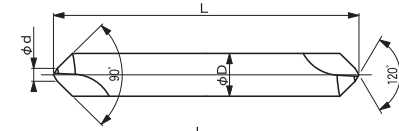


HSS SPセンター 90°
HSS SP Center 90°



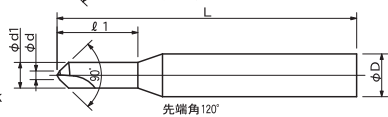
図/Fig.1
両刃
Double-end



図/Fig.2
片刃
Single-end



図/Fig.3
ルーマ形状
Pivot type shank

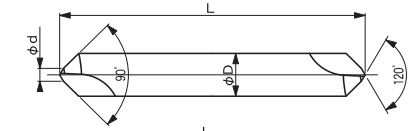


図/Fig.1, 2 : φD 最大面取り径 Max. Chamfering Dia.
図/Fig.3 : φd1 最大面取り径 Max. Chamfering Dia.
図/Fig.1, 2, 3 : φd 最小面取り径 Min. Chamfering Dia.

HSS SPセンター 90° TiCNコーティング
HSS SP Center 90° TiCN coating



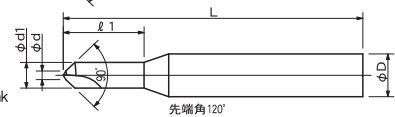
図/Fig.1
両刃
Double-end



図/Fig.2
片刃
Single-end



図/Fig.3
ルーマ形状
Pivot type shank



図/Fig.1, 2 : φD 最大面取り径 Max. Chamfering Dia.
図/Fig.3 : φd1 最大面取り径 Max. Chamfering Dia.
図/Fig.1, 2, 3 : φd 最小面取り径 Min. Chamfering Dia.

90° HSS 両刃 *1 2枚刃 右刃

- *1 サイズによっては **ルーマ** 形状のものもあります。
Pivot type shank available depending on size.
- *2 サイズによっては **片刃** のものもあります。
Single-end versions available depending on size.

単位/寸法:mm 価格:円
Unit/Size:mm Price:JPY

| VAN Code No. | 最小面取り径 φd | 最大面取り径 φd1 | シャンク径 φD | ルーマ長 ℓ1 | 全長 L | 図 Fig. | 在庫 Stock | 参考価格 Price |
|--------------|--------------|---------------|-------------|------------|---------|-----------|-------------|---------------|
| 90SPC0.3X0.9 | 0.3 | 0.9 | 3 | 2.7 | 40 | 3 | ● | ¥2,300 |
| 90SPC0.4X1.2 | 0.4 | 1.2 | 3 | 3.6 | 40 | 3 | ● | ¥1,700 |
| 90SPC0.5X2X3 | 0.5 | 2 | 3 | 6 | 40 | 3 | ● | ¥1,200 |
| 90SPC0.5X2 | 0.5 | 2 | 2 | | 40 | 2 | ▲ | ¥1,200 |
| 90SPC0.8X3SE | 0.8 | | 3 | | 40 | 2 | ● | ¥950 |
| 90SPC0.8X3 | 0.8 | | 3 | | 35 | 1 | ▲ | ¥1,667 |
| 90SPC1.0X3SE | 1 | | 3 | | 40 | 2 | ● | ¥850 |
| 90SPC1.0X3 | 1 | | 3 | | 35 | 1 | ● | ¥1,500 |
| 90SPC1.5X4 | 1.5 | | 4 | | 40 | 1 | ● | ¥1,500 |
| 90SPC2.0X6 | 2 | | 6 | | 50 | 1 | ● | ¥1,667 |
| 90SPC2.5X8 | 2.5 | | 8 | | 60 | 1 | ● | ¥2,000 |
| 90SPC3.0X10 | 3 | | 10 | | 70 | 1 | ● | ¥2,333 |
| 90SPC4.0X12 | 4 | | 12 | | 80 | 1 | ● | ¥3,000 |
| 90SPC5.0X16 | 5 | | 16 | | 100 | 1 | ● | ¥5,667 |
| 90SPC6.0X20 | 6 | | 20 | | 120 | 1 | ● | ¥9,000 |
| 90SPC8.0X25 | 8 | | 25 | | 140 | 1 | ● | ¥15,667 |
| 90SPC9.0X32 | 9 | | 32 | | 160 | 1 | ● | ¥33,333 |

90° HSS TiCN 両刃 *1 2枚刃 右刃

- *1 サイズによっては **ルーマ** 形状のものもあります。
Pivot type shank available depending on size.
- *2 サイズによっては **片刃** のものもあります。
Single-end versions available depending on size.

単位/寸法:mm 価格:円
Unit/Size:mm Price:JPY

| VAN Code No. | 最小面取り径 φd | 最大面取り径 φd1 | シャンク径 φD | ルーマ長 ℓ1 | 全長 L | 図 Fig. | 在庫 Stock | 参考価格 Price |
|------------------|--------------|---------------|-------------|------------|---------|-----------|-------------|---------------|
| 90SPC0.3X0.9TiCN | 0.3 | 0.9 | 3 | 2.7 | 40 | 3 | ● | ¥3,300 |
| 90SPC0.4X1.2TiCN | 0.4 | 1.2 | 3 | 3.6 | 40 | 3 | ● | ¥2,600 |
| 90SPC0.5X2X3TiCN | 0.5 | 2 | 3 | 6 | 40 | 3 | ● | ¥2,100 |
| 90SPC0.5X2TiCN | 0.5 | 2 | 2 | | 40 | 2 | ▲ | ¥2,100 |
| 90SPC0.8X3SETiCN | 0.8 | | 3 | | 40 | 2 | ● | ¥1,500 |
| 90SPC0.8X3TiCN | 0.8 | | 3 | | 35 | 1 | ▲ | ¥2,833 |
| 90SPC1.0X3SETiCN | 1 | | 3 | | 40 | 2 | ● | ¥1,400 |
| 90SPC1.0X3TiCN | 1 | | 3 | | 35 | 1 | ● | ¥2,500 |
| 90SPC1.5X4TiCN | 1.5 | | 4 | | 40 | 1 | ● | ¥2,667 |
| 90SPC2.0X6TiCN | 2 | | 6 | | 50 | 1 | ● | ¥3,000 |
| 90SPC2.5X8TiCN | 2.5 | | 8 | | 60 | 1 | ● | ¥3,500 |
| 90SPC3.0X10TiCN | 3 | | 10 | | 70 | 1 | ● | ¥4,167 |
| 90SPC4.0X12TiCN | 4 | | 12 | | 80 | 1 | ● | ¥5,000 |
| 90SPC5.0X16TiCN | 5 | | 16 | | 100 | 1 | ● | ¥9,000 |
| 90SPC6.0X20TiCN | 6 | | 20 | | 120 | 1 | ● | ¥13,333 |
| 90SPC8.0X25TiCN | 8 | | 25 | | 140 | 1 | ● | ¥23,333 |
| 90SPC9.0X32TiCN | 9 | | 32 | | 160 | 1 | ● | ¥41,667 |

Stock ●... 標準在庫品 / Stocked
Stock ▲... 生産終了予定品 / Will be Over

被削材適合性

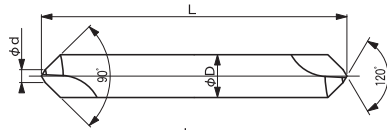
Suitability for Work Materials ◎...最適 The most suitable ○...適 Suitable △...可 Possible 無印 Blank...不可 Impossible

| 製品区分 Product | 軟鋼 Mild Steel | 炭素鋼 Carbon Steel | 合金鋼 Alloy Steel | 調質鋼 Hardened Steel | 工具鋼 Tool Steel | 焼入れ鋼 Quenched & Tempered Steel | ステンレス鋼 Stainless Steel | 鋳鉄 Cast Iron | タタイル類 Ductile Cast Iron | チタン合金 Titanium Alloy | アルミ合金 Aluminium Alloy | 銅 Copper | プラスチック Plastic | セラミック etc. Ceramics etc. |
|-----------------|------------------|---------------------|--------------------|-----------------------|-------------------|-----------------------------------|---------------------------|-----------------|----------------------------|-------------------------|--------------------------|-------------|-------------------|-----------------------------|
| 90SPC | ◎ | ○ | ○ | △ | | | ○ | ○ | ○ | | ○ | ○ | ○ | |
| 90SPC-TiCN | ○ | ◎ | ◎ | ○ | | | ◎ | ○ | ○ | | ○ | ○ | △ | |

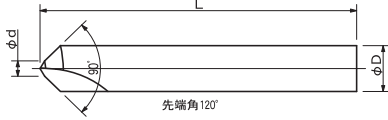
HSS SPセンター 90° ロングタイプ TiCNコーティング
HSS SP Center 90° Long type TiCN coating



図/Fig.1
両刃
Double-end



図/Fig.2
片刃
Single-end

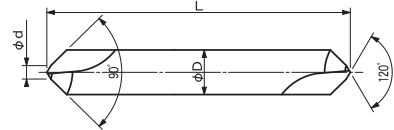


図/Fig.1, 2 : φD 最大面取り径 Max. Chamfering Dia.
 図/Fig.1, 2 : φd 最小面取り径 Min. Chamfering Dia.

