### CIRCLE MANUFACTURING CO.

## **TEST PLUGS**

Circle Manufacturing Co. (Formerly Circle Gas & Mfg. Co.) is the largest test plug manufacturer in the USA.

In business for 25 Years, we ship orders anywhere from our complete inventory within 24 hours.

If you don't see it in this catalogue, we can build it - any size, any type, any testing pressure. We can even custom-engineer your testing requirements.

Call anytime. We attend to all inquiries promptly and courteously.

995 Griffin Pond Road, Clarks Summit, PA 18411. Phone: (570) 585-2138,

Fax: (570) 585-2141.



#### **WING NUT TEST PLUGS**







The Series A Wing Nut Test Plugs are designed and developed for testing for leaks and for sealing off sections of pipelines generally made of cast iron, steel, vitrified clay, concrete etc. These plugs come with a hollow stem which can be used as a fill or drain pipe. Turning the wing nut expands the rubber ring tightly against the inside of the pipe. Hand tightening is usually adequate in smaller sizes, but a wrench can be used on larger sizes to give a better seal.

Maximum test pressures are dependent upon the friction of the test plug rubber with the inside of the pipe.

CODE NO.	FITS INSIDE PIPE DIA. (IN INCHES)	UNEXPANDED OUTER DIAMETER (IN INCHES)	STEM CONNECTION	WEIGHT (IN LBS.)
A-005	1/2"	15/32"	1/16" NPT	0.3
A-007	3/4"	23/32"	1/8" NPT	0.4
A-010	1"	31/32"	3/8" NPT	0.5
A-012	1 1/4"	1 1/8"	3/8" NPT	1.0
A-015	1 1/2"	1 3/8"	3/8" NPT	1.0
A-020	2"	1 3/4"	1/2" NPT	1.6
A-025	2 1/2"	2 3/8"	1/2" NPT	1.8
A-030	3"	2 3/4"	1/2" NPT	2.1
A-035	3 1/2"	3 3/8"	1/2" NPT	2.3
A-040	4"	3 5/8"	1/2" NPT	2.6
A-050	5"	4 1/2"	1/2" NPT	3.7
A-060	6"	5 1/2"	1/2" NPT	5.4
A-070	7"	6 5/8"	1/2" NPT	10.5
A-080	8"	7 1/2"	1/2" NPT	11.0
A-100	10"	9 1/2"	1/2" NPT	16.8
A-120	12"	11 1/2"	1" NPT	31.0
A-130	13"	12 5/8"	1" NPT	45.0
A-140	14"	13 5/8"	1" NPT	47.0
A-150	15"	14 5/8"	1" NPT	55.0
A-160	16"	15 5/8"	1" NPT	62.0
A-170	17"	16 5/8"	1 1/4" NPT	70.0
A-180	18"	17 5/8"	1 1/4" NPT	75.0
A-190	19"	18 5/8"	1 1/4" NPT	80.0
A-200	20"	19 5/8"	1 1/4" NPT	89.0
A-210	21"	20 5/8"	1 1/4" NPT	102.0
A-220	22"	21 5/8"	1 1/4" NPT	113.0
A-240	24"	23 5/8"	1 1/4" NPT	136.0

**NOTE:** We can design and manufacture special size test plugs on request.

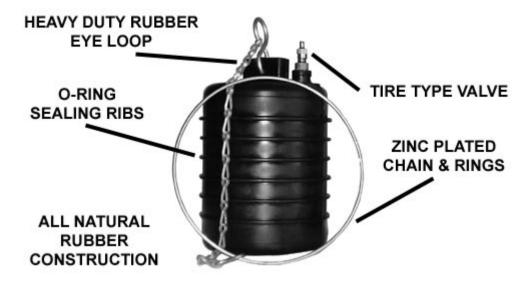
#### **RATCHET TEST PLUGS**





The B Series Ratchet Test Plugs are recommended for use in cast iron soil pipe tees or on other applications where access space is limited. Ratchet wrenches are available at additional cost. Can be supplied with elbow.

