

| Overall length | Thread length | Shank dia. | Size of square | Length of square |
|----------------|---------------|------------|----------------|------------------|
| L              | $\ell$        | Ds         | K              | $\ell_k$         |

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① Spiral Fluted Taps  
(for blind hole)

② Spiral Fluted Taps  
(for through hole)

③ Spiral Pointed Taps  
(for through hole)

④ Hand Taps

⑤ Cemented Carbide Taps

⑥ Roll Taps

⑦ Special Thread Taps  
Simple inspection tools

⑧ Pipe Taps

⑨ Thread Mills  
Premium Thread Mills

⑩ Dies

⑪ Center Drills  
Centering Tools

⑫ Precision Machinery/  
Medical Surgical Instruments

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⑤-15

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## ZELX CARB CI

Carbide Taps for Cast Irons



### Specification



■ ZELX CARB CI is the carbide tap suitable for hard and abrasive materials such as cast irons. For volume production.

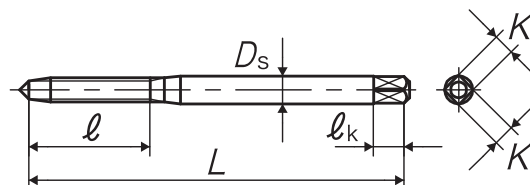
### Tapping Speed depending on Materials

Cast irons  
鑄鉄  
**5~15**  
(m/min)

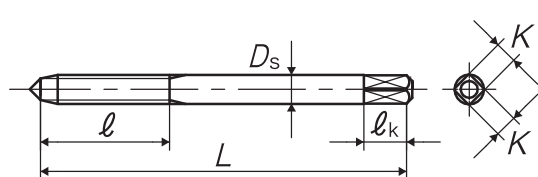
Ductile cast irons  
強靱鑄鉄  
**5~15**  
(m/min)

Brass castings  
黄銅鑄物  
**5~15**  
(m/min)

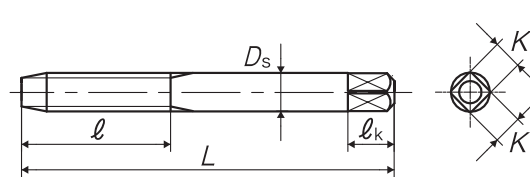
#### TYPE: 1



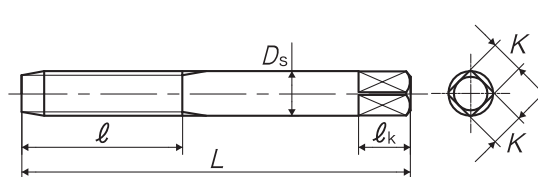
#### TYPE: 2



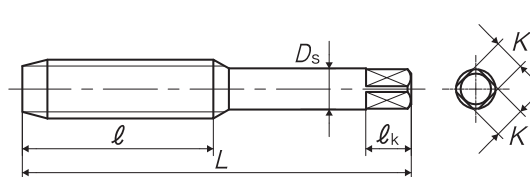
#### TYPE: 3



#### TYPE: 4



#### TYPE: 5



Segment : 1L

| Size               | Class | Code   | Chamfer | L<br>(inch) | $\ell$<br>(inch) | Ds<br>(inch) | K<br>(inch) | $\ell_k$<br>(inch) | No. of<br>flutes | TYPE |
|--------------------|-------|--------|---------|-------------|------------------|--------------|-------------|--------------------|------------------|------|
| For Metric Threads |       |        |         |             |                  |              |             |                    |                  |      |
| M3 × 0.5           | D3    | Y70000 | 4P      | 1.937       | 0.625            | 0.141        | 0.11        | 0.187              | 3                | 1    |
| M3 × 0.5           | D3    | Y70001 | 1.5P    | 1.937       | 0.625            | 0.141        | 0.11        | 0.187              | 3                | 1    |
| M4 × 0.7           | D4    | Y70002 | 4P      | 2.125       | 0.75             | 0.168        | 0.131       | 0.25               | 4                | 2    |
| M4 × 0.7           | D4    | Y70003 | 1.5P    | 2.125       | 0.75             | 0.168        | 0.131       | 0.25               | 4                | 2    |
| M5 × 0.8           | D4    | Y70004 | 4P      | 2.375       | 0.875            | 0.194        | 0.152       | 0.25               | 4                | 2    |
| M5 × 0.8           | D4    | Y70005 | 1.5P    | 2.375       | 0.875            | 0.194        | 0.152       | 0.25               | 4                | 2    |
| M6 × 1             | D5    | Y70006 | 4P      | 2.5         | 1                | 0.255        | 0.191       | 0.312              | 4                | 3    |
| M6 × 1             | D5    | Y70007 | 1.5P    | 2.5         | 1                | 0.255        | 0.191       | 0.312              | 4                | 3    |
| M8 × 1.25          | D5    | Y70010 | 4P      | 2.718       | 1.125            | 0.318        | 0.238       | 0.375              | 4                | 4    |

