# PRODUCT CATALOGUE British Columbia

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www.oceanpipe.com







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#### Notes:

- All concrete products within this catalogue are manufactured using cement meeting the requirements of CSA A3000 and / or ASTM C150 where applicable. Sulfate-resistant concrete is available by special order.
- Applicable taxes and freight charges are extra.
- Prices effective February 2014.
- Restocking fees are 15% for returned undamaged stock items. Cancelled orders may be subject to 100% restocking charges.
- Listed product weights are approximate and intended for shipping purposes. Exact weights can be calculated upon request.
- Prices shown in this catalogue are intended as an estimating guide and are subject to change. Detailed quotations are available upon request.
- Cast-in fixtures and appurtenances, other than swift lifts, are subject to approval by design Engineer and extra costs will apply.



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### **Concrete Storm Sewer Pipe** ASTM C14 & ASTM C76

PIPE	PIPE		GASKET				
DIAMETER (mm)	WEIGHT (kg/m)	C14 CL3	C76 CLIII	C76 CLIV	C76 CLV	PRICE	
300	180	\$39.00	-	-	\$76.00	\$8.00	
375	235	\$46.00	-	\$76.00	\$82.00	\$9.00	
450	300	\$67.00	-	\$96.00	\$104.00	\$10.00	
525	380	\$79.00	\$103.00	\$123.00	\$131.00	\$11.00	
600	600	\$110.00	\$142.00	\$171.00	\$183.00	\$12.00	
675	710	\$138.00	\$177.00	\$190.00	\$219.00	\$13.00	
750	830	\$163.00	\$195.00	\$237.00	\$266.00	\$14.00	
900	1130	\$204.00	\$260.00	\$296.00	\$364.00	\$16.00	
1050	1400	-	\$439.00	\$491.00	\$602.00	\$30.00	
1200	1700	-	\$540.00	\$633.00	\$736.00	\$34.00	
1350	1980	-	\$722.00	\$850.00	\$1,170.00	\$35.00	
1500	2350	-	\$886.00	\$1,049.00	\$1,564.00	\$38.00	
1650	2670	-	\$1,132.00	\$1,364.00	\$1,765.00	\$39.00	
1800	3130	-	\$1,207.00	\$1,518.00	\$2,160.00	\$43.00	
1950	3830						
2100	4130			ILABLE BY SPECIAL (			
2400	5300			ILABLE BY SPECIAL I			
2750	6600						
3050	7300						

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes

· Standard pipe is suitable for non-tested storm sewer or culvert application

• Pipes come in 2.5m standard lengths.

• Diameters listed are nominal - please refer to page 4 for further details

Products manufactured using Type GU cement; Type HS cement available upon request. Call sales office for pricing
 All pipe gaskets are "Super Seal", except 1650mm pipe gaskets are "Profile"

· Reinforced pipe in 900mm and larger sizes supplied with lifting inserts

• For pipe fittings please refer to pages 6 & 7



### **Tested Concrete Sanitary Sewer Pipe** ASTM C14 & ASTM C76

PIPE	PIPE		GASKET			
DIAMETER (mm)	WEIGHT (kg/m)	C14 CL3	C76 CLIII	C76 CLIV	C76 CLV	PRICE
300	180	\$54.00	-	-	\$101.00	\$8.00
375	235	\$73.00	-	\$111.00	\$118.00	\$9.00
450	300	\$96.00	-	\$126.00	\$133.00	\$10.00
525	380	\$101.00	\$133.00	\$153.00	\$161.00	\$11.00
600	600	\$144.00	\$178.00	\$206.00	\$219.00	\$12.00
675	710	\$174.00	\$209.00	\$226.00	\$256.00	\$13.00
750	830	\$198.00	\$232.00	\$272.00	\$303.00	\$14.00
900	1130	\$240.00	\$298.00	\$333.00	\$397.00	\$16.00
1050	1400	-	\$496.00	\$546.00	\$658.00	\$30.00
1200	1700	-	\$598.00	\$690.00	\$793.00	\$34.00
1350	1980	-	\$781.00	\$907.00	\$1,226.00	\$35.00
1500	2350	-	\$942.00	\$1,108.00	\$1,621.00	\$38.00
1650	2670	-	\$1,190.00	\$1,420.00	\$1,821.00	\$39.00
1800	3130	-	\$1,276.00	\$1,585.00	\$2,230.00	\$43.00
1950	3830			· · · · · ·	· · ·	
2100	4130		A1/A			
2400	5300			LABLE BY SPECIAL		
2750	6600					
3050	7300					

All prices FOB Ocean Pipe's Yard and subject to applicable taxes
 Tested pipe is air tested at our plant to meet infiltration requirements of MMCD

• Pipes come in 2.5m standard lengths.

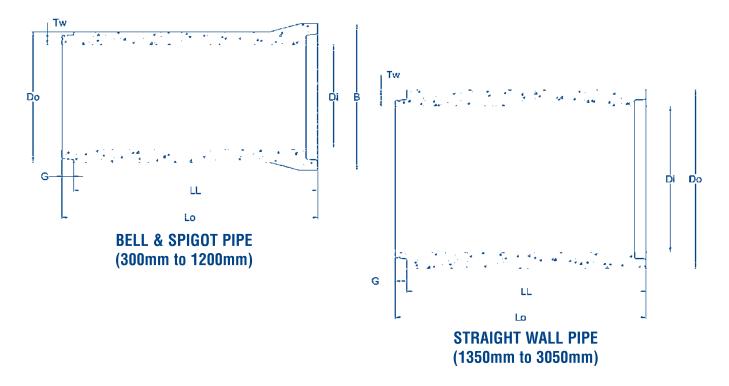
• Diameters listed are nominal - please refer to page 4 for further details

Products manufactured using Type GU cement; Type HS cement available upon request. Call sales office for pricing
All pipe gaskets are "Super Seal", except 1650mm pipe gaskets are "Profile"
Reinforced pipe in 900mm and larger sizes supplied with lifting inserts
For pipe fittings please refer to pages 6 & 7



### Concrete Pipe Dimensional Data

NOMINAL I	NSIDE DIA.	WEIGHT	VOLUME			ACTUAL P	IPE DIMENSI	ONS (mm)		
mm	in	kg/m	(L/m)	Di	Do	LL	Lo	Tw	В	G
300	12	195	73	305	445	2500	2590	70	508	90
375	15	235	114	381	495	2500	2590	57	606	90
450	18	300	164	457	584	2500	2595	64	702	95
525	21	380	223	533	673	2500	2595	70	803	95
600	24	600	292	610	800	2500	2598	95	905	98
675	27	710	370	686	889	2500	2598	102	1006	98
750	30	830	456	762	978	2500	2598	108	1095	98
900	36	1130	656	914	1156	2500	2598	121	1299	98
1050	42	1400	894	1067	1334	2500	2617	133	1500	117
1200	48	1700	1167	1219	1511	2500	2621	146	1683	121
1350	54	1980	1478	1372	1689	2500	2608	159	-	108
1500	60	2350	1824	1524	1867	2500	2621	171	-	121
1650	66	2670	2206	1677	2045	2500	2627	184	-	127
1800	72	3130	2627	1829	2223	2500	2627	197	-	127
1950	78	3830	3082	1981	2400	2500	2627	210	-	127
2100	84	4130	3577	2134	2578	2500	2627	222	-	127
2400	96	5300	4668	2438	2934	2500	2627	248	-	127
2750	108	6600	5909	2743	3289	2440	2649	273	-	149
3050	120	7300	7297	3048	3607	2500	2652	279	-	152





