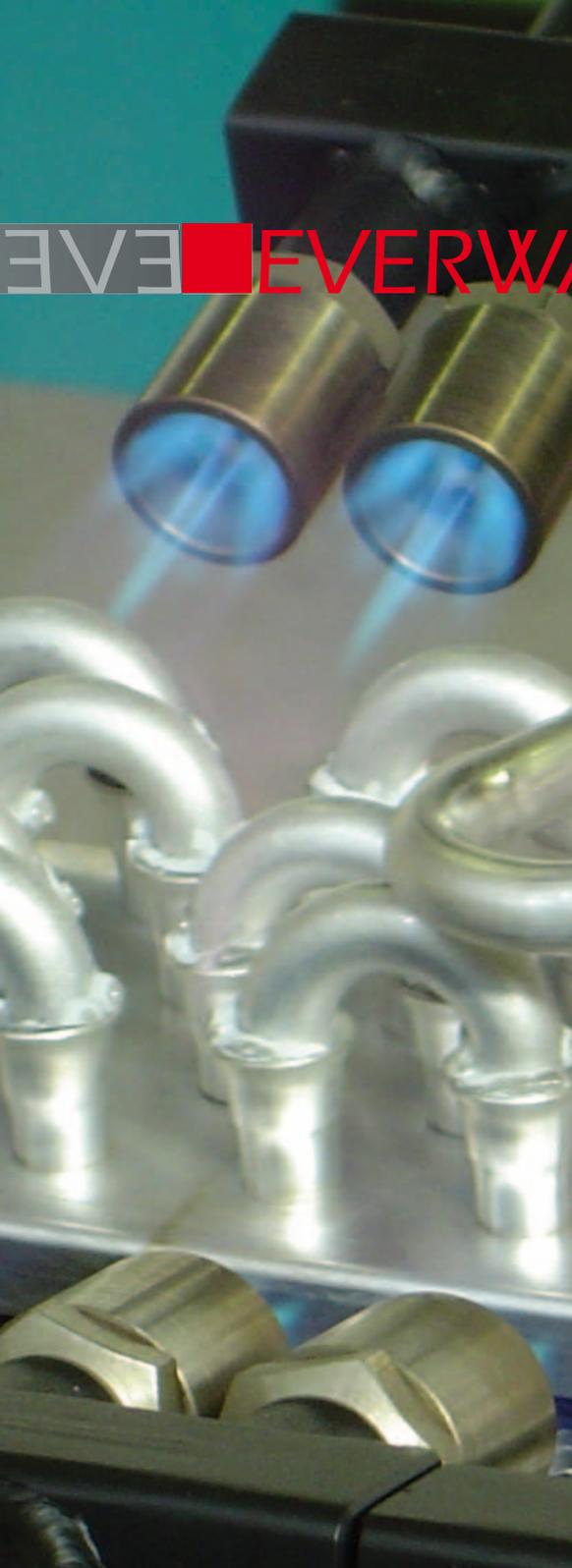


INDUSTRIAL BRAZING

Vulkan



EVERWAND & FELL GMBH

Individual Solutions

For the automation of brazing processes we provide solutions, that are specifically tailored to the individual needs of our customers.

In all phases of a project we maintain in close dialogue with our clients. Thus, manufacturing systems are created, that meet all the high standards set by the industry.

Clear Responsibility

from the single brazing torch to complete brazing machines, we create full solutions from one source, which also includes control and regulating technology.

For our customers, this means efficient processes, one contact for all matters relating to brazing and clear responsibility in the project.

100 Years of Innovation

100 years tradition in manufacturing gas equipment under the name 'Vulkan' has made the Everwand group of companies a competent partner for the industry around the globe.

Within the Everwand's Brazing Automation Division our decades of experience in the field of brazing technology and machine engineering forms the basis for finding the best and most efficient automation system for your joining application.

