



Section 1

Pipes and Fittings Above Ground

Ensign cast iron drainage – 1st choice for hospitals

Strength and durability to maintain a safe environment, that's why the latest UK flagship hospitals all utilise Ensign to provide solutions for its sanitary drainage needs and rainwater systems.

- Non-combustible – will not burn, and drip molten droplets (like HDPE) or emit toxic smoke (like PVC) with smoke being recognised as the biggest killer in any fire
- Ensign cast iron is the quietest drainage solution on the market helping create a tranquil environment essential for recovering patients
- Ability to operate at high temperatures – up to 95°C
- High resistance to thermal expansion
- Dependable strength – minimising the risk of ward closure for repair or maintenance



QE Hospital, Birmingham



Southern General, Glasgow



Pipework installed on QE hospital

Section 1

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EEZI-FIT Push-Fit Range

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Pipes Double Spigot

EP000



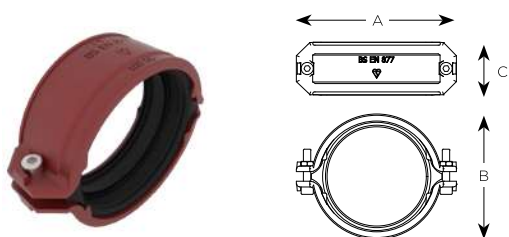
Product code	Dia	A Max O/dia	B Min I/dia	Min section	C Metre lengths available	Nominal wt/kg
156363	50	60	47.5	3	3	12.5
156455	70	80	68.25	3	3	17.0
156563	100	112	97.5	3	3	24.5
156736	125	137	121.87	3.5	3	34.3
156827	150	162	146.25	3.5	3	41.0
156951	200	212	195	4	3	67.4
157049	250	276.5	243.75	4.5	3	97.3
157114	300	328.5	292.5	5	3	126.8
157171	400	431	390	5	3	177.7
157187	500	534	487.5	5.2	3	230.0
157203	600	637	585	5.8	3	302.0

Pipes coated internally with a two part epoxy and externally with a red protective coating (see page 100).

Couplings

EC002

Two-piece iron coupling



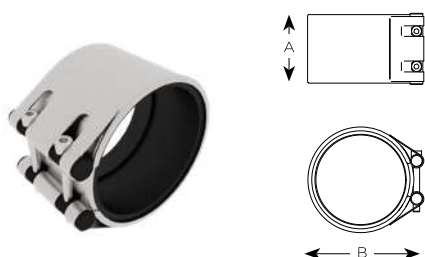
Ductile iron coupling with built-in electrical continuity

Product code	Dia	A	B	C	Nominal wt/kg
156398	50	113	79	58	0.6
156493	70	129	103	58	0.6
156634	100	170	137	58	0.8
156777	125	188	158	58	0.9
156888	150*	217	183	80	1.7
156998	200*	278	243	82	3.5
175552	250*	343	308	82	4.4
175510	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.

EC002HP

High performance stainless steel

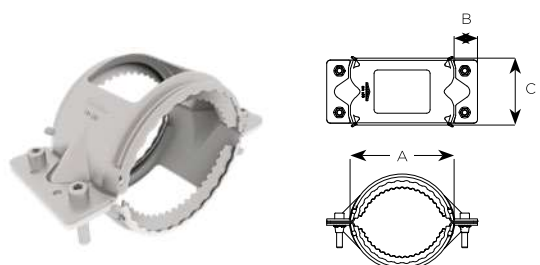


Product code with grip	Product code no grip	Dia	A	B	Nominal wt/kg
227336	228623	100	94	154	1.3
227338	228625	150	95	211	2.1
227339	228626	200	110	270	5.3
227340	228627	250	110	330	8.7
227351	228628	300	110	470	9.9
228629*	228629	400	142	520	71
228630*	228630	500	142	576	6.7
228631*	228631	600	142	635	7.6

Couplings technical section for applications (see page 59).
Capable of withstanding high pressure (up to 10 bar).

EC002GC
New grip collar

NEW



Product code	Dia	A	B	C	Nominal wt/kg
220750	100	145	33	93	0.9
221270	150	192	32	102	1.2
221271	200	252	32	118	1.7

To overclamp the ductile iron coupling EC002 to give 5 bar pressure unrestrained.
See page 64 for assembly instructions.

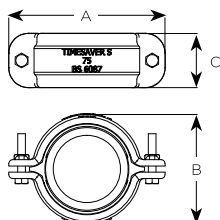
Transitional Couplings

BS416 - GT12 - Ductile iron transitional coupling - Ensign to Timesaver



Product code	Dia	A	B	C	Nominal wt/kg
191429	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.

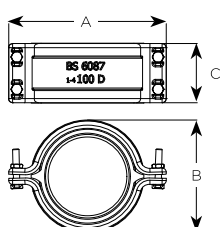


BS437 - TD02 - Ductile iron transitional coupling - Ensign to Timesaver



Product code	Dia	A	B	C	Nominal wt/kg
191297	100	203	140	75	2.8
191298	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 BS437. Transitional couplings incorporate black gaskets with identity markings.



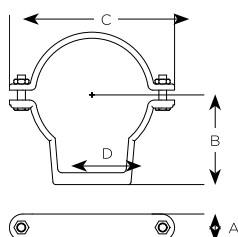
Brackets

EF048 - Ductile iron bracket



Product code	Dia	A	B	C	Nominal wt/kg
156408	50	27	64	110	0.3
156505	70	27	74	132	0.5
156646	100	27	90	166	0.6
156898	150	30	115	214	0.8
177745	200	35	150	266	1.6

Elongated slot at fixing point (D) to ease fixing. Brackets for 125, 250, 300 and 400mm diameter (see mild steel brackets on page 21).

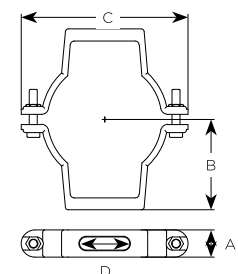


EF049 - Ductile iron bracket



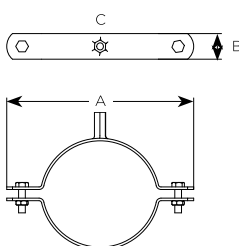
Product code	Dia	A	B	C	Nominal wt/kg
177744	100	27	90	166	0.8

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



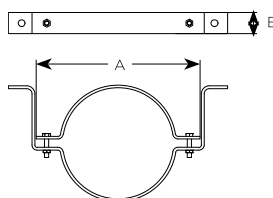
Brackets

EF048MS - Vertical mild steel bracket



Product code	Dia	A	B	C	Nominal wt/kg
192259	125	247	20	M10	0.5

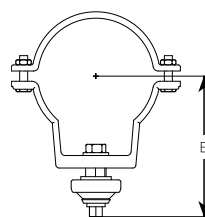
EF048MS - Stand-off mild steel bracket



Product code	Dia	A	B	Nominal wt/kg
192414	200	296	40	1.9
192260	250	371	40	2.3
192261	300	420	40	2.6
192362	400	555	40	3.2

Acoustic Brackets

EF048AD - Ductile iron bracket with acoustic dampener



Product code	Dia	E	Nominal wt/kg
199881	50	112	0.3
199882	70	122	0.5
199883	100	138	0.6
199884	150	163	1.6

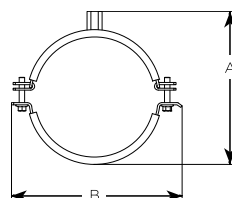
For exceptional acoustic performance see page 9 and installation advice page 70.

