

MAINTAINING  
OPTIMUM  
PERFORMANCE

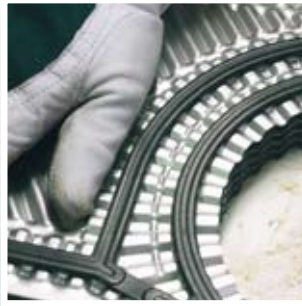


Plate & Frame Heat Exchanger  
Reconditioning Service



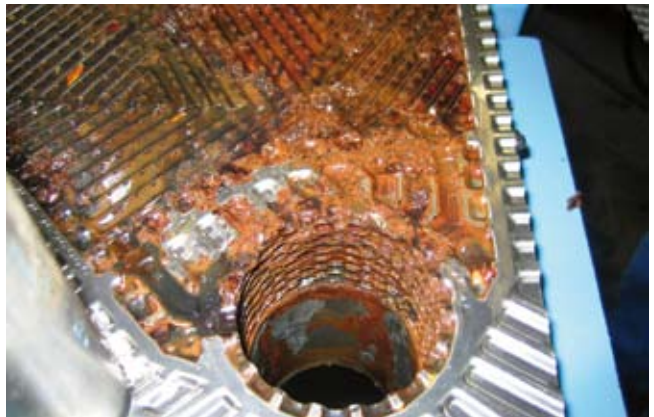
## Keep Control of your Heat Exchanger's Performance

Efficient operation is the key to optimum return on investment. Malfunctions and changes in heat transfer can have severe consequences on operational costs and may affect product quality.

Dirt, scale and other deposits will reduce the efficiency of your plate heat exchangers (PHEs). If you continue to operate them you may damage the plates. This in turn could lead to leaks, faulty operation and reduce the lifecycle of the heat exchangers. Dirty PHEs can cause damage to upstream and downstream equipment with expensive, unscheduled downtime for repairs.



*Pollution increases the pressure drop and your energy costs. It can also damage the plates or the gaskets.*



*Crystallisation of fluids when they get in contact with oxygen can deform and damage the plates.*



*Limescale can block your heat exchanger.*







## Service and Maintenance Program

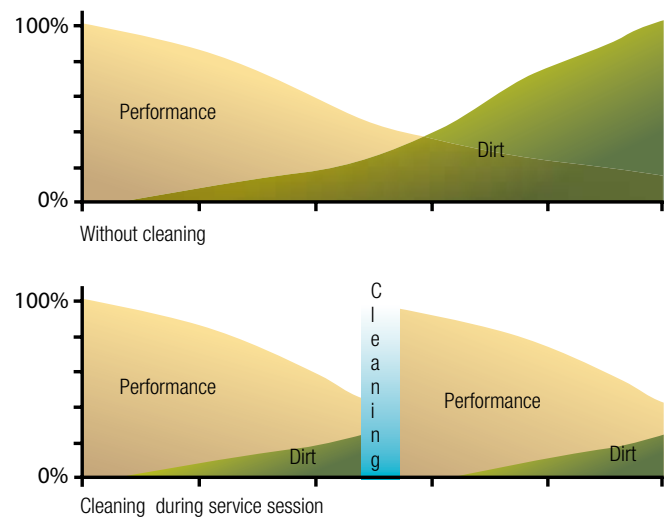
With regular service and maintenance you keep control of your heat exchanger's condition so that you can maintain optimum performance.

With a Tranter service program you get a grip on things before they become a problem. Every program is tailor-made to your specific requirements and can include anything from regular inspection to full annual overhaul.

Before we propose a maintenance program, we start with an inspection of the plates, gaskets and connections to establish the condition and heat transfer efficiency.

With Tranter authorized service, you are guaranteed to get the most suitable gaskets and plates complete with our OEM Guarantee (Original Equipment Manufacture).

Performance curve in dependence of the level of dirt



### Service on all brands

Tranter provides safe, fast and customised service for all your plate heat exchangers, no matter the brand. We service all popular plates and models, including Tranter, SWEP, ReHeat, Alfa Laval, GEA, APV, Sondex, Schmidt Bretten and others.

### Tranter service centres

Our service centres can provide you the advanced service that cannot be performed on site. Located on strategic places around the world, we offer high competence level together with advanced equipment to ensure comprehensive service. At Tranter's service centres we clean the plates and put in new gaskets. Every plate is thoroughly inspected to locate any pinhole or cracks. After a final hydrostatic test they are packed and shipped back to your location.



Tranter's service network covers a large part of the world. Up-to-date contact details for our service centres are available on our website: [www.tranter.com](http://www.tranter.com)



## Service at Customer Site

If you have no time for servicing your plate heat exchanger, let Tranter do it for you. One of our service engineers will attend your site with all required special tooling to open and to inspect the plate heat exchanger. The engineer will work out an individual action plan to fit your requirements.

At your facility, Tranter can carry out performance diagnostics, high pressure washing of plates while hanging in the frame, plate inspection, checking and replacing gaskets as needed and reassemble the unit.

A fouled plate pack can be replaced with a spare plate pack to reduce the service time on the unit. The fouled plates will be carefully packed and shipped to our closest service centre for cleaning and regasketing.



