

**NAYLOR**  
BAND-SEAL

DUREY CASTINGS LTD  
HAWLEY ROAD  
DARTFORD  
KENT DA1 1PU

# Band-Seal Couplings



## Flexible Couplings

for the repair of  
and connections into  
existing pipelines

email: [sales@dureycastings.co.uk](mailto:sales@dureycastings.co.uk)



# Introduction

Naylor, a manufacturer of building materials since 1890, has a wealth of experience in manufacturing techniques with a reputation for service, in-depth ranges, quality products and value for money.

**Band-Seal** is a range of versatile, flexible couplings used for jointing pipes of both similar and different materials and sizes. The couplings are especially suitable for drains, sewers and underground pipelines. The extensive range connects pipes from 24mm to over 2000mm nominal size (DN), to other pipes of the same or different sizes and material.

## Ordering Details

Obtain the sizes and materials of the pipes/junctions to be jointed. It is preferred that precise outside diameters are confirmed for each pipe, preferably by direct measurement on site. Reference to inside diameters and pipe material will not normally be sufficient to identify outside diameters. The pipe table (page 14) provides guidance on the outside diameter of the more common types and sizes of pipes but is not a substitute for pipe measurement on site. For pipes up to DN300, reference can also be made to the lists of typical connections.

All couplings and bushes over 600mm diameter are manufactured to suit specific site requirements therefore measurement of the outside diameters of the pipes to be joined is essential. It is recommended to take into consideration possible restrictions on site as the use of Band-Seal will require access to both sides of the pipe. For this reason it may be advisable to order a slightly larger Band-Seal Coupling for ease of installation.

Order the components using the Coupling Reference and

The Band-Seal range of couplings consists of moulded synthetic elastomeric sleeves and stainless steel clamping bands. Standard Couplings also include a stainless steel shear band. A wide range of Bushes, Tools and End Caps complete the range.

Band-Seal Couplings are manufactured to exacting standards and are used and specified extensively by Water Companies and Local Authorities throughout the UK as well as being distributed worldwide.

the Bush Reference (where required) from

**Durey Castings Limited 01322 272424**

or

**Durey Castings South Coast 01323 441110**

## Availability

Naylor maintains comprehensive stocks of all types of Band-Seal Couplings and Bushes at Cawthorne, South Yorkshire, for England and Wales and Methil, Fife, for Scotland and Ireland.

The most popular sizes and types of coupling are readily available for Depots, Builders' Merchants or specialist Band-Seal Stockists throughout Britain.

Couplings and Bushes, which are specially manufactured to suit specific site requirements, are usually produced and supplied direct from either Cawthorne or Methil within 24 hours.

**24 Hour  
Emergency  
Hotline  
0808 1780 161**

## Delivery - A New and Improved Specials Service

A 'Next Day' delivery service is available including before noon and before 10.30am options using overnight carrier services from our main factory at Cawthorne for England and Wales and from Methil for Scotland and Ireland. For emergency repairs we can also offer a 'Same Day' service throughout the UK.



# The Naylor Band-Seal Range

## Standard Couplings



These couplings comply with the requirements of WIS 4-41-01 and are specifically designed for jointing pipes in sewerage, drainage and similar non-pressure applications where resistance to shear loads is required.

- On public sewers where couplings complying with WIS 4-41-01 are specified
- Repair and maintenance of existing pipelines
- Connections between pipes of different materials or sizes (Bushes may be required in these circumstances)
- Making connections by the insertion of new junctions into an existing pipeline
- Reconnection of laterals on renovated sewers
- Introducing rocker or hinge pipes outside manholes or structures
- Jointing short or cut lengths of pipe

| Coupling Ref. | Min OD (mm) | Max OD (mm) | Width (mm) | Box Qty |
|---------------|-------------|-------------|------------|---------|
| NSC 115       | 100         | 115         | 120        | 20      |
| NSC 121       | 105         | 121         | 120        | 20      |
| NSC 125       | 110         | 125         | 120        | 20      |
| NSC 137       | 120         | 137         | 120        | 20      |
| NSC 142       | 125         | 142         | 120        | 12      |
| NSC 150       | 130         | 150         | 150        | 12      |
| NSC 165       | 140         | 165         | 150        | 12      |
| NSC 175       | 150         | 175         | 150        | 10      |
| NSC 182       | 160         | 182         | 150        | 10      |
| NSC 200       | 175         | 200         | 150        | 10      |
| NSC 215       | 190         | 215         | 150        | 8       |
| NSC 225       | 200         | 225         | 150        | 6       |
| NSC 250       | 225         | 250         | 150        | 6       |
| NSC 275       | 250         | 275         | 150        | 6       |
| NSC 290       | 265         | 290         | 150        | 5       |
| NSC 310       | 285         | 310         | 190        | 3       |
| NSC 320       | 300         | 320         | 190        | 3       |
| NSC 335       | 305         | 335         | 190        | 3       |
| NSC 345       | 315         | 345         | 190        | 4       |
| NSC 365       | 340         | 365         | 190        | 4       |
| NSC 385       | 355         | 385         | 190        | 4       |
| NSC 412       | 385         | 412         | 190        | 2       |
| NSC 425       | 400         | 425         | 190        | 2       |
| NSC 430       | 405         | 430         | 190        | 2       |
| NSC 445       | 420         | 445         | 190        | 2       |
| NSC 465       | 435         | 465         | 190        | 2       |
| NSC 475       | 445         | 475         | 190        | 2       |
| NSC 495       | 465         | 495         | 190        | 2       |
| NSC 510       | 480         | 510         | 190        | 2       |
| NSC 525       | 495         | 525         | 190        | 2       |
| NSC 540       | 510         | 540         | 190        | 2       |
| NSC 550       | 520         | 550         | 190        | 2       |
| NSC 560       | 530         | 560         | 190        | 2       |
| NSC 580       | 555         | 580         | 190        | 2       |
| NSC 600       | 570         | 600         | 190        | 2       |
| NSC 620       | 590         | 620         | 190        | 2       |

316 Stainless Steel bands are available on all of the above

# Large Standard Couplings

As the items are made to order to suit specific site requirements: please specify dimensions required when ordering.

