



## Juego de machos de mano universal

*Universal hand tap set*

Juego de machos de roscar a mano HSS-G de métrica ISO-DIN 13. Para uso universal.

HSS-G hand tap set, metric ISO-DIN 13. For general use.

TYPE  
N

UNI

DIN 13

STEEL

GG

ALU

Ref.	d1 [mm]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	€
250020200	M 2,0 * 0,40	36	8	2,8	2,1	19,80
250025200	M 2,5 * 0,45	40	9	2,8	2,1	19,80
250030200	M 3,0 * 0,50	40	11	3,5	2,7	10,85
250035200	M 3,5 * 0,60	45	13	4,0	3,0	16,05
250040200	M 4,0 * 0,70	45	13	4,5	3,4	10,85
250045200	M 4,5 * 0,75	50	16	6,0	4,9	16,05
250050200	M 5,0 * 0,80	50	16	6,0	4,9	11,80
250060200	M 6,0 * 1,00	50	19	6,0	4,9	11,80
250070200	M 7,0 * 1,00	50	19	6,0	4,9	19,35
250080200	M 8,0 * 1,25	56	22	6,0	4,9	13,95
250090200	M 9,0 * 1,25	63	22	7,0	5,5	24,55
250100200	M 10,0 * 1,50	70	24	7,0	5,5	19,10
250110200	M 11,0 * 1,50	70	24	8,0	6,2	31,15
250120200	M 12,0 * 1,75	75	29	9,0	7,0	25,00
250140200	M 14,0 * 2,00	80	30	11,0	9,0	28,30
250160200	M 16,0 * 2,00	80	32	12,0	9,0	35,40
250180200	M 18,0 * 2,50	95	40	14,0	11,0	45,30
250200200	M 20,0 * 2,50	95	40	16,0	12,0	51,90
250220200	M 22,0 * 2,50	100	40	18,0	14,5	66,00
250240200	M 24,0 * 3,00	110	50	18,0	14,5	75,45
250270200	M 27,0 * 3,00	110	50	20,0	16,0	124,95
250300200	M 30,0 * 3,50	125	56	22,0	18,0	160,30
250330200	M 33,0 * 3,50	125	56	25,0	20,0	216,90
250360200	M 36,0 * 4,00	150	63	28,0	22,0	259,30
250390200	M 39,0 * 4,00	150	63	32,0	24,0	339,45
250420200	M 42,0 * 4,50	150	63	32,0	24,0	381,90
250450200	M 45,0 * 4,50	160	70	36,0	29,0	462,00
250480200	M 48,0 * 5,00	180	75	36,0	29,0	655,30
250520200	M 52,0 * 5,00	180	75	40,0	32,0	655,30
250560200	M 56,0 * 5,50	200	85	45,0	35,0	810,90
250600200	M 60,0 * 5,50	200	85	45,0	35,0	1018,30
250640200	M 64,0 * 6,00	220	90	50,0	39,0	1178,60
250680200	M 68,0 * 6,00	220	90	50,0	39,0	1390,75

# Juego de machos de mano NOGRIP

*NOGRIP hand tap set*



Juego de machos de roscar a mano Nogrip de HSSE Co5 y métrica ISO-DIN 13 para materiales duros. Con guía de centrado para mecanizar agujeros ciegos y pasantes.

Nogrip HSSE Co5 hand tap set, metric ISO-DIN 13 for hard materials. With cylindrical pilots for blind and through holes.



Ref.	d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	€
260020200	M 2	0,40	36	8	2,5	2,1	3	54,90
260030200	M 3	0,50	40	11	3,5	2,7	3	36,65
260040200	M 4	0,70	45	13	4,5	3,4	3	36,65
260050200	M 5	0,80	50	16	6,0	4,9	3	37,75
260060200	M 6	1,00	50	19	6,0	4,9	3	37,75
260080200	M 8	1,25	56	22	6,0	4,9	3	44,85
260100200	M 10	1,50	70	24	7,0	5,5	3	57,15
260120200	M 12	1,75	75	29	9,0	7,0	4	81,90
260140200	M 14	2,00	80	30	11,0	9,0	4	96,05
260160200	M 16	2,00	80	32	12,0	9,0	4	125,75
260180200	M 18	2,50	95	40	14,0	11,0	4	202,35
260200200	M 20	2,50	95	40	16,0	12,0	4	224,65

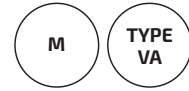
## Juego de machos de mano recubiertos de TiCN

*Ticn coated hand tap set*



Juego de machos de roscar a mano de HSSE Co5 recubiertos de TiCN con métrica ISO-DIN 13 para materiales duros. Con guía de centrado para mecanizar agujeros ciegos y pasantes.

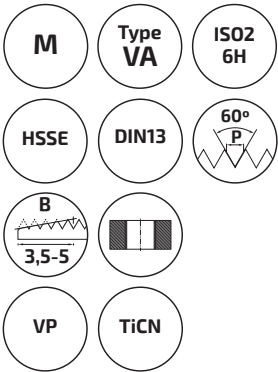
TiCN coated HSSE Co5 hand tap set, metric ISO-DIN 13 for hard materials. With cylindrical pilots for blind and through holes.



Ref.	d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	€
<b>270030200</b>	M 3	0,50	40	11	3,5	2,7	3	<b>72,90</b>
<b>270040200</b>	M 4	0,70	45	13	4,5	3,4	3	<b>78,85</b>
<b>270050200</b>	M 5	0,80	50	16	6,0	4,9	3	<b>80,00</b>
<b>270060200</b>	M 6	1,00	50	19	6,0	4,9	3	<b>80,00</b>
<b>270080200</b>	M 8	1,25	56	22	6,0	4,9	3	<b>119,35</b>
<b>270100200</b>	M 10	1,50	70	24	7,0	5,5	3	<b>141,15</b>
<b>270120200</b>	M 12	1,75	75	29	9,0	7,0	4	<b>197,00</b>
<b>270140200</b>	M 14	2,00	80	30	11,0	9,0	4	<b>206,05</b>
<b>270160200</b>	M 16	2,00	80	32	12,0	9,0	4	<b>245,70</b>
<b>270180200</b>	M 18	2,50	95	40	14,0	11,0	4	<b>326,50</b>
<b>270200200</b>	M 20	2,50	95	40	16,0	12,0	4	<b>499,95</b>

# Macho máquina recto rosca métrica tipo VA

*Traight fluted metric thread VA type machine tap*



STEEL  
<1300N/  
mm<sup>2</sup>

INOX

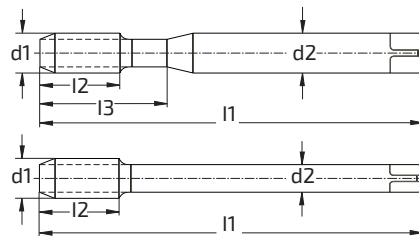
ALU  
0,5-15% SI

COPPER

NI  
ALLOYS

Macho de máquina HSS recto tipo VA con rosca métrica disponible vaporizado y recubierto de TiCN. Recomendado para inoxidable y aceros de alta tensión de rotura.

Straight fluted HSS machine tap VA type with metric thread. Available both VP and TiCN coated. Recommended for stainless materials and steels of higher tensile strength.



