

Serie di punte MNS per la lavorazione delle leghe di alluminio
**I fori centrali garantiscono un'eccellente
lubrificazione della punta.
Foratura ad alta efficienza e avanzamento
elevato fino a $F=10,000\text{mm/min}$.**

- Punta disponibili con incremento di 0.1mm nelle misure da $\varnothing 3.0$ a $\varnothing 20.0$.
- I tipi L/D 3, 5, 8, 10, 12, 15, 20, 25, 30 sono di serie.
- Foratura di fori profondi ad avanzamento costante (L/D 10 - 30)



Punta in metallo duro per una lavorazione ad alta efficienza delle leghe di alluminio

MNS

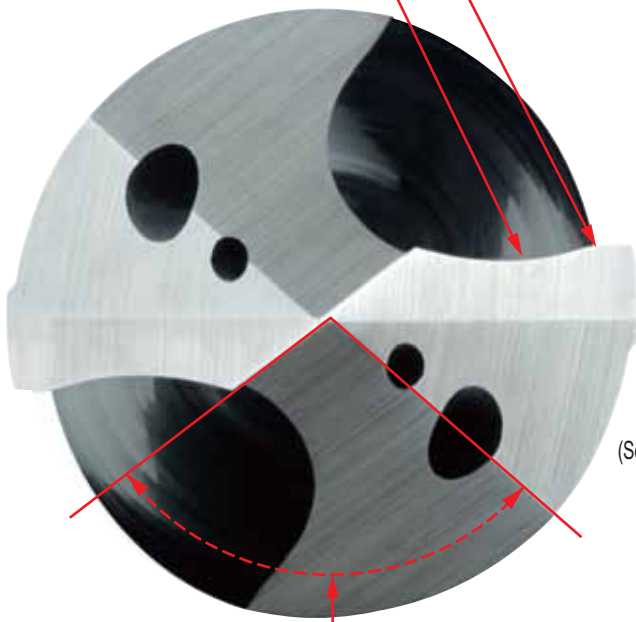
Caratteristiche

Geometria di di taglio e del tagliente ottimale per la lavorazione delle leghe di alluminio

Forma del tagliente

Tagliente ondulato

Il bordo ondulato del tagliente produce tagli affilati sulla periferia della punta, con un taglio più robusto vicino al centro della punta.

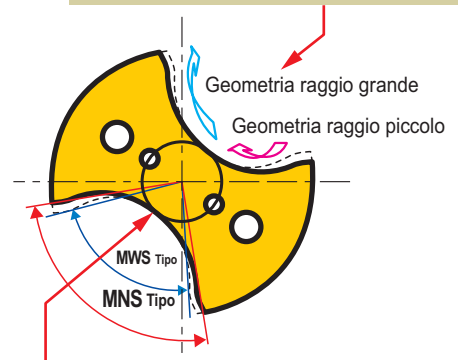


Sezione trasversale

(Sezione trasversale affilatura del taglio)

Tagliente parte superiore

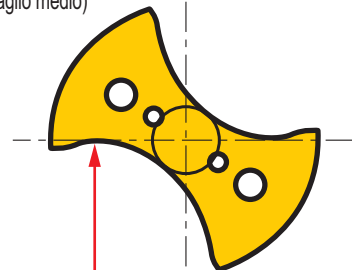
La geometria raggio piccolo genera la curvatura iniziale dei trucioli e si combina con la geometria più grande per facilitarne l'evacuazione.



Geometria di taglio speciale

L'ampia scanalatura è progettata appositamente per la lavorazione delle leghe di alluminio.

(Sezione trasversale del taglio medio)



Geometria di taglio

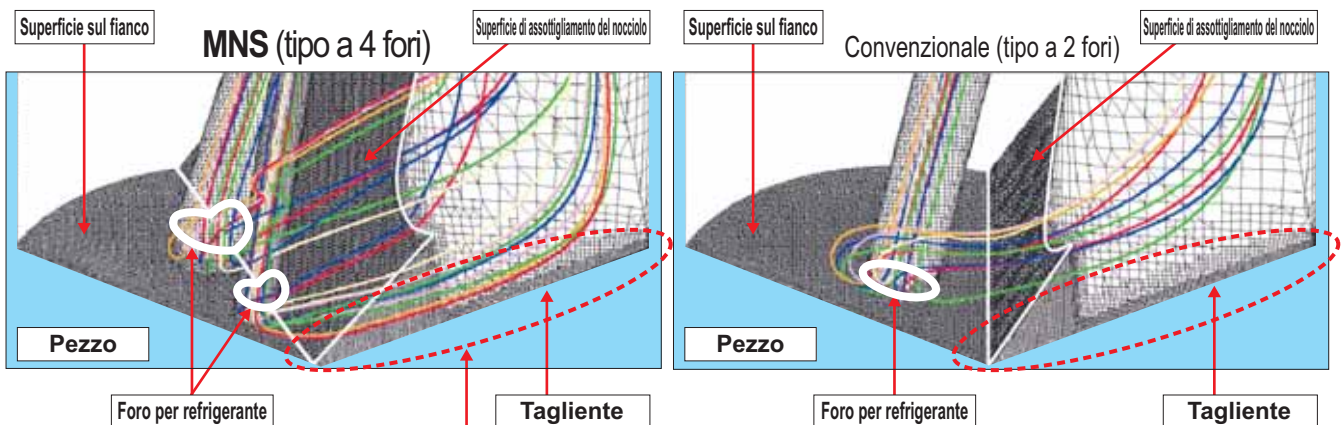
Ampia scanalatura per impedire l'intasamento del truciolo.

PAT. in sospenso

Tasca di assottigliamento del nocciolo

L'ampia tasca di assottigliamento consente un'evacuazione più semplice dei trucioli e previene l'incollamento sul tagliente.

La simulazione del flusso computerizzata è stata utilizzata per determinare la migliore posizione dei fori per il passaggio dei refrigeranti



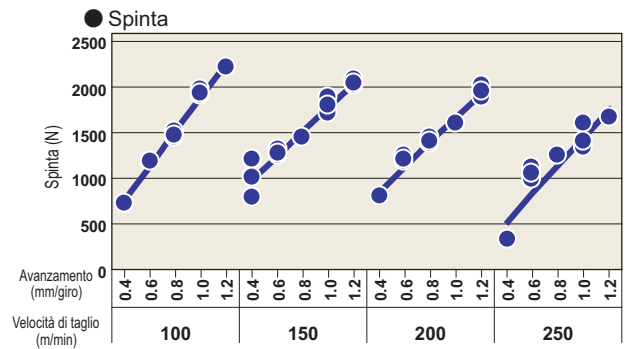
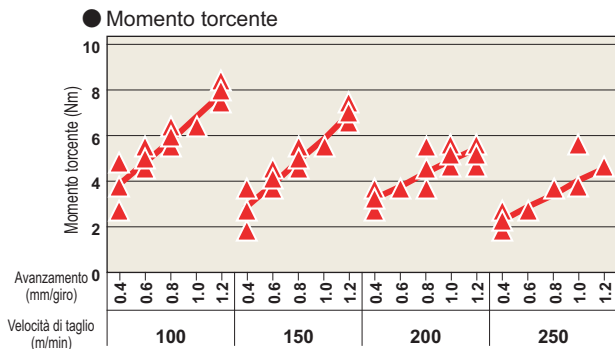
Lubrificazione efficace nel centro del tagliente e della superficie di spoglia che solitamente sono esposti ad incollamento

Prestazioni di taglio

Foratura stabile con elevato avanzamento 1.0mm/giro

<Parametri di taglio>

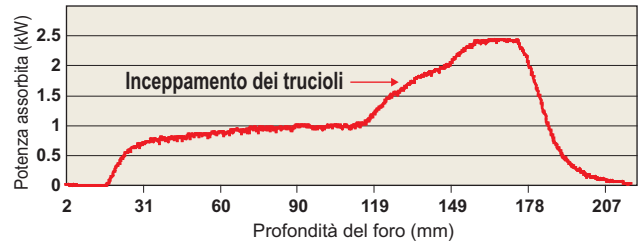
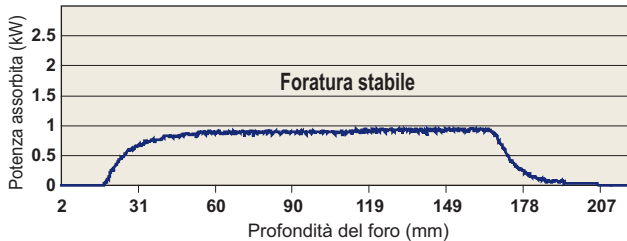
Pezzo da lavorare : Lega di alluminio Punta : MNS0600LB (L/D=5) Refrigerante : W.S.O.
 Macchina : Centro di lavorazione Profondità del foro : 30mm (L/D=5) Pressione di emissione : 3MPa (refrigerante interno)



Adatta per un avanzamento costante della foratura per fori fino a 30xD

<Parametri di taglio>

Pezzo da lavorare: Lega di alluminio Profondità del foro : 180mm (L/D=29) Velocità di taglio : 100m/min Pressione di emissione : 0.5 MPa (refrigerante interno)
 Macchina : Centro di lavorazione Punta pilota : MAS0600MB Avanzamento per numero di giri : 0.4mm/giro
 Punta : Foro da ø6.0, L/D 30 Profondità del foro pilota : 18mm Refrigerante : Semi lavorazione a secco (M.Q.L.)

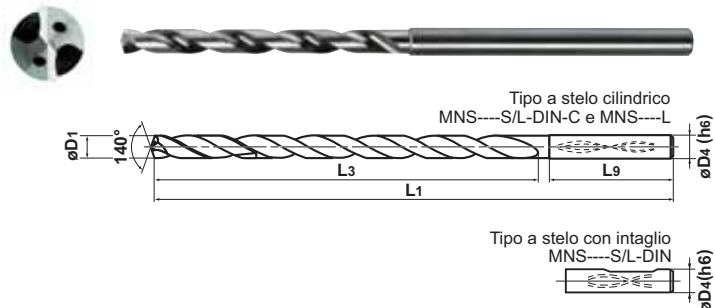


Prestazioni stabili di foratura profonda su materiali ad elevata trazione difficili da lavorare (A6082)

<Parametri di taglio>

Pezzo da lavorare: Lega di alluminio Profondità del foro : 100mm (L/D=18) Refrigerante : W.S.O.
 Macchina : Centro di lavorazione Punta pilota : MAS0550MB Pressione di emissione : 1MPa (refrigerante interno)
 Punta : MNS0550X20DB (L/D=20) Profondità del foro pilota : 15mm

| | Velocità di taglio: 100m/min Avanzamento: 0.25mm/giro | Velocità di taglio: 100m/min Avanzamento: 0.50mm/giro | Velocità di taglio: 200m/min Avanzamento: 0.25mm/giro |
|----------------------|---|---|---|
| Potenza assorbita | | | |
| Rottura dei trucioli | | | |



■ Tipo MNS○○○○S/L-DIN, MNS○○○○S/L-DIN-C

| | | | | |
|------------|------------------|------------------|------------------|------------------|
| D1 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | +0.016 +0.004 | +0.021 +0.006 | +0.025 +0.007 | +0.029 +0.008 |

■ Tipo MNS○○○○-LOC, MNS○○○○-L○○C

| | | | | | |
|------------|-------------|-------------|-------------|--------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |

Nota 1: Le punte con diametro da 4.5 o inferiore sono dotate di 2 fori per il passaggio dei refrigeranti.

Nota 2: Le punte MNS possono essere usate con mandrini a calettamento termico.

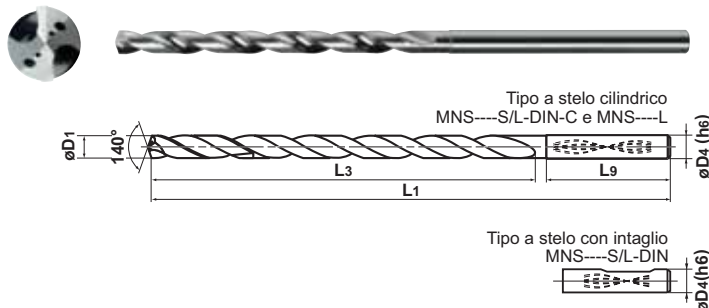
| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 3.0 | 3 | Int. | □ | MNS0300S-DIN | 62 | 20 | 36 | 6 |
| | 3 | Int. | □ | 0300S-DIN-C | 62 | 20 | 36 | 6 |
| | 5 | Int. | □ | 0300L-DIN | 66 | 28 | 36 | 6 |
| | 5 | Int. | ● | 0300L-DIN-C | 66 | 28 | 36 | 6 |
| | 8 | Int. | □ | 0300-L8C | 74 | 34 | 36 | 6 |
| | 10 | Int. | □ | 0300-L10C | 80 | 40 | 36 | 6 |
| | 12 | Int. | ● | 0300-L12C | 86 | 46 | 36 | 6 |
| | 15 | Int. | □ | 0300-L15C | 95 | 55 | 36 | 6 |
| | 20 | Int. | ● | 0300-L20C | 110 | 70 | 36 | 6 |
| | 25 | Int. | □ | 0300-L25C | 125 | 85 | 36 | 6 |
| 30 | Int. | ● | 0300-L30C | 140 | 100 | 36 | 6 | |
| 3.1 | 3 | Int. | □ | 0310S-DIN | 62 | 20 | 36 | 6 |
| | 3 | Int. | □ | 0310S-DIN-C | 62 | 20 | 36 | 6 |
| | 5 | Int. | □ | 0310L-DIN | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0310L-DIN-C | 66 | 28 | 36 | 6 |
| | 8 | Int. | □ | 0310-L8C | 80 | 40 | 36 | 6 |
| | 10 | Int. | □ | 0310-L10C | 87 | 47 | 36 | 6 |
| | 12 | Int. | □ | 0310-L12C | 94 | 54 | 36 | 6 |
| | 15 | Int. | □ | 0310-L15C | 104 | 64 | 36 | 6 |
| | 20 | Int. | □ | 0310-L20C | 122 | 82 | 36 | 6 |
| | 25 | Int. | □ | 0310-L25C | 139 | 99 | 36 | 6 |
| 30 | Int. | □ | 0310-L30C | 157 | 117 | 36 | 6 | |
| 3.2 | 3 | Int. | □ | 0320S-DIN | 62 | 20 | 36 | 6 |
| | 3 | Int. | □ | 0320S-DIN-C | 62 | 20 | 36 | 6 |
| | 5 | Int. | □ | 0320L-DIN | 66 | 28 | 36 | 6 |
| | 5 | Int. | ● | 0320L-DIN-C | 66 | 28 | 36 | 6 |
| | 8 | Int. | □ | 0320-L8C | 80 | 40 | 36 | 6 |
| | 10 | Int. | □ | 0320-L10C | 87 | 47 | 36 | 6 |
| | 12 | Int. | ● | 0320-L12C | 94 | 54 | 36 | 6 |
| | 15 | Int. | □ | 0320-L15C | 104 | 64 | 36 | 6 |
| | 20 | Int. | ● | 0320-L20C | 122 | 82 | 36 | 6 |
| | 25 | Int. | □ | 0320-L25C | 139 | 99 | 36 | 6 |
| 30 | Int. | ● | 0320-L30C | 157 | 117 | 36 | 6 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 3.3 | 3 | Int. | □ | MNS0330S-DIN | 62 | 20 | 36 | 6 |
| | 3 | Int. | □ | 0330S-DIN-C | 62 | 20 | 36 | 6 |
| | 5 | Int. | □ | 0330L-DIN | 66 | 28 | 36 | 6 |
| | 5 | Int. | ● | 0330L-DIN-C | 66 | 28 | 36 | 6 |
| | 8 | Int. | □ | 0330-L8C | 80 | 40 | 36 | 6 |
| | 10 | Int. | □ | 0330-L10C | 87 | 47 | 36 | 6 |
| | 12 | Int. | ● | 0330-L12C | 94 | 54 | 36 | 6 |
| | 15 | Int. | □ | 0330-L15C | 104 | 64 | 36 | 6 |
| | 20 | Int. | ● | 0330-L20C | 122 | 82 | 36 | 6 |
| | 25 | Int. | □ | 0330-L25C | 139 | 99 | 36 | 6 |
| 30 | Int. | ● | 0330-L30C | 157 | 117 | 36 | 6 | |
| 3.4 | 3 | Int. | □ | 0340S-DIN | 62 | 20 | 36 | 6 |
| | 3 | Int. | □ | 0340S-DIN-C | 62 | 20 | 36 | 6 |
| | 5 | Int. | □ | 0340L-DIN | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0340L-DIN-C | 66 | 28 | 36 | 6 |
| | 8 | Int. | □ | 0340-L8C | 80 | 40 | 36 | 6 |
| | 10 | Int. | □ | 0340-L10C | 87 | 47 | 36 | 6 |
| | 12 | Int. | □ | 0340-L12C | 94 | 54 | 36 | 6 |
| | 15 | Int. | □ | 0340-L15C | 104 | 64 | 36 | 6 |
| | 20 | Int. | □ | 0340-L20C | 122 | 82 | 36 | 6 |
| | 25 | Int. | □ | 0340-L25C | 139 | 99 | 36 | 6 |
| 30 | Int. | □ | 0340-L30C | 157 | 117 | 36 | 6 | |
| 3.5 | 3 | Int. | □ | 0350S-DIN | 62 | 20 | 36 | 6 |
| | 3 | Int. | □ | 0350S-DIN-C | 62 | 20 | 36 | 6 |
| | 5 | Int. | □ | 0350L-DIN | 66 | 28 | 36 | 6 |
| | 5 | Int. | ● | 0350L-DIN-C | 66 | 28 | 36 | 6 |
| | 8 | Int. | □ | 0350-L8C | 80 | 40 | 36 | 6 |
| | 10 | Int. | □ | 0350-L10C | 87 | 47 | 36 | 6 |
| | 12 | Int. | ● | 0350-L12C | 94 | 54 | 36 | 6 |
| | 15 | Int. | □ | 0350-L15C | 104 | 64 | 36 | 6 |
| | 20 | Int. | ● | 0350-L20C | 122 | 82 | 36 | 6 |
| | 25 | Int. | □ | 0350-L25C | 139 | 99 | 36 | 6 |
| 30 | Int. | ● | 0350-L30C | 157 | 117 | 36 | 6 | |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 3.6 | 3 | Int. | □ | MNS0360S-DIN | 62 | 20 | 36 | 6 |
| | 3 | Int. | □ | 0360S-DIN-C | 62 | 20 | 36 | 6 |
| | 5 | Int. | □ | 0360L-DIN | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0360L-DIN-C | 66 | 28 | 36 | 6 |
| | 8 | Int. | □ | 0360-L8C | 85 | 45 | 36 | 6 |
| | 10 | Int. | □ | 0360-L10C | 93 | 53 | 36 | 6 |
| | 12 | Int. | □ | 0360-L12C | 101 | 61 | 36 | 6 |
| | 15 | Int. | □ | 0360-L15C | 113 | 73 | 36 | 6 |
| | 20 | Int. | □ | 0360-L20C | 133 | 93 | 36 | 6 |
| | 25 | Int. | □ | 0360-L25C | 153 | 113 | 36 | 6 |
| 30 | Int. | □ | 0360-L30C | 173 | 133 | 36 | 6 | |
| 3.7 | 3 | Int. | □ | 0370S-DIN | 62 | 20 | 36 | 6 |
| | 3 | Int. | □ | 0370S-DIN-C | 62 | 20 | 36 | 6 |
| | 5 | Int. | □ | 0370L-DIN | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0370L-DIN-C | 66 | 28 | 36 | 6 |
| | 8 | Int. | □ | 0370-L8C | 85 | 45 | 36 | 6 |
| | 10 | Int. | □ | 0370-L10C | 93 | 53 | 36 | 6 |
| | 12 | Int. | □ | 0370-L12C | 101 | 61 | 36 | 6 |
| | 15 | Int. | □ | 0370-L15C | 113 | 73 | 36 | 6 |
| | 20 | Int. | □ | 0370-L20C | 133 | 93 | 36 | 6 |
| | 25 | Int. | □ | 0370-L25C | 153 | 113 | 36 | 6 |
| 30 | Int. | □ | 0370-L30C | 173 | 133 | 36 | 6 | |
| 3.8 | 3 | Int. | □ | 0380S-DIN | 66 | 24 | 36 | 6 |
| | 3 | Int. | □ | 0380S-DIN-C | 66 | 24 | 36 | 6 |
| | 5 | Int. | □ | 0380L-DIN | 74 | 36 | 36 | 6 |
| | 5 | Int. | □ | 0380L-DIN-C | 74 | 36 | 36 | 6 |
| | 8 | Int. | □ | 0380-L8C | 85 | 45 | 36 | 6 |
| | 10 | Int. | □ | 0380-L10C | 93 | 53 | 36 | 6 |
| | 12 | Int. | □ | 0380-L12C | 101 | 61 | 36 | 6 |
| | 15 | Int. | □ | 0380-L15C | 113 | 73 | 36 | 6 |
| | 20 | Int. | □ | 0380-L20C | 133 | 93 | 36 | 6 |
| | 25 | Int. | □ | 0380-L25C | 153 | 113 | 36 | 6 |
| 30 | Int. | □ | 0380-L30C | 173 | 133 | 36 | 6 | |
| 3.9 | 3 | Int. | □ | 0390S-DIN | 66 | 24 | 36 | 6 |
| | 3 | Int. | □ | 0390S-DIN-C | 66 | 24 | 36 | 6 |
| | 5 | Int. | □ | 0390L-DIN | 74 | 36 | 36 | 6 |
| | 5 | Int. | □ | 0390L-DIN-C | 74 | 36 | 36 | 6 |
| | 8 | Int. | □ | 0390-L8C | 85 | 45 | 36 | 6 |
| | 10 | Int. | □ | 0390-L10C | 93 | 53 | 36 | 6 |
| | 12 | Int. | □ | 0390-L12C | 101 | 61 | 36 | 6 |
| | 15 | Int. | □ | 0390-L15C | 113 | 73 | 36 | 6 |
| | 20 | Int. | □ | 0390-L20C | 133 | 93 | 36 | 6 |
| | 25 | Int. | □ | 0390-L25C | 153 | 113 | 36 | 6 |
| 30 | Int. | □ | 0390-L30C | 173 | 133 | 36 | 6 | |
| 4.0 | 3 | Int. | □ | 0400S-DIN | 66 | 24 | 36 | 6 |
| | 3 | Int. | □ | 0400S-DIN-C | 66 | 24 | 36 | 6 |
| | 5 | Int. | □ | 0400L-DIN | 74 | 36 | 36 | 6 |
| | 5 | Int. | ● | 0400L-DIN-C | 74 | 36 | 36 | 6 |
| | 8 | Int. | □ | 0400-L8C | 85 | 45 | 36 | 6 |
| | 10 | Int. | □ | 0400-L10C | 93 | 53 | 36 | 6 |
| | 12 | Int. | ● | 0400-L12C | 101 | 61 | 36 | 6 |
| | 15 | Int. | □ | 0400-L15C | 113 | 73 | 36 | 6 |
| | 20 | Int. | ● | 0400-L20C | 133 | 93 | 36 | 6 |
| | 25 | Int. | □ | 0400-L25C | 153 | 113 | 36 | 6 |
| 30 | Int. | ● | 0400-L30C | 173 | 133 | 36 | 6 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 4.1 | 3 | Int. | □ | MNS0410S-DIN | 66 | 24 | 36 | 6 |
| | 3 | Int. | □ | 0410S-DIN-C | 66 | 24 | 36 | 6 |
| | 5 | Int. | □ | 0410L-DIN | 74 | 36 | 36 | 6 |
| | 5 | Int. | □ | 0410L-DIN-C | 74 | 36 | 36 | 6 |
| | 8 | Int. | □ | 0410-L8C | 91 | 51 | 36 | 6 |
| | 10 | Int. | □ | 0410-L10C | 100 | 60 | 36 | 6 |
| | 12 | Int. | □ | 0410-L12C | 109 | 69 | 36 | 6 |
| | 15 | Int. | □ | 0410-L15C | 122 | 82 | 36 | 6 |
| | 20 | Int. | □ | 0410-L20C | 145 | 105 | 36 | 6 |
| | 25 | Int. | □ | 0410-L25C | 167 | 127 | 36 | 6 |
| 30 | Int. | □ | 0410-L30C | 190 | 150 | 36 | 6 | |
| 4.2 | 3 | Int. | □ | 0420S-DIN | 66 | 24 | 36 | 6 |
| | 3 | Int. | □ | 0420S-DIN-C | 66 | 24 | 36 | 6 |
| | 5 | Int. | □ | 0420L-DIN | 74 | 36 | 36 | 6 |
| | 5 | Int. | ● | 0420L-DIN-C | 74 | 36 | 36 | 6 |
| | 8 | Int. | □ | 0420-L8C | 91 | 51 | 36 | 6 |
| | 10 | Int. | □ | 0420-L10C | 100 | 60 | 36 | 6 |
| | 12 | Int. | ● | 0420-L12C | 109 | 69 | 36 | 6 |
| | 15 | Int. | □ | 0420-L15C | 122 | 82 | 36 | 6 |
| | 20 | Int. | ● | 0420-L20C | 145 | 105 | 36 | 6 |
| | 25 | Int. | □ | 0420-L25C | 167 | 127 | 36 | 6 |
| 30 | Int. | ● | 0420-L30C | 190 | 150 | 36 | 6 | |
| 4.3 | 3 | Int. | □ | 0430S-DIN | 66 | 24 | 36 | 6 |
| | 3 | Int. | □ | 0430S-DIN-C | 66 | 24 | 36 | 6 |
| | 5 | Int. | □ | 0430L-DIN | 74 | 36 | 36 | 6 |
| | 5 | Int. | □ | 0430L-DIN-C | 74 | 36 | 36 | 6 |
| | 8 | Int. | □ | 0430-L8C | 91 | 51 | 36 | 6 |
| | 10 | Int. | □ | 0430-L10C | 100 | 60 | 36 | 6 |
| | 12 | Int. | □ | 0430-L12C | 109 | 69 | 36 | 6 |
| | 15 | Int. | □ | 0430-L15C | 122 | 82 | 36 | 6 |
| | 20 | Int. | □ | 0430-L20C | 145 | 105 | 36 | 6 |
| | 25 | Int. | □ | 0430-L25C | 167 | 127 | 36 | 6 |
| 30 | Int. | □ | 0430-L30C | 190 | 150 | 36 | 6 | |
| 4.4 | 3 | Int. | □ | 0440S-DIN | 66 | 24 | 36 | 6 |
| | 3 | Int. | □ | 0440S-DIN-C | 66 | 24 | 36 | 6 |
| | 5 | Int. | □ | 0440L-DIN | 74 | 36 | 36 | 6 |
| | 5 | Int. | □ | 0440L-DIN-C | 74 | 36 | 36 | 6 |
| | 8 | Int. | □ | 0440-L8C | 91 | 51 | 36 | 6 |
| | 10 | Int. | □ | 0440-L10C | 100 | 60 | 36 | 6 |
| | 12 | Int. | □ | 0440-L12C | 109 | 69 | 36 | 6 |
| | 15 | Int. | □ | 0440-L15C | 122 | 82 | 36 | 6 |
| | 20 | Int. | □ | 0440-L20C | 145 | 105 | 36 | 6 |
| | 25 | Int. | □ | 0440-L25C | 167 | 127 | 36 | 6 |
| 30 | Int. | □ | 0440-L30C | 190 | 150 | 36 | 6 | |
| 4.5 | 3 | Int. | □ | 0450S-DIN | 66 | 24 | 36 | 6 |
| | 3 | Int. | □ | 0450S-DIN-C | 66 | 24 | 36 | 6 |
| | 5 | Int. | □ | 0450L-DIN | 74 | 36 | 36 | 6 |
| | 5 | Int. | □ | 0450L-DIN-C | 74 | 36 | 36 | 6 |
| | 8 | Int. | □ | 0450-L8C | 91 | 51 | 36 | 6 |
| | 10 | Int. | □ | 0450-L10C | 100 | 60 | 36 | 6 |
| | 12 | Int. | □ | 0450-L12C | 109 | 69 | 36 | 6 |
| | 15 | Int. | □ | 0450-L15C | 122 | 82 | 36 | 6 |
| | 20 | Int. | □ | 0450-L20C | 145 | 105 | 36 | 6 |
| | 25 | Int. | □ | 0450-L25C | 167 | 127 | 36 | 6 |
| 30 | Int. | □ | 0450-L30C | 190 | 150 | 36 | 6 | |



