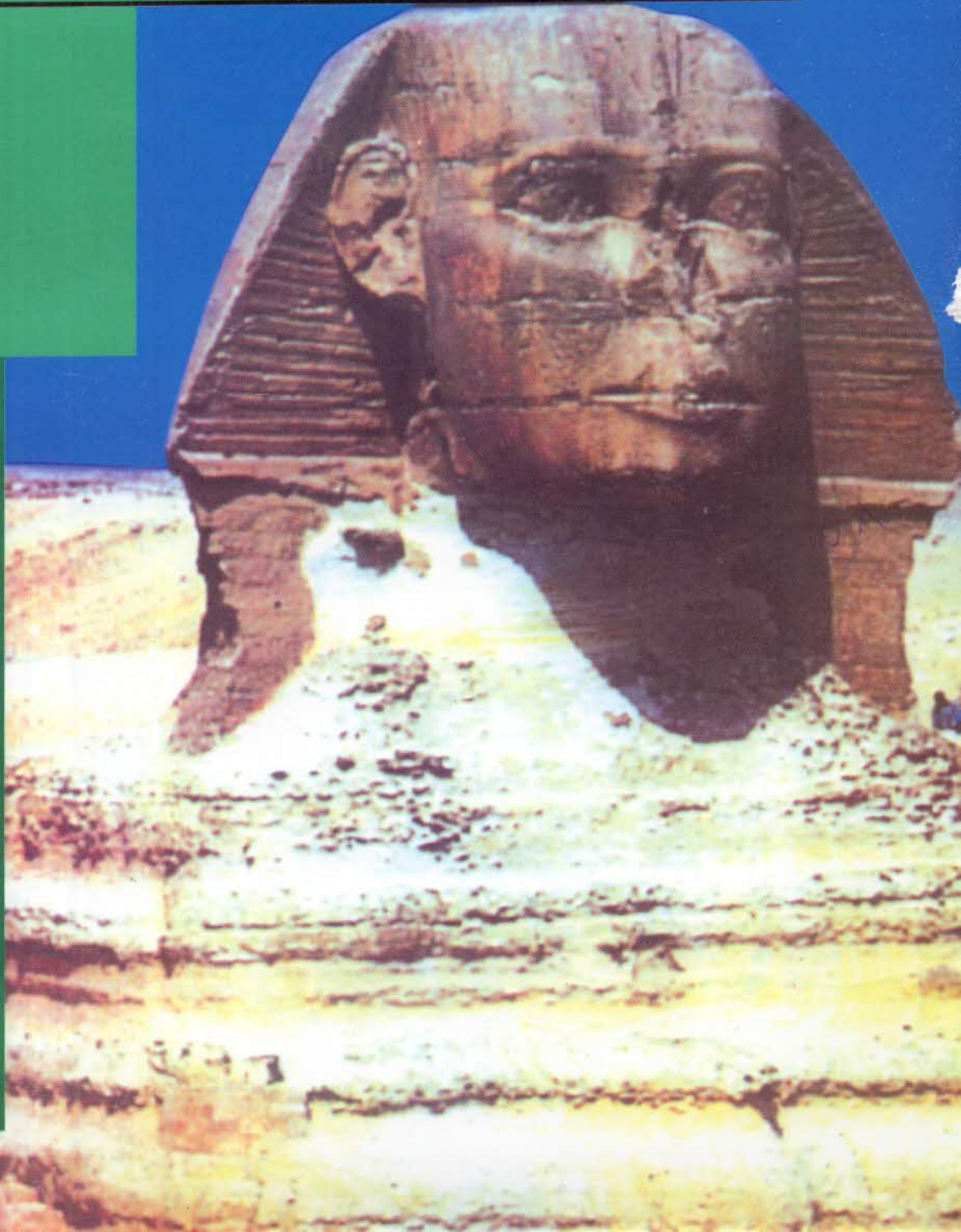




شركة الإسكندرية للحراريات

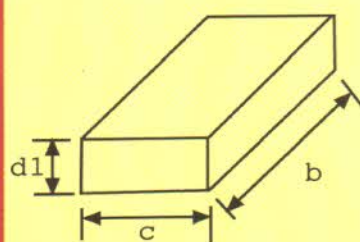
ALEXANDRIA COMPANY
FOR REFRACTORIES

ACR

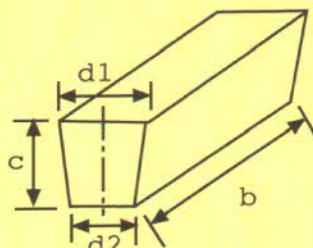


6 - Shapes and Dimensions.

