

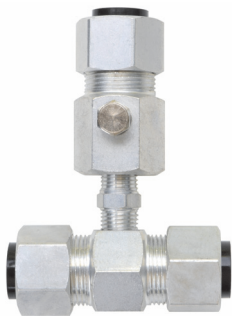
Product Catalog

Fittings

To complement our extensive line of cable pressurization products, System Studies also sells a variety of air pipe and pressure tube fittings. This section of the catalog describes these commonly used fittings as well as associated pressurization hardware. Also included in this section are illustrations and explanations of the connectors and fittings used with the Power Pipe System™.

1/2" AIR PIPE FITTINGS

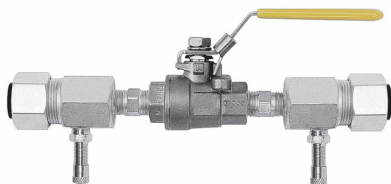
9800-3001 Fitting, 1/2" Air Pipe 3-Way Tee



This pipe tee fitting is a combination of the 9800-3054 and 9800-3057 fittings. It provides a durable leak-free connection for locations where three sections of CA3131 air pipe need to be joined together. Like the other half inch air pipe fittings supplied by System Studies Incorporated, the fitting's individual coupler components are constructed of nickel-plated brass.

Six sleeves are included with the fitting (three standard and three large diameter pipe) to provide options for connecting half inch air pipe whose outside diameter is slightly larger than standard. Also included with the 1/2" Air Pipe 3-way Tee Fitting are two ground lug connectors and a 1/8" NPT-M hex head plug. If desired the plug can be replaced with a standard pressure test valve (not supplied) to provide the means of measuring pipe pressure at the three-way splice.

9800-3051 Fitting, Shutoff Valve



This shutoff valve fitting enables technicians to shut off air flow into a pipe section during certain leak locating and maintenance procedures. Part No. 9800-3051 includes the following

components: a 1/2" air pipe shutoff valve, two Part No. 9800-3054 couplers, two tank valves, two ground lug connectors, and large diameter pipe sleeves. The supplied tank valves enable pressure readings to be taken to confirm that the shutoff valve does not allow air to pass through the pipe.

9800-3054 Fitting, 1/2" Air Pipe to 1/4" NPT-M, with Ground Lug



This nickel-plated brass fitting has a 1/2" air pipe coupler connection on one end and a 1/4" NPT-M hex nipple on the other. It is the ideal fitting to use when

installing a System Studies Flow Finder™ in a half inch CA 3131 air pipe. Note: two fittings are required for this application.

The center hex section of the fitting contains a 1/8" NPT-F thread to accommodate a standard tank valve (not included) and a 3/16" NPT-F thread for a ground lug connector (included). Because a tank valve is not supplied with this item, a 1/8" NPT-M hex head plug is provided. Both the plug and the ground lug connector are shipped with the fitting but not pre-installed. Please note that this fitting is also supplied with a separate large diameter pipe sleeve, which is recommended for use when it is difficult to use the standard sleeve included in the coupler connection.

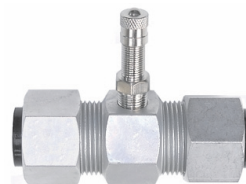
9800-3055 Fitting, 1/2" Air Pipe End Cap Coupler, with Tank Valve



The 1/2" Air Pipe End Cap Coupler is intended for use at the end of an air pipe where the pipe does not terminate at a Flow Finder Manifold or Manifold Monitoring Assembly. The fitting is similar to Part No. 9800-3054, but rather than having a 1/4" NPT-M hex nipple on one end, it includes a pressure testing valve with a 1/4" NPT-M thread that screws into the coupler. The tank valve not only seals the fitting, it also provides the means of taking end-of-pipe pressure measurements.

