26 0543 UNDERGROUND DUCTS & RACEWAYS

Carlon® Rigid Nonmetallic Conduit (RNC), Fittings & Accessories

Carlon® manufactures the most complete line of nonmetallic conduits and fittings in the electrical industry. Carlon Schedule 40 and Schedule 80 conduits are designed for use aboveground and underground as described in the National Electrical Code. Specify only Carlon conduits and fittings to insure raceway system integrity.

Features

Ease of Installation Nonmetallic conduits are 1/4 to 1/5 the weight of metallic systems, can be installed in less than half the time, and are easily fabricated on the job.

Safety Nonmetallic conduits are nonconductive, assuring a safe system.

Impact Resistant Carlon Schedule 40 and Schedule 80 nonmetallic conduits are resistant to sunlight and are listed for exposed or outdoor usage. The use of expansion fittings allows the system to expand and contract with temperature variations.

Corrosion Resistant Carlon conduits and fittings are nonmetallic and will not rust or corrode.

Carlon nonmetallic Schedule 40 and Schedule 80 conduits and elbows are manufactured to NEMA TC-2, Federal specification WC1O94A and UL 651 specifications. Fittings are manufactured to NEMA TC-3, Federal specification WC1094A and UL514B. Both conduit and fittings carry respective UL or ETL Listings and UL or ETL labels.

Schedule 40 PVC Rigid Nonmetallic Conduit (RNC).

(Heavy Wall EPC)

ETL Listed to UL 651 in compliance to the NEC

UL LISTED E35297

RUS Listed

Listed for underground applications encased in concrete or direct burial. Also for use in exposed or concealed applications aboveground.

• Sunlight resistant • Rated for use with 90˚C conductors • Superior weathering characteristics

we will use 4" in lieu of 3 1/2" where shown on Drawing

With Integral Bell*

Schedule 40 Heavy Wall

Part No. 10'	Part No. 20'	Nom. Size	Std. Crate Qty. 10'	Std. Crate Qty. 20'	Wt. Per 100'	Dim O.D.	I.D.	Wall
49005-010		1/2"	6000'		17	.840	.622	.109
49007-010	49007-020	3/4"	4400'	8800'	23	1.050	.824	.113
49008-010	49008-020	1"	3600'	7200'	34	1.315	1.049	.133
49009-010	49009-020	1 1/4"	3300'	6600'	46	1.660	1.380	.140
49010-010	49010-020	1 1/2"	2250'	4500'	55	1.900	1.610	.145
49011-010	49011-020	2"	1400'	2800'	73	2.375	2.067	.154
49012-010	49012-020	2 1/2"	930'	1860'	124	2.875	2.469	.203
49013-010	49013-020	3"	880'	1760'	163	3.500	3.068	.216
49014-010	49014-020	3 1/2"	630'	1260'	196	4.000	3.548	.226
49015-010	49015-020	4"	570'	1140'	232	4.500	4.026	.237
49016-010	49016-020	5"	380'	760'	315	5.563	5.047	.258
49017-010	49017-020	6"	260'	520'	409	6.625	6.065	.280

Rigid nonmetallic conduit is normally supplied in standard 10' lengths, with one belled end per length. For specific requirements, it may be produced in lengths shorter or longer than 10', with or without belled ends.

Use RNC Fittings with Schedule 40 and Schedule 80 Conduit.

Notes: 1. Special fittings and conduit sizes will be quoted on request.
2. DON'T FORGET TO ORDER CEMENT.
3. Carlon reserves the right to ship to the nearest unitized quantity.

Schedule 80 PVC Rigid Nonmetallic Conduit (RNC)

(Extra Heavy Wall EPC-80)

ETL Listed to UL 651 in compliance to the NEC

UL LISTED E35297

RUS Listed

Listed for use in aboveground and belowground applications that are subject to physical damage.

- Sunlight resistant
- Rated for use with 90°C conductors
- Superior weathering characteristics
- For use in areas subject to physical damage

With Integral Bell*

Schedule 80 Extra Heavy Wall

Part No. 10'	Part No. 20'	Nom. Size	Std. Crate Qty. 10'	Std. Crate Qty. 20'	Wt. Per 100'	Dimensions O.D.	Dimensions I.D.	Wall
49405-010	49405-020	1/2"	6000'	12000'	21	.840	.546	.147
49407-010	49407-020	3/4"	4400'	8000'	30	1.050	.742	.154
49408-010	49408-020	1"	3600'	7200'	44	1.315	.957	.179
49409-010	49409-020	1 1/4"	3300'	6600'	60	1.660	1.278	.191
49410-010	49410-020	1 1/2"	2250'	3600'	72	1.900	1.500	.200
49411-010	49411-020	2"	1400'	2800'	101	2.375	1.939	.218
49412-010	49412-020	2 1/2"	930'	1880	154	2.875	2.323	.276
49413-010	49413-020	3"	880'	1760'	210	3.500	2.900	.300
49415-010	49415-020	4"	570'	1140'	308	4.500	3.826	.337
49416-010	–	5"	380'	–	428	5.563	4.813	.375
49417-010	49417-020	6"	260'	520'	588	6.625	5.761	4.32

Rigid nonmetallic conduit is normally supplied in standard 10' lengths, with one belled end per length. For specific requirements, it may be produced in lengths shorter or longer than 10', with or without belled ends.

Use RNC Fittings with Schedule 40 and Schedule 80 Conduit.

Notes: 1. Special fittings and conduit sizes will be quoted on request.
2. DON'T FORGET TO ORDER CEMENT.
3. Carlon reserves the right to ship to the nearest unitized quantity.

Support of Carlon Rigid Nonmetallic Conduit in Aboveground Installations

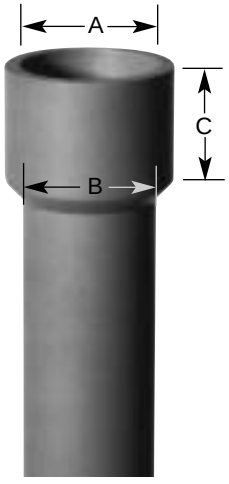
Table 352.30(B) NEC shows the support requirements for Schedule 40 and Schedule 80 rigid PVC nonmetallic conduit.

Plastic conduit should always be installed away from steam lines, etc. Support straps should allow for lineal movement caused by expansion and contraction.

Maximum ambient temperature is 122°F (50°C).

Table 352.30(B), NEC

Trade Size	Maximum Spacing Between Supports (feet)
1/2 - 1	3
1 1/4 - 2	5
2 1/2 - 3	6
3 1/2 - 5	7
6	8



Acceptable Dimensions in Inches of Integral Bell per UL 651

Trade Size	A At Entrance (in.) Maximum	A At Entrance (in.) Minimum	B At Bottom (in.) Maximum	B At Bottom (in.) Minimum	C Nominal Bell Depth (in.)
1/2	0.860	0.844	0.844	0.828	1.375
3/4	1.074	1.054	1.056	1.036	1.500
1	1.340	1.320	1.320	1.300	1.750
1 1/4	1.689	1.665	1.667	1.643	1.875
1 1/2	1.930	1.906	1.906	1.882	2.750
2	2.405	2.381	2.381	2.357	3.250
2 1/2	2.905	2.875	2.883	2.853	3.250
3	3.530	3.500	3.507	3.477	3.875
3 1/2	4.065	3.965	4.007	3.977	3.875
4	4.565	4.465	4.506	4.476	4.625
5	5.643	5.543	5.583	5.523	5.625
6	6.708	6.608	6.644	6.584	6.375

Typical Properties of Conduit Raw Material Compound

Thermal

	ASTM Test	Typical Values
Co-efficient of Thermal Expansion-inch/inch/°F (properties @ 73.4°F)	D696	3.38 x 10^{-5}
Heat Distortion °F at 264 psi	D648	160°F
Thermal Conductivity BTU (hr.) (ft.) (°F/in.)	N/A	1.3

Mechanical

	ASTM Test	Typical Values
Specific Gravity	D792	1.43 - 1.6
Tensile Strength (psi) @ 73.4°F	D638	5,000-6,500
Izod Impact ft lbs./in. of notch	D256	0.65 - 1.5
Flexural Strength (psi)	D790	12,500
Compressive Strength (psi)	D695	9,000
Hardness (Durometer D)	D2240	85

Electrical

	ASTM Test	Typical Values
Dielectrical Strength volts/mil	D149	1100
Dielectric Constant 60 CPS @ 30°C	D150	4.00
Power Factor 60 CPS @ 30°C	D150	1.93

Impedance (Volts lost per ampere per 100 feet)

	3∅90% P.F.	80% P.F.	1∅90% P.F.	80% P.F.
Steel Conduit	.0118	.0123	.0136	.0142
Schedule 40®	.0105	.0106	.0121	.0122

Using 250 KCmil Cu. conductor. comparable values for other conductor sizes.

Wire Fill

Maximum number of conductors in Schedule 40 PVC conduit

(Based on Table 1, Chapter 9 of the NEC)

Type Letters	Conductor Size AWG, MCM	Trade Size ½	¾	1	1¼	1½	2	2½	3	3½	4	4¼	5	6	8
THWN	14	13	24	39	69	94	154								
	12	10	18	29	51	79	114	164							
	10	6	11	18	32	44	73	194	160						
	8	3	5	9	19	22	36	51	71	106	136				
THHN	6	1	4	6	11	15	26	37	57	76	98	125	154		
	4	1	2	4	7	9	16	22	35	47	60	75	94	137	236
FEP (14 thru 2)	3	1	1	3	6	8	13	19	29	39	51	64	90	116	201
	2	1	1	3	5	7	11	16	25	33	43	54	67	97	169
FEPB (14 thru 8)	1		1	1	3	5	9	12	18	25	32	49	59	72	125
	1/0		1	1	3	4	7	10	15	21	27	33	42	61	105
PFA (14 thru 4/0)	2/0		1	1	2	3	6	8	13	17	22	28	35	51	88
	3/0		1	1	1	3	5	7	11	14	18	23	29	42	73
PFAH (14 thru 4/0)	4/0		1	1	1	2	4	6	9	12	15	19	24	35	61
	250			1	1	1	3	4	7	10	12	16	20	28	49
Z (14 thru 4/0)	300			1	1	1	3	4	6	8	11	13	17	24	42
	350			1	1	1	2	3	5	7	9	12	15	21	37
XHHW (4 thru 500MCM)	400				1	1	1	3	5	6	8	10	13	19	33
	500				1	1	1	2	4	5	7	9	11	16	27
	600				1	1	1	1	3	4	5	7	9	13	22
	700					1	1	1	3	4	5	6	8	11	19
	750					1	1	1	2	3	4	6	7	11	19
	6	1	3	5	9	13	21	30	47	63	81	102	128	185	320
	600				1	1	1	1	3	4	5	7	9	13	22
XHHW	700					1	1	1	3	4	5	6	7	11	19
	750					1	1	1	2	3	4	6	7	10	18

