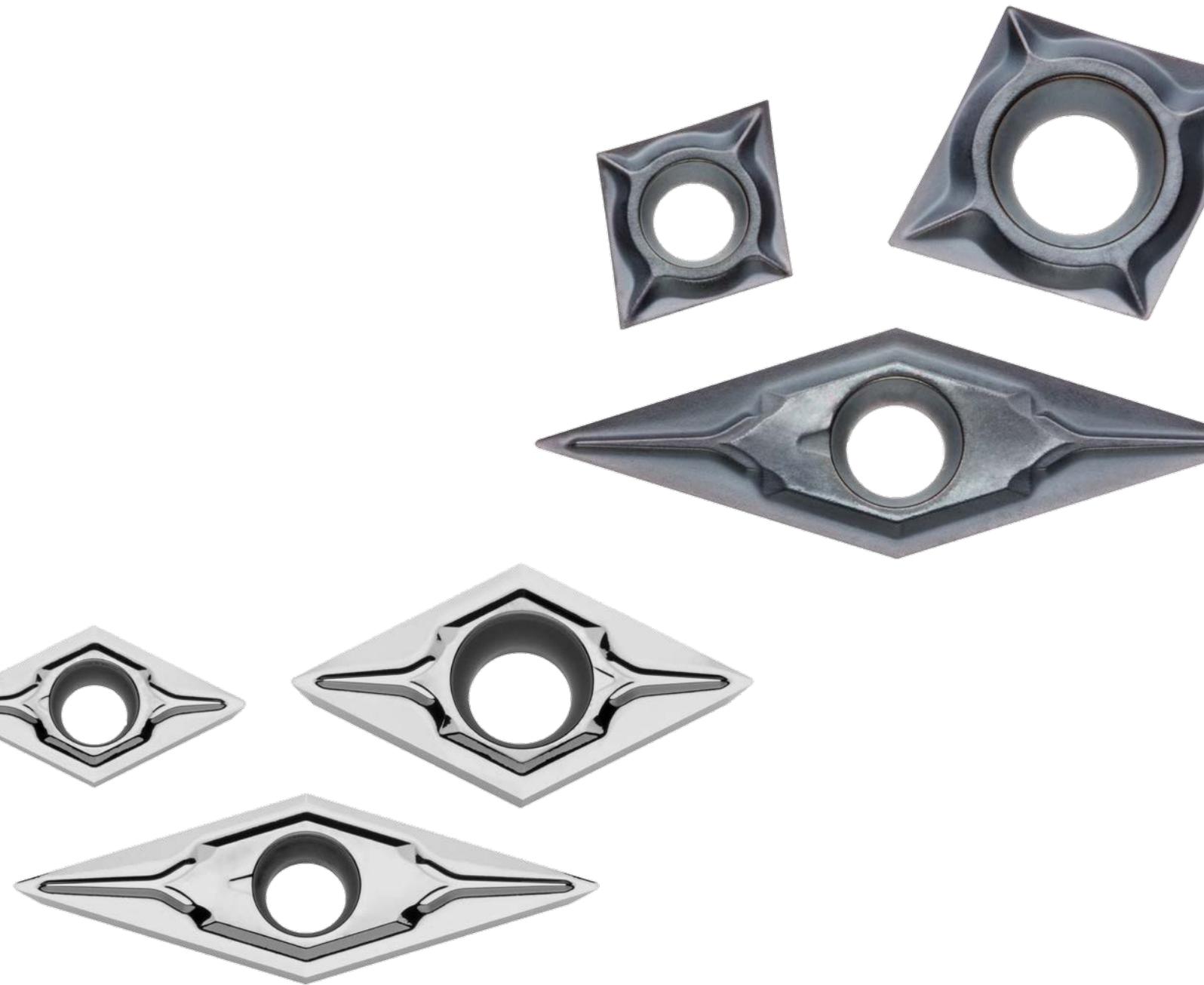


# MP9000

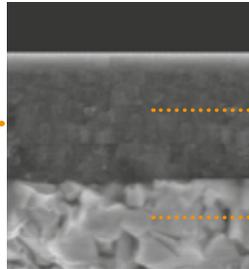
ISO-DREH-WENDEPLATTEN

FÜR SCHWER ZU BEARBEITENDE WERKSTOFFE



# MP9005/MP9015

## PVD-BESCHICHTETE SORTE



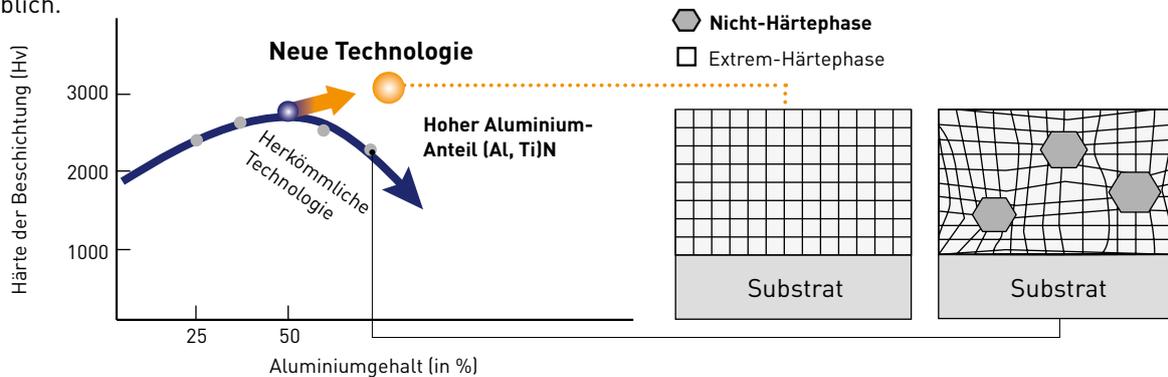
[Al,Ti]N-Monolayer-Beschichtung mit hohem Aluminiumanteil

Spezielles Hartmetallsubstrat

MP9005/MP9015

### VERGLEICH DER BESCHICHTUNG MIT HOHEM ALUMINIUMANTEIL UND EINER HERKÖMMLICHEN BESCHICHTUNG

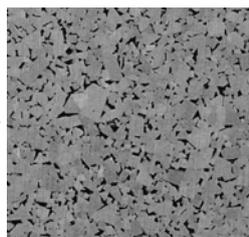
Die neue Technologie der [Al, Ti]N-Monolayer-Beschichtung mit hohem Aluminiumanteil bewirkt eine Stabilisierung der Härtingsphase und verbessert dadurch Verschleiß-, Kolkverschleiß- und Aufschweißwiderstand erheblich.