The center hex section of the fitting contains a 1/8" NPT-F thread to accommodate a 1/8" NPT-M hex head plug. It also contains a 3/16" NPT-F thread for a ground lug connector. Like the other 1/2" CA3131 air pipe fittings listed, Part No. 9800-3055 includes a separate large diameter pipe sleeve that can be used when it is difficult or impossible to use the standard sleeve supplied in the coupler connection.

9800-3057 Fitting, Air Pipe Coupler, with Tank Valve



The 1/2" air pipe coupler fitting is used to connect two lengths of CA 3131 air pipe. It is constructed of nickel-plated brass and is equipped with air pipe coupler components on each end. The center hex section of the fitting includes two 1" NPT-M threads (one for each coupler connection) and two 9/16" O.D. connection tubes, which are placed into the air pipe ends. This center section also includes female threads for inserting a ground lug connector and a standard tank valve. Both items are supplied but not installed.

Each coupler connection includes a 1" NPT-F nut and a 3/4" I.D. standard sleeves, both of which need to be slipped over the end of the air pipe end before the fitting's connection tube is inserted into the pipe. Also included with P/N 9800-3057 are two large diameter pipe sleeves. These sleeves are recommended for use when slightly larger outside pipe diameter makes it difficult to use the standard sleeves.

9900-0500 Fitting, Teflon Ferrule (Qty. 10)



The white Teflon Ferrules are used as an alternative to the rigid black pipe sleeves supplied with the 1/2" air pipe fittings. Slight variations in the outside diameter of the 1/2" pipe sometimes make it impossible to use the standard and oversize black pipe sleeves included with fittings from System Studies. The slightly larger diameter and increased flexibility of the white Teflon ferrules allows them to be used on all 1/2" pipes. When properly placed over the free end of the pipe and carefully inserted into the connector fitting, the white Teflon Ferrule provides a lasting, leak-free connection.

TUBING CONNECTORS

6240-0002 Fitting, 1/8" NPT-M to 3/8" Tubing



The 3/8" tubing to 1/8" Male NPT Connector (Part No. 6240-0002) is used in any application where you need to connect 3/8" tubing to a fitting or product equipped with a 1/8" female NPT.

6240-0003 Fitting, 1/4" NPT-M to 3/8" Tubing



9800-3023 Fitting, 1/4" NPT-M to 3/8" Tubing (Bag of 10)



The 3/8" Plastic Tubing Male Connector with 1/4" NPT is typically used to connect Flow Finders to tubing at air pipe manifold locations in the field.

6240-0026 Fitting, 1/4" NPT-M to 1/2" Tubing



The Part No. 6240-0026 1/2" Plastic Tubing Male Connector with 1/4" NPT is the ideal component for installing Flow Finders™ at the Central Office Distribution Panel™. This connector is constructed of nickel-plated brass and provides a leak-free connection for accurate flow measurements.

6240-0008 Fitting, Street L, 1/4" NPT-M to 3/8" Tubing, Forged



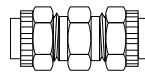
This L fitting (Part No. 6240-0008) has a 3/8" Plastic Tubing Connector with male 1/4" NPT. It is used to connect 3/8" tubing to a fitting or product equipped with a 1/4" female NPT where a 90° angle is needed.

6240-0022 Fitting, Street L, 1/8" NPT-M to 3/8" Tubing, Forged



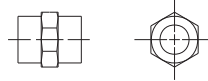
This L fitting has a 3/8" Plastic Tubing Connector with male 1/8" NPT. It is used to connect 3/8" tubing to a fitting or product equipped with a 1/8" female NPT where a 90° angle is needed.

6240-0023 Fitting, Coupling, 3/8" Tubing



This tubing union is used to join two lengths of 3/8" tubing.

