



## CRUCIBLES FOR NON FERROUS APPLICATIONS

- + Long Life
- + Fast Melting
- + Energy Efficient
- + Tailor Made
- + High Volume

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## INTRODUCTION

Foseco offers the foundryman a complete range of silicon carbide and clay graphite crucibles, retorts and other specialised shapes for use in fuel fired, induction and electric resistance furnaces.

### Advantages:

- + **Long Life**  
With careful handling and maintenance, excellent crucible life can be achieved.
- + **Fast Melting**  
High thermal conductivity ensures that charge materials are melted quickly and effectively saving time and money.
- + **Energy Efficient**  
Foseco crucibles require less energy to melt and hold the liquid metal.
- + **Tailor Made**  
A wide range of basic shapes and sizes are produced. Customised shapes and sizes are available on request.
- + **High Volume**  
Foseco offers the largest crucible sizes in the market. Aluminium crucibles of more than 3 tonnes are available.

# ENERTEK / DURATEK / DIAMANT SPECIAL / UNIVERSAL / OPTIMAL SiC / TOP

## ENERTEK

A new family of energy efficient crucibles that have been formulated and manufactured to offer the most thermally efficient crucible for melting and holding aluminium.

## DURATEK

A new family of crucibles with improved properties designed for specific applications to achieve an extended service life.

## DIAMANT SPECIAL

Premium quality, isostatically pressed crucibles for low temperature applications with good thermal conductivity and chemical attack resistance.

## DIAMANT UNIVERSAL

Premium quality, isostatically pressed crucibles with good thermal conductivity. Suitable for a wide range of high temperature applications including copper alloys and zinc distillation.

## DIAMANT OPTIMAL

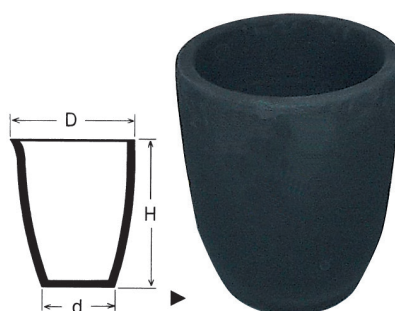
Isostatically pressed, carbon bonded crucibles with very low electric resistivity. Ideally suited for use in low and medium frequency induction furnaces.

## DIAMANT TOP

Isostatically pressed crucibles with very high electric resistivity. Specially designed for use in high frequency and/or high power induction furnaces.

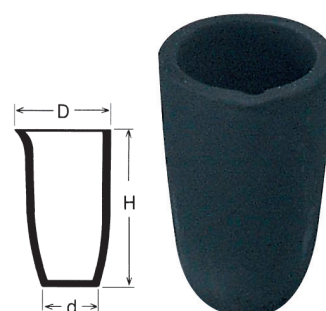
## Crucible shape A

Size ca. kg Cu	H mm	D mm	d mm
16	230	185	125
50	330	285	195
60	345	285	195
70	360	295	201
80	375	305	215
90	380	315	220
100	400	325	230
120	410	346	240
130	420	346	245
150	450	370	255
175	480	403	280
200	500	404	280
250	515	420	300
300	540	440	315
350	590	499	340
400	600	500	340
400 H	650	500	340
500	650	510	350
500 H	700	510	350
600	680	530	380
600 H	760	550	380
800	800	560	380
1000	820	635	420
1100	890	645	420



## Crucible shape C

Size ca. kg Cu	H mm	D mm	d mm
80	440	275	205
200	600	350	250



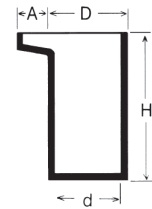
## Special Crucibles for induction furnaces

H mm (max.)	D mm	d mm
950	480	380
1000	190	150
	240	190
	300	240
	320	260
	360	280
	390	310
	410	330
	440	380
640	550	
1850	515	410
	615	510
	650	560
	710	610
	810	700
	850	750
920	820	
1350	1040	940
2025	775	680
2025	945	850
2025	1025	920



