
LEAP

GASTITE

GAS PIPING SYSTEM



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HIGH INTEGRITY, HIGH PERFORMANCE GAS PIPING SYSTEM

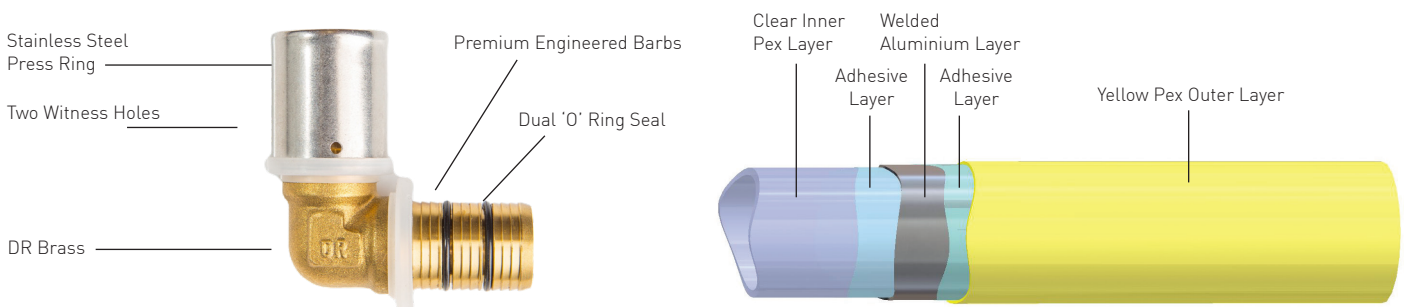
GASTITE from LEAP is a composite piping system designed to offer installers and end users the benefits of both metal and plastic. GASTITE pipe is a five layer system with an inner layer of cross-linked polyethylene (PE-X), then an adhesive layer, a welded aluminium layer, another adhesive layer and finished outer layer of cross linked polyethylene (PE-X). GASTITE fittings are manufactured from DR brass. The stainless steel press ring has two witness holes and is fitted to the body of the fitting using a plastic retainer. Sealing against the escape of gas are two o-rings designed specifically for use with gas. All pipe and fittings are manufactured using the latest extrusion, moulding and machining techniques to ensure a perfect connection every time, providing you with a system that is superior than most conventional pipe systems with a design life in excess of 50 years.

GASTITE FEATURES

| | |
|--------------------------|--|
| Corrosion free | Wide range of compact DR brass fittings |
| 50 Year design life | Pipe fittings and tools compatible with WATERTITE |
| Light, strong and robust | Quality appraised |
| Double O-ring seal | Manual and power tools for easy and quick installation |

KEY INFORMATION

- GASTITE piping systems should only be installed by a qualified and licensed gasfitter.
- GASTITE should always be installed in accordance with the New Zealand/Australian Building Code and Gas Installation Code (AS/NZS 5601) and any local gas authority requirements.
- GASTITE should NOT be used when exposed to petroleum solvents.
- GASTITE piping must be shielded or painted to protect from UV light.
- GASTITE is manufactured and certified to AS4176.
- GASTITE pipes must be bent using appropriate bending tools.
- GASTITE pipe must be reamed and bevelled using appropriate reaming tools.
- GASTITE pipe and fittings must always be installed using a GASTITE tool.



GASTITE pipe and fittings, installed by a licensed gasfitter in accordance with the current published installation guidelines, are warranted against material or manufacturing defects for a period of 25 years.

GASTITE is manufactured to comply with AS4176 and is approved for use in New Zealand subject to the installation requirements outlined in the New Zealand Building Code and any local gas authority requirements.



FOR MORE INFORMATION ABOUT GASTITE CALL

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GASTITE ASSEMBLY

PIPE CONNECTION



Use only purpose designed pipe cutters. Measure and cut the pipe. Ensure pipe end is square and free from burrs. An uneven or jagged cut may result in an improper connection.



Cut pipe must be reamed and bevelled using an appropriate reamer to ensure a round and smooth pouring angle on pipe end.



Insert the fitting fully into the pipe making sure the pipe can be seen through all witness holes in the press ring. NOTE – If an incorrect joint is made, the defective joint must be removed and replaced with a new fitting.



