

Specialist

# Wall Couplings

The Perfect Through Wall Connection



PIONEERS IN PIPE SOLUTIONS

CRANE

BUILDING SERVICES & UTILITIES



# The Perfect Solution for Passing Pipes Through Walls

## Old Practice

The normal procedure for passing pipes through walls is to leave a substantial cut-out in the wall during the original concrete pouring process. Later, the contractor will pass a 'puddle pipe' through the cut-out, and build an intricate 'letter-box' shutter around it. New concrete is then poured into the void to encapsulate the puddle pipe. Not only is this a time consuming process, but very often the puddle pipe moves with the pour and settles to a less than suitable alignment.



## Easier Installation

By utilising a Viking Johnson wall coupling which is held rigidly between the shutters, the 'boxing out' process is eliminated. This means that pouring the wall is a simplified and is a single step process. It also guarantees that leak paths, which are inevitably set up when new concrete is poured onto old, are completely eliminated.

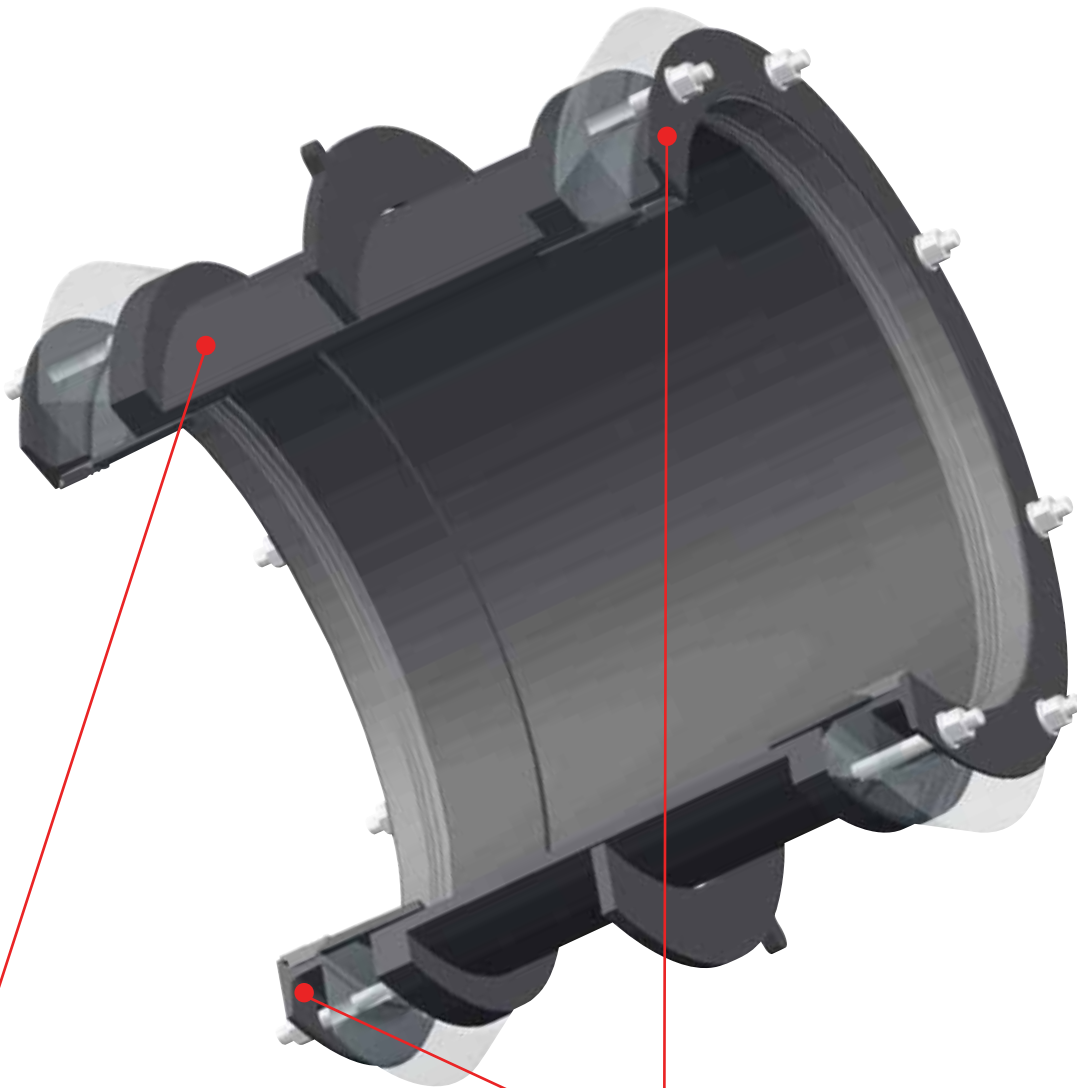
Using a standard Type 1 Viking Johnson wall coupling gives a versatile coupling either side of the wall where pipes can either be passed through or inserted into each side. This system allows for misalignment or angular deflection of up to 3° on each side of the wall. In addition, the use of a Viking Johnson wall coupling ensures that, on the outside of the structure, the first 'rocker' or settlement coupling is built into the shear face of the wall – exactly where it is required. It also means that only one further versatile coupling is needed to form the settlement 'rocker' instead of two. Consequently the installed cost can be drastically reduced, particularly where a large number of through the wall joints appear on a building, for instance in a gravity treatment works.

