DIXI polytool

PCD AND DIAMOND TOOLS

A RANGE OF STANDARD TOOLS MADE OF MONOCRYSTALLINE AND POLYCRYSTALLINE DIAMOND

DIXI POLYTOOL S.A.

COMPANY PROFILE

DIXI Polytool S.A. is a company based in Le Locle, Switzerland, that produces tungsten carbide and diamond cutting tools as well as precision reamers. The company was founded in 1946 and has been making investments into its production since then.

DIXI Polytool S.A. has a friendly work environment for its 300 employees and wants to guarantee the quality of its products while preserving the environment by using ISO 9001 and ISO 14001 certified management systems.

AN ENVIRONMENTALLY RESPONSIBLE ATTITUDE

A forerunner in this field too, DIXI Polytool S.A. uses exclusively green energy for all building maintenance and manufacturing operations.

DIXI Polytool is powered 100% green electricity produced exlusively from solar panels and hydrpower station.

KEY FIGURES

60 million CHF sales

35% of special tools

300 employees

140 CNC machines

+ 18'000 standard references in stock

9 subsidiaries in **7** countries

DIXI 70600 PCD

Z = 1

S.32

SLOT DRILLS, CENTRE CUTTING FOR FINISHING OPERATION

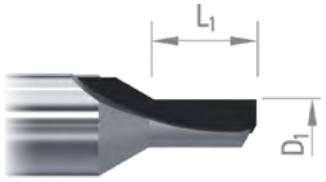
- PCD end mills with flat bottom developed for burr-free and deformation-free machining of non-ferrous materials. A typical application: the finishing of watch components.
- PCD improves tool life and productivity.

◯ good ◎ excellent

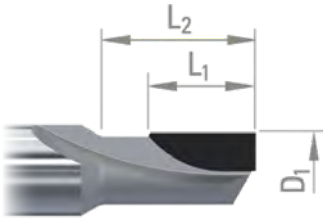
ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◯										

$D_{1 \pm 0.01}$	L_1	D_{h5}	L	PCD
0.50	1.00	3	38	398840
0.60	1.20	3	38	398841
0.70	1.40	3	38	398842
0.80	1.60	3	38	398843
0.90	1.80	3	38	398844
1.00	2.00	3	38	398845
1.10	2.20	3	38	398846
1.20	2.40	3	38	398847
1.30	2.60	3	38	398848
1.40	2.80	3	38	398849
1.50	3.00	3	38	398850
1.60	3.20	3	38	398851
1.70	3.40	3	38	398853
1.80	3.60	3	38	398854
1.90	3.80	3	38	398855
2.00	4.00	3	42	398856
2.50	5.00	6	42	398857
3.00	6.00	6	42	398858



$D_{1 \pm 0.01}$	L_1	L_2	D_{h5}	L	PCD
4.00	6.50	10.00	6	42	302390
5.00	6.50	10.00	6	50	302391
6.00	8.00	12.00	6	50	302393
8.00	10.00	15.00	8	60	339191
10.00	12.00	20.00	10	60	339192

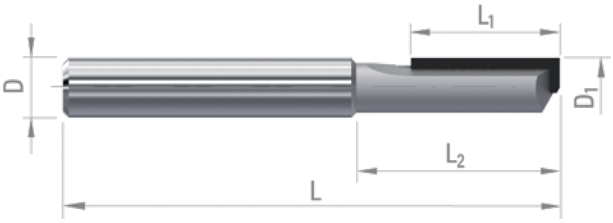


DIXI 70630 PCD

Z = 1

S.32

FINISHING END MILLS
CENTRE CUTTING



- PCD superfinishing cutters developed to obtain transparent finishies in plastics.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations											◎										

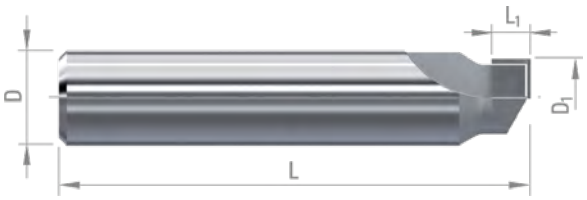
$D_{1 \pm 0.01}$	L_1	L_2	D_{h5}	L	PCD finishing	PCD resharpened
3	6	11.50	6	38	381663	
4	10	15.50	6	50	381665	
6	15	20.50	6	50	381666	
8	19	29.00	8	60	381667	
10	22	32.00	10	60	381668	
12	26	36.00	12	60	381669	

DIXI 70600 DIA

Z = 1

S.34

MONOCRISTALLINE DIAMOND END MILLS, CENTRE CUTTING



- Monocrystalline diamond end mills with flat bottom developed for burr-free and deformation-free machining of non-ferrous materials. A typical application: the finishing of watch components.
- DIA is used for mirror finish machining.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◯										

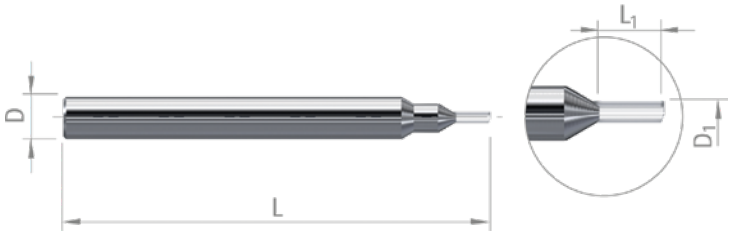
$D_{1\ h10}$	L_1	D_{h5}	L	DIA
3	2.50	6	30	302394
4	2.50	6	30	302395
5	2.50	6	30	302396
6	2.50	6	30	302397

DIXI 72310 DIA

Z = 1

S.34

MONOCRISTALLINE DIAMOND MICRO END MILLS



- Monocrystalline diamond micro end mills with centre cut developed for non-ferrous materials, precious metals and composites.
- DIA is used for mirror finish machining.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◯										

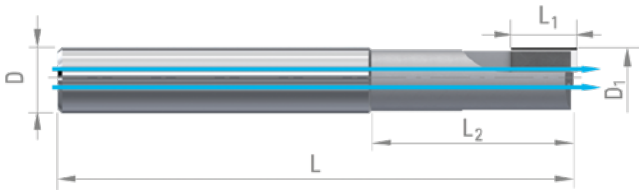
$D_{1\ h10}$	L_1	D_{h5}	L	DIA
0.40	0.80	3	30	953424
0.50	1.00	3	30	953425
0.60	1.20	3	30	953426
0.70	1.40	3	30	953427
0.80	1.60	3	30	953428
0.90	1.80	3	30	953429
1.00	2.50	3	30	953430
1.10	2.50	3	30	953431
1.20	2.50	3	30	953432
1.30	2.50	3	30	953433
1.40	2.50	3	30	953434
1.50	2.50	3	30	953435
1.60	2.50	3	30	953436
1.70	2.50	3	30	953437
1.80	2.50	3	30	953438
1.90	2.50	3	30	953439
2.00	2.50	3	30	953440

DIXI 72421-SH DIA

Z = 1

S.36

MONOCRISTALLINE DIAMOND END MILLS



- Monocrystalline diamond end mills, without centre cut, with throught coolant, developed for finish contouring of non-ferrous materials, precious metals and composites.
- DIA is used for mirror finish machining.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◯										

$D_{1\ h10}$	L_2	D_{h5}	L_1	L	DIA plastic	DIA
6	25	6	4	57	970120	341428
			6	57	970122	341429
			8	57	974360	341430
8	25	8	4	63	970126	341432
			6	63	970128	341434
10	25	10	4	75	974317	341436
			6	75	974318	341437
12	25	12	4	83	974321	341439
			6	83	974322	341440

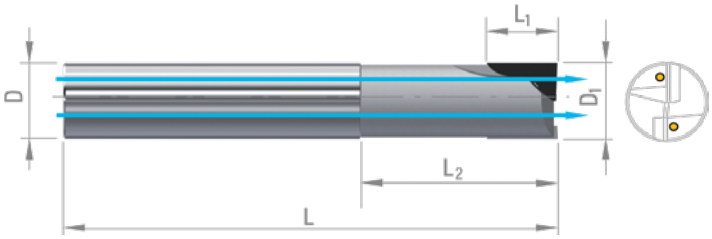
DIXI 72420 - 72420-SH

Z = 1-2

END MILLS, CENTRE CUTTING AND THROUGH COOLANT

S.38

$D_1 \geq Ø\ 6$



- PCD end mills with centre cut and through coolant developed for the general machining of non-ferrous materials, precious metals and composites.
- PCD improves tool life and productivity.
- CVD improves tool life in comparison to PCD. Do not use in case of interrupted cuts.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N												S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎	◎	◯	◯									

$D_{1\ h10}$	L_1	L_2	D_{h5}	L	Z	PCD	CVD
1.00	2.00	-	6	42	1	979179	
1.50	3.00	-	6	42	1	977382	
2.00	3.00	6	6	42	1	66785	
2.00	3.00	20	6	75	1	970175	
3.00	4.00	6	6	42	1	67540	301958
3.00	4.00	15	6	75	2	970176	
3.00	4.00	20	6	75	2	970177	
4.00	4.00	8	6	50	1	957593	
4.00	6.50	10	6	50	1	67541	
4.00	6.50	15	6	75	2	970178	301959
4.00	6.50	25	6	75	2	970179	
5.00	5.00	10	6	50	2	957595	
5.00	6.50	10	6	50	2	53153	
5.00	6.50	35	6	75	2	970166	
6.00	6.00	12	6	57	2	976391	301960
6.00	8.00	34	6	75	2	976392	301961
6.00	8.00	50	6	100	2	976393	
7.00	8.00	34	8	75	2	976394	
8.00	7.00	14	8	63	2	976395	301962

$D_{1\ h10}$	L_1	L_2	D_{h5}	L	Z	PCD	CVD
8.00	10.00	34	8	75	2	976396	301963
8.00	10.00	50	8	100	2	976397	
8.00	10.00	75	8	125	2	976398	
9.00	10.00	35	10	75	2	976399	
10.00	8.00	16	10	75	2	976410	
10.00	12.00	35	10	75	2	976411	301965
10.00	12.00	75	10	125	2	976412	
11.00	12.00	38	12	83	2	976413	
12.00	10.00	20	12	83	2	976414	
12.00	12.00	38	12	83	2	976415	301966
12.00	12.00	75	12	125	2	976416	
14.00	12.00	24	14	83	2	976417	338991
14.00	12.00	38	14	83	2	976418	
14.00	12.00	75	14	125	2	976419	
16.00	14.00	28	16	92	2	976420	338992
16.00	14.00	42	16	92	2	976421	
16.00	14.00	75	16	125	2	976422	
20.00	18.00	36	20	104	2	976423	
20.00	18.00	50	20	125	2	976424	