## Cylindrical Crucibles with long spout for induction furnaces

max. A mm	H mm	D mm	d mm
120	890	560	480
120	640	415	335
150	880	470	362
120	750	480	400
110	940	610	510
265	762	445	375
180	1200	731	641



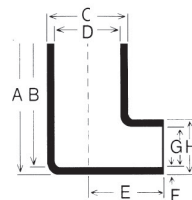
## Retorts for Zinc distillation

Cap. Liter	H mm	D mm	d mm	B mm
110,0	990	300	430	545
137,0	1016	305	476	603
184,4	1100	350	490	645
410,0	1575	480	525	815



## Continuous Casting Crucibles

A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm
630	600	Ø 255	Ø 200	300	30	Ø 140	Ø 200
800	750	Ø 340	Ø 280	350	50	Ø 180	Ø 280
1050	1000	Ø 440	Ø 360	350	50	200 x 500	300 x 600
1050	1000	Ø 440	Ø 360	400	50	Ø 340	Ø 440
1050	1000	Ø 520	Ø 430	440	50	320 x 600	420 x 700
1150	1100	Ø 600	Ø 500	415	50	150 x 640	250 x 730



## Crucible shape BP

	Size ca. kg Al	H mm	D mm	d mm	
BP	100	400	530	260	
BP	125	450	530	260	
BP	150	490	530	260	
BP	175	550	530	260	
H max. 930 mm	BP	200	600	530	260
	BP	210	500	615	280
	BP	250	630	615	280
	BP	300	700	615	280
	BP	350	800	615	280
H max. 940 mm	BP	400	900	615	280
	BP	500	750	780	340
	BP	600	900	780	340
	BP	700	1000	780	340
	BP	750	880	870	330
	BP	800	1000	870	330
	BP	900	1100	870	330
	BP	1000	1170	870	330
	BPH	1100	1250	870	330
	BPH	1200	1300	870	330
	BPS	750	880	894	350
	BPS	800	1000	894	350
	BPS	900	1100	895	350
	BPS	1000	1170	895	350

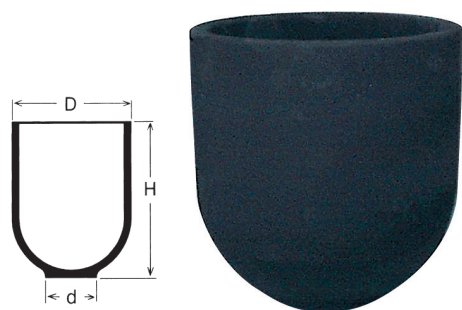
## Crucible shape BP with pyropocket

	Size ca. kg Al	H mm	D mm	d mm	Bore mm	Design
BP	210	500	615	290	12 x 200	1/3
BP	250	630	615	290	12 x 330	1/3
BP	300	700	615	290	12 x 400	1/3
BP	350	800	615	290	12 x 500	1/3
BP	400	900	615	290	12 x 600	1/3
BP	500	750	780	340	12 x 450	2
BP	600	900	780	340	12 x 500	2
BP	700	1000	780	340	12 x 500	2
BPS	750	880	894	350	12 x 490	1
BPS	800	1000	894	350	12 x 500	1
BPS	900	1100	895	350	12 x 600	1
BPS	1000	1170	895	350	12 x 700	1
BPS	1100	1250	895	350	12 x 700	1
BPS	1200	1300	895	350	12 x 700	1
BPS	1300	1350	895	350	12 x 700	1

### Design:

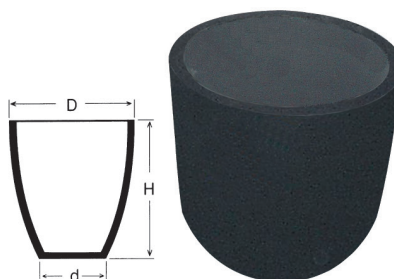


For use in tilting furnaces available with bottom recess and cut-out.



