



Industry solutions

# Dental Industry

Volume 9.1



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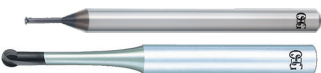


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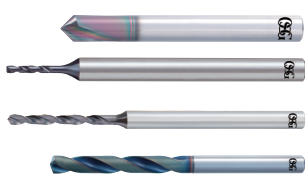
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# TOOL SELECTION GUIDE



## Bridge | Crown








|   | <br><b>Cobalt Chrome</b> | <br><b>Titanium</b> | <br><b>Zirconium</b> | <br><b>PMMA/WAX</b> | <br><b>PEEK</b> |
|---|---|--|---|--|--|
| <br><b>Ball Nose</b> | WXL-LN-EBD<br>AE-LNBD-H   | WXL-LN-EBD   | DG-LN-EBD<br>AE-LNBD-N  | WXL-LN-EBD<br>DLC-LN-EBD<br>AE-LNBD-N  | DLC-LN-EBD<br>AE-LNBD-N  |
| <br><b>Radius</b>    | WXS-CRE<br>WXS-CPR  | FXS-PKE<br>AE-VMS<br>WXL-CPR   | DG-CPR<br>WXS-CPR   | WXL-CPR  | WXL-CPR  |
| <br><b>Square</b>    | WXS-EMS<br>WXL-LN-EDS   | WXL-LN-EDS<br>AE-VMSS  | WXL-LN-EDS<br>AE-VTS-N<br>AE-TL-N   | WXL-LN-EDS<br>AE-VTS-N<br>AE-TL-N  | WXL-LN-EDS<br>AE-VTS-N<br>AE-TL-N  |









## Abutment



## Implant bar

|  | <br><b>Titanium</b> | <br><b>Zirconium</b> |
|--|--|---|
| <br><b>Ball Nose</b>      | WXL-LN-EBD<br>AE-LNBD-H  | DG-LN-EBD<br>AE-LNBD-N  |
| <br><b>Radius</b>         | FXS-PKE<br>AE-VMS<br>WXL-CPR   | DG-CPR<br>WXS-CPR   |
| <br><b>Square</b>         | WXL-LN-EDS<br>AE-VMSS  | WXL-LN-EDS<br>AE-VTS-N  |
| <br><b>Drill</b>          | MRS-GDL<br>WX-MS-GDS   | MRS-GDL<br>WX-MS-GDS  |
| <br><b>Thread milling</b> | WH-VM-PNC  | WH-VM-PNC   |

|  | <br><b>Titanium</b> |
|--|--|
| <br><b>Ball Nose</b>      | WXL-LN-EBD<br>AE-LNBD-H  |
| <br><b>Radius</b>         | FXS-PKE<br>AE-VMS<br>WXL-CPR   |
| <br><b>Square</b>         | WXL-LN-EDS<br>AE-VMSS  |
| <br><b>Drill</b>          | MRS-GDL<br>WX-MS-GDS   |
| <br><b>Thread milling</b> | WH-VM-PNC  |

# THE OSG ADVANTAGE

## Innovation, Service & Global Network

Total solution from start to finish

OSG is the world's largest manufacturer of round cutting tools. Established in 1938, OSG has a longstanding reputation as a total solution cutting tool provider throughout the manufacturing industry. Gaining the support and trust of our

customers has always been OSG's commitment. Through our innovative technological know-how, exceptional services, and out-of-the-box thinking, we can offer tailored support for your dental application needs.



*shaping your dreams*

KNOW-HOW

01

80 years of history and proven successes in the cutting tool sector, serving an array of industries including automotive, mold & die, aerospace, energy, medical, etc.

ABSOLUTE  
QUALITY  
CONTROL

02

OSG produces its own carbide, designs its own tools, develops its own coating and manufactures its own CNC machines to ensure quality control.

TAILORED  
SOLUTIONS

03

OSG offers custom support for each of our client's individual needs - from application evaluation, tool drawing creation, to creating tailored proposals.

AFTER SALES  
SUPPORT

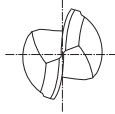
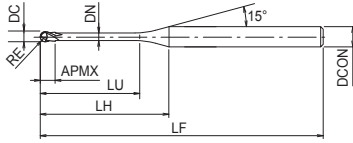
04

OSG is committed to providing the best possible service and offers on-site technical support to guarantee performance.



## BALL NOSE FOR PEEK, PMMA & ZIRCONIUM

DLC-LN-EBD



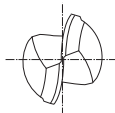
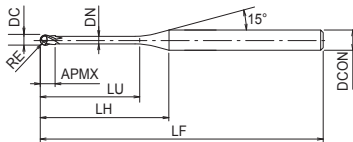
Shank diameter 4 mm

| EDP      | DCON | D   | RE  | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|-----|----|----|------|------|------|---------|
| W1604644 | 4    | 0,6 | 0,3 | 6  | 50 | 0,5  | 0,55 | 2    |         |
| W1604586 | 4    | 1   | 0,5 | 16 | 50 | 0,8  | 0,95 | 2    |         |
| W1604587 | 4    | 2   | 1   | 20 | 50 | 1,6  | 1,95 | 2    |         |



## BALL NOSE FOR ZIRCONIUM & COMPOSITE

DG-LN-EBD



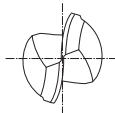
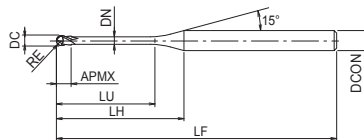
Shank diameter 4 mm

| EDP      | DCON | DC  | RE  | LU | LF | APMX | DN   | ZEFP | € Price | Old EDP  |
|----------|------|-----|-----|----|----|------|------|------|---------|----------|
| 8553711  | 4    | 0,6 | 0,3 | 6  | 50 | 0,9  | 0,56 | 2    |         | W1502461 |
| 8553712  | 4    | 0,6 | 0,3 | 10 | 50 | 0,9  | 0,56 | 2    |         |          |
| 8553723  | 4    | 1   | 0,5 | 10 | 50 | 1,5  | 0,96 | 2    |         |          |
| 48249116 | 4    | 1   | 0,5 | 16 | 50 | 1,5  | 0,93 | 2    |         | W1502460 |
| W2100099 | 4    | 2   | 1   | 16 | 50 | 3    | 1,87 | 2    |         |          |
| 48249220 | 4    | 2   | 1   | 20 | 50 | 3    | 1,87 | 2    |         | W1502459 |



## BALL NOSE FOR GENERAL USE

WXL-LN-EBD

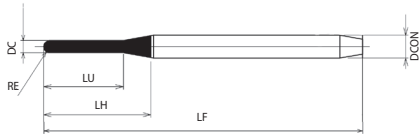
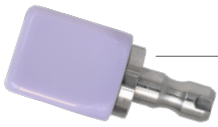


Shank diameter 4 mm

| EDP      | DCON | DC  | RE   | LU   | LF | APMX | DN   | ZEFP | € Price | Old EDP  |
|----------|------|-----|------|------|----|------|------|------|---------|----------|
| 3110525  | 4    | 0,5 | 0,25 | 2,5  | 45 | 0,4  | 0,45 | 2    |         |          |
| 3110660  | 4    | 0,6 | 0,3  | 6,0  | 45 | 0,5  | 0,55 | 2    |         |          |
| 3110700  | 4    | 0,6 | 0,3  | 10,0 | 45 | 0,5  | 0,55 | 2    |         |          |
| 3111070  | 4    | 1   | 0,5  | 7,0  | 45 | 0,8  | 0,95 | 2    |         |          |
| 3111112  | 4    | 1   | 0,5  | 12,0 | 45 | 0,8  | 0,95 | 2    |         |          |
| 3111114  | 4    | 1   | 0,5  | 14,0 | 50 | 0,8  | 0,95 | 2    |         |          |
| 3111116  | 4    | 1   | 0,5  | 16,0 | 50 | 0,8  | 0,95 | 2    |         | W1503335 |
| 3112112  | 4    | 2   | 1    | 12,0 | 45 | 1,6  | 1,95 | 2    |         |          |
| 3112114  | 4    | 2   | 1    | 14,0 | 50 | 1,6  | 1,95 | 2    |         |          |
| 3112116  | 4    | 2   | 1    | 16,0 | 50 | 1,6  | 1,95 | 2    |         |          |
| 48251220 | 4    | 2   | 1    | 20,0 | 50 | 1,6  | 1,95 | 2    |         | W1503334 |

## HIGH PERFORMANCE GRINDING BURS

ED-BS (ball)

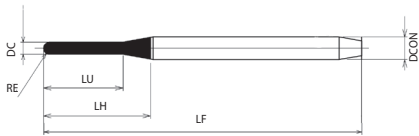


Shank diameter 3 mm

| EDP      | DCON | DC  | RE   | LU    | LH   | LF | Old EDP | € Price |
|----------|------|-----|------|-------|------|----|---------|---------|
| P2110022 | 3    | 2,5 | 1,25 | 14,75 | 15,2 | 40 |         |         |
| P2110023 | 3    | 1,0 | 0,5  | 6     | 9,1  | 40 |         |         |
| P2110024 | 3    | 1,5 | 0,75 | 8     | 9,1  | 40 |         |         |

## STANDARD GRINDING BURS

ED-BS RO (ball)

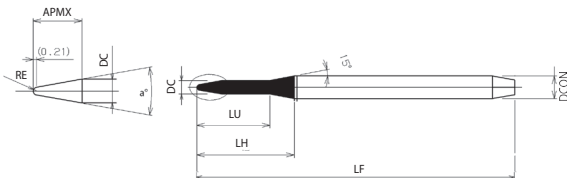
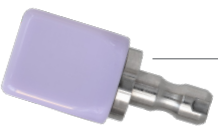


Shank diameter 3 mm

| EDP      | DCON | DC  | RE   | LU    | LH | LF | Old EDP  | € Price |
|----------|------|-----|------|-------|----|----|----------|---------|
| P1701079 | 3    | 1   | 0,5  | 6     | 9  | 40 | P1601040 |         |
| P1701080 | 3    | 1,5 | 0,75 | 10    | 11 | 40 | P1601037 |         |
| P1701081 | 3    | 2,5 | 1,25 | 14,75 | 15 | 40 | P1601039 |         |

## STANDARD GRINDING BURS

ED-ES RO (conical)



Shank diameter 3 mm

| EDP      | DCON | DC  | RE   | APMX | $\alpha$ | LU  | LH | LF | Old EDP  | € Price |
|----------|------|-----|------|------|----------|-----|----|----|----------|---------|
| P1701078 | 3    | 1,7 | 0,25 | 3,6  | 20       | 8,9 | 11 | 40 | P1601041 |         |

# IMES - ICORE

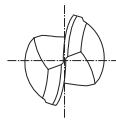
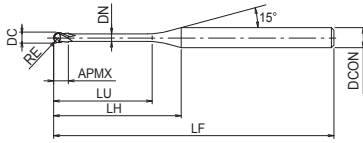
Shank diameter 6 mm



## BALL NOSE FOR PMMA, PEEK, WAX & METAL

MODEL 350I+650I

WXL-LN-EBD IM



Shank diameter 6 mm

| EDP          | DCON | DC  | RE   | LU  | LF | APMX | ZEFP | Old EDP    | € Price |
|--------------|------|-----|------|-----|----|------|------|------------|---------|
| W1800444(A)* | 6    | 0,6 | 0,3  | 2,5 | 50 | 0,5  | 2    | 3120625IM  |         |
| W1800445A    | 6    | 0,6 | 0,3  | 8   | 50 | 0,5  | 2    | 48251008IM |         |
| W1800446A    | 6    | 1   | 0,5  | 8   | 50 | 0,8  | 2    | 3121080IM  |         |
| W1800447A    | 6    | 1   | 0,5  | 10  | 50 | 0,8  | 2    | 3121100IM  |         |
| W1800448A    | 6    | 1   | 0,5  | 12  | 50 | 0,8  | 2    | 3121112IM  |         |
| W1800449A    | 6    | 1   | 0,5  | 16  | 50 | 0,8  | 2    | 48251116IM |         |
| W1800450(A)* | 6    | 1,5 | 0,75 | 8   | 50 | 1,2  | 2    | 3121580IM  |         |
| W1800451A    | 6    | 1,5 | 0,75 | 10  | 50 | 1,2  | 2    | 3121600IM  |         |
| W1800452A    | 6    | 1,5 | 0,75 | 12  | 50 | 1,2  | 2    | 3121612IM  |         |
| W1801416(A)* | 6    | 1,5 | 0,75 | 15  | 50 | 3,5  | 2    |            |         |
| W1800453(A)* | 6    | 2   | 1    | 10  | 50 | 1,6  | 2    | 3122100IM  |         |
| W1800454A    | 6    | 2   | 1    | 12  | 50 | 1,6  | 2    | 3122112IM  |         |
| W1800455A    | 6    | 2   | 1    | 20  | 50 | 1,6  | 2    | 48251221IM |         |
| W1703068A    | 6    | 2,5 | 1,25 | 20  | 50 | 6    | 2    |            |         |
| W1800467A    | 6    | 3   | 1,5  | 12  | 50 | 2,4  | 2    | W1703576IM |         |
| W1801415A    | 6    | 3   | 1,5  | 15  | 50 | 5,5  | 2    |            |         |
| W1801417(A)* | 6    | 3   | 1,5  | 20  | 50 | 5,5  | 2    |            |         |

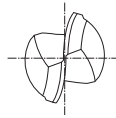
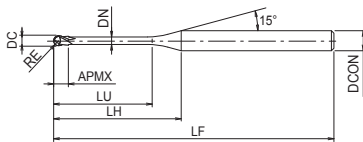
\* After the stock without the modification is empty, we change the EDP with the A



## BALL NOSE FOR ZIRCONIUM & COMPOSITE

MODEL 350I+650I

DG-LN-EBD IM



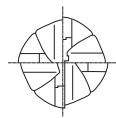
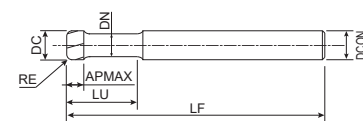
Shank diameter 6 mm

| EDP       | DCON | DC  | RE   | LU | LF | APMX | ZEFP | Old EDP    | € Price |
|-----------|------|-----|------|----|----|------|------|------------|---------|
| W1800439A | 6    | 0,6 | 0,3  | 8  | 50 | 0,5  | 2    | 48249068IM |         |
| W1800440A | 6    | 1   | 0,5  | 10 | 50 | 0,8  | 2    | 48249170IM |         |
| W1800441A | 6    | 2   | 1    | 12 | 50 | 3    | 2    | 48249272IM |         |
| W1800442A | 6    | 1   | 0,5  | 16 | 50 | 1,5  | 2    | W1602615IM |         |
| W1800443A | 6    | 2   | 1    | 20 | 50 | 3    | 2    | W1602616IM |         |
| W1703069A | 6    | 2,5 | 1,25 | 20 | 50 | 6    | 2    |            |         |

## FOR METAL HIGH SPEED MILLING

MODEL 350I+650I

WXS-CRE IM



Shank diameter 6 mm

| EDP          | DCON | DC | RE   | LU | LF | APMX | ZEFP | Old EDP    | € Price |
|--------------|------|----|------|----|----|------|------|------------|---------|
| W1800463(A)* | 6    | 2  | 0,5  | 8  | 50 | 0,8  | 4    | 48106421IM |         |
| W1800464(A)* | 6    | 2  | 0,5  | 12 | 50 | 0,8  | 4    | 48254212IM |         |
| W1800465A    | 6    | 3  | 0,75 | 16 | 50 | 1,3  | 5    | 48254316IM |         |

\* After the stock without the modification is empty, we change the EDP with the A

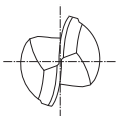
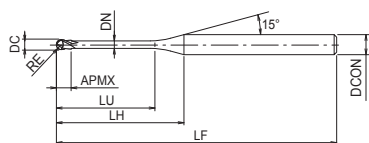




## SQUARE FOR PMMA, PEEK, WAX & METAL

MODEL 350I+650I

WXL-LN-EDS IM



Shank diameter 6 mm

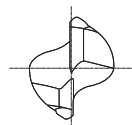
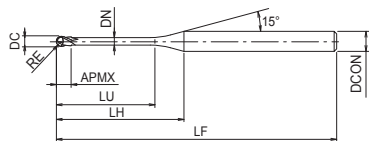
| EDP       | DCON | DN  | LU | LF | APMX | ZEFP | Old EDP    | € Price |
|-----------|------|-----|----|----|------|------|------------|---------|
| W1800457A | 6    | 0,5 | 4  | 45 | 0,7  | 2    | W1604584IM |         |
| W1800458A | 6    | 1   | 5  | 45 | 1,5  | 2    | W1604585IM |         |
| W1800456A | 6    | 1,5 | 12 | 50 | 2,3  | 2    | 48252112IM |         |
| W1800459A | 6    | 1,5 | 16 | 50 | 2,3  | 2    | W1601161IM |         |



## CORNER RADIUS FOR PMMA, WAX & METAL

MODEL 350I+650I

WXL-CPR IM & WXS-CPR IM



Shank diameter 6 mm

| EDP       | DCON | DC  | RE  | LU | LF | APMX | ZEFP | Old EDP    | € Price |
|-----------|------|-----|-----|----|----|------|------|------------|---------|
| W1800460A | 6    | 1,5 | 0,2 | 12 | 50 | 1,2  | 2    | 48250112IM |         |
| W1800461A | 6    | 1,5 | 0,2 | 15 | 50 | 1,2  | 2    | 48250115IM |         |



Shank diameter 6 mm

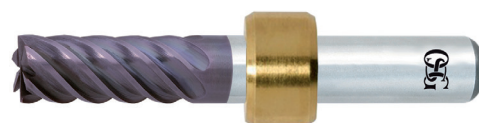
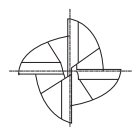
| EDP       | DCON | DC | RE  | LU | LF | APMX | ZEFP | Old EDP    | € Price |
|-----------|------|----|-----|----|----|------|------|------------|---------|
| W1800462A | 6    | 1  | 0,2 | 8  | 50 | 0,8  | 2    | 48253108IM |         |



## SQUARE FOR PMMA, WAX & METAL

MODEL 350I+650I

WXS-EMS IM



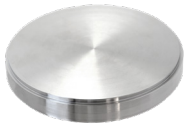
Shank diameter 6 mm

| EDP       | DCON | DC | LF | APMX | ZEFP | Old EDP    | € Price |
|-----------|------|----|----|------|------|------------|---------|
| W1800466A | 6    | 2  | 50 | 6    | 4    | W1703577IM |         |



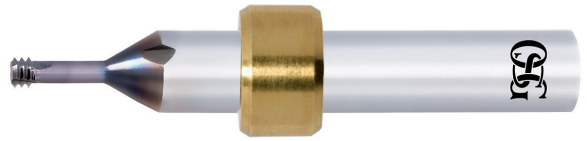
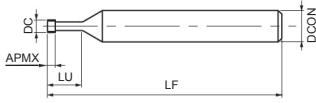
# IMES - ICORE

Shank diameter 6 mm



## THREAD MILLS

WH-VM-PNC IM



Shank diameter 6 mm

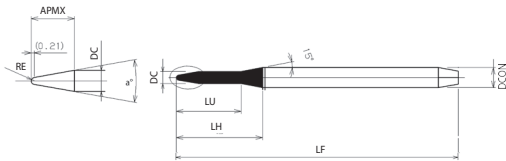
| EDP       | Thread | Min. Cutting bore dia. | DCON | DC  | RE  | LU  | LF | APMX | P   | NOF | Old EDP   | € Price |
|-----------|--------|------------------------|------|-----|-----|-----|----|------|-----|-----|-----------|---------|
| T1801740B | M      | M2                     | 6    | 1,5 | 0,2 | 4,4 | 40 | 1,2  | 0,4 | 3   | 3900500IM |         |



MODEL 350I+650I

## FOR GLASS CERAMICS

ED-ES IM (Conical)



Shank diameter 6 mm

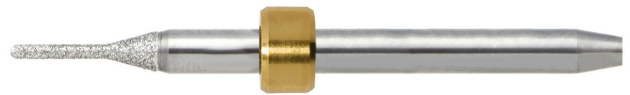
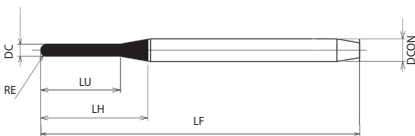
| EDP        | DCON | DC  | LU  | LF | I   | LH | RE   | $\alpha$ | € Price |
|------------|------|-----|-----|----|-----|----|------|----------|---------|
| P1701145IM | 6    | 1,7 | 8,8 | 45 | 3,6 | 11 | 0,25 | 20       |         |



MODEL 350I+650I

## FOR GLASS CERAMICS

ED-BS IM (Ball)



Shank diameter 6mm

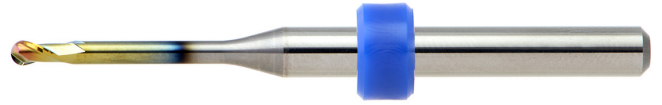
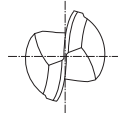
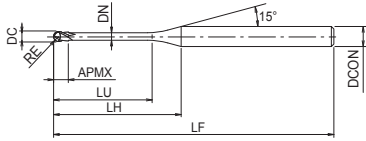
| EDP        | DCON | DC  | RE   | LU    | LH | LF | € Price |
|------------|------|-----|------|-------|----|----|---------|
| P1701144IM | 6    | 1   | 0,5  | 10    | 12 | 45 |         |
| P1701142IM | 6    | 1,5 | 0,75 | 10    | 11 | 45 |         |
| P1701143IM | 6    | 2,5 | 1,25 | 14,75 | 15 | 45 |         |
|            |      |     |      |       |    |    |         |
|            |      |     |      |       |    |    |         |
|            |      |     |      |       |    |    |         |
|            |      |     |      |       |    |    |         |
|            |      |     |      |       |    |    |         |
|            |      |     |      |       |    |    |         |



## BALL NOSE FOR PEEK,WAX, PMMA & ZIRCONIUM

MODEL 150I+250I

DLC-LN-EBD IM



Shank diameter 3 mm

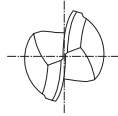
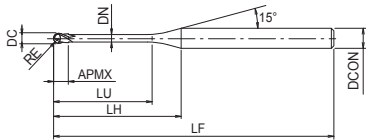
| EDP      | DCON | DC  | RE   | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|------|----|----|------|------|------|---------|
| W1801333 | 3    | 1   | 0,5  | 14 | 48 | 4,5  | 0,94 | 2    |         |
| W1801332 | 3    | 2,5 | 1,25 | 20 | 48 | 6    | 2,24 | 2    |         |