■ Tipo MNS○○○○S/L-DIN, MNS○○○○S/L-DIN-C

| | | | | |
|------------|------------------|------------------|------------------|------------------|
| D1 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | +0.016 +0.004 | +0.021 +0.006 | +0.025 +0.007 | +0.029 +0.008 |

■ Tipo MNS○○○○-LOC, MNS○○○○-L○○C

| | | | | | |
|------------|-------------|-------------|-------------|--------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

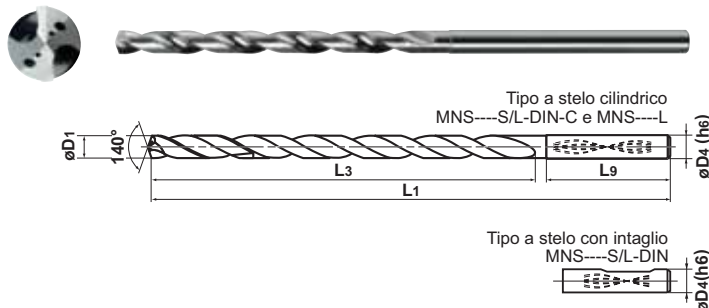
| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|---|
| | | | | | L1 | L3 | L9 | D4 | |
| 4.6 | 3 | Int. | □ | MNS0460S-DIN | 66 | 24 | 36 | 6 | |
| | 3 | Int. | □ | 0460S-DIN-C | 66 | 24 | 36 | 6 | |
| | 5 | Int. | □ | 0460L-DIN | 74 | 36 | 36 | 6 | |
| | 5 | Int. | □ | 0460L-DIN-C | 74 | 36 | 36 | 6 | |
| | 8 | Int. | □ | 0460-L8C | 96 | 55 | 36 | 6 | |
| | 10 | Int. | □ | 0460-L10C | 106 | 66 | 36 | 6 | |
| | 12 | Int. | □ | 0460-L12C | 116 | 76 | 36 | 6 | |
| | 15 | Int. | □ | 0460-L15C | 131 | 91 | 36 | 6 | |
| | 20 | Int. | □ | 0460-L20C | 156 | 116 | 36 | 6 | |
| 4.65 | 3 | Int. | □ | 0465S-DIN | 66 | 24 | 36 | 6 | |
| | 3 | Int. | □ | 0465S-DIN-C | 66 | 24 | 36 | 6 | |
| | 5 | Int. | □ | 0465L-DIN | 74 | 36 | 36 | 6 | |
| | 5 | Int. | □ | 0465L-DIN-C | 74 | 36 | 36 | 6 | |
| | 4.7 | 3 | Int. | □ | 0470S-DIN | 66 | 24 | 36 | 6 |
| | | 3 | Int. | □ | 0470S-DIN-C | 66 | 24 | 36 | 6 |
| | | 5 | Int. | □ | 0470L-DIN | 74 | 36 | 36 | 6 |
| | | 5 | Int. | □ | 0470L-DIN-C | 74 | 36 | 36 | 6 |
| | | 8 | Int. | □ | 0470-L8C | 96 | 55 | 36 | 6 |
| 10 | | Int. | □ | 0470-L10C | 106 | 66 | 36 | 6 | |
| 12 | | Int. | □ | 0470-L12C | 116 | 76 | 36 | 6 | |
| 15 | | Int. | □ | 0470-L15C | 131 | 91 | 36 | 6 | |
| 20 | | Int. | □ | 0470-L20C | 156 | 116 | 36 | 6 | |
| 4.8 | 3 | Int. | □ | 0480S-DIN | 66 | 28 | 36 | 6 | |
| | 3 | Int. | □ | 0480S-DIN-C | 66 | 28 | 36 | 6 | |
| | 5 | Int. | □ | 0480L-DIN | 82 | 44 | 36 | 6 | |
| | 5 | Int. | □ | 0480L-DIN-C | 82 | 44 | 36 | 6 | |
| | 8 | Int. | □ | 0480-L8C | 96 | 55 | 36 | 6 | |
| | 10 | Int. | □ | 0480-L10C | 106 | 66 | 36 | 6 | |
| | 12 | Int. | □ | 0480-L12C | 116 | 76 | 36 | 6 | |
| | 15 | Int. | □ | 0480-L15C | 131 | 91 | 36 | 6 | |
| | 20 | Int. | □ | 0480-L20C | 156 | 116 | 36 | 6 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 4.9 | 3 | Int. | □ | MNS0490S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0490S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0490L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | □ | 0490L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0490-L8C | 96 | 55 | 36 | 6 |
| | 10 | Int. | □ | 0490-L10C | 106 | 66 | 36 | 6 |
| | 12 | Int. | □ | 0490-L12C | 116 | 76 | 36 | 6 |
| | 15 | Int. | □ | 0490-L15C | 131 | 91 | 36 | 6 |
| | 20 | Int. | □ | 0490-L20C | 156 | 116 | 36 | 6 |
| 5.0 | 3 | Int. | □ | 0500S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0500S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0500L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | ● | 0500L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0500-L8C | 96 | 55 | 36 | 6 |
| | 10 | Int. | □ | 0500-L10C | 106 | 66 | 36 | 6 |
| | 12 | Int. | ● | 0500-L12C | 116 | 76 | 36 | 6 |
| | 15 | Int. | □ | 0500-L15C | 131 | 91 | 36 | 6 |
| | 20 | Int. | ● | 0500-L20C | 156 | 116 | 36 | 6 |
| 5.1 | 3 | Int. | □ | 0510S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0510S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0510L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | ● | 0510L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0510-L8C | 102 | 62 | 36 | 6 |
| | 10 | Int. | □ | 0510-L10C | 113 | 73 | 36 | 6 |
| | 12 | Int. | □ | 0510-L12C | 124 | 84 | 36 | 6 |
| | 15 | Int. | □ | 0510-L15C | 140 | 100 | 36 | 6 |
| | 20 | Int. | □ | 0510-L20C | 168 | 128 | 36 | 6 |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 5.2 | 3 | Int. | □ | MNS0520S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0520S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0520L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | □ | 0520L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0520-L8C | 102 | 62 | 36 | 6 |
| | 10 | Int. | □ | 0520-L10C | 113 | 73 | 36 | 6 |
| | 12 | Int. | □ | 0520-L12C | 124 | 84 | 36 | 6 |
| | 15 | Int. | □ | 0520-L15C | 140 | 100 | 36 | 6 |
| | 20 | Int. | □ | 0520-L20C | 168 | 128 | 36 | 6 |
| | 25 | Int. | □ | 0520-L25C | 195 | 155 | 36 | 6 |
| 30 | Int. | □ | 0520-L30C | 223 | 183 | 36 | 6 | |
| 5.3 | 3 | Int. | □ | 0530S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0530S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0530L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | □ | 0530L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0530-L8C | 102 | 62 | 36 | 6 |
| | 10 | Int. | □ | 0530-L10C | 113 | 73 | 36 | 6 |
| | 12 | Int. | □ | 0530-L12C | 124 | 84 | 36 | 6 |
| | 15 | Int. | □ | 0530-L15C | 140 | 100 | 36 | 6 |
| | 20 | Int. | □ | 0530-L20C | 168 | 128 | 36 | 6 |
| | 25 | Int. | □ | 0530-L25C | 195 | 155 | 36 | 6 |
| 30 | Int. | □ | 0530-L30C | 223 | 183 | 36 | 6 | |
| 5.4 | 3 | Int. | □ | 0540S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0540S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0540L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | □ | 0540L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0540-L8C | 102 | 62 | 36 | 6 |
| | 10 | Int. | □ | 0540-L10C | 113 | 73 | 36 | 6 |
| | 12 | Int. | □ | 0540-L12C | 124 | 84 | 36 | 6 |
| | 15 | Int. | □ | 0540-L15C | 140 | 100 | 36 | 6 |
| | 20 | Int. | □ | 0540-L20C | 168 | 128 | 36 | 6 |
| | 25 | Int. | □ | 0540-L25C | 195 | 155 | 36 | 6 |
| 30 | Int. | □ | 0540-L30C | 223 | 183 | 36 | 6 | |
| 5.5 | 3 | Int. | □ | 0550S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0550S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0550L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | ● | 0550L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0550-L8C | 102 | 62 | 36 | 6 |
| | 10 | Int. | □ | 0550-L10C | 113 | 73 | 36 | 6 |
| | 12 | Int. | ● | 0550-L12C | 124 | 84 | 36 | 6 |
| | 15 | Int. | □ | 0550-L15C | 140 | 100 | 36 | 6 |
| | 20 | Int. | ● | 0550-L20C | 168 | 128 | 36 | 6 |
| | 25 | Int. | □ | 0550-L25C | 195 | 155 | 36 | 6 |
| 30 | Int. | ● | 0550-L30C | 223 | 183 | 36 | 6 | |
| 5.55 | 3 | Int. | □ | 0555S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0555S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0555L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | ● | 0555L-DIN-C | 82 | 44 | 36 | 6 |
| 5.6 | 3 | Int. | □ | 0560S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0560S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0560L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | □ | 0560L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0560-L8C | 107 | 67 | 36 | 6 |
| | 10 | Int. | □ | 0560-L10C | 119 | 79 | 36 | 6 |
| | 12 | Int. | □ | 0560-L12C | 131 | 91 | 36 | 6 |
| | 15 | Int. | □ | 0560-L15C | 149 | 109 | 36 | 6 |
| | 20 | Int. | □ | 0560-L20C | 179 | 139 | 36 | 6 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 5.6 | 25 | Int. | □ | MNS0560-L25C | 209 | 169 | 36 | 6 |
| | 30 | Int. | □ | 0560-L30C | 239 | 199 | 36 | 6 |
| 5.7 | 3 | Int. | □ | 0570S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0570S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0570L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | □ | 0570L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0570-L8C | 107 | 67 | 36 | 6 |
| | 10 | Int. | □ | 0570-L10C | 119 | 79 | 36 | 6 |
| | 12 | Int. | □ | 0570-L12C | 131 | 91 | 36 | 6 |
| | 15 | Int. | □ | 0570-L15C | 149 | 109 | 36 | 6 |
| | 20 | Int. | □ | 0570-L20C | 179 | 139 | 36 | 6 |
| | 25 | Int. | □ | 0570-L25C | 209 | 169 | 36 | 6 |
| 30 | Int. | □ | 0570-L30C | 239 | 199 | 36 | 6 | |
| 5.8 | 3 | Int. | □ | 0580S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0580S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0580L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | □ | 0580L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0580-L8C | 107 | 67 | 36 | 6 |
| | 10 | Int. | □ | 0580-L10C | 119 | 79 | 36 | 6 |
| | 12 | Int. | □ | 0580-L12C | 131 | 91 | 36 | 6 |
| | 15 | Int. | □ | 0580-L15C | 149 | 109 | 36 | 6 |
| | 20 | Int. | □ | 0580-L20C | 179 | 139 | 36 | 6 |
| | 25 | Int. | □ | 0580-L25C | 209 | 169 | 36 | 6 |
| 30 | Int. | □ | 0580-L30C | 239 | 199 | 36 | 6 | |
| 5.9 | 3 | Int. | □ | 0590S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0590S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0590L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | □ | 0590L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0590-L8C | 107 | 67 | 36 | 6 |
| | 10 | Int. | □ | 0590-L10C | 119 | 79 | 36 | 6 |
| | 12 | Int. | □ | 0590-L12C | 131 | 91 | 36 | 6 |
| | 15 | Int. | □ | 0590-L15C | 149 | 109 | 36 | 6 |
| | 20 | Int. | □ | 0590-L20C | 179 | 139 | 36 | 6 |
| | 25 | Int. | □ | 0590-L25C | 209 | 169 | 36 | 6 |
| 30 | Int. | □ | 0590-L30C | 239 | 199 | 36 | 6 | |
| 6.0 | 3 | Int. | □ | 0600S-DIN | 66 | 28 | 36 | 6 |
| | 3 | Int. | □ | 0600S-DIN-C | 66 | 28 | 36 | 6 |
| | 5 | Int. | □ | 0600L-DIN | 82 | 44 | 36 | 6 |
| | 5 | Int. | ● | 0600L-DIN-C | 82 | 44 | 36 | 6 |
| | 8 | Int. | □ | 0600-L8C | 107 | 67 | 36 | 6 |
| | 10 | Int. | □ | 0600-L10C | 119 | 79 | 36 | 6 |
| | 12 | Int. | ● | 0600-L12C | 131 | 91 | 36 | 6 |
| | 15 | Int. | □ | 0600-L15C | 149 | 109 | 36 | 6 |
| | 20 | Int. | ● | 0600-L20C | 179 | 139 | 36 | 6 |
| | 25 | Int. | □ | 0600-L25C | 209 | 169 | 36 | 6 |
| 30 | Int. | ● | 0600-L30C | 239 | 199 | 36 | 6 | |
| 6.1 | 3 | Int. | □ | 0610S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0610S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0610L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0610L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0610-L8C | 113 | 73 | 36 | 8 |
| | 10 | Int. | □ | 0610-L10C | 126 | 86 | 36 | 8 |
| | 12 | Int. | □ | 0610-L12C | 139 | 99 | 36 | 8 |
| | 15 | Int. | □ | 0610-L15C | 158 | 118 | 36 | 8 |
| | 20 | Int. | □ | 0610-L20C | 191 | 151 | 36 | 8 |
| | 25 | Int. | □ | 0610-L25C | 223 | 183 | 36 | 8 |
| 30 | Int. | □ | 0610-L30C | 256 | 216 | 36 | 8 | |