DIN  
371  
M3 - M10

DIN  
376  
M12 - M30



VAB00VP VAB00TC

**WEXO**  
KOMPETENZ IN PRÄZISION

d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	∅ [mm]	VAB00VP/4 [VP]		VAB00TC/4 [TiCN]	
									Ref.	€	Ref.	€
M 3	0,50	56	9	18	3,5	2,7	3	2,50	601020	12,90	603020	21,80
M 4	0,70	63	12	21	4,5	3,4	3	3,30	601022	12,90	603022	21,80
M 5	0,80	70	13	25	6,0	4,9	3	4,20	601023	12,90	603023	21,80
M 6	1,00	80	15	30	6,0	4,9	3	5,00	601024	12,90	603024	21,80
M 8	1,25	90	18	35	8,0	6,2	3	6,80	601026	17,15	603026	28,25
M 10	1,50	100	20	39	10,0	8,0	3	8,50	601028	20,40	603028	34,65
M 12	1,75	110	23	-	9	7,0	3	10,20	601030	26,80	603030	43,60
M 14	2,00	110	25	-	11	9,0	3	12,00	601031	34,30	603031	52,50
M 16	2,00	110	25	-	12	9,0	3	14,00	601032	41,80	603032	63,25
M 18	2,50	125	30	-	14	11,0	3	15,50	601033	53,95	603033	85,75
M 20	2,50	140	30	-	16	12,0	3	17,50	601034	63,95	603034	97,90
M 22	2,50	140	30	-	18	14,5	3	19,50	601036	82,15	603036	120,75
M 24	3,00	160	36	-	18	14,5	4	21,00	601038	89,30	603038	135,75
M 27	3,00	160	36	-	20	16,0	4	24,00	601039	106,45	603039	162,90
M 30	3,50	180	40	-	22	18,0	4	26,50	601071	147,15	603071	198,60

Condiciones de corte | Cutting data pag. 248 - 249

VAC40VP/4  
VAC40TC/4

MACHOS

# Macho máquina helicoidal rosca métrica tipo VA

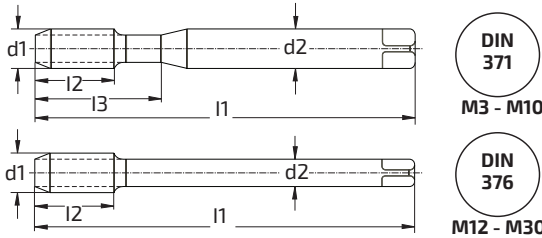
Helix fluted metric thread VA type machine tap

Macho de máquina HSS helicoidal tipo VA con rosca métrica disponible vaporizado y recubierto de TiCN. Recomendado para acero inoxidable y aceros de alta tensión de rotura.

Helix fluted HSS machine tap VA type with metric thread. Available both VP and TiCN coated. Recommended for stainless materials and steels of higher tensile strength.



VAC40VP VAC40TC



- M
- Type VA
- ISO2 6H
- STEEL <1300N/mm<sup>2</sup>
- HSSE
- DIN13
- 60° P
- INOX
- C  
Z-3
- ≤ 2,5xd
- 40°
- ALU 0,5-15% SI
- VP
- TiCN
- COPPER
- NI ALLOYS

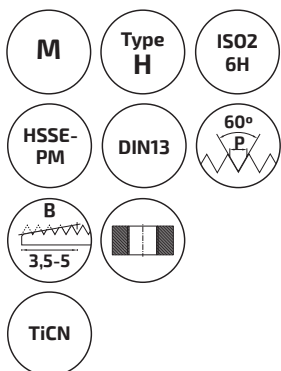


d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	VAC40VP/4 [VP]		VAC40TC/4 [TiCN]	
									Ref.	€	Ref.	€
M 3	0,50	56	5	18	3,5	2,7	3	2,50	601120	13,45	603120	22,15
M 4	0,70	63	7	21	4,5	3,4	3	3,30	601122	13,45	603122	22,15
M 5	0,80	70	8	25	6,0	4,9	3	4,20	601123	13,90	603123	22,50
M 6	1,00	80	10	30	6,0	4,9	3	5,00	601124	13,90	603124	22,50
M 8	1,25	90	13	35	8,0	6,2	3	6,80	601126	17,50	603126	28,95
M 10	1,50	100	15	39	10,0	8,0	3	8,50	601128	20,75	603128	35,00
M 12	1,75	110	18	-	9	7,0	3	10,20	601130	27,50	603130	44,30
M 14	2,00	110	20	-	11	9,0	4	12,00	601131	35,00	603131	52,50
M 16	2,00	110	20	-	12	9,0	4	14,00	601132	41,80	603132	63,25
M 18	2,50	125	25	-	14	11,0	4	15,50	601133	58,25	603133	88,60
M 20	2,50	140	25	-	16	12,0	4	17,50	601134	64,65	603134	99,30
M 22	2,50	140	25	-	18	14,5	4	19,50	601136	83,60	603136	124,30
M 24	3,00	160	30	-	18	14,5	4	21,00	601138	92,90	603138	138,60
M 27	3,00	160	30	-	20	16,0	4	24,00	601139	109,30	603139	165,75
M 30	3,50	180	35	-	22	18,0	4	26,50	601171	152,90	603171	204,30

Condiciones de corte | Cutting data pag. 249

# Macho máquina recto rosca métrica tipo H

*Straight fluted metric thread H type machine tap*



STEEL  
<1300N/  
mm<sup>2</sup>

GG

GGG

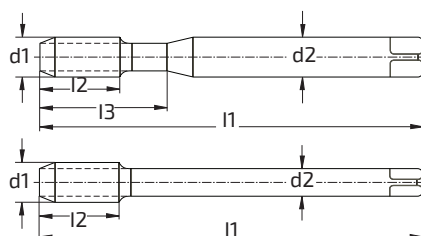
ALU  
>0,5% Si

COPPER  
>200HB

REINFORCED  
PLASTIC

Macho de máquina HSS-PM recto tipo H con rosca métrica recubierto de TiCN. Recomendado para materiales duros y de viruta corta.

Straight fluted HSS-PM machine tap H type with metric thread and TiCN coating. Recommended for short-chipping hard materials.



DIN  
371  
M3 - M10

DIN  
376  
M12

**WEXO**  
KOMPETENZ IN PRÄZISION

d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	HBOOTC-PM/4 [TiCN]	
									Ref.	€
M 3	0,50	56	5	18	3,5	2,7	3	2,50	614000	35,40
M 4	0,70	63	7	21	4,5	3,4	3	3,30	614002	35,40
M 5	0,80	70	8	25	6,0	4,9	3	4,20	614003	37,15
M 6	1,00	80	10	30	6,0	4,9	3	5,00	614004	37,15
M 8	1,25	90	13	35	8,0	6,2	3	6,80	614006	45,00
M10	1,50	100	15	39	10,0	8,0	3	8,50	614008	55,40
M12	1,75	110	18	-	9	7,0	3	10,20	614010	67,90

Condiciones de corte | Cutting data pag. 249

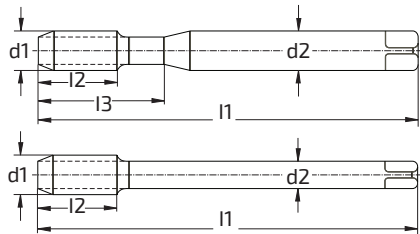


# Macho máquina helicoidal rosca métrica tipo H

*Helix fluted metric thread H type machine tap*

Macho de máquina HSS-PM helicoidal tipo H con rosca métrica recubierto de TiCN. Recomendado para materiales duros y de viruta corta.

Helix fluted HSS-PM machine tap H type with metric thread and TiCN coating. Recommended for short-chipping hard materials.



