

# U-PVC K62<sup>®</sup>

PRESSURE FITTINGS



*safety for your pipeworks*

# MULTIPLE APPLICATIONS

The high performances of U-PVC K62 pressure fittings enable many applications in many fields.



**PROCESS**

← • Due to their high strength, U-PVC K62 fittings are suitable for industrial water networks. →



**TREATMENT STATION**

• Due to their high chemical inertia, U-PVC K62 fittings are used for seawater networks. →



**FRESH WATER AND SEAWATER NETWORKS**

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**SWIMMING POOL**

↑ • Due to their inherent resistance to corrosion and chlorination, U-PVC K62 fittings are suitable for swimming pool water networks.

• Due to their superior quality, U-PVC K62 fittings are certified by several major shipbuilding control institutes (Veritas Marine, Germanischer Lloyd, RINA, etc...).



**SHIPBUILDING**



**BUILDING**

↑ • U-PVC K62 fittings comply with the requirements of the French NF-P quality label. They have been certified in France and other countries for drinking water networks.

## HIGH K-value

The resin used by GIRPI has a high K-value so that it is compatible with pipes meeting the highest quality standards. This high index is particularly useful to optimise the network's resistance to brutal pressure changes.

## RELIABILITY

Fittings are submitted to both static and dynamic pressure tests (i.e. 20/60 bar alternating pressure tests), with 3600 cycles/hour for diameters 12 to 90 and 1500 cycles/hour for diameter 110 to 160 according to NF T 54-094 and XP T 54-034 standards.

## SAFETY

U-PVC K62 pressure fittings are tested at 4.2 times the nominal pressure (PN 25 tested at 105 bars/1 hour ; PN 16 tested at 67 bars/1 hour).

They are designed for a minimum life of 50 years with a safety factor of 2.5 after 50 years.

The choice of high PN values helps to resist the many loads applied in a network.

## CERTIFICATIONS



















U-PVC K62 pressure fittings benefit from a number of approvals and quality labels in Europe.

- Certificate of Bureau Veritas Marine ;
- Certified NF-P (dimensional and mechanical characteristic) quality label ;
- Certified IIP-UNI (Italy), KIWA (Holland) quality labels ;
- Complying with quality requirements in ISO and DIN standards, etc... ;
- Certified for potable water networks by the French Ministry of Health ;
- ISO 9001 certified factory.

# PRESSURE :

Unless otherwise mentionned, all U-PVC fittings are classified PN25 from 12 to 20, PN 16 from 25 to 225, PN 10 from 250 to 315 (using the NF T 54-029 test method at a temperature of 20°C).

