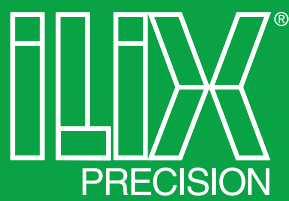


Alesatori

Reamers







Reamers

► **Legenda**

Key to symbols

MATERIALI / TOOL MATERIAL



HSS



HSS-CO



PKD



CERMET



K 10/20

Metallo duro / Micrograna
Solid carbide / Micro grain

RIVESTIMENTI / COATING



TN





TiN

► **Guida alla selezione utensile**
Tool selection guide






ALESATORI A MANO / HAND REAMERS

CODICE ITEM	DIN	FORMA FORM	Ø mm	TOLLERANZA TOLERANCE	CODOLO SHANK	LUBRIFICAZIONE INTERNA INTERNAL COOLANT
----------------	-----	---------------	---------	-------------------------	-----------------	--





ALESATORI ■ a taglienti diritti ed elicoidali 7°/8° - straight and 7-8° Helix

6301 	206	A	1,0 ÷ 50,0	H7		-
6302 	206	B	1,0 ÷ 50,0	H7		-





ALESATORI ■ registrabili espansione max 1% oltre il Ø nominale - Adjustable range

6306 	859	A	4,0 ÷ 30,0	-		-
6309 	859	B	8,0 ÷ 30,0	-		-

ALESATORI ■ per spine coniche - conicità 1:50 - Hand taper pin reamers, taper 1 : 50

6315 	9	A	0,8 ÷ 30,0	-		-
6304 	9	B	1,5 ÷ 50,0	-		-

ALESATORI ■ per cono morse secondo DIN 228 - taper socket reamer - finishing for

6317 	204	C	CM/MT 0 ÷ CM/MT 6	-		-
6312 	204	-	CM/MT 0 ÷ CM/MT 6	-		-



ALESATORI A MANO / HAND REAMERS

RIVESTIMENTO COATING	ROTAZIONE CUTTING DIRECT.	MATERIALE UTENSILE TOOL MATERIAL	P	M	K	N	S	H	Pagina Page
-------------------------	------------------------------	--	---	---	---	---	---	---	----------------

-		HSS	●	●	●	●	-	-	670
-		HSS	●	●	●	●	-	-	670

of expansion max. 1 % Over nominal size

-		HSS	●	●	●	●	-	-	673
-		HSS	●	●	●	●	-	-	673
-		HSS	●	●	●	●	-	-	695
-		HSS	●	●	●	●	-	-	695

taper sleeves acc. To Din 228



-		HSS	●	●	●	●	-	-	702
-		HSS	●	●	●	●	-	-	702





ALESATORI A MACCHINA / MACHINE CHUCKING REAMERS



CODICE ITEM	DIN	FORMA FORM	Ø mm	TOLLERANZA TOLERANCE	CODOLO SHANK	LUBRIFICAZIONE INTERNA INTERNAL COOLANT
----------------	-----	---------------	---------	-------------------------	-----------------	--


ALESATORI ■ tipo corto - elicoidale 7-8° - short for automatic machines - 7-8° Helix

6324 	8089	B/D	1,5 ÷ 20,0	H7		-
--	------	-----	------------------	----	---	---



ALESATORI ■ Taglienti diritti - straight flutes



6321 	212	A/C	1,5 ÷ 20,0	H7		-
--	-----	-----	------------------	----	---	---



6333 	208	A	5,0 ÷ 32,0	H7		-
--	-----	---	------------------	----	---	---


6361 	219	A	25,0 ÷ 100,0	H7	-	-
--	-----	---	--------------------	----	---	---

ALESATORI ■ elicoidali 7-8° (progressione centesimale) - Helix 7-8° (progression of

6326 	212	B/D	1,0 ÷ 20,0	H7		-
--	-----	-----	------------------	----	---	---

6326C 	212	B/D	0,95 ÷ 16,10	-		-
---	-----	-----	--------------------	---	---	---

6337 	208	B	5,0 ÷ 40,0	H7		-
--	-----	---	------------------	----	---	---

6360 	219	B	25,0 ÷ 100,0	H7	-	-
--	-----	---	--------------------	----	---	---



ALESATORI A MACCHINA / MACHINE CHUCKING REAMERS

RIVESTIMENTO COATING	ROTAZIONE CUTTING DIRECT.	MATERIALE UTENSILE TOOL MATERIAL	P	M	K	N	S	H	Pagina Page
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-		HSS-CO	●	●	●	●	●	-	674
---	--	--------	---	---	---	---	---	---	-----

-		HSS-CO	●	●	●	●	●	-	675
---	--	--------	---	---	---	---	---	---	-----

-		HSS-CO	●	●	●	●	●	-	688
---	--	--------	---	---	---	---	---	---	-----

-		HSS	●	●	●	●	●	-	693
---	--	-----	---	---	---	---	---	---	-----

0,01 mm)

TN		HSS-CO	●	●	●	●	●	-	675
----	--	--------	---	---	---	---	---	---	-----






-		HSS-CO	●	●	●	●	●	-	683
---	--	--------	---	---	---	---	---	---	-----

-		HSS-CO	●	●	●	●	●	-	688
---	--	--------	---	---	---	---	---	---	-----



-		HSS	●	●	●	●	●	-	693
---	--	-----	---	---	---	---	---	---	-----







ALESATORI A MACCHINA / MACHINE CHUCKING REAMERS

CODICE ITEM	DIN	FORMA FORM	Ø mm	TOLLERANZA TOLERANCE	CODOLO SHANK	LUBRIFICAZIONE INTERNA INTERNAL COOLANT
6325 	212	E	1,0 ÷ 20,0	H7		-
6335 	208	C	5,0 ÷ 32,0	H7		-
6362 	219	C	25,0 ÷ 100,0	H7	-	-

ALESATORI ■ con attacco conico ad espansione per compensare l'usura sul diametro
(narrower tolerances)

6307 	ILIX NORM	-	8,0 ÷ 20,0	-		-
--	-----------	---	------------------	---	--	---



ALESATORI ■ per spine coniche - conicità 1:50 - Taper pin reamers - taper 1:50

6313 	2179		1,0 ÷ 12,0	-		-
6314 	2180		5,0 ÷ 20,0	-		-

HSS

ALESATORI A MACCHINA CONICI / MACHINE TAPER REAMERS

ALESATORI

6308 	ILIX NORM	-	3,0 ÷ 45,0	-		-
--	-----------	---	------------------	---	---	---



ALESATORI A MACCHINA / MACHINE CHUCKING REAMERS

RIVESTIMENTO COATING	ROTAZIONE CUTTING DIRECT.	MATERIALE UTENSILE TOOL MATERIAL	P	M	K	N	S	H	Pagina Page
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-		HSS-CO	●	●	●	●	●	-	675
-		HSS-CO	●	●	●	●	●	-	688
-		HSS	●	●	●	●	●	-	693

- Taper shank expansion reamers for maintenance and rework applications to obtain

-		HSS-CO	●	●	●	●	-	-	692
-		HSS	●	●	●	●	-	-	697
-		HSS	●	●	●	●	-	-	698

HSS

ALESATORI A MACCHINA CONICI / MACHINE TAPER REAMERS





-		HSS	●	●	●	●	-	-	701
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ALESATORI A MACCHINA CONICI / MACHINE TAPER REAMERS

CODICE ITEM	DIN	FORMA FORM	Ø mm	TOLLERANZA TOLERANCE	CODOLO SHANK	LUBRIFICAZIONE INTERNA INTERNAL COOLANT
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
ALESATORI ■ conici per preforo NPT/NPTF - Taper pin reamer for NPT/NPTF thread

6310 	ILIX NORM	-	1/16" ÷ 2"	-		-
6311 	ILIX NORM	-	1/16" ÷ 2"	-		-





ALESATORI ■ per spine coniche (NF: Norme Francesi) - conicità 1:50 - Taper pin

6319 	E 60-011	NF	1,00 ÷ 4,5	-		-
--	----------	----	------------------	---	---	---



ALESATORI ■ con attacco conico per fori da chiodi / Bridge reamers with morse taper

6355 	331	-	6,4 ÷ 32,0	-		-
--	-----	---	------------------	---	---	---

ALESATORI ■ per fori di coppie (Micro alesatori a 3 taglienti N. cod. 6318 - conicità

6318 	ILIX NORM	-	1,2 ÷ 1,9	-		-
6303 	ILIX NORM	-	1,5 ÷ 20,0	-		-

MDI / SOLID CARBIDE
ALESATORI A MACCHINA / MACHINE TAPER**ALESATORI** ■ con taglienti in metallo duro* K 10/20 - attacco conico - solid carbide

