



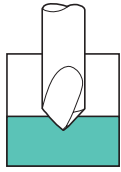
# Forets à pointer NC • NC spotting drill

Brocas de puntear • Punte a centrare

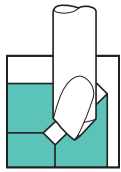
## Double

Doble punta  
Doppie

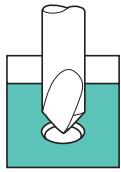
# DUO-mag



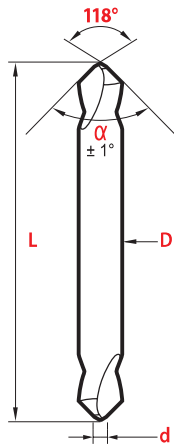
Centrage - Pointage  
Centering - Spotting  
Centrado - Punteado  
Centratura



Chanfrein longitudinal  
Longitudinal chamfer  
Chañanes longitudinales  
Smussi longitudinali



Chanfreinage  
Chamfering  
Chañanado  
Sbavatura



L'angle d'affûtage 118° favorise la pénétration, tout en renforçant la pointe.

The 118° sharpening angle improves tool penetration, while reinforcing the point.

El ángulo de 118° favorece la penetración, reforzando la punta.

L'angolo di affilatura a 118° agevola la penetrazione, rinforzando al tempo stesso la punta.

Micro-NC

> p. 36

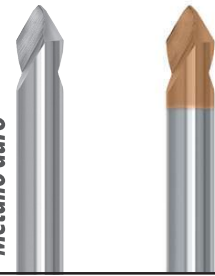


## 1 DUO-mag = 2 forets NC simples 2 single NC drills

2 brocas NC  
2 punte NC semplici

### 60° DUO-mag

CARBURE  
CARBIDE  
Metallo duro

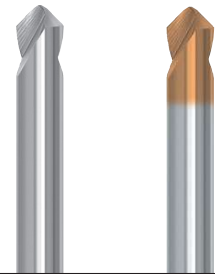


| D x d<br>h6 ± 0,05 | L<br>± 1 | DUO-mag<br>8116 | Hard'X<br>8116-H |
|--------------------|----------|-----------------|------------------|
| 3,0 x 0,5          | 40       | 57,77 €         | 65,07 €          |
| 4,0 x 1,0          | 45       | 63,85 €         | 71,75 €          |
| 6,0 x 2,0          | 55       | 72,37 €         | 81,48 €          |
| 8,0 x 2,5          | 65       | 95,46 €         | 106,41 €         |
| 10,0 x 3,0         | 75       | 130,13 €        | 144,12 €         |
| 12,0 x 3,5         | 85       | 199,45 €        | 216,47 €         |



### 90° DUO-mag

CARBURE  
CARBIDE  
Metallo duro



| D x d<br>h6 ± 0,05 | L<br>± 1 | DUO-mag<br>8119 | Hard'X<br>8119-H |
|--------------------|----------|-----------------|------------------|
| 3,0 x 0,5          | 40       | 57,77 €         | 65,07 €          |
| 4,0 x 1,0          | 45       | 63,85 €         | 71,75 €          |
| 6,0 x 2,0          | 55       | 72,37 €         | 81,48 €          |
| 8,0 x 2,5          | 65       | 95,46 €         | 106,41 €         |
| 10,0 x 3,0         | 75       | 130,13 €        | 144,12 €         |
| 12,0 x 3,5         | 85       | 199,45 €        | 216,47 €         |

Centrage • Pointage / Centering • Spotting  
Centratura • Centrare NC / Centrado • Punteado

## Promo-kits

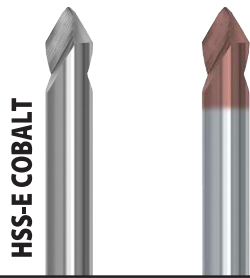
### 90°



| Type<br>Tipo | DUO-mag<br>019 | DUO-mag<br>0919 |
|--------------|----------------|-----------------|
|--------------|----------------|-----------------|

|  |                           |  |
|--|---------------------------|--|
| 6 pièces<br>6 pieces<br>6 pieza<br>6 pezzi | Ø 3 - 4 - 6 - 8 - 10 - 12 |  |
|--|---------------------------|--|

|  |          |          |
|--|----------|----------|
|  | 105,81 € | 158,10 € |
|--|----------|----------|



### 60° DUO-mag

| D x d            | L   | DUO-mag<br>016 | Red'X<br>0916 |
|------------------|-----|----------------|---------------|
| <b>h7 ± 0,05</b> | ± 1 |                |               |
| 3,0 x 0,5        | 40  | 13,06 €        | 18,55 €       |
| 4,0 x 1,0        | 45  | 13,37 €        | 19,77 €       |
| 6,0 x 2,0        | 55  | 14,89 €        | 23,42 €       |
| 8,0 x 2,5        | 65  | 18,55 €        | 27,67 €       |
| 10,0 x 3,0       | 75  | 20,98 €        | 32,23 €       |
| 12,0 x 3,5       | 85  | 28,87 €        | 43,17 €       |
| 16,0 x 4,0       | 90  | 41,95 €        | 63,24 €       |
| 20,0 x 5,0       | 100 | 80,88 €        | 113,72 €      |

### DUO-mag

| N° | D x d                        | L             | DUO-mag<br>016 | Red'X<br>0916 |
|----|------------------------------|---------------|----------------|---------------|
|    | <b>h7 ± 0,05</b>             | ± 1           |                |               |
| 1  | 4,76 x 1,59<br>(3/16 x 1/16) | 50,8<br>(2")  | 13,37 €        | 19,77 €       |
| 2  | 6,35 x 2,38<br>(1/4 x 3/32)  | 50,8<br>(2")  | 14,89 €        | 23,42 €       |
| 3  | 9,52 x 3,57<br>(3/8 x 9/64)  | 76,2<br>(3")  | 20,98 €        | 32,23 €       |
| 4  | 12,7 x 4,76<br>(1/2 x 3/16)  | 101,6<br>(4") | 28,87 €        | 43,17 €       |

### DUO-mag Longs *Largas Serie lunga*

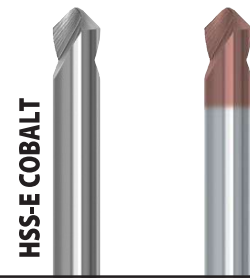
| D x d            | L   | DUO-mag<br>016-L | Red'X<br>0916-L |
|------------------|-----|------------------|-----------------|
| <b>h7 ± 0,05</b> | ± 1 |                  |                 |
| 3,0 x 0,5        | 100 | 19,46 €          | 28,28 €         |
| 4,0 x 1,0        | 100 | 20,36 €          | 29,80 €         |
| 6,0 x 2,0        | 100 | 22,49 €          | 35,27 €         |
| 8,0 x 2,5        | 100 | 27,67 €          | 41,34 €         |
| 10,0 x 3,0       | 100 | 31,62 €          | 47,42 €         |
| 12,0 x 3,5       | 100 | 43,17 €          | 65,07 €         |