EF048MSL - Rubber lined steel bracket



Product code	Dia	A	B	Fixing bolt	Nominal wt/kg
251197	50	84-88	108	M6 x 20	0.1
251198	70	108-113	135	M6 x 25	0.2
251199	100	137-141	158	M8 x 35	0.3
251201	150	193-347	219	M8 x 45	0.6
251202	200	250-256	292	M10 x 40	1.2
251203	250	316-347	356	M10 x 40	1.4
251204	300	362	410	M12 x 40	2.9

Rubber lined steel brackets for use where extra sound insulation is required. 70mm available upon request.



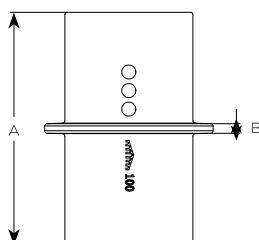
Stack Support Pipe

EF050



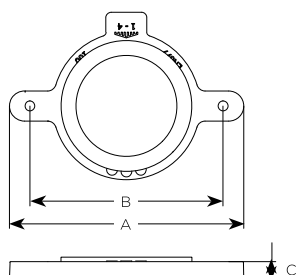
Product code	Dia	A	B	Nominal wt/kg
191856	70	220	8	1.6
191562	100	220	8	2.4
191563	125	220	8	3.2
191564	150	220	8	4.0
157014*	200	220	8	5.9
157097*	250	300	8	12.4
157160*	300	300	8	16.8

* Item supplied complete with bracket and seal (see dimensions below).



Stack Support Bracket

EF051 - Stack support bracket

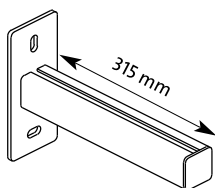


Product code	Dia	A	B	C	Nominal wt/kg
191857	70	215	170	20	1.1
191843	100	259	214	20	1.5
191844	125	275	228	20	1.7
191845	150	300	255	22	2.6
157014	200	362	310	22	3.5
157097	250	444	394	40	6.1
157160	300	498	448	40	14.0

Supplied with rubber sound deadening seal.
See page 69 for typical application.

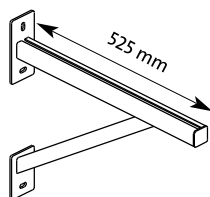
Consoles Support Brackets

EF052 -
Cantilever arm



Product code	wt/kg
192329	2.0

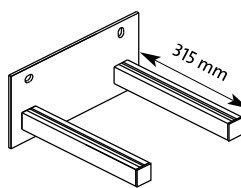
EF052 -
Cantilever arm
with support



For stack support
pipes 200-300mm dia.

Product code	wt/kg
192330	4.3

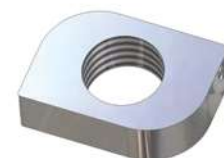
EF052 -
Stack support
console



To suit 100mm stack support
bracket and pipe only.

Product code	wt/kg
192331	4.6

EF052 -
10mm retaining
nut - to suit



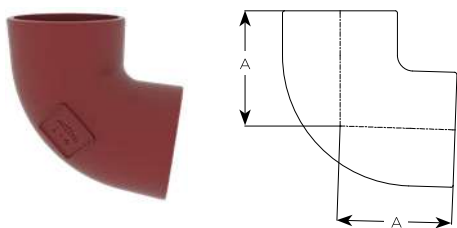
To be used with a 10mm set
screw, to secure the stack
support bracket to the
cantilever arm.

Product code	wt/kg
192332	0.02

Bends Short

EF002 – 88° bend

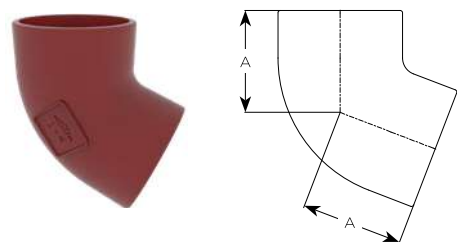
- Short radius



Product code	Dia	A	Nominal wt/kg
191437	50	75	0.7
191442	70	90	1.3
191447	100	110	2.2
191454	125	125	3.2
191459	150	145	3.9
191462	200	180	9.6
191463	250	220	17.3
191431	300	260	27.4

EF002 – 69° bend

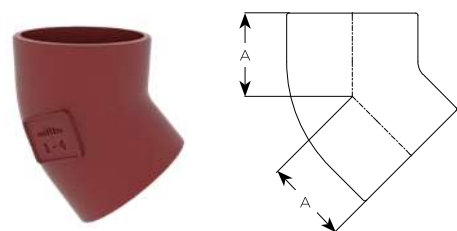
- Short radius



Product code	Dia	A	Nominal wt/kg
191436	50	65	0.6
191441	70	75	1.2
191446	100	90	2.1
191458	150	120	4.2
† 156968	200	145	7.8
† 157067	250	170	14.7
† 157132	300	200	20.0

EF002 – 45° bend

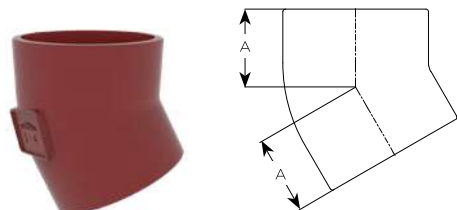
- Short radius



Product code	Dia	A	Nominal wt/kg
191435	50	50	0.6
191440	70	60	0.9
191445	100	70	1.6
191452	125	80	2.3
191457	150	90	3.0
191461	200	110	7.0
191464	250	130	10.9
191432	300	155	18.7
192335	400	247	35.0
† 192376	500	318	53.0
† 192377	600	350	92.0

EF002 – 30° bend

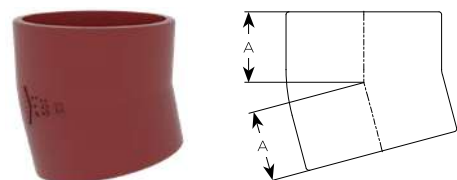
- Short radius



Product code	Dia	A	Nominal wt/kg
191434	50	45	0.5
191439	70	50	0.8
191444	100	60	1.7
191456	150	80	3.2
155933	200	95	7.0
† 155948	250	110	9.7
† 155960	300	130	15.5

EF002 – 15° bend

- Short radius



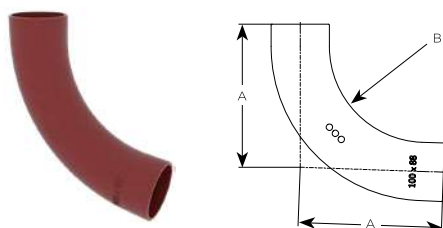
Product code	Dia	A	Nominal wt/kg
191433	50	40	0.4
191438	70	45	0.7
191443	100	50	1.3
191455	150	65	2.7
155932	200	80	4.6

† Available to order.

