



# **MANDRINI IDRAULICI**

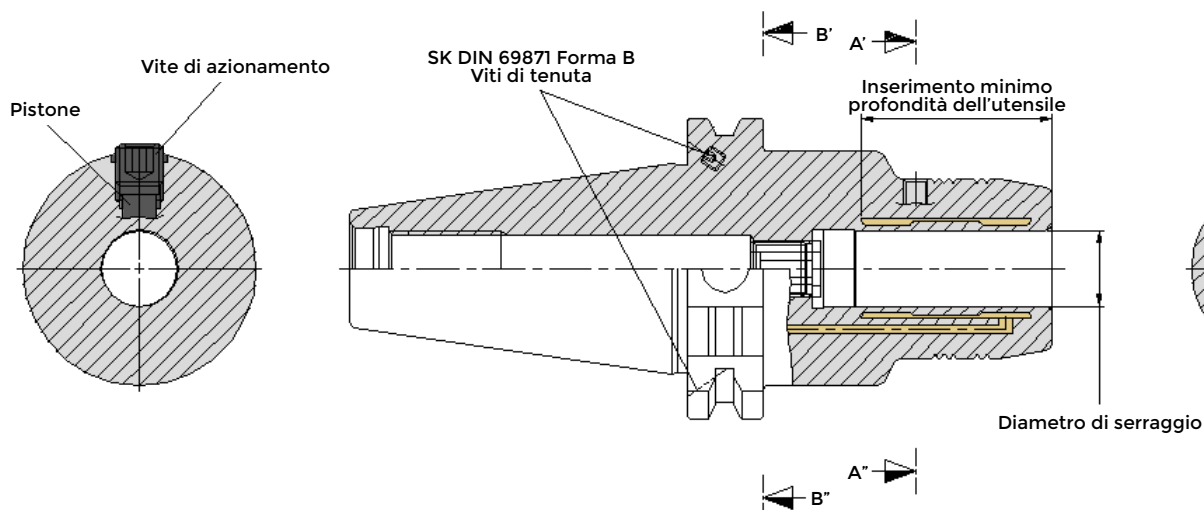
PER UTENSILI  
ATTACCO CILINDRICO

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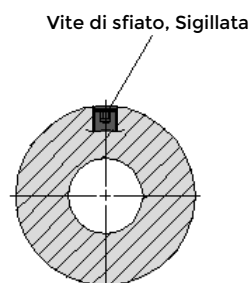


## MANUALE OPERATIVO PER L'UTILIZZO DEI MANDRINI IDRAULICI

### SEZIONE B'-B''



### SEZIONE A'-A''



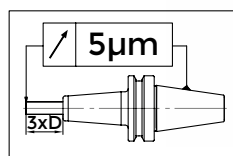
Raccomandiamo di seguire le nostre istruzioni operative per risparmiare tempo ed evitare problemi:

**TABELLA DELLE INFORMAZIONI TECNICHE**

| DIAMETRO<br>MANDRINO<br>(HC) | MASSIMA VELOCITÀ<br>DI ROTAZIONE<br>(rpm) | MINIMA LUNGHEZZA<br>DI SERRAGGIO<br>(mm) | TEMPERATURA<br>OPERATIVA<br>(°C) | MASSIMA<br>PRESSIONE<br>REFRIGERANTE<br>(bar) | COPPIA<br>(Nm) |
|------------------------------|-------------------------------------------|------------------------------------------|----------------------------------|-----------------------------------------------|----------------|
| HC6                          | 40.000                                    | 27                                       | 20-50                            | 80                                            | 8              |
| HC8                          | 40.000                                    | 27                                       | 20-50                            | 80                                            | 15             |
| HC10                         | 40.000                                    | 32                                       | 20-50                            | 80                                            | 30             |
| HC12                         | 40.000                                    | 37                                       | 20-50                            | 80                                            | 45             |
| HC14                         | 40.000                                    | 37                                       | 20-50                            | 80                                            | 75             |
| HC16                         | 40.000                                    | 42                                       | 20-50                            | 80                                            | 120            |
| HC18                         | 40.000                                    | 42                                       | 20-50                            | 80                                            | 170            |
| HC20                         | 40.000                                    | 42                                       | 20-50                            | 80                                            | 230            |
| HC25                         | 25.000                                    | 48                                       | 20-50                            | 80                                            | 300            |
| HC32                         | 25.000                                    | 55                                       | 20-50                            | 80                                            | 400            |

- Inserire solo utensili con gambo totalmente cilindrico ed in tolleranza h6
- Non inserire direttamente attacchi Weldon o Whistle-Notch ma solo con bussola di riduzione
- Non chiudere mai il mandrino idraulico a vuoto senza inserire prima l'utensile
- In fase di chiusura mandare la vite di chiusura fino in battuta
- Se il mandrino è soggetto a lunghi periodi di utilizzo, prima di riutilizzarlo aprire e richiudere l'utensile montato