## BALL NOSE FOR ZIRCONIUM & COMPOSITE

MODEL 150I+250I

DG-LN-EBD IM



Shank diameter 3 mm

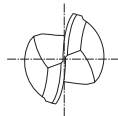
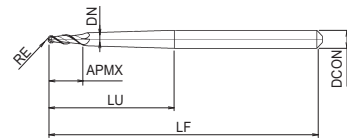
| EDP       | DCON | DC  | RE   | LU | LF | APMX | DN   | ZEFP | € Price |
|-----------|------|-----|------|----|----|------|------|------|---------|
| W1801335B | 3    | 1   | 0,5  | 14 | 48 | 5    | 0,95 | 2    |         |
| W1801334B | 3    | 2,5 | 1,25 | 20 | 48 | 6    | 2,23 | 2    |         |



## BALL NOSE FOR ZIRCONIUM & COMPOSITE

MODEL 150I+250I

DG-PC-TPBM IM



Shank diameter 3 mm

| EDP      | DCON | RE  | LU   | LF | APMX | ZEFP | € Price |
|----------|------|-----|------|----|------|------|---------|
| W1801336 | 3    | 0,3 | 22,1 | 48 | 4    | 2    |         |

# IMES - ICORE

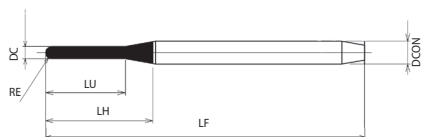
Shank diameter 3 mm



MODEL CORITEC ONE

## FOR GLASS CERAMICS

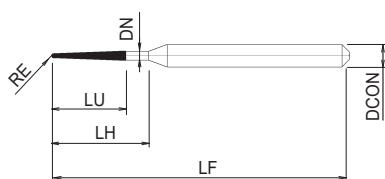
ED-BS IM (Ball)



Shank diameter 3mm

| EDP      | DCON | DC  | RE   | LH | LF | € Price |
|----------|------|-----|------|----|----|---------|
| P1800050 | 3    | 1   | 0,5  | 10 | 40 |         |
| P1800052 | 3    | 2,5 | 1,25 | 15 | 40 |         |

ED-BS IM (Conical)



Shank diameter 3mm

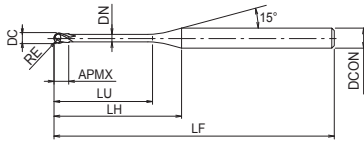
| EDP       | DCON | RE  | LU | LH | LF | € Price |
|-----------|------|-----|----|----|----|---------|
| P1800051B | 3    | 0,3 | 10 | 13 | 40 |         |





## BALL NOSE FOR PMMA & WAX

S1 / S2 / K5 MODEL | WXL-LN-EBD VH



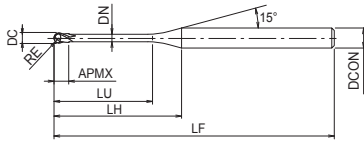
Shank diameter 3 mm

| EDP      | DCON | DC  | RE  | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|-----|----|----|------|------|------|---------|
| W1604588 | 3    | 0,6 | 0,3 | 6  | 40 | 0,5  | 0,55 | 2    |         |
| W1604589 | 3    | 1   | 0,5 | 12 | 40 | 0,8  | 0,95 | 2    |         |
| W2000789 | 3    | 1   | 0,5 | 16 | 40 | 0,8  | 0,95 | 2    |         |
| W1604590 | 3    | 2   | 1   | 16 | 40 | 1,6  | 1,95 | 2    |         |



## BALL NOSE FOR ZIRCONIUM & PEEK

S1 / S2 / K5 MODEL | DLC-LN-EBD VH



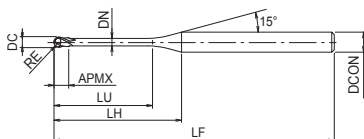
Shank diameter 3 mm

| EDP      | DCON | DC  | RE  | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|-----|----|----|------|------|------|---------|
| W1604645 | 3    | 0,6 | 0,3 | 6  | 40 | 0,6  | 0,55 | 2    |         |
| W1604591 | 3    | 1   | 0,5 | 12 | 40 | 0,8  | 0,95 | 2    |         |
| W2000788 | 3    | 1   | 0,5 | 16 | 40 | 0,8  | 0,95 | 2    |         |
| W1604592 | 3    | 2   | 1   | 16 | 40 | 1,6  | 1,95 | 2    |         |



## BALL NOSE FOR ZIRCONIUM

S1 / S2 / K5 MODEL | DIA-LN-EBD VH



Shank diameter 3 mm

| EDP      | DCON | DC  | RE  | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|-----|----|----|------|------|------|---------|
| W2111553 | 3    | 0,6 | 0,3 | 3  | 40 | 0,5  | 0,55 | 2    |         |
| W2111554 | 3    | 1   | 0,5 | 16 | 40 | 0,8  | 0,93 | 2    |         |
| W2111555 | 3    | 2   | 1   | 16 | 40 | 9    | 1,95 | 2    |         |

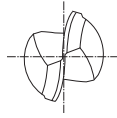
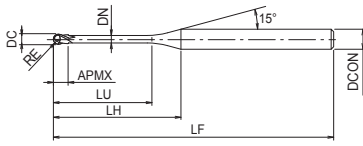


Shank diameter 4 mm



## BALL NOSE FOR PMMA, PEEK, WAX & METAL

WXL-LN-EBD & AE-LNBD-H



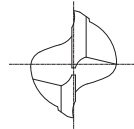
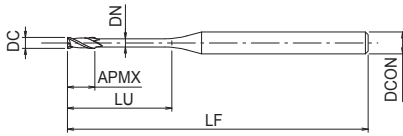
W2310260

Shank diameter 4 mm

| EDP      | DCON | DC  | RE   | LU | LF | ZEFP | Old EDP | € Price |
|----------|------|-----|------|----|----|------|---------|---------|
| W2310255 | 4    | 0,6 | 0,3  | 5  | 45 | 2    | 3110650 |         |
| W2310256 | 4    | 1   | 0,5  | 8  | 45 | 2    | 3111080 |         |
| W2310257 | 4    | 1,5 | 0,75 | 10 | 45 | 2    | 3111600 |         |
| W2310258 | 4    | 2   | 1    | 10 | 45 | 2    | 3112100 |         |
| W2310259 | 4    | 2,5 | 1,25 | 10 | 50 | 2    | 3112600 |         |
| W2310260 | 4    | 2,5 | 1,25 | 10 | 45 | 2    | 3056298 |         |

## SQUARE FOR PMMA, PEEK, WAX & METAL

WXL-LN-EDS

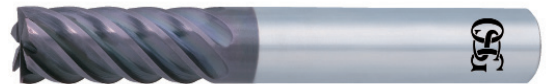
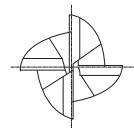
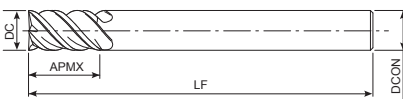


Shank diameter 4 mm

| EDP      | DCON | DC  | RE | LU | LF | ZEFP | Old EDP | € Price |
|----------|------|-----|----|----|----|------|---------|---------|
| W2310261 | 4    | 0,5 | 0  | 4  | 45 | 2    | 3131504 |         |
| W2310262 | 4    | 1,5 | 0  | 12 | 45 | 2    | 3132512 |         |
| W2310263 | 4    | 1,5 | 0  | 16 | 50 | 2    | 3132516 |         |

## SQUARE FOR PMMA, PEEK, WAX & METAL

WXL-EMS

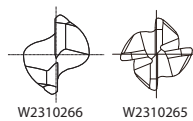
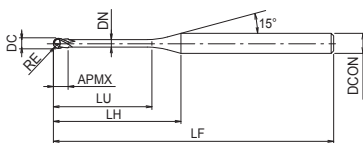


Shank diameter 4 mm

| EDP      | DCON | DC | LF | ZEFP | Old EDP | € Price |
|----------|------|----|----|------|---------|---------|
| W2310264 | 4    | 2  | 40 | 4    | 3130520 |         |

## CORNER RADIUS FOR PMMA, WAX & METAL

AE-CPR4-H& WXS-CPR



W2310266 W2310265

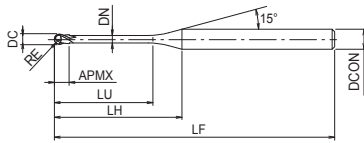
Shank diameter 4 mm

| EDP      | DCON | DC  | RE  | LU | LF | ZEFP | Old EDP | € Price |
|----------|------|-----|-----|----|----|------|---------|---------|
| W2310265 | 4    | 1   | 0,2 | 6  | 45 | 4    | 8557552 |         |
| W2310266 | 4    | 1,5 | 0,2 | 12 | 50 | 2    | 3101504 |         |



## BALL NOSE FOR PMMA, WAX & PEEK

WXL-LN-EBD AG



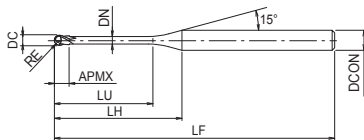
Shank diameter 3 mm

| EDP      | DCON | DC  | RE   | LU   | LF | APMX | ZEFP | € Price |
|----------|------|-----|------|------|----|------|------|---------|
| W1701698 | 3    | 1   | 0,5  | 17,5 | 47 | 2    | 2    |         |
| W1701699 | 3    | 2,5 | 1,25 | 19   | 47 | 5    | 2    |         |



## BALL NOSE FOR ZIRCONIUM & COMPOSITE

DIA-LN-EBD AG



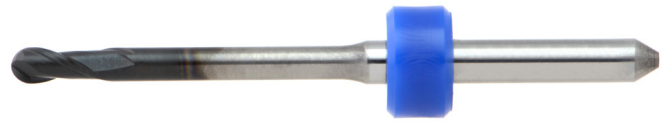
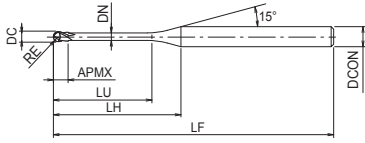
Shank diameter 3 mm

| EDP      | DCON | DC  | RE   | LU | LF | APMX | ZEFP | € Price |
|----------|------|-----|------|----|----|------|------|---------|
| W1604840 | 3    | 0,6 | 0,3  | 12 | 47 | 1    | 2    |         |
| W1604841 | 3    | 1   | 0,5  | 16 | 47 | 3    | 2    |         |
| W1604842 | 3    | 2,5 | 1,25 | 18 | 47 | 2    | 2    |         |



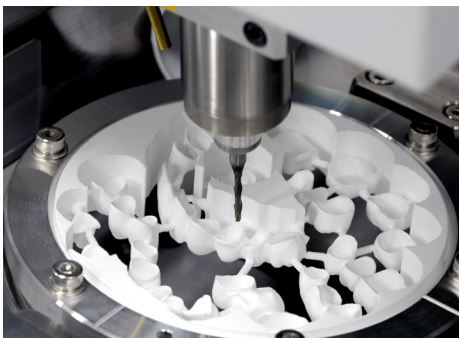
# BALL NOSE FOR ZIRCONIUM & COMPOSITE

DIA-LN-EBD SI



Shank diameter 3 mm

| EDP      | DCON | DN  | RE   | LU | LF | APMX | ZEFP | Old EDP   | € Price |
|----------|------|-----|------|----|----|------|------|-----------|---------|
| W1702589 | 3    | 2,5 | 1,25 | 23 | 44 | 5    | 2    | W1604915A |         |
| W1702590 | 3    | 1   | 0,5  | 16 | 43 | 3    | 2    | W1604916A |         |
| W1702591 | 3    | 0,5 | 0,25 | 5  | 42 | 1    | 2    | W1604917A |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |
|          |      |     |      |    |    |      |      |           |         |

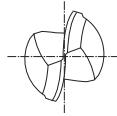
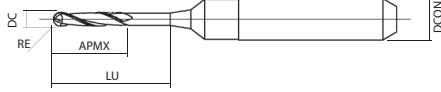






## BALL NOSE FOR PEEK, WAX & PMMA

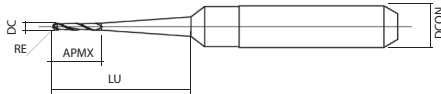
WXL-LN-EBD ZI & WXL-PC-EBD ZI



Shank diameter 6 mm



| EDP       | DCON | DC | RE | LU | APMX | € Price |
|-----------|------|----|----|----|------|---------|
| W1702328A | 6    | 2  | 1  | 17 | 10   |         |



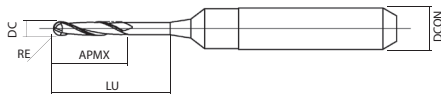
Shank diameter 6 mm

| EDP       | DCON | DC | RE  | LU | APMX | € Price |
|-----------|------|----|-----|----|------|---------|
| W1702329A | 6    | 1  | 0,5 | 12 | 6    |         |



## BALL NOSE FOR ZIRCONIUM & PEEK

DIA-LN-EBD ZI



Shank diameter 6 mm

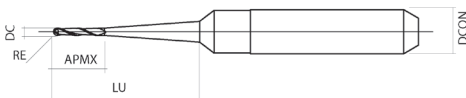


| EDP       | DCON | DC | RE  | LU | APMX | € Price |
|-----------|------|----|-----|----|------|---------|
| W1702755A | 6    | 2  | 1   | 18 | 10   |         |
| W1702756A | 6    | 1  | 0,5 | 12 | 6    |         |



## SQUARE FOR GENERAL USE

WXL-LN-CPR ZI & WXL-LN-EDS ZI



Shank diameter 6 mm



| EDP       | DCON | DC  | RE   | LU   | APMX | € Price |
|-----------|------|-----|------|------|------|---------|
| W1702330A | 6    | 1,5 | 0,05 | 17,5 | 5    |         |



| EDP       | DCON | DC  | RE | LU | APMX | € Price |
|-----------|------|-----|----|----|------|---------|
| W1702331A | 6    | 0,6 | 0  | 7  | 3    |         |



# TECHNICAL DATA

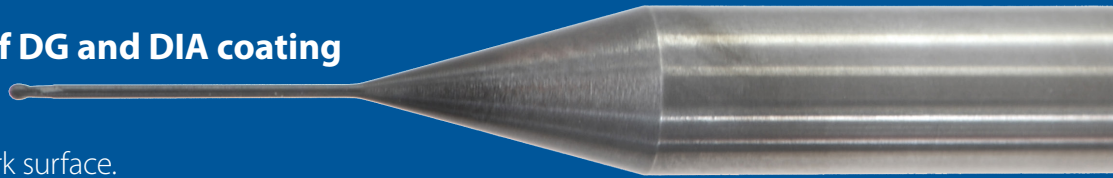
OSG's patented diamond coating performance overview

## OSG DIAMOND COATING

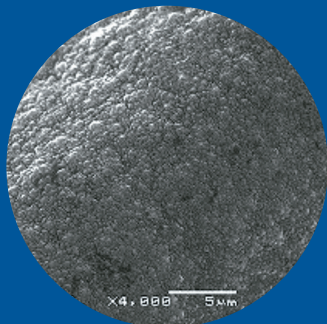
OSG's proprietary diamond coating is composed of ultra-fine diamond crystals and is ideal for common dental materials such as PMMA, zirconium and hybrid resin.

### Features & Benefits of DG and DIA coating

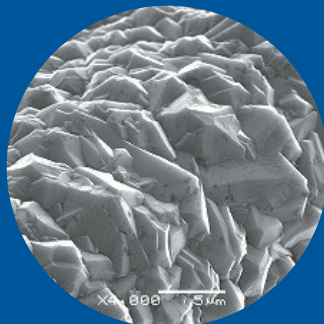
- **Smooth Surface**  
Results in better work surface.
- **Sharp Cutting Edge**  
Prevents delamination.
- **Multi-Layer Structure & Special Treatment**  
Increase toughness and adhesion to prolong tool life.



### Comparison of Diamond Coating Surface



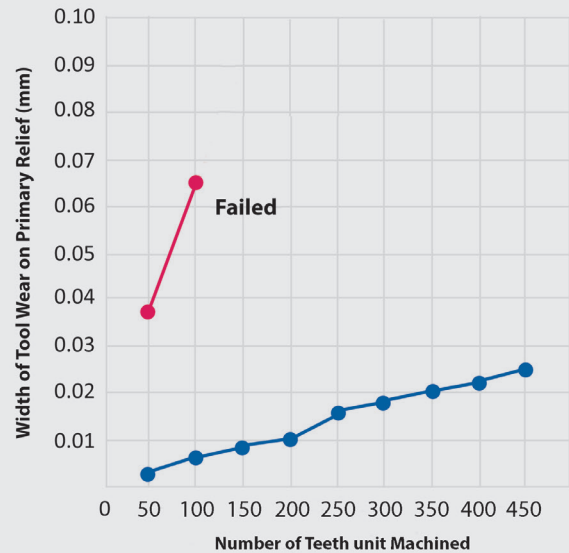
OSG's Diamond Coating



Competitor's Diamond Coating

### Tool Life of Ball Nose End Mill in Zirconium

● Normal Coating ● OSG's Diamond Coating



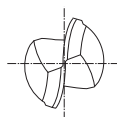
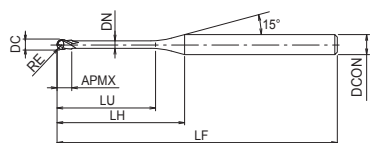
In this test, OSG's patented diamond coating was able to achieve three times the tool life versus the TiAlN coating in zirconium, which is a popular dental prosthetics manufacturing material.



# DG-LN-EBD

Ball nose for Zirconium & Composite

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



Shank diameter 3 mm

| EDP      | DCON | DC | RE  | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|----|-----|----|----|------|------|------|---------|
| 48249140 | 3    | 1  | 0,5 | 10 | 45 | 1,5  | 0,93 | 2    |         |
| 48249246 | 3    | 2  | 1   | 16 | 45 | 3    | 1,9  | 2    |         |
| W1603980 | 3    | 1  | 0,5 | 16 | 50 | 1,5  | 0,93 | 2    |         |
| 48249250 | 3    | 2  | 1   | 20 | 45 | 3    | 1,90 | 2    |         |

Shank diameter 4 mm

| EDP      | DCON | DC  | RE   | LU | LF | APMX | DN   | ZEFP | Old EDP  | € Price |
|----------|------|-----|------|----|----|------|------|------|----------|---------|
| 8553711  | 4    | 0,6 | 0,3  | 6  | 50 | 0,9  | 0,56 | 2    | W1502461 |         |
| 8553712  | 4    | 0,6 | 0,3  | 10 | 50 | 0,9  | 0,56 | 2    |          |         |
| 8553723  | 4    | 1   | 0,5  | 10 | 50 | 1,5  | 0,96 | 2    |          |         |
| 8553724  | 4    | 1   | 0,5  | 16 | 60 | 1,5  | 0,96 | 2    |          |         |
| 8553725  | 4    | 1   | 0,5  | 20 | 60 | 1,5  | 0,96 | 2    |          |         |
| 48249116 | 4    | 1   | 0,5  | 16 | 50 | 1,5  | 0,93 | 2    | W1502460 |         |
| 8553732  | 4    | 1,5 | 0,75 | 10 | 50 | 2,3  | 1,44 | 2    |          |         |
| 8553733  | 4    | 1,5 | 0,75 | 16 | 60 | 2,3  | 1,44 | 2    |          |         |
| 8553743  | 4    | 2   | 1    | 16 | 60 | 3    | 1,9  | 2    |          |         |
| W2100099 | 4    | 2   | 1    | 16 | 50 | 3    | 1,87 | 2    |          |         |
| 8553744  | 4    | 2   | 1    | 20 | 60 | 3    | 1,9  | 2    |          |         |
| 48249220 | 4    | 2   | 1    | 20 | 50 | 3    | 1,87 | 2    | W1502459 |         |

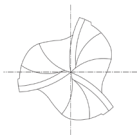
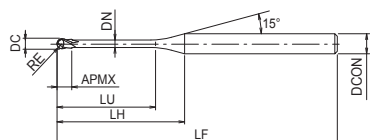
Shank diameter 6 mm

| EDP      | DCON | DC  | RE  | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|-----|----|----|------|------|------|---------|
| 48249068 | 6    | 0,6 | 0,3 | 8  | 50 | 0,5  | 0,55 | 2    |         |
| 48249170 | 6    | 1   | 0,5 | 10 | 50 | 0,8  | 0,95 | 2    |         |
| 48249272 | 6    | 2   | 1   | 12 | 50 | 3    | 1,87 | 2    |         |
| W1602615 | 6    | 1   | 0,5 | 16 | 50 | 1,5  | 0,93 | 2    |         |
| W1602616 | 6    | 2   | 1   | 20 | 50 | 3    | 1,87 | 2    |         |

# DG-LN-EBT

Ball nose for Zirconium & Composite

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



Shank diameter 3 mm

| EDP      | DCON | DC | RE | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|----|----|----|----|------|------|------|---------|
| W1601320 | 3    | 2  | 1  | 20 | 50 | 3    | 1,87 | 3    |         |
|          |      |    |    |    |    |      |      |      |         |
|          |      |    |    |    |    |      |      |      |         |
|          |      |    |    |    |    |      |      |      |         |
|          |      |    |    |    |    |      |      |      |         |
|          |      |    |    |    |    |      |      |      |         |

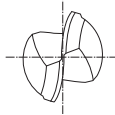
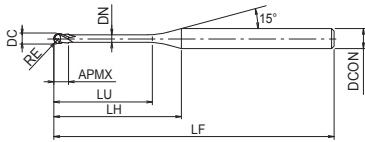
|               |          |           |          |      |                            |                |
|---------------|----------|-----------|----------|------|----------------------------|----------------|
|               |          |           |          |      |                            |                |
| Cobalt Chrome | Titanium | Zirconium | Wax/PMMA | PEEK | Hybrid ceramic / composite | Glass Ceramics |
|               |          | ⊙         |          |      | ⊙                          |                |

⊙ Best ○ Good

# DLC-LN-EBD

Ball nose for PEEK & PMMA

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



**CARBIDE**
**DLC**
**30°**
**SHRINK**
**FIT**
 $\pm 0.01$ 
**PAGE 38**

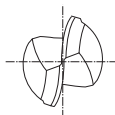
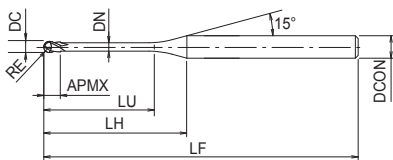
Shank diameter 4 mm

| EDP      | DCON | DC  | RE  | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|-----|----|----|------|------|------|---------|
| W1604644 | 4    | 0,6 | 0,3 | 6  | 50 | 0,5  | 0,55 | 2    |         |
| W1604586 | 4    | 1   | 0,5 | 16 | 50 | 0,8  | 0,95 | 2    |         |
| W1604587 | 4    | 2   | 1   | 20 | 50 | 1,6  | 1,95 | 2    |         |

