



Section 1

Pipes and Fittings – above ground

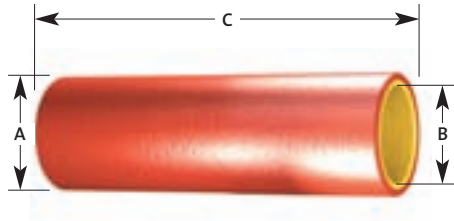
Ensign cast iron drainage 1st choice for hospitals

Ensign has the strength and durability to maintain a safe environment:

- non-combustible – will not drip as molten, burning globules (unlike HDPE) or emit toxic smoke (like UPVC) – the biggest killer in any fire, contributing to spread of fire and threat of injury
- secure – virtually eliminates the health risk which might arise from a system failure
- dependable – minimises the risk of ward closure for repair or maintenance
- silent in operation – helps create a tranquil environment essential for recovering patients (quietest system on the market)

Pipes double spigot

Pipe – EP000

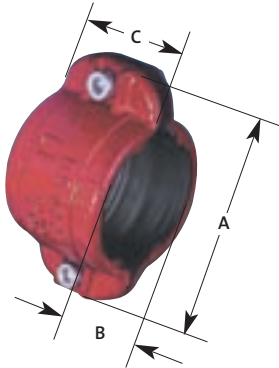


Product Code	CAD Ref	Dia	A Max O/dia	B Min I/dia	Min Section	C Metre Lengths Available	Nom. Wt kg
03278	0023	50	60	47.5	3	3	13.0
03280	0033	70	80	68.25	3	3	19.0
03289	0043	100	112	97.5	3	3	25.5
03295	0053	125	137	121.87	3.5	3	35.0
03297	0063	150	162	146.25	3.5	3	43.0
03306	0083	200	212	195	4	3	69.3
03308	0093	250	276.5	243.75	4.5	3	99.8
03277	00123	300	328.5	292.5	5	3	129.7
09200	00163	400	431	390	5	3	177.7
09315	00203	500	534	487.5	5.2	3	244.9
09316	00243	600	637	585	5.8	3	321.9

Pipes coated internally with a two part epoxy and externally with a red protective coating (see page 82).

Couplings

Two-piece ductile iron coupling – EC002



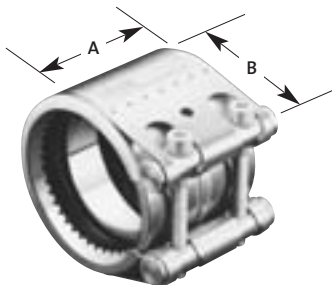
Ductile iron coupling with built-in electrical continuity

Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
04159	022	50	113	79	58	0.6
04160	023	70	129	103	58	0.6
04161	024	100	170	137	58	0.8
04194	025	125	188	158	58	0.9
04162	026	150*	217	183	80	1.7
04163	028	200*	278	243	82	3.5
04164	029	250*	343	308	82	4.4
04165	0212	300*	395	360	82	5.4

*150-300mm incorporates four socket bolts. Patent No. 2 305 481.

Nitrile gaskets will be considered on request, on a quotational basis.

High performance stainless steel – EC002HP

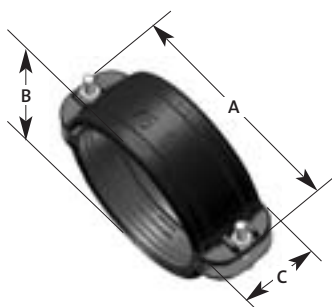


Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
09298	024HP	100	98	154	1.9
09174	026HP	150	115	211	3.0
09175	028HP	200	140	270	3.4
09176	029HP	250	140	330	4.2
09177	0212HP	300	140	470	4.5
09199	0216HP	400	142	520	8.0
157196	0220HP	500	142	576	8.8
177225	0224HP	600	142	635	9.9

Couplings technical section for applications (see page 47).

Capable of withstanding high pressure (>5 bar).

Ductile iron transitional coupling – GT12 transitional coupling Ensign to Timesaver – BS 416

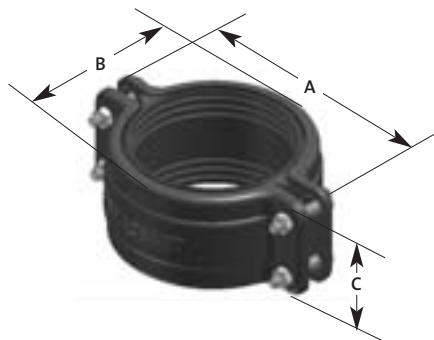


Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
02783	123	70-75	158	110	55	1.0

Timesaver coupling assembly. Black coated, incorporating two set screws and nuts, and transitional elastomer seal. For jointing 70mm Ensign system to 75mm Timesaver soil system BS 416. Black gasket with identity markings.

Couplings

Ductile iron transitional coupling – TD02
transitional coupling Ensign to
Timesaver – BS 437



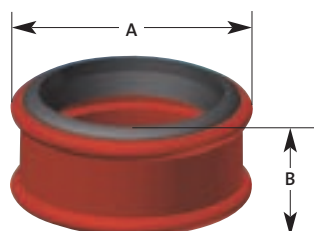
Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
02466	02D4	100	203	140	75	2.8
02467	02D6	150	252	195	75	3.6

Timesaver drain coupling assembly. Black coated, incorporating four set screws and nuts, and transitional elastomer seal. For jointing Ensign system to Timesaver drain BS 437.

*Transitional couplings incorporate black gaskets with identity markings.
Nitrile gaskets will be considered on request, on a quotational basis.
Electrical continuity available supplied extra (see page 49).*

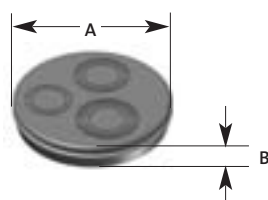
Ensign PFJ

Joint • Plain no ears – EC001P

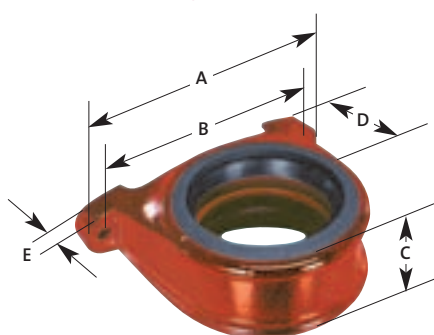


Registered Design No. 2 083 167

**Multi-inlet waste connector to suit
100mm PFJ – EF076**



Joint • With fixing ears – EC001E



**Joint • Slip – EC001S with reduced
central register**

Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
09058	01P2	50	99	73	0.9
08952	01P3	70	120	73	1.2
08955	01P4	100	152	73	1.8
09158	01P6	150	205	95	2.8

Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
09167	0764	100	138	25	0.22

3 x connectors 56/48/40 options.

Product Code	CAD Ref	Dia	A	B	C	D	E	Nom. Wt/kg
09057	01E2	50	146	114	73	62	20	1.4
08951	01E3	70	178	146	73	71	20	1.9
08954	01E4	100	213	181	73	90	20	2.6
09159	01E6	150	273	235	95	115	20	3.6

Product Code	CAD Ref	Dia	A	B	C	D	E	Nom. Wt/kg
09056	01S2	50	146	114	73	62	20	1.4
08953	01S3	70	178	146	73	71	20	1.9
08956	01S4	100	213	181	73	90	20	2.6
09160	01S6	150	273	235	95	115	20	3.6

Ensign PFJ

Reducing gasket



To connect Ensign PFJ – 100mm diameter to 90mm traditional soil .
Utilise reducing gasket EC001T – Product Code 09172.

Cast iron wall spacer – EC003



Product Code	CAD Ref	Dia	Nom. Wt/kg
09080	032	50	0.2
09081	033	70	0.2
09082	034	100	0.3

To suit eared PFJ EC001E.

