

VITRIFIED / RESIN BONDED DIAMOND / CBN AND DIAMOND IMPREGNATED CERAMIC BARS

SHANK $\phi 6.0$ Resin Bond
1 pc./pack

Diamond	15101	15102	15103	15104	15105
CBN	15111	15112	15113	15114	15115

SHANK $\phi 2.34$
12 pcs./pack Assorted Set

15301	
Set (12 pieces) (Each code No. one piece-pack)	
11204	11313
11208	11321
11213	11333
11242	11356
11247	11366
11250	11502

SHANK $\phi 3.0$
12 pcs./pack Assorted Set

15305	
Set (12 pieces) (Each code No. one piece-pack)	
12317	12403
12320	12405
12336	12412
12341	12415
12355	12451
12401	12492

SHANK $\phi 3.0$
10 pcs./pack Assorted Set

15311			
Set (10 pieces) (Each code No. one piece-pack)			
ϕ mm	CAT. NO.	ϕ mm	CAT. NO.
0.8	12009	3	12058
1	12051	3.5	12060
1.5	12053	4	12061
2	12055	5	12063
2.5	12057	6	12065

15312			
Set (10 pieces) (Each code No. one piece-pack)			
ϕ mm	CAT. NO.	ϕ mm	CAT. NO.
0.8	12019	3	12158
1	12151	3.5	12160
1.5	12153	4	12161
2	12155	5	12163
2.5	12157	6	12165

SHANK $\phi 3.0$
8 pcs./pack Assorted Set

15321			
Set (8 pieces) (Each code No. one piece-pack)			
ϕ mm	CAT. NO.	ϕ mm	CAT. NO.
1	14752	3	14756
1.5	14753	4	14758
2	14754	5	14759
2.5	14755	6	14760

15322			
Set (8 pieces) (Each code No. one piece-pack)			
ϕ mm	CAT. NO.	ϕ mm	CAT. NO.
1	14792	3	14796
1.5	14793	4	14798
2	14794	5	14799
2.5	14795	6	14800

SHANK $\phi 3.0$
8 pcs./pack Assorted Set

15331			
Set (8 pieces) (Each code No. one piece-pack)			
ϕ mm	CAT. NO.	ϕ mm	CAT. NO.
1.5	15071	3.5	15075
2	15072	4	15076
2.5	15073	5	15077
3	15074	6	15078

15332			
Set (8 pieces) (Each code No. one piece-pack)			
ϕ mm	CAT. NO.	ϕ mm	CAT. NO.
1.5	15081	3.5	15085
2	15082	4	15086
2.5	15083	5	15087
3	15084	6	15088

CARBIDE CUTTERS

Tool / Cut types and features (*' Shows available shank sizes for each cut type)

<p>Single Cut (1)</p> <p>Single cut produces superior surface finishes. * $\phi 1.6, \phi 2.34, \phi 3.0, \phi 6.0$</p>	<p>Single Cut Coarse (2)</p> <p>Single Cut Coarse has similar cutting characteristics to Single cut, but is better for gummy materials due to deep helix design. Ideal for rubbers, resins, and plasters. * $\phi 2.34, \phi 3.0$</p>	<p>Chip Breaker (3)</p> <p>Chip Breaker is the single cut with a chip breaker. The chip breaker clears chips easily making aggressive cutting very efficient. Surface finish is rougher than single cut. * $\phi 1.6, \phi 2.34$</p>	<p>Alumina Cut (4)</p> <p>Alumina Cut has very sharp edge with a deep helix. The deep helix design prevents tool loading. Ideal for aluminum, magnesium alloys, plastics and hard rubbers. * $\phi 6.0$</p>
<p>Double Cut (5)</p> <p>Smooth Cut with small tooth design minimizes chatter. This tool also helps enhance safety as it produces very small chips. * $\phi 2.34, \phi 3.0, \phi 6.0$</p>	<p>Double Cut Coarse (6)</p> <p>Deep helix design prevents tool loading. Ideal for grinding hard rubbers, resins and plaster. * $\phi 2.34$</p>	<p>Diamond Cut Fine (7)</p> <p>Diamond Cut Fine (7) has similar characteristics as Double Cut (5). Specially designed for very hard materials. Produces fine surface finish. * $\phi 2.34, \phi 3.0$</p>	<p>Diamond Cut Coarse (8)</p> <p>Specially designed for very hard materials. Produces fine surface finish. * $\phi 3.0, \phi 6.0$</p>

Titanium coating insures long tool life and minimizes tool loading.

SHANK $\phi 3.0$
1 pc./pack Double Cut

SHANK $\phi 3.0$
1 pc./pack Double Cut

1 pc./pack Single Cut

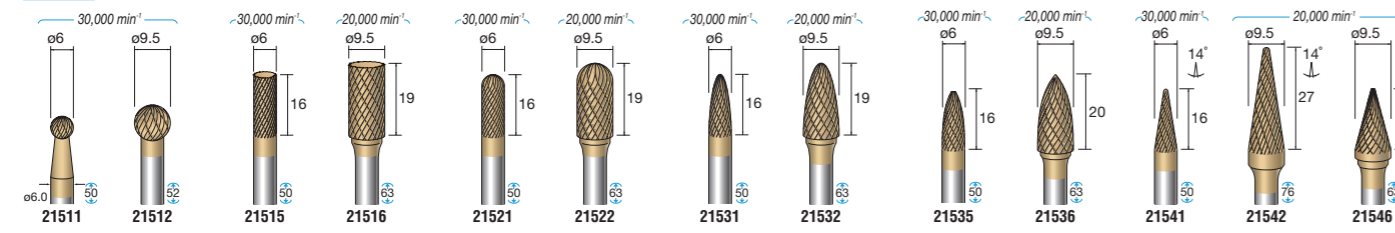
SHANK $\phi 3.0$
1 pc./pack Single Cut

Diamond / CBN Carbide Cutters Specialty Tools Mounted Points Rubberized Abrasives Flap Wheels Polishing Brushes Felt Bobs Abrasive Compounds & Polishing Tools NSK Exclusive Tools