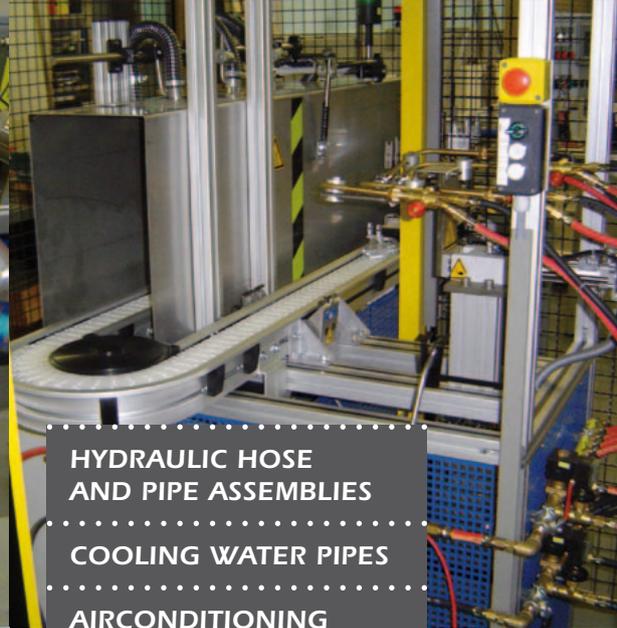
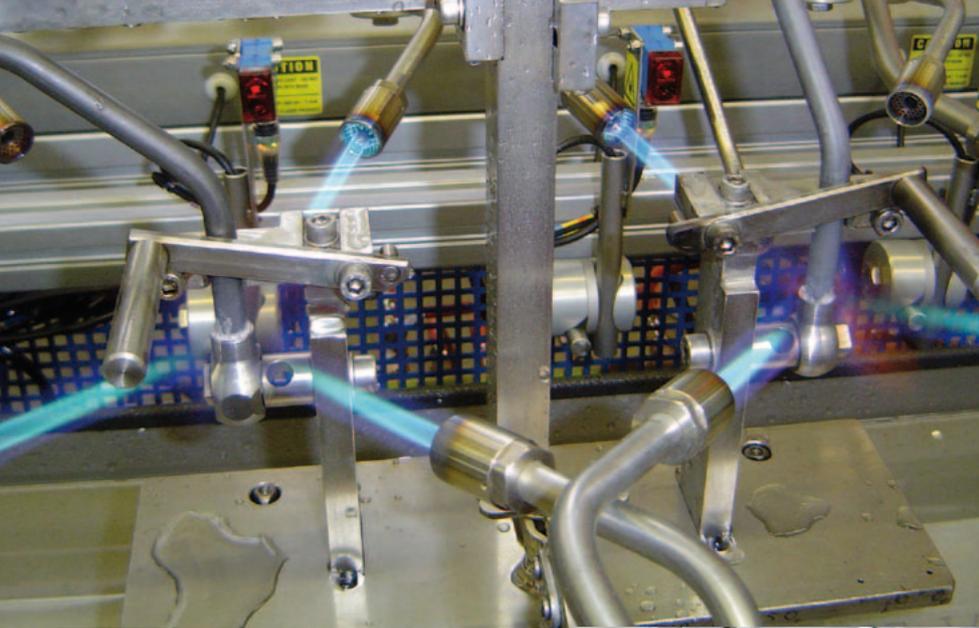
Made in Germany

Our national and international customers always appreciate the quick reaction time and flexibility of our owner-managed company, that develops and builds the machines with a highly qualified staff solely in Germany.



