



STEMAR
EQUIPMENT & SUPPLY CO.

SERVING UNDERGROUND CONSTRUCTION SINCE 1922

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LOS ANGELES, CA

BYPASS INFO FOLLOWS



~~~~~MANUFACTURING AND WHOLESALE CONSTRUCTION EQUIPMENT~~~~~

**SALE + RENTAL + SERVICE**

**353 SOUTH CENTRAL AVENUE • LOS ANGELES, CA 90013-1784**

**(213) 625-0185 • (800) 992-0100 • 24 HR. FAX (213) 625-0826**

[www.stemarinco.com](http://www.stemarinco.com)

# STEMAR WASTEWATER BYPASS SYSTEMS

Manufactured by Stemar, Inc.

Stemar's Wastewater Gravity Bypass Systems are field tested & approved methods of diverting live sewer lines while repairing or adding to existing manholes or sewer relocation projects.

Stemar's Bypass Systems use gravity with no need for pumps or other expensive machinery & may be used with a wide variety of hose sizes to provide for minimal flow reduction.

## "BYPASSING MADE EASIER"

Stemar's Bypass Heads are designed for durability yet light in weight. Another Bypass Head may be attached to the downstream side of the Flex-Hose to help seal off flow and gases from both sides of the manhole.

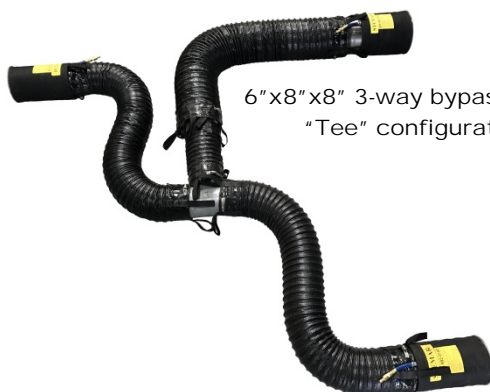


27" and 54" custom bypass assemblies for sewer relocation

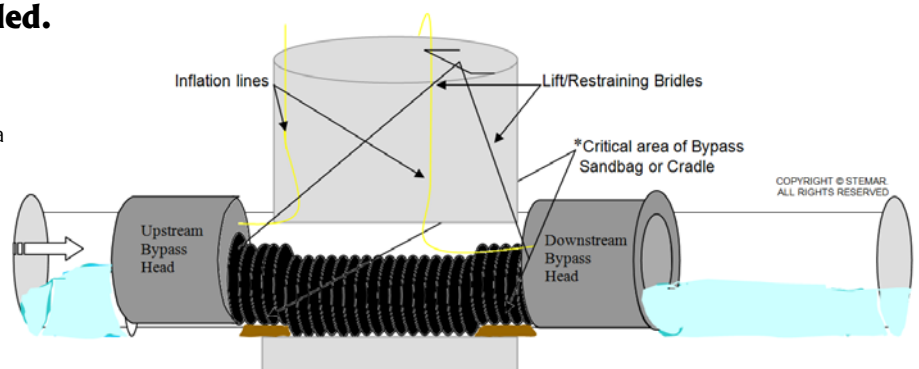


8" - 10" Doublehead Bypass w/ 5 feet of 6" Flex-Hose

Stemar also offers custom bypass assemblies for one or more lateral connections if needed.



