

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.

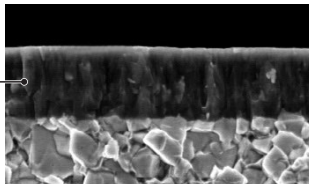


Solid Carbide Drills
WSTAR Drill Series

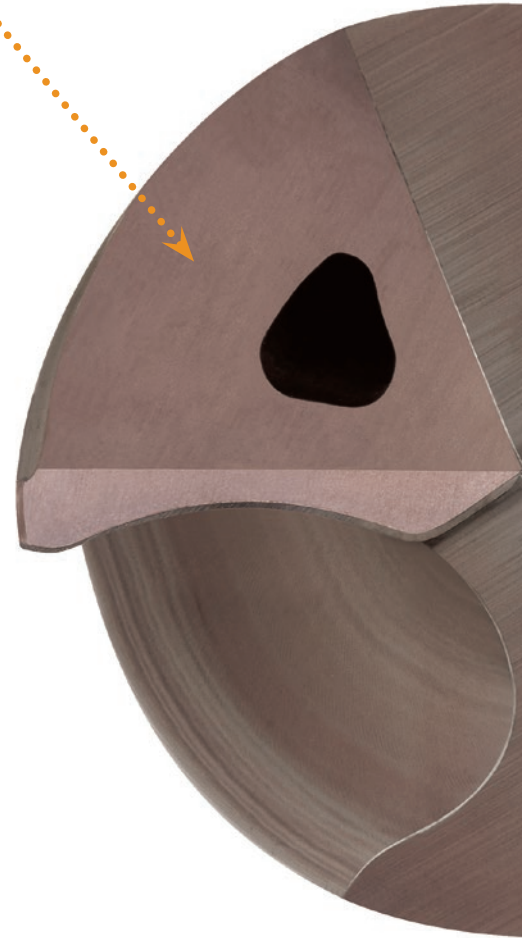
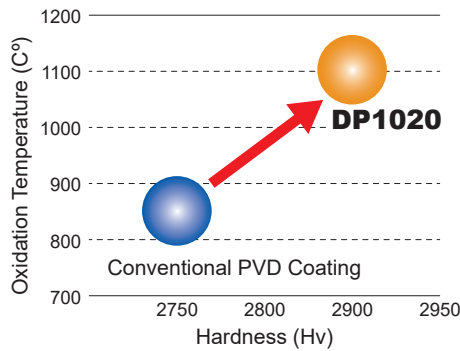
MVE/MVS

Coated Grade DP1020

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



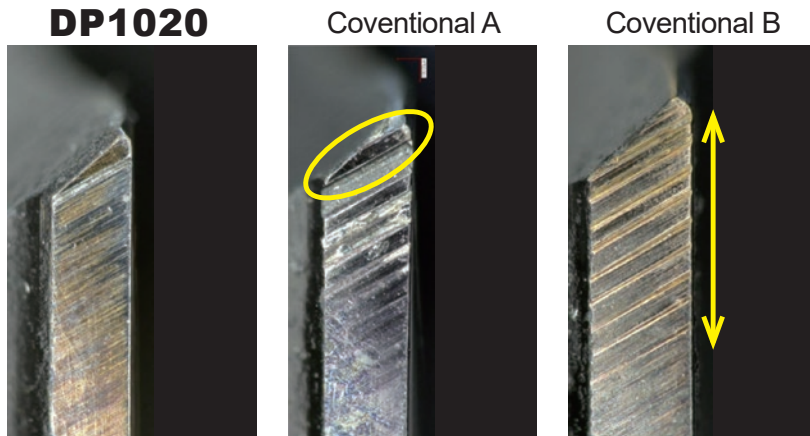
With Accumulated Al-Ti-Cr-N Based PVD Coating



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)

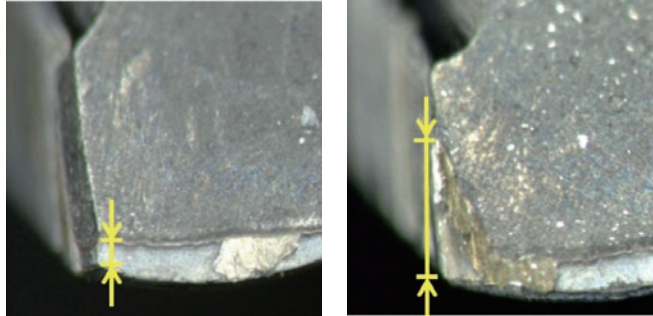
New Wavy Cutting Edge

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)

MVE

Coventional



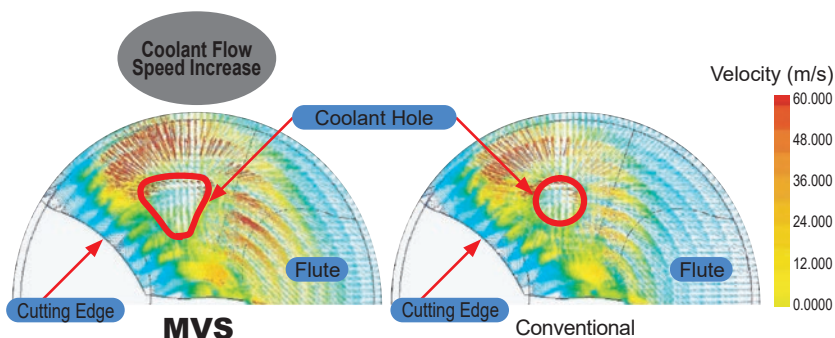
<Cutting Conditions>
 Work Material : AISI 1050
 Cutting Speed : 100m/min
 Feed Rate : 0.2mm/rev
 Cutting Mode : Water Based (External Coolant)

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 $\phi 5.0$ mm) increases the rate of coolant flow for an improved cooling effect and chip removal. ($l/d = 3, 5, 8$ drills apply to sizes over $\Phi 6.0$ mm)



Solid Carbide Drills
WSTAR Drill Series

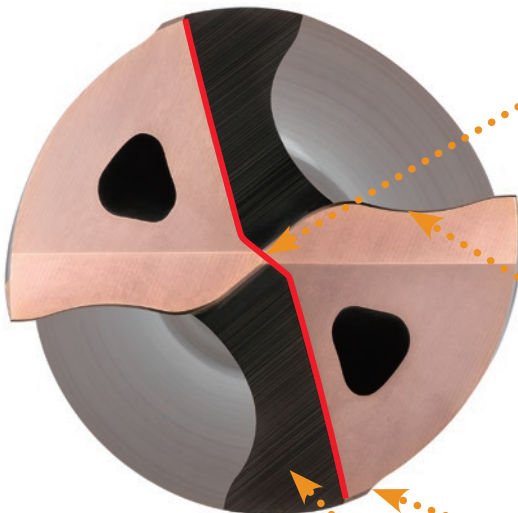
NEW Two Drills That are Indispensable for
Deep Hole Drilling

MVS

Pilot Drill DC x 2 (P23, 24)

Long Type DC x 10, 15, 20, 25, 30, 35, 40

High efficiency drilling hole with 2000mm/min feed rate higher.
(ϕ 5mm, 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

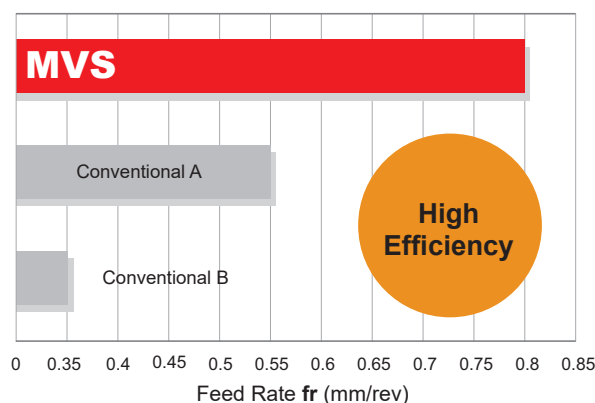
Provides excellent straightness and surface finish

New Flute Shape

Ideal web thickness and helix angle

MVS Long Type Provides High Feed

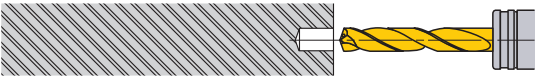
Feed Limit Test



<Cutting Conditions>
Drill Dia. : ϕ 5mm
Work Material : AISI 1050
Hole Depth : 150mm (DCx30)
Cutting Speed : 80m/min
Cutting Mode : Water Based
(Internal Coolant)


Operation Guide for the MVS Long Type Drill (Drilling a blind hole)

1. Drilling a Pilot Hole



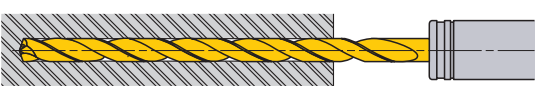
- ① Use a drill with a larger (flatter) point angle than the long type. Use the shortest flute possible.
- ② Ensure a high precision hole is drilled for the guide.
- ③ Drill depth : Approx DCx1.
(Adjust the pilot hole depth according to the length of the long type drill.)