CARBIDE CUTTERS

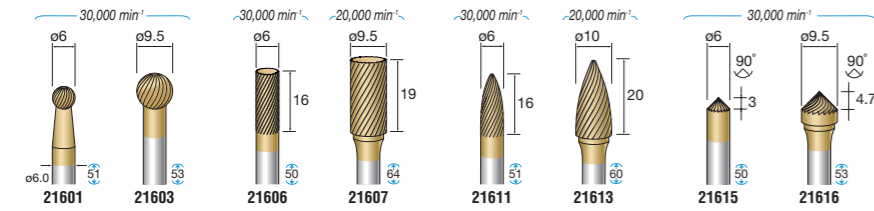
SHANK $\phi 6.0$

1 pc./pack Double Cut



SHANK $\phi 6.0$

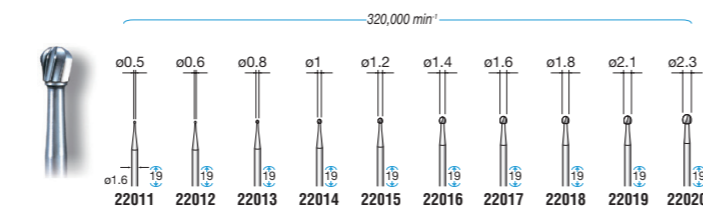
1 pc./pack Single Cut



1.6 mm shank diameter series.
Short type for high speed rotation.
Best for grinding very small parts.

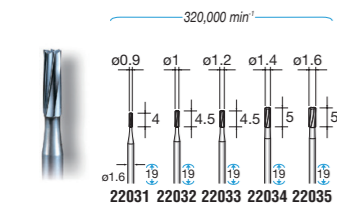
SHANK $\phi 1.6$

5 pcs./pack Single Cut Round Type

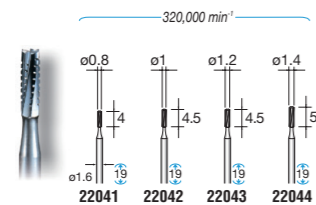


SHANK $\phi 1.6$

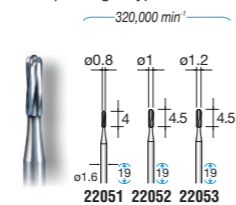
5 pcs./pack Single Cut Straight Type



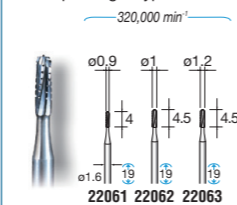
5 pcs./pack Chip Breaker Straight Type



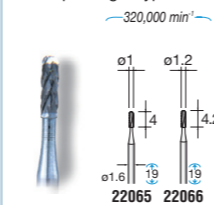
5 pcs./pack Single Cut Ball Tip Straight Type



5 pcs./pack Chip Breaker Ball Tip Straight Type

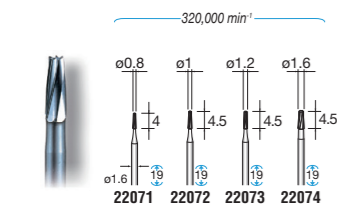


5 pcs./pack Double Cut Ball Tip Straight Type

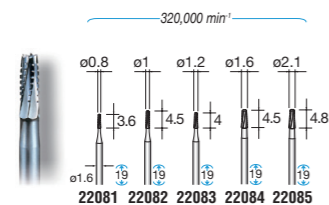


SHANK $\phi 1.6$

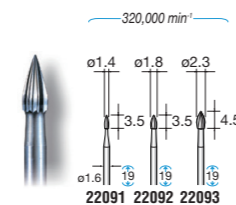
5 pcs./pack Single Cut Tapered Type



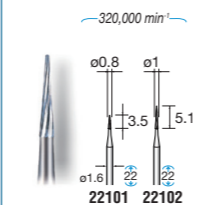
5 pcs./pack Chip Breaker Tapered Type



5 pcs./pack Single Cut Ball Point Tapered Type



5 pcs./pack Single Cut

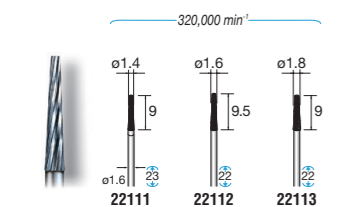


5 pcs./pack Double Cut Ball Point Tapered Type

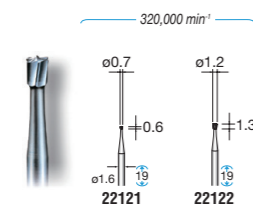


SHANK $\phi 1.6$

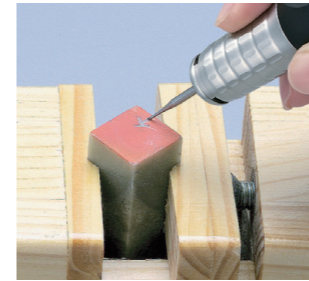
5 pcs./pack Single Cut



5 pcs./pack Single Cut



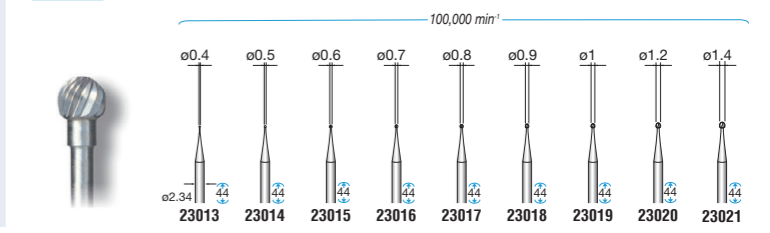
CARBIDE CUTTERS



2.34 mm shank diameter series.
Ideal for engraving, and high precision burr removal.

