

nano THREAD

nano  
THREAD



MASTER  
**THE SMALLEST  
AND MOST PRECISE**  
THREADED CONNECTIONS

nano





[dcswiss.com](http://dcswiss.com)



#### **WARNING**

Thread tools can break or shatter either through technical failure or negligence, and can endanger the health of the operator. Always obey the safety and health regulations, also the wearing of safety glasses is compulsory. The grinding of threading tools causes hazardous particles, and must be performed only under most rigorous safety standards.

We have made every effort to ensure that the information (drawings, prints, technical data) given is correct. However, we do not assume any responsibility for any errors, omissions or subsequent changes.

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Cat NANO THREAD EN 2019.v2 - 197386



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# GOOD TOOLS PERFORM GOOD RESULTS

*All factories, regardless of whether they manufacture in-house or delegate the task of creating their designs, need to guarantee the precision and durability of their screw connections.*


































## WELCOME TO THE NUMBER 1

DC SWISS is recognised as the leader in screw connections, and offers a range of dedicated products, tools, tool holders and gauges. The products & services shown in our catalogue are merely the tip of the iceberg. As your partner, we can assist you in designing and developing specific custom-made operations.

### OUR EXPERIENCE IN MICROMECHANICS AND WATCHMAKING IS A GUARANTEE OF OUR RELIABILITY

To enable you to create the most audacious and varied assemblies that are best suited to every situation, DC SWISS offers you access to its extensive expertise. Tools are, after all, essential items. They need to adapt to every configuration, every material and all production techniques. Shapes and sizes are no longer constraining factors. DC SWISS develops tools as a matter of course, because custom-made orders are becoming increasingly commonplace.

# PICTOGRAPHS

	Core-hole diameter		GW 1000 profile
	Number of flutes (Z)		GW 2000 profile
	For Classic Tapping		GW 3000 profile
	For Rigid Tapping		GWi 3000 profile
	HSSE-PM		GWi 5000 profile
	Solid carbide		Spotting drill with internal coolant
	Thread former		Twist drill with internal coolant
	Chamfer 90°		Point angle 130°
	Depth hole 8 x d <sub>1</sub>		Thread length 2.5 x D <sub>1</sub>
	20° left hand spiral flutes		Thread length 3 x D <sub>1</sub>
	25° right hand spiral flutes		Thread length 4 x D <sub>1</sub>
	Blind hole < 2 x D, long chipping materials		Internal thread
	Through hole < 2 x D, long chipping materials		Drilling with pecking
	Through / blind hole < 2.5 x D, short chipping materials	<span style="color: green;">●</span> In stock	
	Through / blind hole < 3 x D, short chipping materials	<span style="color: orange;">●</span> Delivery lead time : between 3 to 6 weeks	
	1.5 - 2 chamfered threads, form E		
	2 - 3 chamfered threads, form C		
	4 chamfered threads, form D		
	VS wear-protective coating		
	VX wear-protective coating		

# SPECIAL TOOLS ON DEMAND

*Some processes require special on demand tools. DC SWISS can create custom-made thread taps to meet your requirements.*

## WITH OUR EXPERTISE, WE CAN CREATE ON DEMAND TOOLS THAT MEET THE HIGHEST MARKET REQUIREMENTS

To enable you to create the most audacious and varied assemblies that are best suited to every situation, DC SWISS offers you access to its extensive expertise. Tools are, after all, essential items. They need to adapt to every configuration, every material and all production techniques. Shapes and sizes are no longer constraining factors. DC SWISS develops tools as a matter of course, because custom-made orders are becoming increasingly commonplace.

**AUTOMOTIVE**

**WATCHMAKING**

**AEROSPACE**

**MEDICAL**

**CUSTOMISED  
SOLUTION**

# THREAD CUTTING & THREAD FORMING



## HIGH QUALITY TOOLS

IT STARTS WITH THE USE OF HIGH QUALITY RAW MATERIALS.

## VS COATING

IMPROVED WEAR RESISTANCE THANKS TO VS COATING.  
GIVES A LONGER TOOL LIFE.

### TAN



#### TAN / TAZ / CMS

#### CHIP CONTROL

- High-performance chip control thanks to perfectly ground flutes
- Ensure a long service life

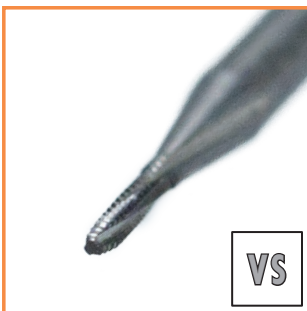
### TAZ



#### HIGH QUALITY SURFACE

- Perfect surface finishing due to appropriate relief angles
- Easy to screw in

### CMS

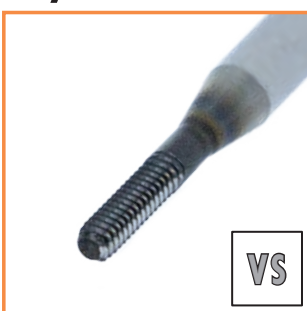


#### CMS

#### GUARANTEED GAUGEABLE THREAD

- Revolutionary geometry guarantees perfect pitch control

### FA/CFA

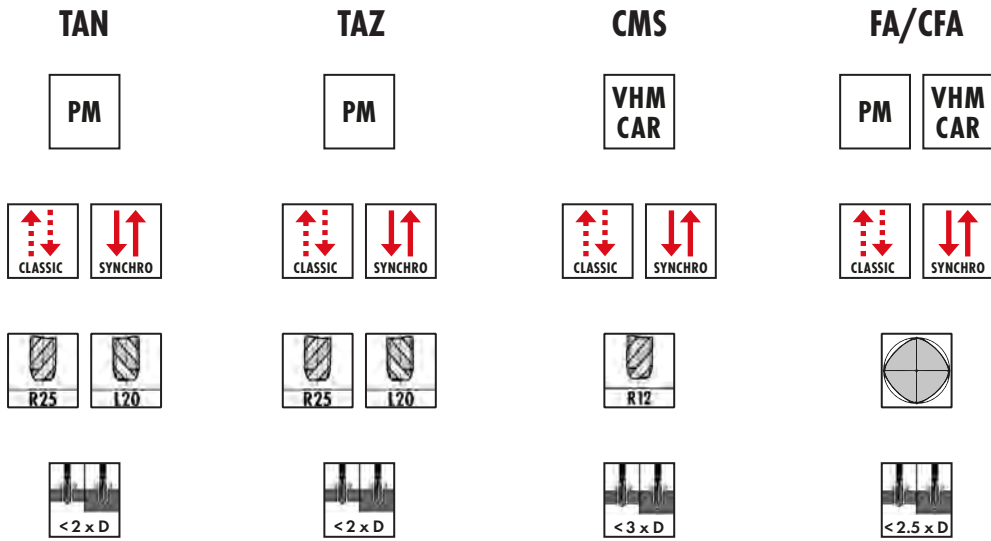


#### FA / CFA

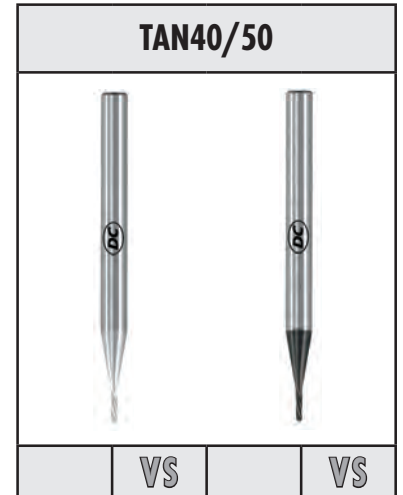
WORRIED ABOUT SCREWS PULLING OUT ?  
GET A STRONGER THREAD BY FORMING

- By forming the measurable resistance increases :
- + 30 % more static resistance
- + 100 % more dynamic resistance

nano Thread cutting & thread forming taps  
**APPLICATIONS**



**THREAD CUTTING TAPS**



VS VS

Vc (m/min)







Ø 0.3 - ≤1.4      Ø >1.4 - 2.8

MATERIAL GROUPS	MATERIAL DESIGNATION		Vc (m/min)			
			Ø 0.3 - ≤1.4		Ø >1.4 - 2.8	
STEELS	11	FREE-CUTTING STEELS		4 - 10		12 - 20
	12	STRUCTURAL / CEMENTATION STEELS		4 - 10		12 - 20
	13	CARBON STEELS		4 - 10		12 - 20
	14	ALLOY STEELS <850 N/mm <sup>2</sup>		4 - 10		12 - 20
	15	ALLOY STEELS HARD. / TEMP. >850 - <1150 N/mm <sup>2</sup>				
STAINLESS STEELS	21	FREE MACHINING STAINLESS STEELS				
	22	AUSTENITIC STAINLESS STEELS				
	23	FERRITIC AND MARTENSITIC <850 N/mm <sup>2</sup>				
	24	FERRITIC AND MARTENSITIC >850 - <1150 N/mm <sup>2</sup>				
CAST IRON	31	CAST IRON				
	32	SPHEROIDAL GRAPHITE + MALLEABLE CAST IRON	4 - 10			12 - 20
TITANIUM	41	PURE TITANIUM				
	42	TITANIUM ALLOYS				
NICKEL	51	NICKEL ALLOYS 1 <850 N/mm <sup>2</sup>				
	52	NICKEL ALLOYS 2 >850 - <1150 N/mm <sup>2</sup>				
	53	NICKEL ALLOYS 3 >1150 - ≤1600 N/mm <sup>2</sup>				
COPPER	61	PURE COPPER (ELECTROLYTIC COPPER)				
	62	SHORT CHIP BRASS, PHOSPHOR BRONZE, GUN METAL	4 - 10	4 - 10	12 - 20	12 - 20
	63	LONG CHIP BRASS	4 - 10	4 - 10	12 - 20	12 - 20
ALUMINIUM MAGNESIUM	71	AL UNALLOYED		4 - 10		12 - 20
	72	AL ALLOYED SI < 1.5 %		4 - 10		12 - 20
	73	AL ALLOYED SI > 1.5 % - < 10 %		4 - 10		12 - 20
	74	AL ALLOYED SI > 10 %, MG-ALLOYS		4 - 10		12 - 20
PLASTIC COMPOUNDS	81	THERMOPLASTICS		4 - 10		12 - 20
	82	DUROPLASTICS				
	83	GLASS FIBRE REINFORCED PLASTICS				
PRECIOUS METALS	91	YELLOW GOLD	4 - 10		12 - 20	
	92	RED GOLD		4 - 10		12 - 20
	93	WHITE GOLD		4 - 10		12 - 20
	94	SILVER		4 - 10		12 - 20



## THREAD CUTTING TAPS

## THREAD FORMING TAPS

	TAZ40/50				CMS50				FA80/83		CFA80/83	
												
	VS		VS		VS		VS		VS		VS	
	Vc (m/min)				Vc (m/min)				Vc (m/min)		Vc (m/min)	
	Ø 0.3 - ≤1.4		Ø >1.4 - 2.8		Ø 0.3 - ≤1.4		Ø >1.4 - 2.8		Ø 0.3 - ≤1.4	Ø >1.4 - 2.8	Ø 0.3 - ≤1.4	Ø >1.4 - 2.8
11									4 - 10	12 - 20		
12									4 - 10	12 - 20		
13									4 - 10	12 - 20		
14									4 - 10	12 - 20		
15									3 - 6	6 - 12		
21		4 - 10		12 - 20					4 - 10	12 - 20		
22		3 - 6		6 - 12					3 - 6	6 - 12		
23		3 - 6		6 - 12					3 - 6	6 - 12		
24									3 - 6	6 - 12		
31					4 - 10		12 - 20					
32												
41	2 - 4	2 - 4	4 - 8	4 - 8								
42	2 - 4	2 - 4	4 - 8	4 - 8								
51									3 - 6	6 - 12		
52												
53												
61		4 - 10		10 - 16					4 - 10	12 - 20		
62					4 - 10	4 - 10	12 - 20	12 - 20			1 - 4	12 - 20
63					4 - 10	4 - 10	12 - 20	12 - 20	4 - 10	12 - 20	1 - 4	12 - 20
71									4 - 10	12 - 20		
72									4 - 10	12 - 20		
73					4 - 10		12 - 20		4 - 10	12 - 20		
74					4 - 10		12 - 20					
81												
82												
83					4 - 10		12 - 20					
91					4 - 10		12 - 20		4 - 10	12 - 20	1 - 4	12 - 20
92					4 - 10		12 - 20		4 - 10	12 - 20	1 - 4	12 - 20
93					4 - 10		12 - 20		4 - 10	12 - 20		
94					4 - 10		12 - 20		4 - 10	12 - 20	1 - 4	12 - 20

The indicated values are a guideline

# THREAD CUTTING TAPS – TAN

PM

↑ ↓  
CLASSIC

↑ ↓  
SYNCHRO

**TAN40**

62 63 91

11 12 13 14 32 62

63 71 72 73 74 81

92 93 94

















**TAN50**

62 63 91

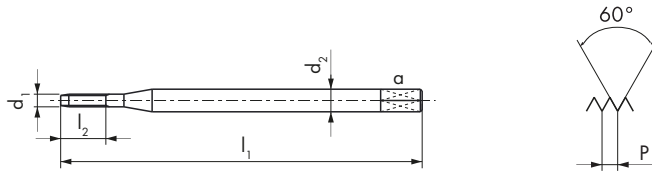
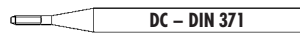
11 12 13 14 32 62

63 71 72 73 74 81


92 93 94

TAN40	TAN40VS	TAN50	TAN50VS
			
	VS		VS
			
L20	L20	R25	R25
			
< 2 x D	< 2 x D	< 2 x D	< 2 x D
			
C 2 x P	C 2 x P	C 2 x P	C 2 x P

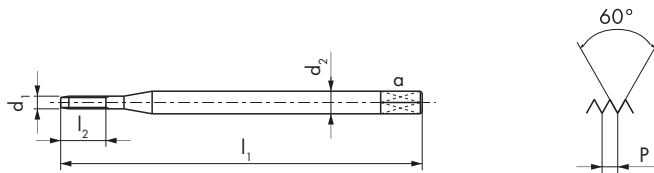
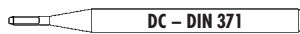
M ISO DIN 14 / DIN 13



				TAN40	TAN40VS	TAN50	TAN50VS
				ID			
				4H	4H	4H	4H
M0.5	0.50	0.125	25	161817	161748	161818	161749
M0.6	0.60	0.150	25	152512	152511	152545	151766
M0.7	0.70	0.175	25	152516	152515	152548	152547
M0.8	0.80	0.200	25	152520	152519	152552	152551
M0.9	0.90	0.225	25	152524	152523	152555	152554
M1	1.00	0.250	40	152528	152527	152558	151557
M1.2	1.20	0.250	40	152531	151463	152562	152561
M1.4	1.40	0.300	40	152534	151756	152565	151757
M1.6	1.60	0.350	40	152538 *	152537 *	152569 *	152568 *
M1.8	1.80	0.350	40	193841 *	151461 *	193915 *	193952 *
M2	2.00	0.400	45	152542 *	152541 *	152573 *	152572 *
M2.3	2.30	0.400	45	193842 *	193878 *	193916 *	193953 *
M2.5	2.50	0.450	50	193843 *	193879 *	193917 *	193954 *
M2.6	2.60	0.450	50	193844 *	193880 *	193918 *	193955 *

\*\*  4H5H → 4H6H = +0.02 mm

\* Tol. 6H



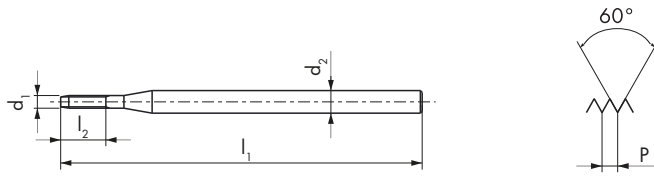
MF

TAN40	TAN40VS	TAN50	TAN50VS
ID			
4H	4H	4H	4H

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm										
M1.4X0.2	1.40	0.200	40	4.2	2.5	3	1.20	●	170390	●	193881	●	170393	●	156730	
M1.6X0.2	1.60	0.200	40	4.8	2.5	3	1.40	●	193845	●	193882	●	193919	●	193956	
M1.8X0.2	1.80	0.200	40	5.4	2.5	3	1.60	●	193846	●	193883	●	193920	●	180810	
M2X0.2	2.00	0.200	45	6.0	2.8	2.1	3	1.80	●	193847	●	193884	●	193921	●	184999
M2X0.25	2.00	0.250	45	6.0	2.8	2.1	3	1.75	●	193848	●	193885	●	193922	●	182944
M2.2X0.2	2.20	0.200	45	6.6	2.8	2.1	3	2.00	●	193849	●	193886	●	193923	●	179593
M2.2X0.25	2.20	0.250	45	6.6	2.8	2.1	3	1.95	●	193850	●	193887	●	193924	●	193957
M2.3X0.2	2.30	0.200	45	6.9	2.8	2.1	3	2.10	●	193851	●	193888	●	193925	●	193958
M2.3X0.25	2.30	0.250	45	6.9	2.8	2.1	3	2.05	●	193852	●	193889	●	193926	●	193959
M2.5X0.2	2.50	0.200	50	7.5	2.8	2.1	3	2.30	●	193853	●	193890	●	193927	●	193960
M2.5X0.25	2.50	0.250	50	7.5	2.8	2.1	3	2.25	●	193854	●	193891	●	193928	●	193961
M2.5X0.35	2.50	0.350	50	7.5	2.8	2.1	3	2.15	●	193855 *	●	193892 *	●	193929 *	●	193962 *
M2.6X0.35	2.60	0.350	50	7.8	2.8	2.1	3	2.25	●	193856 *	●	193893 *	●	193930 *	●	193963 *

\*Tol. 6H

NIHS 06-10



S



















TAN40	TAN40VS	TAN50	TAN50VS
ID			
NIHS	NIHS	NIHS	NIHS

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm										
S0.5	0.50	0.125	25	1.5	2.0	3	0.41 *	●	161816	●	157021	●	159301	●	158384
S0.6	0.60	0.150	25	1.8	2.0	3	0.50 *	●	152510	●	152509	●	151567	●	152544
S0.7	0.70	0.175	25	2.1	2.0	3	0.58 *	●	152514	●	152513	●	151768	●	152546
S0.8	0.80	0.200	25	2.4	2.0	3	0.66 *	●	152518	●	152517	●	152550	●	152549
S0.9	0.90	0.225	25	2.7	2.0	3	0.74 *	●	152522	●	152521	●	152553	●	151563
S1	1.00	0.250	40	3.0	2.5	3	0.82 *	●	152526	●	152525	●	152557	●	152556
S1.2	1.20	0.250	40	3.6	2.5	3	1.02 *	●	152530	●	152529	●	152560	●	152559
S1.4	1.40	0.300	40	4.2	2.5	3	1.18 *	●	152533	●	152532	●	152564	●	152563

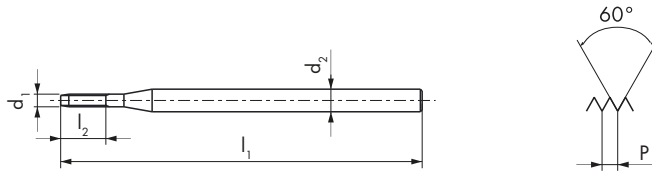
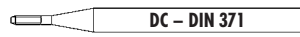
\* 4H5H → 4H6H = +0.02 mm


- In stock
- Delivery lead time: 3 to 6 weeks


# THREAD CUTTING TAPS – TAN

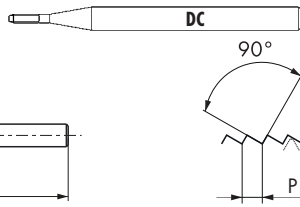
<div style="border: 1px solid black; padding: 5px; display: inline-block;">PM</div> <div style="margin-left: 100px;">   </div>	TAN40	62 63 91	   
	TAN40VS	11 12 13 14 32 62 63 71 72 73 74 81 92 93 94	
	TAN50	62 63 91	
	TAN50VS	11 12 13 14 32 62 63 71 72 73 74 81 92 93 94	
			<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px;">VS</div> <div style="border: 1px solid black; padding: 5px;">VS</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;">     </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;">     </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;">     </div>

NIHS 06-10 Fine thread



SF									TAN40	TAN40VS	TAN50	TAN50VS	
	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm		NIHS	NIHS	NIHS	NIHS	
	S1.4X0.2	1.40	0.200	40	4.2	2.5	3	1.26 *	● 193833	● 170491	● 169767	● 170492	
	S1.6X0.2	1.60	0.200	40	4.8	2.5	3	1.46 *	● 193834	● 193871	● 193908	● 193945	
	S1.8X0.2	1.80	0.200	40	5.4	2.5	3	1.66 *	● 193835	● 193872	● 193909	● 193946	
	S2X0.2	2.00	0.200	45	6.0	2.8	2.1	3	1.86 *	● 193836	● 193873	● 193910	● 193947
	S2.2X0.2	2.20	0.200	45	6.6	2.8	2.1	3	2.06 *	● 193837	● 193874	● 193911	● 193948
	S2.2X0.25	2.20	0.250	45	6.6	2.8	2.1	3	2.02 *	● 193838	● 193875	● 193912	● 193949
	S2.5X0.2	2.50	0.200	50	7.5	2.8	2.1	3	2.36 *	● 193839	● 193876	● 193913	● 193950
	S2.5X0.25	2.50	0.250	50	7.5	2.8	2.1	3	2.32 *	● 193840	● 193877	● 193914	● 193951

\*  4H5H → 4H6H = +0.02 mm

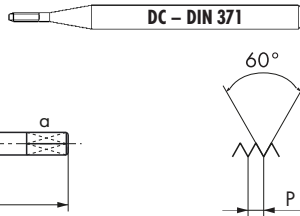


SL

TAN40	TAN40VS	TAN50	TAN50VS
ID			

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm										
SL0.5	0.50	0.100	25	1.5	2.0	3	0.46	●	600065	●	600073	●	600081	●	600089
SL0.6	0.60	0.125	25	1.8	2.0	3	0.55	●	600066	●	600074	●	600082	●	600090
SL0.7	0.70	0.150	25	2.1	2.0	3	0.64	●	600067	●	600075	●	600083	●	600091
SL0.8	0.80	0.150	25	2.4	2.0	3	0.74	●	600068	●	600076	●	600084	●	600092
SL0.9	0.90	0.175	25	2.7	2.0	3	0.83	●	600069	●	600077	●	600085	●	600093
SL1	1.00	0.200	40	3.0	2.5	3	0.92	●	600070	●	600078	●	600086	●	600094
SL1.2	1.20	0.200	40	3.6	2.5	3	1.12	●	600071	●	600079	●	600087	●	600095
SL1.4	1.40	0.250	40	4.2	2.5	3	1.30	●	600072	●	600080	●	600088	●	600096

ASME B1.1

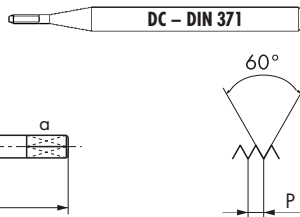


UNC

TAN40	TAN40VS	TAN50	TAN50VS
ID			

d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm										
UNC1-64	1.85	64	40	5.6	2.5	3	1.45	●	193857	●	193894	●	193931	●	193964	
UNC2-56	2.18	56	45	9.0	2.8	2.1	3	1.75	●	193858	●	193895	●	193932	●	193965
UNC3-48	2.52	48	50	10.0	2.8	2.1	3	2.00	●	193859	●	193896	●	193933	●	193966
										<b>3B</b>	<b>3B</b>	<b>3B</b>	<b>3B</b>	<b>3B</b>	<b>3B</b>	
UNC(J)1-64	1.85	64	40	5.6	2.5	3	1.45	●	193860	●	193897	●	193934	●	193967	
UNC(J)2-56	2.18	56	45	9.0	2.8	2.1	3	1.75	●	193861	●	193898	●	193935	●	193968
UNC(J)3-48	2.52	48	50	10.0	2.8	2.1	3	2.00	●	193862	●	193899	●	193936	●	193969

ASME B1.1



UNF

TAN40	TAN40VS	TAN50	TAN50VS
ID			

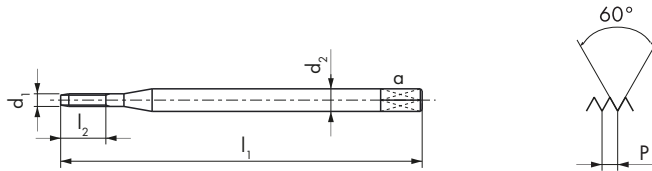
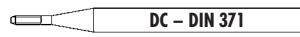
d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm										
UNF0-80	1.52	80	40	4.6	2.5	3	1.20	●	193863	●	193900	●	193937	●	193970	
UNF1-72	1.85	72	40	5.6	2.5	3	1.50	●	193864	●	193901	●	193938	●	193971	
UNF2-64	2.18	64	45	9.0	2.8	2.1	3	1.80	●	193865	●	193902	●	193939	●	193972
UNF3-56	2.52	56	50	10.0	2.8	2.1	3	2.10	●	193866	●	193903	●	193940	●	193973
										<b>3B</b>	<b>3B</b>	<b>3B</b>	<b>3B</b>	<b>3B</b>	<b>3B</b>	
UNF(J)0-80	1.52	80	40	4.6	2.5	3	1.20	●	193867	●	193904	●	193941	●	193974	
UNF(J)1-72	1.85	72	40	5.6	2.5	3	1.50	●	193868	●	193905	●	193942	●	193975	
UNF(J)2-64	2.18	64	45	9.0	2.8	2.1	3	1.80	●	193869	●	193906	●	193943	●	193976
UNF(J)3-56	2.52	56	50	10.0	2.8	2.1	3	2.10	●	193870	●	193907	●	193944	●	193977

- In stock
- Delivery lead time: 3 to 6 weeks

# THREAD CUTTING TAPS – TAZ

<b>PM</b>   	<b>TAZ40</b> 	<b>TAZ40VS</b> 	<b>TAZ50</b> 	<b>TAZ50VS</b> 	

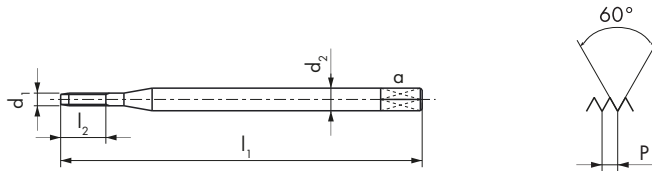
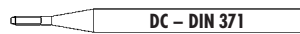
M ISO DIN 14 / DIN 13



