



# Large Capacity Aluminum Piping Systems



**HIGH PERFORMANCE  
ALL METAL PIPING SYSTEM**  
Compressed Air / Vacuum / Inert Gases  
73mm (2.5") – 220mm (8")



## Elevation from Applied System Technologies (AST), has taken large diameter piping systems to a new level.

**TEN TIMES LIGHTER THAN STEEL**, without compromising structural strength. The system is safer and easier to install than plastic, with the quality of stainless steel.

### Secrets of the Elevation System

#### 1. Manufactured from Marine Grade Aluminum:

High quality aluminum alloy provides the highest level of protection against corrosion. This ensures that the media traveling through a system encounters very little turbulence, while enabling high flow rates with minimal pressure losses compared to conventional steel systems.

#### 2. Uses world's most accepted grooved fitting design:

Mechanical firms already use and understand our coupling technology ensuring installations can be done by any qualified contractor. Corrosion free by nature and low cost of ownership by design, make Elevation the right choice for your piping system project.

**Elevation provides a simple solution for large air/gas/vacuum users and is, without a doubt, the easiest and fastest system to install. It has the lowest cost of ownership and the best quality of media delivery available.**

## Connect Elevation to Infinity for maximum advantage.

Once you've installed an Elevation header, it's common to have smaller diameter piping for drops and solid line hook-ups to machines and equipment.

Infinity, like Elevation, is comprised of an all metal, non-corrosive system with bore sizes from 20mm (3/4") up to 63mm (2 1/2"). The piping is manufactured in the same **MARINE GRADE ALUMINUM** as Elevation but promotes a different range and style of fittings.

Infinity fittings are made from solid brass and nickel-plated to provide a **STRONG AND NON-CORROSIVE** solution. The fitting design is a simple "push to connect" system and requires minimal skill, effort or tooling to install.

## It couldn't be easier.

Simply drill a hole in the Elevation tubing. Attach an Outlet Saddle Clamp around the tubing to leave a female threaded connection. This allows for simple conversion between Elevation and Infinity.



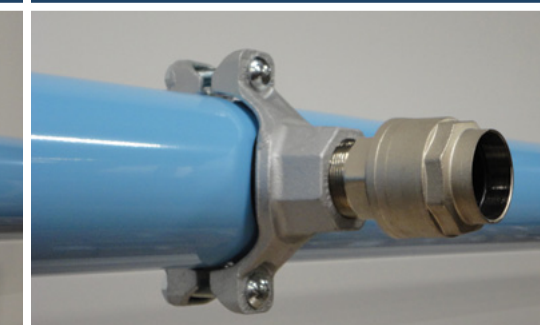
It couldn't be easier.



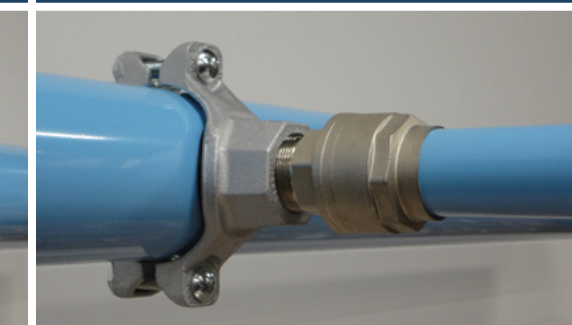
1. Attach saddle clamp to Elevation pipe with female threaded connection.