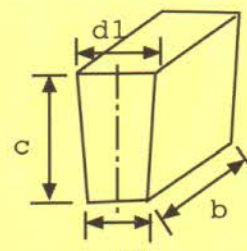
6.1. - Bricks For General Uses.



Straight



Arch



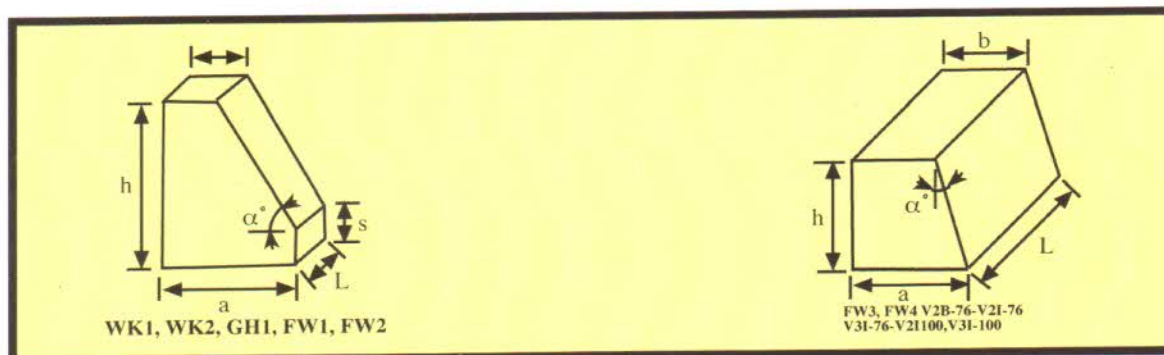
Wedge double Arch

	Type	b	c	d ₁	d ₂	Q	Radius (mm)
Straight	A-64	230	114	64			
	A-76	230	114	76			
	A-40	230	114	40			
	A-32	230	114	32			
Arch	1A 6	230	114	67	61	6	1273
	1A10	230	114	69	59	10	789
	1A16	230	114	72	56	16	513
	1A24	230	114	76	52	24	361
	1A50	230	114	89	39	50	203
Wedge	2A 4	114	230	66	62	4	3795
	2A 6	114	230	67	61	6	2568
	2A10	114	230	69	59	10	1587
	2A16	114	230	72	56	16	1093
	2A24	114	230	76	52	24	728
	2A50	114	230	89	39	50	409
Double Straight	AA-64	230	230	64			
	AA-76	230	230	76			
Double Arch	1AA 4	230	230	66	62	4	3795
	1AA 6	230	230	67	61	6	2568
	1AA10	230	230	69	59	10	1587
	1AA16	230	230	72	56	16	1093
	1AA24	230	230	76	52	24	728
	1AA50	230	230	89	39	50	409

	Type	b	c	d ₁	d ₂	Q	Radius (mm)
Straight	B-64	250	124	64			
	B-76	250	124	76			
	B-40	250	124	40			
	B-32	250	124	32			
Arch	1B 6	250	124	67	61	6	1385
	1B10	250	124	69	59	10	856
	1B16	250	124	72	56	16	558
	1B24	250	124	76	52	24	393
	1B50	250	124	89	39	50	221
Wedge	2B 4	124	250	66	62	4	4125
	2B 6	124	250	67	61	6	2792
	2B10	124	250	69	59	10	1725
	2B16	124	250	72	56	16	1125
	2B24	124	250	76	52	24	792
	2B50	124	250	89	39	50	445
Double Straight	BB-64	250	250	64			
	BB-76	250	250	76			
Double Arch	1BB 4	250	250	66	62	4	4125
	1BB 6	250	250	67	61	6	2792
	1BB10	250	250	69	59	10	1725
	1BB16	250	250	72	56	16	1125
	1BB24	250	250	76	52	24	792
	1BB50	250	250	89	39	50	445

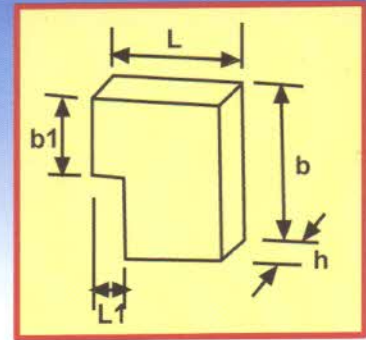
Straight	M-64	300	120	64			
	M-76	300	120	76			
	M-80	300	120	80			
Arch	1M10	300	120	80	70	10	960
	1M20	300	120	90	70	20	540
Wedge	2M10	120	300	80	70	10	2400
	2M20	120	300	90	70	20	1350
Straight	N-64	345	150	64			
	N-76	345	150	76			
	N-80	345	150	80			
Arch	1N10	345	150	80	70	10	1200
	1N20	345	150	90	70	20	675
Wedge	2N10	345	150	80	70	10	2760
	2N20	345	150	90	70	20	1553