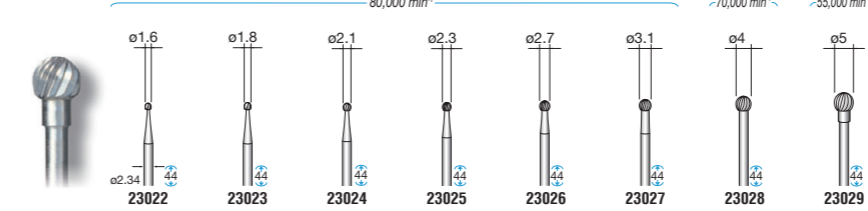
SHANK $\phi 2.34$

1 pc./pack Single Cut

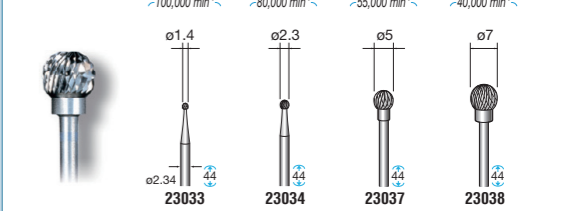


SHANK $\phi 2.34$

1 pc./pack Single Cut

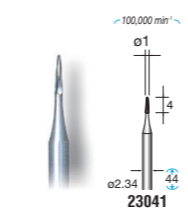


1 pc./pack Double Cut

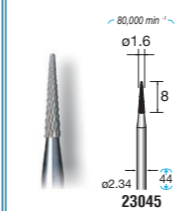


SHANK $\phi 2.34$

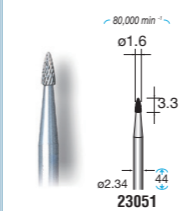
1 pc./pack Single Cut



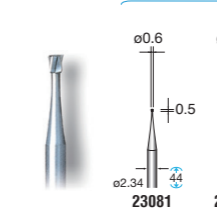
1 pc./pack Diamond Cut



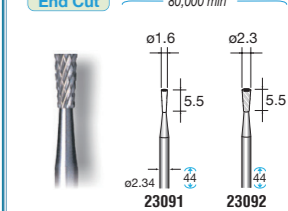
1 pc./pack Diamond Cut



1 pc./pack Single Cut End Cut

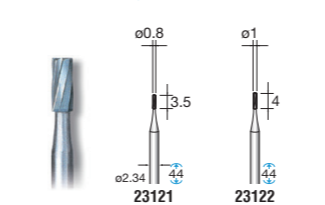


1 pc./pack Diamond Cut End Cut

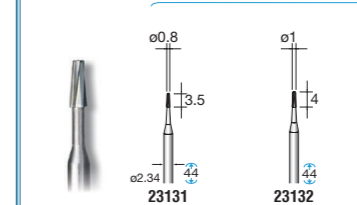


SHANK $\phi 2.34$

1 pc./pack Single Cut Straight Type

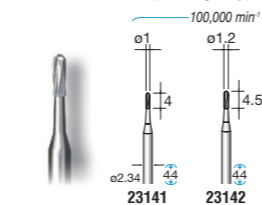


1 pc./pack Single Cut Tapered Type

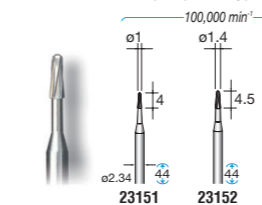


SHANK $\phi 2.34$

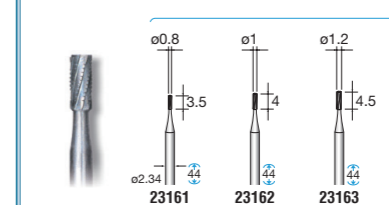
1 pc./pack Single Cut Ball Tip Straight Type



1 pc./pack Single Cut Ball Tip Tapered Type

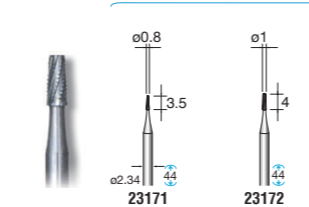


1 pc./pack Chip Breaker Straight Type

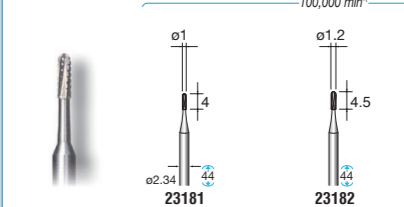


SHANK $\phi 2.34$

1 pc./pack Chip Cut Tapered Type



1 pc./pack Chip Cut Ball Tip Straight Type



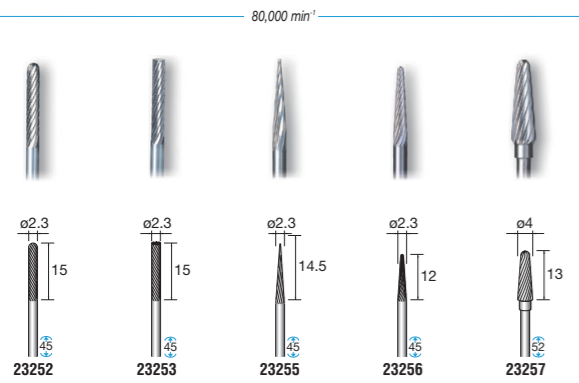
Diamond / CBN Carbide Cutters Specialty Tools Mounted Points Rubberized Abrasives Flap Wheels Polishing Brushes Felt Bobs Abrasive Compounds & Polishing Tools NSK Exclusive Tools

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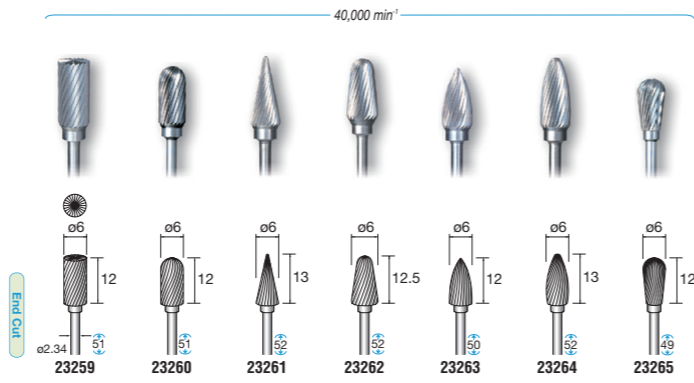
CARBIDE CUTTERS

