Think threads with YAMAWA

CAST CH

Straight Fluted Taps for Cast Iron with Coolant Hole

Ideal for tapping aluminum castings, cast irons and more!!

▪ Straight Fluted Taps for Cast Iron with Coolant Hole ▪

CAST CH

Z-PRO

Ultimate Machining Taps

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Straight Fluted Taps for Cast Iron with Coolant Hole

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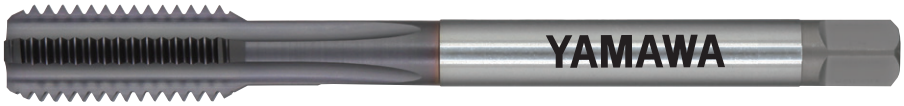
Specifications

HSS-P | Coating | Synchronized



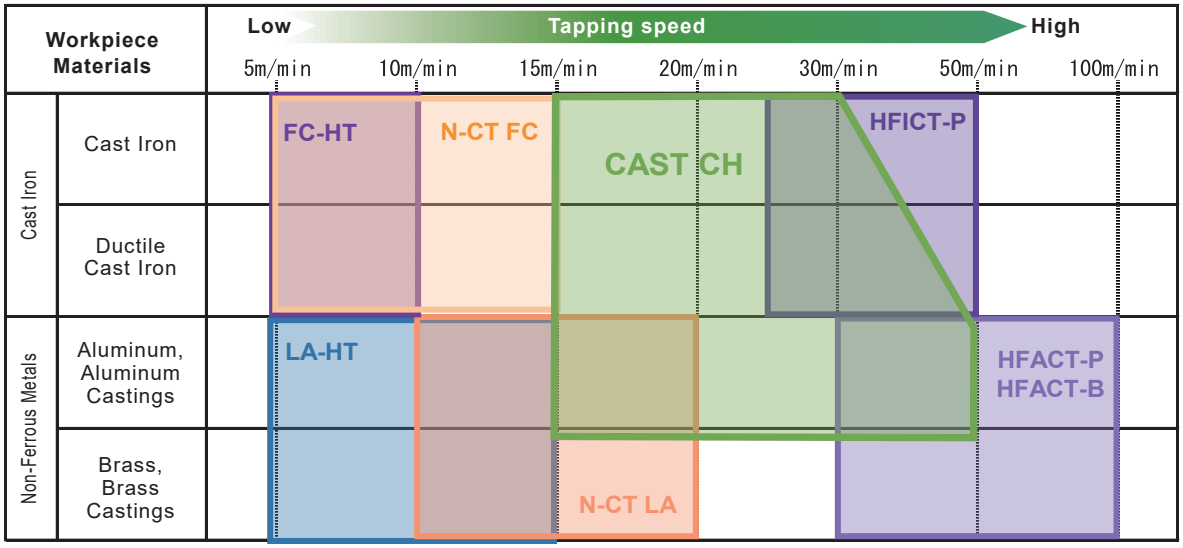
Tapping speed depending on materials

Cast irons	Ductile cast irons	Aluminum alloy castings	Zinc alloy castings	Magnesium alloy die castings
10~30 (m/min)	10~30 (m/min)	15~50 (m/min)	15~50 (m/min)	15~50 (m/min)

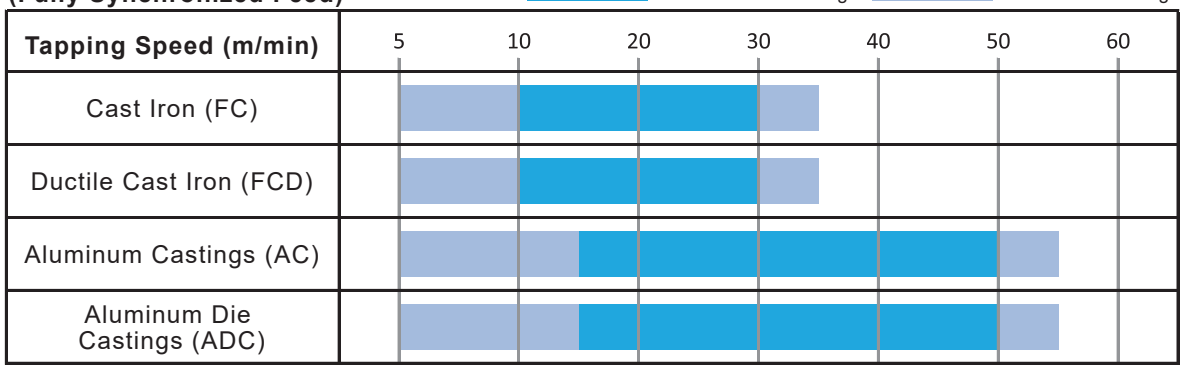
Product Features

- Overall Length : Adopts a "semi-long" shape suitable for machines and ensuring proper tool projection!
- Cutting edge shape : A unique blade shape improves chip breaking and ejection!
  Suitable for tapping cast iron, ductile cast iron and aluminum castings at medium to high speeds (~50m/min).
- Coolant Hole : Adopts an optimal coolant hole diameter for internal lubrication tapping.
  Improved chip ejection capabilities allows for stable continuous tapping.

