QUICK LINKS:

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STRESCON LIMITED

Concrete Pipe Products

Concrete Pipe Division

2013 edition

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Strescon is a member of the OSCO Construction Group

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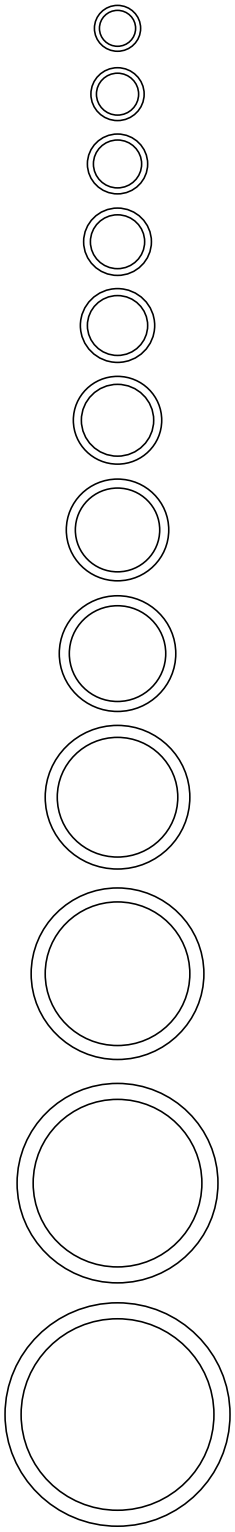
Catalog No.: _____

Date: _____



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ASTM SPECIFICATIONS

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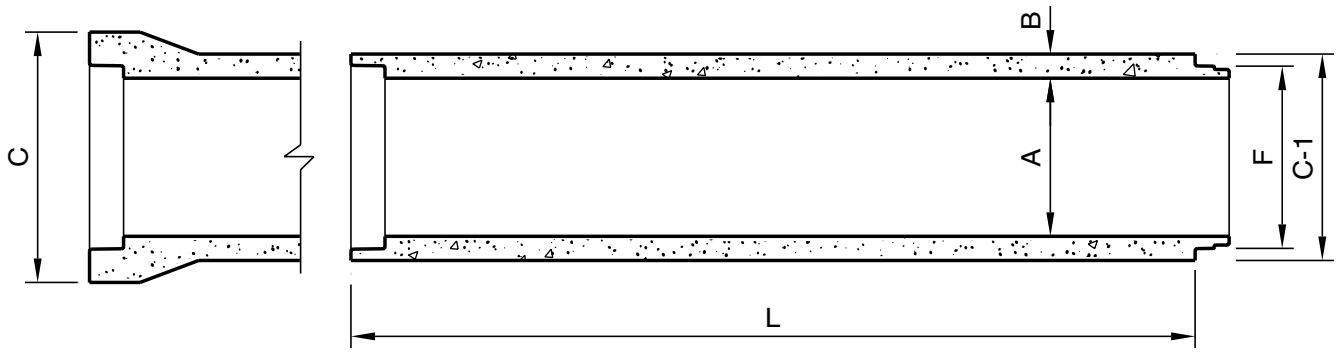
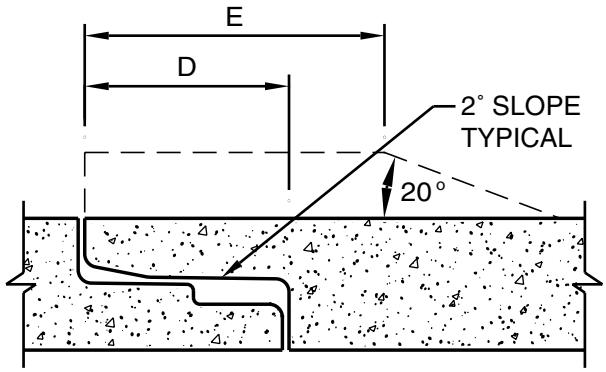
SINGLE OFFSET JOINT PIPE (METRIC)

300 to 3600 Diameter





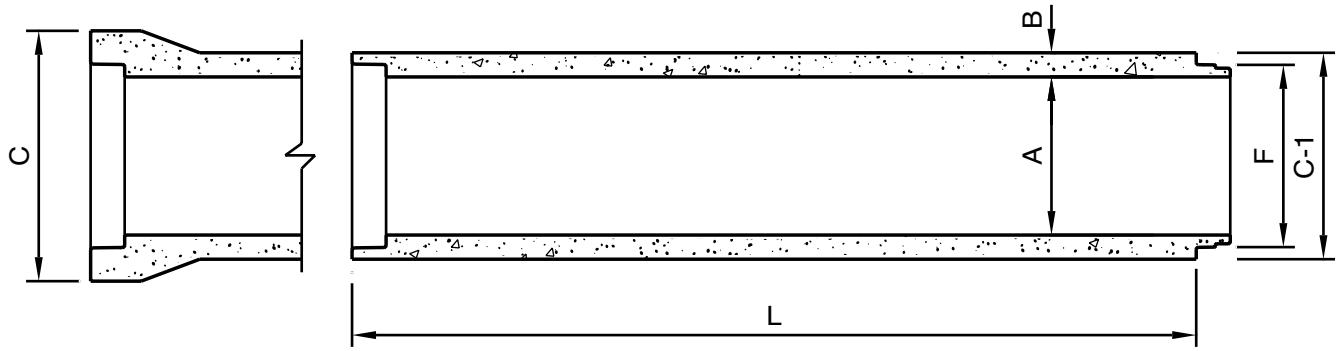
SINGLE OFFSET JOINT
300 to 3600 mm Dia.

