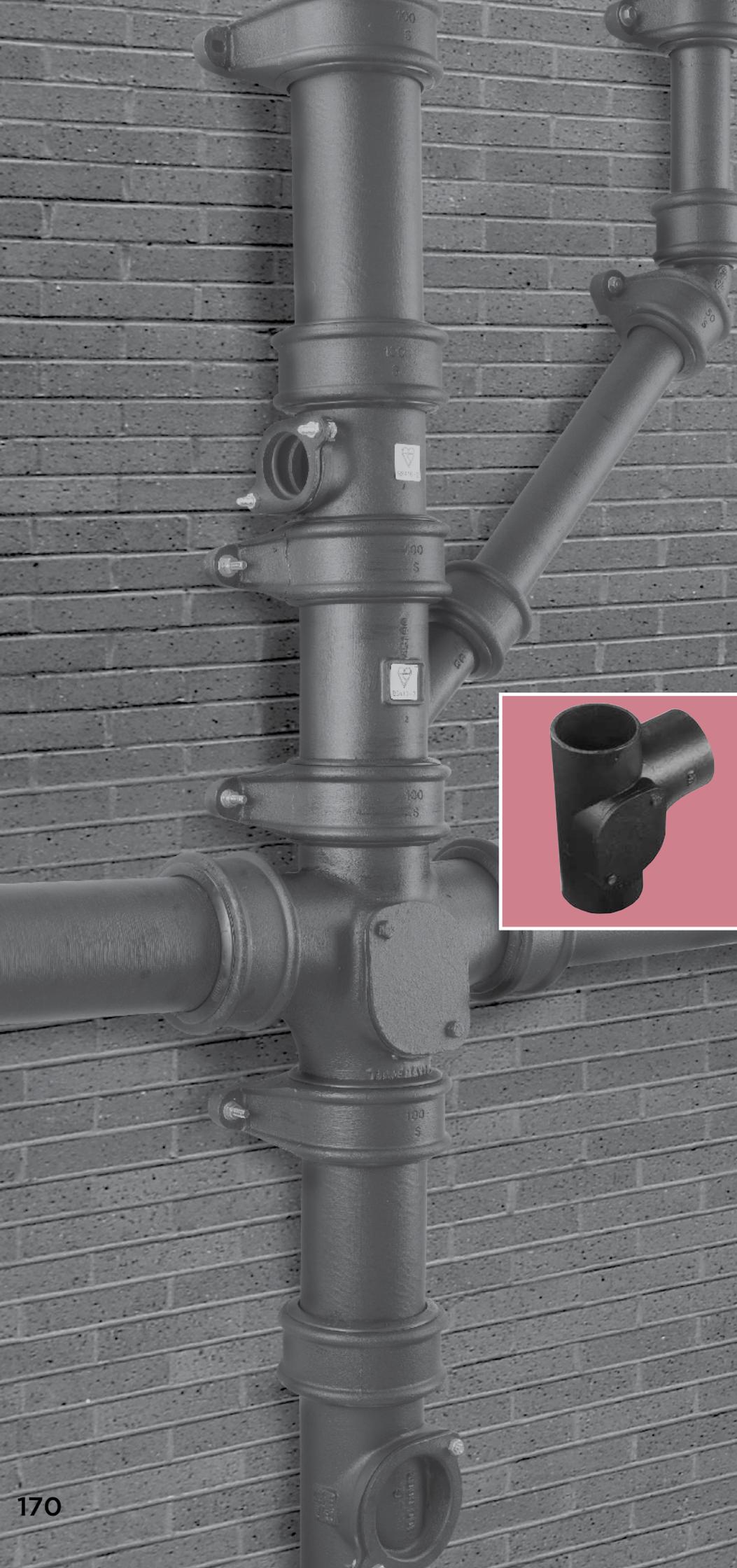


# Section 2

## Soil Pipes and Fittings



# Joining method



- A. Pipe or fitting
- B. Pipe or fitting
- C. Synthetic rubber gasket
- D. Coupling
- E. Set screws and nuts

50, 75 and 100 diameter couplings have two set screws and nuts.  
150 couplings have four set screws and nuts.

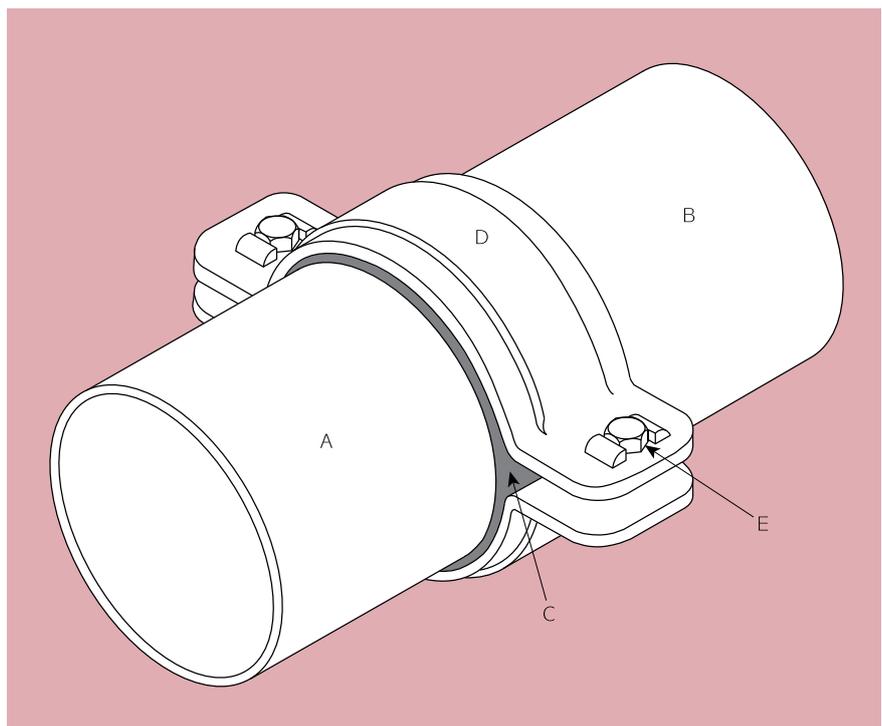
## Couplings are supplied ready assembled

1. Slacken bolts to fullest extent.
2. Place synthetic rubber gasket on end of pipe or fitting A, and slide loosely assembled coupling over pipe B.
3. Fit pipe B into gasket ensuring both A and B are butting against the internal central register.
4. Slide coupling over gasket ensuring that it is centrally located and tighten bolts alternately so that the gap between coupler halves is even on both sides. When hand tight check alignment of assembly.
5. Complete tightening operation by use of a Ratchet Spanner - EF100 with Deep Socket - EF101 until a suitable resistance is achieved (min 20Nm).

Joints may be deflected up to 5° without affecting the sealing properties.

The Timesaver couplings meet the performance requirements of BS 6087:1990 and incorporate synthetic rubber gaskets conforming to BS EN 681-1/ISO 4633 and set screws and nuts. A Ratchet Spanner - EF100 is the recommended tool required to tighten the set screws which give a 'for all time seal' water and airtight installation.

**Saint-Gobain PAM UK does not accept liability for any complaints on installations where components not manufactured by Saint-Gobain PAM UK are included.**



# Electrical continuity

Designed for use in situations where equipotential bonding (earthing) has been specified, the Timesaver electrical continuity clips are available for use with Timesaver soil and Timesaver drain systems.

The Timesaver electrical continuity clip fits a standard Timesaver coupling. Only one electrical continuity clip is required per coupling. Note: The electrical continuity test should be carried out in accordance with BS 6087.

## Continuity clips

These are supplied separately to the coupling in standard quantity bags of 25 number.

Coupling	Product code	Ref no.
To suit 50, 75, 100, GT01	191189	GT96S
To suit 150 GT01, 100, 150TD01	191190	GT96L
To suit 100 TD02	191191	GT96T
To suit 150 TD02	191192	GT96T6
To suit 225 TD01	191193	GT968

## Assembly instructions:

1. Slacken bolts to fullest extent.
2. Place synthetic rubber gasket C on pipe or fitting A and slide loosely assembled coupling over pipe B.
3. Fit pipe B into gasket ensuring both A and B are butting up to central register.
4. Fit continuity clip D centrally by peeling back one edge of the gasket and slipping it into the Continuity clip.
5. Repeat for other edge of gasket, so the gasket is held within the continuity clip D.
6. Position clip at 90° to gasket ears and in the direction of the pipe run.
7. Slide coupling over gasket and tighten bolts alternately so that the gap is even on both sides. When hand tight check alignment.
8. Complete tightening operation by use of a ratchet spanner - EF100 and deep socket - EF101 (min 20Nm).

Note: Use one continuity clip per coupling joint. Continuity clip must not be reused after tightening.

The installation should be tested to BS EN 12056 for a soil installation or to BS EN 752 for a drain installation and to IEE Regulations on equipotential bonding (earthing).

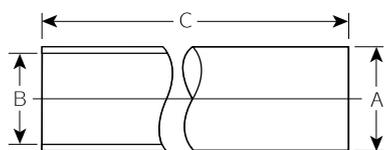
Provided that the Timesaver electrical continuity coupling is assembled and installed as recommended in our instructions, and the pipework is bonded to the main electrical earth or similar earth, it is considered that the Timesaver electrical continuity coupling will satisfy the IEE Regulations.

