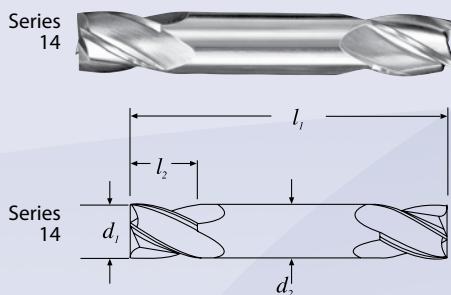


## 4 Flute – Double End – Square End

Fractional  
Series

14



### TOLERANCES

$d_1 = +.000 - .002$   
 $d_2 = -.0001 - .0004$

### Series 14 • 14M



End Mills – Double End –  
Square End – Micrograin Solid  
Carbide – 4 Flute – 30° Right Hand  
Spiral – Right Hand Cutting –  
Center Cutting  
\* With Flat

### Serie 14 • 14M



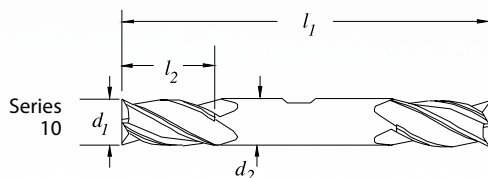
Fresas Frontales – Doble punta  
– Punta plana – Carburo sólido  
con micrograno – 4 filos – Hélice  
a derecha 30° – Corte a derecha –  
Corte al centro  
\* Con en el Mango

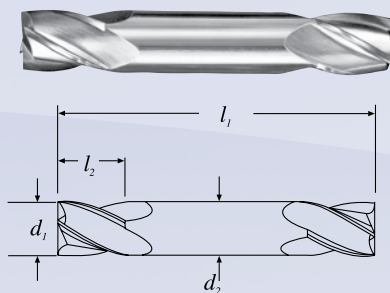
### Série 14 • 14M



Fraises – Tailée aux 2 bouts –  
Bout plat – Carbure monobloc,  
micrograin – 4 dents – Hélice à  
droite, 30° – Coupe à droite – Coupe  
au centre  
\* Avec Méplat

| Cutting<br>Diameter<br>$d_1$ | Length<br>of Cut<br>$l_2$ | Overall<br>Length<br>$l_1$ | Shank<br>Diameter<br>$d_2$ | Uncoated<br>EDP No. | Ti-NAMITE<br>(TiN)<br>EDP No. | Ti-NAMITE-C<br>(TiCN)<br>EDP No. | Ti-NAMITE-A<br>(AlTiN)<br>EDP No. | Series<br>Number |
|------------------------------|---------------------------|----------------------------|----------------------------|---------------------|-------------------------------|----------------------------------|-----------------------------------|------------------|
| 1/32                         | 1/16                      | 1-1/2                      | 1/8                        | 31401               | 31441                         | 39601                            | 31170                             | 14               |
| 3/64                         | 3/32                      | 1-1/2                      | 1/8                        | 31403               | 31443                         | 39603                            | 31171                             | 14               |
| 1/16                         | 1/8                       | 1-1/2                      | 1/8                        | 31405               | 31445                         | 39605                            | 31172                             | 14               |
| 5/64                         | 1/8                       | 1-1/2                      | 1/8                        | 31407               | 31447                         | 39607                            | 31173                             | 14               |
| 3/32                         | 3/16                      | 1-1/2                      | 1/8                        | 31409               | 31449                         | 39609                            | 31174                             | 14               |
| 7/64                         | 3/16                      | 1-1/2                      | 1/8                        | 31411               | 31451                         | 39611                            | 31175                             | 14               |
| 1/8                          | 1/4                       | 1-1/2                      | 1/8                        | 31413               | 31453                         | 39613                            | 31176                             | 14               |
| *1/8                         | 3/8                       | 3-1/16                     | 3/8                        | 31001               | 30946                         | 30957                            | 30968                             | 10               |
| 9/64                         | 5/16                      | 2                          | 3/16                       | 31415               | 31455                         | 39615                            | 31177                             | 14               |
| 5/32                         | 5/16                      | 2                          | 3/16                       | 31417               | 31457                         | 39617                            | 31178                             | 14               |
| *5/32                        | 7/16                      | 3-1/8                      | 3/8                        | 31003               | 30947                         | 30958                            | 30969                             | 10               |
| 11/64                        | 5/16                      | 2                          | 3/16                       | 31419               | 31459                         | 39619                            | 31179                             | 14               |
| 3/16                         | 3/8                       | 2                          | 3/16                       | 31421               | 31461                         | 39621                            | 31180                             | 14               |
| *3/16                        | 1/2                       | 3-1/4                      | 3/8                        | 31005               | 30948                         | 30959                            | 30970                             | 10               |
| 13/64                        | 1/2                       | 2-1/2                      | 1/4                        | 31423               | 31463                         | 39623                            | 31181                             | 14               |
| 7/32                         | 1/2                       | 2-1/2                      | 1/4                        | 31425               | 31465                         | 39625                            | 31182                             | 14               |
| *7/32                        | 9/16                      | 3-3/8                      | 3/8                        | 31007               | 30949                         | 30960                            | 30971                             | 10               |
| 15/64                        | 1/2                       | 2-1/2                      | 1/4                        | 31427               | 31467                         | 39627                            | 31183                             | 14               |
| 1/4                          | 1/2                       | 2-1/2                      | 1/4                        | 31429               | 31469                         | 39629                            | 31184                             | 14               |
| *1/4                         | 5/8                       | 3-3/8                      | 3/8                        | 31009               | 30950                         | 30961                            | 30972                             | 10               |
| 9/32                         | 1/2                       | 2-1/2                      | 5/16                       | 31431               | 31471                         | 39631                            | 31185                             | 14               |
| *9/32                        | 11/16                     | 3-3/8                      | 3/8                        | 31011               | 30951                         | 30962                            | 30973                             | 10               |
| 5/16                         | 1/2                       | 2-1/2                      | 5/16                       | 31433               | 31473                         | 39633                            | 31186                             | 14               |
| *5/16                        | 3/4                       | 3-1/2                      | 3/8                        | 31013               | 30952                         | 30963                            | 30974                             | 10               |
| *11/32                       | 3/4                       | 3-1/2                      | 3/8                        | 31015               | 30953                         | 30964                            | 30975                             | 10               |
| 3/8                          | 9/16                      | 2-1/2                      | 3/8                        | 31435               | 31475                         | 39635                            | 31187                             | 14               |
| *3/8                         | 3/4                       | 3-1/2                      | 3/8                        | 31017               | 30954                         | 30965                            | 30976                             | 10               |
| 7/16                         | 9/16                      | 2-3/4                      | 7/16                       | 31437               | 31477                         | 39637                            | 31188                             | 14               |
| *7/16                        | 7/8                       | 4                          | 1/2                        | 31019               | 30955                         | 30966                            | 30977                             | 10               |
| 1/2                          | 5/8                       | 3                          | 1/2                        | 31439               | 31479                         | 39639                            | 31189                             | 14               |
| *1/2                         | 1                         | 4                          | 1/2                        | 31021               | 30956                         | 30967                            | 30978                             | 10               |



