THE NEW VALUE FRONTIER

KYOCERA

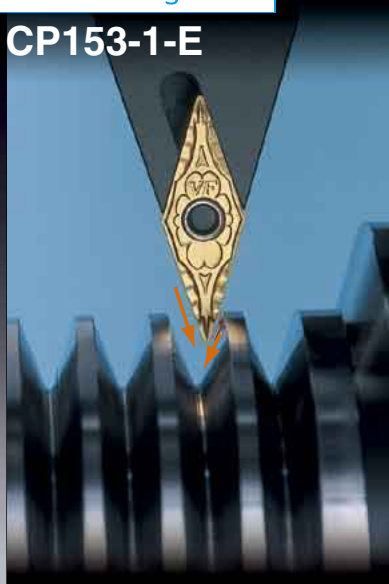
CERATIP®
KYOCERA Cutting Tools

CP153-1-E

# VF Chipbreaker

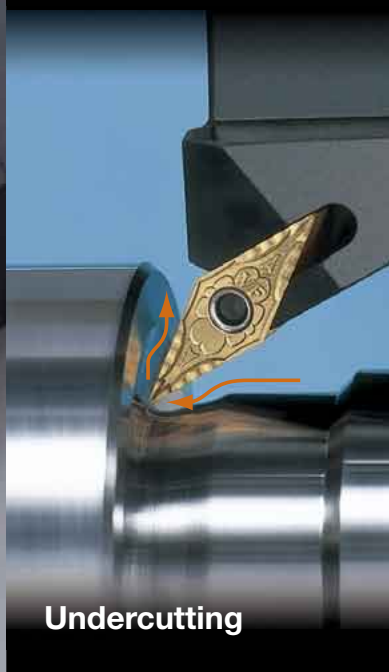
## VF Chipbreaker

**Good Chip Control for Variable D.O.C**
**( Undercutting and Profiling )**



V Pulley

Ball Stud



Undercutting

**New Positive Geometries Available**

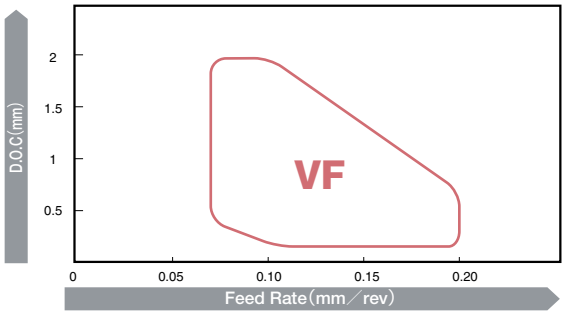
## Stock Items

| Shape | Description | | I.C. | Thickness | Hole | Corner-R | Relief Angle | Insert Grade: Cermet | PVD coated Cermet | | CVD coated Carbide | | | | | PVD coated Carbide | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | TN6020 | PV7020 | PV90 | CA5505 (New) | CA5515 (New) | CA5525 (New) | CA5535 (New) | CA5025 | PR930 | PR1025 (New) |
|  | VNMG | 160404VF | 9.525 | 4.76 | 3.81 | 0.4 | - | ● | ● | | | ● | ● | | ● | | |
| | | 160408VF | | | | 0.8 | | ● | ● | | | ● | ● | | ● | | |
| | | 160412VF | | | | 1.2 | | ● | ● | | | ● | ● | | ● | | |
| NEW  | VBMT | 110302VF | 6.35 | 3.18 | 2.8 | 0.2 | 5° | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | | | ▲ | ▲ |
| | | 110304VF | | | | 0.4 | | ● | ● | ● | ● | ● | ● | ● | | ● | ▲ |
| | | 110308VF | | | | 0.8 | | ● | ● | ● | ● | ● | ● | ● | | ● | ▲ |
| | VBMT | 160402VF | 9.525 | 4.76 | 4.4 | 0.2 | 5° | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | | | ▲ | ▲ |
| | | 160404VF | | | | 0.4 | | ● | ● | ● | ● | ● | ● | ● | | ● | ▲ |
| | | 160408VF | | | | 0.8 | | ● | ● | ● | ● | ● | ● | ● | | ● | ▲ |
| | | 160412VF | | | | 1.2 | | ● | ● | ● | ● | ● | ● | ● | | ● | ▲ |
| NEW  | VCMT | 080202VF | 4.76 | 2.38 | 2.3 | 0.2 | 7° | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | | | ▲ | ▲ |
| | | 080204VF | | | | 0.4 | | ● | ● | ● | ● | ● | ● | ● | | ● | ▲ |

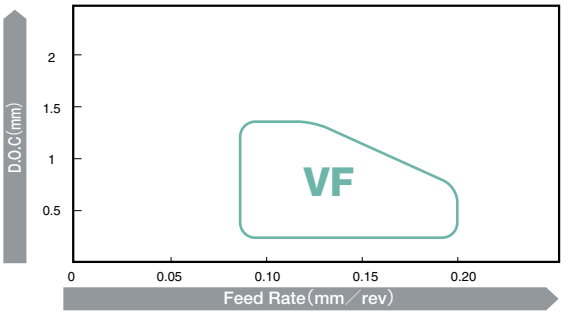
● : Standard Stock ▲ : Scheduled to be Stocked in January 2007

## Chip Control Range

(VNMG160408VF : Steel )



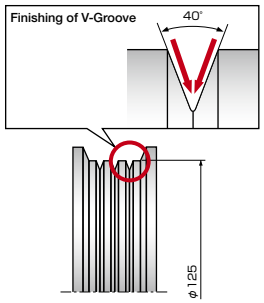

(VBMT160404VF : Steel )




## Case Studies

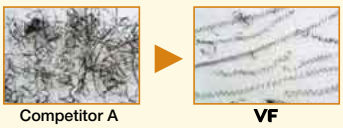
### S12C

- V-Pulley
- V=700m/min
- d=0.2mm
- f=0.2mm/rev
- Wet
- VNMG160404VF (PV7020)




| VF Chipbreaker | 180pcs/edge |
|---|---|
| Competitor A | 90pcs/edge |

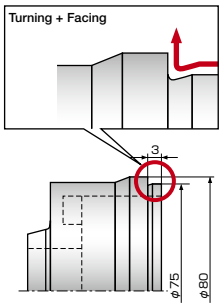
VF Chipbreaker insert showed stabler machining and better chip control than Competitor A while doubling its tool life.




Evaluation from the user

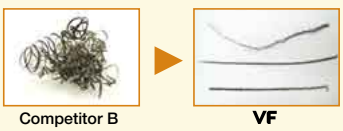
### SCr420H

- Housing
- V=220m/min
- d=0.2～1.2mm
- f=0.15mm/rev
- Wet
- VNMG160404VF (CA5025)




| VF Chipbreaker | 600pcs/edge |
|---|---|
| Competitor B | 400pcs/edge |

VF Chipbreaker insert (CA5025) improved the surface finish by improving chip control compared with Competitor B. It also improved the tool life 150%.




Evaluation from the user