It is recommended that the installation is regularly checked for equipotential bonding (earthing) in case of accidental damage, unauthorised pipework modifications, etc.

If a Timesaver electrical continuity installation is to be modified for any reason Timesaver electrical continuity couplings must be used and the installation re-tested for equipotential bonding (earthing).



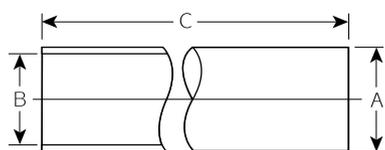
# Pipes double spigot



Product code	Nom dia	A Max o/dia	B Min i/dia	Min section	C Metre lengths available	Wt per mt kg
<b>Pipe - GT00</b>						
156366	50	63	50	4	3	6.4
156456	75	89	75	4	3	8.3
156567	100	112	101	4	3	9.3
156831	150	165	152	4	3	15.7

Pipes are internally lined with a two part epoxy paint (ochre colour). Externally coated with black acrylic paint and stencilled every metre with silver marking.

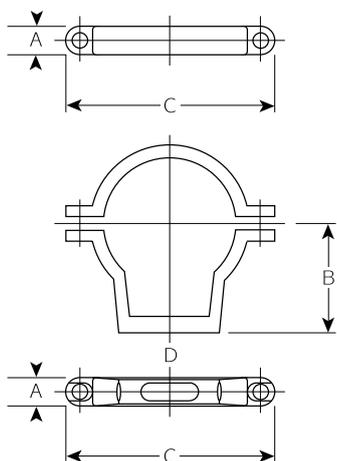
# Pipes double spigot - Heritage



Product code	Nom dia	A Max o/dia	B Min i/dia	Min section	C Metre lengths available	Wt per mt kg
<b>Pipe - GT00 - Timesaver Heritage</b>						
192423	100	112	101	4	1.8	9.3
206854	75	89	75	4	1.8	8.3

1.8 (6ft) pipe coated internally/externally in a black water based primer, for use with Timesaver Heritage couplings.

# Brackets

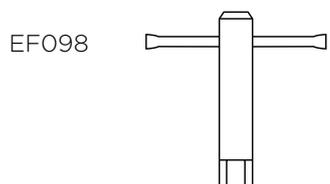


Product code	Dia	A	B	C	Nominal wt/kg
<b>Ductile iron bracket • Elongated slot at fixing point (D) to ease fixing - GT48</b>					
191720	50	27	64	110	0.3
191721	75	27	75	140	0.5
191722	100	27	90	166	0.6
191723	150	30	115	214	0.8

50-100 brackets suit M10 fixing.  
150 bracket suit M12 fixing.

Can be fitted with a new acoustic dampener for exceptional sound deadening performance (see page 187).  
Contact technical department 01952 262529 for information.

# Tools



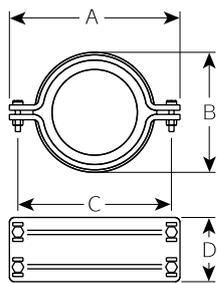
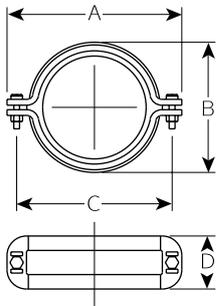
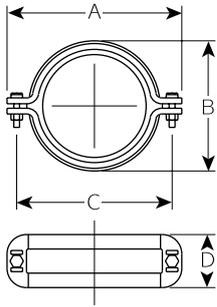
## Ratchet spanner - EF100: product code 191201

A ratchet spanner is the recommended tool required to tighten the set screws, used in conjunction with a deep socket - EF101: product code 191202.

## 'T' box spanner - EF098: product code 191200

13mm A/F, dual purpose, for use with Timesaver and Ensign systems.

# Couplings



## Standard

Ductile iron coupling with synthetic rubber gasket for jointing Timesaver soil to Timesaver soil (black gasket).

Product code	Dia	A	B	C	D	*E	Nominal wt/kg
<b>Two-piece ductile iron coupling - GT01</b>							
191691	50	126	85	105	55	5	0.8
191692	75	158	110	130	55	5	1.0
191693	100	185	135	160	55	5	1.4
191694	150	250	190	220	75	5	2.8

Two set screws are supplied on 50, 75, 100 couplings.

Four set screws are supplied on 150 couplings.

Electrical continuity clips are available supplied separately in standard quantity bags (see ref table page 172).

\* Minimum allowance (E) to accommodate gasket register (for guidance only).

## Transitional

Ductile iron coupling with synthetic rubber gasket for jointing Timesaver soil to conventional soil (black gasket with identity marking).

Product code	Dia	A	B	C	D	*E	Nominal wt/kg
<b>Two-piece ductile iron coupling - GT12</b>							
191695	65-75	158	110	130	55	5	1.0
191429	+70-75	158	110	130	55	5	1.0
191696	90-100	185	135	160	55	5	1.4

Two set screws are supplied on GT12 couplings.

Designed for connecting:

65 (2½") conventional soil to 75 Timesaver soil.

90 (3½") conventional soil to 100 Timesaver soil.

† Connects 75mm Timesaver soil with 70mm Ensign.

\* Minimum allowance (E) to accommodate gasket register (for guidance only).

## Allowable pipe diameters when using the GT12 coupling

Coupling	Conventional pipe dia.		Timesaver pipe dia.	
	Min.	Max.	Min.	Max.
65-75	72	76	85	89
90-100	97	101	110	114

For connection to other materials see page 56.

## Transitional

Ductile iron coupling with stainless steel nuts and set screws and synthetic rubber gasket for jointing Timesaver drain to Timesaver soil (black gasket with identity marking).

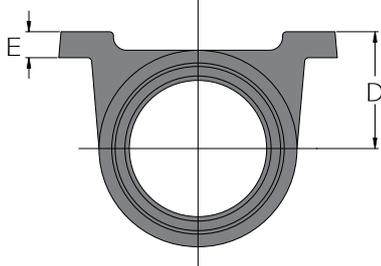
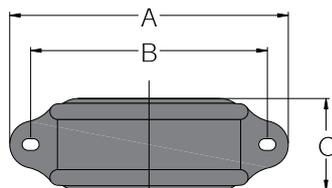
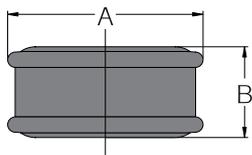
Product code	Dia	A	B	C	D	*E	Nominal wt/kg
<b>Two-piece ductile iron coupling - TD02</b>							
191297	100	203	140	180	75	5	2.8
191298	150	252	195	230	75	5	3.6

Four set screws are supplied on TD02 couplings.

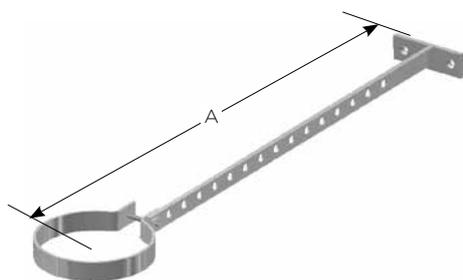
Electrical continuity clips are available supplied separately in standard quantity bags (see ref table page 172).

\* Minimum allowance (E) to accommodate gasket register (for guidance only).

# Heritage couplings



Reducing Gasket



Product code	Dia	A	B	Nominal wt/kg
<b>Joint • Plain no ears - GT05P</b>				
192418	50	99	73	0.9
206855	75	128	73	1.4
192421	100	152	73	1.8

Product code	CAD Ref	Dia	A	B	C	D	E	Nominal wt/kg
<b>Joint • With fixing ears - GT05E</b>								
192417		50	146	114	73	62	20	1.4
206856		75	178	146	73	76	20	2.0
192420		100	213	181	73	90	20	2.6

Product code	Dia	A	B	C	D	E	Nominal wt/kg
<b>Joint • Slip - GT05S with reduced central register</b>							
192419	50	146	114	73	62	20	1.4
206836	75	178	146	73	76	20	2.0
192422	100	213	181	73	90	20	2.6

To connect Timesaver Heritage couplings - 100mm diameter to 90mm traditional soil utilise reducing gasket: product code 156132 (see page 190).  
150mm diameter see Ensign range.

Product code	Dia	Nominal wt/kg
<b>Cast iron wall spacer</b>		
192424	50	0.2
206838	75	0.2
192425	100	0.3

To suit eared PFJ GT05E.

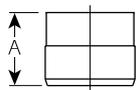
Product code	Dia	Nominal. wt/kg
<b>Mild steel restraining bracket - EF053</b>		
192333	100	0.5

To suit 100mm Timesaver Heritage coupling with ears GT05E.

Product code	Dia	A	Nominal wt/kg
<b>Mild steel restraining bracket - EF053A</b>			
192363	100	450	0.5

To suit 100mm diameter Timesaver Heritage pipework (see page 191 for typical installation).

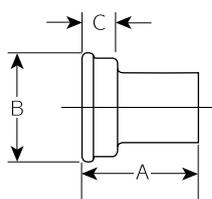
# Pipes transitional



Product code	Dia	A	Nominal wt/kg
<b>Adaptor from Timesaver drain to supersleve - TD118</b>			
191350	100	100	2.2
191351	150	125	5.1

Use in conjunction with TD02 connect to Timesaver soil to supersleve.