AUTOMOTIVE INDUSTRY

3



HYDRAULIC HOSE
AND PIPE ASSEMBLIES

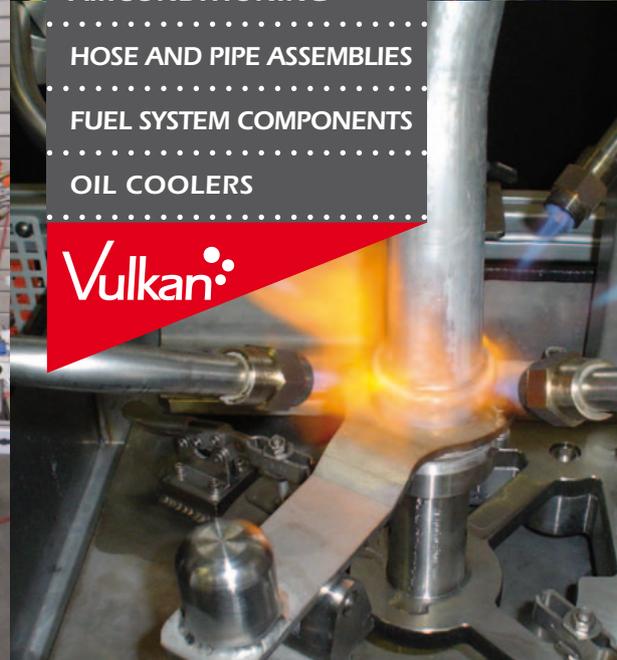
COOLING WATER PIPES

AIRCONDITIONING

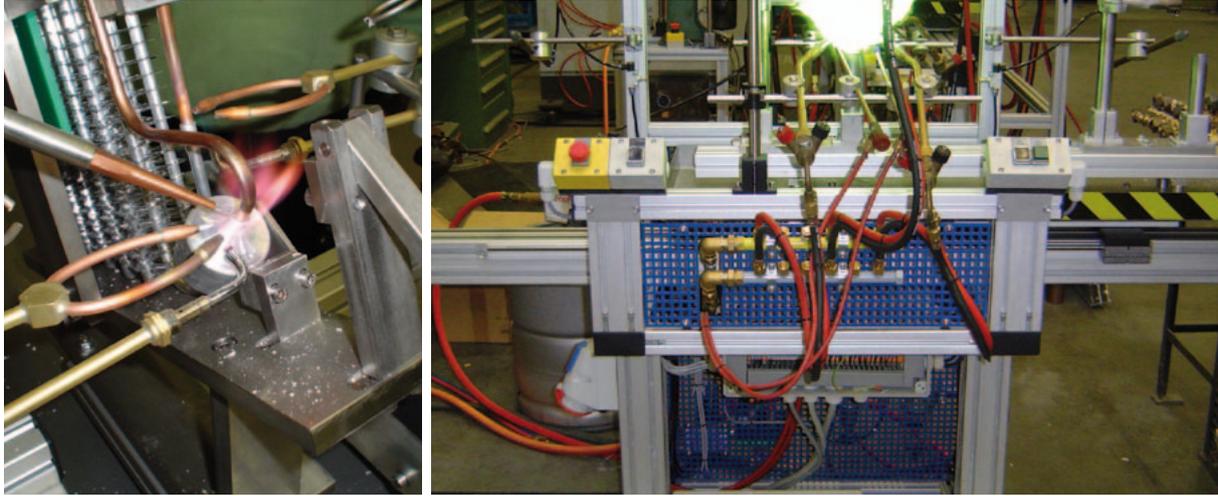
HOSE AND PIPE ASSEMBLIES

FUEL SYSTEM COMPONENTS

OIL COOLERS



Vulkan[®]



SHUTTLE BRAZERS

Medium Batch Sizes

Shuttle systems are ideal for medium-volume production of similar components or to handle applications where space is needed to braze bulky parts.

The shuttle mounted fixture is pneumatically pushed from the load/unload station in the heating station where the brazing operations automatically starts with controlled timing.