Maximum number of conductors in Schedule 80 PVC conduit

(Based on Table 1, Chapter 9 of the NEC)

Conductor Size AWG, MCM		Trade Size ½	¾	1	1¼	1½	2	2½	3	4	5
# 14	THW	4	8	13	24	34	57	82	128		
	THHN	10	19	33	58	81	135	194	0		
12	THW	3	6	11	20	28	47	67	105	183	
	THHN	8	14	24	43	60	100	144	0		
10	THW	3	5	9	16	22	37	54	85	148	
	THHN	5	9	15	27	38	64	92	143		
8	THW	1	2	4	8	11	19	28	44	77	121
	THHN	1	4	7	13	18	31	45	70	123	195
6	THW	1	1	3	6	8	14	20	32	56	88
	THHN	1	3	5	9	13	22	32	50	88	140
4	THW	0	1	2	4	6	10	15	24	42	66
	THHN	1	1	3	6	8	13	20	31	54	86
3	THW	0	1	1	4	5	9	13	20	36	57
	THHN	1	1	2	5	7	11	17	26	46	73
2	THW	0	1	1	3	4	8	11	17	31	49
	THHN	1	1	1	4	5	9	14	22	38	61
1	THW	0	1	1	1	3	5	8	13	22	35
	THHN	0	1	1	3	4	7	10	16	28	45
0	THW	0	0	1	1	2	4	7	11	19	30
	THHN	0	1	1	2	3	6	8	13	24	38
00	THW	0	0	1	1	1	4	6	9	16	26
	THHN	0	1	1	1	3	5	7	11	20	32
000	THW	0	0	1	1	1	3	5	8	14	22
	THHN	0	0	1	1	2	4	6	9	16	26
0000	THW	0	0	1	1	1	3	4	6	11	18
	THHN	0	0	1	1	1	3	5	8	14	22
250	THW	0	0	0	1	1	1	3	5	9	14
	THHN	0	0	0	1	1	2	4	6	11	18
300	ThW	0	0	0	1	1	1	3	4	8	13
	THHN	0	0	0	1	1	1	3	5	9	15
350	THW	0	0	0	1	1	1	2	4	7	11
	THHN	0	0	0	1	1	1	3	4	8	13
400	THW	0	0	0	0	1	1	1	3	6	10
	THHN	0	0	0	1	1	1	2	4	7	12
500	THW	0	0	0	0	1	1	1	3	5	8
	THHN	0	0	0	0	1	1	1	3	6	10
600	THW	0	0	0	0	0	1	1	1	4	7
	THHN	0	0	0	0	1	1	1	3	5	8
700	THW	0	0	0	0	0	1	1	1	3	6

Weight Comparison

Carlon Schedule 40® rigid nonmetallic conduit compared to other rigid conduit in pounds per 100 feet (approx.)

Nom. Size	Carlon Schedule 40® Rigid Nonmetallic Conduit	Carlon Schedule 80® Rigid Nonmetallic Conduit	Aluminum	Electrical Metallic Tubing (EMT)	Intermediate Metal Conduit (IMC)	Rigid Metal Conduit (RMC)
½	18	22	27	30	57	79
¾	23	29	36	46	78	105
1	35	43	53	66	112	153
1¼	48	60	70	96	114	201
1½	57	72	86	112	176	246
2	76	100	116	142	230	334
2½	125	153	183	230	393	527
3	164	212	239	270	483	690
3½	198		288	350	561	831
4	234	310	340	400	625	982
5	317	431	465	Not Made	Not Made	1344
6	412	592	612	Not Made	Not Made	1770

Expansion and Contraction

Temperature Considerations for Rigid Nonmetallic Conduit Compensation for Linear Expansion

Like all construction materials, PVC will expand or contract with variations in temperatures. The coefficient of linear expansion in PVC conduit is 3.38 x 10^{-5} in./in./°F as compared to 1.2 x 10^{-5} for aluminum and 0.6 x 10^{-5} for steel. An expansion coupling is needed whenever the change in length due to temperature variation will exceed 1/2 in.

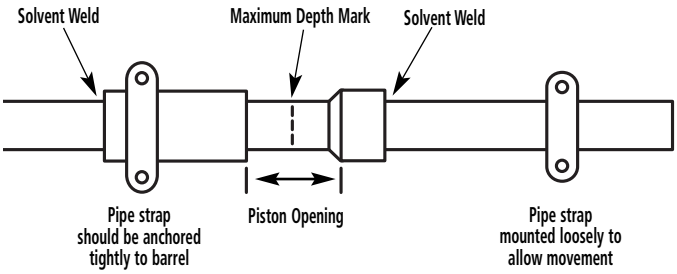
Add 30°F to the estimated temperature range when conduit is installed in direct sunlight to allow for radiant heating.

An expansion coupling consists of two sections of conduit, one telescoping inside another. When installing expansion couplings, alignment of piston and barrel is important. Be sure to mount expansion joint level for best performance.

For a vertical run, the expansion coupling must be installed close to the top of the run with the barrel jointing down, in order that rain water does not run into the opening. The lower end of the conduit run must be secured at the bottom so that any length change due to temperature variation will result in an upward movement.

Expansion Characteristics of PVC Rigid Nonmetallic Conduit
Coefficient of Thermal Expansion = 3.38 x 10^{-5} in./in./°F

Temperature Change in Degrees F	Length Change in inches per 100 Ft. of PVC Conduit	Temperature Change in Degrees F	Length Change in inches per 100 Ft. of PVC Conduit	Temperature Change in Degrees F	Length Change in inches per 100 Ft. of PVC Conduit	Temperature Change in Degrees F	Length Change in inches per 100 Ft. of PVC Conduit
5	0.2	55	2.2	105	4.2	155	6.3
10	0.4	60	2.4	110	4.5	160	6.5
15	0.6	65	2.6	115	4.7	165	6.7
20	0.8	70	2.8	120	4.9	170	6.9
25	1.0	75	3.0	125	5.1	175	7.1
30	1.2	80	3.2	130	5.3	180	7.3
35	1.4	85	3.4	135	5.5	185	7.5
40	1.6	90	3.6	140	5.7	190	7.7
45	1.8	95	3.8	145	5.9	195	7.9
50	2.0	100	4.1	150	6.1	200	8.1



Determine the Piston Opening

The expansion joint must be installed to allow both expansion and contraction of the conduit run. The correct piston opening for any installation condition should use the following formula:

$$O = \left[\frac{T\ max - T\ installed}{\Delta T} \right] E$$

Where:

O	=	Piston opening (in.)
T max	=	Maximum anticipated temperature of conduit (°F)
T inst.	=	Temperature of conduit at time of installation (°F)
Δ T	=	Total change in temperature of conduit (°F)
E	=	Expansion allowance built into each expansion coupling (in.)

Example

380 ft. of conduit is to be installed on the outside of a building exposed to the sun in a single straight run. It is expected that the conduit will vary in temperature from 0°F in the winter to 140°F in the summer (this includes the 30°F for radiant heating from the sun.) The installation is to be made at a conduit temperature of 90°F. From the table, a 140°F temperature change will cause a 5.7 in. length change in 100 ft. of conduit. The total change for this example is 5.7" x 3.8 = 21.67" which should be rounded to 22". The number of expansion couplings will be 22" x coupling range (4" for Carlon trade sizes 1/2" through 1-1/2", and 8" for sizes 2" through 6".) If the E945D coupling is used, the number will be 22" x 4 = 5.50 which should be rounded to 6. The coupling should be placed at 62 ft. intervals (380 x 6). the proper piston setting at the time of installation is calculated as explained above.

$$O = \left[\frac{140 - 90}{140} \right] 4.0 = 1.4 \text{ in.}$$

Insert the piston into the barrel to the maximum depth. Place a mark on the piston at the end of the barrel. To properly set the piston, pull the piston out of the barrel to correspond to the 2.1 in. calculated above. See drawing at lower left.

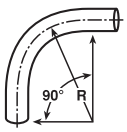
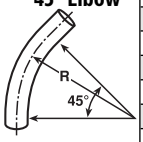
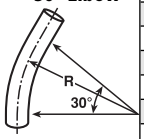
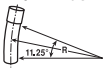
Summary

1. Anticipate expansion and contraction of PVC conduit in aboveground, exposed installation.
2. Use an expansion coupling when length change due to temperature variation will exceed 1/2".
3. PVC conduit expands 4.1" for each 100 feet of run and a 100°F temperature change.
4. Align expansion coupling with the conduit run to prevent binding.
5. Follow the instructions to set the piston opening.
6. Rigidly fix the outer barrel of the expansion coupling so it cannot move. Mount the conduit connected to the piston loosely enough to allow the conduit to move as the temperature changes.

Schedule 40 & 80 Elbows

Standard Radius

Available in plain end only for use with nonmetallic solvent weld fittings.

