

AIR LINE

Compressed air piping system



Group 2 • Series 05

TOPRING

Compressed air solutions

AIR LINE

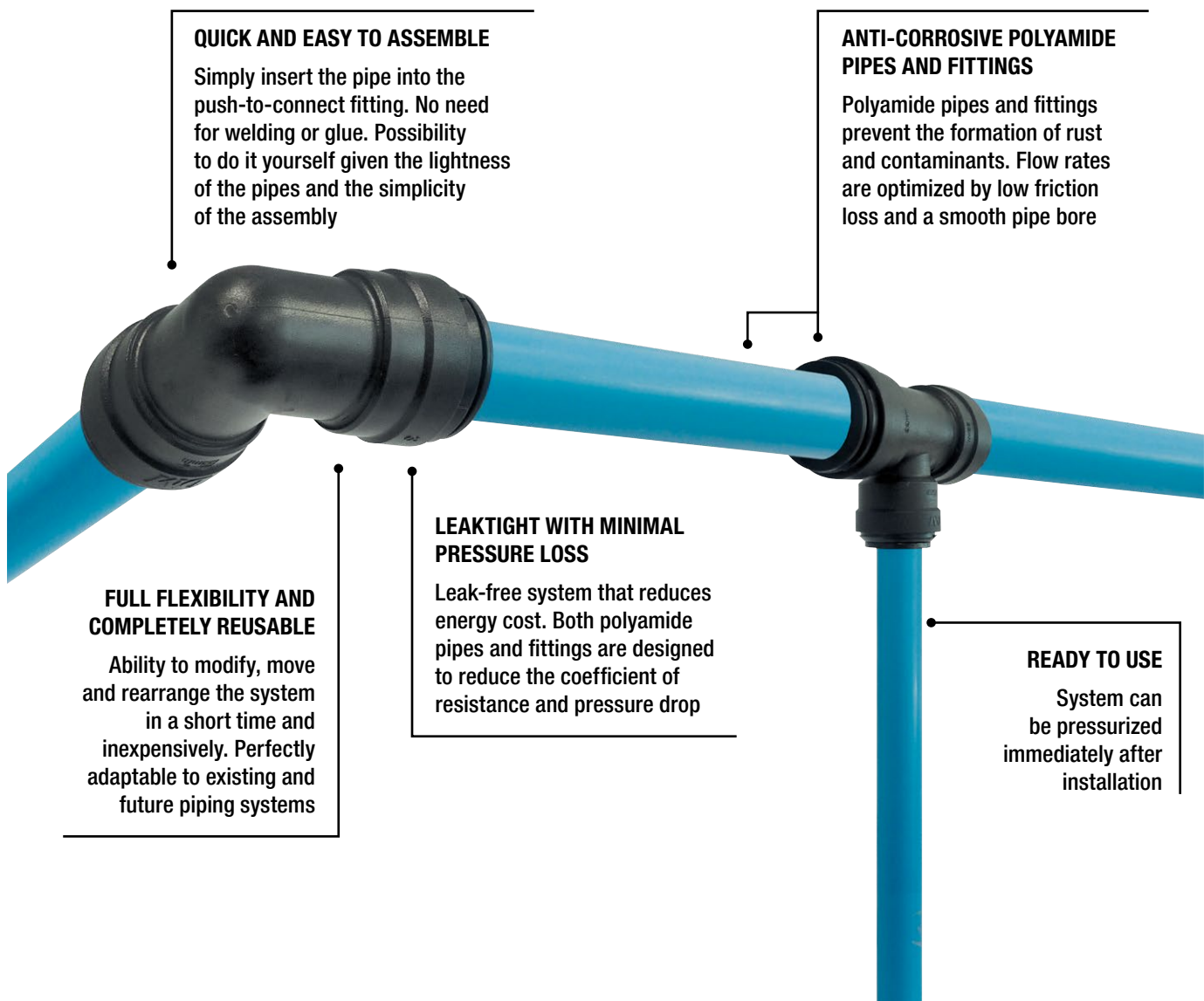
COMPRESSED AIR PIPING SYSTEM

ANTI-CORROSION AND EASY TO INSTALL SOLUTION

The AIR LINE compressed air piping system consists of lightweight, corrosion-resistant polyamide pipes and push-to-connect fittings. It is quick and easy to install and can be pressurized immediately. The system is easily adaptable to meet future needs and expansions.