HSS SPセンター 90° 左刃 TiCNコーティング
HSS SP Center 90° Left Hand TiCN coating



図/Fig.1



図/Fig.1 : φD 最大面取り径 Max. Chamfering Dia.
 図/Fig.1 : φd 最小面取り径 Min. Chamfering Dia.

90° HSS TiCN 両刃*2 ロング 2枚刃 右刃

*2 サイズによっては 片刃 のものもあります。
 Single-end versions available depending on size.

単位/寸法:mm 価格:円
 Unit/Size:mm Price:JPY

| VAN Code No. | 最小面取り径 φd | シャンク径 φD | 全長 L | 図 Fig. | 在庫 Stock | 参考価格 Price |
|----------------------|--------------|-------------|---------|-----------|-------------|---------------|
| 90LSPC0.5X2TICN | 0.5 | 2 | 100 | 2 | ● | ¥4,000 |
| 90LSPC1.0X3X100TICN | 1 | 3 | 100 | 1 | ● | ¥4,000 |
| 90LSPC1.0X3X150TICN | 1 | 3 | 150 | 1 | □ | |
| 90LSPC1.5X4X100TICN | 1.5 | 4 | 100 | 1 | ● | ¥4,333 |
| 90LSPC1.5X4X150TICN | 1.5 | 4 | 150 | 1 | □ | |
| 90LSPC2.0X6X100TICN | 2 | 6 | 100 | 1 | ● | ¥5,667 |
| 90LSPC2.0X6X150TICN | 2 | 6 | 150 | 1 | □ | |
| 90LSPC2.0X6X200TICN | 2 | 6 | 200 | 1 | □ | |
| 90LSPC2.5X8X120TICN | 2.5 | 8 | 120 | 1 | ● | ¥6,333 |
| 90LSPC2.5X8X200TICN | 2.5 | 8 | 200 | 1 | □ | |
| 90LSPC3.0X10X120TICN | 3 | 10 | 120 | 1 | ● | ¥7,000 |
| 90LSPC3.0X10X200TICN | 3 | 10 | 200 | 1 | □ | |
| 90LSPC4.0X12X150TICN | 4 | 12 | 150 | 1 | ● | ¥9,333 |
| 90LSPC4.0X12X200TICN | 4 | 12 | 200 | 1 | □ | |
| 90LSPC5.0X16TICN | 5 | 16 | 200 | 1 | □ | |

90° HSS TiCN 両刃 2枚刃 左刃

単位/寸法:mm 価格:円
 Unit/Size:mm Price:JPY

| VAN Code No. | 最小面取り径 φd | シャンク径 φD | 全長 L | 図 Fig. | 在庫 Stock | 参考価格 Price |
|------------------|--------------|-------------|---------|-----------|-------------|---------------|
| 90SPCL1.0X3TICN | 1 | 3 | 35 | 1 | □ | |
| 90SPCL1.5X4TICN | 1.5 | 4 | 40 | 1 | □ | |
| 90SPCL2.0X6TICN | 2 | 6 | 50 | 1 | □ | |
| 90SPCL2.5X8TICN | 2.5 | 8 | 60 | 1 | □ | |
| 90SPCL3.0X10TICN | 3 | 10 | 70 | 1 | □ | |
| 90SPCL4.0X12TICN | 4 | 12 | 80 | 1 | □ | |

Stock ●...標準在庫品 / Stocked
 Stock □...特定商社在庫品 / Stocked by Specific Distributors

■被削材適合性

Suitability for Work Materials ◎...最適 The most suitable ○...適 Suitable △...可 Possible 無印 Blank...不可 Impossible

| 製品区分 Product | 軟鋼 Mild Steel | 炭素鋼 Carbon Steel | 合金鋼 Alloy Steel | 調質鋼 Hardened Steel | 工具鋼 Tool Steel | 焼入れ鋼 Quenched & Tempered Steel | ステンレス鋼 Stainless Steel | 鋳鉄 Cast Iron | タガタイル鋳鉄 Ductile Cast Iron | チタン合金 Titanium Alloy | アルミ合金 Aluminium Alloy | 銅 Copper | プラスチック Plastic | セラミック etc. Ceramics etc. |
|-----------------|---------------------|------------------------|-----------------------|--------------------------|----------------------|--------------------------------------|------------------------------|--------------------|---------------------------------|----------------------------|-----------------------------|-------------|-------------------|--|
| | SS | S45C | SCM SCR | SKD SKS | ~40 HRC | ~45 HRC | 45~ HRC | SUS | FC | FDC | Al | Cu | | マシナブル Machinable ジルコニア ガラス Zirconia Glass |
| 90LSPC-TICN | ○ | ◎ | ◎ | ○ | | | | ◎ | ○ | ○ | ○ | ○ | △ | |
| 90SPCL-TICN | ○ | ◎ | ◎ | ○ | | | | ◎ | ○ | ○ | ○ | ○ | △ | |

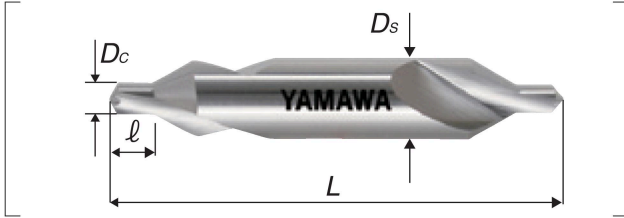
- SP CENTER
- CENTER DRILL
- GP DRILL
- TFD
- SPIRAL GUN BARREL DRILL
- TOGLON SHARP SP
- TOGLON HARD
- CORNER ROUNDING CUTTER
- JIT
- SUBMARINE GATE DRILL
- MICRO TOOL
- TECHNICAL INFORMATION
- CUSTOMIZED TOOL SEMIORDER TOOL
- INSTRUCTION
- COMPANY PROFILE

CESA

High Helix Center Drills-JIS Type A 60°

HSS

Segment : 51



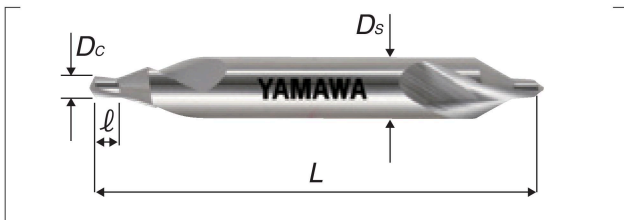
| Size Dc x θ x Ds | Stock | Code | Ds (mm) | L (mm) | l (mm) | Type |
|---------------------|-------|---------|------------|-----------|-----------|------|
| 0.5×60°×3.15 | ◎ | CEA0.5 | 3.15 | 31.5 | 0.8 | Ca |
| 0.63×60°×3.15 | ◎ | CEA0.63 | 3.15 | 31.5 | 1 | Ca |
| 0.8×60°×3.15 | ◎ | CEA0.8 | 3.15 | 31.5 | 1.2 | Ca |
| 1×60°×3.15 | ◎ | CEA1.0 | 3.15 | 31.5 | 1.5 | Ca |
| 1.25×60°×3.15 | ◎ | CEA1.25 | 3.15 | 31.5 | 1.9 | Ca |
| 1.6×60°×4 | ◎ | CEA1.6 | 4 | 35.5 | 2.4 | Ca |
| 2×60°×5 | ◎ | CEA2.0 | 5 | 40 | 3 | Ca |
| 2.5×60°×6.3 | ◎ | CEA2.5 | 6.3 | 45 | 3.8 | Ca |
| 3.15×60°×8 | ◎ | CEA3.15 | 8 | 50 | 4.8 | Ca |
| 4×60°×10 | ◎ | CEA4.0 | 10 | 56 | 6 | Ca |
| 5×60°×12.5 | ◎ | CEA5.0 | 12.5 | 63 | 7.5 | Ca |
| 6.3×60°×16 | ◎ | CEA6.3 | 16 | 71 | 9.2 | Ca |
| 8×60°×20 | ◎ | CEA8.0 | 20 | 80 | 11.5 | Ca |
| 10×60°×25 | ◎ | CEA10 | 25 | 100 | 14.2 | Ca |

