

# 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       |         |                            |     |
|                           | 28                | 11 ~ 26  | 12                | 78       |         |                            |     |
| <b>100°</b><br><b>415</b> | 30                | 12 ~ 28  | 12                | 87       |         | <b>100°</b><br><b>4815</b> |     |
|                           | 35                | 14 ~ 33  | 16 <sup>(3)</sup> | 106      |         |                            |     |
|                           | 40                | 16 ~ 38  | 16 <sup>(3)</sup> | 121      |         |                            |     |
|                           | 50                | 20 ~ 48  | 16 <sup>(3)</sup> | 130      |         |                            |     |
|                           | 10                | 4 ~ 9  | 6                 | 44       |         |                            |     |
| <b>120°</b><br><b>413</b> | 15                | 5 ~ 14   | 8                 | 52       |         | <b>120°</b><br><b>4813</b> |     |
|                           | 20                | 6 ~ 18   | 10                | 61       |         |                            |     |
|                           | 25                | 8 ~ 23   | 12                | 68       |         |                            |     |
|                           | 30                | 10 ~ 28  | 12                | 82       |         |                            |     |
|                           | 35                | 12 ~ 33  | 16 <sup>(3)</sup> | 99       |         |                            |     |

## 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.

(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

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Pagina 64

Vidéo ou live



www.magafor.com



### 60° - 82° - 90°

| $\alpha$<br>-1°          | # | D + 0,3<br>mm (inch) | Capacité<br>Capacity     |         | L<br>±1 | magafor     | $\alpha$<br>-1° | TiN |
|--------------------------|---|----------------------|--------------------------|---------|---------|-------------|-----------------|-----|
|                          |   |                      | Capacidad<br>mini ~ maxi | d<br>h9 |         |             |                 |     |
| <b>60°</b><br><b>412</b> | 0 | 6,35 (1/4") (1)      | 3 ~ 5                    | 6,35    | 45      | <b>4812</b> | <b>60°</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") (1)      | 2 ~ 5                    | 6,35    | 45      | <b>4814</b> | <b>82°</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") (1)      | 2 ~ 5                    | 6,35    | 45      | <b>4811</b> | <b>90°</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

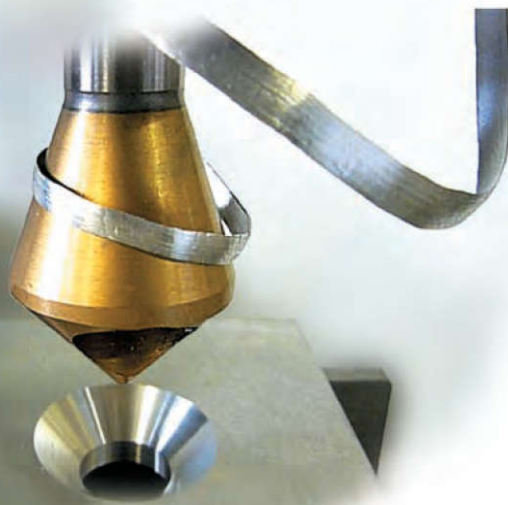
### CÔNES MORSE MORSE TAPER CONO MORSE



### 60° - 90° - 120°

| $\alpha$<br>-1°           | D<br>+ 0,3 | Capacité<br>Capacity |                          | L<br>±1 | magafor     |
|---------------------------|------------|----------------------|--------------------------|---------|-------------|
|                           |            | MORSE<br>N° *        | Capacidad<br>mini ~ maxi |         |             |
| <b>60°</b><br><b>412</b>  | 20         | 10 ~ 18              | 1                        | 97      | <b>4812</b> |
|                           | 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     |             |
|                           | 15         | 6 ~ 14               | 1                        | 91      |             |
|                           | 20         | 8 ~ 18               | 1                        | 94      |             |
| <b>90°</b><br><b>411</b>  | 25         | 10 ~ 23              | 1                        | 101     | <b>4811</b> |
|                           | 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     |             |
|                           | 80         | 32 ~ 77              | 4                        | 229     |             |
|                           | 20         | 6 ~ 18               | 1                        | 92      |             |
| <b>120°</b><br><b>413</b> | 30         | 10 ~ 28              | 2                        | 117     | <b>4813</b> |
|                           | 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>    |

