

Solid Carbide Drills

WSTAR Drill Series **MVE/MVS**

Series
Expansion

New Generation Solid Carbide Drills

With New TRI-cooling Technology®

PVD coating provides long tool life
for a wide range of applications.

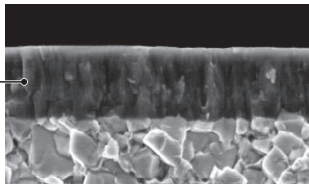


Solid Carbide Drills
WSTAR Drill Series

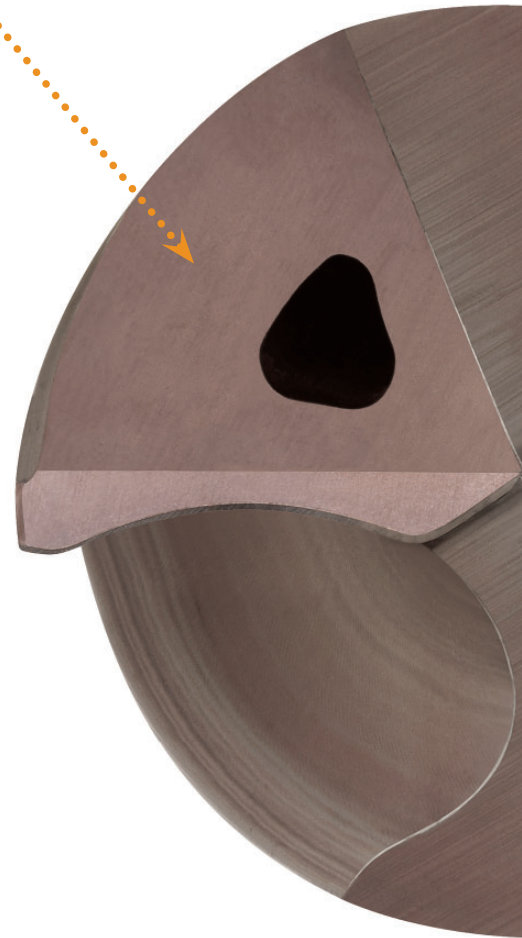
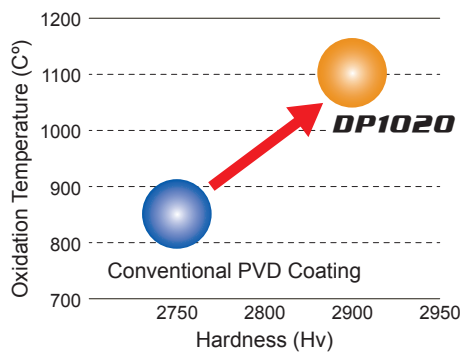
MVE/MVS

Coated Grade **DP1020**

DP1020 grade offers excellent wear resistance and reduced friction for longer tool life and a versatile range of applications.



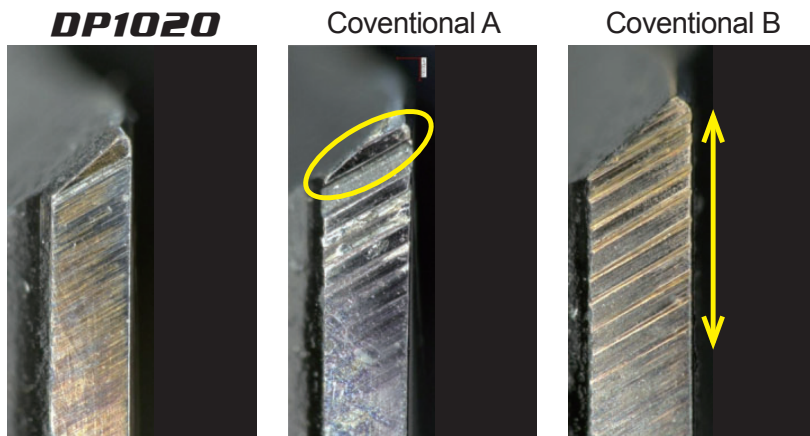
With Accumulated Al-Ti-Cr-N Based PVD Coating



Reduced Margin Wear

DP1020 has excellent wear resistance properties and therefore reduces the amount of material that needs to be removed when re-grinding.

Margin Wear after 57m Machining



Minor

Deep Wear Marks

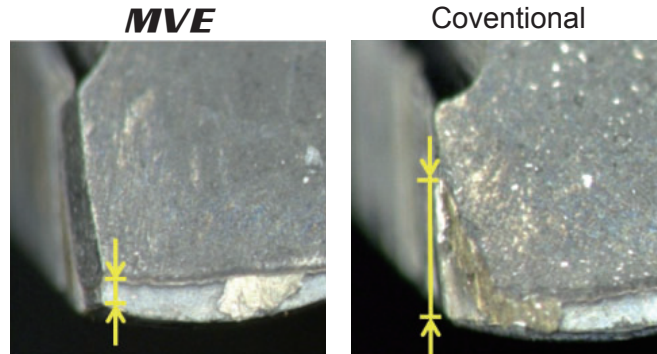
Wide Wear Marks

<Cutting Conditions>
 Work Material : AISI 1050
 Cutting Speed : 100m/min
 Feed Rate : 0.2mm/rev
 Cutting Mode : Water Based (External Coolant)

New Wavy Cutting Edge

The unique wavy cutting edge provides excellent sharpness and rigidity and helps to control wear at the periphery.

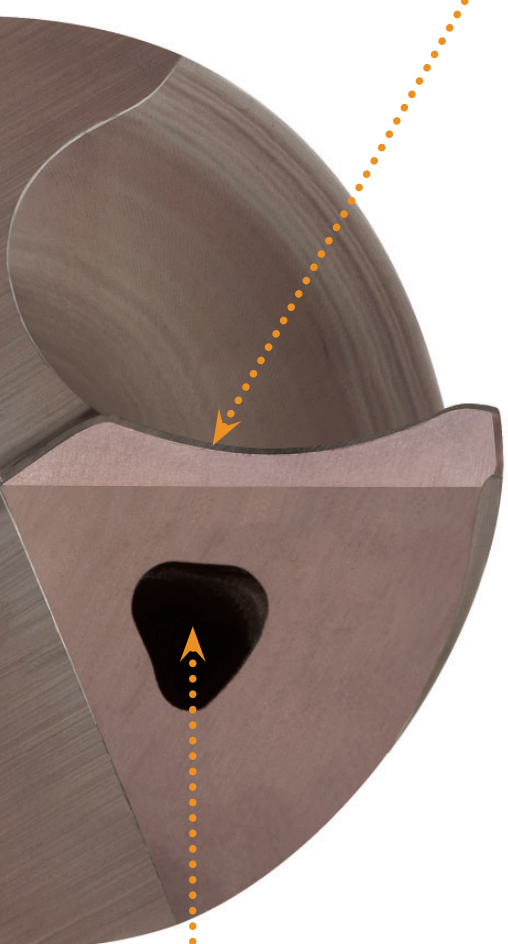
Comparison of Wear at the Cutting Edge Periphery (After 57m Machining)



<Cutting Conditions>
 Work Material : AISI 1050
 Cutting Speed : 100m/min
 Feed Rate : 0.2mm/rev
 Cutting Mode : Water Based (External Coolant)

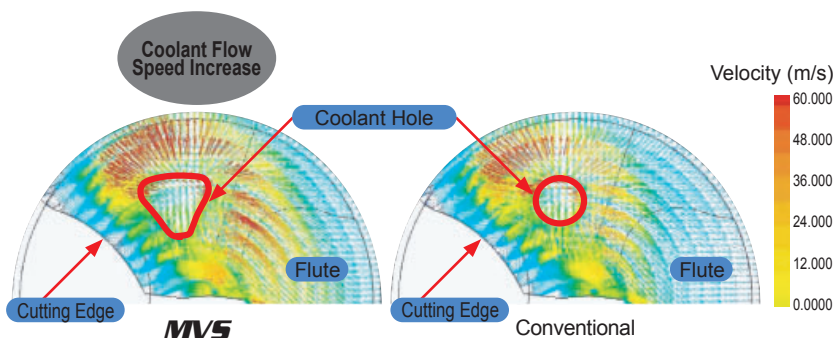
ZERO-μ Surface

Our unique smooth surface technology reduces cutting resistance and offers excellent chip evacuation.



TRI-cooling Technology®

The unique coolant hole geometry (on drills over ø6mm) increases the rate of coolant flow for improved cooling effect and chip removal.



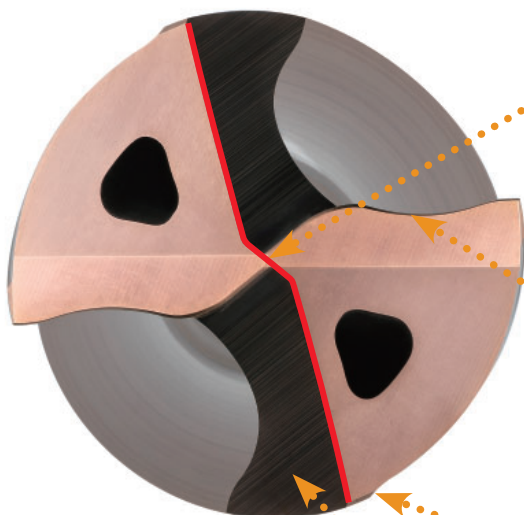
Solid Carbide Drills
WSTAR Drill Series

NEW

MVS Long Type

DCx10, 15, 20, 25, 30, 35, 40

High efficiency drilling hole with 2000mm/min feed rate higher.
(ø5mm, DCx30, Case with drilling in steel)



New Type Thinning

Large chip pocket near center of drill
Low thrust force

Wavy Cutting Edge

High cutting edge strength and ideal chip control
Deep hole cutting with high efficiency

Double Margin

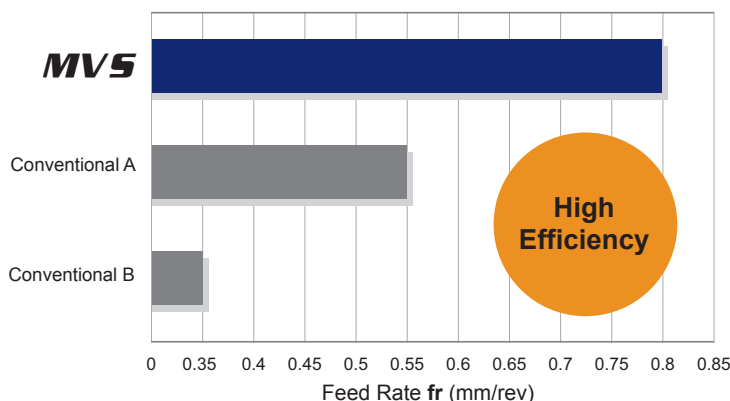
Provides excellent straightness and surface finish

New Flute Shape

Ideal web thickness and helix angle

MVS Long Type Provides High Feed

Feed Limit Test



<Cutting Conditions>
Drill Dia. : ø5mm
Work Material : AISI 1050
Hole Depth : 150mm (DCx30)
Cutting Speed : 80m/min
Cutting Mode : Water Based
(Internal Coolant)

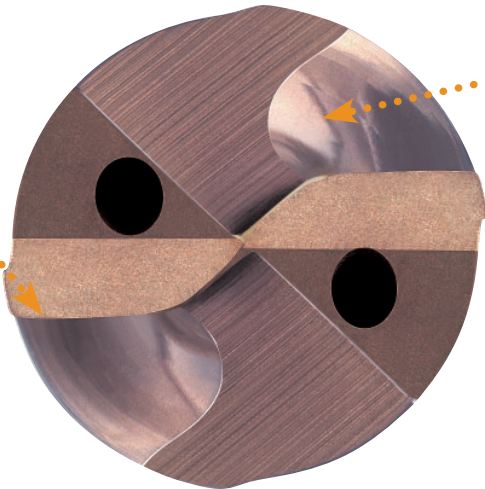
MVS

Small Dia. $\phi 1$ mm— $\phi 2.9$ mm

Ideal for long tool life and process security when deep hole drilling.

Straight Cutting Edge

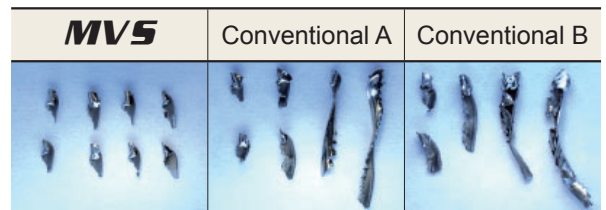
Improved chip evacuation and enhanced cutting edge strength.



New Flute Geometry

For improved chip evacuation.

Uniform, Fine Chips



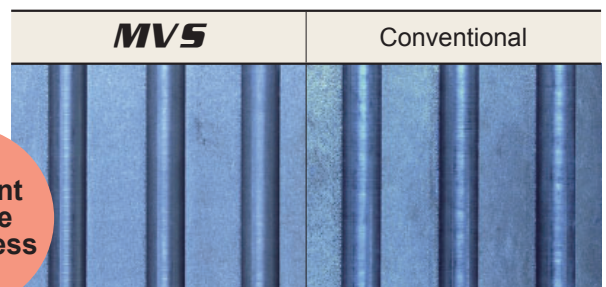
<Cutting Conditions>
 Drill Dia. : $\phi 2.5$ mm
 Work Material : AISI 304
 Hole Depth : 75 mm (L/D=30)
 Cutting Speed : 40 m/min
 Feed Rate : 0.04 mm/rev
 Cutting Mode : Water Based (Internal Coolant) (7MPa)



Double Margin

Provide high precision and balanced cutting.

Excellent Surface Roughness



Double Margin

Double Margin

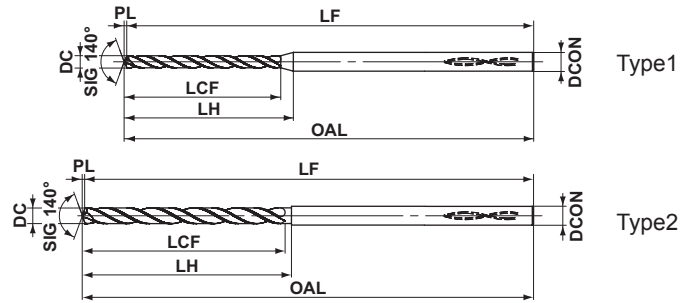
<Cutting Conditions>
 Drill Dia. : $\phi 2$ mm
 Work Material : AISI 4140
 Hole Depth : 60 mm (L/D=30)
 Cutting Speed : 30 m/min
 Feed Rate : 0.04 mm/rev
 Cutting Mode : Water Based (Internal Coolant) (7MPa)

Solid Carbide Drills

MVS for Small Diameter
WSTAR Drills



| |
|----------------------|
| $1 \leq DC \leq 2.9$ |
| 0 |
| -0.014 |
| 0 |
| -0.006 |



Internal Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|-----|------------------|--------------|----------------|------|------|------|----|-----|------|------|
| | | | | | | | | | | |
| 1.0 | 7 | ● | MVS0100X07S030 | 10.2 | 14.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| | 12 | ● | MVS0100X12S030 | 15.2 | 19.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| | 20 | ● | MVS0100X20S030 | 24.2 | 28.2 | 60.2 | 60 | 0.2 | 3 | 1 |
| | 25 | ● | MVS0100X25S030 | 28.2 | 32.2 | 66.2 | 66 | 0.2 | 3 | 1 |
| | 30 | ● | MVS0100X30S030 | 33.2 | 37.2 | 72.2 | 72 | 0.2 | 3 | 1 |
| 1.1 | 7 | ● | MVS0110X07S030 | 11.2 | 15.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| | 12 | ● | MVS0110X12S030 | 17.2 | 21.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| | 20 | ● | MVS0110X20S030 | 25.2 | 29.2 | 60.2 | 60 | 0.2 | 3 | 1 |
| | 25 | ● | MVS0110X25S030 | 31.2 | 34.2 | 66.2 | 66 | 0.2 | 3 | 1 |
| | 30 | ● | MVS0110X30S030 | 36.2 | 40.2 | 72.2 | 72 | 0.2 | 3 | 1 |
| 1.2 | 7 | ● | MVS0120X07S030 | 12.2 | 15.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| | 12 | ● | MVS0120X12S030 | 18.2 | 21.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| | 20 | ● | MVS0120X20S030 | 28.2 | 31.2 | 60.2 | 60 | 0.2 | 3 | 1 |
| | 25 | ● | MVS0120X25S030 | 34.2 | 37.2 | 66.2 | 66 | 0.2 | 3 | 1 |
| | 30 | ● | MVS0120X30S030 | 40.2 | 43.2 | 72.2 | 72 | 0.2 | 3 | 1 |
| 1.3 | 7 | ● | MVS0130X07S030 | 13.2 | 16.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| | 12 | ● | MVS0130X12S030 | 20.2 | 23.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| | 20 | ● | MVS0130X20S030 | 30.2 | 33.2 | 68.2 | 68 | 0.2 | 3 | 1 |
| | 25 | ● | MVS0130X25S030 | 36.2 | 40.2 | 74.2 | 74 | 0.2 | 3 | 1 |
| | 30 | ● | MVS0130X30S030 | 43.2 | 46.2 | 82.2 | 82 | 0.2 | 3 | 1 |
| 1.4 | 7 | ● | MVS0140X07S030 | 14.3 | 17.3 | 55.3 | 55 | 0.3 | 3 | 1 |
| | 12 | ● | MVS0140X12S030 | 21.3 | 24.3 | 55.3 | 55 | 0.3 | 3 | 1 |
| | 20 | ● | MVS0140X20S030 | 32.3 | 35.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 25 | ● | MVS0140X25S030 | 39.3 | 42.3 | 74.3 | 74 | 0.3 | 3 | 1 |
| | 30 | ● | MVS0140X30S030 | 46.3 | 49.3 | 82.3 | 82 | 0.3 | 3 | 1 |
| 1.5 | 7 | ● | MVS0150X07S030 | 15.3 | 18.3 | 55.3 | 55 | 0.3 | 3 | 1 |
| | 12 | ● | MVS0150X12S030 | 23.3 | 26.3 | 55.3 | 55 | 0.3 | 3 | 1 |
| | 20 | ● | MVS0150X20S030 | 35.3 | 37.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 25 | ● | MVS0150X25S030 | 42.3 | 45.3 | 74.3 | 74 | 0.3 | 3 | 1 |
| | 30 | ● | MVS0150X30S030 | 50.3 | 52.3 | 82.3 | 82 | 0.3 | 3 | 1 |
| 1.6 | 7 | ● | MVS0160X07S030 | 16.3 | 19.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 12 | ● | MVS0160X12S030 | 24.3 | 27.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 20 | ● | MVS0160X20S030 | 37.3 | 39.3 | 78.3 | 78 | 0.3 | 3 | 1 |
| | 25 | ● | MVS0160X25S030 | 45.3 | 47.3 | 86.3 | 86 | 0.3 | 3 | 1 |
| | 30 | ● | MVS0160X30S030 | 53.3 | 55.3 | 95.3 | 95 | 0.3 | 3 | 1 |
| 1.7 | 7 | ● | MVS0170X07S030 | 17.3 | 19.3 | 68.3 | 68 | 0.3 | 3 | 1 |

Internal Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|-----|------------------|--------------|----------------|------|------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 1.7 | 12 | ● | MVS0170X12S030 | 26.3 | 28.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 20 | ● | MVS0170X20S030 | 39.3 | 42.3 | 78.3 | 78 | 0.3 | 3 | 1 |
| | 25 | ● | MVS0170X25S030 | 48.3 | 50.3 | 86.3 | 86 | 0.3 | 3 | 1 |
| | 30 | ● | MVS0170X30S030 | 56.3 | 59.3 | 95.3 | 95 | 0.3 | 3 | 1 |
| 1.8 | 7 | ● | MVS0180X07S030 | 18.3 | 20.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 12 | ● | MVS0180X12S030 | 27.3 | 29.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 20 | ● | MVS0180X20S030 | 41.3 | 44.3 | 84.3 | 84 | 0.3 | 3 | 1 |
| | 25 | ● | MVS0180X25S030 | 50.3 | 53.3 | 94.3 | 94 | 0.3 | 3 | 1 |
| 1.9 | 7 | ● | MVS0190X07S030 | 19.3 | 21.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 12 | ● | MVS0190X12S030 | 29.3 | 31.3 | 68.3 | 68 | 0.3 | 3 | 1 |
| | 20 | ● | MVS0190X20S030 | 44.3 | 46.3 | 84.3 | 84 | 0.3 | 3 | 1 |
| | 25 | ● | MVS0190X25S030 | 53.3 | 55.3 | 94.3 | 94 | 0.3 | 3 | 1 |
| 2.0 | 7 | ● | MVS0200X07S030 | 20.4 | 22.4 | 68.4 | 68 | 0.4 | 3 | 1 |
| | 12 | ● | MVS0200X12S030 | 30.4 | 32.4 | 68.4 | 68 | 0.4 | 3 | 1 |
| | 20 | ● | MVS0200X20S030 | 46.4 | 48.4 | 84.4 | 84 | 0.4 | 3 | 1 |
| | 25 | ● | MVS0200X25S030 | 56.4 | 58.4 | 94.4 | 94 | 0.4 | 3 | 1 |
| 2.1 | 7 | ● | MVS0210X07S030 | 21.4 | 23.4 | 74.4 | 74 | 0.4 | 3 | 1 |
| | 12 | ● | MVS0210X12S030 | 32.4 | 34.4 | 74.4 | 74 | 0.4 | 3 | 1 |
| | 20 | ● | MVS0210X20S030 | 48.4 | 50.4 | 94.4 | 94 | 0.4 | 3 | 1 |
| | 25 | ● | MVS0210X25S030 | 59.4 | 60.4 | 107.4 | 107 | 0.4 | 3 | 1 |
| 2.2 | 7 | ● | MVS0220X07S030 | 22.4 | 23.4 | 74.4 | 74 | 0.4 | 3 | 1 |
| | 12 | ● | MVS0220X12S030 | 33.4 | 34.4 | 74.4 | 74 | 0.4 | 3 | 1 |
| | 20 | ● | MVS0220X20S030 | 51.4 | 52.4 | 94.4 | 94 | 0.4 | 3 | 1 |
| | 25 | ● | MVS0220X25S030 | 62.4 | 63.4 | 107.4 | 107 | 0.4 | 3 | 1 |
| 2.3 | 7 | ● | MVS0230X07S030 | 23.4 | 24.4 | 74.4 | 74 | 0.4 | 3 | 1 |
| | 12 | ● | MVS0230X12S030 | 35.4 | 36.4 | 74.4 | 74 | 0.4 | 3 | 1 |
| | 20 | ● | MVS0230X20S030 | 53.4 | 54.4 | 94.4 | 94 | 0.4 | 3 | 1 |
| | 25 | ● | MVS0230X25S030 | 64.4 | 66.4 | 107.4 | 107 | 0.4 | 3 | 1 |
| 2.4 | 7 | ● | MVS0240X07S030 | 24.4 | 25.4 | 74.4 | 74 | 0.4 | 3 | 1 |
| | 12 | ● | MVS0240X12S030 | 36.4 | 37.4 | 74.4 | 74 | 0.4 | 3 | 1 |

(Note) The coolant hole of $\phi 5.9$ mm or less will be round shape.

Internal Coolant (mm)

| DC | Hole Depth (L/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|-----|---------------------|--------|----------------|------|------|-------|-----|-----|------|------|
| | | DP1020 | | | | | | | | |
| 2.4 | 20 | ● | MVS0240X20S030 | 55.4 | 56.4 | 94.4 | 94 | 0.4 | 3 | 1 |
| | 25 | ● | MVS0240X25S030 | 67.4 | 68.4 | 107.4 | 107 | 0.4 | 3 | 1 |
| | 30 | ● | MVS0240X30S030 | 79.4 | 80.4 | 118.4 | 118 | 0.4 | 3 | 1 |
| 2.5 | 7 | ● | MVS0250X07S030 | 25.5 | 26.5 | 74.5 | 74 | 0.5 | 3 | 1 |
| | 12 | ● | MVS0250X12S030 | 38.5 | 39.5 | 74.5 | 74 | 0.5 | 3 | 1 |
| | 20 | ● | MVS0250X20S030 | 58.5 | 59.5 | 94.5 | 94 | 0.5 | 3 | 1 |
| | 25 | ● | MVS0250X25S030 | 70.5 | 71.5 | 107.5 | 107 | 0.5 | 3 | 1 |
| | 30 | ● | MVS0250X30S030 | 83.5 | 84.5 | 118.5 | 118 | 0.5 | 3 | 1 |
| 2.6 | 7 | ● | MVS0260X07S030 | 26.5 | 26.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| | 12 | ● | MVS0260X12S030 | 39.5 | 39.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| | 20 | ● | MVS0260X20S030 | 60.5 | 60.5 | 103.5 | 103 | 0.5 | 3 | 2 |
| | 25 | ● | MVS0260X25S030 | 73.5 | 73.5 | 117.5 | 117 | 0.5 | 3 | 2 |
| | 30 | ● | MVS0260X30S030 | 86.5 | 86.5 | 132.5 | 132 | 0.5 | 3 | 2 |
| 2.7 | 7 | ● | MVS0270X07S030 | 27.5 | 27.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| | 12 | ● | MVS0270X12S030 | 41.5 | 41.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| | 20 | ● | MVS0270X20S030 | 62.5 | 62.5 | 103.5 | 103 | 0.5 | 3 | 2 |
| | 25 | ● | MVS0270X25S030 | 76.5 | 76.5 | 117.5 | 117 | 0.5 | 3 | 2 |
| | 30 | ● | MVS0270X30S030 | 89.5 | 89.5 | 132.5 | 132 | 0.5 | 3 | 2 |
| 2.8 | 7 | ● | MVS0280X07S030 | 28.5 | 28.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| | 12 | ● | MVS0280X12S030 | 42.5 | 42.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| | 20 | ● | MVS0280X20S030 | 64.5 | 64.5 | 103.5 | 103 | 0.5 | 3 | 2 |
| | 25 | ● | MVS0280X25S030 | 78.5 | 78.5 | 117.5 | 117 | 0.5 | 3 | 2 |
| | 30 | ● | MVS0280X30S030 | 92.5 | 92.5 | 132.5 | 132 | 0.5 | 3 | 2 |
| 2.9 | 7 | ● | MVS0290X07S030 | 29.5 | 29.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| | 12 | ● | MVS0290X12S030 | 44.5 | 44.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| | 20 | ● | MVS0290X20S030 | 67.5 | 67.5 | 103.5 | 103 | 0.5 | 3 | 2 |
| | 25 | ● | MVS0290X25S030 | 81.5 | 81.5 | 117.5 | 117 | 0.5 | 3 | 2 |
| | 30 | ● | MVS0290X30S030 | 96.5 | 96.5 | 132.5 | 132 | 0.5 | 3 | 2 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

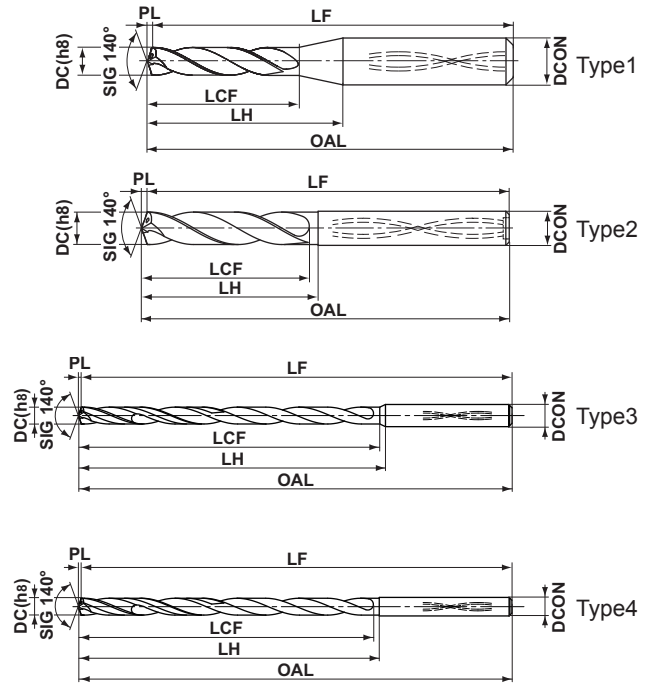
OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills



| l/d | DC=3 | 3<DC≤6 | 6<DC≤10 | 10<DC≤18 | 18<DC≤20 |
|----------|------------------|------------------|------------------|------------------|-------------|
| 3,5,8 | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |
| l/d ≥ 10 | -0.017 -0.031 | -0.025 -0.043 | -0.033 -0.055 | -0.041 -0.068 | - |
| | 0 -0.006 | 0 -0.008 | 0 -0.009 | 0 -0.011 | 0 -0.013 |



Internal Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| 3.0 | 3 | ● | MVS0300X03S030 | 21.5 | 21.5 | 72.5 | 72 | 0.5 | 3 | 2 |
| 3.0 | 3 | ● | MVS0300X03S060 | 21.5 | 24.7 | 72.5 | 72 | 0.5 | 6 | 1 |
| 3.0 | 5 | ● | MVS0300X05S030 | 28.5 | 28.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| 3.0 | 5 | ● | MVS0300X05S060 | 28.5 | 31.7 | 81.5 | 81 | 0.5 | 6 | 1 |
| 3.0 | 8 | ● | MVS0300X08S030 | 35.5 | 35.5 | 81.5 | 81 | 0.5 | 3 | 2 |
| 3.0 | 8 | ● | MVS0300X08S060 | 35.5 | 38.7 | 81.5 | 81 | 0.5 | 6 | 1 |
| NEW 3.0 | 10 | ● | MVS0300X10S030 | 39.5 | 42.6 | 90.5 | 90 | 0.5 | 3 | 3 |
| NEW 3.0 | 15 | ● | MVS0300X15S030 | 54.5 | 57.6 | 105.5 | 105 | 0.5 | 3 | 3 |
| NEW 3.0 | 20 | ● | MVS0300X20S030 | 69.5 | 72.6 | 120.5 | 120 | 0.5 | 3 | 3 |
| NEW 3.0 | 25 | ● | MVS0300X25S030 | 84.5 | 87.6 | 135.5 | 135 | 0.5 | 3 | 3 |
| NEW 3.0 | 30 | ● | MVS0300X30S030 | 99.5 | 102.6 | 150.5 | 150 | 0.5 | 3 | 3 |
| NEW 3.0 | 35 | ● | MVS0300X35S030 | 115.5 | 118.6 | 166.5 | 166 | 0.5 | 3 | 3 |
| NEW 3.0 | 40 | ● | MVS0300X40S030 | 130.5 | 133.6 | 181.5 | 181 | 0.5 | 3 | 3 |
| 3.1 | 3 | ● | MVS0310X03S040 | 21.6 | 23.6 | 76.6 | 76 | 0.6 | 4 | 2 |
| 3.1 | 3 | ● | MVS0310X03S060 | 21.6 | 24.7 | 76.6 | 76 | 0.6 | 6 | 1 |
| 3.1 | 5 | ● | MVS0310X05S040 | 32.6 | 32.6 | 87.6 | 87 | 0.6 | 4 | 2 |
| 3.1 | 5 | ● | MVS0310X05S060 | 32.6 | 35.7 | 87.6 | 87 | 0.6 | 6 | 1 |
| 3.1 | 8 | ● | MVS0310X08S040 | 41.6 | 41.6 | 87.6 | 87 | 0.6 | 4 | 2 |
| 3.1 | 8 | ● | MVS0310X08S060 | 41.6 | 44.7 | 87.6 | 87 | 0.6 | 6 | 1 |
| NEW 3.1 | 10 | ● | MVS0310X10S040 | 46.6 | 49.6 | 97.6 | 97 | 0.6 | 4 | 3 |
| NEW 3.1 | 15 | ● | MVS0310X15S040 | 63.6 | 66.6 | 114.6 | 114 | 0.6 | 4 | 3 |
| NEW 3.1 | 20 | ● | MVS0310X20S040 | 81.6 | 84.6 | 132.6 | 132 | 0.6 | 4 | 3 |
| NEW 3.1 | 25 | ● | MVS0310X25S040 | 98.6 | 101.6 | 149.6 | 149 | 0.6 | 4 | 3 |

Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| NEW 3.1 | 30 | ● | MVS0310X30S040 | 116.6 | 119.6 | 167.6 | 167 | 0.6 | 4 | 3 |
| NEW 3.1 | 35 | □ | MVS0310X35S040 | 134.6 | 137.6 | 185.6 | 185 | 0.6 | 4 | 3 |
| NEW 3.1 | 35 | □ | MVS0310X35S060 | 134.6 | 140.7 | 185.6 | 185 | 0.6 | 6 | 3 |
| NEW 3.1 | 40 | □ | MVS0310X40S040 | 150.6 | 153.6 | 201.6 | 201 | 0.6 | 4 | 3 |
| NEW 3.1 | 40 | □ | MVS0310X40S060 | 150.6 | 156.7 | 201.6 | 201 | 0.6 | 6 | 3 |
| 3.2 | 3 | ● | MVS0320X03S040 | 21.6 | 23.6 | 76.6 | 76 | 0.6 | 4 | 2 |
| 3.2 | 3 | ● | MVS0320X03S060 | 21.6 | 24.6 | 76.6 | 76 | 0.6 | 6 | 1 |
| 3.2 | 5 | ● | MVS0320X05S040 | 32.6 | 32.6 | 87.6 | 87 | 0.6 | 4 | 2 |
| 3.2 | 5 | ● | MVS0320X05S060 | 32.6 | 35.6 | 87.6 | 87 | 0.6 | 6 | 1 |
| 3.2 | 8 | ● | MVS0320X08S040 | 41.6 | 41.6 | 87.6 | 87 | 0.6 | 4 | 2 |
| 3.2 | 8 | ● | MVS0320X08S060 | 41.6 | 44.6 | 87.6 | 87 | 0.6 | 6 | 1 |
| NEW 3.2 | 10 | ● | MVS0320X10S040 | 46.6 | 49.6 | 97.6 | 97 | 0.6 | 4 | 3 |
| NEW 3.2 | 15 | ● | MVS0320X15S040 | 63.6 | 66.6 | 114.6 | 114 | 0.6 | 4 | 3 |
| NEW 3.2 | 20 | ● | MVS0320X20S040 | 81.6 | 84.6 | 132.6 | 132 | 0.6 | 4 | 3 |
| NEW 3.2 | 25 | ● | MVS0320X25S040 | 98.6 | 101.6 | 149.6 | 149 | 0.6 | 4 | 3 |
| NEW 3.2 | 30 | ● | MVS0320X30S040 | 116.6 | 119.6 | 167.6 | 167 | 0.6 | 4 | 3 |
| NEW 3.2 | 35 | □ | MVS0320X35S040 | 134.6 | 137.6 | 185.6 | 185 | 0.6 | 4 | 3 |
| NEW 3.2 | 35 | □ | MVS0320X35S060 | 134.6 | 140.6 | 185.6 | 185 | 0.6 | 6 | 3 |
| NEW 3.2 | 40 | □ | MVS0320X40S040 | 150.6 | 153.6 | 201.6 | 201 | 0.6 | 4 | 3 |
| NEW 3.2 | 40 | □ | MVS0320X40S060 | 150.6 | 156.6 | 201.6 | 201 | 0.6 | 6 | 3 |
| 3.3 | 3 | ● | MVS0330X03S040 | 21.6 | 23.6 | 76.6 | 76 | 0.6 | 4 | 2 |
| 3.3 | 3 | ● | MVS0330X03S060 | 21.6 | 24.5 | 76.6 | 76 | 0.6 | 6 | 1 |
| 3.3 | 5 | ● | MVS0330X05S040 | 32.6 | 32.6 | 87.6 | 87 | 0.6 | 4 | 2 |

(Note) The coolant hole of ø5.9mm or less will be round shape.

● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Internal Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|------------------|--------------|----------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | 3.3 |
| 3.3 | 8 | ● | MVS0330X08S040 | 41.6 | 41.6 | 87.6 | 87 | 0.6 | 4 | 2 | |
| 3.3 | 8 | ● | MVS0330X08S060 | 41.6 | 44.5 | 87.6 | 87 | 0.6 | 6 | 1 | |
| NEW | 3.3 | 10 | ● | MVS0330X10S040 | 46.6 | 49.6 | 97.6 | 97 | 0.6 | 4 | 3 |
| NEW | 3.3 | 15 | ● | MVS0330X15S040 | 63.6 | 66.6 | 114.6 | 114 | 0.6 | 4 | 3 |
| NEW | 3.3 | 20 | ● | MVS0330X20S040 | 81.6 | 84.6 | 132.6 | 132 | 0.6 | 4 | 3 |
| NEW | 3.3 | 25 | ● | MVS0330X25S040 | 98.6 | 101.6 | 149.6 | 149 | 0.6 | 4 | 3 |
| NEW | 3.3 | 30 | ● | MVS0330X30S040 | 116.6 | 119.6 | 167.6 | 167 | 0.6 | 4 | 3 |
| NEW | 3.3 | 35 | □ | MVS0330X35S040 | 134.6 | 137.6 | 185.6 | 185 | 0.6 | 4 | 3 |
| NEW | 3.3 | 35 | □ | MVS0330X35S060 | 134.6 | 140.5 | 185.6 | 185 | 0.6 | 6 | 3 |
| NEW | 3.3 | 40 | □ | MVS0330X40S040 | 150.6 | 153.6 | 201.6 | 201 | 0.6 | 4 | 3 |
| NEW | 3.3 | 40 | □ | MVS0330X40S060 | 150.6 | 156.5 | 201.6 | 201 | 0.6 | 6 | 3 |
| 3.4 | 3 | ● | MVS0340X03S040 | 21.6 | 23.6 | 76.6 | 76 | 0.6 | 4 | 2 | |
| 3.4 | 3 | ● | MVS0340X03S060 | 21.6 | 24.4 | 76.6 | 76 | 0.6 | 6 | 1 | |
| 3.4 | 5 | ● | MVS0340X05S040 | 32.6 | 32.6 | 87.6 | 87 | 0.6 | 4 | 2 | |
| 3.4 | 5 | ● | MVS0340X05S060 | 32.6 | 35.4 | 87.6 | 87 | 0.6 | 6 | 1 | |
| 3.4 | 8 | ● | MVS0340X08S040 | 41.6 | 41.6 | 87.6 | 87 | 0.6 | 4 | 2 | |
| 3.4 | 8 | ● | MVS0340X08S060 | 41.6 | 44.4 | 87.6 | 87 | 0.6 | 6 | 1 | |
| NEW | 3.4 | 10 | ● | MVS0340X10S040 | 46.6 | 49.6 | 97.6 | 97 | 0.6 | 4 | 3 |
| NEW | 3.4 | 15 | ● | MVS0340X15S040 | 63.6 | 66.6 | 114.6 | 114 | 0.6 | 4 | 3 |
| NEW | 3.4 | 20 | ● | MVS0340X20S040 | 81.6 | 84.6 | 132.6 | 132 | 0.6 | 4 | 3 |
| NEW | 3.4 | 25 | ● | MVS0340X25S040 | 98.6 | 101.6 | 149.6 | 149 | 0.6 | 4 | 3 |
| NEW | 3.4 | 30 | ● | MVS0340X30S040 | 116.6 | 119.6 | 167.6 | 167 | 0.6 | 4 | 3 |
| NEW | 3.4 | 35 | □ | MVS0340X35S040 | 134.6 | 137.6 | 185.6 | 185 | 0.6 | 4 | 3 |
| NEW | 3.4 | 35 | □ | MVS0340X35S060 | 134.6 | 140.4 | 185.6 | 185 | 0.6 | 6 | 3 |
| NEW | 3.4 | 40 | □ | MVS0340X40S040 | 150.6 | 153.6 | 201.6 | 201 | 0.6 | 4 | 3 |
| NEW | 3.4 | 40 | □ | MVS0340X40S060 | 150.6 | 156.4 | 201.6 | 201 | 0.6 | 6 | 3 |
| 3.5 | 3 | ● | MVS0350X03S040 | 21.6 | 23.6 | 76.6 | 76 | 0.6 | 4 | 2 | |
| 3.5 | 3 | ● | MVS0350X03S060 | 21.6 | 24.3 | 76.6 | 76 | 0.6 | 6 | 1 | |
| 3.5 | 5 | ● | MVS0350X05S040 | 32.6 | 32.6 | 87.6 | 87 | 0.6 | 4 | 2 | |
| 3.5 | 5 | ● | MVS0350X05S060 | 32.6 | 35.3 | 87.6 | 87 | 0.6 | 6 | 1 | |
| 3.5 | 8 | ● | MVS0350X08S040 | 41.6 | 41.6 | 87.6 | 87 | 0.6 | 4 | 2 | |
| 3.5 | 8 | ● | MVS0350X08S060 | 41.6 | 44.3 | 87.6 | 87 | 0.6 | 6 | 1 | |
| NEW | 3.5 | 10 | ● | MVS0350X10S040 | 46.6 | 49.6 | 97.6 | 97 | 0.6 | 4 | 3 |
| NEW | 3.5 | 15 | ● | MVS0350X15S040 | 63.6 | 66.6 | 114.6 | 114 | 0.6 | 4 | 3 |
| NEW | 3.5 | 20 | ● | MVS0350X20S040 | 81.6 | 84.6 | 132.6 | 132 | 0.6 | 4 | 3 |
| NEW | 3.5 | 25 | ● | MVS0350X25S040 | 98.6 | 101.6 | 149.6 | 149 | 0.6 | 4 | 3 |
| NEW | 3.5 | 30 | ● | MVS0350X30S040 | 116.6 | 119.6 | 167.6 | 167 | 0.6 | 4 | 3 |
| NEW | 3.5 | 35 | ● | MVS0350X35S040 | 134.6 | 137.6 | 185.6 | 185 | 0.6 | 4 | 3 |
| NEW | 3.5 | 40 | ● | MVS0350X40S040 | 150.6 | 153.6 | 201.6 | 201 | 0.6 | 4 | 3 |
| 3.6 | 3 | ● | MVS0360X03S040 | 23.7 | 23.7 | 80.7 | 80 | 0.7 | 4 | 2 | |
| 3.6 | 3 | ● | MVS0360X03S060 | 23.7 | 26.3 | 80.7 | 80 | 0.7 | 6 | 1 | |
| 3.6 | 5 | ● | MVS0360X05S040 | 36.7 | 36.7 | 92.7 | 92 | 0.7 | 4 | 2 | |
| 3.6 | 5 | ● | MVS0360X05S060 | 36.7 | 39.3 | 92.7 | 92 | 0.7 | 6 | 1 | |
| 3.6 | 8 | ● | MVS0360X08S040 | 46.7 | 46.7 | 92.7 | 92 | 0.7 | 4 | 2 | |
| 3.6 | 8 | ● | MVS0360X08S060 | 46.7 | 49.3 | 92.7 | 92 | 0.7 | 6 | 1 | |
| NEW | 3.6 | 10 | ● | MVS0360X10S040 | 52.7 | 55.7 | 103.7 | 103 | 0.7 | 4 | 3 |
| NEW | 3.6 | 15 | ● | MVS0360X15S040 | 72.7 | 75.7 | 123.7 | 123 | 0.7 | 4 | 3 |
| NEW | 3.6 | 20 | ● | MVS0360X20S040 | 92.7 | 95.7 | 143.7 | 143 | 0.7 | 4 | 3 |

Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|------------------|--------------|----------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | NEW |
| NEW | 3.6 | 30 | ● | MVS0360X30S040 | 132.7 | 135.7 | 183.7 | 183 | 0.7 | 4 | 3 |
| NEW | 3.6 | 35 | □ | MVS0360X35S040 | 152.7 | 155.7 | 203.7 | 203 | 0.7 | 4 | 3 |
| NEW | 3.6 | 35 | □ | MVS0360X35S060 | 152.7 | 158.3 | 203.7 | 203 | 0.7 | 6 | 3 |
| NEW | 3.6 | 40 | □ | MVS0360X40S040 | 172.7 | 175.7 | 223.7 | 223 | 0.7 | 4 | 3 |
| NEW | 3.6 | 40 | □ | MVS0360X40S060 | 172.7 | 178.3 | 223.7 | 223 | 0.7 | 6 | 3 |
| 3.7 | 3 | ● | MVS0370X03S040 | 23.7 | 23.7 | 80.7 | 80 | 0.7 | 4 | 2 | |
| 3.7 | 3 | ● | MVS0370X03S060 | 23.7 | 26.2 | 80.7 | 80 | 0.7 | 6 | 1 | |
| 3.7 | 5 | ● | MVS0370X05S040 | 36.7 | 36.7 | 92.7 | 92 | 0.7 | 4 | 2 | |
| 3.7 | 5 | ● | MVS0370X05S060 | 36.7 | 39.2 | 92.7 | 92 | 0.7 | 6 | 1 | |
| 3.7 | 8 | ● | MVS0370X08S040 | 46.7 | 46.7 | 92.7 | 92 | 0.7 | 4 | 2 | |
| 3.7 | 8 | ● | MVS0370X08S060 | 46.7 | 49.2 | 92.7 | 92 | 0.7 | 6 | 1 | |
| NEW | 3.7 | 10 | ● | MVS0370X10S040 | 52.7 | 55.7 | 103.7 | 103 | 0.7 | 4 | 3 |
| NEW | 3.7 | 15 | ● | MVS0370X15S040 | 72.7 | 75.7 | 123.7 | 123 | 0.7 | 4 | 3 |
| NEW | 3.7 | 20 | ● | MVS0370X20S040 | 92.7 | 95.7 | 143.7 | 143 | 0.7 | 4 | 3 |
| NEW | 3.7 | 25 | ● | MVS0370X25S040 | 112.7 | 115.7 | 163.7 | 163 | 0.7 | 4 | 3 |
| NEW | 3.7 | 30 | ● | MVS0370X30S040 | 132.7 | 135.7 | 183.7 | 183 | 0.7 | 4 | 3 |
| NEW | 3.7 | 35 | □ | MVS0370X35S040 | 152.7 | 155.7 | 203.7 | 203 | 0.7 | 4 | 3 |
| NEW | 3.7 | 35 | □ | MVS0370X35S060 | 152.7 | 158.2 | 203.7 | 203 | 0.7 | 6 | 3 |
| NEW | 3.7 | 40 | □ | MVS0370X40S040 | 172.7 | 175.7 | 223.7 | 223 | 0.7 | 4 | 3 |
| NEW | 3.7 | 40 | □ | MVS0370X40S060 | 172.7 | 178.2 | 223.7 | 223 | 0.7 | 6 | 3 |
| 3.8 | 3 | ● | MVS0380X03S040 | 23.7 | 23.7 | 80.7 | 80 | 0.7 | 4 | 2 | |
| 3.8 | 3 | ● | MVS0380X03S060 | 23.7 | 26.1 | 80.7 | 80 | 0.7 | 6 | 1 | |
| 3.8 | 5 | ● | MVS0380X05S040 | 36.7 | 36.7 | 92.7 | 92 | 0.7 | 4 | 2 | |
| 3.8 | 5 | ● | MVS0380X05S060 | 36.7 | 39.1 | 92.7 | 92 | 0.7 | 6 | 1 | |
| 3.8 | 8 | ● | MVS0380X08S040 | 46.7 | 46.7 | 92.7 | 92 | 0.7 | 4 | 2 | |
| 3.8 | 8 | ● | MVS0380X08S060 | 46.7 | 49.1 | 92.7 | 92 | 0.7 | 6 | 1 | |
| NEW | 3.8 | 10 | ● | MVS0380X10S040 | 52.7 | 55.7 | 103.7 | 103 | 0.7 | 4 | 3 |
| NEW | 3.8 | 15 | ● | MVS0380X15S040 | 72.7 | 75.7 | 123.7 | 123 | 0.7 | 4 | 3 |
| NEW | 3.8 | 20 | ● | MVS0380X20S040 | 92.7 | 95.7 | 143.7 | 143 | 0.7 | 4 | 3 |
| NEW | 3.8 | 25 | ● | MVS0380X25S040 | 112.7 | 115.7 | 163.7 | 163 | 0.7 | 4 | 3 |
| NEW | 3.8 | 30 | ● | MVS0380X30S040 | 132.7 | 135.7 | 183.7 | 183 | 0.7 | 4 | 3 |
| NEW | 3.8 | 35 | □ | MVS0380X35S040 | 152.7 | 155.7 | 203.7 | 203 | 0.7 | 4 | 3 |
| NEW | 3.8 | 35 | □ | MVS0380X35S060 | 152.7 | 158.1 | 203.7 | 203 | 0.7 | 6 | 3 |
| NEW | 3.8 | 40 | □ | MVS0380X40S040 | 172.7 | 175.7 | 223.7 | 223 | 0.7 | 4 | 3 |
| NEW | 3.8 | 40 | □ | MVS0380X40S060 | 172.7 | 178.1 | 223.7 | 223 | 0.7 | 6 | 3 |
| 3.9 | 3 | ● | MVS0390X03S040 | 23.7 | 23.7 | 80.7 | 80 | 0.7 | 4 | 2 | |
| 3.9 | 3 | ● | MVS0390X03S060 | 23.7 | 26.0 | 80.7 | 80 | 0.7 | 6 | 1 | |
| 3.9 | 5 | ● | MVS0390X05S040 | 36.7 | 36.7 | 92.7 | 92 | 0.7 | 4 | 2 | |
| 3.9 | 5 | ● | MVS0390X05S060 | 36.7 | 39.0 | 92.7 | 92 | 0.7 | 6 | 1 | |
| 3.9 | 8 | ● | MVS0390X08S040 | 46.7 | 46.7 | 92.7 | 92 | 0.7 | 4 | 2 | |
| 3.9 | 8 | ● | MVS0390X08S060 | 46.7 | 49.0 | 92.7 | 92 | 0.7 | 6 | 1 | |
| NEW | 3.9 | 10 | ● | MVS0390X10S040 | 52.7 | 55.7 | 103.7 | 103 | 0.7 | 4 | 3 |
| NEW | 3.9 | 15 | ● | MVS0390X15S040 | 72.7 | 75.7 | 123.7 | 123 | 0.7 | 4 | 3 |
| NEW | 3.9 | 20 | ● | MVS0390X20S040 | 92.7 | 95.7 | 143.7 | 143 | 0.7 | 4 | 3 |
| NEW | 3.9 | 25 | ● | MVS0390X25S040 | 112.7 | 115.7 | 163.7 | 163 | 0.7 | 4 | 3 |
| NEW | 3.9 | 30 | ● | MVS0390X30S040 | 132.7 | 135.7 | 183.7 | 183 | 0.7 | 4 | 3 |
| NEW | 3.9 | 35 | □ | MVS0390X35S040 | 152.7 | 155.7 | 203.7 | 203 | 0.7 | 4 | 3 |
| NEW | 3.9 | 35 | □ | MVS0390X35S060 | 152.7 | 158.0 | 203.7 | 203 | 0.7 | 6 | 3 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills



Internal Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| NEW 3.9 | 40 | □ | MVS0390X40S060 | 172.7 | 178.0 | 223.7 | 223 | 0.7 | 6 | 3 |
| 4.0 | 3 | ● | MVS0400X03S040 | 23.7 | 23.7 | 80.7 | 80 | 0.7 | 4 | 2 |
| 4.0 | 3 | ● | MVS0400X03S060 | 23.7 | 25.8 | 80.7 | 80 | 0.7 | 6 | 1 |
| 4.0 | 5 | ● | MVS0400X05S040 | 36.7 | 36.7 | 92.7 | 92 | 0.7 | 4 | 2 |
| 4.0 | 5 | ● | MVS0400X05S060 | 36.7 | 38.8 | 92.7 | 92 | 0.7 | 6 | 1 |
| 4.0 | 8 | ● | MVS0400X08S040 | 46.7 | 46.7 | 92.7 | 92 | 0.7 | 4 | 2 |
| 4.0 | 8 | ● | MVS0400X08S060 | 46.7 | 48.8 | 92.7 | 92 | 0.7 | 6 | 1 |
| NEW 4.0 | 10 | ● | MVS0400X10S040 | 52.7 | 55.7 | 103.7 | 103 | 0.7 | 4 | 3 |
| NEW 4.0 | 15 | ● | MVS0400X15S040 | 72.7 | 75.7 | 123.7 | 123 | 0.7 | 4 | 3 |
| NEW 4.0 | 20 | ● | MVS0400X20S040 | 92.7 | 95.7 | 143.7 | 143 | 0.7 | 4 | 3 |
| NEW 4.0 | 25 | ● | MVS0400X25S040 | 112.7 | 115.7 | 163.7 | 163 | 0.7 | 4 | 3 |
| NEW 4.0 | 30 | ● | MVS0400X30S040 | 132.7 | 135.7 | 183.7 | 183 | 0.7 | 4 | 3 |
| NEW 4.0 | 35 | ● | MVS0400X35S040 | 152.7 | 155.7 | 203.7 | 203 | 0.7 | 4 | 3 |
| NEW 4.0 | 40 | ● | MVS0400X40S040 | 172.7 | 175.7 | 223.7 | 223 | 0.7 | 4 | 3 |
| 4.1 | 3 | ● | MVS0410X03S050 | 25.7 | 25.7 | 86.7 | 86 | 0.7 | 5 | 2 |
| 4.1 | 3 | ● | MVS0410X03S060 | 25.7 | 27.7 | 86.7 | 86 | 0.7 | 6 | 1 |
| 4.1 | 5 | ● | MVS0410X05S050 | 40.7 | 40.7 | 100.7 | 100 | 0.7 | 5 | 2 |
| 4.1 | 5 | ● | MVS0410X05S060 | 40.7 | 42.7 | 100.7 | 100 | 0.7 | 6 | 1 |
| 4.1 | 8 | ● | MVS0410X08S050 | 52.7 | 52.7 | 100.7 | 100 | 0.7 | 5 | 2 |
| 4.1 | 8 | ● | MVS0410X08S060 | 52.7 | 54.7 | 100.7 | 100 | 0.7 | 6 | 1 |
| NEW 4.1 | 10 | ● | MVS0410X10S050 | 59.7 | 62.8 | 112.7 | 112 | 0.7 | 5 | 3 |
| NEW 4.1 | 15 | ● | MVS0410X15S050 | 81.7 | 84.8 | 134.7 | 134 | 0.7 | 5 | 3 |
| NEW 4.1 | 20 | ● | MVS0410X20S050 | 104.7 | 107.8 | 157.7 | 157 | 0.7 | 5 | 3 |
| NEW 4.1 | 25 | ● | MVS0410X25S050 | 126.7 | 129.8 | 179.7 | 179 | 0.7 | 5 | 3 |
| NEW 4.1 | 30 | ● | MVS0410X30S050 | 149.7 | 152.8 | 202.7 | 202 | 0.7 | 5 | 3 |
| NEW 4.1 | 35 | □ | MVS0410X35S050 | 171.7 | 174.8 | 224.7 | 224 | 0.7 | 5 | 3 |
| NEW 4.1 | 35 | □ | MVS0410X35S060 | 171.7 | 176.8 | 224.7 | 224 | 0.7 | 6 | 3 |
| NEW 4.1 | 40 | □ | MVS0410X40S050 | 195.7 | 198.8 | 248.7 | 248 | 0.7 | 5 | 3 |
| NEW 4.1 | 40 | □ | MVS0410X40S060 | 195.7 | 200.8 | 248.7 | 248 | 0.7 | 6 | 3 |
| 4.2 | 3 | ● | MVS0420X03S050 | 25.8 | 25.8 | 86.8 | 86 | 0.8 | 5 | 2 |
| 4.2 | 3 | ● | MVS0420X03S060 | 25.8 | 27.7 | 86.8 | 86 | 0.8 | 6 | 1 |
| 4.2 | 5 | ● | MVS0420X05S050 | 40.8 | 40.8 | 100.8 | 100 | 0.8 | 5 | 2 |
| 4.2 | 5 | ● | MVS0420X05S060 | 40.8 | 42.7 | 100.8 | 100 | 0.8 | 6 | 1 |
| 4.2 | 8 | ● | MVS0420X08S050 | 52.8 | 52.8 | 100.8 | 100 | 0.8 | 5 | 2 |
| 4.2 | 8 | ● | MVS0420X08S060 | 52.8 | 54.7 | 100.8 | 100 | 0.8 | 6 | 1 |
| NEW 4.2 | 10 | ● | MVS0420X10S050 | 59.8 | 62.8 | 112.8 | 112 | 0.8 | 5 | 3 |
| NEW 4.2 | 15 | ● | MVS0420X15S050 | 81.8 | 84.8 | 134.8 | 134 | 0.8 | 5 | 3 |
| NEW 4.2 | 20 | ● | MVS0420X20S050 | 104.8 | 107.8 | 157.8 | 157 | 0.8 | 5 | 3 |
| NEW 4.2 | 25 | ● | MVS0420X25S050 | 126.8 | 129.8 | 179.8 | 179 | 0.8 | 5 | 3 |
| NEW 4.2 | 30 | ● | MVS0420X30S050 | 149.8 | 152.8 | 202.8 | 202 | 0.8 | 5 | 3 |
| NEW 4.2 | 35 | □ | MVS0420X35S050 | 171.8 | 174.8 | 224.8 | 224 | 0.8 | 5 | 3 |
| NEW 4.2 | 35 | □ | MVS0420X35S060 | 171.8 | 176.8 | 224.8 | 224 | 0.8 | 6 | 3 |
| NEW 4.2 | 40 | □ | MVS0420X40S050 | 195.8 | 198.8 | 248.8 | 248 | 0.8 | 5 | 3 |
| NEW 4.2 | 40 | □ | MVS0420X40S060 | 195.8 | 200.8 | 248.8 | 248 | 0.8 | 6 | 3 |
| 4.3 | 3 | ● | MVS0430X03S050 | 25.8 | 25.8 | 86.8 | 86 | 0.8 | 5 | 2 |
| 4.3 | 3 | ● | MVS0430X03S060 | 25.8 | 27.6 | 86.8 | 86 | 0.8 | 6 | 1 |
| 4.3 | 5 | ● | MVS0430X05S050 | 40.8 | 40.8 | 100.8 | 100 | 0.8 | 5 | 2 |

Internal Coolant

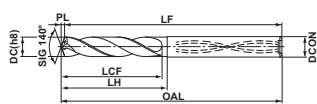
(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 4.3 | 8 | ● | MVS0430X08S050 | 52.8 | 52.8 | 100.8 | 100 | 0.8 | 5 | 2 |
| 4.3 | 8 | ● | MVS0430X08S060 | 52.8 | 54.6 | 100.8 | 100 | 0.8 | 6 | 1 |
| NEW 4.3 | 10 | ● | MVS0430X10S050 | 59.8 | 62.8 | 112.8 | 112 | 0.8 | 5 | 3 |
| NEW 4.3 | 15 | ● | MVS0430X15S050 | 81.8 | 84.8 | 134.8 | 134 | 0.8 | 5 | 3 |
| NEW 4.3 | 20 | ● | MVS0430X20S050 | 104.8 | 107.8 | 157.8 | 157 | 0.8 | 5 | 3 |
| NEW 4.3 | 25 | ● | MVS0430X25S050 | 126.8 | 129.8 | 179.8 | 179 | 0.8 | 5 | 3 |
| NEW 4.3 | 30 | ● | MVS0430X30S050 | 149.8 | 152.8 | 202.8 | 202 | 0.8 | 5 | 3 |
| NEW 4.3 | 35 | □ | MVS0430X35S050 | 171.8 | 174.8 | 224.8 | 224 | 0.8 | 5 | 3 |
| NEW 4.3 | 35 | □ | MVS0430X35S060 | 171.8 | 176.6 | 224.8 | 224 | 0.8 | 6 | 3 |
| NEW 4.3 | 40 | □ | MVS0430X40S050 | 195.8 | 198.8 | 248.8 | 248 | 0.8 | 5 | 3 |
| NEW 4.3 | 40 | □ | MVS0430X40S060 | 195.8 | 200.6 | 248.8 | 248 | 0.8 | 6 | 3 |
| 4.4 | 3 | ● | MVS0440X03S050 | 25.8 | 25.8 | 86.8 | 86 | 0.8 | 5 | 2 |
| 4.4 | 3 | ● | MVS0440X03S060 | 25.8 | 27.5 | 86.8 | 86 | 0.8 | 6 | 1 |
| 4.4 | 5 | ● | MVS0440X05S050 | 40.8 | 40.8 | 100.8 | 100 | 0.8 | 5 | 2 |
| 4.4 | 5 | ● | MVS0440X05S060 | 40.8 | 42.5 | 100.8 | 100 | 0.8 | 6 | 1 |
| 4.4 | 8 | ● | MVS0440X08S050 | 52.8 | 52.8 | 100.8 | 100 | 0.8 | 5 | 2 |
| 4.4 | 8 | ● | MVS0440X08S060 | 52.8 | 54.5 | 100.8 | 100 | 0.8 | 6 | 1 |
| NEW 4.4 | 10 | ● | MVS0440X10S050 | 59.8 | 62.8 | 112.8 | 112 | 0.8 | 5 | 3 |
| NEW 4.4 | 15 | ● | MVS0440X15S050 | 81.8 | 84.8 | 134.8 | 134 | 0.8 | 5 | 3 |
| NEW 4.4 | 20 | ● | MVS0440X20S050 | 104.8 | 107.8 | 157.8 | 157 | 0.8 | 5 | 3 |
| NEW 4.4 | 25 | ● | MVS0440X25S050 | 126.8 | 129.8 | 179.8 | 179 | 0.8 | 5 | 3 |
| NEW 4.4 | 30 | ● | MVS0440X30S050 | 149.8 | 152.8 | 202.8 | 202 | 0.8 | 5 | 3 |
| NEW 4.4 | 35 | □ | MVS0440X35S050 | 171.8 | 174.8 | 224.8 | 224 | 0.8 | 5 | 3 |
| NEW 4.4 | 35 | □ | MVS0440X35S060 | 171.8 | 176.5 | 224.8 | 224 | 0.8 | 6 | 3 |
| NEW 4.4 | 40 | □ | MVS0440X40S050 | 195.8 | 198.8 | 248.8 | 248 | 0.8 | 5 | 3 |
| NEW 4.4 | 40 | □ | MVS0440X40S060 | 195.8 | 200.5 | 248.8 | 248 | 0.8 | 6 | 3 |
| 4.5 | 3 | ● | MVS0450X03S050 | 25.8 | 25.8 | 86.8 | 86 | 0.8 | 5 | 2 |
| 4.5 | 3 | ● | MVS0450X03S060 | 25.8 | 27.4 | 86.8 | 86 | 0.8 | 6 | 1 |
| 4.5 | 5 | ● | MVS0450X05S050 | 40.8 | 40.8 | 100.8 | 100 | 0.8 | 5 | 2 |
| 4.5 | 5 | ● | MVS0450X05S060 | 40.8 | 42.4 | 100.8 | 100 | 0.8 | 6 | 1 |
| 4.5 | 8 | ● | MVS0450X08S050 | 52.8 | 52.8 | 100.8 | 100 | 0.8 | 5 | 2 |
| 4.5 | 8 | ● | MVS0450X08S060 | 52.8 | 54.4 | 100.8 | 100 | 0.8 | 6 | 1 |
| NEW 4.5 | 10 | ● | MVS0450X10S050 | 59.8 | 62.8 | 112.8 | 112 | 0.8 | 5 | 3 |
| NEW 4.5 | 15 | ● | MVS0450X15S050 | 81.8 | 84.8 | 134.8 | 134 | 0.8 | 5 | 3 |
| NEW 4.5 | 20 | ● | MVS0450X20S050 | 104.8 | 107.8 | 157.8 | 157 | 0.8 | 5 | 3 |
| NEW 4.5 | 25 | ● | MVS0450X25S050 | 126.8 | 129.8 | 179.8 | 179 | 0.8 | 5 | 3 |
| NEW 4.5 | 30 | ● | MVS0450X30S050 | 149.8 | 152.8 | 202.8 | 202 | 0.8 | 5 | 3 |
| NEW 4.5 | 35 | ● | MVS0450X35S050 | 171.8 | 174.8 | 224.8 | 224 | 0.8 | 5 | 3 |
| NEW 4.5 | 40 | ● | MVS0450X40S050 | 195.8 | 198.8 | 248.8 | 248 | 0.8 | 5 | 3 |
| 4.6 | 3 | ● | MVS0460X03S050 | 28.3 | 28.3 | 90.8 | 90 | 0.8 | 5 | 2 |
| 4.6 | 3 | ● | MVS0460X03S060 | 28.3 | 31.3 | 90.8 | 90 | 0.8 | 6 | 2 |
| 4.6 | 5 | ● | MVS0460X05S050 | 44.8 | 44.8 | 105.8 | 105 | 0.8 | 5 | 2 |
| 4.6 | 5 | ● | MVS0460X05S060 | 44.8 | 47.8 | 105.8 | 105 | 0.8 | 6 | 2 |
| 4.6 | 8 | ● | MVS0460X08S050 | 57.8 | 57.8 | 105.8 | 105 | 0.8 | 5 | 2 |
| 4.6 | 8 | ● | MVS0460X08S060 | 57.8 | 60.8 | 105.8 | 105 | 0.8 | 6 | 2 |
| NEW 4.6 | 10 | ● | MVS0460X10S050 | 65.8 | 68.8 | 118.8 | 118 | 0.8 | 5 | 4 |
| NEW 4.6 | 15 | ● | MVS0460X15S050 | 90.8 | 93.8 | 143.8 | 143 | 0.8 | 5 | 4 |

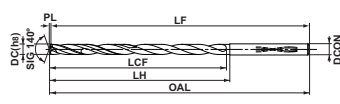
(Note) The coolant hole of $\phi 5.9$ mm or less will be round shape.

● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



Type4



Internal Coolant

Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|------------------|--------------|--------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | NEW |
| NEW | 4.6 | 25 | ● | MVS0460X25S050 | 140.8 | 143.8 | 193.8 | 193 | 0.8 | 5 | 4 |
| NEW | 4.6 | 30 | ● | MVS0460X30S050 | 165.8 | 168.8 | 218.8 | 218 | 0.8 | 5 | 4 |
| NEW | 4.6 | 35 | □ | MVS0460X35S050 | 190.8 | 193.8 | 243.8 | 243 | 0.8 | 5 | 4 |
| NEW | 4.6 | 35 | □ | MVS0460X35S060 | 190.8 | 193.8 | 243.8 | 243 | 0.8 | 6 | 4 |
| NEW | 4.6 | 40 | □ | MVS0460X40S050 | 215.8 | 218.8 | 268.8 | 268 | 0.8 | 5 | 4 |
| NEW | 4.6 | 40 | □ | MVS0460X40S060 | 215.8 | 218.8 | 268.8 | 268 | 0.8 | 6 | 4 |
| | 4.7 | 3 | ● | MVS0470X03S050 | 28.4 | 28.4 | 90.9 | 90 | 0.9 | 5 | 2 |
| | 4.7 | 3 | ● | MVS0470X03S060 | 28.4 | 31.4 | 90.9 | 90 | 0.9 | 6 | 2 |
| | 4.7 | 5 | ● | MVS0470X05S050 | 44.9 | 44.9 | 105.9 | 105 | 0.9 | 5 | 2 |
| | 4.7 | 5 | ● | MVS0470X05S060 | 44.9 | 47.9 | 105.9 | 105 | 0.9 | 6 | 2 |
| | 4.7 | 8 | ● | MVS0470X08S050 | 57.9 | 57.9 | 105.9 | 105 | 0.9 | 5 | 2 |
| | 4.7 | 8 | ● | MVS0470X08S060 | 57.9 | 60.9 | 105.9 | 105 | 0.9 | 6 | 2 |
| NEW | 4.7 | 10 | ● | MVS0470X10S050 | 65.9 | 68.9 | 118.9 | 118 | 0.9 | 5 | 4 |
| NEW | 4.7 | 15 | ● | MVS0470X15S050 | 90.9 | 93.9 | 143.9 | 143 | 0.9 | 5 | 4 |
| NEW | 4.7 | 20 | ● | MVS0470X20S050 | 115.9 | 118.9 | 168.9 | 168 | 0.9 | 5 | 4 |
| NEW | 4.7 | 25 | ● | MVS0470X25S050 | 140.9 | 143.9 | 193.9 | 193 | 0.9 | 5 | 4 |
| NEW | 4.7 | 30 | ● | MVS0470X30S050 | 165.9 | 168.9 | 218.9 | 218 | 0.9 | 5 | 4 |
| NEW | 4.7 | 35 | □ | MVS0470X35S050 | 190.9 | 193.9 | 243.9 | 243 | 0.9 | 5 | 4 |
| NEW | 4.7 | 35 | □ | MVS0470X35S060 | 190.9 | 193.9 | 243.9 | 243 | 0.9 | 6 | 4 |
| NEW | 4.7 | 40 | □ | MVS0470X40S050 | 215.9 | 218.9 | 268.9 | 268 | 0.9 | 5 | 4 |
| NEW | 4.7 | 40 | □ | MVS0470X40S060 | 215.9 | 218.9 | 268.9 | 268 | 0.9 | 6 | 4 |
| | 4.8 | 3 | ● | MVS0480X03S050 | 28.4 | 28.4 | 90.9 | 90 | 0.9 | 5 | 2 |
| | 4.8 | 3 | ● | MVS0480X03S060 | 28.4 | 31.4 | 90.9 | 90 | 0.9 | 6 | 2 |
| | 4.8 | 5 | ● | MVS0480X05S050 | 44.9 | 44.9 | 105.9 | 105 | 0.9 | 5 | 2 |
| | 4.8 | 5 | ● | MVS0480X05S060 | 44.9 | 47.9 | 105.9 | 105 | 0.9 | 6 | 2 |
| | 4.8 | 8 | ● | MVS0480X08S050 | 57.9 | 57.9 | 105.9 | 105 | 0.9 | 5 | 2 |
| | 4.8 | 8 | ● | MVS0480X08S060 | 57.9 | 60.9 | 105.9 | 105 | 0.9 | 6 | 2 |
| NEW | 4.8 | 10 | ● | MVS0480X10S050 | 65.9 | 68.9 | 118.9 | 118 | 0.9 | 5 | 4 |
| NEW | 4.8 | 15 | ● | MVS0480X15S050 | 90.9 | 93.9 | 143.9 | 143 | 0.9 | 5 | 4 |
| NEW | 4.8 | 20 | ● | MVS0480X20S050 | 115.9 | 118.9 | 168.9 | 168 | 0.9 | 5 | 4 |
| NEW | 4.8 | 25 | ● | MVS0480X25S050 | 140.9 | 143.9 | 193.9 | 193 | 0.9 | 5 | 4 |
| NEW | 4.8 | 30 | ● | MVS0480X30S050 | 165.9 | 168.9 | 218.9 | 218 | 0.9 | 5 | 4 |
| NEW | 4.8 | 35 | □ | MVS0480X35S050 | 190.9 | 193.9 | 243.9 | 243 | 0.9 | 5 | 4 |
| NEW | 4.8 | 35 | □ | MVS0480X35S060 | 190.9 | 193.9 | 243.9 | 243 | 0.9 | 6 | 4 |
| NEW | 4.8 | 40 | □ | MVS0480X40S050 | 215.9 | 218.9 | 268.9 | 268 | 0.9 | 5 | 4 |
| NEW | 4.8 | 40 | □ | MVS0480X40S060 | 215.9 | 218.9 | 268.9 | 268 | 0.9 | 6 | 4 |
| | 4.9 | 3 | ● | MVS0490X03S050 | 28.4 | 28.4 | 90.9 | 90 | 0.9 | 5 | 2 |
| | 4.9 | 3 | ● | MVS0490X03S060 | 28.4 | 31.4 | 90.9 | 90 | 0.9 | 6 | 2 |
| | 4.9 | 5 | ● | MVS0490X05S050 | 44.9 | 44.9 | 105.9 | 105 | 0.9 | 5 | 2 |
| | 4.9 | 5 | ● | MVS0490X05S060 | 44.9 | 47.9 | 105.9 | 105 | 0.9 | 6 | 2 |
| | 4.9 | 8 | ● | MVS0490X08S050 | 57.9 | 57.9 | 105.9 | 105 | 0.9 | 5 | 2 |
| | 4.9 | 8 | ● | MVS0490X08S060 | 57.9 | 60.9 | 105.9 | 105 | 0.9 | 6 | 2 |
| NEW | 4.9 | 10 | ● | MVS0490X10S050 | 65.9 | 68.9 | 118.9 | 118 | 0.9 | 5 | 4 |
| NEW | 4.9 | 15 | ● | MVS0490X15S050 | 90.9 | 93.9 | 143.9 | 143 | 0.9 | 5 | 4 |
| NEW | 4.9 | 20 | ● | MVS0490X20S050 | 115.9 | 118.9 | 168.9 | 168 | 0.9 | 5 | 4 |
| NEW | 4.9 | 25 | ● | MVS0490X25S050 | 140.9 | 143.9 | 193.9 | 193 | 0.9 | 5 | 4 |
| NEW | 4.9 | 30 | ● | MVS0490X30S050 | 165.9 | 168.9 | 218.9 | 218 | 0.9 | 5 | 4 |

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|------------------|--------------|--------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | NEW |
| NEW | 4.9 | 35 | □ | MVS0490X35S060 | 190.9 | 193.9 | 243.9 | 243 | 0.9 | 6 | 4 |
| NEW | 4.9 | 40 | □ | MVS0490X40S050 | 215.9 | 218.9 | 268.9 | 268 | 0.9 | 5 | 4 |
| NEW | 4.9 | 40 | □ | MVS0490X40S060 | 215.9 | 218.9 | 268.9 | 268 | 0.9 | 6 | 4 |
| | 5.0 | 3 | ● | MVS0500X03S050 | 28.4 | 28.4 | 90.9 | 90 | 0.9 | 5 | 2 |
| | 5.0 | 3 | ● | MVS0500X03S060 | 28.4 | 31.4 | 90.9 | 90 | 0.9 | 6 | 2 |
| | 5.0 | 5 | ● | MVS0500X05S050 | 44.9 | 44.9 | 105.9 | 105 | 0.9 | 5 | 2 |
| | 5.0 | 5 | ● | MVS0500X05S060 | 44.9 | 47.9 | 105.9 | 105 | 0.9 | 6 | 2 |
| | 5.0 | 8 | ● | MVS0500X08S050 | 57.9 | 57.9 | 105.9 | 105 | 0.9 | 5 | 2 |
| | 5.0 | 8 | ● | MVS0500X08S060 | 57.9 | 60.9 | 105.9 | 105 | 0.9 | 6 | 2 |
| NEW | 5.0 | 10 | ● | MVS0500X10S050 | 65.9 | 68.9 | 118.9 | 118 | 0.9 | 5 | 4 |
| NEW | 5.0 | 15 | ● | MVS0500X15S050 | 90.9 | 93.9 | 143.9 | 143 | 0.9 | 5 | 4 |
| NEW | 5.0 | 20 | ● | MVS0500X20S050 | 115.9 | 118.9 | 168.9 | 168 | 0.9 | 5 | 4 |
| NEW | 5.0 | 25 | ● | MVS0500X25S050 | 140.9 | 143.9 | 193.9 | 193 | 0.9 | 5 | 4 |
| NEW | 5.0 | 30 | ● | MVS0500X30S050 | 165.9 | 168.9 | 218.9 | 218 | 0.9 | 5 | 4 |
| NEW | 5.0 | 35 | ● | MVS0500X35S050 | 190.9 | 193.9 | 243.9 | 243 | 0.9 | 5 | 4 |
| NEW | 5.0 | 40 | ● | MVS0500X40S050 | 215.9 | 218.9 | 268.9 | 268 | 0.9 | 5 | 4 |
| | 5.1 | 3 | ● | MVS0510X03S060 | 28.4 | 30.9 | 82.9 | 82 | 0.9 | 6 | 2 |
| | 5.1 | 5 | ● | MVS0510X05S060 | 44.9 | 48.9 | 100.9 | 100 | 0.9 | 6 | 2 |
| | 5.1 | 8 | ● | MVS0510X08S060 | 61.9 | 66.9 | 118.9 | 118 | 0.9 | 6 | 2 |
| NEW | 5.1 | 10 | ● | MVS0510X10S060 | 72.9 | 75.9 | 127.9 | 127 | 0.9 | 6 | 4 |
| NEW | 5.1 | 15 | ● | MVS0510X15S060 | 99.9 | 102.9 | 154.9 | 154 | 0.9 | 6 | 4 |
| NEW | 5.1 | 20 | ● | MVS0510X20S060 | 127.9 | 130.9 | 182.9 | 182 | 0.9 | 6 | 4 |
| NEW | 5.1 | 25 | ● | MVS0510X25S060 | 154.9 | 157.9 | 209.9 | 209 | 0.9 | 6 | 4 |
| NEW | 5.1 | 30 | ● | MVS0510X30S060 | 182.9 | 185.9 | 237.9 | 237 | 0.9 | 6 | 4 |
| NEW | 5.1 | 35 | □ | MVS0510X35S060 | 209.9 | 212.9 | 264.9 | 264 | 0.9 | 6 | 4 |
| NEW | 5.1 | 40 | □ | MVS0510X40S060 | 240.9 | 243.9 | 295.9 | 295 | 0.9 | 6 | 4 |
| | 5.2 | 3 | ● | MVS0520X03S060 | 28.4 | 30.9 | 82.9 | 82 | 0.9 | 6 | 2 |
| | 5.2 | 5 | ● | MVS0520X05S060 | 44.9 | 48.9 | 100.9 | 100 | 0.9 | 6 | 2 |
| | 5.2 | 8 | ● | MVS0520X08S060 | 61.9 | 66.9 | 118.9 | 118 | 0.9 | 6 | 2 |
| NEW | 5.2 | 10 | ● | MVS0520X10S060 | 72.9 | 76.0 | 127.9 | 127 | 0.9 | 6 | 4 |
| NEW | 5.2 | 15 | ● | MVS0520X15S060 | 99.9 | 102.9 | 154.9 | 154 | 0.9 | 6 | 4 |
| NEW | 5.2 | 20 | ● | MVS0520X20S060 | 127.9 | 131.0 | 182.9 | 182 | 0.9 | 6 | 4 |
| NEW | 5.2 | 25 | ● | MVS0520X25S060 | 154.9 | 157.9 | 209.9 | 209 | 0.9 | 6 | 4 |
| NEW | 5.2 | 30 | ● | MVS0520X30S060 | 182.9 | 185.9 | 237.9 | 237 | 0.9 | 6 | 4 |
| NEW | 5.2 | 35 | □ | MVS0520X35S060 | 209.9 | 213.0 | 264.9 | 264 | 0.9 | 6 | 4 |
| NEW | 5.2 | 40 | □ | MVS0520X40S060 | 240.9 | 244.0 | 295.9 | 295 | 0.9 | 6 | 4 |
| | 5.3 | 3 | ● | MVS0530X03S060 | 28.5 | 31.0 | 83.0 | 82 | 1.0 | 6 | 2 |
| | 5.3 | 5 | ● | MVS0530X05S060 | 45.0 | 49.0 | 101.0 | 100 | 1.0 | 6 | 2 |
| | 5.3 | 8 | ● | MVS0530X08S060 | 62.0 | 67.0 | 119.0 | 118 | 1.0 | 6 | 2 |
| NEW | 5.3 | 10 | ● | MVS0530X10S060 | 73.0 | 76.0 | 128.0 | 127 | 1.0 | 6 | 4 |
| NEW | 5.3 | 15 | ● | MVS0530X15S060 | 100.0 | 103.0 | 155.0 | 154 | 1.0 | 6 | 4 |
| NEW | 5.3 | 20 | ● | MVS0530X20S060 | 128.0 | 131.0 | 183.0 | 182 | 1.0 | 6 | 4 |
| NEW | 5.3 | 25 | ● | MVS0530X25S060 | 155.0 | 158.0 | 210.0 | 209 | 1.0 | 6 | 4 |
| NEW | 5.3 | 30 | ● | MVS0530X30S060 | 183.0 | 186.0 | 238.0 | 237 | 1.0 | 6 | 4 |
| NEW | 5.3 | 35 | □ | MVS0530X35S060 | 210.0 | 213.0 | 265.0 | 264 | 1.0 | 6 | 4 |
| NEW | 5.3 | 40 | □ | MVS0530X40S060 | 241.0 | 244.0 | 296.0 | 295 | 1.0 | 6 | 4 |
| | 5.4 | 3 | ● | MVS0540X03S060 | 28.5 | 31.0 | 83.0 | 82 | 1.0 | 6 | 2 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills



Internal Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|---------------------|-----------------|----------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | 5.4 |
| 5.4 | 8 | ● | MVS0540X08S060 | 62.0 | 67.0 | 119.0 | 118 | 1.0 | 6 | 2 | |
| NEW | 5.4 | 10 | ● | MVS0540X10S060 | 73.0 | 76.0 | 128.0 | 127 | 1.0 | 6 | 4 |
| NEW | 5.4 | 15 | ● | MVS0540X15S060 | 100.0 | 103.0 | 155.0 | 154 | 1.0 | 6 | 4 |
| NEW | 5.4 | 20 | ● | MVS0540X20S060 | 128.0 | 131.0 | 183.0 | 182 | 1.0 | 6 | 4 |
| NEW | 5.4 | 25 | ● | MVS0540X25S060 | 155.0 | 158.0 | 210.0 | 209 | 1.0 | 6 | 4 |
| NEW | 5.4 | 30 | ● | MVS0540X30S060 | 183.0 | 186.0 | 238.0 | 237 | 1.0 | 6 | 4 |
| NEW | 5.4 | 35 | □ | MVS0540X35S060 | 210.0 | 213.0 | 265.0 | 264 | 1.0 | 6 | 4 |
| NEW | 5.4 | 40 | □ | MVS0540X40S060 | 241.0 | 244.0 | 296.0 | 295 | 1.0 | 6 | 4 |
| 5.5 | 3 | ● | MVS0550X03S060 | 28.5 | 31.0 | 83.0 | 82 | 1.0 | 6 | 2 | |
| 5.5 | 5 | ● | MVS0550X05S060 | 45.0 | 49.0 | 101.0 | 100 | 1.0 | 6 | 2 | |
| 5.5 | 8 | ● | MVS0550X08S060 | 62.0 | 67.0 | 119.0 | 118 | 1.0 | 6 | 2 | |
| NEW | 5.5 | 10 | ● | MVS0550X10S060 | 73.0 | 76.0 | 128.0 | 127 | 1.0 | 6 | 4 |
| NEW | 5.5 | 15 | ● | MVS0550X15S060 | 100.0 | 103.0 | 155.0 | 154 | 1.0 | 6 | 4 |
| NEW | 5.5 | 20 | ● | MVS0550X20S060 | 128.0 | 131.0 | 183.0 | 182 | 1.0 | 6 | 4 |
| NEW | 5.5 | 25 | ● | MVS0550X25S060 | 155.0 | 158.0 | 210.0 | 209 | 1.0 | 6 | 4 |
| NEW | 5.5 | 30 | ● | MVS0550X30S060 | 183.0 | 186.0 | 238.0 | 237 | 1.0 | 6 | 4 |
| NEW | 5.5 | 35 | ● | MVS0550X35S060 | 210.0 | 213.0 | 265.0 | 264 | 1.0 | 6 | 4 |
| NEW | 5.5 | 40 | ● | MVS0550X40S060 | 241.0 | 244.0 | 296.0 | 295 | 1.0 | 6 | 4 |
| 5.6 | 3 | ● | MVS0560X03S060 | 31.0 | 31.0 | 83.0 | 82 | 1.0 | 6 | 2 | |
| 5.6 | 5 | ● | MVS0560X05S060 | 49.0 | 49.0 | 101.0 | 100 | 1.0 | 6 | 2 | |
| 5.6 | 8 | ● | MVS0560X08S060 | 67.0 | 67.0 | 119.0 | 118 | 1.0 | 6 | 2 | |
| NEW | 5.6 | 10 | ● | MVS0560X10S060 | 79.0 | 82.0 | 134.0 | 133 | 1.0 | 6 | 4 |
| NEW | 5.6 | 15 | ● | MVS0560X15S060 | 109.0 | 112.0 | 164.0 | 163 | 1.0 | 6 | 4 |
| NEW | 5.6 | 20 | ● | MVS0560X20S060 | 139.0 | 142.0 | 194.0 | 193 | 1.0 | 6 | 4 |
| NEW | 5.6 | 25 | ● | MVS0560X25S060 | 169.0 | 172.0 | 224.0 | 223 | 1.0 | 6 | 4 |
| NEW | 5.6 | 30 | ● | MVS0560X30S060 | 199.0 | 202.0 | 254.0 | 253 | 1.0 | 6 | 4 |
| NEW | 5.6 | 35 | □ | MVS0560X35S060 | 229.0 | 232.0 | 284.0 | 283 | 1.0 | 6 | 4 |
| NEW | 5.6 | 40 | □ | MVS0560X40S060 | 261.0 | 264.0 | 316.0 | 315 | 1.0 | 6 | 4 |
| 5.7 | 3 | ● | MVS0570X03S060 | 31.0 | 31.0 | 83.0 | 82 | 1.0 | 6 | 2 | |
| 5.7 | 5 | ● | MVS0570X05S060 | 49.0 | 49.0 | 101.0 | 100 | 1.0 | 6 | 2 | |
| 5.7 | 8 | ● | MVS0570X08S060 | 67.0 | 67.0 | 119.0 | 118 | 1.0 | 6 | 2 | |
| NEW | 5.7 | 10 | ● | MVS0570X10S060 | 79.0 | 82.0 | 134.0 | 133 | 1.0 | 6 | 4 |
| NEW | 5.7 | 15 | ● | MVS0570X15S060 | 109.0 | 112.0 | 164.0 | 163 | 1.0 | 6 | 4 |
| NEW | 5.7 | 20 | ● | MVS0570X20S060 | 139.0 | 142.0 | 194.0 | 193 | 1.0 | 6 | 4 |
| NEW | 5.7 | 25 | ● | MVS0570X25S060 | 169.0 | 172.0 | 224.0 | 223 | 1.0 | 6 | 4 |
| NEW | 5.7 | 30 | ● | MVS0570X30S060 | 199.0 | 202.0 | 254.0 | 253 | 1.0 | 6 | 4 |
| NEW | 5.7 | 35 | □ | MVS0570X35S060 | 229.0 | 232.0 | 284.0 | 283 | 1.0 | 6 | 4 |
| NEW | 5.7 | 40 | □ | MVS0570X40S060 | 261.0 | 264.0 | 316.0 | 315 | 1.0 | 6 | 4 |
| 5.8 | 3 | ● | MVS0580X03S060 | 31.1 | 31.1 | 83.1 | 82 | 1.1 | 6 | 2 | |
| 5.8 | 5 | ● | MVS0580X05S060 | 49.1 | 49.1 | 101.1 | 100 | 1.1 | 6 | 2 | |
| 5.8 | 8 | ● | MVS0580X08S060 | 67.1 | 67.1 | 119.1 | 118 | 1.1 | 6 | 2 | |
| NEW | 5.8 | 10 | ● | MVS0580X10S060 | 79.1 | 82.1 | 134.1 | 133 | 1.1 | 6 | 4 |
| NEW | 5.8 | 15 | ● | MVS0580X15S060 | 109.1 | 112.1 | 164.1 | 163 | 1.1 | 6 | 4 |
| NEW | 5.8 | 20 | ● | MVS0580X20S060 | 139.1 | 142.1 | 194.1 | 193 | 1.1 | 6 | 4 |
| NEW | 5.8 | 25 | ● | MVS0580X25S060 | 169.1 | 172.1 | 224.1 | 223 | 1.1 | 6 | 4 |
| NEW | 5.8 | 30 | ● | MVS0580X30S060 | 199.1 | 202.1 | 254.1 | 253 | 1.1 | 6 | 4 |
| NEW | 5.8 | 35 | □ | MVS0580X35S060 | 229.1 | 232.1 | 284.1 | 283 | 1.1 | 6 | 4 |

Internal Coolant

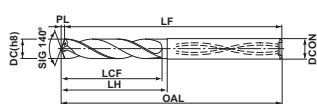
(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|---------------------|-----------------|----------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | NEW |
| 5.9 | 3 | ● | MVS0590X03S060 | 31.1 | 31.1 | 83.1 | 82 | 1.1 | 6 | 2 | |
| 5.9 | 5 | ● | MVS0590X05S060 | 49.1 | 49.1 | 101.1 | 100 | 1.1 | 6 | 2 | |
| 5.9 | 8 | ● | MVS0590X08S060 | 67.1 | 67.1 | 119.1 | 118 | 1.1 | 6 | 2 | |
| NEW | 5.9 | 10 | ● | MVS0590X10S060 | 79.1 | 82.1 | 134.1 | 133 | 1.1 | 6 | 4 |
| NEW | 5.9 | 15 | ● | MVS0590X15S060 | 109.1 | 112.1 | 164.1 | 163 | 1.1 | 6 | 4 |
| NEW | 5.9 | 20 | ● | MVS0590X20S060 | 139.1 | 142.1 | 194.1 | 193 | 1.1 | 6 | 4 |
| NEW | 5.9 | 25 | ● | MVS0590X25S060 | 169.1 | 172.1 | 224.1 | 223 | 1.1 | 6 | 4 |
| NEW | 5.9 | 30 | ● | MVS0590X30S060 | 199.1 | 202.1 | 254.1 | 253 | 1.1 | 6 | 4 |
| NEW | 5.9 | 35 | □ | MVS0590X35S060 | 229.1 | 232.1 | 284.1 | 283 | 1.1 | 6 | 4 |
| NEW | 5.9 | 40 | □ | MVS0590X40S060 | 261.1 | 264.1 | 316.1 | 315 | 1.1 | 6 | 4 |
| 6.0 | 3 | ● | MVS0600X03S060 | 31.1 | 31.1 | 83.1 | 82 | 1.1 | 6 | 2 | |
| 6.0 | 5 | ● | MVS0600X05S060 | 49.1 | 49.1 | 101.1 | 100 | 1.1 | 6 | 2 | |
| 6.0 | 8 | ● | MVS0600X08S060 | 67.1 | 67.1 | 119.1 | 118 | 1.1 | 6 | 2 | |
| NEW | 6.0 | 10 | ● | MVS0600X10S060 | 79.1 | 82.1 | 134.1 | 133 | 1.1 | 6 | 4 |
| NEW | 6.0 | 15 | ● | MVS0600X15S060 | 109.1 | 112.1 | 164.1 | 163 | 1.1 | 6 | 4 |
| NEW | 6.0 | 20 | ● | MVS0600X20S060 | 139.1 | 142.1 | 194.1 | 193 | 1.1 | 6 | 4 |
| NEW | 6.0 | 25 | ● | MVS0600X25S060 | 169.1 | 172.1 | 224.1 | 223 | 1.1 | 6 | 4 |
| NEW | 6.0 | 30 | ● | MVS0600X30S060 | 199.1 | 202.1 | 254.1 | 253 | 1.1 | 6 | 4 |
| NEW | 6.0 | 35 | ● | MVS0600X35S060 | 229.1 | 232.1 | 284.1 | 283 | 1.1 | 6 | 4 |
| NEW | 6.0 | 40 | ● | MVS0600X40S060 | 261.1 | 264.1 | 316.1 | 315 | 1.1 | 6 | 4 |
| 6.1 | 3 | ● | MVS0610X03S070 | 33.6 | 36.1 | 89.1 | 88 | 1.1 | 7 | 2 | |
| 6.1 | 3 | ● | MVS0610X03S080 | 33.6 | 36.1 | 89.1 | 88 | 1.1 | 8 | 2 | |
| 6.1 | 5 | ● | MVS0610X05S070 | 53.1 | 57.1 | 110.1 | 109 | 1.1 | 7 | 2 | |
| 6.1 | 5 | ● | MVS0610X05S080 | 53.1 | 57.1 | 110.1 | 109 | 1.1 | 8 | 2 | |
| 6.1 | 8 | ● | MVS0610X08S070 | 73.1 | 78.1 | 131.1 | 130 | 1.1 | 7 | 2 | |
| 6.1 | 8 | ● | MVS0610X08S080 | 73.1 | 78.1 | 131.1 | 130 | 1.1 | 8 | 2 | |
| NEW | 6.1 | 10 | ● | MVS0610X10S070 | 86.1 | 89.1 | 142.1 | 141 | 1.1 | 7 | 4 |
| NEW | 6.1 | 15 | ● | MVS0610X15S070 | 118.1 | 121.1 | 174.1 | 173 | 1.1 | 7 | 4 |
| NEW | 6.1 | 20 | ● | MVS0610X20S070 | 151.1 | 154.1 | 207.1 | 206 | 1.1 | 7 | 4 |
| NEW | 6.1 | 25 | ● | MVS0610X25S070 | 183.1 | 186.1 | 239.1 | 238 | 1.1 | 7 | 4 |
| NEW | 6.1 | 30 | ● | MVS0610X30S070 | 216.1 | 219.1 | 272.1 | 271 | 1.1 | 7 | 4 |
| NEW | 6.1 | 35 | □ | MVS0610X35S070 | 248.1 | 253.1 | 306.1 | 305 | 1.1 | 7 | 4 |
| NEW | 6.1 | 35 | □ | MVS0610X35S080 | 248.1 | 253.1 | 306.1 | 305 | 1.1 | 8 | 4 |
| NEW | 6.1 | 40 | □ | MVS0610X40S070 | 281.1 | 284.1 | 337.1 | 336 | 1.1 | 7 | 4 |
| NEW | 6.1 | 40 | □ | MVS0610X40S080 | 281.1 | 284.1 | 337.1 | 336 | 1.1 | 8 | 4 |
| 6.2 | 3 | ● | MVS0620X03S070 | 33.6 | 36.1 | 89.1 | 88 | 1.1 | 7 | 2 | |
| 6.2 | 3 | ● | MVS0620X03S080 | 33.6 | 36.1 | 89.1 | 88 | 1.1 | 8 | 2 | |
| 6.2 | 5 | ● | MVS0620X05S070 | 53.1 | 57.1 | 110.1 | 109 | 1.1 | 7 | 2 | |
| 6.2 | 5 | ● | MVS0620X05S080 | 53.1 | 57.1 | 110.1 | 109 | 1.1 | 8 | 2 | |
| 6.2 | 8 | ● | MVS0620X08S070 | 73.1 | 78.1 | 131.1 | 130 | 1.1 | 7 | 2 | |
| 6.2 | 8 | ● | MVS0620X08S080 | 73.1 | 78.1 | 131.1 | 130 | 1.1 | 8 | 2 | |
| NEW | 6.2 | 10 | ● | MVS0620X10S070 | 86.1 | 89.1 | 142.1 | 141 | 1.1 | 7 | 4 |
| NEW | 6.2 | 15 | ● | MVS0620X15S070 | 118.1 | 121.1 | 174.1 | 173 | 1.1 | 7 | 4 |
| NEW | 6.2 | 20 | ● | MVS0620X20S070 | 151.1 | 154.1 | 207.1 | 206 | 1.1 | 7 | 4 |
| NEW | 6.2 | 25 | ● | MVS0620X25S070 | 183.1 | 186.1 | 239.1 | 238 | 1.1 | 7 | 4 |
| NEW | 6.2 | 30 | ● | MVS0620X30S070 | 216.1 | 219.1 | 272.1 | 271 | 1.1 | 7 | 4 |
| NEW | 6.2 | 35 | □ | MVS0620X35S070 | 248.1 | 253.1 | 306.1 | 305 | 1.1 | 7 | 4 |

(Note) The coolant hole of ø5.9mm or less will be round shape.

