

2022

Insert Catalogue
Drilling

BEYOND THE MACHINING

www.karcan.com



IMAGINATION AND
FUNCTIONALITY IS
HARMONIZED WITH
MATERIALS AND
TOOL COMES TRUE...



BEYOND THE MACHINING



STARTING A NEW JOURNEY OF SUCCESS REQUIRES FORESEEN

EX-PERIENCE, EX-PERT TEAM, STRATEGY AND VISION BY STRIVING FOR
MANUFACTURING EXCELLENCE.

Dear Valued Customers and Business Partners

We, Karcan, as the biggest cutting tool manufacturer of Turkey with our modern machine and measuring park, R&D Center, number of qualified employees, sales figures and export share, owe you a great debt of gratitude for being a part of our journey all through these years and being a part of our achievement.

As the leading company steering the cutting tool industry of Turkey, we keep being your solution partner in machinability of hi-tech materials thanks to our highly skilled and trained R&D, process and technical sales team by following the recent developments in machining and material engineering and bringing the world's technology to your hands.

We are not just a Cutting Tools manufacturer! We make a difference in terms of our production improving activities, technical applications and consultancy services and we put all our efforts of our valued customers' gaining in 'cost per part' a competitive edge in global markets. From this point of view, we aim to provide products and services 'Beyond The Machining'.

We intend to present at our catalogue the carbide insert studies and improvements on the series within our standard program carried out together with our national and foreign universities, institutes, local and global partners.

We keep on bringing innovations to our customers in our country and 21 countries globally, and keep working with great passion in the belief that improvements are constant and a never ending process.

Welcome again to the world of Karcan Cutting Tools

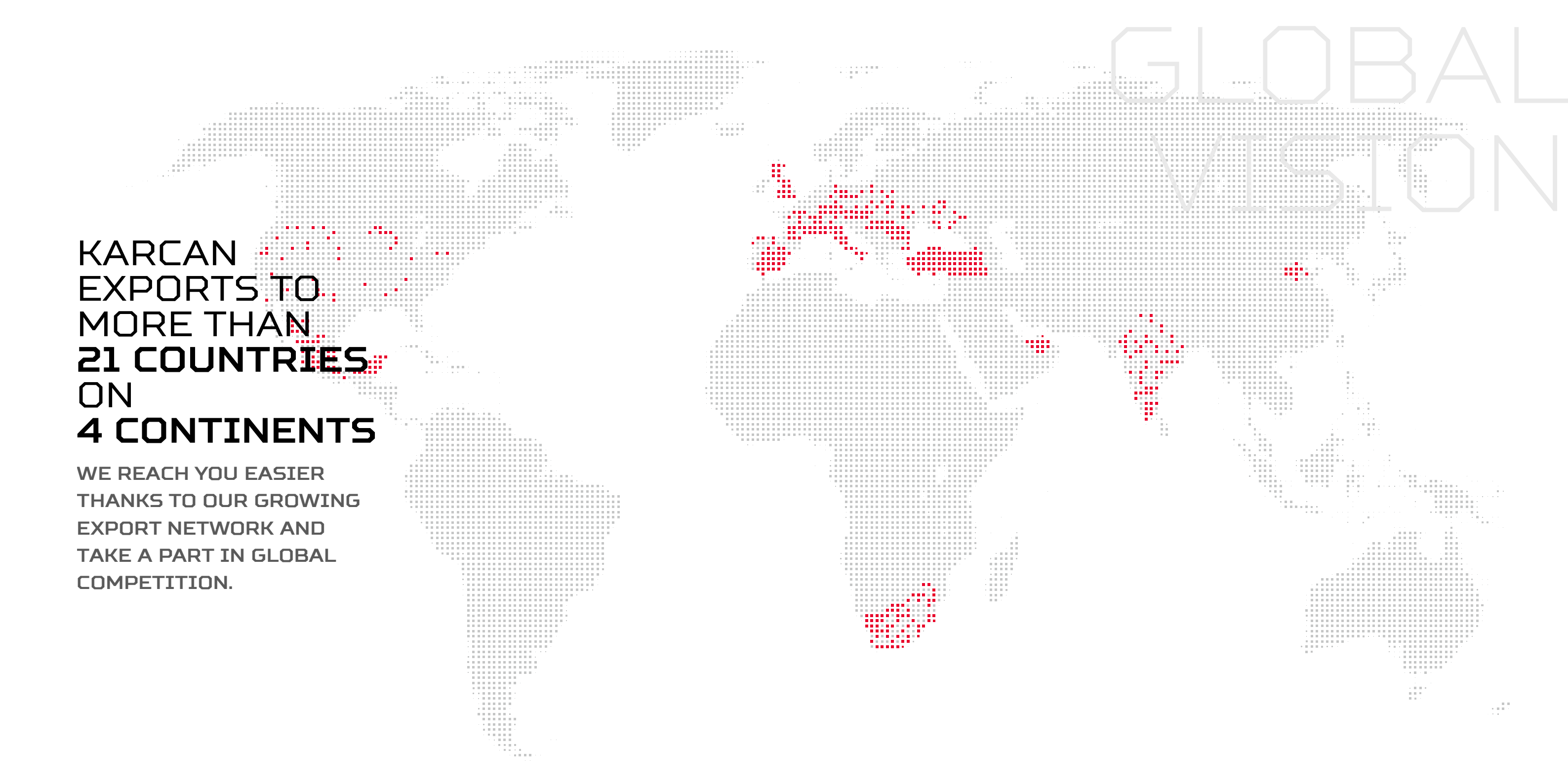
On behalf of Karcan Cutting Tools,

Ümit GEZER
Founder / General Manager

A handwritten signature in blue ink that reads "Ümit Gezer".

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KARCAN
EXPORTS TO
MORE THAN
21 COUNTRIES
ON
4 CONTINENTS

WE REACH YOU EASIER
THANKS TO OUR GROWING
EXPORT NETWORK AND
TAKE A PART IN GLOBAL
COMPETITION.

