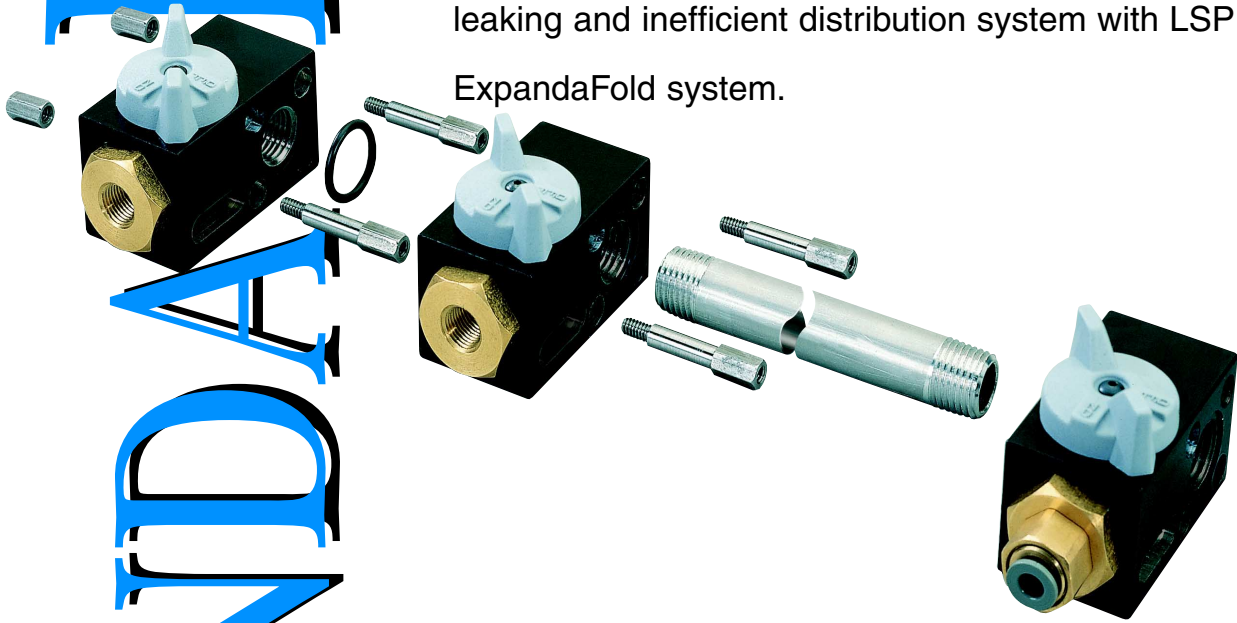


EXPANDAFOLD

THE ULTIMATE DISTRIBUTION SYSTEM

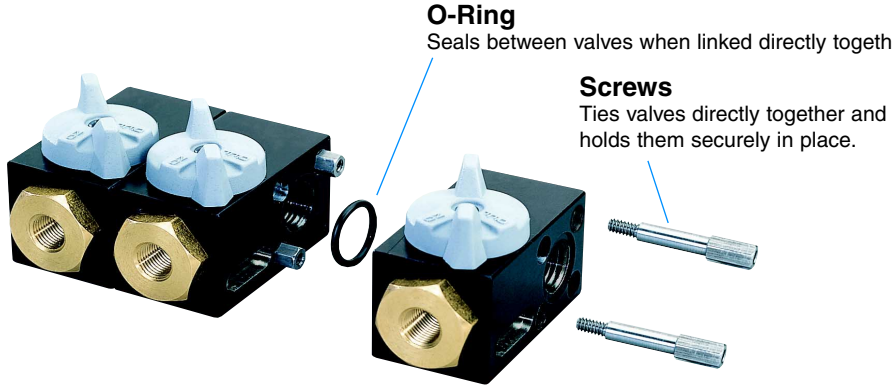
The ExpandaFold, a state-of-the-art manifold system that uses less fittings, has less joints, eliminates leaks and cleans up the unsightly messes associated with makeshift manifolds. Whether it is used to transport air or fluid, the ExpandaFold will transform manifold chaos to impeccable order. See how easy it is to replace that sloppy, leaking and inefficient distribution system with LSP Industries ExpandaFold system.



