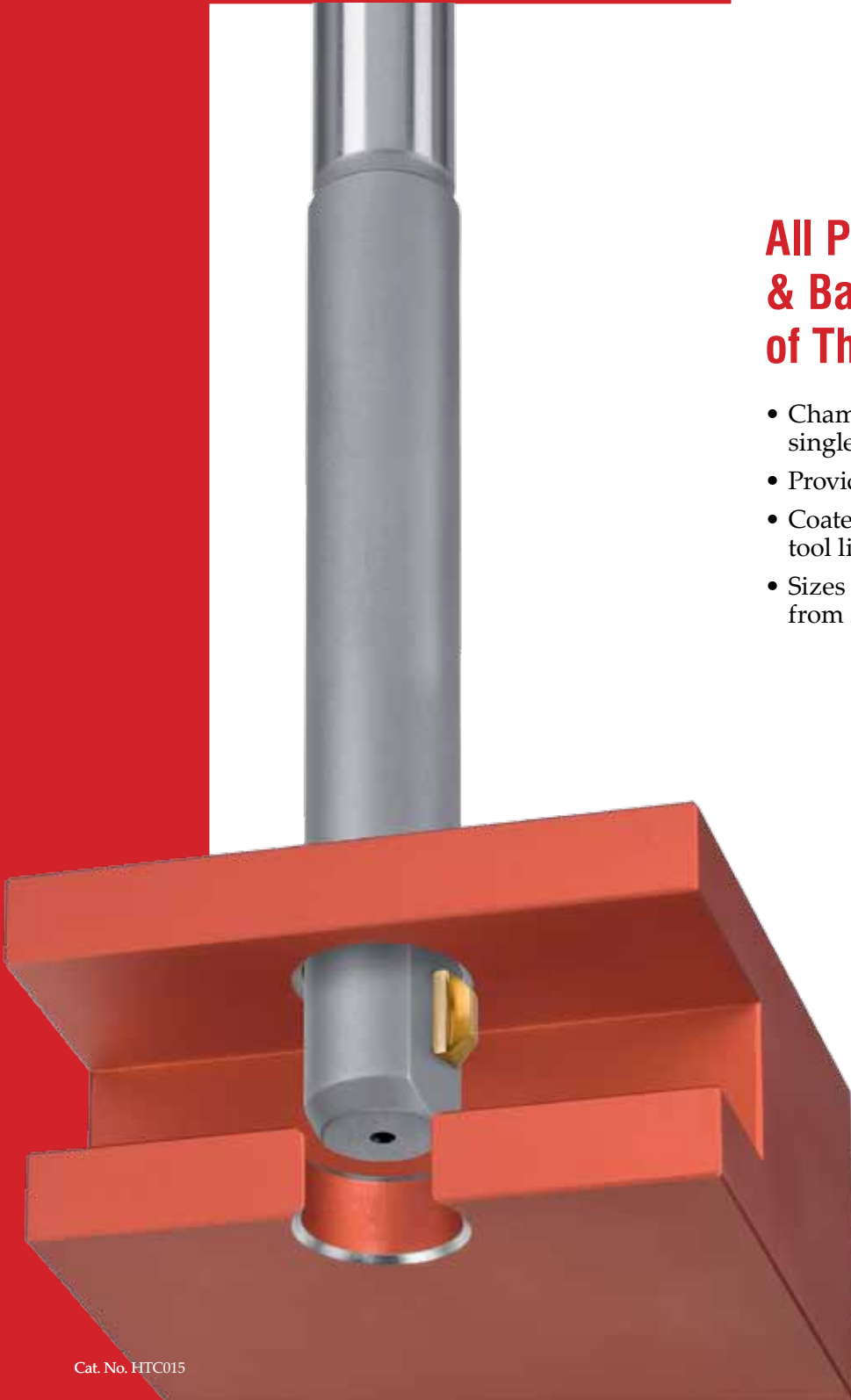


SNAP

All Purpose Front & Back Chamfering of Through Holes

- Chamfers front and back surfaces in a single pass
- Provides high quality, consistent chamfers
- Coated carbide blades provide long tool life
- Sizes 5mm-25mm (.197"-.984") available from stock



The HEULE SNAP chamfering tool is the ideal solution for high-volume manufacturers requiring simpler and more exible solutions without sacri cing quality or tool life. SNAP is a very simple tool for deburring and/or chamfering through-holes on the top and bottom without reversing the spindle, dwelling, or indexing the part. The SNAP tool o ers a simple-to-use high quality chamfering tool with carbide inserts coated with TiN or TiAlN.

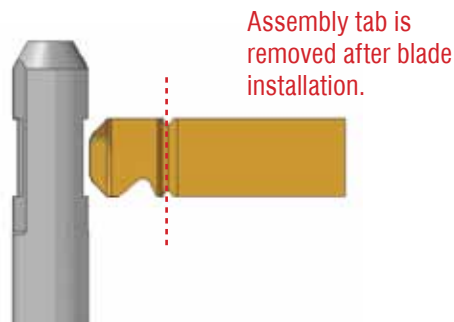
High Quality Consistent Chamfers

The SNAP blades are ground with a patented geometry developed by HEULE to produce quality chamfers and eliminate secondary burrs. Di erent chamfer sizes can be achieved by selecting a di erent blade. There is no need for adjustments or operator intervention. In hard materials above Rc=28, request the SNAP-DF geometry.



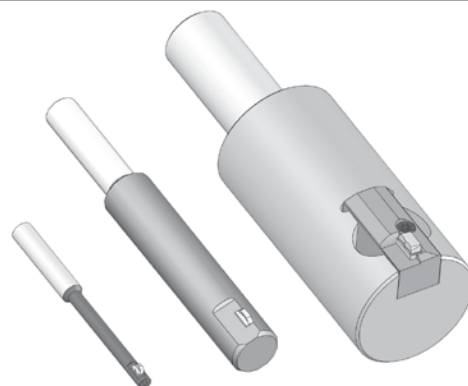
Easy-to-Change Cutting Blades

SNAP Tools o er a very easy blade change solution. Each cutting blade comes with extra material that is snapped o after the blade is installed. See “Technical Instructions” for full details on how to change the blade.



Wide Range of Standard Tools

SNAP tools are available from stock from 2mm to 35mm (0.079”-1.378”). The SNAP Cassette makes it possible to deburr even larger holes quickly and e ciently and is also available from stock.



How Does It Work?

As the rotating tool is fed into the hole, the front cutting edge deburrs the top of the hole by cutting a 45° chamfer. As the tool feeds into the part, the blade is forced into the body and slides in the blade window.

When the blade is in the hole, only the ground sliding surface touches the hole protecting it from damage while the tool is fed through the part. There is no need to stop or reverse the spindle.

When the blade reaches the back of the part the coiled spring acts with the control bolt to push it back out into cutting position. The back edge is deburred and chamfered as the tool is withdrawn. When the blade is again in the hole, the tool can be rapid fed out and on the next hole.

Typical Parts



How to Select the Tool and Blade:

Selecting the proper tool is very easy and you only need to know the bore diameter and desired chamfer size.

Tools are sold without blades. In most cases, there are four choices of blade sizes based on size of desired edge break. (Example: .010", .020", .030" x 45°)

Sample Tool Selection

1. Use the bore size to select a tool body. Ød
 - Select the largest tool that fits the bore.
2. Use the desired chamfer size to select a blade. ØD
 - Select the proper cutting blade.

Order Example:

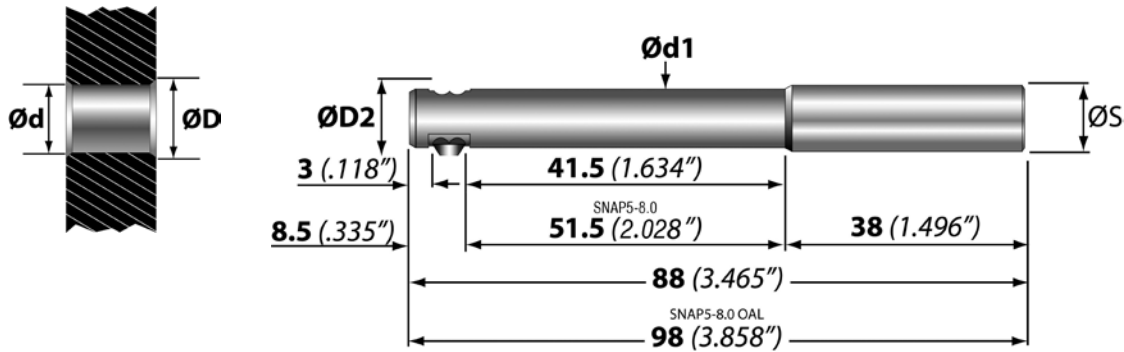
Bore Ø.094" / Chamfer Ø.114" fab Alm.

Tool Holder Order Number: SNAP2-2.3-20

Blade Order Number: GH-Q-M-40071

If the application calls for different chamfer specifications, see our special blade options section for each series.