Item	Plain End Part No.	Belled End Part No.	Size	Plain End Std. Ctn. Qty.	Belled End Std. Ctn. Qty.
90° Elbow 	UB9AD	–	1/2"	50	–
	UB9AD-CAR	–	1/2"	25	–
	UB9AE	–	3/4"	25	–
	UB9AE-CAR	–	3/4"	15	–
	UB9AF	–	1"	25	–
	UB9AF-CAR	–	1"	10	–
	UB9AG	–	1 1/4"	20	–
	UB9AG-CAR	–	1 1/4"	5	–
	UB9AH	–	1 1/2"	25	–
	UB9AH-CAR	–	1 1/2"	5	–
	UB9AJ	–	2"	20	–
	UB9AJ-CAR	–	2"	5	–
	UB9AK-CAR	–	2 1/2"	10	–
	UB9AL-CAR	–	3"	5	–
	UB9AN	–	4"	1	–
	UB9AP	UB9APB	5"	1	1
	UB9AR		6"	1	–
45° Elbow 	UB7AD	–	1/2"	50	–
	UB7AE-UPC	–	3/4"	25	–
	UB7AF-UPC	–	1"	20	–
	UB7AG	–	1 1/4"	20	–
	UB7AH	–	1 1/2"	20	–
	UB7AH-CAR	–	1 1/2"	5	–
	UB7AJ-UPC	–	2"	20	–
	UB7AK	–	2 1/2"	20	–
	UB7AL	–	3"	1	–
	UB7AN	–	4"	1	–
	UB7AP	UB7APB	5"	1	1
	UB7AR	–	6"	1	–
30° Elbow 	UB6AD	–	1/2"	50	–
	UB6AE	–	3/4"	25	–
	UB6AF	–	1"	25	–
	UB6AG	–	1 1/4"	5	–
	UB6AH	–	1 1/2"	25	–
	UB6AJ	–	2"	20	–
	UB6AK	–	2 1/2"	1	–
	UB6AL	–	3"	1	–
	UB6AN	–	4"	1	–
	UB6AP	–	5"	1	–
	UB6AR	–	6"	1	–
22 1/2° Elbow 	UB5AL	–	3"	5	–
	UB5AN	–	4"	1	–
	UB5AP	UB5APB	5"	1	1
11 1/4° Elbow 	UB3AL	–	3"	1	–
	UB3AR	–	6"	1	–

Flexible PVC Elbows

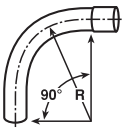
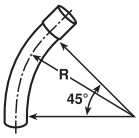
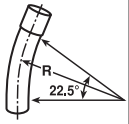
- UL listed for exposed and direct burial applications in accordance with Article 356 of 2002 NEC
- 0° - 90° bending and offset applications
- O-ring seal for moisture tight connections
- Maintains round shape throughout bend
- Sunlight resistant
- Non-corrosive – all PVC and Neoprene material
- Fully assembled and ready to use

Part No.	Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)	Length Fully Assembled
UAFAD	1/2"	8	1.6	8.5"
UAFAE	3/4"	6	1.9	9.6"
UAFAF	1"	6	2.4	11.9"

Special Radius

ETL Listed to UL 651 in compliance to the NEC

LISTED E35297

Segment	Plain End Part No.	Belled End Part No.	Nom. Diam.	Radius (in.)	Plain End Std. Ctn. Qty.	Belled End Std. Ctn. Qty.
90° Elbow 	UB9CF	–	1"	18"	1	–
	UB9DF	–	1"	24"	1	–
	UB9FF	–	1"	36"	1	–
	UB9HF	–	1"	48"	1	–
	UB9CG	–	1 1/4"	18"	1	–
	UB9DG	–	1 1/4"	24"	1	–
	UB9FG	–	1 1/4"	36"	1	–
	UB9HG	–	1 1/4"	48"	1	–
	UB9CH	–	1 1/2"	18"	1	–
	UB9DH-UPC	UB9DHB	1 1/2"	24"	1	1
	UB9FH	–	1 1/2"	36"	1	–
	UB9HH	–	1 1/2"	48"	1	–
	UB9CJ	–	2"	18"	1	–
	UB9DJ-UPC	UB9DJB	2"	24"	1	1
	UB9FJ	UB9FJB	2"	36"	1	1
	UB9HJ	–	2"	48"	1	–
	UB9CK	–	2 1/2"	18"	1	–
	UB9DK-UPC	UB9DKB	2 1/2"	24"	1	1
	UB9FK	UB9FKB	2 1/2"	36"	1	1
	UB9HK	–	2 1/2"	48"	1	–
	UB9CL	–	3"	18"	1	–
	UB9DL	UB9DLB	3"	24"	1	1
	UB9FL	UB9FLB	3"	36"	1	1
	UB9HL	–	3"	48"	1	–
	UB9DN	UB9DNB	4"	24"	1	1
	UB9FN	UB9FNB	4"	36"	1	1
	UB9HN	UB9HNB	4"	48"	1	1
	UB9NN	–	4"	120"	1	–
	UB9FP	–	5"	36"	1	–
	UB9HP	–	5"	48"	1	–
	UB9IP	–	5"	60"	1	–
	UB9FR	–	6"	36"	1	–
	UB9HR	–	6"	48"	1	–
	UB9IR	–	6"	60"	1	–
45° Elbow 	UB7CF	–	1"	18"	1	–
	UB7DF	–	1"	24"	1	–
	UB7FF	–	1"	36"	1	–
	UB7HF	–	1"	48"	1	–
	UB7DG	–	1 1/4"	24"	1	–
	UB7FG	–	1 1/4"	36"	1	–
	UB7HG	–	1 1/4"	48"	1	–
	UB7CH	–	1 1/2"	18"	1	–
	UB7DH	UB7DHB	1 1/2"	24"	1	1
	UB7FH	–	1 1/2"	36"	1	–
	UB7HH	–	1 1/2"	48"	1	–
	UB7CJ	–	2"	18"	1	–
	UB7DJ	UB7DJB	2"	24"	1	1
	UB7FJ	UB7FJB	2"	36"	1	1
	UB7HJ	–	2"	48"	1	–
	UB7DK	UB7DKB	2 1/2"	24"	1	1
	UB7FK	–	2 1/2"	36"	1	–
	UB7HK	–	2 1/2"	48"	1	–
	UB7CL	–	3"	18"	1	–
	UB7DL	UB7DLB	3"	24"	1	1
	UB7FL	UB7FLB	3"	36"	1	1
	UB7HL	–	3"	48"	1	–
	UB7DN	UB7DNB	4"	24"	1	1
	UB7FN	UB7FNB	4"	36"	1	1
	UB7HN	–	4"	48"	1	–
	UB7FP	–	5"	36"	1	–
	UB7HP	–	5"	48"	1	–
	UB7FR	–	6"	36"	1	–
	UB7HR	–	6"	48"	1	–
	UB7IR	–	6"	60"	1	–
30° Elbow	UB6FN	–	4"	36"	1	–
	UB6FR	–	6"	36"	1	–
22 1/2° Elbow 	–	UB5DHB	1 1/2"	24"	–	20
	–	UB5DJB	2"	24"	–	20
	–	UB5FJB	2"	36"	–	25
	–	UB5DKB	2 1/2"	24"	–	15
	UB5DL	UB5DLB	3"	24"	1	10
	–	UB5FLB	3"	36"	–	1
	UB5DN	UB5DNB	4"	24"	1	5
	–	UB5FNB	4"	36"	–	1
	UB5FP	–	5"	36"	1	–
11 1/4° Elbow	UB3FP	–	5"	36"	1	–

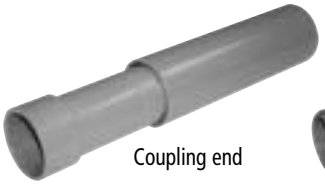
Expansion Fittings

c UL us LISTED E33447

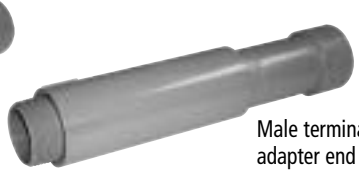
(For Use with Schedule 40 & 80 Conduit)

E945 series expansion fittings are designed to compensate for length changes due to temperature variations in exposed conduit runs.

- EXCLUSIVE Molded in Mid-point indicator on the piston.
- EXCLUSIVE 2" Expansion Fitting with an 8" travel distance.
- Two-piece molded design with lubricated seals for easier movement for the life of the product.
- Ridges on the fitting for easier installation (Sizes 2" through 6" only).
- Male terminal Adapter End design (1/2" – 2" NPT Threads, and 2 1/2" – 6" NPSC Threads).
- Two O-Rings to prevent leakage.
- Can be installed vertically or horizontally.



Coupling end



Male terminal adapter end

Coupling End Part No.	Male Terminal Adapter End Part No.	Size	Std. Ctn. Qty.	Travel Length (in.)
E945D	E945DX	1/2	20	4"
E945E	E945EX	3/4	15	4"
E945F	E945FX	1	10	4"
E945G	E945GX	1 1/4	5	4"
E945H	E945HX	1 1/2	5	4"
E945J	E945JX	2	15	8"
E945K	E945KX	2 1/2	10	8"
E945L	E945LX	3	10	8"
E945M	E945MX	3 1/2	5	8"
E945N	E945NX	4	5	8"
E945P	E945PX	5	1	8"
E945R	E945RX	6	1	8"

Short Expansion Couplings

c UL us LISTED E32447

(Expands to a maximum of 2")

Part No.	Size	Std. Ctn. Qty.
E955D	1/2	40
E955E	3/4	40
E955F	1	25
E955G	1 1/4	15
E955H	1 1/2	10
E955J	2	6

Couplings

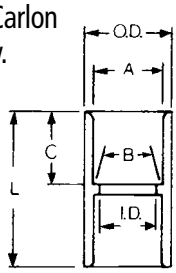
UL LISTED E32447

Except where noted by ▶

Standard Couplings

All socket fittings should be attached Using Carlon solvent cement. Using Carlon fittings with Carlon nonmetallic conduit insures system integrity.

Socket type for joining nonmetallic conduit.



