

Weifang · China



ZhongRui

ZR Series DTH Drilling Tools

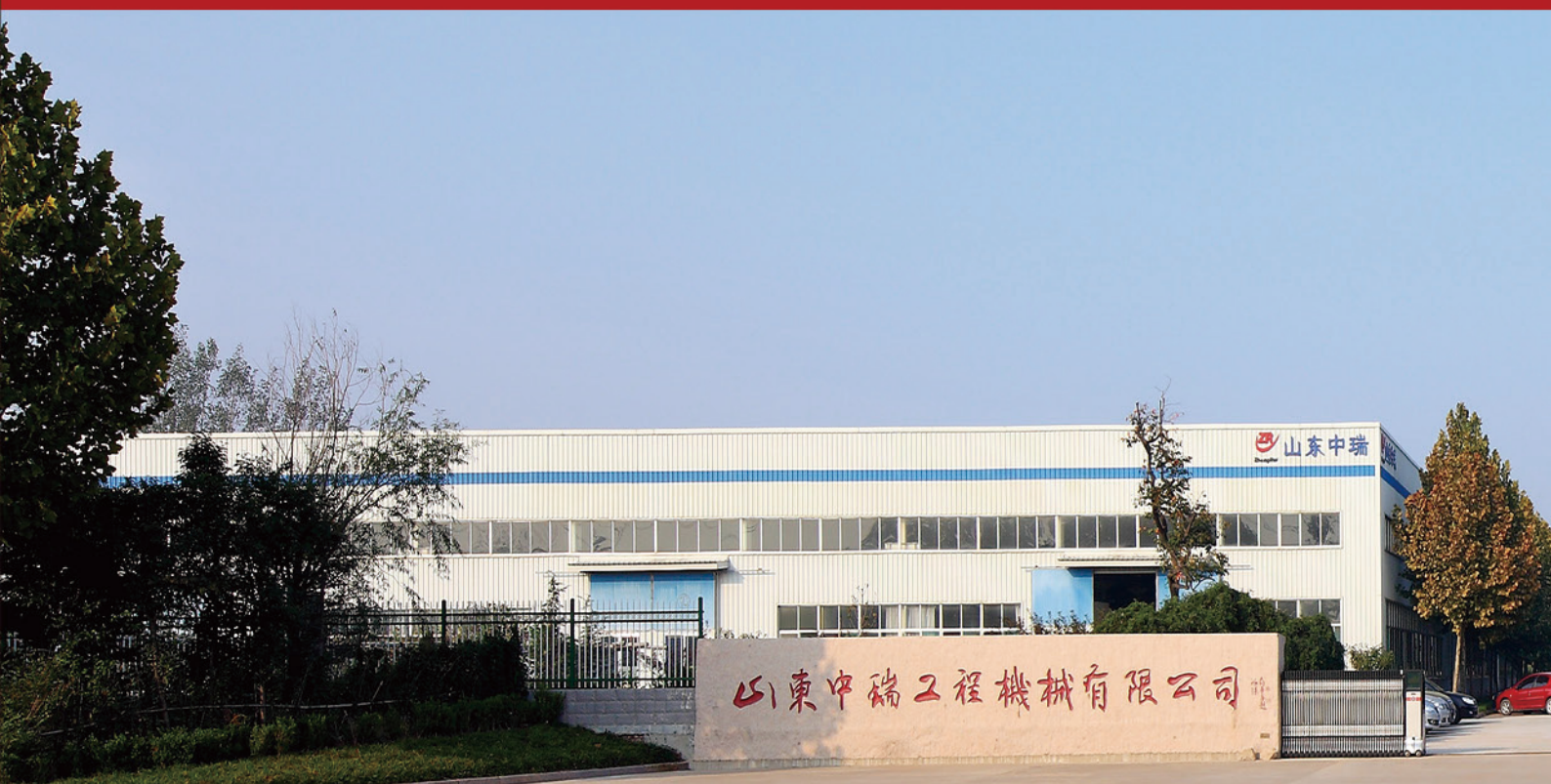
· Professional Drilling Tools Manufacturer ·



SHANDONG ZHONGRUI CONSTRUCTION MACHINERY CO.,LTD.