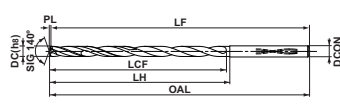
● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



Internal Coolant

Type4



Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|------------------|--------------|--------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | NEW |
| NEW | 6.2 | 40 | □ | MVS0620X40S070 | 281.1 | 284.1 | 337.1 | 336 | 1.1 | 7 | 4 |
| NEW | 6.2 | 40 | □ | MVS0620X40S080 | 281.1 | 284.1 | 337.1 | 336 | 1.1 | 8 | 4 |
| | 6.3 | 3 | ● | MVS0630X03S070 | 33.6 | 36.1 | 89.1 | 88 | 1.1 | 7 | 2 |
| | 6.3 | 3 | ● | MVS0630X03S080 | 33.6 | 36.1 | 89.1 | 88 | 1.1 | 8 | 2 |
| | 6.3 | 5 | ● | MVS0630X05S070 | 53.1 | 57.1 | 110.1 | 109 | 1.1 | 7 | 2 |
| | 6.3 | 5 | ● | MVS0630X05S080 | 53.1 | 57.1 | 110.1 | 109 | 1.1 | 8 | 2 |
| | 6.3 | 8 | ● | MVS0630X08S070 | 73.1 | 78.1 | 131.1 | 130 | 1.1 | 7 | 2 |
| | 6.3 | 8 | ● | MVS0630X08S080 | 73.1 | 78.1 | 131.1 | 130 | 1.1 | 8 | 2 |
| NEW | 6.3 | 10 | ● | MVS0630X10S070 | 86.1 | 89.2 | 142.1 | 141 | 1.1 | 7 | 4 |
| NEW | 6.3 | 15 | ● | MVS0630X15S070 | 118.1 | 121.2 | 174.1 | 173 | 1.1 | 7 | 4 |
| NEW | 6.3 | 20 | ● | MVS0630X20S070 | 151.1 | 154.2 | 207.1 | 206 | 1.1 | 7 | 4 |
| NEW | 6.3 | 25 | ● | MVS0630X25S070 | 183.1 | 186.2 | 239.1 | 238 | 1.1 | 7 | 4 |
| NEW | 6.3 | 30 | ● | MVS0630X30S070 | 216.1 | 219.2 | 272.1 | 271 | 1.1 | 7 | 4 |
| NEW | 6.3 | 35 | □ | MVS0630X35S070 | 248.1 | 253.2 | 306.1 | 305 | 1.1 | 7 | 4 |
| NEW | 6.3 | 35 | □ | MVS0630X35S080 | 248.1 | 253.2 | 306.1 | 305 | 1.1 | 8 | 4 |
| NEW | 6.3 | 40 | □ | MVS0630X40S070 | 281.1 | 284.2 | 337.1 | 336 | 1.1 | 7 | 4 |
| NEW | 6.3 | 40 | □ | MVS0630X40S080 | 281.1 | 284.2 | 337.1 | 336 | 1.1 | 8 | 4 |
| | 6.4 | 3 | ● | MVS0640X03S070 | 33.7 | 36.2 | 89.2 | 88 | 1.2 | 7 | 2 |
| | 6.4 | 3 | ● | MVS0640X03S080 | 33.7 | 36.2 | 89.2 | 88 | 1.2 | 8 | 2 |
| | 6.4 | 5 | ● | MVS0640X05S070 | 53.2 | 57.2 | 110.2 | 109 | 1.2 | 7 | 2 |
| | 6.4 | 5 | ● | MVS0640X05S080 | 53.2 | 57.2 | 110.2 | 109 | 1.2 | 8 | 2 |
| | 6.4 | 8 | ● | MVS0640X08S070 | 73.2 | 78.2 | 131.2 | 130 | 1.2 | 7 | 2 |
| | 6.4 | 8 | ● | MVS0640X08S080 | 73.2 | 78.2 | 131.2 | 130 | 1.2 | 8 | 2 |
| NEW | 6.4 | 10 | ● | MVS0640X10S070 | 86.2 | 89.2 | 142.2 | 141 | 1.2 | 7 | 4 |
| NEW | 6.4 | 15 | ● | MVS0640X15S070 | 118.2 | 121.2 | 174.2 | 173 | 1.2 | 7 | 4 |
| NEW | 6.4 | 20 | ● | MVS0640X20S070 | 151.2 | 154.2 | 207.2 | 206 | 1.2 | 7 | 4 |
| NEW | 6.4 | 25 | ● | MVS0640X25S070 | 183.2 | 186.2 | 239.2 | 238 | 1.2 | 7 | 4 |
| NEW | 6.4 | 30 | ● | MVS0640X30S070 | 216.2 | 219.2 | 272.2 | 271 | 1.2 | 7 | 4 |
| NEW | 6.4 | 35 | □ | MVS0640X35S070 | 248.2 | 253.2 | 306.2 | 305 | 1.2 | 7 | 4 |
| NEW | 6.4 | 35 | □ | MVS0640X35S080 | 248.2 | 253.2 | 306.2 | 305 | 1.2 | 8 | 4 |
| NEW | 6.4 | 40 | □ | MVS0640X40S070 | 281.2 | 284.2 | 337.2 | 336 | 1.2 | 7 | 4 |
| NEW | 6.4 | 40 | □ | MVS0640X40S080 | 281.2 | 284.2 | 337.2 | 336 | 1.2 | 8 | 4 |
| | 6.5 | 3 | ● | MVS0650X03S070 | 33.7 | 36.2 | 89.2 | 88 | 1.2 | 7 | 2 |
| | 6.5 | 3 | ● | MVS0650X03S080 | 33.7 | 36.2 | 89.2 | 88 | 1.2 | 8 | 2 |
| | 6.5 | 5 | ● | MVS0650X05S070 | 53.2 | 57.2 | 110.2 | 109 | 1.2 | 7 | 2 |
| | 6.5 | 5 | ● | MVS0650X05S080 | 53.2 | 57.2 | 110.2 | 109 | 1.2 | 8 | 2 |
| | 6.5 | 8 | ● | MVS0650X08S070 | 73.2 | 78.2 | 131.2 | 130 | 1.2 | 7 | 2 |
| | 6.5 | 8 | ● | MVS0650X08S080 | 73.2 | 78.2 | 131.2 | 130 | 1.2 | 8 | 2 |
| NEW | 6.5 | 10 | ● | MVS0650X10S070 | 86.2 | 89.2 | 142.2 | 141 | 1.2 | 7 | 4 |
| NEW | 6.5 | 15 | ● | MVS0650X15S070 | 118.2 | 121.2 | 174.2 | 173 | 1.2 | 7 | 4 |
| NEW | 6.5 | 20 | ● | MVS0650X20S070 | 151.2 | 154.2 | 207.2 | 206 | 1.2 | 7 | 4 |
| NEW | 6.5 | 25 | ● | MVS0650X25S070 | 183.2 | 186.2 | 239.2 | 238 | 1.2 | 7 | 4 |
| NEW | 6.5 | 30 | ● | MVS0650X30S070 | 216.2 | 219.2 | 272.2 | 271 | 1.2 | 7 | 4 |
| NEW | 6.5 | 35 | ● | MVS0650X35S070 | 248.2 | 253.2 | 306.2 | 305 | 1.2 | 7 | 4 |
| NEW | 6.5 | 40 | ● | MVS0650X40S070 | 281.2 | 284.2 | 337.2 | 336 | 1.2 | 7 | 4 |
| | 6.6 | 3 | ● | MVS0660X03S070 | 36.2 | 38.2 | 89.2 | 88 | 1.2 | 7 | 2 |
| | 6.6 | 3 | ● | MVS0660X03S080 | 36.2 | 38.2 | 89.2 | 88 | 1.2 | 8 | 2 |

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|------------------|--------------|--------------|----------------|-------|-------|-------|-----|------|------|---|
| | | | | | | | | | | | |
| | 6.6 | 5 | ● | MVS0660X05S080 | 57.2 | 59.2 | 110.2 | 109 | 1.2 | 8 | 2 |
| | 6.6 | 8 | ● | MVS0660X08S070 | 78.2 | 78.2 | 131.2 | 130 | 1.2 | 7 | 2 |
| | 6.6 | 8 | ● | MVS0660X08S080 | 78.2 | 80.2 | 131.2 | 130 | 1.2 | 8 | 2 |
| NEW | 6.6 | 10 | ● | MVS0660X10S070 | 92.2 | 95.2 | 148.2 | 147 | 1.2 | 7 | 4 |
| NEW | 6.6 | 15 | ● | MVS0660X15S070 | 127.2 | 130.2 | 183.2 | 182 | 1.2 | 7 | 4 |
| NEW | 6.6 | 20 | ● | MVS0660X20S070 | 162.2 | 165.2 | 218.2 | 217 | 1.2 | 7 | 4 |
| NEW | 6.6 | 25 | ● | MVS0660X25S070 | 197.2 | 200.2 | 253.2 | 252 | 1.2 | 7 | 4 |
| NEW | 6.6 | 30 | ● | MVS0660X30S070 | 232.2 | 235.2 | 288.2 | 287 | 1.2 | 7 | 4 |
| NEW | 6.6 | 35 | □ | MVS0660X35S070 | 267.2 | 270.2 | 323.2 | 322 | 1.2 | 7 | 4 |
| NEW | 6.6 | 35 | □ | MVS0660X35S080 | 267.2 | 270.2 | 323.2 | 322 | 1.2 | 8 | 4 |
| NEW | 6.6 | 40 | □ | MVS0660X40S070 | 301.2 | 304.2 | 357.2 | 356 | 1.2 | 7 | 4 |
| NEW | 6.6 | 40 | □ | MVS0660X40S080 | 301.2 | 304.2 | 357.2 | 356 | 1.2 | 8 | 4 |
| | 6.7 | 3 | ● | MVS0670X03S070 | 36.2 | 36.2 | 89.2 | 88 | 1.2 | 7 | 2 |
| | 6.7 | 3 | ● | MVS0670X03S080 | 36.2 | 38.2 | 89.2 | 88 | 1.2 | 8 | 2 |
| | 6.7 | 5 | ● | MVS0670X05S070 | 57.2 | 57.2 | 110.2 | 109 | 1.2 | 7 | 2 |
| | 6.7 | 5 | ● | MVS0670X05S080 | 57.2 | 59.2 | 110.2 | 109 | 1.2 | 8 | 2 |
| | 6.7 | 8 | ● | MVS0670X08S070 | 78.2 | 78.2 | 131.2 | 130 | 1.2 | 7 | 2 |
| | 6.7 | 8 | ● | MVS0670X08S080 | 78.2 | 80.2 | 131.2 | 130 | 1.2 | 8 | 2 |
| NEW | 6.7 | 10 | ● | MVS0670X10S070 | 92.2 | 95.2 | 148.2 | 147 | 1.2 | 7 | 4 |
| NEW | 6.7 | 15 | ● | MVS0670X15S070 | 127.2 | 130.2 | 183.2 | 182 | 1.2 | 7 | 4 |
| NEW | 6.7 | 20 | ● | MVS0670X20S070 | 162.2 | 165.2 | 218.2 | 217 | 1.2 | 7 | 4 |
| NEW | 6.7 | 25 | ● | MVS0670X25S070 | 197.2 | 200.2 | 253.2 | 252 | 1.2 | 7 | 4 |
| NEW | 6.7 | 30 | ● | MVS0670X30S070 | 232.2 | 235.2 | 288.2 | 287 | 1.2 | 7 | 4 |
| NEW | 6.7 | 35 | □ | MVS0670X35S070 | 267.2 | 270.2 | 323.2 | 322 | 1.2 | 7 | 4 |
| NEW | 6.7 | 35 | □ | MVS0670X35S080 | 267.2 | 270.2 | 323.2 | 322 | 1.2 | 8 | 4 |
| NEW | 6.7 | 40 | □ | MVS0670X40S070 | 301.2 | 304.2 | 357.2 | 356 | 1.2 | 7 | 4 |
| NEW | 6.7 | 40 | □ | MVS0670X40S080 | 301.2 | 304.2 | 357.2 | 356 | 1.2 | 8 | 4 |
| | 6.8 | 3 | ● | MVS0680X03S070 | 36.2 | 36.2 | 89.2 | 88 | 1.2 | 7 | 2 |
| | 6.8 | 3 | ● | MVS0680X03S080 | 36.2 | 38.2 | 89.2 | 88 | 1.2 | 8 | 2 |
| | 6.8 | 5 | ● | MVS0680X05S070 | 57.2 | 57.2 | 110.2 | 109 | 1.2 | 7 | 2 |
| | 6.8 | 5 | ● | MVS0680X05S080 | 57.2 | 59.2 | 110.2 | 109 | 1.2 | 8 | 2 |
| | 6.8 | 8 | ● | MVS0680X08S070 | 78.2 | 78.2 | 131.2 | 130 | 1.2 | 7 | 2 |
| | 6.8 | 8 | ● | MVS0680X08S080 | 78.2 | 80.2 | 131.2 | 130 | 1.2 | 8 | 2 |
| NEW | 6.8 | 10 | ● | MVS0680X10S070 | 92.2 | 95.2 | 148.2 | 147 | 1.2 | 7 | 4 |
| NEW | 6.8 | 15 | ● | MVS0680X15S070 | 127.2 | 130.2 | 183.2 | 182 | 1.2 | 7 | 4 |
| NEW | 6.8 | 20 | ● | MVS0680X20S070 | 162.2 | 165.2 | 218.2 | 217 | 1.2 | 7 | 4 |
| NEW | 6.8 | 25 | ● | MVS0680X25S070 | 197.2 | 200.2 | 253.2 | 252 | 1.2 | 7 | 4 |
| NEW | 6.8 | 30 | ● | MVS0680X30S070 | 232.2 | 235.2 | 288.2 | 287 | 1.2 | 7 | 4 |
| NEW | 6.8 | 35 | □ | MVS0680X35S070 | 267.2 | 270.2 | 323.2 | 322 | 1.2 | 7 | 4 |
| NEW | 6.8 | 35 | □ | MVS0680X35S080 | 267.2 | 270.2 | 323.2 | 322 | 1.2 | 8 | 4 |
| NEW | 6.8 | 40 | □ | MVS0680X40S070 | 301.2 | 304.2 | 357.2 | 356 | 1.2 | 7 | 4 |
| NEW | 6.8 | 40 | □ | MVS0680X40S080 | 301.2 | 304.2 | 357.2 | 356 | 1.2 | 8 | 4 |
| | 6.9 | 3 | ● | MVS0690X03S070 | 36.3 | 36.3 | 89.3 | 88 | 1.3 | 7 | 2 |
| | 6.9 | 3 | ● | MVS0690X03S080 | 36.3 | 38.3 | 89.3 | 88 | 1.3 | 8 | 2 |
| | 6.9 | 5 | ● | MVS0690X05S070 | 57.3 | 57.3 | 110.3 | 109 | 1.3 | 7 | 2 |
| | 6.9 | 5 | ● | MVS0690X05S080 | 57.3 | 59.3 | 110.3 | 109 | 1.3 | 8 | 2 |
| | 6.9 | 8 | ● | MVS0690X08S070 | 78.3 | 78.3 | 131.3 | 130 | 1.3 | 7 | 2 |

DC = Cutting Diameter
LCF = Length Chip Flute
LH = Neck Length

OAL = Overall Length
LF = Functional Length
PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills



Internal Coolant

| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|-------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 6.9 | 8 | ● | MVS0690X08S080 | 78.3 | 80.3 | 131.3 | 130 | 1.3 | 8 | 2 |
| NEW 6.9 | 10 | ● | MVS0690X10S070 | 92.3 | 95.3 | 148.3 | 147 | 1.3 | 7 | 4 |
| NEW 6.9 | 15 | ● | MVS0690X15S070 | 127.3 | 130.3 | 183.3 | 182 | 1.3 | 7 | 4 |
| NEW 6.9 | 20 | ● | MVS0690X20S070 | 162.3 | 165.3 | 218.3 | 217 | 1.3 | 7 | 4 |
| NEW 6.9 | 25 | ● | MVS0690X25S070 | 197.3 | 200.3 | 253.3 | 252 | 1.3 | 7 | 4 |
| NEW 6.9 | 30 | ● | MVS0690X30S070 | 232.3 | 235.3 | 288.3 | 287 | 1.3 | 7 | 4 |
| NEW 6.9 | 35 | □ | MVS0690X35S070 | 267.3 | 270.3 | 323.3 | 322 | 1.3 | 7 | 4 |
| NEW 6.9 | 35 | □ | MVS0690X35S080 | 267.3 | 270.3 | 323.3 | 322 | 1.3 | 8 | 4 |
| NEW 6.9 | 40 | □ | MVS0690X40S070 | 301.3 | 304.3 | 357.3 | 356 | 1.3 | 7 | 4 |
| NEW 6.9 | 40 | □ | MVS0690X40S080 | 301.3 | 304.3 | 357.3 | 356 | 1.3 | 8 | 4 |
| 7.0 | 3 | ● | MVS0700X03S070 | 36.3 | 36.3 | 89.3 | 88 | 1.3 | 7 | 2 |
| 7.0 | 3 | ● | MVS0700X03S080 | 36.3 | 38.3 | 89.3 | 88 | 1.3 | 8 | 2 |
| 7.0 | 5 | ● | MVS0700X05S070 | 57.3 | 57.3 | 110.3 | 109 | 1.3 | 7 | 2 |
| 7.0 | 5 | ● | MVS0700X05S080 | 57.3 | 59.3 | 110.3 | 109 | 1.3 | 8 | 2 |
| 7.0 | 8 | ● | MVS0700X08S070 | 78.3 | 78.3 | 131.3 | 130 | 1.3 | 7 | 2 |
| 7.0 | 8 | ● | MVS0700X08S080 | 78.3 | 80.3 | 131.3 | 130 | 1.3 | 8 | 2 |
| NEW 7.0 | 10 | ● | MVS0700X10S070 | 92.3 | 95.3 | 148.3 | 147 | 1.3 | 7 | 4 |
| NEW 7.0 | 15 | ● | MVS0700X15S070 | 127.3 | 130.3 | 183.3 | 182 | 1.3 | 7 | 4 |
| NEW 7.0 | 20 | ● | MVS0700X20S070 | 162.3 | 165.3 | 218.3 | 217 | 1.3 | 7 | 4 |
| NEW 7.0 | 25 | ● | MVS0700X25S070 | 197.3 | 200.3 | 253.3 | 252 | 1.3 | 7 | 4 |
| NEW 7.0 | 30 | ● | MVS0700X30S070 | 232.3 | 235.3 | 288.3 | 287 | 1.3 | 7 | 4 |
| NEW 7.0 | 35 | ● | MVS0700X35S070 | 267.3 | 270.3 | 323.3 | 322 | 1.3 | 7 | 4 |
| NEW 7.0 | 40 | ● | MVS0700X40S070 | 301.3 | 304.3 | 357.3 | 356 | 1.3 | 7 | 4 |
| 7.1 | 3 | ● | MVS0710X03S080 | 38.8 | 41.3 | 95.3 | 94 | 1.3 | 8 | 2 |
| 7.1 | 5 | ● | MVS0710X05S080 | 61.3 | 65.3 | 119.3 | 118 | 1.3 | 8 | 2 |
| 7.1 | 8 | ● | MVS0710X08S080 | 84.3 | 89.3 | 143.3 | 142 | 1.3 | 8 | 2 |
| NEW 7.1 | 10 | ● | MVS0710X10S080 | 99.3 | 102.3 | 156.3 | 155 | 1.3 | 8 | 4 |
| NEW 7.1 | 15 | ● | MVS0710X15S080 | 136.3 | 139.3 | 193.3 | 192 | 1.3 | 8 | 4 |
| NEW 7.1 | 20 | ● | MVS0710X20S080 | 174.3 | 177.3 | 231.3 | 230 | 1.3 | 8 | 4 |
| NEW 7.1 | 25 | ● | MVS0710X25S080 | 211.3 | 214.3 | 268.3 | 267 | 1.3 | 8 | 4 |
| NEW 7.1 | 30 | ● | MVS0710X30S080 | 249.3 | 252.3 | 306.3 | 305 | 1.3 | 8 | 4 |
| NEW 7.1 | 35 | □ | MVS0710X35S080 | 286.3 | 289.3 | 343.3 | 342 | 1.3 | 8 | 4 |
| NEW 7.1 | 40 | □ | MVS0710X40S080 | 321.3 | 324.3 | 378.3 | 377 | 1.3 | 8 | 4 |
| 7.2 | 3 | ● | MVS0720X03S080 | 38.8 | 41.3 | 95.3 | 94 | 1.3 | 8 | 2 |
| 7.2 | 5 | ● | MVS0720X05S080 | 61.3 | 65.3 | 119.3 | 118 | 1.3 | 8 | 2 |
| 7.2 | 8 | ● | MVS0720X08S080 | 84.3 | 89.3 | 143.3 | 142 | 1.3 | 8 | 2 |
| NEW 7.2 | 10 | ● | MVS0720X10S080 | 99.3 | 102.3 | 156.3 | 155 | 1.3 | 8 | 4 |
| NEW 7.2 | 15 | ● | MVS0720X15S080 | 136.3 | 139.3 | 193.3 | 192 | 1.3 | 8 | 4 |
| NEW 7.2 | 20 | ● | MVS0720X20S080 | 174.3 | 177.3 | 231.3 | 230 | 1.3 | 8 | 4 |
| NEW 7.2 | 25 | ● | MVS0720X25S080 | 211.3 | 214.3 | 268.3 | 267 | 1.3 | 8 | 4 |
| NEW 7.2 | 30 | ● | MVS0720X30S080 | 249.3 | 252.3 | 306.3 | 305 | 1.3 | 8 | 4 |
| NEW 7.2 | 35 | □ | MVS0720X35S080 | 286.3 | 289.3 | 343.3 | 342 | 1.3 | 8 | 4 |
| NEW 7.2 | 40 | □ | MVS0720X40S080 | 321.3 | 324.3 | 378.3 | 377 | 1.3 | 8 | 4 |
| 7.3 | 3 | ● | MVS0730X03S080 | 38.8 | 41.3 | 95.3 | 94 | 1.3 | 8 | 2 |
| 7.3 | 5 | ● | MVS0730X05S080 | 61.3 | 65.3 | 119.3 | 118 | 1.3 | 8 | 2 |
| 7.3 | 8 | ● | MVS0730X08S080 | 84.3 | 89.3 | 143.3 | 142 | 1.3 | 8 | 2 |
| NEW 7.3 | 10 | ● | MVS0730X10S080 | 99.3 | 102.3 | 156.3 | 155 | 1.3 | 8 | 4 |
| NEW 7.3 | 15 | ● | MVS0730X15S080 | 136.3 | 139.3 | 193.3 | 192 | 1.3 | 8 | 4 |

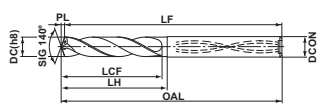
Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|-------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| NEW 7.3 | 20 | ● | MVS0730X20S080 | 174.3 | 177.3 | 231.3 | 230 | 1.3 | 8 | 4 |
| NEW 7.3 | 25 | ● | MVS0730X25S080 | 211.3 | 214.3 | 268.3 | 267 | 1.3 | 8 | 4 |
| NEW 7.3 | 30 | ● | MVS0730X30S080 | 249.3 | 252.3 | 306.3 | 305 | 1.3 | 8 | 4 |
| NEW 7.3 | 35 | □ | MVS0730X35S080 | 286.3 | 289.3 | 343.3 | 342 | 1.3 | 8 | 4 |
| NEW 7.3 | 40 | □ | MVS0730X40S080 | 321.3 | 324.3 | 378.3 | 377 | 1.3 | 8 | 4 |
| 7.4 | 3 | ● | MVS0740X03S080 | 38.8 | 41.3 | 95.3 | 94 | 1.3 | 8 | 2 |
| 7.4 | 5 | ● | MVS0740X05S080 | 61.3 | 65.3 | 119.3 | 118 | 1.3 | 8 | 2 |
| 7.4 | 8 | ● | MVS0740X08S080 | 84.3 | 89.3 | 143.3 | 142 | 1.3 | 8 | 2 |
| NEW 7.4 | 10 | ● | MVS0740X10S080 | 99.3 | 102.4 | 156.3 | 155 | 1.3 | 8 | 4 |
| NEW 7.4 | 15 | ● | MVS0740X15S080 | 136.3 | 139.4 | 193.3 | 192 | 1.3 | 8 | 4 |
| NEW 7.4 | 20 | ● | MVS0740X20S080 | 174.3 | 177.4 | 231.3 | 230 | 1.3 | 8 | 4 |
| NEW 7.4 | 25 | ● | MVS0740X25S080 | 211.3 | 214.4 | 268.3 | 267 | 1.3 | 8 | 4 |
| NEW 7.4 | 30 | ● | MVS0740X30S080 | 249.3 | 252.4 | 306.3 | 305 | 1.3 | 8 | 4 |
| NEW 7.4 | 35 | □ | MVS0740X35S080 | 286.3 | 289.4 | 343.3 | 342 | 1.3 | 8 | 4 |
| NEW 7.4 | 40 | □ | MVS0740X40S080 | 321.3 | 324.4 | 378.3 | 377 | 1.3 | 8 | 4 |
| 7.5 | 3 | ● | MVS0750X03S080 | 38.9 | 41.4 | 95.4 | 94 | 1.4 | 8 | 2 |
| 7.5 | 5 | ● | MVS0750X05S080 | 61.4 | 65.4 | 119.4 | 118 | 1.4 | 8 | 2 |
| 7.5 | 8 | ● | MVS0750X08S080 | 84.4 | 89.4 | 143.4 | 142 | 1.4 | 8 | 2 |
| NEW 7.5 | 10 | ● | MVS0750X10S080 | 99.4 | 102.4 | 156.4 | 155 | 1.4 | 8 | 4 |
| NEW 7.5 | 15 | ● | MVS0750X15S080 | 136.4 | 139.4 | 193.4 | 192 | 1.4 | 8 | 4 |
| NEW 7.5 | 20 | ● | MVS0750X20S080 | 174.4 | 177.4 | 231.4 | 230 | 1.4 | 8 | 4 |
| NEW 7.5 | 25 | ● | MVS0750X25S080 | 211.4 | 214.4 | 268.4 | 267 | 1.4 | 8 | 4 |
| NEW 7.5 | 30 | ● | MVS0750X30S080 | 249.4 | 252.4 | 306.4 | 305 | 1.4 | 8 | 4 |
| NEW 7.5 | 35 | ● | MVS0750X35S080 | 286.4 | 289.4 | 343.4 | 342 | 1.4 | 8 | 4 |
| NEW 7.5 | 40 | ● | MVS0750X40S080 | 321.4 | 324.4 | 378.4 | 377 | 1.4 | 8 | 4 |
| 7.6 | 3 | ● | MVS0760X03S080 | 41.4 | 41.4 | 95.4 | 94 | 1.4 | 8 | 2 |
| 7.6 | 5 | ● | MVS0760X05S080 | 65.4 | 65.4 | 119.4 | 118 | 1.4 | 8 | 2 |
| 7.6 | 8 | ● | MVS0760X08S080 | 89.4 | 89.4 | 143.4 | 142 | 1.4 | 8 | 2 |
| NEW 7.6 | 10 | ● | MVS0760X10S080 | 105.4 | 108.4 | 162.4 | 161 | 1.4 | 8 | 4 |
| NEW 7.6 | 15 | ● | MVS0760X15S080 | 145.4 | 148.4 | 202.4 | 201 | 1.4 | 8 | 4 |
| NEW 7.6 | 20 | ● | MVS0760X20S080 | 185.4 | 188.4 | 242.4 | 241 | 1.4 | 8 | 4 |
| NEW 7.6 | 25 | ● | MVS0760X25S080 | 225.4 | 228.4 | 282.4 | 281 | 1.4 | 8 | 4 |
| NEW 7.6 | 30 | ● | MVS0760X30S080 | 265.4 | 268.4 | 322.4 | 321 | 1.4 | 8 | 4 |
| NEW 7.6 | 35 | □ | MVS0760X35S080 | 305.4 | 308.4 | 362.4 | 361 | 1.4 | 8 | 4 |
| NEW 7.6 | 40 | □ | MVS0760X40S080 | 341.4 | 344.4 | 398.4 | 397 | 1.4 | 8 | 4 |
| 7.7 | 3 | ● | MVS0770X03S080 | 41.4 | 41.4 | 95.4 | 94 | 1.4 | 8 | 2 |
| 7.7 | 5 | ● | MVS0770X05S080 | 65.4 | 65.4 | 119.4 | 118 | 1.4 | 8 | 2 |
| 7.7 | 8 | ● | MVS0770X08S080 | 89.4 | 89.4 | 143.4 | 142 | 1.4 | 8 | 2 |
| NEW 7.7 | 10 | ● | MVS0770X10S080 | 105.4 | 108.4 | 162.4 | 161 | 1.4 | 8 | 4 |
| NEW 7.7 | 15 | ● | MVS0770X15S080 | 145.4 | 148.4 | 202.4 | 201 | 1.4 | 8 | 4 |
| NEW 7.7 | 20 | ● | MVS0770X20S080 | 185.4 | 188.4 | 242.4 | 241 | 1.4 | 8 | 4 |
| NEW 7.7 | 25 | ● | MVS0770X25S080 | 225.4 | 228.4 | 282.4 | 281 | 1.4 | 8 | 4 |
| NEW 7.7 | 30 | ● | MVS0770X30S080 | 265.4 | 268.4 | 322.4 | 321 | 1.4 | 8 | 4 |
| NEW 7.7 | 35 | □ | MVS0770X35S080 | 305.4 | 308.4 | 362.4 | 361 | 1.4 | 8 | 4 |
| NEW 7.7 | 40 | □ | MVS0770X40S080 | 341.4 | 344.4 | 398.4 | 397 | 1.4 | 8 | 4 |
| 7.8 | 3 | ● | MVS0780X03S080 | 41.4 | 41.4 | 95.4 | 94 | 1.4 | 8 | 2 |
| 7.8 | 5 | ● | MVS0780X05S080 | 65.4 | 65.4 | 119.4 | 118 | 1.4 | 8 | 2 |
| 7.8 | 8 | ● | MVS0780X08S080 | 89.4 | 89.4 | 143.4 | 142 | 1.4 | 8 | 2 |

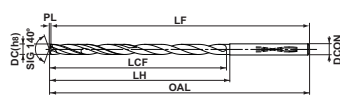
● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



Internal Coolant

Type4



Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|------------------|--------------|--------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | NEW |
| NEW | 7.8 | 15 | ● | MVS0780X15S080 | 145.4 | 148.4 | 202.4 | 201 | 1.4 | 8 | 4 |
| NEW | 7.8 | 20 | ● | MVS0780X20S080 | 185.4 | 188.4 | 242.4 | 241 | 1.4 | 8 | 4 |
| NEW | 7.8 | 25 | ● | MVS0780X25S080 | 225.4 | 228.4 | 282.4 | 281 | 1.4 | 8 | 4 |
| NEW | 7.8 | 30 | ● | MVS0780X30S080 | 265.4 | 268.4 | 322.4 | 321 | 1.4 | 8 | 4 |
| NEW | 7.8 | 35 | □ | MVS0780X35S080 | 305.4 | 308.4 | 362.4 | 361 | 1.4 | 8 | 4 |
| NEW | 7.8 | 40 | □ | MVS0780X40S080 | 341.4 | 344.4 | 398.4 | 397 | 1.4 | 8 | 4 |
| | 7.9 | 3 | ● | MVS0790X03S080 | 41.4 | 41.4 | 95.4 | 94 | 1.4 | 8 | 2 |
| | 7.9 | 5 | ● | MVS0790X05S080 | 65.4 | 65.4 | 119.4 | 118 | 1.4 | 8 | 2 |
| | 7.9 | 8 | ● | MVS0790X08S080 | 89.4 | 89.4 | 143.4 | 142 | 1.4 | 8 | 2 |
| NEW | 7.9 | 10 | ● | MVS0790X10S080 | 105.4 | 108.4 | 162.4 | 161 | 1.4 | 8 | 4 |
| NEW | 7.9 | 15 | ● | MVS0790X15S080 | 145.4 | 148.4 | 202.4 | 201 | 1.4 | 8 | 4 |
| NEW | 7.9 | 20 | ● | MVS0790X20S080 | 185.4 | 188.4 | 242.4 | 241 | 1.4 | 8 | 4 |
| NEW | 7.9 | 25 | ● | MVS0790X25S080 | 225.4 | 228.4 | 282.4 | 281 | 1.4 | 8 | 4 |
| NEW | 7.9 | 30 | ● | MVS0790X30S080 | 265.4 | 268.4 | 322.4 | 321 | 1.4 | 8 | 4 |
| NEW | 7.9 | 35 | □ | MVS0790X35S080 | 305.4 | 308.4 | 362.4 | 361 | 1.4 | 8 | 4 |
| NEW | 7.9 | 40 | □ | MVS0790X40S080 | 341.4 | 344.4 | 398.4 | 397 | 1.4 | 8 | 4 |
| | 8.0 | 3 | ● | MVS0800X03S080 | 41.5 | 41.5 | 95.5 | 94 | 1.5 | 8 | 2 |
| | 8.0 | 5 | ● | MVS0800X05S080 | 65.5 | 65.5 | 119.5 | 118 | 1.5 | 8 | 2 |
| | 8.0 | 8 | ● | MVS0800X08S080 | 89.5 | 89.5 | 143.5 | 142 | 1.5 | 8 | 2 |
| NEW | 8.0 | 10 | ● | MVS0800X10S080 | 105.5 | 108.5 | 162.5 | 161 | 1.5 | 8 | 4 |
| NEW | 8.0 | 15 | ● | MVS0800X15S080 | 145.5 | 148.5 | 202.5 | 201 | 1.5 | 8 | 4 |
| NEW | 8.0 | 20 | ● | MVS0800X20S080 | 185.5 | 188.5 | 242.5 | 241 | 1.5 | 8 | 4 |
| NEW | 8.0 | 25 | ● | MVS0800X25S080 | 225.5 | 228.5 | 282.5 | 281 | 1.5 | 8 | 4 |
| NEW | 8.0 | 30 | ● | MVS0800X30S080 | 265.5 | 268.5 | 322.5 | 321 | 1.5 | 8 | 4 |
| NEW | 8.0 | 35 | ● | MVS0800X35S080 | 305.5 | 308.5 | 362.5 | 361 | 1.5 | 8 | 4 |
| NEW | 8.0 | 40 | ● | MVS0800X40S080 | 341.5 | 344.5 | 398.5 | 397 | 1.5 | 8 | 4 |
| | 8.1 | 3 | ● | MVS0810X03S090 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 9 | 2 |
| | 8.1 | 3 | ● | MVS0810X03S100 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 10 | 2 |
| | 8.1 | 5 | ● | MVS0810X05S090 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 9 | 2 |
| | 8.1 | 5 | ● | MVS0810X05S100 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 10 | 2 |
| | 8.1 | 8 | ● | MVS0810X08S090 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 9 | 2 |
| | 8.1 | 8 | ● | MVS0810X08S100 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 10 | 2 |
| NEW | 8.1 | 10 | ● | MVS0810X10S090 | 112.5 | 115.5 | 170.5 | 169 | 1.5 | 9 | 4 |
| NEW | 8.1 | 15 | ● | MVS0810X15S090 | 154.5 | 157.5 | 212.5 | 211 | 1.5 | 9 | 4 |
| NEW | 8.1 | 20 | ● | MVS0810X20S090 | 197.5 | 200.5 | 255.5 | 254 | 1.5 | 9 | 4 |
| NEW | 8.1 | 25 | ● | MVS0810X25S090 | 239.5 | 242.5 | 297.5 | 296 | 1.5 | 9 | 4 |
| NEW | 8.1 | 30 | ● | MVS0810X30S090 | 282.5 | 285.5 | 340.5 | 339 | 1.5 | 9 | 4 |
| NEW | 8.1 | 35 | □ | MVS0810X35S090 | 324.5 | 327.5 | 382.5 | 381 | 1.5 | 9 | 4 |
| NEW | 8.1 | 35 | □ | MVS0810X35S100 | 324.5 | 327.5 | 382.5 | 381 | 1.5 | 10 | 4 |
| NEW | 8.1 | 40 | □ | MVS0810X40S090 | 366.5 | 369.5 | 424.5 | 423 | 1.5 | 9 | 4 |
| NEW | 8.1 | 40 | □ | MVS0810X40S100 | 366.5 | 369.5 | 424.5 | 423 | 1.5 | 10 | 4 |
| | 8.2 | 3 | ● | MVS0820X03S090 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 9 | 2 |
| | 8.2 | 3 | ● | MVS0820X03S100 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 10 | 2 |
| | 8.2 | 5 | ● | MVS0820X05S090 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 9 | 2 |
| | 8.2 | 5 | ● | MVS0820X05S100 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 10 | 2 |
| | 8.2 | 8 | ● | MVS0820X08S090 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 9 | 2 |
| | 8.2 | 8 | ● | MVS0820X08S100 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 10 | 2 |

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|-----|------------------|--------------|--------------|----------------|-------|-------|-------|-----|------|------|-----|
| | | | | | | | | | | | NEW |
| NEW | 8.2 | 15 | ● | MVS0820X15S090 | 154.5 | 157.5 | 212.5 | 211 | 1.5 | 9 | 4 |
| NEW | 8.2 | 20 | ● | MVS0820X20S090 | 197.5 | 200.5 | 255.5 | 254 | 1.5 | 9 | 4 |
| NEW | 8.2 | 25 | ● | MVS0820X25S090 | 239.5 | 242.5 | 297.5 | 296 | 1.5 | 9 | 4 |
| NEW | 8.2 | 30 | ● | MVS0820X30S090 | 282.5 | 285.5 | 340.5 | 339 | 1.5 | 9 | 4 |
| NEW | 8.2 | 35 | □ | MVS0820X35S090 | 324.5 | 327.5 | 382.5 | 381 | 1.5 | 9 | 4 |
| NEW | 8.2 | 35 | □ | MVS0820X35S100 | 324.5 | 327.5 | 382.5 | 381 | 1.5 | 10 | 4 |
| NEW | 8.2 | 40 | □ | MVS0820X40S090 | 366.5 | 369.5 | 424.5 | 423 | 1.5 | 9 | 4 |
| NEW | 8.2 | 40 | □ | MVS0820X40S100 | 366.5 | 369.5 | 424.5 | 423 | 1.5 | 10 | 4 |
| | 8.3 | 3 | ● | MVS0830X03S090 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 9 | 2 |
| | 8.3 | 3 | ● | MVS0830X03S100 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 10 | 2 |
| | 8.3 | 5 | ● | MVS0830X05S090 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 9 | 2 |
| | 8.3 | 5 | ● | MVS0830X05S100 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 10 | 2 |
| | 8.3 | 8 | ● | MVS0830X08S090 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 9 | 2 |
| | 8.3 | 8 | ● | MVS0830X08S100 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 10 | 2 |
| NEW | 8.3 | 10 | ● | MVS0830X10S090 | 112.5 | 115.5 | 170.5 | 169 | 1.5 | 9 | 4 |
| NEW | 8.3 | 15 | ● | MVS0830X15S090 | 154.5 | 157.5 | 212.5 | 211 | 1.5 | 9 | 4 |
| NEW | 8.3 | 20 | ● | MVS0830X20S090 | 197.5 | 200.5 | 255.5 | 254 | 1.5 | 9 | 4 |
| NEW | 8.3 | 25 | ● | MVS0830X25S090 | 239.5 | 242.5 | 297.5 | 296 | 1.5 | 9 | 4 |
| NEW | 8.3 | 30 | ● | MVS0830X30S090 | 282.5 | 285.5 | 340.5 | 339 | 1.5 | 9 | 4 |
| NEW | 8.3 | 35 | □ | MVS0830X35S090 | 324.5 | 327.5 | 382.5 | 381 | 1.5 | 9 | 4 |
| NEW | 8.3 | 35 | □ | MVS0830X35S100 | 324.5 | 327.5 | 382.5 | 381 | 1.5 | 10 | 4 |
| NEW | 8.3 | 40 | □ | MVS0830X40S090 | 366.5 | 369.5 | 424.5 | 423 | 1.5 | 9 | 4 |
| NEW | 8.3 | 40 | □ | MVS0830X40S100 | 366.5 | 369.5 | 424.5 | 423 | 1.5 | 10 | 4 |
| | 8.4 | 3 | ● | MVS0840X03S090 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 9 | 2 |
| | 8.4 | 3 | ● | MVS0840X03S100 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 10 | 2 |
| | 8.4 | 5 | ● | MVS0840X05S090 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 9 | 2 |
| | 8.4 | 5 | ● | MVS0840X05S100 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 10 | 2 |
| | 8.4 | 8 | ● | MVS0840X08S090 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 9 | 2 |
| | 8.4 | 8 | ● | MVS0840X08S100 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 10 | 2 |
| NEW | 8.4 | 10 | ● | MVS0840X10S090 | 112.5 | 115.5 | 170.5 | 169 | 1.5 | 9 | 4 |
| NEW | 8.4 | 15 | ● | MVS0840X15S090 | 154.5 | 157.5 | 212.5 | 211 | 1.5 | 9 | 4 |
| NEW | 8.4 | 20 | ● | MVS0840X20S090 | 197.5 | 200.5 | 255.5 | 254 | 1.5 | 9 | 4 |
| NEW | 8.4 | 25 | ● | MVS0840X25S090 | 239.5 | 242.5 | 297.5 | 296 | 1.5 | 9 | 4 |
| NEW | 8.4 | 30 | ● | MVS0840X30S090 | 282.5 | 285.5 | 340.5 | 339 | 1.5 | 9 | 4 |
| NEW | 8.4 | 35 | □ | MVS0840X35S090 | 324.5 | 327.5 | 382.5 | 381 | 1.5 | 9 | 4 |
| NEW | 8.4 | 35 | □ | MVS0840X35S100 | 324.5 | 327.5 | 382.5 | 381 | 1.5 | 10 | 4 |
| NEW | 8.4 | 40 | □ | MVS0840X40S090 | 366.5 | 369.5 | 424.5 | 423 | 1.5 | 9 | 4 |
| NEW | 8.4 | 40 | □ | MVS0840X40S100 | 366.5 | 369.5 | 424.5 | 423 | 1.5 | 10 | 4 |
| | 8.5 | 3 | ● | MVS0850X03S090 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 9 | 2 |
| | 8.5 | 3 | ● | MVS0850X03S100 | 44.0 | 46.5 | 101.5 | 100 | 1.5 | 10 | 2 |
| | 8.5 | 5 | ● | MVS0850X05S090 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 9 | 2 |
| | 8.5 | 5 | ● | MVS0850X05S100 | 69.5 | 73.5 | 128.5 | 127 | 1.5 | 10 | 2 |
| | 8.5 | 8 | ● | MVS0850X08S090 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 9 | 2 |
| | 8.5 | 8 | ● | MVS0850X08S100 | 95.5 | 100.5 | 155.5 | 154 | 1.5 | 10 | 2 |
| NEW | 8.5 | 10 | ● | MVS0850X10S090 | 112.5 | 115.5 | 170.5 | 169 | 1.5 | 9 | 4 |
| NEW | 8.5 | 15 | ● | MVS0850X15S090 | 154.5 | 157.5 | 212.5 | 211 | 1.5 | 9 | 4 |
| NEW | 8.5 | 20 | ● | MVS0850X20S090 | 197.5 | 200.5 | 255.5 | 254 | 1.5 | 9 | 4 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills



Internal Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| NEW 8.5 | 30 | ● | MVS0850X30S090 | 282.5 | 285.6 | 340.5 | 339 | 1.5 | 9 | 4 |
| NEW 8.5 | 35 | ● | MVS0850X35S090 | 324.5 | 327.6 | 382.5 | 381 | 1.5 | 9 | 4 |
| NEW 8.5 | 40 | ● | MVS0850X40S090 | 366.5 | 369.6 | 424.5 | 423 | 1.5 | 9 | 4 |
| 8.6 | 3 | ● | MVS0860X03S090 | 46.6 | 46.6 | 101.6 | 100 | 1.6 | 9 | 2 |
| 8.6 | 3 | ● | MVS0860X03S100 | 46.6 | 48.6 | 101.6 | 100 | 1.6 | 10 | 2 |
| 8.6 | 5 | ● | MVS0860X05S090 | 73.6 | 73.6 | 128.6 | 127 | 1.6 | 9 | 2 |
| 8.6 | 5 | ● | MVS0860X05S100 | 73.6 | 75.6 | 128.6 | 127 | 1.6 | 10 | 2 |
| 8.6 | 8 | ● | MVS0860X08S090 | 100.6 | 100.6 | 155.6 | 154 | 1.6 | 9 | 2 |
| 8.6 | 8 | ● | MVS0860X08S100 | 100.6 | 102.6 | 155.6 | 154 | 1.6 | 10 | 2 |
| NEW 8.6 | 10 | ● | MVS0860X10S090 | 118.6 | 121.6 | 176.6 | 175 | 1.6 | 9 | 4 |
| NEW 8.6 | 15 | ● | MVS0860X15S090 | 163.6 | 166.6 | 221.6 | 220 | 1.6 | 9 | 4 |
| NEW 8.6 | 20 | ● | MVS0860X20S090 | 208.6 | 211.6 | 266.6 | 265 | 1.6 | 9 | 4 |
| NEW 8.6 | 25 | ● | MVS0860X25S090 | 253.6 | 256.6 | 311.6 | 310 | 1.6 | 9 | 4 |
| NEW 8.6 | 30 | ● | MVS0860X30S090 | 298.6 | 301.6 | 356.6 | 355 | 1.6 | 9 | 4 |
| NEW 8.6 | 35 | □ | MVS0860X35S090 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 9 | 4 |
| NEW 8.6 | 35 | □ | MVS0860X35S100 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 10 | 4 |
| NEW 8.6 | 40 | □ | MVS0860X40S090 | 391.6 | 394.6 | 449.6 | 448 | 1.6 | 9 | 4 |
| NEW 8.6 | 40 | □ | MVS0860X40S100 | 391.6 | 394.6 | 449.6 | 448 | 1.6 | 10 | 4 |
| 8.7 | 3 | ● | MVS0870X03S090 | 46.6 | 46.6 | 101.6 | 100 | 1.6 | 9 | 2 |
| 8.7 | 3 | ● | MVS0870X03S100 | 46.6 | 48.6 | 101.6 | 100 | 1.6 | 10 | 2 |
| 8.7 | 5 | ● | MVS0870X05S090 | 73.6 | 73.6 | 128.6 | 127 | 1.6 | 9 | 2 |
| 8.7 | 5 | ● | MVS0870X05S100 | 73.6 | 75.6 | 128.6 | 127 | 1.6 | 10 | 2 |
| 8.7 | 8 | ● | MVS0870X08S090 | 100.6 | 100.6 | 155.6 | 154 | 1.6 | 9 | 2 |
| 8.7 | 8 | ● | MVS0870X08S100 | 100.6 | 102.6 | 155.6 | 154 | 1.6 | 10 | 2 |
| NEW 8.7 | 10 | ● | MVS0870X10S090 | 118.6 | 121.6 | 176.6 | 175 | 1.6 | 9 | 4 |
| NEW 8.7 | 15 | ● | MVS0870X15S090 | 163.6 | 166.6 | 221.6 | 220 | 1.6 | 9 | 4 |
| NEW 8.7 | 20 | ● | MVS0870X20S090 | 208.6 | 211.6 | 266.6 | 265 | 1.6 | 9 | 4 |
| NEW 8.7 | 25 | ● | MVS0870X25S090 | 253.6 | 256.6 | 311.6 | 310 | 1.6 | 9 | 4 |
| NEW 8.7 | 30 | ● | MVS0870X30S090 | 298.6 | 301.6 | 356.6 | 355 | 1.6 | 9 | 4 |
| NEW 8.7 | 35 | □ | MVS0870X35S090 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 9 | 4 |
| NEW 8.7 | 35 | □ | MVS0870X35S100 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 10 | 4 |
| NEW 8.7 | 40 | □ | MVS0870X40S090 | 391.6 | 394.6 | 449.6 | 448 | 1.6 | 9 | 4 |
| NEW 8.7 | 40 | □ | MVS0870X40S100 | 391.6 | 394.6 | 449.6 | 448 | 1.6 | 10 | 4 |
| 8.8 | 3 | ● | MVS0880X03S090 | 46.6 | 46.6 | 101.6 | 100 | 1.6 | 9 | 2 |
| 8.8 | 3 | ● | MVS0880X03S100 | 46.6 | 48.6 | 101.6 | 100 | 1.6 | 10 | 2 |
| 8.8 | 5 | ● | MVS0880X05S090 | 73.6 | 73.6 | 128.6 | 127 | 1.6 | 9 | 2 |
| 8.8 | 5 | ● | MVS0880X05S100 | 73.6 | 75.6 | 128.6 | 127 | 1.6 | 10 | 2 |
| 8.8 | 8 | ● | MVS0880X08S090 | 100.6 | 100.6 | 155.6 | 154 | 1.6 | 9 | 2 |
| 8.8 | 8 | ● | MVS0880X08S100 | 100.6 | 102.6 | 155.6 | 154 | 1.6 | 10 | 2 |
| NEW 8.8 | 10 | ● | MVS0880X10S090 | 118.6 | 121.6 | 176.6 | 175 | 1.6 | 9 | 4 |
| NEW 8.8 | 15 | ● | MVS0880X15S090 | 163.6 | 166.6 | 221.6 | 220 | 1.6 | 9 | 4 |
| NEW 8.8 | 20 | ● | MVS0880X20S090 | 208.6 | 211.6 | 266.6 | 265 | 1.6 | 9 | 4 |
| NEW 8.8 | 25 | ● | MVS0880X25S090 | 253.6 | 256.6 | 311.6 | 310 | 1.6 | 9 | 4 |
| NEW 8.8 | 30 | ● | MVS0880X30S090 | 298.6 | 301.6 | 356.6 | 355 | 1.6 | 9 | 4 |
| NEW 8.8 | 35 | □ | MVS0880X35S090 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 9 | 4 |
| NEW 8.8 | 35 | □ | MVS0880X35S100 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 10 | 4 |
| NEW 8.8 | 40 | □ | MVS0880X40S090 | 391.6 | 394.6 | 449.6 | 448 | 1.6 | 9 | 4 |

