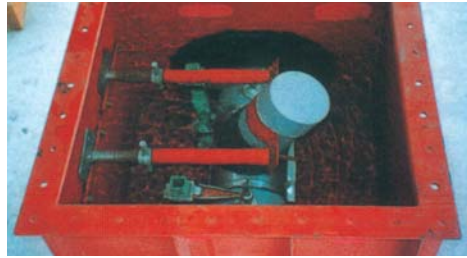


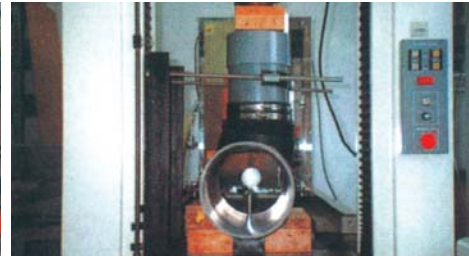
Waterproofing test



External water pressure

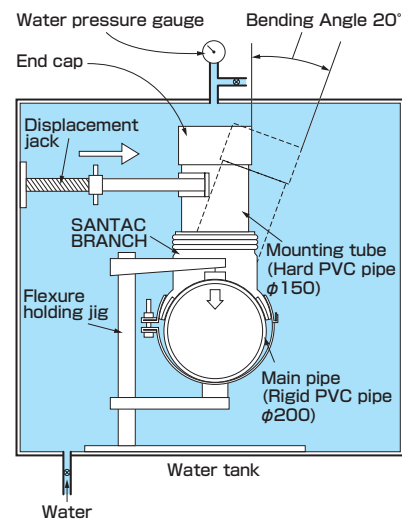


Internal water pressure



Compression indentation test

Outline of external water pressure test



Testing method

This paper holds the main pipe and the attaching pipe by the SANTAC BRANCH pipe, and holds it for 3 minutes by adding the external water pressure of 0.1 MPa from the outside surface of the pipe and the branch in the state in which the main pipe is fixed, and confirms the existence of the leak of the SANTAC BRANCH by visually. In addition, with the attaching pipe tilted by 20 degrees, 0.1 MPa of external water pressure was added and kept for 3 minutes, and the existence of water leak in the SANTAC BRANCH was confirmed visually. Next, a 5% slippage variant was given to this pipe under the condition of 0 degrees or 20 degrees of inflection angle of the fitting pipe, and 0.1 MPa of external water pressure was added to hold for 3 minutes, and the presence of leaks in the SANTAC BRANCH pipe was confirmed visually.

Test Results

Test Results

Types used	Main pipe deflection ratio (%)	External water pressure (MPa)	Bending angle of the mounting tube	External water pressure result	Results
SANTAC BRANCH number MH-SJ200/150	0	0.1	0°	3 minutes	No abnormal
			20°	3 minutes	No abnormal
	5	0.1	0°	3 minutes	No abnormal
			20°	3 minutes	No abnormal

The specifications and appearance are subject to change without notice for product improvement.

Water stop flexible joint for fitting pipe junction of sewer pipe SANTAC BRANCH



 HAYAKAWA RUBBER CO., LTD

<https://www.hrc.co.jp/>

Head Office

5351 Minamioka, Minoshima-cho, Fukuyama City, Hiroshima Prefecture

Overseas Dept.

1-16-10, Saga, Koto-ku, Tokyo

 HAYAKAWA RUBBER CO., LTD

Innovations Leading the 21st Century-Sealing and Joints

Water stop flexible joint for fitting pipe junction of sewer pipe

SANTAC BRANCH



This product was certified and certified by the Sewerage New Technology Promotion Organization in the Construction Technology Certification Project established by the Construction Technology Certification Council based on the Principal Terms for Implementation of Construction Technology Certification Project (Sewerage Technology) with the aim of contributing to the promotion of the utilization of new construction technology developed voluntarily by the private sector.