DTH HAMMERS & BITS

| | |
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COMPANY INTRODUCTION

Who we are?

We, Shandong ZHONGRUI Construction Co., Ltd (registered trade mark "ZR") is an ISO9001 certified manufacturer of various high quality rock drilling tools widely used in mining, quarrying, construction, geothermal and well drilling, etc. We've been involved in this field for 10 years. We focus on constantly improving product quality with lower cost to provide high quality products for customers with more benefits.

What we can do?

QUALITY, SERVICE, INNOVATION AND MANAGEMENT is the key why ZHONGRUI is one of the leaders in domestic drilling tools industry. ERP and ISO9001 standard are strictly applied in the production management, and thus make it possible for us to deliver quality goods in a short time. Constant innovation allows us to produce more effective products.

What we want to do?

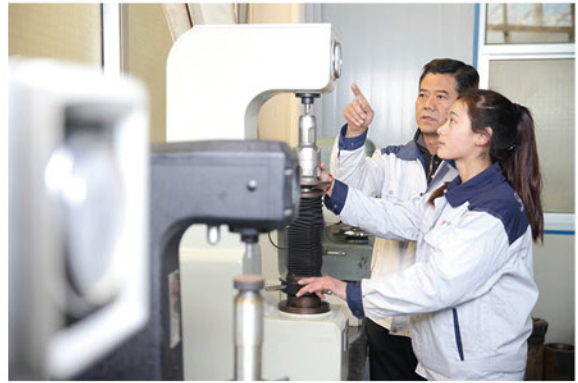
ZHONGRUI aims to manufacture the highest quality rock drilling tools for global customers. Whatever you need, we will try to provide one stop shopping service for you. Long term and win-win relationship is our untiring pursuit.





THE FACTORY EQUIPMENT





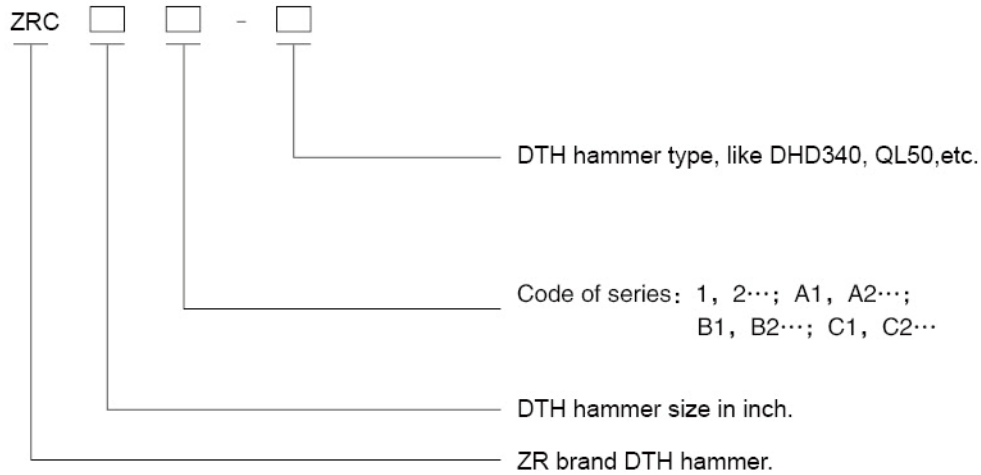
中瑞钻具 开山劈地



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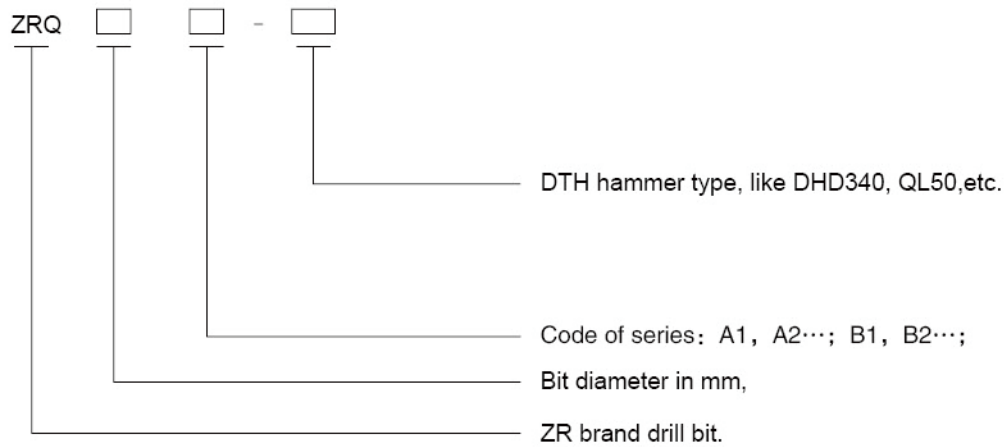
CODE DESCRIPTION OF HAMMER AND BIT

