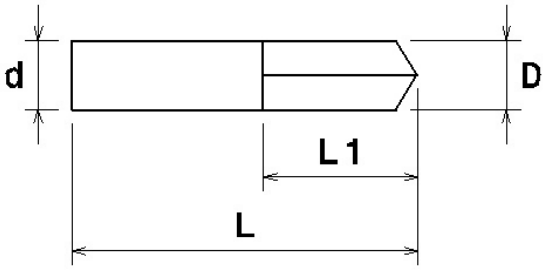
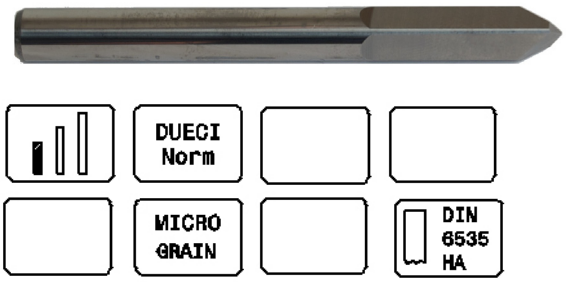
# Utensile Salva (Rompi maschi)

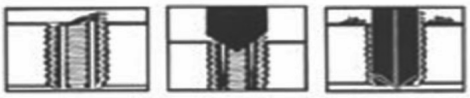
*Safety break up tool*




| D h10 | L1 | L | d h6 | Cod. | € uncoated | € TiaIn | € TopTiaIn |
|---|---|---|---|---|---|---|---|
| 2 | 10 | 50 | 2 | **S4402** | 25,00 | | |
| 2,5 | 15 | 50 | 2,5 | **S44025** | 25,00 | | |
| 3 | 15 | 50 | 3 | **S4403** | 25,00 | | |
| 3,5 | 15 | 50 | 3,5 | **S44035** | 25,00 | | |
| 4 | 20 | 50 | 4 | **S4404** | 25,00 | | |
| 4,5 | 20 | 50 | 4,5 | **S44045** | 30,00 | | |
| 5 | 25 | 50 | 5 | **S4405** | 30,00 | | |
| 6 | 30 | 60 | 6 | **S4406** | 30,00 | | |
| 7 | 30 | 75 | 7 | **S4407** | 35,00 | | |
| 8 | 30 | 80 | 8 | **S4408** | 35,00 | | |
| 9 | 35 | 100 | 9 | **S4409** | 35,00 | | |
| 10 | 35 | 100 | 10 | **S4410** | 50,00 | | |
| 11 | 35 | 100 | 11 | **S4411** | 50,00 | | |
| 12 | 35 | 100 | 12 | **S4412** | 55,00 | | |

## MODO D'UTILIZZO - *USING METHOD*



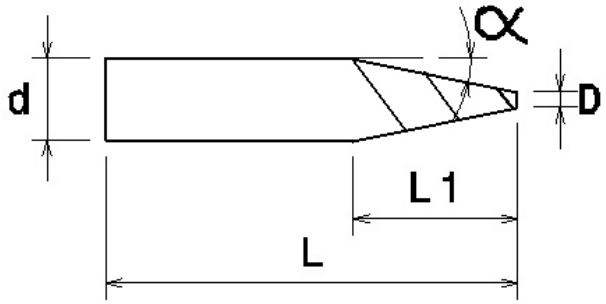
| PER ESTRAZIONE MASCHI - *TO REMOVE TAPS* | |
|---|---|
| ø maschio (taps) 3mm | Salva S4402 |
| ø maschio (taps) 4/5 mm | Salva S4403 |
| ø maschio (taps) 6mm | Salva S4404 |
| ø maschio (taps) 8/10 mm | Salva S4405 |
| ø maschio (taps) 10/12 mm | Salva S4406 |
| ø maschio (taps) 14/16 mm | Salva S4408 |
| ø maschio (taps) 18/20 mm | Salva S4410 |
| ø maschio (taps) 22/24 mm | Salva S4412 |