## MANDRINI IDRAULICI PER UTENSILI ATTACCO CILINDRICO



H= 0 > 100 mm - 5 µm  
H= 100 > 200 mm - 10 µm

### MAS 403/BT AD

| COD.       | DESCRIZIONE     | ISO | D  | d1 | d2   | d3 | L    | L1   | L2 min | L2 max | V  | M      | TIPO | G2,5<br>20000 |
|------------|-----------------|-----|----|----|------|----|------|------|--------|--------|----|--------|------|---------------|
| 252-11467  | BT30-HC3-70     | 30  | 3  | 45 | 24   | 21 | 70   | 30   | -      | 24     | -  | -      | A    | •             |
| 252-11468  | BT30-HC4-70     | 30  | 4  | 45 | 25   | 22 | 70   | 30   | -      | 28     | -  | -      | A    | •             |
| 252-11470  | BT30-HC6-70     | 30  | 6  | 45 | 28   | 25 | 70   | 28   | 27,5   | 37,5   | 10 | M5x0,8 | A    | •             |
| 252-11471  | BT30-HC8-70     | 30  | 8  | 45 | 30   | 27 | 70   | 28   | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11472  | BT30-HC10-75    | 30  | 10 | 45 | 32   | 29 | 75   | 38   | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11473  | BT30-HC12-75    | 30  | 12 | 45 | 34   | 31 | 75   | 36   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11474  | BT30-HC14-85    | 30  | 14 | 45 | 36   | 33 | 85   | 44   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11419  | BT30-HC16-90    | 30  | 16 | 45 | 38   | 35 | 90   | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| *252-11442 | BT30-G20CS-85   | 30  | 20 | -  | 44   | 40 | 85   | 63   | 42,5   | 52,5   | 10 | M8x1   | B    | •             |
| 252-11421  | BT30-HC20-90    | 30  | 20 | -  | 43   | 40 | 90   | 68   | 42,5   | 52,5   | 10 | M8x1   | B    | •             |
| 252-11422  | BT40-HC6-90     | 40  | 6  | 50 | 28   | 25 | 90   | 44   | 27,5   | 37,5   | 10 | M5x0,8 | A    | •             |
| 252-11423  | BT40-HC8-90     | 40  | 8  | 50 | 30   | 27 | 90   | 39   | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11424  | BT40-HC10-90    | 40  | 10 | 50 | 32   | 29 | 90   | 44   | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11425  | BT40-HC12-90    | 40  | 12 | 50 | 34   | 31 | 90   | 44   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11426  | BT40-HC14-90    | 40  | 14 | 50 | 36   | 33 | 90   | 44   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11427  | BT40-HC16-90    | 40  | 16 | 50 | 38   | 35 | 90   | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11428  | BT40-HC18-90    | 40  | 18 | 50 | 41   | 38 | 90   | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| *252-11443 | BT40-G20CS-72,5 | 40  | 20 | -  | 49,5 | 40 | 72,5 | 45,5 | 42,5   | 52,5   | 10 | M8x1   | B    | •             |
| 252-11429  | BT40-HC20-90    | 40  | 20 | 50 | 43   | 40 | 90   | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11482  | BT40-HC20-140   | 40  | 20 | 50 | 43   | 40 | 140  | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11483  | BT40-HC25-100   | 40  | 25 | -  | 57   | 53 | 100  | 73   | 51     | 61     | 10 | M16x1  | B    | •             |
| 252-11485  | BT40-HC32-105   | 40  | 32 | -  | 63   | 58 | 105  | -    | 55     | 65     | 10 | M16x1  | B    | •             |
| 252-11433  | BT50-HC8-90     | 50  | 8  | 50 | 30   | 27 | 90   | 32   | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11434  | BT50-HC10-90    | 50  | 10 | 50 | 32   | 29 | 90   | 32   | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11435  | BT50-HC12-90    | 50  | 12 | 50 | 34   | 31 | 90   | 32   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11436  | BT50-HC14-90    | 50  | 14 | 50 | 36   | 33 | 90   | 32   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11437  | BT50-HC16-90    | 50  | 16 | 50 | 38   | 35 | 90   | 32   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| *252-11439 | BT50-HC20-90    | 50  | 20 | 50 | 43   | 40 | 90   | 32   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11494  | BT50-HC20-140   | 50  | 20 | 50 | 43   | 40 | 140  | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11495  | BT50-HC25-105   | 50  | 25 | -  | 57   | 53 | 105  | 86   | 51     | 61     | 10 | M16x1  | A    | •             |
| 252-11496  | BT50-HC25-150   | 50  | 25 | -  | 57   | 53 | 150  | 112  | 51     | 61     | 10 | M16x1  | B    | •             |
| 252-11444  | BT50-G32CS-90   | 50  | 32 | -  | 72   | 60 | 90   | 52   | 55     | 65     | 10 | M16x1  | B    | •             |
| 252-11497  | BT50-HC32-115   | 50  | 32 | -  | 63   | 58 | 115  | 77   | 55     | 65     | 10 | M16x1  | B    | •             |

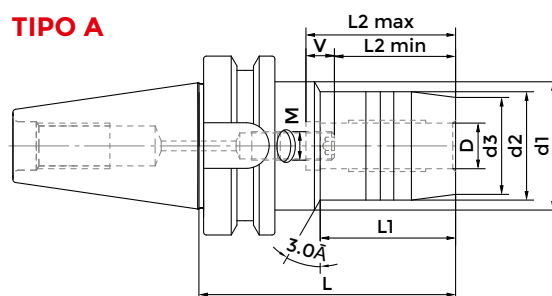
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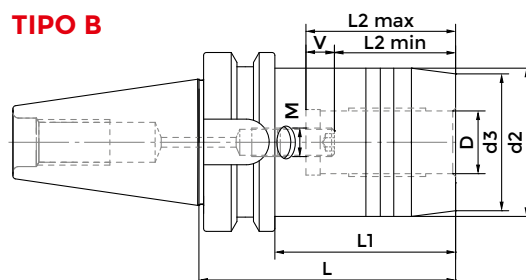