DTH HAMMER:



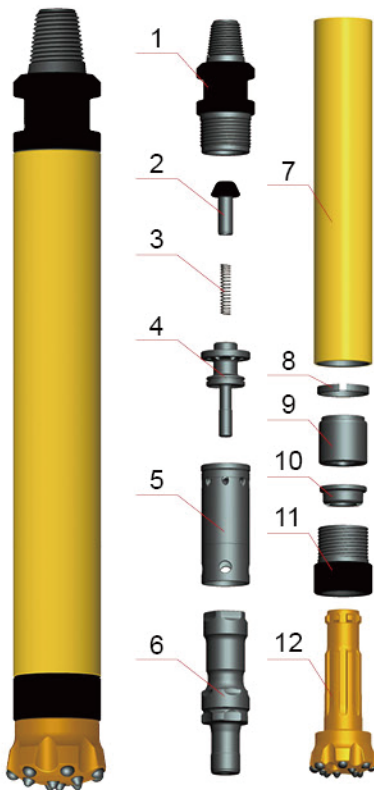
For example: ZRC4C-DHD340 stands for ZR brand DTH Hammer, series C, DHD340 type, work with drill bit of DHD340 shank.

DTH DRILL BIT:



For example: ZRQ115A1-DHD340 stands for ZR brand drill bit, 115mm diameter, series A1, work with DHD340 DTH hammer.

ZRC4C-DHD340 DTH HAMMER

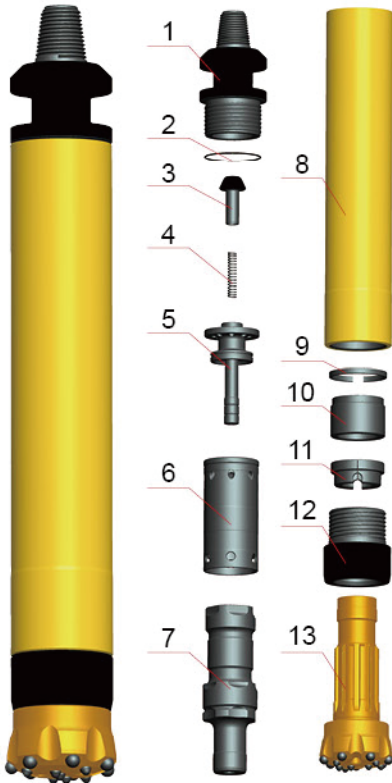


| NO. | Item Description | Part Number | Weight(Kg) |
|-----|--------------------|-----------------|------------|
| 1 | Top Sub | ZRC4C-DHD340-01 | 6.7 |
| 2 | Check Valve | ZRC4C-DHD340-02 | 0.4 |
| 3 | Spring | ZRC4C-DHD340-03 | 0.05 |
| 4 | Air Distributor | ZRC4C-DHD340-04 | 1.2 |
| 5 | Internal Cylinder | ZRC4C-DHD340-05 | 1.53 |
| 6 | Piston | ZRC4C-DHD340-06 | 6.5 |
| 7 | External Cylinder | ZRC4C-DHD340-07 | 12 |
| 8 | Retaining Ring | ZRC4C-DHD340-08 | 0.11 |
| 9 | Guide Sleeve | ZRC4C-DHD340-09 | 1.73 |
| 10 | Bit Retaining Ring | ZRC4C-DHD340-10 | 0.4 |
| 11 | Drive Sub | ZRC4C-DHD340-11 | 2.8 |
| 12 | Drill Bit | ZRC4C-DHD340-12 | — |

