

## FRAISES À ÉBAVURER à trou

La fraise à ébavurer à trou est plus particulièrement conçue pour l'ébavurage, l'exécution des petits chanfreins et pour une utilisation dans les métaux légers et plastiques. L'empreinte obtenue est lisse et sans bavure.

## DEBURRING TOOL With Hole

The deburring tool with hole is particularly designed for countersinking, the execution of small chamfers, and for use with light metals and plastics. The surface obtained is smooth and burr free.

## HERRAMIENTA DE DESBARBAR Con agujero

La herramienta de desbarbar con agujero está particularmente diseñada para el avellanado, la ejecución de pequeños chaflanes y para la utilización con metales ligeros y plásticos. La superficie obtenida es lisa y sin rebabas.

## FRESE PER SBAVARE con foro

La fresa con foro per sbavare è specificamente studiata per la sbavatura, l'esecuzione di piccoli smussi e per un impiego su leghe leggere e materie plastiche. L'impronta ottenuta è liscia e non presenta bave.

## Special aluminium


60° - 82° - 90° - 100° - 120°



| $\alpha$<br>- 1°          | D<br>+ 0,3        | Capacité<br>Capacity<br>Capacidad<br>mini ~ maxi | d<br>h9           | L<br>± 1 | magafor | $\alpha$<br>- 1°           | TiN |
|---------------------------|-------------------|--|-------------------|----------|---------|----------------------------|-----|
| <b>60°</b><br><b>412</b>  | 10                | 5 ~ 9  | 6                 | 49       |         | <b>60°</b><br><b>4812</b>  |     |
|                           | 15                | 8 ~ 14   | 8                 | 60       |         |                            |     |
|                           | 20                | 10 ~ 18  | 10                | 71       |         |                            |     |
|                           | 25                | 12 ~ 23  | 12                | 85       |         |                            |     |
|                           | 30                | 15 ~ 28  | 12                | 96       |         |                            |     |
| <b>82°</b><br><b>414</b>  | 35                | 17 ~ 33  | 16 <sup>(3)</sup> | 117      |         | <b>82°</b><br><b>4814</b>  |     |
|                           | 10                | 4 ~ 9  | 6                 | 46       |         |                            |     |
|                           | 15                | 6 ~ 14   | 8                 | 56       |         |                            |     |
|                           | 20                | 8 ~ 18   | 10                | 66       |         |                            |     |
|                           | 25                | 10 ~ 23  | 12                | 76       |         |                            |     |
| <b>90°</b><br><b>411</b>  | 30                | 12 ~ 28  | 12                | 89       |         | <b>90°</b><br><b>4811</b>  |     |
|                           | 35                | 14 ~ 33  | 16 <sup>(3)</sup> | 108      |         |                            |     |
|                           | 10 <sup>(1)</sup> | 2 ~ 5  | 6                 | 45       |         |                            |     |
|                           | 10 <sup>(1)</sup> | 4 ~ 9  | 6                 | 45       |         |                            |     |
|                           | 15                | 6 ~ 14   | 6 <sup>(2)</sup>  | 48       |         |                            |     |
|                           | 15                | 6 ~ 14   | 8 <sup>(2)</sup>  | 55       |         |                            |     |
|                           | 20                | 8 ~ 18   | 10                | 65       |         |                            |     |
|                           | 25                | 10 ~ 23  | 12                | 78       |         |                            |     |
| <b>100°</b><br><b>415</b> | 28                | 11 ~ 26  | 12                | 78       |         | <b>100°</b><br><b>4815</b> |     |
|                           | 30                | 12 ~ 28  | 12                | 87       |         |                            |     |
|                           | 35                | 14 ~ 33  | 16 <sup>(3)</sup> | 106      |         |                            |     |
|                           | 40                | 16 ~ 38  | 16 <sup>(3)</sup> | 121      |         |                            |     |
|                           | 50                | 20 ~ 48  | 16 <sup>(3)</sup> | 130      |         |                            |     |
| <b>120°</b><br><b>413</b> | 10                | 4 ~ 9  | 6                 | 44       |         | <b>120°</b><br><b>4813</b> |     |
|                           | 15                | 6 ~ 14   | 8                 | 54       |         |                            |     |
|                           | 20                | 7 ~ 18   | 10                | 63       |         |                            |     |
|                           | 25                | 9 ~ 23   | 12                | 76       |         |                            |     |
|                           | 30                | 11 ~ 28  | 12                | 85       |         |                            |     |
|                           | 35                | 13 ~ 33  | 16 <sup>(3)</sup> | 103      |         |                            |     |
|                           | 10                | 4 ~ 9  | 6                 | 43       |         |                            |     |
|                           | 15                | 5 ~ 14   | 8                 | 52       |         |                            |     |
|                           | 20                | 6 ~ 18   | 10                | 61       |         |                            |     |
|                           | 25                | 8 ~ 23   | 12                | 68       |         |                            |     |
|                           | 30                | 10 ~ 28  | 12                | 82       |         |                            |     |
|                           | 35                | 12 ~ 33  | 16 <sup>(3)</sup> | 99       |         |                            |     |

