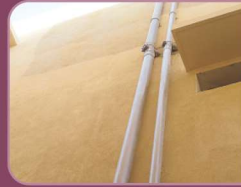


SOIL, WASTE AND VENT (SWV)

Nikasi



P
V
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U

THE COMPLETE PLUMBING & SANITARY
(SWV) PIPE SYSTEM IN PVC-U



DADEX

Introduction

Nikasi is a complete soil, waste and vent (SWV) sanitary pipe system made of unplasticised Polyvinyl Chloride (PVC-U) compound. Due to excellent physical & chemical Characteristics and ease of installation, Nikasi SWV system is now most popular and reliable **SWV** sanitary pipe system for inside buildings.

Dadex is Pakistan's exclusive licensee of Wavin Overseas b.v., of the Netherlands, the leading supplier of plastic pipe systems and solutions in Europe. Dadex manufactures Nikasi pipes and fittings in Pakistan with technical collaboration of Wavin and also offers fittings imported from Wavin Overseas.

Material

Unplasticised Polyvinyl Chloride (PVC-U).

Nikasi pipes and fittings are light grey in colour.

Standards & Specifications

- Nikasi pipes conform to ISO 3633/EN 1329 & PS 3214
- Nikasi fittings with solvent cement socket joint and with rubber ring socket joint, Both conform to ISO 3633:2002(E)/EN 1329 & PS 3214
- Dadex rubber rings are manufactured as per PS 1915 & ISO 4633 standards.



Available Range

Nikasi pipes are available in nominal outside diameters of 40mm, 50mm, 75mm, 110mm, 160mm and 200mm in standard lengths of 3m and 4m.

1. **Socketed end** with one end socketed for rubber ring.
2. **Plain end** with both ends plain.

Rubber rings: Dadex is the only pipe manufacturer in Pakistan that produces high quality rubber rings conforming to international standards for all its pipe systems.

Nominal Outside Diameter (mm)	Minimum wall thickness (mm) Soil & Waste Pipes
40	3
50	3
75	3
110	3.2
160	3.2
200	3.9

Features & Benefits

Smooth Flow

Exceptionally low friction and smooth inside surface of Nikasi Pipe System minimises the buildup of deposits commonly seen in conventional cast iron (C.I.) pipe system. Therefore, Nikasi pipe system ensures smooth & uninterrupted flow even after continuous use for the decades.

Lightweight

Nikasi pipes are lightweight, they weigh only one fifth of C.I. Pipe. Therefore they have a lower transportation, handling and installation cost further due to light weight installation of Nikasi system is easy and faster.

Non-Corrosiveness and Chemical Resistance

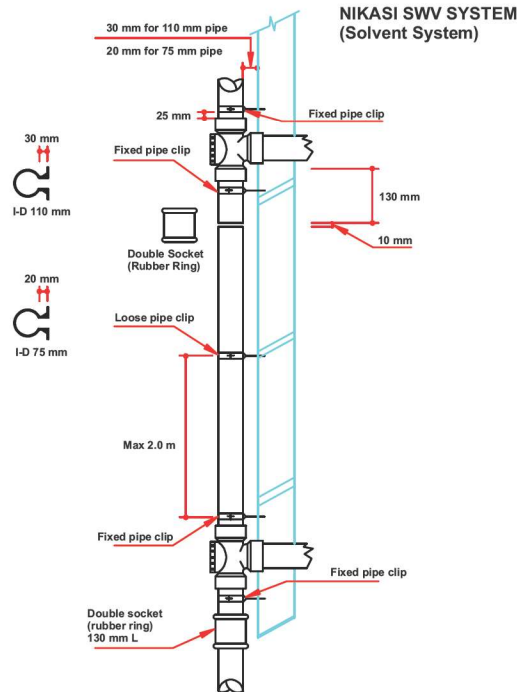
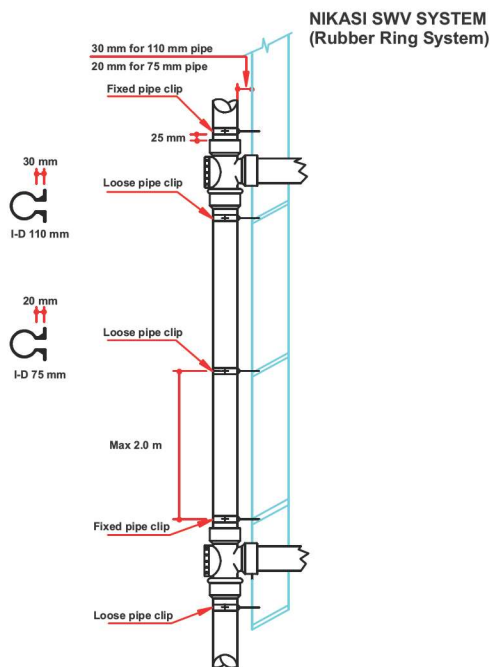
Nikasi Pipe System is non-corrosive and it is highly resistant to a number of aggressive chemicals such as mineral acids, alkalis and aqueous salt solutions. However our technical staff should be consulted for further assistance in special applications.