### DUO-mag

| N° | D x d                        | L             | DUO-mag<br>016-L | Red'X<br>0916-L |
|----|------------------------------|---------------|------------------|-----------------|
|    | <b>h7 ± 0,05</b>             | ± 1           |                  |                 |
| 1  | 4,76 x 1,59<br>(3/16 x 1/16) | 101,6<br>(4") | 20,36 €          | 29,80 €         |
| 2  | 6,35 x 2,38<br>(1/4 x 3/32)  | 101,6<br>(4") | 22,49 €          | 35,27 €         |
| 3  | 9,52 x 3,57<br>(3/8 x 9/64)  | 127<br>(5")   | 31,62 €          | 47,42 €         |
| 4  | 12,7 x 4,76<br>(1/2 x 3/16)  | 152,4<br>(6") | 43,17 €          | 65,07 €         |

### DUO-mag X-Longs *X-Largas Serie Extra-lunga*

| D x d            | L   | DUO-mag<br>016-XL | Red'X<br>0916-XL |
|------------------|-----|-------------------|------------------|
| <b>h7 ± 0,05</b> | ± 1 |                   |                  |
| 8,0 x 2,5        | 150 | 37,09 €           | 55,33 €          |
| 10,0 x 3,0       | 150 | 41,95 €           | 63,85 €          |
| 12,0 x 3,5       | 150 | 57,77 €           | 86,35 €          |
| 16,0 x 4,0       | 150 | 62,64 €           | 95,46 €          |
| 20,0 x 5,0       | 150 | 121,62 €          | 169,04 €         |



### 90° DUO-mag

| D x d            | L   | DUO-mag<br>019 | Red'X<br>0919 |
|------------------|-----|----------------|---------------|
| <b>h7 ± 0,05</b> | ± 1 |                |               |
| 3,0 x 0,5        | 40  | 13,06 €        | 18,55 €       |
| 4,0 x 1,0        | 45  | 13,37 €        | 19,77 €       |
| 6,0 x 2,0        | 55  | 14,89 €        | 23,42 €       |
| 8,0 x 2,5        | 65  | 18,55 €        | 27,67 €       |
| 10,0 x 3,0       | 75  | 20,98 €        | 32,23 €       |
| 12,0 x 3,5       | 85  | 28,87 €        | 43,17 €       |
| 16,0 x 4,0       | 90  | 41,95 €        | 63,24 €       |
| 20,0 x 5,0       | 100 | 80,88 €        | 113,72 €      |

### DUO-mag

| N° | D x d                        | L             | DUO-mag<br>019 | Red'X<br>0919 |
|----|------------------------------|---------------|----------------|---------------|
|    | <b>h7 ± 0,05</b>             | ± 1           |                |               |
| 1  | 4,76 x 1,59<br>(3/16 x 1/16) | 50,8<br>(2")  | 13,37 €        | 19,77 €       |
| 2  | 6,35 x 2,38<br>(1/4 x 3/32)  | 50,8<br>(2")  | 14,89 €        | 23,42 €       |
| 3  | 9,52 x 3,57<br>(3/8 x 9/64)  | 76,2<br>(3")  | 20,98 €        | 32,23 €       |
| 4  | 12,7 x 4,76<br>(1/2 x 3/16)  | 101,6<br>(4") | 28,87 €        | 43,17 €       |

### DUO-mag Longs *Largas Serie lunga*

| D x d            | L   | DUO-mag<br>019-L | Red'X<br>0919-L |
|------------------|-----|------------------|-----------------|
| <b>h7 ± 0,05</b> | ± 1 |                  |                 |
| 3,0 x 0,5        | 100 | 19,46 €          | 28,28 €         |
| 4,0 x 1,0        | 100 | 20,36 €          | 29,80 €         |
| 6,0 x 2,0        | 100 | 22,49 €          | 35,27 €         |
| 8,0 x 2,5        | 100 | 27,67 €          | 41,34 €         |
| 10,0 x 3,0       | 100 | 31,62 €          | 47,42 €         |
| 12,0 x 3,5       | 100 | 43,17 €          | 65,07 €         |

### DUO-mag

| N° | D x d                        | L             | DUO-mag<br>019-L | Red'X<br>0919-L |
|----|------------------------------|---------------|------------------|-----------------|
|    | <b>h7 ± 0,05</b>             | ± 1           |                  |                 |
| 1  | 4,76 x 1,59<br>(3/16 x 1/16) | 50,8<br>(2")  | 20,36 €          | 29,80 €         |
| 2  | 6,35 x 2,38<br>(1/4 x 3/32)  | 50,8<br>(2")  | 22,49 €          | 35,27 €         |
| 3  | 9,52 x 3,57<br>(3/8 x 9/64)  | 76,2<br>(3")  | 31,62 €          | 47,42 €         |
| 4  | 12,7 x 4,76<br>(1/2 x 3/16)  | 101,6<br>(4") | 43,17 €          | 65,07 €         |

### DUO-mag X-Longs *X-Largas Serie Extra-lunga*

| D x d            | L   | DUO-mag<br>019-XL | Red'X<br>0919-XL |
|------------------|-----|-------------------|------------------|
| <b>h7 ± 0,05</b> | ± 1 |                   |                  |
| 8,0 x 2,5        | 150 | 37,09 €           | 55,33 €          |
| 10,0 x 3,0       | 150 | 41,95 €           | 63,85 €          |
| 12,0 x 3,5       | 150 | 57,77 €           | 86,35 €          |
| 16,0 x 4,0       | 150 | 62,64 €           | 95,46 €          |
| 20,0 x 5,0       | 150 | 121,62 €          | 169,04 €         |



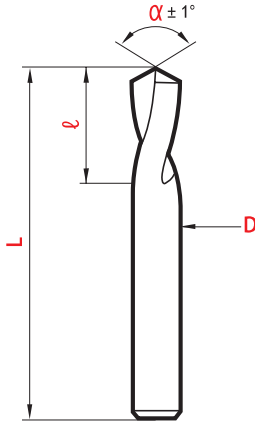
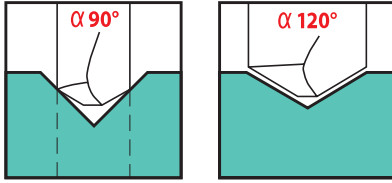


# Forets à pointer NC • NC spotting drill

Brocas de puntear • Punte a centrare

## Courts Short

Cortas  
Corte



**Angle 90°:** on obtiendra centrage et chanfreinage en une seule opération.

**Angles 120°:** L'avant-trou obtenu correspond à l'angle en bout de l'outil de perçage et évite à celui-ci de dévier.

**90 degree angle:** centering and chamfering are obtained in a single operation.

**120 degree angle:** The preliminary hole corresponds to the angle at the end of the tool used in drilling and prevents it from deviating.

*Ángulo 90°:* obtendrá un centrado y avellanado en una sola operación.

*Ángulo de 120°:* El agujero previo obtenido corresponde al ángulo de la punta de la herramienta utilizada para taladrar y previene su desvío.

*Angolo 90°:* si otterrà la centratura e lo smusso in un'unica operazione.

*Angolo 120°:* l'avanzato realizzato corrisponde all'angolo di affilatura dell'utensile a forare impedendo a quest'ultimo di deviare.

