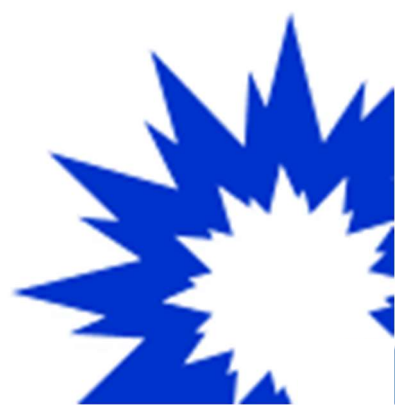
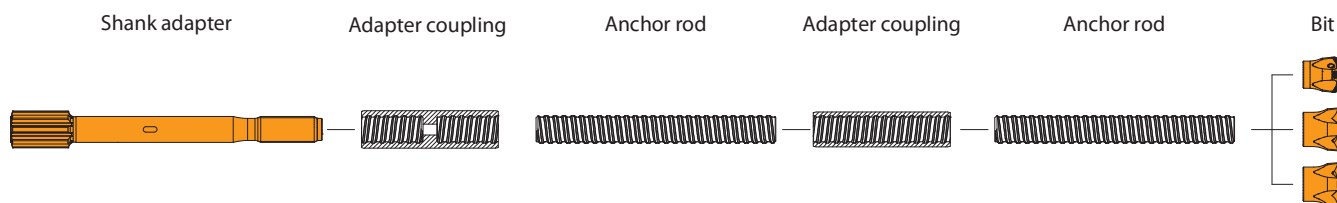




## Specific products

Self-drilling systems





| Rod R25  | Outside diameter | Average internal diameter | Average effective cross sectional area | Effective thread diameter | Ultimate load capacity | Yield load capacity | Elongation at maximum force Agt | Weight 1 m |
|----------|------------------|---------------------------|----------------------------------------|---------------------------|------------------------|---------------------|---------------------------------|------------|
|          | mm               | mm                        | mm <sup>2</sup>                        | mm                        | kN                     | kN                  | %                               | kg         |
| R 25-200 | 25               | 13,5                      | 312                                    | 22,6                      | 200                    | 150                 | min. 5                          | 2,1        |

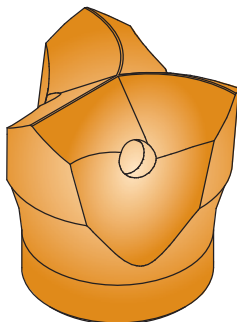
Catalogue numbers according to length

| Rods     | 1 m          | 2 m          | 3 m          | 4 m          | 6 m          |
|----------|--------------|--------------|--------------|--------------|--------------|
| R 25-200 | 28060100-200 | 28060200-200 | 28060300-200 | 28060400-200 | 28060600-200 |

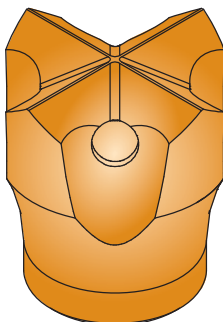
| Coupling R25      | Diameter   | Length        | Catalogue no. | Weight |
|-------------------|------------|---------------|---------------|--------|
|                   | mm         | mm            |               | kg     |
|                   | 36         | 150           | 3911113       | 0,6    |
| Nut R25           | Flat size  | Length        | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 41         | 41            | 9201491       | 0,25   |
| Spherical nut R25 | 41         | 41            | 9201601       | 0,32   |
| Anchor plate R25  | Dimension  | Hole diameter | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 150x150x8  | 30,0          | 9201481       | 1,36   |
|                   | 200x200x10 | 30,0          | 9201482       | 2,99   |

| Centralizer R25 | Catalogue no. | Weight (kg) |
|-----------------|---------------|-------------|
| Ø51             | 92016952      | 0,50        |

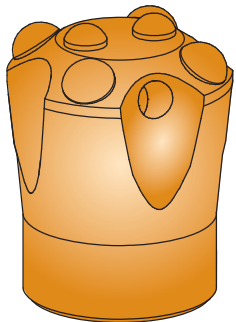
| Bits with R25 thread                       | Catalogue no. | Weight (kg) |
|--------------------------------------------|---------------|-------------|
| Cross bit Ø42 without sintered carbides    | 5942010       | 0,21        |
| Cross bit Ø42 with sintered carbides       | 5942022       | 0,27        |
| Cross bit Ø45 without sintered carbides    | 59450102      | 0,27        |
| Cross bit Ø42 with sintered carbides       | 59450122      | 0,34        |
| Cross bit Ø51 without sintered carbides    | 5951020       | 0,33        |
| Cross bit Ø51 with sintered carbides       | 5951032       | 0,41        |
| Cross bit Ø42 without sintered carbides    | 5942030       | 0,23        |
| Cross bit Ø42 with sintered carbides       | 5942032       | 0,29        |
| Cross bit Ø51 without sintered carbides    | 5951040       | 0,38        |
| Cross bit Ø51 with sintered carbides       | 5951052       | 0,41        |
| Asymmetrical bit without sintered carbides | 59510801      | 0,37        |
| Asymmetrical bit with sintered carbides    | 59510821      | 0,40        |