6-2 Skew Bricks



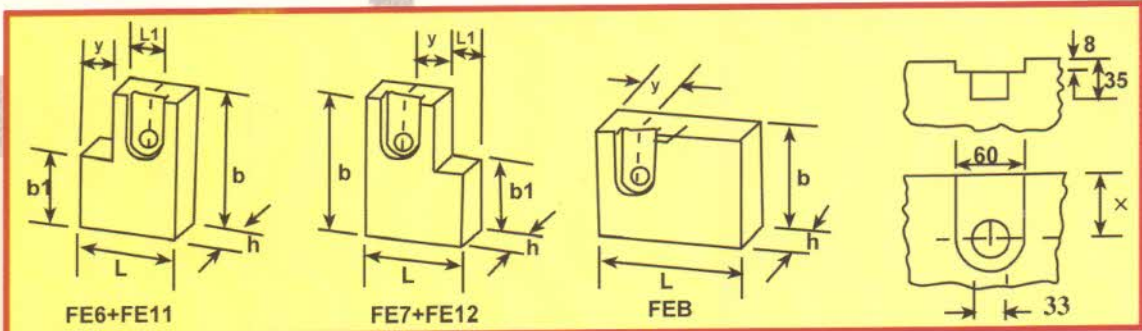
Shape	Dimensions in mm						Volume dm ³
	a	b	h	L	s	α°	
WK1	250	135	233	64	33	60°	2.99
WK2	250	50	233	64	33	45°	2.46
GH1	250	100	290	100	30	60°	5.30
FW1	250	112.5	260	64	51	56° 36'	3.24
FW2	250	112.5	260	124	51	56° 36'	6.28
FW3	124	38	130	250		33° 24'	2.63
FW4	187	101	130	250		33° 24'	4.68
V2B - 76	187	120	250	76		15°	2.92
V2L - 76	250	150	375	76		15°	5.70
V3L - 76	300	180	450	76		15°	8.21
V2L - 100	250	150	375	100		15°	7.50
V3L - 100	300	180	450	100		15°	10.80

6-3 Expansion Joint Bricks



Shapes	Dimensions in mm					Volume
	L	L ₁	b	b ₁	h	dm ³
FE 4	250	63	250	124	64	3.49
FE 5	187	63	250	124	64	2.48
FE 9	187	63	124	60	64	1.23
FE 10	250	63	124	60	64	1.73
1FE 4 - 76	230	58	230	114	76	3.51
1FE 5 - 76	172	58	230	114	76	2.50
1FE 9 - 76	172	58	114	56	76	1.23
1FE 10 - 76	230	58	114	56	76	1.74
3FE 9 - 76	225	75	150	74	76	2.13
3FE 10 - 76	300	75	150	74	76	2.99

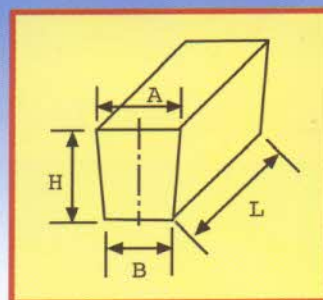
6-4 Anchor Bricks



Shapes	Dimensions in mm							Volume
	L	L ₁	b	b ₁	h	x	y	dm ³
FE 6	250	63	250	124	64	80	60	3.42
FE 7	187	63	250	124	64	80	60	2.41
FE 8	250	-	124	-	64	60	65	1.92
FE 11	187	63	124	61	64	60	60	1.16
FE 12	250	63	124	61	64	60	60	1.66
1FE 6 - 76	230	58	230	114	76	70	57	3.44
1FE 7 - 76	172	58	230	114	76	70	57	2.43
1FE 8 - 76	230	-	114	-	76	50	57	1.93
1FE 11 - 76	172	58	114	56	76	50	57	1.18
1FE 12 - 76	230	58	114	56	76	50	57	1.68
3FE 8 - 76	300	-	150	-	76	60	75	3.36
3FE 11 - 76	225	75	150	74	76	60	70	2.07
3FE12 - 76	300	75	150	74	76	60	70	2.92

