

KAESER
COMPRESSORS®

Built for a lifetime.



SmartPipe+™

3/4" to 2 1/2" Aluminum Compressed Air Piping

Product Catalog

kaeser.com



SmartPipe+™

Compressed Air Piping

KAESER's SmartPipe+ is a modular compressed air distribution system that offers both lower installation costs and lower long term operating costs.

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 a leading cause of increased energy consumption and under performing air driven tools and equipment.

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.

SmartPipe+ offers an excellent choice for compressed air and inert gas distribution for pressures up to 232 psig (16 bar) (higher pressures available) in temperatures from -22°F to 248°F (-30°C to 120°C). SmartPipe+ is also ideal for vacuum up to 98.3% (29.5" Hg).





Technical Specifications

SmartPipe+ is designed for use with compressed air, vacuum, and inert gases

Pressure and Temperature Ranges

- Maximum working pressure: 232 psig
- Maximum vacuum: 98.3% (29.5" Hg)
- Maximum working temperature: -22°F to 248°F
- Storage temperature: -40°F to 212°F
- Consult factory for higher pressures or temperatures

Aluminum Pipe Specification

- 6063-T5 aluminum grade
- Extruded pipe conforms to standards EN755.2 and EN755.8
- Smooth bore ID for optimal flow rate performance
- Powder coat in BLUE (RAL5012) with QUALICOAT CERTIFIED lacquer finish exterior
- Consult factory for availability of other colors

Aluminum Fittings Specification

- Connector bodies manufactured in aluminum alloy ASTM B26-356.0
- Nuts are aluminum alloy per ASTM B241-6061 and anodized
- Nut threads meet ANSI B1.20.1 standard
- Fitting bodies are black cathodization coated with a minimum thickness of 10 µm

Flexible Hose Specification

- Resistant to mineral and synthetic oils
- Maximum working pressure varies depending on size
- Fire resistance testing conducted per the ISO 8030:2014 standard

Pipe Sizes

Nominal Ø (in.)	Outside Ø (in.)	Outside Ø (mm)	Inside Ø (in.)	Inside Ø (mm)	Wall Thickness (in.)	Wall Thickness (mm)
3/4	3/4	20.1	11/16	18	3/64	1.0
1	1	25.1	7/8	22.8	3/64	1.1
1-1/4	1-1/4	32.1	1-3/16	29.6	3/64	1.2
1-1/2	1-9/16	40.1	1-1/2	37.4	3/64	1.3
2	2	50.1	1-7/8	47	1/16	1.5
2-1/2	2-1/2	63.1	2-5/16	59.4	5/64	1.8

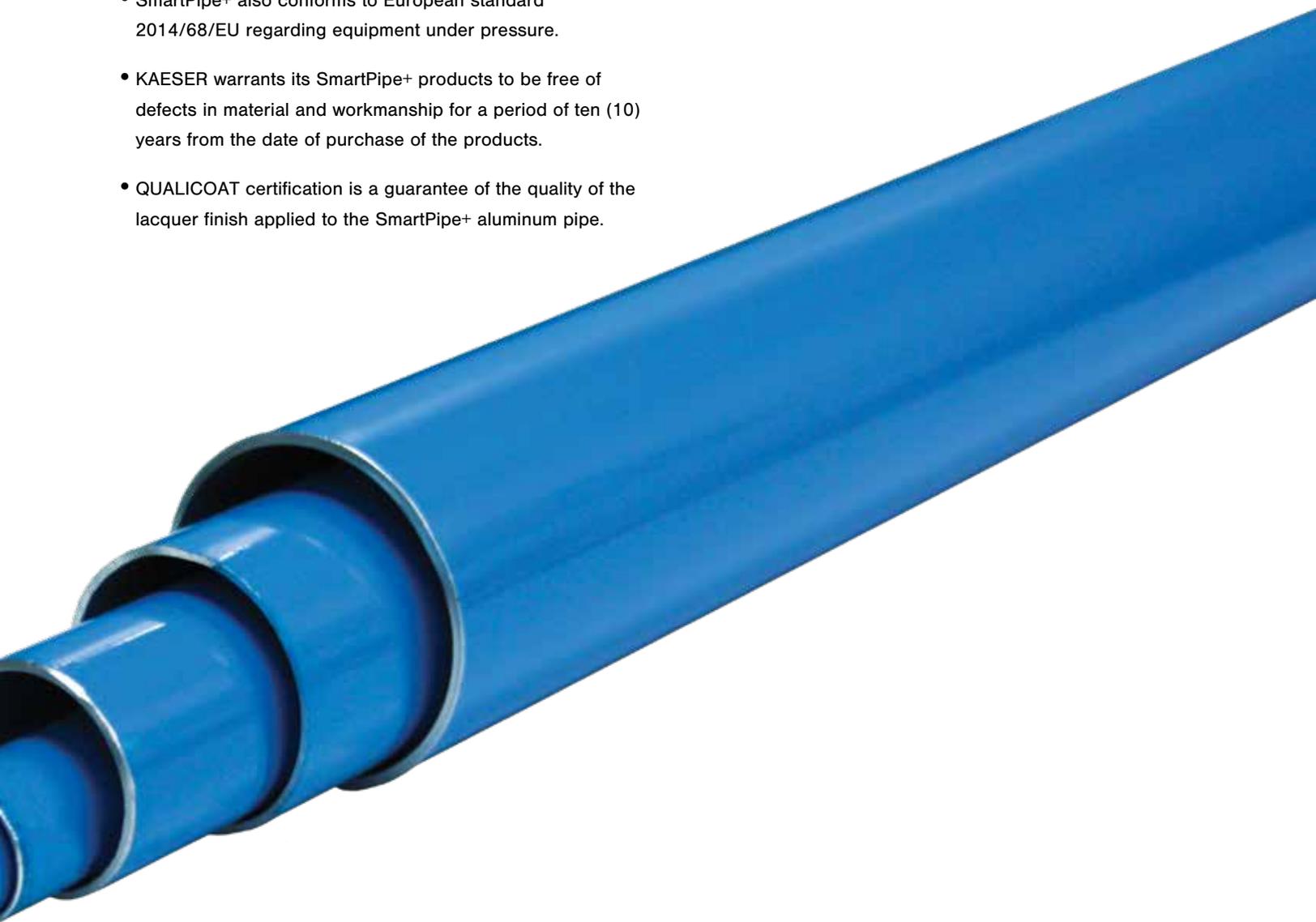
Specifications subject to change without notice.



Certification



- SmartPipe+ meets the requirement of ASME B31.1 which stipulates the minimum requirements for the design, materials, fabrication, installation, test, and inspection of power and auxiliary piping systems for industrial plants. SmartPipe+ also meets ASME B31.3 and B31.9.
- SmartPipe+ also conforms to European standard 2014/68/EU regarding equipment under pressure.
- KAESER warrants its SmartPipe+ products to be free of defects in material and workmanship for a period of ten (10) years from the date of purchase of the products.
- QUALICOAT certification is a guarantee of the quality of the lacquer finish applied to the SmartPipe+ aluminum pipe.



Specifications subject to change without notice.

Sizing

Select the SmartPipe+ diameter for your application based on required flow and allowable pressure drop

In the charts below, pipe size (in mm) is recommended assuming 100 psig and target pressure drop below 5.5 psi

For Branch or Linear Distribution Networks

Flow (cfm)	Equivalent Length (feet)									
	50	150	300	400	500	1000	2000	3000	4000	5000
10	20	20	20	20	20	20	20	25	25	25
25	20	20	20	20	25	25	32	32	32	40
50	25	25	25	32	32	32	40	40	40	50
75	25	25	32	32	32	40	40	50	50	50
100	32	32	32	40	40	40	50	63	63	63
150	40	40	40	40	40	50	63	63	63	63
250	50	50	50	50	50	63	63			
500	63	63	63	63	63					
750	63	63								
900										
1000										

Note: For flows above the range shown, see SmartPipeXL.

For Looped Distribution Networks

Flow (cfm)	Equivalent Length (feet)					
	500	1000	2000	3000	4000	5000
10	20	20	20	20	20	20
25	20	25	25	25	32	32
50	25	32	32	40	40	40
75	32	32	40	40	40	50
100	32	40	40	50	50	50
150	40	40	50	50	50	63
250	40	50	63	63	63	63
350	50	63	63	63		
500	63	63				
750	63					

Note: For flows above the range shown, see SmartPipeXL.

Specifications subject to change without notice.

Example

An application requires a KAESER BSD 50 @ 110 psig with the appropriate air treatment. The application cannot tolerate a pressure drop of more than 5.5 psi in the main header when the main distribution header pressure is 100 psig.