Part No.	Size	Std. Ctn. Qty.	A Typical	B Typical	I.D.	O.D.	C Typical	L Typical
E940D	1/2	150	.852	.836	.728	17/64	11/16	1 1/2
E940E	3/4	100	1.064	1.046	.840	15/16	3/4	1 5/8
E940F	1	50	1.330	1.310	1.210	1 5/8	15/16	2
E940G	1 1/4	30	1.677	1.655	1.535	1 63/64	1	2 1/8
E940H	1 1/2	25	1.918	1.894	1.755	2 15/64	1 1/8	2 3/8
E940J	2	30	2.393	2.369	2.190	2 47/64	1 3/16	2 1/2
E940K	2 1/2	20	2.890	2.868	2.688	3 5/16	1 33/64	3 3/16
E940K-CAR	2 1/2	4	2.890	2.868	2.688	3 5/16	1 33/64	3 3/16
E940L	3	25	3.515	3.492	3.375	3 31/32	1 3/4	3 13/32
E940L-CAR	3	5	3.515	3.492	3.375	3 31/32	1 3/4	3 13/32
E940M	3 1/2	20	4.015	3.992	3.780	4 9/16	1 3/4	3 5/8
E940N	4	15	4.515	4.491	4.265	5 3/32	1 25/32	3 3/4
E940N-CAR	4	5	4.515	4.491	4.265	5 3/32	1 25/32	3 3/4
E940P	5	8	5.593	5.553	5.097	6 1/4	1 5/16	4 1/16
E940R	6	5	6.658	6.614	6.115	7 1/2	2 3/16	4 5/8

Special Long Line Couplings

Long Line Couplings

Part No.	Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
E941H	1 1/2	40	9
E941J	2	25	8
E941K	2 1/2	15	8
E941L	3	15	14
E941N	4	10	15
E941PF	5	4	12
▶ E941RF	6	5	21

Fabricated Expansion Couplings

UL LISTED E33447

Part No.	Size	Std. Ctn. Qty.	Travel Length (in.)
E945KXL	2 1/2	10	12

Couplings

Special Long Line Couplings – Sleeve Couplings

Sleeve Coupling *(For Repair Work)*
No Internal Stop

Part No.	Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
▶ E948H	1 1/2	25	6
▶ E948J	2	25	5
▶ E948K	2 1/2	25	16
▶ E948L	3	25	13
▶ E948N	4	10	8
▶ E948P	5	14	33
▶ E948R	6	6	16
▶ E948JR	2" (6" long)	15	8
▶ E948JS	2" (Sch. 40 Split Duct)	25	6
▶ E948L12	3" (12" long)	1	1
▶ E948L6	3" (6" long)	15	15
▶ E948LS	3" (Sch. 40 Split Duct)	25	17
▶ E948N12	4" (12" long)	10	28
▶ E948N7	4" (7" long)	15	25
▶ E948NS	4" (Sch. 40 Split Duct)	10	15
▶ E948PS	5" (Sch. 40 Split Duct)	1	2
▶ E948R10	6" (10" long)	6	25
▶ E948R12	6" (12" long)	6	25
▶ E948RS	6" (Sch. 40 Split Duct)	1	2

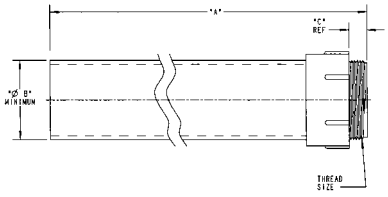
Special Schedule 40 Swedge Couplings

*Consult factory for additional sizes

Part No.	Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
▶ E442K	2 1/2	20	13
▶ E442R	6	6	27
▶ E442T	8	2	17

Risers

Schedule 40



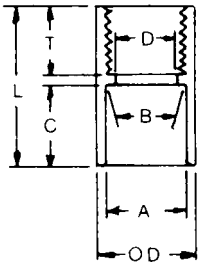
Part No.	Size	A (Length)	B (Min.)	C	Thread Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
E954HX	1 1/2	80.00	1.567	.950	1 1/2" NPT	1	3.8
E954J	2	60.00	2.024	.825	2" NPT	1	3.7
E954JX	2	80.00	2.024	.825	2" NPT	1	5.0
E954K	2 1/2	60.00	2.418	.812	2 1/2" NPSC	1	6.0
E954KX	2 1/2	80.00	2.418	.812	2 1/2" NPSC	1	8.4
E954L	3	60.00	3.012	.798	3" NPSC	1	8.7
E954LX	3	80.00	3.012	.798	3" NPSC	1	11.0

Adapters

UL LISTED
E32447
Except where noted by ▶

Female Adapters

For adapting nonmetallic conduits to threaded fittings, metallic systems. Female threads on one end, socket end on other.

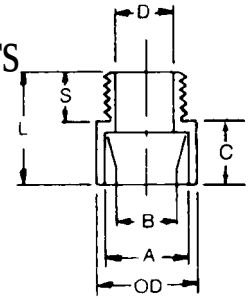


Part No.	Size	Std. Ctn. Qty.	A Typical	B Typical	Min. D	Max. OD	C Typical	T Typical	L Typical
E942D	1/2	150	.852	.836	.620	17/64	11/16	3/4	19/16
E942E	3/4	100	1.064	1.046	.822	15/16	13/16	3/4	15/8
E942F	1	50	1.330	1.310	1.046	15/8	15/16	7/8	1 15/16
E942G	1 1/4	30	1.677	1.655	1.377	1 63/64	1	7/8	2
E942H	1 1/2	25	1.918	1.894	1.607	2 5/32	1 1/8	7/8	2 7/32
E942J	2	30	2.393	2.369	2.064	2 47/64	1 3/16	1	2 5/16
E942K	2 1/2	20	2.890	2.868	2.450	3 11/32	1 5/8	1 1/8	2 15/16
E942K-CAR	2 1/2	4	2.890	2.868	2.450	3 11/32	1 5/8	1 1/8	2 15/16
E942L	3	25	3.515	3.492	3.000	3 31/32	1 3/4	1 1/8	3 1/16
E942L-CAR	3	3	3.515	3.492	3.000	3 31/32	1 3/4	1 1/8	3 1/16
E942M	3 1/2	20	4.015	3.992	3.500	4 1/2	1 7/8	1 1/8	3 1/4
E942N	4	15	4.515	4.491	4.000	5 1/64	2	1 1/8	3 13/64
E942N-CAR	4	7	4.515	4.491	4.000	5 1/64	2	1 1/8	3 13/64
E942NX9*	4	15	(Call for information)						
E942P	5	8	5.593	5.553	5.047	6 1/4	1 15/16	1 1/16	3 3/16
E942R	6	6	6.658	6.614	6.055	7 1/4	2 1/8	1 1/16	3 3/8
E942RX*	6	6	(Call for information)						

* Long Line Adapter

Male Terminal Adapters

For adapting nonmetallic conduits to boxes, threaded fittings, metallic systems. Male threads on one end, socket end on other.

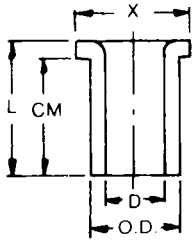


Part No.	Size	Std. Ctn. Qty.	A Typical	B Typical	Min. D	Max. OD	C Typical	S Typical	L Typical
E943D	1/2	150	.852	.836	.597	1 1/8	5/8	9/16	15/16
E943E	3/4	125	1.064	1.046	.800	1 11/32	3/4	9/16	1 3/8
E943F	1	50	1.330	1.310	1.018	1 5/8	1	11/16	1 25/32
E943G	1 1/4	50	1.677	1.655	1.332	2 1/32	1	3/4	1 15/16
E943H	1 1/2	25	1.918	1.894	1.566	2 5/32	1 3/16	3/4	2 1/16
E943J	2	50	2.393	2.369	2.000	2 21/32	1 3/16	3/4	2 1/8
E943K	2 1/2	25	2.890	2.868	2.376	3 5/16	1 3/4	7/8	2 7/8
E943K-CAR	2 1/2	5	2.890	2.868	2.376	3 5/16	1 3/4	7/8	2 7/8
E943L	3	45	3.515	3.492	2.954	4	1 15/16	7/8	3 1/16
E943L-CAR	3	5	3.515	3.492	2.954	4	1 15/16	7/8	3 1/16
E943M	3 1/2	30	4.015	3.992	3.440	4 1/2	2 7/16	1 7/8	3 7/16
E943N	4	20	4.515	4.491	3.940	5 3/32	2 3/8	7/8	3 1/2
E943N-CAR	4	20	4.515	4.491	3.940	5 3/32	2 3/8	7/8	3 1/2
E943P	5	5	5.593	5.553	4.815	6 1/4	2 1/3	1	3 15/16
E943R	6	10	6.658	6.614	5.860	7 1/2	2 3/8	1	3 3/8

Adapters

Box Adapters for Enclosures

Adapts nonmetallic conduit to all electrical enclosures by inserting adapter through knockout and cementing into Carlon couplings.



Part No.	Size	Std. Ctn. Qty.	Min D	OD Typical	Max X	CM Typical	L Typical
E996D	1/2	100	.662	.840	17/64	23/32	27/32
E996E	3/4	100	.824	1.050	1 21/64	25/32	29/32
E996F	1	100	1.049	1.315	1 5/8	61/64	1 3/32
E996G	1 1/4	50	1.380	1.660	1 31/32	1 1/16	1 1/4
E996H	1 1/2	50	1.610	1.900	2 13/64	1 3/16	1 3/8
E996J	2	25	2.067	2.375	2 29/32	1 1/4	1 7/16
E996K-CAR	2 1/2	10	2.469	2.875	3 7/16	1 7/8	1 15/16
E996L	3	20	3.068	3.500	4 1/8	2	2 1/16
E996L-CAR	3	5	3.068	3.500	4 1/8	2	2 1/16
E996N	4	10	4.026	4.500	5 1/8	2 1/2	2 1/4

Threaded Adapters

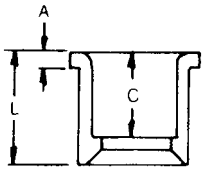
Part No.	Size	Std. Ctn. Qty.
E9842D [1]	1/2	25
E9842E [2]	3/4	25

[1] Fits 3/4" sockets [2] Fits 1" sockets

Reducers

Reducer Bushings

For connecting different sizes of conduit. Bell x Spigot.



Part No.	Size	Std. Ctn. Qty.	L Typical	A Typical	C Typical
E950ED	3/4" x 1/2"	100	1 5/32	13/64	1 1/32
E950FD-CAR	1" x 1/2"	25	1 11/32	3/16	57/64
E950FE	1" x 3/4"	100	1 11/32	3/16	1 1/64
E950GE-CAR	1 1/4" x 3/4"	10	1 15/32	3/16	1 1/64
E950GF	1 1/4" x 1"	50	1 15/32	3/16	1 9/64
E950HF-CAR	1 1/2" x 1"	10	1 19/32	3/16	1 9/64
E950HG-CAR	1 1/2" x 1 1/4"	10	1 19/32	3/16	1 17/64
E950JG-CAR	2" x 1 1/4"	10	1 3/4	7/32	1 17/64
E950JH-CAR	2" x 1 1/2"	10	1 3/4	7/32	1 25/64
E950KJ-CAR	2 1/2" x 2"	10	2 5/32	3/8	1 27/64
E950LJ-CAR	3" x 2"	10	2 1/8	1/4	1 7/8
▶ E950LK	3" x 2 1/2"	25	1 15/16	1/4	1 11/16
E950NL	4" x 3"	25	2 3/4	5/16	1 15/16

Reducers

UL LISTED
E32447
Except where noted by ▶

Fabricated Reducers

Fabricated Reducers (Male x Male)

Part No.	Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
▶ E952KJ	2 1/2" x 2"	48	28
▶ E952LJ	3" x 2"	36	21
▶ E952LK	3" x 2 1/2"	36	31
▶ E952NL	4" x 3"	15	23
▶ E952NM	4" x 3 1/2"	15	25
▶ E952PN	5" x 4"	12	26
▶ E952RP	6" x 5"	10	31

Plugs

Reducer Plugs

Part No.	Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
▶ E971C	3/4" x 1/2"	100	2
▶ E971D	1" x 3/4"	100	3

Plugs (Polyethylene)

Part No.	Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
▶ P258H	1 1/2"	50	2
▶ P258K	2 1/2"	25	1.5

Plugs with Pull Tabs (Polyethylene)

Part No.	Size	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
▶ P258JT	2	60	3
▶ P258LT	3	30	3
▶ P258NT	4	48	8
▶ P258PT	5	30	6
▶ P258RT	6	30	9

Corrosion Resistance of Carlon Schedule 40 and Schedule 80 PVC Conduit and Fittings

Carlon Schedule 40 and Schedule 80 are generally acceptable for use in environments containing the chemicals below. These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Schedule 40 and Schedule 80 can be used in many process areas where chemicals not on this list are manufactured or used because worker safety requirements dictate that any air presence or splashing be at a very low level.