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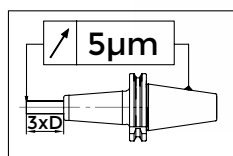
### TIPO A



### TIPO B



## MANDRINI IDRAULICI PER UTENSILI ATTACCO CILINDRICO



H= 0 > 100 mm - 5 µm  
H= 100 > 200 mm - 10 µm

### DIN69871 AD

| COD.       | DESCRIZIONE          | ISO | D  | d1 | d2   | d3 | L    | L1   | L2 min | L2 max | V  | M      | TIPO | G2,5<br>20000 |
|------------|----------------------|-----|----|----|------|----|------|------|--------|--------|----|--------|------|---------------|
| 252-11305  | TC40-HC6-80,5        | 40  | 6  | 50 | 28   | 25 | 80,5 | 44   | 27,5   | 37,5   | 10 | M5x0,8 | A    | •             |
| 252-11307  | TC40-HC8-80,5        | 40  | 8  | 50 | 30   | 27 | 80,5 | 44   | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11308  | TC40-HC8-110         | 40  | 8  | 50 | 30   | 27 | 110  | 44   | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11309  | TC40-HC10-80,5       | 40  | 10 | 50 | 32   | 29 | 80,5 | 44   | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11310  | TC40-HC10-110        | 40  | 10 | 50 | 32   | 29 | 110  | 44   | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11311  | TC40-HC12-80,5       | 40  | 12 | 50 | 34   | 31 | 80,5 | 44   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11312  | TC40-HC12-110        | 40  | 12 | 50 | 34   | 31 | 110  | 44   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11327  | TC40-HC14-80,5       | 40  | 14 | 50 | 36   | 33 | 80,5 | 44   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11313  | TC40-HC16-80,5       | 40  | 16 | 50 | 38   | 35 | 80,5 | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11314  | TC40-HC16-110        | 40  | 16 | 50 | 38   | 35 | 110  | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11328  | TC40-HC18-80,5       | 40  | 18 | 50 | 41   | 38 | 80,5 | 30   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| *252-11325 | TC40-G20CS-64,5      | 40  | 20 | -  | 49,5 | 40 | 64,5 | 45,5 | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 5150       | TC40-G20CS-64,5 AD+B | 40  | 20 | -  | 49,5 | 40 | 64,5 | 45,5 | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11315  | TC40-HC20-80,5       | 40  | 20 | 50 | 43   | 40 | 80,5 | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11316  | TC40-HC20-110        | 40  | 20 | 50 | 43   | 40 | 110  | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11317  | TC40-HC25-80,5       | 40  | 25 | 66 | 57   | 53 | 80,5 | 26   | 51     | 61     | 10 | M16x1  | B    | •             |
| 252-11318  | TC40-HC32-80,5       | 40  | 32 | 80 | 63   | 60 | 80,5 | 26   | 55     | 65     | 10 | M16x1  | B    | •             |
| 252-11348  | TC50-HC6-90          | 50  | 6  | 50 | 28   | 25 | 90   | 44   | 27,5   | 37,5   | 10 | M5x0,8 | A    | •             |
| 252-11350  | TC50-HC8-90          | 50  | 8  | 50 | 30   | 27 | 90   | 44   | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11352  | TC50-HC10-90         | 50  | 10 | 50 | 32   | 29 | 90   | 44   | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11354  | TC50-HC12-90         | 50  | 12 | 50 | 34   | 31 | 90   | 44   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11356  | TC50-HC14-90         | 50  | 14 | 50 | 36   | 33 | 90   | 47   | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11358  | TC50-HC16-90         | 50  | 16 | 50 | 38   | 35 | 90   | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11360  | TC50-HC18-90         | 50  | 18 | 50 | 41   | 38 | 90   | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11362  | TC50-HC20-90         | 50  | 20 | 50 | 43   | 40 | 90   | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11363  | TC50-HC20-140        | 50  | 20 | 50 | 43   | 40 | 140  | 48   | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11364  | TC50-HC25-105        | 50  | 25 | -  | 57   | 53 | 105  | 86   | 51     | 61     | 10 | M16x1  | B    | •             |
| *252-11326 | TC50-G32CS-81        | 50  | 32 | -  | 72   | 60 | 81   | 62   | 55     | 65     | 10 | M16x1  | B    | •             |
| 252-11366  | TC50-HC32-115        | 50  | 32 | -  | 63   | 58 | 115  | 96   | 55     | 65     | 10 | M16x1  | B    | •             |
| 252-11367  | TC50-HC32-140        | 50  | 32 | -  | 63   | 58 | 140  | 121  | 55     | 65     | 10 | M16x1  | B    | •             |

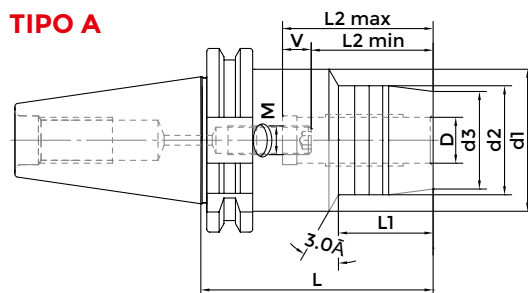
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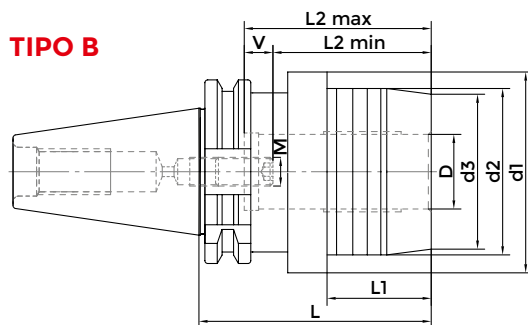


