

Compressed Air Distribution System

SmartPipe™

from ½" to 10"

from 20 mm to 250 mm

www.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+ (½" to 10" / 20 mm to 250 mm) 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

SmartPipe+ is designed to meet our rigorous "built for a lifetime" standard. Its 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.

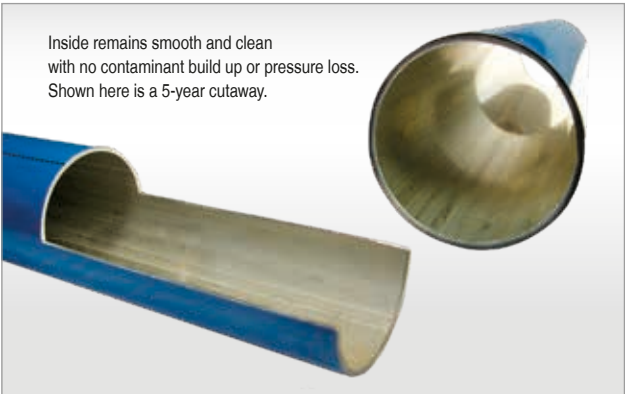
Installation costs

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.





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 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.



Wide scope of supply

SmartPipe is available from ½" up to 10" and is perfect for use as headers, branch lines, and drops to point of use.

Nominal Outside Ø (in.)	Nominal Outside Ø (mm)
½	20
¾	25
1	32
1 ¼	40
1 ½	50
2	63
2 ½	75
3	90
4	110
5	140
6	160
8	200
10	250



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

Pipe material selection

Common compressed air piping materials with their advantages and disadvantages.

Material	Advantages	Disadvantages
Black Iron	<ul style="list-style-type: none"> • Moderate material costs • Readily available in multiple sizes 	<ul style="list-style-type: none"> • Labor intensive installation • May rust and leak • Rough inside promotes contaminant build up and creates pressure drop
Galvanized Iron	<ul style="list-style-type: none"> • Moderate material costs • Readily available in multiple sizes • Some rust protection 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • No rust, good air quality • Smooth interior-low pressure drop 	<ul style="list-style-type: none"> • Requires quality brazing to prevent leaks • Susceptible to thermal cycling • Installation requires open flame
Stainless Steel	<ul style="list-style-type: none"> • No rust, good air quality • Smooth interior-low pressure drop 	<ul style="list-style-type: none"> • Labor intensive installation • Expensive materials
PVC	<ul style="list-style-type: none"> • Lightweight • Inexpensive 	<ul style="list-style-type: none"> • Safety • In certain areas, not compliant with code



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-T5 calibrated alloy aluminum and is blue powder-coated outside.

The 20 to 90 mm 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 110 to 250 mm SmartPipe+ range.

The 110 to 250 mm connectors with conical ring are quick-connect bolt-on design. They are manufactured in aluminum or steel.

SmartPipe+ (½" – 10")





SmartPipe Benefits At a Glance

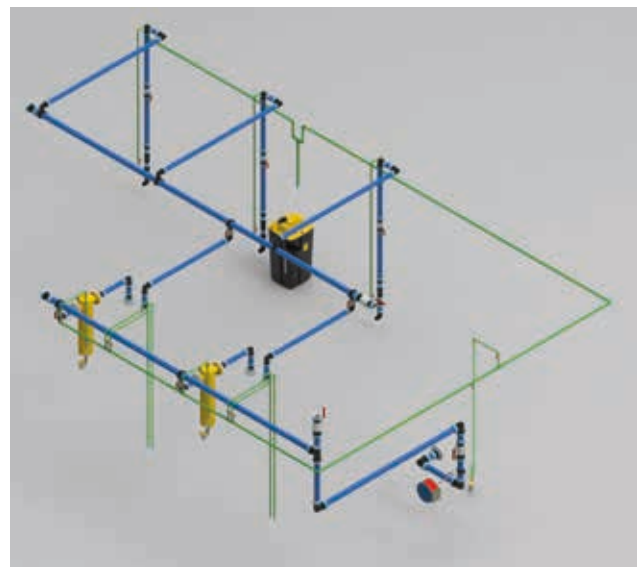
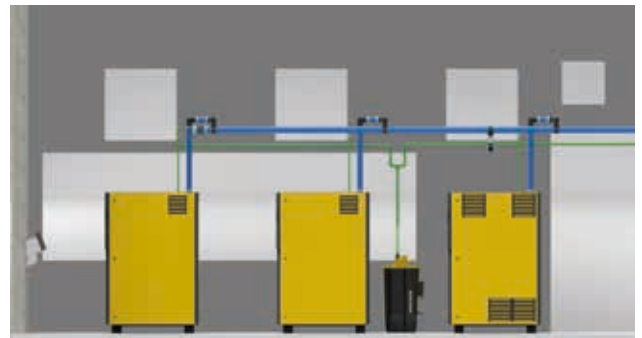
- Installs faster than other common piping
- No specialized trades needed
- No threading, welding, or brazing pipe
- Simple mounting and connecting hardware
- Can connect to existing systems with other pipe types
- Easy to add on to or disassemble for your changing needs
- Compression style valves and fittings with conical ring up to 90 mm
- Bolt-on style fittings with conical ring from 110 to 250 mm
- 10-year warranty

Your compressed air supply system has never been so good

KAESER's engineering team is at your service to help design or optimize your compressed air system. With our Air Demand Analysis (ADA) and the KAESER Energy Saving System (KESS) we can evaluate your current installation and demonstrate how our recommended changes would improve the performance of your system.

Our experts can create technical drawings of the system in 2D or 3D format. This represents a high benefit in your project planning. We can help to visualize the new equipment and show how pipes and equipment will be installed within your plant.

KAESER can provide you solutions for complex installations, difficult environments or limited spaces. We design and implement a reliable system in accordance to your specific requirements.



The world is our home

As one of the world's largest compressed air system providers and compressor manufacturers, KAESER KOMPRESSOREN is represented throughout the world by a comprehensive network of branches, subsidiary companies and authorised partners in over 100 countries.

With innovative products and services, KAESER KOMPRESSOREN's experienced consultants and engineers help customers to enhance their competitive edge by working in close partnership to develop progressive system concepts that continuously push the boundaries of performance and compressed air efficiency.

Moreover, the decades of knowledge and expertise from this industry-leading system provider are made available to each and every customer via the KAESER group's global computer network.

These advantages, coupled with KAESER's worldwide service organisation, ensure that every product operates at the peak of its performance at all times and provides maximum availability.



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