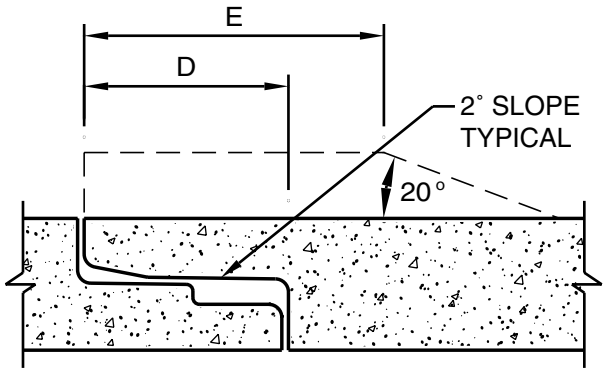
METRIC (mm)

PIPE DIAMETER	A	B	C-1	C	D	E	F	L
300	305	50.80	406.40	490.47	88.90	146.0	387.60	2438
375	381	57.15	495.30	592.07	88.90	146.0	476.48	2438
450	457	63.50	584.20	673.10	88.90	146.0	553.39	2438
525	533	69.85	673.10	752.60	88.90	146.0	631.17	2438
600	610	76.20	762.00	828.80	88.90	143.0	707.37	2438
750	762	88.90	939.80	997.00	88.90	143.0	864.34	2438
900	914	101.60	1117.60	1152.65	88.90	143.0	1016.74	2438
1050	1067	114.30		1295.40	114.30	-	1164.64	2438
1200	1219	127.00		1473.20	114.30	-	1328.73	2438
1350	1370	158.75		1687.50	120.60	-	1484.85	2438
1500	1524	152.40		1828.80	120.60	-	1654.20	2438
1800	1829	177.80		2184.40	127.00	-	1979.63	2438
2100	2134	203.20		2540.00	127.00	-	2310.31	2438
2400	2438	228.60		2895.60	127.00	-	2640.51	2438
3000	3048	279.40		3607	152.00	-	3327.40	2134
3600	3658	330.20		4318.00	152.00	-	3962.40	2438

Single Offset Joint Pipe (Imperial)

12 to 144 in. Diameter





SINGLE OFFSET JOINT

12 to 144 in. Dia.

IMPERIAL (inches)

PIPE DIAMETER A	B	C-1	C	D	E	F	L
12	2.00	16.00	19.31	3.5	5.75	15.26	96
15	2.25	19.50	23.31	3.5	5.75	18.75	96
18	2.50	23.00	26.50	3.5	5.75	21.78	96
21	2.75	26.50	29.63	3.5	5.75	24.84	96
24	3.00	30.00	32.63	3.5	5.63	27.84	96
30	3.50	37.00	39.25	3.5	5.63	34.02	96
36	4.00	44.00	45.38	3.5	5.63	40.02	96
42	4.50	51.00	-	4.5	-	45.85	96
48	5.00	58.00	-	4.5	-	52.31	96
54	6.25	66.50		4.75	-	58.46	96
60	6.00	72.00	-	4.75	-	65.12	96
72	7.00	86.00	-	5.00	-	77.93	96
84	8.00	100.00	-	5.00	-	90.95	96
96	9.00	114.00	-	5.00	-	103.95	96
120	11.00	142.00	-	6.00	-	131.00	84
144	13.00	170.00	-	6.00	-	156.00	96

CONCRETE PIPE SHIPPING WEIGHTS

Canadian Highways allowable truckload weights

METRIC

PIPE DIAMETER mm	LENGTH mm	MASS IN KILOGRAMS		PIECES PER TRUCKLOAD		
		PER METER	PER LENGTH	TANDEM	TRI-AXLE	OFF-LOADER TRI-AXLE
300	2438	156	382	53	82	72
375	2438	216	527	35	59	52
450	2438	279	680	30	46	41
525	2438	342	835	21	37	33
600	2438	424	1034	20	30	26
750	2438	610	1488	14	21	18
900	2438	818	1996	11	15	14
1050	2438	1071	2613	8	12	-
1200	2438	1361	3321	6	9	-
1350	2438	1942	4738	4	6	-
1500	2438	2008	4900	4	6	-
1800	2438	2828	6900	3	4	-
2100	2438	3720	9077	2	3	-
2400	2438	4762	11620	2	2	-
3000	2134	7069	15086	1	2	-
3600	2438	10343	25220	1	1	-

IMPERIAL

PIPE DIAMETER inches	LENGTH inches	MASS IN POUNDS		PIECES PER TRUCKLOAD		
		PER FOOT	PER LENGTH	TANDEM	TRI-AXLE	OFF-LOADER TRI-AXLE
12	96	105	840	53	82	72
15	96	145	1160	35	59	52
18	96	188	1500	30	46	41
21	96	230	1840	21	37	33
24	96	285	2280	20	30	26
30	96	410	3280	14	21	18
36	96	550	4400	11	15	14
42	96	720	5760	8	12	-
48	96	915	7320	6	9	-
54	96	1305	10445	4	6	-
60	96	1350	10800	4	6	-
72	96	1900	15200	3	4	-
84	96	2500	20000	2	3	-
96	96	3200	25600	2	2	-
120	84	4750	33250	1	2	-
144	96	6950	55600	1	1	-

Concrete Pipe Shipping Weights

State of Maine allowable truckload weights

METRIC

PIPE DIAMETER mm	LENGTH mm	MASS IN KILOGRAMS		PIECES PER TRUCKLOAD		
		PER METER	PER LENGTH	TANDEM	TRI-AXLE	OFF-LOADER TRI-AXLE
300	2438	156	382	52	72	61
375	2438	216	527	35	52	44
450	2438	279	680	30	40	34
525	2438	342	835	21	33	28
600	2438	424	1034	19	26	22
750	2438	610	1488	13	18	15
900	2438	818	1996	10	13	11
1050	2438	1071	2613	8	10	-
1200	2438	1361	3321	6	8	-
1350	2438	1942	4738	4	5	-
1500	2438	2008	4900	4	5	-
1800	2438	2828	6900	2	4	-
2100	2438	3720	9077	2	3	-
2400	2438	4762	11620	1	2	-
3000	2134	7070	15086	1	1	-
3600	2438	10343	25220	-	1	-

IMPERIAL

PIPE DIAMETER inches	LENGTH inches	MASS IN POUNDS		PIECES PER TRUCKLOAD		
		PER FOOT	PER LENGTH	TANDEM	TRI-AXLE	OFF-LOADER TRI-AXLE
12	96	105	840	52	72	61
15	96	145	1160	35	52	44
18	96	188	1500	30	40	34
21	96	230	1840	21	33	28
24	96	285	2280	19	26	22
30	96	410	3280	13	18	15
36	96	550	4400	10	13	11
42	96	720	5760	8	10	-
48	96	915	7320	6	8	-
54	96	1305	10445	4	5	-
60	96	1350	10800	4	5	-
72	96	1900	15200	2	4	-
84	96	2500	20000	2	3	-
96	96	3200	25600	1	2	-
120	84	4750	33250	1	2	-
144	96	6950	55600	-	1	-

ALTERNATE CONCRETE PIPE LENGTHS

Strescon Pipe Division

METRIC

PIPE DIAMETER: mm	MASS PER METER: kg	ALTERNATE LENGTHS AVAILABLE (mm)	
		1219	2438
300	156		✘
375	216		✘
450	279		✘
525	342		✘
600	424		✘
750	610	✔	✘
900	818		✘
1050	1071	✔	✘
1200	1361	✔	✘
1350	1942		✘
1500	2008	✔	✘
1800	2828	✔	✘
2100	3720	✔	✘
2400	4762	✔	✘
3000	7070	✔	✘
3600	10343	✔	✘