Note: the main distribution header is looped.

KAESER BSD 50 @ 110 psig = 232 cfm (FAD)

Main distribution pipe length (including equivalent length for all fittings) = 1000 ft.

Main header pressure = 100 psig

If the distribution network is a branch or linear, use 63 mm diameter pipe.

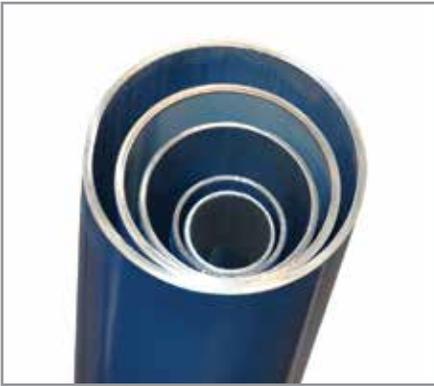
For a looped distribution network, use 50 mm diameter pipe.

Note:

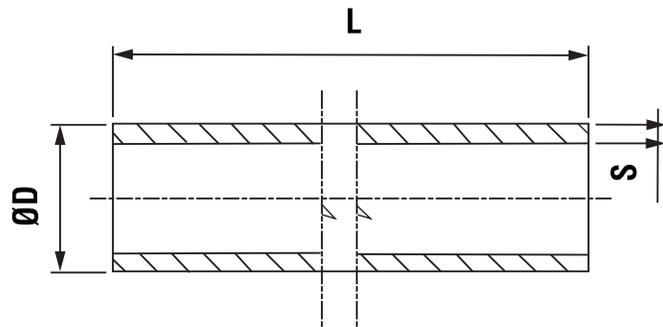
- 1) To calculate the pressure drop at the point of use, add up the equivalent pipe length for all connectors and air treatment equipment.
- 2) It is important to keep in mind the maximum pipe velocity for each section of the compressed air distribution system.
 - a. Not to exceed 15 ft./s (5 m/s) pipe velocity in the compressor room
 - b. Not to exceed 30 ft./s (10 m/s) pipe velocity in main header
 - c. Not to exceed 45 ft./s (15 m/s) pipe velocity in the branch lines
- 3) Consider up sizing to allow for future increases in system capacity.



Aluminum Pipe



Part No.	ØD (mm)	L	S	Weight
AN8290002010	20	19'	3/64	2.52
AN8290002510	25		3/64	3.17
AN8290003210	32		3/64	4.37
AN8290004010	40		3/64	5.68
AN8290005010	50		1/16	7.67
AN8290006310	63		5/64	13.49

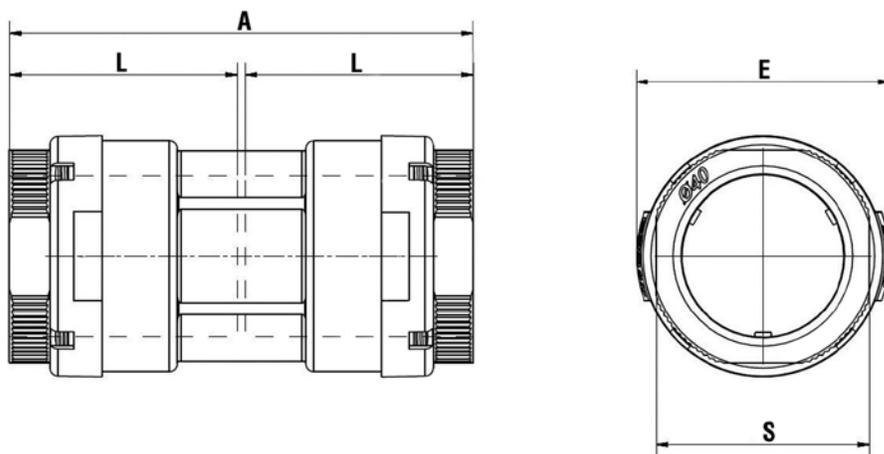


Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Equal Union



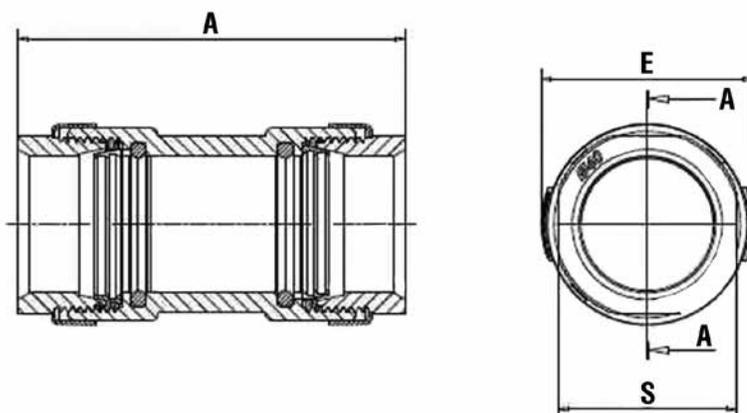
Part No.	ØD (mm)	A	E	L	S	Weight
AN82010020	20	2-3/4	1-7/16	1-3/8	1-1/8	0.17
AN82010025	25	2-15/16	1-5/8	1-7/16	1-7/16	0.22
AN82010032	32	3-11/16	2	1-13/16	1-11/16	0.38
AN82010040	40	4-5/8	2-1/2	2-1/4	2-1/16	0.82
AN82010050	50	5-7/16	3-1/16	2-11/16	2-5/8	1.44
AN82010063	63	6-13/16	3-3/4	3-1/4	3-1/4	2.59



Sliding Coupling



Part No.	ØD (mm)	A	E	S	Weight
AN82012020	20	2-3/4	1-7/16	1-1/8	0.18
AN82012025	25	2-15/16	1-5/8	1-7/16	0.22
AN82012032	32	3-11/16	2	1-11/16	0.38
AN82012040	40	4-5/8	2-1/2	2-1/16	0.74
AN82012050	50	5-7/16	3-1/16	2-5/8	1.46
AN82012063	63	6-13/16	3-3/4	3-1/4	2.42

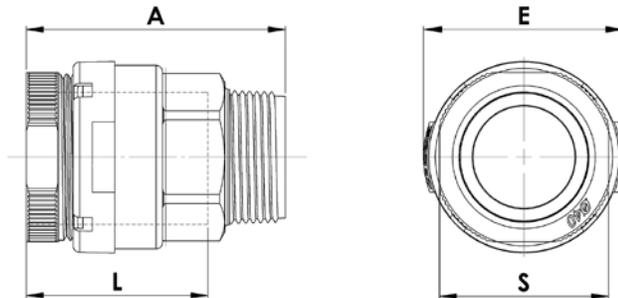


Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Male Adapter



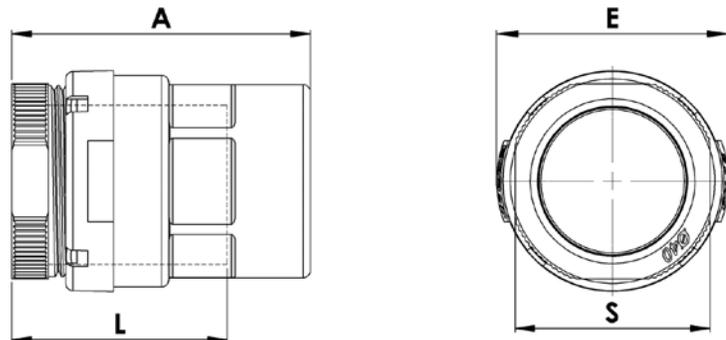
Part No.	ØD x NPT (mm x in.)	A	E	L	S	Weight
AN8202002004	20 x 1/2	1-15/16	1-7/16	1-3/8	1-1/8	0.10
AN8202002006	20 x 3/4	2	1-7/16	1-3/8	1-1/8	0.11
AN8202002549	25 x 1/2	2-1/8	1-5/8	1-7/16	1-7/16	0.12
AN8202002506	25 x 3/4	2-3/16	1-5/8	1-7/16	1-7/16	0.13
AN8202002508	25 x 1	2-3/8	1-5/8	1-7/16	1-7/16	0.19
AN8202003208	32 x 1	2-11/16	2	1-13/16	1-11/16	0.24
AN8202003210	32 x 1-1/4	2-3/4	2	1-13/16	1-11/16	0.28
AN8202004010	40 x 1-1/4	3-3/16	2-1/2	2-1/4	2-1/16	0.41
AN8202004012	40 x 1-1/2	3-3/16	2-1/2	2-1/4	2-1/16	0.44
AN8202005012	50 x 1-1/2	3-5/8	3-1/16	2-11/16	2-5/8	0.70
AN8202005016	50 x 2	3-3/4	3-1/16	2-11/16	2-5/8	0.73
AN8202006316	63 x 2	4-11/16	3-3/4	3-1/4	3-1/4	1.17
AN8202006320	63 x 2-1/2	4-3/4	3-3/4	3-1/4	3-1/4	1.44



