

DIA  **EDGE**

ROCK TOOLS

Apr-2021 Update RT12-E-1

ADVANCED MULTI-PURPOSE SYSTEM FOR CASING ADVANCEMENT

ULTRA MAXBIT



MMC RYOTEC Corporation

A Group Company of  **MITSUBISHI MATERIALS**

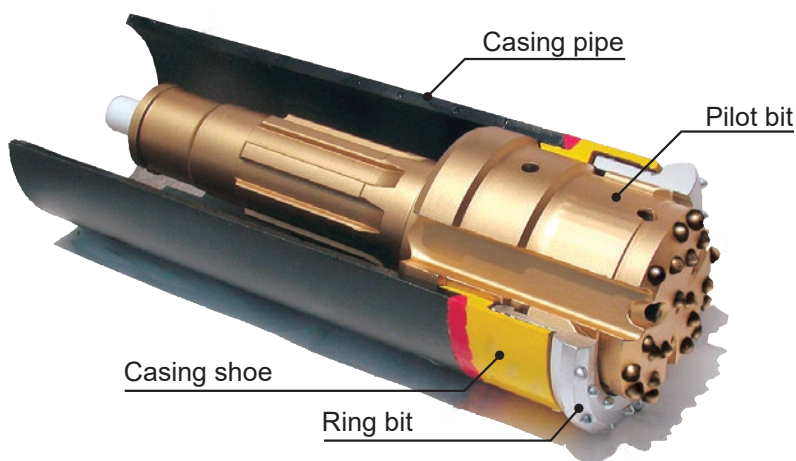
ULTRA MAXBIT

ADVANCED MULTI-PURPOSE SYSTEM FOR CASING ADVANCEMENT

STRUCTURE AND FEATURE

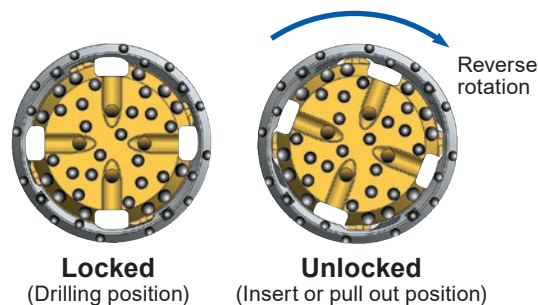
● High speed and straight drilling in wide range of ground conditions

- ULTRA MAXBIT is used for simultaneous drilling and casing in unstable soft ground formations.
- ULTRA MAXBIT is also applicable for wide range of ground conditions such as sand, gravel and boulders and rock.
- The dual bit system also allows vertical, horizontal, and even inclined drilling.



● Easy lock system

- Easy and speedy set-up.



● Pilot bit

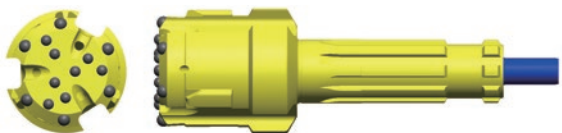
(Standard-connected to DTH Hammer)

- Pilot Bit is manufactured in three models, Single, Normal and Multi pass models.
- Twin impact shoulders.



(Big Bore-connected to DTH Hammer)

- Big bore type is available.
- This new and improved model offers additional strength when drilling larger bore holes.
- Single impact shoulder.



(Top hammer-connected to threaded rod)

- Top hammer type with R32, T38, T45, T51 thread is available.
- Twin impact shoulders.



● Stiff connecting structure between ring bit and casing shoe

(Thread connection type)

- Single pass model
- Normal model
- Top hammer model

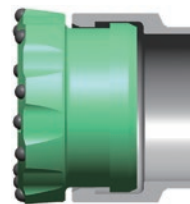
* Easy to assemble or disassemble at Job-site.



(Interlinked type)

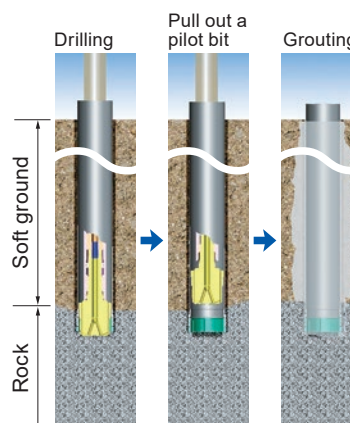
- Multi use model
- Big bore model

* Assembled in the factory cannot be disassembled.

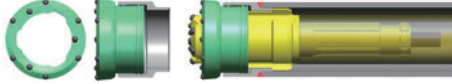
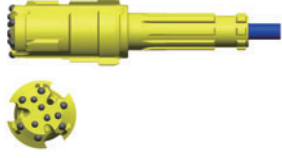
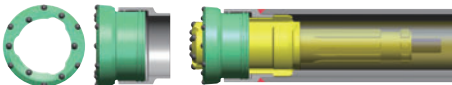
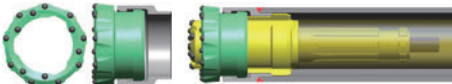
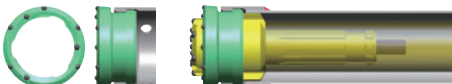
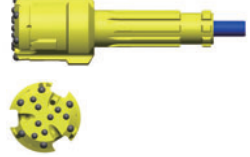
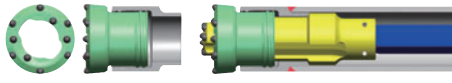



● Working types example

Fig.1 Piling construction (Permanent casing)



OVERVIEW MAP

| | Model | Pilot Bit | Casing Type | Casing Outer \varnothing mm (in.) | Application & Pile Type Example |
|---------------------|---|--|-----------------------------|-------------------------------------|---|
| Standard-DTH System | Single Pass Model <ul style="list-style-type: none"> Suitable for relatively soft ground and short hole depth. Leaving a casing pipe in the ground. Thread connection ring set.  | For DTH Hammer  <ul style="list-style-type: none"> Pilot Bit is manufactured in Single, Normal and Multi pass model as long as casing size is same. | Permanent | 89.1–1016 (3 1/2"–40") | • Piling construction ...Fig.1 |
| | Normal Model <ul style="list-style-type: none"> Suitable for heavy duty single pass and longer hole depth. Leaving a casing pipe in the ground. Thread connection ring set.  | | Permanent or *1 Retrievable | 114.3–457.2 (4 1/2"–8") | • Piling construction ...Fig.1 • Water well ...Fig.2 • Geothermal ...Fig.2 |
| | Multi Use Model <ul style="list-style-type: none"> Pulling force to remove casing is reduced. This enables the casing pipe to be re-used. Interlinked ring set.  | | Retrievable | 89.1–1016 (3 1/2"–40") | • Anchor construction ...Fig.3 • Foundation construction ...Fig.3 |
| Big Bore-DTH System | Big Bore Model <ul style="list-style-type: none"> Suitable for large bore drilling. Interlinked ring set.  | For DTH Hammer  | Permanent | 114.3–355.6 (4 1/2"–14") | • Foundation construction ...Fig.1 • RD Pile *2 ...Fig.1 • Water well ...Fig.2 • Geothermal ...Fig.2 |
| Top Hammer System | Top Hammer Model <ul style="list-style-type: none"> Suitable for small hole tunneling. Thread connection ring set.  | For Top Hammer  | Permanent | 76.3–139.7 (3"–5 1/2") | • Pipe roof ...Fig.4 • Piling construction ...Fig.4 |

*1 Limited to shallow hole drilling only.
*2 Refer to page 19.

Fig.2 Water well and Geothermal

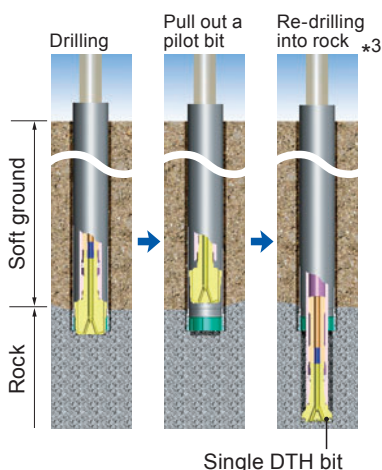


Fig.3 Foundation construction (Temporary casing)

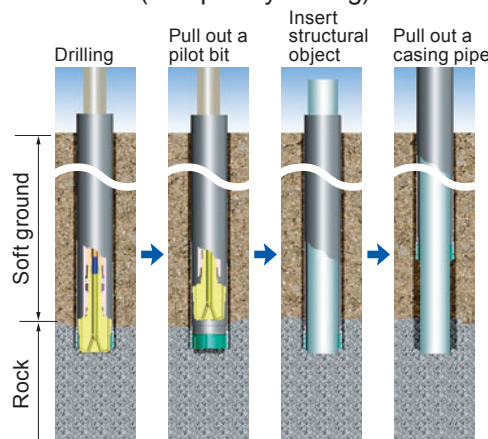
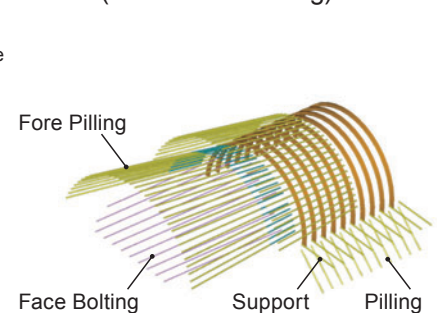


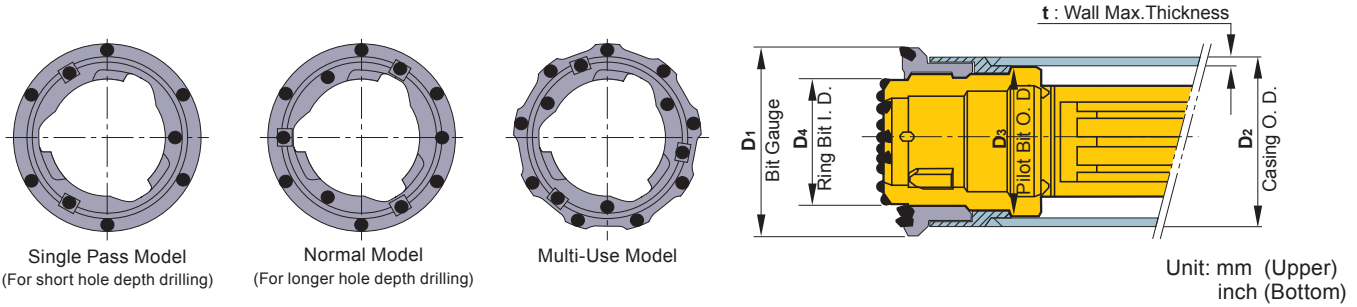
Fig.4 Tunneling (Permanent casing)



*3 If hard ground is encountered, the ULTRA MAXBIT can be removed and drilling can be switched to a small diameter DTH BIT.

DIMENSIONS

Standard Type ULTRA MAXBIT / DTH



| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | |
|--------------------------------------|--------------------------|-----------------|--------------|------------------------------|------------------------------|------------------------------|---------------|----------------|-----------------------------------|-------------------------------------|-------------------------------------|-----------------|
| Outer Dia. D ₂ | Wall Max. Thickness t | | Model | Inner Dia. D ₄ | Outer Dia. D ₁ | Outer Dia. D ₃ | Hammer | Weight (kg) | | | | Weight (kg) |
| CASING PIPE ø89.1mm (3 1/2") | | | | | | | | | | | | |
| 89.1 (3 1/2") | 6.3 (0.25") | 056D | Single pass | 56 2.20" | 100 3.94" | 74 2.91" | DHD065 | 5.0 | 2.7 | US056D-02-R-266 | | |
| | 7.0 (0.28") | 059W | Multi use | 59 2.32" | 99 3.90" | 73 2.87" | DHD065 | 5.0 | 2.4 | UM059W-02-R-240 | | |
| CASING PIPE ø114.3mm (4 1/2") | | | | | | | | | | | | |
| 114.3 (4 1/2") | 10.0 (0.39") | 072A | Single pass | 72 2.83" | 126 4.96" | 92 3.62" | DHD3.5 | 8.5 | 4.7 | US072A-03-BB-004 US072A-03-R-035 | | |
| | | | | COP34 | | | 9.1 | | | | | |
| | | | | COP32 | | | 8.5 | | | | | |
| | | 072A | Normal | 72 2.83" | 126 4.96" | 92 3.62" | DHD3.5 | 8.5 | 4.7 | | UN072A-03-BB-005 UN072A-03-R-077 | |
| | | | | COP34 | | | 9.1 | | | | | |
| | | | | COP32 | | | 8.5 | | | | | |
| | 072W | Multi use | 72 2.83" | 122 4.80" | 92 3.62" | DHD3.5 | 8.5 | 4.4 | 072A Pilot bit | UM072W-03-R-285 | | |
| | | | COP34 | | | 9.1 | | | | | | |
| | | | COP32 | | | 8.5 | | | | | | |
| | 8.0 (0.31") | 072B | Single pass | 72 2.83" | 126 4.96" | 95.5 3.76" | DHD3.5 | 8.7 | | | 4.8 | US072B-03-R-090 |
| | | | | COP34 | | | 9.3 | | | | | |
| | | | | COP32 | | | 8.7 | | | | | |
| | | 072B | Normal | 72 2.83" | 126 4.96" | 95.5 3.76" | DHD3.5 | 8.7 | 4.8 | 072A Ring bit | UN072B-03-R-368 | |
| | | | | COP34 | | | 9.3 | | | | | |
| | | | | COP32 | | | 8.7 | | | | | |
| | 072X | Multi use | 72 2.83" | 122 4.80" | 95.5 3.76" | DHD3.5 | 8.7 | 4.6 | 072B Pilot bit | | | UM072X-03-R-369 |
| | | | COP34 | | | 9.3 | | | | | | |
| | | | COP32 | | | 8.7 | | | | | | |
| | 6.5 (0.26") | 078W | Multi use | 78 3.07" | 124 4.88" | 98 3.86" | DHD3.5 | 9.5 | | 3.9 | UM078W-03-R-239 | |
| | | | | COP34 | | | 10.1 | | | | | |
| | | | | COP32 | | | 9.5 | | | | | |
| | | 6.35 (0.25") | 080A | Single pass | 80 3.15" | 124 4.88" | 99.5 3.92" | DHD3.5 | 9.7 | 3.9 | | US080A-03-R-341 |
| | | | | | COP34 | | | 10.3 | | | | |
| | | | | | COP32 | | | 9.7 | | | | |
| 080A | Normal | | 80 3.15" | 124 4.88" | 99.5 3.92" | DHD3.5 | 9.7 | 4.0 | UN080A-03-R-249 | | | |
| | | | COP34 | | | 10.3 | | | | | | |
| | | | COP32 | | | 9.7 | | | | | | |
| 080W | Multi use | 80 3.15" | 128 5.04" | 99.5 3.92" | DHD3.5 | 9.7 | 4.5 | 080A Pilot bit | | UM080W-03-R-371 | | |
| | | COP34 | | | 10.3 | | | | | | | |
| | | COP32 | | | 9.7 | | | | | | | |
| 6.0 (0.24") | 082A | Single pass | 82 3.23" | 126 4.96" | 100 3.94" | DHD3.5 | 10.1 | | 3.8 | | US082A-03-R-372 | |
| | | | COP34 | | | 10.7 | | | | | | |
| | | | COP32 | | | 10.1 | | | | | | |
| | 082A | Normal | 82 3.23" | 126 4.96" | 100 3.94" | DHD3.5 | 10.1 | 3.9 | UN082A-03-R-373 | | | |
| | | | COP34 | | | 10.7 | | | | | | |
| | | | COP32 | | | 10.1 | | | | | | |
| 082W | Multi use | 82 3.23" | 128 5.04" | 100 3.94" | DHD3.5 | 10.1 | 4.5 | 082A Pilot bit | | UM082W-03-R-342 | | |
| | | COP34 | | | 10.7 | | | | | | | |
| | | COP32 | | | 10.1 | | | | | | | |

Note 1) Normal model enables to be re-used in case of short hole drilling.

