

# GUHRING



## Powerful for the energy technology

GUHRING - YOUR WORLD-WIDE PARTNER

# POWERFUL FOR THE ENERGY TECHNOLOGY

Industrial sectors such as transmission, turbine and energy plant manufacturers require exceptionally large threads. For exactly such applications we have the taps, Guhring nos. 778 and 779 as well as the fluteless tap, Guhring no. 923 in the range for thread sizes M16 to M39.

As part of our special solutions we also provide taps and fluteless taps within the scope of our semi-standard range with short delivery times and at a favourable cost. Based on our ex-stock blanks of our standard range we manufacture taps up to a length of 400 mm for the thread sizes M16 to M39 to customer specifications with application oriented coatings for your special application task.

## PERFECT PARTNERS: LARGE TAPS AND THE HT 800 WP DRILLING SYSTEM

The HT 800 WP interchangeable insert drilling system is the ideal solution for the production of large holes. Six holders for drilling depths up to 10xD and five interchangeable inserts with special geometries and coatings for various materials ensure the production of accurate holes in the diameter range from 11.00 to 40.00 mm.



## SPECIAL THREAD MILLING CUTTERS

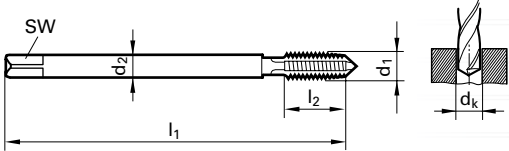

Thread milling cutters are also ideal tools for the production of large threads. As part of our special tool production we produce thread milling cutters according to your requirements up to a cutting edge diameter of 32 mm and a thread pitch of 6 mm with variable thread length and application oriented coating.

The advantages of thread milling are obvious: With a thread milling cutter one can produce different diameter (or tolerances) threads with the same pitch. In addition, the same tool can produce right- and left-hand threads. As thread milling only produces very short chips, their evacuation does not cause any problems.

The package of advantages is rounded off thanks to the universal application of thread milling cutters in different materials and the high process reliability.

POWERFUL FOR THE ENERGY TECHNOLOGY

Taps for ISO metric threads, M16 - M39



Gehring no.	778
Standard	DIN 2184-1
Standard	DIN 376
Tool material	HSS-E
Surface finish	C
Type	H
Form	C
Diameter tolerance	6HX
Cutting direction	right-hand
Discount group	103

d1	P	d2	SW	dk	l1	l2
	mm	mm		mm	mm	mm
M16	2.00	12.000	9.00	14.000	110.00	20.00
M20	2.50	16.000	12.00	17.500	140.00	25.00
M24	3.00	18.000	14.50	21.000	160.00	30.00
M27	3.00	20.000	16.00	24.000	160.00	30.00
M30	3.50	22.000	18.00	26.500	180.00	35.00
M33	3.50	25.000	20.00	29.500	180.00	35.00
M36	4.00	28.000	22.00	32.000	200.00	40.00
M39	4.00	32.000	24.00	35.000	200.00	40.00

Price per tool in €

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LARGE THREADS TO DIN STANDARD

For the production of large threads from M16 to M39 we have a tap to DIN 376, Gehring no. 778, in the range. Its geometry is not only adapted to meet the special demands for the production of large threads, it is also suitable for the machining of materials typically applied in energy technology. This tap can be used for a variety of applications in high-tensile steels, aluminium and AlSi-alloys up to a 6% Si-content as well as in cast iron. Last but not least it can be applied for machining through holes as well as blind holes. A genuine all-rounder for demanding applications!

SELECTED MACHINING RESULTS

Gehring no.	778
Workpiece	Gear ring
Material	42CrMo4
Thread	44xM36
Thread depth	60 mm
Thread type	Blind holes
Machine type	Machining centre compensation chuck
Lubricant	soluble oil 8%
Cutting rates	15 m/min
Tool life	300 threads


