

### Tool description:

Thread mills ZBGF for the production of internal threads.

Due to the circular milling process, the thread hole and the thread itself can be produced in one work process. Drilling of the thread hole is no longer necessary.

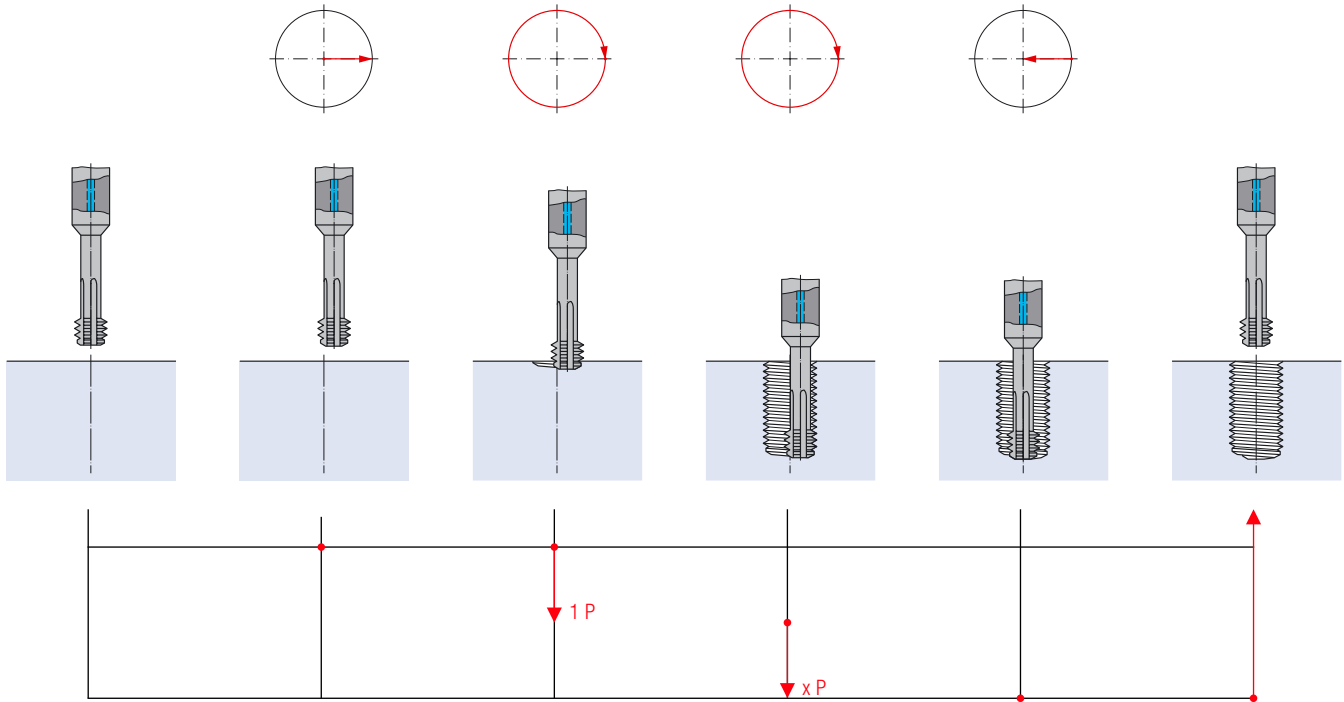
### Application range:

**ZBGF-H** for hard materials from 45 HRC up to 66 HRC

**ZBGF-W** for aluminium, aluminium alloys, cast materials, low- and high-alloyed steels up to 1100 N/mm<sup>2</sup>, stainless steel and titanium, as well as some synthetics