**Note:** The size range is an indication of size for pricing purposes only. Couplings are manufactured to meet customer requirements. Please consider that the size you request will be the maximum size that the coupling will be manufactured to. For ease of installation you may require a slightly larger size.

| Coupling Ref. | Min OD (mm) | Max OD (mm) | Width (mm) | Box Qty |
|---------------|-------------|-------------|------------|---------|
| NSC 601       | 601         | 699         | 190        | N/A     |
| NSC 700       | 700         | 799         | 190        | N/A     |
| NSC 800       | 800         | 899         | 190        | N/A     |
| NSC 900       | 900         | 999         | 190        | N/A     |
| NSC 1000      | 1000        | 1099        | 190        | N/A     |
| NSC 1100      | 1100        | 1199        | 190        | N/A     |
| NSC 1200      | 1200        | 1299        | 190        | N/A     |
| NSC 1300      | 1300        | 1399        | 190        | N/A     |
| NSC 1400      | 1400        | 1499        | 190        | N/A     |
| NSC 1500      | 1500        | 1599        | 190        | N/A     |
| NSC 1600      | 1600        | 1699        | 190        | N/A     |
| NSC 1700      | 1700        | 1799        | 190        | N/A     |
| NSC 1800      | 1800        | 1899        | 190        | N/A     |
| NSC 1900      | 1900        | 1999        | 190        | N/A     |
| NSC 2000      | 2000        | 3000        | 190        | N/A     |
| NSC 3000      | 3000        | 4000        | 190        | N/A     |

316 Stainless Steel bands are available on all of the above

# Extra Wide Couplings



Naylor Extra Wide Couplings are used predominantly for jointing pipes with a diameter greater than 1000mm but they are available to suit pipes with an outside diameter of 200mm upwards.

Naylor Extra Wide Couplings have a width of 300mm which allows a greater tolerance when cutting larger diameter pipes. The increased width also accommodates the greater movement of the joints associated with the depths at which these large diameter pipes are laid.

**Note:** The size range is an indication for pricing purposes only. Couplings are manufactured to meet customer requirements.

| Coupling Ref. | Min OD (mm) | Max OD (mm) | Width (mm) | Box Qty |
|---------------|-------------|-------------|------------|---------|
| NWC 601       | 601         | 699         | 300        | N/A     |
| NWC 700       | 700         | 799         | 300        | N/A     |
| NWC 800       | 800         | 899         | 300        | N/A     |
| NWC 900       | 900         | 999         | 300        | N/A     |
| NWC 1000      | 1000        | 1099        | 300        | N/A     |
| NWC 1100      | 1100        | 1199        | 300        | N/A     |
| NWC 1200      | 1200        | 1299        | 300        | N/A     |
| NWC 1300      | 1300        | 1399        | 300        | N/A     |
| NWC 1400      | 1400        | 1499        | 300        | N/A     |
| NWC 1500      | 1500        | 1599        | 300        | N/A     |
| NWC 1600      | 1600        | 1699        | 300        | N/A     |
| NWC 1700      | 1700        | 1799        | 300        | N/A     |
| NWC 1800      | 1800        | 1899        | 300        | N/A     |
| NWC 1900      | 1900        | 1999        | 300        | N/A     |
| NWC 2000      | 2000        | 3000        | 300        | N/A     |
| NWC 3000      | 3000        | 4000        | 300        | N/A     |

316 Stainless Steel bands are available on all of the above

**Note:** For sizes 200-600mm diameter please contact our Sales Department

## Typical Connections - Standard Couplings

|                    |  |                    |  |
|--------------------|--|--------------------|--|
| <b>NSC<br/>121</b> | <ul style="list-style-type: none"> <li>110mm PVCu</li> <li>100mm Cast Iron (BS416)</li> <li>100mm Stainless Steel</li> <li>100mm Cast Iron (BS437)</li> <li>100mm Ductile Iron</li> <li>100mm Supersleve (See also NSC 137)</li> </ul>   | <b>NSC<br/>465</b> | <ul style="list-style-type: none"> <li>375mm (15") Salt Glazed Ware</li> <li>375mm Vitrified Clay</li> <li>375mm Concrete (OD up to 445mm)</li> <li>400mm Asbestos Cement</li> <li>450mm PVCu</li> </ul> |
| <b>NSC<br/>137</b> | <ul style="list-style-type: none"> <li>100mm (4") Salt Glazed Ware</li> <li>100mm Vitrified Clay</li> <li>100mm Densleeve</li> <li>100mm Supersleve</li> <li>100mm Pitch Fibre</li> <li>100mm Asbestos Cement</li> </ul>   | <b>NSC<br/>560</b> | <ul style="list-style-type: none"> <li>450mm (18") Salt Glazed Ware</li> <li>450mm Vitrified Clay</li> <li>450mm Concrete (OD up to 560mm)</li> <li>500mm Asbestos Cement</li> </ul>                     |
| <b>NSC<br/>165</b> | <ul style="list-style-type: none"> <li>160mm PVCu</li> <li>150mm Cast Iron (smu/ensign/sml)</li> <li>150mm Stainless Steel</li> <li>160mm Polyethelene</li> </ul>  |                    |  |
| <b>NSC<br/>175</b> | <ul style="list-style-type: none"> <li>160mm PVCu</li> <li>150mm Ductile Iron</li> <li>150mm Cast Iron (BS416)</li> <li>150mm Cast Iron (BS437)</li> <li>150mm Stainless Steel</li> <li>150mm Ultra-Rib</li> <li>150mm Quantum</li> </ul>  |                    |  |
| <b>NSC<br/>200</b> | <ul style="list-style-type: none"> <li>150mm (6") Salt Glazed Ware</li> <li>150mm Vitrified Clay</li> <li>150mm Densleeve</li> <li>150mm Supersleve</li> <li>150mm Concrete</li> <li>150mm Asbestos Cement</li> <li>150mm Pitch Fibre</li> <li>150mm Ultra-rib</li> <li>200mm PVC-u</li> </ul> |                    |  |
| <b>NSC<br/>250</b> | <ul style="list-style-type: none"> <li>175mm Pitch Fibre</li> <li>200mm Vitrified Clay</li> <li>200mm Asbestos Cement</li> <li>225mm Ultra-Rib</li> <li>225mm Quantum</li> <li>250mm PVCu</li> </ul>   |                    |  |
| <b>NSC<br/>275</b> | <ul style="list-style-type: none"> <li>250mm Ductile Iron</li> <li>250mm Cast Iron</li> </ul>  |                    |  |
| <b>NSC<br/>290</b> | <ul style="list-style-type: none"> <li>225mm (9") Salt Glazed Ware</li> <li>225mm Vitrified Clay</li> <li>225mm Densleeve</li> <li>225mm Supersleve</li> <li>225mm Concrete (OD Up To 290)</li> <li>250mm Asbestos Cement</li> <li>250mm Ductile Iron</li> </ul>                               |                    |  |
| <b>NSC<br/>345</b> | <ul style="list-style-type: none"> <li>300mm Asbestos Cement</li> <li>300mm Ultra-Rib</li> <li>300mm Quantum</li> <li>300mm Ductile Iron</li> </ul>  |                    |  |
| <b>NSC<br/>385</b> | <ul style="list-style-type: none"> <li>300mm (12") Salt Glazed Ware</li> <li>300mm Vitrified Clay</li> <li>300mm Densleeve</li> <li>300mm Supersleve</li> <li>300mm Concrete (OD Up To 385)</li> </ul>   |                    |  |