DIN 371  
M3 - M10

DIN 376  
M12

- M
- Type H
- ISO2 6H
- STEEL <1300N/mm<sup>2</sup>
- HSSE-PM
- DIN13
- 60° P
- GG
- C  
2-3
- ≤ 1,5xd
- 15°
- GGG
- TiCN
- ALU >15% SI
- COPPER >200HB
- REINFORCED PLASTIC

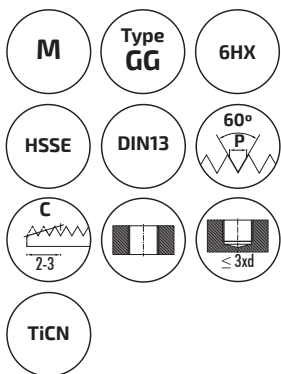


d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	HC15TC-PM/4 [TiCN]	
									Ref.	€
M 3	0,50	56	5	18	3,5	2,7	3	2,50	614020	38,60
M 4	0,70	63	7	21	4,5	3,4	3	3,30	614022	38,60
M 5	0,80	70	8	25	6,0	4,9	3	4,20	614023	40,00
M 6	1,00	80	10	30	6,0	4,9	3	5,00	614024	42,15
M 8	1,25	90	13	35	8,0	6,2	3	6,80	614026	46,80
M 10	1,50	100	15	39	10,0	8,0	3	8,50	614028	54,65
M 12	1,75	110	18	-	9	7,0	3	10,20	614030	70,00

Condiciones de corte | Cutting data pag. 249

# Macho máquina recto rosca métrica tipo GG

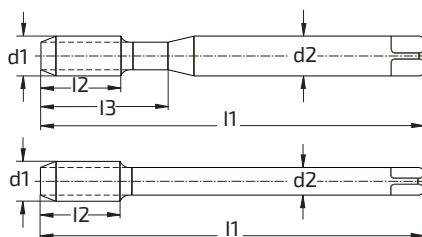
*Straight fluted metric thread GG type machine tap*



**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION

Macho de máquina HSS recto tipo GG con rosca métrica recubierto de TiCN para fundición. Permite roscar agujeros ciegos y pasantes.

Straight fluted HSS machine tap GG type with metric thread and TiCN coating for cast iron. Suitable for blind and through holes.



DIN  
371  
M3 - M10

DIN  
376  
M12 - M30



d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	GGC00TC/4 [TiCN]	
									Ref.	€
M 3	0,50	56	9	18	3,5	2,7	3	2,50	603080	22,15
M 4	0,70	63	12	21	4,5	3,4	3	3,30	603082	22,15
M 5	0,80	70	13	25	6,0	4,9	3	4,20	603083	22,50
M 6	1,00	80	15	30	6,0	4,9	3	5,00	603084	22,50
M 8	1,25	90	18	35	8,0	6,2	4	6,80	603086	32,15
M10	1,50	100	20	39	10,0	8,0	4	8,50	603088	37,15
M12	1,75	110	23	-	9	7,0	4	10,20	603090	48,95
M14	2,00	110	25	-	11	9,0	4	12,00	603091	57,50
M16	2,00	110	25	-	12	9,0	4	14,00	603092	70,75
M18	2,50	125	30	-	14	11,0	4	15,50	603093	90,00
M20	2,50	140	30	-	16	12,0	4	17,50	603094	110,75
M22	2,50	140	30	-	18	14,5	4	19,50	603095	134,30
M24	3,00	160	36	-	18	14,5	4	21,00	603097	140,00
M27	3,00	160	36	-	20	16,0	4	24,00	603098	162,90
M30	3,50	180	40	-	22	18,0	4	26,50	603099	201,45

Condiciones de corte | Cutting data pag. 249

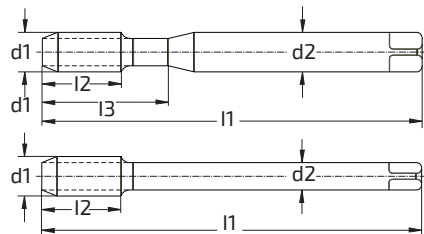


# Macho máquina recto métrica tipo AL

*Straight fluted metric thread AL type machine tap*

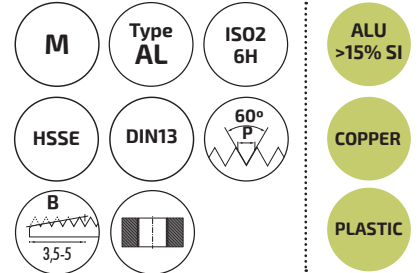
Macho de máquina HSS recto tipo AL con rosca métrica para aluminio.

Straight fluted HSS machine tap AL type with metric thread for aluminum.



DIN 371  
M3 - M10

DIN 376  
M12 - M20



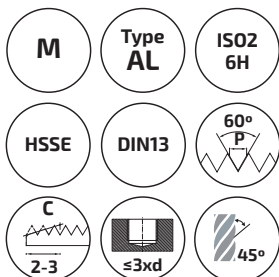
**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION

d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	Ø <sub>max</sub> [mm]	ALB00/4	
									Ref.	€
<b>M 3</b>	0,50	56	9	18	3,5	2,7	3	2,50	600040	<b>11,40</b>
<b>M 4</b>	0,70	63	12	21	4,5	3,4	3	3,30	600042	<b>11,40</b>
<b>M 5</b>	0,80	70	13	25	6,0	4,9	3	4,20	600043	<b>11,80</b>
<b>M 6</b>	1,00	80	15	30	6,0	4,9	3	5,00	600044	<b>11,80</b>
<b>M 8</b>	1,25	90	18	35	8,0	6,2	3	6,80	600046	<b>15,40</b>
<b>M10</b>	1,50	100	20	39	10,0	8,0	3	8,50	600048	<b>18,25</b>
<b>M12</b>	1,75	110	23	-	9	7,0	3	10,20	600050	<b>24,30</b>
<b>M14</b>	2,00	110	25	-	11	9,0	3	12,00	600051	<b>29,65</b>
<b>M16</b>	2,00	110	25	-	12	9,0	3	14,00	600052	<b>37,15</b>
<b>M18</b>	2,50	125	30	-	14	11,0	3	15,50	600053	<b>50,40</b>
<b>M20</b>	2,50	140	30	-	16	12,0	3	17,50	600054	<b>58,25</b>

Condiciones de corte | Cutting data pag. 249

# Macho máquina helicoidal rosca métrica tipo AL

*Helix fluted metric thread AL type machine tap*



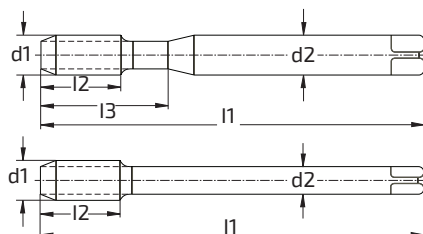
ALU  
>0,5% SI

COPPER

PLASTIC

Macho de máquina HSS helicoidal tipo AL con rosca métrica para aluminio.

Helix fluted HSS machine tap AL type with metric thread for aluminum.