With a manual tool, close the handle bars fully until the pressing tongs are completely closed. Partial closing of the handle bars may result in an incomplete joint. Position the tool so the press ring is completely covered by the tool jaws. Keep the tool at a 90° angle to the fitting.



With a battery operated tool, hold down the inching switch until the pressing tongs are completely closed indicated by an acoustic signal.

PIPE BENDING

GASTITE pipe can be bent easily – care should be taken not to kink or damage the pipe. Pipe must always be bent prior to crimping the fitting. It is recommended that the minimum hand-bending radius be 5 times the outside diameter of the pipe for 16mm and 20mm pipe, and 8 times the outside diameter for 25mm pipe. The recommendation for minimum spring bending radius is 3 times the outside diameter of the pipe for 16mm and 20mm pipe and 4 times the outside diameter of the pipe for 25mm and 32mm pipe.

MINIMUM SPRING BENDING RADIUS

| PIPE | RADIUS |
|------|---------------|
| 16mm | 48mm Minimum |
| 20mm | 60mm Minimum |
| 25mm | 100mm Minimum |
| 32mm | 128mm Minimum |

MINIMUM HAND BENDING RADIUS

| PIPE | RADIUS |
|------|---------------|
| 16mm | 80mm Minimum |
| 20mm | 100mm Minimum |
| 25mm | 200mm Minimum |

IMPORTANT NOTE: If pipe radius required is less than the above limits, use an elbow fitting. If for any reason the pipe is kinked or damaged, the faulty section should be replaced. Never apply bending forces to a crimped fitting.

FUTURE EXTENSION

System should be designed to allow for future extensions – refer AS/NZS 5601. Options include using a Male Threaded Tee capped appropriately.

CLIPPING PIPE

All GASTITE pipe should be retained in position by clips at intervals complying with AS5601 Clause.

TESTING

All installations should be tested as per the requirements of AS/NZS 5601. All joints and fittings should be inspected for leaks.

GASTITE

GASTITE PRESS SLEEVE (WTPS) FITTING SELECTOR



Straight Connector

16mm x 16mm
20mm x 20mm
25mm x 25mm
32mm x 32mm

WTPS SC1616
WTPS SC2020
WTPS SC2525
WTPS SC3232



Female Bend Adaptor

15mm x 1/2"
20mm x 3/4"
25mm x 1"
32mm x 1"

WTPS FB16.15
WTPS FB20.20
WTPS FB25.25
WTPS FB32.25



Straight Reducer

20mm x 16mm
25mm x 16mm
25mm x 20mm
32mm x 16mm
32mm x 20mm
32mm x 25mm

WTPS SR2016
WTPS SR2516
WTPS SR2520
WTPS SR3216
WTPS SR3220
WTPS SR3225



Male Bend Adaptor

16mm x 1/2"
20mm x 1/2"
20mm x 3/4"
25mm x 3/4"
32mm x 1"

WTPS MB16.15
WTPS MB20.15
WTPS MB20.20
WTPS MB25.20
WTPS MB32.25



Male Adaptor

16mm x 1/2"
20mm x 1/2"
20mm x 3/4"

WTPS MA16.15
WTPS MA20.15
WTPS MA20.20

Coming Soon

25mm x 1/2"
25mm x 3/4"
25mm x 1"
32mm x 3/4"
32mm x 1"

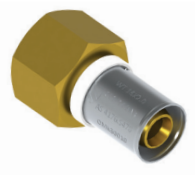
WTPS MA25.15
WTPS MA25.20
WTPS MA25.25
WTPS MA32.20
WTPS MA32.25



Female Wingback Elbow

16mm x 1/2"
20mm x 1/2"
20mm x 3/4"
25mm x 1/2"
25mm x 3/4"
32mm x 1/2"

WTPS FWE16.15
WTPS FWE20.15
WTPS FWE20.20
WTPS FWE25.15
WTPS FWE25.20
WTPS FWE32.15



Female Adaptor

16mm x 1/2"
20mm x 1/2"
20mm x 3/4"
25mm x 1/2"
25mm x 3/4"
32mm x 1/2"
32mm x 3/4"
32mm x 1"