CE-S

High Helix Center Drills-Type A 60°

HSS

Segment : 51



| Size Dc x θ x Ds | Stock | Code | Ds (mm) | L (mm) | l (mm) | Type |
|---------------------|-------|---------|------------|-----------|-----------|------|
| 0.3×60°×3 | △ | (CE0.3) | 3 | 35 | 0.3 | Cf |

CE-S High Helix Spiral Fluted Center Drills-Type A 60°

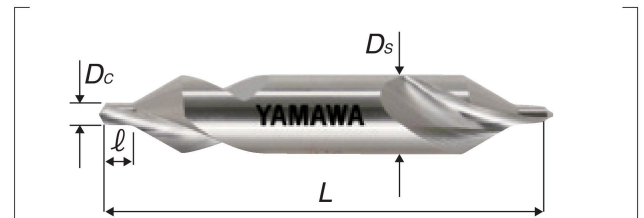
| Size Dc x θ x Ds | Stock | Code | Ds (mm) | L (mm) | l (mm) | Type |
|---------------------|-------|----------|------------|-----------|-----------|------|
| 0.4×60°×3 | △ | (CE0.4) | 3 | 35 | 0.4 | Cf |
| 0.5×60°×3.5 | ○ | CE0.5 | 3.5 | 35 | 0.5 | Cf |
| 0.6×60°×3.5 | ○ | CE0.6 | 3.5 | 35 | 0.6 | Cf |
| 0.7×60°×3.5 | ○ | CE0.7 | 3.5 | 35 | 0.7 | Cf |
| 0.8×60°×3.5 | ○ | CE0.8 | 3.5 | 35 | 0.8 | Cf |
| 0.9×60°×4 | ○ | CE0.9 | 4 | 35 | 0.9 | Cf |
| 1×60°×4 | ○ | CE1.0 | 4 | 35 | 1 | Cf |
| 1.2×60°×5 | ○ | CE1.2 | 5 | 40 | 1.2 | Cf |
| 1.5×60°×5 | ○ | CE1.5 | 5 | 40 | 1.5 | Cf |
| 2×60°×6 | ○ | CE2.0 | 6 | 45 | 2 | Cf |
| 2.5×60°×7.7 | ○ | CE2.5 | 7.7 | 50 | 2.5 | Cf |
| 3×60°×7.7 | ○ | CE3.0 | 7.7 | 55 | 3 | Cf |
| 3×60°×8 | ○ | CE3.0-8 | 8 | 55 | 3 | Cf |
| 4×60°×10 | ○ | CE4.0 | 10 | 65 | 4.5 | Cf |
| 5×60°×11 | ○ | CE5.0 | 11 | 78 | 5.5 | Cf |
| 5×60°×12 | ○ | CE5.0-12 | 12 | 78 | 5.5 | Cf |
| 6×60°×16 | ○ | CE6.0-16 | 16 | 90 | 6.5 | Cf |
| 6×60°×18 | ○ | CE6.0 | 18 | 90 | 6.5 | Cf |
| 8×60°×18 | ○ | CE8.0 | 18 | 100 | 8.5 | Cf |
| 10×60°×18 | ○ | CE10 | 18 | 100 | 11 | Cf |
| 12×60°×25 | ○ | CE12 | 25 | 120 | 13 | Cf |

CE-S(I)

High Helix Center Drills-Type A 60°, (Old JIS Type 1)

HSS

Segment : 51



| Size Dc x θ x Ds | Stock | Code | Ds (mm) | L (mm) | l (mm) | Type |
|---------------------|-------|--------|------------|-----------|-----------|------|
| 2.5×60°×8 | ○ | CE12.5 | 8 | 50 | 3.5 | Cf |
| 3×60°×10 | ○ | CE13.0 | 10 | 55 | 4 | Cf |
| 4×60°×12 | ○ | CE14.0 | 12 | 66 | 5 | Cf |
| 5×60°×14 | ○ | CE15.0 | 14 | 78 | 6.5 | Cf |

Product codes shown in () mean the products are of single edge.

Concerning specification, please refer to spec dwg. P83 of technical information. For improvement, spec may change without advance notice.

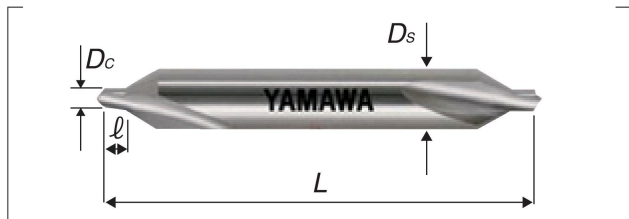
◎=Standard ○=Below standard △=Made to order

CD-S

Low Helix Center Drills-Type A 60°

HSS

Segment : 51



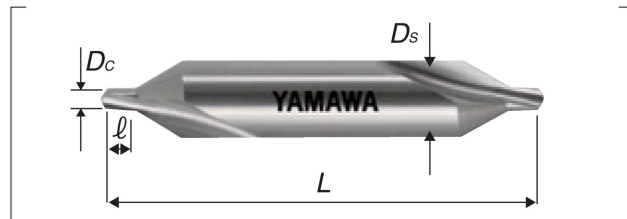
| Size Dc × θ × Ds | Stock | Code | Ds (mm) | L (mm) | l (mm) | Type |
|---------------------|-------|----------|------------|-----------|-----------|------|
| 0.3×60°×3 | △ | CY0.3 | 3 | 35 | 0.3 | Cf |
| 0.4×60°×3 | △ | (CY0.4) | 3 | 35 | 0.4 | Cf |
| 0.5×60°×3.5 | ○ | CY0.5 | 3.5 | 35 | 0.5 | Cf |
| 0.6×60°×3.5 | ○ | CY0.6 | 3.5 | 35 | 0.6 | Cf |
| 0.7×60°×3.5 | △ | CY0.7 | 3.5 | 35 | 0.7 | Cf |
| 0.8×60°×3.5 | ○ | CY0.8 | 3.5 | 35 | 0.8 | Cf |
| 0.9×60°×4 | △ | CY0.9 | 4 | 35 | 0.9 | Cf |
| 1×60°×4 | ○ | CY1.0 | 4 | 35 | 1 | Cf |
| 1.2×60°×5 | ○ | CY1.2 | 5 | 40 | 1.2 | Cf |
| 1.5×60°×5 | ○ | CY1.5 | 5 | 40 | 1.5 | Cf |
| 2×60°×6 | ○ | CY2.0 | 6 | 45 | 2 | Cf |
| 2.5×60°×7.7 | ○ | CY2.5 | 7.7 | 50 | 2.5 | Cf |
| 3×60°×7.7 | ○ | CY3.0 | 7.7 | 55 | 3 | Cf |
| 3×60°×8 | ○ | CY3.0-8 | 8 | 55 | 3 | Cf |
| 4×60°×10 | ○ | CY4.0 | 10 | 65 | 4.5 | Cf |
| 5×60°×11 | ○ | CY5.0 | 11 | 78 | 5.5 | Cf |
| 6×60°×16 | ○ | CY6.0-16 | 16 | 90 | 6.5 | Cf |
| 6×60°×18 | ○ | CY6.0 | 18 | 90 | 6.5 | Cf |

CD-S(I)

Low Helix Center Drills-Type A 60°, (Old JIS Type 1)