On request

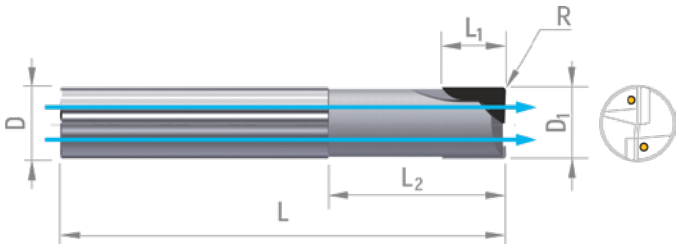
DIXI 70520 - 70520-SH

Z = 1-2

END MILLS, CENTRE CUTTING AND THROUGH COOLANT

S.38

$D_1 \geq Ø\ 6$



- PCD end mills with corner radius, centre cut and through coolant developed for the general machining of non-ferrous materials, precious metals and composites.
- PCD improves tool life and productivity.
- CVD improves tool life in comparison to PCD. Do not use in case of interrupted cuts.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N												S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎	◎	◯	◯									

$D_{1\ h10}$	L_1	L_2	D_{h5}	L	R	Z	PCD	CVD
1.00	2.00	-	6	42	0.10	1	984384	
2.00	3.00	6	6	42	0.10	1	967923	
2.00	3.00	6	6	42	0.20	1	973528	
3.00	4.00	15	6	75	0.10	2	987438	338995
3.00	4.00	15	6	75	0.30	2	305810	
4.00	4.00	8	6	50	0.10	1	967925	
4.00	6.50	10	6	50	0.50	1	971465	
4.00	6.50	15	6	75	0.10	2	305811	
4.00	6.50	15	6	75	0.50	2	302378	
5.00	5.00	10	6	50	0.10	2	305812	
5.00	5.00	10	6	50	0.50	2	975839	
6.00	6.00	12	6	57	0.10	2	967926	338996
6.00	6.00	12	6	57	0.50	2	968992	
6.00	8.00	34	6	75	0.10	2	995208	
6.00	8.00	34	6	75	0.50	2	974475	
6.00	8.00	34	6	75	1.00	2	974476	
8.00	7.00	14	8	63	0.10	2	967927	339000
8.00	10.00	34	8	75	0.50	2	974477	
8.00	10.00	50	8	75	1.00	2	974478	

$D_{1\ h10}$	L_1	L_2	D_{h5}	L	R	Z	PCD	CVD
10.00	12.00	35	10	75	0.10	2	953153	339001
10.00	12.00	35	10	75	0.50	2	974479	
10.00	12.00	35	10	75	1.00	2	974480	
10.00	12.00	75	10	125	0.50	2	974482	
10.00	12.00	75	10	125	1.00	2	974481	
12.00	10.00	20	12	83	0.10	2	984083	339004
12.00	12.00	38	12	83	0.50	2	974483	
12.00	12.00	38	12	83	1.00	2	974484	
12.00	12.00	75	12	125	0.50	2	974485	
12.00	12.00	75	12	125	1.00	2	974486	
14.00	12.00	24	14	83	0.10	2	305814	
14.00	12.00	24	14	83	0.50	2	305816	339012
14.00	12.00	24	14	83	1.00	2	305817	
16.00	14.00	28	16	92	0.50	2	993052	
16.00	14.00	42	16	92	0.10	2	305818	339014
16.00	14.00	42	16	92	1.00	2	305139	
20.00	18.00	36	20	104	0.10	2	987718	
20.00	18.00	36	20	104	0.50	2	305819	
20.00	18.00	36	20	104	1.00	2	305820	

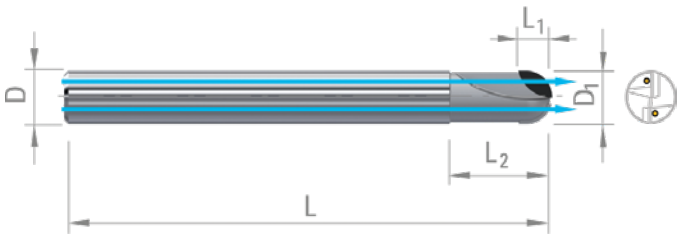
DIXI 70320-SH PCD

Z = 1-2

S.38

$D_1 \geq Ø\,6$

BALL-NOSE END MILLS WITH THROUGH COOLANT



- PCD ball-nose end mills with through coolant developed for the form machining of non-ferrous materials, precious metals and composites.
- PCD improves tool life and productivity.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N												S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎	◎	◯	◯									

$D_{1\ h10}$	L_1	D	L_2	L	Z	PCD
2	2.00	6	6	42	1	953442
			25	75	1	970874
3	2.50	6	6	42	1	953443
			25	75	1	970875
			25	75	2	970876
4	3.00	6	8	50	1	959468
			10	50	1	953444
			10	50	2	970877
			25	75	2	970878
			35	75	2	981585
5	4.00	6	10	50	2	953445
			25	75	2	970883
6	4.00	6	12	57	2	976433
			34	75	2	976434
			50	100	2	976435
8	5.00	8	14	63	2	976436
			34	75	2	976437
			75	125	2	976438
10	6.00	10	16	72	2	976439
			35	75	2	976440
			75	125	2	976441
12	7.00	12	20	83	2	976442
			38	83	2	976443
			75	125	2	976444
14	8.00	14	24	83	2	305821
16	9.00	16	28	92	2	300800
20	11.00	20	36	104	2	305822

DIXI 70320 DIA

Z = 1

S.38

MONOCRISTALLINE DIAMOND BALL-NOSE END MILLS

- Monocristalline diamond ball-nose end mills developed for form machining of non-ferrous materials, precious metals.
- DIA is used for mirror finish machining.

◯ good ◎ excellent

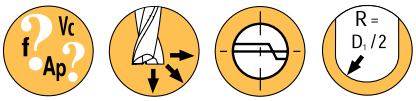
ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◎										

$D_{1\ h10}$	L_1	L_2	D_{h5}	L	DIA
2	2.00	4	6	57	341443
3	2.50	6	6	75	341445
4	3.00	8	6	75	341447
6	4.00	12	8	75	341449
8	5.00	16	10	75	341450
10	6.00	20	12	75	341451

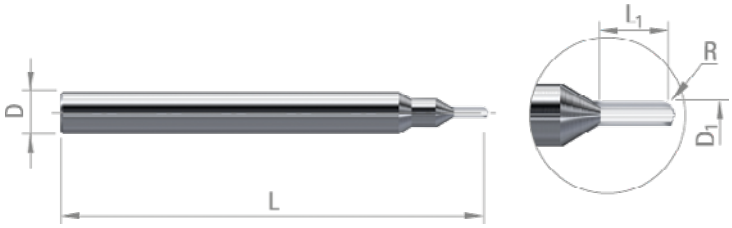
DIXI 70330 DIA

Z = 1



S.36

MONOCRISTALLINE DIAMOND END MILLS



- Monocristalline diamond ball nose end mills developed for finishing complex shapes in non-ferrous materials.
- DIA is used for mirror finish machining.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◎										

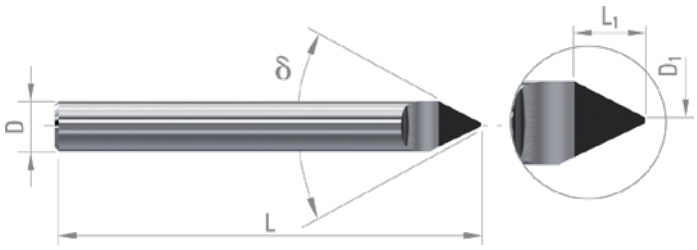
$D_{1\ h10}$	L_1	D_{h5}	L	DIA
0.40	0.80	3	30	417114
0.50	1.00	3	30	417115
0.60	1.20	3	30	417116
0.70	1.40	3	30	417117
0.80	1.60	3	30	417118
0.90	1.80	3	30	417119
1.00	2.50	3	30	417120
1.50	2.50	3	30	417150

DIXI 70170 PCD

Z = 1

PCD ENGRAVING TOOLS

S.40



- PCD engraving tools developed for the engraving of non-ferrous materials, precious metals and composites.
- PCD improves tool life and productivity.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N												S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎	◎	◯	◯									

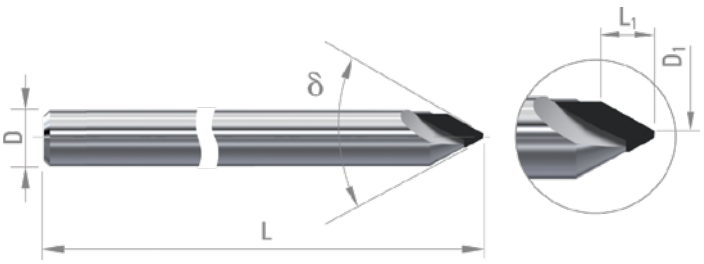
δ	L_1	D_{h5}	L	D_1	PCD
60°	5	6	50	0.10 0.20	303081 303082
90°	3	6	50	0.10 0.20	303083 303084

DIXI 70070 PCD

Z = 1

3/4 PCD ENGRAVING CUTTERS

S.40



- Engraving cutters developed for high end engraving.
- PCD is used for matt engraving.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎	◯	◯										

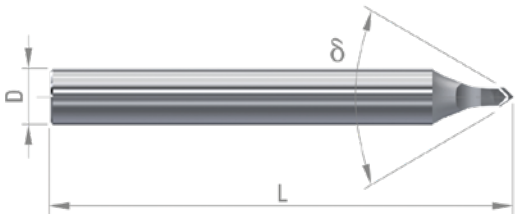
δ	L_1	D_{h5}	L	D_1	PCD
40°	3.50	3	38	0.05 0.10	345623 413445
50°	2.70	3	38	0.05 0.10	367069 367070
60°	2.20	3	38	0.05 0.10	413446 413447
90°	1.20	3	38	0.10 0.20	413448 413449

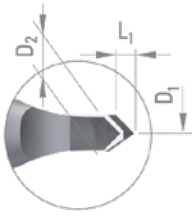
DIXI 70170 DIA

Z = 1

S.40

MONOCRISTALLINE DIAMOND ENGRAVING TOOLS





- Monocristalline diamond engraving tools developed for the engraving of non-ferrous materials, precious metals and composites.
- DIA is used for mirror finish machining.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◎										