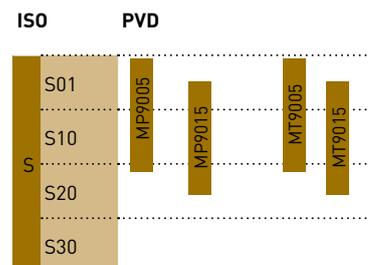
| ISO-Sorte | Sorte  | Konzept   | Anwendung  |
|-----------|--------|---|--|
| S05       | MP9005 | Erstklassige Sorte mit hohem Verschleißwiderstand | Hitzebeständige Legierung<br>Schlichtbearbeitung – mittlere Zerspanung |
| S15       | MP9015 | Erste Wahl für allgemeine Anwendungen             | Hitzebeständige Legierung<br>Mittlere Zerspanung – Schrumpferspanung   |

# MT9005/MT9015

## HARTMETALLSORTE (UNBESCHICHTET)



MT9015



| ISO-Sorte | Sorte  | Konzept   | Anwendung  |
|-----------|--------|---|--|
| S05       | MT9005 | Erstklassige Sorte mit hohem Verschleißwiderstand   | Hitzebeständige Legierung<br>Schlichtbearbeitung – mittlere Zerspanung |
| S15       | MT9015 | Neues Hartmetall mit scharfer Schneidkante und ausgezeichneter Verschleiß- und Bruchfestigkeit. | Titanlegierung<br>Allgemeine Zerspanung                                |

# SPANBRECHERSYSTEM

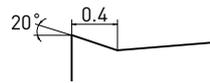
## NEGATIVE WSP

### LS – SCHLICHTZERSPANUNG

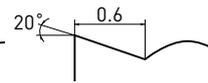
Verbesserte Spanabfuhr für kleinere Schnitttiefen als Eckenradius R.



Radius



Flanke

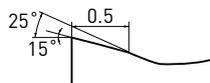


### MS – MITTLERE ZERSPANUNG

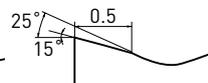
Der große, zweistufige Spanwinkel erzeugt auch bei langsamen Schnittvorschub gleichförmige Späne, die sich nicht verhaken.



Radius



Flanke

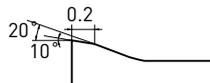


### RS – SCHRUPPZERSPANUNG

Die positive Primärfase kontrolliert bei langsamem Schnittvorschub die Spanverschweißung und den Abrieb an der Schnittgrundlinie.



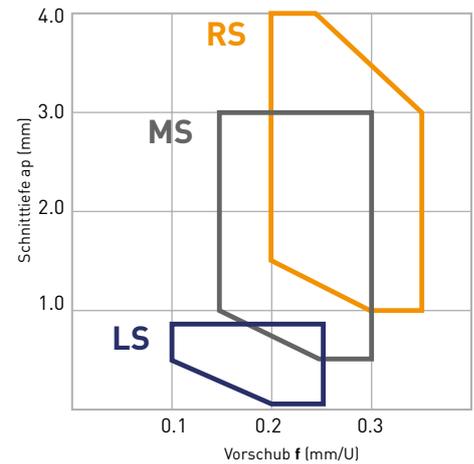
Radius



Flanke



### Spankontrollbereich

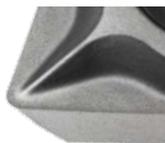


Der MS-Spanbrecher-Kontrollbereich wurde im Hinblick auf eine optimale Spanabfuhr beim Drehen von Inconel®718 unter Verwendung einer CNMG120408-WSP getestet.

## POSITIVE WSP

### NEW FS / FS-P\* - FÜR DIE SCHLICHTBEARBEITUNG

Der große Spanwinkel eignet sich hervorragend für das Schlichten von schwer zu bearbeitenden Materialien. Die Spankontrolle wird durch die geschwungene Schneide positiv beeinflusst.



Radius



Flanke



### LS / LS-P\* – SCHLICHTZERSPANUNG

Verhindert Verschweißung der WSP und verhindert weiße Trübungen der Oberfläche.



Radius



Flanke

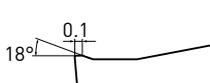


### MS MITTLERE ZERSPANUNG

Die breite Spankammer kontrolliert den zunehmenden Schnittwiderstand und verhindert Vibrationen und Spanstau auch bei größeren Schnitttiefen.



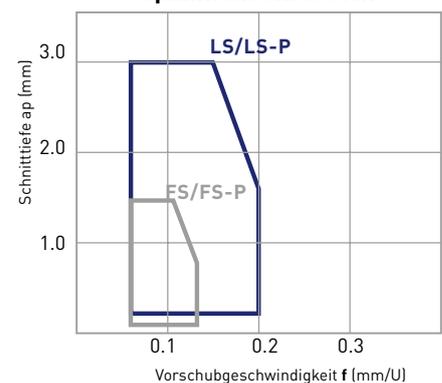
Radius



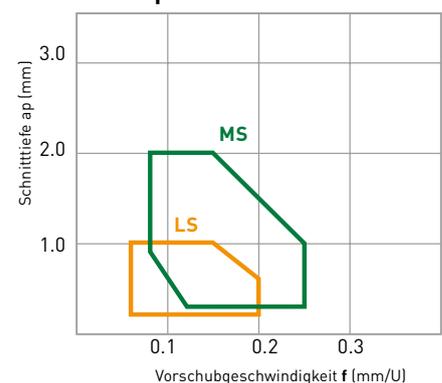
Flanke



### Spankontrollbereich



### Spankontrollbereich



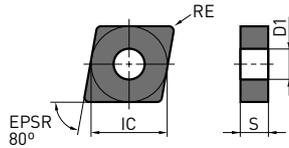
NEW \*FS-P / LS-P: Polierter Spanbrecher für verbesserte Spanabfuhr.