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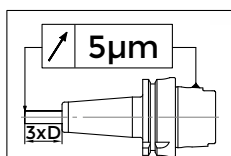
### TIPO A



### TIPO B



## MANDRINI IDRAULICI PER UTENSILI ATTACCO CILINDRICO



H= 0 > 100 mm - 5 µm  
H= 100 > 200 mm - 10 µm

### DIN69893 A

| COD.       | DESCRIZIONE      | HSK | D  | d1 | d2 | d3 | L   | L1  | L3  | L2 min | L2 max | V  | M      | TIPO | G2,5<br>20000 |
|------------|------------------|-----|----|----|----|----|-----|-----|-----|--------|--------|----|--------|------|---------------|
| 252-11759  | HSK50A-HC6-70    | 50  | 6  | 40 | 28 | 25 | 70  | 28  | 44  | 27,5   | 37,5   | 10 | M5x0,8 | A    | •             |
| 252-11760  | HSK50A-HC8-70    | 50  | 8  | 40 | 30 | 27 | 70  | 28  | 44  | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11761  | HSK50A-HC10-80   | 50  | 10 | 40 | 32 | 29 | 80  | 34  | 54  | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11762  | HSK50A-HC12-85   | 50  | 12 | 40 | 34 | 31 | 85  | 44  | 59  | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11766  | HSK50A-HC20-90   | 50  | 20 | -  | 42 | 40 | 90  | -   | 64  | 42,5   | 52,5   | 10 | M6x1   | A    | •             |
| 252-11737  | HSK63A-HC6-70    | 63  | 6  | 50 | 28 | 25 | 70  | 24  | 44  | 27,5   | 37,5   | 10 | M5x0,8 | A    | •             |
| 252-11738  | HSK63A-HC8-70    | 63  | 8  | 50 | 30 | 27 | 70  | 24  | 44  | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11739  | HSK63A-HC10-80   | 63  | 10 | 50 | 32 | 29 | 80  | 35  | 54  | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11740  | HSK63A-HC12-85   | 63  | 12 | 50 | 34 | 31 | 85  | 40  | 59  | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11741  | HSK63A-HC14-85   | 63  | 14 | 50 | 36 | 33 | 85  | 40  | 59  | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11742  | HSK63A-HC16-90   | 63  | 16 | 50 | 38 | 35 | 90  | 46  | 64  | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| *252-11744 | HSK63A-HC20-90   | 63  | 20 | 50 | 43 | 40 | 90  | 48  | 64  | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-21718  | HSK63A-HC20-150  | 63  | 20 | 50 | 43 | 40 | 150 | 108 | 124 | 42,5   | 52,5   | 10 | M8x1   | -    | •             |
| 252-21719  | HSK63A-HC20-200  | 63  | 20 | 50 | 43 | 40 | 200 | 108 | 174 | 42,5   | 52,5   | 10 | M8x1   | -    | •             |
| 252-11745  | HSK63A-HC25-120  | 63  | 25 | 63 | 57 | 53 | 120 | 59  | 94  | 51     | 61     | 10 | M16x1  | B    | •             |
| 252-11746  | HSK63A-HC32-125  | 63  | 32 | 75 | 63 | 58 | 125 | 63  | 99  | 55     | 65     | 10 | M16x1  | B    | •             |
| 252-11767  | HSK100A-HC6-75   | 100 | 6  | 54 | 28 | 25 | 75  | 26  | 46  | 27,5   | 37,5   | 10 | M5x0,8 | A    | •             |
| 252-11768  | HSK100A-HC8-75   | 100 | 8  | 54 | 30 | 27 | 75  | 26  | 46  | 27,5   | 37,5   | 10 | M6x1   | A    | •             |
| 252-11769  | HSK100A-HC10-90  | 100 | 10 | 50 | 32 | 29 | 90  | 42  | 61  | 32,5   | 42,5   | 10 | M6x1   | A    | •             |
| 252-11770  | HSK100A-HC12-95  | 100 | 12 | 50 | 34 | 31 | 95  | 47  | 66  | 37,5   | 47,5   | 10 | M6x1   | A    | •             |
| 252-11772  | HSK100A-HC16-100 | 100 | 16 | 50 | 38 | 35 | 100 | 53  | 71  | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11774  | HSK100A-HC20-105 | 100 | 20 | 50 | 43 | 40 | 105 | 59  | 76  | 42,5   | 52,5   | 10 | M8x1   | A    | •             |
| 252-11775  | HSK100A-HC25-110 | 100 | 25 | 63 | 57 | 53 | 110 | 62  | 81  | 51     | 61     | 10 | M8x1   | A    | •             |
| 252-11776  | HSK100A-HC32-110 | 100 | 32 | 75 | 63 | 58 | 110 | 62  | 81  | 55     | 65     | 10 | M8x1   | A    | •             |

