

Stainless steel repair clamps for fast, permanent repair to most pipe types and sizes. Manufactured in accordance with AS 4181 DN 40 – DN 1200

# WANG Repair Clamps

- Manufactured from grade 316 stainless steel for superior corrosion protection
- Nitrile rubber gaskets provide a potable water contact approved seal and insulates against galvanic corrosion
- Fully passivated stainless steel underscores the quality and longevity of the product
- Clamp design permits the installation of a single clamp on a range of pipe diameters
- All sharp surfaces finished to avoid injury to the installer
- Product supplied with detailed installation instructions
- Dry film anti-galling coating employed to minimise galling of the stainless steel fasteners
- Manufacturing facility certified to the ISO 9001 quality assured standard



## General applications

**WANG** Repair Clamps provide a permanent repair solution for most leaking, cracked or damaged pipe.

A Repair Clamp's variable OD Range enables a single clamp to adapt to any pipe OD within that variable range. This dramatically reduces the stocking requirement to cater for each individual pipe type and size.

The use of high quality Stainless Steel and Nitrile Rubber gaskets permits use of the product in a range of applications from reticulated water and sewerage to industrial use.

## Technical data

**Size Range:** DN 40 - DN 1200

**Maximum Operating Pressure:**  
Up to 490mm OD: 1600 kPa  
Above 490mm OD: See selection table within

**Temperature Range:**  
-10°C to 60°C

**Product Certification:**  
AS 4181 Lic. No SMK1785  
Applicable up to DN450

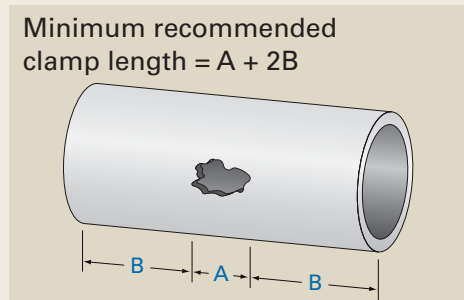
**Note:** Wang Repair Clamps should not be used to join pipe and DO NOT provide axial pipe restraint.

The use of a Vari-Gib Pipe Coupling is recommended for pipe joining applications.

## Calculating the minimum recommended clamp length

When repairing a damaged pipe, it is important to select a clamp of the right length relative to the length of the damage being repaired. For effective sealing, there should be sufficient gasket in contact with the pipe between the edge of the damage and the end of the clamp on each side

The diagram and table below provide a method of ensuring that the selected clamp is no less than the minimum recommended length for an effective seal.



### Example: calculating minimum clamp length

You require a clamp to repair a DN 300 Sr.2 PVC pipe with a 100mm wide hole

- Determine the minimum required clamp length with formula (A+2B).  
 A = Damage dimension  
 = 100mm  
 B = Seal length  
 (extract from table below)  
 = 100mm  
 Therefore MINIMUM clamp length  
 = (100 + [2x100]) = 300mm.
- Standard clamp length from table below for a DN 300 pipe = 300mm.  
 Therefore a standard clamp from the selection chart (page 3 & 4) can be used.
- However if the damage had been more than 100mm in length, a standard clamp (300mm long in this example) would be too short.
- Contact Tyco Water in such an instance for assistance with the next available option in clamp length.

## Minimum required seal length 'B'

Nom. pipe dia. DN	Min. seal length 'B' mm	Standard clamp lengths mm
40 - 80	50	150
100 - 200	65	200
225 - 300	100	300
350 - 600	150	400

## WANG Repair Clamps typical specifying sequence

Example 1	K	15	-	600	C	D
K	= Repair Clamp indicator					
15	= Number of bolts					
-	= Delineator					
600	= Start of clamp OD range					
C	= Number of clamp segments (see table below)					
D	= Clamp length. mm (see table below)					

## WANG Repair Clamps standard clamp configurations

Product code ending	No. of clamp segments			Clamp length (mm)				Clamp OD range mm
	A	B	C	A	B	C	D	
AA	1			150				5
AB	1				200			10
AC	1					300		10
AD	1						400	10
BD		2					400	20
CD			3				400	30

