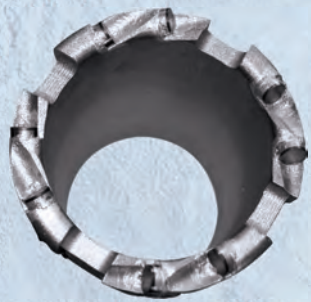
Rotary drill bits (full face) and casing bits with polychristalline Diamond Cutters PCD



SYSBOHR® GMBH

Drilling technique for the construction industry

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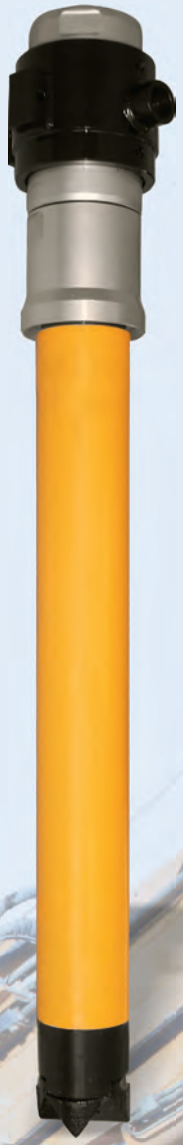
Rotary drill bits (full face) and **casing bits** with **polychristalline Diamond Cutters PCD**

Polychristalline diamond cutters are made of a synthetically produced mass of diamond particles based on an incidental metal matrix, which is the cause for its extremely solid character. The mass is a generation of selected diamond particles, sintered at high pressure.
The sintering process is strictly observed with respect to the debit range of diamond. This results in an extremely hard and resistant structure. PCD is mainly used for drilling in soft rock eg. sand stone, lime stone, Dolomit, calk stone, shale, clay, etc. PCD is not suitable for drilling in fissured or hard rock, as they may not bear up against the high stress.
The grooves of the drill bits are laterally plated or TC fitted, in order to grant additional wear protection.
Flushing is normally by air or water, the rotation speed is adjusted to the soil conditions and the number of blades.

Measurements and design see table.



Measurements of rotary drill bits and casing bits.

The cutting geometry depends on the type of rock.

Drill bits

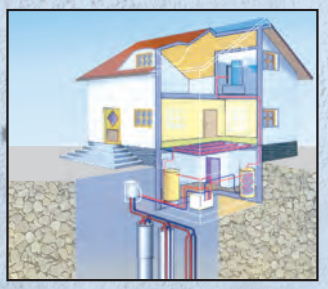
Thread connection	D 88,9, 2 3/8" API Reg	D 88,9, 2 3/8" API Reg	D 88,9, 2 3/8" API Reg	D 101,6, 2 7/8" API Reg	D 114,3, 3 1/2" API Reg
Diameter	110mm	115mm	130mm	150mm	175mm
Thread connection	D 88,9, 1 start, cyl. RH	D 88,9, 1 start, cyl. RH	D 88,9, 1 start, cyl. RH	D 88,9, 1 start, cyl. RH	D 114,3, 2 starts, cyl. RH
Diameter	110mm	115mm	130mm	150mm	175mm

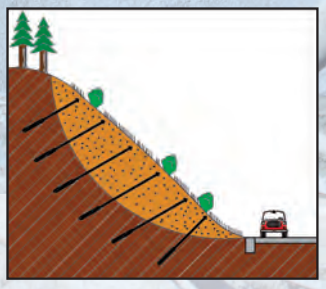
Drill bits

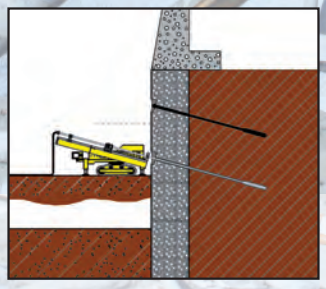
Thread connection	D 101,6 3 starts cyl. LH	D 114,3 3 starts cyl. LH	D 133 3 starts cyl. LH	D 152,4 3 starts cyl. LH	D 177,8 3 starts cyl. LH
Diameter	115mm	125mm	145mm	165mm	190mm

Other measurements on request

Typical applications:







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