## U-PVC K62 range

| Designation  |   | Reference | Diameter (mm) |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
|--|---|-----------|---------------|------|----------|----------------|----------------------|----------------------|----------------------|----------------------------|----------------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|
|  |   |           | 12            | 16   | 20       | 25             | 32                   | 40                   | 50                   | 63                         | 75                               | 90  | 110 | 125 | 140 | 160 | 200 | 225 | 250 | 315 |
| ELBOWS 90°   |    | B4M       |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| ELBOWS 45°   |    | B8M       |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| THREADED ELBOWS 90°<br>with metal reinforcing ring         |    | B4G       |               | 3/8" | 1/2"     | 3/4"           | 1"                   | 1 1/4                | 1 1/2                | 2"                         |                                  |   |     |     |     |     |     |     |     |     |
| BRASS THREADED<br>ELBOW 90°                                |    | B4GL      |               | 1/2" | 1/2"     | 3/4"           |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| EQUAL TEE 90°  |    | BTE       |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| THREADED TEE 90° EQUAL<br>with metal reinforcing ring      |    | BTG       |               |      | 1/2"     | 3/4"           | 1"                   | 1 1/4                | 1 1/2                | 2"                         |                                  |   |     |     |     |     |     |     |     |     |
| THREADED TEE 90°<br>REDUCED<br>with metal reinforcing ring |  | BTGR      |               |      |          |                | 3/4"                 | 3/4"                 | 3/4"                 | 3/4"                       |                                  |   |     |     |     |     |     |     |     |     |
| EQUAL TEES 45°   |  | BYT       |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| CROSSES  |  | BXT       |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| 90° BENDS  |  | B4C       |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| 90° BENDS  |  | 4F        |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| 45° BENDS  |  | 8F        |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| 22°30 BENDS  |  | 16F       |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| 11°15 BENDS  |  | 32F       |               |      |          |                |                      |                      |                      |                            |                                  |   |     |     |     |     |     |     |     |     |
| PLUGS  |  | BBF       |               | 3/8" | 1/2"     | 3/4"           | 1"                   | 1 1/4                | 1 1/2                | 2"                         | 2 1/2                            | 3"  |     |     |     |     |     |     |     |     |
| THREADED CAPS  |  | BBG       |               | 3/8" | 1/2"     | 3/4"           | 1"                   | 1 1/4                | 1 1/2                | 2"                         |                                  | 3"  |     |     |     |     |     |     |     |     |
| CAPS   |  | BBO       |               |      |          |                |                      |                      |                      | F75<br>M90                 |                                  |   | *   |     |     |     |     |     |     |     |
| REDUCED TEES 90°   |  | BTR       |               |      | 12<br>16 | 12<br>16<br>20 | 12<br>16<br>20<br>25 | 16<br>20<br>25<br>32 | 20<br>25<br>32<br>40 | 20<br>25<br>32<br>40<br>50 | 20<br>25<br>32<br>40<br>50<br>63 | 25<br>32<br>40<br>50<br>63<br>75<br>90<br>110 |     |     |     |     |     |     |     |     |




















f : Male thread



G : Female thread

\* male













# U-PVC K62 RANGE

| Designation                                     |   | Reference       | Diameter (mm) |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
|---|---|-----------------|---------------|--------------|--------------|--------------|--------|--------------|--------|--------------|--------|------|-----|-----|-----|-----|-------|-----|-------|-----|
|   |   |                 | 12            | 16           | 20           | 25           | 32     | 40           | 50     | 63           | 75     | 90   | 110 | 125 | 140 | 160 | 200   | 225 | 250   | 315 |
| REDUCING BUSHES<br>LONG PATTERN                 |    | BRD             |               |              | 12           | 12           | 12     | 16           | 20     | 20           | 20     | 25   | 50  | 63  | 75  | 75  |       |     |       |     |
|   |   |                 |               |              | 16           | 16           | 20     | 25           | 25     | 25           | 32     | 63   | 75  | 90  | 90  |     |       |     |       |     |
|   |   |                 |               |              |              | 20           | 25     | 32           | 32     | 32           | 40     | 75   | 90  | 110 | 110 | 125 |       |     |       |     |
|   |   |                 |               |              |              |              |        |              | 40     | 40           | 50     |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              | 50     | 63           | 75     | 90   | 110 | 125 | 140 | 160 | 200   | 200 | 250   | 250 |
| REDUCING BUSHES<br>SHORT PATTERN                |    | BRS             |               | 12           | 16           | 20           | 25     | 32           | 40     | 50           | 63     | 75   | 90  | 110 | 125 | 140 | 160   | 200 | 200   | 250 |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| REDUCING BUSHES<br>SHORT PATTERN                |    | BRDC            |               |              |              |              |        |              | DN20   | DN25         | DN32   |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              | DN20   | DN25         | DN32   | DN40         |        | DN75 |     |     |     |     | DN140 |     | DN160 |     |
| COUPLINGS                                       |    | BMA             |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| ADAPTORS<br>with metal reinforcing ring         |    | BMM             |               | 3/8"         | 1/2"         | 3/4"         | 1"     | 1 1/4"       | 1 1/2" | 2"           | 2 1/2" | 3"   | 4"  |     |     |     |       |     |       |     |
| THREADED ADAPTORS<br>for high torque            |    | BMML            |               | 3/8"         | 1/2"         | 3/4"         | 1"     | 1 1/4"       | 1 1/2" |              |        |      |     |     |     |     |       |     |       |     |
| ADAPTORS<br>Female threaded                     |    | BMG             |               |              | 1/2"         | 3/4"         | 1"     | 1 1/4"       | 1 1/2" | 2"           |        |      |     |     |     |     |       |     |       |     |
| 3 PIECE UNIONS                                  |  | B3F/P<br>B3F/PB |               | 1/2"         | 1/2"         | 3/4"         | 1"     | 1 1/4"       | 1 1/2" | 2"           | 2 1/2" |      |     |     |     |     |       |     |       |     |
| REDUCING ADAPTOR<br>NIPPLES                     |  | BED             | 1/4"          | 3/8"         | 1/2"         | 3/4"         | 1"     | 1 1/4"       | 1 1/2" | 2"           |        |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| 3 PIECE UNIONS                                  |  | B3P             |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| 3 PIECE UNIONS                                  |  | B3P 1 G         |               |              | 1/2"         | 3/4"         | 1"     | 1 1/4"       | 1 1/2" | 2"           |        |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| U-PVC TANK CONNECTORS                           |  | A9FH            |               | 3/8"<br>3/4" | 3/4"<br>1"   | 1"<br>1 1/4" |        | 1 1/2"<br>2" |        | 2"<br>2 3/4" |        |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| ADAPTOR NIPPLES                                 |  | BEA             |               | 3/8"         | 1/2"         | 3/4"         | 1"     | 1 1/4"       | 1 1/2" | 2"           | 2 1/2" | 3"   | 4"  |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| HEXAGON NIPPLES<br>DOUBLE THREADED              |  | BEB             | 3/8"          | 1/2"         | 3/4"         | 1"           | 1 1/4" | 1 1/2"       | 2"     |              |        |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| BRASS MALE THREADED<br>ADAPTORS                 |  | BEAL<br>BEBL    |               | 3/8"<br>1/2" | 1/2"<br>3/4" | 3/4"<br>1"   | 1"     | 1 1/4"       | 1 1/2" | 2"           |        |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| REDUCED ADAPTORS<br>with metal reinforcing ring |  | BEG             | 3/8"          | 1/2"         | 3/4"         | 1"           | 1 1/4" | 1 1/2"       | 2"     |              |        |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
| HOSE TAILS                                      |  | BDC             |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |
|   |   |                 |               |              |              |              |        |              |        |              |        |      |     |     |     |     |       |     |       |     |