6240-0019 Hex Coupling, 1/8" NPT-F (Minimum Order Qty: 10)



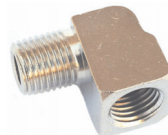
STREET L AND BRANCH T FITTINGS

6240-0057 Fitting, 45° Street L, 1/4" NPT-M to 1/4" NPT-F, Bar Stock



This 45° Street L is the standard fitting used on the input port of the System Studies Flow Finder Manifold. It also provides an option to the Part No. 6240-0039 Street L when a 45° angle is required.

6240-0039 Fitting, Street L, 1/4" NPT-M to 1/4" NPT-F, Bar Stock



This 1/4" Street L fitting is used in a number of air pressure installations and equipment applications. It is used in the construction of System Studies' pipe and distribution panels, and in Power Pipe™ installations—particularly when connecting CA3131 air pipe to a flow limiter adapter (Part No. 9800-3035) at a Power Pipe Manifold. The fitting has a 1/4" NPT-M thread on one end and a 1/4" NPT-F on the other.

6240-0063 Fitting, Street L, 1/4" NPT-M to 1/4" NPT-F, Forged

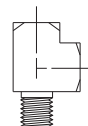


6240-0027 Fitting, Street L, 1/8" NPT-M to 1/8" NPT-F, Bar Stock

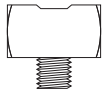


This fitting is similar in function to the Part No. 6240-0039, except that it is equipped with a 1/8" NPT male thread on one end and a 1/8" NPT female thread on the other.

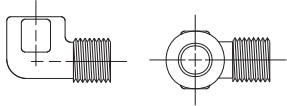
6240-0125 Fitting, Street T, 1/8" NPT-M to 1/8" NPT-F (2 Places), Bar Stock



6240-0130 Fitting, Branch T, 1/8" NPT-M to 1/8" NPT-F (2 Places), Bar Stock

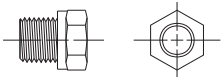


6240-0156 Fitting, Street L, 1/4" NPT-M to 1/8" NPT-F, Forged

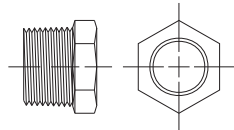


REDUCING BUSHINGS

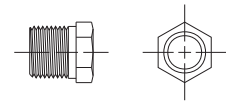
6240-0143 Fitting, Bushing, 1/4" NPT-M to 1/8" NPT-F, Nylon



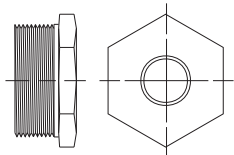
6240-0158 Fitting, Bushing, 3/4" NPT-M to 3/8" NPT-F, Non-Plated Brass



6240-0167 Fitting, Bushing, 3/8" NPT-M to 1/4" NPT-F



6240-0176 Fitting, Bushing, 2" NPT-M to 3/4" NPT-F, 304 Stainless Steel



6240-0042 Fitting, Bushing, 3/4" NPT-M to 1/4" NPT-F



This bushing is used in any application where you need to connect a product with a 1/4" male fitting to a product equipped with a 3/4" female NPT.

6240-0058 Fitting, Bushing, 1/4" NPT-M to 1/8" NPT-F



This bushing is used in any application where you need to connect a product with a 1/8" male fitting to a product equipped with a 1/4" female NPT.

6240-0184 Fitting, Bushing, 1" NPT-M to 3/4" NPT-F

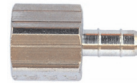


Commonly used on air dryer balance manifolds, this bushing makes it possible to connect 1" poly tubing to the manifold via the threaded 3/4" Barbed

Connector (Part No. 6240-0009) fitting.

TWIN HOSE CONNECTORS

6240-0013 Fitting, 1/8" NPT-F to Twin Hose



The 1/8" Female Tubing Connector (Part No. 6240-0013) is used with the 3030 High Valve Assembly. The connectors are threaded onto the bottom of the assembly's sampler valves so twin hose can be extended from the High Valve Assembly to a Flow Finder™, High Resolution Flow or Dual Transducer™.

