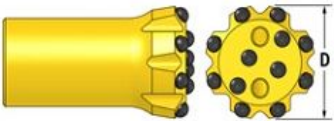
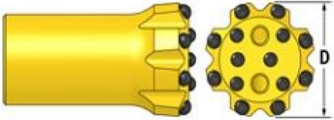

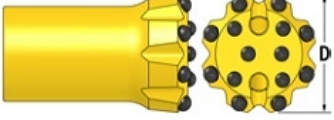


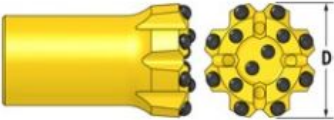

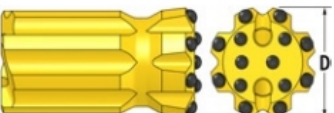





# T45 (1 3/4") SERIES BENCH & LONG HOLE DRILLING EQUIPMENT

| Description  | Gauge diameter   |        | Angle  | Button No. size |           | Flushing hole |      |     | Weight                       | Part No.                  |
|--|--|--------|--------|-----------------|-----------|---------------|------|-----|------------------------------|---------------------------|
|  | mm   | in     |        | Gauge           | Face      | Side          | Face | kg  |                              |                           |
| <b>Button Bits, Flat Face</b>  |  |        |        |                 |           |               |      |     |                              |                           |
|    | 76   | 3"     | 35     | 8×11            | 4×11      | -             | 2    | 2.3 | 1431-76T45-411/811-45-31     |                           |
|  | 76   | 3"     | 40     | 8×12            | 4×10      | -             | 2    | 2.3 | 1431-76T45-410/812-45-31     |                           |
|  | 76   | 3"     | 35     | 8×12            | 4×11      | -             | 2    | 2.3 | 1431-76T45-411/812-45-31     |                           |
|  | 76   | 3"     | 35     | 8×13            | 4×11      | -             | 2    | 2.3 | 1431-76T45-411/813-45-31     |                           |
|  | 76   | 3"     | 40     | 8×12            | 5×11      | -             | 2    | 2.3 | 1431-76T45-511/812-45-31     |                           |
|    | 76   | 3"     | 40     | 8×11            | 6×10      | -             | 2    | 2.3 | 1431-76T45-610/811-45-31     |                           |
|  | 76   | 3"     | 40     | 8×11            | 6×11      | -             | 2    | 2.3 | 1431-76T45-611/811-45-31     |                           |
|  | 89   | 3 1/2" | 35     | 8×12            | 5×12      | -             | 2    | 3.8 | 1431-89T45-512/812-45-31     |                           |
|  | 89   | 3 1/2" | 35     | 8×12            | 6×11      | -             | 2    | 3.8 | 1431-89T45-611/812-45-31     |                           |
|  | 89   | 3 1/2" | 35     | 8×13            | 6×11      | -             | 2    | 3.8 | 1431-89T45-611/813-45-31     |                           |
|    | 89   | 3 1/2" | 35     | 8×14            | 6×12      | -             | 2    | 3.8 | 1431-89T45-612/814-45-31     |                           |
|  | 89   | 3 1/2" | 35     | 8×14            | 6×13      | -             | 2    | 3.8 | 1431-89T45-613/814-45-31     |                           |
|  | 102  | 4"     | 35     | 8×14            | 6×12      | -             | 2    | 4.4 | 1431-102T45-612/814-45-41    |                           |
|  |  | 89     | 3 1/2" | 35              | 8×12      | 6×11          | -    | 2   | 3.7                          | 1431-89T45-611/812-45-51  |
|  |  | 102    | 4"     | 35              | 8×14      | 6×12          | -    | 2   | 4.3                          | 1431-102T45-612/814-45-51 |
| 115  |  | 4 1/2" | 35     | 8×14            | 7×13      | -             | 2    | 6.3 | 1431-115T45-713/814-45-51    |                           |
|  | 89   | 3 1/2" | 35     | 9×11            | 7×11      | -             | 3    | 3.8 | 1431-89T45-711/911-45-31     |                           |
|  | 89   | 3 1/2" | 35     | 9×12            | 7×11      | -             | 3    | 3.8 | 1431-89T45-711/912-45-31     |                           |
|  | 102  | 4"     | 35     | 9×12            | 7×12      | -             | 3    | 4.5 | 1431-102T45-712/912-45-31    |                           |
|  | 102  | 4"     | 35     | 9×13            | 7×12      | -             | 3    | 4.5 | 1431-102T45-712/913-45-31    |                           |
| <b>Button Bits, Drop Center</b>  |  |        |        |                 |           |               |      |     |                              |                           |
|  | 70   | 2 3/4" | 35     | 6×12            | 4×11      | -             | 3    | 1.8 | 1433-70T45-411/612-45-41     |                           |
|  | 76   | 3"     | 35     | 8×12            | 4×10, 4×1 | -             | 4    | 2.3 | 1433-76T45-110/411/812-45-31 |                           |
|  | 89   | 3 1/2" | 35     | 6×13            | 5×11      | -             | 3    | 3.6 | 1433-89T45-511/613-45-51     |                           |
|  | 89   | 3 1/2" | 35     | 6×14            | 3×10, 3×1 | -             | 3    | 3.6 | 1433-89T45-210/312/614-45-51 |                           |
|  | 89   | 3 1/2" | 35     | 8×13            | 5×13      | -             | 3    | 3.6 | 1433-89T45-513/813-45-41     |                           |
|  | 102  | 4"     | 35     | 8×14            | 5×13      | -             | 4    | 4.3 | 1433-102T45-513/814-45-31    |                           |
|  | 102  | 4"     | 35     | 8×14            | 5×13      | -             | 4    | 4.3 | 1433-102T45-513/814-45-51    |                           |