■ Tipo MNS○○○○S/L-DIN, MNS○○○○S/L-DIN-C

| | | | | |
|------------|------------------|------------------|------------------|------------------|
| D1 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | +0.016 +0.004 | +0.021 +0.006 | +0.025 +0.007 | +0.029 +0.008 |

■ Tipo MNS○○○○L-LOC, MNS○○○○L-LOC

| | | | | | |
|------------|-------------|-------------|-------------|--------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

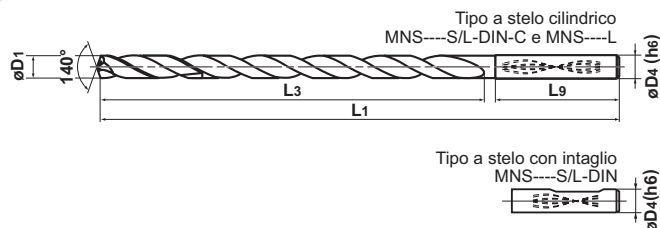
| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 6.2 | 3 | Int. | □ | MNS0620S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0620S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0620L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0620L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0620-L8C | 113 | 73 | 36 | 8 |
| | 10 | Int. | □ | 0620-L10C | 126 | 86 | 36 | 8 |
| | 12 | Int. | □ | 0620-L12C | 139 | 99 | 36 | 8 |
| | 15 | Int. | □ | 0620-L15C | 158 | 118 | 36 | 8 |
| | 20 | Int. | □ | 0620-L20C | 191 | 151 | 36 | 8 |
| | 25 | Int. | □ | 0620-L25C | 223 | 183 | 36 | 8 |
| 30 | Int. | □ | 0620-L30C | 256 | 216 | 36 | 8 | |
| 6.3 | 3 | Int. | □ | 0630S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0630S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0630L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0630L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0630-L8C | 113 | 73 | 36 | 8 |
| | 10 | Int. | □ | 0630-L10C | 126 | 86 | 36 | 8 |
| | 12 | Int. | □ | 0630-L12C | 139 | 99 | 36 | 8 |
| | 15 | Int. | □ | 0630-L15C | 158 | 118 | 36 | 8 |
| | 20 | Int. | □ | 0630-L20C | 191 | 151 | 36 | 8 |
| | 25 | Int. | □ | 0630-L25C | 223 | 183 | 36 | 8 |
| 30 | Int. | □ | 0630-L30C | 256 | 216 | 36 | 8 | |
| 6.4 | 3 | Int. | □ | 0640S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0640S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0640L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0640L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0640-L8C | 113 | 73 | 36 | 8 |
| | 10 | Int. | □ | 0640-L10C | 126 | 86 | 36 | 8 |
| | 12 | Int. | □ | 0640-L12C | 139 | 99 | 36 | 8 |
| | 15 | Int. | □ | 0640-L15C | 158 | 118 | 36 | 8 |
| | 20 | Int. | □ | 0640-L20C | 191 | 151 | 36 | 8 |
| | 25 | Int. | □ | 0640-L25C | 223 | 183 | 36 | 8 |
| 30 | Int. | □ | 0640-L30C | 256 | 216 | 36 | 8 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 6.5 | 3 | Int. | □ | MNS0650S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0650S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0650L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | ● | 0650L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0650-L8C | 113 | 73 | 36 | 8 |
| | 10 | Int. | □ | 0650-L10C | 126 | 86 | 36 | 8 |
| | 12 | Int. | ● | 0650-L12C | 139 | 99 | 36 | 8 |
| | 15 | Int. | □ | 0650-L15C | 158 | 118 | 36 | 8 |
| | 20 | Int. | ● | 0650-L20C | 191 | 151 | 36 | 8 |
| | 25 | Int. | □ | 0650-L25C | 223 | 183 | 36 | 8 |
| 30 | Int. | ● | 0650-L30C | 256 | 216 | 36 | 8 | |
| 6.6 | 3 | Int. | □ | 0660S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0660S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0660L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0660L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0660-L8C | 118 | 78 | 36 | 8 |
| | 10 | Int. | □ | 0660-L10C | 132 | 92 | 36 | 8 |
| | 12 | Int. | □ | 0660-L12C | 146 | 106 | 36 | 8 |
| | 15 | Int. | □ | 0660-L15C | 167 | 127 | 36 | 8 |
| | 20 | Int. | □ | 0660-L20C | 202 | 162 | 36 | 8 |
| | 25 | Int. | □ | 0660-L25C | 237 | 197 | 36 | 8 |
| 30 | Int. | □ | 0660-L30C | 272 | 232 | 36 | 8 | |
| 6.7 | 3 | Int. | □ | 0670S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0670S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0670L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0670L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0670-L8C | 118 | 78 | 36 | 8 |
| | 10 | Int. | □ | 0670-L10C | 132 | 92 | 36 | 8 |
| | 12 | Int. | □ | 0670-L12C | 146 | 106 | 36 | 8 |
| | 15 | Int. | □ | 0670-L15C | 167 | 127 | 36 | 8 |
| | 20 | Int. | □ | 0670-L20C | 202 | 162 | 36 | 8 |
| | 25 | Int. | □ | 0670-L25C | 237 | 197 | 36 | 8 |
| 30 | Int. | □ | 0670-L30C | 272 | 232 | 36 | 8 | |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 6.8 | 3 | Int. | □ | MNS0680S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0680S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0680L-DIN | 79 | 34 | 36 | 8 |
| | 5 | Int. | ● | 0680L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0680-L8C | 118 | 78 | 36 | 8 |
| | 10 | Int. | □ | 0680-L10C | 132 | 92 | 36 | 8 |
| | 12 | Int. | ● | 0680-L12C | 146 | 106 | 36 | 8 |
| | 15 | Int. | □ | 0680-L15C | 167 | 127 | 36 | 8 |
| | 20 | Int. | ● | 0680-L20C | 202 | 162 | 36 | 8 |
| | 25 | Int. | □ | 0680-L25C | 237 | 197 | 36 | 8 |
| 30 | Int. | ● | 0680-L30C | 272 | 232 | 36 | 8 | |
| 6.9 | 3 | Int. | □ | 0690S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0690S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0690L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0690L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0690-L8C | 118 | 78 | 36 | 8 |
| | 10 | Int. | □ | 0690-L10C | 132 | 92 | 36 | 8 |
| | 12 | Int. | □ | 0690-L12C | 146 | 106 | 36 | 8 |
| | 15 | Int. | □ | 0690-L15C | 167 | 127 | 36 | 8 |
| | 20 | Int. | □ | 0690-L20C | 202 | 162 | 36 | 8 |
| | 25 | Int. | □ | 0690-L25C | 237 | 197 | 36 | 8 |
| 30 | Int. | □ | 0690-L30C | 272 | 232 | 36 | 8 | |
| 7.0 | 3 | Int. | □ | 0700S-DIN | 79 | 34 | 36 | 8 |
| | 3 | Int. | □ | 0700S-DIN-C | 79 | 34 | 36 | 8 |
| | 5 | Int. | □ | 0700L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | ● | 0700L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0700-L8C | 118 | 78 | 36 | 8 |
| | 10 | Int. | □ | 0700-L10C | 132 | 92 | 36 | 8 |
| | 12 | Int. | ● | 0700-L12C | 146 | 106 | 36 | 8 |
| | 15 | Int. | □ | 0700-L15C | 167 | 127 | 36 | 8 |
| | 20 | Int. | ● | 0700-L20C | 202 | 162 | 36 | 8 |
| | 25 | Int. | □ | 0700-L25C | 237 | 197 | 36 | 8 |
| 30 | Int. | ● | 0700-L30C | 272 | 232 | 36 | 8 | |
| 7.1 | 3 | Int. | □ | 0710S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0710S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0710L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0710L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0710-L8C | 124 | 84 | 36 | 8 |
| | 10 | Int. | □ | 0710-L10C | 139 | 99 | 36 | 8 |
| | 12 | Int. | □ | 0710-L12C | 154 | 114 | 36 | 8 |
| | 15 | Int. | □ | 0710-L15C | 176 | 136 | 36 | 8 |
| | 20 | Int. | □ | 0710-L20C | 214 | 174 | 36 | 8 |
| | 25 | Int. | □ | 0710-L25C | 251 | 211 | 36 | 8 |
| 30 | Int. | □ | 0710-L30C | 289 | 249 | 36 | 8 | |
| 7.2 | 3 | Int. | □ | 0720S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0720S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0720L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0720L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0720-L8C | 124 | 84 | 36 | 8 |
| | 10 | Int. | □ | 0720-L10C | 139 | 99 | 36 | 8 |
| | 12 | Int. | □ | 0720-L12C | 154 | 114 | 36 | 8 |
| | 15 | Int. | □ | 0720-L15C | 176 | 136 | 36 | 8 |
| | 20 | Int. | □ | 0720-L20C | 214 | 174 | 36 | 8 |
| | 25 | Int. | □ | 0720-L25C | 251 | 211 | 36 | 8 |
| 30 | Int. | □ | 0720-L30C | 289 | 249 | 36 | 8 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 7.3 | 3 | Int. | □ | MNS0730S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0730S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0730L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0730L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0730-L8C | 124 | 84 | 36 | 8 |
| | 10 | Int. | □ | 0730-L10C | 139 | 99 | 36 | 8 |
| | 12 | Int. | □ | 0730-L12C | 154 | 114 | 36 | 8 |
| | 15 | Int. | □ | 0730-L15C | 176 | 136 | 36 | 8 |
| | 20 | Int. | □ | 0730-L20C | 214 | 174 | 36 | 8 |
| | 25 | Int. | □ | 0730-L25C | 251 | 211 | 36 | 8 |
| 30 | Int. | □ | 0730-L30C | 289 | 249 | 36 | 8 | |
| 7.4 | 3 | Int. | □ | 0740S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0740S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0740L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0740L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0740-L8C | 124 | 84 | 36 | 8 |
| | 10 | Int. | □ | 0740-L10C | 139 | 99 | 36 | 8 |
| | 12 | Int. | □ | 0740-L12C | 154 | 114 | 36 | 8 |
| | 15 | Int. | □ | 0740-L15C | 176 | 136 | 36 | 8 |
| | 20 | Int. | □ | 0740-L20C | 214 | 174 | 36 | 8 |
| | 25 | Int. | □ | 0740-L25C | 251 | 211 | 36 | 8 |
| 30 | Int. | □ | 0740-L30C | 289 | 249 | 36 | 8 | |
| 7.5 | 3 | Int. | □ | 0750S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0750S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0750L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0750L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0750-L8C | 124 | 84 | 36 | 8 |
| | 10 | Int. | □ | 0750-L10C | 139 | 99 | 36 | 8 |
| | 12 | Int. | □ | 0750-L12C | 154 | 114 | 36 | 8 |
| | 15 | Int. | □ | 0750-L15C | 176 | 136 | 36 | 8 |
| | 20 | Int. | □ | 0750-L20C | 214 | 174 | 36 | 8 |
| | 25 | Int. | □ | 0750-L25C | 251 | 211 | 36 | 8 |
| 30 | Int. | □ | 0750-L30C | 289 | 249 | 36 | 8 | |
| 7.6 | 3 | Int. | □ | 0760S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0760S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0760L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0760L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0760-L8C | 129 | 89 | 36 | 8 |
| | 10 | Int. | □ | 0760-L10C | 145 | 105 | 36 | 8 |
| | 12 | Int. | □ | 0760-L12C | 161 | 121 | 36 | 8 |
| | 15 | Int. | □ | 0760-L15C | 185 | 145 | 36 | 8 |
| | 20 | Int. | □ | 0760-L20C | 225 | 185 | 36 | 8 |
| | 25 | Int. | □ | 0760-L25C | 265 | 225 | 36 | 8 |
| 30 | Int. | □ | 0760-L30C | 305 | 265 | 36 | 8 | |
| 7.7 | 3 | Int. | □ | 0770S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0770S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0770L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0770L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0770-L8C | 129 | 89 | 36 | 8 |
| | 10 | Int. | □ | 0770-L10C | 145 | 105 | 36 | 8 |
| | 12 | Int. | □ | 0770-L12C | 161 | 121 | 36 | 8 |
| | 15 | Int. | □ | 0770-L15C | 185 | 145 | 36 | 8 |
| | 20 | Int. | □ | 0770-L20C | 225 | 185 | 36 | 8 |
| | 25 | Int. | □ | 0770-L25C | 265 | 225 | 36 | 8 |
| 30 | Int. | □ | 0770-L30C | 305 | 265 | 36 | 8 | |



■ Tipo MNS○○○○S/L-DIN, MNS○○○○S/L-DIN-C

| | | | | |
|------------|------------------|------------------|------------------|------------------|
| D1 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | +0.016 +0.004 | +0.021 +0.006 | +0.025 +0.007 | +0.029 +0.008 |

■ Tipo MNS○○○○L-LOC, MNS○○○○L-LOC

| | | | | | |
|------------|-------------|-------------|-------------|--------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

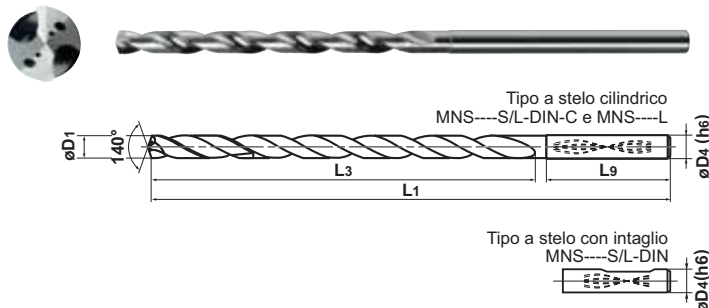
| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 7.8 | 3 | Int. | □ | MNS0780S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0780S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0780L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0780L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0780-L8C | 129 | 89 | 36 | 8 |
| | 10 | Int. | □ | 0780-L10C | 145 | 105 | 36 | 8 |
| | 12 | Int. | □ | 0780-L12C | 161 | 121 | 36 | 8 |
| | 15 | Int. | □ | 0780-L15C | 185 | 145 | 36 | 8 |
| | 20 | Int. | □ | 0780-L20C | 225 | 185 | 36 | 8 |
| 25 | Int. | □ | 0780-L25C | 265 | 225 | 36 | 8 | |
| 30 | Int. | □ | 0780-L30C | 305 | 265 | 36 | 8 | |
| 7.9 | 3 | Int. | □ | 0790S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0790S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0790L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | □ | 0790L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0790-L8C | 129 | 89 | 36 | 8 |
| | 10 | Int. | □ | 0790-L10C | 145 | 105 | 36 | 8 |
| | 12 | Int. | □ | 0790-L12C | 161 | 121 | 36 | 8 |
| | 15 | Int. | □ | 0790-L15C | 185 | 145 | 36 | 8 |
| | 20 | Int. | □ | 0790-L20C | 225 | 185 | 36 | 8 |
| 25 | Int. | □ | 0790-L25C | 265 | 225 | 36 | 8 | |
| 30 | Int. | □ | 0790-L30C | 305 | 265 | 36 | 8 | |
| 8.0 | 3 | Int. | □ | 0800S-DIN | 79 | 41 | 36 | 8 |
| | 3 | Int. | □ | 0800S-DIN-C | 79 | 41 | 36 | 8 |
| | 5 | Int. | □ | 0800L-DIN | 91 | 53 | 36 | 8 |
| | 5 | Int. | ● | 0800L-DIN-C | 91 | 53 | 36 | 8 |
| | 8 | Int. | □ | 0800-L8C | 129 | 89 | 36 | 8 |
| | 10 | Int. | □ | 0800-L10C | 145 | 105 | 36 | 8 |
| | 12 | Int. | ● | 0800-L12C | 161 | 121 | 36 | 8 |
| | 15 | Int. | □ | 0800-L15C | 185 | 145 | 36 | 8 |
| | 20 | Int. | ● | 0800-L20C | 225 | 185 | 36 | 8 |
| 25 | Int. | □ | 0800-L25C | 265 | 225 | 36 | 8 | |
| 30 | Int. | ● | 0800-L30C | 305 | 265 | 36 | 8 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 8.1 | 3 | Int. | □ | MNS0810S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0810S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0810L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | □ | 0810L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0810-L8C | 139 | 95 | 40 | 10 |
| | 10 | Int. | □ | 0810-L10C | 156 | 112 | 40 | 10 |
| | 12 | Int. | □ | 0810-L12C | 173 | 129 | 40 | 10 |
| | 15 | Int. | □ | 0810-L15C | 198 | 154 | 40 | 10 |
| | 20 | Int. | □ | 0810-L20C | 241 | 197 | 40 | 10 |
| 25 | Int. | □ | 0810-L25C | 283 | 239 | 40 | 10 | |
| 30 | Int. | □ | 0810-L30C | 326 | 282 | 40 | 10 | |
| 8.2 | 3 | Int. | □ | 0820S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0820S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0820L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | □ | 0820L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0820-L8C | 139 | 95 | 40 | 10 |
| | 10 | Int. | □ | 0820-L10C | 156 | 112 | 40 | 10 |
| | 12 | Int. | □ | 0820-L12C | 173 | 129 | 40 | 10 |
| | 15 | Int. | □ | 0820-L15C | 198 | 154 | 40 | 10 |
| | 20 | Int. | □ | 0820-L20C | 241 | 197 | 40 | 10 |
| 25 | Int. | □ | 0820-L25C | 283 | 239 | 40 | 10 | |
| 30 | Int. | □ | 0820-L30C | 326 | 282 | 40 | 10 | |
| 8.3 | 3 | Int. | □ | 0830S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0830S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0830L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | □ | 0830L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0830-L8C | 139 | 95 | 40 | 10 |
| | 10 | Int. | □ | 0830-L10C | 156 | 112 | 40 | 10 |
| | 12 | Int. | □ | 0830-L12C | 173 | 129 | 40 | 10 |
| | 15 | Int. | □ | 0830-L15C | 198 | 154 | 40 | 10 |
| | 20 | Int. | □ | 0830-L20C | 241 | 197 | 40 | 10 |
| 25 | Int. | □ | 0830-L25C | 283 | 239 | 40 | 10 | |
| 30 | Int. | □ | 0830-L30C | 326 | 282 | 40 | 10 | |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 8.4 | 3 | Int. | □ | MNS0840S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0840S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0840L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | □ | 0840L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0840-L8C | 139 | 95 | 40 | 10 |
| | 10 | Int. | □ | 0840-L10C | 156 | 112 | 40 | 10 |
| | 12 | Int. | □ | 0840-L12C | 173 | 129 | 40 | 10 |
| | 15 | Int. | □ | 0840-L15C | 198 | 154 | 40 | 10 |
| | 20 | Int. | □ | 0840-L20C | 241 | 197 | 40 | 10 |
| | 25 | Int. | □ | 0840-L25C | 283 | 239 | 40 | 10 |
| 30 | Int. | □ | 0840-L30C | 326 | 282 | 40 | 10 | |
| 8.5 | 3 | Int. | □ | 0850S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0850S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0850L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | ● | 0850L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0850-L8C | 139 | 95 | 40 | 10 |
| | 10 | Int. | □ | 0850-L10C | 156 | 112 | 40 | 10 |
| | 12 | Int. | ● | 0850-L12C | 173 | 129 | 40 | 10 |
| | 15 | Int. | □ | 0850-L15C | 198 | 154 | 40 | 10 |
| | 20 | Int. | ● | 0850-L20C | 241 | 197 | 40 | 10 |
| | 25 | Int. | □ | 0850-L25C | 283 | 239 | 40 | 10 |
| 30 | Int. | ● | 0850-L30C | 326 | 282 | 40 | 10 | |
| 8.6 | 3 | Int. | □ | 0860S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0860S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0860L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | □ | 0860L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0860-L8C | 144 | 100 | 40 | 10 |
| | 10 | Int. | □ | 0860-L10C | 162 | 118 | 40 | 10 |
| | 12 | Int. | □ | 0860-L12C | 180 | 136 | 40 | 10 |
| | 15 | Int. | □ | 0860-L15C | 207 | 163 | 40 | 10 |
| | 20 | Int. | □ | 0860-L20C | 252 | 208 | 40 | 10 |
| | 25 | Int. | □ | 0860-L25C | 297 | 253 | 40 | 10 |
| 30 | Int. | □ | 0860-L30C | 342 | 298 | 40 | 10 | |
| 8.7 | 3 | Int. | □ | 0870S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0870S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0870L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | □ | 0870L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0870-L8C | 144 | 100 | 40 | 10 |
| | 10 | Int. | □ | 0870-L10C | 162 | 118 | 40 | 10 |
| | 12 | Int. | □ | 0870-L12C | 180 | 136 | 40 | 10 |
| | 15 | Int. | □ | 0870-L15C | 207 | 163 | 40 | 10 |
| | 20 | Int. | □ | 0870-L20C | 252 | 208 | 40 | 10 |
| | 25 | Int. | □ | 0870-L25C | 297 | 253 | 40 | 10 |
| 30 | Int. | □ | 0870-L30C | 342 | 298 | 40 | 10 | |
| 8.8 | 3 | Int. | □ | 0880S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0880S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0880L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | □ | 0880L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0880-L8C | 144 | 100 | 40 | 10 |
| | 10 | Int. | □ | 0880-L10C | 162 | 118 | 40 | 10 |
| | 12 | Int. | □ | 0880-L12C | 180 | 136 | 40 | 10 |
| | 15 | Int. | □ | 0880-L15C | 207 | 163 | 40 | 10 |
| | 20 | Int. | □ | 0880-L20C | 252 | 208 | 40 | 10 |
| | 25 | Int. | □ | 0880-L25C | 297 | 253 | 40 | 10 |
| 30 | Int. | □ | 0880-L30C | 342 | 298 | 40 | 10 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 8.9 | 3 | Int. | □ | MNS0890S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0890S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0890L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | □ | 0890L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0890-L8C | 144 | 100 | 40 | 10 |
| | 10 | Int. | □ | 0890-L10C | 162 | 118 | 40 | 10 |
| | 12 | Int. | □ | 0890-L12C | 180 | 136 | 40 | 10 |
| | 15 | Int. | □ | 0890-L15C | 207 | 163 | 40 | 10 |
| | 20 | Int. | □ | 0890-L20C | 252 | 208 | 40 | 10 |
| | 25 | Int. | □ | 0890-L25C | 297 | 253 | 40 | 10 |
| 30 | Int. | □ | 0890-L30C | 342 | 298 | 40 | 10 | |
| 9.0 | 3 | Int. | □ | 0900S-DIN | 88 | 46 | 40 | 10 |
| | 3 | Int. | □ | 0900S-DIN-C | 88 | 46 | 40 | 10 |
| | 5 | Int. | □ | 0900L-DIN | 102 | 60 | 40 | 10 |
| | 5 | Int. | ● | 0900L-DIN-C | 102 | 60 | 40 | 10 |
| | 8 | Int. | □ | 0900-L8C | 144 | 100 | 40 | 10 |
| | 10 | Int. | □ | 0900-L10C | 162 | 118 | 40 | 10 |
| | 12 | Int. | ● | 0900-L12C | 180 | 136 | 40 | 10 |
| | 15 | Int. | □ | 0900-L15C | 207 | 163 | 40 | 10 |
| | 20 | Int. | ● | 0900-L20C | 252 | 208 | 40 | 10 |
| | 25 | Int. | □ | 0900-L25C | 297 | 253 | 40 | 10 |
| 30 | Int. | ● | 0900-L30C | 342 | 298 | 40 | 10 | |
| 9.1 | 3 | Int. | □ | 0910S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | □ | 0910S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | □ | 0910L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | □ | 0910L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | □ | 0910-L8C | 151 | 107 | 40 | 10 |
| | 10 | Int. | □ | 0910-L10C | 170 | 126 | 40 | 10 |
| | 12 | Int. | □ | 0910-L12C | 189 | 145 | 40 | 10 |
| | 15 | Int. | □ | 0910-L15C | 217 | 173 | 40 | 10 |
| | 20 | Int. | □ | 0910-L20C | 265 | 221 | 40 | 10 |
| | 25 | Int. | □ | 0910-L25C | 312 | 268 | 40 | 10 |
| 30 | Int. | □ | 0910-L30C | 360 | 316 | 40 | 10 | |
| 9.2 | 3 | Int. | □ | 0920S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | □ | 0920S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | □ | 0920L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | □ | 0920L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | □ | 0920-L8C | 151 | 107 | 40 | 10 |
| | 10 | Int. | □ | 0920-L10C | 170 | 126 | 40 | 10 |
| | 12 | Int. | □ | 0920-L12C | 189 | 145 | 40 | 10 |
| | 15 | Int. | □ | 0920-L15C | 217 | 173 | 40 | 10 |
| | 20 | Int. | □ | 0920-L20C | 265 | 221 | 40 | 10 |
| | 25 | Int. | □ | 0920-L25C | 312 | 268 | 40 | 10 |
| 30 | Int. | □ | 0920-L30C | 360 | 316 | 40 | 10 | |
| 9.3 | 3 | Int. | □ | 0930S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | □ | 0930S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | □ | 0930L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | □ | 0930L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | □ | 0930-L8C | 151 | 107 | 40 | 10 |
| | 10 | Int. | □ | 0930-L10C | 170 | 126 | 40 | 10 |
| | 12 | Int. | □ | 0930-L12C | 189 | 145 | 40 | 10 |
| | 15 | Int. | □ | 0930-L15C | 217 | 173 | 40 | 10 |
| | 20 | Int. | □ | 0930-L20C | 265 | 221 | 40 | 10 |
| | 25 | Int. | □ | 0930-L25C | 312 | 268 | 40 | 10 |
| 30 | Int. | □ | 0930-L30C | 360 | 316 | 40 | 10 | |