Female Adapter



Part No.	ØD x NPT (mm x in.)	A	E	L	S	Weight
AN8203002004	20 x 1/2	2-3/16	1-7/16	1-3/8	1-1/8	0.12
AN8203002506	25 x 3/4	2-1/4	1-5/8	1-7/16	1-7/16	0.16
AN8203003208	32 x 1	2-11/16	2	1-13/16	1-11/16	0.26
AN8203004010	40 x 1-1/4	3-1/8	2-1/2	2-1/4	2-1/16	0.5
AN8203005012	50 x 1-1/2	3-3/4	3-1/16	2-5/8	2-5/8	0.84
AN8203006316	63 x 2	4-3/4	3-3/4	3-1/4	3-1/4	1.7

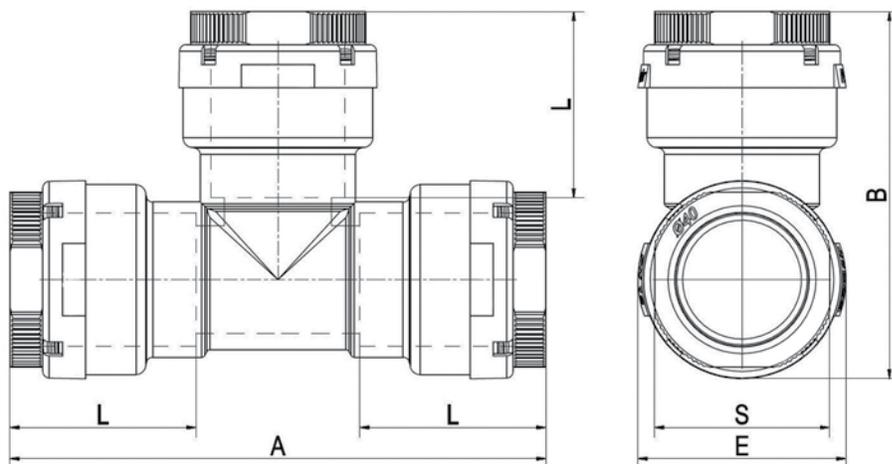


Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Equal Tee



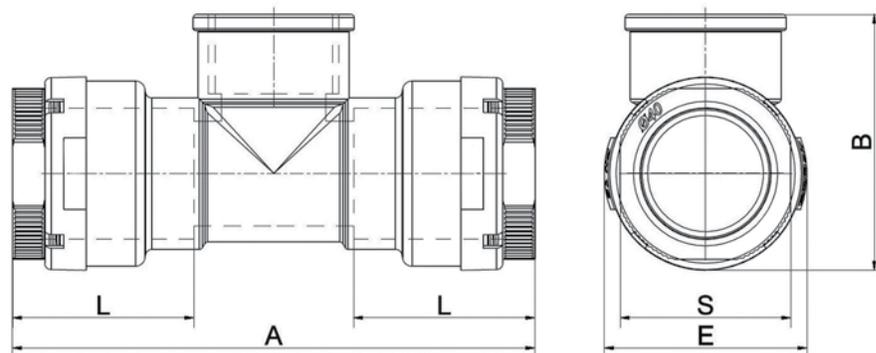
Part No.	ØD (mm)	A	B	E	L	S	Weight
AN82040020	20	4	2-11/16	1-7/16	1-3/8	1-1/8	0.27
AN82040025	25	4-3/8	2-15/16	1-5/8	1-7/16	1-7/16	0.36
AN82040032	32	5-3/8	3-11/16	2	1-13/16	1-11/16	0.64
AN82040040	40	6-3/8	4-5/16	2-1/2	2-1/4	2-1/16	1.04
AN82040050	50	8-1/8	5-9/16	3-1/16	2-11/16	2-5/8	2.04
AN82040063	63	9-1/16	6-5/16	3-3/4	3-1/4	3-1/4	3.06



Female Threaded Equal Tee



Part No.	ØD x NPT (mm x in.)	A	B	E	L	S	Weight
AN8204102004	20 x 1/2	4	1-7/8	1-7/16	1-3/8	1-1/8	0.23
AN8204102506	25 x 3/4	4-3/8	2-1/4	1-5/8	1-7/16	1-7/16	0.30
AN8204103208	32 x 1	5-3/8	2-3/4	2	1-13/16	1-11/16	0.49
AN8204104010	40 x 1-1/4	6-3/8	3-1/16	2-1/2	2-1/4	2-1/16	0.88
AN8204105012	50 x 1-1/2	8-1/8	3-3/4	3-1/16	2-11/16	2-5/8	1.78
AN8204106316	63 x 2	9-1/16	4-1/2	3-3/4	3-1/4	3-1/4	2.91

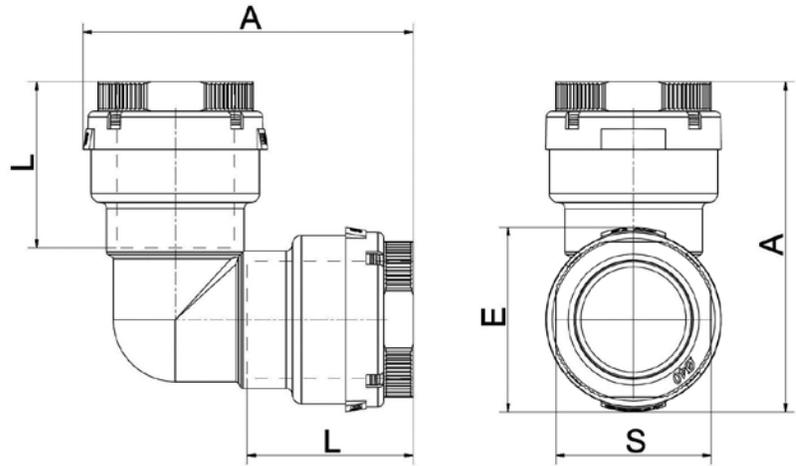


Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Equal 90° Elbow



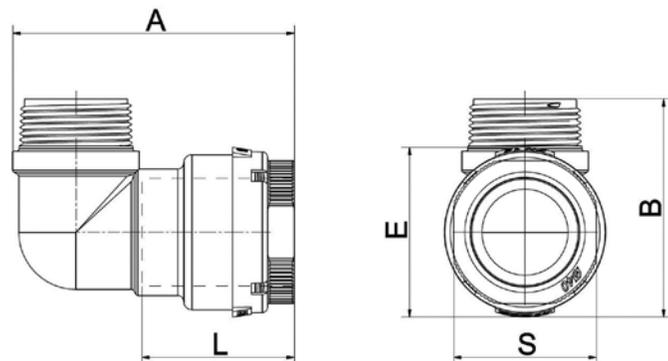
Part No.	ØD (mm)	A	E	L	S	Weight
AN82050020	20	2-3/8	1-7/16	1-3/8	1-1/8	0.19
AN82050025	25	3	1-5/8	1-7/16	1-7/16	0.25
AN82050032	32	3-9/16	2	1-13/16	1-11/16	0.45
AN82050040	40	4-7/16	2-1/2	2-1/4	2-1/16	1.22
AN82050050	50	5-5/8	3-1/16	2-11/16	2-5/8	1.47
AN82050063	63	6-5/8	3-3/4	3-1/4	3-1/4	2.41



Male Threaded 90° Elbow



Part No.	ØD x NPT (mm x in.)	A	B	E	L	S	Weight
AN8205202004	20 x 1/2	2-7/16	1-7/8	1-7/16	1-3/8	1-1/8	0.12
AN8205202549	25 x 1/2	2-11/16	2-1/4	1-5/8	1-7/16	1-7/16	0.22
AN8205202506	25 x 3/4	2-5/8	2-1/4	1-5/8	1-7/16	1-7/16	0.22
AN8205203208	32 x 1	3-7/16	2-3/4	2	1-13/16	1-11/16	0.31
AN8205204010	40 x 1-1/4	4-1/8	3-1/16	2-1/2	2-1/4	2-1/16	0.60
AN8205204012	40 x 1-1/2	4-3/16	3-3/4	2-1/2	2-1/4	2-1/16	0.60
AN8205204016	40 x 2	4-3/8	4-3/16	2-1/2	2-1/4	2-1/16	0.68
AN8205205012	50 x 1-1/2	4-15/16	3-3/4	3-1/16	2-11/16	2-5/8	1.04
AN8205206316	63 x 2	6-1/4	4-1/2	3-3/4	3-1/4	3-1/4	2.04