(1) Préciser la capacité sur vos commandes  
Precisar la capacidad en el pedido

(2) Préciser le Ø de queue sur vos commandes  
Precisar el Ø de mango en el pedido

(3)  Queue avec 3 plats = serrage efficace  
Mango con 3 planos = sujeción eficaz

Please mention capacity when ordering  
Sugli ordini precisare la capacità  
Please mention the shank Ø when ordering  
Nei vostri ordini precisare Ø del codolo  
effective holding = shank with 3 flats  
Codolo con 3 piani = bloccaggio efficace

performances

Page  
Pagina 64

Vidéo ou live



www.magafor.com



## 60° - 82° - 90°

| $\alpha$<br>-1°          | D + 0,3<br># mm (inch)       | Capacité<br>Capacity<br>Capacidad<br>mini ~ maxi | d<br>h9 ±1 | L<br>±1 | magafor | $\alpha$<br>-1°           | TiN |
|--------------------------|------------------------------|--|------------|---------|---------|---------------------------|-----|
| <b>60°</b><br><b>412</b> | 0 6,35 (1/4") <sup>(1)</sup> | 3 ~ 5  | 6,35       | 45      |         | <b>60°</b><br><b>4812</b> |     |
|                          | 1 11,2 (7/16")               | 5 ~ 10   | 6,35       | 45      |         |                           |     |
|                          | 2 14,0 (9/16")               | 7 ~ 13   | 6,35       | 50      |         |                           |     |
|                          | 3 20,4 (13/16")              | 10 ~ 18  | 12,7       | 66      |         |                           |     |
|                          | 4 30,1 (1-3/16")             | 15 ~ 28  | 12,7       | 87      |         |                           |     |
| <b>82°</b><br><b>414</b> | 0 6,35 (1/4") <sup>(1)</sup> | 2 ~ 5  | 6,35       | 45      |         | <b>82°</b><br><b>4814</b> |     |
|                          | 1 11,2 (7/16")               | 5 ~ 10   | 6,35       | 46      |         |                           |     |
|                          | 2 14,0 (9/16")               | 6 ~ 13   | 6,35       | 50      |         |                           |     |
|                          | 3 20,4 (13/16")              | 9 ~ 18   | 12,7       | 66      |         |                           |     |
|                          | 4 30,1 (1-3/16")             | 12 ~ 28  | 12,7       | 80      |         |                           |     |
| <b>90°</b><br><b>411</b> | 0 6,35 (1/4") <sup>(1)</sup> | 2 ~ 5  | 6,35       | 45      |         | <b>90°</b><br><b>4811</b> |     |
|                          | 1 11,2 (7/16")               | 5 ~ 10   | 6,35       | 45      |         |                           |     |
|                          | 2 14,0 (9/16")               | 6 ~ 13   | 6,35       | 50      |         |                           |     |
|                          | 3 20,4 (13/16")              | 9 ~ 18   | 12,7       | 66      |         |                           |     |
|                          | 4 30,1 (1-3/16")             | 12 ~ 28  | 12,7       | 78      |         |                           |     |