HSS

Segment : 51



| Size Dc × θ × Ds | Stock | Code | Ds (mm) | L (mm) | l (mm) | Type |
|---------------------|-------|-------|------------|-----------|-----------|------|
| 2.5×60°×8 | ○ | C12.5 | 8 | 50 | 3.5 | Cf |
| 3×60°×10 | ○ | C13.0 | 10 | 55 | 4 | Cf |
| 4×60°×12 | ○ | C14.0 | 12 | 66 | 5 | Cf |
| 5×60°×14 | ○ | C15.0 | 14 | 78 | 6.5 | Cf |

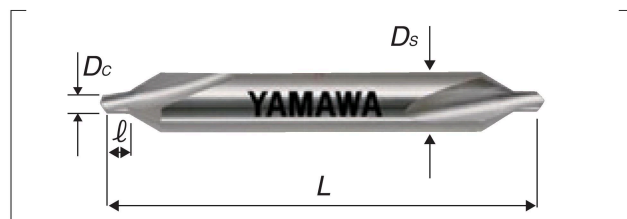
CD-S(LH)

Low Helix Center Drills-Type A 60°, Left Hand Cut

HSS



Segment : 51



| Size Dc × θ × Ds | Stock | Code | Ds (mm) | L (mm) | l (mm) | Type |
|---------------------|-------|---------|------------|-----------|-----------|------|
| 0.5×60°×3.5 | △ | CY0.5-L | 3.5 | 35 | 0.5 | Cf |
| 0.7×60°×3.5 | △ | CY0.7-L | 3.5 | 35 | 0.7 | Cf |
| 0.8×60°×3.5 | △ | CY0.8-L | 3.5 | 35 | 0.8 | Cf |
| 0.9×60°×4 | △ | CY0.9-L | 4 | 35 | 0.9 | Cf |
| 1×60°×4 | △ | CY1.0-L | 4 | 35 | 1 | Cf |
| 1.5×60°×5 | △ | CY1.5-L | 5 | 40 | 1.5 | Cf |
| 2×60°×6 | △ | CY2.0-L | 6 | 45 | 2 | Cf |
| 2.5×60°×7.7 | △ | CY2.5-L | 7.7 | 50 | 2.5 | Cf |
| 3×60°×7.7 | △ | CY3.0-L | 7.7 | 55 | 3 | Cf |
| 4×60°×10 | △ | CY4.0-L | 10 | 65 | 4.5 | Cf |
| 5×60°×11 | △ | CY5.0-L | 11 | 78 | 5.5 | Cf |

CD-S(LH) Low Helix Center Drills-Type A 60°, Left Hand Cut

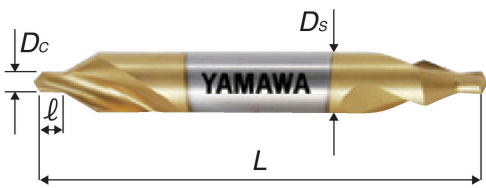
| Size Dc × θ × Ds | Stock | Code | Ds (mm) | L (mm) | ℓ (mm) | Type |
|---------------------|-------|-----------|------------|-----------|-----------|------|
| 6×60°×16 | △ | CY6.0-L16 | 16 | 90 | 6.5 | Cf |
| 6×60°×18 | △ | CY6.0-L | 18 | 90 | 6.5 | Cf |

CE-S-V

High Helix Center Drills-Type A 60°, TiN Coated



Segment : 51



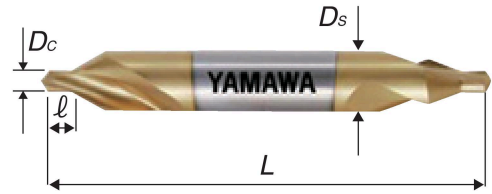
| Size Dc × θ × Ds | Stock | Code | Ds (mm) | L (mm) | ℓ (mm) | Type |
|---------------------|-------|--------|------------|-----------|-----------|------|
| 1×60°×4 | ○ | VCE1.0 | 4 | 35 | 1 | Cf |
| 1.5×60°×5 | ○ | VCE1.5 | 5 | 40 | 1.5 | Cf |
| 2×60°×6 | ○ | VCE2.0 | 6 | 45 | 2 | Cf |
| 2.5×60°×7.7 | ○ | VCE2.5 | 7.7 | 50 | 2.5 | Cf |
| 3×60°×7.7 | ○ | VCE3.0 | 7.7 | 55 | 3 | Cf |
| 4×60°×10 | ○ | VCE4.0 | 10 | 65 | 4.5 | Cf |
| 5×60°×11 | ○ | VCE5.0 | 11 | 78 | 5.5 | Cf |
| 6×60°×18 | ○ | VCE6.0 | 18 | 90 | 6.5 | Cf |

CE-S-V(I)

High Helix Center Drills-Type A 60°, TiN Coated, (Old JIS Type 1)



Segment : 51



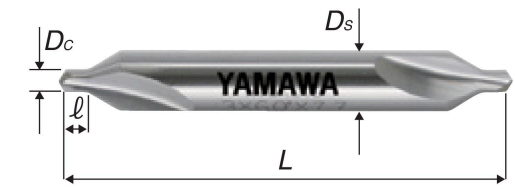
| Size Dc × θ × Ds | Stock | Code | Ds (mm) | L (mm) | ℓ (mm) | Type |
|---------------------|-------|---------|------------|-----------|-----------|------|
| 2.5×60°×8 | △ | VCE12.5 | 8 | 50 | 3.2 | Cf |
| 3×60°×10 | △ | VCE13.0 | 10 | 55 | 4 | Cf |
| 4×60°×12 | △ | VCE14.0 | 12 | 66 | 5 | Cf |
| 5×60°×14 | △ | VCE15.0 | 14 | 78 | 6.5 | Cf |

C-CD-S

Cemented Carbide Center Drills-Type A 60°



Segment : 52



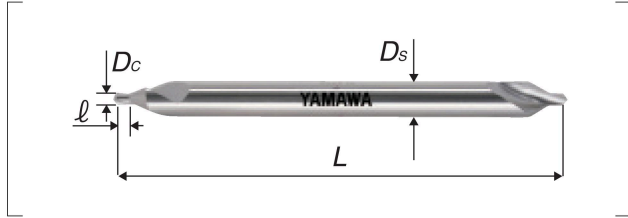
| Size Dc × θ × Ds | Stock | Code | Ds (mm) | L (mm) | ℓ (mm) | Type |
|---------------------|-------|-----------|------------|-----------|-----------|------|
| 1×60°×4 | ◎ | CCD1.0 | 4 | 35 | 1 | Cf |
| 1.2×60°×5 | △ | CCD1.2 | 5 | 40 | 1.2 | Cf |
| 1.5×60°×5 | ◎ | CCD1.5 | 5 | 40 | 1.5 | Cf |
| 2×60°×6 | ◎ | CCD2.0 | 6 | 45 | 2 | Cf |
| 2.5×60°×7.7 | ◎ | CCD2.5 | 7.7 | 50 | 2.5 | Cf |
| 2.5×60°×8 | △ | CCD2.5-8 | 8 | 50 | 2.5 | Cf |
| 3×60°×7.7 | ◎ | CCD3.0 | 7.7 | 55 | 3 | Cf |
| 3×60°×8 | △ | CCD3.0-8 | 8 | 55 | 3 | Cf |
| 4×60°×10 | ◎ | CCD4.0 | 10 | 65 | 4.5 | Cf |
| 5×60°×11 | ○ | CCD5.0 | 11 | 78 | 5.5 | Cf |
| 5×60°×12 | △ | CCD5.0-12 | 12 | 78 | 5.5 | Cf |
| 6×60°×18 | △ | CCD6.0 | 18 | 90 | 6.5 | Cf |