# NEGATIVE WSP

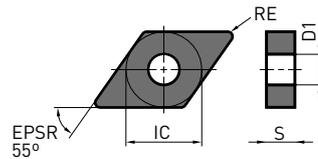
## (MIT LOCH)

### M-Toleranz CNMG, DNMG

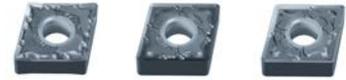
#### CNMG



#### DNMG



Schlichtgeometrie Mittel Schruppgeometrie  
LS MS RS



Schlichtgeometrie Mittel Schruppgeometrie  
LS MS RS



(mm)

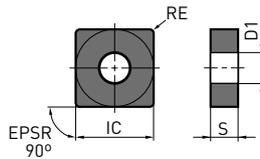
| Bestellbezeichnung | Anwendungs-<br>bereich | MP9005 | MP9015 | MT9015 | IC     | S    | RE  | D1   |
|--------------------|------------------------|--------|--------|--------|--------|------|-----|------|
| CNMG120404-LS      | L                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.4 | 5.16 |
| CNMG120408-LS      | L                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| CNMG120404-MS      | M                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.4 | 5.16 |
| CNMG120408-MS      | M                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| CNMG120412-MS      | M                      | ●      | ●      | ●      | 12.7   | 4.76 | 1.2 | 5.16 |
| CNMG160612-MS      | M                      | ★      | ★      | ★      | 15.875 | 6.35 | 1.2 | 6.35 |
| CNMG160616-MS      | M                      | ★      | ★      | ★      | 15.875 | 6.35 | 1.6 | 6.35 |
| CNMG120408-RS      | R                      |        | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| CNMG120412-RS      | R                      |        | ●      | ●      | 12.7   | 4.76 | 1.2 | 5.16 |
| CNMG120416-RS      | R                      |        | ●      | ★      | 12.7   | 4.76 | 1.6 | 5.16 |
| CNMG160612-RS      | R                      |        | ●      | ★      | 15.875 | 6.35 | 1.2 | 6.35 |
| CNMG160616-RS      | R                      |        | ●      | ★      | 15.875 | 6.35 | 1.6 | 6.35 |
| CNMG190612-RS      | R                      |        | ●      | ★      | 19.05  | 6.35 | 1.2 | 7.93 |
| CNMG190616-RS      | R                      |        | ●      | ★      | 19.05  | 6.35 | 1.6 | 7.93 |
| DNMG150404-LS      | L                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.4 | 5.16 |
| DNMG150408-LS      | L                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| DNMG150604-LS      | L                      | ●      | ●      | ●      | 12.7   | 6.35 | 0.4 | 5.16 |
| DNMG150608-LS      | L                      | ●      | ●      | ●      | 12.7   | 6.35 | 0.8 | 5.16 |
| DNMG150404-MS      | M                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.4 | 5.16 |
| DNMG150408-MS      | M                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| DNMG150412-MS      | M                      | ●      | ●      | ★      | 12.7   | 4.76 | 1.2 | 5.16 |
| DNMG150604-MS      | M                      | ●      | ●      | ●      | 12.7   | 6.35 | 0.4 | 5.16 |
| DNMG150608-MS      | M                      | ●      | ●      | ●      | 12.7   | 6.35 | 0.8 | 5.16 |
| DNMG150612-MS      | M                      | ●      | ●      | ★      | 12.7   | 6.35 | 1.2 | 5.16 |
| DNMG150408-RS      | R                      |        | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| DNMG150412-RS      | R                      |        | ●      | ●      | 12.7   | 4.76 | 1.2 | 5.16 |
| DNMG150416-RS      | R                      |        | ●      | ★      | 12.7   | 4.76 | 1.6 | 5.16 |
| DNMG150608-RS      | R                      |        | ●      | ●      | 12.7   | 6.35 | 0.8 | 5.16 |
| DNMG150612-RS      | R                      |        | ●      | ●      | 12.7   | 6.35 | 1.2 | 5.16 |
| DNMG150616-RS      | R                      |        | ●      | ★      | 12.7   | 6.35 | 1.6 | 5.16 |

# NEGATIVE WSP

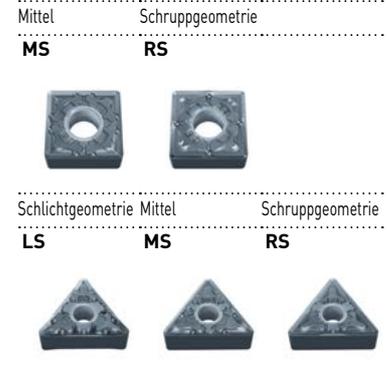
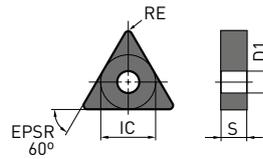
## (MIT LOCH)

### M-Toleranz SNMG, TNMG

#### SNMG



#### TNMG



(mm)

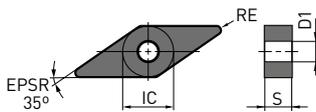
| Bestellbezeichnung | Anwendungsbereich | MP9005 | MP9015 | MT9015 | IC     | S    | RE  | D1   |
|--------------------|-------------------|--------|--------|--------|--------|------|-----|------|
| SNMG120404-MS      | M                 | ●      | ●      | ●      | 12.7   | 4.76 | 0.4 | 5.16 |
| SNMG120408-MS      | M                 | ●      | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| SNMG120412-MS      | M                 | ●      | ●      | ★      | 12.7   | 4.76 | 1.2 | 5.16 |
| SNMG150612-MS      | M                 | ★      | ★      | ★      | 15.875 | 6.35 | 1.2 | 6.35 |
| SNMG150616-MS      | M                 | ★      | ★      | ★      | 15.875 | 6.35 | 1.6 | 6.35 |
| SNMG120408-RS      | R                 |        | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| SNMG120412-RS      | R                 |        | ●      | ●      | 12.7   | 4.76 | 1.2 | 5.16 |
| SNMG120416-RS      | R                 |        | ●      | ★      | 12.7   | 4.76 | 1.6 | 5.16 |
| SNMG150616-RS      | R                 |        | ★      | ★      | 15.875 | 6.35 | 1.6 | 6.35 |
| SNMG190616-RS      | R                 |        | ★      | ★      | 19.05  | 6.35 | 1.6 | 7.93 |
| TNMG160404-LS      | L                 | ●      | ●      | ●      | 9.525  | 4.76 | 0.4 | 3.81 |
| TNMG160408-LS      | L                 | ●      | ●      | ●      | 9.525  | 4.76 | 0.8 | 3.81 |
| TNMG160404-MS      | M                 | ●      | ●      | ●      | 9.525  | 4.76 | 0.4 | 3.81 |
| TNMG160408-MS      | M                 | ●      | ●      | ●      | 9.525  | 4.76 | 0.8 | 3.81 |
| TNMG160412-MS      | M                 | ●      | ●      | ★      | 9.525  | 4.76 | 1.2 | 3.81 |
| TNMG220408-MS      | M                 | ●      | ●      | ★      | 12.7   | 4.76 | 0.8 | 5.16 |
| TNMG220412-MS      | M                 | ●      | ●      | ★      | 12.7   | 4.76 | 1.2 | 5.16 |
| TNMG160408-RS      | R                 |        | ●      | ●      | 9.525  | 4.76 | 0.8 | 3.81 |
| TNMG160412-RS      | R                 |        | ●      | ●      | 9.525  | 4.76 | 1.2 | 3.81 |
| TNMG220408-RS      | R                 |        | ●      | ★      | 12.7   | 4.76 | 0.8 | 5.16 |
| TNMG220412-RS      | R                 |        | ●      | ★      | 12.7   | 4.76 | 1.2 | 5.16 |