6-5 Cement Kiln Shapes

ISO - Shapes Bricks

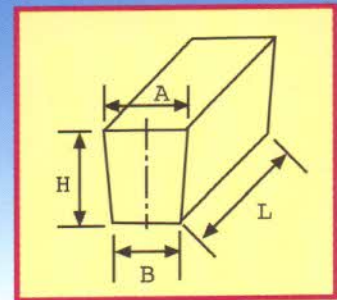


Symbol	Dimensions in mm				Volume dm ³	Diameters mm	
	A	B	H	L		With 1.5 Joint	Without Joint
Formals which upper wedge size = 103 mm :							
216	103	86	160	198	2.99	1971	1936
316	103	92	160	198	3.09	3046	2995
416	103	94.5	160	198	3.13	3940	3877
516	103	96.5	160	198	3.16	5154	5069
218	103	84	180	198	3.30	1984	1951
318	103	90.5	180	198	3.45	3014	2966
418	103	93.5	180	198	3.50	3966	3899
518	103	95.5	180	198	3.54	5024	4943
618	103	97	180	198	3.56	6282	6178
220	103	82	200	198	3.66	1994	1960
320	103	89	200	198	3.80	2991	2940
420	103	92.5	200	198	3.87	3988	3920
520	103	94.7	200	198	3.91	5046	4960
620	103	96.2	200	198	3.94	6159	6056
720	103	97	200	198	3.96	6980	6864
820	103	97.8	200	198	3.98	8050	7923
322	103	88	220	198	4.16	3071	3018
422	103	91.5	220	198	4.24	4006	3941
522	103	94	220	198	4.29	5119	5034
622	103	95.5	220	198	4.32	6142	6041
722	103	96.5	220	198	4.35	7086	6970
822	103	97.3	220	198	4.36	8082	7951
425	103	90	250	198	4.78	4027	3960
525	103	92.7	250	198	4.84	5082	4813
625	103	94.5	250	198	4.89	6158	6055
725	103	95.5	250	198	4.91	6980	6865
825	103	96.5	250	198	4.94	8052	7920

Key Bricks

P161	71	65	160	198	2.15	-	-
P162	78	71	160	198	2.36	-	-
P181	71	65	180	198	2.42	-	-
P182	78	71	180	198	2.66	-	-
P201	71	65	200	198	2.69	-	-
P202	78	71	200	198	2.95	-	-
P221	71	65	220	198	2.96	-	-
P222	78	71	220	198	3.25	-	-
P251	71	65	250	198	3.37	-	-
P252	78	71	250	198	3.67	-	-

Wedge Shape (B.Shapes)



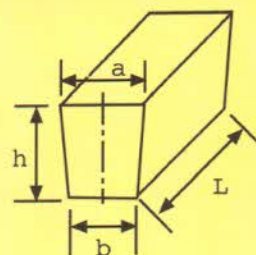
Symbol	Dimensions in mm				Volume dm ³	Diameters (mm)	
	A	B	H	L		With 1.5 Joint	Without Joint
B216	78	65	160	198	2.27	1957	1920
B416	75	68	160	198	2.27	3479	3427
B218	79	65	180	198	2.55	2201	2160
B318	76.5	66.5	180	198	2.55	2808	2754
B418	75	68	180	198	2.55	3934	3856
B518	74.5	68.5	180	198	2.55	4560	4468
B618	74	69	180	198	2.55	5436	5328
B220	78	65	200	198	2.83	2446	2400
B320	76.5	66.5	200	198	2.83	3120	3060
B420	75	68	200	198	2.83	4371	4286
B520	74.5	68.5	200	198	2.83	5066	4964
B620	74	69	200	198	2.83	6040	5920
B222	78	65	220	198	3.11	2690	2640
B322	76.5	66.5	220	198	3.11	3432	3366
B422	75	68	220	198	3.11	4808	4712
B522	74.5	68.5	220	198	3.11	5574	5460
B622	74	69	220	198	3.11	6644	6512
B325	78	65	250	198	3.54	3058	3000
B425	76.5	66.5	250	198	3.54	3900	3825
B525	75	68	250	198	3.54	5464	5355
B625	74.5	68.5	250	198	3.54	6330	6205
B725	74	69	250	198	3.54	7550	7400

Key Bricks

16	85	80	160	198	2.61	-	-
18	85	80	180	198	2.94	-	-
20	85	80	200	198	3.27	-	-
22	85	80	220	198	3.59	-	-
25	85	80	250	198	4.08	-	-