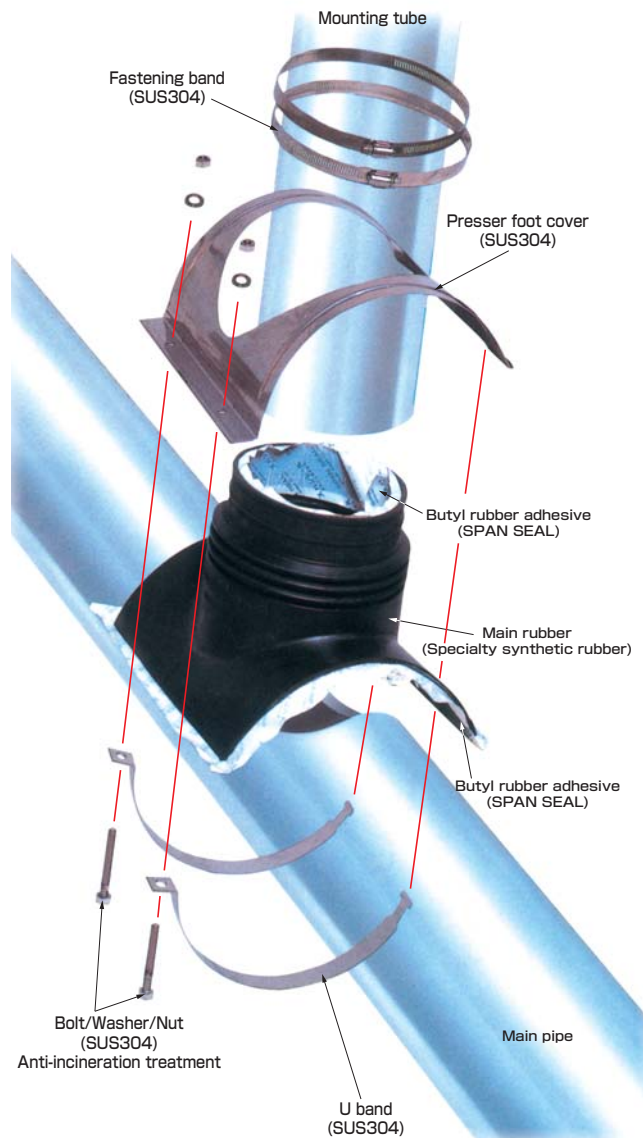
Certification No. 1643

Specifications and composition

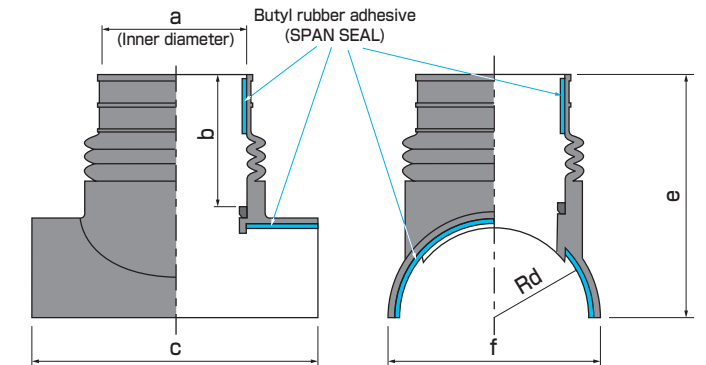
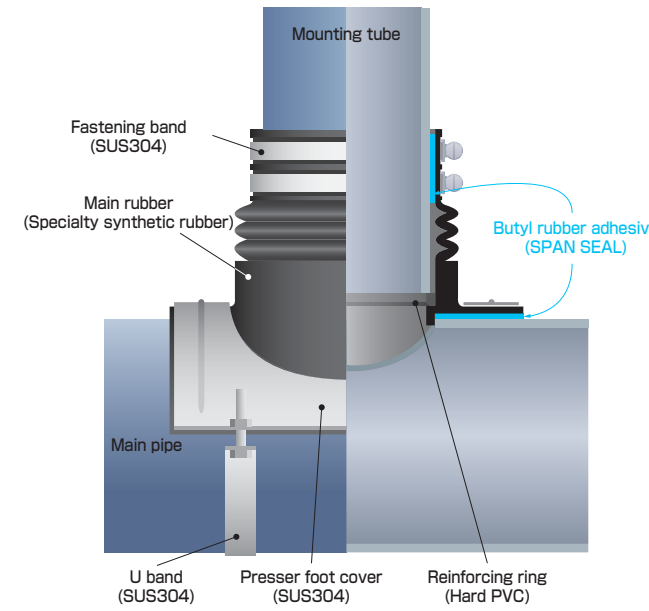
Comparison of Features and Conventional Method

