



Natal Iron and Brass Foundry cc

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*Founders in Ferrous and Non Ferrous Metals and Pattern Makers
Catering for the Civil/Building; General Engineering and Agricultural Industries*



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DUCTILE IRON MANHOLE COVERS & FRAMES

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General Information

MATERIAL: Castings of Surface Boxes – Manhole Covers - Frames – Inspection Covers and Frames shall be of Grey Cast Iron

MATERIAL:

- All Castings are sound, homogeneous and free from sand, blow holes, chill, cold shuts, scab and other deleterious defects
- Castings are free of Warp and after they have been dressed and fettled seat evenly without rocking.

STRENGTH:

- Castings are capable of withstanding, without signs of fracture or permanent set the appropriate force as specified below:

Duty Class	Force kn
H/D (Heavy Duty)	135
M/D (Medium Duty)	40
L/D (Light Duty)	7

- Heavy Duty – For use in carriageways and capable of bearing wheel loads of up to 12 metric ton.
- Medium Duty – For use where heavy commercial vehicles have no access (e.g. domestic accesses, pavements, cycle tracts)
- Light duty – For use in areas where wheeled vehicles have no access

FINISH: Castings are coated in a bituminous solution

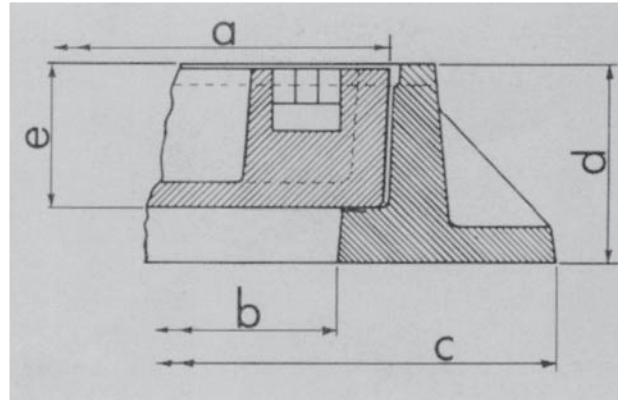
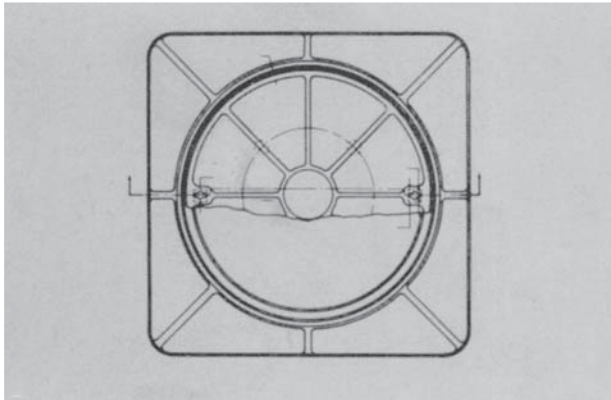
MARKING: All manhole covers and frames and inspection covers and frames have an NIBF (Natal Iron and Brass Foundry) logo cast on the top of the cover. The size, type and weight are cast at the bottom of the cover. For large quantities a customer may request their name or logos on the casting.

CAST IRON REQUIREMENTS NOT IN THIS BROCHURE:

It must be noted that any castings can be manufactured as per the customers requirements and specifications.

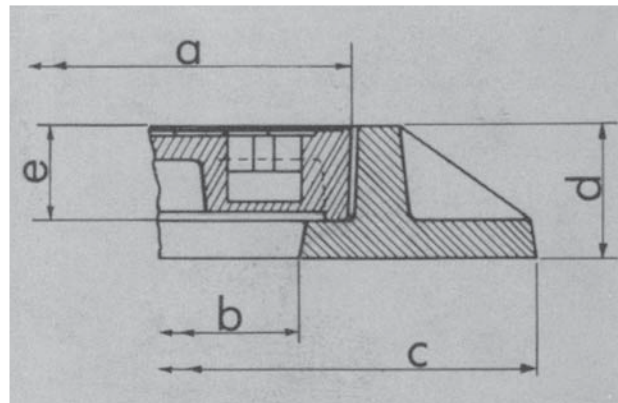
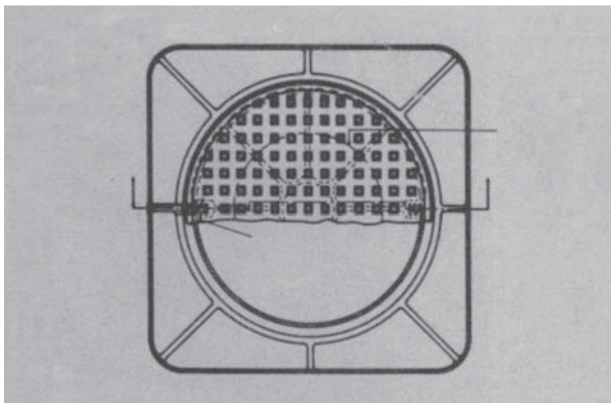
Manhole Covers and Frames – Cast Iron S.A.B.S. 558/1973