✔ ALTERNATE lengths available ✘ STANDARD lengths available

IMPERIAL

PIPE DIAMETER: in.	MASS PER FOOT: lbs.	ALTERNATE LENGTHS AVAILABLE (in.)	
		48″	96″
12	105		✘
15	145		✘
18	188		✘
21	230		✘
24	285		✘
30	410	✔	✘
36	550		✘
42	720	✔	✘
48	915	✔	✘
54	1305		✘
60	1350	✔	✘
72	1900	✔	✘
84	2500	✔	✘
96	3200	✔	✘
120	4750	✔	✘
144	6950	✔	✘

✔ ALTERNATE lengths available ✘ STANDARD lengths available

Concrete Pipe Fittings

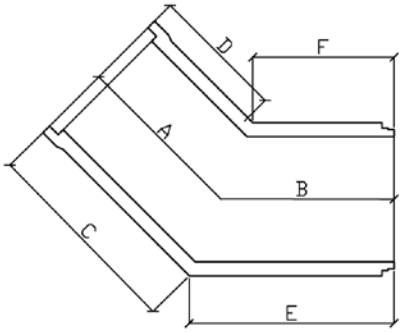
45° and 90°

45° BEND (IMPERIAL)

Inside Dia. (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)
12	13	11	16	9	14	7
15	16	16	20	12	20	12
18	17	17	22	12	22	12
21	45	48	51	40	54	43
24	45	48	51	39	55	42
30	45	48	53	37	56	41
36	45	49	54	36	58	40
42	45	49	56	34	60	38
48	45	49	57	33	61	37
54	45	50	59	32	63	36
60	48	53	63	33	68	38
72	48	53	66	30	71	35
84	48	54	69	27	74	33
96	48	54	72	24	77	30
120	48	54	77	19	83	25

45° BEND (METRIC)

Inside Dia. (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
300	330	279	406	229	356	178
375	406	406	508	305	508	305
450	432	432	559	305	559	305
525	1143	1219	1295	1016	1372	1092
600	1143	1219	1295	991	1397	1067
750	1143	1219	1346	940	1422	1041
900	1143	1245	1372	914	1473	1016
1050	1143	1245	1422	864	1524	965
1200	1143	1245	1448	838	1579	940
1370	1143	1270	1499	813	1600	914
1500	1219	1346	1600	838	1727	965
1800	1219	1346	1676	762	1803	889
2100	1219	1372	1753	686	1880	838
2400	1219	1372	1839	609	1956	762
3000	1219	1372	1956	483	2108	635



45° BEND

NOTES: Dimensions shown are for reference only and are subject to change.

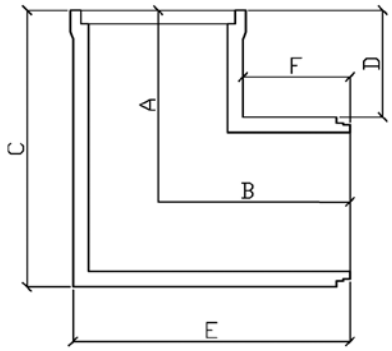
Special angles are available upon request

90° BEND (IMPERIAL)

Inside Dia. (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)
12	16	16	24	8	24	8
15	23	23	33	13	33	13
18	25	25	36	13	36	13
21	45	48	58	32	62	35
24	45	48	60	30	63	33
30	45	48	64	27	67	30
36	45	49	67	23	71	27
42	45	49	71	20	74	23
48	45	49	71	20	74	23
54		use two 45° bends				
60		use two 45° bends				
72		use two 45° bends				
84		use two 45° bends				
96		use two 45° bends				
120		use two 45° bends				

90° BEND (METRIC)

Inside Dia. (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
300	406	406	609	203	609	203
375	584	584	838	330	838	330
450	635	635	914	330	914	330
525	1143	1219	1473	813	1575	889
600	1143	1219	1524	762	1600	838
750	1143	1219	1626	686	1702	762
900	1143	1245	1702	584	1803	686
1050	1143	1245	1803	508	1880	584
1200	1143	1245	1803	506	1880	584
1370		use two 45° bends				
1500		use two 45° bends				
1800		use two 45° bends				
2100		use two 45° bends				
2400		use two 45° bends				
3000		use two 45° bends				



90° BEND

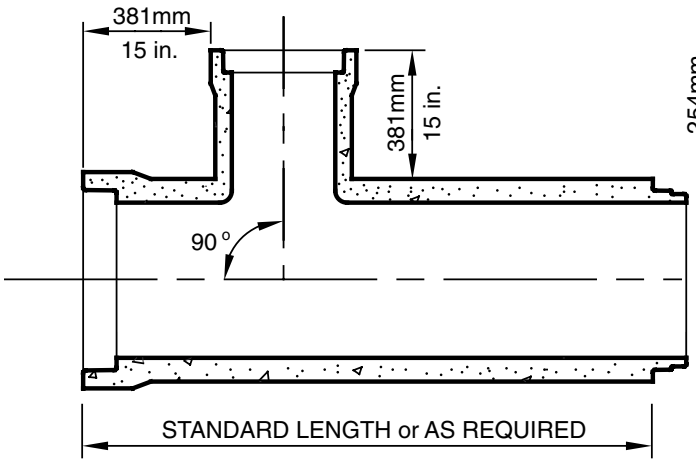
NOTES: Dimensions shown are for reference only and are subject to change.