CODE NO.	FITS INSIDE PIPE DIA. (IN INCHES)	UNEXPANDED OUTER DIAMETER (IN INCHES)	STEM CONNECTION	WEIGHT (IN LBS.)
B-015	1 1/2"	1 3/8"	1/2" NPT	1.0
B-020	2"	1 3/4"	1/2" NPT	1.0
B-030	3"	2 3/4"	1/2" NPT	1.9
B-040	4"	3 5/8"	1/2" NPT	2.5
B-050	5"	4 1/2"	1/2" NPT	3.2
B-060	6"	5 1/2"	1/2" NPT	4.7
B-080	8"	7 1/2"	1/2" NPT	9.6
B-100	10"	9 1/2"	1/2" NPT	18.7







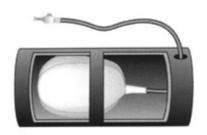




PART NO.	PIPE SIZE	MINIMUM PIPE DIAMETER	MAXIMUM PIPE DIAMETER	REQUIRED INFLATION PRESSURE	MAXIMUM TESTING PRESSURE
C020	1-1/2" - 2"	1.2"	2.3"	30 PSI	10 PSI
C030	3"	2.7"	3.3"	30 PSI	10 PSI
C040	4"	3.2"	4.3"	30 PSI	15 PSI
C060	5" - 6"	5.0"	6.3"	30 PSI	15 PSI
C080	8"	6.9"	8.3"	25 PSI	15 PSI
C100	10"	8.6"	10.3"	25 PSI	15 PSI
C120	12"	10.7"	12.3"	25 PSI	15 PSI

#### CYLINDRICAL STOPPERS





Cylindrical Stoppers is an inflatable bag with a rugged waterproofed casing which when inflated to high internal pressure will hold against 10 lbs. pressure in the pipe. The broad central zone makes contact with the wall of the pipe and holds against higher pressure than other types of bag.

Cylindrical Stoppers should not be inflated over the pressure given on the direction card fastened to each stopper. The pressures are as shown in the table below. These inflation pressures leave a margin of safety. They are about half the breakpoint under test in shop. Cylindrical Stoppers when inflated according to these directions will hold against pipe pressures equal to 60% of the pressure in the bag. A six inch stopper, for example, when inflated to 15 lbs. will hold back about 10 lbs. pressure in the main.

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CODE NO.	SIZE (IN INCHES)	MAX. INFLATION PRESSURE P.S.I.	TAP HOLE SIZE (IN INCHES)	WEIGHT (IN LBS.)
IC-02	2"	15	1"	0.5
IC-03	3"	15	1"	0.5
IC-04	4"	15	1 1/4"	1.0
IC-05	5"	15	1 1/4"	1.0
IC-06	6"	15	1 1/2"	1.0
IC-08	8"	12	2"	1.5
IC-10	10"	10	2"	2.0
IC-12	12"	8	2 1/2"	3.0
IC-14	14"	6	2 1/2"	4.0
IC-15	16"	6	3"	5.0
IC-16	16"	6	3"	6.0
IC-18	18"	6	3"	7.0
IC-20	20"	6	4"	7.0
IC-22	22"	4	4"	8.0
IC-24	24"	3.5	4"	10.0
IC-26	26"	3	4"	12.0
IC-30	30"	3	5"	16.0
IC-32	32"	3	5"	18.0
IC-36	36"	3	5"	26.0
IC-42	42"	1	6"	38.0

SPECIAL SIZES, PRESSURES GAUGES AND EXTENSION HOSES AND HEAVY-DUTY PILLOW-TYPE CYLINDRICAL STOPPERS ARE AVAILABLE ON REQUEST.

#### **ECONOMY TEST PLUGS**





The EC Series Economy Test Plugs are inexpensive test plugs for low pressure testing. The top and bottom plates are stamped steel plates with a rubber gasket in between, which expands to seal the pipe when the wing nut is tightened. There is no center fill or vent stem on these plugs.

CODE NO.	FITS INSIDE PIPE DIA. (IN INCHES)	UNEXPANDED OUTER DIAMETER (IN INCHES)	WEIGHT (IN LBS.)
EC-15	1.5""	1.40"	.20
EC-20	2.0"	1.82"	.30
EC-30	3.0"	2.90	.60
EC-40	4.0"	3.82	.90

#### **RIM BOLT TEST PLUGS**





The X Series Rim Bolt Test Plugs have 6 to 8 bolts on the diameter which can be tightened to seal the pipe. Since the bolts can be tightened with the wrench, these plugs would hold slightly higher pressures than the wing nut test plugs. Larger bolts available on request.