■ Tipo MNS○○○○S/L-DIN, MNS○○○○S/L-DIN-C

| | | | | |
|------------|------------------|------------------|------------------|------------------|
| D1 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | +0.016 +0.004 | +0.021 +0.006 | +0.025 +0.007 | +0.029 +0.008 |

■ Tipo MNS○○○○L-LOC, MNS○○○○L-LOC

| | | | | | |
|------------|-------------|-------------|-------------|--------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

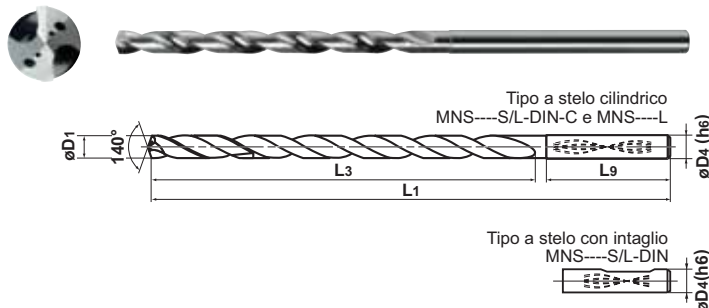
| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|--------------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 9.4 | 3 | Int. | <input type="checkbox"/> | MNS0940S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | <input type="checkbox"/> | 0940S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0940L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0940L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | <input type="checkbox"/> | 0940-L8C | 151 | 107 | 40 | 10 |
| | 10 | Int. | <input type="checkbox"/> | 0940-L10C | 170 | 126 | 40 | 10 |
| | 12 | Int. | <input type="checkbox"/> | 0940-L12C | 189 | 145 | 40 | 10 |
| | 15 | Int. | <input type="checkbox"/> | 0940-L15C | 217 | 173 | 40 | 10 |
| | 20 | Int. | <input type="checkbox"/> | 0940-L20C | 265 | 221 | 40 | 10 |
| 25 | Int. | <input type="checkbox"/> | 0940-L25C | 312 | 268 | 40 | 10 | |
| 30 | Int. | <input type="checkbox"/> | 0940-L30C | 360 | 316 | 40 | 10 | |
| 9.5 | 3 | Int. | <input type="checkbox"/> | 0950S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | <input type="checkbox"/> | 0950S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0950L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0950L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | <input type="checkbox"/> | 0950-L8C | 151 | 107 | 40 | 10 |
| | 10 | Int. | <input type="checkbox"/> | 0950-L10C | 170 | 126 | 40 | 10 |
| | 12 | Int. | <input type="checkbox"/> | 0950-L12C | 189 | 145 | 40 | 10 |
| | 15 | Int. | <input type="checkbox"/> | 0950-L15C | 217 | 173 | 40 | 10 |
| | 20 | Int. | <input type="checkbox"/> | 0950-L20C | 265 | 221 | 40 | 10 |
| 25 | Int. | <input type="checkbox"/> | 0950-L25C | 312 | 268 | 40 | 10 | |
| 30 | Int. | <input type="checkbox"/> | 0950-L30C | 360 | 316 | 40 | 10 | |
| 9.6 | 3 | Int. | <input type="checkbox"/> | 0960S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | <input type="checkbox"/> | 0960S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0960L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0960L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | <input type="checkbox"/> | 0960-L8C | 156 | 112 | 40 | 10 |
| | 10 | Int. | <input type="checkbox"/> | 0960-L10C | 176 | 132 | 40 | 10 |
| | 12 | Int. | <input type="checkbox"/> | 0960-L12C | 196 | 152 | 40 | 10 |
| | 15 | Int. | <input type="checkbox"/> | 0960-L15C | 226 | 182 | 40 | 10 |
| | 20 | Int. | <input type="checkbox"/> | 0960-L20C | 276 | 232 | 40 | 10 |
| 25 | Int. | <input type="checkbox"/> | 0960-L25C | 326 | 282 | 40 | 10 | |
| 30 | Int. | <input type="checkbox"/> | 0960-L30C | 376 | 332 | 40 | 10 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|--------------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 9.7 | 3 | Int. | <input type="checkbox"/> | MNS0970S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | <input type="checkbox"/> | 0970S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0970L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0970L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | <input type="checkbox"/> | 0970-L8C | 156 | 112 | 40 | 10 |
| | 10 | Int. | <input type="checkbox"/> | 0970-L10C | 176 | 132 | 40 | 10 |
| | 12 | Int. | <input type="checkbox"/> | 0970-L12C | 196 | 152 | 40 | 10 |
| | 15 | Int. | <input type="checkbox"/> | 0970-L15C | 226 | 182 | 40 | 10 |
| | 20 | Int. | <input type="checkbox"/> | 0970-L20C | 276 | 232 | 40 | 10 |
| 25 | Int. | <input type="checkbox"/> | 0970-L25C | 326 | 282 | 40 | 10 | |
| 30 | Int. | <input type="checkbox"/> | 0970-L30C | 376 | 332 | 40 | 10 | |
| 9.8 | 3 | Int. | <input type="checkbox"/> | 0980S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | <input type="checkbox"/> | 0980S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0980L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0980L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | <input type="checkbox"/> | 0980-L8C | 156 | 112 | 40 | 10 |
| | 10 | Int. | <input type="checkbox"/> | 0980-L10C | 176 | 132 | 40 | 10 |
| | 12 | Int. | <input type="checkbox"/> | 0980-L12C | 196 | 152 | 40 | 10 |
| | 15 | Int. | <input type="checkbox"/> | 0980-L15C | 226 | 182 | 40 | 10 |
| | 20 | Int. | <input type="checkbox"/> | 0980-L20C | 276 | 232 | 40 | 10 |
| 25 | Int. | <input type="checkbox"/> | 0980-L25C | 326 | 282 | 40 | 10 | |
| 30 | Int. | <input type="checkbox"/> | 0980-L30C | 376 | 332 | 40 | 10 | |
| 9.9 | 3 | Int. | <input type="checkbox"/> | 0990S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | <input type="checkbox"/> | 0990S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0990L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | <input type="checkbox"/> | 0990L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | <input type="checkbox"/> | 0990-L8C | 156 | 112 | 40 | 10 |
| | 10 | Int. | <input type="checkbox"/> | 0990-L10C | 176 | 132 | 40 | 10 |
| | 12 | Int. | <input type="checkbox"/> | 0990-L12C | 196 | 152 | 40 | 10 |
| | 15 | Int. | <input type="checkbox"/> | 0990-L15C | 226 | 182 | 40 | 10 |
| | 20 | Int. | <input type="checkbox"/> | 0990-L20C | 276 | 232 | 40 | 10 |
| 25 | Int. | <input type="checkbox"/> | 0990-L25C | 326 | 282 | 40 | 10 | |
| 30 | Int. | <input type="checkbox"/> | 0990-L30C | 376 | 332 | 40 | 10 | |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 10.0 | 3 | Int. | □ | MNS1000S-DIN | 89 | 47 | 40 | 10 |
| | 3 | Int. | □ | 1000S-DIN-C | 89 | 47 | 40 | 10 |
| | 5 | Int. | □ | 1000L-DIN | 103 | 62 | 40 | 10 |
| | 5 | Int. | ● | 1000L-DIN-C | 103 | 62 | 40 | 10 |
| | 8 | Int. | □ | 1000-L8C | 156 | 112 | 40 | 10 |
| | 10 | Int. | □ | 1000-L10C | 176 | 132 | 40 | 10 |
| | 12 | Int. | ● | 1000-L12C | 196 | 152 | 40 | 10 |
| | 15 | Int. | □ | 1000-L15C | 226 | 182 | 40 | 10 |
| | 20 | Int. | ● | 1000-L20C | 276 | 232 | 40 | 10 |
| | 25 | Int. | □ | 1000-L25C | 326 | 282 | 40 | 10 |
| 30 | Int. | ● | 1000-L30C | 376 | 332 | 40 | 10 | |
| 10.1 | 3 | Int. | □ | 1010S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1010S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1010L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1010L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1010-L8C | 167 | 118 | 45 | 12 |
| | 10 | Int. | □ | 1010-L10C | 188 | 139 | 45 | 12 |
| | 12 | Int. | □ | 1010-L12C | 209 | 160 | 45 | 12 |
| | 15 | Int. | □ | 1010-L15C | 240 | 191 | 45 | 12 |
| | 20 | Int. | □ | 1010-L20C | 293 | 244 | 45 | 12 |
| | 25 | Int. | □ | 1010-L25C | 345 | 296 | 45 | 12 |
| 10.2 | 3 | Int. | □ | 1020S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1020S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1020L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1020L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1020-L8C | 167 | 118 | 45 | 12 |
| | 10 | Int. | □ | 1020-L10C | 188 | 139 | 45 | 12 |
| | 12 | Int. | □ | 1020-L12C | 209 | 160 | 45 | 12 |
| | 15 | Int. | □ | 1020-L15C | 240 | 191 | 45 | 12 |
| | 20 | Int. | □ | 1020-L20C | 293 | 244 | 45 | 12 |
| | 25 | Int. | □ | 1020-L25C | 345 | 296 | 45 | 12 |
| 10.3 | 3 | Int. | □ | 1030S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1030S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1030L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1030L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1030-L8C | 167 | 118 | 45 | 12 |
| | 10 | Int. | □ | 1030-L10C | 188 | 139 | 45 | 12 |
| | 12 | Int. | □ | 1030-L12C | 209 | 160 | 45 | 12 |
| | 15 | Int. | □ | 1030-L15C | 240 | 191 | 45 | 12 |
| | 20 | Int. | □ | 1030-L20C | 293 | 244 | 45 | 12 |
| | 25 | Int. | □ | 1030-L25C | 345 | 296 | 45 | 12 |
| 10.4 | 3 | Int. | □ | 1040S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1040S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1040L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1040L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1040-L8C | 167 | 118 | 45 | 12 |
| | 10 | Int. | □ | 1040-L10C | 188 | 139 | 45 | 12 |
| | 12 | Int. | □ | 1040-L12C | 209 | 160 | 45 | 12 |
| | 15 | Int. | □ | 1040-L15C | 240 | 191 | 45 | 12 |
| | 20 | Int. | □ | 1040-L20C | 293 | 244 | 45 | 12 |
| | 25 | Int. | □ | 1040-L25C | 345 | 296 | 45 | 12 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 10.5 | 3 | Int. | □ | MNS1050S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1050S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1050L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1050L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1050-L8C | 167 | 118 | 45 | 12 |
| | 10 | Int. | □ | 1050-L10C | 188 | 139 | 45 | 12 |
| | 12 | Int. | □ | 1050-L12C | 209 | 160 | 45 | 12 |
| | 15 | Int. | □ | 1050-L15C | 240 | 191 | 45 | 12 |
| | 20 | Int. | □ | 1050-L20C | 293 | 244 | 45 | 12 |
| | 25 | Int. | □ | 1050-L25C | 345 | 296 | 45 | 12 |
| 10.6 | 3 | Int. | □ | 1060S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1060S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1060L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1060L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1060-L8C | 172 | 123 | 45 | 12 |
| | 10 | Int. | □ | 1060-L10C | 194 | 145 | 45 | 12 |
| | 12 | Int. | □ | 1060-L12C | 216 | 167 | 45 | 12 |
| | 15 | Int. | □ | 1060-L15C | 249 | 200 | 45 | 12 |
| | 20 | Int. | □ | 1060-L20C | 304 | 255 | 45 | 12 |
| | 25 | Int. | □ | 1060-L25C | 359 | 310 | 45 | 12 |
| 10.7 | 3 | Int. | □ | 1070S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1070S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1070L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1070L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1070-L8C | 172 | 123 | 45 | 12 |
| | 10 | Int. | □ | 1070-L10C | 194 | 145 | 45 | 12 |
| | 12 | Int. | □ | 1070-L12C | 216 | 167 | 45 | 12 |
| | 15 | Int. | □ | 1070-L15C | 249 | 200 | 45 | 12 |
| | 20 | Int. | □ | 1070-L20C | 304 | 255 | 45 | 12 |
| | 25 | Int. | □ | 1070-L25C | 359 | 310 | 45 | 12 |
| 10.8 | 3 | Int. | □ | 1080S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1080S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1080L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1080L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1080-L8C | 172 | 123 | 45 | 12 |
| | 10 | Int. | □ | 1080-L10C | 194 | 145 | 45 | 12 |
| | 12 | Int. | □ | 1080-L12C | 216 | 167 | 45 | 12 |
| | 15 | Int. | □ | 1080-L15C | 249 | 200 | 45 | 12 |
| | 20 | Int. | □ | 1080-L20C | 304 | 255 | 45 | 12 |
| | 25 | Int. | □ | 1080-L25C | 359 | 310 | 45 | 12 |
| 10.9 | 3 | Int. | □ | 1090S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1090S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1090L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1090L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1090-L8C | 172 | 123 | 45 | 12 |
| | 10 | Int. | □ | 1090-L10C | 194 | 145 | 45 | 12 |
| | 12 | Int. | □ | 1090-L12C | 216 | 167 | 45 | 12 |
| | 15 | Int. | □ | 1090-L15C | 249 | 200 | 45 | 12 |
| | 20 | Int. | □ | 1090-L20C | 304 | 255 | 45 | 12 |
| | 25 | Int. | □ | 1090-L25C | 359 | 310 | 45 | 12 |



■ Tipo MNS○○○○S/L-DIN, MNS○○○○S/L-DIN-C

| | | | | |
|------------|------------------|------------------|------------------|------------------|
| D1 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | +0.016 +0.004 | +0.021 +0.006 | +0.025 +0.007 | +0.029 +0.008 |