Product System Table



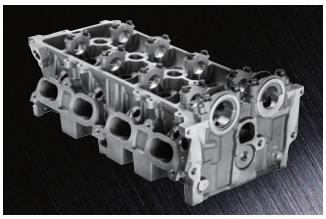
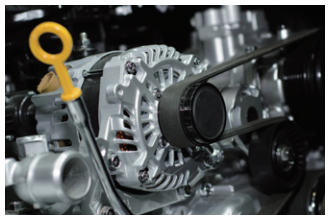
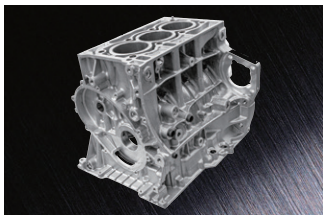
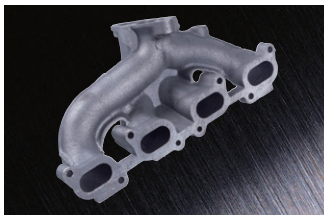
Tapping Conditions (Fully Synchronized Feed)



Applications

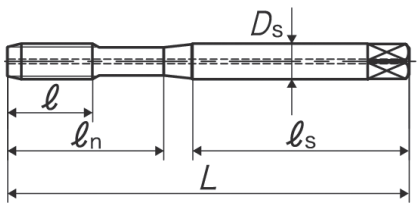
Used extensively in the machining of cast iron and aluminum alloys for parts in automotive components, construction machinery, machine tools and more. Reduces chip remnants and improves durability!

●Examples of Machined Parts

Shape and Dimensions

TYPE:1



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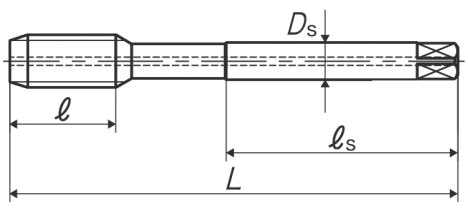


Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	No.of flutes	TYPE	MSRP(JPY)
M6X1	P3	1214101055	C (3P)	80	15	30	45	6	3	1	4,770
		1215101055	E (1.5P)								4,770
M8X1.25	P3	1214101064	C (3P)	90	19	–	46	6.2	3	2	6,290
		1215101064	E (1.5P)								6,290
M10X1.5	P4	1214101078	C (3P)	100	23	–	51	7	4	2	7,940
		1215101078	E (1.5P)								7,940
M10X1.25	P3	1214101079	C (3P)	100	23	–	51	7	4	2	7,940
		1215101079	E (1.5P)								7,940
M10X1	P3	1214101080	C (3P)	100	23	–	51	7	4	2	9,420 *
		1215101080	E (1.5P)								9,420 *
M12X1.75	P4	1214101088	C (3P)	110	26	–	56	8.5	4	2	10,400
		1215101088	E (1.5P)								10,400
M12X1.5	P4	1214101089	C (3P)	110	26	–	56	8.5	4	2	10,400
		1215101089	E (1.5P)								10,400
M12X1.25	P5	1214101090	C (3P)	110	26	–	56	8.5	4	2	10,400
		1215101090	E (1.5P)								10,400
M14X2	P4	1214101100	C (3P)	110	26	–	56	10.5	4	2	14,200
		1215101100	E (1.5P)								14,200
M14X1.5	P4	1214101102	C (3P)	110	26	–	56	10.5	4	2	14,200
		1215101102	E (1.5P)								14,200
M16X2	P4	1214101114	C (3P)	110	26	–	56	12.5	4	2	18,500
		1215101114	E (1.5P)								18,500
M16X1.5	P4	1214101116	C (3P)	110	26	–	56	12.5	4	2	18,500
		1215101116	E (1.5P)								18,500
M18X2.5	P5	1214101128	C (3P)	125	33	–	64	14	4	2	23,300
		1215101128	E (1.5P)								23,300
M18X1.5	P4	1214101130	C (3P)	125	33	–	64	14	4	2	23,300
		1215101130	E (1.5P)								23,300
M20X2.5	P5	1214101141	C (3P)	140	33	–	71	15	4	2	33,600
		1215101141	E (1.5P)								33,600
M20X1.5	P4	1214101144	C (3P)	140	33	–	71	15	4	2	33,600
		1215101144	E (1.5P)								33,600
M22X2.5	P5	1214101156	C (3P)	140	33	–	71	17	4	2	40,500
		1215101156	E (1.5P)								40,500
M22X1.5	P4	1214101158	C (3P)	140	33	–	71	17	4	2	40,500
		1215101158	E (1.5P)								40,500
M24X3	P5	1214101167	C (3P)	160	37	–	82	19	4	2	49,400
		1215101167	E (1.5P)								49,400
M24X1.5	P4	1214101170	C (3P)	160	37	–	82	19	4	2	49,400
		1215101170	E (1.5P)								49,400