Circular Road Manholes



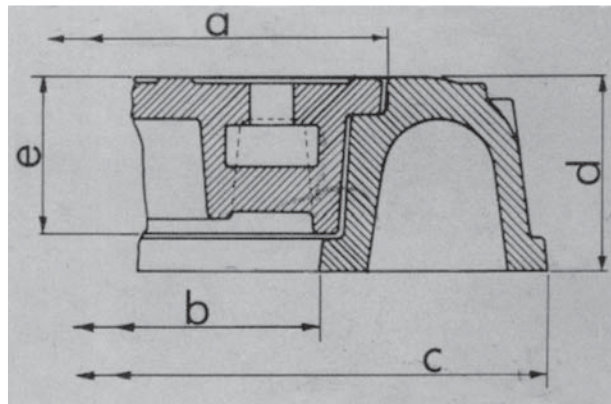
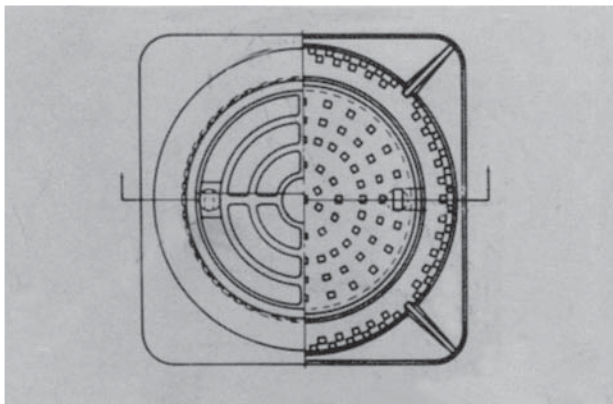
Size	Type	Kg	a	b	c	d	e	Duty Class
650 mm dia	1A	204	718	660	915	115	83	h/d

Circular Pavement Manholes



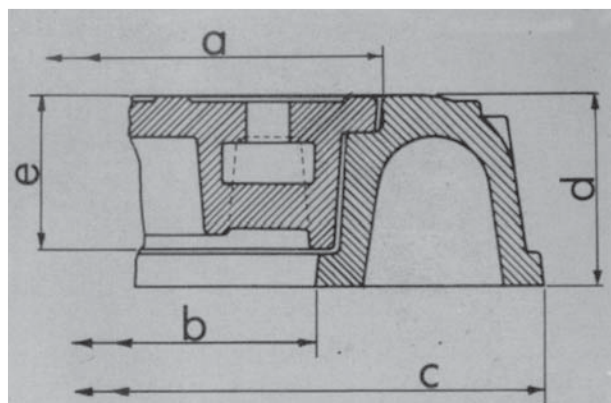
Size	Type	Kg	a	b	c	d	e	Duty Class
650 mm dia	1B	135	718	660	915	70	51	m/d

Circular Road Manholes



Size	Type	Kg	a	b	c	d	e	Duty Class
550 mm dia	2A	176	629	560	840	115	92	h/d
550 mm dia	(1)	136	629	560	840	115	48	h/d

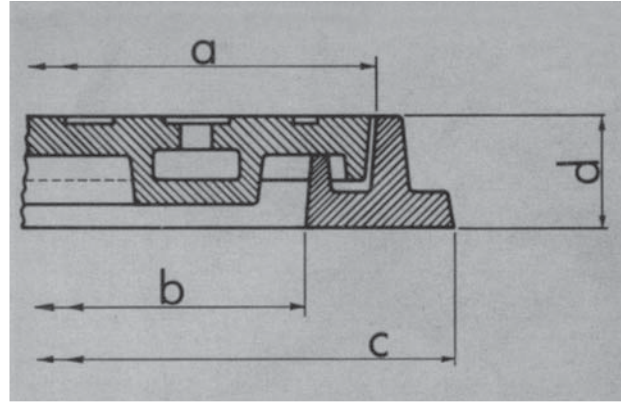
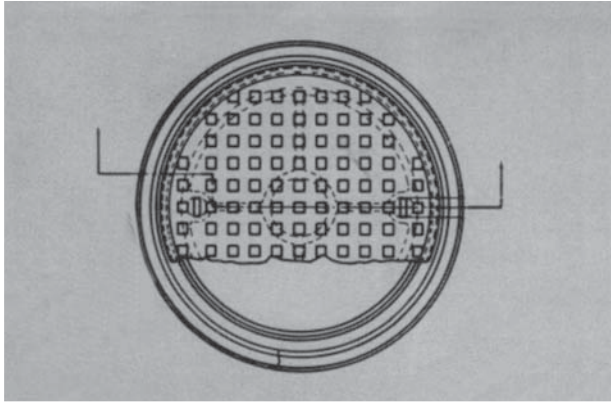
Circular Road Manholes



Size	Type	Kg	a	b	c	d	e	Duty Class
550 mm dia	2B	173	629	560	840	115	92	h/d

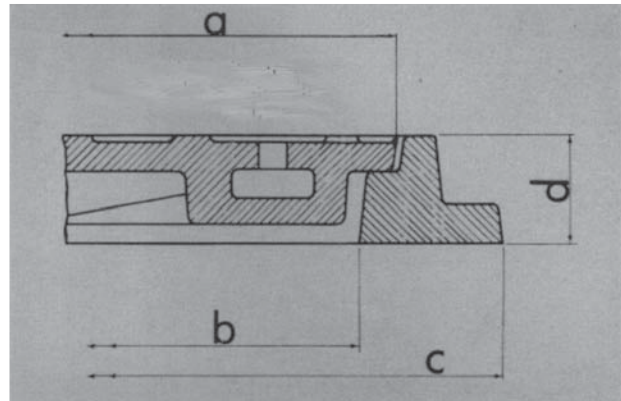
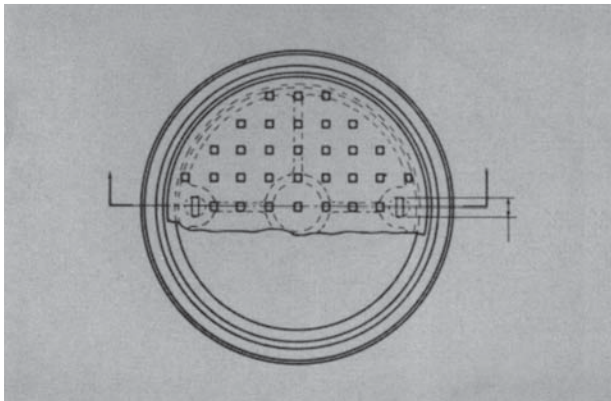