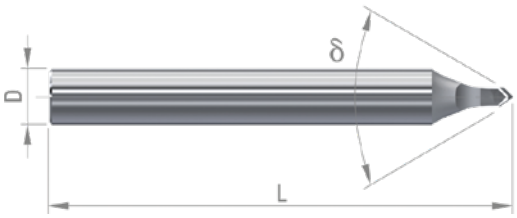
δ	L_1	D_{h5}	L	D_1	DIA
60°	1.40	6	50	0.05 0.10	302597 302598
90°	0.80	6	50	0.05 0.10	302599 302600

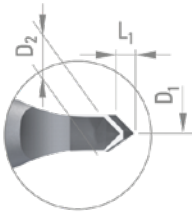
DIXI 76230 DIA

Z = 1

S.40

MONOCRISTALLINE DIAMOND CHAMFERING TOOLS





- Monocristalline diamond chamfering tools developed for the machining of non-ferrous materials, precious metals and composites.
- DIA is used for mirror finish machining.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◎										

δ	L_1	D_2	D_1	D_{h5}	L	DIA
30°	2.80	2	*0.30	6	50	978382
60°	1.40	3	*0.10	6	50	302596
	1.30	3	*0.30	6	50	978381
90°	0.80	3	*0.10	6	50	302595
	0.70	3	*0.30	6	50	977871

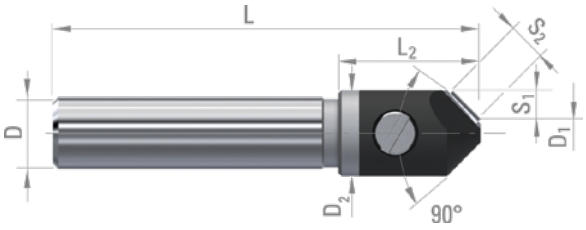
* not cutting

DIXI 76231 DIA

Z = 1

S.40

MONOCRISTALLINE DIAMOND CHAMFERING TOOLS



- Monocristalline diamond chamfering tools, developed for the finishing of non-ferrous materials, precious metals and composites. DIA is used for mirror finish machining.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◎										

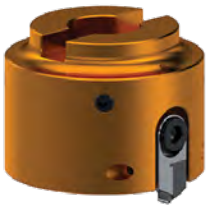
D_1	D_2	L_2	S_1	S_2	D_{h5}	L	DIA
4	10	-	3	4.10	10	60	974354
4	12	20	4	5.50	10	60	974355
4	14	20	5	7.00	10	60	974356
4	16	20	6	8.50	10	60	974357

DIXI 81000

Z = 2

S.42

FACE MILLING HEADS FOR MIRROR FINISH



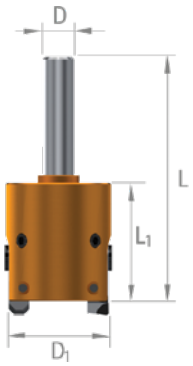
- Face milling heads developed for mirror finish machining of non-ferrous materials and precious metals.
- The heads are delivered balanced and already assembled with DIXI 20370 PCD for roughing and DIXI 20370 DIA inserts for finishing.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

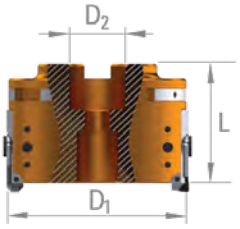
ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◎										

FACE MILLING HEADS WITH SHANK



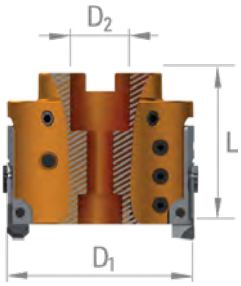
D_1	L_1	D_{h6}	L	PLASTIC	ALU/COPPER	BRASS
40	45	8	76	423639	423641	423643
40	45	12	76	423640	423642	423644

FACE MILLING HEADS



D_1	D_2	L	PLASTIC	ALU/COPPER	BRASS
40	16	45	423645	423648	423651
50	16	45	423646	423649	423652
60	22	45	423647	423650	423653

FACE MILLING HEADS WITH INCLINATION SETTING



D_1	D_2	L	PLASTIC	ALU/COPPER	BRASS
60	22	50	423654	423658	423662
85	27	55	423655	423659	423663
100	27	55	423656	423660	423664
125	40	58	423657	423661	423665

FACE MILLING HEADS WITH SHANK

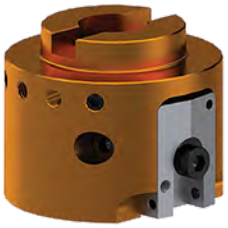
D_1	L_1	D_{h6}	L	Art.
40	45	8	76	384364
40	45	12	76	964273

FACE MILLING HEADS

D_1	D_2	L	Art.
40	16	45	970446
50	16	45	971872
60	22	45	962823

FACE MILLING HEADS WITH INCLINATION SETTING

D_1	D_2	L	Art.
60	22	50	996583
85	27	55	962824
100	27	55	964272
125	40	58	994652



ROUGHING INSERTS PCD

Material to be machined	PCD
Non ferrous materials	968117

FINISHING INSERTS DIA

Material to be machined	DIA
Plastic	968111
Aluminium / Copper	969556
Brass	969557

DIXI 82000

Z = 2

S.42

SUPERFINISHING MILLS FOR MIRROR FINISH MACHINING WITH CLAMPING SHANK

- Face milling heads developed for mirror finish machining of non-ferrous materials and precious metals.
- The heads are delivered balanced and already assembled with DIXI 20470 PCD for roughing and DIXI 20470 DIA inserts for finishing.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◎										

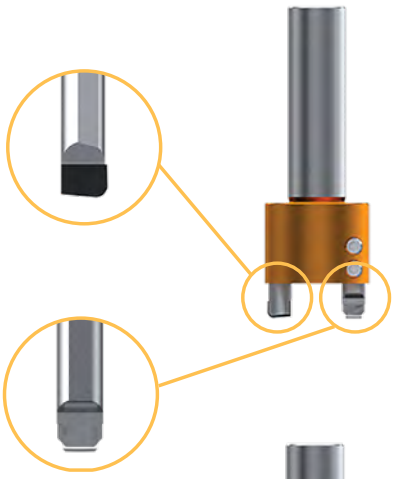
SUPERFINISHING MILLS FOR MIRROR FINISH MACHINING WITH CLAMPING SHANK

D_1	L_1	D_{h6}	L	PLASTIC	ALU/COPPER	BRASS
18	14	10	48	423666	423669	423672
30	14	10	48	423667	423670	423673
30	14	16	48	423668	423671	423674

SPARE PARTS

ROUGHING INSERTS PCD

Material to be machined	PCD
Non ferrous materials	398877



FINISHING INSERTS DIA

Material to be machined	DIA
Plastic	391750
Aluminium / Copper	419761
Brass	419763

FACE MILLING HEADS

D_1	L_1	D_{h6}	L	Art.
18	14	10	48	398876
30	14	10	48	427108
30	14	16	48	410354

INSERTS FOR POLISHING MACHINES

- Diamond inserts developed for single pass polishing of plastics and acrylics on dedicated machines.
- A colour code facilitates the choice of inserts according to the desired operations.
- After re-sharpening, DIXI ensures the height adjustment of the insert in its head (if supplied)

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◎										

Coulor	Aspect	D	L	Art.	
Black	Roughing	8	31	968179	
	Finishing	8	31	968181	
Green	Satined surface	8	31	974193	
	Transparent surface	8	31	968178	

DIXI 80000

Z = 6-16

S.42

ADJUSTABLE HOLDERS FOR ISO INSERTS FOR FACE MILLING APPLICATION

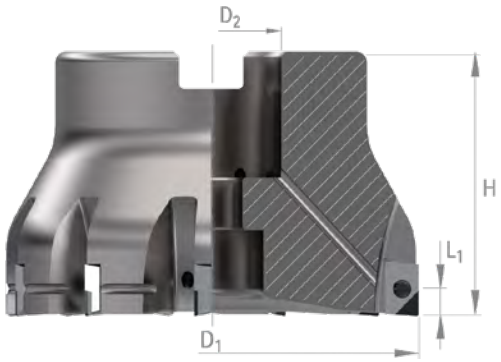
- Face milling heads with accurate inserts height setting developed for mirror finish machining of non-ferrous materials.
- Must be assembled with APKT inserts.

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

ISO	N											S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎		◯										

D_1	L_1	H	D_2	Z	Weight (kg)	Art.
40.00	3	40	16	6	0.20	955446
50.00	3	40	22	7	0.35	955447
63.00	3	40	22	8	0.60	955448
80.00	3	50	27	11	1.20	955449
100.00	3	50	32	13	2.00	955451
125.00	3	50	32	16	2.20	955452



Inserts delivered separately

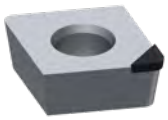
DIXI 2642 - 26420

ISO INSERTS FOR DIXI 80000

ISO	D	S	D_2	R	CARBIDE	TiAlN	PCD
APKT 100305	6.35	3.18	3.40	0.50	996517	996516	955606

ISO INSERTS

S.23



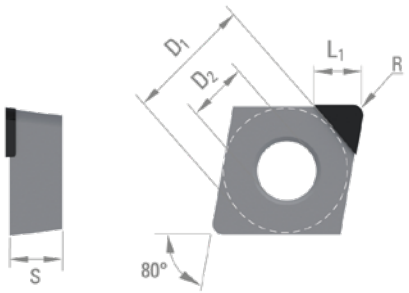
- ISO Inserts developed to increase productivity.
- PCD is used for high speed turning.
  DIA is used to obtain a mirror polished finish.
  CBN is used for turning hard materials (> 55 HRC) .