Bends Medium, Long Radius

EF02L - 88° bend

- Medium and long radius

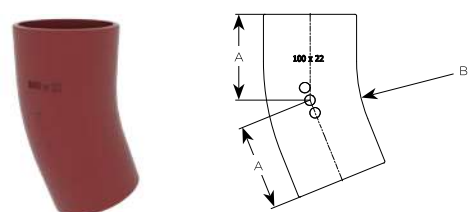


Product code	Dia	A	B	Nominal wt/kg
191549	100	269	180	4.3
191550	150	274	150	10.1

Bend with heel rest available grey only (see 48).

EF02L - 22° bend

- Long radius

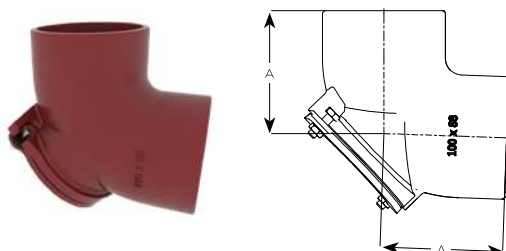


Product code	Dia	A	B	Nominal wt/kg
191548	100	90	180	1.7

Bends Medium, Long Radius Door Back

EF005 - 88° bend

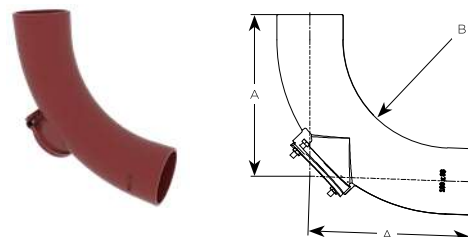
- Short radius door back



Product code	Dia	A	Nominal wt/kg
156472	70	90	1.8
156589	100	110	3.3
156845	150	145	6.1

EF05L - 88° bend

- Medium and long radius door back



Product code	Dia	A	B	Nominal wt/kg
156607	100	269	180	5.5
192357	150	274	150	11.4

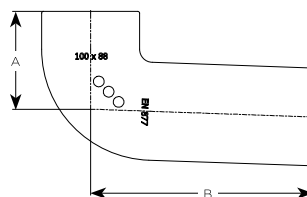
Bends Long Tail

EF055 - 88° bend

- Long tail



Product code	Dia	A	B	Nominal wt/kg
191567	100	110	250	4.2

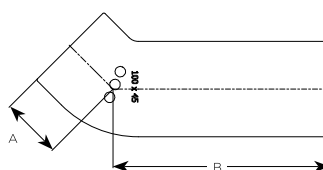


EF055 - 45° bend

- Long tail



Product code	Dia	A	B	Nominal wt/kg
191566	100	70	250	4.0



Bends Long Tail

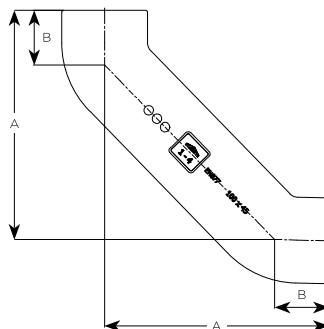
EF054 - 88° bend

- Long tail double bend



Product code	Dia	A	B	Nominal wt/kg
191837	70	273	60	3.1
191838	100	291	70	4.4

88° - short double bend available on request.



Branches Single Long Arm

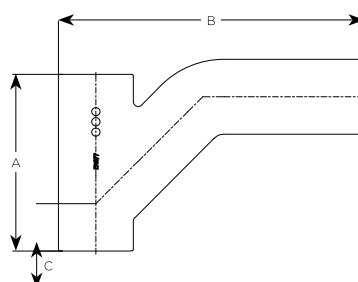
EF008 - 45° branch

- Single long arm



Product code	Dia	A	B	C	Nominal wt/kg
156726	100 x 100	260	450	70	6.3

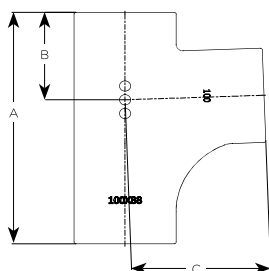
Typical application (see page 81).



Branches Single Radius – Swept

EF06R – 88° single branch

- Swept Radius curve

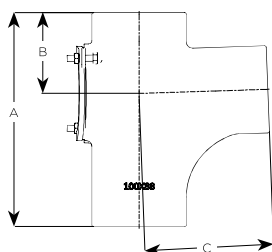


Product code	Dia	A	B	C	Nominal wt/kg
156539	70 x 70	210	80	130	2.2
156611	100 x 50	204	90	120	2.4
156612	100 x 70	221	90	142	2.7
156696	100 x 100	270	102	150	3.5
156869	150 x 100	300	117	202	7.6
156926	150 x 150	400	140	260	12.5
156985	200 x 150	428	157	283	13.0
157025	200 x 200	478	182	293	21.0

See design guidance in accordance with BS EN 12056-2 (see page 79).

EF07R – 88° branch with access

- Swept Radius curve

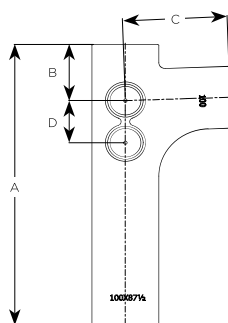


Product code	Dia	A	B	C	Nominal wt/kg
156540	70 x 70	210	80	130	2.5
156614	100 x 50	204	90	120	3.0
156621	100 x 70	221	90	142	3.5
156697	100 x 100	270	102	150	4.3
156875	150 x 100	300	117	202	10.4
156927	150 x 150	400	140	260	13.9

See design guidance in accordance with BS EN 12056-2 (see page 79).

EF096 – 88° branch

- Single long tail
- Swept Radius curve



Product code	Dia	A	B	C	D	Nominal wt/kg
208644	100 x 100	500	100	172	75	9.9

4 x 50mm push-fit boss positions.

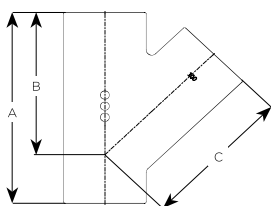
To make boss connections see page 80.

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

See design guidance in accordance with BS EN 12056-2 (see page 79).