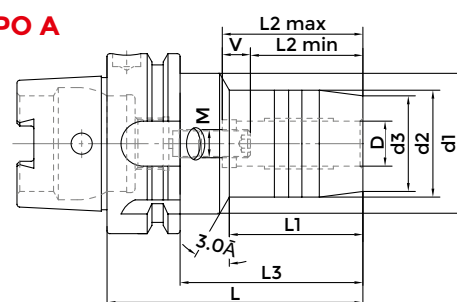
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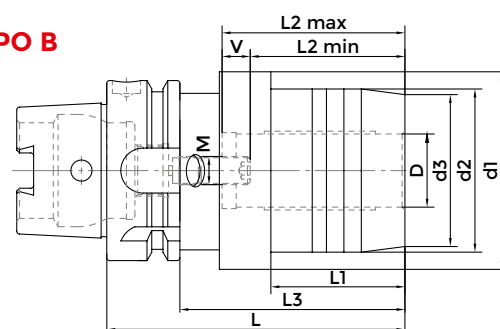


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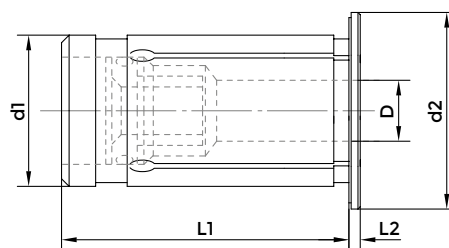
### TIPO A



### TIPO B



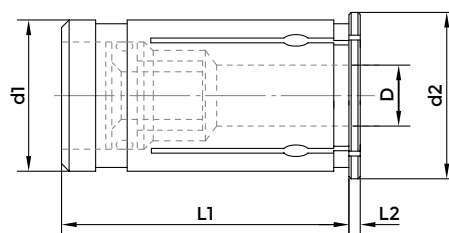
## PINZE A TENUTA STAGNA



| TIPO | d1 | d2   | L1   | L2 | D<br>diametro foro                                                      |
|------|----|------|------|----|-------------------------------------------------------------------------|
| 0520 | 12 | 16,5 | 45   | 2  | 2,5;3;4;5;6;7;8;*9;*10                                                  |
| 0521 | 20 | 24   | 50,5 | 2  | 3;4;5;6;7;8;9;10;11;12;13;14;15;16;*17;*18                              |
| 0676 | 25 | 29   | 54,5 | 2  | 6;7;8;9;10;10;11;12;13;14;15;16;17;18;19;20;*21;*22                     |
| 0522 | 32 | 35,5 | 60,5 | 2  | 4;5;6;7;8;9;10;11;12;13;14;15;16;17;18;19;20;21;22;23;24;25;*26;*27;*28 |

\* OVERSIZE - per le caratteristiche costruttive non consentono l'utilizzo ad elevate pressioni

## PINZE PER MANDRINI IDRAULICI



| TIPO     | d1 | d2 | L1   | L2 | D<br>diametro foro       |
|----------|----|----|------|----|--------------------------|
| GX12D... | 12 | 16 | 44,5 | 2  | 3;4;5;6;8;               |
| GX20D... | 20 | 24 | 50,5 | 2  | 3;4;5;6;8;10;12;14;16    |
| GX32D... | 32 | 36 | 60,5 | 3  | 6;8;10;12;14;16;18;20;25 |

## KIT IDRAULICO

| COD.           | CONTENUTO DEL KIT                                             |
|----------------|---------------------------------------------------------------|
| KIT BT30 G20   | N°1 BT30 H85 G20-WO + n°5 pinze GX20: Ø6,8,10,12,16           |
| KIT BT40 G20   | N°1 BT40 H72,5 G20-WO + n°5 pinze GX20: Ø6,8,10,12,16         |
| KIT BT40 G32   | N°1 BT40 H105 G32-WO + n°7 pinze GX32: Ø10,12,14,16,18,20,25  |
| KIT TC40 G20   | N°1 TC40 H64,5 G20-WO + n°5 pinze GX20: Ø6,8,10,12,16         |
| KIT TC40 G32   | N°1 TC40 H80,5 G32-WO + n°7 pinze GX32: Ø10,12,14,16,18,20,25 |
| KIT BT50 G20   | N°1 BT50 H90 G20-WO + n°5 pinze GX20: Ø6,8,10,12,16           |
| KIT BT50 G32   | N°1 BT50 H90 G32-WO + n°7 pinze GX32: Ø10,12,14,16,18,20,25   |
| KIT TC50 G20   | N°1 TC50 H90 G20-WO + n°5 pinze GX20: Ø6,8,10,12,16           |
| KIT TC50 G32   | N°1 TC50 H81 G32-WO + n°7 pinze GX32: Ø10,12,14,16,18,20,25   |
| KIT HSK63A G20 | N°1 HSK63A H90 G20 + n°5 pinze GX20: Ø6,8,10,12,16            |
| KIT HSK63A G32 | N°1 HSK63A H125 G32 + n°7 pinze GX32: Ø10,12,14,16,18,20,25   |
| KIT HSK100 G20 | N°1 HSK100 H105 G20 + n°5 pinze GX20: Ø6,8,10,12,16           |
| KIT HSK100 G32 | N°1 HSK100 H110 G32 + n°7 pinze GX32: Ø10,12,14,16,18,20,25   |

### Cassetta corredo:

- 1 mandrino "idraulico"
- 1 serie pinze
- 1 chiave





## HYDRO POWER LINE



### UNA NUOVA TECNOLOGIA DI MANDRINI IDRAULICI PER UN'ELEVATA PRECISIONE E LAVORAZIONI ECCELLENTI

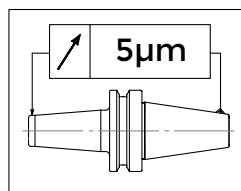
Grazie alla moderna unione tra base mandrino in acciaio e parte in materiale sinterizzato, vi presentiamo la nostra nuova linea di mandrini **HYDRO POWER LINE**.