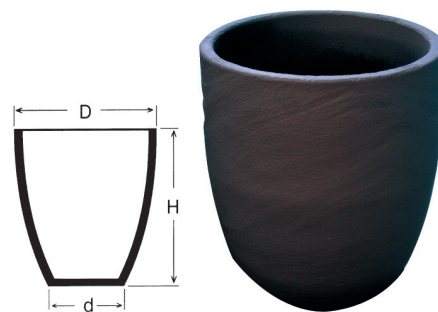
## Crucible shape B

Size	H mm	D mm	d mm
200	600	529	254
225	630	600	250
300	700	650	254
400	450	710	300
500	525	710	300
600	580	710	300
700	630	710	300
800	690	710	300



## Crucible shape BU

	Size ca. kg Al	Comp. Size	H mm	D mm	d mm	
BU	100	BC 166	402	527	300	
BU	125	BC 167	451	527	300	
BU	150	BC 168	492	527	300	
BU	175	BC 169	551	527	300	
BU	200	BC 171	600	527	300	H max. 840 mm
BU	210	BC 202	500	615	360	
BU	250	BC 302	630	615	360	
BU	300	BC 401	700	615	360	
BU	350	BC 402	800	615	360	
BU	400		900	615	360	H max. 1130 mm
BU	500	BC 247	750	775	440	
BU	600	BC 263	900	780	440	
BU	700		1000	780	440	
BU	750		880	870	480	
BU	800		1000	870	480	
BU	850		750	850	350	
BU	851		950	854	350	
BU	852		1140	854	350	
BU	853		1240	854	350	
BU	854		1300	854	350	
BU	900		1100	870	480	
BU	1000		1170	870	480	
BU	1100		1250	870	480	
BU	1200		1300	870	480	
BU	1300		1350	984	550	
BU	1400		1150	1000	400	H max. 1350 mm
BU	1500		1000	1054	500	
BU	1700		1100	1054	500	H max. 1290 mm



For use in tilting furnaces available with bottom recess and cut-out.

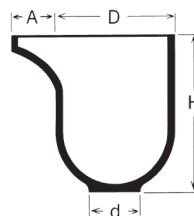
## Crucible shape BU with pyropocket

	Size ca. kg Al	H mm	D mm	d mm	(mm)	Design
BU	125	451	527	300	12 x 180	1
BU	150	492	527	300	12 x 220	1
BU	175	551	527	300	12 x 280	1
BU	200	600	527	300	12 x 330	1
BU	200 H	670	527	300	12 x 400	1
BU	210	500	615	360	12 x 200	3
BU	250	630	615	360	12 x 330	3
BU	300	700	615	360	12 x 400	3
BU	350	800	615	360	12 x 500	3
BU	400	900	615	360	12 x 600	3
BU	500	750	775	440	12 x 350	2
BU	600	900	780	440	12 x 500	2
BU	700	1000	780	440	12 x 600	2
BU	1500	1000	1054	500	12 x 690	1
BU	1700	1100	1054	500	12 x 600	1
TP	587	900	780	440	12 x 500	2



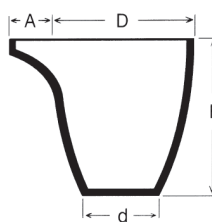
## Crucible shape BPK with long spout

Size ca. kg Al	Comp. Size	A mm	H mm	D mm	d mm
BP K 600		200	900	780	340
BP K 700		200	1000	780	340
BP K 687		200	900	830	360
BP K 690		200	1000	830	360
BP K 750	TP 1600	200	880	870	330
BP K 800	TP 1800	200	1000	870	330
BP K 900		200	1100	870	330
BP K 1000		200	1170	870	330
BP K 1100		200	1250	870	330
BP K 1200		200	1300	870	330



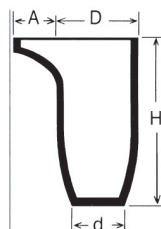
## Crucible shape BUK/TP

Size ca. kg Al	Comp. Size	A mm	H mm	D mm	d mm
BU K 200	TP 287	160	600	527	300
BU K 220	TP 89	130	740	546	324
BU K 250	TP 387	160	630	615	360
BU K 350	TP 412	160	800	615	360
BU K 400	TP 412H	160	900	615	360
BU K 600	TP 587	200	900	780	440
BU K 700	TP 587H	200	1000	780	440