HTC019



SNAP Series 5

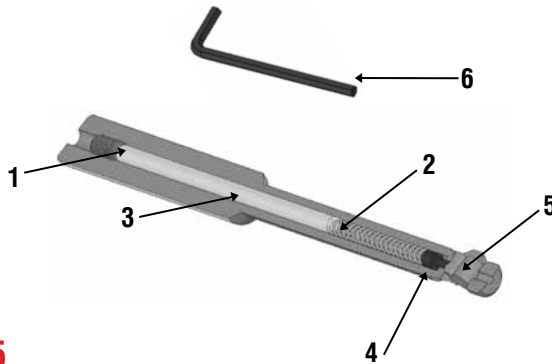
(ØD2= ØD+0.6mm)

Minimum Hole Ø mm inches	Tool Diameter Ød1 mm inches	Tool Holder	Shank Diameter ØS mm	Blade Options* Front and Back Cutting Gs, 90°, Carbide, TiAlN GH-Q-M-_____ Chamfer ØD (mm)			
				-30204 (5.5)	-30205 (6.0)	-30206 (6.5)	-30207 (7.0)
5.0 .197	4.9 .193	SNAP5-5.0	Ø8mm	-30204 (5.5)	-30205 (6.0)	-30206 (6.5)	-30207 (7.0)
5.5 .217	5.4 .214	SNAP5-5.5	Ø8mm	-30205 (6.0)	-30206 (6.5)	-30207 (7.0)	-30208 (7.5)
6.0 .236	5.9 .232	SNAP5-6.0	Ø8mm	-30206 (6.5)	-30207 (7.0)	-30208 (7.5)	-30209 (8.0)
6.5 .256	6.4 .252	SNAP5-6.5	Ø8mm	-30207 (7.0)	-30208 (7.5)	-30209 (8.0)	-30210 (8.5)
7.0 .276	6.9 .272	SNAP5-7.0	Ø8mm	-30208 (7.5)	-30209 (8.0)	-30210 (8.5)	-30211 (9.0)
7.5 .296	7.4 .291	SNAP5-7.5	Ø8mm	-30209 (8.0)	-30210 (8.5)	-30211 (9.0)	-30212 (9.5)
8.0 .315	7.8 .307	SNAP5-8.0	Ø10mm	-30210 (8.5)	-30211 (9.0)	-30212 (9.5)	-30213 (10.0)
8.5 .335	8.3 .331	SNAP5-8.5	Ø10mm	-30211 (9.0)	-30212 (9.5)	-30213 (10.0)	-30214 (10.5)
9.0 .354	8.8 .346	SNAP5-9.0	Ø10mm	-30212 (9.5)	-30213 (10.0)	-30214 (10.5)	-30215 (11.0)
9.5 .374	9.3 .366	SNAP5-9.5	Ø10mm	-30213 (10.0)	-30214 (10.5)	-30215 (11.0)	-30216 (11.5)

* Blade sold separately

BLADE
OPTIONS **PG. 91**

SPARE
PARTS **PG. 91**



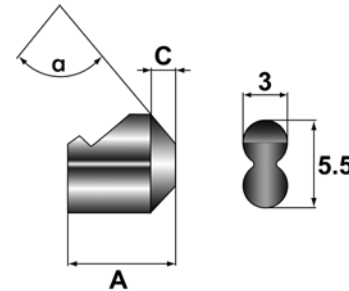
Spare Parts – SNAP 5

1	2	3	4	5	6
Set Screw	Spring	Distance Pin	Control Bolt	Blade	Wrench
GH-H-S-0127	GH-H-F-0019	GH-Q-E-0041*	GH-Q-E-0008	See Below	GH-H-S-2101

* For SNAP 5-8.0 through SNAP 5-9.5 use GH-Q-E-0068

Blades – SNAP 5 – GH-S geometry 90° angle (a = 90°)

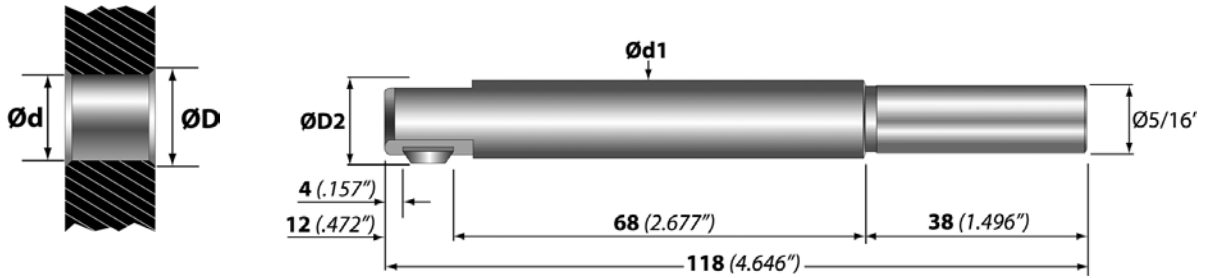
Max. Chamfer ØD	fab TiAlN coated	bco TiAlN coated*	Dimensions	
			A	C
5.5	GH-Q-M-30204	GH-Q-M-31204	4.40	0.8
6.0	GH-Q-M-30205	GH-Q-M-31205	4.65	1.3
6.5	GH-Q-M-30206	GH-Q-M-31206	4.70	1.6
7.0	GH-Q-M-30207	GH-Q-M-31207	4.85	1.6
7.5	GH-Q-M-30208	GH-Q-M-31208	5.20	1.6
8.0	GH-Q-M-30209	GH-Q-M-31209	5.70	1.7
8.5	GH-Q-M-30210	GH-Q-M-31210	5.80	1.7
9.0	GH-Q-M-30211	GH-Q-M-31211	6.30	1.7
9.5	GH-Q-M-30212	GH-Q-M-31212	6.80	1.7
10.0	GH-Q-M-30213	GH-Q-M-31213	7.30	1.7
10.5	GH-Q-M-30214	GH-Q-M-31214	7.80	1.7
11.0	GH-Q-M-30215	GH-Q-M-31215	7.80	1.8
11.5	GH-Q-M-30216	GH-Q-M-31216	8.05	1.8
12.0	GH-Q-M-30217	GH-Q-M-31217	8.30	1.8
12.5	GH-Q-M-30218	GH-Q-M-31218	8.55	1.8
13.0	GH-Q-M-30219	GH-Q-M-31219	8.80	1.8



* Non-stock standard item with extended delivery time

PROGRAMMING PG. 106-107

CHANGE BLADES PG. 105

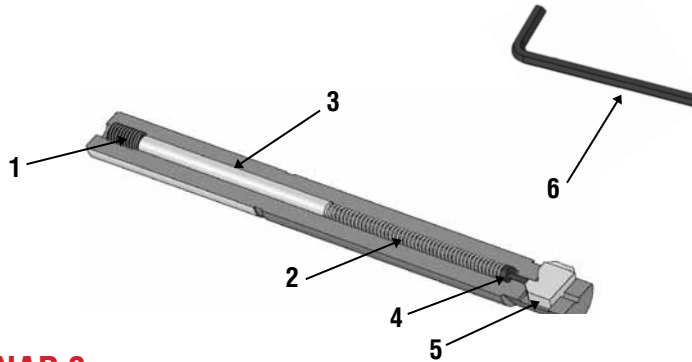


SNAP Series 8

(ØD2= ØD+0.8mm)

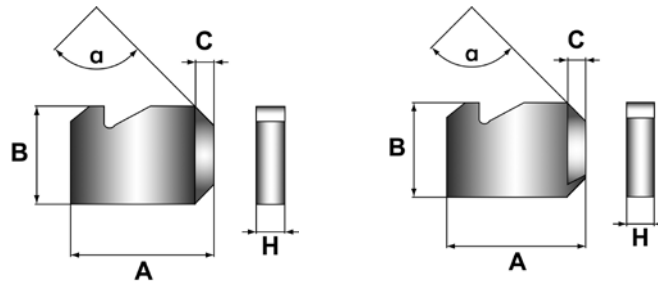
Minimum Hole Ø mm inches	Tool Diameter Ød1 mm inches	Tool Holder	Blade Options* Front and Back Cutting Gs, 90°, Carbide, TiN GH-Q-M-_____ Chamfer ØD (mm)		
			-03720 (8.5)	-03721 (9.0)	-03722 (9.5)
8.0 .315	7.8 .307	SNAP8-315	-03720 (8.5)	-03721 (9.0)	-03722 (9.5)
8.5 .335	8.3 .327	SNAP8-335	-03721 (9.0)	-03722 (9.5)	-03723 (10.0)
9.0 .354	8.8 .346	SNAP8-354	-03722 (9.5)	-03723 (10.0)	-03724 (10.5)
9.5 .374	9.3 .366	SNAP8-374	-03723 (10.0)	-03724 (10.5)	-03725 (11.0)
10.0 .394	9.8 .386	SNAP8-394	-03724 (10.5)	-03725 (11.0)	-03726 (11.5)
10.5 .413	10.3 .406	SNAP8-413	-03725 (11.0)	-03726 (11.5)	-03727 (12.0)
11.0 .433	10.8 .425	SNAP8-433	-03726 (11.5)	-03727 (12.0)	-03728 (12.5)
11.5 .453	11.3 .445	SNAP8-453	-03727 (12.0)	-03728 (12.5)	-03729 (13.0)
12.0 .472	11.8 .465	SNAP8-472	-03728 (12.5)	-03729 (13.0)	-03730 (13.5)