# AE-LNBD-N

Ball nose for PEEK & PMMA

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



**A**
**CARBIDE**
**DLC-IGUSS**
**30°**
**SHANK**
**h4**
**SHRINK**
**FIT**
 $\pm 0.002$ 
 $RE \leq 2$ 
 $\pm 0.003$ 
 $0,2 < RE \leq 1,5$ 
 $\pm 0.004$ 
 $1,5 < RE$ 
**PAGE 39**

Shank diameter 4 mm

| EDP     | DCON | DC  | RE   | LU | LF | APMX | LH   | DN    | Φk     | Effective length by inclined angles Le (α)* |       |       |       |       | ZEFP | Price |
|---------|------|-----|------|----|----|------|------|-------|--------|---|-------|-------|-------|-------|------|-------|
|         |      |     |      |    |    |      |      |       |        | 0,5°  | 1°    | 1,5°  | 2°    | 3°    |      |       |
| 3056389 | 4    | 0,5 | 0,25 | 3  | 45 | 0,4  | 9,6  | 0,475 | 10,63° | 3,11  | 3,21  | 3,32  | 3,43  | 3,69  | 2    |       |
| 3056391 | 4    | 0,5 | 0,25 | 5  | 45 | 0,4  | 11,6 | 0,475 | 8,79°  | 5,18  | 5,35  | 5,53  | 5,73  | 6,18  | 2    |       |
| 3056394 | 4    | 0,6 | 0,3  | 3  | 45 | 0,5  | 9,3  | 0,55  | 10,62° | 3,09  | 3,19  | 3,29  | 3,4   | 3,66  | 2    |       |
| 3056397 | 4    | 0,6 | 0,3  | 6  | 45 | 0,5  | 12,3 | 0,55  | 8,02°  | 6,19  | 6,4   | 6,62  | 6,85  | 7,39  | 2    |       |
| 3056408 | 4    | 1   | 0,5  | 8  | 45 | 0,8  | 13,6 | 0,95  | 6,52°  | 8,25  | 8,52  | 8,81  | 9,12  | 9,83  | 2    |       |
| 3056409 | 4    | 1   | 0,5  | 10 | 45 | 0,8  | 15,6 | 0,95  | 5,67°  | 10,32                                       | 10,66 | 11,03 | 11,42 | 12,31 | 2    |       |
| 3056410 | 4    | 1   | 0,5  | 12 | 45 | 0,8  | 17,6 | 0,95  | 5,01°  | 12,39                                       | 12,8  | 13,24 | 13,72 | 14,8  | 2    |       |
| 3056413 | 4    | 1,5 | 0,75 | 12 | 55 | 1,2  | 16,8 | 1,45  | 4,46°  | 12,48                                       | 12,89 | 13,33 | 13,8  | 14,86 | 2    |       |
| 3056414 | 4    | 1,5 | 0,75 | 18 | 55 | 1,2  | 22,8 | 1,45  | 3,25°  | 18,68                                       | 19,31 | 19,98 | 20,7  | 22,32 | 2    |       |
| 3056419 | 4    | 2   | 1    | 12 | 50 | 1,6  | 16,2 | 1,95  | 3,77°  | 12,68                                       | 13,21 | 13,67 | 14,14 | 15,21 | 2    |       |
| 3056420 | 4    | 2   | 1    | 14 | 50 | 1,6  | 18,2 | 1,95  | 3,33°  | 14,78                                       | 15,36 | 15,88 | 16,44 | 17,7  | 2    |       |
| 3056421 | 4    | 2   | 1    | 16 | 50 | 1,6  | 20,2 | 1,95  | 2,99°  | 16,87                                       | 17,5  | 18,1  | 18,74 | —     | 2    |       |
| 3056422 | 4    | 2   | 1    | 20 | 60 | 1,6  | 24,2 | 1,95  | 2,47°  | 21,04                                       | 21,78 | 22,53 | 23,34 | —     | 2    |       |

Shank diameter 6 mm

| EDP     | DCON | DC | RE  | LU | LF | APMX | LH   | DN   | Φk    | Effective length by inclined angles Le (α)* |       |       |       |       | ZEFP | Price |
|---------|------|----|-----|----|----|------|------|------|-------|---|-------|-------|-------|-------|------|-------|
|         |      |    |     |    |    |      |      |      |       | 0,5°  | 1°    | 1,5°  | 2°    | 3°    |      |       |
| 3056425 | 6    | 3  | 1,5 | 12 | 55 | 2,4  | 17,8 | 2,85 | 5,23° | 12,53                                       | 12,98 | 13,4  | 13,85 | 14,85 | 2    |       |
| 3056426 | 6    | 3  | 1,5 | 14 | 55 | 2,4  | 19,8 | 2,85 | 4,67° | 14,62                                       | 15,12 | 15,62 | 16,15 | 17,34 | 2    |       |
| 3056427 | 6    | 3  | 1,5 | 16 | 55 | 2,4  | 21,8 | 2,85 | 4,21° | 16,7  | 17,26 | 17,83 | 18,45 | 19,83 | 2    |       |
| 3056428 | 6    | 3  | 1,5 | 20 | 55 | 2,4  | 25,8 | 2,85 | 3,53° | 20,85                                       | 21,54 | 22,27 | 23,05 | 24,8  | 2    |       |

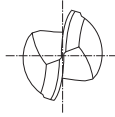
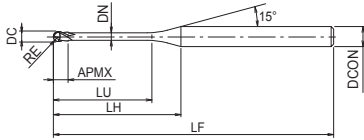
|               |          |           |          |      |                            |                |
|---------------|----------|-----------|----------|------|----------------------------|----------------|
|               |          |           |          |      |                            |                |
| Cobalt Chrome | Titanium | Zirconium | Wax/PMMA | PEEK | Hybrid ceramic / Composite | Glass Ceramics |
|               |          | ○         | ⊙        | ⊙    |                            |                |

⊙ Best ○ Good

# WXL-LN-EBD

Ball nose for general purpose

Machine type: DMG, Imes-core, Laserdenta, Mikron, MB, Primacon, Röders, Datron, Venture, Wissner and others.



**CARBIDE**
**WXL**
**30°**
**SHRINK FIT**
**R ±0.005**
**PAGE 39-40**

Shank diameter 3 mm

| EDP      | DCON | DC  | RE  | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|-----|----|----|------|------|------|---------|
| W1603333 | 3    | 1   | 0,5 | 16 | 50 | 0,8  | 0,95 | 2    |         |
| W1603334 | 3    | 2   | 1   | 20 | 50 | 1,6  | 1,95 | 2    |         |
| W1603335 | 3    | 0,6 | 0,3 | 6  | 45 | 0,5  | 0,55 | 2    |         |

Shank diameter 4 mm

| EDP      | DCON | DC  | RE   | LU   | LF | APMX | DN   | ZEFP | Old EDP  | € Price |
|----------|------|-----|------|------|----|------|------|------|----------|---------|
| 3110525  | 4    | 0,5 | 0,25 | 2,5  | 45 | 0,4  | 0,45 | 2    |          |         |
| 3110660  | 4    | 0,6 | 0,3  | 6,0  | 45 | 0,5  | 0,55 | 2    |          |         |
| 3110680  | 4    | 0,6 | 0,3  | 8,0  | 50 | 0,5  | 0,55 | 2    |          |         |
| 3110700  | 4    | 0,6 | 0,3  | 10,0 | 45 | 0,5  | 0,55 | 2    |          |         |
| 3111080  | 4    | 1   | 0,5  | 8,0  | 45 | 0,8  | 0,95 | 2    |          |         |
| 3111100  | 4    | 1   | 0,5  | 10,0 | 45 | 0,8  | 0,95 | 2    |          |         |
| 3111112  | 4    | 1   | 0,5  | 12,0 | 45 | 0,8  | 0,95 | 2    |          |         |
| 3111114  | 4    | 1   | 0,5  | 14,0 | 50 | 0,8  | 0,95 | 2    |          |         |
| 3111116  | 4    | 1   | 0,5  | 16,0 | 50 | 0,8  | 0,95 | 2    | W1503335 |         |
| 3111118  | 4    | 1   | 0,5  | 18,0 | 55 | 0,8  | 0,95 | 2    |          |         |
| 3111120  | 4    | 1   | 0,5  | 20,0 | 55 | 0,8  | 0,95 | 2    |          |         |
| 3111580  | 4    | 1,5 | 0,75 | 8,0  | 45 | 1,2  | 1,45 | 2    |          |         |
| 3111600  | 4    | 1,5 | 0,75 | 10,0 | 45 | 1,2  | 1,45 | 2    |          |         |
| 3111612  | 4    | 1,5 | 0,75 | 12,0 | 45 | 1,2  | 1,45 | 2    |          |         |
| 3112112  | 4    | 2   | 1    | 12,0 | 45 | 1,6  | 1,95 | 2    |          |         |
| 3112114  | 4    | 2   | 1    | 14,0 | 50 | 1,6  | 1,95 | 2    |          |         |
| 3112116  | 4    | 2   | 1    | 16,0 | 50 | 1,6  | 1,95 | 2    |          |         |
| 48251220 | 4    | 2   | 1    | 20,0 | 50 | 1,6  | 1,95 | 2    | W1503334 |         |
| 3112615  | 4    | 2,5 | 1,25 | 15,0 | 55 | 2,0  | 2,35 | 2    |          |         |

Shank diameter 6 mm

| EDP      | DCON | DC  | RE   | LU   | LF | APMX | DN   | ZEFP | Old EDP  | € Price |
|----------|------|-----|------|------|----|------|------|------|----------|---------|
| 3120625  | 6    | 0,6 | 0,3  | 2,5  | 50 | 0,5  | 0,55 | 2    |          |         |
| 48251008 | 6    | 0,6 | 0,3  | 8,0  | 50 | 0,5  | 0,55 | 2    | W1502458 |         |
| 3121080  | 6    | 1   | 0,5  | 8,0  | 50 | 0,8  | 0,95 | 2    |          |         |
| 3121100  | 6    | 1   | 0,5  | 10,0 | 50 | 0,8  | 0,95 | 2    |          |         |
| 3121112  | 6    | 1   | 0,5  | 12,0 | 60 | 0,8  | 0,95 | 2    |          |         |
| 3121116  | 6    | 1   | 0,5  | 16,0 | 60 | 0,8  | 0,95 | 2    |          |         |
| 48251116 | 6    | 1   | 0,5  | 16,0 | 50 | 0,8  | 0,95 | 2    | W1502457 |         |
| 3121580  | 6    | 1,5 | 0,75 | 8,0  | 50 | 1,2  | 1,45 | 2    |          |         |
| 3121600  | 6    | 1,5 | 0,75 | 10,0 | 50 | 1,2  | 1,45 | 2    |          |         |
| 3121612  | 6    | 1,5 | 0,75 | 12,0 | 50 | 1,2  | 1,45 | 2    |          |         |
| 3122100  | 6    | 2   | 1    | 10,0 | 50 | 1,6  | 1,95 | 2    |          |         |
| 3122112  | 6    | 2   | 1    | 12,0 | 50 | 1,6  | 1,95 | 2    |          |         |
| 3122116  | 6    | 2   | 1    | 16,0 | 60 | 1,6  | 1,95 | 2    |          |         |
| 48251221 | 6    | 2   | 1    | 20,0 | 50 | 1,6  | 1,95 | 2    | W1502456 |         |
| W1703576 | 6    | 3   | 1,5  | 12,0 | 50 | 2,4  | 2,85 | 2    |          |         |
| 3123112  | 6    | 3   | 1,5  | 12,0 | 55 | 2,4  | 2,85 | 2    |          |         |
| 3123116  | 6    | 3   | 1,5  | 16,0 | 55 | 2,4  | 2,85 | 2    |          |         |

|                                  |                                  |                       |                                  |                       |                            |                |
|----------------------------------|----------------------------------|-----------------------|----------------------------------|-----------------------|----------------------------|----------------|
|                                  |                                  |                       |                                  |                       |                            |                |
| Cobalt Chrome                    | Titanium                         | Zirconium             | Wax/PMMA                         | PEEK                  | Hybrid ceramic / composite | Glass Ceramics |
| <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |                            |                |

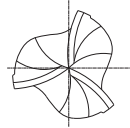
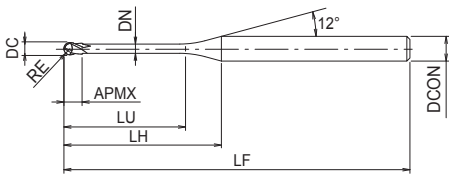
Best  Good



# PHX-LN-DBT

Ball nose for high productivity

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.





CARBIDE



WXS



45°



SHRINK  
FIT



R  
± 0.007

Shank diameter 4 mm

| EDP      | DCON | DC  | RE   | LU | LF | APMX | DN   | ZEFP | € Price |
|----------|------|-----|------|----|----|------|------|------|---------|
| 3194901  | 4    | 0,6 | 0,3  | 1  | 50 | 0,45 | 0,55 | 3    |         |
| 3194902  | 4    | 0,6 | 0,3  | 2  | 50 | 0,45 | 0,55 | 3    |         |
| 3194903  | 4    | 0,6 | 0,3  | 3  | 50 | 0,45 | 0,55 | 3    |         |
| 3194904  | 4    | 0,6 | 0,3  | 4  | 50 | 0,45 | 0,55 | 3    |         |
| 3194906  | 4    | 0,6 | 0,3  | 6  | 50 | 0,45 | 0,55 | 3    |         |
| W1504436 | 4    | 0,8 | 0,4  | 1  | 50 | 0,6  | 0,75 | 3    |         |
| W1504437 | 4    | 0,8 | 0,4  | 2  | 50 | 0,6  | 0,75 | 3    |         |
| W1504438 | 4    | 0,8 | 0,4  | 3  | 50 | 0,6  | 0,75 | 3    |         |
| W1504439 | 4    | 0,8 | 0,4  | 4  | 50 | 0,6  | 0,75 | 3    |         |
| W1504440 | 4    | 0,8 | 0,4  | 6  | 50 | 0,6  | 0,75 | 3    |         |
| 3195004  | 4    | 1   | 0,5  | 4  | 50 | 0,75 | 0,95 | 3    |         |
| 3195006  | 4    | 1   | 0,5  | 6  | 50 | 0,75 | 0,95 | 3    |         |
| 3195008  | 4    | 1   | 0,5  | 8  | 50 | 0,75 | 0,95 | 3    |         |
| 3195010  | 4    | 1   | 0,5  | 10 | 50 | 0,75 | 0,95 | 3    |         |
| 3195012  | 4    | 1   | 0,5  | 12 | 50 | 0,75 | 0,95 | 3    |         |
| 3195014  | 4    | 1   | 0,5  | 14 | 50 | 0,75 | 0,95 | 3    |         |
| 3195016  | 4    | 1   | 0,5  | 16 | 50 | 0,75 | 0,95 | 3    |         |
| 3195106  | 4    | 1,5 | 0,75 | 6  | 50 | 1,13 | 1,45 | 3    |         |
| 3195108  | 4    | 1,5 | 0,75 | 8  | 50 | 1,13 | 1,45 | 3    |         |
| 3195110  | 4    | 1,5 | 0,75 | 10 | 50 | 1,13 | 1,45 | 3    |         |
| 3195112  | 4    | 1,5 | 0,75 | 12 | 50 | 1,13 | 1,45 | 3    |         |
| 3195116  | 4    | 1,5 | 0,75 | 16 | 50 | 1,13 | 1,45 | 3    |         |
| 3195206  | 4    | 2   | 1    | 6  | 50 | 1,5  | 1,95 | 3    |         |
| 3195208  | 4    | 2   | 1    | 8  | 50 | 1,5  | 1,95 | 3    |         |
| 3195210  | 4    | 2   | 1    | 10 | 50 | 1,5  | 1,95 | 3    |         |
| 3195212  | 4    | 2   | 1    | 12 | 50 | 1,5  | 1,95 | 3    |         |
| 3195214  | 4    | 2   | 1    | 14 | 50 | 1,5  | 1,95 | 3    |         |
| 3195216  | 4    | 2   | 1    | 16 | 50 | 1,5  | 1,95 | 3    |         |
| 3195218  | 4    | 2   | 1    | 18 | 60 | 1,5  | 1,95 | 3    |         |
| 3195220  | 4    | 2   | 1    | 20 | 60 | 1,5  | 1,95 | 3    |         |
| 3195222  | 4    | 2   | 1    | 22 | 60 | 1,5  | 1,95 | 3    |         |
| 3195312  | 4    | 3   | 1,5  | 12 | 60 | 2,25 | 2,85 | 3    |         |
| 3195316  | 4    | 3   | 1,5  | 16 | 60 | 2,25 | 2,85 | 3    |         |
| 3195320  | 4    | 3   | 1,5  | 20 | 60 | 2,25 | 2,85 | 3    |         |
| 3195325  | 4    | 3   | 1,5  | 25 | 60 | 2,25 | 2,85 | 3    |         |
| 3195416  | 4    | 4   | 2    | 16 | 60 | 3    | 3,85 | 3    |         |
| 3195420  | 4    | 4   | 2    | 20 | 60 | 3    | 3,85 | 3    |         |
| 3195425  | 4    | 4   | 2    | 25 | 60 | 3    | 3,85 | 3    |         |

Shank diameter 6 mm

| EDP     | DCON | DC | RE | LU | LH | LF | APMX | DN   | ZEFP | € Price |
|---------|------|----|----|----|----|----|------|------|------|---------|
| 3195520 | 6    | 6  | 3  | 20 | -  | 60 | 4,5  | 5,85 | 3    |         |
| 3195530 | 6    | 6  | 3  | 30 | -  | 60 | 4,5  | 5,85 | 3    |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |
|         |      |    |    |    |    |    |      |      |      |         |

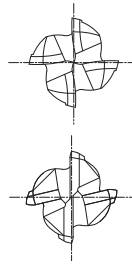
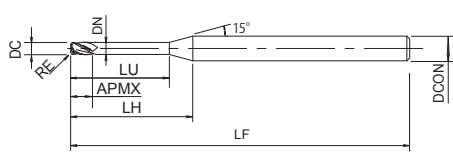
|   |   |   |   |  |   |   |
|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| Cobalt Chrome   | Titanium  | Zirconium   | Wax/PMMA  | PEEK   | Hybrid ceramic / composite  | Glass Ceramics  |
| ⊙   | ⊙   | ○   |   |  |   |   |

⊙ Best ○ Good

# PHX-LN-CRE

Ball nose for high productivity

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



Shank diameter 4 mm

| EDP     | ZEFP | DC  | RE  | LU | LF | LH   | APMX | DCON | DN   | Φk    | Le (α)<br>0,5° | Le (α)<br>1° | € Price |
|---------|------|-----|-----|----|----|------|------|------|------|-------|----------------|--------------|---------|
| 3190800 | 4    | 0,8 | 0,1 | 2  | 50 | 8,1  | 0,32 | 4    | 0,72 | 11,48 | 2,06           | 2,13         |         |
| 3190801 | 4    | 0,8 | 0,1 | 4  | 50 | 10,1 | 0,32 | 4    | 0,72 | 9,2   | 4,13           | 4,27         |         |
| 3190802 | 4    | 0,8 | 0,1 | 6  | 50 | 12,1 | 0,32 | 4    | 0,72 | 7,67  | 6,2            | 6,41         |         |
| 3190803 | 4    | 0,8 | 0,1 | 8  | 50 | 14,1 | 0,32 | 4    | 0,72 | 6,58  | 8,27           | 8,55         |         |
| 3191006 | 4    | 1   | 0,1 | 4  | 50 | 9,7  | 0,4  | 4    | 0,93 | 8,97  | 4,13           | 4,27         |         |
| 3191007 | 4    | 1   | 0,1 | 6  | 50 | 11,7 | 0,4  | 4    | 0,93 | 7,43  | 6,2            | 6,41         |         |
| 3191008 | 4    | 1   | 0,1 | 8  | 50 | 13,7 | 0,4  | 4    | 0,93 | 6,34  | 8,27           | 8,55         |         |
| 3191009 | 4    | 1   | 0,1 | 10 | 50 | 15,7 | 0,4  | 4    | 0,93 | 5,53  | 10,33          | 10,69        |         |
| 3191010 | 4    | 1   | 0,1 | 12 | 50 | 17,7 | 0,4  | 4    | 0,93 | 4,9   | 12,4           | 12,83        |         |
| 3191011 | 4    | 1   | 0,2 | 4  | 50 | 9,7  | 0,4  | 4    | 0,93 | 9,05  | 4,13           | 4,26         |         |
| 3191012 | 4    | 1   | 0,2 | 6  | 50 | 11,7 | 0,4  | 4    | 0,93 | 7,49  | 6,2            | 6,4          |         |
| 3191013 | 4    | 1   | 0,2 | 8  | 50 | 13,7 | 0,4  | 4    | 0,93 | 6,38  | 8,26           | 8,54         |         |
| 3191014 | 4    | 1   | 0,2 | 10 | 50 | 15,7 | 0,4  | 4    | 0,93 | 5,56  | 10,33          | 10,68        |         |
| 3191015 | 4    | 1   | 0,2 | 12 | 50 | 17,7 | 0,4  | 4    | 0,93 | 4,93  | 12,4           | 12,82        |         |
| 3191018 | 4    | 1   | 0,3 | 4  | 50 | 9,7  | 0,4  | 4    | 0,93 | 9,14  | 4,12           | 4,26         |         |
| 3191019 | 4    | 1   | 0,3 | 6  | 50 | 11,7 | 0,4  | 4    | 0,93 | 7,55  | 6,19           | 6,4          |         |
| 3191501 | 4    | 1,5 | 0,1 | 4  | 50 | 8,8  | 0,6  | 4    | 1,41 | 8,3   | 4,13           | 4,27         |         |
| 3191503 | 4    | 1,5 | 0,1 | 8  | 50 | 12,8 | 0,6  | 4    | 1,41 | 5,68  | 8,27           | 8,55         |         |
| 3191505 | 4    | 1,5 | 0,1 | 12 | 50 | 16,8 | 0,6  | 4    | 1,41 | 4,31  | 12,4           | 12,83        |         |
| 3191506 | 4    | 1,5 | 0,2 | 4  | 50 | 8,8  | 0,6  | 4    | 1,41 | 8,39  | 4,13           | 4,26         |         |
| 3191507 | 4    | 1,5 | 0,2 | 6  | 50 | 10,8 | 0,6  | 4    | 1,41 | 6,8   | 6,2            | 6,4          |         |
| 3191508 | 4    | 1,5 | 0,2 | 8  | 50 | 12,8 | 0,6  | 4    | 1,41 | 5,72  | 8,26           | 8,54         |         |
| 3192001 | 4    | 2   | 0,1 | 8  | 50 | 12,1 | 0,8  | 4    | 1,89 | 4,91  | 8,27           | 8,55         |         |
| 3192002 | 4    | 2   | 0,1 | 10 | 50 | 14,1 | 0,8  | 4    | 1,89 | 4,19  | 10,33          | 10,69        |         |
| 3192003 | 4    | 2   | 0,1 | 12 | 50 | 16,1 | 0,8  | 4    | 1,89 | 3,66  | 12,4           | 12,83        |         |
| 3192004 | 4    | 2   | 0,1 | 16 | 50 | 20,1 | 0,8  | 4    | 1,89 | 2,92  | 16,54          | 17,11        |         |
| 3192013 | 4    | 2   | 0,3 | 8  | 50 | 12,1 | 0,8  | 4    | 1,89 | 4,99  | 8,26           | 8,54         |         |
| 3192015 | 4    | 2   | 0,3 | 12 | 50 | 16,1 | 0,8  | 4    | 1,89 | 3,71  | 12,39          | 12,82        |         |
| 3192019 | 4    | 2   | 0,5 | 6  | 50 | 10,1 | 0,8  | 4    | 1,89 | 6,16  | 6,19           | 6,38         |         |
| 3192020 | 4    | 2   | 0,5 | 8  | 50 | 12,1 | 0,8  | 4    | 1,89 | 5,08  | 8,25           | 8,52         |         |
| 3192021 | 4    | 2   | 0,5 | 10 | 50 | 14,1 | 0,8  | 4    | 1,89 | 4,32  | 10,32          | 10,66        |         |
| 3192022 | 4    | 2   | 0,5 | 12 | 50 | 16,1 | 0,8  | 4    | 1,89 | 3,75  | 12,39          | 12,8         |         |
| 3193008 | 4    | 3   | 0,3 | 12 | 50 | 14,2 | 1,2  | 4    | 2,85 | 2,11  | 12,39          | 12,82        |         |

|               |          |           |          |      |                            |                |
|---------------|----------|-----------|----------|------|----------------------------|----------------|
|               |          |           |          |      |                            |                |
| Cobalt Chrome | Titanium | Zirconium | Wax/PMMA | PEEK | Hybrid ceramic / composite | Glass Ceramics |
| ⊙             | ⊙        |           |          |      |                            |                |

⊙ Best ○ Good

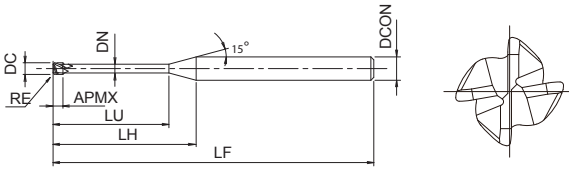




# AE-CPR4-H

unequal spacing. New spiral-shaped gash specification

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.