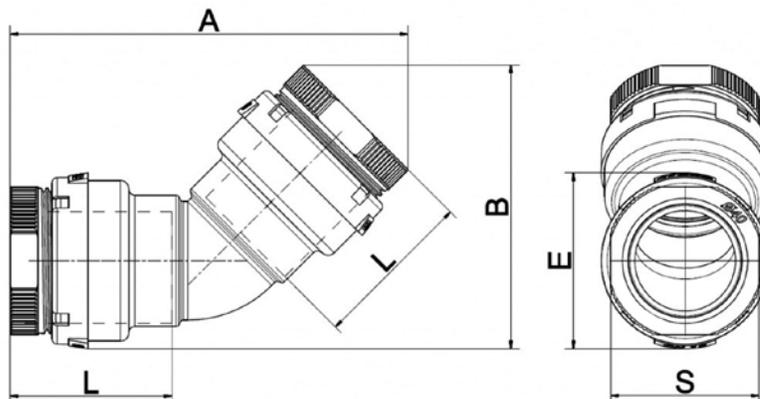


Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Equal 45° Elbow



Part No.	ØD (mm)	A	B	E	L	S	Weight
AN82053020	20	3-3/8	2-5/16	1-7/16	1-3/8	1-1/8	0.22
AN82053025	25	3-3/4	2-11/16	1-5/8	1-7/16	1-7/16	0.25
AN82053032	32	4-11/16	3-5/16	2	1-13/16	1-11/16	0.45
AN82053040	40	5-9/16	4	2-1/2	2-1/4	2-1/16	0.82
AN82053050	50	6-3/4	4-7/8	3-1/16	2-11/16	2-5/8	1.60
AN82053063	63	8-1/8	5-15/16	3-3/4	3-1/4	3-1/4	2.74

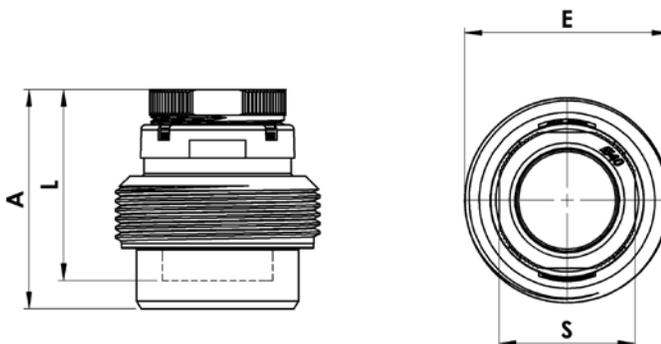


Plug-in Reducer



Part No.	ØD x ØD2 (mm)	A	E	L	S	Weight
AN8202502502	25 x 20	1-13/16	1-5/16	1-3/8	1-1/8	0.12
AN8202503202	32 x 25	2-1/16	1-5/8	1-7/16	1-7/16	0.18
AN8202504020	40 x 20	2-5/16	2-1/16	1-3/8	1-1/8	0.34
AN8202504002	40 x 25	2-3/8	2-1/16	1-7/16	1-7/16	0.39
AN8202504032	40 x 32	2-1/8	2-1/16	1-7/16	1-7/16	0.26
AN8202505004	50 x 40	2-7/8	2-1/4	2-1/4	2-1/16	0.57
AN8202506304	63 x 40	3-3/8	3-1/8	2-1/4	2-1/16	0.91
AN8202506305	63 x 50	3-5/16	2-11/16	2-11/16	2-5/8	1.03

Note: Requires additional ØD fitting. Remove existing nut and clamping ring from existing fitting, then thread ØD into fitting.



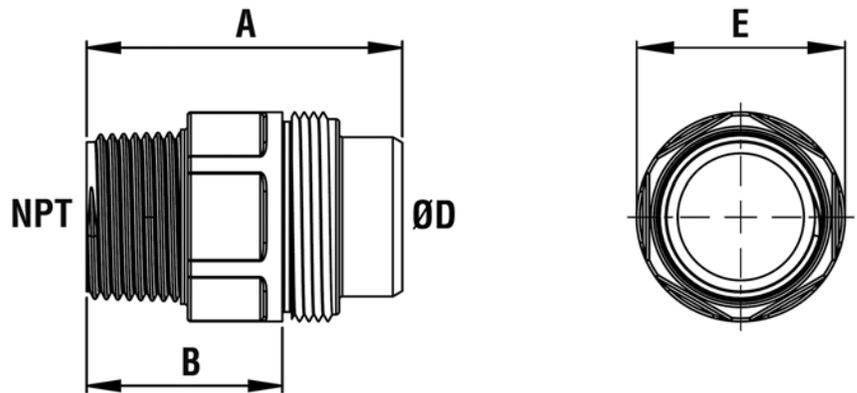
Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Male Threaded Connector



Part No.	ØD (mm)	NPT (in.)	A	B	E	Weight
AN8986702049	20	1/2	1-13/16	1-1/16	1-1/8	0.06
AN8986702569	25	3/4	1-15/16	1-1/4	1-5/16	0.10
AN8986703208	32	1	2-1/2	1-1/2	1-5/8	0.23
AN8986704009	40	1-1/4	2-15/16	1-3/4	2-1/16	0.38
AN8986705029	50	1-1/2	3-7/16	2-1/16	2-9/16	0.66
AN8986706369	63	2	4-5/16	2-5/8	3-1/8	1.06

Will require separate SmartPipe+ fitting

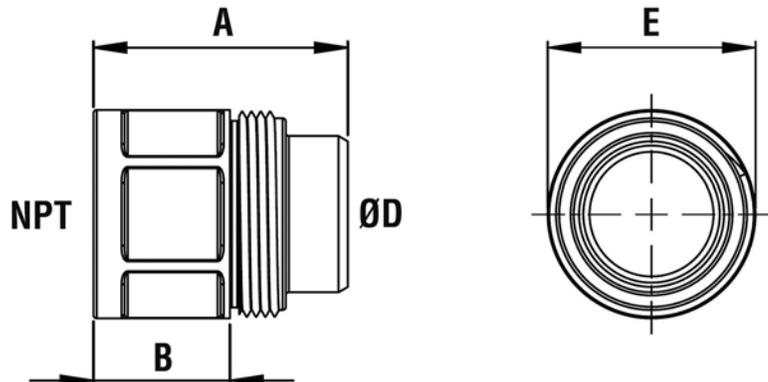


Female Threaded Connector



Part No.	ØD (mm)	NPT (in.)	A	B	E	Weight
AN8986902049	20	1/2	1-9/16	13/16	1-1/8	0.06
AN8986902569	25	3/4	1-5/8	7/8	1-5/16	0.08
AN8986903208	32	1	2-3/16	1-3/16	1-5/8	0.25
AN8986904009	40	1-1/4	2-3/8	1-3/16	2-1/16	0.30
AN8986905029	50	1-1/2	2-7/8	1-1/2	2-9/16	0.66
AN8986906369	63	2	3-5/16	1-5/8	3-1/8	1.06

Will require separate SmartPipe+ fitting



Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

SmartPipe Clips (Wall Mount)

Part No.	Description	ØD (mm)	L	H
ANKSNS20HS	20mm Wall Mount Clip	20	2-1/8"	1-1/2"
ANKSNS25HS	25mm Wall Mount Clip	25	2-9/16"	2"
ANKSNS32HS	32mm Wall Mount Clip	32	2-3/4"	2-1/8"
ANKSNS40HS	40mm Wall Mount Clip	40	3-3/16"	2-5/8"
ANKSNS50HS	50mm Wall Mount Clip	50	3-3/4"	3-1/8"
ANKSNS63HS	63mm Wall Mount Clip	63	3-3/4"	3-1/8"



SmartPipe Hangers (Unistrut and Threaded Rod)



Part No.	Description	ØD (mm)	L	H
ANKSNS20P	20mm Hanger	20	2-1/8"	1-1/2"
ANKSNS25P	25mm Hanger	25	2-9/16"	2"
ANKSNS32P	32mm Hanger	32	2-3/4"	2-1/8"
ANKSNS40P	40mm Hanger	40	3-3/16"	2-5/8"
ANKSNS50P	50mm Hanger	50	3-3/4"	3-1/8"
ANKSNS63P	63mm Hanger	63	4-3/4"	4-3/4"