Special angles are available upon request

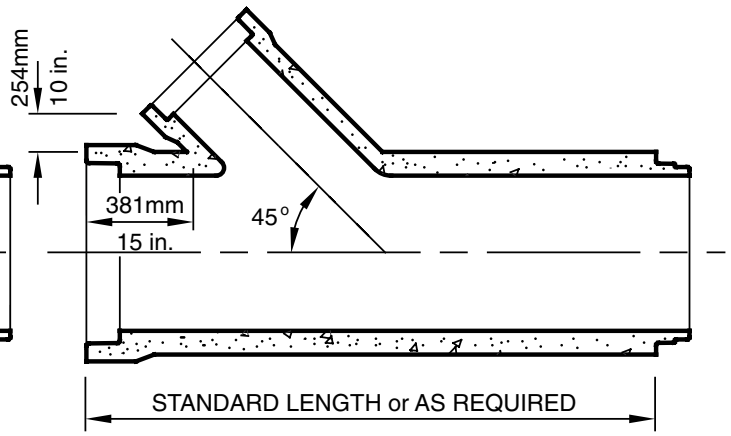
TEE AND WYE CONNECTIONS

Concrete-to-Concrete

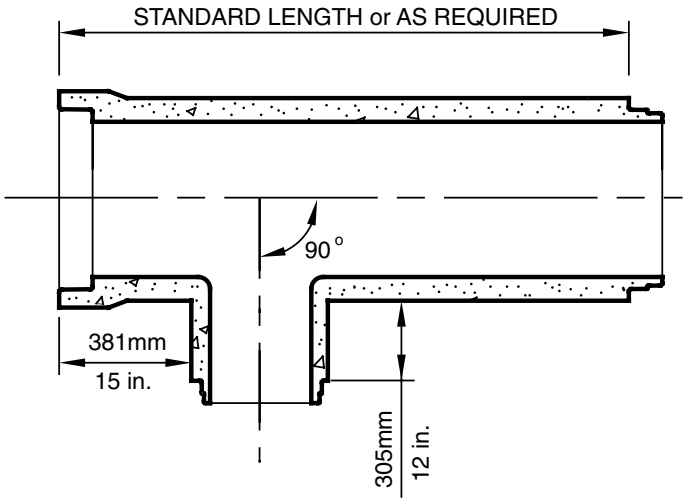
STANDARD TEE



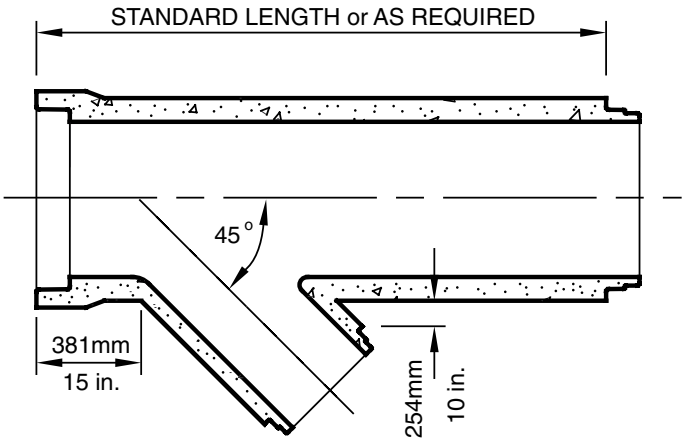
STANDARD WYE



DROP TEE



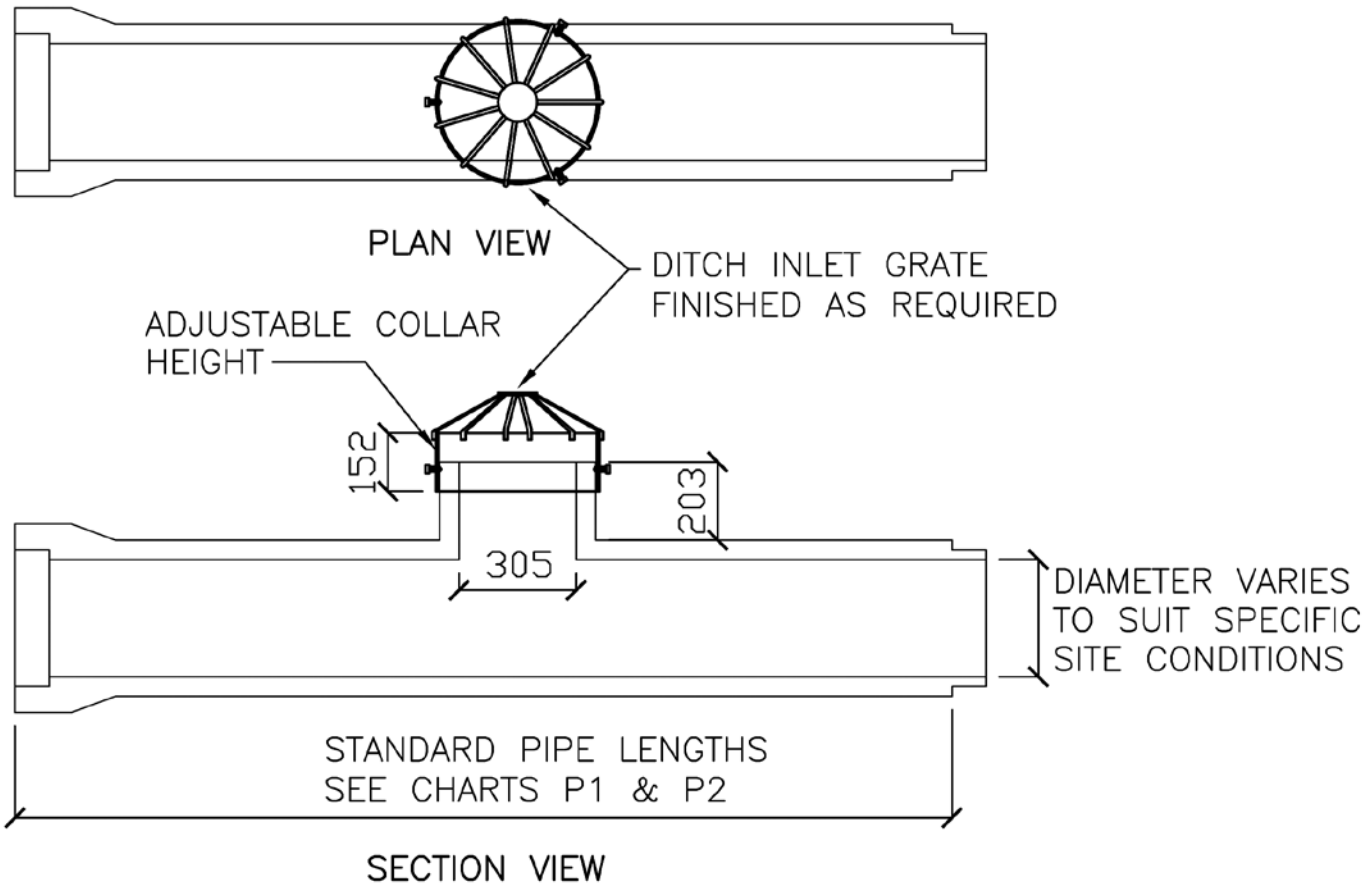
DROP WYE



NOTES: Dimensions shown are Plus or Minus 50mm / 2 in.
Special angle junctions having dimensions other than those shown can be manufactured upon request.
Other sizes available, see pages P1, P2, and P3.

