

OIL FIRED BALE OUT FURNACE MK V E

- ✓ **IMPROVES THE THERMAL EFFICIENCY OF THE MELTING PROCESS**
- ✓ **ALUMINIUM CAPACITIES UP TO 1327 KG**



▲ Morgan's Oil Fired Bale Out Furnace.

FURNACE DESCRIPTION

The Mk V 'E' oil furnace is constructed using efficient low thermal mass materials for the lining and provides good economy in energy costs. The insulation allows for excellent melting performance from the high performance compact oil burner. High alumina panels efficiently convert combustion products into radiant energy to maximise heat transfer. Metal radiation losses are minimised by use of a lift off type cover that can be fitted when no baling out is needed. The furnace is fitted with an exhaust extension.

RADIANT PANEL ASSEMBLIES

Twelve high alumina radiant panels are arranged around the crucible and extend the full depth of the furnace chamber. The self-supporting and interlocking design facilitates ease of removal should exchange be required. These panels efficiently convert gas energy to radiant energy.

GOOD EFFICIENCY

The combination of radiant heat transfer and the use of graded insulating materials provides a melting and holding furnace of good efficiency and comfortable working conditions.

SIZE RANGE

The furnace is available in sizes ranging up to 1327 kg for melting. Other crucible patterns than those shown in the performance table are available to provide the capacity span indicated for each size reference.

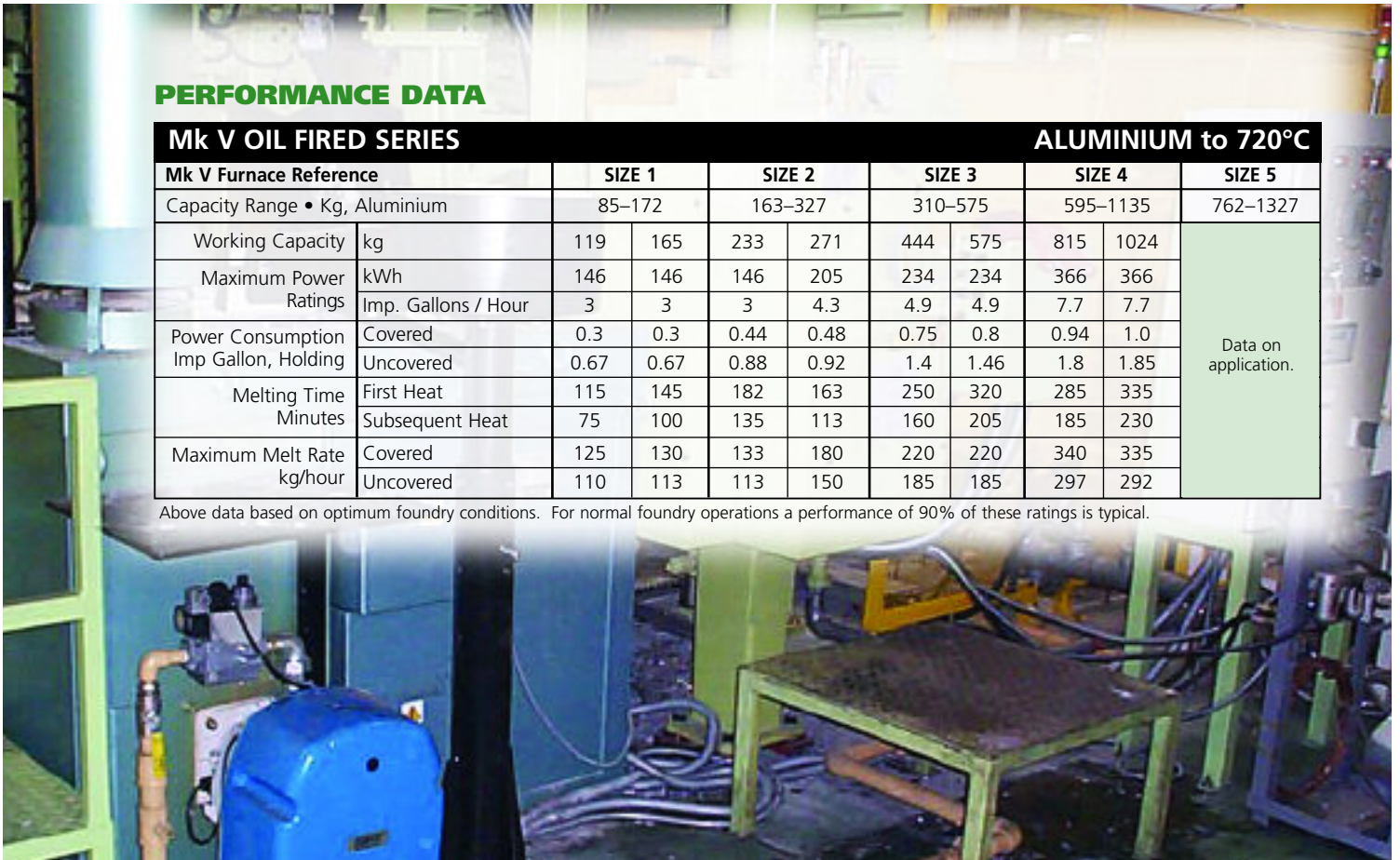
OIL SUPPLIES

The furnace is suitable for the following fuel oils:
35 Second Redwood No. 1 Fuel Oil
Commercial Diesel Fuel Oil