# Plugs / Caps / Adaptors

DIAMETER	INCREASER	/ REDUCER	CAP / PLUG		
(mm)	WEIGHT (kg/ea.)	PRICE (\$/ea.)	WEIGHT (kg/ea.)	PRICE (\$/ea.)	
300	565	\$577.00	37	\$129.00	
375	756	\$697.00	55	\$145.00	
450	993	\$769.00	81	\$154.00	
525	1264	\$921.00	108	\$170.00	
600	1946	\$1,103.00	152	\$201.00	
675	2327	\$1,279.00	188	\$226.00	
750	2875	\$1,447.00	274	\$247.00	
900	3838	\$1,686.00	386	\$282.00	
1050	5191	\$2,534.00	567	\$299.00	
1200	6505	\$3,014.00	744	\$370.00	
1350	7609	\$3,558.00	933	\$448.00	
1500	8638	\$4,227.00	1142	\$601.00	
1650	10078	\$4,854.00	1414	\$825.00	
1800	12028	\$5,405.00	1674	\$1,041.00	

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes

For Increaser/Decreaser price refer to larger end diameter

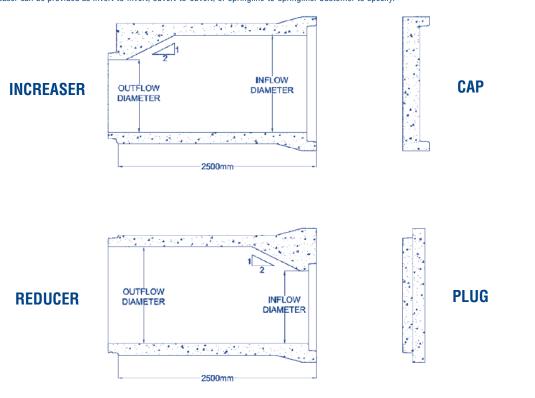
Increaser/Decreaser weights are based on a change of one diameter

Plugs fit into bell ends; caps fit into spigot end

• Sizes larger than 1800mm are available; call Pipe Sales for details

• These products are considered custom. Credit will not be given for returned custom items.

Custom items manufactured for order and not taken will be invoiced to the customer.
 Increaser/Decreaser can be provided as invert-to-invert, obvert-to-obvert, or springline-to-springline. Customer to specify.



# HEIDELBERGCEMENTGroup

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# Prefabricated Bends

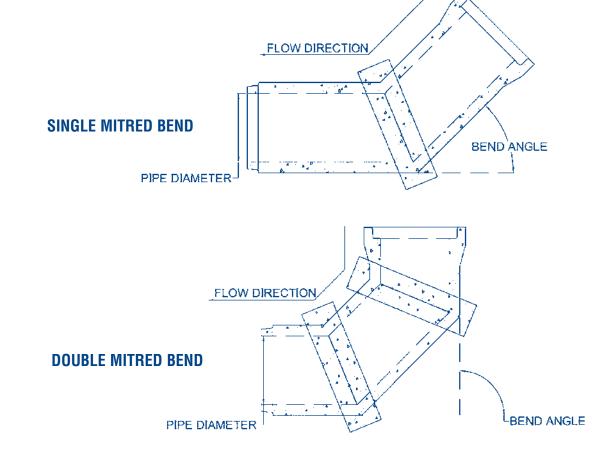
DIAMETER	SINGLE M	ITRED BEND	DOUBLE MI	DOUBLE MITRED BEND		
(mm)	WEIGHT (kg/ea.)	PRICE (\$/ea.)	WEIGHT (kg/ea.)	PRICE (\$/ea.)		
300	504	\$487.00	554	\$820.00		
375	648	\$587.00	708	\$953.00		
450	820	\$734.00	890	\$1,074.00		
525	1050	\$820.00	1160	\$1,188.00		
600	1670	\$1,005.00	1850	\$1,495.00		
675	1960	\$1,117.00	2160	\$1,640.00		
750	2330	\$1,301.00	2610	\$1,984.00		
900	3010	\$1,456.00	3340	\$2,445.00		
1050	3990	\$2,015.00	4490	\$3,583.00		
1200	4840	\$2,720.00	5410	\$4,205.00		
1350	5580	\$3,455.00	6350	\$4,346.00		
1500	6850	\$3,987.00	7920	\$5,023.00		
1650	7710	\$4,976.00	8800	\$6,243.00		
1800	9110	\$5,398.00	10380	\$6,556.00		

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes

• Bends larger than 1800mm are available; call for pricing and availability

• These products are considered custom. Credit will not be given for returned custom items.

• Custom items manufactured for order and not taken will be invoiced to the customer.





# Wyes / Tees

DIAMETER (mm)	PIPE WYE / TEE (\$/ea.)	MANHOLE TEE (\$/ea.)
100	\$131.00	-
150	\$170.00	-
200	\$190.00	-
250	\$225.00	+
300	\$414.00	-
375	\$561.00	+
450	\$735.00	-
525	\$886.00	+
600	\$978.00	-
675	\$1,247.00	-
750	\$1,409.00	-
900	\$1,744.00	\$1,458.00
1050	\$2,094.00	\$1,798.00
1200	\$2,542.00	\$2,024.00
1350	\$3,110.00	\$2,152.00
1500	\$3,647.00	
1650	\$4,185.00	CONTACT PIPE SALES FOR PRICING
1800	\$4,745.00	

 $\bullet$  All prices FOB Ocean Pipe's Yard and subject to applicable taxes

• Prices shown do not include main concrete pipe

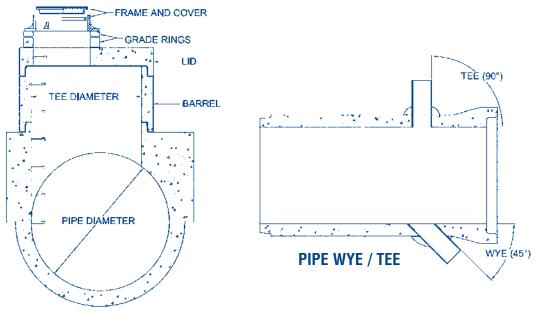
• Prices shown are for PVC wyes/tees up to 300mm; all other sizes priced are for concrete

Other materials available; contact Pipe Sales for pricing

• Sizes larger than 1800mm are available; call for pricing and availability

• These products are considered custom. Credit will not be given for returned custom items.

• Wyes & lateral tees are installed at springline - other locations at customer's request.



#### **MANHOLE TEE**



# Manhole Material

INSIDE	BARRELS		LIDS		SUPERSEAL GASKET	FLAT INNER BASES	EXTENDED BASES
DIAMETER (mm)	WEIGHT (kg/m)	PRICE (\$/m)	(kg/ea)	(\$/ea)	(\$/ea)	(\$/ea)	(\$/ea)
900	800	\$424.00	290	\$223.00	-	\$183.00	\$229.00
1050	1080	\$463.00	435	\$282.00	\$30.00	\$224.00	\$260.00
1200	1330	\$686.00	770	\$320.00	\$34.00	\$235.00	\$293.00
1350	1980	\$973.00	1125	\$512.00	\$35.00	\$367.00	\$412.00
1500	2350	\$1,273.00	1630	\$742.00	\$38.00	\$504.00	\$550.00
1800	3130	\$1,690.00	2450	\$1,008.00	\$43.00	\$598.00	\$687.00
2400	4730	\$2,396.00	4170	\$1,960.00	\$103.00	\$1,890.00	\$2,154.00

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes

• 900mm diameter manholes are mortar joint; 1050-2400mm manholes use super-seal gaskets

Manholes are available in 0.3m, 0.6m, 0.9m and 1.2m standard lengths.