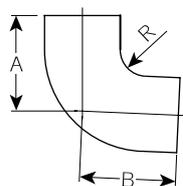
## Connectors WC



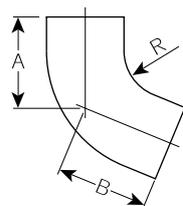
Product code	Dia	A	B	C	Nominal wt/kg
<b>Transitional EF059</b>					
156650	100	155	176	80	2.9

To connect, earthware, WC, stoneware, traditional, soil/drain etc. Note: Ensign product red epoxy coated.

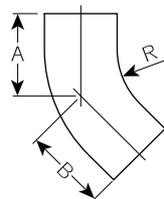
## Bends short radius



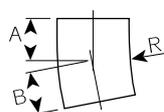
Product code	Dia	A	B	R	Nominal wt/kg
<b>87½° Bend • Short radius - GT02</b>					
191620	50	115	115	40	1.4
191622	75	135	135	40	2.9
191631	100	145	145	40	2.3
191634	150	145	145	15	3.9



Product code	Dia	A	B	R	Nominal wt/kg
<b>67½° Bend • Short radius - GT02</b>					
191625	100	135	135	70	4.0

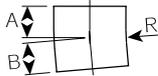
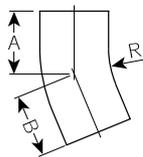
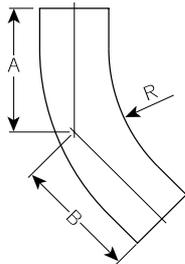
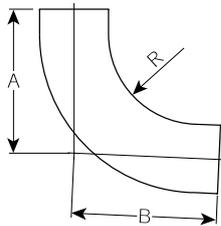


Product code	Dia	A	B	R	Nominal wt/kg
<b>45° Bend • Short radius - GT02</b>					
191619	50	50	50	15	0.6
191621	75	115	115	70	2.3
191626	100	135	135	150	3.5
191632	150	90	90	15	3.0



Product code	Dia	A	B	R	Nominal wt/kg
<b>11° Bend • Short radius - GT02</b>					
191628	100	35	55	30	1.6

# Bends long radius



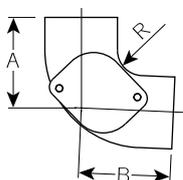
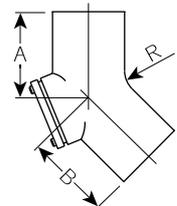
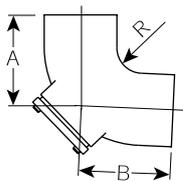
Product code	Dia	A	B	R	Nominal wt/kg
<b>87½° Bend • Long radius - GT02L</b>					
191623	75	230	230	150	4.5
191630	100	269	269	180	4.3
191635	150	274	274	150	10.1

Product code	Dia	A	B	R	Nominal wt/kg
<b>45° Bend • Long radius - GT02L</b>					
191627	100	205	205	275	6.1

Product code	Dia	A	B	R	Nominal wt/kg
<b>22½° Bend • Long radius - GT02L</b>					
191624	100	90	90	180	1.7
191633	150	140	140	150	4.8

Product code	Dia	A	B	R	Nominal wt/kg
<b>5° Bend • Long radius - GT02L</b>					
191629	100	50	50	230	1.5

# Bends short radius with oval access doors



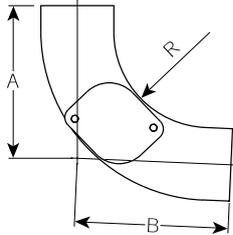
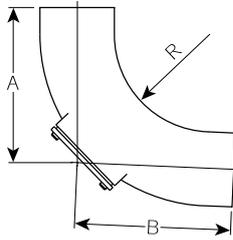
Product code	Dia	A	B	R	Nominal wt/kg
<b>87½° Bend with access rear • Short radius - GT03</b>					
191636	50	115	115	40	1.9
191638	75	135	135	40	3.6
191642	100	145	145	40	3.3
191644	150	145	145	15	6.1

Product code	Dia	A	B	R	Nominal wt/kg
<b>45° Bend with access rear • Short radius - GT03</b>					
191637	75	115	115	70	3.5
191640	100	130	130	120	5.0
191643	150	150	150	120	7.4

Product code	Dia	A	B	R	Nominal wt/kg
<b>87½° Bend with access side • Short radius - GT04</b>					
191646	100	145	145	40	4.8

# Bends

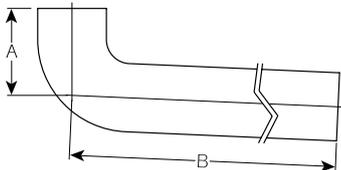
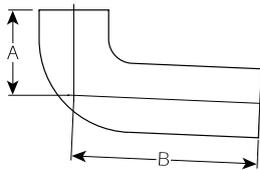
medium and long radius with oval access doors



Product code	Dia	A	B	R	Nominal wt/kg
<b>87½° Bend with access rear • Long and medium radius • GT03L</b>					
191639	75	230	230	150	5.3
191641	100	269	269	180	7.4
191645	150	274	274	150	11.7

Product code	Dia	A	B	R	Nominal wt/kg
<b>87½° Bend with access side • Long radius - GT04L</b>					
191647	100	250	250	180	7.4

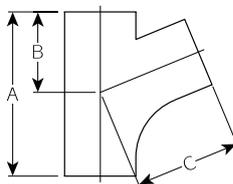
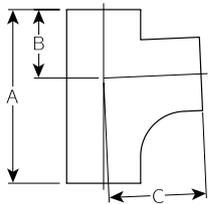
# Bends long tail



Product code	Dia	A	B	Nominal wt/kg
<b>87½° Bend • Long tail - GT43</b>				
191688	100	110	250	4.6

Product code	Dia	A	B	Nominal wt/kg
<b>87½° Bend • 815 long tail - GT55</b>				
191689	100	165	815	13.9

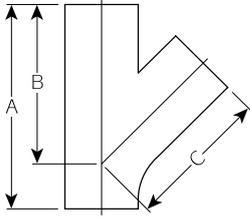
# Branches



Product code	Dia	A	B	C	Nominal wt/kg
<b>87½° Branch - GT06 Swept</b>					
191649	50 x 50	145	66	80	1.0
191651	75 x 50	205	75	125	2.6
191653	75 x 75	245	85	145	3.2
191655	100 x 50	204	90	120	2.4
191657	100 x 75	245	90	145	4.1
191660	100 x 100	270	102	150	3.5
191662	150 x 100	300	117	202	7.6
191664	150 x 150	375	145	215	10.7

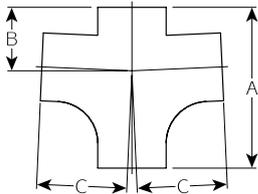
Product code	Dia	A	B	C	Nominal wt/kg
<b>67½° Branch - GT06</b>					
191658	100 x 100	265	130	170	5.0

# Branches

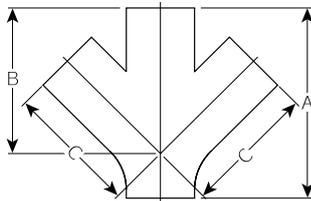


Product code	Dia	A	B	C	Nominal wt/kg
<b>45° Branch - GT06</b>					
191648	50 x 50	185	135	135	1.4
191650	75 x 50	250	190	170	3.5
191652	75 x 75	285	220	185	4.5
191654	100 x 50	200	165	165	2.4
191656	100 x 75	290	225	210	4.9
191659	100 x 100	275	205	205	3.8
191661	150 x 100	295	240	240	6.1
191663	150 x 150	355	265	265	9.0

# Branches double

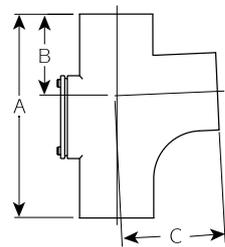


Product code	Dia	A	B	C	Nominal wt/kg
<b>87½° Double branch - GT10 Swept</b>					
191681	75 x 75	245	85	145	4.7
191683	100 x 100	270	102	150	4.2
191684	150 x 100	300	115	200	10.9

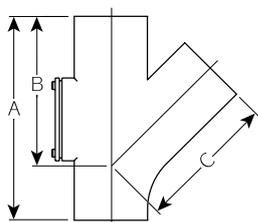


Product code	Dia	A	B	C	Nominal wt/kg
<b>45° Double branch - GT10</b>					
191682	100 x 100	260	190	190	4.0

# Branches with access doors

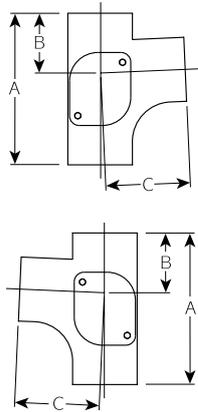


Product code	Dia	A	B	C	Nominal wt/kg
<b>87½° Branch with access rear - GT07 Swept</b>					
191665	50 x 50	195	75	110	2.4
191666	75 x 50	205	75	125	3.7
191668	75 x 75	245	85	145	4.2
191670	100 x 50	204	90	120	3.0
191672	100 x 75	245	90	145	5.3
191674	100 x 100	270	102	150	4.3
191676	150 x 100	300	117	202	10.4
191678	150 x 150	400	140	260	13.9



Product code	Dia	A	B	C	Nominal wt/kg
<b>45° Branch with access rear - GT07</b>					
191673	100 x 100	320	245	220	7.6
191675	150 x 100	370	305	255	10.8

