

**CRUCIBLE STANDS**



**MUFFLE RINGS**



**CRUCIBLE COVERS**



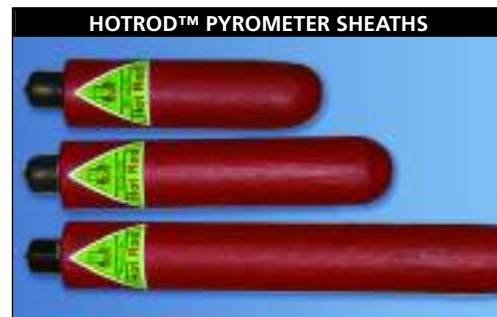
**SPOUT EXTENSIONS**



**LAUNDERS**



**HOTROD™ PYROMETER SHEATHS**



## DESCRIPTION

Morganite manufactures a full line of accessories to complement its extensive crucible range.

## PRODUCT RANGE

### Crucible Accessories:

- Crucible Stands
- Muffle Rings (rings increase the cold charge capacity of the crucible and can improve melt times)
- Crucible Covers
- Spouts and Spout Extensions
- Crucible Lifters

### Foundry Products\*:

- Hot Rod Pyrometer Sheaths
- Launder and Tubes
- Ladle Bowls
- Degassing Tubes
- Plunger Mixers and Plunging Bells
- Cements and Castables
- Plates and Tiles
- Needle Valves and Nozzles/Down Spouts

\*Detailed information on these products is available by request

## APPLICATIONS

Excel E stands and muffle rings are used in conjunction with Excel E and Iso-Alustar crucibles for aluminium alloy and zinc applications in electric resistance and gas-fired furnaces.

EXCEL stands and muffle rings are used in conjunction with Excel, Hi-Melt and Ultramelt crucibles intended for copper alloy and precious metal applications in gas and oil-fired furnaces.

SALAMANDER crucible accessories are available as spout extensions to increase pouring length and covers to exclude impurities from the melt. In addition a comprehensive range of graphitic Foundry products are offered in the form of both shaped and packaged refractories. We also supply crucible lifting devices.

## TYPICAL METAL CASTING TEMPERATURE

Excel E Accessories:	650 - 1000°C	(1202 - 1832°F)
Excel Accessories:	900 - 1400°C	(1652 - 2552°F)
Salamander Accessories:	1000 - 1600°C	(1832 - 2912°F)

## PERFORMANCE CHARACTERISTICS

- Optimised glaze coatings tailored for specific temperature ranges
- Excellent thermal conductivity and shock resistance
- High resistance to oxidation
- Good wear resistance
- Good resistance to corrosive attack by chemical treatment agents
- Consistent performance
- High refractoriness
- Non-wetting properties

## QUALITY

Crucible accessories are manufactured from premium grade raw materials to the same ISO9000:2000 quality standards as our crucibles.

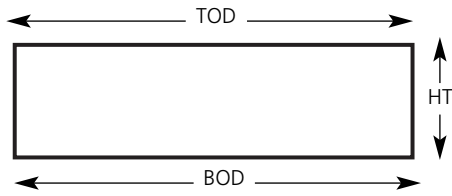
## SAFETY

Proper safety clothing must be worn at all times. Ensure that no moisture is introduced into the melt and that all refractories and tools are dry before coming into contact with molten metal. Provision should be made underneath the furnace to catch metal that may be discharged.



**MORGANITE CRUCIBLE LTD**

Woodbury Lane, Norton Worcester, WR5 2PU, ENGLAND Tel: +44 (0) 1905 728200 • Fax: +44 (0) 1905 767877 • www.morganmms.com