# Bushes



Manufactured from synthetic elastomers and available in a variety of sizes and thicknesses to allow the Standard range of couplings to connect pipes which may have a considerable difference in their outside diameters.

They are used where the difference in the outside diameter of the pipes to be jointed exceeds 12mm and an Adaptor Coupling is not available.

Generally used singularly but multiple bush sets may be used.

Available in diameters up to 2000mm and in four thicknesses 8mm, 16mm, 24mm and 32mm.

**Note 1:** The size range is an indication of size for pricing purposes only. Bushes are manufactured to meet specific customer requirements.

**Note 2:** For bushes over 1000mm diameter please contact our Sales Department.

| 8 | Bush Ref. | OD Between (mm) |
|---|-----------|-----------------|
|   | BC 0801   | 170-199         |
|   | BC 0802   | 200-299         |
|   | BC 0803   | 300-399         |
|   | BC 0804   | 400-499         |
|   | BC 0805   | 500-599         |
|   | BC 0806   | 600-699         |
|   | BC 0807   | 700-799         |
|   | BC 0808   | 800-899         |
|   | BC 0809   | 900-999         |
|   | BC 0810   | 1000-1099       |
|   | BC 0811   | 1100-1199       |
|   | BC 0812   | 1200-1299       |

| 16 | Bush Ref. | OD Between (mm) |
|----|-----------|-----------------|
|    | BC 1601   | 190-199         |
|    | BC 1602   | 200-299         |
|    | BC 1603   | 300-399         |
|    | BC 1604   | 400-499         |
|    | BC 1605   | 500-599         |
|    | BC 1606   | 600-699         |
|    | BC 1607   | 700-799         |
|    | BC 1608   | 800-899         |
|    | BC 1609   | 900-999         |

| 24 | Bush Ref. | OD Between (mm) |
|----|-----------|-----------------|
|    | BC 2402   | 250-299         |
|    | BC 2403   | 300-399         |
|    | BC 2404   | 400-499         |
|    | BC 2405   | 500-599         |
|    | BC 2406   | 600-699         |
|    | BC 2407   | 700-799         |
|    | BC 2408   | 800-899         |
|    | BC 2409   | 900-999         |

| 32 | Bush Ref. | OD Between (mm) |
|----|-----------|-----------------|
|    | BC 3204   | 400-499         |
|    | BC 3205   | 500-599         |
|    | BC 3206   | 600-699         |
|    | BC 3207   | 700-799         |
|    | BC 3208   | 800-899         |
|    | BC 3209   | 900-999         |

# Chemical Couplings



The range of Hatherware chemically resistant Band-Seal couplings offers the chemical and process industries the advantage of a modern, mechanical, flexible jointing system for any plain end pipe system, including Naylor's Hatherware "Thermachem" range of thermal shock and chemically resistant pipes.

**Elastomeric Sleeve** - Manufactured in EPDM or NITRILE conforming to BS EN681-1.

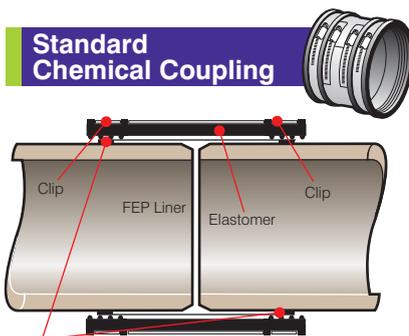
**Shear Clamping Bands** - Manufactured in corrosion Grade 1.4301 (304) resistant austenitic stainless steel to BS EN10088-2. Where external contamination demands a higher quality stainless, this can be supplied to order.

**Fluoropolymer Liner** - A one piece seamless FEP element located within the elastomeric sleeve. Expanded PTFE secondary seals ensure a leak tight joint between FEP and the pipe. For the best results and to ensure a close fit between the liner and pipe, the FEP liner is heat shrunk on site. The liner and seal are chemically inert and resistant to virtually all chemicals.

**Standard Couplings** - Used for jointing pipes of the same outside diameter

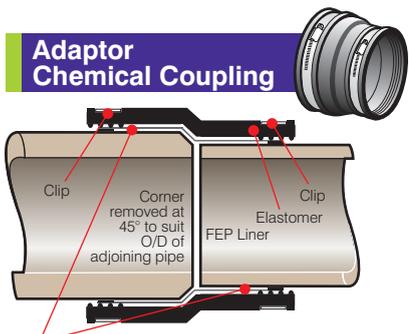
**Adaptor Couplings** - Available where pipes of different diameter require connecting.

## Standard Chemical Coupling



1mm thick PTFE self adhesive backed tape positioned on pipes with slight overlap at joint. See heat shrink installation instructions.

