

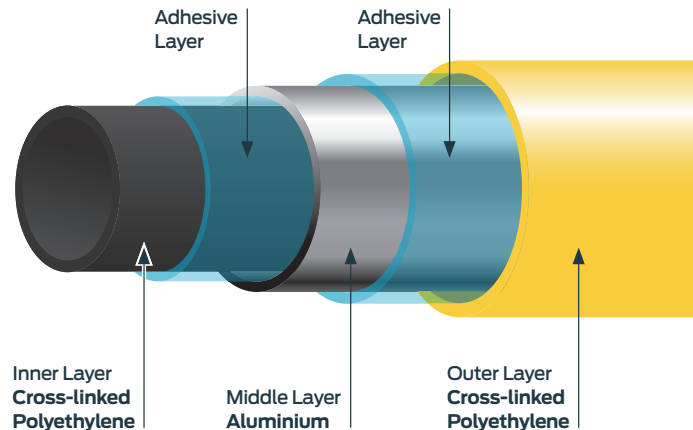
# Auspex Gas Manual



The Auspex Gas pipe and fitting system is a revolutionary alternative for the professional plumber and gasfitter that makes any job quicker and easier.

## Auspex Gas Pipe

The Auspex Gas System is a multi-layer pipe made from Cross Linked Polyethylene (PEX) on both layers and aluminium in between. Having PEX on both layers ensures that the highest performing polymer is on both sides of the aluminium core. Auspex Gas has a defining black inner layer and can easily be identified.



The pipe is manufactured using the latest butt-welding technique. This technique ensures there are no compromises to polymer thickness to cater for an overlap weld.

The wall thickness of the multi-layer pipes have been specifically engineered to match the SDR 9 Auspex single layer water pipes. This allows most Auspex water fittings to be compatible with the Auspex Gas pipes. Auspex water fittings have copper crimp rings in sizes 16mm, 20mm and 25mm. Stainless steel crimp rings are used on 32mm fittings.

The assembled system has been tested and proven to comply with the Rothenberger tool using Auspex water jaws and a traditional Auspex manual tool. 32mm crimping can be achieved using the DuoPEX Gas crimping jaws compatible with the Rothenberger tool. A gauge is provided to verify the correct crimp compression.



For the full range of Auspex Fittings, tooling and installation instructions, pick up a copy of the **Auspex Water Manual** in your closest Reece store or download a digital copy from [www.auspex.com.au](http://www.auspex.com.au)



### Get Certified for Gas

Scan the above QR code or go to our website for more information on becoming Auspex Gas Certified.

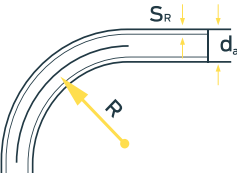
All installations should be carried out in accordance with AS/NZS 5601 and instructions provided in this Manual. The installer must be a licenced gasfitter and proof of training by an approved Auspex Gas representative should be always carried. The installer should also be aware of local authority codes and by laws which take precedence. If clarification is required, contact your local Auspex representative or the Customer Service number shown in this manual.

### Bending of Auspex Gas Pipe

Auspex Gas pipe is supported by the aluminium layer and will remain stable after bending. Bending can be done manually, however, bending tools are available if required. Care must be taken during this process to ensure that the pipe does not kink or deform, as these may affect the performance of the system.

| Nominal Diameter | Bending Radius (R) Without Aid | Bending Radius (R) with Bending Spring | Bending Radius (R) with Bending Tool |
|------------------|--------------------------------|--|--------------------------------------|
| 16               | $5 \times d_a$                 | $2.0 \times d_a$                       |                                      |
| 20               | $5 \times d_a$                 | $3.0 \times d_a$                       |                                      |
| 25               |                                |  | $3.6 \times d_a$                     |
| 32               |                                |  | $3.6 \times d_a$                     |

**Note:** All measurements in mm unless otherwise stated.



The bending process on Auspex Gas pipe must not result in either indentations or deformations on the inside of the pipe bend. Damage to the PEX layer of the Auspex Gas pipe may effect the integrity of the system.



Do not use pipes that have kinks, cuts, deep scratches, squashed ends, imperfections or have been in contact with contaminating substances. Such pipe should be cut out and replaced, as these conditions may affect the integrity of the system.

### Data Sheet

| Dimension (mm)                                      | 16     | 20     | 25     | 32     |
|---|--------|--------|--------|--------|
| Coefficient of Linear Thermal Expansion in mm/m x K | 0.026  | 0.026  | 0.026  | 0.026  |
| Thermal Conductivity in W/M x K                     | 0.45   | 0.45   | 0.45   | 0.45   |
| Gas Volumes Litre/m                                 | 0.1112 | 0.1814 | 0.2955 | 0.4752 |
| Pipe Roughness K mm                                 | 0.007  | 0.007  | 0.007  | 0.007  |
| Coil Length   | 50     | 50     | 50     | 25     |
| Metres Per Length                                   | 5      | 5      | 5      | 5      |
| Pipe Weight (G/M)                                   | 109    | 159    | 229    | 389    |

### Spacing of Supporting Devices

| Pipe Dimension | Maximum Pipe Clip Clearance |
|----------------|-----------------------------|
| 16             | 1000                        |
| 20             | 1250                        |
| 25             | 1500                        |
| 32             | 2000                        |

**Note:** All measurements in mm unless otherwise stated. See also AS/NZS 5601. Synthetic clips must be used.

### Thermal Changes in Length

Heating and cooling cause pipe length changes.