**ZBGF-T** for thread depths up to 3 x D in aluminium and cast iron

### Thread milling cycle:



ZBGF

Thread Mills

For hard materials from 45 HRC up to 66 HRC

**ZBGF-H**



TIALN-T3



**2 x D**

For soft/unhardened materials

**ZBGF-W**



TIALN-T4



**2 x D**

For the machining of aluminium and cast iron

**ZBGF-T**



TICN



**3 x D**

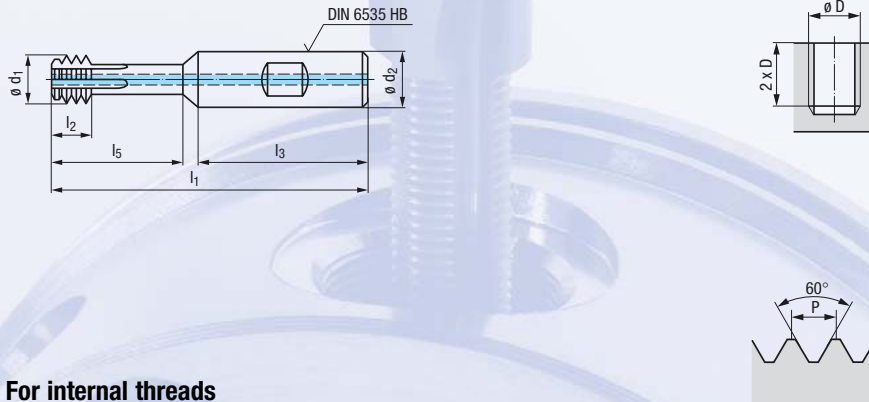
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# UNC

Unified coarse thread UNC  
ASME B1.1

Left-hand cutting



For internal threads

### Metric Shank

With internal coolant-lubricant supply (IKZ)

## 2 x D

For hard materials from 45 HRC up to 66 HRC



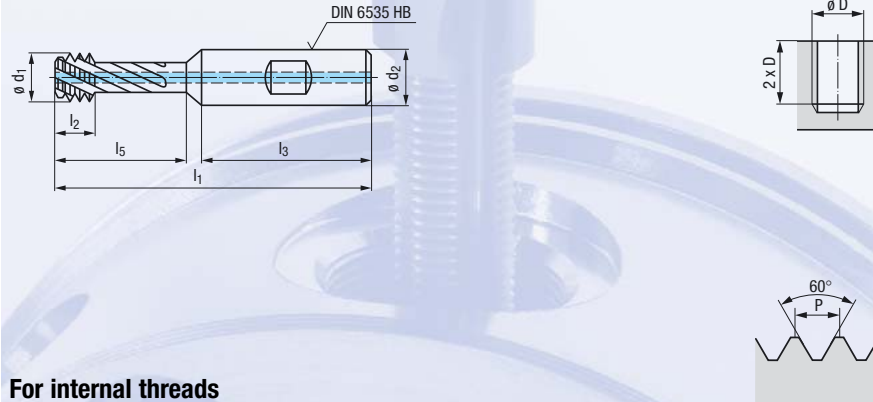
Catalog No.										G600	
ø D	T.P.I.	l <sub>1</sub>	l <sub>2</sub>	inch l <sub>3</sub>	l <sub>5</sub>	ø d <sub>1</sub>	inch ø d <sub>2</sub>	mm	Teeth	Article Number	TIALN-T3
5/16	18	2.992	0.224	1.575	0.866	0.222	0.394	10	4	GF733208.5010	●
3/8	16	2.992	0.252	1.575	1.024	0.282	0.394	10	4	GF733208.5011	●
7/16	14	3.386	0.283	1.772	1.220	0.333	0.472	12	4	GF733208.5012	●
1/2	13	3.386	0.311	1.772	1.299	0.397	0.472	12	4	GF733208.5013	●
5/8	11	3.858	0.366	1.890	1.654	0.507	0.630	16	4	GF733208.5015	●
3/4	10	4.370	0.398	1.969	2.008	0.610	0.787	20	5	GF733208.5016	●