## Crucible shape TP with long spout

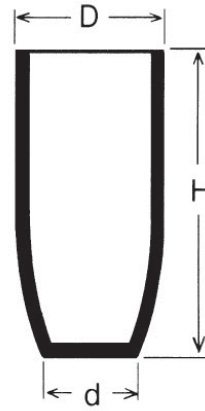
Size	Cap. Liter	A mm	H mm	D mm	d mm
TP 400	29	121	613	360	240
TP 843	43	154	673	421	254
TP 89	88	130	740	546	324
TP 12	80	152	940	440	295
TP 16	120	121	968	540	358



## Crucible shape TP

	Size	Cap. Liter	H mm	D mm	d mm
TP	901	23	762	295	235
TP	904	48	914	365	270
TP	389	33	692	360	270
TP	6	41	673	440	280
TP	14	92	1016	445	280
TP	8	66	800	440	280
TP	10	71	940	440	280
TP	550	116	918	551	324
TP	15	123	968	540	358
TP	830	152	1170	541	350
TP	980	219	1220	679	394

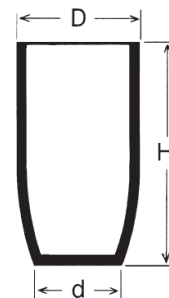
Available with or without cut-out.



## Crucible shape R/FU

	Size ca. kg Cu	H mm	D mm	d mm
R	200	620	360	270
R	300	720	445	280
R	350	750	450	280
R	400	720	470	300
R	500	840	465	320
R	600	940	485	320
FU	200	770	360	270
FU	300	870	445	280
FU	500	990	485	320
FU	600	1090	485	320
FU	750	1130	540	340
FU	1000	1130	590	370
FU	1200	1130	640	390
FU	1500	1130	680	395
FU	2000	1130	775	450
FU	2500	1250	780	450

R 500 / R 600 available with long spout.





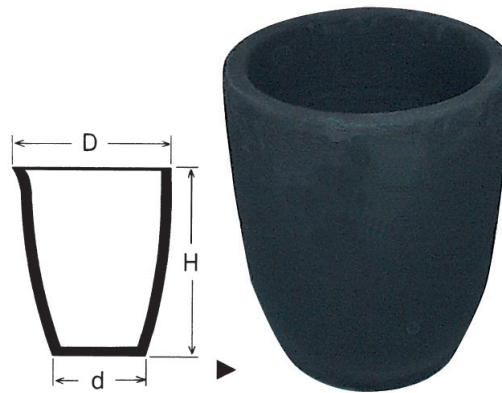
# DIAMANT SUPER RAPID / SUPER RAPID SPECIAL

## Crucible shape A

Size ca. kg Cu	H mm	D mm	d mm
1	90	90	55
1.5	100	95	60
2	110	102	65
3	130	110	70
4	140	115	75
5	150	125	85
6	165	130	90
7	175	140	95
8	180	155	110
9	185	160	115
10	200	160	115
12	210	170	120
14	220	175	120
15	230	180	120
16	230	185	125
18	240	195	130
20	260	196	135
25	260	220	150
30	290	230	160
35	300	240	170
40	310	260	190
50	330	270	195
60	345	285	200
70	360	295	205
80	375	305	215
90	380	315	225
100	400	325	240
120	410	345	245
130	420	350	245
150	450	370	260
175	480	380	270
200	500	400	285
250	515	420	295
300	540	440	315
350	590	475	330
400	600	500	340
400 H	650	500	340
500	650	510	350
500 H	700	510	350
600	680	530	380
600 H	760	550	380
800	800	560	380
1000	820	635	420
1100	890	645	420
1500	950	715	470

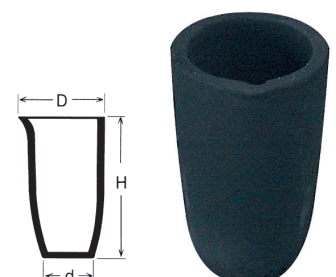
Rotational moulded clay graphite crucibles with very good thermal, mechanical shock and chemical attack resistance. Suitable for a range of applications including:

- + melting and holding of copper alloys
  - + precious metals
- A Special version is available for lower temperature applications.