DIN  
371  
M3 - M10

DIN  
376  
M12 - M20

**WEXO**  
KOMPETENZ IN PRÄZISION

d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	ALC45/4	
									Ref.	€
M 3	0,50	56	5	18	3,5	2,7	2	2,50	600140	12,90
M 4	0,70	63	7	21	4,5	3,4	2	3,30	600142	12,90
M 5	0,80	70	8	25	6,0	4,9	2	4,20	600143	13,90
M 6	1,00	80	10	30	6,0	4,9	2	5,00	600144	13,90
M 8	1,25	90	13	35	8,0	6,2	2	6,80	600146	16,45
M 10	1,50	100	15	39	10,0	8,0	2	8,50	600148	18,60
M 12	1,75	110	18	-	9	7,0	2	10,20	600150	25,40
M 14	2,00	110	20	-	11	9,0	2	12,00	600151	33,25
M 16	2,00	110	20	-	12	9,0	2	14,00	600152	39,30
M 18	2,50	125	25	-	14	11,0	3	15,50	600153	55,00
M 20	2,50	140	25	-	16	12,0	3	17,50	600154	59,65

Condiciones de corte | Cutting data pag. 249

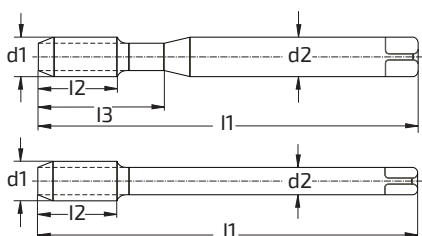


# Macho de laminación rosca métrica tipo UNI

*Metric thread UNI type fluteless tap*

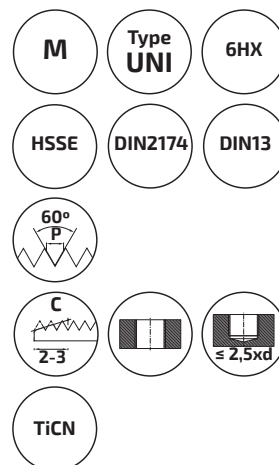
Macho de laminación HSS tipo UNI con rosca métrica recubierto de TiCN. Recomendado para uso universal.

UNI type HSS fluteless tap with metric thread and TiCN coating for universal use.



DIN  
371  
M3 - M10

DIN  
376  
M12 - M16



STEEL  
<800N/  
mm<sup>2</sup>

ALU  
<15% SI

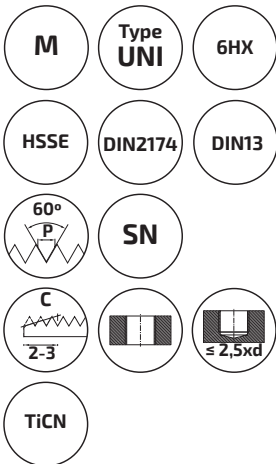
PLASTIC

**WEXO**  
KOMPETENZ IN PRÄZISION

d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	Ø <sub>max</sub> [mm]	IGF-UC00TC/4 [TiCN]	
									Ref.	€
<b>M 3</b>	0,50	56	11	18	3,5	2,7	4	2,80	603300	<b>30,75</b>
<b>M 4</b>	0,70	63	13	21	4,5	3,4	4	3,70	603302	<b>40,00</b>
<b>M 5</b>	0,80	70	16	25	6,0	4,9	4	4,65	603303	<b>44,30</b>
<b>M 6</b>	1,00	80	19	30	6,0	4,9	4	5,55	603304	<b>46,10</b>
<b>M 8</b>	1,25	90	22	35	8,0	6,2	6	7,40	603306	<b>51,80</b>
<b>M10</b>	1,50	100	24	39	10,0	8,0	8	9,30	603308	<b>63,25</b>
<b>M12</b>	1,75	110	28	-	9	7,0	8	11,20	603310	<b>87,15</b>
<b>M14</b>	2,00	110	30	-	11	9,0	8	13,00	603311	<b>106,45</b>
<b>M16</b>	2,00	110	32	-	12	9,0	8	15,00	603312	<b>140,00</b>

# Macho de laminación rosca métrica tipo UNI

Metric thread UNI type



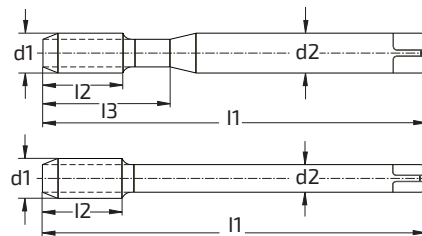
STEEL  
<800N/  
mm<sup>2</sup>

ALU  
<15% Si

PLASTIC

Macho de laminación HSS tipo UNI con rosca métrica recubierto de TiCN con ranuras de lubricación. Recomendado para uso universal.

UNI type HSS fluteless tap with metric thread, TiCN coating and lubrication grooves for universal use.



DIN  
371  
M3 - M10

DIN  
376  
M12 - M16



**WEXO**  
KOMPETENZ IN PRÄZISION

d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	l3 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	GGCOOTC/4	
									Ref.	€
M 3	0,50	56	5	18	3,5	2,7	4	2,80	603280	32,15
M 4	0,70	63	7	21	4,5	3,4	4	3,70	603282	42,15
M 5	0,80	70	8	25	6,0	4,9	4	4,65	603283	46,10
M 6	1,00	80	10	30	6,0	4,9	4	5,55	603284	48,25
M 8	1,25	90	13	35	8,0	6,2	6	7,40	603286	53,95
M 10	1,50	100	15	39	10,0	8,0	8	9,30	603288	66,45
M 12	1,75	110	18	-	9	7,0	8	11,20	603290	90,00
M 14	2,00	110	20	-	11	9,0	8	13,00	603291	110,75
M 16	2,00	110	20	-	12	9,0	8	15,00	603292	145,75

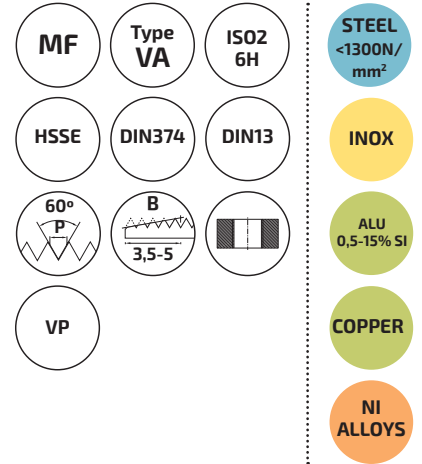
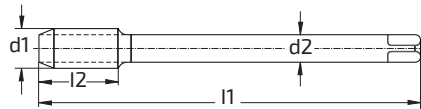


## Macho máquina recto rosca métrica fina tipo VA

*Straight fluted fine metric thread VA type machine tap*

Macho de máquina HSS recto tipo VA vaporizado con rosca métrica Recomendado para acero inoxidable y aceros de alta tensión de rotura.

Straight fluted HSS machine tap VA type with fine metric thread and steam treatment. Recommended for stainless materials and steels of higher tensile strength.



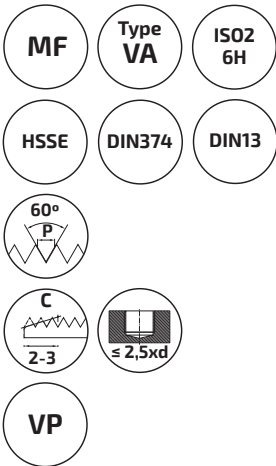
**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION

d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	VAB00VP-MF/4 [VP]	
								Ref.	€
<b>M 6</b>	*0,75	80	15	4,5	3,4	3	5,20	601061	<b>22,15</b>
<b>M 8</b>	*1,00	90	18	6	4,9	3	7,00	601063	<b>23,95</b>
<b>M 10</b>	*1,00	90	20	7	5,5	3	9,00	601064	<b>27,50</b>
<b>M 12</b>	*1,00	100	22	9	7,0	3	11,00	601065	<b>34,30</b>
<b>M 12</b>	*1,50	100	21	9	7,0	3	10,50	601066	<b>31,10</b>
<b>M 16</b>	*1,50	100	21	12	9,0	3	14,50	601068	<b>48,95</b>
<b>M 20</b>	*1,50	125	24	16	12,0	3	18,50	601070	<b>77,15</b>

Condiciones de corte | Cutting data pag. 248

# Macho máquina helicoidal rosca métrica fina tipo VA

Helix fluted fine metric thread VA type machine tap



STEEL  
<1300N/  
mm<sup>2</sup>

INOX

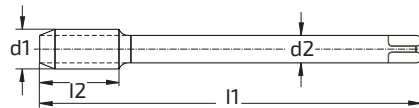
ALU  
0,5-15% SI

COPPER

NI  
ALLOYS

Macho de máquina HSS helicoidal tipo VA vaporizado con rosca métrica. Recomendado para acero inoxidable y aceros de alta tensión de rotura.