# NEGATIVE WSP

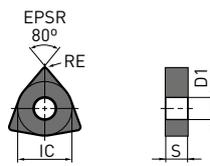
(MIT LOCH)

M-Toleranz  
VNMG, WNMG

VNMG



WNMG



Schlichtgeometrie Mittel

LS

MS



Schlichtgeometrie Mittel

LS

MS

Schruppgeometrie

RS



(mm)

| Bestellbezeichnung | Anwendungs-<br>bereich | MP9005 | MP9015 | MT9015 | IC     | S    | RE  | D1   |
|--------------------|------------------------|--------|--------|--------|--------|------|-----|------|
| VNMG160404-LS      | L                      | ●      | ●      | ●      | 9.525  | 4.76 | 0.4 | 3.81 |
| VNMG160408-LS      | L                      | ●      | ●      | ●      | 9.525  | 4.76 | 0.8 | 3.81 |
| VNMG160404-MS      | M                      | ●      | ●      | ●      | 9.525  | 4.76 | 0.4 | 3.81 |
| VNMG160408-MS      | M                      | ●      | ●      | ●      | 9.525  | 4.76 | 0.8 | 3.81 |
| WNMG080404-LS      | L                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.4 | 5.16 |
| WNMG080408-LS      | L                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| WNMG080404-MS      | M                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.4 | 5.16 |
| WNMG080408-MS      | M                      | ●      | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| WNMG080412-MS      | M                      | ●      | ●      | ★      | 12.7   | 4.76 | 1.2 | 5.16 |
| WNMG080408-RS      | R                      |        | ●      | ●      | 12.7   | 4.76 | 0.8 | 5.16 |
| WNMG080412-RS      | R                      |        | ●      | ●      | 12.7   | 4.76 | 1.2 | 5.16 |
| WNMG080416-RS      | R                      |        | ●      | ★      | 12.7   | 4.76 | 1.6 | 5.16 |
| WNMG100612-RS      | R                      |        | ●      | ★      | 15.875 | 6.35 | 1.2 | 6.35 |

# 7° POSITIVE WSP

(MIT LOCH)

M-Toleranz  
CCMT, DCMT

Schlichtgeometrie Mittel

LS MS

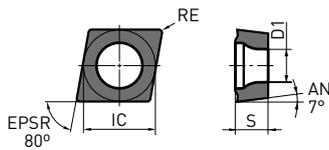


Schlichtgeometrie Mittel

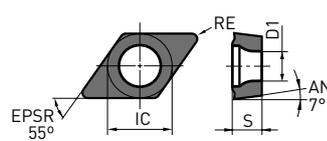
LS MS



CCMT



DCMT



(mm)

| Bestellbezeichnung | Anwendungs-<br>bereich | MP9005 | MP9015 | MT9015 | IC    | S    | RE  | D1  |
|--------------------|------------------------|--------|--------|--------|-------|------|-----|-----|
| CCMT060202-LS      | L                      | ●      | ●      | ●      | 6.35  | 2.38 | 0.2 | 2.8 |
| CCMT060204-LS      | L                      | ●      | ●      | ●      | 6.35  | 2.38 | 0.4 | 2.8 |
| CCMT09T302-LS      | L                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.2 | 4.4 |
| CCMT09T304-LS      | L                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.4 | 4.4 |
| CCMT09T308-LS      | L                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.8 | 4.4 |
| CCMT09T304-MS      | M                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.4 | 4.4 |
| CCMT09T308-MS      | M                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.8 | 4.4 |
| DCMT070202-LS      | L                      | ●      | ●      | ●      | 6.35  | 2.38 | 0.2 | 2.8 |
| DCMT070204-LS      | L                      | ●      | ●      | ●      | 6.35  | 2.38 | 0.4 | 2.8 |
| DCMT11T302-LS      | L                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.2 | 4.4 |
| DCMT11T304-LS      | L                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.4 | 4.4 |
| DCMT11T308-LS      | L                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.8 | 4.4 |
| DCMT070204-MS      | M                      | ●      | ●      | ●      | 6.35  | 2.38 | 0.4 | 2.8 |
| DCMT070208-MS      | M                      | ●      | ●      | ●      | 6.35  | 2.38 | 0.8 | 2.8 |
| DCMT11T304-MS      | M                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.4 | 4.4 |
| DCMT11T308-MS      | M                      | ●      | ●      | ●      | 9.525 | 3.97 | 0.8 | 4.4 |

# 5°/7° POSITIVE WSP

(MIT LOCH)

M-Toleranz  
VBMT, VCMT

Schlichtgeometrie Mittel

LS MS



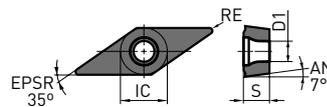
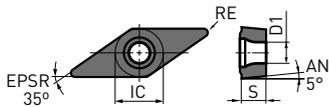
Schlichtgeometrie Mittel