2. Initial Cutting with the Long Type Drill



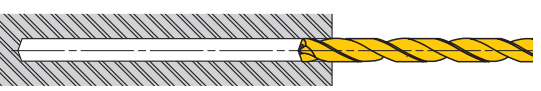
- ① Penetrate the guide hole at low revolution.
(Revolution 1000min^{-1} , feed rate $0.2\text{--}0.3\text{mm/rev}$)
- ② Stop the long type drill $0.5\text{--}1\text{mm}$ short of the guide hole bottom.

3. Drill the Deep Hole



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

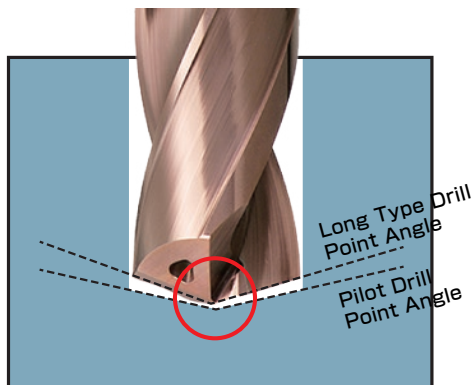
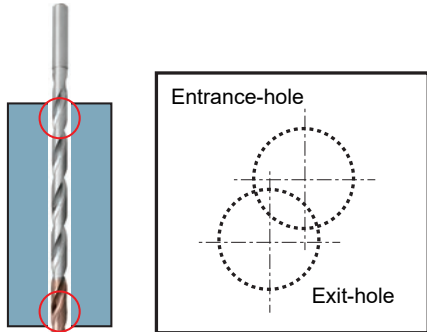
4. Drill Retraction



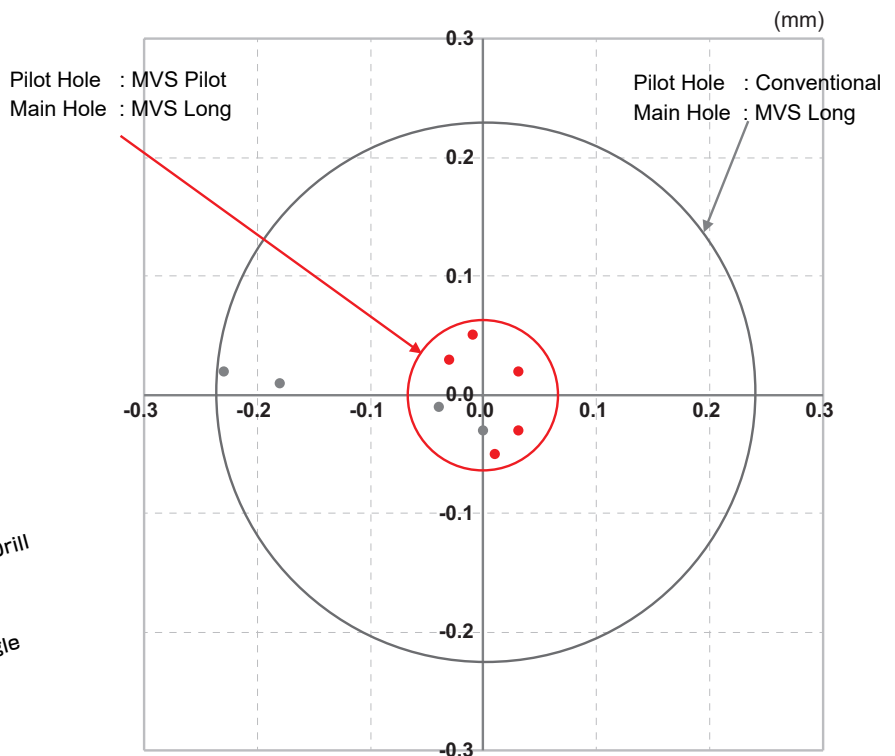
- ① After drilling, lower the cutting revolution about $0.5\text{--}1\text{mm}$ short of the hole end. (Revolution 1000min^{-1})
- ② Retract the drill to the pilot hole starting point at a feed rate of 3000mm/min .
- ③ Finally, clear the hole at a cutting speed of $20\text{--}30\text{m/min}$ and feed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

Deep Hole Position Accuracy when Using a Pilot Drill

Using the MVS pilot drill and MVS long type drill suppresses hole bending and improves hole position accuracy.



The MVS pilot drill is a pilot hole drill for long type drilling that is optimised so that the point angle enters from the centre of the hole when the long type drill starts drilling.



<Cutting Conditions>
 Pilot Drill : MVS0500X02S050PL
 Long Type Drill : MVS0500X15S050
 Work Material : JIS FCD600
 Pilot Hole Depth : 10mm (L/D=2)
 Hole Depth : 75mm
 Cutting Speed : 80m/min
 Feed Rate : 0.15mm/rev
 Cutting Mode : Water Based
 (Internal Coolant 1MPa)

Solid Carbide Drills

Solid Carbide Drills WSTAR Drill Series

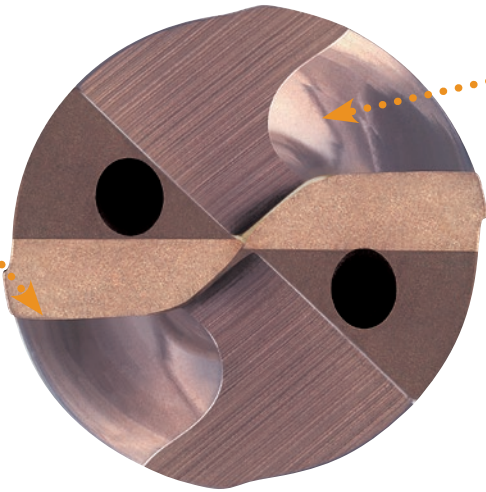
MVS

Small Dia. $\varnothing 1\text{ mm}$ — $\varnothing 2.9\text{ mm}$

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

Straight Cutting Edge

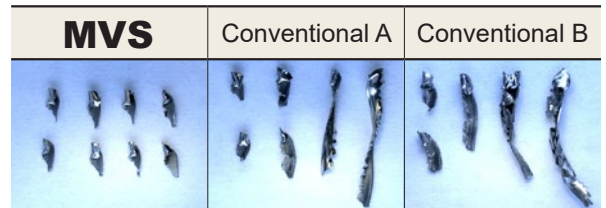
Improved chip evacuation and enhanced cutting edge strength.



New Flute Geometry

For improved chip evacuation.

Uniform,
Fine Chips



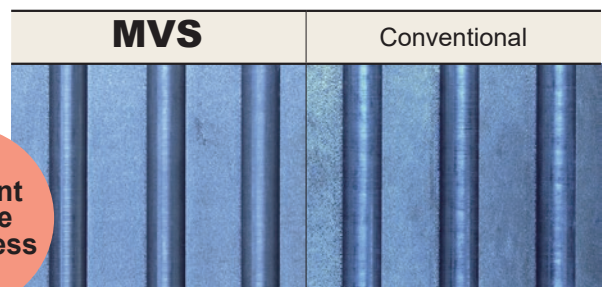
<Cutting Conditions>
 Drill Dia. : $\varnothing 2.5\text{ mm}$
 Work Material : AISI 304
 Hole Depth : 75 mm (L/D=30)
 Cutting Speed : 40 m/min
 Feed Rate : 0.04 mm/rev
 Cutting Mode : Water Based (Internal Coolant) (7MPa)



Double Margin

Provide high precision and balanced cutting.

