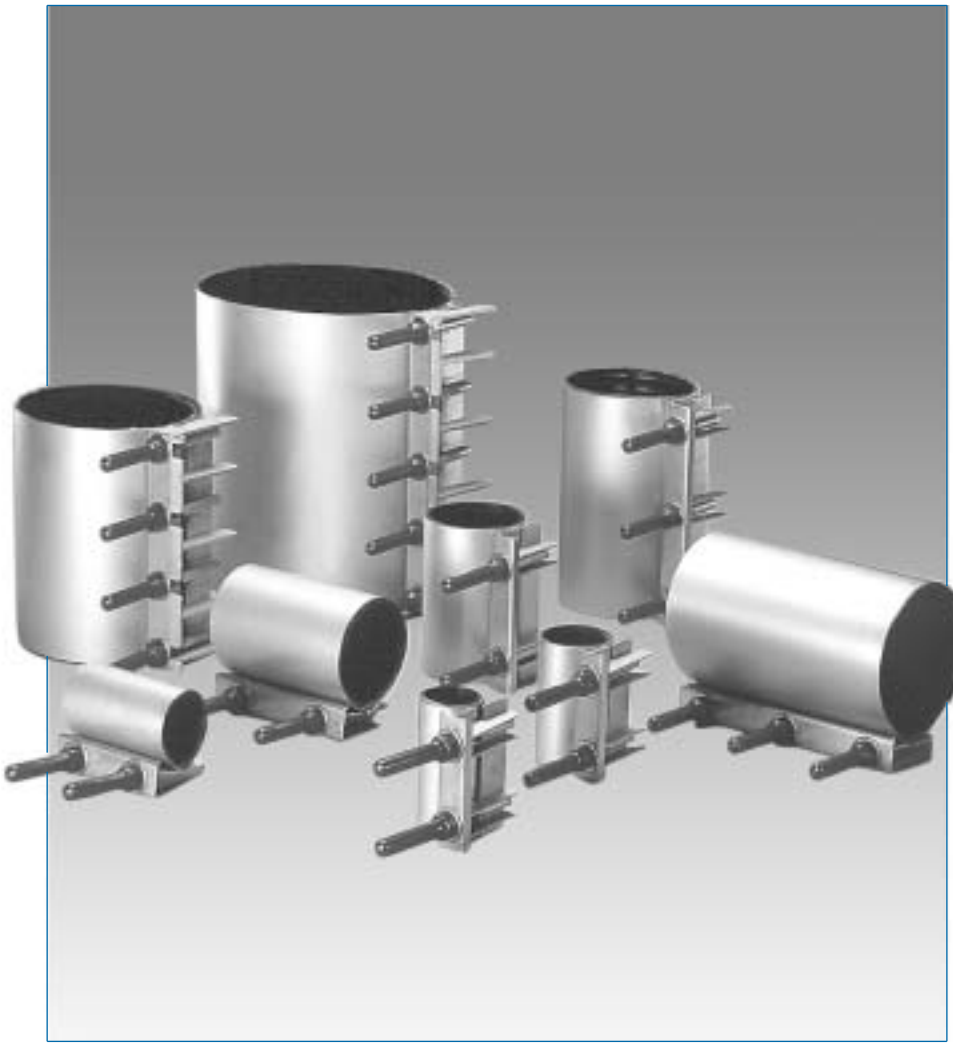
tyco
Flow Control

Tyco Water

Single Part Stainless steel repair clamps for fast and permanent repairs to most pipe types and sizes. Manufactured in accordance with AS 4181.

Features

- Simple to install.
- Fully constructed from 316 stainless steel for high corrosion protection.
- Full-circle nitrile rubber gasket.
- Each clamp fits a range of pipe diameters.
- Can be installed on a pressurised main.
- Can be used to eliminate the need to cut out damaged sections of pipe.
- Able to adapt to pipe irregularities or ovality.
- Fully passivated.
- Supplied with plastic thread protectors.
- Sharp surfaces linished to avoid injury.
- Minimum downtime to affected mains.
- Molybond coated fasteners to prevent galling.
- Despatched with installation instructions.
- Manufactured in accordance with ISO 9001 quality standards.



