

ACP

Aluminium Crucible Preheater

How it works

Metal and bath crucibles are regularly cleaned, repaired or rebuilt with a new refractory lining before they are returned to service. Whatever the reason for maintenance, it is important that the lining of those crucibles be safely dried and preheated.

STAS has developed several types of preheating systems, either electrical or with gas, in order to meet the specific requests of its customers. The ACP / Aluminium Crucible Preheater totally controls the whole heating cycle, which ensures more uniform heating distribution before the first time molten metal is poured, hence a considerable reduction in energy costs.

Key features

PRODUCTIVITY IMPROVEMENT

- > Uniform heat distribution.
- > Meet requirements imposed by refractory manufacturers.
- > Increased refractory lifetime.
- > Fully automatic operation.
- > Some configurations allow preheating and drying.

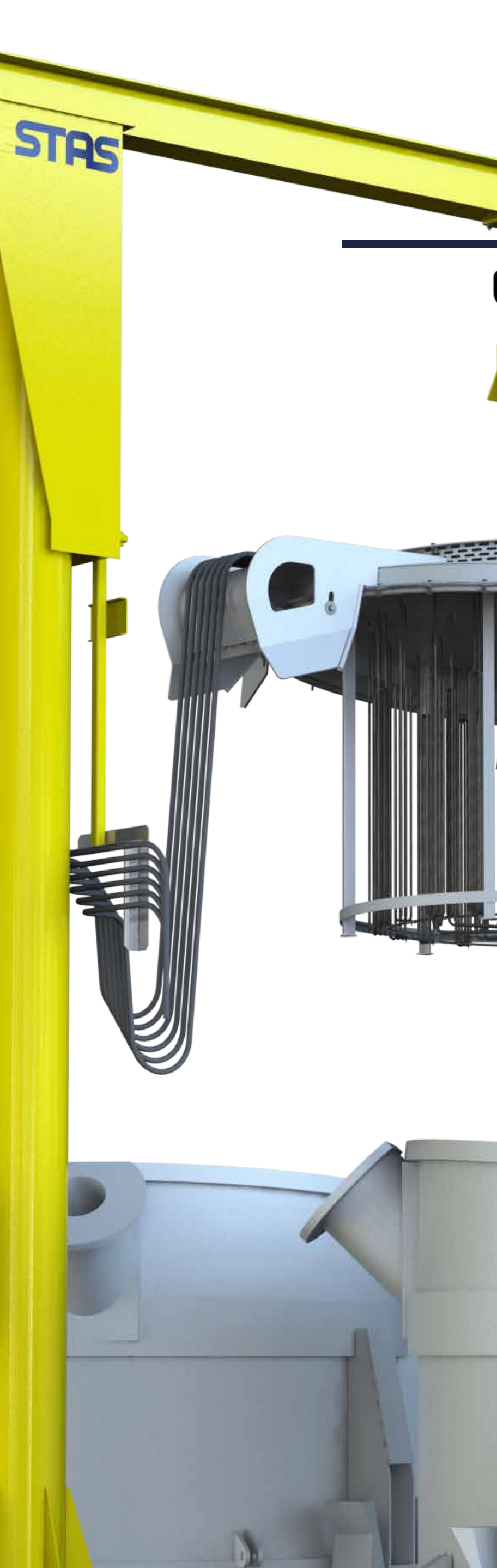
COST IMPROVEMENT

- > Reduced energy costs.
- > Low operating, maintenance and capital costs.
- > The operator is not required during the preheating step.

SAFE OPERATING ENVIRONMENT

- > The operator is away from any source of danger.
- > Noise level (for gas system) are below 85 dBA.

« The proven technology to preheat and dry bath and metal crucibles. »