Manholes manufactured to ASTM C478 specification; gaskets to ASTM C443

• Manhole lids are designed for HS20 truck loading with 635mm openings; other configurations are available

Base prices are for flat bases - prebenched base pricing extra (see below)

• Rough cut and cored openings in barrels are available at extra cost; call Sales Office for details

900mm diameter barrels are supplied with lifting holes; all other sizes supplied with lifting inserts

• Butyl joint sealant is also available (see page 17)

Other sizes available; call Pipe Sales for details

## **Prebench Bases**

INSIDE BARREL DIAMETER (mm)	WEIGHT (kg/ea.)	PRICE (\$/ea.)
1050mm x 0.6M max.200mm inlet/outlet diameter	1645	\$838.00
1050mm x 0.6M max.250mm inlet/outlet diameter	1645	\$838.00
1050mm x 0.6M max.300mm inlet/outlet diameter	1645	\$838.00
1050mm x 0.9M max.375mm inlet/outlet diameter	2203	\$969.00
1050mm x 0.9M max.450mm inlet/outlet diameter	2244	\$969.00
1200mm x 0.9M max.525mm inlet/outlet diameter	2902	\$1,596.00
1200mm x 1.2M max.600mm inlet/outlet diameter	3328	\$1,702.00
1350mm x 1.2M max.675mm inlet/outlet diameter	4953	\$2,050.00
1350mm x 1.5M max.750mm inlet/outlet diameter	5512	\$2,365.00
1350mm x 1.5M max.900mm inlet/outlet diameter	6791	\$3,157.00
1500mm x 1.8M max.1050mm inlet/outlet diameter	7477	\$3,749.00
1500mm x 1.8M max.1200mm inlet/outlet diameter	7387	\$4,168.00
1800mm x 1.8M max.1200mm inlet/outlet diameter	9550	\$5,204.00

All prices FOB Ocean Pipe's Yard and subject to applicable taxes

Prices include extended base and up to a maximum of 4 connections

• For PVC: rubber gasketed jointed provided. For all other piping materials: construction joints provided

PVC Bells extra, contact Sales Office for pricing

• Prebenched Bases are made to order and require approved drawings before manufacturing

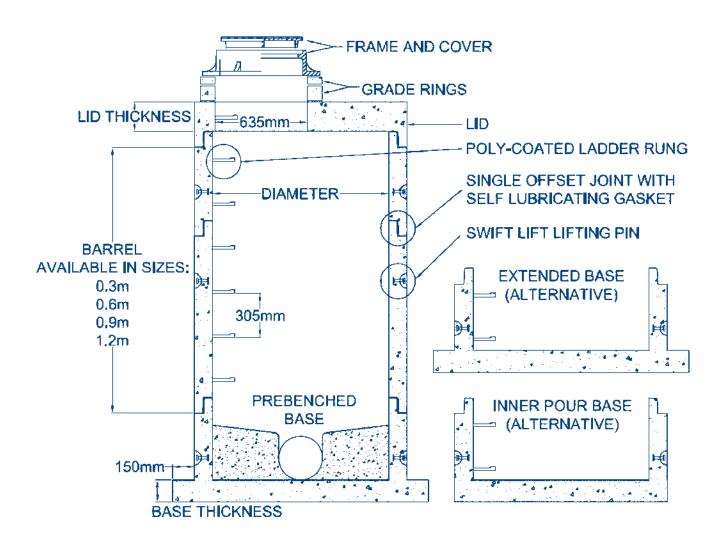
• Prebenched bases are considered custom. Credit will not be given for returned custom items.

• Custom items manufactured for order and not taken will be invoiced to the customer.

· Prices subject to change based on job specifications



### Manhole Material Dimensional Data



NOMINAL DIAMETER (mm)	ACTUAL DIAMETER (mm)	WEIGHT (kg/m)	SPIGOT LENGTH (mm)	OUTSIDE DIAMETER (mm)	WALL THICKNESS (mm)	LID THICKNESS (mm)	BASE THICKNESS (mm)
900	915	800	32	1118	102	152	152
1050	1067	1080	108	1295	114	152	152
1200	1220	1330	108	1473	127	203	152
1350	1372	1980	108	1689	159	216	203
1500	1524	2350	121	1867	171	216	203
1800	1829	3130	127	2223	197	254	203
2400	2438	4730	146	2896	228	254	203



# **Catch Basin Material**

				LI	BAS	SES		
INSIDE DIAMETER	BARF	RELS	MALE END		FEMALE END		FLAT INNER	EXTENDED
(mm)	WEIGHT (kg/ea.)	PRICE (\$/ea.)	WEIGHT (kg/ea.)	PRICE (\$/ea.)	WEIGHT (kg/ea.)	PRICE (\$/ea.)	PRICE (\$/ea.)	PRICE (\$/ea.)
300mm DIAMETER MATERIAL								
300 x 0.15m Barrel	21	\$33.00	_	_	_	_	\$22.00	_
300 x 0.45m Barrel	63	\$58.00	_	_	_	_	φ22.00	_
375mm DIAMETER MATERIAL								
375 x 0.15m Barrel	33	\$41.00						
375 x 0.3m Barrel	60	\$55.00		_	15	\$38.00	\$28.00	_
375 x 0.6m Barrel	125	\$102.00	-	_	15	<b>\$30.UU</b>	φ20.00	
375 x 1.2m Barrel	230	\$137.00						
450mm DIAMETER MATERIAL								
450 x 0.15m Barrel	50	\$61.00						
450 x 0.3m Barrel	90	\$77.00			<b>72.00 20</b>	\$46.00	\$43.00	\$101.00
450 x 0.6m Barrel	175	\$106.00	69	\$72.00				
450 x 0.9m Barrel	230	\$146.00						
450 x 1.2m Barrel	310	\$176.00						
600mm DIAMETER MATERIAL								
600 x 0.15m Barrel	70	\$103.00				\$61.00		
600 x 0.3m Barrel	130	\$118.00						
600 x 0.6m Barrel	255	\$138.00	120	\$91.00	40		\$48.00	\$225.00
600 x 0.9m Barrel	360	\$176.00						
600 x 1.2m Barrel	470	\$206.00						
750mm DIAMETER MATERIAL								
750 x 0.15m Barrel	90	\$129.00						
750 x 0.3m Barrel	180	\$143.00						
750 x 0.6m Barrel	350	\$159.00	210	\$165.00	75	\$105.00	\$85.00	\$201.00
750 x 0.9m Barrel	530	\$184.00						
750 x 1.2m Barrel	690	\$257.00						
900mm DIAMETER MATERIAL	· · · ·	· · · ·				·	·	
900 x 0.3m Barrel	240	\$127.00						
900 x 0.6m Barrel	480	\$254.00	360	\$223.00	140	\$128.00	\$183.00	\$223.00
900 x 0.9m Barrel	720	\$313.00	300	\$ZZ3.00	140	φ120.00	\$103.00	<b>\$223.00</b>
900 x 1.2m Barrel	960	\$378.00						

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes

Catch basins manufactured to ASTM C478 specification

• Extended Bases:

450 mm – 0.9 x 0.9m Square Base

600 mm - 1.2 x 1.2m Square Base

750 mm - 1240mm Diameter Round

900 mm – 1418mm Diameter Round

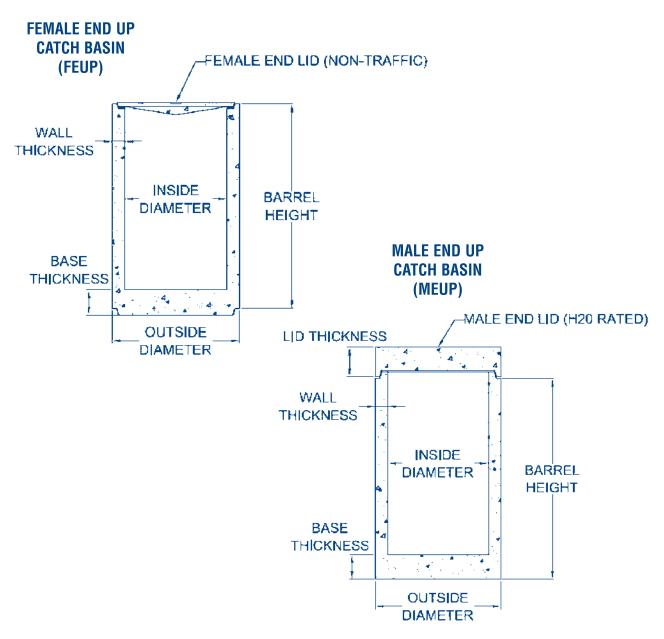
Catch Basin screened inlets available

Catch Basin Female End Lids are for pedestrian traffic only

• Trapping hood pins installed for \$43.00/set



### Catch Basin Material Dimensional Data



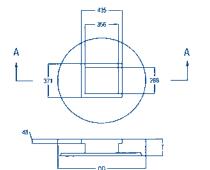
NOMINAL DIAMETER (mm)	ACTUAL DIAMETER (mm)	BASE THICKNESS (mm)	SPIGOT LENGTH (mm)	OUTSIDE DIAMETER (mm)	WALL THICKNESS (mm)	LID THICKNESS (mm)
300	305	102	32	407	51	N/A
375	381	102	38	495	57	N/A
450	457	102	38	584	64	127
600	610	102	38	762	76	178
750	762	127	46	940	89	184
900	915	127	46	1118	102	184