If there are any questions for specific suitability in a given environment, prototype samples should be tested under actual conditions.

Acetic Acid 0-20%
Acetic Acid 20-30%
Acetic Acid 30-60%
Acetic Acid 80%
Acetic Acid – Glacial
Acetic Acid Vapors
Acetylene
Adipic Acid
Alum
Aluminum Chloride
Aluminum Fluoride
Aluminum Hydroxide
Aluminum Oxychloride
Aluminum Nitrate
Aluminum Sulfate
Ammonia-Dry Gas
Ammonium Bifluoride
Ammonium Carbonate
Ammonium Chloride
Ammonium Hydroxide 28%
Ammonium Metaphosphate
Ammonium Nitrate
Ammonium Persulfate
Ammonium Phosphate – Neutral
Ammonium Sulfate
Ammonium Sulfide
Ammonium Thiocyanate
Amyl Alcohol
Anthraquinone
Anthraquinonesulfonic Acid
Antimony Trichloride
Aqua Regia
Arsenic Acid 80%
Arylsulfonic Acid
Barium Carbonate
Barium Chloride
Barium Hydroxide
Barium Sulfate
Barium Sulfide
Beet – Sugar Liquor
Benzine Sulfonic Acid 10%
Benzoic Acid
Bismuth Carbonate
Black Liquor (Paper Industry)
Bleach – 12.5% Active CL_2
Borax
Boric Acid
Brine
Breeder Pellets – Dane. Fish
Bromic Acid
Bromine – Water
Butane
Butadiene
Butyl Alcohol
Butyl Phenol
Butylene
Butyric Acid
Calcium Bisulfite
Calcium Carbonate
Calcium Chlorate
Calcium Chloride
Calcium Hydroxide
Calcium Hypochlorite
Calcium Nitrate
Calcium Sulfate
Carbonic Acid
Carbon Dioxide Gas – Wet
Carbon Dioxide – Aqueous Solution
Carbon Monoxide
Caustic Potash
Caustic Soda
Chloracatic Acid
Chloral Hydrate
Chlorine Gas (Dry)
Chlorine Gas (Moist)
Chlorine Water
Chlorosulfonic Acid
Chrome Alum
Chromic Acid 10%
Chromic Acid 30%
Chromic Acid 40%
Chromic Acid 50%
Citric Acid
Copper Chloride
Copper Cyanide
Copper Fluoride
Copper Nitrate
Copper Sulfate
Cottonseed Oil
Cresylic Acid 50%
Crude Oil – Sour
Crude Oil – Sweet
Demineralized Water
Dextrin
Dextrose
Diglycolic Acid
Disodium Phosphate
Ethyl Alcohol
Ethylene Glycol
Fatty Acids
Ferric Chloride
Ferric Nitrate
Ferric Sulfate
Ferrous Chloride
Ferrous Sulfate
Fluorine Gas – Wet
Fluorine Gas – Dry
Fluoroboric Acid
Fluorosilicic Acid
Formaldehyde
Formic Acid
Fructose
Gallic Acid
Gas – Coke Oven
Gas – Natural (Dry)
Gas – Natural (Wet)
Gasoline – Sour
Gasoline – Refined
Glucose
Glycerine (Glycerol)
Glycol
Glycolic Acid
Green Liquor (Paper Industry)
Heptane
Hexanol, Tertiary
Hydrobromic Acid 20%
Hydrochloric Acid 0% - 25%
Hydrochloric Acid 25% - 40%
Hydrocyanic Acid or Hydrogen Cyanide
Hydrofluoric Acid 10%
Hydrofluorosilicic Acid
Hydrogen Phosphide
Hydrogen Sulfide – Dry
Hydrogen Sulfide – Aqueous Solution
Hydroquinone
Hydroxylamine Sulfate
Iodine
Kerosene
Lactic Acid 28%
Lauric Acid
Lauryl Chloride
Lauryl Sulfate
Lead Acetate
Lime Sulfur
Linoleic Acid
Linseed Oil
Lubricating Oils
Magnesium Carbonate
Magnesium Chloride
Magnesium Hydroxide
Magnesium Nitrate
Magnesium Sulfate
Maleic Acid
Malic Acid
Mercuric Chloride
Mercuric Cyanide
Mercurous Nitrate
Mercury
Methyl Sulfate
Methylene Chloride
Mineral Oils
Naphthalene
Nickel Chloride
Nickel Nitrate
Nitric Acid, Anydrous
Nitric Acid 20%
Nitric Acid 40%
Nitric Acid 60%
Nitrobenzene
Nitrous Oxide
Oils and Fats
Oils – Petroleum – (See Type)
Oleic Acid
Oxalic Acid
Palmitic Acid 10%
Perchloric Acid 10%
Phenylhydrazine Hydrochloride
Phosgene, Gas
Phosphoric Acid – 0-25%
Phosphoric Acid – 25-50%
Phosphoric Acid – 50-85%
Photographic Chemicals
Plating Solutions
Potassium Bicarbonate
Potassium Bichromate
Potassium Borate
Potassium Bromide
Potassium Carbonate
Potassium Chloride
Potassium Chromate
Potassium Cyanide
Potassium Dichromate
Potassium Ferricyanide
Potassium Ferrocyanide
Potassium Fluoride
Potassium Hydroxide
Potassium Nitrate
Potassium Perborate
Potassium Perchlorite
Potassium Permanganate 10%
Potassium Persulfate
Potassium Sulfate
Propane
Propyl Alcohol
Silicic Acid
Silver Cyanide
Silver Nitrate
Silver Plating Solutions
Sodium Acetate
Sodium Arsenite
Sodium Benzoate
Sodium Bicarbonate
Sodium Bisulfate
Sodium Bisulfite
Sodium Bromide
Sodium Chlorate
Sodium Chloride
Sodium Cyanide
Sodium Dichromate
Sodium Ferricyanide
Sodium Ferrocyanide
Sodium Fluoride
Sodium Hydroxide
Sodium Hypochlorite
Sodium Nitrate
Sodium Nitrite
Sodium Sulfate
Sodium Sulfide
Sodium Sulfite
Sodium Thiosulfate (Hypo)
Stannic Chloride
Stannous Chloride
Stearic Acid
Sulfur
Sulfur Dioxide – Gas Dry
Sulfur Trioxide
Sulfuric Acid – 0-10%
Sulfuric Acid – 10-75%
Sulfuric Acid – 75-90%
Sulfurous Acid
Tannic Acid
Tanning Liquors
Tartaric Acid
Titanium Tetrachloride
Triethanolamine
Trimethyl Propane
Trisodium Phosphate
Turpentine
Urea
Vinegar
Whiskey
White Liquor (Paper Industry)
Wines
Zinc Chloride
Zinc Chromate
Zinc Cyanide
Zinc Nitrate
Zinc Sulfate

Suggested Format for Specifying Carlon Nonmetallic Conduit, Conduit Fittings and Junction Boxes

A. The Carlon rigid nonmetallic conduit system shall be installed as indicated on the drawings and as specified herein.

B. All wiring shall be installed in Carlon rigid nonmetallic conduit. All conduit shall be secured by means of proper fittings. All fittings shall be Carlon.

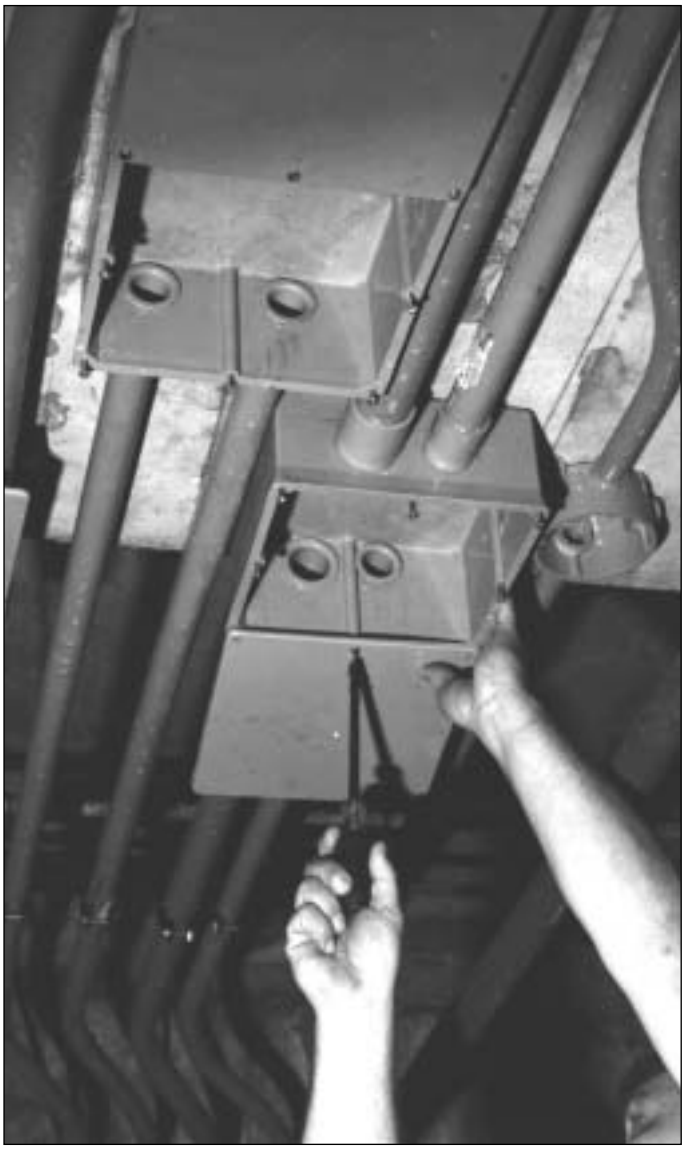
C. Carlon outlet boxes, fittings and junction boxes shall be used for all outlets, pull boxes and junction points. (Lighting fixtures shall not be supported or hung from PVC junction boxes but be supported in position by other means.)