ZRC4C-DHD340 DTH Hammer Technical Data

| Length (w/o bit) | Weight (w/o bit) | Outside Diameter | Bit Shank | Bore Hole Diameter | Top Sub Thread |
|------------------|----------------------------|----------------------------|-----------------|--------------------|----------------|
| 872mm | 35Kg | φ100mm | Cop44(DHD340A) | φ110~φ135 | API(2 3/8)"REG |
| Working Pressure | Impact Frequency at 1.7MPa | Recommended Rotation Speed | Air Consumption | | |
| | | | 145-350(PSI) | | |
| 1.0~2.5MPa | 28HZ | 30~70r/min | 210-530(CFM) | | |

ZRC5C-QL50 DTH HAMMER

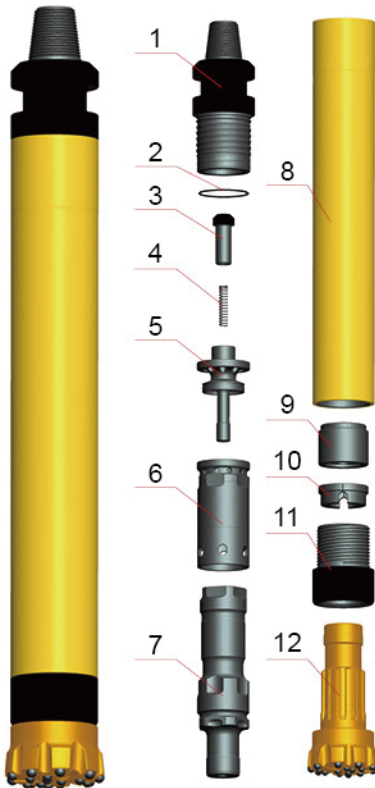


| NO. | Item Description | Part Number | Weight(Kg) |
|-----|--------------------|---------------|------------|
| 1 | Top Sub | ZRC5C-QL50-01 | 10.6 |
| 2 | "O"Ring | ZRC5C-QL50-02 | 0.01 |
| 3 | Check Valve | ZRC5C-QL50-03 | 0.4 |
| 4 | Spring | ZRC5C-QL50-04 | 0.05 |
| 5 | Air Distributor | ZRC5C-QL50-05 | 2.1 |
| 6 | Internal Cylinder | ZRC5C-QL50-06 | 2.65 |
| 7 | Piston | ZRC5C-QL50-07 | 12 |
| 8 | External Cylinder | ZRC5C-QL50-08 | 20 |
| 9 | Retaining Ring | ZRC5C-QL50-09 | 0.12 |
| 10 | Guide Sleeve | ZRC5C-QL50-10 | 2.5 |
| 11 | Bit Retaining Ring | ZRC5C-QL50-11 | 0.9 |
| 12 | Drive Sub | ZRC5C-QL50-12 | 6.0 |
| 13 | Drill Bit | ZRC5C-QL50-13 | — |

ZRC5C-QL50 DTH Hammer Technical Data

| Length (w/o bit) | Weight (w/o bit) | Outside Diameter | Bit Shank | Bore Hole Diameter | Top Sub Thread |
|------------------|----------------------------|----------------------------|-----------------|--------------------|----------------------------------|
| 950mm | 60Kg | φ126mm | QL50 | φ135~φ155 | API(2 3/8)"REG API(3 1/2)"REG |
| Working Pressure | Impact Frequency at 1.7MPa | Recommended Rotation Speed | Air Consumption | | |
| | | | 145-350(PSI) | | |
| 1.0~2.5MPa | 28HZ | 30~70r/min | 250-670(CFM) | | |

