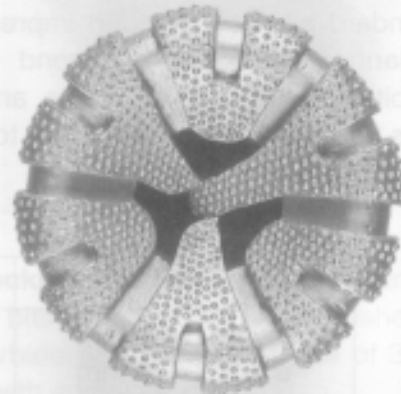


4. Tools and equipment for mining, site investigation and waterwell drilling

4.1 Dieckmann surface setted diamond bits



Matrix

For all surface setted diamond bits Dieckmann uses an extremely abrasive resistant tungsten carbide matrix. It is suitable for all requirements.

Diamond qualities

Six different diamond qualities are available:

Economy nonprocessed natural diamonds, only for reaming shells

Standard nonprocessed natural diamonds, preferably for non coring bits, casing bits, casing shoes and coring bits in soft to medium hard formations

Select processed natural diamonds, full round and shiny, preferably for coring bits in medium to hard formations

Premium processed natural diamonds, very good raw material, shiny, preferably for coring bits in hard and abrasive formations

ND processed natural diamonds, excellent raw material, shiny, preferably for wireline coring bits in hard and abrasive formations

Carbonados nonprocessed polycrystalline natural diamonds, extremely tough, preferably for dry drilling










Diamond sizes

As a general rule, the softer the formation the larger is the diamond (10/12, 15/20 spc) to be used, while in hard formations smaller diamonds (30/40, 40/60 spc) are used.

All diamond sizes from 6 to 60 spc are available in all qualities.

4.3 Die Profiles stratacut bits

Nine different bit profiles are available:

	W	for very hard and homogeneous formations standard profile for casing shoes and bits
	BY	for hard to very hard formations standard profile for coring bits
	S	for soft, medium hard to hard formations
	P	for soft to medium hard formations
	M	for medium hard to hard formations
	D	for soft to medium hard formations
	E	for soft to medium hard formations, cracked
	BN	for soft to medium hard formations, cracked
	Concave	standard non coring bit for general applications

Remarks:

Face discharge, scallops, junk slots, TC reinforced waterways and TC reinforced bodies are available for all types of bits if possible.

The following tables are just a recommendation. **Dieckmann** is able to deliver all possible combinations of diamond qualities, diamond sizes, diamond weights, qty. of waterways and bit profiles.

Also non standard diameters are available on request.

If a type of bit is required that is not shown in the tables, Dieckmann will probably have all necessary data to produce the bit. If not, a drawing or a sample will be sufficient for us to do it.



Surface setted coring bits metric sizes:

type	size mm	ref.-no.	dia.-weight in ct			qty. of waterways
			20/25 spc	30/40 spc	40/60 spc	
B	36 x 22	3001 036	7	6	5	3
	46 x 32	3001 046	8	7	6	3
	56 x 42	3001 056	10	9	7	4
	66 x 52	3001 066	13	11	9	4
	76 x 62	3001 076	14	12	10	5
	86 x 72	3001 086	15	13	11	6
	101 x 87	3001 101	20	17	13	7
	116 x 102	3001 116	24	20	16	8
T-2	36 x 22	3002 036	7	6	5	3
	46 x 32	3002 046	8	7	6	3
	56 x 42	3002 056	10	9	7	4
	66 x 52	3002 066	13	11	9	4
	76 x 62	3002 076	14	12	10	5
	86 x 72	3002 086	15	13	11	6
	101 x 84	3002 101	22	18	16	7
	T-6	76 x 57	3003 076	18	14	13
86 x 67		3003 086	21	18	15	6
101 x 79		3003 101	24	20	17	7
116 x 93		3003 116	28	24	21	8
131 x 108		3003 131	32	28	25	9
146 x 123		3003 146	42	35	30	10
T-6-S	76 x 48	3004 076	29	24	-	5
	86 x 58	3004 086	32	28	-	6
	101 x 72	3004 101	35	30	-	7
	116 x 86	3004 116	39	34	-	8
	131 x 101	3004 131	43	38	-	9
	146 x 116	3004 146	48	42	-	10
TT	46 x 35.6	3005 046	7	6	5	3
	56 x 45.6	3005 056	9	8	7	4
D	76 x 56	3006 076	18	14	13	5
	86 x 66	3006 086	21	18	15	6
	101 x 81	3006 101	24	20	17	7
	116 x 96	3006 116	28	24	21	8
	131 x 110	3006 131	32	28	25	9
	146 x 122	3006 146	42	35	30	10