Shank diameter 6 mm

| EDP     | ZEFP | DC | RE  | LU | LF | APMX | LH   | DCON | DN   | θk   | Le (α=0,5°) | Le (α=1°) | Le (α=1,5°) | Le (α=2°) | Le (α=3°) | Price |
|---------|------|----|-----|----|----|------|------|------|------|------|-------------|-----------|-------------|-----------|-----------|-------|
| 8557606 | 4    | 3  | 0,2 | 8  | 55 | 2,5  | 13,8 | 6    | 2,85 | 6,28 | 8,41        | 8,77      | 9,11        | 9,44      | 10,19     |       |
| 8557607 | 4    | 3  | 0,2 | 12 | 55 | 2,5  | 17,8 | 6    | 2,85 | 4,86 | 12,59       | 13,07     | 13,54       | 14,04     | 15,16     |       |
| 8557608 | 4    | 3  | 0,2 | 16 | 55 | 2,5  | 21,8 | 6    | 2,85 | 3,97 | 16,75       | 17,35     | 17,97       | 18,64     | 20,14     |       |
| 8557609 | 4    | 3  | 0,2 | 20 | 55 | 2,5  | 25,8 | 6    | 2,85 | 3,35 | 20,9        | 21,63     | 22,4        | 23,24     | 25,11     |       |
| 8557610 | 4    | 3  | 0,2 | 25 | 70 | 2,5  | 30,8 | 6    | 2,85 | 2,81 | 26,08       | 26,98     | 27,95       | 28,99     | -         |       |
| 8557611 | 4    | 3  | 0,2 | 30 | 70 | 2,5  | 35,8 | 6    | 2,85 | 2,41 | 31,25       | 32,33     | 33,49       | 34,74     | -         |       |
| 8557612 | 4    | 3  | 0,2 | 35 | 70 | 2,5  | 40,8 | 6    | 2,85 | 2,12 | 36,41       | 37,68     | 39,03       | 40,49     | -         |       |
| 8557613 | 4    | 3  | 0,3 | 12 | 55 | 2,5  | 17,8 | 6    | 2,85 | 4,89 | 12,58       | 13,07     | 13,53       | 14,02     | 15,14     |       |
| 8557614 | 4    | 3  | 0,3 | 16 | 55 | 2,5  | 21,8 | 6    | 2,85 | 3,99 | 16,75       | 17,34     | 17,96       | 18,62     | 20,11     |       |
| 8557615 | 4    | 3  | 0,3 | 20 | 55 | 2,5  | 25,8 | 6    | 2,85 | 3,37 | 20,9        | 21,62     | 22,39       | 23,22     | 25,08     |       |
| 8557616 | 4    | 3  | 0,3 | 25 | 70 | 2,5  | 30,8 | 6    | 2,85 | 2,82 | 26,07       | 26,97     | 27,94       | 28,97     | -         |       |
| 8557617 | 4    | 3  | 0,3 | 30 | 70 | 2,5  | 35,8 | 6    | 2,85 | 2,42 | 31,24       | 32,32     | 33,48       | 34,72     | -         |       |
| 8557618 | 4    | 3  | 0,3 | 35 | 70 | 2,5  | 40,8 | 6    | 2,85 | 2,12 | 36,41       | 37,67     | 39,02       | 40,47     | -         |       |
| 8557619 | 4    | 3  | 0,5 | 12 | 55 | 2,5  | 17,8 | 6    | 2,85 | 4,94 | 12,57       | 13,05     | 13,51       | 13,99     | 15,09     |       |
| 8557620 | 4    | 3  | 0,5 | 16 | 55 | 2,5  | 21,8 | 6    | 2,85 | 4,02 | 16,74       | 17,33     | 17,94       | 18,59     | 20,06     |       |
| 8557621 | 4    | 3  | 0,5 | 20 | 55 | 2,5  | 25,8 | 6    | 2,85 | 3,39 | 20,89       | 21,61     | 22,37       | 23,19     | 25,04     |       |

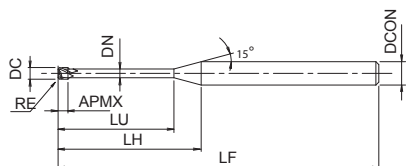
|   |   |   |   |  |   |   |
|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| Cobalt Chrome   | Titanium  | Zirconium   | Wax/PMMA  | PEEK   | Hybrid ceramic / composite  | Glass Ceramics  |
| ⊙   | ○   | ○   | ○   |  |   |   |

⊙ Best ○ Good

# WXL-CPR

Corner radius for general purpose

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Datron, Venture, Wissner and others.



**CARBIDE**
**WXS**
**30°**
**SHRINK FIT**
 $R$ 
 $D < 0.5$ 
 $D \geq 0.5$ 
**PAGE 41**

Shank diameter 6 mm

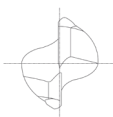
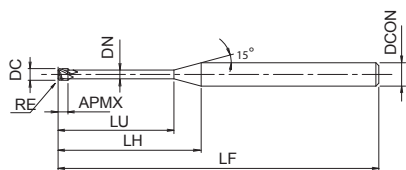
| EDP      | DCON | DC  | RE  | LU   | LF | APMX | DN   | ZEFP | Old EDP  | € Price |
|----------|------|-----|-----|------|----|------|------|------|----------|---------|
| 48250112 | 6    | 1,5 | 0,2 | 12,0 | 50 | 1,2  | 1,43 | 2    | W1503331 |         |
| 48250115 | 6    | 1,5 | 0,2 | 15,0 | 50 | 1,2  | 1,43 | 2    | W1601160 |         |

|                                  |                                  |                       |                                  |                       |                            |                |
|----------------------------------|----------------------------------|-----------------------|----------------------------------|-----------------------|----------------------------|----------------|
|                                  |                                  |                       |                                  |                       |                            |                |
| Cobalt Chrome                    | Titanium                         | Zirconium             | Wax/PMMA                         | PEEK                  | Hybrid ceramic / composite | Glass Ceramics |
| <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |                            |                |

# WXS-CPR

Corner radius for hardened material

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



**CARBIDE**
**WXS**
**30°**
**SHRINK FIT**
 $R$ 
 $D < 0.5$ 
 $D \geq 0.5$

Shank diameter 4 mm

| EDP     | DCON | DC  | RE   | LU   | LF | APMX | DN   | ZEFP | € Price |
|---------|------|-----|------|------|----|------|------|------|---------|
| 3100405 | 4    | 0,4 | 0,05 | 4,0  | 50 | 0,3  | 0,37 | 2    |         |
| 3101013 | 4    | 1   | 0,2  | 8,0  | 50 | 0,8  | 0,95 | 2    |         |
| 3101014 | 4    | 1   | 0,2  | 10,0 | 50 | 0,8  | 0,95 | 2    |         |
| 3101015 | 4    | 1   | 0,2  | 12,0 | 50 | 0,8  | 0,95 | 2    |         |
| 3101022 | 4    | 1   | 0,3  | 12,0 | 50 | 0,8  | 0,95 | 2    |         |
| 3101504 | 4    | 1,5 | 0,2  | 12,0 | 50 | 1,2  | 1,45 | 2    |         |
| 3101505 | 4    | 1,5 | 0,2  | 16,0 | 50 | 1,2  | 1,45 | 2    |         |
| 3101510 | 4    | 1,5 | 0,3  | 16,0 | 50 | 1,2  | 1,45 | 2    |         |
| 3102010 | 4    | 2   | 0,2  | 16,0 | 60 | 1,6  | 1,95 | 2    |         |
| 3102022 | 4    | 2   | 0,5  | 16,0 | 60 | 1,6  | 1,95 | 2    |         |
| 3102023 | 4    | 2   | 0,5  | 20,0 | 60 | 1,6  | 1,95 | 2    |         |

Shank diameter 6 mm

| EDP      | DCON | DC  | RE  | LU   | LF | APMX | DN   | ZEFP | Old EDP  | € Price |
|----------|------|-----|-----|------|----|------|------|------|----------|---------|
| 48253108 | 6    | 1   | 0,2 | 8,0  | 50 | 0,8  | 0,94 | 2    | W1502465 |         |
| W1502464 | 6    | 1,5 | 0,2 | 10,0 | 50 | 1,2  | -    | 4    |          |         |
| 3103015  | 6    | 3   | 0,5 | 16,0 | 60 | 2,5  | 2,85 | 2    |          |         |
| 3103027  | 6    | 3   | 0,5 | 20,0 | 60 | 2,5  | 2,85 | 2    |          |         |

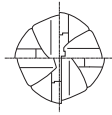
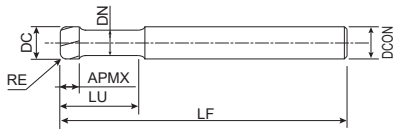
|                                  |                       |                       |                       |                       |                            |                |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|----------------|
|                                  |                       |                       |                       |                       |                            |                |
| Cobalt Chrome                    | Titanium              | Zirconium             | Wax/PMMA              | PEEK                  | Hybrid ceramic / composite | Glass Ceramics |
| <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                            |                |

Best  Good

# WXS-CRE

Corner radius for roughing of metal material

Machine type: DMG, Imes-icore, Laserdentia, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



CARBIDE 
 WXS 
 SHRINK FIT 
 HIGH SPEED 
 0~-0.02 
 PAGE 43

Shank diameter 6 mm

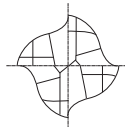
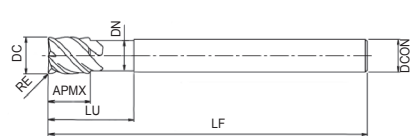
| EDP      | DCON | DC | RE   | LU   | LF | APMX | DN   | ZEFP | Old EDP  | € Price |
|----------|------|----|------|------|----|------|------|------|----------|---------|
| 48106421 | 6    | 2  | 0,5  | 8,0  | 50 | 0,8  | 1,80 | 4    |          |         |
| 48254212 | 6    | 2  | 0,5  | 12,0 | 50 | 0,8  | 1,80 | 4    | W1502463 |         |
| 48254316 | 6    | 3  | 0,75 | 16,0 | 50 | 1,3  | 2,70 | 5    | W1502462 |         |
| 48106433 | 6    | 3  | 0,75 | 12,0 | 55 | 1,2  | 2,70 | 5    |          |         |
| 48106445 | 6    | 4  | 1    | 12,0 | 55 | 1,6  | 3,60 | 5    |          |         |

|               |          |           |          |      |                            |                |
|---------------|----------|-----------|----------|------|----------------------------|----------------|
|               |          |           |          |      |                            |                |
| Cobalt Chrome | Titanium | Zirconium | Wax/PMMA | PEEK | Hybrid ceramic / composite | Glass Ceramics |
|               |          |           |          |      |                            |                |

# FXS-PKE

Corner radius for Titanium

Machine type: DMG, Imes-icore, Laserdentia, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



CARBIDE 
 ±45° 
 SHRINK FIT 
 0~-0.02 
 PAGE 43

Shank diameter 6 mm

| EDP     | DCON | DC | RE  | LU  | LF | APMX | DN   | ZEFP | € Price |
|---------|------|----|-----|-----|----|------|------|------|---------|
| 8548003 | 6    | 3  | 0,5 | 9,0 | 60 | 5,0  | 2,85 | 4    |         |
| 8548053 | 6    | 3  | 0,5 | 15  | 70 | 5,0  | 2,85 | 4    |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |
|         |      |    |     |     |    |      |      |      |         |

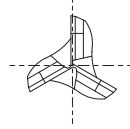
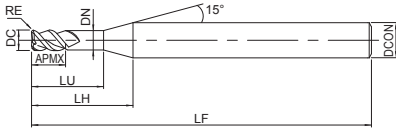
|               |          |           |          |      |                            |                |
|---------------|----------|-----------|----------|------|----------------------------|----------------|
|               |          |           |          |      |                            |                |
| Cobalt Chrome | Titanium | Zirconium | Wax/PMMA | PEEK | Hybrid ceramic / composite | Glass Ceramics |
|               |          |           |          |      |                            |                |

Best Good

# AE-VTS-N

Carbide End Mill for PMMA & PEEK

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Datron, Venture, Wissner and others.



A

CARBIDE

DLC-IGUSS

○  
0~-0.02

40°~43

SHRINK  
FIT

PAGE 43

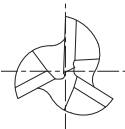
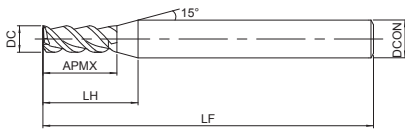
Shank diameter 6 mm

| EDP     | DCON | DC | LU | LF | APMX | LH   | DN   | ZEFP | Price |
|---------|------|----|----|----|------|------|------|------|-------|
| 8557360 | 6    | 3  | 9  | 55 | 4,5  | 14,9 | 2,85 | 3    |       |
| 8557361 | 6    | 4  | 12 | 55 | 6    | 16   | 3,8  | 3    |       |
|         |      |    |    |    |      |      |      |      |       |
|         |      |    |    |    |      |      |      |      |       |
|         |      |    |    |    |      |      |      |      |       |
|         |      |    |    |    |      |      |      |      |       |

# AE-TL-N

Carbide End Mill for PMMA & PEEK

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Datron, Venture, Wissner and others.



A

CARBIDE

DLC

○  
0~-0.02

40°

SHRINK  
FIT

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Shank diameter 6 mm

| EDP     | DCON | DC | APMX | LF | LH   | ULDR | ZEFP | Price |
|---------|------|----|------|----|------|------|------|-------|
| 8557340 | 6    | 3  | 9    | 55 | 17   | 3    | 3    |       |
| 8557350 | 6    | 3  | 15   | 55 | 23   | 5    | 3    |       |
| 8557341 | 6    | 4  | 12   | 55 | 18,1 | 3    | 3    |       |
| 8557351 | 6    | 4  | 20   | 60 | 26,1 | 5    | 3    |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |
|         |      |    |      |    |      |      |      |       |

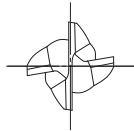
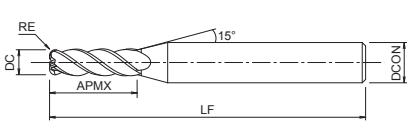
|  |   |  |   |  |   |   |
|--|---|--|---|--|---|---|
| <br>Cobalt Chrome | <br>Titanium | <br>Zirconium | <br>Wax/PMMA | <br>PEEK | <br>Hybrid ceramic / Composite | <br>Glass Ceramics |
| ○  | ○   | ○  | ○   | ○  | ○   | ○   |

○ Best   ○ Good

# AE-VMS

Square 4 flutes

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



**A**

**CARBIDE**

**DUARISE**

**37°~40°**

**SHRINK FIT**

**0~-0.02**

**PAGE 44**

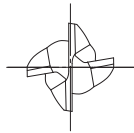
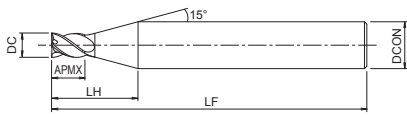
Shank diameter 6 mm

| EDP     | DCON | DC | RE  | LF | APMX | € Price |
|---------|------|----|-----|----|------|---------|
| 8555830 | 6    | 3  | -   | 60 | 8    |         |
| 8556050 | 6    | 3  | 0,2 | 60 | 8    |         |
| 8556060 | 6    | 3  | 0,5 | 60 | 8    |         |
| 8555840 | 6    | 4  | -   | 60 | 11   |         |
| 8556070 | 6    | 4  | 0,2 | 60 | 11   |         |
| 8556080 | 6    | 4  | 0,5 | 60 | 11   |         |
| 8556090 | 6    | 4  | 1   | 60 | 11   |         |

# AE-VMSS

Square 4 flutes, short type

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



**A**

**CARBIDE**

**DUARISE**

**37°~40°**

**SHRINK FIT**

**0~-0.02**

**PAGE 44**

Shank diameter 6 mm

| EDP     | DCON | DC  | LF | APMX | € Price |
|---------|------|-----|----|------|---------|
| 8556430 | 6    | 3   | 45 | 4,5  |         |
| 8556435 | 6    | 3,5 | 45 | 5,3  |         |
| 8556440 | 6    | 4   | 45 | 6    |         |
|         |      |     |    |      |         |
|         |      |     |    |      |         |
|         |      |     |    |      |         |
|         |      |     |    |      |         |
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|         |      |     |    |      |         |
|         |      |     |    |      |         |

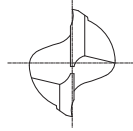
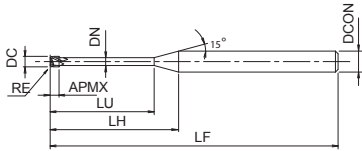


|                       |                                  |                       |                       |                       |                            |                       |
|-----------------------|----------------------------------|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|
|                       |                                  |                       |                       |                       |                            |                       |
| Cobalt Chrome         | Titanium                         | Zirconium             | Wax/PMMA              | PEEK                  | Hybrid ceramic / composite | Glass Ceramics        |
| <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> |

# WXL-LN-EDS

Square 2 flutes long neck

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



Shank diameter 4 mm

| EDP     | DCON | DC  | LH | LF | APMX | DN   | ZEFP | € Price |
|---------|------|-----|----|----|------|------|------|---------|
| 3131308 | 4    | 0,3 | 4  | 45 | 0,5  | 0,28 | 2    |         |
| 3131408 | 4    | 0,4 | 4  | 45 | 0,6  | 0,37 | 2    |         |
| 3131504 | 4    | 0,5 | 4  | 45 | 0,7  | 0,45 | 2    |         |
| 3131604 | 4    | 0,6 | 4  | 45 | 0,9  | 0,55 | 2    |         |
| 3131606 | 4    | 0,6 | 6  | 45 | 0,9  | 0,55 | 2    |         |
| 3131610 | 4    | 0,6 | 10 | 45 | 0,9  | 0,55 | 2    |         |
| 3132010 | 4    | 1   | 10 | 45 | 1,5  | 0,95 | 2    |         |
| 3132012 | 4    | 1   | 12 | 45 | 1,5  | 0,95 | 2    |         |
| 3132014 | 4    | 1   | 14 | 50 | 1,5  | 0,95 | 2    |         |
| 3132016 | 4    | 1   | 16 | 50 | 1,5  | 0,95 | 2    |         |
| 3132018 | 4    | 1   | 18 | 55 | 1,5  | 0,95 | 2    |         |
| 3132020 | 4    | 1   | 20 | 55 | 1,5  | 0,95 | 2    |         |
| 3132510 | 4    | 1,5 | 10 | 55 | 1,5  | 0,95 | 2    |         |
| 3132512 | 4    | 1,5 | 12 | 45 | 2,3  | 1,45 | 2    |         |
| 3132514 | 4    | 1,5 | 14 | 50 | 2,3  | 1,45 | 2    |         |
| 3132516 | 4    | 1,5 | 16 | 50 | 2,3  | 1,45 | 2    |         |
| 3132518 | 4    | 1,5 | 18 | 55 | 2,3  | 1,45 | 2    |         |
| 3133010 | 4    | 2   | 10 | 45 | 3,0  | 1,95 | 2    |         |
| 3133016 | 4    | 2   | 16 | 50 | 3,0  | 1,95 | 2    |         |
| 3133020 | 4    | 2   | 20 | 55 | 3,0  | 1,95 | 2    |         |

