



Dear all,

How are you all doing? ☺

It's December and there is only one month left in the year.

What kind of year has it been for you?

It is customary to do a big clean up at the end of the year in Japan.

This means to get rid of dirt of the year and get ready

to welcome a new year with fresh mind. ☺



## **"Joya-no-kane" (Temple bells of New Year's Eve)**

Joya-no-kane is originally a Buddhist ritual.

Joya-no-kane is a Buddhist tradition where the temple bell is rung 108 times

on New Year's Eve in order to get rid of the 108 worldly desires.

Buddhism teaches human beings have 108 worldly desires,

so temples ring the bell 108 times to remove them.

Many Japanese people welcome the New Year with the bell-ringing. ☺



***We humbly thank you for your business this year and look forward to continuing the business with you.***

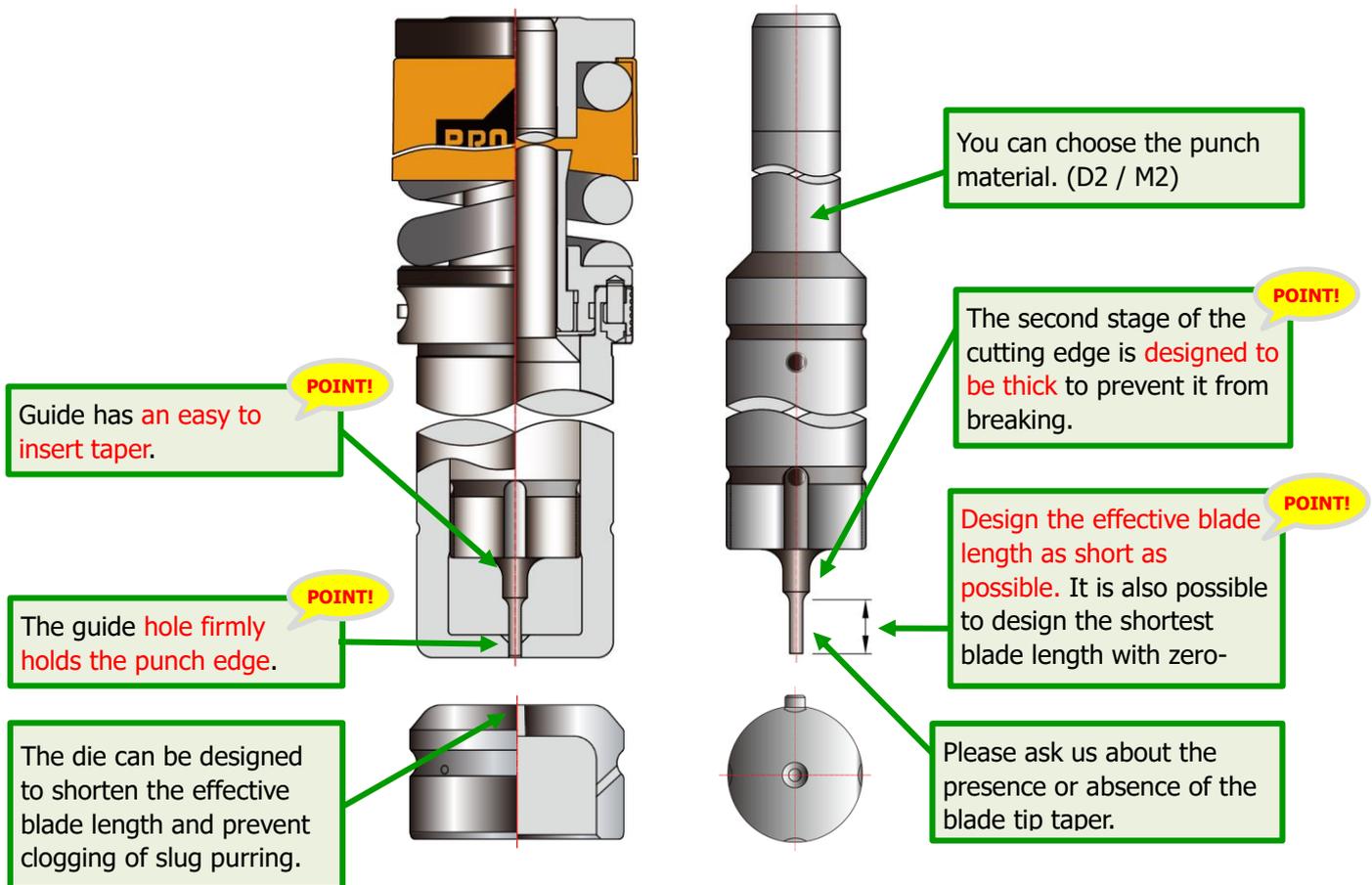
***We wish you all have a wonderful Holiday and a Happy New Year!! ☺***