The AIR LINE system ensures:

- Full flexibility and complete scalable adaptability to existing and future installations
- Leaktight system and optimized flow rate
- Clean, high-quality air



AIR LINE

COMPRESSED AIR PIPING SYSTEM

CERTIFICATIONS

Fire resistance standard

Series 5 AIR LINE pipes (only) are UL94 V2 certified for fire resistance all over Canada



Specifications

Maximum Working Pressure:

- 145 PSI at 23 °C
- 100 PSI at 70 °C

Working Temperature:

0 to 70 °C

Fluids:

Compressed air and nitrogen



CAUTION

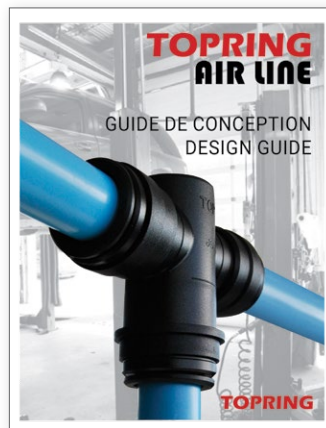
Installation of a AIR LINE compressed air piping system must be made according to the assembly instructions as indicated in the installation guide. Carefully read the design and installation guides prior to proceeding (available on **TOPRING.com**).

DESIGN AND INSTALLATION GUIDES

Download the design and installation guide of the AIR LINE Series for important info on system configurations, design and installation.

Available on **TOPRING.com** in the "Piping Systems" section.

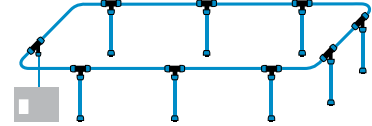
Product No	Description
96.602	AIRLINE Design Guide S05 French
96.603	AIRLINE Design Guide S05 English
96.720	AIRLINE Installation Guide S05 French
96.721	AIRLINE Installation Guide S05 English



GUIDE TO DETERMINE THE MINIMUM DIAMETER PIPE SIZING FOR A COMPRESSED AIR NETWORK

1. Identify network type: closed loop or dead end
 2. Calculate total length of the network (feet)
 3. Determine total flow required (SCFM)
 4. Use the charts below in order to identify the proper diameter size
- Calculations based on total maximum pressure drop (ΔP) of no more than 3 PSIG for the entire network, at 100 PSIG at 15.5 °C
 - Total flow required takes account of all flows for all compressed air powered tools and equipment
 - Note that a typical compressor will produce approximately 4 SCFM per HP

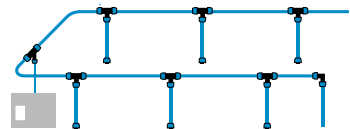
Minimum diameter pipe sizing for a closed loop network



TOTAL LENGTH OF THE NETWORK (FEET)

TOTAL FLOW REQUIRED SCFM	FEET															
	100'	150'	200'	250'	300'	400'	500'	600'	700'	800'	900'	1000'	1250'	1500'	2000'	
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	
10	15	15	15	15	15	15	15	15	15	15	15	15	22	22	22	
15	15	15	15	15	15	15	15	22	22	22	22	22	22	22	22	
20	15	15	15	15	15	22	22	22	22	22	22	22	22	22	22	
30	15	22	22	22	22	22	22	22	22	22	22	22	28	28	28	
40	22	22	22	22	22	22	22	22	28	28	28	28	28	28	28	
60	22	22	22	22	28	28	28	28	28	28	28	28	28	28		
80	22	22	28	28	28	28	28	28	28	28	28					
100	22	28	28	28	28	28	28	28								
125	28	28	28	28	28											
150	28	28	28	28												
200	28	28														

Minimum diameter pipe sizing for a dead end network



TOTAL LENGTH OF THE NETWORK (FEET)