Other thread standards upon request

# UNC

Unified coarse thread UNC  
ASME B1.1

Right-hand cutting



For internal threads

**Metric Shank**  
With internal coolant-lubricant supply (IKZ)

**2 x D**

For soft/unhardened materials



Catalog No.										G561	
$\phi D$	T.P.I.	$l_1$	$l_2$	inch $l_3$	$l_5$	$\phi d_1$	inch $\phi d_2$	mm	Teeth	Article Number	TIALN-T4
1/4	20	2.362	0.201	1.417	0.669	0.183	0.315	8	3	GF732257.5009	●
5/16	18	2.992	0.224	1.575	0.866	0.222	0.394	10	4	GF732257.5010	●
3/8	16	2.992	0.252	1.575	1.024	0.282	0.394	10	4	GF732257.5011	●
7/16	14	3.386	0.283	1.772	1.220	0.333	0.472	12	4	GF732257.5012	●
1/2	13	3.386	0.311	1.772	1.299	0.397	0.472	12	4	GF732257.5013	●
5/8	11	3.858	0.366	1.890	1.654	0.507	0.630	16	4	GF732257.5015	●
3/4	10	4.370	0.398	1.969	2.008	0.610	0.787	20	5	GF732257.5016	●

Other thread standards upon request

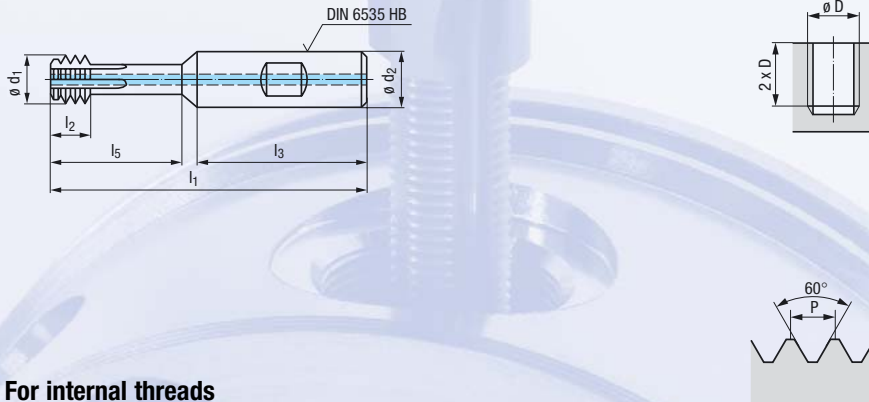
ZBGF

Thread Mills

# UNF

Unified fine thread UNF  
ASME B1.1

Left-hand cutting



For internal threads

### Metric Shank

With internal coolant-lubricant supply (IKZ)

## 2 x D

For hard materials from 45 HRC up to 66 HRC



### Catalog No.

### G601

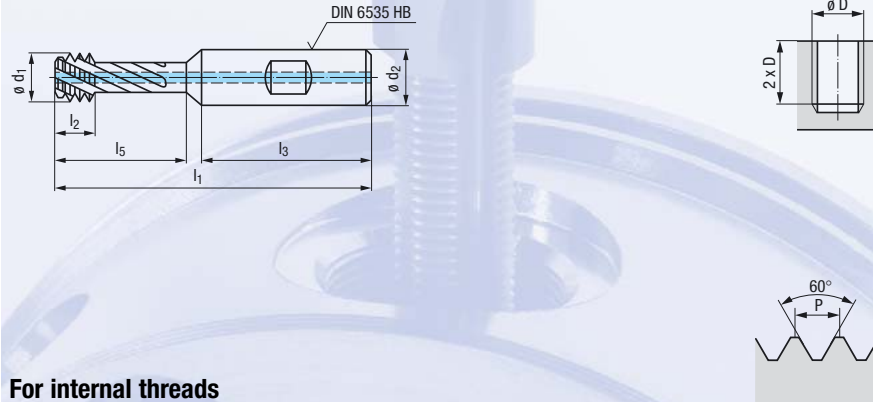
ø D	T.P.I.	l <sub>1</sub>	l <sub>2</sub>	inch		l <sub>5</sub>	ø d <sub>1</sub>	ø d <sub>2</sub>		Teeth	Article Number	TIALN-T3
				l <sub>3</sub>	l <sub>4</sub>			inch	mm			
5/16	24	2.992	0.167	1.575	0.866	0.222	0.394	10	4	GF733208.5044	●	
3/8	24	2.992	0.167	1.575	1.024	0.281	0.394	10	4	GF733208.5045	●	
7/16 - 1/2	20	3.386	0.203	1.772	1.299	0.333	0.472	12	4	GF733208.5046	●	
9/16 - 5/8	18	3.858	0.226	1.890	1.614	0.444	0.630	16	4	GF733208.5048	●	
3/4	16	4.370	0.248	1.969	2.008	0.606	0.787	20	5	GF733208.5050	●	

