Quick Installation Guide
Rubber Ring Jointing for PVC

Vinidex by aliaxis

Installation

Rubber ring joints provide a fluid seal by compressing a rubber ring housed in the socket of a pipe or fitting when the spigot is passed into the socket.

Vinidex pipes and fittings may have one of several different design rubber ring joints, depending on the pipe type. The correct jointing rings are supplied with the pipe or fitting.

Consult the label on the pipe socket for information about the type of joint and for specific jointing instructions.

Series 1, Series 2, sewer rings or rings from other manufacturers cannot be interchanged.

Some Vinidex pipes incorporate a captive Rieber ring that is pre-installed in the factory and must not be removed in the field. This will be identified on the socket label.

Vinidex recommends using Vinidex jointing lubricant. Other lubricants may not be suitable for drinking water contact and may affect the ring. They should not be substituted without specific knowledge of these effects.

Procedure

1. Pipes may be jointed out of the trench but it is preferable that connections be made in the trench to prevent possible “pulling” of the joint.

2. Check that the spigot end, if cut in the field, has a chamfer of approximately 12° to 15°. See the Appendix or chamfer dimensions and witness mark positions for Vinidex rubber ring joints.

3. Clean the socket, especially the ring groove. Do not use rag with lubricant on it.

4. Some pipes have captive rings which must not be removed in the field. For all other rubber ring joint types, clean and dry the ring and ring groove and insert the rubber ring into the groove as shown on the label.

5. Run your finger around the lead-in angle of the rubber ring to check that it is correctly seated, not twisted, and that it is evenly distributed around the ring groove.

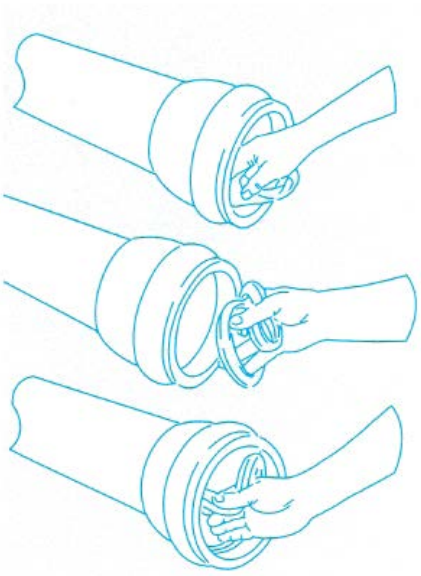
6. Clean the spigot end of the pipe as far back as the witness mark. Ensure all burs are removed.

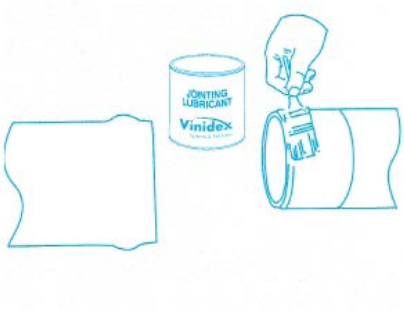
7. Apply Vinidex jointing lubricant to the spigot end as far back as the witness mark and especially to the chamfered section.

Note: Keep the rubber ring and ring groove free of jointing lubricant until the joint is actually being made.

8. Align the spigot with the socket and apply a firm, even thrust to push the spigot into the socket. It is possible to joint 100mm and 150mm diameter pipes by hand. However, larger diameter pipes such as 200 mm and above may require the use of a bar and timber block as illustrated. Alternatively, a commercially available pipe puller may be used to joint the pipes. Joint so that the witness mark is just showing

9. Brace the socket end of the line so that previously jointed pipes are prevented from closing up





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10. Inspect each joint to ensure that the witness mark is just visible at the face of each socket.

11. Pipe joints should not be pushed home to the bottom of the socket. The witness mark shows the optimum insertion depth. This is to allow for possible expansion of the pipe.

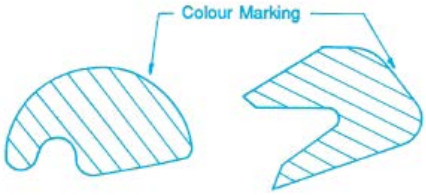
12. If a pipe joint is homed too far, it may be withdrawn immediately, but once the lubricant is dry (which takes only a few minutes in hot weather) mechanical aids are required to pull the joint apart.

13. With mechanical assistance, rubber ring joints can be recovered and re-made years after the original joint was made. New rubber rings should be used and care should be taken to ensure that there is no damage to pipe or socket.