Shank diameter 6 mm

| EDP      | DCON | DC  | LH | LF | APMX | DN   | ZEFP | Old EDP  | € Price |
|----------|------|-----|----|----|------|------|------|----------|---------|
| 48252112 | 6    | 1,5 | 12 | 50 | 2,3  | 1,45 | 2    | W1503333 |         |
| W1604584 | 6    | 0,5 | 4  | 45 | 0,7  | 0,45 | 2    |          |         |
| W1604585 | 6    | 1   | 5  | 45 | 1,5  | 0,95 | 2    |          |         |
| W1601161 | 6    | 1,5 | 16 | 50 | 2,3  | 1,45 | 2    |          |         |

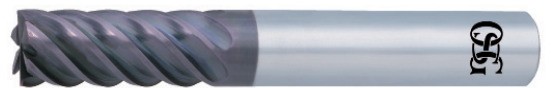
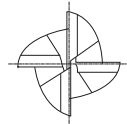
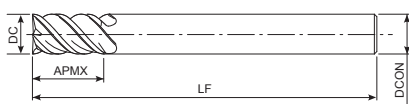
|                       |                       |   |          |                       |                            |                |
|-----------------------|-----------------------|---|----------|-----------------------|----------------------------|----------------|
|                       |                       |   |          |                       |                            |                |
| Cobalt Chrome         | Titanium              | Zirconium                                     | Wax/PMMA | PEEK                  | Hybrid ceramic / composite | Glass Ceramics |
| <input type="radio"/> | <input type="radio"/> | Milling   Solid carbide <input type="radio"/> |          | <input type="radio"/> |                            |                |

Best  Good

# WXS-EMS

Square 4 flutes short type

Machine type: DMG, In



Shank diameter 6 mm

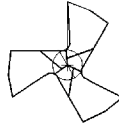
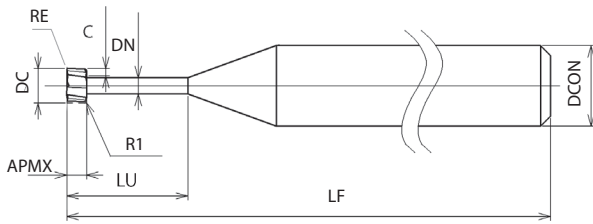
| EDP      | DCON | DC | LF | APMX | ZEFP | € Price |
|----------|------|----|----|------|------|---------|
| 3041010  | 6    | 1  | 60 | 2,5  | 4    |         |
| 3041020  | 6    | 2  | 60 | 6    | 4    |         |
| W1703577 | 6    | 2  | 50 | 6    | 4    |         |

|                                  |                       |                       |                       |                       |                            |                |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|----------------|
|                                  |                       |                       |                       |                       |                            |                |
| Cobalt Chrome                    | Titanium              | Zirconium             | Wax/PMMA              | PEEK                  | Hybrid ceramic / composite | Glass Ceramics |
| <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                            |                |

Best  Good

# FX-MG-TSC

T-slot for undercut - 90° angle



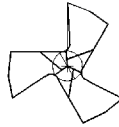
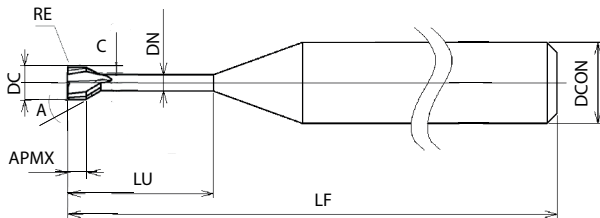
Shank diameter 4 mm

| EDP      | DCON | DC  | LU | LF | APMX | DN  | C    | R1  | RE  | ZEFP | € Price |
|----------|------|-----|----|----|------|-----|------|-----|-----|------|---------|
| W1700835 | 4    | 1,4 | 6  | 50 | 1    | 0,6 | 0,30 | 0   | 0,2 | 3    |         |
| W1701727 | 4    | 1,6 | 6  | 50 | 1,5  | 0,9 | 0,25 | 0,1 | 0,1 | 3    |         |

Shank diameter 6 mm

| EDP      | DCON | DC  | LU | LF | APMX | DN   | C    | R1  | RE  | ZEFP | € Price |
|----------|------|-----|----|----|------|------|------|-----|-----|------|---------|
| W1801257 | 6    | 1,6 | 8  | 50 | 0,7  | 0,63 | 0,39 | 0,1 | 0,1 | 3    |         |
| W1801262 | 6    | 1,9 | 8  | 50 | 1    | 0,8  | 0,45 | 0,1 | 0,1 | 3    |         |

T-slot for undercut with bottom side angle

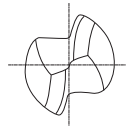
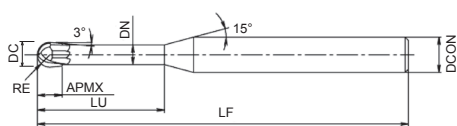


Shank diameter 6 mm

| EDP      | DCON | DC  | A  | LU  | LF | APMX | DN   | C    | RE  | ZEFP | € Price |
|----------|------|-----|----|-----|----|------|------|------|-----|------|---------|
| W1900079 | 6    | 1,6 | 15 | 8   | 50 | 0,7  | 0,63 | 0,39 | 0,1 | 3    |         |
| W1900080 | 6    | 1,6 | 35 | 7,5 | 50 | 0,7  | 0,63 | 0,39 | 0,1 | 3    |         |
| W1801255 | 6    | 1,6 | 45 | 8   | 50 | 0,7  | 0,63 | 0,39 | 0,1 | 3    |         |
| W1801256 | 6    | 1,6 | 60 | 8   | 50 | 0,7  | 0,63 | 0,39 | 0,1 | 3    |         |
| W1900081 | 6    | 1,8 | 70 | 7,1 | 50 | 1    | 0,87 | 0,37 | 0,1 | 3    |         |
| W1801258 | 6    | 1,9 | 45 | 8   | 50 | 1    | 0,8  | 0,45 | 0,1 | 3    |         |
| W1801260 | 6    | 1,9 | 60 | 8   | 50 | 1    | 0,8  | 0,45 | 0,1 | 3    |         |
| W1900082 | 6    | 2   | 15 | 7   | 50 | 1    | 0,98 | 0,41 | 0,1 | 3    |         |
| W1900083 | 6    | 2   | 30 | 7   | 50 | 1    | 0,98 | 0,41 | 0,1 | 3    |         |
| W1900084 | 6    | 2   | 35 | 7,5 | 50 | 1    | 0,98 | 0,41 | 0,1 | 3    |         |

# FXS-EQD

2 flutes, 220 degree ball nose



| EDP     | ZEFP | DC | RE  | θn | LU | LF | APMX | DCON | DN   | DNX | € Price |
|---------|------|----|-----|----|----|----|------|------|------|-----|---------|
| 8544005 | 2    | 1  | 0,5 | -  | 5  | 60 | 0,7  | 6    | 0,85 | -   |         |
| 8544010 | 2    | 2  | 1   | -  | 10 | 60 | 1,5  | 6    | 1,7  | -   |         |

|               |          |           |          |      |                            |                |
|---------------|----------|-----------|----------|------|----------------------------|----------------|
|               |          |           |          |      |                            |                |
| Cobalt Chrome | Titanium | Zirconium | Wax/PMMA | PEEK | Hybrid ceramic / composite | Glass Ceramics |
| ○             | ○        | ○         | ○        | ○    |                            |                |

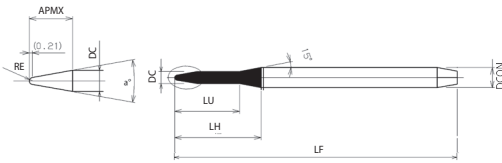
Best Good



# ED-ES (Conical)

## Diamond grinding burs

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.

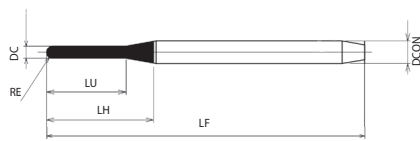


Shank diameter 4-6 mm

| EDP      | DCON | DC  | LU  | LF | APMX | LH | RE   | $\alpha$ | € Price |
|----------|------|-----|-----|----|------|----|------|----------|---------|
| P1500979 | 4    | 1,7 | 8,8 | 40 | 3,6  | 13 | 0,25 | 20       | 102,90  |
| P2210099 | 4    | 1,7 | 8,8 | 50 | 3,6  | 13 | 0,25 | 20       | 89,50   |
| P1701145 | 6    | 1,7 | 8,8 | 45 | 3,6  | 11 | 0,25 | 20       | 138,80  |

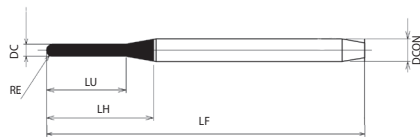
# ED-BS (Ball)

## Diamond grinding burs



Shank diameter 3mm

| EDP      | DCON | DC  | LU    | LF | LH   | RE   | € Price |
|----------|------|-----|-------|----|------|------|---------|
| P2110023 | 3    | 1,0 | 6     | 40 | 9,1  | 0,5  |         |
| P2110024 | 3    | 1,5 | 8     | 40 | 9,1  | 0,75 |         |
| P2110022 | 3    | 2,5 | 14,75 | 40 | 15,2 | 1,25 |         |



Shank diameter 3mm

| EDP      | DCON | DC | LU | LF | LH | RE  | € Price |
|----------|------|----|----|----|----|-----|---------|
| P1701082 | 3    | 1  | 10 | 40 | 15 | 0,5 |         |

Shank diameter 4mm

| EDP      | DCON | DC  | LU    | LF | LH | RE   | € Price |
|----------|------|-----|-------|----|----|------|---------|
| P1500978 | 4    | 1   | 6     | 40 | 11 | 0,5  |         |
| P1500977 | 4    | 2,5 | 14,75 | 40 | 17 | 1,25 |         |

|          |   |     |       |    |      |      |  |
|----------|---|-----|-------|----|------|------|--|
| P2210098 | 4 | 1   | 6     | 50 | 9,1  | 0,5  |  |
| P2210097 | 4 | 1,5 | 8     | 50 | 9,1  | 0,75 |  |
| P2210096 | 4 | 2,5 | 14,75 | 50 | 15,2 | 1,26 |  |

Shank diameter 6mm

| EDP      | DCON | DC  | LU    | LF | LH | RE   | € Price |
|----------|------|-----|-------|----|----|------|---------|
| P1701144 | 6    | 1   | 10    | 45 | 12 | 0,5  |         |
| P1701142 | 6    | 1,5 | 10    | 45 | 11 | 0,75 |         |
| P1701143 | 6    | 2,5 | 14,75 | 45 | 15 | 1,25 |         |

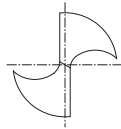
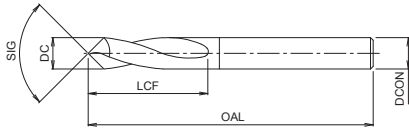
|   |   |   |   |  |   |   |
|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| Cobalt Chrome   | Titanium  | Zirconium   | Wax/PMMA  | PEEK   | Hybrid ceramic / composite  | Glass Ceramics  |

Best Good

# AD-LDS

## Spot drill

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



Shank diameter 3mm

| EDP     | DCON | DC | a   | OAL | LCF | € Price |
|---------|------|----|-----|-----|-----|---------|
| 8688933 | 3    | 3  | 90° | 48  | 9   |         |

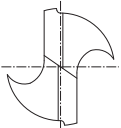
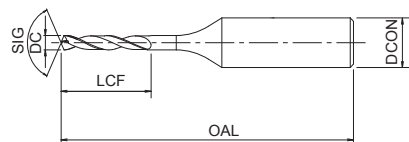
Shank diameter 4mm

| EDP     | DCON | DC | a   | OAL | LCF | € Price |
|---------|------|----|-----|-----|-----|---------|
| 8688934 | 4    | 4  | 90° | 54  | 12  |         |

# WX-MS-GDS

## Stub length

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



Shank diameter 3mm

| EDP     | DCON | DC   | OAL | LCF | € Price |
|---------|------|------|-----|-----|---------|
| 3300050 | 3    | 0,5  | 38  | 3   |         |
| 3300060 | 3    | 0,6  | 38  | 3,5 |         |
| 3300070 | 3    | 0,7  | 38  | 4,5 |         |
| 3300080 | 3    | 0,8  | 38  | 5   |         |
| 3300090 | 3    | 0,9  | 38  | 5,5 |         |
| 3300095 | 3    | 0,95 | 38  | 5,5 |         |
| 3300100 | 3    | 1    | 38  | 6   |         |
| 3300110 | 3    | 1,1  | 42  | 7   |         |
| 3300111 | 3    | 1,11 | 42  | 7   |         |
| 3300112 | 3    | 1,12 | 42  | 7   |         |
| 3300120 | 3    | 1,2  | 42  | 8   |         |
| 3300125 | 3    | 1,25 | 42  | 8   |         |
| 3300127 | 3    | 1,27 | 42  | 8   |         |
| 3300128 | 3    | 1,28 | 42  | 8   |         |
| 3300129 | 3    | 1,29 | 42  | 8   |         |
| 3300130 | 3    | 1,3  | 42  | 8   |         |
| 3300140 | 3    | 1,4  | 42  | 9   |         |
| 3300144 | 3    | 1,44 | 42  | 9   |         |
| 3300145 | 3    | 1,45 | 42  | 9   |         |
| 3300146 | 3    | 1,46 | 42  | 9   |         |
| 3300147 | 3    | 1,47 | 42  | 9   |         |
| 3300148 | 3    | 1,48 | 42  | 9   |         |
| 3300150 | 3    | 1,5  | 42  | 9   |         |
| 3300154 | 3    | 1,54 | 42  | 10  |         |
| 3300155 | 3    | 1,55 | 42  | 10  |         |
| 3300156 | 3    | 1,56 | 42  | 10  |         |
| 3300157 | 3    | 1,57 | 42  | 10  |         |
| 3300158 | 3    | 1,58 | 42  | 10  |         |
| 3300160 | 3    | 1,6  | 42  | 10  |         |
| 3300170 | 3    | 1,7  | 42  | 10  |         |
| 3300180 | 3    | 1,8  | 42  | 11  |         |
| 3300181 | 3    | 1,81 | 42  | 11  |         |
| 3300182 | 3    | 1,82 | 42  | 11  |         |
| 3300183 | 3    | 1,83 | 42  | 11  |         |
| 3300184 | 3    | 1,84 | 42  | 11  |         |
| 3300185 | 3    | 1,85 | 42  | 11  |         |
| 3300190 | 3    | 1,9  | 42  | 11  |         |
| 3300200 | 3    | 2    | 50  | 12  |         |
| 3300210 | 3    | 2,1  | 50  | 12  |         |
| 3300220 | 3    | 2,2  | 50  | 13  |         |
| 3300230 | 3    | 2,3  | 50  | 13  |         |
| 3300240 | 3    | 2,4  | 50  | 14  |         |
| 3300250 | 3    | 2,5  | 50  | 14  |         |
| 3300260 | 3    | 2,6  | 50  | 14  |         |
| 3300270 | 3    | 2,7  | 50  | 16  |         |
| 3300280 | 3    | 2,8  | 50  | 16  |         |
| 3300290 | 3    | 2,9  | 50  | 16  |         |
| 3300300 | 3    | 3    | 50  | 16  |         |

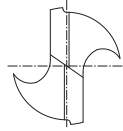
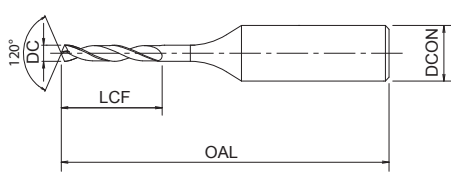
|                                  |                                  |                       |                       |                       |                            |                       |
|----------------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|
|                                  |                                  |                       |                       |                       |                            |                       |
| Cobalt Chrome                    | Titanium                         | Zirconium             | Wax/PMMA              | PEEK                  | Hybrid ceramic / composite | Glass Ceramics        |
| <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> |

Best  Good

# MRS-GDL

## Deep length

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



Shank diameter 3mm

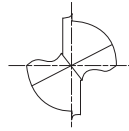
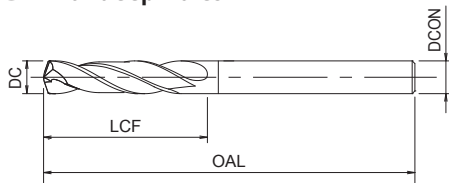
| EDP     | DCON | DC   | OAL | LCF  | € Price |
|---------|------|------|-----|------|---------|
| 8577100 | 3    | 1    | 46  | 12   |         |
| 8577110 | 3    | 1,1  | 50  | 13,2 |         |
| 8577111 | 3    | 1,11 | 50  | 13,8 |         |
| 8577112 | 3    | 1,12 | 50  | 13,8 |         |
| 8577115 | 3    | 1,15 | 50  | 13,8 |         |
| 8577120 | 3    | 1,2  | 50  | 14,4 |         |
| 8577127 | 3    | 1,27 | 50  | 15,6 |         |
| 8577128 | 3    | 1,28 | 50  | 15,6 |         |
| 8577129 | 3    | 1,29 | 50  | 15,6 |         |
| 8577130 | 3    | 1,3  | 50  | 15,6 |         |
| 8577140 | 3    | 1,4  | 54  | 16,8 |         |
| 8577145 | 3    | 1,45 | 54  | 17,4 |         |
| 8577146 | 3    | 1,46 | 54  | 18   |         |
| 8577147 | 3    | 1,47 | 54  | 18   |         |
| 8577150 | 3    | 1,5  | 54  | 18   |         |
| 8577151 | 3    | 1,51 | 54  | 18,6 |         |
| 8577152 | 3    | 1,52 | 54  | 18,6 |         |
| 8577153 | 3    | 1,53 | 54  | 18,6 |         |
| 8577155 | 3    | 1,55 | 54  | 18,6 |         |
| 8577156 | 3    | 1,56 | 54  | 19,2 |         |
| 8577157 | 3    | 1,57 | 54  | 19,2 |         |
| 8577160 | 3    | 1,6  | 54  | 19,2 |         |
| 8577170 | 3    | 1,7  | 58  | 20,4 |         |
| 8577180 | 3    | 1,8  | 58  | 21,6 |         |
| 8577181 | 3    | 1,81 | 58  | 22,2 |         |
| 8577182 | 3    | 1,82 | 58  | 22,2 |         |
| 8577183 | 3    | 1,83 | 58  | 22,2 |         |
| 8577190 | 3    | 1,9  | 58  | 22,8 |         |
| 8577198 | 3    | 1,98 | 58  | 24   |         |
| 8577199 | 3    | 1,99 | 58  | 24   |         |
| 8577200 | 3    | 2    | 58  | 24   |         |
| 8577210 | 3    | 2,1  | 62  | 25,2 |         |
| 8577212 | 3    | 2,12 | 62  | 25,8 |         |
| 8577213 | 3    | 2,13 | 62  | 25,8 |         |
| 8577214 | 3    | 2,14 | 62  | 25,8 |         |
| 8577220 | 3    | 2,2  | 62  | 26,4 |         |
| 8577229 | 3    | 2,29 | 62  | 27,6 |         |
| 8577230 | 3    | 2,3  | 62  | 27,6 |         |
| 8577231 | 3    | 2,31 | 62  | 28,2 |         |
| 8577239 | 3    | 2,39 | 62  | 28,8 |         |
| 8577240 | 3    | 2,4  | 62  | 28,8 |         |
| 8577241 | 3    | 2,41 | 66  | 29,4 |         |
| 8577242 | 3    | 2,42 | 66  | 29,4 |         |
| 8577250 | 3    | 2,5  | 66  | 30   |         |
| 8577255 | 3    | 2,55 | 66  | 30,6 |         |
| 8577256 | 3    | 2,56 | 66  | 31,2 |         |
| 8577257 | 3    | 2,57 | 66  | 31,2 |         |
| 8577260 | 3    | 2,6  | 66  | 31,2 |         |
| 8577270 | 3    | 2,7  | 66  | 32,4 |         |
| 8577277 | 3    | 2,77 | 66  | 33,6 |         |
| 8577278 | 3    | 2,78 | 66  | 33,6 |         |
| 8577279 | 3    | 2,79 | 66  | 33,6 |         |
| 8577280 | 3    | 2,8  | 66  | 33,6 |         |
| 8577290 | 3    | 2,9  | 66  | 34,8 |         |
| 8577300 | 3    | 3    | 66  | 36   |         |

|                                  |                                  |                       |                       |                       |                            |                |
|----------------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|----------------------------|----------------|
|                                  |                                  |                       |                       |                       |                            |                |
| Cobalt Chrome                    | Titanium                         | Zirconium             | Wax/PMMA              | PEEK                  | Hybrid ceramic / composite | Glass Ceramics |
| <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                            |                |

Best  Good

# AD-4D

Drill for deep holes



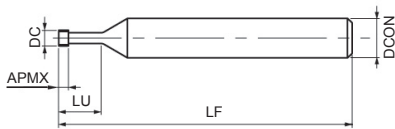
Shank diameter 4mm

| EDP     | DC  | OAL | LCF | DCON | € Price |
|---------|-----|-----|-----|------|---------|
| 8672200 | 2   | 66  | 20  | 4    |         |
| 8672210 | 2,1 | 66  | 20  | 4    |         |
| 8672220 | 2,2 | 66  | 20  | 4    |         |
| 8672230 | 2,3 | 66  | 20  | 4    |         |
| 8672240 | 2,4 | 66  | 20  | 4    |         |
| 8672250 | 2,5 | 66  | 20  | 4    |         |
| 8672260 | 2,6 | 66  | 20  | 4    |         |

# WH-VM-PNC

Thread mill

Machine type: milling centre



Shank diameter 3mm

| EDP      | Min. Cutting bore dia. | Pitch | Thread per flute | DCON | DC   | LU   | LF | APMX | ZEFP | € Price |
|----------|------------------------|-------|------------------|------|------|------|----|------|------|---------|
| 3900495  | M1                     | 0,25  | 1                | 3    | 0,72 | 2,75 | 40 | 0,25 | 3    |         |
| 3900496  | M1,2                   | 0,25  | 1                | 3    | 0,92 | 3,25 | 40 | 0,25 | 3    |         |
| T1805469 | M1,2                   | 0,2   | 1                | 3    | 0,91 | 6,8  | 40 | 0,2  | 3    |         |
| 3900497  | M1,4                   | 0,3   | 1                | 3    | 1,05 | 3,8  | 40 | 0,3  | 3    |         |
| T1803989 | M1,4                   | 0,3   | 1                | 3    | 1,03 | 5,5  | 40 | 0,3  | 4    |         |
| 3900498  | M1,6                   | 0,35  | 1                | 3    | 1,2  | 4,35 | 40 | 0,35 | 3    |         |
| T1805467 | M1,6                   | 0,2   | 1                | 3    | 1,2  | 6,8  | 40 | 0,2  | 3    |         |
| T1803990 | M1,6                   | 0,35  | 1                | 3    | 1,17 | 6    | 40 | 0,35 | 4    |         |
| 3900499  | M1,7 ~ M1,8            | 0,35  | 1                | 3    | 1,3  | 4,85 | 40 | 0,35 | 3    |         |
| T1803991 | M1,8                   | 0,35  | 1                | 3    | 1,37 | 6    | 40 | 0,35 | 4    |         |
| T1803992 | M2,0                   | 0,4   | 1                | 3    | 1,52 | 6    | 40 | 0,4  | 4    |         |