### Example: To determine the configuration of a Repair Clamp from its product code, eg, K10-490BD

**K10** = 10 bolt clamp

**490** = Start of the clamp's OD range

**BD** = 20mm OD range (table above)

Therefore Clamp OD range is 490 to 510mm

**B** = No. of clamp segments = 2 (table above)

**D** = Clamp length = 400 mm (table above)

#### Conclusion

10 bolt x 2 part Repair Clamp,

400 mm long with an OD range of 490 to 510mm

# WANG Repair Clamps selection chart

Repair Clamp  
Operating Pressures

PN 16

PN 12

Nom. pipe size	DICL		Steel		ABS*1	GRP*2	Copper
	AS/NZS	ISO	MSCL	GWl	Series 1	Series 1 - B5	
DN	AS/NZS 2280	ISO 2531	AS 1579	AS 1074	AS 3518	AS 3571	AS 1432
40				K2-047AA 48mm	K2-047AA 48mm		N/A 38mm
50				K2-059AA 60mm	K2-059AA 60mm		K2-047AA 51mm
65				K2-076AA 76mm	K2-075AA 75mm		K2-063AA 64mm
80	K2-095AB 96mm	K2-095AB 98mm		K2-085AB 89mm	K2-085AB 89mm		K2-076AA 76mm
100	K2-120AB 122mm	K2-114AB 118mm	K2-114AB 114mm	K2-114AB 114mm	K2-114AB 114mm	K2-120AB 122mm	K2-095AB 101mm
125			K2-140AB 140mm	K2-140AB 140mm	K2-140AB 140mm		K2-120AB 127mm
150	K2-175AB 177mm	K2-168AB 170mm	K2-160AB 168mm	K2-160AB 168mm	K2-160AB 168mm	K2-175AB 177mm	K2-150AB 152mm
175							
200	K2-230AB 232mm	K2-215AB 222mm	K2-215AB 218mm		K2-215AB 225mm	K2-230AB 232mm	K2-200AB 203mm
225	K4-250AC 259mm				K4-250AC 250mm	K4-250AC 259mm	K2-225AB 229mm
250	K4-285AC 286mm	K4-270AC 274mm	K4-270AC 273mm			K4-285AC 286mm	
300	K4-340AC 345mm	K4-320AC 326mm	K4-320AC 324mm		K4-310AC 315mm	K4-340AC 345mm	
350		K10-370BD 378mm	K10-350BD 355mm		K10-350BD 355mm	K10-390BD 399mm	
375	K10-410BD 426mm		K10-400BD 406mm		K10-400BD 400mm	K10-410BD 426mm	
400		K10-420BD 429mm	K10-450BD 457mm		K10-450BD 450mm	K10-450BD 453mm	
450	K10-490BD 507mm	K10-470BD 480mm	K10-490BD 508mm		K10-490BD 500mm	K10-490BD 507mm	
500	K15-560CD 560mm	K15-530CD 532mm	K15-530CD 559mm		K15-560CD 560mm	K15-560CD 560mm	
525						K15-570CD 587mm	
600	K15-650CD 667mm	K15-620CD 635mm	K15-600CD 610mm		K15-620CD 630mm	K15-650CD 667mm	

Product Code  
Pipe OD

Note: The WANG Repair Clamp range extends beyond DN600. For sizes and configurations not listed above, please contact us.

\*1 Min. required pipe rating for clamp application: PN9. \*2 Min. required pipe rating for clamp application: SN10,000. \*3 Min. required pipe rating for clamp application: SN10,000.

