KAESER COMPRESSORS®

Built for a lifetime.

Compressed Air Distribution System

SmartPipe™

from 3/4” to 10”

kaeser.com

SmartPipe™

Compressed Air Piping

KAESER's SmartPipe is a modular compressed air distribution system that provides both lower installation costs and lower long term operating costs. The SmartPipe line includes SmartPipe+ (¾" - 2½") and SmartPipeXL (3" - 10") for compressed air and inert gas distribution. SmartPipe is also suitable for vacuum applications.

Innovation you can trust

With a cutting edge research and development team committed to building industry-leading products, KAESER continues to deliver better solutions to meet our customers' compressed air needs. KAESER's expertise and world-wide reputation for superior reliability and efficiency offer great performance and peace of mind.

Rugged reliability

Both SmartPipe+ and SmartPipeXL are designed to meet our rigorous "built for a lifetime" standard. The smooth interior and no-leak fittings ensure low pressure drop and prevent contaminant build-up. Using SmartPipe with KAESER's line of rotary screw compressors and air treatment components will give you years of energy efficient operation.

Piping selection

Piping selection directly affects the three key elements of every compressed air system: flow, pressure, and air quality. Poor choices in pipe materials, diameter, and layout cause flow restrictions, often resulting in significant pressure drop. Pressure drop is the main cause of increased energy consumption and underperforming air driven tools and equipment.

Installation costs

Choices in piping also directly impact installation costs. Heavier materials cause fatigue and slow work, especially in overhead installations. The types of fittings used must also be considered. Some connection types cause pressure drop, need special tools, and take more time to install. The combination of lightweight materials and connectors dramatically reduces labor and installation time for SmartPipe, especially in overhead installations.

Specifications subject to change without notice.

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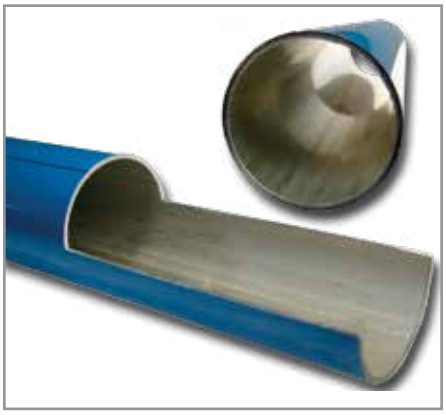
What's so smart about SmartPipe?

Optimum flow and air quality

The smooth calibrated aluminum construction of SmartPipe has a low coefficient of friction, providing the best possible laminar flow. Full bore fittings further minimize pressure drop for optimum flow and energy efficiency. Leak free connectors prevent air loss and wasted energy. Fittings are easy to install and are contractor-friendly.

SmartPipe is ideal for installations requiring the highest quality air. Aluminum and Stainless Steel (10") material will not rust or corrode. Further, it has no rough surfaces or interior restrictions that accumulate contaminants. The smooth interior with full bore design allows them to flow to your dryers and filters for efficient removal.



Inside remains smooth and clean with no contaminant build up or pressure loss. Shown here is a 5-year cutaway.

Wide scope of supply

SmartPipe is available in eleven (11) sizes from 3/4" up to 10" and is perfect for use as headers, branch lines, and drops to points of use.

SmartPipe+

Nominal Outside Ø (in.)	Nominal Outside Ø (mm)
3/4	20
1	25
1-1/4	32
1-1/2	40
2	50
2-1/2	63

SmartPipeXL

Nominal Outside Ø (in.)	Nominal Outside Ø (mm)
3	80
4	100
6	150
8	200
10	250

Push to connect fittings up to 2½" (63 mm).

The SmartPipe line includes all the accessories you need for a top quality installation:

- straight unions
- elbows and tees
- reducing fittings
- gooseneck drops
- ball valves
- butterfly valves
- quick assembly brackets and hangers
- snap-shut pipe clips
- expansion and flex hoses
- variety of ISO 4414/EN983 compliant safety couplers

Rigid aluminum calibrated pipe ensures clean air and optimum flow rate performance.

Bolt-on connectors for 3" (80 mm) and larger.

Specifications subject to change without notice.

Pipe material selection

Common compressed air piping materials with their advantages and disadvantages.

Material	Advantages	Disadvantages
Black Iron	Moderate material costs Readily available in multiple sizes	Labor intensive installation May rust and leak Rough inside promotes contaminant build up and creates pressure drop
Galvanized Iron	Moderate material costs Readily available in multiple sizes Some rust protection	Labor intensive installation Rough inside promotes contaminant build up and creates pressure drop May rust at joints and leak Often only exterior is coated
Copper	No rust, good air quality Smooth interior-low pressure drop	Requires quality brazing to prevent leaks Susceptible to thermal cycling Installation requires open flame
Stainless Steel	No rust, good air quality Smooth interior-low pressure drop	Labor intensive installation Expensive materials
PVC	Lightweight Inexpensive	Above ground Installation is not compliant with OSHA safety regulations

Black and galvanized iron

This actual cutaway of black iron compressed air piping shows typical contaminant build up and flow restriction after just a few years of operation.