CODE NO.	FITS INSIDE PIPE DIA. (IN INCHES)	UNEXPANDED OUTER DIAMETER (IN INCHES)	STEM CONNECTION	WEIGHT (IN LBS.)
X-140	14"	13 5/8"	1" NPT	42.0
X-150	15"	14 5/8"	1" NPT	50.9
X-160	16"	15 5/8"	1" NPT	55.0
X-180	18"	17 5/8"	1 1/4" NPT	65.0
X-200	20"	19 5/8"	1 1/4" NPT	73.0
X-240	24"	23 5/8"	1 1/4" NPT	105.0
X-300	30"	29 5/8"	1 1/4" NPT	143.0
X-360	36"	35 5/8"	1 1/4" NPT	169.0

## MEDIUM PRESSURE TEST PLUGS





The Series MP Medium Pressure Test Plugs are capable of safely holding more pressure than the A, X or V series test plugs. These plugs have 4 to 12 (depending on the size) hardened set screws on the periphery having a knurled tip on which when tightened against the inside diameter of the pipe will offer additional friction to hold the plug under pressure. Maximum test pressures are dependent upon the friction of the test plug rubber with the inside of the pipe.

CODE NO.	FITS INSIDE PIPE DIA. (IN INCHES)	UNEXPANDED OUTER DIAMETER (IN INCHES)	STEM CONNECTION	WEIGHT (IN LBS.)
MP-04	4"	3 5/8"	1/2" NPT	6.00
MP-06	6"	5 1/2"	1/2" NPT	10.00
MP-08	8"	7 1/2"	1/2" NPT	16.00
MP-10	10"	9 1/2"	1/2" NPT	36.00
MP-12	12"	11 1/2"	1" NPT	52.00
MP-14	14"	13 5/8"	1" NPT	69.00
MP-15	15"	14 5/8"	1" NPT	75.00
MP-16	16"	15 5/8"	1" NPT	82.00
MP-18	18"	17 5/8"	1 1/4" NPT	102.00
MP-20	20"	19 5/8"	1 1/4" NPT	115.00
MP-21	21"	20 5/8"	1 1/4" NPT	125.00
MP-22	22"	21 5/8"	1 1/4" NPT	135.00
MP-24	24"	23 5/8"	1 1/4" NPT	156.00
MP-30	30"	29 5/8"	1 1/4" NPT	180.00
MP-36	36"	35 5/8"	1 1/4" NPT	220.00

# HIGH PRESSURE TEST PLUGS





The M Series High Pressure Test Plugs are designed for pressure testing at high pressure up to 3,000 p.s.i. After inserting the plug inside the pipe and when the nut on the stem is tightened the steel grips on the outer diameter of the plug grip against the inside diameter of the pipe and a neoprene seal cup is compressed to seal off the pipe. Hardened plated construction of all metal parts used in conjunction with the high quality neoprene "O" rings and seals assures a reliable and contamination free operation. All M Series test plugs are factory tested up to 3,000 p.s.i. depending on the size. Special sizes as large as 60" can be made to fit specific inside diameters.

CODE NO.	FITS INSIDE PIPE DIA. (IN INCHES)	UNEXPANDED OUTER DIAMETER (IN INCHES)	NOMINAL PIPE SIZE	SCHEDULE NUMBER	WALL THICKNESS (IN INCHES)	INSERTION LENGTH	WEIGHT (IN LBS.)
M40-1	1.049"	1.315"	1"	40	.133"	1 3/4"	1
M80-1	.957"	1.315"	1"	80	.179"	1 3/4"	1
M40-1 1/4	1.380"	1.660"	1 1/4"	40	.140"	2"	1 1/4
M80-1 1/4	1.278"	1.660"	1 1/4"	80	.191"	2"	1 1/4
M40-1 1/2	1.610"	1.900"	1 1/2"	40	.145"	2"	1 1/2
M80-1 1/2	1.500"	1.900"	1 1/2"	80	.200"	2"	1 1/2
M40-2	2.067"	2.375"	2"	40	.154"	2 1/4"	3
M80-2	1.939"	2.375	2"	80	.218"	2 1/4"	3
M40-2 1/2	2.469"	2.875"	2 1/2"	40	.203	2 1/2"	3 1/2
M80-2 1/2	2.323"	2.875"	2 1/2"	80	.276"	2 1/2"	3 1/2
M40-3	3.068"	3.500"	3"	40	.216"	3"	5
M80-3	2.900"	3.500"	3"	80	.300"	3"	5
M40-3 1/2	3.548"	4.000"	3 1/2"	40	.226"	3"	6 1/2
M80-3 1/2	3.364"	4.000"	3 1/2"	80	.318"	3"	6 1/2
M40-4	4.026"	4.500"	4"	40	.237"	3"	8
M80-4	3.826"	4.500"	4"	80	.337"	3"	8
M40-5	5.047"	5.563"	5"	40	.258"	3 1/4"	14
M80-5	4.813"	5.563"	5"	80	.375"	3 1/4"	14
M40-6	6.065"	6.625"	6"	40	.280"	3 1/2"	20
M80-6	5.761"	6.625"	6"	80	.432"	3 1/2"	20
M40-8	7.981"	8.625"	8"	40	.322"	3 3/4"	35
M80-8	7.625"	8.625"	8"	80	.500"	3 3/4"	35
M40-10	10.020"	10.750"	10"	40	.365"	4 1/2"	62
M80-10	9.750"	10.750"	10"	80	.500"	4 1/2"	62