GLOBAL
VISION

Inserts and tools for indexable drilling in 3xD, 4xD and 5xD

Presentation:

▲ Ø14.0mm to Ø44.0mm



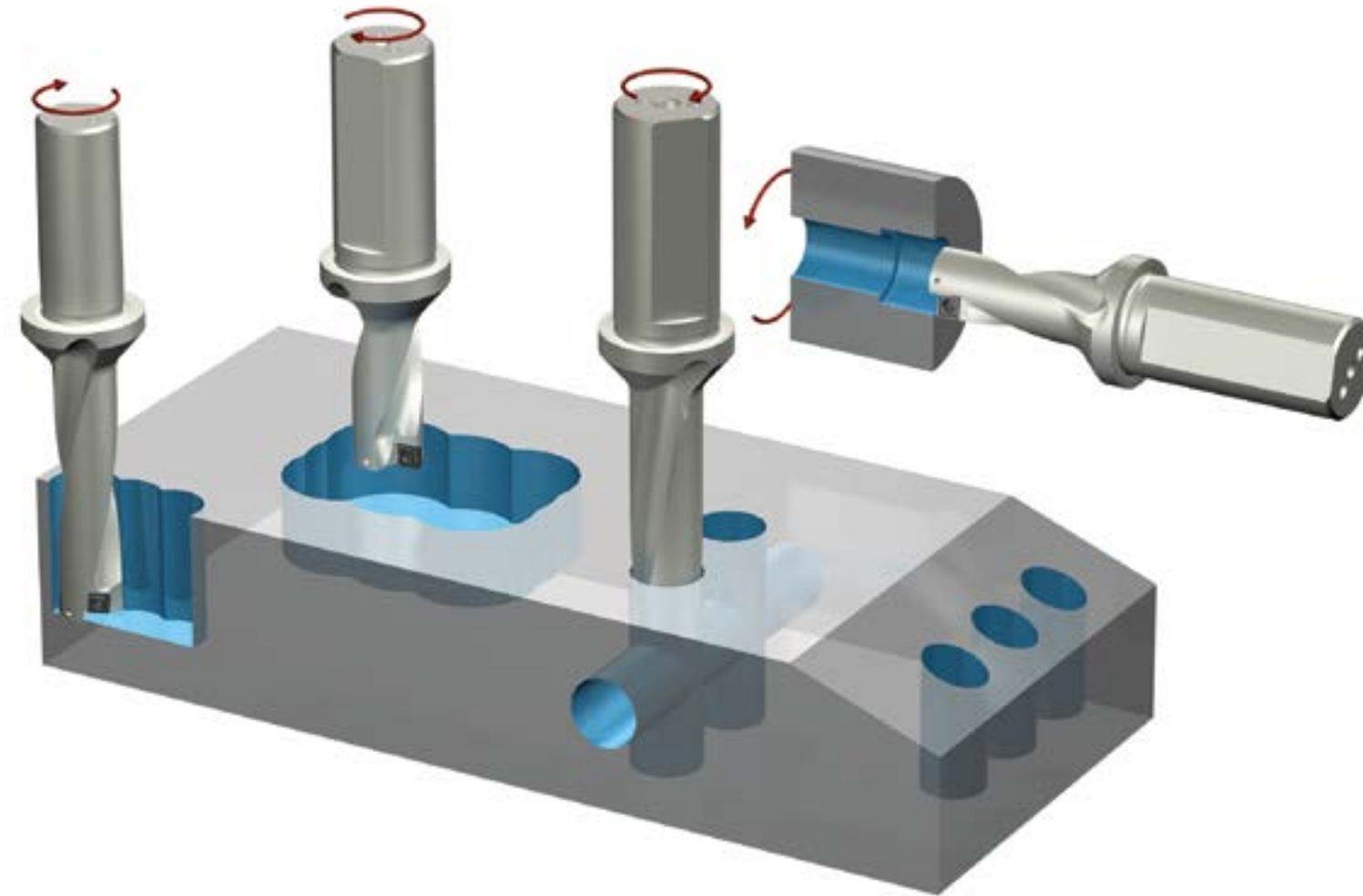
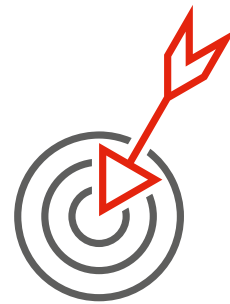
Your benefits:

Performance booster suitable for extreme machining:

- Drilling through stacks,
- Drilling into edges,
- Drilling into corner angles,
- Drilling into weld seams or ridged surfaces

Costs savings:

- Achieves an increase in cutting data and feed rates of up to 20%
- Optimum dimensional accuracy in the most difficult drilling conditions
- A single tool combines key features such as real accuracy, top performance parameters and deep drilling depths.
- Cost reductions in stocking and ease of handling due to identical internal and external indexable inserts

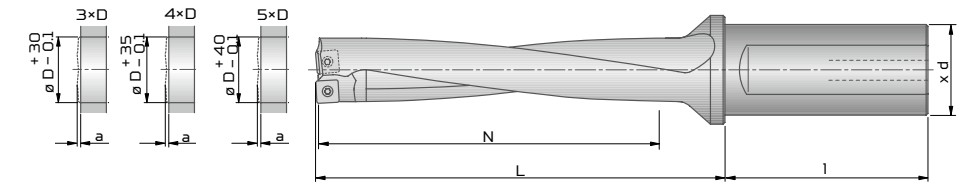


Available range 3xD:
Ø14.0 – Ø19.5

Tools	Ø	Designation	Ø d×l	N	L	Available
	14.0	3DH.1400.20.05	20x50	42	55	•
	14.5	3DH.1450.20.05	20x50	45	59	□
	15.0	3DH.1500.20.05	20x50	45	59	•
	15.5	3DH.1550.20.05	20x50	48	64	□
	16.0	3DH.1600.20.05	20x50	48	64	•
	16.5	3DH.1650.20.05	20x50	51	68	•

Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 050204-PCB KRP225	...-PCB	P	•
	SOLT 050204-KCB KRK215	...-KCB	K	•
	SOLT 050204-MCB KRP240	...-MCB	M	•
	SOLT 050204-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request



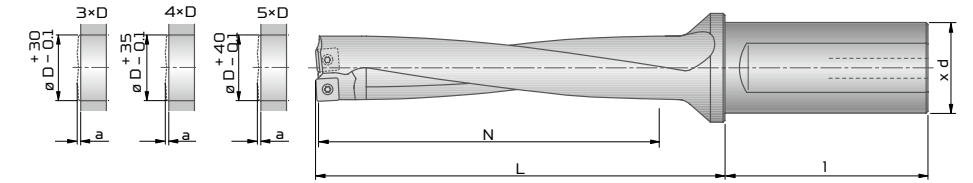
Tools	Ø	Designation	Ø d×l	N	L	Available
	17.0	3DH.1700.20.06	20x50	51	68	•
	17.5	3DH.1750.25.06	25x56	51	71	•
	18.0	3DH.1800.25.06	25x56	54	71	•
	18.5	3DH.1850.25.06	25x56	55.5	75	•
	19.0	3DH.1900.25.06	25x56	57	75	•
	19.5	3DH.1950.25.06	25x56	60	78	•

Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 06T206-PCB KRP225	...-PCB	P	•
	SOLT 06T206-KCB KRK215	...-KCB	K	•
	SOLT 06T206-MCB KRP240	...-MCB	M	•
	SOLT 06T206-PCB KRP240	...-PCB	S	•

• available from stock, □ available upon request



● available from stock, □ available upon request

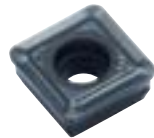


- available from stock, □ available upon request

Available range 3xD:
Ø28.5 – Ø38.0

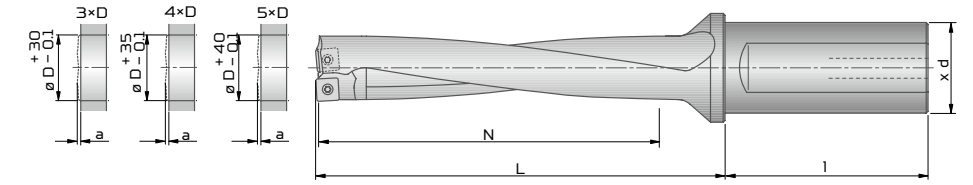


Tools	Ø	Designation	Ø d×l	N	L	Available
	28.5	3DH.2850.32.10	32x60	87	110	□
	29.0	3DH.2900.32.10	32x60	87	110	□
	29.5	3DH.2950.32.10	32x60	90	113	□
	30.0	3DH.3000.32.10	32x60	90	113	●
	30.5	3DH.3050.40.10	40x68	93	117	□
	31.0	3DH.3100.40.10	40x68	93	117	□
	31.5	3DH.3150.40.10	40x68	96	120	□
	32.0	3DH.3200.40.10	40x68	96	120	□
	32.5	3DH.3250.40.10	40x68	99	124	□
	33.0	3DH.3300.40.10	40x68	99	124	□

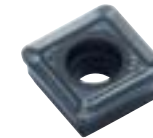


Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 10T308-PCB KRP225	...-PCB	P	•
	SOLT 10T308-KCB KRK215	...-KCB	K	•
	SOLT 10T308-MCB KRP240	...-MCB	M	•
	SOLT 10T308-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request



Tools	Ø	Designation	Ø d×l	N	L	Available
	33.5	3DH.3350.40.11	40x68	102	127	□
	34.0	3DH.3400.40.11	40x68	102	127	□
	34.5	3DH.3450.40.11	40x68	102	131	□
	35.0	3DH.3500.40.11	40x68	105	131	□
	35.5	3DH.3550.40.11	40x68	105	134	□
	36.0	3DH.3600.40.11	40x68	108	134	□
	36.5	3DH.3650.40.11	40x68	108	138	□
	37.0	3DH.3700.40.11	40x68	111	138	□
	37.5	3DH.3750.40.11	40x68	111	141	□
	38.0	3DH.3800.40.11	40x68	114	141	□

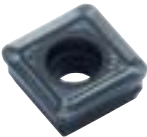


Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 110408-PCB KRP225	...-PCB	P	•
	SOLT 110408-KCB KRK215	...-KCB	K	•
	SOLT 110408-MCB KRP240	...-MCB	M	•
	SOLT 110408-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request

Available range 3xD:
Ø38.5 – Ø44.0

Tools	Ø	Designation	Ø d×l	N	L	Available
	38.5	3DH.3850.40.13	40x68	117	145	□
	39.0	3DH.3900.40.13	40x68	117	145	□
	39.5	3DH.3950.40.13	40x68	120	148	□
	40.0	3DH.4000.40.13	40x68	120	148	□
	40.5	3DH.4050.40.13	40x68	123	152	□
	41.0	3DH.4100.40.13	40x68	123	152	□
	41.5	3DH.4150.40.13	40x68	126	155	□
	42.0	3DH.4200.40.13	40x68	126	155	□
	42.5	3DH.4250.40.13	40x68	129	159	□
	43.0	3DH.4300.40.13	40x68	129	159	□
	43.5	3DH.4350.40.13	40x68	132	162	□
	44.0	3DH.4400.40.13	40x68	132	162	□

Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 130508-PCB KRP225	...-PCB	P	•
	SOLT 130508-KCB KRK215	...-KCB	K	•
	SOLT 130508-MCB KRP240	...-MCB	M	•
	SOLT 130508-PCB KRP240	...-PCB	S	•

• available from stock, □ available upon request

BEYOND
THE
MACHINING

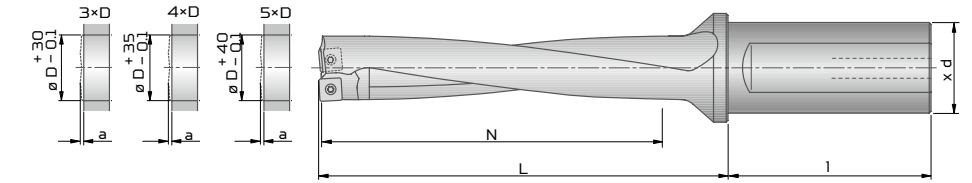


Available range 4xD:
Ø14.0 – Ø19.5

Tools	Ø	Designation	Ø d×l	N	L	Available
	14.0	4DH.1400.20.05	20x50	56	69	•
	14.5	4DH.1450.20.05	20x50	60	74	□
	15.0	4DH.1500.20.05	20x50	60	74	□
	15.5	4DH.1550.20.05	20x50	64	80	□
	16.0	4DH.1600.20.05	20x50	64	80	□
	16.5	4DH.1650.20.05	20x50	68	85	•

Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 050204-PCB KRP225	...-PCB	P	•
	SOLT 050204-KCB KRK215	...-KCB	K	•
	SOLT 050204-MCB KRP240	...-MCB	M	•
	SOLT 050204-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request



Tools	Ø	Designation	Ø d×l	N	L	Available
	17.0	4DH.1700.20.06	20x50	68	85	•
	17.5	4DH.1750.25.06	25x56	72	89	□
	18.0	4DH.1800.25.06	25x56	72	89	□
	18.5	4DH.1850.25.06	25x56	76	94	□
	19.0	4DH.1900.25.06	25x56	76	94	□
	19.5	4DH.1950.25.06	25x56	80	98	•