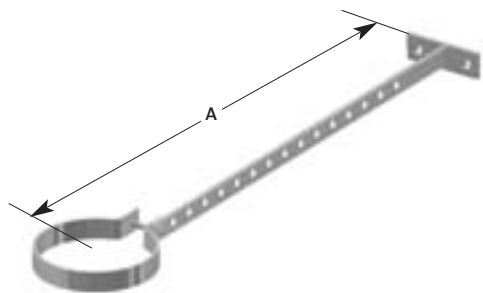
Restraining bracket for Ensign PFJ – EF053



Product Code	CAD Ref	Dia	Nom. Wt/kg
09188	0534	100	0.5

To suit 100mm PFJ Eared EC001E.

Restraining bracket for Ensign PFJ – EF053A

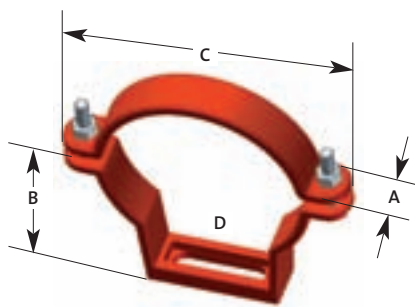


Product Code	CAD Ref	Dia	A	Nominal Wt/kg
09247	0534A	100	450	0.5

To suit 100mm diameter pipe work.

Brackets

Ductile iron bracket – EF048

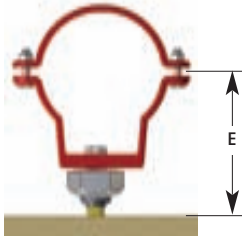


Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03131	482	50	27	64	110	0.3
03132	483	70	27	74	132	0.5
03134	484	100	27	90	166	0.6
03136	486	150	30	115	214	0.8
03138	488	200	35	150	266	1.6

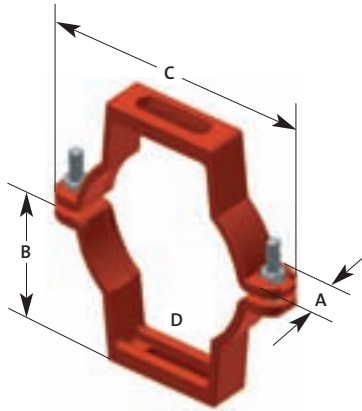
Elongated slot at fixing point (D) to ease fixing. Brackets for 125, 250 and 300mm diameter (see mild steel brackets on page 13).

Brackets

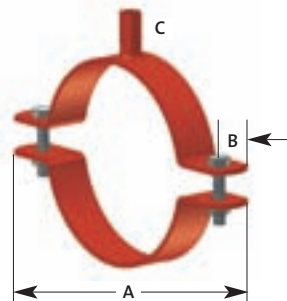
Ductile iron bracket with acoustic dampener – EF048AD



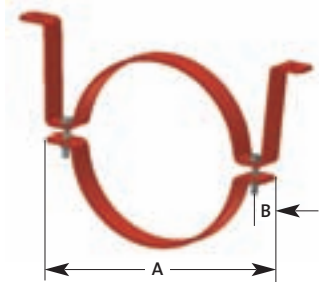
Ductile iron bracket – EF049



Vertical mild steel bracket – EF048MS



Stand-off mild steel bracket – EF048MS



Rubber lined steel bracket – EF048MSL



NEW

Product Code	CAD Ref	Dia	E	Nominal Wt/kg
199881	48AD2	50	138	0.3
199882	48AD3	70	138	0.5
199883	48AD4	100	138	0.6
199884	48AD6	150	138	1.6

For exceptional acoustic performance (see pages 59 and 60 for applications).

Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03141	494	100	27	90	166	0.8

Elongated slot at fixing point (D) to ease fixing.

Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
08925	48MS5	125	247	20	M10	0.5

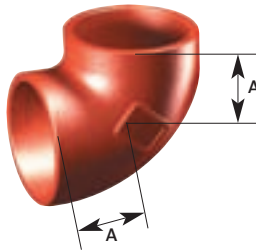
Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
09418	48MS8	200	296	40	1.9
08926	48MS10	250	371	40	2.3
08927	48MS12	300	420	40	2.6
09246	48MS16	400	555	40	3.2

Product Code	CAD Ref	Dia	A	B	Fixing Bolt	Nominal Wt/kg
173628	48MSL2	50	84-88	108	M6x20	0.1
173630	48MSL4	100	137-141	158	M8x35	0.3
173642	48MSL6	150	193-347	219	M8x45	0.6
173643	48MSL8	200	250-256	292	M10x40	1.2
173644	48MSL10	250	316-347	356	M10x40	1.4
173645	48MSL12	300	362	410	M12x40	2.9

Rubber lined steel brackets for use where extra sound insulation is required (see page 59). 70mm available upon request.

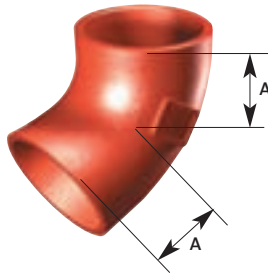
Bends short, medium, long radius

88° bend • Short radius – EF002



Product Code	CAD Ref	Dia	A	Nominal Wt/kg
02808	0220088	50	75	0.7
02819	0230088	70	90	1.3
02835	0240088	100	110	2.2
02845	0250088	125	125	3.2
02854	0260088	150	145	3.9
02870	0280088	200	180	9.6
02874	0290088	250	220	17.3
02798	0212088	300	260	27.4

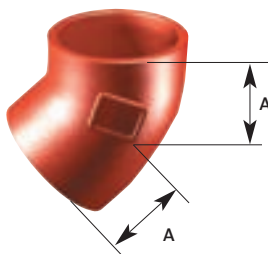
69° bend • Short radius – EF002



Product Code	CAD Ref	Dia	A	Nominal Wt/kg
02807	0220070	50	65	0.6
02818	0230069	70	75	1.2
02833	0240069	100	90	2.1
02844	0250070	125	105	2.9
02853	0260070	150	120	4.2

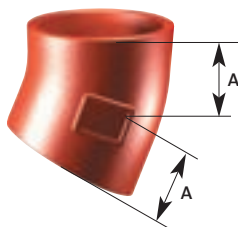
200mm, 250mm and 300mm diameters available upon request.

45° bend • Short radius – EF002



Product Code	CAD Ref	Dia	A	Nominal Wt/kg
02804	0220045	50	50	0.6
02814	0230045	70	60	0.9
02828	0240045	100	70	1.6
02843	0250045	125	80	2.3
02849	0260045	150	90	3.0
02866	0280045	200	110	7.0
02876	02945	250	130	10.9
02800	021245	300	155	18.7
09195	021645	400	247	35.0
09337	022045	500	318	53.0
09338	022445	600	350	92.0

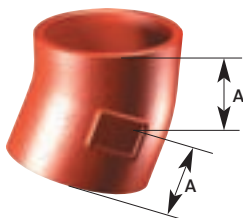
30° bend • Short radius – EF002



Product Code	CAD Ref	Dia	A	Nominal Wt/kg
02803	0220030	50	45	0.5
02813	0230030	70	50	0.8
02826	0240030	100	60	1.7
02842	0250030	125	70	2.0
02848	0260030	150	80	3.2
04185	0280030	200	95	5.4

250mm and 300mm diameters available upon request.

