



CRUCIBLES FOR NON FERROUS APPLICATIONS

Energy efficient

---

Long life

---

Fast melting

---

Tailor made

---

High capacity

---

# Content:

<b>Introduction</b>	<b>2</b>
<b>The qualities</b>	<b>3</b>
<b>Crucibles</b>	
Crucible shape A	<b>4</b>
Crucible shape C	<b>5</b>
Special crucibles for induction furnaces	<b>5</b>
Cylindrical crucibles with long spout for induction furnaces	<b>5</b>
Retorts	<b>6</b>
Continuous casting crucibles	<b>6</b>
Crucible shape B	<b>6</b>
Crucible shape BP	<b>7</b>
Crucible shape BP with pyropocket	<b>7</b>
Crucible shape BU	<b>8</b>
Crucible shape BU with pyropocket	<b>8</b>
Crucible shape BPK	<b>9</b>
Crucible shape BUK/TP	<b>9</b>
Crucible shape TP with long spout	<b>9</b>
Crucible shape TP	<b>10</b>
Crucible shape R/FU	<b>10</b>
<b>Filling tubes for dosing furnaces</b>	<b>10</b>
<b>Accessories</b>	
Diamant stands	<b>11</b>
Thermocouple sheaths	<b>11</b>
<b>Crucible Care</b>	<b>12</b>

## 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.

Foseco crucibles offer the following benefits:

- **Energy Efficient**  
Foseco crucibles are thermally efficient and require less energy to melt and hold the liquid metal.
- **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.
- **Tailor Made**  
A wide range of standard shapes and sizes are produced. Customised shapes and sizes are available on request.
- **High Capacity**  
Foseco offers large crucible sizes. Aluminium crucibles of more than 2 tonnes are available.

# The qualities:



## ■ 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.

## ■ Diamant\* Universal

Premium quality, isostatically pressed crucibles with good thermal conductivity.

Suitable for a wide range of applications including:

- melting and holding of copper alloys
- melting of aluminium in flame-fired furnaces
- precious metals
- zinc distillation

## ■ Diamant Optimal SiC

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

## ■ Diamant Special

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

Ideally suited for the melting and holding of aluminium as well as other low temperature applications.

## ■ Diamant Super Rapid

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.

For detailed application information please refer to the individual product datasheets.



All crucibles are manufactured to ISO9001 and ISO14001 quality standards.

# Diamond product range

Size ca. kg Cu	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SIC	ISO Spezial	ENERTEK
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	◆				
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	255	200	140	◆				
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	◆	◆	◆	◆	◆
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	360	◆	◆	◆	◆	◆
800	800	560	380	◆	◆	◆	◆	◆
1000	820	635	420	◆	◆	◆	◆	◆
1100	890	650	475	◆	◆	◆	◆	◆

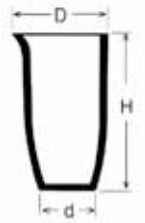
Crucible shape:

A



Size ca. kg Cu	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SiC	ISO Spezial	ENERTEK
20	280	200	145	◆				
25	305	205	150	◆				
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	◆	◆	◆	◆	◆

Crucible shape:  
C



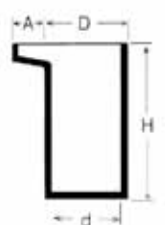
H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SiC	ISO Spezial	ENERTEK
950	480	380	◆	◆	◆	◆	◆
190	150		◆	◆	◆	◆	◆
240	190		◆	◆	◆	◆	◆
300	240		◆	◆	◆	◆	◆
320	260		◆	◆	◆	◆	◆
1000	360	280	◆	◆	◆	◆	◆
390	310		◆	◆	◆	◆	◆
410	330		◆	◆	◆	◆	◆
440	380		◆	◆	◆	◆	◆
640	550		◆	◆	◆	◆	◆
515	410			◆	◆	◆	◆
615	510			◆	◆	◆	◆
650	560			◆	◆	◆	◆
1850	710	610		◆	◆	◆	◆
810	700			◆	◆	◆	◆
850	750			◆	◆	◆	◆
920	820			◆	◆	◆	◆
1350	1040	940		◆	◆	◆	◆
2025	775	680		◆	◆	◆	◆
2025	945	850		◆	◆	◆	◆
2025	1025	920		◆	◆	◆	◆