Other thread standards upon request

# UNF

Unified fine thread UNF  
ASME B1.1

Right-hand cutting



For internal threads

**Metric Shank**  
With internal coolant-lubricant supply (IKZ)

**2 x D**

For soft/unhardened materials



Catalog No.										G564	
$\phi D$	T.P.I.	$l_1$	$l_2$	inch		$\phi d_1$	$\phi d_2$		Teeth	Article Number	TIALN-T4
				$l_3$	$l_5$		inch	mm			
1/4	28	2.362	0.146	1.417	0.669	0.183	0.315	8	3	GF732257.5043	●
5/16	24	2.992	0.167	1.575	0.866	0.222	0.394	10	4	GF732257.5044	●
3/8	24	2.992	0.167	1.575	1.024	0.281	0.394	10	4	GF732257.5045	●
7/16 - 1/2	20	3.386	0.203	1.772	1.299	0.333	0.472	12	4	GF732257.5046	●
9/16 - 5/8	18	3.858	0.226	1.890	1.614	0.444	0.630	16	4	GF732257.5048	●
3/4	16	4.370	0.248	1.969	2.008	0.606	0.787	20	5	GF732257.5050	●

Other thread standards upon request

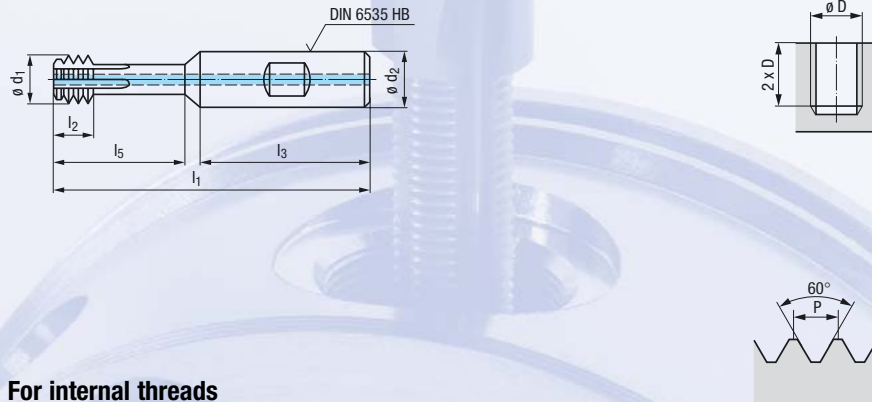
ZBGF

Thread Mills

# M

### ISO Metric threads DIN 13

Left-hand cutting



For internal threads

**Metric Shank**  
With internal coolant-lubricant supply (IKZ)

## 2 x D

For hard materials from 45 HRC up to 66 HRC



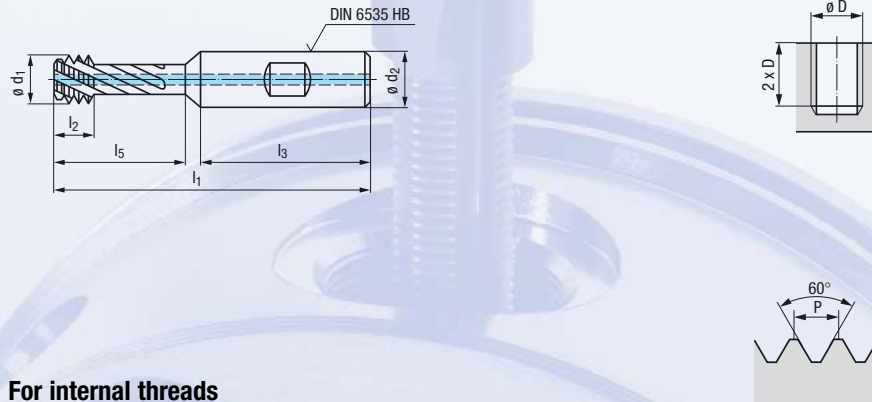
Catalog No.									G555	
P mm	ø D <sub>1</sub>	l <sub>1</sub>	mm			ø d <sub>1</sub>	ø d <sub>2</sub>	Teeth	Article Number	TIALN-T3
			l <sub>2</sub>	l <sub>3</sub>	l <sub>5</sub>					
1.25	M 8 - M10 x 1.25	71	5	40	21	6.20	10	4	GF733208.0080	●
1.5	M10 - M12 x 1.5	76	6	40	26	7.75	10	4	GF733208.0100	●
1.75	M12	86	7	45	31	9.20	12	4	GF733208.0112	●
2.0	M14 - M16	98	8	48	40	11.08	16	4	GF733208.0114	●