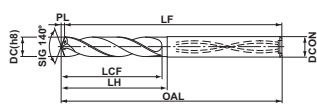
Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 8.9 | 3 | ● | MVS0890X03S090 | 46.6 | 46.6 | 101.6 | 100 | 1.6 | 9 | 2 |
| 8.9 | 3 | ● | MVS0890X03S100 | 46.6 | 48.6 | 101.6 | 100 | 1.6 | 10 | 2 |
| 8.9 | 5 | ● | MVS0890X05S090 | 73.6 | 73.6 | 128.6 | 127 | 1.6 | 9 | 2 |
| 8.9 | 5 | ● | MVS0890X05S100 | 73.6 | 75.6 | 128.6 | 127 | 1.6 | 10 | 2 |
| 8.9 | 8 | ● | MVS0890X08S090 | 100.6 | 100.6 | 155.6 | 154 | 1.6 | 9 | 2 |
| 8.9 | 8 | ● | MVS0890X08S100 | 100.6 | 102.6 | 155.6 | 154 | 1.6 | 10 | 2 |
| NEW 8.9 | 10 | ● | MVS0890X10S090 | 118.6 | 121.6 | 176.6 | 175 | 1.6 | 9 | 4 |
| NEW 8.9 | 15 | ● | MVS0890X15S090 | 163.6 | 166.6 | 221.6 | 220 | 1.6 | 9 | 4 |
| NEW 8.9 | 20 | ● | MVS0890X20S090 | 208.6 | 211.6 | 266.6 | 265 | 1.6 | 9 | 4 |
| NEW 8.9 | 25 | ● | MVS0890X25S090 | 253.6 | 256.6 | 311.6 | 310 | 1.6 | 9 | 4 |
| NEW 8.9 | 30 | ● | MVS0890X30S090 | 298.6 | 301.6 | 356.6 | 355 | 1.6 | 9 | 4 |
| NEW 8.9 | 35 | □ | MVS0890X35S090 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 9 | 4 |
| NEW 8.9 | 35 | □ | MVS0890X35S100 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 10 | 4 |
| NEW 8.9 | 40 | □ | MVS0890X40S090 | 391.6 | 394.6 | 449.6 | 448 | 1.6 | 9 | 4 |
| NEW 8.9 | 40 | □ | MVS0890X40S100 | 391.6 | 394.6 | 449.6 | 448 | 1.6 | 10 | 4 |
| 9.0 | 3 | ● | MVS0900X03S090 | 46.6 | 46.6 | 101.6 | 100 | 1.6 | 9 | 2 |
| 9.0 | 3 | ● | MVS0900X03S100 | 46.6 | 48.6 | 101.6 | 100 | 1.6 | 10 | 2 |
| 9.0 | 5 | ● | MVS0900X05S090 | 73.6 | 73.6 | 128.6 | 127 | 1.6 | 9 | 2 |
| 9.0 | 5 | ● | MVS0900X05S100 | 73.6 | 75.6 | 128.6 | 127 | 1.6 | 10 | 2 |
| 9.0 | 8 | ● | MVS0900X08S090 | 100.6 | 100.6 | 155.6 | 154 | 1.6 | 9 | 2 |
| 9.0 | 8 | ● | MVS0900X08S100 | 100.6 | 102.6 | 155.6 | 154 | 1.6 | 10 | 2 |
| NEW 9.0 | 10 | ● | MVS0900X10S090 | 118.6 | 121.6 | 176.6 | 175 | 1.6 | 9 | 4 |
| NEW 9.0 | 15 | ● | MVS0900X15S090 | 163.6 | 166.6 | 221.6 | 220 | 1.6 | 9 | 4 |
| NEW 9.0 | 20 | ● | MVS0900X20S090 | 208.6 | 211.6 | 266.6 | 265 | 1.6 | 9 | 4 |
| NEW 9.0 | 25 | ● | MVS0900X25S090 | 253.6 | 256.6 | 311.6 | 310 | 1.6 | 9 | 4 |
| NEW 9.0 | 30 | ● | MVS0900X30S090 | 298.6 | 301.6 | 356.6 | 355 | 1.6 | 9 | 4 |
| NEW 9.0 | 35 | ● | MVS0900X35S090 | 343.6 | 346.6 | 401.6 | 400 | 1.6 | 9 | 4 |
| NEW 9.0 | 40 | ● | MVS0900X40S090 | 391.6 | 394.6 | 449.6 | 448 | 1.6 | 9 | 4 |
| 9.1 | 3 | ● | MVS0910X03S100 | 49.2 | 51.7 | 107.7 | 106 | 1.7 | 10 | 2 |
| 9.1 | 5 | ● | MVS0910X05S100 | 77.7 | 81.7 | 137.7 | 136 | 1.7 | 10 | 2 |
| 9.1 | 8 | ● | MVS0910X08S100 | 106.7 | 111.7 | 167.7 | 166 | 1.7 | 10 | 2 |
| NEW 9.1 | 10 | ● | MVS0910X10S100 | 125.7 | 128.7 | 183.7 | 182 | 1.7 | 10 | 4 |
| NEW 9.1 | 15 | ● | MVS0910X15S100 | 172.7 | 175.7 | 230.7 | 229 | 1.7 | 10 | 4 |
| NEW 9.1 | 20 | ● | MVS0910X20S100 | 220.7 | 223.7 | 278.7 | 277 | 1.7 | 10 | 4 |
| NEW 9.1 | 25 | ● | MVS0910X25S100 | 267.7 | 270.7 | 325.7 | 324 | 1.7 | 10 | 4 |
| NEW 9.1 | 30 | ● | MVS0910X30S100 | 315.7 | 318.7 | 373.7 | 372 | 1.7 | 10 | 4 |
| NEW 9.1 | 35 | □ | MVS0910X35S100 | 362.7 | 365.7 | 420.7 | 419 | 1.7 | 10 | 4 |
| 9.2 | 3 | ● | MVS0920X03S100 | 49.2 | 51.7 | 107.7 | 106 | 1.7 | 10 | 2 |
| 9.2 | 5 | ● | MVS0920X05S100 | 77.7 | 81.7 | 137.7 | 136 | 1.7 | 10 | 2 |
| 9.2 | 8 | ● | MVS0920X08S100 | 106.7 | 111.7 | 167.7 | 166 | 1.7 | 10 | 2 |
| NEW 9.2 | 10 | ● | MVS0920X10S100 | 125.7 | 128.7 | 183.7 | 182 | 1.7 | 10 | 4 |
| NEW 9.2 | 15 | ● | MVS0920X15S100 | 172.7 | 175.7 | 230.7 | 229 | 1.7 | 10 | 4 |
| NEW 9.2 | 20 | ● | MVS0920X20S100 | 220.7 | 223.7 | 278.7 | 277 | 1.7 | 10 | 4 |
| NEW 9.2 | 25 | ● | MVS0920X25S100 | 267.7 | 270.7 | 325.7 | 324 | 1.7 | 10 | 4 |
| NEW 9.2 | 30 | ● | MVS0920X30S100 | 315.7 | 318.7 | 373.7 | 372 | 1.7 | 10 | 4 |
| NEW 9.2 | 35 | □ | MVS0920X35S100 | 362.7 | 365.7 | 420.7 | 419 | 1.7 | 10 | 4 |
| 9.3 | 3 | ● | MVS0930X03S100 | 49.2 | 51.7 | 107.7 | 106 | 1.7 | 10 | 2 |

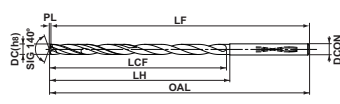
● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



Internal Coolant

Type4



Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|---------------------|-----------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 9.3 | 5 | ● | MVS0930X05S100 | 77.7 | 81.7 | 137.7 | 136 | 1.7 | 10 | 2 |
| 9.3 | 8 | ● | MVS0930X08S100 | 106.7 | 111.7 | 167.7 | 166 | 1.7 | 10 | 2 |
| NEW 9.3 | 10 | ● | MVS0930X10S100 | 125.7 | 128.7 | 183.7 | 182 | 1.7 | 10 | 4 |
| NEW 9.3 | 15 | ● | MVS0930X15S100 | 172.7 | 175.7 | 230.7 | 229 | 1.7 | 10 | 4 |
| NEW 9.3 | 20 | ● | MVS0930X20S100 | 220.7 | 223.7 | 278.7 | 277 | 1.7 | 10 | 4 |
| NEW 9.3 | 25 | ● | MVS0930X25S100 | 267.7 | 270.7 | 325.7 | 324 | 1.7 | 10 | 4 |
| NEW 9.3 | 30 | ● | MVS0930X30S100 | 315.7 | 318.7 | 373.7 | 372 | 1.7 | 10 | 4 |
| NEW 9.3 | 35 | □ | MVS0930X35S100 | 362.7 | 365.7 | 420.7 | 419 | 1.7 | 10 | 4 |
| 9.4 | 3 | ● | MVS0940X03S100 | 49.2 | 51.7 | 107.7 | 106 | 1.7 | 10 | 2 |
| 9.4 | 5 | ● | MVS0940X05S100 | 77.7 | 81.7 | 137.7 | 136 | 1.7 | 10 | 2 |
| 9.4 | 8 | ● | MVS0940X08S100 | 106.7 | 111.7 | 167.7 | 166 | 1.7 | 10 | 2 |
| NEW 9.4 | 10 | ● | MVS0940X10S100 | 125.7 | 128.7 | 183.7 | 182 | 1.7 | 10 | 4 |
| NEW 9.4 | 15 | ● | MVS0940X15S100 | 172.7 | 175.7 | 230.7 | 229 | 1.7 | 10 | 4 |
| NEW 9.4 | 20 | ● | MVS0940X20S100 | 220.7 | 223.7 | 278.7 | 277 | 1.7 | 10 | 4 |
| NEW 9.4 | 25 | ● | MVS0940X25S100 | 267.7 | 270.7 | 325.7 | 324 | 1.7 | 10 | 4 |
| NEW 9.4 | 30 | ● | MVS0940X30S100 | 315.7 | 318.7 | 373.7 | 372 | 1.7 | 10 | 4 |
| NEW 9.4 | 35 | □ | MVS0940X35S100 | 362.7 | 365.7 | 420.7 | 419 | 1.7 | 10 | 4 |
| 9.5 | 3 | ● | MVS0950X03S100 | 49.2 | 51.7 | 107.7 | 106 | 1.7 | 10 | 2 |
| 9.5 | 5 | ● | MVS0950X05S100 | 77.7 | 81.7 | 137.7 | 136 | 1.7 | 10 | 2 |
| 9.5 | 8 | ● | MVS0950X08S100 | 106.7 | 111.7 | 167.7 | 166 | 1.7 | 10 | 2 |
| NEW 9.5 | 10 | ● | MVS0950X10S100 | 125.7 | 128.7 | 183.7 | 182 | 1.7 | 10 | 4 |
| NEW 9.5 | 15 | ● | MVS0950X15S100 | 172.7 | 175.7 | 230.7 | 229 | 1.7 | 10 | 4 |
| NEW 9.5 | 20 | ● | MVS0950X20S100 | 220.7 | 223.7 | 278.7 | 277 | 1.7 | 10 | 4 |
| NEW 9.5 | 25 | ● | MVS0950X25S100 | 267.7 | 270.7 | 325.7 | 324 | 1.7 | 10 | 4 |
| NEW 9.5 | 30 | ● | MVS0950X30S100 | 315.7 | 318.7 | 373.7 | 372 | 1.7 | 10 | 4 |
| NEW 9.5 | 35 | ● | MVS0950X35S100 | 362.7 | 365.7 | 420.7 | 419 | 1.7 | 10 | 4 |
| 9.6 | 3 | ● | MVS0960X03S100 | 51.7 | 51.7 | 107.7 | 106 | 1.7 | 10 | 2 |
| 9.6 | 5 | ● | MVS0960X05S100 | 81.7 | 81.7 | 137.7 | 136 | 1.7 | 10 | 2 |
| 9.6 | 8 | ● | MVS0960X08S100 | 111.7 | 111.7 | 167.7 | 166 | 1.7 | 10 | 2 |
| NEW 9.6 | 10 | ● | MVS0960X10S100 | 131.7 | 134.8 | 189.7 | 188 | 1.7 | 10 | 4 |
| NEW 9.6 | 15 | ● | MVS0960X15S100 | 181.7 | 184.8 | 239.7 | 238 | 1.7 | 10 | 4 |
| NEW 9.6 | 20 | ● | MVS0960X20S100 | 231.7 | 234.8 | 289.7 | 288 | 1.7 | 10 | 4 |
| NEW 9.6 | 25 | ● | MVS0960X25S100 | 281.7 | 284.8 | 339.7 | 338 | 1.7 | 10 | 4 |
| NEW 9.6 | 30 | ● | MVS0960X30S100 | 331.7 | 334.8 | 389.7 | 388 | 1.7 | 10 | 4 |
| NEW 9.6 | 35 | □ | MVS0960X35S100 | 381.7 | 384.8 | 439.7 | 438 | 1.7 | 10 | 4 |
| 9.7 | 3 | ● | MVS0970X03S100 | 51.8 | 51.8 | 107.8 | 106 | 1.8 | 10 | 2 |
| 9.7 | 5 | ● | MVS0970X05S100 | 81.8 | 81.8 | 137.8 | 136 | 1.8 | 10 | 2 |
| 9.7 | 8 | ● | MVS0970X08S100 | 111.8 | 111.8 | 167.8 | 166 | 1.8 | 10 | 2 |
| NEW 9.7 | 10 | ● | MVS0970X10S100 | 131.8 | 134.8 | 189.8 | 188 | 1.8 | 10 | 4 |
| NEW 9.7 | 15 | ● | MVS0970X15S100 | 181.8 | 184.8 | 239.8 | 238 | 1.8 | 10 | 4 |
| NEW 9.7 | 20 | ● | MVS0970X20S100 | 231.8 | 234.8 | 289.8 | 288 | 1.8 | 10 | 4 |
| NEW 9.7 | 25 | ● | MVS0970X25S100 | 281.8 | 284.8 | 339.8 | 338 | 1.8 | 10 | 4 |
| NEW 9.7 | 30 | ● | MVS0970X30S100 | 331.8 | 334.8 | 389.8 | 388 | 1.8 | 10 | 4 |
| NEW 9.7 | 35 | □ | MVS0970X35S100 | 381.8 | 384.8 | 439.8 | 438 | 1.8 | 10 | 4 |
| 9.8 | 3 | ● | MVS0980X03S100 | 51.8 | 51.8 | 107.8 | 106 | 1.8 | 10 | 2 |
| 9.8 | 5 | ● | MVS0980X05S100 | 81.8 | 81.8 | 137.8 | 136 | 1.8 | 10 | 2 |
| 9.8 | 8 | ● | MVS0980X08S100 | 111.8 | 111.8 | 167.8 | 166 | 1.8 | 10 | 2 |
| NEW 9.8 | 10 | ● | MVS0980X10S100 | 131.8 | 134.8 | 189.8 | 188 | 1.8 | 10 | 4 |

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|----------|---------------------|-----------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| NEW 9.8 | 15 | ● | MVS0980X15S100 | 181.8 | 184.8 | 239.8 | 238 | 1.8 | 10 | 4 |
| NEW 9.8 | 20 | ● | MVS0980X20S100 | 231.8 | 234.8 | 289.8 | 288 | 1.8 | 10 | 4 |
| NEW 9.8 | 25 | ● | MVS0980X25S100 | 281.8 | 284.8 | 339.8 | 338 | 1.8 | 10 | 4 |
| NEW 9.8 | 30 | ● | MVS0980X30S100 | 331.8 | 334.8 | 389.8 | 388 | 1.8 | 10 | 4 |
| NEW 9.8 | 35 | □ | MVS0980X35S100 | 381.8 | 384.8 | 439.8 | 438 | 1.8 | 10 | 4 |
| 9.9 | 3 | ● | MVS0990X03S100 | 51.8 | 51.8 | 107.8 | 106 | 1.8 | 10 | 2 |
| 9.9 | 5 | ● | MVS0990X05S100 | 81.8 | 81.8 | 137.8 | 136 | 1.8 | 10 | 2 |
| 9.9 | 8 | ● | MVS0990X08S100 | 111.8 | 111.8 | 167.8 | 166 | 1.8 | 10 | 2 |
| NEW 9.9 | 10 | ● | MVS0990X10S100 | 131.8 | 134.8 | 189.8 | 188 | 1.8 | 10 | 4 |
| NEW 9.9 | 15 | ● | MVS0990X15S100 | 181.8 | 184.8 | 239.8 | 238 | 1.8 | 10 | 4 |
| NEW 9.9 | 20 | ● | MVS0990X20S100 | 231.8 | 234.8 | 289.8 | 288 | 1.8 | 10 | 4 |
| NEW 9.9 | 25 | ● | MVS0990X25S100 | 281.8 | 284.8 | 339.8 | 338 | 1.8 | 10 | 4 |
| NEW 9.9 | 30 | ● | MVS0990X30S100 | 331.8 | 334.8 | 389.8 | 388 | 1.8 | 10 | 4 |
| NEW 9.9 | 35 | □ | MVS0990X35S100 | 381.8 | 384.8 | 439.8 | 438 | 1.8 | 10 | 4 |
| 10.0 | 3 | ● | MVS1000X03S100 | 51.8 | 51.8 | 107.8 | 106 | 1.8 | 10 | 2 |
| 10.0 | 5 | ● | MVS1000X05S100 | 81.8 | 81.8 | 137.8 | 136 | 1.8 | 10 | 2 |
| 10.0 | 8 | ● | MVS1000X08S100 | 111.8 | 111.8 | 167.8 | 166 | 1.8 | 10 | 2 |
| NEW 10.0 | 10 | ● | MVS1000X10S100 | 131.8 | 134.8 | 189.8 | 188 | 1.8 | 10 | 4 |
| NEW 10.0 | 15 | ● | MVS1000X15S100 | 181.8 | 184.8 | 239.8 | 238 | 1.8 | 10 | 4 |
| NEW 10.0 | 20 | ● | MVS1000X20S100 | 231.8 | 234.8 | 289.8 | 288 | 1.8 | 10 | 4 |
| NEW 10.0 | 25 | ● | MVS1000X25S100 | 281.8 | 284.8 | 339.8 | 338 | 1.8 | 10 | 4 |
| NEW 10.0 | 30 | ● | MVS1000X30S100 | 331.8 | 334.8 | 389.8 | 388 | 1.8 | 10 | 4 |
| NEW 10.0 | 35 | ● | MVS1000X35S100 | 381.8 | 384.8 | 439.8 | 438 | 1.8 | 10 | 4 |
| 10.1 | 3 | ● | MVS1010X03S110 | 54.3 | 56.8 | 117.8 | 116 | 1.8 | 11 | 2 |
| 10.1 | 3 | ● | MVS1010X03S120 | 54.3 | 56.8 | 117.8 | 116 | 1.8 | 12 | 2 |
| 10.1 | 5 | ● | MVS1010X05S110 | 85.8 | 89.8 | 150.8 | 149 | 1.8 | 11 | 2 |
| 10.1 | 5 | ● | MVS1010X05S120 | 85.8 | 89.8 | 150.8 | 149 | 1.8 | 12 | 2 |
| 10.1 | 8 | ● | MVS1010X08S110 | 117.8 | 122.8 | 183.8 | 182 | 1.8 | 11 | 2 |
| 10.1 | 8 | ● | MVS1010X08S120 | 117.8 | 122.8 | 183.8 | 182 | 1.8 | 12 | 2 |
| NEW 10.1 | 10 | ● | MVS1010X10S110 | 138.8 | 141.8 | 202.8 | 201 | 1.8 | 11 | 4 |
| NEW 10.1 | 15 | ● | MVS1010X15S110 | 190.8 | 193.8 | 254.8 | 253 | 1.8 | 11 | 4 |
| NEW 10.1 | 20 | ● | MVS1010X20S110 | 243.8 | 246.8 | 307.8 | 306 | 1.8 | 11 | 4 |
| NEW 10.1 | 25 | ● | MVS1010X25S110 | 295.8 | 298.8 | 359.8 | 358 | 1.8 | 11 | 4 |
| 10.2 | 3 | ● | MVS1020X03S110 | 54.4 | 56.9 | 117.9 | 116 | 1.9 | 11 | 2 |
| 10.2 | 3 | ● | MVS1020X03S120 | 54.4 | 56.9 | 117.9 | 116 | 1.9 | 12 | 2 |
| 10.2 | 5 | ● | MVS1020X05S110 | 85.9 | 89.9 | 150.9 | 149 | 1.9 | 11 | 2 |
| 10.2 | 5 | ● | MVS1020X05S120 | 85.9 | 89.9 | 150.9 | 149 | 1.9 | 12 | 2 |
| 10.2 | 8 | ● | MVS1020X08S110 | 117.9 | 122.9 | 183.9 | 182 | 1.9 | 11 | 2 |
| 10.2 | 8 | ● | MVS1020X08S120 | 117.9 | 122.9 | 183.9 | 182 | 1.9 | 12 | 2 |
| NEW 10.2 | 10 | ● | MVS1020X10S110 | 138.9 | 141.9 | 202.9 | 201 | 1.9 | 11 | 4 |
| NEW 10.2 | 15 | ● | MVS1020X15S110 | 190.9 | 193.9 | 254.9 | 253 | 1.9 | 11 | 4 |
| NEW 10.2 | 20 | ● | MVS1020X20S110 | 243.9 | 246.9 | 307.9 | 306 | 1.9 | 11 | 4 |
| NEW 10.2 | 25 | ● | MVS1020X25S110 | 295.9 | 298.9 | 359.9 | 358 | 1.9 | 11 | 4 |
| 10.3 | 3 | ● | MVS1030X03S110 | 54.4 | 56.9 | 117.9 | 116 | 1.9 | 11 | 2 |
| 10.3 | 3 | ● | MVS1030X03S120 | 54.4 | 56.9 | 117.9 | 116 | 1.9 | 12 | 2 |
| 10.3 | 5 | ● | MVS1030X05S110 | 85.9 | 89.9 | 150.9 | 149 | 1.9 | 11 | 2 |
| 10.3 | 5 | ● | MVS1030X05S120 | 85.9 | 89.9 | 150.9 | 149 | 1.9 | 12 | 2 |
| 10.3 | 8 | ● | MVS1030X08S110 | 117.9 | 122.9 | 183.9 | 182 | 1.9 | 11 | 2 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills

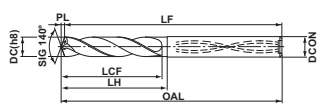


| Internal Coolant | | | | | | | | | | |
|------------------|------------------|-----------------|----------------|-------|-------|-------|-----|-----|------|------|
| DC | Hole Depth (L/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
| | | | | | | | | | | |
| NEW 10.3 | 10 | ● | MVS1030X10S110 | 138.9 | 141.9 | 202.9 | 201 | 1.9 | 11 | 4 |
| NEW 10.3 | 15 | ● | MVS1030X15S110 | 190.9 | 193.9 | 254.9 | 253 | 1.9 | 11 | 4 |
| NEW 10.3 | 20 | ● | MVS1030X20S110 | 243.9 | 246.9 | 307.9 | 306 | 1.9 | 11 | 4 |
| NEW 10.3 | 25 | ● | MVS1030X25S110 | 295.9 | 298.9 | 359.9 | 358 | 1.9 | 11 | 4 |
| 10.4 | 3 | ● | MVS1040X03S110 | 54.4 | 56.9 | 117.9 | 116 | 1.9 | 11 | 2 |
| 10.4 | 3 | ● | MVS1040X03S120 | 54.4 | 56.9 | 117.9 | 116 | 1.9 | 12 | 2 |
| 10.4 | 5 | ● | MVS1040X05S110 | 85.9 | 89.9 | 150.9 | 149 | 1.9 | 11 | 2 |
| 10.4 | 5 | ● | MVS1040X05S120 | 85.9 | 89.9 | 150.9 | 149 | 1.9 | 12 | 2 |
| 10.4 | 8 | ● | MVS1040X08S110 | 117.9 | 122.9 | 183.9 | 182 | 1.9 | 11 | 2 |
| 10.4 | 8 | ● | MVS1040X08S120 | 117.9 | 122.9 | 183.9 | 182 | 1.9 | 12 | 2 |
| NEW 10.4 | 10 | ● | MVS1040X10S110 | 138.9 | 141.9 | 202.9 | 201 | 1.9 | 11 | 4 |
| NEW 10.4 | 15 | ● | MVS1040X15S110 | 190.9 | 193.9 | 254.9 | 253 | 1.9 | 11 | 4 |
| NEW 10.4 | 20 | ● | MVS1040X20S110 | 243.9 | 246.9 | 307.9 | 306 | 1.9 | 11 | 4 |
| NEW 10.4 | 25 | ● | MVS1040X25S110 | 295.9 | 298.9 | 359.9 | 358 | 1.9 | 11 | 4 |
| 10.5 | 3 | ● | MVS1050X03S110 | 54.4 | 56.9 | 117.9 | 116 | 1.9 | 11 | 2 |
| 10.5 | 3 | ● | MVS1050X03S120 | 54.4 | 56.9 | 117.9 | 116 | 1.9 | 12 | 2 |
| 10.5 | 5 | ● | MVS1050X05S110 | 85.9 | 89.9 | 150.9 | 149 | 1.9 | 11 | 2 |
| 10.5 | 5 | ● | MVS1050X05S120 | 85.9 | 89.9 | 150.9 | 149 | 1.9 | 12 | 2 |
| 10.5 | 8 | ● | MVS1050X08S110 | 117.9 | 122.9 | 183.9 | 182 | 1.9 | 11 | 2 |
| 10.5 | 8 | ● | MVS1050X08S120 | 117.9 | 122.9 | 183.9 | 182 | 1.9 | 12 | 2 |
| NEW 10.5 | 10 | ● | MVS1050X10S110 | 138.9 | 141.9 | 202.9 | 201 | 1.9 | 11 | 4 |
| NEW 10.5 | 15 | ● | MVS1050X15S110 | 190.9 | 193.9 | 254.9 | 253 | 1.9 | 11 | 4 |
| NEW 10.5 | 20 | ● | MVS1050X20S110 | 243.9 | 246.9 | 307.9 | 306 | 1.9 | 11 | 4 |
| NEW 10.5 | 25 | ● | MVS1050X25S110 | 295.9 | 298.9 | 359.9 | 358 | 1.9 | 11 | 4 |
| 10.6 | 3 | ● | MVS1060X03S110 | 56.9 | 56.9 | 117.9 | 116 | 1.9 | 11 | 2 |
| 10.6 | 3 | ● | MVS1060X03S120 | 56.9 | 57.9 | 117.9 | 116 | 1.9 | 12 | 2 |
| 10.6 | 5 | ● | MVS1060X05S110 | 89.9 | 89.9 | 150.9 | 149 | 1.9 | 11 | 2 |
| 10.6 | 5 | ● | MVS1060X05S120 | 89.9 | 90.9 | 150.9 | 149 | 1.9 | 12 | 2 |
| 10.6 | 8 | ● | MVS1060X08S110 | 122.9 | 122.9 | 183.9 | 182 | 1.9 | 11 | 2 |
| 10.6 | 8 | ● | MVS1060X08S120 | 122.9 | 123.9 | 183.9 | 182 | 1.9 | 12 | 2 |
| NEW 10.6 | 10 | ● | MVS1060X10S110 | 144.9 | 147.9 | 208.9 | 207 | 1.9 | 11 | 4 |
| NEW 10.6 | 15 | ● | MVS1060X15S110 | 199.9 | 202.9 | 263.9 | 262 | 1.9 | 11 | 4 |
| NEW 10.6 | 20 | ● | MVS1060X20S110 | 254.9 | 257.9 | 318.9 | 317 | 1.9 | 11 | 4 |
| NEW 10.6 | 25 | ● | MVS1060X25S110 | 309.9 | 312.9 | 373.9 | 372 | 1.9 | 11 | 4 |
| 10.7 | 3 | ● | MVS1070X03S110 | 56.9 | 56.9 | 117.9 | 116 | 1.9 | 11 | 2 |
| 10.7 | 3 | ● | MVS1070X03S120 | 56.9 | 57.9 | 117.9 | 116 | 1.9 | 12 | 2 |
| 10.7 | 5 | ● | MVS1070X05S110 | 89.9 | 89.9 | 150.9 | 149 | 1.9 | 11 | 2 |
| 10.7 | 5 | ● | MVS1070X05S120 | 89.9 | 90.9 | 150.9 | 149 | 1.9 | 12 | 2 |
| 10.7 | 8 | ● | MVS1070X08S110 | 122.9 | 122.9 | 183.9 | 182 | 1.9 | 11 | 2 |
| 10.7 | 8 | ● | MVS1070X08S120 | 122.9 | 123.9 | 183.9 | 182 | 1.9 | 12 | 2 |
| NEW 10.7 | 10 | ● | MVS1070X10S110 | 144.9 | 148.0 | 208.9 | 207 | 1.9 | 11 | 4 |
| NEW 10.7 | 15 | ● | MVS1070X15S110 | 199.9 | 203.0 | 263.9 | 262 | 1.9 | 11 | 4 |
| NEW 10.7 | 20 | ● | MVS1070X20S110 | 254.9 | 258.0 | 318.9 | 317 | 1.9 | 11 | 4 |
| NEW 10.7 | 25 | ● | MVS1070X25S110 | 309.9 | 313.0 | 373.9 | 372 | 1.9 | 11 | 4 |
| 10.8 | 3 | ● | MVS1080X03S110 | 57.0 | 57.0 | 118.0 | 116 | 2.0 | 11 | 2 |
| 10.8 | 3 | ● | MVS1080X03S120 | 57.0 | 58.0 | 118.0 | 116 | 2.0 | 12 | 2 |
| 10.8 | 5 | ● | MVS1080X05S110 | 90.0 | 90.0 | 151.0 | 149 | 2.0 | 11 | 2 |

| Internal Coolant (mm) | | | | | | | | | | |
|-----------------------|------------------|-----------------|----------------|-------|-------|-------|-----|-----|------|------|
| DC | Hole Depth (L/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
| | | | | | | | | | | |
| 10.8 | 8 | ● | MVS1080X08S110 | 123.0 | 123.0 | 184.0 | 182 | 2.0 | 11 | 2 |
| 10.8 | 8 | ● | MVS1080X08S120 | 123.0 | 124.0 | 184.0 | 182 | 2.0 | 12 | 2 |
| NEW 10.8 | 10 | ● | MVS1080X10S110 | 145.0 | 148.0 | 209.0 | 207 | 2.0 | 11 | 4 |
| NEW 10.8 | 15 | ● | MVS1080X15S110 | 200.0 | 203.0 | 264.0 | 262 | 2.0 | 11 | 4 |
| NEW 10.8 | 20 | ● | MVS1080X20S110 | 255.0 | 258.0 | 319.0 | 317 | 2.0 | 11 | 4 |
| NEW 10.8 | 25 | ● | MVS1080X25S110 | 310.0 | 313.0 | 374.0 | 372 | 2.0 | 11 | 4 |
| 10.9 | 3 | ● | MVS1090X03S110 | 57.0 | 57.0 | 118.0 | 116 | 2.0 | 11 | 2 |
| 10.9 | 3 | ● | MVS1090X03S120 | 57.0 | 58.0 | 118.0 | 116 | 2.0 | 12 | 2 |
| 10.9 | 5 | ● | MVS1090X05S110 | 90.0 | 90.0 | 151.0 | 149 | 2.0 | 11 | 2 |
| 10.9 | 5 | ● | MVS1090X05S120 | 90.0 | 91.0 | 151.0 | 149 | 2.0 | 12 | 2 |
| 10.9 | 8 | ● | MVS1090X08S110 | 123.0 | 123.0 | 184.0 | 182 | 2.0 | 11 | 2 |
| 10.9 | 8 | ● | MVS1090X08S120 | 123.0 | 124.0 | 184.0 | 182 | 2.0 | 12 | 2 |
| NEW 10.9 | 10 | ● | MVS1090X10S110 | 145.0 | 148.0 | 209.0 | 207 | 2.0 | 11 | 4 |
| NEW 10.9 | 15 | ● | MVS1090X15S110 | 200.0 | 203.0 | 264.0 | 262 | 2.0 | 11 | 4 |
| NEW 10.9 | 20 | ● | MVS1090X20S110 | 255.0 | 258.0 | 319.0 | 317 | 2.0 | 11 | 4 |
| NEW 10.9 | 25 | ● | MVS1090X25S110 | 310.0 | 313.0 | 374.0 | 372 | 2.0 | 11 | 4 |
| 11.0 | 3 | ● | MVS1100X03S110 | 57.0 | 57.0 | 118.0 | 116 | 2.0 | 11 | 2 |
| 11.0 | 3 | ● | MVS1100X03S120 | 57.0 | 58.0 | 118.0 | 116 | 2.0 | 12 | 2 |
| 11.0 | 5 | ● | MVS1100X05S110 | 90.0 | 90.0 | 151.0 | 149 | 2.0 | 11 | 2 |
| 11.0 | 5 | ● | MVS1100X05S120 | 90.0 | 91.0 | 151.0 | 149 | 2.0 | 12 | 2 |
| 11.0 | 8 | ● | MVS1100X08S110 | 123.0 | 123.0 | 184.0 | 182 | 2.0 | 11 | 2 |
| 11.0 | 8 | ● | MVS1100X08S120 | 123.0 | 124.0 | 184.0 | 182 | 2.0 | 12 | 2 |
| NEW 11.0 | 10 | ● | MVS1100X10S110 | 145.0 | 148.0 | 209.0 | 207 | 2.0 | 11 | 4 |
| NEW 11.0 | 15 | ● | MVS1100X15S110 | 200.0 | 203.0 | 264.0 | 262 | 2.0 | 11 | 4 |
| NEW 11.0 | 20 | ● | MVS1100X20S110 | 255.0 | 258.0 | 319.0 | 317 | 2.0 | 11 | 4 |
| NEW 11.0 | 25 | ● | MVS1100X25S110 | 310.0 | 313.0 | 374.0 | 372 | 2.0 | 11 | 4 |
| 11.1 | 3 | ● | MVS1110X03S120 | 59.5 | 62.0 | 124.0 | 122 | 2.0 | 12 | 2 |
| 11.1 | 5 | ● | MVS1110X05S120 | 94.0 | 98.0 | 160.0 | 158 | 2.0 | 12 | 2 |
| 11.1 | 8 | ● | MVS1110X08S120 | 129.0 | 134.0 | 196.0 | 194 | 2.0 | 12 | 2 |
| NEW 11.1 | 10 | ● | MVS1110X10S120 | 152.0 | 155.0 | 217.0 | 215 | 2.0 | 12 | 4 |
| NEW 11.1 | 15 | ● | MVS1110X15S120 | 209.0 | 212.0 | 274.0 | 272 | 2.0 | 12 | 4 |
| NEW 11.1 | 20 | ● | MVS1110X20S120 | 267.0 | 270.0 | 332.0 | 330 | 2.0 | 12 | 4 |
| NEW 11.1 | 25 | ● | MVS1110X25S120 | 324.0 | 327.0 | 389.0 | 387 | 2.0 | 12 | 4 |
| 11.2 | 3 | ● | MVS1120X03S120 | 59.5 | 62.0 | 124.0 | 122 | 2.0 | 12 | 2 |
| 11.2 | 5 | ● | MVS1120X05S120 | 94.0 | 98.0 | 160.0 | 158 | 2.0 | 12 | 2 |
| 11.2 | 8 | ● | MVS1120X08S120 | 129.0 | 134.0 | 196.0 | 194 | 2.0 | 12 | 2 |
| NEW 11.2 | 10 | ● | MVS1120X10S120 | 152.0 | 155.0 | 217.0 | 215 | 2.0 | 12 | 4 |
| NEW 11.2 | 15 | ● | MVS1120X15S120 | 209.0 | 212.0 | 274.0 | 272 | 2.0 | 12 | 4 |
| NEW 11.2 | 20 | ● | MVS1120X20S120 | 267.0 | 270.0 | 332.0 | 330 | 2.0 | 12 | 4 |
| NEW 11.2 | 25 | ● | MVS1120X25S120 | 324.0 | 327.0 | 389.0 | 387 | 2.0 | 12 | 4 |
| 11.3 | 3 | ● | MVS1130X03S120 | 59.6 | 62.1 | 124.1 | 122 | 2.1 | 12 | 2 |
| 11.3 | 5 | ● | MVS1130X05S120 | 94.1 | 98.1 | 160.1 | 158 | 2.1 | 12 | 2 |
| 11.3 | 8 | ● | MVS1130X08S120 | 129.1 | 134.1 | 196.1 | 194 | 2.1 | 12 | 2 |
| NEW 11.3 | 10 | ● | MVS1130X10S120 | 152.1 | 155.1 | 217.1 | 215 | 2.1 | 12 | 4 |
| NEW 11.3 | 15 | ● | MVS1130X15S120 | 209.1 | 212.1 | 274.1 | 272 | 2.1 | 12 | 4 |
| NEW 11.3 | 20 | ● | MVS1130X20S120 | 267.1 | 270.1 | 332.1 | 330 | 2.1 | 12 | 4 |
| NEW 11.3 | 25 | ● | MVS1130X25S120 | 324.1 | 327.1 | 389.1 | 387 | 2.1 | 12 | 4 |

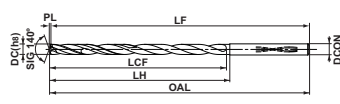
● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



Internal Coolant

Type4



Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|------|---------------------|-----------------|----------------|----------------|-------|-------|-------|-----|------|------|---|
| | | | | | | | | | | | |
| 11.4 | 3 | ● | MVS1140X03S120 | 59.6 | 62.1 | 124.1 | 122 | 2.1 | 12 | 2 | |
| 11.4 | 5 | ● | MVS1140X05S120 | 94.1 | 98.1 | 160.1 | 158 | 2.1 | 12 | 2 | |
| 11.4 | 8 | ● | MVS1140X08S120 | 129.1 | 134.1 | 196.1 | 194 | 2.1 | 12 | 2 | |
| NEW | 11.4 | 10 | ● | MVS1140X10S120 | 152.1 | 155.1 | 217.1 | 215 | 2.1 | 12 | 4 |
| NEW | 11.4 | 15 | ● | MVS1140X15S120 | 209.1 | 212.1 | 274.1 | 272 | 2.1 | 12 | 4 |
| NEW | 11.4 | 20 | ● | MVS1140X20S120 | 267.1 | 270.1 | 332.1 | 330 | 2.1 | 12 | 4 |
| NEW | 11.4 | 25 | ● | MVS1140X25S120 | 324.1 | 327.1 | 389.1 | 387 | 2.1 | 12 | 4 |
| 11.5 | 3 | ● | MVS1150X03S120 | 59.6 | 62.1 | 124.1 | 122 | 2.1 | 12 | 2 | |
| 11.5 | 5 | ● | MVS1150X05S120 | 94.1 | 98.1 | 160.1 | 158 | 2.1 | 12 | 2 | |
| 11.5 | 8 | ● | MVS1150X08S120 | 129.1 | 134.1 | 196.1 | 194 | 2.1 | 12 | 2 | |
| NEW | 11.5 | 10 | ● | MVS1150X10S120 | 152.1 | 155.1 | 217.1 | 215 | 2.1 | 12 | 4 |
| NEW | 11.5 | 15 | ● | MVS1150X15S120 | 209.1 | 212.1 | 274.1 | 272 | 2.1 | 12 | 4 |
| NEW | 11.5 | 20 | ● | MVS1150X20S120 | 267.1 | 270.1 | 332.1 | 330 | 2.1 | 12 | 4 |
| NEW | 11.5 | 25 | ● | MVS1150X25S120 | 324.1 | 327.1 | 389.1 | 387 | 2.1 | 12 | 4 |
| 11.6 | 3 | ● | MVS1160X03S120 | 62.1 | 62.1 | 124.1 | 122 | 2.1 | 12 | 2 | |
| 11.6 | 5 | ● | MVS1160X05S120 | 98.1 | 98.1 | 160.1 | 158 | 2.1 | 12 | 2 | |
| 11.6 | 8 | ● | MVS1160X08S120 | 134.1 | 134.1 | 196.1 | 194 | 2.1 | 12 | 2 | |
| NEW | 11.6 | 10 | ● | MVS1160X10S120 | 158.1 | 161.1 | 223.1 | 221 | 2.1 | 12 | 4 |
| NEW | 11.6 | 15 | ● | MVS1160X15S120 | 218.1 | 221.1 | 283.1 | 281 | 2.1 | 12 | 4 |
| NEW | 11.6 | 20 | ● | MVS1160X20S120 | 278.1 | 281.1 | 343.1 | 341 | 2.1 | 12 | 4 |
| NEW | 11.6 | 25 | ● | MVS1160X25S120 | 338.1 | 341.1 | 403.1 | 401 | 2.1 | 12 | 4 |
| 11.7 | 3 | ● | MVS1170X03S120 | 62.1 | 62.1 | 124.1 | 122 | 2.1 | 12 | 2 | |
| 11.7 | 5 | ● | MVS1170X05S120 | 98.1 | 98.1 | 160.1 | 158 | 2.1 | 12 | 2 | |
| 11.7 | 8 | ● | MVS1170X08S120 | 134.1 | 134.1 | 196.1 | 194 | 2.1 | 12 | 2 | |
| NEW | 11.7 | 10 | ● | MVS1170X10S120 | 158.1 | 161.1 | 223.1 | 221 | 2.1 | 12 | 4 |
| NEW | 11.7 | 15 | ● | MVS1170X15S120 | 218.1 | 221.1 | 283.1 | 281 | 2.1 | 12 | 4 |
| NEW | 11.7 | 20 | ● | MVS1170X20S120 | 278.1 | 281.1 | 343.1 | 341 | 2.1 | 12 | 4 |
| NEW | 11.7 | 25 | ● | MVS1170X25S120 | 338.1 | 341.1 | 403.1 | 401 | 2.1 | 12 | 4 |
| 11.8 | 3 | ● | MVS1180X03S120 | 62.1 | 62.1 | 124.1 | 122 | 2.1 | 12 | 2 | |
| 11.8 | 5 | ● | MVS1180X05S120 | 98.1 | 98.1 | 160.1 | 158 | 2.1 | 12 | 2 | |
| 11.8 | 8 | ● | MVS1180X08S120 | 134.1 | 134.1 | 196.1 | 194 | 2.1 | 12 | 2 | |
| NEW | 11.8 | 10 | ● | MVS1180X10S120 | 158.1 | 161.2 | 223.1 | 221 | 2.1 | 12 | 4 |
| NEW | 11.8 | 15 | ● | MVS1180X15S120 | 218.1 | 221.2 | 283.1 | 281 | 2.1 | 12 | 4 |
| NEW | 11.8 | 20 | ● | MVS1180X20S120 | 278.1 | 281.2 | 343.1 | 341 | 2.1 | 12 | 4 |
| NEW | 11.8 | 25 | ● | MVS1180X25S120 | 338.1 | 341.2 | 403.1 | 401 | 2.1 | 12 | 4 |
| 11.9 | 3 | ● | MVS1190X03S120 | 62.2 | 62.2 | 124.2 | 122 | 2.2 | 12 | 2 | |
| 11.9 | 5 | ● | MVS1190X05S120 | 98.2 | 98.2 | 160.2 | 158 | 2.2 | 12 | 2 | |
| 11.9 | 8 | ● | MVS1190X08S120 | 134.2 | 134.2 | 196.2 | 194 | 2.2 | 12 | 2 | |
| NEW | 11.9 | 10 | ● | MVS1190X10S120 | 158.2 | 161.2 | 223.2 | 221 | 2.2 | 12 | 4 |
| NEW | 11.9 | 15 | ● | MVS1190X15S120 | 218.2 | 221.2 | 283.2 | 281 | 2.2 | 12 | 4 |
| NEW | 11.9 | 20 | ● | MVS1190X20S120 | 278.2 | 281.2 | 343.2 | 341 | 2.2 | 12 | 4 |
| NEW | 11.9 | 25 | ● | MVS1190X25S120 | 338.2 | 341.2 | 403.2 | 401 | 2.2 | 12 | 4 |
| 12.0 | 3 | ● | MVS1200X03S120 | 62.2 | 62.2 | 124.2 | 122 | 2.2 | 12 | 2 | |
| 12.0 | 5 | ● | MVS1200X05S120 | 98.2 | 98.2 | 160.2 | 158 | 2.2 | 12 | 2 | |
| 12.0 | 8 | ● | MVS1200X08S120 | 134.2 | 134.2 | 196.2 | 194 | 2.2 | 12 | 2 | |
| NEW | 12.0 | 10 | ● | MVS1200X10S120 | 158.2 | 161.2 | 223.2 | 221 | 2.2 | 12 | 4 |
| NEW | 12.0 | 15 | ● | MVS1200X15S120 | 218.2 | 221.2 | 283.2 | 281 | 2.2 | 12 | 4 |
| NEW | 12.0 | 20 | ● | MVS1200X20S120 | 278.2 | 281.2 | 343.2 | 341 | 2.2 | 12 | 4 |