PN 9

PN 6

## Repair Clamp Operating Pressures

CICL		Asbestos		RC	PVC-U/M/O*3		PE
B	C	AB	CD		Series 1 (U) AS/NZS1477 (M) AS/NZS4765 (O) AS/NZS4441	Series 2 (U) AS/NZS1477 (M) AS/NZS4765 (O) AS/NZS4441	AS/NZS 4130
AS 1724	AS 2544	AS 1711	AS 1711	AS 4058			
					<b>K2-047AA</b> 48mm		
		<b>K2-069AA</b> 69mm			<b>K2-059AA</b> 60mm		
		<b>K2-076AA</b> 79mm			<b>K2-075AA</b> 75mm		
<b>K2-095AB</b> 96mm	<b>K2-095AB</b> 96mm	<b>K2-095AB</b> 96mm	<b>K2-095AB</b> 96mm		<b>K2-085AB</b> 89mm		
<b>K2-120AB</b> 122mm	<b>K2-120AB</b> 122mm	<b>K2-120AB</b> 122mm	<b>K2-120AB</b> 122mm		<b>K2-114AB</b> 114mm	<b>K2-120AB</b> 122mm	
	<b>K2-140AB</b> 149mm				<b>K2-140AB</b> 140mm		
<b>K2-175AB</b> 177mm	<b>K2-175AB</b> 177mm	<b>K2-175AB</b> 177mm	<b>K2-175AB</b> 177mm	<b>K2-190AB</b> 197mm	<b>K2-160AB</b> 160mm	<b>K2-175AB</b> 177mm	
	<b>K2-200AB</b> 203mm				<b>K2-200AB</b> 200mm		
<b>K2-230AB</b> 232mm	<b>K2-230AB</b> 232mm	<b>K2-230AB</b> 232mm	<b>K2-230AB</b> 232mm		<b>K2-215AB</b> 225mm	<b>K2-230AB</b> 232mm	
<b>K4-250AC</b> 259mm	<b>K4-250AC</b> 259mm	<b>K4-250AC</b> 259mm	<b>K4-250AC</b> 259mm	<b>K4-275AC</b> 279mm	<b>K4-250AC</b> 250mm	<b>K4-250AC</b> 259mm	
<b>K4-285AC</b> 286mm	<b>K4-285AC</b> 286mm	<b>K4-285AC</b> 286mm	<b>K4-285AC</b> 286mm		<b>K4-275AC</b> 280mm	<b>K4-285AC</b> 286mm	
<b>K4-330AC</b> 334mm	<b>K4-340AC</b> 345mm	<b>K4-330AC</b> 334mm	<b>K4-340AC</b> 345mm	<b>K10-350BD</b> 362mm	<b>K4-310AC</b> 315mm	<b>K4-340AC</b> 345mm	
					<b>K10-350BD</b> 355mm		
<b>K10-410BD</b> 413mm	<b>K10-410BD</b> 426mm	<b>K10-410BD</b> 413mm	<b>K10-410BD</b> 426mm	<b>K10-440BD</b> 445mm	<b>K10-400BD</b> 400mm	<b>K10-410BD</b> 426mm	
					<b>K10-450BD</b> 450mm		
<b>K10-490BD</b> 492mm	<b>K10-490BD</b> 507mm	<b>K10-490BD</b> 492mm	<b>K10-490BD</b> 507mm	<b>K10-530BD</b> 533mm	<b>K10-490BD</b> 500mm	<b>K10-490BD</b> 507mm	
<b>K15-530CD</b> 545mm	<b>K15-560CD</b> 560mm				<b>K15-560CD</b> 560mm	<b>K15-560CD</b> 560mm	
		<b>K15-570CD</b> 572mm	<b>K15-570CD</b> 587mm	<b>K15-610CD</b> 616mm			
<b>K15-650CD</b> 650mm	<b>K15-650CD</b> 667mm	<b>K15-650CD</b> 650mm	<b>K15-650CD</b> 667mm	<b>K15-690CD</b> 699mm	<b>K15-620CD</b> 630mm	<b>K15-650CD</b> 667mm	

Product Code  
Pipe OD

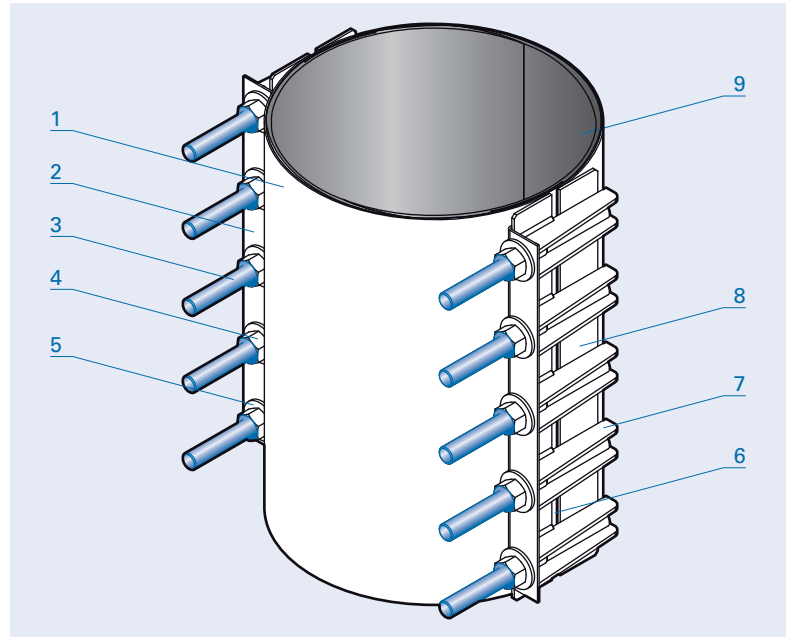
Contact Tyco Water for dedicated HDPE Repair Clamp availability

ase contact Tyco Water for assistance.

quired pipe rating for clamp application: U=PN9 / M=PN12 / O=PN16



Single Part Repair Clamp



Double Part Repair Clamp

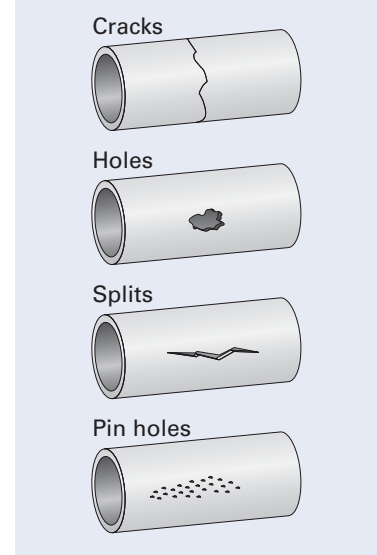


Multi Part Repair Clamp

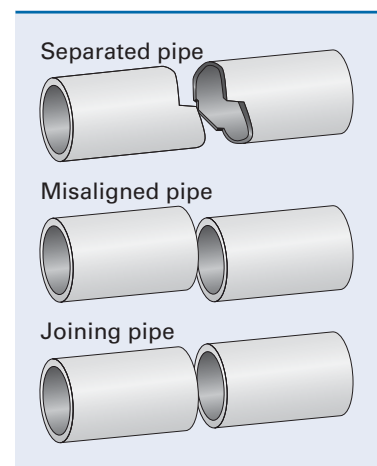
### WANG Repair Clamps generic parts list