Branches Single Equal And Unequal

EF006 – 45° branch

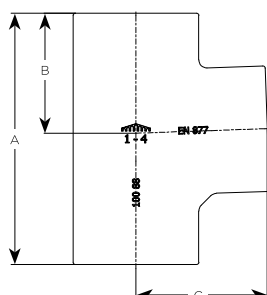


Product code	Dia	A	B	C	Nominal wt/kg
191467	50 x 50	185	135	135	1.4
191470	70 x 50	170	130	130	1.8
191473	70 x 70	200	145	150	1.9
191477	100 x 50	200	165	165	2.4
191480	100 x 70	215	170	170	2.7
191483	100 x 100	275	205	205	3.8
191488	125 x 70	225	185	185	4.0
191489	125 x 100	270	210	210	5.3
191491	125 x 125	305	230	230	5.6
191494	150 x 70	235	205	205	5.1
191495	150 x 100	295	240	240	6.1
191498	150 x 125	315	245	245	7.5
191500	150 x 150	355	265	265	9.0
191502	200 x 100	300	260	260	10.3
191503	200 x 150	375	300	300	13.2
191504	200 x 200	455	340	340	17.3
† 157073	250 x 100	330	315	315	13.6
† 157075	250 x 150	405	350	350	17.3
† 157078	250 x 200	480	390	390	24.3
191507	250 x 250	560	430	430	32.2
† 157138	300 x 100	350	345	345	19.3
† 157140	300 x 150	415	380	380	23.2
† 157141	300 x 200	485	415	440	28.4
† 157142	300 x 250	580	465	465	37.2
191465	300 x 300	660	505	505	54.8
192338	400 x 300	660	555	565	55.3
192336	400 x 400	835	645	645	82.5
† 192378	500 x 500	1020	790	790	175.0
† 192379	600 x 600	1180	920	920	215.0

Additional reducing branches (large diameter) available upon request.

† Available to order.

EF006 – 88° branch tee

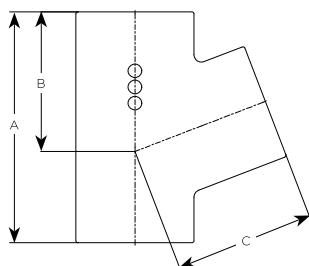


Product code	Dia	A	B	C	Nominal wt/kg
191469	50 x 50	145	66	80	1.0
191472	70 x 50	155	72	90	1.6
191475	70 x 70	180	83	95	1.5
191479	100 x 50	170	76	105	2.3
191482	100 x 70	190	88	110	2.5
191485	100 x 100	220	105	115	2.7
191490	125 x 100	235	110	130	4.0
191492	125 x 125	260	123	135	4.2
191499	150 x 125	275	128	150	5.8
191501	150 x 150	300	142	155	5.8
191505	200 x 200	380	180	200	12.8
191508	250 x 250	468	228	243	22.6
191466	300 x 300	530	265	265	35.5

See design guidance in accordance with BS EN 12056-2 (see page 79).

Branches Single Equal And Unequal

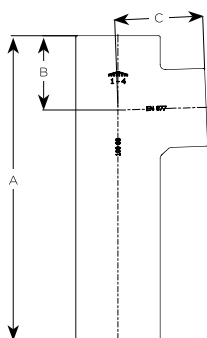
EF006 - 69° branch



Product code	Dia	A	B	C	Nominal wt/kg
191468	50 x 50	135	80	80	1.0
191471	70 x 50	145	90	90	1.4
191474	70 x 70	170	100	100	1.7
191478	100 x 50	155	100	110	2.2
191481	100 x 70	180	110	120	2.7
191484	100 x 100	215	130	130	2.7
191496	150 x 100	235	150	155	5.1

Branches Single - Tee - Long Tail

EF056 - 88° branch tee • Long tail



88° branch • Long tail - EF056

Product code	Dia	A	B	C	Nominal wt/kg
191568	100 x 100	430	105	115	7.0



45° branch • Long tail - EF056

Product code	Dia	A	B	C	Nominal wt/kg
156723	100 x 100	445	205	205	5.5

Branches Double

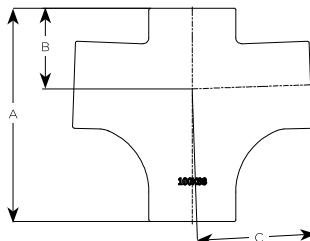
EF010R – 88° double branch

- Swept Radius curve



Product code	Dia	A	B	C	Nominal wt/kg
157643	100 x 100	270	102	150	4.2
156862	150 x 100	300	115	200	10.9

See design guidance in accordance with BS EN 12056-2 (see page 79).



EF097 – 88° branch

- Long tail
- Swept Radius curve



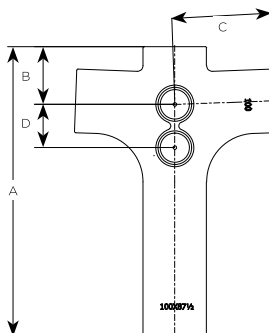
Product code	Dia	A	B	C	D	Nominal wt/kg
208653	100 x 100	500	100	172	75	10.2

4 x 50mm push-fit boss positions.

To make boss connections see page 80.

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

See design guidance in accordance with BS EN 12056-2 (see page 79).

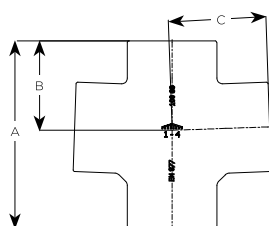


EF010 – 88° double branch tee



Product code	Dia	A	B	C	Nominal wt/kg
155825	100 x 50	170	76	105	2.2
† 155826	100 x 70	190	88	110	2.7
191511	100 x 100	220	105	115	3.3
155907	150 x 100	245	115	145	7.1

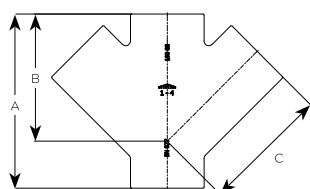
† Available to order.



EF010 – 45° double branch



Product code	Dia	A	B	C	Nominal wt/kg
191509	100 x 100	260	190	190	4.0
191512	150 x 100	280	225	225	8.4
191513	150 x 150	355	265	265	12.6
191514	200 x 200	455	340	340	24.0

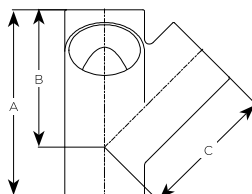


Branches Corner

EF035 – 45° corner branch



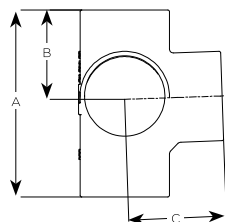
Product code	Dia	A	B	C	Nominal wt/kg
156716	100 x 100	260	190	190	5.2



EF035 – 88° corner branch tee



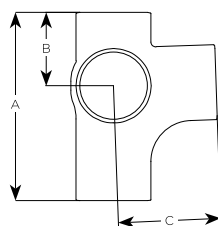
Product code	Dia	A	B	C	Nominal wt/kg
191558	100 x 100	220	105	115	3.5
155919	150 x 100	245	115	145	6.7