Materials

SmartPipe components are non-flammable and 100% recyclable. Piping is constructed of 6063-T4 calibrated alloy aluminum and is blue powder-coated outside. As well as 10” piping in 304 Stainless Steel.

The ¾” - 2½” connectors are compression type, manufactured in aluminum alloy ASTM B.26-356.0. The fitting bodies are black cataphoresis coated. The connectors are the same type throughout the ¾” - 2½” SmartPipe+ range.

The 3” - 10” connectors are quick-connect bolt-on design. They are manufactured in aluminum or steel.

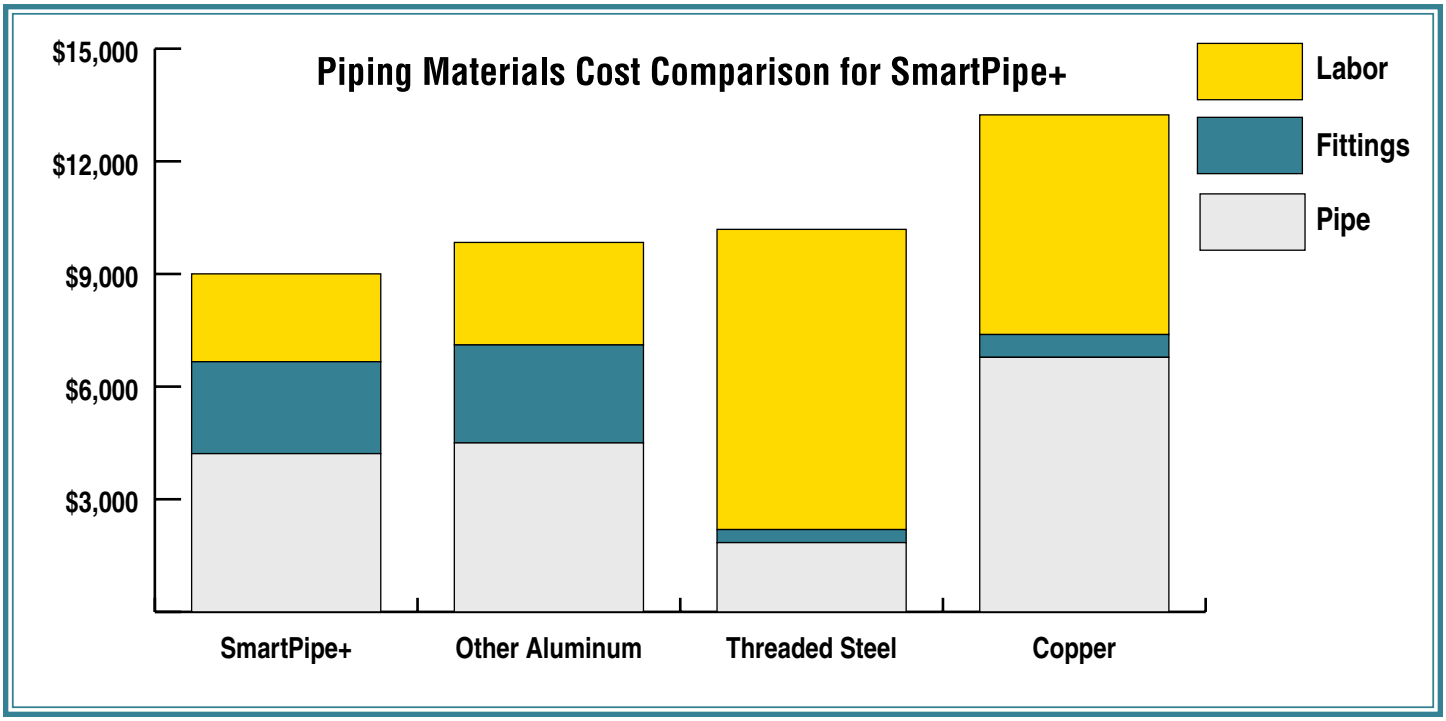
SmartPipe+ (¾” - 2½”)

SmartPipeXL (3” - 10”)