# T45 (1 3/4") SERIES BENCH & LONG HOLE DRILLING EQUIPMENT

| Description  | Gauge diameter |        | Angle | Button No. size |       | Flushing hole |      |      | Weight                    | Part No. |
|--|----------------|--------|-------|-----------------|-------|---------------|------|------|---------------------------|----------|
|  | mm             | in     |       | °               | Gauge | Face          | Side | Face |                           |          |
| <b>Button Bits, Retrac &amp; Flat Face</b>   |                |        |       |                 |       |               |      |      |                           |          |
|    | 70             | 2 3/4" | 35    | 8×11            | 5×11  | -             | 2    | 3.0  | 1531-70T45-511/811-45-31  |          |
|  | 70             | 2 3/4" | 35    | 8×11            | 5×11  | -             | 2    | 3.0  | 1531-70T45-511/811-45-51  |          |
|  | 76             | 3"     | 35    | 8×11            | 4×11  | -             | 2    | 3.0  | 1531-76T45-411/811-45-31  |          |
|  | 76             | 3"     | 35    | 8×11            | 4×11  | -             | 2    | 3.0  | 1531-76T45-411/811-45-51  |          |
|  | 76             | 3"     | 35    | 8×12            | 4×11  | -             | 2    | 3.0  | 1531-76T45-411/812-45-31  |          |
|  | 76             | 3"     | 35    | 8×12            | 4×11  | -             | 2    | 3.0  | 1531-76T45-411/812-45-51  |          |
|  | 89             | 3 1/2" | 35    | 8×13            | 4×13  | -             | 2    | 4.5  | 1531-89T45-413/813-45-31  |          |
|    | 76             | 3"     | 35    | 8×11            | 6×10  | -             | 2    | 3.0  | 1531-76T45-610/811-45-31  |          |
|  | 76             | 3"     | 35    | 8×11            | 6×10  | -             | 2    | 3.0  | 1531-76T45-610/811-45-51  |          |
|  | 76             | 3"     | 35    | 8×11            | 6×11  | -             | 2    | 3.0  | 1531-76T45-611/811-45-31  |          |
|  | 76             | 3"     | 35    | 8×11            | 6×11  | -             | 2    | 3.0  | 1531-76T45-611/811-45-51  |          |
|  | 89             | 3 1/2" | 35    | 8×13            | 6×12  | -             | 2    | 4.4  | 1531-89T45-613/813-45-31  |          |
|  | 102            | 4"     | 35    | 8×14            | 6×13  | -             | 2    | 6.5  | 1531-102T45-612/814-45-31 |          |
|  | 89             | 3 1/2" | 35    | 9×12            | 7×11  | -             | 3    | 4.4  | 1531-89T45-711/911-45-41  |          |
|  | 102            | 4"     | 35    | 9×13            | 7×12  | -             | 3    | 6.5  | 1531-102T45-712/913-45-31 |          |

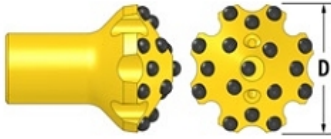
## Button Bits, Retrac & Drop Center

|  |     |        |    |      |      |   |   |     |                           |
|--|-----|--------|----|------|------|---|---|-----|---------------------------|
|  | 76  | 3"     | 35 | 6×12 | 4×11 | - | 3 | 2.9 | 1533-76T45-411/612-45-31  |
|  | 76  | 3"     | 35 | 8×11 | 5×11 | - | 4 | 3.0 | 1533-76T45-511/811-45-31  |
|  | 89  | 3 1/2" | 35 | 6×13 | 5×12 | - | 3 | 4.2 | 1533-89T45-513/613-45-31  |
|  | 89  | 3 1/2" | 35 | 8×12 | 6×12 | - | 4 | 4.5 | 1533-89T45-612/812-45-31  |
|  | 102 | 4"     | 35 | 8×14 | 6×14 | - | 4 | 6.5 | 1533-102T45-614/814-45-31 |
|  | 115 | 4 1/2" | 35 | 8×14 | 8×14 | - | 4 | 8.4 | 1533-115T45-814/814-45-31 |