TOTAL FLOW REQUIRED SCFM	FEET															
	25'	50'	75'	100'	150'	200'	250'	300'	400'	500'	600'	700'	800'	900'	1000'	
5	15	15	15	15	15	15	15	15	15	15	15	22	22	22	22	
10	15	15	15	15	15	22	22	22	22	22	22	22	22	22	22	
15	15	15	22	22	22	22	22	22	22	22	28	28	28	28	28	
20	15	22	22	22	22	22	22	22	28	28	28	28	28	28	28	
30	22	22	22	22	28	28	28	28	28	28	28	28	28			
40	22	22	22	28	28	28	28	28	28							
60	22	28	28	28	28	28										
80	28	28	28	28												
100	28	28	28													
125	28															
150	28															
200	---															

AIR LINE

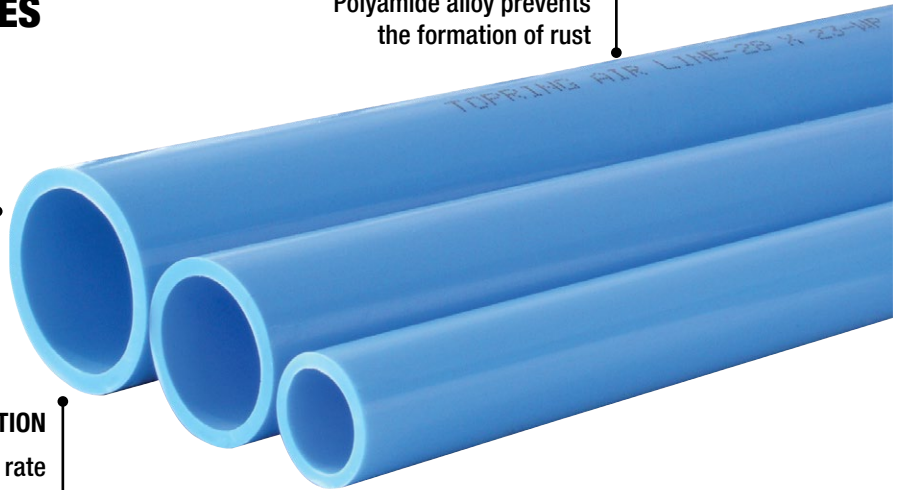
SEMI-RIGID POLYAMIDE PIPES

The AIR LINE piping system is lightweight, corrosion resistant and easy to install.

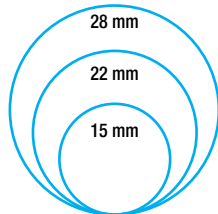
CORROSION RESISTANT
Polyamide alloy prevents the formation of rust

LIGHTWEIGHT
Easy handling

LOW FRICTION
Smooth internal surface ensures high flow rate



Product Not	Pipe O.D.	Length m	Length ft
05.042	15	4	13
05.062	22	4	13
05.072	28	4	13



PIPES DIAMETER

Material

Pipe: Polyamide 12 (PA12) – self extinguishing

Specifications

Extrusion Quality: Calibrated pipe for leakproof connections

Available Diameters O.D. (I.D.):
15 (14), 22 (18) and 28 (24) mm

Available Lengths: 4 meters /13 feet

WATER TRAP TEES

Quick and easy to assemble with polyamide pipes

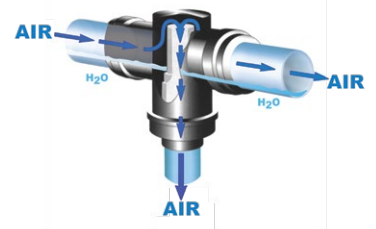


Materials

- Body:** Black acetal copolymer
- Seal:** Nitrile rubber
- Clamp:** Black acetal copolymer
- Gripping Teeth:** Stainless steel

HOW IT WORKS

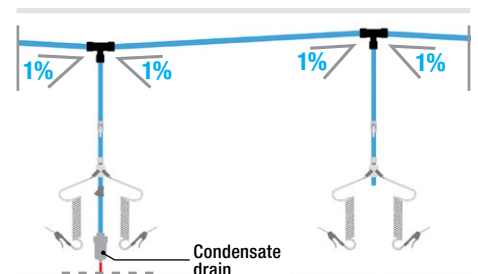
Condensates remain in the main line.
Only compressed air can go into the drop.