EF035R – 88° corner branch swept radius curve



Product code	Dia	A	B	C	Nominal wt/kg
264739	100 x 100	275	107	150	4.4

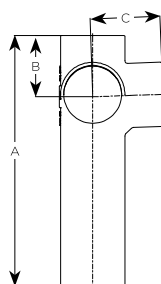


EF036 – 88° corner branch tee

- Long tail



Product code	Dia	A	B	C	Nominal wt/kg
191559	100 x 100	430	110	120	6.8

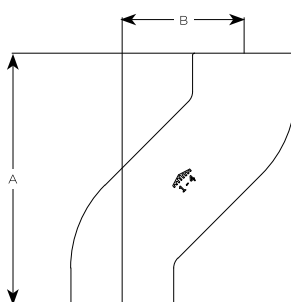


Offsets

EF024 – Offsets



Product code	Dia	A	B	Nominal wt/kg
191526	100	75	215	2.9
191525	70	130	250	2.2
191527	100	130	270	3.1

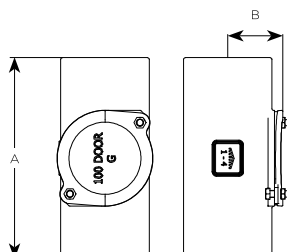


Access Pipes

EF014 - Round door



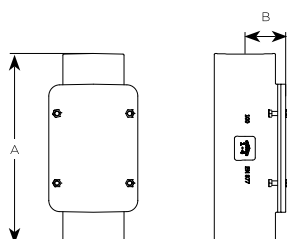
Product code	Dia	A	B	Nominal wt/kg
191516	50	175	60	1.3
191517	70	205	65	2.0
191518	100	250	80	3.1
191519	150	280	110	6.2



EF015 - Rectangular door

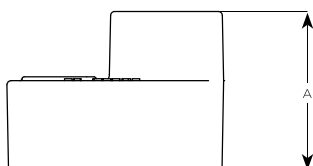


Product code	Dia	A	B	Nominal wt/kg
191840	100	320	80	6.7
191521	125	355	93	9.0
191841	150	395	105	12.2
191522	200	475	140	20.2
191523	250	540	160	38.5
191520	300	610	190	50.0



Tapered Pipes

EF028 - Tapered



To connect 250mm and 200mm to 225 Timesaver Drain, use TD41 (see section page 148).

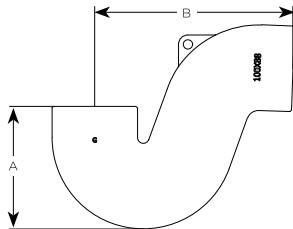
Product code	Dia	A	Nominal wt/kg
191532	70 x 50	75	0.5
191533	100 x 50	80	0.9
191534	100 x 70	85	0.9
191537	125 x 100	95	1.6
191538	150 x 50	90	1.7
191539	150 x 70	100	1.8
191540	150 x 100	105	1.9
191541	150 x 125	110	2.0
191542	200 x 100	115	3.5
191544	200 x 150	125	3.3
191545	250 x 100	122	5.5
191546	250 x 150	135	6.3
191547	250 x 200	145	6.5
191529	300 x 150	150	9.9
191530	300 x 200	160	10.1
191531	300 x 250	170	12.2
157163	400 x 300	200	20.0
157184	500 x 400	-	-
-	600 x 500	-	-

Traps

EF034 - Plain



Product code	Dia	A	B	Nominal wt/kg
156666	100	255	160	4.5

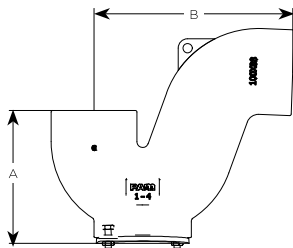


EF037 - Plain with access bottom



Product code	Dia	A	B	Nominal wt/kg
156419	50*	160	115	2.0
156518	70	200	138	2.7
156667	100	255	175	5.2
156911	150	350	240	12.1

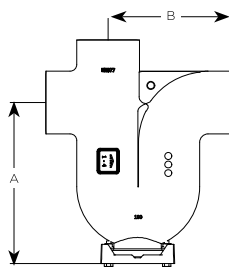
*Supplied without support lug.



EF080 - Branch traps



Product code	Dia	A	B	Nominal wt/kg
191587	100	215	282	10.2

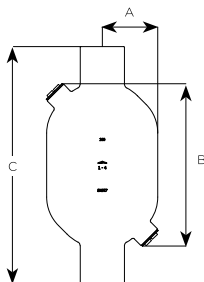


EF081 - Stench trap



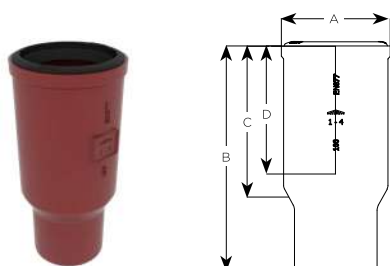
Product code	Dia	A	B	C	Nominal wt/kg
155841	100	138	408	588	18.5
155921	150	187	522	742	38.0

Typical application (see page 82).



Connectors Movement

EF058 - Push-fit connectors which accommodate building settlement

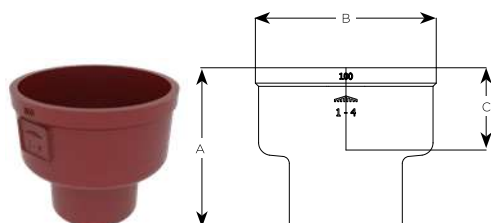


Product code	Dia	A	B	C	D	Nominal wt/kg
192304	100	145	300	200	170	4.3
156235	150	202	310	200	170	8.2

Allows total 170mm movement.
See page 81 for typical design applications.

Connectors And Pipes – Transitional

EF059 - Transitional connector



Product code	Dia	A	B	C	Nominal wt/kg
156650	100	155	176	80	2.9
156902	150	155	232	80	4.8

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

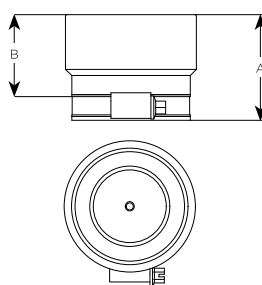
Connectors Universal

EF071R - Universal connector



Product code	Dia	A	B	Nominal wt/kg
155759	50	60	40	0.1

Accommodates 56/48/40 OD waste connections.



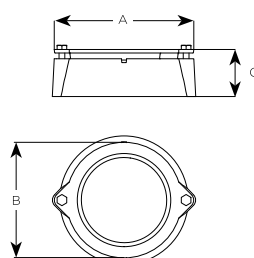
Connectors Roof

EF073 - Roof connectors for asphalts



Product code	Dia	A	B	C	Nominal wt/kg
191581	100	185	170	72	2.1

See page 82 for typical design applications.



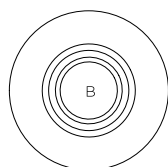
Blank Ends

EF070 - Plain



Product code	Dia	A	Nominal wt/kg
191570	50	30	0.4
191571	70	35	0.6
191572	100	40	0.8
191573	125	45	1.1
191574	150	50	2.0
191575	200	60	3.2
191576	250	70	5.7
191569	300	90	10.3

EF071 - Push-fit connection

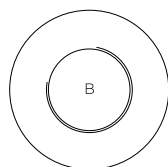


Product code	Dia	A	Nominal wt/kg
191577	70	35	0.6
191578	100	40	1.0
191580	150	50	2.0

To connect, 50mm diameter Ensign to PVC, use new Rubber Universal Connector EF071R (see page 33).