The coefficient of expansion of Auspex Gas composite pipes is 0.026 mm/m x k.

For further information on Linear Expansion Tables and other expansion bend examples contact your Auspex representative or customer service.

| Example Temperature         |   |
|-----------------------------|---|
| Differential $\Delta T$     | 50 k  |
| Pipe length L               | 5 m   |
| Coefficient of expansion a  | 0.026 mm/m.K  |
| Linear expansion $\Delta L$ | 6.5 mm  |
| $\Delta L$                  | $= a \times L \times \Delta T$<br>$= 0.026 \text{ mm/m.K} \times 5 \text{ m} \times 50 \text{ K}$<br>$= 6.5 \text{ mm}$ |

Thermal conductivity = 0.45 W/M x K

## UV Resistance

Auspex Gas pipes must be protected against direct sunlight or UV radiation. Consequently, Auspex Gas pipes must be covered during transport or storage if they have been removed from their original packaging. When Auspex Gas pipes are used in a UV stabilised sleeve, adequate UV protection is assured during the installation phase. Furthermore, jackets made from insulating material can undertake the function of UV protection with Auspex Gas pipes (check with the supplier of the insulating material).



It is best practice to ensure that piping is installed out of direct sunlight.

## Fire and Excessive Heat

- Keep Auspex Gas pipe a minimum of 500mm from sources of high heat, such as heating appliances and flues from heating appliances. If any hot joints are made in the line such as welding, the joints involved must be disconnected from the pipe and cooled completely before rejoining to the pipe
- Keep Auspex Gas pipe 1500mm from slow combustion type stoves and flues used to heat hot water or cooking (wet back type)
- Leave 300mm minimum space between Auspex Gas pipe and light fittings or other electrical fixtures
- Auspex Gas pipe should not be positioned within 150mm of gas or central heating vents or flues
- Where fire collars or the like are required, installers should contact the manufacturer of those products to ensure they have certification for MLP construction

## Chemical Resistance

Auspex Gas has been tested and certified to AS 4176.8. This standard covers multi-layer pipe and fittings in domestic gas installations for natural gas and LPG.

Gas pipes must be protected from exposure to

- Bitumen or bitumen strips
- Greases, solvents, and oils
- Contaminated areas as defined by AS/NZS 5601 and AS/NZS 3500

If the Auspex Gas system is used in areas where, for example, aggressive gases, below ground, permanently acting moistures or building materials containing chlorine are to be encountered, the fittings must be protected using RWC silicon wrap.

It is also best practice to protect pipe and fittings with suitable jacketing when similarly exposed or in contact with screed, concrete, mortar, plaster or similar.

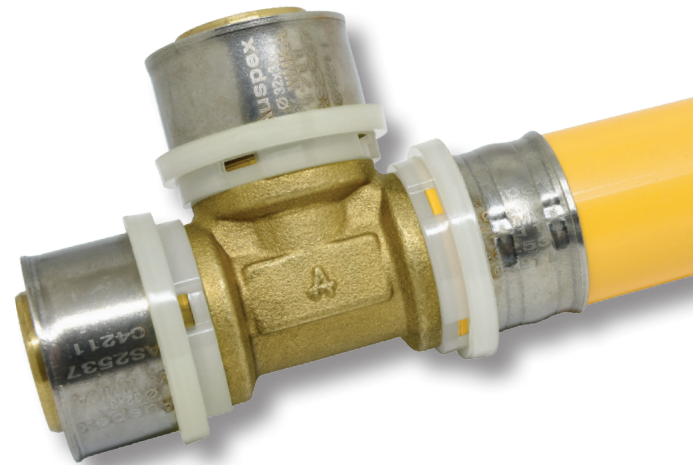
## RWC Silicone Burial Wrap

When using RWC Silicone Burial Wrap, make an Auspex connection as per AS/NZS 3500 (see Installation Instructions in this manual for details). While leaving the protective film in place, measure the amount of tape needed to completely wrap the fitting. To ensure a proper seal, overlap tape by 25mm past the end of the fitting on every end and 5mm – 10mm between/across the fitting.



RWC Silicone Burial Wrap

Completely cover the fitting by wrapping (overlapping each edge of the tape) the fitting, pulling the tape tight and removing the protective film. The tape will bond to itself within minutes and form an impervious barrier within a few hours.





## Auspex Gas Fittings

The Auspex Gas system has been specifically designed to be compatible with the one universal fitting for both water and gas. The Auspex Gas range of fittings are manufactured from dezincification resistance (DR) brass. The 16, 20, 25mm fittings have a copper ring and use the Auspex Crimp tool. The 32mm fittings are stainless steel crimp with a plastic ring and use the DuoPEX crimp tool.

Reliable joint performance is maintained with witness holes. Witness holes are provided on the copper and stainless steel crimp rings to visually verify full insertion of the pipe into the fitting. Auspex hand crimping tools can be used up to 25mm, with the Rothenberger battery tool capable of all sizes.

