DOWN-THE-HOLE (DTH) BITS

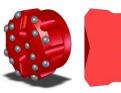


BIT FACE SELECTION

ABRASIVE ROCK

ROCK CONSOLIDATION

Concave Face



Concave Face designed for unconsolidated or broken rock. These face features will help drill straighter holes in medium to hard formations.

Concave-Convex



Convex/Concave Face bits are a hybrid design for fast penetration and straighter holes in unconsolidated rock with low silica content. Typical applications are medium to hard formations.

Convex Face



Convex Face bits are designed for fast penetration rates in softer rock like shale and limestone with low silica

Flat Face



Flat Face bits are a general purpose bit that will work in all rock conditions but should be used especially for hard or abrasive conditions like granite, basalt, and hard limestone. Flat face bits are the best choice for drilling in a high silica

CARBIDE SELECTION

Carbide Designs

Perhaps the most fundamental decision when selecting different carbide configurations is profile shape. Button bits most commonly have either a hemispherical or semi-ballistic carbide design; however it is not uncommon to use other carbide designs as well. Below are selections of the different carbide designs offered by Rockmore International.

Carbide Configurations

environment.

Most face designs for button bits are offered in multiple carbide configurations and typically differ in diameter, shape (i.e. profile) and quantity. There are some general guidelines to follow while selecting between multiple carbide configurations including resistance to wear, penetration rate, vibration, and specific rock conditions.

FASTER

PENETRATION RATE CARBIDE LIFE

LONGER LIFE AND LESS PRONE TO BREAKING

SHORTER LIFE AND MORE PRONE TO BREAKING



CONICAL



FULL BALLISTIC



SEMI BALLISTIC



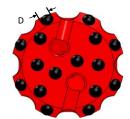
CROWN POINT



HEMISPHERICAL

SOFTER

ROCK HARDNESS

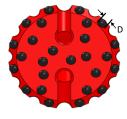


FEWER, LARGER DIAMETER CARBIDE RESULTS IN SLOWER PENETRATION RATES, BUT LONGER CARBIDE AND BIT LIFE.

IN FASTER PENETRATION RATES, BUT

MORE, SMALLER

DIAMETER CARBIDE RESULTS SHORTER CARBIDE AND BIT LIFE.



PENETRATION RATE VS. CARBIDE/BIT LIFE

VIBRATION

MORE

BIT AND ROD VIBRATION INCREASES WHEN FEWER AND LARGER CARBIDE BUTTONS ARE SELECTED.



: MULTIPOINT ::::

MultiPoint -- the next generation carbide insert. Rockmore's exclusive new carbide insert design provides multiple strike points for more efficient rock fracture and longer insert life. Along with longer insert life, MultiPoint carbides also provide smoother bit rotation and advancement.