* Blade sold separately



Spare Parts – SNAP 8

1	2	3	4	5	6
Set Screw	Spring	Distance Pin	Control Bolt	Blade	Wrench
GH-H-S-0119	GH-H-F-0007	GH-Q-E-0028	GH-Q-E-0002	See Below	GH-H-S-2100



Blades – SNAP 8 – GH-S geometry 90° angle

(a = 90°)

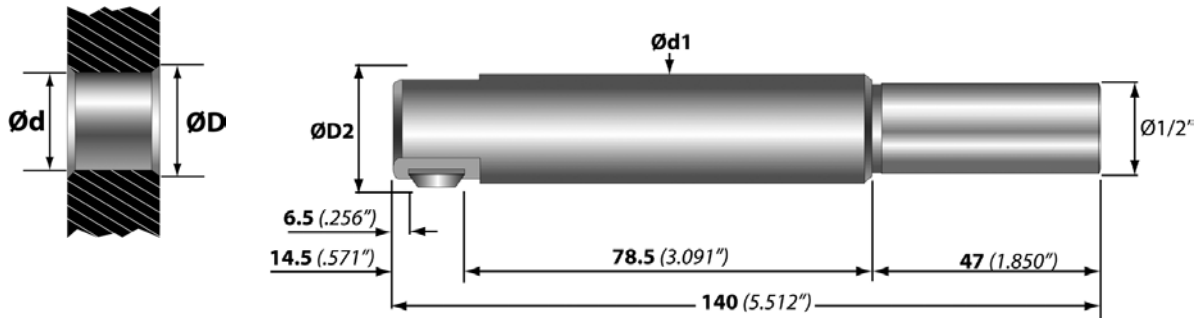
Max. Chamfer ØD	fab TiN coated	bco TiN coated*	Dimensions			
			A	B	C	H
8.5	GH-Q-M-03720	GH-Q-M-05720	7.5	8.0	1.2	2.0
9.0	GH-Q-M-03721	GH-Q-M-05721	7.6	8.0	1.4	2.0
9.5	GH-Q-M-03722	GH-Q-M-05722	8.0	8.0	1.6	2.0
10.0	GH-Q-M-03723	GH-Q-M-05723	8.1	8.0	1.6	2.0
10.5	GH-Q-M-03724	GH-Q-M-05724	8.5	8.0	1.6	2.0
11.0	GH-Q-M-03725	GH-Q-M-05725	8.6	8.0	1.8	2.0
11.5	GH-Q-M-03726	GH-Q-M-05726	9.0	8.0	1.8	2.0
12.0	GH-Q-M-03727	GH-Q-M-05727	9.4	8.0	1.8	2.0
12.5	GH-Q-M-03728	GH-Q-M-05728	9.8	8.0	1.8	2.0
13.0	GH-Q-M-03729	GH-Q-M-05729	10.2	8.0	1.8	2.0
13.5	GH-Q-M-03730	GH-Q-M-05730	10.5	8.0	1.8	2.0

* Non-stock standard item with extended delivery time

PROGRAMMING PG. 106-107

CHANGE BLADES PG. 105

HTC019



SNAP Series 12

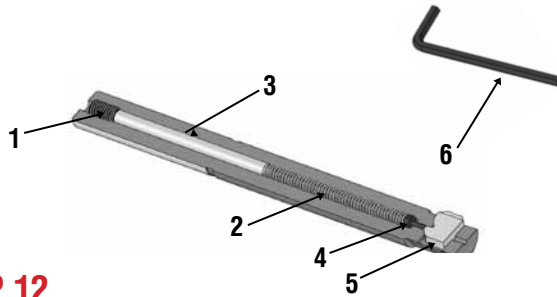
(ØD2 = ØD + 0.8mm)

Minimum Hole Ø mm inches	Tool Diameter Ød1 mm inches	Tool Holder	Blade Options* Front and Back Cutting Gs, 90°, Carbide, TiN GH-Q-M-_____ Chamfer ØD (mm)			
			-03740 (12.5)	-03741 (13.0)	-03742 (13.5)	-03743 (14.0)
12.0 .473	11.8 .465	SNAP12-473	-03740 (12.5)	-03741 (13.0)	-03742 (13.5)	-03743 (14.0)
12.5 .492	12.3 .484	SNAP12-492	-03741 (13.0)	-03742 (13.5)	-03743 (14.0)	-03744 (14.5)
13.0 .512	12.8 .504	SNAP12-512	-03742 (13.5)	-03743 (14.0)	-03744 (14.5)	-03745 (15.0)
13.5 .531	13.3 .524	SNAP12-531	-03743 (14.0)	-03744 (14.5)	-03745 (15.0)	-03746 (15.5)
14.0 .551	13.8 .543	SNAP12-551	-03744 (14.5)	-03745 (15.0)	-03746 (15.5)	-03747 (16.0)
14.5 .571	14.3 .563	SNAP12-571	-03745 (15.0)	-03746 (15.5)	-03747 (16.0)	-03748 (16.5)
15.0 .591	14.8 .583	SNAP12-591	-03746 (15.5)	-03747 (16.0)	-03748 (16.5)	-03749 (17.0)
15.5 .610	15.3 .602	SNAP12-610	-03747 (16.0)	-03748 (16.5)	-03749 (17.0)	-03750 (17.5)
16.0 .630	15.8 .622	SNAP12-630	-03748 (16.5)	-03749 (17.0)	-03750 (17.5)	-03751 (18.0)
16.5 .650	16.3 .642	SNAP12-650	-03749 (17.0)	-03750 (17.5)	-03751 (18.0)	-03752 (18.5)
17.0 .669	16.8 .661	SNAP12-669	-03750 (17.5)	-03751 (18.0)	-03752 (18.5)	-03753 (19.0)
17.5 .689	17.3 .681	SNAP12-689	-03751 (18.0)	-03752 (18.5)	-03753 (19.0)	-03754 (19.5)
18.0 .709	17.8 .701	SNAP12-709	-03752 (18.5)	-03753 (19.0)	-03754 (19.5)	-03755 (20.0)
18.5 .729	18.3 .720	SNAP12-729	-03753 (19.0)	-03754 (19.5)	-03755 (20.0)	-03756 (20.5)
19.0 .748	18.8 .740	SNAP12-748	-03754 (19.5)	-03755 (20.0)	-03756 (20.5)	-03757 (21.0)
19.5 .768	19.3 .760	SNAP12-768	-03755 (20.0)	-03756 (20.5)	-03757 (21.0)	-03758 (21.5)
20.0 .787	19.8 .780	SNAP12-787	-03756 (20.5)	-03757 (21.0)	-03758 (21.5)	-03759 (22.0)

* Blade sold separately

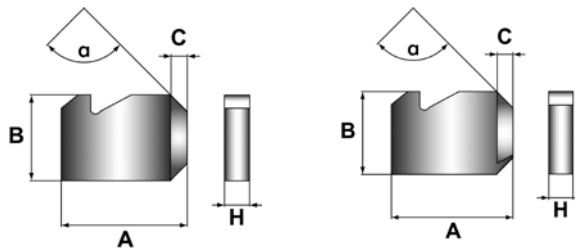
BLADE OPTIONS **PG. 104**

SPARE PARTS **PG. 95**



Spare Parts – SNAP 12

1	2	3	4	5	6
Set Screw	Spring	Distance Pin	Control Bolt	Blade	Wrench
GH-H-S-0119	GH-H-F-0007	GH-Q-E-0032	GH-Q-E-0002	See Below	GH-H-S-2100



Blades – SNAP 12 – GH-S geometry 90° angle

(a = 90°)