CE-SL

Long Shank High Helix Center Drills-Type A 60°

HSS

Segment : 51

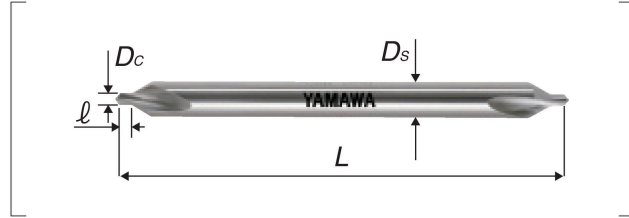


CD-SL

Long Shank Low Helix Center Drills-Type A 60°

HSS

Segment : 51



| Size Dc x θ x Ds | Stock | Code | Ds (mm) | L (mm) | ℓ (mm) | Type |
|---------------------|-------|--------|------------|-----------|-----------|------|
| 1×60°×4 | ◎ | CEL1.0 | 4 | 100 | 1 | Cf |
| | ○ | CEM1.0 | | 150 | | |
| 1.5×60°×5 | ◎ | CEL1.5 | 5 | 100 | 1.5 | Cf |
| | ○ | CEM1.5 | | 150 | | |
| 2×60°×6 | ◎ | CEL2.0 | 6 | 100 | 2 | Cf |
| | ◎ | CEM2.0 | | 150 | | |
| 2.5×60°×8 | ◎ | CEL2.5 | 8 | 100 | 2.5 | Cf |
| | ◎ | CEM2.5 | | 150 | | |
| 3×60°×8 | ◎ | CEL3.0 | 8 | 100 | 3 | Cf |
| | ◎ | CEM3.0 | | 150 | | |
| | △ | CEN3.0 | | 200 | | |
| 4×60°×10 | ◎ | CEL4.0 | 10 | 100 | 4.5 | Cf |
| | ◎ | CEM4.0 | | 150 | | |
| | △ | CEN4.0 | | 200 | | |
| 5×60°×12 | ◎ | CEL5.0 | 12 | 100 | 5.5 | Cf |
| | ◎ | CEM5.0 | | 150 | | |
| | △ | CEN5.0 | | 200 | | |

| Size Dc x θ x Ds | Stock | Code | Ds (mm) | L (mm) | ℓ (mm) | Type |
|---------------------|-------|--------|------------|-----------|-----------|------|
| 1×60°×4 | ○ | CDL1.0 | 4 | 100 | 1 | Cf |
| | ○ | CDM1.0 | | 150 | | |
| 1.5×60°×5 | ○ | CDL1.5 | 5 | 100 | 1.5 | Cf |
| | ○ | CDM1.5 | | 150 | | |
| 2×60°×6 | ◎ | CDL2.0 | 6 | 100 | 2 | Cf |
| | ○ | CDM2.0 | | 150 | | |
| 2.5×60°×8 | ◎ | CDL2.5 | 8 | 100 | 2.5 | Cf |
| | ○ | CDM2.5 | | 150 | | |
| 3×60°×8 | ◎ | CDL3.0 | 8 | 100 | 3 | Cf |
| | ○ | CDM3.0 | | 150 | | |
| | △ | CDN3.0 | | 200 | | |
| 4×60°×10 | ◎ | CDL4.0 | 10 | 100 | 4.5 | Cf |
| | ○ | CDM4.0 | | 150 | | |
| | △ | CDN4.0 | | 200 | | |
| 5×60°×12 | ○ | CDL5.0 | 12 | 100 | 5.5 | Cf |
| | ○ | CDM5.0 | | 150 | | |
| | △ | CDN5.0 | | 200 | | |

Spiral Fluted Taps
(for blind hole)

Spiral Fluted Taps
(for through hole)

Taps
Spiral Pointed

Hand Taps

Cemented
Carbide Taps

Roll Taps

Special Thread Taps
Simple measuring tools

Pipe Taps

M/C Helical
Thread Mills

Dies

Center Drills

Centering Tools

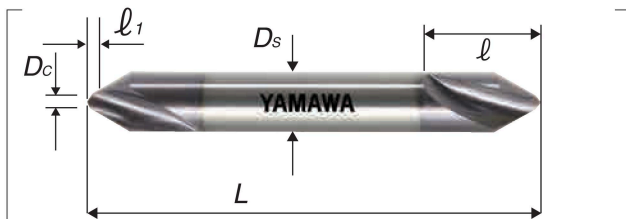
C-PE-S-V

Cemented Carbide Point Drills 60°, TiAlN Coated



Segment : 52

Having two edge angles, end angle of 125° and bevel angle of 90°, C-PE-S-V makes both centering and beveling simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design.



| Size Ds × Dc × θ | Stock | Code | l (mm) | l ₁ (mm) | ℓ (mm) | ∅ _c (mm) | ∅ _s (mm) | Number of Flutes | Type |
|---------------------|-------|----------|-----------|------------------------|-----------|------------------------|------------------------|------------------------|------|
| 6×2×60° | ○ | VCPE6.0S | 55 | 0.52 | 10 | 2 | 6 | 2 | Ch |
| 8×2.5×60° | ○ | VCPE8.0S | 65 | 0.68 | 14 | 2.5 | 8 | 2 | Ch |
| 10×3×60° | ○ | VCPE10S | 75 | 0.78 | 19 | 3 | 10 | 2 | Ch |

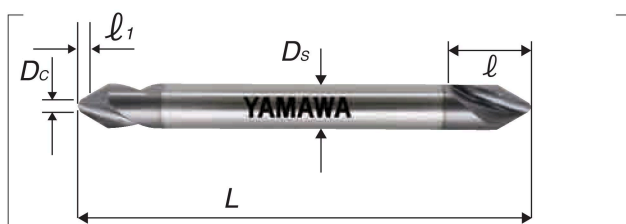
PE-SL-V

Long Shank Point Drills 60°, TiCN Coated



Segment : 56

Having two edge angles, end angle of 125° and bevel angle of 90°, PE-SL-V makes both centering and beveling simultaneously. High cutting accuracy is available owing to a good cutting-start due to 2 step flat design.



| Size Ds × Dc × θ | Stock | Code | l (mm) | l ₁ (mm) | ℓ (mm) | ∅ _c (mm) | ∅ _s (mm) | Number of Flutes | Type |
|---------------------|-------|----------|-----------|------------------------|-----------|------------------------|------------------------|------------------------|------|
| 4×1×60° | ○ | VPEL4.0S | 100 | 0.26 | 8 | 1 | 4 | 2 | Ch |
| 6×2×60° | ○ | VPEL6.0S | 100 | 0.52 | 10 | 2 | 6 | 2 | Ch |
| 8×2.5×60° | ○ | VPEL8.0S | 100 | 0.65 | 14 | 2.5 | 8 | 2 | Ch |
| | ○ | VPEM8.0S | 150 | | | | | | |
| 10×3×60° | ○ | VPEL10S | 100 | 0.78 | 19 | 3 | 10 | 2 | Ch |
| | ○ | VPEM10S | 150 | | | | | | |
| 12×3.5×60° | ○ | VPEL12S | 100 | 0.91 | 21 | 3.5 | 12 | 2 | Ch |
| | ○ | VPEM12S | 150 | | | | | | |

PE-SL-V Long Shank Point Drills 60°, TiCN Coated

| Size Ds × Dc × θ | Stock | Code | l (mm) | l ₁ (mm) | ℓ (mm) | ∅ _c (mm) | ∅ _s (mm) | Number of Flutes | Type |
|---------------------|-------|---------|-----------|------------------------|-----------|------------------------|------------------------|------------------------|------|
| 16×4×60° | ○ | VPEM16S | 150 | 1.04 | 26 | 4 | 16 | 2 | Ch |

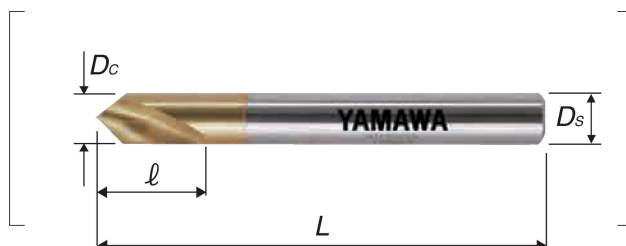
NC-SD-V

NC Starting Drills for Center Positioning, TiN Coated



Segment : 56

Having a design of high toughness, NC-SD-V enables the stable positioning and beveling of high accuracy. With good cutting-start, NC-SD-V works well in positioning on curved face or inclined face which is difficult place to machine.