Think threads with  
**YAMAWA**

This product is different from JIS products in shape and dimensions, please be careful when using.

| Overall length | Thread length | Shank dia. | Size of square | Length of square |
|----------------|---------------|------------|----------------|------------------|
| L              | ℓ             | Ds         | K              | ℓk               |

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| Size                | Class | Code   | Chamfer | L<br>(inch) | ℓ<br>(inch) | Ds<br>(inch) | K<br>(inch) | ℓk<br>(inch) | No. of<br>flutes | TYPE |
|---------------------|-------|--------|---------|-------------|-------------|--------------|-------------|--------------|------------------|------|
| M8 × 1.25           | D5    | Y70011 | 1.5P    | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| M8 × 1              | D5    | Y70008 | 4P      | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| M8 × 1              | D5    | Y70009 | 1.5P    | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| M10 × 1.5           | D6    | Y70014 | 4P      | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| M10 × 1.5           | D6    | Y70015 | 1.5P    | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| M10 × 1.25          | D5    | Y70012 | 4P      | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| M10 × 1.25          | D5    | Y70013 | 1.5P    | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| M12 × 1.75          | D6    | Y70020 | 4P      | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| M12 × 1.75          | D6    | Y70021 | 1.5P    | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| M12 × 1.5           | D6    | Y70018 | 4P      | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| M12 × 1.25          | D5    | Y70016 | 4P      | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| M12 × 1.25          | D5    | Y70017 | 1.5P    | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| M14 × 2             | D7    | Y70024 | 4P      | 3.593       | 1.656       | 0.429        | 0.322       | 0.5          | 4                | 5    |
| M14 × 2             | D7    | Y70025 | 1.5P    | 3.593       | 1.656       | 0.429        | 0.322       | 0.5          | 4                | 5    |
| M14 × 1.5           | D6    | Y70022 | 4P      | 3.593       | 1.656       | 0.429        | 0.322       | 0.5          | 4                | 5    |
| M16 × 2             | D7    | Y70028 | 4P      | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| M16 × 2             | D7    | Y70029 | 1.5P    | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| M16 × 1.5           | D6    | Y70026 | 4P      | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| M16 × 1.5           | D6    | Y70027 | 1.5P    | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| For Unified Threads |       |        |         |             |             |              |             |              |                  |      |
| No.10-24UNC         | GH3   | Y83806 | 4P      | 2.375       | 0.875       | 0.194        | 0.152       | 0.25         | 4                | 2    |
| No.10-24UNC         | GH3   | Y83807 | 1.5P    | 2.375       | 0.875       | 0.194        | 0.152       | 0.25         | 4                | 2    |
| No.10-32UNF         | GH3   | Y83808 | 4P      | 2.375       | 0.875       | 0.194        | 0.152       | 0.25         | 4                | 2    |
| No.10-32UNF         | GH3   | Y83809 | 1.5P    | 2.375       | 0.875       | 0.194        | 0.152       | 0.25         | 4                | 2    |
| 1/4-20UNC           | GH3   | Y83810 | 4P      | 2.5         | 1           | 0.255        | 0.191       | 0.312        | 4                | 3    |
| 1/4-20UNC           | GH3   | Y83811 | 1.5P    | 2.5         | 1           | 0.255        | 0.191       | 0.312        | 4                | 3    |
| 1/4-20UNC           | GH5   | Y83860 | 4P      | 2.5         | 1           | 0.255        | 0.191       | 0.312        | 4                | 3    |
| 1/4-20UNC           | GH5   | Y83861 | 1.5P    | 2.5         | 1           | 0.255        | 0.191       | 0.312        | 4                | 3    |
| 1/4-28UNF           | GH3   | Y83812 | 4P      | 2.5         | 1           | 0.255        | 0.191       | 0.312        | 4                | 3    |
| 1/4-28UNF           | GH3   | Y83813 | 1.5P    | 2.5         | 1           | 0.255        | 0.191       | 0.312        | 4                | 3    |
| 1/4-28UNF           | GH5   | Y83862 | 4P      | 2.5         | 1           | 0.255        | 0.191       | 0.312        | 4                | 3    |
| 1/4-28UNF           | GH5   | Y83863 | 1.5P    | 2.5         | 1           | 0.255        | 0.191       | 0.312        | 4                | 3    |
| 5/16-18UNC          | GH3   | Y83814 | 4P      | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| 5/16-18UNC          | GH3   | Y83815 | 1.5P    | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| 5/16-18UNC          | GH5   | Y83864 | 4P      | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| 5/16-18UNC          | GH5   | Y83865 | 1.5P    | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| 5/16-24UNF          | GH3   | Y83816 | 4P      | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| 5/16-24UNF          | GH3   | Y83817 | 1.5P    | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| 5/16-24UNF          | GH5   | Y83866 | 4P      | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| 5/16-24UNF          | GH5   | Y83867 | 1.5P    | 2.718       | 1.125       | 0.318        | 0.238       | 0.375        | 4                | 4    |
| 3/8-16UNC           | GH3   | Y83818 | 4P      | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| 3/8-16UNC           | GH3   | Y83819 | 1.5P    | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| 3/8-16UNC           | GH5   | Y83868 | 4P      | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| 3/8-16UNC           | GH5   | Y83869 | 1.5P    | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| 3/8-24UNF           | GH3   | Y83820 | 4P      | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| 3/8-24UNF           | GH3   | Y83821 | 1.5P    | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| 3/8-24UNF           | GH5   | Y83870 | 4P      | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| 3/8-24UNF           | GH5   | Y83871 | 1.5P    | 2.937       | 1.25        | 0.381        | 0.286       | 0.437        | 4                | 4    |
| 7/16-14UNC          | GH3   | Y83822 | 4P      | 3.156       | 1.437       | 0.323        | 0.242       | 0.406        | 4                | 5    |
| 7/16-14UNC          | GH3   | Y83823 | 1.5P    | 3.156       | 1.437       | 0.323        | 0.242       | 0.406        | 4                | 5    |