6369 	ILIX NORM	-	5,0 ÷ 20,0	H7		-
--	-----------	---	------------------	----	---	---

* Fino al Ø 20 mm in metallo duro integrale, oltre con taglienti riportati / up to Ø 20 mm made of solid carbide, above carbide tipped



ALESATORI A MACCHINA CONICI / MACHINE TAPER REAMERS

RIVESTIMENTO COATING	ROTAZIONE CUTTING DIRECT.	MATERIALE UTENSILE TOOL MATERIAL	P	M	K	N	S	H	Pagina Page
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-		HSS	●	●	●	●	-	-	699
-		HSS	●	●	●	●	-	-	700

reamers (nf: french standard) – taper 1 : 50

-		HSS	●	●	●	●	-	-	696
---	--	-----	---	---	---	---	---	---	-----

Bridge reamers with morse taper

-		HSS	●	●	●	●	-	-	703
---	--	-----	---	---	---	---	---	---	-----

1:100 - Taper pin reamers, taper 1 : 100 (3 fluted micro reamers, cat.-No.6318)

-		HSS	●	●	●	●	-	-	694
-		HSS	●	●	●	●	-	-	694

MDI / SOLID CARBIDE
ALESATORI A MACCHINA / MACHINE TAPER

machine reamers* - carbide grade k 10/20




-		MDI	●	●	●	●	●	-	690
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ALESATORI A MACCHINA / MACHINE TAPER

CODICE ITEM	DIN	FORMA FORM	Ø mm	TOLLERANZA TOLERANCE	CODOLO SHANK	LUBRIFICAZIONE INTERNA INTERNAL COOLANT
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ALESATORI ■ in metallo duro** - solid carbide machine reamers**

6372 	ILIX NORM	-	1,0 ÷ 20,0	H7		-
6372C 	ILIX NORM	-	0,98 ÷ 12,05	-		-
6370 	ILIX NORM	-	4,0 ÷ 20,0	H7		
6371 	ILIX NORM	-	4,0 ÷ 20,0	H7		
6376 	ILIX NORM	-	5,0 ÷ 20,0	H7		-

ALESATORI ■ in Cermet - Cermet

6323 	ILIX NORM	-	3,5 ÷ 20,00	H7		-
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ALESATORI ■ in PKD - PKD

6373 	ILIX NORM	-	6,0 ÷ 20,00	H7		
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** Fino al Ø 12,20 mm in metallo duro integrale, oltre con taglienti riportati / up to Ø 12,20 mm made of solid carbide, above carbide tipped



ALESATORI A MACCHINA / MACHINE TAPER

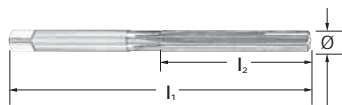
RIVESTIMENTO COATING	ROTAZIONE CUTTING DIRECT.	MATERIALE UTENSILE TOOL MATERIAL	P	M	K	N	S	H	Pagina Page
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TN		MDI	●	●	●	●	-	-	679
-		MDI	●	●	●	●	-	-	684
-		MDI	●	●	●	●	-	-	681
-		MDI	●	●	●	●	-	-	682
-		MDI	●	●	●	●	-	-	691
-		CERMET	●	●	●	●	-	-	686
-		PKD	-	-	-	●	-	-	687



Alesatori a mano in HSS per ottenere fori in tolleranza H7

Hand reamers made of HSS
to produce holes with H7 tolerances



Forma / Form			A	B
Tipo / Type			Taglienti diritti straight	Taglienti 7/8° LH
Esecuzione elica Cutting direction				
Materiale / Material			HSS	HSS
Ø mm	l ₁ mm	l ₂ mm	6301	6302
1,0**	37	12	●	●
1,1**	40	15	●	●
1,2**	40	15	●	●
1,3**	40	15	●	●
1,4	41	20	●	●
1,5	41	20	●	●
1,6	44	21	●	●
1,7	44	21	●	●
1,8	47	23	●	●
1,9	47	23	●	●
2,0	50	25	●	●
2,1	50	25	●	●
2,2	54	27	●	●
2,3	54	27	●	●
2,4	58	29	●	●
2,5	58	29	●	●
2,6	58	29	●	●
2,7	62	31	●	●
2,8	62	31	●	●
2,9	62	31	●	●
3,0	62	31	●	●
3,1	66	33	●	●
3,2	66	33	●	●
3,3	66	33	●	●
3,4	71	35	●	●
3,5	71	35	●	●
3,6	71	35	●	●
3,7	71	35	●	●
3,8	76	38	●	●
3,9	76	38	●	●
4,0	76	38	●	●
4,1	76	38	●	●
4,2	76	38	●	●
4,3	81	41	●	●
4,4	81	41	●	●
4,5	81	41	●	●
4,6	81	41	●	●
4,7	81	41	●	●

Forma / Form			A	B
Tipo / Type			Taglienti diritti straight	Taglienti 7/8° LH
Esecuzione elica Cutting direction				
Materiale / Material			HSS	HSS
Ø mm	l ₁ mm	l ₂ mm	6301	6302
4,8	87	44	●	●
4,9	87	44	●	●
5,0	87	44	●	●
5,1	87	44	●	●
5,2	87	44	●	●
5,3	87	44	●	●
5,4	93	47	●	●
5,5	93	47	●	●
5,6	93	47	●	●
5,7	93	47	●	●
5,8	93	47	●	●
5,9	93	47	●	●
6,0	93	47	●	●
6,1	100	50	●	●
6,2	100	50	●	●
6,3	100	50	●	●
6,4	100	50	●	●
6,5	100	50	●	●
6,6	100	50	●	●
6,7	100	50	●	●
6,8	107	54	●	●
6,9	107	54	●	●
7,0	107	54	●	●
7,1	107	54	●	●
7,2	107	54	●	●
7,3	107	54	●	●
7,4	107	54	●	●
7,5	107	54	●	●
7,6	115	58	●	●
7,7	115	58	●	●
7,8	115	58	●	●
7,9	115	58	●	●
8,0	115	58	●	●
8,1	115	58	●	●
8,2	115	58	●	●
8,3	115	58	●	●
8,4	115	58	●	●
8,5	115	58	●	●

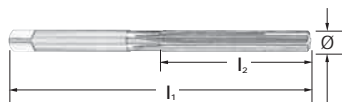
**ILIX Norm

● Utensile disponibile a magazzino / Items available ex stock



Alesatori a mano in HSS per ottenere fori in tolleranza H7

Hand reamers made of HSS
to produce holes with H7 tolerances



Forma / Form			A	B
Tipo / Type			Taglienti diritti straight	Taglienti 7/8° LH
Esecuzione elica Cutting direction				
Materiale / Material			HSS	HSS
Ø mm	l ₁ mm	l ₂ mm	6301	6302
8,6	124	62	●	●
8,7	124	62	●	●
8,8	124	62	●	●
8,9	124	62	●	●
9,0	124	62	●	●
9,1	124	62	●	●
9,2	124	62	●	●
9,3	124	62	●	●
9,4	124	62	●	●
9,5	124	62	●	●
9,6	133	66	●	●
9,7	133	66	●	●
9,8	133	66	●	●
9,9	133	66	●	●
10,0	133	66	●	●
10,1	133	66	●	-
10,2	133	66	●	-
10,3	133	66	●	-
10,4	133	66	●	-
10,5	133	66	●	●
10,6	133	66	●	-
10,7	142	71	●	-
10,8	142	71	●	-
10,9	142	71	●	-
11,0	142	71	●	●
11,1	142	71	●	-
11,2	142	71	●	-
11,3	142	71	●	-
11,4	142	71	●	-
11,5	142	71	●	●
11,6	142	71	●	-
11,7	142	71	●	-
11,8	142	71	●	-
11,9	152	76	●	-
12,0	152	76	●	●
12,5	152	76	●	-
13,0	152	76	●	-
13,5	163	81	●	-

