

Graphite Heat Exchanger Repair – Case Study



InKorr Pty Ltd
Specialising in Heat Exchanger Service – Maintenance - Repairs

InKorr Graphite Heat Exchanger Repair Service Highlights

- ▶ The ONLY company in Oceania who regularly services graphite equipment.
- ▶ Emergency onsite breakdown service
- ▶ Full service in our shop
- ▶ 15-20 page detailed report with each full service
- ▶ Testing of all parts
- ▶ We recommend ways to improve equipment reliability

Full Service Repair Process

1. Initial inspection –
 1. Record key equipment data
 2. Note condition on arrival
 3. Testing if required (e.g. hydrotest)
2. Disassembly –
 1. Note all parts in need of replacement/repair
 2. Individual testing of blocks for cross leakage
3. Parts service –
 1. Cleaning of blocks and removal of scale
 2. Repair, sandblast and paint steel parts (if required)
 3. Replace any parts that cannot be used again
4. Reassembly & pressure test

Incoming Exchanger Badly Corroded Steel Parts



EXAMPLE INITIAL PRESSURE TESTING



▶ Process Loop Successful
@ 9Bar (30min)



▶ Service Loop Fail,
Leak between Shell
and Compression Ring
@ Tap Pressure



Before/After Photos

Shell Flange Corrosion

BEFORE



AFTER



Heat Exchanger Shell

Before



After



Corrosion Around Nozzle

BEFORE



AFTER



Blocks Steam Side

BEFORE



AFTER



Block Process Side Cleaning

BEFORE



AFTER



Top Header Assembly

Before



After



Tensioning Springs

Before



After



Final Assembly

Blocks and Baffles Prepared



Fully Assembled



FINAL PRESSURE TESTING



▶ Process Loop Successful
@ 9Bar (30min)



▶ Service Loop Successful
@ 10.5Bar (30min)





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