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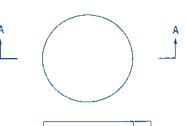
# Catch Basin Material

H20 Rated Male End Lid C/W 350mm x 430mm Opening Available For 600mm to 900mm Catch Basins



Catch Basin	OD	T
Size (mm)	(mm)	(mm)
600	762	178
750	940	184
900	1118	184

H20 Rated Male End Lid C/W 375mm x 580mm Opening Available For 750mm to 900mm Catch Basins



H20 Rated Solid Male End Lid

Available For 450mm to 900mm

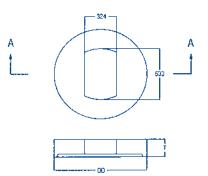
Catch Basins



Catch Basin	OD	Т
Size (mm)	(mm)	(mm)
450	584	127
600	762	178
750	940	184
900	1118	184

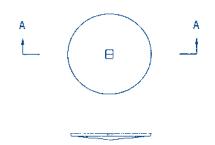
H20 Rated Male End Lid C/W Side Inlet Opening Available For 900mm Catch Basins Only

H20 Rated Solid Male End Lid C/W 300mm x 525mm Opening Available For 600mm to 900mm Catch Basins



Catch Basin	OD	Ŧ
Size (mm)	(mm)	(mm)
600	762	178
750	940	184
900	1118	184

Non-Traffic Female End Lid Available For 450mm to 900mm Catch Basins



Catch Basin	OD	T
Size (mm)	(mm)	(mm)
750	940	184
900	<b>1</b> 118	184



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# Cast Iron

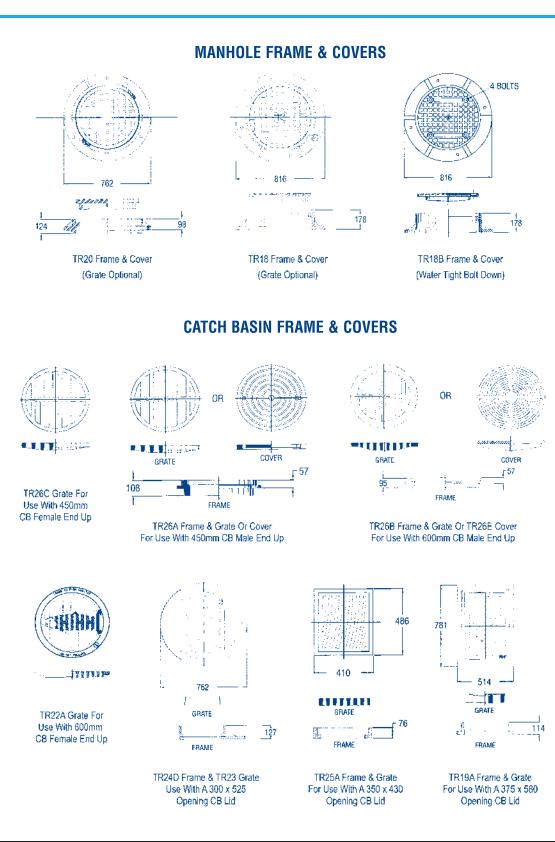
DESCRIPTION	OPENING SIZE	WEIGHT (kg/ea.)	PRICE (\$/ea.)
TR14 Grate	300mm Catch Basin - FEU	24	\$60.00
TR33R Grate	375mm Catch Basin - FEU	30	\$110.00
TR33R Cover	375mm Catch Basin - FEU	30	\$140.00
TR26A Frame	450mm Catch Basin - MEU	27	\$122.00
TR26A Cover	450mm Catch Basin - MEU	25	\$130.00
TR26A Grate	450mm Catch Basin - MEU	25	\$130.00
TR26C Grate	450mm Catch Basin - FEU	32	\$147.00
TR26B Frame	600mm Catch Basin - MEU	34	\$147.00
TR26B Grate	600mm Catch Basin - MEU	50	\$147.00
TR26E Cover	600mm Catch Basin - MEU	51	\$232.00
TR26M Modified Grate	600mm Catch Basin - MEU	57	\$335.00
TR22A Grate	600mm Catch Basin - FEU	60	\$216.00
TR24D Frame	Curb Style - 300mmx525mm(12"x21")	60	\$156.00
TR23 Grate	Curb Style - 300mmx525mm(12"x21")	44	\$147.00
TR25A Frame	Richmond Curb Style - 350mmx430mm (14"x17")	26	\$129.00
TR25A Grate	Richmond Curb Style - 350mmx430mm (14"x17")	30	\$129.00
TR18 Frame	Manhole Lid With 635mm Opening	165	\$221.00
TR18 Grate	Manhole Lid With 635mm Opening	65	\$157.00
TR18 Cover	Manhole Lid With 635mm Opening	65	\$157.00
TR18A Frame (Low Profile)	Manhole Lid With 635mm Opening	50	\$237.00
TR18D Frame (Low Profile)	Manhole Lid With 635mm Opening	85	\$221.00
TR18B Watertight Frame	Manhole Lid With 635mm Opening	165	\$497.00
TR18B Watertight Cover	Manhole Lid With 635mm Opening	65	\$224.00
TR20 Frame (BBY)	Manhole Lid With 635mm Opening	165	\$399.00
TR20 Cover (BBY)	Manhole Lid With 635mm Opening	65	\$157.00
TR20 Watertight Frame (BBY)	Manhole Lid With 635mm Opening	165	\$497.00
TR20 Watertight Cover (BBY)	Manhole Lid With 635mm Opening	65	\$224.00
TR36 Frame	Manhole Lid with 900mm Opening	195	\$418.00
TR36 Cover	Manhole Lid with 900mm Opening	85	\$825.00
TR36 Grate	Manhole Lid with 900mm Opening	85	\$764.00
C-1 Triple Set	Manhole Lid with 900mm Opening	315	\$1,600.00
TR19A Frame (Single)	Dept. of Hwys STD 375mmx580mm (15"x23")	67	\$232.00
TR19A Frame (Twin)	Dept. of Hwys STD 375mmx580mm (15"x23")	150	\$923.00
TR19A Grate	Dept. of Hwys STD 375mmx580mm (15"x23")	60	\$205.00
TR19B Catch Basin c/w Grate	-	186	\$821.00
150mm Aluminum Surtrap	-	2	\$44.00
200mm Aluminum Surtrap	-	2	\$46.00
TR9 Trapping Hood	-	15	\$131.00
TR10 Trapping Hood	•	15	\$94.00

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes

• Other products available by special order



# Cast Iron





# **Box Sections**

NOMINAL Span x rise	WEIGHT	CULVERT	MANHOLE	BASES OR	ENDWALLS	LI	DS
(mm)	(kg/m)	(\$/m)	(\$/m)	WEIGHT (kg)	PRICE (\$/ea.)	WEIGHT (kg)	PRICE (\$/ea.)
1800 x 900	3060	\$1,414.00	\$1,860.00	1500	\$1,299.00	1450	\$1,701.00
1800 x 1200	3200	\$1,841.00	\$2,484.00	1700	\$2,054.00	1650	\$2,215.00
2400 x 1500	4800	\$2,356.00	\$3,005.00	3500	\$2,807.00	3350	\$2,836.00
2400 x 2400	5650	\$2,825.00	\$3,562.00	5350	\$3,402.00	5200	\$3,712.00
3050 x 1500	7050	\$3,129.00	\$4,075.00	4350	\$3,486.00	4200	\$3,765.00
3050 x 2400	7780	\$3,975.00	\$4,854.00	6600	\$4,197.00	6500	\$4,784.00