Accessories

Part No.	Description
ANKSNSS	Spacer/backplate threaded 3/8 16
ANKSNSSN	SNS Strut Nut 3/8 threaded



Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Rubber Lined Bracket 3/8"-16 UNC Connection



Part No.	ØD (mm)	Weight
AN89804020	20	0.13
AN89804025	25	0.13
AN89804032	32	0.13
AN89804040	40	0.17
AN89804050	50	0.20
AN89804063	63	0.22

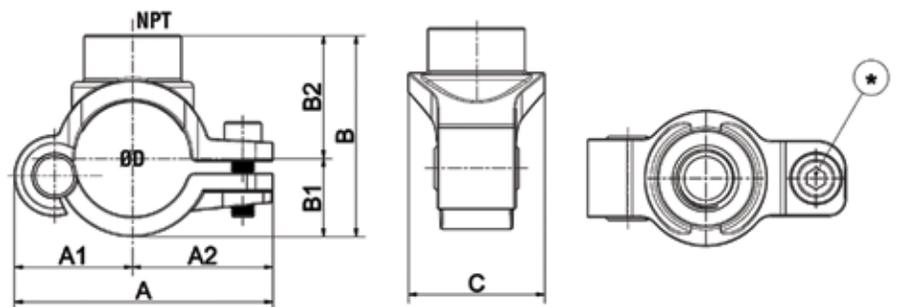
Wall Anchor



Part No.	ØD (mm)
AN89803008	UNC 3/8"

Mini Bracket

Part No.	ØD x NPT (mm x in.)	A	A1	A2	B	B1	B2	C	Weight
AN8983502504	25 x 1/2	2-7/16	1	1-7/16	2	11/16	1-5/16	1-5/16	0.16
AN8983503204	32 x 1/2	2-15/16	1-1/4	1-11/16	2-1/4	7/8	1-7/16	1-5/16	0.20
AN8983504004	40 x 1/2	3-9/16	1-5/8	1-15/16	2-3/4	1-1/16	1-11/16	1-7/8	0.36
AN8983504069	40 x 3/4	3-9/16	1-5/8	1-15/16	2-3/4	1-1/16	1-11/16	1-7/8	0.32
AN8983505006	50 x 3/4	4	1-13/16	2-3/16	3-5/16	1-1/4	2-1/16	1-7/8	0.45
AN8983505049	50 x 1/2	4	1-13/16	2-3/16	3-5/16	1-1/4	2-1/16	1-7/8	0.44
AN8983505089	50 x 1	4	1-13/16	2-3/16	3-5/16	1-1/4	2-1/16	1-7/8	0.40
AN8983506306	63 x 3/4	4-13/16	2-5/16	2-1/2	3-7/8	1-9/16	2-5/16	2-1/4	0.78
AN8983563049	63 x 1/2	4-13/16	2-5/16	2-1/2	3-7/8	1-9/16	2-5/16	2-1/4	0.78
AN8983563089	63 x 1	4-13/16	2-5/16	2-1/2	3-7/8	1-9/16	2-5/16	2-1/4	0.70



Note: Requires hole saw bit to drill pipe. 1/2" = 14 mm hole saw drill bit (ANK0043). 3/4" = 19 mm hole saw drill bit (ANK0143). 1" = 24 mm hole saw bit, includes Arbor and Pilot, (ANK0342). ANK0243 Drill arbor and pilot bit also required

Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Wall Manifold

Part No.	NPT	Fig.	A	B	C	E	F	G	H	I	Wt.
AN8984406904	3/4 x 1/2	1	2	2-3/16	2-1/2	1	1/2 NPT	3/4 NPT	1/4	1	0.4
AN8984706904		2	6-1/16								1.4

Fig. 1

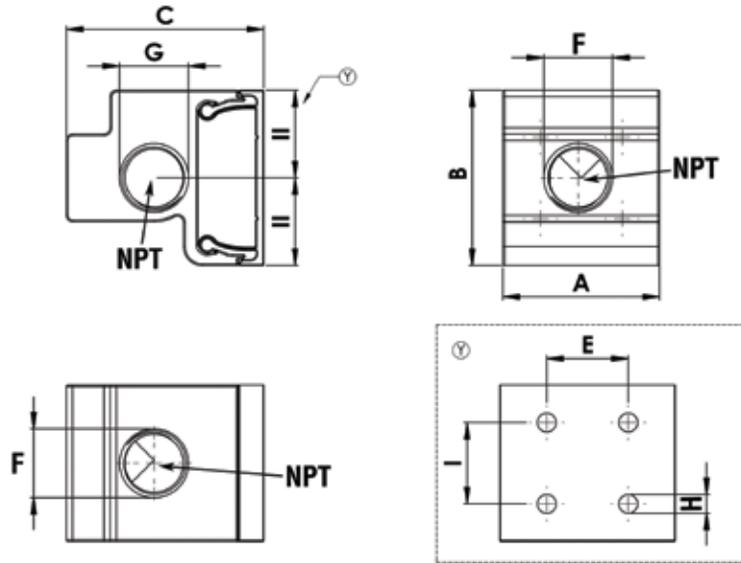
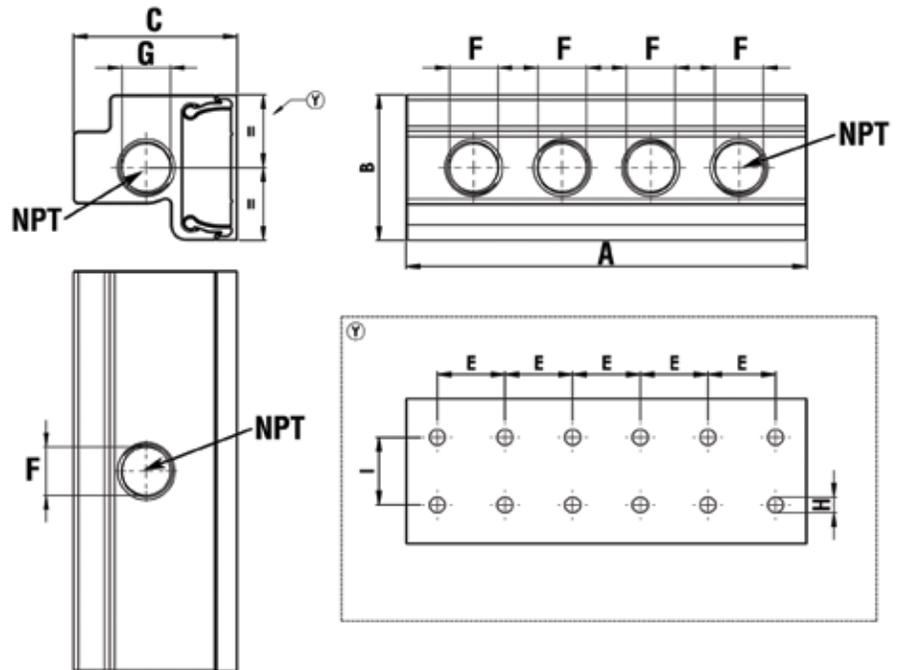


Fig. 2



MOUNTING HARDWARE NOT INCLUDED. Manifold ships as shown without plugs.

Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Quick Reducing Bracket

Part No.	ØD x ØD2 (mm)	A	A1	A2	B	B1	B2	C	S	Weight
AN8983002502	25 x 20	4-7/16	3	1-7/16	2-3/4	2-1/16	11/16	1-5/16	1-1/8	0.36
AN8983003202	32 x 20	4-15/16	3-5/16	1-11/16	3-3/16	2-5/16	7/8	1-5/16	1-1/8	0.41
AN8983004002	40 x 20	5-9/16	3-11/16	1-7/8	3-15/16	2-7/8	1-1/16	1-1/2	1-1/8	0.77
AN8983004025	40 x 25	5-5/8	3-3/4	1-7/8	3-15/16	2-7/8	1-1/16	1-1/2	1-7/16	0.71
AN8983005020	50 x 20	5-15/16	3-3/4	2-3/16	4-7/16	3-3/16	1-1/4	1-1/2	1-1/8	0.86
AN8983005002	50 x 25	5-15/16	3-3/4	2-3/16	4-7/16	3-3/16	1-1/4	1-1/2	1-7/16	1.26
AN8983006320	63 x 20	6-3/4	4-1/4	2-1/2	5-3/16	3-5/8	1-9/16	1-1/2	1-1/8	1.26
AN8983006302	63 x 25	6-7/8	4-3/8	2-1/2	5-3/16	3-5/8	1-9/16	1-1/2	1-7/16	1.15

Note: Requires hole saw bit to drill pipe. AN8983002502 (25 mm x 20 mm) use ANK0043. All others use ANK00143. ANK0243 also required.