Forma / Form			A	B
Tipo / Type			Taglienti diritti straight	Taglienti 7/8° LH
Esecuzione elica Cutting direction				
Materiale / Material			HSS	HSS
Ø mm	l ₁ mm	l ₂ mm	6301	6302
14,0	163	81	●	●
14,5	163	81	●	●
15,0	163	81	●	●
15,5	175	87	●	●
16,0	175	87	●	●
16,5	175	87	●	●
17,0	175	87	●	●
17,5	188	93	●	●
18,0	188	93	●	●
18,5	188	93	●	●
19,0	188	93	●	●
19,5	201	100	●	●
20,0	201	100	●	●
20,5	201	100	●	●
21,0	201	100	●	●
21,5	201	100	●	●
22,0	215	107	●	●
22,5	215	107	●	●
23,0	215	107	●	●
23,5	215	107	●	●
24,0	231	115	●	●
24,5	231	115	-	●
25,0	231	115	●	●
25,5	231	115	●	●
26,0	231	115	●	●
26,5	231	115	●	●
27,0	247	124	●	●
27,5	247	124	-	●
28,0	247	124	●	●
28,5	247	124	●	●
29,0	247	124	●	●
29,5	247	124	●	●
30,0	247	124	●	■
31,0	265	133	●	●
32,0	265	133	●	●
33,0	265	133	●	●
34,0	284	142	●	●
35,0	284	142	●	●

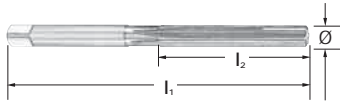
● Utensile disponibile a magazzino / Items available ex stock ■ Fino ad esaurimento scorte / discontinued items



Alesatori a mano in HSS per ottenere fori in tolleranza H7

Hand reamers made of HSS

to produce holes with H7 tolerances



Forma / Form			A	B
Forma / Form				
Tipo / Type			Taglienti diritti straight	Taglienti 7/8° LH
Esecuzione elica Cutting direction				
Materiale / Material			HSS	HSS
∅ mm	L ₁ mm	L ₂ mm	6301	6302
36,0	284	142	●	●
37,0	284	142	●	●
38,0	305	152	●	●
39,0	305	152	●	●
40,0	305	152	●	●
41,0	305	152	●	●
42,0	305	152	●	●
43,0	326	163	●	●
44,0	326	163	●	●
45,0	326	163	●	●
46,0	326	163	●	●
47,0	326	163	●	●
48,0	347	174	●	●
49,0	347	174	●	●
50,0	347	174	●	●

Forma / Form			A	B
Forma / Form				
Tipo / Type			Taglienti diritti straight	Taglienti 7/8° LH
Esecuzione elica Cutting direction				
Materiale / Material			HSS	HSS
∅ mm	L ₁ mm	L ₂ mm	6301	6302

Diametro Diameter range	6301 N. taglienti No. of cutting lips	6302 N. taglienti No. of cutting lips
2,40 mm	3	3
2,50 mm - 3,90 mm	5	5
4,00 mm - 12,90 mm	6	6
13,00 mm - 23,50 mm	8	8
24,00 mm - 33,00 mm	10	10
34,00 mm - 45,00 mm	12	12
>46,00 mm	14	14

**ILIX Norm

● Utensile disponibile a magazzino / Items available ex stock

DIN 212 A/C-B/D-E



Alesatori a macchina con attacco cilindrico, in HSS-Co per ottenere fori in tolleranza H7

Machine chucking reamers with straight shank, made of HSS-Co to produce holes with H7 tolerance



Forma / Form				A/C	E	B/D	B/D
Tipo / Type				Taglienti diritti straight	Taglienti 45° LH	Taglienti 7/8° LH	Taglienti 7/8° LH
Esecuzione elica Cutting direction							
Materiale / Material				HSS-Co	HSS-Co	HSS-Co	HSS-Co
Ø mm	l ₁ mm	l ₂ mm	d ₂ h9	6321	6325	6326	6326 TN
1,0•	37	5	1,0	●	●	●	●
1,1•	40	7	1,1	●	●	●	●
1,2•	40	7	1,2	●	●	●	●
1,3•	40	7	1,3	●	●	●	●
1,4	40	8	1,4	●	●	●	●
1,5	40	8	1,5	●	●	●	●
1/16"	43	9	1,588	-	-	●	●
1,6	43	9	1,6	●	●	●	●
1,7	43	9	1,7	●	●	●	●
1,8	46	10	1,8	●	●	●	●
1,9	46	10	1,9	●	●	●	●
2,0	49	11	2,0	●	●	●	●
2,1	49	11	2,1	●	●	●	●
2,2	53	12	2,2	●	●	●	●
2,3	53	12	2,3	●	●	●	●
3/32"	57	14	2,382	-	-	●	●
2,4	57	14	2,4	●	●	●	●
2,5	57	14	2,5	●	●	●	●
2,6	57	14	2,6	●	●	●	●
2,7	61	15	2,7	●	●	●	●
7/64"	61	15	2,779	-	-	●	●
2,8	61	15	2,8	●	●	●	●
2,9	61	15	2,9	●	●	●	●
3,0	61	15	3,0	●	●	●	●
3,1	65	16	3,1	●	●	●	●
1/8"	65	16	3,175	-	-	●	●
3,2	65	16	3,2	●	●	●	●
3,3	65	18	3,3	●	●	●	●
3,4	70	18	3,4	●	●	●	●
3,5	70	18	3,5	●	●	●	●
3,6	70	18	3,6	●	●	●	●
3,7	70	18	3,7	●	●	●	●
3,8	75	19	4,0	●	●	●	●
3,9	75	19	4,0	●	●	●	●
4,0	75	19	4,0	●	●	●	●
4,1	75	19	4,0	●	●	●	●
4,2	75	19	4,0	●	●	●	●
4,3	80	21	4,5	●	●	●	●

*ILIX Standard

● Utensile disponibile a magazzino / Items available ex stock

DIN 212 A/C-B/D-E



Alesatori a macchina con attacco cilindrico, in HSS-Co per ottenere fori in tolleranza H7

Machine chucking reamers with straight shank, made of HSS-Co to produce holes with H7 tolerance



Forma / Form				A/C	E	B/D	B/D
Tipo / Type				Taglienti diritti straight	Taglienti 45° LH	Taglienti 7/8° LH	Taglienti 7/8° LH
Esecuzione elica Cutting direction							
Materiale / Material				HSS-Co	HSS-Co	HSS-Co	HSS-Co
Ø mm	l ₁ mm	l ₂ mm	d ₂ h9	6321	6325	6326	6326 TN
4,4	80	21	4,5	●	●	●	●
4,5	80	21	4,5	●	●	●	●
4,6	80	21	4,5	●	●	●	●
4,7	80	21	4,5	●	●	●	●
3/16"	86	23	5,0	-	-	●	●
4,8	86	23	5,0	●	●	●	●
4,9	86	23	5,0	●	●	●	●
5,0	86	23	5,0	●	●	●	●
5,1	86	23	5,0	●	●	●	●
5,2	86	23	5,0	●	●	●	●
5,3	86	23	5,0	●	●	●	●
5,4	93	26	5,6	●	●	●	●
5,5	93	26	5,6	●	●	●	●
5,6	93	26	5,6	●	●	●	●
5,7	93	26	5,6	●	●	●	●
5,8	93	26	5,6	●	●	●	●
5,9	93	26	5,6	●	●	●	●
6,0	93	26	5,6	●	●	●	●
6,1	101	28	6,3	●	●	●	●
6,2	101	28	6,3	●	●	●	●
6,3	101	28	6,3	●	●	●	●
1/4"	101	28	6,3	-	-	●	●
6,4	101	28	6,3	●	●	●	●
6,5	101	28	6,300	●	●	●	●
6,6	101	28	6,300	●	●	●	●
6,7	101	28	6,300	●	●	●	●
6,8	109	31	7,1	●	●	●	●
6,9	109	31	7,1	●	●	●	●
7,0	109	31	7,1	●	●	●	●
7,1	109	31	7,1	●	●	●	●
7,2	109	31	7,1	●	●	●	●
7,3	109	31	7,1	●	●	●	●
7,4	109	31	7,1	●	●	●	●
7,5	109	31	7,1	●	●	●	●
7,6	117	33	8,0	●	●	●	●
7,7	117	33	8,0	●	●	●	●
7,8	117	33	8,0	●	●	●	●
7,9	117	33	8,0	●	●	●	●