No.	Description / Material / Standard
1	Skin 316 Stainless Steel ASTM A240M
2	Locking Plate 316 Stainless Steel ASTM A240M
3	Studs 316 Stainless Steel – anti-galling compound coated ASTM A276
4	Nuts 316 Stainless Steel – anti-galling compound coated AS 1112.1
5	Washers 316 Stainless Steel ISO 7089
6	Bridge Plate 316 Stainless Steel bonded to gasket ASTM A240M
7	Lugs 316 Stainless Steel ASTM A240M
8	Flat Bars 316 Stainless Steel ASTM A276 or A240M
9	Sealing Gasket Full-circle Nitrile (NBR) Compound AS 1646 and AS/NZS 4020

### WANG Repair Clamps applications recommended



### WANG Repair Clamps applications NOT recommended



# WANG Clamps and Couplings



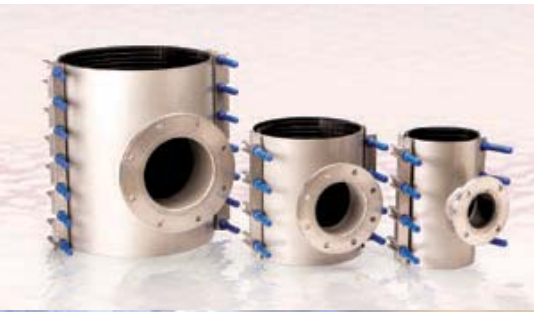
Tyco Water *Wang Components* is one of the leading manufacturers and suppliers of Grade 316 Stainless Steel Repair and Tapped Clamps as well as Couplings for reticulated water, sewerage and gas mains including industrial piping systems.

As part of the Tyco Water business, *Wang Components* products have become synonymous with quality and reliability. Our product range is widely utilised and relied upon by Water Authorities and Councils throughout

Australia in the installation and maintenance of their supply mains and reticulation network.

*Wang Components* products can be sourced through the Tyco Water national sales and service network of customer centres.

Tyco Water is a specialist in integrated solutions for all your water and wastewater pipeline system requirements.



## ◀ Flanged Offtake Clamp

A cost effective means of achieving a 'T' connection or under pressure tapping. DN 100 - DN 900

### KWIK Clamp ▶

A full circle repair clamp for small bore galvanised steel, copper and PVC pipe. DN 15 - DN 50



## ◀ Sewer OB Junction Clamp

A quick method of installing a new property service connection on a sewer main. DN 100 - DN 450

### HDPE Clamps ▶

A range of Flanged, Tapped and Repair Clamps specifically for HDPE pipe installations. DN 100 - DN 500



## ◀ Socket Joint Leak Clamp

Provides a permanent and economical seal over a leaking socket-spigot joint. DN 80 - DN 1200

### Tapped Clamp ▶

A reliable means of tapping into old, unstable or damaged pipe. DN 50 - DN 1200

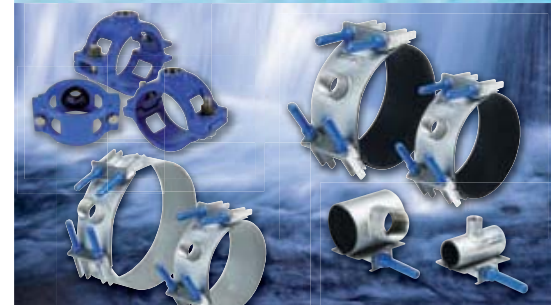


## ◀ Vari-Gib Coupling

Designed to provide a mechanical joint between similar or dissimilar pipes. DN 50 - DN 1200

### Tapping Saddles ▶

Permanent tapping solution for both rigid and flexible pipe. DN 40 - DN 450



## ◀ High Pressure Coupling

Provides a mechanical joint between similar or dissimilar pipes in high pressure environments. DN 150 - DN 2000

### Flanged Adaptors ▶

A wide range mechanical adaptor for connecting a stub ended pipe to a flange face. DN 80 - DN 600



For additional product information visit:  
[www.tycowater.com.au/pipeline\\_components2](http://www.tycowater.com.au/pipeline_components2)

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Water

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