General Application

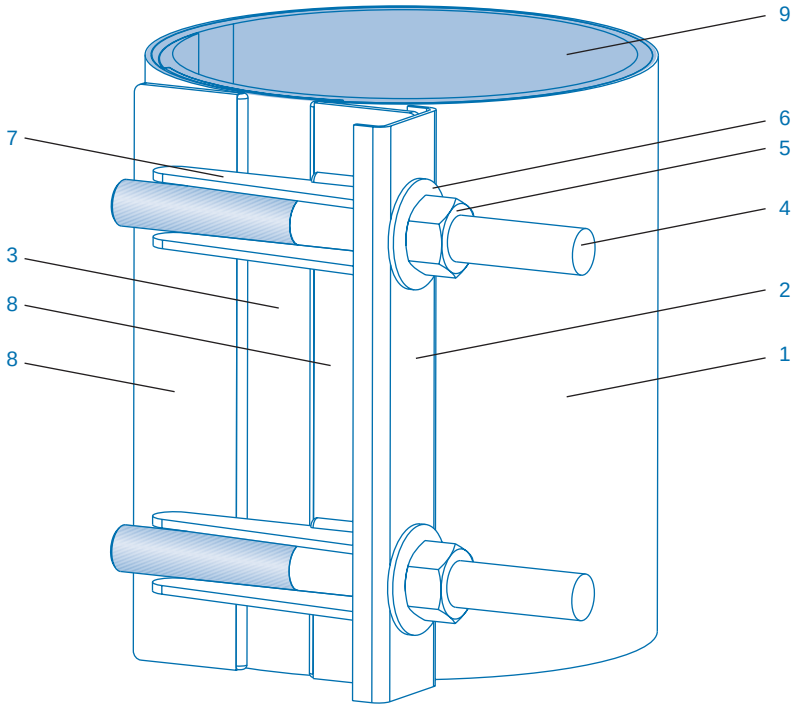
The Wang Components single-part stainless steel repair clamp is a fast, permanent and economical way to repair most damaged pipes, with pinholes, cracks and breaks. Use of quality materials and superior clamp design allows application onto high-pressure pipelines and non-pressure pipelines in a variety of industries.

Technical Data

Size Range: DN40 – DN300.
((Refer separate Double-part and Multi-part repair clamp brochures for larger sizes.)
Max Operating Pressure:
1600 kPa
(Tested: -80 kPa to 2000 kPa)
Max Temperature: 60°C
Relevant Standards: AS 4181
Note: *Wang repair clamps do not provide axial restraint.*

A.B.N. 75 087 415 745

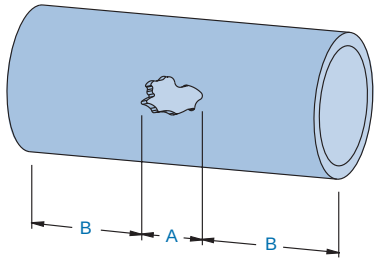
Wang - Stainless Steel Repair Clamps
Single Part DN40-DN300



Parts List

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

Wang - Stainless Steel Repair Clamps
Single Part DN40-DN300



Selecting the Clamp Length

When repairing a damaged pipe, it is important to consider the extent of the pipe damage and the most suitable clamp length for the purpose. It is important that there is sufficient gasket contact between the edge of the damage and the end of the clamp.

The following table gives a guide to selecting the clamp of recommended length, where "B" is the minimum sealing width between damaged area and the end of the clamp.

Minimum recommended clamp length = A + 2B

Recommended Seal Length - (B)

Nom. Dia.	Min. Seal Length B
40-80	50mm
100-200	65mm
225-300	100mm

AS 4181 Minimum Clamp Lengths

Nom. Dia.	Length (mm)
50-80	150
100-200	200
225-300	300

Standard Clamp Data

DN	Standard Clamp Lengths	No. of Studs	Stud No. Code	No. of Parts Code	Clamp Length Code	Stud Size	OD Range
40-65	150	2	K2	A	A	M12	5mm
80	150	2	K2	A	A	M16	10mm
80-200	200	2	K2	A	B	M16	10mm
80-225	300	3	K3	A	C	M16	10mm
250-300	300	4	K4	A	C	M16	10mm
100-300	400	5	K5	A	D	M16	10mm

Repair Clamp Size Table

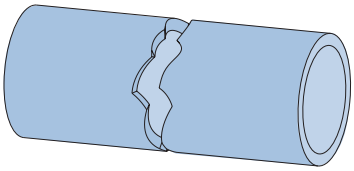
Nom Size	DICL	Steel		UPVC		ABS		Pressu
		MSCL	GWI	Series-1	Series-2	Series-1	Series-2	
	AS/NZS 2280	AS 1579	AS 1074	AS/NZ S1477	AS/NZS 4441	AS 3518	AS 3518	
40			-047	-047		-047		
			48mm	**48mm**		**48mm**		
50			-059	-059		-059		
			60mm	**60mm**		**60mm**		
65			-075	-075		-075		
			76mm	**75mm**		**75mm**		
80	-095		-085	-085		-085		
	96mm		**89mm**	**89mm**		**89mm**		
100	-120	-114	-114	-114	-120	-114	-120	
	122mm	**114mm**	**114mm**	**114mm**	**122mm**	**114mm**	**122mm**	
125		-140	-140	-140		-140		
		140mm	**140mm**	**140mm**		**140mm**		
150	-175	-160	-160	-160	-175	-160	-175	
	177mm	**168mm**	**168mm**	**160mm**	**177mm**	**168mm**	**177mm**	
175				-200				
				200mm				
200	-230	-215		-215	-230	-215	-230	
	232mm	**218mm**		**225mm**	**232mm**	**225mm**	**232mm**	
225	-250			-250	-250	-250	-250	
	259mm			**250mm**	**259mm**	**250mm**	**259mm**	
250	-285	-270		-275	-285		-285	
	286mm	**273mm**		**280mm**	**286mm**		**286mm**	
300	-340	-320		-310	-340	-310	-340	
	345mm	**324mm**		**315mm**	**345mm**	**315mm**	**345mm**	