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
|------|---------------------|-----------------|----------------|----------------|-------|-------|-------|-----|------|------|---|
| | | | | | | | | | | | |
| NEW | 12.0 | 25 | ● | MVS1200X25S120 | 338.2 | 341.2 | 403.2 | 401 | 2.2 | 12 | 4 |
| 12.1 | 3 | ● | MVS1210X03S130 | 64.7 | 67.2 | 130.2 | 128 | 2.2 | 13 | 2 | |
| 12.1 | 3 | □ | MVS1210X03S140 | 64.7 | 67.2 | 130.2 | 128 | 2.2 | 14 | 2 | |
| 12.1 | 5 | ● | MVS1210X05S130 | 102.2 | 106.2 | 169.2 | 167 | 2.2 | 13 | 2 | |
| 12.1 | 5 | □ | MVS1210X05S140 | 102.2 | 106.2 | 169.2 | 167 | 2.2 | 14 | 2 | |
| 12.1 | 8 | □ | MVS1210X08S130 | 140.2 | 145.2 | 208.2 | 206 | 2.2 | 13 | 2 | |
| 12.1 | 8 | □ | MVS1210X08S140 | 140.2 | 145.2 | 208.2 | 206 | 2.2 | 14 | 2 | |
| NEW | 12.1 | 10 | □ | MVS1210X10S130 | 165.2 | 168.2 | 231.2 | 229 | 2.2 | 13 | 4 |
| NEW | 12.1 | 15 | □ | MVS1210X15S130 | 227.2 | 230.2 | 293.2 | 291 | 2.2 | 13 | 4 |
| NEW | 12.1 | 20 | □ | MVS1210X20S130 | 290.2 | 293.2 | 356.2 | 354 | 2.2 | 13 | 4 |
| 12.2 | 3 | ● | MVS1220X03S130 | 64.7 | 67.2 | 130.2 | 128 | 2.2 | 13 | 2 | |
| 12.2 | 3 | □ | MVS1220X03S140 | 64.7 | 67.2 | 130.2 | 128 | 2.2 | 14 | 2 | |
| 12.2 | 5 | ● | MVS1220X05S130 | 102.2 | 106.2 | 169.2 | 167 | 2.2 | 13 | 2 | |
| 12.2 | 5 | □ | MVS1220X05S140 | 102.2 | 106.2 | 169.2 | 167 | 2.2 | 14 | 2 | |
| 12.2 | 8 | □ | MVS1220X08S130 | 140.2 | 145.2 | 208.2 | 206 | 2.2 | 13 | 2 | |
| 12.2 | 8 | □ | MVS1220X08S140 | 140.2 | 145.2 | 208.2 | 206 | 2.2 | 14 | 2 | |
| NEW | 12.2 | 10 | □ | MVS1220X10S130 | 165.2 | 168.2 | 231.2 | 229 | 2.2 | 13 | 4 |
| NEW | 12.2 | 15 | □ | MVS1220X15S130 | 227.2 | 230.2 | 293.2 | 291 | 2.2 | 13 | 4 |
| NEW | 12.2 | 20 | □ | MVS1220X20S130 | 290.2 | 293.2 | 356.2 | 354 | 2.2 | 13 | 4 |
| 12.3 | 3 | ● | MVS1230X03S130 | 64.7 | 67.2 | 130.2 | 128 | 2.2 | 13 | 2 | |
| 12.3 | 3 | □ | MVS1230X03S140 | 64.7 | 67.2 | 130.2 | 128 | 2.2 | 14 | 2 | |
| 12.3 | 5 | ● | MVS1230X05S130 | 102.2 | 106.2 | 169.2 | 167 | 2.2 | 13 | 2 | |
| 12.3 | 5 | □ | MVS1230X05S140 | 102.2 | 106.2 | 169.2 | 167 | 2.2 | 14 | 2 | |
| 12.3 | 8 | □ | MVS1230X08S130 | 140.2 | 145.2 | 208.2 | 206 | 2.2 | 13 | 2 | |
| 12.3 | 8 | □ | MVS1230X08S140 | 140.2 | 145.2 | 208.2 | 206 | 2.2 | 14 | 2 | |
| NEW | 12.3 | 10 | □ | MVS1230X10S130 | 165.2 | 168.2 | 231.2 | 229 | 2.2 | 13 | 4 |
| NEW | 12.3 | 15 | □ | MVS1230X15S130 | 227.2 | 230.2 | 293.2 | 291 | 2.2 | 13 | 4 |
| NEW | 12.3 | 20 | □ | MVS1230X20S130 | 290.2 | 293.2 | 356.2 | 354 | 2.2 | 13 | 4 |
| 12.4 | 3 | ● | MVS1240X03S130 | 64.8 | 67.3 | 130.3 | 128 | 2.3 | 13 | 2 | |
| 12.4 | 3 | □ | MVS1240X03S140 | 64.8 | 67.3 | 130.3 | 128 | 2.3 | 14 | 2 | |
| 12.4 | 5 | ● | MVS1240X05S130 | 102.3 | 106.3 | 169.3 | 167 | 2.3 | 13 | 2 | |
| 12.4 | 5 | □ | MVS1240X05S140 | 102.3 | 106.3 | 169.3 | 167 | 2.3 | 14 | 2 | |
| 12.4 | 8 | □ | MVS1240X08S130 | 140.3 | 145.3 | 208.3 | 206 | 2.3 | 13 | 2 | |
| 12.4 | 8 | □ | MVS1240X08S140 | 140.3 | 145.3 | 208.3 | 206 | 2.3 | 14 | 2 | |
| NEW | 12.4 | 10 | □ | MVS1240X10S130 | 165.3 | 168.3 | 231.3 | 229 | 2.3 | 13 | 4 |
| NEW | 12.4 | 15 | □ | MVS1240X15S130 | 227.3 | 230.3 | 293.3 | 291 | 2.3 | 13 | 4 |
| NEW | 12.4 | 20 | □ | MVS1240X20S130 | 290.3 | 293.3 | 356.3 | 354 | 2.3 | 13 | 4 |
| 12.5 | 3 | ● | MVS1250X03S130 | 64.8 | 67.3 | 130.3 | 128 | 2.3 | 13 | 2 | |
| 12.5 | 3 | □ | MVS1250X03S140 | 64.8 | 67.3 | 130.3 | 128 | 2.3 | 14 | 2 | |
| 12.5 | 5 | ● | MVS1250X05S130 | 102.3 | 106.3 | 169.3 | 167 | 2.3 | 13 | 2 | |
| 12.5 | 5 | □ | MVS1250X05S140 | 102.3 | 106.3 | 169.3 | 167 | 2.3 | 14 | 2 | |
| 12.5 | 8 | ● | MVS1250X08S130 | 140.3 | 145.3 | 208.3 | 206 | 2.3 | 13 | 2 | |
| 12.5 | 8 | □ | MVS1250X08S140 | 140.3 | 145.3 | 208.3 | 206 | 2.3 | 14 | 2 | |
| NEW | 12.5 | 10 | ● | MVS1250X10S130 | 165.3 | 168.3 | 231.3 | 229 | 2.3 | 13 | 4 |
| NEW | 12.5 | 15 | ● | MVS1250X15S130 | 227.3 | 230.3 | 293.3 | 291 | 2.3 | 13 | 4 |
| NEW | 12.5 | 20 | ● | MVS1250X20S130 | 290.3 | 293.3 | 356.3 | 354 | 2.3 | 13 | 4 |
| 12.6 | 3 | ● | MVS1260X03S130 | 67.3 | 67.3 | 130.3 | 128 | 2.3 | 13 | 2 | |
| 12.6 | 3 | □ | MVS1260X03S140 | 67.3 | 67.3 | 130.3 | 128 | 2.3 | 14 | 2 | |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills

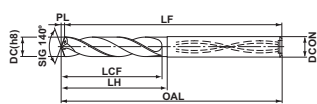


| Internal Coolant | | | | | | | | | | |
|------------------|------------------|-------|----------------|-------|-------|-------|-----|-----|------|------|
| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
| | | | | | | | | | | |
| 12.6 | 5 | ● | MVS1260X05S130 | 106.3 | 106.3 | 169.3 | 167 | 2.3 | 13 | 2 |
| 12.6 | 5 | □ | MVS1260X05S140 | 106.3 | 106.3 | 169.3 | 167 | 2.3 | 14 | 2 |
| 12.6 | 8 | □ | MVS1260X08S130 | 145.3 | 145.3 | 208.3 | 206 | 2.3 | 13 | 2 |
| 12.6 | 8 | □ | MVS1260X08S140 | 145.3 | 145.3 | 208.3 | 206 | 2.3 | 14 | 2 |
| NEW 12.6 | 10 | □ | MVS1260X10S130 | 171.3 | 174.3 | 237.3 | 235 | 2.3 | 13 | 4 |
| NEW 12.6 | 15 | □ | MVS1260X15S130 | 236.3 | 239.3 | 302.3 | 300 | 2.3 | 13 | 4 |
| NEW 12.6 | 20 | □ | MVS1260X20S130 | 301.3 | 304.3 | 367.3 | 365 | 2.3 | 13 | 4 |
| 12.7 | 3 | ● | MVS1270X03S130 | 67.3 | 67.3 | 130.3 | 128 | 2.3 | 13 | 2 |
| 12.7 | 3 | □ | MVS1270X03S140 | 67.3 | 67.3 | 130.3 | 128 | 2.3 | 14 | 2 |
| 12.7 | 5 | ● | MVS1270X05S130 | 106.3 | 106.3 | 169.3 | 167 | 2.3 | 13 | 2 |
| 12.7 | 5 | □ | MVS1270X05S140 | 106.3 | 106.3 | 169.3 | 167 | 2.3 | 14 | 2 |
| 12.7 | 8 | □ | MVS1270X08S130 | 145.3 | 145.3 | 208.3 | 206 | 2.3 | 13 | 2 |
| 12.7 | 8 | □ | MVS1270X08S140 | 145.3 | 145.3 | 208.3 | 206 | 2.3 | 14 | 2 |
| NEW 12.7 | 10 | □ | MVS1270X10S130 | 171.3 | 174.3 | 237.3 | 235 | 2.3 | 13 | 4 |
| NEW 12.7 | 15 | □ | MVS1270X15S130 | 236.3 | 239.3 | 302.3 | 300 | 2.3 | 13 | 4 |
| NEW 12.7 | 20 | □ | MVS1270X20S130 | 301.3 | 304.3 | 367.3 | 365 | 2.3 | 13 | 4 |
| 12.8 | 3 | ● | MVS1280X03S130 | 67.3 | 67.3 | 130.3 | 128 | 2.3 | 13 | 2 |
| 12.8 | 3 | □ | MVS1280X03S140 | 67.3 | 67.3 | 130.3 | 128 | 2.3 | 14 | 2 |
| 12.8 | 5 | ● | MVS1280X05S130 | 106.3 | 106.3 | 169.3 | 167 | 2.3 | 13 | 2 |
| 12.8 | 5 | □ | MVS1280X05S140 | 106.3 | 106.3 | 169.3 | 167 | 2.3 | 14 | 2 |
| 12.8 | 8 | □ | MVS1280X08S130 | 145.3 | 145.3 | 208.3 | 206 | 2.3 | 13 | 2 |
| 12.8 | 8 | □ | MVS1280X08S140 | 145.3 | 145.3 | 208.3 | 206 | 2.3 | 14 | 2 |
| NEW 12.8 | 10 | □ | MVS1280X10S130 | 171.3 | 174.3 | 237.3 | 235 | 2.3 | 13 | 4 |
| NEW 12.8 | 15 | □ | MVS1280X15S130 | 236.3 | 239.3 | 302.3 | 300 | 2.3 | 13 | 4 |
| NEW 12.8 | 20 | □ | MVS1280X20S130 | 301.3 | 304.3 | 367.3 | 365 | 2.3 | 13 | 4 |
| 12.9 | 3 | ● | MVS1290X03S130 | 67.3 | 67.3 | 130.3 | 128 | 2.3 | 13 | 2 |
| 12.9 | 3 | □ | MVS1290X03S140 | 67.3 | 67.3 | 130.3 | 128 | 2.3 | 14 | 2 |
| 12.9 | 5 | ● | MVS1290X05S130 | 106.3 | 106.3 | 169.3 | 167 | 2.3 | 13 | 2 |
| 12.9 | 5 | □ | MVS1290X05S140 | 106.3 | 106.3 | 169.3 | 167 | 2.3 | 14 | 2 |
| 12.9 | 8 | □ | MVS1290X08S130 | 145.3 | 145.3 | 208.3 | 206 | 2.3 | 13 | 2 |
| 12.9 | 8 | □ | MVS1290X08S140 | 145.3 | 145.3 | 208.3 | 206 | 2.3 | 14 | 2 |
| NEW 12.9 | 10 | □ | MVS1290X10S130 | 171.3 | 174.4 | 237.3 | 235 | 2.3 | 13 | 4 |
| NEW 12.9 | 15 | □ | MVS1290X15S130 | 236.3 | 239.4 | 302.3 | 300 | 2.3 | 13 | 4 |
| NEW 12.9 | 20 | □ | MVS1290X20S130 | 301.3 | 304.4 | 367.3 | 365 | 2.3 | 13 | 4 |
| 13.0 | 3 | ● | MVS1300X03S130 | 67.4 | 67.4 | 130.4 | 128 | 2.4 | 13 | 2 |
| 13.0 | 3 | □ | MVS1300X03S140 | 67.4 | 67.4 | 130.4 | 128 | 2.4 | 14 | 2 |
| 13.0 | 5 | ● | MVS1300X05S130 | 106.4 | 106.4 | 169.4 | 167 | 2.4 | 13 | 2 |
| 13.0 | 5 | □ | MVS1300X05S140 | 106.4 | 106.4 | 169.4 | 167 | 2.4 | 14 | 2 |
| 13.0 | 8 | ● | MVS1300X08S130 | 145.4 | 145.4 | 208.4 | 206 | 2.4 | 13 | 2 |
| 13.0 | 8 | □ | MVS1300X08S140 | 145.4 | 145.4 | 208.4 | 206 | 2.4 | 14 | 2 |
| NEW 13.0 | 10 | ● | MVS1300X10S130 | 171.4 | 174.4 | 237.4 | 235 | 2.4 | 13 | 4 |
| NEW 13.0 | 15 | ● | MVS1300X15S130 | 236.4 | 239.4 | 302.4 | 300 | 2.4 | 13 | 4 |
| NEW 13.0 | 20 | ● | MVS1300X20S130 | 301.4 | 304.4 | 367.4 | 365 | 2.4 | 13 | 4 |
| 13.1 | 3 | ● | MVS1310X03S140 | 69.9 | 72.4 | 136.4 | 134 | 2.4 | 14 | 2 |
| 13.1 | 5 | ● | MVS1310X05S140 | 110.4 | 114.4 | 178.4 | 176 | 2.4 | 14 | 2 |
| 13.1 | 8 | □ | MVS1310X08S140 | 151.4 | 156.4 | 220.4 | 218 | 2.4 | 14 | 2 |
| NEW 13.1 | 10 | □ | MVS1310X10S140 | 178.4 | 181.4 | 245.4 | 243 | 2.4 | 14 | 4 |
| NEW 13.1 | 15 | □ | MVS1310X15S140 | 245.4 | 248.4 | 312.4 | 310 | 2.4 | 14 | 4 |

| Internal Coolant | | | | | | | | | | | (mm) |
|------------------|------------------|-------|----------------|-------|-------|-------|-----|-----|------|------|--------|
| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type | |
| | | | | | | | | | | | DP1020 |
| NEW 13.1 | 20 | □ | MVS1310X20S140 | 313.4 | 316.4 | 380.4 | 378 | 2.4 | 14 | 4 | |
| 13.2 | 3 | ● | MVS1320X03S140 | 69.9 | 72.4 | 136.4 | 134 | 2.4 | 14 | 2 | |
| 13.2 | 5 | ● | MVS1320X05S140 | 110.4 | 114.4 | 178.4 | 176 | 2.4 | 14 | 2 | |
| 13.2 | 8 | □ | MVS1320X08S140 | 151.4 | 156.4 | 220.4 | 218 | 2.4 | 14 | 2 | |
| NEW 13.2 | 10 | □ | MVS1320X10S140 | 178.4 | 181.4 | 245.4 | 243 | 2.4 | 14 | 4 | |
| NEW 13.2 | 15 | □ | MVS1320X15S140 | 245.4 | 248.4 | 312.4 | 310 | 2.4 | 14 | 4 | |
| NEW 13.2 | 20 | □ | MVS1320X20S140 | 313.4 | 316.4 | 380.4 | 378 | 2.4 | 14 | 4 | |
| 13.3 | 3 | ● | MVS1330X03S140 | 69.9 | 72.4 | 136.4 | 134 | 2.4 | 14 | 2 | |
| 13.3 | 5 | ● | MVS1330X05S140 | 110.4 | 114.4 | 178.4 | 176 | 2.4 | 14 | 2 | |
| 13.3 | 8 | □ | MVS1330X08S140 | 151.4 | 156.4 | 220.4 | 218 | 2.4 | 14 | 2 | |
| NEW 13.3 | 10 | □ | MVS1330X10S140 | 178.4 | 181.4 | 245.4 | 243 | 2.4 | 14 | 4 | |
| NEW 13.3 | 15 | □ | MVS1330X15S140 | 245.4 | 248.4 | 312.4 | 310 | 2.4 | 14 | 4 | |
| NEW 13.3 | 20 | □ | MVS1330X20S140 | 313.4 | 316.4 | 380.4 | 378 | 2.4 | 14 | 4 | |
| 13.4 | 3 | ● | MVS1340X03S140 | 69.9 | 72.4 | 136.4 | 134 | 2.4 | 14 | 2 | |
| 13.4 | 5 | ● | MVS1340X05S140 | 110.4 | 114.4 | 178.4 | 176 | 2.4 | 14 | 2 | |
| 13.4 | 8 | □ | MVS1340X08S140 | 151.4 | 156.4 | 220.4 | 218 | 2.4 | 14 | 2 | |
| NEW 13.4 | 10 | □ | MVS1340X10S140 | 178.4 | 181.4 | 245.4 | 243 | 2.4 | 14 | 4 | |
| NEW 13.4 | 15 | □ | MVS1340X15S140 | 245.4 | 248.4 | 312.4 | 310 | 2.4 | 14 | 4 | |
| NEW 13.4 | 20 | □ | MVS1340X20S140 | 313.4 | 316.4 | 380.4 | 378 | 2.4 | 14 | 4 | |
| 13.5 | 3 | ● | MVS1350X03S140 | 70.0 | 72.5 | 136.5 | 134 | 2.5 | 14 | 2 | |
| 13.5 | 5 | ● | MVS1350X05S140 | 110.5 | 114.5 | 178.5 | 176 | 2.5 | 14 | 2 | |
| 13.5 | 8 | ● | MVS1350X08S140 | 151.5 | 156.5 | 220.5 | 218 | 2.5 | 14 | 2 | |
| NEW 13.5 | 10 | ● | MVS1350X10S140 | 178.5 | 181.5 | 245.5 | 243 | 2.5 | 14 | 4 | |
| NEW 13.5 | 15 | ● | MVS1350X15S140 | 245.5 | 248.5 | 312.5 | 310 | 2.5 | 14 | 4 | |
| NEW 13.5 | 20 | ● | MVS1350X20S140 | 313.5 | 316.5 | 380.5 | 378 | 2.5 | 14 | 4 | |
| 13.6 | 3 | ● | MVS1360X03S140 | 72.5 | 72.5 | 136.5 | 134 | 2.5 | 14 | 2 | |
| 13.6 | 5 | ● | MVS1360X05S140 | 114.5 | 114.5 | 178.5 | 176 | 2.5 | 14 | 2 | |
| 13.6 | 8 | □ | MVS1360X08S140 | 156.5 | 156.5 | 220.5 | 218 | 2.5 | 14 | 2 | |
| NEW 13.6 | 10 | □ | MVS1360X10S140 | 184.5 | 187.5 | 251.5 | 249 | 2.5 | 14 | 4 | |
| NEW 13.6 | 15 | □ | MVS1360X15S140 | 254.5 | 257.5 | 321.5 | 319 | 2.5 | 14 | 4 | |
| NEW 13.6 | 20 | □ | MVS1360X20S140 | 324.5 | 327.5 | 391.5 | 389 | 2.5 | 14 | 4 | |
| 13.7 | 3 | ● | MVS1370X03S140 | 72.5 | 72.5 | 136.5 | 134 | 2.5 | 14 | 2 | |
| 13.7 | 5 | ● | MVS1370X05S140 | 114.5 | 114.5 | 178.5 | 176 | 2.5 | 14 | 2 | |
| 13.7 | 8 | □ | MVS1370X08S140 | 156.5 | 156.5 | 220.5 | 218 | 2.5 | 14 | 2 | |
| NEW 13.7 | 10 | □ | MVS1370X10S140 | 184.5 | 187.5 | 251.5 | 249 | 2.5 | 14 | 4 | |
| NEW 13.7 | 15 | □ | MVS1370X15S140 | 254.5 | 257.5 | 321.5 | 319 | 2.5 | 14 | 4 | |
| NEW 13.7 | 20 | □ | MVS1370X20S140 | 324.5 | 327.5 | 391.5 | 389 | 2.5 | 14 | 4 | |
| 13.8 | 3 | ● | MVS1380X03S140 | 72.5 | 72.5 | 136.5 | 134 | 2.5 | 14 | 2 | |
| 13.8 | 5 | ● | MVS1380X05S140 | 114.5 | 114.5 | 178.5 | 176 | 2.5 | 14 | 2 | |
| 13.8 | 8 | □ | MVS1380X08S140 | 156.5 | 156.5 | 220.5 | 218 | 2.5 | 14 | 2 | |
| NEW 13.8 | 10 | □ | MVS1380X10S140 | 184.5 | 187.5 | 251.5 | 249 | 2.5 | 14 | 4 | |
| NEW 13.8 | 15 | □ | MVS1380X15S140 | 254.5 | 257.5 | 321.5 | 319 | 2.5 | 14 | 4 | |
| NEW 13.8 | 20 | □ | MVS1380X20S140 | 324.5 | 327.5 | 391.5 | 389 | 2.5 | 14 | 4 | |
| 13.9 | 3 | ● | MVS1390X03S140 | 72.5 | 72.5 | 136.5 | 134 | 2.5 | 14 | 2 | |
| 13.9 | 5 | ● | MVS1390X05S140 | 114.5 | 114.5 | 178.5 | 176 | 2.5 | 14 | 2 | |
| 13.9 | 8 | □ | MVS1390X08S140 | 156.5 | 156.5 | 220.5 | 218 | 2.5 | 14 | 2 | |
| NEW 13.9 | 10 | □ | MVS1390X10S140 | 184.5 | 187.5 | 251.5 | 249 | 2.5 | 14 | 4 | |
| NEW 13.9 | 15 | □ | MVS1390X15S140 | 254.5 | 257.5 | 321.5 | 319 | 2.5 | 14 | 4 | |

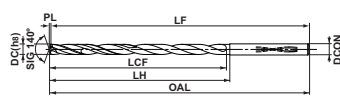
● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



Internal Coolant

Type4



Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|----------|---------------------|-----------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| NEW 13.9 | 20 | □ | MVS1390X20S140 | 324.5 | 327.5 | 391.5 | 389 | 2.5 | 14 | 4 |
| 14.0 | 3 | ● | MVS1400X03S140 | 72.5 | 72.5 | 136.5 | 134 | 2.5 | 14 | 2 |
| 14.0 | 5 | ● | MVS1400X05S140 | 114.5 | 114.5 | 178.5 | 176 | 2.5 | 14 | 2 |
| 14.0 | 8 | ● | MVS1400X08S140 | 156.5 | 156.5 | 220.5 | 218 | 2.5 | 14 | 2 |
| NEW 14.0 | 10 | ● | MVS1400X10S140 | 184.5 | 187.6 | 251.5 | 249 | 2.5 | 14 | 4 |
| NEW 14.0 | 15 | ● | MVS1400X15S140 | 254.5 | 257.6 | 321.5 | 319 | 2.5 | 14 | 4 |
| NEW 14.0 | 20 | ● | MVS1400X20S140 | 324.5 | 327.6 | 391.5 | 389 | 2.5 | 14 | 4 |
| 14.1 | 3 | ● | MVS1410X03S150 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 15 | 2 |
| 14.1 | 3 | □ | MVS1410X03S160 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 16 | 2 |
| 14.1 | 5 | ● | MVS1410X05S150 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 15 | 2 |
| 14.1 | 5 | □ | MVS1410X05S160 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 16 | 2 |
| 14.1 | 8 | □ | MVS1410X08S150 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 15 | 2 |
| 14.1 | 8 | □ | MVS1410X08S160 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 16 | 2 |
| 14.2 | 3 | ● | MVS1420X03S150 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 15 | 2 |
| 14.2 | 3 | □ | MVS1420X03S160 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 16 | 2 |
| 14.2 | 5 | ● | MVS1420X05S150 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 15 | 2 |
| 14.2 | 5 | □ | MVS1420X05S160 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 16 | 2 |
| 14.2 | 8 | ● | MVS1420X08S150 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 15 | 2 |
| 14.2 | 8 | □ | MVS1420X08S160 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 16 | 2 |
| 14.3 | 3 | ● | MVS1430X03S150 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 15 | 2 |
| 14.3 | 3 | □ | MVS1430X03S160 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 16 | 2 |
| 14.3 | 5 | ● | MVS1430X05S150 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 15 | 2 |
| 14.3 | 5 | □ | MVS1430X05S160 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 16 | 2 |
| 14.3 | 8 | □ | MVS1430X08S150 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 15 | 2 |
| 14.3 | 8 | □ | MVS1430X08S160 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 16 | 2 |
| 14.4 | 3 | ● | MVS1440X03S150 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 15 | 2 |
| 14.4 | 3 | □ | MVS1440X03S160 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 16 | 2 |
| 14.4 | 5 | ● | MVS1440X05S150 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 15 | 2 |
| 14.4 | 5 | □ | MVS1440X05S160 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 16 | 2 |
| 14.4 | 8 | □ | MVS1440X08S150 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 15 | 2 |
| 14.4 | 8 | □ | MVS1440X08S160 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 16 | 2 |
| 14.5 | 3 | ● | MVS1450X03S150 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 15 | 2 |
| 14.5 | 3 | □ | MVS1450X03S160 | 75.1 | 77.6 | 142.6 | 140 | 2.6 | 16 | 2 |
| 14.5 | 5 | ● | MVS1450X05S150 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 15 | 2 |
| 14.5 | 5 | □ | MVS1450X05S160 | 118.6 | 122.6 | 187.6 | 185 | 2.6 | 16 | 2 |
| 14.5 | 8 | ● | MVS1450X08S150 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 15 | 2 |
| 14.5 | 8 | □ | MVS1450X08S160 | 162.6 | 167.6 | 227.6 | 225 | 2.6 | 16 | 2 |
| 14.6 | 3 | ● | MVS1460X03S150 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 15 | 2 |
| 14.6 | 3 | □ | MVS1460X03S160 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 16 | 2 |
| 14.6 | 5 | ● | MVS1460X05S150 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 15 | 2 |
| 14.6 | 5 | □ | MVS1460X05S160 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 16 | 2 |
| 14.6 | 8 | □ | MVS1460X08S150 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 15 | 2 |
| 14.6 | 8 | □ | MVS1460X08S160 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 16 | 2 |
| 14.7 | 3 | ● | MVS1470X03S150 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 15 | 2 |
| 14.7 | 3 | □ | MVS1470X03S160 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 16 | 2 |
| 14.7 | 5 | ● | MVS1470X05S150 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 15 | 2 |
| 14.7 | 5 | □ | MVS1470X05S160 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 16 | 2 |
| 14.7 | 8 | □ | MVS1470X08S150 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 15 | 2 |

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|---------------------|-----------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 14.7 | 8 | □ | MVS1470X08S160 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 16 | 2 |
| 14.8 | 3 | ● | MVS1480X03S150 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 15 | 2 |
| 14.8 | 3 | □ | MVS1480X03S160 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 16 | 2 |
| 14.8 | 5 | ● | MVS1480X05S150 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 15 | 2 |
| 14.8 | 5 | □ | MVS1480X05S160 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 16 | 2 |
| 14.8 | 8 | □ | MVS1480X08S150 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 15 | 2 |
| 14.8 | 8 | □ | MVS1480X08S160 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 16 | 2 |
| 14.9 | 3 | ● | MVS1490X03S150 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 15 | 2 |
| 14.9 | 3 | □ | MVS1490X03S160 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 16 | 2 |
| 14.9 | 5 | ● | MVS1490X05S150 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 15 | 2 |
| 14.9 | 5 | □ | MVS1490X05S160 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 16 | 2 |
| 14.9 | 8 | □ | MVS1490X08S150 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 15 | 2 |
| 14.9 | 8 | □ | MVS1490X08S160 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 16 | 2 |
| 15.0 | 3 | ● | MVS1500X03S150 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 15 | 2 |
| 15.0 | 3 | □ | MVS1500X03S160 | 77.7 | 77.7 | 142.7 | 140 | 2.7 | 16 | 2 |
| 15.0 | 5 | ● | MVS1500X05S150 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 15 | 2 |
| 15.0 | 5 | □ | MVS1500X05S160 | 122.7 | 122.7 | 187.7 | 185 | 2.7 | 16 | 2 |
| 15.0 | 8 | ● | MVS1500X08S150 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 15 | 2 |
| 15.0 | 8 | □ | MVS1500X08S160 | 167.7 | 167.7 | 227.7 | 225 | 2.7 | 16 | 2 |
| 15.1 | 3 | ● | MVS1510X03S160 | 80.2 | 82.7 | 147.7 | 145 | 2.7 | 16 | 2 |
| 15.1 | 5 | ● | MVS1510X05S160 | 126.7 | 130.7 | 195.7 | 193 | 2.7 | 16 | 2 |
| 15.1 | 8 | □ | MVS1510X08S160 | 173.7 | 183.7 | 243.7 | 241 | 2.7 | 16 | 2 |
| 15.2 | 3 | ● | MVS1520X03S160 | 80.3 | 82.8 | 147.8 | 145 | 2.8 | 16 | 2 |
| 15.2 | 5 | ● | MVS1520X05S160 | 126.8 | 130.8 | 195.8 | 193 | 2.8 | 16 | 2 |
| 15.2 | 8 | □ | MVS1520X08S160 | 173.8 | 183.8 | 243.8 | 241 | 2.8 | 16 | 2 |
| 15.3 | 3 | ● | MVS1530X03S160 | 80.3 | 82.8 | 147.8 | 145 | 2.8 | 16 | 2 |
| 15.3 | 5 | ● | MVS1530X05S160 | 126.8 | 130.8 | 195.8 | 193 | 2.8 | 16 | 2 |
| 15.3 | 8 | □ | MVS1530X08S160 | 173.8 | 183.8 | 243.8 | 241 | 2.8 | 16 | 2 |
| 15.4 | 3 | ● | MVS1540X03S160 | 80.3 | 82.8 | 147.8 | 145 | 2.8 | 16 | 2 |
| 15.4 | 5 | ● | MVS1540X05S160 | 126.8 | 130.8 | 195.8 | 193 | 2.8 | 16 | 2 |
| 15.4 | 8 | □ | MVS1540X08S160 | 173.8 | 183.8 | 243.8 | 241 | 2.8 | 16 | 2 |
| 15.5 | 3 | ● | MVS1550X03S160 | 80.3 | 82.8 | 147.8 | 145 | 2.8 | 16 | 2 |
| 15.5 | 5 | ● | MVS1550X05S160 | 126.8 | 130.8 | 195.8 | 193 | 2.8 | 16 | 2 |
| 15.5 | 8 | ● | MVS1550X08S160 | 173.8 | 183.8 | 243.8 | 241 | 2.8 | 16 | 2 |
| 15.6 | 3 | ● | MVS1560X03S160 | 82.8 | 82.8 | 147.8 | 145 | 2.8 | 16 | 2 |
| 15.6 | 5 | ● | MVS1560X05S160 | 130.8 | 130.8 | 195.8 | 193 | 2.8 | 16 | 2 |
| 15.6 | 8 | □ | MVS1560X08S160 | 178.8 | 183.8 | 243.8 | 241 | 2.8 | 16 | 2 |
| 15.7 | 3 | ● | MVS1570X03S160 | 82.9 | 82.9 | 147.9 | 145 | 2.9 | 16 | 2 |
| 15.7 | 5 | ● | MVS1570X05S160 | 130.9 | 130.9 | 195.9 | 193 | 2.9 | 16 | 2 |
| 15.7 | 8 | □ | MVS1570X08S160 | 178.9 | 183.9 | 243.9 | 241 | 2.9 | 16 | 2 |
| 15.8 | 3 | ● | MVS1580X03S160 | 82.9 | 82.9 | 147.9 | 145 | 2.9 | 16 | 2 |
| 15.8 | 5 | ● | MVS1580X05S160 | 130.9 | 130.9 | 195.9 | 193 | 2.9 | 16 | 2 |
| 15.8 | 8 | □ | MVS1580X08S160 | 178.9 | 183.9 | 243.9 | 241 | 2.9 | 16 | 2 |
| 15.9 | 3 | ● | MVS1590X03S160 | 82.9 | 82.9 | 147.9 | 145 | 2.9 | 16 | 2 |
| 15.9 | 5 | ● | MVS1590X05S160 | 130.9 | 130.9 | 195.9 | 193 | 2.9 | 16 | 2 |
| 15.9 | 8 | □ | MVS1590X08S160 | 178.9 | 183.9 | 243.9 | 241 | 2.9 | 16 | 2 |
| 16.0 | 3 | ● | MVS1600X03S160 | 82.9 | 82.9 | 147.9 | 145 | 2.9 | 16 | 2 |
| 16.0 | 5 | ● | MVS1600X05S160 | 130.9 | 130.9 | 195.9 | 193 | 2.9 | 16 | 2 |

DC = Cutting Diameter
LCF = Length Chip Flute
LH = Neck Length

OAL = Overall Length
LF = Functional Length
PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills



Internal Coolant

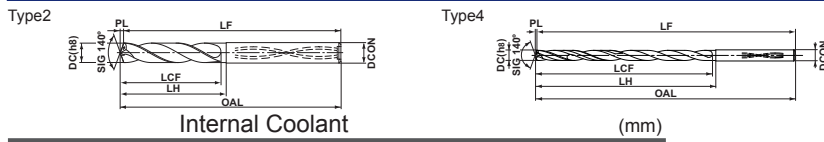
| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 16.1 | 3 | □ | MVS1610X03S170 | 85.4 | 87.9 | 152.9 | 150 | 2.9 | 17 | 2 |
| 16.1 | 3 | □ | MVS1610X03S180 | 85.4 | 87.9 | 152.9 | 150 | 2.9 | 18 | 2 |
| 16.1 | 5 | □ | MVS1610X05S170 | 134.9 | 138.9 | 203.9 | 201 | 2.9 | 17 | 2 |
| 16.1 | 5 | □ | MVS1610X05S180 | 134.9 | 138.9 | 203.9 | 201 | 2.9 | 18 | 2 |
| 16.2 | 3 | □ | MVS1620X03S170 | 85.4 | 87.9 | 152.9 | 150 | 2.9 | 17 | 2 |
| 16.2 | 3 | □ | MVS1620X03S180 | 85.4 | 87.9 | 152.9 | 150 | 2.9 | 18 | 2 |
| 16.2 | 5 | □ | MVS1620X05S170 | 134.9 | 138.9 | 203.9 | 201 | 2.9 | 17 | 2 |
| 16.2 | 5 | □ | MVS1620X05S180 | 134.9 | 138.9 | 203.9 | 201 | 2.9 | 18 | 2 |
| 16.3 | 3 | □ | MVS1630X03S170 | 85.5 | 88.0 | 153.0 | 150 | 3.0 | 17 | 2 |
| 16.3 | 3 | □ | MVS1630X03S180 | 85.5 | 88.0 | 153.0 | 150 | 3.0 | 18 | 2 |
| 16.3 | 5 | □ | MVS1630X05S170 | 135.0 | 139.0 | 204.0 | 201 | 3.0 | 17 | 2 |
| 16.3 | 5 | □ | MVS1630X05S180 | 135.0 | 139.0 | 204.0 | 201 | 3.0 | 18 | 2 |
| 16.4 | 3 | □ | MVS1640X03S170 | 85.5 | 88.0 | 153.0 | 150 | 3.0 | 17 | 2 |
| 16.4 | 3 | □ | MVS1640X03S180 | 85.5 | 88.0 | 153.0 | 150 | 3.0 | 18 | 2 |
| 16.4 | 5 | □ | MVS1640X05S170 | 135.0 | 139.0 | 204.0 | 201 | 3.0 | 17 | 2 |
| 16.4 | 5 | □ | MVS1640X05S180 | 135.0 | 139.0 | 204.0 | 201 | 3.0 | 18 | 2 |
| 16.5 | 3 | ● | MVS1650X03S170 | 85.5 | 88.0 | 153.0 | 150 | 3.0 | 17 | 2 |
| 16.5 | 3 | □ | MVS1650X03S180 | 85.5 | 88.0 | 153.0 | 150 | 3.0 | 18 | 2 |
| 16.5 | 5 | ● | MVS1650X05S170 | 135.0 | 139.0 | 204.0 | 201 | 3.0 | 17 | 2 |
| 16.5 | 5 | □ | MVS1650X05S180 | 135.0 | 139.0 | 204.0 | 201 | 3.0 | 18 | 2 |
| 16.6 | 3 | □ | MVS1660X03S170 | 88.0 | 88.0 | 153.0 | 150 | 3.0 | 17 | 2 |
| 16.6 | 3 | □ | MVS1660X03S180 | 88.0 | 88.0 | 153.0 | 150 | 3.0 | 18 | 2 |
| 16.6 | 5 | □ | MVS1660X05S170 | 139.0 | 139.0 | 204.0 | 201 | 3.0 | 17 | 2 |
| 16.6 | 5 | □ | MVS1660X05S180 | 139.0 | 139.0 | 204.0 | 201 | 3.0 | 18 | 2 |
| 16.7 | 3 | □ | MVS1670X03S170 | 88.0 | 88.0 | 153.0 | 150 | 3.0 | 17 | 2 |
| 16.7 | 3 | □ | MVS1670X03S180 | 88.0 | 88.0 | 153.0 | 150 | 3.0 | 18 | 2 |
| 16.7 | 5 | □ | MVS1670X05S170 | 139.0 | 139.0 | 204.0 | 201 | 3.0 | 17 | 2 |
| 16.7 | 5 | □ | MVS1670X05S180 | 139.0 | 139.0 | 204.0 | 201 | 3.0 | 18 | 2 |
| 16.8 | 3 | □ | MVS1680X03S170 | 88.1 | 88.1 | 153.1 | 150 | 3.1 | 17 | 2 |
| 16.8 | 3 | □ | MVS1680X03S180 | 88.1 | 88.1 | 153.1 | 150 | 3.1 | 18 | 2 |
| 16.8 | 5 | □ | MVS1680X05S170 | 139.1 | 139.1 | 204.1 | 201 | 3.1 | 17 | 2 |
| 16.8 | 5 | □ | MVS1680X05S180 | 139.1 | 139.1 | 204.1 | 201 | 3.1 | 18 | 2 |
| 16.9 | 3 | □ | MVS1690X03S170 | 88.1 | 88.1 | 153.1 | 150 | 3.1 | 17 | 2 |
| 16.9 | 3 | □ | MVS1690X03S180 | 88.1 | 88.1 | 153.1 | 150 | 3.1 | 18 | 2 |
| 16.9 | 5 | □ | MVS1690X05S170 | 139.1 | 139.1 | 204.1 | 201 | 3.1 | 17 | 2 |
| 16.9 | 5 | □ | MVS1690X05S180 | 139.1 | 139.1 | 204.1 | 201 | 3.1 | 18 | 2 |
| 17.0 | 3 | ● | MVS1700X03S170 | 88.1 | 88.1 | 153.1 | 150 | 3.1 | 17 | 2 |
| 17.0 | 3 | □ | MVS1700X03S180 | 88.1 | 88.1 | 153.1 | 150 | 3.1 | 18 | 2 |
| 17.0 | 5 | ● | MVS1700X05S170 | 139.1 | 139.1 | 204.1 | 201 | 3.1 | 17 | 2 |
| 17.0 | 5 | □ | MVS1700X05S180 | 139.1 | 139.1 | 204.1 | 201 | 3.1 | 18 | 2 |
| 17.1 | 3 | □ | MVS1710X03S180 | 90.6 | 93.1 | 158.1 | 155 | 3.1 | 18 | 2 |
| 17.1 | 5 | □ | MVS1710X05S180 | 143.1 | 147.1 | 212.1 | 209 | 3.1 | 18 | 2 |
| 17.2 | 3 | □ | MVS1720X03S180 | 90.6 | 93.1 | 158.1 | 155 | 3.1 | 18 | 2 |
| 17.2 | 5 | □ | MVS1720X05S180 | 143.1 | 147.1 | 212.1 | 209 | 3.1 | 18 | 2 |
| 17.3 | 3 | □ | MVS1730X03S180 | 90.6 | 93.1 | 158.1 | 155 | 3.1 | 18 | 2 |
| 17.3 | 5 | □ | MVS1730X05S180 | 143.1 | 147.1 | 212.1 | 209 | 3.1 | 18 | 2 |
| 17.4 | 3 | □ | MVS1740X03S180 | 90.7 | 93.2 | 158.2 | 155 | 3.2 | 18 | 2 |

Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 17.5 | 3 | ● | MVS1750X03S180 | 90.7 | 93.2 | 158.2 | 155 | 3.2 | 18 | 2 |
| 17.5 | 5 | ● | MVS1750X05S180 | 143.2 | 147.2 | 212.2 | 209 | 3.2 | 18 | 2 |
| 17.6 | 3 | □ | MVS1760X03S180 | 93.2 | 93.2 | 158.2 | 155 | 3.2 | 18 | 2 |
| 17.6 | 5 | □ | MVS1760X05S180 | 147.2 | 147.2 | 212.2 | 209 | 3.2 | 18 | 2 |
| 17.7 | 3 | □ | MVS1770X03S180 | 93.2 | 93.2 | 158.2 | 155 | 3.2 | 18 | 2 |
| 17.7 | 5 | □ | MVS1770X05S180 | 147.2 | 147.2 | 212.2 | 209 | 3.2 | 18 | 2 |
| 17.8 | 3 | □ | MVS1780X03S180 | 93.2 | 93.2 | 158.2 | 155 | 3.2 | 18 | 2 |
| 17.8 | 5 | □ | MVS1780X05S180 | 147.2 | 147.2 | 212.2 | 209 | 3.2 | 18 | 2 |
| 17.9 | 3 | □ | MVS1790X03S180 | 93.3 | 93.3 | 158.3 | 155 | 3.3 | 18 | 2 |
| 17.9 | 5 | □ | MVS1790X05S180 | 147.3 | 147.3 | 212.3 | 209 | 3.3 | 18 | 2 |
| 18.0 | 3 | ● | MVS1800X03S180 | 93.3 | 93.3 | 158.3 | 155 | 3.3 | 18 | 2 |
| 18.0 | 5 | ● | MVS1800X05S180 | 147.3 | 147.3 | 212.3 | 209 | 3.3 | 18 | 2 |
| 18.1 | 3 | □ | MVS1810X03S190 | 95.8 | 98.3 | 163.3 | 160 | 3.3 | 19 | 2 |
| 18.1 | 3 | □ | MVS1810X03S200 | 95.8 | 98.3 | 163.3 | 160 | 3.3 | 20 | 2 |
| 18.1 | 5 | □ | MVS1810X05S190 | 151.3 | 155.3 | 220.3 | 217 | 3.3 | 19 | 2 |
| 18.1 | 5 | □ | MVS1810X05S200 | 151.3 | 155.3 | 220.3 | 217 | 3.3 | 20 | 2 |
| 18.2 | 3 | □ | MVS1820X03S190 | 95.8 | 98.3 | 163.3 | 160 | 3.3 | 19 | 2 |
| 18.2 | 3 | □ | MVS1820X03S200 | 95.8 | 98.3 | 163.3 | 160 | 3.3 | 20 | 2 |
| 18.2 | 5 | □ | MVS1820X05S190 | 151.3 | 155.3 | 220.3 | 217 | 3.3 | 19 | 2 |
| 18.2 | 5 | □ | MVS1820X05S200 | 151.3 | 155.3 | 220.3 | 217 | 3.3 | 20 | 2 |
| 18.3 | 3 | □ | MVS1830X03S190 | 95.8 | 98.3 | 163.3 | 160 | 3.3 | 19 | 2 |
| 18.3 | 3 | □ | MVS1830X03S200 | 95.8 | 98.3 | 163.3 | 160 | 3.3 | 20 | 2 |
| 18.3 | 5 | □ | MVS1830X05S190 | 151.3 | 155.3 | 220.3 | 217 | 3.3 | 19 | 2 |
| 18.3 | 5 | □ | MVS1830X05S200 | 151.3 | 155.3 | 220.3 | 217 | 3.3 | 20 | 2 |
| 18.4 | 3 | □ | MVS1840X03S190 | 95.8 | 98.3 | 163.3 | 160 | 3.3 | 19 | 2 |
| 18.4 | 3 | □ | MVS1840X03S200 | 95.8 | 98.3 | 163.3 | 160 | 3.3 | 20 | 2 |
| 18.4 | 5 | □ | MVS1840X05S190 | 151.3 | 155.3 | 220.3 | 217 | 3.3 | 19 | 2 |
| 18.4 | 5 | □ | MVS1840X05S200 | 151.3 | 155.3 | 220.3 | 217 | 3.3 | 20 | 2 |
| 18.5 | 3 | ● | MVS1850X03S190 | 95.9 | 98.4 | 163.4 | 160 | 3.4 | 19 | 2 |
| 18.5 | 3 | □ | MVS1850X03S200 | 95.9 | 98.4 | 163.4 | 160 | 3.4 | 20 | 2 |
| 18.5 | 5 | ● | MVS1850X05S190 | 151.4 | 155.4 | 220.4 | 217 | 3.4 | 19 | 2 |
| 18.5 | 5 | □ | MVS1850X05S200 | 151.4 | 155.4 | 220.4 | 217 | 3.4 | 20 | 2 |
| 18.6 | 3 | □ | MVS1860X03S190 | 98.4 | 98.4 | 163.4 | 160 | 3.4 | 19 | 2 |
| 18.6 | 3 | □ | MVS1860X03S200 | 98.4 | 98.4 | 163.4 | 160 | 3.4 | 20 | 2 |
| 18.6 | 5 | □ | MVS1860X05S190 | 155.4 | 155.4 | 220.4 | 217 | 3.4 | 19 | 2 |
| 18.6 | 5 | □ | MVS1860X05S200 | 155.4 | 155.4 | 220.4 | 217 | 3.4 | 20 | 2 |
| 18.7 | 3 | □ | MVS1870X03S190 | 98.4 | 98.4 | 163.4 | 160 | 3.4 | 19 | 2 |
| 18.7 | 3 | □ | MVS1870X03S200 | 98.4 | 98.4 | 163.4 | 160 | 3.4 | 20 | 2 |
| 18.7 | 5 | □ | MVS1870X05S190 | 155.4 | 155.4 | 220.4 | 217 | 3.4 | 19 | 2 |
| 18.7 | 5 | □ | MVS1870X05S200 | 155.4 | 155.4 | 220.4 | 217 | 3.4 | 20 | 2 |
| 18.8 | 3 | □ | MVS1880X03S190 | 98.4 | 98.4 | 163.4 | 160 | 3.4 | 19 | 2 |
| 18.8 | 3 | □ | MVS1880X03S200 | 98.4 | 98.4 | 163.4 | 160 | 3.4 | 20 | 2 |
| 18.8 | 5 | □ | MVS1880X05S190 | 155.4 | 155.4 | 220.4 | 217 | 3.4 | 19 | 2 |
| 18.8 | 5 | □ | MVS1880X05S200 | 155.4 | 155.4 | 220.4 | 217 | 3.4 | 20 | 2 |
| 18.9 | 3 | □ | MVS1890X03S190 | 98.4 | 98.4 | 163.4 | 160 | 3.4 | 19 | 2 |
| 18.9 | 3 | □ | MVS1890X03S200 | 98.4 | 98.4 | 163.4 | 160 | 3.4 | 20 | 2 |
| 18.9 | 5 | □ | MVS1890X05S190 | 155.4 | 155.4 | 220.4 | 217 | 3.4 | 19 | 2 |

● : Inventory maintained in Japan. □ : Non stock, produced to order only.



