

Mining Bits

Creativity and a reliable technology.
We realize the drilling performance improvement and cost.



Diamond bits are utilized in various geological surveys, investigation for underground resources, and for dam and tunnel construction, to name only a few. Their value to society is immeasurable, making possible many of the modern conveniences which society takes for granted.

DRILLING

Surface set diamond core BIT



Surface set diamond bits are made by setting rough diamond boros on the matrix surface. they are available in a variety of sizes for diverse applications.

Diamond Bits(non-core,casing,etc)



Non-core bits are used in drilling projects that do not require the collection of a core sample. Casing bits are used to insert casing pipe into collapsed stratum.

Diamond Impregnated core BIT



Asahi diamond's diamond core bits come in an assortment of sizes and strengths to suit any type of rock stratum, from homogeneous soft rock to extremely hard rock and collapsed rock layers.

Diamond reamers

Diamond reamers are used in conjunction with core bits and non-core bits to ensure specific drill hole dimensions, prevent drill hole deformation and reduce vibration.



Matrix

Impregnated bit

Type	Mt hardness	Mt name	Soft rock										Medium-hard rock										Hard rock										Superhard rock,Hyperhard rock									
			clay	chalk	shale	plaster	tuff	cement	slate	limestone	mudstone	sandstone	sandy shale	sandy limestone	dolostone	serpentinite	gravel	pelitic schist	mafic schist	psammitic schist	marble	basalt	andesite	rhyolite	granodiorite	diabase	gabbro	porphyry	porphyrite	peridotite	granite	gneiss	quartz trachyte	siliceous shale	siliceous schist	siliceous sandstone	quartzite	chert				
Standard	Soft	S																					S7										S8 S9 S10 S11									
	↑	K																					K6 K7										K8 K9									
		C	C4										C6										C7																			
Standard	↓	(crushed zone)																																								
	Hard	Z	Z0 Z1										Z3										Z4 Z5																			
Economy		L																					L6 L7										L8									

Surface set bit

Type	Mt hardness	Mt name	Soft rock										Medium-hard rock										Hard rock										Superhard rock,Hyperhard rock									
			clay	chalk	shale	plaster	tuff	cement	slate	limestone	mudstone	sandstone	sandy shale	sandy limestone	dolostone	serpentinite	gravel	pelitic schist	mafic schist	psammitic schist	marble	basalt	andesite	rhyolite	granodiorite	diabase	gabbro	porphyry	porphyrite	peridotite	granite	gneiss	quartz trachyte	siliceous shale	siliceous schist	siliceous sandstone	quartzite	chert				
Standard	Soft											Y																														
	Hard	Z																																								

Standards

DCDMA&CDDA

Size	Standard		WT-type	Reaming shell	Casing shoe		Casing bit	
	Outer(mm)	Hole(mm)	Hole(mm)	Outer(mm)	Outer(mm)	Hole(mm)	Outer(mm)	Hole(mm)
☆XRT	29.7	-	18.7	29.8	37.7	30.1	37.7	25.4
EX,EW	37.3	21.5	23	37.7	47.6	38	47.6	35.7
AX,AW	47.6	30.1	32.5	48	59.5	48.3	59.5	45.2
BX,BW	59.5	42	44.5	59.9	75.3	60.2	75.3	56.3
NX,NW	75.3	54.7	58.7	75.7	91.8	76	91.8	72.1
HX,HE	98.8	76.2	80.9	99.2	117.5	99.7	117.5	95.9
PX,PW	-	-	-	-	143.5	121.3	143.5	117.7
SX,SW	-	-	-	-	172.5	146.7	172.5	143.1

Wire Line Q-series(double core tubu)

Size	BITS		Reaming Shell
	Outer(mm)	Hole(mm)	Outer(mm)
EQ	37.3	20	37.7
AQ	47.6	27	48
BQ	59.5	36.4	59.9
NQ	75.3	47.6	75.7
HQ	97.5	63.5	98.4
PQ	122	85	123

Japan standard JIS

Size	BITS		Reaming Shell
	Outer(mm)	Hole(mm)	Outer(mm)
36	36	22	36.5
46	46	30	46.5
56	56	40	56.5
66	66	48	66.5
76	76	58	76.5
86	86	68	86.5
101	101	77	101.7
116	116	92	116.7



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I.D.A. 会員

Shape the Innovation

私達の革新で、お客様の革新をカタチにする