

AHB

TOOLING & MACHINERY

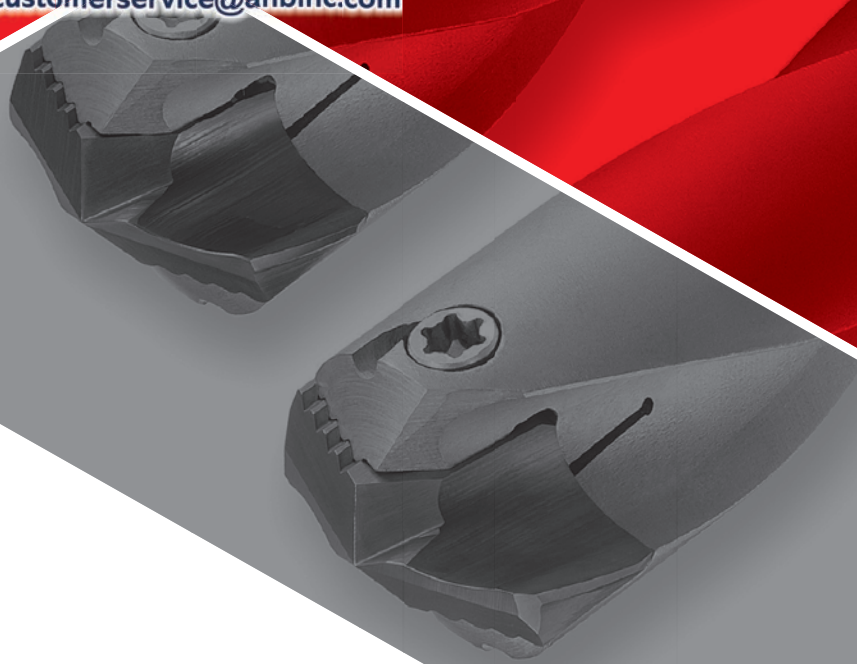
COMPLETE METALWORKING SOLUTIONS

(800) 991-4225

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ISO Certified

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DIA  EDGE

STAW/TAW

INDEXABLE TYPE DRILL WSTAR INSERT DRILL SERIES



ABOUT OUR BRAND

Your manufacturing success is our success.

It's simple. We want to provide high-quality cutting tool products that help deliver unparalleled performance and control for you to manufacture precisely perfect products every day.

Our long heritage of building partnerships through cutting tool solutions to metal working manufacturers, like yours, has given Mitsubishi Materials U.S.A. a solid reputation as an industry leader. We understand the importance of getting it right the first time by delivering high-quality cutting tool product brands to help overcome machining challenges to improve machining processes.

Your success is our success and is the driving force behind our innovative products. Our product brands, DIAEDGE and MOLDINO, are trusted globally in the metal manufacturing and die & mold industries for delivering expertly-designed manufactured tools of the trade for highly specialized industries like yours.

With the acquisition of Hitachi Tool Engineering, LTD, our traditional Mitsubishi Materials U.S.A. cutting tool product line is now sold under the DIAEDGE product brand name.

Brands you can trust:

 **MITSUBISHI MATERIALS U.S.A.**

TRUSTED PRODUCT BRANDS

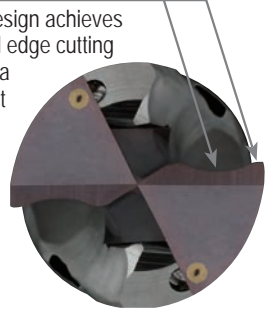
DIAEDGE

 **MOLDINO**

Designed for extreme sharpness, precision and rigidity

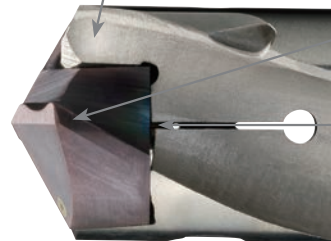
Wavy cutting edge

The wavy edge design achieves a sharp peripheral edge cutting performance with a strong center point for initial cutting.



High helix

Unique low resistance pocket design improves chip breaking for superior chip disposal.



Back metal

Sufficient back metal increases rigidity.

Centering location

Mitsubishi's unique system ensures high clamping accuracy.

Hole depth up to 8D (L/D 1.5, 3, 5 and 8 long type)

Stub type (1.5D)

High precision and efficient shallow hole drilling is possible. Suitable for drilling small parts using a lathe.

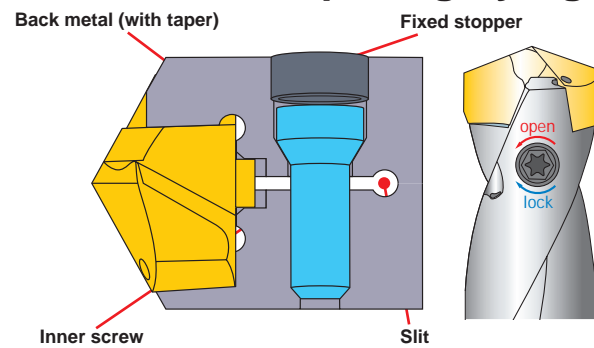


Long type (8D)

The body is optimized for deep hole drilling. Excellent chip evacuation and holder rigidity is achieved by improving the web thickness and flute width.



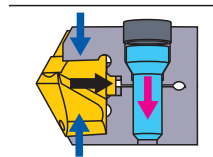
Mitsubishi's unique highly rigid clamping system (PAT.P.)



<Insert installation and detachment>

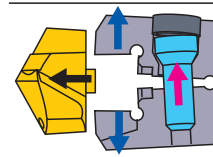
<Clamp>

Tighten the inner screw to securely clamp the insert with the back metal tapers.



<Unclamp>

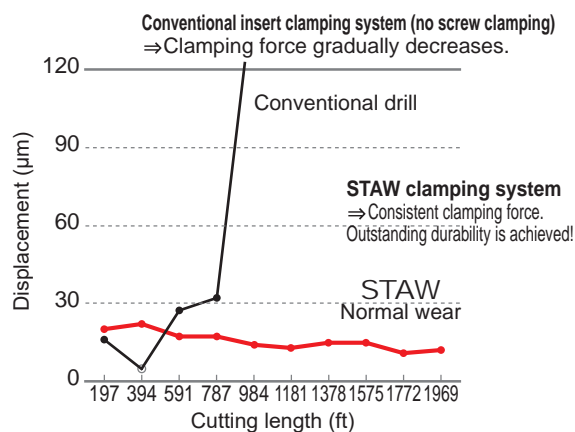
Loosening the screw causes it to push against the stopper and opens the back metal sections.



Durable body & insert

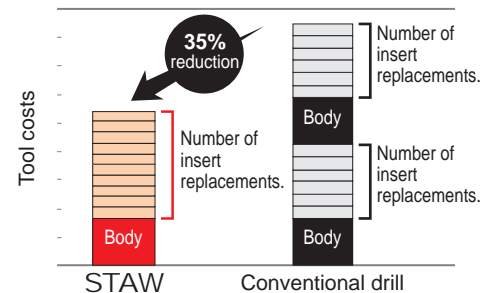
■ Rigid clamping system offers exceptional tool life. ■ Durable inserts and body reduces costs.

■ Radial runout of insert



■ Cost reduction effect

Tool cost comparison for 1969 ft length of machining



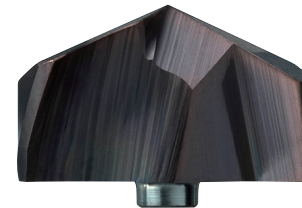
<Cutting conditions>
Work piece : AISI 1050 (150-180HB)
Drill diameter : ø10 (L/D=5)
Cutting speed : 330 SFM
Feed : .010 IPR
Coolant : W.S.O.
Coolant pressure : 75 PSI (Internal coolant)
Machine : Machining center

Insert grade

VP15TF

Insert grade for general purpose

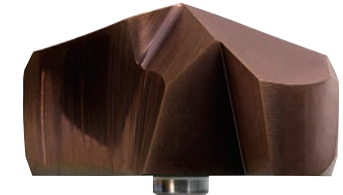
Suitable for machining a wide range of work piece materials from mild and alloy steels through stainless steels and cast iron.



DP5010

Insert grade for cast iron

A new PVD coated grade for cast iron. Cemented carbide substrate coated using a proprietary method of crystal control technology.



Operational Guidance

■ Insert Installation

- Before inserting the insert into the holder, ensure that there are no foreign objects or dirt in the holder slot or slit. Clean using compressed air if necessary.
- Use the wrench provided to loosen the inner screw to open the tip of the holder, then place the insert into the holder slot as shown in figure 1.
*Ensure that the wrench is firmly in contact with the base of the inner screw head when tightening.
- After the insert has been set in the holder slot, tighten the inner screw while pushing the insert lightly into the pocket as shown in figure 2 to securely clamp and locate the insert.
*Ensure that the wrench is firmly in contact with the base of the inner screw head when tightening.

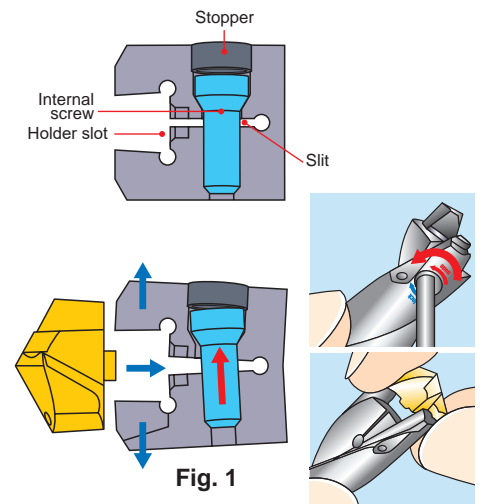


Fig. 1

Tighten clamp screws referring to the table for torque.

| Drill Diameter | Clamping Force | |
|---------------------------|----------------|-------|
| | lbf-in | N · m |
| .3906"-.4844" 10mm-12.5mm | 8.9 | 1 |
| .5000"-.5781" 13mm-15mm | 17.7 | 2 |
| .5938"-.7188" 16mm-18mm | 22.1 | 2.5 |

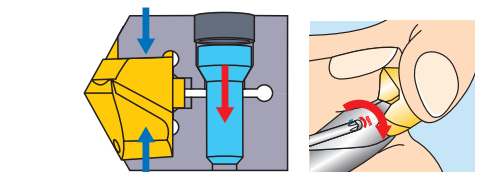
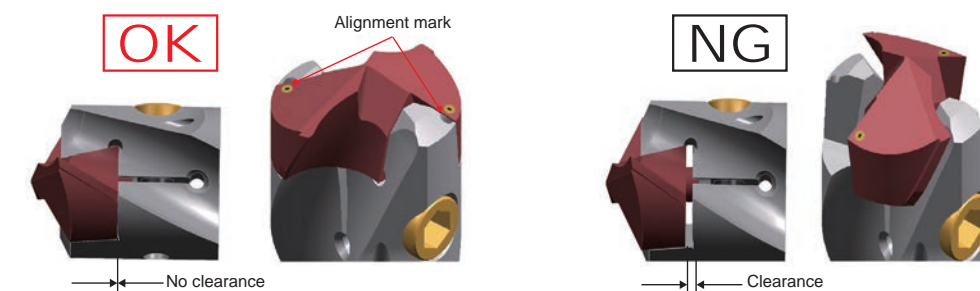


Fig. 2

- Check that there is no gap between the bottom of the insert and holder slot.



(Note) Poor or incorrect clamping of inserts can cause poor drilling performance and/or drill breakage. Therefore ensure that the alignment marks on both the body and insert are aligned when setting. When machining, use safety guards and goggles.

INDEXABLE TYPE DRILL

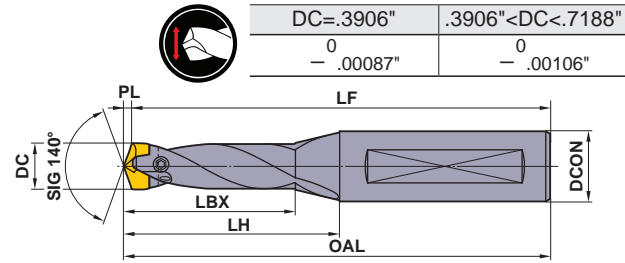
STAW

P M K N S H

INCH STANDARD
Internal Coolant



- Wavy cutting edge design for good chip control.
- Highly rigid clamping system offers stability and reliability for small hole drilling.



HOLDERS

| DC (inch) | Hole Depth (l/d) | Holder | | Dimensions (inch) | | | | | | Wrench | Insert | |
|-----------|------------------|--------------|-------|-------------------|------|------|------|------|------|--------|--------------|-------|
| | | Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | | Order Number | Stock |
| .3906 | 1.5 | STAWSS0026 | ● | .937 | 1.33 | 3.22 | 3.15 | .071 | .625 | TIP06F | STAWN0025TH | ● |
| | 3 | STAWSN0026 | ● | 1.531 | 1.92 | 3.81 | 3.74 | .071 | .625 | TIP06F | STAWK0025TG | ● |
| | 5 | STAWMN0026 | ● | 2.311 | 2.71 | 4.60 | 4.53 | .071 | .625 | TIP06F | STAWN0025TH | ● |
| | 8 | STAWLN0026 | ● | 3.501 | 3.89 | 5.78 | 5.71 | .071 | .625 | TIP06F | STAWK0025TG | ● |
| .4062 | 1.5 | STAWSS0026 | ● | .940 | 1.33 | 3.22 | 3.15 | .074 | .625 | TIP06F | STAWN0026TH | ● |
| | 3 | STAWSN0026 | ● | 1.534 | 1.92 | 3.81 | 3.74 | .074 | .625 | TIP06F | STAWK0026TG | ● |
| | 5 | STAWMN0026 | ● | 2.314 | 2.71 | 4.60 | 4.53 | .074 | .625 | TIP06F | STAWN0026TH | ● |
| | 8 | STAWLN0026 | ● | 3.504 | 3.89 | 5.78 | 5.71 | .074 | .625 | TIP06F | STAWK0026TG | ● |
| .4219 | 1.5 | STAWSS0027 | ● | .943 | 1.34 | 3.23 | 3.15 | .077 | .625 | TIP06F | STAWN0027TH | ● |
| | 3 | STAWSN0027 | ● | 1.537 | 1.93 | 3.82 | 3.74 | .077 | .625 | TIP06F | STAWK0027TG | ● |
| | 5 | STAWMN0027 | ● | 2.317 | 2.72 | 4.61 | 4.53 | .077 | .625 | TIP06F | STAWN0027TH | ● |
| | 8 | STAWLN0027 | ● | 3.507 | 3.90 | 5.79 | 5.71 | .077 | .625 | TIP06F | STAWK0027TG | ● |
| .4375 | 1.5 | STAWSS0028 | ● | 1.064 | 1.50 | 3.39 | 3.31 | .080 | .625 | TIP06F | STAWN0028TH | ● |
| | 3 | STAWSN0028 | ● | 1.690 | 2.13 | 4.02 | 3.94 | .080 | .625 | TIP06F | STAWK0028TG | ● |
| | 5 | STAWMN0028 | ● | 2.680 | 3.11 | 5.00 | 4.92 | .080 | .625 | TIP06F | STAWN0028TH | ● |
| | 8 | STAWLN0028 | ● | 3.860 | 4.29 | 6.18 | 6.10 | .080 | .625 | TIP06F | STAWK0028TG | ● |
| .4531 | 1.5 | STAWSS0030 | ● | 1.067 | 1.50 | 3.39 | 3.31 | .083 | .625 | TIP06F | STAWN0029TH | ● |
| | 3 | STAWSN0030 | ● | 1.693 | 2.13 | 4.02 | 3.94 | .083 | .625 | TIP06F | STAWK0029TG | ● |
| | 5 | STAWMN0030 | ● | 2.683 | 3.11 | 5.00 | 4.92 | .083 | .625 | TIP06F | STAWN0029TH | ● |
| | 8 | STAWLN0030 | ● | 3.863 | 4.29 | 6.18 | 6.10 | .083 | .625 | TIP06F | STAWK0029TG | ● |
| .4688 | 1.5 | STAWSS0030 | ● | 1.069 | 1.51 | 3.40 | 3.31 | .085 | .625 | TIP06F | STAWN0030TH | ● |
| | 3 | STAWSN0030 | ● | 1.695 | 2.14 | 4.03 | 3.94 | .085 | .625 | TIP06F | STAWK0030TG | ● |
| | 5 | STAWMN0030 | ● | 2.685 | 3.12 | 5.01 | 4.92 | .085 | .625 | TIP06F | STAWN0030TH | ● |
| | 8 | STAWLN0030 | ● | 3.865 | 4.30 | 6.19 | 6.10 | .085 | .625 | TIP06F | STAWK0030TG | ● |

(Note) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
 The LF, LH, and LBX dimensions listed in the table above, are measured using the VP15TF insert.
 When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

● : USA Stock

| DC (inch) | Hole Depth (l/d) | Holder | | Dimensions (inch) | | | | | | Wrench | Insert | |
|-----------|------------------|--------------|-------|-------------------|------|------|------|------|------|--------|--------------|-------|
| | | Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | | Order Number | Stock |
| .4844 | 1.5 | STAWSS0031 | ● | 1.148 | 1.63 | 3.52 | 3.43 | .088 | .625 | TIP06F | STAWN0031TH | ● |
| | 3 | STAWSN0031 | ● | 1.858 | 2.33 | 4.22 | 4.13 | .088 | .625 | TIP06F | STAWK0031TG | ● |
| | 5 | STAWMN0031 | ● | 2.848 | 3.32 | 5.21 | 5.12 | .088 | .625 | TIP06F | STAWN0031TH | ● |
| | 8 | STAWLN0031 | ● | 4.218 | 4.70 | 6.59 | 6.50 | .088 | .625 | TIP06F | STAWK0031TG | ● |
| .5000 | 1.5 | STAWSS0032 | ● | 1.151 | 1.63 | 3.52 | 3.43 | .091 | .625 | TIP06F | STAWN0032TH | ● |
| | 3 | STAWSN0032 | ● | 1.861 | 2.33 | 4.22 | 4.13 | .091 | .625 | TIP06F | STAWK0032TG | ● |
| | 5 | STAWMN0032 | ● | 2.851 | 3.32 | 5.21 | 5.12 | .091 | .625 | TIP06F | STAWN0032TH | ● |
| | 8 | STAWLN0032 | ● | 4.221 | 4.70 | 6.59 | 6.50 | .091 | .625 | TIP06F | STAWK0032TG | ● |
| .5156 | 1.5 | STAWSS0034 | ● | 1.274 | 1.79 | 3.67 | 3.58 | .094 | .625 | TIP08W | STAWN0033TH | ● |
| | 3 | STAWSN0034 | ● | 2.024 | 2.53 | 4.42 | 4.33 | .094 | .625 | TIP08W | STAWK0033TG | ● |
| | 5 | STAWMN0034 | ● | 3.004 | 3.52 | 5.40 | 5.31 | .094 | .625 | TIP08W | STAWN0033TH | ● |
| | 8 | STAWLN0034 | ● | 4.584 | 5.09 | 6.98 | 6.89 | .094 | .625 | TIP08W | STAWK0033TG | ● |
| .5312 | 1.5 | STAWSS0034 | ● | 1.277 | 1.80 | 3.68 | 3.58 | .097 | .625 | TIP08W | STAWN0034TH | ● |
| | 3 | STAWSN0034 | ● | 2.027 | 2.54 | 4.43 | 4.33 | .097 | .625 | TIP08W | STAWK0034TG | ● |
| | 5 | STAWMN0034 | ● | 3.007 | 3.53 | 5.41 | 5.31 | .097 | .625 | TIP08W | STAWN0034TH | ● |
| | 8 | STAWLN0034 | ● | 4.587 | 5.10 | 6.99 | 6.89 | .097 | .625 | TIP08W | STAWK0034TG | ● |
| .5469 | 1.5 | STAWSS0035 | ● | 1.280 | 1.80 | 3.68 | 3.58 | .100 | .625 | TIP08W | STAWN0035TH | ● |
| | 3 | STAWSN0035 | ● | 2.030 | 2.54 | 4.43 | 4.33 | .100 | .625 | TIP08W | STAWK0035TG | ● |
| | 5 | STAWMN0035 | ● | 3.010 | 3.53 | 5.41 | 5.31 | .100 | .625 | TIP08W | STAWN0035TH | ● |
| | 8 | STAWLN0035 | ● | 4.590 | 5.10 | 6.99 | 6.89 | .100 | .625 | TIP08W | STAWK0035TG | ● |
| .5625 | 1.5 | STAWSS0036 | ● | 1.322 | 1.87 | 3.76 | 3.66 | .102 | .625 | TIP08W | STAWN0036TH | ● |
| | 3 | STAWSN0036 | ● | 2.192 | 2.74 | 4.63 | 4.53 | .102 | .625 | TIP08W | STAWK0036TG | ● |
| | 5 | STAWMN0036 | ● | 3.372 | 3.92 | 5.81 | 5.71 | .102 | .625 | TIP08W | STAWN0036TH | ● |
| | 8 | STAWLN0036 | ● | 4.902 | 5.49 | 7.38 | 7.28 | .102 | .625 | TIP08W | STAWK0036TG | ● |
| .5781 | 1.5 | STAWSS0037 | ● | 1.325 | 1.88 | 3.77 | 3.66 | .105 | .625 | TIP08W | STAWN0037TH | ● |
| | 3 | STAWSN0037 | ● | 2.195 | 2.75 | 4.64 | 4.53 | .105 | .625 | TIP08W | STAWK0037TG | ● |
| | 5 | STAWMN0037 | ● | 3.375 | 3.93 | 5.82 | 5.71 | .105 | .625 | TIP08W | STAWN0037TH | ● |
| | 8 | STAWLN0037 | ● | 4.905 | 5.50 | 7.39 | 7.28 | .105 | .625 | TIP08W | STAWK0037TG | ● |

