

Fire Resistance Test Rig

CAPABILITY SHEET - ISO 834 / BS 476 FURNACES - RESTRAINT, LOADING AND R-E-I INSTRUMENTATION

THE SYSTEM

WHAT	A fire resistance test rig - furnace, restraint frame, loading and instrumentation that rate a building or industrial element in minutes.
OUR ROLE	Furnace and lining, burner and fuel-train integration, restraint, loading, instrumentation, control, interlocks, exhaust, calibration and commissioning.
STATUS	Engineered to order; quoted against a fire-resistance test-rig requirement. No delivered rig is claimed.

THE GOVERNING IDEA

A DURATION, NOT A TEMPERATURE	The question is never whether an element burns, but how many minutes it keeps doing its job while a standard fire burns on one side.
A REPEATABLE FIRE	The furnace's product is not heat. The rating is worthless unless the exposure was the same fire every other laboratory used.
TOLERANCE ON AREA	The curve is held to a band on the area under it rather than on peak temperature - which is what makes results comparable.

THE MACHINE

LOW THERMAL MASS	A ceramic-fibre lining so the chamber follows the curve's steep opening minutes, where a heavy refractory furnace lags and under-tests.
PLATE THERMOMETERS	A bare junction reads gas temperature; the specimen is heated by radiation. Plate thermometers respond the way the specimen does.
FURNACE PRESSURE	A controlled gradient, order of 20 Pa positive high up. Too much drives gas through every gap; too little makes the test lenient.

DISTINCT & HONEST

R, E AND I	Load-bearing by deflection, integrity by cotton pad and gap gauges, insulation by a cold-face rise limit - reported as EI 120 or REI 90.
WHICH ONE FAILED	The useful output is the criterion and the minute. Failing insulation is a different, cheaper problem than failing integrity.
ENGAGEMENT	Send the standard, the element sizes and the target ratings to sales@neometrixgroup.com for a compliance matrix in two working days.

DEFENCE PROGRAMMES DESK

sales@neometrixgroup.com · +91 7777 876 876 · neometrixgroup.com

Neometrix Defence Limited · E-148, Sector 63, Noida, Uttar Pradesh, India