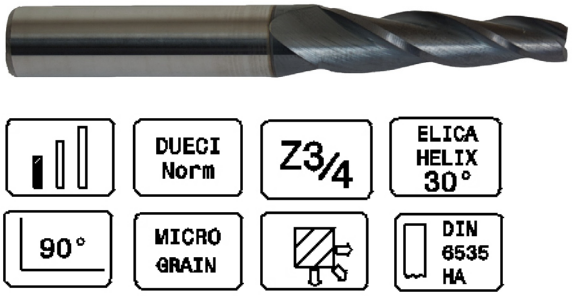
L'utensile Salva in metallo duro integrale è stato progettato per distruggere maschi spezzati dentro i fori. La lavorazione viene eseguita a secco.
1 - E' consigliabile eseguire una spianatura del maschio rotto usando l'utensile Salva di una misura più grande. Passare quindi alla scelta dell'utensile Salva per il tipo di maschio rotto consultando la tabella a fianco riportata. E' molto importante che la macchina utensile sia rigida e con una velocità di lavoro da 1000 a 3500 giri/min.
2 - Ultima operazione rimuovere i pezzi di maschio rimasti lungo le pareti usando un utensile appuntito. Nel caso risultasse conveniente il refrigerante avere cura che questo sia continuo e abbondante.
3- L'utensile Salva è pure adatto per eseguire fori precisi dal pieno in una sola operazione su acciai cementati, temperati stelliti e tipi di acciai inox.
Può forare in limiti di tolleranza molto ristrette con ottimo grado di finitura evitando in molti casi l'operazione di alesatura.

The Safety Break Up Tool made out from Solide Carbide has been designed to totally remove the taps broken inside the machined hole. Cutting operation to be made in dry execution :
1 - It is recommended to make a first flattening of the broken tap by the Carbide Safety Break Up Tool of a bigger size. Then select the most appropriate Safety Tool for the kind of broken tap ( see the table below ). It is very important that machinery is rigid and the cutting speed is 1000 to 3500RPM.
2 -Last operation to remove all the smashed tap pieces along the hole by a sharp tool. Whenever coolant is convenient please make sure it flows nonstop and massively.
3 - The Safety Break Up Tool is also suitable to machine precise holes from solide carbide materials in one operation and from hardened steels, satellite and any kind of stainless steels and steel alloys. It can machine within very strict tolerances achieving good finishing and it can substitute the reaming operation.

# Frese coniche per stampi taglio al centro

*Tapered end mills for mould & dies center cutting*



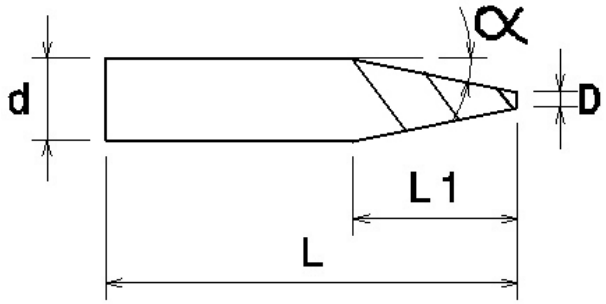

| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 60 | 4 | 3 | 0,5° | **300525** | 20,00 | 23,70 | 24,90 |
| 3 | 20 | 60 | 4 | 3 | 0,5° | **30053** | 20,00 | 23,70 | 24,90 |
| 3,5 | 20 | 60 | 5 | 3 | 0,5° | **300535** | 20,00 | 24,90 | 26,10 |
| 4 | 20 | 60 | 5 | 3 | 0,5° | **30054** | 20,00 | 24,90 | 26,10 |
| 5 | 30 | 75 | 6 | 3 | 0,5° | **30055** | 30,00 | 35,00 | 36,80 |
| 6 | 30 | 75 | 8 | 4 | 0,5° | **30056** | 35,00 | 41,00 | 43,00 |
| 8 | 30 | 75 | 10 | 4 | 0,5° | **30058** | 45,00 | 52,30 | 55,00 |
| 10 | 30 | 75 | 12 | 4 | 0,5° | **300510** | 60,00 | 67,30 | 70,70 |
| 12 | 50 | 100 | 14 | 4 | 0,5° | **300512** | 102,00 | 111,70 | 117,30 |
| 16 | 60 | 100 | 18 | 4 | 0,5° | **300516** | 132,00 | 143,00 | 150,00 |