Standard configurations



Traveling jib crane

Floor or overhead support rack



Fixed and/or slewing jib crane

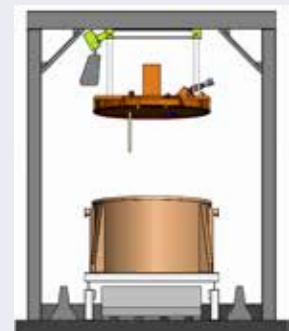
Special configurations



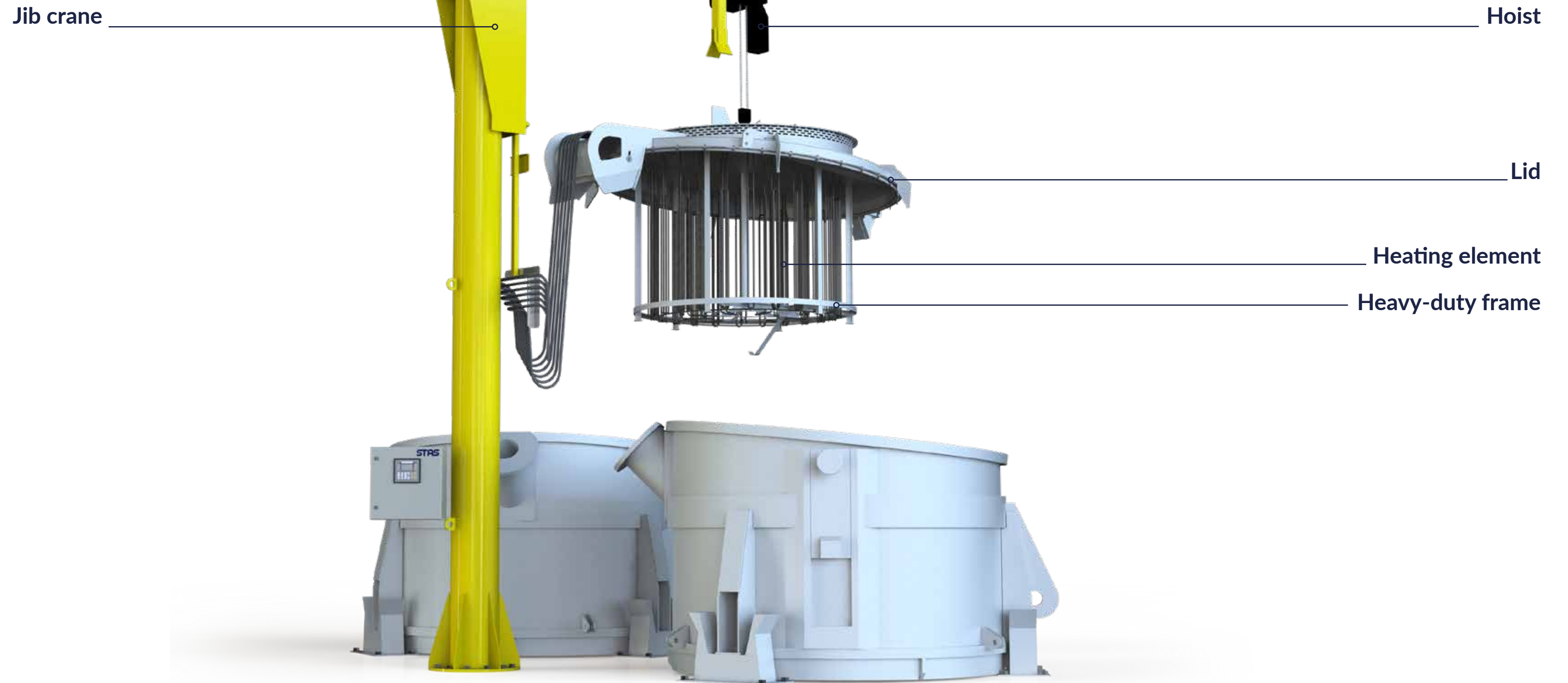
Gas fired metal crucible preheater



Gas fired bath crucible preheater/dryer



Gas fired heater or immersion elements heater for metal temperature holding



		ELECTRIC RADIANT	ELECTRIC AIR FORCED	NATURAL GAS FIRED	ELECTRICAL IMMERSION ELEMENTS
METAL CRUCIBLE	PREHEATING	●		●	
	DRYING	●		●	
BATH CRUCIBLE	PREHEATING	●	●	●	
	DRYING	●		●	
METAL TEMPERATURE	HOLDING			●	●

TYPE OF CRUCIBLE HEATER

FOR CRUCIBLE PREHEATING

- > Before filling them with molten metal or bath, cold crucibles need to be preheated to avoid moisture entrapment.

FOR CRUCIBLE DRYING

- > When both metal and bath crucibles need to be relined with new refractory material, it is important that the new refractory material be properly dried before putting the crucibles back into service following a programmed ramp determined by the refractory supplier.

FOR METAL TEMPERATURE HOLDING

- > When molten metal cannot be transported normally, it could be required to maintain or increase its temperature.