D. Exposed conduits shall be mounted securely by suitable hangers or straps with the maximum spacing of points of supports not greater than indicated by Section 352.30 of the NEC.

E. Except where embedded in concrete or direct buried, Carlon conduit shall be supported to permit adequate lineal movement to allow for expansion and contraction of conduit due to temperature change.

F. For aboveground installations where temperature change in excess of 14°C (25°F) is anticipated, expansion joints shall be installed. See Table 352.44(A) NEC for expansion characteristics.

G. Proper care shall be taken when field bending is employed to maintain the internal diameter and wall thickness of the conduit.

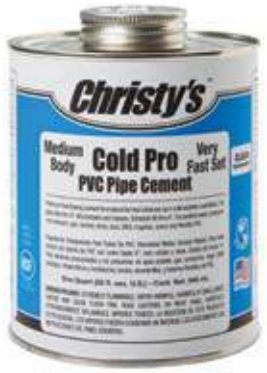


UNIVERSAL PLUG W/ PULLING EYE

SIZE (IN)	RBP PART NUMBER	CARTON QUANTITY
2″	E091200	70
3″	E091300	45
4″	E091400	80
5″	E091500	45
6″	E091600	35

COLD PRO PVC CEMENT

SIZE	RBP PART NUMBER	CARTON QUANTITY
PINT	33942	12
QUART	33943	12
GALLON	33941	6



APPLICATIONS:
For PVC pipe and fittings conduit and duct installation in low temperature conditions. Pipe size diameters thru 6″ for all schedules and classes. Schedule 80 thru 4″.

- High performance solvent cement specifically designed for low temperature conditions
- Formulated for quick initial set up in cold weather
- Recommended application temperature -15°F to 110°F.
- Clear
- Low VOC
- Meets or exceeds ASTM D2564 specifications

ELECTRICAL CONDUIT PVC CEMENT

SIZE	RBP PART NUMBER	CARTON QUANTITY
1/2 PINT	34365	24
PINT	34366	12
QUART	34367	12
GALLON	34373	6

APPLICATIONS:
For PVC pipe and fittings conduit and duct installation. Pipe size diameters thru 6″ for all schedules and classes including Schedule 80.

- High performance premium solvent cement delivers a strong bond between PVC pipe and fittings
- Clear
- Low VOC
- Meets or exceeds ASTM D2564 specifications

Pipe Wrap - PVC

Polyvinyl Chloride Film Coated with a Rubber Resin Adhesive

Corrosion and Puncture Resistant

Pipe Wrap - PVC
PC 5420

Pipe Wrap is a polyvinyl chloride film coated with a rubber resin adhesive which protects pipe, joints, conduit and couplings for overhead or direct burial applications. It is corrosion and puncture resistant.

- 1", 2" & 4" Widths
- UPC Approved
- 10 Mil and 20 Mil
- Abrasion Resistant
- Provides Electrical Protection

Plumbing Code

CAT NO	UPC	DIMENSIONS	MIL	STD	MSTR	WT/STD	UNIT
110	28110	1" x 100'	10 Mil	48	48	29.28#	Ea
210	28140	2" x 100'	10 Mil	24	24	28.80#	Ea
410	28142	4" x 100'	10 Mil	12	12	27.60#	Ea
220	28145	2" x 100'	20 Mil	24	24	53.52#	Ea

Warning Tapes

Mark off hazardous or off-limit areas quickly and easily!
Protect-A-Line™ Barricade and Burial Tapes

Barricade Tape

- Inexpensive and easy to handle
- Convenient and reusable
- For indoor and outdoor use

Buried Utility Tape

- Protect against costly dig-ins
- Place 1 to 1½ feet below the ground surface directly above the pipeline or cable below
- Bright, fade-resistant colors warn equipment operators that a vital pipeline or cable is buried below — before damage occurs
- Black text on a bright background

Foil-Backed Detectable Buried Utility Tape

- Features a metallic backing designed to be detectable under normal earthen surfaces up to 18" with common metal detectors
- Simple and fast method for relocating lines, cables and conduit for future renovation
- Black text on a bright background

CAT. NO.	LEGEND	COLOR
Surveyors Tape 1½" x 1,000'		
NA-0200	No Legend, No Printing	Yellow
NA-0201	No Legend, No Printing	Red
NA-0202	No Legend, No Printing	Green
NA-0203	No Legend, No Printing	Blue
NA-0204	No Legend, No Printing	Orange
Barricade Tape 3" x 1,000'		
NA-0250	Caution	Yellow
NA-0253	Caution Construction Area	Yellow
NA-0254	Caution Do Not Enter	Yellow
NA-0256	Caution Hard Hat Area	Yellow
NA-0257	Caution High Voltage	Yellow
NA-0258	Caution Men Working	Yellow
NA-0261	Caution Open Trench	Yellow
NA-0267	Danger, on Stripes	Red & White
Buried Utility Tape 3" x 1,000'		
NA-0600	Electric Line	Red
NA-0608	Electric Line	Yellow
NA-0601	Water Line	Blue
NA-0602	Telephone Line	Orange
NA-0603	Gas Line	Yellow
NA-0605	Sewer Line	Green
NA-0606	High Voltage Line	Red
NA-0609	Fiber Optic Cable	Orange

***Note**: All barricade and utility tapes are 4 MIL polyethylene and are not self sticking. All legends are printed in black. Standard package is 1 roll.*

CAT. NO.	LEGEND	COLOR
Buried Utility Tape 6" x 1,000'		
NA-0700	Electric Line	Red
NA-0708	Electric Line	Yellow
NA-0701	Water Line	Blue
NA-0702	Telephone Line	Orange
NA-0703	Gas Line	Yellow
NA-0706	High Voltage Line	Red
NA-0709	Fiber Optic Cable	Orange
Foil-Backed Detectable Buried Utility Tape 3" x 1,000'		
NAF-0600	Electric Line	Red
NAF-0608	Electric Line	Yellow
NAF-0601	Water Line	Blue
NAF-0602	Telephone Line	Orange
NAF-0603	Gas Line	Yellow
NAF-0604	Oil Line	Yellow
NAF-0605	Sewer Line	Green
NAF-0606	High Voltage Line	Red
NAF-0607	Cable TV Line	Orange
NAF-0609	Fiber Optic Cable	Orange
Foil-Backed Detectable Buried Utility Tape 6" x 1,000'		
NAF-0700	Electric Line	Red
NAF-0708	Electric Line	Yellow
NAF-0701	Water Line	Blue
NAF-0702	Telephone Line	Orange
NAF-0703	Gas Line	Yellow
NAF-0704	Oil Line	Yellow
NAF-0705	Sewer Line	Green
NAF-0706	High Voltage Line	Red
NAF-0707	Cable TV Line	Orange
NAF-0709	Fiber Optic Cable	Orange

Thomas&Betts
United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354
Technical Services
Tel: 888.862.3289
www.tnb.com

A. PVC and HDPE conduits shall be available in trade sizes 2”-6”.

B. PVC Conduit shall be listed to UL 651 and manufactured in accordance with NEMA TC-2.

C. HDPE Conduit shall be listed to UL 651A and manufactured in accordance with NEMA TC-7.

D. PVC and HDPE conduit shall be labeled or marked showing evidence of third-party listing to product standard.

E. PVC and HDPE conduit shall be listed as sunlight resistant.

F. PVC and HDPE conduit shall be listed for use with 90° conductors.

G. INTEGRAL COUPLINGS

H. Integral couplings shall be listed to UL 651 and 651A and manufactured in accordance with NEMA TC-2 and TC-7, respectively.

I. 2.4 ELBOWS

J. Elbows shall be listed to UL 651 and 651A and manufactured in accordance with NEMA TC-3 and TC-7, respectively.

2.05 FITTINGS

A. Fittings, including fabricated fittings, junction-box adapters, expansion joints, threaded adapters and service entrance heads shall be listed to UL 651 and 651A and manufactured in accordance with NEMA TC-3 and TC-7, respectively.

four corners pre-cast will make us the warning planks per spec

B. Fittings for use in wet locations shall be listed for use in wet-locations.

C. Underground Conduit ACCESSORIES

D. Duct Accessories:

1. Duct Separators: Factory-fabricated rigid PVC interlocking spacers, sized for type and sizes of ducts with which used, and retained to provide minimum duct spacings indicated while supporting ducts during concreting or backfilling.
2. Warning Tape: Underground-line warning tape specified in Division 26 Section "Identification for Electrical Systems."
3. Concrete Warning Planks: Nominal 12 by 24 by 3 inches in size, manufactured from 6000-psi concrete.
   a. Color: Red dye added to concrete during batching.
   b. Mark each plank with "ELECTRIC" in 2-inch- high, 3/8-inch- deep letters.

2.06 PRECAST CONCRETE HANDHOLES AND PULL BOXES

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. Christy Concrete Products.
   2. Cretex Concrete Products West, Inc.; Riverton Division.
   3. Elmhurst-Chicago Stone Co.
   4. Oldcastle Precast Group.
   5. Oldcastle Precast Inc.; Utility Vault Division.
   6. Utility Concrete Products, LLC.
   7. Wausau Tile Inc.

B. Comply with ASTM C 858 for design and manufacturing processes.

C. Ferrous metal hardware shall be hot-dip galvanized in accordance with ASTM A153 (ASTM A153M) and ASTM A123 (ASTM A123M).

D. Description: Factory-fabricated, reinforced-concrete, monolithically poured walls and bottom unless open-bottom enclosures are indicated. Frame and cover shall form top of enclosure and shall have load rating consistent with that of handhole or pull box.