Excellent
Surface
Roughness



Double Margin

Double Margin

<Cutting Conditions>
 Drill Dia. : $\varnothing 2\text{ mm}$
 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)

MVS for Small Diameter

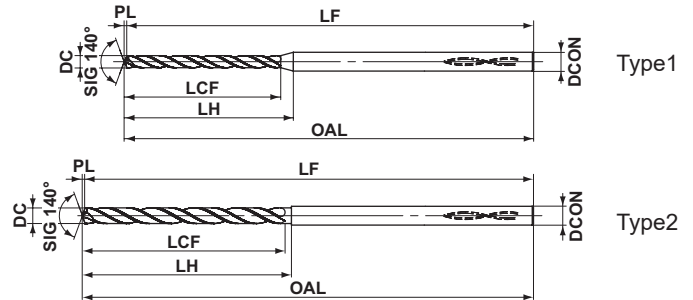
WSTAR Drills



1 ≤ DC ≤ 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

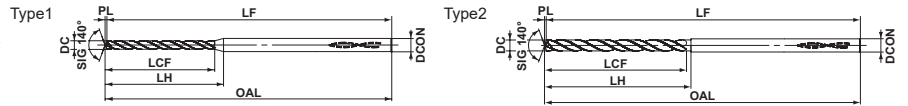
(mm)

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 ø4.9mm or less will be round shape.

● : Inventory maintained in Japan.

MVS for Small Diameter WSTAR Drills



Internal Coolant (mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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

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

DC = Cutting Diameter OAL = Overall Length DCON = Fixing Part Depth
 LCF = Length Chip Flute LF = Functional Length
 LH = Neck Length PL = Point Length

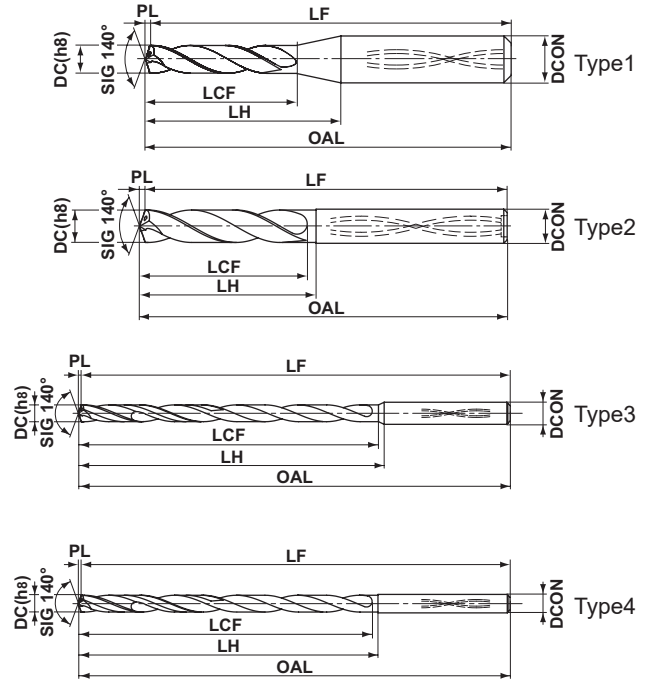
● : Inventory maintained in Japan. □ : Non stock, produced to order only.

MVS

WSTAR 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

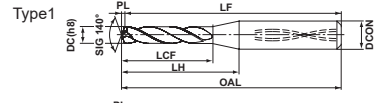
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
3.0	3	●	MVS0300X03S030	21.5	21.5	72.5	72	0.5	3	2
3.0	3	●	MVS0300X03S060	21.5	24.7	72.5	72	0.5	6	1
3.0	5	●	MVS0300X05S030	28.5	28.5	81.5	81	0.5	3	2
3.0	5	●	MVS0300X05S060	28.5	31.7	81.5	81	0.5	6	1
3.0	8	●	MVS0300X08S030	35.5	35.5	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	●	MVS0300X10S030	39.5	42.6	90.5	90	0.5	3	3
NEW	3.0	●	MVS0300X15S030	54.5	57.6	105.5	105	0.5	3	3
NEW	3.0	●	MVS0300X20S030	69.5	72.6	120.5	120	0.5	3	3
NEW	3.0	●	MVS0300X25S030	84.5	87.6	135.5	135	0.5	3	3
NEW	3.0	●	MVS0300X30S030	99.5	102.6	150.5	150	0.5	3	3
NEW	3.0	●	MVS0300X35S030	115.5	118.6	166.5	166	0.5	3	3
NEW	3.0	●	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	●	MVS0310X10S040	46.6	49.6	97.6	97	0.6	4	3
NEW	3.1	●	MVS0310X15S040	63.6	66.6	114.6	114	0.6	4	3
NEW	3.1	●	MVS0310X20S040	81.6	84.6	132.6	132	0.6	4	3
NEW	3.1	●	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	40	□	MVS0310X40S040	150.6	153.6	201.6	201	0.6	4	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	40	□	MVS0320X40S040	150.6	153.6	201.6	201	0.6	4	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	
3.3	5	●	MVS0330X05S060	32.6	35.5	87.6	87	0.6	6	1	
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

(Note) The coolant hole of $\phi 4.9$ mm or less will be round shape. (l/d = 3,5,8 is less than $\phi 6$ mm)

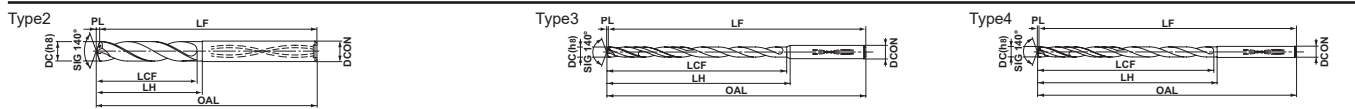


Internal Coolant											
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type	
NEW	3.3	15	●	MVS0330X15S040	63.6	66.6	114.6	114	0.6	4	3
NEW	3.3	20	●	MVS0330X20S040	81.6	84.6	132.6	132	0.6	4	3
NEW	3.3	25	●	MVS0330X25S040	98.6	101.6	149.6	149	0.6	4	3
NEW	3.3	30	●	MVS0330X30S040	116.6	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	40	□	MVS0330X40S040	150.6	153.6	201.6	201	0.6	4	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	40	□	MVS0340X40S040	150.6	153.6	201.6	201	0.6	4	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
NEW	3.6	25	●	MVS0360X25S040	112.7	115.7	163.7	163	0.7	4	3
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	40	□	MVS0360X40S040	172.7	175.7	223.7	223	0.7	4	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

Internal Coolant										(mm)	
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON		Type
	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	40	□	MVS0370X40S040	172.7	175.7	223.7	223	0.7	4	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	40	□	MVS0380X40S040	172.7	175.7	223.7	223	0.7	4	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	40	□	MVS0390X40S040	172.7	175.7	223.7	223	0.7	4	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

(Note) The coolant hole of $\phi 4.9$ mm or less will be round shape. (l/d = 3,5,8 is less than $\phi 6$ mm)

● : 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	
											4.1
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	40	□	MVS0410X40S050	195.7	198.8	248.7	248	0.7	5	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	40	□	MVS0420X40S050	195.8	198.8	248.8	248	0.8	5	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	
4.3	5	●	MVS0430X05S060	40.8	42.6	100.8	100	0.8	6	1	
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	40	□	MVS0430X40S050	195.8	198.8	248.8	248	0.8	5	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

Internal Coolant (mm)											
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type	
											NEW
NEW	4.4	35	□	MVS0440X35S050	171.8	174.8	224.8	224	0.8	5	3
NEW	4.4	40	□	MVS0440X40S050	195.8	198.8	248.8	248	0.8	5	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
NEW	4.6	20	●	MVS0460X20S050	115.8	118.8	168.8	168	0.8	5	4
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	40	□	MVS0460X40S050	215.8	218.8	268.8	268	0.8	5	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	40	□	MVS0470X40S050	215.9	218.9	268.9	268	0.9	5	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	

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

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

DCON = Fixing Part Depth

Internal Coolant

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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	40	□	MVS0480X40S050	215.9	218.9	268.9	268	0.9	5	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
NEW 4.9	35	□	MVS0490X35S050	190.9	193.9	243.9	243	0.9	5	4
NEW 4.9	40	□	MVS0490X40S050	215.9	218.9	268.9	268	0.9	5	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

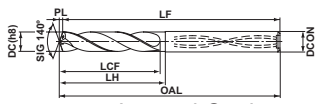
Internal Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
5.4	5	●	MVS0540X05S060	45.0	49.0	101.0	100	1.0	6	2
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