Shank diameter 6mm

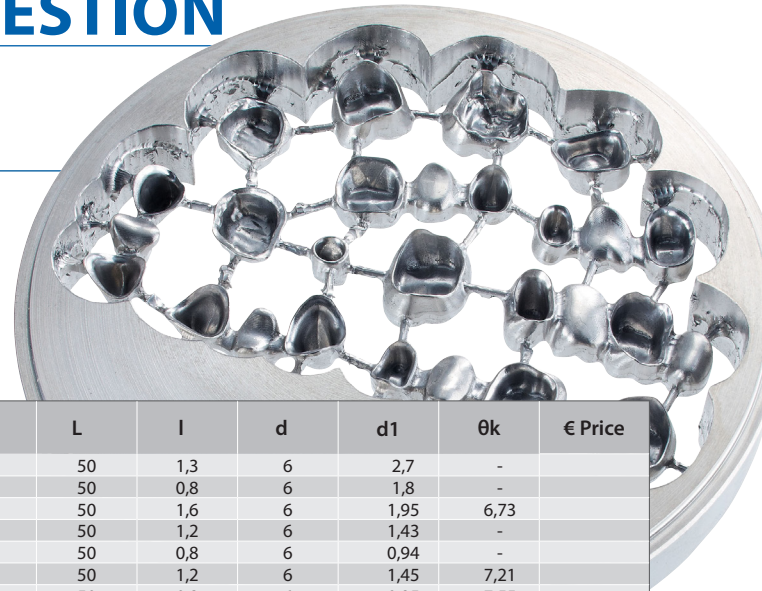
| EDP     | Min. Cutting bore dia. | Pitch | Thread per flute | DCON | DC  | LU  | LF | APMX | ZEFP | € Price |
|---------|------------------------|-------|------------------|------|-----|-----|----|------|------|---------|
| 3900500 | M2                     | 0,4   | 3                | 6    | 1,5 | 4,4 | 40 | 1,2  | 3    |         |
|         |                        |       |                  |      |     |     |    |      |      |         |
|         |                        |       |                  |      |     |     |    |      |      |         |
|         |                        |       |                  |      |     |     |    |      |      |         |
|         |                        |       |                  |      |     |     |    |      |      |         |

| Work Material             | Tapping Speed (m/min) | Feed (mm/tooth) |
|---------------------------|-----------------------|-----------------|
| Titanium Alloys Ti-6AL-4V | 20~60                 | 0,01~0,03       |

# TOOL SELECTION SUGGESTION

## Bridge | Crown

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



| Tool Shape            | EDP      | ZΔ | D   | R    | l1 | L  | l   | d | d1   | θk   | € Price |
|-----------------------|----------|----|-----|------|----|----|-----|---|------|------|---------|
| Corner radius endmill | 48254316 | 5  | 3   | 0,75 | 16 | 50 | 1,3 | 6 | 2,7  | -    |         |
| Corner radius endmill | 48254212 | 4  | 2   | 0,5  | 12 | 50 | 0,8 | 6 | 1,8  | -    |         |
| Ball nose endmill     | 3122100  | 2  | 2   | 1    | 10 | 50 | 1,6 | 6 | 1,95 | 6,73 |         |
| Corner radius endmill | W1502464 | 4  | 1,5 | 0,2  | 10 | 50 | 1,2 | 6 | 1,43 | -    |         |
| Corner radius endmill | 48253108 | 2  | 1   | 0,2  | 8  | 50 | 0,8 | 6 | 0,94 | -    |         |
| Ball nose endmill     | 3121600  | 2  | 1,5 | 0,75 | 10 | 50 | 1,2 | 6 | 1,45 | 7,21 |         |
| Ball nose endmill     | 3121100  | 2  | 1   | 0,5  | 10 | 50 | 0,8 | 6 | 0,95 | 7,55 |         |
| Ball nose endmill     | 48251008 | 2  | 0,6 | 0,3  | 8  | 50 | 0,5 | 6 | 0,55 | -    |         |
| Corner radius endmill | 48106433 | 5  | 3   | 0,75 | 12 | 55 | 1,2 | 6 | 2,7  | -    |         |
| Corner radius endmill | 8548003  | 4  | 3   | 0,5  | 9  | 60 | 5   | 6 | 2,85 | -    |         |

## Set Abatment | Implant Part

Machine type: DMG, Imes-icore, Laserdenta, Mikron, MB, Primacon, Röders, Wieland, Wissner and others.



| Tool Shape            | EDP      | ZΔ | D   | R    | l1 | L  | l   | d | d1   | θk   | € Price |
|-----------------------|----------|----|-----|------|----|----|-----|---|------|------|---------|
| Corner radius endmill | 48254316 | 5  | 3   | 0,75 | 16 | 50 | 1,3 | 6 | 2,7  | -    |         |
| Corner radius endmill | 48254212 | 4  | 2   | 0,5  | 12 | 50 | 0,8 | 6 | 1,8  | -    |         |
| Hole making           | 48250112 | 2  | 1,5 | 0,2  | 12 | 50 | 1,2 | 6 | 1,43 | -    |         |
| Ball nose endmill     | 3121600  | 2  | 1,5 | 0,75 | 10 | 50 | 1,2 | 6 | 1,45 | 7,21 |         |
| Corner radius endmill | 48253108 | 2  | 1   | 0,2  | 8  | 50 | 0,8 | 6 | 0,94 | -    |         |
| Square endmill        | 3041020  | 4  | 2   | -    | 6  | 60 | -   | 6 | -    | -    |         |
| Square endmill        | 48252112 | 2  | 1,5 | -    | 12 | 50 | 2,3 | 6 | 1,45 | -    |         |
| Square endmill        | W1604585 | 4  | 1   | -    | 5  | 60 | 1,5 | 6 | 0,95 | -    |         |
| Corner radius endmill | 48250115 | 2  | 1,5 | 0,2  | 15 | 50 | 1,2 | 6 | 1,43 | -    |         |
| Square endmill        | W1601161 | 2  | 1,5 | -    | 16 | 50 | 2,3 | 6 | 1,45 | -    |         |
| Square endmill        | W1604584 | 2  | 0,5 | -    | 4  | 60 | 0,7 | 6 | 0,45 | -    |         |



# CONDITIONS

## DG-LN-EBD

|             |          |    | Zirconium                 |                |      |      |                           |                |      |      |
|-------------|----------|----|---------------------------|----------------|------|------|---------------------------|----------------|------|------|
|             |          |    | Small desktop machine     |                |      |      | Fast milling center       |                |      |      |
| $\emptyset$ | EDP      | l1 | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   |
|             |          |    |                           |                |      |      |                           |                |      |      |
| 1           | 48249140 | 10 | 25600                     | 510            | 0,05 | 0,3  | 38300                     | 840            | 0,05 | 0,3  |
| 2           | 48249246 | 16 | 18300                     | 730            | 0,1  | 0,6  | 27300                     | 1200           | 0,1  | 0,6  |
| 2           | 48249250 | 20 | 18300                     | 730            | 0,1  | 0,6  | 27300                     | 1200           | 0,1  | 0,6  |
| 1           | W1603980 | 16 | 23000                     | 460            | 0,05 | 0,3  | 34500                     | 760            | 0,05 | 0,3  |
| 0,6         | 8553711  | 6  | 29200                     | 350            | 0,03 | 0,18 | 43800                     | 470            | 0,03 | 0,18 |
| 0,6         | 8553712  | 10 | 26800                     | 320            | 0,03 | 0,18 | 40100                     | 430            | 0,03 | 0,18 |
| 1           | 8553723  | 10 | 25600                     | 510            | 0,05 | 0,3  | 38300                     | 840            | 0,05 | 0,3  |
| 1           | 8553724  | 16 | 23000                     | 460            | 0,05 | 0,3  | 34500                     | 760            | 0,05 | 0,3  |
| 1           | 48249116 | 16 | 23000                     | 460            | 0,05 | 0,3  | 34500                     | 760            | 0,05 | 0,3  |
| 1,5         | 8553733  | 16 | 23600                     | 700            | 0,08 | 0,45 | 35400                     | 1170           | 0,08 | 0,45 |
| 2           | 8553743  | 16 | 18300                     | 730            | 0,1  | 0,6  | 27300                     | 1200           | 0,1  | 0,6  |
| 2           | 8553744  | 20 | 18300                     | 730            | 0,1  | 0,6  | 27300                     | 1200           | 0,1  | 0,6  |
| 2           | 48249220 | 20 | 18300                     | 730            | 0,1  | 0,6  | 27300                     | 1200           | 0,1  | 0,6  |
| 0,6         | 48249068 | 8  | 26800                     | 320            | 0,03 | 0,18 | 40100                     | 430            | 0,03 | 0,18 |
| 1           | 48249170 | 10 | 25600                     | 510            | 0,05 | 0,3  | 38300                     | 840            | 0,05 | 0,3  |
| 2           | 48249272 | 12 | 18300                     | 730            | 0,1  | 0,6  | 27300                     | 1200           | 0,1  | 0,6  |
| 1           | W1602615 | 16 | 23000                     | 460            | 0,05 | 0,3  | 34500                     | 760            | 0,05 | 0,3  |
| 2           | W1602616 | 20 | 18300                     | 730            | 0,1  | 0,6  | 27300                     | 1200           | 0,1  | 0,6  |

## DLC-LN-EBD

|             |          |    | Zirconium                 |                |      |      |                           |                |      |      |
|-------------|----------|----|---------------------------|----------------|------|------|---------------------------|----------------|------|------|
|             |          |    | Small desktop machine     |                |      |      | Fast milling center       |                |      |      |
| $\emptyset$ | EDP      | l1 | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   |
| 0,6         | W1604644 | 8  | 26800                     | 320            | 0,03 | 0,18 | 40100                     | 430            | 0,03 | 0,18 |
| 1           | W1604586 | 16 | 23400                     | 470            | 0,05 | 0,3  | 35000                     | 770            | 0,05 | 0,3  |
| 2           | W1604587 | 20 | 17500                     | 700            | 0,1  | 0,6  | 21900                     | 960            | 0,1  | 0,6  |

## DLC-LN-EBD

|             |          |    | PEEK                      |                |      |      |                           |                |      |      |
|-------------|----------|----|---------------------------|----------------|------|------|---------------------------|----------------|------|------|
|             |          |    | Small desktop machine     |                |      |      | Fast milling center       |                |      |      |
| $\emptyset$ | EDP      | l1 | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   |
| 0,6         | W1604644 | 8  | 26800                     | 420            | 0,03 | 0,18 | 34840                     | 540            | 0,03 | 0,18 |
| 1           | W1604586 | 16 | 23400                     | 700            | 0,05 | 0,3  | 35100                     | 1050           | 0,05 | 0,3  |
| 2           | W1604587 | 20 | 17500                     | 1050           | 0,1  | 0,6  | 26250                     | 1580           | 0,1  | 0,6  |

# CONDITIONS

## AE-LNBD-N

| Ø   | EDP     | l1 | Zirconium/PMMA/PEEK    |             |      |      |
|-----|---------|----|------------------------|-------------|------|------|
|     |         |    | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | Pf   |
| 0,5 | 3056389 | 3  | 22300                  | 450         | 0,03 | 0,15 |
| 0,5 | 3056391 | 5  | 22300                  | 450         | 0,03 | 0,15 |
| 0,6 | 3056394 | 3  | 18600                  | 450         | 0,03 | 0,18 |
| 0,6 | 3056397 | 6  | 18600                  | 450         | 0,03 | 0,18 |
| 1   | 3056408 | 8  | 20100                  | 1010        | 0,05 | 0,3  |
| 1   | 3056409 | 10 | 20100                  | 1010        | 0,05 | 0,3  |
| 1   | 3056410 | 12 | 20100                  | 1010        | 0,05 | 0,3  |
| 1,5 | 3056413 | 12 | 17000                  | 1020        | 0,08 | 0,45 |
| 1,5 | 3056414 | 18 | 17000                  | 1020        | 0,08 | 0,45 |
| 2   | 3056419 | 12 | 20000                  | 1200        | 0,1  | 0,6  |
| 2   | 3056420 | 14 | 20000                  | 1200        | 0,1  | 0,6  |
| 2   | 3056421 | 16 | 20000                  | 1200        | 0,1  | 0,6  |
| 2   | 3056422 | 20 | 20000                  | 1200        | 0,1  | 0,6  |
| 3   | 3056425 | 12 | 13900                  | 1390        | 0,15 | 0,9  |
| 3   | 3056426 | 14 | 13900                  | 1390        | 0,15 | 0,9  |
| 3   | 3056427 | 16 | 13900                  | 1390        | 0,15 | 0,9  |
| 3   | 3056428 | 20 | 13900                  | 1390        | 0,15 | 0,9  |

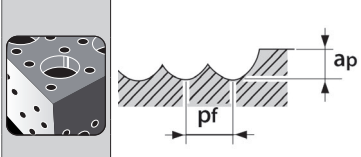
## WXL-LN-EBD

| Ø   | EDP      | l1  | Titanium               |             |      |      |                        |             |      |      |
|-----|----------|-----|------------------------|-------------|------|------|------------------------|-------------|------|------|
|     |          |     | Small desktop machine  |             |      |      | Fast milling center    |             |      |      |
|     |          |     | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | pf   | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | pf   |
| 0,6 | W1603333 | 6   | 29200                  | 280         | 0,03 | 0,18 | 37900                  | 430         | 0,03 | 0,18 |
| 1   | W1603334 | 16  | 29200                  | 550         | 0,05 | 0,3  | 37900                  | 860         | 0,05 | 0,3  |
| 2   | W1603335 | 20  | 18300                  | 690         | 0,1  | 0,6  | 23700                  | 1080        | 0,1  | 0,6  |
| 0,5 | 3110525  | 2,5 | 32200                  | 300         | 0,03 | 0,15 | 41800                  | 470         | 0,03 | 0,15 |
| 0,6 | 3110660  | 6   | 29200                  | 330         | 0,03 | 0,18 | 37900                  | 520         | 0,03 | 0,18 |
| 0,6 | 3110700  | 10  | 29200                  | 330         | 0,03 | 0,18 | 37900                  | 520         | 0,03 | 0,18 |
| 1   | 3111070  | 7   | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1   | 3111112  | 12  | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1   | 3111114  | 14  | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1   | 3111116  | 16  | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1   | 3111118  | 18  | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1   | 3111120  | 20  | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1,5 | 3111612  | 12  | 23600                  | 890         | 0,08 | 0,45 | 30600                  | 1390        | 0,08 | 0,45 |
| 2   | 3112112  | 12  | 18300                  | 920         | 0,1  | 0,6  | 23700                  | 1430        | 0,1  | 0,6  |
| 2   | 3112114  | 14  | 18300                  | 920         | 0,1  | 0,6  | 23700                  | 1430        | 0,1  | 0,6  |
| 2   | 3112116  | 16  | 18300                  | 920         | 0,1  | 0,6  | 23700                  | 1430        | 0,1  | 0,6  |
| 2   | 48251220 | 20  | 18300                  | 920         | 0,1  | 0,6  | 23700                  | 1430        | 0,1  | 0,6  |
| 2,5 | 3112615  | 15  | 14300                  | 900         | 0,13 | 0,75 | 18500                  | 1400        | 0,13 | 0,75 |
| 0,6 | 3120625  | 2,5 | 29200                  | 330         | 0,03 | 0,18 | 37900                  | 520         | 0,03 | 0,18 |
| 0,6 | 48251008 | 8   | 29200                  | 330         | 0,03 | 0,18 | 37900                  | 520         | 0,03 | 0,18 |
| 1   | 3121080  | 8   | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1   | 3121100  | 10  | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1   | 48251116 | 16  | 29200                  | 740         | 0,05 | 0,3  | 37900                  | 1150        | 0,05 | 0,3  |
| 1,5 | 3121580  | 8   | 23600                  | 890         | 0,08 | 0,45 | 30600                  | 1390        | 0,08 | 0,45 |
| 1,5 | 3121600  | 10  | 23600                  | 890         | 0,08 | 0,45 | 30600                  | 1390        | 0,08 | 0,45 |
| 1,5 | 3121612  | 12  | 23600                  | 890         | 0,08 | 0,45 | 30600                  | 1390        | 0,08 | 0,45 |
| 2   | 3122100  | 10  | 18300                  | 920         | 0,1  | 0,6  | 23700                  | 1430        | 0,1  | 0,6  |
| 2   | 3122112  | 12  | 18300                  | 920         | 0,1  | 0,6  | 23700                  | 1430        | 0,1  | 0,6  |
| 2   | 48251221 | 20  | 18300                  | 920         | 0,1  | 0,6  | 23700                  | 1430        | 0,1  | 0,6  |
| 3   | 3123112  | 12  | 12200                  | 920         | 0,15 | 0,9  | 15800                  | 1430        | 0,15 | 0,9  |
| 3   | 3123116  | 16  | 12200                  | 920         | 0,15 | 0,9  | 15800                  | 1430        | 0,15 | 0,9  |

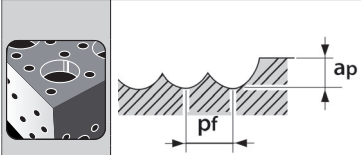


# CONDITIONS

## WXL-LN-EBD

|  |          |     | CoCr                      |                |      |      |                           |                |      |      |
|---|----------|-----|---------------------------|----------------|------|------|---------------------------|----------------|------|------|
|   |          |     | Small desktop machine     |                |      |      | Fast milling center       |                |      |      |
| Ø   | EDP      | l1  | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   |
| 0,6   | W1603333 | 6   | 28600                     | 230            | 0,03 | 0,18 | 37100                     | 370            | 0,03 | 0,18 |
| 1   | W1603334 | 16  | 28600                     | 460            | 0,05 | 0,3  | 37100                     | 740            | 0,05 | 0,3  |
| 2   | W1603335 | 20  | 17900                     | 610            | 0,1  | 0,6  | 23200                     | 970            | 0,1  | 0,6  |
| 0,5   | 3110525  | 2,5 | 31500                     | 250            | 0,03 | 0,15 | 40900                     | 410            | 0,03 | 0,15 |
| 0,6   | 3110660  | 6   | 28600                     | 290            | 0,03 | 0,18 | 37100                     | 450            | 0,03 | 0,18 |
| 0,6   | 3110700  | 10  | 28600                     | 290            | 0,03 | 0,18 | 37100                     | 450            | 0,03 | 0,18 |
| 1   | 3111070  | 7   | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1   | 3111112  | 12  | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1   | 3111114  | 14  | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1   | 3111116  | 16  | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1   | 3111118  | 18  | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1   | 3111120  | 20  | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1,5   | 3111612  | 12  | 23100                     | 790            | 0,08 | 0,45 | 29900                     | 1260           | 0,08 | 0,45 |
| 2   | 3112112  | 12  | 17900                     | 820            | 0,1  | 0,6  | 23200                     | 1300           | 0,1  | 0,6  |
| 2   | 3112114  | 14  | 17900                     | 820            | 0,1  | 0,6  | 23200                     | 1300           | 0,1  | 0,6  |
| 2   | 3112116  | 16  | 17900                     | 820            | 0,1  | 0,6  | 23200                     | 1300           | 0,1  | 0,6  |
| 2   | 48251220 | 20  | 17900                     | 820            | 0,1  | 0,6  | 23200                     | 1300           | 0,1  | 0,6  |
| 2,5   | 3112615  | 15  | 14000                     | 810            | 0,13 | 0,75 | 18100                     | 1270           | 0,13 | 0,75 |
| 0,6   | 3120625  | 2,5 | 28600                     | 290            | 0,03 | 0,18 | 37100                     | 450            | 0,03 | 0,18 |
| 0,6   | 48251008 | 8   | 28600                     | 290            | 0,03 | 0,18 | 37100                     | 450            | 0,03 | 0,18 |
| 1   | 3121080  | 8   | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1   | 3121100  | 10  | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1   | 48251116 | 16  | 28600                     | 630            | 0,05 | 0,3  | 37100                     | 1040           | 0,05 | 0,3  |
| 1,5   | 3121580  | 8   | 23100                     | 790            | 0,08 | 0,45 | 29900                     | 1260           | 0,08 | 0,45 |
| 1,5   | 3121600  | 10  | 23100                     | 790            | 0,08 | 0,45 | 29900                     | 1260           | 0,08 | 0,45 |
| 1,5   | 3121612  | 12  | 23100                     | 790            | 0,08 | 0,45 | 29900                     | 1260           | 0,08 | 0,45 |
| 2   | 3122100  | 10  | 17900                     | 820            | 0,1  | 0,6  | 23200                     | 1300           | 0,1  | 0,6  |
| 2   | 3122112  | 12  | 17900                     | 820            | 0,1  | 0,6  | 23200                     | 1300           | 0,1  | 0,6  |
| 2   | 48251221 | 20  | 17900                     | 820            | 0,1  | 0,6  | 23200                     | 1300           | 0,1  | 0,6  |
| 3   | 3123112  | 12  | 11900                     | 830            | 0,15 | 0,9  | 15400                     | 1320           | 0,15 | 0,9  |
| 3   | 3123116  | 16  | 11900                     | 830            | 0,15 | 0,9  | 15400                     | 1320           | 0,15 | 0,9  |