Spiral Fluted Taps  
(for blind hole)

①

Spiral Fluted Taps  
(for through hole)

②

Spiral Pointed Taps  
(for through hole)

③

Hand Taps

④

Cemented  
Carbide Taps

⑤

Roll Taps

⑥

Special Thread Taps  
Simple Inspection Tools

⑦

Pipe Taps

⑧

Thread Mills  
Premium Thread Mills

⑨

Dies

⑩

Center Drills  
Centering Tools

⑪

Precision Machinery/  
Medical Surgical Instruments

⑫

ANSI

⑤-16

# 5 Cemented Carbide Tap Series

| Overall length | Thread length | Shank dia. | Size of square | Length of square |
|----------------|---------------|------------|----------------|------------------|
| L              | ℓ             | Ds         | K              | ℓk               |

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## ZELX CARB CI Carbide Taps for Cast Irons

| Size       | Class | Code   | Chamfer | L<br>(inch) | ℓ<br>(inch) | Ds<br>(inch) | K<br>(inch) | ℓk<br>(inch) | No. of<br>flutes | TYPE |
|------------|-------|--------|---------|-------------|-------------|--------------|-------------|--------------|------------------|------|
| 7/16-14UNC | GH5   | Y83872 | 4P      | 3.156       | 1.437       | 0.323        | 0.242       | 0.406        | 4                | 5    |
| 7/16-14UNC | GH5   | Y83873 | 1.5P    | 3.156       | 1.437       | 0.323        | 0.242       | 0.406        | 4                | 5    |
| 7/16-20UNF | GH3   | Y83824 | 4P      | 3.156       | 1.437       | 0.323        | 0.242       | 0.406        | 4                | 5    |
| 7/16-20UNF | GH3   | Y83825 | 1.5P    | 3.156       | 1.437       | 0.323        | 0.242       | 0.406        | 4                | 5    |
| 7/16-20UNF | GH5   | Y83874 | 4P      | 3.156       | 1.437       | 0.323        | 0.242       | 0.406        | 4                | 5    |
| 7/16-20UNF | GH5   | Y83875 | 1.5P    | 3.156       | 1.437       | 0.323        | 0.242       | 0.406        | 4                | 5    |
| 1/2-13UNC  | GH3   | Y83826 | 4P      | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| 1/2-13UNC  | GH3   | Y83827 | 1.5P    | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| 1/2-13UNC  | GH5   | Y83876 | 4P      | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| 1/2-13UNC  | GH5   | Y83877 | 1.5P    | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| 1/2-20UNF  | GH3   | Y83828 | 4P      | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| 1/2-20UNF  | GH3   | Y83829 | 1.5P    | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| 1/2-20UNF  | GH5   | Y83878 | 4P      | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| 1/2-20UNF  | GH5   | Y83879 | 1.5P    | 3.375       | 1.656       | 0.367        | 0.275       | 0.437        | 4                | 5    |
| 5/8-11UNC  | GH3   | Y83834 | 4P      | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| 5/8-11UNC  | GH3   | Y83835 | 1.5P    | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| 5/8-11UNC  | GH5   | Y83884 | 4P      | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| 5/8-11UNC  | GH5   | Y83885 | 1.5P    | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| 5/8-18UNF  | GH3   | Y83836 | 4P      | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| 5/8-18UNF  | GH3   | Y83837 | 1.5P    | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| 5/8-18UNF  | GH5   | Y83886 | 4P      | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |
| 5/8-18UNF  | GH5   | Y83887 | 1.5P    | 3.812       | 1.812       | 0.48         | 0.36        | 0.562        | 4                | 5    |

①

Spiral Fluted Taps  
(for blind hole)

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Special Thread Taps  
Simple Inspection Tools

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Pipe Taps

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Thread Mills  
Premium Thread Mills

⑩

Dies

⑪

Center Drills  
Centering Tools

⑫

Precision Machinery/  
Medical Surgical Instruments

ANSI

⑤-17

Think threads with  
**YAMAWA**

· This product is different from JIS products in shape and dimensions, please be careful when using.