PERFORMANCE DATA

Mk V OIL FIRED SERIES		ALUMINIUM to 720°C									
Mk V Furnace Reference		SIZE 1		SIZE 2		SIZE 3		SIZE 4		SIZE 5	
Capacity Range • Kg, Aluminium		85-172		163-327		310-575		595-1135		762-1327	
Working Capacity	kg	119	165	233	271	444	575	815	1024	Data on application.	
Maximum Power Ratings	kWh	146	146	146	205	234	234	366	366		
	Imp. Gallons / Hour	3	3	3	4.3	4.9	4.9	7.7	7.7		
Power Consumption Imp Gallon, Holding	Covered	0.3	0.3	0.44	0.48	0.75	0.8	0.94	1.0		
	Uncovered	0.67	0.67	0.88	0.92	1.4	1.46	1.8	1.85		
Melting Time Minutes	First Heat	115	145	182	163	250	320	285	335		
	Subsequent Heat	75	100	135	113	160	205	185	230		
Maximum Melt Rate kg/hour	Covered	125	130	133	180	220	220	340	335		
	Uncovered	110	113	113	150	185	185	297	292		

Above data based on optimum foundry conditions. For normal foundry operations a performance of 90% of these ratings is typical.



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KEY FEATURES

OIL BURNER

The furnace is equipped with a high performance compact pressure jet oil burner providing on/off control of heat input. Air and oil are automatically mixed to the correct ratio at the set output to optimise efficiency and control of emissions. The flame is supervised by an ultra violet detector and controller. The burner conforms to the highest safety standards.

CONTROL PANEL

A modern high quality control panel provides the following features:

- Circuit breakers for isolation and protection
- Flame failure, sequencing controller
- Programmable time clock switching
- Digital temperature controller

METAL TEMPERATURE CONTROL

Control using a standard fixed pyrometer with sheath immersed in the molten metal.

- Digital temperature controller
- Standard control on/off

POLICEMAN CONTROL

The furnace is equipped with a "policeman" control.

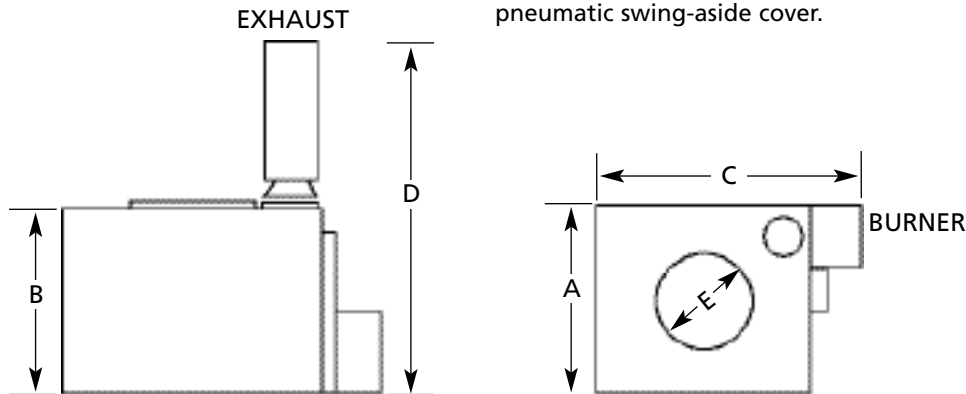
This feature is designed to prevent overheating of the furnace refractories and radiant panels, thus avoiding reduction of their lifespan.

PYROMETRY

A variety of metal temperature pyrometry can be specified. This includes floating or fixed immersion types and thermocouples housed within the crucible for holding applications.

OPTIONS AVAILABLE

Spilt metal detection, low metal temperature alarm, in-range indicating beacons, metal temperature overshoot control and pneumatic swing-aside cover.



SPECIFICATIONS

NOTE: Opposite hand available. *increased furnace height.

CAPACITY by CRUCIBLE	SIZE 1		SIZE 2		SIZE 3		SIZE 4		SIZE 5	
	Capacity Range kg AL		Capacity Range kg AL		Capacity Range kg AL		Capacity Range kg AL		Capacity Range kg AL	
	85-172		163-327		310-575		595-1135		762-1327	
	Pattern	kg	Pattern	kg	Pattern	kg	Pattern	kg	Pattern	kg
	BX166 / BU100	85	BX202 / BU210	163	BX1264	310	BX850	595	52100	762
	BX167 / BU125	103	BX302 / BU250	233	BX847 / BN500	441	BX851	815	52330	1098
	BX168 / BU150	119	BX401 / BU300	271	BX247 / BU500	444	BX852 / BN1100	1024		
	BX169 / BU175	144							60990*	1327
	BX171 / BU200	165	BX402 / BU350*	327	BX263 / BU600*	575	BX853*	1135		
	BX177 / BU202	172								
FURNACE DIMENSIONS (mm)	A	1190	1190	1420	1516	Available upon request.				
	B	900	900 980	1130 1270	1330 1520					
	C	1610	1610	1840	2020					
	D	2125	2125 2205	2355 2500	2560 2750					
	E	433	510	660	735					
SHIPPING (approximate)						Available upon request.				
NETT WEIGHT	kg	900	900	1300	2500					
GROSS WEIGHT	kg	1100	1100	1500	2750					
VOLUME	m ³	3.7	3.7	5.35	10					



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