### Hydraulic tightening device

The hydraulic tightening device facilitates fast, easy and secure opening and closing of the heat exchanger.



### Cleaning-In-Place (CIP) Systems

For the best results, it is important to keep the heat exchanger plates clean. Fouling reduces heat transfer and the capacity of the heat exchanger. The fluids in the heat exchanger may also be adversely affected.

The Tranter CIP units, together with our cleaning fluids, ensures that plates are cleaned efficiently and carefully, without the need for opening the PHE. A CIP unit is therefore a good investment when reliable maintenance is applied to secure your production.







## Reconditioning at Tranter Service Centres

Reconditioning of plate heat exchangers demands a high level of experience and expertise. Tranter's service teams work according to a carefully planned regime to maximise quality and customer satisfaction.

### Log of plates and complete units

At our service facilities every plate will be individually identified and registered, as well as visually inspected, to determine if it merits reconditioning.

Plates and gaskets from all manufacturers are analysed to determine if original specifications still apply and what cleaning procedure will be most effective.



### Removal of old gaskets

The selected method for removal of old gaskets differs from plate to plate. In some cases liquid nitrogen has to be used for removal of gaskets glued with two component epoxy glue.



### Cleaning of plates

In almost all cases, plates are pre-cleaned with high pressure water. Depending on the application and the type and amount of fouling, our engineers will select the appropriate cleaning and treatment process required. The most suitable temperature, concentration and agitation of cleaning solutions will be utilised to assure optimum cleaning efficiency.



*A combination of heating and turbulence (enabled by airbubbles) results in more efficient cleaning.*



### Inspection of cleaned plates

All cleaned plates are 100 % visually inspected and a sampling of 10 % is dye-penetrant tested for cracks, pinholes or material failure. To locate flaws, one side of the plate is sprayed with dye penetrant. The plate is then inspected under ultraviolet light or with a developer to reveal even the smallest defect in the plate surface.

In some cases a 100 % dye-penetrant inspection has to be performed. It depends on material of plates and application of use.



### Final cleaning of plates

After the dye-penetrant test, all plates are again pressure washed and rinsed to remove all traces of the dye.

All plates need to be dry before gaskets can be glued on them. Tranter dries all plates in a special oven.



### Regasketing

Plates are then regasketed with high quality OEM replacement gaskets, using a softer, non hardening glue. This glue method allows for easy field repair.



### Why OEM service counts

You purchased a standard of performance with your new PHE. Tranter is dedicated to restoring your unit to that standard. That's why we offer OEM replacement parts and service. Following are examples of the care we offer to every customer:

1. If gaskets are failing prematurely, we verify your current operation before replacing them.
2. Instead of conventional two-part epoxy adhesive that cracks and causes leakage, Tranter service centres use special, softer adhesive, skilfully and evenly applied.
3. If plate damage was caused by over-tightening, we assist you with procedures to prevent this from recurring.







### Heat curing

For some applications we heat cure all glued gaskets under pressure in an industrial oven. Depending on the adhesive used in the gasket and plate material, the curing temperature is between 100 and 160°C.



### Final quality control

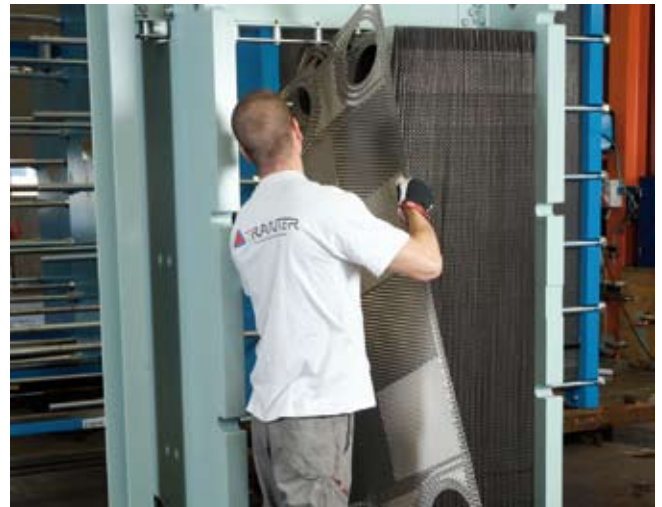
Tranter sequentially marks complete plate packs for ease of handling and proper orientation when installing plates on site. After a thorough quality inspection, plates are carefully packed, ready for shipment.



### Complete rebuilds

Entire unit refurbishment includes frame repair (sandblasting and repainting), complete plate pack service, re-opening and closing the unit to precise factory specifications. Tranter then carries out hydro testing of the unit and can evaluate performance on site.

Every unit is marked with “Refurbished by Tranter” and shipped with a pressure test certificate.





At the forefront of heat exchanger technology for more than 70 years

Tranter top quality, high-performance, proprietary products are on the job in demanding industrial and commercial installations around the world. Backed by our comprehensive experience and worldwide presence, Tranter offers you exceptional system performance, applications assistance and local service. Tranter is close to its customers, with subsidiary companies, agents, distributors and representatives located worldwide. Contact us for a qualified discussion of your needs.



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*Up-to-date contact details for Tranter's Service Centres are always available on our website:*

[www.tranter.com](http://www.tranter.com)