Self - Extinguishing

PVC-U used in Nikasi is self-extinguishing and does not support combustion.

Non - Conductivity of Electricity

Nikasi does not conduct electricity and this outstanding feature makes this system safe to use in buildings.



Joining Techniques

The ring seal has been successfully employed as the principal method of joining large diameter uPVC pipes and fittings. This particular technique has proved extremely reliable as the joint can accommodate thermal movement that will occur as a result of temperature variations.

An expansion gap of between 5-10mm should be allowed within each ring seal socket as each full length of pipe is installed and fixed using socket and barrel pipe clips.

Solvent weld jointing is also widely used and many components in the range are available with this facility to provide an effective alternative. By selecting these fittings a solvent weld system can be installed, however, ring seal joints must be incorporated to control thermal movement in the vertical pipe stacks.

While the most popular method of jointing larger size uPVC pipes and fittings is by rubber ring seal, with small diameter waste pipework the principal choice is usually solvent weld. Where this technique is used expansion couplings must be introduced where pipe lengths exceed 1.8 metres or between fixed points.

Pipe Cutting and Jointing

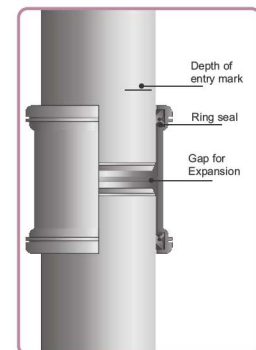
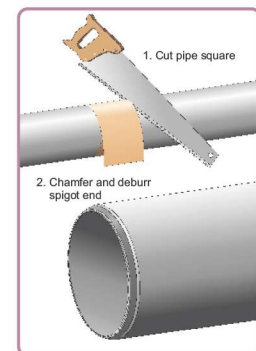
Preparing Pipe Ends

Pipes cut on site must be clean cut at right angles to their horizontal axis. De-burr the cut end with a scraper if the cut end is to be inserted into a ring-seal or push-fit joint.

Chamfer the spigot end: this is essential to ensure that the sealing ring is not displaced during insertion.

Depth of Entry Mark

Some plain end fittings have a depth of entry mark moulded on the spigot. This depth of entry allows the pipe to expand into the fitting socket by a minimum of 10mm. Insert the spigot into the socket until the depth of entry mark is just visible. All pipes (whether site cut or otherwise) and other plain ended fittings must be inserted to the full depth of the socket, marked at the socket face and then withdrawn at least 10mm. This gap will accommodate the movement of pipe due to Expansion and contraction.



Ring-Seal / Push-Fit Jointing

- Ensure any pipe cut on site is also chamfered.
- Check that the sealing ring is properly seated in its housing in the socket of the fitting.
- Ensure all components to be joined are dry, clean and free from grit or dust. Note any deep scratches on the pipe or fitting spigot as these may prevent the sealing ring from forming a water tight seal.
- Lubricate evenly around the pipe or fitting spigot end with suitable lubricant (soup solution may also be used). Do not lubricate inside the socket and not the ring seal. The spigot can then be inserted into the socket.
- Correctly align the components to be joined.
- Push the pipe or fitting spigot fully into the socket. Mark the pipe or fitting spigot at the socket face and then withdraw it by a minimum of 10mm to allow for thermal expansion.
- Make a subsequent check to ensure that the expansion gap is not lost during further installation work.



Solvent Cement Jointing

- Before using solvent based cleaners or cement:
 - Read instructions printed on the can
 - Ensure there is sufficient ventilation.
- Make sure pipe or fitting spigot and solvent weld socket are dry, clean and free from grit or dust.
- Clean surfaces of spigot and socket with Dadex Degreasing Cleaner. Apply liberally using a clean non synthetic rag or absorbent paper.
- Apply one coat of Dadex Solvent Cement. Apply an even coat to both surfaces using the applicator provided or a paint brush. Stroke the cement along and not around the surfaces.
- Immediately insert pipe or fitting spigot fully into the socket. Each solvent weld joint MUST be completed within 1 ½ minutes.
- Hold for 20-30 seconds. Remove any surplus cement from the mouth of the socket.
- The joint may be handled after 10 minutes and commissioned after 24 hours.



Maximum Recommended Spacing of Clamps for Nikasi Pipe

The given table shows recommended distances in metre for support centres that are necessary for a proper pipe system installation.

