

Drill Thread Milling Tool UBGF



Drilling, chamfering and thread milling in a single pass





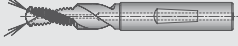

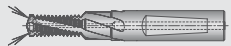

UBGF with front and rear chamfer for different thread lengths.

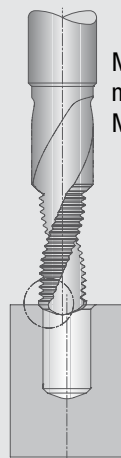
Drill Thread Milling Tool

- UBGF with 2 cutting edges
- BGF with 3 cutting edges
- BGF with 4 cutting edges for grey cast iron
- DBGF Direct Circular Drill Thread Milling Tool



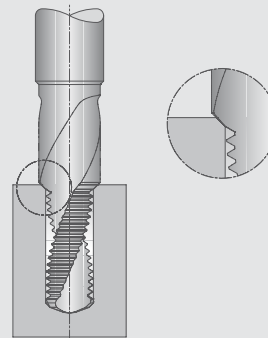
Page

Thread engagements for UBGF, BGF NZ4 and BGF for Nodular Grey Cast Iron			50-51
M-UBGF 2.0xD	for metric ISO thread DIN 13		52
MF-UBGF 2.0xD	for metric fine ISO thread DIN 13		52
UNC-UBGF 2.0xD	for UNC thread ANSI B1.1		53
UNF-UBGF 2.0xD	for UNF thread ANSI B1.1		53
G-UBGF 2.0xD	for Whitworth pipe thread DIN EN ISO 228 and DIN EN 10226 (previously DIN 2999)		54
M-BGF	with 3 cutting edges – 1.5xD; 2.0xD and 2.5xD for metric ISO thread DIN 13		55
Drill Thread Milling Tool NZ4 for Nodular Grey Cast Iron			56
M-BGF	with 4 cutting edges – 1.5xD; 2.0xD and 2.5xD for metric ISO thread DIN 13		57
Thread engagements for DBGF			58
M-DBGF	2.0xD and 3.0xD for metric ISO thread DIN 13		59



Machining of chamfer by circular movement of the UBGF Drill Thread Milling Tool

Machining of chamfer by concentric movement of the UBGF Drill Thread Milling Tool

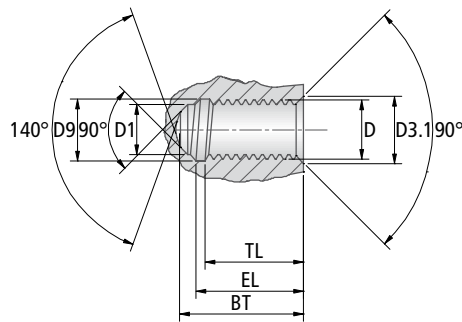


CNC programs can be configured on line at <http://tpt.kometgroup.com> or can be obtained on request from tel.: +49 (0) 711 78891-0

Thread engagements for UBGF

For metric ISO thread DIN 13 and for metric fine ISO thread DIN 13

- BT = Drill depth
- D3.1 = max. possible chamfer \emptyset with front chamfer
- EL = Thread engagement
- TL = Full thread length



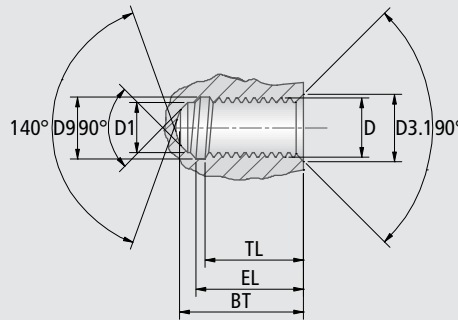
M	2,0×D					
	D1	BT	D3.1	D9	EL	TL
M3	2,50	6,65	3,30	3,10	6,10	5,80
M4	3,30	8,58	4,30	4,12	7,90	7,30
M5	4,20	10,63	5,30	5,19	9,80	9,20
M6	5,00	13,28	6,30	6,25	12,30	11,40
M8	6,80	16,64	8,30	8,41	15,40	14,20
M10	8,50	21,49	10,30	10,54	20,00	18,50
M12	10,30	24,83	12,30	12,65	23,10	21,60
M14	12,00	30,19	14,30	14,81	28,20	26,60
M16	14,00	34,23	16,30	16,88	32,20	30,60