■ Tipo MNS○○○○L-LOC, MNS○○○○L-LOC

| | | | | | |
|------------|-------------|-------------|-------------|--------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 11.0 | 3 | Int. | □ | MNS1100S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1100S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1100L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | ● | 1100L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1100-L8C | 172 | 123 | 45 | 12 |
| | 10 | Int. | □ | 1100-L10C | 194 | 145 | 45 | 12 |
| | 12 | Int. | ● | 1100-L12C | 216 | 167 | 45 | 12 |
| | 15 | Int. | □ | 1100-L15C | 249 | 200 | 45 | 12 |
| | 20 | Int. | ● | 1100-L20C | 304 | 255 | 45 | 12 |
| 25 | Int. | □ | 1100-L25C | 359 | 310 | 45 | 12 | |
| 11.1 | 3 | Int. | □ | 1110S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1110S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1110L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1110L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1110-L8C | 178 | 129 | 45 | 12 |
| | 10 | Int. | □ | 1110-L10C | 201 | 152 | 45 | 12 |
| | 12 | Int. | □ | 1110-L12C | 224 | 175 | 45 | 12 |
| | 15 | Int. | □ | 1110-L15C | 258 | 209 | 45 | 12 |
| | 20 | Int. | □ | 1110-L20C | 316 | 267 | 45 | 12 |
| 25 | Int. | □ | 1110-L25C | 373 | 324 | 45 | 12 | |
| 11.2 | 3 | Int. | □ | 1120S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1120S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1120L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1120L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1120-L8C | 178 | 129 | 45 | 12 |
| | 10 | Int. | □ | 1120-L10C | 201 | 152 | 45 | 12 |
| | 12 | Int. | □ | 1120-L12C | 224 | 175 | 45 | 12 |
| | 15 | Int. | □ | 1120-L15C | 258 | 209 | 45 | 12 |
| | 20 | Int. | □ | 1120-L20C | 316 | 267 | 45 | 12 |
| 25 | Int. | □ | 1120-L25C | 373 | 324 | 45 | 12 | |
| 11.3 | 3 | Int. | □ | 1130S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1130S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1130L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1130L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1130-L8C | 178 | 129 | 45 | 12 |
| | 10 | Int. | □ | 1130-L10C | 201 | 152 | 45 | 12 |
| | 12 | Int. | □ | 1130-L12C | 224 | 175 | 45 | 12 |
| | 15 | Int. | □ | 1130-L15C | 258 | 209 | 45 | 12 |
| | 20 | Int. | □ | 1130-L20C | 316 | 267 | 45 | 12 |
| 25 | Int. | □ | 1130-L25C | 373 | 324 | 45 | 12 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 11.4 | 3 | Int. | □ | MNS1140S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1140S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1140L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1140L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1140-L8C | 178 | 129 | 45 | 12 |
| | 10 | Int. | □ | 1140-L10C | 201 | 152 | 45 | 12 |
| | 12 | Int. | □ | 1140-L12C | 224 | 175 | 45 | 12 |
| | 15 | Int. | □ | 1140-L15C | 258 | 209 | 45 | 12 |
| | 20 | Int. | □ | 1140-L20C | 316 | 267 | 45 | 12 |
| 25 | Int. | □ | 1140-L25C | 373 | 324 | 45 | 12 | |
| 11.5 | 3 | Int. | □ | 1150S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1150S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1150L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1150L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1150-L8C | 178 | 129 | 45 | 12 |
| | 10 | Int. | □ | 1150-L10C | 201 | 152 | 45 | 12 |
| | 12 | Int. | □ | 1150-L12C | 224 | 175 | 45 | 12 |
| | 15 | Int. | □ | 1150-L15C | 258 | 209 | 45 | 12 |
| | 20 | Int. | □ | 1150-L20C | 316 | 267 | 45 | 12 |
| 25 | Int. | □ | 1150-L25C | 373 | 324 | 45 | 12 | |
| 11.6 | 3 | Int. | □ | 1160S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1160S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1160L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1160L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1160-L8C | 183 | 134 | 45 | 12 |
| | 10 | Int. | □ | 1160-L10C | 207 | 158 | 45 | 12 |
| | 12 | Int. | □ | 1160-L12C | 231 | 182 | 45 | 12 |
| | 15 | Int. | □ | 1160-L15C | 267 | 218 | 45 | 12 |
| | 20 | Int. | □ | 1160-L20C | 327 | 278 | 45 | 12 |
| 25 | Int. | □ | 1160-L25C | 387 | 338 | 45 | 12 | |
| 11.7 | 3 | Int. | □ | 1170S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1170S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1170L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1170L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1170-L8C | 183 | 134 | 45 | 12 |
| | 10 | Int. | □ | 1170-L10C | 207 | 158 | 45 | 12 |
| | 12 | Int. | □ | 1170-L12C | 231 | 182 | 45 | 12 |
| | 15 | Int. | □ | 1170-L15C | 267 | 218 | 45 | 12 |
| | 20 | Int. | □ | 1170-L20C | 327 | 278 | 45 | 12 |
| 25 | Int. | □ | 1170-L25C | 387 | 338 | 45 | 12 | |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

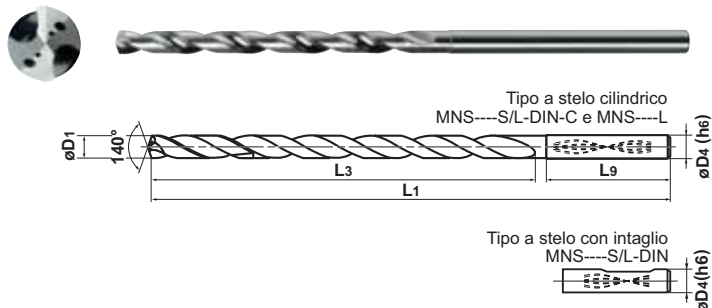
● : disponibile.

□ : non disponibile, prodotto solo su ordinazione.

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 11.8 | 3 | Int. | □ | MNS1180S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1180S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1180L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1180L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1180-L8C | 183 | 134 | 45 | 12 |
| | 10 | Int. | □ | 1180-L10C | 207 | 158 | 45 | 12 |
| | 12 | Int. | □ | 1180-L12C | 231 | 182 | 45 | 12 |
| | 15 | Int. | □ | 1180-L15C | 267 | 218 | 45 | 12 |
| | 20 | Int. | □ | 1180-L20C | 327 | 278 | 45 | 12 |
| | 25 | Int. | □ | 1180-L25C | 387 | 338 | 45 | 12 |
| 11.9 | 3 | Int. | □ | 1190S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1190S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1190L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | □ | 1190L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1190-L8C | 183 | 134 | 45 | 12 |
| | 10 | Int. | □ | 1190-L10C | 207 | 158 | 45 | 12 |
| | 12 | Int. | □ | 1190-L12C | 231 | 182 | 45 | 12 |
| | 15 | Int. | □ | 1190-L15C | 267 | 218 | 45 | 12 |
| | 20 | Int. | □ | 1190-L20C | 327 | 278 | 45 | 12 |
| | 25 | Int. | □ | 1190-L25C | 387 | 338 | 45 | 12 |
| 12.0 | 3 | Int. | □ | 1200S-DIN | 102 | 55 | 45 | 12 |
| | 3 | Int. | □ | 1200S-DIN-C | 102 | 55 | 45 | 12 |
| | 5 | Int. | □ | 1200L-DIN | 118 | 71 | 45 | 12 |
| | 5 | Int. | ● | 1200L-DIN-C | 118 | 71 | 45 | 12 |
| | 8 | Int. | □ | 1200-L8C | 183 | 134 | 45 | 12 |
| | 10 | Int. | □ | 1200-L10C | 207 | 158 | 45 | 12 |
| | 12 | Int. | ● | 1200-L12C | 231 | 182 | 45 | 12 |
| | 15 | Int. | □ | 1200-L15C | 267 | 218 | 45 | 12 |
| | 20 | Int. | ● | 1200-L20C | 327 | 278 | 45 | 12 |
| | 25 | Int. | □ | 1200-L25C | 387 | 338 | 45 | 12 |
| 12.1 | 3 | Int. | □ | 1210S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1210S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1210L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1210L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1210-L8C | 189 | 140 | 45 | 14 |
| | 10 | Int. | □ | 1210-L10C | 214 | 165 | 45 | 14 |
| | 12 | Int. | □ | 1210-L12C | 239 | 190 | 45 | 14 |
| | 15 | Int. | □ | 1210-L15C | 276 | 227 | 45 | 14 |
| | 20 | Int. | □ | 1210-L20C | 339 | 290 | 45 | 14 |
| | 12.2 | 3 | Int. | □ | 1220S-DIN | 107 | 60 | 45 |
| 3 | | Int. | □ | 1220S-DIN-C | 107 | 60 | 45 | 14 |
| 5 | | Int. | □ | 1220L-DIN | 124 | 77 | 45 | 14 |
| 5 | | Int. | □ | 1220L-DIN-C | 124 | 77 | 45 | 14 |
| 8 | | Int. | □ | 1220-L8C | 189 | 140 | 45 | 14 |
| 10 | | Int. | □ | 1220-L10C | 214 | 165 | 45 | 14 |
| 12 | | Int. | □ | 1220-L12C | 239 | 190 | 45 | 14 |
| 15 | | Int. | □ | 1220-L15C | 276 | 227 | 45 | 14 |
| 20 | | Int. | □ | 1220-L20C | 339 | 290 | 45 | 14 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 12.3 | 3 | Int. | □ | MNS1230S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1230S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1230L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1230L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1230-L8C | 189 | 140 | 45 | 14 |
| | 10 | Int. | □ | 1230-L10C | 214 | 165 | 45 | 14 |
| | 12 | Int. | □ | 1230-L12C | 239 | 190 | 45 | 14 |
| | 15 | Int. | □ | 1230-L15C | 276 | 227 | 45 | 14 |
| | 20 | Int. | □ | 1230-L20C | 339 | 290 | 45 | 14 |
| | 12.4 | 3 | Int. | □ | 1240S-DIN | 107 | 60 | 45 |
| 3 | | Int. | □ | 1240S-DIN-C | 107 | 60 | 45 | 14 |
| 5 | | Int. | □ | 1240L-DIN | 124 | 77 | 45 | 14 |
| 5 | | Int. | □ | 1240L-DIN-C | 124 | 77 | 45 | 14 |
| 8 | | Int. | □ | 1240-L8C | 189 | 140 | 45 | 14 |
| 10 | | Int. | □ | 1240-L10C | 214 | 165 | 45 | 14 |
| 12 | | Int. | □ | 1240-L12C | 239 | 190 | 45 | 14 |
| 15 | | Int. | □ | 1240-L15C | 276 | 227 | 45 | 14 |
| 20 | | Int. | □ | 1240-L20C | 339 | 290 | 45 | 14 |
| 12.5 | | 3 | Int. | □ | 1250S-DIN | 107 | 60 | 45 |
| | 3 | Int. | □ | 1250S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1250L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | ● | 1250L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1250-L8C | 189 | 140 | 45 | 14 |
| | 10 | Int. | □ | 1250-L10C | 214 | 165 | 45 | 14 |
| | 12 | Int. | ● | 1250-L12C | 239 | 190 | 45 | 14 |
| | 15 | Int. | □ | 1250-L15C | 276 | 227 | 45 | 14 |
| | 20 | Int. | ● | 1250-L20C | 339 | 290 | 45 | 14 |
| | 12.6 | 3 | Int. | □ | 1260S-DIN | 107 | 60 | 45 |
| 3 | | Int. | □ | 1260S-DIN-C | 107 | 60 | 45 | 14 |
| 5 | | Int. | □ | 1260L-DIN | 124 | 77 | 45 | 14 |
| 5 | | Int. | □ | 1260L-DIN-C | 124 | 77 | 45 | 14 |
| 8 | | Int. | □ | 1260-L8C | 194 | 145 | 45 | 14 |
| 10 | | Int. | □ | 1260-L10C | 220 | 171 | 45 | 14 |
| 12 | | Int. | □ | 1260-L12C | 246 | 197 | 45 | 14 |
| 15 | | Int. | □ | 1260-L15C | 285 | 236 | 45 | 14 |
| 20 | | Int. | □ | 1260-L20C | 350 | 301 | 45 | 14 |
| 12.7 | | 3 | Int. | □ | 1270S-DIN | 107 | 60 | 45 |
| | 3 | Int. | □ | 1270S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1270L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1270L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1270-L8C | 194 | 145 | 45 | 14 |
| | 10 | Int. | □ | 1270-L10C | 220 | 171 | 45 | 14 |
| | 12 | Int. | □ | 1270-L12C | 246 | 197 | 45 | 14 |
| | 15 | Int. | □ | 1270-L15C | 285 | 236 | 45 | 14 |
| | 20 | Int. | □ | 1270-L20C | 350 | 301 | 45 | 14 |





■ Tipo MNS○○○○S/L-DIN, MNS○○○○S/L-DIN-C

| | | | | |
|------------|------------------|------------------|------------------|------------------|
| D1 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | +0.016 +0.004 | +0.021 +0.006 | +0.025 +0.007 | +0.029 +0.008 |

■ Tipo MNS○○○○-LOC, MNS○○○○-L○○C

| | | | | | |
|------------|-------------|-------------|-------------|--------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

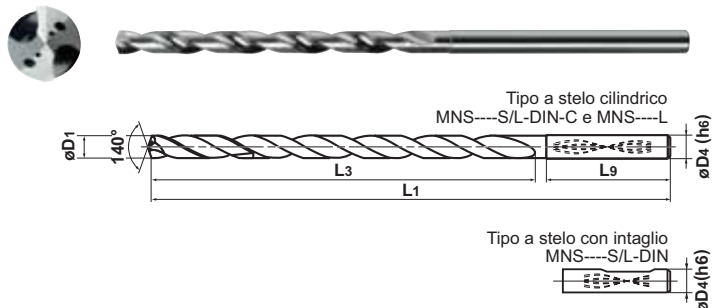
| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 12.8 | 3 | Int. | □ | MNS1280S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1280S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1280L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1280L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1280-L8C | 194 | 145 | 45 | 14 |
| | 10 | Int. | □ | 1280-L10C | 220 | 171 | 45 | 14 |
| | 12 | Int. | □ | 1280-L12C | 246 | 197 | 45 | 14 |
| | 15 | Int. | □ | 1280-L15C | 285 | 236 | 45 | 14 |
| 20 | Int. | □ | 1280-L20C | 350 | 301 | 45 | 14 | |
| 12.9 | 3 | Int. | □ | 1290S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1290S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1290L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1290L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1290-L8C | 194 | 145 | 45 | 14 |
| | 10 | Int. | □ | 1290-L10C | 220 | 171 | 45 | 14 |
| | 12 | Int. | □ | 1290-L12C | 246 | 197 | 45 | 14 |
| | 15 | Int. | □ | 1290-L15C | 285 | 236 | 45 | 14 |
| 20 | Int. | □ | 1290-L20C | 350 | 301 | 45 | 14 | |
| 13.0 | 3 | Int. | □ | 1300S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1300S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1300L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | ● | 1300L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1300-L8C | 194 | 145 | 45 | 14 |
| | 10 | Int. | □ | 1300-L10C | 220 | 171 | 45 | 14 |
| | 12 | Int. | ● | 1300-L12C | 246 | 197 | 45 | 14 |
| | 15 | Int. | □ | 1300-L15C | 285 | 236 | 45 | 14 |
| 20 | Int. | ● | 1300-L20C | 350 | 301 | 45 | 14 | |
| 13.1 | 3 | Int. | □ | 1310S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1310S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1310L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1310L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1310-L8C | 200 | 151 | 45 | 14 |
| | 10 | Int. | □ | 1310-L10C | 227 | 178 | 45 | 14 |
| | 12 | Int. | □ | 1310-L12C | 254 | 205 | 45 | 14 |
| | 15 | Int. | □ | 1310-L15C | 294 | 245 | 45 | 14 |
| 20 | Int. | □ | 1310-L20C | 362 | 313 | 45 | 14 | |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 13.2 | 3 | Int. | □ | MNS1320S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1320S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1320L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1320L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1320-L8C | 200 | 151 | 45 | 14 |
| | 10 | Int. | □ | 1320-L10C | 227 | 178 | 45 | 14 |
| | 12 | Int. | □ | 1320-L12C | 254 | 205 | 45 | 14 |
| | 15 | Int. | □ | 1320-L15C | 294 | 245 | 45 | 14 |
| 20 | Int. | □ | 1320-L20C | 362 | 313 | 45 | 14 | |
| 13.3 | 3 | Int. | □ | 1330S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1330S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1330L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1330L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1330-L8C | 200 | 151 | 45 | 14 |
| | 10 | Int. | □ | 1330-L10C | 227 | 178 | 45 | 14 |
| | 12 | Int. | □ | 1330-L12C | 254 | 205 | 45 | 14 |
| | 15 | Int. | □ | 1330-L15C | 294 | 245 | 45 | 14 |
| 20 | Int. | □ | 1330-L20C | 362 | 313 | 45 | 14 | |
| 13.4 | 3 | Int. | □ | 1340S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1340S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1340L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1340L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1340-L8C | 200 | 151 | 45 | 14 |
| | 10 | Int. | □ | 1340-L10C | 227 | 178 | 45 | 14 |
| | 12 | Int. | □ | 1340-L12C | 254 | 205 | 45 | 14 |
| | 15 | Int. | □ | 1340-L15C | 294 | 245 | 45 | 14 |
| 20 | Int. | □ | 1340-L20C | 362 | 313 | 45 | 14 | |
| 13.5 | 3 | Int. | □ | 1350S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1350S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1350L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1350L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1350-L8C | 200 | 151 | 45 | 14 |
| | 10 | Int. | □ | 1350-L10C | 227 | 178 | 45 | 14 |
| | 12 | Int. | □ | 1350-L12C | 254 | 205 | 45 | 14 |
| | 15 | Int. | □ | 1350-L15C | 294 | 245 | 45 | 14 |
| 20 | Int. | □ | 1350-L20C | 362 | 313 | 45 | 14 | |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 13.6 | 3 | Int. | □ | MNS1360S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1360S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1360L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1360L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1360-L8C | 205 | 156 | 45 | 14 |
| | 10 | Int. | □ | 1360-L10C | 233 | 184 | 45 | 14 |
| | 12 | Int. | □ | 1360-L12C | 261 | 212 | 45 | 14 |
| | 15 | Int. | □ | 1360-L15C | 303 | 254 | 45 | 14 |
| | 20 | Int. | □ | 1360-L20C | 373 | 324 | 45 | 14 |
| 13.7 | 3 | Int. | □ | 1370S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1370S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1370L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1370L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1370-L8C | 205 | 156 | 45 | 14 |
| | 10 | Int. | □ | 1370-L10C | 233 | 184 | 45 | 14 |
| | 12 | Int. | □ | 1370-L12C | 261 | 212 | 45 | 14 |
| | 15 | Int. | □ | 1370-L15C | 303 | 254 | 45 | 14 |
| | 20 | Int. | □ | 1370-L20C | 373 | 324 | 45 | 14 |
| 13.8 | 3 | Int. | □ | 1380S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1380S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1380L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1380L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1380-L8C | 205 | 156 | 45 | 14 |
| | 10 | Int. | □ | 1380-L10C | 233 | 184 | 45 | 14 |
| | 12 | Int. | □ | 1380-L12C | 261 | 212 | 45 | 14 |
| | 15 | Int. | □ | 1380-L15C | 303 | 254 | 45 | 14 |
| | 20 | Int. | □ | 1380-L20C | 373 | 324 | 45 | 14 |
| 13.9 | 3 | Int. | □ | 1390S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1390S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1390L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | □ | 1390L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1390-L8C | 205 | 156 | 45 | 14 |
| | 10 | Int. | □ | 1390-L10C | 233 | 184 | 45 | 14 |
| | 12 | Int. | □ | 1390-L12C | 261 | 212 | 45 | 14 |
| | 15 | Int. | □ | 1390-L15C | 303 | 254 | 45 | 14 |
| | 20 | Int. | □ | 1390-L20C | 373 | 324 | 45 | 14 |
| 14.0 | 3 | Int. | □ | 1400S-DIN | 107 | 60 | 45 | 14 |
| | 3 | Int. | □ | 1400S-DIN-C | 107 | 60 | 45 | 14 |
| | 5 | Int. | □ | 1400L-DIN | 124 | 77 | 45 | 14 |
| | 5 | Int. | ● | 1400L-DIN-C | 124 | 77 | 45 | 14 |
| | 8 | Int. | □ | 1400-L8C | 205 | 156 | 45 | 14 |
| | 10 | Int. | □ | 1400-L10C | 233 | 184 | 45 | 14 |
| | 12 | Int. | ● | 1400-L12C | 261 | 212 | 45 | 14 |
| | 15 | Int. | □ | 1400-L15C | 303 | 254 | 45 | 14 |
| | 20 | Int. | ● | 1400-L20C | 373 | 324 | 45 | 14 |
| 14.1 | 3 | Int. | □ | 1410S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1410S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1410L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1410L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1410L-DIN-C | 132 | 82 | 48 | 16 |
| 14.2 | 3 | Int. | □ | 1420S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1420S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1420L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1420L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | ● | 1420L-DIN-C | 132 | 82 | 48 | 16 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 14.3 | 3 | Int. | □ | MNS1430S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1430S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1430L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1430L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1430L-DIN-C | 132 | 82 | 48 | 16 |
| 14.4 | 3 | Int. | □ | 1440S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1440S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1440L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1440L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1440L-DIN-C | 132 | 82 | 48 | 16 |
| 14.5 | 3 | Int. | □ | 1450S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1450S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1450L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1450L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1450L-DIN-C | 132 | 82 | 48 | 16 |
| 14.6 | 3 | Int. | □ | 1460S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1460S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1460L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1460L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1460L-DIN-C | 132 | 82 | 48 | 16 |
| 14.7 | 3 | Int. | □ | 1470S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1470S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1470L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1470L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1470L-DIN-C | 132 | 82 | 48 | 16 |
| 14.8 | 3 | Int. | □ | 1480S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1480S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1480L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1480L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1480L-DIN-C | 132 | 82 | 48 | 16 |
| 14.9 | 3 | Int. | □ | 1490S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1490S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1490L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1490L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1490L-DIN-C | 132 | 82 | 48 | 16 |
| 15.0 | 3 | Int. | □ | 1500S-DIN | 114 | 64 | 48 | 16 |
| | 3 | Int. | □ | 1500S-DIN-C | 114 | 64 | 48 | 16 |
| | 5 | Int. | □ | 1500L-DIN | 132 | 82 | 48 | 16 |
| | 5 | Int. | ● | 1500L-DIN-C | 132 | 82 | 48 | 16 |
| | 5 | Int. | □ | 1500L-DIN-C | 132 | 82 | 48 | 16 |
| 15.1 | 3 | Int. | □ | 1510S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1510S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1510L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1510L-DIN-C | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1510L-DIN-C | 133 | 83 | 48 | 16 |
| 15.2 | 3 | Int. | □ | 1520S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1520S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1520L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1520L-DIN-C | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1520L-DIN-C | 133 | 83 | 48 | 16 |
| 15.3 | 3 | Int. | □ | 1530S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1530S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1530L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1530L-DIN-C | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1530L-DIN-C | 133 | 83 | 48 | 16 |
| 15.4 | 3 | Int. | □ | 1540S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1540S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1540L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1540L-DIN-C | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1540L-DIN-C | 133 | 83 | 48 | 16 |
| 15.5 | 3 | Int. | □ | 1550S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1550S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1550L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1550L-DIN-C | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1550L-DIN-C | 133 | 83 | 48 | 16 |