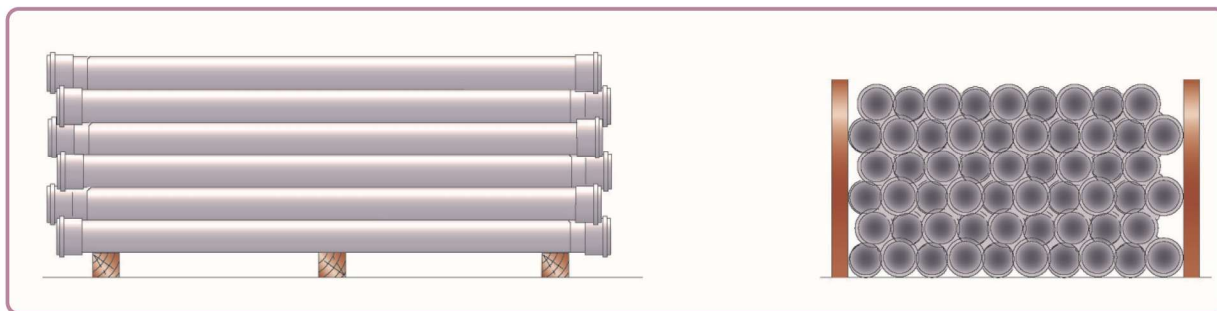
Nominal Outside Diameter (mm)	Distance between Clamps for Horizontal Pipes (m)	Distance between Clamps for Vertical Pipes (m)
40	0.40	1.2
50	0.50	1.5
75	0.75	1.8
110	1.10	1.8
160	1.60	1.8
200	1.60	1.8

The values shown are for general installations only. Attention is drawn to special requirements that may be needed in more demanding applications

Handling & Storage

Reasonable care should be exercised in handling Nikasi particularly in very hot or cold conditions. Some useful tips are as follows:

1. Pipes should be stacked on a flat base or level ground or alternatively on timber bearers at spacing not greater than 1.5m while the width of the bottom layer of the stack should not exceed 3m.
2. Pipe should be stacked not more than 1m high.
3. Pipe stacks should contain one diameter size only. If this is not possible then the largest diameter should be stacked at the bottom. Small pipes may be nested inside larger pipes. If pipes are transported one inside the other, the inner pipes should always be removed first.
4. When stored in the open for long periods or exposed to strong sunlight the stack should be covered by an opaque covering to prevent it from heat and strong sunlight.
5. Fittings should be stored under cover until required.
6. Solvent cement solution and cleaning fluid should be stored in a cool dry place, away from direct sunlight and any heat source.



Cleaner/Solvent Cement Usage Guide (Approx.) For Solvent Weld Joint

Description	Nominal Pipe Sizes / Number of Joints					
	40mm	50mm	75mm	110mm	160mm	200mm
Degreasing Cleaner 125ml	45	33	24	16	10	4
Degreasing Cleaner 250ml	90	66	48	32	20	9
Solvent Cement 125ml	30	20	10	5	3	1
Solvent Cement 250ml	60	40	20	11	6	3
Solvent Cement 500ml	120	80	40	22	12	6

Note: Above information about number of joint is approximate for ideal conditions, the quantity may vary due to working and ambient conditions.

Safety

When making solvent weld joints it is essential to observe normal safety rules for handling solvent:

- Never smoke or bring naked flames near the area of work.
- Work in a well ventilated area to avoid inhaling fumes.
- Close the solvent container after use and store in a cool area.
- Do not allow solvents or cleaners to come into contact with skin.

Refer to local safety regulations and guidelines where applicable.

- **Islamabad :**

UAN : (92-51) 111 000 789, 4861034-7, Fax : (92-51) 4861033

E-mail : islamabad@dadex.com.pk

- **Lahore :**

UAN : (92-42) 111 000 789, 35760735-6, Fax : (92-42) 35760734

E-mail : lahore@dadex.com.pk

- **Multan :**

Tel : (92-61) 4545259, Fax : (92-61) 4784688

E-mail : multan@dadex.com.pk

- **Faisalabad :**

Tel : (92-41) 8861981, 8787944, Fax : (92-41) 8787944

E-mail : faisalabad@dadex.com.pk

- **Peshawar :**

Tel : (92-91) 5840316-7, Fax : (92-91) 5840317

E-mail : peshawar@dadex.com.pk

- **Quetta :**

Tel : (92-333 7845732)

E-mail: quetta@dadex.com.pk

For Technical information and assistance, please contact Dadex Techno Commercial Department on 111 000 789 or contact Dadex Sales Office near you.

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DADEX Eternit Limited

Dadex House : 34-A/1, Block-6, P.E.C.H.S, Shahrah-e-Faisal, Karachi, Pakistan.

Tel. # (92-21) 111 000 789, Fax # (92-21) 34313881, 34315716

E-mail : info@dadex.com.pk Web : www.dadex.com