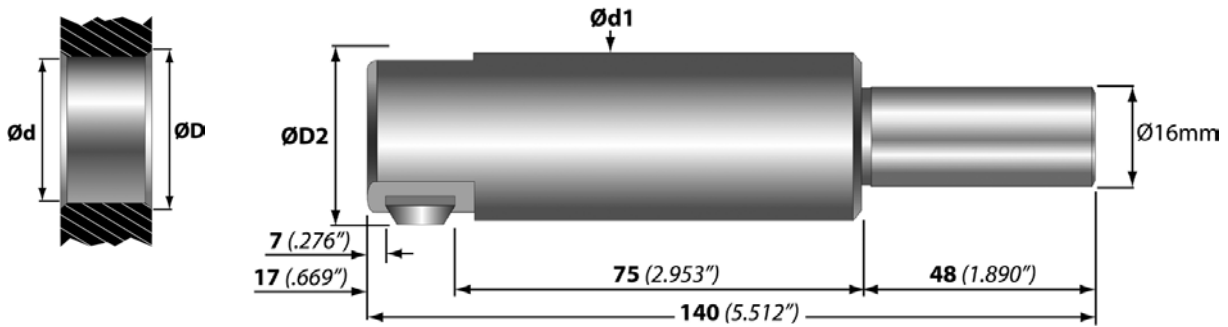
Max. Chamfer ØD	fab TiN coated	bco TiN coated*	Dimensions			
			A	B	C	H
12.5	GH-Q-M-03740	GH-Q-M-05740*	10.5	8.0	1.5	3.0
13.0	GH-Q-M-03741	GH-Q-M-05741*	10.7	8.0	1.8	3.0
13.5	GH-Q-M-03742	GH-Q-M-05742*	11.0	8.0	1.8	3.0
14.0	GH-Q-M-03743	GH-Q-M-05743*	11.5	8.0	1.8	3.0
14.5	GH-Q-M-03744	GH-Q-M-05744*	12.0	8.0	1.8	3.0
15.0	GH-Q-M-03745	GH-Q-M-05745*	12.5	8.0	1.8	3.0
15.5	GH-Q-M-03746	GH-Q-M-05746*	12.8	8.0	1.8	3.0
16.0	GH-Q-M-03747	GH-Q-M-05747*	13.0	8.0	1.8	3.0
16.5	GH-Q-M-03748	GH-Q-M-05748*	13.2	8.0	1.8	3.0
17.0	GH-Q-M-03749	GH-Q-M-05749*	13.6	8.0	1.8	3.0
17.5	GH-Q-M-03750	GH-Q-M-05750*	14.0	8.0	1.8	3.0
18.0	GH-Q-M-03751	GH-Q-M-05751*	14.2	8.0	1.8	3.0
18.5	GH-Q-M-03752	GH-Q-M-05752*	14.5	8.0	1.8	3.0
19.0	GH-Q-M-03753	GH-Q-M-05753*	14.8	8.0	1.8	3.0
19.5	GH-Q-M-03754	GH-Q-M-05754*	15.0	8.0	1.8	3.0
20.0	GH-Q-M-03755	GH-Q-M-05755*	15.4	8.0	1.8	3.0
20.5	GH-Q-M-03756	GH-Q-M-05756*	15.6	8.0	1.8	3.0
21.0	GH-Q-M-03757	GH-Q-M-05757*	16.0	8.0	1.8	3.0
21.5	GH-Q-M-03758	GH-Q-M-05758*	16.4	8.0	1.8	3.0
22.0	GH-Q-M-03759	GH-Q-M-05759*	16.6	8.0	1.8	3.0

* Non-stock standard item with extended delivery time

PROGRAMMING PG. 106-107

CHANGE BLADES PG. 105

HTC019



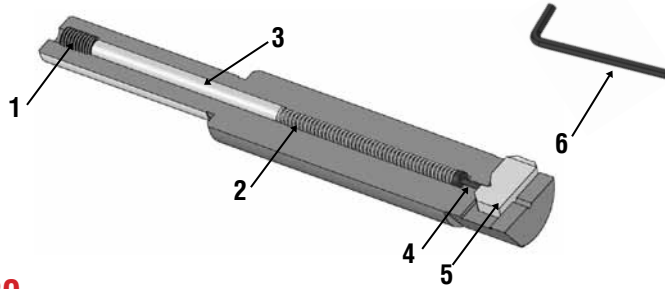
SNAP Series 20

($\text{ØD2} = \text{ØD} + 0.8\text{mm}$)

Minimum Hole Ø mm inches	Tool Diameter Ød1 mm inches	Tool Holder*	Blade Options* Front and Back Cutting Gs,90°, Carbide, TiN and Chamfer ØD (mm)		
			GH-Q-M-		
20.0 .787	19.8 .780	SNAP20-20.0	-03770 (21.0)	-03771 (22.0)	-03772 (23.0)
21.0 .827	20.8 .819	SNAP20-21.0	-03771 (22.0)	-03772 (23.0)	-03773 (24.0)
22.0 .866	21.8 .858	SNAP20-22.0	-03772 (23.0)	-03773 (24.0)	-03774 (25.0)
23.0 .906	22.8 .898	SNAP20-23.0	-03773 (24.0)	-03774 (25.0)	-03775 (26.0)
24.0 .945	23.8 .937	SNAP20-24.0	-03774 (25.0)	-03775 (26.0)	-03776 (27.0)
25.0 .984	24.8 .976	SNAP20-25.0	-03775 (26.0)	-03776 (27.0)	-03777 (28.0)
26.0 1.024	25.8 1.016	SNAP20-26.0	-03776 (27.0)	-03777 (28.0)	-03778 (29.0)
27.0 1.063	26.8 1.055	SNAP20-27.0	-03777 (28.0)	-03778 (29.0)	-03779 (30.0)
28.0 1.102	27.8 1.094	SNAP20-28.0	-03778 (29.0)	-03779 (30.0)	-03780 (31.0)
29.0 1.142	28.8 1.134	SNAP20-29.0	-03779 (30.0)	-03780 (31.0)	-03781 (32.0)
30.0 1.181	29.8 1.173	SNAP20-30.0*	-03780 (31.0)	-03781 (32.0)	-03782 (33.0)
31.0 1.220	30.8 1.213	SNAP20-31.0*	-03781 (32.0)	-03782 (33.0)	-03783 (34.0)
32.0 1.260	31.8 1.252	SNAP20-32.0*	-03782 (33.0)	-03783 (34.0)	-03784 (35.0)
33.0 1.299	32.8 1.291	SNAP20-33.0*	-03783 (34.0)	-03784 (35.0)	-03785 (36.0)
34.0 1.339	33.8 1.331	SNAP20-34.0*	-03784 (35.0)	-03785 (36.0)	-03786 (37.0)
35.0 1.378	34.8 1.370	SNAP20-35.0*	-03785 (36.0)	-03786 (37.0)	-03787 (38.0)

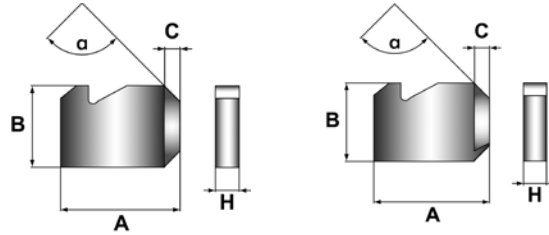
* Blade sold separately

* Non-stock standard item with extended delivery time



Spare Parts – SNAP 20

1	2	3	4	5	6
Set Screw	Spring	Distance Pin	Control Bolt	Blade	Wrench
GH-H-S-0119	GH-H-F-0011	GH-Q-E-0031	GH-Q-E-0003	See Table	GH-H-S-2100



Blades – SNAP 20 – GH-S geometry 90° angle

(a = 90°)

Max. Chamfer ØD	fab TiN coated	bco TiN coated*	Dimensions			
			A	B	C	H
21.0	GH-Q-M-03770	GH-Q-M-05770*	17.0	10.0	2.5	5.0
22.0	GH-Q-M-03771	GH-Q-M-05771*	17.5	10.0	2.5	5.0
23.0	GH-Q-M-03772	GH-Q-M-05772*	18.0	10.0	2.5	5.0
24.0	GH-Q-M-03773	GH-Q-M-05773*	18.5	10.0	2.5	5.0
25.0	GH-Q-M-03774	GH-Q-M-05774*	20.0	10.0	2.5	5.0
26.0	GH-Q-M-03775	GH-Q-M-05775*	20.5	10.0	2.5	5.0
27.0	GH-Q-M-03776	GH-Q-M-05776*	21.0	10.0	2.5	5.0
28.0	GH-Q-M-03777	GH-Q-M-05777*	21.5	10.0	2.5	5.0
29.0	GH-Q-M-03778	GH-Q-M-05778*	22.0	10.0	2.5	5.0
30.0	GH-Q-M-03779	GH-Q-M-05779*	23.5	10.0	2.5	5.0
31.0	GH-Q-M-03780	GH-Q-M-05780*	24.0	10.0	2.5	5.0
32.0	GH-Q-M-03781	GH-Q-M-05781*	24.5	10.0	2.5	5.0
33.0	GH-Q-M-03782	GH-Q-M-05782*	25.0	10.0	2.5	5.0
34.0	GH-Q-M-03783	GH-Q-M-05783*	25.5	10.0	2.5	5.0
35.0	GH-Q-M-03784	GH-Q-M-05784*	27.0	10.0	2.5	5.0
36.0	GH-Q-M-03785	GH-Q-M-05785*	27.5	10.0	2.5	5.0
37.0	GH-Q-M-03786	GH-Q-M-05786*	28.0	10.0	2.5	5.0
38.0	GH-Q-M-03787	GH-Q-M-05787*	28.5	10.0	2.5	5.0

* Non-stock standard item with extended delivery time

PROGRAMMING PG. 106-107

CHANGE BLADES PG. 105

SNAP 5 Slim Line Cassette

Easy Incorporation with Various Multi-Tasking Tools while Producing Quality Front & Back Chamfers