	TAZ40	TAZ40VS	TAZ50	TAZ50VS
	ID			
	4H	4H	4H	4H
M0.5	● 193994	● 194059	● 194119	● 194182
M0.6	● 193995	● 194060	● 194120	● 194183
M0.7	● 193996	● 194061	● 194121	● 194184
M0.8	● 193997	● 194062	● 194122	● 194185
M0.9	● 193998	● 194063	● 194123	● 194186
M1	● 193999	● 194064	● 194124	● 183753
M1.2	● 194000	● 194065	● 194125	● 194187
M1.4	● 194001	● 194066	● 194126	● 194188
M1.6	● 194002 *	● 194067 *	● 194127 *	● 194189 *
M1.8	● 194003 *	● 194068 *	● 194128 *	● 194190 *
M2	● 194004 *	● 194947 *	● 194129 *	● 179266 *
M2.3	● 194005 *	● 194069 *	● 194130 *	● 194191 *
M2.5	● 194006 *	● 194070 *	● 194131 *	● 194192 *
M2.6	● 194007 *	● 194071 *	● 194132 *	● 194193 *

\*\* 4H5H → 4H6H = +0.02 mm

\* Tol. 6H



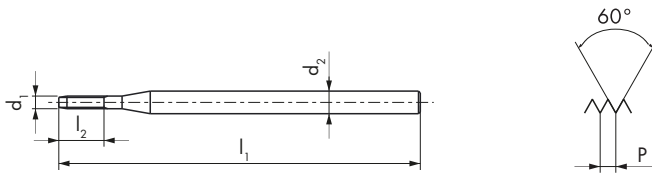
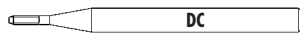
MF

TAZ40	TAZ40VS	TAZ50	TAZ50VS
ID			
4H	4H	4H	4H

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ mm	$d_2$ mm	$a$ mm										
M1.4X0.2	1.40	0.200	40	4.2	2.5	3	1.20	●	194008	●	194950	●	194133	●	194194	
M1.6X0.2	1.60	0.200	40	4.8	2.5	3	1.40	●	194009	●	194072	●	194134	●	181665	
M1.8X0.2	1.80	0.200	40	5.4	2.5	3	1.60	●	194010	●	194073	●	194135	●	190047	
M2X0.2	2.00	0.200	45	6.0	2.8	2.1	3	1.80	●	194011	●	194949	●	194136	●	194195
M2X0.25	2.00	0.250	45	6.0	2.8	2.1	3	1.75	●	194012	●	194948	●	194137	●	185307
M2.2X0.2	2.20	0.200	45	6.6	2.8	2.1	3	2.00	●	194013	●	194074	●	194138	●	194196
M2.2X0.25	2.20	0.250	45	6.6	2.8	2.1	3	1.95	●	194014	●	194075	●	194139	●	194197
M2.3X0.2	2.30	0.200	45	6.9	2.8	2.1	3	2.10	●	194015	●	194076	●	194140	●	194198
M2.3X0.25	2.30	0.250	45	6.9	2.8	2.1	3	2.05	●	194016	●	194077	●	194141	●	194199
M2.5X0.2	2.50	0.200	50	7.5	2.8	2.1	3	2.30	●	194017	●	194078	●	194142	●	194200
M2.5X0.25	2.50	0.250	50	7.5	2.8	2.1	3	2.25	●	194018	●	194951	●	194143	●	194201
M2.5X0.35	2.50	0.350	50	7.5	2.8	2.1	3	2.15	●	194019 *	●	194079 *	●	194144 *	●	194202 *
M2.6X0.35	2.60	0.350	50	7.8	2.8	2.1	3	2.25	●	194020 *	●	194080 *	●	194145 *	●	194203 *

\*Tol. 6H

NIHS 06-10



S

TAZ40	TAZ40VS	TAZ50	TAZ50VS
ID			
NIHS	NIHS	NIHS	NIHS

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ mm	$d_2$ mm										
S0.5	0.50	0.125	25	1.5	2.0	3	0.41 *	●	193978	●	194043	●	194103	●	194168
S0.6	0.60	0.150	25	1.8	2.0	3	0.50 *	●	193979	●	194044	●	194104	●	194169
S0.7	0.70	0.175	25	2.1	2.0	3	0.58 *	●	193980	●	194045	●	194105	●	194170
S0.8	0.80	0.200	25	2.4	2.0	3	0.66 *	●	193981	●	194046	●	194106	●	188515
S0.9	0.90	0.225	25	2.7	2.0	3	0.74 *	●	193982	●	194047	●	194107	●	188521
S1	1.00	0.250	40	3.0	2.5	3	0.82 *	●	193983	●	194048	●	194108	●	194171
S1.2	1.20	0.250	40	3.6	2.5	3	1.02 *	●	193984	●	194049	●	194109	●	194172
S1.4	1.40	0.300	40	4.2	2.5	3	1.18 *	●	193985	●	194050	●	194110	●	194173

\*\* 4H5H → 4H6H = +0.02 mm

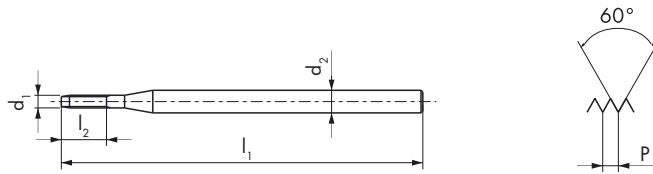
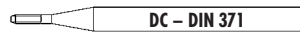
- In stock
- Delivery lead time: 3 to 6 weeks



# THREAD CUTTING TAPS – TAZ

<b>PM</b>  	<b>TAZ40</b> 	<b>TAZ40VS</b> 	<b>TAZ50</b> 	<b>TAZ50VS</b> 

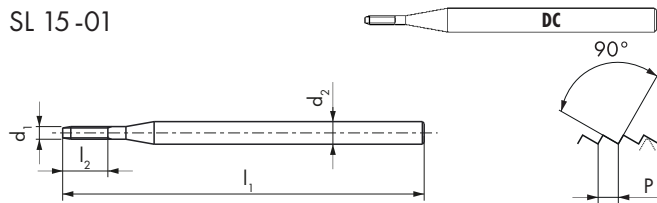
NIHS 06 - 10 Fine thread



SF									TAZ40	TAZ40VS	TAZ50	TAZ50VS	
	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	α mm	ID	NIHS	NIHS	NIHS	NIHS	
	S1.4X0.2	1.40	0.200	40	4.2	2.5	3	1.26 *	● 193986	● 194051	● 194111	● 194174	
	S1.6X0.2	1.60	0.200	40	4.8	2.5	3	1.46 *	● 193987	● 194052	● 194112	● 194175	
	S1.8X0.2	1.80	0.200	40	5.4	2.5	3	1.66 *	● 193988	● 194053	● 194113	● 194176	
	S2X0.2	2.00	0.200	45	6.0	2.8	2.1	3	1.86 *	● 193989	● 194054	● 194114	● 194177
	S2.2X0.2	2.20	0.200	45	6.6	2.8	2.1	3	2.06 *	● 193990	● 194055	● 194115	● 194178
	S2.2X0.25	2.20	0.250	45	6.6	2.8	2.1	3	2.02 *	● 193991	● 194056	● 194116	● 194179
	S2.5X0.2	2.50	0.200	50	7.5	2.8	2.1	3	2.36 *	● 193992	● 194057	● 194117	● 194180
	S2.5X0.25	2.50	0.250	50	7.5	2.8	2.1	3	2.32 *	● 193993	● 194058	● 194118	● 194181

\* 4H5H → 4H6H = +0.02 mm

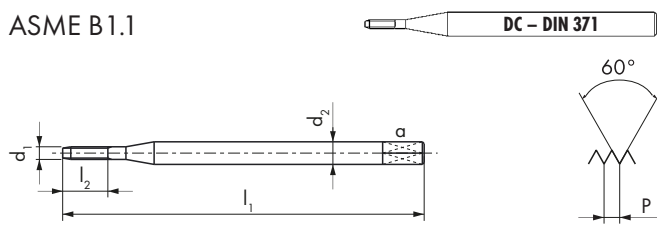
SL 15-01



TAZ40	TAZ40VS	TAZ50	TAZ50VS
ID			

SL	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm									
SL0.5	0.50	0.100	25	1.5	2.0	3	0.46	●	600210	●	600218	●	600194	●	600202
SL0.6	0.60	0.125	25	1.8	2.0	3	0.55	●	600211	●	600219	●	600195	●	600203
SL0.7	0.70	0.150	25	2.1	2.0	3	0.64	●	600212	●	600220	●	600196	●	600204
SL0.8	0.80	0.150	25	2.4	2.0	3	0.74	●	600213	●	600221	●	600197	●	600205
SL0.9	0.90	0.175	25	2.7	2.0	3	0.83	●	600214	●	600222	●	600198	●	600206
SL1	1.00	0.200	40	3.0	2.5	3	0.92	●	600215	●	600223	●	600199	●	600207
SL1.2	1.20	0.200	40	3.6	2.5	3	1.12	●	600216	●	600224	●	600200	●	600208
SL1.4	1.40	0.250	40	4.2	2.5	3	1.30	●	600217	●	600225	●	600201	●	600209

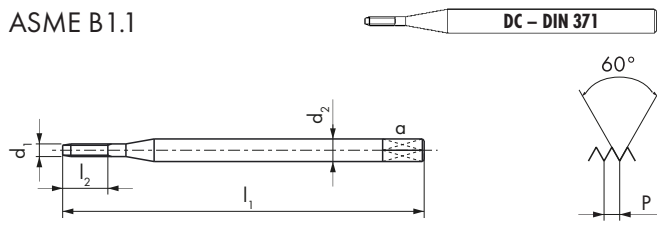
ASME B1.1



TAZ40	TAZ40VS	TAZ50	TAZ50VS
ID			

UNC	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm									
UNC1-64	1.85	64	40	5.6	2.5	3	1.45	●	194021	●	194081	●	194146	●	194204	
UNC2-56	2.18	56	45	9.0	2.8	2.1	3	1.75	●	194022	●	194082	●	194147	●	194205
UNC3-48	2.52	48	50	10.0	2.8	2.1	3	2.00	●	194023	●	194083	●	194148	●	194206
										<b>3B</b>	<b>3B</b>	<b>3B</b>	<b>3B</b>			
UNC(J)1-64	1.85	64	40	5.6	2.5	3	1.45	●	194024	●	194084	●	194149	●	194207	
UNC(J)2-56	2.18	56	45	9.0	2.8	2.1	3	1.75	●	194025	●	194085	●	194150	●	194208
UNC(J)3-48	2.52	48	50	10.0	2.8	2.1	3	2.00	●	194026	●	194086	●	194151	●	194209

ASME B1.1



TAZ40	TAZ40VS	TAZ50	TAZ50VS
ID			

UNF	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm									
UNF0-80	1.52	80	40	4.6	2.5	3	1.20	●	194027	●	194087	●	194152	●	194210	
UNF1-72	1.85	72	40	5.6	2.5	3	1.50	●	194028	●	194088	●	194153	●	194211	
UNF2-64	2.18	64	45	9.0	2.8	2.1	3	1.80	●	194029	●	194089	●	194154	●	194212
UNF3-56	2.52	56	50	10.0	2.8	2.1	3	2.10	●	194030	●	194090	●	194155	●	194213
										<b>3B</b>	<b>3B</b>	<b>3B</b>	<b>3B</b>			
UNF(J)0-80	1.52	80	40	4.6	2.5	3	1.20	●	194031	●	194091	●	194156	●	194214	
UNF(J)1-72	1.85	72	40	5.6	2.5	3	1.50	●	194032	●	194092	●	194157	●	194215	
UNF(J)2-64	2.18	64	45	9.0	2.8	2.1	3	1.80	●	194033	●	194093	●	194158	●	194216
UNF(J)3-56	2.52	56	50	10.0	2.8	2.1	3	2.10	●	194034	●	194094	●	194159	●	194217

- In stock
- Delivery lead time: 3 to 6 weeks

# THREAD CUTTING TAPS – CMS

**VHM CAR**

CLASSIC

SYNCHRO

**CMS50**

62

63

91

**CMS50VS**

31

62

63

73

74

83

92

93

94

CMS50

CMS50VS

R12

R12

<3 x D

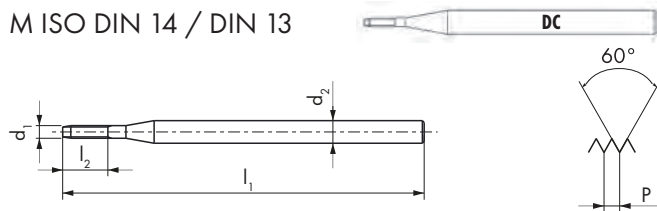
<3 x D

2.5 x P

2.5 x P

VS

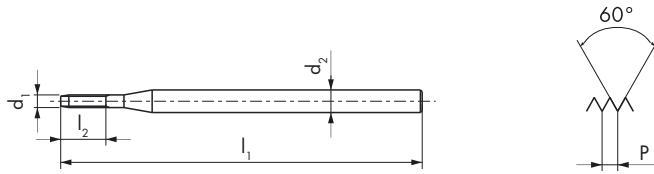
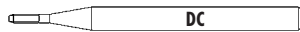
M ISO DIN 14 / DIN 13



	CMS50	CMS50VS
ID	4H	4H

	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> h5					
M0.3	0.30	0.080	32	1.1	1.5	3	0.23	●	193639	●	193702
M0.35	0.35	0.090	32	1.3	1.5	3	0.28	●	193640	●	193703
M0.4	0.40	0.100	32	1.5	1.5	3	0.32**	●	193641	●	193704
M0.5	0.50	0.125	32	1.9	1.5	3	0.41**	●	193642	●	193705
M0.6	0.60	0.150	32	2.3	1.5	3	0.50**	●	193643	●	193706
M0.7	0.70	0.175	32	2.6	1.5	3	0.58**	●	193644	●	193707
M0.8	0.80	0.200	32	3.0	1.5	3	0.66**	●	193645	●	193708
M0.9	0.90	0.225	32	3.4	1.5	3	0.74**	●	193646	●	193709
M1	1.00	0.250	32	3.8	2.0	3	0.75	●	193647	●	193710
M1.2	1.20	0.250	32	4.5	2.0	3	0.95	●	193648	●	193711
M1.4	1.40	0.300	32	5.3	2.0	3	1.10	●	193649	●	193712
M1.6	1.60	0.350	32	6.0	2.0	3	1.25	●	193650*	●	193713*
M1.8	1.80	0.350	32	6.8	2.0	3	1.45	●	193651*	●	193714*
M2	2.00	0.400	39	7.5	3.0	3	1.60	●	193652*	●	193715*
M2.3	2.30	0.400	39	8.6	3.0	3	1.90	●	193653*	●	193716*
M2.5	2.50	0.450	39	9.4	3.0	3	2.05	●	193654*	●	193717*
M2.6	2.60	0.450	39	9.8	3.0	3	2.15	●	193655*	●	193718*

\*\* 4H5H → 4H6H = +0.02 mm



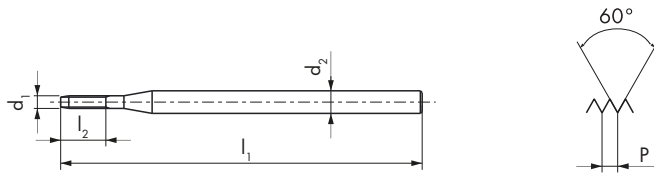
MF

CMS50	CMS50VS
ID	
4H	4H

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> h5						
M1.4X0.2	1.40	0.200	32	5.3	2.0	3	1.20	●	193656	●	193719
M1.6X0.2	1.60	0.200	32	6.0	2.0	3	1.40	●	193657	●	193720
M1.8X0.2	1.80	0.200	32	6.8	2.0	3	1.60	●	193658	●	193721
M2X0.2	2.00	0.200	39	7.5	3.0	3	1.80	●	193659	●	193722
M2X0.25	2.00	0.250	39	7.5	3.0	3	1.75	●	193660	●	193723
M2.2X0.2	2.20	0.200	39	8.3	3.0	3	2.00	●	193661	●	193724
M2.2X0.25	2.20	0.250	39	8.3	3.0	3	1.95	●	193662	●	193725
M2.3X0.2	2.30	0.200	39	8.6	3.0	3	2.10	●	193663	●	193726
M2.3X0.25	2.30	0.250	39	8.6	3.0	3	2.05	●	193664	●	193727
M2.5X0.2	2.50	0.200	39	9.4	3.0	3	2.30	●	193665	●	193728
M2.5X0.25	2.50	0.250	39	9.4	3.0	3	2.25	●	193666	●	193729
M2.5X0.35	2.50	0.350	39	9.4	3.0	3	2.15	●	193667 *	●	193730 *
M2.6X0.35	2.60	0.350	39	9.8	3.0	3	2.25	●	193668 *	●	193731 *

\*Tol. 6H

NIHS 06-10



CMS50	CMS50VS
ID	
NIHS	NIHS

S

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> h5						
S0.3	0.30	0.080	32	1.1	1.5	3	0.23	●	178257	●	193683
S0.35	0.35	0.090	32	1.3	1.5	3	0.28	●	178260	●	193684
S0.4	0.40	0.100	32	1.5	1.5	3	0.32 *	●	178263	●	193685
S0.5	0.50	0.125	32	1.9	1.5	3	0.41 *	●	178266	●	193686
S0.6	0.60	0.150	32	2.3	1.5	3	0.50 *	●	178269	●	193687
S0.7	0.70	0.175	32	2.6	1.5	3	0.58 *	●	178272	●	193688
S0.8	0.80	0.200	32	3.0	1.5	3	0.66 *	●	178275	●	193689
S0.9	0.90	0.225	32	3.4	1.5	3	0.74 *	●	178278	●	193690
S1	1.00	0.250	32	3.8	2.0	3	0.82 *	●	178281	●	193691
S1.2	1.20	0.250	32	4.5	2.0	3	1.02 *	●	178284	●	193692
S1.4	1.40	0.300	32	5.3	2.0	3	1.18 *	●	178287	●	193693

\* 4H5H → 4H6H = +0.02 mm

- In stock
- Delivery lead time: 3 to 6 weeks

# THREAD CUTTING TAPS – CMS

VHM  
CAR

↑↓  
CLASSIC

↑↓  
SYNCHRO

**CMS50**      62 63 91

**CMS50VS**      31 62 63 73 74 83  
92 93 94

R12

< 3 x D

C  
2.5 x P

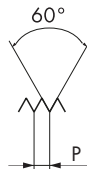
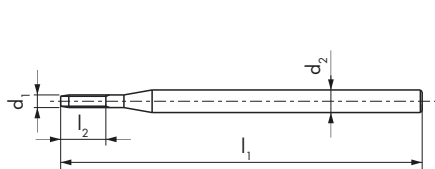
VS

R12

< 3 x D

C  
2.5 x P

NIHS 06 - 10 Fine thread

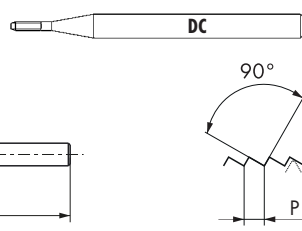


CMS50	CMS50VS
ID	

SF

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ mm	$d_2$ h5			NIHS	NIHS
S1.4X0.2	1.40	0.200	32	5.3	2.0	3	1.26 *	● 180329	● 193694
S1.6X0.2	1.60	0.200	32	6.0	2.0	3	1.46 *	● 193632	● 193695
S1.8X0.2	1.80	0.200	32	6.8	2.0	3	1.66 *	● 193633	● 193696
S2X0.2	2.00	0.200	39	7.5	3.0	3	1.86 *	● 193634	● 193697
S2.2X0.2	2.20	0.200	39	8.3	3.0	3	2.06 *	● 193635	● 193698
S2.2X0.25	2.20	0.250	39	8.3	3.0	3	2.02 *	● 193636	● 193699
S2.5X0.2	2.50	0.200	39	9.4	3.0	3	2.36 *	● 193637	● 193700
S2.5X0.25	2.50	0.250	39	9.4	3.0	3	2.32 *	● 193638	● 193701

\* 4H5H → 4H6H = +0.02 mm

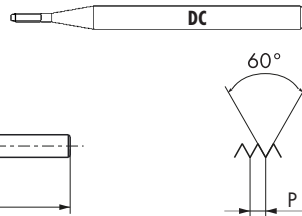


SL

CMS50	CMS50VS
ID	

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ mm	$d_2$ h5				
SL0.3	0.30	0.060	32	1.1	1.5	3	0.27	● 600097	● 600226
SL0.35	0.35	0.060	32	1.3	1.5	3	0.32	● 600098	● 600227
SL0.4	0.40	0.080	32	1.5	1.5	3	0.36	● 600099	● 600228
SL0.5	0.50	0.100	32	1.9	1.5	3	0.46	● 600039	● 600229
SL0.6	0.60	0.125	32	2.3	1.5	3	0.55	● 600040	● 600230
SL0.7	0.70	0.150	32	2.6	1.5	3	0.64	● 600041	● 600231
SL0.8	0.80	0.150	32	3.0	1.5	3	0.74	● 600042	● 600232
SL0.9	0.90	0.175	32	3.4	1.5	3	0.83	● 600043	● 600233
SL1	1.00	0.200	32	3.8	2.0	3	0.92	● 600044	● 600234
SL1.2	1.20	0.200	32	4.5	2.0	3	1.12	● 600045	● 600235
SL1.4	1.40	0.250	32	5.3	2.0	3	1.30	● 600046	● 600236

ASME B1.1

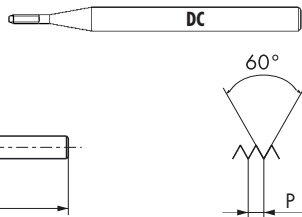


UNC

CMS50	CMS50VS
ID	

$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_2$ mm	$d_2$ h5			2B	2B
UNC1-64	1.85	64	32	7.0	2.0	3	1.45	● 193669	● 193732
UNC2-56	2.18	56	39	8.2	3.0	3	1.75	● 193670	● 193733
UNC3-48	2.52	48	39	9.4	3.0	3	2.00	● 193671	● 193734
								<b>3B</b>	<b>3B</b>
UNC(J)1-64	1.85	64	32	7.0	2.0	3	1.45	● 193672	● 193735
UNC(J)2-56	2.18	56	39	8.2	3.0	3	1.75	● 193673	● 193736
UNC(J)3-48	2.52	48	39	9.4	3.0	3	2.00	● 193674	● 193737

ASME B1.1



UNF

CMS50	CMS50VS
ID	

$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_2$ mm	$d_2$ h5			2B	2B
UNF0-80	1.52	80	32	5.7	2.0	3	1.20	● 193675	● 193738
UNF1-72	1.85	72	32	7.0	2.0	3	1.50	● 193676	● 193739
UNF2-64	2.18	64	39	8.2	3.0	3	1.80	● 193677	● 193740
UNF3-56	2.52	56	39	9.4	3.0	3	2.10	● 193678	● 193741
								<b>3B</b>	<b>3B</b>
UNF(J)0-80	1.52	80	32	5.7	2.0	3	1.20	● 193679	● 193742
UNF(J)1-72	1.85	72	32	7.0	2.0	3	1.50	● 193680	● 193743
UNF(J)2-64	2.18	64	39	8.2	3.0	3	1.80	● 193681	● 193744
UNF(J)3-56	2.52	56	39	9.4	3.0	3	2.10	● 193682	● 193745

- In stock
- Delivery lead time: 3 to 6 weeks

# THREAD FORMING TAPS – FA

PM

↑↓  
CLASSIC

↑↓  
SYNCHRO

**FA80VS**

**FA83VS**

**FA80VS**

**FA83VS**

VS

< 2.5 x D

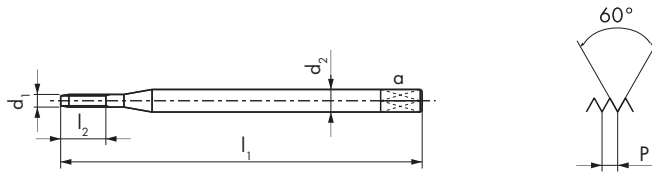
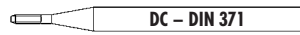
E  
1.5 x P

VS

< 2.5 x D

C  
2.5 x P

M ISO DIN 14 / DIN 13

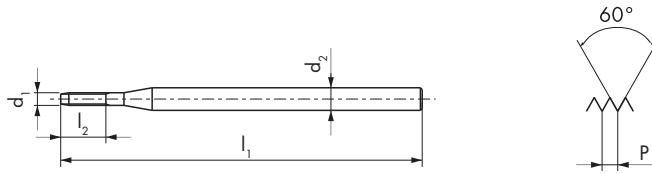
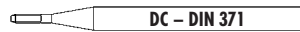


		FA80VS		FA83VS					
		ID							
		4HX	4HX	4HX	4HX				
M0.5	0.50	0.125	25	1.5	2.0	0.44**	● 161750	● 173719	
M0.6	0.60	0.150	25	1.8	2.0	0.53**	● 152412	● 173720	
M0.7	0.70	0.175	25	2.1	2.0	0.62**	● 152415	● 173721	
M0.8	0.80	0.200	25	2.4	2.0	0.71**	● 152418	● 173722	
M0.9	0.90	0.225	25	2.7	2.0	0.80**	● 152421	● 173723	
M1	1.00	0.250	40	3.0	2.5	0.88**	● 151559	● 173729	
M1.2	1.20	0.250	40	3.6	2.5	1.08**	● 151565	● 173730	
M1.4	1.40	0.300	40	4.2	2.5	1.25**	● 152429	● 173731	
M1.6	1.60	0.350	40	4.8	2.5	1.45**	● 152433 *	● 193801 *	
M1.8	1.80	0.350	40	5.4	2.5	1.65**	● 193764 *	● 193802 *	
M2	2.00	0.400	45	8.0	2.8	2.1	1.80**	● 151566 *	● 193803 *
M2.3	2.30	0.400	45	9.0	2.8	2.1	2.10**	● 193765 *	● 193804 *
M2.5	2.50	0.450	50	10.0	2.8	2.1	2.30**	● 193766 *	● 193805 *
M2.6	2.60	0.450	50	10.0	2.8	2.1	2.40**	● 193767 *	● 193806 *

\*\* Tol. = +0/0.02 mm

\*Tol. 6HX





MF

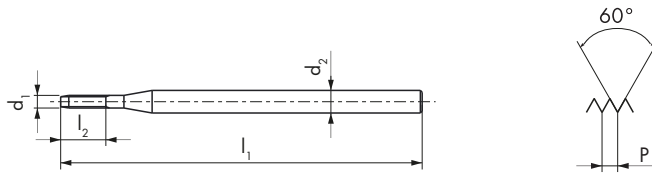
FA80VS	FA83VS
ID	
4HX	4HX

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	α mm		4HX	4HX
M1.4X0.2	1.40	0.200	40	4.2	2.5		1.31 **	● 155928	● 180436
M1.6X0.2	1.60	0.200	40	4.8	2.5		1.51 **	● 156480	● 193807
M1.8X0.2	1.80	0.200	40	5.4	2.5		1.71 **	● 193768	● 193808
M2X0.2	2.00	0.200	45	6.0	2.8	2.1	1.91 **	● 193769	● 193809
M2X0.25	2.00	0.250	45	6.0	2.8	2.1	1.88 **	● 193770	● 193810
M2.2X0.2	2.20	0.200	45	6.6	2.8	2.1	2.11 **	● 193771	● 193811
M2.2X0.25	2.20	0.250	45	6.6	2.8	2.1	2.08 **	● 193772	● 193812
M2.3X0.2	2.30	0.200	45	6.9	2.8	2.1	2.21 **	● 193773	● 193813
M2.3X0.25	2.30	0.250	45	6.9	2.8	2.1	2.18 **	● 193774	● 193814
M2.5X0.2	2.50	0.200	50	7.5	2.8	2.1	2.41 **	● 193775	● 193815
M2.5X0.25	2.50	0.250	50	7.5	2.8	2.1	2.38 **	● 193776	● 193816
M2.5X0.35	2.50	0.350	50	7.5	2.8	2.1	2.35 **	● 193777 *	● 193817 *
M2.6X0.35	2.60	0.350	50	7.8	2.8	2.1	2.45 **	● 193778 *	● 193818 *

