



We manufacture exactly what you need
JUST IN TIME



HARDITALIA
your partner in hard metal
OMCD GROUP



THE COMPANY

✓ **VERSATILITY**
Quality and Speed: a difficult bond to achieve but it is what our success is based on. Thanks to a streamlined and ultra-qualified organization we are able to provide answers and products with top quality, adapting to the "Just-in-time" market trend.

✓ **PERFORMANCE/CAPABILITY**
It is Our strong commitment to base our manufacturing capability on the best customers' expectations. Our values are oriented to create a real Customer intimacy, so that a direct link is established with our line managers in order to create together the best solution.

✓ **TRAILBLAZING**
A forty-year rock solid experience is not preventing us to continuously look for trailblazing our processes and products. Young and qualified staff working shoulder-to-shoulder, brand new production process tailored to shorten delivery time and increase performances are the keys of our and our Customers' successes.



THE PRODUCT

✓ **VERSATILITY**
Hardness and toughness: a difficult bond to reach. Nonetheless, Hard Metal manages to achieve the maximum wear resistance and the necessary toughness thanks to a great variety of sintered qualities; this proves the versatility of the material to adapt to the different applications.

✓ **PERFORMANCE/CAPABILITY**
Hard Metal guarantees exceptional long-lasting performances on wear resistance, better than any other material, thanks to a peculiar structure made of a unique combination of a special hard frame (WC) and a special toughness binder (Co).

✓ **TRAILBLAZING**
Hard Metal is one among the younger materials – just less than one century old – used in heavy industry and it is in continuous development. Distinctive grain sizes, addition of special carbides and innovative binders are the out-turn of the trailblazing of the hard metal which is called to operate in conditions of extreme stress, where steel and ordinary metals fail.



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**A PECULIAR
PRODUCT,
A FIRST-RATE
SUPPLIER.**



BEST QUALITY
IN HARDMETAL ITEMS

JUST IN TIME



This is our approach to customers and this is the way we design hard metal parts. Direct contact with our skilled technicians is the way to get it. Discover the value of a special supplier.

EXPERTISE AND EXPERIENCE IN ALL APPLICATIONS WITH CUSTOM PRODUCTS

- 1.** Metal cold forming is a tough wearing operation. The parts that perform the deformation shall be harder than the material you are working on; only in this way the life of the tool is significant. Hard Metal is especially suitable for this operation due to its high hardness (higher than any other metal, even tempered ones) and at the same time a good level of toughness. The main operations with plastic deformation are performed by:

DRAWING

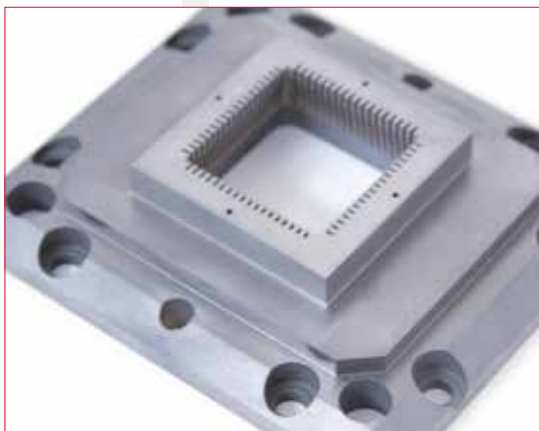
- wire drawing: nibs
- bar drawing: cylindrical or hexagonal dies
- tube drawing: dies and mandrels

MOULDING

- screws and bolts: cylindrical dies and shearing
- in special shape: dies

MILLWORK

- reinforcing rods for concrete: rolls



- 2.** Materials like metal, wood and paper are very abrasive and easily wear the cutting edge of the tools. Hard metal guarantees the longer-lasting life of the sharpened edge compared to any other metal, both on high speed and repetitive cuts. Thanks to its particular structure it is possible to sharpen it easily with complex shapes.

