

Single Part Stainless Steel Repair Clamps for fast and permanent repairs to most pipe types and sizes. Manufactured in accordance with AS 4181. DN 40 – DN 300.

WANG Repair Clamps – Single Part



- 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 finished to avoid injury.
- Minimum downtime to affected mains.
- Molybond coated fasteners to prevent galling.
- Dispatched with installation instructions.
- Manufactured in accordance with ISO 9001 quality standards..

General applications

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: DN 40 - DN 300

Refer separate Double-part and Multi-part repair clamp brochures for larger sizes.

Maximum Operating Pressure:
1600 kPa

Temperature Range:
-10°C to 60°C

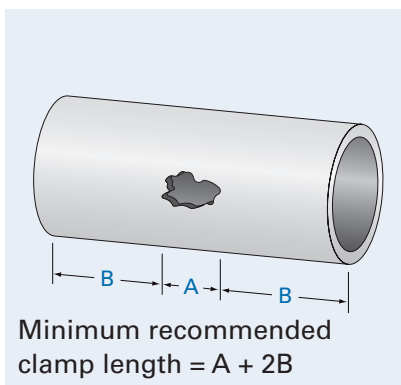
Relevant Standards: AS 4181.

Note. Wang repair clamps do not provide axial restraint.

Selecting the repair 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.



Recommended seal length. B

Nom. dia. DN	Min. seal length B
40 - 80	50mm
100 - 200	65mm
225 - 300	100mm

AS 4181 minimum clamp lengths

Nom. dia. DN	Length mm
50 - 80	150
100 - 200	200
225 - 300	300

Top Number = Clamp Size
(Start of OD Range)

Bottom Number = Pipe OD. mm

WANG single part repair clamp sizes for pressure pipe

Nom. size DN	DACL AS/NZS 2280	Steel		UPVC		ABS		Hobas AS 3571
		MCSL AS 1579	GWI AS 1074	Series 1 AS/NZ S1477	Series 2 AS/NZS 4441	Series 1 AS 3518	Series 2 AS 3518	
40			-047 48mm	-047 48mm			-047 48mm	
50			-059 60mm	-059 60mm			-059 60mm	
65			-075 76mm	-075 75mm			-075 75mm	
80	-095 96mm		-085 89mm	-085 89mm			-085 89mm	
100	-120 122mm	-114 114mm	-114 114mm	-114 114mm	-120 122mm		-114 114mm -120 122mm	-120 122mm
125		-140 140mm	-140 140mm	-140 140mm			-140 140mm	
150	-175 177mm	-160 168mm	-160 168mm	-160 160mm	-175 177mm		-160 168mm -175 177mm	-175 177mm
175				-200 200mm				
200	-230 232mm	-215 218mm		-215 225mm	-230 232mm		-215 225mm -230 232mm	-230 232mm
225	-250 259mm			-250 250mm	-250 259mm		-250 250mm -250 259mm	-250 259mm
250	-285 286mm	-270 273mm		-275 280mm	-285 286mm		-285 286mm	-285 286mm
300	-340 345mm	-320 324mm		-310 315mm	-340 345mm		-310 315mm -340 345mm	-340 345mm

Standard clamp data

Nom. size <i>DN</i>	Standard clamp lengths	No. of studs	Stud No. code	No. of parts code	Clamp length code	Stud size	OD range <i>mm</i>
40 - 65	150	2	K2	A	A	M16	5
80	150	2	K2	A	A	M16	10
80 - 200	200	2	K2	A	B	M16	10
80 - 225	300	3	K3	A	C	M16	10
250 - 300	300	4	K4	A	C	M16	10
100 - 300	400	5	K5	A	D	M16	10



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

WANG single part repair clamp typical specifying sequence

Example 1	K	3	-	114	A	C
K	= Clamp code					
3	= Number of studs <i>Refer to Standard Clamp Data Table on page 3</i>					
-	= Delineator					
114	= Clamp size – start of OD range <i>Refer to Clamp Size Table on page 2</i>					
A	= Number of parts – <i>single part clamp</i>					
C	= Clamp length. mm A = 150 / B = 200 / C = 300 / D = 400					

Example 2

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

1 Determine the minimum required clamp length.

$$\begin{aligned} \text{Minimum clamp length} &= A + 2B \\ &= 80 + (2 \times 65) \\ &= 210\text{mm} \end{aligned}$$

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 number of studs.