\*\* Tol. = +0/0.02 mm

\*Tol. 6HX

NIHS 06-10





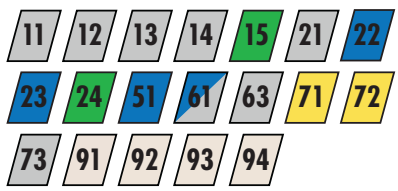

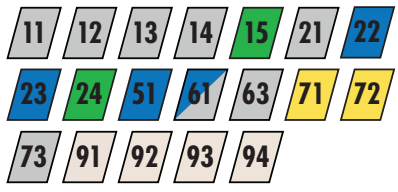
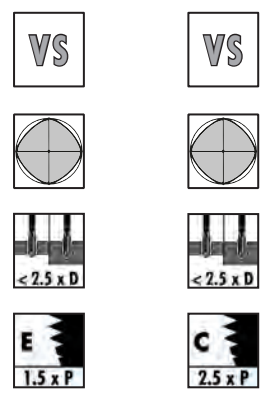
FA80VS	FA83VS
ID	
NIHS	NIHS

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm		NIHS	NIHS	
S0.5	0.50	0.125	25	1.5	2.0		0.44 *	● 158977	● 173724
S0.6	0.60	0.150	25	1.8	2.0		0.53 *	● 151561	● 173725
S0.7	0.70	0.175	25	2.1	2.0		0.62 *	● 151742	● 173726
S0.8	0.80	0.200	25	2.4	2.0		0.71 *	● 151564	● 173727
S0.9	0.90	0.225	25	2.7	2.0		0.80 *	● 151562	● 173728
S1	1.00	0.250	40	3.0	2.5		0.88 *	● 151542	● 173732
S1.2	1.20	0.250	40	3.6	2.5		1.08 *	● 151543	● 173733
S1.4	1.40	0.300	40	4.2	2.5		1.25 *	● 152427	● 173734

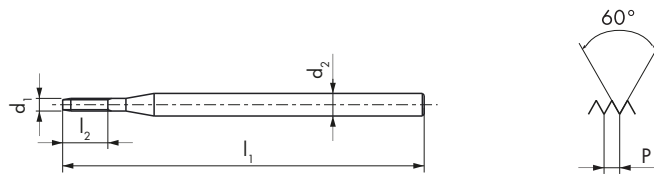
\* Tol. = +0/0.02 mm


- In stock
- Delivery lead time: 3 to 6 weeks


# THREAD FORMING TAPS – FA

<div style="border: 1px solid black; padding: 5px; display: inline-block;">PM</div> <div style="display: inline-block; margin-left: 20px;">  CLASSIC              SYNCHRO         </div>	<b>FA80VS</b>	<b>FA83VS</b>
		
<b>FA83VS</b>		

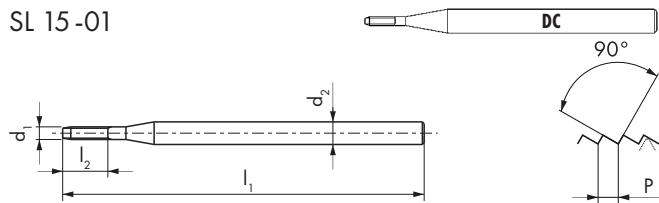
NIHS 06 - 10 Fine thread



SF									FA80VS	FA83VS
	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ mm	$d_2$ mm	$\alpha$ mm		NIHS	NIHS
	S1.4X0.2	1.40	0.200	40	4.2	2.5		1.31 *	● 176180	● 193793
	S1.6X0.2	1.60	0.200	40	4.8	2.5		1.51 *	● 193757	● 193794
	S1.8X0.2	1.80	0.200	40	5.4	2.5		1.71 *	● 193758	● 193795
	S2X0.2	2.00	0.200	45	6.0	2.8	2.1	1.91 *	● 193759	● 193796
	S2.2X0.2	2.20	0.200	45	6.6	2.8	2.1	2.11 *	● 193760	● 193797
	S2.2X0.25	2.20	0.250	45	6.6	2.8	2.1	2.08 *	● 193761	● 193798
	S2.5X0.2	2.50	0.200	50	7.5	2.8	2.1	2.41 *	● 193762	● 193799
	S2.5X0.25	2.50	0.250	50	7.5	2.8	2.1	2.38 *	● 193763	● 193800

\*  Tol. = +0/0.02 mm

SL 15-01

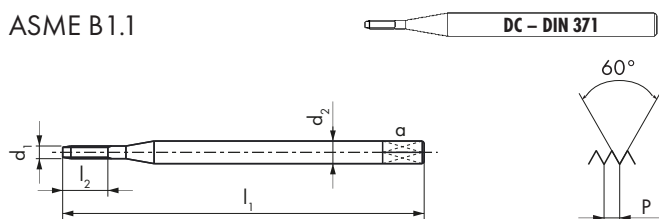


FA80VS	FA83VS
ID	

SL

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ mm	$d_2$ mm		
SL0.5	0.50	0.100	25	1.5	2.0	●	600049 ● 600100
SL0.6	0.60	0.125	25	1.8	2.0	●	600050 ● 600101
SL0.7	0.70	0.150	25	2.1	2.0	●	600051 ● 600102
SL0.8	0.80	0.150	25	2.4	2.0	●	600052 ● 600103
SL0.9	0.90	0.175	25	2.7	2.0	●	600053 ● 600104
SL1	1.00	0.200	40	3.0	2.5	●	600054 ● 600105
SL1.2	1.20	0.200	40	3.6	2.5	●	600055 ● 600106
SL1.4	1.40	0.250	40	4.2	2.5	●	600056 ● 600107

ASME B1.1



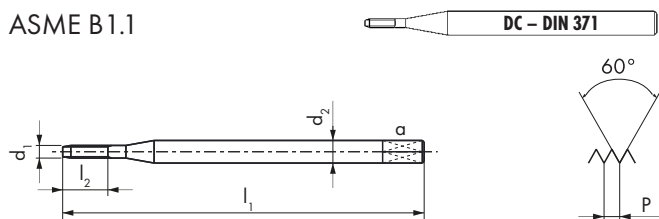
FA80VS	FA83VS
ID	

UNC

$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_2$ mm	$d_2$ mm	a mm		2BX	2BX
UNC1-64	1.85	64	40	5.6	2.5		1.65*	● 193779	● 193819
UNC2-56	2.18	56	45	9.0	2.8	2.1	2.00*	● 193780	● 193820
UNC3-48	2.52	48	50	10.0	2.8	2.1	2.25*	● 193781	● 193821
								<b>3BX</b>	<b>3BX</b>
UNC1-64	1.85	64	40	5.6	2.5		1.65*	● 193782	● 193822
UNC2-56	2.18	56	45	9.0	2.8	2.1	2.00*	● 193783	● 193823
UNC3-48	2.52	48	50	10.0	2.8	2.1	2.25*	● 193784	● 193824

\* Tol. = +0/0.02 mm

ASME B1.1



FA80VS	FA83VS
ID	

UNF

$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_2$ mm	$d_2$ mm	a mm		2BX	2BX
UNF0-80	1.52	80	40	4.6	2.5		1.40*	● 193785	● 193825
UNF1-72	1.85	72	40	5.6	2.5		1.70*	● 193786	● 193826
UNF2-64	2.18	64	45	9.0	2.8	2.1	2.00*	● 193787	● 193827
UNF3-56	2.52	56	50	10.0	2.8	2.1	2.30*	● 193788	● 193828
								<b>3BX</b>	<b>3BX</b>
UNF0-80	1.52	80	40	4.6	2.5		1.40*	● 193789	● 193829
UNF1-72	1.85	72	40	5.6	2.5		1.70*	● 193790	● 193830
UNF2-64	2.18	64	45	9.0	2.8	2.1	2.00*	● 193791	● 193831
UNF3-56	2.52	56	50	10.0	2.8	2.1	2.30*	● 193792	● 193832

\* Tol. = +0/0.02 mm

- In stock
- Delivery lead time: 3 to 6 weeks

# THREAD FORMING TAPS – CFA

**VHM  
CAR**

CLASSIC

SYNCHRO

**CFA80VS**      62 63 91 92 94

**CFA83VS**      62 63 91 92 94

CFA80VS

CFA83VS

VS

< 2.5 x D

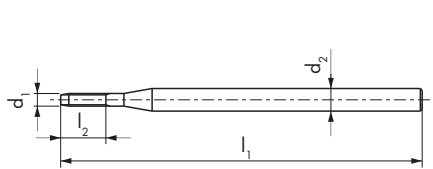
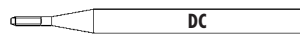
E  
1.5 x P

VS

< 2.5 x D

C  
2.5 x P

M ISO DIN 14 / DIN 13

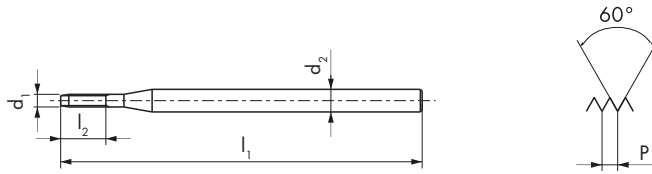
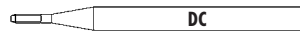


CFA80VS	CFA83VS
---------	---------

M	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> h5		ID	
								4HX	4HX
M0.5	0.50	0.125	32	1.5	1.5	0.44**	● 171771	● 193611	
M0.6	0.60	0.150	32	1.8	1.5	0.53**	● 171773	● 193612	
M0.7	0.70	0.175	32	2.1	1.5	0.62**	● 171775	● 193613	
M0.8	0.80	0.200	32	2.4	1.5	0.71**	● 171777	● 193614	
M0.9	0.90	0.225	32	2.7	1.5	0.80**	● 171779	● 193615	
M1	1.00	0.250	32	3.0	2.0	0.88**	● 171782	● 193616	
M1.2	1.20	0.250	32	3.6	2.0	1.08**	● 171783	● 193617	
M1.4	1.40	0.300	32	4.2	2.0	1.25**	● 171785	● 193618	
M1.6	1.60	0.350	32	4.8	2.0	1.45**	● 193590*	● 193619*	
M1.8	1.80	0.350	32	5.4	2.0	1.65**	● 193591*	● 193620*	
M2	2.00	0.400	39	8.0	3.0	1.80**	● 193592*	● 193621*	
M2.3	2.30	0.400	39	9.0	3.0	2.10**	● 193593*	● 193622*	
M2.5	2.50	0.450	39	10.0	3.0	2.30**	● 193594*	● 193623*	
M2.6	2.60	0.450	39	10.0	3.0	2.40**	● 193595*	● 193624*	

\*\* Tol. = +0/0.02 mm

\*Tol. 6HX

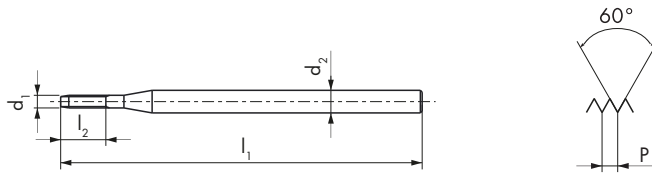


CFA80VS	CFA83VS
ID	

S	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> h5		NIHS	NIHS
S0.5	0.50	0.125	32	1.5	1.5	0.44 *		● 171770	● 193603
S0.6	0.60	0.150	32	1.8	1.5	0.53 *		● 171772	● 193604
S0.7	0.70	0.175	32	2.1	1.5	0.62 *		● 171774	● 193605
S0.8	0.80	0.200	32	2.4	1.5	0.71 *		● 171776	● 193606
S0.9	0.90	0.225	32	2.7	1.5	0.80 *		● 171778	● 193607
S1	1.00	0.250	32	3.0	2.0	0.88 *		● 171780	● 193608
S1.2	1.20	0.250	32	3.6	2.0	1.08 *		● 171781	● 193609
S1.4	1.40	0.300	32	4.2	2.0	1.25 *		● 171784	● 193610

\* Tol. = +0/0.02 mm

ASME B1.1

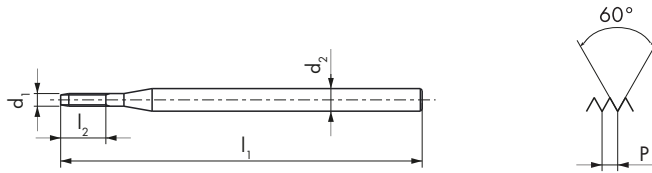


CFA80VS	CFA83VS
ID	

UNC	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> h5		2BX	2BX
UNC1-64	1.85	64	32	5.6	2.0	1.65 *		● 193596	● 193625
UNC2-56	2.18	56	39	8.6	3.0	2.00 *		● 193597	● 193626
UNC3-48	2.52	48	39	10.0	3.0	2.25 *		● 193598	● 193627

\* Tol. = +0/0.02 mm

ASME B1.1



CFA80VS	CFA83VS
ID	

UNF	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> h5		2BX	2BX
UNF0-80	1.52	80	32	4.6	2.0	1.40 *		● 193599	● 193628
UNF1-72	1.85	72	32	5.6	2.0	1.70 *		● 193600	● 193629
UNF2-64	2.18	64	39	8.6	3.0	2.00 *		● 193601	● 193630
UNF3-56	2.52	56	39	10.0	3.0	2.30 *		● 193602	● 193631

\* Tol. = +0/0.02 mm

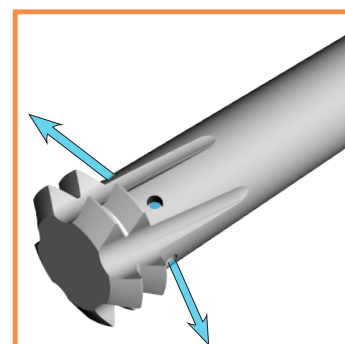
- In stock
- Delivery lead time: 3 to 6 weeks

# THE BENEFITS OF THREAD WHIRLING

**GWi** SERIES 3000



Ø 0.8 - 6.5 mm



Ø 6.5 - 20 mm

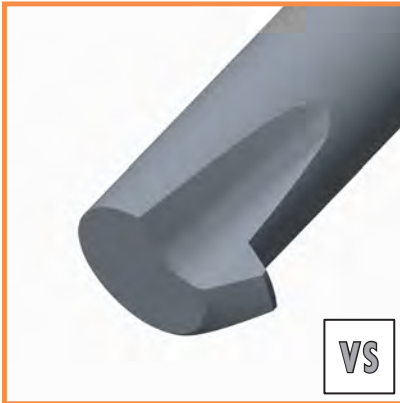
**GWi** SERIES 3000



## VX COATING

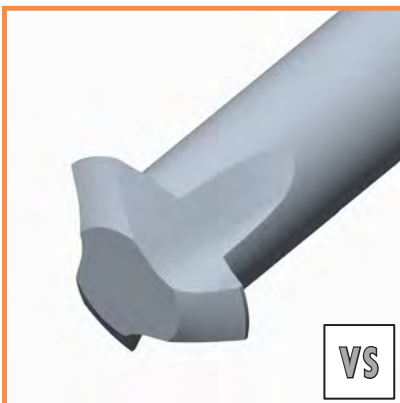
IMPROVED WEAR RESISTANCE AND A LONGER TOOL LIFE IN STAINLESS STEELS AND NICKEL ALLOYS THANKS TO THE VX COATING.

### GW SERIES 1000



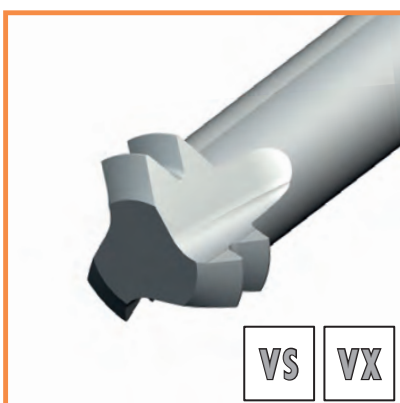
- Universal application
- High process security
- Suitable for the smallest dimensions
- More space for chip evacuation

### GW SERIES 2000



- Feed rate multiplied by number of teeth
- Less wear, longer tool life
- The number of teeth varies depending on the size

### GW & GWi SERIES 3000

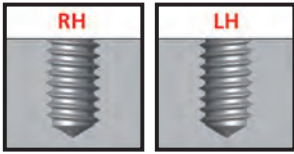


- Improved chip evacuation
- Double the tool life by GWi
- Secure process, reduction in NC-corrections
- No cold welding

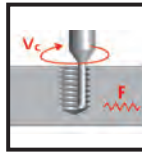
**The best solution for stainless steels and nickel alloys**



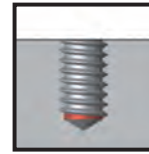
nano Thread whirling  
**APPLICATIONS**  
**GW / GWi**



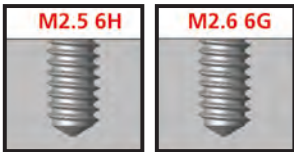
The same cutter can be used for right and left hand threads



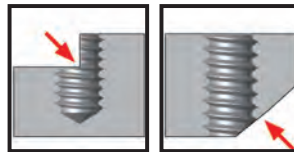
The cutting speed and feed rate can be matched individually to each work-piece material



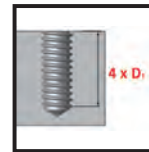
For threads to be cut near to the bottom of blind holes



Required tolerance adjustable as per users choice



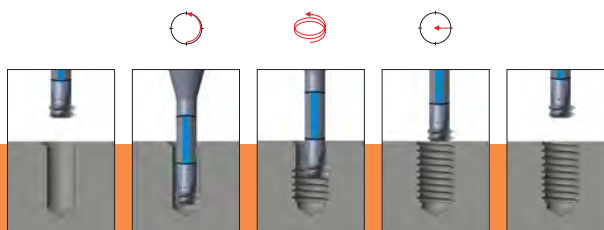
For threads with interrupted cut or with oblique entrance or exit



Ideal for deep blind holes up to  $4 \times D_1$

MATERIAL GROUPS	MATERIAL DESIGNATIONS	
STEELS	11	FREE-CUTTING STEELS
	12	STRUCTURAL / CEMENTATION STEELS
	13	CARBON STEELS
	14	ALLOY STEELS <850 N/mm <sup>2</sup>
	15	ALLOY STEELS HARD. / TEMP. >850 - <1150 N/mm <sup>2</sup>
	16	HIGH TENSILE ALLOY STEELS <55 HRC
STAINLESS STEELS	21	FREE MACHINING STAINLESS STEELS
	22	AUSTENITIC STAINLESS STEELS
	23	FERRITIC AND MARTENSITIC <850 N/mm <sup>2</sup>
	24	FERRITIC AND MARTENSITIC >850 - <1150 N/mm <sup>2</sup>
CAST IRON	31	CAST IRON
	32	SPHEROIDAL GRAPHITE + MALLEABLE CAST IRON
TITANIUM	41	PURE TITANIUM
	42	TITANIUM ALLOYS
NICKEL	51	NICKEL ALLOYS 1 <850 N/mm <sup>2</sup>
	52	NICKEL ALLOYS 2 >850 - <1150 N/mm <sup>2</sup>
	53	NICKEL ALLOYS 3 >1150 - ≤1600 N/mm <sup>2</sup>
COPPER	61	PURE COPPER (ELECTROLYTIC COPPER)
	62	SHORT CHIP BRASS, PHOSPHOR BRONZE, GUN METAL
	63	LONG CHIP BRASS
ALUMINIUM MAGNESIUM	71	AL UNALLOYED
	72	AL ALLOYED SI < 1.5 %
	73	AL ALLOYED SI > 1.5 % - < 10 %
	74	AL ALLOYED SI > 10 %, MG ALLOYS
PLASTIC COMPOUNDS	81	THERMOPLASTICS
	82	DUROPLASTICS
	83	GLASS FIBRE REINFORCED PLASTICS
PRECIOUS METALS	91	YELLOW GOLD
	92	RED GOLD
	93	WHITE GOLD
	94	SILVER

# GW / GWi programming cycle



		GW1000	GW2000	GW3000	GWi3000
		VS	VS	VS VX	VS VX
		Milling fz (mm/tooth)			
		Ø 0.3 - ≤1.0		Ø >1.0 - 3.0	
<b>11</b>	80 - 100	0.004 - 0.01		0.01 - 0.05	
<b>12</b>	80 - 100	0.004 - 0.01		0.01 - 0.05	
<b>13</b>	70 - 90	0.004 - 0.01		0.01 - 0.05	
<b>14</b>	70 - 90	0.004 - 0.01		0.01 - 0.05	
<b>15</b>	30 - 50	0.004 - 0.01		0.01 - 0.05	
<b>16</b>	15 - 40	0.003 - 0.01		0.006 - 0.03	
<b>21</b>	40 - 60	0.004 - 0.01		0.01 - 0.05	
<b>22</b>	30 - 50	0.004 - 0.01		0.01 - 0.03	
<b>23</b>	30 - 50	0.004 - 0.01		0.01 - 0.03	
<b>24</b>	30 - 50	0.004 - 0.01		0.01 - 0.03	
<b>31</b>	90 - 120	0.004 - 0.01		0.01 - 0.05	
<b>32</b>	70 - 90	0.004 - 0.01		0.01 - 0.05	
<b>41</b>	20 - 40	0.004 - 0.01		0.01 - 0.03	
<b>42</b>	15 - 35	0.004 - 0.01		0.01 - 0.03	
<b>51</b>	20 - 40	0.004 - 0.01		0.01 - 0.03	
<b>52</b>	20 - 40	0.004 - 0.01		0.01 - 0.03	
<b>53</b>	20 - 30	0.003 - 0.01		0.006 - 0.03	
<b>61</b>	200 - 250	0.004 - 0.01		0.01 - 0.05	
<b>62</b>	150 - 200	0.004 - 0.01		0.01 - 0.05	
<b>63</b>	150 - 200	0.004 - 0.01		0.01 - 0.05	
<b>71</b>	200 - 300	0.004 - 0.01		0.01 - 0.05	
<b>72</b>	200 - 300	0.004 - 0.01		0.01 - 0.05	
<b>73</b>	200 - 300	0.004 - 0.01		0.01 - 0.05	
<b>74</b>	200 - 300	0.004 - 0.01		0.01 - 0.05	
<b>81</b>	200 - 300	0.004 - 0.01		0.01 - 0.05	
<b>82</b>	100 - 200	0.004 - 0.01		0.01 - 0.05	
<b>83</b>	80 - 100	0.004 - 0.01		0.01 - 0.05	
<b>91</b>	150 - 200	0.004 - 0.01		0.01 - 0.05	
<b>92</b>	90 - 120	0.004 - 0.01		0.01 - 0.05	
<b>93</b>	30 - 50	0.004 - 0.01		0.01 - 0.03	
<b>94</b>	90 - 120	0.004 - 0.01		0.01 - 0.05	

The indicated values are a guideline

# THREAD WHIRL CUTTERS – GW

VHM  
CAR


**GW1116**


11 12 13 14 15 16 21  
22 23 24 31 32 41 42  
51 52 53 61 62 63 71

**GW1116VS**



72 73 74 81 82 83 91  
92 93 94

**GW1116**      **GW1116VS**








2.5 x D<sub>1</sub>

VS



2.5 x D<sub>1</sub>





M ISO DIN 14 / DIN 13

GW1116	GW1116VS
ID	

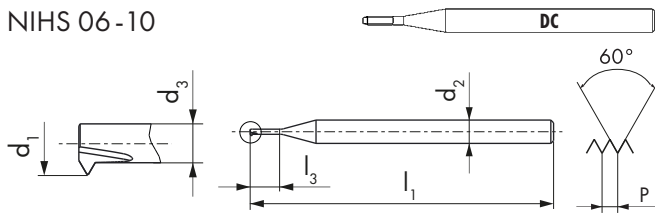
**M**

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h5	d <sub>3</sub> mm						
M0.3	0.21	0.080	39	0.9	3.0	0.10	1	0.23	●	194227	●	194245
M0.35	0.25	0.090	39	1.0	3.0	0.13	1	0.28	●	194228	●	194246
M0.4	0.29	0.100	39	1.2	3.0	0.15	1	0.32 *	●	194229	●	194247
M0.5	0.36	0.125	39	1.5	3.0	0.19	1	0.41 *	●	194230	●	194248
M0.6	0.43	0.150	39	1.7	3.0	0.23	1	0.50 *	●	194231	●	194249
M0.7	0.50	0.175	39	2.0	3.0	0.27	1	0.58 *	●	194232	●	194250
M0.8	0.57	0.200	39	2.3	3.0	0.31	1	0.66 *	●	194233	●	194251
M0.9	0.64	0.225	39	2.6	3.0	0.34	1	0.74 *	●	194234	●	194252
M1	0.71	0.250	39	2.9	3.0	0.38	1	0.75	●	194235	●	194253
M1.2	0.91	0.250	39	3.4	3.0	0.58	1	0.95	●	194236	●	194254
M1.4	1.06	0.300	39	3.9	3.0	0.66	1	1.10	●	194237	●	194255

\*  4H5H → 4H6H = +0.02 mm

32

dcswiss.com

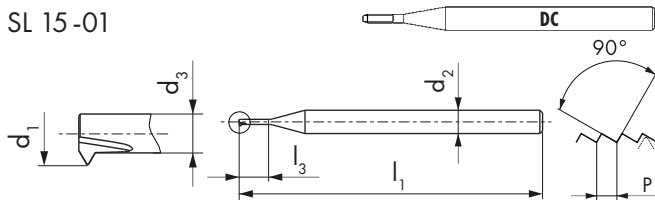


GW1116	GW1116VS
ID	

S	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h5	d <sub>3</sub> mm					
S0.3	0.21	0.080	39	0.9	3.0	0.10	1	0.23	●	166930	●	166940
S0.35	0.25	0.090	39	1.0	3.0	0.13	1	0.28	●	194226	●	194244
S0.4	0.29	0.100	39	1.2	3.0	0.15	1	0.32 *	●	166931	●	166941
S0.5	0.36	0.125	39	1.5	3.0	0.19	1	0.41 *	●	166932	●	166942
S0.6	0.43	0.150	39	1.7	3.0	0.23	1	0.50 *	●	166933	●	166943
S0.7	0.50	0.175	39	2.0	3.0	0.27	1	0.58 *	●	166934	●	166944
S0.8	0.57	0.200	39	2.3	3.0	0.31	1	0.66 *	●	166935	●	166945
S0.9	0.64	0.225	39	2.6	3.0	0.34	1	0.74 *	●	166936	●	166946
S1	0.71	0.250	39	2.9	3.0	0.38	1	0.82 *	●	166937	●	166947
S1.2	0.91	0.250	39	3.4	3.0	0.58	1	1.02 *	●	166938	●	166948
S1.4	1.06	0.300	39	3.9	3.0	0.66	1	1.18 *	●	166939	●	166949