## TOOL FOR THICK PLATE PUNCHING

Strengthen the cutting edge with exclusive design!

**When punching thick plate, an exclusive designed tool with increased cutting edge strength is effective to prevent problems such as punch edge breakage!!**



1. We accept exclusive design. Please specify the processing conditions (plate thickness, material, etc.). In addition to square and rectangle punches, round punches can also be manufactured. (It is also recommended for Hot rolled steel T = 9 punch edge  $\phi 6$ , etc.)

2. This tool is not guaranteed to be "never broken". In design, this tool incorporates measures to make it hard to break.

- **Normally, for stable machining, a punch blade width (short width) of 1 or more times the plate thickness for Mild steel and 2 or more times for stainless steel is required.**

# THE TOOL FOR THICK PLATE PUNCHING (\* 1) CAN BE USED IN THIS WAY!

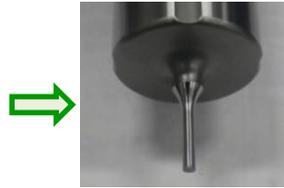
(\*1) Order tool designed based on meeting various conditions.

## EXPERIENCE

Is it possible to process with a punch edge diameter thinner than the plate thickness? Can't be broken?

**Test Conditions**  
Material / Thickness: Hot rolled steel T=6  
Punch edge:  $\phi$  2.5 (For M3)  
Die clearance: 0.3

30hit Cutting edge after punching



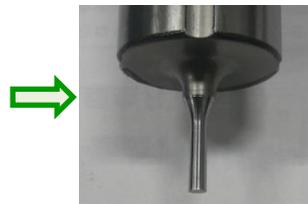
Finished workpiece



**PUNCHED SUCCESSFULLY**

**Test Conditions**  
Material / Thickness: Hot rolled steel T=6  
Punch edge:  $\phi$  3.3 (For M4)  
Die clearance: 0.3

30hit Cutting edge after punching



Finished workpiece



**PUNCHED SUCCESSFULLY**

\*This test does not guarantee durability.

## ADVANCED

You can also use it like this!

In the case of thin plates, it is common to form the workpiece into a cylindrical shape with a burring tool and ensure the thickness of the number of threads. However, in the case of thick plates, burring may be difficult.



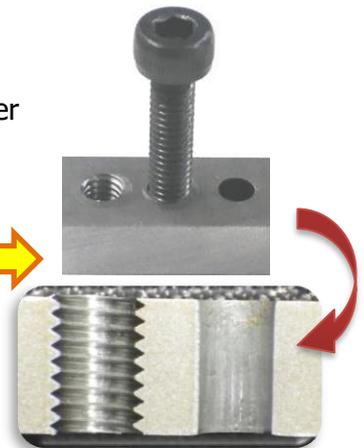
Tool used in this test  
PROTECH3 1-1/4"  
Standard round set  $\phi$ 3.3 C = 0.3



After punching



Direct tapping without burring



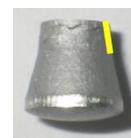
Sectional side view image

## POINT!

By processing the clearance with minimal conditions, the taper of cutting and breaking is reduced on the punched hole diameter, and a straight part for tapping directly on the workpiece is secured.

### [Comparison with slug purring]

C=1.3  
There is almost no straight part



(Usually, calculated a suitable clearance)

C=0.3  
There is **enough** straight part



(This experimental clearance)