High Flexibility

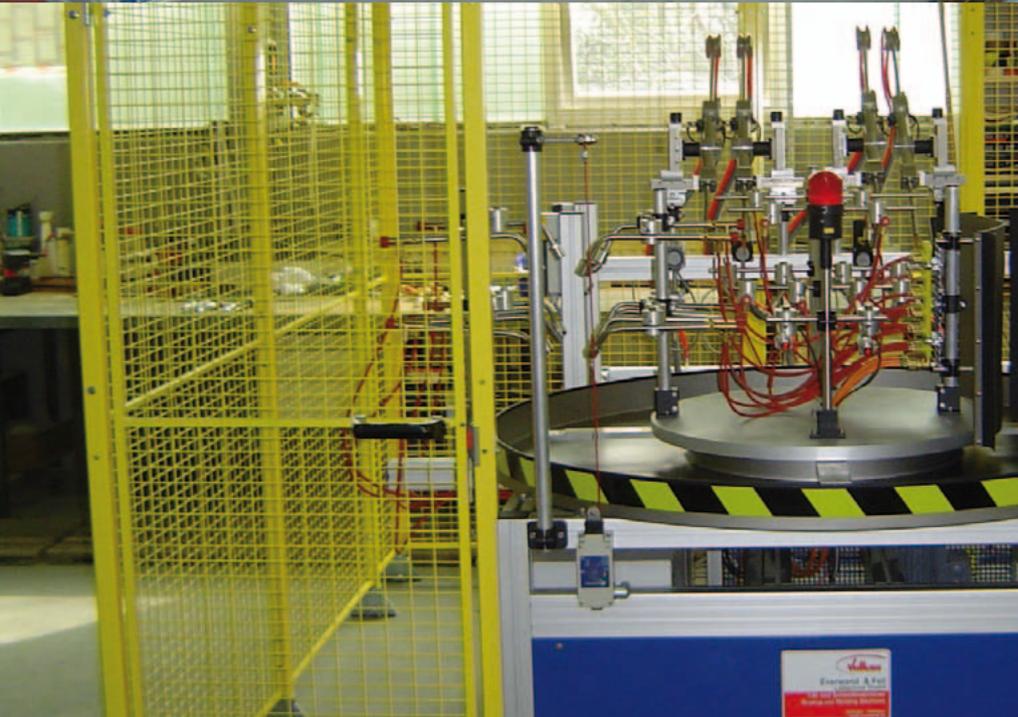
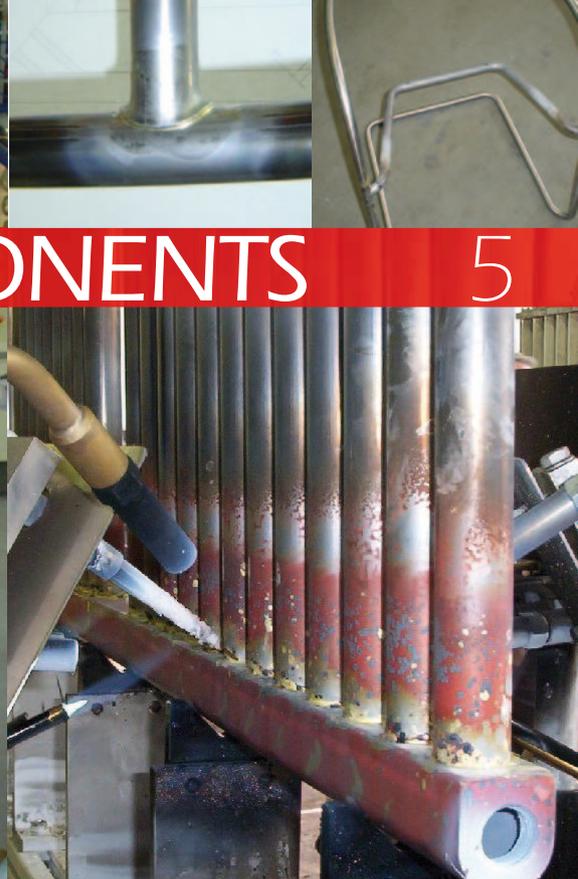
Depending on the machine type, a shuttle brazer with duplex table either has a center located brazing station with load/unload stations left and right, or a center located load/unload area with brazing stations left and right.

One of the fixtures is always free for unloading and loading, while the other fixture is in the brazing station.

Due to its modular construction a shuttle system provides a maximum flexibility with minimum set-up time to adapt the machine to different requirements.