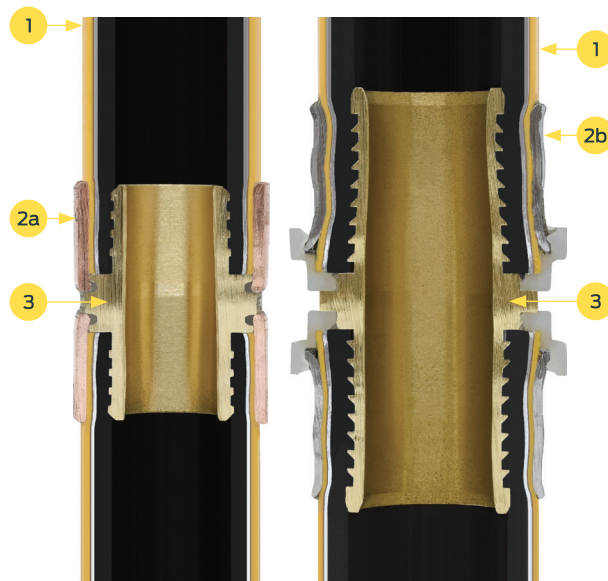
Auspex water fittings are available for Auspex Gas pipe in sizes 16mm to 32mm.

Auspex Gas crimp fittings are classified as a permanent joint in accordance with AS/NZS 5601. As such, the fittings should not be able to move inside the pipe after crimping has been done.

Pipe and fittings are joined and sealed by the deformation caused by correct crimping of the copper crimp ring in sizes 16mm to 25mm and similarly with the stainless steel crimp ring in 32mm.

1. Multi-Layer Pipe
- 2a. Copper Crimp Ring **OR**
- 2b. Stainless Steel Crimp Ring
3. DR Brass Fitting

Witness holes



16-25mm Internal –  
Pipe and Fittings

32mm Internal –  
Pipe and Fittings



The system is designed to use the same battery tools and jaws that are used on the Auspex water system 16mm to 32mm. The Auspex hand tools can be used on sizes 16mm to 25mm with a checking gauge to ensure correct tool adjust, DuoPEX jaws are required in the Auspex 32mm white ring fittings.

The system has been tested and certified using the Auspex and DuoPEX tools available exclusively from Reece. Tools other than these will not be warranted.

# Making A Joint

## 16mm to 25mm Fittings

It is extremely important that the tool instructions supplied with the tool are read in their entirety, and the user becomes familiar with the maintenance, precautions and the proper use of this tool.

The following describes, in general terms, the jointing procedures but should not be regarded as a substitute for reading and applying the detailed instructions supplied with the tool.

1. Select the correct tool and jaw size to suit the fitting to be crimped. The jaws must be examined in terms of possible damage or dirt in the compression area.
2. If utilising a battery operated tool, ensure that the battery is fully charged and attach it to the tool.



3. Insert the jaw and line up the holes in the tool with the hole in the jaw. Push the pin through the hole in the jaw and turn pin to lock. Ensure pin is locked into position prior to commencing crimp. To change the jaw push the pin in and turn pin to unlock.



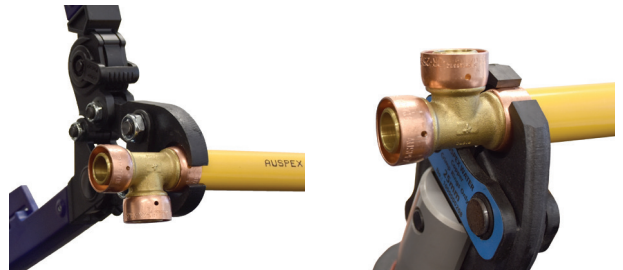
4. Cut the pipe to the required length with the recommended multi-layer pipe cutters.



5. Insert the approved (16-32mm) yellow handle calibrating/deburring tool into the pipe, and then alternately turn in a clockwise and in a counter-clockwise direction. Ensure that a consistent, smooth chamfer is formed on the end of the pipe.



6. Push the pipe over the barbed fitting and at the same time under the crimp ring. The fit should be firm. If the joint feels sloppy or hard to insert, check pipe and fittings. Do not use lubricants. Ensure the pipe is visible in the crimp ring witness hole.



7. Make sure the tool jaws are centralised over the crimp ring at 90° to the joint.

When using the manual tool, close the tool completely to compress the crimp ring. The tool will click at final compression.

When using the battery tool, press the switch until the crimp is completed.

8. When using Auspex hand crimpers, check with the gauge supplied by sliding the opening of the gauge over the compressed ring. If the gauge passes over all parts of the ring without interference, then the joint has been done satisfactorily.

If the gauge experiences any interference, the joint is under crimped. The tool should then be adjusted.

# Making A Joint

## 32mm Fittings

It is extremely important that the tool instructions supplied with the tool are read in their entirety, and the user becomes familiar with the maintenance, precautions and the proper use of this tool.

The following describes, in general terms, the jointing procedures but should not be regarded as a substitute for reading and applying the detailed instructions supplied with the tool.

1. Ensure that the battery is fully charged and attach it to the tool.
2. Select the 32mm DuoPEX Gas jaw. The jaws must be examined in terms of possible damage or dirt in the compression area.



3. To change the jaw push the pin in and turn pin to unlock.
4. Insert the jaws and line up the holes in the tool with the hole in the jaw.
5. Push the pin through the hole in the jaw and turn pin to lock.



6. Cut the pipe to the required length with the recommended multi-layer pipe cutters.



7. Insert the approved (16-32mm) yellow handle calibrating/deburring tool into the pipe, and then alternately turn in a clockwise and in a counter-clockwise direction. Ensure that a consistent, smooth chamfer is formed on the end of the pipe.



Auspex Water fitting

8. Insert the pipe over the fitting and under the stainless steel ring and push the pipe until it is visible in the slots of the plastic sight ring (witness hole). This ensures you have pushed the pipe home.