6240-0014 Fitting, 1/8" NPT-M to Twin Hose



The 1/8" Male Tubing Connector (Part No. 6240-0014) is used in some High Resolution Flow and Dual Transducer applications to allow a connection from these devices to twin hose.

6240-0015 Fitting, Tank Valve (5/16"-32 F) to Twin Hose



The Barbed Valve Fitting (Part No. 6240-0015) is used for connecting twin tubing to the sampler valves of the System Studies Flow Finders and High Resolution Flow and Dual Transducers. These fittings are often used in the 3030 High Valve Assemblies or for pneumatically connecting transducers to Flow Finders.

6200-0005 Fitting, #8 Hose Clamp



The #8 Hose Clamp is used to tighten twin hose to barbed valve fittings. The clamp is placed around the twin hose and the valve connection. A crimper is used to tighten the clamp down over the connection.

PLUGS

6240-0018 Fitting, Plug, 1/8" NPT-M Hex Head



The Hex Head socket 1/8" plug can be used to plug unused 1/8" openings on air pipe connectors or other pressurization equipment.

6240-0043 Fitting, Plug, 1/4" NPT-M Hex Head



This Hex-Head socket plug can be used to plug unused 1/4" openings on air pipe connectors or other pressurization equipment.

6240-0029 Fitting, Plug, 1/8" NPT-M Hex Socket



This hex socket plug can be used to plug unused 1/8" openings on air pipe connectors or other pressurization equipment.

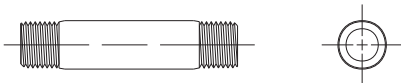
NIPPLES

6240-0047 Fitting, Hex Nipple, 1/4" NPT-M to 1/4" NPT-M



System Studies provides a 1/4" NPT male, nickel-plated brass nipple fitting (Part No. 6240-0047) for making a variety of pneumatic plumbing connections. This nipple has a hex surface to accommodate common wrench sizes and simplify installation and removal.

6240-0163 Fitting, Nipple, 1/4" NPT-M to 1/4" NPT-M, 2.5" Long



CHECK VALVES

6240-0142 Fitting, Check Valve, 1/4" NPT-F (2 Places), Panel Use



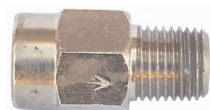
This nickel-plated brass check valve is designed to be used at pipe and distribution panels to prevent back flow of pressurized air from the pressurized pipe and cable system. It is designed to produce a much lower pressure drop than other check valves when used in high flow applications. The check valve is supplied with a 1/4" NPT-Female threads on both ends.

6240-0180 Fitting, Check Valve, 1/4" NPT-M to 1/4" NPT-F, Field Use



Machined with a 1/4" NPT-Male thread on one end and a 1/4" NPT-Female thread on the other, this check valve is ideal in field applications to prevent pressurized air from back-flowing out of the pressurized pipe and cable system. Designed primarily for low to moderate flow rates, it is supplied with designated Flow Finder Manifolds™ and Manifold Monitoring Assemblies™.

6240-0181 Fitting, Check Valve, 1/4" NPT-F to 1/4" NPT-M, Field Use



This component is similar to the Part No. 6240-0180 check valve described above, except that it permits air to flow in the opposite direction (as indicated by the direction arrow).

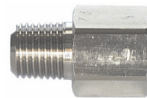
6240-0145 Fitting, Check Valve, 3/4" NPT-F to 3/4" NPT-F



This 3/4" NPT-F to 3/4" NPT-F check valve is a one-piece cast brass (non-plated) fitting with a stainless steel internal stem, spring and cup washer. The valve poppet is Buna-N Rubber. The check valve measures 3.31" in length and has a valve diameter of 1.62". It is designed to operate in any position and provide a positive seal to prevent back flow. The P/N 6240-0145 fitting can be used in most pneumatic applications where a check valve is required in a 1" air pipe delivery system. For 1" Nylobraid poly tubing installations, use two P/N 6240-0009 3/4" NPT-M barbed connectors.

