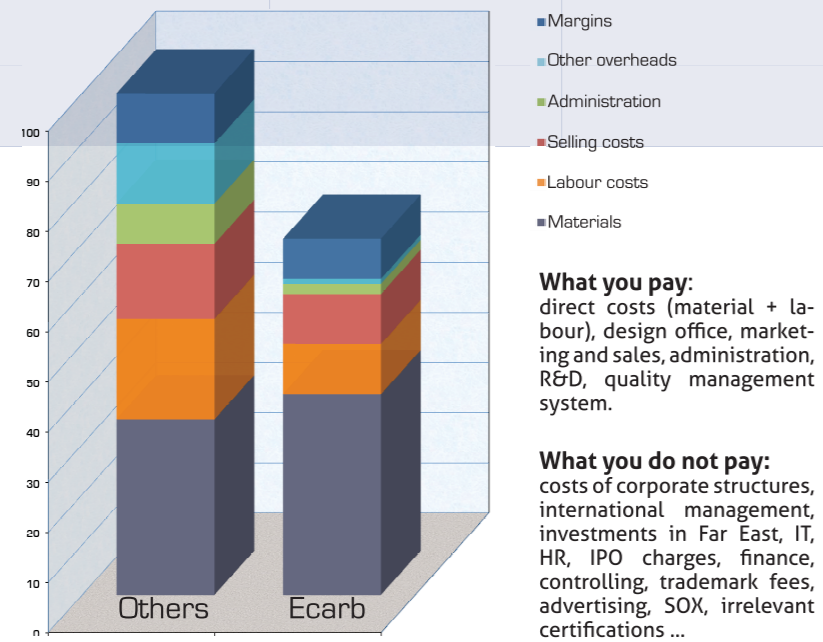


Ecarb Srl

Production site: Via Flaminia Ternana 500 - 05035 Narni - Italy
Sales Office: Via Pietro Rondoni 11 - 20146 Milano - Italy

After sales assistance
Accessories, parts & service

Price: technology, nothing else!



Quality by passion

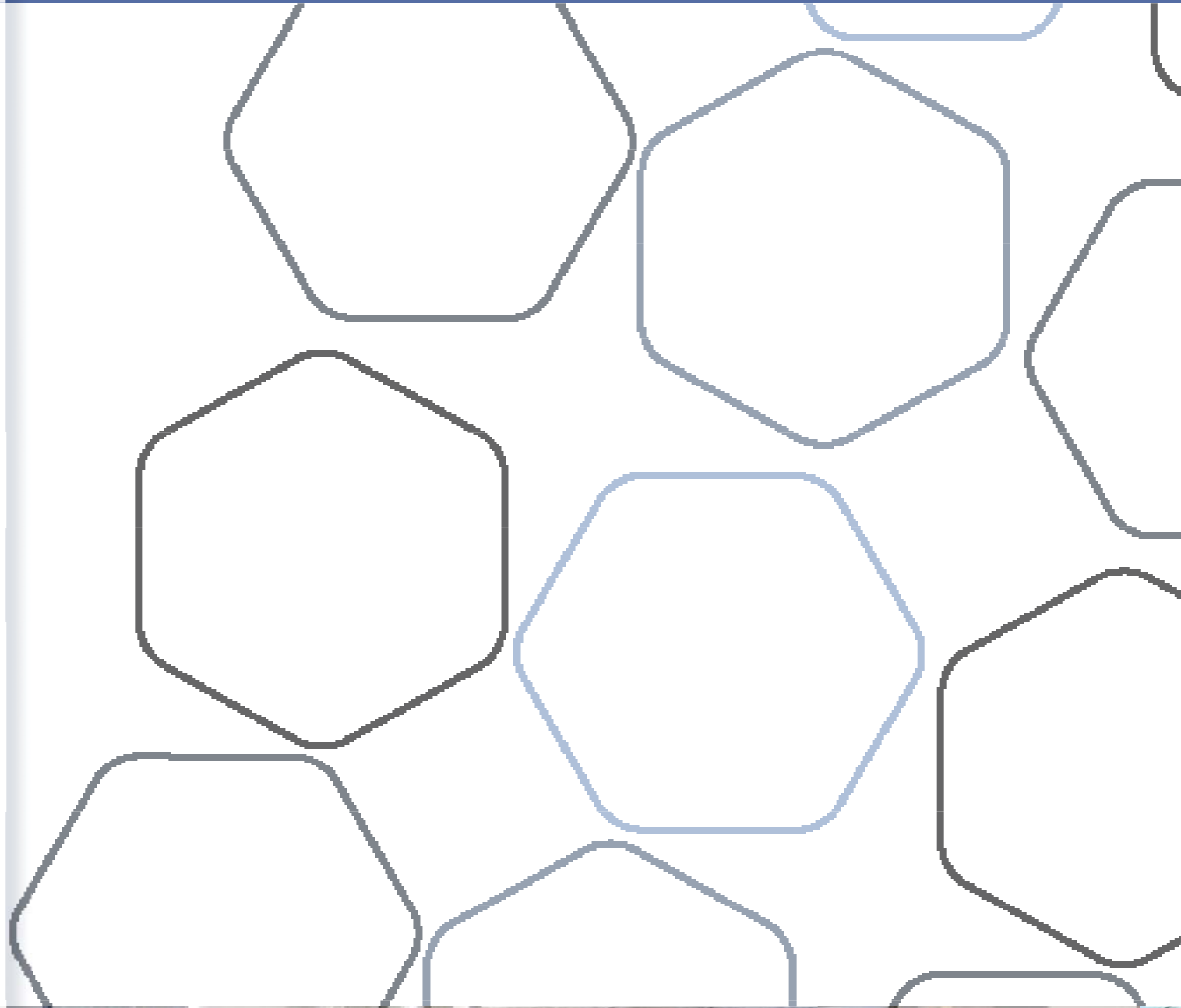
Ecarb Quality Management System is certified according to ISO 9001:2008. Each single procedure was inspired by our core values: **engineering excellence and customer satisfaction.**

