

# KOR™ Series

## High-Performance Dynamic Milling

### Materials



### Applications



Ramping



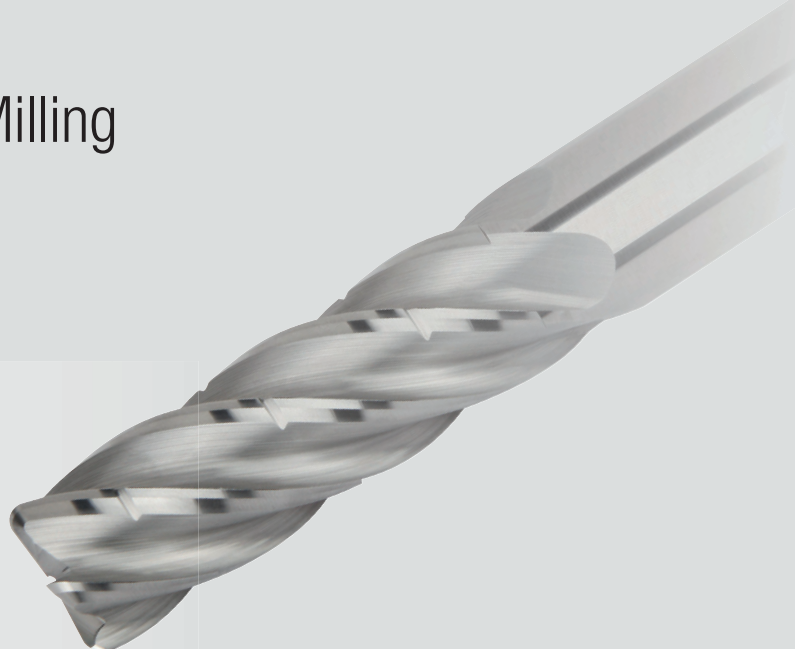
Trochoidal Milling



Side Milling/Shoulder  
Milling: Roughing



Side Milling/Shoulder  
Milling: Finishing



### KOR Series

Designed for dynamic milling with low radial engagement and full length of cut.  
Maximizes capabilities of 5-axis machines, using CAM tool path generation software.

#### KOR5<sup>DA</sup> — Dynamic Rougher for Aluminum

With chip splitters for near-perfect chip management.  
Safe-Lock™ shanks available for pullout protection.  
With and without internal coolant.

KOR5™ DA



Proprietary flute forms reduce vibrations and improve tool life.

KOR5<sup>DS</sup>



Helix angles tailored to target material to minimize vibration and optimize tool life.

KOR6™ DT



Front end geometries for maximum tool life in helical and ramping operations.

### **KOR5<sup>DS</sup> — Dynamic Rougher for Steel and Stainless Steel**

With chip deformers for near-perfect chip management at high surface quality.

Safe-Lock™ and Weldon® shanks for pullout protection.

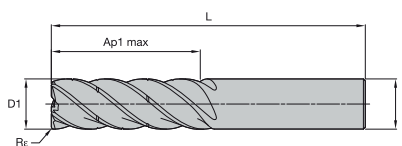
3 x D and 5 x D with plain and Weldon shanks.

### **KOR6<sup>DT</sup> — Dynamic Rougher for Titanium**

With chip splitters for optimized chip management.

3 x D and 5 x D with plain and Weldon shanks.

## KOR5™ DS • Radiused • 5 Flutes • 3 x D • Plain Shank • Metric



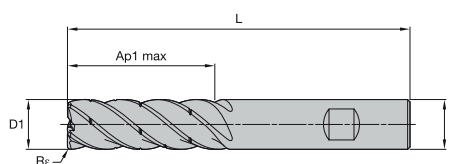
● first choice

○ alternate choice

|   |  |   |
|---|--|---|
| P |  |   |
| M |  | ● |
| K |  | ○ |
| N |  | ● |
| S |  | ○ |
| H |  | ○ |

| order number | catalogue number       | D1    | D     | Ap1 max | L      | Re   | KC643M |
|--------------|------------------------|-------|-------|---------|--------|------|--------|
| 6763959      | KOR5RA0800R024HAR050CM | 8,00  | 8,00  | 24,00   | 67,00  | 0,50 | ●      |
| 6763960      | KOR5RA1000R030HAR050CM | 10,00 | 10,00 | 30,00   | 80,00  | 0,50 | ●      |
| 6763981      | KOR5RA1200R036HAR075CM | 12,00 | 12,00 | 36,00   | 100,00 | 0,75 | ●      |
| 6763982      | KOR5RA1600R048HAR100CM | 16,00 | 16,00 | 48,00   | 110,00 | 1,00 | ●      |
| 6763984      | KOR5RA2000R060HAR100CM | 20,00 | 20,00 | 60,00   | 125,00 | 1,00 | ●      |
| 6763985      | KOR5RA2500R075HAR100CM | 25,00 | 25,00 | 75,00   | 150,00 | 1,00 | ●      |