Special Crucibles  
for induction furnaces



max. A mm	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SiC	ISO Spezial	ENERTEK
120	890	560	480		◆	◆	◆	◆
120	640	415	335		◆	◆	◆	◆
150	880	470	362		◆	◆	◆	◆
120	750	480	400		◆	◆	◆	◆
110	940	610	510		◆	◆	◆	◆

Cylindrical Crucibles  
with long spout for induction furnaces



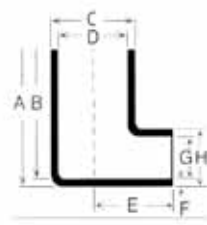
Retorts

Cap. Liter	H mm	D mm	d mm	B mm	SUPER Rapid	ISO Universal	ISO Optimal SIC	ISO Spezial	ENERTEK
110,0	990	300	430	545		◆			
105,0	1000	300	430	550		◆			
137,0	1016	305	476	603		◆			
184,4	1100	350	430	645		◆			
142,0	1200	430	430	545		◆			
410,0	1575	480	525	815		◆			

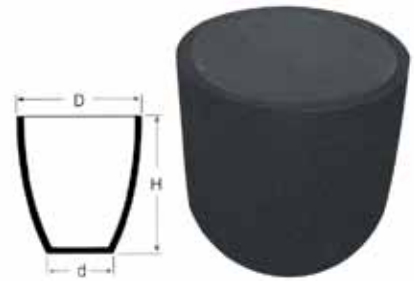


Continuous Casting Crucibles

A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	SUPER Rapid	ISO Universal	ISO Optimal SIC	ISO Spezial	ENERTEK
630	600	∅ 255	∅ 200	300	30	∅ 140	∅ 200		◆			
800	750	∅ 340	∅ 280	350	50	∅ 180	∅ 280		◆			
1050	1000	∅ 440	∅ 360	350	50	200 x 500	300 x 600		◆			
1050	1000	∅ 440	∅ 360	400	50	∅ 340	∅ 440		◆			
1050	1000	∅ 520	∅ 430	440	50	320 x 600	420 x 700		◆			
1150	1100	∅ 600	∅ 500	415	50	150 x 640	250 x 730		◆			



Size	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SIC	ISO Spezial	ENERTEK
200	600	529	254		◆	◆	◆	◆
225	630	600	250		◆	◆	◆	◆
300	700	650	254		◆	◆	◆	◆
400	450	710	300		◆	◆	◆	◆
400	450	710	280	◆				
500	525	710	300		◆	◆	◆	◆
500	525	715	280	◆				
600	580	710	300		◆	◆	◆	◆
600	580	720	280	◆				
700	630	710	300		◆	◆	◆	◆
700	630	725	280	◆				
800	690	710	300		◆	◆	◆	◆
800	700	730	400	◆				
2500	1380	1188	600	◆				
2700	1380	1220	600	◆				



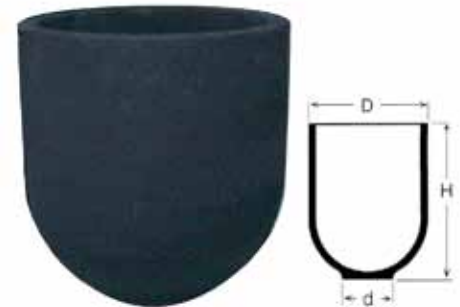
H max. 1300 mm

Crucible shape: B

Size ca. kg Al	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SiC	ISO Spezial	ENERTEK
BP 100	400	530	260		◆	◆	◆	◆
BP 125	450	530	260		◆	◆	◆	◆
BP 150	490	530	260		◆	◆	◆	◆
BP 175	550	530	260		◆	◆	◆	◆
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		◆	◆	◆	◆
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		◆	◆	◆	◆
BP 1100	1250	870	330		◆	◆	◆	◆
BP 1200	1300	870	330		◆	◆	◆	◆
BPS 750	880	894	350		◆	◆	◆	◆
BPS 800	1000	894	350		◆	◆	◆	◆
BPS 900	1100	895	350		◆	◆	◆	◆
BPS 1000	1170	895	350		◆	◆	◆	◆