(1) Fraise double Double end cutter Fresas doble punta Frese doppie

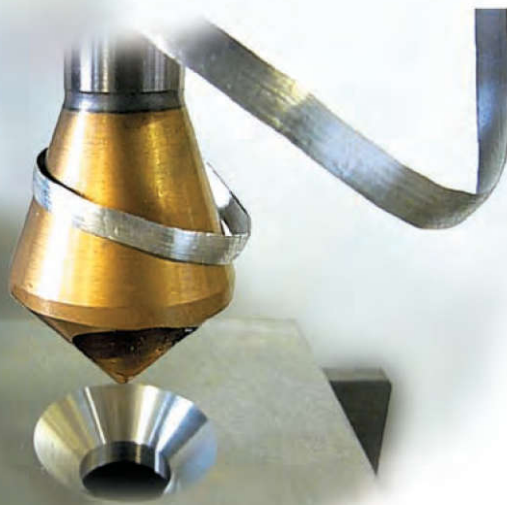
## CÔNES MORSE MORSE TAPER CONO MORSE



## 60° - 90° - 120°

| $\alpha$<br>-1°           | D<br>+ 0,3               | Capacité<br>Capacity<br>Capacidad<br>mini ~ maxi | MORSE<br>N° * | L<br>± 1 | magafor |    |  |
|---------------------------|--------------------------|--|---------------|----------|---------|----|--|
| <b>60°</b><br><b>412</b>  | 20                       | 10 ~ 18  | 1             | 97       |         |    |  |
|                           | 25                       | 12 ~ 23  | 1             | 104      |         |    |  |
|                           | 30                       | 15 ~ 28  | 2             | 125      |         |    |  |
|                           | 40                       | 20 ~ 38  | 2             | 160      |         |    |  |
|                           | 45                       | 22 ~ 43  | 3             | 158      |         |    |  |
|                           | 50                       | 25 ~ 48  | 3             | 170      |         |    |  |
|                           | 60                       | 30 ~ 58  | 3             | 175      |         |    |  |
|                           | 80                       | 40 ~ 77  | 4             | 253      |         |    |  |
|                           | <b>90°</b><br><b>411</b> | 15   | 6 ~ 14        | 1        |         | 91 |  |
|                           |                          | 20   | 8 ~ 18        | 1        |         | 94 |  |
| 25                        |                          | 10 ~ 23  | 1             | 101      |         |    |  |
| 30                        |                          | 12 ~ 28  | 2             | 120      |         |    |  |
| 35                        |                          | 14 ~ 33  | 2             | 134      |         |    |  |
| 40                        |                          | 16 ~ 38  | 2             | 149      |         |    |  |
| 40                        |                          | 16 ~ 38  | 3             | 164      |         |    |  |
| 50                        |                          | 20 ~ 48  | 2             | 158      |         |    |  |
| 50                        |                          | 20 ~ 48  | 3             | 172      |         |    |  |
| 63                        |                          | 26 ~ 60  | 3             | 184      |         |    |  |
| <b>120°</b><br><b>413</b> | 80                       | 32 ~ 77  | 4             | 229      |         |    |  |
|                           | 20                       | 6 ~ 18   | 1             | 92       |         |    |  |
|                           | 30                       | 10 ~ 28  | 2             | 117      |         |    |  |
|                           | 35                       | 12 ~ 33  | 2             | 112      |         |    |  |
|                           | 40                       | 14 ~ 38  | 3             | 153      |         |    |  |
|                           | 50                       | 16 ~ 48  | 2             | 149      |         |    |  |
| 50                        | 16 ~ 48                  | 3  | 151           |          |         |    |  |

\* Préciser le n° du cône Morse sur vos commandes  
Please mention the MT number when ordering  
Especificar el CM en el pedido  
Precisare nei vostri ordini il cono Morse desiderato



Promo-kits



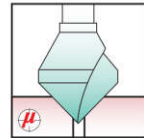
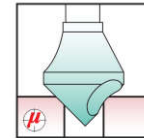
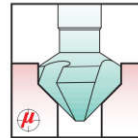
## 60° - 82° - 90° - 100° - 120°

| COMPOSITION<br>COMPOSICIÓN<br>COMPOSIZIONE                         | $\alpha$    | magafor         |
|--|-------------|-----------------|
| 5 fraises cutters<br>fresas frese<br>Ø 10 - 15 - 20<br>25 - 30     | <b>60°</b>  | <b>412</b>      |
|  |             | <b>4812 TiN</b> |
|  | <b>82°</b>  | <b>414</b>      |
|  |             | <b>4814 TiN</b> |
|  | <b>90°</b>  | <b>411</b>      |
|  |             | <b>4811 TiN</b> |
| <b>100°</b>  | <b>415</b>  |                 |
|  | <b>4815</b> |                 |
| <b>120°</b>  | <b>413</b>  |                 |
|  | <b>4813</b> |                 |
| 5 fraises cutters<br>fresas frese<br>(inch)<br># 0 - 1 - 2 - 3 - 4 | <b>60°</b>  | <b>412/5</b>    |
|  | <b>82°</b>  | <b>414/5</b>    |
|  | <b>90°</b>  | <b>411/5</b>    |

# performances

Vc = vitesse speed velocidad velocidad = m/min.  
 Vf = avance feed avance avanzamento = mm/min.  
 $\frac{Vc \times 1000}{\pi \times \varnothing} =$  Tours par min. Rev. / min.  
 Giri / min. revoluciones por minuto.