● Utensile disponibile a magazzino / Items available ex stock

DIN 212 A/C-B/D-E



Alesatori a macchina con attacco cilindrico, in HSS-Co

per ottenere fori in tolleranza H7

Machine chucking reamers with straight shank, made of HSS-Co

to produce holes with H7 tolerance



Forma / Form				A/C	E	B/D	B/D
Tipo / Type				Taglienti diritti straight	Taglienti 45° LH	Taglienti 7/8° LH	Taglienti 7/8° LH
Esecuzione elica Cutting direction							
Materiale / Material				HSS-Co	HSS-Co	HSS-Co	HSS-Co
Ø mm	l ₁ mm	l ₂ mm	d ₂ h9	6321	6325	6326	6326 TN
5/16"	117	33	8,0	-	-	●	●
8,0	117	33	8,0	●	●	●	●
8,1	117	33	8,0	●	●	●	●
8,2	117	33	8,0	●	●	●	●
8,3	117	33	8,0	●	●	●	●
8,4	117	33	8,0	●	●	●	●
8,5	117	33	8,0	●	●	●	●
8,6	125	36	9,0	●	●	●	●
8,7	125	36	9,0	●	●	●	●
8,8	125	36	9,0	●	●	●	●
8,9	125	36	9,0	●	●	●	●
9,0	125	36	9,0	●	●	●	●
9,1	125	36	9,0	●	●	●	●
9,2	125	36	9,0	●	●	●	●
9,3	125	36	9,0	●	●	●	●
9,4	125	36	9,0	●	●	●	●
9,5	125	36	9,0	●	●	●	●
3/8"	133	38	10,0	-	-	●	●
9,6	133	38	10,0	●	●	●	●
9,7	133	38	10,0	●	●	●	●
9,8	133	38	10,0	●	●	●	●
9,9	133	38	10,0	●	●	●	●
10,0	133	38	10,0	●	●	●	●
10,1	133	38	10,0	●	●	●	●
10,2	133	38	10,0	●	●	●	●
10,3	133	38	10,0	●	●	●	●
10,4	133	38	10,0	●	●	●	●
10,5	133	38	10,0	●	●	●	●
10,6	133	38	10,0	●	●	●	●
10,7	142	41	10,0	●	●	●	●
10,8	142	41	10,0	●	●	●	●
10,9	142	41	10,0	●	●	●	●
11,0	142	41	10,0	●	●	●	●
11,5	142	41	10,0	●	●	●	●
12,0	151	44	10,0	●	●	●	●
12,5	151	44	10,0	●	●	●	●
1/2"	151	44	10,0	-	-	●	●
13,0	151	44	10,0	●	●	●	●

● Utensile disponibile a magazzino / Items available ex stock



Alesatori a macchina con attacco cilindrico, in HSS-Co per ottenere fori in tolleranza H7

Machine chucking reamers with straight shank, made of HSS-Co to produce holes with H7 tolerance



Forma / Form				A/C	E	B/D	B/D
Tipo / Type				Taglienti diritti straight	Taglienti 45° LH	Taglienti 7/8° LH	Taglienti 7/8° LH
Esecuzione elica Cutting direction							
Materiale / Material				HSS-Co	HSS-Co	HSS-Co	HSS-Co
Ø mm	l ₁ mm	l ₂ mm	d ₂ h9	6321	6325	6326	6326 TN
13,5	160	47	12,5	●	●	●	●
14,0	160	47	12,5	●	●	●	●
14,5	162	50	12,5	●	●	●	●
15,0	162	50	12,5	●	●	●	●
15,5	170	52	12,5	●	●	●	●
5/8"	170	52	12,5	-	-	●	●
16,0	170	52	12,5	●	●	●	●
16,5	175	54	14,0	●	●	●	●
17,0	175	54	14,0	●	●	●	●
17,5	182	56	14,0	●	●	●	●
18,0	182	56	14,0	●	●	●	●
18,5	189	58	16,0	●	●	●	●
19,0	189	58	16,0	●	●	●	●
3/4"	195	60	16,0	-	-	●	●
19,5	195	60	16,0	●	●	●	●
20,0	195	60	16,0	●	●	●	●

Diametro Diameter range	6321 N. taglienti No. of cutting lips	6325 N. taglienti No. of cutting lips	6326 N. taglienti No. of cutting lips	6326TN N. taglienti No. of cutting lips
0,6 mm - 2,4 mm	3	2	3	3
2,5 mm - 3,9 mm	5	3	5	5
4,0 mm - 13,5 mm	6	3	6	6
13,5 mm - 14,5 mm	8	3	8	8
15,0 mm - 20,0 mm	8	4	8	8

**ILIX Standard

● Utensile disponibile a magazzino / Items available ex stock

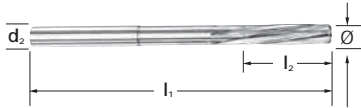


Simile a / similar DIN 8093

Alesatori a macchina con attacco cilindrico taglio destro con taglienti elicoidali sinistri in metallo duro per ottenere fori in tolleranza H7

Machine chucking reamers with straight shank, made of solid carbide to produce holes with H7 tolerance

TIN



Forma / Form						B	B
Tipo / Type						Taglienti 12° LH	Taglienti 12° LH
Esecuzione elica Cutting direction							
Materiale / Material						K10/20	K10/20
Ø mm	l ₁ mm	l ₂ mm	d ₂ h9	N taglienti cutting lips	6372*	6372* TN	
1,0	34	6	1	3	●	●	
1,1	34	6	1	3	●	●	
1,2	34	6	1	3	●	●	
1,3	40	8	2	3	●	●	
1,4	40	8	2	3	●	●	
1,5	40	8	2	3	●	●	
1,6	43	9	2	3	●	●	
1,7	43	9	2	4	●	●	
1,8	46	10	2	4	●	●	
1,9	46	10	2	4	●	●	
2,0	49	11	2	4	●	●	
2,1	49	11	2	4	●	●	
2,2	53	12	3	4	●	●	
2,3	53	12	3	4	●	●	
2,4	57	14	3	4	●	●	
2,5	57	14	3	4	●	●	
2,6	57	14	3	4	●	●	
2,7	61	15	3	4	●	●	
2,8	61	15	3	6	●	●	
2,9	61	15	3	6	●	●	
3,0	61	15	3	6	●	●	
3,1	65	16	4	6	●	●	
3,2	65	16	4	6	●	●	
3,3	65	16	4	6	●	●	
3,4	70	18	4	6	●	●	
3,5	70	18	4	6	●	●	
3,6	70	18	4	6	●	●	
3,7	70	18	4	6	●	●	
3,8	75	19	4	6	●	●	
3,9	75	19	4	6	●	●	
4,0	75	19	4	6	●	●	
4,1	75	19	4	6	●	●	
4,2	80	21	4	6	●	●	
4,3	80	21	5	6	●	●	
4,4	80	21	5	6	●	●	
4,5	80	21	5	6	●	●	
4,6	80	21	5	6	●	●	
4,7	80	21	5	6	●	●	

Forma / Form						B	B
Tipo / Type						Taglienti 12° LH	Taglienti 12° LH
Esecuzione elica Cutting direction							
Materiale / Material						K10/20	K10/20
Ø mm	l ₁ mm	l ₂ mm	d ₂ h9	N taglienti cutting lips	6372*	6372* TN	
4,8	86	23	5	6	●	●	
4,9	86	23	5	6	●	●	
5,0	86	23	5	6	●	●	
5,1	86	23	5	6	●	●	
5,2	86	23	5	6	●	●	
5,3	93	26	6	6	●	●	
5,4	93	26	6	6	●	●	
5,5	93	26	6	6	●	●	
5,6	93	26	6	6	●	●	
5,7	93	26	6	6	●	●	
5,8	93	26	6	6	●	●	
5,9	93	26	6	6	●	●	
6,0	93	26	6	6	●	●	
6,1	101	28	6	6	●	●	
6,2	101	28	6	6	●	●	
6,3	101	28	6	6	●	●	
6,4	101	28	6	6	●	●	
6,5	101	28	6	6	●	●	
6,6	101	28	6	6	●	●	
6,7	109	31	6	6	●	●	
6,8	109	31	8	6	●	●	
6,9	109	31	8	6	●	●	
7,0	109	31	8	6	●	●	
7,1	109	31	8	6	●	●	
7,2	117	33	8	6	●	●	
7,3	117	33	8	6	●	●	
7,4	117	33	8	6	●	●	
7,5	117	33	8	6	●	●	
7,6	117	33	8	6	●	●	
7,7	117	33	8	6	●	●	
7,8	117	33	8	6	●	●	
7,9	117	33	8	6	●	●	
8,0	117	33	8	6	●	●	
8,1	117	33	8	6	●	●	
8,2	117	33	8	6	●	●	
8,3	117	33	8	6	●	●	
8,4	117	33	8	6	●	●	
8,5	117	33	8	6	●	●	

Fino a Ø 12,20 mm in metallo duro integrale, oltre con taglienti riportati / up to Ø 12,20 mm made of solid carbide, above carbide tipped

* da Ø 8,1 testa i metallo duro / from 8,1 mm Ø onwards with solid carbide head

● Utensile disponibile a magazzino / Items available ex stock

ALESATORI A MACCHINA CENTESIMALI

CENTESIMAL MACHINE REAMERS



Scelta dei diametri degli alesatori centesimali in funzione del rapporto tra il diametro nominale ed il campo di tolleranza richiesto / Tool diameter based on nominal diameter and tolerance