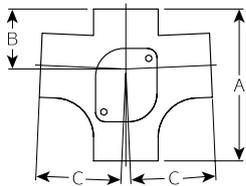
## Branches with oval access doors



Product code	Dia	A	B	C	Nominal wt/kg
<b>87½° Branch with access right - GT08 Swept</b>					
191679	100 x 100	270	100	150	6.6

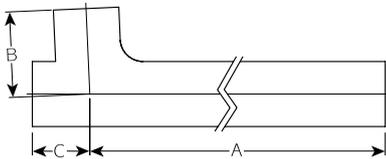
Product code	Dia	A	B	C	Nominal wt/kg
<b>87½° Branch with access left - GT09 Swept</b>					
191680	100 x 100	270	100	150	6.6

## Branches double with oval access doors



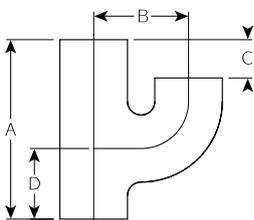
Product code	Dia	A	B	C	Nominal wt/kg
<b>87½° Double branch with access door - GT11 Swept</b>					
191685	100 x 100	265	109	150	7.0

## Branches 915 long



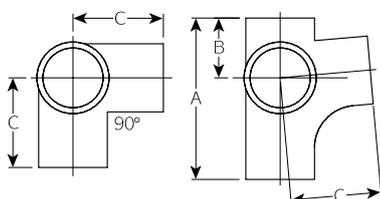
Product code	Dia	A	B	C	Nominal wt/kg
<b>87½° Branch • 915 long tail - GT56 Swept</b>					
191690	100	815	165	100	15.0

## Branches parallel



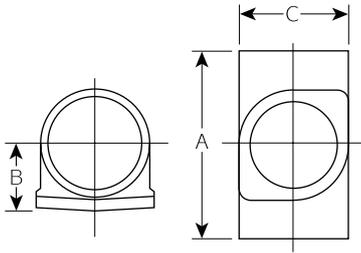
Product code	Dia	A	B	C	D	Nominal wt/kg
<b>Branch • Parallel - GT32</b>						
191686	100 x 100	305	160	65	125	7.4

## Branches corner

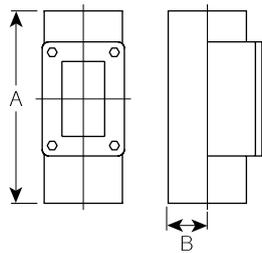


Product code	Dia	A	B	C	Nominal wt/kg
<b>87½° Branch • Corner - GT35</b>					
191687	100 x 100	220	105	115	3.5

# Pipes access

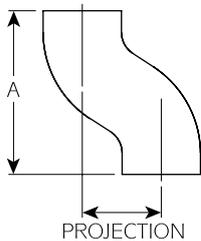


Product code	Dia	A	B	C	Nominal wt/kg
<b>Pipe with oval access door - GT14</b>					
191697	75	280	100	90	4.1
191698	100	250	80	116	3.1
191699	150	280	110	170	6.2



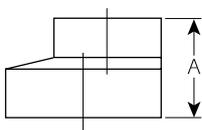
Product code	Dia	A	B	Nominal wt/kg
<b>Pipe with rectangular access door - GT15</b>				
191700	100	320	80	6.7
191701	150	395	105	12.2

# Offsets



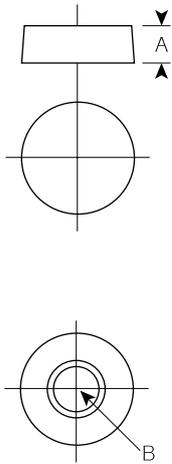
Product code	Dia	A	Nominal wt/kg
<b>Offsets - GT24</b>			
<b>75 Projection</b>			
191702	75	200	2.2
191705	100	215	2.9
<b>115 Projection</b>			
191704	75	220	3.2
191709	100	235	3.4
<b>150 Projection</b>			
191703	75	235	3.5
191706	100	250	4.4
<b>230 Projection</b>			
191707	100	280	5.0
<b>305 Projection</b>			
191708	100	310	6.1

# Pipes taper



Product code	Dia	A	Nominal wt/kg
<b>Pipes • Diminishing - GT28</b>			
191710	75 x 50	70	0.8
191711	100 x 50	80	0.9
191712	100 x 75	80	1.0
191713	150 x 100	105	1.9

# Blank ends



Product code	Dia	A	Nominal wt/kg
<b>Blank ends - GT70</b>			
191724	50	30	0.4
191725	75	35	0.8
191726	100	40	0.8
191727	150	50	2.0

Product code	Dia	A	Nominal wt/kg
<b>Blank ends - GT71</b>			
191728	75	35	0.8
191729	100	40	1.0
191731	150	50	2.0

*B - Push-fit adaptor to accommodate 54/56mm o/dia PVC/copper waste.*

*Note: 50 x 56mm connector available (see Ensign product code 155759).*

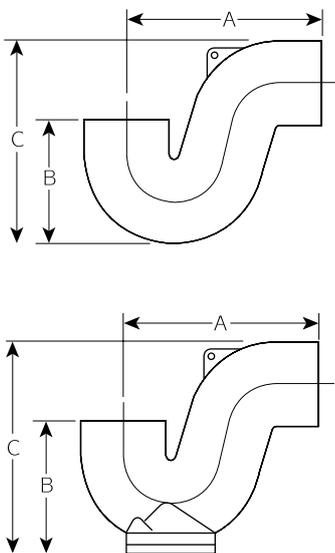
<b>Blank ends - GT71T drilled and tapped 50mm BSPT</b>			
191730	100	40	1.0

Product code	Dia	A	B	C	Nominal wt/kg
<b>'P' trap • Plain - GT34</b>					
191714	100	255	160	263	4.5

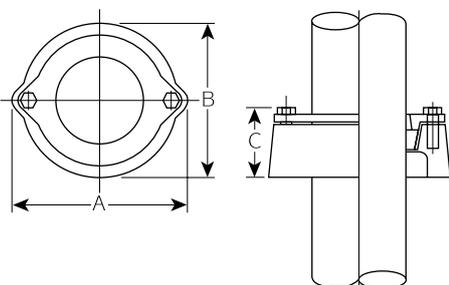
Product code	Dia	A	B	C	Nominal wt/kg
<b>'P' trap with access bottom - GT37</b>					
191715	50	160	115	167	2.0
191716	75	265	210	203	6.3
191717	100	255	175	270	5.2
191718	150	350	240	370	12.1

*50mm and 75mm do not have support lug as shown on drawing.*

# Traps 'P'

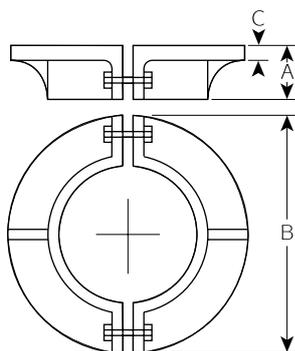


# Connectors roof



Product code	Dia	A	B	C	Nominal wt/kg
<b>Roof connectors for asphalt - GT73</b>					
191733	100	185	170	72	2.1

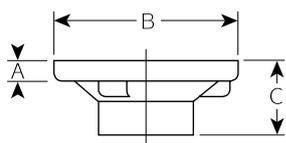
# Flanges loose puddle



Product code	Dia	A	B	C	Nominal wt/kg
<b>Flange - ED078 supplied grey epoxy coated only</b>					
191829	100	50	220	12	4.6

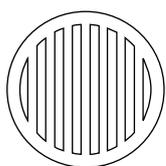
*This collar is in two halves which can be bolted around the pipe even when pipe is in position. Can also be used as a firestop. Due to manufacturing tolerances it is recommended that the puddle flange is bedded on Denso tape or similar.*

# Gully inlets Bellmouth



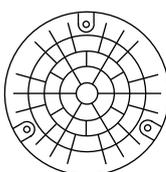
Product code	Dia	A	B	C	Nominal wt/kg
<b>Gully inlet - GT483</b>					
191737	100	25	215	90	2.5

# Gratings and covers



Product code	Dia	Nominal wt/kg
<b>Grating plain - TD612</b>		
191385	200	1.8

*Maximum load 2.0 tonnes.*



Product code	Dia	Nominal wt/kg
<b>Solid cover - TD613S</b>		
191386	200	2.0

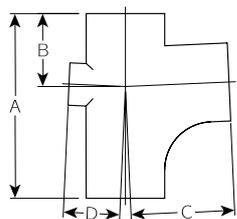
*Maximum load 2.0 tonnes.*



Product code	Dia	Nominal wt/kg
<b>Grating hinged and locking - TD614</b>		
191387	200	1.8

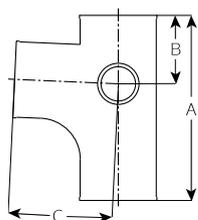
*Maximum load 2.0 tonnes.*

## Boss branches



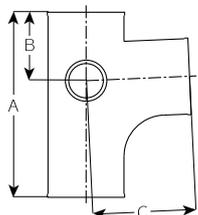
Product code	Dia	A	B	C	D	Nominal wt/kg
<b>87½° Boss branch • Back - GT06 Swept</b>						
191743	100 x 100	270	100	150	75	5.4

Available with 50mm BSPT boss only.