Alcuni dei vantaggi:

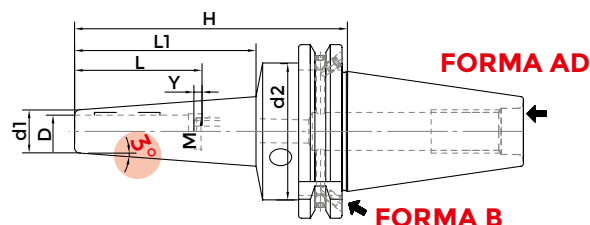
- Stabilità termica fino a 120° C. La forza di serraggio aumenta sotto l'influenza della temperatura.
- Giusta soluzione per forare, alesare e anche per fresare!

- Ideale per lavorazioni in aree dai contorni critici, Versione 3° Slim come nel calettamento
- Elevata forza di serraggio
- Vita dell'utensile più lunga e cambio utensile più veloce e semplice
- Eccezionale runout < 3μ
- Nessun investimento per attrezzature aggiuntive, nessun rischio di bruciatura per l'operatore e di danneggiamento mandrino a causa di un raffreddamento errato.

### MANDRINI IDRAULICI PER UTENSILI ATTACCO CILINDRICO



H= 0 > 100 mm - 5 μm  
H= 100 > 200 mm - 10 μm

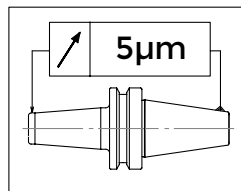


### DIN69871

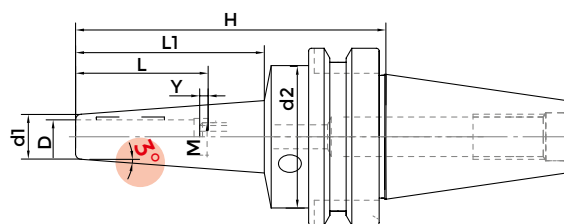
### 3° PROGRAMMA HYDRO SLIM LINE

| COD.      | DESCRIZIONE     | ISO | D  | H   | L  | Y max | d1 | d2   | L1  | M     | SW  | G2,5<br>25000 |
|-----------|-----------------|-----|----|-----|----|-------|----|------|-----|-------|-----|---------------|
| 252-11368 | TC40H120D03-HPL | 40  | 3  | 120 | 28 | 16    | 9  | 49,5 | 80  | M2,5  | 1,3 | •             |
| 252-11369 | TC40H120D04-HPL | 40  | 4  | 120 | 28 | 12    | 10 | 49,5 | 80  | M2,5  | 1,3 | •             |
| 252-11371 | TC40H120D06-HPL | 40  | 6  | 120 | 37 | 10    | 12 | 49,5 | 80  | M5    | 2,5 | •             |
| 252-11379 | TC40H160D06-HPL | 40  | 6  | 160 | 37 | 10    | 16 | 49,5 | 119 | M5    | 2,5 | •             |
| 252-11380 | TC40H200D06-HPL | 40  | 6  | 200 | 37 | 10    | 16 | 49,5 | 161 | M5    | 2,5 | •             |
| 252-11372 | TC40H120D08-HPL | 40  | 8  | 120 | 37 | 10    | 14 | 49,5 | 80  | M6    | 3   | •             |
| 252-11381 | TC40H160D08-HPL | 40  | 8  | 160 | 37 | 10    | 18 | 49,5 | 120 | M6    | 3   | •             |
| 252-11373 | TC40H120D10-HPL | 40  | 10 | 120 | 41 | 10    | 16 | 49,5 | 81  | M8x1  | 3   | •             |
| 252-11383 | TC40H160D10-HPL | 40  | 10 | 160 | 41 | 10    | 20 | 49,5 | 121 | M8x1  | 3   | •             |
| 252-11374 | TC40H120D12-HPL | 40  | 12 | 120 | 46 | 10    | 18 | 49,5 | 82  | M10x1 | 5   | •             |
| 252-11385 | TC40H160D12-HPL | 40  | 12 | 160 | 46 | 10    | 22 | 49,5 | 122 | M10x1 | 5   | •             |
| 252-11376 | TC40H120D16-HPL | 40  | 16 | 120 | 49 | 10    | 24 | 49,5 | 79  | M12x1 | 5   | •             |

## MANDRINI IDRAULICI PER UTENSILI ATTACCO CILINDRICO



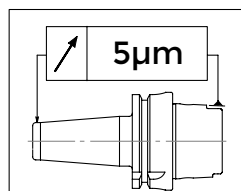
H = 0 > 100 mm - 5 µm  
 H = 100 > 200 mm - 10 µm