## Autres types Other types

Otros tipos  
Altri tipi

avec plat • with flats  
con piano

> p. 38

extra courts • extra shorts  
extra corta

> p. 40

HSS 8% Co  
 $\alpha$  142°

> p. 38

cône morse • morse taper shank  
mango cono Morse

> p. 41

coupe à gauche • left hand cut  
corte a izquierdas • elica sinistra

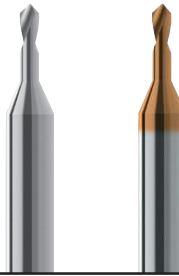
> p. 40

longs  
largas lunghe

> p. 42

## Micro-NC

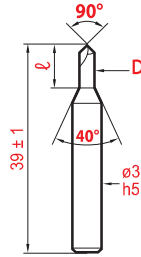
CARBURE CARBIDE  
Metallo duro



magafor standard

90°

| D<br>+0,01 | ℓ   | magaforce<br>819-D | Hard'X<br>819-DH |
|------------|-----|--------------------|------------------|
| 0,3*       | 0,9 | 49,85 €            | 55,95 €          |
| 0,4        | 1,2 | 45,61 €            | 51,68 €          |
| 0,5        | 1,5 | 41,65 €            | 46,51 €          |
| 0,6        | 1,8 | 38,92 €            | 43,78 €          |
| 0,7        | 2,1 | 38,92 €            | 43,78 €          |
| 0,8        | 2,4 | 38,92 €            | 43,78 €          |
| 0,9        | 2,7 | 38,92 €            | 43,78 €          |
| 1,0        | 3,0 | 38,92 €            | 43,78 €          |
| 1,2        | 3,6 | 38,92 €            | 43,78 €          |
| 1,5        | 4,5 | 38,92 €            | 43,78 €          |
| 2,0        | 6,0 | 38,92 €            | 43,78 €          |
| 2,5        | 7,5 | 38,92 €            | 43,78 €          |



Tolérances ℓ

|             |      |
|-------------|------|
| ∅ 0,3 ~ 0,5 | 0,15 |
| ∅ 0,6 ~ 0,8 | 0,2  |
| ∅ 0,9 ~ 2,5 | 0,3  |

\* Pointage à partir de 0,05 Spotting from 0,05 Centrado desde 0,05 Centratura da 0,05

CARBURE CARBIDE  
Metallo duro



CARBURE CARBIDE  
Metallo duro



magafor standard

90°

120°

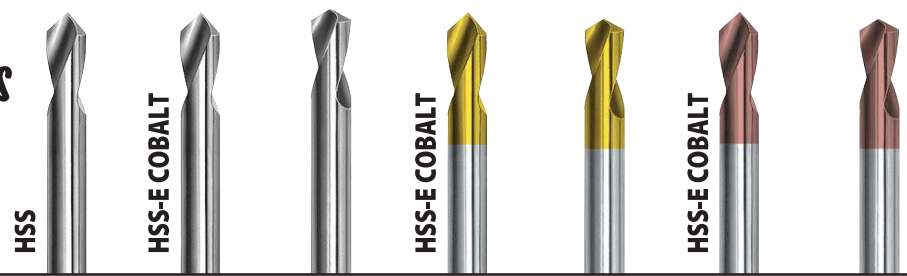
90°

120°

| D<br>h5      | L<br>± 1 | ℓ<br>+ 2 | magaforce<br>8195 | magaforce<br>8196 | Hard'X<br>8195-H | Hard'X<br>8196-H |
|--------------|----------|----------|-------------------|-------------------|------------------|------------------|
| 2,0          | 40       | 8        | 27,36 €           | 27,36 €           | 31,02 €          | 31,02 €          |
| 3,0          | 45       | 10       | 24,33 €           | 24,33 €           | 27,96 €          | 27,96 €          |
| 3,17 (1/8")  | 45       | 10       | 24,33 €           |                   | 27,96 €          |                  |
| 4,0          | 50       | 12       | 29,18 €           | 29,18 €           | 32,83 €          | 32,83 €          |
| 4,76 (3/16") | 50       | 15       | 34,06 €           |                   | 37,69 €          |                  |
| 5,0          | 50       | 15       | 34,06 €           | 34,06 €           | 37,69 €          | 37,69 €          |
| 6,0          | 50       | 18       | 38,92 €           | 38,92 €           | 42,56 €          | 42,56 €          |
| 6,35 (1/4")  | 50       | 18       | 42,56 €           | 42,56 €           | 46,22 €          | 46,22 €          |
| 7,93 (5/16") | 60       | 23       | 54,73 €           |                   | 59,58 €          |                  |
| 8,0          | 60       | 23       | 54,73 €           | 54,73 €           | 59,58 €          | 59,58 €          |
| 9,52 (3/8")  | 70       | 24       | 80,26 €           | 80,26 €           | 85,13 €          | 85,13 €          |
| 10,0         | 70       | 24       | 81,48 €           | 81,48 €           | 86,35 €          | 86,35 €          |
| 12,0         | 70       | 24       | 114,32 €          | 114,32 €          | 121,62 €         | 121,62 €         |
| 12,70 (1/2") | 70       | 24       | 124,04 €          | 124,04 €          | 132,55 €         | 132,55 €         |
| 14,0         | 75       | 24       | 169,04 €          | 169,04 €          | 179,99 €         | 179,99 €         |
| 15,87 (5/8") | 80       | 26       | 192,15 €          | 192,15 €          | 201,89 €         | 201,89 €         |
| 16,0         | 80       | 26       | 193,38 €          | 193,38 €          | 203,10 €         | 203,10 €         |
| 20,0         | 100      | 35       | 350,26 €          | 350,26 €          | 363,62 €         | 363,62 €         |