9. By squeezing the back of the jaw, the jaws will open. If you look at the machined profile on the inside of the jaws you will note a slot on each side of the profile.



10. With the jaws open place the fitting inside the jaws so that the raised section of the plastic sight ring fits into the slot in the jaws. Release the jaws so they fit perfectly over the fitting, ensuring that the raised section of the plastic holding ring is still located in the slots in the jaw.



11. Press the switch mechanism until the joint is completed and the piston has retracted back into the body of the tool.

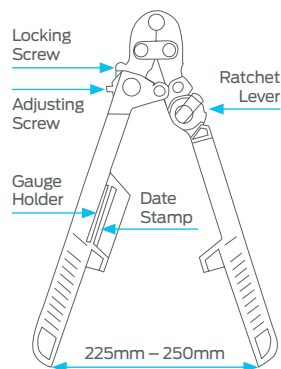
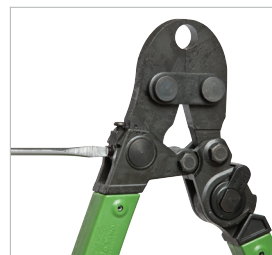
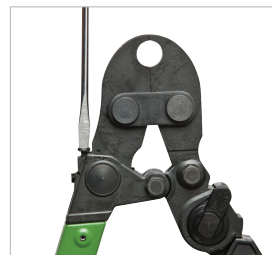


12. Press the back end of the jaws and remove the completed joint.

## Crimping Tool

### Adjustment of Tool

1. With the tool open, apply light pressure inwards.
2. The handle should be positioned somewhere between 225-250mm apart.
3. If adjustment is required, back off locking screw 3-4 full turns.
4. Turn adjusting screw in  $\frac{1}{4}$  turn increments, adjusting screw slot should finish in a vertical or horizontal position.
5. Recheck opening of handle measurement.
6. When set, tighten down locking screw.
7. Conduct a crimp and gauge check. Readjust tool if crimp not satisfactory.



### Ratcheting

Move Ratchet Lever up or down to suit movement.

### Nominal Adjustment

225mm – 250mm.

### Gauge

Ensure crimped connection passes through gauge opening on all sides of the joint.



### IMPORTANT

- A tool that is out of adjustment can cause a faulty joint
- A tool that is set with excessive pressure can damage both tool and fitting
- A worn or damaged tool should be replaced



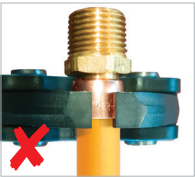
# Trouble Shooting

The Auspex Gas system is simple and effective when executed in accordance with the jointing procedures in this manual. However, if sufficient care is not taken, this can result in an ineffective joint.


## Ineffective joints may occur if:

- Using a rotary pipe cutter. This may lead to flaring of the pipe OD resulting in insertion interference with the crimp ring. Use pipe shears in pipe sizes of 32mm and smaller. Ensure cutting tools are sharp and well maintained
- The pipe has been cut badly out of square
- The witness hole is not completely filled (the fitting is not fully inserted in the pipe)
- The copper ring has moved away from the fitting body
- The crimping tool has not been completely closed
- The crimping tool is out of adjustment. Re-adjust tool in accordance with the instructions supplied with the tool, and in this manual
- The crimping tool has not been centred over the copper ring and the jaw has overhung the end of the fitting
- The crimping tool has not been at 90° to the joint being made
- The fitting has been double crimped

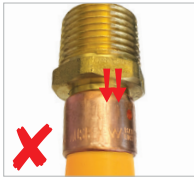
## Examples of ineffective joints:




Jaw not centered on the crimp ring




Witness hole not completely filled



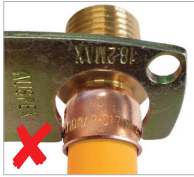
Fitting has been double crimped



Jaw not square on the crimp ring



Pipe badly cut and not square to fitting



Fitting has been under crimped

## If an ineffective joint is detected:

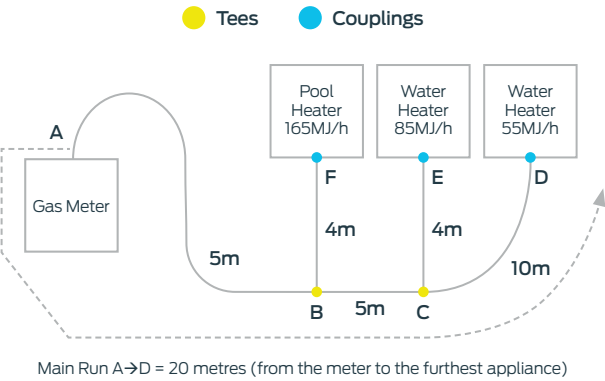
- Cut out the defective joint and replace with new fitting

Non-compliant fittings that are removed cannot be re-used.

# Pipe Sizing

The following example is for natural gas using:

- Supply Pressure 2.75kPa
- Pressure Drop 0.75kPa



| Pipe Section                  | A→D                           | A→B                          | B→C                 | C→D  | C→E  | B→F* |
|-------------------------------|-------------------------------|------------------------------|---------------------|------|------|------|
| Pipe Length                   | 20                            | 5                            | 5                   | 10   | 4    | 4    |
| Gas Flow MJ/h                 | 305                           | 165<br>+ 85<br>+ 55<br>= 305 | 85<br>+ 55<br>= 140 | 55   | 85   | 165  |
| Fitting Correction            | 0.8<br>+ 1.7<br>+ 1.7<br>= 4m |                              |                     |      |      |      |
| Corrected Main Run            | 24m                           | 24m                          | 24m                 | 24m  | 24m  | 24m  |
| Nominal Pipe Size Corrected   |                               | 32mm                         | 25mm                | 16mm | 20mm | 25mm |
| Nominal Pipe Size Uncorrected |                               | 25mm                         | 25mm                | 16mm | 20mm | 25mm |

\* In keeping with gasfitting best practice, if any value is close to the limit, upsize.