MF	2,0×D					
	D1	BT	D3.1	D9	EL	TL
M6×0,75	5,25	12,97	6,30	6,18	12,20	11,60
M8×1	7,00	17,70	8,30	8,31	16,70	15,40
M10×1	9,00	21,39	10,30	10,35	20,40	19,40
M12×1	11,00	24,34	12,30	12,35	23,30	22,40
M12×1,5	10,50	26,01	12,30	12,35	24,50	23,00
M14×1,5	12,50	29,03	14,30	14,61	27,50	26,00
M16×1,5	14,50	33,53	16,30	16,64	32,00	30,50

Thread engagements for UBGF

For UNC thread ANSI B1.1, UNF thread ANSI B1.1 and for Whitworth pipe thread DIN EN ISO 228 and DIN EN 10226 (previously DIN 2999)

- BT = Drill depth
- D3.1 = max. possible chamfer Ø with front chamfer
- EL = Thread engagement
- TL = Full thread length



UNC	2,0×D					
	D1	BT	D3.1	D9	EL	TL
1/4-20 UNC	5,08	14,41	6,65	6,83	13,10	11,90
5/16-18 UNC	6,53	17,46	8,24	8,56	16,00	14,60
3/8-16 UNC	7,94	21,15	9,83	10,23	19,60	18,00
1/2-13 UNC	10,75	27,70	13,00	13,72	25,70	24,00

UNF	2,0×D					
	D1	BT	D3.1	D9	EL	TL
1/4-28 UNF	5,44	13,94	6,65	6,70	13,00	12,10
5/16-24 UNF	6,88	17,34	8,24	8,40	16,30	15,20
3/8-24 UNF	8,47	19,47	9,83	10,01	18,40	17,30
1/2-20 UNF	11,43	25,94	13,00	13,35	24,70	23,30

G	2,0×D					
	D1	BT	D3.1	D9	EL	TL
G1/8-28	8,82	20,30	10,03	10,12	19,40	18,50
G1/4-19	11,82	27,10	13,46	13,52	25,70	24,50

Thread engagements for BGF NZ4 and BGF for Nodular Grey Cast Iron

M	1,5 x D						2,0 x D						2,5 x D					
	D1	BT	D3.1	D9	EL	TL	D1	BT	D3.1	D9	EL	TL	D1	BT	D3.1	D9	EL	TL
M6	5,00	10,37	6,30	6,25	9,40	8,40	5,00	13,47	6,30	6,25	12,50	11,40	5,00	15,47	6,30	6,25	14,50	13,40
M8	6,75	13,02	8,30	8,41	11,80	10,50	6,75	16,77	8,30	8,41	15,50	14,30	6,75	21,77	8,30	8,41	20,50	19,30
M10	8,50	17,07	10,30	10,54	15,60	14,10	8,50	21,57	10,30	10,54	20,10	18,60	8,50	26,07	10,30	10,54	24,60	23,10
M12	10,30	19,65	12,30	12,65	17,90	16,40	10,30	24,90	12,30	12,65	23,10	21,60	10,30	31,90	12,30	12,65	30,10	28,60
M14	12,00	22,44	14,30	14,81	20,40	18,60	12,00	30,44	14,30	14,81	28,40	26,60	12,00	36,44	14,30	14,81	34,40	32,60
M16	14,00	26,45	16,30	16,88	24,50	22,60	14,00	34,45	16,30	16,88	32,50	30,60	14,00	42,45	16,30	16,88	40,50	38,60