## MEDIUM PRESSURE INFLATIBLETESTPLUGS





The IM Series Test Plugs are suitable for pressure testing of storm and sewer pipelines. These plugs have aluminum frame over which there is an inflatable ring which expands to seal the pipe.

The standard line test pressure (P.S.I.G.) for nominal pipe sizes are listed below.

NOMINAL P	PIPE SIZE	STANDARD LINE TEST PRESSURE (P.S.I.G.)		
4" thru	36"		150	
36" thru	ı 54"		105	
CODE NO.	NOMINAL SIZE	MINIMUM PIPE DIA. I.D. (IN INCHES)	MAXIMUM PIPE DIA. I.D. (IN INCHES)	
IM-040	4"	3 7/8"	4 1/8"	
IM-060	6"	5 13/16"	6 1/16"	
IM-061	6"	5 15/16"	6 3/16"	
IM-080	8"	7 5/8"	8"	
IM-081	8"	7 7/8"	8 1/4"	
IM-100	10"	9 5/8"	10"	
IM-101	10"	9 7/8"	10 1/4"	
IM-120	12"	11 1/2"	12 1/8"	
IM-121	12"	11 13/16"	12 7/16"	
IM-140	14"	14 1/8"	14 3/4"	
IM-150	15"	14 1/2"	15 1/8"	
IM-160	16"	15 5/8"	16 1/4"	
IM-161	16"	15 15/16"	16 9/16"	
IM-180	18"	17"	18"	
IM-190	19"	18 1/16"	19 1/16"	
IM-200	20"	19 1/8"	20 1/8"	
IM-210	21"	20 1/16"	21 1/16"	
IM-220	22"	21"	22"	
IM-240	24"	23"	24"	
IM-300	30"	29"	30"	
IM-360	36"	35 1/4"	36 1/4"	
IM-420	42"	41 3/8"	42 3/8"	
IM-480	48"	47 3/8"	48 3/8"	

SPECIAL SIZES, PRESSURES GAUGES AND EXTENSION HOSES AND HEAVY-DUTY PILLOW-TYPE CYLINDRICAL STOPPERS ARE AVAILABLE ON REQUEST.

## PLUMBER'S MELTING FURNACES



Both models are made of gray iron castings. Melts 40 pounds of lead in 5 minutes, and even greater amounts with the larger windshield Model A1-101X. The standard models will accommodate 6 or 8 inch melting pots. To accommodate the 10" melting pot, Model A1-101X windshield would be required.

Model A1-101S is a stand with a valve and can be used with Model A1-101 only. Stand converts to free standing floor unit.

Model A1-101X is a larger windshield which can be used either with Model A1-101 furnace. This windshield will accommodate a 10 inch lead melting pot for greater melting capacity.