## KOR5 DS • Radiused • 5 Flutes • 3 x D • Weldon® Shank • Metric



● first choice

○ alternate choice

|   |  |   |
|---|--|---|
| P |  |   |
| M |  | ● |
| K |  | ○ |
| N |  | ● |
| S |  | ○ |
| H |  | ○ |

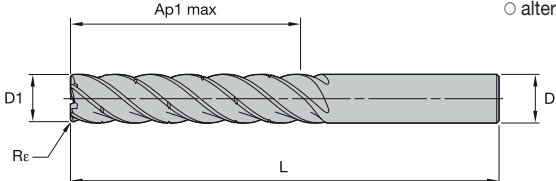
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|--------------|------------------------|-------|-------|---------|--------|------|--------|
| 6763986      | KOR5RA0800R024HBR050CM | 8,00  | 8,00  | 24,00   | 67,00  | 0,50 | ●      |
| 6763987      | KOR5RA1000R030HBR050CM | 10,00 | 10,00 | 30,00   | 80,00  | 0,50 | ●      |
| 6763988      | KOR5RA1200R036HBR075CM | 12,00 | 12,00 | 36,00   | 100,00 | 0,75 | ●      |
| 6763989      | KOR5RA1600R048HBR100CM | 16,00 | 16,00 | 48,00   | 110,00 | 1,00 | ●      |
| 6763992      | KOR5RA2000R060HBR100CM | 20,00 | 20,00 | 60,00   | 125,00 | 1,00 | ●      |
| 6763993      | KOR5RA2500R075HBR100CM | 25,00 | 25,00 | 75,00   | 150,00 | 1,00 | ●      |

|         |     |         |     |
|---------|-----|---------|-----|
|         |     |         |     |
| 158-159 | 160 | 115-117 | 164 |

## KOR5™ DS • Radiused • 5 Flutes • 5 x D • Plain Shank • Metric



● first choice  
○ alternate choice



| P | M | K | N | S | H |
|---|---|---|---|---|---|
|   |   |   |   |   |   |

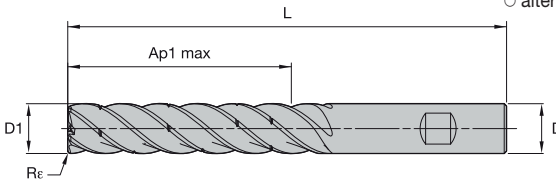
| order number | catalogue number       | D1    | D     | Ap1 max | L      | Re   |   |
|--------------|------------------------|-------|-------|---------|--------|------|---|
| 6768036      | KOR5RA0800L040HAR050CM | 8,00  | 8,00  | 40,00   | 87,00  | 0,50 | ● |
| 6768037      | KOR5RA1000L050HAR050CM | 10,00 | 10,00 | 50,00   | 100,00 | 0,50 | ● |
| 6768038      | KOR5RA1200L060HAR075CM | 12,00 | 12,00 | 60,00   | 125,00 | 0,75 | ● |
| 6768039      | KOR5RA1600L080HAR100CM | 16,00 | 16,00 | 80,00   | 141,00 | 1,00 | ● |
| 6768040      | KOR5RA2000L100HAR100CM | 20,00 | 20,00 | 100,00  | 170,00 | 1,00 | ● |
| 6768042      | KOR5RA2500L125HAR100CM | 25,00 | 25,00 | 125,00  | 200,00 | 1,00 | ● |

KC643M

## KOR5 DS • Radiused • 5 Flutes • 5 x D • Weldon® Shank • Metric



● first choice  
○ alternate choice



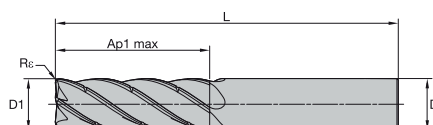
| P | M | K | N | S | H |
|---|---|---|---|---|---|
|   |   |   |   |   |   |

| order number | catalogue number       | D1    | D     | Ap1 max | L      | Re   |   |
|--------------|------------------------|-------|-------|---------|--------|------|---|
| 6768043      | KOR5RA0800L040HBR050CM | 8,00  | 8,00  | 40,00   | 87,00  | 0,50 | ● |
| 6768044      | KOR5RA1000L050HBR050CM | 10,00 | 10,00 | 50,00   | 100,00 | 0,50 | ● |
| 6768045      | KOR5RA1200L060HBR075CM | 12,00 | 12,00 | 60,00   | 125,00 | 0,75 | ● |
| 6768046      | KOR5RA1600L080HBR100CM | 16,00 | 16,00 | 80,00   | 141,00 | 1,00 | ● |
| 6768047      | KOR5RA2000L100HBR100CM | 20,00 | 20,00 | 100,00  | 170,00 | 1,00 | ● |
| 6768048      | KOR5RA2500L125HBR100CM | 25,00 | 25,00 | 125,00  | 200,00 | 1,00 | ● |

KC643M

|         |     |         |     |
|---------|-----|---------|-----|
|         |     |         |     |
| 158-159 | 160 | 115-117 | 164 |

## KOR5™ DA • Radiused • 5 Flutes • 3 x D • Internal Coolant • Plain Shank • Metric



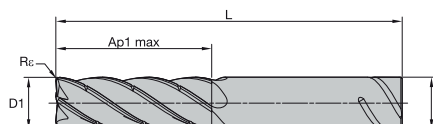
● first choice

○ alternate choice

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |

| order number | catalogue number       | D1    | D     | Ap1 max | L     | Re   | K600 |
|--------------|------------------------|-------|-------|---------|-------|------|------|
| 6754973      | KOR5RA1000R030HAR020IM | 10,00 | 10,00 | 30,00   | 75,00 | 0,20 | ●    |
| 6754974      | KOR5RA1000R030HAR050IM | 10,00 | 10,00 | 30,00   | 75,00 | 0,50 | ●    |
| 6754975      | KOR5RA1000R030HAR100IM | 10,00 | 10,00 | 30,00   | 75,00 | 1,00 | ●    |

