

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

Accuracy, high-efficiency and cost effectiveness come together
in D-Tech hole making program!

HOLE-MAKING



2022
Hole Making
Catalogue





WELCOME TO THE WORLD OF **KARCAN** **CUTTING** **TOOLS...**

Who we are?

Founded in 1996 in Eskişehir, Turkey to manufacture carbide cutting tools, we are the first and largest carbide cutting tool manufacturer and one of the top 500 R&D centers in our country. From this aspect, we are the first and the only R&D Center in the cutting tool industry of Turkey.

What we manufacture?

- Carbide Endmills
- Carbide Drill Bits
- Carbide Reamers
- Form Endmills, Drill Bits, Reamers
- Form Carbide, PCD&CBN Inserts
- Micro Tools
- Combined Tools

Which industries we serve?



General
Engineering



Mold & Die



Aviation
& Aerospace



Defence



Automotive



Medical



Energy



Rail
Systems

**WE ALSO BUILD
THE FUTURE ALONG WITH TODAY**

**BY AIMING FOR THE
EXCELLENCE OF
PRODUCTION**



STARTING A NEW JOURNEY OF SUCCESS REQUIRES FORESEEN

EXPERIENCE, EXPERT 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 tool 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 our products and services as 'Beyond The Machining'.

We intend to present at our catalogue the R&D studies and improvements on the drill series within our standards and developed our D-Tech hole-making program carried out together with the national and foreign universities, institutes, local and foreign customers and Tübitak.

We proudly present our 3D-4D-5D-8D-12D-16D-20D and 25D drills in this catalogue with internal coolant and without coolant versions which are renewed by our D-Tech hole-making technology. Thanks to well chosen raw material developed specially for drilling operations, original geometry and Exper egde preparation technology unique to Karcan, we can readily compete with leading well-known global suppliers.

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

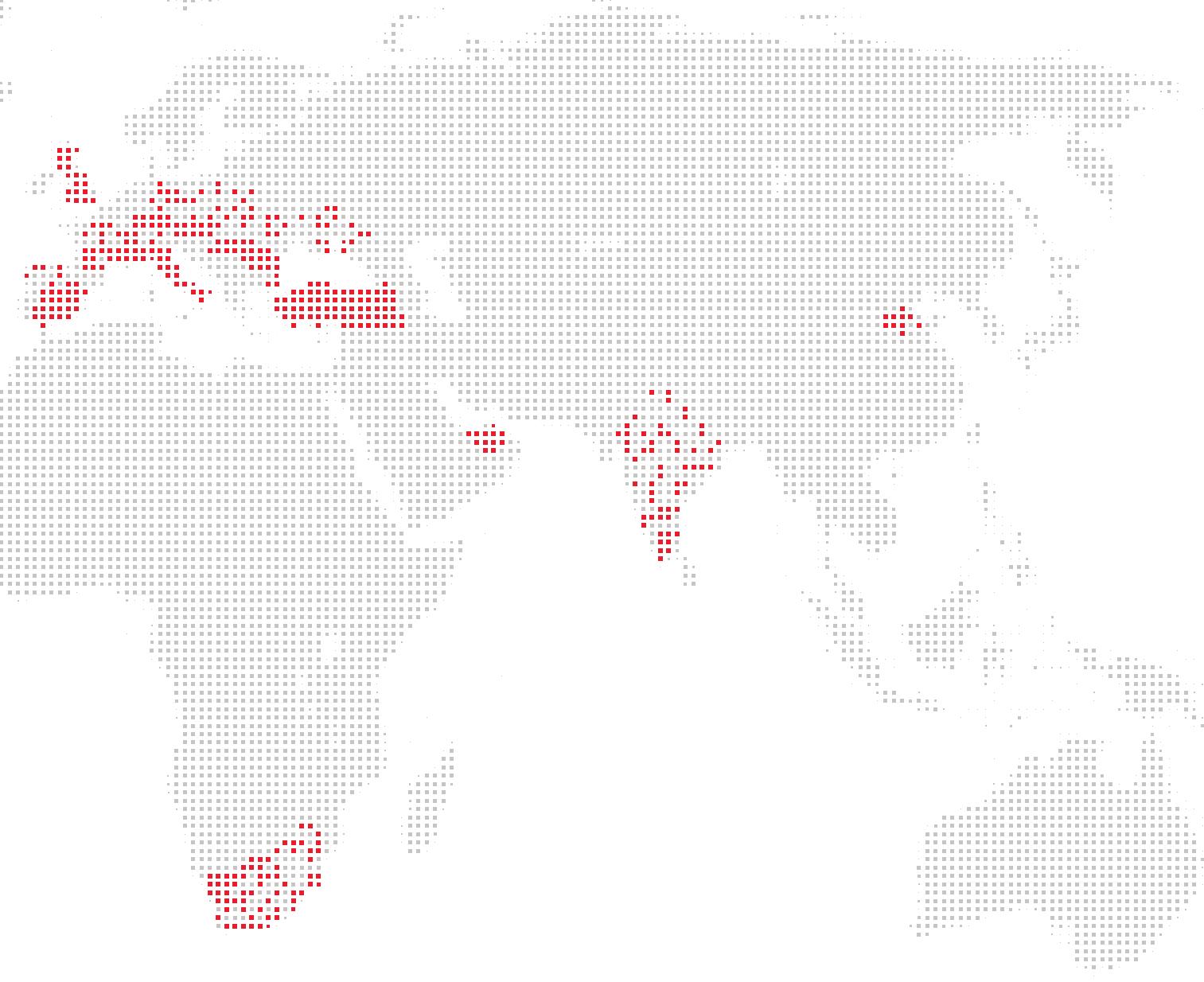
A handwritten signature in blue ink, reading "Ümit Gezer". The signature is fluid and cursive, with "Ümit" on the left and "Gezer" on the right, separated by a small gap.



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



EXPER



To Expand
Tool Life...



FUTURE OF EDGE PREPARATION TECHNOLOGY

EX-PER technology developed as a result of exhaustive Karcan R&D studies ensure a higher performance and improved tool life.





WITH THE PARTNERSHIP OF KARCAN, TUBITAK, UNIVERSITY AND INDUSTRY

**We developed D-Tech technology will
make a difference in drilling operations.**

We keep providing industrial and innovative solutions with our D-Tech new generation drills;

- Optimal raw material selection for drilling operations, cooperation with globally verified suppliers in this field,
- Single solution for wide range of workpiece materials with its original geometry developed by Karcan R&D,
- Increased tool life by Exper edge preparation technology unique to Karcan,
- Globally verified coating optimisation,
- Product development , stress and life tests in Karcan Test Center
- In order to meet the exact requirements of market, we offer the best solution by collecting our academic studies and extensive field tests.

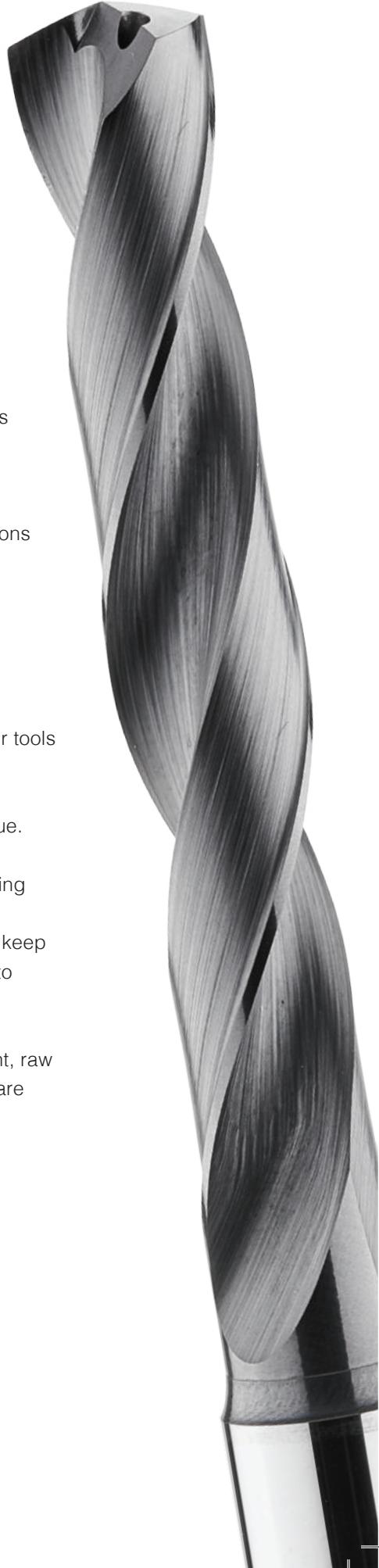






WHY KARCAN?

- Highly skilled and trained R&D, process, application and technical sales team.
- Benefit from our experiences and know-how in various areas, we provide flexible solutions.
- We are price/performance-oriented and we provide cost effective solutions with the sense of constant improvement.
- Capable to compete globally.
- Our well equipped and modern machine park ensures precision and performance at the highest level.
- Strong franchise and sales network. 7/24 available.
- 100% monitorability and repeatable quality ensure sustainable quality.
- Karcan Academy and own testing center enable you to get to know your tools in detail and choose the suitable tool you need.
- Effective stock inventory level.
- Own know-how with qualified labor force and intellectual capitals. Unique.
- Unlimited training opportunities for our customers.
- Specialised in crisis management with emergency action plans and taking quick actions.
- We closely follow the recent developments in the sector and constantly keep up with the advancing material and machining technology. We are open to innovation and improvement.
- 100% customer-oriented.
- Working with the globally verified suppliers such as machine, equipment, raw material, coating, diamond grinding wheels, filtration and coolant, which are directly related to cutting tool quality.







CHOOSE THE SUITABLE TOOL!

Raw material, geometry, edge preparation and coating in manufacturing cutting tools have a direct effect on tool quality. It is highly recommended that our customers take account of the guidances at our catalogue in order to get the optimum efficiency on our high performance series which are developed after optimising all the parameters. You can also choose the suitable tool according to the machinability of the materials or work pieces and operation method by reaching our sales representatives or application team.

Following details are very important in terms of elaboration of suggestions for machining within the shortest time,

1. Work piece to be machined? (Turbine blade, injector, engine block, brake disc etc.)
2. Material to be machined? (Inconel, titanium, stainless steel, steel, Cast Iron iron, in accordance with which of the ISO or DIN standards?)
3. Operation method? ("Side milling" "Shoulder milling" "Slotting" "Ramping" "Plunging")
4. Material Hardness? Heat-treated?
5. Type of cooling? (Oil, emulsion, air, internal or external coolant, pressure?)
6. Type of Holder? (Shrink, hydrolic, "Collet" "HSK" "BT" "SK" Etc.)
7. Type and power of spindle?
8. Machining method? (Vertical-Horizontal or 5-Axis)
9. Fixing type of work piece
10. Current tool and parameters in use, if available
11. The problems encountered with the current tool or tool life, if available.

YOU ALREADY HAVE THE ADVANTAGE!

- High performance machining
- Considerable cost reduction per work piece costs by regarding overheads and depreciation
- Our tools ensure the best possible precision and quality on the work piece machined.
- Optimal loading for your machines
- Longer tool life and holder life
- Reduced the overall cutting tool costs
- Improved utilisation of your capacity. You don't have to rush in a new machine investment.

Tools, multi-functionally optimised and standardised, marked with (*) at our catalogue are always available in stock.

Get to know our tools in detail, please watch the videos and animations. You can easily find these documents in our web page, YouTube, Instagram and Linked-in accounts.



Model	Internal Coolant	Shank	Coating	Steel	Stainless Steel	Hardened Steel	Hardened Steel	Cast Iron	Non Ferrous Material	HRSA	Titanium	Page
K3DF	-		+TiAlN	●	○	○	○	●	○	○	○	20
K4DF	-		+TiAlN	●	○	○	○	●	○	○	○	24
K5DF	-		+TiAlN	●	○	○	○	●	○	○	○	26
M3DF			+TiAlN	●	○	○	○	●	○	○	○	30
M5DF			+TiAlN	●	○	○	○	●	○	○	○	34
M8DF			+TiAlN	●	○	○	○	●	○	○	○	38
M12DF			+TiAlN	●	○	○	○	●	○	○	○	40
M16DF			+TiAlN	●	○	○	○	●	○	○	○	42
M20DF			+TiAlN	●	○	○	○	●	○	○	○	44
M25DF			+TiAlN	●	○	○	○	●	○	○	○	46
Y5DF			+TiAlN	●	○	○	○	●	○	○	○	48
KDRF	-		+TiAlN	●	○	○	○	●	○	○	●	50
KNS	-		+TiAlN	●	○	○	○	●	○	○	●	52
KNZ	-		+TiAlN	●	○	○	○	●	○	○	●	54
PMS	-		+Blank	●	○	○	○	●	○	○	●	56
MCS	-		+TiAlN	●	○	○	○	●	○	○	●	58
TX8DF			+TiAlN	●	○	○	○	●	○	○	○	60
KTX5D			+Blank	○	○	○	○	○	●	○	○	62
KTX8D			+Blank	○	○	○	○	○	●	○	○	64



2022

Hole Making Catalogue

D-TECH Hole-Making

- **Optimal raw materials** especially produced for drilling operations
- **Original geometry** fits for wide range of workpiece materials
- **Edge preparation technology** that increases performance and tool life
- Globally verified **coating optimisations**

Let us offer high performance in hole-making by our new generation drills.





General
Engineering

Mold & Die



Automotive

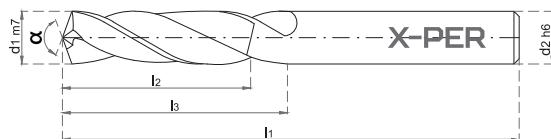


Defence

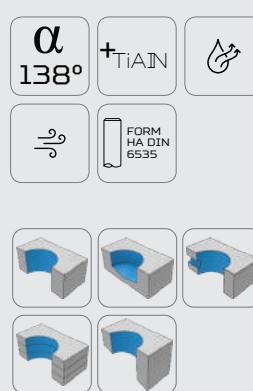
Rail
Systems

D-Tech High Performance New Product



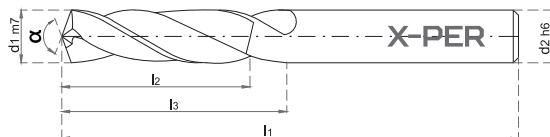


Stock	Code	d1m7	d2h6	l1	l2	l3
*	K3DF030062	3	6	62	18	20
*	K3DF031062	3,1	6	62	18	20
*	K3DF032062	3,2	6	62	18	20
*	K3DF033062	3,3	6	62	18	20
*	K3DF034062	3,4	6	62	18	20
*	K3DF035062	3,5	6	62	18	20
*	K3DF036062	3,6	6	62	18	20
*	K3DF037062	3,7	6	62	18	20
*	K3DF038066	3,8	6	66	22	24
*	K3DF039066	3,9	6	66	22	24
*	K3DF040066	4	6	66	22	24
*	K3DF041066	4,1	6	66	22	24
*	K3DF042066	4,2	6	66	22	24
* SP	K3DF042566	4,25	6	66	23	25
*	K3DF043066	4,3	6	66	22	24
*	K3DF044066	4,4	6	66	22	24
*	K3DF045066	4,5	6	66	22	24
*	K3DF046066	4,6	6	66	22	24
*	K3DF047066	4,7	6	66	22	24
* SP	K3DF048066	4,8	6	66	26	28
*	K3DF048066	4,8	6	66	26	28
*	K3DF049066	4,9	6	66	26	28
*	K3DF050066	5	6	66	26	28
*	K3DF051066	5,1	6	66	26	28
*	K3DF052066	5,2	6	66	26	28
*	K3DF053066	5,3	6	66	26	28
*	K3DF054066	5,4	6	66	26	28
*	K3DF055066	5,5	6	66	26	28
*	K3DF056066	5,6	6	66	26	28
*	K3DF057066	5,7	6	66	26	28
*	K3DF058066	5,8	6	66	26	28
*	K3DF059066	5,9	6	66	26	28
*	K3DF060066	6	6	66	26	28
*	K3DF061079	6,1	8	79	32	34
*	K3DF062079	6,2	8	79	32	34
*	K3DF063079	6,3	8	79	32	34
*	K3DF064079	6,4	8	79	32	34
* SP	K3DF065079	6,5	8	79	32	34
*	K3DF065079	6,5	8	79	32	34
*	K3DF066079	6,6	8	79	32	34
*	K3DF067079	6,7	8	79	32	34
*	K3DF068079	6,8	8	79	32	34
*	K3DF069079	6,9	8	79	32	34
*	K3DF070079	7	8	79	32	34
*	K3DF071079	7,1	8	79	38	41
*	K3DF072079	7,2	8	79	38	41
*	K3DF073079	7,3	8	79	38	41
*	K3DF074079	7,4	8	79	38	41
*	K3DF075079	7,5	8	79	38	41
*	K3DF076079	7,6	8	79	38	41