LPG

| Pressure Drop 0.25kPa (Pressure Supply 2.75kPa) (Mj/h) |                   |     |     |      |
|--|-------------------|-----|-----|------|
| Main Run (m)   | Nominal Size (mm) |     |     |      |
|  | 16                | 20  | 25  | 32   |
| 2  | 258               | 408 | 979 | 1882 |
| 4  | 173               | 280 | 655 | 1273 |
| 6  | 137               | 219 | 520 | 1005 |
| 8  | 118               | 185 | 448 | 855  |
| 10   | 103               | 163 | 389 | 747  |
| 12   | 93                | 148 | 350 | 673  |
| 14   | 84                | 135 | 322 | 617  |
| 16   | 78                | 125 | 303 | 573  |
| 18   | 74                | 117 | 278 | 539  |
| 20   | 69                | 110 | 263 | 505  |
| 25   | 61                | 97  | 229 | 445  |
| 30   | 55                | 87  | 209 | 402  |
| 35   | 50                | 80  | 190 | 365  |
| 40   | 46                | 74  | 179 | 338  |
| 45   | 44                | 69  | 164 | 317  |
| 50   | 41                | 65  | 155 | 298  |
| 55   | 38                | 61  | 146 | 283  |
| 60   | 37                | 58  | 141 | 269  |
| 70   | –                 | 54  | 128 | 246  |
| 80   | –                 | 48  | 119 | 226  |
| 90   | –                 | 46  | 111 | 212  |
| 100  | –                 | 44  | 105 | 201  |
| 120  | –                 | 40  | 95  | 181  |
| 140  | –                 | 36  | 85  | 166  |
| 160  | –                 | 34  | 80  | 145  |
| Correction<br>+mt for fitting                          | 1.7               | 1.5 | 0.8 | 0.7  |

LPG

| Pressure Drop 10 (Pressure Supply 70kPa) (Mj/h) |                   |      |      |       |
|---|-------------------|------|------|-------|
| Main Run (m)                                    | Nominal Size (mm) |      |      |       |
|   | 16                | 20   | 25   | 32    |
| 2   | 2255              | 3617 | 8538 | 16495 |
| 4   | 1525              | 2421 | 5774 | 11042 |
| 6   | 1211              | 1932 | 4584 | 8766  |
| 8   | 1021              | 1637 | 3923 | 7578  |
| 10  | 909               | 1444 | 3409 | 6586  |
| 12  | 810               | 1294 | 3099 | 5927  |
| 14  | 752               | 1182 | 2817 | 5443  |
| 16  | 683               | 1096 | 2626 | 5048  |
| 18  | 646               | 1037 | 2436 | 4705  |
| 20  | 609               | 966  | 2305 | 4409  |
| 25  | 542               | 848  | 2013 | 3889  |
| 30  | 483               | 764  | 1830 | 3500  |
| 35  | 444               | 700  | 1661 | 3246  |
| 40  | 411               | 659  | 1541 | 3019  |
| 45  | 381               | 605  | 1465 | 2801  |
| 50  | 357               | 573  | 1359 | 2664  |
| 55  | 343               | 539  | 1286 | 2495  |
| 60  | 325               | 515  | 1223 | 2397  |
| 70  | 300               | 511  | 1135 | 2197  |
| 80  | 275               | 441  | 1042 | 1998  |
| 90  | 259               | 409  | 981  | 1872  |
| 100   | 241               | 383  | 919  | 1773  |
| 120   | 216               | 346  | 828  | 1596  |
| 140   | 201               | 318  | 752  | 1451  |
| 160   | 184               | 298  | 698  | 1345  |
| Correction<br>+mt for fitting                   | –                 | –    | –    | –     |

# Natural Gas

Pressure Drop 0.075 (Meter Pressure 1.1kPa)

| Main Run (m)                  | Nominal Size (mm) |     |     |     |
|-------------------------------|-------------------|-----|-----|-----|
|                               | 16                | 20  | 25  | 32  |
| 2                             | 81                | 130 | 309 | 593 |
| 4                             | 55                | 86  | 207 | 405 |
| 6                             | 44                | 69  | 165 | 323 |
| 8                             | 36                | 59  | 141 | 271 |
| 10                            | 33                | 52  | 123 | 235 |
| 12                            | 29                | 47  | 110 | 214 |
| 14                            | 26                | 42  | 101 | 195 |
| 16                            | 25                | 39  | 94  | 181 |
| 18                            | 23                | 37  | 88  | 170 |
| 20                            | —                 | 35  | 83  | 159 |
| 25                            | —                 | 31  | 74  | 142 |
| 30                            | —                 | 27  | 66  | 126 |
| 35                            | —                 | 25  | 60  | 115 |
| 40                            | —                 | 23  | 55  | 107 |
| 45                            | —                 | 21  | 52  | 99  |
| 50                            | —                 | 20  | 49  | 95  |
| 55                            | —                 | 19  | 46  | 90  |
| 60                            | —                 | 18  | 44  | 85  |
| 65                            | —                 | —   | 42  | 81  |
| 70                            | —                 | —   | 40  | 77  |
| 75                            | —                 | —   | 38  | 75  |
| 80                            | —                 | —   | 37  | 72  |
| 85                            | —                 | —   | 36  | 69  |
| 90                            | —                 | —   | 35  | 67  |
| 95                            | —                 | —   | 34  | 65  |
| 100                           | —                 | —   | 33  | 63  |
| 120                           | —                 | —   | —   | 61  |
| 140                           | —                 | —   | —   | 53  |
| 160                           | —                 | —   | —   | 48  |
| 180                           | —                 | —   | —   | 45  |
| 200                           | —                 | —   | —   | 43  |
| 250                           | —                 | —   | —   | 38  |
| 300                           | —                 | —   | —   | 34  |
| Correction<br>+mt for fitting | 1.2               | 1.1 | 0.6 | 0.5 |