- Special tools: paper cutters and hobs
- Cutting of metal, plastic and paper: disks
- Cutting and moulding of leather: shaped extruded bars
- Inserts and tools for sharpening: milling inserts, blanks for end mills.

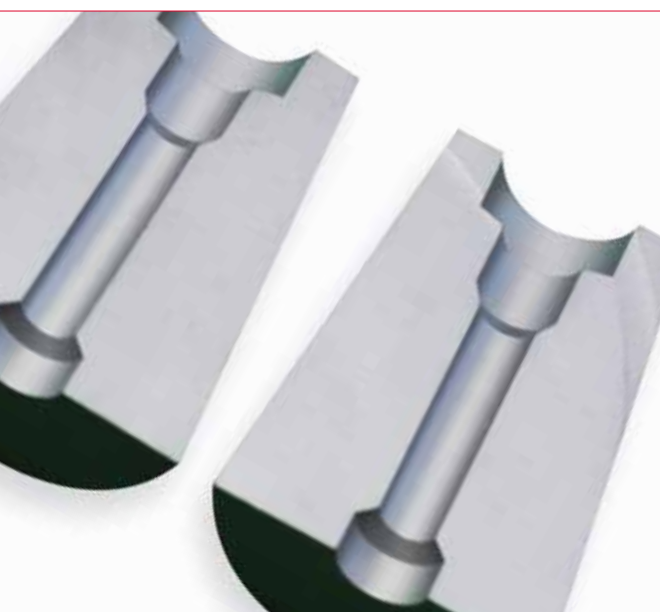


- 3.** Serial Trenching of metal plates, particularly on batches of thousands pieces, needs dies and punches in hard metal. In order to optimize costs and manufacturing of items made of hard metal, it is possible to supply pre-shaped items and also with brazed pin.

- Dies: pre-shaped blanks with or without brazed pin.
- Shaped punches: cylindrical ones, bars and blocks for EDM.

APPLICATION FIELDS

1. Cold working
2. Cutting
3. Trenching
4. Wear Special applications
5. Heavy machining for iron and steel industries



- 4.** In complex machineries it's likely to come across wearable parts where life is heavily affected by abrasion or erosion process mainly due to sliding or moving surfaces or contact with abrasive materials. The use of hard metal for these parts would result in a decisive improvement of life

- mechanical seals
- nibs
- nozzle
- dies
- scrape off cutters
- mixer

- 5.** Iron and steel industry, unlike mechanical workshop, requires medium big size inserts customized on the machining and the equipment. Technical competence and application knowledge are the main points for manufacturing performing products. We have a dedicated division specialized in the following sectors:

- bar peeling
- tube scarfing
- heavy machining

These products are sold under Diamil brand.



THREE VALUES FOR A GREAT COMPANY TO GRANT HIGH QUALITY

COMPETENCE

Hard metal production presents some criticalities that requires specific competences in mechanics and chemistry.

The combination of density gradient in powder compact during pressing, shrinkage and Carbon balance during sintering phase requires a great mastery of the process and a well-established expertise.

This competence has been acquired from our production department in forty-years-experience.

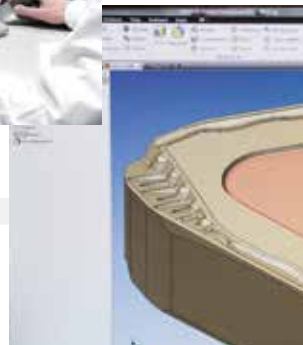


KNOWLEDGE

Our laboratory is equipped with the best instruments for chemical and metallurgic analysis and highly qualified personnel and it is able to control and manage the whole transformation process of Tungsten, from mineral to the finished product, assuring a total independence on raw material provision.

Decades of research for our customers allowed us to develop particular mixes, each dedicated to a particular application.

Thanks to this we can count more than 50 different grades of hard metal used every day in our production and a skilled technical support.