Tool selection BGF for nodular grey cast iron see chapter 3

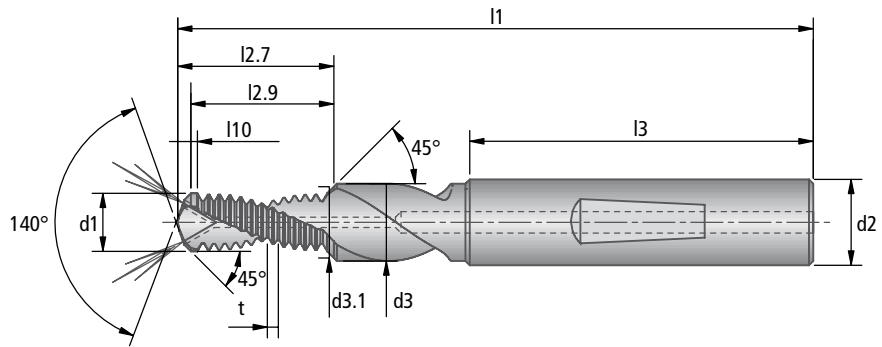


M Drill Thread Milling Tool UBGF

with 2 cutting edges with front and rear chamfer 2.0xD

For metric ISO thread DIN 13
Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply
Cutting material: solid carbide



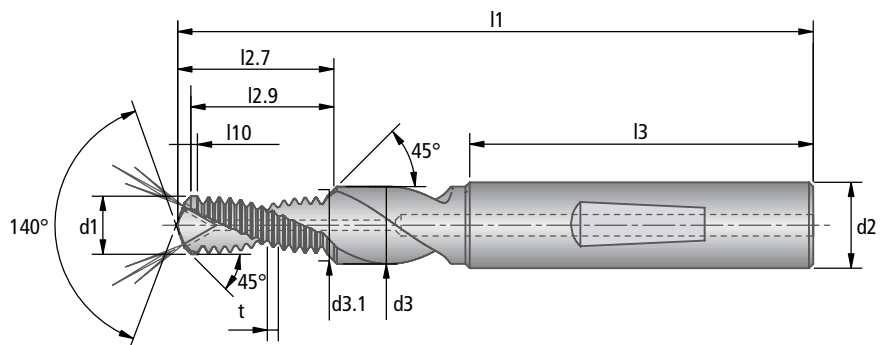
M-UBGF 2,0xD													uncoated - HE	TiAlN - HE	uncoated - HA	TiAlN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.	Order No.	Order No.
M4	0,70	49,0	9,4	8,6	36	0,4	3,3	6	4,5	4,3	3,24	2				
M5	0,80	55,0	12,5	11,4	36	0,5	4,2	6	5,5	5,3	4,10	2				
M6	1,00	62,0	14,5	13,3	36	0,6	5,0	8	6,6	6,3	4,85	2	80641001000018	80635001000018	88641001000018	88635001000018
M8	1,25	74,0	19,4	17,9	40	0,8	6,8	10	9,0	8,3	6,45	2	80641001000020	80635001000020	88641001000020	88635001000020
M10	1,50	79,0	23,4	21,5	45	0,9	8,5	12	11,0	10,3	8,08	2	80641001000022	80635001000022	88641001000022	88635001000022
M12	1,75	89,0	28,8	26,6	45	0,9	10,3	14	13,5	12,3	9,74	2	80641001000024	80635001000024	88641001000024	88635001000024
M14	2,00	102,0	32,8	30,2	48	0,8	12,0	16	15,5	14,3	11,35	2				
M16	2,00	102,0	37,1	34,2	48	0,8	14,0	18	17,5	16,3	13,28	2				

MF Drill Thread Milling Tool UBGF

with 2 cutting edges with front and rear chamfer 2.0xD

For metric fine ISO thread DIN 13
Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply
Cutting material: solid carbide