## Adaptor Chemical Coupling



1mm thick PTFE self adhesive backed tape positioned on pipes with slight overlap at joint. See heat shrink installation instructions.

| Pipe Bore (mm) | Gap Between Pipe Ends (mm) |
|----------------|----------------------------|
| 100 & 150      | 5                          |
| 225 & 300      | 10                         |
| 380 & 450      | 15                         |
| 600 & above    | 20                         |

## Torque Setting

For all couplings 12Nm

## Chemical Coupling - Installation Instructions

Ensure the correct size coupling is used to suit pipe or fitting size. Consult the Naylor Hatherware Technical Department on 01226 794074 for advice.

### Pipes and Fittings

- All ends in the area of the coupling to be clean and free from grit or dirt.
- All cutting to be a single clean cut by a suitable disc cutter ensuring cut end has all burrs or snags ground off flat.
- All ends, whether site cut or not, to have sharp edges or corners removed and chamfered on the outer edge a minimum of 5mm x 45°. This is most important to avoid damage to the chemical resistant FEP liner.

### Procedure

For couplings/adaptors with site fitted heat shrink sleeves:

- Place FEP sleeve and coupling onto 1st pipe.
- Align second pipe leaving appropriate gap. See table attached.
- Slide sleeve into position centrally over joint and mark sleeve ends onto pipe.
- Slide sleeve back onto 1st pipe.
- Place PTFE tape around pipe so self adhesive backing adheres to the pipe in such a position that the outer edge of the tape aligns with marks for outer edge of FEP sleeve. At the top of the pipe overlap the tape 5mm.
- Reposition sleeve over joint covering sealing tape.
- Apply hot air to shrink sleeve onto pipe face and PTFE tapes. (The hot air gun should be kept in motion at all times to avoid scorching the FEP liner). Work all around FEP liner to ensure whole area is tight down onto pipe face and PTFE tape either side of pipe gap.

- Position coupling/adaptor centrally over sleeve.
- Tighten all clamps equally working from the centre outwards in equal stages using 4" lever ratchet and socket or socket style screwdriver to specified torque.

**For couplings fitted with pre-shrunk FEP liners incorporating expanded PTFE secondary seals.**

- Slide coupling over 1st pipe taking care not to dislodge the PTFE seal.
- Align second pipe leaving a 5mm gap.
- Position coupling centrally across joint.
- Tighten all clamps equally working from the centre outwards in equal stages using 4" lever ratchet and socket or socket style screwdriver to specified torque.

### Additional Protection

In ground where contaminants may degrade stainless steel or the elastomer, the following additional procedure shall apply.

- Two layers of Denso tape or similar shall be wound around the coupling to completely encase same and adjacent pipe area to avoid salts penetration to the coupling.
- In more severe conditions the coupling and adjacent pipe area shall be encased in a heat shrunk polyethylene sleeve or tape with hot melt glue adhesive backing as manufactured by Raychem.

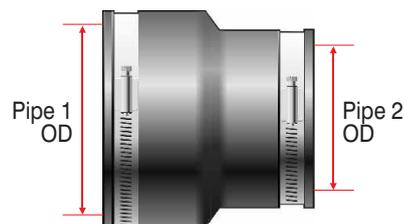
These protective materials shall be installed in accordance with their manufacturers instructions and shall entirely encase the coupling and 50mm minimum of adjacent pipe.

It is advantageous to place a small block of resilient material over the worm drives and threaded clip ends to avoid these projections from penetrating the protective layer.

# Adaptor Couplings



Provide an inexpensive method of directly joining pipes of differing outside diameters, without the need to use bushes. The most common application is for connecting PVC-u pipes to a variety of other pipe materials including vitrified clay. These couplings are also suitable for connecting other types of pipes including cast iron and metal pipes (up to a maximum outside diameter of 420mm).



## Universal Adaptors

| Coupling Ref. | Pipe 1 OD (mm)     | Pipe 2 OD (mm) | Width (mm) | Old Ref  |
|---------------|--------------------|----------------|------------|----------|
| NAC 4000      | 121/137 to 110/121 |                | 100        | NAC 1212 |
| NAC 6000      | 180/200 to 160/180 |                | 150        | NAC 1804 |
| NAC 9001      | 260/285 to 180/205 |                | 150        | NAC 2601 |

## Drainage Adaptors

| Coupling Ref. | Pipe 1 OD (mm)     | Pipe 2 OD (mm) | Width (mm) | Old Ref  |
|---------------|--------------------|----------------|------------|----------|
| NAC 1000      | 97/102 to 86/91    |                | 70         | NAC 1000 |
| NAC 1153      | 100/115 to 40/50   |                | 102        | NAC 1001 |
| NAC 1154      | 100/115 to 50/64   |                | 102        | NAC 1002 |
| NAC 1155      | 100/115 to 75/90   |                | 95         | NAC 1003 |
| NAC 1221      | 110/122 to 80/95   |                | 120        | NAC 1101 |
| NAC 1226      | 115/122 to 61/68   |                | 90         | NAC 1004 |
| NAC 5144      | 110/125 to 100/115 |                | 120        | NAC 1102 |
| NAC 1361      | 121/136 to 80/95   |                | 120        | NAC 1211 |
| NAC 1362      | 121/136 to 100/115 |                | 90         | NAC 1213 |
| NAC 1370      | 122/137 to 75/90   |                | 100        | NAC 1221 |
| NAC 1452      | 130/145 to 110/125 |                | 120        | NAC 1302 |
| NAC 1521      | 137/152 to 100/115 |                | 120        | NAC 1371 |
| NAC 1602      | 144/160 to 110/122 |                | 120        | NAC 1442 |
| NAC 1603      | 144/160 to 121/136 |                | 120        | NAC 1443 |
| NAC 1681      | 153/168 to 100/115 |                | 150        | NAC 1531 |
| NAC 1703      | 155/170 to 130/145 |                | 120        | NAC 1553 |
| NAC 1762      | 155/176 to 110/125 |                | 120        | NAC 1552 |
| NAC 1801      | 166/181 to 100/115 |                | 150        | NAC 1661 |
| NAC 1802      | 166/181 to 110/125 |                | 150        | NAC 1662 |
| NAC 1922      | 170/192 to 110/122 |                | 120        | NAC 1704 |
| NAC 1923      | 170/192 to 121/136 |                | 120        | NAC 1705 |
| NAC 1924      | 170/192 to 144/160 |                | 120        | NAC 1706 |
| NAC 1981      | 183/198 to 100/115 |                | 155        | NAC 1831 |
| NAC 1983      | 180/198 to 122/137 |                | 150        | NAC 1801 |
| NAC 2000      | 180/200 to 130/145 |                | 150        | NAC 1800 |
| NAC 2002      | 180/200 to 110/121 |                | 150        | NAC 1802 |
| NAC 2003      | 180/200 to 155/170 |                | 150        | NAC 1803 |
| NAC 2061      | 190/206 to 100/115 |                | 150        | NAC 1901 |
| NAC 2063      | 190/206 to 138/153 |                | 150        | NAC 1903 |
| NAC 2121      | 185/212 to 100/115 |                | 150        | NAC 1852 |