Surface setted coring bits metric sizes:

type	size mm	ref.-no.	dia.-weight in ct			qty. of waterways
			20/25 spc	30/40 spc	40/60 spc	
K-3	66 x 38	3007 066	18	14	12	4
	76 x 48	3007 076	21	17	15	5
	86 x 58	3007 086	24	19	16	6
	101 x 72	3007 101	32	24	20	7
	116 x 86	3007 116	37	29	22	8
	131 x 101	3007 131	40	35	29	9
	146 x 116	3007 146	44	39	35	10
	176 x 140	3007 176	80	60	50	12
F	101 x 72	3008 101	32	24	20	7
	116 x 86	3008 116	37	29	22	8
	131 x 101	3008 131	40	35	29	9
	146 x 116	3008 146	44	39	35	10
Z	66 x 44	3009 066	16	13	12	4
	76 x 54	3009 076	18	14	13	5
	86 x 62	3009 086	21	18	15	6
	101 x 75	3009 101	24	20	17	7
	116 x 90	3009 116	28	24	21	8
	131 x 105	3009 131	32	28	25	9
Y	66 x 44	3010 066	16	13	12	4
	76 x 54	3010 076	18	14	13	5
	86 x 62	3010 086	21	18	15	6
	101 x 75	3010 101	24	20	17	7

6	SKS-L	646 x 102	8	3224 846 C10C	18	32 x 84
4	Grobber	750 x 102	8	3224 850 C10C	18	28 x 88
3	CSK-146	965 x 102	07	3224 865 C10C	18	28 x 88
9	8	101	11	3013 078	88	78 x 87
7	9	11	12	3013 088	88	75 x 88
8	11	13	14	3013 101	88	88 x 101
9	13	18	18	3013 118	88	118 x 101
10	14	17	20	3013 131	88	131 x 121
12	16	19	25	3013 146	88	146 x 121



Surface setted non coring bits metric sizes:

type	size mm	ref.-no.	dia.-weight in ct			qty. of waterways
			20/25 spc	30/40 spc	40/60 spc	
Concave	28	3011 028	-	6	-	-
	36	3011 036	-	8	-	-
	46	3011 046	-	10	-	-
	56	3011 056	-	15	-	-
	66	3011 066	-	19	-	-
	76	3011 076	-	25	-	-
	86	3011 086	-	34	-	-
	96	3011 096	-	45	-	-
	101	3011 101	-	55	-	-
	116	3011 116	-	60	-	-
	131	3011 131	-	80	-	-
	146	3011 146	-	90	-	-

Surface setted casing shoes metric sizes:

46 x 37	3012 046	5	4	3	3
56 x 47	3012 056	7	6	4	4
66 x 57	3012 066	9	8	6	5
76 x 67	3012 076	10	9	7	6
86 x 77	3012 086	11	10	8	7
101 x 89	3012 101	12	11	9	8
116 x 104	3012 116	15	13	11	9
131 x 119	3012 131	17	15	13	10
146 x 134	3012 146	19	16	14	12

Surface setted casing bits metric sizes:

46 x 35	3013 046	6	5	4	3
56 x 45	3013 056	8	7	5	4
66 x 55	3013 066	10	9	7	5
76 x 65	3013 076	11	10	8	6
86 x 75	3013 086	12	11	9	7
101 x 86.5	3013 101	14	13	11	8
116 x 101.5	3013 116	18	16	13	9
131 x 116.5	3013 131	20	17	14	10
146 x 131.5	3013 146	22	19	16	12



Surface setted wireline coring bits metric sizes:

type	size mm	ref.-no.	dia.-weight in ct			qty. of waterways
			10/15 spc	15/20 spc	20/25 spc	
SK-6-L	146 x 102	3024 146	75	68	61	12
Geobor	150 x 102	3024 150	80	72	65	12
CSK-146	165 x 102	3024 165	98	90	80	12
WN-SK	122 x 79	3025 079	55	50	45	9

Surface setted coring bits and wireline coring bits american sizes:

type	size mm	ref.-no.	dia.-weight in ct			qty. of waterways
			20/25 spc	30/40 spc	40/60 spc	
EX	37.5 x 21.3	3027 037	7	5	4	2
AX	47.8 x 30.0	3027 047	10	8	6	3
BX	59.7 x 42.0	3027 059	14	11	9	4
NX	75.4 x 54.6	3037 075	20	16	12	6
AQ	47.8 x 26.9	3018 0AQ	12	10	8	4
BQ	59.7 x 36.3	3018 0BQ	15	14	10	4
NQ	75.4 x 47.5	3018 0NQ	20	18	15	6
HQ	95.8 x 63.4	3018 0HQ	32	28	25	6
PQ	122.3 x 84.8	3018 0PQ	45	40	30	8
CHD	101.0 x 63.5	3021 CHD	34	29	26	6
CP	122.6 x 85.0	3019 0CP	45	40	30	8
DCDMA large serie	2-3/4 x 3-7/8	3017 378	32	25	20	8
	4 x 5-1/2	3017 512	60	50	38	10
	6 x 7-3/4	3017 734	110	90	70	15
HXB-1	95.4 x 61.8	3023 0HX	32	28	25	8
HXB-2	95.4 x 61.2	3023 0HX	32	28	25	8