F: Female

M : Male

# U-PVC K62 RANGE

| Designation   | Reference | Diameter (mm) |      |      |      |        |              |              |                      |                      |      |                |                |       |       |       |       |       |     |
|---|-----------|---------------|------|------|------|--------|--------------|--------------|----------------------|----------------------|------|----------------|----------------|-------|-------|-------|-------|-------|-----|
|   |           | 12            | 16   | 20   | 25   | 32     | 40           | 50           | 63                   | 75                   | 90   | 110            | 125            | 140   | 160   | 200   | 225   | 250   | 315 |
| HOSE TAILS                                   | BDF       | 1/4"          | 3/8" | 1/2" | 3/4" | 1"     | 1 1/4"       | 1 1/2"       | 2"                   |                      |      |                |                |       |       |       |       |       |     |
| STUB FLANGES SERRATED                        | BCS       |               |      |      |      |        |              |              |                      |                      |      |                |                |       |       |       |       |       |     |
| FLANGES<br>glass fibre reinforced polyamide  | BPA       |               |      |      |      |        |              | DN40         | DN50<br>DN60         | DN60<br>DN65         | DN90 | DN100          | DN125          | DN140 |       |       |       |       |     |
| FLANGES PN 10                                | BPL       |               |      |      |      |        |              | DN40         | DN50<br>DN60         | DN65                 | DN80 | DN100          | DN110<br>DN125 | DN125 | DN150 | DN200 | DN200 | DN250 |     |
| FLANGES<br>glass fibre reinforced polyester  | BVR       |               |      | DN15 | DN20 | DN25   | DN32<br>DN40 | DN40<br>DN50 | DN50<br>DN60<br>DN65 | DN60<br>DN65<br>DN80 | DN80 | DN100<br>DN110 | DN110<br>DN125 | DN125 | DN150 | DN200 |       |       |     |
| 3 PIECE UNIONS UPVC/BRASS                    | B3G/L     |               |      | 1/2" | 3/4" | 1"     | 1 1/4"       | 1 1/2"       | 2"                   |                      |      |                |                |       |       |       |       |       |     |
| 3 PIECE UNIONS UPVC/BRASS                    | B3F/L     |               |      | 1/2" | 3/4" | 1"     | 1 1/4"       | 1 1/2"       | 2"                   |                      |      |                |                |       |       |       |       |       |     |
| METAL PIPE & TAP CONNECTORS                  | UR        |               | 1/2" | 3/4" | 1"   | 1 1/4" | 1 1/2"       | 2"           |                      |                      |      |                |                |       |       |       |       |       |     |
| METAL PIPE & TAP CONNECTORS                 | UT        |               |      | 1/2" | 3/4" | 1"     | 1 1/4"       |              |                      |                      |      |                |                |       |       |       |       |       |     |
| METAL PIPE & TAP CONNECTORS                | UL        |               |      | 1/2" | 3/4" | 1"     | 1 1/4"       | 1 1/2"       | 2"                   |                      |      |                |                |       |       |       |       |       |     |
| METAL PIPE & TAP CONNECTORS                | FL        |               | 1/2" | 3/4" | 1"   | 1 1/4" | 1 1/2"       |              |                      |                      |      |                |                |       |       |       |       |       |     |
| ADAPTOR FOR ACCESS TO CHAMBERS             | ETA       |               |      |      |      |        |              |              |                      |                      |      |                |                |       |       |       |       |       |     |