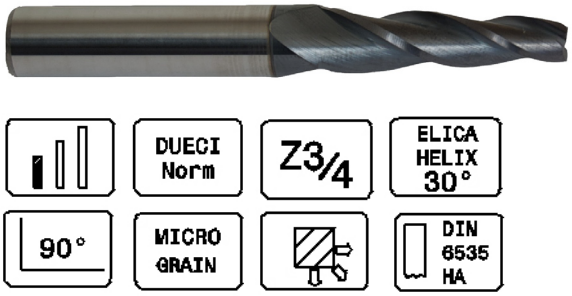
| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 60 | 4 | 3 | 1° | **30125** | 20,00 | 23,70 | 24,90 |
| 3 | 20 | 60 | 4 | 3 | 1° | **3013** | 20,00 | 23,70 | 24,90 |
| 3,5 | 20 | 60 | 5 | 3 | 1° | **30135** | 20,00 | 24,90 | 26,10 |
| 4 | 20 | 60 | 5 | 3 | 1° | **3014** | 20,00 | 24,90 | 26,10 |
| 5 | 30 | 75 | 6 | 3 | 1° | **3015** | 30,00 | 35,00 | 36,80 |
| 6 | 30 | 75 | 8 | 4 | 1° | **3016** | 35,00 | 41,00 | 43,00 |
| 8 | 30 | 75 | 10 | 4 | 1° | **3018** | 45,00 | 52,30 | 55,00 |
| 10 | 30 | 75 | 12 | 4 | 1° | **30110** | 60,00 | 67,30 | 70,70 |
| 12 | 50 | 100 | 14 | 4 | 1° | **30112** | 102,00 | 111,70 | 117,30 |
| 16 | 60 | 100 | 18 | 4 | 1° | **30116** | 132,00 | 143,00 | 150,00 |

| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 60 | 4 | 3 | 1,5° | **301525** | 20,00 | 23,70 | 24,90 |
| 3 | 20 | 60 | 4 | 3 | 1,5° | **30153** | 20,00 | 23,70 | 24,90 |
| 3,5 | 20 | 60 | 5 | 3 | 1,5° | **301535** | 20,00 | 24,90 | 26,10 |
| 4 | 20 | 60 | 5 | 3 | 1,5° | **30154** | 20,00 | 24,90 | 26,10 |
| 5 | 30 | 75 | 6 | 3 | 1,5° | **30155** | 30,00 | 35,00 | 36,80 |
| 6 | 30 | 75 | 8 | 4 | 1,5° | **30156** | 35,00 | 41,00 | 43,00 |
| 8 | 30 | 75 | 10 | 4 | 1,5° | **30158** | 45,00 | 52,30 | 55,00 |
| 10 | 30 | 75 | 12 | 4 | 1,5° | **301510** | 60,00 | 67,30 | 70,70 |
| 12 | 50 | 100 | 16 | 4 | 1,5° | **301512** | 107,00 | 116,90 | 122,80 |
| 16 | 60 | 100 | 20 | 4 | 1,5° | **301516** | 154,00 | 168,00 | 176,40 |