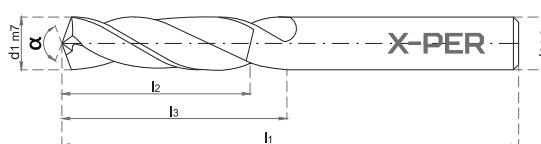


α
138°

+TiAlN

 \varnothing FORM
HA DIN
6535**K3DF - 3D Drill**

Stock	Code	d1m7	d2h6	l1	l2	l3
*	K3DF070709	7,7	8	79	38	41
*	K3DF078079	7,8	8	79	38	41
*	K3DF079079	7,9	8	79	38	41
*	K3DF080079	8	8	79	38	41
*	K3DF081089	8,1	10	89	43	47
*	K3DF082089	8,2	10	89	43	47
*	K3DF083089	8,3	10	89	43	47
*	K3DF084089	8,4	10	89	43	47
*	K3DF085089	8,5	10	89	43	47
*	K3DF086089	8,6	10	89	43	47
*	K3DF087089	8,7	10	89	43	47
*	K3DF088089	8,8	10	89	43	47
*	K3DF089089	8,9	10	89	43	47
*	K3DF090089	9	10	89	43	47
*	K3DF091089	9,1	10	89	43	47
*	K3DF092089	9,2	10	89	43	47
*	K3DF092589	9,25	10	89	43	47
*	K3DF093089	9,3	10	89	43	47
*	K3DF094089	9,4	10	89	43	47
*	K3DF095089	9,5	10	89	43	47
*	K3DF096089	9,6	10	89	43	47
*	K3DF097089	9,7	10	89	43	47
*	K3DF098089	9,8	10	89	43	47
*	K3DF099089	9,9	10	89	43	47
*	K3DF100089	10	10	89	43	47
*	K3DF101102	10,1	12	102	51	55
*	K3DF102102	10,2	12	102	51	55
*	K3DF103102	10,3	12	102	51	55
*	K3DF104102	10,4	12	102	51	55
*	K3DF105102	10,5	12	102	51	55
*	K3DF106102	10,6	12	102	51	55
*	K3DF107102	10,7	12	102	51	55
*	K3DF108102	10,8	12	102	51	55
*	K3DF109102	10,9	12	102	51	55
*	K3DF110102	11	12	102	51	55
*	K3DF111102	11,1	12	102	51	55
*	K3DF112102	11,2	12	102	51	55
*	K3DF113102	11,3	12	102	51	55
*	K3DF114102	11,4	12	102	51	55
*	K3DF115102	11,5	12	102	51	55
*	K3DF116102	11,6	12	102	51	55
*	K3DF117102	11,7	12	102	51	55
*	K3DF118102	11,8	12	102	51	55
*	K3DF119102	11,9	12	102	51	55
*	K3DF120102	12	12	102	51	55
*	K3DF125107	12,5	14	107	53	60
	K3DF127107	12,7	14	107	53	60
	K3DF128107	12,8	14	107	53	60
	K3DF129107	12,9	14	107	53	60
*	K3DF130107	13	14	107	53	60



K3DF - 3D Drill

Stock	Code	d1m7	d2h6	l1	l2	l3
	K3DF131107	13,1	14	107	53	60
	K3DF133107	13,3	14	107	53	60
*	K3DF135107	13,5	14	107	53	60
	K3DF137107	13,7	14	107	53	60
	K3DF138107	13,8	14	107	53	60
*	K3DF140107	14	14	107	53	60
	K3DF142115	14,2	16	115	58	65
*	K3DF145115	14,5	16	115	58	65
	K3DF147115	14,7	16	115	58	65
	K3DF148115	14,8	16	115	58	65
	K3DF150115	15	16	115	58	65
	K3DF1525115	15,25	16	115	58	65
	K3DF153115	15,3	16	115	58	65
	K3DF155115	15,5	16	115	58	65
	K3DF157115	15,7	16	115	58	65
	K3DF158115	15,8	16	115	58	65
	K3DF160115	16	16	115	58	65
*	K3DF165123	16,5	18	123	66	73
	K3DF168123	16,8	18	123	66	73
	K3DF170123	17	18	123	66	73
	K3DF175123	17,5	18	123	66	73
	K3DF178123	17,8	18	123	66	73
	K3DF180123	18	18	123	66	73
	K3DF185131	18,5	20	131	72	79
	K3DF188131	18,8	20	131	72	79
	K3DF190131	19	20	131	72	79
	K3DF195131	19,5	20	131	72	79
	K3DF198131	19,8	20	131	72	79
	K3DF200131	20	20	131	72	79

Cutting Parameters Vc(m/min)

Non-Alloy Steel	110-125	●
Steel	100-120	●
Tempered Steel	100-120	●
Cold-Work Tool Steel	70-90	○
Hot-Work Tool Steel	70-90	○
AISI 304 - 416 - 420	55-65	○
AISI 316 - 440	55-65	○
17-4 PH 15-5 PH	50-55	○
Chrome-Cobalt Alloy	50-55	○
Duplex F51	40-50	○
Super Duplex F55	40-50	○
Grey Cast Iron	170-200	●
Alloy Cast Iron	130-150	●
Precision Cast	110-130	●
Titanium	55-65	○
Titanium Alloys	55-65	○
HRSA	20-30	○
≤ 54 HRc	60-80	○
> 54 HRc	40-55	○

Feed Per Revolution (mm/rev)

Ø	
3	0,13
4	0,14
5	0,15
6	0,17
7	0,19
8	0,21
9	0,23
10	0,25
12	0,27
14	0,29
16	0,31
18	0,33
20	0,35

*Marked products are available from stock to deliver fast.



HOLE MAKING

K4DF

4D Drill



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

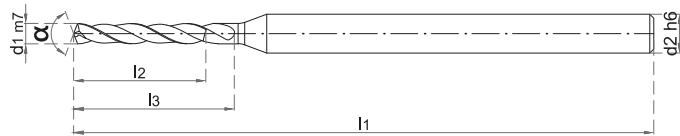
Optimal raw material
selection for drilling
operations to damp
vibration and up to

% **20** more precision hole
diameter in comparison
with equivalents

%100 available from stock
up to diameter 12mm of
Metric ISO Din 13, coarse
thread UNC-NC, fine thread
UNF-NF, Metric fine Iso Din
13, Metric ISO trapezoidal
thread Din 103 Whitworth
thread Din 11

% **100** available
stock up

2022
Hole Making
Catalogue



Stock	Code	$d_1 m7$	$d_2 h6$	l_1	l_2	l_3
*	K4DF011050	1,1	3	50	7	8,5
*	K4DF015050	1,5	3	50	9	10,5
*	K4DF016050	1,6	3	50	10	11,5
*	K4DF017050	1,7	3	50	10	11,5
*	K4DF018050	1,8	3	50	10	11,5
*	K4DF019050	1,9	3	50	12	13,5
*	K4DF020060	2	4	60	12	15
* SP	K4DF021060	2,1	3	60	12	16
*	K4DF021060	2,1	4	60	14	16
*	K4DF022060	2,2	4	60	14	16
*	K4DF023060	2,3	4	60	14	16
*	K4DF024060	2,4	4	60	14	16
*	K4DF025060	2,5	4	60	16	18
*	K4DF026060	2,6	4	60	16	18
*	K4DF027060	2,7	4	60	16	18
*	K4DF028060	2,8	4	60	17	19
*	K4DF029060	2,9	4	60	18	20

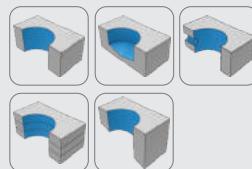
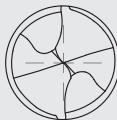
Cutting Parameters Vc(m/min)		Feed Per Revolution (mm/rev)		
Non-Alloy Steel	80-110	●	0	
Steel	70-100	●	1	0,075
Tempered Steel	70-100	●	1,5	0,082
Cold-Work Tool Steel	60-80	●	2	0,09
Hot-Work Tool Steel	60-80	●	2,5	0,106
AISI 304 - 416 - 420	55-65	●	2,9	0,117
AISI 316 - 440	55-65	●		
17-4 PH 15-5 PH	50-55	●		
Chrome-Cobalt Alloy	50-55	●		
Duplex F51	40-50	●		
Super Duplex F55	40-50	●		
Grey Cast Iron	150-180	●		
Alloy Cast Iron	100-130	●		
Precision Cast	80-115	●		
Titanium	55-65	●		
Titanium Alloys	55-65	●		
HRSA	20-30	●		
≤ 54 HRc	60-80	●		
> 54 HRc	40-55	●		

HOLE-MAKING

K4DF

4D Drill

D-TECH | K4DF



*Marked products are available
from stock to deliver fast.



● Recommended ○ Acceptable □ Not Recommended

HOLE MAKING

K5DF

5D Drill



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

Optimal raw material
selection for drilling
operations to damp
vibration and up to

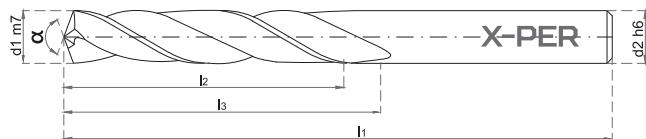
% **20** more precision hole
diameter in comparison
with equivalents

%100 available from stock
up to diameter 12mm of
Metric ISO Din 13, coarse
thread UNC-NC, fine thread
UNF-NF, Metric fine Iso Din
13, Metric ISO trapezoidal
thread Din 103 Whitworth
thread Din 11

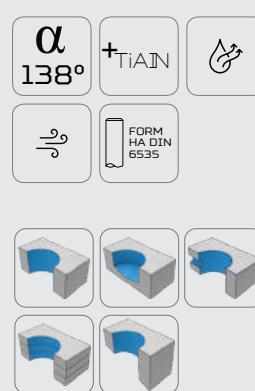
% **100** available
stock up



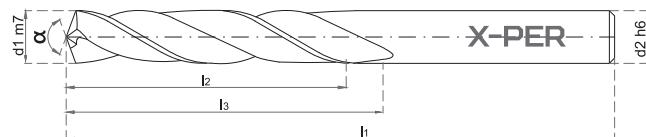
2022
Hole Making
Catalogue



Stock	Code	d1m7	d2h6	l1	l2	l3
*	K5DF030066	3	6	66	27	28
*	K5DF031066	3,1	6	66	27	28
*	K5DF032066	3,2	6	66	27	28
*	K5DF033066	3,3	6	66	27	28
*	K5DF034066	3,4	6	66	27	28
*	K5DF035066	3,5	6	66	27	28
*	K5DF036066	3,6	6	66	27	28
*	K5DF037066	3,7	6	66	27	28
*	K5DF038074	3,8	6	74	32	36
*	K5DF039074	3,9	6	74	32	36
* SP	K5DF040074	4	4	74	32	45
*	K5DF040074	4	6	74	32	36
*	K5DF041074	4,1	6	74	32	36
*	K5DF042074	4,2	6	74	32	36
*	K5DF043074	4,3	6	74	32	36
*	K5DF044074	4,4	6	74	32	36
*	K5DF045074	4,5	6	74	32	36
*	K5DF046074	4,6	6	74	32	36
*	K5DF047074	4,7	6	74	32	36
*	K5DF048082	4,8	6	82	41	44
*	K5DF049082	4,9	6	82	41	44
*	K5DF050082	5	6	82	41	44
*	K5DF051082	5,1	6	82	41	44
*	K5DF052082	5,2	6	82	41	44
*	K5DF053082	5,3	6	82	41	44
*	K5DF054082	5,4	6	82	41	44
*	K5DF055082	5,5	6	82	41	44
*	K5DF056082	5,6	6	82	41	44
*	K5DF057082	5,7	6	82	41	44
*	K5DF058082	5,8	6	82	41	44
*	K5DF059082	5,9	6	82	41	44
*	K5DF060082	6	6	82	41	44
*	K5DF061091	6,1	8	91	50	53
*	K5DF062091	6,2	8	91	50	53
*	K5DF063091	6,3	8	91	50	53
*	K5DF064091	6,4	8	91	50	53
*	K5DF065091	6,5	8	91	50	53
*	K5DF066091	6,6	8	91	50	53
*	K5DF067091	6,7	8	91	50	53
*	K5DF068091	6,8	8	91	50	53
*	K5DF069091	6,9	8	91	50	53
*	K5DF070091	7	8	91	50	53
*	K5DF071091	7,1	8	91	50	53
*	K5DF072091	7,2	8	91	50	53
*	K5DF073091	7,3	8	91	50	53
*	K5DF074091	7,4	8	91	50	53
*	K5DF075091	7,5	8	91	50	53
*	K5DF076091	7,6	8	91	50	53

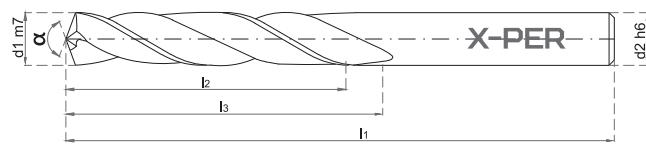


*Marked products are available from stock to deliver fast.