■ Tipo MNS○○○○S/L-DIN, MNS○○○○S/L-DIN-C

| | | | | |
|------------|------------------|------------------|------------------|------------------|
| D1 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | +0.016 +0.004 | +0.021 +0.006 | +0.025 +0.007 | +0.029 +0.008 |

■ Tipo MNS○○○○-LOC, MNS○○○○-L○○C

| | | | | | |
|------------|-------------|-------------|-------------|--------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤18.0 | 18.0<D1≤20.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 | 0 -0.033 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 15.6 | 3 | Int. | □ | MNS1560S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1560S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1560L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1560L-DIN-C | 133 | 83 | 48 | 16 |
| 15.7 | 3 | Int. | □ | 1570S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1570S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1570L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1570L-DIN-C | 133 | 83 | 48 | 16 |
| 15.8 | 3 | Int. | □ | 1580S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1580S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1580L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1580L-DIN-C | 133 | 83 | 48 | 16 |
| 15.9 | 3 | Int. | □ | 1590S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1590S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1590L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | □ | 1590L-DIN-C | 133 | 83 | 48 | 16 |
| 16.0 | 3 | Int. | □ | 1600S-DIN | 115 | 65 | 48 | 16 |
| | 3 | Int. | □ | 1600S-DIN-C | 115 | 65 | 48 | 16 |
| | 5 | Int. | □ | 1600L-DIN | 133 | 83 | 48 | 16 |
| | 5 | Int. | ● | 1600L-DIN-C | 133 | 83 | 48 | 16 |
| 16.1 | 3 | Int. | □ | 1610S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1610S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1610L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1610L-DIN-C | 143 | 93 | 48 | 18 |
| 16.2 | 3 | Int. | □ | 1620S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1620S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1620L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1620L-DIN-C | 143 | 93 | 48 | 18 |
| 16.3 | 3 | Int. | □ | 1630S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1630S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1630L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1630L-DIN-C | 143 | 93 | 48 | 18 |
| 16.4 | 3 | Int. | □ | 1640S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1640S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1640L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1640L-DIN-C | 143 | 93 | 48 | 18 |
| 16.5 | 3 | Int. | □ | 1650S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1650S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1650L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1650L-DIN-C | 143 | 93 | 48 | 18 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 16.6 | 3 | Int. | □ | MNS1660S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1660S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1660L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1660L-DIN-C | 143 | 93 | 48 | 18 |
| 16.7 | 3 | Int. | □ | 1670S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1670S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1670L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1670L-DIN-C | 143 | 93 | 48 | 18 |
| 16.8 | 3 | Int. | □ | 1680S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1680S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1680L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1680L-DIN-C | 143 | 93 | 48 | 18 |
| 16.9 | 3 | Int. | □ | 1690S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1690S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1690L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1690L-DIN-C | 143 | 93 | 48 | 18 |
| 17.0 | 3 | Int. | □ | 1700S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1700S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1700L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | ● | 1700L-DIN-C | 143 | 93 | 48 | 18 |
| 17.1 | 3 | Int. | □ | 1710S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1710S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1710L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1710L-DIN-C | 143 | 93 | 48 | 18 |
| 17.2 | 3 | Int. | □ | 1720S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1720S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1720L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1720L-DIN-C | 143 | 93 | 48 | 18 |
| 17.3 | 3 | Int. | □ | 1730S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1730S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1730L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1730L-DIN-C | 143 | 93 | 48 | 18 |
| 17.4 | 3 | Int. | □ | 1740S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1740S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1740L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | □ | 1740L-DIN-C | 143 | 93 | 48 | 18 |
| 17.5 | 3 | Int. | □ | 1750S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | □ | 1750S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | □ | 1750L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | ● | 1750L-DIN-C | 143 | 93 | 48 | 18 |

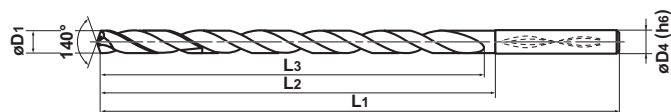
Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

● : disponibile.

□ : non disponibile, prodotto solo su ordinazione.

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-------------------------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 17.6 | 3 | Int. | <input type="checkbox"/> | MNS1760S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | <input type="checkbox"/> | 1760S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1760L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1760L-DIN-C | 143 | 93 | 48 | 18 |
| 17.7 | 3 | Int. | <input type="checkbox"/> | 1770S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | <input type="checkbox"/> | 1770S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1770L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1770L-DIN-C | 143 | 93 | 48 | 18 |
| 17.8 | 3 | Int. | <input type="checkbox"/> | 1780S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | <input type="checkbox"/> | 1780S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1780L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1780L-DIN-C | 143 | 93 | 48 | 18 |
| 17.9 | 3 | Int. | <input type="checkbox"/> | 1790S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | <input type="checkbox"/> | 1790S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1790L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1790L-DIN-C | 143 | 93 | 48 | 18 |
| 18.0 | 3 | Int. | <input type="checkbox"/> | 1800S-DIN | 123 | 73 | 48 | 18 |
| | 3 | Int. | <input type="checkbox"/> | 1800S-DIN-C | 123 | 73 | 48 | 18 |
| | 5 | Int. | <input type="checkbox"/> | 1800L-DIN | 143 | 93 | 48 | 18 |
| | 5 | Int. | <input checked="" type="checkbox"/> | 1800L-DIN-C | 143 | 93 | 48 | 18 |
| 18.1 | 3 | Int. | <input type="checkbox"/> | 1810S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1810S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1810L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1810L-DIN-C | 153 | 101 | 50 | 20 |
| 18.2 | 3 | Int. | <input type="checkbox"/> | 1820S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1820S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1820L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1820L-DIN-C | 153 | 101 | 50 | 20 |
| 18.3 | 3 | Int. | <input type="checkbox"/> | 1830S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1830S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1830L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1830L-DIN-C | 153 | 101 | 50 | 20 |
| 18.4 | 3 | Int. | <input type="checkbox"/> | 1840S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1840S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1840L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1840L-DIN-C | 153 | 101 | 50 | 20 |
| 18.5 | 3 | Int. | <input type="checkbox"/> | 1850S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1850S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1850L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1850L-DIN-C | 153 | 101 | 50 | 20 |
| 18.6 | 3 | Int. | <input type="checkbox"/> | 1860S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1860S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1860L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1860L-DIN-C | 153 | 101 | 50 | 20 |
| 18.7 | 3 | Int. | <input type="checkbox"/> | 1870S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1870S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1870L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1870L-DIN-C | 153 | 101 | 50 | 20 |
| 18.8 | 3 | Int. | <input type="checkbox"/> | 1880S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1880S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1880L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1880L-DIN-C | 153 | 101 | 50 | 20 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-------------------------------------|-----------------------|-----------------|-----|----|----|
| | | | | | L1 | L3 | L9 | D4 |
| 18.9 | 3 | Int. | <input type="checkbox"/> | MNS1890S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1890S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1890L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1890L-DIN-C | 153 | 101 | 50 | 20 |
| 19.0 | 3 | Int. | <input type="checkbox"/> | 1900S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1900S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1900L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1900L-DIN-C | 153 | 101 | 50 | 20 |
| 19.1 | 3 | Int. | <input type="checkbox"/> | 1910S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1910S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1910L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1910L-DIN-C | 153 | 101 | 50 | 20 |
| 19.2 | 3 | Int. | <input type="checkbox"/> | 1920S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1920S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1920L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1920L-DIN-C | 153 | 101 | 50 | 20 |
| 19.3 | 3 | Int. | <input type="checkbox"/> | 1930S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1930S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1930L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1930L-DIN-C | 153 | 101 | 50 | 20 |
| 19.4 | 3 | Int. | <input type="checkbox"/> | 1940S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1940S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1940L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1940L-DIN-C | 153 | 101 | 50 | 20 |
| 19.5 | 3 | Int. | <input type="checkbox"/> | 1950S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1950S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1950L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1950L-DIN-C | 153 | 101 | 50 | 20 |
| 19.6 | 3 | Int. | <input type="checkbox"/> | 1960S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1960S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1960L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1960L-DIN-C | 153 | 101 | 50 | 20 |
| 19.7 | 3 | Int. | <input type="checkbox"/> | 1970S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1970S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1970L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1970L-DIN-C | 153 | 101 | 50 | 20 |
| 19.8 | 3 | Int. | <input type="checkbox"/> | 1980S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1980S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1980L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1980L-DIN-C | 153 | 101 | 50 | 20 |
| 19.9 | 3 | Int. | <input type="checkbox"/> | 1990S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 1990S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1990L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 1990L-DIN-C | 153 | 101 | 50 | 20 |
| 20.0 | 3 | Int. | <input type="checkbox"/> | 2000S-DIN | 131 | 79 | 50 | 20 |
| | 3 | Int. | <input type="checkbox"/> | 2000S-DIN-C | 131 | 79 | 50 | 20 |
| | 5 | Int. | <input type="checkbox"/> | 2000L-DIN | 153 | 101 | 50 | 20 |
| | 5 | Int. | <input checked="" type="checkbox"/> | 2000L-DIN-C | 153 | 101 | 50 | 20 |



| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤14.0 |
|------------|-------------|-------------|-------------|--------------|
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 |

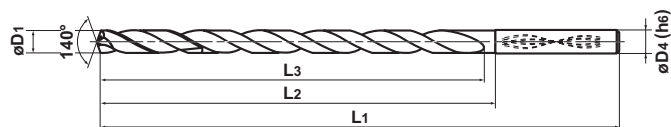
Nota 1: le punte con diametro da 4.5 o inferiore sono dotate di 2 fori per il passaggio dei refrigeranti.

Nota 2: Le punte MNS possono essere usate con mandrini a calettamento termico.

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 3.0 | 5 | Int. | ★ | MNS0300LB | 33 | 33 | 81 | 3 |
| | 10 | Int. | ★ | 0300X10DB | 39 | 42 | 90 | 3 |
| | 20 | Int. | ★ | 0300X20DB | 69 | 72 | 120 | 3 |
| | 30 | Int. | ★ | 0300X30DB | 99 | 102 | 150 | 3 |
| 3.1 | 5 | Int. | ★ | 0310LB | 39 | 39 | 87 | 4 |
| | 10 | Int. | □ | 0310X10DB | 46 | 49 | 97 | 4 |
| | 20 | Int. | □ | 0310X20DB | 81 | 84 | 132 | 4 |
| | 30 | Int. | □ | 0310X30DB | 116 | 119 | 167 | 4 |
| 3.2 | 5 | Int. | ★ | 0320LB | 39 | 39 | 87 | 4 |
| | 10 | Int. | ★ | 0320X10DB | 46 | 49 | 97 | 4 |
| | 20 | Int. | ★ | 0320X20DB | 81 | 84 | 132 | 4 |
| | 30 | Int. | ★ | 0320X30DB | 116 | 119 | 167 | 4 |
| 3.3 | 5 | Int. | ★ | 0330LB | 39 | 39 | 87 | 4 |
| | 10 | Int. | □ | 0330X10DB | 46 | 49 | 97 | 4 |
| | 20 | Int. | □ | 0330X20DB | 81 | 84 | 132 | 4 |
| | 30 | Int. | □ | 0330X30DB | 116 | 119 | 167 | 4 |
| 3.4 | 5 | Int. | ★ | 0340LB | 39 | 39 | 87 | 4 |
| | 10 | Int. | ★ | 0340X10DB | 46 | 49 | 97 | 4 |
| | 20 | Int. | ★ | 0340X20DB | 81 | 84 | 132 | 4 |
| | 30 | Int. | ★ | 0340X30DB | 116 | 119 | 167 | 4 |
| 3.5 | 5 | Int. | ★ | 0350LB | 39 | 39 | 87 | 4 |
| | 10 | Int. | □ | 0350X10DB | 46 | 49 | 97 | 4 |
| | 20 | Int. | □ | 0350X20DB | 81 | 84 | 132 | 4 |
| | 30 | Int. | □ | 0350X30DB | 116 | 119 | 167 | 4 |
| 3.6 | 5 | Int. | ★ | 0360LB | 44 | 44 | 92 | 4 |
| | 10 | Int. | ★ | 0360X10DB | 52 | 55 | 103 | 4 |
| | 20 | Int. | ★ | 0360X20DB | 92 | 95 | 143 | 4 |
| | 30 | Int. | ★ | 0360X30DB | 132 | 135 | 183 | 4 |
| 3.7 | 5 | Int. | ★ | 0370LB | 44 | 44 | 92 | 4 |
| | 10 | Int. | □ | 0370X10DB | 52 | 55 | 103 | 4 |
| | 20 | Int. | □ | 0370X20DB | 92 | 95 | 143 | 4 |
| | 30 | Int. | □ | 0370X30DB | 132 | 135 | 183 | 4 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 3.8 | 5 | Int. | ★ | MNS0380LB | 44 | 44 | 92 | 4 |
| | 10 | Int. | □ | 0380X10DB | 52 | 55 | 103 | 4 |
| | 20 | Int. | □ | 0380X20DB | 92 | 95 | 143 | 4 |
| | 30 | Int. | □ | 0380X30DB | 132 | 135 | 183 | 4 |
| 3.9 | 5 | Int. | ★ | 0390LB | 44 | 44 | 92 | 4 |
| | 10 | Int. | ★ | 0390X10DB | 52 | 55 | 103 | 4 |
| | 20 | Int. | ★ | 0390X20DB | 92 | 95 | 143 | 4 |
| | 30 | Int. | ★ | 0390X30DB | 132 | 135 | 183 | 4 |
| 4.0 | 5 | Int. | ★ | 0400LB | 44 | 44 | 92 | 4 |
| | 10 | Int. | ★ | 0400X10DB | 52 | 55 | 103 | 4 |
| | 20 | Int. | ★ | 0400X20DB | 92 | 95 | 143 | 4 |
| | 30 | Int. | ★ | 0400X30DB | 132 | 135 | 183 | 4 |
| 4.1 | 5 | Int. | ★ | 0410LB | 50 | 50 | 100 | 5 |
| | 10 | Int. | □ | 0410X10DB | 59 | 62 | 112 | 5 |
| | 20 | Int. | □ | 0410X20DB | 104 | 107 | 157 | 5 |
| | 30 | Int. | □ | 0410X30DB | 149 | 152 | 202 | 5 |
| 4.2 | 5 | Int. | ★ | 0420LB | 50 | 50 | 100 | 5 |
| | 10 | Int. | □ | 0420X10DB | 59 | 62 | 112 | 5 |
| | 20 | Int. | □ | 0420X20DB | 104 | 107 | 157 | 5 |
| | 30 | Int. | □ | 0420X30DB | 149 | 152 | 202 | 5 |
| 4.3 | 5 | Int. | ★ | 0430LB | 50 | 50 | 100 | 5 |
| | 10 | Int. | □ | 0430X10DB | 59 | 62 | 112 | 5 |
| | 20 | Int. | □ | 0430X20DB | 104 | 107 | 157 | 5 |
| | 30 | Int. | □ | 0430X30DB | 149 | 152 | 202 | 5 |
| 4.4 | 5 | Int. | ★ | 0440LB | 50 | 50 | 100 | 5 |
| | 10 | Int. | □ | 0440X10DB | 59 | 62 | 112 | 5 |
| | 20 | Int. | □ | 0440X20DB | 104 | 107 | 157 | 5 |
| | 30 | Int. | □ | 0440X30DB | 149 | 152 | 202 | 5 |
| 4.5 | 5 | Int. | ★ | 0450LB | 50 | 50 | 100 | 5 |
| | 10 | Int. | □ | 0450X10DB | 59 | 62 | 112 | 5 |
| | 20 | Int. | □ | 0450X20DB | 104 | 107 | 157 | 5 |
| | 30 | Int. | □ | 0450X30DB | 149 | 152 | 202 | 5 |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