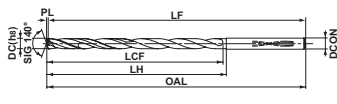
(Note) The coolant hole of $\phi 4.9$ mm or less will be round shape. (l/d = 3,5,8 is less than $\phi 6$ mm)

Type2



Internal Coolant

Type4



Internal Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
NEW 5.8	40	□	MVS0580X40S060	261.1	264.1	316.1	315	1.1	6	4
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

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
NEW 6.1	35	□	MVS0610X35S070	248.1	253.1	306.1	305	1.1	7	4
NEW 6.1	40	□	MVS0610X40S070	281.1	284.1	337.1	336	1.1	7	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
NEW 6.2	40	□	MVS0620X40S070	281.1	284.1	337.1	336	1.1	7	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	89.1	142.1	141	1.1	7	4
NEW 6.3	15	●	MVS0630X15S070	118.1	121.1	174.1	173	1.1	7	4
NEW 6.3	20	●	MVS0630X20S070	151.1	154.1	207.1	206	1.1	7	4
NEW 6.3	25	●	MVS0630X25S070	183.1	186.1	239.1	238	1.1	7	4
NEW 6.3	30	●	MVS0630X30S070	216.1	219.1	272.1	271	1.1	7	4
NEW 6.3	35	□	MVS0630X35S070	248.1	253.1	306.1	305	1.1	7	4
NEW 6.3	40	□	MVS0630X40S070	281.1	284.1	337.1	336	1.1	7	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	40	□	MVS0640X40S070	281.2	284.2	337.2	336	1.2	7	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

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

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

DCON = Fixing Part Depth

MVS

WSTAR Drills

Internal Coolant

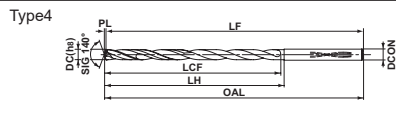
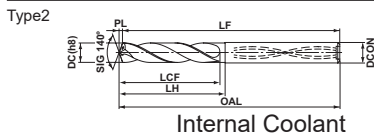
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type	
NEW	6.5	15	●	MVS0650X15S070	118.2	121.2	174.2	173	1.2	7	4
NEW	6.5	20	●	MVS0650X20S070	151.2	154.2	207.2	206	1.2	7	4
NEW	6.5	25	●	MVS0650X25S070	183.2	186.2	239.2	238	1.2	7	4
NEW	6.5	30	●	MVS0650X30S070	216.2	219.2	272.2	271	1.2	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	36.2	89.2	88	1.2	7	2
	6.6	3	●	MVS0660X03S080	36.2	38.2	89.2	88	1.2	8	2
	6.6	5	●	MVS0660X05S070	57.2	57.2	110.2	109	1.2	7	2
	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	40	□	MVS0660X40S070	301.2	304.2	357.2	356	1.2	7	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	40	□	MVS0670X40S070	301.2	304.2	357.2	356	1.2	7	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	40	□	MVS0680X40S070	301.2	304.2	357.2	356	1.2	7	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

Internal Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type	
	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
	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	40	□	MVS0690X40S070	301.3	304.3	357.3	356	1.3	7	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

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



DC	Hole Depth (l/d)	Stock DP1020	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

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
NEW 7.8	10	●	MVS0780X10S080	105.4	108.4	162.4	161	1.4	8	4
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	40	□	MVS0810X40S090	366.5	369.5	424.5	423	1.5	9	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
NEW 8.2	10	●	MVS0820X10S090	112.5	115.5	170.5	169	1.5	9	4
NEW 8.2	15	●	MVS0820X15S090	154.5	157.5	212.5	211	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

Internal Coolant

DC	Hole Depth (l/d)	Stock	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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	40	□	MVS0820X40S090	366.5	369.5	424.5	423	1.5	9	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	40	□	MVS0830X40S090	366.5	369.5	424.5	423	1.5	9	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	40	□	MVS0840X40S090	366.5	369.5	424.5	423	1.5	9	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	115.6	170.5	169	1.5	9	4
NEW 8.5	15	●	MVS0850X15S090	154.5	157.6	212.5	211	1.5	9	4
NEW 8.5	20	●	MVS0850X20S090	197.5	200.6	255.5	254	1.5	9	4
NEW 8.5	25	●	MVS0850X25S090	239.5	242.6	297.5	296	1.5	9	4
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

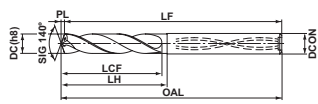
Internal Coolant

(mm)

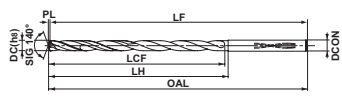
DC	Hole Depth (l/d)	Stock	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
8.6	8	●	MVS0860X08S090	100.6	100.6	155.6	154	1.6	9	2
8.6	8	●	MVS0860X08S100	100.6	102.6	155.6	154	1.6	10	2
NEW 8.6	10	●	MVS0860X10S090	118.6	121.6	176.6	175	1.6	9	4
NEW 8.6	15	●	MVS0860X15S090	163.6	166.6	221.6	220	1.6	9	4
NEW 8.6	20	●	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	40	□	MVS0860X40S090	391.6	394.6	449.6	448	1.6	9	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	40	□	MVS0870X40S090	391.6	394.6	449.6	448	1.6	9	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	40	□	MVS0880X40S090	391.6	394.6	449.6	448	1.6	9	4
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	40	□	MVS0890X40S090	391.6	394.6	449.6	448	1.6	9	4

● : 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
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	●	MVS0900X10S090	118.6	121.6	176.6	175	1.6	9	4
NEW	9.0	●	MVS0900X15S090	163.6	166.6	221.6	220	1.6	9	4
NEW	9.0	●	MVS0900X20S090	208.6	211.6	266.6	265	1.6	9	4
NEW	9.0	●	MVS0900X25S090	253.6	256.6	311.6	310	1.6	9	4
NEW	9.0	●	MVS0900X30S090	298.6	301.6	356.6	355	1.6	9	4
NEW	9.0	●	MVS0900X35S090	343.6	346.6	401.6	400	1.6	9	4
NEW	9.0	●	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	●	MVS0910X10S100	125.7	128.7	183.7	182	1.7	10	4
NEW	9.1	●	MVS0910X15S100	172.7	175.7	230.7	229	1.7	10	4
NEW	9.1	●	MVS0910X20S100	220.7	223.7	278.7	277	1.7	10	4
NEW	9.1	●	MVS0910X25S100	267.7	270.7	325.7	324	1.7	10	4
NEW	9.1	●	MVS0910X30S100	315.7	318.7	373.7	372	1.7	10	4
NEW	9.1	□	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	●	MVS0920X10S100	125.7	128.7	183.7	182	1.7	10	4
NEW	9.2	●	MVS0920X15S100	172.7	175.7	230.7	229	1.7	10	4
NEW	9.2	●	MVS0920X20S100	220.7	223.7	278.7	277	1.7	10	4
NEW	9.2	●	MVS0920X25S100	267.7	270.7	325.7	324	1.7	10	4
NEW	9.2	●	MVS0920X30S100	315.7	318.7	373.7	372	1.7	10	4
NEW	9.2	□	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
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	●	MVS0930X10S100	125.7	128.7	183.7	182	1.7	10	4
NEW	9.3	●	MVS0930X15S100	172.7	175.7	230.7	229	1.7	10	4
NEW	9.3	●	MVS0930X20S100	220.7	223.7	278.7	277	1.7	10	4
NEW	9.3	●	MVS0930X25S100	267.7	270.7	325.7	324	1.7	10	4
NEW	9.3	●	MVS0930X30S100	315.7	318.7	373.7	372	1.7	10	4
NEW	9.3	□	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	●	MVS0940X10S100	125.7	128.7	183.7	182	1.7	10	4
NEW	9.4	●	MVS0940X15S100	172.7	175.7	230.7	229	1.7	10	4
NEW	9.4	●	MVS0940X20S100	220.7	223.7	278.7	277	1.7	10	4
NEW	9.4	●	MVS0940X25S100	267.7	270.7	325.7	324	1.7	10	4
NEW	9.4	●	MVS0940X30S100	315.7	318.7	373.7	372	1.7	10	4

