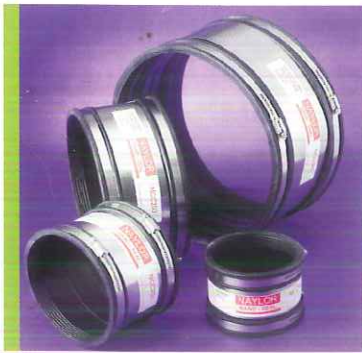


# Chemical Couplings



The range of Hathernware 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 Hathernware "Thermachem" range of thermal shock and chemically resistant pipes.

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

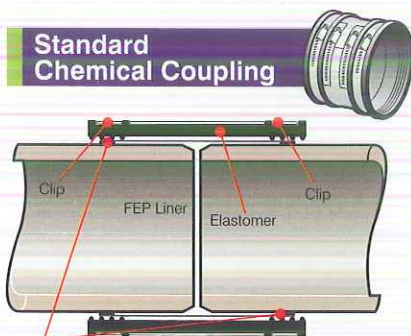
**Shear Clamping Bands** - Manufactured in corrosion Grade 1.4301 (304) resistant austenitic stainless steel to BS EN10088-2. Where external contamination demands a higher quality stainless, this can be supplied to order.

**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

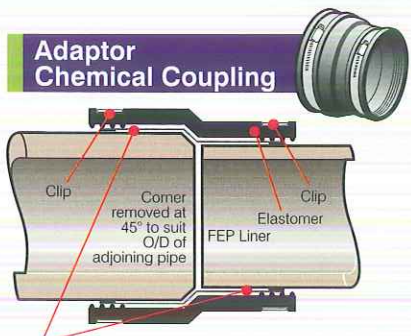
**Adaptor Couplings** - Available where pipes of different diameter require connecting.

## 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 Hathernware 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.