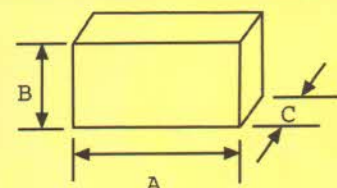
6-6 Shapes for Iron & Steel Industry

Ladle Bricks:



Shape	Dimensions in mm					Radius mm
	a	b	h	L	k	
1P 8	129	121	90	250	8	1384
1P18	134	116	90	250	18	590
1P26	138	112	90	250	26	395
1P37	143	106	90	250	37	263
2P10	130	120	124	250	10	1513
2P24	137	113	124	250	24	594
3P10	105	95	155	250	10	1504
3P20	110	90	155	250	20	713
4P 8	104	96	187	250	8	2291
4P12	106	94	187	250	12	1496
4P22	111	89	187	250	22	774
5P 8	104	96	220	250	8	2695
5P16	108	92	220	250	16	1293
5P22	111	89	220	250	22	910
6P10	105	95	250	250	10	2425
6P18	109	91	250	250	18	1292
6P26	113	87	250	250	26	856
7P12	106	94	280	250	12	2240
7P18	109	91	280	250	18	1447

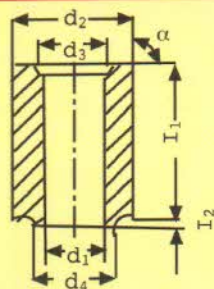
Ladle Bottom Bricks:



Shape	Dimensions in mm			Volume dm ³
	A	B	C	
B1	187	155	124	3.59
B2	210	187	155	6.09
B3	340	210	88	6.28

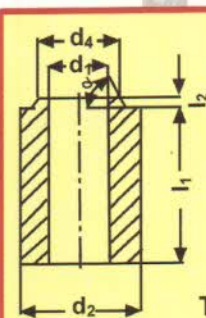
6-7 Shapes for Pouring Ladles and Grouting

Sleeves

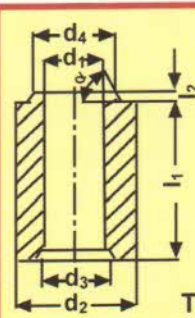


Mark	Dimensions in mm							Volume dm ³
	l_1	l_2	d_1	d_2	d_3	d_4	α°	
SR0	270	10	40	90	62	60	75	1.37
SR1	330	10	47	105	72	70	75	2.27
SR2	330	10	47	120	72	70	60	3.15
SR3	330	10	47	140	72	70	60	4.50
SR4/1	330	10	47	155	72	70	60	5.64
SR4/2	330	10	60	155	97	95	60	5.27
SR5	330	10	60	170	97	95	60	6.54
SR6	330	10	60	210	97	95	60	10.48

Trumpet Tubes



TR1B - TR3B



TR1 - TR6K

Mark	Dimensions in mm							Volume dm ³
	l_1	l_2	d_1	d_2	d_3	d_4	α°	
TR1B	330	10	65	120		88	60	2.67
TR2B	330	10	80	140		106	60	3.46
TR3B	330	10	90	155		120	60	4.21
TR1	330	10	65	120	90	88	60	2.64
TR2	330	10	80	140	108	106	60	3.42
TR3	330	10	90	155	122	120	60	4.13
TR4	330	10	100	180	134	130	60	5.81
TR5	330	20	110	190	144	140	60	6.23
TR6	330	20	120	200	154	150	60	6.64
TR1K	270	10	65	120	90	88	60	2.16
TR2K	270	10	80	140	108	106	60	2.80
TR3K	270	10	90	155	122	120	60	3.38
TR4K	270	10	100	180	134	130	60	4.76
TR5K	270	20	110	190	144	140	60	5.09
TR6K	270	20	120	200	154	150	60	5.43

Nozzles

	Measurements In mm										Volume dm ³
	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	h ₁	h ₂	h ₃	m	

nozzles 0A

0A10	135	120	105	100	90	10	160	90	75	10	1.52
0A16	135	120	105	100	90	16	160	90	75	10	1.50
0A20	135	120	105	100	90	20	160	90	75	10	1.48
0A25	135	120	105	100	90	25	160	90	75	10	1.46
0A30	135	120	105	100	90	30	160	90	75	10	1.42
0A35	135	120	105	100	90	35	160	90	75	10	1.39
0A40	135	120	105	100	90	40	160	90	75	10	1.34
0A45	135	120	105	100	90	45	160	90	75	10	1.29
0A50	135	120	105	100	90	50	160	90	75	10	1.24
0A55	135	120	105	100	90	55	160	90	75	10	1.18
0A60	135	120	105	100	90	60	160	90	75	10	1.10