Product code	Dia	A	B	C	D	Nominal wt/kg
<b>87½° Boss branch • Left hand - GT06 Swept</b>						
191744	100 x 100	270	100	150	75	5.4

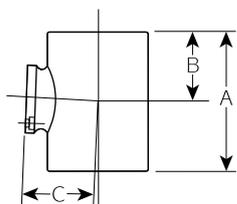
Available with 50mm BSPT boss only.



Product code	Dia	A	B	C	D	Nominal wt/kg
<b>87½° Boss branch • Right hand - GT06 Swept</b>						
191745	100 x 100	270	100	150	75	5.4

Available with 50mm BSPT boss only.

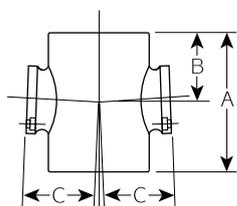
## Boss pipes



Product code	Dia	A	B	C	Nominal wt/kg
<b>Boss pipe • Single 'O' ring rubber compression boss - GT106</b>					
192236	50	150	75	55	1.2
192237	100	155	75	75	2.1
192239	150	175	87	105	3.8

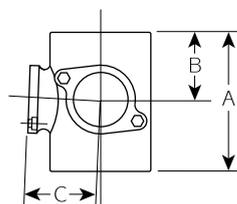
### Boss pipe • Drilled • Tapped 50mm BSPT

191739	75	150	75	63	2.0
192238	100	155	75	75	2.1



Product code	Dia	A	B	C	Nominal wt/kg
<b>Boss pipe • Double 'O' ring rubber compression boss (opposed) - GT109</b>					
192240	100	155	75	75	2.5
192360	150	175	87	105	4.2

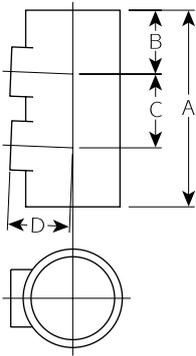
100mm Boss pipe • Drilled • Tapped 50mm BSPT available upon request.



Product code	Dia	A	B	C	Nominal wt/kg
<b>90° Boss pipe • Double 'O' ring rubber compression boss - GT115</b>					
192241	100	155	75	75	2.5

100mm boss pipe • Drilled • Tapped 50mm BSPT available upon request.

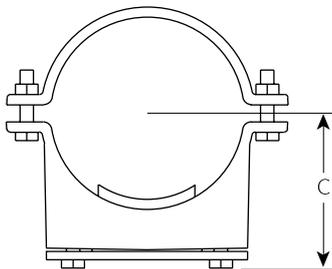
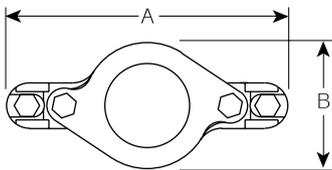
# Boss pipes



Product code	Dia	A	B	C	D	Nominal wt/kg
<b>87½° Boss pipe - GT132</b>						
191742	100	240	75	90	75	4.1

50mm push-fit connections.

# Strap-on boss fitting



Product code	Dia	A	B	C	Nominal wt/kg
<b>Strap-on boss - GT133</b>					
192323	100	166	76	100	1.4

Insertion depth = 30mm.

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 416 (pipe outside diameter min/max 109/114mm).

### 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: Product code 192326.
- Arbour: Product code 192327.
- ¼" pilot drill: Product code 192328.
- 13mm socket EF101: Product code 191202.  
or
- 13mm spanner for mechanically fitting the boss adaptor EF098: Product code 191200.



# Support for vertical pipework

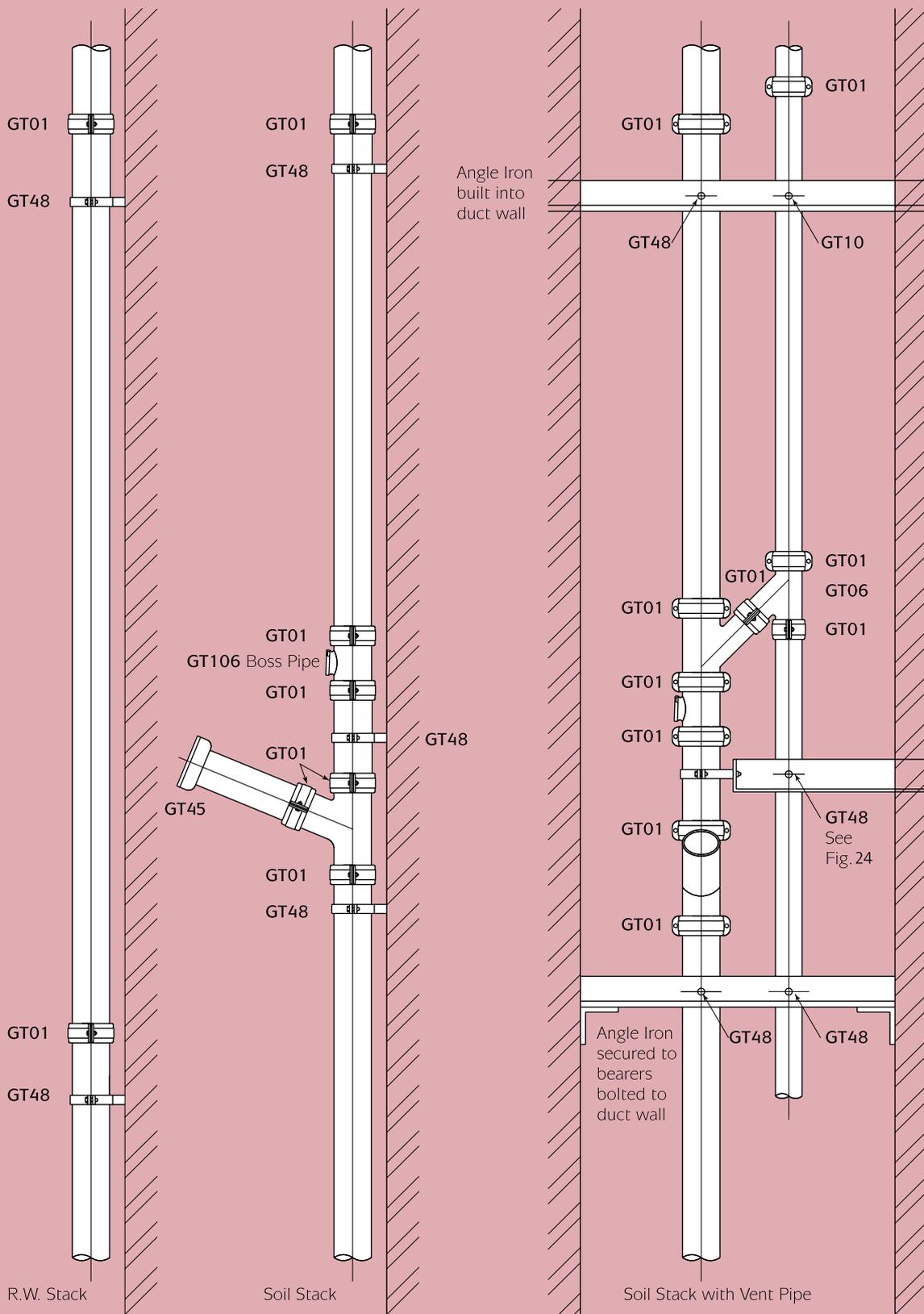
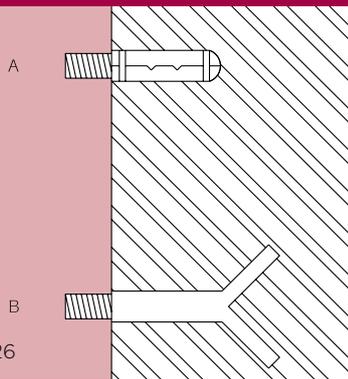


Fig. 22

Fig. 23

Fig. 23a

# Support for vertical pipework



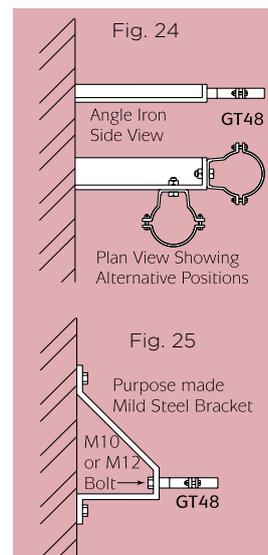
## Suggested fixing methods

- A. Expanding type fixing with stud
- B. Build in or drive in type fixing

## Support for vertical pipework

For vertical soil or rainwater stacks, it is recommended that a load bearing bracket be fitted to each floor level to carry the weight of the soil stack. This is of particular importance on multi-storey applications. These brackets should be tightened as the stack is built up so that each floor height is self-supporting and undue pressure is not imposed on the base of the stack.

Where stacks are located at standard distances from wall or column, ie. 32 from back of pipe to wall face, 50 and 75 diameters and 38 for 100, 150 diameters. RW stacks, (Fig. 22), one bracket GT48 per length will be adequate. Soil stacks, (Fig. 23) may require an extra bracket on or adjacent to the boss pipe in order to ensure correct alignment of stack.