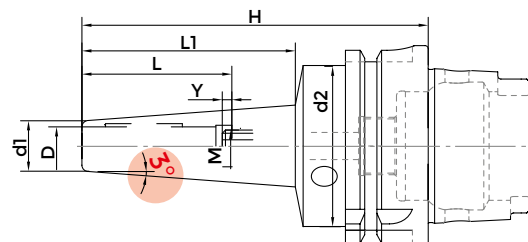
### MAS BT

### 3° PROGRAMMA HYDRO SLIM LINE

| COD.      | DESCRIZIONE     | ISO | D  | H   | L  | Y max | d1 | d2   | L1  | M     | SW  | G2,5<br>25000 |
|-----------|-----------------|-----|----|-----|----|-------|----|------|-----|-------|-----|---------------|
| 252-21401 | BT40H120D03-HPL | 40  | 3  | 120 | 28 | 16    | 9  | 49,5 | 72  | M2,5  | 1,3 | •             |
| 252-21402 | BT40H120D04-HPL | 40  | 4  | 120 | 28 | 12    | 10 | 49,5 | 72  | M2,5  | 1,3 | •             |
| 252-21404 | BT40H120D06-HPL | 40  | 6  | 120 | 37 | 10    | 12 | 49,5 | 72  | M5    | 2,5 | •             |
| 252-21412 | BT40H160D06-HPL | 40  | 6  | 160 | 37 | 10    | 16 | 49,5 | 111 | M5    | 2,5 | •             |
| 252-21405 | BT40H120D08-HPL | 40  | 8  | 120 | 37 | 10    | 14 | 49,5 | 72  | M6    | 3   | •             |
| 252-21406 | BT40H120D10-HPL | 40  | 10 | 120 | 41 | 10    | 16 | 49,5 | 73  | M8x1  | 3   | •             |
| 252-21407 | BT40H120D12-HPL | 40  | 12 | 120 | 46 | 10    | 18 | 49,5 | 74  | M10x1 | 5   | •             |
| 252-21411 | BT40H120D20-HPL | 40  | 20 | 120 | 51 | 10    | 28 | 49,5 | 72  | M16x1 | 5   | •             |



H = 0 > 100 mm - 5 µm  
 H = 100 > 200 mm - 10 µm



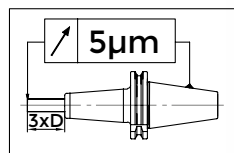
### DIN69893A

### 3° PROGRAMMA HYDRO SLIM LINE

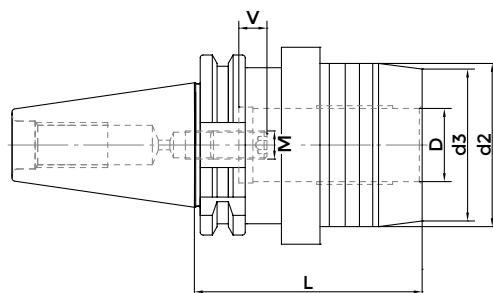
| COD.      | DESCRIZIONE       | HSK | D  | H   | L  | Y max | d1 | d2 | L1  | M     | SW  | G2,5<br>25000 |
|-----------|-------------------|-----|----|-----|----|-------|----|----|-----|-------|-----|---------------|
| 252-21720 | HSK63AH120D03-HPL | 63  | 3  | 120 | 28 | 16    | 9  | 50 | 73  | M2,5  | 1,3 | •             |
| 252-21721 | HSK63AH120D04-HPL | 63  | 4  | 120 | 28 | 12    | 10 | 50 | 73  | M2,5  | 1,3 | •             |
| 252-21723 | HSK63AH120D06-HPL | 63  | 6  | 120 | 37 | 10    | 12 | 50 | 73  | M5    | 2,5 | •             |
| 252-21738 | HSK63AH160D06-HPL | 63  | 6  | 160 | 37 | 10    | 16 | 50 | 111 | M5    | 2,5 | •             |
| 252-21724 | HSK63AH120D08-HPL | 63  | 8  | 120 | 37 | 10    | 14 | 50 | 74  | M6    | 3   | •             |
| 252-21754 | HSK63AH160D08-HPL | 63  | 8  | 160 | 37 | 10    | 18 | 50 | 111 | M6    | 3   | •             |
| 252-21725 | HSK63AH120D10-HPL | 63  | 10 | 120 | 41 | 10    | 16 | 50 | 74  | M8x1  | 3   | •             |
| 252-21757 | HSK63AH160D10-HPL | 63  | 10 | 160 | 41 | 10    | 20 | 50 | 113 | M8x1  | 3   | •             |
| 252-21726 | HSK63AH120D12-HPL | 63  | 12 | 120 | 46 | 10    | 18 | 50 | 75  | M10x1 | 5   | •             |
| 252-21760 | HSK63AH160D12-HPL | 63  | 12 | 160 | 46 | 10    | 22 | 50 | 113 | M10x1 | 5   | •             |
| 252-21727 | HSK63AH120D14-HPL | 63  | 14 | 120 | 46 | 10    | 22 | 50 | 71  | M10x1 | 5   | •             |
| 252-21728 | HSK63AH120D16-HPL | 63  | 16 | 120 | 49 | 10    | 24 | 50 | 72  | M12x1 | 5   | •             |
| 252-21729 | HSK63AH120D18-HPL | 63  | 18 | 120 | 49 | 10    | 26 | 50 | 72  | M12x1 | 5   | •             |
| 252-21730 | HSK63AH120D20-HPL | 63  | 20 | 120 | 51 | 10    | 28 | 50 | 72  | M16x1 | 5   | •             |



