



Registered
ISO 9001:2008 / ISO 14001:2004

SPECIAL TOOLS & BROACHES

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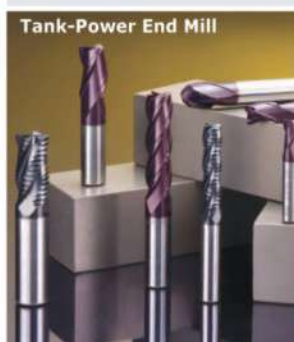
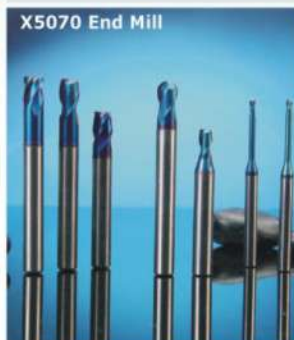
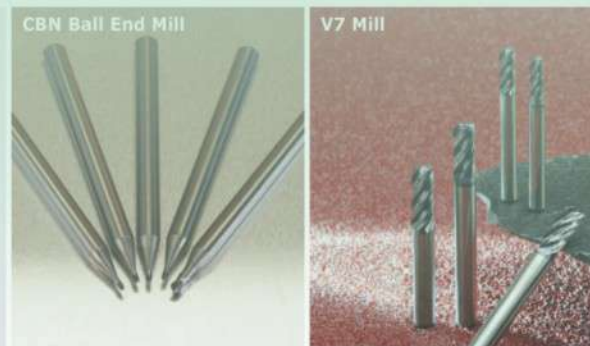
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YG-1 CO., LTD.

Tool specifications are subject to change without notice.

YG-1 CO., LTD.



INTRODUCTION OF YG-1 GROUP

Best Quality and Punctual Delivery for world-wide Customers

Thanks to our quality reliability and developing technics, YG-1 has been expanding the market share and growing with partners since 1982. As one of the leading cutting tool manufacturer, we are aiming at having customers experience YG-1's various cutting tool solution all around the world. In order to achieve most efficient logistics, production and marketing, YG-1 has established a global network over 75 countries and international logistics center. This gives the opportunity to provide the best service and satisfy our customer's requirement at all time.

Company View



Headquarters



Cheongcheon- Dong
(incheon)



Ansan Tap Plant



Gwangju Drill Plant



Qingdao Plant



R&D Center in Songdo

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SPECIAL TOOLS & BROACHES



SPECIAL TOOLS

DRILLS

– HSS DRILL SIZE RANGE
 ◎ Dia. : Φ 4.0 ~ Φ 32.0 ◎ O.A.L : 300 mm Max.

HSS STEP DRILLS	Suitable for general purpose at conventional machining Drilling and chamfer (Countersinking) Machining multiple-diameter in one operation
HSS CENTER DRILLS (Radius, Bell Type, Etc.)	Centering at turning operation Special radius or profile according to customer's request Spotting before drilling
HSS SPECIAL NC DRILLS (Customer's special request)	Special angle and shape Positioning for main machining
HSS CORE DRILLS	Enlarging holes from small pre-holes Using for general purpose at conventional machining
HSS STEP CORE DRILLS	Drilling & chamfer(countersinks) on pre-holes Counterboring before threading or machining rivet seat Machining multiple-diameter at pre-holes

* TiN, TiCN & TiAlN coatings are Available
 * Any type of Shank is Available



SPECIAL TOOLS

DRILLS

– CARBIDE DRILL SIZE RANGE
 ◎ Dia. : Φ 4.0 ~ Φ 32.0 ◎ O.A.L : 300 mm Max.

