retainer. Assemble the U-coupling and the T-Gib. Push the assembly forward until the back of the T-Gib is flush with the back of the Ejector Retainer. After assembling the other components and the Ejector Plate, bolt the T-Gib to the Ejector Plate.
- ◆ Remember to machine the clearance pocket for the U-coupling on the back of the support plate considering the forward movement of the coupling. Refer to figure.
- ◆ Guided ejection is recommended when using Mini Angle Lifter systems.