Note:
Top Number = Clamp Size (Start of OD Range)
Bottom Number = **Pipe OD (mm)**

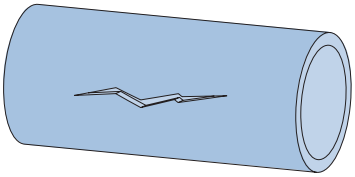
Wang - Stainless Steel Repair Clamps
Single Part DN40-DN300

Typical Application Diagram

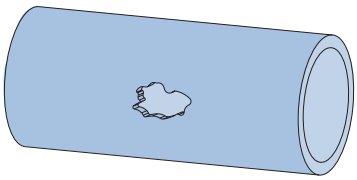
Full Breaks



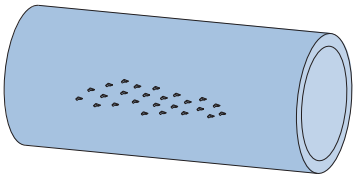
Splits



Holes



Pin Holes



Note:
The pressure that a repair clamp can contain is affected by the torque applied to the studs, the uniformity of stud tightening, the type and extent of pipe damage, the surface condition of the pipe, environmental conditions and installation workmanship.

Note:
A tension wrench is recommended for proper installation.

re Pipe

Hobas	Copper	CICL		Asbestos			PE
		B	C	AB	CD	RC	Actual OD
AS 3571	AS 1432	AS 1724	AS 2544	AS 1711	AS 1711	AS 4058	AS/NZS 4130
	N/A						-047
	38mm						**50mm**
	-047			-069			-063
	51mm			**69mm**			**63mm**
	-063			-079			-075
	64mm			**79mm**			**75mm**
	-075	-095	-095	-095	-095		-085
	76mm	**96mm**	**96mm**	**96mm**	**96mm**		**90mm**
-120	-095	-120	-120	-120	-120		-110
122mm	**101mm**	**122mm**	**122mm**	**122mm**	**122mm**		**110mm**
	-120		-140				-120
	127mm		**149mm**				**125mm**
-175	-150	-175	-175	-175	-175	-190	-140
177mm	**152mm**	**177mm**	**177mm**	**177mm**	**177mm**	**197mm**	**140mm**
			-200				-160
			203mm				**160mm**
-230	-200	-230	-230	-230	-230		-175
232mm	**203mm**	**232mm**	**232mm**	**232mm**	**232mm**		**180mm**
-250	-225	-250	-250	-250	-250	-275	-200
259mm	229mm	**259mm**	**259mm**	**259mm**	**259mm**	**279mm**	**200mm**
-285		-285	-285	-285	-285		-215
286mm		**286mm**	**286mm**	**286mm**	**286mm**		**225mm**
-340		-330	-340	-330	-340	-360	-250
345mm		**334mm**	**345mm**	**334mm**	**345mm**	**362mm**	**250mm**
							-275
							280mm
							-310
							315mm

Typical specifying sequence

Example	K	3	-	114	A	C

K = Clamp Code

No. of Studs
(Refer to Standard Clamp Data Table)

Delineator

Clamp Size (Start of OD range)
(Refer to Clamp Size Table)

No. of Parts
A = Single Part Clamp

Clamp Length (mm)
(Refer to Standard Clamp Data Table)
A = 150
B = 200
C = 300
D = 400

Note: *This specifying sequence is not to be used to construct a clamp of your own configuration, it must comply with the standard range as listed.*

Example:

You require a clamp to repair a DN100 white UPVC-1 pipe with a 80mm hole.

1. Determine the minimum required clamp length:

Min Clamp length = A + 2B
= 80+(2x65)
Min Clamp length = 210mm

Where A = damaged dimension
B = recommended sealing length (refer to table)

2. Find Standard Available Clamp Length:

From the Standard Clamp Data Table select the clamp length for the required pipe diameter (DN 100) that is equal to or greater than the above minimum clamp length that you calculate above. **DN 80-225 = 300mm**

This also gives you the required clamp code and No. of studs.
Code = **K3**
The No. of parts Code = **A**
The Clamp Length Code = **C**

3. Determine the clamp size

From the Clamp Selection Table find the intersection of DN100 pipe and UPVC Series 1 Pipe
Starting size = **-114**
Pipe OD = **114mm**

Therefore the clamp ordering code would be: **K3 - 114 AC**