Bodycote Varmebehandling A/S is part of the listed international group, Bodycote PLC, the leading supplier of heat treatment and metallurgical services with more than 200 businesses worldwide. Bodycote Varmebehandling A/S has worked with vacuum brazing for more than 20 years and is one of the leading suppliers in this field.

We have Heat treatment facilities, coating centres and HIP facilities at our disposal, giving us access to a wide network of knowledge and new technology across national borders, which can convey a feeling of security, reliability of delivery and increased competitiveness to our customers.

It also means initially that it is only necessary to go to one place, irrespective of which heat treatment or metallurgical service is required.

Even though Bodycote Varmebehandling A/S is part of a global business, we attach great importance to the principle of closeness to our customers and thus cover a very large area with branches on Zealand, Funen and in Jutland in Denmark, and one in North Germany.

Brazewitch® Fixture for vacuum brazing
- a unique patented fixation method.
- Tailored fixtures
- Long lifespan
- Optimised assembly cycle
- Retro-fitting
Bodycote Varmebehandling A/S offers you its extensive knowledge and experience of fixtures for vacuum brazing. More than 20 years’ work has resulted in the development of the “state of the art” fixture of the future.

The Brazewitch® Fixture has been created to strengthen our customers’ competitive advantages. We are at your disposal for advice, configuration and design of your product-tailored fixture for cost-effective, optimised production.

In this brochure, you can read about the applications and benefits provided by Bodycote’s unique, patented fixture solution.

The use of vacuum brazing for many products is rapidly increasing, as is the resulting enhanced requirement for quality and production efficiency. All processes from the furnace equipment to the fixture must be fully optimised. The choice of the correct fixture for the joining of components in vacuum brazing is of decisive importance to production efficiency and the quality of the end-product. A fixture must retain its dimensions and shape, be easy to handle and quick to charge and discharge.

The Brazewitch® Fixture gives you benefits in all aspects, and it is the obvious future-proof alternative to a ceramic or steel fixture.

The fixture

The Brazewitch® Fixture is an easy-to-handle, simple and straightforward fixture designed specifically for the component for vertical fixation/brazing in a vacuum furnace.

The fixture has a sandwich structure, consisting of a graphite core on which metal plates have been laid. Graphite is a good thermal conductor and an extremely dimensionally rigid material. Graphite tolerates the repeated high temperature and fierce cooling cycle experienced during vacuum brazing.

The special metallic plates laid on the graphite core provide an effective barrier between the graphite core and the component. In this way, the component is not exposed to carbon from the graphite. The special metallic plates are non-stick and do not allow the liquid brazing metal to run off.

Charging without the coating of ceramic fixtures, and discharging without burnt-on blanks allows for optimal ease and speed of production.

Benefits

The Brazewitch® Fixture provides you with a range of absolute benefits, some of the more obvious are mentioned below.

**Production.**
- Efficient cycle periods.
- Single operation charging.
- Stable charging.
- Homogenous brazing quality.
- Easy discharging.

**Financial.**
- Long lifespan.
- Maintenance-free.
- Minimal rejects in the final product.
- Optimal uniform brazing quality.
- Retro-fitting.

**Work environment.**
- No covering or paste
- No contamination in the furnace environment.
- Minimal dust produced when handling.
- Can be handled by magnetic crane.
- No use of stop-off paint.

Case

Leading manufacturers of, for example, heat exchangers, are having great success using the Brazewitch® Fixture rather than coated ceramic fixtures.

Their experiences indicate sustained uniform productions for up to 1000 cycles. For this reason, the total cost-in-use is markedly better than with traditional steel fixtures.

The Brazewitch® Fixture has a long lifespan which can be extended to the maximum using our retro-fitting programme. A number of manufacturers have used the retro-fitting option, where the special metallic plates are replaced and the graphite core reused for approximately two-thirds of the initial cost.

The Brazewitch® Fixture is thus very attractive, particularly for large-scale productions combined with a focus on quality.

The fixture of tomorrow is available to you today.

Contact us

When choosing Bodycote as the partner for your fixture solutions, you will have access to the greatest possible body of experience and know-how. You can draw on expert knowledge, from people who deal with fixtures and brazing on a daily basis, both locally and globally.

We are very happy to contribute our expertise and guidance, enabling you to improve and optimise your product and production. Feel free to include us from concept start to implementation, for optimal design and end result.

Contact us today if you would like to hear more about the numerous possibilities and benefits of the Brazewitch® Fixture, or if you would like help in assessing a specific task.

We would be delighted to discuss options with you for this unique fixture solution.