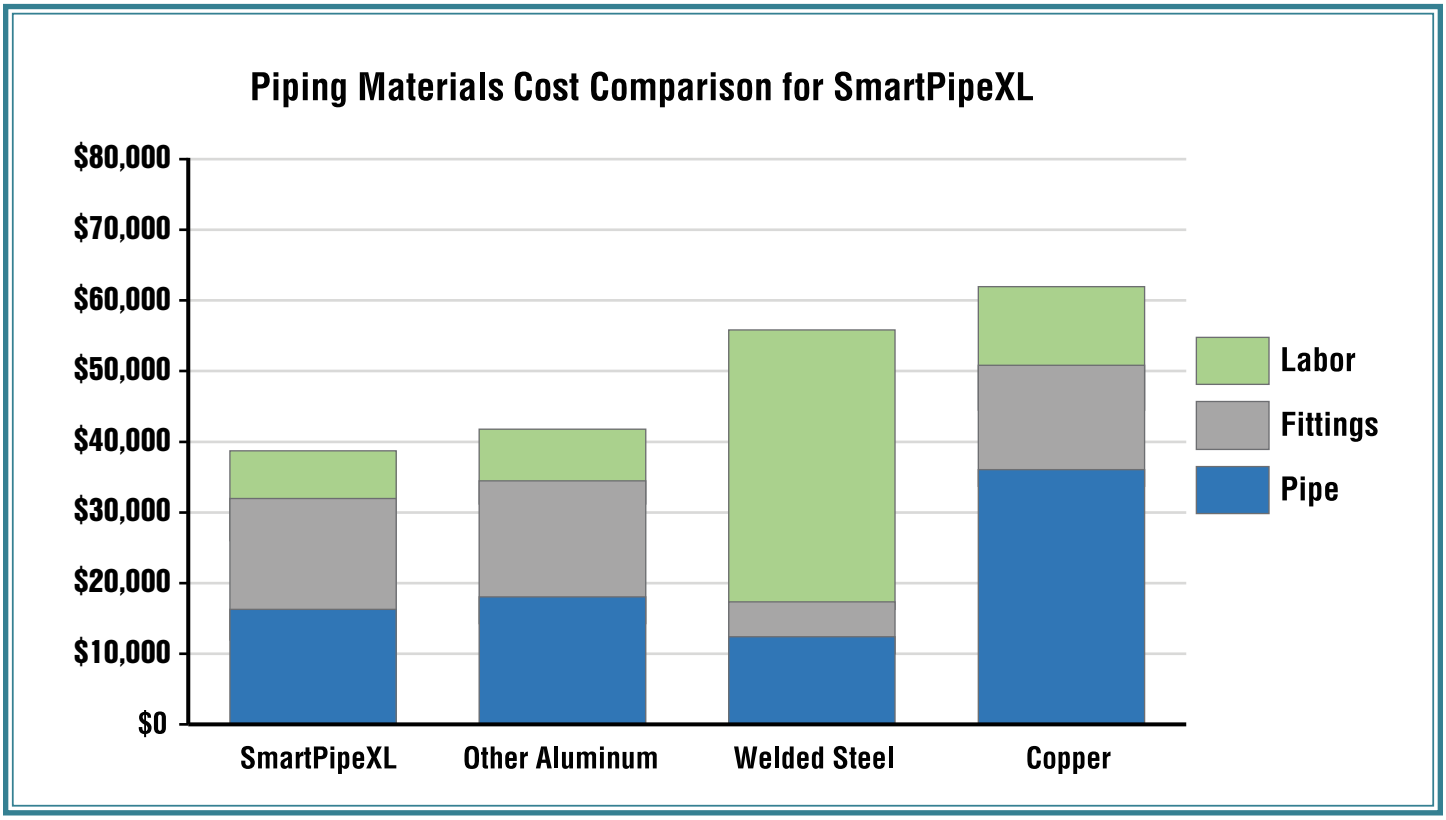
Specifications subject to change without notice.

Cost comparison

When you factor in material and labor costs, SmartPipe offers a clear savings advantage.



Based on: 500 feet of 2" pipe, sixteen elbows, seven tees, and ten couplings. Labor rates calculated by using MCAA labor with rates factored at 0.70. Does not include equipment rental, mounting hardware, or required tools



Based on: 1000 feet of 4" pipe, 25 elbows, and 20 tees. Labor rates calculated by using MCAA labor with rates factored at 0.70. Does not include equipment rental, mounting hardware, or required tools

SmartPipe Benefits At a Glance

- Installs faster than other common piping
- No specialized trades needed
- No threading, welding, or brazing pipe
- Simple mounting and connecting hardware
- Can connect to existing systems with other pipe types
- Easy to add on to or disassemble for your changing needs
- Compression style valves and fittings 2½” and below
- Bolt-on style fittings 3” and above
- 10-year warranty

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