K5DF - 5D Drill

Stock	Code	d1m7	d2h6	l1	l2	l3
*	K5DF077091	7,7	8	91	50	53
*	K5DF078091	7,8	8	91	50	53
*	K5DF079091	7,9	8	91	50	53
*	K5DF080091	8	8	91	50	53
*	K5DF081103	8,1	10	103	57	61
*	K5DF082103	8,2	10	103	57	61
*	K5DF083103	8,3	10	103	57	61
*	K5DF084103	8,4	10	103	57	61
*	K5DF085103	8,5	10	103	57	61
*	K5DF086103	8,6	10	103	57	61
*	K5DF087103	8,7	10	103	57	61
*	K5DF088103	8,8	10	103	57	61
*	K5DF089103	8,9	10	103	57	61
*	K5DF090103	9	10	103	57	61
*	K5DF091103	9,1	10	103	57	61
*	K5DF092103	9,2	10	103	57	61
*	K5DF093103	9,3	10	103	57	61
*	K5DF094103	9,4	10	103	57	61
*	K5DF095103	9,5	10	103	57	61
*	K5DF096103	9,6	10	103	57	61
*	K5DF097103	9,7	10	103	57	61
*	K5DF098103	9,8	10	103	57	61
*	K5DF099103	9,9	10	103	57	61
*	K5DF100103	10	10	103	57	61
*	K5DF101118	10,1	12	118	67	71
*	K5DF102118	10,2	12	118	67	71
*	K5DF103118	10,3	12	118	67	71
*	K5DF104118	10,4	12	118	67	71
*	K5DF105118	10,5	12	118	67	71
*	K5DF106118	10,6	12	118	67	71
*	K5DF107118	10,7	12	118	67	71
*	K5DF108118	10,8	12	118	67	71
*	K5DF109118	10,9	12	118	67	71
*	K5DF110118	11	12	118	67	71
*	K5DF111118	11,1	12	118	67	71
*	K5DF112118	11,2	12	118	67	71
*	K5DF113118	11,3	12	118	67	71
*	K5DF114118	11,4	12	118	67	71
*	K5DF115118	11,5	12	118	67	71
*	K5DF116118	11,6	12	118	67	71
*	K5DF117118	11,7	12	118	67	71
*	K5DF118118	11,8	12	118	67	71
*	K5DF119118	11,9	12	118	67	71
*	K5DF120118	12	12	118	67	71
*	K5DF125124	12,5	14	124	70	77
*	K5DF127124	12,7	14	124	70	77
*	K5DF128124	12,8	14	124	70	77
*	K5DF129124	12,9	14	124	70	77
	K5DF130124	13	14	124	70	77
	K5DF133124	13,3	14	124	70	77



K5DF - 5D Drill

Stock	Code	d1m7	d2h6	l1	l2	l3
*	K5DF135124	13,5	14	124	70	77
	K5DF137124	13,7	14	124	70	77
	K5DF138124	13,8	14	124	70	77
*	K5DF140124	14	14	124	70	77
	K5DF142133	14,2	16	133	74	83
*	K5DF145133	14,5	16	133	74	83
	K5DF147133	14,7	16	133	74	83
	K5DF148133	14,8	16	133	74	83
	K5DF150133	15	16	133	74	83
	K5DF153133	15,3	16	133	74	83
	K5DF155133	15,5	16	133	74	83
	K5DF157133	15,7	16	133	74	83
	K5DF158133	15,8	16	133	74	83
	K5DF160133	16	16	133	74	83
	K5DF165143	16,5	18	143	86	93
	K5DF168143	16,8	18	143	86	93
	K5DF170143	17	18	143	86	93
	K5DF175143	17,5	18	143	86	93
	K5DF178143	17,8	18	143	86	93
	K5DF180143	18	18	143	86	93
	K5DF185153	18,5	20	153	92	101
	K5DF188153	18,8	20	153	92	101
	K5DF190153	19	20	153	92	101
	K5DF195153	19,5	20	153	92	101
	K5DF198153	19,8	20	153	92	101
	K5DF200153	20	20	153	92	101

Cutting Parameters Vc(m/min)			Feed Per Revolution (mm/rev)	
Non-Alloy Steel	80-105	●	0	
Steel	80-100	●	3	0,111
Tempered Steel	80-100	●	4	0,119
Cold-Work Tool Steel	60-80	○	5	0,128
Hot-Work Tool Steel	60-80	○	6	0,145
AISI 304 - 416 - 420	30-40	○	7	0,162
AISI 316 - 440	30-40	○	8	0,179
17-4 PH 15-5 PH	25-30	○	9	0,196
Chrome-Cobalt Alloy	25-30	○	10	0,213
Duplex F51	15-25	○	12	0,230
Super Duplex F55	15-25	○	14	0,247
Grey Cast Iron	140-170	●	16	0,264
Alloy Cast Iron	100-130	●	18	0,281
Precision Cast	80-110	●	20	0,298
Titanium	30-40	○		
Titanium Alloys	25-30	○		
≤ 54 HRc	60-80	○		
> 54 HRc	40-55	○		

HOLE MAKING

M3DF

3D Drill With
Coolant Holes



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

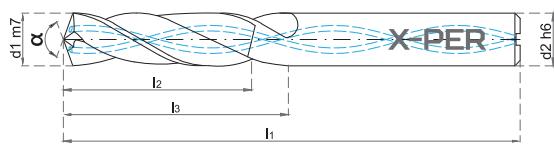
Optimal raw material and
coolant pitch selection
without run-out only for
drilling operations to damp
vibration and up to

% **20** more precision hole
diameter in comparison
with equivalents

%100 available from stock
up to diameter 12mm of
Metric ISO Din 13, coarse
thread UNC-NC, fine thread
UNF-NF, Metric fine Iso Din
13, Metric ISO trapezoidal
thread Din 103 Whitworth
thread Din 11

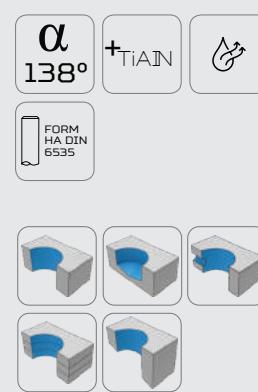
% **100** available
stock up





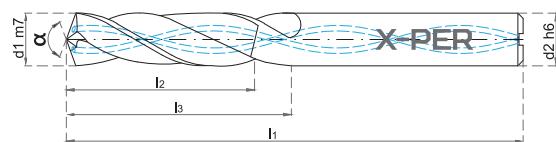
Stock	Code	d1m7	d2h6	l1	l2	l3
*	M3DF020050	2	4	50	9	12
*	M3DF021055	2,1	4	55	9,5	12,6
* SP	M3DF0215058	2,15	3	58	11	16
*	M3DF022055	2,2	4	55	9,9	13,2
*	M3DF023055	2,3	4	55	10,4	13,8
*	M3DF024055	2,4	4	55	10,8	14,4
*	M3DF025055	2,5	4	55	11,3	15
*	M3DF026055	2,6	4	55	11,7	15,6
*	M3DF027055	2,7	4	55	12,2	16,2
*	M3DF028055	2,8	4	55	12,6	16,8
*	M3DF029055	2,9	4	55	13,1	17,4
*	M3DF030062	3	6	62	18	20
*	M3DF031062	3,1	6	62	18	20
*	M3DF032062	3,2	6	62	18	20
*	M3DF033062	3,3	6	62	18	20
*	M3DF034062	3,4	6	62	18	20
*	M3DF035062	3,5	6	62	18	20
*	M3DF036062	3,6	6	62	18	20
*	M3DF037062	3,7	6	62	18	20
*	M3DF038066	3,8	6	66	22	24
*	M3DF039066	3,9	6	66	22	24
*	M3DF040066	4	6	66	22	24
*	M3DF041066	4,1	6	66	22	24
*	M3DF042066	4,2	6	66	22	24
*	M3DF043066	4,3	6	66	22	24
*	M3DF044066	4,4	6	66	22	24
*	M3DF045066	4,5	6	66	22	24
*	M3DF046066	4,6	6	66	22	24
*	M3DF047066	4,7	6	66	22	24
*	M3DF048066	4,8	6	66	26	28
*	M3DF049066	4,9	6	66	26	28
*	M3DF050066	5	6	66	26	28
*	M3DF051066	5,1	6	66	26	28
* SP	M3DF052066	5,2	6	66	26	28
*	M3DF052066	5,2	6	66	26	28
*	M3DF053066	5,3	6	66	26	28
*	M3DF054066	5,4	6	66	26	28
*	M3DF055066	5,5	6	66	26	28
*	M3DF056066	5,6	6	66	26	28
*	M3DF057066	5,7	6	66	26	28
*	M3DF058066	5,8	6	66	26	28
*	M3DF059066	5,9	6	66	26	28
*	M3DF060066	6	6	66	26	28
*	M3DF061079	6,1	8	79	32	34
*	M3DF062079	6,2	8	79	32	34
*	M3DF063079	6,3	8	79	32	34
*	M3DF064079	6,4	8	79	32	34
*	M3DF065079	6,5	8	79	32	34
*	M3DF066079	6,6	8	79	32	34
*	M3DF067079	6,7	8	79	32	34
*	M3DF068079	6,8	8	79	32	34
*	M3DF069079	6,9	8	79	32	34
*	M3DF070079	7	8	79	32	34

HOLE-MAKING

M3DF3D Drill With
Coolant Holes

*Marked products are available
from stock to deliver fast.



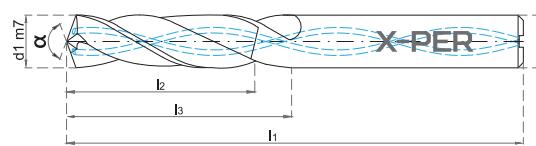


M3DF - 3D Drill With Coolant Holes

Stock	Code	d1m7	d2h6	l1	l2	l3
*	M3DF071079	7,1	8	79	38	41
*	M3DF072079	7,2	8	79	38	41
*	M3DF073079	7,3	8	79	38	41
*	M3DF074079	7,4	8	79	38	41
*	M3DF075079	7,5	8	79	38	41
*	M3DF076079	7,6	8	79	38	41
*	M3DF077079	7,7	8	79	38	41
*	M3DF078079	7,8	8	79	38	41
*	M3DF079079	7,9	8	79	38	41
*	M3DF080079	8	8	79	38	41
*	M3DF081089	8,1	10	89	43	47
*	M3DF082089	8,2	10	89	43	47
*	M3DF083089	8,3	10	89	43	47
*	M3DF084089	8,4	10	89	43	47
*	M3DF085089	8,5	10	89	43	47
*	M3DF086089	8,6	10	89	43	47
*	M3DF087089	8,7	10	89	43	47
*	M3DF088089	8,8	10	89	43	47
*	M3DF089089	8,9	10	89	43	47
*	M3DF090089	9	10	89	43	47
*	M3DF091089	9,1	10	89	43	47
*	M3DF092089	9,2	10	89	43	47
*	M3DF093089	9,3	10	89	43	47
*	M3DF094089	9,4	10	89	43	47
*	M3DF095089	9,5	10	89	43	47
*	M3DF096089	9,6	10	89	43	47
*	M3DF097089	9,7	10	89	43	47
*	M3DF098089	9,8	10	89	43	47
*	M3DF099089	9,9	10	89	43	47
*	M3DF100089	10	10	89	43	47
*	M3DF101102	10,1	12	102	51	55
*	M3DF102102	10,2	12	102	51	55
*	M3DF103102	10,3	12	102	51	55
*	M3DF104102	10,4	12	102	51	55
*	M3DF105102	10,5	12	102	51	55
*	M3DF106102	10,6	12	102	51	55
*	M3DF107102	10,7	12	102	51	55
*	M3DF108102	10,8	12	102	51	55
*	M3DF109102	10,9	12	102	51	55
*	M3DF110102	11	12	102	51	55
*	M3DF111102	11,1	12	102	51	55
*	M3DF112102	11,2	12	102	51	55
*	M3DF113102	11,3	12	102	51	55
*	M3DF114102	11,4	12	102	51	55
*	M3DF115102	11,5	12	102	51	55
*	M3DF116102	11,6	12	102	51	55
*	M3DF117102	11,7	12	102	51	55
*	M3DF118102	11,8	12	102	51	55
*	M3DF119102	11,9	12	102	51	55
*	M3DF120102	12	12	102	51	55
	M3DF125107	12,5	14	107	53	60
	M3DF127107	12,7	14	107	53	60
	M3DF128107	12,8	14	107	53	60
	M3DF129107	12,9	14	107	53	60
	M3DF130107	13	14	107	53	60
	M3DF133107	13,3	14	107	53	60
	M3DF135107	13,5	14	107	53	60



M3DF - 3D Drill With Coolant Holes



Stock	Code	d1m7	d2h6	l1	l2	l3
	M3DF137107	13,7	14	107	53	60
	M3DF138107	13,8	14	107	53	60
	M3DF140107	14	14	107	53	60
	M3DF142115	14,2	16	115	58	65
	M3DF145115	14,5	16	115	58	65
	M3DF147115	14,7	16	115	58	65
	M3DF148115	14,8	16	115	58	65
	M3DF153115	15,3	16	115	58	65
	M3DF155115	15,5	16	115	58	65
	M3DF157115	15,7	16	115	58	65
	M3DF158115	15,8	16	115	58	65
	M3DF160115	16	16	115	58	65
	M3DF165123	16,5	18	123	66	73
	M3DF168123	16,8	18	123	66	73
	M3DF170123	17	18	123	66	73
	M3DF175123	17,5	18	123	66	73
	M3DF178123	17,8	18	123	66	73
	M3DF180123	18	18	123	66	73
	M3DF185131	18,5	20	131	72	79
	M3DF188131	18,8	20	131	72	79
	M3DF195131	19,5	20	131	72	79
	M3DF198131	19,8	20	131	72	79
	M3DF200131	20	20	131	72	79

Cutting Parameters Vc(m/min)			Feed Per Revolution (mm/rev)		
Non-Alloy Steel	120-150	●	Ø		
Steel	110-140	●	3	0,16	
Tempered Steel	110-135	●	4	0,17	
Cold-Work Tool Steel	80-110	○	5	0,18	
Hot-Work Tool Steel	80-110	○	6	0,20	
AISI 304 - 416 - 420	55-65	○	7	0,22	
AISI 316 - 440	55-65	○	8	0,24	
17-4 PH 15-5 PH	50-55	○	9	0,27	
Chrome-Cobalt Alloy	50-55	○	10	0,30	
Duplex F51	40-50	○	12	0,33	
Super Duplex F55	40-50	○	14	0,36	
Grey Cast Iron	210-240	●	16	0,39	
Alloy Cast Iron	210-200	●	18	0,42	
Precision Cast	130-160	●	20	0,45	
Titanium	55-65	○			
Titanium Alloys	55-65	○			
HRSA	20-30	○			
≤ 54 HRc	60-80	○			
> 54 HRc	40-55	○			

HOLE MAKING

M5DF

5D Drill With
Coolant Holes



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

Optimal raw material and
coolant pitch selection
without run-out only for
drilling operations to damp
vibration and up to

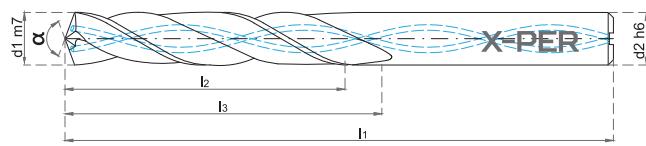
% **20** more precision hole
diameter in comparison
with equivalents

%100 available from stock
up to diameter 12mm of
Metric ISO Din 13, coarse
thread UNC-NC, fine thread
UNF-NF, Metric fine Iso Din
13, Metric ISO trapezoidal
thread Din 103 Whitworth
thread Din 11

% **100** available
stock up



2022
Hole Making
Catalogue

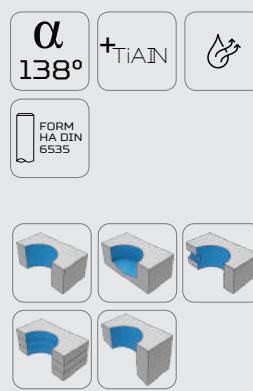
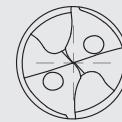
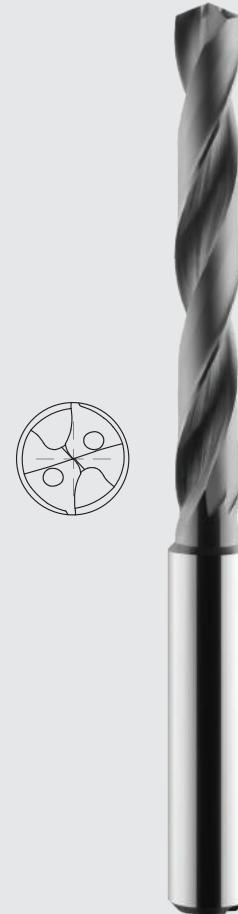


Stock	Code	d1m7	d2h6	l1	l2	l3
*	SP M5DF023868	2,38	3	68	14	27
*	M5DF030066	3	6	66	27	28
*	M5DF031066	3,1	6	66	27	28
*	M5DF032066	3,2	6	66	27	28
*	SP M5DF033072	3,3	6	72	29	32
*	M5DF033066	3,3	6	66	27	28
*	M5DF034066	3,4	6	66	27	28
*	M5DF035066	3,5	6	66	27	28
*	M5DF036066	3,6	6	66	27	28
*	M5DF037066	3,7	6	66	27	28
*	M5DF038074	3,8	6	74	32	36
*	M5DF039074	3,9	6	74	32	36
*	M5DF040074	4	6	74	32	36
*	M5DF041074	4,1	6	74	32	36
*	M5DF042074	4,2	6	74	32	36
*	M5DF043074	4,3	6	74	32	36
*	M5DF044074	4,4	6	74	32	36
*	M5DF045074	4,5	6	74	32	36
*	M5DF046074	4,6	6	74	32	36
*	M5DF047074	4,7	6	74	32	36
*	M5DF048082	4,8	6	82	41	44
*	M5DF049082	4,9	6	82	41	44
*	M5DF050082	5	6	82	41	44
*	SP M5DF051082	5,1	6	82	41	44
*	M5DF051082	5,1	6	82	41	44
*	M5DF052082	5,2	6	82	41	44
*	M5DF053082	5,3	6	82	41	44
*	M5DF054082	5,4	6	82	41	44
*	M5DF055082	5,5	6	82	41	44
*	M5DF056082	5,6	6	82	41	44
*	M5DF057082	5,7	6	82	41	44
*	M5DF058082	5,8	6	82	41	44
*	M5DF059082	5,9	6	82	41	44
*	SP M5DF060082	6	6	82	41	44
*	M5DF060082	6	6	82	41	44
*	M5DF061091	6,1	8	91	50	53
*	M5DF062091	6,2	8	91	50	53
*	M5DF063091	6,3	8	91	50	53
*	M5DF064091	6,4	8	91	50	53
*	M5DF065091	6,5	8	91	50	53
*	M5DF066091	6,6	8	91	50	53
*	M5DF067091	6,7	8	91	50	53
*	M5DF068091	6,8	8	91	50	53
*	M5DF069091	6,9	8	91	50	53
*	M5DF070091	7	8	91	50	53
*	M5DF071091	7,1	8	91	50	53
*	M5DF072091	7,2	8	91	50	53
*	M5DF073091	7,3	8	91	50	53
*	M5DF074091	7,4	8	91	50	53
*	M5DF075091	7,5	8	91	50	53

HOLE-MAKING

M5DF

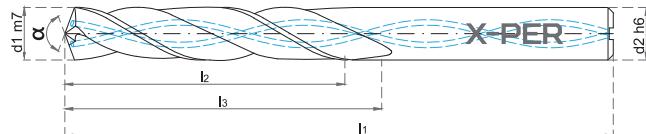
5D Drill With
Coolant Holes



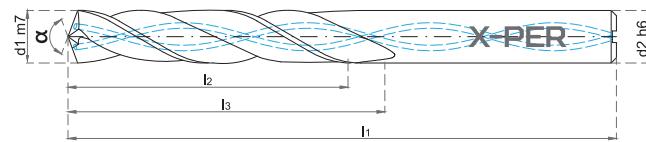
*Marked products are available
from stock to deliver fast.