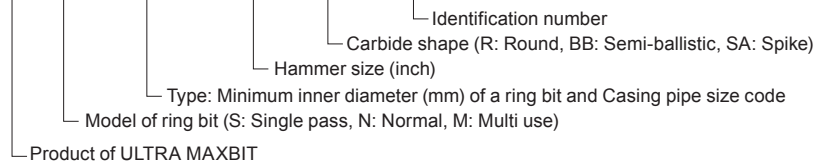
Note 2) To order, please advise the system type, casing size / hammer size and the ring bit models.

Note 3) Special types are also available according to customer's request.

Standard Type ULTRA MAXBIT / DTH

● System Part Number

U S 097A - 04 - R - 037



Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | |
|---|--------------------------|-----------|-------------|------------------------------|------------------------------|------------------------------|--------|-------------|--------------------------------------|---------------------------------|-------------------------------------|-------------------------------------|
| Outer Dia. D ₂ | Wall Max. Thickness t | | Model | Inner Dia. D ₄ | Outer Dia. D ₁ | Outer Dia. D ₃ | Hammer | Weight (kg) | | | | Weight (kg) |
| CASING PIPE ø127.0mm (5") | | | | | | | | | | | | |
| 127.0 (5") | 10.0 (0.39") | 082X | Multi use | 82 | 135 | 105 | DHD3.5 | 10.3 | 5.1 | | UM082X-03-R-374 | |
| | | | | 3.23" | 5.31" | 4.13" | COP34 | 10.9 | | | | |
| | 8.8 (0.35") | 084A | Single pass | 84 | 137 | 107 | DHD3.5 | 10.6 | 5.4 | | | US084A-03-R-103 |
| | | | | 3.31" | 5.39" | 4.21" | COP34 | 11.2 | | | | |
| CASING PIPE ø133.0mm (5 15/64") | | | | | | | | | | | | |
| 133.0 (5 15/64") | 10.0 (0.39") | 090W | Multi use | 90 | 141 | 110.5 | DHD340 | 13.4 | 5.3 | | UM090W-04-R-217 | |
| | | | | 3.54" | 5.55" | 4.35" | QL40 | 14.7 | | | | |
| | | | | | | | SD4 | 14.5 | | | | |
| CASING PIPE ø139.7mm (5 1/2") | | | | | | | | | | | | |
| 139.7 (5 1/2") | 10.0 (0.39") | 097A | Single pass | 97 | 150 | 117.5 | DHD340 | 14.7 | 5.7 | 097A Pilot bit | US097A-04-BB-001 US097A-04-R-037 | |
| | | | | 3.82" | 5.91" | 4.63" | QL40 | 16.0 | | | | |
| | | 097A | Normal | 97 | 150 | 117.5 | DHD340 | 14.7 | 5.9 | | | UN097A-04-BB-002 UN097A-04-R-080 |
| | | | | 3.82" | 5.91" | 4.63" | QL40 | 16.0 | | | | |
| | | 097W | Multi use | 97 | 147 | 117.5 | DHD340 | 14.7 | 5.6 | | | UM097W-04-R-286 |
| | | | | 3.82" | 5.79" | 4.63" | QL40 | 16.0 | | | | |
| | 097X | Multi use | 97 | 147 | 117.5 | DHD340 | 14.7 | 5.8 | UM097X-04-R-480 | | | |
| | | | 3.82" | 5.79" | 4.63" | QL40 | 16.0 | | | | | |
| | 8.0 (0.31") | 105A | Single pass | 105 | 152 | 125 | DHD340 | 18.0 | 4.9 | 105A Pilot bit | US105A-04-R-101 | |
| | | | | 4.13" | 5.98" | 4.92" | QL40 | 19.3 | | | | |
| | | 105A | Normal | 105 | 152 | 125 | DHD340 | 18.0 | 5.0 | | | UN105A-04-BB-025 UN105A-04-R-375 |
| | | | | 4.13" | 5.98" | 4.92" | QL40 | 19.3 | | | | |
| 105W | | Multi use | 105 | 150 | 125 | DHD340 | 18.0 | 5.3 | UM105W-04-R-498 | | | |
| | | | 4.13" | 5.91" | 4.92" | QL40 | 19.3 | | | | | |
| | | | | | SD4 | 19.1 | | | | | | |
| CASING PIPE ø152.4mm (6") | | | | | | | | | | | | |
| 152.4 (6") | 10.0 (0.39") | 110A | Single pass | 110 | 163 | 130 | DHD340 | 20.0 | 6.6 | 110A Pilot bit | US110A-04-R-039 | |
| | | | | 4.33" | 6.42" | 5.12" | QL40 | 21.3 | | | | |
| | | 110A | Normal | 110 | 163 | 130 | DHD340 | 20.0 | 6.7 | | | UN110A-04-R-078 |
| | | | | 4.33" | 6.42" | 5.12" | QL40 | 21.3 | | | | |
| | | 110W | Multi use | 110 | 160 | 130 | DHD340 | 20.0 | 6.7 | | | UM110W-04-R-212 |
| | | | | 4.33" | 6.30" | 5.12" | QL40 | 21.3 | | | | |
| | | | | | SD4 | 20.1 | | | | | | |
| CASING PIPE ø165.2mm (6 1/2") (→Next page) | | | | | | | | | | | | |
| 165.2 (6 1/2") | 7.1 (0.28") | 128C | Single pass | 128 | 178 | 149 | DHD350 | 30.0 | 6.4 | 128A Pilot bit 128A Ring bit | US128C-05-R-376 | |
| | | | | 5.04" | 7.01" | 5.87" | QL50 | 29.5 | | | | |
| | | 128C | Normal | 128 | 178 | 149 | DHD350 | 30.0 | 6.5 | 128A Pilot bit 128A Ring bit | | |
| | | | | 5.04" | 7.01" | 5.87" | QL50 | 29.5 | | | | |
| | | 128W | Multi use | 128 | 180 | 149 | DHD350 | 30.0 | 7.6 | 128A Pilot bit 128A Ring bit | | |
| | | | | 5.04" | 7.09" | 5.87" | QL50 | 29.5 | | | | |
| | | | | | SD5 | 29.5 | | | | | | |

To be continued

DIMENSIONS

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | | | |
|--------------------------------------|---------------------|-------------|-------------|----------------|----------------|----------------|--------|-------------|--------------------------------------|---------------------------------|--------------------|---------------------------------|-----------------|-----------------|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | Weight (kg) | | |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | | | |
| CASING PIPE ø165.2mm (6 1/2") | | | | | | | | | | | | | | |
| 165.2 (6 1/2") | 6.0 (0.24") | 128A | Single pass | 128 | 178 | 149 | DHD350 | 30.0 | 8.0 | | US128A-05-R-378 | | | |
| | | | | 5.04" | 7.01" | 5.87" | QL50 | 29.5 | | | | | | |
| | | SD5 | 29.5 | | | | | | | | | | | |
| | 128A | Normal | 128 | 178 | 149 | DHD350 | 30.0 | 6.5 | UN128A-05-BB-026 | | | | | |
| | | | 5.04" | 7.01" | 5.87" | QL50 | 29.5 | | | | | | | |
| | SD5 | 29.5 | | | | | | | | | | | | |
| 5.0 (0.20") | 128B | Normal | 128 | 178 | 149 | DHD350 | 30.0 | 6.5 | | 128A Pilot bit 128A Ring bit | UN128B-05-R-256 | | | |
| | | | 5.04" | 7.01" | 5.87" | QL50 | 29.5 | | | | | | | |
| | | | SD5 | 29.5 | | | | | | | | | | |
| CASING PIPE ø168.3mm (6 5/8") | | | | | | | | | | | | | | |
| 168.3 (6 5/8") | 12.7 (0.50") | 118A | Single pass | 118 | 178 | 140 | DHD350 | 25.5 | 8.9 | | US118A-05-R-041 | | | |
| | | | | 4.65" | 7.01" | 5.51" | QL50 | 25.0 | | | | | | |
| | | SD5 | 25.0 | | | | | | | | | | | |
| | | 118A | Normal | 118 | 178 | 140 | DHD350 | 25.5 | 9.0 | | | UN118A-05-R-081 | | |
| | | | | 4.65" | 7.01" | 5.51" | QL50 | 25.0 | | | | | | |
| | | SD5 | 25.0 | | | | | | | | | | | |
| | 118W | Multi use | 118 | 175 | 140 | DHD350 | 25.5 | 8.0 | 118A Pilot bit | UM118W-05-R-377 | | | | |
| | | | 4.65" | 6.89" | 5.51" | QL50 | 25.0 | | | | | | | |
| | SD5 | 25.0 | | | | | | | | | | | | |
| | 10.0 (0.39") | 126A | Single pass | 126 | 178 | 146 | DHD350 | 27.0 | | | 7.5 | | US126A-05-R-053 | |
| | | | | 4.96" | 7.01" | 5.75" | QL50 | 26.5 | | | | | | |
| | | SD5 | 26.5 | | | | | | | | | | | |
| | | 126A | Normal | 126 | 178 | 146 | DHD350 | 27.0 | 7.6 | UN126A-05-R-058 | | | | |
| | | | | 4.96" | 7.01" | 5.75" | QL50 | 26.5 | | | | | | |
| | | SD5 | 26.5 | | | | | | | | | | | |
| | 126W | Multi use | 126 | 175 | 146 | DHD350 | 27.0 | 7.1 | 126A Pilot bit | | UM126W-05-R-379 | | | |
| | | | 4.96" | 6.89" | 5.75" | QL50 | 26.5 | | | | | | | |
| | SD5 | 26.5 | | | | | | | | | | | | |
| 8.0 (0.31") | 126B | Single pass | 126 | 178 | 146 | DHD350 | 27.0 | 7.8 | | 126A Pilot bit 126A Ring bit | | US126B-05-R-380 | | |
| | | | 4.96" | 7.01" | 5.75" | QL50 | 26.5 | | | | | | | |
| | SD5 | 26.5 | | | | | | | | | | | | |
| | 126B | Normal | 126 | 178 | 146 | DHD350 | 27.0 | 7.9 | 126A Pilot bit 126A Ring bit | | UN126B-05-R-381 | | | |
| 4.96" | | | 7.01" | 5.75" | QL50 | 26.5 | | | | | | | | |
| SD5 | 26.5 | | | | | | | | | | | | | |
| CASING PIPE ø177.8mm (7") | | | | | | | | | | | | | | |
| 177.8 (7") | 12.7 (0.50") | 127A | Single pass | 127 | 188 | 149 | DHD350 | 28.5 | 9.6 | | US127A-05-R-043 | | | |
| | | | | 5.00" | 7.40" | 5.87" | QL50 | 27.5 | | | | | | |
| | | SD5 | 27.5 | | | | | | | | | | | |
| | | 127A | Normal | 127 | 188 | 149 | DHD350 | 28.5 | 9.7 | | | UN127A-05-R-079 | | |
| | | | | 5.00" | 7.40" | 5.87" | QL50 | 27.5 | | | | | | |
| | | SD5 | 27.5 | | | | | | | | | | | |
| | 127W | Multi use | 127 | 186 | 149 | DHD350 | 28.5 | 9.1 | 127A Pilot bit | UM127W-05-R-287 | | | | |
| | | | 5.00" | 7.32" | 5.87" | QL50 | 27.5 | | | | | | | |
| | SD5 | 27.5 | | | | | | | | | | | | |
| | 11.5 (0.45") | 127C | Single pass | 127 | 188 | 149 | DHD350 | 28.5 | | | 9.7 | 127A Pilot bit 127A Ring bit | US127C-05-R-142 | |
| | | | | 5.00" | 7.40" | 5.87" | QL50 | 27.5 | | | | | | |
| | SD5 | 27.5 | | | | | | | | | | | | |
| 10.0 (0.39") | 127X | Multi use | 127 | 186 | 149 | DHD350 | 28.5 | 9.5 | 127A Pilot bit | UM127X-05-R-382 | | | | |
| | | | 5.00" | 7.32" | 5.87" | QL50 | 27.5 | | | | | | | |
| SD5 | 27.5 | | | | | | | | | | | | | |
| 4.8 (0.19") | 142A | Normal | 142 | 188 | 164.5 | DHD360 | 38.5 | 7.1 | | | | UN142A-06-R-131 | | |
| | | | 5.59" | 7.40" | 6.48" | QL60 | 38.0 | | | | | | | |
| SD6 | 41.0 | | | | | | | | | | | | | |
| CASING PIPE ø190.7mm (7 1/2") | | | | | | | | | | | | | | |
| 190.7 (7 1/2") | 6.0 (0.24") | 156A | Single pass | 156 | 206 | 176.5 | DHD360 | 42.0 | 7.5 | | | | US156A-06-R-155 | |
| | | | | 6.14" | 8.11" | 6.95" | QL60 | 41.5 | | | | | | |
| | | SD6 | 44.5 | | | | | | | | | | | |
| | | 156A | Normal | 156 | 206 | 176.5 | DHD360 | 42.0 | 7.6 | | UN156A-06-R-383 | | | |
| | 6.14" | | | 8.11" | 6.95" | QL60 | 41.5 | | | | | | | |
| | SD6 | 44.5 | | | | | | | | | | | | |
| | 5.3 (0.21") | 156B | Single pass | 156 | 206 | 176.5 | DHD360 | 42.0 | 7.6 | | | 156A Pilot bit 156A Ring bit | | US156B-06-R-384 |
| | | | | 6.14" | 8.11" | 6.95" | QL60 | 41.5 | | | | | | |
| SD6 | | 44.5 | | | | | | | | | | | | |
| 156B | | Normal | 156 | 206 | 176.5 | DHD360 | 42.0 | 7.7 | 156A Pilot bit 156A Ring bit | UN156B-06-R-385 | | | | |
| | 6.14" | | 8.11" | 6.95" | QL60 | 41.5 | | | | | | | | |
| SD6 | 44.5 | | | | | | | | | | | | | |

Note 1) Normal model enables to be re-used in case of short hole drilling.