2. Screw male thread connector into female connector.



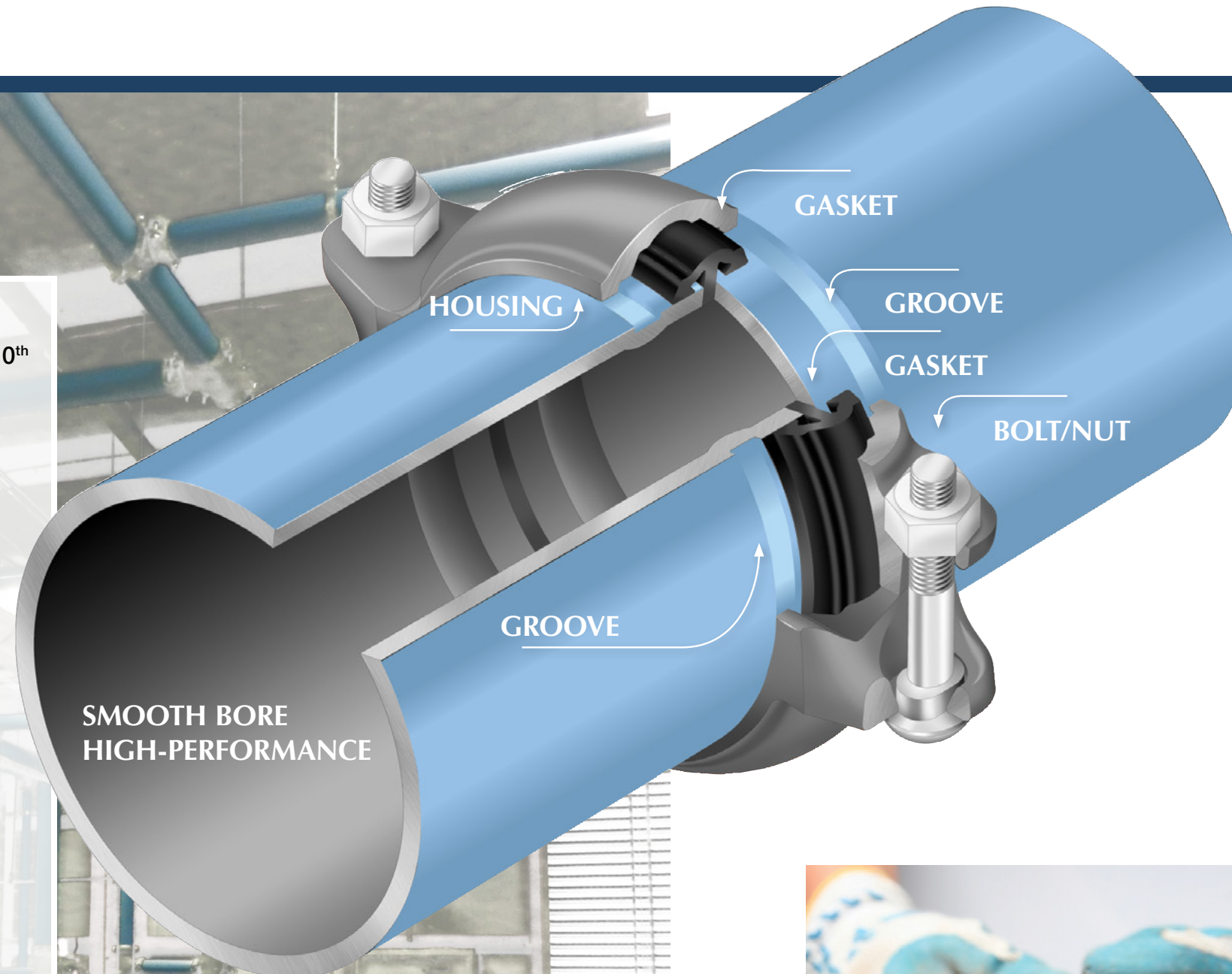
3. Attach Infinity piping to fitting.





## Elevation works for you.

- Lightest product in the market — 1/10<sup>th</sup> the weight of steel (same diameter)
- Fastest installed system — compared to all others available
- Structurally as strong as carbon steel
- Manufactured from non-corrosive marine grade aluminum — guaranteed highest quality air delivery
- Superior construction and design — allows highest flow rates and lowest pressure drops
- System flexibility — simple modifications and/or additions
- Ten year leak free guarantee
- Manufactured from 100% recyclable materials



## Non-Corrosive Marine Grade Aluminum Tubing.

- Marine grade aluminum construction — prevents rust and system deterioration.
- Zero corrosion — eliminates expensive production downtime and dramatically reduces maintenance costs.
- Smooth internal diameter — insuring higher flow rates with less turbulence than traditional iron pipe, throughout the life of the system.
- High quality powder coat finish
- Lowest cost of ownership available.

## Don't jeopardize efficiency.

Piping is responsible for the delivery of compressed air to the point of use. Material, age and condition impact both system reliability and air quality. Compressed air piping made from iron will rust and corrode, creating buildup on the interior and reducing the functional diameter. This buildup results in increasing pressure losses, as well as, contamination contributing to poor quality air.