THE EXPANDAFOLD SYSTEM

THE EXPANDAVALVE AND OFF-THE-SHELF COMPONENTS

The heart of the ExpandaFold System, the ExpandaValve comes ready to assemble into customized manifolds*. ExpandaValves are designed to be assembled into manifolds with screws, pipes and/or tubing. It's that simple! They can be assembled in a variety of configurations as shown below.

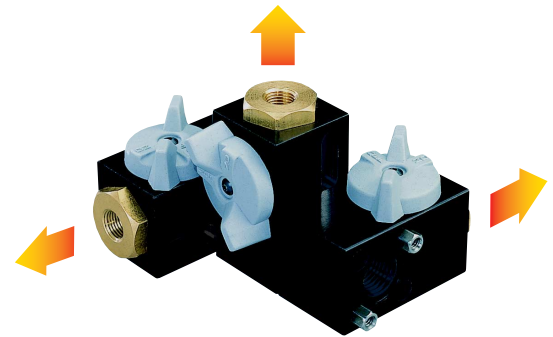


O-Ring

Seals between valves when linked directly together

Screws

Ties valves directly together and holds them securely in place.



Cluster Type Installations

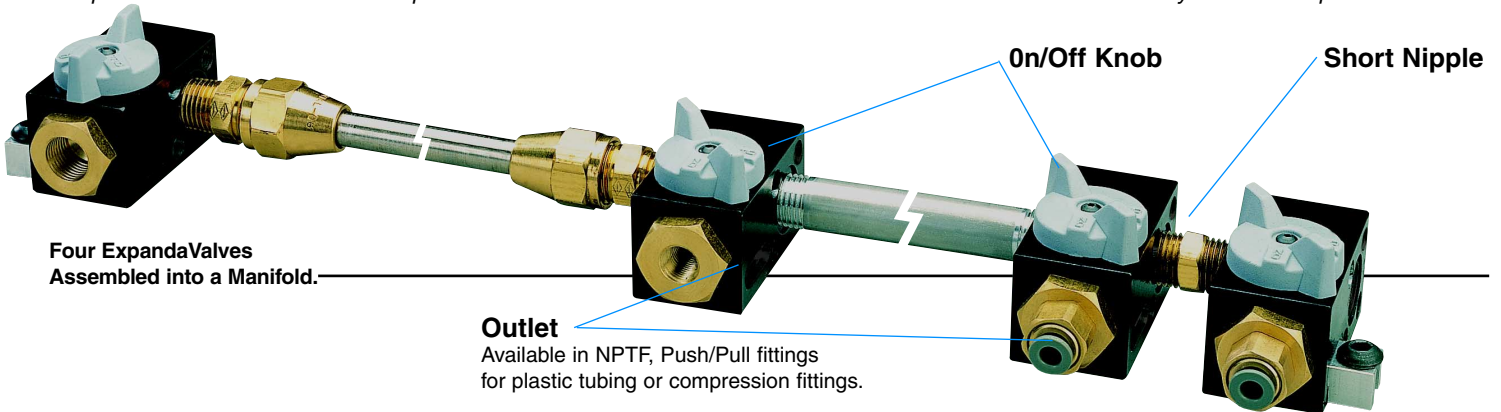
ExpandaValves can be assembled in a tight cluster, one valve actually touching another. This arrangement conserves space and allows them to be mounted in

They are assembled with an o-ring between each valve and they are held together with interlocking screws, that thread into each other.

Angled Set-up

This method of assembly makes it possible for the ExpandaValves to be mounted in a horizontal line or to aim each valve 90°, 180° or 270° from the adjoining one.

* ExpandaValves can be ordered in pre-assembled clusters at an economical cost. Call LSP Industries Inc. with your custom specifications



Four ExpandaValves Assembled into a Manifold.