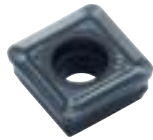
Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 06T206-PCB KRP225	...-PCB	P	•
	SOLT 06T206-KCB KRK215	...-KCB	K	•
	SOLT 06T206-MCB KRP240	...-MCB	M	•
	SOLT 06T206-PCB KRP240	...-PCB	S	•

• available from stock, □ available upon request

Available range 4xD:
Ø20.0 – Ø28.0

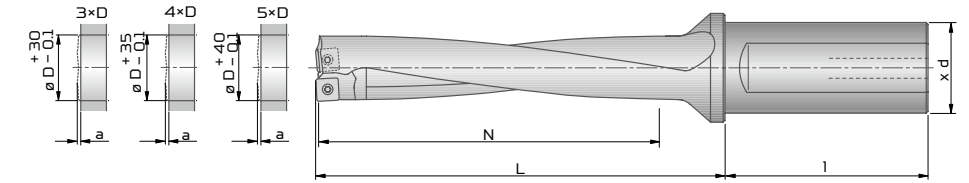


Tools	Ø	Designation	Ø d×l	N	L	Available
	20.0	4DH.2000.25.07	25x56	80	98	●
	20.5	4DH.2050.25.07	25x56	84	103	□
	21.0	4DH.2100.25.07	25x56	84	103	□
	21.5	4DH.2150.25.07	25x56	88	107	□
	22.0	4DH.2200.25.07	25x56	88	107	□
	22.5	4DH.2250.25.07	25x56	92	112	□
	23.0	4DH.2300.25.07	25x56	92	112	●

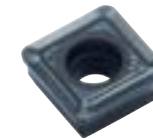


Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 070308-PCB KRP225	...-PCB	P	•
	SOLT 070308-KCB KRK215	...-KCB	K	•
	SOLT 070308-MCB KRP240	...-MCB	M	•
	SOLT 070308-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request



Tools	Ø	Designation	Ø d×l	N	L	Available
	23.5	4DH.2350.32.08	32x60	96	116	•
	24.0	4DH.2400.32.08	32x60	96	116	•
	24.5	4DH.2450.32.08	32x60	100	121	□
	25.0	4DH.2500.32.08	32x60	100	121	□
	25.5	4DH.2550.32.08	32x60	104	125	□
	26.0	4DH.2600.32.08	32x60	104	125	□
	26.5	4DH.2650.32.08	32x60	108	130	□
	27.0	4DH.2700.32.08	32x60	108	130	□
	27.5	4DH.2750.32.08	32x60	112	134	□
	28.0	4DH.2800.32.08	32x60	112	134	•



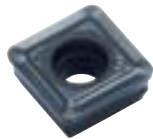
Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 080308-PCB KRP225	...-PCB	P	•
	SOLT 080308-KCB KRK215	...-KCB	K	•
	SOLT 080308-MCB KRP240	...-MCB	M	•
	SOLT 080308-PCB KRP240	...-PCB	S	•

• available from stock, □ available upon request

Available range 4xD:
Ø28.5 – Ø38.0

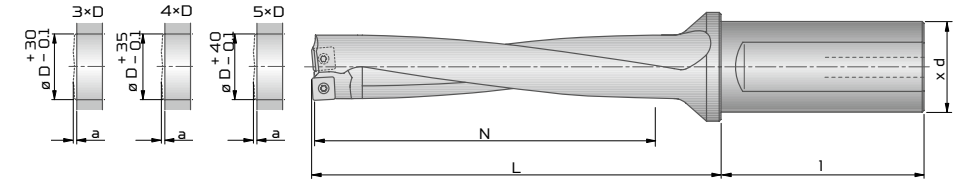


Tools	Ø	Designation	Ø d×l	N	L	Available
	28.5	4DH.2850.32.10	32x60	116	139	●
	29.0	4DH.2900.32.10	32x60	116	139	□
	29.5	4DH.2950.32.10	32x60	120	143	□
	30.0	4DH.3000.32.10	32x60	120	143	□
	30.5	4DH.3050.40.10	40x68	124	148	□
	31.0	4DH.3100.40.10	40x68	124	148	□
	31.5	4DH.3150.40.10	40x68	128	152	□
	32.0	4DH.3200.40.10	40x68	128	152	□
	32.5	4DH.3250.40.10	40x68	132	157	□
	33.0	4DH.3300.40.10	40x68	132	157	●

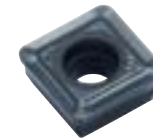


Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 10T308-PCB KRP225	...-PCB	P	•
	SOLT 10T308-KCB KRK215	...-KCB	K	•
	SOLT 10T308-MCB KRP240	...-MCB	M	•
	SOLT 10T308-PCB KRP240	...-PCB	S	•

● available from stock, □ available upon request



Tools	Ø	Designation	Ø d×l	N	L	Available
	33.5	4DH.3350.40.11	40x68	136	161	●
	34.0	4DH.3400.40.11	40x68	136	161	□
	34.5	4DH.3450.40.11	40x68	140	166	□
	35.0	4DH.3500.40.11	40x68	140	166	□
	35.5	4DH.3550.40.11	40x68	144	170	□
	36.0	4DH.3600.40.11	40x68	144	170	□
	36.5	4DH.3650.40.11	40x68	148	175	□
	37.0	4DH.3700.40.11	40x68	148	175	□
	37.5	4DH.3750.40.11	40x68	152	179	□
	38.0	4DH.3800.40.11	40x68	152	179	●



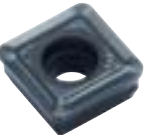
Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 110408-PCB KRP225	...-PCB	P	•
	SOLT 110408-KCB KRK215	...-KCB	K	•
	SOLT 110408-MCB KRP240	...-MCB	M	•
	SOLT 110408-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request

Available range 4xD:

Ø38.5 – Ø44.0

Tools	Ø	Designation	Ø d×l	N	L	Available
	38.5	4DH.3850.40.13	40x68	156	184	•
	39.0	4DH.3900.40.13	40x68	156	184	□
	39.5	4DH.3950.40.13	40x68	160	188	□
	40.0	4DH.4000.40.13	40x68	160	188	□
	40.5	4DH.4050.40.13	40x68	164	193	□
	41.0	4DH.4100.40.13	40x68	164	193	□
	41.5	4DH.4150.40.13	40x68	168	197	□
	42.0	4DH.4200.40.13	40x68	168	197	□
	42.5	4DH.4250.40.13	40x68	172	202	□
	43.0	4DH.4300.40.13	40x68	172	202	□
	43.5	4DH.4350.40.13	40x68	176	206	□
	44.0	4DH.4400.40.13	40x68	176	206	•

Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 130508-PCB KRP225	...-PCB	P	•
	SOLT 130508-KCB KRK215	...-KCB	K	•
	SOLT 130508-MCB KRP240	...-MCB	M	•
	SOLT 130508-PCB KRP240	...-PCB	S	•

• available from stock, □ available upon request

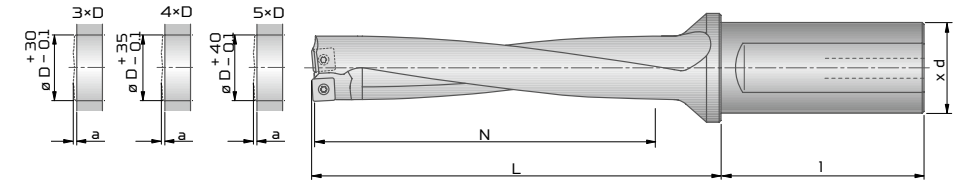
BEYOND THE MACHINING

Available range 5xD:
Ø14.0 – Ø19.5

Tools	Ø	Designation	Ø d×l	N	L	Available
	14.0	5DH.1400.20.05	20x50	70	83	□
	14.5	5DH.1450.20.05	20x50	75	89	□
	15.0	5DH.1500.20.05	20x50	75	89	□
	15.5	5DH.1550.20.05	20x50	80	96	□
	16.0	5DH.1600.20.05	20x50	80	96	□
	16.5	5DH.1650.20.05	20x50	85	102	□

Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 050204-PCB KRP225	...-PCB	P	•
	SOLT 050204-KCB KRK215	...-KCB	K	•
	SOLT 050204-MCB KRP240	...-MCB	M	•
	SOLT 050204-PCB KRP240	...-PCB	S	•

● available from stock, □ available upon request



Tools	Ø	Designation	Ø d×l	N	L	Available
	17.0	5DH.1700.20.06	20x50	85	102	□
	17.5	5DH.1750.25.06	25x56	90	107	□
	18.0	5DH.1800.25.06	25x56	90	107	□
	18.5	5DH.1850.25.06	25x56	95	113	□
	19.0	5DH.1900.25.06	25x56	95	113	□
	19.5	5DH.1950.25.06	25x56	100	118	□

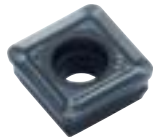
Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 06T206-PCB KRP225	...-PCB	P	•
	SOLT 06T206-KCB KRK215	...-KCB	K	•
	SOLT 06T206-MCB KRP240	...-MCB	M	•
	SOLT 06T206-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request

Available range 5xD:
Ø20.0 – Ø28.0

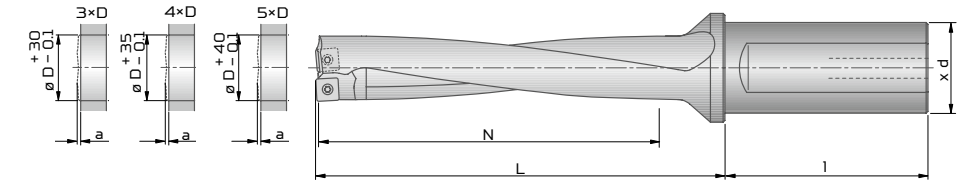


Tools	Ø	Designation	Ø d×l	N	L	Available
	20.0	5DH.2000.25.07	25x56	100	118	□
	20.5	5DH.2050.25.07	25x56	105	124	□
	21.0	5DH.2100.25.07	25x56	105	124	□
	21.5	5DH.2150.25.07	25x56	110	129	□
	22.0	5DH.2200.25.07	25x56	110	129	□
	22.5	5DH.2250.25.07	25x56	115	135	□
	23.0	5DH.2300.25.07	25x56	115	135	□

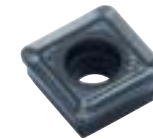


Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 070308-PCB KRP225	...-PCB	P	•
	SOLT 070308-KCB KRK215	...-KCB	K	•
	SOLT 070308-MCB KRP240	...-MCB	M	•
	SOLT 070308-PCB KRP240	...-PCB	S	•

● available from stock, □ available upon request



Tools	Ø	Designation	Ø d×l	N	L	Available
	23.5	5DH.2350.32.08	32x60	120	140	□
	24.0	5DH.2400.32.08	32x60	125	140	□
	24.5	5DH.2450.32.08	32x60	125	146	□
	25.0	5DH.2500.32.08	32x60	130	146	□
	25.5	5DH.2550.32.08	32x60	130	151	□
	26.0	5DH.2600.32.08	32x60	135	151	□
	26.5	5DH.2650.32.08	32x60	135	157	□
	27.0	5DH.2700.32.08	32x60	135	157	□
	27.5	5DH.2750.32.08	32x60	140	162	□
	28.0	5DH.2800.32.08	32x60	140	162	□



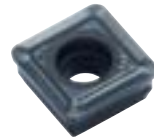
Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 080308-PCB KRP225	...-PCB	P	•
	SOLT 080308-KCB KRK215	...-KCB	K	•
	SOLT 080308-MCB KRP240	...-MCB	M	•
	SOLT 080308-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request

Available range 5xD:
Ø28.5 – Ø38.0

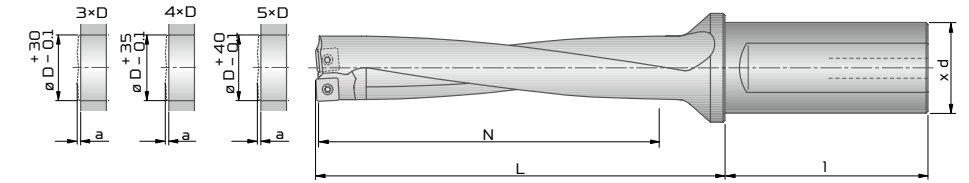


Tools	Ø	Designation	Ø d×l	N	L	Available
	28.5	5DH.2850.32.10	32x60	145	168	□
	29.0	5DH.2900.32.10	32x60	145	168	□
	29.5	5DH.2950.32.10	32x60	150	173	□
	30.0	5DH.3000.32.10	32x60	150	173	□
	30.5	5DH.3050.40.10	40x68	155	179	□
	31.0	5DH.3100.40.10	40x68	155	179	□
	31.5	5DH.3150.40.10	40x68	160	184	□
	32.0	5DH.3200.40.10	40x68	160	184	□
	32.5	5DH.3250.40.10	40x68	165	190	□
	33.0	5DH.3300.40.10	40x68	165	190	□