\* 4H5H → 4H6H = +0.02 mm

SL 15-01



GW1116	GW1116VS
ID	

SL	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h5	d <sub>3</sub> mm					
SL0.3	0.23	0.060	39	0.9	3.0	0.15	1	0.27	●	600017	●	600023
SL0.35	0.28	0.060	39	1.0	3.0	0.20	1	0.32	●	600237	●	600243
SL0.4	0.31	0.080	39	1.2	3.0	0.20	1	0.36	●	600018	●	600024
SL0.5	0.39	0.100	39	1.4	3.0	0.25	1	0.46	●	600019	●	600025
SL0.6	0.46	0.125	39	1.7	3.0	0.29	1	0.55	●	600020	●	600026
SL0.7	0.53	0.150	39	2.0	3.0	0.33	1	0.64	●	600021	●	600027
SL0.8	0.63	0.150	39	2.2	3.0	0.43	1	0.74	●	600238	●	600244
SL0.9	0.70	0.175	39	2.5	3.0	0.47	1	0.83	●	600239	●	600245
SL1	0.77	0.200	39	2.8	3.0	0.51	1	0.92	●	600240	●	600246
SL1.2	0.97	0.200	39	3.3	3.0	0.71	1	1.12	●	600241	●	600247
SL1.4	1.11	0.250	39	3.9	3.0	0.78	1	1.30	●	600242	●	600248

● In stock  
 ● Delivery lead time: 3 to 6 weeks

# THREAD WHIRL CUTTERS – GW

**VHM CAR**


**GW2016**

11 12 13 14 15 16 21  
 22 23 24 31 32 41 42  
 51 52 53 61 62 63 71



**GW2016VS**



72 73 74 81 82 83 91  
 92 93 94



**GW2016**      **GW2016VS**



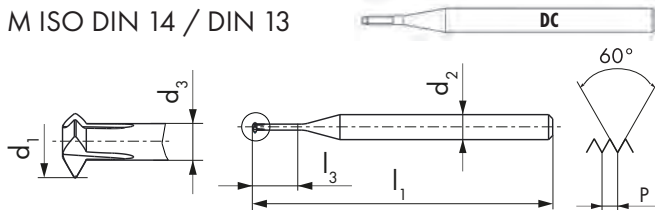
VS


M ISO DIN 14 / DIN 13

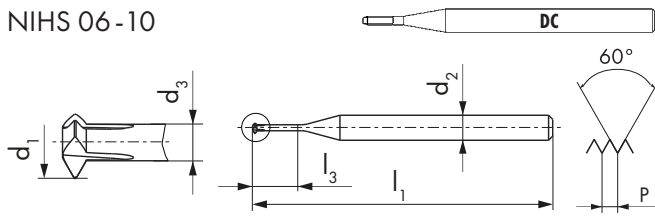


**GW2016**      **GW2016VS**

ID

M	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h5	d <sub>3</sub> mm			GW2016	GW2016VS	
M0.5	0.36	0.125	39	1.5	3.0	0.19	3	0.41 *	●	194262	●	194275
M0.6	0.43	0.150	39	1.7	3.0	0.22	3	0.50 *	●	194263	●	194276
M0.7	0.50	0.175	39	2.0	3.0	0.26	3	0.58 *	●	194264	●	194277
M0.8	0.57	0.200	39	2.3	3.0	0.29	3	0.66 *	●	166974	●	166993
M0.9	0.64	0.225	39	2.6	3.0	0.33	3	0.74 *	●	166975	●	166994
M1	0.71	0.250	39	2.9	3.0	0.36	3	0.75	●	166976	●	166995
M1.2	0.91	0.250	39	3.4	3.0	0.56	3	0.95	●	166977	●	166996
M1.4	1.06	0.300	39	3.9	3.0	0.64	3	1.10	●	166978	●	166997
M1.6	1.20	0.350	39	4.5	3.0	0.71	3	1.25	●	166979	●	166998
M1.8	1.40	0.350	39	5.0	3.0	0.91	3	1.45	●	166980	●	166999
M2	1.54	0.400	39	5.6	3.0	0.98	3	1.60	●	166981	●	167000
M2.3	1.84	0.400	39	6.3	3.0	1.28	3	1.90	●	194265	●	167399
M2.5	1.98	0.450	39	6.9	3.0	1.35	3	2.05	●	166982	●	167001
M2.6	2.08	0.450	39	7.1	3.0	1.45	3	2.15	●	194266	●	194278

\*  4H5H → 4H6H = +0.02 mm

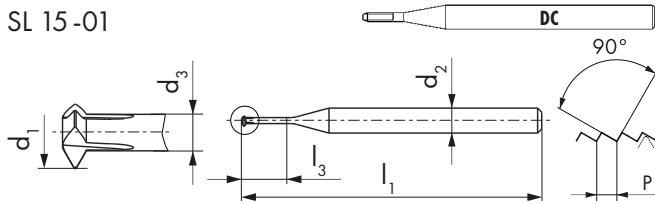


GW2016	GW2016VS
ID	

S	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h5	d <sub>3</sub> mm					
S0.5	0.36	0.125	39	1.5	3.0	0.19	3	0.41 *	●	181410	●	181413
S0.6	0.43	0.150	39	1.7	3.0	0.22	3	0.50 *	●	181374	●	180947
S0.7	0.50	0.175	39	2.0	3.0	0.26	3	0.58 *	●	181375	●	181378
S0.8	0.57	0.200	39	2.3	3.0	0.29	3	0.66 *	●	166969	●	166988
S0.9	0.64	0.225	39	2.6	3.0	0.33	3	0.74 *	●	166970	●	166989
S1	0.71	0.250	39	2.9	3.0	0.36	3	0.82 *	●	166971	●	166990
S1.2	0.91	0.250	39	3.4	3.0	0.56	3	1.02 *	●	166972	●	166991
S1.4	1.06	0.300	39	3.9	3.0	0.64	3	1.18 *	●	166973	●	166992

\* 4H5H → 4H6H = +0.02 mm

SL 15-01



GW2016	GW2016VS
ID	

SL	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h5	d <sub>3</sub> mm					
SL0.5	0.39	0.100	39	1.4	3.0	0.25	3	0.46	●	600249	●	600257
SL0.6	0.46	0.125	39	1.7	3.0	0.29	3	0.55	●	600250	●	600258
SL0.7	0.53	0.150	39	2.0	3.0	0.32	3	0.64	●	600251	●	600259
SL0.8	0.63	0.150	39	2.2	3.0	0.42	3	0.74	●	600252	●	600260
SL0.9	0.70	0.175	39	2.5	3.0	0.46	3	0.83	●	600253	●	600261
SL1	0.77	0.200	39	2.8	3.0	0.49	3	0.92	●	600254	●	600262
SL1.2	0.97	0.200	39	3.3	3.0	0.69	3	1.12	●	600255	●	600263
SL1.4	1.11	0.250	39	3.9	3.0	0.76	3	1.30	●	600256	●	600264

● In stock  
 ● Delivery lead time: 3 to 6 weeks

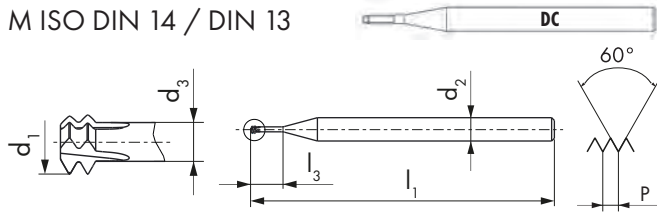
# THREAD WHIRL CUTTERS – GW

**VHM  
CAR**

**GW3016VS**

**GW3016VX**

M ISO DIN 14 / DIN 13



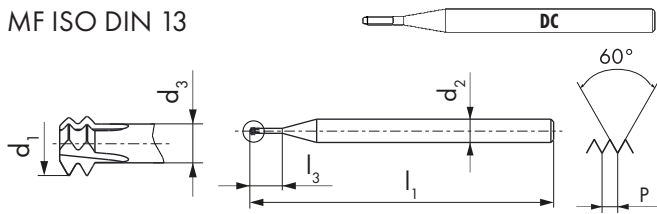
GW3016VS	GW3016VX
ID	

**M**

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm				
M0.8	0.57	0.200	39	2.3	3.0	0.29	3	0.66*	●	167035 ● 187261
M0.9	0.64	0.225	39	2.6	3.0	0.33	3	0.74*	●	167036 ● 187262
M1	0.71	0.250	39	2.9	3.0	0.36	3	0.75	●	167037 ● 187263
M1.2	0.91	0.250	39	3.4	3.0	0.56	3	0.95	●	167038 ● 187264
M1.4	1.06	0.300	39	3.9	3.0	0.64	3	1.10	●	167039 ● 187265
M1.6	1.20	0.350	39	4.5	3.0	0.71	3	1.25	●	167040 ● 187266
M1.8	1.40	0.350	39	5.0	3.0	0.91	3	1.45	●	167041 ● 187267
M2	1.54	0.400	39	5.6	3.0	0.98	3	1.60	●	167042 ● 187268
M2.3	1.84	0.400	39	6.3	3.0	1.28	3	1.90	●	167296 ● 194310
M2.5	1.98	0.450	39	6.9	3.0	1.35	3	2.05	●	167043 ● 187269
M2.6	2.08	0.450	39	7.1	3.0	1.45	3	2.15	●	194290 ● 194311

\* 4H5H → 4H6H = +0.02 mm

MF ISO DIN 13



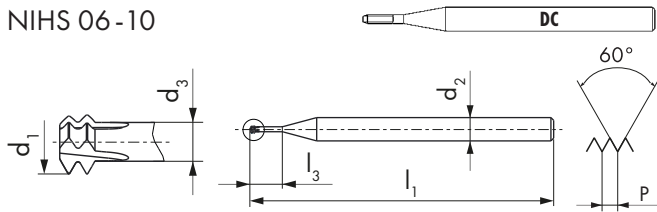
GW3016VS GW3016VX

ID

MF

	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm					
M2X0.2	1.77	0.200	39	5.3	3.0	1.49	3	1.80	●	171442	●	187282
M2X0.25	1.71	0.250	39	5.4	3.0	1.36	3	1.75	●	186209	●	187283
M2.5X0.2	2.27	0.200	39	6.6	3.0	1.99	3	2.30	●	175241	●	187284
M2.5X0.25	2.21	0.250	39	6.6	3.0	1.86	3	2.25	●	167299	●	187285

NIHS 06-10



GW3016VS GW3016VX

ID

S

	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm					
S0.8	0.57	0.200	39	2.3	3.0	0.29	3	0.66 *	●	194287	●	194305
S0.9	0.64	0.225	39	2.6	3.0	0.33	3	0.74 *	●	182875	●	194306
S1	0.71	0.250	39	2.9	3.0	0.36	3	0.82 *	●	168667	●	194307
S1.2	0.91	0.250	39	3.4	3.0	0.56	3	1.02 *	●	194288	●	194308
S1.4	1.06	0.300	39	3.9	3.0	0.64	3	1.18 *	●	194289	●	194309

\*  4H5H → 4H6H = +0.02 mm

- In stock
- Delivery lead time: 3 to 6 weeks



# THREAD WHIRL CUTTERS – GW

**VHM  
CAR**

**GW3016VS**

11 12 13 14 15 16 31  
32 41 42 61 62 63 71  
72 73 74 81 82 83

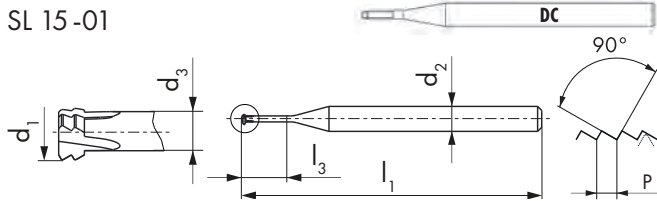
**GW3016VX**

21 22 23 24 51 52 53

**VS**

**VX**

SL 15-01

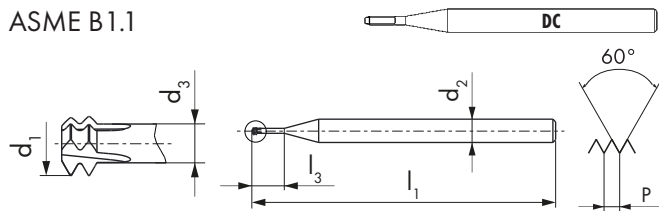


**GW3016VS**

ID

SL	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h5	d <sub>3</sub> mm	✱	✱	
SL0.8	0.63	0.150	39	2.2	3.0	0.42	3	0.74	●	600034
SL0.9	0.70	0.175	39	2.5	3.0	0.45	3	0.83	●	600035
SL1	0.77	0.200	39	2.8	3.0	0.49	3	0.92	●	600036
SL1.2	0.97	0.200	39	3.3	3.0	0.69	3	1.12	●	600037
SL1.4	1.11	0.250	39	3.9	3.0	0.76	3	1.30	●	600038

ASME B1.1



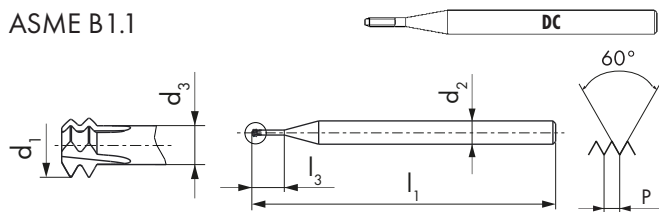
**GW3016VS GW3016VX**

ID

UNC

$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm						
UNC2-56	1.66	56	39	6.1	3.0	1.02	3	1.75	●	167500	●	187298
UNC3-48	1.91	48	39	7.0	3.0	1.17	3	2.00	●	186236	●	187299

ASME B1.1



**GW3016VS GW3016VX**

ID

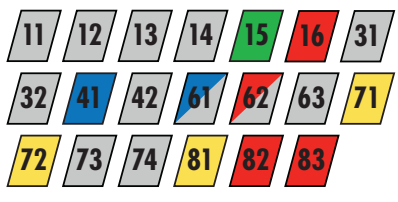
UNF


$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm						
UNF0-80	1.15	80	39	4.3	3.0	0.71	3	1.20	●	175248	●	187311
UNF1-72	1.44	72	39	5.1	3.0	0.95	3	1.50	●	175249	●	187312
UNF2-64	1.73	64	39	6.0	3.0	1.17	3	1.80	●	186248	●	187313


- In stock
- Delivery lead time: 3 to 6 weeks


# THREAD WHIRL CUTTERS – GW





**VHM  
CAR**





**GW3017VS**  


**GW3017VX**  


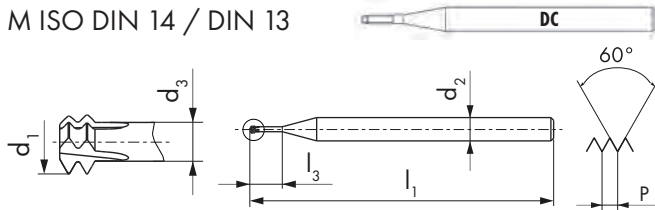






  
  
  



M ISO DIN 14 / DIN 13



GW3017VS	GW3017VX
ID	

**M**

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm						
M0.8	0.57	0.200	39	2.7	3.0	0.29	3	0.66*	●	186266	●	187389
M0.9	0.64	0.225	39	3.0	3.0	0.33	3	0.74*	●	186267	●	187390
M1	0.71	0.250	39	3.4	3.0	0.36	3	0.75	●	186268	●	187391
M1.2	0.91	0.250	39	4.0	3.0	0.56	3	0.95	●	186269	●	187392
M1.4	1.06	0.300	39	4.6	3.0	0.64	3	1.10	●	186270	●	187393
M1.6	1.20	0.350	39	5.3	3.0	0.71	3	1.25	●	186271	●	187394
M1.8	1.40	0.350	39	5.9	3.0	0.91	3	1.45	●	186272	●	187395
M2	1.54	0.400	39	6.6	3.0	0.98	3	1.60	●	186273	●	187396
M2.3	1.84	0.400	39	7.5	3.0	1.28	3	1.90	●	194296	●	194317
M2.5	1.98	0.450	39	8.1	3.0	1.35	3	2.05	●	186274	●	187397
M2.6	2.08	0.450	39	8.4	3.0	1.45	3	2.15	●	194297	●	194318

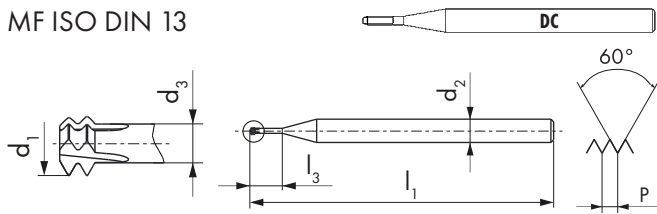
\*  4H5H → 4H6H = +0.02 mm

● In stock  
● Delivery lead time: 3 to 6 weeks

dcswiss.com

40

MF ISO DIN 13

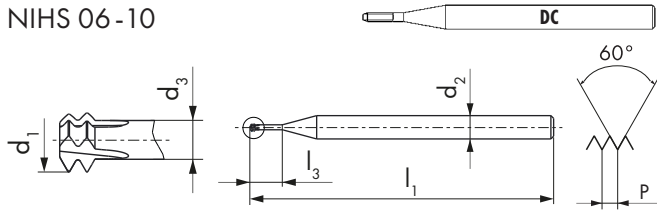


**GW3017VS GW3017VX**  
ID

**MF**  $d_1$   $\varnothing d_1$  mm **P** mm  $l_1$  mm  $l_3$  mm  $d_2$  h5  $d_3$  mm

	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm			
M2X0.2	1.77	0.200	39	6.3	3.0	1.49	3	1.80	●	186325 ● 187410
M2X0.25	1.71	0.250	39	6.4	3.0	1.36	3	1.75	●	186326 ● 187411
M2.5X0.2	2.27	0.200	39	7.8	3.0	1.99	3	2.30	●	186327 ● 187412
M2.5X0.25	2.21	0.250	39	7.9	3.0	1.86	3	2.25	●	186328 ● 187413

NIHS 06-10



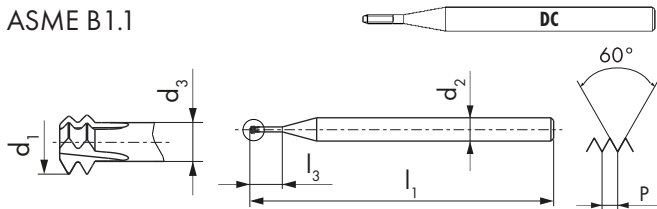
**GW3017VS GW3017VX**  
ID

**S**  $d_1$   $\varnothing d_1$  mm **P** mm  $l_1$  mm  $l_3$  mm  $d_2$  h5  $d_3$  mm

	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm			
S0.8	0.57	0.200	39	2.7	3.0	0.29	3	0.66 *	●	194291 ● 194312
S0.9	0.64	0.225	39	3.0	3.0	0.33	3	0.74 *	●	194292 ● 194313
S1	0.71	0.250	39	3.4	3.0	0.36	3	0.82 *	●	194293 ● 194314
S1.2	0.91	0.250	39	4.0	3.0	0.56	3	1.02 *	●	194294 ● 194315
S1.4	1.06	0.300	39	4.6	3.0	0.64	3	1.18 *	●	194295 ● 194316

\* 4H5H → 4H6H = +0.02 mm

ASME B1.1

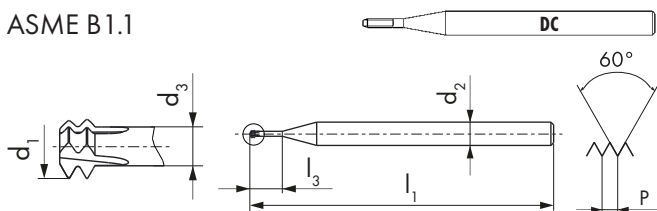


**GW3017VS GW3017VX**  
ID

**UNC**  $d_1$   $\varnothing d_1$  mm **P** TPI  $l_1$  mm  $l_3$  mm  $d_2$  h5  $d_3$  mm

	$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm			
UNC2-56	1.66	56	39	7.2	3.0	1.02	3	1.75	●	186365 ● 187426
UNC3-48	1.91	48	39	8.3	3.0	1.17	3	2.00	●	186366 ● 187427

ASME B1.1



**GW3017VS GW3017VX**  
ID

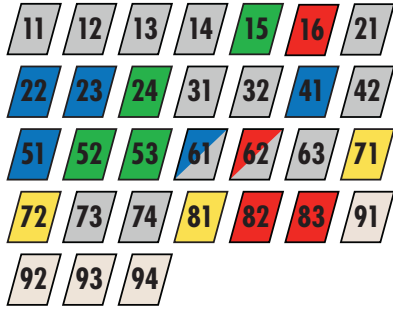
**UNF**  $d_1$   $\varnothing d_1$  mm **P** TPI  $l_1$  mm  $l_3$  mm  $d_2$  h5  $d_3$  mm

	$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm			
UNF0-80	1.15	80	39	5.0	3.0	0.71	3	1.20	●	186404 ● 187439
UNF1-72	1.44	72	39	6.1	3.0	0.95	3	1.50	●	186405 ● 187440
UNF2-64	1.73	64	39	7.1	3.0	1.17	3	1.80	●	186406 ● 187441

# THREAD WHIRL CUTTERS – GW

VHM  
CAR

GW3019VS



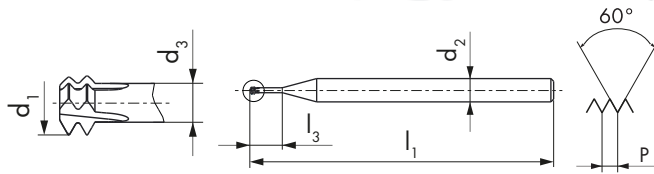
GW3019VS



VS



M ISO DIN 14 / DIN 13



GW3019VS

ID

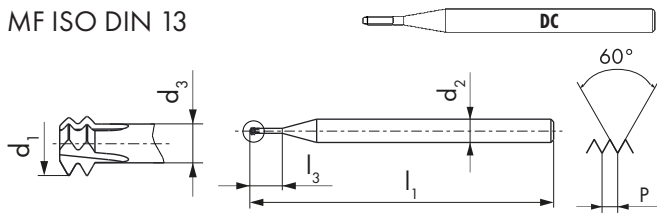
M

d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h5	d <sub>3</sub> mm			
M0.8	0.57	0.200	39	3.5	3.0	0.29	3	0.66 *	● 167077
M0.9	0.64	0.225	39	3.9	3.0	0.33	3	0.74 *	● 167078
M1	0.71	0.250	39	4.4	3.0	0.36	3	0.75	● 167079
M1.2	0.91	0.250	39	5.2	3.0	0.56	3	0.95	● 167080
M1.4	1.06	0.300	39	6.0	3.0	0.64	3	1.10	● 167081
M1.6	1.20	0.350	39	6.9	3.0	0.71	3	1.25	● 167082
M1.8	1.40	0.350	39	7.7	3.0	0.91	3	1.45	● 167083
M2	1.54	0.400	39	8.6	3.0	0.98	3	1.60	● 167084
M2.3	1.84	0.400	39	9.8	3.0	1.28	3	1.90	● 194303
M2.5	1.98	0.450	39	10.6	3.0	1.35	3	2.05	● 167085
M2.6	2.08	0.450	39	11.0	3.0	1.45	3	2.15	● 194304

\* 4H5H → 4H6H = +0.02 mm

● In stock  
● Delivery lead time: 3 to 6 weeks

MF ISO DIN 13



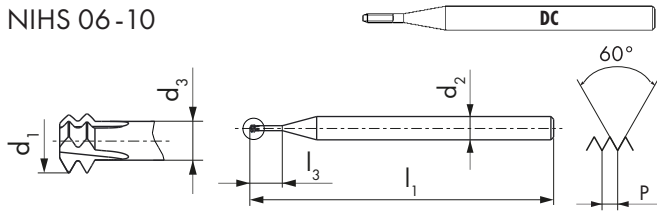
GW3019VS

ID

MF

	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm		
M2X0.2	1.77	0.200	39	8.3	3.0	1.49	3	1.80	● 175270
M2X0.25	1.71	0.250	39	8.4	3.0	1.36	3	1.75	● 186592
M2.5X0.2	2.27	0.200	39	10.3	3.0	1.99	3	2.30	● 175271
M2.5X0.25	2.21	0.250	39	10.4	3.0	1.86	3	2.25	● 175272

NIHS 06-10



GW3019VS

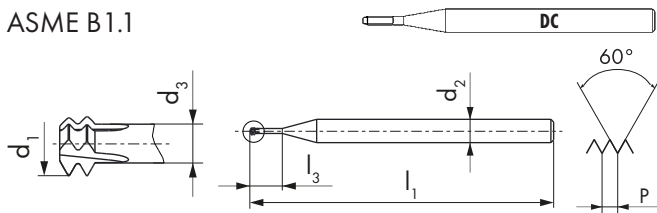
ID

S

	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm		
S0.8	0.57	0.200	39	3.5	3.0	0.29	3	0.66*	● 194298
S0.9	0.64	0.225	39	3.9	3.0	0.33	3	0.74*	● 194299
S1	0.71	0.250	39	4.4	3.0	0.36	3	0.82*	● 194300
S1.2	0.91	0.250	39	5.2	3.0	0.56	3	1.02*	● 194301
S1.4	1.06	0.300	39	6.0	3.0	0.64	3	1.18*	● 194302

\* 4H5H → 4H6H = +0.02 mm

ASME B1.1



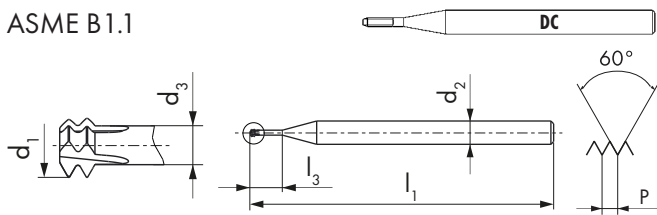
GW3019VS

ID

UNC

	$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm		
UNC2-56	1.66	56	39	9.4	3.0	1.02	3	1.75	● 167507
UNC3-48	1.91	48	39	10.8	3.0	1.17	3	2.00	● 186601