MF-UBGF 2,0xD													uncoated - HE	TiAlN - HE	uncoated - HA	TiAlN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.	Order No.	Order No.
M6x0,75	0,75	61,7	14,9	13,0	36	0,4	5,3	8	6,6	6,3	5,14	2	80641002000048		88641002000048	
M8x1	1,00	74,0	18,8	17,3	40	0,6	7,0	10	9,0	8,3	6,79	2	80641002000070	80635002000070	88641002000070	88635002000070
M10x1	1,00	79,0	24,2	22,4	45	0,6	9,0	12	11,0	10,3	8,75	2	80641002000094	80635002000094	88641002000094	88635002000094
M12x1	1,00	88,4	26,4	24,3	45	0,6	11,0	14	13,5	12,3	10,74	2	80641002000111	80635002000111	88641002000111	88635002000111
M12x1,5	1,50	89,0	28,2	26,0	45	0,9	10,5	14	13,5	12,3	10,06	2	80641002000113	80635002000113	88641002000113	88635002000113
M14x1,5	1,50	102,0	33,0	30,5	48	0,9	12,5	16	15,5	14,3	12,01	2	80641002000131		88641002000131	
M16x1,5	1,50	102,0	36,3	33,5	48	0,9	14,5	18	17,5	16,3	13,95	2				

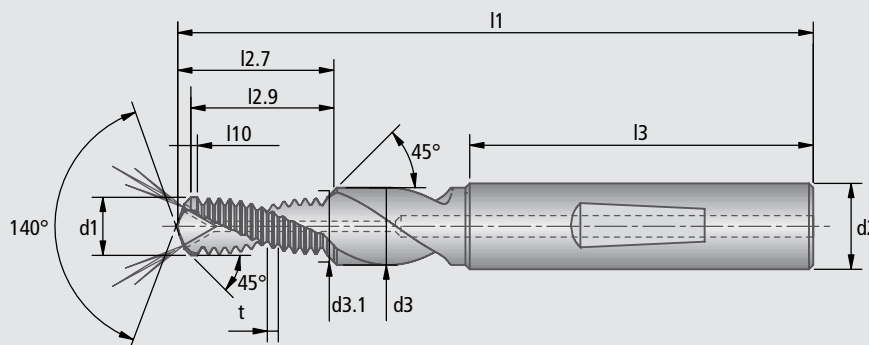
UNC Drill Thread Milling Tool UBGF



with 2 cutting edges with front and rear chamfer 2.0xD

For UNC thread ANSI B1.1
Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply
Cutting material: solid carbide



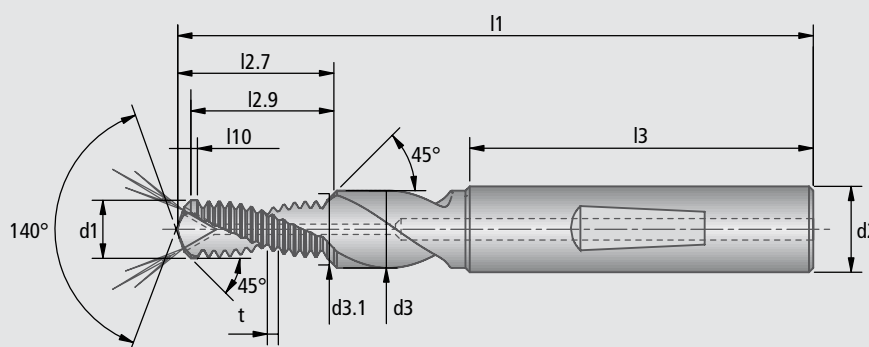
UNC-UBGF 2,0xD													uncoated - HE	TiAlN - HE	uncoated - HA	TiAlN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.	Order No.	Order No.
1/4-20 UNC	1,270	62,0	15,7	14,4	36	0,8	5,1	8	7,8	6,7	4,70	2	8064101000011		8864101000011	
5/16-18 UNC	1,411	74,0	19,0	17,5	40	0,9	6,5	10	9,0	8,2	6,01	2	8064101000012		8864101000012	
3/8-16 UNC	1,588	79,0	23,0	21,2	45	0,9	7,9	12	11,0	9,8	7,36	2	8064101000013		8864101000013	
1/2-13 UNC	1,954	89,0	30,1	27,7	45	0,8	10,8	14	13,5	13,0	9,87	2	8064101000015		8864101000015	

UNF Drill Thread Milling Tool UBGF

with 2 cutting edges with front and rear chamfer 2.0xD

For UNF thread ANSI B1.1
Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply
Cutting material: solid carbide