## KOR5 DA • Radiused • 5 Flutes • 3 x D • Internal Coolant • Safe-Lock™ Shank • Metric



● first choice

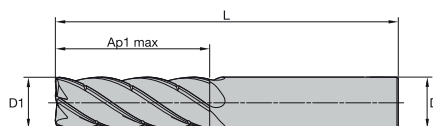
○ alternate choice

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |

| order number | catalogue number       | D1    | D     | Ap1 max | L      | Re   | K600 |
|--------------|------------------------|-------|-------|---------|--------|------|------|
| 6754977      | KOR5RA1200R036SLR020IM | 12,00 | 12,00 | 36,00   | 87,00  | 0,20 | ●    |
| 6754978      | KOR5RA1200R036SLR050IM | 12,00 | 12,00 | 36,00   | 87,00  | 0,50 | ●    |
| 6754979      | KOR5RA1200R036SLR150IM | 12,00 | 12,00 | 36,00   | 87,00  | 1,50 | ●    |
| 6754980      | KOR5RA1200R036SLR250IM | 12,00 | 12,00 | 36,00   | 87,00  | 2,50 | ●    |
| 6755002      | KOR5RA1600R048SLR050IM | 16,00 | 16,00 | 48,00   | 104,00 | 0,50 | ●    |
| 6755003      | KOR5RA1600R048SLR200IM | 16,00 | 16,00 | 48,00   | 104,00 | 2,00 | ●    |
| 6755004      | KOR5RA1600R048SLR250IM | 16,00 | 16,00 | 48,00   | 104,00 | 2,50 | ●    |
| 6755006      | KOR5RA2000R060SLR050IM | 20,00 | 20,00 | 60,00   | 120,00 | 0,50 | ●    |
| 6755007      | KOR5RA2000R060SLR250IM | 20,00 | 20,00 | 60,00   | 120,00 | 2,50 | ●    |
| 6755009      | KOR5RA2500R075SLR050IM | 25,00 | 25,00 | 75,00   | 144,00 | 0,50 | ●    |
| 6755010      | KOR5RA2500R075SLR250IM | 25,00 | 25,00 | 75,00   | 144,00 | 2,50 | ●    |

|         |     |         |     |
|---------|-----|---------|-----|
|         |     |         |     |
| 158-159 | 160 | 115-117 | 164 |

## KOR5™ DA • Square End • 5 Flutes • 3 x D • Internal Coolant • Plain Shank • Metric



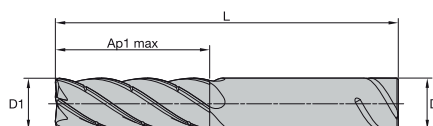
● first choice

○ alternate choice

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |

| order number | catalogue number   | D1    | D     | Ap1 max | L     | K600 |
|--------------|--------------------|-------|-------|---------|-------|------|
| 6754972      | KOR5SE1000R030HAIM | 10,00 | 10,00 | 30,00   | 75,00 | ●    |

## KOR5 DA • Square End • 5 Flutes • 3 x D • Internal Coolant • Safe-Lock™ Shank • Metric



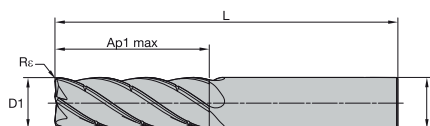
● first choice

○ alternate choice

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |

| order number | catalogue number   | D1    | D     | Ap1 max | L      | K600 |
|--------------|--------------------|-------|-------|---------|--------|------|
| 6754976      | KOR5SE1200R036SLIM | 12,00 | 12,00 | 36,00   | 87,00  | ●    |
| 6755001      | KOR5SE1600R048SLIM | 16,00 | 16,00 | 48,00   | 104,00 | ●    |
| 6755005      | KOR5SE2000R060SLIM | 20,00 | 20,00 | 60,00   | 120,00 | ●    |
| 6755008      | KOR5SE2500R075SLIM | 25,00 | 25,00 | 75,00   | 144,00 | ●    |

## KOR5 DA • Radiused • 5 Flutes • 3 x D • Plain Shank • Metric



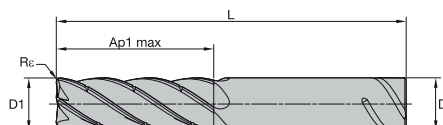
● first choice

○ alternate choice

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |

| order number | catalogue number       | D1    | D     | Ap1 max | L     | Rε   | K600 |
|--------------|------------------------|-------|-------|---------|-------|------|------|
| 6755013      | KOR5RA1000R030HAR020CM | 10,00 | 10,00 | 30,00   | 75,00 | 0,20 | ●    |
| 6755014      | KOR5RA1000R030HAR050CM | 10,00 | 10,00 | 30,00   | 75,00 | 0,50 | ●    |
| 6755015      | KOR5RA1000R030HAR100CM | 10,00 | 10,00 | 30,00   | 75,00 | 1,00 | ●    |

## KOR5™ DA • Radiused • 5 Flutes • 3 x D • Safe-Lock™ Shank • Metric



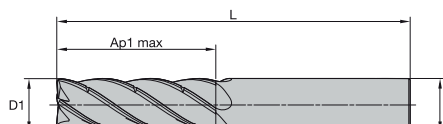
● first choice

○ alternate choice

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |

| order number | catalogue number       | D1    | D     | Ap1 max | L      | Rc   | K600 |
|--------------|------------------------|-------|-------|---------|--------|------|------|
| 6755017      | KOR5RA1200R036SLR020CM | 12,00 | 12,00 | 36,00   | 87,00  | 0,20 | ●    |
| 6755018      | KOR5RA1200R036SLR050CM | 12,00 | 12,00 | 36,00   | 87,00  | 0,50 | ●    |
| 6755019      | KOR5RA1200R036SLR150CM | 12,00 | 12,00 | 36,00   | 87,00  | 1,50 | ●    |
| 6755020      | KOR5RA1200R036SLR250CM | 12,00 | 12,00 | 36,00   | 87,00  | 2,50 | ●    |
| 6755032      | KOR5RA1600R048SLR050CM | 16,00 | 16,00 | 48,00   | 104,00 | 0,50 | ●    |
| 6755033      | KOR5RA1600R048SLR200CM | 16,00 | 16,00 | 48,00   | 104,00 | 2,00 | ●    |
| 6755034      | KOR5RA1600R048SLR250CM | 16,00 | 16,00 | 48,00   | 104,00 | 2,50 | ●    |
| 6755036      | KOR5RA2000R060SLR050CM | 20,00 | 20,00 | 60,00   | 120,00 | 0,50 | ●    |
| 6755037      | KOR5RA2000R060SLR250CM | 20,00 | 20,00 | 60,00   | 120,00 | 2,50 | ●    |
| 6755039      | KOR5RA2500R075SLR050CM | 25,00 | 25,00 | 75,00   | 144,00 | 0,50 | ●    |
| 6755040      | KOR5RA2500R075SLR250CM | 25,00 | 25,00 | 75,00   | 144,00 | 2,50 | ●    |