CARBIDE SPECIAL DRILLS (Customer's special request)	Special shape of point and flute(NOT in standard items) Specially designed for Hardened steels or Stainless steels Special purpose at automotive production
CARBIDE DRILLS (Double Margins)	Better surface and straightness without reaming Specially designed for Hardened steels or Stainless steels Special purpose at automotive production or conventional machining
CARBIDE STEP DRILLS	Specially designed for various materials at automotive production Drilling & chamfering (Countersinking) Machining multiple diameters in one operation
CARBIDE BURNISHING DRILLS	Better surface and straightness without reaming Excellent performance for Al alloys and Cast iron Best choice for automotive production
CARBIDE STEP BURNISHING DRILLS	Drilling & chamfering (Countersinking) Excellent performance for Al alloys and Cast iron Machining multiple diameters in one operation

* TiN, TiAlN, AlTiN & AlCrN coatings are Available



SPECIAL TOOLS

REAMERS

– HSS & CARBIDE REAMER SIZE RANGE
 ◎ Dia. : Φ4.0 ~ Φ32.0 ◎ O.A.L : 300 mm Max.

HSS SPECIAL REAMERS Special shape of point and flute(Left, Right, Straight)
 (Customer's special request) Suitable for general purpose at conventional machining
 Any sizes are available(not standard items)

HSS STEP REAMERS Machining accurately multiple diameters in one operation
 Reaming combined chamfer & hole with superior surface and precise dimensions in one operation

CARBIDE SPECIAL REAMERS Special shape of point and flute(Left, Right, Straight)
 (Customer's special request) Specially designed for various materials with automotive production
 Any sizes are available (not standard items)

CARBIDE STEP REAMERS Machining accurately multiple diameters in one operation
 Reaming chamfer & hole together with superior surface and precise dimensions
 Specially designed for various material with automotive production

CARBIDE BRAZING REAMERS Cost reduction and longer tool life
 Top Solid type and brazed tips–type are available

* TiN, TiCN & TiAlN coatings are Available
 * Any types of Shank are Available



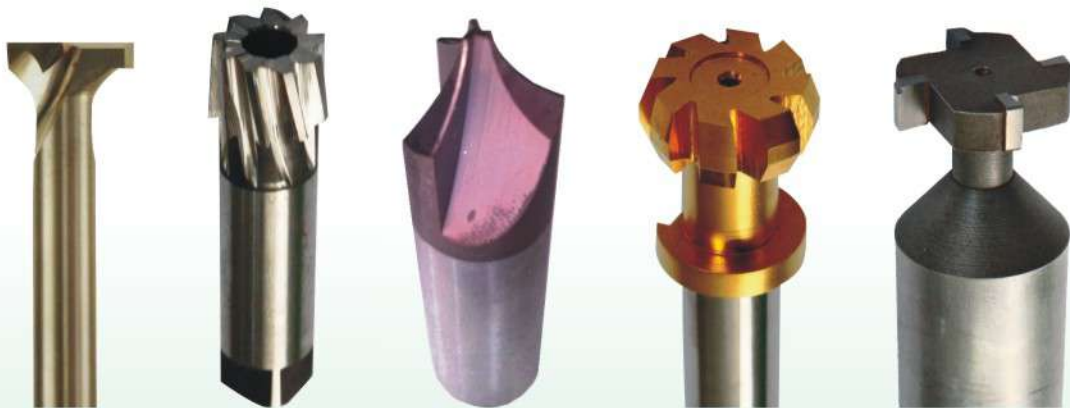
SPECIAL TOOLS

END MILLS & CUTTERS – END MILLS & CUTTERS SIZE RANGE
 ◎ Dia. : Φ4.0 ~ Φ50.0 ◎ O.A.L : 400 mm Max.

* END MILLS, DRILLS, REAMERS AND CUTTERS as customer's request
 * CARBIDE TOP BRAZING TYPE , CARBIDE TIP BRAZING TYPE and other brazing type tools
 * SPECIAL PROFILE(SHAPE) for EXCLUSIVE PURPOSE



* TiN, TiCN & TiAlN coatings are Available.
 * Any type of Shank is Available.