Other thread standards upon request

# M

## ISO Metric threads DIN 13

Right-hand cutting



For internal threads

**Metric Shank**  
With internal coolant-lubricant supply (IKZ)

**2 x D**

For soft/unhardened materials



**Catalog No.**

**G558**

P mm	Ø D <sub>1</sub>	l <sub>1</sub>	mm			Ø d <sub>1</sub>	Ø d <sub>2</sub>	Teeth	Article Number	TIALN-T4
			l <sub>2</sub>	l <sub>3</sub>	l <sub>5</sub>					
1	M 6 - M 7	60	4	36	16	4.50	8	3	GF732257.0060	●
1.25	M 8 - M10 x 1.25	71	5	40	21	6.20	10	4	GF732257.0080	●
1.5	M10 - M12 x 1.5	76	6	40	26	7.75	10	4	GF732257.0100	●
1.75	M12	86	7	45	31	9.20	12	4	GF732257.0112	●
2.0	M14 - M16	98	8	48	40	11.08	16	4	GF732257.0114	●

Other thread standards upon request

ZBGF

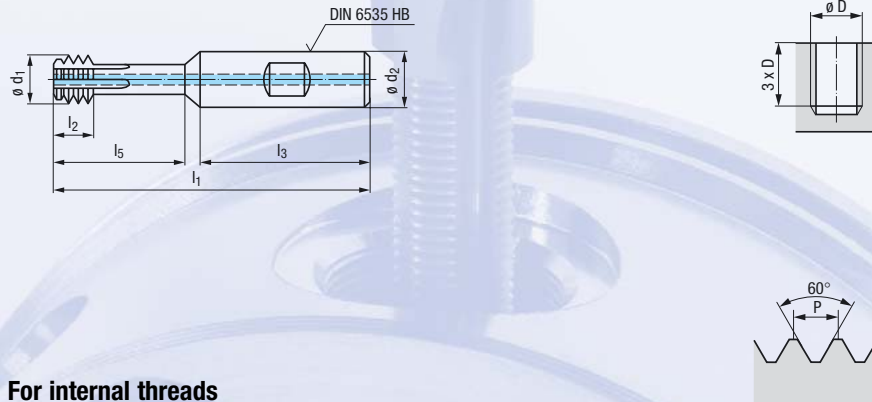
Thread  
Mills



# M

### ISO Metric threads DIN 13

Right-hand cutting



For internal threads

**Metric Shank**  
With internal coolant-lubricant supply (IKZ)

### 3 x D

For the machining of aluminium and cast iron



**Catalog No.**

**G663**

P mm	ø D <sub>1</sub>	l <sub>1</sub>	mm			ø d <sub>1</sub>	ø d <sub>2</sub>	Teeth	Article Number	TICN		
			l <sub>2</sub>	l <sub>3</sub>	l <sub>5</sub>							
1	M 6 - M 7	65	4	36	20	4.50	8	3	GF753276.0060	●		
1.25	M 8 - M10 x 1.25	80	5	40	27	6.20	10	4	GF753276.0080	●		
1.5	M10 - M12 x 1.5	85	6	40	33	7.75	10	4	GF753276.0100	●		
1.75	M12	100	7	45	40	9.20	12	4	GF753276.0112	●		

Other thread standards upon request