316 Stainless Steel bands are available on all of the above

## Drainage Adaptors (continued)

| Coupling Ref. | Pipe 1 OD (mm)     | Pipe 2 OD (mm) | Width (mm) | Old Ref  |
|---------------|--------------------|----------------|------------|----------|
| NAC 2154      | 190/215 to 150/165 |                | 150        | NAC 1904 |
| NAC 2164      | 185/216 to 160/180 |                | 150        | NAC 1851 |
| NAC 2254      | 200/225 to 160/175 |                | 150        | NAC 2001 |
| NAC 2352      | 210/235 to 110/122 |                | 150        | NAC 2102 |
| NAC 2353      | 210/235 to 121/136 |                | 150        | NAC 2103 |
| NAC 2354      | 210/235 to 144/160 |                | 150        | NAC 2104 |
| NAC 2355      | 210/235 to 170/192 |                | 150        | NAC 2105 |
| NAC 2356      | 210/235 to 190/215 |                | 150        | NAC 2106 |
| NAC 2654      | 240/265 to 144/160 |                | 150        | NAC 2404 |
| NAC 2655      | 240/265 to 170/192 |                | 155        | NAC 2405 |
| NAC 2656      | 240/265 to 190/215 |                | 150        | NAC 2406 |
| NAC 2657      | 240/265 to 210/235 |                | 155        | NAC 2407 |
| NAC 2756      | 250/275 to 200/225 |                | 165        | NAC 2502 |
| NAC 2855      | 260/285 to 240/265 |                | 150        | NAC 2602 |
| NAC 2904      | 265/290 to 144/160 |                | 150        | NAC 2658 |
| NAC 2907      | 265/290 to 210/235 |                | 150        | NAC 2659 |
| NAC 3167      | 301/316 to 259/274 |                | 165        | NAC 3011 |
| NAC 3204      | 295/320 to 144/160 |                | 165        | NAC 2954 |
| NAC 3205      | 295/320 to 170/192 |                | 150        | NAC 2955 |
| NAC 3207      | 295/320 to 210/235 |                | 150        | NAC 2957 |
| NAC 3208      | 295/320 to 240/265 |                | 150        | NAC 2958 |
| NAC 3209      | 295/320 to 265/290 |                | 150        | NAC 2959 |
| NAC 3351      | 310/335 to 180/205 |                | 160        | NAC 3101 |
| NAC 3600      | 335/360 to 295/320 |                | 165        | NAC 3350 |
| NAC 3608      | 335/360 to 240/265 |                | 165        | NAC 3358 |
| NAC 3609      | 335/360 to 265/290 |                | 165        | NAC 3359 |
| NAC 3763      | 360/376 to 323/337 |                | 165        | NAC 3604 |
| NAC 3850      | 360/385 to 300/325 |                | 165        | NAC 3603 |
| NAC 3858      | 360/385 to 240/265 |                | 165        | NAC 3601 |
| NAC 3859      | 360/385 to 265/290 |                | 165        | NAC 3602 |
| NAC 4208      | 395/420 to 240/265 |                | 165        | NAC 3958 |
| NAC 4209      | 395/420 to 265/290 |                | 165        | NAC 3959 |

## Adaptors for structural walled plastic pipes

| Coupling Ref. | Pipe 1 OD (mm)     | Pipe 2 OD (mm) | Width (mm) | Old Ref   |
|---------------|--------------------|----------------|------------|-----------|
| NAR 1500      | 160/170 to 170/192 |                | 110        | NACUR 150 |
| NAR 2250      | 240/250 to 260/285 |                | 145        | NACUR 225 |
| NAR 3000      | 325/335 to 360/385 |                | 165        | NACUR 300 |

316 Stainless Steel bands are available on all of the above

# Typical Connections - Adaptor Couplings

## Universal Adaptors

|  |                 |   |
|--|-----------------|---|
| Salt Glazed Ware (4") 100mm<br>Vitrified Clay 100mm<br>Supersleve 100mm<br>Pitch Fibre 100mm<br>Asbestos Cement 100mm  | <b>NAC 4000</b> | 110mm PVC-u<br>100mm Cast Iron (soil & drain)<br>100mm Cast Iron (smu/ensign/sml)<br>100mm Ductile Iron<br>100mm Stainless Steel<br>100mm Supersleve                    |
| Salt Glazed Ware (6") 150mm<br>Vitrified Clay 150mm<br>Supersleve 150mm<br>Pitch Fibre 150mm<br>Asbestos Cement 150mm<br>Concrete 150mm<br>Ultra-Rib 180mm<br>PVCu 200mm | <b>NAC 6000</b> | 160mm PVC-u<br>150mm Cast Iron (soil & drain)<br>150mm Cast Iron (smu/ensign/sml)<br>150mm Ductile Iron<br>150mm Stainless Steel<br>150mm Supersleve<br>150mm Ultra-Rib |
| Salt Glazed Ware (9") 225mm<br>Vitrified Clay 225mm<br>Ductile Iron 250mm<br>Grey Iron 250mm<br>MDPE 280mm   | <b>NAC 9001</b> | 150mm Vitrified Clay<br>150mm Supersleve<br>150mm Pitch Fibre<br>150mm Asbestos Cement<br>150mm Concrete<br>180mm MDPE<br>180mm Ultra-Rib<br>200mm PVCu<br>200mm MDPE   |