nozzles 1A

1A10	155	139	115	110	100	10	210	100	80	10	2.47
1A16	155	139	115	110	100	16	210	100	80	10	2.45
1A20	155	139	115	110	100	20	210	100	80	10	2.42
1A25	155	139	115	110	100	25	210	100	80	10	2.39
1A30	155	139	115	110	100	30	210	100	80	10	2.35
1A35	155	139	115	110	100	35	210	100	80	10	2.30
1A40	155	139	115	110	100	40	210	100	80	10	2.24
1A45	155	139	115	110	100	45	210	100	80	10	2.17
1A50	155	139	115	110	100	50	210	100	80	10	2.10
1A55	155	139	115	110	100	55	210	100	80	10	2.02
1A60	155	139	115	110	100	60	210	100	80	10	1.93
1A65	155	139	115	110	100	65	210	100	80	10	1.83

nozzles 2A

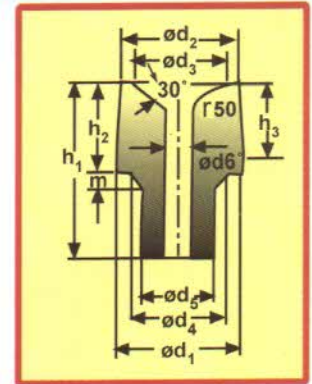
2A10	155	133	115	110	100	10	240	130	110	10	2.90
2A16	155	133	115	110	100	16	240	130	110	10	2.87
2A20	155	133	115	110	100	20	240	130	110	10	2.85
2A25	155	133	115	110	100	25	240	130	110	10	2.81
2A30	155	133	115	110	100	30	240	130	110	10	2.76
2A35	155	133	115	110	100	35	240	130	110	10	2.70
2A40	155	133	115	110	100	40	240	130	110	10	2.63
2A45	155	133	115	110	100	45	240	130	110	10	2.56
2A50	155	133	115	110	100	50	240	130	110	10	2.47
2A55	155	133	115	110	100	55	240	130	110	10	2.38
2A60	155	133	115	110	100	60	240	130	110	10	2.28
2A65	155	133	115	110	100	65	240	130	110	10	2.17

nozzles 3A

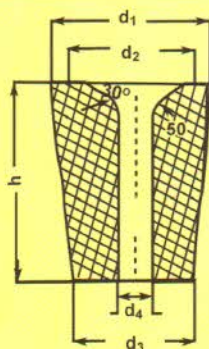
3A10	180	153	135	140	120	10	285	155	135	20	4.75
3A20	180	153	135	140	120	20	285	155	135	20	4.68
3A25	180	153	135	140	120	25	285	155	135	20	4.64
3A30	180	153	135	140	120	30	285	155	135	20	4.58
3A35	180	153	135	140	120	35	285	155	135	20	4.51
3A40	180	153	135	140	120	40	285	155	135	20	4.43
3A45	180	153	135	140	120	45	285	155	135	20	4.34
3A50	180	153	135	140	120	50	285	155	135	20	4.24
3A55	180	153	135	140	120	55	285	155	135	20	4.13
3A60	180	153	135	140	120	60	285	155	135	20	4.03
3A65	180	153	135	140	120	65	285	155	135	20	3.88
3A70	180	153	135	140	120	70	285	155	135	20	3.74
3A75	180	153	135	140	120	75	285	155	135	20	3.58
3A80	180	153	135	140	120	80	285	155	135	20	3.42

nozzles 4A

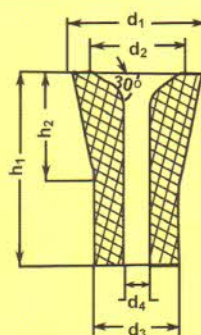
4A10	180	147	135	140	120	10	315	185	165	20	5.27
4A20	180	147	135	140	120	20	315	185	165	20	5.20
4A25	180	147	135	140	120	25	315	185	165	20	5.15
4A30	180	147	135	140	120	30	315	185	165	20	5.09
4A35	180	147	135	140	120	35	315	185	165	20	5.01
4A40	180	147	135	140	120	40	315	185	165	20	4.92
4A45	180	147	135	140	120	45	315	185	165	20	4.82
4A50	180	147	135	140	120	50	315	185	165	20	4.71
4A55	180	147	135	140	120	55	315	185	165	20	4.59
4A60	180	147	135	140	120	60	315	185	165	20	4.45
4A65	180	147	135	140	120	65	315	185	165	20	4.31
4A70	180	147	135	140	120	70	315	185	165	20	4.15
4A75	180	147	135	140	120	75	315	185	165	20	3.98
4A80	180	147	135	140	120	80	315	185	165	20	3.79