## Approvals

All products are designed and manufactured under quality management systems certified to ISO 9001 and conform to the American Water Works Association's specification AWWA/ANSI C219 for bolted couplings.

# Wall Couplings - Type 1

## Product Design Benefits



### ■ Corrosion Protection

Metal components are coated with Rilsan Nylon 11 which is WRAS approved for use with potable water and offers a long term protection to corrosion, impact and abrasion to ensure continued reliable performance.

### ■ Flexible Fit

Using a standard Type 1 Viking Johnson wall coupling gives a flexible coupling either side of the wall where pipes can either be passed through or inserted into each side. This allows for slight misalignment or angular deflection on each side of the wall.

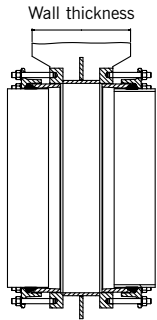
## Customer Benefits

- ▶ Straightforward for Civil Contractor to position the pipe.
- ▶ Easy to secure and prevent movement of the pipe work.
- ▶ Large formwork panels can be reused as there is no need to make holes in the shuttering.
- ▶ No need for a contractor to come back and cast in pipes or 'make good' the wall surface after casting pipes.
- ▶ Ensures good bond between wall and pipe.
- ▶ Installed cost can be drastically reduced particularly where a large number of through the wall joints appear on a structure e.g. in a gravity treatment works.

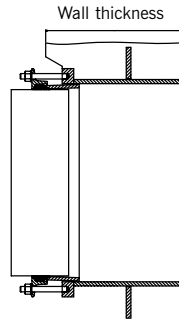
# Wall Couplings

## Specifications

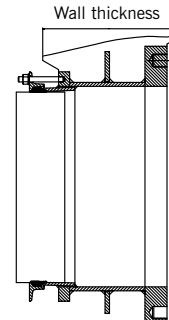
The Viking Johnson Wall Coupling is available in nine variations:



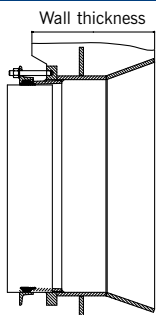
**Type 1** Coupling/Coupling



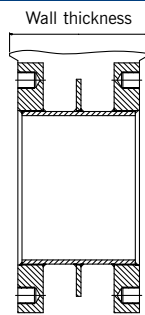
**Type 2** Coupling/Plain End



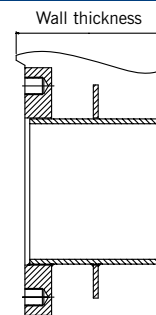
**Type 3** Coupling/Flange



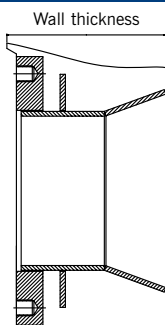
**Type 4** Coupling/Bellmouth



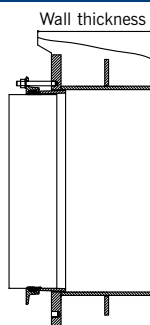
**Type 5** Flange/Flange



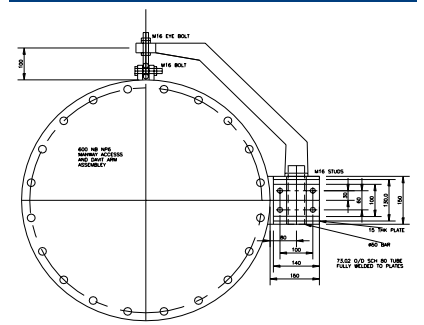
**Type 6** Flange/Plain End



**Type 7** Flange/Bellmouth



**Type 8** Harnessing



**Type 9** Man Entry

Viking Johnson wall couplings are patented products - UK Patent No. 2263323B, US Patent No.5505499.