ASME B1.1



GW3019 VS

ID

UNF

	$d_1$	$\varnothing d_1$ mm	P TPI	$l_1$ mm	$l_3$ mm	$d_2$ h5	$d_3$ mm		
UNF0-80	1.15	80	39	6.6	3.0	0.71	3	1.20	● 175280
UNF1-72	1.44	72	39	7.9	3.0	0.95	3	1.50	● 175281
UNF2-64	1.73	64	39	9.3	3.0	1.17	3	1.80	● 186605

# THREAD WHIRL CUTTERS – GWi

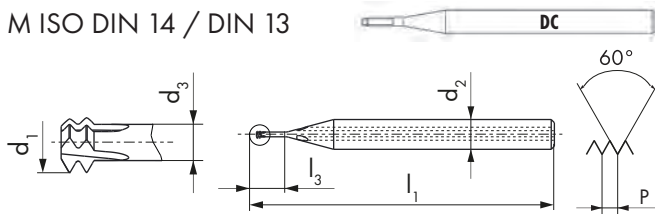
**VHM  
CAR**

**GWi3066VS    GWi3066VX**

**GWi3066VS**

**GWi3066VX**

M ISO DIN 14 / DIN 13



**GWi3066VS    GWi3066VX**

**M**  $d_1$   $\varnothing d_1$  mm  $P$  mm  $l_1$  mm  $l_3$  mm  $d_2$  h6  $d_3$  mm  $\frac{P}{3}$   $\frac{P}{2}$

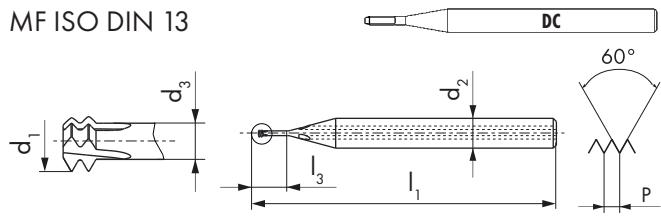
**ID**

M	$d_1$	$\varnothing d_1$ mm	$P$ mm	$l_1$ mm	$l_3$ mm	$d_2$ h6	$d_3$ mm	$\frac{P}{3}$	$\frac{P}{2}$	●	●	
M0.8	0.57	0.200	40	2.3	3.0	0.29	3	0.66 *	●	186029	●	187325
M0.9	0.64	0.225	40	2.6	3.0	0.33	3	0.74 *	●	186030	●	187326
M1	0.71	0.250	40	2.9	3.0	0.36	3	0.75	●	186031	●	187327
M1.2	0.91	0.250	40	3.4	3.0	0.56	3	0.95	●	186032	●	187328
M1.4	1.06	0.300	40	3.9	4.0	0.64	3	1.10	●	186033	●	187329
M1.6	1.20	0.350	40	4.5	4.0	0.71	3	1.25	●	186034	●	187330
M1.8	1.40	0.350	40	5.0	4.0	0.91	3	1.45	●	186035	●	187331
M2	1.54	0.400	40	5.6	4.0	0.98	3	1.60	●	186036	●	187332
M2.3	1.84	0.400	40	6.3	4.0	1.28	3	1.90	●	194324	●	194334
M2.5	1.98	0.450	40	6.9	4.0	1.35	3	2.05	●	186037	●	187333
M2.6	2.08	0.450	40	7.1	4.0	1.45	3	2.15	●	194325	●	194335

\* 4H5H → 4H6H = +0.02 mm

● In stock  
● Delivery lead time: 3 to 6 weeks

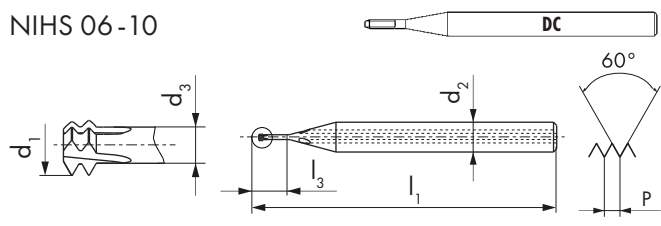
MF ISO DIN 13



**GW3066VS GW3066VX**  
ID

MF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h <sub>6</sub>	d <sub>3</sub> mm					
M2X0.2	1.77	0.200	40	5.3	4.0	1.49	3	1.80	●	186086	●	187346
M2X0.25	1.71	0.250	40	5.4	4.0	1.36	3	1.75	●	186087	●	187347
M2.5X0.2	2.27	0.200	40	6.6	4.0	1.99	3	2.30	●	186088	●	187348
M2.5X0.25	2.21	0.250	40	6.6	4.0	1.86	3	2.25	●	186089	●	187349

NIHS 06-10

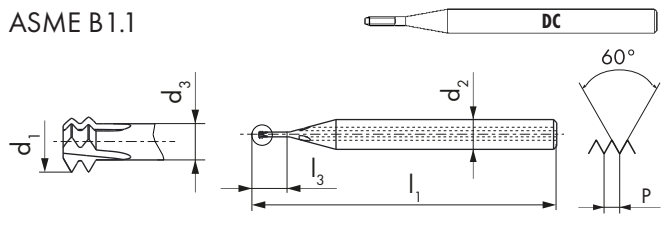


**GW3066VS GW3066VX**  
ID

S	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h <sub>6</sub>	d <sub>3</sub> mm					
S0.8	0.57	0.200	40	2.3	3.0	0.29	3	0.66 *	●	194319	●	194329
S0.9	0.64	0.225	40	2.6	3.0	0.33	3	0.74 *	●	194320	●	194330
S1	0.71	0.250	40	2.9	3.0	0.36	3	0.82 *	●	194321	●	194331
S1.2	0.91	0.250	40	3.4	3.0	0.56	3	1.02 *	●	194322	●	194332
S1.4	1.06	0.300	40	3.9	4.0	0.64	3	1.18 *	●	194323	●	194333

\* 4H5H → 4H6H = +0.02 mm

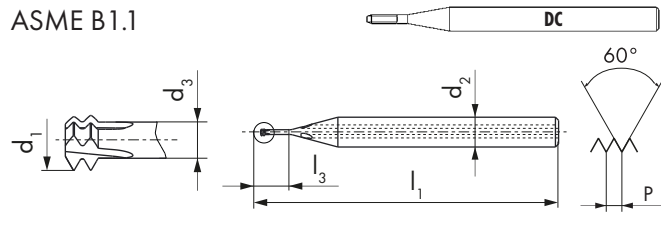
ASME B1.1



**GW3066VS GW3066VX**  
ID

UNC	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h <sub>6</sub>	d <sub>3</sub> mm					
UNC2-56	1.66	56	40	6.1	4.0	1.02	3	1.75	●	186128	●	187362
UNC3-48	1.91	48	40	7.0	4.0	1.17	3	2.00	●	186129	●	187363

ASME B1.1



**GW3066VS GW3066VX**  
ID

UNF	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> h <sub>6</sub>	d <sub>3</sub> mm					
UNF0-80	1.15	80	40	4.3	4.0	0.71	3	1.20	●	186167	●	187375
UNF1-72	1.44	72	40	5.1	4.0	0.95	3	1.50	●	186168	●	187376
UNF2-64	1.73	64	40	6.0	4.0	1.17	3	1.80	●	186169	●	187377



# THREAD WHIRL CUTTERS – GWi

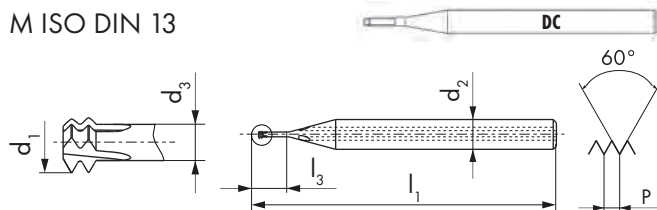
**VHM  
CAR**

**GWi3067VS    GWi3067VX**

**GWi3067VS**

**GWi3067VX**

M ISO DIN 13



**GWi3067VS    GWi3067VX**

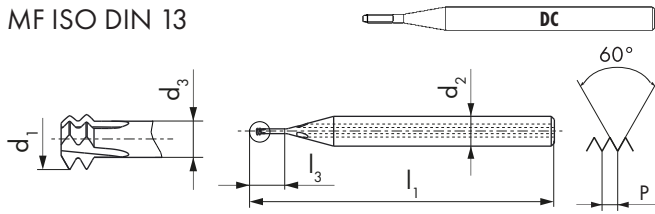
ID

**M**

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h6	$d_3$ mm	$\alpha$	$\lambda$				
M1.4	1.06	0.300	40	4.6	4.0	0.64	3	1.10	●	186443	●	187453
M1.6	1.20	0.350	40	5.3	4.0	0.71	3	1.25	●	186444	●	187454
M1.8	1.40	0.350	40	5.9	4.0	0.91	3	1.45	●	186445	●	187455
M2	1.54	0.400	40	6.6	4.0	0.98	3	1.60	●	186446	●	187456
M2.3	1.84	0.400	40	7.5	4.0	1.28	3	1.90	●	194327	●	194337
M2.5	1.98	0.450	40	8.1	4.0	1.35	3	2.05	●	186447	●	187457
M2.6	2.08	0.450	40	8.4	4.0	1.45	3	2.15	●	194328	●	194338

● In stock

● Delivery lead time: 3 to 6 weeks

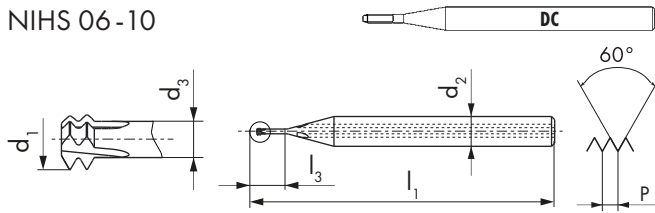


**GWi3067VS GWi3067VX**

ID

**MF**

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h6	$d_3$ mm						
M2X0.2	1.77	0.200	40	6.3	4.0	1.49	3	1.80	●	186488	●	187470
M2X0.25	1.71	0.250	40	6.4	4.0	1.36	3	1.75	●	186489	●	187471
M2.5X0.2	2.27	0.200	40	7.8	4.0	1.99	3	2.30	●	186490	●	187472
M2.5X0.25	2.21	0.250	40	7.9	4.0	1.86	3	2.25	●	186491	●	187473



**GWi3067VS GWi3067VX**

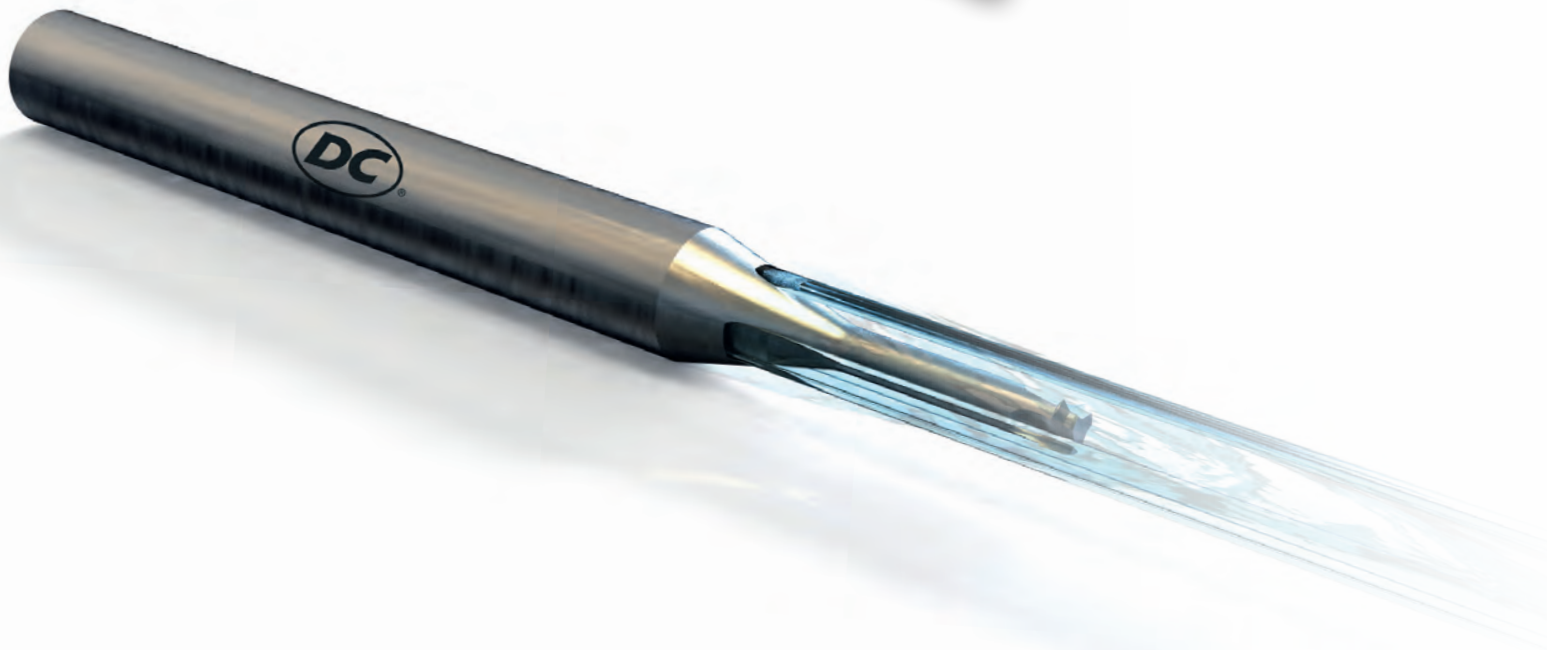
ID

**S**

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h6	$d_3$ mm						
S1.4	1.06	0.300	40	4.6	4.0	0.64	3	1.18 *	●	194326	●	194336

\* 4H5H → 4H6H = +0.02 mm

# THE PERFECT THREAD



## GWi5000

There has never been a greater need to offer a perfect threading system. Demand in the field of threading is constantly increasing, and calls for a faultless profile. For this reason we have developed a tool based on the GWi series that ensures threads with absolutely no burrs.

The operation consists of milling the flanks of the thread while at the same time working on the interior diameter. In order to achieve the threading, optimal drilling is required. To accomplish this, DC SWISS also recommends a special spotting drill and twist drill.

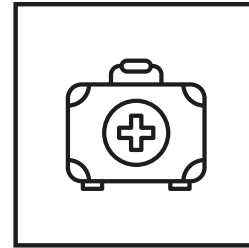
## FEATURES

This ultrafine carbide tool with VS coating offers excellent heat resistance, representing an ideal combination for high-performance machining.

# BEST PERFORMANCE

## MEDICAL

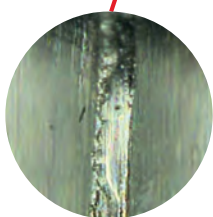
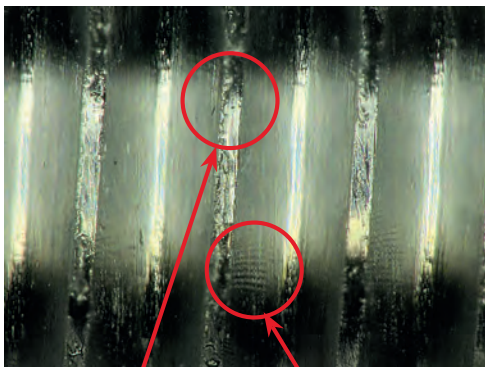
Material: Titanium grade 4  
Machine: Tornos Evo Deco  
Type of hole: Blind hole  
Thread size: M1.8 6H  
Depth:  $2 \times D_1$   
Coolant: Cutting oil  
Vc & Feed: 30 m/min & 0.03 mm/tooth



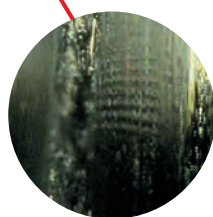
**2500 PERFECT THREADS  
1 NC CORRECTION**

NUMBER OF NC CORRECTIONS **GWi5000** : 1X  
NUMBER OF NC CORRECTIONS WITH CONVENTIONAL TOOL : 5X

### CONVENTIONAL MACHINING



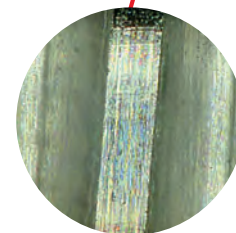
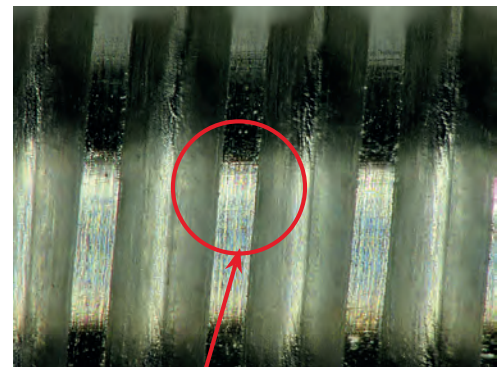
BURRS



VIBRATIONS

### PERFECT THREAD

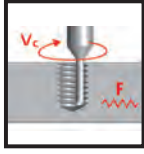
GWi5066VS M1.8x0.35



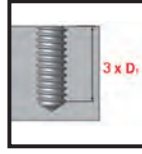
NO BURRS & NO VIBRATIONS

# Thread whirling APPLICATIONS

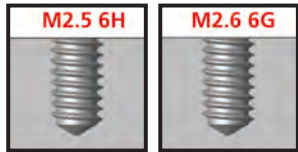
## GWi Series 5000



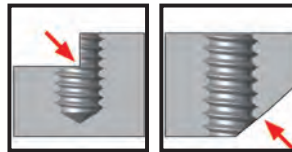
The cutting speed and feed rate can be matched individually to each work-piece material



Ideal for deep blind holes up to  $3 \times D_1$



Required tolerance adjustable as per users choice



For threads with an interrupted cut or with oblique entrance or exit



GWi5000

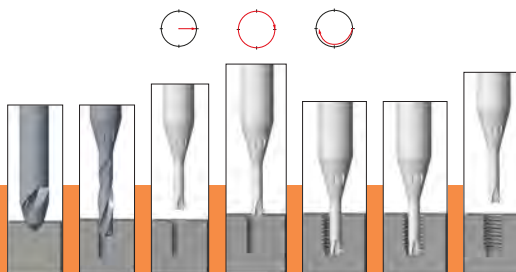
VS





Vc  
(m/min)

Feed rate fz  
(mm/tooth)

MATERIAL GROUPS	MATERIAL DESIGNATIONS		Vc (m/min)	VS	
				Ø 0.3 - ≤1.0	Ø >1.0 - 3.0
STEELS	11	FREE-CUTTING STEELS	80 - 100	0.004 - 0.01	0.01 - 0.05
	12	STRUCTURAL / CEMENTATION STEELS	80 - 100	0.004 - 0.01	0.01 - 0.05
	13	CARBON STEELS	70 - 90	0.004 - 0.01	0.01 - 0.05
	14	ALLOY STEELS <850 N/mm <sup>2</sup>	70 - 90	0.004 - 0.01	0.01 - 0.05
	15	ALLOY STEELS HARD. / TEMP. >850 - <1150 N/mm <sup>2</sup>	30 - 50	0.004 - 0.01	0.01 - 0.05
	16	HIGH TENSILE ALLOY STEELS <55 HRC	15 - 40	0.003 - 0.01	0.006 - 0.03
STAINLESS STEELS	21	FREE MACHINING STAINLESS STEELS	40 - 60	0.004 - 0.01	0.01 - 0.05
	22	AUSTENITIC STAINLESS STEELS	30 - 50	0.004 - 0.01	0.01 - 0.03
	23	FERRITIC AND MARTENSITIC <850 N/mm <sup>2</sup>	30 - 50	0.004 - 0.01	0.01 - 0.03
	24	FERRITIC AND MARTENSITIC >850 - <1150 N/mm <sup>2</sup>	30 - 50	0.004 - 0.01	0.01 - 0.03
CAST IRON	31	CAST IRON	90 - 120	0.004 - 0.01	0.01 - 0.05
	32	SPHEROIDAL GRAPHITE + MALLEABLE CAST IRON	70 - 90	0.004 - 0.01	0.01 - 0.05
TITANIUM	41	PURE TITANIUM	20 - 40	0.004 - 0.01	0.01 - 0.03
	42	TITANIUM ALLOYS	15 - 35	0.004 - 0.01	0.01 - 0.03
NICKEL	51	NICKEL ALLOYS 1 <850 N/mm <sup>2</sup>	20 - 40	0.004 - 0.01	0.01 - 0.03
	52	NICKEL ALLOYS 2 >850 - <1150 N/mm <sup>2</sup>	20 - 40	0.004 - 0.01	0.01 - 0.03
	53	NICKEL ALLOYS 3 >1150 - ≤1600 N/mm <sup>2</sup>	20 - 30	0.003 - 0.01	0.006 - 0.03
COPPER	61	PURE COPPER (ELECTROLYTIC COPPER)	200 - 250	0.004 - 0.01	0.01 - 0.05
	62	SHORT CHIP BRASS, PHOSPHOR BRONZE, GUN METAL	150 - 200	0.004 - 0.01	0.01 - 0.05
	63	LONG CHIP BRASS	150 - 200	0.004 - 0.01	0.01 - 0.05
ALUMINIUM MAGNESIUM	71	AL UNALLOYED	200 - 300	0.004 - 0.01	0.01 - 0.05
	72	AL ALLOYED SI < 1.5 %	200 - 300	0.004 - 0.01	0.01 - 0.05
	73	AL ALLOYED SI > 1.5 % - < 10 %	200 - 300	0.004 - 0.01	0.01 - 0.05
	74	AL ALLOYED SI > 10 %, MG ALLOYS	200 - 300	0.004 - 0.01	0.01 - 0.05
PLASTIC COMPOUNDS	81	THERMOPLASTICS	200 - 300	0.004 - 0.01	0.01 - 0.05
	82	DUROPLASTICS	100 - 200	0.004 - 0.01	0.01 - 0.05
	83	GLASS FIBRE REINFORCED PLASTICS	80 - 100	0.004 - 0.01	0.01 - 0.05
PRECIOUS METALS	91	YELLOW GOLD	150 - 200	0.004 - 0.01	0.01 - 0.05
	92	RED GOLD	90 - 120	0.004 - 0.01	0.01 - 0.05
	93	WHITE GOLD	30 - 50	0.004 - 0.01	0.01 - 0.03
	94	SILVER	90 - 120	0.004 - 0.01	0.01 - 0.05

# GWi 5000 programming cycle



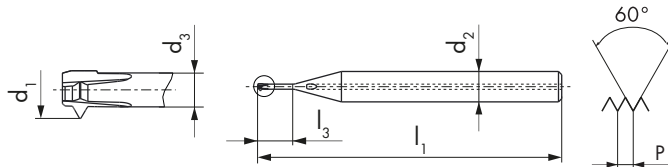
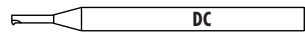
		C315VS					FZ315VS					
												
Vc (m/min)	VS			Vc (m/min)	VS							
	Feed rate f (mm/rev.)				Feed rate f (mm/rev.)				Q1		Qx	
	Ø 1.40	Ø 2.00	Ø 3.00		Ø 0.58-0.74	Ø 0.90-1.05	Ø 1.09-1.39	Ø 1.54-1.98	Q1	Qx		
11	120	0.050	0.080	0.100	40-60	0.020-0.035	0.030-0.045	0.040-0.055	0.050-0.065	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
12	120	0.050	0.080	0.100	40-60	0.020-0.035	0.030-0.045	0.040-0.055	0.050-0.065	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
13	120	0.050	0.080	0.100	35-55	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
14	80	0.050	0.080	0.100	35-55	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
15	60	0.030	0.040	0.060	35-55	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
16	40	0.020	0.030	0.040	35-55	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
21	60	0.030	0.040	0.060	30-45	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
22	50	0.030	0.040	0.060	30-45	0.015-0.025	0.025-0.035	0.035-0.045	0.045-0.055	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
23	50	0.030	0.040	0.060	35-50	0.020-0.025	0.025-0.035	0.040-0.050	0.050-0.065	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
24	50	0.030	0.040	0.060	35-50	0.020-0.025	0.025-0.035	0.040-0.050	0.050-0.065	1xd <sub>1</sub> -4xd <sub>1</sub>	1xd <sub>1</sub> -2xd <sub>1</sub>	
31	100	0.040	0.050	0.070	50-80	0.025-0.045	0.045-0.065	0.065-0.085	0.085-0.100	4xd <sub>1</sub> -8xd <sub>1</sub>	4xd <sub>1</sub>	
32	100	0.040	0.050	0.070	40-70	0.025-0.045	0.045-0.065	0.065-0.085	0.085-0.100	4xd <sub>1</sub> -8xd <sub>1</sub>	4xd <sub>1</sub>	
41	25	0.030	0.040	0.060	15-25	0.005-0.020	0.015-0.045	0.040-0.060	0.055-0.070	1/2xd <sub>1</sub> -1xd <sub>1</sub>	1/4xd <sub>1</sub> -1/2xd <sub>1</sub>	
42	25	0.040	0.070	0.090	15-25	0.005-0.020	0.015-0.045	0.040-0.060	0.055-0.070	1/2xd <sub>1</sub> -1xd <sub>1</sub>	1/4xd <sub>1</sub> -1/2xd <sub>1</sub>	
51	25	0.025	0.030	0.040	15-25	0.015-0.02	0.020-0.025	0.025-0.035	0.035-0.050	1/2xd <sub>1</sub> -1xd <sub>1</sub>	1/2xd <sub>1</sub>	
52	20	0.025	0.030	0.040	15-25	0.015-0.02	0.020-0.025	0.025-0.035	0.035-0.050	1/2xd <sub>1</sub> -1xd <sub>1</sub>	1/2xd <sub>1</sub>	
53	10	0.025	0.030	0.040	15-25	0.005-0.01	0.010-0.020	0.020-0.030	0.030-0.040	1/2xd <sub>1</sub> -1xd <sub>1</sub>	1/2xd <sub>1</sub>	
61	100	0.060	0.090	0.110	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	4xd <sub>1</sub> -8xd <sub>1</sub>	4xd <sub>1</sub>	
62	100	0.060	0.090	0.110	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	4xd <sub>1</sub> -8xd <sub>1</sub>	4xd <sub>1</sub>	
63	80	0.060	0.090	0.110	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	4xd <sub>1</sub> -8xd <sub>1</sub>	4xd <sub>1</sub>	
71	150	0.060	0.090	0.110	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	
72	150	0.060	0.090	0.110	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	
73	100	0.060	0.090	0.110	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	
74	100	0.060	0.090	0.110	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	
81	200	0.080	0.110	0.130	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	4xd <sub>1</sub> -8xd <sub>1</sub>	4xd <sub>1</sub>	
82	200	0.080	0.110	0.130	50-80	0.050-0.080	0.060-0.100	0.080-0.120	0.120-0.150	4xd <sub>1</sub> -8xd <sub>1</sub>	4xd <sub>1</sub>	
83	100	0.080	0.110	0.130	40-60	0.020-0.035	0.030-0.045	0.040-0.055	0.050-0.065	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	
91	200	0.080	0.110	0.130	50-80	0.020-0.035	0.030-0.045	0.040-0.055	0.050-0.065	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	
92	150	0.080	0.110	0.130	50-80	0.020-0.035	0.030-0.045	0.040-0.055	0.050-0.065	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	
93	100	0.080	0.110	0.130	40-60	0.020-0.035	0.030-0.045	0.040-0.055	0.050-0.065	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	
94	100	0.080	0.110	0.130	40-60	0.020-0.035	0.030-0.045	0.040-0.055	0.050-0.065	2xd <sub>1</sub> -3xd <sub>1</sub>	3xd <sub>1</sub>	