LS MS



VBMT

VCMT



(mm)

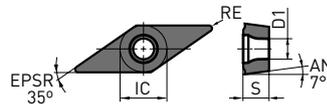
| Bestellbezeichnung | Anwendungs-<br>bereich | MP9005 | MP9015 | MT9005 | IC    | S    | RE  | D1  |
|--------------------|------------------------|--------|--------|--------|-------|------|-----|-----|
| VBMT160404-LS      | L                      | ●      | ●      | ●      | 9.525 | 4.76 | 0.4 | 4.4 |
| VBMT160408-LS      | L                      | ●      | ●      | ●      | 9.525 | 4.76 | 0.8 | 4.4 |
| VBMT160404-MS      | M                      | ●      | ●      | ●      | 9.525 | 4.76 | 0.4 | 4.4 |
| VBMT160408-MS      | M                      | ●      | ●      | ●      | 9.525 | 4.76 | 0.8 | 4.4 |
| VCMT110302-LS      | L                      | ●      | ●      | ●      | 6.35  | 3.18 | 0.2 | 2.8 |
| VCMT110304-LS      | L                      | ●      | ●      | ●      | 6.35  | 3.18 | 0.4 | 2.8 |
| VCMT160404-LS      | L                      | ●      | ●      | ●      | 9.525 | 4.76 | 0.4 | 4.4 |
| VCMT160408-LS      | L                      | ●      | ●      | ●      | 9.525 | 4.76 | 0.8 | 4.4 |
| VCMT160404-MS      | M                      | ●      | ●      | ●      | 9.525 | 4.76 | 0.4 | 4.4 |
| VCMT160408-MS      | M                      | ●      | ●      | ●      | 9.525 | 4.76 | 0.8 | 4.4 |

# 7° POSITIVE WSP

## MINUS TOLERANZ (MIT LOCH)

**G-Toleranz**  
CCGT, DCGT, VCGT

VCGT



Schlichtgeometrie Mittel

LS

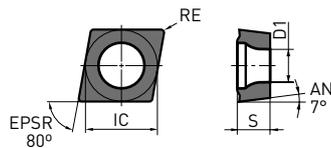
MS

Schlichtgeometrie

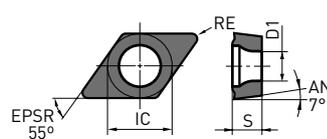
LS



CCGT



DCGT



Schlichtgeometrie Mittel

LS

MS



(mm)

| Bestellbezeichnung        | Anwendungs-<br>bereich | MP9005 | MP9015 | MT9005 | IC    | S    | RE  | D1  |
|---------------------------|------------------------|--------|--------|--------|-------|------|-----|-----|
| <b>NEW</b> CCGT060201M-FS | F                      | ●      | ●      |        | 6.35  | 2.38 | 0.1 | 2.8 |
| <b>NEW</b> CCGT060201M-LS | L                      | ●      | ●      |        | 6.35  | 2.38 | 0.1 | 2.8 |
| <b>NEW</b> CCGT060202M-FS | F                      | ●      | ●      |        | 6.35  | 2.38 | 0.2 | 2.8 |
| <b>NEW</b> CCGT060202M-LS | L                      | ●      | ●      |        | 6.35  | 2.38 | 0.2 | 2.8 |
| <b>NEW</b> CCGT09T301M-FS | F                      | ●      | ●      |        | 9.525 | 3.97 | 0.1 | 4.4 |
| <b>NEW</b> CCGT09T301M-LS | L                      | ●      | ●      |        | 9.525 | 3.97 | 0.1 | 4.4 |
| <b>NEW</b> CCGT09T302M-FS | F                      | ●      | ●      |        | 9.525 | 3.97 | 0.2 | 4.4 |
| <b>NEW</b> CCGT09T302M-LS | L                      | ●      | ●      |        | 9.525 | 3.97 | 0.2 | 4.4 |
| <b>NEW</b> CCGT09T304M-FS | F                      | ●      | ●      |        | 9.525 | 3.97 | 0.4 | 4.4 |
| <b>NEW</b> CCGT09T304M-LS | L                      | ●      | ●      |        | 9.525 | 3.97 | 0.4 | 4.4 |
| <b>NEW</b> DCGT070201M-FS | F                      | ●      | ●      |        | 6.35  | 2.38 | 0.1 | 2.8 |
| <b>NEW</b> DCGT070201M-LS | L                      | ●      | ●      |        | 6.35  | 2.38 | 0.1 | 2.8 |
| <b>NEW</b> DCGT070202M-FS | F                      | ●      | ●      |        | 6.35  | 2.38 | 0.2 | 2.8 |
| <b>NEW</b> DCGT070202M-LS | L                      | ●      | ●      |        | 6.35  | 2.38 | 0.2 | 2.8 |
| <b>NEW</b> DCGT070204M-LS | L                      | ●      | ●      |        | 6.35  | 2.38 | 0.4 | 2.8 |
| <b>NEW</b> DCGT11T301M-FS | F                      | ●      | ●      |        | 9.525 | 3.97 | 0.1 | 4.4 |
| <b>NEW</b> DCGT11T301M-LS | L                      | ●      | ●      |        | 9.525 | 3.97 | 0.1 | 4.4 |
| <b>NEW</b> DCGT11T302M-FS | F                      | ●      | ●      |        | 9.525 | 3.97 | 0.2 | 4.4 |
| <b>NEW</b> DCGT11T302M-LS | L                      | ●      | ●      |        | 9.525 | 3.97 | 0.2 | 4.4 |
| <b>NEW</b> DCGT11T304M-LS | L                      | ●      | ●      |        | 9.525 | 3.97 | 0.4 | 4.4 |
| <b>NEW</b> VCGT110301M-LS | L                      | ●      | ●      |        | 6.35  | 3.18 | 0.1 | 2.8 |
| <b>NEW</b> VCGT110302M-LS | L                      | ●      | ●      |        | 6.35  | 3.18 | 0.2 | 2.8 |
| <b>NEW</b> VCGT110304M-LS | L                      | ●      | ●      |        | 6.35  | 3.18 | 0.4 | 2.8 |
| <b>NEW</b> VCGT130301M-LS | L                      | ●      | ●      |        | 7.94  | 3.18 | 0.1 | 3.4 |
| <b>NEW</b> VCGT130302M-LS | L                      | ●      | ●      |        | 7.94  | 3.18 | 0.2 | 3.4 |
| <b>NEW</b> VCGT130304M-LS | L                      | ●      | ●      |        | 7.94  | 3.18 | 0.4 | 3.4 |