# Support for low gradient pipework

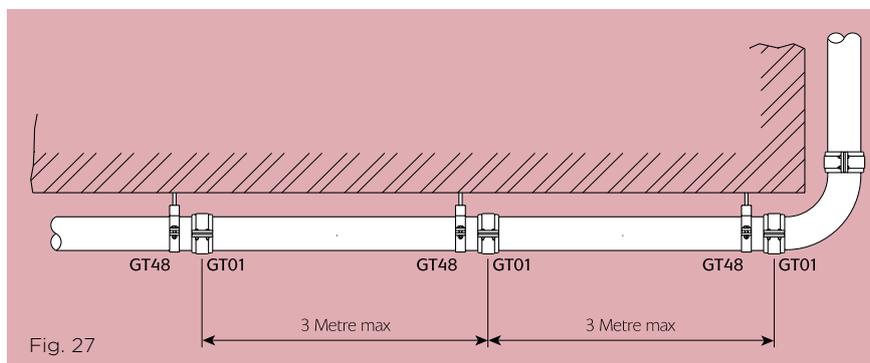
The distance between pipe supports should not exceed 3m. Supports should be adjacent to joints and adequate to carry the weight of pipe plus contents. Where the layout requires shorter lengths than the maximum, support distances should be adjusted to suit.

Suggested Horizontal Fitting

Fig. 28



GT48  
Suspended from threaded rod



# Acoustic bracket



The GT48 ductile iron bracket fitted with the new acoustic dampener achieves an exceptionally low level of noise transition (see table). The dampener fits all GT48 bracket sizes (50-150mm) and is supplied assembled.

	Airborne sound pressure level dB(A)		Structure borne sound characteristic level dB(A)	
	2.0	4.0	2.0	4.0
Ductile iron bracket fitted with acoustic dampener	45	47	5	11

Vertical pipe stack - one acoustic bracket per 3 metre  
Horizontal suspended pipework - two acoustic brackets minimum per 3 metre

# Connection to other materials

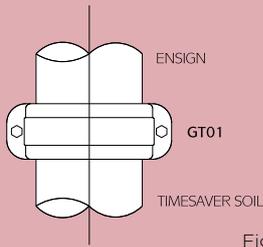


Fig. 29

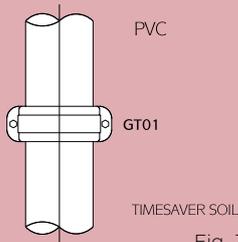


Fig. 30

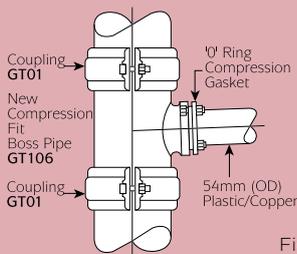


Fig. 31

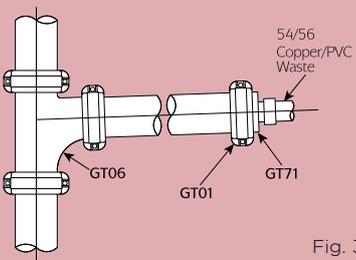


Fig. 32

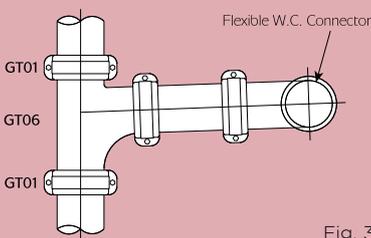


Fig. 33

## A. Timesaver soil dimensions

Most materials can be connected to Timesaver soil by using a GT01 coupling if their dimensions conform to the following table:

Timesaver soil nominal dia	Min o/dia	Max o/dia
50	59	63
75	85	89
100	109.5	114
150	160	165

## B. Ensign

Couple directly to Ensign using a standard coupling GT01, two piece coupling to BS 6087. (see Fig. 29)

## C. PVC pipe

100 and 150 PVC can be connected directly to Timesaver soil using a GT01 coupling. (see Fig. 30)

50 PVC can be connected using either the compression boss pipe GT106 (see Fig. 31), or a GT71 (see Fig. 32), both of which are push-fit connection. Alternatively a traditional drilled and tapped boss pipe with 50mm BSPT is available in 100mm diameter.

## D. Waste pipes (copper, plastic etc)

These can be connected via a compression boss pipe (see Fig. 31), or a GT71 (see Fig. 32), both of which are push-fit connection. Traditional drilled tapped 50 BSPT options also available.

## E. WC connections

Can be achieved directly by using a flexible WC connector (see Fig. 33), or Transitional Connector EF059 (see page 43).

The WC connector requires a caulked joint.

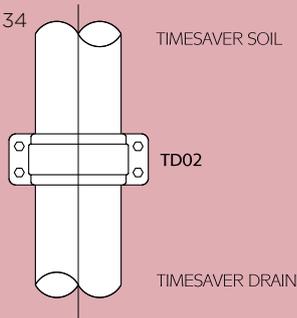
## F. Aluminium and stainless steel

If the outside diameter of these fittings conform to Timesaver dimensions a GT01 coupling can be used (see above for dimensions).



# Connection to other materials

Fig. 34



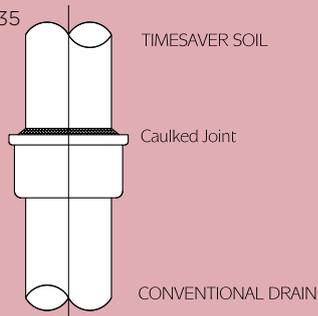
## G. Timesaver drain

Couple directly to Timesaver soil using a TD02 coupling (see Fig. 34).

## H. Conventional drain

To connect into a conventional drain socket use a caulked joint (see Fig. 35).

Fig. 35



## I. Copper

75, 100 and 150 copper can be connected directly to Timesaver soil by using an adaptor available From IMI Dreh or similar and a GT01 coupling (see Fig. 36).

54/56 copper may be connected by a boss pipe (see Fig. 31), or a GT71 (see Fig. 32), both of which are push-fit connection.

## J. Hepworth clayware

100 and 150 Supersleve can be connected to Timesaver soil by using a TD118 adaptor and a TD02 coupling (see Fig. 37).

100 and 150 hepsleve can be connected to Timesaver soil by using a TD118 adaptor and a TD02 coupling in conjunction with a supersleve to hepsleve transitional coupling manufactured by Hepworth (see Fig. 38).

Fig. 36

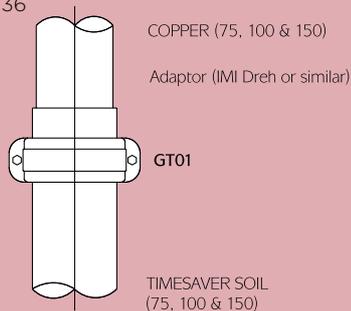


Fig. 37

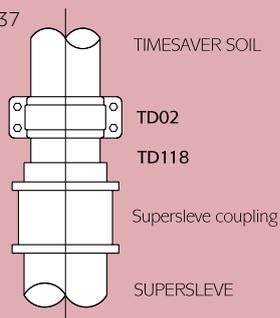
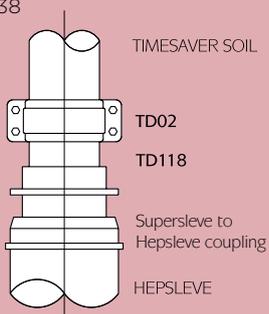


Fig. 38



# Heritage jointing method



1. Apply a small amount of lubricant (ie. silicone grease) on the lip of the rubber gaskets, both ends, to ease insertion of pipe/fittings.



2. Push coupling over the end of pipe/fitting, ensuring the central register is abutted against the spigot edge evenly. If the coupling is eared, fix to wall using anti-corrosion coach screws or similar.



3. Push the second pipe or fitting into the gasket again ensuring that the spigot is abutted against the central register. Timesaver Heritage couplings eared/plain can be fitted to most fittings within the 50, 75 and 100 diameter ranges (see table page 192).



Three joints used on branches can be very close fitting, in some cases they virtually touch. To accommodate this, the plain joint is designed with a flat area which should be lined up with the adjoining socket, to give maximum clearance (see Fig. 39).

Generally when plain sockets are used, ensure flat area is positioned at the rear of the pipe (nearest the wall) away from view.

### Existing systems

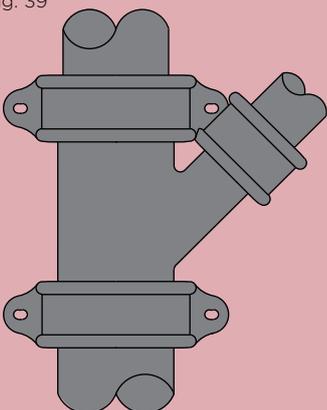
If breaking into an existing Timesaver system, a slip joint should be ordered which is designed with a reduced central register. The joint is made by slipping the whole socket onto the pipe, positioning the new fitting then sliding the socket into the desired position.