Pavement Manholes – Circular



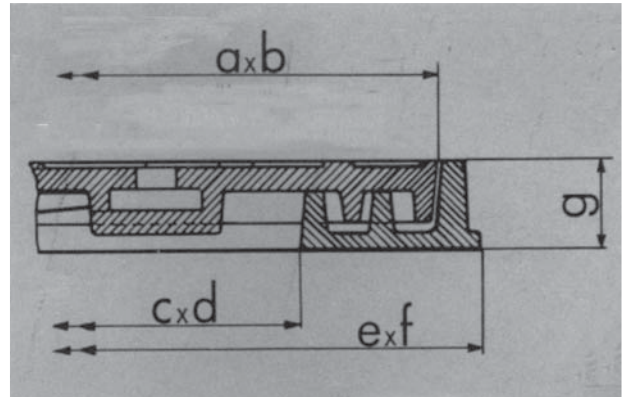
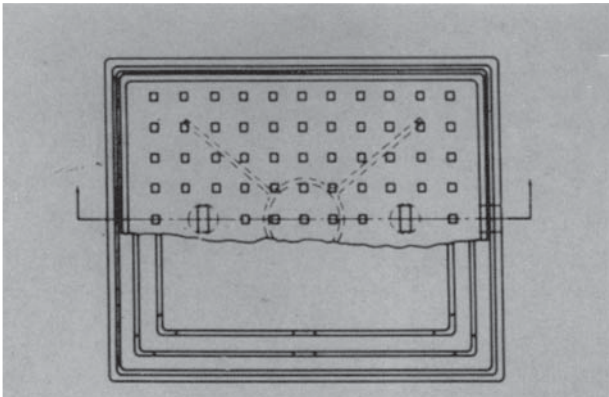
Size	Type	Kg	a	b	c	d	Duty Class
550 mm dia	4	71	626	559	710	57	m/d

Pavement Manholes – Circular



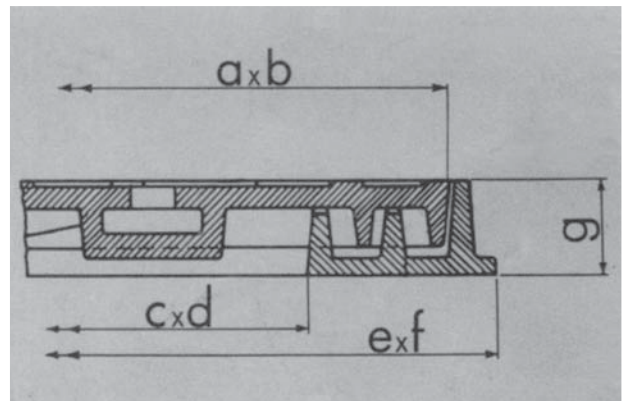
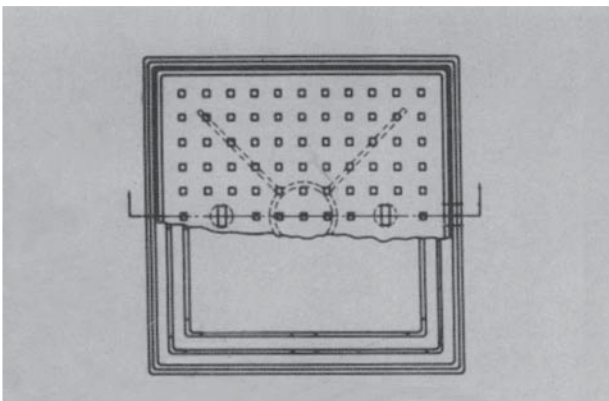
Size	Type	Kg	a	b	c	d	Duty Class
550 mm dia	4A	75	597	558	710	57	m/d

Double Seal Manholes



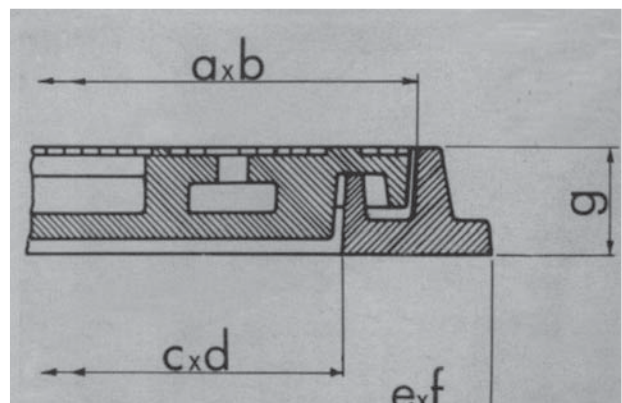
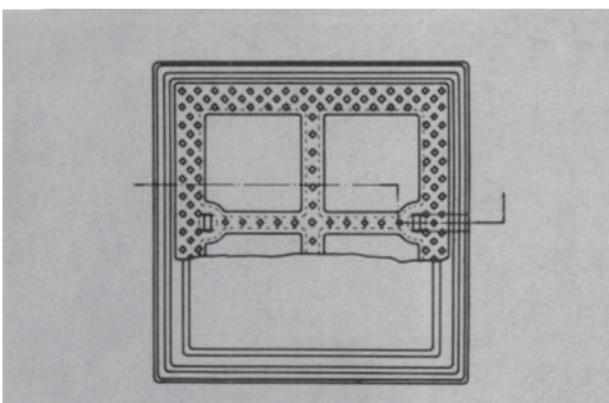
Size	Type	Kg	a	b	c	d	e	f	g	Duty Class
450 x 600	8A	74	770	617	610	457	822	667	48	m/d