The indicated values are a guideline

# THREAD WHIRL CUTTERS – GWi

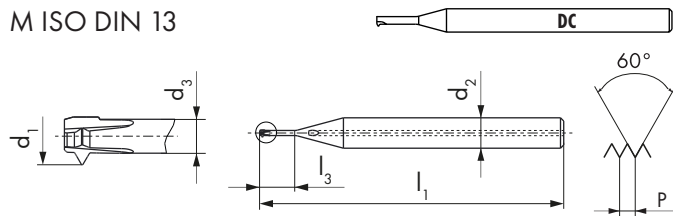
<b>VHM CAR</b>	<b>GWi5066VS</b>	<b>GWi5067VS</b>	<b>C315VS</b>	<b>FZ315VS</b>
	<b>GWi5067VS</b>			
	<b>C315VS</b>			
<b>FZ315VS</b>				

M ISO DIN 14 / DIN 13



GWi5066VS	C315VS	FZ315VS
ID		
M0.8	● 182872	● 182863
M0.9	● 182872	● 182864
M1	● 182872	● 182865
M1.2	● 182872	● 182866
M1.4	● 182873	● 182867
M1.6	● 182873	● 182868
M1.8	● 182873	● 182869
M2	● 182874	● 182870
M2.5	● 182874	● 182871

\* Tol. = +0/0.02 mm



GW5067VS

C315VS

FZ315VS

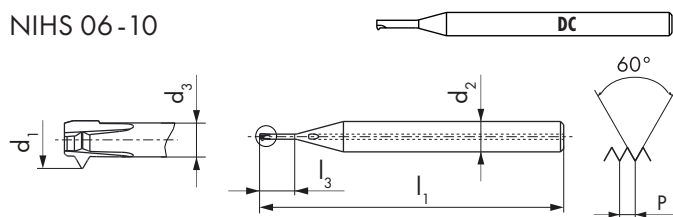
ID

M

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h6	$d_3$ mm				
M1.4	1.03	0.300	40	4.7	4.0	0.61	1.05 *	● 182873	● 182867	● 182867
M1.6	1.16	0.350	40	5.4	4.0	0.67	1.19 *	● 182873	● 182868	● 182868
M1.8	1.36	0.350	40	6.0	4.0	0.87	1.39 *	● 182873	● 182869	● 182869
M2	1.50	0.400	40	6.6	4.0	0.94	1.54 *	● 182874	● 182870	● 182870
M2.5	1.94	0.450	40	8.2	4.0	1.31	1.98 *	● 182874	● 182871	● 182871

\* Tol. = +0/0.02 mm

## NIHS 06-10



GW5066VS

C315VS

FZ315VS

ID

S

$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_3$ mm	$d_2$ h6	$d_3$ mm				
S0.8	0.55	0.200	40	2.3	3.0	0.27	0.59 *	● 182872	● 188023	● 188023
S0.9	0.62	0.225	40	2.6	3.0	0.31	0.67 *	● 182872	● 188024	● 188024
S1	0.66	0.250	40	2.9	3.0	0.31	0.74 *	● 182872	● 188025	● 188025
S1.2	0.86	0.250	40	3.4	3.0	0.51	0.94 *	● 182872	● 188026	● 188026
S1.4	1.03	0.300	40	4.0	4.0	0.61	1.09 *	● 182873	● 188027	● 188027

\* Tol. = +0/0.01 mm

## PROGRAMMING NOTICE

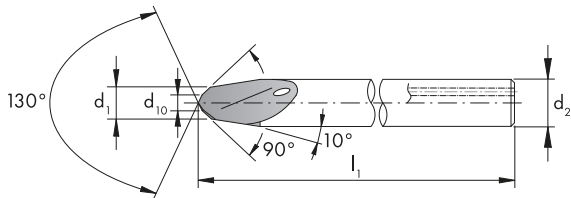
THE TOOL MUST BE PROGRAMMED FOR MACHINING WITH 1 TOOTH.

- In stock
- Delivery lead time: 3 to 6 weeks



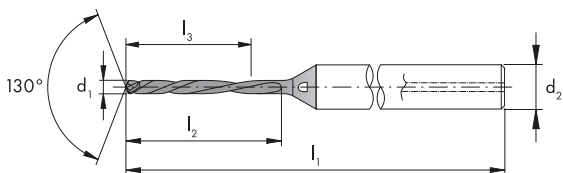
# SPOTTING DRILLS / TWIST DRILLS

<div style="border: 1px solid black; padding: 2px; display: inline-block;">VHM CAR</div>	C315VS      FZ315VS	
<p><b>C315VS</b></p> <p>11 12 13 14 15 16 21</p> <p>22 23 24 31 32 41 42</p> <p>51 52 53 61 62 63 71</p> <p><b>FZ315VS</b></p> <p>72 73 74 81 82 83 91</p> <p>92 93 94</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">VS</div> <div style="border: 1px solid black; padding: 2px;">90°</div> <div style="border: 1px solid black; padding: 2px;"></div> <div style="border: 1px solid black; padding: 2px;">130°</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">VS</div> <div style="border: 1px solid black; padding: 2px;">8xd<sub>1</sub></div> <div style="border: 1px solid black; padding: 2px;"></div> <div style="border: 1px solid black; padding: 2px;">130°</div> </div> </div>	



<b>C315VS</b>
<b>ID</b>

$d_1$	$\varnothing d_1$ mm	$d_2$ h6	$d_{10}$ mm	$l_1$ mm		
C315VS D1.40	1.40	3	0.5	40	2	● 182872
C315VS D2.00	2.00	3	1.0	40	2	● 182873
C315VS D3.00	3.00	3	1.5	40	2	● 182874

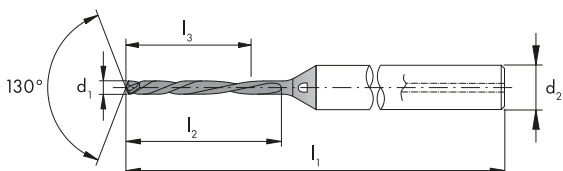


**FZ315VS**

ID

**S**  $d_1$   $\varnothing d_1$  mm P mm  $l_1$  mm  $l_2$  mm  $l_3$  mm  $d_2$  h6

S0.8	0.59	0.200	42	5.8	4.7	3.0	2	● 188023
S0.9	0.67	0.225	45	6.6	5.4	3.0	2	● 188024
S1	0.74	0.250	45	7.3	5.9	3.0	2	● 188025
S1.2	0.94	0.250	48	9.2	7.5	3.0	2	● 188026
S1.4	1.09	0.300	48	10.7	8.7	3.0	2	● 188027



**FZ315VS**

ID

**M**  $d_1$   $\varnothing d_1$  mm P mm  $l_1$  mm  $l_2$  mm  $l_3$  mm  $d_2$  h6

M0.8	0.58	0.200	42	5.7	4.6	3.0	2	● 182863
M0.9	0.65	0.225	45	6.4	5.2	3.0	2	● 182864
M1	0.70	0.250	45	6.9	5.6	3.0	2	● 182865
M1.2	0.90	0.250	45	8.8	7.2	3.0	2	● 182866
M1.4	1.05	0.300	48	10.3	8.4	3.0	2	● 182867
M1.6	1.19	0.350	48	11.7	9.5	3.0	2	● 182868
M1.8	1.39	0.350	52	13.6	11.1	4.0	2	● 182869
M2	1.54	0.400	55	15.1	12.3	4.0	2	● 182870
M2.5	1.98	0.450	55	19.4	15.8	4.0	2	● 182871

- In stock
- Delivery lead time: 3 to 6 weeks

# SPECIALIZED GAUGES FOR MICROMECHANICS AND WATCHMAKING

*In an environment as specialised as watchmaking, there is a need to develop exceptional production tools that conform with the required dimensions to the same extent as more conventional screw connections.*

DC SWISS has developed a complete range of products suitable for creating and inspecting these unique assemblies.

In addition to the standard range, DC SWISS can provide all tools and inspection equipments, carefully adapted to meet your requirements. Our wide selection of tools enable you to work on all types of materials and in conditions suited to all machinery and even manual processes, in dimensions ranging from **0.3 mm to 2.74 mm.**



## NIHS AND MORE

Our Nano tools are available in line with NIHS standards and also metric and UN standards. We can therefore be sure of accommodating manufacturers of movement components and all peripheral watch parts.

# INSPECTION DEVICES

*Our aim is to provide a means of producing micro screw fixings. The ability to check product conformance is essential, and so we also supply the relevant inspection devices.*

Our inspection devices can be used wherever they are needed, from the production workshop to the quality control department, and even during assembly.

## WHAT MAKES THESE GAUGES SO UNIQUE?

DC SWISS system allows screw manufacturers to increase the minimum manufacturing accuracy range by  $10\ \mu$  for an S0.4. This represents an increase in manufacturing tolerance of 42% ( $Td2=24\mu = 100\%$ )!

For these very special screw fixings, it must be possible to carry out compliance checks easily and uncompromisingly during production, prior to delivery, upon receipt and during assembly. DC SWISS supplies gauges that exactly correspond to the tools used.



### UTILISATION

The fact that the initial turn of the screw thread and also the tip of the gauge have been ground flat ensures that the tool engages optimally in the thread, which is essential for ensuring a correct measurement. This enables the gauge to check the thread at its maximum depth.



### PROFILE CONTROL

Our expertise in the field of rectification ensures we have perfect control of tolerances for the shape of the profile and for surface textures.



### NO-GO RING GAUGE

The cut-away on the exterior diameter of our **NO-GO** ring gauges ensures the sides of the screw can be optimally checked, eliminating the risk of any incorrect inspection caused by a blockage on the exterior diameter of the gauge.



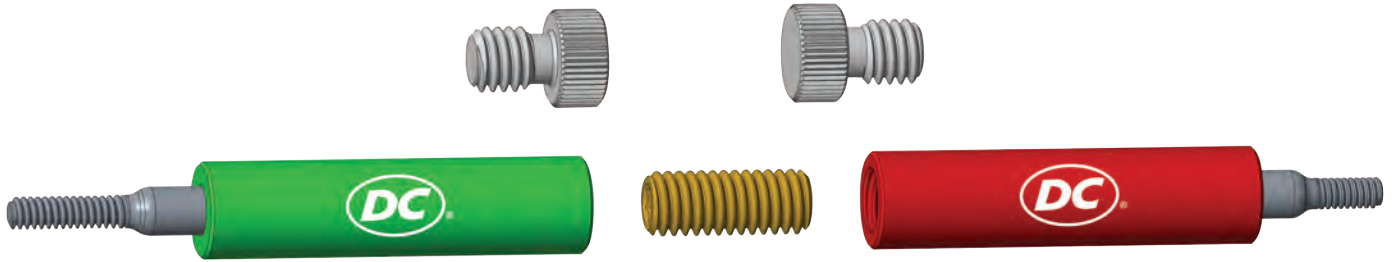
### MODULAR SYSTEM

A coupling screw enables the **GO** gauge to be connected to the **NO-GO** section as required. The rigid box protects the gauges during transportation. Its moulded interior keeps the product clean and protects it from impacts.

## nano ASSEMBLING THE NANO GAUGES

To assemble the **GO** and **NO-GO** Nano gauges, unscrew the caps from each handle. Inside the box, there is a coupling screw and a hex key, which enables you to insert the screw into one of the handles, then you just need to connect the second gauge to the protruding end of the screw.

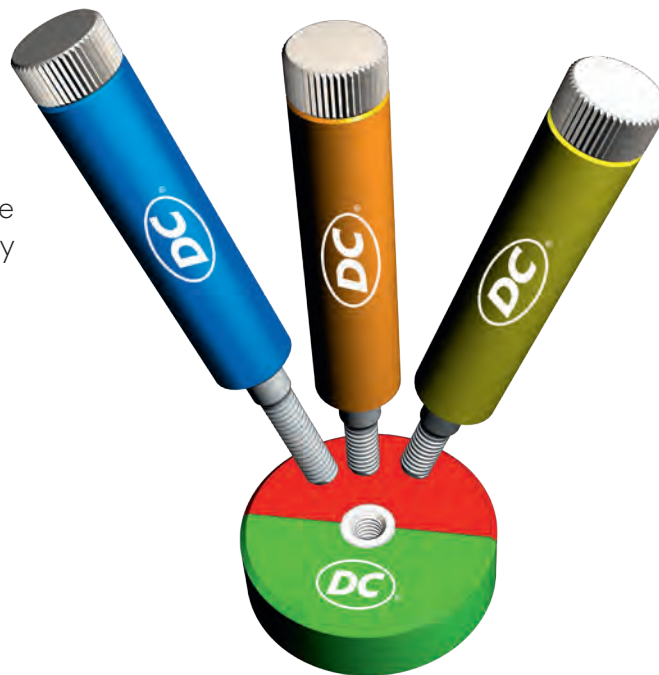
The spaces in the moulded section of the box allow you to store the gauge in parts or fully assembled, and there are various recesses in which you can keep all the items safely.



## HOW DO YOU USE THE GAUGE?

The **NO-GO** plug check gauge is the foolproofing device for the ring.

The **GO** plug check gauge is used to check the quality of your ring.



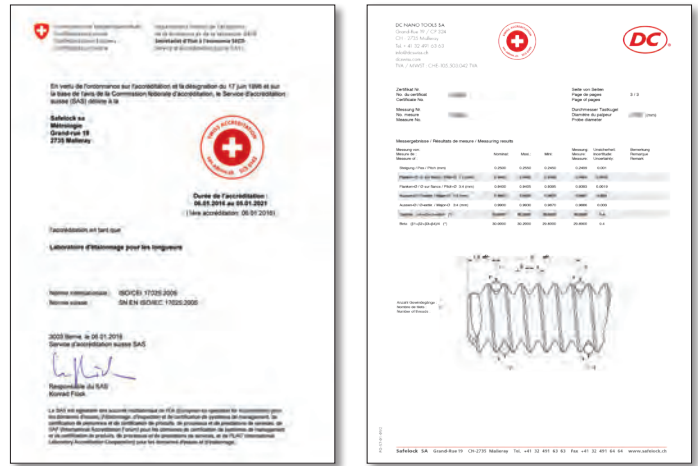
The master plug gauge **WEAR** will extend the service life of your ring up to a certain tolerance limit.

A certificate is written confirmation of the quality of a company's metrological equipment. DC NANO TOOLS SA (SCS accreditation 0143), a member of the DC SWISS Group, can inspect and calibrate thread gauges for you in accordance with the ISO 17025 international standard.

This chargeable service is available for pitch diameters of 0.1 to 0.3 mm and external diameters of 0.1 to 3.5 mm.

All plug thread gauges are SCS certified.

ISO 17025/2005 accredited © DC NANO TOOLS SA



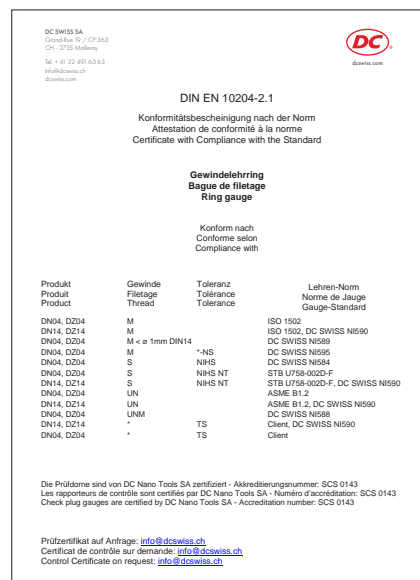
## DOWNLOAD YOUR CONFIRMATION OF COMPLIANCE

You can now access your confirmation of compliance any time, at any place on your phone. Simply scan the QR code on the card inside the box and download the associated pdf file.



The confirmation of compliance accompanying each box confirms that the factory has scrupulously followed the post-production monitoring process.

DC SWISS SA quality control





# AVAILABLE SETS



PLUG GAUGES & RING GAUGES DN

SINGLE SET



RING GAUGES DZ

SINGLE SET



PLUG GAUGES DN / RING GAUGES DN

SET OF 10 OR 20 ITEMS



You can select the exact number of GO / NO-GO gauges for each set.

Contact us  
for any other set compositions.

**dcswiss.com**

sales@dcswiss.ch / +41 32 491 63 63



nano



DN01 GO
DN02 NO-GO
DN01 GO
DN02 NO-GO

All nano thread plug gauges are SCS-certified and the paid certificate is available on order.

DN01 / DN02 M ISO DIN14 / DIN13

DN01 GO    DN02 NO-GO    DN01 GO    DN02 NO-GO

M	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							4H	4H	6H	6H
M0.3	0.30	0.080	24	0.90	6	● 192778	● 192786			
M0.35	0.35	0.090	24	1.05	6	● 192779	● 192787			
M0.4	0.40	0.100	24	1.20	6	● 192780	● 192788			
M0.5	0.50	0.125	24	1.50	6	● 192781	● 192789			
M0.6	0.60	0.150	24	1.80	6	● 192782	● 192790			
M0.7	0.70	0.175	24	2.10	6	● 192783	● 192791			
M0.8	0.80	0.200	24	2.40	6	● 192784	● 192792			
M0.9	0.90	0.225	24	2.70	6	● 192785	● 192793			
M1	1.00	0.250	24	3.00	6	● 191113	● 191127	● 191421 *	● 191424 *	
M1.2	1.20	0.250	24	3.60	6	● 191114	● 191128	● 191422 *	● 191425 *	
M1.4	1.40	0.300	24	4.20	6	● 191115	● 191129	● 191423 *	● 191426 *	
M1.6	1.60	0.350	24	4.50	6			● 191427	● 191433	
M1.8	1.80	0.350	24	4.50	6			● 191428	● 191434	
M2	2.00	0.400	24	4.50	6			● 191429	● 191435	
M2.3	2.30	0.400	24	4.50	6			● 191430	● 191436	
M2.5	2.50	0.450	24	4.50	6			● 191431	● 191437	
M2.6	2.60	0.450	24	4.50	6			● 191432	● 191438	

\*Tol. 5H

## DN01 / DN02 MF ISO DIN 13

MF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							4H	4H	6H	6H
M1.4X0.2	1.40	0.200	24	4.20	6	● 191116	● 191130			
M1.6X0.2	1.60	0.200	24	3.00	6	● 191117	● 191131			
M1.8X0.2	1.80	0.200	24	3.00	6	● 191118	● 191132			
M2X0.2	2.00	0.200	24	3.00	6	● 191119	● 191133			
M2X0.25	2.00	0.250	24	3.00	6	● 192794	● 192797			
M2.2X0.2	2.20	0.200	24	3.00	6	● 191120	● 191134			
M2.2X0.25	2.20	0.250	24	3.00	6	● 191121	● 191135			
M2.3X0.2	2.30	0.200	24	3.00	6	● 191122	● 191136			
M2.3X0.25	2.30	0.250	24	3.00	6	● 191123	● 191137			
M2.5X0.2	2.50	0.200	24	3.00	6	● 191124	● 191138			
M2.5X0.25	2.50	0.250	24	3.00	6	● 191125	● 191139			
M2.5X0.35	2.50	0.350	24	4.50	6			● 192795	● 192798	
M2.6X0.35	2.60	0.350	24	4.50	6			● 192796	● 192799	

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

nano

All nano thread plug gauges are SCS-certified and the paid certificate is available on order.

DN01 GO	DN01 GO	DN02 NO-GO

DN01 / DN02 NIHS

	DN01 GO	DN01 GO	DN02 NO-GO						
				ID					
S	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ GO mm	$d_2$ mm	NIHS 3G	NIHS 4H	NIHS 4H / 3G
S0.3	0.30	0.30	0.080	24	0.90	6	● 190733	● 193242	● 190752
S0.35	0.35	0.35	0.090	24	1.05	6	● 190734	● 193243	● 190753
S0.4	0.40	0.40	0.100	24	1.20	6	● 190735	● 193244	● 190754
S0.5	0.50	0.50	0.125	24	1.50	6	● 190736	● 193245	● 190755
S0.6	0.60	0.60	0.150	24	1.80	6	● 190737	● 193246	● 190756
S0.7	0.70	0.70	0.175	24	2.10	6	● 190738	● 193247	● 190757
S0.8	0.80	0.80	0.200	24	2.40	6	● 190739	● 193248	● 190758
S0.9	0.90	0.90	0.225	24	2.70	6	● 190740	● 193249	● 190759
S1.0	1.00	1.00	0.250	24	3.00	6	● 190741	● 193250	● 190760
S1.2	1.20	1.20	0.250	24	3.60	6	● 190742	● 193251	● 190761
S1.4	1.40	1.40	0.300	24	4.20	6	● 190743	● 193252	● 190762

## DN01 / DN02 NT

DN01 GO	DN01 GO	DN02 NO-GO
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ID
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NT	NT
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S	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm				
S0.3	0.30	0.080	24	0.90	6		●	190771	●	190790
S0.35	0.35	0.090	24	1.05	6		●	190772	●	190791
S0.4	0.40	0.100	24	1.20	6		●	190773	●	190792
S0.5	0.50	0.125	24	1.50	6		●	190774	●	190793
S0.6	0.60	0.150	24	1.80	6		●	190775	●	190794
S0.7	0.70	0.175	24	2.10	6		●	190776	●	190795
S0.8	0.80	0.200	24	2.40	6		●	190777	●	190796
S0.9	0.90	0.225	24	2.70	6		●	190778	●	190797
S1.0	1.00	0.250	24	3.00	6		●	190779	●	190798
S1.2	1.20	0.250	24	3.60	6		●	190780	●	190799
S1.4	1.40	0.300	24	4.20	6		●	190781	●	190800

## DN01 / DN02 NIHS Fine thread

DN01 GO	DN01 GO	DN02 NO-GO
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ID
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NIHS 3G	NIHS 4H	NIHS 4H / 3G
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SF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm						
S1.4X0.2	1.40	0.20	24	4.2	6		●	190744	●	193256	●	190763
S1.6X0.2	1.60	0.20	24	3	6		●	190745	●	193257	●	190764
S1.8X0.2	1.80	0.20	24	3	6		●	190746	●	193258	●	190765
S2X0.2	2.00	0.20	24	3	6		●	190747	●	193259	●	190766
S2.2X0.2	2.20	0.20	24	3	6		●	190748	●	193260	●	190767
S2.2X0.25	2.20	0.25	24	3	6		●	190749	●	193261	●	190768
S2.5X0.2	2.50	0.20	24	3	6		●	190750	●	193262	●	190769
S2.5X0.25	2.50	0.25	24	3	6		●	190751	●	193263	●	190770

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

nano

$d_1$ ,  $d_2$ ,  $l_1$ ,  $l_2$ ,  $SL$ ,  $90^\circ$ ,  $60^\circ$ ,  $P$

All nano thread plug gauges are SCS-certified and the paid certificate is available on order.

DN01 GO	DN02 NO-GO	DN01 GO	DN02 NO-GO

DN01 / DN02 Safelock

DN01 GO	DN02 NO-GO	DN01 GO	DN02 NO-GO
ID			

SL	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm		
SL0.5	0.50	0.100	24	1.50	6	● 600178	● 600186	
SL0.6	0.60	0.125	24	1.80	6	● 600179	● 600187	
SL0.7	0.70	0.150	24	2.10	6	● 600180	● 600188	
SL0.8	0.80	0.150	24	2.40	6	● 600181	● 600189	
SL0.9	0.90	0.175	24	2.70	6	● 600182	● 600190	
SL1	1.00	0.200	24	3.00	6	● 600183	● 600191	
SL1.2	1.20	0.200	24	3.60	6	● 600184	● 600192	
SL1.4	1.40	0.250	24	4.20	6	● 600185	● 600193	

DN01 / DN02 ANSI / ASME B1.2  
 UNC ASME B1.1

UNC	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	DN01 GO	DN02 NO-GO	DN01 GO	DN02 NO-GO			
							ID						
							2B	2B	3B	3B			
UNC1-64	1.85	64	24	6.35	6	●	191577	●	191580	●	191583	●	191586
UNC2-56	2.18	56	24	6.35	6	●	191578	●	191581	●	191584	●	191587
UNC3-48	2.51	48	24	6.35	6	●	191579	●	191582	●	191585	●	191588

 DN01 / DN02 ANSI / ASME B1.2  
 UNF ASME B1.1

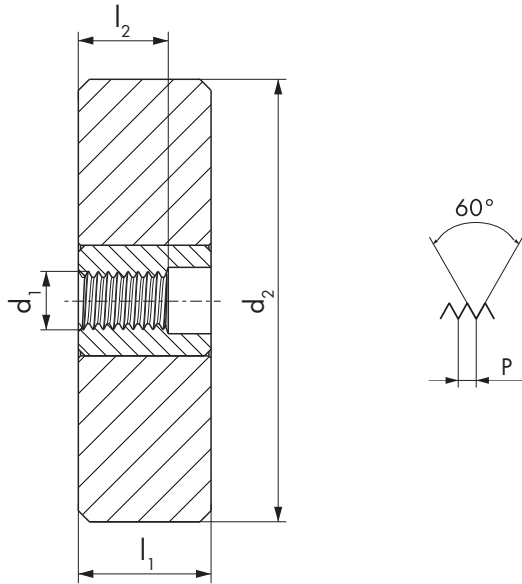
UNF	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	DN01 GO	DN02 NO-GO	DN01 GO	DN02 NO-GO			
							ID						
							2B	2B	3B	3B			
UNF0-80	1.52	80	24	4.76	6	●	191637	●	191641	●	191645	●	191649
UNF1-72	1.85	72	24	4.76	6	●	191638	●	191642	●	191646	●	191650
UNF2-64	2.18	64	24	4.76	6	●	191639	●	191643	●	191647	●	191651
UNF3-56	2.51	56	24	4.76	6	●	191640	●	191644	●	191648	●	191652

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

# RING GAUGES DZ

nano



All nano ring gauges have a certificate of measurement, established with SCS certified plug check gauges. The payable certificate is available on request.