POWER PIPE FITTINGS

9800-3035 Fitting, Flow Limiter, 1/4" NPT-M to 1/4" NPT-F



This 1/4" adapter has a special orifice that is designed to limit air flow. It is used to limit the air flow when connecting a manifold to the Power Pipe.

9800-3036 Fitting, Flow Limiter, 1/4" NPT-M to 1/4" NPT-M



System Studies provides this 1/4" NPT male, nickel-plated brass nipple fitting with a special orifice that intentionally limits air flow. This nipple is used when connecting CA3131 pipe to a Power Pipe. It has a hex surface to accommodate common wrench sizes and simplify installation and removal.

9800-3037 Fitting, Cap, 3/4" NPT-F to 1/4" NPT-F



The 3/4" NPT Female to 1/4" NPT Female Reducer is used in any Power Pipe application where you need to connect a product with a 1/4" male fitting to a product equipped with a 3/4" male NPT.

9800-0140 Fitting, Power Pipe Straight Splice, Quadruple O-Ring per Side



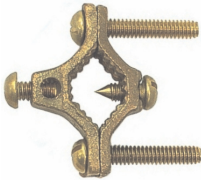
The straight splice connector is used when joining two sections of Power Pipe. It is equipped with four O-rings per side and multiple grooves for gripping power. Requires a total of four Part No. 6200-0022 stainless steel clamps. Please note that this fitting has a machined outside diameter (O.D.) 0.980" and a final O.D. at the O-ring of 1.040". It is designed to be used with one inch pipe having an internal diameter (I.D.) between .985" and 1.030".

9800-0141 Fitting, Power Pipe End Connector, 3/4" NPT-M to Quadruple O-Ring



This nickel plated brass Power Pipe fitting provides the connection between the Power Pipe and 3/4" threaded components, such as the two or four port manifolds. It is equipped with four O-rings, which ensure a leak-free connection and multiple grooves for gripping power. Requires two Part No. 6200-0022 stainless steel clamps, which are placed over the O-rings. This fitting has an identical O.D. To the Part No. 9800-0140 fitting described above. It should be used only with one inch pipe having an internal diameter (I.D.) between .985" and 1.030".

6240-0144 Fitting, Power Pipe Bonding Strap Clamp



This pipe clamp is recommended for use with a bonding strap whenever a splice occurs in a section of one inch air pipe (two required for each splice). The clamp is fully adjustable to accommodate variations in pipe outside diameters, and it is supplied with a pointed and threaded bonding screw. The screw is intended to penetrate the pipe's polyethylene outer jacket and make contact with the inner aluminum tape. Bonding continuity is established by inserting a bonding strap or wire into the 1/4" (I.D.) hole on the top of the clamp and securing it in place with the 1/4-20 screw provided.

At straight splice locations, the fitting will eliminate the need for one of the Power Pipe High Torque Clamps (Part No. 6200-0022) on each side of the splice. The clamp accommodates pipe sizes in the range of 1/2" to 1". It is constructed of high strength, highly conductive copper alloy; all screws are brass for corrosion resistance.

6240-0021 Fitting, Plug, 3/4" NPT-M Hex Head



This Hex-Head socket plug can be used to plug unused 3/4" openings on air pipe connectors or other pressurization equipment.

6200-0022 Fitting, Power Pipe High Torque Clamp



The Part No. 6200-0022 high torque clamp is used to secure a section of Power Pipe or Nyla braid tubing to a 1" pipe connector (Part Nos. 9800-0140 and 9800-0141) or to a 3/4" inch NPT-M barbed connector (6240-0009). The clamp is placed around the air pipe and connector and fastened securely using a standard flat head screwdriver.

6240-0050 Fitting, Power Pipe Cross, 3/4" NPT-F (4 Places), Forged



The Power Pipe Cross is used in Power Pipe applications where a "T" needs to be placed in the pipe. The fourth connection is usually used to attach 3/8" tubing, or plugged with a 3/4" Hex Head Plug, Part No. 6240-0021.