## MANDRINI IDRAULICI AD ALTA COPPIA DI SERRAGGIO

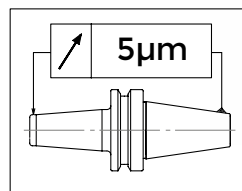


H= 0 > 100 mm - 5 µm

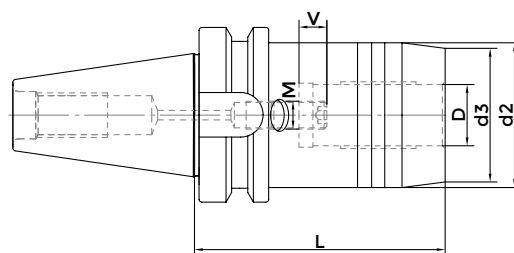


### DIN 69871

| COD.      | DESCRIZIONE        | ISO | D  | d2   | d3   | L    | V  | M    | G2.5<br>25000 |
|-----------|--------------------|-----|----|------|------|------|----|------|---------------|
| 252-11388 | TC40-HC12-50 EHG   | 40  | 12 | 42   | 32   | 50   | 10 | M8X1 | •             |
| 252-11389 | TC40-HC20-64,5 EHG | 40  | 20 | 49,3 | 39,3 | 64,5 | 10 | M8X1 | •             |
| 252-11390 | TC50-HC20-64,5 EHG | 50  | 20 | 43,3 | 39,3 | 64,5 | 10 | M8X1 | •             |
| 252-11391 | TC50-HC32-81 EHG   | 50  | 32 | 72   | 58,5 | 81   | 10 | M8X1 | •             |



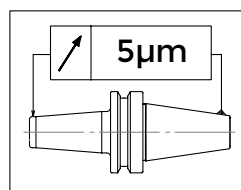
H= 0 > 100 mm - 5 µm



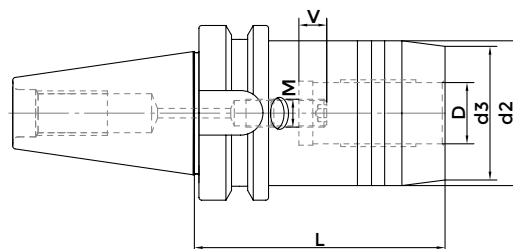
### MAS 403/BT - JIS-B 6339

| COD.      | DESCRIZIONE           | ISO | D  | d2   | d3 | L    | V  | M    | G2.5<br>25000 |
|-----------|-----------------------|-----|----|------|----|------|----|------|---------------|
| 252-17101 | BT30-HC12-69 EHG DK   | 30  | 12 | 42   | 32 | 69   | 10 | M8X1 | •             |
| 252-17102 | BT30-HC20-90 EHG DK   | 30  | 20 | 42   | 38 | 90   | 10 | M8X1 | •             |
| 252-17103 | BT40-HC12-58 EHG DK   | 40  | 12 | 42   | 32 | 58   | 10 | M8X1 | •             |
| 252-17104 | BT40-HC20-72,5 EHG DK | 40  | 20 | 49,3 | 38 | 72,5 | 10 | M8X1 | •             |

## MANDRINI IDRAULICI AD ALTA COPPIA DI SERRAGGIO

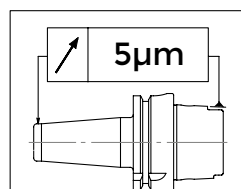


H= 0 > 100 mm - 5 µm

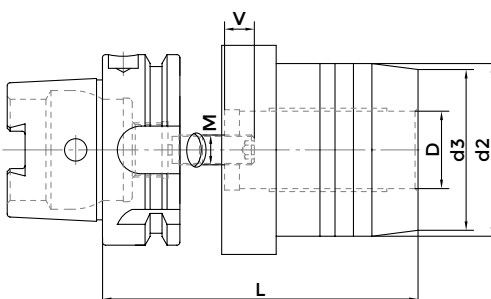


### MAS 403/BT

| COD.      | DESCRIZIONE             | ISO | D  | d2   | d3   | L    | V  | M    | G2.5<br>25000 |
|-----------|-------------------------|-----|----|------|------|------|----|------|---------------|
| 252-11538 | BT30-HC12-69 EHG        | 30  | 12 | 42   | 32   | 69   | 10 | M8X1 | •             |
| 252-11539 | BT30-HC20-90 EHG        | 30  | 20 | 42   | 38   | 90   | 10 | M8X1 | •             |
| 252-21420 | BT40-HC12-58 EHG AD+B   | 40  | 12 | 42   | 32   | 58   | 10 | M8X1 | •             |
| 252-21421 | BT40-HC20-72,5 EHG AD+B | 40  | 20 | 49,3 | 39,3 | 72,5 | 10 | M8X1 | •             |
| 252-21423 | BT50-HC20-83,5 EHG AD+B | 50  | 20 | 49,3 | 39,3 | 83,5 | 10 | M8X1 | •             |
| 252-21422 | BT50-HC32-90 EHG AD+B   | 50  | 32 | 72   | 58,5 | 90   | 10 | M8X1 | •             |



H= 0 > 100 mm - 5 µm



### DIN 69893 A+C

| COD.      | DESCRIZIONE          | ISO | D  | d2   | d3   | L   | V  | M    | G2.5<br>25000 |
|-----------|----------------------|-----|----|------|------|-----|----|------|---------------|
| 252-21797 | HSK63A-HC12-80 EHG   | 63  | 12 | 42   | 32   | 80  | 10 | M8X1 | •             |
| 252-21798 | HSK63A-HC20-80 EHG   | 63  | 20 | 52,5 | 38   | 80  | 10 | M8X1 | •             |
| 252-21799 | HSK100A-HC20-90 EHG  | 100 | 20 | 52,5 | 38   | 90  | 10 | M8X1 | •             |
| 252-31701 | HSK100A-HC32-100 EHG | 100 | 32 | 72   | 58,5 | 100 | 10 | M8X1 | •             |