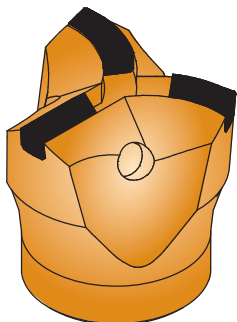
Asymmetrical bit



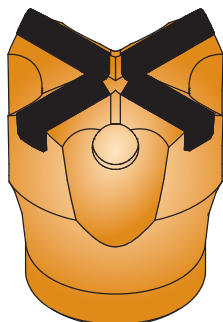
Cross bit



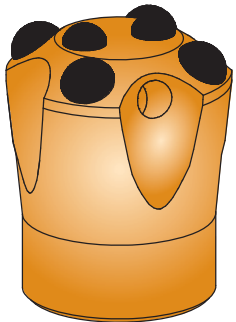
Button bit



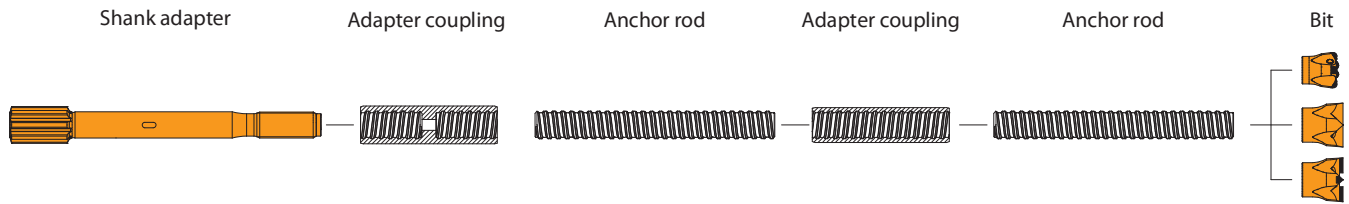
Asymmetrical bit



Cross bit



Button bit



| Rod R32         | Outside diameter | Average internal diameter | Average effective cross sectional area | Effective thread diameter | Ultimate load capacity | Yield load capacity | Elongation at maximum force Agt | Weight 1 m |
|-----------------|------------------|---------------------------|----------------------------------------|---------------------------|------------------------|---------------------|---------------------------------|------------|
|                 | mm               | mm                        | mm <sup>2</sup>                        | mm                        | kN                     | kN                  | %                               | kg         |
| <b>R 32-210</b> | 32               | 24                        | 320                                    | 29,6                      | <b>210</b>             | 160                 | min. 5                          | 2,5        |
| <b>R 32-250</b> | 32               | 22                        | 380                                    | 29,6                      | <b>250</b>             | 190                 | min. 5                          | 3,0        |
| <b>R 32-280</b> | 32               | 20                        | 440                                    | 29,6                      | <b>280</b>             | 220                 | min. 5                          | 3,5        |
| <b>R 32-320</b> | 32               | 17                        | 480                                    | 29,6                      | <b>320</b>             | 250                 | min. 5                          | 3,9        |
| <b>R 32-360</b> | 32               | 15                        | 530                                    | 29,6                      | <b>360</b>             | 280                 | min. 5                          | 4,2        |
| <b>R 32-400</b> | 32               | 11                        | 600                                    | 29,6                      | <b>400</b>             | 330                 | min. 5                          | 4,8        |

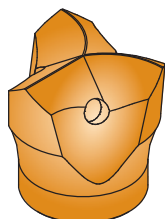
Catalogue numbers according to length

| Rods            | 1 m          | 2 m          | 3 m          | 4 m          | 6 m          |
|-----------------|--------------|--------------|--------------|--------------|--------------|
| <b>R 32-210</b> | 28061100-210 | 28061200-210 | 28061300-210 | 28061400-210 | 28061600-210 |
| <b>R 32-250</b> | 28061100-250 | 28061200-250 | 28061300-250 | 28061400-250 | 28061600-250 |
| <b>R 32-280</b> | 28061100-280 | 28061200-280 | 28061300-280 | 28061400-280 | 28061600-280 |
| <b>R 32-320</b> | 28061100-320 | 28061200-320 | 28061300-320 | 28061400-320 | 28061600-320 |
| <b>R 32-360</b> | 28061100-360 | 28061200-360 | 28061300-360 | 28061400-360 | 28061600-360 |
| <b>R 32-400</b> | 28061100-400 | 28061200-400 | 28061300-400 | 28061400-400 | 28061600-400 |

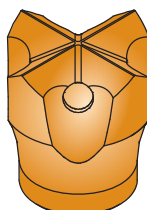
| Coupling R32      | Diameter   | Length        | Catalogue no. | Weight |
|-------------------|------------|---------------|---------------|--------|
|                   | mm         | mm            |               | kg     |
|                   | 42         | 160           | 3941413       | 0,85   |
| Nut R32           | Flat size  | Length        | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 46         | 46            | 9201492       | 0,35   |
| Spherical nut R32 | 46         | 52            | 9201602       | 0,54   |
| Anchor plate R32  | Dimension  | Hole diameter | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 150x150x6  | 38,0          | 92014832      | 1,04   |
|                   | 150x150x8  | 38,0          | 9201483       | 1,37   |
|                   | 150x150x10 | 38,0          | 92014833      | 1,71   |
|                   | 180x180x8  | 38,0          | 92014834      | 1,96   |
|                   | 200x150x8  | 38,0          | 92014831      | 1,82   |
|                   | 200x200x8  | 38,0          | 92014846      | 2,40   |
|                   | 200x200x10 | 38,0          | 9201484       | 2,97   |
|                   | 200x200x12 | 38,0          | 92014842      | 3,66   |

| CENTRALIZER R32         | Catalogue no. | Weight (kg) |
|-------------------------|---------------|-------------|
| CENTRALIZER Ø51         | 92016911      | 0,48        |
| PLASTIC CENTRALIZER Ø51 | 92016911 P    | 0,05        |
| CENTRALIZER Ø76         | 9201691       | 0,57        |

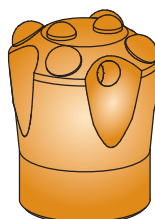
| Bits with R32 thread                                  | Catalogue no. | Weight (kg) |
|-------------------------------------------------------|---------------|-------------|
| Cross bit Ø45 without sintered carbides               | 5945010       | 0,29        |
| Cross bit Ø45 with sintered carbides                  | 5945012       | 0,32        |
| Cross bit Ø51 without sintered carbides               | 59510201      | 0,31        |
| Cross bit Ø51 with sintered carbides                  | 59510321      | 0,39        |
| Cross bit Ø64 without sintered carbides               | 5964010       | 0,60        |
| Cross bit Ø64 with sintered carbides                  | 5964012       | 0,65        |
| Cross bit Ø76 without sintered carbides               | 5976010       | 0,80        |
| Cross bit Ø76 with sintered carbides                  | 5976022       | 0,84        |
| Button bit Ø51 without sintered carbides              | 59510401      | 0,36        |
| Button bit Ø51 with sintered carbides                 | 59510521      | 0,39        |
| Button bit Ø76 without sintered carbides              | 59760601      | 0,70        |
| Button bit Ø76 with sintered carbides                 | 59760651      | 0,75        |
| Button bit Ø90 without sintered carbides              | 5990040       | 1,31        |
| Button bit Ø90 with sintered carbides                 | 5990045       | 1,37        |
| Asymmetrical bit Ø51 without sintered carbides        | 5951080       | 0,35        |
| Asymmetrical bit Ø51 with sintered carbides           | 5951082       | 0,38        |
| Asymmetrical bit Ø76 without sintered carbides        | 5976070       | 0,73        |
| Asymmetrical bit Ø76 with sintered carbides           | 5976072       | 0,80        |
| Asymmetrical-button bit Ø76 without sintered carbides | 59760902      | 0,90        |
| Asymmetrical-button bit Ø76 with sintered carbides    | 59760962      | 1,02        |
| Clay bit Ø76                                          | 5976120       | 0,80        |
| Clay bit Ø95                                          | 5995030       | 0,90        |
| Clay bit Ø110                                         | 59110301      | 1,37        |
| Clay bit Ø115                                         | 59115301      | 1,40        |
| Clay bit Ø130                                         | 59130306      | 1,50        |
| Clay bit Ø150                                         | 59150306      | 2,00        |