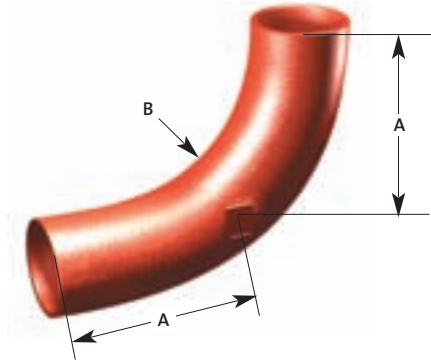
15° bend • Short radius – EF002



Product Code	CAD Ref	Dia	A	Nominal Wt/kg
02802	0220015	50	40	0.4
02811	0230015	70	45	0.7
02824	0240015	100	50	1.3
04195	0250015	125	60	1.7
02846	0260015	150	65	2.7
09257	0280015	200	80	4.6

Bends medium, long radius

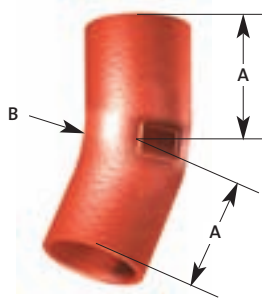
88° bend • Medium and long radius – EF02L



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03099	2L40088	100	269	180	4.3
03100	2M60088	150	274	150	10.1

Bend with heel rest available grey only (see page 36).

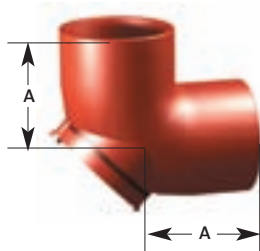
22° bend • Long radius – EF02L



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03097	2L40022	100	90	180	1.7

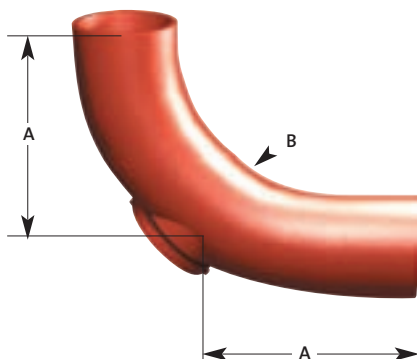
Bends short, medium, long radius door back

88° bend • Short radius door back – EF005



Product Code	CAD Ref	Dia	A	Nominal Wt/kg
02878	0530088	70	90	1.8
02879	0540088	100	110	3.3
02881	0560088	150	145	6.1

88° bend • Long radius door back – EF05L



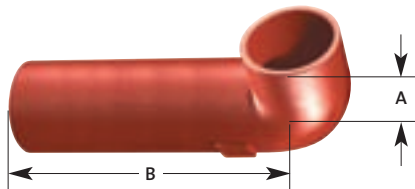
Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03159	5L40088	100	269	180	5.5

88° bend • MR radius door back – EF05M

Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
09226	5M60088	150	274	150	11.4

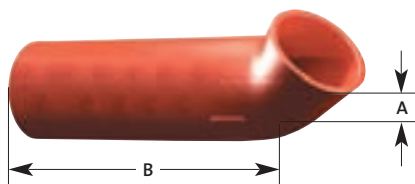
Bends long tail

88° bend • Long tail – EF055



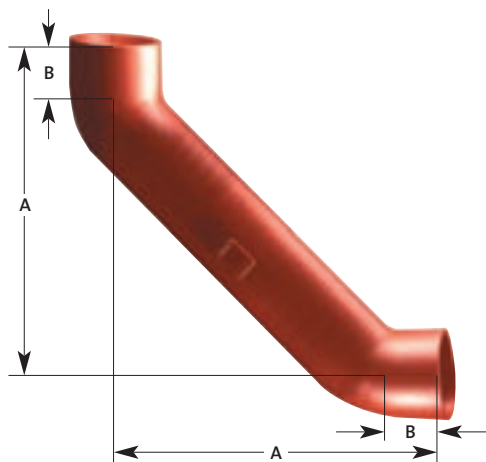
Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03155	5540088	100	110	250	4.2

45° bend • Long tail – EF055



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03152	5540045	100	70	250	4.0

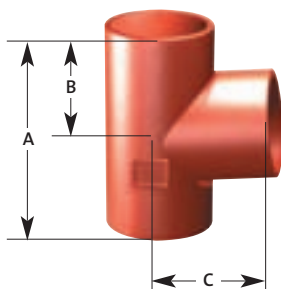
88° bend • Long tail double bend – EF054



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
04168	5430088	70	273	60	3.1
04169	5440088	100	291	70	4.4

Branches single equal and unequal

88° branch – EF006

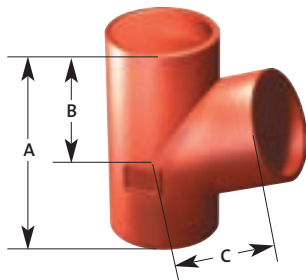


Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
02898	0622088	50 x 50	145	66	80	1.0
02905	0632088	70 x 50	155	72	90	1.6
02915	0633088	70 x 70	180	83	95	1.5
02928	0642088	100 x 50	170	76	105	2.3
02938	0643088	100 x 70	190	88	110	2.5
02951	0644088	100 x 100	220	105	115	2.7
02964	0654088	125 x 100	235	110	130	4.0
02966	0655088	125 x 125	260	123	135	4.2
02975	0664088	150 x 100	245	115	145	4.4
02979	0665088	150 x 125	275	128	150	5.8
02985	0666088	150 x 150	300	142	155	5.8
03001	0688088	200 x 200	380	180	200	12.8
03007	0699088	250 x 250	468	228	243	22.6
02888	6121288	300 x 300	530	265	265	35.5

See BS EN 12056-2:2000 for applications.

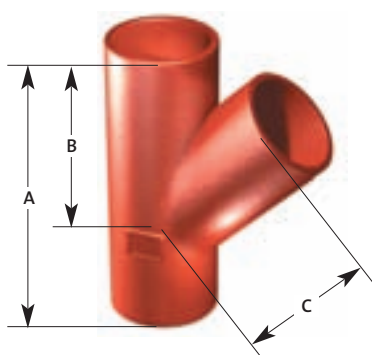
Branches single equal and unequal

69° branch – EF006



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
02897	0622070	50 x 50	135	80	80	1.0
02904	0632070	70 x 50	145	90	90	1.4
02914	0633070	70 x 70	170	100	100	1.7
02926	0642069	100 x 50	155	100	110	2.2
02937	0643069	100 x 70	180	110	120	2.7
02947	0644069	100 x 100	215	130	130	2.7
02974	0664070	150 x 100	235	150	155	5.1

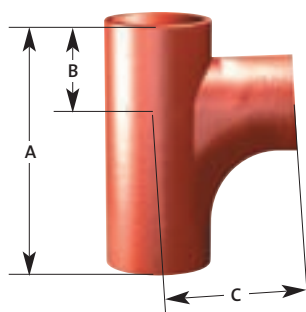
45° branch – EF006



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
02893	0622045	50 x 50	185	135	135	1.4
02902	0632045	70 x 50	170	130	130	1.8
02910	0633045	70 x 70	200	145	150	1.9
02921	0642045	100 x 50	200	165	165	2.4
02934	0643045	100 x 70	215	170	170	2.7
02942	0644045	100 x 100	275	205	205	3.8
02960	0653045	125 x 70	225	185	185	4.0
02962	0654045	125 x 100	270	210	210	5.3
02965	0655045	125 x 125	305	230	230	5.6
02969	0663045	150 x 70	235	205	205	5.1
02970	0664045	150 x 100	295	240	240	6.1
02978	0665045	150 x 125	315	245	245	7.5
02980	0666045	150 x 150	355	265	265	9.0
02996	0684045	200 x 100	300	260	260	10.3
02997	0686045	200 x 150	375	300	300	13.2
02999	0688045	200 x 200	455	340	340	17.3
03006	0699045	250 x 250	560	430	430	32.2
02886	6121245	300 x 300	660	505	505	54.8
09198	6161245	400 x 300	660	555	565	55.3
09196	6161645	400 x 400	835	645	645	82.5
09339	6202045	500 x 500	1020	790	790	175.0
09340	6242445	600 x 600	1180	920	920	215.0

Additional reducing branches (large diameter) available upon request.