H max. 930 mm

H max. 940 mm



Crucible shape:  
**BP**

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

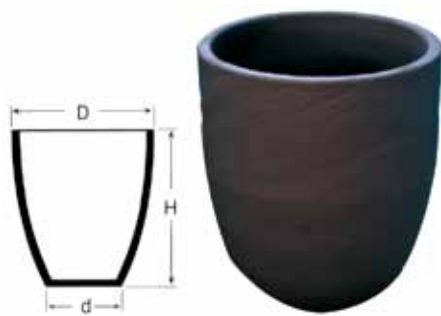
Size ca. kg Al	H mm	D mm	d mm	(mm)	Ø Hole min. in mm	Design
BP 210	500	615	290	12 x 200		1,3
BP 225	670	600	250	12 x 300		1
BP 250	630	615	290	12 x 330		1,3
BP 300	700	615	290	12 x 400		1,3
BP 350	800	615	290	12 x 500		1,3
BP 400	900	615	290	12 x 600		1,3
BP 500	750	780	340	12 x 450		2
BP 600	900	780	340	12 x 600		2
BP 700	1000	780	340	12 x 700		2
BPS 750	880	894	350	12 x 490	10	1
BPS 800	1000	894	350	12 x 600	10	1
BPS 900	1100	895	350	12 x 700	10	1
BPS 1000	1170	895	350	12 x 770	16	1



Crucible shape:  
**BP**  
with pyropocket

Crucible shape:

BU



	Size ca. kg Al	Comp. Size	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SiC	ISO Spezial	ENERTEK
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	◆	◆	◆	◆	◆
H max. 840 mm	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	◆	◆	◆	◆
H max. 1130 mm	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	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	◆	◆	◆	◆
H max. 1350 mm	BU	1400		1150	1000	500	◆	◆	◆	◆
	BU	1500		1000	1054	500	◆	◆	◆	◆
H max. 1290 mm	BU	1700		1100	1054	500	◆	◆	◆	◆

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
TP	587	900	780	440	12 x 500	2

Crucible shape:

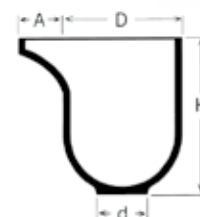
BU  
with pyropocket





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

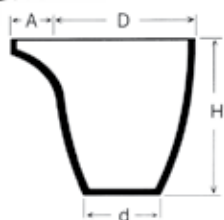
Crucible shape:  
**BPK**  
with long spout



Crucible shape:  
**BUK/TP**

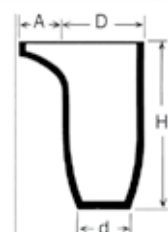


Size ca. kg Al	Comp. Size	A mm	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SiC	ISO Spezial	ENERTEK
BU 200 K	TP 287	160	600	527	300		◆	◆	◆	◆
BU 220 K	TP 89	130	740	546	324		◆	◆	◆	◆
BU 250 K	TP 387	160	630	615	360		◆	◆	◆	◆
BU 350 K	TP 412	160	800	615	360	◆	◆	◆	◆	◆
BU 400 K	TP 412H	160	900	615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



Crucible shape:  
**TP**  
with long spout

Size	Cap. Liter	A mm	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SiC	ISO Spezial	ENERTEK
TP 254	9	102	430	262	192	◆				
TP 162	14	95	460	302	217	◆				
TP 173	15	95	489	300	237	◆				
TP 246	21	121	470	356	267	◆				
TP 722	19	116	564	324	238	◆				
TP 400	29	121	613	360	240		◆	◆	◆	◆
TP 723	31	118	637	371	292	◆				
TP 843	43	154	673	421	254		◆	◆	◆	◆
TP 982	71	120	800	465	295	◆				
TP 89	88	130	740	546	324		◆	◆	◆	◆
TP 12	80	152	940	440	295		◆	◆	◆	◆
TP 16	120	121	968	540	358		◆	◆	◆	◆



Size	Cap. Liter	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SIC	ISO Spezial	ENERTEK
TP 903	11	725	260	192	◆				
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		◆	◆	◆	◆

Crucible shape:  
TP



Available with or without cut-out.

Size ca. kg Cu	H mm	D mm	d mm	SUPER Rapid	ISO Universal	ISO Optimal SIC	ISO Spezial	ENERTEK
R 100	520	290	205	◆				
R 150	600	320	240	◆				
R 200	620	360	270	◆	◆	◆	◆	◆
R 250	650	370	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		◆	◆	◆	◆

Crucible shape:  
R/FU



R 500 / R 600 available with long spout.

