

# BLANKS FOR COLD FORMING



**HARDITALIA**

your partner in hard metal

**OMCD GROUP**

**GET MORE  
IN LESS.  
A FIRST RATE  
PRODUCT  
IN A VERY  
SHORT TIME.**



BEST QUALITY  
IN HARDMETAL ITEMS  
**JUST IN TIME**

We grant shipment within three weeks  
for all kind of rough nibs.  
Shorter delivery, on specific needs,  
are possible thanks to our versatility.







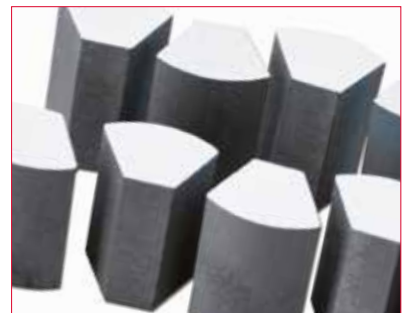
**HARDITALIA**  
your partner in hard metal  
**OMCD GROUP**

# BLANKS FOR COLD FORMING

We offer the complete series of hard metal blanks for cold forming, from nibs to shears, supporting customers with technical help, high performance tungsten carbide grades and fast delivery.



**ROUGH NIBS  
FOR DIES**



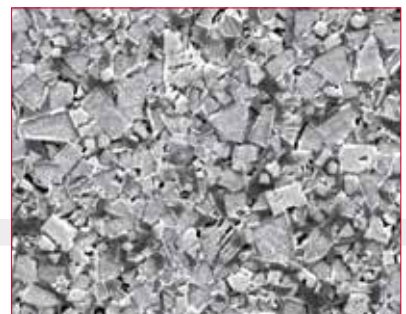
**ROUGH SEGMENTS  
FOR DIES**



**WIRE  
CUTTERS**



**PRE-SHAPED  
SHEARS**



**HARD METAL  
GRADES FOR DIES**

# ROUGH NIBS FOR DIES

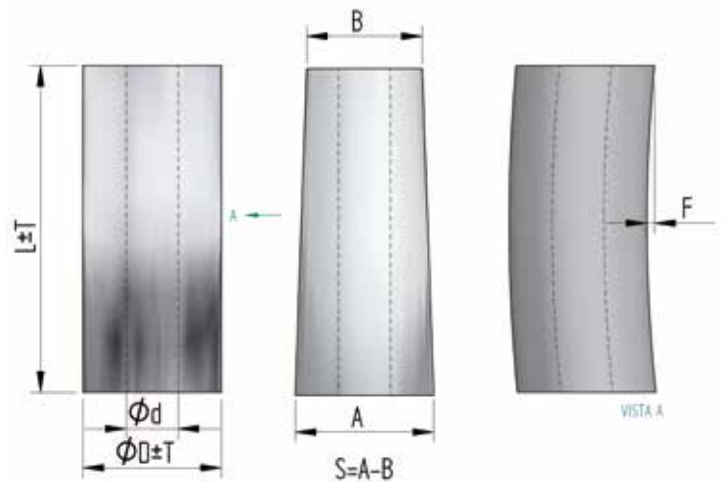
We manufacture nibs with cylindrical or shaped holes according to customer's needs. The pictures here below show the most common shapes we can produce.



The maximum dimensions that we can produce are: height 225 mm and outer diameter 212 mm. The minimum hole dimension changes according to the other sizes as shown in the table here below.

Ø Hole [mm]	L max [mm]
0.4	15
0.6	30
0.8	50
1	120
>3	225

Due to the combined effects of shrinkage and deformation during sintering it is not possible to produce rough items with hundredth tolerances. Here below it is shown the dimensional and geometric tolerances that we grant on our products. In order to compensate these tolerances it is needed some allowance on the rough pieces.