(Note) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
 The LF, LH, and LBX dimensions listed in the table above, are measured using the VP15TF insert.
 When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

STAW

Internal Coolant

| DC (inch) | Hole Depth (l/d) | Holder | | Dimensions (inch) | | | | | | Wrench | Insert | | |
|--------------|---------------------|--------------|-------|-------------------|------|------|------|------|------|--------|--------------|--------|--------|
| | | Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | | Order Number | Stock | |
| | | | | | | | | | | | | VP15TF | DP5010 |
| .5938 | 1.5 | STAWSS0039 | ● | 1.408 | 2.00 | 3.97 | 3.86 | .108 | .750 | TIP08W | STAWN0038TH | ● | ● |
| | | | | | | | | | | | STAWK0038TG | ● | ● |
| | 3 | STAWSN0039 | ● | 2.468 | 3.06 | 5.03 | 4.92 | .108 | .750 | TIP08W | STAWN0038TH | ● | ● |
| | | | | | | | | | | | STAWK0038TG | ● | ● |
| | 5 | STAWMN0039 | ● | 3.648 | 4.24 | 6.21 | 6.10 | .108 | .750 | TIP08W | STAWN0038TH | ● | ● |
| | | | | | | | | | | | STAWK0038TG | ● | ● |
| | 8 | STAWLN0039 | ● | 5.228 | 5.94 | 7.91 | 7.80 | .108 | .750 | TIP08W | STAWN0038TH | ● | ● |
| | | | | | | | | | | | STAWK0038TG | ● | ● |
| .6094 | 1.5 | STAWSS0039 | ● | 1.411 | 2.00 | 3.97 | 3.86 | .111 | .750 | TIP08W | STAWN0039TH | ● | ● |
| | | | | | | | | | | | STAWK0039TG | ● | ● |
| | 3 | STAWSN0039 | ● | 2.471 | 3.06 | 5.03 | 4.92 | .111 | .750 | TIP08W | STAWN0039TH | ● | ● |
| | | | | | | | | | | | STAWK0039TG | ● | ● |
| | 5 | STAWMN0039 | ● | 3.651 | 4.24 | 6.21 | 6.10 | .111 | .750 | TIP08W | STAWN0039TH | ● | ● |
| | | | | | | | | | | | STAWK0039TG | ● | ● |
| | 8 | STAWLN0039 | ● | 5.231 | 5.94 | 7.91 | 7.80 | .111 | .750 | TIP08W | STAWN0039TH | ● | ● |
| | | | | | | | | | | | STAWK0039TG | ● | ● |
| .6250 | 1.5 | STAWSS0041 | ● | 1.454 | 2.08 | 4.05 | 3.94 | .114 | .750 | TIP10W | STAWN0040TH | ● | ● |
| | | | | | | | | | | | STAWK0040TG | ● | ● |
| | 3 | STAWSN0041 | ● | 2.474 | 3.26 | 5.23 | 5.12 | .114 | .750 | TIP10W | STAWN0040TH | ● | ● |
| | | | | | | | | | | | STAWK0040TG | ● | ● |
| | 5 | STAWMN0041 | ● | 3.654 | 4.64 | 6.61 | 6.50 | .114 | .750 | TIP10W | STAWN0040TH | ● | ● |
| | | | | | | | | | | | STAWK0040TG | ● | ● |
| | 8 | STAWLN0041 | ● | 5.544 | 6.33 | 8.30 | 8.19 | .114 | .750 | TIP10W | STAWN0040TH | ● | ● |
| | | | | | | | | | | | STAWK0040TG | ● | ● |
| .6406 | 1.5 | STAWSS0041 | ● | 1.457 | 2.09 | 4.06 | 3.94 | .117 | .750 | TIP10W | STAWN0041TH | ● | ● |
| | | | | | | | | | | | STAWK0041TG | ● | ● |
| | 3 | STAWSN0041 | ● | 2.477 | 3.27 | 5.24 | 5.12 | .117 | .750 | TIP10W | STAWN0041TH | ● | ● |
| | | | | | | | | | | | STAWK0041TG | ● | ● |
| | 5 | STAWMN0041 | ● | 3.657 | 4.65 | 6.62 | 6.50 | .117 | .750 | TIP10W | STAWN0041TH | ● | ● |
| | | | | | | | | | | | STAWK0041TG | ● | ● |
| | 8 | STAWLN0041 | ● | 5.547 | 6.34 | 8.31 | 8.19 | .117 | .750 | TIP10W | STAWN0041TH | ● | ● |
| | | | | | | | | | | | STAWK0041TG | ● | ● |
| .6563 | 1.5 | STAWSS0044 | ● | 1.539 | 2.21 | 4.18 | 4.06 | .119 | .750 | TIP10W | STAWN0042TH | ● | ● |
| | | | | | | | | | | | STAWK0042TG | ● | ● |
| | 3 | STAWSN0044 | ● | 2.519 | 3.47 | 5.43 | 5.31 | .119 | .750 | TIP10W | STAWN0042TH | ● | ● |
| | | | | | | | | | | | STAWK0042TG | ● | ● |
| | 5 | STAWMN0044 | ● | 3.859 | 4.84 | 6.81 | 6.69 | .119 | .750 | TIP10W | STAWN0042TH | ● | ● |
| | | | | | | | | | | | STAWK0042TG | ● | ● |
| | 8 | STAWLN0044 | ● | 5.859 | 6.66 | 8.62 | 8.50 | .119 | .750 | TIP10W | STAWN0042TH | ● | ● |
| | | | | | | | | | | | STAWK0042TG | ● | ● |
| .6719 | 1.5 | STAWSS0044 | ● | 1.542 | 2.21 | 4.18 | 4.06 | .122 | .750 | TIP10W | STAWN0043TH | ● | ● |
| | | | | | | | | | | | STAWK0043TG | ● | ● |
| | 3 | STAWSN0044 | ● | 2.522 | 3.47 | 5.43 | 5.31 | .122 | .750 | TIP10W | STAWN0043TH | ● | ● |
| | | | | | | | | | | | STAWK0043TG | ● | ● |
| | 5 | STAWMN0044 | ● | 3.862 | 4.84 | 6.81 | 6.69 | .122 | .750 | TIP10W | STAWN0043TH | ● | ● |
| | | | | | | | | | | | STAWK0043TG | ● | ● |
| | 8 | STAWLN0044 | ● | 5.862 | 6.66 | 8.62 | 8.50 | .122 | .750 | TIP10W | STAWN0043TH | ● | ● |
| | | | | | | | | | | | STAWK0043TG | ● | ● |
| .6875 | 1.5 | STAWSS0044 | ● | 1.545 | 2.22 | 4.19 | 4.06 | .125 | .750 | TIP10W | STAWN0044TH | ● | ● |
| | | | | | | | | | | | STAWK0044TG | ● | ● |
| | 3 | STAWSN0044 | ● | 2.525 | 3.48 | 5.44 | 5.31 | .125 | .750 | TIP10W | STAWN0044TH | ● | ● |
| | | | | | | | | | | | STAWK0044TG | ● | ● |
| | 5 | STAWMN0044 | ● | 3.865 | 4.85 | 6.82 | 6.69 | .125 | .750 | TIP10W | STAWN0044TH | ● | ● |
| | | | | | | | | | | | STAWK0044TG | ● | ● |
| | 8 | STAWLN0044 | ● | 5.865 | 6.67 | 8.63 | 8.50 | .125 | .750 | TIP10W | STAWN0044TH | ● | ● |
| | | | | | | | | | | | STAWK0044TG | ● | ● |

(Note) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
The LF, LH, and LBX dimensions listed in the table above, are measured using the VP15TF insert.
When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

● : USA Stock

| DC (inch) | Hole Depth (l/d) | Holder | | Dimensions (inch) | | | | | | Wrench | Insert | | |
|--------------|---------------------|--------------|-------|-------------------|------|------|------|------|------|--------|--------------|--------|--------|
| | | Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | | Order Number | Stock | |
| | | | | | | | | | | | | VP15TF | DP5010 |
| .7031 | 1.5 | STAWSS0046 | ● | 1.588 | 2.30 | 4.26 | 4.13 | .128 | .750 | TIP10W | STAWN0045TH | ● | ● |
| | | | | | | | | | | | STAWK0045TG | ● | ● |
| | 3 | STAWSN0046 | ● | 2.648 | 3.67 | 5.64 | 5.51 | .128 | .750 | TIP10W | STAWN0045TH | ● | ● |
| | | | | | | | | | | | STAWK0045TG | ● | ● |
| | 5 | STAWMN0046 | ● | 4.068 | 5.05 | 7.02 | 6.89 | .128 | .750 | TIP10W | STAWN0045TH | ● | ● |
| | | | | | | | | | | | STAWK0045TG | ● | ● |
| | 8 | STAWLN0046 | ● | 6.188 | 6.98 | 8.95 | 8.82 | .128 | .750 | TIP10W | STAWN0045TH | ● | ● |
| | | | | | | | | | | | STAWK0045TG | ● | ● |
| .7188 | 1.5 | STAWSS0046 | ● | 1.591 | 2.30 | 4.26 | 4.13 | .131 | .750 | TIP10W | STAWN0046TH | ● | ● |
| | | | | | | | | | | | STAWK0046TG | ● | ● |
| | 3 | STAWSN0046 | ● | 2.651 | 3.67 | 5.64 | 5.51 | .131 | .750 | TIP10W | STAWN0046TH | ● | ● |
| | | | | | | | | | | | STAWK0046TG | ● | ● |
| | 5 | STAWMN0046 | ● | 4.071 | 5.05 | 7.02 | 6.89 | .131 | .750 | TIP10W | STAWN0046TH | ● | ● |
| | | | | | | | | | | | STAWK0046TG | ● | ● |
| | 8 | STAWLN0046 | ● | 6.191 | 6.98 | 8.95 | 8.82 | .131 | .750 | TIP10W | STAWN0046TH | ● | ● |
| | | | | | | | | | | | STAWK0046TG | ● | ● |

(Note) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
The LF, LH, and LBX dimensions listed in the table above, are measured using the VP15TF insert.
When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

INDEXABLE TYPE DRILL

STAW

- Wavy cutting edge design for good chip control.
- Highly rigid clamping system offers stability and reliability for small hole drilling.

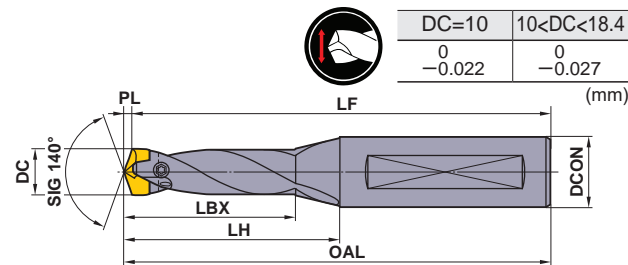
P M K N S H

METRIC STANDARD

Internal Coolant



HOLDERS



| | |
|-------------|-------------|
| DC=10 | 10<DC<18.4 |
| 0 -0.022 | 0 -0.027 |

| DC (mm) | Hole Depth (l/d) | Holder | | Dimensions (mm) | | | | | | Wrench | DC (mm) | Insert | |
|-------------------|------------------|---------------|-------|-----------------|-------|-------|-----|-----|------|--------|---------|----------------------------|--------|
| | | Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | | | Order Number | Stock |
| 10.0 10.4 | 1.5 | STAWSS1000S16 | ★ | 23.8 | 33.8 | 81.8 | 80 | 1.8 | 16 | TIP06F | 10.0 | STAWN1000TH STAWK1000TG | ★ ★ |
| | 3 | STAWSN1000S16 | ★ | 38.8 | 48.8 | 96.8 | 95 | 1.8 | 16 | TIP06F | 10.1 | STAWN1010TH STAWK1010TG | ★ ★ |
| | 5 | STAWMN1000S16 | ★ | 58.9 | 68.9 | 116.9 | 115 | 1.9 | 16 | TIP06F | 10.2 | STAWN1020TH STAWK1020TG | ★ ★ |
| | 8 | STAWLN1000S16 | ★ | 88.9 | 98.9 | 146.9 | 145 | 1.9 | 16 | TIP06F | 10.3 | STAWN1030TH STAWK1030TG | ★ ★ |
| 10.5 10.9 | 1.5 | STAWSS1050S16 | ★ | 23.9 | 33.9 | 81.9 | 80 | 1.9 | 16 | TIP06F | 10.5 | STAWN1050TH STAWK1050TG | ★ ★ |
| | 3 | STAWSN1050S16 | ★ | 38.9 | 48.9 | 96.9 | 95 | 1.9 | 16 | TIP06F | 10.6 | STAWN1060TH STAWK1060TG | ★ ★ |
| | 5 | STAWMN1050S16 | ★ | 59.0 | 69.0 | 117.0 | 115 | 2.0 | 16 | TIP06F | 10.7 | STAWN1070TH STAWK1070TG | ★ ★ |
| | 8 | STAWLN1050S16 | ★ | 89.0 | 99.0 | 147.0 | 145 | 2.0 | 16 | TIP06F | 10.8 | STAWN1080TH STAWK1080TG | ★ ★ |
| 11.0 11.4 | 1.5 | STAWSS1100S16 | ★ | 27.0 | 38.0 | 86.0 | 84 | 2.0 | 16 | TIP06F | 11.0 | STAWN1100TH STAWK1100TG | ★ ★ |
| | 3 | STAWSN1100S16 | ★ | 43.0 | 54.0 | 102.0 | 100 | 2.0 | 16 | TIP06F | 11.1 | STAWN1110TH STAWK1110TG | ★ ★ |
| | 5 | STAWMN1100S16 | ★ | 68.1 | 79.1 | 127.1 | 125 | 2.1 | 16 | TIP06F | 11.2 | STAWN1120TH STAWK1120TG | ★ ★ |
| | 8 | STAWLN1100S16 | ★ | 98.1 | 109.1 | 157.1 | 155 | 2.1 | 16 | TIP06F | 11.3 | STAWN1130TH STAWK1130TG | ★ ★ |
| 11.5 11.9 | 1.5 | STAWSS1150S16 | ★ | 27.1 | 38.1 | 86.1 | 84 | 2.1 | 16 | TIP06F | 11.5 | STAWN1150TH STAWK1150TG | ★ ★ |
| | 3 | STAWSN1150S16 | ★ | 43.1 | 54.1 | 102.1 | 100 | 2.1 | 16 | TIP06F | 11.6 | STAWN1160TH STAWK1160TG | ★ ★ |
| | 5 | STAWMN1150S16 | ★ | 68.1 | 79.1 | 127.1 | 125 | 2.1 | 16 | TIP06F | 11.7 | STAWN1170TH STAWK1170TG | ★ ★ |
| | 8 | STAWLN1150S16 | ★ | 98.2 | 109.2 | 157.2 | 155 | 2.2 | 16 | TIP06F | 11.8 | STAWN1180TH STAWK1180TG | ★ ★ |
| 12.0 12.4 | 1.5 | STAWSS1200S16 | ★ | 29.2 | 41.2 | 89.2 | 87 | 2.2 | 16 | TIP06F | 12.0 | STAWN1200TH STAWK1200TG | ★ ★ |
| | 3 | STAWSN1200S16 | ★ | 47.2 | 59.2 | 107.2 | 105 | 2.2 | 16 | TIP06F | 12.1 | STAWN1210TH STAWK1210TG | ★ ★ |
| | 5 | STAWMN1200S16 | ★ | 72.2 | 84.2 | 132.2 | 130 | 2.2 | 16 | TIP06F | 12.2 | STAWN1220TH STAWK1220TG | ★ ★ |
| | 8 | STAWLN1200S16 | ★ | 107.3 | 119.3 | 167.3 | 165 | 2.3 | 16 | TIP06F | 12.3 | STAWN1230TH STAWK1230TG | ★ ★ |