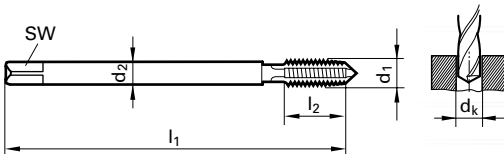
M16 -  
M39





# POWERFUL FOR THE ENERGY TECHNOLOGY

## Taps for ISO metric threads, M16 - M39

	Guhring no.	779
	Standard	~DIN 2184-1
	Standard	~DIN 376
	Tool material	HSS-E
	Surface finish	C
	Type	H
	Form	C
	Diameter tolerance	6HX
	Cutting direction	right-hand
	Discount group	103
	Price per tool in €	

d1	P	d2	SW	dk	l1	l2
	mm	mm		mm	mm	mm
M16	2.00	12.000	9.00	14.000	160.00	25.00
M20	2.50	16.000	12.00	17.500	180.00	30.00
M24	3.00	18.000	14.50	21.000	200.00	36.00
M27	3.00	20.000	16.00	24.000	225.00	36.00
M30	3.50	22.000	18.00	26.500	250.00	42.00
M33	3.50	25.000	20.00	29.500	275.00	42.00
M36	4.00	28.000	22.00	32.000	300.00	48.00
M39	4.00	32.000	24.00	35.000	325.00	48.00




### LARGE THREADS WITH LONG REACH

For the production of large threads in deep holes we have a tap, Guhring no. 779, in the range. For this task it possesses a longer thread length and an elongated neck, providing it with more reach. It is also suitable for the machining of materials typically applied in energy technology such as high-tensile steels, aluminium and AlSi-alloys up to 6% Si-content as well as cast iron - and of course also for through as well as blind holes.

### SELECTED MACHINING RESULTS

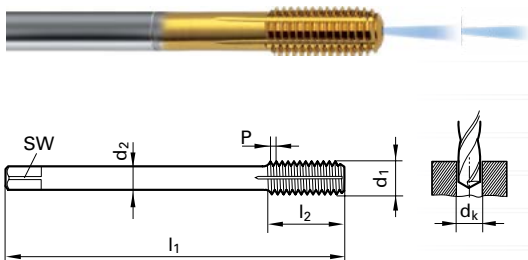
Guhring no.	779
Workpiece	Spur gear
Material	17 CrNiMo 6 (ca. 58 HRC)
Thread	12xM36
Thread depth	36 mm
Thread type	Blind hole
Machine type	Machining centre quick-change chuck
Lubricant	Soluble oil 8%
Cutting rates	8 m/min
Tool life	240 thread

# M16 - M39



# POWERFUL FOR THE ENERGY TECHNOLOGY

## Fluteless taps for ISO metric threads, M16 - M39

							<b>Guhrrnh no.</b>	<b>923</b>
							<b>Standard</b>	<b>DIN 2184-1</b>
							<b>Standard</b>	<b>~DIN 376</b>
							<b>Tool material</b>	<b>HSS-E</b>
							<b>Surface finish</b>	<b>S</b>
							<b>Type</b>	<b>N</b>
							<b>Form</b>	<b>C</b>
							<b>Diameter tolerance</b>	<b>6HX</b>
							<b>Cutting direction</b>	<b>right-hand</b>
							<b>Discount group</b>	<b>103</b>
d1	P	d2	SW	dk	l1	l2	Price per tool in €	
	mm	mm		mm	mm	mm		
M16	2.00	12.000	9.00	15.100	110.00	20.00	●	
M20	2.50	16.000	12.00	18.900	140.00	25.00		
M24	3.00	18.000	14.50	22.700	160.00	30.00		
M27	3.00	20.000	16.00	25.700	160.00	30.00	●	
M30	3.50	22.000	18.00	28.500	180.00	35.00		
M33	3.50	25.000	20.00	31.500	180.00	35.00		
M36	4.00	28.000	22.00	34.300	200.00	40.00	●	
M39	4.00	32.000	24.00	37.300	200.00	40.00		



### LARGE THREADS PERFECTLY FORMED

Benefit from the advantages of formed large threads with our fluteless tap, Guhring no. 923. Above all you profit from the high process reliability with large, expensive components! Because cross-cutting of the thread is out of the question, the same applies to thread pitch and flank angle errors. In addition, formed threads possess an exceptionally high tensile strength in the load bearing thread flanks. The universal application of this fluteless tap in through and blind holes as well as in a wide range of materials round off the advantages.

### SELECTED MACHINING RESULTS

Guhrrnh no.	923
Workpiece	Round frame
Material	42CrMo4
Thread	200xM30 (x3.5)
Thread depth	60 mm
Thread type	Blind hole
Machine type	Machining centre
Lubricant	Neat oil
Cutting rates	18 m/min
Tool life	1050 threads

# M16 - M39



DRILLING

TAPPING/  
THREAD MILLING/  
THREAD FORMING

MILLING

REAMING

PCD



SPECIAL  
SOLUTIONS

COUNTERSINKING

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SERVICES

# GUHRING

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