ESEMPIO
EXAMPLE

Richiesta / Required fit: $d = 4,25 \text{ mm F8}$

Soluzione / Solution:

- scegliere il campo del diametro richiesto, ossia: 3 - 6
choose from column nominal- \emptyset the diameter range = 3 - 6
- cercare tolleranza: F8 / search fit F8 scegliere il campo della tolleranza di accoppiamento / surcharge = + 0,02
4,25 mm + 0,02 mm = $d = 4,27 \text{ mm}$

Diametro nominale d (mm) oltre/above - fino a/up to	Valori aggiuntivi in funzione degli accoppiamenti (mm) / Table values for required fit in mm														
	A9	A11	B8	B9	B10	B11	C8	C9	C10	C11	D7	D8	D9	D10	D11
1 - 3	+0,28	+0,31	-	+0,15	+0,17	+0,18	-	+0,07	+0,09	+0,10	-	-	+0,03	+0,05	+0,06
3 - 6	+0,29	+0,32	+0,15	+0,16	+0,17	+0,19	+0,08	+0,09	+0,10	+0,12	-	+0,04	+0,05	+0,06	+0,08
6 - 10	+0,30	+0,35	+0,16	+0,17	+0,19	+0,22	+0,09	+0,10	+0,12	+0,15	-	+0,05	+0,06	+0,08	+0,11
10 - 18	+0,32	+0,37	+0,16	+0,18	+0,20	+0,23	+0,11	+0,12	+0,14	+0,18	+0,06	+0,06	+0,08	+0,10	+0,13
	E7	E8	E9	F7	F8	F9	F10	G6	G7	H6	H7	H8	H9	H10	H11
1 - 3	-	+0,02	+0,03	+0,01	+0,01	+0,02	-	-	-	-	-	-	+0,01	+0,03	+0,04
3 - 6	-	+0,03	+0,04	-	+0,02	+0,03	+0,04	-	+0,01	-	-	+0,01	+0,02	+0,03	+0,05
6 - 10	+0,03	+0,03	+0,05	+0,02	+0,02	+0,03	+0,05	-	+0,01	-	-	+0,01	+0,02	+0,04	+0,07
10 - 18	+0,04	+0,04	+0,06	+0,02	+0,03	+0,04	+0,07	+0,01	-	-	+0,01	+0,01	+0,03	+0,05	+0,08
	H12	H13	J6	J7	J8	JS6	JS7	JS8	JS9	K7	K8	M6	M7	M8	N6
1 - 3	+0,08	+0,11	-	-	-	-	-	+0,00	+0,00	-	-0,01	-	-	-	-
3 - 6	+0,09	+0,14	-	+0,00	+0,00	-	+0,00	+0,00	+0,00	-	-	-	-	-0,01	-
6 - 10	+0,12	+0,18	-	+0,00	+0,00	-	+0,00	+0,00	+0,00	-	-0,01	-0,01	-0,01	-0,01	-
10 - 18	+0,14	+0,22	-	+0,00	+0,00	-	+0,00	+0,00	+0,00	-	-0,01	-0,01	-0,01	-0,01	-
	N7	N8	N9	N10	N11	P6	P7	R6	R7	S6	S7	U6	U7	U10	Z10
1 - 3	-0,01	-0,01	-0,02	-0,02	-0,02	-	-	-	-	-	-0,02	-	-	-	-0,04
3 - 6	-0,01	-0,01	-0,01	-0,02	-0,02	-	-	-	-0,02	-	-	-	-0,03	-0,04	-0,05
6 - 10	-	-0,02	-0,01	-0,02	-0,02	-	-0,02	-	-0,02	-	-0,03	-	-0,03	-0,05	-0,06
10 - 18	-0,01	-0,02	-0,02	-0,02	-0,03	-	-0,02	-	-0,03	-	-0,03	-	-	-0,05	-0,07

Note d'impiego

- La tabella è stata composta in maniera che qualunque diametro di un'alesatore possa essere definito con un incremento di 1 centesimo di millimetro. Nei valori aggiuntivi si è tenuto conto delle tolleranze di produzione: diametri fino a $d = 5,5 \text{ mm} + 0,004 \text{ mm} / + 0,0$ oltre $d = 5,5 \text{ mm} + 0,054 \text{ mm} / + 0,0$

Notes for use of above table

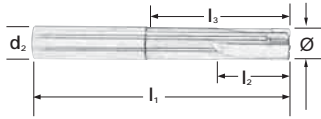
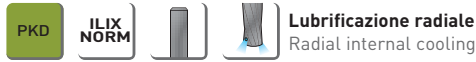
- This table allows the selection of chucking reamers with diameters within steps of 0,01mm. The given values take the basic manufacturing tolerances as standard into consideration.
 - $\emptyset 5,5 \text{ mm} + 0,004 / + 0,0$
 - $> \emptyset 5,5 \text{ mm} + 0,005 / + 0,0$



PKD

Alesatori a macchina con attacco cilindrico con fori di lubrificazione interna in metallo duro integrale con riporto in policristallino

Machine reamers with straight shank in solid carbide with polycrystalline diamond and internal cooling



Forma / Form

Tipo / Type

Esecuzione elica / Cutting direction

Materiale / Material

ILIX NORM

Taglienti Dritto
straight flutes



PKD

Ø mm h7	l ₁ mm	l ₂ mm	l ₃ mm	d ₂ h6	N taglienti cutting lips	6373
6	89	12	52	6	4	●
8	103	19	60	8	4	●
10	103	19	60	10	4	●
12	105	19	60	12	4	●
14	105	19	60	14	4	●
16	130	22	82	16	4	●
18	130	22	82	18	4	●
20	150	25	100	20	4	●

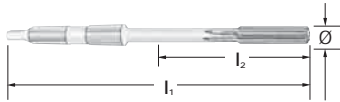
● Utensile disponibile a magazzino / Items available ex stock

DIN 208 A/B/C



Alesatori a macchina con attacco conico, in HSS-Co per ottenere fori in tolleranza H 7

Machine chucking reamers with Morse taper shank, made of HSS-Co to produce holes with H7 tolerance



Forma / Form				A	B	C
Tipo / Type				Taglienti dritti straight	Taglienti 7/8° LH	Taglienti 45° LH
Esecuzione elica Cutting direction						
Materiale / Material				HSS-Co	HSS-Co	HSS-Co
Ø mm	l ₁ mm	l ₂ mm	CM MT	6333	6337	6335
5,0	133	23	1	●	●	●
5,5	138	26	1	●	●	-
6,0	138	26	1	●	●	●
6,5	144	28	1	●	●	-
7,0	150	31	1	●	●	●
7,5	150	31	1	●	●	-
8,0	156	33	1	●	●	●
8,5	156	33	1	●	●	-
9,0	162	36	1	●	●	●
9,5	162	36	1	●	●	-
10,0	168	38	1	●	●	●
10,5	168	38	1	●	●	-
11,0	175	41	1	●	●	●
11,5	175	41	1	●	●	-
12,0	182	41	1	●	●	●
12,5	182	44	1	●	●	-
13,0	182	44	1	●	●	●
13,5	189	47	1	●	●	-
14,0	189	47	1	●	●	●
14,5	204	50	2	●	●	-

Forma / Form				A	B	C
Tipo / Type				Taglienti dritti straight	Taglienti 7/8° LH	Taglienti 45° LH
Esecuzione elica Cutting direction						
Materiale / Material				HSS-Co	HSS-Co	HSS-Co
Ø mm	l ₁ mm	l ₂ mm	CM MT	6333	6337	6335
15,0	204	50	2	●	●	●
15,5	210	52	2	●	●	-
16,0	210	52	2	●	●	●
16,5	214	54	2	●	●	-
17,0	214	54	2	●	●	●
17,5	219	56	2	●	●	-
18,0	219	56	2	●	●	●
18,5	223	58	2	●	●	-
19,0	223	58	2	●	●	●
19,5	228	60	2	●	●	-
20,0	228	60	2	●	●	●
20,5	232	62	2	●	●	-
21,0	232	62	2	●	●	●
21,5	237	64	2	●	●	-
22,0	237	64	2	●	●	●
22,5	241	66	2	●	●	-
23,0	241	66	2	●	●	●
23,5	241	66	2	●	●	-
24,0	268	68	3	●	●	●
24,5	268	68	3	●	●	-