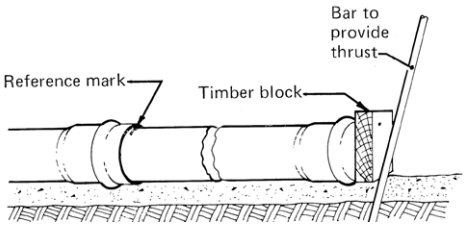
14. If the joint is likely to be dismantled in the future the task is much easier if silicone lubricant is used.

Hint: If excessive force is required to make a joint, this may mean that the rubber ring has been displaced. To check placement of the ring without having to dismantle the joint, a feeler gauge can be inserted between the socket and pipe to check even placement of the ring.

TYPICAL RING CROSS-SECTION



BAR & BLOCK JOINTING



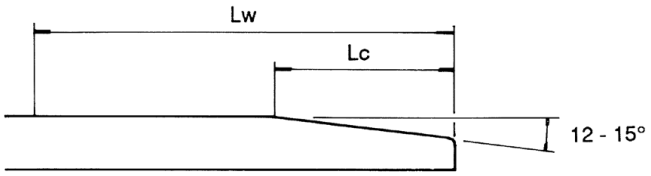
Chamfering

Vinidex PVC pipes for rubber ring jointing are supplied with a chamfered end. However, if a pipe which has been cut in the field is to be used for making a rubber ring joint, the spigot end must be chamfered.

Special chamfering tools are available for this purpose, but in the absence of this equipment a body file can be used provided it does not leave any sharp edges which may cut the rubber ring. Do not make an excessively sharp edge at the rim of the bore and do not chip or break this edge. Use a deburring tool if necessary to remove any sharp burrs or edges.

When a pipe is cut, a witness mark should be pencilled in. Care should be taken to mark the correct position.

For the correct chamfer lengths and witness mark positions, consult the Tables in the Appendix for the relevant pipe type.



Lw – witness mark length, Lc= chamfer length.

Vinidex recommends that PVC Pressure pipes are installed in accordance with AS/NZS 2032 Installation of PVC pipe systems.

Appendix - Joint Assembly and Control Dimensions for Vinidex Rubber Ring Jointed pipes

Table 1: Rieber Ring Jointing Dimensions for Series 1 Vinidex PVC-U

Pipe Size	Series	Pipe Class	Outside Diameter Mean Dm		Chamfer Lc		Pipe Lengths Witness Mark Lw		Pipe End Squareness
DN		PN	MIN	MAX	MIN	MAX	MIN	MAX	mm
100	S1	6 9 12 15	114.1	114.5	6 9 9 9	9 13 13 13	120	124	4
125	S1	6 9 12 15	140	140.4	7 11 14 14	11 16 20 20	136	140	5
150	S1	6 9 12 15	160	160.5	8 13 14 14	12 18 19 19	146	150	6
200	S1	6 9 12 15	225	225.6	11 16 20 20	16 23 28 28	164	168	8
225	S1	6 9 12 15	250	250.7	12 18 19 19	17 25 27 27	172	176	9
250	S1	6 9 12 15	280	280.8	13 20 21 21	19 28 29 29	185	189	10
300	S1	6 9 12 15	315	315.9	15 20 20 20	21 29 29 29	193	197	11
375	S1	4.5 6 9 12 15	400	401	14 19 19 19 19	21 27 27 27 27	220	224	14
450	S1	6 9 12 15	500	501	23 23 23 23	35 35 35 35	260	264	17

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Table 2: Series 2 Vinidex Supermain® PVC-O

Pipe Size	Series	Outside Diameter Mean Dm		Chamfer Lc		Pipe Lengths Witness Mark Lw		Pipe End Squareness
DN		MIN	MAX	MIN	MAX	MIN	MAX	mm
100	S2	121.7	122.1	8	11	128	132	1
150	S2	177.1	177.6	12	16	144	148	2
200	S2	231.9	232.6	13	17	168	172	2
225	S2	258.9	259.6	14	18	178	182	2
250	S2	285.8	286.6	15	20	189	193	2
300	S2	344.9	345.8	18	24	209	213	2

Table 3: Rieber Ring Jointing Dimensions for Series 1 Vinidex Hydro® PVC-M

Pipe Size	Series	Pipe Class	Outside Diameter Mean Dm		Chamfer Lc		Pipe Lengths Witness Mark Lw		Pipe End Squareness
DN		PN	MIN	MAX	MIN	MAX	MIN	MAX	mm
100	S1	6 9 12 15	114.1	114.5	6 7 10 10	9 10 12 15	132.0	136.0	1
125	S1	6 9 12 15	140	140.4	7 9 11 13	10 12 15 19	146.0	150.0	2
150	S1	6 9 12 15	160	160.5	8 10 13 13	11 14 17 19	152	156	2
200	S1	6 9 12 15	225	225.6	11 13 17 17	16 19 25 25	164.0	168.0	2
225	S1	6 9 12 15	250	250.7	12 14 17 17	16 19 25 25	171.0	175.0	2
250	S1	6 9 12 15	280	280.8	13 16 19 19	18 21 28 28	177.0	181.0	2
300	S1	6 9 12 15	315	315.9	15 17 18 18	21 24 27 27	188.0	192.0	2
375	S1	6 9 12 15	400	401	18 21 24 24	25 29 35 35	214.0	218.0	2
450	S1	6 9 12 15	500	501	22 26 28 28	30 36 42 42	250.0	254.0	3