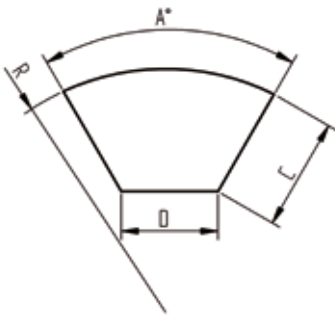
	Ø 10 - Ø 40	Ø 40 - Ø 100	> Ø 100
L <25	T ±0.15 F <sub>MAX</sub> =0.1 S=0.1	T ±0.15 F <sub>MAX</sub> =0.1 S=0.2	T ±0.2 F <sub>MAX</sub> =0.2 S=0.2
L 25-50	T ±0.15 F <sub>MAX</sub> =0.1 S=0.2	T ±0.15 F <sub>MAX</sub> =0.15 S=0.2	T ±0.2 F <sub>MAX</sub> =0.2 S=0.2
L 50-75	T ±0.15 F <sub>MAX</sub> =0.2 S=0.25	T ±0.15 F <sub>MAX</sub> =0.2 S=0.3	T ±0.2 F <sub>MAX</sub> =0.2 S=0.3
L 75-100	T ±0.2 F <sub>MAX</sub> =0.3 S=0.2	T ±0.2 F <sub>MAX</sub> =0.2 S=0.3	T ±0.3 F <sub>MAX</sub> =0.2 S=0.3
L 100-150	T ±0.2 F <sub>MAX</sub> =0.3 S=0.2	T ±0.2 F <sub>MAX</sub> =0.3 S=0.25	T ±0.3 F <sub>MAX</sub> =0.3 S=0.3
L 150-200	T ±0.2 F <sub>MAX</sub> =0.3 S=0.2	T ±0.2 F <sub>MAX</sub> =0.3 S=0.25	T ±0.4 F <sub>MAX</sub> =0.4 S=0.4
L >200	T ±0.2 F <sub>MAX</sub> =0.4 S=0.2	T ±0.2 F <sub>MAX</sub> =0.4 S=0.25	T ±0.5 F <sub>MAX</sub> =0.5 S=0.5





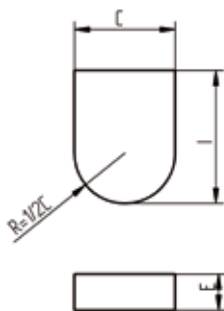
## ROUGH SEGMENTS FOR DIES

We produce segments for modular dies, commonly segments are hexagonal (60°) but they can be with square shape (90°) or octagonal (40°). The usual length is between 20 and 25 mm but we can make them up to 100 mm.



## WIRE CUTTERS

We design and produce rough wire cutters and pre-shaped ones. Here below are listed the measurements for rough shapes and some examples of pre shaped.



C	I	E
7.7	11.5	2.2
7.7	11.5	4.2
7.7	13.5	4.2
7.7	30.5	4.2
7.7	45.5	5.2
7.7	11.5	6.2
11.7	15.5	4.2
11.7	15.5	6.2
11.7	15.5	8.2
6.2	18.5	6.2
15.7	18.5	8.2



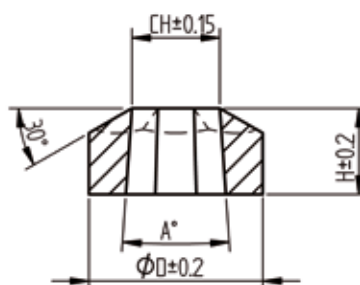
# PRE-SHAPED SHEARS

We produce Hard Metal Shears both rough and finished. Here below are listed the Standard sizes with tolerances.

CH	A°	H	Ø D
6.65	6°	15.4	18.65
7.7	4°	14.6	19.65
9.7	4°	14.3	20.7
12.6	4°	16.6	26.6
12.6	6°	16.6	26.6
15.6	4°	17	32
16.6	4°	16.3	32.8
16.6	6°	16.3	32.8
17.6	4°	16.3	31.9
18.6	4°	16.3	35.8
21.5	6°	18.8	43.3
23.5	6°	17.3	42.5
29.5	6°	23.9	57
35.3	6°	26.4	65
35.3	12°	25.2	65

On customer's request we can supply finished shears, also with CVD coating. Here below are listed the standard sizes with tolerances.