**MODEL A1-101 FURNACE** 

MODEL A1-101X LARGE WINDSHIELD

MODEL A3-101 FURNACE







CAST IR	ON MEL	TING POTS	CAST	IRON	LADLES	STE	EL L	ADLES
CODE NO.	SIZE	CAPACITY IN LBS.	CODE NO.	SIZE	CAPACITY IN LBS.	CODE NO.	SIZE	CAPACITY IN LBS.
L-0306	6"	25	L-0202	3.0"	2.50	L-0202S	3.0"	2.50
L-0308	8"	50	L-0203	3.5"	3.00	L-0203S	3.5"	3.00
L-0310	10"	75	L-0204	4.0"	4.25	L-0204S	4.0"	4.25

# CAST IRON COMPANION FLANGES





Class 125	
CODE	SIZE
NO.	
CF-27	1.5"
CF-28	2.0"
CF-29	2.5"
CF-30	3.0"
CF-31	3.5"
CF-32	4.0"
CF-33	5.0"
CF-34	6.0"
CF-35	8.0"
CF-36	10.0"

#### **REDUCING COMPANION FLANGES**



CODE	SIZE		
NO.			
CFR-	2" X 7.5"		
03			
CFR-	2" X 9"		
04			
CFR-	3" X 9"		
05			
CFR-	2" X 11"		
06			
CFR-	3" X 11"		
07			
CFR-	4" X 11"		
80			
CFR-	2" X 13 1/2"		
09			
CFR-	4" X 13 1/2"		
10			

#### **BLIND COMPANION FLANGES**



CODE NO.	SIZE
CFB- 27	1.5"
CFB-	2.0"
28 CFB-	2.5"
29 CFB-	3.0"
30 CFB-	4.0"
32 CFB-	5.0"
33 CFB-	6.0"
34 CFB-	8.0"
35	

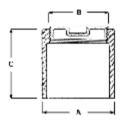
### **NOHUB CLEANOUT**



#### **DIMENSIONS**

SIZE	PIPE SIZE A	PLUG SIZE B	HEIGHT C
2"	2"	1 1/2" IPS	2 7/8"
3"	3"	2 1/2" IPS	3 1/8"
4"	4"	3" IPS	3 1/4"
4B"	4"	3 1/2" IPS	3"
5"	5"	4" IPS	3 1/2"
6"	6"	5" IPS	4"
8"	8"	6" IPS	4 1/2"
10"	10"	6" IPS	4 1/2"





### CAULK-COMPRESSION GASKET CONNECTION

CODE NO.	SIZE	TAPPING
C-702	2"	1 1/2"
C-702CS	2"	1 1/2"
C-703	3"	2 1/2"
C-703CS	3"	2 1/2"
C-704	4"	3"
C-704CS	4"	3"
C-704B	4"	3 1/2"
C-704BCS	4"	3 1/2"
C-706	6"	5"
C-706CS	6"	5"
C-708	8"	6"
C-708CS	8"	6"
C-710	10"	6"
C-710CS	10"	6"

### **PANELLA CLEANOUTS & GASKET**





CODE NO.	SIZE
CP-711	3"
CP-711CS	3"
CP-712	4"
CP-712CS	4"
CP-712G	4"
CP-713	6"
CP-713CS	6"
CP-713G	6"

### **RAISED HOLLOW HEX HEAD CAST IRON PLUGS**







CODE NO.	SIZE
PC904	2"
PC906	3"
PC907	3 1/2 "
PC908	4"
PC910	5"
PC912	6"

CODE	SIZE
NO.	
C703BR	3"
C703BRC	3"
C704BR	3 1/2"
C704BRC	3 1/2"
C705BR	4"
C705BRC	4"
C706BR	5"
C706BRC	5"
C708BR	6"
C708BRC	6"
C709BR	8"
C709BRC	8"
C710BR	10"
C710BRC	10"



#### LIMITED PRODUCT WARRANTY

Circle Manufacturing Co. warrants each product against defects in materials and workmanship, but our liability shall be limited solely to those defects which are our fault and of which we receive notice, in writing, within 45 days from date of shipment. Circle Manufacturing Co. shall replace or recondition the product free of charge, but shall not assume any liability for any damages incidental thereto. Misuse or misapplication of any product contrary to its purpose invalidates all warranties.

The foregoing is exclusive and in lieu of all other express and implied warranties, except warranties of title, including but not limited to implied warranties of merchantability and fitness for a particular purpose.

#### **PAYMENT TERMS**

Net 30 Days. Invoices which are unpaid 30 Days after invoice date will be subject to a 1-1/2% service charge (18% annually) applied monthly.

#### **RETURN POLICY**

When return results from causes involving buyer responsibility, credit for saleable goods will be issued at original price less a restocking charge of 30%. Credit will be allowed on items in resaleable condition if returned within 60 days of original shipment date. Incoming or outgoing freight is the responsibility of the buyer.