

Drain Testing Plugs and Equipment - Bailey Products are a leading manufacturer of drain testing plugs and equipment in the world. Our experience and knowledge in this specialist area is unrivalled and the quality of our products is recognised as being of the highest standard.

We supply the leading national authorities and many other concerns, as well as offering a made to measure service for customers with special needs. Our helpful staff will freely advise any customer about our products and supply an economical answer to their problems.

2 types of drain test plug (centre locking and rim fastening) are manufactured by Bailey's and they are both comprehensively detailed in this section of the catalogue.



Centre Locking



Rim Fastening

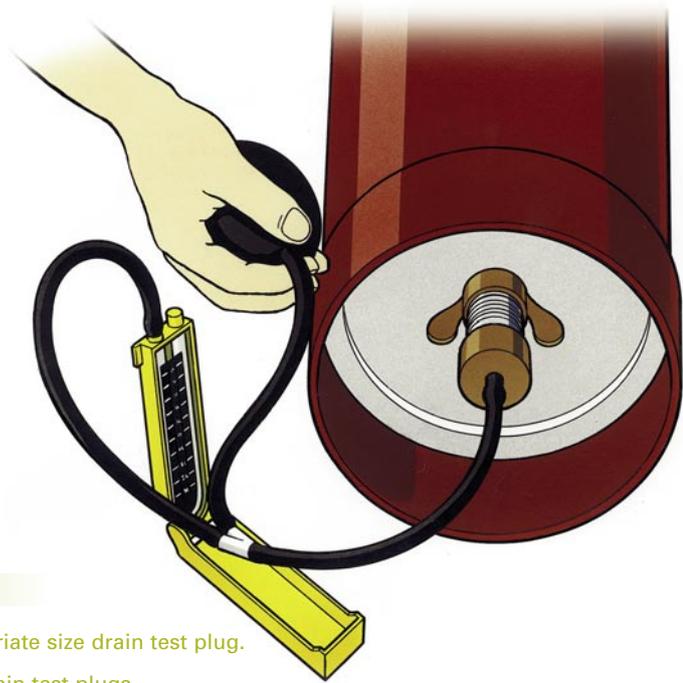
Water and Air Testing of Drains and Sewers - Testing of drains and sewers is governed by the requirements of BS8301: 1985, the Code of Practice for Building Drainage and BS8005: 1987, the British Standard for Sewerage. Similar requirements are also stated in Water Authorities Association publications. Additionally these test plugs enable compliance for testing of drains and sewers in accordance with European Standard EN 1610: 1997.

GENERAL PROCEDURE FOR AIR AND WATER TESTS - The following procedure should be adopted prior to testing.

1. Inspect the pipeline for possible damage sustained during or subsequent to laying.
2. Clear the pipeline of any debris and flush out.
3. Check that all pipe joints have been correctly made.
4. If any cement mortar joints have been used, leave for at least 24 hours before testing to allow the mortar to set and reach adequate strength.
5. Thoroughly check all plugs and equipment. Make sure that any rubber tubing used in connections is in good condition and not perished.
6. Fit expanding plugs into the ends of the pipeline and all branches. Make sure that the surface of the pipes where plugs fit is also clean and free from any extraneous material such as grit.