# Frese coniche per stampi taglio al centro

*Tapered end mills for mould & dies center cutting*



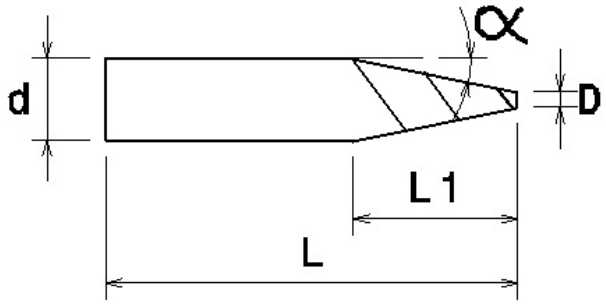

| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 60 | 4 | 3 | 2° | **30225** | 20,00 | 23,70 | 24,90 |
| 3 | 20 | 60 | 5 | 3 | 2° | **3023** | 20,00 | 24,90 | 26,10 |
| 3,5 | 20 | 60 | 5 | 3 | 2° | **30235** | 20,00 | 24,90 | 26,10 |
| 4 | 20 | 60 | 6 | 3 | 2° | **3024** | 25,00 | 30,00 | 31,50 |
| 5 | 30 | 75 | 8 | 3 | 2° | **3025** | 35,00 | 41,00 | 43,00 |
| 6 | 30 | 75 | 8 | 4 | 2° | **3026** | 35,00 | 41,00 | 43,00 |
| 8 | 30 | 75 | 10 | 4 | 2° | **3028** | 45,00 | 52,30 | 55,00 |
| 10 | 30 | 75 | 12 | 4 | 2° | **30210** | 60,00 | 67,30 | 70,70 |
| 12 | 50 | 100 | 16 | 4 | 2° | **30212** | 107,00 | 116,90 | 122,80 |

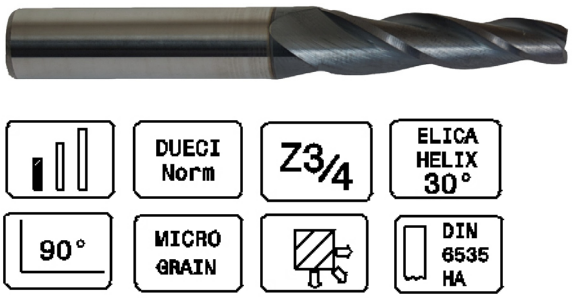
| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 60 | 6 | 3 | 3° | **30325** | 30,00 | 35,00 | 36,80 |
| 3 | 25 | 60 | 6 | 3 | 3° | **3033** | 30,00 | 35,00 | 36,80 |
| 3,5 | 30 | 75 | 8 | 3 | 3° | **30335** | 40,00 | 46,00 | 48,30 |
| 4 | 30 | 75 | 8 | 3 | 3° | **3034** | 40,00 | 46,00 | 48,30 |
| 5 | 40 | 75 | 10 | 3 | 3° | **3035** | 55,00 | 62,30 | 65,50 |
| 6 | 30 | 75 | 10 | 3 | 3° | **3036** | 55,00 | 62,30 | 65,50 |
| 8 | 30 | 75 | 12 | 4 | 3° | **3038** | 62,00 | 69,30 | 72,80 |
| 10 | 50 | 100 | 16 | 4 | 3° | **30310** | 120,00 | 129,70 | 136,20 |
| 12 | 55 | 100 | 18 | 4 | 3° | **30312** | 140,00 | 151,60 | 159,20 |

| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 60 | 6 | 3 | 4° | **30425** | 30,00 | 35,00 | 36,80 |
| 3 | 20 | 60 | 6 | 3 | 4° | **3043** | 30,00 | 35,00 | 36,80 |
| 3,5 | 25 | 60 | 8 | 3 | 4° | **30435** | 40,00 | 46,00 | 48,30 |
| 4 | 30 | 75 | 10 | 3 | 4° | **3044** | 50,00 | 57,30 | 60,20 |
| 5 | 40 | 100 | 12 | 3 | 4° | **3045** | 70,00 | 79,00 | 83,00 |
| 6 | 50 | 100 | 16 | 3 | 4° | **3046** | 110,00 | 120,00 | 126,00 |
| 8 | 50 | 100 | 18 | 4 | 4° | **3048** | 140,00 | 151,60 | 159,20 |
| 10 | 50 | 100 | 20 | 4 | 4° | **30410** | 160,00 | 174,00 | 182,70 |
| 12 | 55 | 100 | 20 | 4 | 4° | **30412** | 160,00 | 174,00 | 182,70 |