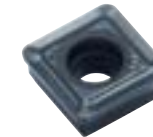


Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 10T308-PCB KRP225	...-PCB	P	•
	SOLT 10T308-KCB KRK215	...-KCB	K	•
	SOLT 10T308-MCB KRP240	...-MCB	M	•
	SOLT 10T308-PCB KRP240	...-PCB	S	•

● available from stock, □ available upon request



Tools	Ø	Designation	Ø d×l	N	L	Available
	33.5	5DH.3350.40.11	40x68	170	195	□
	34.0	5DH.3400.40.11	40x68	170	195	□
	34.5	5DH.3450.40.11	40x68	175	201	□
	35.0	5DH.3500.40.11	40x68	175	206	□
	35.5	5DH.3550.40.11	40x68	180	206	□
	36.0	5DH.3600.40.11	40x68	180	212	□
	36.5	5DH.3650.40.11	40x68	185	212	□
	37.0	5DH.3700.40.11	40x68	185	212	□
	37.5	5DH.3750.40.11	40x68	190	217	□
	38.0	5DH.3800.40.11	40x68	190	217	□



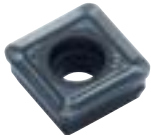
Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 110408-PCB KRP225	...-PCB	P	•
	SOLT 110408-KCB KRK215	...-KCB	K	•
	SOLT 110408-MCB KRP240	...-MCB	M	•
	SOLT 110408-PCB KRP240	...-PCB	S	•

- available from stock, □ available upon request

Available range 5xD:

Ø38.5 – Ø44.0

Tools	Ø	Designation	Ø d×l	N	L	Available
	38.5	5DH.3850.40.13	40x68	195	223	□
	39.0	5DH.3900.40.13	40x68	195	223	□
	39.5	5DH.3950.40.13	40x68	200	228	□
	40.0	5DH.4000.40.13	40x68	200	228	□
	40.5	5DH.4050.40.13	40x68	205	234	□
	41.0	5DH.4100.40.13	40x68	205	234	□
	41.5	5DH.4150.40.13	40x68	210	239	□
	42.0	5DH.4200.40.13	40x68	210	239	□
	42.5	5DH.4250.40.13	40x68	215	245	□
	43.0	5DH.4300.40.13	40x68	215	245	□
	43.5	5DH.4350.40.13	40x68	220	250	□
	44.0	5DH.4400.40.13	40x68	220	250	□

Inserts	Designation	Chipbreaker	Material group	Available
	SOLT 130508-PCB KRP225	...-PCB	P	•
	SOLT 130508-KCB KRK215	...-KCB	K	•
	SOLT 130508-MCB KRP240	...-MCB	M	•
	SOLT 130508-PCB KRP240	...-PCB	S	•