◯ good ◎ excellent

ISO	P													M				K					
Materials description	Unalloyed steel					Low alloyed steel				High alloyed steel		Martensitic stainless steel		Austenitic stainless steel (DUPLEX / PH)				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	14.4	15	16	17	18	19	20
Recommendations																							

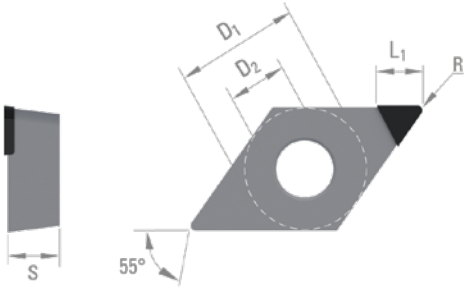
ISO	N												S					H			
Materials description	Wrought aluminium alloy		Cast aluminium alloy			Cu + Pb alloy	Cu alloy difficult		Gold, Silver	Graphite	Plastic	Wood	Special alloy Ni / Co			Titanium, titanium alloy		Hardened steel		Hard cast iron	
VDI 3323	21	22	23	24	25	26	27	28	-	-	29	30	31	32	33-35	36	37	38	39	40	41
Recommendations	◎	◎	◯	◯	◯	◎	◎	◎	◎	◎	◯	◯									

ISO	D_1	L_1	S	D_2	R	PCD	CVD	DIA	CBN*
CCGW 060202	6.35	2	2.38	2.80	0.20	992915	394994	394973	395128
CCGW 060204	6.35	2	2.38	2.80	0.40	993323	410101	410106	395130
CCGW 09T302	9.525	2	3.97	4.40	0.20	302726			
CCGW 09T304	9.525	2	3.97	4.40	0.40	302728	394995	394974	
CCGW 09T308	9.525	2	3.97	4.40	0.80	302730	394996	394978	
CCGW 120404	12.70	2	4.76	5.50	0.20	993755	342927	345678	



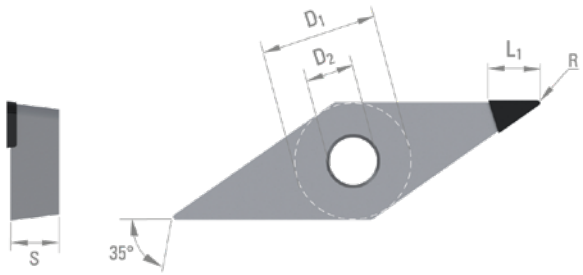
* for ferrous materials

ISO	D_1	L_1	S	D_2	R	PCD	CVD	DIA	CBN*
DCGW 070202	6.35	2	2.38	2.80	0.20	993320	394999	394979	395131
DCGW 070204	6.35	2	2.38	2.80	0.40	996026	410102	410107	
DCGW 070208	6.35	2	2.38	2.80	0.80	302748			
DCGW 11T302	9.525	2	3.18	3.40	0.20	302750	395000	394980	395132
DCGW 11T304	9.525	2	3.18	3.40	0.40	302752	395001	394981	395133
DCGW 11T308	9.525	2	3.18	3.40	0.80	302754	395002	394982	395134



* for ferrous materials

ISO	D_1	L_1	S	D_2	R	PCD	CVD	DIA	CBN*
VCGW 070202	3.97	2	2.38	2.25	0.20	302785	410103	410108	
VCGW 110302	6.35	2	3.18	2.80	0.20	302787	395003	394984	395135
VCGW 110304	6.35	2	3.18	2.80	0.40	301634	395004	394985	395136
VCGW 110308	6.35	2	3.18	3.40	0.80	302788			
VCGW 130302	7.94	2	3.18	3.40	0.20		395005	394987	
VCGW 130304	7.94	2	3.18	3.40	0.40		395006	394988	
VCGW 160402	9.525	2	4.67	4.40	0.20	302789	410104	410109	
VCGW 160404	9.525	2	4.67	4.40	0.40	302791	410105	410110	395137
VCGW 160408	9.525	2	4.67	4.40	0.80	302792	395007	394992	395138
VCGW 160412	9.525	2	4.67	4.40	1.20	302794			
VCGW 220530	12.70	2	5.56	5.50	3.00		395008	394993	



* for ferrous materials

CUTTING CONDITIONS

		VDI 3323	Vc m/min	ap (mm)	Feed per tooth fz [mm]
N	Wrought aluminium alloy < 12% Si	21 - 22	**150**	0.02 - 0.10	0.045 - 0.108
	Cast aluminium alloy ≤8% Si	23	**200**	0.02 - 0.10	0.039 - 0.094
	Copper alloy good machinability with Pb	26	**300**	0.02 - 0.10	0.045 - 0.108
	Copper alloy with difficult machinability	27-28	**300**	0.02 - 0.10	0.036 - 0.086
	Plastics	29	**600**	0.05 - 0.20	0.045 - 0.108
	Gold, silver	-	**250**	0.02 - 0.10	0.030 - 0.072

		VDI 3323	Vc m/min	ap (mm)	Feed per tooth fz [mm]
N	Wrought aluminium alloy < 12% Si	21 - 22	**225**	0.10 - 4.00	0.108 - 0.360
	Cast aluminium alloy ≤8% Si	23	**300**	0.10 - 4.00	0.039 - 0.094
	Copper alloy good machinability with Pb	26	**400**	0.10 - 4.00	0.045 - 0.108
	Copper alloy with difficult machinability	27-28	**400**	0.10 - 4.00	0.036 - 0.086
	Plastics	29	**500**	0.10 - 4.00	0.045 - 0.108
	Gold, silver	-	**350**	0.10 - 4.00	0.030 - 0.072

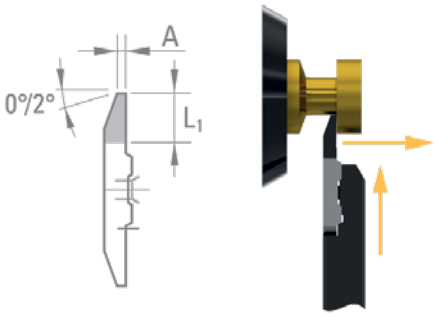
TURNING INSERTS
RIGHT-HAND CUTTING

S.23

BACK TURNING

DIXI 26500 AR R PCD (BIMU 060R)

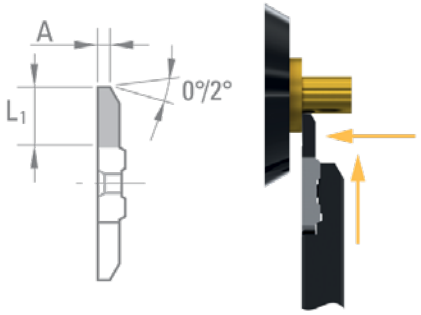
A	L_1	0° / PCD	2° / PCD
0.80	2.50	342916	345668
1.00	2.50	342917	345669
1.20	2.50	342918	345670
1.20	3.00	342919	345671
1.50	3.00	342920	345672
1.80	4.50	342922	345673
2.00	4.50	342923	345674



FRONT TURNING

DIXI 26500 AV R PCD (BIMU 064R)

A	L_1	PCD
1.50	5.00	342931

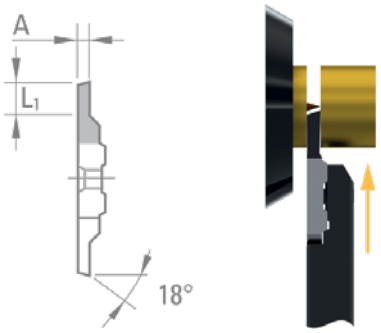


PARTING OFF

TOOLS ON REQUEST

DIXI 26500 TR R PCD SP (BIMU 050R)

A	L_1
0.80	4.00
1.00	4.00
1.20	5.00
1.50	6.50
1.80	6.50
2.00	6.50

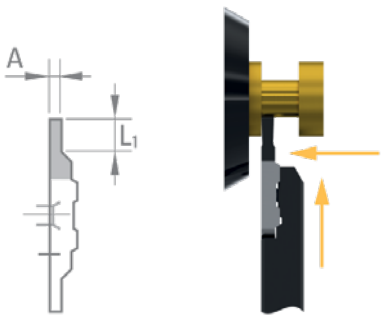


PLUNGING / TURNING

TOOLS ON REQUEST

DIXI 26500 FT R PCD SP (BIMU 060RP)

A	L_1
0.80	1.50
0.90	2.00
1.00	2.50
1.10	2.50
1.20	2.50
1.30	2.50



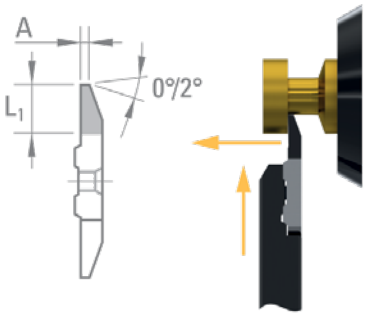
TURNING INSERTS
LEFT-HAND CUTTING

S.23

BACK TURNING

DIXI 26500 AR L PCD (BIMU 060L)

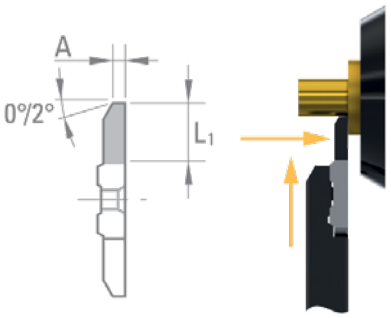
A	L_1	0° / PCD	2° / PCD
0.80	2.50	342924	345675
1.00	2.50	342925	345676
1.20	2.50	342926	345677
1.20	3.00	342927	345678
1.50	3.00	342928	345679
1.80	4.50	342929	345680
2.00	4.50	342930	345681



FRONT TURNING

DIXI 26500 AV L PCD (BIMU 064L)

A	L_1	PCD
1.50	5.00	342932

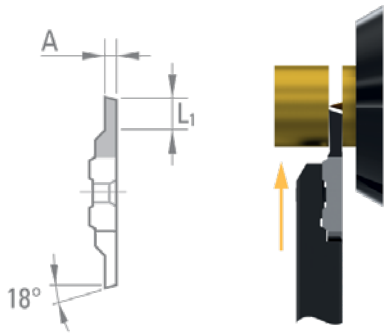


TOOLS ON REQUEST

PARTING OFF

DIXI 26500 TR L PCD SP (BIMU 050L)

A	L_1
0.80	4.00
1.00	4.00
1.20	5.00
1.50	6.50
1.80	6.50
2.00	6.50

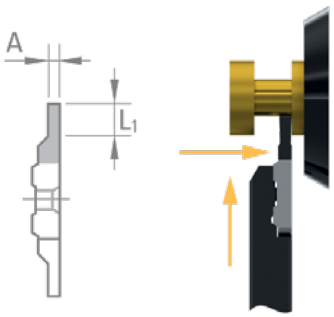


TOOLS ON REQUEST

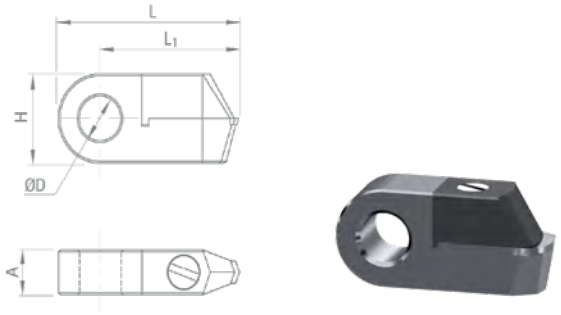
PLUNGING / TURNING

DIXI 26500 FT L PCD SP (BIMU 060LP)