UNF-UBGF 2,0xD													uncoated - HE	TiAlN - HE	uncoated - HA	TiAlN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.	Order No.	Order No.
1/4-28 UNF	0,907	62,0	15,2	13,9	36	0,5	5,4	8	7,8	6,7	5,17	2	8060101100011		8860101100011	
5/16-24 UNF	1,058	74,0	18,8	17,3	40	0,6	6,9	10	9,0	8,2	6,51	2	8060101100012		8860101100012	
3/8-24 UNF	1,058	79,0	22,3	20,5	45	0,6	8,5	12	11,0	9,8	8,07	2	8060101100013		8860101100013	
1/2-20 UNF	1,270	89,0	29,5	27,2	45	0,8	11,4	14	13,5	13,0	10,88	2	8060101100015		8860101100015	

4



UBGF
DBGF

G Drill Thread Milling Tool UBGF

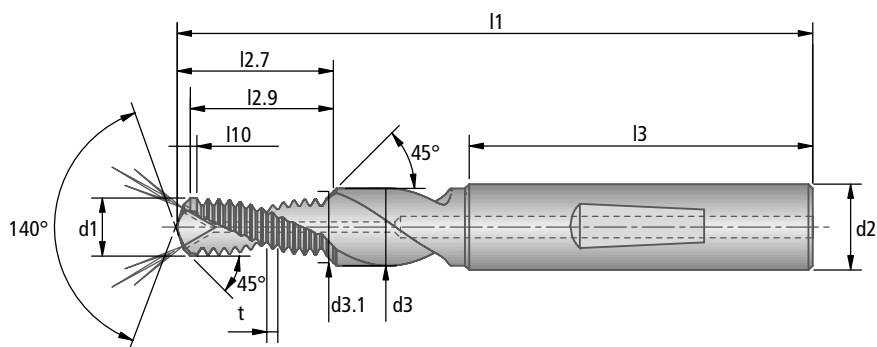
with 2 cutting edges with front and rear chamfer 2.0xD





For Whitworth pipe thread DIN EN ISO 228 and DIN EN 10226 (previously DIN 2999)

Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply

Cutting material: solid carbide



G-UBGF 2,0xD													uncoated - HE	TiAlN - HE	uncoated - HA	TiAlN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z				
													Order No.	Order No.	Order No.	Order No.
G1/8-28	0,907	79,0	22,1	20,3	45	0,5	8,8	12	11,0	10,0	8,40	2	80601025000001		88601025000001	
G1/4-19	1,337	102,0	30,8	28,5	48	0,8	11,8	16	15,5	13,5	11,44	2	80601025000002		88601025000002	