SHANK $\phi 2.34$

1 pc./pack Single Cut

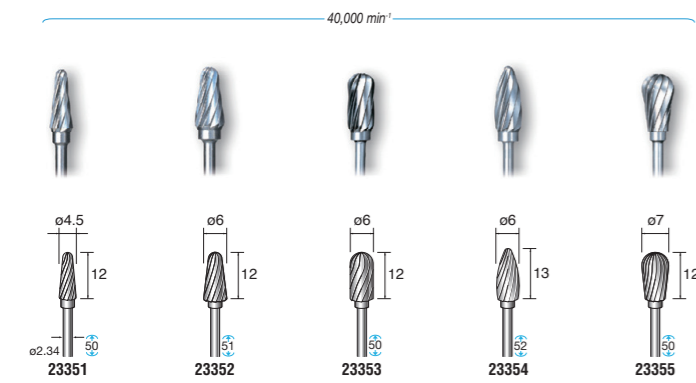


1 pc./pack Single Cut

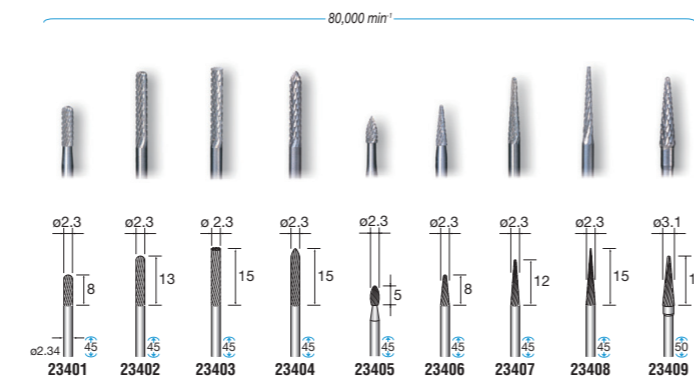


SHANK $\phi 2.34$

1 pc./pack Single Cut

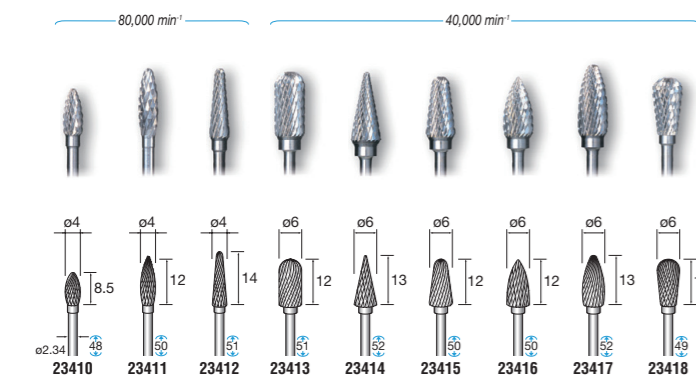


1 pc./pack Double Cut

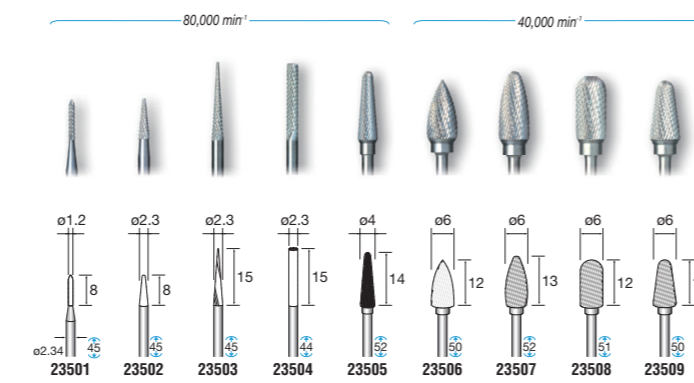


SHANK $\phi 2.34$

1 pc./pack Double Cut

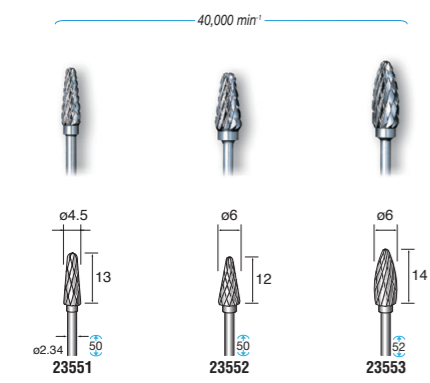


1 pc./pack Diamond Cut <Fine>

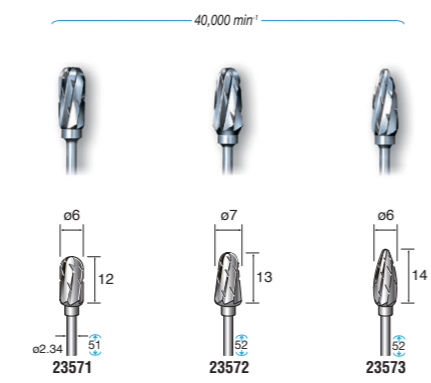


SHANK $\phi 2.34$

1 pc./pack Double Cut <Rough>



1 pc./pack Double Cut <Super Rough>



CARBIDE CUTTERS

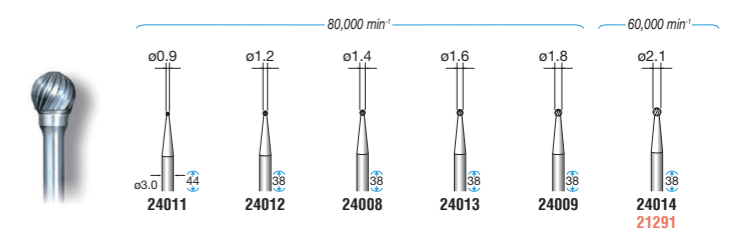
Orange code numbers indicate Titanium-Coated Type.



3.0 mm shank diameter series. High quality carbide cutters offer superior durability and produce fine surface finishes.