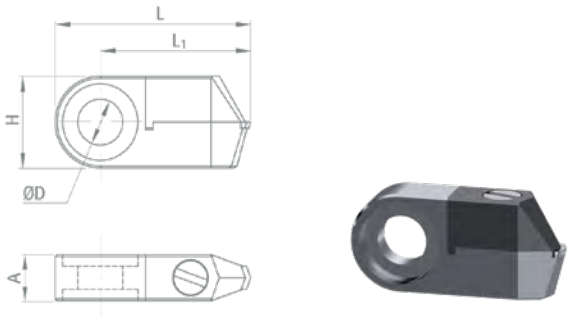
A	L_1
0.80	1.50
0.90	2.00
1.00	2.50
1.10	2.50
1.20	2.50
1.30	2.50



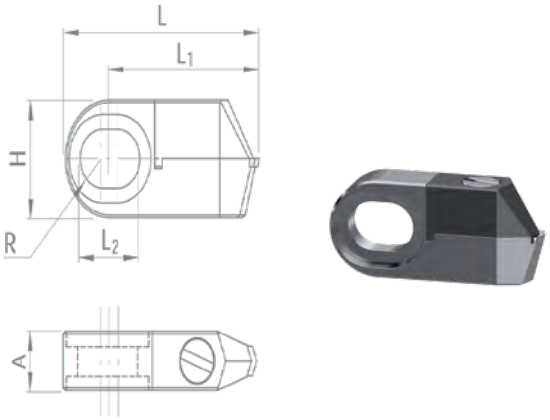
Ref. A



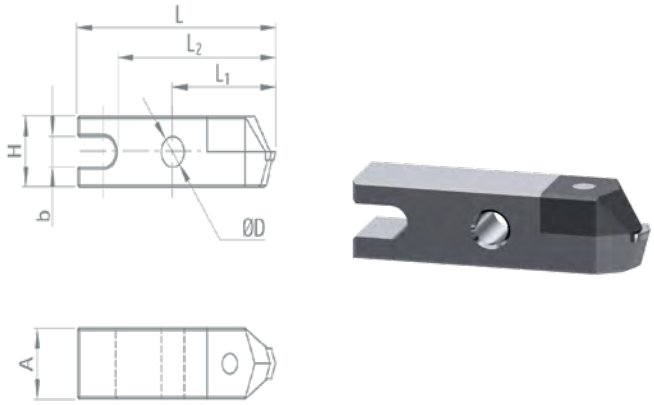
Ref. B



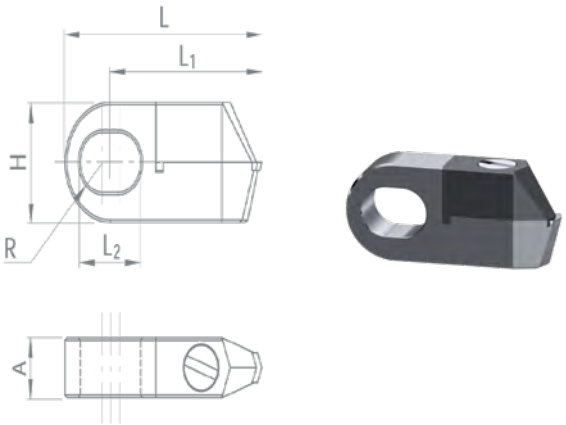
Ref. C



Ref. D



Ref. E

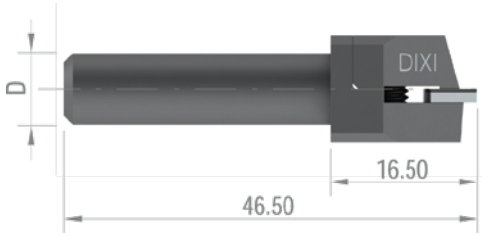


A large variety of diamond tools for turning and milling on request.
When ordering, please specify the cutting material (PCD - DIA - CVD)
and the material to be machined.
For a range of special shapes, see page 499.

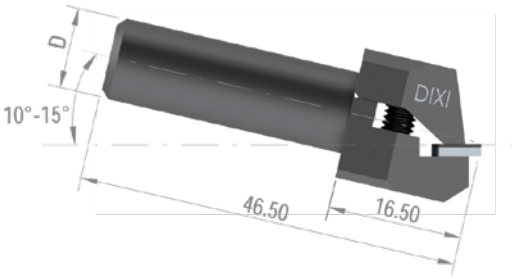
DIXI 1973

DIADIX® HOLDERS,
DRESSING

Ref.	D	Art.
DIXI 1973.0823	8	19459
DIXI 1973.1023	10	18512
DIXI 1973.1223	12	19979

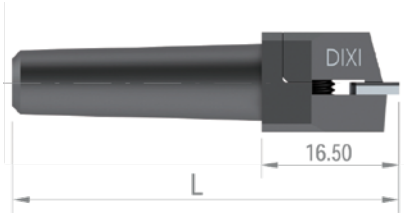


Ref.	D	Art.
DIXI 1973.1013	10	23707

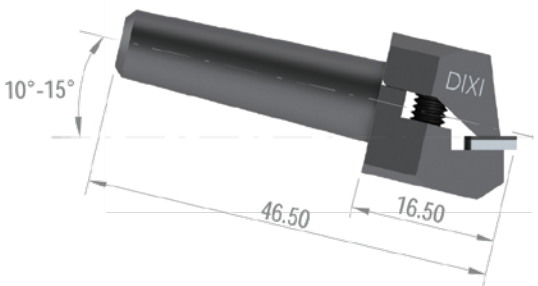


This wheel-dresser compensates the 10° - 15° negative angle of the diamond-holder on certain machines, which enables the desired 0° dressing angle to be maintained.

Ref.	Morse taper	L	Art.
DIXI 1973.0023	CM0	46.50	18737
DIXI 1973.0123	CM1	59.50	18514



Ref.	Morse taper	Art.
DIXI 1973.0013	CM0	23850
DIXI 1973.0113	CM1	23727



This wheel-dresser compensates the 10° - 15° negative angle of the diamond-holder on certain machines, which enables the desired 0° dressing angle to be maintained.

DIXI 1978

INSERTS FOR ROUGH WHEEL DRESSING

Ref.	PCD
DIXI 1978.360°	23829

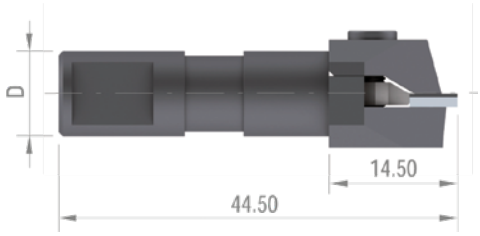
Ref.	PCD
DIXI 1978.23	18814

DIXI 1973

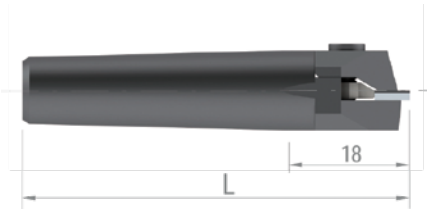
DIADIX® HOLDERS,
PROFILING

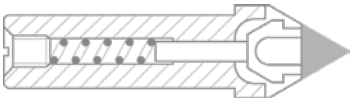
Ref.	D	Art.
DIXI 1973.1025	10	24550

Ref.	D	Art.
DIXI 1973.0925-1	9.525 (3/8'')	24549



Ref.	Morse taper	L	Art.
DIXI 1973.0125	CM1	36.50	26549
DIXI 1973.0125	CM1	58.50	24551





Tool holder for profile dressing with automatic centering of the insert.

On request, DIXI can develop special holders for various machines such as: Agathon, Kellenberger, Studer, Tripet, Tschudin (HTT), Voumard, etc...

DIXI 1978

INSERTS FOR PROFILING DEVICES

Ref.	PCD	CVD
DIXI 1978.2500	24623	973739

Ref.	R	PCD	CVD
DIXI 1978.2512	0.125	24624	973736
DIXI 1978.2520	0.200	24625	973732
DIXI 1978.2525	0.250	24626	973737
DIXI 1978.2550	0.500	24627	973738

DIADIX® WHEEL-DRESSERS

CHARACTERISTICS

Bonded to a tungsten CARBIDE pin, the diamond layer enables a significant cost saving through the combination of the three cutting points and circular segment. The polycristalline diamond retains its sharpness and efficiency until it has been completely used. The DIADIX® wheel-dresser breaks the crystals of the grinding wheel instead of planishing them, thereby revealing a greater number of cutting points on the grinding wheel.

ADVANTAGES

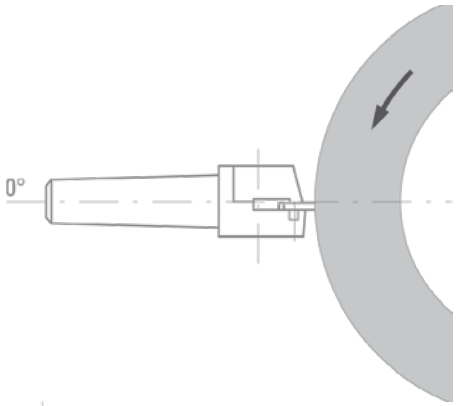
The grinding wheels redressed with a DIADIX® tool produce more work-pieces with a better finish and greater accuracy. The redressing intervals are longer, thus reducing down time. These advantages mean a significant improvement of productivity.

CONDITIONS OF USE

Wheels : Aluminium oxide (Al203)
and in certain cases silicon carbide (SiC)
Hardness : up to L, possibly M (see table)
Structure : from 3 to 20, depending on the cases (see table)
Grit size: 46 - 220
Rectifieuses : planer type, internal and external cylindrical type, from any manufacturer

I	J	K	L	M
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	**4**	**4**	4	4
5	**5**	**5**	5	5
6	**6**	**6**	**6**	6
7	**7**	**7**	**7**	7
8	**8**	**8**	**8**	8
9	**9**	**9**	**9**	9
10	**10**	**10**	**10**	10
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●

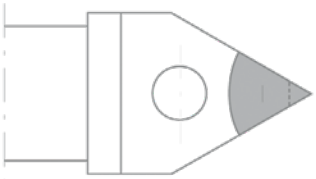
Light letters = Uncertain area
Heavy letters = Certain area



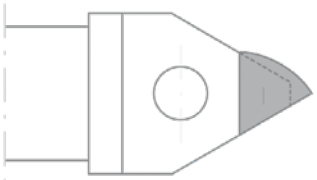
DIADIX® WHEEL-DRESSERS

WORKING CONDITIONS

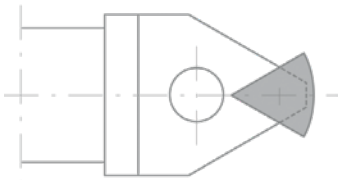
The wheel-dresser must be leveled with the wheel axis.
Dressing angle : 0°
Feed rate : faster than with a single crystal natural diamond
Cutting depth : possible up to 0.50 mm
Lubrification : necessary



Examples of insert positioning



For **roughing** operations.
The wheel becomes more efficient when using the appropriate feed.