| DC | Hole Depth (d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|-------------------|-----------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 18.9 | 5 | □ | MVS1890X05S200 | 155.4 | 155.4 | 220.4 | 217 | 3.4 | 20 | 2 |
| 19.0 | 3 | ● | MVS1900X03S190 | 98.5 | 98.5 | 163.5 | 160 | 3.5 | 19 | 2 |
| 19.0 | 3 | □ | MVS1900X03S200 | 98.5 | 98.5 | 163.5 | 160 | 3.5 | 20 | 2 |
| 19.0 | 5 | ● | MVS1900X05S190 | 155.5 | 155.5 | 220.5 | 217 | 3.5 | 19 | 2 |
| 19.0 | 5 | □ | MVS1900X05S200 | 155.5 | 155.5 | 220.5 | 217 | 3.5 | 20 | 2 |
| 19.1 | 3 | □ | MVS1910X03S200 | 101.0 | 103.5 | 168.5 | 165 | 3.5 | 20 | 2 |
| 19.1 | 5 | □ | MVS1910X05S200 | 159.5 | 163.5 | 228.5 | 225 | 3.5 | 20 | 2 |
| 19.2 | 3 | □ | MVS1920X03S200 | 101.0 | 103.5 | 168.5 | 165 | 3.5 | 20 | 2 |
| 19.2 | 5 | □ | MVS1920X05S200 | 159.5 | 163.5 | 228.5 | 225 | 3.5 | 20 | 2 |
| 19.3 | 3 | □ | MVS1930X03S200 | 101.0 | 103.5 | 168.5 | 165 | 3.5 | 20 | 2 |
| 19.3 | 5 | □ | MVS1930X05S200 | 159.5 | 163.5 | 228.5 | 225 | 3.5 | 20 | 2 |
| 19.4 | 3 | □ | MVS1940X03S200 | 101.0 | 103.5 | 168.5 | 165 | 3.5 | 20 | 2 |
| 19.4 | 5 | □ | MVS1940X05S200 | 159.5 | 163.5 | 228.5 | 225 | 3.5 | 20 | 2 |
| 19.5 | 3 | ● | MVS1950X03S200 | 101.0 | 103.5 | 168.5 | 165 | 3.5 | 20 | 2 |
| 19.5 | 5 | ● | MVS1950X05S200 | 159.5 | 163.5 | 228.5 | 225 | 3.5 | 20 | 2 |
| 19.6 | 3 | □ | MVS1960X03S200 | 103.6 | 103.6 | 168.6 | 165 | 3.6 | 20 | 2 |
| 19.6 | 5 | □ | MVS1960X05S200 | 163.6 | 163.6 | 228.6 | 225 | 3.6 | 20 | 2 |
| 19.7 | 3 | □ | MVS1970X03S200 | 103.6 | 103.6 | 168.6 | 165 | 3.6 | 20 | 2 |
| 19.7 | 5 | □ | MVS1970X05S200 | 163.6 | 163.6 | 228.6 | 225 | 3.6 | 20 | 2 |
| 19.8 | 3 | □ | MVS1980X03S200 | 103.6 | 103.6 | 168.6 | 165 | 3.6 | 20 | 2 |
| 19.8 | 5 | □ | MVS1980X05S200 | 163.6 | 163.6 | 228.6 | 225 | 3.6 | 20 | 2 |
| 19.9 | 3 | □ | MVS1990X03S200 | 103.6 | 103.6 | 168.6 | 165 | 3.6 | 20 | 2 |
| 19.9 | 5 | □ | MVS1990X05S200 | 163.6 | 163.6 | 228.6 | 225 | 3.6 | 20 | 2 |
| 20.0 | 3 | ● | MVS2000X03S200 | 103.6 | 103.6 | 168.6 | 165 | 3.6 | 20 | 2 |
| 20.0 | 5 | ● | MVS2000X05S200 | 163.6 | 163.6 | 228.6 | 225 | 3.6 | 20 | 2 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

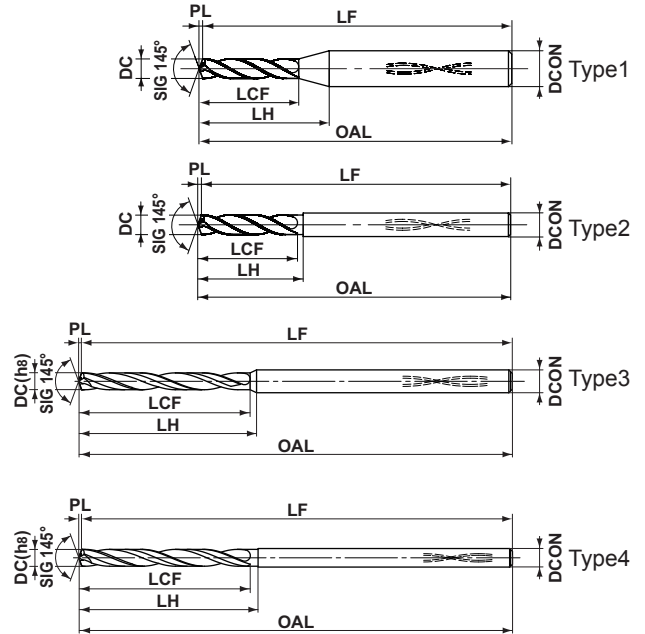
DCON = Fixing Part Depth

Solid Carbide Drills

MVS Pilot Drill
WSTAR Drills



| $1 \leq DC \leq 2.9$ | $DC=3$ | $3 < DC \leq 6$ | $6 < DC \leq 10$ | $10 < DC \leq 14$ |
|----------------------|-------------|-----------------|------------------|-------------------|
| +0.014 0 | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 |
| 0 -0.006 | 0 -0.006 | 0 -0.008 | 0 -0.009 | 0 -0.011 |



Internal Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|--------------|------------------|------|------|------|----|-----|------|------|
| 1.0 | 2 | ● | MVS0100X02S030 | 5.2 | 8.9 | 55.2 | 55 | 0.2 | 3 | 1 |
| 1.1 | 2 | ● | MVS0110X02S030 | 5.6 | 9.1 | 55.2 | 55 | 0.2 | 3 | 1 |
| 1.2 | 2 | ● | MVS0120X02S030 | 6.2 | 9.6 | 55.2 | 55 | 0.2 | 3 | 1 |
| 1.3 | 2 | ● | MVS0130X02S030 | 6.6 | 9.8 | 55.2 | 55 | 0.2 | 3 | 1 |
| 1.4 | 2 | ● | MVS0140X02S030 | 7.2 | 10.2 | 55.2 | 55 | 0.2 | 3 | 1 |
| 1.5 | 2 | ● | MVS0150X02S030 | 7.6 | 10.4 | 55.2 | 55 | 0.2 | 3 | 1 |
| 1.6 | 2 | ● | MVS0160X02S030 | 8.3 | 10.9 | 68.3 | 68 | 0.3 | 3 | 1 |
| 1.7 | 2 | ● | MVS0170X02S030 | 8.7 | 11.1 | 68.3 | 68 | 0.3 | 3 | 1 |
| 1.8 | 2 | ● | MVS0180X02S030 | 9.3 | 11.5 | 68.3 | 68 | 0.3 | 3 | 1 |
| 1.9 | 2 | ● | MVS0190X02S030 | 9.7 | 11.8 | 68.3 | 68 | 0.3 | 3 | 1 |
| 2.0 | 2 | ● | MVS0200X02S030 | 10.3 | 12.2 | 68.3 | 68 | 0.3 | 3 | 1 |
| 2.1 | 2 | ● | MVS0210X02S030 | 10.7 | 12.4 | 74.3 | 74 | 0.3 | 3 | 1 |
| 2.2 | 2 | ● | MVS0220X02S030 | 11.3 | 12.8 | 74.3 | 74 | 0.3 | 3 | 1 |
| 2.3 | 2 | ● | MVS0230X02S030 | 11.8 | 13.1 | 74.4 | 74 | 0.4 | 3 | 1 |
| 2.4 | 2 | ● | MVS0240X02S030 | 12.4 | 13.5 | 74.4 | 74 | 0.4 | 3 | 1 |
| 2.5 | 2 | ● | MVS0250X02S030 | 12.8 | 13.7 | 74.4 | 74 | 0.4 | 3 | 1 |
| 2.6 | 2 | ● | MVS0260X02S030 | 13.4 | 13.4 | 81.4 | 81 | 0.4 | 3 | 2 |
| 2.7 | 2 | ● | MVS0270X02S030 | 13.8 | 13.8 | 81.4 | 81 | 0.4 | 3 | 2 |
| 2.8 | 2 | ● | MVS0280X02S030 | 14.4 | 14.4 | 81.4 | 81 | 0.4 | 3 | 2 |
| 2.9 | 2 | ● | MVS0290X02S030 | 14.9 | 14.9 | 81.5 | 81 | 0.5 | 3 | 2 |
| NEW 3.0 | 2 | ● | MVS0300X02S030PL | 16.5 | 16.5 | 55.5 | 55 | 0.5 | 3 | 3 |
| NEW 3.1 | 2 | ● | MVS0310X02S040PL | 18.5 | 20.5 | 55.5 | 55 | 0.5 | 4 | 3 |
| NEW 3.2 | 2 | ● | MVS0320X02S040PL | 18.5 | 20.5 | 55.5 | 55 | 0.5 | 4 | 3 |
| NEW 3.3 | 2 | ● | MVS0330X02S040PL | 18.5 | 20.5 | 55.5 | 55 | 0.5 | 4 | 3 |
| NEW 3.4 | 2 | ● | MVS0340X02S040PL | 18.5 | 20.5 | 55.5 | 55 | 0.5 | 4 | 3 |
| NEW 3.5 | 2 | ● | MVS0350X02S040PL | 18.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 3 |

Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|---------|------------------|--------------|------------------|------|------|------|----|-----|------|------|
| NEW 3.6 | 2 | ● | MVS0360X02S040PL | 20.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 3 |
| NEW 3.7 | 2 | ● | MVS0370X02S040PL | 20.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 3 |
| NEW 3.8 | 2 | ● | MVS0380X02S040PL | 20.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 3 |
| NEW 3.9 | 2 | ● | MVS0390X02S040PL | 20.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 3 |
| NEW 4.0 | 2 | ● | MVS0400X02S040PL | 20.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 3 |
| NEW 4.1 | 2 | ● | MVS0410X02S050PL | 22.6 | 24.6 | 62.6 | 62 | 0.6 | 5 | 3 |
| NEW 4.2 | 2 | ● | MVS0420X02S050PL | 22.7 | 24.7 | 62.7 | 62 | 0.7 | 5 | 3 |
| NEW 4.3 | 2 | ● | MVS0430X02S050PL | 22.7 | 24.7 | 62.7 | 62 | 0.7 | 5 | 3 |
| NEW 4.4 | 2 | ● | MVS0440X02S050PL | 22.7 | 24.7 | 62.7 | 62 | 0.7 | 5 | 3 |
| NEW 4.5 | 2 | ● | MVS0450X02S050PL | 22.7 | 24.7 | 62.7 | 62 | 0.7 | 5 | 3 |
| NEW 4.6 | 2 | ● | MVS0460X02S050PL | 24.7 | 24.7 | 62.7 | 62 | 0.7 | 5 | 4 |
| NEW 4.7 | 2 | ● | MVS0470X02S050PL | 24.7 | 24.7 | 62.7 | 62 | 0.7 | 5 | 4 |
| NEW 4.8 | 2 | ● | MVS0480X02S050PL | 24.8 | 24.8 | 62.8 | 62 | 0.8 | 5 | 4 |
| NEW 4.9 | 2 | ● | MVS0490X02S050PL | 24.8 | 24.8 | 62.8 | 62 | 0.8 | 5 | 4 |
| NEW 5.0 | 2 | ● | MVS0500X02S050PL | 24.8 | 24.8 | 62.8 | 62 | 0.8 | 5 | 4 |
| NEW 5.1 | 2 | ● | MVS0510X02S060PL | 26.8 | 28.8 | 66.8 | 66 | 0.8 | 6 | 4 |
| NEW 5.2 | 2 | ● | MVS0520X02S060PL | 26.8 | 28.8 | 66.8 | 66 | 0.8 | 6 | 4 |
| NEW 5.3 | 2 | ● | MVS0530X02S060PL | 26.8 | 28.8 | 66.8 | 66 | 0.8 | 6 | 4 |
| NEW 5.4 | 2 | ● | MVS0540X02S060PL | 26.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 4 |
| NEW 5.5 | 2 | ● | MVS0550X02S060PL | 26.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 4 |
| NEW 5.6 | 2 | ● | MVS0560X02S060PL | 28.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 4 |
| NEW 5.7 | 2 | ● | MVS0570X02S060PL | 28.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 4 |
| NEW 5.8 | 2 | ● | MVS0580X02S060PL | 28.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 4 |
| NEW 5.9 | 2 | ● | MVS0590X02S060PL | 28.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 4 |
| NEW 6.0 | 2 | ● | MVS0600X02S060PL | 28.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 4 |
| NEW 6.1 | 2 | ● | MVS0610X02S070PL | 32.0 | 35.0 | 75.0 | 74 | 1.0 | 7 | 4 |

(Note) The coolant hole of $\phi 5.9$ mm or less will be round shape.

● : Inventory maintained in Japan.

Internal Coolant

| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|----------|------------------|-------|------------------|------|------|------|----|-----|------|------|
| | | | | | | | | | | |
| NEW 6.2 | 2 | ● | MVS0620X02S070PL | 32.0 | 35.0 | 75.0 | 74 | 1.0 | 7 | 4 |
| NEW 6.3 | 2 | ● | MVS0630X02S070PL | 32.0 | 35.0 | 75.0 | 74 | 1.0 | 7 | 4 |
| NEW 6.4 | 2 | ● | MVS0640X02S070PL | 32.0 | 35.0 | 75.0 | 74 | 1.0 | 7 | 4 |
| NEW 6.5 | 2 | ● | MVS0650X02S070PL | 32.0 | 35.0 | 75.0 | 74 | 1.0 | 7 | 4 |
| NEW 6.6 | 2 | ● | MVS0660X02S070PL | 35.0 | 35.0 | 75.0 | 74 | 1.0 | 7 | 4 |
| NEW 6.7 | 2 | ● | MVS0670X02S070PL | 35.1 | 35.1 | 75.1 | 74 | 1.1 | 7 | 4 |
| NEW 6.8 | 2 | ● | MVS0680X02S070PL | 35.1 | 35.1 | 75.1 | 74 | 1.1 | 7 | 4 |
| NEW 6.9 | 2 | ● | MVS0690X02S070PL | 35.1 | 35.1 | 75.1 | 74 | 1.1 | 7 | 4 |
| NEW 7.0 | 2 | ● | MVS0700X02S070PL | 35.1 | 35.1 | 75.1 | 74 | 1.1 | 7 | 4 |
| NEW 7.1 | 2 | ● | MVS0710X02S080PL | 35.1 | 38.1 | 80.1 | 79 | 1.1 | 8 | 4 |
| NEW 7.2 | 2 | ● | MVS0720X02S080PL | 35.1 | 38.1 | 80.1 | 79 | 1.1 | 8 | 4 |
| NEW 7.3 | 2 | ● | MVS0730X02S080PL | 35.2 | 38.2 | 80.2 | 79 | 1.2 | 8 | 4 |
| NEW 7.4 | 2 | ● | MVS0740X02S080PL | 35.2 | 38.2 | 80.2 | 79 | 1.2 | 8 | 4 |
| NEW 7.5 | 2 | ● | MVS0750X02S080PL | 35.2 | 38.2 | 80.2 | 79 | 1.2 | 8 | 4 |
| NEW 7.6 | 2 | ● | MVS0760X02S080PL | 38.2 | 38.2 | 80.2 | 79 | 1.2 | 8 | 4 |
| NEW 7.7 | 2 | ● | MVS0770X02S080PL | 38.2 | 38.2 | 80.2 | 79 | 1.2 | 8 | 4 |
| NEW 7.8 | 2 | ● | MVS0780X02S080PL | 38.2 | 38.2 | 80.2 | 79 | 1.2 | 8 | 4 |
| NEW 7.9 | 2 | ● | MVS0790X02S080PL | 38.2 | 38.2 | 80.2 | 79 | 1.2 | 8 | 4 |
| NEW 8.0 | 2 | ● | MVS0800X02S080PL | 38.3 | 38.3 | 80.3 | 79 | 1.3 | 8 | 4 |
| NEW 8.1 | 2 | ● | MVS0810X02S090PL | 38.3 | 41.3 | 85.3 | 84 | 1.3 | 9 | 4 |
| NEW 8.2 | 2 | ● | MVS0820X02S090PL | 38.3 | 41.3 | 85.3 | 84 | 1.3 | 9 | 4 |
| NEW 8.3 | 2 | ● | MVS0830X02S090PL | 38.3 | 41.3 | 85.3 | 84 | 1.3 | 9 | 4 |
| NEW 8.4 | 2 | ● | MVS0840X02S090PL | 38.3 | 41.3 | 85.3 | 84 | 1.3 | 9 | 4 |
| NEW 8.5 | 2 | ● | MVS0850X02S090PL | 38.3 | 41.3 | 85.3 | 84 | 1.3 | 9 | 4 |
| NEW 8.6 | 2 | ● | MVS0860X02S090PL | 41.4 | 41.4 | 85.4 | 84 | 1.4 | 9 | 4 |
| NEW 8.7 | 2 | ● | MVS0870X02S090PL | 41.4 | 41.4 | 85.4 | 84 | 1.4 | 9 | 4 |
| NEW 8.8 | 2 | ● | MVS0880X02S090PL | 41.4 | 41.4 | 85.4 | 84 | 1.4 | 9 | 4 |
| NEW 8.9 | 2 | ● | MVS0890X02S090PL | 41.4 | 41.4 | 85.4 | 84 | 1.4 | 9 | 4 |
| NEW 9.0 | 2 | ● | MVS0900X02S090PL | 41.4 | 41.4 | 85.4 | 84 | 1.4 | 9 | 4 |
| NEW 9.1 | 2 | ● | MVS0910X02S100PL | 41.4 | 44.4 | 90.4 | 89 | 1.4 | 10 | 4 |
| NEW 9.2 | 2 | ● | MVS0920X02S100PL | 41.5 | 44.5 | 90.5 | 89 | 1.5 | 10 | 4 |
| NEW 9.3 | 2 | ● | MVS0930X02S100PL | 41.5 | 44.5 | 90.5 | 89 | 1.5 | 10 | 4 |
| NEW 9.4 | 2 | ● | MVS0940X02S100PL | 41.5 | 44.5 | 90.5 | 89 | 1.5 | 10 | 4 |
| NEW 9.5 | 2 | ● | MVS0950X02S100PL | 41.5 | 44.5 | 90.5 | 89 | 1.5 | 10 | 4 |
| NEW 9.6 | 2 | ● | MVS0960X02S100PL | 44.5 | 44.5 | 90.5 | 89 | 1.5 | 10 | 4 |
| NEW 9.7 | 2 | ● | MVS0970X02S100PL | 44.5 | 44.5 | 90.5 | 89 | 1.5 | 10 | 4 |
| NEW 9.8 | 2 | ● | MVS0980X02S100PL | 44.5 | 44.5 | 90.5 | 89 | 1.5 | 10 | 4 |
| NEW 9.9 | 2 | ● | MVS0990X02S100PL | 44.6 | 44.6 | 90.6 | 89 | 1.6 | 10 | 4 |
| NEW 10.0 | 2 | ● | MVS1000X02S100PL | 44.6 | 44.6 | 90.6 | 89 | 1.6 | 10 | 4 |
| NEW 10.1 | 2 | ● | MVS1010X02S110PL | 44.6 | 47.6 | 96.6 | 95 | 1.6 | 11 | 4 |
| NEW 10.2 | 2 | ● | MVS1020X02S110PL | 44.6 | 47.6 | 96.6 | 95 | 1.6 | 11 | 4 |
| NEW 10.3 | 2 | ● | MVS1030X02S110PL | 44.6 | 47.6 | 96.6 | 95 | 1.6 | 11 | 4 |
| NEW 10.4 | 2 | ● | MVS1040X02S110PL | 44.6 | 47.6 | 96.6 | 95 | 1.6 | 11 | 4 |
| NEW 10.5 | 2 | ● | MVS1050X02S110PL | 44.7 | 47.7 | 96.7 | 95 | 1.7 | 11 | 4 |
| NEW 10.6 | 2 | ● | MVS1060X02S110PL | 48.7 | 48.7 | 96.7 | 95 | 1.7 | 11 | 4 |
| NEW 10.7 | 2 | ● | MVS1070X02S110PL | 48.7 | 48.7 | 96.7 | 95 | 1.7 | 11 | 4 |
| NEW 10.8 | 2 | ● | MVS1080X02S110PL | 48.7 | 48.7 | 96.7 | 95 | 1.7 | 11 | 4 |
| NEW 10.9 | 2 | ● | MVS1090X02S110PL | 48.7 | 48.7 | 96.7 | 95 | 1.7 | 11 | 4 |
| NEW 11.0 | 2 | ● | MVS1100X02S110PL | 48.7 | 48.7 | 96.7 | 95 | 1.7 | 11 | 4 |
| NEW 11.1 | 2 | ● | MVS1110X02S120PL | 48.7 | 51.7 | 96.7 | 95 | 1.7 | 12 | 4 |

Internal Coolant

(mm)

| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|----------|------------------|-------|------------------|------|------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| NEW 11.2 | 2 | ● | MVS1120X02S120PL | 48.8 | 51.8 | 96.8 | 95 | 1.8 | 12 | 4 |
| NEW 11.3 | 2 | ● | MVS1130X02S120PL | 48.8 | 51.8 | 96.8 | 95 | 1.8 | 12 | 4 |
| NEW 11.4 | 2 | ● | MVS1140X02S120PL | 48.8 | 51.8 | 96.8 | 95 | 1.8 | 12 | 4 |
| NEW 11.5 | 2 | ● | MVS1150X02S120PL | 48.8 | 51.8 | 96.8 | 95 | 1.8 | 12 | 4 |
| NEW 11.6 | 2 | ● | MVS1160X02S120PL | 48.8 | 48.8 | 96.8 | 95 | 1.8 | 12 | 4 |
| NEW 11.7 | 2 | ● | MVS1170X02S120PL | 48.8 | 48.8 | 96.8 | 95 | 1.8 | 12 | 4 |
| NEW 11.8 | 2 | ● | MVS1180X02S120PL | 48.9 | 48.9 | 96.9 | 95 | 1.9 | 12 | 4 |
| NEW 11.9 | 2 | ● | MVS1190X02S120PL | 48.9 | 48.9 | 96.9 | 95 | 1.9 | 12 | 4 |
| NEW 12.0 | 2 | ● | MVS1200X02S120PL | 48.9 | 48.9 | 96.9 | 95 | 1.9 | 12 | 4 |
| NEW 12.1 | 2 | ● | MVS1210X02S130PL | 52.9 | 55.9 | 103.9 | 102 | 1.9 | 13 | 4 |
| NEW 12.2 | 2 | ● | MVS1220X02S130PL | 52.9 | 55.9 | 103.9 | 102 | 1.9 | 13 | 4 |
| NEW 12.3 | 2 | ● | MVS1230X02S130PL | 52.9 | 55.9 | 103.9 | 102 | 1.9 | 13 | 4 |
| NEW 12.4 | 2 | ● | MVS1240X02S130PL | 53.0 | 56.0 | 104.0 | 102 | 2.0 | 13 | 4 |
| NEW 12.5 | 2 | ● | MVS1250X02S130PL | 53.0 | 56.0 | 104.0 | 102 | 2.0 | 13 | 4 |
| NEW 12.6 | 2 | ● | MVS1260X02S130PL | 53.0 | 53.0 | 104.0 | 102 | 2.0 | 13 | 4 |
| NEW 12.7 | 2 | ● | MVS1270X02S130PL | 53.0 | 53.0 | 104.0 | 102 | 2.0 | 13 | 4 |
| NEW 12.8 | 2 | ● | MVS1280X02S130PL | 53.0 | 53.0 | 104.0 | 102 | 2.0 | 13 | 4 |
| NEW 12.9 | 2 | ● | MVS1290X02S130PL | 53.0 | 53.0 | 104.0 | 102 | 2.0 | 13 | 4 |
| NEW 13.0 | 2 | ● | MVS1300X02S130PL | 53.0 | 53.0 | 104.0 | 102 | 2.0 | 13 | 4 |
| NEW 13.1 | 2 | ● | MVS1310X02S140PL | 56.1 | 59.1 | 109.1 | 107 | 2.1 | 14 | 4 |
| NEW 13.2 | 2 | ● | MVS1320X02S140PL | 56.1 | 59.1 | 109.1 | 107 | 2.1 | 14 | 4 |
| NEW 13.3 | 2 | ● | MVS1330X02S140PL | 56.1 | 59.1 | 109.1 | 107 | 2.1 | 14 | 4 |
| NEW 13.4 | 2 | ● | MVS1340X02S140PL | 56.1 | 59.1 | 109.1 | 107 | 2.1 | 14 | 4 |
| NEW 13.5 | 2 | ● | MVS1350X02S140PL | 56.1 | 59.1 | 109.1 | 107 | 2.1 | 14 | 4 |
| NEW 13.6 | 2 | ● | MVS1360X02S140PL | 56.1 | 56.1 | 109.1 | 107 | 2.1 | 14 | 4 |
| NEW 13.7 | 2 | ● | MVS1370X02S140PL | 56.2 | 56.2 | 109.2 | 107 | 2.2 | 14 | 4 |
| NEW 13.8 | 2 | ● | MVS1380X02S140PL | 56.2 | 56.2 | 109.2 | 107 | 2.2 | 14 | 4 |
| NEW 13.9 | 2 | ● | MVS1390X02S140PL | 56.2 | 56.2 | 109.2 | 107 | 2.2 | 14 | 4 |
| NEW 14.0 | 2 | ● | MVS1400X02S140PL | 56.2 | 56.2 | 109.2 | 107 | 2.2 | 14 | 4 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills



Recommended Cutting Conditions

(mm)

| Work Material | DC | L/D | Mild Steel ($\leq 180\text{HB}$) | | Carbon Steel, Alloy Steel (180–280HB) | | Carbon Steel, Alloy Steel (280–350HB) | |
|---------------|-----------|-----|------------------------------------|-------------------------------|---------------------------------------|-------------------------------|---------------------------------------|-------------------------------|
| | | | AISI 1010 etc | | AISI 1045, 4140 etc | | AISI 4340 etc | |
| | | | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) |
| 1.0 | 2D*,7D | | 15900 | 0.04 (0.02–0.05) | 15900 | 0.04 (0.02–0.05) | 12700 | 0.04 (0.02–0.05) |
| | 12D - 30D | | 15900 | 0.02 (0.01–0.03) | 12700 | 0.02 (0.01–0.03) | 9500 | 0.02 (0.01–0.03) |
| 1.5 | 2D*,7D | | 10600 | 0.05 (0.03–0.08) | 10600 | 0.05 (0.03–0.08) | 8400 | 0.05 (0.03–0.08) |
| | 12D - 30D | | 10600 | 0.05 (0.02–0.08) | 8400 | 0.05 (0.03–0.08) | 6300 | 0.05 (0.02–0.08) |
| 2.0 | 2D*,7D | | 7900 | 0.07 (0.04–0.10) | 7900 | 0.07 (0.04–0.10) | 6300 | 0.07 (0.04–0.10) |
| | 12D - 30D | | 7900 | 0.07 (0.04–0.10) | 7900 | 0.07 (0.04–0.10) | 7900 | 0.07 (0.04–0.10) |
| 2.5 | 2D*,7D | | 7600 | 0.09 (0.05–0.13) | 6300 | 0.09 (0.05–0.13) | 6300 | 0.09 (0.05–0.13) |
| | 12D - 30D | | 7600 | 0.09 (0.06–0.13) | 6300 | 0.08 (0.05–0.13) | 6300 | 0.08 (0.05–0.13) |
| 3.2 | 2D* | | 8900 | 0.17 (0.10–0.24) | 8900 | 0.17 (0.10–0.24) | 8900 | 0.15 (0.09–0.22) |
| | 3D - 8D | | 8900 | 0.10 (0.06–0.13) | 6900 | 0.10 (0.06–0.13) | 6900 | 0.10 (0.06–0.13) |
| | 10D - 30D | | 8900 | 0.17 (0.10–0.24) | 8900 | 0.17 (0.10–0.24) | 7900 | 0.15 (0.09–0.22) |
| | 35D,40D | | 7400 | 0.14 (0.08–0.19) | 7400 | 0.14 (0.08–0.19) | 6400 | 0.15 (0.07–0.18) |
| 4.0 | 2D* | | 7900 | 0.20 (0.12–0.30) | 7100 | 0.20 (0.12–0.30) | 7100 | 0.18 (0.11–0.27) |
| | 3D - 8D | | 7900 | 0.12 (0.08–0.16) | 7100 | 0.12 (0.08–0.16) | 6300 | 0.11 (0.07–0.14) |
| | 10D - 30D | | 7100 | 0.20 (0.12–0.30) | 7100 | 0.20 (0.12–0.30) | 6300 | 0.18 (0.11–0.27) |
| | 35D,40D | | 5900 | 0.16 (0.10–0.24) | 5900 | 0.16 (0.10–0.24) | 5100 | 0.18 (0.09–0.22) |
| 5.0 | 2D* | | 6300 | 0.25 (0.15–0.35) | 5700 | 0.25 (0.15–0.35) | 5700 | 0.22 (0.14–0.32) |
| | 3D - 8D | | 6300 | 0.15 (0.10–0.20) | 5700 | 0.15 (0.10–0.20) | 5000 | 0.14 (0.09–0.18) |
| | 10D - 30D | | 5730 | 0.25 (0.15–0.35) | 5700 | 0.25 (0.15–0.35) | 5000 | 0.22 (0.14–0.32) |
| | 35D,40D | | 4700 | 0.20 (0.12–0.28) | 4700 | 0.20 (0.12–0.28) | 4100 | 0.22 (0.11–0.26) |
| 6.3 | 2D* | | 5500 | 0.27 (0.17–0.37) | 5000 | 0.27 (0.17–0.37) | 5000 | 0.24 (0.15–0.33) |
| | 3D - 8D | | 5500 | 0.20 (0.13–0.26) | 5000 | 0.20 (0.13–0.26) | 4500 | 0.18 (0.11–0.24) |
| | 10D - 30D | | 5500 | 0.27 (0.17–0.37) | 5000 | 0.27 (0.17–0.37) | 4500 | 0.24 (0.15–0.33) |
| | 35D,40D | | 4500 | 0.22 (0.14–0.30) | 4000 | 0.22 (0.14–0.30) | 3700 | 0.24 (0.12–0.26) |
| 8.0 | 2D* | | 4700 | 0.30 (0.20–0.40) | 4300 | 0.30 (0.20–0.40) | 3900 | 0.27 (0.18–0.36) |
| | 3D - 8D | | 4700 | 0.23 (0.18–0.28) | 4300 | 0.23 (0.18–0.28) | 3900 | 0.21 (0.16–0.25) |
| | 10D - 30D | | 4300 | 0.30 (0.20–0.40) | 3900 | 0.30 (0.20–0.40) | 3500 | 0.27 (0.18–0.36) |
| | 35D,40D | | 3500 | 0.24 (0.16–0.32) | 3100 | 0.24 (0.16–0.32) | 2900 | 0.27 (0.14–0.29) |
| 10.0 | 2D* | | 4100 | 0.32 (0.22–0.42) | 3800 | 0.32 (0.22–0.42) | 3100 | 0.29 (0.20–0.38) |
| | 3D - 8D | | 4100 | 0.27 (0.22–0.32) | 3800 | 0.27 (0.22–0.32) | 3500 | 0.23 (0.19–0.27) |
| | 10D - 30D | | 3500 | 0.32 (0.22–0.42) | 3100 | 0.32 (0.22–0.42) | 2800 | 0.29 (0.20–0.38) |
| | 35D | | 2800 | 0.26 (0.18–0.34) | 2500 | 0.26 (0.18–0.34) | 2300 | 0.29 (0.16–0.30) |
| 12.0 | 2D* | | 3700 | 0.34 (0.24–0.44) | 3400 | 0.34 (0.24–0.44) | 3100 | 0.30 (0.22–0.40) |
| | 3D - 8D | | 3700 | 0.30 (0.26–0.34) | 3400 | 0.30 (0.26–0.34) | 3100 | 0.26 (0.22–0.29) |
| | 10D - 25D | | 3400 | 0.34 (0.24–0.44) | 3100 | 0.34 (0.24–0.44) | 2600 | 0.30 (0.22–0.40) |
| 16.0 | 3D - 8D | | 3100 | 0.33 (0.27–0.38) | 2700 | 0.33 (0.27–0.38) | 2500 | 0.28 (0.23–0.33) |
| 20.0 | 3D,5D | | 2500 | 0.35 (0.30–0.40) | 2200 | 0.35 (0.30–0.40) | 2000 | 0.30 (0.26–0.34) |

* =For cutting a guide hole

(mm)

| Work Material | L/D | Austenitic Stainless Steel ($\leq 200\text{HB}$) | | Gray Cast Iron ($\leq 350\text{MPa}$) | | Ductile Cast Iron ($\leq 450\text{MPa}$) | |
|---------------|-----------|--|-------------------------------|---|-------------------------------|--|-------------------------------|
| | | AISI 304, 316 etc | | No45B etc | | 60-60-8 etc | |
| DC | | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) |
| 1.0 | 2D*,7D | 9500 | 0.03 (0.02—0.05) | 15900 | 0.04 (0.02—0.05) | 12700 | 0.04 (0.02—0.05) |
| | 12D - 30D | 9500 | 0.02 (0.01—0.03) | 12700 | 0.02 (0.01—0.03) | 9500 | 0.02 (0.01—0.03) |
| 1.5 | 2D*,7D | 6300 | 0.05 (0.03—0.07) | 10600 | 0.05 (0.03—0.08) | 8400 | 0.05 (0.03—0.08) |
| | 12D - 30D | 6300 | 0.05 (0.02—0.08) | 8400 | 0.05 (0.02—0.08) | 6300 | 0.05 (0.02—0.08) |
| 2.0 | 2D*,7D | 4700 | 0.06 (0.04—0.08) | 7900 | 0.07 (0.04—0.10) | 6300 | 0.07 (0.04—0.10) |
| | 12D - 30D | 4700 | 0.07 (0.04—0.10) | 7900 | 0.07 (0.04—0.10) | 7900 | 0.07 (0.04—0.10) |
| 2.5 | 2D*,7D | 5000 | 0.08 (0.05—0.10) | 7600 | 0.09 (0.05—0.13) | 6300 | 0.09 (0.05—0.13) |
| | 12D - 30D | 3800 | 0.08 (0.05—0.12) | 6300 | 0.09 (0.06—0.13) | 6300 | 0.08 (0.05—0.12) |
| 3.2 | 2D* | 3900 | 0.07 (0.05—0.09) | 8900 | 0.19 (0.11—0.26) | 8900 | 0.17 (0.10—0.24) |
| | 3D - 8D | 3900 | 0.08 (0.06—0.10) | 8900 | 0.10 (0.06—0.13) | 6400 | 0.10 (0.06—0.13) |
| | 10D - 30D | 3900 | 0.07 (0.05—0.09) | 5900 | 0.19 (0.11—0.26) | 8900 | 0.17 (0.10—0.24) |
| | 35D,40D | 2900 | 0.06 (0.04—0.07) | 7400 | 0.15 (0.09—0.21) | 7460 | 0.14 (0.08—0.19) |
| 4.0 | 2D* | 3100 | 0.08 (0.06—0.10) | 7900 | 0.22 (0.13—0.33) | 7100 | 0.20 (0.12—0.30) |
| | 3D - 8D | 3100 | 0.09 (0.06—0.11) | 7900 | 0.12 (0.08—0.16) | 5100 | 0.12 (0.08—0.16) |
| | 10D - 30D | 3100 | 0.08 (0.06—0.10) | 7100 | 0.22 (0.13—0.33) | 7100 | 0.20 (0.12—0.30) |
| | 35D,40D | 2300 | 0.06 (0.05—0.08) | 5900 | 0.18 (0.10—0.26) | 5900 | 0.16 (0.10—0.24) |
| 5.0 | 2D* | 2500 | 0.10 (0.07—0.12) | 6300 | 0.28 (0.07—0.39) | 5700 | 0.25 (0.15—0.35) |
| | 3D - 8D | 2500 | 0.11 (0.08—0.14) | 6300 | 0.15 (0.10—0.20) | 4100 | 0.15 (0.10—0.20) |
| | 10D - 30D | 2500 | 0.10 (0.07—0.12) | 5700 | 0.28 (0.07—0.39) | 5700 | 0.25 (0.15—0.35) |
| | 35D,40D | 1900 | 0.08 (0.06—0.10) | 4700 | 0.22 (0.06—0.31) | 4700 | 0.20 (0.12—0.28) |
| 6.3 | 2D* | 2500 | 0.12 (0.08—0.16) | 5500 | 0.30 (0.19—0.41) | 5000 | 0.27 (0.17—0.37) |
| | 3D - 8D | 2500 | 0.14 (0.09—0.18) | 5500 | 0.20 (0.13—0.26) | 3500 | 0.20 (0.13—0.26) |
| | 10D - 30D | 2500 | 0.12 (0.08—0.16) | 5500 | 0.30 (0.19—0.41) | 5000 | 0.27 (0.17—0.37) |
| | 35D,40D | 2000 | 0.10 (0.06—0.13) | 4500 | 0.24 (0.15—0.33) | 4000 | 0.22 (0.14—0.30) |
| 8.0 | 2D* | 1900 | 0.14 (0.10—0.17) | 4700 | 0.33 (0.22—0.44) | 3900 | 0.30 (0.20—0.40) |
| | 3D - 8D | 1900 | 0.15 (0.10—0.19) | 4700 | 0.25 (0.18—0.31) | 2700 | 0.23 (0.18—0.28) |
| | 10D - 30D | 1900 | 0.14 (0.10—0.17) | 4300 | 0.33 (0.22—0.44) | 3900 | 0.30 (0.20—0.40) |
| | 35D,40D | 1500 | 0.11 (0.08—0.14) | 3500 | 0.26 (0.18—0.35) | 3000 | 0.24 (0.16—0.32) |
| 10.0 | 2D* | 1500 | 0.15 (0.12—0.18) | 4100 | 0.35 (0.24—0.46) | 3100 | 0.32 (0.22—0.42) |
| | 3D - 8D | 1500 | 0.16 (0.12—0.20) | 4100 | 0.29 (0.22—0.35) | 2200 | 0.27 (0.22—0.32) |
| | 10D - 30D | 1500 | 0.15 (0.12—0.18) | 3500 | 0.35 (0.24—0.46) | 3100 | 0.32 (0.22—0.42) |
| | 35D | 1200 | 0.12 (0.10—0.14) | 2800 | 0.28 (0.19—0.37) | 2500 | 0.26 (0.18—0.34) |
| 12.0 | 2D* | 1500 | 0.17 (0.14—0.19) | 3700 | 0.37 (0.26—0.48) | 3100 | 0.34 (0.24—0.44) |
| | 3D - 8D | 1500 | 0.18 (0.15—0.21) | 3700 | 0.32 (0.26—0.37) | 2300 | 0.30 (0.26—0.34) |
| | 10D - 25D | 1500 | 0.17 (0.14—0.19) | 3400 | 0.37 (0.26—0.48) | 3100 | 0.34 (0.24—0.44) |
| 16.0 | 3D - 8D | 1100 | 0.19 (0.14—0.24) | 3100 | 0.35 (0.28—0.42) | 1700 | 0.33 (0.28—0.38) |
| 20.0 | 3D,5D | 900 | 0.21 (0.15—0.26) | 2500 | 0.37 (0.30—0.44) | 1500 | 0.35 (0.30—0.40) |

* =For cutting a guide hole

Solid Carbide Drills



Recommended Cutting Conditions

(mm)

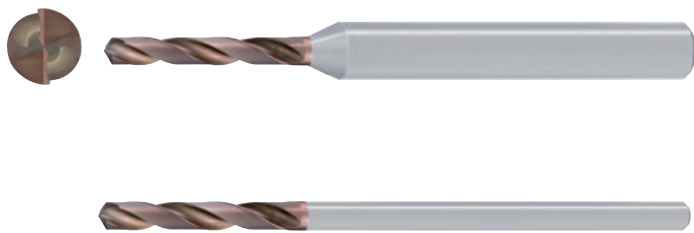
| Work Material | L/D | Aluminum Alloy (Si<5%) ASTM 6061, 7075 etc | | Heat Resistant Alloy Inconel718 etc | |
|---------------|-----------|---|-------------------------------|--|-------------------------------|
| | | n (min ⁻¹) | fr (Min.—Max.) (mm/rev) | n (min ⁻¹) | fr (Min.—Max.) (mm/rev) |
| 1.0 | 2D*,7D | 19000 | 0.05 (0.03—0.08) | 3100 | 0.02 (0.01—0.03) |
| | 12D - 30D | 15900 | 0.05 (0.03—0.08) | 3100 | 0.02 (0.01—0.03) |
| 1.5 | 2D*,7D | 16900 | 0.07 (0.05—0.12) | 2100 | 0.03 (0.02—0.04) |
| | 12D - 30D | 14800 | 0.08 (0.05—0.12) | 2100 | 0.03 (0.02—0.04) |
| 2.0 | 2D*,7D | 14300 | 0.10 (0.06—0.15) | 2300 | 0.04 (0.03—0.05) |
| | 12D - 30D | 12700 | 0.11 (0.06—0.15) | 2300 | 0.04 (0.03—0.05) |
| 2.5 | 2D*,7D | 12700 | 0.13 (0.08—0.20) | 1900 | 0.05 (0.04—0.06) |
| | 12D - 30D | 11400 | 0.14 (0.08—0.20) | 1900 | 0.05 (0.04—0.06) |
| 3.2 | 2D* | 11900 | 0.23 (0.10—0.35) | 1900 | 0.07 (0.05—0.09) |
| | 3D - 8D | 11900 | 0.23 (0.10—0.35) | 1900 | 0.07 (0.05—0.09) |
| | 10D - 30D | 9900 | 0.23 (0.10—0.35) | 1900 | 0.07 (0.05—0.09) |
| | 35D,40D | 7900 | 0.18 (0.08—0.28) | 1400 | 0.06 (0.04—0.07) |
| 4.0 | 2D* | 9500 | 0.24 (0.12—0.35) | 1500 | 0.09 (0.06—0.11) |
| | 3D - 8D | 9500 | 0.24 (0.12—0.35) | 1500 | 0.09 (0.06—0.11) |
| | 10D - 30D | 7900 | 0.24 (0.12—0.35) | 1500 | 0.09 (0.06—0.11) |
| | 35D,40D | 6300 | 0.19 (0.10—0.28) | 1100 | 0.07 (0.05—0.09) |
| 5.0 | 2D* | 7600 | 0.25 (0.15—0.35) | 1200 | 0.11 (0.08—0.14) |
| | 3D - 8D | 7600 | 0.25 (0.15—0.35) | 1200 | 0.11 (0.08—0.14) |
| | 10D - 30D | 6300 | 0.25 (0.15—0.35) | 1200 | 0.11 (0.08—0.14) |
| | 35D,40D | 5000 | 0.20 (0.12—0.28) | 900 | 0.09 (0.06—0.11) |
| 6.3 | 2D* | 7500 | 0.35 (0.20—0.50) | 1200 | 0.13 (0.09—0.16) |
| | 3D - 8D | 7500 | 0.35 (0.20—0.50) | 1200 | 0.13 (0.09—0.16) |
| | 10D - 30D | 6500 | 0.35 (0.20—0.50) | 1000 | 0.13 (0.09—0.16) |
| | 35D,40D | 5300 | 0.28 (0.16—0.40) | 700 | 0.10 (0.07—0.13) |
| 8.0 | 2D* | 5900 | 0.35 (0.20—0.50) | 900 | 0.14 (0.11—0.16) |
| | 3D - 8D | 5900 | 0.35 (0.20—0.50) | 900 | 0.14 (0.11—0.17) |
| | 10D - 30D | 5100 | 0.35 (0.20—0.50) | 700 | 0.14 (0.11—0.16) |
| | 35D,40D | 4100 | 0.28 (0.16—0.40) | 500 | 0.11 (0.09—0.13) |
| 10.0 | 2D* | 4700 | 0.50 (0.20—0.80) | 700 | 0.15 (0.12—0.17) |
| | 3D - 8D | 4700 | 0.50 (0.20—0.80) | 700 | 0.15 (0.12—0.17) |
| | 10D - 30D | 4100 | 0.50 (0.20—0.80) | 600 | 0.15 (0.12—0.17) |
| | 35D | 3300 | 0.40 (0.16—0.64) | 400 | 0.12 (0.10—0.14) |
| 12.0 | 2D* | 4200 | 0.50 (0.20—0.80) | 600 | 0.16 (0.13—0.18) |
| | 3D - 8D | 4200 | 0.50 (0.20—0.80) | 600 | 0.16 (0.13—0.18) |
| | 10D - 25D | 3700 | 0.50 (0.20—0.80) | 500 | 0.16 (0.13—0.18) |
| 16.0 | 3D - 8D | 3100 | 0.60 (0.20—1.00) | 400 | 0.18 (0.14—0.21) |
| 20.0 | 3D,5D | 2700 | 0.60 (0.20—1.00) | 400 | 0.19 (0.15—0.22) |

* =For cutting a guide hole

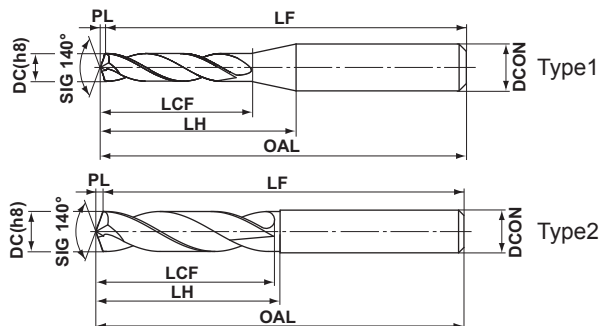
Solid Carbide Drills

MVE

WSTAR Drills



| | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|
| | DC=3 | 3<DC≤6 | 6<DC≤10 | 10<DC≤18 | 18<DC≤20 |
| | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |
| | 0 -0.006 | 0 -0.008 | 0 -0.009 | 0 -0.011 | 0 -0.013 |



External Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|-----|------------------|--------------|----------------|------|------|------|----|-----|------|------|
| | | | | | | | | | | |
| 3.0 | 2 | ● | MVE0300X02S030 | 16.5 | 16.5 | 55.5 | 55 | 0.5 | 3 | 2 |
| | 2 | ● | MVE0300X02S060 | 16.5 | 19.7 | 55.5 | 55 | 0.5 | 6 | 1 |
| | 3 | ● | MVE0300X03S030 | 21.5 | 21.5 | 60.5 | 60 | 0.5 | 3 | 2 |
| | 3 | ● | MVE0300X03S060 | 21.5 | 24.7 | 60.5 | 60 | 0.5 | 6 | 1 |
| 3.1 | 2 | ● | MVE0310X02S040 | 18.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 2 |
| | 2 | ● | MVE0310X02S060 | 18.6 | 21.7 | 55.6 | 55 | 0.6 | 6 | 1 |
| | 3 | ● | MVE0310X03S040 | 24.6 | 26.6 | 60.6 | 60 | 0.6 | 4 | 2 |
| | 3 | ● | MVE0310X03S060 | 24.6 | 27.7 | 60.6 | 60 | 0.6 | 6 | 1 |
| 3.2 | 2 | ● | MVE0320X02S040 | 18.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 2 |
| | 2 | ● | MVE0320X02S060 | 18.6 | 21.6 | 55.6 | 55 | 0.6 | 6 | 1 |
| | 3 | ● | MVE0320X03S040 | 24.6 | 26.6 | 60.6 | 60 | 0.6 | 4 | 2 |
| | 3 | ● | MVE0320X03S060 | 24.6 | 27.6 | 60.6 | 60 | 0.6 | 6 | 1 |
| 3.3 | 2 | ● | MVE0330X02S040 | 18.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 2 |
| | 2 | ● | MVE0330X02S060 | 18.6 | 21.5 | 55.6 | 55 | 0.6 | 6 | 1 |
| | 3 | ● | MVE0330X03S040 | 24.6 | 26.6 | 60.6 | 60 | 0.6 | 4 | 2 |
| | 3 | ● | MVE0330X03S060 | 24.6 | 27.5 | 60.6 | 60 | 0.6 | 6 | 1 |
| 3.4 | 2 | ● | MVE0340X02S040 | 18.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 2 |
| | 2 | ● | MVE0340X02S060 | 18.6 | 21.4 | 55.6 | 55 | 0.6 | 6 | 1 |
| | 3 | ● | MVE0340X03S040 | 24.6 | 26.6 | 60.6 | 60 | 0.6 | 4 | 2 |
| | 3 | ● | MVE0340X03S060 | 24.6 | 27.4 | 60.6 | 60 | 0.6 | 6 | 1 |
| 3.5 | 2 | ● | MVE0350X02S040 | 18.6 | 20.6 | 55.6 | 55 | 0.6 | 4 | 2 |
| | 2 | ● | MVE0350X02S060 | 18.6 | 21.3 | 55.6 | 55 | 0.6 | 6 | 1 |
| | 3 | ● | MVE0350X03S040 | 24.6 | 26.6 | 60.6 | 60 | 0.6 | 4 | 2 |
| | 3 | ● | MVE0350X03S060 | 24.6 | 27.3 | 60.6 | 60 | 0.6 | 6 | 1 |
| 3.6 | 2 | ● | MVE0360X02S040 | 20.7 | 20.7 | 55.7 | 55 | 0.7 | 4 | 2 |
| | 2 | ● | MVE0360X02S060 | 20.7 | 23.3 | 55.7 | 55 | 0.7 | 6 | 1 |
| | 3 | ● | MVE0360X03S040 | 27.7 | 27.7 | 60.7 | 60 | 0.7 | 4 | 2 |
| | 3 | ● | MVE0360X03S060 | 27.7 | 30.3 | 60.7 | 60 | 0.7 | 6 | 1 |
| 3.7 | 2 | ● | MVE0370X02S040 | 20.7 | 20.7 | 55.7 | 55 | 0.7 | 4 | 2 |
| | 2 | ● | MVE0370X02S060 | 20.7 | 23.2 | 55.7 | 55 | 0.7 | 6 | 1 |
| | 3 | ● | MVE0370X03S040 | 27.7 | 27.7 | 60.7 | 60 | 0.7 | 4 | 2 |
| | 3 | ● | MVE0370X03S060 | 27.7 | 30.2 | 60.7 | 60 | 0.7 | 6 | 1 |
| 3.8 | 2 | ● | MVE0380X02S040 | 20.7 | 20.7 | 55.7 | 55 | 0.7 | 4 | 2 |
| | 2 | ● | MVE0380X02S060 | 20.7 | 23.1 | 55.7 | 55 | 0.7 | 6 | 1 |
| | 3 | ● | MVE0380X03S040 | 27.7 | 27.7 | 60.7 | 60 | 0.7 | 4 | 2 |
| | 3 | ● | MVE0380X03S060 | 27.7 | 30.1 | 60.7 | 60 | 0.7 | 6 | 1 |
| 3.9 | 2 | ● | MVE0390X02S040 | 20.7 | 20.7 | 55.7 | 55 | 0.7 | 4 | 2 |
| | 2 | ● | MVE0390X02S060 | 20.7 | 23.0 | 55.7 | 55 | 0.7 | 6 | 1 |

External Coolant (mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|-----|------------------|--------------|----------------|------|------|------|----|-----|------|------|
| | | | | | | | | | | |
| 3.9 | 3 | ● | MVE0390X03S040 | 27.7 | 27.7 | 60.7 | 60 | 0.7 | 4 | 2 |
| | 3 | ● | MVE0390X03S060 | 27.7 | 30.0 | 60.7 | 60 | 0.7 | 6 | 1 |
| 4.0 | 2 | ● | MVE0400X02S040 | 20.7 | 20.7 | 55.7 | 55 | 0.7 | 4 | 2 |
| | 2 | ● | MVE0400X02S060 | 20.7 | 22.8 | 55.7 | 55 | 0.7 | 6 | 1 |
| | 3 | ● | MVE0400X03S040 | 27.7 | 27.7 | 60.7 | 60 | 0.7 | 4 | 2 |
| 4.1 | 2 | ● | MVE0410X02S050 | 22.7 | 24.7 | 62.7 | 62 | 0.7 | 5 | 2 |
| | 2 | ● | MVE0410X02S060 | 22.7 | 24.7 | 62.7 | 62 | 0.7 | 6 | 1 |
| | 3 | ● | MVE0410X03S050 | 29.7 | 31.7 | 68.7 | 68 | 0.7 | 5 | 2 |
| 4.2 | 2 | ● | MVE0420X02S050 | 22.8 | 24.8 | 62.8 | 62 | 0.8 | 5 | 2 |
| | 2 | ● | MVE0420X02S060 | 22.8 | 24.7 | 62.8 | 62 | 0.8 | 6 | 1 |
| | 3 | ● | MVE0420X03S050 | 29.8 | 31.8 | 68.8 | 68 | 0.8 | 5 | 2 |
| 4.3 | 2 | ● | MVE0430X02S050 | 22.8 | 24.8 | 62.8 | 62 | 0.8 | 5 | 2 |
| | 2 | ● | MVE0430X02S060 | 22.8 | 24.6 | 62.8 | 62 | 0.8 | 6 | 1 |
| | 3 | ● | MVE0430X03S050 | 29.8 | 31.8 | 68.8 | 68 | 0.8 | 5 | 2 |
| 4.4 | 2 | ● | MVE0440X02S050 | 22.8 | 24.8 | 62.8 | 62 | 0.8 | 5 | 2 |
| | 2 | ● | MVE0440X02S060 | 22.8 | 24.5 | 62.8 | 62 | 0.8 | 6 | 1 |
| | 3 | ● | MVE0440X03S050 | 29.8 | 31.8 | 68.8 | 68 | 0.8 | 5 | 2 |
| 4.5 | 2 | ● | MVE0450X02S050 | 22.8 | 24.8 | 62.8 | 62 | 0.8 | 5 | 2 |
| | 2 | ● | MVE0450X02S060 | 22.8 | 24.4 | 62.8 | 62 | 0.8 | 6 | 1 |
| | 3 | ● | MVE0450X03S050 | 29.8 | 31.8 | 68.8 | 68 | 0.8 | 5 | 2 |
| 4.6 | 2 | ● | MVE0460X02S050 | 24.8 | 24.8 | 62.8 | 62 | 0.8 | 5 | 2 |
| | 2 | ● | MVE0460X02S060 | 24.8 | 27.8 | 62.8 | 62 | 0.8 | 6 | 2 |
| | 3 | ● | MVE0460X03S050 | 32.8 | 32.8 | 68.8 | 68 | 0.8 | 5 | 2 |
| 4.7 | 2 | ● | MVE0470X02S050 | 24.9 | 24.9 | 62.9 | 62 | 0.9 | 5 | 2 |
| | 2 | ● | MVE0470X02S060 | 24.9 | 27.9 | 62.9 | 62 | 0.9 | 6 | 2 |
| | 3 | ● | MVE0470X03S050 | 32.9 | 32.9 | 68.9 | 68 | 0.9 | 5 | 2 |
| 4.8 | 2 | ● | MVE0480X02S050 | 24.9 | 24.9 | 62.9 | 62 | 0.9 | 5 | 2 |
| | 2 | ● | MVE0480X02S060 | 24.9 | 27.9 | 62.9 | 62 | 0.9 | 6 | 2 |
| | 3 | ● | MVE0480X03S050 | 32.9 | 32.9 | 68.9 | 68 | 0.9 | 5 | 2 |

● : Inventory maintained in Japan.

External Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|-----|------------------|--------------|----------------|------|------|------|----|-----|------|------|
| | | | | | | | | | | |
| | 2 | ● | MVE0490X02S060 | 24.9 | 27.9 | 62.9 | 62 | 0.9 | 6 | 2 |
| | 3 | ● | MVE0490X03S050 | 32.9 | 32.9 | 68.9 | 68 | 0.9 | 5 | 2 |
| | 3 | ● | MVE0490X03S060 | 32.9 | 35.9 | 68.9 | 68 | 0.9 | 6 | 2 |
| 5.0 | 2 | ● | MVE0500X02S050 | 24.9 | 24.9 | 62.9 | 62 | 0.9 | 5 | 2 |
| | 2 | ● | MVE0500X02S060 | 24.9 | 27.9 | 62.9 | 62 | 0.9 | 6 | 2 |
| | 3 | ● | MVE0500X03S050 | 32.9 | 32.9 | 68.9 | 68 | 0.9 | 5 | 2 |
| | 3 | ● | MVE0500X03S060 | 32.9 | 35.9 | 68.9 | 68 | 0.9 | 6 | 2 |
| 5.1 | 2 | ● | MVE0510X02S060 | 26.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 2 |
| | 3 | ● | MVE0510X03S060 | 34.9 | 36.9 | 74.9 | 74 | 0.9 | 6 | 2 |
| 5.2 | 2 | ● | MVE0520X02S060 | 26.9 | 28.9 | 66.9 | 66 | 0.9 | 6 | 2 |
| | 3 | ● | MVE0520X03S060 | 34.9 | 36.9 | 74.9 | 74 | 0.9 | 6 | 2 |
| 5.3 | 2 | ● | MVE0530X02S060 | 27.0 | 29.0 | 67.0 | 66 | 1.0 | 6 | 2 |
| | 3 | ● | MVE0530X03S060 | 35.0 | 37.0 | 75.0 | 74 | 1.0 | 6 | 2 |
| 5.4 | 2 | ● | MVE0540X02S060 | 27.0 | 29.0 | 67.0 | 66 | 1.0 | 6 | 2 |
| | 3 | ● | MVE0540X03S060 | 35.0 | 37.0 | 75.0 | 74 | 1.0 | 6 | 2 |
| 5.5 | 2 | ● | MVE0550X02S060 | 27.0 | 29.0 | 67.0 | 66 | 1.0 | 6 | 2 |
| | 3 | ● | MVE0550X03S060 | 35.0 | 37.0 | 75.0 | 74 | 1.0 | 6 | 2 |
| 5.6 | 2 | ● | MVE0560X02S060 | 29.0 | 29.0 | 67.0 | 66 | 1.0 | 6 | 2 |
| | 3 | ● | MVE0560X03S060 | 37.0 | 37.0 | 75.0 | 74 | 1.0 | 6 | 2 |
| 5.7 | 2 | ● | MVE0570X02S060 | 29.0 | 29.0 | 67.0 | 66 | 1.0 | 6 | 2 |
| | 3 | ● | MVE0570X03S060 | 37.0 | 37.0 | 75.0 | 74 | 1.0 | 6 | 2 |
| 5.8 | 2 | ● | MVE0580X02S060 | 29.1 | 29.1 | 67.1 | 66 | 1.1 | 6 | 2 |
| | 3 | ● | MVE0580X03S060 | 37.1 | 37.1 | 75.1 | 74 | 1.1 | 6 | 2 |
| 5.9 | 2 | ● | MVE0590X02S060 | 29.1 | 29.1 | 67.1 | 66 | 1.1 | 6 | 2 |
| | 3 | ● | MVE0590X03S060 | 37.1 | 37.1 | 75.1 | 74 | 1.1 | 6 | 2 |
| 6.0 | 2 | ● | MVE0600X02S060 | 29.1 | 29.1 | 67.1 | 66 | 1.1 | 6 | 2 |
| | 3 | ● | MVE0600X03S060 | 37.1 | 37.1 | 75.1 | 74 | 1.1 | 6 | 2 |
| 6.1 | 2 | ● | MVE0610X02S070 | 32.1 | 35.1 | 75.1 | 74 | 1.1 | 7 | 2 |
| | 2 | ● | MVE0610X02S080 | 32.1 | 35.1 | 75.1 | 74 | 1.1 | 8 | 2 |
| | 3 | ● | MVE0610X03S070 | 42.1 | 45.1 | 84.1 | 83 | 1.1 | 7 | 2 |
| | 3 | ● | MVE0610X03S080 | 42.1 | 45.1 | 84.1 | 83 | 1.1 | 8 | 2 |
| 6.2 | 2 | ● | MVE0620X02S070 | 32.1 | 35.1 | 75.1 | 74 | 1.1 | 7 | 2 |
| | 2 | ● | MVE0620X02S080 | 32.1 | 35.1 | 75.1 | 74 | 1.1 | 8 | 2 |
| | 3 | ● | MVE0620X03S070 | 42.1 | 45.1 | 84.1 | 83 | 1.1 | 7 | 2 |
| | 3 | ● | MVE0620X03S080 | 42.1 | 45.1 | 84.1 | 83 | 1.1 | 8 | 2 |
| 6.3 | 2 | ● | MVE0630X02S070 | 32.1 | 35.1 | 75.1 | 74 | 1.1 | 7 | 2 |
| | 2 | ● | MVE0630X02S080 | 32.1 | 35.1 | 75.1 | 74 | 1.1 | 8 | 2 |
| | 3 | ● | MVE0630X03S070 | 42.1 | 45.1 | 84.1 | 83 | 1.1 | 7 | 2 |
| | 3 | ● | MVE0630X03S080 | 42.1 | 45.1 | 84.1 | 83 | 1.1 | 8 | 2 |
| 6.4 | 2 | ● | MVE0640X02S070 | 32.2 | 35.2 | 75.2 | 74 | 1.2 | 7 | 2 |
| | 2 | ● | MVE0640X02S080 | 32.2 | 35.2 | 75.2 | 74 | 1.2 | 8 | 2 |
| | 3 | ● | MVE0640X03S070 | 42.2 | 45.2 | 84.2 | 83 | 1.2 | 7 | 2 |
| | 3 | ● | MVE0640X03S080 | 42.2 | 45.2 | 84.2 | 83 | 1.2 | 8 | 2 |
| 6.5 | 2 | ● | MVE0650X02S070 | 32.2 | 35.2 | 75.2 | 74 | 1.2 | 7 | 2 |
| | 2 | ● | MVE0650X02S080 | 32.2 | 35.2 | 75.2 | 74 | 1.2 | 8 | 2 |
| | 3 | ● | MVE0650X03S070 | 42.2 | 45.2 | 84.2 | 83 | 1.2 | 7 | 2 |
| | 3 | ● | MVE0650X03S080 | 42.2 | 45.2 | 84.2 | 83 | 1.2 | 8 | 2 |
| 6.6 | 2 | ● | MVE0660X02S070 | 35.2 | 35.2 | 75.2 | 74 | 1.2 | 7 | 2 |
| | 2 | ● | MVE0660X02S080 | 35.2 | 37.2 | 75.2 | 74 | 1.2 | 8 | 2 |
| | 3 | ● | MVE0660X03S070 | 44.2 | 44.2 | 84.2 | 83 | 1.2 | 7 | 2 |
| | 3 | ● | MVE0660X03S080 | 44.2 | 46.2 | 84.2 | 83 | 1.2 | 8 | 2 |

External Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|-----|------------------|--------------|----------------|------|------|------|----|-----|------|------|
| | | | | | | | | | | |
| | 2 | ● | MVE0670X02S080 | 35.2 | 37.2 | 75.2 | 74 | 1.2 | 8 | 2 |
| | 3 | ● | MVE0670X03S070 | 44.2 | 44.2 | 84.2 | 83 | 1.2 | 7 | 2 |
| | 3 | ● | MVE0670X03S080 | 44.2 | 46.2 | 84.2 | 83 | 1.2 | 8 | 2 |
| 6.8 | 2 | ● | MVE0680X02S070 | 35.2 | 35.2 | 75.2 | 74 | 1.2 | 7 | 2 |
| | 2 | ● | MVE0680X02S080 | 35.2 | 37.2 | 75.2 | 74 | 1.2 | 8 | 2 |
| | 3 | ● | MVE0680X03S070 | 44.2 | 44.2 | 84.2 | 83 | 1.2 | 7 | 2 |
| | 3 | ● | MVE0680X03S080 | 44.2 | 46.2 | 84.2 | 83 | 1.2 | 8 | 2 |
| 6.9 | 2 | ● | MVE0690X02S070 | 35.3 | 35.3 | 75.3 | 74 | 1.3 | 7 | 2 |
| | 2 | ● | MVE0690X02S080 | 35.3 | 37.3 | 75.3 | 74 | 1.3 | 8 | 2 |
| | 3 | ● | MVE0690X03S070 | 44.3 | 44.3 | 84.3 | 83 | 1.3 | 7 | 2 |
| | 3 | ● | MVE0690X03S080 | 44.3 | 46.3 | 84.3 | 83 | 1.3 | 8 | 2 |
| 7.0 | 2 | ● | MVE0700X02S070 | 35.3 | 35.3 | 75.3 | 74 | 1.3 | 7 | 2 |
| | 2 | ● | MVE0700X02S080 | 35.3 | 37.3 | 75.3 | 74 | 1.3 | 8 | 2 |
| | 3 | ● | MVE0700X03S070 | 44.3 | 44.3 | 84.3 | 83 | 1.3 | 7 | 2 |
| | 3 | ● | MVE0700X03S080 | 44.3 | 46.3 | 84.3 | 83 | 1.3 | 8 | 2 |
| 7.1 | 2 | ● | MVE0710X02S080 | 35.3 | 38.3 | 80.3 | 79 | 1.3 | 8 | 2 |
| | 3 | ● | MVE0710X03S080 | 46.3 | 49.3 | 91.3 | 90 | 1.3 | 8 | 2 |
| 7.2 | 2 | ● | MVE0720X02S080 | 35.3 | 38.3 | 80.3 | 79 | 1.3 | 8 | 2 |
| | 3 | ● | MVE0720X03S080 | 46.3 | 49.3 | 91.3 | 90 | 1.3 | 8 | 2 |
| 7.3 | 2 | ● | MVE0730X02S080 | 35.3 | 38.3 | 80.3 | 79 | 1.3 | 8 | 2 |
| | 3 | ● | MVE0730X03S080 | 46.3 | 49.3 | 91.3 | 90 | 1.3 | 8 | 2 |
| 7.4 | 2 | ● | MVE0740X02S080 | 35.3 | 38.3 | 80.3 | 79 | 1.3 | 8 | 2 |
| | 3 | ● | MVE0740X03S080 | 46.3 | 49.3 | 91.3 | 90 | 1.3 | 8 | 2 |
| 7.5 | 2 | ● | MVE0750X02S080 | 35.4 | 38.4 | 80.4 | 79 | 1.4 | 8 | 2 |
| | 3 | ● | MVE0750X03S080 | 46.4 | 49.4 | 91.4 | 90 | 1.4 | 8 | 2 |
| 7.6 | 2 | ● | MVE0760X02S080 | 38.4 | 38.4 | 80.4 | 79 | 1.4 | 8 | 2 |
| | 3 | ● | MVE0760X03S080 | 49.4 | 49.4 | 91.4 | 90 | 1.4 | 8 | 2 |
| 7.7 | 2 | ● | MVE0770X02S080 | 38.4 | 38.4 | 80.4 | 79 | 1.4 | 8 | 2 |
| | 3 | ● | MVE0770X03S080 | 49.4 | 49.4 | 91.4 | 90 | 1.4 | 8 | 2 |
| 7.8 | 2 | ● | MVE0780X02S080 | 38.4 | 38.4 | 80.4 | 79 | 1.4 | 8 | 2 |
| | 3 | ● | MVE0780X03S080 | 49.4 | 49.4 | 91.4 | 90 | 1.4 | 8 | 2 |
| 7.9 | 2 | ● | MVE0790X02S080 | 38.4 | 38.4 | 80.4 | 79 | 1.4 | 8 | 2 |
| | 3 | ● | MVE0790X03S080 | 49.4 | 49.4 | 91.4 | 90 | 1.4 | 8 | 2 |
| 8.0 | 2 | ● | MVE0800X02S080 | 38.5 | 38.5 | 80.5 | 79 | 1.5 | 8 | 2 |
| | 3 | ● | MVE0800X03S080 | 49.5 | 49.5 | 91.5 | 90 | 1.5 | 8 | 2 |
| 8.1 | 2 | ● | MVE0810X02S090 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 9 | 2 |
| | 2 | ● | MVE0810X02S100 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 10 | 2 |
| | 3 | ● | MVE0810X03S090 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 9 | 2 |
| | 3 | ● | MVE0810X03S100 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 10 | 2 |
| 8.2 | 2 | ● | MVE0820X02S090 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 9 | 2 |
| | 2 | ● | MVE0820X02S100 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 10 | 2 |
| | 3 | ● | MVE0820X03S090 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 9 | 2 |
| | 3 | ● | MVE0820X03S100 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 10 | 2 |
| 8.3 | 2 | ● | MVE0830X02S090 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 9 | 2 |
| | 2 | ● | MVE0830X02S100 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 10 | 2 |
| | 3 | ● | MVE0830X03S090 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 9 | 2 |
| | 3 | ● | MVE0830X03S100 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 10 | 2 |
| 8.4 | 2 | ● | MVE0840X02S090 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 9 | 2 |
| | 2 | ● | MVE0840X02S100 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 10 | 2 |
| | 3 | ● | MVE0840X03S090 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 9 | 2 |
| | 3 | ● | MVE0840X03S100 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 10 | 2 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills

MVE

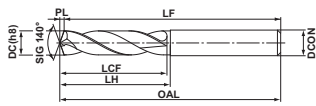
WSTAR Drills

| External Coolant | | | | | | | | | | |
|------------------|------------------|--------------|----------------|------|------|-------|-----|-----|------|------|
| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
| | | | | | | | | | | |
| | 2 | ● | MVE0850X02S100 | 38.5 | 41.5 | 85.5 | 84 | 1.5 | 10 | 2 |
| | 3 | ● | MVE0850X03S090 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 9 | 2 |
| | 3 | ● | MVE0850X03S100 | 54.5 | 57.5 | 99.5 | 98 | 1.5 | 10 | 2 |
| 8.6 | 2 | ● | MVE0860X02S090 | 41.6 | 41.6 | 85.6 | 84 | 1.6 | 9 | 2 |
| | 2 | ● | MVE0860X02S100 | 41.6 | 43.6 | 85.6 | 84 | 1.6 | 10 | 2 |
| | 3 | ● | MVE0860X03S090 | 56.6 | 56.6 | 99.6 | 98 | 1.6 | 9 | 2 |
| | 3 | ● | MVE0860X03S100 | 56.6 | 58.6 | 99.6 | 98 | 1.6 | 10 | 2 |
| 8.7 | 2 | ● | MVE0870X02S090 | 41.6 | 41.6 | 85.6 | 84 | 1.6 | 9 | 2 |
| | 2 | ● | MVE0870X02S100 | 41.6 | 43.6 | 85.6 | 84 | 1.6 | 10 | 2 |
| | 3 | ● | MVE0870X03S090 | 56.6 | 56.6 | 99.6 | 98 | 1.6 | 9 | 2 |
| | 3 | ● | MVE0870X03S100 | 56.6 | 58.6 | 99.6 | 98 | 1.6 | 10 | 2 |
| 8.8 | 2 | ● | MVE0880X02S090 | 41.6 | 41.6 | 85.6 | 84 | 1.6 | 9 | 2 |
| | 2 | ● | MVE0880X02S100 | 41.6 | 43.6 | 85.6 | 84 | 1.6 | 10 | 2 |
| | 3 | ● | MVE0880X03S090 | 56.6 | 56.6 | 99.6 | 98 | 1.6 | 9 | 2 |
| | 3 | ● | MVE0880X03S100 | 56.6 | 58.6 | 99.6 | 98 | 1.6 | 10 | 2 |
| 8.9 | 2 | ● | MVE0890X02S090 | 41.6 | 41.6 | 85.6 | 84 | 1.6 | 9 | 2 |
| | 2 | ● | MVE0890X02S100 | 41.6 | 43.6 | 85.6 | 84 | 1.6 | 10 | 2 |
| | 3 | ● | MVE0890X03S090 | 56.6 | 56.6 | 99.6 | 98 | 1.6 | 9 | 2 |
| | 3 | ● | MVE0890X03S100 | 56.6 | 58.6 | 99.6 | 98 | 1.6 | 10 | 2 |
| 9.0 | 2 | ● | MVE0900X02S090 | 41.6 | 41.6 | 85.6 | 84 | 1.6 | 9 | 2 |
| | 2 | ● | MVE0900X02S100 | 41.6 | 43.6 | 85.6 | 84 | 1.6 | 10 | 2 |
| | 3 | ● | MVE0900X03S090 | 56.6 | 56.6 | 99.6 | 98 | 1.6 | 9 | 2 |
| | 3 | ● | MVE0900X03S100 | 56.6 | 58.6 | 99.6 | 98 | 1.6 | 10 | 2 |
| 9.1 | 2 | ● | MVE0910X02S100 | 41.7 | 44.7 | 90.7 | 89 | 1.7 | 10 | 2 |
| | 3 | ● | MVE0910X03S100 | 59.7 | 62.7 | 106.7 | 105 | 1.7 | 10 | 2 |
| 9.2 | 2 | ● | MVE0920X02S100 | 41.7 | 44.7 | 90.7 | 89 | 1.7 | 10 | 2 |
| | 3 | ● | MVE0920X03S100 | 59.7 | 62.7 | 106.7 | 105 | 1.7 | 10 | 2 |
| 9.3 | 2 | ● | MVE0930X02S100 | 41.7 | 44.7 | 90.7 | 89 | 1.7 | 10 | 2 |
| | 3 | ● | MVE0930X03S100 | 59.7 | 62.7 | 106.7 | 105 | 1.7 | 10 | 2 |
| 9.4 | 2 | ● | MVE0940X02S100 | 41.7 | 44.7 | 90.7 | 89 | 1.7 | 10 | 2 |
| | 3 | ● | MVE0940X03S100 | 59.7 | 62.7 | 106.7 | 105 | 1.7 | 10 | 2 |
| 9.5 | 2 | ● | MVE0950X02S100 | 41.7 | 44.7 | 90.7 | 89 | 1.7 | 10 | 2 |
| | 3 | ● | MVE0950X03S100 | 59.7 | 62.7 | 106.7 | 105 | 1.7 | 10 | 2 |
| 9.6 | 2 | ● | MVE0960X02S100 | 44.7 | 44.7 | 90.7 | 89 | 1.7 | 10 | 2 |
| | 3 | ● | MVE0960X03S100 | 61.7 | 61.7 | 106.7 | 105 | 1.7 | 10 | 2 |
| 9.7 | 2 | ● | MVE0970X02S100 | 44.8 | 44.8 | 90.8 | 89 | 1.8 | 10 | 2 |
| | 3 | ● | MVE0970X03S100 | 61.8 | 61.8 | 106.8 | 105 | 1.8 | 10 | 2 |
| 9.8 | 2 | ● | MVE0980X02S100 | 44.8 | 44.8 | 90.8 | 89 | 1.8 | 10 | 2 |
| | 3 | ● | MVE0980X03S100 | 61.8 | 61.8 | 106.8 | 105 | 1.8 | 10 | 2 |
| 9.9 | 2 | ● | MVE0990X02S100 | 44.8 | 44.8 | 90.8 | 89 | 1.8 | 10 | 2 |
| | 3 | ● | MVE0990X03S100 | 61.8 | 61.8 | 106.8 | 105 | 1.8 | 10 | 2 |
| 10.0 | 2 | ● | MVE1000X02S100 | 44.8 | 44.8 | 90.8 | 89 | 1.8 | 10 | 2 |
| | 3 | ● | MVE1000X03S100 | 61.8 | 61.8 | 106.8 | 105 | 1.8 | 10 | 2 |
| 10.1 | 2 | ● | MVE1010X02S110 | 44.8 | 47.8 | 96.8 | 95 | 1.8 | 11 | 2 |
| | 2 | ● | MVE1010X02S120 | 44.8 | 47.8 | 96.8 | 95 | 1.8 | 12 | 2 |
| | 3 | ● | MVE1010X03S110 | 67.8 | 70.8 | 115.8 | 114 | 1.8 | 11 | 2 |
| | 3 | ● | MVE1010X03S120 | 67.8 | 70.8 | 115.8 | 114 | 1.8 | 12 | 2 |
| 10.2 | 2 | ● | MVE1020X02S110 | 44.9 | 47.9 | 96.9 | 95 | 1.9 | 11 | 2 |
| | 2 | ● | MVE1020X02S120 | 44.9 | 47.9 | 96.9 | 95 | 1.9 | 12 | 2 |
| | 3 | ● | MVE1020X03S110 | 67.9 | 70.9 | 115.9 | 114 | 1.9 | 11 | 2 |
| | 3 | ● | MVE1020X03S120 | 67.9 | 70.9 | 115.9 | 114 | 1.9 | 12 | 2 |

| External Coolant (mm) | | | | | | | | | | |
|-----------------------|------------------|--------------|----------------|------|------|-------|-----|-----|------|------|
| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
| | | | | | | | | | | |
| | 2 | ● | MVE1030X02S120 | 44.9 | 47.9 | 96.9 | 95 | 1.9 | 12 | 2 |
| | 3 | ● | MVE1030X03S110 | 67.9 | 70.9 | 115.9 | 114 | 1.9 | 11 | 2 |
| | 3 | ● | MVE1030X03S120 | 67.9 | 70.9 | 115.9 | 114 | 1.9 | 12 | 2 |
| 10.4 | 2 | ● | MVE1040X02S110 | 44.9 | 47.9 | 96.9 | 95 | 1.9 | 11 | 2 |
| | 2 | ● | MVE1040X02S120 | 44.9 | 47.9 | 96.9 | 95 | 1.9 | 12 | 2 |
| | 3 | ● | MVE1040X03S110 | 67.9 | 70.9 | 115.9 | 114 | 1.9 | 11 | 2 |
| | 3 | ● | MVE1040X03S120 | 67.9 | 70.9 | 115.9 | 114 | 1.9 | 12 | 2 |
| 10.5 | 2 | ● | MVE1050X02S110 | 44.9 | 47.9 | 96.9 | 95 | 1.9 | 11 | 2 |
| | 2 | ● | MVE1050X02S120 | 44.9 | 47.9 | 96.9 | 95 | 1.9 | 12 | 2 |
| | 3 | ● | MVE1050X03S110 | 67.9 | 70.9 | 115.9 | 114 | 1.9 | 11 | 2 |
| | 3 | ● | MVE1050X03S120 | 67.9 | 70.9 | 115.9 | 114 | 1.9 | 12 | 2 |
| 10.6 | 2 | ● | MVE1060X02S110 | 48.9 | 48.9 | 96.9 | 95 | 1.9 | 11 | 2 |
| | 2 | ● | MVE1060X02S120 | 48.9 | 49.9 | 96.9 | 95 | 1.9 | 12 | 2 |
| | 3 | ● | MVE1060X03S110 | 69.9 | 69.9 | 115.9 | 114 | 1.9 | 11 | 2 |
| | 3 | ● | MVE1060X03S120 | 69.9 | 70.9 | 115.9 | 114 | 1.9 | 12 | 2 |
| 10.7 | 2 | ● | MVE1070X02S110 | 48.9 | 48.9 | 96.9 | 95 | 1.9 | 11 | 2 |
| | 2 | ● | MVE1070X02S120 | 48.9 | 49.9 | 96.9 | 95 | 1.9 | 12 | 2 |
| | 3 | ● | MVE1070X03S110 | 69.9 | 69.9 | 115.9 | 114 | 1.9 | 11 | 2 |
| | 3 | ● | MVE1070X03S120 | 69.9 | 70.9 | 115.9 | 114 | 1.9 | 12 | 2 |
| 10.8 | 2 | ● | MVE1080X02S110 | 49.0 | 49.0 | 97.0 | 95 | 2.0 | 11 | 2 |
| | 2 | ● | MVE1080X02S120 | 49.0 | 50.0 | 97.0 | 95 | 2.0 | 12 | 2 |
| | 3 | ● | MVE1080X03S110 | 70.0 | 70.0 | 116.0 | 114 | 2.0 | 11 | 2 |
| | 3 | ● | MVE1080X03S120 | 70.0 | 71.0 | 116.0 | 114 | 2.0 | 12 | 2 |
| 10.9 | 2 | ● | MVE1090X02S110 | 49.0 | 49.0 | 97.0 | 95 | 2.0 | 11 | 2 |
| | 2 | ● | MVE1090X02S120 | 49.0 | 50.0 | 97.0 | 95 | 2.0 | 12 | 2 |
| | 3 | ● | MVE1090X03S110 | 70.0 | 70.0 | 116.0 | 114 | 2.0 | 11 | 2 |
| | 3 | ● | MVE1090X03S120 | 70.0 | 71.0 | 116.0 | 114 | 2.0 | 12 | 2 |
| 11.0 | 2 | ● | MVE1100X02S110 | 49.0 | 49.0 | 97.0 | 95 | 2.0 | 11 | 2 |
| | 2 | ● | MVE1100X02S120 | 49.0 | 50.0 | 97.0 | 95 | 2.0 | 12 | 2 |
| | 3 | ● | MVE1100X03S110 | 70.0 | 70.0 | 116.0 | 114 | 2.0 | 11 | 2 |
| | 3 | ● | MVE1100X03S120 | 70.0 | 71.0 | 116.0 | 114 | 2.0 | 12 | 2 |
| 11.1 | 2 | ● | MVE1110X02S120 | 49.0 | 52.0 | 97.0 | 95 | 2.0 | 12 | 2 |
| | 3 | ● | MVE1110X03S120 | 73.0 | 76.0 | 123.0 | 121 | 2.0 | 12 | 2 |
| 11.2 | 2 | ● | MVE1120X02S120 | 49.0 | 52.0 | 97.0 | 95 | 2.0 | 12 | 2 |
| | 3 | ● | MVE1120X03S120 | 73.0 | 76.0 | 123.0 | 121 | 2.0 | 12 | 2 |
| 11.3 | 2 | ● | MVE1130X02S120 | 49.1 | 52.1 | 97.1 | 95 | 2.1 | 12 | 2 |
| | 3 | ● | MVE1130X03S120 | 73.1 | 76.1 | 123.1 | 121 | 2.1 | 12 | 2 |
| 11.4 | 2 | ● | MVE1140X02S120 | 49.1 | 52.1 | 97.1 | 95 | 2.1 | 12 | 2 |
| | 3 | ● | MVE1140X03S120 | 73.1 | 76.1 | 123.1 | 121 | 2.1 | 12 | 2 |
| 11.5 | 2 | ● | MVE1150X02S120 | 49.1 | 52.1 | 97.1 | 95 | 2.1 | 12 | 2 |
| | 3 | ● | MVE1150X03S120 | 73.1 | 76.1 | 123.1 | 121 | 2.1 | 12 | 2 |
| 11.6 | 2 | ● | MVE1160X02S120 | 49.1 | 49.1 | 97.1 | 95 | 2.1 | 12 | 2 |
| | 3 | ● | MVE1160X03S120 | 75.1 | 75.1 | 123.1 | 121 | 2.1 | 12 | 2 |
| 11.7 | 2 | ● | MVE1170X02S120 | 49.1 | 49.1 | 97.1 | 95 | 2.1 | 12 | 2 |
| | 3 | ● | MVE1170X03S120 | 75.1 | 75.1 | 123.1 | 121 | 2.1 | 12 | 2 |
| 11.8 | 2 | ● | MVE1180X02S120 | 49.1 | 49.1 | 97.1 | 95 | 2.1 | 12 | 2 |
| | 3 | ● | MVE1180X03S120 | 75.1 | 75.1 | 123.1 | 121 | 2.1 | 12 | 2 |
| 11.9 | 2 | ● | MVE1190X02S120 | 49.2 | 49.2 | 97.2 | 95 | 2.2 | 12 | 2 |
| | 3 | ● | MVE1190X03S120 | 75.2 | 75.2 | 123.2 | 121 | 2.2 | 12 | 2 |
| 12.0 | 2 | ● | MVE1200X02S120 | 49.2 | 49.2 | 97.2 | 95 | 2.2 | 12 | 2 |
| | 3 | ● | MVE1200X03S120 | 75.2 | 75.2 | 123.2 | 121 | 2.2 | 12 | 2 |

● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



External Coolant

| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|------------------|-------|----------------|------|------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 12.1 | 2 | ● | MVE1210X02S130 | 53.2 | 56.2 | 104.2 | 102 | 2.2 | 13 | 2 |
| | 2 | □ | MVE1210X02S140 | 53.2 | 56.2 | 104.2 | 102 | 2.2 | 14 | 2 |
| | 3 | ● | MVE1210X03S130 | 78.2 | 81.2 | 139.2 | 137 | 2.2 | 13 | 2 |
| | 3 | □ | MVE1210X03S140 | 78.2 | 81.2 | 139.2 | 137 | 2.2 | 14 | 2 |
| 12.2 | 2 | ● | MVE1220X02S130 | 53.2 | 56.2 | 104.2 | 102 | 2.2 | 13 | 2 |
| | 2 | □ | MVE1220X02S140 | 53.2 | 56.2 | 104.2 | 102 | 2.2 | 14 | 2 |
| | 3 | ● | MVE1220X03S130 | 78.2 | 81.2 | 139.2 | 137 | 2.2 | 13 | 2 |
| | 3 | □ | MVE1220X03S140 | 78.2 | 81.2 | 139.2 | 137 | 2.2 | 14 | 2 |
| 12.3 | 2 | ● | MVE1230X02S130 | 53.2 | 56.2 | 104.2 | 102 | 2.2 | 13 | 2 |
| | 2 | □ | MVE1230X02S140 | 53.2 | 56.2 | 104.2 | 102 | 2.2 | 14 | 2 |
| | 3 | ● | MVE1230X03S130 | 78.2 | 81.2 | 139.2 | 137 | 2.2 | 13 | 2 |
| | 3 | □ | MVE1230X03S140 | 78.2 | 81.2 | 139.2 | 137 | 2.2 | 14 | 2 |
| 12.4 | 2 | ● | MVE1240X02S130 | 53.3 | 56.3 | 104.3 | 102 | 2.3 | 13 | 2 |
| | 2 | □ | MVE1240X02S140 | 53.3 | 56.3 | 104.3 | 102 | 2.3 | 14 | 2 |
| | 3 | ● | MVE1240X03S130 | 78.3 | 81.3 | 139.3 | 137 | 2.3 | 13 | 2 |
| | 3 | □ | MVE1240X03S140 | 78.3 | 81.3 | 139.3 | 137 | 2.3 | 14 | 2 |
| 12.5 | 2 | ● | MVE1250X02S130 | 53.3 | 56.3 | 104.3 | 102 | 2.3 | 13 | 2 |
| | 2 | □ | MVE1250X02S140 | 53.3 | 56.3 | 104.3 | 102 | 2.3 | 14 | 2 |
| | 3 | ● | MVE1250X03S130 | 78.3 | 81.3 | 139.3 | 137 | 2.3 | 13 | 2 |
| | 3 | □ | MVE1250X03S140 | 78.3 | 81.3 | 139.3 | 137 | 2.3 | 14 | 2 |
| 12.6 | 2 | ● | MVE1260X02S130 | 53.3 | 53.3 | 104.3 | 102 | 2.3 | 13 | 2 |
| | 2 | □ | MVE1260X02S140 | 53.3 | 53.3 | 104.3 | 102 | 2.3 | 14 | 2 |
| | 3 | ● | MVE1260X03S130 | 80.3 | 80.3 | 139.3 | 137 | 2.3 | 13 | 2 |
| | 3 | □ | MVE1260X03S140 | 80.3 | 80.3 | 139.3 | 137 | 2.3 | 14 | 2 |
| 12.7 | 2 | ● | MVE1270X02S130 | 53.3 | 53.3 | 104.3 | 102 | 2.3 | 13 | 2 |
| | 2 | □ | MVE1270X02S140 | 53.3 | 53.3 | 104.3 | 102 | 2.3 | 14 | 2 |
| | 3 | ● | MVE1270X03S130 | 80.3 | 80.3 | 139.3 | 137 | 2.3 | 13 | 2 |
| | 3 | □ | MVE1270X03S140 | 80.3 | 80.3 | 139.3 | 137 | 2.3 | 14 | 2 |
| 12.8 | 2 | ● | MVE1280X02S130 | 53.3 | 53.3 | 104.3 | 102 | 2.3 | 13 | 2 |
| | 2 | □ | MVE1280X02S140 | 53.3 | 53.3 | 104.3 | 102 | 2.3 | 14 | 2 |
| | 3 | ● | MVE1280X03S130 | 80.3 | 80.3 | 139.3 | 137 | 2.3 | 13 | 2 |
| | 3 | □ | MVE1280X03S140 | 80.3 | 80.3 | 139.3 | 137 | 2.3 | 14 | 2 |
| 12.9 | 2 | ● | MVE1290X02S130 | 53.3 | 53.3 | 104.3 | 102 | 2.3 | 13 | 2 |
| | 2 | □ | MVE1290X02S140 | 53.3 | 53.3 | 104.3 | 102 | 2.3 | 14 | 2 |
| | 3 | ● | MVE1290X03S130 | 80.3 | 80.3 | 139.3 | 137 | 2.3 | 13 | 2 |
| | 3 | □ | MVE1290X03S140 | 80.3 | 80.3 | 139.3 | 137 | 2.3 | 14 | 2 |
| 13.0 | 2 | ● | MVE1300X02S130 | 53.4 | 53.4 | 104.4 | 102 | 2.4 | 13 | 2 |
| | 2 | □ | MVE1300X02S140 | 53.4 | 53.4 | 104.4 | 102 | 2.4 | 14 | 2 |
| | 3 | ● | MVE1300X03S130 | 80.4 | 80.4 | 139.4 | 137 | 2.4 | 13 | 2 |
| | 3 | □ | MVE1300X03S140 | 80.4 | 80.4 | 139.4 | 137 | 2.4 | 14 | 2 |
| 13.1 | 2 | ● | MVE1310X02S140 | 56.4 | 59.4 | 109.4 | 107 | 2.4 | 14 | 2 |
| | 3 | ● | MVE1310X03S140 | 86.4 | 89.4 | 149.4 | 147 | 2.4 | 14 | 2 |
| 13.2 | 2 | ● | MVE1320X02S140 | 56.4 | 59.4 | 109.4 | 107 | 2.4 | 14 | 2 |
| | 3 | ● | MVE1320X03S140 | 86.4 | 89.4 | 149.4 | 147 | 2.4 | 14 | 2 |
| 13.3 | 2 | ● | MVE1330X02S140 | 56.4 | 59.4 | 109.4 | 107 | 2.4 | 14 | 2 |
| | 3 | ● | MVE1330X03S140 | 86.4 | 89.4 | 149.4 | 147 | 2.4 | 14 | 2 |
| 13.4 | 2 | ● | MVE1340X02S140 | 56.4 | 59.4 | 109.4 | 107 | 2.4 | 14 | 2 |
| | 3 | ● | MVE1340X03S140 | 86.4 | 89.4 | 149.4 | 147 | 2.4 | 14 | 2 |
| 13.5 | 2 | ● | MVE1350X02S140 | 56.5 | 59.5 | 109.5 | 107 | 2.5 | 14 | 2 |
| | 3 | ● | MVE1350X03S140 | 86.5 | 89.5 | 149.5 | 147 | 2.5 | 14 | 2 |
| 13.6 | 2 | ● | MVE1360X02S140 | 56.5 | 56.5 | 109.5 | 107 | 2.5 | 14 | 2 |
| | 3 | ● | MVE1360X03S140 | 88.5 | 88.5 | 149.5 | 147 | 2.5 | 14 | 2 |

External Coolant

(mm)

| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|------------------|-------|----------------|------|------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 13.7 | 2 | ● | MVE1370X02S140 | 56.5 | 56.5 | 109.5 | 107 | 2.5 | 14 | 2 |
| | 3 | ● | MVE1370X03S140 | 88.5 | 88.5 | 149.5 | 147 | 2.5 | 14 | 2 |
| 13.8 | 2 | ● | MVE1380X02S140 | 56.5 | 56.5 | 109.5 | 107 | 2.5 | 14 | 2 |
| | 3 | ● | MVE1380X03S140 | 88.5 | 88.5 | 149.5 | 147 | 2.5 | 14 | 2 |
| 13.9 | 2 | ● | MVE1390X02S140 | 56.5 | 56.5 | 109.5 | 107 | 2.5 | 14 | 2 |
| | 3 | ● | MVE1390X03S140 | 88.5 | 88.5 | 149.5 | 147 | 2.5 | 14 | 2 |
| 14.0 | 2 | ● | MVE1400X02S140 | 56.5 | 56.5 | 109.5 | 107 | 2.5 | 14 | 2 |
| | 3 | ● | MVE1400X03S140 | 88.5 | 88.5 | 149.5 | 147 | 2.5 | 14 | 2 |
| 14.1 | 2 | ● | MVE1410X02S150 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 15 | 2 |
| | 2 | □ | MVE1410X02S160 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 16 | 2 |
| | 3 | ● | MVE1410X03S150 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 15 | 2 |
| | 3 | □ | MVE1410X03S160 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 16 | 2 |
| 14.2 | 2 | ● | MVE1420X02S150 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 15 | 2 |
| | 2 | □ | MVE1420X02S160 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 16 | 2 |
| | 3 | ● | MVE1420X03S150 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 15 | 2 |
| | 3 | □ | MVE1420X03S160 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 16 | 2 |
| 14.3 | 2 | □ | MVE1430X02S150 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 15 | 2 |
| | 2 | □ | MVE1430X02S160 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 16 | 2 |
| | 3 | ● | MVE1430X03S150 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 15 | 2 |
| | 3 | □ | MVE1430X03S160 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 16 | 2 |
| 14.4 | 2 | □ | MVE1440X02S150 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 15 | 2 |
| | 2 | □ | MVE1440X02S160 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 16 | 2 |
| | 3 | ● | MVE1440X03S150 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 15 | 2 |
| | 3 | □ | MVE1440X03S160 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 16 | 2 |
| 14.5 | 2 | ● | MVE1450X02S150 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 15 | 2 |
| | 2 | □ | MVE1450X02S160 | 58.6 | 61.6 | 113.6 | 111 | 2.6 | 16 | 2 |
| | 3 | ● | MVE1450X03S150 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 15 | 2 |
| | 3 | □ | MVE1450X03S160 | 91.6 | 94.6 | 155.6 | 153 | 2.6 | 16 | 2 |
| 14.6 | 2 | □ | MVE1460X02S150 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 15 | 2 |
| | 2 | □ | MVE1460X02S160 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 16 | 2 |
| | 3 | ● | MVE1460X03S150 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 15 | 2 |
| | 3 | □ | MVE1460X03S160 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 16 | 2 |
| 14.7 | 2 | □ | MVE1470X02S150 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 15 | 2 |
| | 2 | □ | MVE1470X02S160 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 16 | 2 |
| | 3 | ● | MVE1470X03S150 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 15 | 2 |
| | 3 | □ | MVE1470X03S160 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 16 | 2 |
| 14.8 | 2 | □ | MVE1480X02S150 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 15 | 2 |
| | 2 | □ | MVE1480X02S160 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 16 | 2 |
| | 3 | ● | MVE1480X03S150 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 15 | 2 |
| | 3 | □ | MVE1480X03S160 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 16 | 2 |
| 14.9 | 2 | □ | MVE1490X02S150 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 15 | 2 |
| | 2 | □ | MVE1490X02S160 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 16 | 2 |
| | 3 | ● | MVE1490X03S150 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 15 | 2 |
| | 3 | □ | MVE1490X03S160 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 16 | 2 |
| 15.0 | 2 | ● | MVE1500X02S150 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 15 | 2 |
| | 2 | □ | MVE1500X02S160 | 58.7 | 58.7 | 113.7 | 111 | 2.7 | 16 | 2 |
| | 3 | ● | MVE1500X03S150 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 15 | 2 |
| 15.1 | 3 | □ | MVE1500X03S160 | 93.7 | 93.7 | 155.7 | 153 | 2.7 | 16 | 2 |
| | 2 | □ | MVE1510X02S160 | 60.7 | 63.7 | 117.7 | 115 | 2.7 | 16 | 2 |
| | 3 | ● | MVE1510X03S160 | 96.7 | 99.7 | 162.7 | 160 | 2.7 | 16 | 2 |
| 15.2 | 2 | ● | MVE1520X02S160 | 60.8 | 63.8 | 117.8 | 115 | 2.8 | 16 | 2 |
| | 3 | ● | MVE1520X03S160 | 96.8 | 99.8 | 162.8 | 160 | 2.8 | 16 | 2 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills