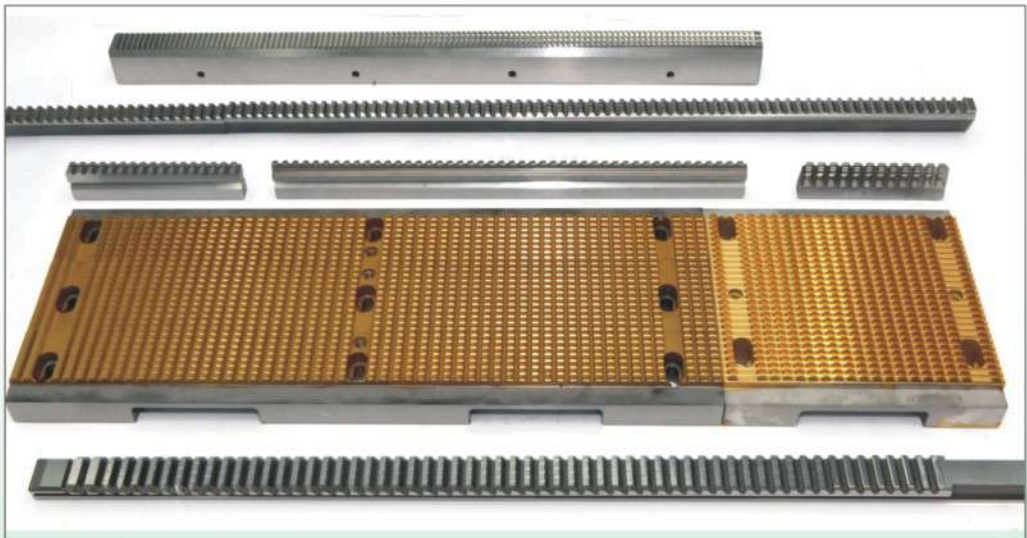
INTRODUCTION OF BROACH



Broach is suitable for mass production due to several advantages. And also Broaching is only economical method to machine complex form even in case of small lots of products. Due to mass-production in automobile industry, the improvement of product quality, high product efficiency and cost down are required. Broach is well known as a suitable cutting tool for high products efficiency and high precision of the machinery part.

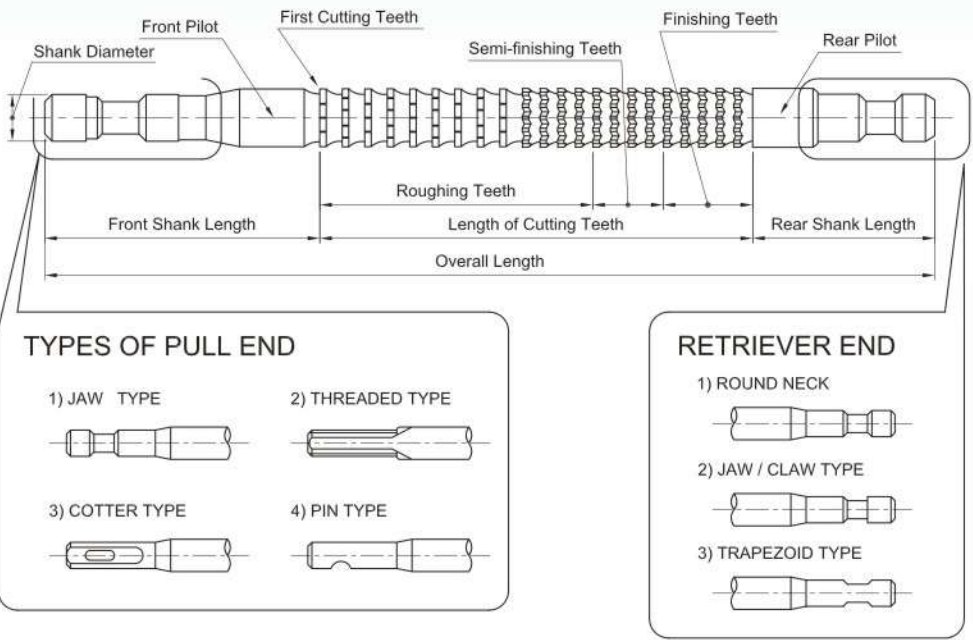
◎ Main advantages of Broaching Process

- ① Reduction of working time & Higher productivity
- ② Products in high precision
- ③ Easy machining through complex shape
- ④ Better machining surface
- ⑤ Work piece holding is simple when machining.