For **finishing** operations.
In employing the whole or part of the insert's radius, the grinding wheel gives an impeccable finish.

TOOLS ON REQUEST

DIXI Polytool designs and manufactures customized PCD, CVD and DIA tools in order to meet your needs within short deadlines. From milling to turning, from matt machining to superfinishing, every options are feasible.

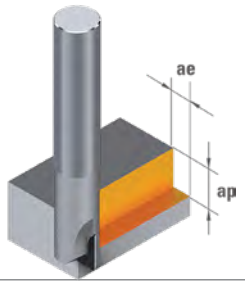
POSALUX MIT WECHSELSYSTEM

COOL+TOOLS ON REQUEST

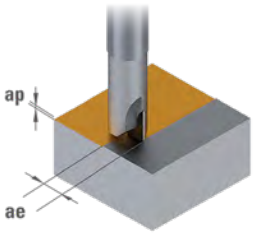
OTHER SPECIFIC CATALOGS

DIXI 70600 PCD

ROUTING

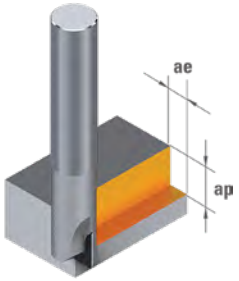
		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**35** - 60'000	0.05 - 0.20	<0.9×L1
	Cast aluminium alloy ≤8% Si	23		**30** - 60'000	0.05 - 0.20	<0.9×L1
	Copper alloy good machinability with Pb	26		**25** - 50'000	0.05 - 0.20	<0.9×L1
	Copper alloy with difficult machinability	27-28		**20** - 45'000	0.05 - 0.20	<0.9×L1
	Plastic, wood	29		**25** -50'000	0.05 - 0.20	<0.9×L1
	Gold, silver	-		**30** - 60'000	0.05 - 0.20	<0.9×L1

FACE MILLING

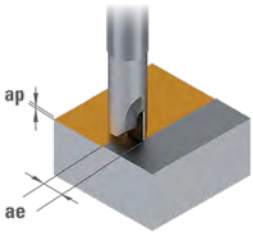
		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**35** - 60'000	<1×ØD1	0.05 - 0.20
	Cast aluminium alloy ≤8% Si	23		**30** - 60'000	<1×ØD1	0.05 - 0.20
	Copper alloy good machinability with Pb	26		**25** - 50'000	<1×ØD1	0.05 - 0.20
	Copper alloy with difficult machinability	27-28		**20** - 45'000	<1×ØD1	0.05 - 0.20
	Plastic, wood	29		**25** -50'000	<1×ØD1	0.05 - 0.20
	Gold, silver	-		**30** - 60'000	<1×ØD1	0.05 - 0.20

DIXI 70630 PCD

ROUTING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Plastic	29		**17** - 25'000	0.05 - 0.10	<1×ØD1

FACE MILLING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Plastic	29		**7** - 15'000	<1×ØD1	0.05 - 0.10

$$n\ [rpm] = \frac{Vc\ [m/min] \times 1000}{\pi \times D_1\ [mm]}$$

$$Vf\ [mm/min] = n\ [rpm] \times fz\ [mm] \times Z$$

Feed per tooth fz [mm]

Ø D_1 0.5 - 0.9	Ø D_1 1 - 1.5	Ø D_1 1.6 - 2	Ø D_1 2.5 - 3	Ø D_1 3 - 4	Ø D_1 4.5 - 6	Ø D_1 8 - 10
0.005 - 0.009	0.011 - 0.016	0.017 - 0.021	0.026 - 0.032	0.032 - 0.042	0.048 - 0.065	0.080 - 0.110
0.005 - 0.008	0.009 - 0.014	0.015 - 0.018	0.023 - 0.027	0.027 - 0.036	0.040 - 0.055	0.070 - 0.090
0.005 - 0.009	0.011 - 0.016	0.017 - 0.021	0.026 - 0.032	0.032 - 0.042	0.048 - 0.065	0.080 - 0.110
0.004 - 0.008	0.008 - 0.013	0.013 - 0.017	0.021 - 0.025	0.025 - 0.034	0.038 - 0.050	0.070 - 0.080
0.005 - 0.009	0.011 - 0.016	0.017 - 0.021	0.026 - 0.032	0.032 - 0.042	0.048 - 0.065	0.080 - 0.110
0.004 - 0.006	0.007 - 0.011	0.011 - 0.014	0.018 - 0.021	0.021 - 0.028	0.032 - 0.040	0.060 - 0.070

Feed per tooth fz [mm]

Ø D_1 0.5 - 0.9	Ø D_1 1 - 1.5	Ø D_1 1.6 - 2	Ø D_1 2.5 - 3	Ø D_1 3 - 4	Ø D_1 4.5 - 6	Ø D_1 8 - 10
0.004 - 0.008	0.009 - 0.014	0.014 - 0.016	0.022 - 0.027	0.024 - 0.032	0.036 - 0.050	0.060 - 0.080
0.004 - 0.007	0.008 - 0.012	0.013 - 0.014	0.020 - 0.023	0.020 - 0.027	0.030 - 0.040	0.050 - 0.070
0.004 - 0.008	0.009 - 0.014	0.014 - 0.016	0.022 - 0.027	0.024 - 0.032	0.036 - 0.050	0.060 - 0.080
0.003 - 0.007	0.007 - 0.011	0.011 - 0.013	0.018 - 0.021	0.019 - 0.026	0.029 - 0.040	0.050 - 0.060
0.004 - 0.008	0.009 - 0.014	0.014 - 0.016	0.022 - 0.027	0.024 - 0.032	0.036 - 0.050	0.060 - 0.080
0.003 - 0.005	0.006 - 0.009	0.009 - 0.011	0.015 - 0.018	0.016 - 0.021	0.024 - 0.030	0.045 - 0.050

Feed per tooth fz [mm]

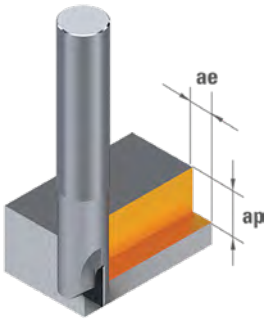
Ø D_1 3 - 6	Ø D_1 8 - 12
0.027 - 0.045	0.060 - 0.090

Ø D_1 3 - 6	Ø D_1 8 - 12
0.024 - 0.041	0.054 - 0.081

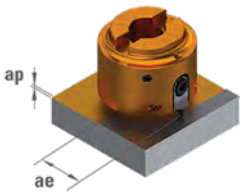
Values based on use of cutting oil. The cutting parameters are very strongly influenced by external parameters, such as tool and workpiece stability, etc.
The cutting conditions must be adapted to the operating conditions !

DIXI 70600 DIA

ROUTING

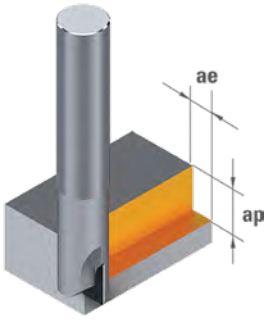
		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**35** - 60'000	0.03 - 0.08	<2.50
	Cast aluminium alloy ≤8% Si	23		**35** - 60'000	0.03 - 0.08	<2.50
	Copper alloy good machinability with Pb	26		**35** - 50'000	0.03 - 0.08	<2.50
	Copper alloy with difficult machinability	27-28		**35** - 45'000	0.03 - 0.08	<2.50
	Plastic, wood	29		**35** -50'000	0.03 - 0.08	<2.50
	Gold, silver	-		**35** - 60'000	0.03 - 0.08	<2.50

FACE MILLING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**35** - 60'000	<1×ØD1	0.03 - 0.08
	Cast aluminium alloy ≤8% Si	23		**35** - 60'000	<1×ØD1	0.03 - 0.08
	Copper alloy good machinability with Pb	26		**35** - 50'000	<1×ØD1	0.03 - 0.08
	Copper alloy with difficult machinability	27-28		**35** - 45'000	<1×ØD1	0.03 - 0.08
	Plastic, wood	29		**35** -50'000	<1×ØD1	0.03 - 0.08
	Gold, silver	-		**35** - 60'000	<1×ØD1	0.03 - 0.08

DIXI 72310 DIA - 70330 DIA

ROUTING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**40** - 50'000	0.03 - 0.05	<0.8×L1
	Cast aluminium alloy ≤8% Si	23		**40** - 50'000	0.03 - 0.05	<0.8×L1
	Copper alloy good machinability with Pb	26		**30** - 50'000	0.03 - 0.05	<0.8×L1
	Copper alloy with difficult machinability	27-28		**30** - 50'000	0.03 - 0.05	<0.8×L1
	Plastic, wood	29		**35** - 50'000	0.03 - 0.05	<0.8×L1
	Gold, silver	-		**40** - 50'000	0.03 - 0.05	<0.8×L1

$$n\ [rpm] = \frac{Vc\ [m/min] \times 1000}{\pi \times D_1\ [mm]}$$

$$Vf\ [mm/min] = n\ [rpm] \times fz\ [mm] \times Z$$

Feed per tooth fz [mm]

Ø D_1 3 - 4	Ø D_1 4 - 6
0.008 - 0.009	0.009 - 0.012
0.007 - 0.008	0.008 - 0.010
0.008 - 0.009	0.009 - 0.012
0.006 - 0.007	0.007 - 0.010
0.008 - 0.009	0.009 - 0.012
0.005 - 0.006	0.006 - 0.008

Feed per tooth fz [mm]

Ø D_1 3 - 4	Ø D_1 4 - 6
0.007 - 0.008	0.007 - 0.009
0.006 - 0.007	0.006 - 0.008
0.007 - 0.008	0.007 - 0.009
0.005 - 0.006	0.005 - 0.008
0.007 - 0.008	0.007 - 0.009
0.004 - 0.005	0.005 - 0.006

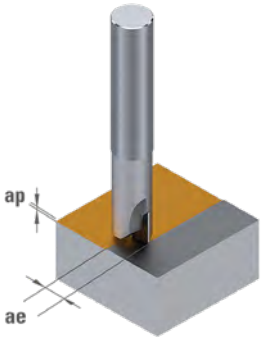
Feed per tooth fz [mm]

Ø D_1 0.4 - 0.9	Ø D_1 1 - 2
0.002 - 0.004	0.004 - 0.006
0.002 - 0.004	0.003 - 0.005
0.002 - 0.004	0.004 - 0.006
0.002 - 0.003	0.003 - 0.005
0.002 - 0.004	0.004 - 0.006
0.001 - 0.003	0.003 - 0.004

Values based on use of cutting oil. The cutting parameters are very strongly influenced by external parameters, such as tool and workpiece stability, etc.
The cutting conditions must be adapted to the operating conditions !