# T45 (1 3/4") SERIES BENCH & LONG HOLE DRILLING EQUIPMENT

| Description | Gauge diameter |    | Angle | Button No. size |      | Flushing hole |      | Weight | Part No. |
|-------------|----------------|----|-------|-----------------|------|---------------|------|--------|----------|
|             | mm             | in |       | Gauge           | Face | Side          | Face |        |          |

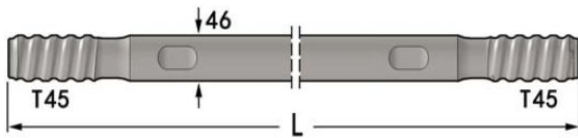
## Reaming bit integration model



|     |    |    |      |       |   |   |      |                            |
|-----|----|----|------|-------|---|---|------|----------------------------|
| 127 | 5" | 35 | 9×13 | 10×13 | 3 | 1 | 7.5  | 1441-127T45-1013/913-45-31 |
| 152 | 6" | 35 | 9×14 | 11×14 | 3 | 1 | 10.5 | 1441-152T45-1114/914-45-31 |

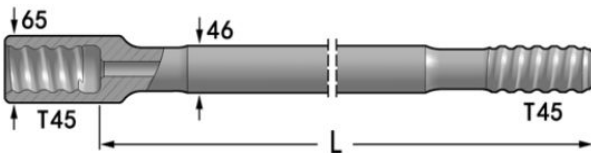
| Description | Effective Length(L) |    |    | Diameter |    | Weight | Part No. |
|-------------|---------------------|----|----|----------|----|--------|----------|
|             | mm                  | ft | in | mm       | in |        |          |

## Extension rod, T45-Round46-T45



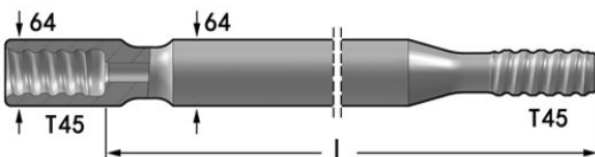
|      |    |   |    |        |      |                   |
|------|----|---|----|--------|------|-------------------|
| 3050 | 10 | - | 45 | 1 3/4" | 34.1 | 23R46-T45-3050-23 |
| 3660 | 12 | - | 45 | 1 3/4" | 41   | 23R46-T45-3660-23 |
| 4270 | 14 | - | 45 | 1 3/4" | 48.1 | 23R46-T45-4270-23 |
| 4880 | 16 | - | 45 | 1 3/4" | 54.9 | 23R46-T45-4880-23 |
| 6100 | 20 | - | 45 | 1 3/4" | 68.9 | 23R46-T45-6100-23 |

## MF-rod, T45-Round46-T45



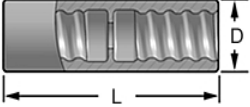
|      |    |   |    |        |      |                      |
|------|----|---|----|--------|------|----------------------|
| 1525 | 5  | - | 45 | 1 3/4" | 18.4 | 24R46-T45/65-1525-23 |
| 1830 | 6  | - | 45 | 1 3/4" | 22.1 | 24R46-T45/65-1830-23 |
| 3050 | 10 | - | 45 | 1 3/4" | 36.1 | 24R46-T45/65-3050-23 |
| 3660 | 12 | - | 45 | 1 3/4" | 43.3 | 24R46-T45/65-3660-23 |
| 4270 | 14 | - | 45 | 1 3/4" | 50.2 | 24R46-T45/65-4270-23 |

## Guide tube



|      |     |   |    |        |    |                      |
|------|-----|---|----|--------|----|----------------------|
| 1830 | 6'  | - | 64 | 2 1/2" | 26 | 24G64-T45/64-1830-23 |
| 3660 | 12' | - | 64 | 2 1/2" | 50 | 24G64-T45/64-3660-23 |

# T45 (1 3/4") SERIES BENCH & LONG HOLE DRILLING EQUIPMENT

| Description   | Effective Length(L) |       |    | Diameter |        | Weight | Part No.          |
|---|---------------------|-------|----|----------|--------|--------|-------------------|
|   | mm                  | ft    | in | mm       | in     |        |                   |
| T45 Coupling Sleeve   |                     |       |    |          |        |        |                   |
|  | 63                  | 2 1/2 | -  | 210      | 8 1/4" | 3      | 31 -T45-63-210-23 |
|   | 66                  | 2 5/8 | -  | 210      | 8 1/4" | 3.5    | 31 -T45-66-210-23 |