WTPS FA16.15
WTPS FA20.15
WTPS FA20.20
WTPS FA25.15
WTPS FA25.20
WTPS FA32.15
WTPS FA32.20
WTPS FA32.25



Female Threaded Tee

32mm x 32mm x 1"

WTPS FTT32.25



Equal Bend

16mm x 16mm
20mm x 20mm
25mm x 25mm
32mm x 32mm

WTPS EB1616
WTPS EB2020
WTPS EB2525
WTPS EB3232



Male Threaded Tee

16mm x 16mm x 1/2"
20mm x 20mm x 1/2"
25mm x 25mm x 3/4"
32mm x 32mm x 1/2"
32mm x 32mm x 3/4"

WTPS MTT16.15
WTPS MTT20.15
WTPS MTT25.20
WTPS MTT32.15
WTPS MTT32.20

GASTITE

GASTTITE PRESS SLEEVE (WTPS) FITTING SELECTOR



Equal Tee

| | |
|--------------------|---------------|
| 16mm x 16mm x 16mm | WTPS ET161616 |
| 20mm x 20mm x 20mm | WTPS ET202020 |
| 25mm x 25mm x 25mm | WTPS ET252525 |
| 32mm x 32mm x 32mm | WTPS ET323232 |



Bare Brazing Tail - Components Supplied

| | |
|-------------------|---------------|
| 16mm x 10mm Cu NZ | WTPS BBT16.10 |
| 16mm x 3/8" NZ | WTPS BBT16.12 |
| 20mm x 1/2" NZ | WTPS BBT20.15 |
| 25mm x 3/4" NZ | WTPS BBT25.20 |
| 32mm x 1" NZ | WTPS BBT32.25 |
| 32mm x 1 1/4" NZ | WTPS BBT32.32 |



Branch Tee

| | |
|---------------------------|---------------|
| 16mm x 16mm x 20mm | WTPS RT161620 |
|---------------------------|---------------|



Female Swivel Ball Valve (Yellow)

| | |
|--------------------|-----------------|
| 20mm x 3/4" | WTPS SBV20.20YE |
| Coming Soon | |
| 25mm x 1/2" | WTPS SBV25.15YE |
| Coming Soon | |
| 25mm x 3/4" | WTPS SBV25.20YE |



Branch Reducing Tee

| | |
|---------------------------|---------------|
| 20mm x 20mm x 16mm | WTPS RT202016 |
| 25mm x 25mm x 16mm | WTPS RT252516 |
| 25mm x 25mm x 20mm | WTPS RT252520 |
| 32mm x 32mm x 16mm | WTPS RT323216 |
| 32mm x 32mm x 20mm | WTPS RT323220 |
| 32mm x 32mm x 25mm | WTPS RT323225 |



Blanking Plug

| | |
|------|-----------|
| 16mm | WTPS BP16 |
| 20mm | WTPS BP20 |
| 25mm | WTPS BP25 |
| 32mm | WTPS BP32 |



End Reducing Tee

| | |
|---------------------------|---------------|
| 20mm x 16mm x 20mm | WTPS RT201620 |
| 25mm x 20mm x 25mm | WTPS RT252025 |
| 32mm x 16mm x 32mm | WTPS RT321632 |
| 32mm x 25mm x 32mm | WTPS RT322532 |



Hose Plate

| | |
|-------------|--------------|
| 16mm x 1/2" | WTPS HP16.15 |
|-------------|--------------|



Branch/End Reducing Tee

| | |
|---------------------------|---------------|
| 20mm x 16mm x 16mm | WTPS RT201616 |
| 25mm x 20mm x 20mm | WTPS RT252020 |
| 32mm x 25mm x 25mm | WTPS RT322525 |



Yellow Pipe Clips

| | |
|------|-----------|
| 16mm | PX65.16-Y |
| 20mm | PX65.20-Y |
| 25mm | PX65.25-Y |
| 32mm | PX65.32-Y |