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
NEW	9.4	□	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	●	MVS0950X10S100	125.7	128.7	183.7	182	1.7	10	4
NEW	9.5	●	MVS0950X15S100	172.7	175.7	230.7	229	1.7	10	4
NEW	9.5	●	MVS0950X20S100	220.7	223.7	278.7	277	1.7	10	4
NEW	9.5	●	MVS0950X25S100	267.7	270.7	325.7	324	1.7	10	4
NEW	9.5	●	MVS0950X30S100	315.7	318.7	373.7	372	1.7	10	4
NEW	9.5	●	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	●	MVS0960X10S100	131.7	134.8	189.7	188	1.7	10	4
NEW	9.6	●	MVS0960X15S100	181.7	184.8	239.7	238	1.7	10	4
NEW	9.6	●	MVS0960X20S100	231.7	234.8	289.7	288	1.7	10	4
NEW	9.6	●	MVS0960X25S100	281.7	284.8	339.7	338	1.7	10	4
NEW	9.6	●	MVS0960X30S100	331.7	334.8	389.7	388	1.7	10	4
NEW	9.6	□	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	●	MVS0970X10S100	131.8	134.8	189.8	188	1.8	10	4
NEW	9.7	●	MVS0970X15S100	181.8	184.8	239.8	238	1.8	10	4
NEW	9.7	●	MVS0970X20S100	231.8	234.8	289.8	288	1.8	10	4
NEW	9.7	●	MVS0970X25S100	281.8	284.8	339.8	338	1.8	10	4
NEW	9.7	●	MVS0970X30S100	331.8	334.8	389.8	388	1.8	10	4
NEW	9.7	□	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	●	MVS0980X10S100	131.8	134.8	189.8	188	1.8	10	4
NEW	9.8	●	MVS0980X15S100	181.8	184.8	239.8	238	1.8	10	4
NEW	9.8	●	MVS0980X20S100	231.8	234.8	289.8	288	1.8	10	4
NEW	9.8	●	MVS0980X25S100	281.8	284.8	339.8	338	1.8	10	4
NEW	9.8	●	MVS0980X30S100	331.8	334.8	389.8	388	1.8	10	4
NEW	9.8	□	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	●	MVS0990X10S100	131.8	134.8	189.8	188	1.8	10	4
NEW	9.9	●	MVS0990X15S100	181.8	184.8	239.8	238	1.8	10	4
NEW	9.9	●	MVS0990X20S100	231.8	234.8	289.8	288	1.8	10	4
NEW	9.9	●	MVS0990X25S100	281.8	284.8	339.8	338	1.8	10	4
NEW	9.9	●	MVS0990X30S100	331.8	334.8	389.8	388	1.8	10	4
NEW	9.9	□	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

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

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

DCON = Fixing Part Depth

MVS

WSTAR Drills

Internal Coolant

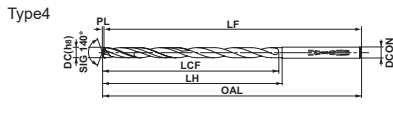
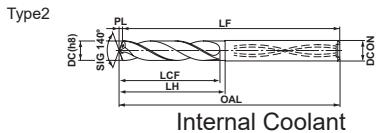
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
NEW 10.0	10	●	MVS1000X10S100	131.8	134.8	189.8	188	1.8	10	4
NEW 10.0	15	●	MVS1000X15S100	181.8	184.8	239.8	238	1.8	10	4
NEW 10.0	20	●	MVS1000X20S100	231.8	234.8	289.8	288	1.8	10	4
NEW 10.0	25	●	MVS1000X25S100	281.8	284.8	339.8	338	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
10.3	8	●	MVS1030X08S120	117.9	122.9	183.9	182	1.9	12	2
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

Internal Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
10.8	5	●	MVS1080X05S120	90.0	91.0	151.0	149	2.0	12	2
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

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



Internal Coolant

Internal Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
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

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
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

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

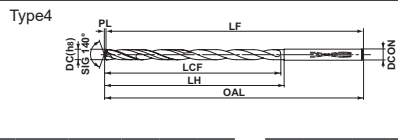
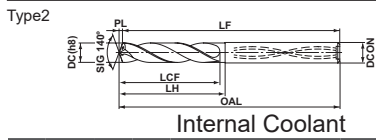
OAL = Overall Length
LF = Functional Length
PL = Point Length

DCON = Fixing Part Depth

Internal Coolant											
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type	
											NEW
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
	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

Internal Coolant										(mm)	
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type	
	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
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

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



Internal Coolant

Internal Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
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

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
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



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

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

DCON = Fixing Part Depth

Internal Coolant

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
16.0	8	●	MVS1600X08S160	178.9	183.9	243.9	241	2.9	16	2
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

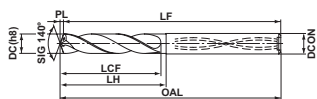
Internal Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
17.4	5	□	MVS1740X05S180	143.2	147.2	212.2	209	3.2	18	2
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

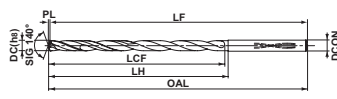
● : Inventory maintained in Japan. □ : Non stock, produced to order only.

Type2



Internal Coolant

Type4



Internal Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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
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

DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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

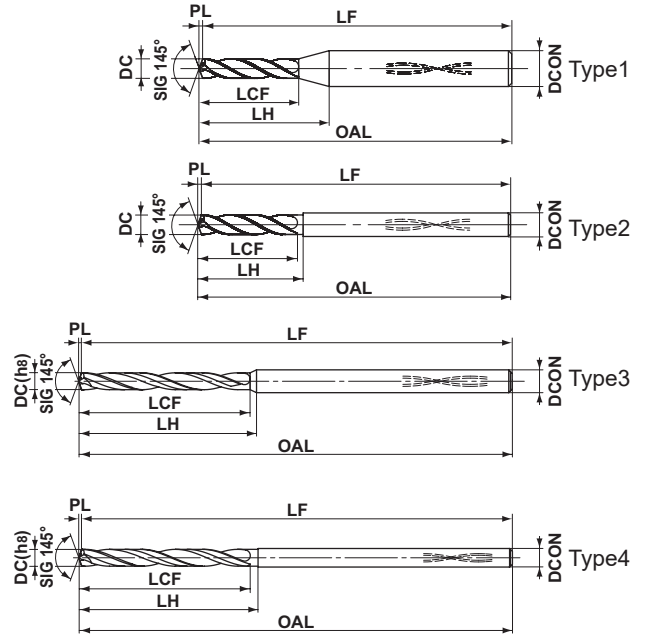
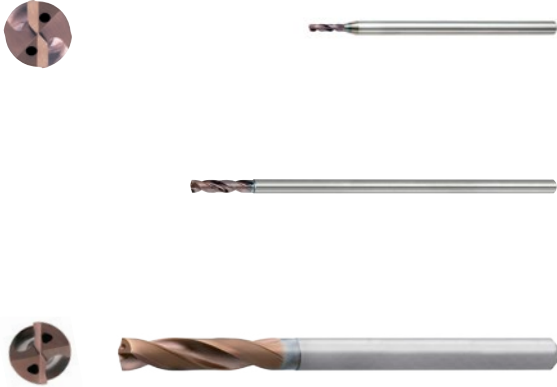
DCON = Fixing Part Depth

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
1.1	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 3.7	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 $\phi 4.9$ mm or less will be round shape.

● : Inventory maintained in Japan.