performances  
 > p. 17



| NFE 66052 • ISO 10898 |          |         | 90°             | 90°            | 120°           | 90°         | 120°        | 90°           | 120°          |
|-----------------------|----------|---------|-----------------|----------------|----------------|-------------|-------------|---------------|---------------|
| D<br>h6*              | L<br>± 1 | ℓ<br>+1 | classic<br>190* | magafor<br>195 | magafor<br>196 | TIN<br>0895 | TIN<br>0896 | Red'X<br>0995 | Red'X<br>0996 |
| 2,0                   | 49       | 8       |                 | 15,20 €        | 15,20 €        | 20,06 €     | 20,06 €     | 21,28 €       | 21,28 €       |
| 3,0                   | 50       | 10      | 9,61 €          | 12,65 €        | 12,65 €        | 17,02 €     | 17,02 €     | 18,24 €       | 18,24 €       |
| 3,17 (1/8")           | 50       | 10      |                 | 12,89 €        | 12,89 €        | 17,28 €     | 17,28 €     | 18,48 €       | 18,48 €       |
| 4,0                   | 52       | 12      | 9,97 €          | 13,14 €        | 13,14 €        | 18,00 €     | 18,00 €     | 19,21 €       | 19,21 €       |
| 4,76 (3/16")          | 60       | 15      |                 | 14,11 €        | 14,11 €        | 18,97 €     | 18,97 €     | 20,19 €       | 20,19 €       |
| 5,0                   | 60       | 15      | 10,71 €         | 14,23 €        | 14,23 €        | 19,10 €     | 19,10 €     | 20,44 €       | 20,44 €       |
| 6,0                   | 66       | 20      | 11,31 €         | 14,60 €        | 14,60 €        | 21,16 €     | 21,16 €     | 22,49 €       | 22,49 €       |
| 6,35 (1/4")           | 66       | 22      |                 | 16,72 €        | 16,72 €        | 23,34 €     | 23,34 €     | 24,68 €       | 24,68 €       |
| 7,93 (5/16")          | 79       | 25      |                 | 17,94 €        | 17,94 €        | 25,24 €     | 25,24 €     | 26,75 €       | 26,75 €       |
| 8,0                   | 79       | 25      | 13,68 €         | 17,94 €        | 17,94 €        | 25,24 €     | 25,24 €     | 26,75 €       | 26,75 €       |
| 9,52 (3/8")           | 89       | 25      |                 | 20,06 €        | 20,06 €        | 28,69 €     | 28,69 €     | 30,64 €       | 30,64 €       |
| 10,0                  | 89       | 25      | 14,89 €         | 20,31 €        | 20,31 €        | 29,08 €     | 29,08 €     | 31,02 €       | 31,02 €       |
| 12,0                  | 102      | 30      | 21,28 €         | 27,96 €        | 27,96 €        | 40,13 €     | 40,13 €     | 42,56 €       | 42,56 €       |
| 12,70 (1/2")          | 102      | 35      |                 | 29,80 €        | 29,80 €        | 41,95 €     | 41,95 €     | 43,78 €       | 43,78 €       |
| 14,0                  | 115      | 35      |                 | 39,82 €        | 39,82 €        | 55,33 €     | 55,33 €     | 58,37 €       | 58,37 €       |
| 15,87 (5/8")          | 115      | 35      |                 | 40,13 €        | 40,13 €        | 57,77 €     | 57,77 €     | 60,80 €       | 60,80 €       |
| 16,0                  | 115      | 35      | 31,62 €         | 40,75 €        | 40,75 €        | 58,08 €     | 58,08 €     | 62,02 €       | 62,02 €       |
| 18,0                  | 130      | 40      |                 | 75,40 €        | 75,40 €        | 98,51 €     | 98,51 €     | 104,59 €      | 104,59 €      |
| 19,05 (3/4")          | 131      | 40      |                 | 77,83 €        | 77,83 €        | 102,16 €    | 102,16 €    | 109,45 €      | 109,45 €      |
| 20,0                  | 131      | 40      | 60,21 €         | 78,44 €        | 78,44 €        | 102,16 €    | 102,16 €    | 109,45 €      | 109,45 €      |
| 25,0                  | 138      | 45      |                 | 109,45 €       | 109,45 €       | 139,85 €    | 139,85 €    | 149,58 €      | 149,58 €      |
| 25,4 (1")             | 138      | 45      |                 | 119,19 €       | 119,19 €       | 149,58 €    | 149,58 €    | 159,31 €      | 159,31 €      |

\* Code 190 = h7

Video on line



**magafor** *Le choix! The choice! La elección! La scelta!*

www.magafor.com

| Matière Material<br>Materiale          | HSS  | HSS-E COBALT   | HSS-E COBALT<br>+ TIN | HSS-E COBALT<br>+ Red'X  | CARBURE CARBIDE<br>Metallo duro  | CARBURE CARBIDE<br>+ Hard'X |
|--|--|--|-----------------------|--|--|-----------------------------|
| Dureté Hardness<br>Durezza             | 63 HRC   | 65 HRC   | 65 HRC<br>+ 2300 HV   | 65 HRC<br>+ 3500 HV  | 1800 HV  | 1800 HV<br>+ 3500 HV        |
| Utilisation Use<br>Utilización Impiego | Petites séries<br>Small series<br>Pequeñas series<br>Piccole serie | Production intensive<br>Intensive production<br>Producción intensiva<br>Produzione intensiva |                       | Alliages durs et abrasifs<br>Hard and abrasive alloys<br>Aleaciones duras y abrasivos<br>Leghe dure e abrasive | Aciers trempés<br>Treated steels<br>Aceros tratados<br>Acciai temprati |                             |
| Page<br>Pagina                         | > 37-40-43   |  | > 37 ~ 43             |  | > 37-41-43   |                             |
|  | > 36-39-42   |  |                       |  |  |                             |

promo-kits



**magafor**

| Type Tipo                                | classic<br>190 | magafor<br>195<br>196     | Tin<br>0895<br>0896 | Red'X<br>0995<br>0996 | magaforce<br>8195<br>8196 | Hard'X<br>8195-H<br>8196-H |
|--|----------------|---------------------------|---------------------|-----------------------|---------------------------|----------------------------|
| 90°<br>120°                              |                |                           |                     |                       |                           |                            |
| 1 pièce<br>1 piece<br>1 pieza<br>1 pezzo |                |                           |                     |                       |                           |                            |
|  |                | Ø 4 - 5 - 6 - 8 - 10 - 12 |                     |                       |                           |                            |
|  | 83,00 €        | 106,33 €                  | 152,03 €            | 160,53 €              | 352,68 €                  | 380,65 €                   |

magafor

Centrage • Pointage / Centering • Spotting  
 Centratúra • Centratúra NC / Centrato • Punteado



# Forets à pointer NC • NC spotting drill

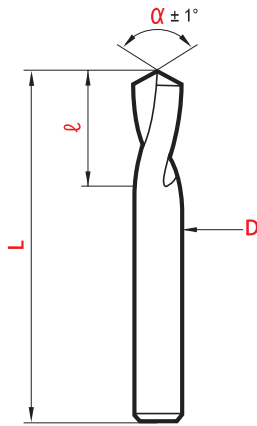
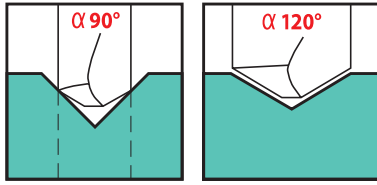
Brocas de puntear • Punte a centrare

## Courts Short

Cortas

Corte

NFE 66052 • ISO 10898

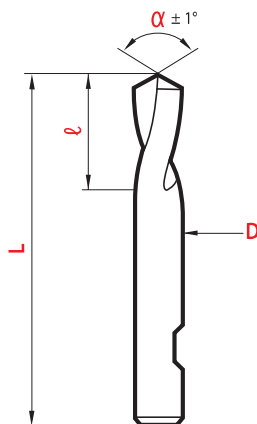


| HSS 8% Co |     |    | HSS 8% COBALT |              | HSS 8% COBALT |           | HSS 8% COBALT |             |
|-----------|-----|----|---------------|--------------|---------------|-----------|---------------|-------------|
|           |     |    | 90°           | 120°         | 90°           | 120°      | 90°           | 120°        |
| D         | L   | ℓ  | magafor 19-J  | magafor 19-K | TIN 089-J     | TIN 089-K | Red'X 099-J   | Red'X 099-K |
| h6        | ± 1 | +1 |               |              |               |           |               |             |
| 3,0       | 50  | 10 | 15,20 €       | 15,20 €      | 20,06 €       | 20,06 €   | 21,28 €       | 21,28 €     |
| 4,0       | 52  | 12 | 15,80 €       | 15,80 €      | 20,68 €       | 20,68 €   | 21,90 €       | 21,90 €     |
| 5,0       | 60  | 15 | 17,02 €       | 17,02 €      | 22,49 €       | 22,49 €   | 23,71 €       | 23,71 €     |
| 6,0       | 66  | 20 | 18,24 €       | 18,24 €      | 24,93 €       | 24,93 €   | 26,15 €       | 26,15 €     |
| 8,0       | 79  | 25 | 21,59 €       | 21,59 €      | 29,18 €       | 29,18 €   | 30,71 €       | 30,71 €     |
| 10,0      | 89  | 25 | 24,33 €       | 24,33 €      | 32,23 €       | 32,23 €   | 34,06 €       | 34,06 €     |
| 12,0      | 102 | 30 | 33,75 €       | 33,75 €      | 46,22 €       | 46,22 €   | 48,64 €       | 48,64 €     |
| 16,0      | 115 | 35 | 49,85 €       | 49,85 €      | 68,11 €       | 68,11 €   | 72,06 €       | 72,06 €     |
| 20,0      | 131 | 40 | 95,17 €       | 95,17 €      | 120,39 €      | 120,39 €  | 127,69 €      | 127,69 €    |