Graphec products are designed in order to maximize lifetime and to ensure easy and safe maintenance and operation. Ecarb's manufacturing system is certified according to European Pressure Directive (97/23/EC).



References

We are pleased to solve our customers' problems. We supplied spare parts and we performed many repair and service jobs, ensuring prompt and advanced maintenance of graphite items, even if manufactured by other suppliers. Detailed references are available on demand.



Graphec®

Graphec, graphite process equipment

Rupture disks • Blocks and Shell&Tubes heat exch. • CT condensers
Mixers • Columns • Quenchers • HCl synthesis units • Systems



www.ecarb.it • info@ecarb.it



Service with added value

Graphite has unique chemical and mechanical features. Graphite items may have an indefinite lifetime, but they need accurate maintenance and professional skills in case of repairs.

Service providers rarely own sufficient competence to handle correctly even apparently simple maintenance jobs. Sometimes even to tighten a flange may become a dangerous action.

Ecarb engineers and technicians are available to provide a complete and professional assistance to maintenance department, starting from expertise on process arrangement up to on site repair jobs.

Ecarb grants a full range of spare parts for graphite items, even when they have been manufactured by other suppliers.

Ecarb offers service with innovative approaches: preventive maintenance, 24 hours service on demand, dedicated safety stock of spare parts, training programs for external fitters.

Parts & service policy

We are available for every solution that can make your life easier.

Our core values are engineering excellence and **customer satisfaction**. This leads also to a fair price policy for spare parts.

For our spare parts, we use only certified graphite, manufactured for process technology applications, homologated according AD2000 N2. Quality is a must.