α
138°

+TiAlN

FORM HA DIN
6535**M5DF - 5D Drill With Coolant Holes**

Stock	Code	d1m7	d2h6	l1	l2	l3
*	M5DF076091	7,6	8	91	50	53
*	M5DF077091	7,7	8	91	50	53
*	M5DF078091	7,8	8	91	50	53
*	M5DF079091	7,9	8	91	50	53
*	M5DF080091	8	8	91	50	53
*	M5DF081103	8,1	10	103	57	61
*	M5DF082103	8,2	10	103	57	61
*	M5DF083103	8,3	10	103	57	61
*	M5DF084103	8,4	10	103	57	61
*	M5DF085103	8,5	10	103	57	61
*	M5DF086103	8,6	10	103	57	61
*	M5DF087103	8,7	10	103	57	61
*	M5DF088103	8,8	10	103	57	61
*	M5DF089103	8,9	10	103	57	61
*	M5DF090103	9	10	103	57	61
*	M5DF091103	9,1	10	103	57	61
*	M5DF092103	9,2	10	103	57	61
*	M5DF093103	9,3	10	103	57	61
*	M5DF094103	9,4	10	103	57	61
*	M5DF095103	9,5	10	103	57	61
*	M5DF096103	9,6	10	103	57	61
*	M5DF097103	9,7	10	103	57	61
*	M5DF098103	9,8	10	103	57	61
*	M5DF099103	9,9	10	103	57	61
*	M5DF100103	10	10	103	57	61
SP	M5DF100103	10	10	103	62	65
*	M5DF101118	10,1	12	118	67	71
*	M5DF102118	10,2	12	118	67	71
*	M5DF103118	10,3	12	118	67	71
*	M5DF104118	10,4	12	118	67	71
*	M5DF105118	10,5	12	118	67	71
*	M5DF106118	10,6	12	118	67	71
*	M5DF107118	10,7	12	118	67	71
*	M5DF108118	10,8	12	118	67	71
*	M5DF109118	10,9	12	118	67	71
*	M5DF110118	11	12	118	67	71
*	M5DF111118	11,1	12	118	67	71
*	M5DF112118	11,2	12	118	67	71
*	M5DF113118	11,3	12	118	67	71
*	M5DF114118	11,4	12	118	67	71
*	M5DF115118	11,5	12	118	67	71
*	M5DF116118	11,6	12	118	67	71
*	M5DF117118	11,7	12	118	67	71
*	M5DF118118	11,8	12	118	67	71
*	M5DF119118	11,9	12	118	67	71
*	M5DF120118	12	12	118	67	71
*	M5DF125124	12,5	14	124	70	77
	M5DF127124	12,7	14	124	70	77
	M5DF128124	12,8	14	124	70	77
	M5DF129124	12,9	14	124	70	77


M5DF - 5D Drill With Coolant Holes

Stock	Code	d1m7	d2h6	l1	l2	l3
*	M5DF130124	13	14	124	70	77
	M5DF133124	13,3	14	124	70	77
	M5DF135124	13,5	14	124	70	77
	M5DF137124	13,7	14	124	70	77
	M5DF138124	13,8	14	124	70	77
*	M5DF140124	14	14	124	70	77
	M5DF142133	14,2	16	133	74	83
	M5DF145133	14,5	16	133	74	83
	M5DF147133	14,7	16	133	74	83
	M5DF148133	14,8	16	133	74	83
	M5DF150133	15	16	133	74	83
	M5DF153133	15,3	16	133	74	83
	M5DF155133	15,5	16	133	74	83
	M5DF157133	15,7	16	133	74	83
	M5DF158133	15,8	16	133	74	83
	M5DF160133	16	16	133	74	83
	M5DF165143	16,5	18	143	86	93
	M5DF168143	16,8	18	143	86	93
*	M5DF170143	17	18	143	86	93
	M5DF175143	17,5	18	143	86	93
	M5DF178143	17,8	18	143	86	93
	M5DF180143	18	18	143	86	93
	M5DF185153	18,5	20	153	92	101
	M5DF188153	18,8	20	153	92	101
	M5DF190153	19	20	153	92	101
	M5DF195153	19,5	20	153	92	101
	M5DF198153	19,8	20	153	92	101
	M5DF200153	20	20	153	92	101

Cutting Parameters Vc(m/min)		
Non-Alloy Steel	100-130	●
Steel	90-120	●
Tempered Steel	90-120	●
Cold-Work Tool Steel	60-90	○
Hot-Work Tool Steel	60-90	○
AISI 304 - 416 - 420	50-55	○
AISI 316 - 440	50-55	○
17-4 PH 15-5 PH	40-50	○
Chrome-Cobalt Alloy	40-50	○
Duplex F51	30-40	○
Super Duplex F55	30-40	○
Grey Cast Iron	170-200	●
Alloy Cast Iron	150-180	●
Precision Cast	110-140	●
Titanium	30-40	○
Titanium Alloys	25-30	○
≤ 54 HRc	60-80	○
> 54 HRc	40-55	○

Feed Per Revolution (mm/rev)		
0		
3	0,136	
4	0,145	
5	0,153	
6	0,170	
7	0,187	
8	0,204	
9	0,230	
10	0,255	
12	0,281	
14	0,306	
16	0,332	
18	0,357	
20	0,383	

HOLE MAKING

M8DF

8D Drill With
Coolant Holes



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product



Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

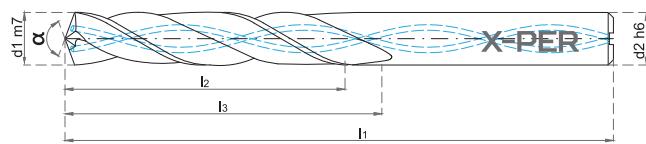
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

Optimal raw material and
coolant pitch selection
without run-out only for
drilling operations to damp
vibration and up to

% **20** more precision hole
diameter in comparison
with equivalents

2022
Hole Making
Catalogue



Stock	Code	d1m7	d2h6	l1	l2	l3
*	M8DF050095	5	6	95	48	57
*	M8DF060095	6	6	95	48	57
*	M8DF065095	6,5	8	114	64	76
*	M8DF068114	6,8	8	114	64	76
	M8DF070114	7	8	114	64	76
	M8DF075114	7,5	8	114	64	76
	M8DF076114	7,6	8	114	64	76
	M8DF078114	7,8	8	114	64	76
*	M8DF080114	8	8	114	64	76
*	M8DF085142	8,5	10	142	80	95
	M8DF088142	8,8	10	142	80	95
	M8DF090142	9	10	142	80	95
	M8DF095142	9,5	10	142	80	95
	M8DF099142	9,9	10	142	80	95
*	M8DF100142	10	10	142	80	95
*	M8DF102162	10,2	12	162	96	114
*	M8DF105162	10,5	12	162	96	114
	M8DF110162	11	12	162	96	114
*	M8DF120162	12	12	162	96	114
*	M8DF125178	12,5	14	178	112	131
	M8DF128178	12,8	14	178	112	131
	M8DF130178	13	14	178	112	131
	M8DF140178	14	14	178	112	131
	M8DF145203	14,5	16	203	128	152
	M8DF150203	15	16	203	128	152
	M8DF155203	15,5	16	203	128	152
	M8DF160203	16	16	203	128	152
	M8DF170222	17	18	222	144	171
	M8DF175222	17,5	18	222	144	171
	M8DF180222	18	18	222	144	171
	M8DF185243	18,5	20	243	160	190
	M8DF190243	19	20	243	160	190
	M8DF195243	19,5	20	243	160	190
	M8DF200243	20	20	243	160	190

Cutting Parameters Vc(m/min)			Feed Per Revolution (mm/rev)	
Non-Alloy Steel	80-105	●	0	
Steel	70-100	●	3	0,112
Tempered Steel	70-95	●	4	0,119
Cold-Work Tool Steel	50-80	●	5	0,126
Hot-Work Tool Steel	50-80	●	6	0,140
AISI 304 - 416 - 420	50-55	○	7	0,154
AISI 316 - 440	50-55	○	8	0,168
17-4 PH 15-5 PH	40-50	○	9	0,189
Chrome-Cobalt Alloy	40-50	○	10	0,210
Duplex F51	30-40	○	12	0,231
Super Duplex F55	30-40	○	14	0,252
Grey Cast Iron	140-170	●	16	0,273
Alloy Cast Iron	110-140	●	18	0,294
Precision Cast	80-110	●	20	0,315
Titanium	50-70	○		
Titanium Alloys	40-60	○		
≤ 54 HRc	60-80	○		
> 54 HRc	40-55	○		



● Recommended ○ Acceptable ○ Not Recommended

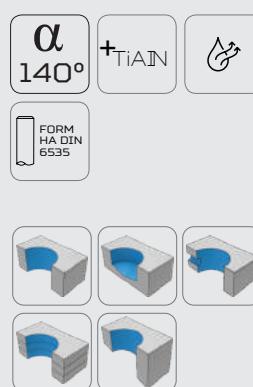
*Marked products are available from stock to deliver fast.

HOLE-MAKING

M8DF
8D Drill With
Coolant Holes



D-TECH | M8DF



HOLE MAKING

M12DF

12D Drill With
Coolant Holes



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product

'Drills 12XD and above' require pilot hole. You may have the pilot hole by K3DF series. In this catalogue, '3XD' drills have m7 tolerance lines up with '12XD' drills and above' have h7 tolerance.

Please do not run in recommended cutting speed and feed rates and never release the internal coolant before the diameter of deep hole drill gets in the pilot hole completely(!) The recommended cutting parameters have to be used after the pilot hole centers the deep hole drill and then drilling operation has to be started when high pressure is on.

Cutting parameters highly depend on external factors such as stabilisation of tools and holders, workpiece and machine type.

The given data are only feasible cutting parameters should be considered again for each application.

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

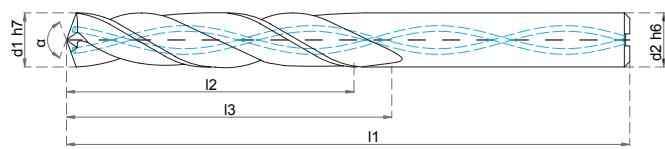
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

Optimal raw material and
coolant pitch selection
without run-out only for
drilling operations to damp
vibration and up to

% **20** more precision hole
diameter in comparison
with equivalents

2022
Hole Making
Catalogue



Stock	Code	d1h7	d2h6	l1	l2	l3
	M12DF030092	3	6	92	48	54
	M12DF031092	3,1	6	92	48	54
	M12DF032092	3,2	6	92	48	54
	M12DF033092	3,3	6	92	48	54
	M12DF034092	3,4	6	92	48	54
	M12DF035092	3,5	6	92	48	54
	M12DF036092	3,6	6	92	48	54
	M12DF037092	3,7	6	92	48	54
	M12DF038102	3,8	6	102	58	64
	M12DF039102	3,9	6	102	58	64
	M12DF040102	4	6	102	58	64
	M12DF041102	4,1	6	102	58	64
	M12DF042102	4,2	6	102	58	64
	M12DF043102	4,3	6	102	58	64
	M12DF044102	4,4	6	102	58	64
	M12DF045102	4,5	6	102	58	64
	M12DF046102	4,6	6	102	58	64
	M12DF047102	4,7	6	102	58	64
	M12DF048116	4,8	6	116	70	78
	M12DF049116	4,9	6	116	70	78
	M12DF050116	5	6	116	70	78
SP	M12DF053126	5,3	6	126	88	75
	M12DF055116	5,5	6	116	70	78
SP	M12DF056122	5,6	6	122	84	75
	M12DF058116	5,8	6	116	70	78
	M12DF060116	6	6	116	70	78
	M12DF063146	6,3	8	146	94	108
	M12DF065146	6,5	8	146	94	108
	M12DF066146	6,6	8	146	94	108
	M12DF068146	6,8	8	146	94	108
	M12DF070146	7	8	146	94	108
	M12DF075146	7,5	8	146	94	108
	M12DF078146	7,8	8	146	94	108
	M12DF080146	8	8	146	94	108
	M12DF082162	8,2	10	162	110	120
	M12DF085162	8,5	10	162	110	120
	M12DF090162	9	10	162	110	120
	M12DF095162	9,5	10	162	110	120
	M12DF098162	9,8	10	162	110	120
	M12DF100162	10	10	162	110	120
	M12DF105204	10,5	12	204	142	156
	M12DF110204	11	12	204	142	156
	M12DF115204	11,5	12	204	142	156
	M12DF120204	12	12	204	142	156
	M12DF130230	13	14	230	166	182
	M12DF140230	14	14	230	166	182
	M12DF150260	15	16	260	192	208
	M12DF160260	16	16	260	192	208
	M12DF180285	18	18	285	216	234

Cutting Parameters Vc(m/min)

Non-Alloy Steel	100	●	0	
Steel	80	●	3-5	0,05-0,19
Tempered Steel	70	●	5-8	0,08-0,25
Cold-Work Tool Steel	40	●	8-12	0,1-0,32
Hot-Work Tool Steel	40	●	12-16	0,12-0,38
AISI 304 - 416 - 420	35	●	16-18	0,13-0,42
AISI 316 - 440	35	●		
17-4 PH 15-5 PH	30	●		
Chrome-Cobalt Alloy	30	●		
Duplex F51	25	●		
Super Duplex F55	25	●		
Grey Cast Iron	70	●		
Alloy Cast Iron	60	●		
Precision Cast	50	●		

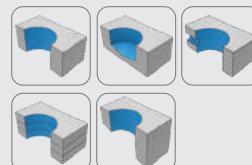
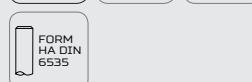
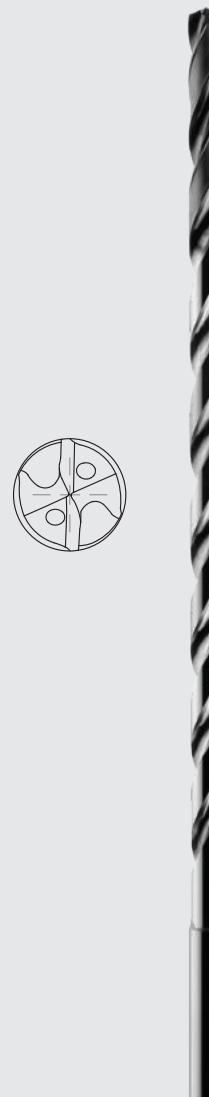
Feed Per Revolution (mm/rev)

*Marked products are available from stock to deliver fast.