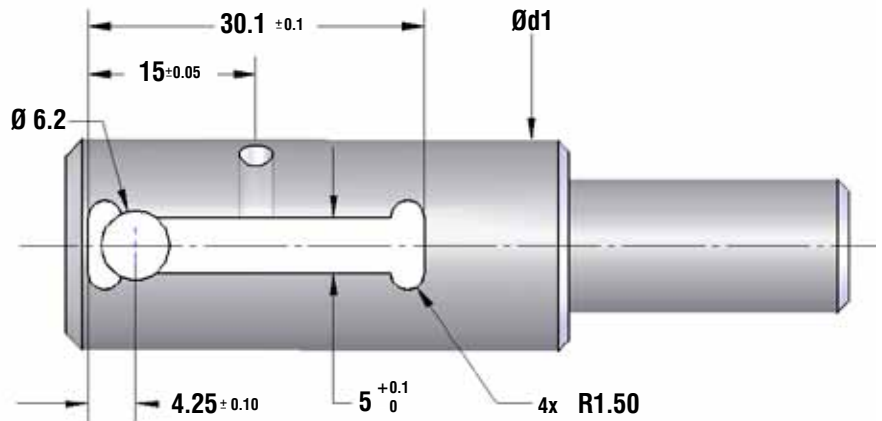
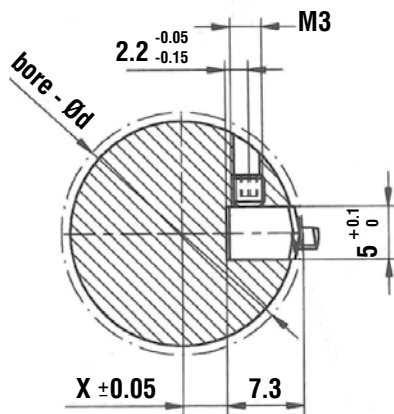
New SNAP 5 “Slim Line” Cassette with GS geometry cutting blade. The SNAP 5 Cassette is the smallest standard cassette HEULE makes, measuring 5mm thick and 30mm long.

The advantage of the Slim Line SNAP 5 Cassette is that it can easily be incorporated into various multi-tasking tools, including drills, boring tools and other state of the art technology.

The part number for the cassette is **GH-Q-0-1430**.

SNAP Cassette

	Reference
Ød	Hole Diameter
ØD2	Over Blade Dia.
ØD	Chamfer Diameter
Ød1	Tool Diameter
x	Offset from Center



Minimum Bore Ød	Maximum Chamfer ØDmax	Maximum Tool Diameter Ød1	Calc. of the “X” offset
20mm - 80mm (Specials on request down to Ø12.6mm)	ØDmax= Ød+2	Max Ød1 = Bore Ød - 0.5mm	$X = \frac{\text{BORE Dia } (\text{Ød})}{2} - 7.3\text{mm}$

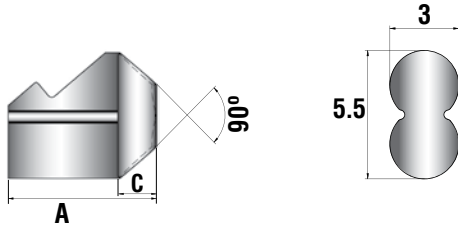
BLADE OPTIONS **PG. 103**

SPARE PARTS **PG. 99**

Blade Options: SNAP 5 Cassette

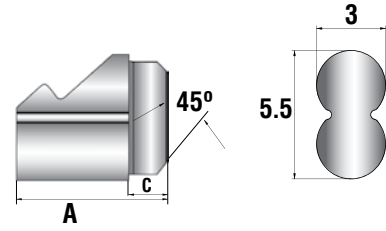
Blades are available from stock as front and back cutting (fab) or back only cutting (bco).

GS Geometry 90° Carb-TiAlN



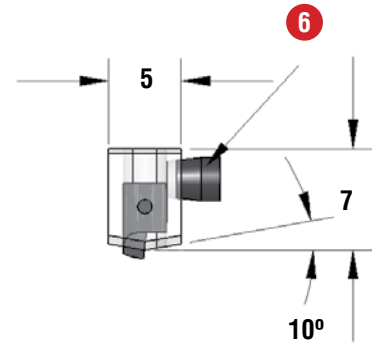
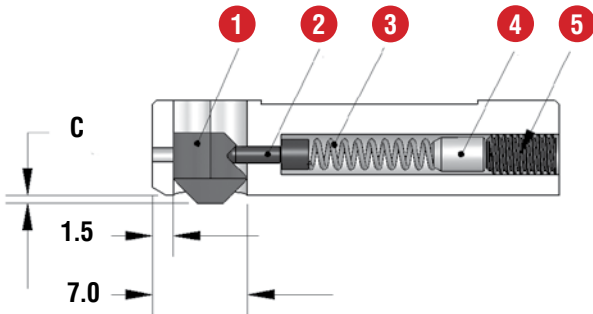
Chamfer	Front & Back GH-Q-M-	Back Only GH-Q-M-	A	C
0.5 x 45°	-30770	-31770	6.15	1.25
1.0 x 45°	-30771	-31771	6.6	1.8

DF Geometry 90° Carbide-TiAlN



Chamfer	Front & Back GH-Q-M-	Back Only GH-Q-M-	A	C
0.5 x 90°	-30780*	-31780*	6.3	1.3
1.0 x 90°	-30781*	-31781*	6.8	1.8

*Extended delivery



Spare Parts – SNAP 5 CAS; Order Number Complete GH-Q-O-1430*

1	2	3	4	5	6
Blade*	Bolt	Spring	Distance Pin	Screw	Set Screw
See Above	GH-Q-E-0008	GH-H-F-0027	GH-Q-E-0046	GH-H-S-0127	GH-H-S-0355

*Blade sold separately.

PROGRAMMING PG. 106-107

CHANGE BLADES PG. 105

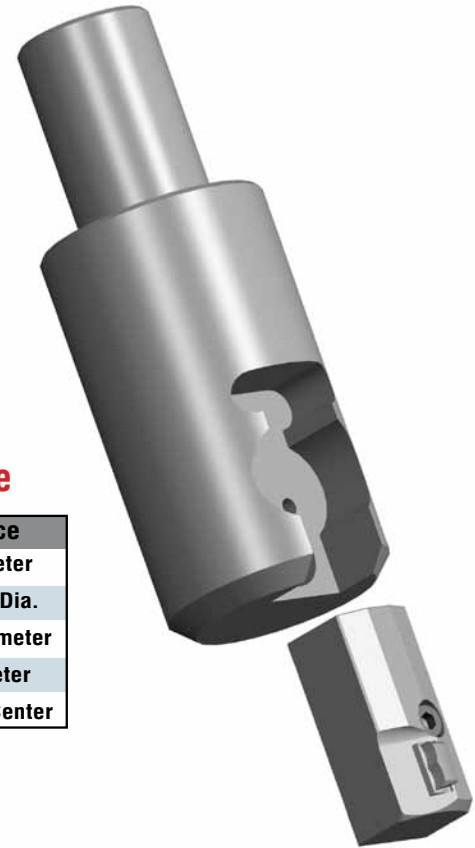
SNAP 35 Cassette

Large Bore Chamfering and Multi-Tasking Made Easy

The SNAP 35 Cassette deburrs larger holes quickly and efficiently and is also available from stock.

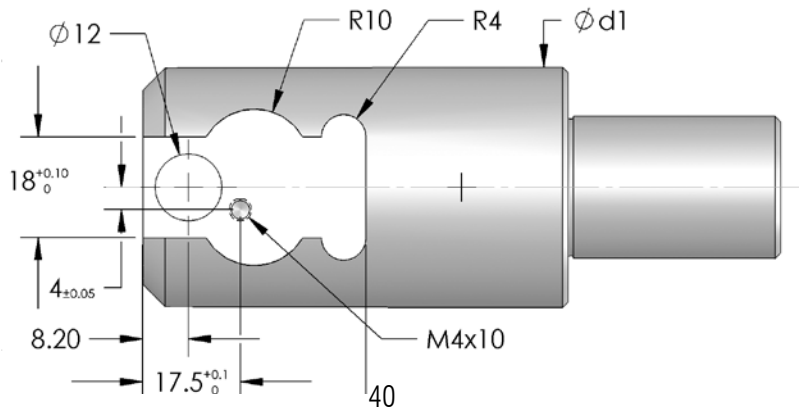
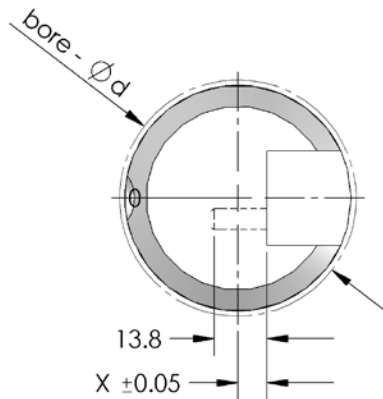
New blade options include both DF and GS geometries. Large chamfer up to .060" (1.5mm) is possible. Use DF geometry for materials above 28Rc.

The part number for the cassette is **GH-Q-O-1030**.