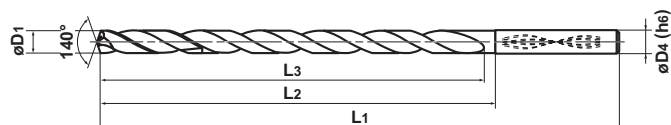


| D1 | D1 ≤ 3.0 | 3.0 < D1 ≤ 6.0 | 6.0 < D1 ≤ 10.0 | 10.0 < D1 ≤ 14.0 |
|------------|-------------|----------------|-----------------|------------------|
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 4.6 | 5 | Int. | ★ | MNS0460LB | 55 | 55 | 105 | 5 |
| | 10 | Int. | □ | 0460X10DB | 65 | 68 | 118 | 5 |
| | 20 | Int. | □ | 0460X20DB | 115 | 118 | 168 | 5 |
| | 30 | Int. | □ | 0460X30DB | 165 | 168 | 218 | 5 |
| 4.7 | 5 | Int. | ★ | 0470LB | 55 | 55 | 105 | 5 |
| | 10 | Int. | □ | 0470X10DB | 65 | 68 | 118 | 5 |
| | 20 | Int. | □ | 0470X20DB | 115 | 118 | 168 | 5 |
| | 30 | Int. | □ | 0470X30DB | 165 | 168 | 218 | 5 |
| 4.8 | 5 | Int. | ★ | 0480LB | 55 | 55 | 105 | 5 |
| | 10 | Int. | □ | 0480X10DB | 65 | 68 | 118 | 5 |
| | 20 | Int. | □ | 0480X20DB | 115 | 118 | 168 | 5 |
| | 30 | Int. | □ | 0480X30DB | 165 | 168 | 218 | 5 |
| 4.9 | 5 | Int. | ★ | 0490LB | 55 | 55 | 105 | 5 |
| | 10 | Int. | ★ | 0490X10DB | 65 | 68 | 118 | 5 |
| | 20 | Int. | ★ | 0490X20DB | 115 | 118 | 168 | 5 |
| | 30 | Int. | ★ | 0490X30DB | 165 | 168 | 218 | 5 |
| 5.0 | 5 | Int. | ★ | 0500LB | 44 | 44 | 100 | 6 |
| | 10 | Int. | ★ | 0500X10DB | 65 | 68 | 118 | 5 |
| | 20 | Int. | ★ | 0500X20DB | 115 | 118 | 168 | 5 |
| | 30 | Int. | ★ | 0500X30DB | 165 | 168 | 218 | 5 |
| 5.1 | 5 | Int. | ★ | 0510LB | 44 | 44 | 100 | 6 |
| | 10 | Int. | ★ | 0510X10DB | 72 | 75 | 127 | 6 |
| | 20 | Int. | ★ | 0510X20DB | 127 | 130 | 182 | 6 |
| | 30 | Int. | ★ | 0510X30DB | 182 | 185 | 237 | 6 |
| 5.2 | 5 | Int. | ★ | 0520LB | 44 | 44 | 100 | 6 |
| | 10 | Int. | □ | 0520X10DB | 72 | 75 | 127 | 6 |
| | 20 | Int. | □ | 0520X20DB | 127 | 130 | 182 | 6 |
| | 30 | Int. | □ | 0520X30DB | 182 | 185 | 237 | 6 |
| 5.3 | 5 | Int. | ★ | 0530LB | 44 | 44 | 100 | 6 |
| | 10 | Int. | □ | 0530X10DB | 72 | 75 | 127 | 6 |
| | 20 | Int. | □ | 0530X20DB | 127 | 130 | 182 | 6 |
| | 30 | Int. | □ | 0530X30DB | 182 | 185 | 237 | 6 |
| 5.4 | 5 | Int. | ★ | 0540LB | 44 | 44 | 100 | 6 |
| | 10 | Int. | □ | 0540X10DB | 72 | 75 | 127 | 6 |
| | 20 | Int. | □ | 0540X20DB | 127 | 130 | 182 | 6 |
| | 30 | Int. | □ | 0540X30DB | 182 | 185 | 237 | 6 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 5.5 | 5 | Int. | ★ | MNS0550LB | 44 | 44 | 100 | 6 |
| | 10 | Int. | ★ | 0550X10DB | 72 | 75 | 127 | 6 |
| | 20 | Int. | ★ | 0550X20DB | 127 | 130 | 182 | 6 |
| | 30 | Int. | ★ | 0550X30DB | 182 | 185 | 237 | 6 |
| 5.6 | 5 | Int. | ★ | 0560LB | 48 | 48 | 100 | 6 |
| | 10 | Int. | □ | 0560X10DB | 78 | 81 | 133 | 6 |
| | 20 | Int. | □ | 0560X20DB | 138 | 141 | 193 | 6 |
| | 30 | Int. | □ | 0560X30DB | 198 | 201 | 253 | 6 |
| 5.7 | 5 | Int. | ★ | 0570LB | 48 | 48 | 100 | 6 |
| | 10 | Int. | □ | 0570X10DB | 78 | 81 | 133 | 6 |
| | 20 | Int. | □ | 0570X20DB | 138 | 141 | 193 | 6 |
| | 30 | Int. | □ | 0570X30DB | 198 | 201 | 253 | 6 |
| 5.8 | 5 | Int. | ★ | 0580LB | 48 | 48 | 100 | 6 |
| | 10 | Int. | □ | 0580X10DB | 78 | 81 | 133 | 6 |
| | 20 | Int. | □ | 0580X20DB | 138 | 141 | 193 | 6 |
| | 30 | Int. | □ | 0580X30DB | 198 | 201 | 253 | 6 |
| 5.9 | 5 | Int. | ★ | 0590LB | 48 | 48 | 100 | 6 |
| | 10 | Int. | □ | 0590X10DB | 78 | 81 | 133 | 6 |
| | 20 | Int. | □ | 0590X20DB | 138 | 141 | 193 | 6 |
| | 30 | Int. | □ | 0590X30DB | 198 | 201 | 253 | 6 |
| 6.0 | 5 | Int. | ★ | 0600LB | 48 | 48 | 100 | 6 |
| | 10 | Int. | ★ | 0600X10DB | 78 | 81 | 133 | 6 |
| | 20 | Int. | ★ | 0600X20DB | 138 | 141 | 193 | 6 |
| | 30 | Int. | ★ | 0600X30DB | 198 | 201 | 253 | 6 |
| 6.1 | 5 | Int. | ★ | 0610LB | 52 | 52 | 109 | 7 |
| | 10 | Int. | ★ | 0610X10DB | 85 | 88 | 141 | 7 |
| | 20 | Int. | ★ | 0610X20DB | 150 | 153 | 206 | 7 |
| | 30 | Int. | ★ | 0610X30DB | 215 | 218 | 271 | 7 |
| 6.2 | 5 | Int. | ★ | 0620LB | 52 | 52 | 109 | 7 |
| | 10 | Int. | □ | 0620X10DB | 85 | 88 | 141 | 7 |
| | 20 | Int. | □ | 0620X20DB | 150 | 153 | 206 | 7 |
| | 30 | Int. | □ | 0620X30DB | 215 | 218 | 271 | 7 |
| 6.3 | 5 | Int. | ★ | 0630LB | 52 | 52 | 109 | 7 |
| | 10 | Int. | □ | 0630X10DB | 85 | 88 | 141 | 7 |
| | 20 | Int. | □ | 0630X20DB | 150 | 153 | 206 | 7 |
| | 30 | Int. | □ | 0630X30DB | 215 | 218 | 271 | 7 |





| | | | | |
|------------|-------------|-------------|-------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤14.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 6.4 | 5 | Int. | ★ | MNS0640LB | 52 | 52 | 109 | 7 |
| | 10 | Int. | □ | 0640X10DB | 85 | 88 | 141 | 7 |
| | 20 | Int. | □ | 0640X20DB | 150 | 153 | 206 | 7 |
| | 30 | Int. | □ | 0640X30DB | 215 | 218 | 271 | 7 |
| 6.5 | 5 | Int. | ★ | 0650LB | 52 | 52 | 109 | 7 |
| | 10 | Int. | ★ | 0650X10DB | 85 | 88 | 141 | 7 |
| | 20 | Int. | ★ | 0650X20DB | 150 | 153 | 206 | 7 |
| | 30 | Int. | ★ | 0650X30DB | 215 | 218 | 271 | 7 |
| 6.6 | 5 | Int. | ★ | 0660LB | 56 | 56 | 109 | 7 |
| | 10 | Int. | □ | 0660X10DB | 91 | 94 | 147 | 7 |
| | 20 | Int. | □ | 0660X20DB | 161 | 164 | 217 | 7 |
| | 30 | Int. | □ | 0660X30DB | 231 | 234 | 287 | 7 |
| 6.7 | 5 | Int. | ★ | 0670LB | 56 | 56 | 109 | 7 |
| | 10 | Int. | ★ | 0670X10DB | 91 | 94 | 147 | 7 |
| | 20 | Int. | ★ | 0670X20DB | 161 | 164 | 217 | 7 |
| | 30 | Int. | ★ | 0670X30DB | 231 | 234 | 287 | 7 |
| 6.8 | 5 | Int. | ★ | 0680LB | 56 | 56 | 109 | 7 |
| | 10 | Int. | □ | 0680X10DB | 91 | 94 | 147 | 7 |
| | 20 | Int. | □ | 0680X20DB | 161 | 164 | 217 | 7 |
| | 30 | Int. | □ | 0680X30DB | 231 | 234 | 287 | 7 |
| 6.9 | 5 | Int. | ★ | 0690LB | 56 | 56 | 109 | 7 |
| | 10 | Int. | □ | 0690X10DB | 91 | 94 | 147 | 7 |
| | 20 | Int. | □ | 0690X20DB | 161 | 164 | 217 | 7 |
| | 30 | Int. | □ | 0690X30DB | 231 | 234 | 287 | 7 |
| 7.0 | 5 | Int. | ★ | 0700LB | 56 | 56 | 109 | 7 |
| | 10 | Int. | ★ | 0700X10DB | 91 | 94 | 147 | 7 |
| | 20 | Int. | ★ | 0700X20DB | 161 | 164 | 217 | 7 |
| | 30 | Int. | ★ | 0700X30DB | 231 | 234 | 287 | 7 |
| 7.1 | 5 | Int. | ★ | 0710LB | 60 | 64 | 118 | 8 |
| | 10 | Int. | □ | 0710X10DB | 98 | 101 | 155 | 8 |
| | 20 | Int. | □ | 0710X20DB | 173 | 176 | 230 | 8 |
| | 30 | Int. | □ | 0710X30DB | 248 | 251 | 305 | 8 |
| 7.2 | 5 | Int. | ★ | 0720LB | 60 | 64 | 118 | 8 |
| | 10 | Int. | ★ | 0720X10DB | 98 | 101 | 155 | 8 |
| | 20 | Int. | ★ | 0720X20DB | 173 | 176 | 230 | 8 |
| | 30 | Int. | ★ | 0720X30DB | 248 | 251 | 305 | 8 |

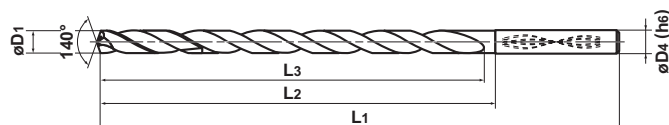
| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 7.3 | 5 | Int. | ★ | MNS0730LB | 60 | 64 | 118 | 8 |
| | 10 | Int. | □ | 0730X10DB | 98 | 101 | 155 | 8 |
| | 20 | Int. | □ | 0730X20DB | 173 | 176 | 230 | 8 |
| | 30 | Int. | □ | 0730X30DB | 248 | 251 | 305 | 8 |
| 7.4 | 5 | Int. | ★ | 0740LB | 60 | 64 | 118 | 8 |
| | 10 | Int. | □ | 0740X10DB | 98 | 101 | 155 | 8 |
| | 20 | Int. | □ | 0740X20DB | 173 | 176 | 230 | 8 |
| | 30 | Int. | □ | 0740X30DB | 248 | 251 | 305 | 8 |
| 7.5 | 5 | Int. | ★ | 0750LB | 60 | 64 | 118 | 8 |
| | 10 | Int. | □ | 0750X10DB | 98 | 101 | 155 | 8 |
| | 20 | Int. | □ | 0750X20DB | 173 | 176 | 230 | 8 |
| | 30 | Int. | □ | 0750X30DB | 248 | 251 | 305 | 8 |
| 7.6 | 5 | Int. | ★ | 0760LB | 64 | 64 | 118 | 8 |
| | 10 | Int. | □ | 0760X10DB | 104 | 107 | 161 | 8 |
| | 20 | Int. | □ | 0760X20DB | 184 | 187 | 241 | 8 |
| | 30 | Int. | □ | 0760X30DB | 264 | 267 | 321 | 8 |
| 7.7 | 5 | Int. | ★ | 0770LB | 64 | 64 | 118 | 8 |
| | 10 | Int. | □ | 0770X10DB | 104 | 107 | 161 | 8 |
| | 20 | Int. | □ | 0770X20DB | 184 | 187 | 241 | 8 |
| | 30 | Int. | □ | 0770X30DB | 264 | 267 | 321 | 8 |
| 7.8 | 5 | Int. | ★ | 0780LB | 64 | 64 | 118 | 8 |
| | 10 | Int. | ★ | 0780X10DB | 104 | 107 | 161 | 8 |
| | 20 | Int. | ★ | 0780X20DB | 184 | 187 | 241 | 8 |
| | 30 | Int. | ★ | 0780X30DB | 264 | 267 | 321 | 8 |
| 7.9 | 5 | Int. | ★ | 0790LB | 64 | 64 | 118 | 8 |
| | 10 | Int. | □ | 0790X10DB | 104 | 107 | 161 | 8 |
| | 20 | Int. | □ | 0790X20DB | 184 | 187 | 241 | 8 |
| | 30 | Int. | □ | 0790X30DB | 264 | 267 | 321 | 8 |
| 8.0 | 5 | Int. | ★ | 0800LB | 64 | 64 | 118 | 8 |
| | 10 | Int. | ★ | 0800X10DB | 104 | 107 | 161 | 8 |
| | 20 | Int. | ★ | 0800X20DB | 184 | 187 | 241 | 8 |
| | 30 | Int. | ★ | 0800X30DB | 264 | 267 | 321 | 8 |
| 8.1 | 5 | Int. | ★ | 0810LB | 68 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0810X10DB | 111 | 114 | 169 | 9 |
| | 20 | Int. | □ | 0810X20DB | 196 | 199 | 254 | 9 |
| | 30 | Int. | □ | 0810X30DB | 281 | 284 | 339 | 9 |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 8.2 | 5 | Int. | ★ | MNS0820LB | 68 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0820X10DB | 111 | 114 | 169 | 9 |
| | 20 | Int. | □ | 0820X20DB | 196 | 199 | 254 | 9 |
| | 30 | Int. | □ | 0820X30DB | 281 | 284 | 339 | 9 |
| 8.3 | 5 | Int. | ★ | 0830LB | 68 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0830X10DB | 111 | 114 | 169 | 9 |
| | 20 | Int. | □ | 0830X20DB | 196 | 199 | 254 | 9 |
| | 30 | Int. | □ | 0830X30DB | 281 | 284 | 339 | 9 |
| 8.4 | 5 | Int. | ★ | 0840LB | 68 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0840X10DB | 111 | 114 | 169 | 9 |
| | 20 | Int. | □ | 0840X20DB | 196 | 199 | 254 | 9 |
| | 30 | Int. | □ | 0840X30DB | 281 | 284 | 339 | 9 |
| 8.5 | 5 | Int. | ★ | 0850LB | 68 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0850X10DB | 111 | 114 | 169 | 9 |
| | 20 | Int. | □ | 0850X20DB | 196 | 199 | 254 | 9 |
| | 30 | Int. | □ | 0850X30DB | 281 | 284 | 339 | 9 |
| 8.6 | 5 | Int. | ★ | 0860LB | 72 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0860X10DB | 117 | 120 | 175 | 9 |
| | 20 | Int. | □ | 0860X20DB | 207 | 210 | 265 | 9 |
| | 30 | Int. | □ | 0860X30DB | 297 | 300 | 355 | 9 |
| 8.7 | 5 | Int. | ★ | 0870LB | 72 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0870X10DB | 117 | 120 | 175 | 9 |
| | 20 | Int. | □ | 0870X20DB | 207 | 210 | 265 | 9 |
| | 30 | Int. | □ | 0870X30DB | 297 | 300 | 355 | 9 |
| 8.8 | 5 | Int. | ★ | 0880LB | 72 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0880X10DB | 117 | 120 | 175 | 9 |
| | 20 | Int. | □ | 0880X20DB | 207 | 210 | 265 | 9 |
| | 30 | Int. | □ | 0880X30DB | 297 | 300 | 355 | 9 |
| 8.9 | 5 | Int. | ★ | 0890LB | 72 | 72 | 127 | 9 |
| | 10 | Int. | □ | 0890X10DB | 117 | 120 | 175 | 9 |
| | 20 | Int. | □ | 0890X20DB | 207 | 210 | 265 | 9 |
| | 30 | Int. | □ | 0890X30DB | 297 | 300 | 355 | 9 |
| 9.0 | 5 | Int. | ★ | 0900LB | 72 | 72 | 127 | 9 |
| | 10 | Int. | ★ | 0900X10DB | 117 | 120 | 175 | 9 |
| | 20 | Int. | ★ | 0900X20DB | 207 | 210 | 265 | 9 |
| | 30 | Int. | ★ | 0900X30DB | 297 | 300 | 355 | 9 |
| 9.1 | 5 | Int. | ★ | 0910LB | 76 | 80 | 136 | 10 |
| | 10 | Int. | □ | 0910X10DB | 124 | 127 | 182 | 10 |
| | 20 | Int. | □ | 0910X20DB | 219 | 222 | 277 | 10 |
| | 30 | Int. | □ | 0910X30DB | 314 | 317 | 372 | 10 |
| 9.2 | 5 | Int. | ★ | 0920LB | 76 | 80 | 136 | 10 |
| | 10 | Int. | □ | 0920X10DB | 124 | 127 | 182 | 10 |
| | 20 | Int. | □ | 0920X20DB | 219 | 222 | 277 | 10 |
| | 30 | Int. | □ | 0920X30DB | 314 | 317 | 372 | 10 |
| 9.3 | 5 | Int. | ★ | 0930LB | 76 | 80 | 136 | 10 |
| | 10 | Int. | □ | 0930X10DB | 124 | 127 | 182 | 10 |
| | 20 | Int. | □ | 0930X20DB | 219 | 222 | 277 | 10 |
| | 30 | Int. | □ | 0930X30DB | 314 | 317 | 372 | 10 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 9.4 | 5 | Int. | ★ | MNS0940LB | 76 | 80 | 136 | 10 |
| | 10 | Int. | □ | 0940X10DB | 124 | 127 | 182 | 10 |
| | 20 | Int. | □ | 0940X20DB | 219 | 222 | 277 | 10 |
| | 30 | Int. | □ | 0940X30DB | 314 | 317 | 372 | 10 |
| 9.5 | 5 | Int. | ★ | 0950LB | 76 | 80 | 136 | 10 |
| | 10 | Int. | □ | 0950X10DB | 124 | 127 | 182 | 10 |
| | 20 | Int. | □ | 0950X20DB | 219 | 222 | 277 | 10 |
| | 30 | Int. | □ | 0950X30DB | 314 | 317 | 372 | 10 |
| 9.6 | 5 | Int. | ★ | 0960LB | 80 | 80 | 136 | 10 |
| | 10 | Int. | □ | 0960X10DB | 130 | 133 | 188 | 10 |
| | 20 | Int. | □ | 0960X20DB | 230 | 233 | 288 | 10 |
| | 30 | Int. | □ | 0960X30DB | 330 | 333 | 388 | 10 |
| 9.7 | 5 | Int. | ★ | 0970LB | 80 | 80 | 136 | 10 |
| | 10 | Int. | □ | 0970X10DB | 130 | 133 | 188 | 10 |
| | 20 | Int. | □ | 0970X20DB | 230 | 233 | 288 | 10 |
| | 30 | Int. | □ | 0970X30DB | 330 | 333 | 388 | 10 |
| 9.8 | 5 | Int. | ★ | 0980LB | 80 | 80 | 136 | 10 |
| | 10 | Int. | ★ | 0980X10DB | 130 | 133 | 188 | 10 |
| | 20 | Int. | ★ | 0980X20DB | 230 | 233 | 288 | 10 |
| | 30 | Int. | ★ | 0980X30DB | 330 | 333 | 388 | 10 |
| 9.9 | 5 | Int. | ★ | 0990LB | 80 | 80 | 136 | 10 |
| | 10 | Int. | □ | 0990X10DB | 130 | 133 | 188 | 10 |
| | 20 | Int. | □ | 0990X20DB | 230 | 233 | 288 | 10 |
| | 30 | Int. | □ | 0990X30DB | 330 | 333 | 388 | 10 |
| 10.0 | 5 | Int. | ★ | 1000LB | 80 | 80 | 136 | 10 |
| | 10 | Int. | ★ | 1000X10DB | 130 | 133 | 188 | 10 |
| | 20 | Int. | ★ | 1000X20DB | 230 | 233 | 288 | 10 |
| | 30 | Int. | ★ | 1000X30DB | 330 | 333 | 388 | 10 |
| 10.1 | 5 | Int. | ★ | 1010LB | 84 | 88 | 149 | 11 |
| | 10 | Int. | □ | 1010X10DB | 137 | 140 | 201 | 11 |
| | 20 | Int. | □ | 1010X20DB | 242 | 245 | 306 | 11 |
| 10.2 | 5 | Int. | ★ | 1020LB | 84 | 88 | 149 | 11 |
| | 10 | Int. | □ | 1020X10DB | 137 | 140 | 201 | 11 |
| | 20 | Int. | □ | 1020X20DB | 242 | 245 | 306 | 11 |
| 10.3 | 5 | Int. | ★ | 1030LB | 84 | 88 | 149 | 11 |
| | 10 | Int. | □ | 1030X10DB | 137 | 140 | 201 | 11 |
| | 20 | Int. | □ | 1030X20DB | 242 | 245 | 306 | 11 |
| 10.4 | 5 | Int. | ★ | 1040LB | 84 | 88 | 149 | 11 |
| | 10 | Int. | □ | 1040X10DB | 137 | 140 | 201 | 11 |
| | 20 | Int. | □ | 1040X20DB | 242 | 245 | 306 | 11 |
| 10.5 | 5 | Int. | ★ | 1050LB | 84 | 88 | 149 | 11 |
| | 10 | Int. | ★ | 1050X10DB | 137 | 140 | 201 | 11 |
| | 20 | Int. | ★ | 1050X20DB | 242 | 245 | 306 | 11 |
| 10.6 | 5 | Int. | ★ | 1060LB | 88 | 88 | 149 | 11 |
| | 10 | Int. | □ | 1060X10DB | 143 | 146 | 207 | 11 |
| | 20 | Int. | □ | 1060X20DB | 253 | 256 | 317 | 11 |





| | | | | |
|------------|-------------|-------------|-------------|--------------|
| D1 | D1≤3.0 | 3.0<D1≤6.0 | 6.0<D1≤10.0 | 10.0<D1≤14.0 |
| Tolleranza | 0 -0.014 | 0 -0.018 | 0 -0.022 | 0 -0.027 |

Nota: Le punte MNS possono essere usate con mandrini a calettamento termico.