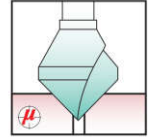
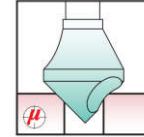
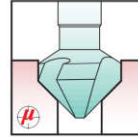
# performances

Vc = vitesse speed velocidad velocità = 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  
Suggerimento

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                        | Vc | 17~22   | 17~22           | 35~45        | 35~45                   | 40~80                                 | 40~80                          | 35~45   | 35~45           | 35~45   | 35~45           |
| Ø 10                                    |    | 85      | 85              | 165          | 165                     | 250                                   | 250                            | 165     | 165             | 165     | 165             |
| Aceros Acciai<br>≤ 500 N/mm²            | Vf | 45      | 45              | 85           | 85                      | 125                                   | 125                            | 85      | 85              | 85      | 85              |
| Ø 30                                    |    | 30      | 30              | 55           | 55                      | 85                                    | 85                             | 55      | 55              | 55      | 55              |
| Aciers<br>Steels                        | Vc | 10~15   | 10~15           | 20~30        | 20~30                   | 30~60                                 | 30~60                          | 20~30   | 20~30           | 20~30   | 20~30           |
| Ø 10                                    |    | 60      | 60              | 110          | 110                     | 170                                   | 170                            | 110     | 110             | 110     | 110             |
| Aceros Acciai<br>500 ~ 800 N/mm²        | Vf | 30      | 30              | 55           | 55                      | 85                                    | 85                             | 55      | 55              | 55      | 55              |
| Ø 30                                    |    | 20      | 20              | 35           | 35                      | 60                                    | 60                             | 35      | 35              | 35      | 35              |
| Aciers<br>Steels                        | Vc | 8~12    | 8~12            | 16~20        | 16~20                   | 20~40                                 | 20~40                          | 15~20   | 15~20           | 15~20   | 15~20           |
| Ø 10                                    |    | 35      | 35              | 55           | 55                      | 100                                   | 100                            | 55      | 55              | 55      | 55              |
| Aceros Acciai<br>800 ~ 1000 N/mm²       | Vf | 25      | 25              | 35           | 35                      | 60                                    | 60                             | 35      | 35              | 35      | 35              |
| Ø 30                                    |    | 15      | 15              | 25           | 25                      | 45                                    | 45                             | 25      | 25              | 25      | 25              |
| Inox<br>Stainless steel                 | Vc | 6~10    | 6~10            | 12~15        | 12~15                   | 20~40                                 | 20~40                          | 12~15   | 12~15           | 12~15   | 12~15           |
| Ø 10                                    |    | 30      | 30              | 45           | 45                      | 100                                   | 100                            | 45      | 45              | 45      | 45              |
| Aceros Inoxidables<br>1000 ~ 1300 N/mm² | Vf | 15      | 15              | 25           | 25                      | 60                                    | 60                             | 25      | 25              | 25      | 25              |
| Ø 30                                    |    | 10      | 10              | 20           | 20                      | 40                                    | 40                             | 20      | 20              | 20      | 20              |
| Acier anti-abrasion<br>Abrasive tough   | Vc |         |                 |              | 12~15                   | 15~20                                 | 15~20                          |         |                 |         |                 |
| Ø 10                                    |    |         |                 |              | 40                      | 55                                    | 55                             |         |                 |         |                 |
| Steel < 420 HB                          | Vf |         |                 |              | 30                      | 35                                    | 35                             |         |                 |         |                 |
| Ø 20                                    |    |         |                 |              | 20                      | 25                                    | 25                             |         |                 |         |                 |
| Acero resistente a la abrasión<br>Ø 30  |    |         |                 |              | 20                      | 25                                    | 25                             |         |                 |         |                 |
| Bronze dur<br>Inconel, Nimonic          | Vc |         |                 | 4~6          | 4~6                     | 10~12                                 | 10~12                          |         |                 |         |                 |
| Ø 10                                    |    |         |                 | 16           | 16                      | 30                                    | 30                             |         |                 |         |                 |
| Hard bronze<br>Ø 20                     | Vf |         |                 | 8            | 8                       | 16                                    | 16                             |         |                 |         |                 |
| Ø 30                                    |    |         |                 | 6            | 6                       | 10                                    | 10                             |         |                 |         |                 |
| Bronze/Bronzo duro                      |    |         |                 |              |                         |                                       |                                |         |                 |         |                 |
