No.038

The difference between Pipe Tap PF and PS

Pipe Taps

【Question】

I know there are PF and PS taps available in the lineup of Yamawa Hand Taps for Parallel Pipe Taps. Can you tell me how to distinguish one from the other?

【Answer】

The size and number of threads are the same but application is different. In other words, the PS is used for preventing water and gas leakage while the PF is used for pipe connections.
For more details, please refer to the following guide.

【Guide】

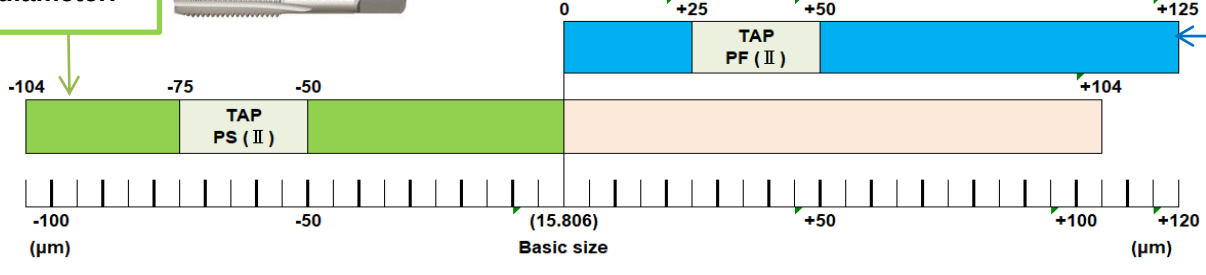
PF 3/8" and PS 3/8 : The difference is in the accuracy of the pitch diameter

PS threads: Tolerance of pitch diameter.

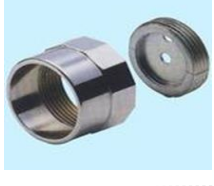
PS Tap has a smaller tolerance than a PF Tap of the same diameter.

PF Tap has a lager tolerance than the same size PS tap.

PF threads: Tolerance of pitch diameter



PF Thread



PF threads are used for internal screw threads where a mechanical joint is required.
Ex: For a cover of the mechanical joint on pipes.

PS Thread

PS threads used for connection where preventing fluid leakage is the main goal.
Ex: Water pipe, Gas pipe

【Advice】

Be sure to connect PF external screw threads to PF internal screw threads, and PT internal screw threads to PS internal screw threads. When comparing a PF internal screw thread to that of a PS, there are differences in pitch diameter and also in the hole size. Be careful with fluid leakage that may occur if a PF tap is misused for tapping or the hole is created in accordance with a PF thread where a PS is specified.

PF Hand Taps for Parallel Pipe Threads

Unit:mm

Size	Minor Dia(D1) Max.	Minor Dia(D1) Min.	Drill Dia.
PF 1/16-28	6.843	6.561	6.77
PF 1/8-28	8.848	8.566	8.78
PF 1/4-19	11.890	11.445	11.78
PF 3/8-19	15.395	14.950	15.28
PF 1/2-14	19.172	18.631	19.00
PF 3/4-14	24.658	24.117	24.50
PF 1-11	30.931	30.291	30.80

PS Hand Taps for Parallel Pipe Threads

Unit:mm

Size	Minor Dia(D1) Max.	Minor Dia(D1) Min.	Drill Dia.
PS 1/16-28	6.632	6.490	6.5
PS 1/8-28	8.637	8.495	8.5
PS 1/4-19	11.549	11.341	11.3
PS 3/8-19	15.054	14.846	14.8
PS 1/2-14	18.773	18.489	18.5
PS 3/4-14	24.259	23.975	24.0
PS 1-11	30.472	30.110	30.1