## KOR5 DA • Square End • 5 Flutes • 3 x D • Plain Shank • Metric



● first choice

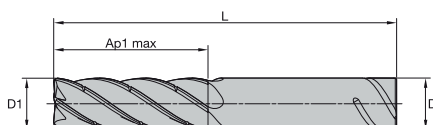
○ alternate choice

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |

| order number | catalogue number   | D1    | D     | Ap1 max | L     | K600 |
|--------------|--------------------|-------|-------|---------|-------|------|
| 6755012      | KOR5SE1000R030HACM | 10,00 | 10,00 | 30,00   | 75,00 | ●    |

|         |     |         |     |
|---------|-----|---------|-----|
|         |     |         |     |
| 158-159 | 160 | 115-117 | 164 |

## KOR5™ DA • Square End • 5 Flutes • 3 x D • Safe-Lock™ Shank • Metric



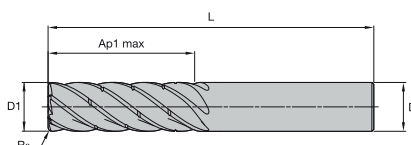
● first choice

○ alternate choice

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |
|   |   |

| order number | catalogue number   | D1    | D     | Ap1 max | L      |   | K600 |
|--------------|--------------------|-------|-------|---------|--------|---|------|
| 6755016      | KOR5SE1200R036SLCM | 12,00 | 12,00 | 36,00   | 87,00  | ● |      |
| 6755031      | KOR5SE1600R048SLCM | 16,00 | 16,00 | 48,00   | 104,00 | ● |      |
| 6755035      | KOR5SE2000R060SLCM | 20,00 | 20,00 | 60,00   | 120,00 | ● |      |
| 6755038      | KOR5SE2500R075SLCM | 25,00 | 25,00 | 75,00   | 144,00 | ● |      |

## KOR6™ DT • Radiused • 6 Flutes • 3 x D • Plain Shank • Metric



● first choice

○ alternate choice

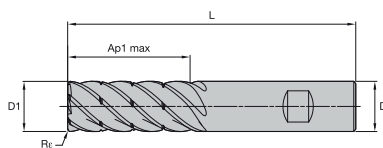
|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | ● |
| S |   |
| H |   |
|   |   |

| order number | catalogue number      | D1    | D     | Ap1 max | L     | Re   | KCSM15 |
|--------------|-----------------------|-------|-------|---------|-------|------|--------|
| 6767693      | KOR6RA0800R024HAR050M | 8,00  | 8,00  | 24,00   | 67,00 | 0,50 | ●      |
| 6767694      | KOR6RA1000R030HAR050M | 10,00 | 10,00 | 30,00   | 80,00 | 0,50 | ●      |

|         |     |         |     |
|---------|-----|---------|-----|
|         |     |         |     |
| 158–159 | 160 | 115–117 | 164 |



## KOR6™ DT • Radiused • 6 Flutes • 3 x D • Weldon® Shank • Metric



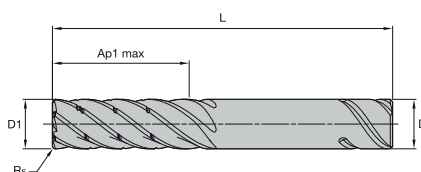
● first choice

○ alternate choice

|   |        |   |
|---|--------|---|
| P | Blue   | ○ |
| M | Yellow | ○ |
| K | Red    | ○ |
| N | Green  | ○ |
| S | Orange | ● |
| H | Grey   | ○ |

| order number | catalogue number      | D1    | D     | Ap1 max | L      | Re   | KCSM15 |
|--------------|-----------------------|-------|-------|---------|--------|------|--------|
| 6767699      | KOR6RA0800R024HBR050M | 8,00  | 8,00  | 24,00   | 67,00  | 0,50 | ●      |
| 6767700      | KOR6RA1000R030HBR050M | 10,00 | 10,00 | 30,00   | 80,00  | 0,50 | ●      |
| 6767701      | KOR6RA1200R036HBR075M | 12,00 | 12,00 | 36,00   | 100,00 | 0,75 | ●      |
| 6767702      | KOR6RA1600R048HBR100M | 16,00 | 16,00 | 48,00   | 110,00 | 1,00 | ●      |
| 6767703      | KOR6RA2000R060HBR100M | 20,00 | 20,00 | 60,00   | 125,00 | 1,00 | ●      |
| 6767705      | KOR6RA2500R075HBR100M | 25,00 | 25,00 | 75,00   | 150,00 | 1,00 | ●      |