## Materials & Relevant Standards

Viking Johnson strongly recommends the user ensures that the wall is structurally capable of withstanding the resultant forces induced by the system working pressure and any other related influences.

The materials of construction vary according to size and wall coupling type, with the following being those typically used in their manufacture:

### Body/Centre Sleeve/End Ring:

#### DN80 to DN300

Carbon steel to BS EN 10025: Grade S275JR

Ductile iron to BS EN 1563: Symbol EN-GJS-450-10

#### DN350 to DN1800

Carbon steel to BS EN 10025: Grade S275JR

### Bolts/Nuts/Washer:

**Tee Bolts or Stud** - Steel to BS EN ISO 898-1: Property Class 4.8

**Washers** - Stainless Steel to BS 1449: Part 2: Grade 304S15

### Gasket

**Standard gaskets** - EPDM to BS EN 681 Part 1 Type WA for water and sewage applications, with an operating temperature range of -40°C to +90°C.

### Product coating

Wall coupling bodies and end rings: coated in black Rilsan Nylon 11. Optional, Scotchkote 206N fusion bonded epoxy.

Studs, 'T' bolts and nuts: either zinc plated to BS EN 12329: followed by Rilsan Nylon 11 for double protection against corrosion or Sheraplex coated to WIS 4-52-03.

### Water contact materials

All water contact materials are WRAS listed for use with potable water.

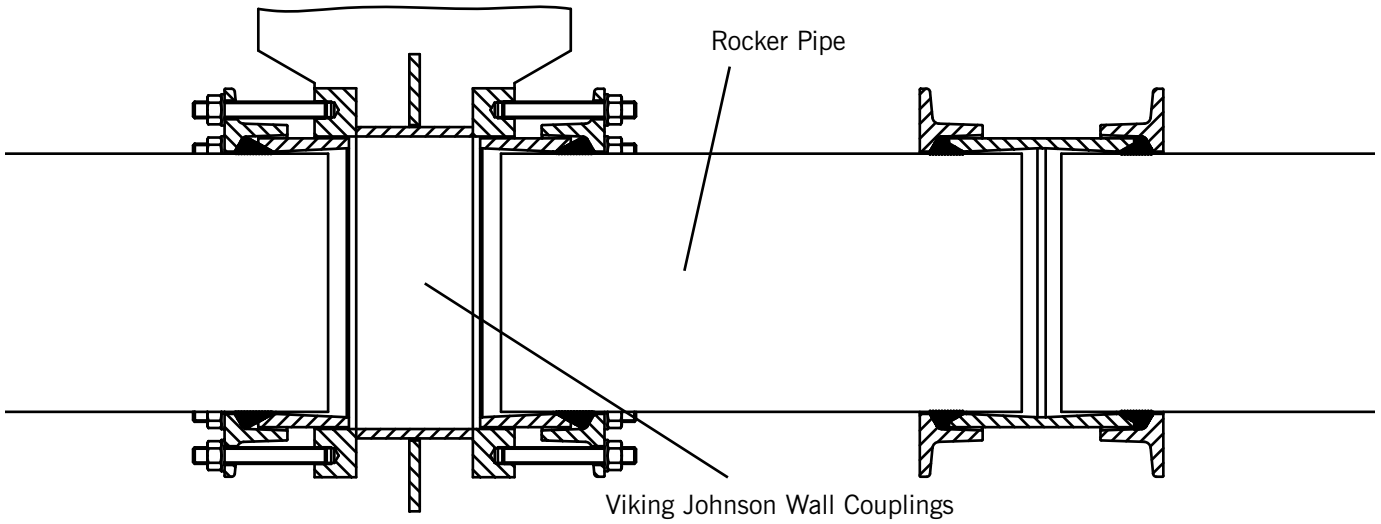
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# Wall Couplings