ZRC6C-QL60 DTH HAMMER

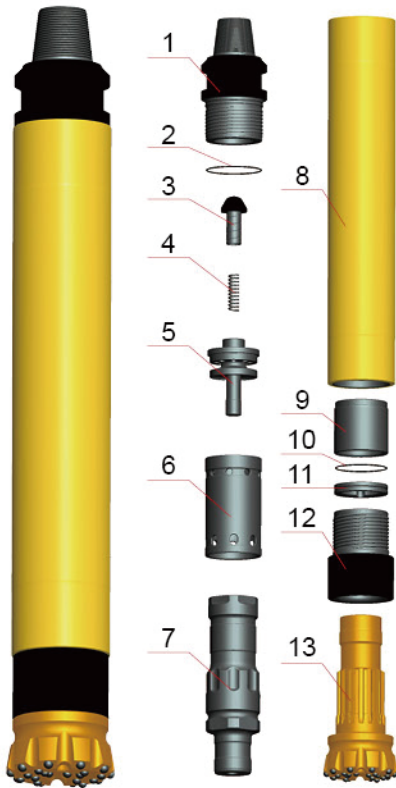


| NO. | Item Description | Part Number | Weight(Kg) |
|-----|--------------------|---------------|------------|
| 1 | Top Sub | ZRC6C-QL60-01 | 22 |
| 2 | "O"Ring | ZRC6C-QL60-02 | 0.01 |
| 3 | Check Valve | ZRC6C-QL60-03 | 0.75 |
| 4 | Spring | ZRC6C-QL60-04 | 0.1 |
| 5 | Air Distributor | ZRC6C-QL60-05 | 3.5 |
| 6 | Internal Cylinder | ZRC6C-QL60-06 | 4.35 |
| 7 | Piston | ZRC6C-QL60-07 | 24 |
| 8 | External Cylinder | ZRC6C-QL60-08 | 32 |
| 9 | Guide Sleeve | ZRC6C-QL60-09 | 3.75 |
| 10 | Bit Retaining Ring | ZRC6C-QL60-10 | 1.5 |
| 11 | Drive Sub | ZRC6C-QL60-11 | 7 |
| 12 | Drill Bit | ZRC6C-QL60-12 | — |

ZRC6C-QL60 DTH Hammer Technical Data

| Length (w/o bit) | Weight (w/o bit) | Outside Diameter | Bit Shank | Bore Hole Diameter | Top Sub Thread |
|---------------------|----------------------------------|-------------------------------|-----------------|-----------------------|-----------------|
| 1224mm | 100Kg | φ148mm | QL60 | φ155~φ203 | API(3 1/2) "REG |
| Working Pressure | Impact Frequency at 1.7MPa | Recommended Rotation Speed | Air Consumption | | |
| | | | 145-350(Psi) | | |
| 1.0~2.5MPa | 28HZ | 30~70r/min | 320-920(CFM) | | |

ZRC8C-QL80 DTH HAMMER



| NO. | Item Description | Part Number | Weight(Kg) |
|-----|--------------------|---------------|------------|
| 1 | Top Sub | ZRC8C-QL80-01 | 34 |
| 2 | "O"Ring | ZRC8C-QL80-02 | 0.02 |
| 3 | Check Valve | ZRC8C-QL80-03 | 0.9 |
| 4 | Spring | ZRC8C-QL80-04 | 0.1 |
| 5 | Air Distributor | ZRC8C-QL80-05 | 6.2 |
| 6 | Internal Cylinder | ZRC8C-QL80-06 | 7.4 |
| 7 | Piston | ZRC8C-QL80-07 | 44 |
| 8 | External Cylinder | ZRC8C-QL80-08 | 67 |
| 9 | Guide Sleeve | ZRC8C-QL80-09 | 6.4 |
| 10 | "O"Ring | ZRC8C-QL80-10 | 0.02 |
| 11 | Bit Retaining Ring | ZRC8C-QL80-11 | 1.2 |
| 12 | Drive Sub | ZRC8C-QL80-12 | 17.7 |
| 13 | Drill Bit | ZRC8C-QL80-13 | — |

ZRC8C-QL80 DTH Hammer Technical Data

| Length (w/o bit) | Weight (w/o bit) | Outside Diameter | Bit Shank | Bore Hole Diameter | Top Sub Thread |
|------------------|----------------------------|----------------------------|-----------------|--------------------|-----------------|
| 1335mm | 180Kg | φ185mm | QL80 | φ195~φ254 | API(4 1/2) "REG |
| Working Pressure | Impact Frequency at 1.7MPa | Recommended Rotation Speed | Air Consumption | | |
| | | | 145-350(PSI) | | |
| 1.0~2.5MPa | 28HZ | 30~70r/min | 430-990(CFM) | | |

BUTTON SHAPE SELECTION



Spherical Button

Suitable for highly abrasive and very hard formations.