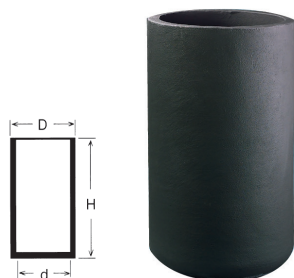
## Crucible shape C

Size ca. kg Cu	H mm	D mm	d mm
20	280	200	145
25	305	210	155
30	320	225	165
35	335	225	170
40	340	240	180
45	360	245	180
50	370	250	180
60	400	255	190
70	410	270	190
80	440	275	205
90	450	275	205
100	480	295	210
120	520	310	230
150	550	330	240
200	600	350	250
250	650	375	275



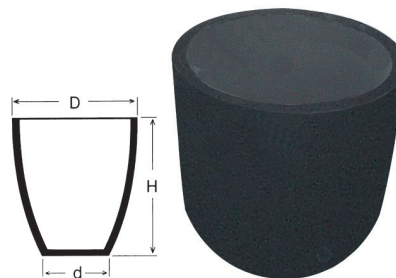
### Cylinder shape for induction furnaces

H mm (max.)	D mm	d mm
950	480	380
1000	190	150
	240	190
	300	240
	320	260
	360	280
	390	310
	410	330
	440	380
	640	550



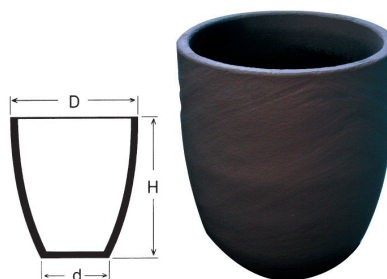
### Crucible shape B

Size	H mm	D mm	d mm
200	600	529	254
225	630	600	250
300	700	640	254
400	450	710	280
500	525	715	280
600	580	720	280
700	630	725	280
800	700	730	400
2500	1380	1188	600
2700	1380	1220	600
3400	1000	1525	650



### Crucible shape BU

Size ca. kg Al	Comp. Size	H mm	D mm	d mm
BU 35	BC 173	343	397	216
BU 50	BC 174	394	397	216
BU 60	BC 176	432	397	216
BU 65	BC 163	310	519	305
BU 75	BC 164	375	464	280
BU 100	BC 166	402	527	300
BU 125	BC 167	451	527	300
BU 150	BC 168	492	527	300
BU 175	BC 169	551	527	300
BU 200	BC 171	600	527	300
BU 210	BC 202	500	615	360
BU 250	BC 302	630	615	360
BU 300	BC 401	700	615	360
BU 350	BC 402	800	615	360
BU 400		900	615	360
BU 500	BC 247	750	775	440
BU 600	BC 263	900	780	440
BU 700		1000	780	440
BU 750		880	880	470
BU 800		1000	880	470
BU 900		1100	880	470
BU 1000		1170	880	470
BU 1100		1250	880	480

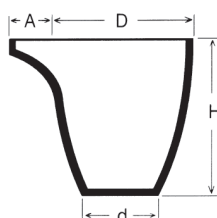


H max. 840 mm

H max. 1130 mm

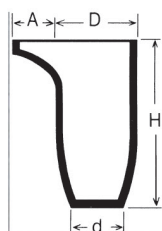
## Crucible shape BUK/TP

Size ca. kg Al	Comp. Size	A	H	D	d
BUK 350	TP 412	160	800	615	360
BUK 400	TP 412H	160	900	615	360
BUK 600	TP 587	200	900	780	440
BUK 700	TP 587H	200	1000	780	440
BUK 750		200	880	880	470
BUK 800		200	1000	880	470
BUK 900		200	1100	880	470
BUK 1000		200	1170	880	470
BUK 1100		200	1250	880	480