*Specific Distribution Items (Made to order products)

Internal Tapping Data

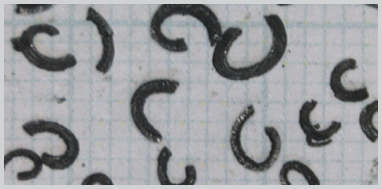
Tapping conditions

Workpiece material	FCD450	Tapping machine	Vertical Machining Center
Tapping speed	30m/min	Tapping fluid	Water soluble cutting fluid

CAST CH M12×1.75 1.5P Tapping length : 24mm (Blind hole) Internal lubrication pressure : 3MPa

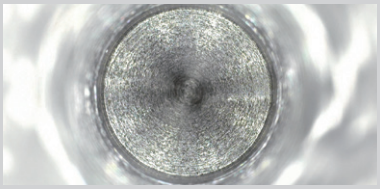
Excellent chip evacuation!

Finely broken chips



No chips remaining thanks to the coolant hole!

Bottom of internal threads



CAST CH M6×1 1.5P Tapping length : 12mm (Blind hole) Internal lubrication pressure : 1.5MPa

Minimal tool wear

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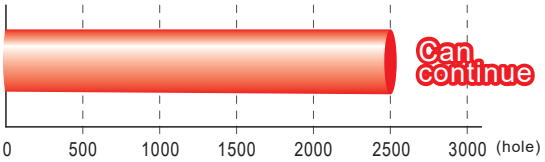

Continuous tapping is possible even after 2,500 holes.

Market Tapping Data

Size	Chamfer	Tapping conditions									Tool life (Holes)	Result
		Workpiece material	Hole shape	Bored hole size (mm)	Tapping length (mm)	Tapping Machine	Tapping direction	Tapping speed (m/min)	Feed	Tapping fluid		
M6×1	3P	FC250	Blind hole	5.1	12	MC	Vertical	15	Fully synchronous	Water-soluble (internal supply)	8,000	The conventional product required replacement after 500 holes. Tapping speed increased from 5 m/min ⇒ 15 m/min.
M20×2.5	3P	FC250	Through hole	17.5	36	MC	Vertical	15	Fully synchronous	Water-soluble (external supply)	4,800	Even after 4,800 holes, the tapped thread surface remains excellent. Continuous tapping possible
M8×1.25	1.5P	FC300	Blind hole	6.8	13	MC	Horizontal	30	Fully synchronous	Water-soluble (external supply)	6,600	Approximately 3× longer tool life than conventional products
M8×1.25	1.5P	FCD450	Blind hole	6.8	16	MC	Horizontal	30	Fully synchronous	Water-soluble (internal supply)	33,000	Approximately 2× longer tool life than conventional products
M16×2	1.5P	FCD450	Blind hole	14	32	MC	Horizontal	30	Fully synchronous	Water-soluble (internal supply)	6,600	Tapping speed increased from 15 m/min ⇒ 30 m/min. Continuous tapping possible
M10×1.25	3P	FCD600	Blind hole	8.8	30	MC	Vertical	15	Fully synchronous	Water-soluble (internal supply)	3,600	Chipping problem improved on the full thread section compared with conventional products
M12×1.75	1.5P	FCD600	Blind hole Through hole	10.3	20	MC	Vertical	20	Fully synchronous	Water-soluble (external supply)	5,500	Tapping possible at approximately 2× the speed of conventional products
M10×1.25	1.5P	AC4C	Blind hole	8.8	20	MC	Vertical	20	Fully synchronous	Water-soluble (external supply)	27,000	Previous chipping problem has been improved

Warning

- ♦Tools may shatter during use. Wear safety eye cover or eye glasses to avoid injury during tapping.
- ♦Use tools under the proper tapping condition.
- ♦Never wear gloves during turning operations as the gloves may get caught in the tools.
- ♦Wear safety shoes to avoid foot injury by the falling tools.
- ♦When attaching tools to the machine, fasten firmly to avoid chatter and run-out.
- ♦Fasten the workpiece firmly so it never moves during the tapping operation. Never use worn tools or damaged tools.
- ♦Take a special care to prevent fire during machining. High temperature during tapping can cause a fire.

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YAMAWA group for Overseas

YAMAWA International Co., Ltd.

ISO 9001 JQA-QMA14664

ISO 14001 JQA-EM3465