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

EF071T

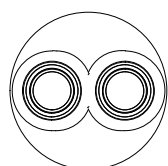


B = D/T 50mm BSPT

Product code	Dia	A	Nominal wt/kg
191579	100	40	1.0

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

EF077



Product code	Dia	A	Nominal wt/kg
191585	100	50	0.4

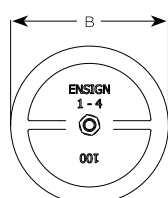
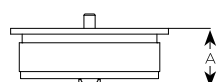
Two rubber plugs to accommodate 38/32mm dia waste. Suitable for push-fit connection to plastic/copper waste.

Replacement plugs can be supplied on request.

Expansion Plugs

EF074

Product code*



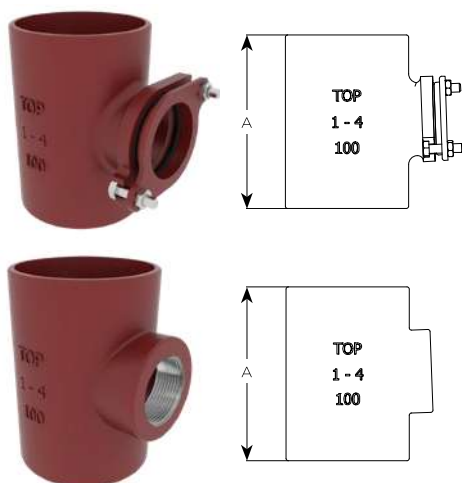
Product code	Dia	A	B	Nominal wt/kg
156374*	50	48	64	0.4
191582	70	40	78	0.4
191583	100	42	110	0.7
191584	150	42	156	1.5
156961*	200	100	218	4.1
157060*	250	93	284	6.0
157125*	300	100	336	9.1

* Depicts product design type.

Boss Pipes

EF090 – Single boss

- With boss at 88°
- Compression 50mm



Product code	Dia	A	Nominal wt/kg
156371	50	150	1.2
156460	70	146	1.6
156573	100	155	2.1
156836	150	175	3.8

'O' Ring rubber compression fit.

Connects 50mm copper or UPVC waste. To connect 32/38mm waste pipes (see page 74).

Plastic moulded protection caps EF093, for blanking off push-fit boss connections. Size 50mm x 30mm. Order product code 192255.

Single boss with drilled/tapped 2" BSP boss – EF090T

Product code	Dia	A	Nominal wt/kg
191847	100	155	2.1

50mm BSPT bosses.

Product code	Dia	A	Nominal wt/kg
156575	100	155	2.5
192359	150	175	4.4

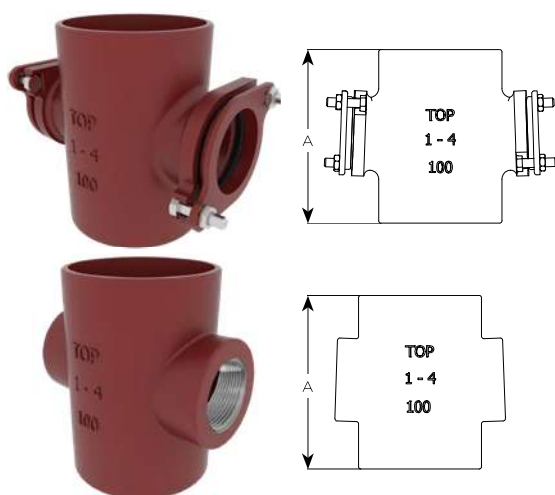
'O' Ring rubber compression fit.

Connects 50mm copper or UPVC waste. To connect 32/38mm waste pipes (see page 74).

Plastic moulded protection caps EF093, for blanking off push-fit boss connections. Size 50mm x 30mm. Order product code 192255.

EF091 – Double boss

- With bosses (opposed) at 88°
- Compression 50mm



Double boss with drilled/tapped 2" BSP bosses – EF091T

Product code	Dia	A	Nominal wt/kg
191848	100	155	2.5

50mm BSPT bosses.

Product code	Dia	A	Nominal wt/kg
191849	100	155	2.9

'O' Ring rubber compression fit.

Connects 50mm copper or UPVC waste. To connect 32/38mm waste pipes (see page 74).

Plastic moulded protection caps EF093, for blanking off push-fit boss connections. Size 50mm x 30mm. Order product code 192255.

EF092 – Double boss

- With bosses at 90°
- Compression 50mm



NEW Double Boss with drilled/tapped 2" BSP bosses – EF092T

Product code	Dia	A	Nominal wt/kg
245545	70	146	1.7
191850	100	155	2.9

Plastic moulded protection caps EF093, for blanking off push-fit boss connections. Size 50mm x 30mm. Order product code 192255.

Multi-Manifold

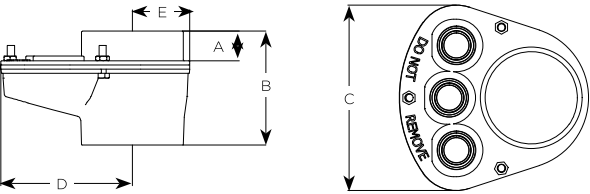
EF094 – Manifold connector



Replacement plugs can be supplied on request.

Product code	Dia	A	B	C	D	E	Nominal wt/kg
175626	100	43	125	200	142	62	3.2
175629	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.
See installation instructions on page 75.



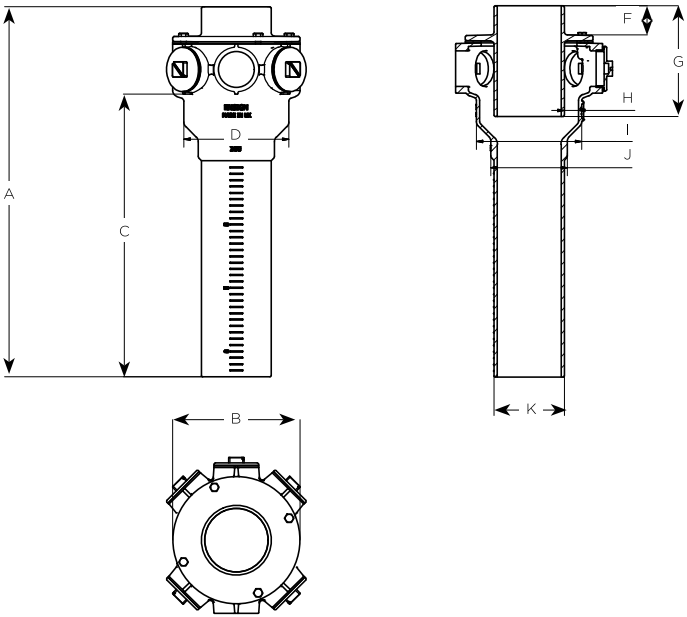
Multi-waste Manifold

NEW

EF095 – Low level waste connections

Product code	Dia	A	B	C	D	E	F	G	H	I	J	K	Nominal wt/kg
261138	100	582	445	39	340	200	45	174	22.5	165	120	110	12.8
261434	150	591	445	39	345	235	55	181	25	220	170	160	17.3

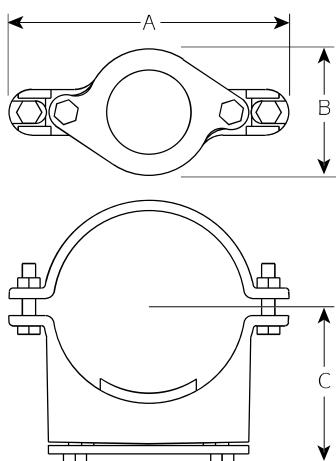
See typical installation instructions on (page 78-79).
6-2" BSP waste inlets supplied with 5 blanking plugs.