## KOR6 DT • Radiused • 6 Flutes • 3 x D • Safe-Lock™ Shank • Metric



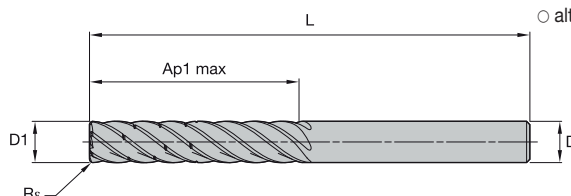
● first choice

○ alternate choice

|   |        |   |
|---|--------|---|
| P | Blue   | ○ |
| M | Yellow | ○ |
| K | Red    | ○ |
| N | Green  | ○ |
| S | Orange | ● |
| H | Grey   | ○ |

| order number | catalogue number      | D1    | D     | Ap1 max | L      | Re   | KCSM15 |
|--------------|-----------------------|-------|-------|---------|--------|------|--------|
| 6767695      | KOR6RA1200R036SLR075M | 12,00 | 12,00 | 36,00   | 100,00 | 0,75 | ●      |
| 6767696      | KOR6RA1600R048SLR100M | 16,00 | 16,00 | 48,00   | 110,00 | 1,00 | ●      |
| 6767697      | KOR6RA2000R060SLR100M | 20,00 | 20,00 | 60,00   | 125,00 | 1,00 | ●      |
| 6767698      | KOR6RA2500R075SLR100M | 25,00 | 25,00 | 75,00   | 150,00 | 1,00 | ●      |

## KOR6 DT • Radiused • 6 Flutes • 5 x D • Plain Shank • Metric



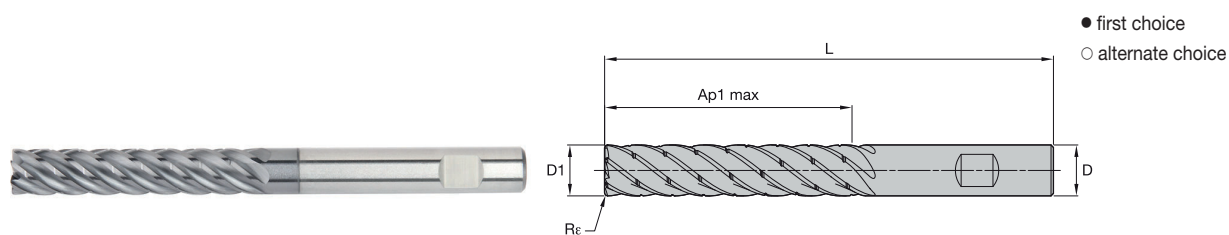
● first choice

○ alternate choice

|   |        |   |
|---|--------|---|
| P | Blue   | ○ |
| M | Yellow | ○ |
| K | Red    | ○ |
| N | Green  | ○ |
| S | Orange | ● |
| H | Grey   | ○ |

| order number | catalogue number       | D1    | D     | Ap1 max | L      | Re   | KCSM15 |
|--------------|------------------------|-------|-------|---------|--------|------|--------|
| 6767641      | KOR6RA0800L040HAR050CM | 8,00  | 8,00  | 40,00   | 87,00  | 0,50 | ●      |
| 6767642      | KOR6RA1000L050HAR050CM | 10,00 | 10,00 | 50,00   | 100,00 | 0,50 | ●      |

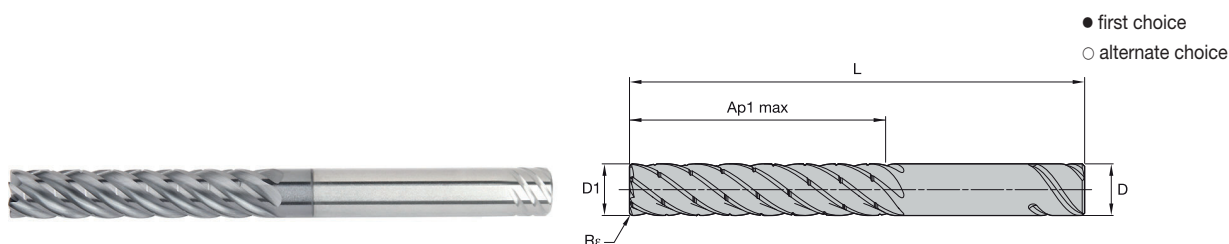
## KOR6™ DT • Radiused • 6 Flutes • 5 x D • Weldon® Shank • Metric



|   |  |  |
|---|--|--|
| P |  |  |
| M |  |  |
| K |  |  |
| N |  |  |
| S |  |  |
| H |  |  |

| order number | catalogue number       | D1    | D     | Ap1 max | L      | Re   | KCSM15 |
|--------------|------------------------|-------|-------|---------|--------|------|--------|
| 6767647      | KOR6RA0800L040HBR050CM | 8,00  | 8,00  | 40,00   | 87,00  | 0,50 | ●      |
| 6767648      | KOR6RA1000L050HBR050CM | 10,00 | 10,00 | 50,00   | 100,00 | 0,50 | ●      |
| 6767649      | KOR6RA1200L060HBR075CM | 12,00 | 12,00 | 60,00   | 125,00 | 0,75 | ●      |
| 6767650      | KOR6RA1600L080HBR100CM | 16,00 | 16,00 | 80,00   | 141,00 | 1,00 | ●      |
| 6767651      | KOR6RA2000L100HBR100CM | 20,00 | 20,00 | 100,00  | 166,00 | 1,00 | ●      |
| 6767652      | KOR6RA2500L125HBR100CM | 25,00 | 25,00 | 125,00  | 190,00 | 1,00 | ●      |

## KOR6 DT • Radiused • 6 Flutes • 5 x D • Safe-Lock™ Shank • Metric



|   |  |  |
|---|--|--|
| P |  |  |
| M |  |  |
| K |  |  |
| N |  |  |
| S |  |  |
| H |  |  |

| order number | catalogue number       | D1    | D     | Ap1 max | L      | Re   | KCSM15 |
|--------------|------------------------|-------|-------|---------|--------|------|--------|
| 6767643      | KOR6RA1200L060SLR075CM | 12,00 | 12,00 | 60,00   | 125,00 | 0,75 | ●      |
| 6767644      | KOR6RA1600L080SLR100CM | 16,00 | 16,00 | 80,00   | 141,00 | 1,00 | ●      |
| 6767645      | KOR6RA2000L100SLR100CM | 20,00 | 20,00 | 100,00  | 166,00 | 1,00 | ●      |
| 6767646      | KOR6RA2500L125SLR100CM | 25,00 | 25,00 | 125,00  | 190,00 | 1,00 | ●      |

|         |     |         |     |
|---------|-----|---------|-----|
|         |     |         |     |
| 158-159 | 160 | 115-117 | 164 |