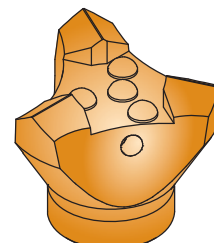
Asymmetrical bit



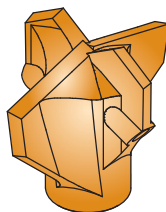
Cross bit



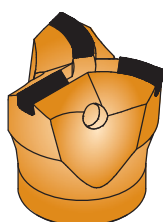
Button bit



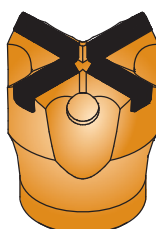
Asymmetrical-button bit



Clay bit



Asymmetrical bit



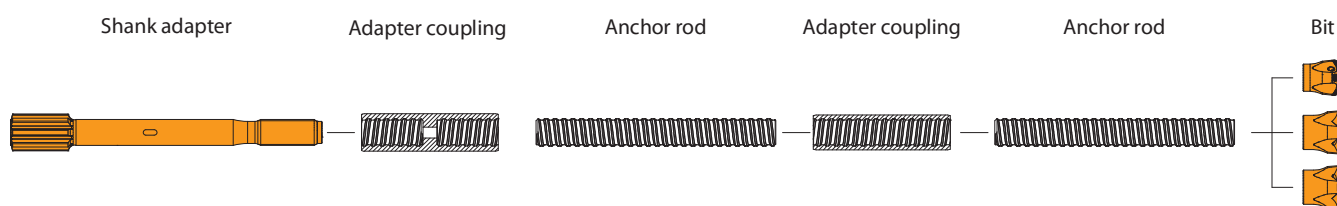
Cross bit



Button bit



Asymmetrical-button bit



| Rod R38  | Nominal diameter | Min. Diameter of the thread of the rod after rolling | Effective cross sectional area | Effective diameter of the thread | Ultimate load capacity | Yield load capacity | Elongation at maximum force | Weight 1 m |
|----------|------------------|------------------------------------------------------|--------------------------------|----------------------------------|------------------------|---------------------|-----------------------------|------------|
|          | mm               | mm                                                   | mm <sup>2</sup>                | mm                               | kN                     | kN                  | %                           | kg         |
| R 38-420 | 38               | 24                                                   | 630                            | 35,6                             | 420                    | 350                 | min. 5                      | 5,0        |
| R 38-500 | 38               | 19                                                   | 750                            | 35,6                             | 500                    | 400                 | min. 5                      | 6,0        |
| R 38-550 | 38               | 17                                                   | 840                            | 35,6                             | 550                    | 450                 | min. 5                      | 6,2        |

Catalogue numbers according to length

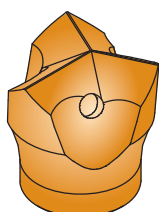
| Rods     | 1 m          | 2 m          | 3 m          | 4 m          | 6 m          |
|----------|--------------|--------------|--------------|--------------|--------------|
| R 38-420 | 28062100-420 | 28062200-420 | 28062300-420 | 28062400-420 | 28062600-420 |
| R 38-500 | 28062100-500 | 28062200-500 | 28062300-500 | 28062400-500 | 28062600-500 |
| R 38-550 | 28062100-550 | 28062200-550 | 28062300-550 | 28062400-550 | 28062600-550 |

| Coupling R38      | Diameter   | Length        | Catalogue no. | Weight |
|-------------------|------------|---------------|---------------|--------|
|                   | mm         | mm            |               | kg     |
|                   | 51         | 180           | 3921213       | 1,4    |
| Nut R38           | Flat size  | Length        | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 50         | 49            | 9201493       | 0,4    |
| Spherical nut R38 | 55         | 65            | 9201603       | 0,9    |
| Anchor plate R38  | Dimension  | Hole diameter | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 200x200x8  | 43,5          | 92014854      | 2,35   |
|                   | 200x200x10 | 43,5          | 9201489       | 2,94   |
|                   | 200x200x12 | 43,5          | 9201485       | 3,6    |
|                   | 200x300x12 | 43,5          | 92014852      | 5,6    |
|                   | 300x300x25 | 41,0          | 9201705       | 17,4   |

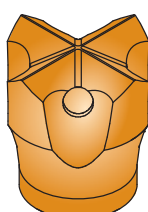
| CENTRALIZER R38         | Catalogue no. | Weight (kg) |
|-------------------------|---------------|-------------|
| CENTRALIZER Ø76         | 92016931      | 0,55        |
| PLASTIC CENTRALIZER Ø76 | 92016931 P    | 0,06        |
| CENTRALIZER Ø90         | 92016932      | 0,61        |



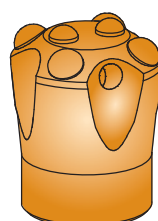
| Bits with R38 thread                                  | Catalogue no. | Weight (kg) |
|-------------------------------------------------------|---------------|-------------|
| Cross bit Ø64 without sintered carbides               | 59640101      | 0,60        |
| Cross bit Ø64 with sintered carbides                  | 59640121      | 0,65        |
| Cross bit Ø76 without sintered carbides               | 59760101      | 0,85        |
| Cross bit Ø76 with sintered carbides                  | 59760221      | 0,90        |
| Cross bit Ø90 without sintered carbides               | 59900301      | 1,34        |
| Cross bit Ø90 with sintered carbides                  | 59900321      | 1,40        |
| Button bit Ø76 without sintered carbides              | 5976060       | 0,68        |
| Button bit Ø76 with sintered carbides                 | 5976065       | 0,73        |
| Button bit Ø90 without sintered carbides              | 59900401      | 1,42        |
| Button bit Ø90 with sintered carbides                 | 59900451      | 1,48        |
| Button bit Ø100 without sintered carbides             | 59000603      | 1,50        |
| Button bit Ø100 with sintered carbides                | 59000653      | 1,64        |
| Button bit drop center Ø115 without sintered carbides | 5915010       | 1,80        |
| Button bit drop center Ø115 with sintered carbides    | 5915015       | 1,94        |
| Asymmetrical bit Ø76 without sintered carbides        | 59760701      | 0,73        |
| Asymmetrical bit Ø76 with sintered carbides           | 59760721      | 0,80        |
| Asymmetrical-button bit Ø76 without sintered carbides | 5976090       | 0,88        |
| Asymmetrical-button bit Ø76 with sintered carbides    | 5976092       | 1,00        |
| Asymmetrical-button bit Ø90 without sintered carbides | 59900801      | 1,10        |
| Asymmetrical-button bit Ø90 with sintered carbides    | 59900851      | 1,20        |
| Clay bit Ø95                                          | 5994030       | 0,95        |
| Clay bit Ø110                                         | 59110302      | 1,40        |
| Clay bit Ø115                                         | 59115302      | 1,45        |
| Clay bit Ø130                                         | 59130304      | 1,50        |
| Clay bit Ø150                                         | 59150301      | 1,60        |