88° single branch • Radius curve – EF06R

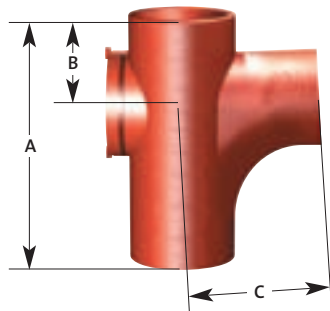


Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03171	6R33088	70 x 70	210	80	130	2.2
03172	6R42088	100 x 50	204	90	120	2.4
03174	6R43088	100 x 70	221	90	142	2.7
03176	6R44088	100 x 100	270	102	150	3.5
03178	6R64088	150 x 100	300	117	202	7.6
03180	6R66088	150 x 150	400	140	260	12.5
03182	6R86088	200 x 150	428	157	283	13.0
03184	6R88088	200 x 200	478	182	293	21.0

See BS EN 12056-2:2000 for applications.

Branches single equal and unequal

88° branch with access • Radius curve – EF07R

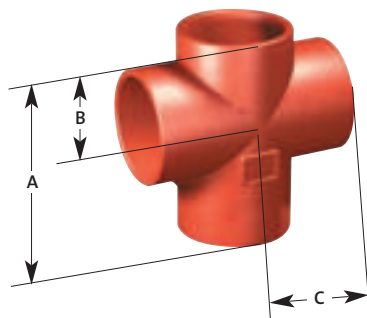


Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03233	7R33088	70 x 70	210	80	130	2.5
03236	7R42088	100 x 50	204	90	120	3.0
03238	7R43088	100 x 70	221	90	142	3.5
03240	7R44088	100 x 100	270	102	150	4.3
03243	7R64088	150 x 100	300	117	202	10.4
03245	7R66088	150 x 150	400	140	260	13.9

See BS EN 12056-2:2000 for applications.

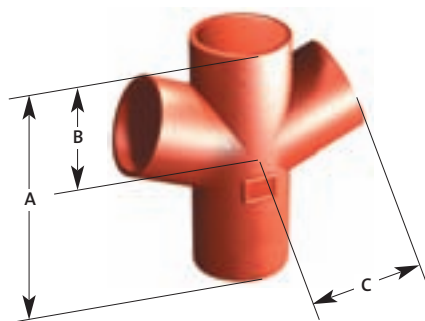
Branches double

88° double branch – EF010



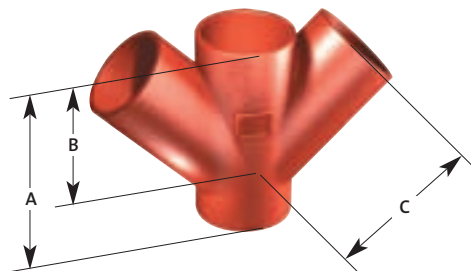
Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09259	1042288	100 x 50	170	76	105	2.2
03012	1044488	100 x 100	220	105	115	3.3
09260	1064488	150 x 100	245	115	145	7.1

69° double branch – EF010



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03011	1044470	100 x 100	215	130	130	3.4

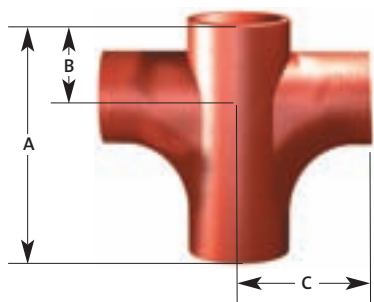
45° double branch – EF010



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03009	1044445	100 x 100	260	190	190	4.0
03017	1064445	150 x 100	280	225	225	8.4
03018	1066645	150 x 150	355	265	265	12.6
03020	1088845	200 x 200	455	340	340	24.0

Branches double

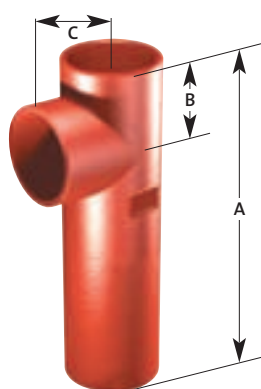
88° double branch • Radius curve – EF010R



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03268	OR44488	100 x 100	270	102	150	4.2
03269	OR64488	150 x 100	300	115	200	10.9

See BS EN 12056-2:2000 for applications.

88° branch • Long tail – EF056



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03157	5644088	100 x 100	430	105	115	7.0

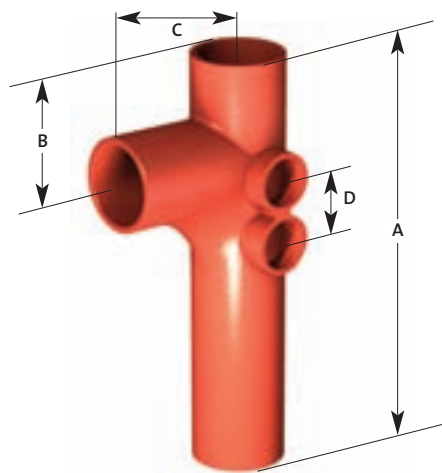
69° branch • Long tail – EF056

Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09265	5644070	100 x 100	460	130	130	5.2

45° branch • Long tail – EF056

Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09264	5644045	100 x 100	445	205	205	5.5
09266	5666045	150 x 150	705	265	265	18.5

88° branch • Single long tail – EF096



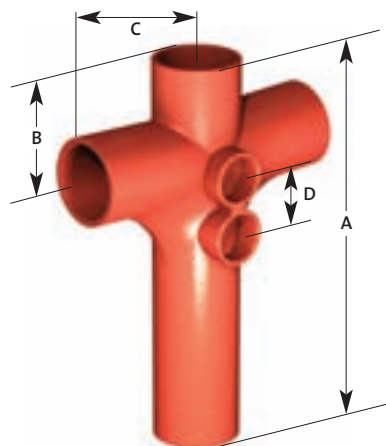
NEW

Product Code	CAD Ref	Dia	A	B	C	D	Nominal Wt/kg
09490	9644088	100 x 100	500	100	172	75	9.9

To make boss connections see page 66.

Rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste are supplied separately in bags of 10. (Product Code 208205).

88° branch • Long tail – EF097



NEW

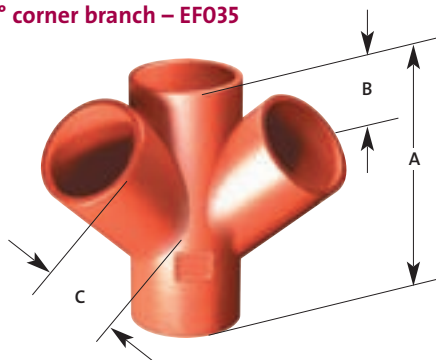
Product Code	CAD Ref	Dia	A	B	C	D	Nominal Wt/kg
09487	9744488	100 x 100	500	100	172	75	10.2

To make boss connections see page 66.

Rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste are supplied separately in bags of 10. (Product Code 208205).