Diametro Diameter range	6333 N. taglienti No. of cutting lips	6337 N. taglienti No. of cutting lips	6335 N. taglienti No. of cutting lips
5,0 mm - 14,0 mm	6	6	3
14,5 mm - 15,0 mm	8	8	3
15,5 mm - 24,5 mm	8	8	4
25,0 mm - 35,0 mm	10	10	4
36,0 mm - 40,0 mm	-	12	-

Per misure intermedie prezzi a richiesta / Deviating sizes prices upon request

● Utensile disponibile a magazzino / Items available ex stock

DIN 219 A/B/C

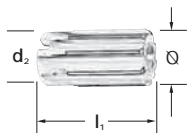


Alesatori a manicotto in HSS

Foro conicità 1:30 per ottenere fori in tolleranza h7

Shell reamers, made of HSS

taper hole 1 : 30 to produce holes with H7 tolerance



Forma / Form			A	B	C
Tipo / Type			Taglienti diritti straight	Taglienti 7/8° LH	Taglienti 45° LH
Esecuzione elica Cutting direction					
Materiale / Material			HSS	HSS	HSS
Ø mm	l ₁ mm	foro interno / bore Ø d ₂	6361	6360	6362
25	45	13	●	●	●
26	45	13	●	●	●
27	45	13	●	●	●
28	45	13	●	●	●
29	45	13	●	●	●
30	45	13	●	●	●
31	50	16	●	●	●
32	50	16	●	●	●
33	50	16	●	●	●
34	50	16	●	●	●
35	50	16	●	●	●
36	56	19	●	●	●
37	56	19	●	●	●
38	56	19	●	●	●
39	56	19	●	●	●
40	56	19	●	●	●
42	56	19	●	●	●
44	63	22	●	●	●
45	63	22	●	●	●
46	63	22	●	●	●
47	63	22	●	●	●
48	63	22	●	●	●

Forma / Form			A	B	C
Tipo / Type			Taglienti diritti straight	Taglienti 7/8° LH	Taglienti 45° LH
Esecuzione elica Cutting direction					
Materiale / Material			HSS	HSS	HSS
Ø mm	l ₁ mm	foro interno / bore Ø d ₂	6361	6360	6362
50	63	22	●	●	●
52	71	27	●	●	●
55	71	27	●	●	●
58	71	27	●	●	●
60	71	27	●	●	●
62	80	32	●	●	●
65	80	32	●	●	●
68	80	32	●	●	●
70	80	32	●	●	●
72	90	40	●	●	●
75	90	40	●	●	●
78	90	40	●	●	●
80	90	40	●	●	●
82	90	40	●	●	●
85	90	40	●	●	●
88	100	50	●	●	●
90	100	50	●	●	●
92	100	50	●	●	●
95	100	50	●	●	●
98	100	50	●	●	●
100	100	50	●	●	●

Diametro Diameter range	6361 N. taglienti No. of cutting lips	6360 N. taglienti No. of cutting lips	6362 N. taglienti No. of cutting lips
25,0 mm - 32,0 mm	10	10	6
33,0 mm - 44,0 mm	12	12	6
45,0 mm - 58,0 mm	14	14	6
60,0 mm	16	16	6
62,0 mm - 78,0 mm	16	16	8
80,0 mm - 98,0 mm	18	18	8
100,0 mm	18	18	10

Per misure intermedie prezzi a richiesta / Deviating sizes prices upon request

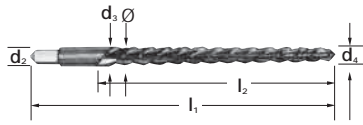
● Utensile disponibile a magazzino / Items available ex stock



Norme francesi / French standard

Alesatori per spine coniche con attacco cilindrico, in HSS solo per uso a macchina

High spiral fluted taper pin reamers with straight shank, made of HSS for machine use only



Forma / Form							NF
Tipo / Type							Taglienti 45° LH
Esecuzione elica Cutting direction							
Materiale / Material							HSS
Ø mm	l ₁ mm	l ₂ mm	d ₃ mm	d ₂ mm	d ₄ mm	6319	
1,0	45	20	1,1	1,1	0,7	■	
3,5	65	45	3,6	3,6	2,7	●	
4,0	70	50	4,1	4,1	3,1	●	
4,5	80	55	4,6	4,6	3,5	■	

Forma / Form							NF
Tipo / Type							Taglienti 45° LH
Esecuzione elica Cutting direction							
Materiale / Material							HSS
Ø mm	l ₁ mm	l ₂ mm	d ₃ mm	d ₂ mm	d ₄ mm	6319	

Diametro Diameter range	6319 N. taglienti No. of cutting lips
1,0 mm - 5,0 mm	2
5,0 mm - 10,0 mm	3

● Utensile disponibile a magazzino / Items available ex stock ■ Fino ad esaurimento scorte / discontinued items

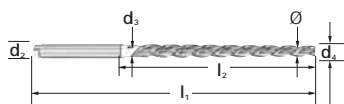


Alesatori a macchina forte torsione per spine coniche con attacco cilindrico, in HSS

Conicità 1:50 per ottenere fori per spine coniche in DIN 1 solo per uso a macchina

High spiral fluted taper pin reamers with straight shank, made of HSS

taper 1 : 50, to produce holes for taper pins acc. to DIN 1, for machine use only



Forma / Form							-
Tipo / Type							Taglienti 45° LH
Esecuzione elica Cutting direction							
Materiale / Material							HSS
Ø mm	l ₁ mm	l ₂ mm	d ₂ mm	d ₃ mm	d ₄ mm	6313	
1,0	60	33	1,40	1,52	0,8	●	
1,25	70	42	1,80	1,97	1,05	●	
1,5	70	42	2,10	2,22	1,3	●	
1,6	70	42	2,10	2,22	1,3	●	
2,0	86	48	3,15	2,86	1,9	●	
2,5	86	48	3,15	3,36	2,4	●	
3,0	100	58	4,00	4,06	2,9	●	
4,0	112	68	5,00	5,26	3,9	●	
5,0	122	73	6,30	6,36	4,9	●	
6,0	160	105	8,00	8,00	5,9	●	
8,0	207	145	10,00	10,80	7,9	●	
10,0	245	175	12,50	13,40	9,9	●	
12,0	290	210	16,00	16,00	11,8	●	

Forma / Form							-
Tipo / Type							Taglienti 45° LH
Esecuzione elica Cutting direction							
Materiale / Material							HSS
Ø mm	l ₁ mm	l ₂ mm	d ₂ mm	d ₃ mm	d ₄ mm	6313	

Per spine coniche secondo DIN 1 - 258 - 1447 - 7977 - 7978

For taper pin according to DIN 1 - 258 - 1447 - 7977 - 7978

Diametri Diameter range	6313 N. taglienti No. of cutting lips
1,0 mm - 5,0 mm	2
6,0 mm - 10,0 mm	3
12,0 mm	4

● Utensile disponibile a magazzino

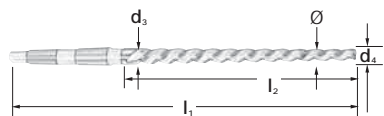


Alesatori per spine coniche con attacco conico, in HSS

Conicità 1:50 - per ottenere fori per spine coniche in DIN 1 solo per uso a macchina

High spiral fluted taper pin reamers with Morse taper shank, made of HSS

taper 1 : 50, to produce holes for taper pins acc. to DIN 1, for machine use only



Forma / Form							-
Tipo / Type							Taglienti 45° LH
Esecuzione elica Cutting direction							
Materiale / Material							HSS
Ø mm	l ₁ mm	l ₂ mm	d ₄ mm	d ₃ mm	CM MT	6314	
5	155	73	4,9	6,36	1	●	
6	187	105	5,9	8,00	1	●	
8	227	145	7,9	10,80	1	●	
10	257	175	9,9	13,40	1	●	
12	315	210	11,8	16,00	2	●	
16	335	230	15,8	20,40	2	●	
20	377	250	19,8	24,80	3	●	

Forma / Form							-
Tipo / Type							Taglienti 45° LH
Esecuzione elica Cutting direction							
Materiale / Material							HSS
Ø mm	l ₁ mm	l ₂ mm	d ₄ mm	d ₃ mm	CM MT	6314	

Diametro Diameter range	6314 N. taglienti No. of cutting lips
3,0 mm - 6,0 mm	2
6,0 mm - 10,0 mm	3
12,0 mm - 20,0 mm	4