Product No	Pipe (A) mm	Pipe (B) mm
05.079	22	15
05.080	22	22
05.085	28	28

INSTALLATION TIP

All horizontal pipes must have a 1% slope towards drainage points at different locations (manual or automatic drains installed as low as possible).



AIR LINE

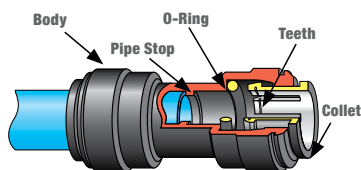
PUSH-TO-CONNECT FITTINGS

FOR PIPES ○ 15, 22 AND 28 mm

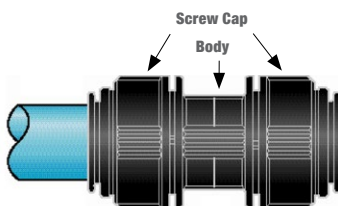
- Full-flow design for optimized airflow
- Leakproof connection, no soldering, no threading, no sealing required
- Fully reusable: fittings easy to remove and install elsewhere when reorganizing the piping system



15 and 22 mm



28 mm



Materials

Body: Black acetal copolymer

Seal: Nitrile rubber

Clamp: Black acetal copolymer

Screw Cap: Black acetal copolymer

Gripping Teeth: Stainless steel

SIMPLE ASSEMBLY STEPS

15 AND 22 MM

STEP 1

Push in to pipe stop.



STEP 2

Pull to make sure that pipe is secure. Test the system before use.



28 MM

STEP 1

Push in to pipe stop



STEP 2

After inserting the pipe, turn screw cap approx 1/4 turn. This locks the collet in place and reduces lateral and sideways movement of the pipe.



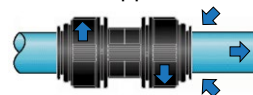
DISASSEMBLY STEPS

To disconnect any components, always make sure the system is depressurised

15-22 MM: Push the collet towards the fitting and remove the pipe



28 MM : Turn the screw cap 1/4 turn, push in the collet and remove the pipe.



The fittings and the pipes can be reused.

PUSH-TO-CONNECT FITTINGS



MALE CONNECTOR (NPT)

Product No	Pipe mm	Thread (M) NPT
05.116	15	1/2
05.121	22	3/4
05.125	28	1



MALE CONNECTOR (BSPP)

Product No	Pipe mm	Thread (M) BSPP
05.115	15	1/2
05.120	22	3/4



UNION REDUCER TEE

Product No	Pipe mm ^①	Pipe mm ^②
05.170	22	15



TEE UNION

Product No	Pipe mm
05.160	15
05.165	22
05.168	28



END CAP

Product No	Pipe mm
05.230	15
05.235	22



STRAIGHT UNION

Product No	Size mm
05.130	15
05.135	22
05.140	28



90 ° ELBOW UNION

Product No	Size mm
05.145	15
05.150	22
05.155	28



FEMALE REDUCER

Product No	Size mm ^①	Size mm ^②
05.210	15	22
05.212	15	28
05.215	22	28



MALE REDUCER BSPP

Product No	Size mm ^①	Thread (M) BSPP ^②
05.185	15	3/8
05.190	15	1/2
05.195	22	1/2
05.200	22	3/4
05.205*	28	1

* Brass



PLUG

Product No	Pipe mm
05.220	15
05.225	22
05.227	28

ANODIZED ALUMINUM MANIFOLDS

1 OUTLET



Product No	Pipe mm ①	Outlet (F) NPT ②
05.450	15	3/8

2 OR 3 OUTLETS



Product No	Pipe mm ①	Outlet (F) NPT ②
05.470	15	1/2
05.475	22	1/2

SPACERS FOR ANODIZED ALUMINUM MANIFOLDS



Product No	Thickness mm	Compatible with manifolds
47.596	18	1 outlet



Product No	Thickness mm	Compatible with manifolds
47.598	18	2/3 outlets

INSTALLATION TIP

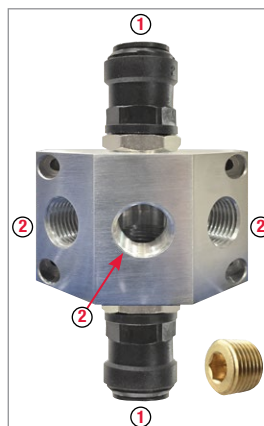
Installation requires screws # 10

BRUSHED ALUMINUM MANIFOLDS

2 OR 3 OUTLETS



Product No	Pipe mm ①	Outlet (F) NPT ②
05.492	15	3/8 (2/3x)
05.496	22	3/8 (2/3x)