Ballistic Button

Suitable for medium abrasive and hard formations.



Semi-ballistic Button

Suitable for medium abrasive and medium hard formations.



Sharp Button

Suitable for soft formations.



Flat Button

Use as protection buttons to reduce wear on rubbing surfaces of DTH bits.

FACE SHAPE SELECTION



Flat Face

Hard to very hard and abrasive rock formations.



Convex Face

Soft to medium-hard rock formations.



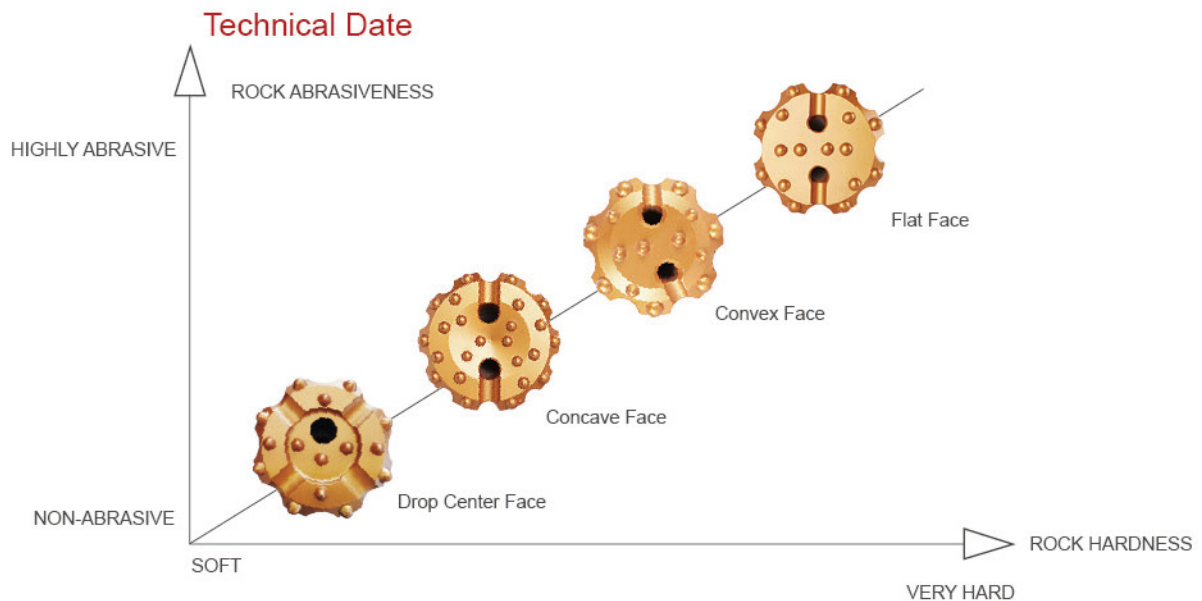
Concave Face

All kinds of rock formation specially for medium hard and homogeneous rock formations.

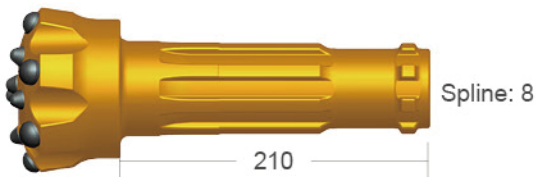


Drop Center Face

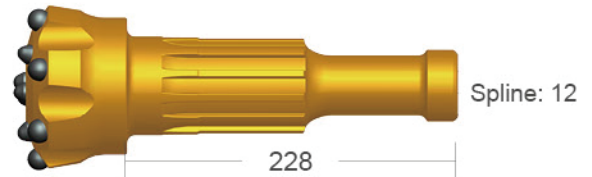
Soft to medium hard and fractured rock formations.