• available from stock, □ available upon request

BEYOND THE MACHINING

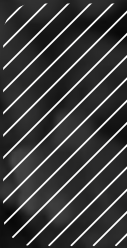
Guideline values for solid drilling

Material group	Strength Rm (N/mm²)	Hardness HB	Material	Material example, material code/DIN	Geome-try	 KRP225 (M/Min)			 KRK215 (M/Min)			 KRP240 (M/Min)			Ø 14 – 16.5 f (mm/rev)	Ø 17 – 19.5 f (mm/rev)	Ø 20 – 23 f (mm/rev)	Ø 23.5 – 28 f (mm/rev)	Ø 28.5 – 33 f (mm/rev)	Ø 33.5 – 38 f (mm/rev)	Ø 38.5 – 44 f (mm/rev)
						min	opt.	max	min	opt.	max	min	opt.	max							
P	1.0	≤ 500	non-alloy steels	1.0037 (S235JR) 1.0715 (11SMn30) 1.0044 (S2575JR)	_PCB	200	260	320	-	-	-	-	-	-	0.04 – 0.1	0.08 – 0.1	0.06 – 0.12	0.06 – 0.12	0.06 – 0.12	0.06 – 0.12	0.06 – 0.12
	2.0	500–900	non-alloy / low alloy steels	1.0050 (E295) 1.0535 (C55) 1.7131 (16MnCr5)	_PCB	250	270	300	-	-	-	-	-	-	0.04 – 0.14	0.1 – 0.15	0.11 – 0.16	0.11 – 0.16	0.11 – 0.13	0.11 – 0.16	0.11 – 0.16
	2.1	< 500	lead alloys	1.0718 (11SMnPb30)	_PCB	200	260	320	-	-	-	-	-	-	0.06 – 0.16	0.1 – 0.16	0.13 – 0.18	0.13 – 0.2	0.15 – 0.2	0.15 – 0.2	0.15 – 0.2
	3.0	> 900	low alloy steels: heat resistant structural, heat treated, nitride and tools steels	1.7225 (42CrMo4) 1.1221 (C60E)	_PCB	140	180	220	-	-	-	-	-	-	0.06 – 0.16	0.11 – 0.16	0.13 – 0.22	0.14 – 0.22	0.14 – 0.22	0.14 – 0.22	0.14 – 0.22
	4.0	> 900	high alloy steels	1.2341 (6CrMo15-5) 1.2601 (X165CrMoV12)	_PCB	120	160	200	-	-	-	-	-	-	0.06 – 0.15	0.1 – 0.15	0.12 – 0.22	0.14 – 0.22	0.14 – 0.22	0.14 – 0.22	0.14 – 0.22
	4.1		HSS		_PCB	50	70	90	-	-	-	-	-	-	0.04 – 0.1	0.04 – 0.1	0.05 – 0.1	0.06 – 0.12	0.07 – 0.13	0.07 – 0.14	0.08 – 0.15
S	5.0	250	special alloys: Inconel, Hastelloy, Nimonic, stc.	2.4668 (NiuCr19Fe19Nb5Mo3) 2.4631 (Nimonic 80A)	_PCB	-	-	-	20	40	60	-	-	-	0.04 – 0.08	0.04 – 0.08	0.05 – 0.9	0.06 – 0.10	0.07 – 0.11	0.07 – 0.11	0.08 – 0.12
	5.1	400	titanium, titanium alloys	3.7115 (TiAl5Sn2.5)	_PCB	-	-	-	40	60	60	-	-	-	0.04 – 0.1	0.04 – 0.1	0.05 – 0.1	0.06 – 0.12	0.07 – 0.13	0.07 – 0.14	0.08 – 0.15
M	6.0	≤ 600	stainless steels	1.4306 (X2CrNi19-11) 1.4401 (X5CrNiMo17-12-2)	_MCB	-	-	-	140	180	220	-	-	-	0.06 – 0.12	0.08 – 0.12	0.1 – 0.18	0.12 – 0.18	0.1 – 0.18	0.1 – 0.18	0.1 – 0.18
	6.1	< 900	stainless steels	1.4511 (X3CrNb17) 1.4571 (X10CrNiMoTi17-12-2)	_MCB	-	-	-	120	160	200	-	-	-	0.06 – 0.12	0.08 – 0.12	0.1 – 0.18	0.12 – 0.18	0.12 – 0.18	0.12 – 0.18	0.12 – 0.18
	7.0	> 900	stainless / fireproof steels	1.4713 (X10CrAlSi7) 1.4862 (X8NiCrSi38-18)	_MCB	-	-	-	120	160	200	-	-	-	0.06 – 0.1	0.06 – 0.16	0.09 – 0.16	0.1 – 0.16	0.1 – 0.16	0.1 – 0.16	0.1 – 0.16
K	8.0	180	gray cast iron	0.6025 (EN-GJL-250) 0.6035 (EN-GJL-350)	_KCB	-	-	-	-	-	-	160	240	320	0.08 – 0.18	0.1 – 0.18	0.14 – 0.25	0.18 – 0.3	0.2 – 0.3	0.2 – 0.3	0.2 – 0.3
	8.1	250	alloy gray cast iron	0.6660 (GGL-NiCr20 2)	_KCB	-	-	-	-	-	-	100	140	180	0.08 – 0.16	0.1 – 0.16	0.12 – 0.23	0.16 – 0.28	0.18 – 0.28	0.18 – 0.28	0.18 – 0.28
	9.0	≤ 600	130 spheroidal graphite cast iron, ferritic	0.7040 (EN-GJS-400-15)	_KCB	-	-	-	-	-	-	120	160	200	0.08 – 0.18	0.12 – 0.18	0.14 – 0.25	0.18 – 0.3	0.2 – 0.3	0.2 – 0.3	0.2 – 0.3
K	9.1	230	spheroidal graphite cast iron, ferritic/perlitic	0.7050 (EN-GJS-500-7) 0.7055 (GJS-55) 0.8055 (GTW-55)	_KCB	-	-	-	-	-	-	100	140	180	0.08 – 0.18	0.12 – 0.18	0.14 – 0.25	0.18 – 0.3	0.2 – 0.3	0.2 – 0.3	0.2 – 0.3
	10.0	> 600	250 spheroidal graphite cast iron, perlitic malleable iron	0.7060 (EN-GJS-600-3) 0.8165 (GTS-65)	_KCB	-	-	-	-	-	-	90	120	150	0.08 – 0.18	0.12 – 0.18	0.14 – 0.25	0.18 – 0.3	0.2 – 0.3	0.2– 0.3	0.2 – 0.3
	10.1	200	alloyed spheroidal graphite cast iron	0.7661 (EN-GJSA-XNiCr20-2)	_KCB	-	-	-	-	-	-	90	120	150	0.08 – 0.16	0.1 – 0.16	0.12 – 0.23	0.16 – 0.28	0.18 – 0.28	0.18 – 0.28	0.18 – 0.28
	10.2	300	vermicular cast iron	EN-GJV Ti < 0.2 EN-GJV Ti > 0.2	_KCB	-	-	-	-	-	-	70	100	130	0.08 – 0.15	0.09 – 0.15	0.11 – 0.22	0.15 – 0.27	0.17 – 0.27	0.17 – 0.27	0.17 – 0.27

Cutting values shown are relating to the basic recommendations for cutting materials given.

BEYOND THE MACHINING

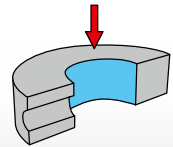
www.karcan.com



**Technical
Information**



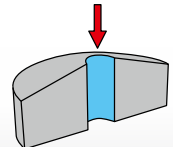
Applications



**PRODUCING A TRANSVERSE
THROUGH HOLE**

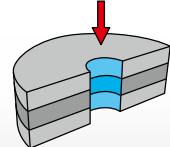
Reduce the feed when the drill enters the transverse hole. With transverse bores you should drill from both sides if possible.

Reduce feed rate between 30 and 60% (depending on the proportion of hole to transverse hole).



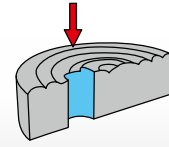
**DRILLING OF A
CONVEX SURFACE**

When the drill enters the convex work piece surface, the central insert cuts first.



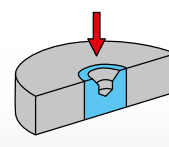
STACK DRILLING

When stack drilling ensure that there is either no gap or the maximum gap possible. Good work piece clamping is required.



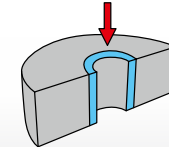
**DRILLING ON AN
UNEVEN SURFACE**

Depending on the surface quality, reduce the feed rate when drilling.



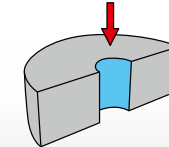
**SPOT DRILLING IN A
CENTRAL HOLE**

When spot drilling in a bead or central hole, reduce the feed rate by up to 50%.



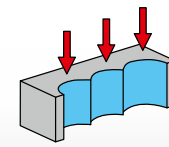
REBORING

Possible.



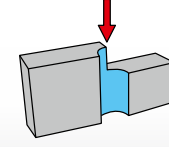
**DRILLING INTO
SOLID MATERIAL**

Possible.



CHAIN DRILLING

It is important to ensure a symmetrical distribution. Reduce the feed rate to 50% in case of cut interruption. Use tough insert types and a corner radius for optimal results.

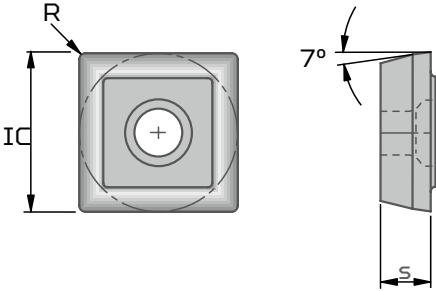


**DRILLING ON A
STEPPED SURFACE**

Due to the undefined drilling surface, pre-machining is required (face countersinking, face milling).