Tectonic profile

Dimensions

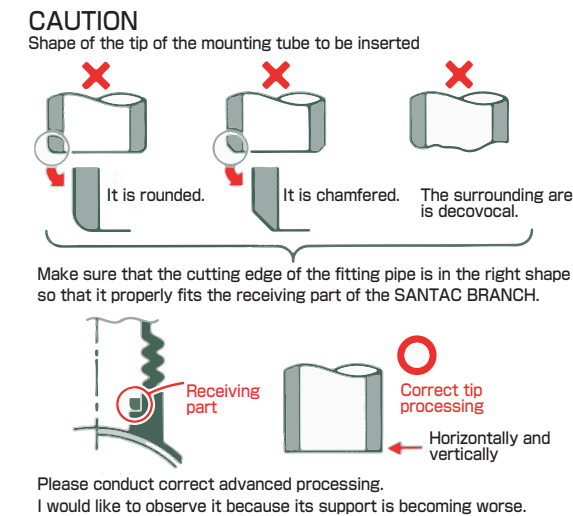


	SANTAC BRANCH	Conventional method
Watertightness	<ul style="list-style-type: none"> This pipe and the Santac branch pipe are blocked by butylrubber adhesive (SPAN SEAL). Mounting pipes are crimped and fastened with fastening bands to ensure complete water tightness. 	<ul style="list-style-type: none"> In some cases, water may leak from the surface over time. The pipe may be damaged or deformed due to uneven settlement of backfilling soil or uneven load caused by pulling out of the sheet pile.
Flexibility	<ul style="list-style-type: none"> Special synthetic rubber and its shape can follow displacements such as unequal settlement. The bending angle to the mounting tube should be within 15°. 	<ul style="list-style-type: none"> It has little flexibility and may receive displacement due to unequal settlement, etc., and intruding water may enter from the connection part. Line tightening. Adhesives for PVC tubes, 2-part adhesives and kneading adhesives are used.
Durability	<ul style="list-style-type: none"> Specialty synthetic rubber, butylrubber adhesive, fastening bands, and foreclosure covers are excellent in durability. It can be used under any conditions because it uses special synthetic rubber with ozone resistance, weather resistance, and chemical resistance. 	<ul style="list-style-type: none"> Durability is not recognized.
Workability	<ul style="list-style-type: none"> Chamfering of the end of the mounting tube is not required. Can be installed in about 10 minutes without skill. A fumed method that requires nothing, such as adhesives. It does not require curing and can be filled back soon after installation. 	<ul style="list-style-type: none"> Concrete, adhesives, and joints take time and cannot be filled back. It is difficult to adjust the slope, and it is necessary to devise and use songs and flexible joints. Form assembly, concrete placement and its curing are required.
Economic Efficiency	<ul style="list-style-type: none"> It is possible to shorten the construction period because it can be filled immediately after installation. Due to the watertightness and availability of water, long-term maintenance and management costs can be reduced. 	<ul style="list-style-type: none"> It does not require special products and the cost of installation is inexpensive. However, because it is low in watertightness and is unavailable, it incurs repair costs and increases long-term maintenance and management costs. In addition, skilled construction is required for construction, and personnel procurement and personnel costs are a problem.