On/Off Knob

Short Nipple

Outlet

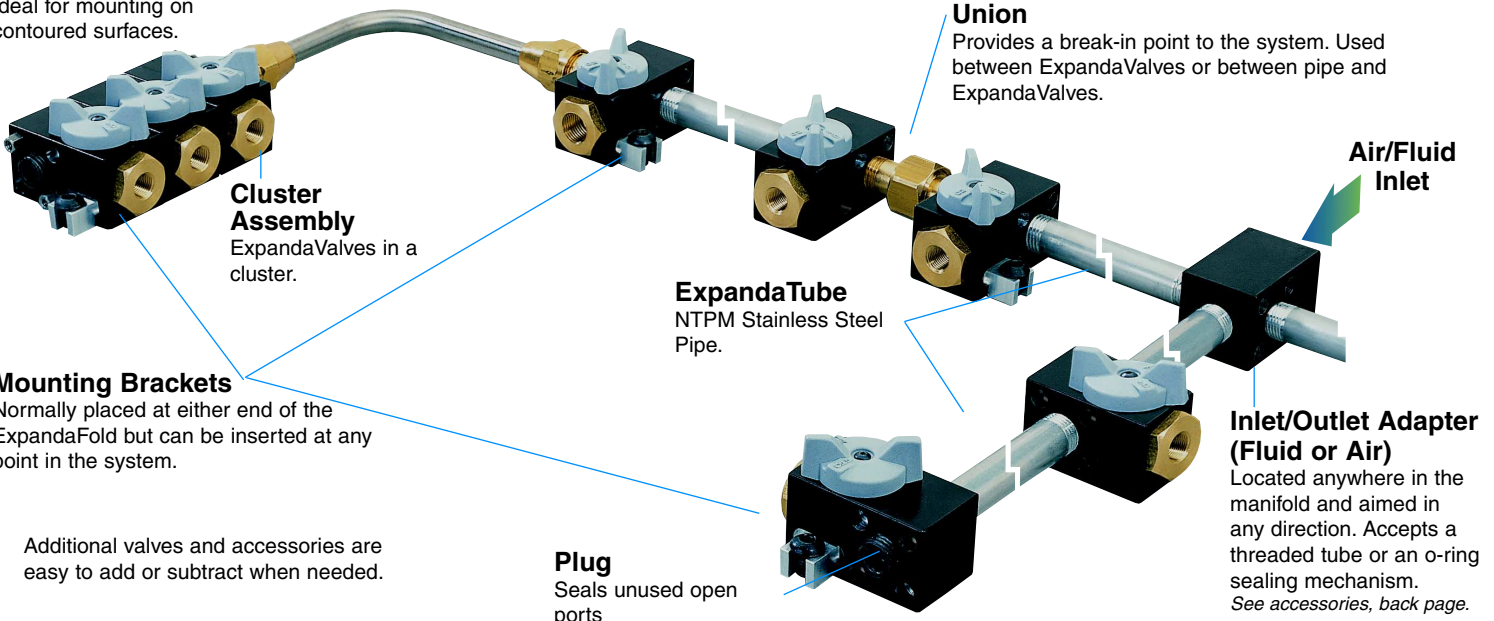
Available in NPTF, Push/Pull fittings for plastic tubing or compression fittings.

Tubing w/ Flared Fittings

Ideal for mounting on contoured surfaces.

Union

Provides a break-in point to the system. Used between ExpandaValves or between pipe and ExpandaValves.



Cluster Assembly

ExpandaValves in a cluster.

Mounting Brackets

Normally placed at either end of the ExpandaFold but can be inserted at any point in the system.

ExpandaTube

NTPM Stainless Steel Pipe.

Plug

Seals unused open ports

Air/Fluid Inlet

Inlet/Outlet Adapter (Fluid or Air)

Located anywhere in the manifold and aimed in any direction. Accepts a threaded tube or an o-ring sealing mechanism. See accessories, back page.

Additional valves and accessories are easy to add or subtract when needed.