M Drill Thread Milling Tool BGF



with 3 cutting edges with rear chamfer 1.5×D; 2.0×D and 2.5×D

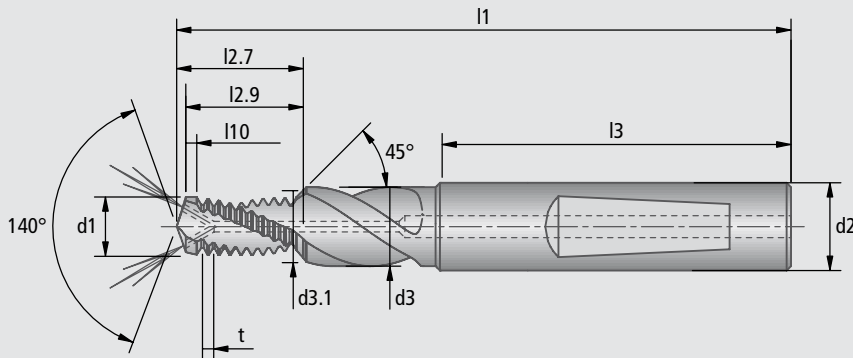
For metric ISO thread DIN 13

For precasted holes

Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply

Cutting material: solid carbide



M-BGF 1,5×D													uncoated - HE	TiAlN - HE	uncoated - HA	TiAlN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.	Order No.	Order No.
M6	1,00	59,0	11,5	10,7	36	1,0	5,0	8	6,6	6,3	4,85	3	80345001000018	80334001000018	88345001000018	88334001000018
M8	1,25	70,3	14,4	13,4	40	1,3	6,8	10	9,0	8,3	6,45	3	80345001000020	80334001000020	88345001000020	88334001000020
M10	1,50	74,5	18,9	17,6	45	1,5	8,5	12	11,0	10,3	8,08	3	80345001000022	80334001000022	88345001000022	88334001000022
M12	1,75	83,8	21,8	20,2	45	1,5	10,3	14	13,5	12,3	9,74	3	80345001000024	80334001000024	88345001000024	88334001000024

M-BGF 2,0×D													uncoated - HE	TiAlN - HE	uncoated - HA	TiAlN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.	Order No.	Order No.
M6	1,00	62,0	14,5	13,7	36	1,0	5,0	8	6,6	6,3	4,85	3	80341001000018	80335001000018	88341001000018	88335001000018
M8	1,25	74,0	18,2	17,1	40	1,3	6,8	10	9,0	8,3	6,45	3	80341001000020	80335001000020	88341001000020	88335001000020
M10	1,50	79,0	23,4	22,1	45	1,5	8,5	12	11,0	10,3	8,08	3	80341001000022	80335001000022	88341001000022	88335001000022
M12	1,75	89,0	27,1	25,5	45	1,5	10,3	14	13,5	12,3	9,74	3	80341001000024	80335001000024	88341001000024	88335001000024

M-BGF 2,5×D													uncoated - HE	TiAlN - HE	uncoated - HA	TiAlN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.	Order No.	Order No.
M6	1,00	62,0	16,5	15,7	36	1,0	5,0	8	6,6	6,3	4,85	3	80361001000018	80356001000018	88361001000018	88356001000018
M8	1,25	74,0	23,2	22,1	40	1,3	6,8	10	9,0	8,3	6,45	3	80361001000020	80356001000020	88361001000020	88356001000020
M10	1,50	79,0	27,9	26,6	45	1,5	8,5	12	11,0	10,3	8,08	3	80361001000022	80356001000022	88361001000022	88356001000022
M12	1,75	89,0	34,1	32,5	45	1,5	10,3	14	13,5	12,3	9,74	3	80361001000024	80356001000024	88361001000024	88356001000024

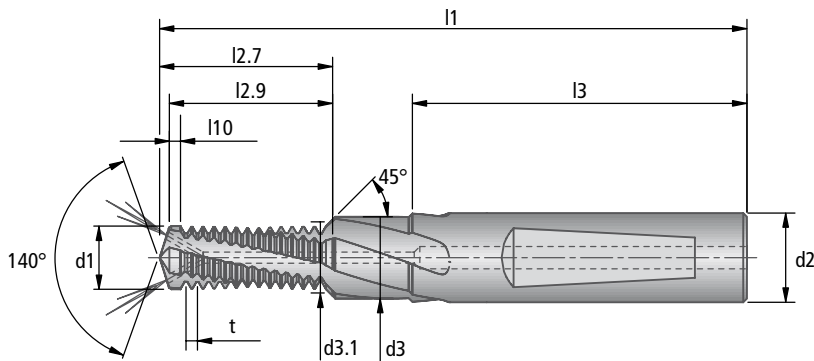
Thread engagements see page 36.

M Drill Thread Milling Tool BGF NZ4

with 4 cutting edges with rear chamfer 1.5×D

For metric ISO thread DIN 13
Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply
Cutting material: solid carbide



M-BGF 1,5xD													AlCrN - HE	AlCrN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.
M6	1,00	59,0	11,6	10,5	36	0,8	5,0	8	6,6	6,3	4,85	4	80369001000018	88369001000018
M8	1,25	70,3	14,5	13,0	40	1,0	6,8	10	9,0	8,3	6,61	4	80369001000020	88369001000020
M10	1,50	74,7	19,0	17,1	45	1,1	8,5	12	11,0	10,3	8,29	4	80369001000022	88369001000022
M12	1,75	83,8	22,0	19,7	45	1,1	10,3	14	13,5	12,3	10,00	4	80369001000024	88369001000024
M14	2,00	94,0	25,1	22,4	48	1,0	12,0	16	15,5	14,3	11,35	4		
M16	2,00	94,0	29,5	26,5	48	1,0	14,0	18	17,5	16,3	13,27	4		