Note: *bold* = branch size

GASTITE PIPE

PIPE SELECTOR



PEX-AL-PEX, LENGTH (YELLOW)

| | |
|-----------------------|----------|
| 16mm - 5m Length x 10 | PLG16.05 |
| 20mm - 5m Length x 10 | PLG20.05 |
| 25mm - 5m Length x 10 | PLG25.05 |
| 32mm - 5m Length x 10 | PLG32.05 |

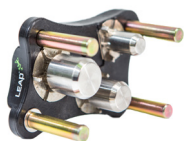


PEX-AL-PEX, COIL (YELLOW)

| | |
|-----------------|----------|
| 16mm - 50m Coil | PCG16.50 |
| 20mm - 25m Coil | PCG20.25 |
| 25mm - 25m Coil | PCG25.25 |
| 25mm - 50m Coil | PCG25.50 |
| 32mm - 25m Coil | PCG32.25 |
| 32mm - 50m Coil | PCG32.50 |

TOOLS

TOOL SELECTOR



Metal Pipe Reaming Tool

16mm, 20mm, 25mm MPRT16.20.25



Manual Press Tool

| | |
|-------------|----------------|
| 16mm only | MPT16 |
| 16mm - 32mm | MPT16.20.25.32 |
| 20mm only | MPT20 |
| 25mm only | MPT25 |
| 32mm only | MPT32 |



Pipe Bending Tool

16 - 32mm PBT16.32



Pipe Cutter

| | |
|-------------|----------|
| 16mm - 32mm | PCT16.32 |
| 16mm - 42mm | PCT16.42 |
| 16mm - 63mm | PCT16.63 |

PIPE SIZING TABLE

NATURAL GAS – PRESSURE DROP OF 0.75KPA (METER PRESSURE 1.1KPA)

NORMAL GAS FLOW THROUGH PE-X/AL/PE-X COMPOSITE PIPE CRIMPED FITTINGS (MJ/H)

| Norm Size (MM) | 2M | 4M | 6M | 8M | 10M | 12M | 14M | 16M | 18M | Corrections (+) metres per fitting |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------------|
| 16 | 84 | 57 | 45 | 38 | 37 | 36 | 34 | 30 | 27 | 1.3 |
| 20 | 158 | 106 | 84 | 72 | 63 | 57 | 52 | 48 | 45 | 1.2 |
| 25 | 314 | 211 | 167 | 142 | 125 | 113 | 103 | 96 | 89 | 0.5 |
| 32 | 602 | 405 | 322 | 273 | 240 | 216 | 198 | 184 | 172 | 0.6 |

| Norm Size (MM) | 20M | 25M | 30M | 35M | 40M | 45M | 50M | 55M | 60M | Corrections (+) metres per fitting |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------------|
| 16 | 24 | 19 | 16 | 14 | 12 | 11 | 10 | 9 | 8 | 1.3 |
| 20 | 43 | 41 | 40 | 35 | 30 | 27 | 24 | 22 | 20 | 1.2 |
| 25 | 84 | 79 | 75 | 71 | 68 | 64 | 62 | 60 | 58 | 0.5 |
| 32 | 162 | 142 | 128 | 117 | 109 | 102 | 98 | 95 | 89 | 0.6 |

NATURAL GAS – PRESSURE DROP OF 0.75KPA (METER PRESSURE 2.75-5.0KPA)

NORMAL GAS FLOW THROUGH PE-X/AL/PE-X COMPOSITE PIPE CRIMPED FITTINGS (MJ/H)

| Norm Size (MM) | 2M | 4M | 6M | 8M | 10M | 12M | 14M | 16M | 18M | Corrections (+) metres per fitting |
|----------------|------|------|------|------|-----|-----|-----|-----|-----|---------------------------------------|
| 16 | 315 | 214 | 168 | 142 | 125 | 113 | 103 | 96 | 90 | 1.7 |
| 20 | 589 | 396 | 314 | 267 | 235 | 212 | 194 | 179 | 168 | 1.4 |
| 25 | 1169 | 787 | 624 | 530 | 466 | 420 | 385 | 356 | 333 | 0.8 |
| 32 | 2246 | 1511 | 1199 | 1017 | 895 | 807 | 739 | 684 | 640 | 0.6 |

| Norm Size (MM) | 20M | 25M | 30M | 35M | 40M | 45M | 50M | 55M | 60M | Corrections (+) metres per fitting |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------------|
| 16 | 84 | 74 | 67 | 61 | 57 | 53 | 50 | 47 | 45 | 1.7 |
| 20 | 158 | 139 | 125 | 115 | 106 | 99 | 94 | 88 | 84 | 1.4 |
| 25 | 314 | 276 | 249 | 228 | 211 | 197 | 186 | 181 | 178 | 0.8 |
| 32 | 602 | 530 | 478 | 438 | 405 | 379 | 357 | 340 | 335 | 0.6 |