Double Seal Manholes



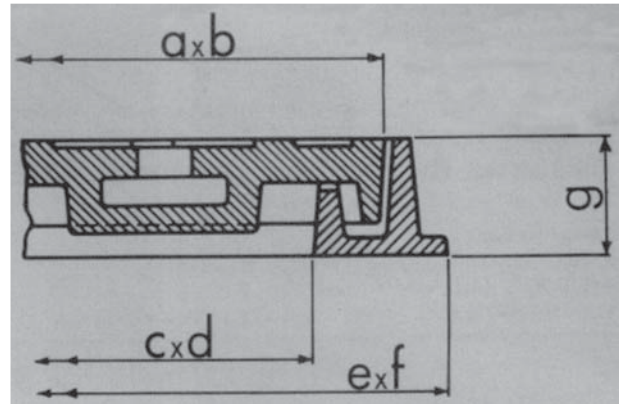
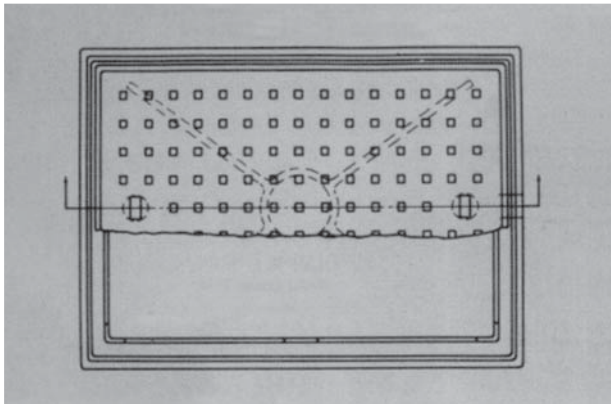
Size	Type	Kg	a	b	c	d	e	f	g	Duty Class
600 x 600	8B	119	770	770	610	610	825	825	54	m/d

Concrete Filled Manholes



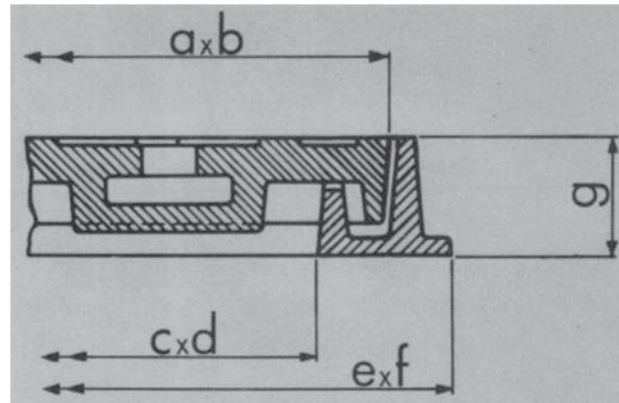
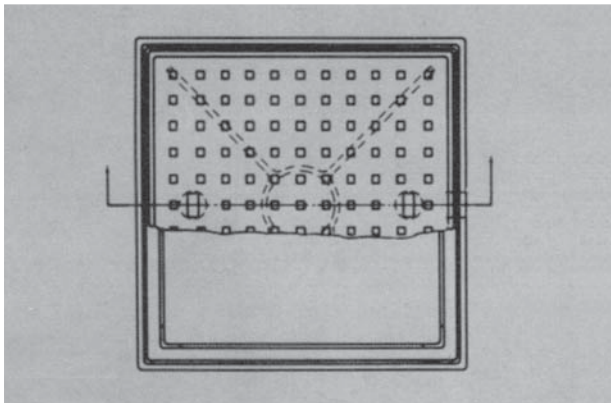
Size	Type	Kg	a	b	c	d	e	f	g	Duty Class
600 x 600	6	98	700	700	610	610	670	760	52	m/d

Single Seal Manholes



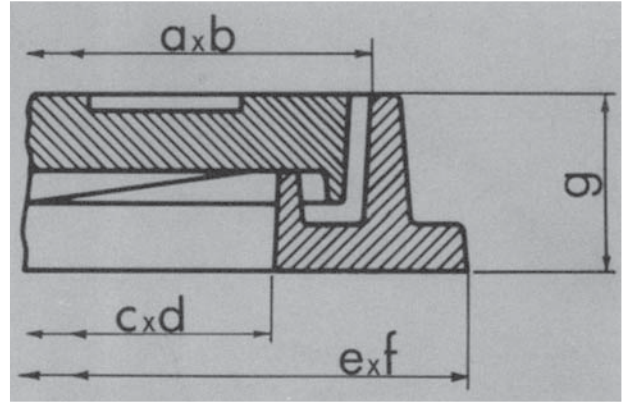
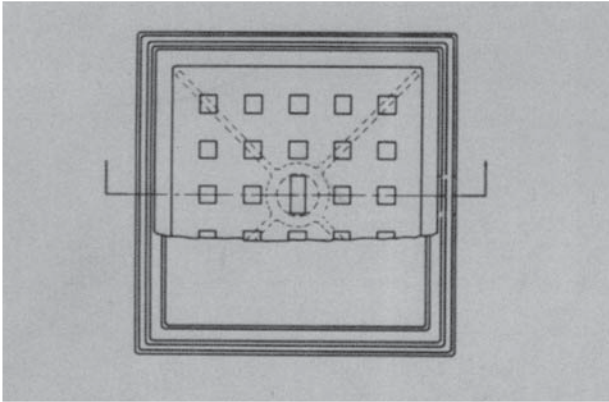
Size	Type	Kg	a	b	c	d	e	f	g	Duty Class
450 x 600	Domestic	25.4	647	495	597	446	693	540	29	l/d
450 x 600	9C	39	673	521	610	457	724	571	45	l/d
450 x 600	9D	74	683	530	610	457	749	597	56	m/d
450 x 600	Medium	81	508	650	615	457	598	756	58	m/d
450 x 600	Heavy	117	650	510	578	434	734	593	60	h/d
600 x 900	9E	93	991	686	915	610	1054	750	46	l/d