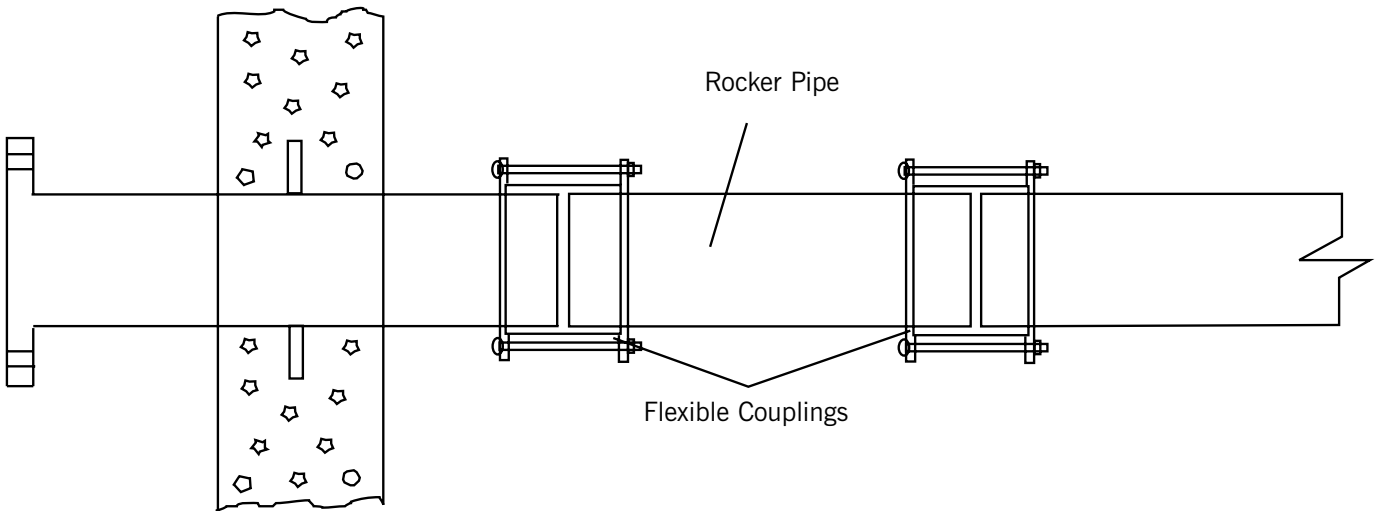
## Specifications

### Typical Installations

#### Wall Coupling Method



#### Conventional Method



# Wall Couplings Check List

Wall Couplings are a bespoke product and Viking Johnson requires the following information to assist with the quotation process. This page can be copied from the brochure or a form is available on the website or directly from the Marketing Department.

**Please fax back to: +44 (0)1462 443311 or email to: [info@vikingjohnson.com](mailto:info@vikingjohnson.com)**

Company Name		Date	
Contact Name		Email	
Customer Address			
Customer Reference No.		Fab No.	

## Specifications

Nominal Diameter			
Quantity			
1st End (Please Tick)	Man Entry <input type="checkbox"/>	Coupling <input type="checkbox"/>	Flanged <input type="checkbox"/> Plain End <input type="checkbox"/> Bellmouth <input type="checkbox"/> Harness <input type="checkbox"/>
2nd End (Please Tick)	Man Entry <input type="checkbox"/>	Coupling <input type="checkbox"/>	Flanged <input type="checkbox"/> Plain End <input type="checkbox"/> Bellmouth <input type="checkbox"/> Harness <input type="checkbox"/>
Wall Thickness			
Actual OD of Pipe			
Pipe Material (Please Tick)	Carbon Steel <input type="checkbox"/>	Stainless Steel <input type="checkbox"/>	D.I. <input type="checkbox"/> G.R.P <input type="checkbox"/> Concrete <input type="checkbox"/> PVC-U <input type="checkbox"/>
Other please specify			
Fluid Flowing			
If Flanged, Flange Details			
If Harnessed - Stud Details (Please Tick)	No. <input type="checkbox"/>	Diameter <input type="checkbox"/>	
Working Pressure		Puddle Flange (Please Tick)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Any Other Details			





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ISO 14001 • EMS 51874



ISO 9001 • FM 00311



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