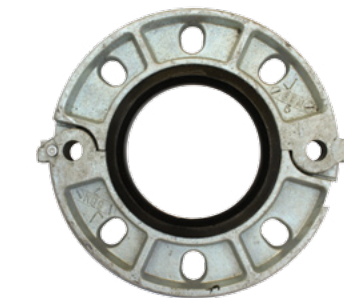




### TUBING

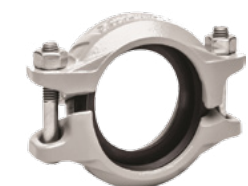
<b>BLUE</b> Compressed Air Tubing <i>Stock Item</i>	73mm	10000-70-AIR-BLUE
	90mm	10000-90-AIR-BLUE
	115mm	10000-115-AIR-BLUE
	168mm	10000-168-AIR-BLUE
	220mm	10000-220-AIR-BLUE
<b>GREEN</b> Nitrogen Tubing <i>Special Order</i>	73mm	10000-70-NITRO-GREEN
	90mm	10000-90-NITRO-GREEN
	115mm	10000-115-NITRO-GREEN
	168mm	10000-168-NITRO-GREEN
	220mm	10000-220-NITRO-GREEN
<b>GRAY</b> Vacuum Tubing <i>Special Order</i>	73mm	10000-70-VAC-GREY
	90mm	10000-90-VAC-GREY
	115mm	10000-115-VAC-GREY
	168mm	10000-168-VAC-GREY
	220mm	10000-220-VAC-GREY
<b>BLACK</b> Inert Gas Tubing <i>Special Order</i>	73mm	10000-70-GAS-BLACK
	90mm	10000-90-GAS-BLACK
	115mm	10000-115-GAS-BLACK
	168mm	10000-168-GAS-BLACK
	220mm	10000-220-GAS-BLACK

<b>ADAPTERS</b> NPT Male (M) or NPT Female (F) <i>Supplied without Coupling</i>	73mm tube > 1-1/2"	M	100011-70-24
	73mm tube > 2"	M	100011-70-32
	73mm tube > 2-1/2"	M	100011-70-40
	73mm tube > 2-1/2"	F	100011-70-40-F
	90mm tube > 1-1/2"	M	100011-90-24
	90mm tube > 2"	M	100011-90-32
	90mm tube > 2-1/2"	M	100011-90-40
	90mm tube > 3"	M	100011-90-48
	90mm tube > 3"	F	100011-90-48-F
	115mm tube > 2"	M	100011-115-32
	115mm tube > 2-1/2"	M	100011-115-40
	115mm tube > 3"	M	100011-115-48
	115mm tube > 4"	M	100011-115-64
	115mm tube > 4"	F	100011-115-64-F
<b>REDUCERS</b> <i>Supplied without Couplings</i>	90mm tube > 73mm tube	100014-90-70	
	115mm tube > 73mm tube	100014-115-70	
	115mm tube > 90mm tube	100014-115-90	
	168mm tube > 90mm tube	100014-96-48	
	168mm tube > 115mm tube	100014-96-64	
	220mm tube > 115mm tube	100014-220-115	
	220mm tube > 168mm tube	100014-220-168	



<b>ANSI 150 FLANGE ADAPTERS</b> <i>Available in additional sizes by Special Order</i>	73mm to ANSI 2-1/2"	100012-40
	90mm to ANSI 3"	100012-48
	115mm to ANSI 4"	100012-64
	168mm to ANSI 6"	100012-96
	220mm to ANSI 8"	100012-128
<b>ANSI 150 HIGH TEMP FLANGE ADAPTER</b>	73mm	100012-40-O
	90mm	100012-48-O
	115mm	100012-64-O
	168mm	100012-96-O
	220mm	100012-128-O
<b>ANSI 150 FLANGE ADAPTER KIT</b> <i>Includes Flange, Reducer &amp; Coupling (Additional kit flange sizes available by Special Order)</i>	90mm to ANSI 6"	100235-90-96
	90mm to ANSI 4"	100235-90-64
	90mm to ANSI 2-1/2"	100235-90-40
	90mm to ANSI 2"	100235-90-32
	115mm to ANSI 6"	100235-115-96
	115mm to ANSI 3"	100235-115-48
	115mm to ANSI 2-1/2"	100235-115-40
	115mm to ANSI 2"	100235-115-32
<b>REPLACEMENT FLANGE GASKET</b>	73mm	100012-40-GSK
	90mm	100012-48-GSK
	115mm	100012-64-GSK
	168mm	100012-96-GSK
	220mm	100012-128-GSK
<b>HIGH-TEMP REPLACEMENT FLANGE GASKET</b>	73mm	100012-40-GSK-O
	90mm	100012-48-GSK-O
	115mm	100012-64-GSK-O
	168mm	100012-96-GSK-O
	220mm	100012-128-GSK-O