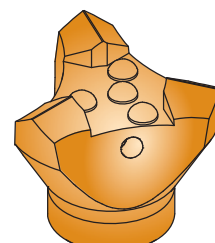
Asymmetrical bit



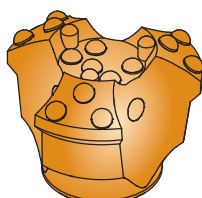
Cross bit



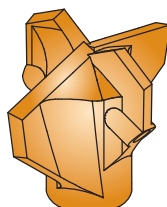
Button bit



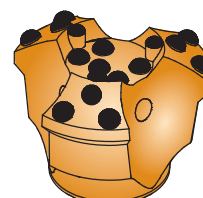
Asymmetrical-button bit



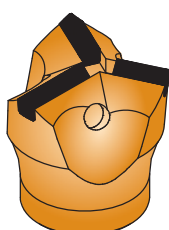
Button bit drop center



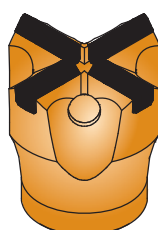
Clay bit



Button bit drop center



Asymmetrical bit



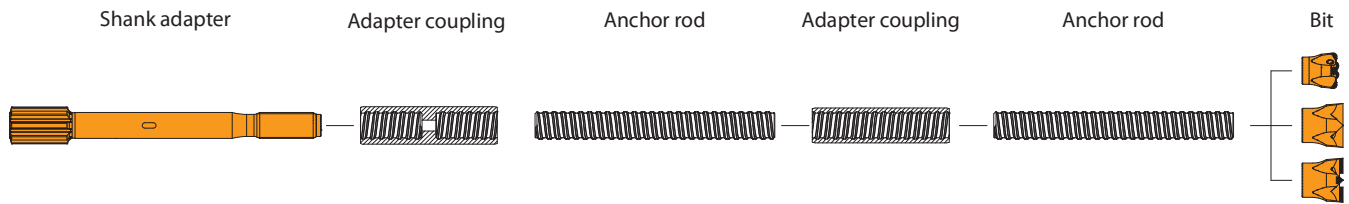
Cross bit



Button bit



Asymmetrical-button bit



| Rod R51  | Outside diameter | Average internal diameter | Average effective cross sectional area | Effective thread diameter | Ultimate load capacity | Yield load capacity | Elongation at maximum force | Weight 1 m |
|----------|------------------|---------------------------|----------------------------------------|---------------------------|------------------------|---------------------|-----------------------------|------------|
|          | mm               | mm                        | mm <sup>2</sup>                        | mm                        | kN                     | kN                  | %                           | kg         |
| R 51-550 | 51               | 38,0                      | 840                                    | 48,6                      | 550                    | 450                 | min. 5                      | 6,5        |
| R 51-660 | 51               | 34,5                      | 990                                    | 48,6                      | 660                    | 540                 | min. 5                      | 7,7        |
| R 51-800 | 51               | 30,0                      | 1190                                   | 48,6                      | 800                    | 640                 | min. 5                      | 9,5        |

## Catalogue numbers according to length

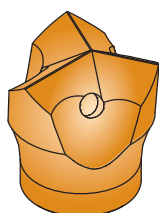
| Rods     | 1 m          | 2 m          | 3 m          | 4 m          | 6 m          |
|----------|--------------|--------------|--------------|--------------|--------------|
| R 51-550 | 28063100-550 | 28063200-550 | 28063300-550 | 28063400-550 | 28063600-550 |
| R 51-660 | 28063100-660 | 28063200-660 | 28063300-660 | 28063400-660 | 28063600-660 |
| R 51-800 | 28063100-800 | 28063200-800 | 28063300-800 | 28063400-800 | 28063600-800 |

| Coupling R51      | Diameter   | Length        | Catalogue no. | Weight |
|-------------------|------------|---------------|---------------|--------|
|                   | mm         | mm            |               | kg     |
|                   | 63         | 200           | 3991913       | 1,9    |
| Nut R51           | Flat size  | Length        | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 75         | 70            | 9201494       | 1,55   |
| Spherical nut R51 | 75         | 70            | 9201604       | 1,7    |
| Anchor plate R51  | Dimension  | Hole diameter | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 150x150x12 | 54            | 92014864      | 2,1    |
|                   | 200x200x10 | 54            | 92014866      | 2,9    |
|                   | 200x200x12 | 54            | 9201486       | 3,6    |
|                   | 200x200x15 | 54            | 92014867      | 4,7    |
|                   | 300x300x10 | 54            | 92014862      | 7,0    |
|                   | 300x300x15 | 54            | 92014861      | 10,3   |
|                   | 250x250x40 | 56            | 9201703       | 18,7   |
|                   | 300x300x25 | 56            | 92017031      | 17,2   |
|                   | 200x200x30 | 56            | 920170172     | 8,8    |
|                   | 200x200x40 | 56            | 92017073      | 11,8   |

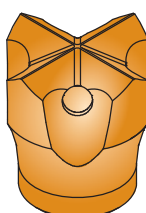
| CENTRALIZER R51         | Catalogue no. | Weight (kg) |
|-------------------------|---------------|-------------|
| CENTRALIZER Ø90         | 92016942      | 0,60        |
| PLASTIC CENTRALIZER Ø90 | 92016942 P    | 0,07        |
| CENTRALIZER Ø110        | 920169421     | 0,63        |



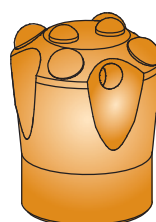
| Bits with R51 thread                                  | Catalogue no. | Weight (kg) |
|-------------------------------------------------------|---------------|-------------|
| Cross bit Ø76 without sintered carbides               | 59760104      | 0,77        |
| Cross bit Ø76 with sintered carbides                  | 59760124      | 0,80        |
| Cross bit Ø90 without sintered carbides               | 59900302      | 1,46        |
| Cross bit Ø90 with sintered carbides                  | 59900322      | 1,50        |
| Button bit Ø90 without sintered carbides              | 59760604      | 1,00        |
| Button bit Ø76 with sintered carbides                 | 59760654      | 1,08        |
| Button bit Ø100 without sintered carbides             | 59900402      | 1,35        |
| Button bit Ø90 with sintered carbides                 | 59900452      | 1,42        |
| Button bit Ø100 without sintered carbides             | 5900060       | 1,50        |
| Button bit Ø100 with sintered carbides                | 5900065       | 1,64        |
| Button bit drop center Ø115 without sintered carbides | 59150101      | 1,86        |
| Button bit drop center Ø115 with sintered carbides    | 59150151      | 2,00        |
| Cross-button bit Ø115 without sintered carbides       | 5911500       | 1,88        |
| Cross-button bit Ø115 with sintered carbides          | 5911505       | 1,95        |
| Asymmetrical bit Ø90 without sintered carbides        | 5990090       | 1,05        |
| Asymmetrical bit Ø90 with sintered carbides           | 5990092       | 1,16        |
| Asymmetrical-button bit Ø90 without sintered carbides | 59900802      | 1,27        |
| Asymmetrical-button bit Ø90 with sintered carbides    | 59900852      | 1,30        |
| Asymmetrical bit Ø90 with sintered carbides           | 5990092       | 1,36        |
| Clay bit Ø110                                         | 59110304      | 1,85        |
| Clay bit Ø130                                         | 59130303      | 1,92        |
| Clay bit Ø150                                         | 59150302      | 2,20        |
| Clay bit Ø175                                         | 59175301      | 2,40        |
| Clay bit Ø200                                         | 59200304      | 2,60        |