Note 2) To order, please advise the system type, casing size / hammer size and the ring bit models.

Note 3) Special types are also available according to customer's request.

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | | | | | |
|--|------------------------|-----------------|-------------|----------------|----------------|----------------|--------|----------------|---|---------------------------------|-------------------------------------|-----------------|------|------|--|-----------------|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | Weight (kg) | | | | |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | | | | | |
| CASING PIPE ø193.7mm (7 5/8") | | | | | | | | | | | | | | | | |
| 193.7 (7 5/8") | 12.7 (0.50") | 143A | Single pass | 143 | 206 | 166 | DHD360 | 38.0 | 10.5 | | US143A-06-R-045 | | | | | |
| | | | | 5.63" | 8.11" | 6.54" | QL60 | 37.5 | | | | | | | | |
| | | | | | | | SD6 | 40.5 | | | | | | | | |
| | | 143A | Normal | 143 | 206 | 166 | DHD360 | 38.0 | 10.2 | | UN143A-06-R-386 | | | | | |
| | | | | 5.63" | 8.11" | 6.54" | QL60 | 37.5 | | | | | | | | |
| | | | | | | | SD6 | 40.5 | | | | | | | | |
| | 143W | Multi use | 143 | 202 | 166 | DHD360 | 38.0 | 10.2 | 143A Pilot bit | UM143W-06-R-288 | | | | | | |
| | | | 5.63" | 7.95" | 6.54" | QL60 | 37.5 | | | | | | | | | |
| | | | | | | SD6 | 40.5 | | | | | | | | | |
| | 11.0 (0.43") | 151A | Single pass | 151 | 206 | 170 | DHD360 | 40.0 | 9.1 | | US151A-06-BB-013 US151A-05-R-075 | | | | | |
| | | | | 5.94" | 8.11" | 6.69" | QL60 | 39.5 | | | | | | | | |
| | | | | | | | SD6 | 42.5 | | | | | | | | |
| 151W | | Multi use | 151 | 202 | 170 | DHD360 | 40.0 | 8.4 | 151A Pilot bit | UM151W-06-R-387 | | | | | | |
| | | | 5.94" | 7.95" | 6.69" | QL60 | 39.5 | | | | | | | | | |
| | | | | | | SD6 | 42.5 | | | | | | | | | |
| 6.0 (0.24") | 157A | Single pass | 157 | 209 | 180 | DHD360 | 43.5 | 9.2 | | US157A-06-R-388 | | | | | | |
| | | | 6.18" | 8.23" | 7.09" | QL60 | 43.0 | | | | | | | | | |
| | | | | | | SD6 | 46.0 | | | | | | | | | |
| | 157A | Normal | 157 | 209 | 180 | DHD360 | 43.5 | 9.5 | | UN157A-06-R-088 | | | | | | |
| | | | 6.18" | 8.23" | 7.09" | QL60 | 43.0 | | | | | | | | | |
| | | | | | | SD6 | 46.0 | | | | | | | | | |
| CASING PIPE ø216.3mm (8 33/64") | | | | | | | | | | | | | | | | |
| 216.3 (8 33/64") | 8.2 (0.32") | 175A | Single pass | 175 | 231 | 197.5 | DHD360 | 51.5 | 10.2 | | US175A-06-R-389 | | | | | |
| | | | | 6.89" | 9.09" | 7.78" | QL60 | 51.0 | | | | | | | | |
| | | | | | | | SD6 | 54.0 | | | | | | | | |
| | | 175A | Normal | 175 | 231 | 197.5 | DHD360 | 51.5 | 10.3 | 175C Ring bit | UN175A-06-R-390 | | | | | |
| | | | | 6.89" | 9.09" | 7.78" | QL60 | 51.0 | | | | | | | | |
| | | | | | | | SD6 | 54.0 | | | | | | | | |
| | 7.7 (0.30") | 175B | Single pass | 175 | 231 | 197.5 | DHD360 | 51.5 | 10.2 | 175A Pilot bit 175A Ring bit | US175B-06-R-277 | | | | | |
| | | | | 6.89" | 9.09" | 7.78" | QL60 | 51.0 | | | | | | | | |
| | | | | | | | SD6 | 54.0 | | | | | | | | |
| | 7.0 (0.28") | 175D | Normal | 175 | 231 | 197.5 | DHD360 | 51.5 | 10.5 | 175A Pilot bit 175C Ring bit | UN175D-06-R-391 | | | | | |
| | | | | 6.89" | 9.09" | 7.78" | QL60 | 51.0 | | | | | | | | |
| | | | | | | | SD6 | 54.0 | | | | | | | | |
| 5.8 (0.23") | 175C | Normal | 175 | 231 | 197.5 | DHD360 | 51.5 | 10.4 | 175A Pilot bit | UN175C-06-R-279 | | | | | | |
| | | | 6.89" | 9.09" | 7.78" | QL60 | 51.0 | | | | | | | | | |
| | | | | | | SD6 | 54.0 | | | | | | | | | |
| CASING PIPE ø219.1mm (8 5/8") | | | | | | | | | | | | | | | | |
| 219.1 (8 5/8") | 12.7 (0.50") | 170A | Single pass | 170 | 232 | 191 | DHD360 | 49.0 | 11.8 | | US170A-06-BB-016 US170A-06-R-047 | | | | | |
| | | | | 6.69" | 9.13" | 7.52" | QL60 | 48.5 | | | | | | | | |
| | | | | | | | SD6 | 51.5 | | | | | | | | |
| | | | | 170A | Normal | 170 | 231 | 191 | | | | DHD360 | 49.0 | 11.9 | | UN170A-06-R-392 |
| | | | | | | 6.69" | 9.09" | 7.52" | | | | QL60 | 48.5 | | | |
| | | | | | | | | | | | | SD6 | 51.5 | | | |
| | | 170W | Multi use | 170 | 227 | 191 | DHD360 | 49.0 | 11.9 | 170A Pilot bit | UM170W-06-R-289 | | | | | |
| | | | | 6.69" | 8.94" | 7.52" | QL60 | 48.5 | | | | | | | | |
| | | | | | | | SD6 | 51.5 | | | | | | | | |
| | | 10.3 (0.41") | 170B | Single pass | 170 | 232 | 191 | DHD360 | 49.0 | 11.9 | 170A Pilot bit 170A Ring bit | US170B-06-R-265 | | | | |
| | | | | | 6.69" | 9.13" | 7.52" | QL60 | 48.5 | | | | | | | |
| | | | | | | | | SD6 | 51.5 | | | | | | | |
| | 10.0 (0.39") | 170D | Single pass | 170 | 232 | 191 | DHD360 | 49.0 | 12.3 | 170A Pilot bit 170A Ring bit | US170D-06-R-393 | | | | | |
| | | | | 6.69" | 9.13" | 7.52" | QL60 | 48.5 | | | | | | | | |
| | | | | | | | SD6 | 51.5 | | | | | | | | |
| | | 170X | Multi use | 170 | 227 | 191 | DHD360 | 49.0 | 12.3 | 170A Pilot bit | UM170X-06-R-394 | | | | | |
| | | | | 6.69" | 8.94" | 7.52" | QL60 | 48.5 | | | | | | | | |
| | | | | | | | SD6 | 51.5 | | | | | | | | |
| | 6.5 (0.26") | 178A | Normal | 178 | 234 | 201 | DHD360 | 51.0 | 12.4 | | UN178A-06-R-395 | | | | | |
| | | | | 7.01" | 9.21" | 7.91" | QL60 | 50.5 | | | | | | | | |
| | | | | | | | SD6 | 53.5 | | | | | | | | |
| | 5.0 (0.20") | 182A | Normal | 182 | 234 | 207 | DHD360 | 54.5 | 11.4 | | UN182A-06-R-354 | | | | | |
| | | | | 7.17" | 9.21" | 8.15" | QL60 | 54.0 | | | | | | | | |
| | | | | | | | SD6 | 57.0 | | | | | | | | |
| 4.8 (0.19") | 187A | Normal | 187 | 234 | 207.5 | DHD360 | 55.5 | 9.9 | | UN187A-06-R-332 | | | | | | |
| | | | 7.36" | 9.21" | 8.17" | QL60 | 55.0 | | | | | | | | | |
| | | | | | | SD6 | 58.0 | | | | | | | | | |
| | 187W | Multi use | 187 | 234 | 207.5 | DHD360 | 55.5 | 9.5 | 187A Pilot bit | UM187W-06-R-333 | | | | | | |
| | | | 7.36" | 9.21" | 8.17" | QL60 | 55.0 | | | | | | | | | |
| | | | | | | SD6 | 58.0 | | | | | | | | | |

To be continued

DIMENSIONS

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | |
|--|---------------------|-------------|-------------|----------------|----------------|----------------|--------|----------------|--------------------------------------|-----------------|--------------------|-----------------|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | Weight (kg) |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | |
| CASING PIPE ø241.8mm (9 33/64") | | | | | | | | | | | | |
| 241.8 (9 33/64") | 8.0 (0.31") | 200A | Single pass | 200 | 257 | 223.5 | DHD360 | 64.5 | 12.8 | | US200A-06-R-396 | |
| | | | | 7.87" | 10.12" | 8.80" | QL60 | 64.0 | | | | |
| | | | | 200 | 257 | 223.5 | DHD380 | 76.5 | | | | |
| | | | | 7.87" | 10.12" | 8.80" | QL80 | 76.1 | | | | |
| | | 200A | Normal | 200 | 257 | 223.5 | DHD360 | 64.5 | | 13.0 | | UN200A-06-R-397 |
| | | | | 7.87" | 10.12" | 8.80" | QL60 | 64.0 | | | | |
| | | | | 200 | 257 | 223.5 | DHD380 | 76.5 | | | | |
| | | | | 7.87" | 10.12" | 8.80" | QL80 | 76.1 | | | | |
| | 200W | Multi use | 200 | 257 | 223.5 | DHD360 | 64.5 | 13.5 | 200A Pilot bit | | UM200W-06-R-398 | |
| | | | 7.87" | 10.12" | 8.80" | QL60 | 64.0 | | | | | |
| | | | 200 | 257 | 223.5 | DHD380 | 76.5 | | 200A Pilot bit | | UM200W-08-R-399 | |
| | | | 7.87" | 10.12" | 8.80" | QL80 | 76.1 | | | | | |
| | 6.2 (0.24") | 200B | Normal | 200 | 257 | 223.5 | DHD360 | | 64.5 | 13.3 | 200A Pilot bit | UN200B-06-R-400 |
| | | | | 7.87" | 10.12" | 8.80" | QL60 | | 64.0 | | | |
| | | | | 200 | 257 | 223.5 | DHD380 | | 76.5 | | 200A Pilot bit | UN200B-08-R-401 |
| | | | | 7.87" | 10.12" | 8.80" | QL80 | | 76.1 | | | |
| CASING PIPE ø244.0mm (9 39/64") | | | | | | | | | | | | |
| 244.0 (9 39/64") | 10.0 (0.39") | 194A | Single pass | 194 | 257 | 221 | DHD360 | 59.0 | 13.3 | | | US194A-06-R-182 |
| | | | | 7.64" | 10.12" | 8.70" | QL60 | 58.5 | | | | |
| | | | | | | | SD6 | 61.5 | | | | |
| CASING PIPE ø244.5mm (9 5/8") | | | | | | | | | | | | |
| 244.5 (9 5/8") | 13.8 (0.54") | 190C | Single pass | 190 | 257 | 214 | DHD380 | 71.2 | 14.5 | | US190C-08-R-319 | |
| | | | | 7.48" | 10.12" | 8.43" | QL80 | 70.8 | | | | |
| | | | | 190 | 257 | 214 | DHD360 | 58.0 | | | | US190C-06-R-316 |
| | | | | 7.48" | 10.12" | 8.43" | QL60 | 57.5 | | | | |
| | | | | | SD6 | 60.5 | | | | | | |
| | | | | | | | | | | | | |
| | | 190C | Normal | 190 | 257 | 214 | DHD380 | 71.2 | | 14.6 | | UN190C-08-R-320 |
| | | | | 7.48" | 10.12" | 8.43" | QL80 | 70.8 | | | | |
| | | | | 190 | 257 | 214 | DHD360 | 58.0 | UN190C-06-R-317 | | | |
| | | | | 7.48" | 10.12" | 8.43" | QL60 | 57.5 | | | | |
| | | | | | SD6 | 60.5 | | | | | | |
| | | | | | | | | | | | | |
| | 190W | Multi use | 190 | 253 | 214 | DHD380 | 71.2 | 12.8 | 190C Pilot bit | | UM190W-08-R-321 | |
| | | | 7.48" | 9.96" | 8.43" | QL80 | 70.8 | | | | | |
| | | | 190 | 253 | 214 | DHD380 | 58.0 | | 190C Pilot bit | UM190W-06-R-318 | | |
| | | | 7.48" | 9.96" | 8.43" | QL80 | 57.5 | | | | | |
| | | | | SD8 | 64.4 | | | | | | | |
| | | | | | | | | | | | | |
| | 12.7 (0.50") | 190D | Single pass | 190 | 257 | 214 | DHD380 | | 71.2 | 14.8 | 190C Pilot bit | US190D-08-R-402 |
| | | | | 7.48" | 10.12" | 8.43" | QL80 | | 70.8 | | | |
| | | | | 190 | 257 | 214 | DHD360 | 58.0 | 190C Pilot bit | | US190D-06-R-403 | |
| | | | | 7.48" | 10.12" | 8.43" | QL60 | 57.5 | | | | |
| | | | | | SD6 | 60.5 | | | | | | |
| | | | | | | | | | | | | |
| 190D | | Normal | 190 | 257 | 214 | DHD380 | 71.2 | 14.9 | 190C Pilot bit | | UN190D-08-R-404 | |
| | | | 7.48" | 10.12" | 8.43" | QL80 | 70.8 | | | | | |
| | | | 190 | 257 | 214 | DHD360 | 58.0 | | 190C Pilot bit | UN190D-06-R-405 | | |
| | | | 7.48" | 10.12" | 8.43" | QL60 | 57.5 | | | | | |
| | | | | SD6 | 60.5 | | | | | | | |
| | | | | | | | | | | | | |
| 190X | Multi use | 190 | 253 | 214 | DHD380 | 71.2 | 13.9 | | 190C Pilot bit | UM190X-08-R-406 | | |
| | | 7.48" | 9.96" | 8.43" | QL80 | 70.8 | | | | | | |
| | | 190 | 253 | 214 | DHD360 | 58.0 | | 190C Pilot bit | UM190X-06-R-407 | | | |
| | | 7.48" | 9.96" | 8.43" | QL60 | 57.5 | | | | | | |
| | | | SD6 | 60.5 | | | | | | | | |
| | | | | | | | | | | | | |
| 6.0 (0.24") | 201A | Single pass | 201 | 257 | 228 | DHD380 | | 78.9 | 13.2 | | US201A-08-R-302 | |
| | | | 7.91" | 10.12" | 8.98" | QL80 | | 78.5 | | | | |
| | | | | | | | SD8 | 72.1 | | | | |