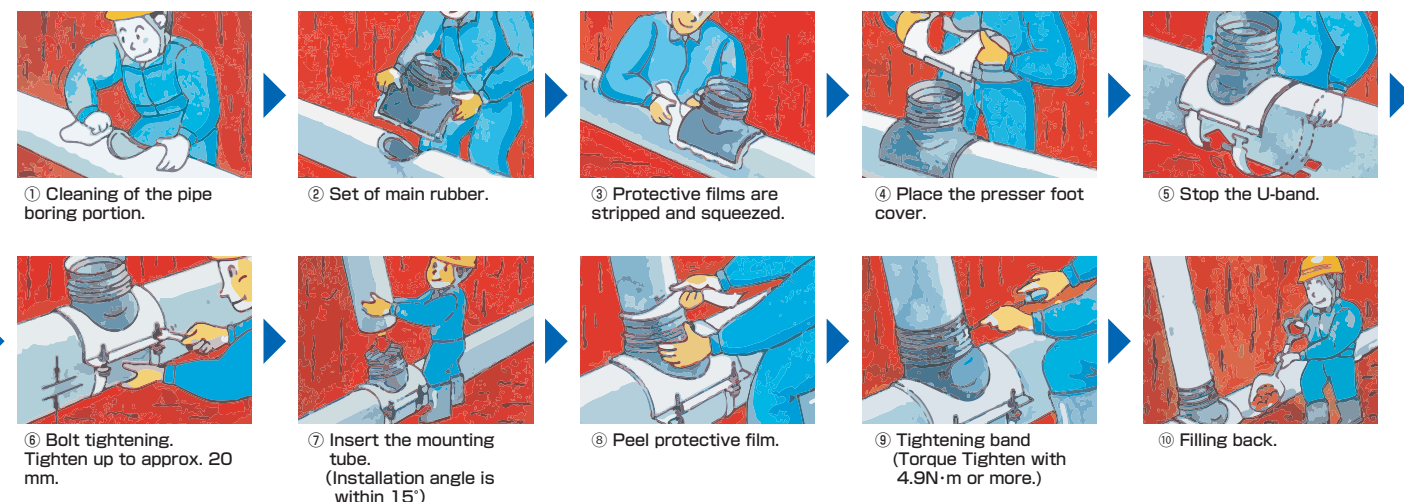


Application	Pipe size Main pipe x mounting tube	Product Number	Dimensions(mm)					
			Rd	a	b	c	e	f
PVC pipe	150x100	MH-SJ150/100	82.5	118	98.4	233	200	175
	150x125	MH-SJ150/125	82.5	144	103.5	259	236	175
	200x100	MH-SJ200/100	108.0	118	98.4	233	203	221
	200x125	MH-SJ200/125	108.0	144	98.4	259	218	225
	200x150	MH-SJ200/150	108.0	169	98.4	284	218	225
	250x100	MH-SJ250/100	108.0	118	98.4	233	203	221
	250x150	MH-SJ250/150	133.5	169	98.4	284	237	274
	300x100	MH-SJ300/100	159.0	118	98.4	253	230	314
	300x150	MH-SJ300/150	159.0	169	103.4	304	265	325
	350x100	MH-SJ350/100	159.0	169	98.4	253	230	314
Hume pipe	200x150	MH-SJH200/150	133.5	169	98.4	284	237	274
	250x150	MH-SJH250/150	159.0	169	103.4	304	265	325
	300x150	MH-SJH300/150	159.0	169	103.4	304	265	325
	350x150	MH-SJH350/150	159.0	169	103.4	304	265	325
Ceramics pipe	200x100	MH-SJT200/100	108.0	118	98.4	233	203	221
	200x150	MH-SJT200/150	108.0	169	97.9	284	218	225
High ceramic pipe	150x100	MH-SJS150/100	82.5	118	97.5	233	200	175
	200x100	MH-SJS200/100	108.0	118	98.4	233	203	221
	200x150	MH-SJS200/150	108.0	169	97.9	284	218	225
	250x100	MH-SJS250/100	108.0	118	98.4	284	233	221
	250x150	MH-SJS250/150	133.5	169	98.4	284	237	274

※ Please request that you have a detailed diagram for each part number.
 ※ Please inquire separately except for the above sizes.



Procedure



Note
 Use a hole saw with the specified dimensions because drilling will interfere with watertightness and bearing capacity if the diameters are not as shown below.

Mounting tube	φ100	φ125	φ150
Boring diameter	120mm	150mm	170mm

※ Precautions / Use protective equipment (gloves, etc.) to ensure safety.