Part No.	ØD x NPT (in)	A	A1	A2	B	B1	B2	C	S	Weight
AN8983002549	25 x 1/2	3-15/16	2-1/2	1-7/16	2-3/4	2-1/16	11/16	1-5/16	1-1/8	0.38
AN8983003204	32 x 1/2	4-7/16	2-3/4	1-11/16	3-3/16	2-5/16	7/8	1-5/16	1-1/8	0.40
AN8983004049	40 x 1/2	5-1/8	3-1/4	1-7/8	3-15/16	2-7/8	1-1/16	1-15/16	1-1/8	0.70
AN8983004069	40 x 3/4	5-1/8	3-1/4	1-7/8	3-15/16	2-7/8	1-1/16	1-15/16	1-1/8	0.71
AN8983005049	50 x 1/2	5-1/8	3-7/16	2-3/16	4-7/16	3-3/16	1-1/4	1-13/16	1-7/16	0.77
AN8983005069	50 x 3/4	5-1/8	3-7/16	2-3/16	4-7/16	3-3/16	1-1/4	1-13/16	1-7/16	0.74
AN8983006349	63 x 1/2	6-1/2	3-15/16	2-1/2	5-3/16	3-5/8	1-9/16	2-5/16	1-7/16	1.14
AN8983006369	63 x 3/4	6-1/2	3-15/16	2-1/2	5-3/16	3-5/8	1-9/16	2-5/16	1-7/16	1.11

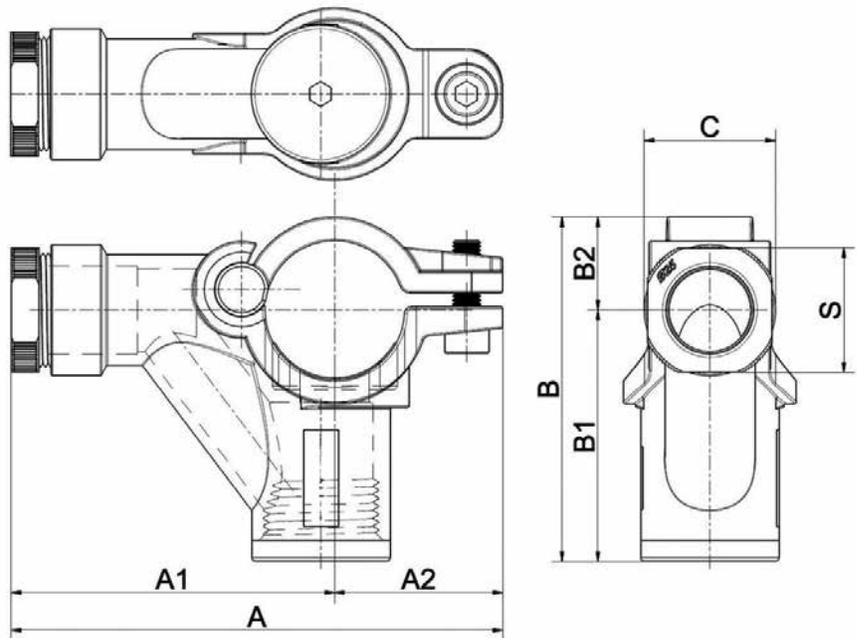
Quick reducing brackets with NPT female connections do not have SmartPipe+ fittings.



Quick reducing bracket



Quick reducing bracket NPT connection



Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

45° Threaded Wall Brackets



Part No.	ØD x NPT (mm x in.)	Fig.	A	B	F	G	M	Wt.
AN8984102504	25 x 1/2	1	3-7/8	3-1/8	1/4	15/16	3-1/4	0.35
AN8984202504	25 x 1/2 x 1/2	2						0.39

Note: Wall bracket requires an additional 25 mm fitting or 25 mm ball valve in order to connect to the pipe. Can use 20 x 25 mm ball valve (AN8988102520) to connect 20 mm pipe or a 25 mm fitting and a 25 x 20 plug-in reducer (AN8202502502).

Fig. 1

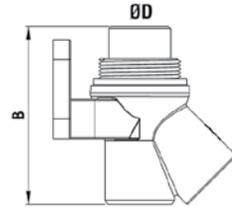
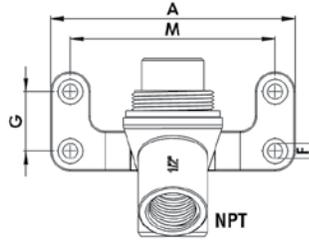
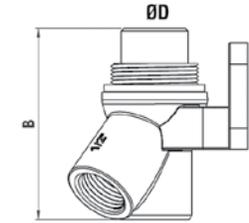
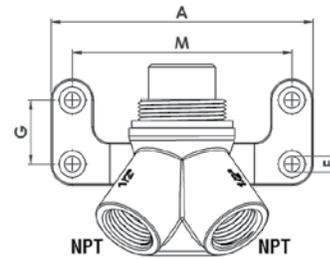


Fig. 2



45° Wall Bracket with Ball Valve

Part No.	ØD x NPT (mm x in.)	Fig.	Ports	Wt.
AN8988502005	20 x 1/2	1	1 port	0.8
AN8988602004	20 x 1/2 x 1/2	2	2 port	0.9
AN8988502505	25 x 1/2	1	1 port	1.15
AN8988602504	25 x 1/2 x 1/2	2	2 port	1.2

Fig. 1



Fig. 2

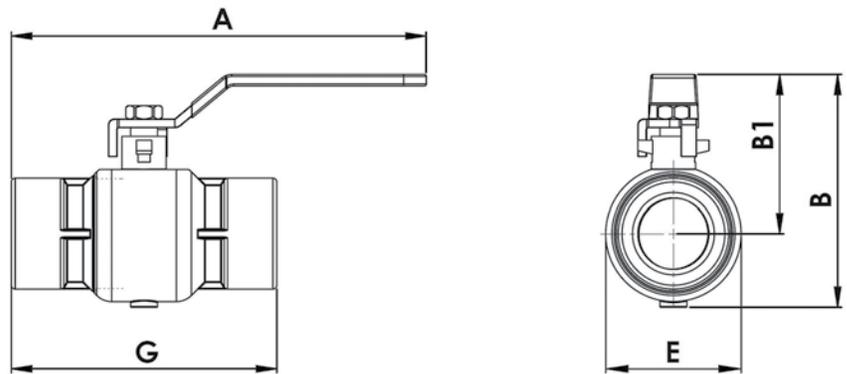


Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Ball Valve (Female Thread to Female Thread)



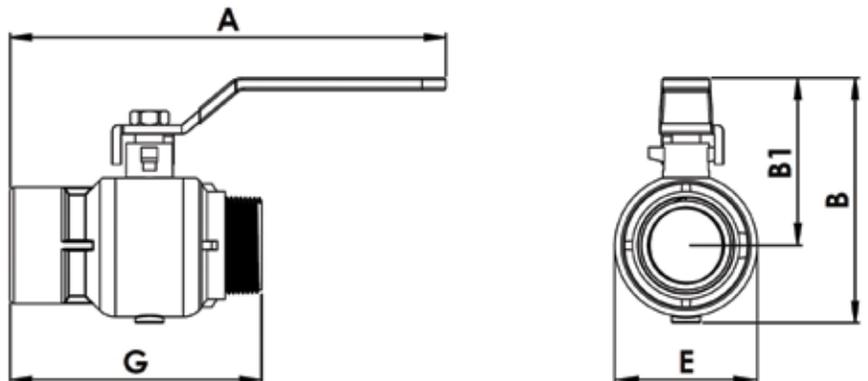
Part No.	NPT (in.)	A	B	B1	E	G	Weight
AN8988304949	1/2	5-1/16	2-9/16	1-3/4	1-5/16	2-5/8	0.34
AN8988306969	3/4	5-3/16	2-3/4	1-7/8	1-9/16	3-1/16	0.92
AN8988308989	1	5-11/16	3-1/2	2-1/2	1-15/16	3-7/16	0.66
AN8988310909	1-1/4	8-1/8	4-3/8	3-1/8	2-3/8	4-9/16	1.28
AN8988312929	1-1/2	8-5/8	4-3/4	3-1/4	2-13/16	5-7/16	1.88
AN8988316969	2	10-11/16	5-3/4	3-7/8	3-1/2	6-11/16	2.92
AN8988320909	2-1/2	13-3/16	6-15/16	4-11/16	4-5/16	8-7/16	5.51



Ball Valve (Male Thread to Female Thread)