Various Sizes used

Galvanized Rigid Conduit (GRC) and Kwik-Couple® GRC

allied TUBE & CONDUIT®
A PART OF atkore INTERNATIONAL

Galvanized Rigid Conduit (GRC)

- Hot-dip galvanized for excellent corrosion resistance
- High strength ductile steel for long life and easy bending
- Smooth, continuous raceways for fast wire pulling
- Kwik-Release End Cap to protect threads
- True Color™ GRC special orders available
- Listed to Safety Standard UL 6
- Manufactured in accordance with ANSI C80.1
- Available in sizes 1/2 (16) - 6 (155)

Quality, Long Lasting Heavy Duty Steel Conduit

Kwik-Couple Galvanized Rigid Conduit (GRC)

- All the benefits of GRC Conduit
- Factory installed Kwik-Couple™ couplings are available on GRC conduit

  Just line up the ends, spin the coupling forward onto the next piece and wrench tighten. It's that easy!
- No separate couplings to purchase, inventory or install
- Kwik-Release End Cap to protect threads
- True Color™ Kwik-Couple® GRC special orders available
- Manufactured in accordance with ANSI C80.1
- Available in sizes 2 1/2 (63) - 5 (129)

Chart on the following page

For Faster Installations Use the Kwik-Couple GRC Connection

* U.S. Patent Numbers 7,404,582 and 7,726,001.

Kwik-Couple Rigid Elbows

- Also available with pre-installed Kwik-Couple Couplings
- Made to order, contact us for lead times

Galvanized Rigid Conduit (GRC)

Listed to UL 6, manufactured in accordance with ANSI C80.1

Trade Size	Metric Designator	Outside Diameter[1]		Nominal Wall Thickness[2]		Approximate Weight Per 100 Ft. (30.5M)		Quantity in Master Bundle*	
		in	mm	in	mm	lb	kg	ft	m
1/2	16	0.840	21.34	0.104	2.64	82	37.2	2500	762.5
3/4	21	1.050	26.67	0.107	2.72	109	49.4	2000	610.0
1	27	1.315	33.40	0.126	3.20	161	73.0	1250	381.3
1 1/4	35	1.660	42.16	0.133	3.38	218	98.9	900	274.5
1 1/2	41	1.900	48.26	0.138	3.51	263	119.3	800	244.0
2	53	2.375	60.33	0.146	3.71	350	158.8	600	183.0
2 1/2	63	2.875	73.03	0.193	4.90	559	253.6	370	112.9
3	78	3.500	88.90	0.205	5.21	727	329.8	300	91.5
3 1/2	91	4.000	101.60	0.215	5.46	880	399.2	250	76.3
4	103	4.500	114.30	0.225	5.72	1030	467.2	200	61.0
5	129	5.563	141.30	0.245	6.22	1520	689.5	150	45.8
6	155	6.625	168.28	0.266	6.76	1785	809.7	100	30.5

[1] Tolerances: Trade Size 1/2 to 1-1/2: ±0.015" (0.38mm); Trade Size 2-6: ±1% Length equals 10 ft. (3.05m) with a tolerance of +/- .25 in. (6.35mm)
[2] For information only. Not a requirement of the UL standard.
* NEMA RN-3 Standard

Project Information

Company Name: _____
Address: _____
City: _____
State & Zip: _____
Phone: _____
Project Name: _____
City: _____
State: _____

NOTE: Special orders are non-cancelable, non-returnable and non-refundable

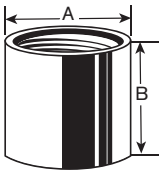
Various Sizes used

Galvanized Rigid Conduit (GRC) Couplings & Elbows

allied TUBE & CONDUIT®
A PART OF atkore INTERNATIONAL

Galvanized Rigid Conduit (GRC) Couplings

Manufactured to Underwriters Laboratory Safety Standards UL 6
Manufactured in accordance with ANSI C80.1

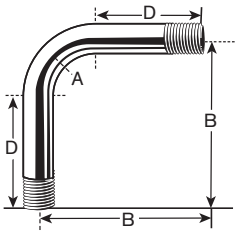


Trade Size	Metric Designator	Nominal O.D. (A)[2]		Length (B)[1]		Threads Per Inch[1]	Approximate Weight Per 100 Pieces		Standard Package
		in	mm	in	mm		lb	kg	
1/2	16	1.01	25.7	1 5/8	41.3	14	12	5.4	100
3/4	21	1.25	31.8	1 41/64	41.7	14	18	8.2	50
1	27	1.53	38.7	1 31/32	50.0	11 1/2	30	13.6	30
1 1/4	35	1.87	47.5	2 1/32	51.6	11 1/2	37	16.8	25
1 1/2	41	2.16	54.7	2 1/16	52.4	11 1/2	52	23.6	25
2	53	2.65	67.3	2 1/8	54.0	11 1/2	72	32.7	20
2 1/2	63	3.25	82.6	3 3/16	81.0	8	170	77.1	1
3	78	3.87	98.3	3 5/16	84.1	8	210	95.3	1
3 1/2	91	4.50	114.3	3 13/32	86.5	8	340	154.2	1
4	103	4.88	123.8	3 33/64	89.3	8	300	136.1	1
5	129	6.00	152.4	3 61/64	100.4	8	475	215.5	1
6	155	7.20	182.9	4 1/4	108.0	8	765	347.0	1

[1]Mimimum requirement as per UL Standard

Galvanized Rigid Conduit (GRC) 90 Degree Elbows

Listed to UL Safety Standard 6
Manufactured in accordance with ANSI C80.1



Trade Size	Metric Designator	Radius (A)[1]		Offset (B)[2]		Straight (D)[1]		Approximate Weight Per 100 Pieces		Standard Package
		in	mm	in	mm	in	mm	lb	kg	
1/2	16	4	102	5 7/8	149	1 1/2	38	68	30.8	50
3/4	21	4 1/2	114	7	178	1 1/2	38	109	49.4	50
1	27	5 3/4	146	8 3/4	222	1 7/8	48	201	91.2	25
1 1/4	35	7 1/4	184	10 3/4	273	2	51	336	152.4	20
1 1/2	41	8 1/4	210	12 1/4	311	2	51	460	208.7	15
2	53	9 1/2	241	14 1/2	368	2	51	729	330.7	10
2 1/2	63	10 1/2	267	17	432	3	76	1374	623.2	1
3	78	13	330	19 5/8	498	3 1/8	79	2045	927.6	1
3 1/2	91	15	381	22 3/4	578	3 1/4	83	2860	1297.3	1
4	103	16	406	23 7/8	606	3 3/8	86	3519	1596.2	1
5	129	24	610	34 7/8	886	3 5/8	92	6942	3148.9	1
6	155	30	762	45 1/2	1156	3 3/4	95	11960	5425.1	1

[1]Mimimum requirement as per UL Standard
[2]For information only, not a requirement as per UL Standard
Sizes 2 1/2 (63) and larger shipped in palletized cartons or bulk.
Also available in the following Degrees (60°, 45°, 30°, 22-1/2°, 15° & 11-1/4°)

KWIK-COUPLE ELBOWS AVAILABLE
by special order in Trade Size 2-1/2 to 5

NOTE: Special orders are non-cancelable, non-returnable and non-refundable

16100 S. Lathrop Ave., Harvey, IL 60426
Phone / 708.339.1610 • Toll-Free / 800.882.5543
www.alliedeg.com

BlackGuard™

PVC COATED CONDUIT SYSTEMS

NEC INC.

7207 West Road
Houston, TX 77086
Phone: 281-405-8240
Fax: 281-405-8388
www.nec-inc.com

BlackGuard™

CONTACTS

Steve Osborne – President	steveo@nec-inc.com
Thomas Castille - Vice President – Operations	thomasc@nec-inc.com
Jake Osborne – Product Improvement Manager	jake@nec-inc.com
Keith Conley – Sales Manager	keith@nec-inc.com
Elizabeth Herrada – Inside Sales Manager	elizabeth@nec-inc.com
Bradley Cavnar – Inside Sales	bradley@nec-inc.com
Cathy O'Connell – Office Manager	cathyo@nec-inc.com

PVC COATED CONDUIT SYSTEMS

NEC provides superior interior and exterior coating services for virtually any steel or aluminum electrical conduit system in highly corrosive environments.

OUR SERVICE:

NEC is well respected in the industry for personal service, attention to detail and rapid response to customer orders. Our dedicated efforts in those areas have served us well with steady, profitable business growth through exceptional customer satisfaction.

The advanced proprietary coating process by NEC delivers extraordinary maintenance efficiencies and extended life cycle for electrical systems exposed and susceptible to corrosive environments and problems, helping to alleviate costly repairs and downtime.

BlackGuard is produced under strict quality control procedures in a state of the art production facility in Houston, Texas. The coating is applied incorporating our quality control procedures, computer and temperature controlled settings, and quality individual personal inspections to insure meeting and exceeding high NEC standards.

BENEFITS OF BLACKGUARD:

- Corrosion resistance
- Extends life of product
- Eliminates or reduces plant shutdown
- Helps prevents accidents

ADVANCED PROCESS:

BlackGuard coated conduit is UL listed, File #E100475, and complies with NEMA RN-l and ANSI C80.1. The conduit has an external coating of dark gray PVC, with minimum thickness of 40-mils. The underlying galvanized threads are additionally treated with black urethane.

The interior diameter of **BlackGuard** coated conduit has a 2-mil urethane interior coating. This advanced proprietary coating process by NEC delivers extraordinary maintenance efficiencies for systems exposed and susceptible to corrosive environments and problems, helping to alleviate costly repairs and downtime.