# KOR5™ DS & KOR6™ DT • 3 x D • Application Data • Metric



KOR5 DS 3 x D



KOR6 DT 3 x D

| Material Group |   |  |         | KC643M                      |   |     | Recommended feed per tooth (fz = mm/th) for side milling (A). |               |       |       |       |       |       |
|----------------|---|-----------------------------------------------------------------------------------|---------|-----------------------------|---|-----|---------------------------------------------------------------|---------------|-------|-------|-------|-------|-------|
|                |   | A                                                                                 |         | Cutting Speed — vc<br>m/min |   |     |                                                               | D1 — Diameter |       |       |       |       |       |
|                |   | ap                                                                                | ae      | min                         |   | max | mm                                                            | 8,0           | 10,0  | 12,0  | 16,0  | 20,0  | 25,0  |
| P              | 0 | 3 x D                                                                             | 0,1 x D | 150                         | — | 440 | fz                                                            | 0,072         | 0,086 | 0,099 | 0,121 | 0,137 | 0,149 |
|                | 1 | 3 x D                                                                             | 0,1 x D | 150                         | — | 440 | fz                                                            | 0,072         | 0,086 | 0,099 | 0,121 | 0,137 | 0,149 |
|                | 2 | 3 x D                                                                             | 0,1 x D | 140                         | — | 418 | fz                                                            | 0,072         | 0,086 | 0,099 | 0,121 | 0,137 | 0,149 |
|                | 3 | 3 x D                                                                             | 0,1 x D | 120                         | — | 352 | fz                                                            | 0,060         | 0,073 | 0,084 | 0,105 | 0,121 | 0,137 |
|                | 4 | 3 x D                                                                             | 0,1 x D | 90                          | — | 330 | fz                                                            | 0,054         | 0,065 | 0,075 | 0,092 | 0,106 | 0,117 |
|                | 5 | 3 x D                                                                             | 0,1 x D | 60                          | — | 220 | fz                                                            | 0,048         | 0,058 | 0,067 | 0,084 | 0,097 | 0,109 |
| M              | 6 | 3 x D                                                                             | 0,1 x D | 50                          | — | 165 | fz                                                            | 0,040         | 0,048 | 0,056 | 0,068 | 0,078 | 0,085 |
|                | 1 | 3 x D                                                                             | 0,1 x D | 90                          | — | 253 | fz                                                            | 0,060         | 0,073 | 0,084 | 0,105 | 0,121 | 0,137 |
|                | 2 | 3 x D                                                                             | 0,1 x D | 60                          | — | 176 | fz                                                            | 0,048         | 0,058 | 0,067 | 0,084 | 0,097 | 0,109 |
| K              | 3 | 3 x D                                                                             | 0,1 x D | 60                          | — | 154 | fz                                                            | 0,040         | 0,048 | 0,056 | 0,068 | 0,078 | 0,085 |
|                | 1 | 3 x D                                                                             | 0,1 x D | 120                         | — | 330 | fz                                                            | 0,072         | 0,086 | 0,099 | 0,121 | 0,137 | 0,149 |
|                | 2 | 3 x D                                                                             | 0,1 x D | 110                         | — | 308 | fz                                                            | 0,060         | 0,073 | 0,084 | 0,105 | 0,121 | 0,137 |
| S              | 3 | 3 x D                                                                             | 0,1 x D | 110                         | — | 286 | fz                                                            | 0,048         | 0,058 | 0,067 | 0,084 | 0,097 | 0,109 |
|                | 1 | 3 x D                                                                             | 0,1 x D | 50                          | — | 198 | fz                                                            | 0,060         | 0,073 | 0,084 | 0,105 | 0,121 | 0,137 |
|                | 2 | 3 x D                                                                             | 0,1 x D | 25                          | — | 88  | fz                                                            | 0,032         | 0,038 | 0,045 | 0,056 | 0,065 | 0,074 |
|                | 3 | 3 x D                                                                             | 0,1 x D | 25                          | — | 88  | fz                                                            | 0,032         | 0,038 | 0,045 | 0,056 | 0,065 | 0,074 |
| H              | 4 | 3 x D                                                                             | 0,1 x D | 50                          | — | 132 | fz                                                            | 0,044         | 0,053 | 0,062 | 0,077 | 0,089 | 0,100 |
|                | 1 | 3 x D                                                                             | 0,1 x D | 80                          | — | 308 | fz                                                            | 0,054         | 0,065 | 0,075 | 0,092 | 0,106 | 0,117 |
|                | 2 | 3 x D                                                                             | 0,1 x D | 70                          | — | 264 | fz                                                            | 0,040         | 0,048 | 0,056 | 0,068 | 0,078 | 0,085 |

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.

Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.

Side milling applications — for longest reach (L3) tools, reduce Ae by 30%.

For better surface finish, reduce feed per tooth.