ORDERING



Part Number
VBS02x02F

VB

Item

VB - Valve,
Ball

S

Housing
Material

A - Aluminum
S - Stainless
Steel

02

Inlet
Thread Size

02 - 1/8" NPTF
04 - 1/4" NPTF
06 - 3/8" NPTF
08 - 1/2" NPTF

X

02

Outlet
Thread Size

02 - 1/8"
NPTF
04 - 1/4"
NPTF
04 - 1/4" Tube
06 - 3/8"

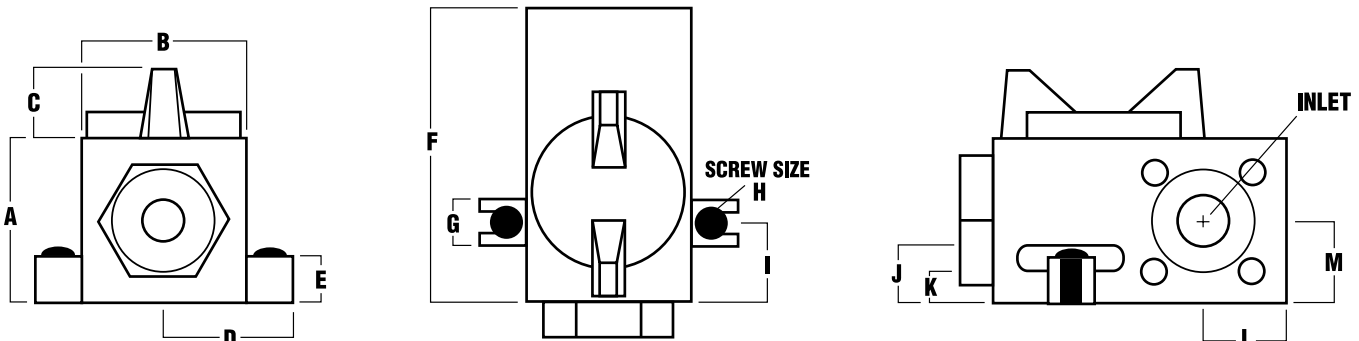
F

Outlet
Type

F - Female
P - Push/Pull
C -
Compression

ExpandaValves are full flow relative to their inlets and are rated for pressures up to 1000 PSI. Push/Pull fittings are rated at **150 PSI** regardless of the ExpandaValve ratings.

SPECIFICATIONS



Valve Specifications

| ExpandaValve | A | B | C | D | E | F | G | H | I | J | K | L | M |
|---------------------------------|-------|-------|------|-------|------|-------|------|--------|-------|------|------|-------|-------|
| Valve w/1/8" or 1/4" NPTF Inlet | 1.125 | 1.125 | .500 | .9685 | .500 | 2.037 | .500 | 1/4-20 | .500 | .250 | .437 | .5625 | .5625 |
| Valve w/3/8" or 1/2" NPTF Inlet | 1.500 | 1.500 | .625 | .9685 | .500 | 2.850 | .500 | 1/4-20 | 1.450 | .250 | .437 | .7500 | .7500 |

ACCESSORIES



Stainless Steel Pipe

| Length | 1/8" NPTM | 1/4" NPTM | 3/8" NPTM | 1/2" NPTM |
|--------|-----------|-----------|-----------|-----------|
| 6" | VPS06X02 | VPS06X04 | VPS06X06 | VPS06X08 |
| 12" | VPS12X02 | VPS12X04 | VPS12X06 | VPS12X08 |
| 18" | VPS18X02 | VPS18X04 | VPS18X06 | VPS18X08 |
| 24" | VPS24X02 | VPS24X04 | VPS24X06 | VPS24X08 |
| 30" | VPS30X02 | VPS30X04 | VPS30X06 | VPS30X08 |
| 36" | VPS36X02 | VPS36X04 | VPS36X06 | VPS36X08 |

**Special lengths available upon request.*



Unions

For use in ExpandaFold systems where multiple ExpandaValves are assembled in clusters or they are used in long assemblies connected by pipes. Allows for easy disengagement of the valves at strategic locations if changes have to be made. Can be used between two valves or between a valve and a pipe.