# 5°/7° POSITIVE WSP

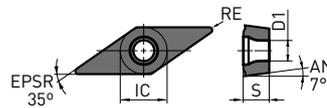
## MINUS TOLERANZ / POLIERT (MIT LOCH)

G-Toleranz  
CCGT, DCGT, VCGT

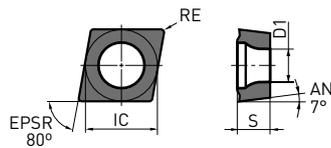
VCGT

Feinschlitt-Geometrie Schlittgeometrie

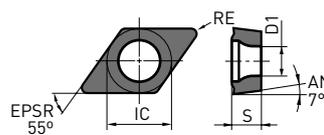
FS-P LS-P



CCGT



DCGT



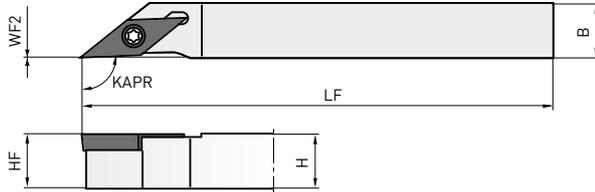
(mm)

| Bestellbezeichnung          | Zerspanungs Bereich | MP9005 | MP9015 | MT9005 | IC    | S    | RE  | D1  |
|-----------------------------|---------------------|--------|--------|--------|-------|------|-----|-----|
| <b>NEW</b> CCGT060201M-FS-P | F                   |        |        | ●      | 6.35  | 2.38 | 0.1 | 2.8 |
| <b>NEW</b> CCGT060202M-FS-P | F                   |        |        | ●      | 6.35  | 2.38 | 0.2 | 2.8 |
| <b>NEW</b> CCGT09T301M-FS-P | F                   |        |        | ●      | 9.525 | 3.97 | 0.1 | 4.4 |
| <b>NEW</b> CCGT09T302M-FS-P | F                   |        |        | ●      | 9.525 | 3.97 | 0.2 | 4.4 |
| <b>NEW</b> CCGT09T304M-FS-P | F                   |        |        | ●      | 9.525 | 3.97 | 0.4 | 4.4 |
| <b>NEW</b> DCGT070201M-FS-P | F                   |        |        | ●      | 6.35  | 2.38 | 0.1 | 2.8 |
| <b>NEW</b> DCGT070202M-FS-P | F                   |        |        | ●      | 6.35  | 2.38 | 0.2 | 2.8 |
| <b>NEW</b> DCGT11T301M-FS-P | F                   |        |        | ●      | 9.525 | 3.97 | 0.1 | 4.4 |
| <b>NEW</b> DCGT11T302M-FS-P | F                   |        |        | ●      | 9.525 | 3.97 | 0.2 | 4.4 |
| <b>NEW</b> CCGT060201M-LS-P | L                   |        |        | ●      | 6.35  | 2.38 | 0.1 | 2.8 |
| <b>NEW</b> CCGT060202M-LS-P | L                   |        |        | ●      | 6.35  | 2.38 | 0.2 | 2.8 |
| <b>NEW</b> CCGT09T301M-LS-P | L                   |        |        | ●      | 9.525 | 3.97 | 0.1 | 4.4 |
| <b>NEW</b> CCGT09T302M-LS-P | L                   |        |        | ●      | 9.525 | 3.97 | 0.2 | 4.4 |
| <b>NEW</b> CCGT09T304M-LS-P | L                   |        |        | ●      | 9.525 | 3.97 | 0.4 | 4.4 |
| <b>NEW</b> DCGT070201M-LS-P | L                   |        |        | ●      | 6.35  | 2.38 | 0.1 | 2.8 |
| <b>NEW</b> DCGT070202M-LS-P | L                   |        |        | ●      | 6.35  | 2.38 | 0.2 | 2.8 |
| <b>NEW</b> DCGT070204M-LS-P | L                   |        |        | ●      | 6.35  | 2.38 | 0.4 | 2.8 |
| <b>NEW</b> DCGT11T301M-LS-P | L                   |        |        | ●      | 9.525 | 3.97 | 0.1 | 4.4 |
| <b>NEW</b> DCGT11T302M-LS-P | L                   |        |        | ●      | 9.525 | 3.97 | 0.2 | 4.4 |
| <b>NEW</b> DCGT11T304M-LS-P | L                   |        |        | ●      | 9.525 | 3.97 | 0.4 | 4.4 |
| <b>NEW</b> VCGT110301M-LS-P | L                   |        |        | ●      | 6.35  | 3.18 | 0.1 | 2.8 |
| <b>NEW</b> VCGT110302M-LS-P | L                   |        |        | ●      | 6.35  | 3.18 | 0.2 | 2.8 |
| <b>NEW</b> VCGT110304M-LS-P | L                   |        |        | ●      | 6.35  | 3.18 | 0.4 | 2.8 |
| <b>NEW</b> VCGT130301M-LS-P | L                   |        |        | ●      | 7.94  | 3.18 | 0.1 | 3.4 |
| <b>NEW</b> VCGT130302M-LS-P | L                   |        |        | ●      | 7.94  | 3.18 | 0.2 | 3.4 |
| <b>NEW</b> VCGT130304M-LS-P | L                   |        |        | ●      | 7.94  | 3.18 | 0.4 | 3.4 |

FS-P / LS-P: Polierter Spanbrecher für verbesserte Spanabfuhr.