### Connection to conventional soil

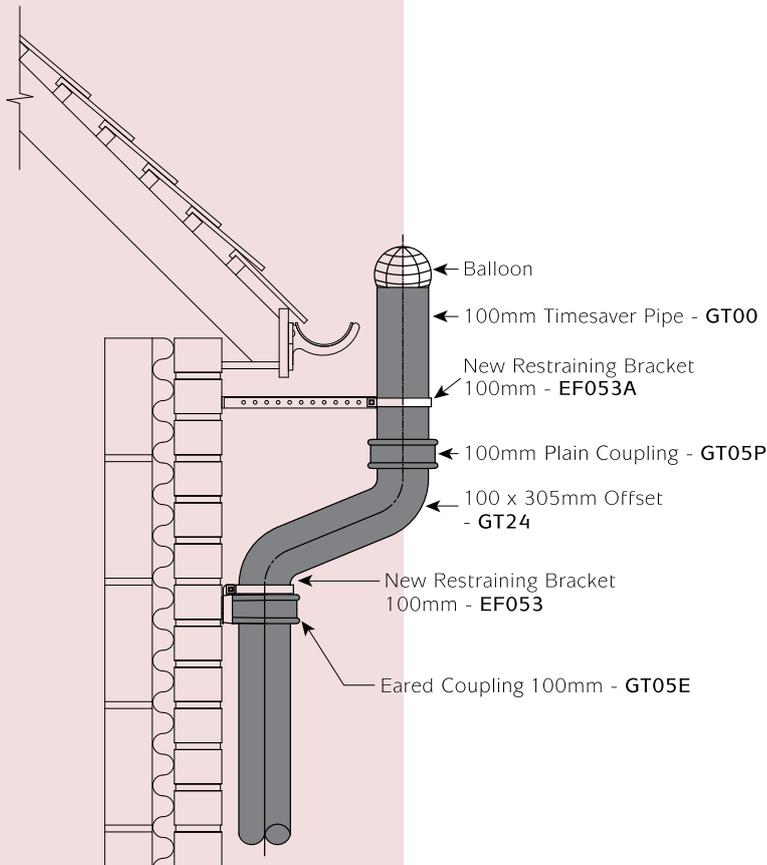
Timesaver can connect directly to 90mm (3½") conventional soil by inserting a traditional gasket into the Timesaver Heritage coupling, product code 156132, replacing one of the standard gaskets.

Lubricate the spigot of the 90mm pipe, and push coupling over the pipe inserting 35mm only. Ensure the 90mm pipe is securely fixed to prevent slipping into new pipework.

Fig. 39



# Heritage design recommendations



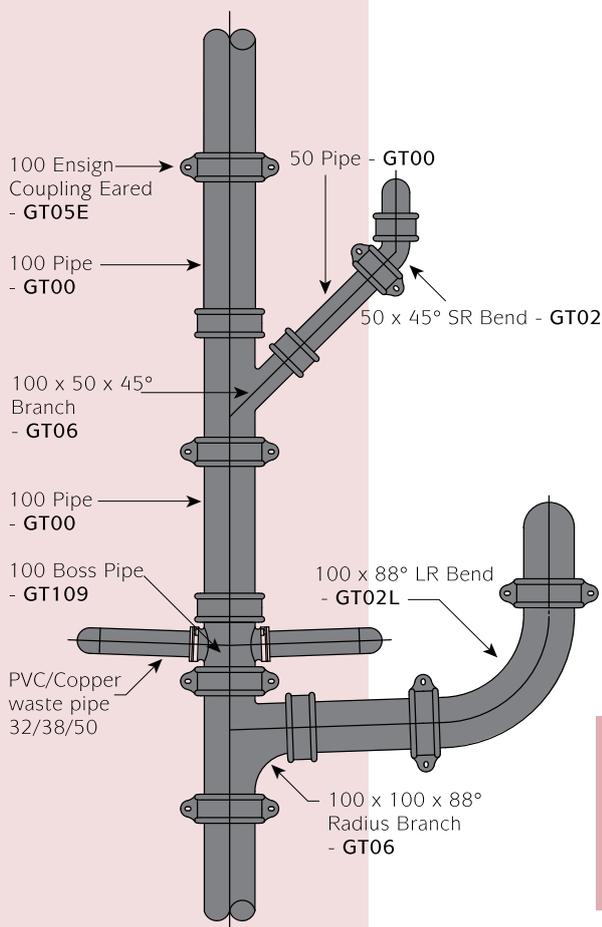
When designing a stack using the new push-fit joint, all fittings require at least one eared socket, to anchor the system to the building. Taking branches as an example, eared joints could be used at the top and bottom of the vertical section to anchor the system, with a plain joint used on the branch arm.

The rubber seals are factory fitted to the socket, and a suitable lubricant (silicone grease) is recommended to ease assembly.

### On-site protection

The coating for the Timesaver system is regarded as a primer protection. Therefore when specified for external soil stacks, must be overpainted in accordance with manufacturers recommendations (see page 193).

New restraining brackets EF053 and EF053A. These brackets are designed to give support to the system when in an offset situation. See typical installation opposite.



New restraining bracket EF053 code 192333

To suit 100mm eared coupling GT05E



New restraining bracket EF053A code 192363



### Note:

Timesaver soil fittings were traditionally supplied with a raised bead on the spigot ends, which over the years have been removed. The Heritage couplings can only be used on fittings without the bead.

# Heritage Product range compatibility

## Timesaver Heritage – product range

List of products within the Timesaver soil range, which can be used with the Timesaver Heritage couplings

Pipe products		Code	50mm Dia.	75mm Dia.	100mm Dia.
Pipe double spigot		GT00			
3m long			●	●	●
1.8m long				●	●
Bends – Short radius plain	67½°	GT02			●
	87½°, 45°		●	●	●
Bends – Short radius door back	87½°	GT03	●	●	●
	45°			●	●
Bends – Short radius door side	87½°	GT04			●
Bends – Large radius plain	87½°, 45°	GT02L		●	●
	22°				●
Bends – Large radius door back	87½°	GT03L		●	●
Bends – Large radius door side	87½°	GT04L			●
Bends – Long tail	87½°	GT43			●
Branches – Plain single equal	87½°, 45°	GT06	●	●	●
Branches – Plain single reducing	87½°, 45° x 50	GT06		●	●
	x 75				●
Branches – Single door back equal	87½°	GT07	●	●	●
Branches – Single door back reducing	87½° x 50	GT07		●	●
	87½° x 75	GT07			●
Branches – Single door side	87½°	GT08/GT09			●
Branches – Double plain	87½°	GT10		●	●
Branches – Double with door	87½°	GT11			●
Access Pipes – Oval door	87½°	GT14		●	●
Access Pipes – Rectangular door	87½°	GT15			●
Offset projection	75mm	GT24		●	●
	115mm			●	●
	150mm			●	●
	225mm				●
	305mm				●
Taper pipe	x 50	GT28		●	●
	x 75				●
'P' Trap – Plain		GT34			●
'P' Trap – with door		GT37	●	●	●
Blank end – Plain		GT70	●	●	●
Blank end – 50mm push-fit		GT71		●	●
Blank end – 50mm BSPT		GT71T			●
Boss pipe – 50mm single push-fit		GT106	●		●
Boss pipe – 50mm single BSPT		GT106T		●	●
Boss pipe – 50mm double boss opposed – push-fit		GT109			●
Boss pipe – 50mm double boss @90 – push-fit			GT115		●

New bracket EF053/EF053A to suit 100mm eared coupling GT05E: product code 192333/192363 (see page 175).

New 100mm reducing gasket to 3½" (90mm) conventional soil pipe now available 156132 (see page 175).

# General technical details



## Testing

It is recommended that pipework installations are tested in sections rather than waiting to complete this in one operation.

## Fire proofing

Cast iron has been traditionally used as a pipework material for passing through fire-break partition walls and floors. The TIMESAVER SYSTEM furthers this traditional use. Unlike plastic materials it does not need special protection.

## Stoppages and access

In spite of precautions being taken, stoppages may occur and will then require clearing. Ample provision must therefore be provided for access. It is often advantageous to be able to gain access at or near bends including, if possible, the bends leading from the stack to the drain. It is recommended that with a 100 stack, access should be provided at each floor level above or on the WC connection in addition to that at the foot of the stack. With 150 stacks there is less risk of stoppages so it is recommended that access be provided at say every three floors, in addition to that at the foot of the stack. With vented schemes, access should be provided at or near the foot of the stack and at intervals of not more than five floors in height for the purpose of periodic testing.

## Coating

All 3m Timesaver pipes are coated externally in black alkyd paint, and internally coated with a two part epoxy paint (ochre colour).

Fittings are coated internally and externally in a black water based paint.

The Timesaver coating shall accept overcoating with alkyd and water based acrylic paints normally used on metallic structures.

Timesaver roof outlets and floor drains are coated in a black water based paint.

## Cutting pipes

Timesaver pipe can be readily cut by the use of a powered disc cutter, and wheel cutters.

A chain cutter/snap cutter is not recommended to adequately serve this purpose.

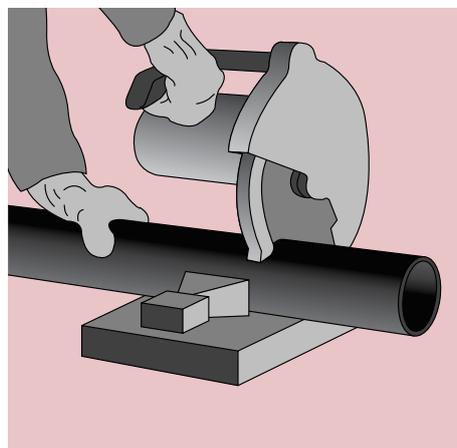
## Technical references

It is recommended that these and other listed technical advice, within this manual, are read in conjunction with the following Codes of Practice:

BS EN 12056 Gravity Drainage Systems Inside Building:  
Part 2 – Sanitary Pipework  
Part 3 – Roof Drainage

BS EN 752 Drains and Sewers Outside Building.

BS 437 and BS 416 Part 2.