● Recommended ○ Acceptable □ Not Recommended

HOLE-MAKING

M12DF12D Drill With
Coolant Holes

HOLE MAKING

M16DF

16D Drill With
Coolant Holes



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product

'Drills 12XD and above' require pilot hole. You may have the pilot hole by K3DF series. In this catalogue, '3XD' drills have m7 tolerance lines up with '12XD drills and above' have h7 tolerance.

Please do not run in recommended cutting speed and feed rates and never release the internal coolant before the diameter of deep hole drill gets in the pilot hole completely(!) The recommended cutting parameters have to be used after the pilot hole centers the deep hole drill and then drilling operation has to be started when high pressure is on.

Cutting parameters highly depend on external factors such as stabilisation of tools and holders, workpiece and machine type.

The given data are only feasible cutting parameters should be considered again for each application.

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

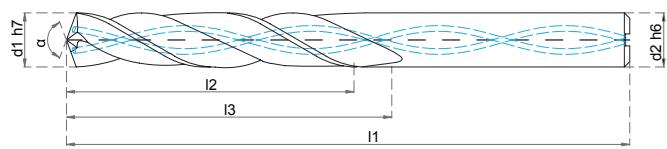
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

Optimal raw material and
coolant pitch selection
without run-out only for
drilling operations to damp
vibration and up to

% **20** more precision hole
diameter in comparison
with equivalents

2022
Hole Making
Catalogue



Stock	Code	d1h7	d2h5	l1	l2	l3
	M16DF020084	2	4	84	39	42
	M16DF022084	2,2	4	84	39	42
	M16DF023084	2,3	4	84	39	42
	M16DF024096	2,4	4	96	50	54
	M16DF025096	2,5	4	96	50	54
	M16DF027096	2,7	4	96	50	54
	M16DF028096	2,8	4	96	50	54
	M16DF030100	3	6	100	55	60
	M16DF032100	3,2	6	100	55	60
	M16DF033100	3,3	6	100	55	60
	M16DF035100	3,5	6	100	55	60
	M16DF038115	3,8	6	115	69	75
	M16DF040115	4	6	115	69	75
	M16DF042115	4,2	6	115	69	75
	M16DF045130	4,5	6	130	83	90
	M16DF048130	4,8	6	130	83	90
	M16DF050130	5	6	130	83	90
	M16DF055150	5,5	6	150	99	108
	M16DF058150	5,8	6	150	99	108
	M16DF060150	6	6	150	99	108
	M16DF065165	6,5	8	165	115	125
	M16DF068165	6,8	8	165	115	125
	M16DF070165	7	8	165	115	125
	M16DF075180	7,5	8	180	128	140
	M16DF078180	7,8	8	180	128	140
	M16DF080180	8	8	180	128	140
	M16DF085205	8,5	10	205	147	160
	M16DF088205	8,8	10	205	147	160
	M16DF090205	9	10	205	147	160
	M16DF098225	9,8	10	225	165	180
	M16DF100225	10	10	225	165	180
	M16DF102240	10,2	12	240	174	190
	M16DF108240	10,8	12	240	174	190
	M16DF118265	11,8	12	265	197	215
	M16DF120265	12	12	265	197	215

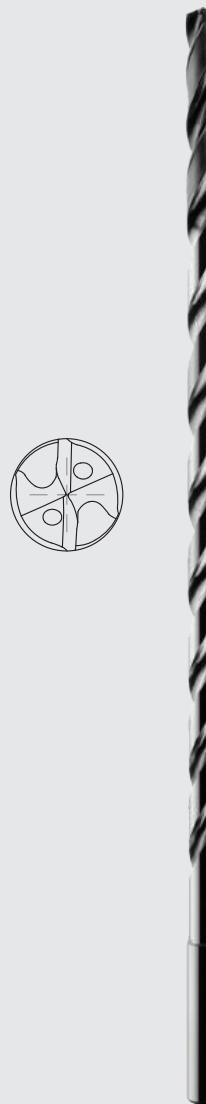
Cutting Parameters Vc(m/min)

Non-Alloy Steel	100	●
Steel	100	●
Tempered Steel	90	●
Cold-Work Tool Steel	75	○
Hot-Work Tool Steel	55	○
AISI 304 - 416 - 420	55	○
AISI 316 - 440	50	○
17-4 PH 15-5 PH	50	○
Chrome-Cobalt Alloy	40	○
Duplex F51	40	○
Grey Cast Iron	105	●
Alloy Cast Iron	100	●
Precision Cast	100	●

Feed Per Revolution (mm/rev)

0	
2-3	0,05-0,15
3-5	0,08-0,23
5-8	0,12-0,335
8-12	0,15-0,425

HOLE-MAKING

M16DF16D Drill With
Coolant Holes

D-TECH | M16DF

*Marked products are available
from stock to deliver fast.

● Recommended ○ Acceptable ○ Not Recommended

HOLE MAKING

M20DF

20D Drill With
Coolant Holes



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product

'Drills 12XD and above' require pilot hole. You may have the pilot hole by K3DF series. In this catalogue, '3XD' drills have m7 tolerance lines up with '12XD drills and above' have h7 tolerance.

Please do not run in recommended cutting speed and feed rates and never release the internal coolant before the diameter of deep hole drill gets in the pilot hole completely(!) The recommended cutting parameters have to be used after the pilot hole centers the deep hole drill and then drilling operation has to be started when high pressure is on.

Cutting parameters highly depend on external factors such as stabilisation of tools and holders, workpiece and machine type.

The given data are only feasible cutting parameters should be considered again for each application.

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

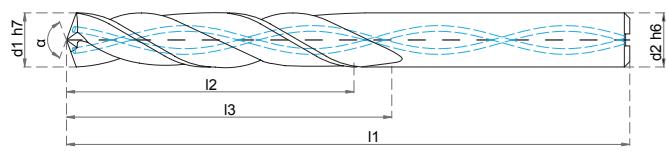
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

Optimal raw material and
coolant pitch selection
without run-out only for
drilling operations to damp
vibration and up to

% **20** more precision hole
diameter in comparison
with equivalents

2022
Hole Making
Catalogue



Stock	Code	d1h7	d2h5	l1	l2	l3
	M20DF020092	2	4	92	47	50
	M20DF022092	2,2	4	92	47	50
	M20DF023092	2,3	4	92	47	50
	M20DF024112	2,4	4	112	66	70
	M20DF025112	2,5	4	112	66	70
	M20DF027112	2,7	4	112	66	70
	M20DF028112	2,8	4	112	66	70
	M20DF030120	3	6	120	75	80
	M20DF032120	3,2	6	120	75	80
	M20DF033120	3,3	6	120	75	80
	M20DF035120	3,5	6	120	75	80
	M20DF038130	3,8	6	130	84	90
	M20DF040130	4	6	130	84	90
	M20DF042160	4,2	6	160	103	110
	M20DF045160	4,5	6	160	103	110
	M20DF048160	4,8	6	160	113	120
	M20DF050160	5	6	160	113	120
	M20DF055185	5,5	6	185	131	140
	M20DF058185	5,8	6	185	131	140
	M20DF060185	6	6	185	131	140
	M20DF065210	6,5	8	210	150	160
	M20DF068210	6,8	8	210	150	160
	M20DF070210	7	8	210	150	160
	M20DF075230	7,5	8	230	168	180
	M20DF078230	7,8	8	230	168	180
	M20DF080230	8	8	230	168	180
	M20DF085260	8,5	10	260	182	195
	M20DF088290	8,8	10	290	216	230
	M20DF090290	9	10	290	216	230
	M20DF098290	9,8	10	290	216	230
	M20DF100290	10	10	290	216	230
	M20DF102315	10,2	12	315	251	268
	M20DF108315	10,8	12	315	251	268
	M20DF118315	11,8	12	315	251	268
	M20DF120315	12	12	315	251	268

Cutting Parameters Vc(m/min)

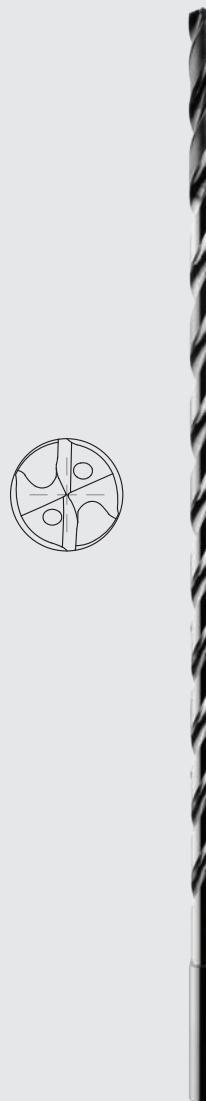
			Feed Per Revolution (mm/rev)
Non-Alloy Steel	95	●	0
Steel	95	●	2-3 0,05-0,15
Tempered Steel	85	●	3-5 0,08-0,23
Cold-Work Tool Steel	70	○	5-8 0,12-0,335
Hot-Work Tool Steel	50	○	8-12 0,15-0,425
AISI 304 - 416 - 420	50	○	
AISI 316 - 440	45	○	
17-4 PH 15-5 PH	45	○	
Chrome-Cobalt Alloy	35	○	
Duplex F51	35	○	
Grey Cast Iron	100	●	
Alloy Cast Iron	95	●	
Precision Cast	95	●	



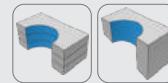
● Recommended ○ Acceptable ○ Not Recommended

*Marked products are available from stock to deliver fast.

HOLE-MAKING

M20DF20D Drill With
Coolant Holes

D-TECH | M20DF



HOLE MAKING

M25DF

25D Drill With
Coolant Holes



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance New Product

'Drills 12XD and above' require pilot hole. You may have the pilot hole by K3DF series. In this catalogue, '3XD' drills have m7 tolerance lines up with '12XD' drills and above' have h7 tolerance.

Please do not run in recommended cutting speed and feed rates and never release the internal coolant before the diameter of deep hole drill gets in the pilot hole completely(!) The recommended cutting parameters have to be used after the pilot hole centers the deep hole drill and then drilling operation has to be started when high pressure is on.

Cutting parameters highly depend on external factors such as stabilisation of tools and holders, workpiece and machine type.

The given data are only feasible cutting parameters should be considered again for each application.

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

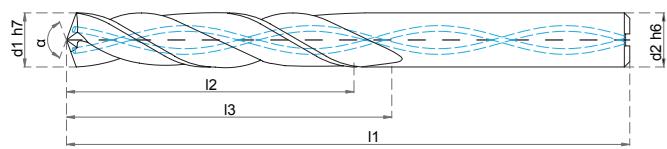
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

Optimal raw material and
coolant pitch selection
without run-out only for
drilling operations to damp
vibration and up to

% **20** more precision hole
diameter in comparison
with equivalents

2022
Hole Making
Catalogue



Stock	Code	d1h7	d2h5	l1	l2	l3
	M25DF020104	2	4	104	57	60
	M25DF022104	2,2	4	104	57	60
	M25DF023104	2,3	4	104	57	60
	M25DF024125	2,4	4	125	76	80
	M25DF025125	2,5	4	125	76	80
	M25DF027125	2,7	4	125	76	80
	M25DF028125	2,8	4	125	76	80
	M25DF030135	3	6	135	93	98
	M25DF032135	3,2	6	135	93	98
	M25DF033150	3,3	6	150	105	110
	M25DF035150	3,5	6	150	105	110
	M25DF038160	3,8	6	160	114	120
	M25DF040160	4	6	160	114	120
	M25DF042160	4,2	6	160	114	120
	M25DF045180	4,5	6	180	128	135
	M25DF048180	4,8	6	180	128	135
	M25DF050180	5	6	180	128	135
	M25DF055205	5,5	6	205	159	168
	M25DF058205	5,8	6	205	159	168
	M25DF060205	6	6	205	159	168
	M25DF065240	6,5	8	240	190	200
	M25DF068240	6,8	8	240	190	200
	M25DF070240	7	8	240	190	200
	M25DF075260	7,5	8	260	208	220
	M25DF078260	7,8	8	260	208	220
	M25DF080260	8	8	260	208	220
	M25DF085285	8,5	10	285	227	240
	M25DF088310	8,8	10	310	254	268
	M25DF090310	9	10	310	254	268
	M25DF098310	9,8	10	310	254	268
	M25DF100310	10	12	310	254	268
	M25DF102375	10,2	12	375	308	325
	M25DF108375	10,8	12	375	308	325
	M25DF118375	11,8	12	375	308	325
	M25DF120375	12	12	375	308	325

Cutting Parameters Vc(m/min)

Feed Per Revolution (mm/rev)

Non-Alloy Steel	85	●	0	
Steel	85	●	2-3	0,05-0,15
Tempered Steel	75	●	3-5	0,08-0,23
Cold-Work Tool Steel	65	○	5-8	0,12-0,335
Hot-Work Tool Steel	45	○	8-12	0,15-0,425
AISI 304 - 416 - 420	45	○		
AISI 316 - 440	40	○		
17-4 PH 15-5 PH	40	○		
Chrome-Cobalt Alloy	30	○		
Duplex F51	30	○		
Grey Cast Iron	90	●		
Alloy Cast Iron	85	●		
Precision Cast	85	●		



● Recommended ○ Acceptable ○ Not Recommended

*Marked products are available from stock to deliver fast.