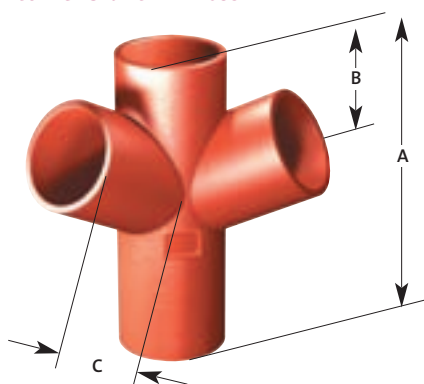
Branches corner

45° corner branch – EF035



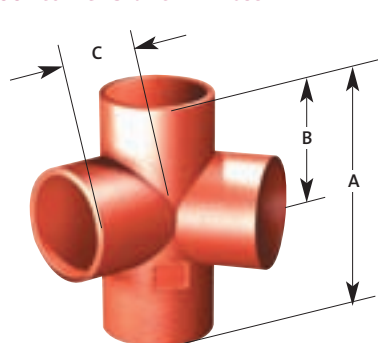
Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09262	3544445	100 x 100	260	190	190	5.2

69° corner branch – EF035



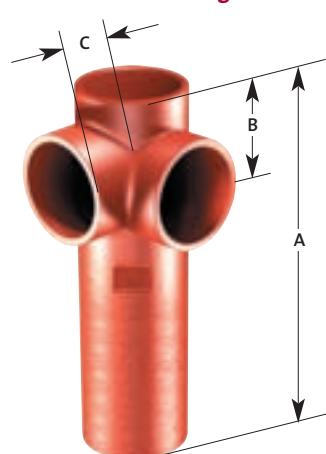
Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09265	3544470	100 x 100	220	130	130	2.3

88° corner branch – EF035



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03121	3544488	100 x 100	220	105	115	3.5
04466	3564445	150 x 100	245	115	145	6.7

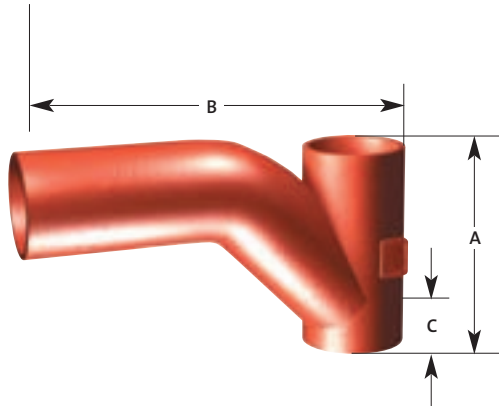
88° corner branch • Long tail – EF036



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03125	3644488	100 x 100	430	110	120	6.8

Branches single long arm

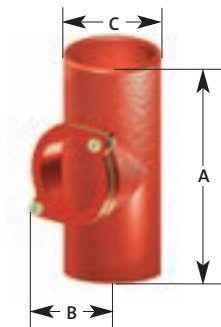
45° branch • Single long arm – EF008



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09258	0844045	100 x 100	260	450	70	6.3

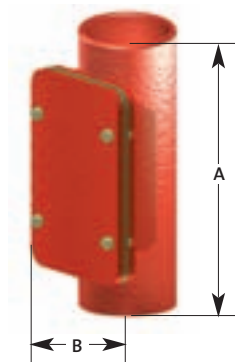
Typical application (see page 68).

Round door – EF014



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03025	142	50	175	60	74	1.3
03027	143	70	205	65	96	2.0
03029	144	100	250	80	116	3.1
03032	146	150	280	110	170	6.2

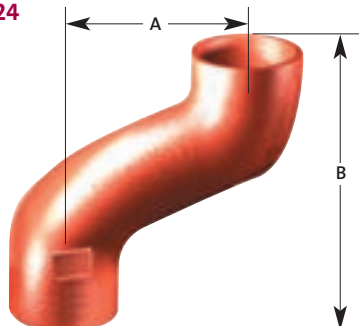
Rect door – EF015



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
04171	154	100	320	80	6.7
03038	155	125	355	93	9.0
04172	156	150	395	105	12.2
03039	158	200	475	140	20.2
03041	159	250	540	160	38.5
03037	1512	300	610	190	50.0

Offsets

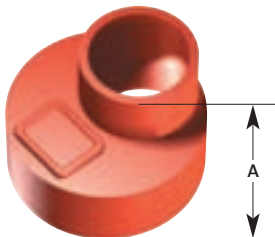
Offsets – EF024



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03045	2443	100	75	215	2.9
03042	2425	50	130	230	1.5
03043	2435	70	130	250	2.2
03048	2445	100	130	270	3.1
03049	2455	125	130	290	5.3

Pipes tapered

Pipes • Tapered – EF028



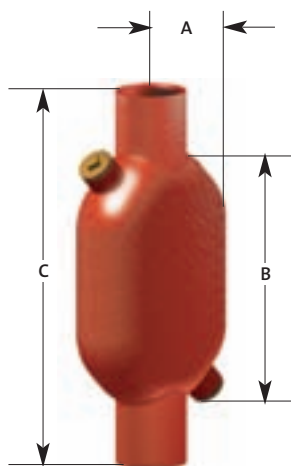
To connect 250mm and 200mm to 225 Timesaver Drain, use TD41 (consult Timesaver catalogue or contact technical department 01952 262529).

Product Code	CAD Ref	Dia	A	Wt/kg
03059	2832	70 x 50	75	0.5
03064	2842	100 x 50	80	0.9
03068	2843	100 x 70	85	0.9
04173	2852	125 x 50	85	1.2
03074	2853	125 x 70	90	1.5
03075	2854	125 x 100	95	1.6
03076	2862	150 x 50	90	1.7
03077	2863	150 x 70	100	1.8
03079	2864	150 x 100	105	1.9
03084	2865	150 x 125	110	2.0
03087	2884	200 x 100	115	3.5
03090	2886	200 x 150	125	3.3
03093	2894	250 x 100	122	5.5
03094	2896	250 x 150	135	6.3
03096	2898	250 x 200	145	6.5
03053	28126	300 x 150	150	9.9
03055	28128	300 x 200	160	10.1
03057	28129	300 x 250	170	12.2
09197	281612	400 x 300	200	20.0

500mm and 600mm tapers will be considered on request.

Traps

Stench trap – EF081



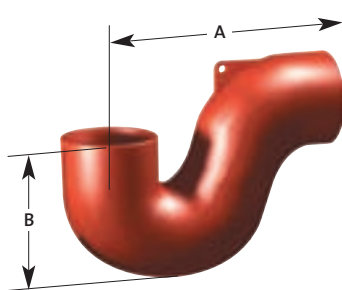
NEW

Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09271	814	100	138	408	588	18.5
155921	816	150	187	522	742	38.0

Typical application (see page 68).

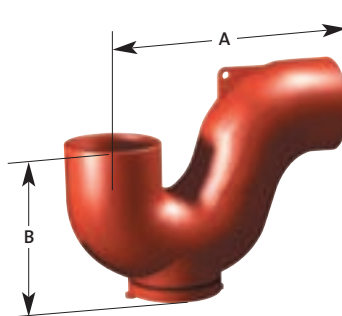
Traps

Traps • Plain – EF034



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03119	344	100	255	160	4.5

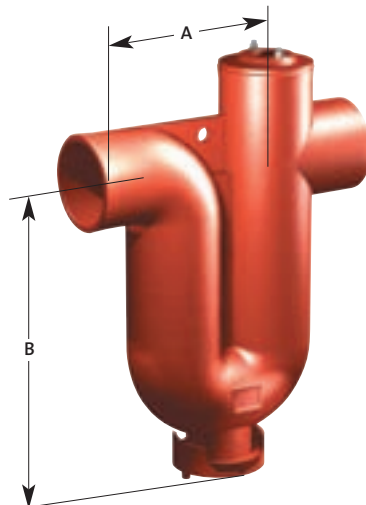
Traps • Plain with access bottom – EF037



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03126	372	50*	160	115	2.0
03127	373	70	200	138	2.7
03128	374	100	255	175	5.2
03129	376	150	350	240	12.1

*Supplied without support lug.

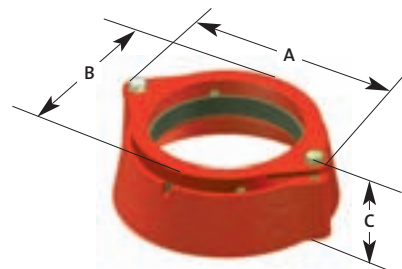
Branch traps – EF080



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
03248	804	100	215	282	10.2

Connectors roof

Roof connectors for asphalt – EF073

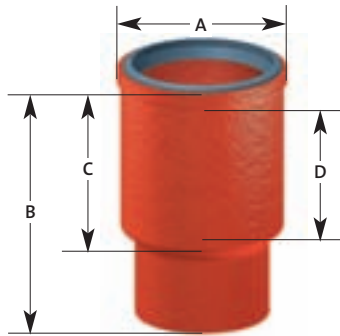


Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
03217	734	100	185	170	72	2.1

See page 69 for typical design applications.