Note 1) Normal model enables to be re-used in case of short hole drilling.

Note 2) To order, please advise the system type, casing size / hammer size and the ring bit models.

Note 3) Special types are also available according to customer's request.

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | |
|---|---------------------|-------------|-------------|----------------|----------------|----------------|--------|-------------|--------------------------------------|---------------------------------|--------------------|-------------|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | Weight (kg) |
| CASING PIPE ø254.0mm (10") | | | | | | | | | | | | |
| 254.0 (10") | 12.7 (0.50") | 200X | Multi use | 200 | 262 | 226 | DHD380 | 78.3 | 15.4 | | UM200X-08-R-408 | |
| | | | | 7.87" | 10.31" | 8.90" | QL80 | 77.9 | | | | |
| | | | | | | | SD8 | 71.5 | | | | |
| CASING PIPE ø267.4mm (10 17/32") | | | | | | | | | | | | |
| 267.4 (10 17/32") | 9.3 (0.37") | 223A | Single pass | 223 | 281 | 246.5 | DHD380 | 90.9 | 15.0 | | US223A-08-R-066 | |
| | | | | 8.78" | 11.06" | 9.70" | QL80 | 90.5 | | | | |
| | | | | | | | | | SD8 | 84.1 | | |
| | | 223A | Normal | 223 | 281 | 246.5 | DHD380 | 90.9 | 15.1 | | UN223A-08-R-067 | |
| | | | | 8.78" | 11.06" | 9.70" | QL80 | 90.5 | | | | |
| | | | | | | | | | SD8 | 84.1 | | |
| | 223W | Multi use | 223 | 278 | 246.5 | DHD380 | 90.9 | 14.2 | 223A Pilot bit | UM223W-08-R-409 | | |
| | | | 8.78" | 10.94" | 9.70" | QL80 | 90.5 | | | | | |
| | | | | | | | | SD8 | 84.1 | | | |
| | 7.8 (0.31") | 223C | Single pass | 223 | 281 | 246.5 | DHD380 | 90.9 | 15.3 | 223A Pilot bit 223A Ring bit | US223C-08-R-410 | |
| | | | | 8.78" | 11.06" | 9.70" | QL80 | 90.5 | | | | |
| | | | | | | | | | SD8 | 84.1 | | |
| 223C | | Normal | 223 | 281 | 246.5 | DHD380 | 90.9 | 15.4 | 223A Pilot bit 223A Ring bit | UN223C-08-R-411 | | |
| | 8.78" | | 11.06" | 9.70" | QL80 | 90.5 | | | | | | |
| | | | | | | | SD8 | 84.1 | | | | |
| 6.6 (0.26") | 223B | Single pass | 223 | 281 | 246.5 | DHD380 | 90.9 | 15.5 | 223A Pilot bit 223A Ring bit | US223B-08-R-412 | | |
| | | | 8.78" | 11.06" | 9.70" | QL80 | 90.5 | | | | | |
| | | | | | | | | SD8 | 84.1 | | | |
| | 223B | Normal | 223 | 281 | 246.5 | DHD380 | 90.9 | 15.5 | 223A Pilot bit 223A Ring bit | UN223B-08-R-251 | | |
| 8.78" | | | 11.06" | 9.70" | QL80 | 90.5 | | | | | | |
| | | | | | | | SD8 | 84.1 | | | | |
| CASING PIPE ø273.0mm (10 3/4") | | | | | | | | | | | | |
| 273.0 (10 3/4") | 12.7 (0.50") | 219A | Single pass | 219 | 284 | 245 | DHD380 | 90.0 | 17.7 | | US219A-08-R-050 | |
| | | | | 8.62" | 11.18" | 9.65" | QL80 | 89.6 | | | | |
| | | | | | | | | | SD8 | 83.2 | | |
| | | 219A | Normal | 219 | 284 | 245 | DHD380 | 90.0 | 18.0 | | UN219A-08-R-097 | |
| | | | | 8.62" | 11.18" | 9.65" | QL80 | 89.6 | | | | |
| | | | | | | | | | SD8 | 83.2 | | |
| | 219W | Multi use | 219 | 281 | 245 | DHD380 | 90.0 | 16.6 | 219A Pilot bit | UM219W-08-R-413 | | |
| | | | 8.62" | 11.06" | 9.65" | QL80 | 89.6 | | | | | |
| | | | | | | | | SD8 | 83.2 | | | |
| | 10.0 (0.39") | 219B | Single pass | 219 | 284 | 245 | DHD380 | 90.0 | 18.3 | 219A Pilot bit 219A Ring bit | US219B-08-R-414 | |
| | | | | 8.62" | 11.18" | 9.65" | QL80 | 89.6 | | | | |
| | | | | | | | | | SD8 | 83.2 | | |
| | | 219B | Normal | 219 | 284 | 245 | DHD380 | 90.0 | 18.6 | 219A Pilot bit 219A Ring bit | UN219B-08-R-415 | |
| | 8.62" | | | 11.18" | 9.65" | QL80 | 89.6 | | | | | |
| | | | | | | | | SD8 | 83.2 | | | |
| | 8.0 (0.31") | 228A | Normal | 228 | 284 | 252.5 | DHD380 | 93.8 | 15.2 | | UN228A-08-R-054 | |
| | | | | 8.98" | 11.18" | 9.94" | QL80 | 93.4 | | | | |
| | | | | | | | | | SD8 | 87.0 | | |
| 232A | | Single pass | 232 | 284 | 255 | DHD380 | 97.3 | 13.6 | | US232A-08-R-061 | | |
| | 9.13" | | 11.18" | 10.04" | QL80 | 96.9 | | | | | | |
| | | | | | | | SD8 | 90.5 | | | | |
| 232A | Normal | 232 | 284 | 255 | DHD380 | 97.3 | 13.8 | | UN232A-08-R-034 | | | |
| | | 9.13" | 11.18" | 10.04" | QL80 | 96.9 | | | | | | |
| | | | | | | | SD8 | 90.5 | | | | |
| 9.2 (0.36") | 232C | Normal | 232 | 284 | 253 | DHD380 | 96.8 | 13.6 | 232A Ring bit | UN232C-08-R-192 | | |
| | | | 9.13" | 11.18" | 9.96" | QL80 | 96.4 | | | | | |
| | | | | | | | SD8 | 90.0 | | | | |
| 6.3 (0.25") | 232D | Normal | 232 | 284 | 253 | DHD380 | 96.8 | 14.1 | 232C Pilot bit 232A Ring bit | UN232D-08-R-210 | | |
| | | | 9.13" | 11.18" | 9.96" | QL80 | 96.4 | | | | | |
| | | | | | | | | SD8 | 90.0 | | | |
| | 232W | Multi use | 232 | 304 | 253 | DHD380 | 96.8 | 18.1 | 232C Pilot bit | UM232W-08-R-278 | | |
| 9.13" | | | 11.97" | 9.96" | QL80 | 96.4 | | | | | | |
| | | | | | | | SD8 | 90.0 | | | | |

To be continued 

DIMENSIONS

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | | |
|---|------------------------|--------|-------------|----------------|----------------|----------------|--------|----------------|---|--------------------|---------------------------------|-----------------|----------------|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | | |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | Weight (kg) | |
| CASING PIPE ø300.0mm (11 13/16") | | | | | | | | | | | | | |
| 300.0 (11 13/16") | 8.0 (0.31") | 254A | Single pass | 254 | 315 | 281 | DHD380 | 112.0 | 17.2 | | US254A-08-R-273 | | |
| | | | | 10.00" | 12.40" | 11.06" | QL80 | 111.6 | | | | | |
| | | | | | | | SD8 | 105.2 | | | | | |
| CASING PIPE ø318.5mm (12 17/32") | | | | | | | | | | | | | |
| 318.5 (12 17/32") | 10.3 (0.41") | 270A | Single pass | 270 | 335 | 295 | DHD380 | 121.4 | 20.0 | | US270A-08-R-418 | | |
| | | | | 10.63" | 13.19" | 11.61" | QL80 | 121.0 | | | | | |
| | | | | | | | SD8 | 114.6 | | | | | |
| | | | | | | | | | | | | | |
| | | 270A | Normal | 270 | 335 | 295 | DHD310 | 143.5 | 20.4 | | UN270A-10-R-069 | | |
| | | | | 10.63" | 13.19" | 11.61" | SD10 | 139.5 | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | 270X | Multi use | 270D | Single pass | 270 | 335 | 295 | DHD380 | 121.4 | 19.1 | 270A Pilot bit | UM270X-08-R420 |
| | | | | | | 10.63" | 13.19" | 11.61" | QL80 | 121.0 | | | |
| | | | | | | | | | SD8 | 114.6 | | | |
| | | | | | | | | | | | | | |
| | 270D | | | Normal | 270 | 335 | 295 | DHD310 | 143.5 | 20.5 | 270A Pilot bit 270A Ring bit | US270D-10-R-437 | |
| | | | | | 10.63" | 13.19" | 11.61" | SD10 | 139.5 | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | 270C | Normal | 270D | Normal | 270 | 335 | 295 | DHD310 | 143.5 | 20.9 | 270A Pilot bit 270A Ring bit | UN270D-10-R-438 | |
| | | | | | 10.63" | 13.19" | 11.61" | SD10 | 139.5 | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | 270C | Normal | 270C | Normal | 270 | 335 | 295 | DHD310 | 143.5 | 21.2 | 270A Pilot bit 270A Ring bit | UN270C-10-R-348 | |
| | | | | | 10.63" | 13.19" | 11.61" | SD10 | 139.5 | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Note 1) Normal model enables to be re-used in case of short hole drilling.

Note 2) To order, please advise the system type, casing size / hammer size and the ring bit models.

Note 3) Special types are also available according to customer's request.