Single Seal Manholes – Square



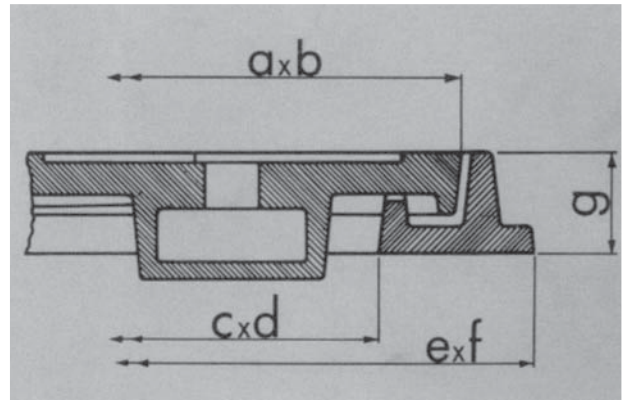
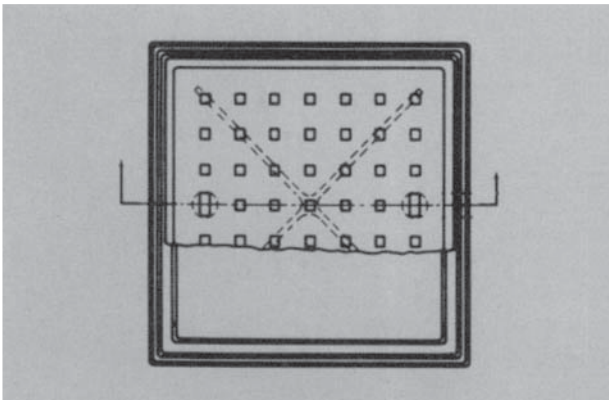
Size	Type	Kg	a	b	c	d	e	f	g	Duty Class
530 x 530	12	67	607	607	533	533	680	680	51	h/d
600 x 600	9A	58	676	676	610	610	730	730	46	l/d
600 x 600	9B	82	676	676	610	610	730	730	52	m/d
900 x 900	-	171	990	990	909	909	1084	1084	58	m/d

Single Seal Manholes – Square



Size	Type	Kg	a	b	c	d	e	f	g	Duty Class
265 x 265	14A	9	297	292	267	267	330	330	29	I/d
300 x 300	-	12	330	330	305	305	365	365	30	I/d

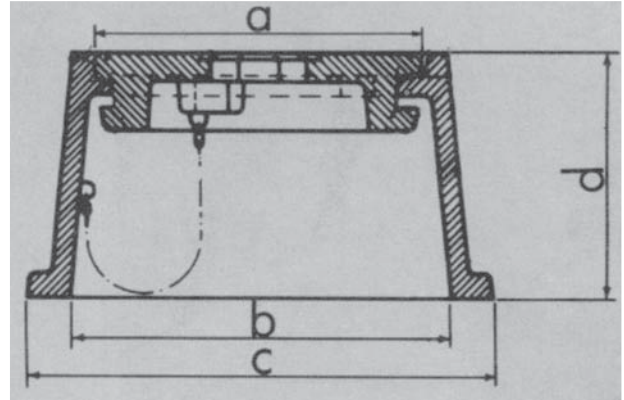
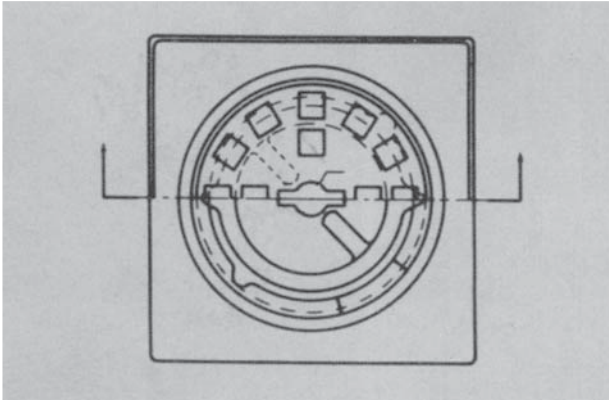
Single Seal Manholes – Square



Size	Type	Kg	a	b	c	d	e	f	g	Duty Class
450 x 450	14B	285	498	498	450	450	543	543	29	I/d
380 x 380	-	20	432	432	380	380	482	482	31	I/d

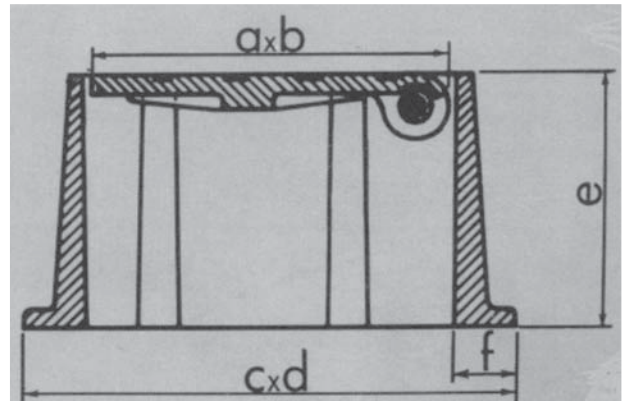
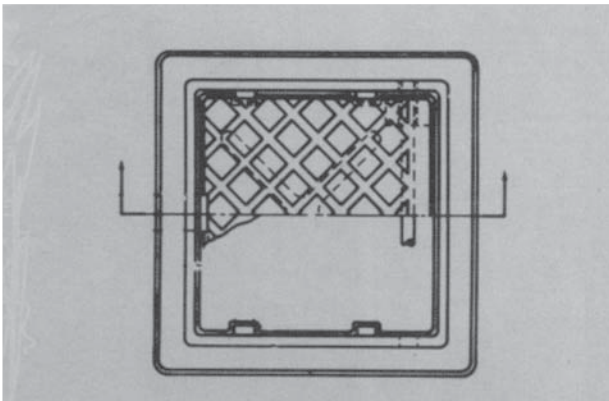
Meter Boxes, Valve Boxes and Stopcock Boxes – Cast Iron S.A.B.S. 558/1973