(Note) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
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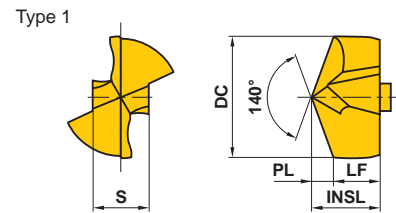
★ : Stocked in Japan

| DC (mm) | Hole Depth (l/d) | Holder | | Dimensions (mm) | | | | | | Wrench | DC (mm) | Insert | |
|-------------------|------------------|---------------|-------|-----------------|-------|-------|-----|-----|------|---------|---------|----------------------------|--------|
| | | Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | | | Order Number | Stock |
| 12.5 12.9 | 1.5 | STAWSS1250S16 | ★ | 29.3 | 41.3 | 89.3 | 87 | 2.3 | 16 | ①TIP06F | 12.5 | STAWN1250TH STAWK1250TG | ★ ★ |
| | 3 | STAWSN1250S16 | ★ | 47.3 | 59.3 | 107.3 | 105 | 2.3 | 16 | ①TIP06F | 12.6 | STAWN1260TH STAWK1260TG | ★ ★ |
| | 5 | STAWMN1250S16 | ★ | 72.3 | 84.3 | 132.3 | 130 | 2.3 | 16 | ①TIP06F | 12.7 | STAWN1270TH STAWK1270TG | ★ ★ |
| | 8 | STAWLN1250S16 | ★ | 107.3 | 119.3 | 167.3 | 165 | 2.3 | 16 | ①TIP06F | 12.8 | STAWN1280TH STAWK1280TG | ★ ★ |
| 13.0 13.4 | 1.5 | STAWSS1300S16 | ★ | 32.4 | 45.4 | 93.4 | 91 | 2.4 | 16 | ②TIP08W | 13.0 | STAWN1300TH STAWK1300TG | ★ ★ |
| | 3 | STAWSN1300S16 | ★ | 51.4 | 64.4 | 112.4 | 110 | 2.4 | 16 | ②TIP08W | 13.1 | STAWN1310TH STAWK1310TG | ★ ★ |
| | 5 | STAWMN1300S16 | ★ | 76.4 | 89.4 | 137.4 | 135 | 2.4 | 16 | ②TIP08W | 13.2 | STAWN1320TH STAWK1320TG | ★ ★ |
| | 8 | STAWLN1300S16 | ★ | 116.4 | 129.4 | 177.4 | 175 | 2.4 | 16 | ②TIP08W | 13.3 | STAWN1330TH STAWK1330TG | ★ ★ |
| 13.5 13.9 | 1.5 | STAWSS1350S16 | ★ | 32.5 | 45.5 | 93.5 | 91 | 2.5 | 16 | ②TIP08W | 13.5 | STAWN1350TH STAWK1350TG | ★ ★ |
| | 3 | STAWSN1350S16 | ★ | 51.5 | 64.5 | 112.5 | 110 | 2.5 | 16 | ②TIP08W | 13.6 | STAWN1360TH STAWK1360TG | ★ ★ |
| | 5 | STAWMN1350S16 | ★ | 76.5 | 89.5 | 137.5 | 135 | 2.5 | 16 | ②TIP08W | 13.7 | STAWN1370TH STAWK1370TG | ★ ★ |
| | 8 | STAWLN1350S16 | ★ | 116.5 | 129.5 | 177.5 | 175 | 2.5 | 16 | ②TIP08W | 13.8 | STAWN1380TH STAWK1380TG | ★ ★ |
| 14.0 14.4 | 1.5 | STAWSS1400S16 | ★ | 33.5 | 47.5 | 95.5 | 93 | 2.5 | 16 | ②TIP08W | 14.0 | STAWN1400TH STAWK1400TG | ★ ★ |
| | 3 | STAWSN1400S16 | ★ | 55.6 | 69.6 | 117.6 | 115 | 2.6 | 16 | ②TIP08W | 14.1 | STAWN1410TH STAWK1410TG | ★ ★ |
| | 5 | STAWMN1400S16 | ★ | 85.6 | 99.6 | 147.6 | 145 | 2.6 | 16 | ②TIP08W | 14.2 | STAWN1420TH STAWK1420TG | ★ ★ |
| | 8 | STAWLN1400S16 | ★ | 124.6 | 139.6 | 187.6 | 185 | 2.6 | 16 | ②TIP08W | 14.3 | STAWN1430TH STAWK1430TG | ★ ★ |
| 14.5 14.9 | 1.5 | STAWSS1450S16 | ★ | 33.6 | 47.6 | 95.6 | 93 | 2.6 | 16 | ②TIP08W | 14.5 | STAWN1450TH STAWK1450TG | ★ ★ |
| | 3 | STAWSN1450S16 | ★ | 55.7 | 69.7 | 117.7 | 115 | 2.7 | 16 | ②TIP08W | 14.6 | STAWN1460TH STAWK1460TG | ★ ★ |
| | 5 | STAWMN1450S16 | ★ | 85.7 | 99.7 | 147.7 | 145 | 2.7 | 16 | ②TIP08W | 14.7 | STAWN1470TH STAWK1470TG | ★ ★ |
| | 8 | STAWLN1450S16 | ★ | 124.7 | 139.7 | 187.7 | 185 | 2.7 | 16 | ②TIP08W | 14.8 | STAWN1480TH STAWK1480TG | ★ ★ |
| 15.0 15.4 | 1.5 | STAWSS1500S20 | ★ | 35.7 | 50.7 | 100.7 | 98 | 2.7 | 20 | ②TIP08W | 15.0 | STAWN1500TH STAWK1500TG | ★ ★ |
| | 3 | STAWSN1500S20 | ★ | 62.7 | 77.7 | 127.7 | 125 | 2.7 | 20 | ②TIP08W | 15.1 | STAWN1510TH STAWK1510TG | ★ ★ |
| | 5 | STAWMN1500S20 | ★ | 92.8 | 107.8 | 157.8 | 155 | 2.8 | 20 | ②TIP08W | 15.2 | STAWN1520TH STAWK1520TG | ★ ★ |
| | 8 | STAWLN1500S20 | ★ | 132.8 | 150.8 | 200.8 | 198 | 2.8 | 20 | ②TIP08W | 15.3 | STAWN1530TH STAWK1530TG | ★ ★ |

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When using the DP5010 insert, the LF, LH, and LBX dimensions will be slightly reduced.

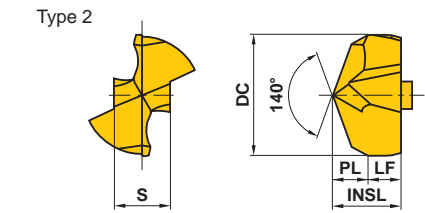
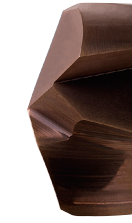
STAW

INSERTS INCH STANDARD



■ For General Use

| Order Number | Stock | | Dimensions (inch) | | | Type | Applicable Holder | |
|--------------|--------|--------|-------------------|------|------|------|-------------------|---------------|
| | VP15TF | DP5010 | DC | LF | S | | inch | metric |
| | | | | | | | | |
| STAWN0025TH | ● | | .3906 | .150 | .181 | 1 | STAW○○0026 | STAW○○1000S16 |
| STAWN0026TH | ● | | .4062 | .150 | .181 | 1 | STAW○○0026 | STAW○○1000S16 |
| STAWN0027TH | ● | | .4219 | .157 | .190 | 1 | STAW○○0027 | STAW○○1050S16 |
| STAWN0028TH | ● | | .4375 | .165 | .199 | 1 | STAW○○0028 | STAW○○1100S16 |
| STAWN0029TH | ● | | .4531 | .172 | .208 | 1 | STAW○○0030 | STAW○○1150S16 |
| STAWN0030TH | ● | | .4688 | .172 | .208 | 1 | STAW○○0030 | STAW○○1150S16 |
| STAWN0031TH | ● | | .4844 | .180 | .217 | 1 | STAW○○0031 | STAW○○1200S16 |
| STAWN0032TH | ● | | .5000 | .187 | .226 | 1 | STAW○○0032 | STAW○○1250S16 |
| STAWN0033TH | ● | | .5156 | .194 | .235 | 1 | STAW○○0034 | STAW○○1300S16 |
| STAWN0034TH | ● | | .5312 | .194 | .235 | 1 | STAW○○0034 | STAW○○1300S16 |
| STAWN0035TH | ● | | .5469 | .202 | .244 | 1 | STAW○○0035 | STAW○○1350S16 |
| STAWN0036TH | ● | | .5625 | .209 | .254 | 1 | STAW○○0036 | STAW○○1400S16 |
| STAWN0037TH | ● | | .5781 | .217 | .263 | 1 | STAW○○0037 | STAW○○1450S16 |
| STAWN0038TH | ● | | .5938 | .224 | .272 | 1 | STAW○○0039 | STAW○○1500S20 |
| STAWN0039TH | ● | | .6094 | .224 | .272 | 1 | STAW○○0039 | STAW○○1500S20 |
| STAWN0040T | ● | | .6250 | .232 | .281 | 1 | STAW○○0041 | STAW○○1600S20 |
| STAWN0041T | ● | | .6406 | .232 | .281 | 1 | STAW○○0041 | STAW○○1600S20 |
| STAWN0042T | ● | | .6563 | .247 | .299 | 1 | STAW○○0044 | STAW○○1700S20 |
| STAWN0043T | ● | | .6719 | .247 | .299 | 1 | STAW○○0044 | STAW○○1700S20 |
| STAWN0044T | ● | | .6875 | .247 | .299 | 1 | STAW○○0044 | STAW○○1700S20 |
| STAWN0045T | ● | | .7031 | .262 | .317 | 1 | STAW○○0046 | STAW○○1800S20 |
| STAWN0046T | ● | | .7188 | .262 | .317 | 1 | STAW○○0046 | STAW○○1800S20 |



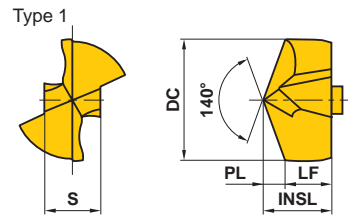
■ For Cast Iron

| Order Number | Stock | | Dimensions (inch) | | | Type | Applicable Holder | |
|--------------|--------|--------|-------------------|------|------|------|-------------------|---------------|
| | VP15TF | DP5010 | DC | LF | S | | inch | metric |
| | | | | | | | | |
| STAWK0025TG | | ● | .3906 | .129 | .181 | 2 | STAW○○0026 | STAW○○1000S16 |
| STAWK0026TG | | ● | .4062 | .129 | .181 | 2 | STAW○○0026 | STAW○○1000S16 |
| STAWK0027TG | | ● | .4219 | .137 | .190 | 2 | STAW○○0027 | STAW○○1050S16 |
| STAWK0028TG | | ● | .4375 | .144 | .199 | 2 | STAW○○0028 | STAW○○1100S16 |
| STAWK0029TG | | ● | .4531 | .153 | .208 | 2 | STAW○○0030 | STAW○○1150S16 |
| STAWK0030TG | | ● | .4688 | .153 | .208 | 2 | STAW○○0030 | STAW○○1150S16 |
| STAWK0031TG | | ● | .4844 | .159 | .217 | 2 | STAW○○0031 | STAW○○1200S16 |
| STAWK0032TG | | ● | .5000 | .167 | .226 | 2 | STAW○○0032 | STAW○○1250S16 |
| STAWK0033TG | | ● | .5156 | .174 | .235 | 2 | STAW○○0034 | STAW○○1300S16 |
| STAWK0034TG | | ● | .5312 | .174 | .235 | 2 | STAW○○0034 | STAW○○1300S16 |
| STAWK0035TG | | ● | .5469 | .182 | .244 | 2 | STAW○○0035 | STAW○○1350S16 |
| STAWK0036TG | | ● | .5625 | .189 | .254 | 2 | STAW○○0036 | STAW○○1400S16 |
| STAWK0037TG | | ● | .5781 | .196 | .263 | 2 | STAW○○0037 | STAW○○1450S16 |
| STAWK0038TG | | ● | .5938 | .204 | .272 | 2 | STAW○○0039 | STAW○○1500S20 |
| STAWK0039TG | | ● | .6094 | .204 | .272 | 2 | STAW○○0039 | STAW○○1500S20 |
| STAWK0040TG | | ● | .6250 | .207 | .281 | 2 | STAW○○0041 | STAW○○1600S20 |
| STAWK0041TG | | ● | .6406 | .207 | .281 | 2 | STAW○○0041 | STAW○○1600S20 |
| STAWK0042TG | | ● | .6563 | .222 | .299 | 2 | STAW○○0044 | STAW○○1700S20 |
| STAWK0043TG | | ● | .6719 | .222 | .299 | 2 | STAW○○0044 | STAW○○1700S20 |
| STAWK0044TG | | ● | .6875 | .222 | .299 | 2 | STAW○○0044 | STAW○○1700S20 |
| STAWK0045TG | | ● | .7031 | .237 | .317 | 2 | STAW○○0046 | STAW○○1800S20 |
| STAWK0046TG | | ● | .7188 | .237 | .317 | 2 | STAW○○0046 | STAW○○1800S20 |

● : USA Stock
<One insert in one case>

STAW

INSERTS METRIC STANDARD



■ For General Use

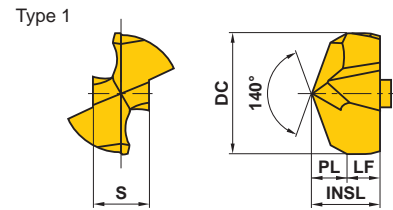
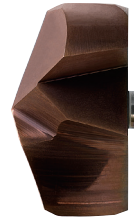
| Order Number | Stock | | Dimensions (mm) | | | Type | Applicable Holder | |
|--------------|--------|--------|-----------------|-----|-----|------|-------------------|---------------|
| | VP15TF | DP5010 | DC | LF | S | | inch | metric |
| | | | | | | | | |
| STAWN1000TH | ● | | 10.0 | 3.8 | 4.6 | 1 | STAW000026 | STAW001000S16 |
| STAWN1010TH | ● | | 10.1 | 3.8 | 4.6 | 1 | STAW000026 | STAW001000S16 |
| STAWN1020TH | ● | | 10.2 | 3.8 | 4.6 | 1 | STAW000026 | STAW001000S16 |
| STAWN1030TH | ● | | 10.3 | 3.8 | 4.6 | 1 | STAW000026 | STAW001000S16 |
| STAWN1040TH | ● | | 10.4 | 3.8 | 4.6 | 1 | STAW000026 | STAW001000S16 |
| STAWN1050TH | ● | | 10.5 | 4.0 | 4.8 | 1 | STAW000027 | STAW001050S16 |
| STAWN1060TH | ● | | 10.6 | 4.0 | 4.8 | 1 | STAW000027 | STAW001050S16 |
| STAWN1070TH | ● | | 10.7 | 4.0 | 4.8 | 1 | STAW000027 | STAW001050S16 |
| STAWN1080TH | ● | | 10.8 | 4.0 | 4.8 | 1 | STAW000027 | STAW001050S16 |
| STAWN1090TH | ● | | 10.9 | 4.0 | 4.8 | 1 | STAW000027 | STAW001050S16 |
| STAWN1100TH | ● | | 11.0 | 4.2 | 5.1 | 1 | STAW000028 | STAW001100S16 |
| STAWN1110TH | ● | | 11.1 | 4.2 | 5.1 | 1 | STAW000028 | STAW001100S16 |
| STAWN1120TH | ● | | 11.2 | 4.2 | 5.1 | 1 | STAW000028 | STAW001100S16 |
| STAWN1130TH | ● | | 11.3 | 4.2 | 5.1 | 1 | STAW000028 | STAW001100S16 |
| STAWN1140TH | ● | | 11.4 | 4.2 | 5.1 | 1 | STAW000028 | STAW001100S16 |
| STAWN1150TH | ● | | 11.5 | 4.4 | 5.3 | 1 | STAW000030 | STAW001150S16 |
| STAWN1160TH | ● | | 11.6 | 4.4 | 5.3 | 1 | STAW000030 | STAW001150S16 |
| STAWN1170TH | ● | | 11.7 | 4.4 | 5.3 | 1 | STAW000030 | STAW001150S16 |
| STAWN1180TH | ● | | 11.8 | 4.4 | 5.3 | 1 | STAW000030 | STAW001150S16 |
| STAWN1190TH | ● | | 11.9 | 4.4 | 5.3 | 1 | STAW000030 | STAW001150S16 |
| STAWN1200TH | ● | | 12.0 | 4.6 | 5.5 | 1 | STAW000031 | STAW001200S16 |
| STAWN1210TH | ● | | 12.1 | 4.6 | 5.5 | 1 | STAW000031 | STAW001200S16 |
| STAWN1220TH | ● | | 12.2 | 4.6 | 5.5 | 1 | STAW000031 | STAW001200S16 |
| STAWN1230TH | ● | | 12.3 | 4.6 | 5.5 | 1 | STAW000031 | STAW001200S16 |
| STAWN1240TH | ● | | 12.4 | 4.6 | 5.5 | 1 | STAW000031 | STAW001200S16 |
| STAWN1250TH | ● | | 12.5 | 4.8 | 5.8 | 1 | STAW000032 | STAW001250S16 |
| STAWN1260TH | ● | | 12.6 | 4.8 | 5.8 | 1 | STAW000032 | STAW001250S16 |
| STAWN1270TH | ● | | 12.7 | 4.8 | 5.8 | 1 | STAW000032 | STAW001250S16 |
| STAWN1280TH | ● | | 12.8 | 4.8 | 5.8 | 1 | STAW000032 | STAW001250S16 |
| STAWN1290TH | ● | | 12.9 | 4.8 | 5.8 | 1 | STAW000032 | STAW001250S16 |
| STAWN1300TH | ● | | 13.0 | 4.9 | 6.0 | 1 | STAW000034 | STAW001300S16 |
| STAWN1310TH | ● | | 13.1 | 4.9 | 6.0 | 1 | STAW000034 | STAW001300S16 |
| STAWN1320TH | ● | | 13.2 | 4.9 | 6.0 | 1 | STAW000034 | STAW001300S16 |
| STAWN1330TH | ● | | 13.3 | 4.9 | 6.0 | 1 | STAW000034 | STAW001300S16 |
| STAWN1340TH | ● | | 13.4 | 4.9 | 6.0 | 1 | STAW000034 | STAW001300S16 |
| STAWN1350TH | ● | | 13.5 | 5.1 | 6.2 | 1 | STAW000035 | STAW001350S16 |
| STAWN1360TH | ● | | 13.6 | 5.1 | 6.2 | 1 | STAW000035 | STAW001350S16 |
| STAWN1370TH | ● | | 13.7 | 5.1 | 6.2 | 1 | STAW000035 | STAW001350S16 |

● : USA Stock
<One insert in one case>

| Order Number | Stock | | Dimensions (mm) | | | Type | Applicable Holder | |
|--------------|--------|--------|-----------------|-----|-----|------|-------------------|---------------|
| | VP15TF | DP5010 | DC | LF | S | | inch | metric |
| | | | | | | | | |
| STAWN1380TH | ● | | 13.8 | 5.1 | 6.2 | 1 | STAW000035 | STAW001350S16 |
| STAWN1390TH | ● | | 13.9 | 5.1 | 6.2 | 1 | STAW000035 | STAW001350S16 |
| STAWN1400TH | ● | | 14.0 | 5.3 | 6.4 | 1 | STAW000036 | STAW001400S16 |
| STAWN1410TH | ● | | 14.1 | 5.3 | 6.4 | 1 | STAW000036 | STAW001400S16 |
| STAWN1420TH | ● | | 14.2 | 5.3 | 6.4 | 1 | STAW000036 | STAW001400S16 |
| STAWN1430TH | ● | | 14.3 | 5.3 | 6.4 | 1 | STAW000036 | STAW001400S16 |
| STAWN1440TH | ● | | 14.4 | 5.3 | 6.4 | 1 | STAW000036 | STAW001400S16 |
| STAWN1450TH | ● | | 14.5 | 5.5 | 6.7 | 1 | STAW000037 | STAW001450S16 |
| STAWN1460TH | ● | | 14.6 | 5.5 | 6.7 | 1 | STAW000037 | STAW001450S16 |
| STAWN1470TH | ● | | 14.7 | 5.5 | 6.7 | 1 | STAW000037 | STAW001450S16 |
| STAWN1480TH | ● | | 14.8 | 5.5 | 6.7 | 1 | STAW000037 | STAW001450S16 |
| STAWN1490TH | ● | | 14.9 | 5.5 | 6.7 | 1 | STAW000037 | STAW001450S16 |
| STAWN1500TH | ● | | 15.0 | 5.7 | 6.9 | 1 | STAW000039 | STAW001500S16 |
| STAWN1510TH | ● | | 15.1 | 5.7 | 6.9 | 1 | STAW000039 | STAW001500S16 |
| STAWN1520TH | ● | | 15.2 | 5.7 | 6.9 | 1 | STAW000039 | STAW001500S16 |
| STAWN1530TH | ● | | 15.3 | 5.7 | 6.9 | 1 | STAW000039 | STAW001500S16 |
| STAWN1540TH | ● | | 15.4 | 5.7 | 6.9 | 1 | STAW000039 | STAW001500S16 |
| STAWN1550T | ● | | 15.5 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1560T | ● | | 15.6 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1570T | ● | | 15.7 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1580T | ● | | 15.8 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1590T | ● | | 15.9 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1600T | ● | | 16.0 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1610T | ● | | 16.1 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1620T | ● | | 16.2 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1630T | ● | | 16.3 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1640T | ● | | 16.4 | 5.9 | 7.1 | 1 | STAW000041 | STAW001600S16 |
| STAWN1650T | ● | | 16.5 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1660T | ● | | 16.6 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1670T | ● | | 16.7 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1680T | ● | | 16.8 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1690T | ● | | 16.9 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1700T | ● | | 17.0 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1710T | ● | | 17.1 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1720T | ● | | 17.2 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1730T | ● | | 17.3 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1740T | ● | | 17.4 | 6.3 | 7.6 | 1 | STAW000044 | STAW001700S16 |
| STAWN1750T | ● | | 17.5 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1760T | ● | | 17.6 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1770T | ● | | 17.7 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1780T | ● | | 17.8 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1790T | ● | | 17.9 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1800T | ● | | 18.0 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1810T | ● | | 18.1 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1820T | ● | | 18.2 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1830T | ● | | 18.3 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |
| STAWN1840T | ● | | 18.4 | 6.7 | 8.1 | 1 | STAW000046 | STAW001800S16 |