Connectors movement

Push-fit connectors which accommodate building settlement – EF058



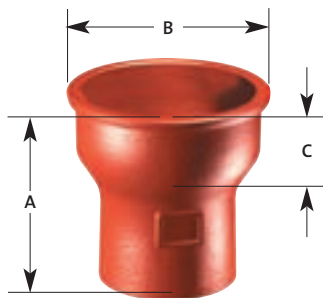
Product Code	CAD Ref	Dia	A	B	C	D	Wt/kg
09123	584	100	145	300	200	170	4.3
09124	586	150	202	310	200	170	8.2

Allows total 170mm movement.

See page 69 for typical design applications.

Connectors and pipes – transitional

Transitional connector – EF059



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09201	594	100	155	176	80	2.9
09202	596	150	155	232	80	4.2

To connect, Earthware, WC, Stoneware, Traditional, Soil/Drain etc.

Connectors universal

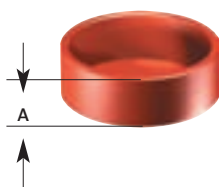
Universal connector – EF071R



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
09133	7122	50	60	40	0.1

Blank ends

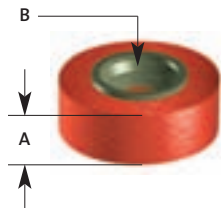
Blank Ends • Plain – EF070



Product Code	CAD Ref	Dia	A	Nominal Wt/kg
03188	702	50	30	0.4
03191	703	70	35	0.6
03193	704	100	40	0.8
03198	705	125	45	1.1
03199	706	150	50	2.0
03205	708	200	60	3.2
03209	709	250	70	5.7
03186	7012	300	90	10.3

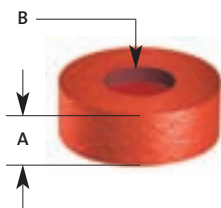
Blank ends

Blank ends • Push-fit connection – EF071



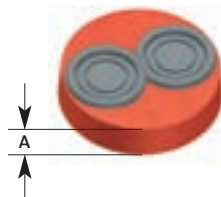
B = rubber grommet which accommodates 50mm waste UPVC or copper.

Blank ends • Drilled and taped – EF071T



B = D/T 50mm BSPT

Blank ends • Push-fit connection – EF077



Replacement plugs can be supplied on request.

Product Code	CAD Ref	Dia	A	Nominal Wt/kg
03212	7132	70	35	0.6
03213	7142	100	40	1.0
03214	7162	150	50	2.0

To connect, 50mm diameter Ensign to PVC, use new Rubber Universal Connector EF071R (see page 24).

Product Code	CAD Ref	Dia	A	Nominal Wt/kg
03213T	7142T	100	40	1.0

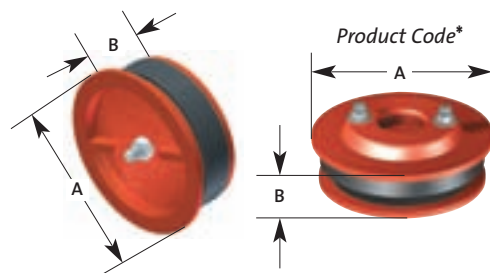
To connect to UPVC/copper waste use 50mm/2" BSPT male iron adaptor.

Product Code	CAD Ref	Dia	A	Nominal Wt/kg
03228	77415	100	50	0.4

Two rubber plugs to accommodate 38/32mm dia. waste. Suitable for push-fit connection to plastic/copper waste.

Expansion plugs

Expansion plug – EF074

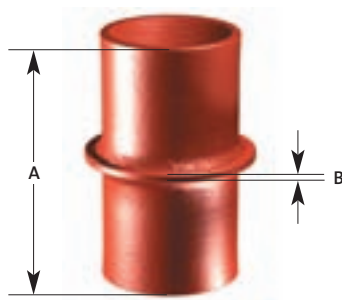


Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
09267*	742	50	64	48	0.4
03220	743	70	78	40	0.4
03221	744	100	110	42	0.7
03223	746	150	156	42	1.5
09268*	748	200	218	100	4.1
09269*	749	250	284	93	6.0
09270*	7412	300	336	100	9.1

** Depicts product design type.*

Stack support pipe

Stack support pipe – EF050

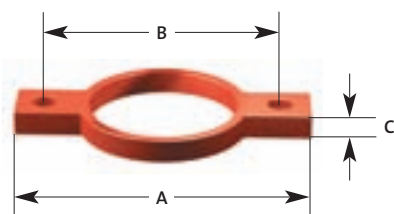


Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
04196	503	70	220	8	1.6
03143	504	100	220	8	2.4
03144	505	125	220	8	3.2
03145	506	150	220	8	4.0
03147	508	200	220	8	5.9
09068*	510	250	300	8	12.4
09069*	512	300	300	8	16.8

* Item supplied complete with bracket and seal.
See below for bracket dimensions.

Stack support bracket

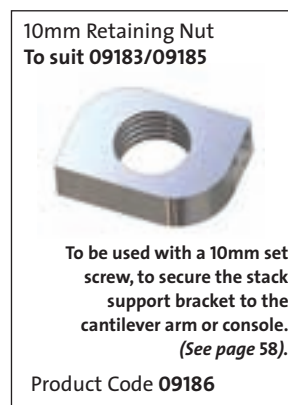
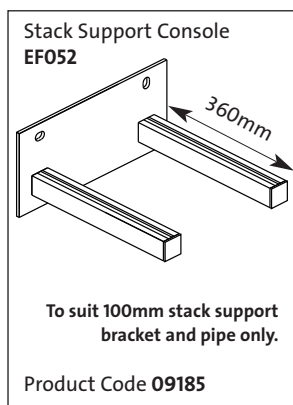
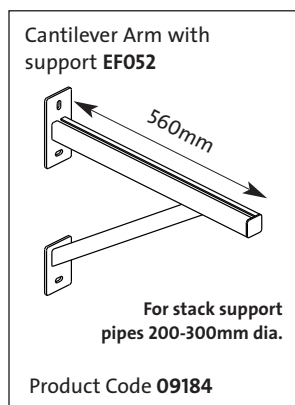
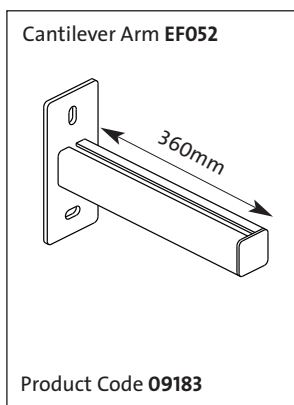
Stack support bracket – EF051



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
04197	513	70	215	170	20	1.1
04174	514	100	259	214	20	1.5
04175	515	125	275	228	20	1.7
04176	516	150	300	255	22	2.6
04177	518	200	362	310	22	3.5
09068	510	250	444	394	40	6.1
09069	512	300	498	448	40	14.0

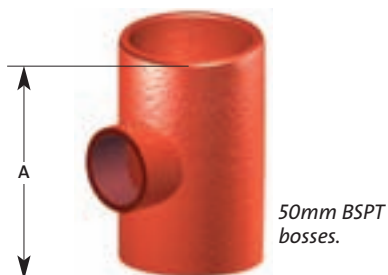
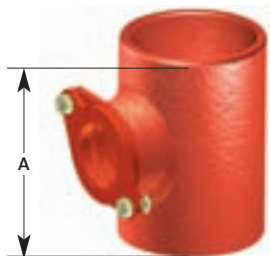
Supplied with rubber sound deadening seal.
See page 58 for typical application and range of wall fixings.