| Acier traité<br>Treated steel           | Vc |         |                 |              |                         | 8~10                                  | 10~12                          |         |                 |         |                 |
| Ø 10                                    |    |         |                 |              |                         | 20                                    | 30                             |         |                 |         |                 |
| ≥ 60 HRC<br>Ø 20                        | Vf |         |                 |              |                         | 10                                    | 16                             |         |                 |         |                 |
| Acero tratado Acciai trattati<br>Ø 30   |    |         |                 |              |                         | 8                                     | 10                             |         |                 |         |                 |
| Fonte<br>Cast iron                      | Vc | 15~25   | 15~25           | 20~40        | 20~40                   | 40~80                                 | 40~80                          | 20~40   | 20~40           | 20~40   | 20~40           |
| Ø 10                                    |    | 70      | 70              | 125          | 125                     | 250                                   | 250                            | 125     | 125             | 125     | 125             |
| Fundición<br>Ø 20                       | Vf | 40      | 40              | 75           | 75                      | 150                                   | 150                            | 75      | 75              | 75      | 75              |
| Ghisa<br>Ø 30                           |    | 30      | 30              | 50           | 50                      | 100                                   | 100                            | 50      | 50              | 50      | 50              |
| Aluminium<br>Alluminio                  | Vc | 35~45   | 35~45           | 50~60        | 50~60                   | 40~100                                | 40~100                         | 50~60   | 50~60           | 50~60   | 50~60           |
| Ø 10                                    |    | 200     | 200             | 255          | 255                     | 350                                   | 350                            | 255     | 255             | 255     | 255             |
| Ø 20                                    | Vf | 130     | 130             | 180          | 180                     | 230                                   | 230                            | 180     | 180             | 180     | 180             |
| Ø 30                                    |    | 110     | 110             | 150          | 150                     | 200                                   | 200                            | 150     | 150             | 150     | 150             |
| Laiton Brass<br>Bronze                  | Vc | 20~30   | 20~30           | 30~40        | 30~40                   |                                       |                                | 30~40   | 30~40           | 30~40   | 30~40           |
| Ø 10                                    |    | 120     | 120             | 150          | 150                     |                                       |                                | 150     | 150             | 150     | 150             |
| Latòn - Bronce<br>Ø 20                  | Vf | 85      | 85              | 110          | 110                     |                                       |                                | 110     | 110             | 110     | 110             |
| Bronzo<br>Ø 30                          |    | 70      | 70              | 90           | 90                      |                                       |                                | 90      | 90              | 90      | 90              |
| Cuivre<br>Copper                        | Vc | 15~25   | 15~25           | 20~30        | 20~30                   | 50~80                                 | 50~80                          | 20~30   | 20~30           | 20~30   | 20~30           |
| Ø 10                                    |    | 95      | 95              | 120          | 120                     | 300                                   | 300                            | 120     | 120             | 120     | 120             |
| Cobre<br>Ø 20                           | Vf | 60      | 60              | 80           | 80                      | 200                                   | 200                            | 80      | 80              | 80      | 80              |
| Rame<br>Ø 30                            |    | 45      | 45              | 65           | 65                      | 175                                   | 175                            | 65      | 65              | 65      | 65              |
| Stratifié<br>Laminated                  | Vc | 35~70   | 35~70           | 35~70        | 35~70                   |                                       |                                | 50~100  | 50~100          | 50~100  | 50~100          |
| Ø 10                                    |    | 300     | 300             | 300          | 300                     |                                       |                                | 400     | 400             | 400     | 400             |
| Laminados<br>Ø 20                       | Vf | 200     | 200             | 200          | 200                     |                                       |                                | 300     | 300             | 300     | 300             |
| Laminati<br>Ø 30                        |    | 150     | 150             | 150          | 150                     |                                       |                                | 250     | 250             | 250     | 250             |
| Nylon<br>PVC                            | Vc | 35~70   | 35~70           | 35~70        | 35~70                   |                                       |                                | 50~100  | 50~100          | 50~100  | 50~100          |
| Ø 10                                    |    | 400     | 400             | 400          | 400                     |                                       |                                | 450     | 450             | 450     | 450             |
| Plastics / Plásticos<br>Ø 20            | Vf | 300     | 300             | 300          | 300                     |                                       |                                | 350     | 350             | 350     | 350             |
| Plastiche<br>Ø 30                       |    | 250     | 250             | 250          | 250                     |                                       |                                | 300     | 300             | 300     | 300             |