## DIN 6535 HB Avec méplat de serrage With flat

Con plano

Attacco Weldon

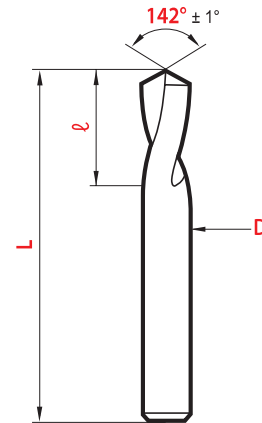
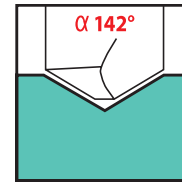


| HSS-E COBALT |     |    | HSS-E COBALT  |               | HSS-E COBALT |            | HSS-E COBALT |              |
|--------------|-----|----|---------------|---------------|--------------|------------|--------------|--------------|
|              |     |    | 90°           | 120°          | 90°          | 120°       | 90°          | 120°         |
| D            | L   | ℓ  | magafor 195-W | magafor 196-W | TIN 0895-W   | TIN 0896-W | Red'X 0995-W | Red'X 0996-W |
| h6           | ± 1 | +1 |               |               |              |            |              |              |
| 6,0          | 66  | 20 | 17,51 €       | 17,51 €       | 25,42 €      | 25,42 €    | 27,00 €      | 27,00 €      |
| 8,0          | 79  | 25 | 21,53 €       | 21,53 €       | 30,28 €      | 30,28 €    | 32,11 €      | 32,11 €      |
| 10,0         | 89  | 25 | 24,33 €       | 24,33 €       | 34,91 €      | 34,91 €    | 37,23 €      | 37,23 €      |
| 12,0         | 102 | 30 | 33,57 €       | 33,57 €       | 48,16 €      | 48,16 €    | 51,08 €      | 51,08 €      |
| 16,0         | 115 | 35 | 48,90 €       | 48,90 €       | 69,70 €      | 69,70 €    | 74,42 €      | 74,42 €      |
| 20,0         | 131 | 40 | 93,63 €       | 93,63 €       | 122,59 €     | 122,59 €   | 131,34 €     | 131,34 €     |



142°

New 2024



Pour les alliages durs, l'angle à 142° prépositionne les trous, avant utilisation de forets à 135° ou 140°. Deux qualités proposées : HSS-E Cobalt et carbure monobloc. Pour les alliages fortement abrasifs la gamme **8190-H** est préconisée.

In hard alloys the 142° angle has to be used for the spotting operation before the 135° or 140° twist drills. Two qualities are offered: HSS-E Cobalt and solid carbide. For abrasive alloys the **8190-H** range is recommended.

En aleaciones de alta dureza el ángulo de 142° debe usarse para la operación de punteado antes de usar brocas con 135° ó 140°. Disponibles en dos calidades: HSS-E Cobalto y Metal Duro. Para aleaciones abrasivas recomendamos la referencia **8190-H**.

Per lavorazioni su leghe dure l'angolo a 142° consente il corretto posizionamento della punta preposta alla foratura avente angolo di 135° o 140°. Due sono le tipologie offerte: HSS-E e metallo duro. La gamma **8190-H** è raccomandata nelle lavorazioni di leghe fortemente abrasive.



| magafor standard |     |    | 142°        |          |            | 142° |    |                |               |
|------------------|-----|----|-------------|----------|------------|------|----|----------------|---------------|
| D                | L   | ℓ  | magafor 194 | TIN 0894 | Red'X 0994 | L    | ℓ  | magaforce 8190 | Hard'X 8190-H |
| h7*              | ±1  | +1 |             |          |            | ±1   | +1 |                |               |
| 2,0              |     |    |             |          |            | 40   | 8  | 30,54 €        | 34,06 €       |
| 3,0              | 50  | 10 | 16,43 €     | 20,68 €  | 22,49 €    | 45   | 10 | 27,52 €        | 31,02 €       |
| 4,0              | 52  | 12 | 17,63 €     | 21,90 €  | 23,71 €    | 50   | 12 | 32,41 €        | 35,87 €       |
| 5,0              | 60  | 15 | 18,85 €     | 23,71 €  | 24,93 €    | 50   | 15 | 37,25 €        | 40,75 €       |
| 6,0              | 66  | 20 | 19,46 €     | 26,15 €  | 27,36 €    | 50   | 18 | 41,49 €        | 44,99 €       |
| 6,35 (1/4")      | 66  | 20 | 21,58 €     | 28,33 €  | 29,54 €    | 50   | 18 | 45,16 €        | 48,64 €       |
| 8,0              | 79  | 25 | 23,71 €     | 31,02 €  | 32,83 €    | 60   | 23 | 58,54 €        | 63,24 €       |
| 9,52 (3/8")      | 89  | 25 | 25,83 €     | 34,47 €  | 36,72 €    | 70   | 24 | 84,21 €        | 90,00 €       |
| 10,0             | 89  | 25 | 26,75 €     | 35,87 €  | 37,69 €    | 70   | 24 | 86,46 €        | 91,21 €       |
| 12,0             | 102 | 30 | 36,49 €     | 49,25 €  | 51,68 €    | 70   | 24 | 120,68 €       | 127,69 €      |
| 12,7 (1/2")      | 102 | 30 | 38,33 €     | 50,97 €  | 52,90 €    | 70   | 24 | 130,46 €       | 138,65 €      |
| 15,87 (5/8")     | 115 | 35 | 54,11 €     | 71,44 €  | 74,18 €    | 80   | 26 | 201,05 €       | 210,39 €      |
| 16,0             | 115 | 35 | 54,73 €     | 71,75 €  | 75,40 €    | 80   | 26 | 202,32 €       | 211,61 €      |
| 20,0             | 131 | 40 | 104,59 €    | 128,91 € | 134,99 €   |      |    |                |               |

\* CARBURE CARBIDE METAL DURO METALLO DURO = h5

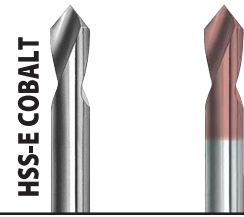
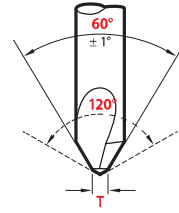
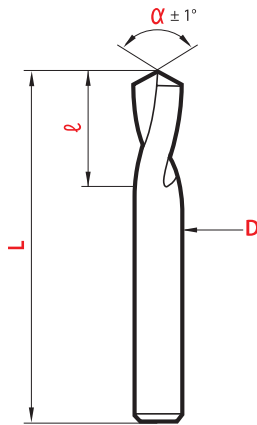
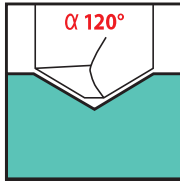
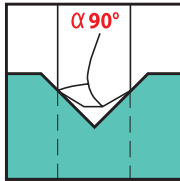
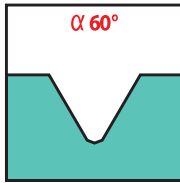
Hard-X  
Jusqu'à  
up to  
Hasta  
Fino a 67 HRC