● Utensile disponibile a magazzino

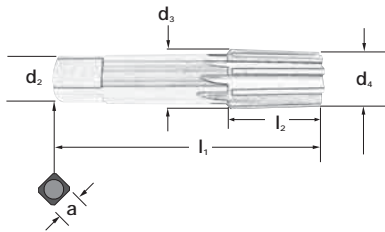


Alesatori conici con attacco cilindrico, in HSS conico 1 : 16

Taper reamers with straight shank, made of HSS taper 1 : 16

Preforo **NPT - NPTF**

Taglienti diritti / Straight Flutes



Forma / Form

Tipo / Type

Esecuzione elica
Cutting direction

Materiale / Material

-

Taglienti
diritti
straight



HSS

Ø mm	l ₁ mm	l ₂ mm	d ₂ mm	d ₃ mm	d ₄ mm	a h11	Z	6310
1/16"	70	17	6	6,998	5,935	4,5	6	●
1/8"	70	17	8	9,105	8,042	6,3	6	●
1/4"	80	27	11	11,996	10,308	9,0	6	●
3/8"	85	27	12	15,416	13,728	10,0	8	●
1/2"	95	35	16	19,126	16,938	12,5	8	●
3/4"	105	35	20	24,411	22,253	16,0	10	●
1"	130	43	25	30,684	27,996	20,0	10	●
1 1/4"	140	44	32	39,471	36,721	25,0	12	●
1 1/2"	150	45	36	45,604	42,791	28,0	12	●
2"	160	46	48	57,678	54,803	35,5	14	●

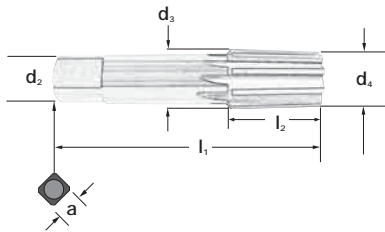


Alesatori conici con attacco cilindrico, in HSS conico 1 : 16

Taper reamers with straight shank, made of HSS taper 1 : 16

Preforo **NPT - NPTF**

Taglienti elicoidali / Spiral Flutes



Forma / Form

Tipo / Type

Esecuzione elica
Cutting direction

Materiale / Material

-

Taglienti
7-8°
LH



HSS

Ø mm	l ₁ mm	l ₂ mm	d ₂ mm	d ₃ mm	d ₄ mm	a h11	Z	6311
1/16"	70	17	6	6,998	5,935	4,5	6	●
1/8"	70	17	8	9,105	8,042	6,3	6	●
1/4"	80	27	11	11,996	10,308	9,0	6	●
3/8"	85	27	12	15,416	13,728	10,0	8	●
1/2"	95	35	16	19,126	16,938	12,5	8	●
3/4"	105	35	20	24,411	22,253	16,0	10	●
1"	130	43	25	30,684	27,996	20,0	10	●
1 1/4"	140	44	32	39,471	36,721	25,0	12	●
1 1/2"	150	45	36	45,604	42,791	28,0	12	●
2"	160	46	48	57,678	54,803	35,5	14	●



Alesatori per cono morse con attacco cilindrico, in HSS

Per finitura di cono morse secondo DIN 228

Morse taper socket reamers, made of HSS finishing for taper sleeves acc. to DIN 228

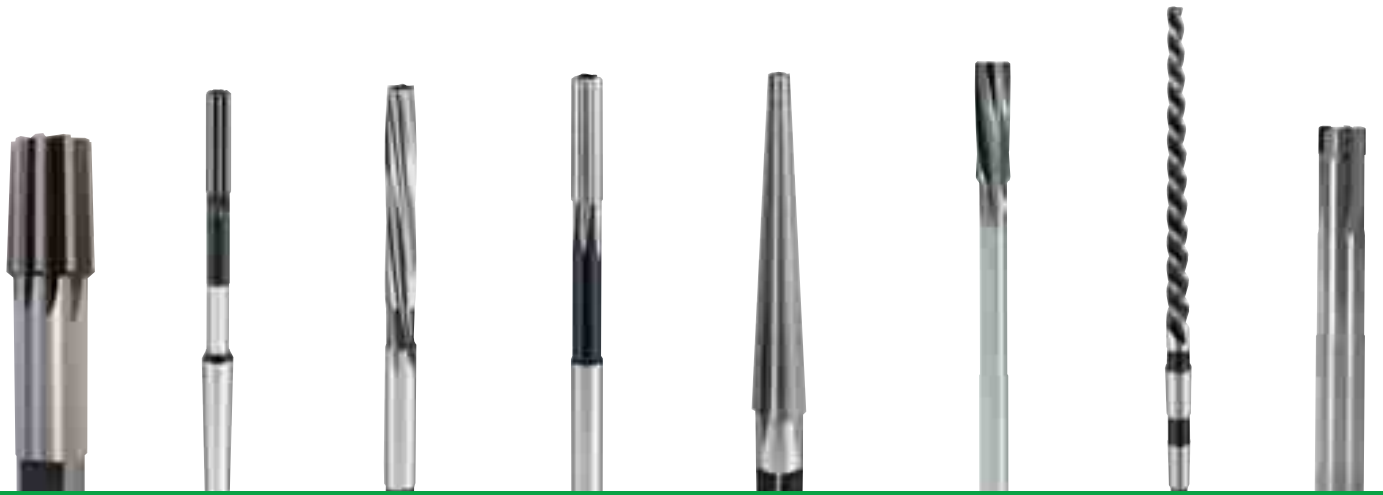


Forma / Form			C	-
Tipo / Type			Taglienti diritti straight	Taglienti 7-8° LH
Esecuzione elica Cutting direction				
Materiale / Material			HSS	HSS
CM MT	L ₁ mm	L ₂ mm	6317	6312
0	93	61	●	●
1	102	66	●	●
2	121	79	●	●
3	146	96	●	●
4	146	119	●	●
5	222	150	●	●
6	300	208	●	●

Forma / Form			C	-
Tipo / Type			Taglienti diritti straight	Taglienti 7-8° LH
Esecuzione elica Cutting direction				
Materiale / Material			HSS	HSS
CM MT	L ₁ mm	L ₂ mm	6317	6312

Diametri Diameter range		6317 N. taglienti No. of cutting lips	6312 N. taglienti No. of cutting lips
CM/MT	0 ÷ 1	6	6
CM/MT	2	8	8
CM/MT	3	10	10
CM/MT	4	12	12
CM/MT	5	14	14
CM/MT	6	16	16

● Utensile disponibile a magazzino / Items available ex stock



Alesatori

Reamers



► **Guida Tecnica**
Technical Guide

DATI TECNICI

TECHNICAL DATA



Tipo Type		660		660		660		660		660		660	
Rif. pagina Famiglia Prodotto Ilix Type -See page		660		660		660		660		660		660	
DIN		206				859				9			
Forma Form		A		B		A		B		A		B	
Direzione di taglio Cutting direction													
Materiale Material		HSS		HSS		HSS		HSS		HSS		HSS	
Angolo al vertice Point angle		0°		7/8° SX		0		7/8°		0°		7/8°	
Rivestimento Coating		BL		BL		BL		BL		BL		TF	
Lubrificazione Interna Internal Coolant		-		-		-		-		-		-	
		6301		6302		6306		6309		6315		6304	
		VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	VC	F*
P	< 800 N/mm ²	10	1.0	10	1.0	10	1.0	10	1.0	10	1.0	10	1.0
P	700-1000 N/mm ²	6	0.8	6	0.8	6	0.8	6	0.8	6	0.8	6	0.8
P	1000-1300 N/mm ²	4	0.6	4	0.6	4	0.6	4	0.6	4	0.6	4	0.6
M	Austenitico	3	0.8	3	0.8	3	0.8	3	0.8	3	0.8	3	0.8
M	Austenitico/Ferritico	2	0.6	2	0.6	2	0.6	2	0.6	2	0.6	2	0.6
K	GG	10	1.1	10	1.1	10	1.1	10	1.1	10	1.1	10	1.1
K	GGG	6	1.2	6	1.2	6	1.2	6	1.2	6	1.2	6	1.2
N	Alluminio	13	1.6	13	1.6	13	1.6	13	1.6	13	1.6	13	1.6
N	Non ferrosi	8	1.4	8	1.4	8	1.4	8	1.4	8	1.4	8	1.4
S	Titanio	-	-	-	-	-	-	-	-	-	-	-	-
S	Leghe speciali a base di Ni	-	-	-	-	-	-	-	-	-	-	-	-
H	Temprati 38 / 48 HRC	-	-	-	-	-	-	-	-	-	-	-	-
H	Temprati 48 / 58 HRC	-	-	-	-	-	-	-	-	-	-	-	-
H	Temprati 58 / 68 HRC	-	-	-	-	-	-	-	-	-	-	-	-