## ÉBAVURAGE - CHANFREINAGE DEBURRING - COUNTERSINKING DESBARBADO - AVELLANADO SVASATURA - SBAVATURA



Recommandation  
 Recomendación  
 Suggestimento

N° 1

N° 2

Autres  
 Otros

Others

Altre soluzioni

| MATIÈRE<br>MATERIAL<br>MATERIALE  |                          | HSS-Co                     | HSS-Co<br>+ TiN            | HSS<br>8% Co               | HSS<br>8% Co<br>+ Red'X    | Carbure<br>Carbide<br>Metallo<br>Duro | Carbure<br>Carbide<br>+ Hard'X | HSS-Co                      | HSS-Co<br>+ TiN             | HSS-Co                      | HSS-Co<br>+ TiN             |
|---|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---------------------------------------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Pages Páginas Pagina  |                          | 47 ~ 57                    |                            | 49                         |                            | 49 ~ 56                               |                                | 60 - 61                     |                             | 62 - 63                     |                             |
| Aciers<br>Steels<br>Aceros Acciai<br>≤ 500 N/mm <sup>2</sup>                              | Vc<br>Ø 10<br>Vf<br>Ø 30 | 17~22<br>85<br>45<br>30    | 17~22<br>85<br>45<br>30    | 35~45<br>165<br>85<br>55   | 35~45<br>165<br>85<br>55   | 40~80<br>250<br>125<br>85             | 40~80<br>250<br>125<br>85      | 35~45<br>165<br>85<br>55    | 35~45<br>165<br>85<br>55    | 35~45<br>165<br>85<br>55    | 35~45<br>165<br>85<br>55    |
| Aciers<br>Steels<br>Aceros Acciai<br>500 ~ 800 N/mm <sup>2</sup>                          | Vc<br>Ø 10<br>Vf<br>Ø 30 | 10~15<br>60<br>30<br>20    | 10~15<br>60<br>30<br>20    | 20~30<br>110<br>55<br>35   | 20~30<br>110<br>55<br>35   | 30~60<br>170<br>85<br>60              | 30~60<br>170<br>85<br>60       | 20~30<br>110<br>55<br>35    | 20~30<br>110<br>55<br>35    | 20~30<br>110<br>55<br>35    | 20~30<br>110<br>55<br>35    |
| Aciers<br>Steels<br>Aceros Acciai<br>800 ~ 1000 N/mm <sup>2</sup>                         | Vc<br>Ø 10<br>Vf<br>Ø 30 | 8~12<br>35<br>25<br>15     | 8~12<br>35<br>25<br>15     | 16~20<br>55<br>35<br>25    | 16~20<br>55<br>35<br>25    | 20~40<br>100<br>60<br>45              | 20~40<br>100<br>60<br>45       | 15~20<br>55<br>35<br>25     | 15~20<br>55<br>35<br>25     | 15~20<br>55<br>35<br>25     | 15~20<br>55<br>35<br>25     |
| Inox<br>Stainless steel<br>Aceros Inoxidables<br>1000 ~ 1300 N/mm <sup>2</sup>            | Vc<br>Ø 10<br>Vf<br>Ø 30 | 6~10<br>30<br>15<br>10     | 6~10<br>30<br>15<br>10     | 12~15<br>45<br>25<br>20    | 12~15<br>45<br>25<br>20    | 20~40<br>100<br>60<br>40              | 20~40<br>100<br>60<br>40       | 12~15<br>45<br>25<br>20     | 12~15<br>45<br>25<br>20     | 12~15<br>45<br>25<br>20     | 12~15<br>45<br>25<br>20     |
| Acier anti-abrasion<br>Abrasive tough<br>Steel < 420 HB<br>Acero resistente a la abrasión | Vc<br>Ø 10<br>Vf<br>Ø 30 |                            |                            | 12~15<br>40<br>30<br>20    | 12~15<br>40<br>30<br>20    | 15~20<br>55<br>35<br>25               | 15~20<br>55<br>35<br>25        |                             |                             |                             |                             |