Nominal key	Key	Key tolerances	D	H
8	7.83	+0.040/+0.098	15	6.6
10	9.78	+0.040/+0.098	17	7.5
11	10.73	+0.050/+0.120	18.5	8
12.7	12.42	+0.050/+0.120	22	10
13	12.73	+0.050/+0.120	22	10
16	15.73	+0.050/+0.120	27	12
17	16.73	+0.050/+0.120	29	10.5
18	17.73	+0.050/+0.120	32.5	12
19	18.67	+0.065/+0.149	32.5	12
22	21.67	+0.065/+0.149	37	12.5
24	23.67	+0.065/+0.149	40	13
30	29.72	+0.065/+0.149	52	15.1

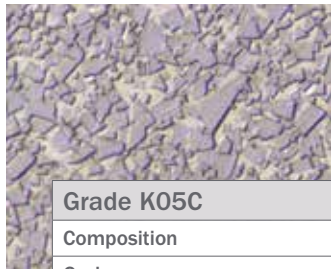






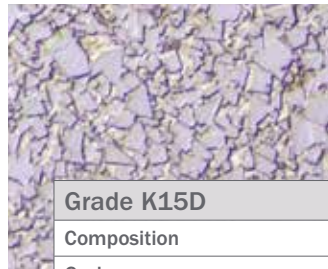
## HARD METAL FOR DIES

ISO G30 ▶



**K05C**

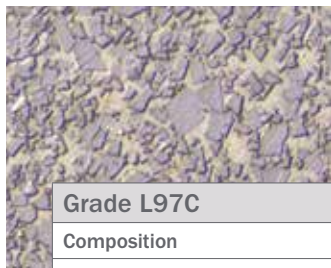
Grade K05C	
Composition	WC + Co
Grain	m-c
Vickers hardness	1050



**K15D**

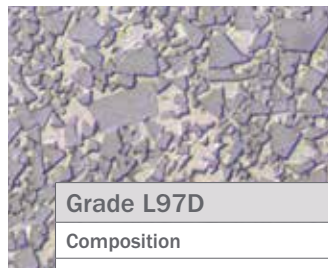
Grade K15D	
Composition	WC + Co
Grain	c
Vickers hardness	1150

ISO G40 ▶



**L97C**

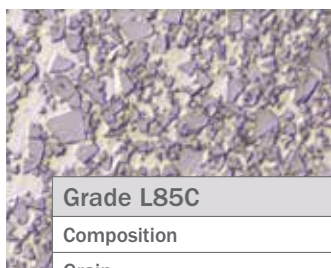
Grade L97C	
Composition	WC + Co
Grain	m-c
Vickers hardness	970



**L97D**

Grade L97D	
Composition	WC + Co
Grain	c
Vickers hardness	950

ISO G50 ▶



**L85C**

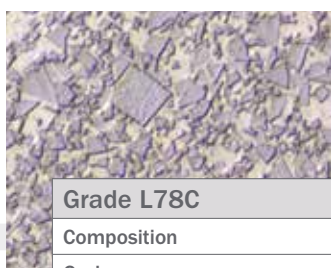
Grade L85C	
Composition	WC + Co
Grain	m-c
Vickers hardness	850



**L85D**

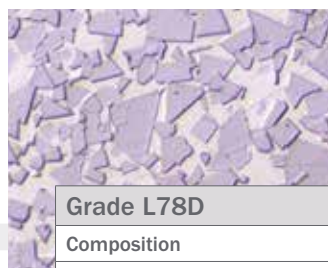
Grade L85D	
Composition	WC + Co
Grain	c
Vickers hardness	890

ISO G60 ▶



**L78C**

Grade L78C	
Composition	WC + Co
Grain	m-c
Vickers hardness	780



**L78D**

Grade L78D	
Composition	WC + Co
Grain	c
Vickers hardness	750

# IN THE WORLD



Harditalia products are made in Italy and sold all over the world. Thanks to a combined network of direct sales, agents and resellers we can supply our products from Asia to America. A technician is always at the customer's disposal to discuss technical matters and suggest the best solutions.



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your partner in hard metal

**OMCD GROUP**

Harditalia srl  
 Via Genova 9 - Oggiona con S.Stefano - 21040 (Va) Italia  
 Tel. +39 0331 215007 - Fax +39 0331 215024  
[harditalia@harditalia.com](mailto:harditalia@harditalia.com)