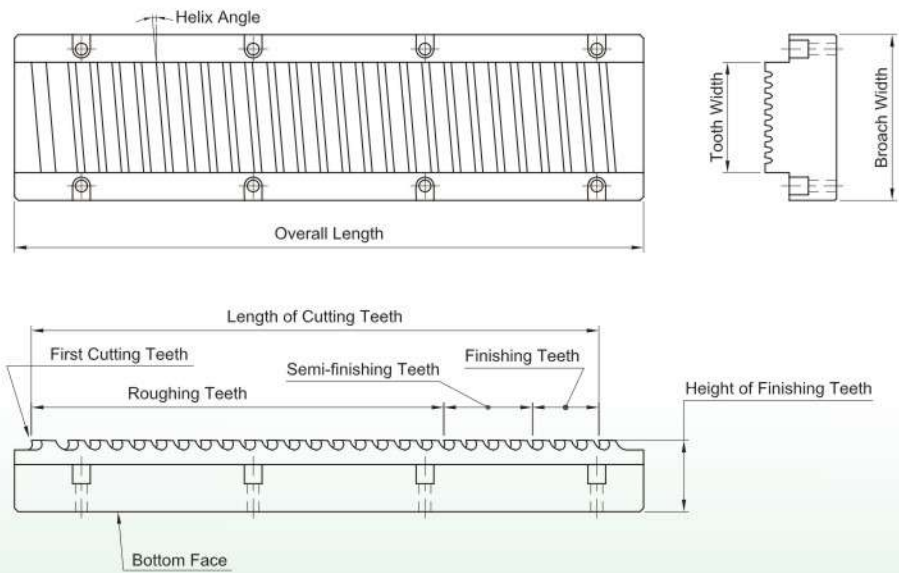


NOMENCLATURE OF BROACHES

(1) INTERNAL BROACH



(2) EXTERNAL BROACH



INTERNAL BROACHES

INVOLUTE SPLINE BROACH (Round end)

– Internal gear of various parts in the automobile and aircraft industries



INVOLUTE SPLINE BROACH (Alternate teeth)

– Alternate teeth are designed for high concentricity



DOUBLE SIDED BROACH

– Special assembly parts in the various industries



PARALLEL SIDED BROACH

– Internal gear of various parts in automobile and aircraft industries



KEY WAY BROACH (Round guide)

– Machining key way without holder or bushing



SLEEVE BROACH

– Machining Sleeve gear of transmission, required very high precision



SPECIAL BROACH

– Design for special mechanical parts, including shape that customers require



INTERNAL SURFACE BROACH (Pull end)

– Machining link-surface with pull type end



EXTERNAL BROACHES

SURFACE BROACH

– Precise dimension and excellent surface roughness



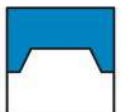
RAIL SHIFT BROACH

– Machining rail shift part of transmission

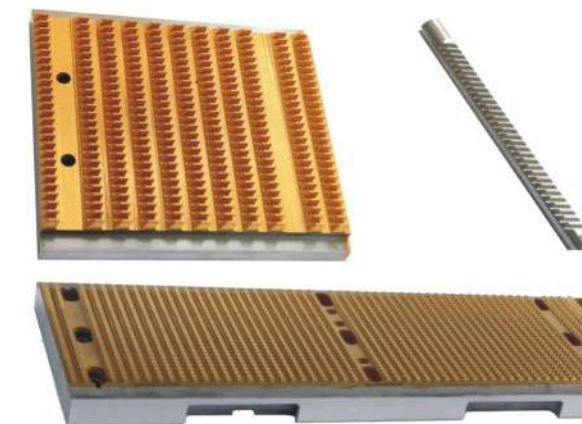


LINK SURFACE BROACH (Push type)