	Size	Compatible With	Flange Size	Part Number
<b>FLANGE ADAPTER BOLT KIT</b>	73mm	100012-40	ANSI 2.5"	100012-40-BLK-KT
	90mm	100012-48, 100235-115-48	ANSI 3"	100012-48-BLK-KT
	115mm	100012-64, 100235-90-64	ANSI 4"	100012-64-BLK-KT
	168mm	100012-96, 100235-90-96, 100235-115-96	ANSI 6"	100012-96-BLK-KT
	220mm	100012-128	ANSI 8"	100012-128-BLK-KT



<b>STRAIGHT UNION COUPLING</b> Rigid	73mm	100040-70-R
	90mm	100040-90-R
	115mm	100040-115-R
	168mm	100040-168-R
	220mm	100040-220-R
<b>STRAIGHT UNION COUPLING</b> Flexible <i>Special Order</i>	73mm	100040-70-F
	90mm	100040-90-F
	115mm	100040-115-F
	168mm	100040-168-F
	220mm	100040-220-F
<b>HIGH TEMP COUPLING</b>	73mm	100040-70-R-07-O
	90mm	100040-90-R-07-O
	115mm	100040-115-R-07-O
	168mm	100040-168-R-07-O
	220mm	100040-220-R-07-O
<b>REPLACEMENT COUPLING SEAL</b> <i>Fits 107N Coupling</i>	73mm	100921-70-T
	90mm	100921-90-T
	115mm	100921-115-T
	168mm	100921-168-T
	220mm	100921-220-T
<b>REDUCER UNION COUPLING</b>	90mm > 73mm	100620-90-70
	115mm > 73mm	100620-115-70
	115mm > 90mm	100620-115-90
	168mm > 115mm	100620-168-115
	220mm > 168mm	100620-220-168
<b>90° UNION ELBOW</b> <i>Includes 2 Couplings</i>	73mm	100130-70
	90mm	100130-90
	115mm	100130-115
	168mm	100130-168
	220mm	100130-220
<b>45° UNION ELBOW</b> <i>Includes 2 Couplings</i>	73mm	100140-70
	90mm	100140-90
	115mm	100140-115
	168mm	100140-168
	220mm	100140-220



<b>Equal Tee</b> <i>Includes 3 Couplings</i>	73mm	100230-70	
	90mm	100230-90	
	115mm	100230-115	
	168mm	100230-168	
	220mm	100230-220	
<b>OUTLET SADDLE CLAMP</b> NPT Female (F) or Grooved (G)	73mm tube > 1/2"	F	100234-70-08
	73mm tube > 3/4"	F	100234-70-12
	73mm tube > 1"	F	100234-70-16
	73mm tube > 1-1/2"	F	100234-70-24
	90mm tube > 3/4"	F	100234-90-12
	90mm tube > 1"	F	100234-90-16
	90mm tube > 1-1/2"	F	100234-90-24
	90mm tube > 2"	F	100234-90-32
	115mm tube > 3/4"	F	100234-115-12
	115mm tube > 1"	F	100234-115-16
	115mm tube > 1-1/2"	F	100234-115-24
	115mm tube > 2"	F	100234-115-32
	168mm tube > 1-1/2"	F	100234-168-24
	168mm tube > 2"	F	100234-168-32
	168mm tube > 90mm	G	100234-168-90
	168mm tube > 115mm	G	100234-168-115
	220mm tube > 2"	F	100234-220-32
	220mm tube > 73mm	G	100234-220-70
	220mm tube > 90mm	G	100234-220-90
	220mm tube > 115mm	G	100234-220-115
<b>BUTTERFLY VALVE</b> Tube to Tube (Ten Position) <i>Includes 2 Couplings</i>	73mm tube	100700-70	
	90mm tube	100700-90	
	115mm tube	100700-115	
	168mm tube	100700-168	
	220mm tube	100700-220	
<b>HIGH-TEMP BUTTERFLY VALVE</b> <i>Supplied without Couplings</i>	73mm	100700-70-0-01	
	90mm	100700-90-0-01	
	115mm	100700-115-0-01	
	168mm	100700-168-0-01	
	220mm	100700-220-0-01	
<b>NITRILE-LINED BUTTERFLY VALVE</b> <i>Includes 2 Couplings (special order)</i>	73mm	100700-70-NL	
	90mm	100700-90-NL	
	115mm	100700-115-NL	
	168mm	100700-168-NL	