| Size Dc × θ | Stock | Code | l (mm) | ℓ (mm) | ∅ _c (mm) | ∅ _s (mm) | Number of Flutes | Type |
|----------------|-------|-----------|-----------|-----------|------------------------|------------------------|------------------------|------|
| 3×90° | ○ | VCS-D3.0Q | 46 | 10 | 3 | 3 | 2 | Ci |
| 4×90° | ○ | VCS-D4.0Q | 55 | 12 | 4 | 4 | 2 | Ci |
| 5×90° | ○ | VCS-D5.0Q | 62 | 13 | 5 | 5 | 2 | Ci |
| 6×90° | ◎ | VCS-D6.0Q | 66 | 15 | 6 | 6 | 2 | Ci |
| 8×90° | ◎ | VCS-D8.0Q | 79 | 20 | 8 | 8 | 2 | Ci |
| 10×90° | ◎ | VCS-D010Q | 89 | 23 | 10 | 10 | 2 | Ci |
| 12×90° | ◎ | VCS-D012Q | 102 | 26 | 12 | 12 | 2 | Ci |
| 16×90° | ○ | VCS-D016Q | 115 | 32 | 16 | 16 | 2 | Ci |
| 20×90° | ○ | VCS-D020Q | 131 | 40 | 20 | 20 | 2 | Ci |
| 25×90° | ○ | VCS-D025Q | 151 | 50 | 25 | 25 | 2 | Ci |

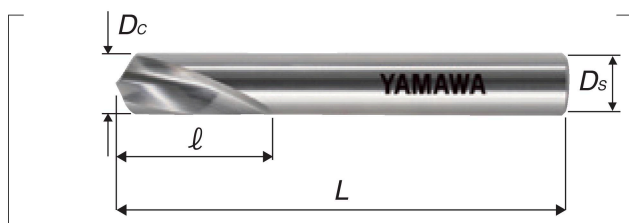
NC-SD

NC Starting Drills for Center Positioning

HSS-Co

Segment : 56

Having a design of high toughness, NC-SD enables the stable positioning and beveling of high accuracy. With good cutting-start, NC-SD works well in positioning on curved face or inclined face which is difficult place to machine.



| Size Dc x θ | Stock | Code | L (mm) | l (mm) | Dc (mm) | Ds (mm) | Number of Flutes | Type |
|----------------|-------|---------|-----------|-----------|------------|------------|------------------------|------|
| 3×125° | ○ | CS-D3.0 | 46 | 10 | 3 | 3 | 2 | Ci |
| 4×125° | ○ | CS-D4.0 | 55 | 12 | 4 | 4 | 2 | Ci |
| 5×125° | ○ | CS-D5.0 | 62 | 13 | 5 | 5 | 2 | Ci |
| 6×125° | ○ | CS-D6.0 | 66 | 15 | 6 | 6 | 2 | Ci |
| 8×125° | ○ | CS-D8.0 | 79 | 20 | 8 | 8 | 2 | Ci |
| 10×125° | ○ | CS-D010 | 89 | 23 | 10 | 10 | 2 | Ci |
| 12×125° | ○ | CS-D012 | 102 | 26 | 12 | 12 | 2 | Ci |
| 16×125° | ○ | CS-D016 | 115 | 32 | 16 | 16 | 2 | Ci |
| 20×125° | ○ | CS-D020 | 131 | 40 | 20 | 20 | 2 | Ci |
| 25×125° | ○ | CS-D025 | 151 | 50 | 25 | 25 | 2 | Ci |

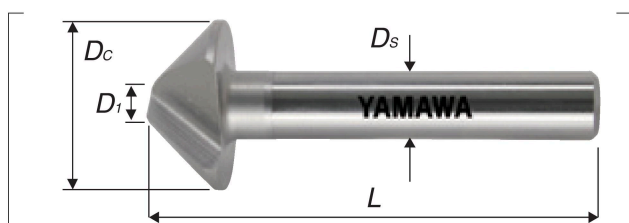
CS-Q

Countersinks 90°, Single Point Type, Machining Center Use

HSS

Segment : 53

CS-Q is suitable for the machining of high accuracy on the beveling of round hole and on the beveling of attaching face of screw bolts.



| Size Dc x θ x Ds | Stock | Code | L (mm) | l (mm) | D1 (mm) | Ds (mm) | Number of Flutes | Type |
|---------------------|-------|--------|-----------|-----------|------------|------------|------------------------|------|
| 4×90°×4 | △ | CS4.0Q | 50 | - | 0.6 | 4 | 1 | Cj |

CS-Q Countersinks 90°, Single Point Type, Machining Center Use

| Size Dc x θ x Ds | Stock | Code | L (mm) | l (mm) | D1 (mm) | Ds (mm) | Number of Flutes | Type |
|---------------------|-------|--------|-----------|-----------|------------|------------|------------------------|------|
| 6×90°×6 | ○ | CS6.0Q | 50 | - | 1 | 6 | 1 | Cj |
| 8×90°×8 | ○ | CS8.0Q | 50 | - | 1.3 | 8 | 1 | Cj |
| 10×90°×8 | ○ | CS010Q | 46 | 5.5 | 1.6 | 8 | 1 | Ck |
| 15×90°×10 | ○ | CS015Q | 56 | 7.5 | 3.2 | 10 | 1 | Ck |
| 20×90°×10 | ○ | CS020Q | 60 | 10 | 4 | 10 | 1 | Ck |
| 25×90°×10 | ○ | CS025Q | 65 | 11 | 7 | 10 | 1 | Ck |
| 30×90°×12 | ○ | CS030Q | 70 | 12.5 | 9 | 12 | 1 | Ck |
| 35×90°×12 | ○ | CS035Q | 75 | 15 | 11 | 12 | 1 | Ck |
| 40×90°×12 | ○ | CS040Q | 80 | 17 | 12.5 | 12 | 1 | Ck |
| 45×90°×12 | ○ | CS045Q | 85 | 18.5 | 14 | 12 | 1 | Ck |
| 50×90°×12 | ○ | CS050Q | 90 | 20 | 16 | 12 | 1 | Ck |
| 60×90°×16 | ○ | CS060Q | 100 | 24 | 20 | 16 | 1 | Ck |

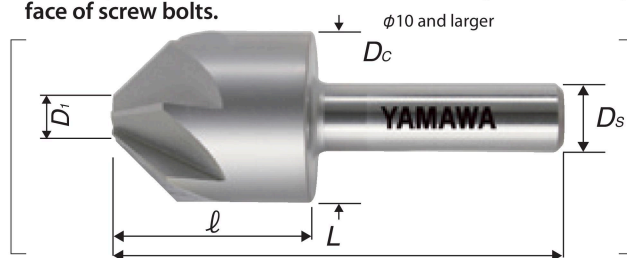
CS-QM

Countersinks 90° and 60°, Multiple Point Type, Drilling Machine Use

HSS

Segment : 53

CS-QM is suitable for the machining of high accuracy on the beveling of round hole and on the beveling of attaching face of screw bolts.



| Size Dc x θ x Ds | Stock | Code | L (mm) | l (mm) | D1 (mm) | Ds (mm) | Number of Flutes | Type |
|---------------------|-------|----------|-----------|-----------|------------|------------|------------------------|------|
| 6×90°×6 | ○ | CS6.0QM9 | 42 | - | 1.2 | 6 | 3 | Cm |
| 8×90°×8 | ○ | CS8.0QM9 | 44 | - | 1.6 | 8 | 3 | Cm |
| 10×90°×8 | ○ | CS010QM9 | 46 | 14 | 2 | 8 | 3 | Cn |
| 12×90°×8 | ○ | CS012QM9 | 48 | 16 | 2.5 | 8 | 5 | Cn |
| 16×90°×10 | ○ | CS016QM9 | 56 | 20 | 3.2 | 10 | 5 | Cn |
| 20×90°×10 | ○ | CS020QM9 | 60 | 24 | 4 | 10 | 5 | Cn |
| 25×90°×10 | ○ | CS025QM9 | 65 | 29 | 7 | 10 | 7 | Cn |
| 30×90°×12 | ○ | CS030QM9 | 68 | 32 | 9 | 12 | 7 | Cn |
| 35×90°×12 | ○ | CS035QM9 | 70 | 34 | 11 | 12 | 7 | Cn |
| 40×90°×12 | ○ | CS040QM9 | 71 | 35 | 12.5 | 12 | 7 | Cn |
| 6×60°×6 | △ | CS6.0QM6 | 46 | - | 1.2 | 6 | 3 | Cm |
| 8×60°×8 | ○ | CS8.0QM6 | 48 | - | 1.6 | 8 | 3 | Cm |