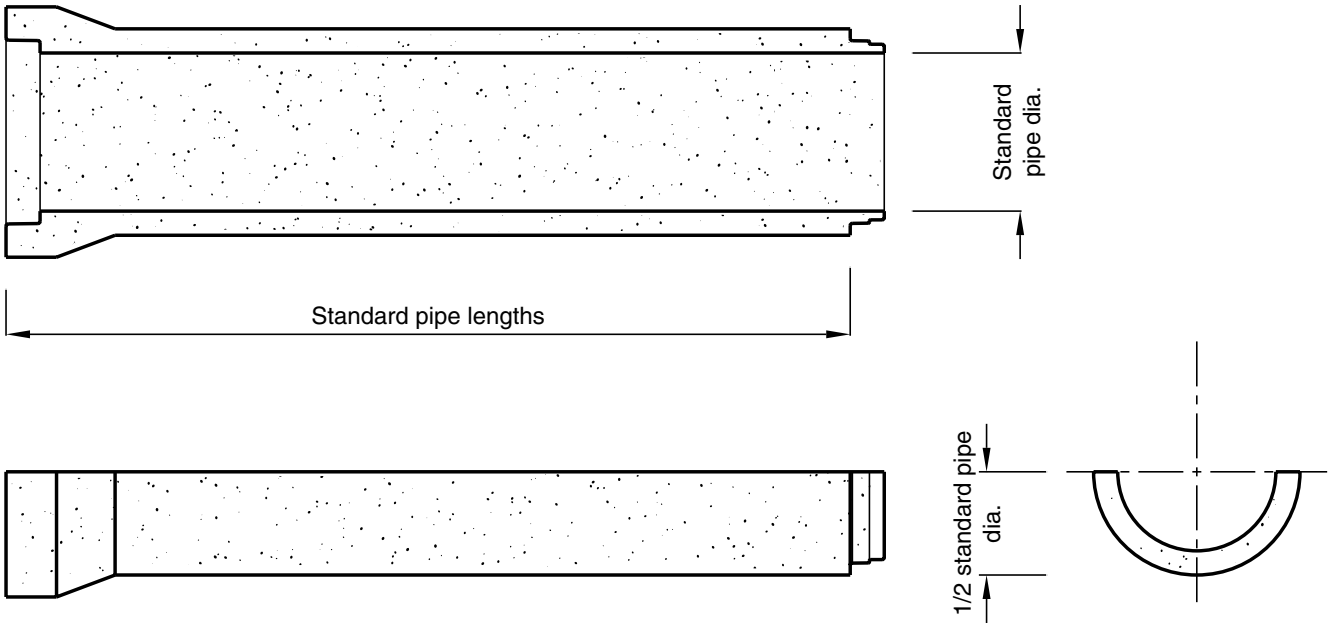
Harris Ditch Inlet

Strescon Pipe Division

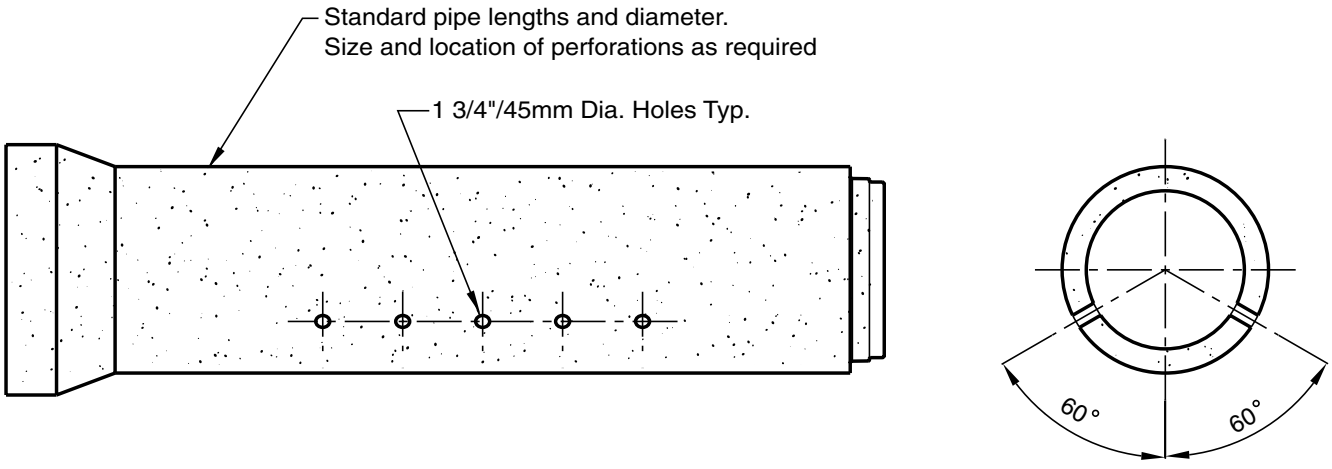


PERFORATED AND CHANNEL PIPE

300 to 3600 mm Diameter
12 to 144 in. Diameter



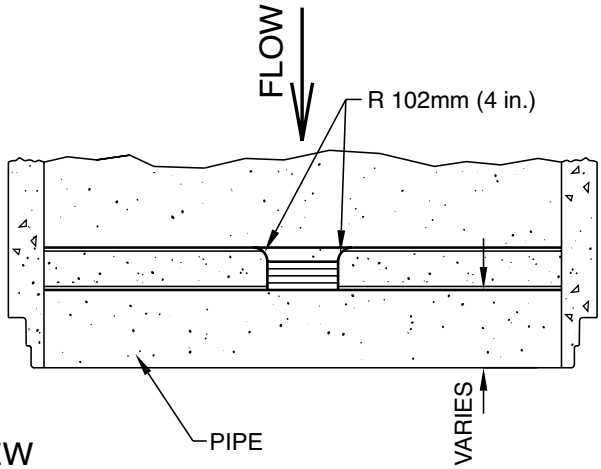
CONCRETE CHANNEL PIPE



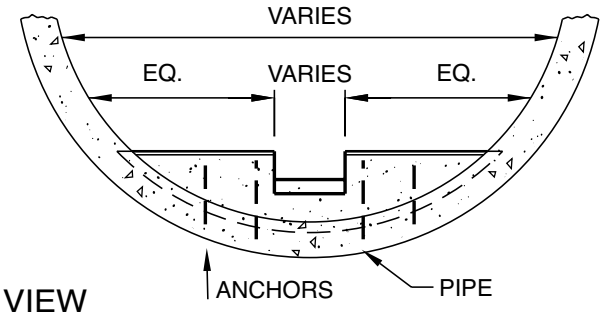
PERFORATED CONCRETE PIPE

Fish Weir Details

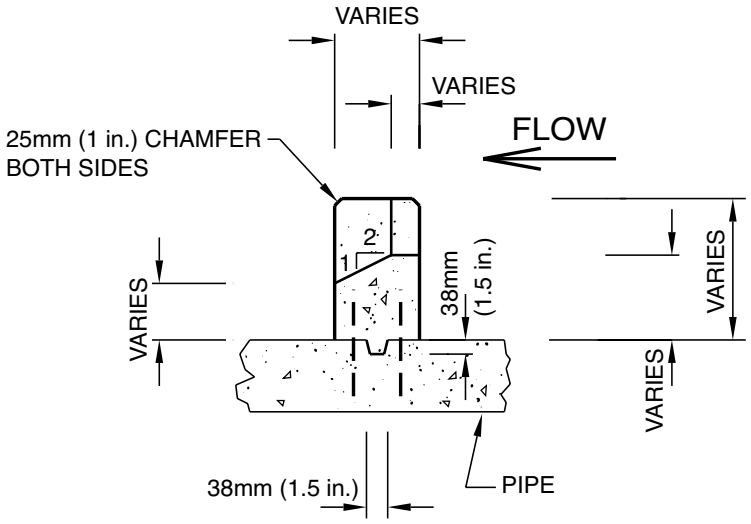
Strescon Pipe Division



TOP VIEW



FRONT VIEW

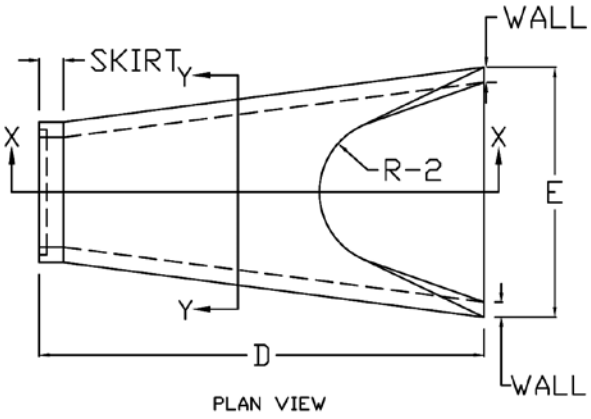


SECTION

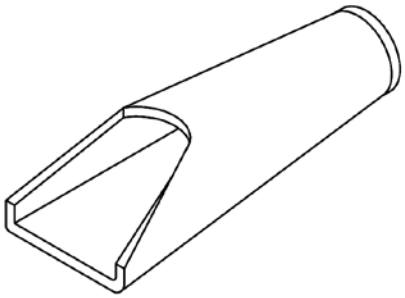
NOTE: The location and size of fish weirs as required by local authorities having jurisdiction.
Pipe sizes for fish weirs from1050mm / 42in. to 3600mm / 144in.