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | |
|---------------------------------------|---------------------|-----------|-------------|----------------|----------------|----------------|----------------|-------------|--------------------------------------|-----------------|--------------------|-------------|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | Weight (kg) |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | |
| CASING PIPE ø323.9mm (12 3/4") | | | | | | | | | | | | |
| 323.9 (12 3/4") | 12.7 (0.50") | 273A | Single pass | 273 | 338 | 296 | DHD380 | 123.5 | 21.2 | | US273A-08-R-051 | |
| | | | | 10.75" | 13.31" | 11.65" | QL80 | 123.1 | | | | |
| | | | | | | | SD8 | 116.7 | | | | |
| | | 273W | Multi use | 273 | 333 | 296 | DHD380 | 123.5 | 20.2 | 273A Pilot bit | UM273W-08-R-215 | |
| | | | | 10.75" | 13.11" | 11.65" | QL80 | 123.1 | | | | |
| | | | | | | | SD8 | 116.7 | | | | |
| | 10.0 (0.39") | 273C | Single pass | 273 | 338 | 298 | DHD380 | 124.5 | 21.5 | 273A Ring bit | US273C-08-R439 | |
| | | | | 10.75" | 13.31" | 11.73" | QL80 | 124.1 | | | | |
| | | | | | | | SD8 | 117.7 | | | | |
| | | 273C | Normal | 273 | 338 | 298 | DHD380 | 124.5 | 21.7 | 273A Ring bit | UN273C-08-R440 | |
| | | | | 10.75" | 13.31" | 11.73" | QL80 | 124.1 | | | | |
| | | | | | | | SD8 | 117.7 | | | | |
| | 273X | Multi use | 273 | 338 | 298 | DHD380 | 124.5 | 20.0 | 273C Pilot bit | UM273X-08-R-257 | | |
| | | | 10.75" | 13.31" | 11.73" | QL80 | 124.1 | | | | | |
| | | | | | | SD8 | 117.7 | | | | | |
| | 8.0 (0.31") | 281A | Single pass | 281 | 338 | 305 | DHD380 | 130.0 | 17.6 | | US281A-08-R-214 | |
| | | | | 11.06" | 13.31" | 12.01" | QL80 | 129.6 | | | | |
| | | | | | | | SD8 | 123.2 | | | | |
| | | 281A | Normal | 281 | 338 | 305 | DHD380 | 130.0 | 17.8 | | UN281A-08-R-074 | |
| | | | | 11.06" | 13.31" | 12.01" | QL80 | 129.6 | | | | |
| | | | | | | | SD8 | 123.2 | | | | |
| | | | | 281 | 338 | 305 | DHD310 | 150.0 | | | UN281A-10-R-091 | |
| | | | | 11.06" | 13.31" | 12.01" | SD10 | 146.0 | | | | |
| | | | | | | | | | | | | |
| 281 | | | | 338 | 305 | DHD112 | 173.0 | | | UN281A-12-R-062 | | |
| 11.06" | | | | 13.31" | 12.01" | QL120 | 203.0 | | | | | |
| | | | | | | NUMA11/120 | 182.0 | | | | | |
| 281 | | 338 | 305 | NUMA125 | 194.0 | | | | | | | |
| 11.06" | | 13.31" | 12.01" | SD12 | 173.0 | | | | | | | |
| | | | | | | | | | | | | |
| 281W | | Multi use | 281 | 333 | 305 | DHD380 | 130.0 | 16.3 | 281A Pilot bit | UM281W-08-R-216 | | |
| | | | 11.06" | 13.11" | 12.01" | QL80 | 129.6 | | | | | |
| | | | 281 | 333 | 305 | SD8 | 123.2 | | 281A Pilot bit | UM281W-10-R-267 | | |
| | 11.06" | | 13.11" | 12.01" | DHD310 | 150.0 | | | | | | |
| 281 | 333 | 305 | SD10 | 146.0 | | | | | | | | |
| 6.4 (0.25") | 281B | Normal | 281 | 338 | 305 | DHD380 | 130.0 | 18.2 | 281A Pilot bit 281A Ring bit | UN281B-08-R-339 | | |
| | | | 11.06" | 13.31" | 12.01" | QL80 | 129.6 | | | | | |
| | | | 281 | 338 | 305 | SD8 | 123.2 | | 281A Pilot bit 281A Ring bit | UN281B-10-R-441 | | |
| | 11.06" | 13.31" | 12.01" | DHD310 | 150.0 | | | | | | | |
| | 281 | 338 | 305 | SD10 | 146.0 | | | | | | | |
| | 281X | Multi use | 281 | 333 | 305 | DHD380 | 130.0 | 16.7 | 281A Pilot bit | UM281X-08-R-340 | | |
| 11.06" | | | 13.11" | 12.01" | QL80 | 129.6 | | | | | | |
| 281 | | | 333 | 305 | SD8 | 123.2 | 281A Pilot bit | | UM281X-10-R442 | | | |
| 11.06" | | | 13.11" | 12.01" | DHD310 | 150.0 | | | | | | |
| 281 | 333 | 305 | SD10 | 146.0 | | | | | | | | |

To be continued 

DIMENSIONS

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | |
|-----------------------------------|---------------------|--------|-------------|----------------|----------------|----------------|------------|-----------------|--------------------------------------|---------------------------------|--------------------|-----------------|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | Weight (kg) |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | |
| CASING PIPE ø355.6mm (14") | | | | | | | | | | | | |
| 355.6 (14") | 12.7 (0.50") | 300A | Normal | 300 | 370 | 327 | DHD112 | 189.5 | 25.3 | | UN300A-12-R-055 | |
| | | | | 11.81" | 14.57" | | 12.87" | QL120 | | | | 219.5 |
| | | | | | | | | NUMA11/120 | | | | 198.5 |
| | | | | | | | | NUMA125 | | | | 210.5 |
| | | | | | | | | SD12 | | | | 189.5 |
| | | | | 300 | 370 | | 327 | DH310 | | | | 167.5 |
| | | 11.81" | 14.57" | 12.87" | SD10 | 163.5 | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | 300W | Multi use | 300 | 370 | 327 | DHD112 | 189.5 | | 24.2 | 300A Pilot bit | UM300W-12-R-443 |
| | | | | 11.81" | 14.57" | | 12.87" | QL120 | | | | |
| | NUMA11/120 | | | | | | | 198.5 | | | | |
| | NUMA125 | | | | | | | 210.5 | | | | |
| | SD12 | | | | | | | 189.5 | | | | |
| | 300 | | | 370 | 327 | | DH310 | 167.5 | 300A Pilot bit | | | |
| | 11.81" | 14.57" | 12.87" | SD10 | 163.5 | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | 9.5 (0.37") | 300B | Single pass | 300 | 370 | 333.5 | DH310 | 169.0 | | | 25.3 | |
| | | | | 11.81" | 14.57" | | 13.13" | SD10 | 169.0 | | | |
| | | 300B | Normal | | | 300 | | 370 | 333.5 | DHD112 | 191 | 25.6 |
| | | | | 11.81" | 14.57" | 13.13" | QL120 | 221 | | | | |
| NUMA11/120 | | | | | | | 200 | | | | | |
| NUMA125 | | | | | | | 222 | | | | | |
| SD12 | | | | | | | 191 | | | | | |
| 300 | | | | 370 | 333.5 | DH310 | 169 | UN300B-10-R-446 | | | | |
| 11.81" | | 14.57" | 13.13" | SD10 | 165 | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 300X | Multi use | 300 | 370 | 333.5 | DHD112 | 191 | 24.4 | | 300B Pilot bit | UM300X-12-R-447 | | |
| | | 11.81" | 14.57" | | 13.13" | QL120 | | 221 | | | | |
| | | | | | | NUMA11/120 | | 200 | | | | |
| | | | | | | NUMA125 | | 222 | | | | |
| | | | | | | SD12 | | 191 | | | | |
| | | 300 | 370 | | 333.5 | DH310 | | 169 | | | 300B Pilot bit | UM300X-10-R-448 |
| 11.81" | 14.57" | 13.13" | SD10 | 165 | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 7.9 (0.31") | 300C | Normal | 300 | 370 | 333.5 | DHD112 | | 191 | 25.6 | 300B Pilot bit 300B Ring bit | | |
| | | | 11.81" | 14.57" | | 13.13" | | QL120 | | | 221 | |
| | | | | | | | NUMA11/120 | 200 | | | | |
| | | | 11.81" | 14.57" | | 13.13" | NUMA125 | 222 | | | | |
| SD12 | 191 | | | | | | | | | | | |
| 6.3 (0.25") | 300D | Normal | 300 | 370 | 333.5 | DHD112 | 191 | 26.4 | | 300B Pilot bit 300B Ring bit | UN300D-12-R-357 | |
| | | | 11.81" | 14.57" | | 13.13" | QL120 | | | | | 221 |
| | | | | | | | NUMA11/120 | | | | | 200 |
| | | | 11.81" | 14.57" | | 13.13" | NUMA125 | | 222 | | | |
| SD12 | 191 | | | | | | | | | | | |

Note 1) Normal model enables to be re-used in case of short hole drilling.

Note 2) To order, please advise the system type, casing size / hammer size and the ring bit models.

Note 3) Special types are also available according to customer's request.

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | |
|-----------------------------------|---------------------|-------------|-------------|----------------|----------------|----------------|------------|-------------|--------------------------------------|-----------------|--------------------|-----|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | |
| CASING PIPE ø406.4mm (16") | | | | | | | | | | | | |
| 406.4 (16") | 12.7 (0.50") | 354A | Single pass | 354 | 420 | 378 | DHD112 | 233 | 27.0 | | US354A-12-R-105 | |
| | | | | 13.94" | 16.54" | | 14.88" | QL120 | | | | 263 |
| | | | | | | | | NUMA11/120 | | | | 242 |
| | | | | | NUMA125 | 264 | | | | | | |
| | | | | | SD12 | 233 | | | | | | |
| | | | | | | | | | | | | |
| | | 354X | Multi use | 354 | 420 | 378 | DHD112 | 233 | 26.0 | 354A Pilot bit | UM354X-12-R-263 | |
| | 13.94" | | | 16.54" | 14.88" | | QL120 | 263 | | | | |
| | | | | | | | NUMA11/120 | 242 | | | | |
| | | | | | | | NUMA125 | 264 | | | | |
| | | | | | | | SD12 | 233 | | | | |
| | | | | | | | | | | | | |
| 10.0 (0.39") | 354B | Single pass | 354 | 420 | 378 | DHD112 | 233 | 27.9 | 354A Pilot bit 354A Ring bit | US354B-12-R-294 | | |
| | | | 13.94" | 16.54" | | 14.88" | QL120 | | | | 263 | |
| | | | | | | | NUMA11/120 | | | | 242 | |
| | | | | | | | NUMA125 | | | | 264 | |
| | | | | | | | SD12 | | | | 233 | |
| | | | | | | | | | | | | |
| CASING PIPE ø457.2mm (18") | | | | | | | | | | | | |
| 457.2 (18") | 12.7 (0.50") | 393A | Single pass | 393 | 472 | 426 | DHD112 | 274 | 37.8 | | US393A-12-R-128 | |
| | | | | 15.47" | 18.58" | | 16.77" | QL120 | | | | 304 |
| | | | | | | | | NUMA11/120 | | | | 283 |
| | | | | | NUMA125 | 305 | | | | | | |
| | | | | | SD12 | 274 | | | | | | |
| | | | | | | | | | | | | |
| | | 393W | Multi use | 393 | 472 | 426 | DHD112 | 274 | 36.5 | 393A Pilot bit | UM393W-12-R-457 | |
| | 15.47" | | | 18.58" | 16.77" | | QL120 | 304 | | | | |
| | | | | | | | NUMA11/120 | 283 | | | | |
| | | | | | | | NUMA125 | 305 | | | | |
| | | | | | | | SD12 | 274 | | | | |
| | | | | | | | | | | | | |
| 10.0 (0.39") | 393B | Single pass | 393 | 472 | 426 | DHD112 | 274 | 38.8 | 393A Pilot bit 393A Ring bit | US393B-12-R-458 | | |
| | | | 15.47" | 18.58" | | 16.77" | QL120 | | | | 304 | |
| | | | | | | | NUMA11/120 | | | | 283 | |
| | | | | | | | NUMA125 | | | | 305 | |
| | | | | | | | SD12 | | | | 274 | |
| | | | | | | | | | | | | |

To be continued 

DIMENSIONS

Standard Type ULTRA MAXBIT / DTH

Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | | |
|-----------------------------------|--------------------------|-----------------|-------------|------------------------------|------------------------------|------------------------------|------------|-------------|--------------------------------------|---------------------------------|---------------------------------|---------------------------------|-----------------|
| Outer Dia. D ₂ | Wall Max. Thickness t | | Model | Inner Dia. D ₄ | Outer Dia. D ₁ | Outer Dia. D ₃ | Hammer | Weight (kg) | | | | Weight (kg) | |
| CASING PIPE ø508.0mm (20") | | | | | | | | | | | | | |
| 508.0 (20") | 16.0 (0.63") | 445B | Single pass | 445 | 521 | 473 | DHD112 | 356 | 41.0 | | US445B-12-R-153 *OVER SIZE | | |
| | | | | 17.52" | 20.51" | 18.62" | QL120 | 386 | | | | | |
| | | | | | | | NUMA11/120 | 365 | | | | | |
| | | | | | | | NUMA125 | 387 | | | | | |
| | | | | | | | SD12 | 356 | | | | | |
| | | | | | | | DHD112S | 423 | | | | | |
| | | | | | NUMA120S | 447 | | | | | | | |
| | | | | | SD15S | 459 | | | | | | | |
| | | | | | QL200 | 445 | | | | | | | |
| | | | | | NUMA180 | 506 | | | | | | | |
| | | | | | SD18 | 544 | | | | | | | |
| | | | | | DHD112 | 356 | | | | | | | |
| | | | | QL120 | 386 | | | | | | | | |
| | | | | NUMA11/120 | 365 | | | | | | | | |
| | | | | NUMA125 | 387 | | | | | | | | |
| | | | | SD12 | 356 | | | | | | | | |
| | | | | DHD112S | 423 | | | | | | | | |
| | | | | NUMA120S | 447 | | | | | | | | |
| | | | | SD15S | 459 | | | | | | | | |
| | | | | QL200 | 445 | | | | | | | | |
| | | | | NUMA180 | 506 | | | | | | | | |
| | | | | SD18 | 544 | | | | | | | | |
| | | 14.0 (0.55") | 445D | Single pass | 445 | 521 | 473 | DHD112S | 423 | 41.8 | 445B Pilot bit 445B Ring bit | US445D-15-R-241 | |
| | 17.52" | | | | 20.51" | 18.62" | NUMA120S | 447 | | | | | |
| | | | | | | SD15S | 459 | | | | | | |
| | | | | | | QL200 | 445 | | | | | | |
| | | | | | | NUMA180 | 506 | | | | | | |
| | | | | | | SD18 | 544 | | | | | | |
| | | | 445X | Multi use | 445 | 521 | 473 | DHD112S | 423 | | 40.1 | 445B Pilot bit | UM445X-15-R-454 |
| | | | | | 17.52" | 20.51" | 18.62" | NUMA120S | 447 | | | | |
| | | | | | | | | SD15S | 459 | | | | |
| | | | | | | | | QL200 | 445 | | | | |
| | | | | | | | | NUMA180 | 506 | | | | |
| | | | | | | | | SD18 | 544 | | | | |
| | 12.7 (0.50") | 445A | Single pass | 445 | 521 | 473 | DHD112 | 356 | 42.2 | 445B Pilot bit 445B Ring bit | | US445A-12-R-290 *OVER SIZE | |
| | | | | | 17.52" | 20.51" | 18.62" | QL120 | | | | | 386 |
| | | | | | | | | NUMA11/120 | | | | | 365 |
| | | | | | | | | NUMA125 | | | | | 387 |
| | | | | | | | | SD12 | | | | | 356 |
| | | | | | | | | DHD112S | | | | | 423 |
| | | | | | | NUMA120S | 447 | | | | | | |
| | | | | | | SD15S | 459 | | | | | | |
| | | | | | | QL200 | 445 | | | | | | |
| | | | | | | NUMA180 | 506 | | | | | | |
| | | | | | | SD18 | 544 | | | | | | |
| | | 10.0 (0.39") | 445C | Single pass | 445 | 521 | 473 | QL200 | | 445 | 43.6 | 445B Pilot bit 445B Ring bit | US445C-18-R-150 |
| | | | | | 17.52" | 20.51" | 18.62" | NUMA180 | 506 | | | | |
| | | | | | | | SD18 | 544 | | | | | |
| CASING PIPE ø558.8mm (22") | | | | | | | | | | | | | |
| 558.8 (22") | 14.0 (0.55") | 494A | Single pass | 494 | 573 | 523 | QL200 | 509 | 47.2 | | US494A-18-R-162 | | |
| | | | | 19.45" | 22.56" | 20.59" | NUMA180 | 570 | | | | | |
| | | | | | SD18 | 608 | | | | | | | |
| | | | | | QL200 | 509 | | | | | | | |
| | | 494W | Multi use | 494 | 573 | 523 | NUMA180 | 570 | 45.1 | 494A Pilot bit | UM494W-18-R-449 | | |
| | 19.45" | | | 22.56" | 20.59" | SD18 | 608 | | | | | | |
| | | | | QL200 | 509 | | | | | | | | |
| | | | | NUMA180 | 570 | | | | | | | | |
| | | 12.7 (0.50") | 494B | Single pass | 494 | 573 | 523 | QL200 | 509 | 47.9 | 494A Pilot bit 494A Ring bit | US494B-18-R-436 | |
| | 19.45" | | | | 22.56" | 20.59" | SD18 | 608 | | | | | |
| | | | | QL200 | 509 | | | | | | | | |
| | | | | NUMA180 | 570 | | | | | | | | |
| | 494X | Multi use | 494 | 573 | 523 | QL200 | 509 | 45.7 | 494A Pilot bit | UM494X-18-R-450 | | | |
| 19.45" | | | 22.56" | 20.59" | NUMA180 | 570 | | | | | | | |
| | | | QL200 | 509 | | | | | | | | | |
| | | | SD18 | 608 | | | | | | | | | |