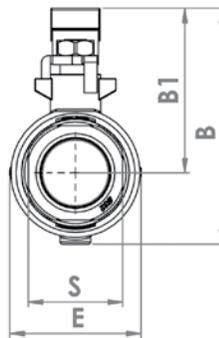
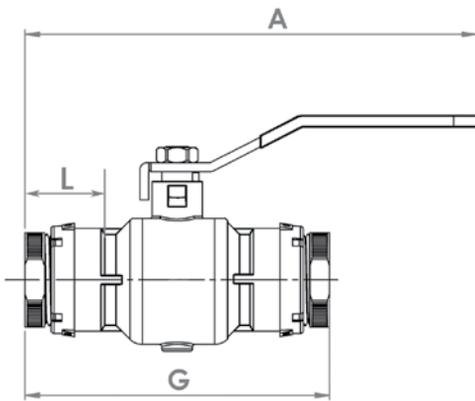
Part No.	NPT (in.)	A	B	B1	E	G	Weight
AN8988404949	1/2	5-1/16	2-9/16	1-3/4	1-5/16	2-5/8	0.32
AN8988406969	3/4	5-3/16	2-3/4	1-7/8	1-9/16	3-1/8	0.44
AN8988408989	1	5-11/16	3-1/2	2-1/2	1-15/16	3-9/16	0.74
AN8988410909	1-1/4	8-1/8	4-3/8	3-1/8	2-3/8	4-1/2	1.32
AN8988412929	1-1/2	8-5/8	4-3/4	3-1/4	2-13/16	4-7/8	1.72
AN8988416969	2	10-11/16	5-3/4	3-7/8	3-1/2	6-1/2	3.02
AN8988420909	2-1/2	13-3/16	6-15/16	4-11/16	4-5/16	8	5.34



Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

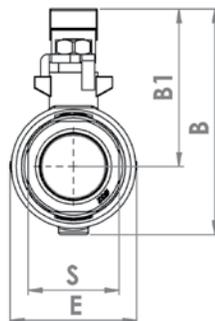
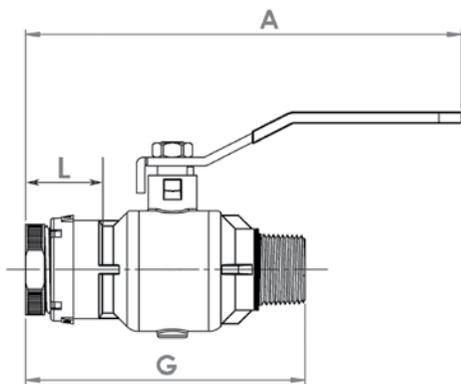
Ball Valve (Pipe to Pipe)

Part No.	ØD (mm)	A	B1	B	E	G	L	S	Weight
AN8988102002	20	5-3/16	2-7/8	4-1/4	1-9/16	3-7/8	1-3/8	1-1/8	0.5
AN8988102520	20 x 25	5-3/16	2-7/8	4-1/4	1-9/16	4	1-7/16	1-7/16	0.85
AN8988102502	25	5-15/16	3-7/16	4-13/16	2	4-3/8	1-7/16	1-7/16	0.55
AN8988103203	32	8	4-3/8	3-1/8	2-3/8	5-3/8	1-13/16	1-11/16	1.46
AN8988104004	40	5-3/8	4-3/4	6-7/8	2-13/16	6-5/8	2-1/4	2-1/16	2.1
AN8988105005	50	11-1/8	6-1/8	9-1/4	3-1/2	7-7/8	2-11/16	2-5/8	3.66
AN8988106306	63	12-1/16	6-15/16	9-13/16	4-5/16	10	3-1/4	3-1/4	6.28



Ball Valve (Pipe to Thread)

Part No.	ØD x NPT (mm x in.)	A	B1	B	E	G	L	S	Weight
AN8988202004	20 x 1/2	5-3/16	2-7/8	4-1/4	1-9/16	3-11/16	1-3/8	1-1/8	0.45
AN8988202506	25 x 3/4	5-15/16	3-7/16	4-13/16	2	4-1/8	1-7/16	1-7/16	0.8
AN8988203208	32 x 1	8	4-3/8	3-1/8	2-3/8	5-3/16	1-13/16	1-11/16	1.32
AN8988204010	40 x 1-1/4	8	4-3/8	6-11/16	2-3/8	5-3/16	1-13/16	1-11/16	1.9
AN8988205012	50 x 1-1/2	8-3/8	4-3/4	6-7/8	2-13/16	5-3/4	2-1/4	2-1/16	3.26
AN8988206316	63 x 2	11-1/8	6-1/8	9-1/4	3-1/2	7-3/8	2-11/16	2-5/8	5.18



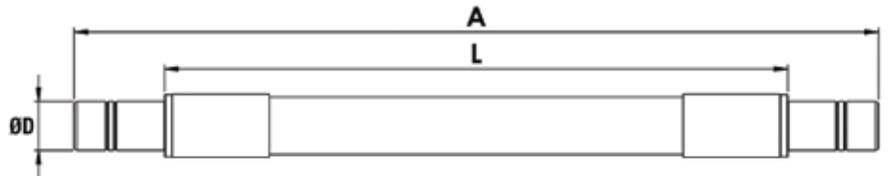
Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Hose (Pipe to Pipe)



Use part number AN66989903, anti-whiplash strap.
Refer to installation information for proper bend radius
and proper installation practices. Requires additional
SmartPipe+ fittings to install.

Part No.	ØD (mm)	L	MATL 1	MATL 2	A	Weight
AN8992002010	20	11-13/16	Aluminum	Rubber	15-1/4	0.95
AN8992002011	20	39-3/8			42-13/16	1.95
AN8992002510	25	11-13/16			15-1/2	1.4
AN8992002511	25	39-3/8			43-1/16	2.78
AN8992003210	32	11-13/16			16-7/16	2.16
AN8992003211	32	39-3/8			44	4.01
AN8992004010	40	19-11/16			25-3/16	3.37
AN8992004011	40	39-3/8			44-7/8	5.0
AN8992005010	50	19-11/16			26	5.3
AN8992005015	50	59			66-11/16	5.7
AN8992006310	63	19-11/16			27-3/16	8.5
AN8992006315	63	59			66-11/16	11.2

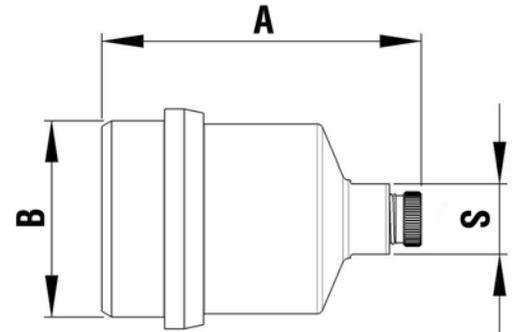
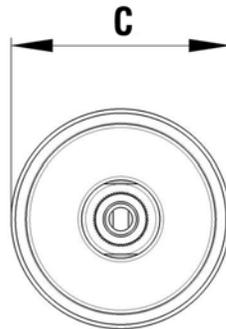


Vented End Cap



Part No.	ØD (mm)	A	B	C	S	Weight
AN89865020	20	1-7/8	13/16	7/8	11/16	0.08
AN89865025	25	2-1/4	1	1-1/8		0.10
AN89865032	32	2-9/16	1-1/4	1-3/8		0.13
AN89865040	40	2-13/16	1-9/16	1-3/4		0.20
AN89865050	50	3-1/4	2	2-3/16		0.36
AN89865063	63	3-7/8	2-1/2	2-13/16		0.64

Note: Will require separate SmartPipe+ fitting



Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL.
For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Anti-whiplash Strap

Part No.	Weight
AN66989903	0.47

Prevents whiplash should SmartPipe+ flexible hose be disconnected while under pressure. Conforms to ISO 4414 safety standard. See installation information for proper installation practices.