# Natural Gas

Pressure Drop 0.75 (Meter Pressure 2.75kPa)

| Main Run (m)                  | Nominal Size (mm) |     |      |      |
|-------------------------------|-------------------|-----|------|------|
|                               | 16                | 20  | 25   | 32   |
| 2                             | 313               | 495 | 1176 | 2284 |
| 4                             | 208               | 340 | 789  | 1547 |
| 6                             | 166               | 264 | 622  | 1180 |
| 8                             | 143               | 221 | 532  | 1048 |
| 10                            | 122               | 197 | 467  | 893  |
| 12                            | 109               | 177 | 421  | 828  |
| 14                            | 102               | 161 | 386  | 737  |
| 16                            | 93                | 153 | 358  | 685  |
| 18                            | 89                | 140 | 334  | 657  |
| 20                            | 83                | 133 | 313  | 610  |
| 25                            | 74                | 117 | 281  | 537  |
| 30                            | 65                | 105 | 248  | 479  |
| 35                            | 60                | 95  | 224  | 440  |
| 40                            | 56                | 89  | 215  | 408  |
| 45                            | 52                | 84  | 197  | 384  |
| 50                            | 49                | 77  | 186  | 360  |
| 55                            | 46                | 75  | 175  | 337  |
| 60                            | 45                | 70  | 169  | 326  |
| 65                            | 43                | 67  | 161  | 308  |
| 70                            | 40                | 65  | 154  | 296  |
| 75                            | 38                | 61  | 147  | 284  |
| 80                            | 36                | 59  | 142  | 272  |
| 85                            | 35                | 57  | 136  | 263  |
| 90                            | —                 | 55  | 133  | 255  |
| 95                            | —                 | 55  | 128  | 246  |
| 100                           | —                 | 53  | 125  | 243  |
| 120                           | —                 | 47  | 112  | 217  |
| 140                           | —                 | 43  | 104  | 198  |
| 160                           | —                 | 40  | 95   | 184  |
| 180                           | —                 | 37  | 89   | 172  |
| 200                           | —                 | 35  | 84   | 162  |
| 250                           | —                 | 31  | 74   | 142  |
| 300                           | —                 | 27  | 67   | 128  |
| Correction<br>+mt for fitting | 1.7               | 1.5 | 0.8  | 0.7  |

# Natural Gas

Pressure Drop 1.5 (Meter Pressure 2.75kPa)

| Main Run (m)                  | Nominal Size (mm) |     |      |      |
|-------------------------------|-------------------|-----|------|------|
|                               | 16                | 20  | 25   | 32   |
| 2                             | 431               | 844 | 1629 | 3181 |
| 4                             | 290               | 568 | 1096 | 2141 |
| 6                             | 230               | 451 | 870  | 1698 |
| 8                             | 195               | 382 | 738  | 1440 |
| 10                            | 172               | 337 | 649  | 1268 |
| 12                            | 155               | 303 | 585  | 1143 |
| 14                            | 142               | 278 | 536  | 1046 |
| 16                            | 131               | 257 | 496  | 969  |
| 18                            | 123               | 241 | 464  | 906  |
| 20                            | 116               | 227 | 437  | 853  |
| 25                            | 102               | 199 | 385  | 751  |
| 30                            | 92                | 180 | 347  | 677  |
| 35                            | 84                | 165 | 317  | 620  |
| 40                            | 78                | 152 | 294  | 574  |
| 45                            | 73                | 143 | 275  | 537  |
| 50                            | 69                | 134 | 259  | 505  |
| 55                            | 65                | 127 | 245  | 479  |
| 60                            | 62                | 121 | 233  | 456  |
| 65                            | 59                | 116 | 223  | 435  |
| 70                            | 57                | 111 | 214  | 417  |
| 75                            | 54                | 106 | 205  | 401  |
| 80                            | 52                | 103 | 198  | 386  |
| 85                            | 51                | 99  | 191  | 373  |
| 90                            | 49                | 96  | 185  | 361  |
| 95                            | 48                | 93  | 179  | 350  |
| 100                           | 46                | 90  | 174  | 340  |
| 120                           | 42                | 81  | 157  | 307  |
| 140                           | 38                | 75  | 144  | 281  |
| 160                           | 35                | 69  | 133  | 260  |
| 180                           | 33                | 65  | 125  | 243  |
| 200                           | 31                | 61  | 117  | 229  |
| 250                           | 27                | 53  | 103  | 202  |
| 300                           | 25                | 48  | 93   | 182  |
| Correction<br>+mt for fitting | 1.7               | 1.5 | 0.8  | 0.7  |