FLARED ENDS

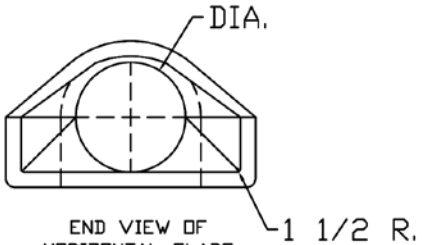
Strescon Pipe Division



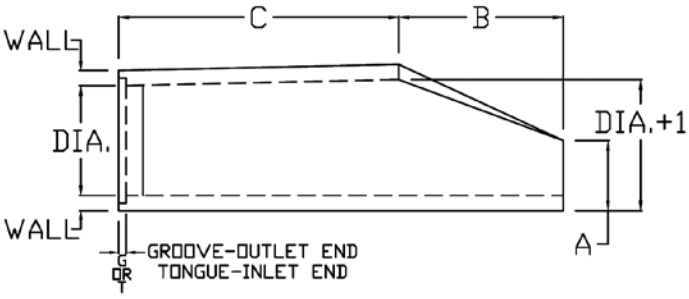
PLAN VIEW



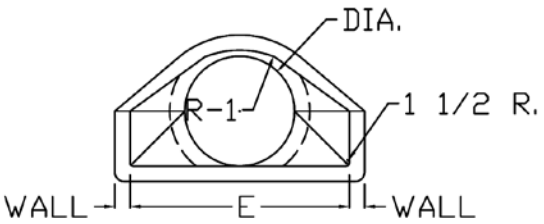
ISOMETRIC VIEW



END VIEW OF HORIZONTAL FLARE (AVAILABLE IN SIZES 12" TO 30")



SECTION X-X



END VIEW OF VERTICAL FLARE

LARGER SIZES AVAILABLE UPON REQUEST (UP TO 60"/1524mm)

IMPERIAL

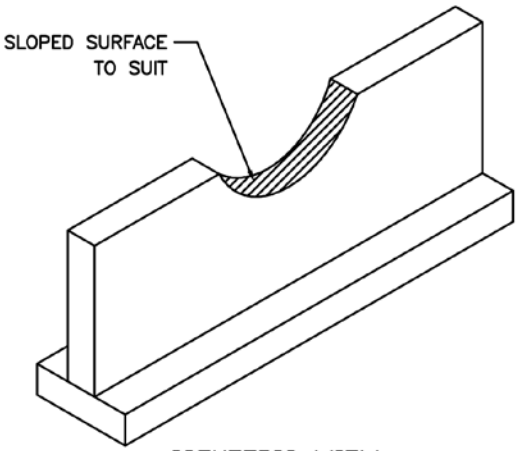
DIA.	WALL.	G or T	WT. SEC.	A	B	C	D	E	DIA + 1	R-1	R-2	SKIRT
12	2	1 ½	530	4	24	48 ⅞	72 ⅞	24	13	10 1/16	9	3 ½
15	2 ¼	2	740	6	27	46	73	30	16	12 ½	11	3 ½
18	2 ½	2 ½	990	9	27	46	73	36	19	15 ½	12	4
21	2 ¾	2 ¼	1,280	9	35	38	73	42	22	16 ⅛	13	4
24	3	2 ½	1,520	9 ½	43 ½	30	73 ½	48	25	16 11/16	14	4 ½