Centrage • Pointage / Centering • Spotting  
Centratura • Centatura NC / Centrato • Punteado



# Forets à pointer NC • NC spotting drill

Brocas de puntear • Punte a centrare



## 60°

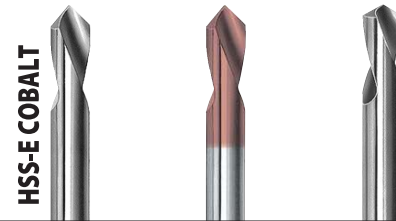
magafor standard

α 60°

| D x d     | L   | ℓ  | T*  | magafor 191 | Red'X 0991 |
|-----------|-----|----|-----|-------------|------------|
| <b>h6</b> | ± 1 | +1 |     |             |            |
| 4,0       | 52  | 12 | 0,8 | 54,73 €     | 60,80 €    |
| 5,0       | 60  | 15 | 0,9 | 57,77 €     | 63,85 €    |
| 6,0       | 66  | 20 | 1,0 | 60,80 €     | 69,93 €    |
| 8,0       | 79  | 25 | 1,3 | 63,85 €     | 76,01 €    |
| 10,0      | 89  | 25 | 1,6 | 66,89 €     | 82,10 €    |
| 12,0      | 102 | 30 | 2,0 | 72,97 €     | 91,21 €    |
| 16,0      | 115 | 35 | 3,0 | 109,45 €    | 136,81 €   |
| 20,0      | 131 | 40 | 3,5 | 182,43 €    | 224,97 €   |

\*T = angle ángulo Angulo 120°

## Coupe à gauche Left hand cut Corte a izquierdas Elica sinistra

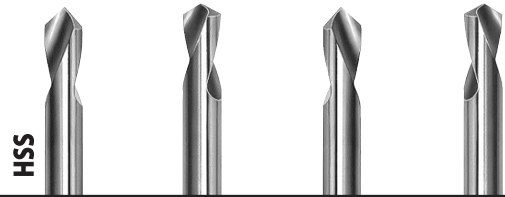


magafor standard

α 90° 90° 120°

| D x d     | L   | ℓ  | magafor 192 | Red'X 0992 | magafor 193 |
|-----------|-----|----|-------------|------------|-------------|
| <b>h6</b> | ± 1 | +1 |             |            |             |
| 3,0       | 50  | 10 | 30,41 €     | 36,49 €    | 30,41 €     |
| 4,0       | 52  | 12 | 36,49 €     | 42,56 €    | 36,49 €     |
| 5,0       | 60  | 15 | 42,56 €     | 48,64 €    | 42,56 €     |
| 6,0       | 66  | 20 | 48,64 €     | 57,77 €    | 48,64 €     |
| 8,0       | 79  | 25 | 54,73 €     | 66,89 €    | 54,73 €     |
| 10,0      | 89  | 25 | 60,80 €     | 76,01 €    | 60,80 €     |
| 12,0      | 102 | 30 | 72,97 €     | 91,21 €    |             |
| 16,0      | 115 | 35 | 115,53 €    | 142,90 €   |             |

## Extra courts Extra short Extra cortas Extra corta



| D h7  |       | L   | ℓ    | classic 19-A | classic 19-B | classic 19-AG | classic 19-BG |
|-------|-------|-----|------|--------------|--------------|---------------|---------------|
| inch  | mm    | ± 1 | +1   |              |              |               |               |
| 1/8"  | 3,17  | 32  | 9,5  | 10,94 €      | 10,94 €      | 18,16 €       | 18,16 €       |
| 3/16" | 4,76  | 35  | 12,5 | 12,16 €      | 12,16 €      | 20,19 €       | 20,19 €       |
| 1/4"  | 6,35  | 38  | 16   | 14,29 €      | 14,29 €      | 23,74 €       | 23,74 €       |
| 5/16" | 7,93  | 38  | 16   | 15,20 €      | 15,20 €      | 25,26 €       | 25,26 €       |
| 3/8"  | 9,52  | 51  | 25,5 | 17,02 €      | 17,02 €      | 28,28 €       | 28,28 €       |
| 7/16" | 11,11 | 51  | 25,5 | 20,98 €      | 20,98 €      |               |               |
| 1/2"  | 12,7  | 51  | 25,5 | 25,24 €      | 25,24 €      | 41,90 €       | 41,90 €       |
| 5/8"  | 15,87 | 57  | 28,5 | 34,35 €      | 34,35 €      | 57,13 €       | 57,13 €       |
| 3/4"  | 19,05 | 57  | 28,5 | 69,93 €      | 69,93 €      | 116,08 €      | 116,08 €      |
| 7/8"  | 22,22 | 64  | 32   | 94,26 €      | 94,26 €      |               |               |
| 1"    | 25,4  | 64  | 32   | 103,99 €     | 103,99 €     | 172,59 €      | 172,59 €      |

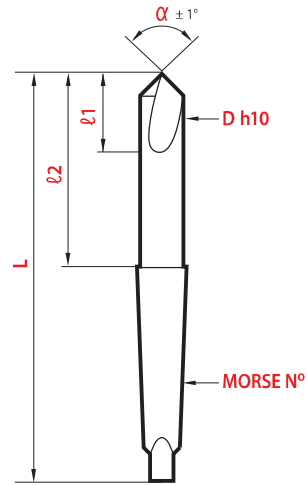
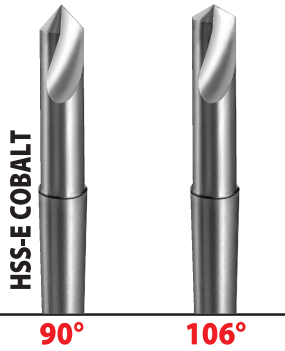


# Queue cône Morse

## Morse taper shank

Mango

Cono Morse



| D    | L   | l1 | l2 | MORSE | magafor  | magafor  |
|------|-----|----|----|-------|----------|----------|
| h10  | ± 1 | +1 | +1 | N°    | 198      | 1906     |
| 10,0 | 130 | 25 | 64 | 1     | 102,76 € |          |
| 12,0 | 130 | 30 | 64 | 1     | 107,62 € | 119,79 € |
| 16,0 | 148 | 35 | 68 | 2     | 132,55 € | 148,37 € |
| 20,0 | 148 | 40 | 68 | 2     | 158,10 € | 176,33 € |
| 25,0 | 171 | 45 | 72 | 3     | 217,69 € | 240,79 € |