| Bronze dur<br>Inconel, Nimonic<br>Hard bronze<br>Bronze/Bronzo duro                       | Vc<br>Ø 10<br>Vf<br>Ø 30 |                            |                            | 4~6<br>16<br>8<br>6        | 4~6<br>16<br>8<br>6        | 10~12<br>30<br>16<br>10               | 10~12<br>30<br>16<br>10        |                             |                             |                             |                             |
| Acier traité<br>Treated steel<br>≥ 60 HRC<br>Acero tratado Acciai trattati                | Vc<br>Ø 10<br>Vf<br>Ø 30 |                            |                            |                            |                            | 8~10<br>20<br>10<br>8                 | 10~12<br>30<br>16<br>10        |                             |                             |                             |                             |
| Fonte<br>Cast iron<br>Fundición<br>Ghisa  | Vc<br>Ø 10<br>Vf<br>Ø 30 | 15~25<br>70<br>40<br>30    | 15~25<br>70<br>40<br>30    | 20~40<br>125<br>75<br>50   | 20~40<br>125<br>75<br>50   | 40~80<br>250<br>150<br>100            | 40~80<br>250<br>150<br>100     | 20~40<br>125<br>75<br>50    | 20~40<br>125<br>75<br>50    | 20~40<br>125<br>75<br>50    | 20~40<br>125<br>75<br>50    |
| Aluminium<br>Alluminio  | Vc<br>Ø 10<br>Vf<br>Ø 30 | 35~45<br>200<br>130<br>110 | 35~45<br>200<br>130<br>110 | 50~60<br>255<br>180<br>150 | 50~60<br>255<br>180<br>150 | 40~100<br>350<br>230<br>200           | 40~100<br>350<br>230<br>200    | 50~60<br>255<br>180<br>150  | 50~60<br>255<br>180<br>150  | 50~60<br>255<br>180<br>150  | 50~60<br>255<br>180<br>150  |
| Laiton Brass<br>Bronze<br>Latòn - Bronce<br>Bronzo  | Vc<br>Ø 10<br>Vf<br>Ø 30 | 20~30<br>120<br>85<br>70   | 20~30<br>120<br>85<br>70   | 30~40<br>150<br>110<br>90  | 30~40<br>150<br>110<br>90  |                                       |                                | 30~40<br>150<br>110<br>90   | 30~40<br>150<br>110<br>90   | 30~40<br>150<br>110<br>90   | 30~40<br>150<br>110<br>90   |
| Cuivre<br>Copper<br>Cobre<br>Rame   | Vc<br>Ø 10<br>Vf<br>Ø 30 | 15~25<br>95<br>60<br>45    | 15~25<br>95<br>60<br>45    | 20~30<br>120<br>80<br>65   | 20~30<br>120<br>80<br>65   | 50~80<br>300<br>200<br>175            | 50~80<br>300<br>200<br>175     | 20~30<br>120<br>80<br>65    | 20~30<br>120<br>80<br>65    | 20~30<br>120<br>80<br>65    | 20~30<br>120<br>80<br>65    |
| Stratifié<br>Laminated<br>Laminados<br>Laminati   | Vc<br>Ø 10<br>Vf<br>Ø 30 | 35~70<br>300<br>200<br>150 | 35~70<br>300<br>200<br>150 | 35~70<br>300<br>200<br>150 | 35~70<br>300<br>200<br>150 |                                       |                                | 50~100<br>400<br>300<br>250 | 50~100<br>400<br>300<br>250 | 50~100<br>400<br>300<br>250 | 50~100<br>400<br>300<br>250 |
| Nylon<br>PVC<br>Plastics / Plásticos<br>Plastiche   | Vc<br>Ø 10<br>Vf<br>Ø 30 | 35~70<br>400<br>300<br>250 | 35~70<br>400<br>300<br>250 | 35~70<br>400<br>300<br>250 | 35~70<br>400<br>300<br>250 |                                       |                                | 50~100<br>450<br>350<br>300 | 50~100<br>450<br>350<br>300 | 50~100<br>450<br>350<br>300 | 50~100<br>450<br>350<br>300 |