## Drainage Adaptors

|  |                 |  |
|--|-----------------|--|
| PVCu 110mm<br>Cast Iron (soil & Drain) 100mm<br>Cast Iron (smu/ensign/sml) 100mm<br>Ductile Iron 100mm<br>Supersleve 100mm   | <b>NAC 1221</b> | 82mm (3") PVCu<br>75mm Cast Iron (soil & drain)<br>75mm Cast Iron (smu/ensign)<br>70mm Cast Iron (smu/ensign/sml)  |
| PVCu 110mm<br>Cast Iron (soil) 100mm<br>Cast Iron (smu/ensign/smu) 100mm<br>Stainless Steel 110mm  | <b>NAC 1226</b> | 50mm (2") Cast Iron (soil & drain)<br>50mm Cast Iron (smu/ensign/smu)  |
| PVCu 110mm<br>Supersleve 100mm<br>Cast Iron (soil & drain) 100mm<br>Cast Iron (smu/ensign/sml) 100mm<br>Ductile Iron 100mm<br>Stainless Steel 100mm<br>Asbestos Cement 100mm                               | <b>NAC 5144</b> | 75mm Ductile Iron<br>100mm Cast Iron (soil)<br>100mm Cast Iron (smu/ensign/sml)<br>100mm Stainless Steel<br>110mm PVCu                                   |
| Supersleve 100mm<br>Vitrified Clay 100mm<br>Asbestos Cement 100mm<br>Cast Iron (smu/ensign/sml) 125mm  | <b>NAC 1361</b> | 82mm (3") PVCu<br>75mm Cast Iron (soil & drain)<br>75mm Cast Iron (smu/ensign)<br>70mm Cast Iron (smu/ensign/sml)  |
| Supersleve 100mm<br>Vitrified Clay 100mm<br>Asbestos Cement 100mm<br>Cast Iron (smu/ensign/sml) 125mm  | <b>NAC 1362</b> | 100mm Cast Iron (soil)<br>100mm Cast Iron (smu/ensign/sml)<br>100mm Stainless Steel<br>110mm PVCu  |
| PVCu 160mm<br>Cast Iron (smu/ensign/sml) 150mm<br>Stainless Steel 150mm  | <b>NAC 1602</b> | 110mm (3") PVCu<br>100mm Cast Iron (soil & drain)<br>100mm Cast Iron (smu/ensign/sml)<br>100mm Ductile Iron<br>100mm Stainless Steel<br>100mm Supersleve |
| Vitrified Clay (Salt Glazed Ware) 150mm<br>Supersleve 150mm<br>Ultra-Rib 150mm<br>Ductile Iron 150mm<br>Cast Iron (drain) 150mm<br>Asbestos Cement 150mm<br>Pitch Fibre 150mm<br>Twin Walled Plastic 150mm | <b>NAC 1922</b> | 110mm PVCu<br>100mm Cast Iron (soil & drain)<br>100mm Cast Iron (smu/ensign/sml)<br>100mm Ductile Iron<br>100mm Stainless Steel<br>100mm Supersleve      |
| Vitrified Clay (Salt Glazed Ware) 150mm<br>Supersleve 150mm<br>Ultra-Rib 150mm<br>Ductile Iron 150mm<br>Cast Iron (drain) 150mm<br>Asbestos Cement 150mm<br>Pitch Fibre 150mm<br>Twin Walled Plastic 150mm | <b>NAC 1923</b> | 100mm Supersleve<br>100mm Vitrified Clay<br>100mm Asbestos Cement<br>125mm Cast Iron (smu/ensign/sml)  |
| Vitrified Clay (Salt Glazed Ware) 150mm<br>Supersleve 150mm<br>Ultra-Rib 150mm<br>Ductile Iron 150mm<br>Cast Iron (drain) 150mm<br>Asbestos Cement 150mm<br>Pitch Fibre 150mm<br>Twin Walled Plastic 160mm | <b>NAC 1924</b> | 160mm PVCu<br>150mm Cast Iron (smu/ensign/sml)<br>150mm Stainless Steel  |

# Pipe Couplings



Used in drainage systems to connect pipes where resistance to shear loads is not required.

Applications include:

- Repair of an existing drain by insertion of a new length of pipe
- Adaptor between pipes of different materials or manufacturers
- Jointing short lengths of pipe

| Coupling Ref. | Min OD (mm) | Max OD (mm) | Width (mm) | Box Qty |
|---------------|-------------|-------------|------------|---------|
| NPC 115       | 100         | 115         | 100        | 20      |
| NPC 125       | 110         | 125         | 100        | 20      |
| NPC 135       | 120         | 135         | 120        | 20      |
| NPC 150       | 135         | 150         | 150        | 20      |
| NPC 165       | 150         | 165         | 150        | 10      |
| NPC 175       | 160         | 175         | 120        | 10      |
| NPC 185       | 170         | 185         | 120        | 10      |
| NPC 195       | 180         | 195         | 120        | 10      |
| NPC 215       | 200         | 215         | 150        | 8       |
| NPC 225       | 210         | 225         | 150        | 6       |
| NPC 250       | 235         | 250         | 150        | 6       |
| NPC 275       | 260         | 275         | 150        | 6       |