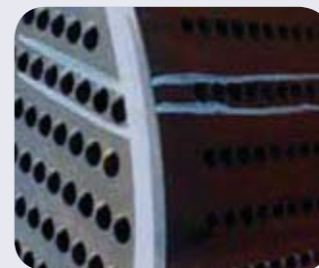
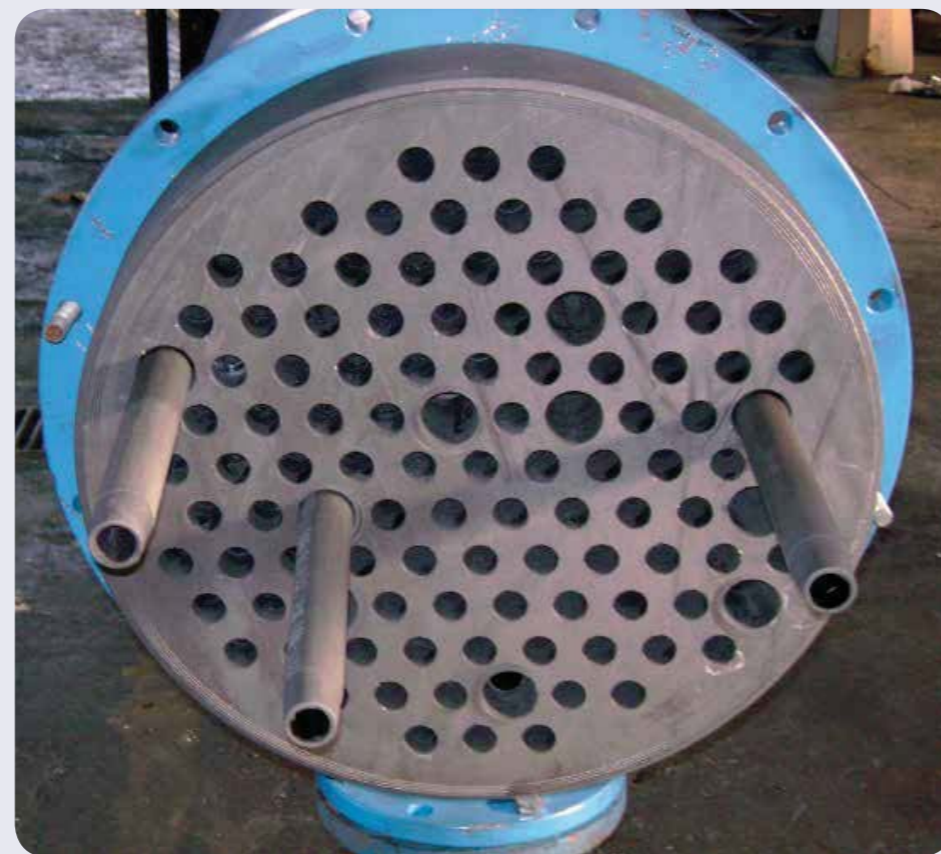
After sales Service

Our after-sales department delivers following services:

- *Chemical cleaning of heat exchangers:* to remove fouling without mechanical operation, which may damage graphite components.
- *Repair of graphite shell & tubes heat exchangers:* it is possible to replace damaged tubes in our shop or on site. Graphite tubes replacement is a safe, simple and quick job which allows the full regeneration of a graphite bundle.
- *Repair of graphite block heat exchangers:* it is possible to repair or to replace damaged blocks, in our shop or on site.
- *Repair or modification of graphite columns and quenchers:* columns can be easily repaired or modified, installing new segments or modifying position and orientation of existing nozzles.
- *Repair of graphite centrifugal pumps*
- *Modification or renewal of PED certifications,* including revision of mechanical calculation according new process conditions.
- *On site installation and assembly* of packages and process items
- *Inspections and tests*
- *Expertise on process* may be carried out by our engineers, to identify and remove the root causes of any damage.
- *Pre-commissioning, commissioning and start up* of our equipment and systems
- *Regeneration and repair* of metallic process units or components.

Ecarb's staff is always ready to intervene on site, when planned downtime does not allow maintenance in our shop.

Our engineers and technicians have long experience and they are able to tackle any problem. Their motivation will surprise you. The added value of our service is the competence which only who designs and manufactures graphite equipments can have.



Spare parts

Ecarb is able to offer a wide range of spare parts, related to its own products or existing unit delivered by other suppliers. Complete tube bundles, cylindrical or cubical blocks, nozzles, carbon and graphite rings for pumps mechanical seals, tubes, fitting, gaskets, nuts, washers, bolts, tie-rods, springs, bellows, column segments, column internals, headers, baffles, metallic plates, steel shells, graphite cement: every component of your process units is replicated with accurate reverse engineering techniques, using high quality materials, equivalent to original grades. Graphite components, reinforced with CFx (carbon fiber wrapping), are available on demand.

Graphec® process accessories

Ecarb designs and produces graphite accessories for process industry:

- **Static mixers:** Graphec mixing tees are made of graphite and PTFE and they are ideal solution to get immediate and complete mixing of substances like sulphuric acid, caustic soda. etc. Mixers are sized according to the flow rate range requested for each single case.
- **Thermometric pockets:** they can be used with many aggressive compounds, in a wide range of temperature. Our thermometric pockets have unique precision, thanks to graphite huge thermal conductivity. Every temperature fluctuation is immediately transmitted to thermometric sensor, to provide highly sensitive measures.
- **Safety valves:** graphite safety valves can be used when aggressive media does not allow to use metallic ones.
- **Repair kits:** Ecarb provides smart boxes, containing all spare parts and tools necessary to perform tubes or block replacement.
- **Rupture disks:** see dedicated brochure.