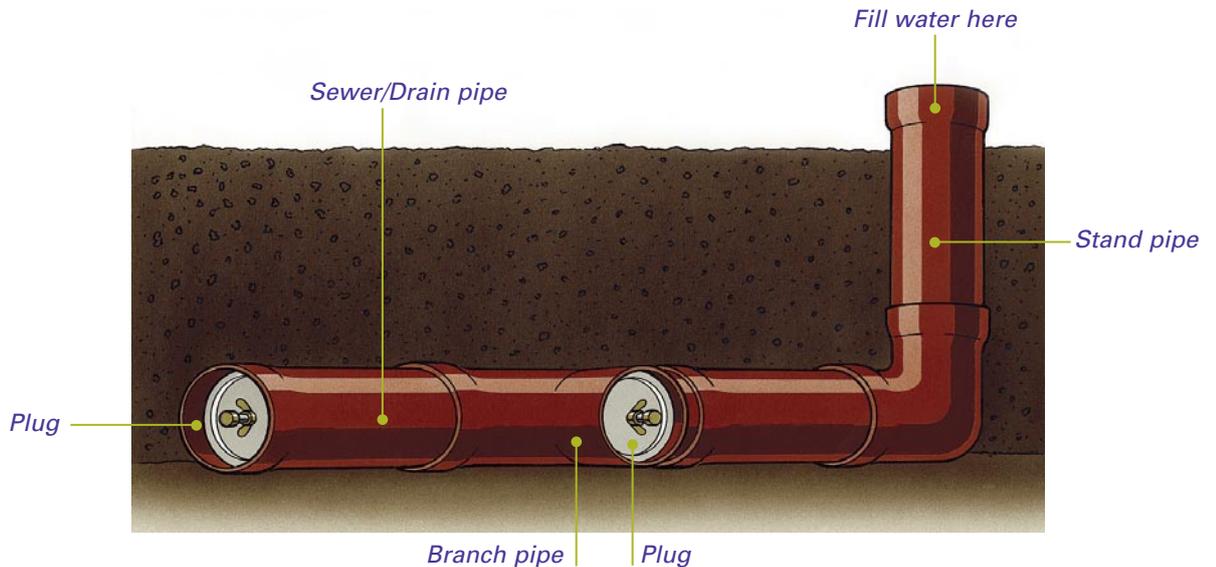
N.B. Concrete pipes may require the installation point areas cleaned of any irregular surfaces to ensure a good seal. If necessary, due to some concrete surfaces being porous, the area should be painted to create a good seal.

1 inch (25.4mm) head of water gauge is equivalent to 0.036lb. per square inch.
 1ft. head of water is equivalent to 0.432lb. per square inch.
 1lb. per square inch is equivalent to 2.3ft head of water.
 1 bar is equivalent to 14.7lb. per square inch.
 1 bar is equivalent to 33.35ft. head of water.



Air Test - Testing Procedure

1. Seal pipe section with appropriate size drain test plug.
2. Fit test nipple to one of the drain test plugs.
3. Connect rubber hose via 'Y' piece to nipple, 'U' gauge and hand bellows.
4. Fill 'U' gauge with water to 'zero'.
5. Squeeze the hand bellows gently until the level reaches 100mm on the open side of the gauge and the lower limit below zero on the closed side. The level should not fall to less than 75mm during a period of 5 minutes without further pumping, after allowing a suitable time for stabilization of air temperature. If it drops below 75mm within the specified time the pipe section is leaking.



Water Test - Testing Procedure

1. Fit an expanding plug, suitably strutted to resist the full hydrostatic head, at the lower end of the pipeline. Also plug any branches. The pipes may need strutting to prevent movement.
2. Provide a means of applying the test head of water at the top end of the line, preferably using a 90° bend and a straight pipe of the same diameter as the line. Ensure that the standpipe and plug are suitably strutted to resist the applied hydrostatic head. Provide a means of filling the pipeline with water.
3. Fill the system with water keeping pockets of trapped air to a minimum.
4. Fill the standpipe to the requisite level.
5. Leave for at least two hours to enable the pipes to become saturated, topping up as necessary.
6. After the absorption period measure the loss of water from the system by noting the amount needed to maintain the level in the standpipe over a further period of 30 minutes. In carrying out the test to the requirements of BS8005, the standpipe should be topped up at regular intervals of 5 minutes and the amounts measured.

Operating Instructions -

1. Select the correct size of plug, to suit the internal diameter of the pipe.
2. Remove any grease or foreign material from installation point.
3. Ensure no dirt is trapped between seal of plug and plates.
4. Ensure plug is inserted square to pipe wall.
5. Ensure wing nut and sealing cap are tight.