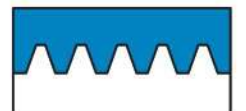
– Machining link parts of track(chain) in construction equipment industry



RACK BROACH (Assemble type)



– Machining steering rack of vehicle
– Finishing in one stroke
– Assembling many pieces to one set



SPECIAL SHAPES OF SURFACE BROACH

– Various shapes available



Half Round



Turbine Blade



Key-way



Spline Profile



T-Slot

◎ Capable Length : 1200mm (Max.)

◎ Size range : $\Phi 15 \sim \Phi 150$, Length : 1500mm (Max.)

REGRINDING SERVICE

STANDARD ITEMS AND SPECIAL TOOLS



YG-1 offers regrinding service for cutting tools.

- Best quality with competitive prices.
- Coating service after regrinding
- Available to regrind products of competitor's brands

END MILLS

X5070 END MILLS
X-POWER END MILLS
HSS END MILLS
CARBIDE END MILLS

DRILLS

ALL SERIES OF DREAM DRILLS
SPECIAL DRILLS
HSS DRILLS

TAPS

CARBIDE TAPS
HSS TAPS

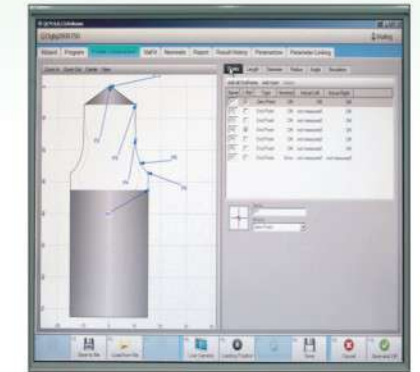
REAMERS

Standard series and other special items

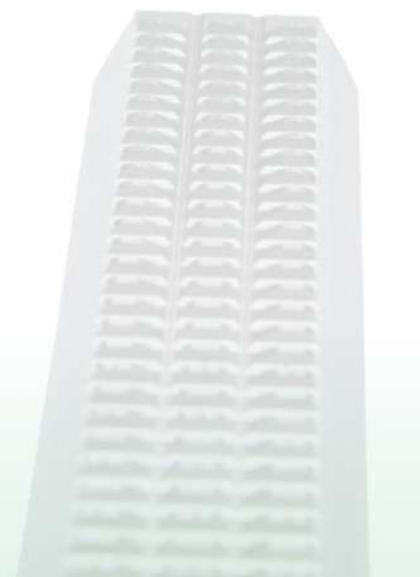
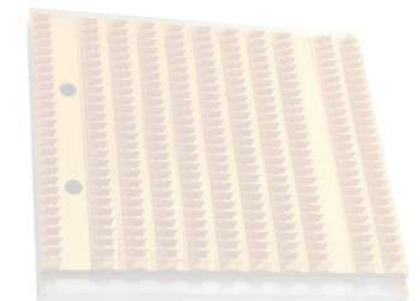
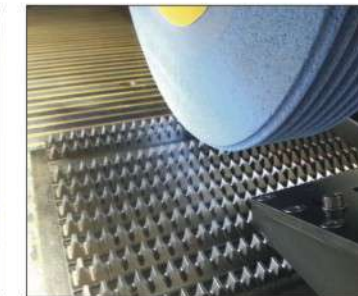
SPECIAL TOOLS

PRODUCTION FACILITIES

SPECIAL TOOLS



BROACHES



BROACHES



◎ Best Quality With Competitive Price.