STAW

INSERTS METRIC STANDARD



■ For Cast Iron

| Order Number | Stock | | Dimensions (mm) | | | Type | Applicable Holder | |
|--------------|--------|--------|-----------------|-----|-----|------|-------------------|---------------|
| | VP15TF | DP5010 | DC | LF | S | | inch | metric |
| STAWK1000TG | ★ | | 10.0 | 3.3 | 4.6 | 1 | STAW○○0026 | STAW○○1000S16 |
| STAWK1010TG | ★ | | 10.1 | 3.3 | 4.6 | 1 | STAW○○0026 | STAW○○1000S16 |
| STAWK1020TG | ★ | | 10.2 | 3.3 | 4.6 | 1 | STAW○○0026 | STAW○○1000S16 |
| STAWK1030TG | ★ | | 10.3 | 3.3 | 4.6 | 1 | STAW○○0026 | STAW○○1000S16 |
| STAWK1040TG | ★ | | 10.4 | 3.3 | 4.6 | 1 | STAW○○0026 | STAW○○1000S16 |
| STAWK1050TG | ★ | | 10.5 | 3.5 | 4.8 | 1 | STAW○○0027 | STAW○○1050S16 |
| STAWK1060TG | ★ | | 10.6 | 3.5 | 4.8 | 1 | STAW○○0027 | STAW○○1050S16 |
| STAWK1070TG | ★ | | 10.7 | 3.5 | 4.8 | 1 | STAW○○0027 | STAW○○1050S16 |
| STAWK1080TG | ★ | | 10.8 | 3.5 | 4.8 | 1 | STAW○○0027 | STAW○○1050S16 |
| STAWK1090TG | ★ | | 10.9 | 3.5 | 4.8 | 1 | STAW○○0027 | STAW○○1050S16 |
| STAWK1100TG | ★ | | 11.0 | 3.7 | 5.1 | 1 | STAW○○0028 | STAW○○1100S16 |
| STAWK1110TG | ★ | | 11.1 | 3.7 | 5.1 | 1 | STAW○○0028 | STAW○○1100S16 |
| STAWK1120TG | ★ | | 11.2 | 3.7 | 5.1 | 1 | STAW○○0028 | STAW○○1100S16 |
| STAWK1130TG | ★ | | 11.3 | 3.7 | 5.1 | 1 | STAW○○0028 | STAW○○1100S16 |
| STAWK1140TG | ★ | | 11.4 | 3.7 | 5.1 | 1 | STAW○○0028 | STAW○○1100S16 |
| STAWK1150TG | ★ | | 11.5 | 3.9 | 5.3 | 1 | STAW○○0030 | STAW○○1150S16 |
| STAWK1160TG | ★ | | 11.6 | 3.9 | 5.3 | 1 | STAW○○0030 | STAW○○1150S16 |
| STAWK1170TG | ★ | | 11.7 | 3.9 | 5.3 | 1 | STAW○○0030 | STAW○○1150S16 |
| STAWK1180TG | ★ | | 11.8 | 3.9 | 5.3 | 1 | STAW○○0030 | STAW○○1150S16 |
| STAWK1190TG | ★ | | 11.9 | 3.9 | 5.3 | 1 | STAW○○0030 | STAW○○1150S16 |
| STAWK1200TG | ★ | | 12.0 | 4.1 | 5.5 | 1 | STAW○○0031 | STAW○○1200S16 |
| STAWK1210TG | ★ | | 12.1 | 4.1 | 5.5 | 1 | STAW○○0031 | STAW○○1200S16 |
| STAWK1220TG | ★ | | 12.2 | 4.1 | 5.5 | 1 | STAW○○0031 | STAW○○1200S16 |
| STAWK1230TG | ★ | | 12.3 | 4.1 | 5.5 | 1 | STAW○○0031 | STAW○○1200S16 |
| STAWK1240TG | ★ | | 12.4 | 4.1 | 5.5 | 1 | STAW○○0031 | STAW○○1200S16 |
| STAWK1250TG | ★ | | 12.5 | 4.2 | 5.8 | 1 | STAW○○0032 | STAW○○1250S16 |
| STAWK1260TG | ★ | | 12.6 | 4.2 | 5.8 | 1 | STAW○○0032 | STAW○○1250S16 |
| STAWK1270TG | ★ | | 12.7 | 4.2 | 5.8 | 1 | STAW○○0032 | STAW○○1250S16 |
| STAWK1280TG | ★ | | 12.8 | 4.2 | 5.8 | 1 | STAW○○0032 | STAW○○1250S16 |
| STAWK1290TG | ★ | | 12.9 | 4.2 | 5.8 | 1 | STAW○○0032 | STAW○○1250S16 |
| STAWK1300TG | ★ | | 13.0 | 4.4 | 6.0 | 1 | STAW○○0034 | STAW○○1300S16 |
| STAWK1310TG | ★ | | 13.1 | 4.4 | 6.0 | 1 | STAW○○0034 | STAW○○1300S16 |
| STAWK1320TG | ★ | | 13.2 | 4.4 | 6.0 | 1 | STAW○○0034 | STAW○○1300S16 |
| STAWK1330TG | ★ | | 13.3 | 4.4 | 6.0 | 1 | STAW○○0034 | STAW○○1300S16 |
| STAWK1340TG | ★ | | 13.4 | 4.4 | 6.0 | 1 | STAW○○0034 | STAW○○1300S16 |
| STAWK1350TG | ★ | | 13.5 | 4.6 | 6.2 | 1 | STAW○○0035 | STAW○○1350S16 |
| STAWK1360TG | ★ | | 13.6 | 4.6 | 6.2 | 1 | STAW○○0035 | STAW○○1350S16 |
| STAWK1370TG | ★ | | 13.7 | 4.6 | 6.2 | 1 | STAW○○0035 | STAW○○1350S16 |

★ : Stocked in Japan
 <One insert in one case>

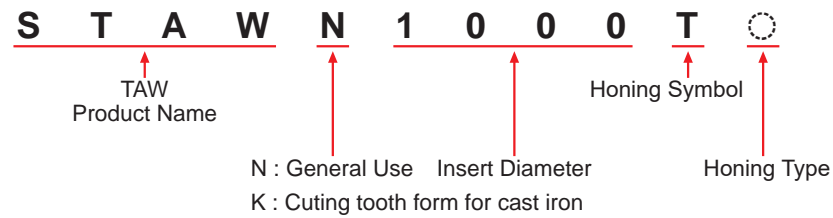
| Order Number | Stock | | Dimensions (mm) | | | Type | Applicable Holder | |
|--------------|--------|--------|-----------------|-----|-----|------|-------------------|---------------|
| | VP15TF | DP5010 | DC | LF | S | | inch | metric |
| STAWK1380TG | ★ | | 13.8 | 4.6 | 6.2 | 1 | STAW○○0035 | STAW○○1350S16 |
| STAWK1390TG | ★ | | 13.9 | 4.6 | 6.2 | 1 | STAW○○0035 | STAW○○1350S16 |
| STAWK1400TG | ★ | | 14.0 | 4.8 | 6.4 | 1 | STAW○○0036 | STAW○○1400S16 |
| STAWK1410TG | ★ | | 14.1 | 4.8 | 6.4 | 1 | STAW○○0036 | STAW○○1400S16 |
| STAWK1420TG | ★ | | 14.2 | 4.8 | 6.4 | 1 | STAW○○0036 | STAW○○1400S16 |
| STAWK1430TG | ★ | | 14.3 | 4.8 | 6.4 | 1 | STAW○○0036 | STAW○○1400S16 |
| STAWK1440TG | ★ | | 14.4 | 4.8 | 6.4 | 1 | STAW○○0036 | STAW○○1400S16 |
| STAWK1450TG | ★ | | 14.5 | 5.0 | 6.7 | 1 | STAW○○0037 | STAW○○1450S16 |
| STAWK1460TG | ★ | | 14.6 | 5.0 | 6.7 | 1 | STAW○○0037 | STAW○○1450S16 |
| STAWK1470TG | ★ | | 14.7 | 5.0 | 6.7 | 1 | STAW○○0037 | STAW○○1450S16 |
| STAWK1480TG | ★ | | 14.8 | 5.0 | 6.7 | 1 | STAW○○0037 | STAW○○1450S16 |
| STAWK1490TG | ★ | | 14.9 | 5.0 | 6.7 | 1 | STAW○○0037 | STAW○○1450S16 |
| STAWK1500TG | ★ | | 15.0 | 5.2 | 6.9 | 1 | STAW○○0039 | STAW○○1500S16 |
| STAWK1510TG | ★ | | 15.1 | 5.2 | 6.9 | 1 | STAW○○0039 | STAW○○1500S16 |
| STAWK1520TG | ★ | | 15.2 | 5.2 | 6.9 | 1 | STAW○○0039 | STAW○○1500S16 |
| STAWK1530TG | ★ | | 15.3 | 5.2 | 6.9 | 1 | STAW○○0039 | STAW○○1500S16 |
| STAWK1540TG | ★ | | 15.4 | 5.2 | 6.9 | 1 | STAW○○0039 | STAW○○1500S16 |
| STAWK1550TG | ★ | | 15.5 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1560TG | ★ | | 15.6 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1570TG | ★ | | 15.7 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1580TG | ★ | | 15.8 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1590TG | ★ | | 15.9 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1600TG | ★ | | 16.0 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1610TG | ★ | | 16.1 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1620TG | ★ | | 16.2 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1630TG | ★ | | 16.3 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1640TG | ★ | | 16.4 | 5.3 | 7.1 | 1 | STAW○○0041 | STAW○○1600S16 |
| STAWK1650TG | ★ | | 16.5 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1660TG | ★ | | 16.6 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1670TG | ★ | | 16.7 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1680TG | ★ | | 16.8 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1690TG | ★ | | 16.9 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1700TG | ★ | | 17.0 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1710TG | ★ | | 17.1 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1720TG | ★ | | 17.2 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1730TG | ★ | | 17.3 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1740TG | ★ | | 17.4 | 5.7 | 7.6 | 1 | STAW○○0044 | STAW○○1700S16 |
| STAWK1750TG | ★ | | 17.5 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1760TG | ★ | | 17.6 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1770TG | ★ | | 17.7 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1780TG | ★ | | 17.8 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1790TG | ★ | | 17.9 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1800TG | ★ | | 18.0 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1810TG | ★ | | 18.1 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1820TG | ★ | | 18.2 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1830TG | ★ | | 18.3 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |
| STAWK1840TG | ★ | | 18.4 | 6.0 | 8.1 | 1 | STAW○○0046 | STAW○○1800S16 |

STAW

■ HONE WIDTH

If an insert with honing other than standard is needed, please order using the symbols below.

(Insert Order Number)



(Honing Standard)

| Honing Type | Hone Width (inch) |
|-------------|-------------------|
| F | 0 |
| G | .0008 — .0020 |
| H(Standard) | .0020 — .0039 |
| - | .0039 — .0059 |
| K | .0059 — .0079 |
| S | .0079 — .0098 |
| M | .0098 — .0118 |

RECOMMENDED CUTTING CONDITIONS

| Work Material | DC Conditions Hardness | φ.3906"—φ.5000" φ10.0—φ12.9mm | | φ.5156"—φ.5469" φ13.0—φ13.9mm | | φ.5625"—φ.6094" φ14.0—φ15.4mm | | φ.62506"—φ.7188" φ15.5—φ18.4mm | |
|-----------------------------|------------------------------|----------------------------------|---------------------|----------------------------------|---------------------|----------------------------------|---------------------|-----------------------------------|---------------------|
| | | Cutting Speed (SFM) | Feed (IPR) | Cutting Speed (SFM) | Feed (IPR) | Cutting Speed (SFM) | Feed (IPR) | Cutting Speed (SFM) | Feed (IPR) |
| P Mild Steel | ≤180HB | 260 (195-330) | .008 (.006-.010) | 295 (230-360) | .010 (.008-.012) | 330 (260-390) | .012 (.010-.014) | 330 (260-390) | .014 (.010-.016) |
| | 180-280HB | 260 (195-330) | .008 (.006-.010) | 295 (230-360) | .010 (.008-.012) | 330 (260-390) | .012 (.010-.014) | 330 (260-390) | .014 (.010-.016) |
| Carbon Steel Alloy Steel | 280-350HB | 230 (195-295) | .008 (.006-.010) | 260 (195-330) | .010 (.008-.012) | 295 (230-360) | .010 (.008-.012) | 295 (230-360) | .012 (.008-.014) |
| | ≤200HB | 130 (100-165) | .005 (.004-.006) | 165 (130-195) | .006 (.005-.007) | 195 (165-230) | .007 (.006-.008) | 195 (165-230) | .006 (.005-.008) |
| M Stainless Steel | ≤200HB | 130 (100-165) | .005 (.004-.006) | 165 (130-195) | .006 (.005-.007) | 195 (165-230) | .007 (.006-.008) | 195 (165-230) | .006 (.005-.008) |
| K Gray Cast Iron | Tensile Strength ≤350MPa | 260 (195-330) | .008 (.006-.010) | 295 (230-360) | .010 (.008-.012) | 330 (260-390) | .012 (.010-.014) | 390 (260-460) | .018 (.014-.022) |
| | Ductile Cast Iron | Tensile Strength ≤450MPa | 230 (195-295) | .008 (.006-.010) | 260 (195-330) | .010 (.008-.012) | 295 (230-360) | .012 (.010-.014) | .014 (.010-.016) |

- (Note 1) When using a drill for 1.5DC depth of hole, it is possible to increase the feed rate by approx. 20%.
- (Note 2) When using a drill for 8DC depth of hole, please decrease the cutting speed by approx. 20%.
- (Note 3) When using a drill for 8DC depth of hole, it is recommended to make a pilot hole of the same size.
- (Note 4) For stainless steel, please use internal coolant. (Mist & MQL are not recommended).

SPARE PARTS

| Applicable Holder | Pack Order Number (Internal screw & stopper) | | Internal Screw | Stopper | |
|-------------------|---|---------|----------------|-------------|--------|
| | inch | mm | | | |
| STAWSS | 0026 | 1000S16 | WS203107TPS | WS35LH | |
| | 0027 | 1050S16 | WS203107TPS | WS35LH | |
| | 0028 | 1100S16 | WS203108TPS | WS35LH | |
| | 0030 | 1150S16 | WS203108TPS | WS35LH | |
| | 0031 | 1200S16 | WS203108TPS | WS35LH | |
| | 0032 | 1250S16 | WS203108TPS | WS35LH | |
| | STAWSN | 0034 | 1300S16 | WS253909TPS | WS45LH |
| | | 0035 | 1350S16 | WS253909TPS | WS45LH |
| | STAWLN | 0036 | 1400S16 | WS253909TPS | WS45LH |
| | | 0037 | 1450S16 | WS253909TPS | WS45LH |
| STAWLN | 0039 | 1500S20 | WS253909TPS | WS45LH | |
| | 0041 | 1600S20 | WS304912TPS | WS55LH | |
| | 0044 | 1700S20 | WS304912TPS | WS55LH | |
| | 0046 | 1800S20 | WS304912TPS | WS55LH | |

* Clamp Torque (lbf-in) : WS203107TPS=8.9, WS203108TPS=8.9, WS253909TPS=17.7, WS304912TPS=22.1
 (Note) The parts included in the package are internal screw, stopper and operation manual. Please replace the parts in accordance with the operation manual.

APPLICATION EXAMPLES

| Holder | STAWMN1000S16 | STAWSS1150S16 | STAWMN1350S16 | |
|--------------------|---|--|---|------|
| Insert (Grade) | STAWN1000TH (VP15TF) | STAWN1150TH (VP15TF) | STAWN1350TH (VP15TF) | |
| Work piece | High tensile steel | Bearing steel | Carbon steel | |
| Component | Arm parts | Sleeve | Shaft | |
| Cutting Conditions | Cutting Speed (SFM) | 330 | 200 | 310 |
| | Feed (IPR) | .010 | .007 | .010 |
| | Revolution (RPM) | 3200 | 1685 | 2225 |
| | Penetration Rate (inch/min) | 32 | 11.8 | 22.3 |
| Cutting mode | W.S.O. (Internal coolant) | W.S.O. (Internal coolant) | W.S.O. (Internal coolant) | |
| Machine | Machining center | Lathe | Lathe | |
| Result | Cutting length (ft) 0 33 66 98 131 164 STAW Conventional | Number of holes 0 2000 4000 6000 8000 STAW Conventional | Cutting length (ft) 0 33 66 98 131 164 197 STAW Conventional | |

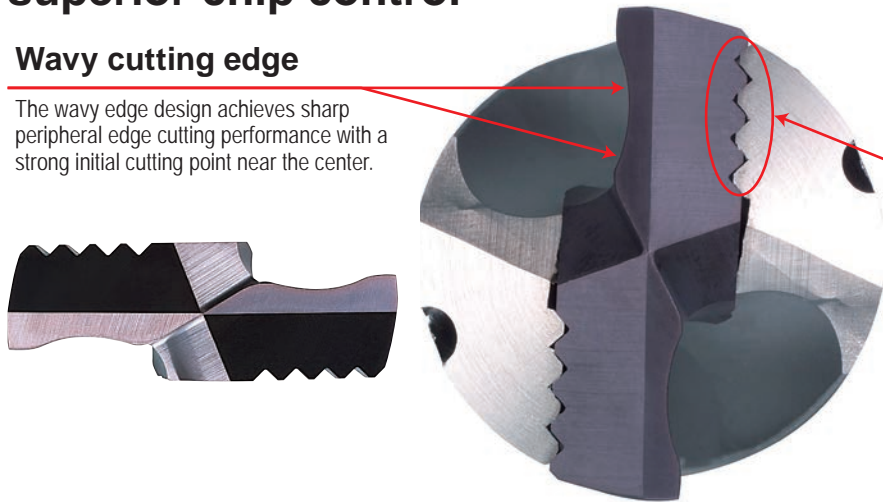
| Holder | STAWMN1100S16 | STAWSN1450S16 | |
|--------------------|---|---|-------|
| Insert (Grade) | STAWN1100TH (VP15TF) | STAWK1450TG(DP5010) | |
| Work piece | Alloy steel | Cast iron (No35B) | |
| Component | Machine parts | Machine plate | |
| Cutting Conditions | Cutting Speed (SFM) | 230 | 590 |
| | Feed (IPR) | .010 | .016 |
| | Revolution (RPM) | 2030 | 3945 |
| | Penetration Rate (inch/min) | 20.3 | 63.12 |
| Cutting mode | W.S.O. (Internal coolant) | W.S.O. (Internal coolant) | |
| Machine | Machining center | Machining center | |
| Result | Cutting length (ft) 0 33 66 98 131 STAW Conventional | Cutting length (ft) 0 16 33 49 66 82 STAW Conventional | |

Designed for extreme sharpness and accuracy

Wavy type cutting edge for superior chip control

Wavy cutting edge

The wavy edge design achieves sharp peripheral edge cutting performance with a strong initial cutting point near the center.