HOLE-MAKING

M25DF25D Drill With
Coolant Holes

D-TECH | M25DF



HOLE MAKING

Y5DF

5D Drill With
Coolant Holes



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance

Thanks to its
brand-new geometry
and coating up to

% **50** longer tool life at
least in comparison
with equivalents

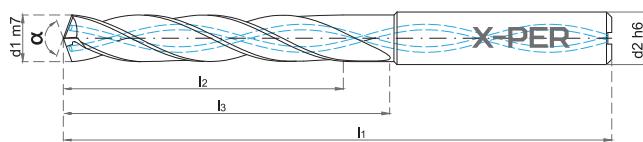
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **40** better hole surface
roughness in comparison
with equivalents

Optimal raw material and
coolant pitch selection
without run-out only for
drilling operations to damp
vibration and up to

% **30** more precision hole
diameter in comparison
with equivalents with it's
double margin advantage

2022
Hole Making
Catalogue



Stock	Code	d1m7	d2h6	l1	l2	l3
*	Y5DF030066	3	6	66	23	26
	Y5DF035066	3,5	6	66	23	28
	Y5DF036066	3,6	6	66	23	28
	Y5DF037066	3,7	6	66	23	28
* SP	Y5DF039074	3,9	6	74	33	35
	Y5DF039074	3,9	6	74	33	35
*	Y5DF040074	4	6	74	30	33
SP	Y5DF040095	4	6	95	38	42
	Y5DF040002	4	6	75	33	35
	Y5DF0415080	4,15	6	80	37	40
*	Y5DF042074	4,2	6	74	30	33
	Y5DF045074	4,5	6	74	29	36
*	Y5DF046074	4,6	6	74	29	36
	Y5DF050082	5	6	82	35	44
*	Y5DF051082	5,1	6	74	35	37
	Y5DF055082	5,5	6	82	35	44
	Y5DF060082	6	6	82	35	44
	Y5DF065091	6,5	8	91	43	53
*	Y5DF068091	6,8	8	91	43	53
*	Y5DF070091	7	8	91	43	53
	Y5DF075091	7,5	8	91	43	53
	Y5DF078091	7,8	8	91	43	53
	Y5DF080091	8	8	91	43	53
*	Y5DF085103	8,5	10	103	49	61
	Y5DF088103	8,8	10	103	49	61
	Y5DF089103	8,9	10	103	49	61
	Y5DF090103	9	10	103	49	61
	Y5DF095103	9,5	10	103	49	61
	Y5DF096103	9,6	10	103	49	61
SP	Y5DF096125	9,6	10	125	78	85
*	Y5DF100103	10	10	103	49	61
*	Y5DF102118	10,2	12	118	56	71
	Y5DF105118	10,5	12	118	56	71
	Y5DF110118	11	12	118	56	71
	Y5DF120118	12	12	118	56	71
*	Y5DF125124	12,5	14	124	60	77
	Y5DF128124	12,8	14	124	60	77
	Y5DF130124	13	14	124	60	77
	Y5DF140124	14	14	124	60	77
	Y5DF145133	14,5	16	133	63	83
	Y5DF150133	15	16	133	63	83
	Y5DF155133	15,5	16	133	63	83
	Y5DF160133	16	16	133	63	83
	Y5DF170143	17	18	143	71	93
	Y5DF175143	17,5	18	143	71	93
	Y5DF180143	18	18	143	71	93
	Y5DF185153	18,5	20	153	77	101
	Y5DF190153	19	20	153	77	101
	Y5DF195153	19,5	20	153	77	101
	Y5DF200153	20	20	153	77	101

Cutting Parameters Vc(m/min)			Feed Per Revolution (mm/rev)		
Non-Alloy Steel	160-200	●	0		
Steel	140-180	●	3	0,100	
Tempered Steel	100-130	●	4	0,110	
Cold-Work Tool Steel	100-120	○	5	0,120	
Sıcak İş Takım Çeligi	80-110	○	6	0,150	
AISI 304 - 416 - 420	30-50	○	8	0,200	
AISI 316 - 440	30-50	○	10	0,250	
Grey Cast Iron	140-180	○	12	0,300	
Alloy Cast Iron	140-160	○	16	0,350	
Precision Cast	130-160	○	20	0,400	
Titanium	30-40	○			
Titanium Alloys	25-30	○			

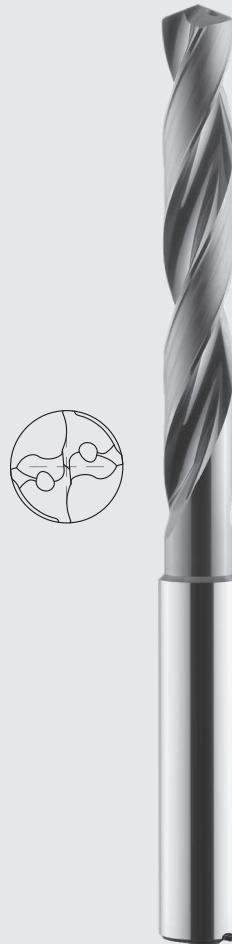


● Recommended ○ Acceptable ○ Not Recommended

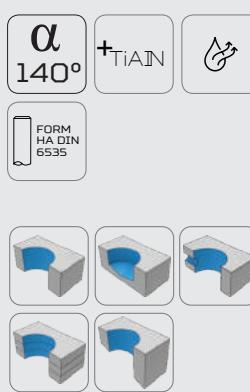
*Marked products are available from stock to deliver fast.

HOLE-MAKING

Y5DF
5D Drill With
Coolant Holes



D-TECH | Y5DF



HOLE MAKING



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance

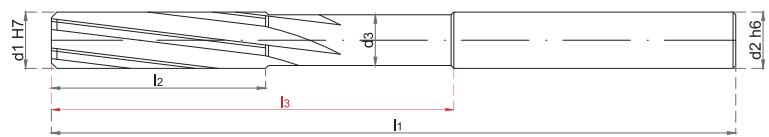
Up to % **40** longer tool life at least in comparison with equivalents

Optimal ultra fine raw material without run-out

Special coating selection unique to reaming

High hole precision and smooth surface roughness

2022
Hole Making
Catalogue



Stock	Code	$d_1 H7$	$d_2 h6$	d_3	l_1	l_2	l_3	Z
*	KDRF604074	4	6	3,5	74	18	47	6
*	KDRF645074	4,5	6	3,5	74	18	47	6
*	KDRF605086	5	6	4	86	23	50	6
*	KDRF655093	5,5	6	4,5	93	23	57	6
*	KDRF606093	6	6	5	93	26	57	6
*	KDRF665100	6,5	8	5,5	100	26	65	6
	KDRF607110	7	8	6	110	31	73	6
	KDRF675110	7,5	8	6,5	110	31	77	6
*	KDRF608117	8	8	7	117	33	81	6
*	KDRF685117	8,5	10	7,5	117	33	81	6
	KDRF609125	9	10	8	125	36	85	6
	KDRF695125	9,5	10	8,5	125	36	85	6
*	KDRF610133	10	10	9	133	38	93	6
*	KDRF610513	10,5	12	9,5	133	38	93	6
	KDRF611142	11	12	10	142	41	97	6
*	KDRF612151	12	12	11	151	44	106	6
	KDRF613151	13	14	12	151	44	106	6
	KDRF614160	14	14	13	160	47	112	6
	KDRF815160	15	16	14	160	55	114	8
	KDRF816160	16	16	15	160	55	114	8
	KDRF818182	18	18	17	182	56	132	8
	KDRF820195	20	20	19	195	60	145	8

Cutting Parameters V_c (m/min)		Feed Per Revolution (mm/rev)			
Non-Alloy Steel	20-30	●	Ø		
Steel	15-25	●	4-5,5	0.080	0.095
Tempered Steel	15-20	●	6-7,5	0.100	0.120
Cold-Work Tool Steel	10-15	●	8-9,5	0.125	0.140
Hot-Work Tool Steel	10-15	●	10-12	0.150	0.170
AISI 304 - 416 - 420	15-20	●	13-16	0.180	0.210
AISI 316 - 440	15-20	●	17-20	0.220	0.250
17-4 PH 15-5 PH	15-18	●			
Chrome-Cobalt Alloy	13-17	●			
Duplex F51	12-15	●			
Super Duplex F55	12-15	●			
Grey Cast Iron	20-25	●			
Alloy Cast Iron	20-25	●			
Precision Cast	15-20	●			
Aluminum Alloys	30-50	●			
Copper Alloys	30-50	●			
Magnesium Alloys	30-50	●			
Titanium	10-15	●			
Titanium Alloys	10-15	●			
HRSA	10-15	●			
≤ 54 HRC	15-30	○			
>54 HRC	10-15	○			



● Recommended ○ Acceptable ○ Not Recommended

*Marked products are available
from stock to deliver fast.

HOLE-MAKING

KDRF

Reamer



HOLE-MAKING



Center Drill 90°



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech
High Performance

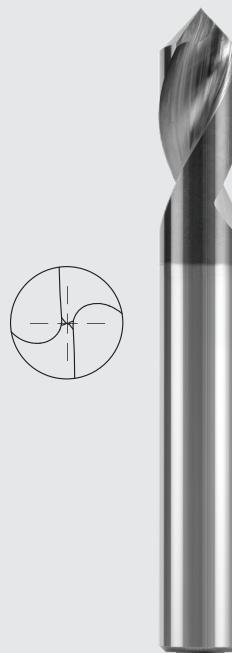


2022
Hole Making
Catalogue



Stock	Code	d1h6	d2h6	l1	l2
	KNS203032	3	3	32	8
	KNS204040	4	4	40	10
	KNS205051	5	5	51	13
*	KNS206051	6	6	51	13
*	KNS208064	8	8	64	20
*	KNS210070	10	10	70	20
	KNS212070	12	12	70	24
	KNS214075	14	14	75	26
	KNS216075	16	16	75	30
	KNS218093	18	18	93	32
	KNS220105	20	20	105	32

Steel	●
Stainless Steel	○
Hardened Steel ≤54 HRc	○
Hardened Steel >54 HRc	○
Cast Iron	●
Non Ferrous Material	○
HRSA	○
Titanium	●



HOLE MAKING



Center Drill 120°



General
Engineering



Mold & Die



Automotive



Defence

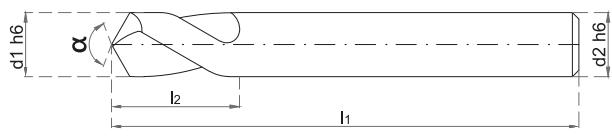


Rail
Systems

D-Tech
High Performance
Precise Center Drill



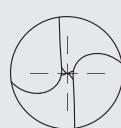
2022
Hole Making
Catalogue



Stock	Code	$d_1 h_6$	$d_2 h_6$	l_1	l_2
	KNZ203032	3	3	32	8
	KNZ204040	4	4	40	10
	KNZ205051	5	5	51	13
	KNZ206051	6	6	51	13
	KNZ208064	8	8	64	20
	KNZ210070	10	10	70	20
	KNZ212070	12	12	70	24
	KNZ214075	14	14	75	26
	KNZ216075	16	16	75	30
	KNZ218093	18	18	93	32
	KNZ220105	20	20	105	32

	Steel	●
	Stainless Steel	○
	Hardened Steel ≤54 HRc	○
	Hardened Steel >54 HRc	○
	Cast Iron	●
	Non Ferrous Material	○
	HRSA	○
	Titanium	●

HOLE-MAKING

KNZ
 Center Drill 120°


D-TECH KNZ



*Marked products are available
from stock to deliver fast.



● Recommended ○ Acceptable ○ Not Recommended

HOLE MAKING



General
Engineering



Mold & Die



Automotive



Defence

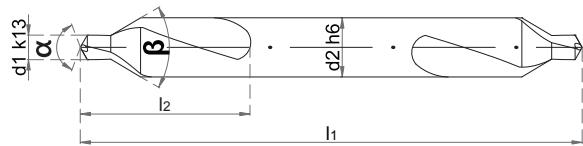


Rail
Systems

D-Tech High Performance Precise Center Drill



2022
Hole Making
Catalogue



Stock	Code	d_{1k13}	d_{2h6}	l_1	l_2
	PMS201039	1	3	39	2
*	PMS212535	1,25	3	35	2
	PMS216035	1,6	4	35	2,4
*	PMS202040	2	5	40	2,9
*	PMS225045	2,5	6	45	3,6
	PMS203050	3	8	50	4,4
*	PMS231550	3,15	8	50	4,4
	PMS 203550	3,5	8	50	4,4
	PMS204075	4	10	75	5,6
	PMS205082	5	12	82	6,9
*	PMS263093	6,3	16	93	8,6

	Steel	●
	Stainless Steel	○
	Hardened Steel ≤54 HRc	○
	Hardened Steel >54 HRc	○
	Cast Iron	●
	Non Ferrous Material	○
	HRSA	○
	Titanium	●

HOLE-MAKING

PMS
Center Drill


D-TECH | PMS



*Marked products are available
from stock to deliver fast.



● Recommended ○ Acceptable ○ Not Recommended

HOLE MAKING



Countersink Convex



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech
High Performance

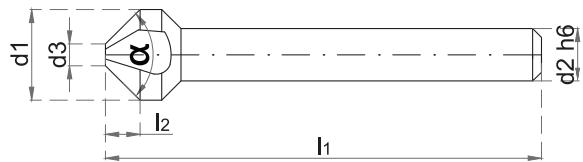


% **100** stock

2022
Hole Making
Catalogue

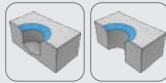
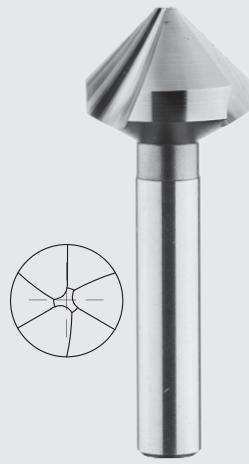


MCS
Countersink
Convex



Stock	Code	d1	d2h6	d3	l1	l2
	MCS363035	6,3	6	2	35	2,15
*	MCS383040	8,3	6	2	40	3,15
*	MCS310446	10,4	6	2,5	46	3,95
*	MCS312456	12,4	8	2,8	56	4,8
	MCS315060	15	10	3,2	60	5,9
*	MCS316560	16,5	10	3,2	60	6,65
*	MCS320563	20,5	10	3,5	63	8,5
*	MCS325067	25	10	6,35	67	10,6

Steel	●
Stainless Steel	○
Hardened Steel ≤54 HRC	○
Hardened Steel >54 HRC	○
Cast Iron	●
Non Ferrous Material	○
HRSA	○
Titanium	●



HOLE MAKING

TX8DF

8D TX Drill



General
Engineering



Mold & Die



Automotive



Defence



Rail
Systems

D-Tech High Performance

Thanks to its
brand-new geometry
and coating up to

% **40** longer tool life at
least in comparison
with equivalents

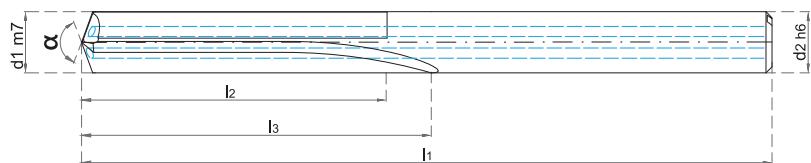
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **45** better hole surface
roughness in comparison
with equivalents

Optimal raw material
selection for drilling
operations to damp
vibration and up to

% **25** more precision hole
diameter in comparison with
equivalents

2022
Hole Making
Catalogue



Stock	Code	d1m7	d2h6	l1	l2	l3
	TX8DF060095	6	6	95	48	57
	TX8DF068114	6,8	8	114	64	76
	TX8DF070114	7	8	114	64	76
	TX8DF075114	7,5	8	114	64	76
	TX8DF078114	7,8	8	114	64	76
	TX8DF080114	8	8	114	64	76
	TX8DF085142	8,5	10	142	80	95
	TX8DF088142	8,8	10	142	80	95
	TX8DF090142	9	10	142	80	95
	TX8DF095142	9,5	10	142	80	95
	TX8DF100142	10	10	142	80	95
	TX8DF102162	10,2	12	162	96	114
	TX8DF105162	10,5	12	162	96	114
	TX8DF110162	11	12	162	96	114
	TX8DF120162	12	12	162	96	114
	TX8DF125178	12,5	14	178	110	133
	TX8DF128178	12,8	14	178	110	133
	TX8DF130178	13	14	178	110	133
	TX8DF135178	13,5	14	178	110	131
	TX8DF140178	14	14	178	110	131
	TX8DF145203	14,5	16	203	128	152
	TX8DF150203	15	16	203	128	152
	TX8DF155203	15,5	16	203	128	152
	TX8DF160203	16	16	203	128	152
	TX8DF170222	17	18	222	144	171
	TX8DF175222	17,5	18	222	144	171
	TX8DF180222	18	18	222	144	171
	TX8DF185243	18,5	20	243	160	190
	TX8DF190243	19	20	243	160	190
	TX8DF195243	19,5	20	243	160	190
	TX8DF200243	20	20	243	160	190

Cutting Parameters Vc(m/min)		Feed Per Revolution (mm/rev)		
Non-Alloy Steel	160-200	●	0	
Steel	140-160	●	3	0,08
Tempered Steel	120-140	●	4	0,110
Cold-Work Tool Steel	100-120	○	5	0,140
Hot-Work Tool Steel	100-120	○	6	0,170
Grey Cast Iron	160-200	●	8	0,190
Alloy Cast Iron	160-200	●	10	0,210
Precision Cast	120-160	●	12	0,240
			16	0,270
			20	0,290



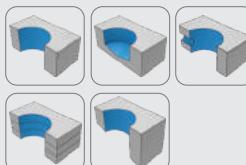
● Recommended ○ Acceptable □ Not Recommended

*Marked products are available from stock to deliver fast.