Thread engagements see page 51 in table thread engagements for BGF NZ4 and BGF for Nodular Grey Cast Iron

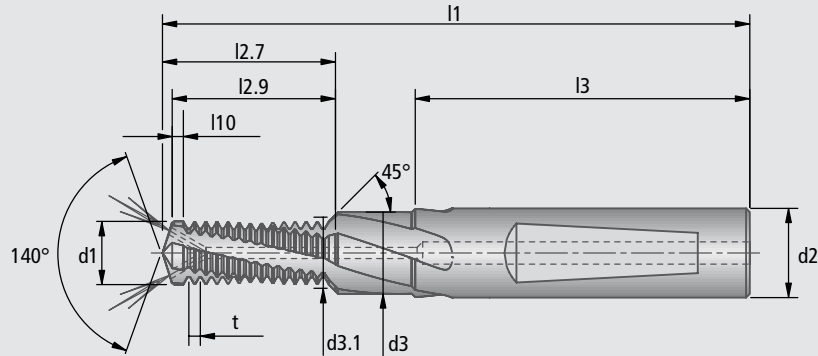
M Drill Thread Milling Tool BGF NZ4



with 4 cutting edges with rear chamfer 2.0×D and 2.5×D

For metric ISO thread DIN 13
Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply
Cutting material: solid carbide



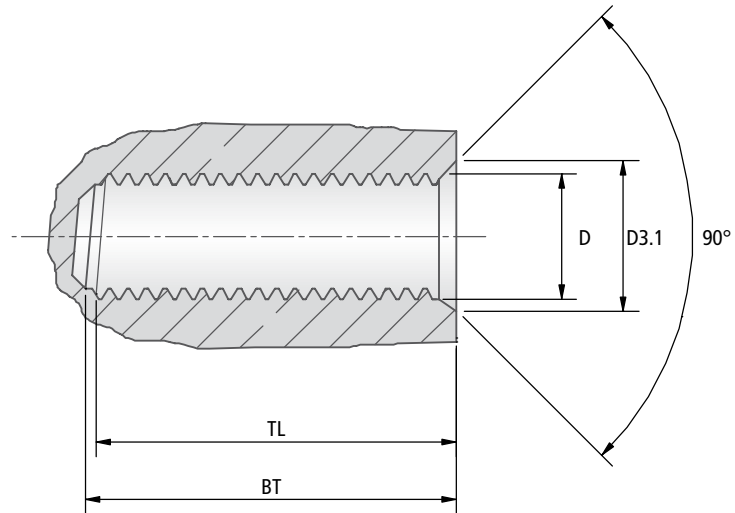
M-BGF 2,0xD													AICrN - HE	AICrN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.
M6	1,00	62,0	14,6	13,5	36	0,8	5,0	8	6,6	6,3	4,85	4	80373001000018	88373001000018
M8	1,25	74,0	18,3	16,8	40	1,0	6,8	10	9,0	8,3	6,61	4	80373001000020	88373001000020
M10	1,50	79,0	23,5	21,6	45	1,1	8,5	12	11,0	10,3	8,29	4	80373001000022	88373001000022
M12	1,75	89,0	27,2	24,9	45	1,1	10,3	14	13,5	12,3	10,00	4	80373001000024	88373001000024
M14	2,00	102,0	33,1	30,4	48	1,0	12,0	16	15,5	14,3	11,35	4		
M16	2,00	102,0	37,5	34,5	48	1,0	14,0	18	17,5	16,3	13,27	4		