SNAP Cassette

	Reference
Ød	Hole Diameter
ØD2	Over Blade Dia.
ØD	Chamfer Diameter
Ød1	Tool Diameter
x	Offset from Center



Minimum Bore Ød	Maximum Chamfer ØDmax	Maximum Tool Diameter Ød1	Calc. of the "X" offset
35mm	ØDmax= Ød+3.0	Max Ød1 = Bore Ød - 2.0mm	$X = \frac{\text{BORE Dia } (\text{Ød})}{2} - 17.0\text{mm}$

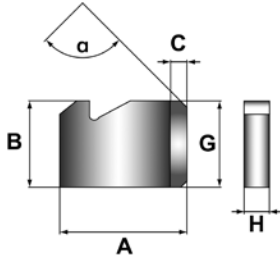
BLADE OPTIONS **PG. 101**

SPARE PARTS **PG. 101**

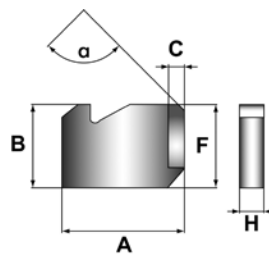
Blade Options: Cassette Series 35:

Blades are available from stock as front and back cutting (**fab**) or back cutting only (**bco**).

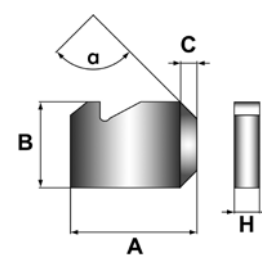
SNAP DEFA Front & Back



SNAP DEFA Back Only

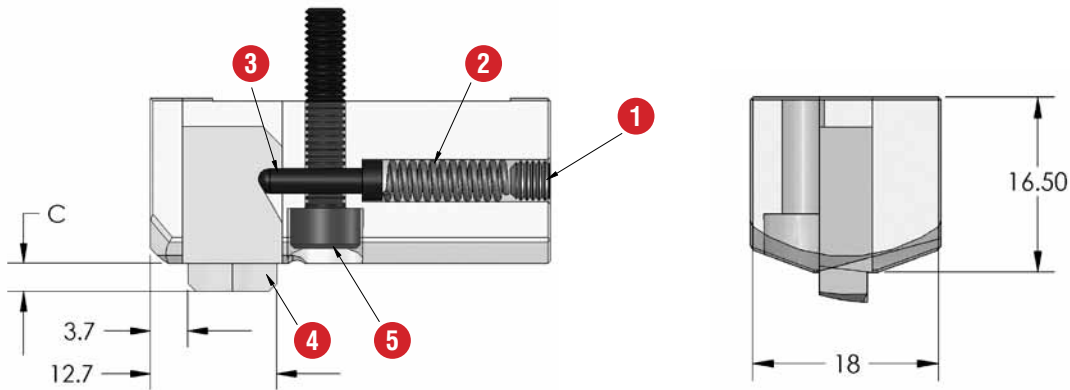


SNAP GS Front & Back



Maximum Chamfer	Dimensions					DEFA front and back cutting 90° Carb-TiN	DEFA back cutting only 90° Carb-TiN	GS front and back cutting 90° Carb-TiAlN
	A	B	F	G	H			
0.5 0.020	16 0.630	10 0.394	9.5 0.374	9.0 0.354	5.0 0.197	GH-Q-M-01901	GH-Q-M-01921	GH-Q-M-01802
1.0 0.039	16.5 0.650	10 0.394	9.5 0.374	9.0 0.354	5.0 0.197	GH-Q-M-01904	GH-Q-M-01924	GH-Q-M-01812
1.5 0.059	16.5 0.650	10 0.394	9.5 0.374	9.0 0.354	5.0 0.197	GH-Q-M-01907	GH-Q-M-01927	GH-Q-M-01822

*Note: GS chamfer range can vary more than DF geometry.

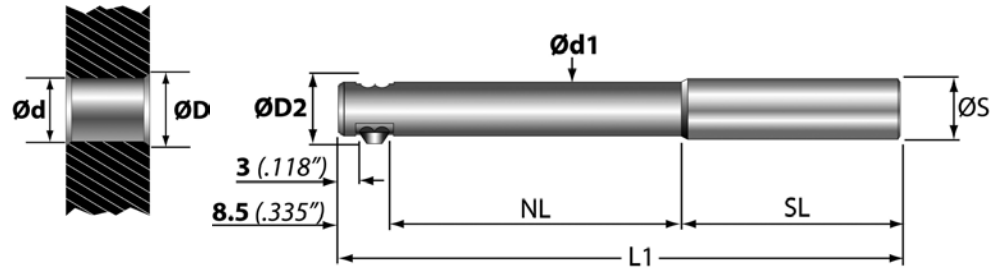


Spare Parts – Cassette

	1	2	3	4	5
Cassette	Set Screw	Spring	Control Bolt	Blade	Cap Screw
Series 35	GH-H-S-0120	GH-H-F-0012	GH-Q-E-0003	See Above	GH-H-S-0502

PROGRAMMING PG. 106-107

CHANGE BLADES PG. 105



SNAP Tooling for Common Tap Holes

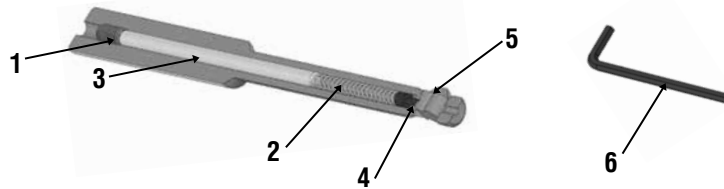
SNAP Deburring Series 5											$\text{ØD2} = \text{ØD} + 0.6\text{mm}$	
For holes 5mm-8mm (0.197" through .315")											$\text{Ød1} + 0/-0.002"$	
Tap/Pitch	Drill $+0.1$ -0		Order Number	Tool Dia.				Shank ØS	Blade**, Carbide-TiAlN, 90°, fab			
	mm	inches		Ød1	L1	NL	SL		Chamfer (ØD) ¹		Order Number	
			mm	mm	mm	mm	mm	mm	mm	inches		
M6-1.0	5.0	(.197)	SNAP5-5.0	4.9	88	41.5	38	Ø8	6.5	(.256)	GH-Q-M-30206	
1/4"-20	5.11	(.201)	SNAP5-5.0	4.9	88	41.5	38	Ø8	7.0	(.276)	GH-Q-M-30207	
M7-1.0	6.0	(.236)	SNAP5-6.0	5.9	88	41.5	38	Ø8	7.5	(.295)	GH-Q-M-30208	
5/16"-18	6.53	(.257)	SNAP5-6.5	6.4	88	40	38	Ø8	8.5	(.335)	GH-Q-M-30210	
M8-1.25	6.7	(.264)	SNAP5-6.5	6.4	88	40	38	Ø8	8.5	(.335)	GH-Q-M-30210	
3/8"-16	7.9	(.311)	SNAP5-7.5	7.4	88	40	38	Ø8	10.0	(.394)	GH-Q-M-30213	

SNAP Deburring Series 5 Extended Range											$\text{ØD2} = \text{ØD} + 0.6\text{mm}$	
For holes 8mm-10.5mm (0.316" through .500")											$\text{Ød1} + 0/-0.002"$	
Tap/Pitch	Drill $+0.1$ -0		Order Number	Tool Dia.				Shank ØS	Blade**, Carbide-TiAlN, 90°, fab			
	mm	inches		Ød1	L1	NL	SL		Chamfer (ØD) ¹		Order Number	
			mm	mm	mm	mm	mm	mm	mm	inches		
M10-1.5	8.4	(.331)	SNAP5-8.0	7.9	98	51.5	38	Ø10	10.5	(.413)	GH-Q-M-30214	
M10-1.25	8.75	(.344)	SNAP5-8.5	8.4	98	51.5	38	Ø10	11.0	(.433)	GH-Q-M-30215	
7/16"-14	9.35	(.368)	SNAP5-9.0	8.8	98	51.5	38	Ø10	11.5	(.453)	GH-Q-M-30216	
7/16"-20	9.92	(.391)	SNAP5-9.5	9.3	98	51.5	38	Ø10	12.0	(.472)	GH-Q-M-30217	
M12-1.75	10.3	(.406)	SNAP5-10.0*	9.8	107	51.5	47	Ø12	12.5	(.492)	GH-Q-M-30218	
1/2"-13	10.7	(.421)	SNAP5-10.5*	10.3	107	51.5	47	Ø12	13.0	(.512)	GH-Q-M-30219	

¹ Attainable chamfer size depends on material, blade force and feed rate. Not recommended for materials above 28Rc