Stopcock Boxes



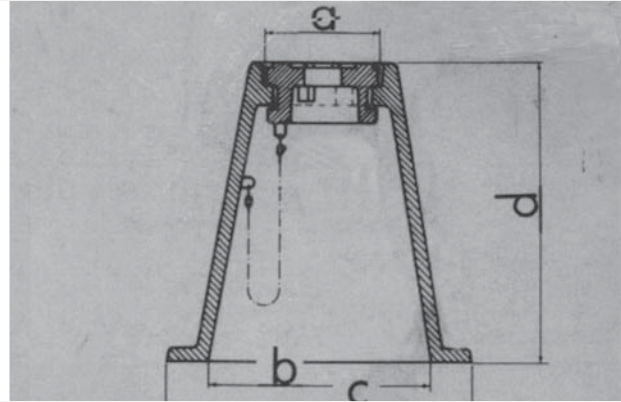
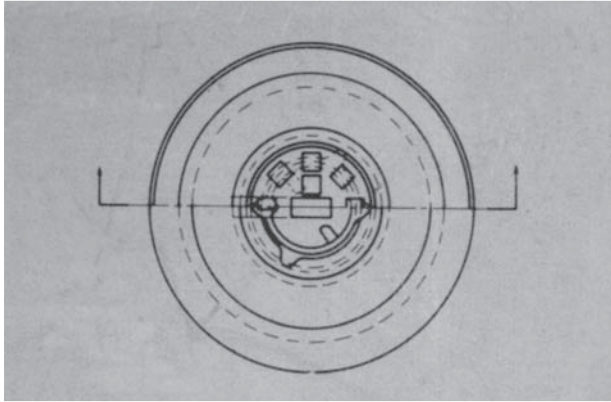
Size	Type	Kg	a	b	c	d
115 mm dia x 102	7	4.3	130	146	178	95

Stopcock Boxes



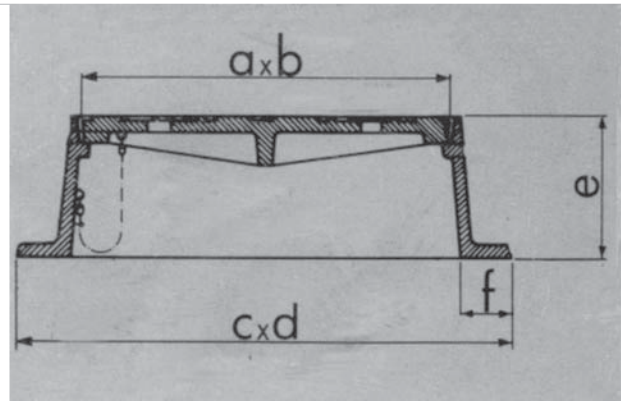
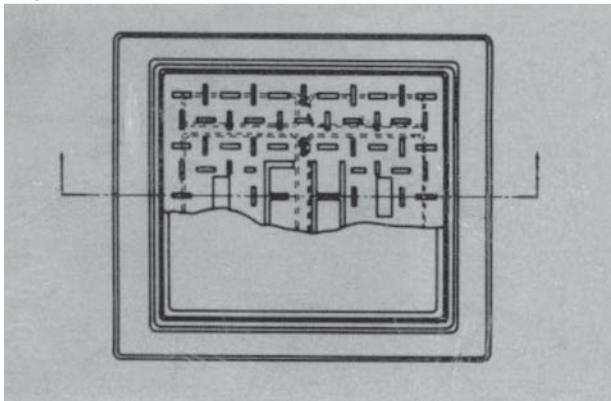
Size	Type	Kg	a	b	c	d	e	f
178 x 115 x 150	Road	17	175	113	297	236	155	50
150 x 150 x 100	11A	4.5	143	143	197	197	102	25
225 x 225 x 100	11B	10	219	219	273	273	102	25

Valve Boxes



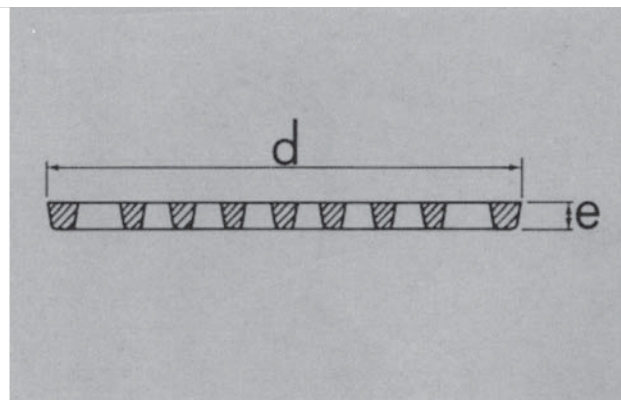
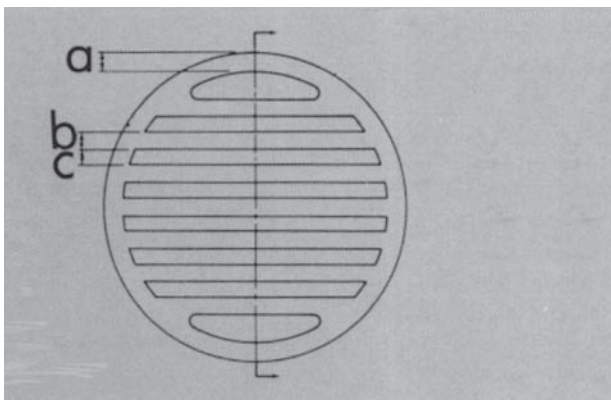
Size	Type	Kg	a	b	c	d
100 x 230 x 230	3B	17.4	121	230	310	230
100 x 230 x 300	3A	25.2	121	230	310	305