Product No	Pipe mm ①	Outlet (F) NPT ②
05.493	15	3/8 (2/3x)
05.497	22	3/8 (2/3x)

INSTALLATION TIP

Installation requires screws # 8

MOUNTING CLIPS



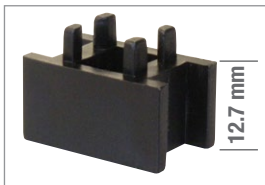
PIPE CLIP FOR WALL MOUNTING

Product No	Pipe mm
05.325	15
05.330	22
05.335	28

Adding horizontal or vertical mounting clips can be done simply without having to cut the pipe



MOUNTING CLIP WITH SPACER



MOUNTING BRACKET SPACER

Product No	Thickness
05.337	1/2 in (12.7 mm)

PIPE CUTTER



PIPE CUTTER

Product No	Description
36.100	Pipe cutter

Allows effortless straight, even and accurate cutting of nylon pipes up to 36 mm (1-13/32 in) O.D.



COMPLEMENTARY PRODUCTS

BRASS BALL VALVE



Product No	Size mm	Fitting Material
05.400	15	Acetal
05.405	22	Brass
05.410	28	Brass

MECHANICAL AUTOMATIC DRAIN



Product No	Size mm	Fitting Material
05.501	15	Acetal
05.506	22	Acetal

With brass ball valve, fittings and strainer

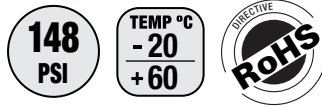
MANUAL DRAIN



Product No	Size mm	Fitting Material
05.500	15	Acetal
05.505	22	Brass

With brass ball valve, fittings and hose

HOME GARAGE FLEXIBLE KIT



All-in-one kit for creating a compressed air network simply, quickly and economically

- Modular and adaptable design system
- Compact design reducing the overloading of any workshop
- Installs directly on existing walls
- Easily assembles, disassembles and easy to modify
- No specific installation tools required
- For small businesses, workshops or personal garages or for any homeowner who needs a compressed air system nearby
- Ideal for minor jobs such as car maintenance, DIY, various repairs, etc.



Materials

- Tubing:** Ester base polyurethane
- Manifold:** Anodised aluminum
- Mounting Clip:** Zinc
- QuickCoupler and Plug:** Zinc plated steel

Specifications

- Working Temperature:** -20 to 60 °C
- Maximum Working Pressure:** 148 PSI
- Fluid:** Compressed air

Kit includes:

- Polyurethane tubing 1/2 x 100 ft
- 1 tube cutter
- 1 straight connector 1/2 x 3/8 (M) NPT
- 2 straight connectors 1/2 x 1/2 (M) NPT
- 2 straight unions
- 6 union elbows
- 1 tee union
- 25 mounting clips
- 2 aluminum manifold with drain 1/2 (F) NPT x 3/8 (F) NPT
- 1 miniature hand valve 3-way
- 2 quick couplers (1/4 IND) 3/8 (M) NPT (manual)
- 2 plugs (1/4 IND) 1/4 (M) NPT
- 1 ergonomic blow gun - 10 cm tube
- 1 installation guide



Product No	Description
05.900	Home garage flexible kit

! CAUTION

The Home Garage Flexible Kit must never be connected directly from the compressor outlet if there is no integrated air tank. Without the tank, the temperature of the compressed air will be too hot. The maximum operating temperature of the Home Garage tubing is 60 °C.

It is also recommended to install the Home Garage Flexible Kit on compressors of 5 HP and less.



Watch the video "How to install a compressed air system in your garage or workshop" on Topring.com / Resources / Our YouTube Channel