Helix fluted HSS machine tap VA type with fine metric thread and steam treatment. Recommended for stainless materials and steels of higher tensile strength.



**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION

d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	VAC40VP-MF/4 [VP]	
								Ref.	€
M 6	*0,75	80	10,0	4,5	3,4	3	5,20	601161	22,90
M 8	*0,75	80	10,8	6	4,9	3	7,20	601162	35,40
M 8	*1,00	90	13,0	6	4,9	3	7,00	601163	24,65
M 10	*1,00	90	12,0	7	5,5	3	9,00	601164	27,90
M 12	*1,00	100	15,5	9	7,0	3	11,00	601165	34,30
M 12	*1,50	100	14,0	9	7,0	3	10,50	601166	32,90
M 14	*1,50	100	21,5	12	9,0	3	12,50	601167	41,80
M 16	*1,50	100	16,0	12	9,0	4	14,50	601168	51,10
M 20	*1,50	125	20,0	16	12,0	4	18,50	601170	79,30

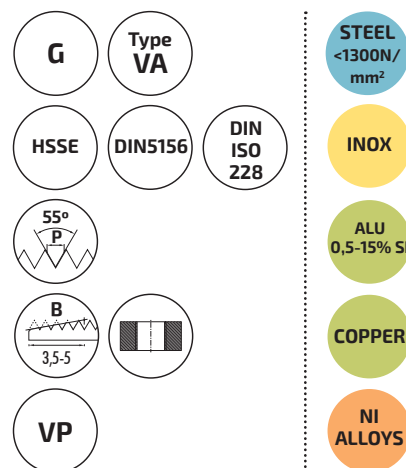
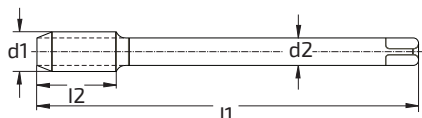
Condiciones de corte | Cutting data pag. 248

# Macho máquina recto rosca GAS tipo VA

*Straight fluted **GAS** thread VA type machine tap*

Macho de máquina HSS recto tipo VA vaporizado con rosca GAS .  
Recomendado para acero inoxidable y aceros de alta tensión de rotura.

Straight fluted HSS machine tap VA type with GAS thread and steam treatment. Recommended for stainless materials and steels of higher tensile strength.



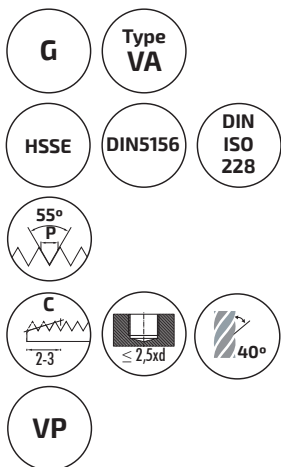
**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION

P [Gg/1"]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	VAB00VP-G/4 [VP]		
							Ref.	€	
<b>G 1/8</b>	<b>28</b>	90	20	7	5,5	3	8,80	601200	<b>29,65</b>
<b>G 1/4</b>	<b>19</b>	100	21	11	9	3	11,80	601201	<b>40,75</b>
<b>G 3/8</b>	<b>19</b>	100	21	12	9	3	15,25	601202	<b>49,65</b>
<b>G 1/2</b>	<b>14</b>	125	24	16	12	3	19,00	601203	<b>71,45</b>
<b>G 5/8</b>	<b>14</b>	125	24	18	14,5	4	21,00	601204	<b>97,90</b>
<b>G 3/4</b>	<b>14</b>	140	26	20	16	4	24,50	601205	<b>113,60</b>
<b>G 1</b>	<b>11</b>	160	30	25	20	4	30,75	601207	<b>182,90</b>
<b>G 1 1/8</b>	<b>11</b>	170	30	28	22	4	35,30	601208	<b>230,00</b>
<b>G 1 1/4</b>	<b>11</b>	170	30	32	34	4	39,50	601209	<b>270,00</b>
<b>G 1 3/8</b>	<b>11</b>	180	32	36	29	4	41,90	601210	<b>337,15</b>
<b>G 1 1/2</b>	<b>11</b>	190	32	36	29	6	45,25	601211	<b>382,90</b>
<b>G 1 3/4</b>	<b>11</b>	200	32	40	32	6	51,30	601212	<b>528,60</b>
<b>G 2</b>	<b>11</b>	200	40	45	35	6	57,00	601213	<b>885,75</b>

Condiciones de corte | Cutting data pag. 248

# Macho máquina helicoidal rosca GAS tipo VA

Helix fluted *GAS* thread VA type machine tap



STEEL  
<1300N/  
mm<sup>2</sup>

INOX

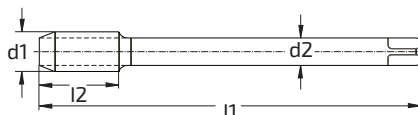
ALU  
0,5-15% SI

COPPER

NI  
ALLOYS

Macho de máquina HSS helicoidal tipo VA vaporizado con rosca GAS. Recomendado para acero inoxidable y aceros de alta tensión de rotura.

Helix fluted HSS machine tap VA type with GAS thread and steam treatment. Recommended for stainless materials and steels of higher tensile strength.



**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION

P [Gg/1"]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	∅ [mm]	VAC40VP-G/4 [VP]		
							Ref.	€	
G 1/8	28	90	12	7	5,5	3	8,80	601300	33,95
G 1/4	19	100	16	11	9,0	3	11,80	601301	45,00
G 3/8	19	100	16	12	9,0	3	15,25	601302	61,10
G 1/2	14	125	20	16	12,0	3	19,00	601303	88,60
G 5/8	14	125	20	18	14,5	4	21,00	601304	130,00
G 3/4	14	140	22	20	16,0	4	24,50	601305	162,90
G 1	11	160	30	25	20,0	4	30,75	601307	248,60
G 1 1/8	11	170	30	28	22,0	4	35,30	601308	325,75
G 1 1/4	11	170	30	32	34,0	4	39,50	601309	351,45
G 1 3/8	11	180	32	36	29,0	4	41,90	601310	437,15
G 1 1/2	11	190	32	36	29,0	6	45,25	601311	482,90
G 1 3/4	11	200	32	40	32,0	6	51,30	601312	608,60
G 2	11	200	40	45	35,0	6	57,00	601313	985,75

Condiciones de corte | Cutting data pag. 248

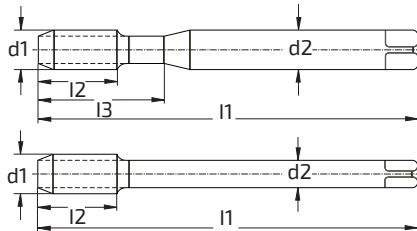


# Macho máquina recto rosca UNC tipo N

*Straight fluted **UNC** thread N type machine tap*

Macho de máquina HSS recto tipo N con rosca UNC para aceros hasta 800 N/mm<sup>2</sup>.

Straight fluted HSS machine tap N type with UNC thread for steels up to 800 N/mm<sup>2</sup>.