Internal Coolant										
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
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 DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type	
											NEW 11.2
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

Recommended Cutting Conditions

(mm)

Work Material	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	
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	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

Recommended Cutting Conditions

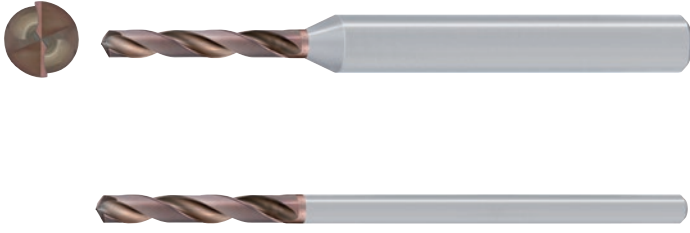
(mm)

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)

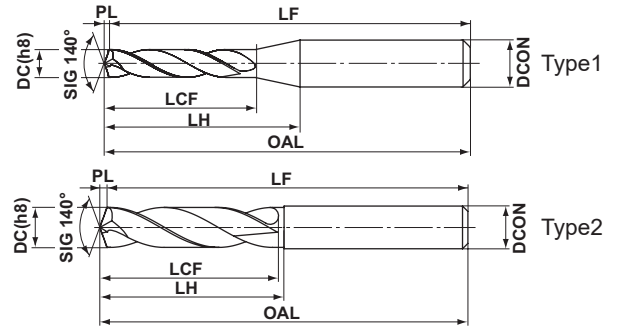
* =For cutting a guide hole

Memo

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



	DC=3	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
	0	0	0	0	0
	-0.014	-0.018	-0.022	-0.027	-0.033
h6	0	0	0	0	0
	-0.006	-0.008	-0.009	-0.011	-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	3	●	MVE0400X03S060	27.7	29.8	60.7	60	0.7	6	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
4.2	3	●	MVE0410X03S050	29.7	31.7	68.7	68	0.7	5	2
	3	●	MVE0410X03S060	29.7	31.7	68.7	68	0.7	6	1
	2	●	MVE0420X02S050	22.8	24.8	62.8	62	0.8	5	2
4.3	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
	3	●	MVE0420X03S060	29.8	31.7	68.8	68	0.8	6	1
4.4	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
4.5	3	●	MVE0430X03S060	29.8	31.6	68.8	68	0.8	6	1
	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
4.6	3	●	MVE0440X03S050	29.8	31.8	68.8	68	0.8	5	2
	3	●	MVE0440X03S060	29.8	31.5	68.8	68	0.8	6	1
	2	●	MVE0450X02S050	22.8	24.8	62.8	62	0.8	5	2
4.7	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
	3	●	MVE0450X03S060	29.8	31.4	68.8	68	0.8	6	1
4.8	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
4.9	3	●	MVE0460X03S060	32.8	35.8	68.8	68	0.8	6	2
	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
5.0	3	●	MVE0470X03S050	32.9	32.9	68.9	68	0.9	5	2
	3	●	MVE0470X03S060	32.9	35.9	68.9	68	0.9	6	2
	2	●	MVE0480X02S050	24.9	24.9	62.9	62	0.9	5	2
5.1	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
	3	●	MVE0480X03S060	32.9	35.9	68.9	68	0.9	6	2

● : Inventory maintained in Japan.

External Coolant										
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
4.9	2	●	MVE0490X02S050	24.9	24.9	62.9	62	0.9	5	2
	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
6.7	2	●	MVE0670X02S070	35.2	35.2	75.2	74	1.2	7	2
	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

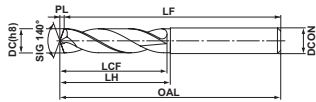
DCON = Fixing Part Depth

		External Coolant									
DC	Hole Depth (l/d)	Stock	Order Number	LCF	LH	OAL	LF	PL	DCON	Type	
		DP1020									
8.5	2	●	MVE0850X02S090	38.5	41.5	85.5	84	1.5	9	2	
	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	Order Number	LCF	LH	OAL	LF	PL	DCON	Type		
		DP1020										
10.3	2	●	MVE1030X02S110	44.9	47.9	96.9	95	1.9	11	2		
	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 DP1020	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

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

External Coolant

(mm)

DC	Hole Depth (l/d)	Stock DP1020	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
	3	□	MVE1500X03S160	93.7	93.7	155.7	153	2.7	16	2
15.1	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

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

DCON = Fixing Part Depth

MVE

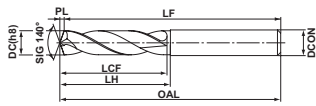
WSTAR Drills

External Coolant										
DC	Hole Depth (l/d)	Stock DP1020	Order Number	LCF	LH	OAL	LF	PL	DCON	Type
	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
	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
	3	☐	MVE1700X03S180	105.1	105.1	170.1	167	3.1	18	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

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)

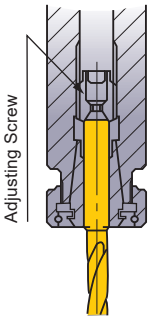
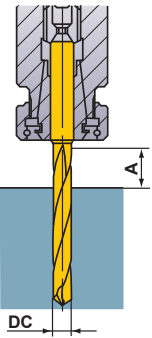
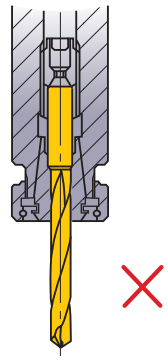
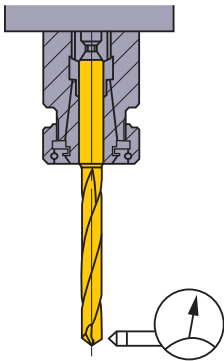
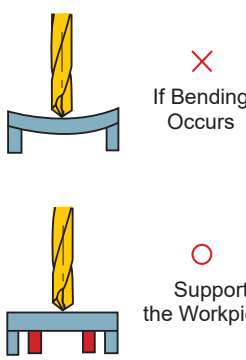
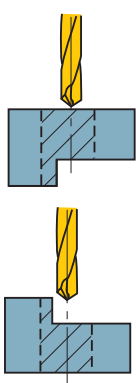
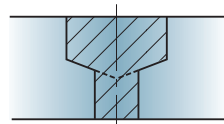
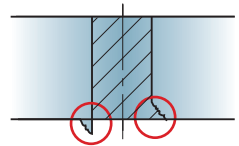
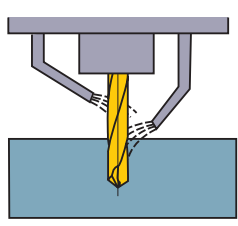
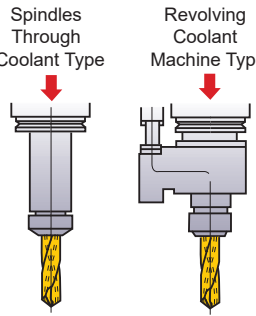
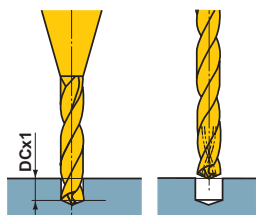
Work Material	Austenitic Stainless Steel ($\leq 200\text{HB}$)		Gray Cast Iron ($\leq 350\text{MPa}$)		Ductile Cast Iron ($\leq 450\text{MPa}$)	
	AISI 304, 316 etc		No45B etc		60-60-8 etc	
DC	n (min ⁻¹)	fr (Min.—Max.) (mm/rev)	n (min ⁻¹)	fr (Min.—Max.) (mm/rev)	n (min ⁻¹)	fr (Min.—Max.) (mm/rev)
3.2	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 Guide

<p>Drill Holding</p>  <p>Thrust bearing type collet chuck holds the drill securely.</p>	<p>Drill Length</p>  <p>$A > DC \times 1.5$ ($DC > \text{over } 2.0$ for $DC < 3\text{mm}$)</p>	<p>Drill Installation</p>  <p>Do not clamp on the flutes.</p>	<p>Installation Tolerance</p>  <p>Run-out $\leq 0.03\text{mm}$</p>
<p>Thin Workpiece</p>  <p>If Bending Occurs</p> <p>Support the Workpiece</p>	<p>Interrupted Cutting</p>  <p>One Process</p> <p>① Lower the feed when drilling the interrupted part.</p> <p>Requires Prior Machining</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 Revolving Coolant Machine Type</p> <p>Less than $\phi 3\text{mm}$: 1.5MPa-7MPa More than $\phi 3\text{mm}$: 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>  <p>① Drill a prepared hole about $DC \times 1$ using the shortest flute length of MVS. (DC=drill diameter) ② Use the prepared hole as a guide when using a drill with an oil hole. Depending on the cutting conditions, peck feed is recommended.</p>

Notes on Use (For $DC < 3\text{mm}$)

Please use a fine mesh filter (mesh $< 3\mu\text{m}$) for coolant to prevent jamming in the oil hole.

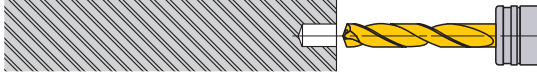
For deep drilling with the long type drill, machining a pilot hole is recommended.

(Otherwise, centrifugal forces may cause drill breakage.)