# SVJC

## DREHHALTER FÜR VCGT WSP



(mm)

| Bestellbezeichnung            | Lager | WSP  | H    | B  | LF  | HF  | LH | S4 | WSP-Klemmschraube | Schlüssel |   |
|-------------------------------|-------|------|------|----|-----|-----|----|----|-------------------|-----------|---|
| <b>NEW</b> SVJCR/L1010JX11-SM | ● ●   | VCGT | 10   | 10 | 120 | 10  | 22 | 0  | TS255             | TKY08R    |   |
| <b>NEW</b> SVJCR/L1212JX11-SM | ● ●   |      | 1103 | 12 | 12  | 120 | 12 | 22 |                   |           | 0 |
| <b>NEW</b> SVJCR/L1616JX11-SM | ● ●   |      | 16   | 16 | 120 | 16  | 22 | 0  |                   |           |   |
| <b>NEW</b> SVJCR/L1010JX13-SM | ● ●   |      | 10   | 10 | 120 | 10  | 26 | 0  | TS32              | TKY08R    |   |
| <b>NEW</b> SVJCR/L1212JX13-SM | ● ●   |      | 1303 | 12 | 12  | 120 | 12 | 26 |                   |           | 0 |
| <b>NEW</b> SVJCR/L1616JX13-SM | ● ●   |      | 16   | 16 | 120 | 16  | 26 | 0  |                   |           |   |

# EMPFOHLENE SCHNITTDATEN

## NEGATIVE WSP

| Material   | Bedingungen           | Anwendungsbereich | Spanbrecher | Sorte  | vc (m/min) | f (mm/U)  | ap (mm) |
|--|-----------------------|-------------------|-------------|--------|------------|-----------|---------|
| Titanlegierung (Ti-6Al-4V)   | Stabile Bearbeitung   | Schlichten        | LS          | MT9015 | 40-85      | 0.10-0.25 | 0.2-0.8 |
|  |                       | Mittel            | MS          | MT9015 | 40-80      | 0.10-0.25 | 0.5-4.0 |
|  |                       | Schruppen         | RS          | MT9015 | 35-75      | 0.20-0.35 | 1.0-4.0 |
|  | Allgemeine Zerspanung | Schlichten        | LS          | MT9015 | 40-85      | 0.10-0.25 | 0.2-0.8 |
|  |                       | Mittel            | MS          | MT9015 | 40-80      | 0.10-0.25 | 0.5-4.0 |
|  |                       | Schruppen         | RS          | MT9015 | 35-75      | 0.20-0.35 | 1.0-4.0 |
| Hitzebeständige Nickelbasis-Legierung (Inconel®718, Hastelloy®, Waspaloy®) | Stabile Bearbeitung   | Schlichten        | LS          | MP9005 | 30-110     | 0.10-0.25 | 0.2-0.8 |
|  |                       | Mittel            | MS          | MP9005 | 30-100     | 0.10-0.25 | 0.5-4.0 |
|  |                       | Schruppen         | RS          | MP9015 | 20-75      | 0.20-0.35 | 1.0-4.0 |
| Legierung auf Kobaltbasis (Tibaloy®, Stellite®)                            | Allgemeine Zerspanung | Schlichten        | LS          | MP9015 | 25-85      | 0.10-0.25 | 0.2-0.8 |
|  |                       | Mittel            | MS          | MP9015 | 25-80      | 0.10-0.25 | 0.5-4.0 |
|  |                       | Schruppen         | RS          | MP9015 | 20-75      | 0.20-0.35 | 1.0-4.0 |

## POSITIVE WSP

| Material   | Bedingungen           | Anwendungsbereich | Spanbrecher | Sorte  | vc (m/min) | f (mm/U)  | ap (mm) |
|--|-----------------------|-------------------|-------------|--------|------------|-----------|---------|
| Titanlegierung (Ti-6Al-4V)   | Stabile Bearbeitung   | Schlichten        | FS / FS-P   | MT9005 | 40-80      | 0.04-0.12 | 0.2-1.4 |
|  |                       | Semischlichten    | LS / LS-P   | MT9005 | 40-80      | 0.06-0.2  | 0.2-1.0 |
|  |                       | Mittel            | MS          | MT9005 | 35-65      | 0.08-0.25 | 0.3-2.0 |
|  | Allgemeine Zerspanung | Schlichten        | FS / FS-P   | MT9005 | 40-80      | 0.04-0.12 | 0.2-1.4 |
|  |                       | Semischlichten    | LS / LS-P   | MT9005 | 40-80      | 0.06-0.2  | 0.2-1.0 |
|  |                       | Mittel            | MS          | MT9005 | 35-65      | 0.08-0.25 | 0.3-2.0 |
| Instabile Bearbeitung  | Schlichten            | FS / FS-P         | MT9005      | 40-80  | 0.04-0.12  | 0.2-1.4   |         |
|  | Semischlichten        | LS / LS-P         | MT9005      | 40-80  | 0.06-0.2   | 0.2-1.0   |         |
|  | Mittel                | MS                | MT9005      | 35-65  | 0.08-0.25  | 0.3-2.0   |         |
| Hitzebeständige Legierung auf Nickelbasis (Inconel®718, Hastelloy®, Waspaloy®) | Stabile Bearbeitung   | Schlichten        | FS          | MP9005 | 25-95      | 0.04-0.12 | 0.2-1.4 |
|  |                       | Semischlichten    | LS          | MP9005 | 25-95      | 0.06-0.2  | 0.2-1.0 |
|  |                       | Mittel            | MS          | MP9005 | 20-80      | 0.08-0.25 | 0.3-0.2 |
|  | Allgemeine Zerspanung | Schlichten        | FS          | MP9015 | 20-75      | 0.04-0.12 | 0.2-1.4 |
|  |                       | Semischlichten    | LS          | MP9015 | 20-75      | 0.06-0.2  | 0.2-1.0 |
|  |                       | Mittel            | MS          | MP9015 | 20-75      | 0.06-0.2  | 0.2-1.0 |
| Instabile Bearbeitung  | Schlichten            | FS                | MP9015      | 20-75  | 0.04-0.12  | 0.2-1.4   |         |
|  | Semischlichten        | LS                | MP9015      | 20-75  | 0.06-0.2   | 0.2-1.0   |         |
|  | Mittel                | MS                | MP9015      | 20-60  | 0.08-0.25  | 0.3-2.0   |         |

Überprüfen Sie die empfohlenen Schnittdaten für jede Bohrstange, da die Schnittdaten für die Innenbearbeitung je nach Länge der Auskrugung voneinander abweichen.