STEEL TUBE COMPONENTS

5

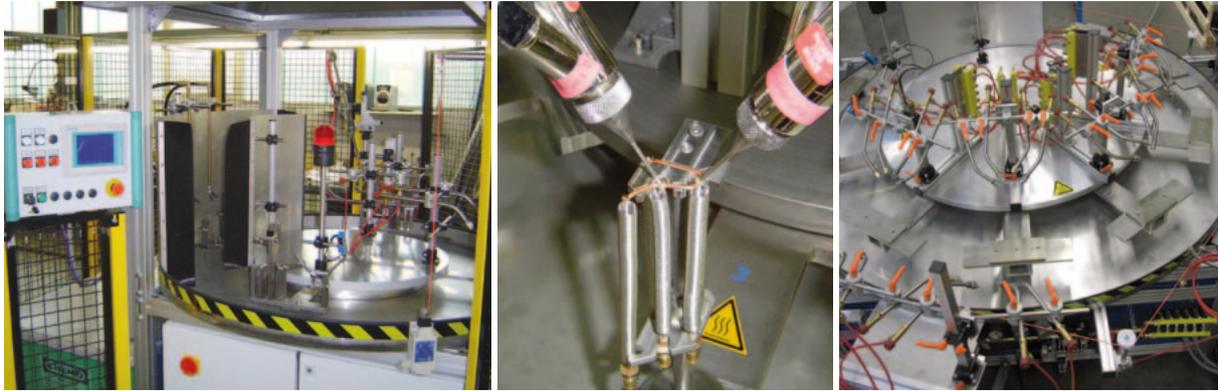


- TUBULAR STEEL FURNITURE
- SHOP-FITTING ELEMENTS
- BICYCLE FRAMES
- WHEELCHAIRS
- TOWEL RADIATORS

Vulkan

CHIMOT

6



UT ■ TURNTABLE BRAZING MACHINES

Industrial Mass-Production

Turntable machines are mostly used for high-volume production. They provide a means for any degree of automation.

Users can choose between several forms of rotary machines. Based upon the specific requirement such machines are designed as automatically indexing rotary table or as continuously rotating units.

High Production Output

Due to the multiplicity of operations possible to be carried out automatically by the machine during the total manufacturing cycle, such systems provide a high degree of productivity and economic efficiency.

System options may include:

- automatic loading + unloading device
- automatic flux or brazing paste dispensers as well as brazing wire feeder
- vapour flux equipment
- pyrometer temperature sensing
- nitrogen purging appliance
- air cooling and water quenching equipment
- water recirculation system

FITTINGS AND TOOLS

7

BRAZING

SOLDERING

FLAME BRAZING

INDUCTION BRAZING

BRAZING WITH
VAPOUR FLUX

Vulkan



SPECIAL MACHINES

In-line Brazing Machines

With in-line brazing machines the carriage mounted brazing torches together with the automatic brazing wire feeders drive along the parts to braze the tube connections one after another.

Conveyor Belt Brazing Machines

are often used for brazing return bends to heat exchanger coils.

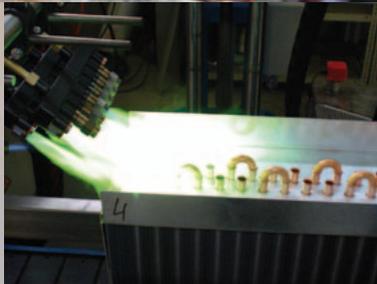
Transfer-System Brazing Machines

for high-volume production. Carriage mounted fixtures carry the braze parts through several processing stations, where they pass through different production steps, thereby increasing the productivity of the system.



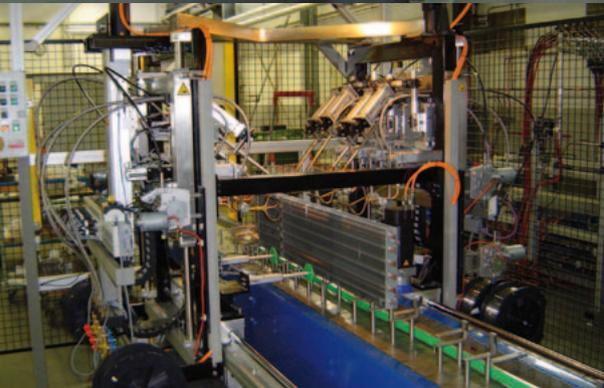
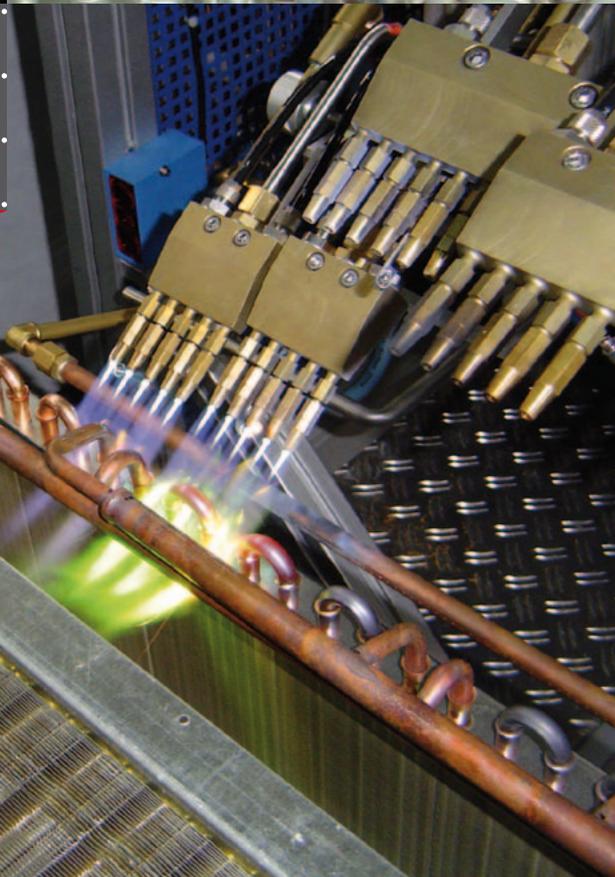
AIR-CONDITIONING UNITS