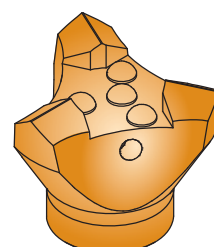
Asymmetrical bit



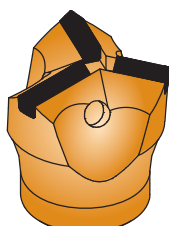
Cross bit



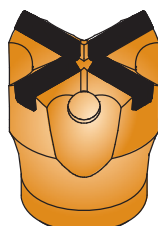
Button bit



Asymmetrical-button bit



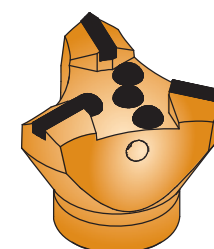
Asymmetrical bit



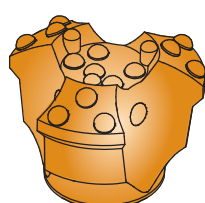
Cross bit



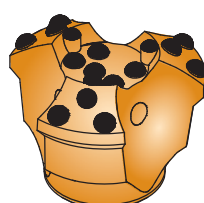
Button bit



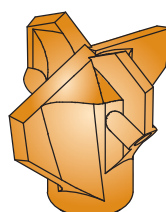
Asymmetrical-button bit



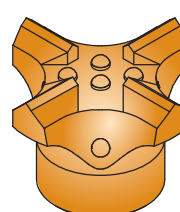
Button bit drop center



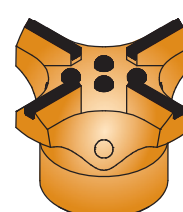
Button bit drop center



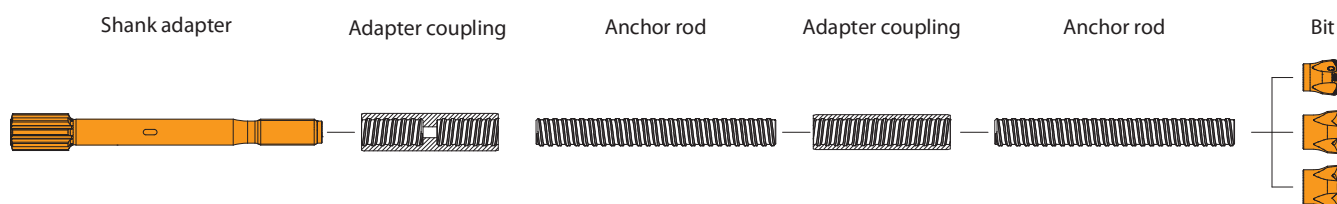
Clay bit



Cross-button bit



Cross-button bit



| Rod T76          | Outside diameter | Average internal diameter | Average effective cross sectional area | Effective thread diameter | Ultimate load capacity | Yield load capacity | Elongation at maximum force | Weight 1 m |
|------------------|------------------|---------------------------|----------------------------------------|---------------------------|------------------------|---------------------|-----------------------------|------------|
|                  | mm               | mm                        | mm <sup>2</sup>                        | mm                        | kN                     | kN                  | %                           | kg         |
| <b>T 76-1300</b> | 76               | 56,0                      | 1950                                   | 72,9                      | <b>1300</b>            | 1000                | min. 5                      | 15,4       |
| <b>T 76-1650</b> | 76               | 46,0                      | 2400                                   | 72,9                      | <b>1650</b>            | 1200                | min. 5                      | 18,9       |
| <b>T 76-1900</b> | 76               | 38,0                      | 2930                                   | 72,9                      | <b>1900</b>            | 1500                | min. 5                      | 23,0       |

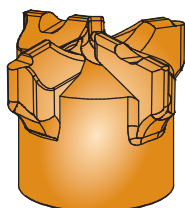
## Catalogue numbers according to length

| Rods             | 1 m           | 2 m           | 3 m           | 4 m           | 6 m           |
|------------------|---------------|---------------|---------------|---------------|---------------|
| <b>T 76-1300</b> | 28072100-1300 | 28072200-1300 | 28072300-1300 | 28072400-1300 | 28072600-1300 |
| <b>T 76-1650</b> | 28072100-1650 | 28072200-1650 | 28072300-1650 | 28072400-1650 | 28072600-1650 |
| <b>T 76-1900</b> | 28072100-1900 | 28072200-1900 | 28072300-1900 | 28072400-1900 | 28072600-1900 |

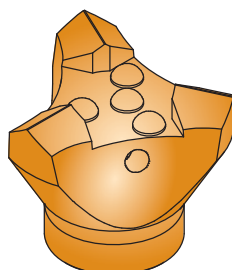
| Coupling T76      | Diameter   | Length        | Catalogue no. | Weight |
|-------------------|------------|---------------|---------------|--------|
|                   | mm         | mm            |               | kg     |
|                   | 95         | 220           | 3999916       | 4,5    |
| Nut T76           | Flat size  | Length        | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 100        | 80            | 9201498       | 2,7    |
| Spherical nut T76 | 100        | 70            | 92016016      | 2,7    |
| Anchor plate T76  | Dimension  | Hole diameter | Catalogue no. | Weight |
|                   | mm         | mm            |               | kg     |
|                   | 200x200x30 | 80            | 9201701       | 8,2    |
|                   | 250x250x40 | 80            | 9201682       | 18     |
|                   | 250x250x45 | 80            | 92016821      | 20,4   |
|                   | 250x250x60 | 80            | 9201681       | 27     |
|                   | 350x350x20 | 80            | 9201683       | 17,5   |

| CENTRALIZER T76   | Catalogue no. | Weight (kg) |
|-------------------|---------------|-------------|
| CENTRALIZER Ø 125 | 9201690       | 1,52        |

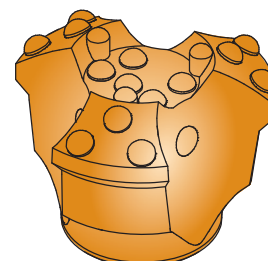
| Bits with T76 thread                                   | Catalogue no. | Weight (kg) |
|--------------------------------------------------------|---------------|-------------|
| Cross bit Ø130 without sintered carbides               | 5913060       | 3,05        |
| Cross bit Ø130 with sintered carbides                  | 5913064       | 3,20        |
| Cross bit Ø200 without sintered carbides               | 5920040       | 6,90        |
| Cross bit Ø200 with sintered carbides                  | 5920044       | 7,10        |
| Button bit drop center Ø130 without sintered carbides  | 5913080       | 4,05        |
| Button bit drop center Ø130 with sintered carbides     | 5913085       | 4,05        |
| Asymmetrical-button bit Ø130 without sintered carbides | 59130701      | 4,40        |
| Asymmetrical-button bit Ø130 with sintered carbides    | 59130751      | 4,50        |
| Clay bit Ø130                                          | 5913030       | 3,50        |
| Clay bit Ø150                                          | 59150305      | 3,70        |
| Clay bit Ø200                                          | 5920030       | 5,45        |
| Clay bit Ø250                                          | 5925030       | 6,70        |
| Clay bit Ø300                                          | 5930030       | 10,00       |