## Crucible shape TP with long spout

Size	Cap. Liter	A mm	H mm	D mm	d mm
TP 254	9	102	430	262	192
TP 162	14	95	460	302	217
TP 173	15	95	489	300	237
TP 540	22	255	490	400	280
TP 246	21	121	470	356	267
TP 722	19	116	564	324	238
TP 723	31	118	637	371	292
TP 982	71	120	800	465	295



## Crucible shape TP

Size	Cap. Liter	H mm	D mm	d mm
TP 903	11	725	260	192
TP 901	23	762	295	235



## Crucible shape R

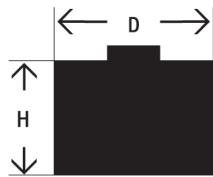
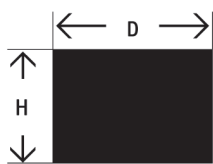
Size ca. kg Cu	H mm	D mm	d mm
R 100	520	290	205
R 150	600	320	240
R 200	620	360	270
R 250	650	370	270



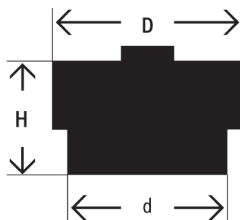
# ACCESSORIES

## DIAMANT stands with or without spigot

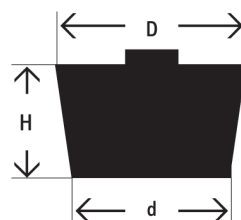
H mm	D mm									
	200	230	250	280	300	320	360	380	400	440
65	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
100	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
150	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
200	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
250	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
280				◆	◆					◆
300			◆	◆	◆	◆	◆	◆	◆	◆
350							◆	◆		◆
380										◆
400		◆			◆		◆		◆	◆



H mm	D mm	d mm
215	380	300
215	425	300
215	440	300



Drawing	H mm	D mm	d mm
UNS 3032	125	250	200
UNS 4034	150	250	200
UNS 4021	100	320	250
UNS 4031	125	320	250
UNS 3036	150	320	250
UNS 3007	250	320	250
UNS 4020	100	350	250
UNS 4016	125	350	250
UNS 4026	175	350	250
UNS 3089	250	350	250
UNS 4209	215	380	300
UNS 4228	215	440	300



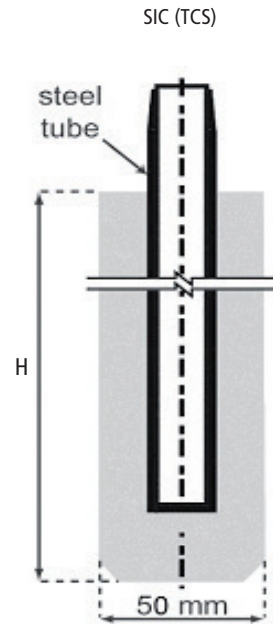
# THERMOCOUPLE PROTECTION TUBES

## ISO-Prime thermocouple sheaths (TCS)

SIC (TCS): Available dimensions  
(1/2" or 3/4" thread)

H mm	1/2" Pattern	3/4" Pattern
250	HX.PYR20108341	HX.PYR20208341
300	HX.PYR30158341	HX.PYR30208341
400	HX.PYR40158341	HX.PYR40308341
460	HX.PYR40358341	HX.PYR40498341
500	HX.PYR50158341	HX.PYR50208341
560	HX.PYR50408341	HX.PYR50728341
600	HX.PYR60158341	HX.PYR60508341
650	HX.PYR60208341	HX.PYR60608341
700	HX.PYR70108341	HX.PYR70158341
760	HX.PYR70208341	HX.PYR70218341
800	HX.PYR80508341	HX.PYR80608341
900	HX.PYR90608341	HX.PYR90708341
1000	HX.PYR91208341	HX.PYR91508341

Other dimensions on request.  
Standard packing 12 pieces.