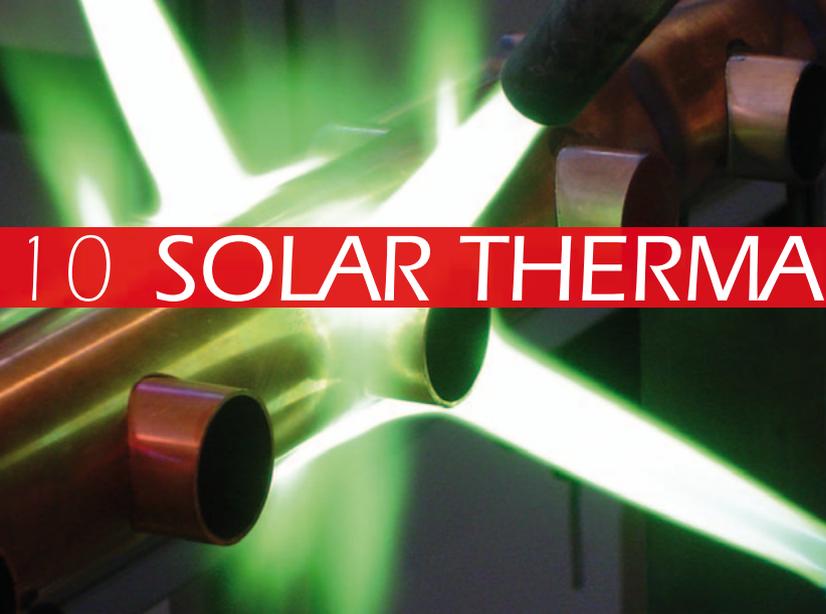
9



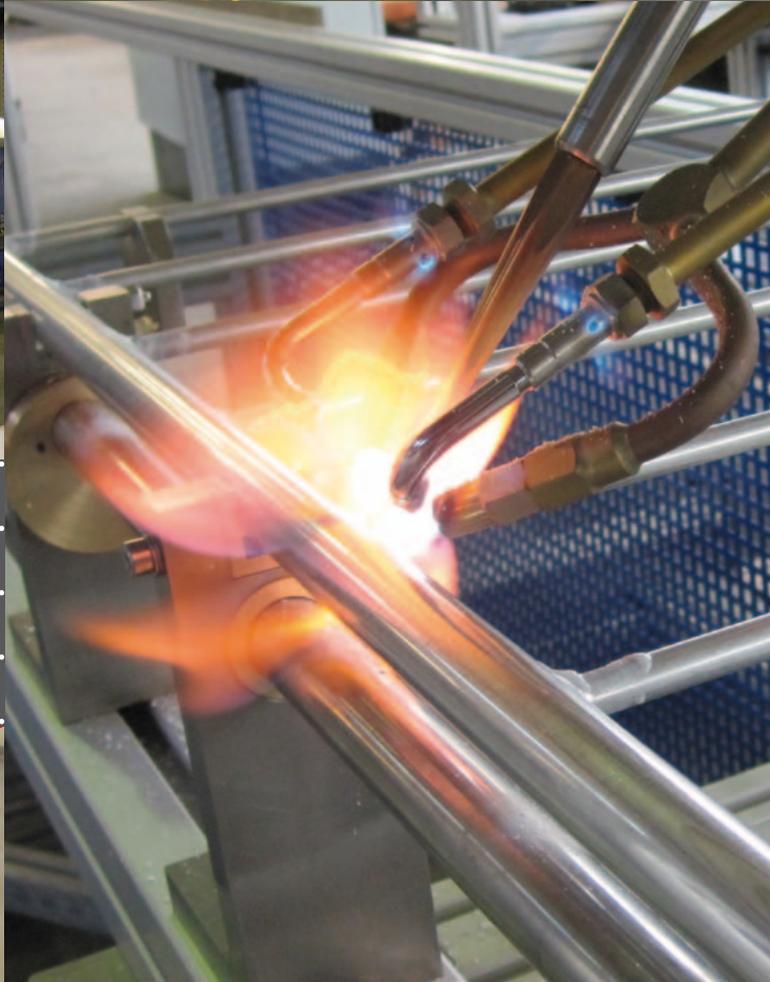
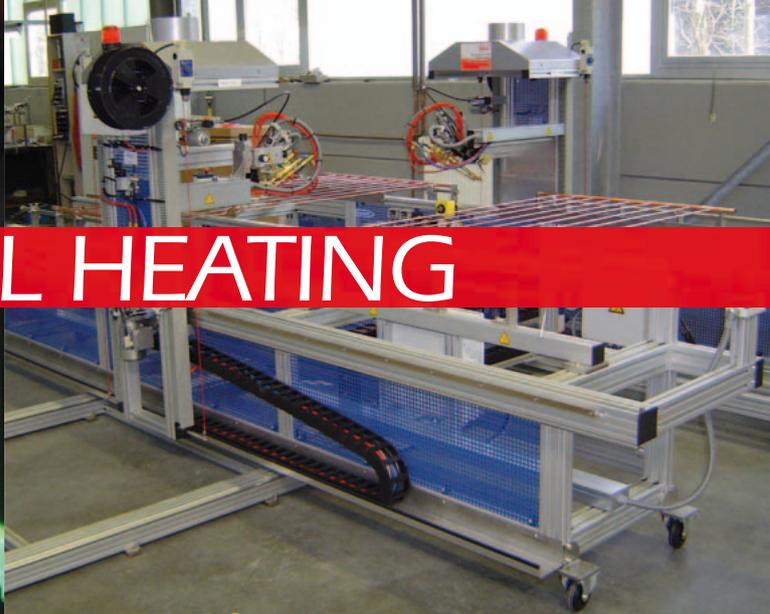
HEAT EXCHANGERS
MANIFOLD PIPES
FILTERS

Vulkan





10 SOLAR THERMAL HEATING



HARP COLLECTORS
MEANDER COLLECTORS
VACUUM TUBE COLLECTORS
COLLECTOR PIPES

Vulkan[®]



PART FIXTURES

Jigs to hold the parts precisely in position while they are going to be brazed, are a significant part of the integrated solution concept, according to which we develop customized manufacturing solutions.

Process-reliable brazing, in particular when brazing aluminium components, sets high demands on the design and manufacture

of the part tooling, with which the brazing machine is equipped.

To insert the braze parts easily and quickly, the jigs have to be simple to use.

Moreover, the tools are built on the principle of Poka Yoke so that faults are avoided when the components to be brazed are inserted.

Flexible fixing elements follow the expansion of the components during heating and shrinking when cooling down. Thus, the dimensional accuracy of the brazed assembly is largely maintained.

All jig elements are made from high alloy steel. Thus, they are substantially resistant to the very corrosive aluminum fluxes.



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Our Know-How forms the basis of your success

Constantly growing technical requirements made on braze components, and the economic pressure to permanent increase the production efficiency lead to high demands on machine engineering. We provide the complete solution.

Consulting

with special focus on converting new production methods by using automated brazing machines. Our advice is the basis for finding the best and most efficient solution for your joining application

Test Brazing

of customer components. The evaluation of components being joined and the laboratory tests, enable us to advise you in the selection of the appropriate filler metals and fluxes.

Engineering and Construction

of special brazing/soldering machines which meet your specific needs and provide automation at any level.

Retrofitting and Refurbishing

of existing brazing machines, to make them applicable to new jobs

Installation, Training, and After sales Service

by well experienced service technicians.