Nr. 8-32 / 3/8"-16

Nr. 7/16" -14 /1"-8

UNC

Type  
**N**

2B

STEEL  
<1300N/  
mm<sup>2</sup>

HSSE

DIN  
2184-1

ANSI  
B 1.1

ALU  
0,5-15% SI

60°  
P

COPPER

B  
3,5-5

PLASTIC

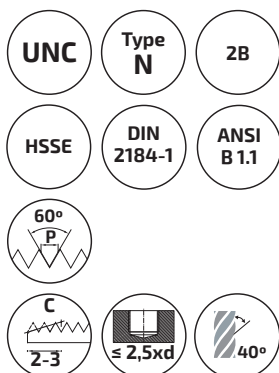


P [Gg/1"]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	NB00-UNC/4 [VP]	
							Ref.	€
UNC # 8-32	63	12	4,5	3,4	3	3,50	600606	20,75
UNC # 10-24	70	13	6,0	4,9	3	3,90	600607	21,45
UNC # 12-24	80	15	6,0	4,9	3	4,50	600608	22,15
UNC 1/4-20	80	15	7,0	5,5	3	5,20	600609	24,30
UNC 5/16-18	90	18	8,0	6,2	3	6,60	600610	25,40
UNC 3/8-16	90	20	9,0	7,0	3	8,00	600611	30,40
UNC 7/16-14	100	20	8,0	6,2	3	9,40	600620	30,75
UNC 1/2-13	110	23	9,0	7,0	3	10,75	600621	39,30
UNC 9/16-12	110	25	11,0	9,0	3	12,25	600622	58,95
UNC 5/8-11	110	25	12,0	9,0	3	13,50	600623	51,10
UNC 3/4-10	125	30	14,0	11,0	3	16,50	600624	57,50
UNC 7/8-9	140	30	18,0	14,5	3	19,50	600625	71,45
UNC 1-8	160	36	18,0	14,5	3	22,25	600626	99,30

Condiciones de corte | Cutting data pag. 248

# Macho máquina helicoidal rosca UNC tipo N

Helix fluted *UNC* thread N type machine tap



STEEL  
<800N/  
mm<sup>2</sup>

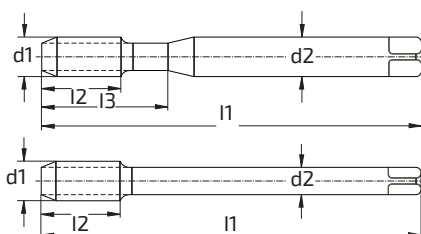
ALU  
0,5-15% SI

COPPER

PLASTIC

Macho de máquina HSS recto tipo N con rosca UNC para aceros hasta 800 N/mm<sup>2</sup>.

Straight fluted HSS machine tap N type with UNC thread for steels up to 800 N/mm<sup>2</sup>.



Nr. 8-32 / 3/8" - 16

Nr. 7/16" - 14 / 1" - 8

**WEXO**  
KOMPETENZ IN PRÄZISION

P [Gg/1"]	I1 [mm]	I2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	NC40-UNC/4 [VP]	
							Ref.	€
UNC # 8-32	63	7	4,5	3,4	3	3,50	600635	21,10
UNC # 10-24	70	8	6,0	4,9	3	3,90	600636	22,50
UNC # 12-24	80	10	6,0	4,9	3	4,50	600637	25,00
UNC 1/4-20	80	10	7,0	5,5	3	5,20	600638	25,00
UNC 5/16-18	90	13	8,0	6,2	3	6,60	600639	26,45
UNC 3/8-16	90	15	9,0	7,0	3	8,00	600640	31,45
UNC 7/16-14	100	18	8,0	6,2	3	9,40	600650	31,45
UNC 1/2-13	110	20	9,0	7,0	3	10,75	600651	41,45
UNC 9/16-12	110	20	11,0	9,0	3	12,25	600652	60,40
UNC 5/8-11	110	20	12,0	9,0	3	13,50	600653	51,80
UNC 3/4-10	125	25	14,0	11,0	4	16,50	600654	58,25
UNC 7/8-9	140	25	18,0	14,5	4	19,50	600655	72,90
UNC 1-8	160	30	18,0	14,5	4	22,25	600656	100,75

Condiciones de corte | Cutting data pag. 248

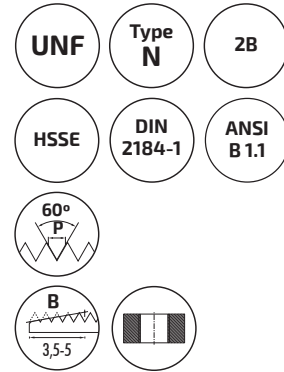
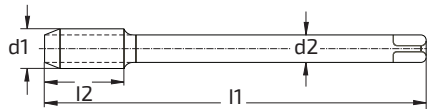


# Macho máquina recto rosca UNF tipo N

*Straight fluted **UNF** thread N type machine tap*

Macho de máquina HSS recto tipo N con rosca UNF para aceros hasta 800 N/mm<sup>2</sup>.

Straight fluted HSS machine tap with UNF thread for steels up to 800 N/mm<sup>2</sup>.



STEEL  
<800N/  
mm<sup>2</sup>

ALU  
0,5-15% SI

COPPER

PLASTIC

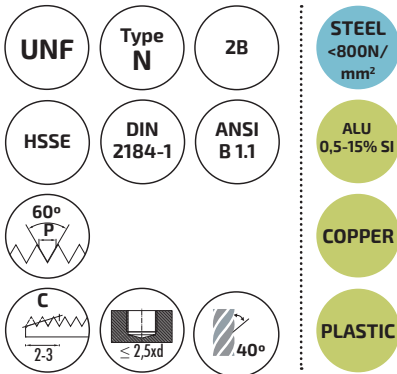
**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION

	P [Gg/1°]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	NB00-UNF/4 [VP]	
								Ref.	€
UNF #	10-32	70	13	3,5	2,7	3	4,10	600670	30,40
UNF #	12-28	80	15	4,0	3	3	4,65	600672	35,40
UNF	1/4-28	80	15	4,5	3,4	3	5,50	600673	33,60
UNF	16-24	90	18	6,0	4,9	3	6,90	600674	36,10
UNF	3/8-24	90	20	7,0	5,5	3	8,50	600675	38,60
UNF	7/16-20	100	20	8,0	6,2	3	9,90	600676	47,50
UNF	1/2-20	100	21	9,0	7,0	3	11,50	600677	49,65
UNF	5/8-18	100	21	12,0	9,0	3	14,50	600679	64,30
UNF	3/4-16	110	24	14,0	11,0	3	17,50	600680	81,45
UNF	7/8-14	125	24	18,0	14,5	3	20,50	600681	105,00
UNF	1-12	140	26	18,0	14,5	3	23,25	600682	151,45

Condiciones de corte | Cutting data pag. 248

# Macho máquina helicoidal rosca UNF tipo N

Helix fluted *UNF* thread N type machine tap



Macho de máquina HSS helicoidal tipo N con rosca UNF para aceros hasta 800 N/mm<sup>2</sup>.

Helix fluted HSS machine tap with UNF thread for steels up to 800 N/mm<sup>2</sup>.