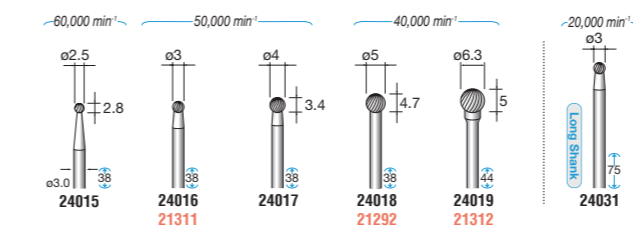
SHANK $\phi 3.0$

1 pc./pack Single Cut

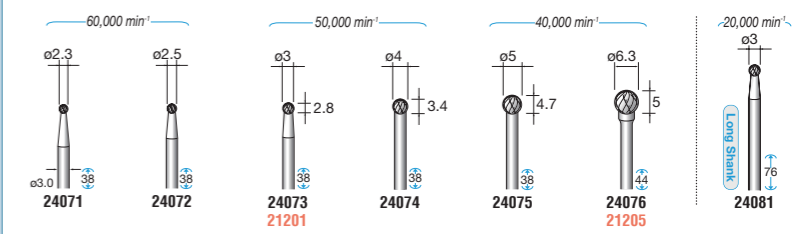


SHANK $\phi 3.0$

1 pc./pack Single Cut

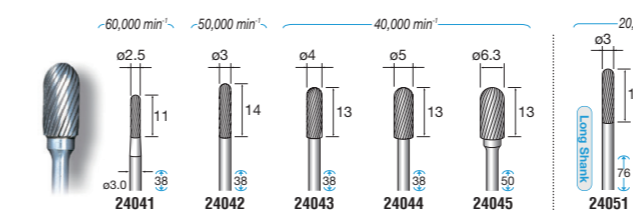


1 pc./pack Double Cut

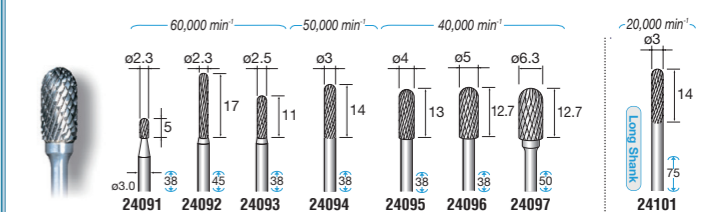


SHANK $\phi 3.0$

1 pc./pack Single Cut

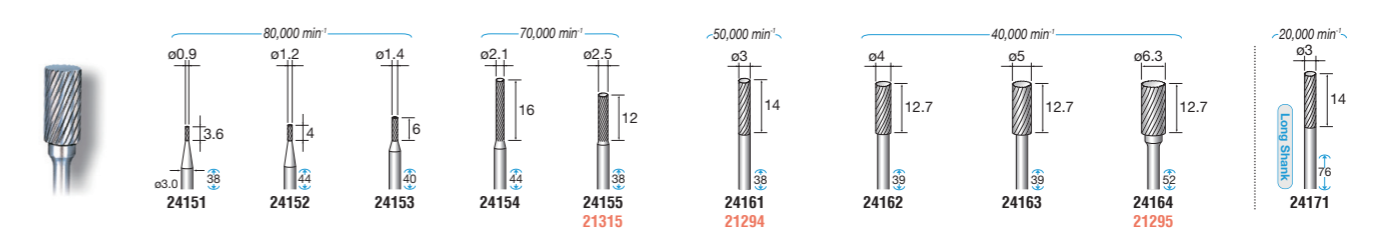


1 pc./pack Double Cut



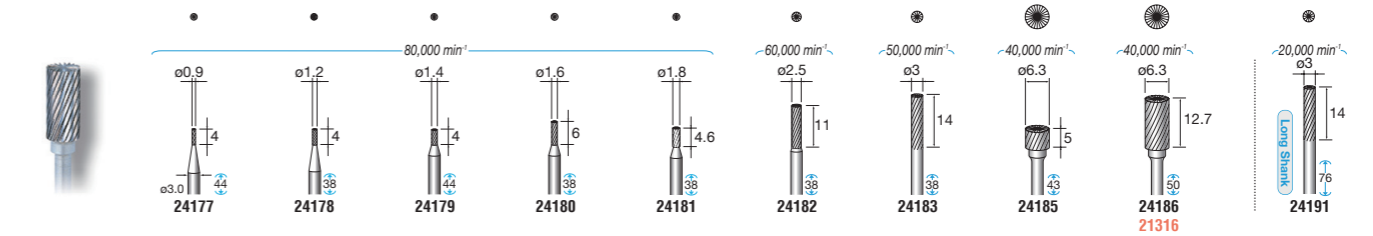
SHANK $\phi 3.0$

1 pc./pack Single Cut



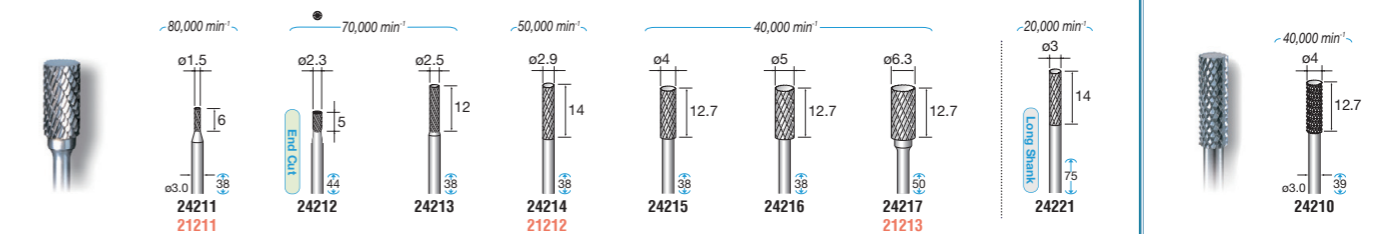
SHANK $\phi 3.0$

1 pc./pack Single Cut End Cut



SHANK $\phi 3.0$

1 pc./pack Double Cut



CARBIDE CUTTERS

• Orange code numbers indicate Titanium-Coated Type.