Lockable Handle

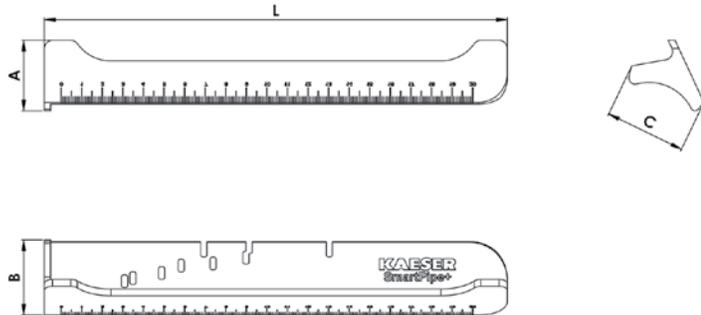
Part No.	ØD (mm)	Weight
AN89888020	20	0.10
AN89888025	25	0.15
AN89888032	32	0.25
AN89888040	40	0.25
AN89888050	50	0.44
AN89888063	63	0.52



Pipe Marking Tool

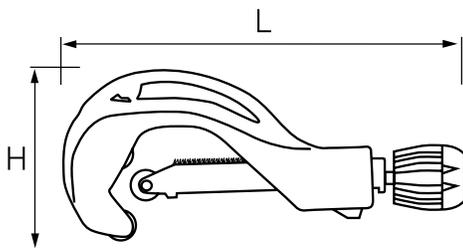


Part No.	L	A	B	C	Weight
AN89531001	8-7/8	1-3/8	1-7/16	1-9/16	0.09



Pipe Cutter

Part No.	L	H	Weight
ANK0040	10-1/16	3-7/8	1.94



ANK0040, 20 mm - 63 mm (3/4" to 2 1/2") Pipe Cutter, uses replacement blades ANK0240.

Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Hole Saw Bits

Part No.	Description	Weight
ANK0043	14 mm Hole Saw Bit	0.04
ANK0143	19 mm Hole Saw Bit	0.30
ANK0342	24 mm Hole Saw Bit (includes Arbor and Pilot)	0.34
ANK0243	Drill Arbor and Pilot Bit (14 mm to 25 mm)	0.20



Drill arbor and pilot bit



Hole saw bits

Deburrer and Chamfer Tools

Part No.	Fig.	Description	Weight
ANK0141	1	20 mm - 50 mm (3/4" to 2") Pipe Deburrer	1.27
AN113835	2	20 mm - 50 mm Manual/Electric Pipe Deburrer	1.00
ANK0042	3	Hole Deburrer	0.08
AN292110	4	63 mm (2-1/2") Chamfer Tool	1.38



Fig. 1



Fig. 2



Fig. 3



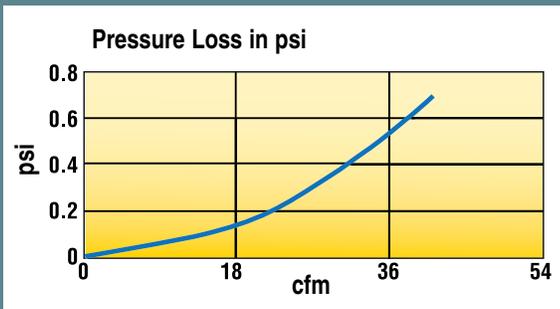
Fig. 4 Uses replacement blade AN292011

Dimensions in inches (in.) and weight in pounds (lbs.) unless otherwise noted. For larger piping and fittings, see SmartPipeXL. For installation instructions, see SmartPipe+ Service Manual. **Specifications subject to change without notice.**

Composite Quick-Connect Couplers and Plugs

SmartPipe couplers are designed for easy one-handed connection and disconnection. To connect, simply press the plug into the coupler port. To disconnect, pull the coupler sleeve to release the plug.

Pressure Loss in Couplers



Cv rating = 1.24

Universal Coupler (ISO 6150B/Automotive)



Part No.	Nipple	NPT
ANK1484	1/4"	1/2"
ANK3884	3/8"	1/2"

Accessories

Industrial Nipples (ISO B)



Part No.	Nipple	NPT
ANK4184	1/4"	1/4"
ANK8184	3/8"	3/8"

Automotive Nipples



Part No.	Nipple	NPT
ANK4284	1/4"	1/4"
ANK8284	3/8"	3/8"

Warranty



SmartPipe+™

3/4" to 2-1/2"

Kaeser Compressors, Inc. herein referred to as "Kaeser," warrants the Kaeser SmartPipe+™ delivered hereunder will be free of defects in material and workmanship for a period of ten (10) years from the date of purchase of the products.

Kaeser does not warranty the design, assembly or installation of the system, but only the components as stated herein. Kaeser is not responsible for improper design, assembly or installation, or for any modifications of the Kaeser products.

Should any failure to conform with the above warranties occur during the specified period under normal use, and the components have been proven to Kaeser's satisfaction to have been properly stored, installed and maintained, and purchaser has complied with all procedures outlined in the service manual or installation instructions then Kaeser shall, with prompt notice correct the non-conformities at its option either by replacement or by refund of the purchase price of the non-conforming equipment. Return of such component to such delivery point as Kaeser may direct pursuant to this paragraph shall be at the purchaser's risk and expense. Kaeser warrants any components replaced pursuant to the above warranty, under normal use, to be free from defects in workmanship and material for a period of ninety (90) days after the shipment of such replaced components or for a period ending on the expiration of the original component warranty, whichever is longer. Unless otherwise expressly agreed, Kaeser shall not be responsible for labor charges, loss or damage resulting from improper operation, maintenance or repairs made by personnel other than those authorized in writing by Kaeser, or damage to equipment caused by the use of non-authorized replacement parts.

Replacement or refund (whichever Kaeser determines, in its sole discretion, to provide) shall be Kaeser's sole obligation and purchaser's exclusive remedy for any nonconformity, noncompliance, defect or deficiency in components furnished hereunder, and shall be conditioned upon purchaser's return of the defective components to Kaeser (DAP Kaeser's directed delivery point) if Kaeser requires such return. This exclusive remedy will not be deemed to have failed of its essential purpose so long as Kaeser is willing to provide replacement or refund. THE EXPRESS WARRANTY CONTAINED HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES, EXPRESSED OR IMPLIED, AND KAESER EXPRESSLY DISCLAIMS AND EXCLUDES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

AUTHORIZATION FROM THE SERVICE DEPARTMENT IS NECESSARY BEFORE MATERIAL IS RETURNED TO THE FACTORY OR IN-WARRANTY REPAIRS ARE MADE.

Product Warranty Registration

In order for Kaeser Compressors, Inc. to properly handle warranty or other service requests, please **register online at us.kaeser.com/warranty**.

LIMITATION OF LIABILITY

THE REMEDIES OF THE CUSTOMER SET FORTH HEREIN ARE EXCLUSIVE, AND KAESER'S LIABILITY WITH RESPECT TO EQUIPMENT SOLD HEREUNDER SHALL BE LIMITED TO THE APPLICABLE WARRANTY PROVIDED HEREIN AND, WITH RESPECT TO ANY BREACH OF ITS CONTRACT WITH CUSTOMER, SHALL BE LIMITED TO THE CONTRACT PRICE OF EQUIPMENT THAT IS THE SUBJECT OF THE BREACH; PROVIDED, HOWEVER, THAT THE FOREGOING SHALL NOT APPLY IN THE EVENT OF ANY ACT THAT CONSTITUTES GROSS NEGLIGENCE OR WILLFUL MISCONDUCT BY KAESER, AND THAT KAESER WILL HAVE NO LIABILITY WHATSOEVER WITH RESPECT TO ANY ADVICE OR TECHNICAL INFORMATION PROVIDED WITHOUT CHARGE. PRIOR TO CUSTOMER HAVING ANY RIGHT TO RECOVER DAMAGES (SUBJECT TO THE LIMITATIONS SET FORTH HEREIN), KAESER SHALL HAVE THE RIGHT TO CORRECT ANY DEFECT OR NON-CONFORMITY OF ANY EQUIPMENT SOLD HEREUNDER IN A REASONABLE TIME FRAME, AND IF KAESER DETERMINES THAT IT IS UNABLE OR UNWILLING TO CORRECT ANY SUCH DEFECT OR NON-CONFORMITY, THEN KAESER WILL ALSO HAVE THE RIGHT TO REFUND THE PRICE OF THE DEFECT OR NON-CONFORMITY. NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, OR EXPENSES INCURRED BY THE OTHER PARTY, THE OTHER PARTY'S CUSTOMERS OR ANY THIRD PARTY, WHETHER ARISING FROM BREACH OF CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHER THEORIES OF LAW OR EQUITY, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS OR REVENUE, LOSS OF USE OF EQUIPMENT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF SUBSTITUTE FACILITIES OR SERVICES, DOWNTIME COSTS OR CLAIMS OF CUSTOMERS OR SUCH OTHER PARTY FOR SERVICE INTERRUPTION, OR ANY OTHER TYPES OF ECONOMIC LOSS WHETHER OR NOT SUCH LOSS OR DAMAGE IS BASED ON CONTRACT, WARRANTY, NEGLIGENCE, INDEMNITY, STRICT LIABILITY OR OTHERWISE.



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