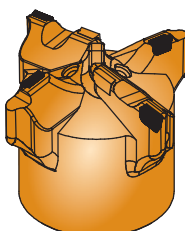
Cross bit



Asymmetrical-button bit



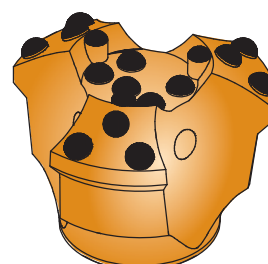
Button bit drop center



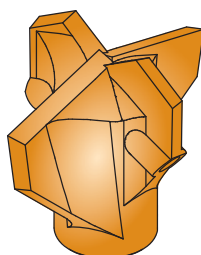
Cross bit



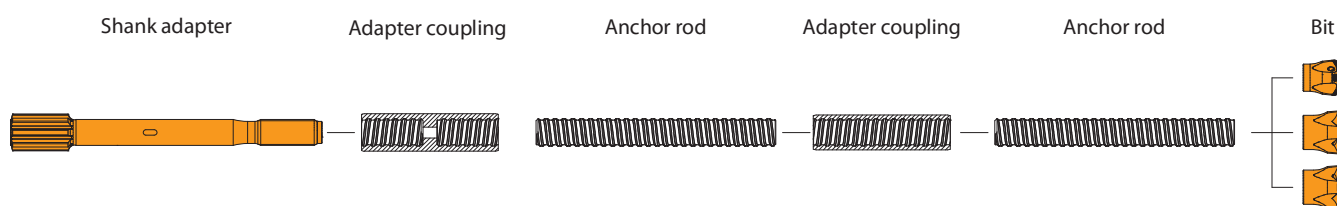
Asymmetrical-button bit



Button bit drop center



Clay bit



| Rod T103          | Outside diameter | Average internal diameter | Average effective cross sectional area | Effective thread diameter | Ultimate load capacity | Yield load capacity | Elongation at maximum force | Weight 1 m |
|-------------------|------------------|---------------------------|----------------------------------------|---------------------------|------------------------|---------------------|-----------------------------|------------|
|                   | mm               | mm                        | mm <sup>2</sup>                        | mm                        | kN                     | kN                  | %                           | kg         |
| <b>T 103-2300</b> | 103              | 76,0                      | 3450                                   | 98,70                     | <b>2300</b>            | 1900                | min. 5                      | 27,0       |

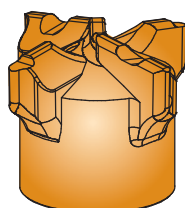
Catalogue numbers according to length

| Rods              | 1 m           | 2 m           | 3 m           | 4 m           | 6 m           |
|-------------------|---------------|---------------|---------------|---------------|---------------|
| <b>T 103-2300</b> | 28070100-2300 | 28070200-2300 | 28070300-2300 | 28070400-2300 | 28070600-2300 |

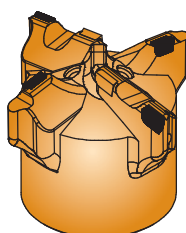
| Coupling T103      | Diameter   | Length        | Catalogue no. | Weight |
|--------------------|------------|---------------|---------------|--------|
|                    | mm         | mm            |               | kg     |
|                    | 123        | 255           | 3999918       | 9,0    |
| Nut T103           | Flat size  | Length        | Catalogue no. | Weight |
|                    | mm         | mm            |               | kg     |
|                    | 125        | 80            | 9201499       | 3,9    |
| Spherical nut T103 | 125        | 80            | 92016014      | 3,9    |
| Anchor plate T103  | Dimension  | Hole diameter | Catalogue no. | Weight |
|                    | mm         | mm            |               | kg     |
|                    | 250x250x50 | 110           | 920170401     | 20,8   |
|                    | 300x300x50 | 110           | 9201702       | 31,2   |
|                    | 300x300x60 | 110           | 9201704       | 37,7   |
|                    | 300x300x70 | 110           | 920170403     | 43,9   |

| CENTRALIZER T103 | Catalogue no. | Weight (kg) |
|------------------|---------------|-------------|
| CENTRALIZER Ø175 | 92016981      | 3,00        |

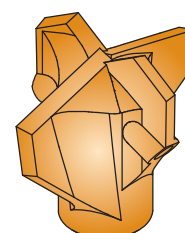
| Bits with T104 thread                    | Catalogue no. | Weight (kg) |
|------------------------------------------|---------------|-------------|
| Cross bit Ø175 without sintered carbides | 59175100      | 7,80        |
| Cross bit Ø175 with sintered carbides    | 59175120      | 8,00        |
| Clay bit Ø225                            | 5922530       | 9,00        |
| Clay bit Ø280                            | 59280305      | 10,50       |



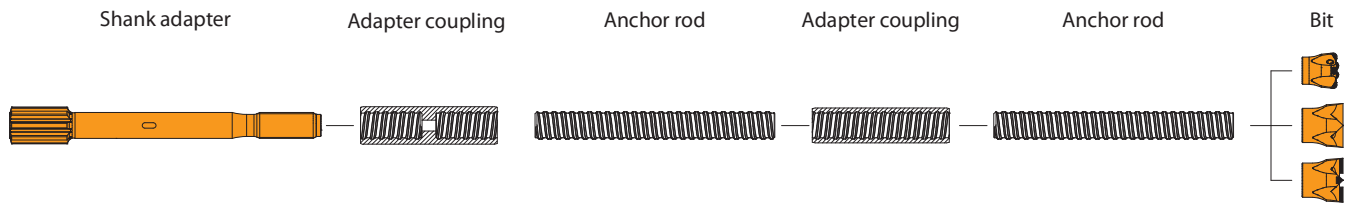
Cross bit



Cross bit



Clay bit



| Rod<br>TG104      | Outside<br>diameter | Average<br>internal<br>diameter | Average<br>effective cross<br>sectional area | Effective<br>thread<br>diameter | Ultimate load<br>capacity | Yield load<br>capacity | Elongation<br>at maximum<br>force | Weight<br>1 m |
|-------------------|---------------------|---------------------------------|----------------------------------------------|---------------------------------|---------------------------|------------------------|-----------------------------------|---------------|
|                   | mm                  | mm                              | mm <sup>2</sup>                              | mm                              | kN                        | kN                     | %                                 | kg            |
| <b>TG104-3550</b> | 104                 | 57,0                            | 5500                                         | 98,7                            | <b>3550</b>               | 2680                   | Min.5                             | 43,2          |