Hydrant Boxes



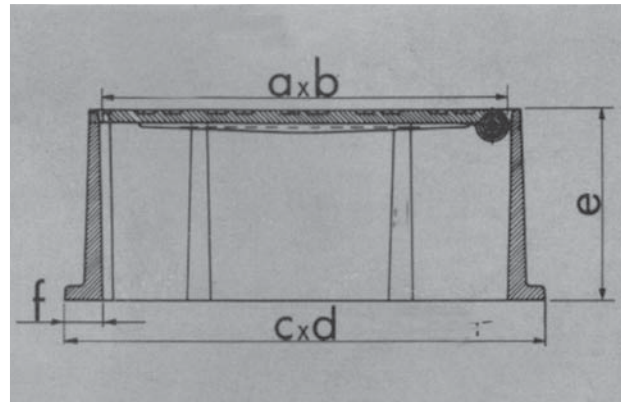
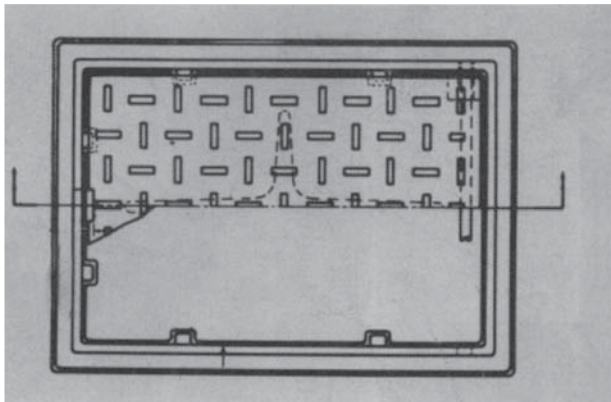
Size	Type	Kg	a	b	c	d	e	f
375 x 300 x 150	5	45	400	324	533	458	152	56

Stopcock Boxes



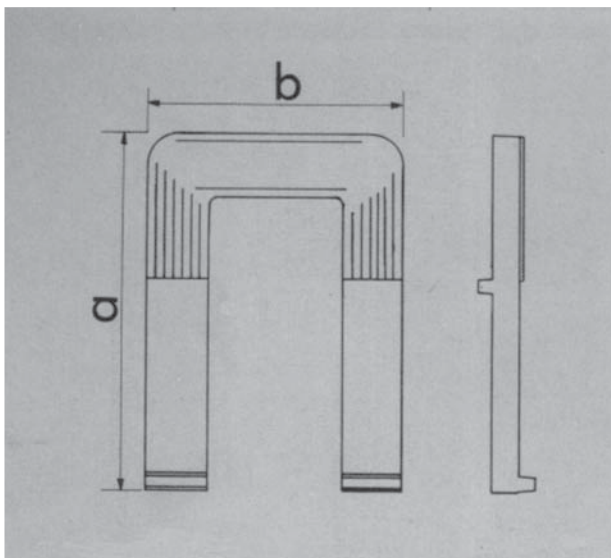
Size	Type	Kg	a	b	c	d	e
113 dia	-	0.4	10	10	12	117	8
140 dia	-	0.7	12	10	10	142	8
190 dia	-	1.2	12	10	10	187	8

Meter Boxes



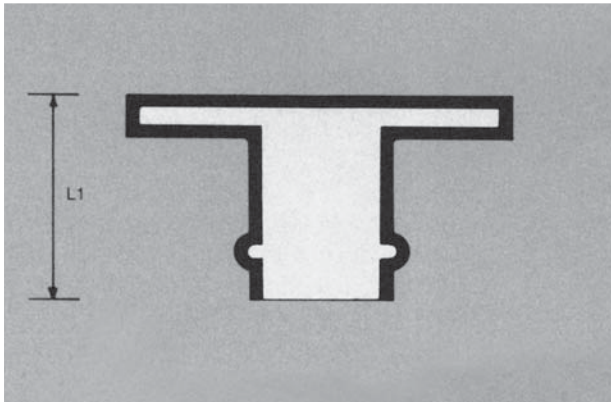
Size	Type	Kg	a	b	c	d	e	f
300 x 150 x 100	–	9	310	158	370	217	100	32
300 x 200 x 150	10A	17	324	216	382	274	152	30
300 x 225 x 100	11C	10	295	219	349	273	102	25
300 x 300 x 100	11D	14	295	295	349	349	102	25
375 x 225 x 100	–	13	380	235	430	285	102	28
375 x 225 x 150	10B	22	400	242	458	300	152	30
375 x 300 x 100	–	19	387	310	445	370	100	30
375 x 300 x 150	10C	25	400	318	458	378	152	30

Manhole Step Irons



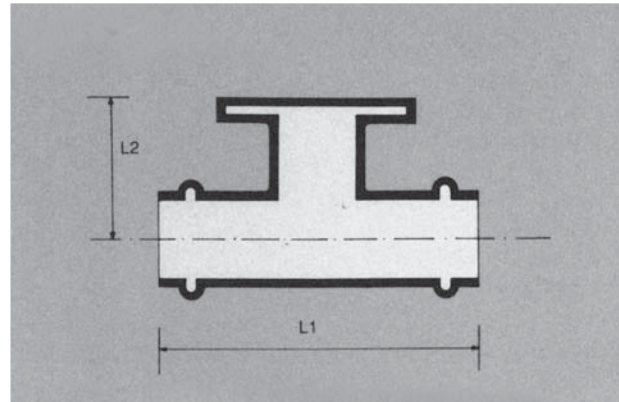
a	b	kg	
240	173	2,6	Cast Iron
185	155	1,0	Cast Iron S/L
255	155	1,7	Cast Iron L/L
Lifting Keys 0.5 kg			
Road Stampers 9 kg			