Cutting edge shape

Serrated insert clamping geometry

Unique serration geometry

Mitsubishi's unique serration structure allows high clamping accuracy to be maintained.

Insert grade

VP15TF Insert grade for general purpose

Suitable for machining a wide range of work piece materials from mild and alloy steels through stainless steels and cast iron.



DP5010 Insert grade for cast iron

A new PVD coated grade for cast iron. Cemented carbide substrate coated using a proprietary method of crystal control technology.



High durability body

The cutter bodies are made resistant to corrosion and abrasion by using a superior, high heat resistant alloy and a special surface treatment.



Chamfer Ring

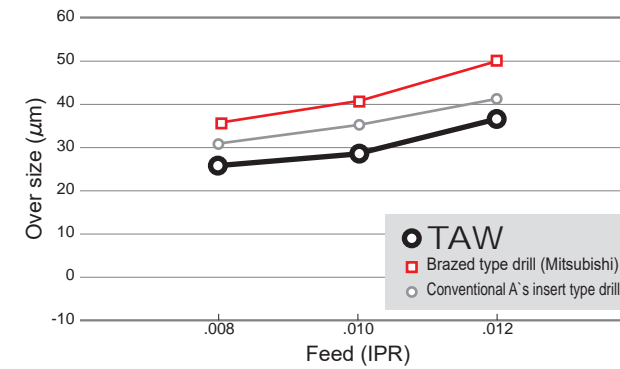
Drilling and chamfering can be done simultaneously. Chamfering position can be changed according to the machining depth. Maximum chamfer width: 4mm (.157")



Cutting Performance

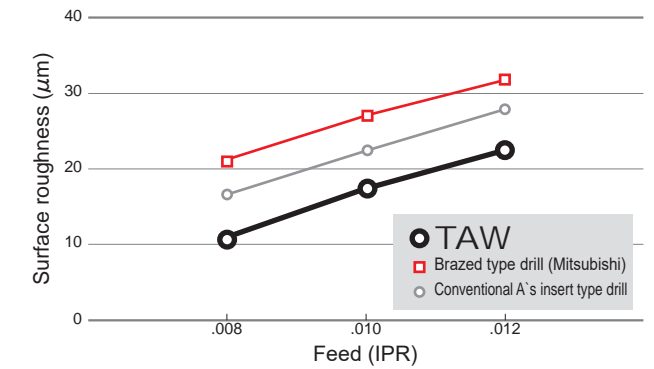
Steel Drilling

Over Size



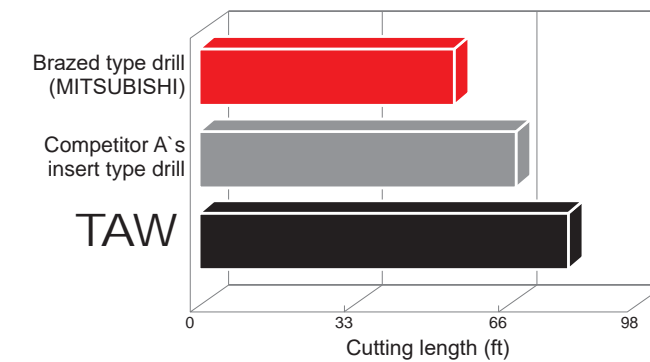
<Cutting conditions>
Work piece : AISI 1050(150-180HB)
Drill diameter : ø20(L/D=5)
Cutting speed : 260 SFM
Coolant : Emulsion 10%
Pressure : 75 PSI(Internal coolant)

Surface Roughness



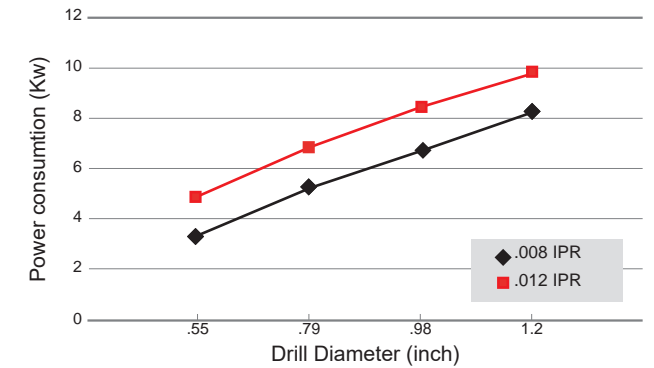
<Cutting conditions>
Work piece : AISI 1050(150-180HB)
Drill diameter : ø20(L/D=5)
Cutting speed : 260 SFM
Coolant : Emulsion 10%
Pressure : 75 PSI(Internal coolant)

Insert Life



<Cutting conditions>
Work piece : AISI 1050(150-180HB) Coolant : Emulsion 10%
Drill diameter : ø20(L/D=5) Pressure : 75 PSI(Internal coolant)
Cutting speed : 330 SFM
Feed : .010 IPR

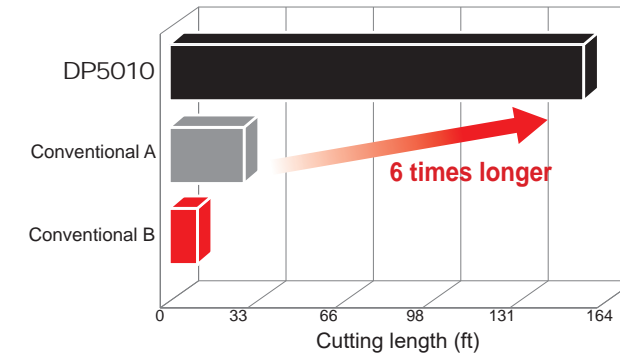
Power Consumption



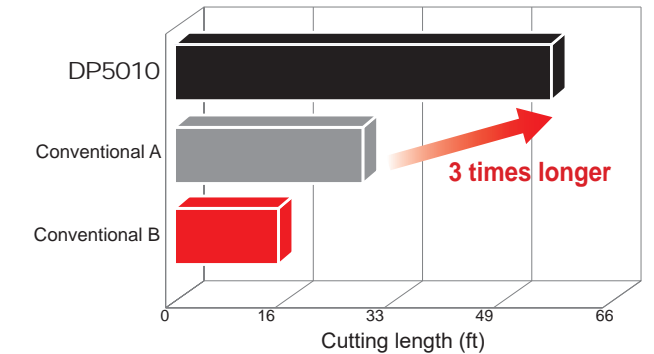
<Cutting conditions>
Work piece : AISI 1050(150-180HB)
Cutting speed : 260 SFM
Coolant : Emulsion 10%
Pressure : 75 PSI(Internal coolant)

Cast iron/Ductile cast iron Drilling

Insert Life



<Cutting conditions>
Work piece : AISI No35 B Coolant : Emulsion 10%
Drill diameter : ø18(L/D=3) Pressure : 75 PSI(Internal coolant)
Cutting speed : 460 SFM
Feed : .016 IPR



<Cutting conditions>
Work piece : AISI 65-45-12 Cutting mode: Emulsion 10%
Drill diameter : ø18(L/D=3) Pressure : 75 PSI(Internal coolant)
Cutting speed : 330 SFM
Feed : .012 IPR

INDEXABLE TYPE DRILL

TAW

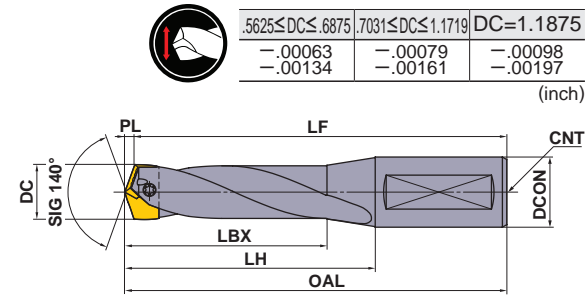
- Wavy cutting edge design for good chip control.
- Serration geometry for accurate insert location.

P M K N S H

INCH STANDARD

L/D=3

Internal Coolant



| Holder | | Dimensions (inch) | | | | | | | Insert Screw * | Wrench ① | Plate | Anti-seize Lubricant | DC (inch) | Insert | |
|--------------|-------|-------------------|-------|-------|-------|------|-------|--------|----------------|----------|---------|----------------------|-----------|--------------|-------|
| Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | CNT | | | | | | Order Number | Stock |
| TAWSNH0036 | ● | 2.110 | 2.740 | 4.615 | 4.513 | .102 | .625 | 1/8-27 | WS254012T | ①TKY08W | WPT4405 | MK1KS | .5625 | TAWNH0036T | ● |
| TAWSNH0037 | ● | 2.231 | 3.058 | 4.933 | 4.828 | .105 | .625 | 1/8-27 | WS254013T | ①TKY08W | WPT4405 | MK1KS | .5781 | TAWNH0037T | ● |
| TAWSNH0039 | ● | 2.234 | 3.061 | 5.061 | 4.953 | .108 | .750 | 1/8-27 | WS254013T | ①TKY08W | WPT4405 | MK1KS | .5938 | TAWNH0038T | ● |
| | | | | | | | | | | | | | .6094 | TAWNH0039T | ● |
| TAWSN0041 | ● | 2.397 | 3.264 | 5.264 | 5.150 | .114 | .750 | 1/8-27 | WS254014T | ①TKY08W | WPT4405 | MK1KS | .6250 | TAWNH0040T | ● |
| | | | | | | | | | | | | | .6406 | TAWNH0041T | ● |
| TAWSN0044 | ● | 2.521 | 3.465 | 5.465 | 5.346 | .119 | .750 | 1/8-27 | WS254015T | ①TKY08W | WPT4405 | MK1KS | .6563 | TAWNH0042T | ● |
| | | | | | | | | | | | | | .6719 | TAWNH0043T | ● |
| | | | | | | | | | | | | | .6875 | TAWNH0044T | ● |
| TAWSN0045 | ● | 2.687 | 3.671 | 5.671 | 5.543 | .128 | .750 | 1/8-27 | WS254016T | ①TKY08W | WPT4405 | MK1KS | .7031 | TAWNH0045T | ● |
| TAWSN0046 | ● | 2.690 | 3.674 | 5.924 | 5.793 | .131 | 1.000 | 1/8-27 | WS254016T | ①TKY08W | WPT4405 | MK1KS | .7188 | TAWNH0046T | ● |
| TAWSN0049 | ● | 2.811 | 4.032 | 6.282 | 6.148 | .134 | 1.000 | 1/8-27 | WS304517T | ②TKY10T | WPT4405 | MK1KS | .7344 | TAWNH0047T | ● |
| | | | | | | | | | | | | | .7500 | TAWNH0048T | ● |
| | | | | | | | | | | | | | .7656 | TAWNH0049T | ● |
| TAWSN0051 | ● | 2.977 | 4.040 | 6.290 | 6.148 | .142 | 1.000 | 1/8-27 | WS304518T | ②TKY10T | WPT4405 | MK1KS | .7813 | TAWNH0050T | ● |
| | | | | | | | | | | | | | .7969 | TAWNH0051T | ● |
| TAWSN0054 | ● | 3.101 | 4.046 | 6.296 | 6.148 | .148 | 1.000 | 1/8-27 | WS304518T | ②TKY10T | WPT4405 | MK1KS | .8125 | TAWNH0052T | ● |
| | | | | | | | | | | | | | .8281 | TAWNH0053T | ● |
| | | | | | | | | | | | | | .8438 | TAWNH0054T | ● |
| TAWSN0056 | ● | 3.266 | 4.250 | 6.500 | 6.344 | .156 | 1.000 | 1/8-27 | WS355520T | ②TKY15T | WPT4405 | MK1KS | .8594 | TAWNH0055T | ● |
| | | | | | | | | | | | | | .8750 | TAWNH0056T | ● |

* Clamp Torque (lbf-in) : WS254012T=18, WS254013T=18, WS254014T=18, WS254015T=18, WS254016T=18, WS304517T=31, WS304518T=31, WS355520T=49
 (Note 1) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
 The LF, LH, and LBX dimensions listed in the table above, are measured using the VP15TF insert.
 When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

● : USA Stock

| Holder | | Dimensions (inch) | | | | | | | Insert Screw * | Wrench ① | Plate | Anti-seize Lubricant | DC (inch) | Insert | |
|--------------|-------|-------------------|-------|-------|-------|------|-------|--------|----------------|----------|---------|----------------------|-----------|--------------|-------|
| Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | CNT | | | | | | Order Number | Stock |
| TAWSN0059 | ● | 3.390 | 4.256 | 6.506 | 6.344 | .162 | 1.000 | 1/8-27 | WS355521T | TKY15T | WPT4405 | MK1KS | .8906 | TAWNH0057T | ● |
| | | | | | | | | | | | | | .9063 | TAWNH0058T | ● |
| | | | | | | | | | | | | | .9219 | TAWNH0059T | ● |
| TAWSN0061 | ● | 3.557 | 4.502 | 6.877 | 6.706 | .171 | 1.250 | 1/4-18 | WS355521T | TKY15T | WPT4405 | MK1KS | .9375 | TAWNH0060T | ● |
| | | | | | | | | | | | | | .9531 | TAWNH0061T | ● |
| TAWSN0100 | ● | 3.641 | 4.507 | 6.882 | 6.706 | .176 | 1.250 | 1/4-18 | WS406023T | TKY25T | WPT4405 | MK1KS | .9688 | TAWNH0062T | ● |
| | | | | | | | | | | | | | .9844 | TAWNH0063T | ● |
| | | | | | | | | | | | | | 1.0000 | TAWNH0100T | ● |
| TAWSN0102 | ● | 3.807 | 4.713 | 7.088 | 6.903 | .185 | 1.250 | 1/4-18 | WS406024T | TKY25T | WPT4405 | MK1KS | 1.0156 | TAWNH0101T | ● |
| | | | | | | | | | | | | | 1.0313 | TAWNH0102T | ● |
| TAWSN0105 | ● | 3.892 | 4.719 | 7.094 | 6.903 | .191 | 1.250 | 1/4-18 | WS406024T | TKY25T | WPT4405 | MK1KS | 1.0469 | TAWNH0103T | ● |
| | | | | | | | | | | | | | 1.0625 | TAWNH0104T | ● |
| | | | | | | | | | | | | | 1.0781 | TAWNH0105T | ● |
| TAWSN0107 | ● | 4.018 | 4.923 | 7.298 | 7.099 | .199 | 1.250 | 1/4-18 | WS508026T | TKY27T | WPT4405 | MK1KS | 1.0938 | TAWNH0106T | ● |
| | | | | | | | | | | | | | 1.1094 | TAWNH0107T | ● |
| TAWSN0110 | ● | 4.142 | 5.126 | 7.501 | 7.296 | .205 | 1.250 | 1/4-18 | WS508027T | TKY27T | WPT4405 | MK1KS | 1.1250 | TAWNH0108T | ● |
| | | | | | | | | | | | | | 1.1406 | TAWNH0109T | ● |
| | | | | | | | | | | | | | 1.1563 | TAWNH0110T | ● |
| TAWSN0112 | ● | 4.307 | 5.134 | 7.509 | 7.296 | .213 | 1.250 | 1/4-18 | WS508027T | TKY27T | WPT4405 | MK1KS | 1.1719 | TAWNH0111T | ● |
| | | | | | | | | | | | | | 1.1875 | TAWNH0112T | ● |

* Clamp Torque (lbf-in) : WS355521T=49, WS406023T=75, WS406024T=75, WS508026T=110, WS508027T=110
 (Note 1) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
 The LF, LH and LBX dimensions listed in the table above, are measured using the VP15TF insert.
 When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

INDEXABLE TYPE DRILL

TAW

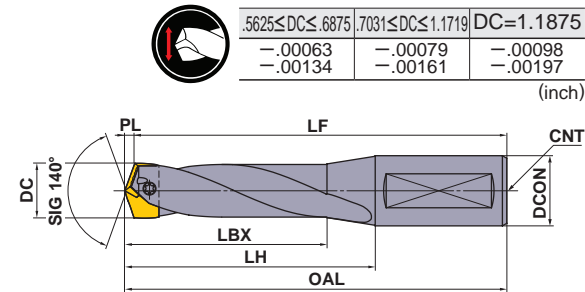
- Wavy cutting edge design for good chip control.
- Serration geometry for accurate insert location.