## ACCESSORIES - VALVES - WELDING POLYMER

|  |        |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
|--|--------|-----------------------------------|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|
| THREADED INSERT                                       | HCK    | Threaded insert M6, M8 or 7 x 150 |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| BRACKETS    | A9C    |                                   |  |  |  |  |  |  |  | Drilled base Ø 8,5 |  |  |  |  |  |  |  |  |  |
| DOUBLE UNION BALL VALVES                              | VBCB   |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| DOUBLE UNION BALL VALVES                              | VBCBF  |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| STANDARD BALL VALVES                                  | VBCE   |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| BALL VALVES<br>with pneumatic actuator single action  | VAPBSE |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| BALL VALVES<br>with pneumatic actuator single action  | VAPBDE |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| BUTTERFLY VALVES                                      | VPBL   |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| BALL VALVES<br>with electric actuator 230 V 50 HZ     | VAEB   |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| NON RETURN VALVES                                     | BCAR   |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |
| NON RETURN VALVES                                     | BCBS   |                                   |  |  |  |  |  |  |  |                    |  |  |  |  |  |  |  |  |  |

**WELDING POLYMER** Any fluid or any water containing chemicals in suspension or in solution other than chemical agents certified by standards and regulations for drinking water (or in different quantities) are considered to be chemicals. Therefore, their compatibility with U-PVC K62 pressure fittings should be checked. If there is any doubt, contact Girpi's technical service.

## MATERIALS TECHNICAL SPECIFICATION

Pipes and fittings must have received the NF label.

### • Quality

Pipes and fittings are made of non-plastified polyvinyl chloride U-PVC K62. Pipes must have a uniform thickness and diameter, have a smooth surface condition and must have passed pressure tests defined in the standards. They shall be made by an ISO 9001 certified company.

### • Standards and approvals

U-PVC pipes and fittings shall comply with the requirements of various standards including NF T 54-002, 54-003 and 54-016.

Pipes shall comply with standards NF T 54-003, 54-016, 54-028, 54-029, 54-039 and 54-040.

### • Identification

Dark grey pipes and fittings (color RAL 7011).

### • Service conditions

Cold water (20°) :

|              |                      |         |
|--------------|----------------------|---------|
| - Fittings : | diameter 12 to 20    | → PN 25 |
|              | diameter 25 to 225   | → PN 16 |
|              | diameter 250 and 315 | → PN 10 |

## ASSEMBLY OF U-PVC K62 PIPES AND FITTINGS

Refer to DTU n° 60.31 and 60.33.