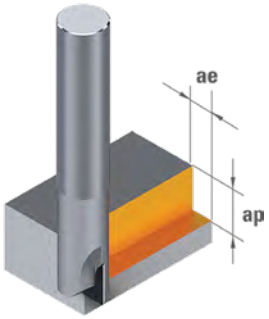
DIXI 72310 DIA - 70330 DIA

FACE MILLING

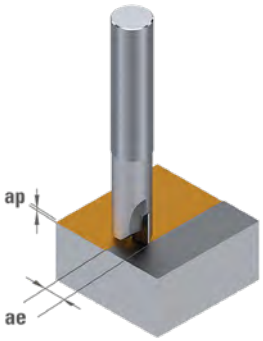
		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**40** - 50'000	<1×ØD1	0.03 - 0.05
	Cast aluminium alloy ≤8% Si	23		**40** - 50'000	<1×ØD1	0.03 - 0.05
	Copper alloy good machinability with Pb	26		**30** - 50'000	<1×ØD1	0.03 - 0.05
	Copper alloy with difficult machinability	27-28		**30** - 50'000	<1×ØD1	0.03 - 0.05
	Plastic, wood	29		**35** - 50'000	<1×ØD1	0.03 - 0.05
	Gold, silver	-		**40** - 50'000	<1×ØD1	0.03 - 0.05

DIXI 72421 SH DIA

ROUTING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**20** - 30'000	0.02 - 0.08	<0.8×L1
	Cast aluminium alloy ≤8% Si	23		**15** - 30'000	0.02 - 0.08	<0.8×L1
	Copper alloy good machinability with Pb	26		**10** - 20'000	0.02 - 0.08	<0.8×L1
	Copper alloy with difficult machinability	27-28		**10** - 20'000	0.02 - 0.08	<0.8×L1
	Plastic, wood	29		**10** - 20'000	0.02 - 0.08	<0.8×L1
	Gold, silver	-		**15** - 30'000	0.02 - 0.08	<0.8×L1

FACE MILLING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**20** - 30'000	<1×ØD1	0.02 - 0.08
	Cast aluminium alloy ≤8% Si	23		**15** - 30'000	<1×ØD1	0.02 - 0.08
	Copper alloy good machinability with Pb	26		**10** - 20'000	<1×ØD1	0.02 - 0.08
	Copper alloy with difficult machinability	27-28		**10** - 20'000	<1×ØD1	0.02 - 0.08
	Plastic, wood	29		**10** - 20'000	<1×ØD1	0.02 - 0.08
	Gold, silver	-		**15** - 30'000	<1×ØD1	0.02 - 0.08

$$n\ [rpm] = \frac{Vc\ [m/min] \times 1000}{\pi \times D_1\ [mm]}$$

$$Vf\ [mm/min] = n\ [rpm] \times fz\ [mm] \times Z$$

Feed per tooth fz [mm]

Ø D_1 0.4 - 0.9	Ø D_1 1 - 2
0.002 - 0.003	0.003 - 0.005
0.002 - 0.003	0.003 - 0.004
0.002 - 0.003	0.003 - 0.005
0.002 - 0.003	0.003 - 0.004
0.002 - 0.003	0.003 - 0.005
0.001 - 0.003	0.003 - 0.003

Feed per tooth fz [mm]

Ø D_1 6 - 8	Ø D_1 10 - 12
0.011 - 0.024	0.018 - 0.036
0.009 - 0.021	0.016 - 0.031
0.011 - 0.024	0.018 - 0.036
0.009 - 0.019	0.014 - 0.029
0.011 - 0.024	0.018 - 0.036
0.007 - 0.016	0.012 - 0.024

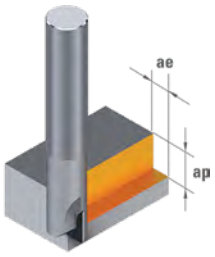
Feed per tooth fz [mm]

Ø D_1 6 - 8	Ø D_1 10 - 12
0.009 - 0.020	0.015 - 0.031
0.008 - 0.018	0.014 - 0.026
0.009 - 0.020	0.015 - 0.031
0.008 - 0.016	0.012 - 0.025
0.009 - 0.020	0.015 - 0.031
0.062 - 0.014	0.010 - 0.020

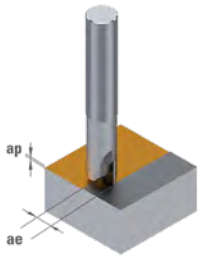
Values based on use of cutting oil. The cutting parameters are very strongly influenced by external parameters, such as tool and workpiece stability, etc.
The cutting conditions must be adapted to the operating conditions !

DIXI 72420 PCD - 70520 PCD

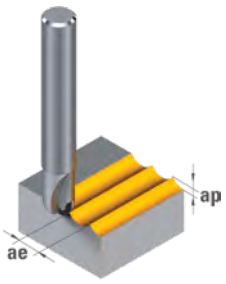
ROUTING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**25** - 40'000	**0.10** - 1.00	<0.9×L1
	Cast aluminium alloy ≤8% Si	23		**20** - 40'000	**0.10** - 1.00	<0.9×L1
	Copper alloy good machinability with Pb	26		**15** - 35'000	**0.10** - 1.00	<0.9×L1
	Copper alloy with difficult machinability	27-28		**15** - 35'000	**0.10** - 1.00	<0.9×L1
	Plastic, wood	29		**15** - 30'000	**0.10** - 1.00	<0.9×L1
	Gold, silver	-		**20** - 40'000	**0.10** - 1.00	<0.9×L1

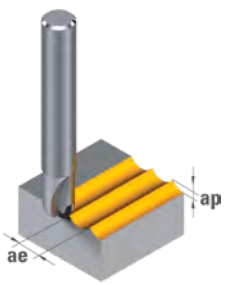
FACE MILLING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**25** - 40'000	**0.10** - 1.00	<0.9×L1
	Cast aluminium alloy ≤8% Si	23		**20** - 40'000	**0.10** - 1.00	<0.9×L1
	Copper alloy good machinability with Pb	26		**15** - 35'000	**0.10** - 1.00	<0.9×L1
	Copper alloy with difficult machinability	27-28		**15** - 35'000	**0.10** - 1.00	<0.9×L1
	Plastic, wood	29		**15** - 30'000	**0.10** - 1.00	<0.9×L1
	Gold, silver	-		**20** - 40'000	**0.10** - 1.00	<0.9×L1

DIXI 70320-SH PCD

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**25** - 50'000	<0.10×ØD1	<0.10×ØD1
	Cast aluminium alloy ≤8% Si	23		**20** - 50'000	<0.10×ØD1	<0.10×ØD1
	Copper alloy good machinability with Pb	26		**15** - 40'000	<0.10×ØD1	<0.10×ØD1
	Copper alloy with difficult machinability	27-28		**10** - 35'000	<0.10×ØD1	<0.10×ØD1
	Plastic, wood	29		**15** - 40'000	<0.10×ØD1	<0.10×ØD1
	Gold, silver	-		**20** - 50'000	<0.10×ØD1	<0.10×ØD1

DIXI 70320 DIA

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**25** - 50'000	0.03 - 0.08	0.03 - 0.08
	Cast aluminium alloy ≤8% Si	23 - 25		**20** - 50'000	0.03 - 0.08	0.03 - 0.08
	Copper alloy good machinability with Pb	26		**15** - 40'000	0.03 - 0.08	0.03 - 0.08
	Copper alloy with difficult machinability	27-28		**10** - 35'000	0.03 - 0.08	0.03 - 0.08
	Plastic, wood	29 - 30		**15** - 40'000	0.03 - 0.08	0.03 - 0.08
	Gold, silver	-		**20** - 50'000	0.03 - 0.08	0.03 - 0.08

$$n\ [rpm] = \frac{Vc\ [m/min] \times 1000}{\pi \times D_1\ [mm]}$$

$$Vf\ [mm/min] = n\ [rpm] \times fz\ [mm] \times Z$$

Feed per tooth fz [mm]

Ø D_1 1 - 2	Ø D_1 3 - 6	Ø D_1 7- 12	Ø D_1 13 - 20
0.009 - 0.018	0.027 - 0.054	0.063 - 0.108	0.098 - 0.150
0.008 - 0.016	0.023 - 0.047	0.055 - 0.064	0.085 - 0.130
0.009 - 0.018	0.027 - 0.054	0.063 - 0.108	0.098 - 0.150
0.007 - 0.014	0.022 - 0.043	0.050 - 0.086	0.078 - 0.120
0.009 - 0.018	0.027 - 0.054	0.063 - 0.108	0.098 - 0.150
0.006 - 0.012	0.018 - 0.036	0.042 - 0.072	0.065 - 0.100

Feed per tooth fz [mm]

Ø D_1 1 - 2	Ø D_1 3 - 6	Ø D_1 7- 12	Ø D_1 13 - 20
0.008 - 0.016	0.023 - 0.047	0.055 - 0.094	0.085 - 0.130
0.007 - 0.013	0.020 - 0.040	0.046 - 0.079	0.072 - 0.110
0.008 - 0.016	0.023 - 0.047	0.055 - 0.094	0.085 - 0.130
0.006 - 0.012	0.018 - 0.036	0.042 - 0.072	0.065 - 0.100
0.008 - 0.016	0.023 - 0.047	0.055 - 0.094	0.085 - 0.130
0.005 - 0.010	0.014 - 0.029	0.034 - 0.058	0.052 - 0.080

Feed per tooth fz [mm]

Ø D_1 2 - 4	Ø D_1 5 - 8	Ø D_1 10 - 20
0.014 - 0.027	0.034 - 0.054	0.060 - 0.120
0.012 - 0.023	0.029 - 0.047	0.052 - 0.104
0.014 - 0.027	0.034 - 0.054	0.060 - 0.120
0.011 - 0.022	0.027 - 0.043	0.048 - 0.096
0.014 - 0.027	0.034 - 0.054	0.060 - 0.120
0.009 - 0.018	0.023 - 0.036	0.040 - 0.080

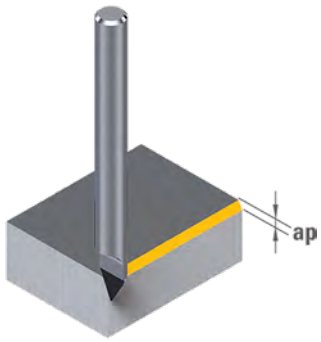
Feed per tooth fz [mm]

Ø D_1 2 - 4	Ø D_1 6 - 10
0.005 - 0.044	0.012 - 0.015
0.005 - 0.009	0.010 - 0.013
0.005 - 0.011	0.012 - 0.015
0.004 - 0.009	0.009 - 0.012
0.005 - 0.011	0.012 - 0.015
0.004 - 0.007	0.008 - 0.010

Values based on use of cutting oil. The cutting parameters are very strongly influenced by external parameters, such as tool and workpiece stability, etc.
The cutting conditions must be adapted to the operating conditions !