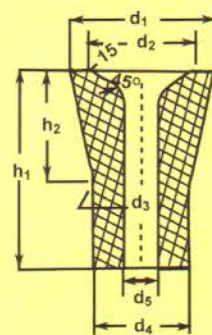
6A-9A



8A-9A



11A-12A



Item	Measurements In mm							Volume dm ³
	d ₁	d ₂	d ₃	d ₄ ¹⁾	d ₅ ¹⁾	h ₁	h ₂	

nozzles 6A

6A16	133	115	99	16		170		1.64
6A18	133	115	99	18		170		1.64
6A20	133	115	99	20		170		1.63
6A22	133	115	99	22		170		1.62
6A25	133	115	99	25		170		1.60
6A30	133	115	99	30		170		1.56
6A40	133	115	99	40		170		1.48

nozzles 7A

7A16	139	115	99	16		200		2.07
7A18	139	115	99	18		200		2.06
7A20	139	115	99	20		200		2.04
7A22	139	115	99	22		200		2.03
7A25	139	115	99	25		200		2.01
7A30	139	115	99	30		200		1.97
7A40	139	115	99	40		200		1.87

nozzles 8A

8A35	147	135	120	35		240	135	2.67
8A60	147	135	120	60		240	135	2.26
8A65	147	135	120	65		240	135	2.15
8A70	147	135	120	70		240	135	2.03
8A80	147	135	120	80		240	135	1.76

nozzles 9A

9A35	153	135	120	35		270	165	3.17
9A60	153	135	120	60		270	165	2.70
9A65	153	135	120	65		270	165	2.58
9A70	153	135	120	70		270	165	2.44
9A80	153	135	120	80		270	165	2.14

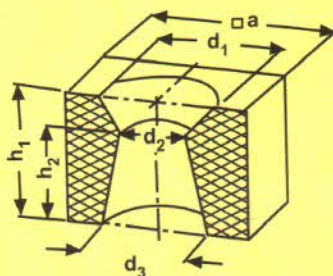
nozzles 11A

11A35	183	166	150	145	35	270	165	4.61
11A60	183	166	150	145	60	270	165	4.21
11A65	183	166	150	145	65	270	165	4.11
11A70	183	166	150	145	70	270	165	3.99
11A80	183	166	150	145	80	270	165	3.73

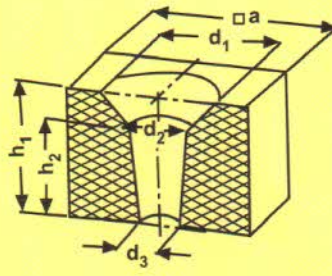
nozzles 12A

12A50	250	190	200	195	50	345	165	10.68
12A60	250	190	200	195	60	345	165	10.44
12A70	250	190	200	195	70	345	165	10.15
12A80	250	190	200	195	80	345	165	9.81
12A90	250	190	200	195	90	345	165	9.42

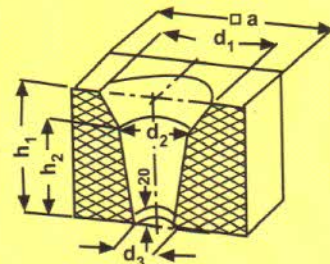
Poket Blocks



L0 - L5



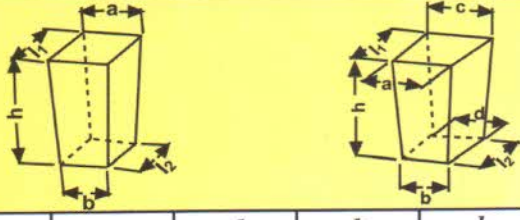
L6 - L7



L8 - L12

Mark	Dimensions in mm						Volume dm ³
	□ a	h ₁	h ₂	d ₁	d ₂	d ₃	
L0	250	107	90	220	125	143	5.01
L1	320	123	100	260	149	169	9.83
L2	320	165	130	260	143	169	13.26
L3	360	190	155	300	163	194	19.22
L4	360	222	185	300	157	194	22.71
L5	360	254	185	300	157	194	25.51
L6	320	123	100	260	123	143	10.45
L7	320	165	130	260	123	149	13.82
L8	360	190	155	300	130	157	20.69
L9	360	222	185	300	130	163	24.11
L10	360	254	185	300	130	163	26.87
L11	360	254	185	310	160	193	24.98
L12	420	254	185	320	210	260	32.36