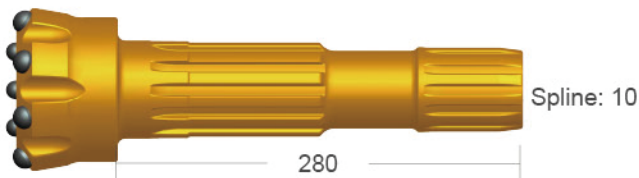
4" BIT



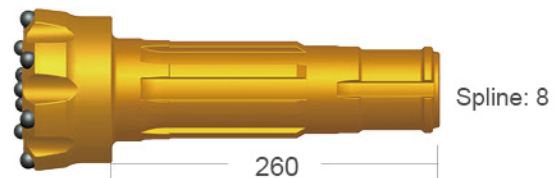
ZRQ115-DHD340



ZRQ115-M40



ZRQ115-QL40

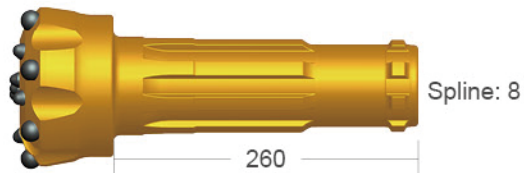


ZRQ115-SD4

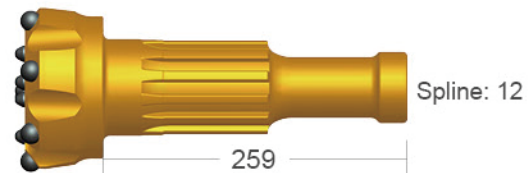
Technical Data

| Diameter | | Button (NO. × Diameter,mm) | | Flushing holes | Weight (kg) |
|----------|---------|-------------------------------|-------|----------------|----------------|
| mm | inch | Gauge | Front | | |
| 110 | 4 5/16 | 8×14 | 7×12 | 2 | 7.8 |
| 115 | 4 1/2 | 7×16 | 6×14 | 2 | 8.2 |
| 120 | 4 3/4 | 8×14 | 8×13 | 2 | 8.7 |
| 125 | 4 15/16 | 8×14 | 10×13 | 2 | 8.9 |
| 130 | 5 1/8 | 8×16 | 8×14 | 2 | 9.4 |

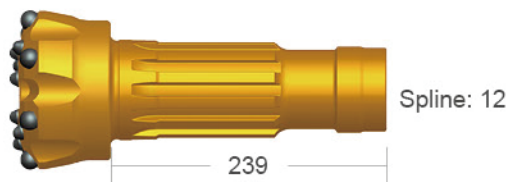
5" BIT



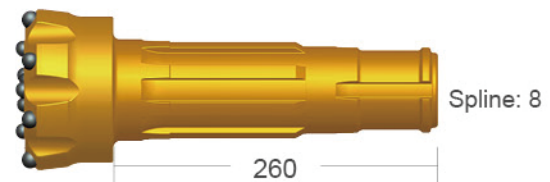
ZRQ140-DHD350



ZRQ140-M50



ZRQ140-QL50

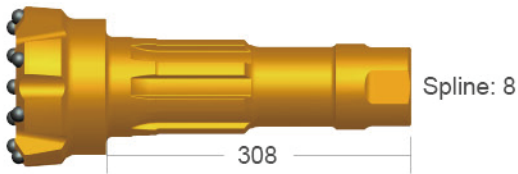


ZRQ140-SD5

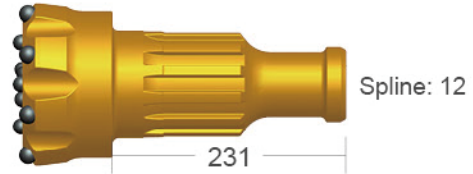
Technical Data

| Diameter | | Button (NO. × Diameter,mm) | | Flushing holes | Weight (kg) |
|----------|-------|-------------------------------|-------|----------------|----------------|
| mm | inch | Gauge | Front | | |
| 135 | 5 1/4 | 8×16 | 8×14 | 2 | 15.6 |
| 140 | 5 1/2 | 7×18 | 7×14 | 2 | 16.1 |
| 146 | 5 3/4 | 7×18 | 7×14 | 2 | 16.5 |
| 152 | 6 | 8×18 | 8×14 | 2 | 17 |
| 165 | 6 1/2 | 8×18 | 8×16 | 2 | 17.7 |
| 178 | 7 | 8×18 | 8×16 | 2 | 18.5 |