Strap-On Boss Fitting

NEW

EF133 - Strap-on boss



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).

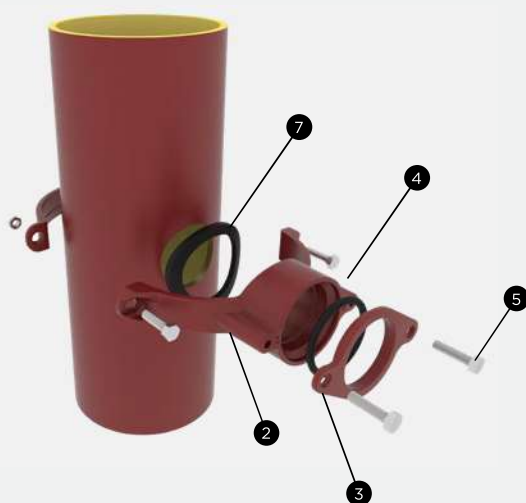
Installation

- 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

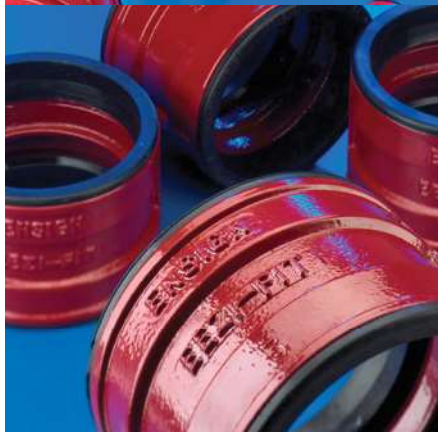
- A 64mm hole saw (Code 192326)
- Arbour (Code 192327)
- 1/4" pilot drill (Code 192328)
- 13mm socket EF101 (Code 191202) or
- Ratchet spanner EF100 (Code 191201) or
- 13mm t-box spanner for mechanically fitting the boss adaptor EF098 (Code 191200)

Product code	Dia	A	B	C	Nominal wt/kg
262891	100	166	76	100	1.4
262890	150	214	77	125	1.6



Parts list

1. Bracket strap
2. Boss adaptor block strap
3. Clamping ring
4. Rubber compression 'o' ring
5. 4no. M8x30 stainless steel set screws
6. 2no. M8 stainless steel nuts
7. Rubber washer seal



New Ensign EEZI-FIT

A question of time? The answer's EEZI

Ensign EEZI-FIT is a new push-fit range of socketed fittings and couplings in 100mm and 150mm diameters, designed and Kitemark approved for above ground gravity sanitary applications, that combines all the benefits of cast iron with the simplicity of push-fit assembly.

Push-fit assembly

All the benefits of cast iron with the advantages of push-fit assembly. The system utilises a new gasket design that makes jointing simple, and completed in seconds. (Electrical continuity can be accommodated – see page 58).

Compatibility with Ensign

EEZI-FIT connects to standard Ensign double spigot pipe and is fully compatible with all Ensign plain ended fittings. The installation of an Ensign mechanical joint positioned in the system can allow dismantling for future retrofit.

New connections to waste

The EEZI-FIT range includes many options to connect to waste pipes, providing even greater system flexibility, branches, single and double radius curve with four boss options, and short boss pipes with single option to three boss positions. New multi-waste manifold connectors are now available for connection to low-level waste pipes, with long tail spigots to avoid the need for a joint in the floor slab.

Ideal for flats and apartments

Ensign EEZI-FIT is the ideal system for flats and apartments where the main stack will unlikely change in time, and the specification will demand a high level of acoustic performance and fire safety.

Ease of installation

Ensign EEZI-FIT provides opportunities for the installer to improve installation time, and also reduce time allocated for testing the stacks after completion.

Applications

EEZI-FIT is intended for use for gravity above ground sanitary applications in accordance with BS EN 12056 (0.5 bar performance).

Acoustic performance

EEZI-FIT has been tested to BS EN 14366 criteria and recorded acoustic levels even lower than Ensign, 4dB(A) at 2 l/s and 9dB(A) at 4 l/s. The acoustic difference between Ensign EEZI-FIT and standard HDPE and plastic is massive, and can only strengthen the case for using EEZI-FIT in flats/apartments where acoustic performance is so important (see table on page 9).

Comparing the difference

To establish what installation benefits and potential cost savings EEZI-FIT can provide SG PAM commissioned the BRE to witness the installation of specimen waste pipe layouts. The objective of the study: to compare and contrast the installation speed and subsequent time of Ensign EEZI-FIT against other systems. Carried out under strict laboratory conditions, further investigation was also undertaken on real-life sites to add practical credibility to the laboratory results.

Fire performance

Cast iron EEZI-FIT is non-combustible, and fire rated A1.

EEZI-FIT saves time and money

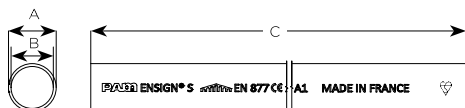
'Time is money' is what everyone learns early in life. And why so many now appreciate the benefits of EEZI-FIT, the quick-to-install, push-fit cast-iron drainage system incorporating a range of socketed fittings and couplings for sanitary gravity applications.

EEZI-FIT is significantly quicker to install than HDPE system fusion-welded welded systems for vertical and soil waste stacks.

EEZI-FIT needs no specialist installation tools like HDPE and stainless steel systems that, over a number of weeks generate significant additional hire costs which must be allowed for when comparing different materials.

Pipes Double Spigot

EP000

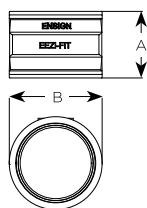


Product code	Dia	A Max O/dia	B Min I/dia	Min section	C Metre lengths available	Nominal wt/kg
156563	100	112	97.5	3	3	24.5
156827	150	162	146.25	3.5	3	41.0

Pipes coated internally with a two part epoxy and externally with a red protective coating (see page 100).