6"x8"x8" 3-way bypass with a "Tee" configuration



# STEMAR Bypass Plugs Specifications

| Bypass Heads<br>(Plugs) | Plug Size<br>(deflated) |               |             | Bypass Hose<br>(see next page for more detail) |                                  | Maximums<br>(PSI)                    |                    |
|-------------------------|-------------------------|---------------|-------------|------------------------------------------------|----------------------------------|--------------------------------------|--------------------|
|                         | Usage Range             | Head Diameter | Head Length | Head Weight                                    | Nominal Hose Size<br>(hard pipe) | Standard Hose Lengths<br>(hard pipe) | Inflation Pressure |
| 4"                      | 3.5"                    | 12"           | 6 lbs.      | 3"                                             | 5' & 10'                         | 25                                   | 10                 |
| 4" – 8"                 | 4.5"                    | 16"           | 10 lbs.     | 3"                                             | 5' & 10'                         | 25                                   | 10                 |
| 6" – 8"                 | 5.75"                   | 17.5"         | 12 lbs.     | 4"                                             | 5', 9', & 25'                    | 20*                                  | 10                 |
| 6" – 10"                | 4.5"                    | 20"           | 13 lbs.     | 4"                                             | 5', 9' & 25'                     | 25                                   | 10                 |
| 8" – 10"                | 7.5"                    | 17.5"         | 17 lbs.     | 6"                                             | 5', 9', & 25'                    | 20*                                  | 10                 |
| 8" – 12"                | 7.25"                   | 22"           | 24 lbs.     | 6"                                             | 5', 9', & 25'                    | 25                                   | 10                 |
| 10" - 12"               | 9.25"                   | 17.5"         | 22 lbs.     | 8"                                             | 5' & 9'                          | 20*                                  | 10                 |
| 12" – 15"               | 11.5"                   | 20"           | 33 lbs.     | 10"                                            | 5' & 9'                          | 20*                                  | 10                 |
| 14" – 16"               | 13"                     | 20"           | 40 lbs.     | 12"                                            | 5' & 9'                          | 25                                   | 10                 |
| 15" – 18"               | 13.75"                  | 20"           | 40 lbs.     | 12"                                            | 5' & 9'                          | 20*                                  | 10                 |
| 16" – 21"               | 15"                     | 20"           | 50 lbs.     | 14"                                            | 5' & 9'                          | 20                                   | 5                  |
| 18" – 21"               | 17.25"                  | 26"           | 61 lbs.     | 14"                                            | 5' & 9'                          | 20                                   | 5                  |
| 18" – 24"               | 17.25"                  | 22"           | 62 lbs.     | 14"                                            | 5' & 9'                          | 20                                   | 5                  |
| 21" – 27"               | 20"                     | 18"           | 68 lbs.     | 18"                                            | 5' & 9'                          | 20                                   | 5                  |
| 21" – 30"               | 20"                     | 27"           | 105 lbs.    | 18"                                            | 5' & 9'                          | 20                                   | 5                  |
| 27" – 36"               | 26"                     | 34"           | 127 lbs.    | 24"                                            | 5', 9' & 25'                     | 20                                   | 5                  |
| 30" – 36"               | 26"                     | 37"           | 178 lbs.    | 18" or 24"                                     | 5' & 9'                          | 20                                   | 5                  |
| 36" – 42"               | 34"                     | 29"           | 150 lbs.    | 24" or 30"<br>(30")                            | 5', 9', 10'<br>(2', 4', 5')      | 20                                   | 10                 |
| 39" – 42"               | 38"                     | 24"           | 150 lbs.    | 24" or 30"<br>(34")                            | 5', 9', 10'<br>(2', 4', 5')      | 20                                   | 5                  |
| 39" – 48"               | 38"                     | 28"           | 195 lbs.    | 24" or 30"<br>(34")                            | 5', 9', 10'<br>(2', 4', 5')      | 20*                                  | 10                 |
| 42" – 48"               | 40"                     | 30"           | 205 lbs.    | 24"                                            | 5' & 9'                          | 20                                   | 5                  |
| 48" – 54"               | 46"                     | 27"           | 270 lbs.    | 24" or 30"<br>(42")                            | 5', 9', 10'<br>(2', 4', 5')      | 20                                   | 5                  |
| 54" – 60"               | 49"                     | 43"           | 350 lbs.    | 30"<br>(48")                                   | 5' & 10"<br>(3')                 | 20                                   | 10                 |
| 54" – 72"               | 52"                     | 43"           | 350 lbs.    | 30"<br>(48")                                   | 5' & 10"<br>(3')                 | 60                                   | 5                  |
| 60" – 72"               | 52"                     | 43"           | 350 lbs.    | 30"<br>(48")                                   | 5' & 10"<br>(3')                 | 20                                   | 5                  |

\* Inflation pressure may vary depending on model, see plug for detail

# STEMAR Flex-Hose Specifications

Stemar's Flex-Hose is a specially designed for bypassing live sewer lines. This design offers superior flow and efficiency along with extreme flexibility, shape retention, and durability.