## WXL-LN-EBD

|  |          |     | PMMA / WAX                |                |      |      |                           |                |      |      |
|---|----------|-----|---------------------------|----------------|------|------|---------------------------|----------------|------|------|
|   |          |     | Small desktop machine     |                |      |      | Fast milling center       |                |      |      |
| Ø   | EDP      | l1  | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | pf   |
| 0,6   | W1603333 | 6   | 29200                     | 410            | 0,03 | 0,18 | 37960                     | 540            | 0,03 | 0,18 |
| 1   | W1603334 | 16  | 29200                     | 830            | 0,05 | 0,3  | 37960                     | 1080           | 0,05 | 0,3  |
| 2   | W1603335 | 20  | 18300                     | 1040           | 0,1  | 0,6  | 23790                     | 1350           | 0,1  | 0,6  |
| 0,5   | 3110525  | 2,5 | 32200                     | 460            | 0,03 | 0,15 | 41860                     | 590            | 0,03 | 0,15 |
| 0,6   | 3110660  | 6   | 29200                     | 500            | 0,03 | 0,18 | 37960                     | 650            | 0,03 | 0,18 |
| 0,6   | 3110700  | 10  | 29200                     | 500            | 0,03 | 0,18 | 37960                     | 650            | 0,03 | 0,18 |
| 1   | 3111070  | 7   | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1   | 3111112  | 12  | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1   | 3111114  | 14  | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1   | 3111116  | 16  | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1   | 3111118  | 18  | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1   | 3111120  | 20  | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1,5   | 3111612  | 12  | 23600                     | 1340           | 0,08 | 0,45 | 30680                     | 1740           | 0,08 | 0,45 |
| 2   | 3112112  | 12  | 18300                     | 1380           | 0,1  | 0,6  | 23790                     | 1800           | 0,1  | 0,6  |
| 2   | 3112114  | 14  | 18300                     | 1380           | 0,1  | 0,6  | 23790                     | 1800           | 0,1  | 0,6  |
| 2   | 3112116  | 16  | 18300                     | 1380           | 0,1  | 0,6  | 23790                     | 1800           | 0,1  | 0,6  |
| 2   | 48251220 | 20  | 18300                     | 1380           | 0,1  | 0,6  | 23790                     | 1800           | 0,1  | 0,6  |
| 2,5   | 3112615  | 15  | 14300                     | 1350           | 0,13 | 0,75 | 18590                     | 1760           | 0,13 | 0,75 |
| 0,6   | 3120625  | 2,5 | 29200                     | 500            | 0,03 | 0,18 | 37960                     | 650            | 0,03 | 0,18 |
| 0,6   | 48251008 | 8   | 29200                     | 500            | 0,03 | 0,18 | 37960                     | 650            | 0,03 | 0,18 |
| 1   | 3121080  | 8   | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1   | 3121100  | 10  | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1   | 48251116 | 16  | 29200                     | 1100           | 0,05 | 0,3  | 37960                     | 1430           | 0,05 | 0,3  |
| 1,5   | 3121580  | 8   | 23600                     | 1340           | 0,08 | 0,45 | 30680                     | 1740           | 0,08 | 0,45 |
| 1,5   | 3121600  | 10  | 23600                     | 1340           | 0,08 | 0,45 | 30680                     | 1740           | 0,08 | 0,45 |
| 1,5   | 3121612  | 12  | 23600                     | 1340           | 0,08 | 0,45 | 30680                     | 1740           | 0,08 | 0,45 |
| 2   | 3122100  | 10  | 18300                     | 1380           | 0,1  | 0,6  | 23790                     | 1800           | 0,1  | 0,6  |
| 2   | 3122112  | 12  | 18300                     | 1380           | 0,1  | 0,6  | 23790                     | 1800           | 0,1  | 0,6  |
| 2   | 48251221 | 20  | 18300                     | 1380           | 0,1  | 0,6  | 23790                     | 1800           | 0,1  | 0,6  |
| 3   | 3123112  | 12  | 12200                     | 1380           | 0,15 | 0,9  | 15860                     | 1800           | 0,15 | 0,9  |
| 3   | 3123116  | 16  | 12200                     | 1380           | 0,15 | 0,9  | 15860                     | 1800           | 0,15 | 0,9  |



# CONDITIONS

## AE-LNBD-H

| Ø   | EDP     | l1  | CoCr                   |             |      |      |
|-----|---------|-----|------------------------|-------------|------|------|
|     |         |     | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | Pf   |
| 0,5 | 3056150 | 2,5 | 37300                  | 510         | 0,03 | 0,15 |
| 0,6 | 3056177 | 6   | 33200                  | 450         | 0,03 | 0,18 |
| 0,6 | 3056181 | 8   | 33200                  | 450         | 0,03 | 0,18 |
| 1   | 3056216 | 8   | 31100                  | 680         | 0,05 | 0,3  |
| 1   | 3056217 | 8   | 31100                  | 680         | 0,05 | 0,3  |
| 1   | 3056219 | 10  | 31100                  | 680         | 0,05 | 0,3  |
| 1   | 3056220 | 10  | 31100                  | 680         | 0,05 | 0,3  |
| 1,5 | 3056255 | 10  | 27100                  | 1080        | 0,08 | 0,45 |
| 1,5 | 3056256 | 12  | 27100                  | 1080        | 0,08 | 0,45 |
| 2   | 3056281 | 12  | 22800                  | 910         | 0,1  | 0,6  |
| 2   | 3056282 | 12  | 22800                  | 910         | 0,1  | 0,6  |
| 2,5 | 3056298 | 10  | 18300                  | 1460        | 0,13 | 0,75 |
| 2,5 | 3056299 | 15  | 18300                  | 1460        | 0,13 | 0,75 |
| 3   | 3056307 | 12  | 15200                  | 1520        | 0,15 | 0,9  |

## WXL-CPR

| Ø   | EDP      | l1 | Titanium               |             |      |      |                        |             |      |      |
|-----|----------|----|------------------------|-------------|------|------|------------------------|-------------|------|------|
|     |          |    | Small desktop machine  |             |      |      | Fast milling center    |             |      |      |
|     |          |    | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae   | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae   |
| 1,5 | 48250112 | 12 | 10600                  | 400         | 0,05 | 0,18 | 13700                  | 520         | 0,05 | 0,18 |
| 1,5 | 48250115 | 15 | 10600                  | 400         | 0,05 | 0,18 | 13700                  | 520         | 0,05 | 0,18 |

## WXL-CPR

| Ø   | EDP      | l1 | CoCr                   |             |      |      |                        |             |      |      |
|-----|----------|----|------------------------|-------------|------|------|------------------------|-------------|------|------|
|     |          |    | Small desktop machine  |             |      |      | Fast milling center    |             |      |      |
|     |          |    | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae   | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae   |
| 1,5 | 48250112 | 12 | 9500                   | 360         | 0,05 | 0,18 | 12000                  | 470         | 0,05 | 0,18 |
| 1,5 | 48250115 | 15 | 9500                   | 360         | 0,05 | 0,18 | 12000                  | 470         | 0,05 | 0,18 |

## DG-CPR

| Ø   | EDP      | l1 | Zirconium              |             |      |      |                        |             |      |      |
|-----|----------|----|------------------------|-------------|------|------|------------------------|-------------|------|------|
|     |          |    | Small desktop machine  |             |      |      | Fast milling center    |             |      |      |
|     |          |    | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae   | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae   |
| 0,5 | 8554511  | 4  | 22900                  | 340         | 0,05 | 0,15 | 27500                  | 410         | 0,05 | 0,15 |
| 0,5 | 8554512  | 6  | 22900                  | 300         | 0,05 | 0,15 | 27500                  | 360         | 0,05 | 0,15 |
| 1   | 48103001 | 10 | 14300                  | 720         | 0,1  | 0,3  | 17100                  | 860         | 0,1  | 0,3  |
| 2   | 8554542  | 10 | 7200                   | 720         | 0,2  | 0,6  | 9300                   | 930         | 0,2  | 0,6  |
| 2   | 8554544  | 20 | 7200                   | 720         | 0,2  | 0,6  | 9300                   | 930         | 0,2  | 0,6  |
| 4   | 48103001 | 25 | 3600                   | 720         | 0,32 | 1,2  | 4600                   | 920         | 0,32 | 1,2  |



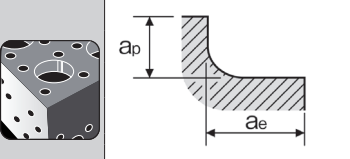
# CONDITIONS

## AE-CPR4-H Regular milling

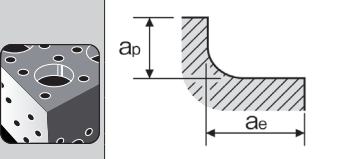
|     |       |            | Hardened Steel • Prehardened Steel<br>PX5 • SKD61 • NAK80 |               |            |            | Hardened Steel<br>STAVAX • HPM38 |               |            |            | Hardened Steel<br>SKH51 • YXR7 • HAP40 |               |            |            |
|-----|-------|------------|---|---------------|------------|------------|----------------------------------|---------------|------------|------------|--|---------------|------------|------------|
| DC  | RE    | LU<br>(mm) | ~45HRC  |               |            |            | ~55HRC                           |               |            |            | ~66HRC                                 |               |            |            |
|     |       |            | S<br>(min <sup>-1</sup> )                                 | F<br>(mm/min) | ap<br>(mm) | ae<br>(mm) | S<br>(min <sup>-1</sup> )        | F<br>(mm/min) | ap<br>(mm) | ae<br>(mm) | S<br>(min <sup>-1</sup> )              | F<br>(mm/min) | ap<br>(mm) | ae<br>(mm) |
| 1   | R0,05 | 4          | 23.000  | 2,600         | 0,012      | 0,36       | 20.000                           | 2.100         | 0,01       | 0,3        | 17.000                                 | 1.520         | 0,006      | 0,24       |
| 1   | R0,05 | 6          | 20.500  | 2,100         | 0,006      | 0,252      | 18.000                           | 1.680         | 0,005      | 0,21       | 15.500                                 | 1.220         | 0,003      | 0,168      |
| 1   | R0,05 | 8          | 18.000  | 1,600         | 0,004      | 0,216      | 15.500                           | 1.300         | 0,003      | 0,18       | 13.500                                 | 940           | 0,002      | 0,144      |
| 1   | R0,05 | 10         | 16.500  | 1,300         | 0,002      | 0,108      | 14.500                           | 1.060         | 0,002      | 0,09       | 12.500                                 | 760           | 0,001      | 0,072      |
| 1   | R0,05 | 12         | 15.500  | 1,140         | 0,001      | 0,072      | 13.500                           | 920           | 0,001      | 0,06       | 11.500                                 | 680           | 0,001      | 0,048      |
| 1   | R0,1  | 4          | 23.000  | 2.600         | 0,024      | 0,36       | 20.000                           | 2.100         | 0,02       | 0,3        | 17.000                                 | 1.520         | 0,012      | 0,24       |
| 1   | R0,1  | 6          | 20.500  | 2.100         | 0,012      | 0,252      | 18.000                           | 1.680         | 0,01       | 0,21       | 15.500                                 | 1.220         | 0,006      | 0,168      |
| 1   | R0,1  | 8          | 18.000  | 1.600         | 0,007      | 0,216      | 15.500                           | 1.300         | 0,006      | 0,18       | 13.500                                 | 940           | 0,004      | 0,144      |
| 1   | R0,1  | 10         | 16.500  | 1.300         | 0,005      | 0,108      | 14.500                           | 1.060         | 0,004      | 0,09       | 12.500                                 | 760           | 0,002      | 0,072      |
| 1   | R0,1  | 12         | 15.500  | 1.140         | 0,004      | 0,072      | 13.500                           | 920           | 0,003      | 0,06       | 11.500                                 | 680           | 0,002      | 0,048      |
| 1   | R0,2  | 4          | 23.000  | 2.600         | 0,048      | 0,36       | 20.000                           | 2.100         | 0,04       | 0,3        | 17.000                                 | 1.520         | 0,024      | 0,24       |
| 1   | R0,2  | 6          | 20.500  | 2.100         | 0,024      | 0,252      | 18.000                           | 1.680         | 0,02       | 0,21       | 15.500                                 | 1.220         | 0,012      | 0,168      |
| 1   | R0,2  | 8          | 18.000  | 1.600         | 0,014      | 0,216      | 15.500                           | 1.300         | 0,012      | 0,18       | 13.500                                 | 940           | 0,007      | 0,144      |
| 1   | R0,2  | 10         | 16.500  | 1.300         | 0,01       | 0,108      | 14.500                           | 1.060         | 0,008      | 0,09       | 12.500                                 | 760           | 0,005      | 0,072      |
| 1   | R0,2  | 12         | 15.500  | 1.140         | 0,007      | 0,072      | 13.500                           | 920           | 0,006      | 0,06       | 11.500                                 | 680           | 0,004      | 0,048      |
| 1   | R0,2  | 16         | 12.000  | 800           | 0,005      | 0,036      | 10.500                           | 660           | 0,004      | 0,03       | 9.150                                  | 480           | 0,002      | 0,024      |
| 1   | R0,2  | 20         | 10.000  | 580           | 0,004      | 0,029      | 8.900                            | 460           | 0,003      | 0,024      | 7.650                                  | 340           | 0,002      | 0,019      |
| 1   | R0,3  | 4          | 23.000  | 2.600         | 0,06       | 0,36       | 20.000                           | 2.100         | 0,05       | 0,3        | 17.000                                 | 1.520         | 0,03       | 0,24       |
| 1   | R0,3  | 6          | 20.500  | 2.100         | 0,03       | 0,252      | 18.000                           | 1.680         | 0,025      | 0,21       | 15.500                                 | 1.220         | 0,015      | 0,168      |
| 1   | R0,3  | 8          | 18.000  | 1.600         | 0,018      | 0,216      | 15.500                           | 1.300         | 0,015      | 0,18       | 13.500                                 | 940           | 0,009      | 0,144      |
| 1   | R0,3  | 10         | 16.500  | 1.300         | 0,012      | 0,108      | 14.500                           | 1.060         | 0,01       | 0,09       | 12.500                                 | 760           | 0,006      | 0,072      |
| 1   | R0,3  | 12         | 15.500  | 1.140         | 0,008      | 0,072      | 13.500                           | 920           | 0,007      | 0,06       | 11.500                                 | 680           | 0,004      | 0,048      |
| 1,2 | R0,2  | 6          | 19.000  | 2.400         | 0,038      | 0,432      | 18.000                           | 2.100         | 0,032      | 0,36       | 14.500                                 | 1.480         | 0,019      | 0,288      |
| 1,2 | R0,2  | 8          | 17.000  | 1.940         | 0,022      | 0,302      | 16.000                           | 1.700         | 0,018      | 0,252      | 13.000                                 | 1.160         | 0,011      | 0,202      |
| 1,2 | R0,2  | 10         | 16.000  | 1.700         | 0,013      | 0,259      | 15.000                           | 1.480         | 0,011      | 0,216      | 12.000                                 | 1.020         | 0,007      | 0,173      |
| 1,2 | R0,3  | 6          | 19.000  | 2.400         | 0,048      | 0,432      | 18.000                           | 2.100         | 0,04       | 0,36       | 14.500                                 | 1.480         | 0,024      | 0,288      |
| 1,2 | R0,3  | 8          | 17.000  | 1.940         | 0,026      | 0,302      | 16.000                           | 1.700         | 0,022      | 0,252      | 13.000                                 | 1.160         | 0,013      | 0,202      |
| 1,2 | R0,3  | 10         | 16.000  | 1.700         | 0,017      | 0,259      | 15.000                           | 1.480         | 0,014      | 0,216      | 12.000                                 | 1.020         | 0,008      | 0,173      |
| 1,5 | R0,2  | 6          | 17.000  | 2.900         | 0,048      | 0,54       | 16.000                           | 2.500         | 0,04       | 0,45       | 13.500                                 | 1.760         | 0,024      | 0,36       |
| 1,5 | R0,2  | 8          | 16.000  | 2.500         | 0,031      | 0,458      | 15.500                           | 2.200         | 0,026      | 0,382      | 12.500                                 | 1.500         | 0,016      | 0,306      |
| 1,5 | R0,2  | 10         | 14.500  | 2.000         | 0,022      | 0,35       | 13.500                           | 1.800         | 0,018      | 0,292      | 11.000                                 | 1.260         | 0,011      | 0,234      |
| 1,5 | R0,2  | 12         | 13.500  | 1.800         | 0,014      | 0,324      | 12.500                           | 1.580         | 0,012      | 0,27       | 10.500                                 | 1.100         | 0,007      | 0,216      |
| 1,5 | R0,2  | 16         | 9.150   | 1.060         | 0,008      | 0,134      | 8.650                            | 920           | 0,007      | 0,112      | 7.150                                  | 640           | 0,004      | 0,09       |
| 1,5 | R0,3  | 6          | 17.000  | 2.900         | 0,072      | 0,54       | 16.000                           | 2.500         | 0,06       | 0,45       | 13.500                                 | 1.760         | 0,036      | 0,36       |
| 1,5 | R0,3  | 8          | 16.000  | 2.500         | 0,047      | 0,458      | 15.500                           | 2.200         | 0,039      | 0,382      | 12.500                                 | 1.500         | 0,023      | 0,306      |
| 1,5 | R0,3  | 10         | 14.500  | 2.000         | 0,032      | 0,35       | 13.500                           | 1.800         | 0,027      | 0,292      | 11.000                                 | 1.260         | 0,016      | 0,234      |
| 1,5 | R0,3  | 12         | 13.500  | 1.800         | 0,022      | 0,324      | 12.500                           | 1.580         | 0,018      | 0,27       | 10.500                                 | 1.100         | 0,011      | 0,216      |
| 1,5 | R0,3  | 16         | 9.150   | 1.060         | 0,012      | 0,134      | 8.650                            | 920           | 0,01       | 0,112      | 7.150                                  | 640           | 0,006      | 0,09       |
| 2   | R0,1  | 8          | 13.000  | 2.900         | 0,024      | 0,72       | 13.000                           | 2.600         | 0,02       | 0,6        | 11.500                                 | 2.000         | 0,012      | 0,48       |
| 2   | R0,1  | 10         | 12.000  | 2.600         | 0,019      | 0,612      | 12.000                           | 2.300         | 0,016      | 0,51       | 11.000                                 | 1.820         | 0,01       | 0,408      |
| 2   | R0,1  | 12         | 11.500  | 2.300         | 0,012      | 0,504      | 11.500                           | 2.100         | 0,01       | 0,42       | 10.000                                 | 1.620         | 0,006      | 0,336      |
| 2   | R0,1  | 16         | 10.000  | 1.800         | 0,007      | 0,432      | 10.000                           | 1.600         | 0,006      | 0,36       | 8.900                                  | 1.260         | 0,004      | 0,288      |
| 2   | R0,1  | 20         | 9.300   | 1.460         | 0,005      | 0,216      | 9.300                            | 1.300         | 0,004      | 0,18       | 8.250                                  | 1.020         | 0,002      | 0,144      |
| 2   | R0,1  | 25         | 8.600   | 1.260         | 0,002      | 0,144      | 8.600                            | 1.120         | 0,002      | 0,12       | 7.650                                  | 880           | 0,001      | 0,096      |
| 2   | R0,2  | 8          | 13.000  | 2.900         | 0,048      | 0,72       | 13.000                           | 2.600         | 0,04       | 0,6        | 11.500                                 | 2.000         | 0,024      | 0,48       |
| 2   | R0,2  | 10         | 12.000  | 2.600         | 0,038      | 0,612      | 12.000                           | 2.300         | 0,032      | 0,51       | 11.000                                 | 1.820         | 0,019      | 0,408      |
| 2   | R0,2  | 12         | 11.500  | 2.300         | 0,024      | 0,504      | 11.500                           | 2.100         | 0,02       | 0,42       | 10.000                                 | 1.620         | 0,012      | 0,336      |
| 2   | R0,2  | 16         | 10.000  | 1.800         | 0,014      | 0,432      | 10.000                           | 1.600         | 0,012      | 0,36       | 8.900                                  | 1.260         | 0,007      | 0,288      |
| 2   | R0,2  | 20         | 9.300   | 1.460         | 0,01       | 0,216      | 9.300                            | 1.300         | 0,008      | 0,18       | 8.250                                  | 1.020         | 0,005      | 0,144      |
| 2   | R0,2  | 25         | 8.600   | 1.260         | 0,005      | 0,144      | 8.600                            | 1.120         | 0,004      | 0,12       | 7.650                                  | 880           | 0,002      | 0,096      |
| 2   | R0,3  | 8          | 13.000  | 2.900         | 0,072      | 0,72       | 13.000                           | 2.600         | 0,06       | 0,6        | 11.500                                 | 2.000         | 0,036      | 0,48       |
| 2   | R0,3  | 10         | 12.000  | 2.600         | 0,058      | 0,612      | 12.000                           | 2.300         | 0,048      | 0,51       | 11.000                                 | 1.820         | 0,029      | 0,408      |
| 2   | R0,3  | 12         | 11.500  | 2.300         | 0,036      | 0,504      | 11.500                           | 2.100         | 0,03       | 0,42       | 10.000                                 | 1.620         | 0,018      | 0,336      |
| 2   | R0,3  | 16         | 10.000  | 1.800         | 0,022      | 0,432      | 10.000                           | 1.600         | 0,018      | 0,36       | 8.900                                  | 1.260         | 0,011      | 0,288      |
| 2   | R0,3  | 20         | 9.300   | 1.460         | 0,014      | 0,216      | 9.300                            | 1.300         | 0,012      | 0,18       | 8.250                                  | 1.020         | 0,007      | 0,144      |
| 2   | R0,5  | 8          | 13.000  | 2.900         | 0,09       | 0,72       | 13.000                           | 2.600         | 0,075      | 0,6        | 11.500                                 | 2.000         | 0,045      | 0,48       |
| 2   | R0,5  | 10         | 12.000  | 2.600         | 0,072      | 0,612      | 12.000                           | 2.300         | 0,06       | 0,51       | 11.000                                 | 1.820         | 0,036      | 0,408      |
| 2   | R0,5  | 12         | 11.500  | 2.300         | 0,044      | 0,504      | 11.500                           | 2.100         | 0,037      | 0,42       | 10.000                                 | 1.620         | 0,022      | 0,336      |
| 2   | R0,5  | 16         | 10.000  | 1.800         | 0,026      | 0,432      | 10.000                           | 1.600         | 0,022      | 0,36       | 8.900                                  | 1.260         | 0,013      | 0,288      |
| 2   | R0,5  | 20         | 9.300   | 1.460         | 0,018      | 0,216      | 9.300                            | 1.300         | 0,015      | 0,18       | 8.250                                  | 1.020         | 0,009      | 0,144      |
| 2   | R0,5  | 25         | 8.600   | 1.260         | 0,011      | 0,144      | 8.600                            | 1.120         | 0,009      | 0,12       | 7.650                                  | 880           | 0,005      | 0,096      |
| 2,5 | R0,2  | 10         | 11.500  | 3.200         | 0,048      | 0,9        | 10.500                           | 2.400         | 0,04       | 0,75       | 9.150                                  | 2.000         | 0,024      | 0,6        |
| 2,5 | R0,2  | 20         | 8.900   | 2.000         | 0,024      | 0,54       | 8.000                            | 1.480         | 0,02       | 0,45       | 7.150                                  | 1.260         | 0,012      | 0,36       |
| 2,5 | R0,5  | 10         | 11.500  | 3.200         | 0,09       | 0,9        | 10.500                           | 2.400         | 0,075      | 0,75       | 9.150                                  | 2.000         | 0,045      | 0,6        |
| 2,5 | R0,5  | 20         | 8.900   | 2.000         | 0,044      | 0,54       | 8.000                            | 1.480         | 0,037      | 0,45       | 7.150                                  | 1.260         | 0,022      | 0,36       |
| 3   | R0,2  | 8          | 9.550   | 3.000         | 0,048      | 1,08       | 8.600                            | 2.300         | 0,04       | 0,9        | 7.650                                  | 1.660         | 0,024      | 0,72       |
| 3   | R0,2  | 12         | 9.550   | 3.000         | 0,048      | 1,08       | 8.600                            | 2.300         | 0,04       | 0,9        | 7.650                                  | 1.660         | 0,024      | 0,72       |
| 3   | R0,2  | 16         | 8.500   | 2.400         | 0,034      | 0,864      | 7.650                            | 1.820         | 0,028      | 0,72       | 6.800                                  | 1.320         | 0,017      | 0,576      |
| 3   | R0,2  | 20         | 7.400   | 1.980         | 0,022      | 0,734      | 6.700                            | 1.500         | 0,018      | 0,612      | 5.950                                  | 1.100         | 0,011      | 0,49       |
| 3   | R0,2  | 25         | 7.100   | 1.660         | 0,014      | 0,648      | 6.400                            | 1.280         | 0,012      | 0,54       | 5.700                                  | 920           | 0,007      | 0,432      |
| 3   | R0,2  | 30         | 6.900   | 1.520         | 0,01       | 0,324      | 6.200                            | 1.160         | 0,008      | 0,27       | 5.500                                  | 840           | 0,005      | 0,216      |
| 3   | R0,2  | 35         | 6.350   | 1.320         | 0,007      | 0,216      | 5.700                            | 1.000         | 0,006      | 0,18       | 5.100                                  | 740           | 0,004      | 0,144      |
| 3   | R0,3  | 12         | 9.550   | 3.000         | 0,072      | 1,08       | 8.600                            | 2.300         | 0,06       | 0,9        | 7.650                                  | 1.660         | 0,036      | 0,72       |
| 3   | R0,3  | 16         | 8.500   | 2.400         | 0,05       | 0,864      | 7.650                            | 1.820         | 0,042      | 0,72       | 6.800                                  | 1.320         | 0,025      | 0,576      |
| 3   | R0,3  | 20         | 7.400   | 1.980         | 0,032      | 0,734      | 6.700                            | 1.500         | 0,027      | 0,612      | 5.950                                  | 1.100         | 0,016      | 0,49       |
| 3   | R0,3  | 25         | 7.100   | 1.660         | 0,022      | 0,648      | 6.400                            | 1.280         | 0,018      | 0,54       | 5.700                                  | 920           | 0,011      | 0,432      |
| 3   | R0,3  | 30         | 6.900   | 1.520         | 0,014      | 0,324      | 6.200                            | 1.160         | 0,012      | 0,27       | 5.500                                  | 840           | 0,007      | 0,216      |
| 3   | R0,3  | 35         | 6.350   | 1.320         | 0,011      | 0,216      | 5.700                            | 1.000         | 0,009      | 0,18       | 5.100                                  | 740           | 0,005      | 0,144      |
| 3   | R0,5  | 12         | 9.550   | 3.000         | 0,09       | 1,08       | 8.600                            | 2.300         | 0,075      | 0,9        | 7.650                                  | 1.660         | 0,045      | 0,72       |
| 3   | R0,5  | 16         | 8.500   | 2.400         | 0,062      | 0,864      | 7.650                            | 1.820         | 0,052      | 0,72       | 6.800                                  | 1.320         | 0,031      | 0,576      |
| 3   | R0,5  | 20         | 7.400   | 1.980         | 0,04       | 0,734      | 6.700                            | 1.500         | 0,033      | 0,612      | 5.950                                  | 1.100         | 0,02       | 0,49       |