METRIC

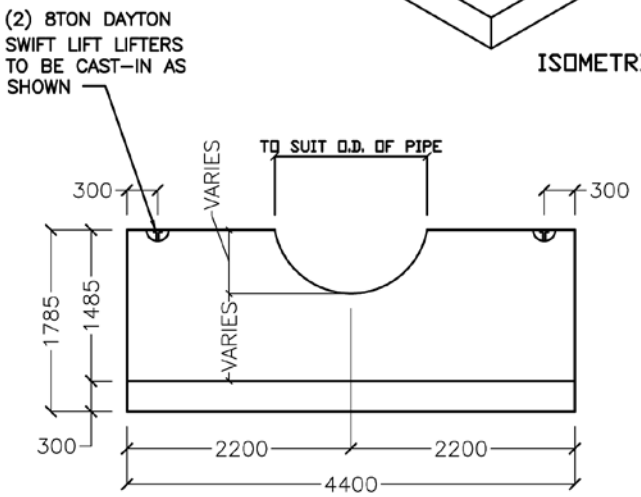
DIA.	WALL.	G or T	WT. SEC.	A	B	C	D	E	DIA + 1	R-1	R-2	SKIRT
305	51	38	240	102	610	1241	1851	610	330	256	229	89
381	57	51	335	152	686	1168	1854	762	406	318	279	89
457	64	64	449	229	686	1168	1854	914	483	394	305	102
533	70	57	580	229	889	965	1854	1067	559	410	330	102
610	76	64	689	241	241	762	1867	1219	635	297	356	114

Pipe Support - Sloped End & Footing Detail

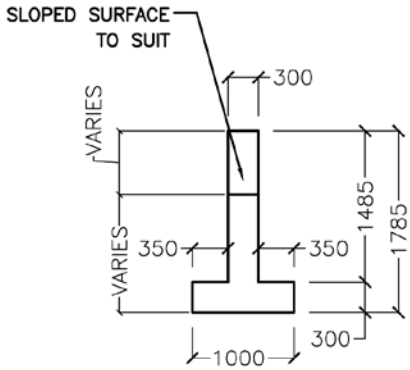
Strescon Pipe Division



ISOMETRIC VIEW

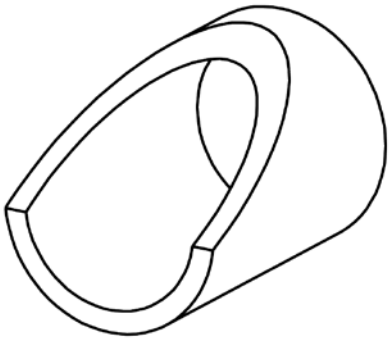


FOOTING DETAIL
FRONT VIEW

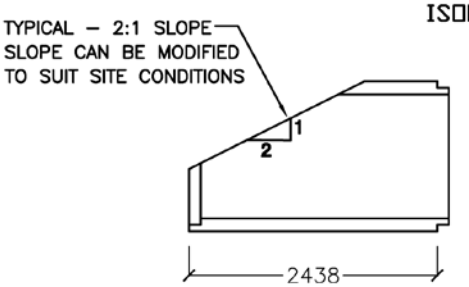


SIDE VIEW
FOOTING DETAIL

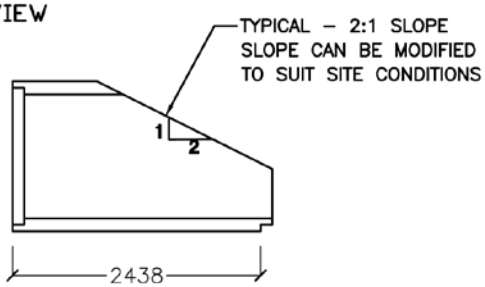
NOTE:
DIMENSIONS SHOWN CAN VARY TO SUIT SPECIFIC SITE CONDITIONS.



ISOMETRIC VIEW



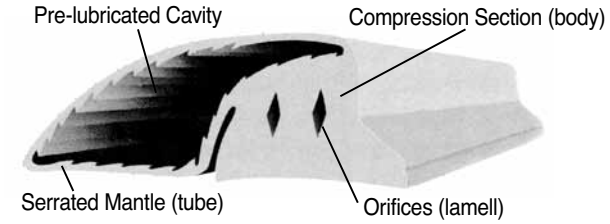
SLOPED END
UPSTREAM

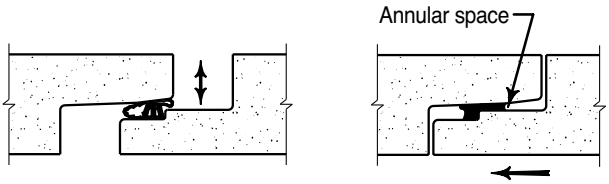


SLOPED END
DOWNSTREAM

PIPE JOINTING PROCEDURES

For Single Offset Gaskets





NEW CONCRETE PIPE GASKET SYSTEM

Strescon Limited is pleased to introduce our new concrete pipe joint gasket system. Tylox SupersealTM pre-lubricated gasket is a unique design in the sealing of concrete pipe. This gasket offers a number of benefits over the conventional o-ring gasket joint. The Superseal gasket has silicone lubricant encapsulated in the serrated mantle (tube) which eliminates the need for lubrication and equalization as well as provide a superior watertight seal. This will also save the contractor and owner time and money in the installation process.

ADVANTAGES

Unique Design

- Self contained lubricant
- No special handling or packaging
- No threat of lubricant contamination or deterioration
- Saves time and mess of lubricant application
- No equalization required

FUNCTION

During pipe assembly, the mantle rolls over the compression area of the gasket resulting in a watertight seal. The mantle sections final resting position is in the small annular space, preventing concrete-to-concrete contact.

GASKET SIZES

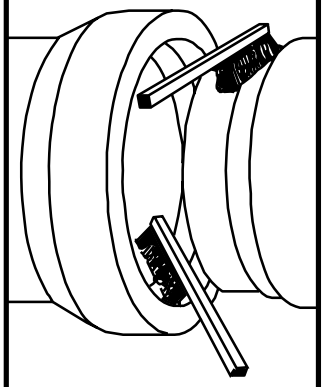
The Superseal gasket is available on our concrete pipe ranging in size from 12" to 120" (300mm to 3000mm). Our 144" (3600mm) diameter concrete pipe will also have a single offset gasket but non-lubricated. The gasket, spigot and bell must be lubricated. Remember the gasket must be equally stretched around the spigot.