# Chemical resistance

## Suitability of Timesaver materials – cast iron, EPDM rubber and nitrile rubber

A - RECOMMENDED

X - NOT RECOMMENDED

ND - NO DATA

The information contained in this table has been extracted with permission from Robert Jenkins Systems Ltd. Corrosion Chart.

CHEMICAL	TEMPERATURE °C	COUPLING GASKETS IN EPDM RUBBER			CAST IRON			COUPLING GASKETS IN NITRILE RUBBER		
		20°	60°	100°	20°	60°	100°	20°	60°	100°
ACETALDEHYDE		A	A	ND	A	ND	ND	X	X	X
ACETIC ACID (10%)		A	X	X	X	X	X	X	X	X
ACETIC ACID (GLAC. & ANH.)		X	X	X	X	X	X	X	X	X
ACETIC ANHYDRIDE		ND	ND	ND	A	A	A	X	X	X
ACETO-ACETIC ESTER		A	A	X	X	X	X	ND	ND	ND
ACETONE		X	X	X	A	A	A	X	X	X
ACETONITRILE		ND	ND	ND	X	X	X	ND	ND	ND
ACETYLENE		ND	ND	ND	A	A	A	A	ND	ND
ACETYL SALICYLIC ACID		A	A	ND	X	X	X	A	ND	ND
ALCOHOLS (MOST FATTY)		X	X	X	A	A	A	A	A	A
ALIPHATIC ESTERS		X	X	X	A	A	A	X	X	X
ALUM		A	A	A	X	X	X	A	A	A
ALUMINIUM CHLORIDE		A	A	A	X	X	X	A	A	A
ALUMINIUM SULPHATE		A	A	A	A	A	A	A	A	A
AMMONIA AQUEOUS		A	A	A	A	A	X	A	A	X
AMMONIUM CHLORIDES		A	A	A	A	X	X	A	A	A
ANILINE		X	X	X	A	A	A	X	X	X
AQUA REGIA		X	X	X	X	X	X	X	X	X
ASCORBIC ACID		ND	ND	ND	X	X	X	ND	ND	ND
BEER		A	A	A	A	A	ND	A	A	A
BENZALEHYDE		A	ND	ND	X	X	X	X	X	X
BENZENE PURE		X	X	X	A	A	A	X	X	X
BENZOIC ACID		A	A	A	X	X	X	A	A	A
BENZOYL PEROXIDE		ND	ND	ND	X	X	X	ND	ND	ND
BORIC ACID		A	A	A	X	X	X	A	A	A
BRINES (SATURATED)		A	A	A	A	A	A	A	A	A
BROMIDE (SOLUTION)		A	A	A	X	X	X	A	X	X
BROMINE		ND	ND	ND	X	X	X	X	X	X
BUTYL ACETATE		X	X	X	X	X	X	X	X	X
CALCIUM CHLORIDE		A	A	A	A	A	X	A	A	A
CARBON DISULPHIDE		X	X	X	A	A	A	A	ND	ND
CARBONIC ACID		A	A	A	X	X	X	A	A	A
CAUSTIC SODA & POTASH		A	A	A	A	A	X	A	A	A
CELLULOSE PAINT		ND	ND	ND	A	A	ND	X	X	X
CHLORATES OF Na, K & Ba		A	A	A	X	X	X	ND	ND	ND
CHLORINE		X	X	X	X	X	X	X	X	X
CHLORIDES OF Na, K & Mg		A	A	A	X	X	X	A	A	A
CHLOROACETIC ACIDS		X	X	X	X	X	X	X	X	X
CHLOROBENZENE		X	X	X	A	A	A	X	X	X
CHLOROFORM		X	X	X	A	A	X	X	X	X
CHROMIC ACID		X	X	X	X	X	X	X	X	X
CITRIC ACID		A	A	A	X	X	X	A	A	A
CRESYLIC ACID		ND	ND	ND	X	X	X	X	X	X
CYCLOHEXANE		X	X	X	A	A	A	A	A	A
DETERGENTS		A	A	A	ND	ND	ND	A	A	A
EMULSIFIERS		ND	ND	ND	ND	ND	ND	A	A	A
ETHER		X	X	X	A	A	A	A	X	X
FATTY ACIDS (>C6)		X	X	X	X	X	X	A	X	X
FERRIC CHLORIDE		A	A	A	X	X	X	A	A	A
FERROUS SULPHATE		A	A	A	X	X	X	A	A	A
FLUOSILIC ACID		A	A	A	X	X	X	ND	ND	ND
FORMALDEHYDE		X	X	X	A	X	X	A	X	X
FORMIC ACID		X	X	X	X	X	X	A	X	X
FRUIT JUICES		X	X	X	X	X	X	A	A	A
GELANTINE		A	A	X	A	A	A	A	A	A
GLYCERINE		A	A	A	A	A	A	A	A	A
GLYCOL ETHYLENE		A	A	A	A	A	A	A	A	A
GLYCOLLIC ACID		A	A	A	X	X	X	ND	ND	ND
HEXAMINE		ND	ND	ND	X	X	X	ND	ND	ND
HYDRAZINE		A	ND	ND	ND	ND	ND	A	X	X
HYDROBROMIC ACID (50%)		A	A	ND	X	ND	ND	A	X	X

# Chemical resistance

## Suitability of Timesaver materials – cast iron, EPDM rubber and nitrile rubber

A – RECOMMENDED

X – NOT RECOMMENDED

ND – NO DATA

The information contained in this table has been extracted with permission from Robert Jenkins Systems Ltd. Corrosion Chart.

CHEMICAL	TEMPERATURE °C	COUPLING GASKETS IN EPDM RUBBER			CAST IRON			COUPLING GASKETS IN NITRILE RUBBER		
		20°	60°	100°	20°	60°	100°	20°	60°	100°
HYDROCHLORIC ACID (10%)		A	A	A	X	X	X	A	A	X
HYDROCHLORIC ACID (CONC)		A	X	X	X	X	X	X	X	X
HYDROCYANIC ACID		A	A	A	X	X	X	A	X	X
HYDROFLUORIC ACID (75%)		X	X	X	X	X	X	X	X	X
HYDROGEN PEROXIDE (30%)		X	X	X	X	X	X	A	X	X
HYDROGEN SULPHIDE		A	A	A	A	X	X	X	X	X
HYPOCHLORITES		A	A	ND	X	X	X	X	X	X
LACTIC ACID		A	A	ND	X	X	X	A	A	X
LIME (CaO)		A	A	A	A	A	A	A	A	A
MEAT JUICES		A	A	A	ND	ND	ND	A	A	A
MERCURIC CHLORIDE		A	A	A	X	X	X	A	A	A
MERCURY		A	A	A	A	A	A	A	A	A
METHANOL		X	X	X	A	A	A	A	A	A
MILK AND ITS PRODUCTS		X	X	X	ND	ND	ND	A	A	A
MOLASSES		ND	ND	ND	A	A	A	A	ND	ND
NITRIC ACID (>25%)		X	X	X	X	X	X	A	X	X
NITROBENZENE		A	A	ND	A	A	A	X	X	X
OILS, DIESEL		X	X	X	A	A	A	A	A	A
OILS, LUBRICATING		X	X	X	A	A	A	A	A	A
OIL, MINERAL		X	X	X	A	A	A	A	A	A
OILS, VEGETABLE & ANIMAL		X	X	X	A	A	A	A	A	A
OXALIC ACID		ND	ND	ND	X	X	X	A	A	X
PARAFFIN		A	A	ND	A	A	A	A	A	A
PETROLEUM SPIRIT		X	X	X	A	A	A	A	A	A
PHOSPHORIC ACID (20%)		A	A	A	X	X	X	A	A	ND
SEA WATER		A	A	A	A	X	X	A	A	A
SILICONE FLUIDS		ND	ND	ND	A	A	A	A	A	A
SODIUM PEROXIDE (10%)		A	A	ND	A	A	A	A	X	X
STARCH		A	A	A	A	A	A	A	A	A
SUGAR, SYRUP, JAMS		X	X	X	A	A	ND	A	A	A
SULPHATES (Na, K Mg. Ca)		A	A	A	A	A	A	A	A	A
SULPHURIC ACID (>50%)		A	A	A	X	X	X	A	X	X
SULPHURIC ACID (70%)		X	X	X	A	X	X	X	X	X
SULPHURIC ACID (90%)		X	X	X	A	A	X	X	X	X
TANNIC ACID (10%)		A	A	A	X	X	X	A	A	X
TARTARIC ACID		A	A	A	X	X	X	A	A	X
TRICHLOROETHYLENE		X	X	X	A	A	X	X	X	X
VINEGAR		X	X	X	X	X	X	A	A	A
WATER		A	A	A	A	A	A	A	A	A
WETTING AGENTS (UP TO 5%)		X	X	X	X	X	X	A	A	A
YEAST		ND	ND	ND	A	A	X	A	ND	ND
ZINC CHLORIDE		A	A	A	X	X	X	A	A	ND

The information given is intended as a guide only and in every case we would wish to know detailed working conditions before advising the suitability of cast iron or our Timesaver coupling gasket.

Care must be taken when more than one of these chemicals is being discharged as interaction may occur and it is the customer's own responsibility to ensure that the application is suitable. Most of the above should be treated as dangerous wastes and should either be treated before discharging into a sewer or disposed of by other means.

Please note: nitrile gaskets are available to order.

It is recommended that nitrile rubber gaskets be used when the installation is in contact with petrol and oil-based waste substances eg. garages, petrol stations etc.



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