M-BGF 2,5xD													AICrN - HE	AICrN - HA
Nominal Ø	t	l1	l2.7	l2.9	l3	l10	d1	d2	d3	d3.1	AD	Z	Order No.	Order No.
M6	1,00	62,0	16,6	15,5	36	0,8	5,0	8	6,6	6,3	4,85	4	80380001000018	88380001000018
M8	1,25	74,0	23,3	21,8	40	1,0	6,8	10	9,0	8,3	6,61	4	80380001000020	88380001000020
M10	1,50	79,0	28,0	26,1	45	1,1	8,5	12	11,0	10,3	8,29	4	80380001000022	88380001000022
M12	1,75	89,0	34,2	31,9	45	1,1	10,3	14	13,5	12,3	10,00	4	80380001000024	88380001000024
M14	2,00	102,0	39,1	36,4	48	1,0	12,0	16	15,5	14,3	11,35	4		
M16	2,00	102,0	45,5	42,5	48	1,0	14,0	18	17,5	16,3	13,27	4		

Thread engagements see page 51 in table thread engagements for BGF NZ4 and BGF for Nodular Grey Cast Iron

Thread engagements for DBGF

BT = Drill depth
 TL = Full thread length



M	2,0×D			3,0×D		
	BT	D3.1	TL	BT	D3.1	TL
M6 / M7	17,8	6,3	14,0	23,8	6,3	20,0
M 8	23,2	8,3	18,5	31,2	8,3	26,5
M 10	28,5	10,3	23,0	38,5	10,3	33,0
M 12	34,0	12,3	27,5	46,0	12,3	39,5

We reserve the right to make technical alterations

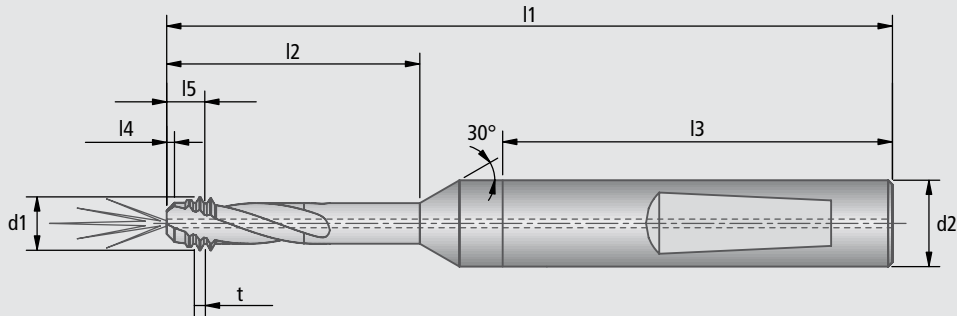
M Direct Circular Drill Thread Milling Tool DBGF



with 3 or 4 cutting edges with front chamfer

For metric ISO thread DIN 13
Shank Ø DIN 6535 Form HE/HA

Tools with internal coolant supply
Cutting material: solid carbide



M-DBGF 2,0xD										TiAlN - HE	TiAlN - HA
Nominal Ø	t	l1	l2	l3	l4	l5	d1	d2	z	Order No.	Order No.
M6 / M7	1,00	60,0	17,8	36	0,4	3,8	4,7	8	3	80752001000018	88752001000018
M 8	1,25	71,0	23,2	40	0,5	4,7	6,3	10	4	80752001000020	88752001000020
M 10	1,50	76,0	28,5	40	0,6	5,5	7,8	10	4	80752001000022	88752001000022
M 12	1,75	86,0	34,0	45	0,6	6,5	9,5	12	4	80752001000024	88752001000024

M-DBGF 3,0xD										TiAlN - HE	TiAlN - HA
Nominal Ø	t	l1	l2	l3	l4	l5	d1	d2	z	Order No.	Order No.
M6 / M7	1,00	65,0	23,8	36	0,4	3,8	4,7	8	3	80758001000018	88758001000018
M 8	1,25	79,0	31,2	40	0,5	4,7	6,3	10	4	80758001000020	88758001000020
M 10	1,50	85,0	38,5	40	0,6	5,5	7,8	10	4	80758001000022	88758001000022
M 12	1,75	100,0	46,0	45	0,6	6,5	9,5	12	4	80758001000024	88758001000024