# Natural Gas

Pressure Drop 1.5 (Meter Pressure 5 – 10kPa)

| Main Run (m)                  | Nominal Size (mm) |     |      |      |
|-------------------------------|-------------------|-----|------|------|
|                               | 16                | 20  | 25   | 32   |
| 2                             | 476               | 757 | 1801 | 3485 |
| 4                             | 322               | 517 | 1218 | 2333 |
| 6                             | 255               | 406 | 976  | 1852 |
| 8                             | 215               | 346 | 815  | 1577 |
| 10                            | 192               | 302 | 719  | 1391 |
| 12                            | 171               | 272 | 647  | 1252 |
| 14                            | 157               | 250 | 594  | 1149 |
| 16                            | 145               | 232 | 551  | 1072 |
| 18                            | 136               | 219 | 514  | 996  |
| 20                            | 127               | 204 | 486  | 934  |
| 25                            | 113               | 179 | 429  | 824  |
| 30                            | 101               | 161 | 390  | 741  |
| 35                            | 93                | 150 | 351  | 681  |
| 40                            | 86                | 136 | 325  | 631  |
| 45                            | 80                | 129 | 306  | 585  |
| 50                            | 76                | 123 | 287  | 556  |
| 55                            | 71                | 114 | 273  | 522  |
| 60                            | 68                | 108 | 258  | 501  |
| Correction<br>+mt for fitting | 1.7               | 1.5 | 0.8  | 0.7  |



# Product List

## Pipes & Fittings



## Product List

## Pipe and Fittings

### Pipe Straight

|           |           |
|-----------|-----------|
| 16mm x 5m | APG401605 |
| 20mm x 5m | APG412005 |
| 25mm x 5m | APG422505 |
| 32mm x 5m | APG433205 |



### Pipe Coils

|            |           |
|------------|-----------|
| 16mm x 50m | APG401650 |
| 20mm x 50m | APG412050 |
| 25mm x 50m | APG422550 |
| 32mm x 25m | APG433225 |



16mm – 25mm with copper rings and 32mm with stainless steel rings. 32mm fittings must be crimped with the battery tool using the 32mm DuoPEX jaw.

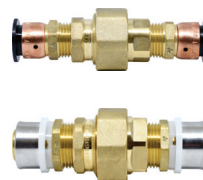
### Couplings

|             |          |
|-------------|----------|
| 16mm x 16mm | AP011616 |
| 20mm x 20mm | AP012020 |
| 25mm x 25mm | AP012525 |
| 32mm x 32mm | AP013232 |
| 20mm x 16mm | AP022016 |
| 25mm x 20mm | AP022520 |
| 25mm x 16mm | AP022516 |
| 32mm x 20mm | AP023220 |
| 32mm x 25mm | AP023225 |



### Barrel Union Couplings

|      |          |
|------|----------|
| 20mm | AP202020 |
| 25mm | AP202525 |
| 32mm | AP203232 |



# Product List

## Fittings

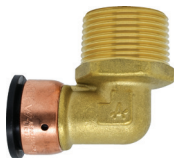
### Tees

|                    |            |
|--------------------|------------|
| 16mm x 16mm x 16mm | AP03161616 |
| 20mm x 20mm x 20mm | AP03202020 |
| 25mm x 25mm x 25mm | AP03252525 |
| 32mm x 32mm x 32mm | AP03323232 |
| 20mm x 20mm x 16mm | AP04202016 |
| 20mm x 16mm x 16mm | AP04201616 |
| 20mm x 16mm x 20mm | AP04201620 |
| 25mm x 16mm x 20mm | AP04251620 |
| 25mm x 16mm x 25mm | AP04251625 |
| 25mm x 20mm x 16mm | AP04252016 |
| 25mm x 20mm x 20mm | AP04252020 |
| 25mm x 20mm x 25mm | AP04252025 |
| 25mm x 25mm x 16mm | AP04252516 |
| 25mm x 25mm x 20mm | AP04252520 |
| 16mm x 16mm x 20mm | AP04161620 |
| 32mm x 32mm x 25mm | AP04323225 |
| 32mm x 32mm x 20mm | AP04323220 |
| 32mm x 25mm x 25mm | AP04322525 |
| 32mm x 20mm x 20mm | AP04322020 |



### Elbows

|                    |           |
|--------------------|-----------|
| 16mm x 16mm        | AP051616  |
| 20mm x 20mm        | AP052020  |
| 25mm x 25mm        | AP052525  |
| 32mm x 32mm        | AP053232  |
| 25mm x 20mm        | AP052520  |
| 20mm x 16mm        | AP052016  |
| 16mm x 1/2" Male   | AP051615  |
| 16mm x 1/2" Female | AP051615F |
| 20mm x 1/2" Male   | AP052015  |
| 20mm x 3/4" Female | AP052020F |
| 25mm x 1" Male     | AP052525M |
| 32mm x 1" Male     | AP053225M |



### Lugged Elbow (Female)

|                 |           |
|-----------------|-----------|
| 16mm x 1/2" BSP | AP071615F |
| 20mm x 3/4" BSP | AP072020F |