DATI TECNICI

TECHNICAL DATA



660		660		662		662		662		662		662		662	
204		8089		212		208		219		212					
C		B/D		A/C		A		A		B/D		B/D		B/D	
HSS		HSS		HSS-CO		HSS-CO		HSS-CO		HSS		HSS-CO		HSS-CO	
0°		7/8°		7/8°		0°		0°		0°		7/8°		7/8°	
TX		BL		BL		BL		BL		BL		BL		TN	
-		-		-		-		-		-		-		-	
6317		6312		6324		6321		6333		6361		6326 6226C		6326 TN	
VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	VC	F*
10	1.0	10	1.0	12	1.0	12	1.0	12	1.0	10	1.0	12	1.0	12	1.0
6	0.8	6	0.8	8	0.8	8	0.8	8	0.8	6	0.8	8	0.8	8	0.8
4	0.6	4	0.6	6	0.6	6	0.6	6	0.6	4	0.6	6	0.6	6	0.6
3	0.8	3	0.8	5	0.8	5	0.8	5	0.8	3	0.8	5	0.8	5	0.8
2	0.6	2	0.6	3	0.6	3	0.6	3	0.6	2	0.6	3	0.6	3	0.6
10	1.1	10	1.1	12	1.1	12	1.1	12	1.1	10	1.1	12	1.1	12	1.1
6	1.2	6	1.2	8	1.2	8	1.2	8	1.2	6	1.2	8	1.2	8	1.2
13	1.6	13	1.6	15	1.6	15	1.6	15	1.6	13	1.6	15	1.6	15	1.6
8	1.4	8	1.4	10	1.4	10	1.4	10	1.4	8	1.4	10	1.4	10	1.4
-	-	-	-	2	0.6	2	0.6	2	-	-	-	2	0.6	2	0.6
-	-	-	-	2	0.6	2	0.6	2	-	-	-	2	0.6	2	0.6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

DATI TECNICI

TECHNICAL DATA



Tipo Type		6337		6360		6325		6335		6362		6307	
Rif. pagina Famiglia Prodotto Ilix Type -See page		662		662		664		664		664		664	
DIN		208		219		212		208		219		ILIX NORM.	
Forma Form		B		B		E		C		C		A	
Direzione di taglio Cutting direction													
Materiale Material		HSS-CO		HSS		HSS-CO		HSS-CO		HSS		HSS	
Angolo al vertice Point angle		7/8°		7/8°		45°		45°		45°		0°	
Rivestimento Coating		BL		BL		BL		BL		BL		BL	
Lubrificazione Interna Internal Coolant		-		-		-		-		-		-	
		VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	VC	F*
P	< 800 N/mm ²	12	1.0	10	1.0	12	1.0	12	1.0	10	1.0	10	1.0
P	700-1000 N/mm ²	8	0.8	6	0.8	8	0.8	8	0.8	6	0.8	6	0.8
P	1000-1300 N/mm ²	6	0.6	4	0.6	6	0.6	6	0.6	4	0.6	4	0.6
M	Austenitico	5	0.8	3	0.8	5	0.8	5	0.8	3	0.8	3	0.8
M	Austenitico/Ferritico	3	0.6	2	0.6	3	0.6	3	0.6	2	0.6	2	0.6
K	GG	12	1.1	10	1.1	12	1.1	12	1.1	10	1.1	10	1.1
K	GGG	8	1.2	6	1.2	8	1.2	8	1.2	6	1.2	6	1.2
N	Alluminio	15	1.6	13	1.6	15	1.6	15	1.6	13	1.6	13	1.6
N	Non ferrosi	10	1.4	8	1.4	10	1.4	10	1.4	8	1.4	8	1.4
S	Titanio	2	0.6	-	-	2	0.6	2	0.6	-	-	-	-
S	Leghe speciali a base di NI	2	0.6	-	-	2	0.6	2	0.6	-	-	-	-
H	Temprati 38 / 48 HRC	-	-	-	-	-	-	-	-	-	-	-	-
H	Temprati 48 / 58 HRC	-	-	-	-	-	-	-	-	-	-	-	-
H	Temprati 58 / 68 HRC	-	-	-	-	-	-	-	-	-	-	-	-

DATI TECNICI

TECHNICAL DATA



664		664		664		666		666		666		666		
2179		2180		ILIX NORM.				60-011		331				
HSS		HSS		HSS		HSS		HSS		HSS		HSS		
45°		45°		0°		0°		7/8°		45°		25°		
BL		BL		BL		BL		BL		BL		BL		
-		-		-		-		-		-		-		
6313		6314		6308		6310		6311		6319		6355		
VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	
10	1.0	10	1.0	10	1.0	10	1.0	10	1.0	10	1.0	10	1.0	
6	0.8	6	0.8	6	0.8	6	0.8	6	0.8	6	0.8	6	0.8	
4	0.6	4	0.6	4	0.6	4	0.6	4	0.6	4	0.6	4	0.6	
3	0.8	3	0.8	3	0.8	3	0.8	3	0.8	3	0.8	3	0.8	
2	0.6	2	0.6	2	0.6	2	0.6	2	0.6	2	0.6	2	0.6	
10	1.1	10	1.1	10	1.1	10	1.1	10	1.1	10	1.1	10	1.1	
6	1.2	6	1.2	6	1.2	6	1.2	6	1.2	6	1.2	6	1.2	
13	1.6	13	1.6	13	1.6	13	1.6	13	1.6	13	1.6	13	1.6	
8	1.4	8	1.4	8	1.4	8	1.4	8	1.4	8	1.4	8	1.4	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

DATI TECNICI

TECHNICAL DATA



Tipo Type													
Rif. pagina Famiglia Prodotto Ilix Type -See page		666		666		666		668		668		668	
DIN		ILIX NORM.											
Forma Form		-											
Direzione di taglio Cutting direction													
Materiale Material		HSS		HSS		MDI		MDI		MDI		MDI	
Angolo al vertice Point angle		12°		0°		0°		12°		12°		12°	
Rivestimento Coating		BL		BL		BL		TN		TN		BL	
Lubrificazione Interna Internal Coolant		-		-		-		-		-			
		6318		6303		6369		6372 6372C		6372TN		6370 6371	
		VC	F*	VC	F*	VC	F*	VC	F*	VC	F*	VC	F*
P	< 800 N/mm ²	10	1.0	10	1.0	20	1.2	20	1.2	20	1.2	20	1.2
P	700-1000 N/mm ²	6	0.8	6	0.8	15	1.0	15	1.0	15	1.0	15	1.0
P	1000-1300 N/mm ²	4	0.6	4	0.6	10	0.8	10	0.8	10	0.8	10	0.8
M	Austenitico	3	0.8	3	0.8	10	1.0	10	1.0	10	1.0	10	1.0
M	Austenitico/Ferritico	2	0.6	2	0.6	7	0.8	7	0.8	7	0.8	7	0.8
K	GG	10	1.1	10	1.1	20	1.4	20	1.4	20	1.4	20	1.4
K	GGG	6	1.2	6	1.2	15	1.2	15	1.2	15	1.2	15	1.2
N	Alluminio	13	1.6	13	1.6	30	1.8	30	1.8	30	1.8	30	1.8
N	Non ferrosi	8	1.4	8	1.4	25	1.6	25	1.6	25	1.6	25	1.6
S	Titanio	-	-	-	-	5	0.8	5	0.8	5	0.8	5	0.8
S	Leghe speciali a base di NI	-	-	-	-	5	0.8	5	0.8	5	0.8	5	0.8
H	Temprati 38 / 48 HRC	-	-	-	-	-	-	-	-	-	-	-	-
H	Temprati 48 / 58 HRC	-	-	-	-	-	-	-	-	-	-	-	-
H	Temprati 58 / 68 HRC	-	-	-	-	-	-	-	-	-	-	-	-

DATI TECNICI

TECHNICAL DATA



		Cermet		Pkd											
668		668		668											
ILIX NORM.															
-		-		-											
MDI		CERMET		PKD											
12°		12°		0°											
BL		BL		BL											
-		-													
6376		6323		6373											
VC	F*	VC	F*	VC	F*										
20	1.2	50	1.2	-	-										
15	1.0	40	1.0	-	-										
10	0.8	30	0.8	-	-										
10	1.0	20	1.0	-	-										
7	0.8	15	0.8	-	-										
20	1.4	80	1.4	-	-										
15	1.2	40	1.2	-	-										
30	1.8	150	1.8	800	2.0										
25	1.6	100	1.6	200	1.8										
5	0.8	-	-	-	-										
5	0.8	-	-	-	-										
-	-	-	-	-	-										
-	-	-	-	-	-										
-	-	-	-	-	-										