

CASE STUDY

DAL REFERENCES FOR PROTECTION AGAINST METAL DUSTING

We treat our customer's specific processing conditions in confidence but we recognise that those new to aluminising for metal dusting protection require some reference information.

Below is a sample list of application areas where DAL has aluminised tubes and components for metal dusting protection and an indication of years of operation without need for replacement.

Steam methane reforming

Material: stainless steel Component: tubes

Lifespan: 5 years but only due to failure on the non-aluminised welded areas. Aluminised tubes replaced every 5 years for the customer.

Gas heated reformer - ammonia production

Material: High Nickel Alloy Component: tubes

Lifespan: in one plant, aluminised tubes ran for 17 years in operation before the plant was shut down. In another similar plant, aluminised tubes have been in operation for 7 years.

Steam Reformer - ammonia production:

Material: 25/35 CrNiNb Component: tubes Lifespan: aluminised tubes in operation since late 2013.

Steam Reformers for direct reduction of iron ore:

Material: stainless steel Component: tubes Lifespan: 3 plants of similar design. Aluminised tubes have been in operation for 7 years, 6 years and 5 years respectively.

HEAD OFFICE DETAILS

HATFIELD FACILITY

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Syngas / HyCO production:

Material: High Nickel Alloy Component: tubes Lifespan: numerous plants in operation, with aluminised tubes in two plants having been in operation for over 10 years.

Methanol Plants:

Material: various materials from stainless steel to Alloy 696 **Components**: tubes

Lifespan: tubes in numerous plants around the world. The oldest aluminised tubes have now been in operation for more than 5 years.

Petroleum Refining:

Material: stainless steel Components: tubes

Lifespan: tubes in numerous plants around the world. The oldest aluminised tubes have now been in operation for more than 10 years.