Pipes and fittings are assembled exclusively by cold chemical welding :

- Cutting using a wheel tube cutter for plastic.
- Deburring, chamfering using a chamfering tool.
- It is essential that pipes and fittings should be cleaned and free from all traces of humidity. Otherwise, clean the areas to be assembled using a clean cloth or D 171P primer.
- Assembly by weld polymer applied with an appropriate brush.

## EXPANSION - CONTRACTION

Expansion, contraction : "alpha" coefficient : 0,070/mm/m/°C.

Linear variations between fixed points will be absorbed by :

- Direction changes ;
- Expansion loops formed from pipes and fittings ;
- Expansion compensation accessories.

### • Test

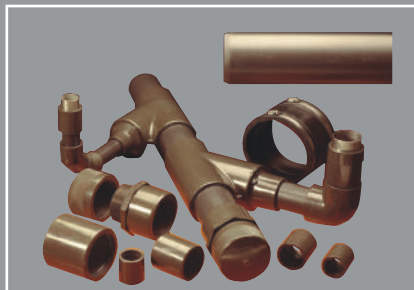
Complying with DTU n° 60.1 and the manufacturer's technical documentation.

# SAFETY FOR YOUR PIPEWORKS

## DRAINAGE

### • HTA®-E System

For draining 100°C waste water from centralized kitchens



### • PVC drainage fittings

For waste water drainage. Diameters from 32 to 315.



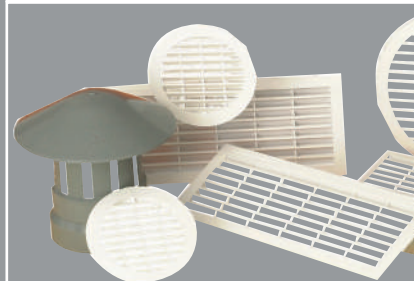
### • PVC rainwater system

A wide range of raingutter systems, featuring a broad choice of shapes, colours and installation systems.



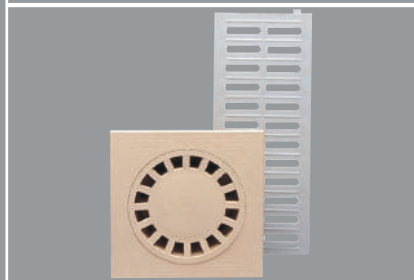
### • Ventilation

Items designed to meet most of your requirements.



### • Floor drainage system

For collecting rainwater.



## PRESSURE

### • HTA® CPVC system

For conveying pressurized hot fluids up to 90°C.

PN 25 / Diameters from 16 to 63.

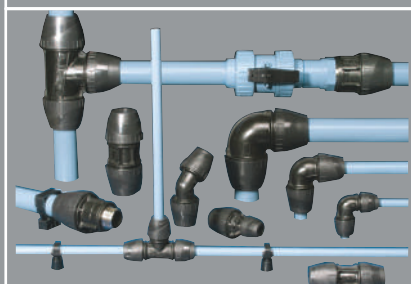
PN 16 / Diameters from 32 to 160.



### • QUICKAIR® / GIRAIR® system

For conveying compressed air with both cold welding and mechanical junction.

PN 12,5 / Diameters from 16 to 110.



### • KRYOCLIM® system in HPF

Made from H.P.F. resin.

For conveying chilled fluids and air conditioning.

From -30°C to +40°C.

Diameters from 20 to 160



### • U-PVC K62 Pressure fittings

For conveying pressurized water.

PN 25 / Diameters from 12 to 20.

PN 16 / Diameters from 25 to 225.

PN 10 / Diameters from 250 to 315.



### • Valves

A line of ball valves, butterfly valves, non return valves and actuated ball valves.

Diameters from 16 to 200



*safety for your pipeworks*

Rue Robert Ancel - BP 36 - 76700 Harfleur - France  
Tél. : 33 (0)2 32 79 60 00 - Fax : 33 (0)2 32 79 60 27  
girpi.fr - girpi.com - e-mail : contact@girpi.fr