Brass Wing Nut



Nominal Pipe Size Metric/mm	Nominal Pipe Size Imperial	BSP Outlet Size	Steel Plates complete with		Aluminium Plates complete with		Min/Max Operating Range in mm
			Brass Cap P/N.	Plastic Cap P/N.	Brass Cap P/N.	Plastic Cap P/N.	
12.5	1/2"	Solid	1979	-	-	-	12.5-18
20	3/4"	Solid	2555	-	-	-	18.5-24
25	1"	Solid	2556	-	-	-	22-27
30	1 1/4"	Solid	1978	-	-	-	26-32
40	1 1/2"	1/2"	2558	1964	5508	5535	36-48
50	2"	1/2"	2559	1962	5509	5536	49-60
65	2 1/2"	1/2"	2560	1965	5510	5537	61-75
75	3"	1/2"	2561	1963	5511	5538	73-85
90	3 1/2"	1/2"	2562	1966	5512	5539	85-95
100	4"	1/2"	2416	1960	5513	5540	94-110
115	4 1/2"	1/2"	1467	1977	5514	5541	110-120
125	5"	1/2"	2563	1975	5515	5542	121-138
140	5 1/2"	1/2"	5131	5130	-	-	138-148
150	6"	1/2"	2417	1961	5516	5543	146-163
100	4"	1"	-	-	5517	-	94-110
125	5"	1"	-	-	5518	-	121-138
150	6"	1"	-	-	5519	-	146-163

Steel Wing Nut



Nominal Pipe Size Metric/mm	Nominal Pipe Size Imperial	BSP Outlet Size	Steel Plates complete with Brass Cap P/N.	Aluminium Plates complete with Brass Cap P/N.	Min/Max Operating Range in mm
175	7"	1"	2564	5520	170-195
200	8"	1"	2565	5521	191-211
225	9"	1"	2420	5522	216-235
250	10"	1"	2566	5523	244-260
275	11"	1"	1976	5524	275-305
300	12"	1"	2567	5525	296-314
325	13"	1"	2568	-	315-350
350	14"	1"	2569	5526	340-375
375	15"	1"	2570	5527	365-400
400	16"	1"	2571	5528	390-425
425	17"	1"	2572	-	415-440
450	18"	1"	3193	5529	440-475
500	20"	2"	-	3720	495-525
525	21"	2"	-	3721	520-555
550	22"	2"	-	5530	534-569
600	24"	2"	-	3722	590-630
650	26"	2"	-	5531	640-675
675	27"	2"	-	3723	660-690
700	28"	2"	-	3724	680-705
750	30"	2"	-	3726	735-760
800	32"	2"	-	5532	790-825
825	33"	2"	-	5533	814-845
900	36"	2"	-	5534	890-925

Nylon Centre Locking Drain Test Plugs, White, with plastic wing nuts and cap



Nominal Pipe Size Metric/mm	Nominal Pipe Size Imperial	BSP Outlet Size	P/N.	Min/Max Operating Range in mm
12.7	1/2"	Solid	5702	13-17
19	3/4"	Solid	5703	20-26
25.4	1"	Solid	5704	25-32
32	1 1/4"	Solid	5705	34-43
38	1 1/2"	Solid	5706	38-45
38	1 1/2"	1/2"	5490	38-45
50	2"	1/2"	5491	50-62
65	2 1/2"	1/2"	5492	62-70
75	3"	1/2"	5493	74-87
100	4"	1/2"	5494	97-107
125	5"	1/2"	5495	124-137
150	6"	1/2"	5496	149-165

DRAIN TEST PLUGS

Double Seal Drain Test Plugs - Useful for correct alignment, uneven wall surface and also provides longer duration of seal.



Steel Plates with Brass Wing Nut				
Nominal Pipe Size Metric/mm	Nominal Pipe Size Imperial	BSP Outlet Size	Complete with Brass Cap P/N.	Min/Max Operating Range in mm
40	1½"	½"	2880	36-48
50	2"	½"	2582	49-60
65	2½"	½"	2881	61-75
75	3"	½"	2583	73-85
90	3½"	½"	2882	84-95
100	4"	½"	2584	94-110
115	4½"	½"	3649	108-120
125	5"	½"	2585	121-138
140	5½"	½"	5132	138-148
150	6"	½"	2586	146-163