6240-0119 Hex Nipple, 3/4" NPT-M (Minimum Order Qty: 10)



6240-0120 Fitting, Power Pipe, Street L, 3/4" NPT-M to 3/4" NPT-F, Bar Stock



To help simplify one inch air pipe installations, particularly at locations where the pipe needs to be routed around corners, we provide a 3/4" NPT Street L fitting. This fitting is intended to be used with the Part No. 9800-0141 Power Pipe End Connector. It has a 3/4" NPT-F on one end and a 3/4" NPT-M on the other.

6240-0157 Fitting, Elbow, 3/4" NPT-F (2 Places)



Used in Power Pipe (1" air pipe) installations, this elbow fitting makes it possible to route sections of pipe around 90° corners and/or obstructions. It is joined to Power Pipe using two Power Pipe end pipe connectors (Part No. 9800-0141).

6240-0190 Fitting, 45° Street L, 3/4" NPT-M to 3/4" NPT-F



This 45° Street L provides an option to using the 90° Street L (Part No. 6240-0120) for Power Pipe System installations. The fitting is also used on the System Studies central office panel assemblies.

6240-0191 Fitting, Union T, 3/4" NPT-F (3 Places), Bar Stock



The 3/4" Union Tee is used to join three pieces of one inch air pipe. The fitting is supplied with three 3/4" NPT female threads, each of which accommodates a Power Pipe end connector (Part No. 9800-0141).

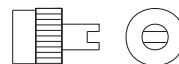
MISCELLANEOUS

6240-0001 Fitting, Tank Valve (with Cap)



The nickel-plated Tank Valve is typically used with air pipe connectors or on any pressurization equipment requiring a pressure testing valve. The Tank Valve offers the durability and dependability needed for accurate pressure readings. Product Number 6240-0001 measures 1 1/4" long; it has a 1/8" NPT male thread.

6240-0032 Fitting, Valve Cap with Tool



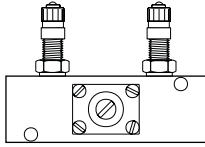
This valve cap includes a simple device that can be used to remove the stem inside of a standard tank valve.

6240-0065 Fitting, Extender Adapter, 1/8" NPT-M to 1/8" NPT-F, Brass



This extender adapter has a 1/8" NPT-Male thread on one end and a 1/8" NPT-Female thread on the other. It provides a 1/2" extension when connecting a fitting or product equipped with 1/8" NPT threads.

9800-3024 Fitting, Bypass Valve



a portable flow rater).

This device makes it possible for air to circumvent a pneumatic plug in a cable. The bypass valve has a shutoff valve and two standard tank valves that enable the air flowing around the plug to be controlled and measured (using

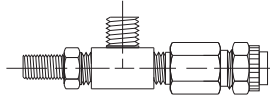
6240-0009 Fitting, Barbed Connector, 3/4" NPT-M



This barbed fitting is commonly used to join a length of 1" Nylobraid poly (PVC) tubing to the System Studies vertically-mounted central office panel gang manifold.

PRE-ASSEMBLED FITTINGS

9800-0142 Fitting, Splice Case Check Valve Assembly



This kit includes the hardware components required for connecting a length of 3/8" pressure tubing from an air pipe manifold to a splice case. It includes a branch tee with a 1/8" NPT-M, a tank valve fitting, a check valve and a 3/8" tube connector . The check valve prevents air from bleeding out of the splice case if the pressure tubing becomes dislodged.

The words Power Pipe™, Power Pipe System™, High Resolution Flow Transducer™, High Resolution Dual Transducer™, Flow Finder™, Flow Finder Manifold™, Manifold Monitoring Assembly™, and Central Office Distribution Panel™ are trademarks of System Studies Incorporated.