P M K N S H

INCH STANDARD

L/D=5

Internal Coolant



| | | |
|--------------------|---------------------|-------------|
| .5625 ≤ DC ≤ .6875 | .7031 ≤ DC ≤ 1.1719 | DC = 1.1875 |
| -.00063 | -.00079 | -.00098 |
| -.00134 | -.00161 | -.00197 |

(inch)

| Holder | | Dimensions (inch) | | | | | | | Tools | | | | DC (inch) | Insert | |
|--------------|-------|-------------------|-------|-------|-------|------|-------|--------|--------------|---------|---------|----------------------|-----------|--------------|-------|
| Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | CNT | Insert Screw | Wrench | Plate | Anti-seize Lubricant | | Order Number | Stock |
| TAWMNH0036 | ▲ | 3.252 | 3.921 | 5.796 | 5.694 | .102 | .625 | 1/8-27 | WS254012T | ①TKY08W | WPT4405 | MK1KS | .5625 | TAWNH0036T | ● |
| TAWMNH0037 | ▲ | 3.451 | 4.239 | 6.114 | 6.009 | .105 | .625 | 1/8-27 | WS254013T | ①TKY08W | WPT4405 | MK1KS | .5781 | TAWNH0037T | ● |
| TAWMNH0039 | ▲ | 3.454 | 4.242 | 6.242 | 6.134 | .108 | .750 | 1/8-27 | WS254013T | ①TKY08W | WPT4405 | MK1KS | .5938 | TAWNH0038T | ● |
| | | | | | | | | | | | | | .6094 | TAWNH0039T | ● |
| TAWMN0041 | ▲ | 3.697 | 4.642 | 6.642 | 6.528 | .114 | .750 | 1/8-27 | WS254014T | ①TKY08W | WPT4405 | MK1KS | .6250 | TAWNH0040T | ● |
| | | | | | | | | | | | | | .6406 | TAWNH0041T | ● |
| | | | | | | | | | | | | | .6563 | TAWNH0042T | ● |
| TAWMN0044 | ▲ | 3.899 | 4.843 | 6.843 | 6.724 | .119 | .750 | 1/8-27 | WS254015T | ①TKY08W | WPT4405 | MK1KS | .6719 | TAWNH0043T | ● |
| | | | | | | | | | | | | | .6875 | TAWNH0044T | ● |
| TAWMN0045 | ▲ | 4.144 | 5.049 | 7.049 | 6.921 | .128 | .750 | 1/8-27 | WS254016T | ①TKY08W | WPT4405 | MK1KS | .7031 | TAWNH0045T | ● |
| TAWMN0046 | ▲ | 4.147 | 5.052 | 7.302 | 7.171 | .131 | 1.000 | 1/8-27 | WS254016T | ①TKY08W | WPT4405 | MK1KS | .7188 | TAWNH0046T | ● |
| | | | | | | | | | | | | | .7344 | TAWNH0047T | ● |
| TAWMN0049 | ● | 4.347 | 5.410 | 7.660 | 7.526 | .134 | 1.000 | 1/8-27 | WS304517T | ②TKY10T | WPT4405 | MK1KS | .7500 | TAWNH0048T | ● |
| | | | | | | | | | | | | | .7656 | TAWNH0049T | ● |
| TAWMN0051 | ● | 4.591 | 5.614 | 7.864 | 7.722 | .142 | 1.000 | 1/8-27 | WS304518T | ②TKY10T | WPT4405 | MK1KS | .7813 | TAWNH0050T | ● |
| | | | | | | | | | | | | | .7969 | TAWNH0051T | ● |
| | | | | | | | | | | | | | .8125 | TAWNH0052T | ● |
| TAWMN0054 | ● | 4.794 | 5.620 | 7.870 | 7.722 | .148 | 1.000 | 1/8-27 | WS304518T | ②TKY10T | WPT4405 | MK1KS | .8281 | TAWNH0053T | ● |
| | | | | | | | | | | | | | .8438 | TAWNH0054T | ● |

* Clamp Torque (lbf-in) : WS254012T=18, WS254013T=18, WS254014T=18, WS254015T=18, WS254016T=18, WS304517T=31, WS304518T=31, WS355520T=49
 (Note 1) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
 The LF, LH and LBX dimensions listed in the table above, are measured using the VP15TF insert.
 When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

● : USA Stock ▲ : This item to be discontinued within two years.

| Holder | | Dimensions (inch) | | | | | | | Tools | | | | DC (inch) | Insert | |
|--------------|-------|-------------------|-------|--------|--------|------|-------|--------|--------------|--------|---------|----------------------|-----------|--------------|-------|
| Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | CNT | Insert Screw | Wrench | Plate | Anti-seize Lubricant | | Order Number | Stock |
| TAWMN0056 | ● | 5.038 | 5.825 | 8.075 | 7.919 | .156 | 1.000 | 1/8-27 | WS355520T | TKY15T | WPT4405 | MK1KS | .8594 | TAWNH0055T | ● |
| | | | | | | | | | | | | | .8750 | TAWNH0056T | ● |
| TAWMN0059 | ● | 5.241 | 6.225 | 8.475 | 8.313 | .162 | 1.000 | 1/8-27 | WS355521T | TKY15T | WPT4405 | MK1KS | .8906 | TAWNH0057T | ● |
| | | | | | | | | | | | | | .9063 | TAWNH0058T | ● |
| | | | | | | | | | | | | | .9219 | TAWNH0059T | ● |
| TAWMN0061 | ● | 5.486 | 6.470 | 8.845 | 8.674 | .171 | 1.250 | 1/4-18 | WS355521T | TKY15T | WPT4405 | MK1KS | .9375 | TAWNH0060T | ● |
| | | | | | | | | | | | | | .9531 | TAWNH0061T | ● |
| TAWMN0100 | ● | 5.688 | 6.672 | 9.047 | 8.871 | .176 | 1.250 | 1/4-18 | WS406023T | TKY25T | WPT4405 | MK1KS | .9688 | TAWNH0062T | ● |
| | | | | | | | | | | | | | .9844 | TAWNH0063T | ● |
| | | | | | | | | | | | | | 1.0000 | TAWNH0100T | ● |
| TAWMN0102 | ● | 5.933 | 6.878 | 9.253 | 9.068 | .185 | 1.250 | 1/4-18 | WS406024T | TKY25T | WPT4405 | MK1KS | 1.0156 | TAWNH0101T | ● |
| | | | | | | | | | | | | | 1.0313 | TAWNH0102T | ● |
| TAWMN0105 | ● | 6.136 | 7.081 | 9.456 | 9.265 | .191 | 1.250 | 1/4-18 | WS406024T | TKY25T | WPT4405 | MK1KS | 1.0469 | TAWNH0103T | ● |
| | | | | | | | | | | | | | 1.0625 | TAWNH0104T | ● |
| | | | | | | | | | | | | | 1.0781 | TAWNH0105T | ● |
| TAWMN0107 | ● | 6.380 | 7.286 | 9.661 | 9.462 | .199 | 1.250 | 1/4-18 | WS508026T | TKY27T | WPT4405 | MK1KS | 1.0938 | TAWNH0106T | ● |
| | | | | | | | | | | | | | 1.1094 | TAWNH0107T | ● |
| TAWMN0110 | ● | 6.583 | 7.488 | 9.863 | 9.658 | .205 | 1.250 | 1/4-18 | WS508027T | TKY27T | WPT4405 | MK1KS | 1.1250 | TAWNH0108T | ● |
| | | | | | | | | | | | | | 1.1406 | TAWNH0109T | ● |
| | | | | | | | | | | | | | 1.1563 | TAWNH0110T | ● |
| TAWMN0112 | ● | 6.788 | 7.890 | 10.265 | 10.052 | .213 | 1.250 | 1/4-18 | WS508027T | TKY27T | WPT4405 | MK1KS | 1.1719 | TAWNH0111T | ● |
| | | | | | | | | | | | | | 1.1875 | TAWNH0112T | ● |

* Clamp Torque (lbf-in) : WS355521T=49, WS406023T=75, WS406024T=75, WS508026T=110, WS508027T=110
 (Note 1) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
 The LF, LH and LBX dimensions listed in the table above, are measured using the VP15TF insert.
 When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

INDEXABLE TYPE DRILL



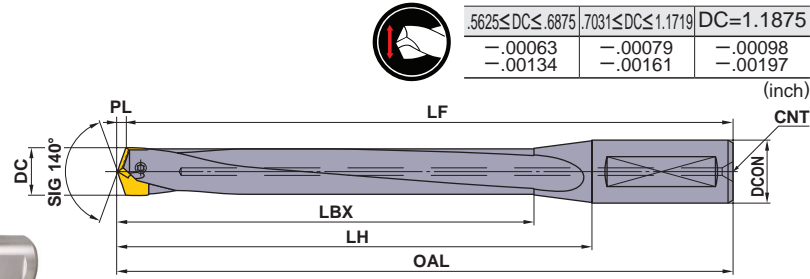
- Wavy cutting edge design for good chip control.
- Serration geometry for accurate insert location.



INCH STANDARD

L/D=8

Internal Coolant



| Holder | | Dimensions (inch) | | | | | | | Tools | | | | DC (inch) | Insert | |
|--------------|-------|-------------------|-------|--------|--------|------|-------|--------|--------------|--------|---------|----------------------|-----------|--------------|-------|
| Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | CNT | Insert Screw | Wrench | Plate | Anti-seize Lubricant | | Order Number | Stock |
| TAWLNH0036 | ▲ | 4.905 | 5.496 | 7.370 | 7.268 | .102 | .625 | 1/8-27 | WS254012T | TKY08W | WPT4405 | MK1KS | .5625 | TAWNH0036T | ● |
| TAWLNH0037 | ▲ | 5.223 | 5.932 | 7.806 | 7.701 | .105 | .625 | 1/8-27 | WS254013T | TKY08W | WPT4405 | MK1KS | .5781 | TAWNH0037T | ● |
| TAWLNH0039 | ▲ | 5.226 | 5.935 | 7.935 | 7.827 | .108 | .750 | 1/8-27 | WS254013T | TKY08W | WPT4405 | MK1KS | .5938 | TAWNH0038T | ● |
| | | | | | | | | | | | | | .6094 | TAWNH0039T | ● |
| TAWLN0041 | ▲ | 5.547 | 6.334 | 8.334 | 8.220 | .114 | .750 | 1/8-27 | WS254014T | TKY08W | WPT4405 | MK1KS | .6250 | TAWNH0040T | ● |
| | | | | | | | | | | | | | .6406 | TAWNH0041T | ● |
| | | | | | | | | | | | | | .6563 | TAWNH0042T | ● |
| TAWLN0044 | ▲ | 5.867 | 6.654 | 8.654 | 8.535 | .119 | .750 | 1/8-27 | WS254015T | TKY08W | WPT4405 | MK1KS | .6719 | TAWNH0043T | ● |
| | | | | | | | | | | | | | .6875 | TAWNH0044T | ● |
| TAWLN0045 | ▲ | 6.191 | 6.978 | 8.978 | 8.850 | .128 | .750 | 1/8-27 | WS254016T | TKY08W | WPT4405 | MK1KS | .7031 | TAWNH0045T | ● |
| TAWLN0046 | ▲ | 6.194 | 6.981 | 9.233 | 9.102 | .131 | 1.000 | 1/8-27 | WS254016T | TKY08W | WPT4405 | MK1KS | .7188 | TAWNH0046T | ● |
| | | | | | | | | | | | | | .7344 | TAWNH0047T | ● |
| TAWLN0049 | ● | 6.512 | 7.417 | 9.669 | 9.535 | .134 | 1.000 | 1/8-27 | WS304517T | TKY10T | WPT4405 | MK1KS | .7500 | TAWNH0048T | ● |
| | | | | | | | | | | | | | .7656 | TAWNH0049T | ● |
| TAWLN0051 | ● | 6.835 | 7.740 | 9.992 | 9.850 | .142 | 1.000 | 1/8-27 | WS304518T | TKY10T | WPT4405 | MK1KS | .7813 | TAWNH0050T | ● |
| | | | | | | | | | | | | | .7969 | TAWNH0051T | ● |
| | | | | | | | | | | | | | .8125 | TAWNH0052T | ● |
| TAWLN0054 | ● | 7.156 | 8.101 | 10.353 | 10.205 | .148 | 1.000 | 1/8-27 | WS304518T | TKY10T | WPT4405 | MK1KS | .8281 | TAWNH0053T | ● |
| | | | | | | | | | | | | | .8438 | TAWNH0054T | ● |

* Clamp Torque (lbf-in) : WS254012T=18, WS254013T=18, WS254014T=18, WS254015T=18, WS254016T=18, WS304517T=31, WS304518T=31, WS355520T=49
 (Note 1) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
 The LF, LH and LBX dimensions listed in the table above, are measured using the VP15TF insert.
 When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

● : USA Stock ▲ : This item to be discontinued within two years.

| Holder | | Dimensions (inch) | | | | | | | Tools | | | | DC (inch) | Insert | |
|--------------|-------|-------------------|--------|--------|--------|------|-------|--------|--------------|--------|---------|----------------------|-----------|--------------|-------|
| Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | CNT | Insert Screw | Wrench | Plate | Anti-seize Lubricant | | Order Number | Stock |
| TAWLN0056 | ● | 7.479 | 8.424 | 10.676 | 10.520 | .156 | 1.000 | 1/8-27 | WS355520T | TKY15T | WPT4405 | MK1KS | .8594 | TAWNH0055T | ● |
| | | | | | | | | | | | | | .8750 | TAWNH0056T | ● |
| TAWLN0059 | ● | 7.800 | 8.942 | 11.193 | 11.031 | .162 | 1.000 | 1/8-27 | WS355521T | TKY15T | WPT4405 | MK1KS | .8906 | TAWNH0057T | ● |
| | | | | | | | | | | | | | .9063 | TAWNH0058T | ● |
| | | | | | | | | | | | | | .9219 | TAWNH0059T | ● |
| TAWLN0061 | ● | 8.124 | 9.305 | 11.679 | 11.508 | .171 | 1.250 | 1/4-18 | WS355521T | TKY15T | WPT4405 | MK1KS | .9375 | TAWNH0060T | ● |
| | | | | | | | | | | | | | .9531 | TAWNH0061T | ● |
| TAWLN0100 | ● | 8.444 | 9.625 | 11.999 | 11.823 | .176 | 1.250 | 1/4-18 | WS406023T | TKY25T | WPT4405 | MK1KS | .9688 | TAWNH0062T | ● |
| | | | | | | | | | | | | | .9844 | TAWNH0063T | ● |
| | | | | | | | | | | | | | 1.0000 | TAWNH0100T | ● |
| TAWLN0102 | ● | 8.768 | 9.949 | 12.323 | 12.138 | .185 | 1.250 | 1/4-18 | WS406024T | TKY25T | WPT4405 | MK1KS | 1.0156 | TAWNH0101T | ● |
| | | | | | | | | | | | | | 1.0313 | TAWNH0102T | ● |
| TAWLN0105 | ● | 9.089 | 10.270 | 12.644 | 12.453 | .191 | 1.250 | 1/4-18 | WS406024T | TKY25T | WPT4405 | MK1KS | 1.0469 | TAWNH0103T | ● |
| | | | | | | | | | | | | | 1.0625 | TAWNH0104T | ● |
| | | | | | | | | | | | | | 1.0781 | TAWNH0105T | ● |
| TAWLN0107 | ● | 9.412 | 10.593 | 12.967 | 12.768 | .199 | 1.250 | 1/4-18 | WS508026T | TKY27T | WPT4405 | MK1KS | 1.0938 | TAWNH0106T | ● |
| | | | | | | | | | | | | | 1.1094 | TAWNH0107T | ● |
| TAWLN0110 | ● | 9.733 | 10.914 | 13.288 | 13.083 | .205 | 1.250 | 1/4-18 | WS508027T | TKY27T | WPT4405 | MK1KS | 1.1250 | TAWNH0108T | ● |
| | | | | | | | | | | | | | 1.1406 | TAWNH0109T | ● |
| | | | | | | | | | | | | | 1.1563 | TAWNH0110T | ● |
| TAWLN0112 | ● | 10.056 | 11.433 | 13.807 | 13.594 | .213 | 1.250 | 1/4-18 | WS508027T | TKY27T | WPT4405 | MK1KS | 1.1719 | TAWNH0111T | ● |
| | | | | | | | | | | | | | 1.1875 | TAWNH0112T | ● |

* Clamp Torque (lbf-in) : WS355521T=49, WS406023T=75, WS406024T=75, WS508026T=110, WS508027T=110
 (Note 1) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).
 The LF, LH and LBX dimensions listed in the table above, are measured using the VP15TF insert.
 When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

INDEXABLE TYPE DRILL

TAW

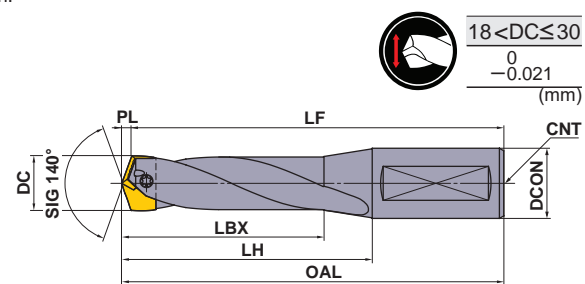


METRIC STANDARD

Internal Coolant



- Wavy cutting edge design for good chip control.
- Serration geometry for accurate insert location.



| Hole Depth l/d | Holder | | Dimensions (mm) | | | | | | * | | | | DC (mm) | Insert | | |
|-------------------|---------------------|-------|-----------------|-------|-------|-------|-----|------|--------------|--------|---------|----------------------|--------------|--------------|--------|--------|
| | Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | Insert Screw | Wrench | Plate | Anti-seize Lubricant | | Order Number | Stock | |
| | | | | | | | | | | | | | | | VP15TF | DP5010 |
| 3 | TAWSN1900S25 | ★ | 71.4 | 102.4 | 158.4 | 155.0 | 3.4 | 25 | WS304517T | TKY10T | WPT4405 | MK1KS | TAWNH1850T | ● | | |
| | | | | | | | | | | | | | TAWKH1850TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1860T | ● | | |
| | | | | | | | | | | | | | TAWKH1860TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1870T | ● | | |
| | | | | | | | | | | | | | TAWKH1870TG | | ★ | |
| | TAWMN1900S25 | ★ | 110.4 | 137.4 | 193.4 | 190.0 | 3.4 | 25 | WS304517T | TKY10T | WPT4405 | MK1KS | TAWNH1880T | ● | | |
| | | | | | | | | | | | | | TAWKH1880TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1890T | ● | | |
| | | | | | | | | | | | | | TAWKH1890TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1900T | ● | | |
| | | | | | | | | | | | | | TAWKH1900TG | | ★ | |
| 5 | TAWLN1900S25 | ★ | 165.5 | 188.5 | 244.5 | 241.0 | 3.5 | 25 | WS304517T | TKY10T | WPT4405 | MK1KS | TAWNH1910T | ● | | |
| | | | | | | | | | | | | | TAWKH1910TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1920T | ● | | |
| | | | | | | | | | | | | | TAWKH1920TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1930T | ● | | |
| | | | | | | | | | | | | | TAWKH1930TG | | ★ | |
| | TAWSN2000S25 | ★ | 75.5 | 102.5 | 158.5 | 155.0 | 3.5 | 25 | WS304518T | TKY10T | WPT4405 | MK1KS | TAWNH1940T | ● | | |
| | | | | | | | | | | | | | TAWKH1940TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1950T | ● | | |
| | | | | | | | | | | | | | TAWKH1950TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1960T | ● | | |
| | | | | | | | | | | | | | TAWKH1960TG | | ★ | |
| 8 | TAWLN2000S25 | ★ | 116.6 | 142.6 | 198.6 | 195.0 | 3.6 | 25 | WS304518T | TKY10T | WPT4405 | MK1KS | TAWNH1970T | ● | | |
| | | | | | | | | | | | | | TAWKH1970TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1980T | ● | | |
| | | | | | | | | | | | | | TAWKH1980TG | | ★ | |
| | | | | | | | | | | | | | TAWNH1990T | ● | | |
| | | | | | | | | | | | | | TAWKH1990TG | | ★ | |
| | TAWLN2100S25 | ★ | 173.7 | 196.7 | 252.7 | 249.0 | 3.7 | 25 | WS304518T | TKY10T | WPT4405 | MK1KS | TAWNH2000T | ● | | |
| | | | | | | | | | | | | | TAWKH2000TG | | ★ | |
| | | | | | | | | | | | | | TAWNH2050T | ● | | |
| | | | | | | | | | | | | | TAWKH2050TG | | ★ | |
| | | | | | | | | | | | | | TAWNH2100T | ● | | |
| | | | | | | | | | | | | | TAWKH2100TG | | ★ | |
| 3 | TAWSN2200S25 | ★ | 83.2 | 108.2 | 164.2 | 160.3 | 3.9 | 25 | WS355520T | TKY15T | WPT4405 | MK1KS | TAWNH2150T | ● | | |
| | | | | | | | | | | | | | TAWKH2150TG | | ★ | |
| | | | | | | | | | | | | | TAWNH2200T | ● | | |
| | | | | | | | | | | | | | TAWKH2200TG | | ★ | |
| | | | | | | | | | | | | | TAWLN2200S25 | ★ | | |
| | | | | | | | | | | | | | | | | |

* Clamp Torque (lbf-in) : WS304517T=31, WS304518T=31, WS355520T=49

(Note) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).

The LF, LH and LBX dimensions listed in the table above, are measured using the VP15TF insert.