ミスミ

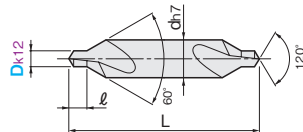
TiA ℓ N COATED HSS CENTER DRILLS

TiA ℓ Nコートハイス鋼センタードリル



●レギュラータイプ -REGULAR TYPE-

TA-CTDA



| | | | | | | | | |
|-----------|---|--------------|---------------|----------------|--------------|--------------|----------|--------|
| 材質 | HSS TiAℓN | | | | | | | |
| 一般鋼 (SS材) | 合金鋼 (SCM) | 調質鋼 (~45HRC) | 高硬度鋼 (50HRC~) | 工具鋼 (SKD, SKS) | ステンレス鋼 (SUS) | 鋳鉄 (FC, FCD) | アルミ (Al) | 銅 (Cu) |
| ○ | ○ | | | ○ | ○ | ○ | ○ | ○ |

○=最適 ○=適

型番 TA-CTDA

1本単位

| 直径 D | 溝長 ℓ | 全長 L | シャンク径 d | ¥通常単価 30本以上お見積り | | |
|------|-----------|------|---------|-----------------|-------|--------|
| | | | | 1~4本 | 5~9本 | 10~29本 |
| 1 | 1.3~1.7 | 35 | 4 | 1,370 | 980 | 930 |
| 2 | 2.5~3.1 | 45 | 6 | 1,220 | 870 | 830 |
| 3 | 3.9~4.6 | 50 | 8 | 1,880 | 1,340 | 1,270 |
| 4 | 5.0~5.9 | 55 | 10 | 2,060 | 1,470 | 1,400 |



Order 注文例

TA-CTDA 3

型番 直径(D)

切削条件 P.942



Delivery 出荷日



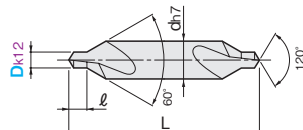
在庫品

巻末-3

ご希望によりPM6:00迄、当日出荷受付致します。

●ロングタイプ -LONG TYPE-

TA-CTDAL



| | | | | | | | | |
|----|---|--|--|--|--|--|--|--|
| 材質 | HSS TiAℓN | | | | | | | |
|----|---|--|--|--|--|--|--|--|

型番 TA-CTDAL

1本単位

| 直径 D | 溝長 ℓ | 全長 L | シャンク径 d | ¥通常単価 30本以上お見積り | | |
|------|-----------|------|---------|-----------------|-------|--------|
| | | | | 1~4本 | 5~9本 | 10~29本 |
| 1 | 1.3~1.7 | 100 | 4 | 3,000 | 2,910 | 2,850 |
| 2 | 2.5~3.1 | 100 | 6 | 2,000 | 1,940 | 1,900 |
| 3 | 3.9~4.6 | 100 | 8 | 2,440 | 2,370 | 2,320 |
| 4 | 5.0~5.9 | 100 | 10 | 3,370 | 3,260 | 3,200 |



Order 注文例

TA-CTDAL 3

型番 直径(D)

切削条件 P.942



Delivery 出荷日



在庫品

巻末-3

ご希望によりPM6:00迄、当日出荷受付致します。

EBが特長!

●耐摩耗性に優れたTiA ℓ Nコーティングの採用により、長寿命・高速切削が可能です。

ミスミ VONA 切削工具

検索

WEBなら切削工具が当日・翌日出荷25万点以上

●通常単価・数量スライド単価・出荷日等の最新情報は、ミスミVONA eカタログをご参照ください。
 ●ご注文の数量によっては、都度納期お見積りとなる場合がございます。
 ●受注時間により翌日受付扱いになる場合がございます。最新情報はeカタログをご参照ください。

ミスミ

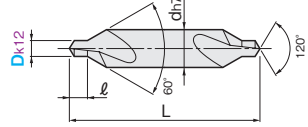
ハイス鋼センタードリル

●レギュラー／新JIS A形 -NEW JIS A FORM-



CTDA

| | | | | | | | | |
|--------------|------------|--------------|---------------|----------------|--------------|--------------|----------|--------|
| 材質 | HSS | | | | | | | |
| 一般鋼 (SS・SC材) | 合金鋼 (SCM) | 調質鋼 (~45HRC) | 高硬度鋼 (50HRC~) | 工具鋼 (SKD, SKS) | ステンレス鋼 (SUS) | 鋳鉄 (FC, FCD) | アルミ (Al) | 銅 (Cu) |
| ○ | ○ | | | | | | | |



○=適

型番 CTDA

1本単位

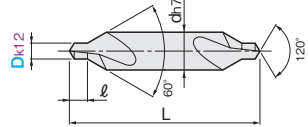
| 直径 D | シャンク径 d | 全長 L | 刃長 l | ¥通常単価 |
|------|---------|------|---------|-------|
| 1 | 4 | 35 | 1.3~1.6 | 460 |
| 1.5 | 5 | 40 | 2.0~2.4 | 350 |
| 2 | 6 | 45 | 2.5~2.9 | 400 |
| 2.5 | 8 | 50 | 3.1~3.6 | 380 |

| 直径 D | シャンク径 d | 全長 L | 刃長 l | ¥通常単価 |
|------|---------|------|---------|-------|
| 3 | 8 | 50 | 3.9~4.4 | 480 |
| 4 | 10 | 55 | 5.0~5.6 | 910 |
| 5 | 12 | 63 | 6.3~6.9 | 1,120 |

●ロング／新JIS A形 -NEW JIS A FORM・LONG TYPE-

CTDAL

| | | | | | | | | |
|----|------------|--|--|--|--|--|--|--|
| 材質 | HSS | | | | | | | |
|----|------------|--|--|--|--|--|--|--|



型番 CTDAL

1本単位

| 直径 D | シャンク径 d | 全長 L | 刃長 l | ¥通常単価 30本以上お見積り | | |
|------|---------|------|---------|-----------------|-------|--------|
| | | | | 1~4本 | 5~9本 | 10~29本 |
| 1 | 4 | 100 | 1.3~1.6 | 2,400 | 2,320 | 2,280 |
| 1.5 | 5 | 100 | 2.0~2.4 | 1,400 | 1,350 | 1,330 |
| 2 | 6 | 100 | 2.5~2.9 | 1,600 | 1,550 | 1,520 |
| 2.5 | 8 | 100 | 3.1~3.6 | 1,900 | 1,840 | 1,800 |
| 3 | 8 | 100 | 3.9~4.4 | 1,900 | 1,840 | 1,800 |
| 4 | 10 | 100 | 5.0~5.6 | 2,460 | 2,380 | 2,330 |
| 5 | 12 | 100 | 6.3~6.9 | 3,300 | 3,200 | 3,140 |

Order 注文別 **CTDAL 2.5** 型番 直径D

Delivery 出荷日 **在庫品** 巻末-3

切削条件 **P.942**

●ご希望によりPM6:00迄、当日出荷受付致します。

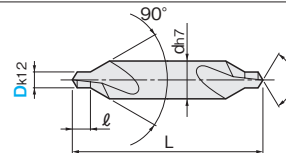
ミスミ

ハイス鋼センタードリル 面取り刃90°タイプ



CTDACW

| | | | | | |
|-----|------------|--------|-------------|--|--|
| 材質 | HSS | | | | |
| 直径D | 公差 (k12) | シャンク径d | 公差 (h7) | | |
| 1~3 | +0.10 0 | 4~6 | 0 -0.018 | | |
| 4・5 | +0.12 0 | 8~12 | 0 -0.022 | | |



型番 CTDACW

1本単位

| 直径 D | シャンク径 d | 全長 L | 溝長 l | ¥通常単価 |
|------|---------|------|---------|-------|
| 1 | 4 | 35 | 1.3~1.6 | 680 |
| 1.5 | 5 | 40 | 2.0~2.6 | 530 |
| 2 | 6 | 45 | 2.5~3.1 | 610 |
| 2.5 | 8 | 50 | 3.1~3.8 | 750 |

| 直径 D | シャンク径 d | 全長 L | 溝長 l | ¥通常単価 |
|------|---------|------|---------|-------|
| 3 | 8 | 50 | 3.9~4.6 | 750 |
| 4 | 10 | 55 | 5.0~5.9 | 1,500 |
| 5 | 12 | 63 | 6.3~7.2 | 1,630 |