Unions for use between two ExpandaValves

| Part Number | Material | Thread |
|-------------|-----------------|-----------------------|
| VUB02Mx02M | Brass | 1/8" NPTM x 1/8" NPTM |
| VUB04Mx04M | Brass | 1/4" NPTM x 1/4" NPTM |
| VUB06Mx06M | Brass | 3/8" NPTM x 3/8" NPTM |
| VUB08Mx08M | Brass | 1/2" NPTM x 1/2" NPTM |
| VUS02Mx02M | Stainless Steel | 1/8" NPTM x 1/8" NPTM |
| VUS04Mx04M | Stainless Steel | 1/4" NPTM x 1/4" NPTM |
| VUS06Mx06M | Stainless Steel | 3/8" NPTM x 3/8" NPTM |
| VUS08Mx08M | Stainless Steel | 1/2" NPTM x 1/2" NPTM |

Unions for use between two ExpandaValve and Pipe

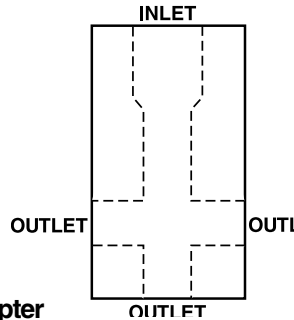
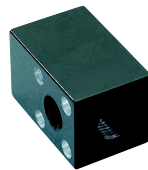
| Part Number | Material | Thread |
|-------------|-----------------|-----------------------|
| VUB02Mx02F | Brass | 1/8" NPTM x 1/8" NPTF |
| VUB04Mx04F | Brass | 1/4" NPTM x 1/4" NPTF |
| VUB06Mx06F | Brass | 3/8" NPTM x 3/8" NPTF |
| VUB08Mx08F | Brass | 1/2" NPTM x 1/2" NPTF |
| VUS02Mx02F | Stainless Steel | 1/8" NPTM x 1/8" NPTF |
| VUS04Mx04F | Stainless Steel | 1/4" NPTM x 1/4" NPTF |
| VUS06Mx06F | Stainless Steel | 3/8" NPTM x 3/8" NPTF |
| VUS08Mx08F | Stainless Steel | 1/2" NPTM x 1/2" NPTF |



Nipples

For short connections

| Thread | Brass |
|----------|-------|
| 1/8" NPT | VNB02 |
| 1/4" NPT | VNB04 |
| 3/8" NPT | VNB06 |
| 1/2" NPT | VNB08 |



Inlet/Outlet Adapter

When on/off control is not needed, an inlet/outlet adapter is an efficient solution. There are four ports to the adapter. The main Inlet port is one NPT size larger than all other ports. The oversized inlet takes in a larger volume of air or liquid for redistribution to the ExpandaValves. This extra capacity aids in distributing adequate volume to the valves. If volume is not a consideration, any port may be used as an inlet port. Any or all of the remaining ports may be used as outlet ports. Any port not being used can be plugged. A manifold can be made completely out of inlet/outlet adapters or they can be located anywhere in an ExpandaFold system.

Sample Part Number **VAS04X02F**
Valve, Adapter

Inlet Size (one NPT size larger than outlet size)



Pipe Plug

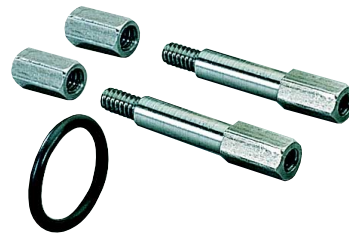
| Thread | Brass |
|----------|-------|
| 1/8" NPT | VGB02 |
| 1/4" NPT | VGB04 |
| 3/8" NPT | VGB06 |
| 1/2" NPT | VGB08 |



Mounting Brackets

Adapts to an ExpandValve. Two to a package, screws included.

| Part Number | NPTF Inlet Sizes |
|-------------|-------------------------|
| 901ACY-01 | 1/8", 1/4", 3/8" & 1/2" |



Screw and O-Ring Kits

Two screws, two nuts and one o-ring are included in each package.

| Part Number | NPTF Inlet Sizes |
|-------------|------------------|
| 901ACY-02 | 1/8" & 1/4" |
| 901ACY-03 | 3/8" & 1/2" |



P.O. Box 5303, 2511-20th St.
Rockford, Illinois 61125
815/226-8090 Fax: 815/226-9250
E-Mail: lsp@lspind.com