Graphite: glazed

H mm max.	D mm	i mm
1500	40	20
1500	50	20
1500	50	25
1500	50	30
1500	60	30

Other dimensions on request.  
Standard packing 9 pieces.

Graphite:  
glazed



# CERTIFICATES ISO 9001 & ISO 14001



Lloyd's Register  
LRQA

## CERTIFICATE OF APPROVAL

This is to certify that the Quality and Environmental Management System of:

**VESUVIUS GmbH  
Werk Großalmerode  
Bunte Mühle, 37247 Großalmerode  
Germany**

has been approved by Lloyd's Register Quality Assurance to the following  
Quality and Environmental Management System Standards:

**ISO 9001:2008, ISO 14001:2004**

The Quality and Environmental Management System is applicable to:

**Manufacturing of isostatically, hydraulically and plastically  
formed crucibles and special refractory products in  
clay-bonded quality and carbon-bonded  
silicon carbide quality.**

Approval	Original Approval ISO 9001:	20 February 1996
Certificate No: KLN 0200056	Original Approval ISO 14001:	02 April 2001
	Current Certificate:	01 March 2014
	Certificate Expiry:	28 February 2017

Issued by: Lloyd's Register Quality Assurance GmbH  
For and on behalf of: Lloyd's Register Quality Assurance Limited



This document is subject to the provision here below.  
Innere Kanalstr. 15, 50823 Köln, Germany, Handelsregister Nr. B 34587  
For and on behalf of Hiramford, Middlemarch Office Village, Siskin Drive, Coventry, CV3 4FJ, United Kingdom  
This approval is carried out in accordance with the LRQA assessment and certification procedures and monitored by LRQA.  
The use of the UKAS Accreditation Mark indicates Accreditation in respect of those activities covered by the Accreditation Certificate Number 001  
Macro Revision 13

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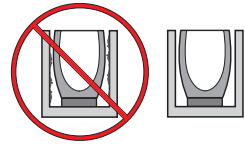
# CRUCIBLE CARE - The Foseco guide to safety and long service

1 INSPECT CRUCIBLES WHEN RECEIVED.



7 KEEP FURNACE LINING IN GOOD REPAIR.

The furnace lining must be in good repair, and as concentric as possible. This will stop flame deflection/impingement in flame-fired furnaces, and will assure proper melting in induction furnaces.



2 STORE IN A DRY PLACE.



8 CHARGE CRUCIBLES CAREFULLY.

Don't wedge.



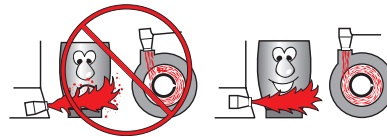
3 MOVE CRUCIBLES PROPERLY.

Do not roll or shimmy. Use a hand cart.



9 USE SLIGHTLY OXIDIZING FLAME.

Don't let flame impinge directly on crucible. Centre line of burner should be at juncture of crucible and base block.



4 USE THE PROPER PEDESTAL.

Same material - right size.



10 CRUCIBLE SHANKS MUST FIT PROPERLY.

They must support the crucible bottom at all times.



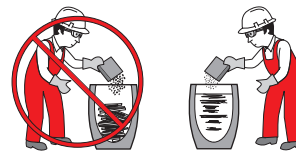
5 NEVER WEDGE THE CRUCIBLE.

Let crucible expand and contract.



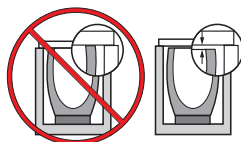
11 USE THE RECOMMENDED FOSECO FLUX.

Follow application instructions set in the Technical Data Sheet.



6 AVOID TOP SMOTHERING.

The furnace cover or lid should not rest on the top crucible wall. In electric resistance furnaces, the fibre blanket should not be fully compressed on the top of the crucible.



12 KEEP YOUR CRUCIBLE CLEAN.

Remove dross build-up carefully while the crucible is hot.



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