When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

● : USA Stock ★ : Stocked in Japan

| Hole Depth l/d | Holder | | Dimensions (mm) | | | | | | * | | | | DC (mm) | Insert | | |
|-------------------|---------------------|-------|-----------------|-------|-------|-------|-----|------|--------------|--------|---------|----------------------|------------|--------------|--------|--------|
| | Order Number | Stock | LBX | LH | OAL | LF | PL | DCON | Insert Screw | Wrench | Plate | Anti-seize Lubricant | | Order Number | Stock | |
| | | | | | | | | | | | | | | | VP15TF | DP5010 |
| 3 | TAWSN2300S25 | ★ | 86.4 | 108.4 | 164.4 | 160.3 | 4.1 | 25 | WS355521T | TKY15T | WPT4405 | MK1KS | 22.5 | TAWNH2250T | ● | |
| 5 | TAWMN2300S25 | ★ | 133.4 | 158.4 | 214.4 | 210.3 | 4.1 | 25 | WS355521T | TKY15T | WPT4405 | MK1KS | 22.5 | TAWKH2250TG | | ★ |
| 8 | TAWLN2300S25 | ★ | 198.2 | 227.2 | 283.2 | 279.0 | 4.2 | 25 | WS355521T | TKY15T | WPT4405 | MK1KS | 23.0 | TAWNH2300T | ● | |
| | | | | | | | | | | | | | | TAWKH2300TG | | ★ |
| 3 | TAWSN2400S32 | ★ | 90.6 | 114.6 | 174.6 | 170.3 | 4.3 | 32 | WS355521T | TKY15T | WPT4405 | MK1KS | 23.5 | TAWNH2350T | ● | |
| 5 | TAWMN2400S32 | ★ | 139.6 | 164.6 | 224.6 | 220.3 | 4.3 | 32 | WS355521T | TKY15T | WPT4405 | MK1KS | 23.5 | TAWKH2350TG | | ★ |
| 8 | TAWLN2400S32 | ★ | 206.4 | 236.4 | 296.4 | 292.0 | 4.4 | 32 | WS355521T | TKY15T | WPT4405 | MK1KS | 24.0 | TAWNH2400T | ● | |
| | | | | | | | | | | | | | | TAWKH2400TG | | ★ |
| 3 | TAWSN2500S32 | ★ | 93.1 | 115.1 | 175.1 | 170.6 | 4.5 | 32 | WS406023T | TKY25T | WPT4405 | MK1KS | 24.5 | TAWNH2450T | ● | |
| 5 | TAWMN2500S32 | ★ | 145.1 | 170.1 | 230.1 | 225.6 | 4.5 | 32 | WS406023T | TKY25T | WPT4405 | MK1KS | 24.5 | TAWKH2450TG | | ★ |
| 8 | TAWLN2500S32 | ★ | 214.6 | 244.6 | 304.6 | 300.0 | 4.6 | 32 | WS406023T | TKY25T | WPT4405 | MK1KS | 25.0 | TAWNH2500T | ● | |
| | | | | | | | | | | | | | | TAWKH2500TG | | ★ |
| 3 | TAWSN2600S32 | ★ | 97.2 | 120.2 | 180.2 | 175.6 | 4.6 | 32 | WS406024T | TKY25T | WPT4405 | MK1KS | 25.5 | TAWNH2550T | ● | |
| 5 | TAWMN2600S32 | ★ | 151.3 | 175.3 | 235.3 | 230.6 | 4.7 | 32 | WS406024T | TKY25T | WPT4405 | MK1KS | 25.5 | TAWKH2550TG | | ★ |
| 8 | TAWLN2600S32 | ★ | 222.8 | 252.8 | 312.8 | 308.0 | 4.8 | 32 | WS406024T | TKY25T | WPT4405 | MK1KS | 26.0 | TAWNH2600T | ● | |
| | | | | | | | | | | | | | | TAWKH2600TG | | ★ |
| 3 | TAWSN2700S32 | ★ | 99.4 | 120.4 | 180.4 | 175.6 | 4.8 | 32 | WS406024T | TKY25T | WPT4405 | MK1KS | 26.5 | TAWNH2650T | ● | |
| 5 | TAWMN2700S32 | ★ | 156.5 | 180.5 | 240.5 | 235.6 | 4.9 | 32 | WS406024T | TKY25T | WPT4405 | MK1KS | 26.5 | TAWKH2650TG | | ★ |
| 8 | TAWLN2700S32 | ★ | 230.9 | 260.9 | 320.9 | 316.0 | 4.9 | 32 | WS406024T | TKY25T | WPT4405 | MK1KS | 27.0 | TAWNH2700T | ● | |
| | | | | | | | | | | | | | | TAWKH2700TG | | ★ |
| 3 | TAWSN2800S32 | ★ | 102.2 | 125.2 | 185.2 | 180.2 | 5.0 | 32 | WS508026T | TKY27T | WPT4405 | MK1KS | 27.5 | TAWNH2750T | ● | |
| 5 | TAWMN2800S32 | ★ | 162.3 | 185.3 | 245.3 | 240.2 | 5.1 | 32 | WS508026T | TKY27T | WPT4405 | MK1KS | 27.5 | TAWKH2750TG | | ★ |
| 8 | TAWLN2800S32 | ★ | 239.1 | 269.1 | 329.1 | 324.0 | 5.1 | 32 | WS508026T | TKY27T | WPT4405 | MK1KS | 28.0 | TAWNH2800T | ● | |
| | | | | | | | | | | | | | | TAWKH2800TG | | ★ |
| 3 | TAWSN2900S32 | ★ | 105.4 | 130.4 | 190.4 | 185.2 | 5.2 | 32 | WS508027T | TKY27T | WPT4405 | MK1KS | 28.5 | TAWNH2850T | ● | |
| 5 | TAWMN2900S32 | ★ | 167.4 | 190.4 | 250.4 | 245.2 | 5.2 | 32 | WS508027T | TKY27T | WPT4405 | MK1KS | 28.5 | TAWKH2850TG | | ★ |
| 8 | TAWLN2900S32 | ★ | 247.3 | 277.3 | 337.3 | 332.0 | 5.3 | 32 | WS508027T | TKY27T | WPT4405 | MK1KS | 29.0 | TAWNH2900T | ● | |
| | | | | | | | | | | | | | | TAWKH2900TG | | ★ |
| 3 | TAWSN3000S32 | ★ | 109.6 | 130.6 | 190.6 | 185.2 | 5.4 | 32 | WS508027T | TKY27T | WPT4405 | MK1KS | 29.5 | TAWNH2950T | ● | |
| 5 | TAWMN3000S32 | ★ | 172.6 | 200.6 | 260.6 | 255.2 | 5.4 | 32 | WS508027T | TKY27T | WPT4405 | MK1KS | 29.5 | TAWKH2950TG | | ★ |
| 8 | TAWLN3000S32 | ★ | 255.5 | 290.5 | 350.5 | 345.0 | 5.5 | 32 | WS508027T | TKY27T | WPT4405 | MK1KS | 30.0 | TAWNH3000T | ● | |
| | | | | | | | | | | | | | | TAWKH3000TG | | ★ |

* Clamp Torque (lbf-in) : WS355521T=49, WS406023T=75, WS406024T=75, WS508026T=110, WS508027T=110

(Note) Please contact us for any geometry that is not in this catalog (e.g. different diameter and length).

The LF, LH and LBX dimensions listed in the table above, are measured using the VP15TF insert.

When using the DP5010 insert, the LF, LH and LBX dimensions will be slightly reduced.

RECOMMENDED CUTTING CONDITIONS

| Work Material | DC Conditions Hardness | φ.5625"–φ.6094" φ14.0–φ15.4mm | | φ.6250"–φ.7188" φ15.5–φ18.4mm | | φ.7344"–φ.8438" φ18.5–φ21.4mm | |
|-------------------|------------------------------|----------------------------------|------------------|----------------------------------|------------------|----------------------------------|------------------|
| | | Cutting Speed (SFM) | Feed (inch/rev) | Cutting Speed (SFM) | Feed (inch/rev) | Cutting Speed (SFM) | Feed (inch/rev) |
| P Mild Steel | ≤180HB | 230 (195–295) | .008 (.006–.010) | 260 (195–330) | .010 (.008–.012) | 295 (230–360) | .010 (.008–.012) |
| | 180–280HB | 230 (195–295) | .008 (.006–.010) | 260 (195–330) | .010 (.008–.012) | 260 (195–330) | .010 (.008–.012) |
| | 280–350HB | 195 (165–260) | .006 (.005–.007) | 230 (165–295) | .008 (.006–.010) | 230 (165–295) | .008 (.006–.010) |
| M Stainless Steel | ≤200HB | 165 (130–195) | .006 (.005–.007) | 165 (130–195) | .006 (.005–.007) | 195 (165–230) | .008 (.006–.009) |
| K Gray Cast Iron | Tensile Strength ≤350MPa | 230 (165–295) | .008 (.006–.010) | 330 (195–395) | .010 (.008–.012) | 390 (195–460) | .010 (.008–.012) |
| | Tensile Strength ≤450MPa | 230 (165–295) | .008 (.006–.010) | 260 (195–295) | .010 (.008–.012) | 260 (195–295) | .010 (.008–.012) |

| Work Material | DC Conditions Hardness | φ.8594"–φ.9531" φ21.5–φ24.4mm | | φ.9688"–φ1.0781" φ24.5–φ27.4mm | | φ1.0938"–φ1.1875" φ27.5–φ30.4mm | |
|-------------------|------------------------------|----------------------------------|------------------|-----------------------------------|------------------|------------------------------------|------------------|
| | | Cutting Speed (SFM) | Feed (inch/rev) | Cutting Speed (SFM) | Feed (inch/rev) | Cutting Speed (SFM) | Feed (inch/rev) |
| P Mild Steel | ≤180HB | 330 (260–390) | .012 (.010–.014) | 360 (260–390) | .012 (.010–.014) | 360 (260–390) | .012 (.010–.014) |
| | 180–280HB | 295 (230–360) | .012 (.010–.014) | 330 (260–390) | .012 (.010–.014) | 330 (260–390) | .012 (.010–.014) |
| | 280–350HB | 260 (195–330) | .010 (.008–.012) | 295 (230–360) | .010 (.008–.012) | 295 (230–360) | .010 (.008–.012) |
| M Stainless Steel | ≤200HB | 195 (165–230) | .008 (.006–.009) | 230 (195–260) | .010 (.008–.011) | 230 (195–260) | .010 (.008–.011) |
| K Gray Cast Iron | Tensile Strength ≤350MPa | 425 (260–490) | .014 (.010–.016) | 460 (295–525) | .014 (.010–.016) | 460 (295–525) | .016 (.012–.018) |
| | Tensile Strength ≤450MPa | 295 (195–330) | .012 (.010–.014) | 330 (260–360) | .012 (.010–.014) | 330 (260–360) | .012 (.010–.014) |

NOTES ON USE

INSERT INSTALLATION

- Loosen insert screw of holder to install insert.
- Mesh the insert serration to holder grooves.
- Fasten the insert screw using the provided wrench while holding rake face of the insert lightly with your thumb. (Figure 1)
- Check that there is no clearance between the insert bottom and holder flute end. (Figure 2)

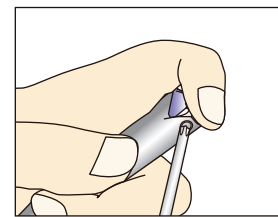


Figure 1

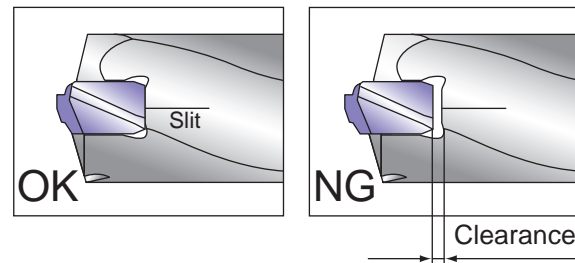


Figure 2

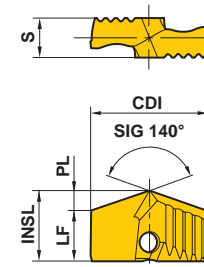
NOTE ON INSERT REPLACEMENT

- Clean insert guide grooves by blowing air before installing a new insert.
- Clean the "slit" underneath the insert on the holder with the provided plate.
- Use the provided anti-seize lubricant for lubricating the threads of the insert screw.

INSERTS

INCH STANDARD

| Geometry | Order Number | Stock | Dimensions (inch) | | | Applicable Holder | |
|-----------------|--------------|--------|-------------------|------|---------------|-------------------|-------------------|
| | | VP15TF | CDI | LF | S | Inch | Metric |
| For General Use | TAWNH0036T | ▲ | .5625 | .299 | .197 | TAWS/M/LNH0036 | TAWS/M/LNH1400S16 |
| | TAWNH0037T | ▲ | .5781 | .295 | .197 | TAWS/M/LNH0037 | TAWS/M/LNH1500S20 |
| | TAWNH0038T | ▲ | .5938 | .291 | .197 | TAWS/M/LNH0039 | |
| | TAWNH0039T | ▲ | .6094 | .291 | .197 | | |
| | TAWNH0040T | ▲ | .6250 | .311 | .236 | TAWS/M/LN0041 | TAWS/M/LN1600S20 |
| | TAWNH0041T | ▲ | .6406 | .307 | .236 | | |
| | TAWNH0042T | ▲ | .6563 | .303 | .236 | TAWS/M/LN0044 | TAWS/M/LN1700S20 |
| | TAWNH0043T | ▲ | .6719 | .299 | .236 | | |
| | TAWNH0044T | ▲ | .6875 | .299 | .236 | TAWS/M/LN0045 | TAWS/M/LN1800S20 |
| | TAWNH0045T | ▲ | .7031 | .295 | .236 | | |
| | TAWNH0046T | ▲ | .7188 | .291 | .236 | TAWS/M/LN0046 | |
| | TAWNH0047T | ● | .7344 | .366 | .276 | TAWS/M/LN0049 | TAWS/M/LN1900S25 |
| TAWNH0048T | ● | .7500 | .362 | .276 | | | |
| TAWNH0049T | ● | .7656 | .362 | .276 | TAWS/M/LN0051 | TAWS/M/LN2000S25 | |
| TAWNH0050T | ● | .7813 | .358 | .276 | | | |
| TAWNH0051T | ● | .7969 | .354 | .276 | TAWS/M/LN0054 | TAWS/M/LN2100S25 | |
| TAWNH0052T | ● | .8125 | .350 | .276 | | | |
| TAWNH0053T | ● | .8281 | .346 | .276 | TAWS/M/LN0056 | TAWS/M/LN2200S25 | |
| TAWNH0054T | ● | .8438 | .346 | .276 | | | |
| TAWNH0055T | ● | .8594 | .417 | .315 | TAWS/M/LN0059 | TAWS/M/LN2300S25 | |
| TAWNH0056T | ● | .8750 | .413 | .315 | | | |
| TAWNH0057T | ● | .8906 | .409 | .315 | TAWS/M/LN0061 | TAWS/M/LN2400S32 | |
| TAWNH0058T | ● | .9063 | .406 | .315 | | | |
| TAWNH0059T | ● | .9219 | .406 | .315 | TAWS/M/LN0100 | TAWS/M/LN2500S32 | |
| TAWNH0060T | ● | .9375 | .402 | .315 | | | |
| TAWNH0061T | ● | .9531 | .398 | .315 | TAWS/M/LN0102 | TAWS/M/LN2600S32 | |
| TAWNH0062T | ● | .9688 | .461 | .354 | | | |
| TAWNH0063T | ● | .9844 | .457 | .354 | TAWS/M/LN0105 | TAWS/M/LN2700S32 | |
| TAWNH0100T | ● | 1.0000 | .457 | .354 | | | |
| TAWNH0101T | ● | 1.0156 | .453 | .354 | TAWS/M/LN0107 | TAWS/M/LN2800S32 | |
| TAWNH0102T | ● | 1.0313 | .449 | .354 | | | |
| TAWNH0103T | ● | 1.0469 | .445 | .354 | TAWS/M/LN0110 | TAWS/M/LN2900S32 | |
| TAWNH0104T | ● | 1.0625 | .445 | .354 | | | |
| TAWNH0105T | ● | 1.0781 | .441 | .354 | TAWS/M/LN0112 | TAWS/M/LN3000S32 | |
| TAWNH0106T | ● | 1.0938 | .484 | .394 | | | |
| TAWNH0107T | ● | 1.1094 | .480 | .394 | | | |
| TAWNH0108T | ● | 1.1250 | .476 | .394 | | | |
| TAWNH0109T | ● | 1.1406 | .476 | .394 | | | |
| TAWNH0110T | ● | 1.1563 | .472 | .394 | | | |
| TAWNH0111T | ● | 1.1719 | .469 | .394 | | | |
| TAWNH0112T | ● | 1.1875 | .465 | .394 | | | |



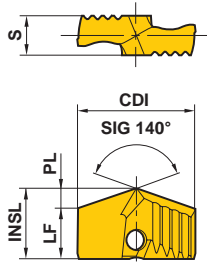
● : USA Stock ▲ : This item to be discontinued within two years.
 <One insert in one case>