SHANK $\phi 3.0$

1 pc./pack Double Cut End Cut

80,000 min⁻¹ 60,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24231 24232 24233 21215 24234 21216 24235 24241

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24261 24262 24263 24271

SHANK $\phi 3.0$

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24281 24282 24283 24284 21324 24291

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24301 24302 24303 21321 24304 21322 24305 21323 24311

SHANK $\phi 3.0$

1 pc./pack Double Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24321 24323 24231 24322 24323 24324 24325 24331

1 pc./pack Double Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24342 24343 24344 21241 21242 21243 21244 24351

SHANK $\phi 3.0$

1 pc./pack Double Cut

60,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24361 24362 24363 21261 24364 21262 24365 21263 24366 21265 24371

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24402 24403 24411 21296

SHANK $\phi 3.0$

1 pc./pack Single Cut

40,000 min⁻¹ 40,000 min⁻¹

24425 24435

1 pc./pack Single Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24451 21318 24452 21319 24453 24454 21297 24461

SHANK $\phi 3.0$

1 pc./pack Single Cut

60,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹

24471 24472 24473 24474 21299 24475 24476 24477

1 pc./pack Single Cut

40,000 min⁻¹ 50,000 min⁻¹

24485 21298 24491 24492 24493 24494

CARBIDE CUTTERS

• Orange code numbers indicate Titanium-Coated Type.

SHANK $\phi 3.0$

1 pc./pack Single Cut

50,000 min⁻¹

24496 24497

1 pc./pack Double Cut

60,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24501 21251 24502 24503 21252 24504 21253 24506

1 pc./pack Diamond Cut

40,000 min⁻¹

24525

SHANK $\phi 3.0$

1 pc./pack Double Cut

40,000 min⁻¹

24515

1 pc./pack Diamond Cut

60,000 min⁻¹

24551

1 pc./pack Double Cut

50,000 min⁻¹ 40,000 min⁻¹ 20,000 min⁻¹

24531 21271 24532 21272 24533 24534 21275 24541

SHANK $\phi 3.0$

1 pc./pack Double Cut

60,000 min⁻¹ 50,000 min⁻¹ 40,000 min⁻¹

24561 24562 24563 24564 24565

1 pc./pack Double Cut

40,000 min⁻¹

24572

1 pc./pack Double Cut

50,000 min⁻¹

24581 24582

SHANK $\phi 3.0$

1 pc./pack Alloy Cut

60,000 min⁻¹

24611 24612 24621 24622 24623 24631 24632 24635 24636 24641 24642 24645

End Cut

60,000 min⁻¹

24645

SHANK $\phi 3.0$

1 pc./pack Alloy Cut

60,000 min⁻¹

24646 24651 24652 24653 24654 24661 24662 24663

12 pcs./pack Assorted Set

24601
Set (12 pieces)
(Each code No. one piece-pack)

24611	24646
24612	24651
24622	24653
24623	24654
24631	24661
24632	24663

SHANK $\phi 6.0$

1 pc./pack Alloy Cut

30,000 min⁻¹ 20,000 min⁻¹ 30,000 min⁻¹ 25,000 min⁻¹ 20,000 min⁻¹

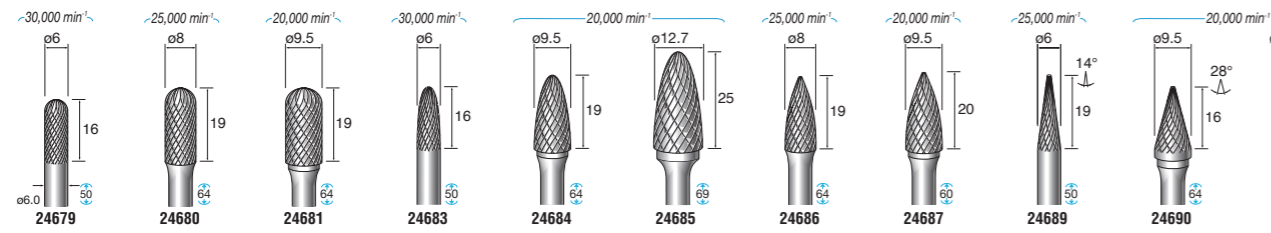
24670 24671 24672 24673 24674 24675 24676 24677 24678

CARBIDE CUTTERS

Orange code numbers indicate Titanium-Coated Type.

SHANK $\phi 6.0$

1 pc./pack Alloy Cut

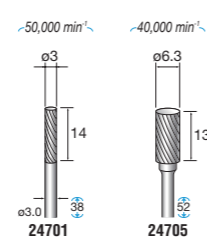


Left Handed
Left handed carbide cutters. For left handed grinders and a wide variety of automated machines.