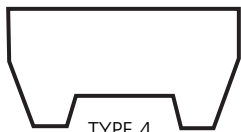
TYPE 1



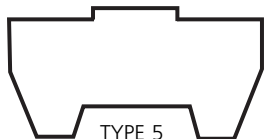
TYPE 2



TYPE 3



TYPE 4



TYPE 5

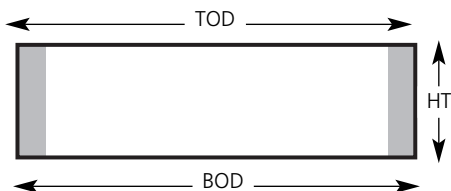


TYPE 6

**EXCEL / EXCEL E STANDS**

XRX/XRX_E	TOD (mm)	BOD (mm)	HT (mm)	Spigot	Type
XRX135	150	150	60		1
XRX138	200	200	75		1
XRX358	200	200	150		1
XRX155	250	250	50		1
XRX175	250	250	75		1
XRX102	250	250	100		1
XRX732	250	250	150		2
XRX739	250	250	250		2
XRX735	250	250	75	Y	3
XRX1105	250	250	125	Y	3
XRX104	250	250	250	Y	3
XRX141	250	200	125		4
XRX356	250	200	175		4
XRX369	250	200	200		4
XRX0904	250	200	125	Y	5
XRX0905	250	200	150	Y	5
XRX530	250	200	175	Y	5
XRX2610	300	300	200		2
XRX2611	300	300	300		2
XRX1205	300	300	125	Y	3
XRX1407	300	300	175	Y	3
XRX2612	300	300	300	Y	3
XRX800	315	245	150		4
XRX177	315	245	175		4
XRX737	315	245	200	Y	5
XRX165	320	250	100		4
XRX132	320	250	125		4
XRX1306	320	250	150	Y	5
XRX731	320	250	200		4
XRX166	320	250	250		4
XRX320	350	320	50		4
XRX402	350	350	60		1
XRX401	350	350	75		1
XRX804	350	350	120		1
XRX300	350	350	100		2
XRX100	350	250	100		4
XRX202	350	250	125		4
XRX500	350	250	160		4
XRX412	350	250	175		4
XRX200	350	250	200		4
XRX1500	350	250	250		4
XRX146	381	381	51		1
XRX247	381	381	100		2
XRX145	381	381	115		2
XRX350	381	381	350		2
XRX1405	381	381	115	Y	3
XRX760	381	300	215		6
XRX425	425	425	50		1
XRX2632	425	425	75	Y	3
XRX2471	425	425	100		2
XRX263	425	425	115		2
XRX2634	425	425	115	Y	3
XRX2473	425	425	125		2
XRX2474	425	425	150		2
XRX2475	425	425	150	Y	3
XRX1100	425	425	170		2
XRX2472	425	425	200		2
XRX587	425	300	215		6

Spigot dimensions: Height 10mm x Diameter 75mm



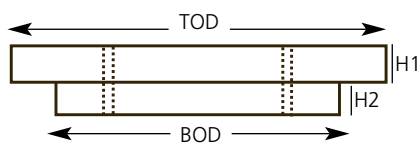
**EXCEL / EXCEL E MUFFLE RINGS**

XRX/XRX_E	TOD (mm)	BOD (mm)	HT (mm)
XXM71	350	350	280
XXM122	415	415	255
XXM159	527	516	305
XXM143	616	615	203
XXM302	616	616	90
XXM102	680	666	305
XXM162	775	775	240



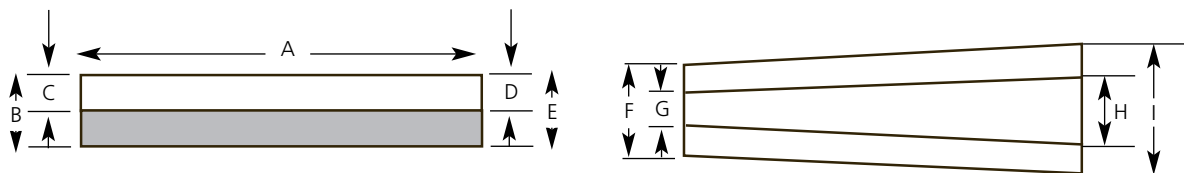
**SALAMANDER STANDARD COVERS**

XO	TOD (mm)	HT (mm)
XO1	75	29
XO3	97	32
XO5	114	38
XO6	135	44
XO8	149	48
XO14	173	51
XO20	184	57
XO30	221	60
XO40	245	65
XO60	257	67
XO102	273	70
XO90	286	68
XO100	317	73
XO22R	317	76
XO101	317	41
XO130	336	84
XO170	365	89
XO250	413	108
XO300	445	140
XO545	550	40
XO616	616	75
XO587	775	75
XO850	850	75



**SALAMANDER FILTER COVERS**

XO	TOD (mm)	BOD (mm)	H1 (mm)	H2 (mm)
XO275	279	222	29	42
XO279	324	267	25	19
XO298	381	248	32	44
XO280	394	330	25	19



**SPOUT EXTENSIONS**


Pattern (XU/XUX)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)
XUX700*	205	76	38	38	76	111	38	76	152
XU121**	292	62	35	44	83	129	89	102	171
XU982*	400	76	38	38	76	111	38	76	152
XU984*	450	76	38	38	76	111	38	76	152

\*Use with TP spouted crucibles    \*\*Use with TE spouted cylindrical crucibles

All dimensions are nominal and subject to normal manufacturing tolerances.