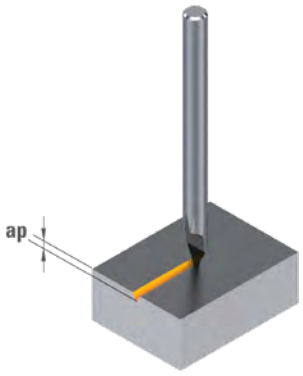
DIXI 76230 DIA - 76231 DIA

CHAMFERING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**35** - 60'000	0.03 - 0.08	< 0.8 × L1
	Cast aluminium alloy ≤8% Si	23		**35** - 60'000	0.03 - 0.08	< 0.8 × L1
	Copper alloy good machinability with Pb	26		**35** - 60'000	0.03 - 0.08	< 0.8 × L1
	Copper alloy with difficult machinability	27-28		**35** - 60'000	0.03 - 0.08	< 0.8 × L1
	Plastic, wood	29		**35** - 60'000	0.03 - 0.08	< 0.8 × L1
	Gold, silver	-		**35** - 60'000	0.03 - 0.08	< 0.8 × L1

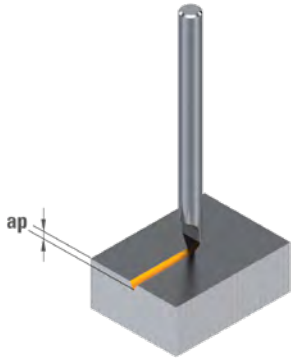
DIXI 70170 DIA

ENGRAVING

		VDI 3323		n rpm	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**30** - 60'000	0.03 - 0.08
	Cast aluminium alloy ≤8% Si	23		**30** - 60'000	0.03 - 0.08
	Copper alloy good machinability with Pb	26		**30** - 60'000	0.03 - 0.08
	Copper alloy with difficult machinability	27-28		**30** - 60'000	0.03 - 0.08
	Plastic, wood	29		**30** - 60'000	0.03 - 0.08
	Gold, silver	-		**30** - 60'000	0.03 - 0.08

DIXI 70070 PCD - 70170 PCD

ENGRAVING

		VDI 3323		n rpm	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**25** - 45'000	0.05 - 0.10
	Cast aluminium alloy ≤8% Si	23		**20** - 45'000	0.05 - 0.10
	Copper alloy good machinability with Pb	26		**15** - 35'000	0.05 - 0.10
	Copper alloy with difficult machinability	27-28		**10** - 30'000	0.05 - 0.10
	Plastic, wood	29		**15** - 35'000	0.05 - 0.10
	Gold, silver	-		**20** - 45'000	0.05 - 0.10

$$n\ [rpm] = \frac{Vc\ [m/min] \times 1000}{\pi \times D_1\ [mm]}$$

$$Vf\ [mm/min] = n\ [rpm] \times fz\ [mm] \times Z$$

Feed per tooth fz [mm]

Ø D_1 0.1 -0.9	Ø D_1 1 - 3.9	Ø D_1 4 - 16
0.003 - 0.007	0.008 - 0.012	0.011 - 0.019
0.003 - 0.006	0.007 - 0.010	0.009 - 0.017
0.003 - 0.007	0.008 - 0.012	0.011 - 0.019
0.002 - 0.005	0.006 - 0.009	0.009 - 0.015
0.003 - 0.007	0.008 - 0.012	0.011 - 0.019
0.002 - 0.005	0.005 - 0.008	0.007 - 0.013

Values based on use of cutting oil. The cutting parameters are very strongly influenced by external parameters, such as tool and workpiece stability, etc.
The cutting conditions must be adapted to the operating conditions !

Feed per tooth fz [mm]

Ø D_1 0.05 - 0.10
0.004 - 0.007
0.003 - 0.006
0.004 - 0.007
0.003 - 0.006
0.004 - 0.007
0.002 - 0.005

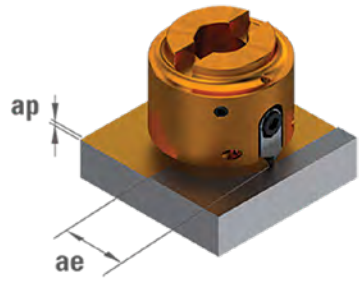
Feed per tooth fz [mm]

Ø D_1 0.05 - 0.10	Ø D_1 0.10 - 0.20
0.003 - 0.006	0.007 - 0.011
0.003 - 0.005	0.006 - 0.009
0.003 - 0.006	0.007 - 0.011
0.002 - 0.005	0.006 - 0.009
0.003 - 0.006	0.007 - 0.011
0.002 - 0.004	0.005 - 0.007

The cutting parameters are very strongly influenced by external parameters, such as tool and workpiece stability, etc.
The cutting conditions must be adapted to the operating conditions !

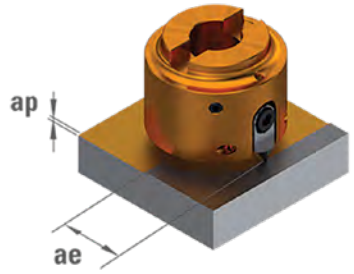
DIXI 81000

FACE MILLING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**2** - 7'000	<1×ØD1	0.10 - 0.50
	Cast aluminium alloy ≤8% Si	23		**2** - 7'000	<1×ØD1	0.10 - 0.50
	Copper alloy good machinability with Pb	26		**2** - 6'000	<1×ØD1	0.10 - 0.50
	Copper alloy with difficult machinability	27-28		**2** - 5'000	<1×ØD1	0.10 - 0.50
	Plastic, wood	29		**2** -5'000	<1×ØD1	0.10 - 0.50
	Gold, silver	-		**2** - 7'000	<1×ØD1	0.10 - 0.50

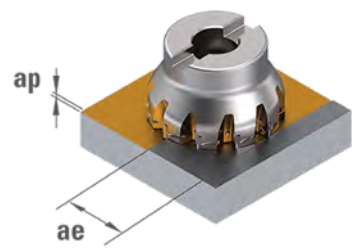
DIXI 82000

FACE MILLING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**5** - 7'000	<1×ØD1	0.10 - 0.50
	Cast aluminium alloy ≤8% Si	23		**5** - 7'000	<1×ØD1	0.10 - 0.50
	Copper alloy good machinability with Pb	26		**4** - 6'000	<1×ØD1	0.10 - 0.50
	Copper alloy with difficult machinability	27-28		**4** - 5'000	<1×ØD1	0.10 - 0.50
	Plastic, wood	29		**4** - 5'000	<1×ØD1	0.10 - 0.50
	Gold, silver	-		**5** - 7'000	<1×ØD1	0.10 - 0.50

DIXI 80000

FACE MILLING

		VDI 3323		n rpm	ae (mm)	ap (mm)
N	Wrought aluminium alloy < 12% Si	21 - 22		**2** - 7'000	<1×ØD1	0.10 - 1.00
	Cast aluminium alloy ≤8% Si	23		**2** - 7'000	<1×ØD1	0.10 - 1.00
	Copper alloy good machinability with Pb	26		**2** - 6'000	<1×ØD1	0.10 - 1.00
	Copper alloy with difficult machinability	27-28		**2** - 5'000	<1×ØD1	0.10 - 1.00
	Plastic, wood	29		**2** - 5'000	<1×ØD1	0.10 - 1.00
	Gold, silver	-		**2** - 7'000	<1×ØD1	0.10 - 1.00

$$n\ [rpm] = \frac{Vc\ [m/min] \times 1000}{\pi \times D_1\ [mm]}$$

$$Vf\ [mm/min] = n\ [rpm] \times fz\ [mm] \times Z$$

Feed per tooth fz [mm]

Ø D_1 40 - 60	Ø D_1 85 - 125
0.018 - 0.027	0.032 - 0.056
0.016 - 0.023	0.028 - 0.049
0.018 - 0.027	0.032 - 0.056
0.014 - 0.022	0.026 - 0.045
0.018 - 0.027	0.032 - 0.056
0.012 - 0.018	0.021 - 0.038

Feed per tooth fz [mm]

Ø D_1 18 - 30
0.008 - 0.014
0.007 - 0.012
0.008 - 0.014
0.006 - 0.011
0.008 - 0.014
0.005 - 0.009

Feed per tooth fz [mm]

Ø D_1 40 - 63	Ø D_1 80 -125
0.024 - 0.189	0.060 - 0.244
0.021 - 0.164	0.052 - 0.211
0.024 - 0.189	0.060 - 0.244
0.019 - 0.151	0.048 - 0.195
0.024 - 0.189	0.060 - 0.244
0.016 - 0.126	0.040 - 0.163

Values based on use of cutting oil. The cutting parameters are very strongly influenced by external parameters, such as tool and workpiece stability, etc.
The cutting conditions must be adapted to the operating conditions !

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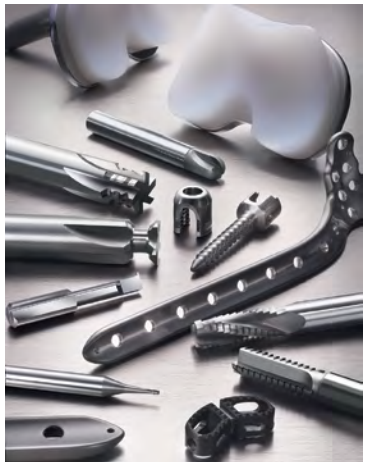




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