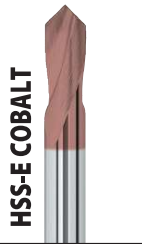
# COMBI-mag

## Outils multi-fonctions multi-function tools

Herramientas multi-función

Utensili multi-funzione

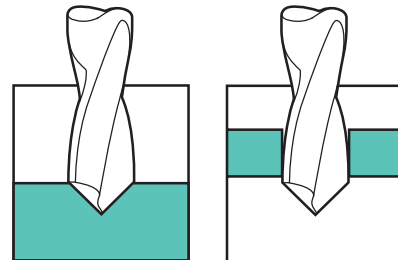
90°



COMBI-mag

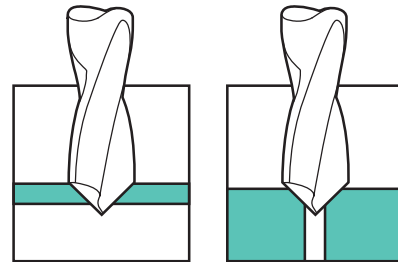
| D h7  |       | L   | l  | T*  | Red'X<br>007 |
|-------|-------|-----|----|-----|--------------|
| inch  | mm    | ± 1 | +1 |     |              |
|       | 3     | 50  | 6  | 0,3 | 18,85 €      |
| 1/8"  | 3,17  | 50  | 6  | 0,3 | 18,85 €      |
|       | 4     | 52  | 8  | 0,4 | 19,46 €      |
| 3/16" | 4,76  | 60  | 9  | 0,5 | 20,06 €      |
|       | 5     | 60  | 10 | 0,5 | 20,06 €      |
|       | 6     | 66  | 12 | 0,6 | 23,71 €      |
| 1/4"  | 6,35  | 66  | 12 | 0,6 | 24,93 €      |
| 5/16" | 7,93  | 79  | 14 | 0,8 | 27,67 €      |
|       | 8     | 79  | 14 | 0,8 | 27,67 €      |
| 3/8"  | 9,52  | 89  | 16 | 1   | 31,62 €      |
|       | 10    | 89  | 16 | 1   | 32,83 €      |
|       | 12    | 102 | 18 | 1,2 | 42,56 €      |
| 1/2"  | 12,7  | 102 | 19 | 1,3 | 44,99 €      |
|       | 14    | 115 | 21 | 1,4 | 60,21 €      |
| 5/8"  | 15,87 | 115 | 24 | 1,6 | 62,64 €      |
|       | 16    | 115 | 24 | 1,6 | 62,64 €      |

\*T = 0,1 D Épaisseur d'âme Web thickness Espesor del núcleo Spessore in punta del nocciolo



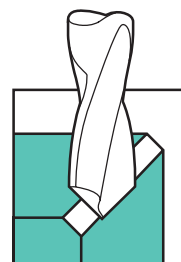
Pointage  
Spotting  
Punteado  
Centratura

Perçage  
Drilling  
Taladrado  
Foratura



Chanfrein direct  
Direct chamfer  
Chafilanes directos  
Svasatura rapida

Chanfreinage  
Chamfering  
Chafilado  
Sbavatura



Chanfrein longitudinal  
Longitudinal chamfer  
Chafilanes longitudinales  
Smussi longitudinali

promo-kits



6 COMBI-mag Ø 4 - 5 - 6 - 8 - 10 - 12  
007 166,61 €



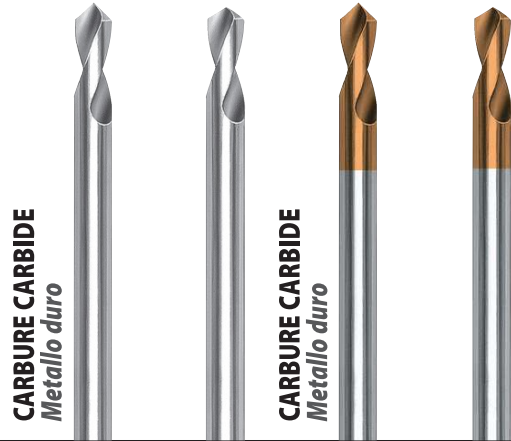
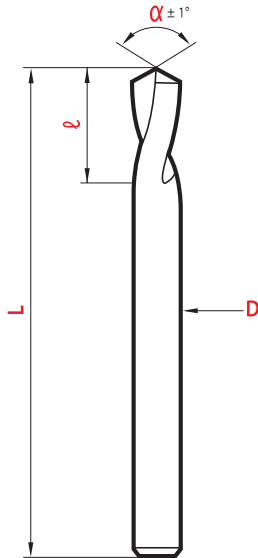
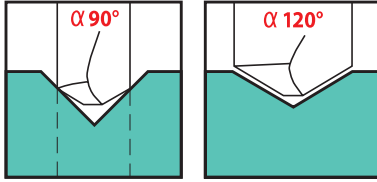


# Forets à pointer NC • NC spotting drill

Brocas de puntear • Punte a centrare

## Longs Long

Largas  
Lunghe



| magafor standard |     |    | 90°            | 120°           | 90°           | 120°          |
|------------------|-----|----|----------------|----------------|---------------|---------------|
| D                | L   | ℓ  | magaforce 8197 | magaforce 8199 | Hard'X 8197-H | Hard'X 8199-H |
| h5               | ± 1 | +1 |                |                |               |               |
| 1,0              | 50  | 6  | 88,17 €        |                | 91,83 €       |               |
| 2,0              | 60  | 8  | 72,97 €        |                | 76,61 €       |               |
| 3,0              | 80  | 10 | 79,04 €        |                | 82,70 €       |               |
| 4,0              | 100 | 12 | 91,21 €        | 91,21 €        | 94,86 €       | 94,86 €       |
| 5,0              | 120 | 15 | 97,29 €        | 97,29 €        | 100,93 €      | 100,93 €      |
| 6,0              | 140 | 20 | 109,45 €       | 109,45 €       | 114,32 €      | 114,32 €      |
| 6,35 (1/4")      | 140 | 22 | 121,62 €       | 121,62 €       | 126,48 €      | 126,48 €      |
| 8,0              | 140 | 25 | 133,78 €       | 133,78 €       | 138,65 €      | 138,65 €      |
| 9,52 (3/8")      | 170 | 25 | 224,97 €       | 224,97 €       | 231,07 €      | 231,07 €      |
| 10,0             | 170 | 25 | 231,07 €       | 231,07 €       | 237,14 €      | 237,14 €      |
| 12,0             | 170 | 30 | 291,87 €       | 291,87 €       | 301,00 €      | 301,00 €      |
| 12,70 (1/2")     | 170 | 35 | 304,03 €       | 304,03 €       | 313,16 €      | 313,16 €      |
| 15,87 (5/8")     | 200 | 35 | 437,81 €       | 437,81 €       | 449,98 €      | 449,98 €      |
| 16,0             | 200 | 35 | 437,81 €       | 437,81 €       | 449,98 €      | 449,98 €      |
| 19,05 (3/4")     | 200 | 40 | 668,88 €       | 668,88 €       | 684,08 €      | 684,08 €      |
| 20,0             | 200 | 40 | 699,28 €       | 699,28 €       | 714,49 €      | 714,49 €      |

## Hard-X Jusqu'à up to Hasta Fino a 67 HRC

De dureté à chaud élevée (3500 HV), ce revêtement présente une très grande stabilité thermique et une excellente protection contre la chaleur et l'usure. Idéal pour les usinages à sec - à très grande vitesse - dans les aciers traités et matrices.