# CRUCIBLES TO MEET EVERY APPLICATION

**EXCEL, HIMELT** Crucibles



**DESCRIPTION:** High quality roller-formed silicon carbide crucibles for use in a wide range of applications. They are available in a variety of sizes and shapes to meet your specific requirements.

**SPECIFICATIONS:** High purity silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**OPERATING TEMPERATURE:** Up to 1600°C (2912°F)


**WEIGHTS AND DIMENSIONS:** See technical drawing for details.

**ADVANTAGES:** High purity silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**DISADVANTAGES:** High purity silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**EXCEL, HIMELT**  
Roller-Formed SiC

**EXCEL E** Crucibles



**DESCRIPTION:** High quality roller-formed silicon carbide crucibles for use in a wide range of applications. They are available in a variety of sizes and shapes to meet your specific requirements.

**SPECIFICATIONS:** High purity silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**OPERATING TEMPERATURE:** Up to 1600°C (2912°F)


**WEIGHTS AND DIMENSIONS:** See technical drawing for details.

**ADVANTAGES:** High purity silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**DISADVANTAGES:** High purity silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**EXCEL**  
Roller-Formed SiC

**INDUX** Crucibles



**DESCRIPTION:** High quality clay graphite crucibles for use in a wide range of applications. They are available in a variety of sizes and shapes to meet your specific requirements.

**SPECIFICATIONS:** High purity clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**OPERATING TEMPERATURE:** Up to 1600°C (2912°F)


**WEIGHTS AND DIMENSIONS:** See technical drawing for details.

**ADVANTAGES:** High purity clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**DISADVANTAGES:** High purity clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**INDUX**  
Clay Graphite

**ISO-ALUSTAR** Crucibles



**DESCRIPTION:** High quality ISO-pressed clay graphite crucibles for use in a wide range of applications. They are available in a variety of sizes and shapes to meet your specific requirements.

**SPECIFICATIONS:** High purity ISO-pressed clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**OPERATING TEMPERATURE:** Up to 1600°C (2912°F)

**WEIGHTS AND DIMENSIONS:** See technical drawing for details.

**ADVANTAGES:** High purity ISO-pressed clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**DISADVANTAGES:** High purity ISO-pressed clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**ISO-ALUSTAR**  
ISO-Pressed Clay Graphite

**SALAMANDER SUPER** Crucibles



**DESCRIPTION:** High quality clay graphite crucibles for use in a wide range of applications. They are available in a variety of sizes and shapes to meet your specific requirements.

**SPECIFICATIONS:** High purity clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**OPERATING TEMPERATURE:** Up to 1600°C (2912°F)


**WEIGHTS AND DIMENSIONS:** See technical drawing for details.

**ADVANTAGES:** High purity clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**DISADVANTAGES:** High purity clay graphite, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**SALAMANDER SUPER**  
Clay Graphite

**ULTRAMELT** Crucibles



**DESCRIPTION:** High quality ISO-pressed silicon carbide crucibles for use in a wide range of applications. They are available in a variety of sizes and shapes to meet your specific requirements.

**SPECIFICATIONS:** High purity ISO-pressed silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**OPERATING TEMPERATURE:** Up to 1600°C (2912°F)

**WEIGHTS AND DIMENSIONS:** See technical drawing for details.

**ADVANTAGES:** High purity ISO-pressed silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**DISADVANTAGES:** High purity ISO-pressed silicon carbide, high strength, high temperature resistance, excellent thermal shock resistance, low thermal expansion, low thermal conductivity, low thermal conductivity, low thermal conductivity.

**ULTRAMELT**  
ISO-Pressed SiC

## CRUCIBLE CARE



Store crucibles off the floor in a dry, warm place.



Do not nest one inside another. Separate layers with hardboard.



Do not roll crucibles. Move using a sack truck with padding.



Check thoroughly for cracks or damage before use.



Use the correct crucible stand which must be central and support the whole base.



Allow space for expansion between crucible and furnace lining/cover.



Use correctly positioned grip bricks in tilting furnaces, leaving gaps for expansion. Do not hang crucible on spout.



The flame path must be tangential to the crucible.



Ingots should be loaded carefully into the crucible using tongs.



First charge with light returns, as a cushion, then add ingots vertically.



Only add flux after the metal is molten.



Avoid ingress of cold air by ensuring that the drain hole is sealed.



Lift-out tongs should hold crucible on its lower third and fit evenly on both sides.



The crucible must be emptied before switching off the furnace.



The crucible should be cleaned out carefully every day while still red hot.



**DISTRIBUTED BY**