Code = K3

The number of parts code = A

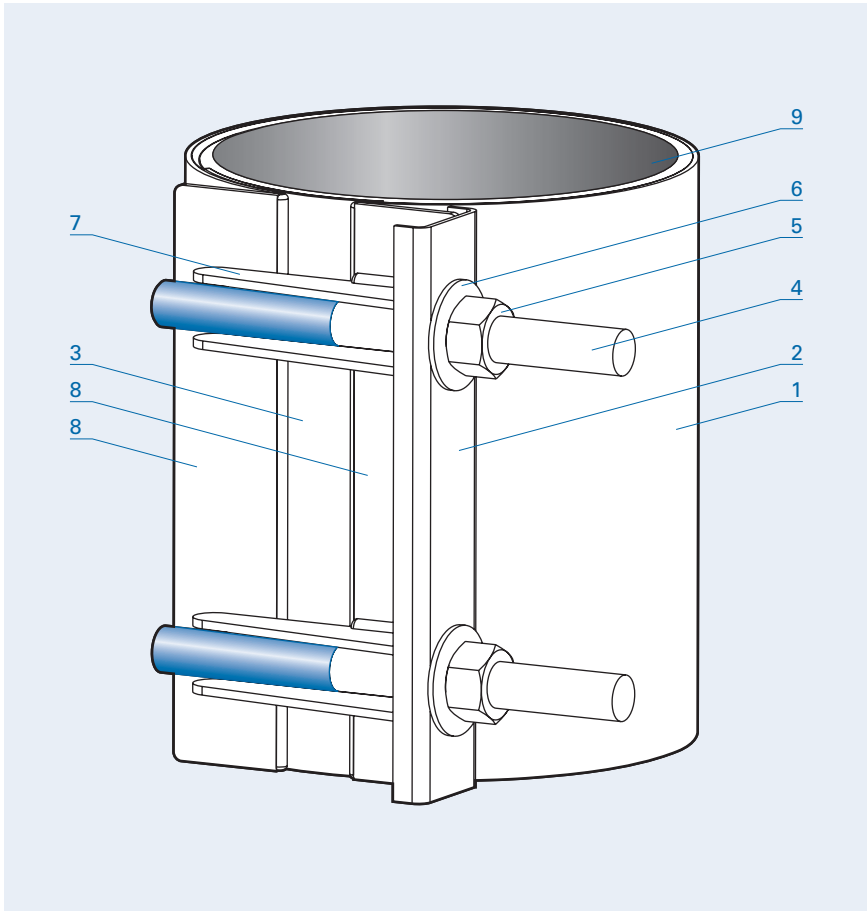
The clamp length code = C

3 Determine the clamp size.

From the clamp selection table find the intersection of DN 100 pipe and UPVC Series 1 pipe starting size = -114

Pipe OD = 114mm

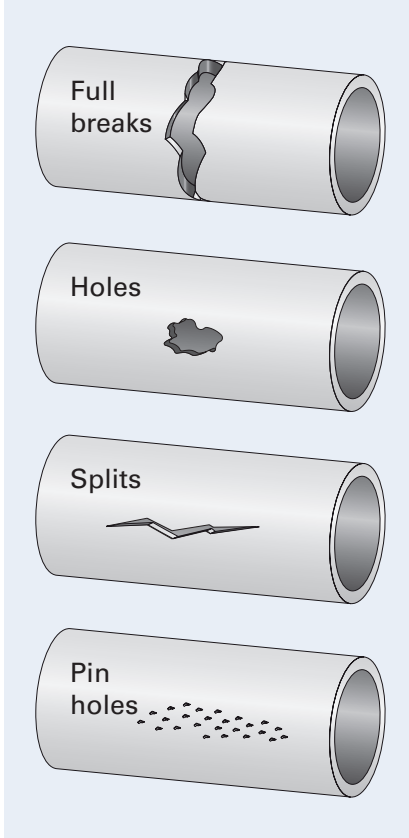
Therefore the clamp ordering code would be: K3-114AC



WANG
single part
repair clamp
parts list

No.	Description / Material / Standard
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 single part repair clamp typical applications



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.
A tension wrench is recommended for proper installation.

WANG Clamps and Couplings

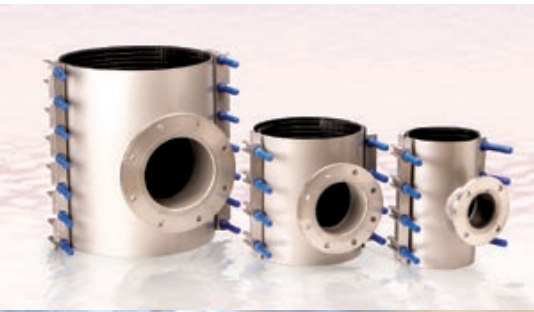
Tyco Water *Wang Components* is one of the leading suppliers of Grade 316 Stainless Steel Repair and Tapped Clamps as well as Couplings for reticulated water, sewerage and gas distribution mains including industrial piping systems.

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 are Australian made and 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

Repair Clamp ▶

A fast, permanent and economical repair solution for most pipe types and sizes. DN 50 - DN 1200



◀ 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 Saddle – Rigid pipe ▶

Variable OD stainless steel saddle for tapping into rigid pipe. DN 40 - DN 450