LP GAS – PRESSURE DROP OF 10.0KPA (METER PRESSURE 40.0-70.0KPA)

LP GAS FLOW THROUGH PE-X/AL/PE-X COMPOSITE PIPE CRIMPED FITTINGS (MJ/H)

| Norm Size (MM) | 2M | 4M | 6M | 8M | 10M | 12M | 14M | 16M | 18M | Corrections (+) metres per fitting |
|----------------|-------|-------|-------|-------|-------|------|------|------|------|---------------------------------------|
| 16 | 2805 | 1968 | 1597 | 1377 | 1226 | 1115 | 1029 | 959 | 903 | 1.7 |
| 20 | 6188 | 4347 | 3531 | 3045 | 2714 | 2470 | 2280 | 2127 | 2001 | 1.4 |
| 25 | 11467 | 8060 | 6552 | 5654 | 5042 | 4590 | 4239 | 3955 | 3721 | 0.8 |
| 32 | 24003 | 16887 | 13737 | 11860 | 10579 | 9635 | 8901 | 8309 | 7820 | 0.6 |

| Norm Size (MM) | 20M | 25M | 30M | 35M | 40M | 45M | 50M | 55M | 60M | Corrections (+) metres per fitting |
|----------------|------|------|------|------|------|------|------|------|------|---------------------------------------|
| 16 | 854 | 759 | 689 | 635 | 592 | 556 | 525 | 499 | 477 | 1.7 |
| 20 | 1894 | 1685 | 1533 | 1413 | 1316 | 1237 | 1171 | 1112 | 1063 | 1.4 |
| 25 | 3523 | 3137 | 2853 | 2632 | 2454 | 2306 | 2182 | 2075 | 1983 | 0.8 |
| 32 | 7406 | 6598 | 6003 | 5541 | 5168 | 4860 | 4599 | 4375 | 4181 | 0.6 |

LP GAS – PRESSURE DROP OF 0.250KPA (SUPPLY PRESSURE 2.75KPA-5.0KPA)

LP GAS FLOW THROUGH PE-X/AL/PE-X COMPOSITE PIPE CRIMPED FITTINGS (MJ/H)

| Norm Size (MM) | 2M | 4M | 6M | 8M | 10M | 12M | 14M | 16M | 18M | Corrections (+) metres per fitting |
|----------------|------|------|------|------|------|------|------|------|------|---------------------------------------|
| 16 | 448 | 303 | 241 | 204 | 180 | 162 | 148 | 137 | 128 | 1.7 |
| 20 | 847 | 574 | 457 | 388 | 342 | 308 | 282 | 262 | 245 | 1.4 |
| 25 | 1721 | 1169 | 931 | 792 | 699 | 631 | 578 | 536 | 501 | 0.8 |
| 32 | 3463 | 2358 | 1881 | 1602 | 1414 | 1276 | 1171 | 1086 | 1016 | 0.6 |

| Norm Size (MM) | 20M | 25M | 30M | 35M | 40M | 45M | 50M | 55M | 60M | Corrections (+) metres per fitting |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------------|
| 16 | 116 | 106 | 95 | 88 | 81 | 76 | 71 | 67 | 64 | 1.7 |
| 20 | 229 | 203 | 182 | 167 | 155 | 144 | 136 | 129 | 123 | 1.4 |
| 25 | 473 | 416 | 375 | 343 | 318 | 298 | 280 | 265 | 252 | 0.8 |
| 32 | 963 | 844 | 762 | 698 | 647 | 606 | 570 | 540 | 514 | 0.6 |