**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION



P [Gg/1"]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	NC40-UNF/4 [VP]	
							Ref.	€
UNC # 10-32	70	13	3,5	2,7	3	4,10	600853	<b>31,45</b>
UNC # 12-28	80	15	4,0	3,0	3	4,65	600854	<b>37,15</b>
UNC # 1/4-28	80	15	4,5	3,4	3	5,50	600855	<b>35,00</b>
UNC 5/16-24	90	18	6,0	4,9	3	6,90	600856	<b>38,60</b>
UNC 3/8-24	90	20	7,0	5,5	3	8,50	600857	<b>41,45</b>
UNC 7/16-20	100	20	8,0	6,2	3	9,90	600858	<b>50,40</b>
UNC 1/2-20	100	21	9,0	7,0	3	11,50	600859	<b>51,80</b>
UNC 5/8-20	100	21	12,0	9,0	3	14,50	600861	<b>68,60</b>
UNC 3/4-16	110	24	14,0	11,0	3	17,50	600862	<b>85,75</b>
UNC 7/8-14	125	24	18,0	14,5	3	20,50	600863	<b>109,30</b>
UNC 1-12	140	26	18,0	14,5	3	23,25	600864	<b>160,00</b>

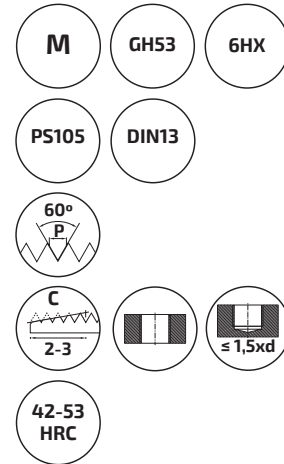
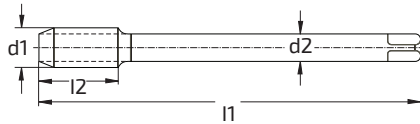
Condiciones de corte | Cutting data pag. 248

# Macho máquina recto PS 105 rosca métrica

*Straight fluted metric thread PS 105 machine tap*

Macho de máquina PS 105 con rosca métrica recubierto de TiCN. Permite roscar agujeros ciegos y pasantes en materiales templados de 42 a 53 HRC.

Straight fluted PS 105 machine tap with metric thread and TiCN coating. Suitable for blind and through holes for hardened materials from 42 to 53 HRC.



STEEL  
<55 HRC

HG

**WEXO**<sup>®</sup>  
KOMPETENZ IN PRÄZISION

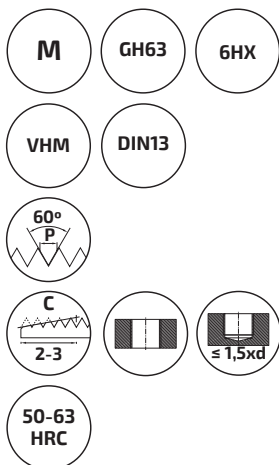
d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	GH-53-TiCN	
								Ref.	€
M 3	0,50	46	11	3,5	2,7	4	2,55	430970	<b>48,00</b>
M 4	0,70	52	13	4,5	3,4	4	3,40	430971	<b>48,95</b>
M 5	0,80	60	16	6,0	4,9	4	4,30	430972	<b>49,85</b>
M 6	1,00	62	19	6,0	4,9	4	5,10	430973	<b>50,30</b>
M 8	1,25	70	22	6,0	4,9	5	6,90	430974	<b>57,60</b>
M10	1,50	75	24	7,0	5,5	5	8,60	430975	<b>65,40</b>
M12	1,75	82	29	9,0	7,0	5	10,40	430976	<b>87,35</b>
M 16	2,00	95	32	12,0	9,0	5	14,10	430978	<b>138,10</b>
M 20	2,50	105	37	16,0	12,0	5	17,70	430980	<b>232,25</b>
M16	*1,50	82	29	9,0	7,0	5	10,60	430982	<b>128,00</b>
M20	*1,50	88	30	11,0	9,0	5	12,60	430984	<b>149,05</b>

P [Gg/1"]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	GH-53-TiCN	
							Ref.	€
G 1/8	28	63	7	5,5	5	8,80	430993	<b>124,35</b>
G 1/4	19	70	11	9	5	11,90	430990	<b>156,35</b>

Condiciones de corte | Cutting data pag. 250

# Macho de máquina recto VHM rosca métrica

*Straight fluted metric thread VHM machine tap*



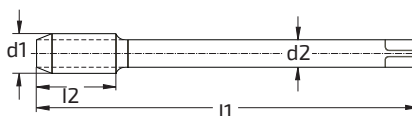
STEEL  
<65 HRC

HG

Macho de máquina VHM con rosca métrica recubierto de TiCN. Permite roscar agujeros ciegos y pasantes en materiales templados de 50 a 63 HRC

Straight fluted VHM machine tap with metric thread and TiCN coating. Suitable for blind and through holes for hardened materials from 50 to 63 HRC.

**WEXO**  
KOMPETENZ IN PRÄZISION



d1 [mm]	P [mm]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	GH-63-TiCN	
								Ref.	€
M 3	0,50	46	11	3,5	2,7	4	2,55	140120	<b>234,00</b>
M 3,5	0,60	46	13	4,0	3	4	3,00	140119	<b>241,20</b>
M 4	0,70	52	13	4,5	3,4	4	3,40	140121	<b>241,20</b>
M 5	0,80	60	16	6,0	4,9	4	4,30	140122	<b>253,80</b>
M 6	1,00	62	19	6,0	4,9	5	5,10	140123	<b>271,80</b>
M 8	1,25	70	22	6,0	4,9	5	6,90	140124	<b>347,40</b>
M 10	1,50	75	24	7,0	5,5	5	8,60	140125	<b>453,60</b>
M 12	1,75	82	29	9,0	7,0	5	10,40	140126	<b>597,60</b>
M 14	2,00	88	30	11,0	9,0	6	12,10	140127	<b>741,60</b>
M 16	2,00	95	32	12,0	9,0	6	14,10	140128	<b>900,00</b>
M 20	2,50	105	37	16,0	12,0	6	17,70	140130	<b>1.224,00</b>
M 8	*1,00	70	22	6,0	4,9	5	7,10	140200	<b>370,80</b>
M 10	*1,00	75	24	7,0	5,5	5	9,10	140201	<b>482,40</b>
M 12	*1,00	82	29	9,0	7,0	5	11,10	140202	<b>637,20</b>
M 12	*1,50	82	29	9,0	7,0	5	10,60	140205	<b>637,20</b>
M 14	*1,50	88	30	11,0	9,0	6	12,60	140208	<b>777,60</b>
M 16	*1,50	95	32	12,0	9,0	6	14,60	140210	<b>972,00</b>
M 20	*1,50	105	37	16,0	12,0	6	18,60	140215	<b>1.296,00</b>

P [Gg/1"]	l1 [mm]	l2 [mm]	d2 [mm]	□ [mm]	z	Ø [mm]	NB00-UNF/4 [VP]	
							Ref.	€
G 1/8	28	63	7	5,5	5	8,90	140300	<b>619,20</b>
G 1/4	19	70	11	9	5	11,90	140301	<b>817,20</b>

Condiciones de corte | Cutting data pag. 250



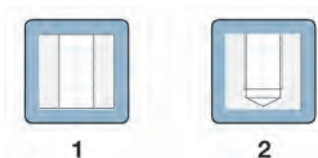




# CONDICIONES DE CORTE MACHOS

CUTTING DATA TAPS



# CONDICIONES DE CORTE

## CUTTING DATA

 <p>1                      2</p>				
<b>Referencia</b>   Reference	NB00	NC40	VAB00VP	VAC40VP
<b>Material del macho</b>   Tap Material	HSSE	HSSE	HSSE	HSSE
<b>Forma de punta</b>   Chamfer	B	C	B	C
<b>Tolerancia</b>   Tolerance	ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)
<b>Recubrimiento</b>   Coating	-	-	VP	VP
<b>Tipo de rosca</b>   Type of thread	1	2	1	2

