GUIDE DEFENCE · 7 MIN READ

For defence groups: refractory expertise from a specialist supplier

Why defence groups should rely on specialised refractory suppliers: technical expertise, certifications and added value for the value chain.

Situation

At their production sites, defence groups operate melting furnaces, casting plants, heat treatment furnaces and combustion systems whose refractory linings have to be serviced, repaired and renewed on a regular basis. The availability of this plant is directly critical to production.

Over recent decades many prime contractors have run down their in-house refractory expertise and now depend on external suppliers. Qualifying new refractory partners is costly and time-consuming — an established, certified supplier reduces this effort considerably.

Scaling up defence production (the special fund, NATO rearmament) requires an expansion of melting and casting capacity. Refractory suppliers that bring defence qualifications with them are a bottleneck factor.

Rising requirements for material traceability, batch release and AQAP-compliant documentation call for suppliers that have mastered these processes. Not every refractory business is suited to this — what is needed are specialised partners.

Our approach

ISO 9001-certified quality management with AQAP-compliant documentation: batch traceability, first article inspection reports, inspection certificates to DIN EN 10204 — all from a single source.

Nationwide maintenance service with contractually agreed response times: scheduled maintenance and emergency repairs for melting furnaces, casting plants and heat treatment furnaces at every site.

Material development and optimisation: adapting the refractory lining to specific metallurgical processes — armour steel, special alloys, ammunition materials. Extending the furnace campaign and reducing unplanned downtime.

Readiness for security clearance: preparation for classified contracts, employees who have undergone security screening, secure communication channels.

Integrated project delivery: from requirements analysis through material selection, manufacture and installation

to handover and documentation — a single point of contact for all refractory requirements.

Sequence

1. Requirements assessment and site survey

Technical survey of all high-temperature plant at the site. Assessment of the condition of the refractory, identification of optimisation potential and documentation of the specific requirements (materials, temperatures, atmospheres, load cycles).

2. Qualification and first articles

Preparation of the qualification documents: QMS documentation, evidence of AQAP conformity, references, technical data sheets. Supply of first articles with complete test documentation (FAI to AS9102). Audit by the customer or the quality assurance office.

3. Framework agreement and maintenance plan

Conclusion of a framework agreement with defined services, response times and prices. Preparation of a site-specific maintenance plan covering planned furnace overhauls, material stockholding and emergency scenarios.

4. Ongoing support and optimisation

Regular maintenance, condition monitoring and continual optimisation of the refractory linings. Quarterly reports with key figures (furnace campaign, material consumption, availability). Joint further development as new requirements arise.

Frequently asked questions

Which types of furnace in defence plants require refractory linings?

Electric arc furnaces and induction furnaces for steelmaking, vacuum furnaces for special alloys, ladles and converters for secondary metallurgy, continuous casting plants, heat treatment furnaces (chamber and continuous furnaces) and combustion systems in power plant. Every type of furnace places specific demands on the refractory material.

How quickly can you respond in an emergency?

We are available 24/7, get back to you within one hour and are usually on site within 24 hours. For critical materials we hold safety stock at the nearest logistics site.

How is confidentiality assured at classified sites?

Our employees deployed on defence assignments have undergone security screening (Ü1/Ü2). We work with communication channels compliant with classified information requirements, document in accordance with the classified information instructions and are subject to security clearance supervision by the BMWE. All technical documents are classified and protected in line with customer requirements.

Can the refractory services be integrated into existing AQAP contract structures?

Yes. We supply documentation compliant with AQAP 2110 and AQAP 2120 and work together with the quality assurance offices. Integration into existing quality assurance agreements between the prime contractor and the Bundeswehr is provided for as standard.

Let us talk about your project

Reply within 24 hours on working days.

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