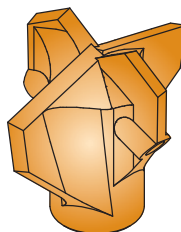
## Catalogue numbers according to length

| Rods              | 1 m           | 2 m           | 3 m           | 4 m           | 6 m           |
|-------------------|---------------|---------------|---------------|---------------|---------------|
| <b>TG104-3550</b> | 28071100-3550 | 28071200-3550 | 28071300-3550 | 28071400-3550 | 28071600-3550 |

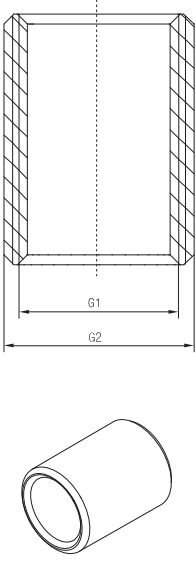
| Coupling TG104      | Diameter   | Length        | Catalogue no. | Weight |
|---------------------|------------|---------------|---------------|--------|
|                     | mm         | mm            |               | kg     |
|                     | 135        | 290           | 3999919       | 14,85  |
| Nut<br>TG104        | Flat size  | Length        | Catalogue no. | Weight |
|                     | mm         | mm            |               | kg     |
|                     | 135        | 95            | 92014991      | 6,0    |
| Spherical nut TG104 | 125        | 130           | 920160141     | 5,9    |
| Anchor plate TG104  | Dimension  | Hole diameter | Catalogue no. | Weight |
|                     | mm         | mm            |               | kg     |
|                     | 250x250x50 | 110           | 920170401     | 20,8   |
|                     | 300x300x50 | 110           | 9201702       | 31,2   |
|                     | 300x300x60 | 110           | 9201704       | 37,7   |
|                     | 300x300x70 | 110           | 920170403     | 43,9   |

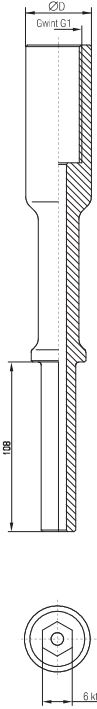
| CENTRALIZER TG104 | Catalogue no. | Weight (kg) |
|-------------------|---------------|-------------|
| CENTRALIZER Ø175  | 92016981      | 3,00        |

| Bits with TG104 thread | Catalogue no. | Weight (kg) |
|------------------------|---------------|-------------|
| Clay bit Ø175          | 59175200      | 8,30        |
| Clay bit Ø280          | 59280304      | 10,40       |

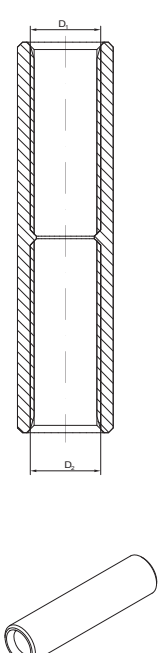


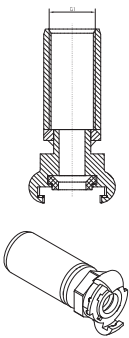
Clay bit

| ADAPTER FOR BITS                                                                  | Type       | G1   | G2   | Catalogue no. | Weight (kg) |
|-----------------------------------------------------------------------------------|------------|------|------|---------------|-------------|
|  | R25 → R32  | R25  | R32  | 3941106       | 0,13        |
|                                                                                   | R25 → R38  | R25  | R38  | 3921106       | 0,20        |
|                                                                                   | R25 → Ti40 | R25  | Ti40 | 3917906       | 0,20        |
|                                                                                   | R32 → R25  | R32  | R25  | 3911406       | 0,13        |
|                                                                                   | R32 → R38  | R32  | R38  | 3921406       | 0,10        |
|                                                                                   | R32 → R51  | R32  | R51  | 3951406       | 0,47        |
|                                                                                   | R32 → Ti40 | R32  | Ti40 | 3927406       | 0,10        |
|                                                                                   | R38 → R25  | R38  | R25  | 3911206       | 0,20        |
|                                                                                   | R38 → R32  | R38  | R32  | 39412061      | 0,10        |
|                                                                                   | R38 → R51  | R38  | R51  | 3951206       | 0,34        |
|                                                                                   | R38 → T76  | R38  | T76  | 3997206       | 2,00        |
|                                                                                   | Ti40 → R51 | Ti40 | R51  | 3927506       | 0,34        |
|                                                                                   | R51 → R32  | R51  | R32  | 3951406       | 0,47        |
|                                                                                   | R51 → R38  | R51  | R38  | 3951206       | 0,34        |
|                                                                                   | R51 → T76  | R51  | T76  | 3997506       | 1,45        |
|                                                                                   | T76 → R51  | T76  | R51  | 3957906       | 1,45        |

| ADAPTER FOR DRILLING                                                                | Type  | Description                | Catalogue no. | Weight (kg) |
|-------------------------------------------------------------------------------------|-------|----------------------------|---------------|-------------|
|  | 6kt22 | Adapter hex22x108 R25 Ø45  | 3918712       | 1,73        |
|                                                                                     | 6kt22 | Adapter hex22x108 R32 Ø45  | 3948700       | 1,73        |
|                                                                                     | 6kt22 | Adapter hex22x108 R38 Ø55  | 3928700       | 1,60        |
|                                                                                     | 6kt22 | Adapter hex22x108 T30 Ø42  | 3949700       | 1,90        |
|                                                                                     | 6kt22 | Adapter hex22x108 T40 Ø53  | 3939700       | 2,20        |
|                                                                                     | 6kt22 | Adapter hex25x108 R32 Ø45  | 3948100       | 2,20        |
|                                                                                     | 6kt22 | Adapter hex25x159 R32 Ø45  | 3948125       | 2,20        |
|                                                                                     | 6kt22 | Adapter hex25x159 R38 Ø55  | 3928125       | 2,20        |
|                                                                                     | 6kt22 | Adapter hex25x159 Ti40 Ø53 | 3939125       | 2,20        |