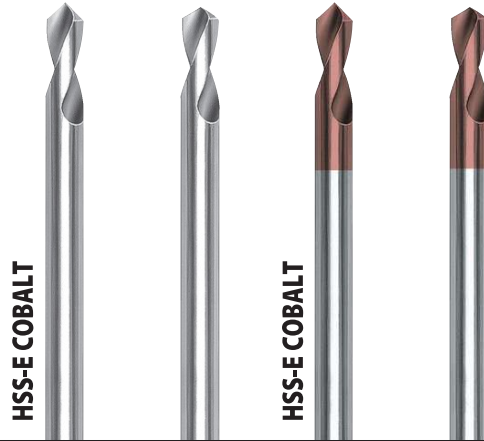
With a high hardness (3500 HV), this coating shows a high thermic stability and an excellent protection against heat and wear. Ideal for dry machining - high speed cut - in treated steels and dies.

Con una alta dureza (3500 HV) este recubrimiento proporciona una alta estabilidad térmica y una excelente protección contra el calor y el desgaste. Ideal para mecanizado en seco - a alta velocidad - en aceros tratados y de matrices.

Con notevole durezza a caldo (3500 HV) questo rivestimento presenta una grande stabilità termica ed un'eccellente protezione contro il calore e l'usura. Ideale per le lavorazioni a secco - a velocità elevate - negli acciai trattati e nelle matrici.

**magafor** *Le choix! The choice! La elección! La scelta!*

| Matière Material<br>Materiale          | HSS  | HSS-E COBALT   | HSS-E COBALT<br>+ Red'X | CARBURE CARBIDE<br>Metallo duro  | CARBURE CARBIDE<br>+ Hard'X |
|--|--|--|-------------------------|--|-----------------------------|
| Dureté Hardness<br>Durezza             | 63 HRC   | 65 HRC   | 65 HRC<br>+ 2300 HV     | 1800 HV  | 1800 HV<br>+ 3500 HV        |
| Utilisation Use<br>Utilización Impiego | Petites séries<br>Small series<br>Pequeñas series<br>Piccole serie | Production intensive<br>Intensive production<br>Producción intensiva<br>Produzione intensiva |                         | Aciers trempés<br>Treated steels<br>Aceros tratados<br>Acciai temprati |                             |
| Page<br>Pagina                         | ➤ 37-40-43   |  | ➤ 37~ 43                |  | ➤ 36-39-42                  |



| magafor standard |     |    | 90°         | 120°        | 90°        | 120°       |
|------------------|-----|----|-------------|-------------|------------|------------|
| D                | L   | ℓ  | magafor 197 | magafor 199 | Red'X 0997 | Red'X 0999 |
| h6               | ± 1 | +1 |             |             |            |            |
| 1,0              | 50  | 6  | 57,77 €     | 57,77 €     | 62,64 €    | 62,64 €    |
| 2,0              | 60  | 8  | 48,64 €     | 48,64 €     | 58,37 €    | 58,37 €    |
| 3,0              | 80  | 10 | 42,56 €     | 42,56 €     | 47,42 €    | 47,42 €    |
| 4,0              | 100 | 12 | 39,52 €     | 39,52 €     | 44,39 €    | 44,39 €    |
| 5,0              | 120 | 15 | 42,56 €     | 42,56 €     | 47,42 €    | 47,42 €    |
| 6,0              | 140 | 20 | 45,61 €     | 45,61 €     | 50,47 €    | 50,47 €    |
| 6,35 (1/4")      | 140 | 22 | 48,64 €     | 48,64 €     | 54,73 €    | 54,73 €    |
| 8,0              | 140 | 25 | 51,68 €     | 51,68 €     | 58,98 €    | 58,98 €    |
| 9,52 (3/8")      | 170 | 25 | 69,93 €     | 69,93 €     | 78,44 €    | 78,44 €    |
| 10,0             | 170 | 25 | 72,97 €     | 72,97 €     | 82,70 €    | 82,70 €    |
| 12,0             | 170 | 30 | 90,00 €     | 90,00 €     | 100,93 €   | 100,93 €   |
| 12,70 (1/2")     | 170 | 35 | 93,63 €     | 93,63 €     | 104,59 €   | 104,59 €   |
| 15,87 (5/8")     | 200 | 35 | 130,92 €    | 130,92 €    | 140,52 €   | 140,52 €   |
| 16,0             | 200 | 35 | 133,25 €    | 133,25 €    | 142,86 €   | 142,86 €   |
| 19,05 (3/4")     | 200 | 40 | 167,87 €    | 167,87 €    | 185,33 €   | 185,33 €   |
| 20,0             | 200 | 40 | 171,66 €    | 171,66 €    | 191,45 €   | 191,45 €   |
| 25,4 (1")        | 200 | 45 | 215,88 €    | 215,88 €    |            |            |

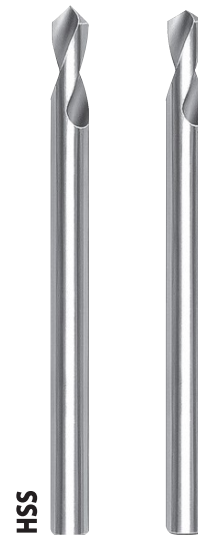
performances  
 p. 17



**Red-X**  
 Jusqu'à  
 up to  
 Hasta  
 Fino a 55 HRC



| α    |            |               |         | 90°          | 120°         |
|------|------------|---------------|---------|--------------|--------------|
| inch | D h7<br>mm | L<br>± 1      | ℓ<br>+1 | classic 19-C | classic 19-D |
| 1/4" | 6,35       | 66 (2-5/8")   | 22      | 13,37 €      | 13,37 €      |
|      |            | 102 (4")      | 22      | 34,65 €      | 34,65 €      |
|      |            | 140 (5-1/2")  | 22      | 42,88 €      | 42,88 €      |
| 3/8" | 9,52       | 79 (3")       | 25      | 16,12 €      | 16,12 €      |
|      |            | 127 (5")      | 25      | 54,73 €      | 54,73 €      |
|      |            | 178 (7")      | 25      | 67,49 €      | 67,49 €      |
| 1/2" | 12,7       | 95 (3-3/4")   | 35      | 24,02 €      | 24,02 €      |
|      |            | 152 (6")      | 35      | 67,49 €      | 67,49 €      |
|      |            | 203 (8")      | 35      | 84,52 €      | 84,52 €      |
| 5/8" | 15,87      | 111 (4-3/8")  | 35      | 32,52 €      | 32,52 €      |
|      |            | 200 (8")      | 35      | 113,47 €     | 113,47 €     |
|      |            | 229 (9")      | 35      | 142,56 €     | 142,56 €     |
| 3/4" | 19,05      | 127 (5")      | 40      | 62,33 €      | 62,33 €      |
|      |            | 200 (8")      | 40      | 148,38 €     | 148,38 €     |
|      |            | 254 (10")     | 40      | 177,48 €     | 177,48 €     |
| 1"   | 25,4       | 138 (5-7/16") | 45      | 95,46 €      | 95,46 €      |
|      |            | 200 (8")      | 45      | 190,58 €     | 190,58 €     |
|      |            | 254 (10")     | 45      | 229,55 €     | 229,55 €     |



HSS

Centrage • Pointage / Centering • Spotting  
 Centatura • Centatura NC / Centrato • Punteado