### MATERIAL

<b>P</b>	<b>Acero no aleado</b>   Unalloyed steel < 800 N/mm <sup>2</sup>	8 - 12	6 - 10	10 - 15	8 - 12
	<b>Acero aleado</b>   Alloy steel < 800 N/mm <sup>2</sup>	8 - 10	6 - 8	10 - 12	8 - 10
	<b>Acero para herramientas</b>   Tool steel < 1300 N/mm <sup>2</sup>			8 - 10	6 - 8
	<b>Acero para trabajos en frío</b>   Tool steel for cold work < 1300 N/mm <sup>2</sup>			8 - 10	6 - 8
<b>M</b>	<b>Acero inoxidable</b>   Stainless steel			6 - 8	5 - 6
<b>K</b>	<b>Fundición gris</b>   Grey cast iron (GG)			12 - 15	10 - 12
	<b>Fundición nodular</b>   Nodular cast iron (GGG)			10 - 12	8 - 10
<b>N</b>	<b>Aleaciones de cobre (viruta larga)</b>   Cu alloys (long chipping)	12 - 15	10 - 12		
	<b>Aleaciones de cobre (viruta corta)</b>   Cu alloys (short chipping)	10 - 12	8 - 10	12 - 15	10 - 12
	<b>Aleaciones de cobre</b>   Cu alloys 200 HB	10 - 12	8 - 10		
	<b>Aleaciones de cobre</b>   Cu alloys 200 - 300 HB			8 - 10	8 - 10
	<b>Aleaciones de cobre</b>   Cu alloys >300 HB				
	<b>Aluminio y aleaciones de aluminio</b>   Al and Al alloys < 0,5 % Si	20 - 26	18 - 22		
	<b>Aleaciones de aluminio</b>   Al alloys 0,5-15 % Si	18 - 22	15 - 18		
	<b>Aleaciones de aluminio</b>   Al alloys > 15 % Si			15 - 18	12 - 15
	<b>Termoplásticos</b>   Thermoplastics	20 - 26	18 - 22		
	<b>Plástico reforzado</b>   Reinforced plastics			18 - 22	15 - 18
<b>S</b>	<b>Titanio</b>   Titanium			3 - 4	2 - 3
	<b>Aleaciones de titanio</b>   Ti alloys < 900 N/mm <sup>2</sup>			3 - 4	2 - 3
	<b>Aleaciones de titanio</b>   Ti alloys 900 - 1500 N/mm <sup>2</sup>				
	<b>Níquel</b>   Nickel	3 - 4	2 - 3	3 - 4	2 - 3
	<b>Aleaciones de níquel</b>   Ni alloys < 900 N/mm <sup>2</sup>			3 - 4	2 - 3
	<b>Aleaciones de níquel</b>   Ni alloys 900 - 1500 N/mm <sup>2</sup>				

# CONDICIONES DE CORTE

CUTTING DATA


								
VAB00TC	VAC40TC	GGC00TC	ALB00	ALC45	HB00TC-PM	HC15TC-PM	UC00TC	UC00SNTC
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE-PM	HSSE-PM	HSSE	HSSE
B	C	C	B	C	B	C	C	C
ISO 2 (6H)	ISO 2 (6H)	6HX	ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)	6HX	6HX
TiCN	TiCN	TiCN	-	-	TiCN	TiCN	TiCN	TiCN
1	2	1   2	1	2	1	2	1   2	1   2

18 - 22	15 - 18						18 - 35	12 - 28
15 - 18	12 - 15						12 - 25	10 - 20
12 - 15	10 - 12				15 - 18	12 - 15		
12 - 15	10 - 12				15 - 18	12 - 15		
10 - 12	8 - 10							
20 - 25	15 - 20	18 - 22			26 - 32	22 - 26		
15 - 20	12 - 15	15 - 18			22 - 26	18 - 22		
18 - 22	15 - 18		12 - 15	10 - 12				
18 - 22	15 - 18	15 - 18			22 - 26	18 - 22		
18 - 22	15 - 18							
15 - 18	12 - 15	10 - 12			15 - 18	12 - 15		
		8 - 10			12 - 15	10 - 12		
26 - 32	22 - 26		20 - 26	18 - 22			22 - 40	22 - 40
26 - 32	22 - 26						22 - 40	22 - 40
22 - 26	18 - 22	22 - 26			26 - 32	22 - 26		
26 - 32	22 - 26		20 - 26	18 - 22			22 - 40	22 - 40
26 - 32	22 - 26	26 - 32			30 - 40	26 - 32		
5 - 6	4 - 5							
5 - 6	4 - 5							
					4 - 5	3 - 4		

# CONDICIONES DE CORTE

## CUTTING DATA

**GH-53-TiCN** - pag. 244 | **GH-63-TiCN** - pag. 245

			GH53 / 954 200		GH63 / 914 200					
MATERIAL			8.2		8.2					
Vc			42-53 HRC		50-54 HRC		55-59 HRC		60-63 HRC	
Vc			2,5 m/min		2,5 m/min		2,0 m/min		1,8 m/smin	
d1 [mm]	P [mm]	Ø [mm]	n [min <sup>-1</sup> ]	V <sub>f</sub> [mm/min <sup>1</sup> ]	n [min <sup>-1</sup> ]	V <sub>f</sub> [mm/min <sup>1</sup> ]	n [min <sup>-1</sup> ]	V <sub>f</sub> [mm/min <sup>1</sup> ]	n [min <sup>-1</sup> ]	V <sub>f</sub> [mm/min <sup>1</sup> ]
M 3	0,5	2,55	250	125	250	125	212	106	190	95
M 3,5	0,6	3,00			225	135	180	108	160	96
M 4	0,7	3,40	200	140	200	140	160	112	140	98
M 5	0,8	4,30	160	128	160	128	125	100	115	92
M 6	1,0	5,10	132	132	132	132	106	106	95	95
M 8	1,25	6,90	100	125	100	125	80	100	72	90
M 10	1,5	8,60	80	120	80	120	64	96	56	84
M 12	1,75	10,40	64	112	64	112	56	98	48	84
M 14	2	12,10			56	112	46	92	40	80
M 16	2	14,10	50	100	50	100	40	80	36	72
M 20	2,50	17,70	40	100	40	100	32	80	28	70
M 8	*1	7,10			100	100	80	80	72	72
M 10	*1	9,10			80	80	64	64	56	56
M 12	*1	11,10			64	64	56	56	48	48
M 12	*1,5	10,60	64	96	64	96	64	96	48	72
M 14	*1,5	12,60	56	84	56	84	46	69	40	60
M 16	*1,5	14,60			50	75	40	60	36	54
M 20	*1,5	18,60			40	60	32	48	28	42
G 1/8	28	8,90	76	69	76	69	65	59	56	51
G 1/4	19	11,90	60	80	60	80	48	64	45	60

- Utilizar aceite insoluble JMG de KLK para esta aplicación.
- Eliminar todas las virutas del macho después de cada rosca metalizada.
- Si se usa roscado con embrague, se recomienda regular al máximo el esfuerzo del portamachos.
- No usar el macho para orscar a mano en ningún caso.
- La profundidad máxima de rosca es de 1,5xd.
- En caso de usar un centro de maquinado con la posibilidad de roscado sincronizado, el macho ha de usarse un amarre rígido. En ese caso, la velocidad de roscado se puede aumentar aproximadamente un 10%.

- Water-insoluble JMG oil from KLK is recommended for this application.
- After each tapped thread, all stuck chips has to be removed from the tap.
- By using a tap holder with overload clutch, the overload torque has to be adjusted on its maximum. The usage of a quick change tap holder without overload clutch is recommended for this application.
- In no case, the tap should be used by hand.
- The maximum thread dept is 1,5xd.
- In case of using a machining center with synchronized tapping possibility, the tap should be clamped in a rigid tap holder. In such case, tapping speed can be increased by approx. 10%.