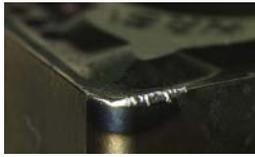


## WASPALOY®-BEARBEITUNG

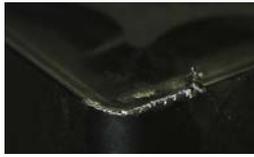
### MP9015 MIT SPANBRECHER RS WIES DEN GERINGSTEN VERSCHLEISS AUF.



Mitbewerber A



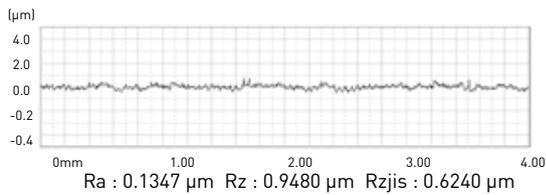
Mitbewerber B



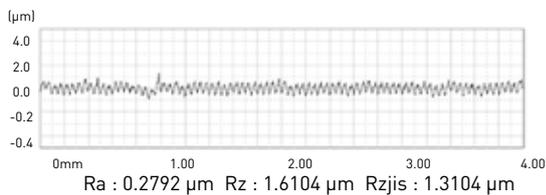
MP9015  
RS

|                        |                   |
|------------------------|-------------------|
| Werkstoff              | : WASPALOY®       |
| WSP                    | : CNMG120408-RS   |
| Schnittgeschwindigkeit | : 29 m/min        |
| Vorschub               | : 0,22 mm/U       |
| Schnitttiefe           | : 4,0 mm          |
| Schnittzeit            | : 7 min           |
| Schnittmodus           | : Nassbearbeitung |

### TITANLEGIERUNG, VERGLEICH DER OBERFLÄCHENGÜTE (SCHNITTtiefe: 0,25 MM)



MT9015  
LS



Herkömmlich

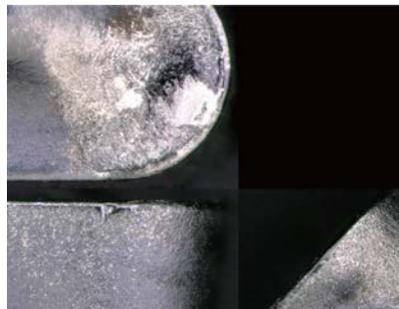
**i** Hervorragende Oberflächenqualität

|                        |                    |
|------------------------|--------------------|
| Werkstoff              | : Ti-6Al-6V(325HB) |
| WSP                    | : CNMG120408-LS    |
| Schnittgeschwindigkeit | : 70 m/min         |
| Vorschub               | : 0,05 mm/U        |
| Schnitttiefe           | : 0,25 mm          |
| Schnittmodus           | : Nassbearbeitung  |

### MP9015 MIT SPANBRECHER LS WIES DEN GERINGSTEN VERSCHLEISS AUF.



Herkömmlich



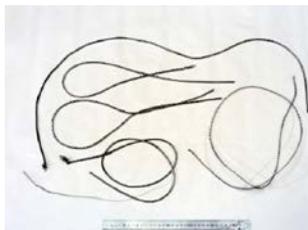
MP9015 LS



|                        |                                 |
|------------------------|---------------------------------|
| Werkstoff              | : hitzebeständiger<br>Stahlguss |
| WSP                    | : DCMT11T304-LS                 |
| Schnittgeschwindigkeit | : 100 m/min                     |
| Vorschub               | : 0,1 mm/U                      |
| Schnitttiefe           | : 0,25 mm                       |
| Schnittmodus           | : Nassbearbeitung               |

### SPANKONTROLLE BEIM KEGELDREHEN

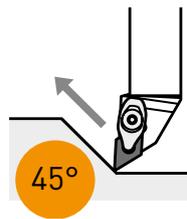
Kein Verhaken der Späne beim Hinderdrehen von Inconel®718.



MS Spanbrecher  
(neuartiges Design)



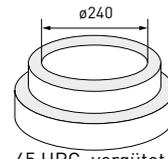
Herkömmlich



|                        |                   |
|------------------------|-------------------|
| Werkstoff              | : Inconel®718     |
| WSP                    | : DNMG150408-MS   |
| Schnittgeschwindigkeit | : 40 m/min        |
| Vorschub               | : 0,2 mm/U        |
| Schnitttiefe           | : 1,0 mm          |
| Schnittmodus           | : Nassbearbeitung |

# ANWENDUNGSBEISPIELE

|                                |  |
|--------------------------------|--|
| <b>WSP</b>                     | <b>DNMG150408-MS (MP9005)</b>  |
| Material                       | Inconel®718 (Nickel-basislegierung)  |
| Schnittmodus                   | Nassbearbeitung  |
| Schnittgeschwindigkeit (m/min) | 60   |
| Vorschub (mm/U)                | 0,15   |
| Schnitttiefe (mm)              | 0,25   |
| Bauteil                        | Scheibe – Luft-/Raumfahrtbauteil   |
| Ergebnisse                     | MP9005 – stabile Zerspanung und weniger Verschleiß bei langer Werkzeugstandzeit und ohne Spanverhaken. |



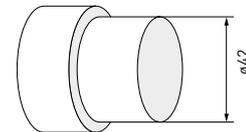
Herkömmliches System (S10)



MP9005+MS



|                                |   |
|--------------------------------|---|
| <b>WSP</b>                     | <b>CNMG120408-RS (MP9015)</b>   |
| Material                       | HAYNES® -Legierung 25 (Nickel-Kobaltbasislegierung)   |
| Schnittmodus                   | Nassbearbeitung   |
| Schnittgeschwindigkeit (m/min) | 34  |
| Vorschub (mm/U)                | 0,20  |
| Schnitttiefe (mm)              | 1,5   |
| Bauteil                        | Abdeckblende – Luft-/Raumfahrtbauteil   |
| Ergebnisse                     | Sowohl das Werkzeug des Mitbewerbers als auch MP9015 zeigen Kerbverschleiß, wobei der Verschleiß beim Mitbewerber größer war und das Substrat hervortrat. |



Herkömmliches System (S10)



MP9015 + RS



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# NOTIZEN

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# NOTIZEN

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A series of horizontal dashed lines for writing notes.



[www.mitsubishicarbide.com](http://www.mitsubishicarbide.com) | [www.mmc-hardmetal.com](http://www.mmc-hardmetal.com)

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