Cast Iron Fittings for uPVC



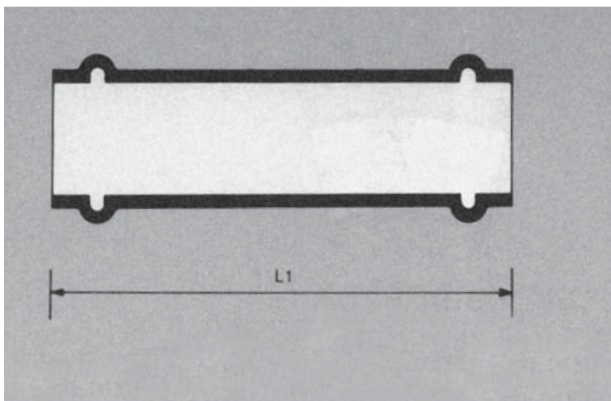
FLANGE ADAPTOR

Size	L1
63	122
75	123
110	147
160	165
200	177
250	195



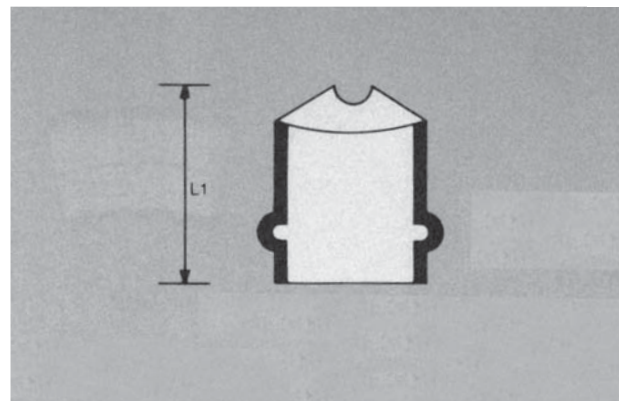
HYDRANT TEE

Size	L1	L2
63 mm	308	138
75 mm	335	150
110 mm	355	160
160 mm	396	184
200 mm	430	203
250 mm	460	227



REPAIR COUPLING

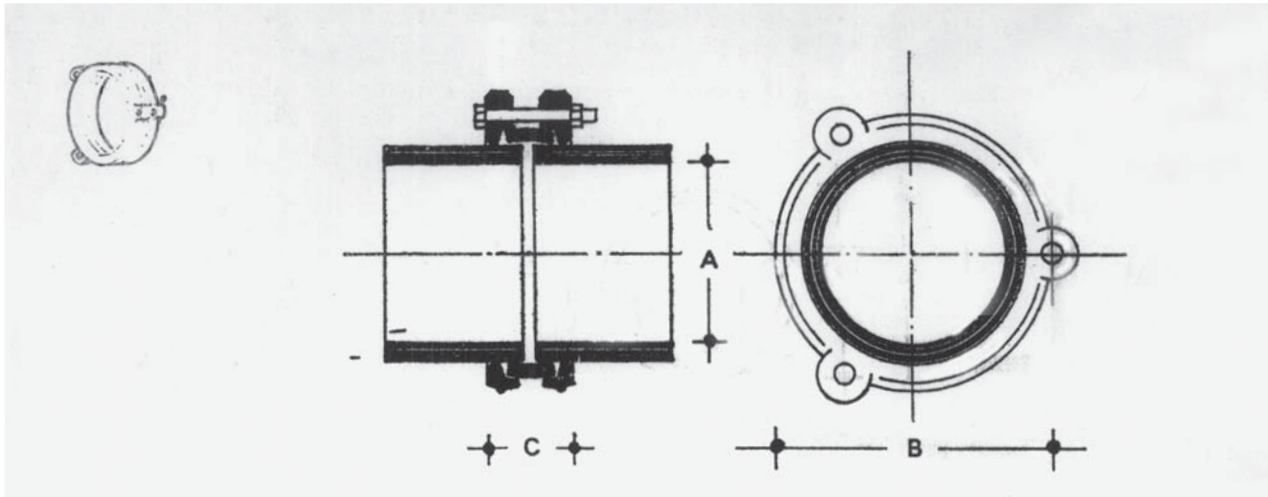
Size	L1
63	224
90	255
110	275
160	317
200	351
250	375



TEE

Size	L1	L2
63 x 63	284	142
75 x 75	286	160
90 x 63	319	155
90 x 90	337	168
110 x 63	332	164
110 x 90	352	178
110 x 110	382	186
160 x 63	372	188
160 x 90	396	202
160 x 110	418	211
160 x 160	462	232
200 x 090	431	221
200 x 110	449	230
200 x 160	498	251
200 x 200	536	268
250 x 160	528	275
250 x 200	610	292
250 x 250	610	307

Cast Iron Short Collar – Detachable Joints



Nominal Size of Pipe A mm	Diameter of Bolt Circle B mm	Width of Fxed Joint C mm	Number and Size of Bolts	Mass kg
50	114	64	3 No. M10 x 70	3.0
75	149	73	3 No. M12 x 90	4.5
100	178	83	3 No. M12 x 90	6.0
125	210	86	3 No. M12 x 100	8.0
150	232	92	4 No. M12 x 100	10.0
175	260	95	4 No. M12 x 120	11.5
200	297	98	4 No. M16 x 120	14.5
225	324	102	4 No. M16 x 120	16.0
250	351	102	4 No. M16 x 120	17.5
300	417	108	5 No. M16 x 140	24.5
375 (AB)	480	127	5 No. M16 x 140	25.0
375 (CD)	495	127	6 No. M16 x 140	30.5
450	578	133	7 No. M16 x 160	46.4
525	665	174	8 No. M16 x 200	
600	748	174	8 No. M16 x 200	

These joints are suitable for all classes of pipe and will allow an angular deviation of 4°.

The calculated masses given are theoretical. In practice, items are usually heavier and stronger.