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes

• Boxes come in 2.5m standard lengths. Custom lengths are available at additional cost

• Spans and rises listed are nominal – please refer to the table below for actual measurements

• Box Culverts are designed to ASTM 1433 for H20 truck loading for 0.9 to 3.1m cover; other loading available by special order

• Lids are designed with a 635mm opening for H20 truck loading; other configurations available by special order

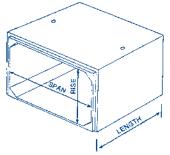
Manholes are suitable for depths to 5m; greater depths available by special order

• Customizations such as rough cut holes, fish baffles and rough ends are available by special order

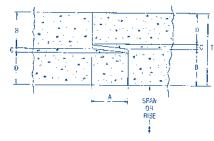
• Products manufactured using Type GU cement; Type HS cement available upon request. Call sales office for pricing

• Box sections are considered custom. Credit will not be given for returned custom items.

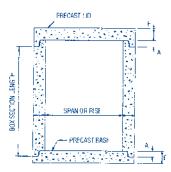
• Custom items manufactured for order and not taken will be invoiced to the customer.



BOX SECTION DETAILS



JOINT DETAIL



VERTICAL INSTALLATION



#### HAUNCH DETAIL

NOMINAL	ACTUAL	WALL		-	-	-	-	
SPAN x RISE (mm)	SPAN x RISE (mm)	T (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
1800 x 900	1829 x 915	178	102	90	10	80	203	305
1800 x 1200	1829 x 1220	178	102	90	10	80	203	305
2400 x 1500	2439 x 1524	203	108	100	10	90	254	362
2400 x 2400	2439 x 2439	203	108	100	10	90	254	362
3050 x 1500	3049 x 1524	254	108	125	10	115	254	362
3050 x 2400	3049 x 2439	254	108	125	10	115	254	362

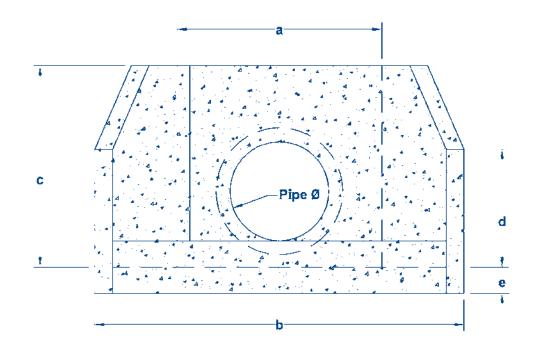


Working together to build our communities®

# Headwalls

ТҮРЕ	HEADWALL		DISSIPATOR		INLET GRILLAGE		OUTLET GRILLAGE	
	WEIGHT (kg)	PRICE (\$/ea.)	WEIGHT (kg)	PRICE (\$/ea.)	WEIGHT (kg)	PRICE (\$/ea.)	WEIGHT (kg)	PRICE (\$/ea.)
Type I Coquitlam Std	1,010	\$598.00	-	-	25	\$172.00	-	-
MOT Highway Std SP582-0401	2,100	\$796.00	-	-	25	\$224.00	-	-
Type II max 450mm pipe diameter	1,010	\$824.00	150	\$600.00	25	\$470.00	15	\$421.00
11-13 max 600mm pipe diameter	2,760	\$1,795.00	390	\$899.00	40	\$889.00	25	\$470.00
14-15 max 750mm pipe diameter	3,700	\$2,691.00	680	\$1,495.00	50	\$1,262.00	30	\$529.00
16-20 max 1200mm pipe diameter	6,500	\$2,989.00	1,580	\$1,943.00	75	\$1,473.00	40	\$632.00
26-28 max 1800mm pipe diameter	13,000	\$6,325.00	2,520	\$2,127.00	125	\$2,958.00	105	\$2,379.00
26-28 max 2400mm pipe diameter	15,200	\$7,091.00	2,520	\$2,127.00	-	-	-	-
26-28 max 1800 x 900 box culvert	15,200	\$7,091.00	2,520	\$2,127.00	-	-	-	-

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes



ТҮРЕ	PIPE DIAMETER (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
Type II	150 - 450	700	1280	1130	730	125
11-13	525 - 600	1310	2575	1350	697	203
14-15	675 - 750	1581	2854	1554	908	203
16-20	900 - 1200	1855	3166	2076	1466	406
26-28	1500 - 1800	2955	4186	2540	1421	406
26-28	1950 - 2400	2955	4186	3226	2107	406
26-28	1800 x 900	2955	4186	3226	2107	406



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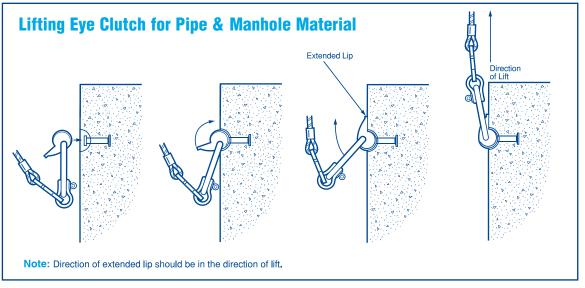
# **Miscellaneous Materials**

DESCRIPTION	WEIGHT (kg/ea.)	PRICE (\$/ea.)
SPACER RINGS		
50mm Manhole Spacer Ring 635mm Opening	35	\$25.00
50mm Manhole Spacer Ring 900mm Opening	30	\$71.00
100mm Manhole Spacer Ring 635mm Opening	70	\$37.00
50mm Catch Basin Spacer Ring Full Circle: 600mm Opening	40	\$25.00
50mm Catch Basin Spacer D Ring	35	\$25.00
50mm Catch Basin Spacer Full Circle D Ring	40	\$26.00
50mm Catch Basin Spacer Ring MOT	35	\$30.00
50mm Catch Basin Spacer Ring Side Inlet	50	\$50.00
CONSEAL™ BUTYL MASTIC JOINT		
CS 202 Sealant ConSeal™ 4.4m per roll, 25.4mm (1") wide	-	\$29.00
CS 212 Sealant ConSeal™ 15.24m per roll, 152.4mm (6") wide	-	\$112.00
CS 75 ConSeal™ Primer Per Gallon (2Gallon/5roll)	5	\$148.00
CEMENT AND GROUT MATERIALS		
Basalite™ Fast Patch	25	\$27.00
Basalite™ Concrete Ready Mix in Bag	25	\$8.00
Portland Cement Type GU (10)	40	\$19.00
LADDERS		
Polypropylene Manhole Steps Lane International® P-12850	-	\$22.00
Galvanized Rungs ¾" x 8" x 12" Rungs	-	\$29.00
CLUTCHES		
4 Ton Lifting Clutch Starcon™ Lifting Eye Standard Body Mark 3.0/5.0 T	-	\$300.00
8 Ton Lifting Clutch Starcon™ Lifting Eye Standard Body Mark 6.0/10.0 T	-	\$550.00
CATCH BASIN TRAPPING HOOD PINS		
Trapping Hood Pin per each	-	\$11.00
DRYWELLS		
1200mm x 0.9m Riser w/ 100mm x 50mm rectangular holes	775	\$677.00
1200mm x 0.9m Riser w/ 100mm x 50mm rectangular holes and ladder rungs	775	\$740.00
OIL INTERCEPTORS		
Type I Base with Baffles (800L Capacity)	1,400	\$1,187.00
Type I x 0.3m Riser	250	\$526.00
Type I Concrete Lid c/w 635mm Opening	450	\$517.00
Type II Base with Baffles (2000L Capacity)	4,150	\$2,437.00
Type II Concrete Lid c/w 2-635mm Openings	1,400	\$629.00

• All prices FOB Ocean Pipe's Yard and subject to applicable taxes

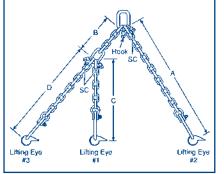


### Swift Lift Procedures How to Guide



- 1. To install the P-50 Universal Lifting Eye, hold the unit upside down with the T-shaped slot of the body directly over the head of the swift lift anchor.
- 2. Lower the body of the lifting eye until the T-shaped slot engages the head of the anchor.
- 3. Rotate the body until the extended lip of the body touches the concrete surface.

