



Italimpianti Orafi Spa



## ***Hollowing Plants***





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## **CAROUSEL HOLLOWING PLANT** **TYPE DGHCL/A**

***The plant is used for the dissolving of iron cores in hollow gold articles with HCl solution.***

*The plant is built entirely in self-extinguishing polypropylene sheets.*

*It can hollow out 30 Kg of articles simultaneously, reducing hollowing time by 50% compared to static methods.*

*The plant has a capacity from about 100 to 140 Lts of acid solution.*

*The solution is electrically heated by anti-acid resistors; the temperature is controlled by a pyrometer, provided with a resistance thermometer.*

***The plant is completely automatic to allow nightly working.***

*It is provided with:*

- *tank containing three removable rotating baskets;*
- *tank for checking total dissolution of the iron core;*
- *tank for rinsing with water;*
- *suction hood that can be connected to the fumes scrubber and two condensate separators to allow the dropping of condensate into the tank.*
- *Condensing device for acid vapours and for reducing acid consumption.*
- *The plant is also provided with a device for acid solution static ground.*

*The plant comes with level control for the emptying tank, which either stops water flowing into the condenser if tank level exceeds maximum allowed ( that could mean the condenser has broken and water might be leaking out), or turns resistances off if level falls beneath minimum ( in order to avoid damage caused by evaporation ).*

### **Technical Data :**

- *Power supply* : Three-phase.
- *Power* : 8 kW
- *Overall dimensions* : 1000 x 870 x 1900 mm. ( Length – Width Height)
- *Weight* : 98 Kg.





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## CAROUSEL HOLLOWING AND REFINING PLANT TYPE DGNH/B

*The plant is entirely built in stainless steel AISI 316 and is used for dissolving the copper or aluminium core in hollow gold and silver articles.*

*It can hollow about 15 Kg of articles simultaneously, reducing the usual time of about 50% compared to static methods.*

*In 14 and 18 kt gold articles, the copper core is dissolved with a  $HNO_3$  solution, while in silver articles the aluminium core is dissolved with a  $NaOH$  solution.*

*The tank has a capacity of about 35 to 70 lts of solution.*

*The solution is electrically heated by means of three mono-tube resistors, with power supply of 1500 watt each and controlled by a temperature regulator.*

*The plant is provided with:*

- a tank containing three removable rotating baskets.
- a tank for rinsing with running water.
- a polypropylene suction hood to be connected to a fumes neutralization tower.
- two plate condensers for vapour condensing and for the reduction of acid consumption.

*This device reduces to a minimum the lowering of the level caused by evaporation of solution also allowing **night use of the plant without any attending by the operator.***

*An iron frame with three steps, lifting the plant of about 60 cm from the floor, can be fitted on request.*

*A separate scrubber for neutralising acid fumes can also be supplied on request.*

### **Technical data:**

- Power supply : Three-phase.
- Power : 4.5 kW
- Dimensions : 7800x870x1900 mm
- Weight : 150 Kg.





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## **HOLLOWING STATIC PLANT** **TYPE IVC/50-50**

*The plant is used for dissolving the copper, or iron core in hollow gold and silver articles.*

*The dissolving step is carried out inside two 50 litres reactors fitted with rotating system holding the chains to be hollowed. (See photo below).*

*The solution is electrically heated and controlled by a temperature regulator.*

*The plant is composed of a polypropylene hood, with relative suction fan, containing two electric heaters, two reactors of 50 lts. with relative condensers in Pyrex glass.*

***Rotating system inside  
the 50 lts. reactor holding  
the chains to be hollowed.***





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## HOLLOWING STATIC PLANT TYPE IVC/20

*The plant is used for dissolving the copper, or iron core in hollow gold and silver articles.*

*The dissolving tank has a capacity of 20 lts. of acid solution.*

*The solution is electrically heated and controlled by a temperature regulator. The plant is composed of a polypropylene hood, with relative suction fan, containing one electric heater, one reactor of 20 lts. with relative condenser in Pyrex glass.*

### **Technical data :**

- *Power supply* : *Three-phase.*
- *Power* : *1,5 kW*
- *Overall dimension* : *1620x900x1990 (Length-Width-Height.)*



**Italmimpianti Orafi SpA**