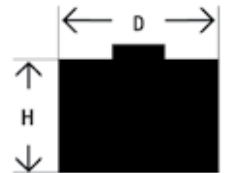
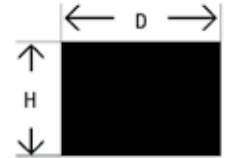
## Filling tubes for dosing furnaces

Length	Ø top	Ø bottom	Ø hole	H max. 40 mm
505	266,5	85	23	
605	302,5	85	23	
725	302,5	85	23	
815	302	87	25	



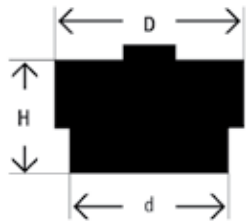
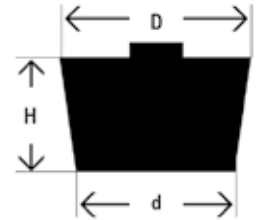
# DIAMANT stands with or without spigot

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

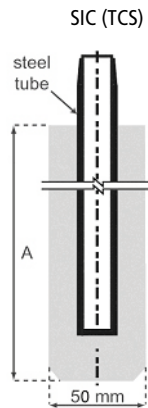
B + P Drawing	H mm	D mm	d mm
UNS 3032	125	250	200
UNS 4034	150	250	200
UNS 4021	100	320	250
UNS 4031	125	320	250
UNS 3036	150	320	250
UNS 3007	250	320	250
UNS 4020	100	350	250
UNS 4016	125	350	250
UNS 4026	175	350	250
UNS 3089	250	350	250
UNS 4209	215	380	300
UNS 4228	215	440	300



# Thermocouple sheaths (TCS)

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

H mm	SIC (TCS)	
	1/2"	3/4"
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



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.

Graphite:  
glazed



Other dimensions on request.

# Crucible Care - The Foseco guide to safety and long service

<p>1 INSPECT CRUCIBLES WHEN RECEIVED.</p> 	<p>7 KEEP FURNACE LINING IN GOOD REPAIR.</p> <p>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.</p> 
<p>2 STORE IN A DRY PLACE.</p> 	<p>8 CHARGE CRUCIBLES CAREFULLY.</p> <p>Don't wedge.</p> 
<p>3 MOVE CRUCIBLES PROPERLY.</p> <p>Do not roll or shimmy. Use a hand cart.</p> 	<p>9 USE SLIGHTLY OXIDIZING FLAME.</p> <p>Don't let flame impinge directly on crucible. Centre line of burner should be at juncture of crucible and base block.</p> 
<p>4 USE THE PROPER PEDESTAL.</p> <p>Same material - right size.</p> 	<p>10 CRUCIBLE SHANKS MUST FIT PROPERLY.</p> <p>They must support the crucible bottom at all times.</p> 
<p>5 NEVER WEDGE THE CRUCIBLE.</p> <p>Let crucible expand and contract.</p> 	<p>11 USE THE RECOMMENDED FOSECO FLUX.</p> <p>Follow application instructions set in the Technical Data Sheet.</p> 
<p>6 AVOID TOP SMOTHERING.</p> <p>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.</p> 	<p>12 KEEP YOUR CRUCIBLE CLEAN.</p> <p>Remove dross build-up carefully while the crucible is hot.</p> 

Foseco International Ltd. • PO Box 5516 • Tamworth, Staffordshire • England B78 3XQ • Phone: +44 (0)1827 262021 • Fax: (0)1827 283725 • www.foseco.com



\*FOSECO, the logo, DIAMANT and ENERTEK are Trade Marks of the Foseco Foundry Division of the Vesuvius Group of Companies, used under licence. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system of any nature or transmitted in any form or by any means including photocopying and recording, without the written permission of the copyright holder. All statement, information and data contained herein are published as a guide and although believed to be accurate and reliable (having regard to the manufacture's practical experience) neither the manufacturer, licensor, seller nor publisher represents nor warrants, expressly or impliedly: (1) their accuracy/reliability (2) that the use of the product(s) will not infringe third party rights (3) that no further safety measures are required to meet local legislation. The seller is not authorised to make neither representations nor contract on behalf of the manufacturer/licensor. All sales by the manufacturer/seller are based on their respective conditions of sale available on request. © Foseco International Limited 05/11.