TAW

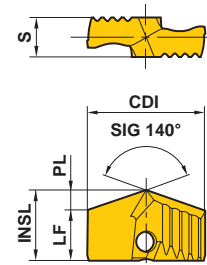
INSERTS

■ METRIC STANDARD

| Geometry | Order Number | Stock | Dimensions (mm) | | | Applicable Holder | |
|-----------------|--------------|--------|-----------------|-----|-----------|-------------------|---------------|
| | | VP15TF | CDI | LF | S | Inch | Metric |
| For General Use | TAWNH1400T | ▲ | 14.0 | 7.6 | 5.0 | | |
| | TAWNH1410T | ▲ | 14.1 | 7.6 | 5.0 | TAWSNH0036 | TAWSNH1400S16 |
| | TAWNH1420T | ▲ | 14.2 | 7.6 | 5.0 | TAWMNH0036 | TAWMNH1400S16 |
| | TAWNH1430T | ▲ | 14.3 | 7.6 | 5.0 | TAWLNH0036 | TAWLNH1400S16 |
| | TAWNH1440T | ▲ | 14.4 | 7.6 | 5.0 | | |
| | TAWNH1450T | ▲ | 14.5 | 7.5 | 5.0 | | |
| | TAWNH1460T | ▲ | 14.6 | 7.5 | 5.0 | | |
| | TAWNH1470T | ▲ | 14.7 | 7.5 | 5.0 | TAWSNH0037 | |
| | TAWNH1480T | ▲ | 14.8 | 7.5 | 5.0 | TAWMNH0037 | TAWSNH1500S20 |
| | TAWNH1490T | ▲ | 14.9 | 7.5 | 5.0 | TAWLNH0037 | TAWMNH1500S20 |
| | TAWNH1500T | ▲ | 15.0 | 7.4 | 5.0 | TAWSNH0039 | TAWLNH1500S20 |
| | TAWNH1510T | ▲ | 15.1 | 7.4 | 5.0 | TAWMNH0039 | |
| | TAWNH1520T | ▲ | 15.2 | 7.4 | 5.0 | TAWLNH0039 | |
| | TAWNH1530T | ▲ | 15.3 | 7.4 | 5.0 | | |
| | TAWNH1540T | ▲ | 15.4 | 7.4 | 5.0 | | |
| | TAWNH1550T | ▲ | 15.5 | 7.9 | 6.0 | | |
| | TAWNH1560T | ▲ | 15.6 | 7.9 | 6.0 | | |
| | TAWNH1570T | ▲ | 15.7 | 7.9 | 6.0 | | |
| | TAWNH1580T | ▲ | 15.8 | 7.9 | 6.0 | TAWSN0041 | TAWSN1600S20 |
| | TAWNH1590T | ▲ | 15.9 | 7.9 | 6.0 | TAWMN0041 | TAWMN1600S20 |
| | TAWNH1600T | ▲ | 16.0 | 7.8 | 6.0 | TAWLN0041 | TAWLN1600S20 |
| | TAWNH1610T | ▲ | 16.1 | 7.8 | 6.0 | | |
| | TAWNH1620T | ▲ | 16.2 | 7.8 | 6.0 | | |
| | TAWNH1630T | ▲ | 16.3 | 7.8 | 6.0 | | |
| | TAWNH1640T | ▲ | 16.4 | 7.8 | 6.0 | | |
| | TAWNH1650T | ▲ | 16.5 | 7.7 | 6.0 | | |
| | TAWNH1660T | ▲ | 16.6 | 7.7 | 6.0 | | |
| | TAWNH1670T | ▲ | 16.7 | 7.7 | 6.0 | | |
| | TAWNH1680T | ▲ | 16.8 | 7.7 | 6.0 | TAWSN0044 | TAWSN1700S20 |
| | TAWNH1690T | ▲ | 16.9 | 7.7 | 6.0 | TAWMN0044 | TAWMN1700S20 |
| | TAWNH1700T | ▲ | 17.0 | 7.6 | 6.0 | TAWLN0044 | TAWLN1700S20 |
| | TAWNH1710T | ▲ | 17.1 | 7.6 | 6.0 | | |
| | TAWNH1720T | ▲ | 17.2 | 7.6 | 6.0 | | |
| | TAWNH1730T | ▲ | 17.3 | 7.6 | 6.0 | | |
| | TAWNH1740T | ▲ | 17.4 | 7.6 | 6.0 | | |
| | TAWNH1750T | ▲ | 17.5 | 7.5 | 6.0 | | |
| | TAWNH1760T | ▲ | 17.6 | 7.5 | 6.0 | TAWSN0045 | |
| | TAWNH1770T | ▲ | 17.7 | 7.5 | 6.0 | TAWMN0045 | TAWSN1800S20 |
| | TAWNH1780T | ▲ | 17.8 | 7.5 | 6.0 | TAWLN0045 | TAWMN1800S20 |
| | TAWNH1790T | ▲ | 17.9 | 7.5 | 6.0 | TAWSN0046 | TAWLN1800S20 |
| TAWNH1800T | ▲ | 18.0 | 7.4 | 6.0 | TAWMN0046 | | |
| TAWNH1810T | ▲ | 18.1 | 7.4 | 6.0 | TAWLN0046 | | |
| TAWNH1820T | ▲ | 18.2 | 7.4 | 6.0 | | | |
| TAWNH1830T | ▲ | 18.3 | 7.4 | 6.0 | | | |
| TAWNH1840T | ▲ | 18.4 | 7.4 | 6.0 | | | |



| Geometry | Order Number | Stock | Dimensions (mm) | | | Applicable Holder | |
|-----------------|--------------|--------|-----------------|------|----------|-------------------|--------------|
| | | VP15TF | CDI | LF | S | Inch | Metric |
| For General Use | TAWNH1850T | ● | 18.5 | 9.3 | 7.0 | | |
| | TAWNH1860T | ● | 18.6 | 9.3 | 7.0 | | |
| | TAWNH1870T | ● | 18.7 | 9.3 | 7.0 | | |
| | TAWNH1880T | ● | 18.8 | 9.3 | 7.0 | TAWSN0049 | TAWSN1900S25 |
| | TAWNH1890T | ● | 18.9 | 9.3 | 7.0 | TAWMN0049 | TAWMN1900S25 |
| | TAWNH1900T | ● | 19.0 | 9.2 | 7.0 | TAWLN0049 | TAWLN1900S25 |
| | TAWNH1910T | ● | 19.1 | 9.2 | 7.0 | | |
| | TAWNH1920T | ● | 19.2 | 9.2 | 7.0 | | |
| | TAWNH1930T | ● | 19.3 | 9.2 | 7.0 | | |
| | TAWNH1940T | ● | 19.4 | 9.2 | 7.0 | | |
| | TAWNH1950T | ● | 19.5 | 9.1 | 7.0 | | |
| | TAWNH1960T | ● | 19.6 | 9.1 | 7.0 | TAWSN0051 | TAWSN2000S25 |
| | TAWNH1970T | ● | 19.7 | 9.1 | 7.0 | TAWMN0051 | TAWMN2000S25 |
| | TAWNH1980T | ● | 19.8 | 9.1 | 7.0 | TAWLN0051 | TAWLN2000S25 |
| | TAWNH1990T | ● | 19.9 | 9.1 | 7.0 | | |
| | TAWNH2000T | ● | 20.0 | 9.0 | 7.0 | | |
| | TAWNH2050T | ● | 20.5 | 8.9 | 7.0 | TAWSN0054 | TAWSN2100S25 |
| | TAWNH2100T | ● | 21.0 | 8.8 | 7.0 | TAWMN0054 | TAWMN2100S25 |
| | TAWNH2150T | ● | 21.5 | 10.6 | 8.0 | TAWLN0054 | TAWLN2100S25 |
| | TAWNH2200T | ● | 22.0 | 10.5 | 8.0 | TAWSN0056 | TAWSN2200S25 |
| | TAWNH2250T | ● | 22.5 | 10.4 | 8.0 | TAWMN0056 | TAWMN2200S25 |
| | TAWNH2300T | ● | 23.0 | 10.3 | 8.0 | TAWLN0056 | TAWLN2200S25 |
| | TAWNH2350T | ● | 23.5 | 10.2 | 8.0 | TAWSN0059 | TAWSN2300S25 |
| | TAWNH2400T | ● | 24.0 | 10.3 | 8.0 | TAWMN0059 | TAWMN2300S25 |
| | TAWNH2450T | ● | 24.5 | 10.2 | 8.0 | TAWLN0059 | TAWLN2300S25 |
| | TAWNH2500T | ● | 25.0 | 11.7 | 9.0 | TAWSN0061 | TAWSN2400S32 |
| | TAWNH2550T | ● | 25.5 | 11.6 | 9.0 | TAWMN0061 | TAWMN2400S32 |
| | TAWNH2600T | ● | 26.0 | 11.6 | 9.0 | TAWLN0061 | TAWLN2400S32 |
| | TAWNH2650T | ● | 26.5 | 11.7 | 9.0 | TAWSN100 | TAWSN2500S32 |
| | TAWNH2700T | ● | 27.0 | 11.6 | 9.0 | TAWMN100 | TAWMN2500S32 |
| TAWNH2750T | ● | 27.5 | 11.5 | 9.0 | TAWLN100 | TAWLN2500S32 | |
| TAWNH2800T | ● | 28.0 | 11.4 | 9.0 | TAWSN102 | TAWSN2600S32 | |
| TAWNH2850T | ● | 28.5 | 11.5 | 9.0 | TAWMN102 | TAWMN2600S32 | |
| TAWNH2900T | ● | 29.0 | 11.4 | 9.0 | TAWLN102 | TAWLN2600S32 | |
| TAWNH2950T | ● | 29.5 | 11.3 | 9.0 | TAWSN105 | TAWSN2700S32 | |
| TAWNH3000T | ● | 30.0 | 11.2 | 9.0 | TAWMN105 | TAWMN2700S32 | |
| TAWNH3050T | ● | 30.5 | 12.3 | 10.0 | TAWLN105 | TAWLN2700S32 | |
| TAWNH3100T | ● | 31.0 | 12.2 | 10.0 | TAWSN107 | TAWSN2800S32 | |
| TAWNH3150T | ● | 31.5 | 12.1 | 10.0 | TAWMN107 | TAWMN2800S32 | |
| TAWNH3200T | ● | 32.0 | 12.0 | 10.0 | TAWLN107 | TAWLN2800S32 | |
| TAWNH3250T | ● | 32.5 | 12.1 | 10.0 | TAWSN110 | TAWSN2900S32 | |
| TAWNH3300T | ● | 33.0 | 12.0 | 10.0 | TAWMN110 | TAWMN2900S32 | |
| TAWNH3350T | ● | 33.5 | 11.9 | 10.0 | TAWLN110 | TAWLN2900S32 | |
| TAWNH3400T | ● | 34.0 | 11.8 | 10.0 | TAWSN112 | TAWSN3000S32 | |
| TAWNH3450T | ● | 34.5 | 11.8 | 10.0 | TAWMN112 | TAWMN3000S32 | |
| TAWNH3500T | ● | 35.0 | 11.8 | 10.0 | TAWLN112 | TAWLN3000S32 | |

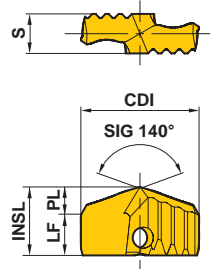


● : USA Stock ▲ : This item to be discontinued within two years.
 <One insert in one case>

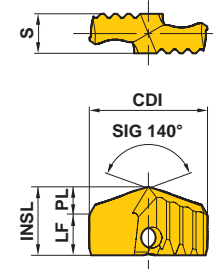
INSERTS

■ METRIC STANDARD

| Geometry | Order Number | Stock | Dimensions (mm) | | | Applicable Holder | |
|---------------|--------------|--------|-----------------|-----|-----------|-------------------|---------------|
| | | DP5010 | CDI | LF | S | Inch | Metric |
| For Cast Iron | TAWKH1400TG | ▲ | 14.0 | 7.1 | 5.0 | | |
| | TAWKH1410TG | ▲ | 14.1 | 7.1 | 5.0 | TAWSNH0036 | TAWSNH1400S16 |
| | TAWKH1420TG | ▲ | 14.2 | 7.1 | 5.0 | TAWMNH0036 | TAWMNH1400S16 |
| | TAWKH1430TG | ▲ | 14.3 | 7.1 | 5.0 | TAWLNH0036 | TAWLNH1400S16 |
| | TAWKH1440TG | ▲ | 14.4 | 7.1 | 5.0 | | |
| | TAWKH1450TG | ▲ | 14.5 | 7.0 | 5.0 | | |
| | TAWKH1460TG | ▲ | 14.6 | 7.0 | 5.0 | | |
| | TAWKH1470TG | ▲ | 14.7 | 7.0 | 5.0 | TAWSNH0037 | |
| | TAWKH1480TG | ▲ | 14.8 | 7.0 | 5.0 | TAWMNH0037 | TAWSNH1500S20 |
| | TAWKH1490TG | ▲ | 14.9 | 7.0 | 5.0 | TAWLNH0037 | TAWMNH1500S20 |
| | TAWKH1500TG | ▲ | 15.0 | 6.9 | 5.0 | TAWSNH0039 | TAWLNH1500S20 |
| | TAWKH1510TG | ▲ | 15.1 | 6.9 | 5.0 | TAWMNH0039 | |
| | TAWKH1520TG | ▲ | 15.2 | 6.9 | 5.0 | TAWLNH0039 | |
| | TAWKH1530TG | ▲ | 15.3 | 6.9 | 5.0 | | |
| | TAWKH1540TG | ▲ | 15.4 | 6.9 | 5.0 | | |
| | TAWKH1550TG | ▲ | 15.5 | 7.3 | 6.0 | | |
| | TAWKH1560TG | ▲ | 15.6 | 7.3 | 6.0 | | |
| | TAWKH1570TG | ▲ | 15.7 | 7.3 | 6.0 | | |
| | TAWKH1580TG | ▲ | 15.8 | 7.3 | 6.0 | TAWSN0041 | TAWSN1600S20 |
| | TAWKH1590TG | ▲ | 15.9 | 7.3 | 6.0 | TAWMN0041 | TAWMN1600S20 |
| | TAWKH1600TG | ▲ | 16.0 | 7.2 | 6.0 | TAWLN0041 | TAWLN1600S20 |
| | TAWKH1610TG | ▲ | 16.1 | 7.2 | 6.0 | | |
| | TAWKH1620TG | ▲ | 16.2 | 7.2 | 6.0 | | |
| | TAWKH1630TG | ▲ | 16.3 | 7.2 | 6.0 | | |
| | TAWKH1640TG | ▲ | 16.4 | 7.2 | 6.0 | | |
| | TAWKH1650TG | ▲ | 16.5 | 7.1 | 6.0 | | |
| | TAWKH1660TG | ▲ | 16.6 | 7.1 | 6.0 | | |
| | TAWKH1670TG | ▲ | 16.7 | 7.1 | 6.0 | | |
| | TAWKH1680TG | ▲ | 16.8 | 7.1 | 6.0 | TAWSN0044 | TAWSN1700S20 |
| | TAWKH1690TG | ▲ | 16.9 | 7.1 | 6.0 | TAWMN0044 | TAWMN1700S20 |
| | TAWKH1700TG | ▲ | 17.0 | 7.0 | 6.0 | TAWLN0044 | TAWLN1700S20 |
| | TAWKH1710TG | ▲ | 17.1 | 7.0 | 6.0 | | |
| | TAWKH1720TG | ▲ | 17.2 | 7.0 | 6.0 | | |
| | TAWKH1730TG | ▲ | 17.3 | 7.0 | 6.0 | | |
| | TAWKH1740TG | ▲ | 17.4 | 7.0 | 6.0 | | |
| | TAWKH1750TG | ▲ | 17.5 | 6.8 | 6.0 | | |
| | TAWKH1760TG | ▲ | 17.6 | 6.8 | 6.0 | | |
| | TAWKH1770TG | ▲ | 17.7 | 6.8 | 6.0 | TAWSN0045 | TAWSN1800S20 |
| | TAWKH1780TG | ▲ | 17.8 | 6.8 | 6.0 | TAWMN0045 | TAWMN1800S20 |
| | TAWKH1790TG | ▲ | 17.9 | 6.8 | 6.0 | TAWLN0045 | TAWLN1800S20 |
| TAWKH1800TG | ▲ | 18.0 | 6.8 | 6.0 | TAWSN0046 | | |
| TAWKH1810TG | ▲ | 18.1 | 6.8 | 6.0 | TAWMN0046 | | |
| TAWKH1820TG | ▲ | 18.2 | 6.8 | 6.0 | TAWLN0046 | | |
| TAWKH1830TG | ▲ | 18.3 | 6.8 | 6.0 | | | |
| TAWKH1840TG | ▲ | 18.4 | 6.8 | 6.0 | | | |



| Geometry | Order Number | Stock | Dimensions (mm) | | | Applicable Holder | |
|---------------|--------------|--------|-----------------|------|----------|-------------------|--------------|
| | | DP5010 | CDI | LF | S | Inch | Metric |
| For Cast Iron | TAWKH1850TG | ★ | 18.5 | 8.6 | 7.0 | | |
| | TAWKH1860TG | ★ | 18.6 | 8.6 | 7.0 | | |
| | TAWKH1870TG | ★ | 18.7 | 8.6 | 7.0 | | |
| | TAWKH1880TG | ★ | 18.8 | 8.6 | 7.0 | TAWSN0049 | TAWSN1900S25 |
| | TAWKH1890TG | ★ | 18.9 | 8.6 | 7.0 | TAWMN0049 | TAWMN1900S25 |
| | TAWKH1900TG | ★ | 19.0 | 8.5 | 7.0 | TAWLN0049 | TAWLN1900S25 |
| | TAWKH1910TG | ★ | 19.1 | 8.5 | 7.0 | | |
| | TAWKH1920TG | ★ | 19.2 | 8.5 | 7.0 | | |
| | TAWKH1930TG | ★ | 19.3 | 8.5 | 7.0 | | |
| | TAWKH1940TG | ★ | 19.4 | 8.5 | 7.0 | | |
| | TAWKH1950TG | ★ | 19.5 | 8.4 | 7.0 | | |
| | TAWKH1960TG | ★ | 19.6 | 8.4 | 7.0 | TAWSN0051 | TAWSN2000S25 |
| | TAWKH1970TG | ★ | 19.7 | 8.4 | 7.0 | TAWMN0051 | TAWMN2000S25 |
| | TAWKH1980TG | ★ | 19.8 | 8.4 | 7.0 | TAWLN0051 | TAWLN2000S25 |
| | TAWKH1990TG | ★ | 19.9 | 8.4 | 7.0 | | |
| | TAWKH2000TG | ★ | 20.0 | 8.3 | 7.0 | | |
| | TAWKH2050TG | ★ | 20.5 | 8.2 | 7.0 | TAWSN0054 | TAWSN2100S25 |
| | TAWKH2100TG | ★ | 21.0 | 8.1 | 7.0 | TAWMN0054 | TAWMN2100S25 |
| | TAWKH2150TG | ★ | 21.5 | 9.8 | 8.0 | TAWLN0054 | TAWLN2100S25 |
| | TAWKH2200TG | ★ | 22.0 | 9.7 | 8.0 | TAWSN0056 | TAWSN2200S25 |
| | TAWKH2250TG | ★ | 22.5 | 9.6 | 8.0 | TAWMN0056 | TAWMN2200S25 |
| | TAWKH2300TG | ★ | 23.0 | 9.5 | 8.0 | TAWLN0056 | TAWLN2200S25 |
| | TAWKH2350TG | ★ | 23.5 | 9.4 | 8.0 | TAWSN0059 | TAWSN2300S25 |
| | TAWKH2400TG | ★ | 24.0 | 9.3 | 8.0 | TAWMN0059 | TAWMN2300S25 |
| | TAWKH2450TG | ★ | 24.5 | 9.4 | 8.0 | TAWLN0059 | TAWLN2300S25 |
| | TAWKH2500TG | ★ | 24.0 | 9.3 | 9.0 | TAWSN0061 | TAWSN2400S32 |
| | TAWKH2550TG | ★ | 24.5 | 10.8 | 9.0 | TAWMN0061 | TAWMN2400S32 |
| | TAWKH2600TG | ★ | 25.0 | 10.7 | 9.0 | TAWLN0061 | TAWLN2400S32 |
| | TAWKH2650TG | ★ | 25.5 | 10.6 | 9.0 | TAWSN100 | TAWSN2500S32 |
| | TAWKH2700TG | ★ | 26.0 | 10.5 | 9.0 | TAWMN100 | TAWMN2500S32 |
| TAWKH2750TG | ★ | 26.5 | 10.4 | 9.0 | TAWLN100 | TAWLN2500S32 | |
| TAWKH2800TG | ★ | 27.0 | 10.3 | 9.0 | TAWSN102 | TAWSN2600S32 | |
| TAWKH2850TG | ★ | 27.5 | 11.3 | 10.0 | TAWMN102 | TAWMN2600S32 | |
| TAWKH2900TG | ★ | 28.0 | 11.2 | 10.0 | TAWLN102 | TAWLN2600S32 | |
| TAWKH2950TG | ★ | 28.5 | 11.1 | 10.0 | TAWSN105 | TAWSN2700S32 | |
| TAWKH3000TG | ★ | 29.0 | 11.0 | 10.0 | TAWMN105 | TAWMN2700S32 | |
| | | | | | TAWLN105 | TAWLN2700S32 | |
| | | | | | TAWSN107 | TAWSN2800S32 | |
| | | | | | TAWMN107 | TAWMN2800S32 | |
| | | | | | TAWLN107 | TAWLN2800S32 | |
| | | | | | TAWSN110 | TAWSN2900S32 | |
| | | | | | TAWMN110 | TAWMN2900S32 | |
| | | | | | TAWLN110 | TAWLN2900S32 | |
| | | | | | TAWSN112 | TAWSN3000S32 | |
| | | | | | TAWMN112 | TAWMN3000S32 | |
| | | | | | TAWLN112 | TAWLN3000S32 | |



★ : Stocked in Japan ▲ : This item to be discontinued within two years.



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For Your Safety

- Don't handle inserts and chips without gloves.
- Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage.
- Please use safety covers and wear safety glasses.
- When using compounded cutting oils, please take fire precautions.
- When attaching inserts or spare parts, please use only the correct wrench or driver.
- When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.



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