## Typical Connections - Pipe Couplings

|            |       |                            |
|------------|-------|----------------------------|
| NPC<br>115 | 110mm | PVCu                       |
|            | 100mm | Cast Iron (soil)           |
|            | 100mm | Cast Iron (smu/ensign)     |
|            | 100mm | Stainless Steel            |
|            | 100mm | Corrugated Plastic         |
|            | 100mm | ABS                        |
| NPC<br>125 | 100mm | Supersleve                 |
|            | 100mm | Cast Iron (drain)          |
|            | 100mm | Ductile Iron               |
|            | 100mm | Grey Iron                  |
|            | 100mm | Asbestos Cement            |
|            | 100mm | Pitch Fibre                |
|            | 100mm | Twin-wall Plastic          |
| NPC<br>135 | 100mm | Supersleve                 |
|            | 100mm | (4") Salt Glazed Ware      |
|            | 100mm | Vitrified Clay             |
|            | 100mm | Densleeve                  |
|            | 100mm | Pitch Fibre                |
|            | 100mm | Asbestos Cement            |
| NPC<br>165 | 160mm | PVCu                       |
|            | 150mm | Cast Iron (smu/sml/ensign) |
|            | 150mm | Stainless Steel            |
|            | 160mm | Polypropylene              |
| NPC<br>175 | 150mm | Ultra-Rib                  |
|            | 150mm | Quantum                    |
|            | 150mm | Ductile Iron               |
|            | 150mm | Grey Iron                  |
|            | 150mm | Twinwall Plastic           |
|            | 150mm | Corrugated Plastic         |
| NPC<br>185 | 150mm | Supersleve                 |
|            | 150mm | Pitch Fibre                |
|            | 150mm | Asbestos Cement            |
|            | 150mm | Twinwall Plastic           |
|            | 150mm | Corrugated Plastic         |
| NPC<br>195 | 150mm | Supersleve                 |
|            | 150mm | (6") Salt Glazed Ware      |
|            | 150mm | Vitrified Clay             |
|            | 150mm | Asbestos Cement            |
|            | 150mm | Pitch Fibre                |
|            | 150mm | Densleeve                  |

# Plumbing Range

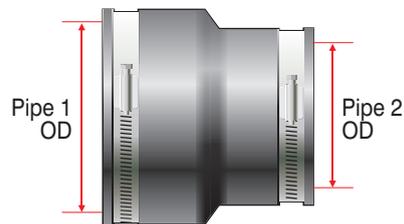
Used for connecting smaller diameter pipes. The couplings are designed for connecting pipes with a similar outside diameter and the adaptors for connecting pipes of differing outside diameters.

## Couplings



| Coupling Ref. | Min OD (mm) | Max OD (mm) | Width (mm) |
|---------------|-------------|-------------|------------|
| NPC 32        | 24          | 32          | 70         |
| NPC 40        | 32          | 40          | 70         |
| NPC 50        | 40          | 50          | 70         |
| NPC 65        | 50          | 65          | 90         |
| NPC 85        | 70          | 85          | 100        |
| NPC 95        | 80          | 95          | 100        |

## Adaptors



| Coupling Ref. | Pipe 1 OD (mm) | Pipe 2 OD (mm) | Width (mm) |
|---------------|----------------|----------------|------------|
| NAC 0301      | 32-40          | 24-32          | 65         |
| NAC 0401      | 40-50          | 32-40          | 65         |
| NAC 0501      | 50-65          | 35-42          | 60         |
| NAC 0601      | 59-64          | 70-75          | 70         |
| NAC 0751      | 75-90          | 40-50          | 100        |
| NAC 0752      | 75-90          | 50-64          | 70         |

# Typical Connections - New plumbing Range

## Straight Couplings for Plumbing Applications

|                |   |
|----------------|---|
| <b>NPC 35</b>  | 35mm Copper<br>32mm Polypropylene   |
| <b>NPC 43</b>  | 42mm Copper<br>40mm Polypropylene   |
| <b>NPC 56</b>  | 50mm Polypropylene/HDPE<br>54mm Copper  |
| <b>NPC 68</b>  | 50mm Cast Iron (smu/ensign/sml)<br>50mm Cast Iron BS416/BS437<br>67mm Copper<br>68mm Plastic Rainwater Pipe |
| <b>NPC 76</b>  | 75mm PVCu   |
| <b>NPC 85</b>  | 75mm Cast Iron (smu/ensign)<br>76mm Copper<br>70mm Cast Iron (sml)  |
| <b>NPC 92</b>  | 75mm Cast Iron BS416/BS437  |
| <b>NPC 100</b> | 93mm Copper   |

## Adaptor Couplings for Plumbing Applications

|  |                 |  |
|--|-----------------|--|
| Copper 35mm<br>Polypropylene 40mm  | <b>NAC 0431</b> | 40mm Polypropylene   |
| Polypropylene 40mm<br>ABS 40mm   | <b>NAC 0562</b> | 54mm Copper<br>50mm ABS<br>50mm Polypropylene  |
| Polypropylene 40mm<br>ABS 40mm   | <b>NAC 0682</b> | 50mm Cast Iron BS416/BS437<br>67mm Copper<br>50mm Cast Iron (smu/ensign/smu)<br>50mm Aluminium   |
| Copper 54mm<br>Polypropylene 50mm<br>ABS 50mm  | <b>NAC 0923</b> | 82mm PVCu<br>75mm Cast Iron (BS416/BS437)<br>75mm Cast Iron (smu/ensign)<br>75mm Stainless Steel |
| Cast Iron (BS416/BS437) 50mm<br>Cast Iron (smu/ensign/smu) 50mm<br>Aluminium 50mm<br>Copper 50mm | <b>NAC 0924</b> | 82mm PVCu<br>75mm Cast Iron (BS416/BS437)<br>75mm Cast Iron (smu/ensign)<br>75mm Stainless Steel |

**Note:** The couplings also fit the imperial equivalent

## End Caps



A reusable and flexible, easy to fit cap for permanent or temporary applications such as air testing waste or soil systems, capping or preventing dirt ingress.

| Product Ref. | Min-Max OD (mm) | Pipe DN |
|--------------|-----------------|---------|
| NEC 45       | 45-55           | 38      |
| NEC 56       | 56-66           | 50      |
| NEC 80       | 80-90           | 75      |
| NEC 105      | 105-115         | 100     |
| NEC 155      | 155-165         | 150     |
| NEC 205      | 205-215         | 200     |

# How to select a coupling

Obtain the precise outside diameters of the pipes to be joined. Guidance figures for a variety of material diameters are provided in the table below (NB these are not intended to be a substitute for site measurements). Check the range list to see which coupling reference has a range of sizes which the outside diameters of the pipes fall within. If this is

not successful, Bushes are available in a variety of sizes and thicknesses to allow the standard range of couplings to connect pipes which may have a considerable difference in their outside diameters. Adaptor Couplings allow differing outside diameters to be connected without the need to use Bushes.

