

# GUIDE LINE TO ICONS

## Tool Material

- CBN** Cubic Boron Nitride
- NG HM** Nano Grain Carbide
- MG HM** Micro Grain Carbide
- YPM** YG-1 Premium Powder Metallurgy HSS
- PREMIUM HSS-PM** Premium Powder Metallurgy HSS
- HSS PM** Powder Metallurgy HSS
- PREMIUM HSS-Co** Premium Cobalt HSS
- HSS Co8** 8% Cobalt HSS
- HSS EX** High Vanadium HSS
- HSS-E** 5% Cobalt HSS
- HSS** High Speed Steel

## Standard of Tools

- YG STD** YG-1 Standard
- DIN 338** Number of DIN Standard

## The Type of Shank

- PLAIN** Plain shank (with DIN Standard)
- FLAT** Flat shank (with DIN Standard)
- 1~5** Range of Morse Taper Shank

## Helix Angle

- 30°** **30°** End Mills
- N 30°** **N ≈ 30°** Drills
- R40°** **L20°** Taps
- LH7°** **LH45°** Reamers

## Point Angle

- 120°** **135°**

## Tolerance of Dimension

- h6** **h8** Tolerance of Outside Diameter
- h6** **h8** Tolerance of Shank Diameter

## Tolerance of Radius

- R ±0.005** **R ±0.01** Tolerance of Ball Radius  $\pm 0.005, \pm 0.01$  mm
- R ±0.010** **R ±0.015** Tolerance of Corner Radius  $\pm 0.005, \pm 0.015$  mm

## The Type of Periphery

- NR** Roughing, Coarse Pitch
- HR** Roughing, Fine Pitch
- WR** Roughing for Aluminium
- NF** Roughing & Finishing type
- N** Finish type
- W** Finish type for Aluminium

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## Working Material

- GS** Steels with good machinability  $R_m < 850 \text{ N/mm}^2$
- VG** Heat treated and heat-resistant steels  $R_m < 850 \text{ N/mm}^2 \leq R_m \leq 1,200 \text{ N/mm}^2$
- HR** High alloyed steels  $R_m > 1,200 \text{ N/mm}^2$
- VA** Stainless steels
- NW** Carbon steels with low contents of alloys  $R_m < 700 \text{ N/mm}^2$
- Ti** Titanium alloys
- Ni** Nickel alloys
- GV** Any material with atleast 8~10% elongation
- Al** Aluminum & Aluminum alloys
- GG** Grey Cast Iron
- Ms** Brass
- MU** Multi-Purpose

## Chamfer Lead Acc. to DIN2197

- I/III** **I/II/III** Set of Hand Taps
- LONG** Long Chamfer Lead for Nut Tap
- C** Form C (Chamfer Lead 2~3 Thread)
- B** Form B (with Gun-nose and Chamfer Lead 4~5 Thread)

## Surface Treatment

- Bright** Bright Finish
- NI** Nitrided
- TiCN** Titanium Carbon Nitride Coating
- Hardslick** TiAlN+WC/C Coating
- Vap** Steam Tempered
- TiN** Titanium Nitride Coating
- TiAlN** Titanium Aluminum Nitride Coating
- BLUE** Blue-Coating

## Thread Angle

- 60°** **55°**

## O.D. Tolerance of Reamer

- H7** DIN 1420 for H7, Reamed Hole

## No. of Flute

- 1** **2** **3** 1,2,3 Flutes
- 4-6** 4~6 Flutes
- 3&4** 3&4 Flutes

## Class of Thread

- 6HX** **6H Mod.** **2B**
- 6GX** **6H** **2BX**

## Chamfer Angle

- 15°** **45°** Reamers

## Cutting Condition

- P.** **P.** **P.** Cutting Condition of Tool See the Page 000