MATERIAL SPECIFICATIONS

The Tylox Superseal gasket is manufactured from top quality rubber. All gasket material conforms to or exceeds CSA A-257, ASTM C-443 and C-361 specifications. Special chemical resistant EPDM, Neoprene, and Nitrile rubber are also available upon request.

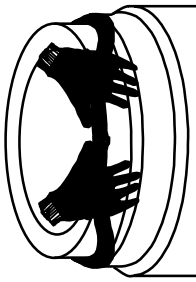
FOLLOW THESE INSTRUCTIONS

CLEAN JOINT SURFACES



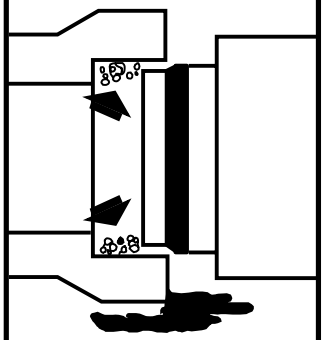
Clean all dirt, dust and foreign matter from the gasket bell and spigot surfaces. Take extra care to clean the spigot shoulder and gasket.

SHOULDER THE GASKET

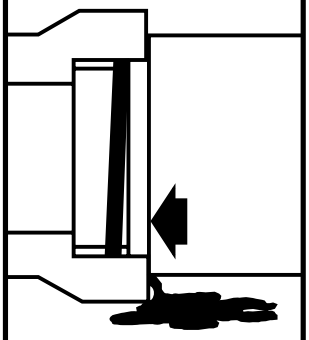


Place the gasket as per the manufacturers recommendations around the spigot end of the pipe. The gasket must be placed tight to the spigot step.

TO PREVENT THESE PROBLEMS



Dirt or frozen material on the gasket, bell or spigot surfaces can prevent the gasket from making a tight seal.



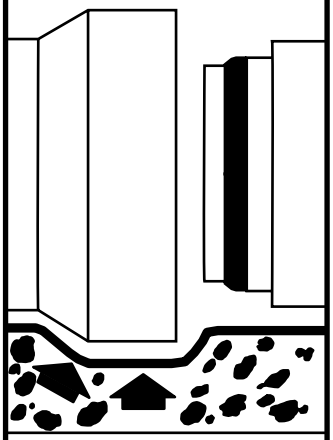
Failure to shoulder the gasket can be a cause for leaks in the joint or for the gasket to twist or break.

Pipe Jointing Procedures

For Single Offset Gaskets

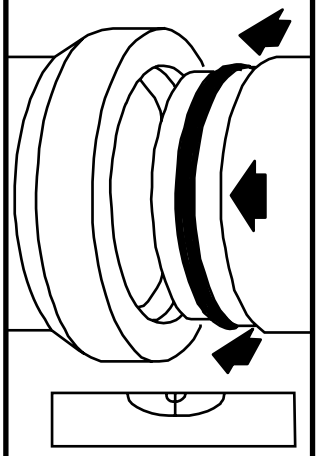
FOLLOW THESE INSTRUCTIONS

DIG BELL HOLE



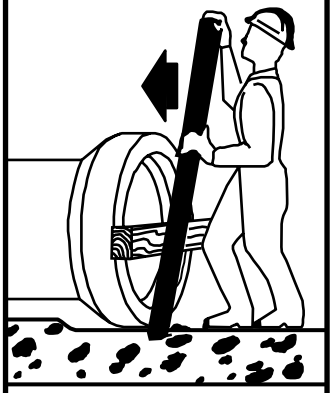
A hole must be dug in the sub-base to accommodate the bell.

ALIGN CAREFULLY



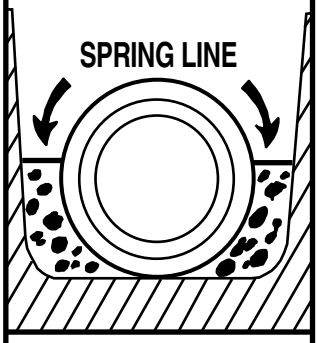
When coupling pipe, align spigot of pipe with bell of pipe previously laid. Pipe should be aligned so the gasket is in contact with the flared bell surface around the entire circumference.

BAR JOINT HOME



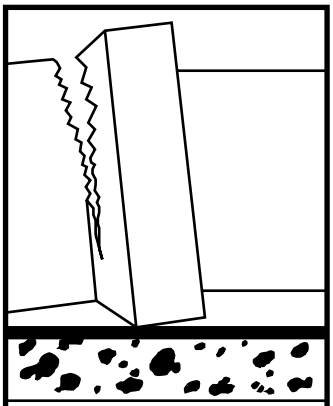
Joints on smaller pipe, up to 24" diameter, usually can be barred home. Place a block of wood across the invert of the pipe to protect the bell. When the subgrade is not firm enough to allow barring, the use of a come-along may be necessary to pull the joint home. This method should be used for larger pipe.

BEDDING AND BACK FILL

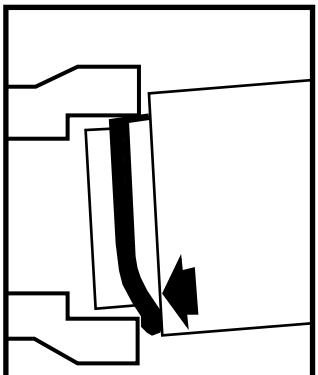


Granular material should be placed up to the spring line over the entire length of the pipe.

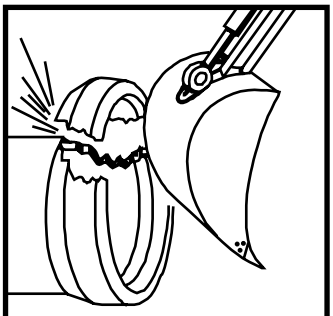
TO PREVENT THESE PROBLEMS



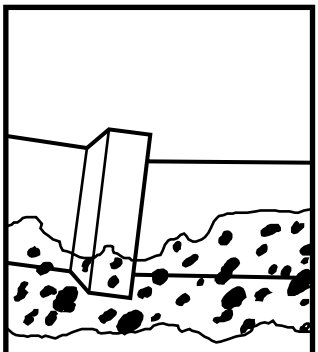
Failure to dig a bell hole can cause beam breaks or cracks in the barrel of the pipe.



If bell and spigot are not level or carefully aligned, the gasket will fish mouth causing a leak or splitting the bell.



Use of a machine to push the pipe home or to push pipe down to grade can put excessive pressure on pipe causing it to break or crack.



Improper bedding can cause the pipe to be forced out of alignment when backfilled.