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

Flat Face Drilling ●Drilling a blind hole

1. Drilling a Pilot Hole



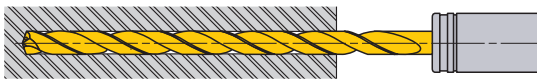
- ① Use a drill with a larger (flat) point angle than the long type 140°. Recommend a MVS pilot drill 145° point angle.
- ② Ensure a high precision hole is drilled for the guide.
- ③ Drill depth : Approx DCx1.
(Adjust the pilot hole depth according to the length of the long type drill.)

2. Initial Cutting with the Long Type Drill



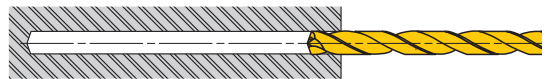
- ① Penetrate the guide hole at low revolution.
(Revolution 1000min⁻¹, feed rate 0.2–0.3mm/rev)
- ② Stop the long type drill 0.5–1mm short of the guide hole bottom.

3. Drill the Deep Hole



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

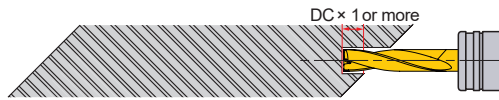
4. Drill Retraction



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

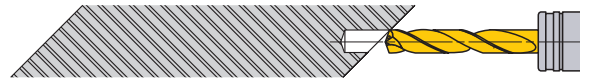
Interrupted Drilling ●Drilling and breaking through on irregular faces or angles

1. Spot Facing



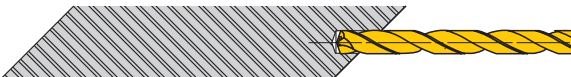
- ① Machine a flat or the irregular face by using a MFE drill or an end mill capable of spot facing. Make the spot face diameter the same size as the required deep hole diameter.
- ② Ensure a high precision hole is drilled for the guide.
- ③ Drill depth : Approx DCx1.

2. Drilling a Pilot Hole



- ① Use a drill with a larger (flat) point angle than the long type 140°. Recommend a MVS pilot drill 145° point angle.
- ② Ensure a high precision hole is drilled for the guide.
- ③ Drill 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



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

4. Drill the Deep Hole



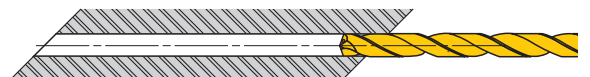
- ① Start cutting at the recommended speed and feed with a non-peck (continuous feed) cycle.
- ② Feed as usual until breaking through.

5. Breaking Through



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

6. Drill Retraction



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

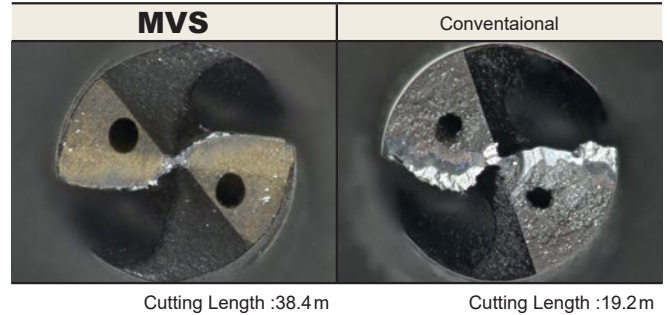
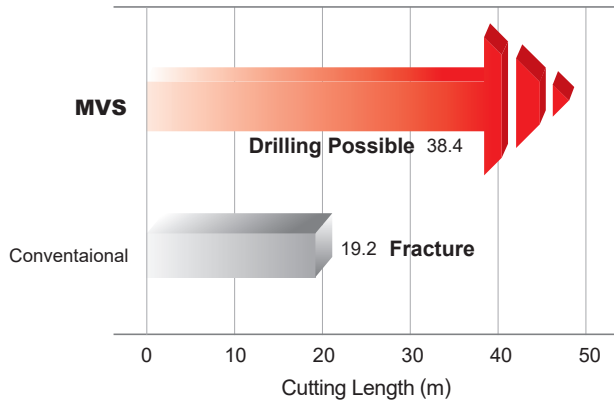
Memo

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

Cutting Performance

Alloy Steel

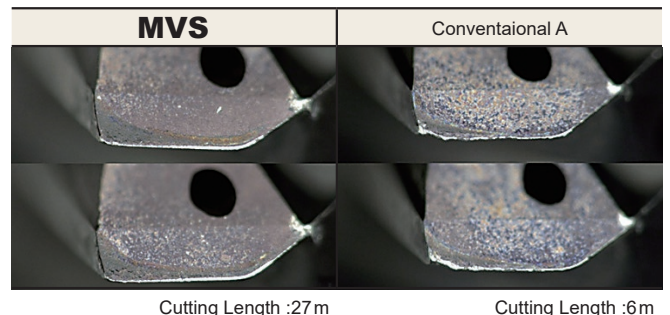
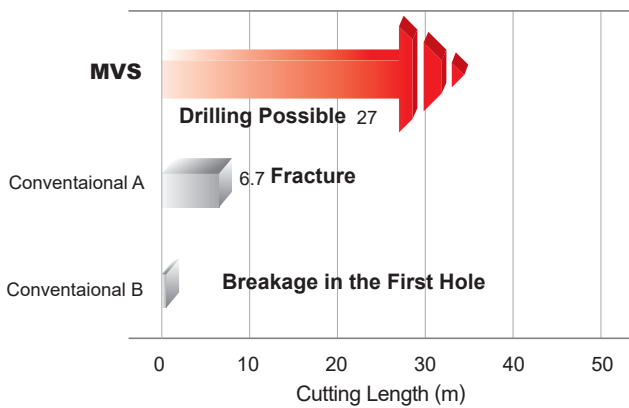
MVS gives a stable performance and double tool life.



<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

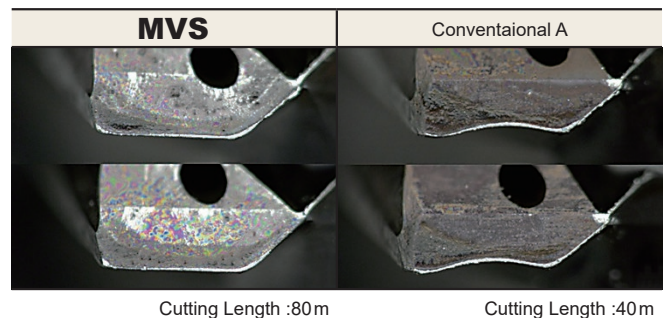
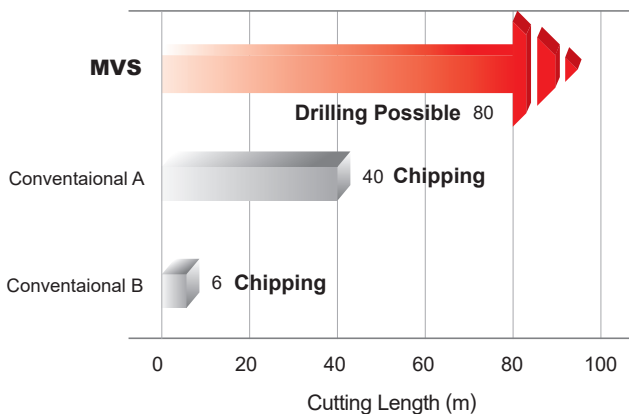
MVS provides stability and long tool life even when drilling stainless steel.