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 10.7 | 5 | Int. | ★ | MNS1070LB | 88 | 88 | 149 | 11 |
| | 10 | Int. | □ | 1070X10DB | 143 | 146 | 207 | 11 |
| | 20 | Int. | □ | 1070X20DB | 253 | 256 | 317 | 11 |
| 10.8 | 5 | Int. | ★ | 1080LB | 88 | 88 | 149 | 11 |
| | 10 | Int. | □ | 1080X10DB | 143 | 146 | 207 | 11 |
| | 20 | Int. | □ | 1080X20DB | 253 | 256 | 317 | 11 |
| 10.9 | 5 | Int. | ★ | 1090LB | 88 | 88 | 149 | 11 |
| | 10 | Int. | □ | 1090X10DB | 143 | 146 | 207 | 11 |
| | 20 | Int. | □ | 1090X20DB | 253 | 256 | 317 | 11 |
| 11.0 | 5 | Int. | ★ | 1100LB | 88 | 88 | 149 | 11 |
| | 10 | Int. | ★ | 1100X10DB | 143 | 146 | 207 | 11 |
| | 20 | Int. | ★ | 1100X20DB | 253 | 256 | 317 | 11 |
| 11.1 | 5 | Int. | ★ | 1110LB | 92 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1110X10DB | 150 | 153 | 215 | 12 |
| | 20 | Int. | □ | 1110X20DB | 265 | 268 | 330 | 12 |
| 11.2 | 5 | Int. | ★ | 1120LB | 92 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1120X10DB | 150 | 153 | 215 | 12 |
| | 20 | Int. | □ | 1120X20DB | 265 | 268 | 330 | 12 |
| 11.3 | 5 | Int. | ★ | 1130LB | 92 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1130X10DB | 150 | 153 | 215 | 12 |
| | 20 | Int. | □ | 1130X20DB | 265 | 268 | 330 | 12 |
| 11.4 | 5 | Int. | ★ | 1140LB | 92 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1140X10DB | 150 | 153 | 215 | 12 |
| | 20 | Int. | □ | 1140X20DB | 265 | 268 | 330 | 12 |
| 11.5 | 5 | Int. | ★ | 1150LB | 92 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1150X10DB | 150 | 153 | 215 | 12 |
| | 20 | Int. | □ | 1150X20DB | 265 | 268 | 330 | 12 |
| 11.6 | 5 | Int. | ★ | 1160LB | 96 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1160X10DB | 156 | 159 | 221 | 12 |
| | 20 | Int. | □ | 1160X20DB | 276 | 279 | 341 | 12 |
| 11.7 | 5 | Int. | ★ | 1170LB | 96 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1170X10DB | 156 | 159 | 221 | 12 |
| | 20 | Int. | □ | 1170X20DB | 276 | 279 | 341 | 12 |
| 11.8 | 5 | Int. | ★ | 1180LB | 96 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1180X10DB | 156 | 159 | 221 | 12 |
| | 20 | Int. | □ | 1180X20DB | 276 | 279 | 341 | 12 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 11.9 | 5 | Int. | ★ | MNS1190LB | 96 | 96 | 158 | 12 |
| | 10 | Int. | □ | 1190X10DB | 156 | 159 | 221 | 12 |
| | 20 | Int. | □ | 1190X20DB | 276 | 279 | 341 | 12 |
| 12.0 | 5 | Int. | ★ | 1200LB | 96 | 96 | 158 | 12 |
| | 10 | Int. | ★ | 1200X10DB | 156 | 159 | 221 | 12 |
| | 20 | Int. | ★ | 1200X20DB | 276 | 279 | 341 | 12 |
| 12.1 | 5 | Int. | ★ | 1210LB | 100 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1210X10DB | 163 | 166 | 229 | 13 |
| | 20 | Int. | □ | 1210X20DB | 288 | 291 | 354 | 13 |
| 12.2 | 5 | Int. | ★ | 1220LB | 100 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1220X10DB | 163 | 166 | 229 | 13 |
| | 20 | Int. | □ | 1220X20DB | 288 | 291 | 354 | 13 |
| 12.3 | 5 | Int. | ★ | 1230LB | 100 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1230X10DB | 163 | 166 | 229 | 13 |
| | 20 | Int. | □ | 1230X20DB | 288 | 291 | 354 | 13 |
| 12.4 | 5 | Int. | ★ | 1240LB | 100 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1240X10DB | 163 | 166 | 229 | 13 |
| | 20 | Int. | □ | 1240X20DB | 288 | 291 | 354 | 13 |
| 12.5 | 5 | Int. | ★ | 1250LB | 100 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1250X10DB | 163 | 166 | 229 | 13 |
| | 20 | Int. | □ | 1250X20DB | 288 | 291 | 354 | 13 |
| 12.6 | 5 | Int. | ★ | 1260LB | 104 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1260X10DB | 169 | 172 | 235 | 13 |
| | 20 | Int. | □ | 1260X20DB | 299 | 302 | 365 | 13 |
| 12.7 | 5 | Int. | ★ | 1270LB | 104 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1270X10DB | 169 | 172 | 235 | 13 |
| | 20 | Int. | □ | 1270X20DB | 299 | 302 | 365 | 13 |
| 12.8 | 5 | Int. | ★ | 1280LB | 104 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1280X10DB | 169 | 172 | 235 | 13 |
| | 20 | Int. | □ | 1280X20DB | 299 | 302 | 365 | 13 |
| 12.9 | 5 | Int. | ★ | 1290LB | 104 | 104 | 167 | 13 |
| | 10 | Int. | □ | 1290X10DB | 169 | 172 | 235 | 13 |
| | 20 | Int. | □ | 1290X20DB | 299 | 302 | 365 | 13 |
| 13.0 | 5 | Int. | ★ | 1300LB | 104 | 104 | 167 | 13 |
| | 10 | Int. | ★ | 1300X10DB | 169 | 172 | 235 | 13 |
| | 20 | Int. | ★ | 1300X20DB | 299 | 302 | 365 | 13 |

Nota: per le geometrie non comprese nella brochure, si prega di contattare Mitsubishi Carbide (ad es. diametri e lunghezze diversi).

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 13.1 | 5 | Int. | ★ | MNS1310LB | 108 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1310X10DB | 176 | 179 | 243 | 14 |
| | 20 | Int. | □ | 1310X20DB | 311 | 314 | 378 | 14 |
| 13.2 | 5 | Int. | ★ | 1320LB | 108 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1320X10DB | 176 | 179 | 243 | 14 |
| | 20 | Int. | □ | 1320X20DB | 311 | 314 | 378 | 14 |
| 13.3 | 5 | Int. | ★ | 1330LB | 108 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1330X10DB | 176 | 179 | 243 | 14 |
| | 20 | Int. | □ | 1330X20DB | 311 | 314 | 378 | 14 |
| 13.4 | 5 | Int. | ★ | 1340LB | 108 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1340X10DB | 176 | 179 | 243 | 14 |
| | 20 | Int. | □ | 1340X20DB | 311 | 314 | 378 | 14 |
| 13.5 | 5 | Int. | ★ | 1350LB | 108 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1350X10DB | 176 | 179 | 243 | 14 |
| | 20 | Int. | □ | 1350X20DB | 311 | 314 | 378 | 14 |

| Diam. punta D1 (mm) | Profondità foro (l/d) | Refrigerante (Int./Est.) | Disponibilità TF15 | Codice di ordinazione | Dimensioni (mm) | | | |
|---------------------------|--------------------------|-----------------------------|-----------------------|-----------------------|-----------------|-----|-----|----|
| | | | | | L3 | L2 | L1 | D4 |
| 13.6 | 5 | Int. | ★ | MNS1360LB | 112 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1360X10DB | 182 | 185 | 249 | 14 |
| | 20 | Int. | □ | 1360X20DB | 322 | 325 | 389 | 14 |
| 13.7 | 5 | Int. | ★ | 1370LB | 112 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1370X10DB | 182 | 185 | 249 | 14 |
| | 20 | Int. | □ | 1370X20DB | 322 | 325 | 389 | 14 |
| 13.8 | 5 | Int. | ★ | 1380LB | 112 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1380X10DB | 182 | 185 | 249 | 14 |
| | 20 | Int. | □ | 1380X20DB | 322 | 325 | 389 | 14 |
| 13.9 | 5 | Int. | ★ | 1390LB | 112 | 112 | 176 | 14 |
| | 10 | Int. | □ | 1390X10DB | 182 | 185 | 249 | 14 |
| | 20 | Int. | □ | 1390X20DB | 322 | 325 | 389 | 14 |
| 14.0 | 5 | Int. | ★ | 1400LB | 112 | 112 | 176 | 14 |
| | 10 | Int. | ★ | 1400X10DB | 182 | 185 | 249 | 14 |
| | 20 | Int. | ★ | 1400X20DB | 322 | 325 | 389 | 14 |

Parametri di taglio consigliati

| Materiale da lavorare | Tipo di punta | Diametro della punta | | | | | |
|---|---------------|----------------------------|-----------------------|----------------------------|-----------------------|----------------------------|-----------------------|
| | | φ 3.0—φ 6.0 | | φ 6.0—φ 10.0 | | φ 10.0—φ 14.0 | |
| | | Velocità di taglio (m/min) | Avanzamento (mm/giro) | Velocità di taglio (m/min) | Avanzamento (mm/giro) | Velocità di taglio (m/min) | Avanzamento (mm/giro) |
| N Pezzo fuso in lega di alluminio Pezzo pressofuso in alluminio | L/D 3, 5, 8 | 80—150 | 0.20—0.50 | 100—200 | 0.30—1.00 | 150—250 | 0.30—1.00 |
| | L/D 10—30 | 60—120 | 0.20—0.50 | 80—150 | 0.30—1.00 | 120—200 | 0.30—1.00 |
| Lega di alluminio lavorata | L/D 3, 5, 8 | 80—150 | 0.15—0.30 | 100—200 | 0.20—0.40 | 150—250 | 0.20—0.40 |
| | L/D 10—30 | 60—120 | 0.15—0.30 | 80—150 | 0.20—0.40 | 120—200 | 0.20—0.40 |

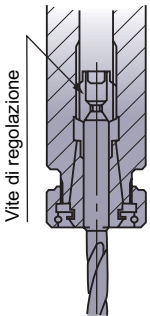
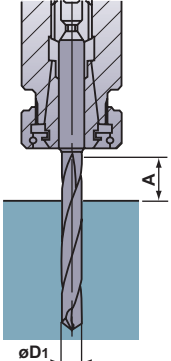
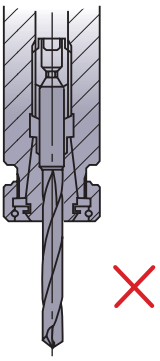
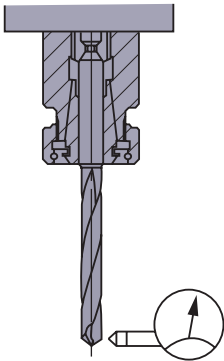
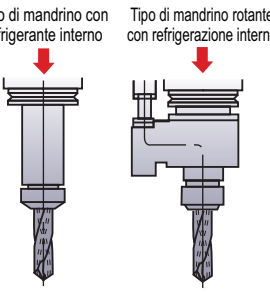
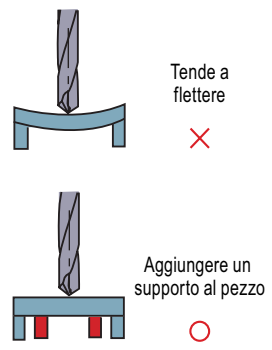
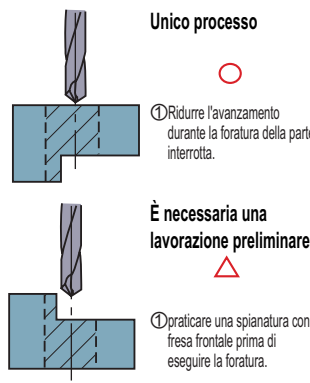
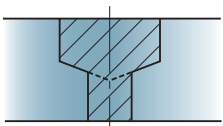
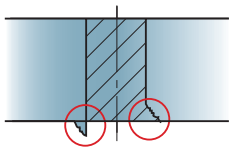
| Materiale da lavorare | Tipo di punta | Diametro della punta | |
|---|---------------|----------------------------|-----------------------|
| | | φ 14.0—φ 20.0 | |
| | | Velocità di taglio (m/min) | Avanzamento (mm/giro) |
| N Pezzo fuso in lega di alluminio Pezzo pressofuso in alluminio | L/D 3, 5, 8 | 150—250 | 0.30—1.00 |
| | L/D 10—30 | — | — |
| Lega di alluminio lavorata | L/D 3, 5, 8 | 150—250 | 0.30—1.00 |
| | L/D 10—30 | — | — |

Nota 1: quando si utilizza una punta con una lunghezza superiore a l/d 10, è necessario utilizzare il preforo come guida.

Il mancato utilizzo del preforo può causare la rottura della punta.

Nota 2: è consigliabile utilizzare la punta MNS, MAE-MB o MAS-MB di Mitsubishi Materials per praticare un foro pilota.

Manuale d'uso per punta MNS (L/D 3, 5, 8)

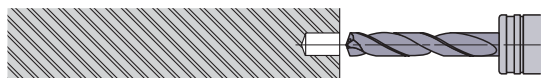
| | | | |
|--|---|--|---|
| <p>Supporto della punta</p>  <p>Vite di regolazione</p> <p>La punta è assicurata dalla vite di regolazione reggispinta assiale.</p> | <p>Lunghezza della punta</p>  <p>$A : \geq D1 \times 1.5$</p> | <p>Installazione della punta</p>  <p>Non bloccare sull'elica.</p> | <p>Tolleranza di installazione</p>  <p>Eccentricità < 0.03mm</p> |
| <p>Metodo refrigerante (MNS)</p>  <p>Tipo di mandrino con refrigerante interno</p> <p>Tipo di mandrino rotante con refrigerazione interna</p> <p>La pressione del refrigerante è pari a circa 0.5 - 7 MPa.</p> | <p>Gestione del refrigerante</p> <p>< Tipo MNS ></p> <ol style="list-style-type: none"> 1) Particelle di polvere e sporcizia possono ostruire i fori del passaggio refrigerante e impedire un flusso efficace. È consigliabile sostituire regolarmente il refrigerante. 2) Piccole particelle di sporco possono bloccare i fori di lubrificazione. Utilizzare un filtro come misura preventiva. Con punte di diametro ridotto, scegliere un filtraggio fine. | <p>Pezzo da lavorare sottile</p>  <p>Tende a flettere</p> <p>Aggiungere un supporto al pezzo</p> | <p>Taglio interrotto</p>  <p>Unico processo</p> <p>① Ridurre l'avanzamento durante la foratura della parte interrotta.</p> <p>È necessaria una lavorazione preliminare</p> <p>① praticare una spianatura con fresa frontale prima di eseguire la foratura.</p> |
| <p>Foratura a gradini</p>  <ol style="list-style-type: none"> ① Suddividere la lavorazione in due processi. ② Praticare prima il foro più grande. <p>*La punta che realizza i due diametri contemporaneamente, può essere prodotta su richiesta.</p> | <p>Bave e scheggiatura del pezzo</p>  <ol style="list-style-type: none"> ① Ridurre la velocità di avanzamento prima dell'uscita della punta dal foro. ② Aggiungere uno smusso. ③ Modificare l'angolo tra i taglienti. | | |

Manuale d'uso per punta lunga di tipo MNS (L/D 10, 12, 15, 20, 25, 30)

Foratura per superficie piana

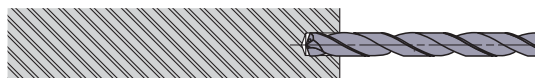
● Foratura di un foro cieco

1. Foratura di un foro pilota



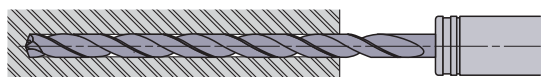
- ① Utilizzare una punta con un angolo tra i taglienti maggiore (più piatta) rispetto al tipo più lungo. È consigliabile utilizzare punte tipo MNS S/L-DIN, MAE-MB o MAS-MB di Mitsubishi.
- ② Assicurarsi che la punta esegua un foro guida ad elevata precisione.
- ③ Profondità di foratura: circa 1D o superiore.
Regolare la profondità del foro pilota in base alla lunghezza del tipo più lungo.

2. Taglio iniziale con punta di tipo lungo



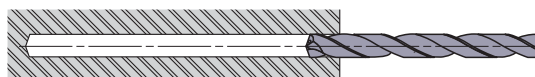
- ① Inserire la punta lunga nel foro pilota ad un numero di giri ridotto. Velocità di taglio 20m-30m/min, avanzamento 0.2mm-0.3mm/giro.
- ② Fermare la punta lunga a 1mm-3mm dal fondo del foro pilota.

3. Foratura in profondità



- ① Iniziare il taglio alla velocità consigliata e avanzare con un ciclo ad avanzamento continuo.

4. Arretramento della punta

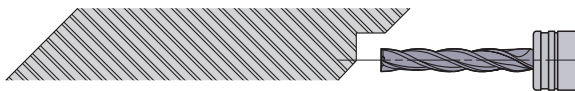


- ① Dopo aver praticato la foratura, ridurre il numero di giri del tagliente fino a circa 1mm-2mm dalla fine del foro. Velocità di taglio pari a circa 20m-30m/min.
- ② Arretrare la punta fino al punto di inizio del foro a una velocità di avanzamento pari a 3000mm/min.
- ③ Infine, liberare il foro a una velocità di taglio pari a 20m-30m/min e una velocità di avanzamento pari a 0.2mm-0.3mm/giro.

Foratura interrotta

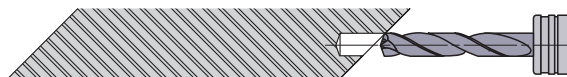
● Foratura passante con interruzione o su superfici irregolari con piani inclinati.

1. Spianatura



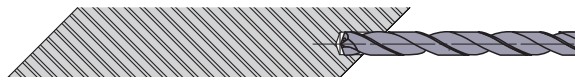
- ① Eseguire una superficie piana utilizzando una fresa frontale o una fresa per cave in grado di spianare. Realizzare il diametro della spianatura della stessa dimensione del diametro del foro profondo richiesto.

2. Foratura di un foro pilota



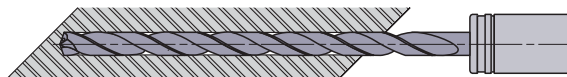
- ① Utilizzare una punta con un angolo tra i taglienti maggiore (più sottile) rispetto al tipo più lungo. È consigliabile utilizzare il tipo di punta MNS, MAE-MB o MAS-MB di Mitsubishi.
- ② Assicurare che la guida pratichi un foro a elevata precisione.
- ③ Profondità di foratura: circa 1D o superiore.
Regolare la profondità del foro pilota in base alla lunghezza del tipo più lungo.

3. Taglio iniziale con punta di tipo lungo



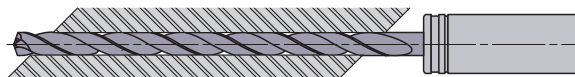
- ① Praticare il foro pilota a un numero di giri ridotto. Velocità di taglio 20m-30m/min, avanzamento 0.2mm-0.3mm/giro.
- ② Interrompere la punta di tipo lungo pari a 1mm-3mm della parte inferiore del foro pilota.

4. Foratura in profondità



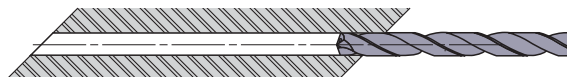
- ① Iniziare il taglio alla velocità consigliata e avanzare con un ciclo ad avanzamento continuo.

5. Sfondamento



- ① Il tagliente potrebbe essere danneggiato in fase di sfondamento.
- ② È consigliabile una velocità di avanzamento pari a 0.05mm-0.1mm/giro.

6. Ritrazione della punta



- ① Ritirare la punta dal punto di inizio del foro a una velocità di avanzamento pari a 3000 mm/min.
- ② Infine, liberare il foro a una velocità di taglio pari a 20m-30m/min e una velocità di avanzamento pari a 0.2mm-0.3mm/giro.



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