*Over size : No shank breakage warranty.

Note 1) Normal model enables to be re-used in case of short hole drilling.

Note 2) To order, please advise the system type, casing size / hammer size and the ring bit models.

Note 3) Special types are also available according to customer's request.

Standard Type ULTRA MAXBIT / DTH

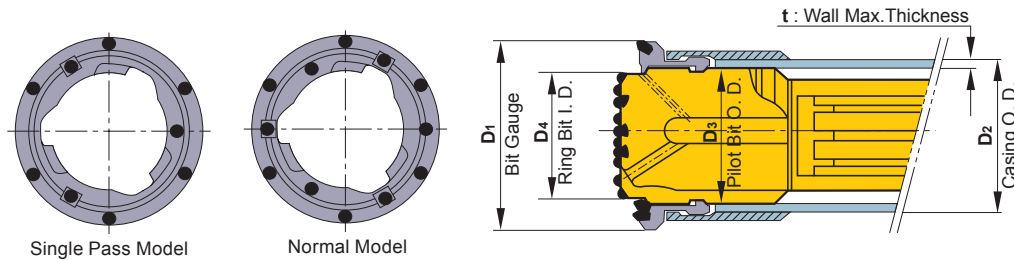
Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | | | | | |
|--|--|-----------------|-------------|----------------|----------------|----------------|---------|-------------|--------------------------------------|-------------------------------|-------------------------------|----------------|----------------|-------------------------------|-----------------|-------------------------------|
| Outer Dia. | Wall Max. Thickness | | Model | Inner Dia. | Outer Dia. | Outer Dia. | Hammer | Weight (kg) | | | | Weight (kg) | | | | |
| D ₂ | t | | | D ₄ | D ₁ | D ₃ | | | | | | | | | | |
| CASING PIPE ø609.6mm (24") | | | | | | | | | | | | | | | | |
| 609.6 (24") | 16.0 (0.63") | 545A | Single pass | 545 | 625 | 574 | QL200 | 590 | 51.4 | | US545A-18-R-129 | | | | | |
| | | | | 21.46" | 24.61" | 22.60" | NUMA180 | 651 | | | | | | | | |
| | | 545W | Multi use | 545 | 625 | 574 | QL200 | 590 | | | | 49.1 | 545A Pilot bit | UM545W-18-R-435 | | |
| | | 21.46" | | 24.61" | 22.60" | NUMA180 | 651 | | | | | | | | | |
| | 12.7 (0.50") | 552A | Single pass | 552 | 625 | 580 | QL200 | 595 | 46.7 | | US552A-18-R-147 | | | | | |
| | | | | 21.73" | 24.61" | 22.83" | NUMA180 | 656 | | | | | | | | |
| | | 552W | Multi use | 552 | 625 | 580 | QL200 | 595 | | | | 44.3 | 552A Pilot bit | UM552W-18-R-434 | | |
| | | | | 21.73" | 24.61" | 22.83" | NUMA180 | 656 | | | | | | | | |
| CASING PIPE ø711.0mm (28") | | | | | | | | | | | | | | | | |
| 711.0 (28") | 16.0 (0.63") | 630A | Single pass | 630 | 726 | 654 | QL200 | 771 | 77.0 | | US630A-18-R-117 *OVER SIZE | | | | | |
| | | | | 24.80" | 28.58" | 25.75" | NUMA180 | 832 | | | | | | | | |
| | | | | 630 | 726 | 654 | QL200 | 771 | | | | 73.0 | 630A Pilot bit | UM630W-18-R-429 *OVER SIZE | | |
| | | | | 24.80" | 28.58" | 25.75" | NUMA180 | 832 | | | | | | | | |
| | | 630W | Multi use | 630 | 726 | 654 | QL200 | 771 | | | 630A Pilot bit | | | | UM630W-24-R-430 | |
| | | 24.80" | | 28.58" | 25.75" | NUMA180 | 832 | | | | | | | | | |
| | | 14.0 (0.55") | 630B | Single pass | 630 | 726 | 654 | QL200 | | | | 771 | 78.0 | 630A Pilot bit | | US630B-18-R-152 *OVER SIZE |
| | | | | | 24.80" | 28.58" | 25.75" | NUMA180 | | | | 832 | | | | |
| | 630 | | | | 726 | 654 | QL200 | 771 | 79.0 | 630A Pilot bit | US630C-18-R-426 *OVER SIZE | | | | | |
| | 24.80" | | | | 28.58" | 25.75" | NUMA180 | 832 | | | | | | | | |
| | 12.7 (0.50") | 630C | Single pass | 630 | 726 | 654 | QL200 | 771 | | | | 630A Pilot bit | | | US630C-24-R-427 | |
| | | | | 24.80" | 28.58" | 25.75" | NUMA180 | 832 | | | | | | | | |
| | | | | 630 | 726 | 654 | QL200 | 771 | 630A Ring bit | US630C-18-R-426 *OVER SIZE | | | | | | |
| | | | | 24.80" | 28.58" | 25.75" | NUMA180 | 832 | | | | | | | | |
| | CASING PIPE ø812.8mm (32") *Please contact us for further discussion. | | | | | | | | | | | | | | | |
| | 812.8 (32") | 16.0 (0.63") | 738A | Single pass | 738 | 832 | 776 | | | | | | | | | |
| 29.06" | | | | | 32.76" | 30.55" | | | | | | | | | | |
| 738W | | | Multi use | 738 | 832 | 776 | | | | | | | | | | |
| | | | | 29.06" | 32.76" | 30.55" | | | | | | | | | | |
| 12.7 (0.50") | | 738B | Single pass | 738 | 832 | 776 | | | | | | | | | | |
| | | | | 29.06" | 32.76" | 30.55" | | | | | | | | | | |
| CASING PIPE ø914.4mm (36") *Please contact us for further discussion. | | | | | | | | | | | | | | | | |
| 914.4 (36") | 16.0 (0.63") | 838A | Single pass | 838 | 932 | 877 | | | | | | | | | | |
| | | | | 32.99" | 36.69" | 34.53" | | | | | | | | | | |
| | | 838W | Multi use | 838 | 932 | 877 | | | | | | | | | | |
| | | | | 32.99" | 36.69" | 34.53" | | | | | | | | | | |
| CASING PIPE ø1016mm (40") *Please contact us for further discussion. | | | | | | | | | | | | | | | | |
| 1016 (40") | 16.0 (0.63") | 920A | Single pass | 920 | 1035 | 973 | | | | | | | | | | |
| | | | | 36.22" | 40.75" | 38.31" | | | | | | | | | | |
| | | 920W | Multi use | 920 | 1035 | 973 | | | | | | | | | | |
| | | | | 36.22" | 40.75" | 38.31" | | | | | | | | | | |

*Over size : No shank breakage warranty.

DIMENSIONS

Big Bore Type ULTRA MAXBIT / DTH



Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | | | |
|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|------------------------------|----------------------------------|--------|-------------|--------------------------------------|-----------------------|--------------------|-----------------|-----------------|-----------------|
| Outer Dia. D ₂ | Wall Max. Thickness t | | Model | Inner Dia. D ₄ | Outer Dia. D ₁ | Outer Dia. D ₃ | Hammer | Weight (kg) | | | | Weight (kg) | | |
| CASING PIPE ø114.3mm (4 1/2") | | | | | | | | | | | | | | |
| 114.3 (4 1/2") | 8.0 (0.31") | 086L | Single pass for RD-pile | 86 | 137 | 96 | DHD3.5 | 6.9 | 4.8 | | UB086L-03-R-222 | | | |
| | | | | 3.39" | 5.39" | 3.78" | COP34 | 7.5 | | | | | | |
| | | | | COP32 | 6.9 | | | | | | | | | |
| | | | | 86 | 137 | 96 | W80 | 7.8 | 4.8 | UB086LW80R280 *1 | | | | |
| 5.6 (0.22") | 092L | Large bore hole (Single pass) | 92 | 137 | 101.5 | DHD3.5 | 8.6 | 4.4 | | UB092L-03-R-229 | | | | |
| | | | 3.62" | 5.39" | 4.00" | COP34 | 9.2 | | | | | | | |
| | | | COP32 | 8.6 | | | | | | | | | | |
| | | | 92 | 137 | 101.5 | W80 | 7.8 | 4.8 | UB092LW80R280 *1 | | | | | |
| CASING PIPE ø139.7mm (5 1/2") | | | | | | | | | | | | | | |
| 139.7 (5 1/2") | 10.0 (0.39") | 106L | Single pass for RD-pile | 106 | 166 | 118 | DHD340 | 10.7 | 7.7 | | UB106L-04-R-223 | | | |
| | | | | 4.17" | 6.54" | 4.65" | QL40 | 12.0 | | | | | | |
| | | | | SD4 | 11.8 | | | | | | | | | |
| | | | | 106 | 166 | 118 | W100 | 10.7 | 7.7 | UB106LW1034R226 *1 | | | | |
| | | | | 5.6 (0.22") | 116L | Large bore hole (Single pass) | 116 | 161 | 127 | DHD340 | 13.7 | 5.4 | | UB116L-04-R-230 |
| | | | | | | | 4.57" | 6.34" | 5.00" | QL40 | 15.0 | | | |
| SD4 | 14.8 | | | | | | | | | | | | | |
| 118L | Large bore hole (Single pass) | 118 | 161 | | | | 127 | DHD340 | 14.0 | 5.3 | | UB118L-04-R-335 | | |
| 4.65" | 6.34" | 5.00" | QL40 | 15.3 | | | | | | | | | | |
| SD4 | 15.1 | | | | | | | | | | | | | |
| CASING PIPE ø168.3mm (6 5/8") | | | | | | | | | | | | | | |
| 168.3 (6 5/8") | 12.5 (0.49") | 127L | Single pass for RD-pile | 127 | 195 | 141 | DHD350 | 20.0 | 9.7 | | UB127L-05-R-224 | | | |
| | | | | 5.00" | 7.68" | 5.55" | QL50 | 19.5 | | | | | | |
| | | | | SD5 | 19.4 | | | | | | | | | |
| | | | | 127 | 195 | 141 | W120 | 19.8 | 9.7 | UB127LW1235R227 *1 | | | | |
| | | | | 6.3 (0.25") | 141M | Large bore hole (Single pass) | 141 | 189 | 154 | DHD350 | 24.5 | 6.7 | 141L Ring set | UB141M-05-R-247 |
| | | | | | | | 5.55" | 7.44" | 6.06" | QL50 | 24.0 | | | |
| | SD5 | 23.9 | | | | | | | | | | | | |
| | 141M | Large bore hole (Single pass) | 141 | | | | 189 | 154 | DHD350 | 24.5 | 7.0 | | UB141M-05-R-246 | |
| | 5.55" | 7.44" | 6.06" | | | | QL50 | 24.0 | | | | | | |
| | SD5 | 23.9 | | | | | | | | | | | | |
| | 5.6 (0.22") | 141L | Large bore hole (Single pass) | 141 | 189 | 155 | DHD350 | 24.5 | 6.7 | | UB141L-05-R-231 | | | |
| | | | | 5.55" | 7.44" | 6.10" | QL50 | 24.0 | | | | | | |
| SD5 | | | | 23.9 | | | | | | | | | | |
| 141L | | | | Large bore hole (Single pass) | 141 | 189 | 155 | DHD350 | 24.5 | 6.7 | | UB141L-05-R-276 | | |
| 5.55" | | | | 7.44" | 6.10" | QL50 | 24.0 | | | | | | | |
| SD5 | | | | 23.9 | | | | | | | | | | |
| 143L | Large bore hole (Single pass) | 143 | 189 | 155 | DHD350 | 25.0 | 6.6 | | UB143L-05-R-336 | | | | | |
| 5.63" | 7.44" | 6.10" | QL50 | 24.5 | | | | | | | | | | |
| SD5 | 24.4 | | | | | | | | | | | | | |
| CASING PIPE ø177.8mm (7") | | | | | | | | | | | | | | |
| 177.8 (7") | 7.0 (0.28") | 153L | Large bore hole (Normal) | 153 | 200 | 162 | DHD360 | 31.2 | 7.2 | | UB153L-06-R-244 | | | |
| | | | | 6.02" | 7.87" | 6.38" | QL60 | 30.7 | | | | | | |
| | | | | SD6 | 33.7 | | | | | | | | | |
| | | | | 154L | Large bore hole (Normal) | 154 | 200 | 162 | DHD360 | 31.0 | 7.1 | | UB154L-06-R-260 | |
| | | | | 6.06" | 7.87" | 6.38" | QL60 | 30.5 | | | | | | |
| | | | | SD6 | 33.5 | | | | | | | | | |

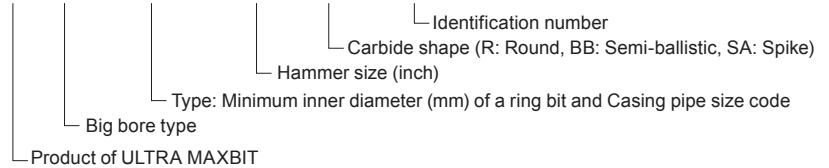
*1 Actual hammer model.