DZ04 GO    DZ14 NO-GO    DZ04 GO    DZ14 NO-GO



DZ04 / DZ14 M ISO DIN14 / DIN13

DZ04 GO    DZ14 NO-GO    DZ04 GO    DZ14 NO-GO

ID

M	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							5h	5h	6g	6g
M0.3	0.30	0.080	6	0.45	20	● 192842	● 192850			
M0.35	0.35	0.090	6	0.53	20	● 192843	● 192851			
M0.4	0.40	0.100	6	0.60	20	● 192844	● 192852			
M0.5	0.50	0.125	6	0.75	20	● 192845	● 192853			
M0.6	0.60	0.150	6	0.90	20	● 192846	● 192854			
M0.7	0.70	0.175	6	1.05	20	● 192847	● 192855			
M0.8	0.80	0.200	6	1.20	20	● 192848	● 192856			
M0.9	0.90	0.225	6	1.35	20	● 192849	● 192857			
M1	1.00	0.250	6	1.50	20			● 191473 *	● 191476 *	
M1.2	1.20	0.250	6	1.80	20			● 191474 *	● 191477 *	
M1.4	1.40	0.300	6	2.10	20			● 191475 *	● 191478 *	
M1.6	1.60	0.350	6	2.40	20			● 191479	● 191485	
M1.8	1.80	0.350	6	2.70	20			● 191480	● 191486	
M2	2.00	0.400	6	3.00	20			● 191481	● 191487	
M2.3	2.30	0.400	6	3.45	20			● 191482	● 191488	
M2.5	2.50	0.450	6	3.75	20			● 191483	● 191489	
M2.6	2.60	0.450	6	3.90	20			● 191484	● 191490	

\*Tol. 6h

DZ04 / DZ14 MF ISO DIN13

MF							DZ04 GO	DZ14 NO-GO	DZ04 GO	DZ14 NO-GO
							ID			
	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	I <sub>1</sub> mm	I <sub>2</sub> GO mm	d <sub>2</sub> mm	4h	4h	6g	6g
M1.4X0.2	1.40	0.200	6	2.10	20	● 194887	● 194888	● 192858 *	● 192871 *	
M1.6X0.2	1.60	0.200	6	1.80	20	● 191201	● 191215	● 191229	● 191243	
M1.8X0.2	1.80	0.200	6	1.80	20	● 191202	● 191216	● 191230	● 191244	
M2X0.2	2.00	0.200	6	1.80	20	● 190711	● 190710	● 191231	● 191245	
M2X0.25	2.00	0.250	6	2.25	20	● 194872	● 190690	● 194876	● 194877	
M2.2X0.2	2.20	0.200	6	1.80	20	● 191204	● 191218	● 191232	● 191246	
M2.2X0.25	2.20	0.250	6	2.25	20	● 191205	● 191219	● 191233	● 191247	
M2.3X0.2	2.30	0.200	6	1.80	20	● 191206	● 191220	● 191234	● 191248	
M2.3X0.25	2.30	0.250	6	2.25	20	● 191207	● 191221	● 191235	● 191249	
M2.5X0.2	2.50	0.200	6	1.80	20	● 191208	● 191222	● 191236	● 191250	
M2.5X0.25	2.50	0.250	6	2.25	20	● 194873	● 191223	● 191237	● 191251	
M2.5X0.35	2.50	0.350	6	3.75	20			● 192869	● 192882	
M2.6X0.35	2.60	0.350	6	3.90	20			● 192870	● 192883	

\*Tol. 6h

DZ04 / DZ14 NIHS

S							DZ04 GO	DZ14 NO-GO	DZ04 GO	DZ14 NO-GO
							ID			
	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	I <sub>1</sub> mm	I <sub>2</sub> GO mm	d <sub>2</sub> mm	NIHS	NIHS	NIHS NT	NIHS NT
S0.3	0.30	0.080	6	0.45	20	● 190809	● 190828	● 190847	● 190866	
S0.35	0.35	0.090	6	0.53	20	● 190810	● 190829	● 190848	● 190867	
S0.4	0.40	0.100	6	0.60	20	● 190811	● 190830	● 190849	● 190868	
S0.5	0.50	0.125	6	0.75	20	● 190812	● 190831	● 190850	● 190869	
S0.6	0.60	0.150	6	0.90	20	● 190813	● 190832	● 190851	● 190870	
S0.7	0.70	0.175	6	1.05	20	● 190814	● 190833	● 190852	● 190871	
S0.8	0.80	0.200	6	1.20	20	● 190815	● 190834	● 190853	● 190872	
S0.9	0.90	0.225	6	1.35	20	● 190816	● 190835	● 190854	● 190873	
S1	1.00	0.250	6	1.50	20	● 190817	● 190836	● 190855	● 190874	
S1.2	1.20	0.250	6	1.80	20	● 190818	● 190837	● 190856	● 190875	
S1.4	1.40	0.300	6	2.10	20	● 190819	● 190838	● 190857	● 190876	

 All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks



# RING GAUGES DZ

DZ04 GO	DZ14 NO-GO	DZ04 GO	DZ14 NO-GO

All nano ring gauges have a certificate of measurement, established with SCS certified plug check gauges. The payable certificate is available on request.

## DZ04 / DZ14 NIHS Fine thread

SF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID	
							NIHS	NIHS
	S1.4X0.2	1.40	0.200	6	2.10	20	● 190820	● 190839
	S1.6X0.2	1.60	0.200	6	1.80	20	● 190821	● 190840
	S1.8X0.2	1.80	0.200	6	1.80	20	● 190822	● 190841
	S2X0.2	2.00	0.200	6	1.80	20	● 190823	● 190842
	S2.2X0.2	2.20	0.200	6	1.80	20	● 190824	● 190843
	S2.2X0.25	2.20	0.250	6	2.25	20	● 190825	● 190844
	S2.5X0.2	2.50	0.200	6	1.80	20	● 190826	● 190845
	S2.5X0.25	2.50	0.250	6	2.25	20	● 190827	● 190846

DZ04 / DZ14 ANSI / ASME B1.2  
UNC ASME B1.1

UNC	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	DZ04 GO	DZ14 NO-GO	DZ04 GO	DZ14 NO-GO			
							ID						
							2A	2A	3A	3A			
UNC1-64	1.85	64	6	2.78	20	●	191601	●	191604	●	191607	●	191610
UNC2-56	2.18	56	6	3.28	20	●	191602	●	191605	●	191608	●	191611
UNC3-48	2.51	48	6	3.77	20	●	191603	●	191606	●	191609	●	191612

DZ04 / DZ14 ANSI / ASME B1.2  
UNF ASME B1.1

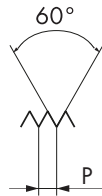
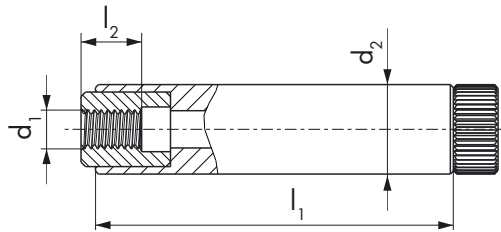
UNF	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	DZ04 GO	DZ14 NO-GO	DZ04 GO	DZ14 NO-GO			
							ID						
							2A	2A	3A	3A			
UNF0-80	1.52	80	6	2.29	20	●	191669	●	191673	●	191677	●	191681
UNF1-72	1.85	72	6	2.78	20	●	191670	●	191674	●	191678	●	191682
UNF2-64	2.18	64	6	3.28	20	●	191671	●	191675	●	191679	●	191683
UNF3-56	2.51	56	6	3.77	20	●	191672	●	191676	●	191680	●	191684

 All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

# RING GAUGES DN

nano



All nano ring gauges have a certificate of measurement, established with SCS certified plug check gauges. The payable certificate is available on request.

DN04 GO    DN14 NO-GO    DN04 GO    DN14 NO-GO



## DN04 / DN14 M ISO DIN14 /DIN13

DN04 GO    DN14 NO-GO    DN04 GO    DN14 NO-GO

ID

M	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ GO mm	$d_2$ mm	ID			
							5h	5h	6g	6g
M0.3	0.30	0.080	24	0.45	6	● 192800	● 192808			
M0.35	0.35	0.090	24	0.53	6	● 192801	● 192809			
M0.4	0.40	0.100	24	0.60	6	● 192802	● 192810			
M0.5	0.50	0.125	24	0.75	6	● 192803	● 192811			
M0.6	0.60	0.150	24	0.90	6	● 192804	● 192812			
M0.7	0.70	0.175	24	1.05	6	● 192805	● 192813			
M0.8	0.80	0.200	24	1.20	6	● 192806	● 192814			
M0.9	0.90	0.225	24	1.35	6	● 192807	● 192815			
M1	1.00	0.250	24	1.50	6			● 191447 *	● 191450 *	
M1.2	1.20	0.250	24	1.80	6			● 191448 *	● 191451 *	
M1.4	1.40	0.300	24	2.10	6			● 191449 *	● 191452 *	
M1.6	1.60	0.350	24	2.40	6			● 191453	● 191459	
M1.8	1.80	0.350	24	2.70	6			● 191454	● 191460	
M2	2.00	0.400	24	3.00	6			● 191455	● 191461	
M2.3	2.30	0.400	24	3.45	6			● 191456	● 191462	
M2.5	2.50	0.450	24	3.75	6			● 191457	● 191463	
M2.6	2.60	0.450	24	3.90	6			● 191458	● 191464	

\*Tol. 6h

DN04 / DN14 MF DIN13

MF							DN04 GO	DN14 NO-GO	DN04 GO	DN14 NO-GO
							ID			
	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	4h	4h	6g	6g
M1.4X0.2	1.40	0.200	24	2.10	6	● 194885	● 194886	● 192816 *	● 192829 *	
M1.6X0.2	1.60	0.200	24	1.80	6	● 191145	● 191159	● 191173	● 191187	
M1.8X0.2	1.80	0.200	24	1.80	6	● 191146	● 191160	● 191174	● 191188	
M2X0.2	2.00	0.200	24	1.80	6	● 191147	● 191161	● 191175	● 191189	
M2X0.25	2.00	0.250	24	2.25	6	● 194870	● 194871	● 194874	● 194875	
M2.2X0.2	2.20	0.200	24	1.80	6	● 191148	● 191162	● 191176	● 191190	
M2.2X0.25	2.20	0.250	24	2.25	6	● 191149	● 191163	● 191177	● 191191	
M2.3X0.2	2.30	0.200	24	1.80	6	● 191150	● 191164	● 191178	● 191192	
M2.3X0.25	2.30	0.250	24	2.25	6	● 191151	● 191165	● 191179	● 191193	
M2.5X0.2	2.50	0.200	24	1.80	6	● 191152	● 191166	● 191180	● 191194	
M2.5X0.25	2.50	0.250	24	2.25	6	● 191153	● 191167	● 191181	● 191195	
M2.5X0.35	2.50	0.350	24	3.75	6			● 192827	● 192840	
M2.6X0.35	2.60	0.350	24	3.90	6			● 192828	● 192841	

\*Tol. 6h

DN04 / DN14 NIHS

S							DN04 GO	DN14 NO-GO	DN04 GO	DN14 NO-GO
							ID			
	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	NIHS	NIHS	NIHS NT	NIHS NT
S0.3	0.30	0.080	24	0.45	6	● 190885	● 190904	● 190923	● 190942	
S0.35	0.35	0.090	24	0.53	6	● 190886	● 190905	● 190924	● 190943	
S0.4	0.40	0.100	24	0.60	6	● 190887	● 190906	● 190925	● 190944	
S0.5	0.50	0.125	24	0.75	6	● 190888	● 190907	● 190926	● 190945	
S0.6	0.60	0.150	24	0.90	6	● 190889	● 190908	● 190927	● 190946	
S0.7	0.70	0.175	24	1.05	6	● 190890	● 190909	● 190928	● 190947	
S0.8	0.80	0.200	24	1.20	6	● 190891	● 190910	● 190929	● 190948	
S0.9	0.90	0.225	24	1.35	6	● 190892	● 190911	● 190930	● 190949	
S1	1.00	0.250	24	1.50	6	● 190893	● 190912	● 190931	● 190950	
S1.2	1.20	0.250	24	1.80	6	● 190894	● 190913	● 190932	● 190951	
S1.4	1.40	0.300	24	2.10	6	● 190895	● 190914	● 190933	● 190952	

 All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

# RING GAUGES DN

DN04 GO	DN14 NO-GO	DN04 GO	DN14 NO-GO

**nano**

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## DN04 / DN14 NIHS Fine thread

SF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	DN04 GO	DN14 NO-GO	DN04 GO	DN14 NO-GO
							ID			
	S1.4X0.2	1.40	0.200	24	2.10	6	● 190896	● 190915		
	S1.6X0.2	1.60	0.200	24	1.80	6	● 190897	● 190916		
	S1.8X0.2	1.80	0.200	24	1.80	6	● 190898	● 190917		
	S2X0.2	2.00	0.200	24	1.80	6	● 190899	● 190918		
	S2.2X0.2	2.20	0.200	24	1.80	6	● 190900	● 190919		
	S2.2X0.25	2.20	0.250	24	2.25	6	● 190901	● 190920		
	S2.5X0.2	2.50	0.200	24	1.80	6	● 190902	● 190921		
	S2.5X0.25	2.50	0.250	24	2.25	6	● 190903	● 190922		

DN04 / DN14 ANSI / ASME B1.2  
UNC ASME B1.1

UNC	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	DN04 GO	DN14 NO-GO	DN04 GO	DN14 NO-GO			
							ID						
							2A	2A	3A	3A			
UNC1-64	1.85	64	24	2.78	6	●	191589	●	191592	●	191595	●	191598
UNC2-56	2.18	56	24	3.28	6	●	191590	●	191593	●	191596	●	191599
UNC3-48	2.51	48	24	3.77	6	●	191591	●	191594	●	191597	●	191600

DN04 / DN14 ANSI / ASME B1.2  
UNF ASME B1.1

UNF	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	DN04 GO	DN14 NO-GO	DN04 GO	DN14 NO-GO			
							ID						
							2A	2A	3A	3A			
UNF0-80	1.52	80	24	2.29	6	●	191653	●	191657	●	191661	●	191665
UNF1-72	1.85	72	24	2.78	6	●	191654	●	191658	●	191662	●	191666
UNF2-64	2.18	64	24	3.28	6	●	191655	●	191659	●	191663	●	191667
UNF3-56	2.51	56	24	3.77	6	●	191656	●	191660	●	191664	●	191668

 All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

SCS certificate included

**nano**

**RN05-1 GO**

**RN15-1 GO**

**RN05-1 GO**

**RN15-1 GO**

RN05-1 / RN15-1 M ISO DIN14 / DIN13

**RN05-1 GO   RN15-1 GO   RN05-1 GO   RN15-1 GO**

M	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							5h	5h	6g	6g
M0.3	0.30	0.080	24	0.61	6	● 192884	● 192892			
M0.35	0.35	0.090	24	0.71	6	● 192885	● 192893			
M0.4	0.40	0.100	24	0.80	6	● 192886	● 192894			
M0.5	0.50	0.125	24	1.00	6	● 192887	● 192895			
M0.6	0.60	0.150	24	1.20	6	● 192888	● 192896			
M0.7	0.70	0.175	24	1.40	6	● 192889	● 192897			
M0.8	0.80	0.200	24	1.60	6	● 192890	● 192898			
M0.9	0.90	0.225	24	1.80	6	● 192891	● 192899			
M1	1.00	0.250	24	2.00	6			● 191499 *	● 191508 *	
M1.2	1.20	0.250	24	2.30	6			● 191500 *	● 191509 *	
M1.4	1.40	0.300	24	2.70	6			● 191501 *	● 191510 *	
M1.6	1.60	0.350	24	3.10	6			● 191517	● 191535	
M1.8	1.80	0.350	24	3.40	6			● 191518	● 191536	
M2	2.00	0.400	24	3.80	6			● 191519	● 191537	
M2.3	2.30	0.400	24	4.25	6			● 191520	● 191538	
M2.5	2.50	0.450	24	4.65	6			● 191521	● 191539	
M2.6	2.60	0.450	24	4.80	6			● 191522	● 191540	

\*Tol. 6h

## RN05-1 / RN15-1 MF ISO DIN 13

MF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							6h	6h	6g	6g
M1.4X0.2	1.40	0.200	24	2.50	6	● 192932	● 192945			
M1.6X0.2	1.60	0.200	24	2.20	6	● 192933	● 192946			
M1.8X0.2	1.80	0.200	24	2.20	6	● 192934	● 192947			
M2X0.2	2.00	0.200	24	2.20	6	● 192935	● 192948			
M2X0.25	2.00	0.250	24	2.75	6	● 192936	● 192949			
M2.2X0.2	2.20	0.200	24	2.20	6	● 192937	● 192950			
M2.2X0.25	2.20	0.250	24	2.75	6	● 192938	● 192951			
M2.3X0.2	2.30	0.200	24	2.20	6	● 192939	● 192952			
M2.3X0.25	2.30	0.250	24	2.75	6	● 192940	● 192953			
M2.5X0.2	2.50	0.200	24	2.20	6	● 192941	● 192954			
M2.5X0.25	2.50	0.250	24	2.75	6	● 192942	● 192955			
M2.5X0.35	2.50	0.350	24	4.45	6			● 192943	● 192956	
M2.6X0.35	2.60	0.350	24	4.60	6			● 192944	● 192957	

## RN05-1 / RN15-1 NIHS

S	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							NIHS	NIHS	NIHS NT	NIHS NT
S0.3	0.30	0.080	24	0.61	6	● 190961	● 190999	● 191037	● 191075	
S0.35	0.35	0.090	24	0.71	6	● 190962	● 191000	● 191038	● 191076	
S0.4	0.40	0.100	24	0.80	6	● 190963	● 191001	● 191039	● 191077	
S0.5	0.50	0.125	24	1.00	6	● 190964	● 191002	● 191040	● 191078	
S0.6	0.60	0.150	24	1.20	6	● 190965	● 191003	● 191041	● 191079	
S0.7	0.70	0.175	24	1.40	6	● 190966	● 191004	● 191042	● 191080	
S0.8	0.80	0.200	24	1.60	6	● 190967	● 191005	● 191043	● 191081	
S0.9	0.90	0.225	24	1.80	6	● 190968	● 191006	● 191044	● 191082	
S1	1.00	0.250	24	2.00	6	● 190969	● 191007	● 191045	● 191083	
S1.2	1.20	0.250	24	2.30	6	● 190970	● 191008	● 191046	● 191084	
S1.4	1.40	0.300	24	2.70	6	● 190971	● 191009	● 191047	● 191085	

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks



nano

SCS certificate included

RN05-1 GO	RN15-1 GO	RN05-1 GO	RN15-1 GO

RN05-1 / RN15-1 NIHS Fine thread

							RN05-1 GO	RN15-1 GO	RN05-1 GO	RN15-1 GO
	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ GO mm	$d_2$ mm	NIHS	NIHS	NIHS NT	NIHS NT
SF	S1.4X0.2	1.40	0.200	24	2.50	6	● 190972	● 191010	● 191048	● 191086
	S1.6X0.2	1.60	0.200	24	2.20	6	● 190973	● 191011	● 191049	● 191087
	S1.8X0.2	1.80	0.200	24	2.20	6	● 190974	● 191012	● 191050	● 191088
	S2X0.2	2.00	0.200	24	2.20	6	● 190975	● 191013	● 191051	● 191089
	S2.2X0.2	2.20	0.200	24	2.20	6	● 190976	● 191014	● 191052	● 191090
	S2.2X0.25	2.20	0.250	24	2.75	6	● 190977	● 191015	● 191053	● 191091
	S2.5X0.2	2.50	0.200	24	2.20	6	● 190978	● 191016	● 191054	● 191092
	S2.5X0.25	2.50	0.250	24	2.75	6	● 190979	● 191017	● 191055	● 191093

RN05-1 / RN15-1 ANSI / ASME B1.2  
 UNC ASME B1.1

UNC	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							2A	2A	3A	3A
UNC1-64	1.85	64	24	3.58	6	● 191613	● 191619	● 191625	● 191631	
UNC2-56	2.18	56	24	4.18	6	● 191614	● 191620	● 191626	● 191632	
UNC3-48	2.51	48	24	4.83	6	● 191615	● 191621	● 191627	● 191633	

 RN05-1 / RN15-1 ANSI / ASME B1.2  
 UNF ASME B1.1

UNF	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							2A	2A	3A	3A
UNF0-80	1.52	80	24	2.92	6	● 191685	● 191693	● 191701	● 191709	
UNF1-72	1.85	72	24	3.49	6	● 191686	● 191694	● 191702	● 191710	
UNF2-64	2.18	64	24	4.07	6	● 191687	● 191695	● 191703	● 191711	
UNF3-56	2.51	56	24	4.68	6	● 191688	● 191696	● 191704	● 191712	

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

**nano**

**RN05-2  
NO-GO**

**RN15-2  
NO-GO**

**RN05-2  
NO-GO**

**RN15-2  
NO-GO**

SCS certificate included

RN05-2 / RN15-2 M ISO DIN14 / DIN13

RN05-2 NO GO	RN15-2 NO GO	RN05-2 NO GO	RN15-2 NO GO
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<b>M</b>	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ GO mm	$d_2$ mm	ID			
							5h	5h	6g	6g
M0.3	0.30	0.080	24	0.61	6	● 192900	● 192908			
M0.35	0.35	0.090	24	0.71	6	● 192901	● 192909			
M0.4	0.40	0.100	24	0.80	6	● 192902	● 192910			
M0.5	0.50	0.125	24	1.00	6	● 192903	● 192911			
M0.6	0.60	0.150	24	1.20	6	● 192904	● 192912			
M0.7	0.70	0.175	24	1.40	6	● 192905	● 192913			
M0.8	0.80	0.200	24	1.60	6	● 192906	● 192914			
M0.9	0.90	0.225	24	1.80	6	● 192907	● 192915			
M1	1.00	0.250	24	2.00	6			● 191502 *	● 191511 *	
M1.2	1.20	0.250	24	2.30	6			● 191503 *	● 191512 *	
M1.4	1.40	0.300	24	2.70	6			● 191504 *	● 191513 *	
M1.6	1.60	0.350	24	3.10	6			● 191523	● 191541	
M1.8	1.80	0.350	24	3.40	6			● 191524	● 191542	
M2	2.00	0.400	24	3.80	6			● 191525	● 191543	
M2.3	2.30	0.400	24	4.25	6			● 191526	● 191544	
M2.5	2.50	0.450	24	4.65	6			● 191527	● 191545	
M2.6	2.60	0.450	24	4.80	6			● 191528	● 191546	

\*Tol. 6h

## RN05-2 / RN15-2 MF ISO DIN13

MF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							6h	6h	6g	6g
M1.4X0.2	1.40	0.200	24	2.50	6	● 192958	● 192971			
M1.6X0.2	1.60	0.200	24	1.60	6	● 192959	● 192972			
M1.8X0.2	1.80	0.200	24	1.60	6	● 192960	● 192973			
M2X0.2	2.00	0.200	24	1.60	6	● 192961	● 192974			
M2X0.25	2.00	0.250	24	2.00	6	● 192962	● 192975			
M2.2X0.2	2.20	0.200	24	1.60	6	● 192963	● 192976			
M2.2X0.25	2.20	0.250	24	2.00	6	● 192964	● 192977			
M2.3X0.2	2.30	0.200	24	1.60	6	● 192965	● 192978			
M2.3X0.25	2.30	0.250	24	2.00	6	● 192966	● 192979			
M2.5X0.2	2.50	0.200	24	1.60	6	● 192967	● 192980			
M2.5X0.25	2.50	0.250	24	2.00	6	● 192968	● 192981			
M2.5X0.35	2.50	0.350	24	4.45	6			● 192969	● 192982	
M2.6X0.35	2.60	0.350	24	4.60	6			● 192970	● 192983	

## RN05-2 / RN15-2 NIHS

S	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							NIHS	NIHS	NIHS NT	NIHS NT
S0.3	0.30	0.080	24	0.61	6	● 190980	● 191018	● 191056	● 191094	
S0.35	0.35	0.090	24	0.71	6	● 190981	● 191019	● 191057	● 191095	
S0.4	0.40	0.100	24	0.80	6	● 190982	● 191020	● 191058	● 191096	
S0.5	0.50	0.125	24	1.00	6	● 190983	● 191021	● 191059	● 191097	
S0.6	0.60	0.150	24	1.20	6	● 190984	● 191022	● 191060	● 191098	
S0.7	0.70	0.175	24	1.40	6	● 190985	● 191023	● 191061	● 191099	
S0.8	0.80	0.200	24	1.60	6	● 190986	● 191024	● 191062	● 191100	
S0.9	0.90	0.225	24	1.80	6	● 190987	● 191025	● 191063	● 191101	
S1	1.00	0.250	24	2.00	6	● 190988	● 191026	● 191064	● 191102	
S1.2	1.20	0.250	24	2.30	6	● 190989	● 191027	● 191065	● 191103	
S1.4	1.40	0.300	24	2.70	6	● 190990	● 191028	● 191066	● 191104	

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

nano

SCS certificate included

**RN05-2  
NO-GO**

**RN15-2  
NO-GO**

**RN05-2  
NO-GO**

**RN15-2  
NO-GO**

RN05-2 / RN15-2 NIHS Fine thread

SF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							NIHS	NIHS	NIHS NT	NIHS NT
	S1.4X0.2	1.40	0.200	24	2.50	6	● 190991	● 191029	● 191067	● 191105
	S1.6X0.2	1.60	0.200	24	1.60	6	● 190992	● 191030	● 191068	● 191106
	S1.8X0.2	1.80	0.200	24	1.60	6	● 190993	● 191031	● 191069	● 191107
	S2X0.2	2.00	0.200	24	1.60	6	● 190994	● 191032	● 191070	● 191108
	S2.2X0.2	2.20	0.200	24	1.60	6	● 190995	● 191033	● 191071	● 191109
	S2.2X0.25	2.20	0.250	24	2.00	6	● 190996	● 191034	● 191072	● 191110
	S2.5X0.2	2.50	0.200	24	1.60	6	● 190997	● 191035	● 191073	● 191111
	S2.5X0.25	2.50	0.250	24	2.00	6	● 190998	● 191036	● 191074	● 191112

RN05-2 / RN15-2 ANSI / ASME B1.2  
 UNC ASME B1.1

<b>RN05-2 NO GO</b>	<b>RN15-2 NO GO</b>	<b>RN05-2 NO GO</b>	<b>RN15-2 NO GO</b>
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UNC	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							2A	2A	3A	3A
UNC1-64	1.85	64	24	3.58	6	● 191616	● 191622	● 191628	● 191634	
UNC2-56	2.18	56	24	4.18	6	● 191617	● 191623	● 191629	● 191635	
UNC3-48	2.51	48	24	4.83	6	● 191618	● 191624	● 191630	● 191636	

 RN05-2 / RN15-2 ANSI / ASME B1.2  
 UNF ASME B1.1

<b>RN05-2 NO GO</b>	<b>RN15-2 NO GO</b>	<b>RN05-2 NO GO</b>	<b>RN15-2 NO GO</b>
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UNF	d <sub>1</sub>	Ød <sub>1</sub> mm	P TPI	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	ID			
							2A	2A	3A	3A
UNF0-80	1.52	80	24	2.92	6	● 191689	● 191697	● 191705	● 191713	
UNF1-72	1.85	72	24	3.49	6	● 191690	● 191698	● 191706	● 191714	
UNF2-64	2.18	64	24	4.07	6	● 191691	● 191699	● 191707	● 191715	
UNF3-56	2.51	56	24	4.68	6	● 191692	● 191700	● 191708	● 191716	

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

# MASTER PLUG GAUGES WEAR

**RN05-3 WEAR**

**RN15-3 WEAR**

**RN05-3 WEAR**

**RN15-3 WEAR**

RN05-3 / RN15-3 M ISO DIN14 / DIN13

							ID			
	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ GO mm	$d_2$ mm	6h	6h	6g	6g
M1	1.00	1.00	0.250	24	2.00	6	● 191505	● 191514		
M1.2	1.20	1.20	0.250	24	2.30	6	● 191506	● 191515		
M1.4	1.40	1.40	0.300	24	2.70	6	● 191507	● 191516		
M1.6	1.60	1.60	0.350	24	3.10	6			● 191529	● 191547
M1.8	1.80	1.80	0.350	24	3.40	6			● 191530	● 191548
M2	2.00	2.00	0.400	24	3.80	6			● 191531	● 191549
M2.3	2.30	2.30	0.400	24	4.25	6			● 191532	● 191550
M2.5	2.50	2.50	0.450	24	4.65	6			● 191533	● 191551
M2.6	2.60	2.60	0.450	24	4.80	6			● 191534	● 191552

## RN05-3 / RN15-3 MF ISO DIN13

MF	d <sub>1</sub>	Ød <sub>1</sub> mm	P mm	l <sub>1</sub> mm	l <sub>2</sub> GO mm	d <sub>2</sub> mm	RN05-3 WEAR	RN15-3 WEAR	RN05-3 WEAR	RN15-3 WEAR
							ID			
							6h	6h	6g	6g
M1.4X0.2	1.40	0.200	24	2.50	6	●	192984	●	192997	
M1.6X0.2	1.60	0.200	24	1.60	6	●	192985	●	192998	
M1.8X0.2	1.80	0.200	24	1.60	6	●	192986	●	192999	
M2X0.2	2.00	0.200	24	1.60	6	●	192987	●	193000	
M2X0.25	2.00	0.250	24	2.00	6	●	192988	●	193001	
M2.2X0.2	2.20	0.200	24	1.60	6	●	192989	●	193002	
M2.2X0.25	2.20	0.250	24	2.00	6	●	192990	●	193003	
M2.3X0.2	2.30	0.200	24	1.60	6	●	192991	●	193004	
M2.3X0.25	2.30	0.250	24	2.00	6	●	192992	●	193005	
M2.5X0.2	2.50	0.200	24	1.60	6	●	192993	●	193006	
M2.5X0.25	2.50	0.250	24	2.00	6	●	192994	●	193007	
M2.5X0.35	2.50	0.350	24	4.45	6			●	192995	● 193008
M2.6X0.35	2.60	0.350	24	4.60	6			●	192996	● 193009

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks



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SCS certificate included

EN00

DC SWISS threaded standard gauge is a gauge that is used to calibrate machinery. All standard gauges, both those from our catalogue and those meeting your specific requirements, are available or can be made on demand. They are delivered with a qualification approval certificate. The factory certificate supplied with each standard gauge confirms that the factory has scrupulously followed the post-production inspection process in accordance with ISO 17025. It confirms the quality of the metrological equipment of DC NANO TOOLS SA (SCS 0143), centre of excellence and member of the DC SWISS Group.