<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)

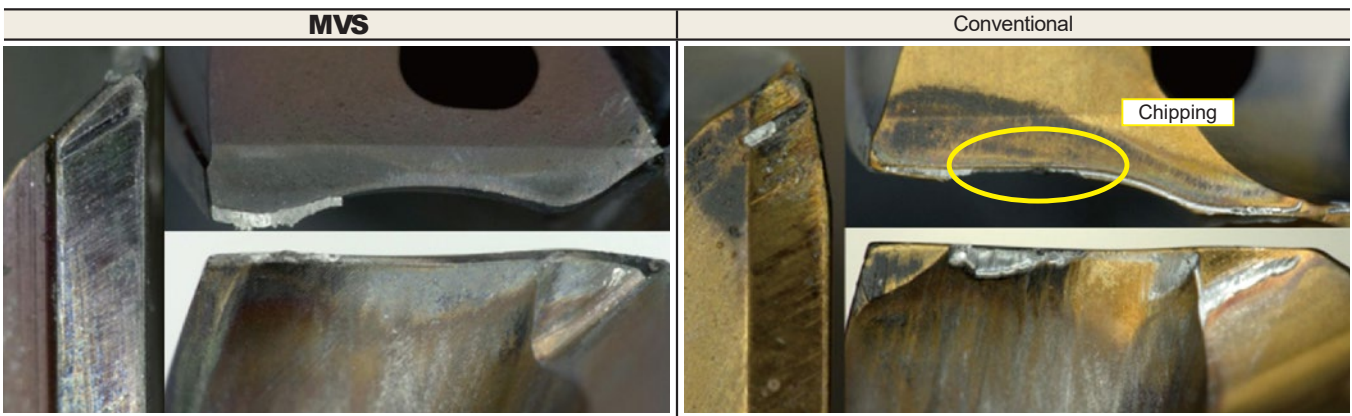
Stainless Steel (L/D=30)

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

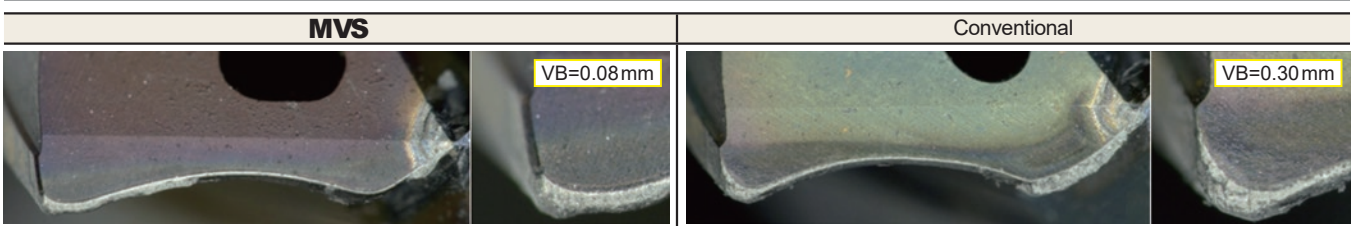


Damage of the cutting edge after 150m machining

<Cutting Conditions>

Drill Dia. : $\phi 6$ 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

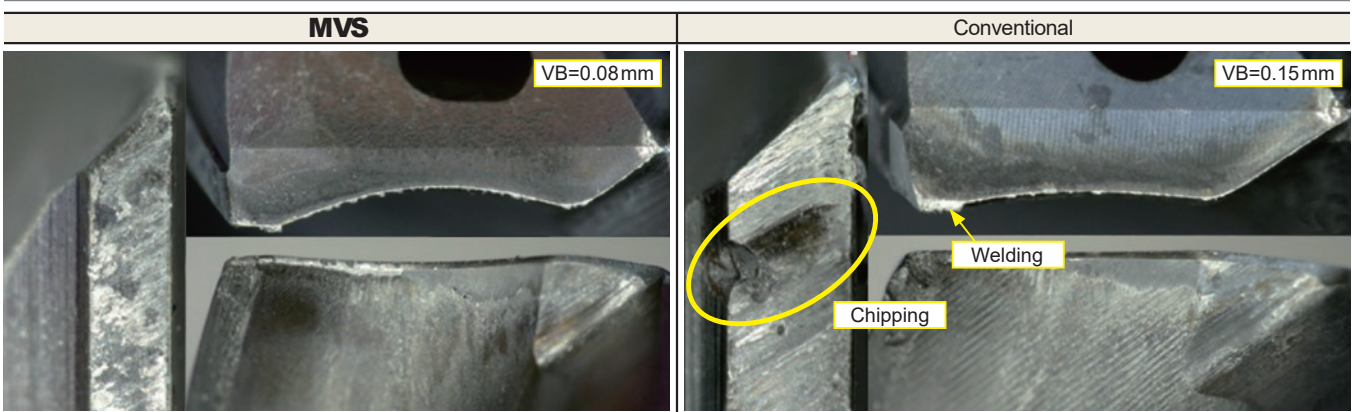


Damage of the cutting edge after 67m machining

<Cutting Conditions>

Drill Dia. : $\phi 6$ 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



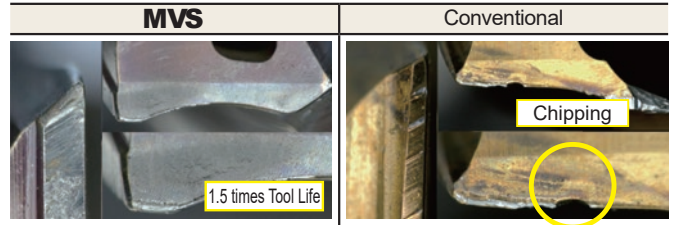
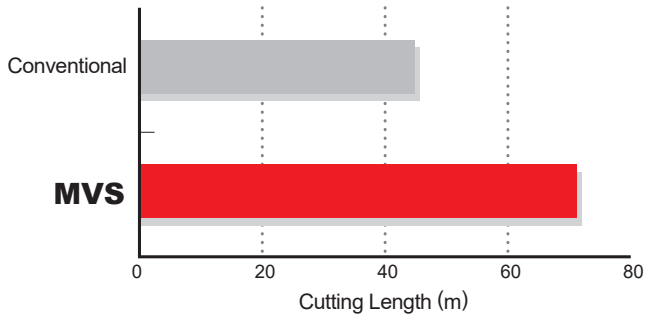
Damage of the cutting edge after 96m machining

<Cutting Conditions>

Drill Dia. : $\phi 6$ 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	

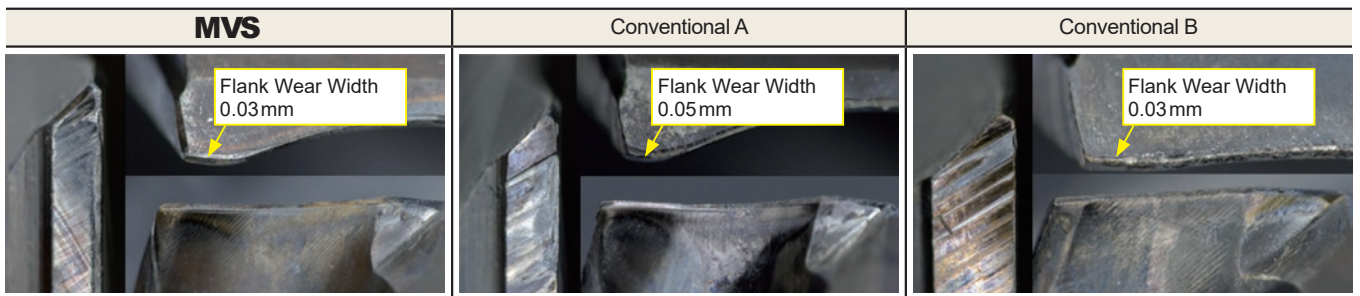
Cutting Performance

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

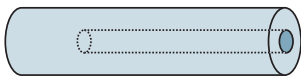
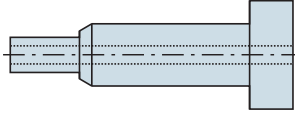

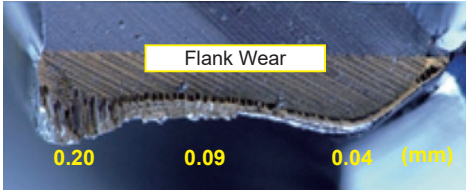
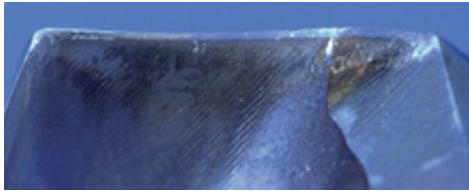

M.Q.L. Cutting

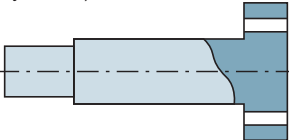
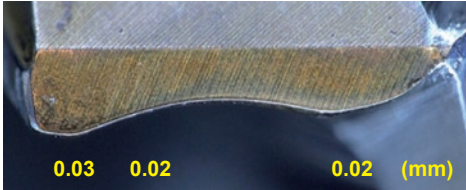
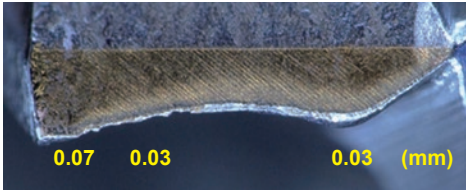


Damage of the cutting edge after 55m machining

<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



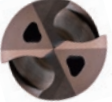

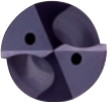
Application Example

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.)