MVE

WSTAR Drills

External Coolant

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 15.3 | 2 | □ | MVE1530X02S160 | 60.8 | 63.8 | 117.8 | 115 | 2.8 | 16 | 2 |
| | 3 | ● | MVE1530X03S160 | 96.8 | 99.8 | 162.8 | 160 | 2.8 | 16 | 2 |
| 15.4 | 2 | □ | MVE1540X02S160 | 60.8 | 63.8 | 117.8 | 115 | 2.8 | 16 | 2 |
| | 3 | ● | MVE1540X03S160 | 96.8 | 99.8 | 162.8 | 160 | 2.8 | 16 | 2 |
| 15.5 | 2 | ● | MVE1550X02S160 | 60.8 | 63.8 | 117.8 | 115 | 2.8 | 16 | 2 |
| | 3 | ● | MVE1550X03S160 | 96.8 | 99.8 | 162.8 | 160 | 2.8 | 16 | 2 |
| 15.6 | 2 | □ | MVE1560X02S160 | 60.8 | 60.8 | 117.8 | 115 | 2.8 | 16 | 2 |
| | 3 | ● | MVE1560X03S160 | 98.8 | 98.8 | 162.8 | 160 | 2.8 | 16 | 2 |
| 15.7 | 2 | □ | MVE1570X02S160 | 60.9 | 60.9 | 117.9 | 115 | 2.9 | 16 | 2 |
| | 3 | ● | MVE1570X03S160 | 98.9 | 98.9 | 162.9 | 160 | 2.9 | 16 | 2 |
| 15.8 | 2 | □ | MVE1580X02S160 | 60.9 | 60.9 | 117.9 | 115 | 2.9 | 16 | 2 |
| | 3 | ● | MVE1580X03S160 | 98.9 | 98.9 | 162.9 | 160 | 2.9 | 16 | 2 |
| 15.9 | 2 | □ | MVE1590X02S160 | 60.9 | 60.9 | 117.9 | 115 | 2.9 | 16 | 2 |
| | 3 | ● | MVE1590X03S160 | 98.9 | 98.9 | 162.9 | 160 | 2.9 | 16 | 2 |
| 16.0 | 2 | ● | MVE1600X02S160 | 60.9 | 60.9 | 117.9 | 115 | 2.9 | 16 | 2 |
| | 3 | ● | MVE1600X03S160 | 98.9 | 98.9 | 162.9 | 160 | 2.9 | 16 | 2 |
| 16.1 | 2 | □ | MVE1610X02S170 | 62.9 | 62.9 | 121.9 | 119 | 2.9 | 17 | 2 |
| | 2 | □ | MVE1610X02S180 | 62.9 | 62.9 | 121.9 | 119 | 2.9 | 18 | 2 |
| | 3 | □ | MVE1610X03S170 | 104.9 | 104.9 | 169.9 | 167 | 2.9 | 17 | 2 |
| | 3 | □ | MVE1610X03S180 | 104.9 | 104.9 | 169.9 | 167 | 2.9 | 18 | 2 |
| 16.2 | 2 | ● | MVE1620X02S170 | 62.9 | 62.9 | 121.9 | 119 | 2.9 | 17 | 2 |
| | 2 | □ | MVE1620X02S180 | 62.9 | 62.9 | 121.9 | 119 | 2.9 | 18 | 2 |
| | 3 | □ | MVE1620X03S170 | 104.9 | 104.9 | 169.9 | 167 | 2.9 | 17 | 2 |
| | 3 | □ | MVE1620X03S180 | 104.9 | 104.9 | 169.9 | 167 | 2.9 | 18 | 2 |
| 16.3 | 2 | ● | MVE1630X02S170 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 17 | 2 |
| | 2 | □ | MVE1630X02S180 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 18 | 2 |
| | 3 | □ | MVE1630X03S170 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 17 | 2 |
| | 3 | □ | MVE1630X03S180 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 18 | 2 |
| 16.4 | 2 | □ | MVE1640X02S170 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 17 | 2 |
| | 2 | □ | MVE1640X02S180 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 18 | 2 |
| | 3 | □ | MVE1640X03S170 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 17 | 2 |
| | 3 | □ | MVE1640X03S180 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 18 | 2 |
| 16.5 | 2 | ● | MVE1650X02S170 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 17 | 2 |
| | 2 | □ | MVE1650X02S180 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 18 | 2 |
| | 3 | ● | MVE1650X03S170 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 17 | 2 |
| | 3 | □ | MVE1650X03S180 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 18 | 2 |
| 16.6 | 2 | □ | MVE1660X02S170 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 17 | 2 |
| | 2 | □ | MVE1660X02S180 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 18 | 2 |
| | 3 | □ | MVE1660X03S170 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 17 | 2 |
| | 3 | □ | MVE1660X03S180 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 18 | 2 |
| 16.7 | 2 | □ | MVE1670X02S170 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 17 | 2 |
| | 2 | □ | MVE1670X02S180 | 63.0 | 63.0 | 122.0 | 119 | 3.0 | 18 | 2 |
| | 3 | □ | MVE1670X03S170 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 17 | 2 |
| | 3 | □ | MVE1670X03S180 | 105.0 | 105.0 | 170.0 | 167 | 3.0 | 18 | 2 |
| 16.8 | 2 | □ | MVE1680X02S170 | 63.1 | 63.1 | 122.1 | 119 | 3.1 | 17 | 2 |
| | 2 | □ | MVE1680X02S180 | 63.1 | 63.1 | 122.1 | 119 | 3.1 | 18 | 2 |
| | 3 | □ | MVE1680X03S170 | 105.1 | 105.1 | 170.1 | 167 | 3.1 | 17 | 2 |
| | 3 | □ | MVE1680X03S180 | 105.1 | 105.1 | 170.1 | 167 | 3.1 | 18 | 2 |
| 16.9 | 2 | □ | MVE1690X02S170 | 63.1 | 63.1 | 122.1 | 119 | 3.1 | 17 | 2 |
| | 2 | □ | MVE1690X02S180 | 63.1 | 63.1 | 122.1 | 119 | 3.1 | 18 | 2 |
| | 3 | □ | MVE1690X03S170 | 105.1 | 105.1 | 170.1 | 167 | 3.1 | 17 | 2 |
| | 3 | □ | MVE1690X03S180 | 105.1 | 105.1 | 170.1 | 167 | 3.1 | 18 | 2 |

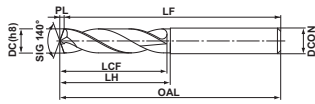
External Coolant

(mm)

| DC | Hole Depth (l/d) | Stock DP1020 | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|------------------|--------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 17.0 | 2 | ● | MVE1700X02S170 | 63.1 | 63.1 | 122.1 | 119 | 3.1 | 17 | 2 |
| | 2 | □ | MVE1700X02S180 | 63.1 | 63.1 | 122.1 | 119 | 3.1 | 18 | 2 |
| | 3 | ● | MVE1700X03S170 | 105.1 | 105.1 | 170.1 | 167 | 3.1 | 17 | 2 |
| 17.1 | 2 | □ | MVE1710X02S180 | 65.1 | 65.1 | 126.1 | 123 | 3.1 | 18 | 2 |
| | 3 | □ | MVE1710X03S180 | 105.1 | 105.1 | 170.1 | 167 | 3.1 | 18 | 2 |
| 17.2 | 2 | □ | MVE1720X02S180 | 65.1 | 65.1 | 126.1 | 123 | 3.1 | 18 | 2 |
| | 3 | □ | MVE1720X03S180 | 105.1 | 105.1 | 170.1 | 167 | 3.1 | 18 | 2 |
| 17.3 | 2 | □ | MVE1730X02S180 | 65.1 | 65.1 | 126.1 | 123 | 3.1 | 18 | 2 |
| | 3 | □ | MVE1730X03S180 | 105.1 | 105.1 | 170.1 | 167 | 3.1 | 18 | 2 |
| 17.4 | 2 | □ | MVE1740X02S180 | 65.2 | 65.2 | 126.2 | 123 | 3.2 | 18 | 2 |
| | 3 | □ | MVE1740X03S180 | 105.2 | 105.2 | 170.2 | 167 | 3.2 | 18 | 2 |
| 17.5 | 2 | ● | MVE1750X02S180 | 65.2 | 65.2 | 126.2 | 123 | 3.2 | 18 | 2 |
| | 3 | ● | MVE1750X03S180 | 105.2 | 105.2 | 170.2 | 167 | 3.2 | 18 | 2 |
| 17.6 | 2 | □ | MVE1760X02S180 | 65.2 | 65.2 | 126.2 | 123 | 3.2 | 18 | 2 |
| | 3 | □ | MVE1760X03S180 | 105.2 | 105.2 | 170.2 | 167 | 3.2 | 18 | 2 |
| 17.7 | 2 | □ | MVE1770X02S180 | 65.2 | 65.2 | 126.2 | 123 | 3.2 | 18 | 2 |
| | 3 | □ | MVE1770X03S180 | 105.2 | 105.2 | 170.2 | 167 | 3.2 | 18 | 2 |
| 17.8 | 2 | ● | MVE1780X02S180 | 65.2 | 65.2 | 126.2 | 123 | 3.2 | 18 | 2 |
| | 3 | □ | MVE1780X03S180 | 105.2 | 105.2 | 170.2 | 167 | 3.2 | 18 | 2 |
| 17.9 | 2 | □ | MVE1790X02S180 | 65.3 | 65.3 | 126.3 | 123 | 3.3 | 18 | 2 |
| | 3 | □ | MVE1790X03S180 | 105.3 | 105.3 | 170.3 | 167 | 3.3 | 18 | 2 |
| 18.0 | 2 | ● | MVE1800X02S180 | 65.3 | 65.3 | 126.3 | 123 | 3.3 | 18 | 2 |
| | 3 | ● | MVE1800X03S180 | 105.3 | 105.3 | 170.3 | 167 | 3.3 | 18 | 2 |
| 18.1 | 2 | □ | MVE1810X02S190 | 67.3 | 67.3 | 130.3 | 127 | 3.3 | 19 | 2 |
| | 2 | □ | MVE1810X02S200 | 67.3 | 67.3 | 130.3 | 127 | 3.3 | 20 | 2 |
| | 3 | □ | MVE1810X03S190 | 117.3 | 117.3 | 182.3 | 179 | 3.3 | 19 | 2 |
| | 3 | □ | MVE1810X03S200 | 117.3 | 117.3 | 182.3 | 179 | 3.3 | 20 | 2 |
| 18.2 | 2 | □ | MVE1820X02S190 | 67.3 | 67.3 | 130.3 | 127 | 3.3 | 19 | 2 |
| | 2 | □ | MVE1820X02S200 | 67.3 | 67.3 | 130.3 | 127 | 3.3 | 20 | 2 |
| | 3 | □ | MVE1820X03S190 | 117.3 | 117.3 | 182.3 | 179 | 3.3 | 19 | 2 |
| | 3 | □ | MVE1820X03S200 | 117.3 | 117.3 | 182.3 | 179 | 3.3 | 20 | 2 |
| 18.3 | 2 | □ | MVE1830X02S190 | 67.3 | 67.3 | 130.3 | 127 | 3.3 | 19 | 2 |
| | 2 | □ | MVE1830X02S200 | 67.3 | 67.3 | 130.3 | 127 | 3.3 | 20 | 2 |
| | 3 | □ | MVE1830X03S190 | 117.3 | 117.3 | 182.3 | 179 | 3.3 | 19 | 2 |
| | 3 | □ | MVE1830X03S200 | 117.3 | 117.3 | 182.3 | 179 | 3.3 | 20 | 2 |
| 18.4 | 2 | □ | MVE1840X02S190 | 67.3 | 67.3 | 130.3 | 127 | 3.3 | 19 | 2 |
| | 2 | □ | MVE1840X02S200 | 67.3 | 67.3 | 130.3 | 127 | 3.3 | 20 | 2 |
| | 3 | □ | MVE1840X03S190 | 117.3 | 117.3 | 182.3 | 179 | 3.3 | 19 | 2 |
| | 3 | □ | MVE1840X03S200 | 117.3 | 117.3 | 182.3 | 179 | 3.3 | 20 | 2 |
| 18.5 | 2 | ● | MVE1850X02S190 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 19 | 2 |
| | 2 | □ | MVE1850X02S200 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 20 | 2 |
| | 3 | ● | MVE1850X03S190 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 19 | 2 |
| | 3 | □ | MVE1850X03S200 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 20 | 2 |
| 18.6 | 2 | □ | MVE1860X02S190 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 19 | 2 |
| | 2 | □ | MVE1860X02S200 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 20 | 2 |
| | 3 | □ | MVE1860X03S190 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 19 | 2 |
| | 3 | □ | MVE1860X03S200 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 20 | 2 |
| 18.7 | 2 | □ | MVE1870X02S190 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 19 | 2 |
| | 2 | □ | MVE1870X02S200 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 20 | 2 |
| | 3 | □ | MVE1870X03S190 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 19 | 2 |
| | 3 | □ | MVE1870X03S200 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 20 | 2 |

● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



External Coolant (mm)

| DC | Hole Depth (l/d) | Stock | Order Number | LCF | LH | OAL | LF | PL | DCON | Type |
|------|------------------|-------------------------------------|----------------|-------|-------|-------|-----|-----|------|------|
| | | | | | | | | | | |
| 18.8 | 2 | <input type="checkbox"/> | MVE1880X02S190 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 19 | 2 |
| | 2 | <input type="checkbox"/> | MVE1880X02S200 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1880X03S190 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 19 | 2 |
| | 3 | <input type="checkbox"/> | MVE1880X03S200 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 20 | 2 |
| 18.9 | 2 | <input type="checkbox"/> | MVE1890X02S190 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 19 | 2 |
| | 2 | <input type="checkbox"/> | MVE1890X02S200 | 67.4 | 67.4 | 130.4 | 127 | 3.4 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1890X03S190 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 19 | 2 |
| | 3 | <input type="checkbox"/> | MVE1890X03S200 | 117.4 | 117.4 | 182.4 | 179 | 3.4 | 20 | 2 |
| 19.0 | 2 | <input checked="" type="checkbox"/> | MVE1900X02S190 | 67.5 | 67.5 | 130.5 | 127 | 3.5 | 19 | 2 |
| | 2 | <input type="checkbox"/> | MVE1900X02S200 | 67.5 | 67.5 | 130.5 | 127 | 3.5 | 20 | 2 |
| | 3 | <input checked="" type="checkbox"/> | MVE1900X03S190 | 117.5 | 117.5 | 182.5 | 179 | 3.5 | 19 | 2 |
| | 3 | <input type="checkbox"/> | MVE1900X03S200 | 117.5 | 117.5 | 182.5 | 179 | 3.5 | 20 | 2 |
| 19.1 | 2 | <input type="checkbox"/> | MVE1910X02S200 | 69.5 | 69.5 | 134.5 | 131 | 3.5 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1910X03S200 | 117.5 | 117.5 | 182.5 | 179 | 3.5 | 20 | 2 |
| 19.2 | 2 | <input type="checkbox"/> | MVE1920X02S200 | 69.5 | 69.5 | 134.5 | 131 | 3.5 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1920X03S200 | 117.5 | 117.5 | 182.5 | 179 | 3.5 | 20 | 2 |
| 19.3 | 2 | <input type="checkbox"/> | MVE1930X02S200 | 69.5 | 69.5 | 134.5 | 131 | 3.5 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1930X03S200 | 117.5 | 117.5 | 182.5 | 179 | 3.5 | 20 | 2 |
| 19.4 | 2 | <input type="checkbox"/> | MVE1940X02S200 | 69.5 | 69.5 | 134.5 | 131 | 3.5 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1940X03S200 | 117.5 | 117.5 | 182.5 | 179 | 3.5 | 20 | 2 |
| 19.5 | 2 | <input checked="" type="checkbox"/> | MVE1950X02S200 | 69.5 | 69.5 | 134.5 | 131 | 3.5 | 20 | 2 |
| | 3 | <input checked="" type="checkbox"/> | MVE1950X03S200 | 117.5 | 117.5 | 182.5 | 179 | 3.5 | 20 | 2 |
| 19.6 | 2 | <input type="checkbox"/> | MVE1960X02S200 | 69.6 | 69.6 | 134.6 | 131 | 3.6 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1960X03S200 | 117.6 | 117.6 | 182.6 | 179 | 3.6 | 20 | 2 |
| 19.7 | 2 | <input type="checkbox"/> | MVE1970X02S200 | 69.6 | 69.6 | 134.6 | 131 | 3.6 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1970X03S200 | 117.6 | 117.6 | 182.6 | 179 | 3.6 | 20 | 2 |
| 19.8 | 2 | <input type="checkbox"/> | MVE1980X02S200 | 69.6 | 69.6 | 134.6 | 131 | 3.6 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1980X03S200 | 117.6 | 117.6 | 182.6 | 179 | 3.6 | 20 | 2 |
| 19.9 | 2 | <input type="checkbox"/> | MVE1990X02S200 | 69.6 | 69.6 | 134.6 | 131 | 3.6 | 20 | 2 |
| | 3 | <input type="checkbox"/> | MVE1990X03S200 | 117.6 | 117.6 | 182.6 | 179 | 3.6 | 20 | 2 |
| 20.0 | 2 | <input checked="" type="checkbox"/> | MVE2000X02S200 | 69.6 | 69.6 | 134.6 | 131 | 3.6 | 20 | 2 |
| | 3 | <input checked="" type="checkbox"/> | MVE2000X03S200 | 117.6 | 117.6 | 182.6 | 179 | 3.6 | 20 | 2 |

DC = Cutting Diameter
 LCF = Length Chip Flute
 LH = Neck Length

OAL = Overall Length
 LF = Functional Length
 PL = Point Length

DCON = Fixing Part Depth

Solid Carbide Drills



Recommended Cutting Conditions

(mm)

| Work Material | Mild Steel ($\leq 180\text{HB}$) | | Carbon Steel, Alloy Steel (180—280HB) | | Carbon Steel, Alloy Steel (280—350HB) | |
|---------------|------------------------------------|-------------------------------|---------------------------------------|-------------------------------|---------------------------------------|-------------------------------|
| | AISI 1010 etc | | AISI 1045, 4140 etc | | AISI 4340 etc | |
| DC | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) |
| 3.2 | 6400 | 0.1 (0.06 — 0.13) | 5900 | 0.1 (0.06 — 0.13) | 5400 | 0.09 (0.06 — 0.12) |
| 4.0 | 5500 | 0.12 (0.08 — 0.16) | 5100 | 0.12 (0.08 — 0.16) | 4700 | 0.11 (0.07 — 0.14) |
| 5.0 | 4400 | 0.15 (0.10 — 0.20) | 4100 | 0.15 (0.10 — 0.20) | 3800 | 0.14 (0.09 — 0.18) |
| 6.3 | 4000 | 0.2 (0.13 — 0.26) | 3700 | 0.2 (0.13 — 0.26) | 3500 | 0.18 (0.11 — 0.24) |
| 8.0 | 3300 | 0.23 (0.18 — 0.28) | 3100 | 0.23 (0.18 — 0.28) | 2900 | 0.21 (0.16 — 0.25) |
| 10.0 | 2800 | 0.27 (0.22 — 0.32) | 2700 | 0.27 (0.22 — 0.32) | 2500 | 0.23 (0.19 — 0.27) |
| 12.0 | 2500 | 0.31 (0.28 — 0.34) | 2300 | 0.31 (0.28 — 0.34) | 2200 | 0.26 (0.23 — 0.29) |
| 16.0 | 1900 | 0.33 (0.28 — 0.38) | 1700 | 0.33 (0.28 — 0.38) | 1600 | 0.29 (0.24 — 0.33) |
| 20.0 | 1500 | 0.35 (0.30 — 0.40) | 1400 | 0.35 (0.30 — 0.40) | 1300 | 0.3 (0.26 — 0.34) |

| Work Material | Austenitic Stainless Steel ($\leq 200\text{HB}$) | | Gray Cast Iron ($\leq 350\text{MPa}$) | | Ductile Cast Iron ($\leq 450\text{MPa}$) | |
|---------------|--|-------------------------------|---|-------------------------------|--|-------------------------------|
| | AISI 304, 316 etc | | No45B etc | | 60-60-8 etc | |
| DC | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) |
| 3.2 | 1900 | 0.07 (0.05 — 0.08) | 6900 | 0.1 (0.06 — 0.13) | 6400 | 0.1 (0.06 — 0.13) |
| 4.0 | 1500 | 0.08 (0.06 — 0.10) | 5500 | 0.12 (0.08 — 0.16) | 5100 | 0.12 (0.08 — 0.16) |
| 5.0 | 1200 | 0.1 (0.07 — 0.13) | 4400 | 0.15 (0.10 — 0.20) | 4100 | 0.15 (0.10 — 0.20) |
| 6.3 | 1200 | 0.13 (0.09 — 0.17) | 3700 | 0.2 (0.13 — 0.26) | 3500 | 0.2 (0.13 — 0.26) |
| 8.0 | 900 | 0.14 (0.10 — 0.18) | 2900 | 0.25 (0.18 — 0.31) | 2700 | 0.23 (0.18 — 0.28) |
| 10.0 | 700 | 0.16 (0.12 — 0.19) | 2300 | 0.29 (0.22 — 0.35) | 2200 | 0.27 (0.22 — 0.32) |
| 12.0 | 600 | 0.18 (0.15 — 0.20) | 2100 | 0.33 (0.28 — 0.37) | 1900 | 0.31 (0.28 — 0.34) |
| 16.0 | 400 | 0.19 (0.15 — 0.23) | 1500 | 0.35 (0.28 — 0.42) | 1400 | 0.33 (0.28 — 0.38) |
| 20.0 | 300 | 0.2 (0.15 — 0.24) | 1300 | 0.37 (0.30 — 0.44) | 1200 | 0.35 (0.30 — 0.40) |

| Work Material | Aluminum Alloy (Si<5%) | | Heat Resistant Alloy | | Hardened Steel (40—55HRC) | |
|---------------|----------------------------|-------------------------------|----------------------------|-------------------------------|----------------------------|-------------------------------|
| | ASTM 6061, 7075 etc | | Inconel718 etc | | AISI H13, L6 etc | |
| DC | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) | n (min^{-1}) | fr (Min.—Max.) (mm/rev) |
| 3.2 | 7900 | 0.1 (0.06 — 0.13) | 1900 | 0.07 (0.05 — 0.09) | 1900 | 0.07 (0.05 — 0.09) |
| 4.0 | 6300 | 0.12 (0.08 — 0.16) | 1500 | 0.09 (0.06 — 0.11) | 1500 | 0.09 (0.06 — 0.11) |
| 5.0 | 5000 | 0.15 (0.10 — 0.20) | 1200 | 0.11 (0.08 — 0.14) | 1200 | 0.11 (0.08 — 0.14) |
| 6.3 | 4500 | 0.2 (0.13 — 0.26) | 1200 | 0.14 (0.09 — 0.19) | 1200 | 0.14 (0.09 — 0.19) |
| 8.0 | 3500 | 0.23 (0.18 — 0.28) | 900 | 0.14 (0.11 — 0.17) | 900 | 0.14 (0.11 — 0.17) |
| 10.0 | 2800 | 0.27 (0.22 — 0.32) | 700 | 0.16 (0.12 — 0.19) | 700 | 0.16 (0.12 — 0.19) |
| 12.0 | 2600 | 0.31 (0.28 — 0.34) | 600 | 0.16 (0.13 — 0.18) | 600 | 0.16 (0.13 — 0.18) |
| 16.0 | 1900 | 0.33 (0.28 — 0.38) | 400 | 0.18 (0.14 — 0.21) | 400 | 0.18 (0.14 — 0.21) |
| 20.0 | 1700 | 0.35 (0.30 — 0.40) | 400 | 0.19 (0.15 — 0.22) | 400 | 0.19 (0.15 — 0.22) |

MVE/MVS

WSTAR Drills

Operational Guidance

| | | | |
|---|---|---|---|
| <p>Drill Holding</p> <p>Thrust bearing type collet chuck holds the drill securely.</p> | <p>Drill Length</p> <p>$A > DC \times 1.5$ (DC > over 2.0 for DC < 3mm)</p> | <p>Drill Installation</p> <p>Do not clamp on the flutes.</p> | <p>Installation Tolerance</p> <p>Run-out ≤ 0.03 mm</p> |
| <p>Thin Workpiece</p> <p>If Bending Occurs \times</p> <p>Support the Workpiece \circ</p> | <p>Interrupted Cutting</p> <p>One Process \circ</p> <p>① Lower the feed when drilling the interrupted part.</p> <p>Requires Prior Machining \triangle</p> <p>① Spot face with an end mill prior to drilling.</p> | <p>Stepped Holes</p> <p>① Divide the two processes. ② Drill the larger hole first. *A tool for machining both chamfer and spot face can be produced to order.</p> | <p>Burring and Workpiece Chipping</p> <p>① Lower the feed rate by 50% at the end of through cutting. ② Add a 45° chamfer. ③ Change the point angle.</p> |
| <p>Coolant Method (MVE)</p> <p>Two coolant positions, at the end and at the center are ideal.</p> | <p>Through Coolant Type (MVS)</p> <p>Spindles Through Coolant Type</p> <p>Revolving Coolant Machine Type</p> <p>Less than $\phi 3$ mm : 1.5MPa-7MPa More than $\phi 3$ mm : 0.5MPa-7MPa More than 3MPa is recommended.</p> | <p>Coolant Handling</p> <p><MVS Type></p> <ol style="list-style-type: none"> Small particles of swarf will jam in the oil hole of small diameter drills. Always use a fine mesh filter as a preventative measure. Dirt and dust particles adhere to the oil in old coolant and prevent an efficient flow. Regular coolant exchange is recommended. | <p>Drill Installation</p> <ol style="list-style-type: none"> Drill a prepared hole about $DC \times 1$ using the shortest flute length of MVS. (DC=drill diameter) Use the prepared hole as a guide when using a drill with an oil hole. Depending on the cutting conditions, peck feed is recommended. |

Notes on Use (For DC < 3mm)

Please use a fine mesh filter (mesh < 3 μ m) for coolant to prevent jamming in the oil hole.

For deep drilling with the long type drill, machining a pilot hole is recommended.

(Otherwise, centrifugal forces may cause drill breakage.)

Operational Guidance for the MVS of Small Diameter Long Type Drill (L/D≥10)

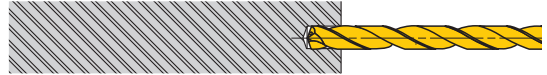
Flat Face Drilling ●Drilling a blind hole

1. Drilling a Pilot Hole



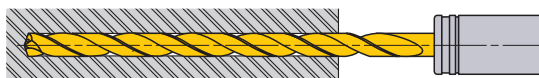
- ①Use a drill with a larger (flatter) point angle than the long type. Use the shortest flute possible.
- ②Ensure a high precision hole is drilled for the guide.
- ③Drill depth : Approx DCx1.
(Adjust the pilot hole depth according to the length of the long type drill.)

2. Initial Cutting with the Long Type Drill



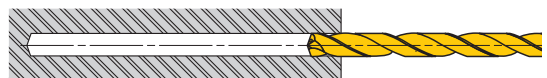
- ①Penetrate the guide hole at low revolution.
(Revolution 1000 min⁻¹, feed rate 0.2–0.3 mm/rev)
- ②Stop the long type drill 0.5–1 mm short of the guide hole bottom.

3. Drill the Deep Hole



- ①Start cutting at the recommended speed and feed with a non-peck (continuous feed) cycle.

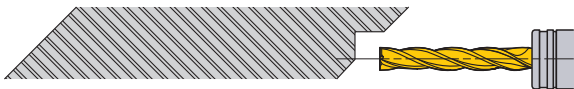
4. Drill Retraction



- ①After drilling, lower the cutting revolution about 0.5–1 mm short of the hole end. (Revolution 1000 min⁻¹)
- ②Retract the drill to the pilot hole depth starting point at a feed rate of 3000 mm/min.
- ③Finally, clear the hole at a cutting speed of 20–30 m/min and feed rate of 0.2–0.3 mm/rev.

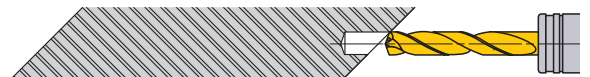
Interrupted Drilling ●Drilling and breaking through on irregular faces or angles

1. Spot Facing



- ①Machine a flat or the irregular face by using an end mill or slot drill capable of spot facing. Make the spot face diameter the same size as the required deep hole diameter.

2. Drilling a Pilot Hole



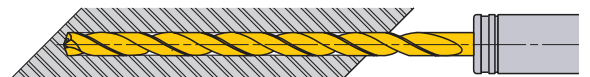
- ①Use a drill with a larger (flatter) point angle than the long type. Use the shortest flute possible.
- ②Ensure a high precision hole is drilled for the guide.
- ③Drill depth : Approx DCx1.
(Adjust the pilot hole depth according to the length of the long type drill.)

3. Initial Cutting with the Long Type Drill



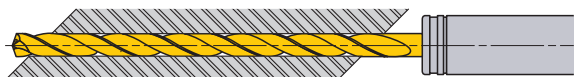
- ①Penetrate the guide hole at a low revolution.
(Revolution 1000 min⁻¹, feed rate 0.2–0.3 mm/rev)
- ②Stop the long type drill 0.5–1 mm short of the guide hole bottom.

4. Drill the Deep Hole



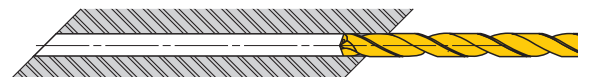
- ①Start cutting at the recommended speed and feed with a non-peck (continuous feed) cycle.
- ②Feed as usual until breaking through.

5. Breaking Through



- ①When breaking through, the cutting edge can be damaged.
- ②Recommend about half rate of the usual feed rate after breaking through.

6. Drill Retraction



- ①Finally clear the hole at a revolution speed 1000 min⁻¹ and feed rate of 0.2–0.3 mm/rev.
- ②Retract the drill to the pilot hole depth starting point at a feed rate of 3000 mm/min.

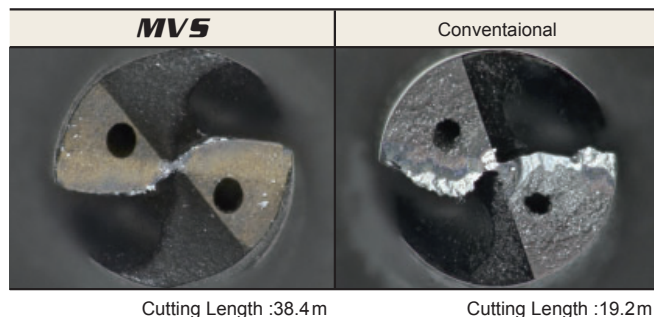
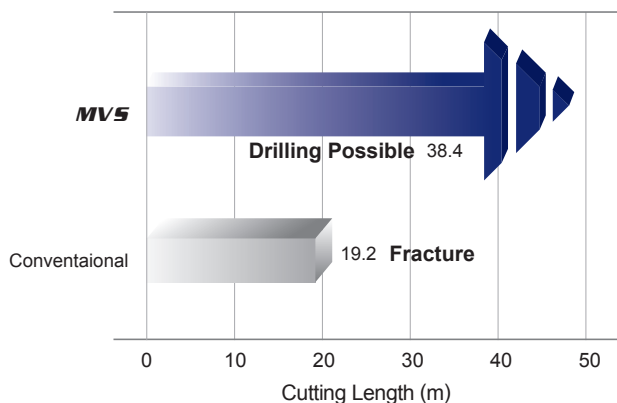
Memo

A series of horizontal dashed lines for writing, spanning the width of the page.

Cutting Performance

Alloy Steel

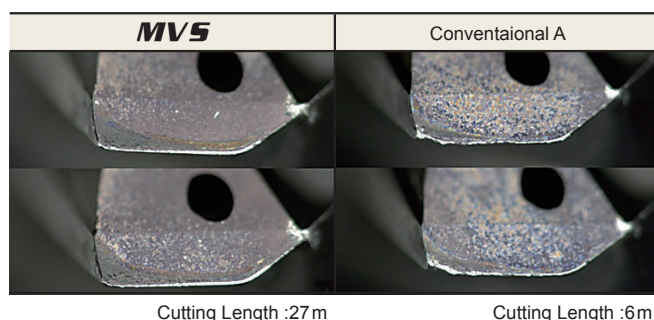
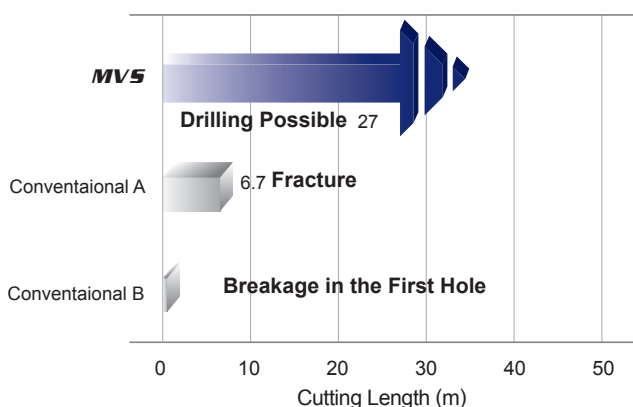
MVS gives a stable performance and double tool life.



<Cutting Conditions>
 Drill Dia. : ϕ 1 mm
 Work Material : AISI 4140
 Hole Depth : 4 mm (L/D=4)
 Cutting Speed : 40 m/min
 Feed Rate : 0.04 mm/rev
 Cutting Mode : Water Based (7MPa)

Stainless Steel

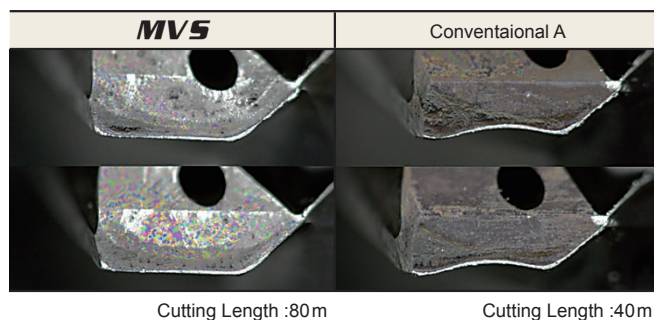
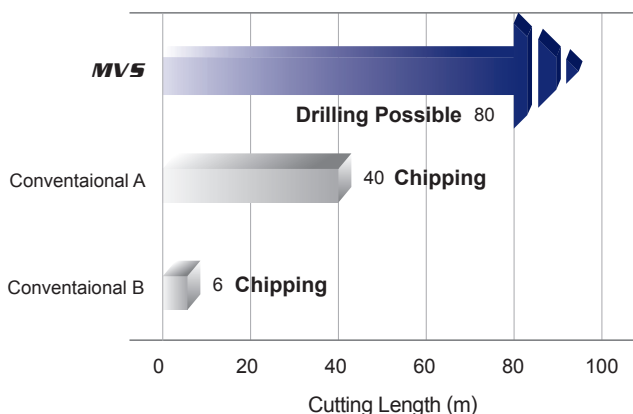
MVS provides stability and long tool life even when drilling stainless steel.



<Cutting Conditions>
 Drill Dia. : ϕ 2 mm
 Work Material : AISI 304
 Hole Depth : 4 mm (L/D=2)
 Cutting Speed : 30 m/min
 Feed Rate : 0.06 mm/rev
 Cutting Mode : Water Based (7MPa)

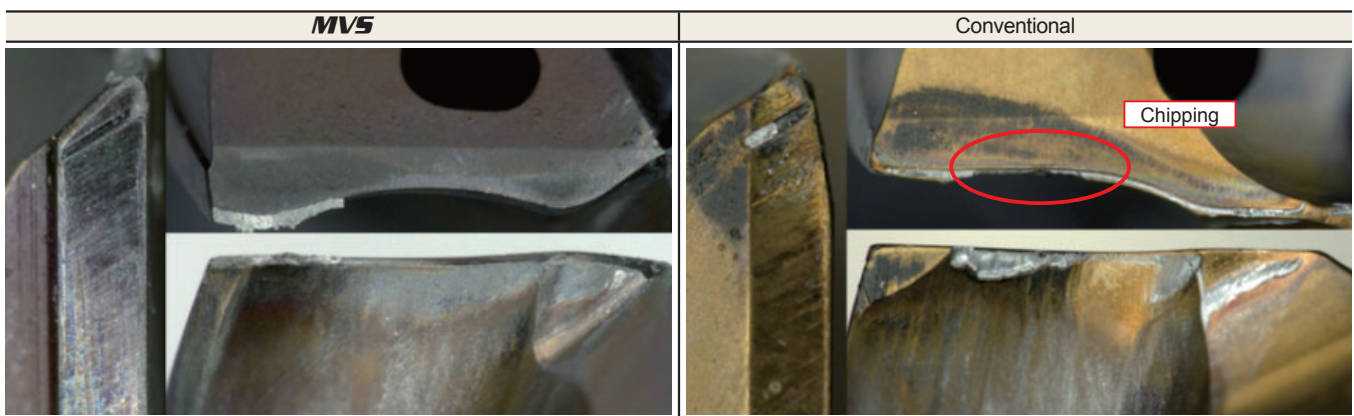
Stainless Steel (L/D=30)

MVS provides stability and long tool life even when drilling deep holes in stainless steel.



<Cutting conditions>
 Drill Dia. : ϕ 2 mm
 Work Material : AISI 304
 Hole Depth : 60 mm (L/D=30)
 Cutting Speed : 30 m/min
 Feed Rate : 0.06 mm/rev
 Cutting Mode : Water Based (7MPa)

Alloy Steel

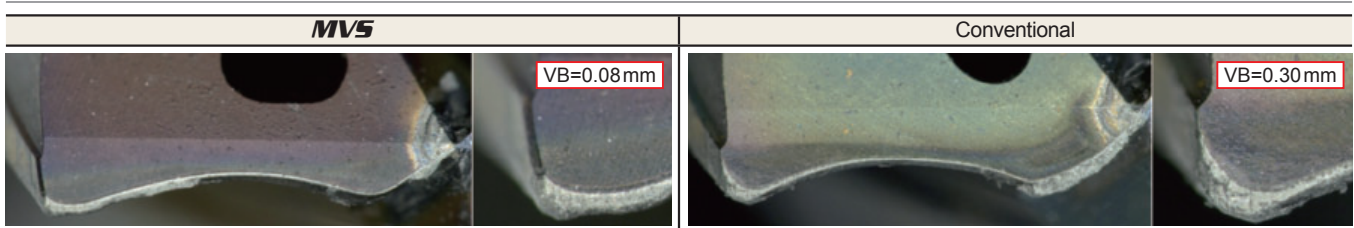


Damage of the cutting edge after 150m machining

<Cutting Conditions>

| | |
|--------------------------------|---|
| Drill Dia. : $\phi 6\text{mm}$ | Feed Rate : 0.2mm/rev |
| Work Material : AISI 4140 | Cutting Mode : Water Based (Internal Coolant) |
| Hole Depth : 19mm (L/D=3) | Machine : Machining Center |
| Cutting Speed : 100m/min | |

Cast Iron

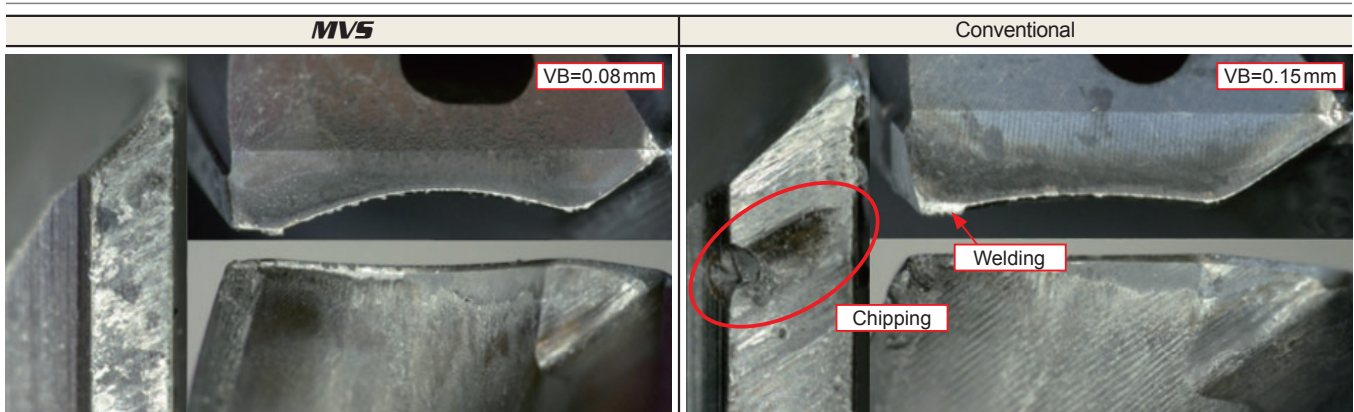


Damage of the cutting edge after 67m machining

<Cutting Conditions>

| | |
|--------------------------------|---|
| Drill Dia. : $\phi 6\text{mm}$ | Feed Rate : 0.2mm/rev |
| Work Material : No.35B | Cutting Mode : Water Based (Internal Coolant) |
| Hole Depth : 19mm (L/D=3) | Machine : Machining Center |
| Cutting Speed : 100m/min | |

Stainless Steel



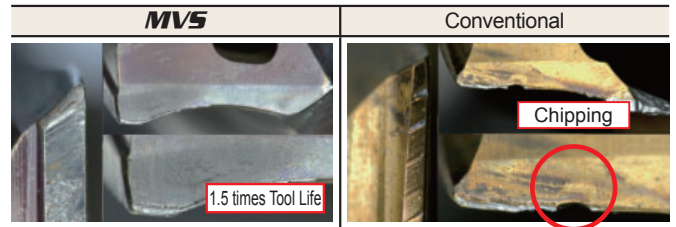
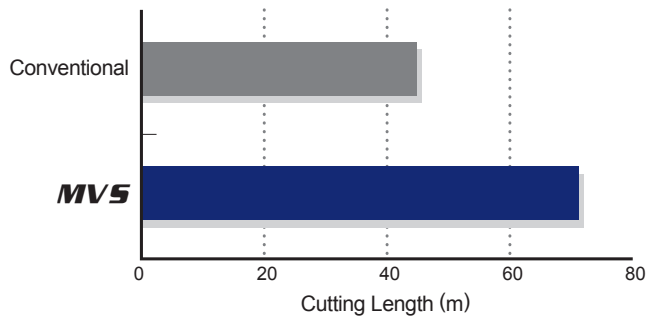
Damage of the cutting edge after 96m machining

<Cutting Conditions>

| | |
|--------------------------------|---|
| Drill Dia. : $\phi 6\text{mm}$ | Feed Rate : 0.15mm/rev |
| Work Material : AISI 304 | Cutting Mode : Water Based (Internal Coolant) |
| Hole Depth : 19mm (L/D=3) | Machine : Machining Center |
| Cutting Speed : 60m/min | |

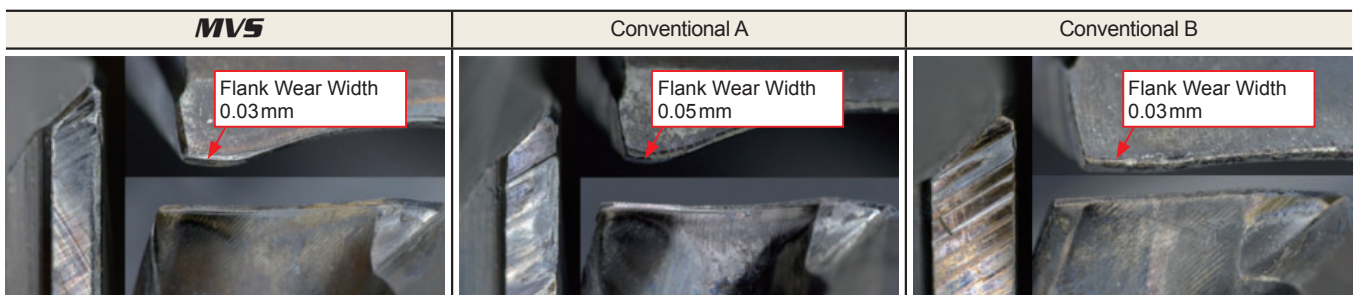
Cutting Performance

Carbon Steel



<Cutting Conditions>
 Drill Dia. : $\phi 6$ mm Feed Rate : 0.2mm/rev
 Work Material : AISI 1050 Cutting Mode : Water Based (Internal Coolant)
 Hole Depth : 19mm (L/D=3) Machine : Machining Center
 Cutting Speed : 100m/min

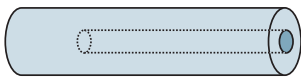
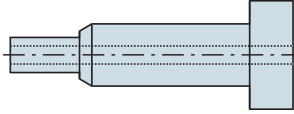

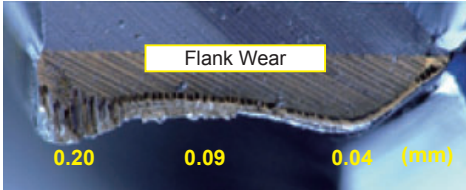
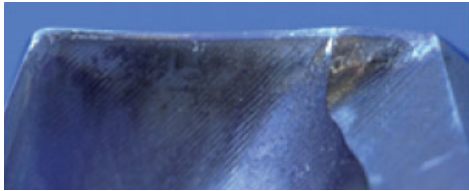

M.Q.L. Cutting

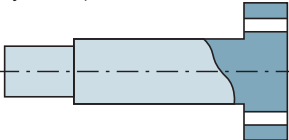
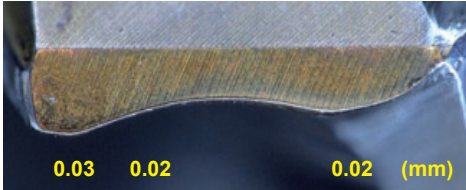
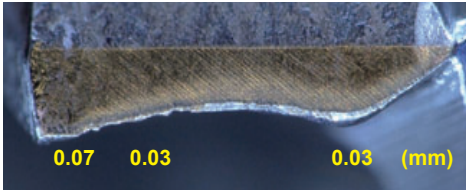


Damage of the cutting edge after 55m machining

<Cutting Conditions>
 Drill Dia. : $\phi 6$ mm Feed Rate : 0.2mm/rev
 Work Material : AISI 1050 Cutting Mode : M.Q.L.
 Hole Depth : 19mm (L/D=3) Machine : Machining Center
 Cutting Speed : 80m/min




Application Example

| Drill | MVS0300X03S030 | MVS0620X03S070 | |
|--------------------|---|--|-----|
| Workpiece | AISI 1010 (Automobile Parts)  | AISI 1045 (Machine Parts)  | |
| Cutting Conditions | Cutting Speed (m/min) | 56.5 | 43 |
| | Feed Rate (mm/rev) | 0.07 | 0.1 |
| | Hole Depth (mm) | 7.5 | 8.8 |
| Cutting Mode | Water-insoluble | Water-insoluble | |
| Result | Cutting Length 60m MVS  Flank Wear 0.08 0.08 0.02 (mm) Conventional  Flank Wear 0.20 0.09 0.04 (mm) | Cutting Length 70.4m MVS  Conventional  Large Crater Wear | |
| | <p>MVS shows only a small amount of wear and could continue machining.</p> <p>MVS shows only a small amount of flank wear and no crater wear and could continue machining.</p> | | |

| Drill | MVE0370X02S040 | |
|--------------------|--|-----|
| Workpiece | AISI 304 (Ink-jet Head)  | |
| Cutting Conditions | Cutting Speed (m/min) | 23 |
| | Feed Rate (mm/rev) | 0.1 |
| | Hole Depth (mm) | 5 |
| Cutting Mode | Water-insoluble | |
| Result | Number of Holes 800 holes Cutting Length 40m MVE  0.03 0.02 0.02 (mm) Conventional  0.07 0.03 0.03 (mm) | |
| | <p>MVS shows a small amount of wear and a 20% rise of the number of machining.</p> | |

WSTAR Drill Series

MVE / MVS drills are suitable for a wide range of applications.
Drills for specific applications are also available.

| | P Carbon Steel | M Stainless Steel | K Cast Iron | N Light Alloy | S Heat-resistant Alloy | H Hardened Steel |
|--|-------------------|----------------------|----------------|------------------|---------------------------|---------------------|
| MVE/MVS  | ○ | ○ | ○ | ○ | ○ | ○ Only MVE |
| MQS News No.B185  | ○ | | ○ | | | |
| MMS News No.B180  | | ○ | | | | |
| MNS News No.B135  | | | | ○ | | |
| MHS News No.B137  | ○ | ○ | | | ○ | ○ |
| MWE/MWS News No.B110  | ○ | ○ | ○ | ○ | ○ | ○ Only MWE |

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 using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc. ●Grinding or heating of cutting tools produces dust and mist. Inhaling large amount of dust or contacting with eyes and skins may harm your body.

MITSUBISHI MATERIALS CORPORATION

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(Tools specifications subject to change without notice.)