	EN00						
S	$d_1$	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ GO mm	$d_2$ mm	NIHS
S0.3	0.30	0.30	0.080	39	1.28	3	● 192747
S0.35	0.35	0.35	0.090	39	1.44	3	● 192748
S0.4	0.40	0.40	0.100	39	1.60	3	● 192749
S0.5	0.50	0.50	0.125	39	2.00	3	● 192750
S0.6	0.60	0.60	0.150	39	2.40	3	● 192751
S0.7	0.70	0.70	0.175	39	2.80	3	● 192752
S0.8	0.80	0.80	0.200	39	3.20	3	● 192753
S0.9	0.90	0.90	0.225	39	3.60	3	● 192754
S1	1.00	1.00	0.250	39	4.00	3	● 192755
S1.2	1.20	1.20	0.250	39	4.00	3	● 192756
S1.4	1.40	1.40	0.300	39	4.80	3	● 192757

All gauges can be supplied with a left-hand thread upon request

- In stock
- Delivery lead time: 3 to 6 weeks

# NANO GAUGES ORDER

## PRODUCT TYPE


## CARACTERISTICS

DIMENSIONS	TOLERANCE	NORM	QUANTITY	SPECIFICS

## REMARKS

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## DELIVERY INFORMATION

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*Thank you for initialing your order*



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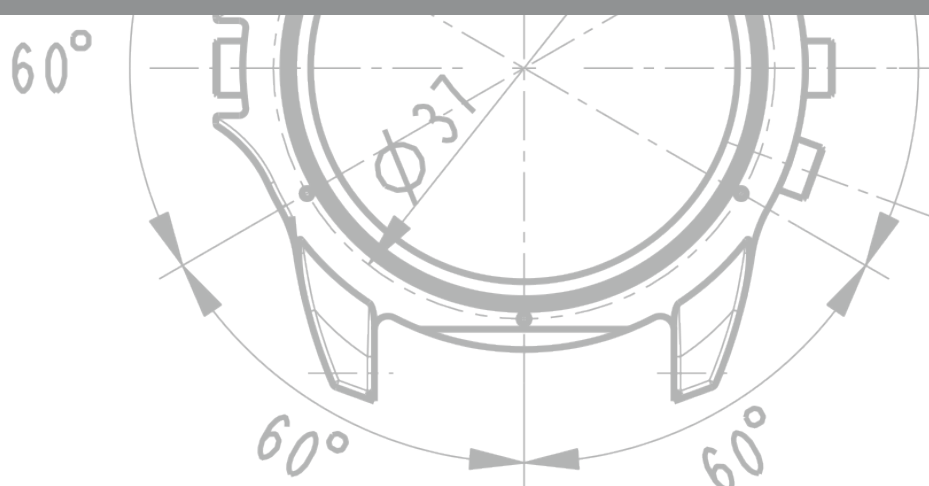
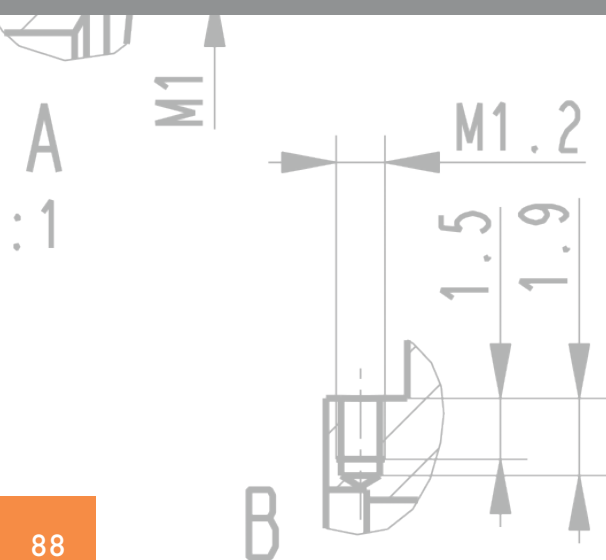
# CALIBRATION AND METROLOGY SERVICE

*DC SWISS has a metrology lab that is accredited by the Swiss Accreditation Service as a laboratory for calibrating lengths.*

DC SWISS is able to offer a calibration and metrology service for screw connections.

A certificate is written confirmation of the quality of a company's metrological equipment. DC NANO TOOLS SA (SCS accreditation 0143), a member of the DC SWISS Group, can inspect and calibrate thread plug gauges as well as thread ring gauges in accordance with the ISO 17025 international standard.

This service relates in particular to thread gauges, thread components including screws themselves, and complex assemblies.



# OUR EXPERTISE

Our tools are the result of numerous studies. We design them using all the knowledge we have acquired over many years, always testing them to their utmost limits. We share all this knowledge with you in the form of our services. Our aim is to provide the most appropriate solution in each case, from feasibility study right through to mass production.

We are experts in all aspects of the process of screw threading, and are able to offer you our assembly expertise from design, machining and metrological inspection through the various stages of creating screw connections.

## DESIGN EXPERTISE

Each design is unique, but there are often multiple solutions. We can advise you on which type of screw fixing to choose, for example adjustable, self-locking or high-quality screws. During the design phase, we can help your designers to identify and decide the best-performing screw fixing in terms of dimensions, practicality, production costs and assembly.

## MACHINING EXPERTISE

Each tool calls for special programming involving numerous parameters. We can help you to get the best out of your machines and tools in order to achieve maximum performance via personalised programming. We can provide you with support in the inspection and measurement phase, so you can be sure of having produced the screw thread you were expecting. And if a tool needs to be customised, we can do this so that it meets all your requirements. Often, a particular approach to fitting makes it possible to resolve a problem caused by complex geometry or unusual positioning.

## METROLOGICAL EXPERTISE

We supply a large number of measuring gauges and also advice on how to use and inspect them in order to ensure the required quality is consistently achieved. Other more specific measures are available, such as concentricity and certification measures. We can assist you in setting up control procedures. This service is available for pitch diameters of 0.1 to 0.3 mm, and external diameters of 0.1 to 3.5 mm. Don't take the risk – benefit from the expertise of DC NANO TOOLS SA to calibrate your measuring tools.

## 60° TRAINING

In our application centre and our laboratory, we distribute full information and advice on best practice to all our customers in the design, manufacture and use of screw fixings. We can provide on-demand training in specific subjects such as secure fixings.

*This service is also used when a screw fixing malfunctions. In such a case, it becomes a tool to assist in identifying the source of the problem and, in many cases, also providing a solution.*



The Micro-Safelock brand, registered and protected by DC SWISS, identifies the tools benefiting from the Safelock system guaranteeing the threaded self-locking assembly, developed and patented by DC SWISS.

## SCREW ASSEMBLIES, 100% SECURE

In watchmaking in particular, the security of screw fixings, in other words their long-term ability to maintain their gripping properties, has been a recurring problem.

With Safelock technology, we offer a solution that overcomes this difficulty. A new range of cutting and inspection tools has been developed in order to ensure impeccable development quality.

### THE ADVANTAGES OF THE SELF-LOCKING:

- Distributes the tensile force along the entire length of the screw thread
- Nominal blocking torque up to 25% less than that of a conventional assembly
- Completely mechanical, with no chemical additives

### THE ADVANTAGES OF THE SCREW:

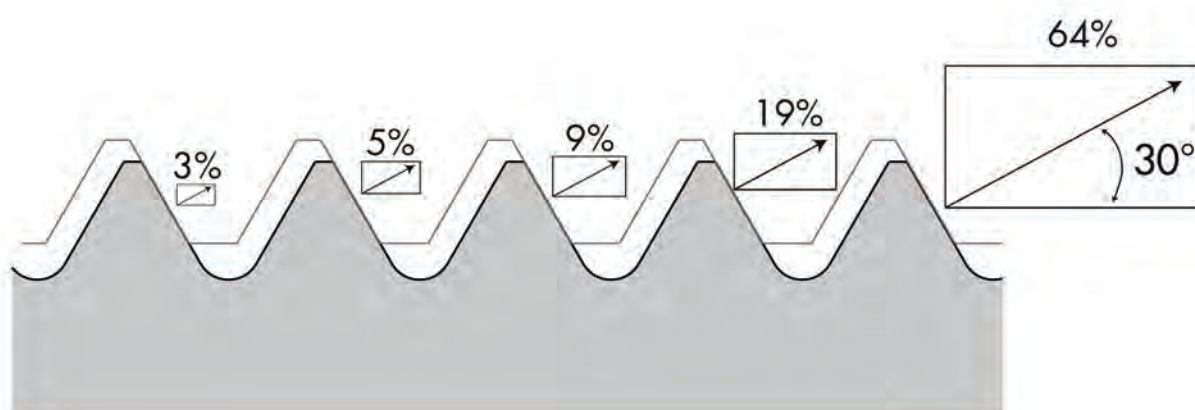
- Screw thread with tolerances tailored to meet requirements, enabling uninterrupted contact between screw and nut
- Fine pitch, increasing the surface in contact with the nut for the same length of thread
- Improved tensile strength thanks to an interior diameter of the profile that is 19% greater (more than 40% in section)
- Multiple assembly / disassembly with no change in mechanical properties



# LOAD DIVIDING IN SCREW ASSEMBLIES

## CONVENTIONAL SCREW ASSEMBLY AND PRINCIPLES OF CONSOLIDATING MECHANICAL STRENGTH.

Conventional symmetrical screw threads bear over 60% of the tensile force on the first turn of the thread, with successive turns being less and less stressed. This phenomenon is due to the standard system of clearance, which allows sufficient space between the sides of the threads in order to ensure that the interior and exterior threads can be assembled.



As a result, this type of assembly does not guarantee sufficient mechanical resistance for applications that are subjected to vibrations or significant shocks without using additional bolting or a chemical additive to fill the spaces.

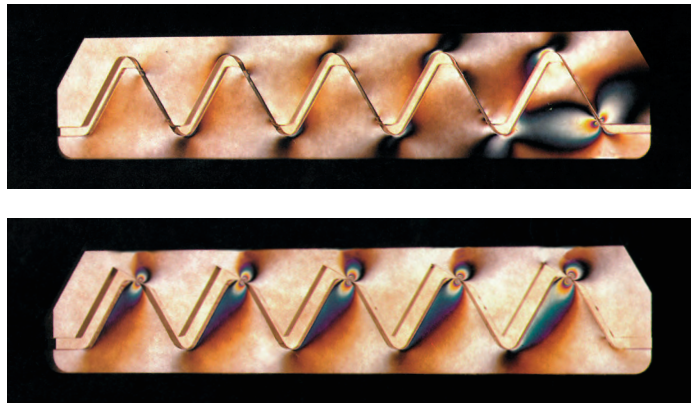
The principle of asymmetrical thread forming can be used to meet such demands. This asymmetrical threaded assembly system is ideal for applications that need to reliably resist violent impacts, gravitational forces, vibrations and extreme variations in temperature.

It has been tried and tested for over 40 years under the name of "Spiralock". It is currently used in aviation, motor sports and armaments as well as in all industrial sectors where easily dismantled screw assemblies need to function securely in a hostile environment.



This principle takes the form of an asymmetrical interior thread (nut) with a 30° gradient, in the form of a wedge, in conjunction with an exterior thread (screw) with a standard profile of 60°. When these two elements are assembled, the result is a self-locking fixing. The tensile force is divided uniformly across all the turns of the thread thanks to a contact area that is far greater than that of a conventional assembly and therefore provides perfect mechanical resistance. The screw and nut can be assembled and disassembled numerous times with no alteration in their performance.

These photos clearly show the difference in the dividing of tensile loading :

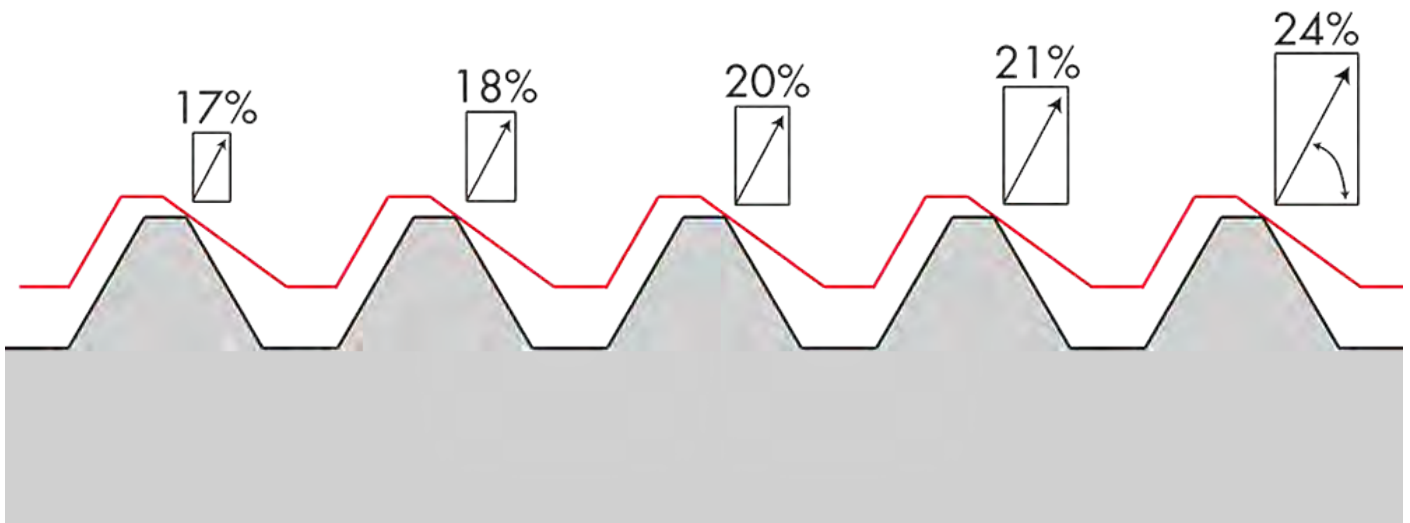


**SELF-LOCKING ASYMMETRICAL  
THREADED MICRO-ASSEMBLY**



For diameters of less than 1.5 mm, the requirements for the interior and exterior threading tolerance are such that conventional method for production and measurement do not permit the industrial production of components for conventional self-locking asymmetrical screw assemblies.

Under the name of Micro-Safelock, **Safelock SA** has designed and patented a standard self-locking asymmetrical threaded micro-assembly for diameters ranging from **0.30 to 1.40 mm**, which adheres to the tolerances inherent in micro-screw threads. It offers exceptional performance in terms of resistance to shocks and vibrations, drawing its inspiration from the technology used for larger-scale assemblies and fully integrating the 30° gradient into the interior thread (nut), making it easier to assemble the screw.

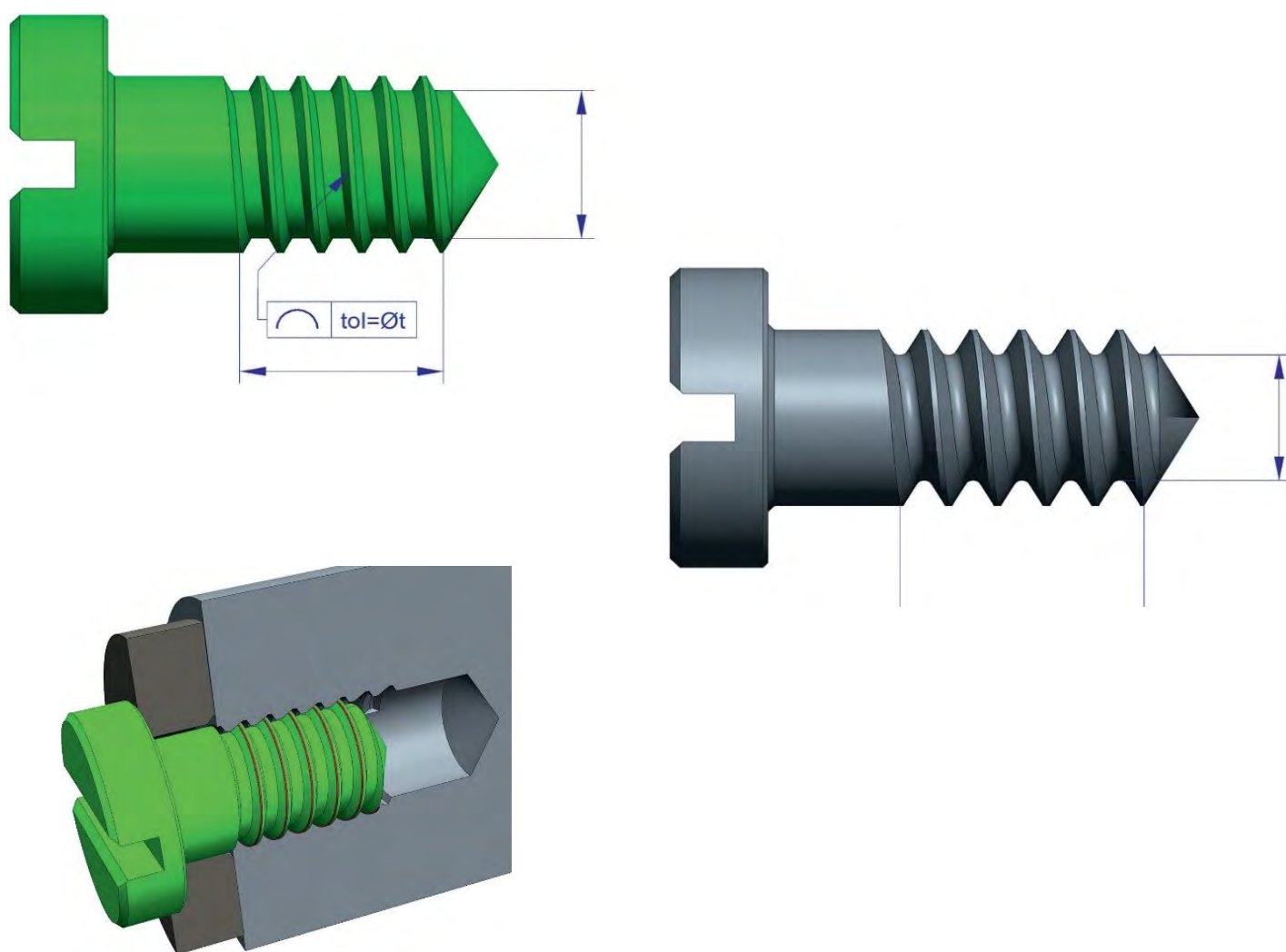




When tightening torque is applied, the tensile force exerted on the screw forces it to auto-centre, and the profile points of the screw come into contact with the edges of the asymmetrical profile of the interior screw thread (gradient), thus leading to tangential contact and a regular distribution of load across all the turns of the thread. Reducing the load on the first few turns of the thread and directing the stress towards compressing the screw significantly reduces the fatigue experienced by the screw/nut assembly, thereby making it possible to assemble and disassemble it numerous times without changing its characteristics.

To deal with the minute dimensional requirements, the core of the screw has been amply reinforced compared with a 60° NIHS or M type thread of the same dimension.

The length of the pitch has been reduced in comparison with the NIHS standard in order to increase the area of contact between the two fixing elements, with the usable length remaining the same. This obviously offers considerable advantages, particularly when working with soft materials and small-headed screws with a reduced thread length.

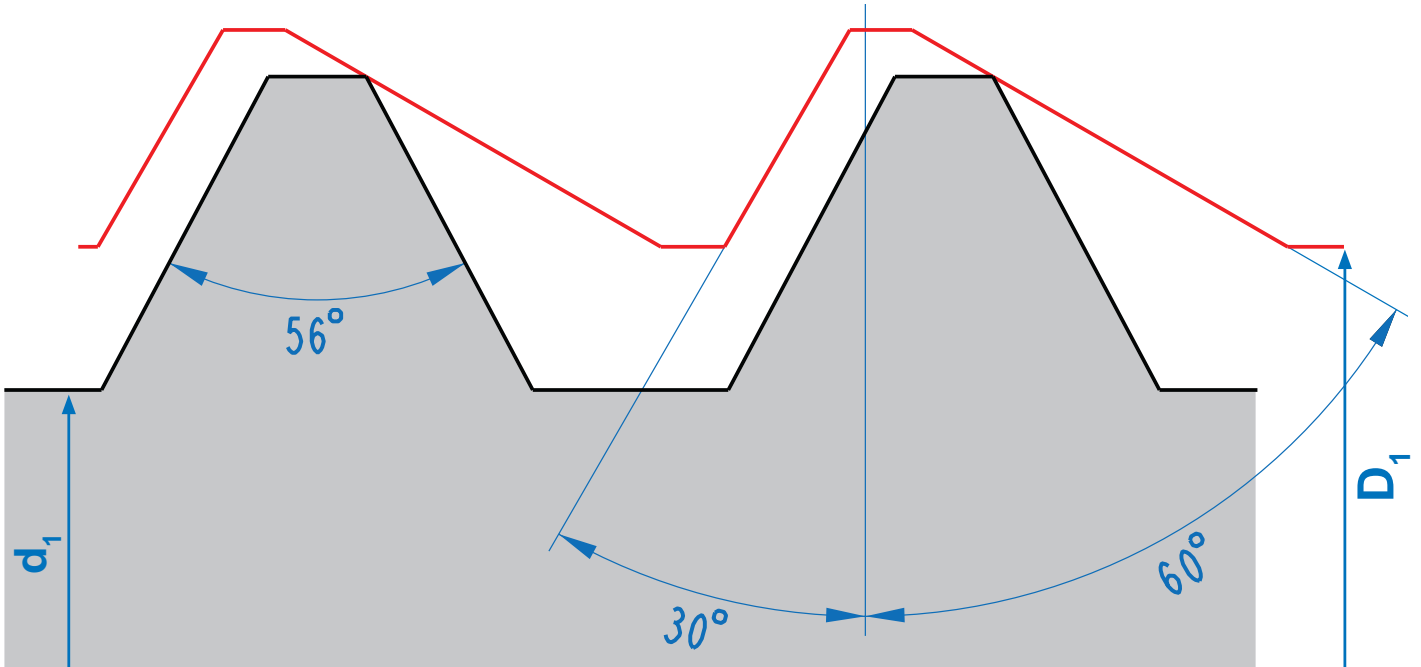


The numerous impact resistance tests that have been carried out clearly show that the threaded assemblies are totally reliable and now offer a credible response to problems affecting screw resistance.

The tightening torques applied to specimen screws are 25% less than the values recommended by manufacturers of chemical "threadlocking" coatings.



# SAFELOCK DIMENSIONS AND STANDARDS



Dimension	Pitch mm	$d_1$ mini mm	$d_1$ maxi mm	Angles of sides of nut	Angles of sides of screw	$d_1$
SL 0.3	0.06	0.264	0.278	$30^\circ/60^\circ$	$56^\circ$	0.247
SL 0.35	0.06	0.314	0.328	$30^\circ/60^\circ$	$56^\circ$	0.297
SL 0.4	0.08	0.356	0.372	$30^\circ/60^\circ$	$56^\circ$	0.331
SL 0.5	0.1	0.448	0.466	$30^\circ/60^\circ$	$56^\circ$	0.416
SL 0.6	0.125	0.538	0.559	$30^\circ/60^\circ$	$56^\circ$	0.496
SL 0.7	0.15	0.628	0.651	$30^\circ/60^\circ$	$56^\circ$	0.576
SL 0.8	0.15	0.728	0.751	$30^\circ/60^\circ$	$56^\circ$	0.676
SL 0.9	0.175	0.818	0.844	$30^\circ/60^\circ$	$56^\circ$	0.756
SL 1.0	0.2	0.908	0.936	$30^\circ/60^\circ$	$56^\circ$	0.836
SL 1.2	0.2	1.108	1.136	$30^\circ/60^\circ$	$56^\circ$	1.036
SL 1.4	0.25	1.288	1.321	$30^\circ/60^\circ$	$56^\circ$	1.197



Micro  
**Safelock®**

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