## KOR5™ DS & KOR6™ DT • 5 x D • Application Data • Metric



KOR5 DS 5 x D



KOR6 DT 5 x D

| Material Group |  | KC643M   |          |                             |       | Recommended feed per tooth (fz = mm/th) for side milling (A). |       |               |       |       |       |       |       |
|----------------|-----------------------------------------------------------------------------------|----------|----------|-----------------------------|-------|---------------------------------------------------------------|-------|---------------|-------|-------|-------|-------|-------|
|                |                                                                                   | A        |          | Cutting Speed — vc<br>m/min |       |                                                               | mm    | D1 — Diameter |       |       |       |       |       |
|                |                                                                                   | ap       | ae       | min                         |       | max                                                           |       | 8,0           | 10,0  | 12,0  | 16,0  | 20,0  | 25,0  |
| P              | 0                                                                                 | 5 x D    | 0,05 x D | 150                         | —     | 540                                                           | fz    | 0,097         | 0,117 | 0,134 | 0,163 | 0,185 | 0,200 |
|                | 1                                                                                 | 5 x D    | 0,05 x D | 150                         | —     | 540                                                           | fz    | 0,097         | 0,117 | 0,134 | 0,163 | 0,185 | 0,200 |
|                | 2                                                                                 | 5 x D    | 0,05 x D | 140                         | —     | 513                                                           | fz    | 0,097         | 0,117 | 0,134 | 0,163 | 0,185 | 0,200 |
|                | 3                                                                                 | 5 x D    | 0,05 x D | 120                         | —     | 432                                                           | fz    | 0,081         | 0,098 | 0,114 | 0,141 | 0,164 | 0,184 |
|                | 4                                                                                 | 5 x D    | 0,05 x D | 90                          | —     | 405                                                           | fz    | 0,073         | 0,087 | 0,101 | 0,124 | 0,143 | 0,158 |
|                | 5                                                                                 | 5 x D    | 0,05 x D | 60                          | —     | 270                                                           | fz    | 0,065         | 0,078 | 0,091 | 0,113 | 0,131 | 0,147 |
| 6              | 5 x D                                                                             | 0,05 x D | 50       | —                           | 202,5 | fz                                                            | 0,054 | 0,065         | 0,075 | 0,092 | 0,105 | 0,115 |       |
| M              | 1                                                                                 | 5 x D    | 0,05 x D | 90                          | —     | 310,5                                                         | fz    | 0,081         | 0,098 | 0,114 | 0,141 | 0,164 | 0,184 |
|                | 2                                                                                 | 5 x D    | 0,05 x D | 60                          | —     | 216                                                           | fz    | 0,065         | 0,078 | 0,091 | 0,113 | 0,131 | 0,147 |
|                | 3                                                                                 | 5 x D    | 0,05 x D | 60                          | —     | 189                                                           | fz    | 0,054         | 0,065 | 0,075 | 0,092 | 0,105 | 0,115 |
| K              | 1                                                                                 | 5 x D    | 0,05 x D | 120                         | —     | 405                                                           | fz    | 0,097         | 0,117 | 0,134 | 0,163 | 0,185 | 0,200 |
|                | 2                                                                                 | 5 x D    | 0,05 x D | 110                         | —     | 378                                                           | fz    | 0,081         | 0,098 | 0,114 | 0,141 | 0,164 | 0,184 |
|                | 3                                                                                 | 5 x D    | 0,05 x D | 110                         | —     | 351                                                           | fz    | 0,065         | 0,078 | 0,091 | 0,113 | 0,131 | 0,147 |
| S              | 1                                                                                 | 5 x D    | 0,05 x D | 50                          | —     | 243                                                           | fz    | 0,081         | 0,098 | 0,114 | 0,141 | 0,164 | 0,184 |
|                | 2                                                                                 | 5 x D    | 0,05 x D | 25                          | —     | 108                                                           | fz    | 0,043         | 0,052 | 0,060 | 0,075 | 0,087 | 0,099 |
|                | 3                                                                                 | 5 x D    | 0,05 x D | 25                          | —     | 108                                                           | fz    | 0,043         | 0,052 | 0,060 | 0,075 | 0,087 | 0,099 |
|                | 4                                                                                 | 5 x D    | 0,05 x D | 50                          | —     | 162                                                           | fz    | 0,060         | 0,072 | 0,084 | 0,104 | 0,120 | 0,135 |
| H              | 1                                                                                 | 5 x D    | 0,05 x D | 80                          | —     | 378                                                           | fz    | 0,073         | 0,087 | 0,101 | 0,124 | 0,143 | 0,158 |
|                | 2                                                                                 | 5 x D    | 0,05 x D | 70                          | —     | 324                                                           | fz    | 0,054         | 0,065 | 0,075 | 0,092 | 0,105 | 0,115 |

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.

Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.

Side milling applications — for longest reach (L3) tools, reduce Ae by 30%.

For better surface finish, reduce feed per tooth.

## KOR5 DS & KOR6 DT • Adjustment Factor for Feed and Speed Calculation • Metric

|              | Ae/D | 2%      | 4%    | 5%      | 8%   | 10%  | 12%  | 20%  | 30%  | 40%  | 50% | 100% |
|--------------|------|---------|-------|---------|------|------|------|------|------|------|-----|------|
| Speed factor | Kv   | 2,1—3,6 | 1,6—3 | 1,6—2,5 | 1,6  | 1,4  | 1,38 | 1,3  | 1,2  | 1,1  | 1   | 0,9  |
| Feed factor  | KFz  | 3,58    | 2,56  | 2,3     | 1,84 | 1,67 | 1,54 | 1,25 | 1,09 | 1,02 | 1   | 1    |

NOTE: For an Ae/D ratio of 5% or less there is a range given for speed factor Kv, which allows the user to either be more conservative at the lower value or more aggressive with the higher value.

This can also be considered based on the machinability of the material, from difficult to free cutting.

These calculations are for roughing/semi-finishing cuts when used with the recommended base Fz.

For light finishing cuts requiring improved surface quality it is recommended to reduce the base Fz approximately 50% and then apply these factors.