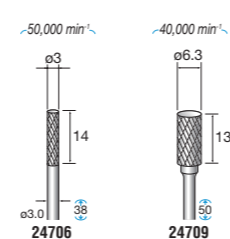
SHANK $\phi 3.0$

Left Handed

1 pc./pack Single Cut



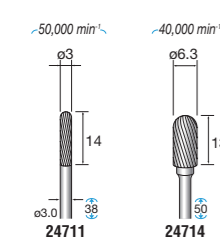
1 pc./pack Double Cut



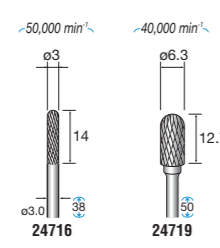
SHANK $\phi 3.0$

Left Handed

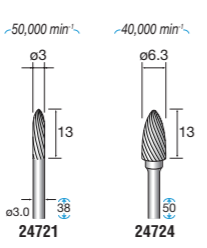
1 pc./pack Single Cut



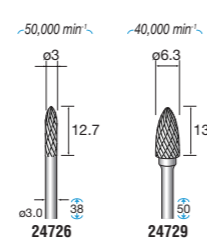
1 pc./pack Double Cut



1 pc./pack Single Cut



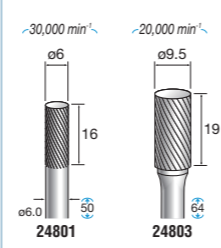
1 pc./pack Double Cut



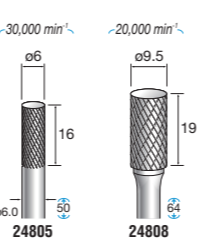
SHANK $\phi 6.0$

Left Handed

1 pc./pack Single Cut



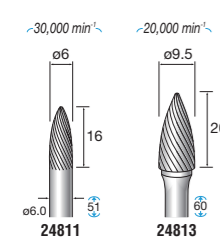
1 pc./pack Double Cut



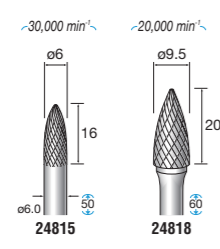
SHANK $\phi 6.0$

Left Handed

1 pc./pack Single Cut



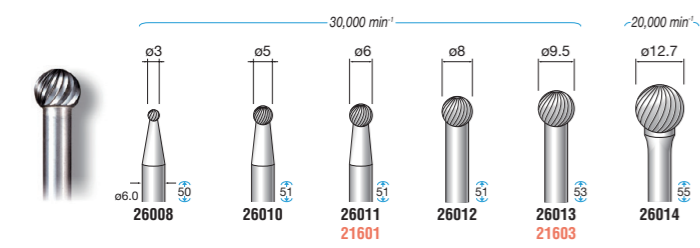
1 pc./pack Double Cut



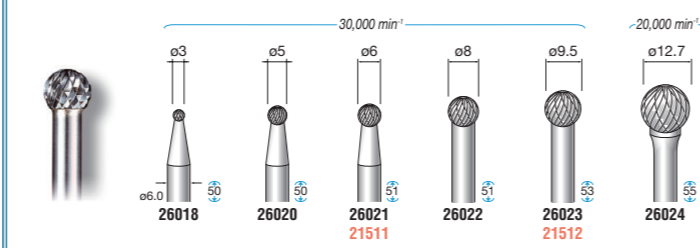
6.0 mm shank diameter series. Ideal for grinding, polishing and general finishing of large work areas.

SHANK $\phi 6.0$

1 pc./pack Single Cut

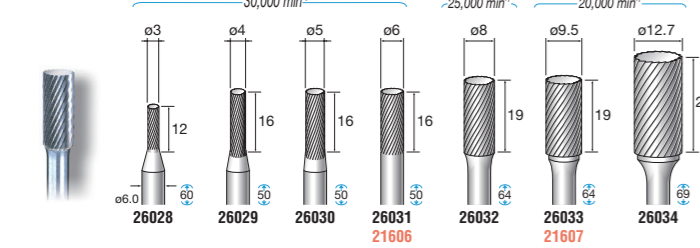


1 pc./pack Double Cut

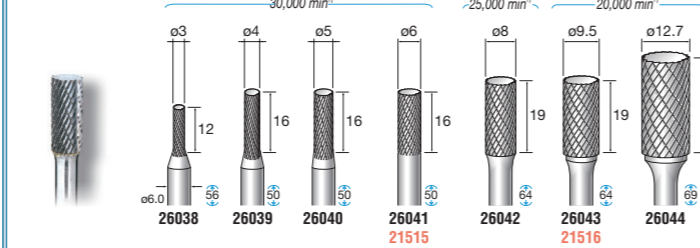


SHANK $\phi 6.0$

1 pc./pack Single Cut



1 pc./pack Double Cut

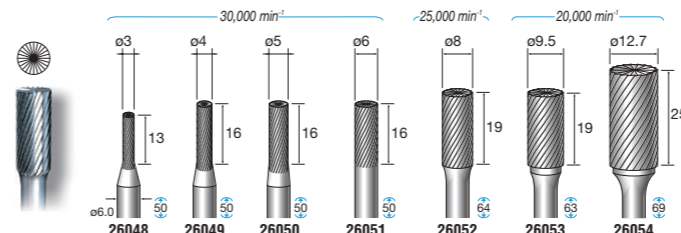


CARBIDE CUTTERS

Orange code numbers indicate Titanium-Coated Type.