Steel Plates with Steel Wing Nut				
Nominal Pipe Size Metric/mm	Nominal Pipe Size Imperial	BSP Outlet Size	Complete with Brass Cap P/N.	Min/Max Operating Range in mm
175	7"	1"	2587	170-195
200	8"	1"	2588	191-211
225	9"	1"	2589	216-235
250	10"	1"	2590	244-260
275	11"	1"	2934	275-305
300	12"	1"	2591	296-314
350	14"	1"	2592	340-375
375	15"	1"	2593	365-400
400	16"	1"	2594	390-425

Operating Pressures



The information below is a guide to the maximum back pressure for the different types and sizes of test plugs:-

Sizes	½"(12.5mm) to (30mm)	30PSI
Sizes	1½"(40mm) to (300mm)	7PSI
Sizes	13"(325mm) to (1200mm)	5PSI
Sizes	Over 40"(1200mm)	3PSI

These pressures will vary upon cleanliness and condition of pipe bore and ambient temperature.

Steel



The twin port rim fastening steel plugs are available in the same sizes as the standard rim fastening plugs. The second port is normally fitted with a 4" (100mm) plain bore and supplied complete with a 4" (100mm) steel drain test plug. The second port is normally offset to the outer edge of the test plug. This allows the water to be easily drained from the pipeline after testing, without having to remove the test plug. Alternative ports are available to order.

DRAIN TEST PLUGS

Rim Fastening Drain Test Plugs - Operating Instructions

1. Select the correct size of plug, to suit the internal diameter of the pipe.
2. Remove any grease or foreign material from installation point.
3. Ensure plug is inserted square to pipe wall.
4. Tighten rim nuts progressively in diametrically opposite order. They must be tightened equally. Over-tightening of nuts may result in distortion of the clamp ring.
5. Ensure sealing cap is tight. If the plug has a second outlet ensure that this is also tightly sealed.
6. **FOR SAFETY:** These plugs must be supported by an engineered brace to withstand the calculated back pressure. They must NOT be used without such a brace.

Rim fastening steel plugs, especially the larger sizes, have the advantage over centre locking plugs, as the peripheral nuts enable plates to be closed together evenly with ease.

Please ensure that you quote either metric or imperial sizes with part number when ordering. The metric size is not compatible with the imperial size.

Rim fastening plugs can be made to sizes up to 2400mm and other special sizes. Further details on application.

Nominal Pipe Size Metric/mm	P/N.	Min/Max Operating Range in mm	Nominal Pipe Size Imperial	P/N.	Min/Max Operating Range in inches
432	4451	419-445	17"	4451	16.5"-17.5"
450	1901	437-463	18"	1927	17.5"-18.5"
475	1902	462-488	19"	1928	18.5"-19.5"
500	1903	487-513	20"	1929	19.5"-20.5"
525	1904	512-538	21"	1930	20.5"-21.5"
600	1905	587-613	22"	1931	21.5"-22.5"
675	1906	662-688	23"	1932	22.5"-23.5"
700	1907	687-713	24"	1933	23.5"-24.5"
750	1908	737-763	26"	1934	25.5"-26.5"
800	1909	787-813	27"	1935	26.5"-27.5"
825	1910	812-838	28"	1936	27.5"-28.5"
850	1911	837-863	30"	1937	29.5"-30.5"
900	1912	887-913	31"	1938	30.5"-31.5"
950	1913	937-963	32"	1939	31.5"-32.5"
975	1914	962-988	33"	1940	32.5"-33.5"
1000	1915	987-1013	34"	1941	33.5"-34.5"
1050	1916	1037-1063	36"	1942	35.5"-36.5"
1125	1917	1112-1138	38"	1943	37.5"-38.5"
1150	1918	1137-1163	39"	1944	38.5"-39.5"
1200	1919	1187-1213	40"	1945	39.5"-40.5"
1250	1920	1237-1263	42"	1946	41.5"-42.5"
-	-	-	47"	5158	46.5"-47.5"
-	-	-	48"	1947	47.5"-48.5"



• Both the Metric and Imperial sizes are with 2" BSP outlet size.