Note 1) To order, please advise the system type, casing size / hammer size and the ring bit models.
Note 2) Special types are also available according to customer's request.

Big Bore Type ULTRA MAXBIT / DTH

System Part Number

U B 086L - 03 - R - 222



Unit: mm (Upper)
inch (Bottom)

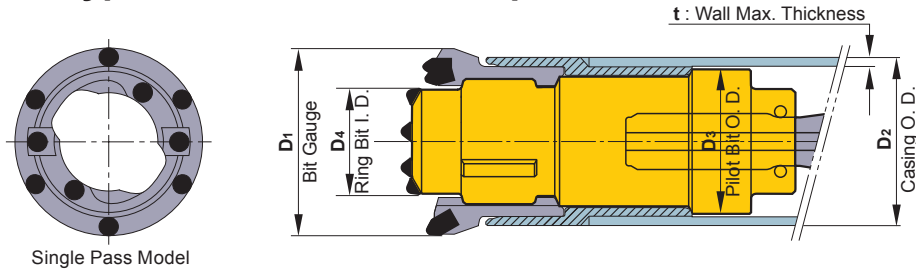
| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | | |
|--|--------------------------|----------------------------------|----------------------------------|------------------------------|------------------------------|------------------------------|--------|-------------|--------------------------------------|-----------------------|-----------------------|-------------|------|
| Outer Dia. D ₂ | Wall Max. Thickness t | | Model | Inner Dia. D ₄ | Outer Dia. D ₁ | Outer Dia. D ₃ | Hammer | Weight (kg) | | | | Weight (kg) | |
| CASING PIPE ø193.7mm (7 5/8") | | | | | | | | | | | | | |
| 193.7 (7 5/8") | 10.0 (0.39") | 162L | Large bore hole (Single pass) | 162 | 215 | 172 | W150 | 31.0 | 8.8 | | UB162LW1536R232 *1 | | |
| | | | | 6.38" | 8.46" | 6.77" | | | | | | | |
| | 6.3 (0.25") | 167L | Large bore hole (Single pass) | 167 | 215 | 179 | DHD360 | 35.0 | 8.1 | | UB167L-06-R-233 | | |
| | | | | 6.57" | 8.46" | 7.05" | QL60 | 34.5 | | | | | |
| | | | | 167 | 215 | 179 | W150 | 35.0 | 8.1 | UB167LW1536R234 *1 | | | |
| | | | | 6.57" | 8.46" | 7.05" | | | | | | | |
| CASING PIPE ø216.3mm (8 17/32") | | | | | | | | | | | | | |
| 216.3 (8 17/32") | 8.2 (0.32") | 187M | Large bore hole (Single pass) | 187 | 235 | 197 | W151 | 40.0 | 8.8 | 187L Pilot bit | UB187MW1536R292 *1 | | |
| | | | | 7.36" | 9.25" | 7.76" | | | | | | | |
| CASING PIPE ø219.1mm (8 5/8") | | | | | | | | | | | | | |
| 219.1 (8 5/8") | 12.5 (0.49") | 177L | Single pass for RD-pile | 177 | 250 | 191 | DHD360 | 33.5 | 13.6 | | UB177L-06-R-225 | | |
| | | | | 6.97" | 9.84" | 7.52" | | | | | | QL60 | 33.0 |
| | | | | | | | | | | | | SD6 | 36.0 |
| | 10.0 (0.39") | 187L | Single pass for RD-pile | 177 | 250 | 191 | W150 | 33.5 | 13.6 | | UB177LW1536R228 *1 | | |
| | | | | 6.97" | 9.84" | 7.52" | | | | | | | |
| | | | | 187 | 252 | 197 | | | | | | DHD360 | 40.0 |
| 7.36" | 9.92" | 7.76" | QL60 | 39.5 | | | | | | | | | |
| | | | SD6 | 42.5 | | | | | | | | | |
| 6.3 (0.25") | 192L | Large bore hole (Single pass) | 187 | 252 | 197 | W150 | 40.0 | 11.9 | UB187LW1536R221 *1 | | | | |
| | | | 7.36" | 9.92" | 7.76" | | | | | | | | |
| 219.1 (8 5/8") | 6.3 (0.25") | 192L | Large bore hole (Single pass) | 192 | 242 | 204 | DHD360 | 41.5 | 9.4 | UB192L-06-R-235 | | | |
| | | | | 7.56" | 9.53" | 8.03" | QL60 | 41.0 | | | | | |
| | | | | | | | SD6 | 44.0 | | | | | |
| CASING PIPE ø273.0mm (10 3/4") | | | | | | | | | | | | | |
| 273.0 (10 3/4") | 12.7 (0.50") | 232L | Large bore hole (Single pass) | 232 | 297 | 245 | W150 | 60.0 | 16.4 | | UB232LW1536R254 *1 | | |
| | | | | 9.13" | 11.69" | 9.65" | | | | | | | |
| | 10.0 (0.39") | 238L | Large bore hole (Single pass) | 238 | 297 | 251 | W150 | 65.0 | 14.9 | | UB232LW1536R236 *1 | | |
| | | | | 9.37" | 11.69" | 9.88" | | | | | | | |
| | 8.0 (0.31") | 242L | Large bore hole (Single pass) | 242 | 297 | 255 | DHD380 | 81.0 | 13.8 | | UB242L-08-R-237 | | |
| | | | | 9.53" | 11.69" | 10.04" | QL80 | 80.6 | | | | | |
| | | | | | | SD8 | 74.4 | | | | | | |
| CASING PIPE ø323.9mm (12 3/4") | | | | | | | | | | | | | |
| 323.9 (12 3/4") | 10.0 (0.39") | 284L | Large bore hole (Single pass) | 284 | 350 | 301 | DHD380 | 104.5 | 20.0 | | UB284L-08-R-238 | | |
| | | | | 11.18" | 13.78" | 11.85" | QL80 | 104.1 | | | | | |
| | | | | | | | SD8 | 97.9 | | | | | |
| CASING PIPE ø355.6mm (14") | | | | | | | | | | | | | |
| 355.6 (14") | 10.0 (0.39") | 315L | Large bore hole (Single pass) | 315 | 380 | 332 | DHD380 | 163.5 | 21.1 | | UB315L-12-R-355 | | |
| | | | | 12.40" | 14.96" | 13.07" | QL80 | 163.1 | | | | | |
| | | | | | | | SD8 | 156.9 | | | | | |

*1 Actual hammer model.

*2 Over size : No shank breakage warranty.

DIMENSIONS

Top Hammer Type ULTRA MAXBIT / Top Hammer



Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number |
|-------------------------------------|----------------------------------|-----------------|-------------|------------------------------|------------------------------|------------------------------|-------------|-------------|--------------------------------------|--|-----------------------------------|
| Outer Dia. D ₂ | Wall Max. Thickness t | | Model | Inner Dia. D ₄ | Outer Dia. D ₁ | Outer Dia. D ₃ | Thread | Weight (kg) | | | |
| CASING PIPE ø76.3mm (3") | | | | | | | | | | | |
| 76.3 (3") | 8.0 (0.31") | 042A | Single pass | 42 1.65" | 86 3.39" | 58.5 2.30" | R32 | 1.8 | 2.3 | UT042AR32BBL370 | |
| CASING PIPE ø88.9mm (3 1/2") | | | | | | | | | | | |
| 88.9 (3 1/2") | 9.5 (0.37") | 050B | Single pass | 50 1.97" | 95 3.74" | 67.5 2.66" | T38 | 3.3 | 2.9 | 050A Ring bit UT050BM38BBL304 | |
| | | 050B | Single pass | 50 1.97" | 100 3.94" | 67.5 2.66" | T38 | 3.3 | 3.1 | UT050BM38BBL168 | |
| | 8.0 (0.31") | 050A | Single pass | 50 1.97" | 95 3.74" | 67.5 2.66" | T38 | 3.3 | 2.9 | 050B Pilot bit UT050AM38BBL323 | |
| | | 050A | Single pass | 50 1.97" | 100 3.94" | 67.5 2.66" | T38 | 3.3 | 3.1 | 050B Pilot bit 050B Ring bit UT050AM38BBL324 | |
| | 7.0 (0.28") | 050C | Single pass | 50 1.97" | 95 3.74" | 67.5 2.66" | T38 | 3.3 | 3.0 | 050B Pilot bit 050A Ring bit UT050CM38BBL305 | |
| | | | Single pass | 50 1.97" | 100 3.94" | 67.5 2.66" | T38 | 3.3 | 3.2 | 050B Pilot bit 050B Ring bit UT050CM38BBL303 | |
| | | 056E | Single pass | 56 2.20" | 100 3.94" | 73.5 2.89" | T38 | 3.5 | 2.4 | UT056EM38BBL268 | |
| | 6.35 (0.25") | 056B | Single pass | 56 2.20" | 100 3.94" | 74 2.91" | T38 | 3.6 | 2.6 | 056A Ring bit UT056BM38BBL140 | |
| | 4.0 (0.16") | 056A | Single pass | 56 2.20" | 100 3.94" | 78 3.07" | T38 | 3.5 | 2.6 | UT056AM38BBL133 | |
| | CASING PIPE ø101.6mm (4") | | | | | | | | | | |
| | 101.6 (4") | 10.0 (0.39") | 060D | Single pass | 60 2.36" | 114 4.49" | 79 3.11" | T38 | 4.5 | 4.0 | 060A Pilot bit UT060DM38BBL359 |
| | | | | Single pass | 60 2.36" | 114 4.49" | 81 3.19" | T38 | 4.6 | 4.0 | UT060AM38BBL306 |
| 9.5 (0.37") | | 060A | Single pass | 60 2.36" | 114 4.49" | 81 3.19" | T38 | 4.6 | 4.1 | 060A Pilot bit 060A Ring bit UT060BM38BBL307 | |
| | | | Single pass | 60 2.36" | 114 4.49" | 81 3.19" | T38 | 4.6 | 4.2 | 060A Pilot bit 060A Ring bit UT060CM38BBL325 | |
| 7.0 (0.28") | | 065A | Single pass | 65 2.56" | 114 4.49" | 85 3.35" | T38 | 5.3 | 3.6 | UT065AM38BBL269 | |

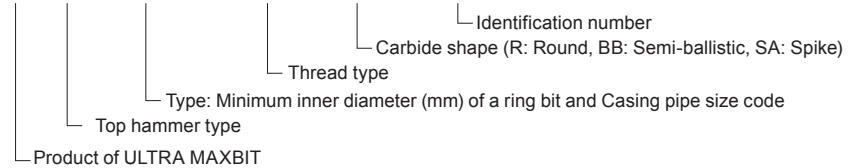
Note 1) To order, please advise the system type, casing size / thread size and the ring bit models.

Note 2) Special types are also available according to customer's request.