#### Lift Chain Sling Detail



HOISTING GEAR LEG DIMENSIONS					
A B		C	D		
1440mm	400mm	1040mm	1940mm		
(57")	(16")	(41")	(76")		

• The measurements listed above are for pipe 1.5m to 2.5m in length.

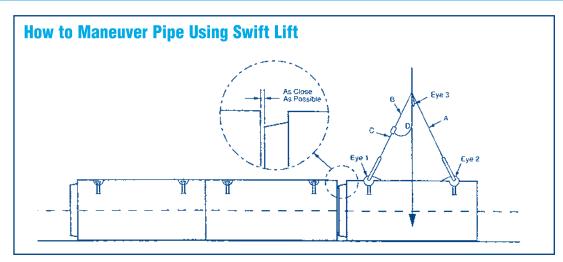
#### Notes:

1. Swift Lift anchors are available in pipe sizes 900mm and larger.

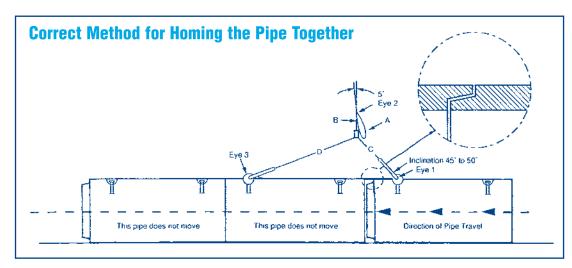
- 2. Pipe 900mm Ø to 1650mm Ø use the 4 ton lifting eye; pipe 1800mm and larger use the 8 ton lifting eye.
- 3. Manholes 1050mm Ø to 1500mm Ø use 4 ton lifting eye; manholes 1800mm and larger use the 8 ton lifting eye.



### Swift Lift Procedures How to Guide



- **1.** The pipe is first transported to the installation site with the symmetrical sling and lowered close to the already placed pipe.
  - Note: a) As with lifting any concrete element, special care should be taken by the driver of the placement vehicle to ensure the impact or dynamic loads are reduced to a minimum. Because these loads can greatly increase the weight of the element, and this safety note should not be overlooked.
    - b) Load must be applied simultaneously to all Swift Lift Anchors in order to safely lift product.



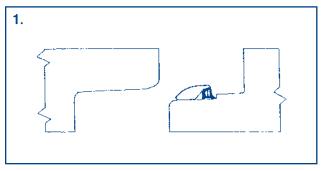
- 1. To pull the pipe into position, the long leg of the hoisting gear is coupled to the previously placed pipe.
- 2. Eye 2 is disconnected from the swift lift anchor and attached to master link.
- **3.** Eye 3 is then connected to the pipe you will be homing to.
- **4.** Crane or backhoe operator must ensure the lifting point is over the outer lifting anchor of the previously placed pipe so that the direction of pull is slightly inclined toward placed pipe.
- **5.** Operator must then lift up on the hoisting gear until pipe is homed together.



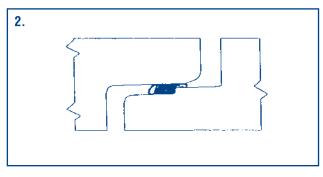
### Superseal Gaskets Installation

1. Ensure Bell, Spigot and Gasket are free from loose debris or foreign material.

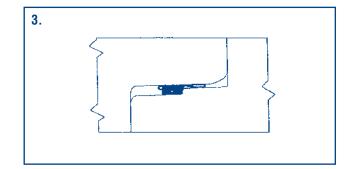
Stretch the gasket around the spigot, with the nose against the step, and the tube laying flat against the spigot. DO NOT LUBRICATE.

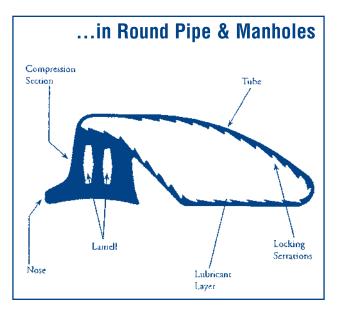


2. Align the spigot with the bell, and thrust the spigot home using suitable mechanical means. The homing process will cause the lubricated tube to "roll" over itself, above the compression section, allowing the pipe to slide forward.



**3.** Once fully homed, the compression section seals the total annular space; the rolling tube comes to rest within the small annular space .acting as a cushion against side loads, and the serrations act to resist pipe pull-out





#### MATERIALS

Tylox° SuperSeal gaskets\*

are available in the following materials:

Isoprene

- Optional Materials
  - Nitrite (Oil Resistant)
  - Isoprene / EPDM blend (Green Book & C425)
  - (Green Book & C425)
  - Neoprene (Oil and Ozone Resistant)

Other materials may be available as special order. Contact Inland Pipe for your specific requirements

#### **SPECIFICATIONS**

Tylox SuperSeal gaskets\* are manufactured to meet the material requirements of the following specifications:

- ASTM C361, C425, & C443
- AASHTO M198.4
- CSA A257
- "Green Book"

Other specifications may be available as special order. *Contact Inland Pipe for your specific requirements* 

\*Tylox SuperSeal Gaskets are patented under US Patent 4934716



# Standard Installations

#### **RESEARCH PRODUCES NEW INSTALLATIONS**

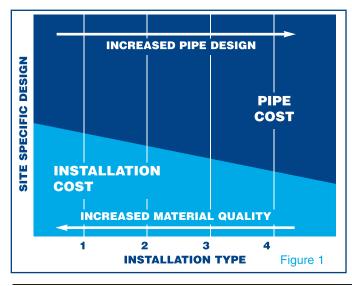
This foldout presents new installation technology with respect to concrete pipe through four unique standard installations developed over 20 years of investigation and research into the behavior of concrete pipe in the buried condition. The Standard Installations provide both the designer and the installer with measurable and verifiable soil types and compaction levels for the material used in the installation. These new installations facilitate the design of a rational and cost-effective concrete pipe soil system by providing an optimum range of installation characteristics.

**Versatile:** There is one word to describe the new standard installations, and that word is **VERSATILITY**. The range of installation types from 1 through 4 offer a concrete pipe designer the ability to tailor any individual project to suit specific site conditions and budgetary constraints.

In a Type 1 installation for example, the soil zone adjacent to the pipe and below the springline requires select materials with specified compaction limits. Through the use of this controlled soil envelope, a wide load distribution is achieved. In other words, a Type 1 installation uses this select material as an advantage in the design of the whole system a situation which translates to a lesser dependence on inherent pipe strength, and therefore lower pipe material costs when compared to the same site with a lower quality installation.

On the other end of the spectrum, in areas where native material is suitable, but perhaps not of the highest grade (silts and low plasticity clays), a Type 4 installation can be chosen by the designer. This installation type requires little or no inspection, almost no compaction requirements on the material, and the versatility to use almost any type of native soil as backfill in the trench. The trade-off here is reduced backfill material costs, and greatly reduced installation costs in terms of manpower required, but greater dependence on inherent pipe strength.

**Figure 1** illustrates this versatility in a graphical manner. Looking at a Type 1 installation, it can be seen that the dependence on installation is significant in comparison to the dependency on the pipe section.