<b>PLUG - CAP END FITTING</b> Ductile Galv. (DG) or Aluminum (A) <i>Supplied without Coupling</i>	73mm	DG	100610-70-D
	90mm	A	100610-90-A
	90mm	DG	100610-90-D
	115mm	A	100610-115-A
	115mm	DG	100610-115-D
	168mm	DG	100610-168-D
	220mm	DG	100610-220-D
<b>HANGING BRACKET</b> <i>(Galvanized Steel, Threaded Insert)</i>	73mm-3/8" insert		100820-70
	90mm-3/8" insert		100820-90
	115mm-3/8" insert		100820-115
	168mm - 1/2" insert <i>includes 3/8" insert adapter</i>		100820-168
	220mm - 1/2" insert <i>includes 3/8" insert adapter</i>		100820-220
<b>WIRE HANGING SYSTEM</b> <i>(15' length) 3/8" threaded end (replaces need for threaded rod)</i>	73mm – 220mm <i>pack of 10</i>		90832-15
<b>BEAM CLAMP</b>	3/8"		90860
<b>CANTILEVER WALL BRACKET</b> <i>Includes Bracket, Pipe Strap &amp; Bolts</i>	73mm		100835-70
	90mm		100835-90
	115mm		100835-115
<b>ASSEMBLY LUBE</b>	1 Quart Container		100910-32
<b>TOOLS</b>	Grooving Tool <i>(73mm-168mm)</i>		100950-M
	Grooving Tool <i>(220mm)</i>		Special Order <i>(call)</i>
	Grooving Tool Rental <i>(73mm-168mm) (Weekly Rental)</i>		100950-M-R
	Groove Gauge		100952-G

## Elevation Technical Specifications

<b>Working Pressure</b>	-29.6Hg (-0.99bar) to 220psi (15 bar)
<b>Max Working Temperature</b>	-4°F to 176° F (100% Duty)
<b>Tubing Material</b>	Aluminum 6063 T-5 <i>(Marine Grade)</i> Manufactured and certified to ASTM standards
<b>Tubing Weight</b>	73 mm - 0.86 lbs./ft 90 mm - 1.04 lbs./ft 115 mm - 1.15 lbs./ft 168 mm - 3.12 lbs./ft 220 mm - 4.95 lbs./ft
<b>Standard Seals</b>	(-4° F to 176° F) Nitrile Rubber
<b>High Temperature Seals</b>	(-4° F to 300° F) Fluoroelastomer
<b>Fittings</b>	Aluminum, B-26, 356-T6 Ductile Iron, Galvanized, grade 65-45-12
<b>Standards &amp; Approvals</b>	ASME B31.1 Power Piping ASTM F-1476 BOCA CSA B-242 SBCCI CRN

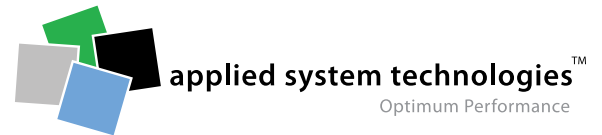
## Elevation System Flow Rates:

	Cu Ft/min				
	73mm	90mm	115mm	168mm	220mm
<b>100 PSI</b>	948	1955	3844	10078	20944
<b>125 PSI</b>	1064	2162	4205	11194	23169
<b>150 PSI</b>	1169	2364	4591	12153	25279
<b>220 PSI</b>	1417	2937	5568	14740	30418

Above flow rates are based on straight line flow allowing for a 1psi pressure drop per/100ft over pipe and couplings. For loop systems, flow rates are doubled, i.e. 90mm tubing at 100 psi flows 3910 cfm.

All dimensions measured in mm, unless otherwise noted with inches symbol or text.





## 10 Year Guarantee

**Applied System Technologies** warrants its tube and fitting components to be free of leaks due to manufacturing defects for a period of 10 years from date of sale. This Express warranty is in lieu of and excludes all other warranties, guarantees or representations, express or implied, by operation of law or otherwise, including any warranty that the materials are suitable for the buyer's requirements or special use. System must be installed by an AST approved technician.

**Applied System Technologies** agrees to replace any component proven to have a manufacturing defect.

**Applied System Technologies** shall not be liable for any consequential damages nor for loss, damage or expenses directly or indirectly arising from the use of the product



Applied System Technologies  
9800 West Kinney Avenue, Suite 135  
Huntersville, NC 28078

P): 704-947-6966  
E): [info@appliedsystemtech.com](mailto:info@appliedsystemtech.com)

*Nothing contained on these pages is intended to extend any warranty or representation, expressed or implied, regarding the product described herein. Any such warranties or other terms and conditions of sale of products shall be in accordance with Applied System Technologies standard terms and conditions for such products, which are available upon request. Product improvement is a continuing goal at Applied System Technologies. Designs and specifications are subject to change without notice or obligation.*