# Frese coniche per stampi taglio al centro

*Tapered end mills for mould & dies center cutting*



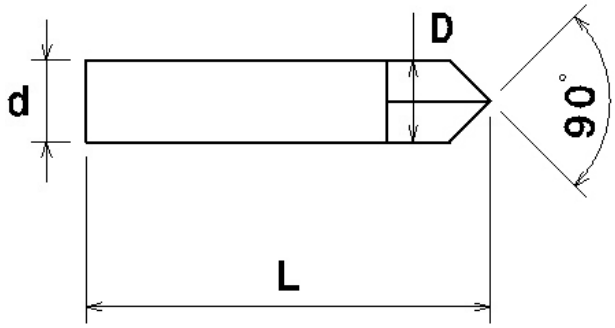

| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 60 | 6 | 3 | 5° | **30525** | 25,00 | 30,00 | 31,50 |
| 3 | 25 | 60 | 8 | 3 | 5° | **3053** | 35,00 | 41,00 | 43,10 |
| 3,5 | 30 | 75 | 10 | 3 | 5° | **30535** | 50,00 | 57,30 | 60,20 |
| 4 | 30 | 75 | 10 | 3 | 5° | **3054** | 50,00 | 57,30 | 60,20 |
| 5 | 40 | 100 | 12 | 3 | 5° | **3055** | 70,00 | 79,00 | 83,00 |
| 6 | 50 | 100 | 16 | 3 | 5° | **3056** | 110,00 | 120,00 | 126,00 |
| 8 | 50 | 100 | 18 | 4 | 5° | **3058** | 140,00 | 151,60 | 159,20 |
| 10 | 50 | 100 | 20 | 4 | 5° | **30510** | 160,00 | 174,00 | 182,70 |
| 12 | 50 | 100 | 20 | 4 | 5° | **30512** | 160,00 | 174,00 | 182,70 |

| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 60 | 8 | 3 | 7° | **30725** | 35,00 | 41,00 | 43,10 |
| 5 | 25 | 80 | 12 | 3 | 7° | **3075** | 65,00 | 74,00 | 77,70 |

| D h10 | L1 | L | d h6 | Z | α | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|---|
| 2,5 | 20 | 75 | 10 | 3 | 10° | **301025** | 55,00 | 62,30 | 65,50 |
| 3 | 30 | 80 | 14 | 3 | 10° | **30103** | 90,00 | 99,50 | 104,50 |
| 6 | 30 | 100 | 16 | 3 | 10° | **30106** | 110,00 | 120,00 | 126,00 |
| 8 | 30 | 100 | 20 | 4 | 10° | **30108** | 170,00 | 184,00 | 193,20 |

# Frese per smussare

*Chamfering carbide end mills*





| D h10 | L1 | L | d h6 | Z | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|
| 6 | 8 | 38 | 6 | 4 | **534506** | 10,80 | 15,40 | 16,20 |
| 8 | 11 | 43 | 8 | 4 | **534508** | 17,00 | 22,50 | 23,70 |
| 10 | 13 | 50 | 10 | 4 | **534510** | 24,00 | 30,80 | 32,40 |
| 12 | 15 | 60 | 12 | 4 | **534512** | 34,90 | 41,70 | 43,80 |

| D h10 | L1 | L | d h6 | Z | Cod. | € uncoated | € TiAln | € TopTiAln |
|---|---|---|---|---|---|---|---|---|
| 6 | 8 | 60 | 6 | 4 | **534506L** | 13,60 | 18,20 | 19,10 |
| 8 | 11 | 70 | 8 | 4 | **534508L** | 22,30 | 27,80 | 29,20 |
| 10 | 13 | 75 | 10 | 4 | **534510L** | 31,00 | 37,70 | 39,60 |
| 12 | 15 | 75 | 12 | 4 | **534512L** | 40,90 | 47,60 | 50,00 |