Consoles support brackets

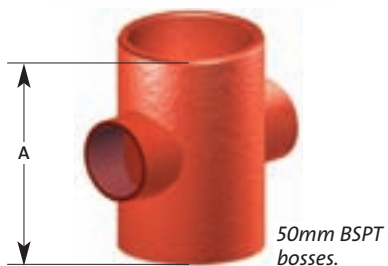


Boss pipes

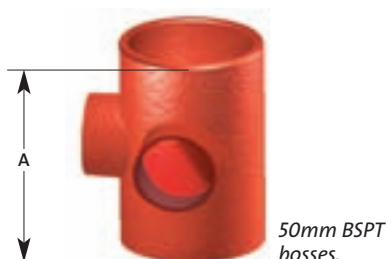
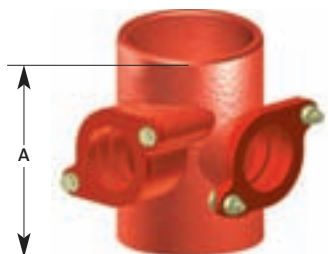
Single boss • With boss at 88° – EF090



Double boss • With bosses (opposed) at 88° – EF091



Double boss • With bosses at 90° – EF092



Product Code	CAD Ref	Dia	A	Nominal Wt/kg
04178	902	50	150	1.2
04179	903	70	146	1.6
04180	904	100	155	2.1
04181	906	150	175	3.8

'O' Ring Rubber Compression Fit.

Connects 50mm copper or UPVC waste. To connect 32/38mm waste pipes (see page 63).

Single boss with drilled/tapped 2"/50mm BSPT boss – EF090T

Product Code	CAD Ref	Dia	A	Nominal Wt/kg
04180T	904T	100	155	2.1

Product Code	CAD Ref	Dia	A	Nominal Wt/kg
04182	914	100	155	2.5
09233	916	150	175	4.4

'O' Ring rubber compression fit.

Connects 50mm copper or UPVC waste. To connect 32/38mm waste pipes (see page 63).

Double boss with drilled/tapped 2"/50mm BSPT bosses – EF091T

Product Code	CAD Ref	Dia	A	Nominal Wt/kg
04182T	914T	100	155	2.5

Product Code	CAD Ref	Dia	A	Nominal Wt/kg
04183	924	100	155	2.9

'O' Ring Rubber Compression Fit.

Connects 50mm copper or UPVC waste. To connect 32/38mm waste pipes (see page 63).

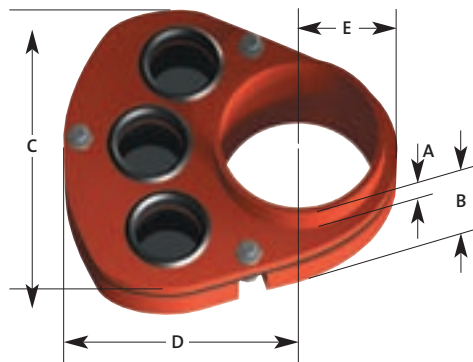
Double Boss with drilled/tapped 2"/50mm BSPT bosses – EF092T

Product Code	CAD Ref	Dia	A	Nominal Wt/kg
04183T	924T	100	155	2.9

Plastic moulded protection caps EF093, for blanking off push-fit boss connections. Size 50mm x 30mm. Order Product Code 08903.

Multi manifold

Manifold connector – EF094



Replacement plugs can be supplied on request.

Product Code	CAD Ref	Dia	A	B	C	D	E	Nom. Wt/kg
04184	944	100	43	125	200	142	62	3.2
09178	946	150	70	165	290	184	81	6.1

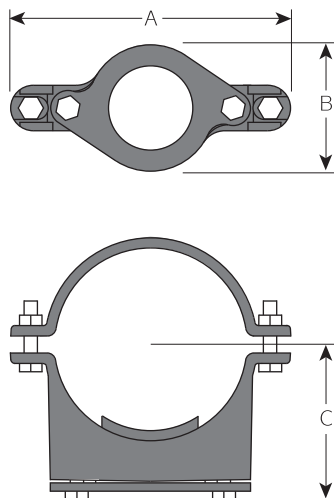
100mm: Three rubber plugs to accommodate 38/32mm dia. waste.

150mm: Three rubber plugs to accommodate 50mm dia. waste.

Suitable for push-fit connection to plastic/copper waste.

Strap-on boss fitting

Strap-on boss – GT133



The strap-on boss provides a simple solution for fitting a 50mm copper or waste pipe to an existing 100mm cast iron soil pipe to BS EN 877 (pipe outside diameter min/max 109/112mm).

Installation

- Simply determine where the waste pipe is to be positioned
- Cut a 64mm hole into the cast iron soil pipe with a hole saw (the metal from the hole remains in the cutter – see tools below)
- Mechanically fit the boss strap in position (do not forget the rubber washer), tighten until fully secure
- Insert in the waste pipe until fully seated in the boss
- Tighten the boss plate to grip the rubber 'O' ring on the outside of the waste pipe

Tools required

- A 64mm hole saw (Code 09180)
- Arbour (Code 09181)
- 1/4" pilot drill (Code 09181)
- 13mm socket EF101 (Code 00914) or
- 13mm spanner for mechanically fitting the boss adaptor EF098 (Code 00914)

Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
09168	1334	100	166	76	100	1.4

Strap-on boss is a Timesaver product and is supplied black coated.



Ensign EEZI-FIT

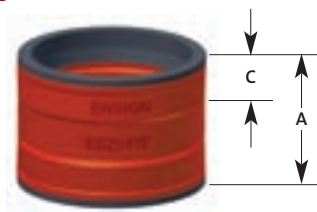
A question of time? The answer's EEZI.

Ensign EEZI-FIT is a new push-fit range of socketed fittings and coupling in 100mm diameter, designed for above ground gravity sanitary applications, that combines all the benefits of cast iron with the simplicity of push-fit assembly.

Ensign EEZI-FIT utilises a new gasket design that makes the joint simple to install and is completed in seconds. Fully compatible with all products within the Ensign range. Ensign EEZI-FIT is designed to meet product standard BS EN 877:1999.

Coupling

EEZI-FIT coupling – EZ001



Product Code	CAD Ref	Dia	A	C	Nominal Wt/kg
208191	014EZ	100	85	40	1.3

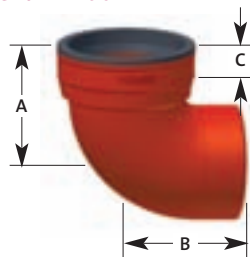
Assembly instructions (see page 54).

Gasket spare are available in bags of 10 – Product Code 208204.

For electrical continuity see page 54.

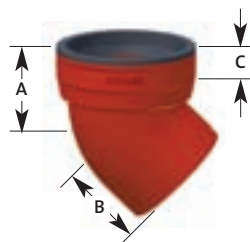
Bends short radius

88° EEZI-FIT bend – EZ002



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
208192	0240088EZ	100	112	108	40	2.3

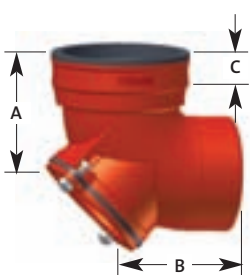
45° EEZI-FIT bend EZ002



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
208193	0240045EZ	100	73	69	40	1.9

Bends with access

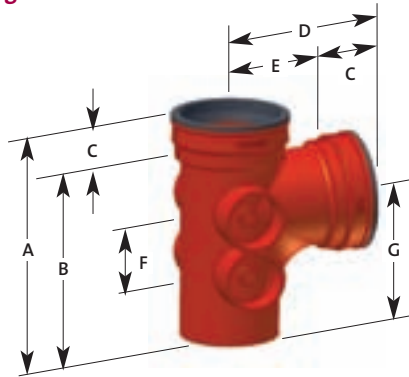
88° EEZI-FIT bend • Short radius door back – EZ005



Product Code	CAD Ref	Dia	A	B	C	Nominal Wt/kg
208194	0540088EZ	100	112	108	40	3.4

Single branches

Single branch 88° – EZ06R

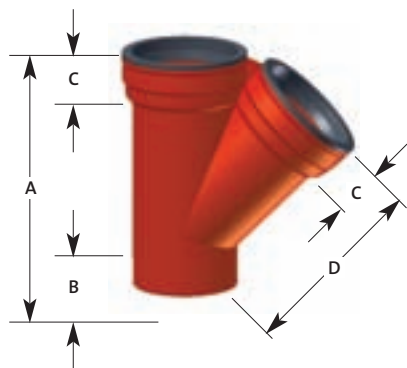


Product Code	CAD Ref	Dia	A	B	C	D	E	F	G	Nominal Wt/kg
208195	6R44088EZ	100x100	250	210	40	145	105	68	148	5.6

To make boss connections see page 66.