6.8 - Brick Shapes for Electric Arc Furnaces

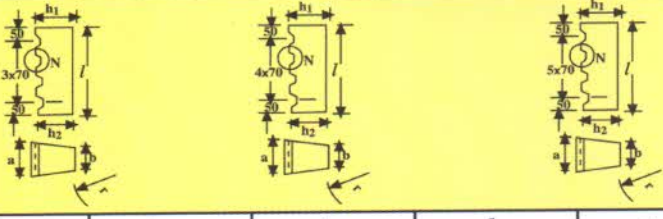
Shape								Dome Radius	Volume
	a	b	c	d	h	l ₁	l ₂	r	dm ³

dome bricks

R32	81	75			250	130	120	3000	2.44
R42	80	75			250	128	120	4000	2.40
R52	79	75			250	126	120	5000	2.37
R62	78.5	75			250	125	120	6000	2.35
R72	78	75			250	124.5	120	7000	2.34
R43	81	75			300	129	120	4000	2.91
R53	80	75			300	127	120	5000	2.87
R63	79	75			300	126	120	6000	2.84
R73	78	75			300	125	120	7000	2.81
R93	77.5	75			300	124	120	9000	2.79

Double Wedges

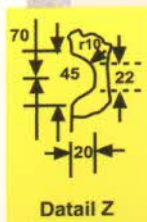
KR32	72.5	67	90.5	83.5	250	130	120	3000	2.45
KR42	72	68	87	82	250	128	120	4000	2.40
KR52	72	68	86	82	250	126	120	5000	2.37
KR62	71	68	85.5	82	250	125	120	6000	2.35
KR72	71	68	85	82	250	124.5	120	7000	2.34
KR43	73	68	88	82	300	129	120	4000	2.90
KR53	72	68	87	82	300	127	120	5000	2.86
KR63	71.5	68	86	82	300	126	120	6000	2.81
KR73	71	68	85.5	82	300	125	120	7000	2.82
KR93	70.5	68	85	82	300	124	120	9000	2.80

Shape							Volume
	a	b	h ₁	h ₂	l	r	dm ³

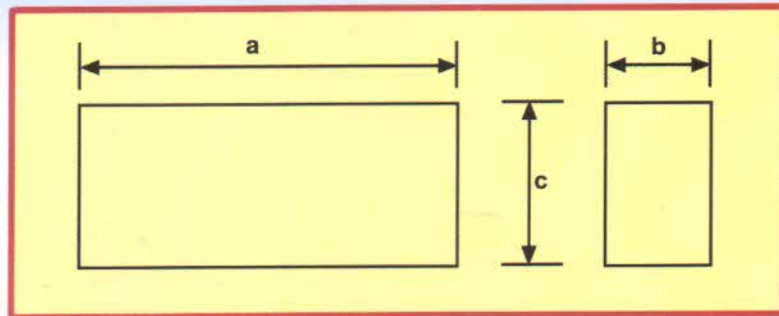
Electrode Blocks

D1N	81	29.5	115	95	260	70	1.31
D2N	74.5	40	115	85	260	140	1.42
D3N	118.5	45	140	130	320	90	3.18
D4N	90	53	140	130	320	210	2.85
D5N	111	64	150	140	375	210	4.34
D6N	94	63	150	140	375	310	3.95
D7N	108	67.5	180	170	450	310	6.42
D8N	92	65.5	180	170	450	450	5.80
D9N	92	72	180	170	450	650	6.07
D6NS*	89	68	156	140	375	500	4.17
D6NSA*	86.5	70.4	150	140	375	650	4.17

* Not Standardized Shape
Detail Z



6.9 - BLOCKS :



SHAPE	DIMENSIONS,(mm)			VOLUME dm ³
	a	b	c	
B55 - 2	550	200	200	22.00
B55 - 3	550	200	300	33.00
B55 - 4	550	200	400	44.00
B50 - 2	500	200	200	20.00
B50 - 3	500	200	300	30.00
B50 - 4	500	200	400	40.00
B45 - 2	450	250	200	22.50
B45 - 3	450	250	300	33.75
B45 - 4	450	250	400	45.00
B40 - 2	400	250	200	20.00
B40 - 3	400	250	300	30.00
B40 - 4	400	250	400	40.00
B35 - 2	350	300	200	21.00
B35 - 3	350	300	300	31.50
B35 - 4	350	300	400	42.00
B30 - 2	300	300	200	18.00
B30 - 3	300	300	300	27.00
B30 - 4	300	300	400	36.00