Top Hammer Type ULTRA MAXBIT / Top Hammer

System Part Number

U T 072A M38 BB L095

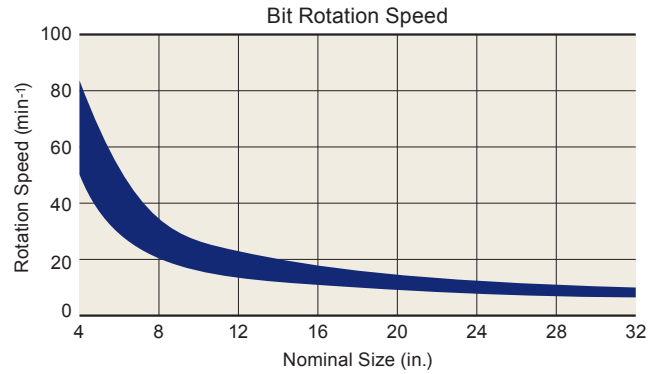


Unit: mm (Upper)
inch (Bottom)

| Casing Pipe | | Type | Ring Bit | | | Pilot Bit | | | Ring Set (Ring Bit & Casing Shoe) | Compatible Part | System Part Number | |
|--------------------------------------|--------------------------|-------------|-------------|------------------------------|------------------------------|------------------------------|--------|-------------|--------------------------------------|---------------------------------|--------------------|-----------------|
| Outer Dia. D ₂ | Wall Max. Thickness t | | Model | Inner Dia. D ₄ | Outer Dia. D ₁ | Outer Dia. D ₃ | Thread | Weight (kg) | | | | |
| CASING PIPE ø114.3mm (4 1/2") | | | | | | | | | | | | |
| 114.3 (4 1/2") | 10.0 (0.39") | 072A | Single pass | 72 | 126 | 92 | T38 | 6.0 | 4.7 | | UT072AM38BBL095 | |
| | | | | 2.83" | 4.96" | 3.62" | | | | | | |
| | | | | 72 | 126 | 92 | T45 | 6.2 | 4.7 | | | UT072AM45BBL106 |
| | | | | 2.83" | 4.96" | 3.62" | | | | | | |
| | 9.5 (0.37") | 072C | Single pass | 72 | 126 | 93 | T38 | 6.7 | 4.7 | UT072CM38BBL308 | | |
| | | | | 2.83" | 4.96" | 3.66" | | | | | | |
| | | | | 72 | 126 | 93 | T45 | 6.9 | 4.7 | | UT072CM45BBL362 | |
| | | | | 2.83" | 4.96" | 3.66" | | | | | | |
| | 8.0 (0.31") | 072D | Single pass | 72 | 126 | 93 | T38 | 6.7 | 4.8 | 072C Pilot bit 072C Ring bit | | UT072DM38BBL309 |
| | | | | 2.83" | 4.96" | 3.66" | | | | | | |
| | | | | 72 | 126 | 93 | T45 | 6.9 | 4.8 | 072C Pilot bit 072C Ring bit | UT072DM45BBL363 | |
| | | | | 2.83" | 4.96" | 3.66" | | | | | | |
| 7.0 (0.28") | 072E | Single pass | 72 | 126 | 93 | T38 | 6.7 | 4.9 | 072C Pilot bit 072C Ring bit | UT072EM38BBL326 | | |
| | | | 2.83" | 4.96" | 3.66" | | | | | | | |
| | | | 72 | 126 | 93 | T45 | 6.7 | 4.9 | 072C Pilot bit 072C Ring bit | | UT072EM45BBL364 | |
| | | | 2.83" | 4.96" | 3.66" | | | | | | | |
| | 076B | Single pass | 76 | 126 | 98 | T38 | 7.2 | 4.3 | | UT076BM38BBL270 | | |
| | | | 2.99" | 4.96" | 3.86" | | | | | | | |
| CASING PIPE ø139.7mm (5 1/2") | | | | | | | | | | | | |
| 139.7 (5 1/2") | 10.0 (0.39") | 097A | Single pass | 97 | 150 | 117.5 | T45 | 11.7 | 5.7 | | UT097AM45BBL096 | |
| | | | | 3.82" | 5.91" | 4.63" | | | | | | |
| | | | | 97 | 150 | 117.5 | T51 | 11.9 | 5.7 | | | UT097AM51BBL365 |
| | | | | 3.82" | 5.91" | 4.63" | | | | | | |
| | 9.5 (0.37") | 097C | Single pass | 97 | 150 | 118.5 | T38 | 12.0 | 5.9 | 097B Pilot bit 097A Ring bit | UT097CM38BBL327 | |
| | | | | 3.82" | 5.91" | 4.66" | | | | | | |
| | 8.0 (0.31") | 097B | Single pass | 97 | 150 | 118.5 | T38 | 12.0 | 5.9 | 097A Ring bit | | UT097BM38BBL311 |
| | | | | 3.82" | 5.91" | 4.67" | | | | | | |
| | | | | 97 | 150 | 118.5 | T45 | 11.7 | 5.9 | 097A Ring bit | UT097BM45BBL141 | |
| | | | | 3.82" | 5.91" | 4.67" | | | | | | |
| | 7.0 (0.28") | 097D | Single pass | 97 | 150 | 118.5 | T38 | 12.0 | 5.9 | 097B Pilot bit 097A Ring bit | | UT097DM38BBL328 |
| | | | | 3.82" | 5.91" | 4.67" | | | | | | |
| 6.6 (0.26") | 100B | Single pass | 97 | 150 | 123 | T38 | 13.0 | 5.8 | | UT100BM38BBL338 | | |
| | | | 3.82" | 5.91" | 4.84" | | | | | | | |

Rotation Speed of Bit

Standard speed is 15–20m/min.
Refer to the following figure for rotation.
Select the range of uniform rotation during drilling.



Setting Compressor

- Pressure
 - Set between 0.7 to 1.0MPa (100–150psi)
 - Consider the depth of underground water when drilling through the layer.
(In case of 30m (90 ft) depth, add 0.3MPa (45psi) to the air pressure.)
 - Do not set over 1.5MPa (225psi)
- Air Consumption
 - Set the air supply using the following formula.

$$Q = \frac{V(D^2 - d^2)}{1273500}$$

Q : Air supply (m³/min)
D : Inside diameter of casing (mm)
d : Outside diameter of jacket or hammer (mm)
V : Air speed 1,100–1,500 (m/min)

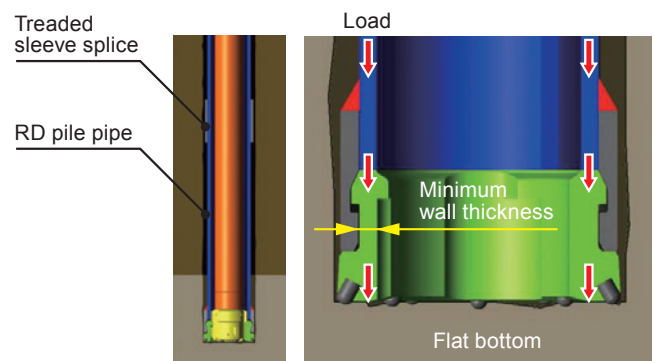
Recommended Air Consumption

| Nominal Size (in.) | Air Supply | |
|-----------------------|------------|-------------|
| | (m³/min) | (cfm) |
| 4 | 4-15 | 140-530 |
| 8 | 19-26 | 670-920 |
| 12 | 33-45 | 1,170-1,590 |
| 16 | 42-57 | 1,480-2,010 |
| 20 | 59-80 | 2,080-2,830 |
| 24 | 72-98 | 2,540-3,460 |
| 28 | 81-111 | 2,860-3,920 |
| 32 | 90-122 | 3,180-4,310 |

APPLICATION EXAMPLES

ULTRA MAXBIT for RD Pile

- Face of the pilot bit is located at same level of ring bit. (Pilot bit does not protrude from the ring bit like other standard ULTRA MAXBIT system)
This structure make the system stronger against the heavy weight from RD pile.
- Ring bit is bigger than the diameter of "Threaded sleeve splice" shown below illustration for soother drilling.
- Minimum width of the ring bit is same as the width of casing pipe to retain enough strength of RD pile.



APPLICATION EXAMPLES

Foundation construction

Used for improving foundation or for inserting H steel beams.



Micro pile construction

Possible to efficiently drill in underpinning.



Well drilling construction

The normal model is recommended if a casing pipe is left in the ground. If not, the multi-use model is recommended.

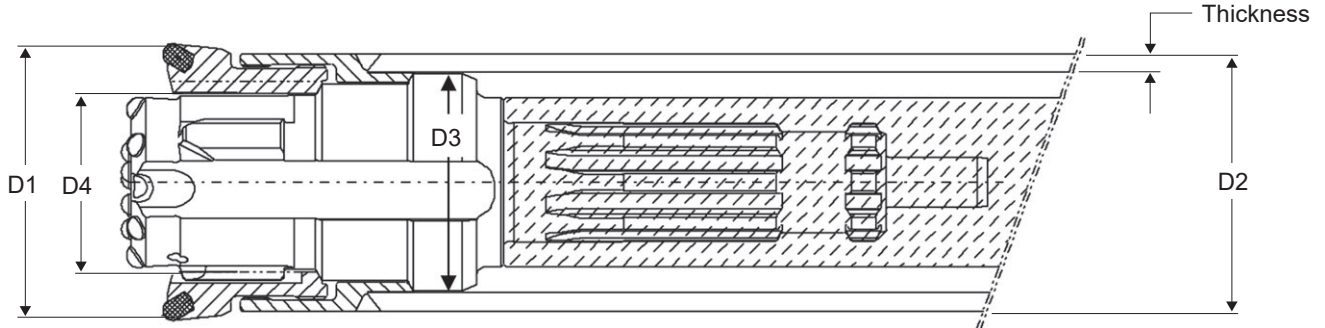


Pipe roof and Tunnel fore piling

Efficient and stable operation is possible in inclined or horizontal casing drilling.



ULTRA MAXBIT ORDER SHEET



| | | |
|--------------------------------|---|--|
| User Name | | |
| Usage | | |
| "DTH Model No. or Thread type" | | |
| Rotation Direction at Drilling | <input type="checkbox"/> Right | <input type="checkbox"/> Left |
| Drilling Direction | <input type="checkbox"/> Vertical | <input type="checkbox"/> Horizontal <input type="checkbox"/> Diagonal (Angled) |
| Casing Pipe | Outer diameter (D2) | Wall max. thickness |
| UMB System | <input type="checkbox"/> Standard | <input type="checkbox"/> Big bore <input type="checkbox"/> Top hammer |
| Ring Bit Model | <input type="checkbox"/> Single pass | <input type="checkbox"/> Normal <input type="checkbox"/> Multi use |
| Ring Bit O.D. | (D1) | <input type="checkbox"/> Manufacturer's recommendation |
| Ring Bit I.D. | (D4) | <input type="checkbox"/> Manufacturer's recommendation |
| Maximum O.D. of Pilot Bit | (D3) | <input type="checkbox"/> Manufacturer's recommendation |
| Quantity Demanded | Drilling meter / Number of hole | |
| Minimum Order Quantity | Pilot Bit: Ring Bit & Casing Shoe: | |
| Expected Delivery Time | | |
| Remark | Information such as geological conditions, conventionally used bit (a manufacturer), size of passing through bit gauge and hammer type; | |

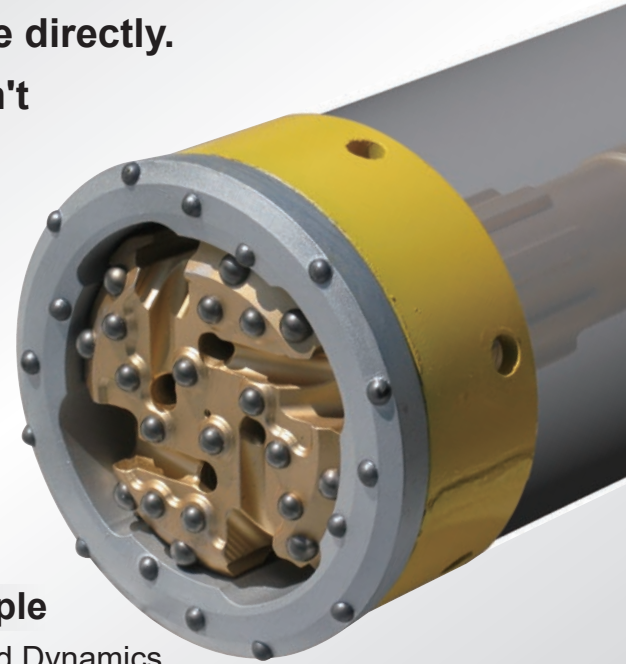
| |
|------------------|
| Name of preparer |
| Phone number |

**NEW
PRODUCT**

ULTRA MAXBIT VENTURI MODEL

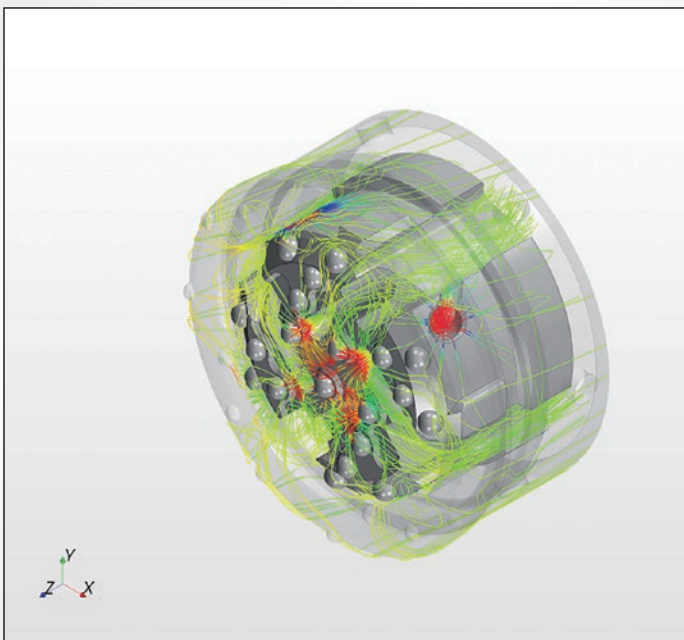
Your best partner for drilling in sensitive ground !

- The Flushing air doesn't hit the drilled hole directly.
- Minimal air leakage into the formation won't enlarge the drilled borehole.
- The Reverse flushing causes a vacuum effect to remove the cuttings.
- The Efficient flushing and groove designed by CAE simulation and analysis.



Air Flushing Simulation and Application Example

Our Flushing Technology confirmed by Computational Fluid Dynamics supply you the best solution for drilling in sensitive ground.

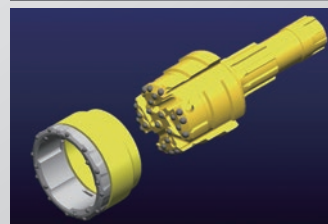


Air Flushing Simulation

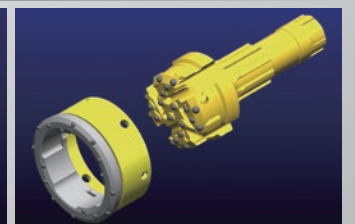


Application Example

Systems



Standard System



Big Bore System



MMC RYOTEC Corporation

A Group Company of  MITSUBISHI MATERIALS

JAPAN / ROCK TOOLS

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