Conversely, in a Type 4 installation, a greater percentage of total dependency resides in the pipe section, while very little dependency is associated with material and installation. This graph is not meant to say that all four installation types are equivalent in terms of the total costs. By evaluating the ratio of pipe cost to backfill material cost, the four new standard installations can be used to optimize total expenditure by balancing the performance of the pipe-soil system.

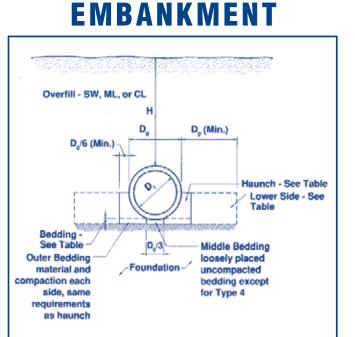
**Conservative:** The design associated with the Standard Installations is founded in conservatism. The loads and pressures experienced by the pipe in the installed condition have been analyzed in depth and modeled through the use of the finite element analysis computer program, SPIDA (Soil-Pipe Interaction Design and Analysis). The SPIDA analyses are based on several key assumptions:

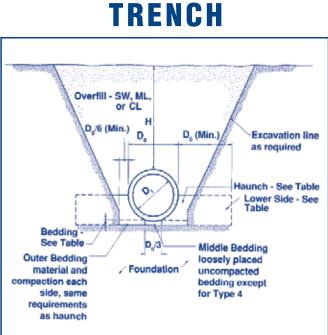
- The worst case (embankment) loadings are used, and the same load factors used in the traditional AASHTO direct design procedure are still employed.
- **2.** Voids are assumed to exist in the haunch zone of all four installation types. These voids are modeled into the SPIDA computer simulations used in the development of the design procedure.
- **3.** In recognition of the variability of the loading characteristics, the new installations are based on the greatest predicted loads for design. Typical loads would likely be 10-20 percent less.
- 4. Through quantification of material and compaction requirements, a degree of uncertainty has been eliminated from the design assumptions the new installations can, therefore, more accurately assess long-term performance of the system.

The new installations allow for better prediction of the loads and pressures which a pipe may experience during its life.

**Quantifiable:** One of the greatest benefits of the new installation types is that they are quantifiable, that is, they prescribe definite and measurable levels of acceptance. As is indicated in Figure 2, each of the new installations has specific materials requirements, and accompanying compaction levels, making them uniquely different, and prescribing clear and defined direction to the installer as to the requirements of a particular installation. These definitions provide direction to the engineer, owner, and contractor as to the installation factors impacting pipe performance.

# Standard Installations





INSTALLATION TYPE	Standard Installation Soil Types and Minimum Compaction Requirements				
L	Bedding Thickness	Haunch	Lower Side		
TYPE 1	D <sub>o</sub> /24 minimum, not less than 75 mm (3 in). If rock foundation use D <sub>o</sub> /12 minimum, not less than 150 mm (6 in).	95% SW, SP, GW, GP	90% SW, SP, GW, GP 95 % GM, SM, ML, GC, SC* 100% CL, MH, GC, SC		
TYPE 2	D₀/24 minimum, not less than 75 mm (3 in). If rock foundation, use D₀/12 minimum, not less than 150 mm (6 in).	90% SW, SP, GW, GP 95% GM, SM, ML, GC, SC*	85% SW, SP, GW, GP 90% GM, SM, ML, GC, SC* 95% CL, MH, GC, SC		
TYPE 3	D₀/24 minimum, not less than 75 mm (3 in). If rock foundation, use D₀/12minimum, not less than 150 mm (6 in).	85% SW, SP, GW, GP 90% GM, SM, ML, GC, SC* 95% CL, MH, GC, SC	85% SW, SP, GW, GP 90% GM, SM, ML, GC, SC* 95% CL, MH, GC, SC		
TYPE 4	No bedding required, except if rock foundation, use $D_0/12$ minimum, not less than 150 mm (6 in).	No compaction required, except when CL, MH, GC, or SC soil types are used to compact to 85%	No Compaction required, except when CL, MH, GC, or SC soil types are used compact to 85%		

• The percentages listed above refer to standard proctor compaction levels

• The soil types above (ie. SW, GM) are taken from the Unified Soil Classification System (USCS)

 $\bullet$  SC\* indicates SC type soil with less than 20% passing the #200 sieve



## **Terms & Conditions**

#### Prices listed in this publication are effective as of February 1, 2014

1. PAYMENT TERMS: Invoices are due and payable on the 15th day of the month following delivery of Products. Invoices which are not paid by such date are subject to a service charge of 2% per month (24% per year). If Buyer defaults or if Seller considers Buyer's financial responsibility impaired or unsatisfactory, Seller shall be entitled to suspend or terminate, in whole or in part, any order or agreement until all outstanding payments are made and/or acceptable assurances or security is provided by Buyer. In addition to all other rights and remedies available to Seller, Seller shall have the right to recover from Buyer all costs of collection and/or suit, including reasonable legal fees. Seller's failure to exercise such rights and remedies or variance from these terms and conditions shall not constitute a waiver or change hereof unless agreed to by Seller in writing.

2. INABILITY TO PERFORM: Seller shall not be liable to Buyer if permanently or temporarily rendered incapable of performing its obligations hereunder because of strikes, lockouts, differences with workmen, accidents, insurrection, wars, delay or failure in transportation (including road bans) or by any supplier, shortage of inventory, raw materials, facility, equipment, fuel or other material, acts of government, fire, acts of God, acts of any Government or any contingencies beyond Seller's control. For greater certainty, Seller shall not be required to cross picket lines established as result of a strike. During any period Seller is rendered incapable of fully performing because of any such contingency, Seller shall have the right to prorate among its various customers such Products as it may be able to manufacture and ship.

3. SPECIFICATIONS AND WARRANTIES: PRODUCTS SHIPPED HEREUNDER SHALL CONFORM TO THE PRESENT STANDARD SPECIFICATIONS (FOR THE RESPECTIVE PRODUCTS) OF CSA and/or ASTM, AND NO OTHER WARRANTY, REPRESENTATION OR CONDITION OF ANY KIND, EXPRESS OR IMPLIED (INCLUDING NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PAR-TICULAR PURPOSE) SHALL APPLY THERETO. SELLER HAVING NO CONTROL OVER THE USE OF THE PRODUCTS WILL NOT GUARAN-TEE FINISHED WORK, NOR SHALL SELLER BE RESPONSIBLE FOR THE CONDITION OF PRODUCTS AFTER DELIVERY TO BUYER. ANY CHARGES INCIDENTAL TO INSPECTION OR TESTS MADE BY OR ON BEHALF OF BUYER SHALL BE PAID BY BUYER. UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR ANY SPECIAL, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES.

4. TITLE, RISK OF LOSS, CHARGES: Title and risk of loss shall pass to Buyer on customer pick-up at Seller's premises. Title and risk of loss to Products delivered shall pass to Buyer upon receipt at the destination specified. 5. CLAIMS: Claims for loss or damage in transit must be reported to Seller within 24 hours of delivery of Product to the destination specified and must be supported by customer's notation on truck delivery receipt and/or bill of lading.

6. TAXES: Prices are exclusive of all present and future taxes imposed by any federal, provincial, municipal, foreign or local authority.

7. UNLOADING: Buyer will be responsible for unloading Products at the destination specified. If Buyer has not unloaded the truck within one hour of the truck's arrival at the destination specified, Buyer shall pay an additional charge of \$120.00 per hour until the truck has been unloaded. All shipments shall be unloaded in their entirety at the destination specified or will be subject to additional charges.

8. DELIVERY CONDITIONS: Delivered prices are for delivery to the destination specified. The unloading point must be readily accessible and Buyer shall be responsible to provide suitable access roads to destination specified as well as equipment to unload the Products. In the event Seller requires access over curbs, sidewalks, driveways or other property, Seller shall not be responsible for any loss, cost or damage in connection therewith and Buyer shall indemnify and save the Seller harmless from any such loss, cost or damage.