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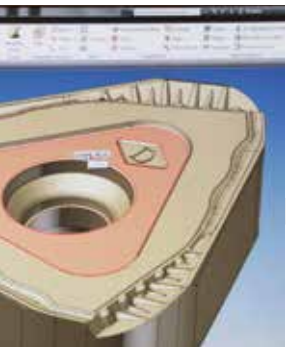


FLEXIBILITY

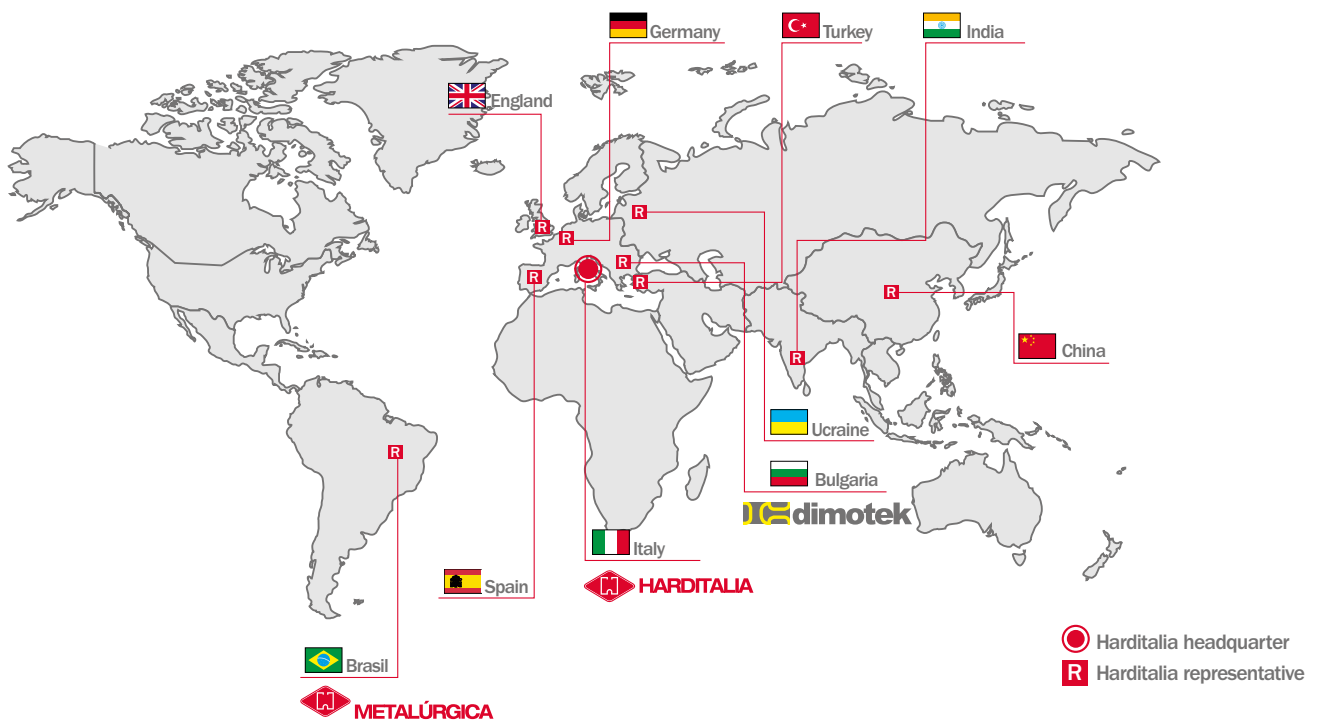
Our Sales department motto is “we manufacture exactly what you need”. The product and our offer are made in accordance with Your own specific requirements.

Thanks to the technical competence of our staff, your inquiry is turned into a finished product with the optimized production process so that the lowest price is guaranteed.

Flexibility and a quick order management allow us to meet our Customers' requirements in terms of delivery date according to the “just in time” logic.



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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