Coupling

EZ001 - EEZI-FIT coupling



Product code	Dia	A	C	Nominal wt/kg
208191	100	85	40	1.3
216312	150	114	55	2.0

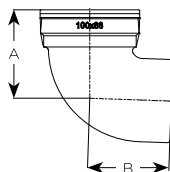
Assembly instructions (see page 63).

Gasket spare are available in bags of 10 - Product code 208204.

For electrical continuity see page 58.

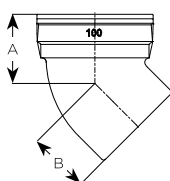
Bends Short Radius

EZ002 - 88° EEZI-FIT bend



Product code	Dia	A	B	C	Nominal wt/kg
208192	100	112	108	40	2.3
216313	150	154	145	50	5.0

EZ002 - 45° EEZI-FIT bend



Product code	Dia	A	B	C	Nominal wt/kg
208193	100	73	69	40	1.9
216319	150	102	94	50	4.0

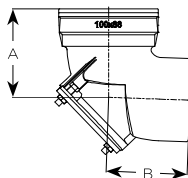
Bends With Access

EZ005 - 88° EEZI-FIT bend

- Short radius door back



Product code	Dia	A	B	C	Nominal wt/kg
208194	100	112	108	40	3.4
216315	150	154	145	50	5.7



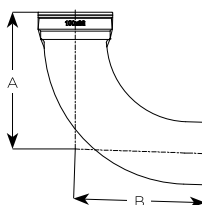
Bends Long Radius

EZ02L - 88° EEZI-FIT bend

- Long radius



Product code	Dia	A	B	C	Nominal wt/kg
215953	100	243	233	40	4.5

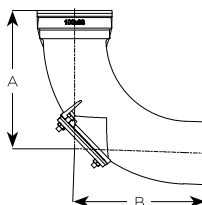


EZ05L - 88° EEZI-FIT bend

- Long radius door back



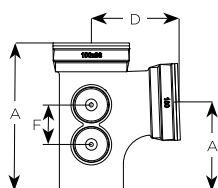
Product code	Dia	A	B	C	Nominal wt/kg
215952	100	243	233	40	5.6



Single Branches

EZ06R - Single branch 88°

- Swept radius curve



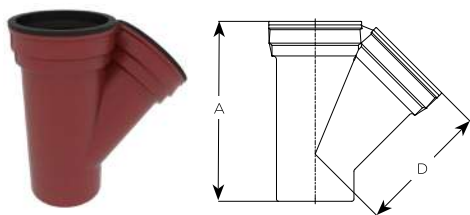
Product code	Dia	A	B	C	D	E	F	G	Nominal wt/kg
208195	100 x 100	250	210	40	145	105	68	148	5.6
216342	150 x 100	292	237	50	185	130	68	185	70

To make boss connections see page 80.

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

See design guidance in accordance with BSEN12056 part 2 (see page 79).

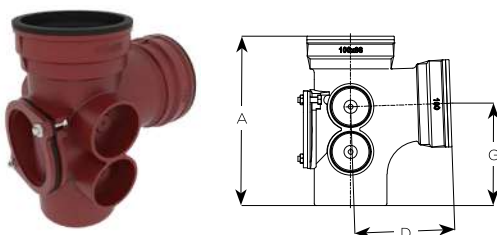
EZ006 – Single branch 45°



Product code	Dia	A	B	C	D	Nominal wt/kg
208196	100 x 100	250	210	40	183	4.1
216320	150 x 100	270	215	50	227	6.5
216341	150 x 150	353	298	50	265	8.9

EZ07R – Single branch 88° with access

- Swept radius curve



Product code	Dia	A	B	C	D	E	F	G	Nominal wt/kg
208197	100 x 100	250	210	40	145	105	68	148	6.7
216314	150 x 100	292	237	50	185	130	68	185	8.0

To make boss connections see page 80.

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

See design guidance in accordance with BSEN12056 part 2 (see page 79).

Double Branch

EZ010R – Double branch 88°

- Swept radius curve

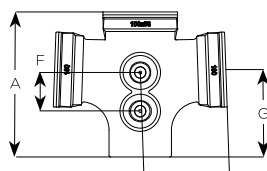


Product code	Dia	A	B	C	D	E	F	G	Nominal wt/kg
208198	100 x 100	250	210	40	145	105	68	148	6.0

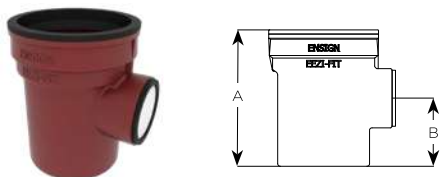
If 45° double branch is required, use ENSIGN EF010 code 191509 with EEZ1-FIT couplings.

To make boss connections see page 80.

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

EZ090 – Single boss pipe
1 x 50mm push-fit

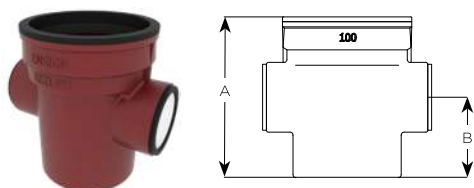
Product code	Dia	A	B	Nominal wt/kg
208199	100	158	82	2.1

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

For connections to 38/32 waste – see page 76.

Boss Pipes

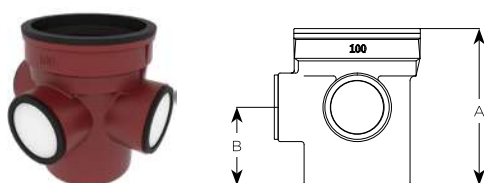
EZ092 - Double boss pipe 2 x 50mm push-fit



Product code	Dia	A	B	Nominal wt/kg
208200	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 76.

EZ092 - Double boss pipe EZ093 - Triple boss pipe 50mm push-fit



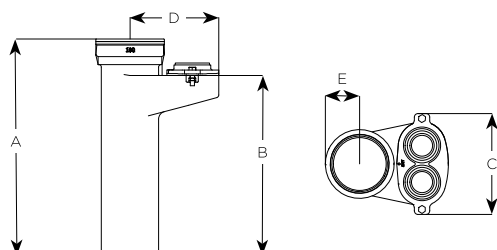
Product code	Dia	A	B	Nominal wt/kg
208201	100	158	82	2.3
208202*	100	158	82	2.5

Supplied with rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste.
For connections to 38/32 waste - see page 76.

*Triple boss pipe

Manifold Connector

EZ094 - Manifold connector



Product code	Dia	A	B	C	D	E	Nominal wt/kg
208203	100	410	345	190	170	66	6.6

Supplied with rubber grommets to connect to 54mm OD copper or 56mm OD UPVC waste.
For typical applications - see page 76.

Multi-Waste Manifold

NEW

EZ095 - For low level waste connections

Product code	Dia	A	B	C	D	E	F	G	H	I	J	K	Nominal wt/kg
261139	100	582	445	39	340	200	45	174	23	165	120	100	12.6
261435	150	566	445	39	345	235	55	155	25	220	170	160	16.8

6x2" BSP waste inlets.
Supplied with 5 blanking plugs.
See installation instructions on page 77.