HOLE-MAKING

TX8DF

8D TX Drill



HOLE MAKING

KTX5D

5D TX Drill



General
Engineering



Mold & Die



Automotive

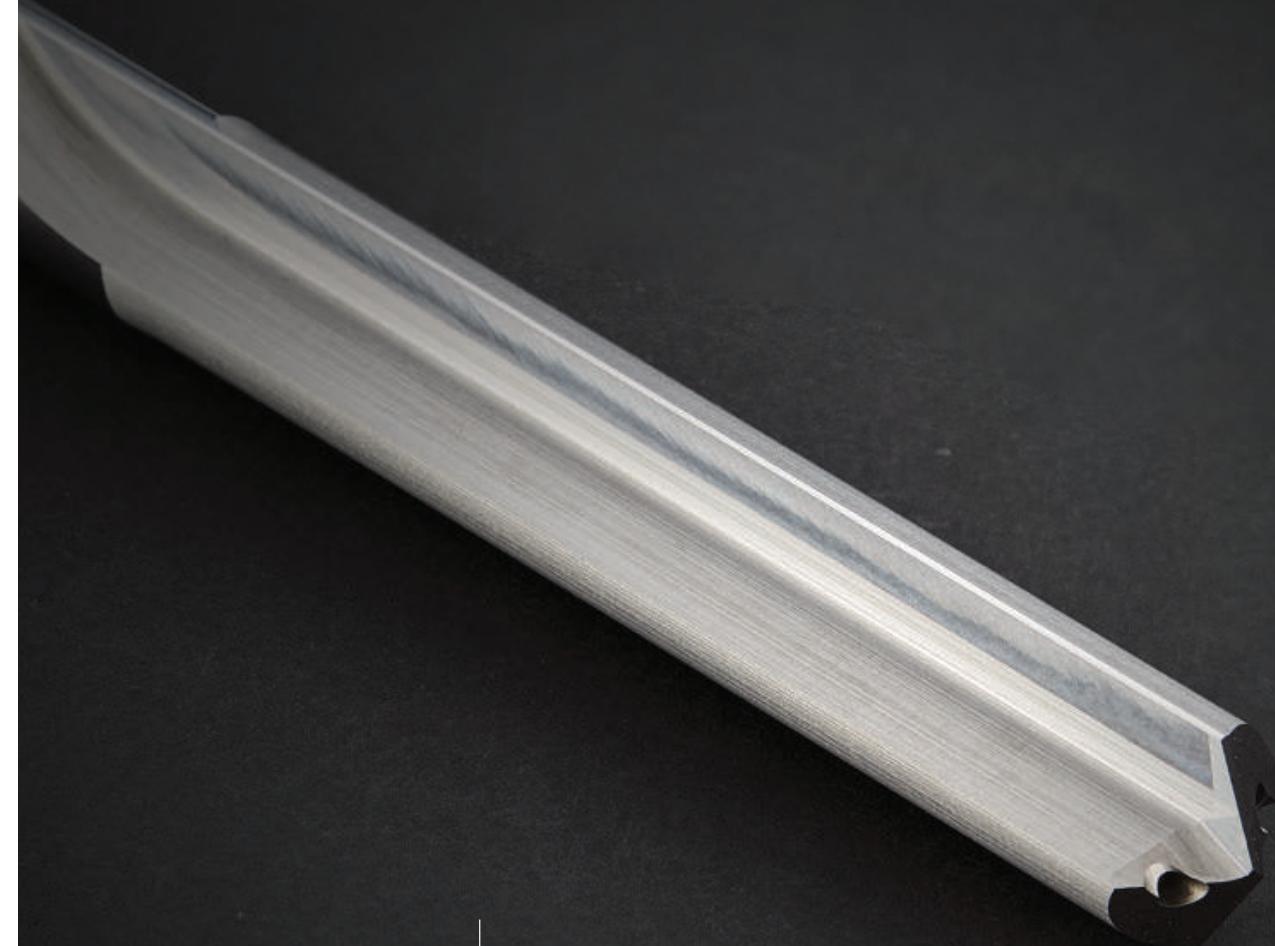


Defence



Rail
Systems

D-Tech High Performance



Thanks to its
brand-new geometry
and coating up to

% **40** longer tool life at
least in comparison
with equivalents

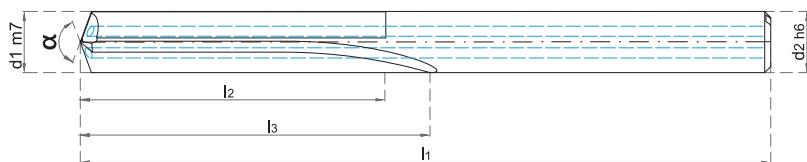
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **45** better hole surface
roughness in comparison
with equivalents

Optimal raw material
selection for drilling
operations to damp
vibration and up to

% **25** more precision hole
diameter in comparison with
equivalents

2022
Hole Making
Catalogue



Stock	Code	$d_1 m7$	$d_2 h6$	l_1	l_2	l_3
	KTX5D060082	6	6	82	35	44
	KTX5D068091	6,8	8	91	43	53
	KTX5D070091	7	8	91	43	53
	KTX5D075091	7,5	8	91	43	53
	KTX5D078091	7,8	8	91	43	53
	KTX5D080091	8	8	91	43	53
	KTX5D084103	8,4	10	103	49	61
	KTX5D085103	8,5	10	103	49	61
	KTX5D088103	8,8	10	103	49	61
	KTX5D090103	9	10	103	49	61
	KTX5D095103	9,5	10	103	49	61
	KTX5D100103	10	10	103	49	61
	KTX5D102118	10,2	12	118	56	71
	KTX5D105118	10,5	12	118	56	71
	KTX5D110118	11	12	118	56	71
	KTX5D120118	12	12	118	56	71
	KTX5D125124	12,5	14	124	60	77
	KTX5D128124	12,8	14	124	60	77
	KTX5D130124	13	14	124	60	77
	KTX5D140124	14	14	124	60	77
	KTX5D145133	14,5	16	133	63	83
	KTX5D150133	15	16	133	63	83
	KTX5D155133	15,5	16	133	63	83
	KTX5D160133	16	16	133	63	83
	KTX5D170143	17	18	143	71	93
	KTX5D175143	17,5	18	143	71	93
	KTX5D180143	18	18	143	71	93
	KTX5D185153	18,5	20	153	77	101
	KTX5D190153	19	20	153	77	101
	KTX5D195153	19,5	20	153	77	101
	KTX5D200153	20	20	153	77	101

Cutting Parameters V_c (m/min)

Feed Per Revolution (mm/rev)

Aluminum Alloy

125-175



0

Copper Alloy

125-175



6

0,144

Magnesium Alloy

125-175



8

0,160

10

0,176

12

0,192

16

0,224

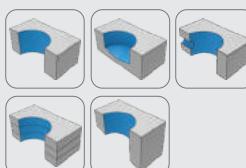
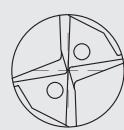
20

0,248



● Recommended ○ Acceptable □ Not Recommended

*Marked products are available from stock to deliver fast.



HOLE MAKING

KTX8D

8D TX Drill



General
Engineering



Mold & Die



Automotive

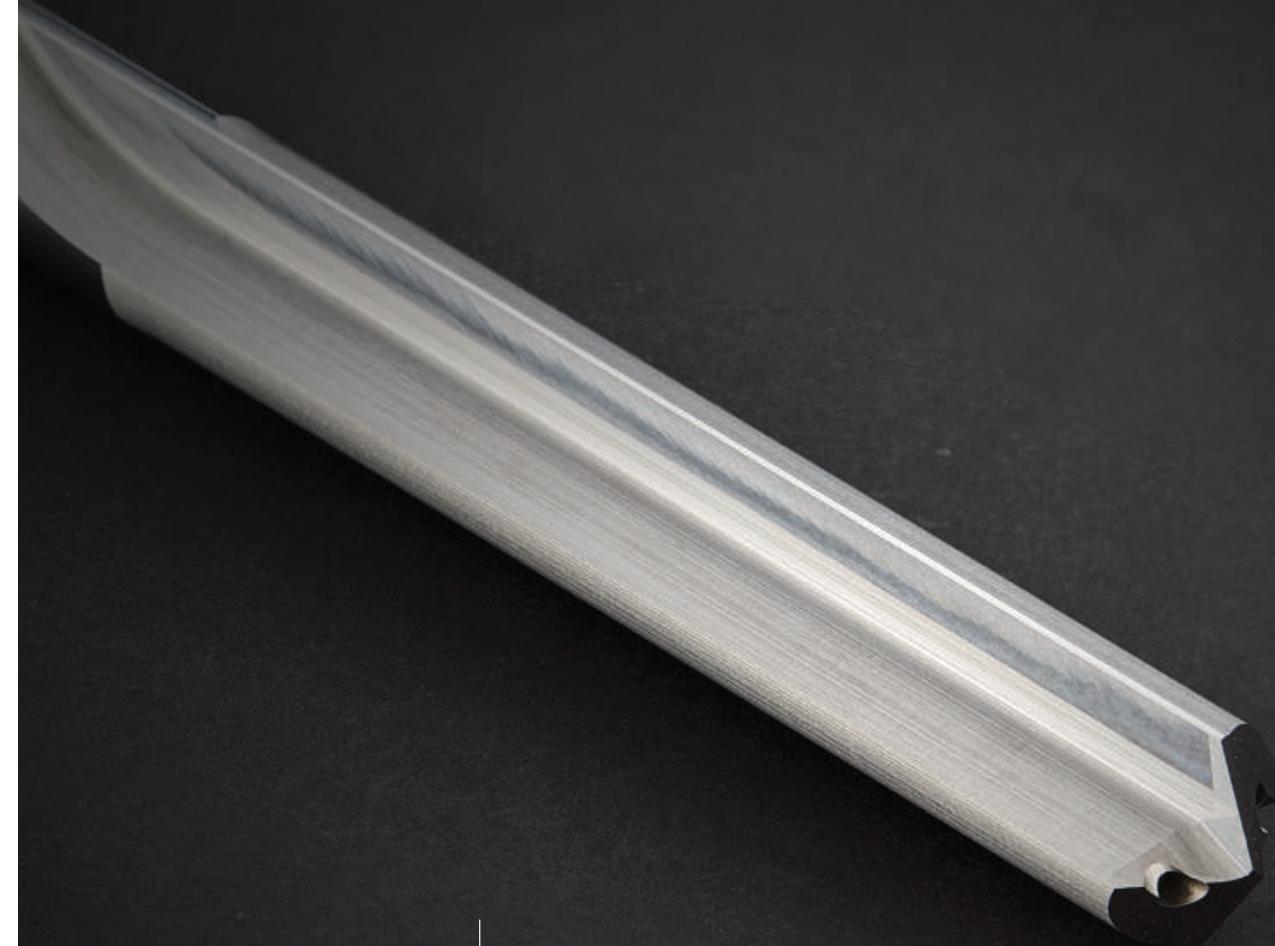


Defence



Rail
Systems

D-Tech High Performance



Thanks to its
brand-new geometry
and coating up to

% **40** longer tool life at
least in comparison
with equivalents

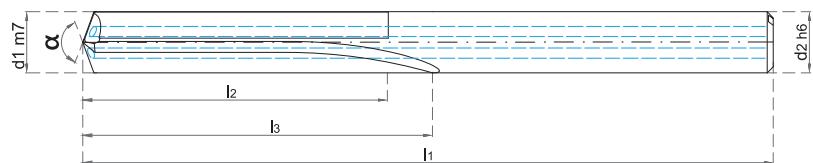
Stronger cutting
edges by Exper
edge preparation
technology and up to

% **45** better hole surface
roughness in comparison
with equivalents

Optimal raw material
selection for drilling
operations to damp
vibration and up to

% **25** more precision hole
diameter in comparison with
equivalents

2022
Hole Making
Catalogue



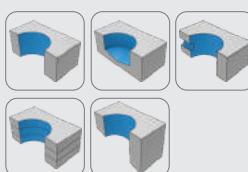
Stock	Code	d1m7	l2	d3	l1	d2h6
	KTX8D060095	6	48	57	95	6
	KTX8D068114	6,8	64	76	114	8
	KTX8D070114	7	64	76	114	8
	KTX8D075114	7,5	64	76	114	8
	KTX8D078114	7,8	64	76	114	8
	KTX8D080114	8	64	76	114	8
	KTX8D088142	8,8	80	95	142	10
	KTX8D090142	9	80	95	142	10
	KTX8D095142	9,5	80	95	142	10
	KTX8D100142	10	80	95	142	10
	KTX8D102162	10,2	96	114	162	12
	KTX8D110162	11	96	114	162	12
	KTX8D120162	12	96	114	162	12
	KTX8D125178	12,5	110	131	178	14
	KTX8D128178	12,8	110	131	178	14
	KTX8D130178	13	110	131	178	14
	KTX8D140178	14	110	131	178	14
	KTX8D145203	14,5	128	152	203	16
	KTX8D150203	15	128	152	203	16
	KTX8D155203	15,5	128	152	203	16
	KTX8D160203	16	128	152	203	16
	KTX8D170222	17	144	171	222	18
	KTX8D175222	17,5	144	171	222	18
	KTX8D180222	18	144	171	222	18
	KTX8D185243	18,5	160	190	243	20
	KTX8D190243	19	160	190	243	20
	KTX8D195243	19,5	160	190	243	20
	KTX8D200243	20	160	190	243	20

Cutting Parameters Vc(m/min)		Feed Per Revolution (mm/rev)		
Aluminum Alloy	125-175	●	0	
Copper Alloy	125-175	●	6	0,144
Magnesium Alloy	125-175	●	8	0,160
			10	0,176
			12	0,192
			16	0,224
			20	0,248

HOLE-MAKING

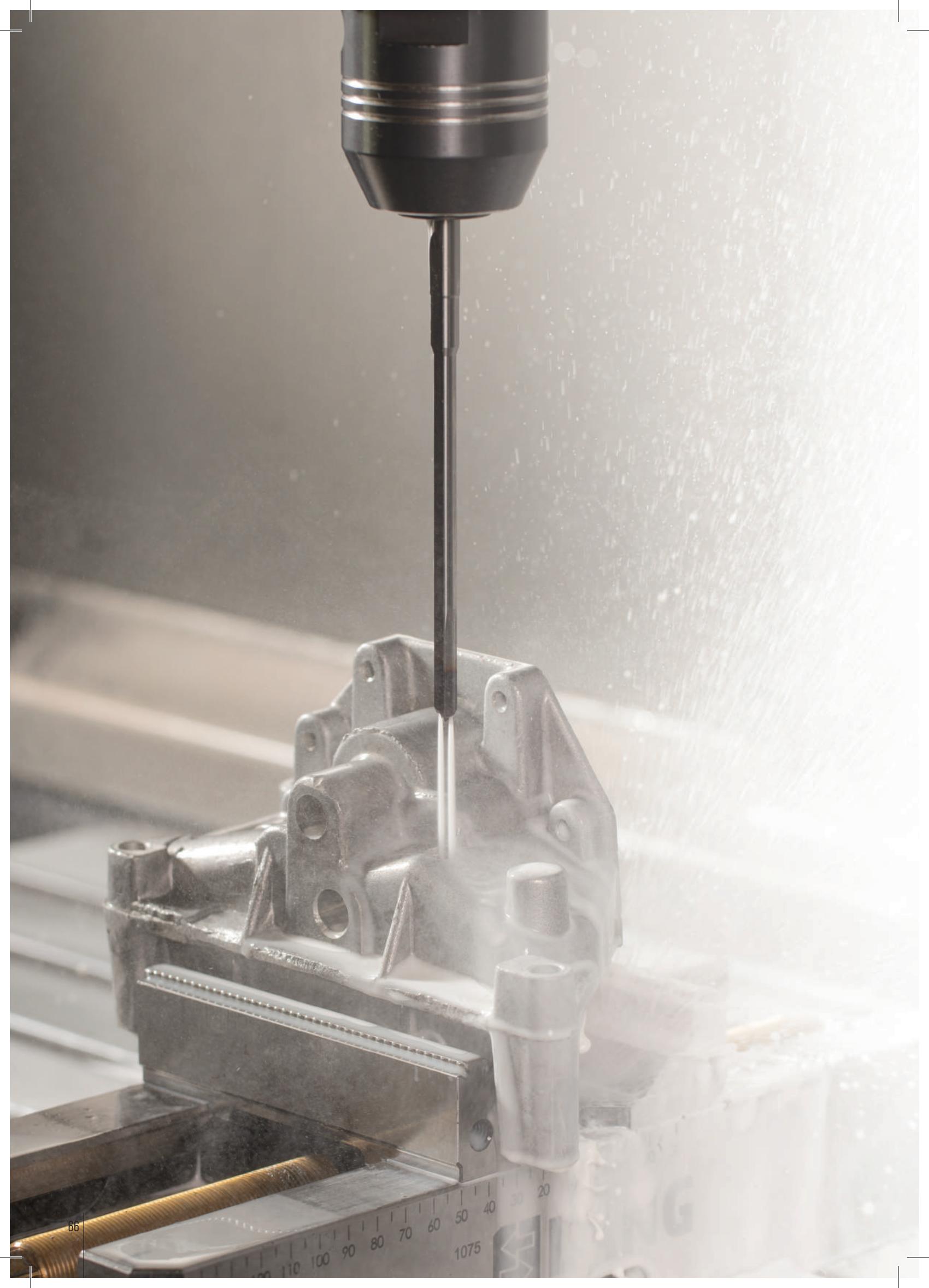
KTX8D

8D TX Drill



● Recommended ● Acceptable ○ Not Recommended

*Marked products are available from stock to deliver fast.