*Non-stock standard item with extended delivery time

**Blade sold separately



Spare Parts

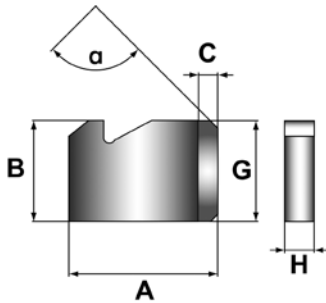
	1	2	3	4	5	6
Order Number	Set Screw	Spring	Distance Pin	Control Bolt	Blade	Wrench
SNAP5-5.0-7.5	GH-H-S-0127	GH-H-F-0019	GH-Q-E-0041	GH-Q-E-0008	See Above	GH-H-S-2101
SNAP5-8.0-9.0	GH-H-S-0127	GH-H-F-0019	GH-Q-E-0068	GH-Q-E-0008	See Above	GH-H-S-2101
SNAP5-10.0-10.5	GH-H-S-0127	GH-H-F-0019	GH-Q-E-0067	GH-Q-E-0008	See Above	GH-H-S-2101

PROGRAMMING **PG. 106-107**

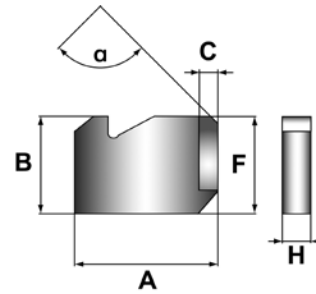
CHANGE BLADES **PG. 105**

BLADE OPTIONS **PG. 103**

Front & Back Chamfering



Back Only Chamfering



SNAP 8 – DEFA Geometry 90° angle*

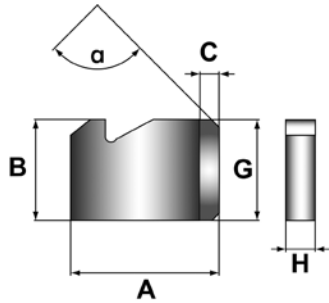
(a = 90°)

Max. Chamfer	fab TiN coated	bco TiN coated	Dimensions					
			A	B	C	G	H	F
8.5	GH-Q-M-03120	GH-Q-M-05120	7.5	8.0	1.2	7.2	2.0	7.6
9.0	GH-Q-M-03121	GH-Q-M-05121	7.6	8.0	1.4	7.2	2.0	7.6
9.5	GH-Q-M-03122	GH-Q-M-05122	8.0	8.0	1.6	7.2	2.0	7.6
10.0	GH-Q-M-03123	GH-Q-M-05123	8.1	8.0	1.6	7.2	2.0	7.6
10.5	GH-Q-M-03124	GH-Q-M-05124	8.5	8.0	1.6	7.2	2.0	7.6
11.0	GH-Q-M-03125	GH-Q-M-05125	8.6	8.0	1.8	7.2	2.0	7.6
11.5	GH-Q-M-03126	GH-Q-M-05126	9.0	8.0	1.8	7.2	2.0	7.6
12.0	GH-Q-M-03127	GH-Q-M-05127	9.4	8.0	1.8	7.2	2.0	7.6
12.5	GH-Q-M-03128	GH-Q-M-05128	9.8	8.0	1.8	7.2	2.0	7.6
13.0	GH-Q-M-03129	GH-Q-M-05129	10.2	8.0	1.8	7.2	2.0	7.6
13.5	GH-Q-M-03130	GH-Q-M-05130	10.5	8.0	1.8	7.2	2.0	7.6

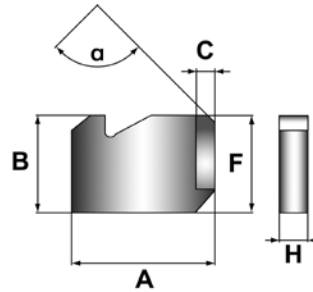
SNAP Blade Options

There are different blade options for the SNAP tool if an application requires a different chamfer than the standard 90° blade. The 60° blades offer a 60° angled chamfer instead of the standard 90° angled chamfer while the DEFA geometry blades provide precision chamfering and handles larger burr formation. All blades are sold separately.

Front & Back Chamfering



Back Only Chamfering



SNAP 12 – DEFA Geometry 90° angle*

(a = 90°)

Max. Chamfer	fab TiN coated	bco TiN coated	Dimensions					
			A	B	C	G	H	F
12.5*	GH-Q-M-03140	GH-Q-M-05140	10.5	8.0	1.5	7.2	3.0	7.6
13.0*	GH-Q-M-03141	GH-Q-M-05141	10.7	8.0	1.8	7.2	3.0	7.6
13.5*	GH-Q-M-03142	GH-Q-M-05142	11.0	8.0	1.8	7.2	3.0	7.6
14.0*	GH-Q-M-03143	GH-Q-M-05143	11.5	8.0	1.8	7.2	3.0	7.6
14.5*	GH-Q-M-03144	GH-Q-M-05144	12.0	8.0	1.8	7.2	3.0	7.6
15.0*	GH-Q-M-03145	GH-Q-M-05145	12.5	8.0	1.8	7.2	3.0	7.6
15.5*	GH-Q-M-03146	GH-Q-M-05146	12.8	8.0	1.8	7.2	3.0	7.6
16.0*	GH-Q-M-03147	GH-Q-M-05147	13.0	8.0	1.8	7.2	3.0	7.6
16.5*	GH-Q-M-03148	GH-Q-M-05148	13.2	8.0	1.8	7.2	3.0	7.6
17.0*	GH-Q-M-03149	GH-Q-M-05149	13.6	8.0	1.8	7.2	3.0	7.6
17.5*	GH-Q-M-03150	GH-Q-M-05150	14.0	8.0	1.8	7.2	3.0	7.6
18.0*	GH-Q-M-03151	GH-Q-M-05151	14.2	8.0	1.8	7.2	3.0	7.6
18.5*	GH-Q-M-03152	GH-Q-M-05152	14.5	8.0	1.8	7.2	3.0	7.6
19.0*	GH-Q-M-03153	GH-Q-M-05153	14.8	8.0	1.8	7.2	3.0	7.6
19.5*	GH-Q-M-03154	GH-Q-M-05154	15.0	8.0	1.8	7.2	3.0	7.6
20.0*	GH-Q-M-03155	GH-Q-M-05155	15.4	8.0	1.8	7.2	3.0	7.6
20.5*	GH-Q-M-03156	GH-Q-M-05156	15.6	8.0	1.8	7.2	3.0	7.6
21.0*	GH-Q-M-03157	GH-Q-M-05157	16.0	8.0	1.8	7.2	3.0	7.6
21.5*	GH-Q-M-03158	GH-Q-M-05158	16.4	8.0	1.8	7.2	3.0	7.6
22.0*	GH-Q-M-03159	GH-Q-M-05159	16.6	8.0	1.8	7.2	3.0	7.6

*Non-stock standard item with extended delivery time

Adjusting the Chamfer Size

Chamfer size is based on the size of the blade. The maximum possible chamfer size is between 0.5mm and 1.5mm per side depending on the blade size. The maximum chamfer size may not be possible when cutting harder materials such as those with hardness Rc>30 or exotic alloys.

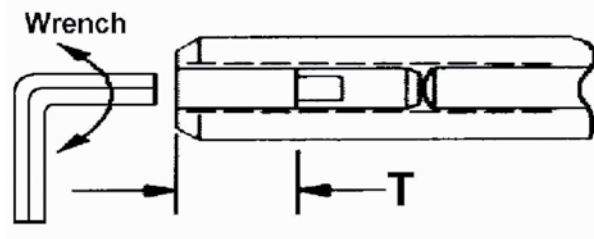
Setting the Blade Force

The blade force can be adjusted with the set screw in the end of the shank. The blade force should be enough to ensure the blade extends completely after passing through the bore. Changing the blade force does not change the chamfer size.

- Increase the blade force by turning the set screw clockwise
- Decrease the blade force by turning the set screw counter-clockwise.

Working with the correct blade pressure increases the blade life and improves the chamfer quality. If a very strong blade force is required, the harder spring can be inserted into the tools of SNAP5 and SNAP12 groups (not standard).

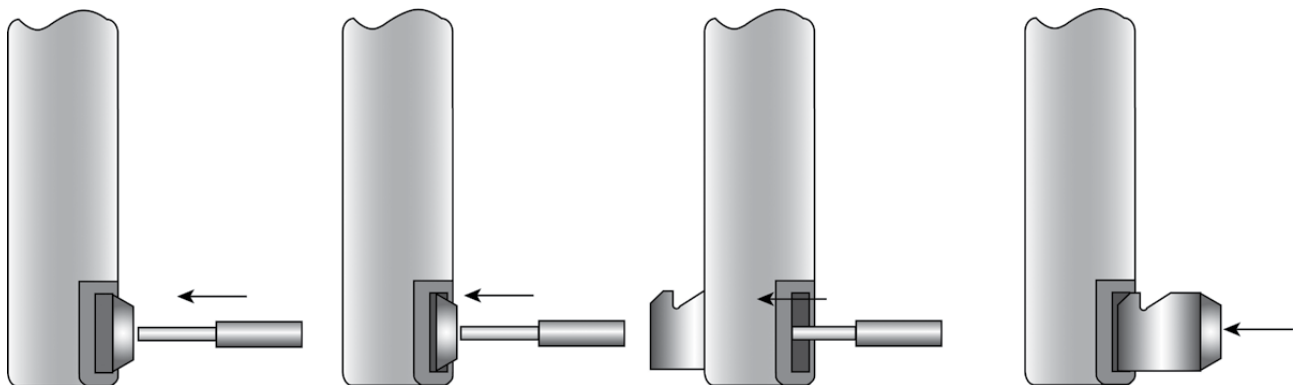
- Harder spring for SNAP5 is GH-H-F-0041
- Harder spring for SNAP12 is GH-H-F-0011
- Add suffix -HS for complete tool (ie. SNAP12-423-HS)



Changing Blades

The blade change in the SNAP tool is quick and easy. There are no tools required and it can be done with the tool in the spindle.