To calculate application specific cutting data, please use KV coefficient table to the right for adaptation of cutting speed and KFz for feed respectively.

$$Vc_{new} = Vc \cdot Kv$$

$$Fz_{new} = IPT \cdot KFz$$

### Calculation example:

Application: D1 = 25mm, KOR5<sup>DS</sup> / KOR6<sup>DT</sup> 3 x D;

P5 material group;

Ae 2,5mm (Ae = 10% of D1)

Cutting data recommendation: 220m/min;

Fz = 0,109 mm/z

Adjustment coefficients: Ae = 2,5mm equals 10%;

Kv = 1,4; KFz = 1,67

### Final cutting data recommendation:

Vc new = 220 \* 1,4 = 308mm/min

Fz new = 0,109 \* 1,67 = 0,182mm/z

## KOR5™ DA • Application Data • Metric



| Material Group |   |  |  | K600      |                             |   | Recommended feed per tooth (fz = mm/th) |    |               |       |       |       |       |
|----------------|---|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------|-----------------------------|---|-----------------------------------------|----|---------------|-------|-------|-------|-------|
|                |   | A                                                                                 |                                                                                   | B         | Cutting Speed — vc<br>m/min |   |                                         |    | D1 — Diameter |       |       |       |       |
|                |   | ap                                                                                | ae                                                                                | ap        | min                         |   | max                                     | mm | 10,0          | 12,0  | 16,0  | 20,0  | 25,0  |
| N              | 1 | 0,5 x D1                                                                          | 0,5 x D1                                                                          | 0,25 x D1 | 200                         | — | 2000                                    | fz | 0,080         | 0,120 | 0,160 | 0,200 | 0,225 |
|                | 2 | 0,5 x D1                                                                          | 0,5 x D1                                                                          | 0,25 x D1 | 200                         | — | 1500                                    | fz | 0,070         | 0,110 | 0,140 | 0,180 | 0,213 |

NOTE: These guidelines may require variations to achieve optimum results. For better surface finish, reduce feed per tooth.

For cutting aluminum with high silicon, TiCN coating is recommended.

Ap for milling machine with ceramic bearings spindle, multiply by 0,5.

Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on >12mm diameter.

## KOR5™ DA • Adjustment Factor Table for Feed Calculation • Metric

| Ae/D1                 | 2%      | 5%      | 10%     | 20%     | 30%    | 40%    | 50%      | 100%      |
|-----------------------|---------|---------|---------|---------|--------|--------|----------|-----------|
| Max Ap                | Ap1 Max | Ap1 Max | Ap1 Max | Ap1 Max | 2 x D1 | 1 x D1 | 0,5 x D1 | 0,25 x D1 |
| Feed Multiplier (KFz) | 3,60    | 2,30    | 1,70    | 1,25    | 1,09   | 1,02   | 1,00     | 0,90      |

To calculate application specific cutting data, please use Kv coefficient table to the right for adaptation of cutting speed and KFz for feed respectively.

Fz new = IPT \* KFz

## Calculation example:

Application: D1 = 25mm;

N2 material group;

Ae 2,5mm (Ae = 10% of D1)

Cutting data recommendation: 1500m/min;

Fz = 0,213 mm/z

Adjustment coefficients: Ae = 2,5mm equals 10%;

KFz = 1,70

## Final cutting data recommendation:

Fz new = 0,213 \* 1,70 = 0,362 mm/z

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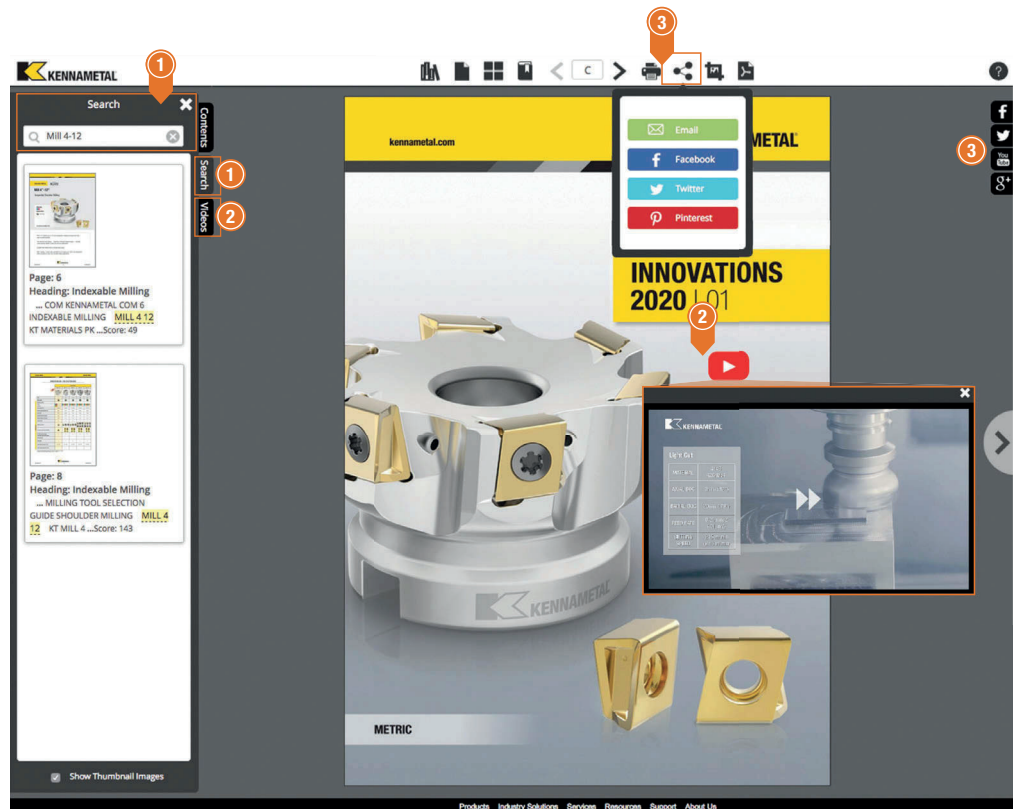
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