2022

Hole Making
Catalogue

Drilling Formulas and Definitions

Cutting speed, [vc] m/min

$$V_C = \frac{D_C \times \pi \times n}{1000}$$

Spindle speed, [n] rpm

$$n = \frac{V_C \times 1000}{\pi \times D_c}$$

Penetration rate, [vf] m/min

$$V_f = f_n \times n$$

Feed per revolution, [fn] mm/rev

$$f_n = \frac{V_f}{n}$$

Metal removal rate, [Q] cm³/min

$$Q = \frac{D_C \times f_n \times V_C}{4}$$

Net power, [pc] kW

$$P_C = \frac{f_n \times V_C \times D_C \times k_C}{240 \times 10^3}$$

Torque, Ibf Nm

$$M_C = \frac{P_C \times 30 \times 10^3}{\pi \times n}$$

Spesific cutting force, [kc] N/mm²

$$k_c = k_{c1} \times (f_z \times \sin k_F)^{-m_c} \times \left(1 - \frac{y_0}{100}\right)$$

Feed force, [Ff] N

$$F_f \approx 0.5 \times k_C \times \frac{D_C}{2} \times f_n \times \sin K_r$$

Machining time, [Tc] min

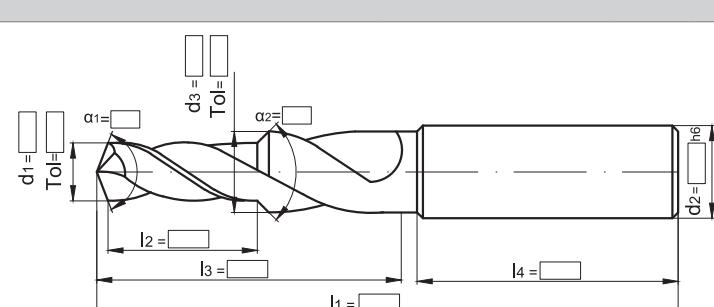
$$T = \frac{\text{Im}}{v_f}$$

Special Tools

SOLID CARBIDE STEP TWIST DRILL

Solid Carbide Step Twist Drill



Machining Type	Material To be Machined	Machine Information	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Unalloyed Steel <input type="checkbox"/> Cast Steel <input type="checkbox"/> Alloyed Steel <input type="checkbox"/> Inox <input type="checkbox"/> Stainless/Aside Dayanıklı <input type="checkbox"/> Gray Cast <input type="checkbox"/> Alloyed Cast <input type="checkbox"/> Sfnero Cast <input type="checkbox"/> Forged Steel	<input type="checkbox"/> Aluminium Si>10 <input type="checkbox"/> Aluminium Si<10 <input type="checkbox"/> Copper <input type="checkbox"/> Brass <input type="checkbox"/> Bronz <input type="checkbox"/> Titanium Alloys <input type="checkbox"/> Nickel Alloys <input type="checkbox"/> Cold Cast Iron <input type="checkbox"/> Hardened Steel	Machine Brand Machine Type Machine Power (kW) Max. Speed (RPM) Working Plane Working Type Internal Coolant Spindle Type Holder Type Axis the Tool Operates Coolant
Type <input type="checkbox"/> Through Bore <input type="checkbox"/> Blind Bore		<input type="checkbox"/> Vert. <input type="checkbox"/> Horiz. <input type="checkbox"/> 5Axis <input type="checkbox"/> Work Piece Turning <input type="checkbox"/> Cutting Tool Turning <input type="checkbox"/> Yes <input type="checkbox"/> No Pressure	
Machining Method <input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Min. Lubr.			
Coolant Supply <input type="checkbox"/> Ext. <input type="checkbox"/> Int.		<input type="checkbox"/> Oil <input type="checkbox"/> Boron Oil	
Hardness (HRc, HB, etc.)	Surface Quality Demanded	Additional Features and Notes	
Tensile Strength (N/mm ²)	Cutting Direction (If not stated we will assume RH.)		
	<input type="checkbox"/> L.H. <input type="checkbox"/> R.H.		
Standard No	Coating		
Shank Form			
HA(DIN 6535) <input type="checkbox"/>	HB(DIN 6535) <input type="checkbox"/>	HE(DIN 6535) <input type="checkbox"/>	
Note	Phn-Fax		
Company Name	E-mail		
Authorized Person	Date and Sign		
Address			

Note: Work area details should be drawn roughly, if possible it is recommended that the technical drawing should be provided among with the form

Head Office / Factory / R&D Center
O.S.B 20. Cadde No : 31 TR26110
Eskisehir/Turkey
+90 222 228 10 40



Special Tools

SOLID MULTI STEP CARBIDE TWIST DRILL

Solid Carbide Step Twist Drill



Machining Type	Material To be Machined	Machine Information	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Unalloyed Steel <input type="checkbox"/> Cast Steel <input type="checkbox"/> Alloyed Steel <input type="checkbox"/> Inox <input type="checkbox"/> Stainless/Aside Dayanıklı <input type="checkbox"/> Gray Cast <input type="checkbox"/> Alloyed Cast <input type="checkbox"/> Sferro Cast <input type="checkbox"/> Forged Steel	<input type="checkbox"/> Aluminium Si>10 <input type="checkbox"/> Aluminium Si<10 <input type="checkbox"/> Copper <input type="checkbox"/> Brass <input type="checkbox"/> Bronz <input type="checkbox"/> Titanium Alloys <input type="checkbox"/> Nickel Alloys <input type="checkbox"/> Cold Cast Iron <input type="checkbox"/> Hardened Steel	Machine Brand Machine Type Machine Power (kW) Max. Speed (RPM) Working Plane Working Type Internal Coolant Spindle Type Holder Type Axis the Tool Operates Coolant
Type <input type="checkbox"/> Through Bore <input type="checkbox"/> Blind Bore		<input type="checkbox"/> Vert. <input type="checkbox"/> Horiz. <input type="checkbox"/> 5 Axis	Work Piece Turning <input type="checkbox"/> Cutting Tool Turning Yes <input type="checkbox"/> No <input type="checkbox"/> Pressure
Machining Method <input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Min. Lubr.			
Coolant Supply <input type="checkbox"/> Ext. <input type="checkbox"/> Int.		<input type="checkbox"/> Oil <input type="checkbox"/> Boron Oil	
Hardness (HRc, HB, etc.)	Surface Quality Demanded	Additional Features and Notes	
Tensile Strength (N/mm ²)	Cutting Direction (If not stated we will assume RH.)		
	<input type="checkbox"/> L.H. <input type="checkbox"/> R.H.		
Standard No	Coating		
Shank Form			
HA(DIN 6535) <input type="checkbox"/>	HB(DIN 6535) <input type="checkbox"/>	HE(DIN 6535) <input type="checkbox"/>	
Note			
Company Name			
Authorized Person			
Address			

Note: Work area details should be drawn roughly, if possible it is recommended that the technical drawing should be provided along with the form

Head Office / Factory / v Center
O.S.B 20. Cadde No : 31 TR26110
Eskişehir/Turkey
+90 222 228 10 40



Special Tools

SOLID CARBIDE STEP TX DRILL

Solid Carbide Step Twist Drill



Machining Type	Material To be Machined	Machine Information	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Unalloyed Steel <input type="checkbox"/> Cast Steel <input type="checkbox"/> Alloyed Steel <input type="checkbox"/> Inox <input type="checkbox"/> Stainless/Aside Dayanıklı <input type="checkbox"/> Gray Cast <input type="checkbox"/> Alloyed Cast <input type="checkbox"/> Sfnero Cast <input type="checkbox"/> Forged Steel	<input type="checkbox"/> Aluminium Si>10 <input type="checkbox"/> Aluminium Si<10 <input type="checkbox"/> Copper <input type="checkbox"/> Brass <input type="checkbox"/> Bronz <input type="checkbox"/> Titanium Alloys <input type="checkbox"/> Nickel Alloys <input type="checkbox"/> Cold Cast Iron <input type="checkbox"/> Hardened Steel	Machine Brand Machine Type Machine Power (kW) Max. Speed (RPM) Working Plane Working Type Internal Coolant Spindle Type Holder Type Axis the Tool Operates Coolant
Type <input type="checkbox"/> Through Bore <input type="checkbox"/> Blind Bore		<input type="checkbox"/> Vert. <input type="checkbox"/> Horiz. <input type="checkbox"/> 5Axis <input type="checkbox"/> Work Piece Turning <input type="checkbox"/> Cutting Tool Turning <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Pressure	
Machining Method <input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Min. Lubr.			
Coolant Supply <input type="checkbox"/> Ext. <input type="checkbox"/> Int.		<input type="checkbox"/> Oil <input type="checkbox"/> Boron Oil	
Hardness (HRc, HB, etc.)	Surface Quality Demanded	Additional Features and Notes	
Tensile Strength (N/mm ²)	Cutting Direction (If not stated we will assume RH.)		
	<input type="checkbox"/> L.H. <input type="checkbox"/> R.H.		
Standard No	Coating		
Shank Form			
HA(DIN 6535) <input type="checkbox"/>	HB(DIN 6535) <input type="checkbox"/>	HE(DIN 6535) <input type="checkbox"/>	
Note	Phn-Fax		
Company Name	E-mail		
Authorized Person	Date and Sign		
Address			

Note: Work area details should be drawn roughly, if possible it is recommended that the technical drawing should be provided among with the form

Head Office / Factory / R&D Center
O.S.B 20. Cadde No : 31 TR26110
Eskisehir/Turkey
+90 222 228 10 40

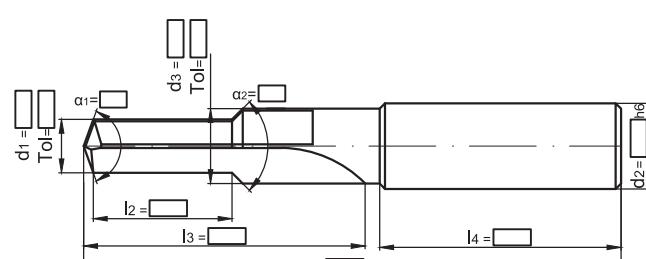


Special Tools

SOLID CARBIDE STEP TX DRILL

Solid Carbide Step Twist Drill



Machining Type	Material To be Machined	Machine Information
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Unalloyed Steel <input type="checkbox"/> Cast Steel <input type="checkbox"/> Alloyed Steel <input type="checkbox"/> Inox <input type="checkbox"/> Stainless/Aside Dayanıklı <input type="checkbox"/> Gray Cast <input type="checkbox"/> Alloyed Cast <input type="checkbox"/> Sferro Cast <input type="checkbox"/> Forged Steel	<input type="checkbox"/> Aluminium Si>10 <input type="checkbox"/> Aluminium Si<10 <input type="checkbox"/> Copper <input type="checkbox"/> Brass <input type="checkbox"/> Bronz <input type="checkbox"/> Titanium Alloys <input type="checkbox"/> Nickel Alloys <input type="checkbox"/> Cold Cast Iron <input type="checkbox"/> Hardened Steel
Type		Machine Brand Machine Type Machine Power (kW) Max. Speed (RPM)
<input type="checkbox"/> Through Bore <input type="checkbox"/> Blind Bore		Working Plane Working Type Internal Coolant
Machining Method		Spindle Type Holder Type Axis the Tool Operates
<input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Min.Lubr.		Coolant Oil <input type="checkbox"/> Boron Oil
Coolant Supply		Additional Features and Notes
<input type="checkbox"/> Ext. <input type="checkbox"/> Int.		
Hardness (HRc, HB, etc.)	Surface Quality Demanded	
Tensile Strength (N/mm ²)	Cutting Direction (If not stated we will assume RH.)	
	<input type="checkbox"/> L.H. <input type="checkbox"/> R.H.	
Standard No	Coating	
Shank Form		
HA(DIN 6535)	<input type="checkbox"/>	
HB(DIN 6535)	<input type="checkbox"/>	
HE(DIN 6535)	<input type="checkbox"/>	
		
Note		Phn-Fax
Company Name		E-mail
Authorized Person		Date and Sign
Address		

Note: Work area details should be drawn roughly, if possible it is recommended that the technical drawing should be provided along with the form

Head Office / Factory / R&D Center
O.S.B 20. Cadde No : 31 TR26110
Eskişehir/Turkey
+90 222 228 10 40



Special Tools

SOLID CARBIDE REAMER

Solid Carbide Step Twist Drill



Type	Material To be Machined		Machine Information		
<input type="checkbox"/> Through Bore <input type="checkbox"/> Blind Bore	<input type="checkbox"/> Unalloyed Steel	<input type="checkbox"/> Aluminium Si>10	Machine Brand		
	<input type="checkbox"/> Cast Steel	<input type="checkbox"/> Aluminium Si<10	Machine Type		
	<input type="checkbox"/> Alloyed Steel	<input type="checkbox"/> Copper	Machine Power (kW)		
Machining Method	<input type="checkbox"/> Inox	<input type="checkbox"/> Brass	Max. Speed (RPM)		
<input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Min.Lubr.	<input type="checkbox"/> Stainless/Aside Dayanıklı	<input type="checkbox"/> Bronz	Working Plane	<input type="checkbox"/> Vert.	<input type="checkbox"/> Horiz.
Coolant Supply	<input type="checkbox"/> Gray Cast	<input type="checkbox"/> Titanium Alloys		<input type="checkbox"/> 5Axis	
	<input type="checkbox"/> Alloyed Cast	<input type="checkbox"/> Nickel Alloys	Working Type	<input type="checkbox"/> Work Piece Turning	<input type="checkbox"/> Cutting Tool Turning
	<input type="checkbox"/> Sferro Cast	<input type="checkbox"/> Cold Cast Iron	Internal Coolant	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	<input type="checkbox"/> Forged Steel	<input type="checkbox"/> Hardened Steel	Pressure		
Hardness (HRc, HB, etc.)	Surface Quality Demanded		Additional Features and Notes		
Tensile Strength (N/mm ²)	Cutting Direction (If not stated we will assume RH.)				
	<input type="checkbox"/> L.H.	<input type="checkbox"/> R.H.			
Standard No	Coating				
Shank Form					
Note			Phn-Fax		
Company Name			E-mail		
Authorized Person			Date and Sign		
Address					

Note: Work area details should be drawn roughly, if possible it is recommended that the technical drawing should be provided among with the form

Head Office / Factory / R&D Center
O.S.B 20. Cadde No : 31 TR26110
Eskişehir/Turkey
+90 222 228 10 40



Karcan reserves the right to revise or alter all the items and technical specifications in this catalogue without prior notice.

Karcan can not be held responsible or put under obligations due to misprint, tint, typo or any other offset printing errors.

Cutting parameters and feed rates stated in this catalogue are recommended values, Karcan does not bear any responsibility with respect to machine and equipment breakdowns.