SOLT inserts

Geometry:



Grades and materials:

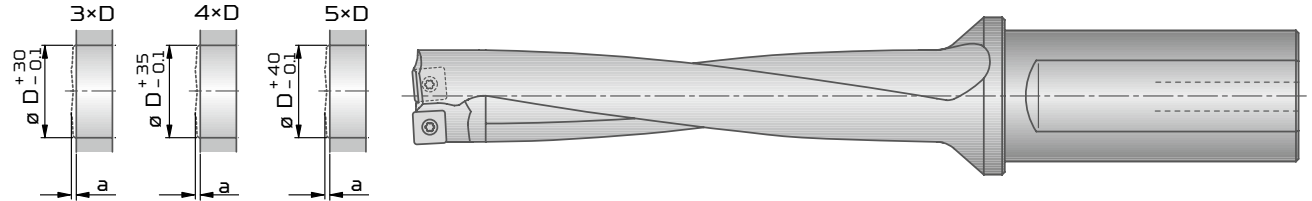
Material group		Grade
P	Steel	KRP225
M	Stainless steel	KRP240
K	Cast iron	KRK215
S	Super alloys	KRP240

Spare parts screws:

Insert	Type description	Key size	IC	s	R
SOLT 05	S/M2x4,3-6IP	T06IP	5.0	2.1	0.4
SOLT 5.8	S/M2,2x5,5-6IP	T06IP	5.8	2.5	0.6
SOLT 6.9	S/M2,5x6,3-8IP	T08IP	6.9	3.0	0.8
SOLT 8.4	S3070-8IP	T08IP	8.4	3.5	0.8
SOLT 10.3	S3575-15IP	T15IP	10.3	4.0	0.8
SOLT 11.1	S3585-15IP	T15IP	11.1	4.4	0.8
SOLT 13.3	S45100-20IP	T20IP	13.3	5.0	0.8

Indexable insert drill

Geometry:

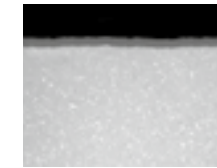


Ø	Radius	a	Ø	Radius	a	Ø	Radius	a
14.0			23.5			33.5		
14.5			24.0	IC8.4 Ø23.10- Ø28.00	R0.8 2.3	34.0		
15.0	IC5.0 Ø14.0- Ø16.50	R0.4 1.5	24.5			34.5	IC11.1 Ø33.10- Ø38.00	R0.8 2.9
15.5			25.0			35.0		
16.0			25.5			35.5		
16.5			26.0			36.0		
17.0			26.5	IC8.4 Ø23.10- Ø28.00	R0.8 2.3	36.5		
17.5			27.0			37.0	IC11.1 Ø33.10- Ø38.00	R0.8 2.9
18.0	IC5.8 Ø16.60- Ø19.50	R0.6 1.7	27.5			37.5		
18.5			28.0			38.0		
19.0			28.5			38.5		
19.5			29.0			39.0		
20.0			29.5			39.5		
20.5			30.0			40.0		
21.0			30.5	IC10.3 Ø28.10- Ø33.00	R0.8 2.7	40.5		
21.5	IC6.9 Ø19.60- Ø23.00	R0.8 1.9	31.0			41.0	IC13.3 Ø38.10- Ø44.00	R0.8 3.1
22.0			31.5			41.5		
22.5			32.0			42.0		
23.0			32.5			42.5		
			33.0			43.0		
						43.5		
						44.0		

Grades

KRP225

HC-P25 I HC-M25



Specification:

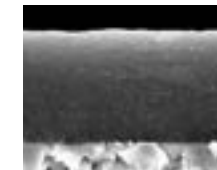
Composition: Co 9.0%; mixed carbides 4.0%; WC balance | Grain size: fine/medium | Hardness: HV₃₀ 1510 | Coating specification: PVD TiAlN/TiN

Recommended application:

Particularly suitable for the machining of steels.

KRP240

HC-M40 I HC-P40



Specification:

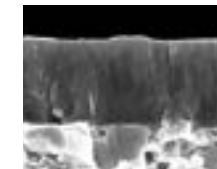
Composition: Co 9.0%; mixed carbides 0.7%; others 0.7%; WC balance | Grain size: submicron | Hardness: HV₃₀ 1590 | Coating specification: PVD TiAlN

Recommended application:

The first choice for the machining of austenitic steels as well as heat-resistant alloys.

KRK215

HC-K15



Specification:

Composition: Co 6.0%; WC balance; mixed carbides 2.0% ; Grain size: fine | Hardness: HV₃₀ 1630

Recommended application:

Suitable for cast iron machining.

KARCAN Designation System: Insert

Insert shape

A	85°
B	82°
K	55°
H	120°
L	90°
O	135°
P	108°
C	80°
D	55°
E	75°
M	86°
V	35°
R	
S	90°
T	60°
W	80°
X	
Z	Special shapes

Clearance angle

A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	Special version

Tolerances

	d [± mm]	m [± mm]	s [± mm]
A	0.025	0.005	0.025
C	0.025	0.013	0.025
E	0.025	0.025	0.025
F	0.013	0.005	0.025
G	0.025	0.025	0.13
H	0.013	0.013	0.025
J	0.05	0.005	0.025
K	0.08	0.005	0.025
L	0.10	0.005	0.025
M	0.05	0.013	0.025
N	0.08	0.013	0.02
O	0.05	0.013	0.13
P	0.08	0.013	0.13
Q	0.05	0.08	0.025
R	0.08	0.13	0.025
S	0.10	0.15	0.025
T	0.08	0.13	0.13
U	0.13	0.20	0.13
V	0.18	0.27	0.13

Insert thickness

Index	s [mm]
02	2.1
T2	2.5
03	3.0
T3	3.5
04	4.0
05	5.0

Corner radius

Index	r [mm]
05	0.4
06	0.6
07	0.8
08	0.8
10	0.8
12	0.8
13	0.8

Chipformer

PCB	Steel machining
MCB	Machining
KCB	Cast Iron machining

Main application [material]

Variant 2: ISO letter

P	Steel
M	Stainless steel
K	Cast iron
N	Light and non ferrous metals, non metals
S	Heat resistant alloys, titanium
H	Hard materials
X	Universal grade for a variety of applications

Main application [machining method]

0	Uncoated Carbide
1	CUD Coated Carbide
2	PVD Coated Carbide

Application range

For example:

05
10
15
25
35 ISO P35
.
.

Index

S	O	L	T	-	05	02	04	-	KCB	-	KR	K	2	15
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KARCAN Designation System: Tool Holder

