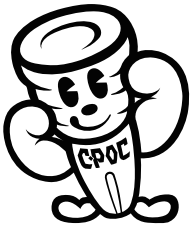
TOOL TECHNICAL GUIDE FAQ



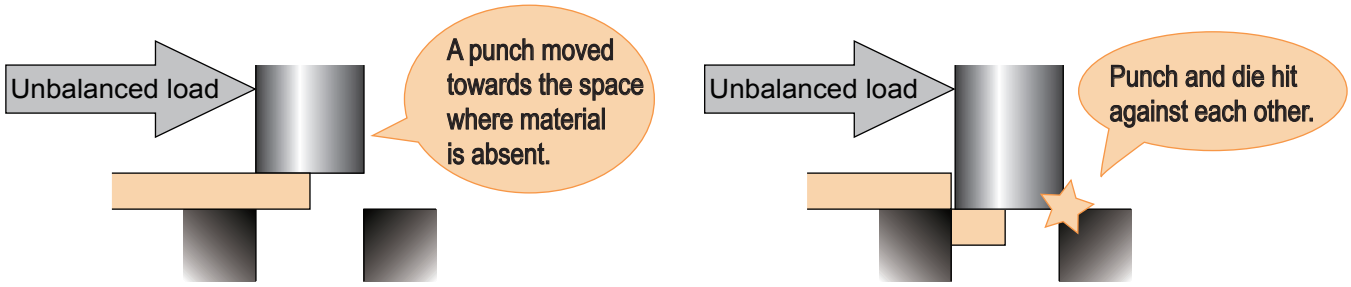
Of the questions we received from the Tool Consultation Office,
this time we will introduce “countermeasures for galling during slitting”.

COUNTERMEASURES FOR GALLING WHEN SLITTING PROCESSING

Q The punch and die interfered with each other during slitting, causing galling in the tool. Is there a way to avoid galling?

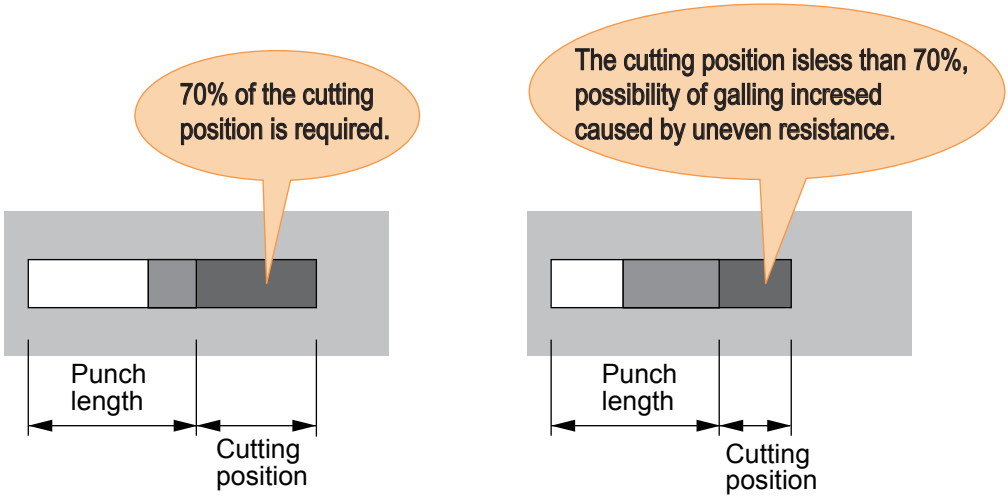
A When slitting or cutting the surface of the material, as shown in Fig.1, an unbalanced load is applied to the punch, and interference between punch and die tends to cause burrs in the tool.

Fig.1 Generation of galling due to unbalanced load during slitting



As a countermeasure,
1. The cutting position of during slitting, take over 70% of the punch length as a guide. (See Fig.2)

Fig.2 The cutting position of during slitting



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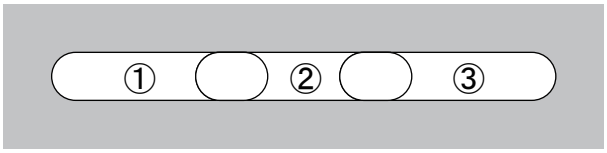
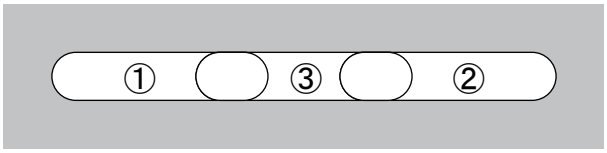
2. Change the slitting order

Normal slitting processing order



Processing order with no unbalanced load



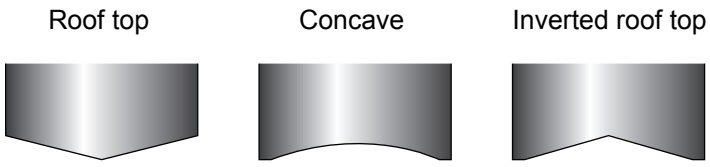
3. Use a heel tool. By providing a heel on the punch, it prevents the deviation of the punch due to the unbalanced load.
(See Fig.3)

Fig.3 Prevention of punch misalignment with heeled tool

4. It is recommended that the clearance between punch and die be set slightly wider (about 0.1 mm) than normal punching (single punching).

5. As for punch shear angle at the time of slitting processing,
"Concave shear " and "Inverted-roof top shear" are more effective than "roof top shear".
(See Fig.4)

Fig.4 Punch shear angle



In addition to this, there may be cases such as the occurrence of galling caused by slug pulling, misalignment or wear of the turret, and tooling installation defects.
For details, please contact Conic Tool Desk.

For More information, please contact CONIC tool sales desk.

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