Stemar also offers Light Weight Bypass Pipe to be attached to larger Stemar Bypass Heads via bolted flanges if desired.



| Nominal Size | Lengths Available   | Weight Per Foot | Flow Capacity (GPM) |          |
|--------------|---------------------|-----------------|---------------------|----------|
|              |                     |                 | 1ft./sec            | 4ft./sec |
| 3"           | 5' & 10'            | .3 lbs.         | 22                  | 88       |
| 4"           | 1', 2', 5', 9', 25' | .7 lbs.         | 39                  | 157      |
| 6"           | 1', 2', 5', 9', 25' | 1 lbs.          | 88                  | 353      |
| 8"           | 1', 2', 5', 9',     | 1.3 lbs.        | 157                 | 627      |
| 10"          | 1', 2', 5', 9',     | 1.8 lbs.        | 245                 | 980      |
| 12"          | 1', 2', 5', 9',     | 2.4 lbs.        | 353                 | 1410     |
| 14"          | 1', 2', 5', 9',     | 2.9 lbs.        | 480                 | 1920     |
| 18"          | 1', 2', 5', 9',     | 3.9 lbs.        | 793                 | 3172     |
| 24"          | 1', 2', 5', 9',     | 5.5 lbs.        | 1410                | 5640     |
| 30"          | 5' & 10'            | 6 lbs.          | 2120                | 8480     |
| 34"<br>PIPE  | 2', 3', 4', 5'      | 40 lbs.         | 2830                | 11320    |
| 42"<br>PIPE  | 2', 3', 4', 5'      | 48 lbs.         | 4311                | 17275    |
| 48"<br>PIPE  | 2', 3', 4', 5'      | 55 lbs.         | 5640                | 22560    |

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STEMAR BYPASS SAFETY INSTRUCTIONS:
DOUBLE HEAD - Suggested Installation Procedure
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1. If possible temporarily plug the flow upstream from the Bypass location when the Bypass is being installed and removed. We strongly recommend installation and removal during the lowest flow period. The lowest flow is normally very early in the morning.
2. Before installation, examine and clean the pipe so there is no chance of puncturing the inflatable Bypass Head. Provide as smooth a bedding for the Flex-Hose as possible.
3. Always inflate the Bypass Head remotely and to the exact recommended inflation pressure.
4. Sandbag Bypass Flex-Hose*, for support, especially where the Flex-Hose joins the Bypass Head. This is a vulnerable area for the flex hose and proper support is essential. For example: The water flowing through 24" Flex-Hose can weigh up to approximately 200lbs/ft.
5. Remember the Flex-Hose is temporarily replacing a heavy wall pipe. With proper preparation, and care, your objectives will be achieved.
6. For larger Bypass' and higher flow pressures, Flow-Thru Pipe (14 gauge & light weight) can be used, instead of Flex-Hose. The Flow-Thru Pipe is available in several diameters.
7. *If the Bypass was shipped to you, after unpacking, stretch the hose out, and smooth out the ends so that you can attach the metal couplers or hose end collars. Save the shipping cartons for return shipment to STEMAR.*
8. It may be easier to completely assemble the Bypass outside the manhole, then lower it into the work area. Do not lift the Bypass assembly by the Flex-Hose.
9. Lower and raise Bypass Heads by the lift./restraining bridles on each Bypass Head.

Do not lift by the Flex-Hose.

READ PIPE PLUG SAFETY AND OPERATING INSTRUCTIONS BEFORE USING PLUGS AND/OR BYPASSES