Table 4: Perth Polydex® Ring Jointing Dimensions for Series 1 Vinidex Hydro® PVC-M

Pipe Size	Series	Pipe Class	Outside Diameter Mean Dm		Chamfer Lc		Pipe Lengths Witness Mark Lw		Pipe End Squareness
DN		PN	MIN	MAX	MIN	MAX	MIN	MAX	mm
100	S1	6 9 12	114.1	114.5	7 7 10	9 10 14	95	99	1
125	S1	9 12	140.0	140.4	10 13	13 17	107	111	2
150	S1	6 9 12	160.0	160.5	9 11 14	12 15 19	114	118	2
200	S1	6 9 12	225.0	225.6	13 16 16	17 21 21	138	142	2
225	S1	6 9 12	250.0	250.7	15 17 17	20 23 23	148	152	2
250	S1	6 9 12	280.0	280.8	16 19 19	22 25 25	174	178	2
300	S1	6 9 12	315.0	315.9	16 22 22	21 29 29	185	189	2
375	S1	12	400.0	401.0	29	37	210	214	2

Table 5: Rieber Ring Jointing Dimensions for Series 2 Vinidex Hydro® PVC-M

Pipe Size	Series	Pipe Class	Outside Diameter Mean Dm		Chamfer Lc		Pipe Lengths Witness Mark Lw		Pipe End Squareness
DN		PN	MIN	MAX	MIN	MAX	MIN	MAX	mm
100	S2	12 16 18 20	121.7	122.1	8 10 11 11	12 16 18 18	132.0	136.0	1
150	S2	12 16 18 20	177.1	177.6	11 13 13 13	17 21 21 21	148.0	152.0	2
200	S2	12 16 18 20	231.9	232.6	14 15 15 15	22 24 24 24	164.0	168.0	2
225	S2	6 9 12 16 18 20	258.9	259.6	10 12 16 16 16 16	16 19 26 26 26 26	175.0	179.0	2
250	S2	6 9 12 16 18 20	285.8	286.6	11 13 17 17 17 17	18 21 27 27 27 27	182.0	186.0	2
300	S2	6 9 12 16 18 20	344.9	345.8	14 16 19 19 19 19	21 25 31 31 31 31	199.0	203.0	2
375	S2	6 9 12 16	425.7	426.7	17 20 22 22	26 30 36 36	221.0	225.0	2
450	S2	6 9 12 16	506.5	507.5	20 24 25 25	31 36 41 41	251.0	255.0	2

Table 6: Perth VI Ring Jointing Dimensions for Series 2 Vinidex Hydro® PVC-M

Pipe Size	Series	Pipe Class	Outside Diameter Mean Dm		Chamfer Lc		Pipe Lengths Witness Mark Lw		Pipe End Squareness
DN		PN	MIN	MAX	MIN	MAX	MIN	MAX	mm
100	S2	12	121.7	122.1	10	13	103	107	1
		16			10	13			
		18			10	13			
		20			10	13			
150	S2	12	177.1	177.6	13	18	125	129	2
		16			13	18			
		18			13	18			
		20			13	18			
200	S2	12	231.9	232.6	16	22	169	173	2
		16			16	22			
		18			16	22			
		20			18	24			
225	S2	12	258.9	259.6	18	24	178	182	2
		16			18	24			
250	S2	12	285.8	286.6	20	27	189	193	2
		16			20	27			
		18			20	27			
		20			20	27			
300	S2	12	344.9	345.8	24	32	209	213	2
		16			24	32			
		18			24	32			
		20			24	32			
375	S2	12	425.7	426.7	32	40	237	241	2
		16			32	40			
		20			32	40			

Table 7: Vinidex RRJ DWV pipes

Pipe Size	Outside Diameter Mean Dm		Chamfer Lc		Pipe Lengths Witness Mark Lw		Pipe End Squareness
DN	MIN	MAX	MIN	MAX	MIN	MAX	mm
100	110.0	110.4	8	11	83	87	4
150	160.0	160.5	12	16	104	108	6
225	250.0	250.7	16	22	149	153	9
300	315.0	315.9	21	28	189	193	11

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