**TABLE INDICATING TYPICAL OUTSIDE PIPE DIAMETERS (for guidance only)**

| PIPE MATERIAL                 | Internal Sizes (DN)           |    |     |     |     |     |     |     |     |     |     |     |     |     |     | Imperial Sizes |     |     |    |      |     |     |     |     |     |     |  |
|-------------------------------|-------------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|-----|-----|----|------|-----|-----|-----|-----|-----|-----|--|
|                               | 40                            | 50 | 75  | 100 | 125 | 150 | 175 | 180 | 200 | 225 | 250 | 300 | 375 | 400 | 450 | 500            | 525 | 600 | 3  | 5    | 8   | 9   | 10  | 12  | 15  | 18  |  |
|                               | Nominal Outside Diameter (mm) |    |     |     |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Vitrified Clay                |                               |    |     | 131 |     | 188 | 220 |     | 245 | 278 |     | 374 | 465 | 484 | 522 | 607            |     | 730 | 98 | 156  | 238 | 268 | 295 | 356 | 445 | 533 |  |
| Salt Glazed Clay              |                               |    |     |     |     |     |     |     |     |     |     | 380 |     | 506 | 544 | 635            |     | 755 |    |      |     |     |     |     |     |     |  |
| Supersleve (thin walled clay) |                               |    |     | 122 |     | 178 |     |     |     | 263 |     | 357 |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Concrete                      |                               |    |     |     |     | 200 |     |     |     | 286 |     | 375 | 457 |     | 580 |                | 675 | 770 |    |      |     |     |     |     |     |     |  |
|                               |                               |    |     |     |     |     |     |     |     | 305 |     | 425 | 464 |     | 540 |                | 690 | 785 |    |      |     |     |     |     |     |     |  |
|                               |                               |    |     |     |     |     |     |     |     | 292 |     | 386 | 485 |     | 552 |                |     |     |    |      |     |     |     |     |     |     |  |
|                               |                               |    |     |     |     |     |     |     |     |     |     | 410 | 520 |     | 570 |                |     |     |    |      |     |     |     |     |     |     |  |
|                               |                               |    |     |     |     |     |     |     |     |     |     |     | 506 |     | 590 |                |     |     |    |      |     |     |     |     |     |     |  |
| Asbestos L                    |                               |    |     | 125 |     | 182 | 208 |     | 232 | 260 | 288 |     |     |     |     |                | 547 |     |    |      |     |     |     |     |     |     |  |
| M                             |                               |    |     |     |     |     |     |     |     |     |     | 339 | 423 | 437 | 484 | 551            |     |     |    |      |     |     |     |     |     |     |  |
| H                             |                               |    |     |     |     |     |     |     |     |     |     | 346 | 429 | 440 | 490 | 559            |     |     |    |      |     |     |     |     |     |     |  |
| PVC-U                         |                               |    |     | 110 |     | 160 |     |     | 200 |     | 250 | 315 |     | 406 | 457 | 508            |     |     |    |      |     |     |     |     |     |     |  |
| Ultra-Rib                     |                               |    |     |     |     | 170 |     | 200 |     | 250 |     | 335 |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Quantum                       |                               |    |     |     |     | 160 |     |     |     | 250 |     | 330 |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Rigidrain                     |                               |    |     |     |     | 177 |     |     |     | 264 |     | 351 |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| ABS                           | 43                            | 56 |     | 110 |     | 160 | 200 |     | 225 |     | 280 | 315 |     |     |     |                |     |     | 89 | 140  | 219 |     |     | 273 | 323 |     |  |
| Polyethylene                  |                               |    |     | 111 | 126 | 161 |     | 181 | 201 | 226 | 251 | 317 |     | 402 | 452 | 503            |     |     |    |      |     |     |     |     |     |     |  |
| Polypropylene/PE twin walled  |                               |    |     | 119 | 150 | 180 |     |     | 235 | 260 |     | 360 |     | 455 | 490 | 590            |     | 690 |    |      |     |     |     |     |     |     |  |
| Corrugated PVC-u lightweight  |                               |    |     | 110 |     | 170 |     |     |     | 250 |     |     |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Polypropylene                 | 41                            | 54 |     |     |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
|                               | 43                            |    |     |     |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| muPVC                         | 54                            |    |     |     |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Ductile Iron BS4772           |                               |    | 98  | 118 |     | 170 |     |     | 223 | 258 | 274 | 326 | 403 | 429 | 480 | 532            |     | 635 |    | 148  |     |     |     |     |     |     |  |
| Cast Iron (SMU/Ensign)        | 60                            | 85 | 112 | 137 | 162 |     |     |     | 212 |     | 279 | 329 |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Cast Iron BS437 (Drain)       | 65                            | 92 | 119 |     | 173 |     |     |     |     | 256 |     |     |     |     |     |                |     |     |    | 92   |     |     |     |     |     |     |  |
| Cast Iron BS416 (Soil)        | 63                            | 89 | 114 | 140 | 165 |     |     |     | 210 |     |     |     |     |     |     |                |     |     |    | 89   |     |     |     |     |     |     |  |
| Cast Iron (Spun) BS1211 B     |                               |    |     |     |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    |      |     |     |     | 334 | 413 | 492 |  |
| C, D                          |                               |    |     |     |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    |      |     |     |     | 345 | 426 | 507 |  |
| Copper                        | 54                            | 76 | 108 |     |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    | 79.9 |     |     |     |     |     |     |  |
| Grey Iron                     |                               |    | 118 | 170 |     |     |     |     | 222 |     | 274 | 326 |     | 429 | 480 | 532            |     | 635 |    |      |     |     |     |     |     |     |  |
| Stainless Steel               |                               |    | 110 | 160 |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Pitch Fibre                   |                               |    | 75  | 125 | 181 |     |     |     | 238 |     |     |     |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |
| Aluminium                     | 53                            | 76 | 102 |     |     |     |     |     |     |     |     |     |     |     |     |                |     |     |    |      |     |     |     |     |     |     |  |