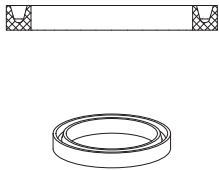


| Coupling adapter                                                                   | Type    | Catalogue no. | Weight (kg) |
|------------------------------------------------------------------------------------|---------|---------------|-------------|
|  | R25-R25 | 3911100       | 0,8         |
|                                                                                    | R25-T38 | 3917205       | 2,1         |
|                                                                                    | R25-R38 | 3911200       | 1,8         |
|                                                                                    | R32-R25 | 3911400       | 1,2         |
|                                                                                    | R32-R32 | 3941400       | 0,9         |
|                                                                                    | R32-T38 | 3947202       | 2,2         |
|                                                                                    | R32-T45 | 3937401       | 3,3         |
|                                                                                    | R38-R32 | 3941200       | 1,9         |
|                                                                                    | R38-R38 | 3921200       | 1,7         |
|                                                                                    | R38-R51 | 3991200       | 4,5         |
|                                                                                    | R38-T76 | 3997203       | 8,4         |
|                                                                                    | R38-T38 | 3927200       | 1,7         |
|                                                                                    | R38-T45 | 3937200       | 2,8         |
|                                                                                    | R38-T51 | 3957200       | 4,6         |
|                                                                                    | T38-R51 | 3997200       | 4,5         |
|                                                                                    | R51-T45 | 3997304       | 5,1         |
|                                                                                    | R51-T38 | 3997200       | 4,5         |
|                                                                                    | R51-T51 | 3957500       | 4,3         |
|                                                                                    | T76-R51 | 3997503       | 7,2         |
|                                                                                    | T76-R38 | 3997203       | 8,4         |
|                                                                                    | T76-T51 | 3992503       | 8,3         |
|                                                                                    | T76-T45 | 3992302       | 8,4         |
|                                                                                    | T76-T38 | 3992202       | 8,4         |

| ADAPTER FOR INJECTION                                                               | Type | G1  | Catalogue no. | Weight (kg) |
|-------------------------------------------------------------------------------------|------|-----|---------------|-------------|
|  | R25  | R25 | 9202100       | 0,58        |
|                                                                                     | R32  | R32 | 9202110       | 0,58        |
|                                                                                     | R38  | R38 | 9202120       | 0,88        |
|                                                                                     | R51  | R51 | 9202130       | 1,50        |
|                                                                                     | T76  | T76 | 9202140       | 2,2         |

| CONNECTOR FOR INJECTION HEAD | Type   | Description G2/G1                                          | Catalogue no. | Weight (kg) |
|------------------------------|--------|------------------------------------------------------------|---------------|-------------|
|                              | GB 70  | Connector for injection head GB70 R32/R32                  | 9201776       | 8,3         |
|                              | GB 70  | Connector for injection head GB70 R38/R32                  | 9201773       | 8,0         |
|                              | GB 70  | Connector for injection head GB70 R38/R32 through hole Ø14 | 92017731      | 8,0         |
|                              | GB 70  | Connector for injection head GB70 R32/R32                  | 9201775       | 8,12        |
|                              | GB 70  | Connector for injection head GB70 T38/R38                  | 9201771       | 8,1         |
|                              | GB 70  | Connector for injection head GB70 R38/R38                  | 9201772       | 8,1         |
|                              | GB 70  | Connector for injection head GB70 T38/R25                  | 9201774       | 8,2         |
|                              | GB 70  | Connector for injection head GB70 T38/R32                  | 9201770       | 8,1         |
|                              | GB 70  | Connector for injection head GB70 T38/T38                  | 9201777       | 8,1         |
|                              | GB 80  | Connector for injection head GB80 T45/R32                  | 9201931       | 8,5         |
|                              | GB 80  | Connector for injection head GB80 T45/R38                  | 9201932       | 8,5         |
|                              | GB 85  | Connector for injection head GB85 T45/R51                  | 9201923       | 9,2         |
|                              | GB 85  | Connector for injection head GB85 T45/R32                  | 9201921       | 9,2         |
|                              | GB 85  | Connector for injection head GB85 T45/R38                  | 9201922       | 9,2         |
|                              | GB 85  | Connector for injection head GB85 H55/R32                  | 9201924       | 9,2         |
|                              | GB 85  | Connector for injection head GB85 H55/R38                  | 9201925       | 9,2         |
|                              | GB 85  | Connector for injection head GB85 H55/R51                  | 9201926       | 9,2         |
|                              | GB 85  | Connector for injection head GB85 H55/B41                  | 92019271      | 9,0         |
|                              | GB 85  | Connector for injection head GB85 H55/B47                  | 92019272      | 9,0         |
|                              | GB 100 | Connector for injection head GB100 H55/R32                 | 9201943       | 17,2        |
|                              | GB 100 | Connector for injection head GB100 H55/R38                 | 9201941       | 17,2        |
|                              | GB 100 | Connector for injection head GB100 H55/R51                 | 9201942       | 17,2        |
|                              | GB 110 | Connector for injection head GB110 T76/T76                 | 9201951       | 17,2        |

| LEADING HEAD | Type   | Description        | D   | Catalogue no. | Weight (kg) |
|--------------|--------|--------------------|-----|---------------|-------------|
|              | GB 65  | Leading head GB65  | 65  | 9201870       | 9,55        |
|              | GB 70  | Leading head GB70  | 70  | 9201760       | 7,6         |
|              | GB 80  | Leading head GB80  | 80  | 9201880       | 10,00       |
|              | GB 85  | Leading head GB85  | 85  | 9201860       | 9,35        |
|              | GB 100 | Leading head GB100 | 100 | 9201900       | 10,8        |
|              | GB 110 | Leading head GB110 | 110 | 9201910       | 11,6        |

| SEAL                                                                              | Type   | Description                  | D   | Catalogue no. |
|-----------------------------------------------------------------------------------|--------|------------------------------|-----|---------------|
|  | GB 70  | Seal U2 70x90x12 dla GB70    | 70  | cz7810019023  |
|                                                                                   | GB 80  | Seal U2 80x100x10 dla GB80   | 80  | cz7810019033  |
|                                                                                   | GB 85  | Seal U2 85x105x12 dla GB85   | 85  | cz7810012784  |
|                                                                                   | GB 100 | Seal U2 dla GB100            | 100 | cz7810019054  |
|                                                                                   | GB 110 | Seal U2 110x130x15 dla GB110 | 110 | cz7810019053  |



Drilling



Blasting



Ground engaging tools – Wear material



Powerwashers



Specific products



MCEP DISTRIBUTION – 3 rue du Prélôt  
25340 L'HOPITAL SAINT-LIEFFROY



[www.mcep-distribution.com](http://www.mcep-distribution.com)



|                 |                                                                                        |                   |
|-----------------|----------------------------------------------------------------------------------------|-------------------|
| Commercial:     | <a href="mailto:commercial@mcep-distribution.com">commercial@mcep-distribution.com</a> | +33 7 71 24 21 58 |
| Technical:      | <a href="mailto:eric.petit@mcep-distribution.com">eric.petit@mcep-distribution.com</a> | +33 6 26 49 69 20 |
| Administrative: | <a href="mailto:admin@mcep-distribution.com">admin@mcep-distribution.com</a>           | +33 6 48 00 66 08 |



Société par actions simplifiée with a capital of 30 000 € - RCS BESANCON B 807 572 326

The publisher reserves the right to printing errors, changes in laws and regulations and possible product modifications.

© 2024 MCEP DISTRIBUTION