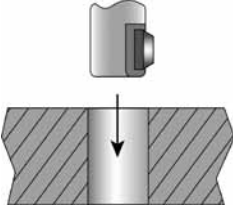
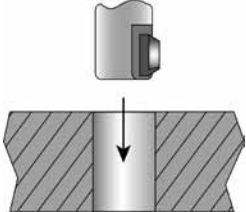
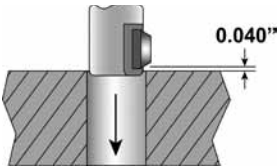
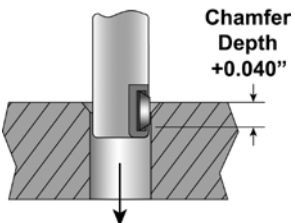
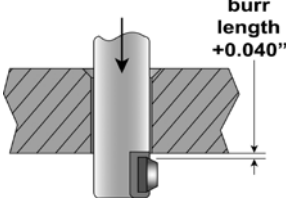
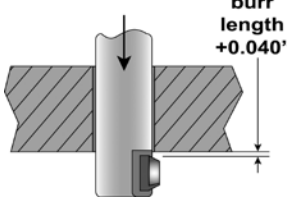
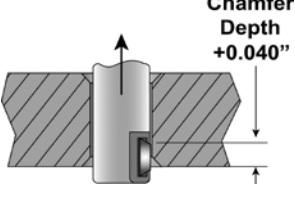
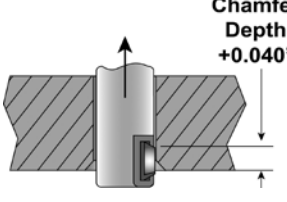
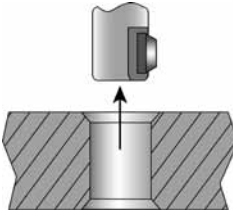
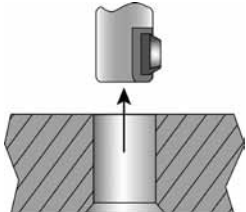
- Remove the blade by simply pushing it past center and out the back of the tool.
- Install the new blade by pushing the back side of the blade through the window until it “snaps”.
- The tool is ready to run.



For blade change videos visit:

www.HeuleTool.com

Programming Information

For Front & Back Chamfer		Back Chamfer Only
	<p>Step 1: Set the RPM according to the suggested values.</p>	
	<p>Step 2: (Move into position) Move the tool with rapid feed into position with the front.</p>	
	<p>Step 3: (Cut front chamfer) Machine the part with cutting feed (cf) and speed (cs). Feed into the part the chamfer depth + 0.040" to ensure the tool is finished cutting.</p>	
	<p>Step 4: (Rapid through part) Move the tool through the part with rapid feed until the blade is 0.040" beyond burr. The blade will not damage the through hole.</p>	
	<p>Step 5: (Cut back chamfer) Machine the part with cutting feed (cf) and speed (cs). Feed into the part the chamfer depth + 0.040" to ensure the tool is finished cutting.</p>	
	<p>Step 6: (Remove from the part) Remove the tool from the part with a rapid feed and proceed to the next hole. The blade will not damage the through hole.</p>	

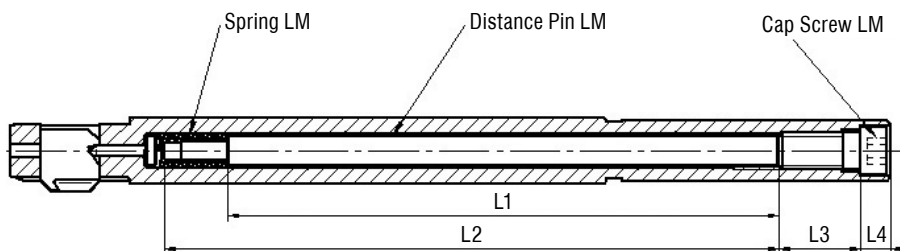
Programming Information (continued)

Material	IPR (SNAP- GS)	IPR (SNAP- DF)	SFM
Aluminum	0.006-0.012	0.001-0.003	400-600
Brass	0.006-0.014	0.001-0.003	210-400
Low Carbon Steels	0.004-0.008	0.001-0.003	200-280
Med Carbon Steels	0.004-0.009	0.001-0.002	175-225
Free Machining Alloys	0.004-0.006	0.001-0.002	200-280
Stainless Steel	0.002-0.005	0.001-0.002	150-225
Gray Cast Iron	0.004-0.008	0.001-0.003	150-250
Nodular Cast Iron	0.003-0.007	0.001-0.002	150-220
Short Chipping Iron	0.003-0.007	0.001-0.002	100-250
Titanium	0.001-0.003	0.001-0.002	40-80

Important Note:
Tool holder must be modified with blade locking mechanism for spindle speeds above 6,000 rpm. Please contact Heule Tool Corporation Engineering Department.

Optional SNAP Locking Mechanism Configuration for Standard SNAP Tool Holders

When Ordering please use a suffix -LM after the standard order number. Locking mechanism allows for higher RPM.



Order Example of SNAP Tooling with Locking Mechanism

SNAP - 8 - 315 - LM

LM Indicates SNAP Tooling with Locking Mechanism

Tooling	Size (mm)	DIMENSIONS (mm)				PART NUMBER		
		L1	L2	L3	L4	Cap Screw - LM	Distance Pin - LM	Spring- LM
SNAP 5	5.0 – 7.5	52.85	61.35	9	3.5	GH-H-S-0538-1	GH-Q-E-0089	GH-H-F-0055
	8 – 9.5	62.85	71.35	9	3.5	GH-H-S-0538-1	GH-Q-E-0090	GH-H-F-0055
	10 – 10.5	71.85	80.35	9	3.5	GH-H-S-0538-1	GH-Q-E-0091	GH-H-F-0055
SNAP8	8 – 12	73.9	82.4	11	4	GH-H-S-0524-5	GH-Q-E-0093	GH-H-F-0012
SNAP12	12 – 20	93.5	102	11	4	GH-H-S-0524-1	GH-Q-E-0094	GH-H-F-0012

Important Note:

Tool holder must be modified for locking mechanism components.

COFA | COFA-C | SNAP | VEX-S | VEX-P | COMBI | DEFA | GH-K | BSF | SOLO | GH-Z/E

PROBLEM	EXPLANATION	SOLUTION
Chamfer too small	<ul style="list-style-type: none"> Selected blade is too small Blade force is too small Feed rate is too high 	<ul style="list-style-type: none"> Choose larger blade (if possible) Increase blade force Reduce feed rate
No chamfer at all	<ul style="list-style-type: none"> Tool is incorrectly programmed Blade force is too small Blade is dull Too heavy of a burr 	<ul style="list-style-type: none"> Check programming depths Increase blade force Replace the blade Replace the drill tool
Chamfer is too large	<ul style="list-style-type: none"> Selected blade is too large Feed rate too small Blade force too high 	<ul style="list-style-type: none"> Choose a smaller blade Increase the feed rate Reduce the blade force Use DF geometry
Chamfer differs from front to back	<ul style="list-style-type: none"> Feed varies between forward and reverse feed Variation of burr between front and back 	<ul style="list-style-type: none"> Select a constant feed rate Reduce the feed rate when too small or increase feed rate when too large Increase blade tension
Poor surface finish	<ul style="list-style-type: none"> Tool or part not held properly Tool is unstable Speed rate is too high 	<ul style="list-style-type: none"> Ensure tool and part are secured Reduce Speed Check workpiece and holder
Inconsistent chamfer	<ul style="list-style-type: none"> Varying feed rate Incorrect programming position Tool is unstable 	<ul style="list-style-type: none"> Ensure constant feed rate Check workpiece and holder Check programming Reduce Speed
Poor blade life (chipping) (excessive wear)	<ul style="list-style-type: none"> Workpiece or tool not secured Insufficient machine stability Poor cutting conditions 	<ul style="list-style-type: none"> Ensure tool or part is secured Recondition or rectify machine faults Check speed and feed and coolant supply



Grinding may produce hazardous dust. To avoid adverse effects, use adequate ventilation and read MSDS. Cutting tools may break during use. To avoid injury, use proper safety precautions and protective equipment. Use the machine tool with sufficient rigidity and horsepower. Use a cover on a machine tool and protector, such as glasses, against shattering chips and broken tools due to misuse. Do not use insoluble oil because there is a danger of causing fire.