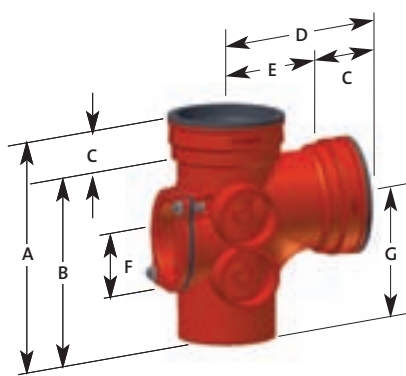
Rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste are supplied separately in bags of 10. (Product Code 208205).

Single branch 45° – EZ006



Product Code	CAD Ref	Dia	A	B	C	D	Nominal Wt/kg
208196	0644045EZ	100x100	250	67	40	183	4.1

Single branch 88° with access – EZ07R



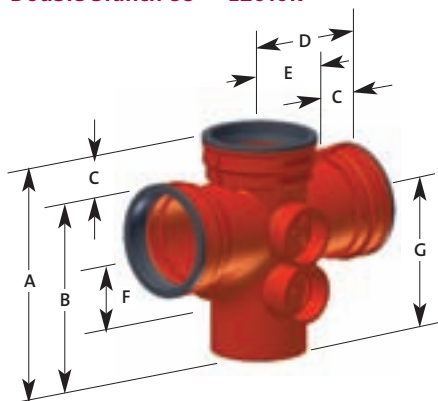
Product Code	CAD Ref	Dia	A	B	C	D	E	F	G	Nominal Wt/kg
208197	7R44088EZ	100x100	250	210	40	145	105	68	148	6.7

To make boss connections see page 66.

Rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste are supplied separately in bags of 10. (Product Code 208205).

Double branch

Double branch 88° – EZ010R



Product Code	CAD Ref	Dia	A	B	C	D	E	F	G	Nominal Wt/kg
208198	0R44488EZ	100x100	250	210	40	145	105	68	148	6.0

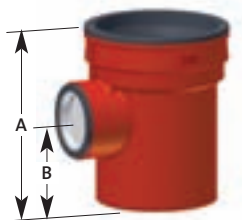
If 45° double branch is required, use ENSIGN EF010 code 03009 with EEZI-FIT couplings.

To make boss connections see page 66.

Rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste are supplied separately in bags of 10. (Product Code 208205).

Boss pipes

Single boss pipe 1 x 50mm – EZ090



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
208199	904EZ	100	158	82	2.1

Supplied with rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste. For connections to 38/32 waste – see page 65.

Double boss pipe 2 x 50mm – EZ091



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
208200	914EZ	100	158	82	2.3

Supplied with rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste. For connections to 38/32 waste – see page 65.

Double boss pipe 2 x 50mm at 90° – EZ092



Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
208201	924EZ	100	158	82	2.3

Supplied with rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste. For connections to 38/32 waste – see page 65.

Triple boss pipe 3 x 50mm – EZ093

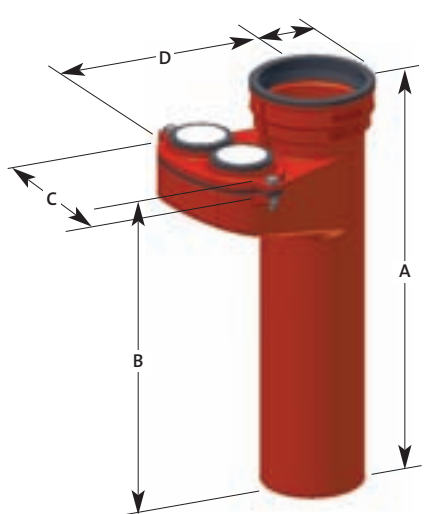


Product Code	CAD Ref	Dia	A	B	Nominal Wt/kg
208202	934EZ	100	158	82	2.5

Supplied with rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste. For connections to 38/32 waste – see page 65.

Manifold connector

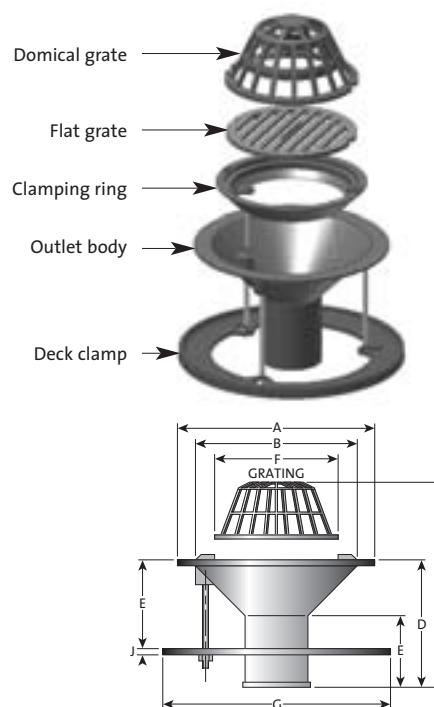
Manifold connector – EZ094



Product Code	CAD Ref	Dia	A	B	C	D	E	Nominal Wt/kg
208203	944EZ	100	410	345	195	170	66	6.6

Supplied with rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste.

Roof outlets for asphalt or felt



GT9306 Circular roof outlet

This outlet incorporates the following important features:

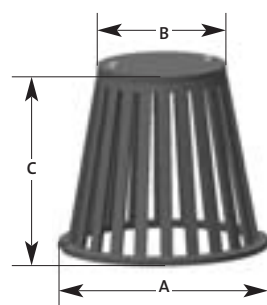
- The clear throat of the outlet gives an unobstructed flow of water, providing maximum discharge rate
- The grating is secured by means of locating the two notches on the grate under lugs on the clamping ring. The grate is then turned 90° on the seating until it is firmly locked in place
- There are only four working parts
- Uniform outside diameter of spigot permits cutting and still allows jointing by Ensign/Timesaver or run-lead joint
- This outlet can be connected to Ensign by using a Timesaver coupling GT01

Deck Clamp for 100 Roof Outlets is in two halves and has four x M10 threaded rods and four x M10 securing nuts.

Component	Nominal Bore 100mm Product Code	Wt/kg	CAD Drawings 100
1 Body & clamping ring	03998	9.0	1+2 – 93064DG
2 Domical grate	04001	2.2	1+3 – 93064FG
3 Flat grate	04002	1.6	1+2+4 – 93064DGC
4 Deck clamp	03919	7.6	1+3+4 – 93064FGC

Nominal Bore 100mm		Nominal Bore 100mm		Nominal Bore 100mm	
A	355	E	130	H max	140
B	290	F	240	J	18
C	335	G	410	See page 70 for typical applications.	
D	230	H min	40		

GT9307 Grating for 'inside-out' roof



Product Code	CAD Ref	Nominal Bore	A	B	C	Nominal Wt/kg
04007	93074	100	240	145	210	5.6

Note: GT9307 is used with roof outlets GT9306 100 Nominal Bore only.

GT9310 Balcony outlet



Nominal Bore 100mm	
A	235
B	280
C	275
D	75
E	40

