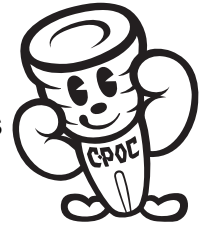


TECHNICAL COUNSELING FAQ

This time, we will introduce “Solution for slug pulling of a sheet metal with protective film” and “Height adjustment shim combinations” from the questions we have contacted the Tool Consultation.



SOLUTION FOR SLUG PULLING OF A SHEET METAL WITH PROTECTIVE FILM

Q When the sheet metal with protective film was punched out, slug pulling occurred. Are there any good measures?

A If the material with protective film on the surface is punched out, the film will not be cut completely and it will remain on the material, causing the holding mark and slug pulling. In this case, the following measures can be considered.

1. First of all, **keep the cutting edge of the punch and die sharp.**
If cutting is done with the cutting blade worn, the film will not be cut. We recommend regrinding at shorter intervals than usual. In particular, please note that the corners of the square and rectangle punch are easily worn.
2. Use a narrow clearance die than standard. In addition, there is also a method to reduce the stretch of film by narrowing the guide clearance and holding the edge of the hole.

Fig.1 Clearance between punch and die

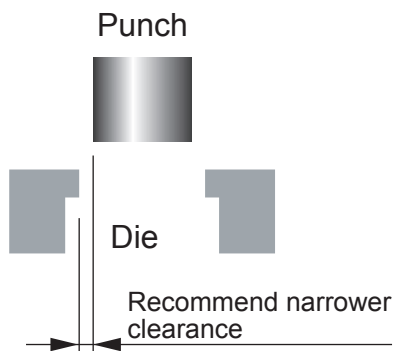
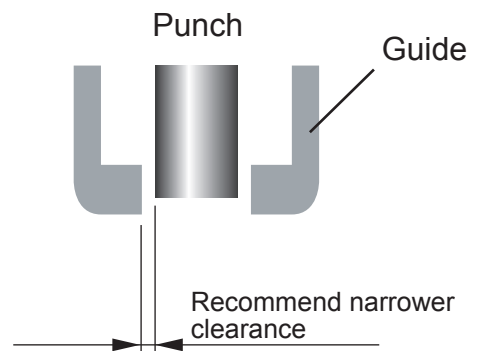


Fig.2 Clearance between punch and guide



3. Increase die penetration.
(Adjust a punch height length longer)
(See Fig.3)

4. If the punch edge has a urethane kicker and it is deteriorated, replace it with a new one.

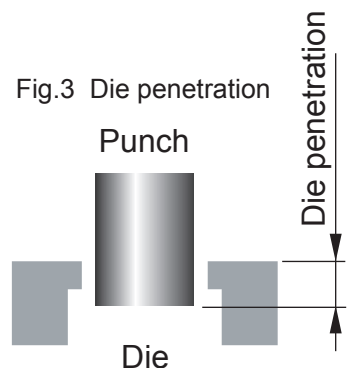


Fig.3 Die penetration

TECHNICAL COUNSELING FAQ

ABOUT HEIGHT ADJUSTMENT SHIM COMBINATIONS

Q Height adjustment is performed with shims, but the combination of shims is not well understood. Is there a list of shim combinations?

A Height adjustment is required when using a forming tool.

Generally, for height adjustment...

1. Perform on the machine side.
(For hydraulic type)
2. Perform the head adjustment.
3. Adjust with shim.

When performing height adjustment with shim, the shim set consists of a total of 5 shims with a thickness of 0.4, 0.5, 0.6, 0.7 and 0.8 each. Please use in combination referring to the table on the right.

ADVICE ON ONE POINT

Adjustment with the punch shim is quite difficult. In such a case, please prepare a die shim. Adjust with a die shim until the required forming shape is obtained. When the adjustment is complete, use the shim with the same thickness as the die shim used for the adjustment on the punch side to remove the die shim. It's much easier to make adjustments using the die shim.

Please do not forget to take out the die shims after using !!

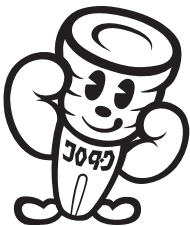


Table of height adjustment shim combinations

thickness	combination of shims				
	0.4	0.5	0.6	0.7	0.8
0.4	○				
0.5		○			
0.6			○		
0.7				○	
0.8					○
0.9	○	○			
1.0	○		○		
1.1	○			○	
1.2	○				○
1.3		○			○
1.4			○		○
1.5				○	○
1.6	○	○		○	
1.7	○	○			○
1.8		○	○	○	
1.9		○	○		○
2.0		○		○	○
2.1			○	○	○
2.2	○	○	○	○	
2.3	○	○	○		○
2.4	○	○		○	○
2.5	○		○	○	○
2.6		○	○	○	○
3.0	○	○	○	○	○

For More information, please contact CONIC tool sales desk.

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