9. QUOTATIONS: Quotations shall be in effect for a period of sixty (60) days from the date of the quote.

10. NOTICE: Buyer shall provide a minimum of twenty-four (24) hours notice of delivery.

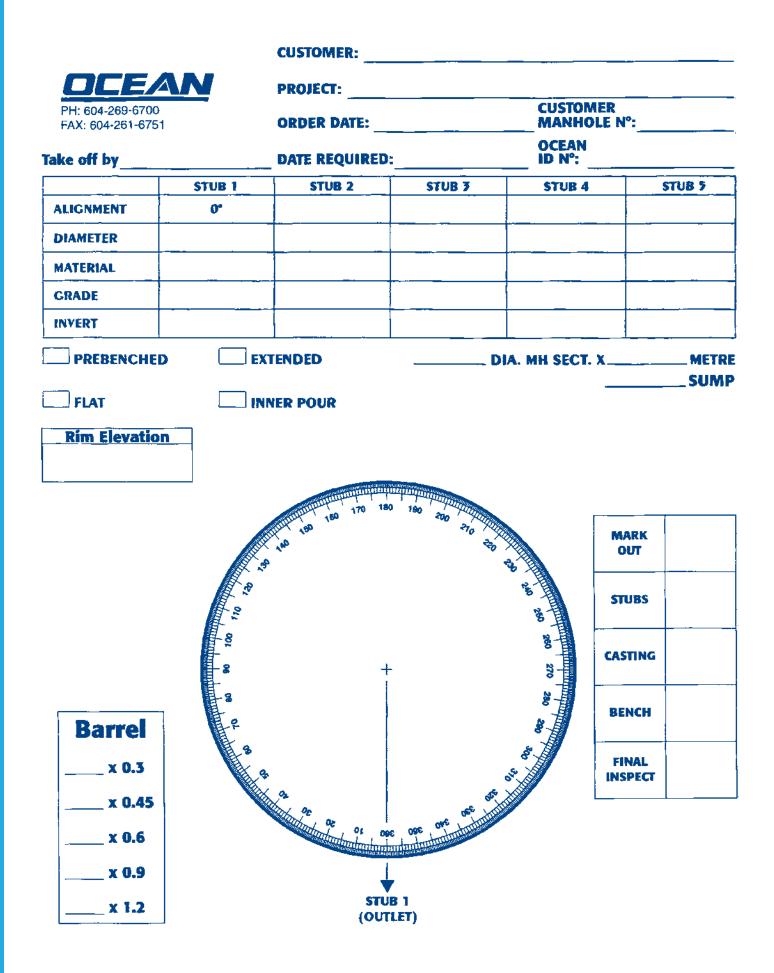
11. BUILDER' S LIEN: For the purposes of the Builder's Lien Act Products not herein quoted but delivered or supplied to the same project shall be considered part of the same contract until last date of delivery or supply notwithstanding separate purchase orders.

12. PRODUCT RETURN: Buyer may return standard Product to Seller's premises provided the Product is in good condition and Buyer pays a restocking fee of 15% of the price of the Product. No credit will be issued for custom products and gaskets returned.

13. CUSTOM PRODUCT: Custom materials produced according to customer's specifications are not resalable or subject to cancellation

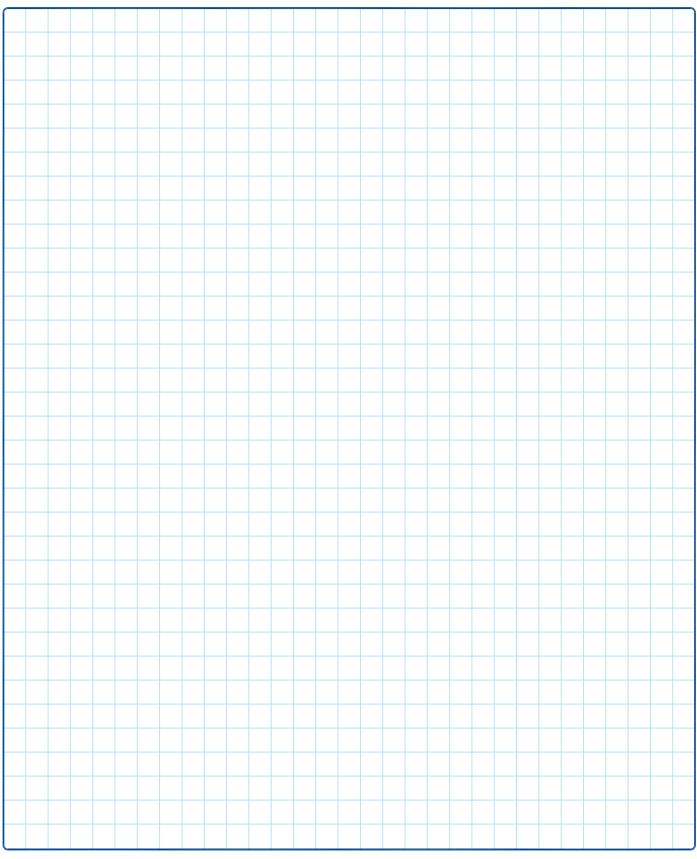
14. FREIGHT RATES: All prices listed in this publication are FOB Seller's Yard, freight charges are additional. Freight rates are based on full Super B loads and do not apply during periods of road restrictions. Delivery charges for smaller truck shall be billed accordingly.





	Сизтом	ER:		PROJECT # :	
	PROJECT NAME:				
DEEAN	CONSULT			DRAWN BY:	
HEIDELBERGCEMENTGroup	DATE RE	QUESTED:		DATE:	
	<u> </u>				

	CUSTOMER:	PROJECT # :	
	PROJECT NAME:		
DCEAN	CONSULTANT:	DRAWN BY:	
HEIDELBERGCEMENT Group	DATE REQUESTED:	DATE:	



# Look at it this way



#### The world needs concrete solutions

he world is changing. Threats to our infrastructure are ever increasing. Protecting the environment and ensuring public safety are critical. Providing a more resilient infrastructure... That's our job.







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Northern Alberta INLAND PIPE 12250 170th Street Edmonton, AB, T5V 1L7 Tel: 780 448 1351 Fax: 780 448 1354 **Saskatchewan** INLAND PIPE 300 10th Ave. Regina, SK, S4N 6G7 Toll Free tel: 1 877 974 7473 Office tel: 204 334 4300 Fax: 204 334 7957

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 2494 Ferrier St.

 Winnipeg, MB, R2V 4P6

 Toll Free tel: 1 877 974 7473

 Office tel: 204 334 4300

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### PRODUCT CATALOGUE

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#### **Southern Alberta**

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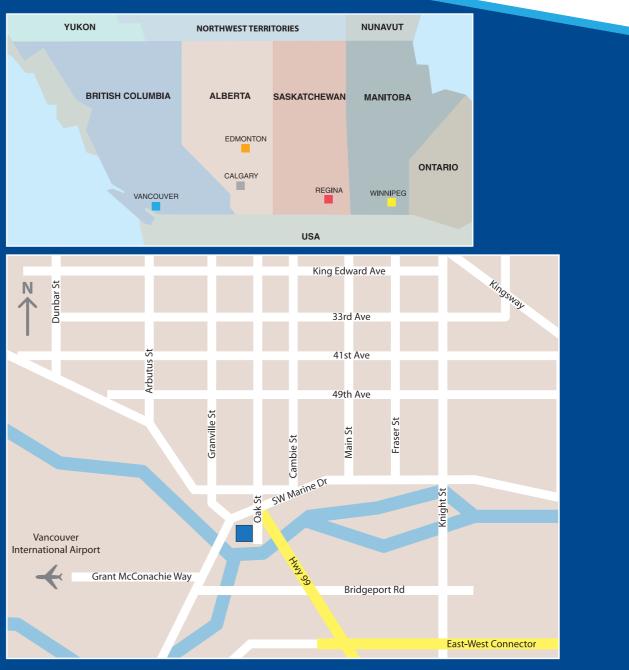
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