Order 注文別 **CTDACW 2.5** 型番 直径D

Delivery 出荷日 **在庫品** 巻末-3

切削条件 **P.942**

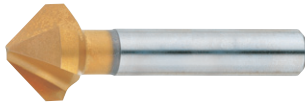
●ご希望によりPM6:00迄、当日出荷受付致します。

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TiNコートハイス鋼カウンタシク

●3枚刃/90° -3FLUTES/90° ANGLE-

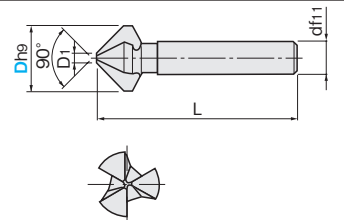
G-CS3M



1本単位

| 直径D | 公差 (h9) |
|----------------|--------------|
| 6.3・8.3 | $0_{-0.036}$ |
| 10.4・12.4・16.5 | $0_{-0.043}$ |
| 20.5 | $0_{-0.052}$ |

| シャンク径d | 公差 (f11) |
|--------|--------------|
| 5・6 | $0_{-0.010}$ |
| 8・10 | $0_{-0.085}$ |
| | $0_{-0.103}$ |



| 材質 | HSS | TiN | 仕様 | 再研磨 |
|----------------|-----|-----|----|-----|
| 一般鋼 (SS・SC材) | ○ | ○ | ○ | ○ |
| 合金鋼 (SCM) | ○ | ○ | ○ | ○ |
| 調質鋼 (~45HRC) | ○ | ○ | ○ | ○ |
| 高硬度鋼 (50HRC~) | ○ | ○ | ○ | ○ |
| 工具鋼 (SKD, SKS) | ○ | ○ | ○ | ○ |
| ステンレス鋼 (SUS) | ○ | ○ | ○ | ○ |
| 鋳鉄 (FC, FCD) | ○ | ○ | ○ | ○ |
| アルミ (Al) | ○ | ○ | ○ | ○ |
| 銅 (Cu) | ○ | ○ | ○ | ○ |

◎=最適 ○=適 (該当型番: G-CS3M/G-CS3M-6SET/TA-CS3M/TA-LS-CS3M)

| 型番 | 直径D | 先端径D1 | 面取り穴径範囲 | 全長L | シャンク径d | ¥通常単価 50本以上お見積り | | |
|--------|------|-------|----------|-----|--------|-----------------|--------|--------|
| | | | | | | 1~9本 | 10~29本 | 30~49本 |
| G-CS3M | 6.3 | 1.5 | 2.5~6.3 | 45 | 5 | 1,790 | 1,700 | 1,610 |
| | 8.3 | 2 | 3.0~8.3 | 50 | 6 | 1,980 | 1,880 | 1,780 |
| | 10.4 | 2.5 | 3.5~10.4 | 50 | 6 | 2,180 | 2,070 | 1,960 |
| | 12.4 | 2.8 | 3.8~12.4 | 56 | 8 | 2,420 | 2,300 | 2,180 |
| | 16.5 | 3.2 | 4.2~16.5 | 60 | 10 | 2,710 | 2,570 | 2,440 |
| | 20.5 | 3.5 | 4.5~20.5 | 63 | 10 | 3,050 | 2,900 | 2,750 |

Order 注文例 **G-CS3M 6.3** 型番 直径D

Delivery 出荷日 **在庫品** **巻末-3**

ご希望によりPM6:00迄、当日出荷受付致します。

切削条件 P.942

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TiNコートハイス鋼カウンタシク6本セット

●3枚刃/90° -3FLUTES/90° ANGLE-

型番 **G-CS3M-6SET** 1セット単位 6本入

| セットサイズ直径D | 面取り穴径範囲 | 全長L | シャンク径d | ¥通常単価 |
|-----------|----------|-----|--------|-------|
| 6.3 | 1.3~6.3 | 45 | 5 | 9,280 |
| 8.3 | 1.8~8.3 | 50 | 6 | |
| 10.4 | 2.2~10.4 | 50 | 6 | |
| 12.4 | 2.5~12.4 | 56 | 8 | |
| 16.5 | 2.8~16.5 | 60 | 10 | |
| 20.5 | 3.0~20.5 | 63 | 10 | |

●直径D公差: z9
●シャンク径d公差: h9

Order 注文例 **G-CS3M-6SET** 型番

Delivery 出荷日 **在庫品** **巻末-3**

ご希望によりPM6:00迄、当日出荷受付致します。

切削条件 P.942



お買得



ミスミ

TiAlNコートハイス鋼カウンタシク

●3枚刃/90°/レギュラー・ロングシャンクタイプ -3FLUTES/90° ANGLE/REGULAR・LONG SHANK TYPE-

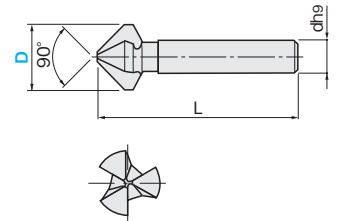
TA-CS3M (レギュラー)



TA-LS-CS3M (ロングシャンク)



| 直径D | 公差 (z9) |
|-----------|--------------------|
| 6.3・8.3 | $+0.042\sim+0.078$ |
| 10.4・12.4 | $+0.050\sim+0.093$ |
| 16.5 | $+0.060\sim+0.103$ |
| 20.5 | $+0.073\sim+0.125$ |



| 材質 | HSS Co5% | TiAlN | 仕様 | 再研磨 |
|----------------|----------|-------|----|-----|
| 一般鋼 (SS・SC材) | ○ | ○ | ○ | ○ |
| 合金鋼 (SCM) | ○ | ○ | ○ | ○ |
| 調質鋼 (~45HRC) | ○ | ○ | ○ | ○ |
| 高硬度鋼 (50HRC~) | ○ | ○ | ○ | ○ |
| 工具鋼 (SKD, SKS) | ○ | ○ | ○ | ○ |
| ステンレス鋼 (SUS) | ○ | ○ | ○ | ○ |
| 鋳鉄 (FC, FCD) | ○ | ○ | ○ | ○ |
| アルミ (Al) | ○ | ○ | ○ | ○ |
| 銅 (Cu) | ○ | ○ | ○ | ○ |

型番 **TA-CS3M (レギュラー)** 1本単位

| 直径D | 面取り穴径範囲 | 全長L | シャンク径d | ¥通常単価 30本以上お見積り | | |
|------|----------|-----|--------|-----------------|-------|--------|
| | | | | 1~4本 | 5~9本 | 10~29本 |
| 6.3 | 1.3~6.3 | 45 | 5 | 2,330 | 2,260 | 2,210 |
| 8.3 | 1.8~8.3 | 50 | 6 | 2,570 | 2,490 | 2,440 |
| 10.4 | 2.2~10.4 | 50 | 6 | 2,830 | 2,750 | 2,690 |
| 12.4 | 2.5~12.4 | 56 | 8 | 3,150 | 3,060 | 2,990 |
| 16.5 | 2.8~16.5 | 60 | 10 | 3,520 | 3,410 | 3,340 |
| 20.5 | 3.0~20.5 | 63 | 10 | 3,970 | 3,850 | 3,770 |

型番 **TA-LS-CS3M (ロングシャンク)** 1本単位

| 直径D | 面取り穴径範囲 | 全長L | シャンク径d | ¥通常単価 30本以上お見積り | | |
|------|----------|-----|--------|-----------------|-------|--------|
| | | | | 1~4本 | 5~9本 | 10~29本 |
| 6.3 | 1.3~6.3 | 84 | 6 | 3,030 | 2,940 | 2,880 |
| 8.3 | 1.8~8.3 | 85 | 8 | 3,340 | 3,240 | 3,170 |
| 10.4 | 2.2~10.4 | 87 | 10 | 3,680 | 3,570 | 3,500 |
| 12.4 | 2.5~12.4 | 108 | 10 | 4,100 | 3,980 | 3,900 |
| 16.5 | 2.8~16.5 | 112 | 12 | 4,580 | 4,440 | 4,350 |
| 20.5 | 3.0~20.5 | 115 | 12 | 5,160 | 5,010 | 4,900 |

Order 注文例 **TA-CS3M 6.3** 型番 直径D

Delivery 出荷日 **在庫品** **巻末-3**

ご希望によりPM6:00迄、当日出荷受付致します。



- 耐摩耗性に優れたTiAlNコーティングの採用により、長寿命・高速切削が可能です。
- 面取り90°の皿ボルトの穴面取りに最適です。

切削条件 P.942