# CONDITIONS

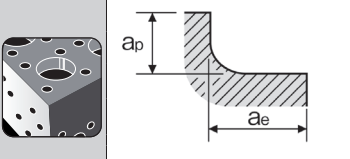
## WXS-CRE

|  |          |    | Titanium                  |                |      |     |                           |                |      |     |
|---|----------|----|---------------------------|----------------|------|-----|---------------------------|----------------|------|-----|
|   |          |    | Small desktop machine     |                |      |     | Fast milling center       |                |      |     |
| $\emptyset$   | EDP      | l1 | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | ae  | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | ae  |
| 2   | 48106421 | 8  | 8000                      | 960            | 0,05 | 0,6 | 10300                     | 1550           | 0,05 | 0,6 |
| 2   | 48254212 | 12 | 8000                      | 960            | 0,05 | 0,6 | 10300                     | 1550           | 0,05 | 0,6 |
| 3   | 48106433 | 16 | 5300                      | 1590           | 0,08 | 0,9 | 6900                      | 2590           | 0,08 | 0,9 |
| 3   | 48254316 | 12 | 5300                      | 1590           | 0,08 | 0,9 | 6900                      | 2590           | 0,08 | 0,9 |
| 4   | 48106445 | 12 | 4000                      | 2000           | 0,1  | 1,2 | 5100                      | 3190           | 0,1  | 1,2 |

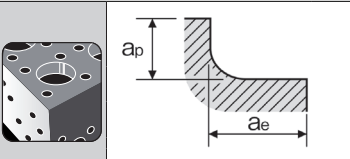
## WXS-CRE

|  |          |    | CoCr                      |                |      |     |                           |                |      |     |
|---|----------|----|---------------------------|----------------|------|-----|---------------------------|----------------|------|-----|
|   |          |    | Small desktop machine     |                |      |     | Fast milling center       |                |      |     |
| $\emptyset$   | EDP      | l1 | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | ae  | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | ae  |
| 2   | 48106421 | 8  | 7600                      | 850            | 0,05 | 0,6 | 9700                      | 1360           | 0,05 | 0,6 |
| 2   | 48254212 | 12 | 7600                      | 850            | 0,05 | 0,6 | 9700                      | 1360           | 0,05 | 0,6 |
| 3   | 48106433 | 16 | 5035                      | 1430           | 0,08 | 0,9 | 6500                      | 2310           | 0,08 | 0,9 |
| 3   | 48254316 | 12 | 5035                      | 1430           | 0,08 | 0,9 | 6500                      | 2310           | 0,08 | 0,9 |
| 4   | 48106445 | 12 | 3800                      | 1810           | 0,1  | 1,2 | 4800                      | 2830           | 0,1  | 1,2 |

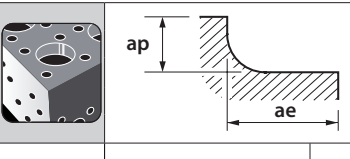
## FXS-PKE

|  |         |    | Titanium                  |                |      |     |                           |                |      |     |
|---|---------|----|---------------------------|----------------|------|-----|---------------------------|----------------|------|-----|
|   |         |    | Small desktop machine     |                |      |     | Fast milling center       |                |      |     |
| $\emptyset$   | EDP     | l1 | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | ae  | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | ae  |
| 3   | 8548003 | 9  | 5300                      | 1270           | 0,15 | 0,9 | 6900                      | 2070           | 0,15 | 0,9 |

## FXS-PKE

|  |         |    | CoCr                      |                |      |     |                           |                |      |     |
|---|---------|----|---------------------------|----------------|------|-----|---------------------------|----------------|------|-----|
|   |         |    | Small desktop machine     |                |      |     | Fast milling center       |                |      |     |
| $\emptyset$   | EDP     | l1 | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | ae  | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap   | ae  |
| 3   | 8548003 | 9  | 5035                      | 1150           | 0,15 | 0,9 | 6500                      | 1850           | 0,15 | 0,9 |

## AE-VTS-N

|  |         |    | Zirconium/PMMA/PEEK       |                |    |    |      |  |  |  |
|---|---------|----|---------------------------|----------------|----|----|------|--|--|--|
|   |         |    | S<br>(min <sup>-1</sup> ) | F<br>(mm/min.) | ap | ae |      |  |  |  |
| 3   | 8557360 | 9  | 9700                      | 970            | 1D |    | 0,2D |  |  |  |
| 4   | 8557361 | 12 | 7300                      | 730            |    |    |      |  |  |  |



# CONDITIONS

## AE-TL-N

| Ø | EDP     | l1 | Zirconium/PMMA/PEEK    |             |    |      |
|---|---------|----|------------------------|-------------|----|------|
|   |         |    | S (min <sup>-1</sup> ) | F (mm/min.) | ap | ae   |
| 3 | 8557340 | 9  | 9700                   | 970         | 1D | 0,2D |
| 4 | 8557341 | 12 | 7300                   | 730         |    |      |
| 3 | 8557350 | 15 | 9700                   | 970         |    |      |
| 4 | 8557351 | 20 | 7300                   | 730         |    |      |

## AE-VMS

| Ø | EDP     | l1 | Titanium               |             |      |     | CoCr                   |             |      |     | PMMA / WAX             |             |      |     |
|---|---------|----|------------------------|-------------|------|-----|------------------------|-------------|------|-----|------------------------|-------------|------|-----|
|   |         |    | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae  | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae  | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae  |
| 3 | 8555830 | 8  | 5300                   | 1270        | 0,15 | 0,9 | 5035                   | 1200        | 0,10 | 0,9 | 6370                   | 1530        | 0,30 | 1,5 |
| 4 | 8555840 | 11 | 3980                   | 1270        | 0,20 | 1,0 | 3800                   | 1200        | 0,12 | 1,0 | 4780                   | 1530        | 0,40 | 2,0 |

## AE-VMSS

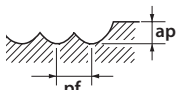
| Ø   | EDP     | l1  | Titanium               |             |      |     | CoCr                   |             |      |     | PMMA / WAX             |             |      |     |
|-----|---------|-----|------------------------|-------------|------|-----|------------------------|-------------|------|-----|------------------------|-------------|------|-----|
|     |         |     | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae  | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae  | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae  |
| 3   | 8556430 | 4,5 | 5300                   | 1270        | 0,15 | 0,9 | 5035                   | 1200        | 0,10 | 0,9 | 6370                   | 1530        | 0,30 | 1,5 |
| 3,5 | 8556435 | 5,3 | 4550                   | 1270        | 0,15 | 0,9 | 4270                   | 1200        | 0,10 | 0,9 | 5460                   | 1530        | 0,30 | 1,5 |
| 4   | 8556440 | 6   | 3980                   | 1270        | 0,20 | 1,0 | 3800                   | 1200        | 0,12 | 1,0 | 4780                   | 1530        | 0,40 | 2,0 |

## WXL-LN-EDS


| Ø   | EDP      | l    | CoCr                   |             |      |      |                        |             |      |      |
|-----|----------|------|------------------------|-------------|------|------|------------------------|-------------|------|------|
|     |          |      | Small desktop machine  |             |      |      | Fast milling center    |             |      |      |
|     |          |      | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae   | S (min <sup>-1</sup> ) | F (mm/min.) | ap   | ae   |
| 0,3 | 3131308  | 0,45 | 20700                  | 200         | 0,03 | 0,09 | 29000                  | 400         | 0,03 | 0,09 |
| 0,4 | 3131408  | 0,6  | 22400                  | 310         | 0,04 | 0,12 | 30400                  | 540         | 0,04 | 0,12 |
| 0,5 | 3131504  | 0,7  | 19900                  | 350         | 0,05 | 0,15 | 27000                  | 590         | 0,05 | 0,15 |
| 0,6 | 3131606  | 0,9  | 14900                  | 320         | 0,06 | 0,18 | 20300                  | 520         | 0,06 | 0,18 |
| 0,6 | 3131610  | 0,9  | 14900                  | 320         | 0,06 | 0,18 | 20300                  | 520         | 0,06 | 0,18 |
| 1   | 3132010  | 1,5  | 12300                  | 460         | 0,1  | 0,3  | 16700                  | 730         | 0,1  | 0,3  |
| 1   | 3132016  | 1,5  | 12300                  | 460         | 0,1  | 0,3  | 16700                  | 730         | 0,1  | 0,3  |
| 1   | 3132018  | 1,5  | 12300                  | 460         | 0,1  | 0,3  | 16700                  | 730         | 0,1  | 0,3  |
| 1   | 3132020  | 1,5  | 12300                  | 460         | 0,1  | 0,3  | 16700                  | 730         | 0,1  | 0,3  |
| 1,5 | 3132518  | 2,3  | 9400                   | 540         | 0,15 | 0,45 | 12700                  | 860         | 0,15 | 0,45 |
| 2   | 3133010  | 3    | 7800                   | 600         | 0,2  | 0,6  | 10600                  | 950         | 0,2  | 0,6  |
| 2   | 3133016  | 3    | 7800                   | 600         | 0,2  | 0,6  | 10600                  | 950         | 0,2  | 0,6  |
| 2   | 3133020  | 3    | 7000                   | 540         | 0,2  | 0,6  | 9500                   | 850         | 0,2  | 0,6  |
| 1,5 | 48252112 | 2,3  | 10300                  | 590         | 0,15 | 0,45 | 14000                  | 950         | 0,15 | 0,45 |
| 0,5 | W1604584 | 0,7  | 19900                  | 350         | 0,05 | 0,15 | 27000                  | 590         | 0,05 | 0,15 |
| 1   | W1604585 | 1,5  | 9900                   | 370         | 0,1  | 0,3  | 13400                  | 580         | 0,1  | 0,3  |
| 1,5 | W1601161 | 2,3  | 8200                   | 470         | 0,15 | 0,45 | 11100                  | 750         | 0,15 | 0,45 |

# CONDITIONS


## FXS-EQD Regular milling

| Ø                 | C≤0,2% - GG<br>S55C · SS400<br>~750 N/mm <sup>2</sup> |               | ~30 HRC<br>SKD · SKS · SNCM |               | 30~38 HRC<br>NAK55 · HPMI · SKT |               | 38~45 HRC SUS<br>SUS304 · X210CR12<br>X40CRMV51                                   |               | 45~55 HRC<br>HRS          |               | 55~60 HRC                 |               |
|-------------------|---|---------------|-----------------------------|---------------|---------------------------------|---------------|---|---------------|---------------------------|---------------|---------------------------|---------------|
|                   | S<br>(min <sup>-1</sup> )                             | F<br>(mm/min) | S<br>(min <sup>-1</sup> )   | F<br>(mm/min) | S<br>(min <sup>-1</sup> )       | F<br>(mm/min) | S<br>(min <sup>-1</sup> )   | F<br>(mm/min) | S<br>(min <sup>-1</sup> ) | F<br>(mm/min) | S<br>(min <sup>-1</sup> ) | F<br>(mm/min) |
| R 0,5             | 32.000  | 860           | 32.000                      | 860           | 32.000                          | 860           | 32.000  | 860           | 32.000                    | 860           | 32.000                    | 765           |
| R 1               | 31.500  | 2.250         | 24.000                      | 1.350         | 24.000                          | 1.350         | 24.000  | 1.350         | 24.000                    | 1.350         | 22.000                    | 1.200         |
| Max cutting depth | ap = 0,05D<br>pf = 0,10D                              |               |                             |               |                                 |               |  |               | ap = 0,02D<br>pf = 0,10D  |               |                           |               |

## AD-LDS Centering

| CoCr & Titanium   |                           |                |
|---|---------------------------|----------------|
|  |                           |                |
| Ø   | 16~22m/min                |                |
|   | S<br>(min <sup>-1</sup> ) | F<br>(mm/rev.) |
| 3   | 2.000                     | 0,04 ~ 0,08    |
| 4   | 1.500                     | 0,05 ~ 0,1     |

## AD-LDS Counter Sinking

| CoCr & Titanium   |                           |                |
|---|---------------------------|----------------|
|  |                           |                |
| Ø   | 20~30m/min                |                |
|   | S<br>(min <sup>-1</sup> ) | F<br>(mm/rev.) |
| 3   | 2.700                     | 0,04 ~ 0,08    |
| 4   | 2.000                     | 0,05 ~ 0,1     |

Note1 ) When using AD-LS-LDS, reduce the feed rate accordingly.

Note2 ) For machines that cannot achieve the speeds indicated in the table please set rotation as high as possible.

1. The indicated speeds and feeds are for drilling with [water-soluble coolant](#).
2. When using non-water-soluble coolant, reduce the drilling speed by 20%.
3. When counter sinking on a curved or inclined surface, reduce the feed rate accordingly.
4. For high-speed machining, double the median value of the above cutting condition to use as upper limit.

## WX-MS-GDS

| Ø   | CoCr                      |                | Titanium                  |                |
|-----|---------------------------|----------------|---------------------------|----------------|
|     | S<br>(min <sup>-1</sup> ) | F<br>(mm/rev.) | S<br>(min <sup>-1</sup> ) | F<br>(mm/rev.) |
| 1   | 4800                      | 0,022          | 5700                      | 0,024          |
| 1,1 | 4300                      | 0,024          | 5200                      | 0,026          |
| 1,2 | 4000                      | 0,027          | 4800                      | 0,029          |
| 1,3 | 3700                      | 0,029          | 4400                      | 0,031          |
| 1,4 | 3400                      | 0,031          | 4100                      | 0,033          |
| 1,5 | 3200                      | 0,033          | 3800                      | 0,036          |
| 1,6 | 3000                      | 0,036          | 3600                      | 0,038          |
| 1,7 | 2800                      | 0,038          | 3400                      | 0,040          |
| 1,8 | 2700                      | 0,040          | 3200                      | 0,043          |
| 1,9 | 2500                      | 0,042          | 3000                      | 0,045          |
| 2   | 2400                      | 0,044          | 2900                      | 0,048          |
| 2,1 | 2300                      | 0,047          | 2700                      | 0,050          |
| 2,2 | 2200                      | 0,049          | 2600                      | 0,052          |
| 2,3 | 2100                      | 0,051          | 2500                      | 0,055          |
| 2,4 | 2000                      | 0,053          | 2400                      | 0,057          |
| 2,5 | 1900                      | 0,056          | 2300                      | 0,060          |
| 2,6 | 1800                      | 0,058          | 2200                      | 0,062          |
| 2,7 | 1800                      | 0,060          | 2100                      | 0,064          |
| 2,8 | 1700                      | 0,062          | 2000                      | 0,067          |
| 2,9 | 1600                      | 0,064          | 2000                      | 0,069          |
| 3   | 1600                      | 0,067          | 1900                      | 0,071          |

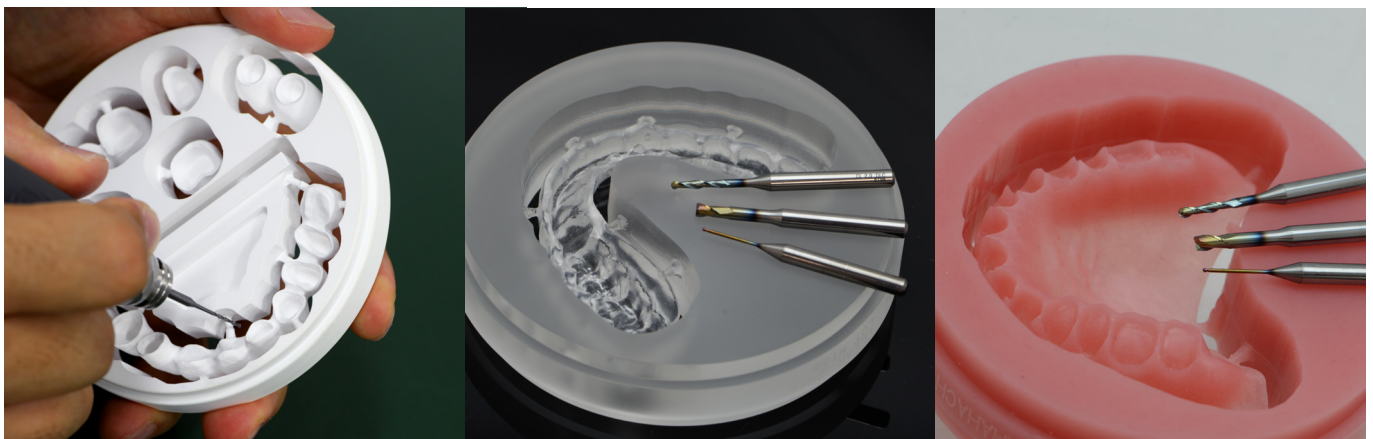
# CONDITIONS

## MRS-GDL

| Ø   | CoCr                   |             | Titanium               |             |
|-----|------------------------|-------------|------------------------|-------------|
|     | S (min <sup>-1</sup> ) | F (mm/rev.) | S (min <sup>-1</sup> ) | F (mm/rev.) |
| 1   | 4800                   | 0,025       | 5700                   | 0,027       |
| 1,1 | 4300                   | 0,028       | 5200                   | 0,03        |
| 1,2 | 4000                   | 0,030       | 4800                   | 0,032       |
| 1,3 | 3700                   | 0,033       | 4400                   | 0,035       |
| 1,4 | 3400                   | 0,035       | 4100                   | 0,038       |
| 1,5 | 3200                   | 0,038       | 3800                   | 0,041       |
| 1,6 | 3000                   | 0,040       | 3600                   | 0,043       |
| 1,7 | 2800                   | 0,043       | 3400                   | 0,046       |
| 1,8 | 2700                   | 0,045       | 3200                   | 0,049       |
| 1,9 | 2500                   | 0,048       | 3000                   | 0,051       |
| 2   | 2400                   | 0,050       | 2900                   | 0,054       |
| 2,1 | 2300                   | 0,053       | 2700                   | 0,057       |
| 2,2 | 2200                   | 0,055       | 2600                   | 0,059       |
| 2,3 | 2100                   | 0,058       | 2500                   | 0,062       |
| 2,4 | 2000                   | 0,060       | 2400                   | 0,065       |
| 2,5 | 1900                   | 0,063       | 2300                   | 0,068       |
| 2,6 | 1800                   | 0,065       | 2200                   | 0,07        |
| 2,7 | 1800                   | 0,068       | 2100                   | 0,073       |
| 2,8 | 1700                   | 0,070       | 2000                   | 0,076       |
| 2,9 | 1600                   | 0,073       | 2000                   | 0,078       |
| 3   | 1600                   | 0,075       | 1900                   | 0,081       |

## AD-2D/AD-4D Standard drilling

| Ø             | CoCr & Titanium        |             |
|---------------|------------------------|-------------|
|               | S (min <sup>-1</sup> ) | F (mm/rev.) |
| 40 ~ 63 m/min |                        |             |
| 2             | 7.600                  | 0,06~0,08   |
| 3             | 5.000                  | 0,09~0,12   |





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