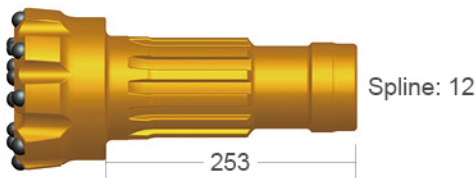
6" BIT



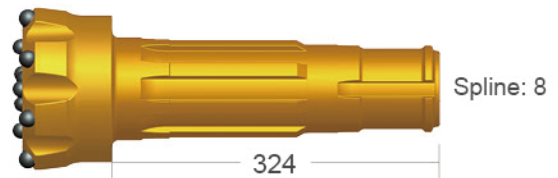
ZRQ165-DHD360



ZRQ165-M60



ZRQ165-QL60

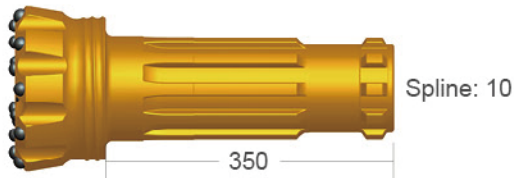


ZRQ165-SD6

Technical Data

| Diameter | | Button (NO. × Diameter,mm) | | Flushing holes | Weight (kg) |
|----------|-------|-------------------------------|-----------|----------------|----------------|
| mm | inch | Gauge | Front | | |
| 152 | 6 | 8×18 | 4×14+4×16 | 2 | 22.5 |
| 154 | 6 | 8×18 | 4×14+4×16 | 2 | 23 |
| 165 | 6 1/2 | 9×18 | 9×16 | 3 | 25 |
| 171 | 6 3/4 | 8×18 | 8×16 | 2 | 24.5 |
| 178 | 7 | 9×18 | 10×16 | 2 | 25.3 |
| 185 | 7 1/4 | 9×18 | 10×16 | 3 | 25.6 |
| 190 | 7 1/2 | 10×18 | 11×16 | 2 | 26 |
| 203 | 8 | 10×18 | 14×16 | 2 | 27 |

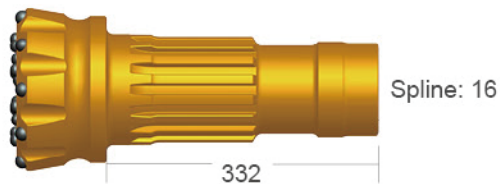
8" BIT



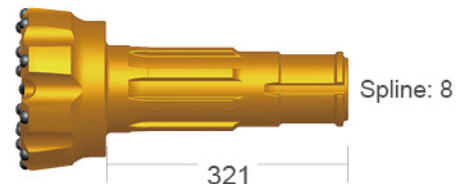
ZRQ203-DHD380



ZRQ203-M80



ZRQ203-QL80



ZRQ203-SD8

Technical Data

| Diameter | | Button (NO. × Diameter,mm) | | Flushing holes | Weight (kg) |
|----------|-------|-------------------------------|------------|----------------|----------------|
| mm | inch | Gauge | Front | | |
| 203 | 8 | 10×18 | 14×16 | 2 | 46.2 |
| 216 | 8 1/2 | 10×18 | 6×16+8×18 | 2 | 50.4 |
| 225 | 8 7/8 | 10×18 | 7×16+8×18 | 2 | 52.8 |
| 229 | 9 | 10×18 | 7×16+8×18 | 2 | 53.4 |
| 235 | 9 1/4 | 12×18 | 6×16+8×18 | 2 | 55 |
| 240 | 9 1/2 | 12×18 | 6×16+8×18 | 2 | 56 |
| 254 | 10 | 12×18 | 9×16+12×18 | 2 | 58 |
| 280 | 11 | 12×18 | 21×16+9×18 | 3 | 64 |
| 305 | 12 | 15×18 | 9×16+27×18 | 3 | 70 |

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