**TOLERANCES** $d_1 = +0,000 - 0,05$  $d_2 = +0,000 - 0,01$ 

| Cutting Diameter<br>$d_1$<br>mm | Length of Cut<br>$l_2$<br>mm | Overall Length<br>$l_1$<br>mm | Shank Diameter<br>$d_2$<br>mm | Uncoated<br>EDP No. | Ti-NAMITE<br>(TiN)<br>EDP No. | Ti-NAMITE-C<br>(TiCN)<br>EDP No. | Ti-NAMITE-A<br>(AlTiN)<br>EDP No. | Series Number |
|---------------------------------|------------------------------|-------------------------------|-------------------------------|---------------------|-------------------------------|----------------------------------|-----------------------------------|---------------|
| 1                               | 2                            | 38                            | 3                             | 41405               | 48884                         | 48905                            | 48926                             | 14M           |
| 1,5                             | 3                            | 38                            | 3                             | 41409               | 48885                         | 48906                            | 48927                             | 14M           |
| 2                               | 4                            | 38                            | 3                             | 41413               | 48886                         | 48907                            | 48928                             | 14M           |
| 2,5                             | 5                            | 38                            | 3                             | 41417               | 48887                         | 48908                            | 48929                             | 14M           |
| 3                               | 6                            | 38                            | 3                             | 41421               | 48888                         | 48909                            | 48930                             | 14M           |
| 3,5                             | 7                            | 50                            | 4                             | 41425               | 48889                         | 48910                            | 48931                             | 14M           |
| 4                               | 8                            | 50                            | 4                             | 41429               | 48890                         | 48911                            | 48932                             | 14M           |
| 4,5                             | 9,5                          | 63                            | 4,5                           | 41433               | 48891                         | 48912                            | 48933                             | 14M           |
| 5                               | 10                           | 63                            | 5                             | 41437               | 48892                         | 48913                            | 48934                             | 14M           |
| 6                               | 12                           | 63                            | 6                             | 41441               | 48893                         | 48914                            | 48935                             | 14M           |
| 7                               | 12                           | 63                            | 8                             | 41445               | 48894                         | 48915                            | 48936                             | 14M           |
| 8                               | 12                           | 63                            | 8                             | 41449               | 48895                         | 48916                            | 48937                             | 14M           |
| 9                               | 14                           | 75                            | 9                             | 41453               | 48896                         | 48917                            | 48938                             | 14M           |
| 10                              | 14                           | 75                            | 10                            | 41457               | 48897                         | 48918                            | 48939                             | 14M           |
| 11                              | 14                           | 75                            | 12                            | 41461               | 48898                         | 48919                            | 48940                             | 14M           |
| 12                              | 16                           | 75                            | 12                            | 41465               | 48899                         | 48920                            | 48941                             | 14M           |