# Product List

## Fittings

### Lugged Elbow (Male)

|                     |             |
|---------------------|-------------|
| 16mm x 1/2" (73mm)  | AP061615S   |
| 16mm x 1/2" (88mm)  | AP061615L   |
| 16mm x 1/2" (100mm) | AP061615100 |
| 16mm x 1/2" (200mm) | AP061615200 |
| 16mm x 1/2" (230mm) | AP061615230 |
| 20mm x 1/2" (65mm)  | AP062015    |
| 20mm x 1/2" (200mm) | AP062015200 |
| 20mm x 3/4" (200mm) | AP062020200 |
| 25mm x 3/4" (75mm)  | AP06252075M |
| 20mm x 1/2" (95m)   | AP06201595  |



### Compression Adaptors

|                    |          |
|--------------------|----------|
| 16mm x 15mm Copper | AP131615 |
| 20mm x 20mm Copper | AP132020 |



### B-Press Gas Adaptors

|                        |           |
|------------------------|-----------|
| 16mm x 15mm Gas Copper | APG281615 |
| 20mm x 20mm Gas Copper | APG282020 |
| 25mm x 25mm Gas Copper | APG282525 |
| 20mm x 15mm Gas Copper | APG282015 |
| 25mm x 20mm Gas Copper | APG282520 |
| 32mm x 25mm Gas Copper | APG283225 |



### Threaded BSP Adaptors (Male)

|               |          |
|---------------|----------|
| 16mm x 1/2"   | AP091615 |
| 20mm x 3/4"   | AP092020 |
| 25mm x 1"     | AP092525 |
| 32mm x 1 1/4" | AP093232 |
| 20mm x 1/2"   | AP092015 |
| 25mm x 3/4"   | AP092520 |
| 20mm x 1"     | AP092025 |
| 32mm x 1"     | AP093225 |



Threaded BSP Adaptors (Female)

|                     |            |
|---------------------|------------|
| 16mm x 1/2"         | API01615   |
| 20mm x 3/4"         | API02020   |
| 25mm x 1"           | API02525   |
| 32mm x 1 1/4"       | API03232   |
| 20mm x 1/2"         | API02015   |
| 25mm x 3/4"         | API02520   |
| 32mm x 1"           | API03225   |
| 16mm x 1/2"         | API01615WB |
| Wing Back Connector |            |
| 20mm x 3/4"         | API02020WB |
| Wing Back Connector |            |

Loose Nut and Tail (Female)

|             |          |
|-------------|----------|
| 16mm x 1/2" | API91615 |
| 20mm x 1/2" | API91620 |
| 20mm x 3/4" | API92020 |
| 25mm x 1"   | API92525 |

End Caps

|      |        |
|------|--------|
| 16mm | API416 |
| 20mm | API420 |
| 25mm | API425 |
| 32mm | API432 |

Tees for Brazing Copper Pipe

|                    |             |
|--------------------|-------------|
| 16mm x 16mm x 1/2" | AP04161608F |
| 20mm x 20mm x 3/4" | AP04202008F |

Brazing Tails

|                          |           |
|--------------------------|-----------|
| 16mm Male                | AP0816M   |
| 20mm Male                | AP0820M   |
| 25mm Male                | AP0825M   |
| 32mm Male                | AP0832M   |
| 25mm x 20mm Male         | AP082520M |
| 16mm Female              | AP0816F   |
| 20mm Female              | AP0820F   |
| 25mm Female              | AP0825F   |
| 32mm Female Brazing Tail | AP0832F   |
| 20mm x 15mm Female       | AP082015F |



Threaded Tees (Female)

|                      |              |
|----------------------|--------------|
| 20mm x 20mm x Rp1/2" | APF04202015F |
| 25mm x 25mm x Rp1/2" | APF04252515F |
| 32mm x 32mm x Rp1/2" | APF04323215F |

Threaded Elbows (Female)

|               |            |
|---------------|------------|
| 20mm x Rp1/2" | APF072015F |
| 25mm x Rp1/2" | APF072515F |
| 32mm x Rp1/2" | APF073215F |

DuoPEX Gas Adaptors (Auspex Conversion Couplings)

|                 |           |         |
|-----------------|-----------|---------|
| 16mm x 16mm GPM | APGCC1616 | 1435881 |
| 20mm x 20mm GPM | APGCC2020 | 1435882 |
| 25mm x 26mm GPM | APGCC2526 | 1435883 |
| 32mm x 32mm GPM | APGCC3232 | 1435884 |
| 32mm x 40mm GPM | APGCC3240 | 1435879 |
| 32mm x 50mm GPM | APGCC3250 | 1435880 |



**Crimping Tools**

|      |          |
|------|----------|
| 16mm | AP2116RN |
| 20mm | AP2120RN |
| 25mm | AP2125RN |



**Crimp Ring Repair Tool**

|                    |            |
|--------------------|------------|
| 20mm x 25mm x 16mm | AP22252016 |
|--------------------|------------|



**Gauges**

|             |          |
|-------------|----------|
| 20mm x 16mm | API72016 |
| 25mm        | API725   |



**Calibrator**

|             |           |
|-------------|-----------|
| 16mm - 32mm | AP21X1632 |
|-------------|-----------|



**RWC Silicone Burial Wrap**

|                              |       |
|------------------------------|-------|
| 50mm x 3m<br>(Self-adhesive) | VC870 |
|------------------------------|-------|







## Customer Service

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Email [salesauspex@rmc.com.au](mailto:salesauspex@rmc.com.au)

[auspex.com.au](http://auspex.com.au)

For operating parameters outside those stated in the manual, please contact Customer Service.

Contents of this brochure are subject to change, please visit our website for the most up-to-date product information.

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