

No. 019 **BLF Large Diameter SP taps for torn thread problems** Cutting Taps

[Question]



I have a torn thread problem after the taps chamfer has cut the full portion of the thread when I'm tapping large size threads. Can you please advice a remedy?

[Answer]

Torn threads when using large size taps are reduced by utilizing a Yamawa tap with a "BLF" special crest design.

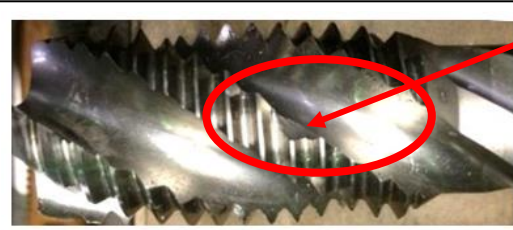


[Example]

Torn threads occurred after tapping 10 holes with a standard SP with no surface treatment.

<Conditions>

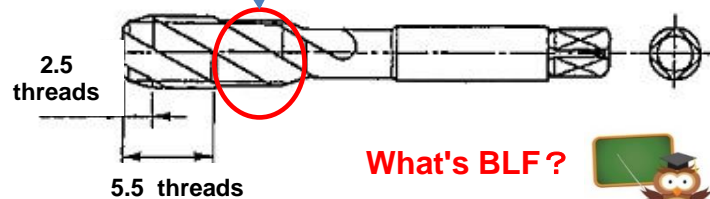
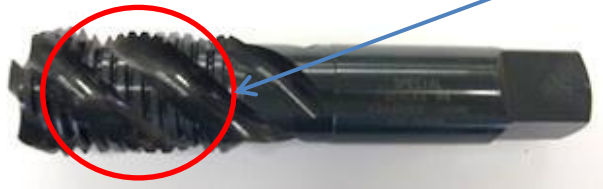
Seize: SP M36 x 4
Workpiece Material: SS400
Machine: : Radial Arm Drilling Machine
Tapping Oil: : Neat Oil
Cutting Speed: 3m/min



Torn threads occur from a chipped flute in the full thread portion of the tap after the cutting chamfer.

[BLF Ground Tap]

Yamawa uses an BLF improved heel cut on the full thread portion.



What's BLF?



The unique tap is specially designed to have the first 3 threads at full height and the balance of the threads at about the Pitch Diameter in height.

These large diameter taps are more effective with an oxidation treatment as this helps the oil to stay on the flutes while cutting.

No torn threads after tapped 250 holes



Good internal threads surface



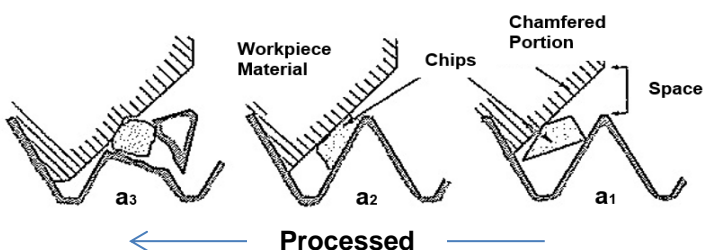
[Guidance]



Improvements in chip ejection occur from the unique flute design and the advanced cutting edge angle. The BLF improved heel cut on the tap produces excellent cutting performances and results in the prevention of flute chipping problems. There is a marked improvement in tool life due to low thread height in the BLF area causing a decrease in friction resistance and preventing welding problems.

Torn Threads Mechanism

[Tapping with a general SP tap]



[Tapping with a BLF designed SP tap]