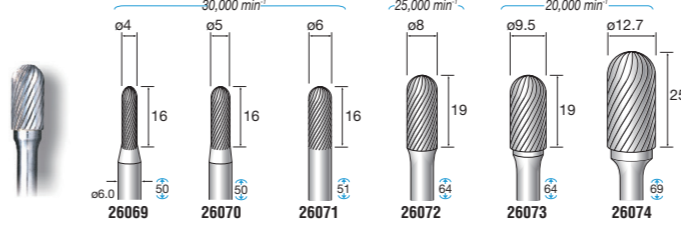
SHANK $\phi 6.0$

1 pc./pack Single Cut



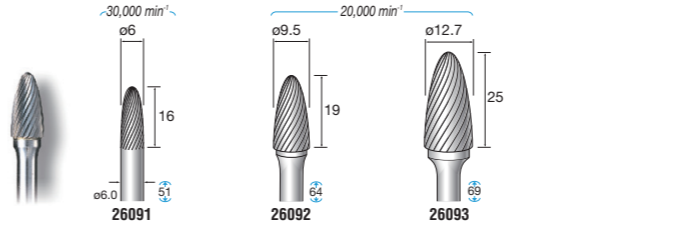
SHANK $\phi 6.0$

1 pc./pack Single Cut



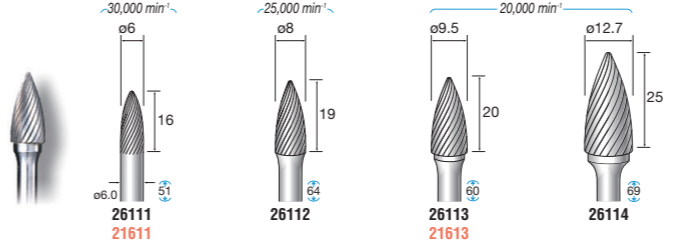
SHANK $\phi 6.0$

1 pc./pack Single Cut



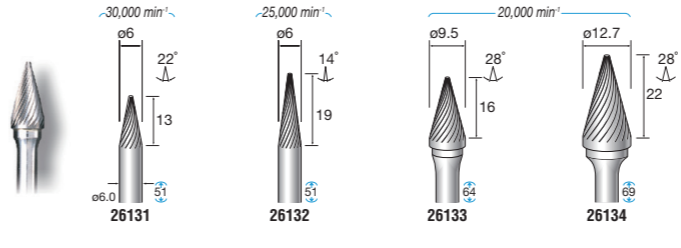
SHANK $\phi 6.0$

1 pc./pack Single Cut



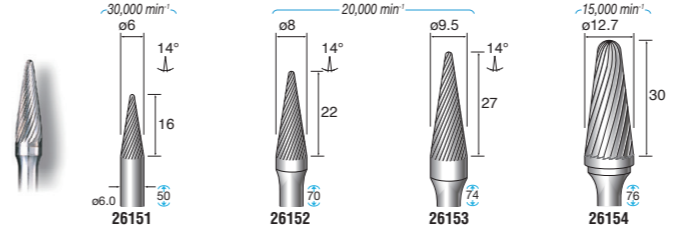
SHANK $\phi 6.0$

1 pc./pack Single Cut

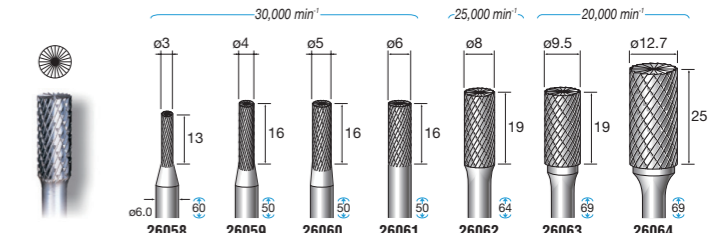


SHANK $\phi 6.0$

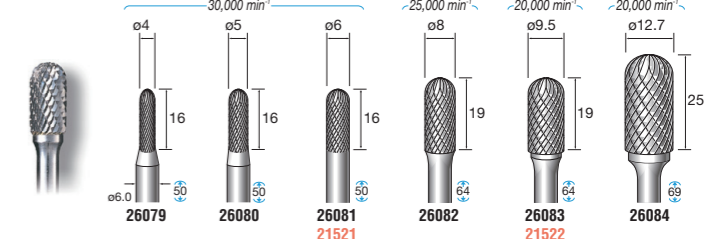
1 pc./pack Single Cut



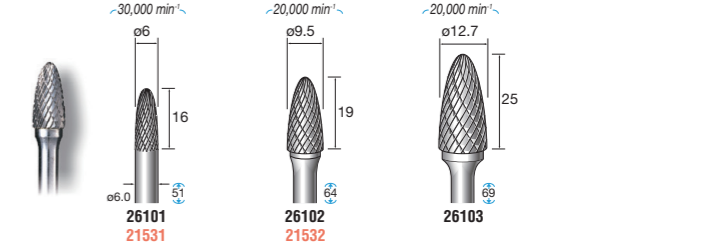
1 pc./pack Double Cut



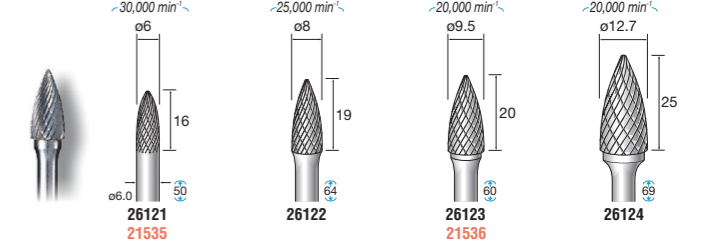
1 pc./pack Double Cut



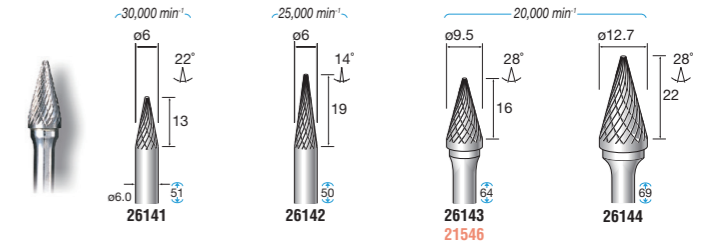
1 pc./pack Double Cut



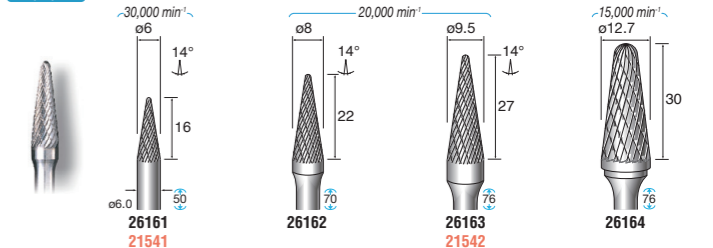
1 pc./pack Double Cut



1 pc./pack Double Cut



1 pc./pack Double Cut



*Order in standard package quantities.

CARBIDE CUTTERS • Orange code numbers indicate Titanium-Coated Type.

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

CARBIDE CUTTERS

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

SHANK $\phi 6.0$
1 pc./pack **Double Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut End Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 6.0$
1 pc./pack **Single Cut**

SHANK $\phi 3.0, \phi 6.0$
1 pc./pack **Diamond Cut**

SHANK $\phi 3.0, \phi 6.0$
1 pc./pack **Diamond Cut Drill End**

SHANK $\phi 1.0, \phi 1.5, \phi 2.0, \phi 2.5$
1 pc./pack

D= $\phi 1.0$ Length=30		D= $\phi 1.5$ Length=30		D= $\phi 2.0$ Length=38		D= $\phi 2.5$ Length=43	
d ϕ mm	L mm	d ϕ mm	L mm	d ϕ mm	L mm	d ϕ mm	L mm
0.5	4.0	0.8	6.3	1.5	11.2	2.0	12.0
0.6	4.5	0.9	7.1	1.6	12.0	2.1	12.0
0.7	5.6	1.0	9.0	1.7	12.0	2.2	12.0
		1.1	9.0	1.8	12.0	2.3	12.0
		1.2	10.0	1.9	12.0	2.4	12.0
		1.3	10.0				
		1.4	11.2				