BlackGuard PVC Coated Conduit**

we will use 4" in lieu of 3 1/2 " where shown on drawing

GRC PART NUMBER	SIZE	METRIC	Wall Thickness	O.D. w/Coating	Inside Diameter	Weight per100 ft	Ft. p Bun	
PVC-GRC-050	1/2"	16	0.104	0.920	0.632	90	229	
PVC-GRC-075	3/4"	21	0.107	1.130	0.836	119	1790	PVC-AR-C075
PVC-GRC-100	1"	27	0.126	1.395	1.063	175	1270	PVC-ARC-100
PVC-GRC-125	1-1/4"	35	0.133	1.740	1.394	237	910	PVC-ARC-125
PVC-GRC-150	1-1/2"	41	0.138	1.980	1.624	281	790	PVC-ARC-150
PVC-GRC-200	2"	53	0.146	2.455	2.083	376	610	PVC-ARC-200
PVC-GRC-250	2-1/2"	63	0.193	2.955	2.489	593	370	PVC-ARC-250
PVC-GRC-300	3"	78	0.205	3.580	3.090	772	290	PVC-ARC-300
PVC-GRC-350	3-1/2"	91	0.215	4.080	3.570	922	190	PVC-ARC-350
PVC-GRC-400	4"	103	0.225	4.580	4.050	1089	190	PVC-ARC-400
PVC-GRC-500	5"	129	0.245	5.643	5.073	1488	100	PVC-ARC-500
PVC-GRC-600	6"	155	0.266	6.705	6.093	1998	100	PVC-ARC-600

**Note: One coupling is included with each 10'ft length conduit.

BlackGuard PVC Coated Conduit Couplings

GRC PART NUMBER	SIZE	METRIC	Metal	per Inch	WEIGHT PER 100	Box Qty	ALUMINUM PART NUMBER
PVC-CG-050	1/2"	16	1.5	14	19	100	PVC-AC-050
PVC-CG-075	3/4"	21	1.532	14	32	90	PVC-AC-075
PVC-CG-100	1"	27	1.906	11.5	40	75	PVC-AC-100
PVC-CG-125	1-1/4"	35	1.906	11.5	50	42	PVC-AC-125
PVC-CG-150	1-1/2"	41	1.906	11.5	69	38	PVC-AC-150
PVC-CG-200	2"	53	1.937	11.5	93	30	PVC-AC-200
PVC-CG-250	2-1/2"	63	2.878	8	123	17	PVC-AC-250
PVC-CG-300	3"	78	3.031	8	217	14	PVC-AC-300
PVC-CG-350	3-1/2"	91	3.094	8	422	11	PVC-AC-350
PVC-CG-400	4"	103	3.188	8	391	11	PVC-AC-400
PVC-CG-500	5"	129	3.374	8	550	8	PVC-AC-500
PVC-CG-600	6"	155	3.437	8	884	5	PVC-AC-600

BlackGuard PVC Coated 90* Conduit Elbows*

GRC PART NUMBER	SIZE	METRIC	Standard Radius A	Offset B	Tangent C	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GE-05090	1/2"	16	4.25	6.00	1.70	70	PVC-AE-05090
PVC-GE-07590	3/4"	21	4.50	6.70	2.20	100	PVC-AE-07590
PVC-GE-10090	1"	27	5.75	8.00	2.40	190	PVC-AE-10090
PVC-GE-12590	1-1/4"	35	7.25	9.60	2.80	310	PVC-AE-12590
PVC-GE-15090	1-1/2"	41	8.25	10.60	2.60	400	PVC-AE-15090
PVC-GE-20090	2"	53	9.50	12.00	3.50	640	PVC-AE-20090
PVC-GE-25090	2-1/2"	63	10.50	14.80	4.70	1210	PVC-AE-25090
PVC-GE-30090	3"	78	13.00	17.00	5.30	1950	PVC-AE-30090
PVC-GE-35090	3-1/2"	91	15.00	20.90	6.10	2630	PVC-AE-35090
PVC-GE-40090	4"	103	16.00	21.00	6.50	3280	PVC-AE-40090
PVC-GE-50090	5"	129	24.00	32.00	11.20	6750	PVC-AE-50090
PVC-GE-60090	6"	155	30.00	41.00	12.10	10510	PVC-AE-60090

*All weights based on rigid steel conduit & fittings – Aluminum weights available by request.

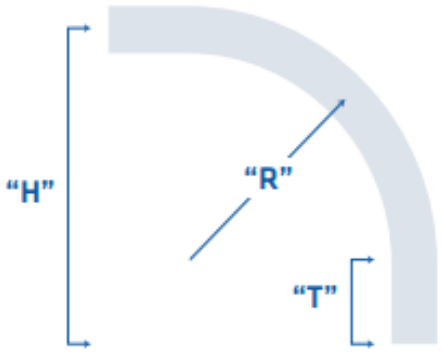
NEC INC.
7207 West Road
Houston, TX 77086

different radius's will be used depending on depth & length of trenches

BlackGuard PVC Coated Galvanized Large Radius Ell

Trade Size	RADIUS							
	12" GRC PART NUMBER	WT	15" GRC PART NUMBER	WT	18" GRC PART NUMBER	WT	24" GRC PART NUMBER	WT
1"	PVC-GE-1009012	4	PVC-GE-1009015	6	PVC-GE-1009018	6	PVC-GE-1009024	8
1-1/4"	PVC-GE-1259012	5	PVC-GE-1259015	7	PVC-GE-1259018	9	PVC-GE-1259024	11
1-1/2"	PVC-GE-1509012	7	PVC-GE-1509015	9	PVC-GE-1509018	10	PVC-GE-1509024	13
2"	PVC-GE-2009012	10	PVC-GE-2009015	12	PVC-GE-2009018	14	PVC-GE-2009024	17
2-1/2"	PVC-GE-2509012	17	PVC-GE-2509015	19	PVC-GE-2509018	21	PVC-GE-2509024	26
3"	PVC-GE-3009012	23	PVC-GE-3009015	25	PVC-GE-3009018	28	PVC-GE-3009024	35
3-1/2"					PVC-GE-3509018	34	PVC-GE-3509024	42
4"					PVC-GE-4009018	40	PVC-GE-4009024	49
5"								
6"								

Trade Size	RADIUS							
	30" GRC PART NUMBER	WT	36" GRC PART NUMBER	WT	48" GRC PART NUMBER	WT	60" GRC PART NUMBER	WT
1"	PVC-GE-1009030	9	PVC-GE-1009036	10	PVC-GE-1009048	13	PVC-GE-1009060	15
1-1/4"	PVC-GE-1259030	12	PVC-GE-1259036	14	PVC-GE-1259048	18	PVC-GE-1259060	20
1-1/2"	PVC-GE-1509030	15	PVC-GE-1509036	17	PVC-GE-1509048	21	PVC-GE-1509060	24
2"	PVC-GE-2009030	20	PVC-GE-2009036	22	PVC-GE-2009048	29	PVC-GE-2009060	33
2-1/2"	PVC-GE-2509030	31	PVC-GE-2509036	35	PVC-GE-2509048	45	PVC-GE-2509060	51
3"	PVC-GE-3009030	41	PVC-GE-3009036	46	PVC-GE-3009048	59	PVC-GE-3009060	67
3-1/2"	PVC-GE-3509030	49	PVC-GE-3509036	55	PVC-GE-3509048	71	PVC-GE-3509060	90
4"	PVC-GE-4009030	58	PVC-GE-4009036	65	PVC-GE-4009048	84	PVC-GE-4009060	93
5"	PVC-GE-5009030	77	PVC-GE-5009036	87	PVC-GE-5009048	112	PVC-GE-5009060	126
6"			PVC-GE-6009036	120	PVC-GE-6009048	156	PVC-GE-6009060	172



BlackGuard™

various lengths & sizes used

BlackGuard PVC Coated Nipples

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-050 CL	1/2" X CL (1-1/8")	6	PVC-AN-050 CL
PVC-GN-05001N	1/2" X 1-1/2"	8	PVC-AN-05001N
PVC-GN-05002	1/2" X 2"	12	PVC-AN-05002
PVC-GN-05002N	1/2" X 2-1/2"	15	PVC-AN-05002N
PVC-GN-05003	1/2" X 3"	19	PVC-AN-05003
PVC-GN-05003N	1/2" X 3-1/2"	22	PVC-AN-05003N
PVC-GN-05004	1/2" X 4"	26	PVC-AN-05004
PVC-GN-05005	1/2" X 5"	33	PVC-AN-05005
PVC-GN-05006	1/2" X 6"	40	PVC-AN-05006
PVC-GN-05008	1/2" X 8"	54	PVC-AN-05008
PVC-GN-05010	1/2" X 10"	68	PVC-AN-05010
PVC-GN-05012	1/2" X 12"	82	PVC-AN-05012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-075 CL	3/4" X CL (1-3/8")	9	PVC-AN-075 CL
PVC-GN-07501N	3/4" X 1-1/2"	9	PVC-AN-07501N
PVC-GN-07502	3/4" X 2"	14	PVC-AN-07502
PVC-GN-07502N	3/4" X 2-1/2"	19	PVC-AN-07502N
PVC-GN-07503	3/4" X 3"	24	PVC-AN-07503
PVC-GN-07503N	3/4" X 3-1/2"	28	PVC-AN-07503N
PVC-GN-07504	3/4" X 4"	34	PVC-AN-07504
PVC-GN-07505	3/4" X 5"	43	PVC-AN-07505
PVC-GN-07506	3/4" X 6"	52	PVC-AN-07506
PVC-GN-07508	3/4" X 8"	73	PVC-AN-07508
PVC-GN-07510	3/4" X 10"	89	PVC-AN-07510
PVC-GN-07512	3/4" X 12"	109	PVC-AN-07512

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-100 CL	1" X CL (1-1/2")	16	PVC-AN-100 CL
PVC-GN-10002	1" X 2"	22	PVC-AN-10002
PVC-GN-10002N	1" X 2-1/2"	28	PVC-AN-10002N
PVC-GN-10003	1" X 3"	36	PVC-AN-10003
PVC-GN-10003N	1" X 3-1/2"	43	PVC-AN-10003N
PVC-GN-10004	1" X 4"	49	PVC-AN-10004
PVC-GN-10005	1" X 5"	64	PVC-AN-10005
PVC-GN-10006	1" X 6"	78	PVC-AN-10006
PVC-GN-10008	1" X 8"	109	PVC-AN-10008
PVC-GN-10010	1" X 10"	138	PVC-AN-10010
PVC-GN-10012	1" X 12"	166	PVC-AN-10012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-125 CL	1-1/4" X CL (1-5/8")	22	PVC-AN-125 CL
PVC-GN-12502	1-1/4" X 2"	28	PVC-AN-12502
PVC-GN-12502N	1-1/4" X 2-1/2"	37	PVC-AN-12502N
PVC-GN-12503	1-1/4" X 3"	47	PVC-AN-12503
PVC-GN-12503N	1-1/4" X 3-1/2"	55	PVC-AN-12503N
PVC-GN-12504	1-1/4" X 4"	66	PVC-AN-12504
PVC-GN-12505	1-1/4" X 5"	84	PVC-AN-12505
PVC-GN-12506	1-1/4" X 6"	100	PVC-AN-12506
PVC-GN-12508	1-1/4" X 8"	136	PVC-AN-12508
PVC-GN-12510	1-1/4" X 10"	176	PVC-AN-12510
PVC-GN-12512	1-1/4" X 12"	216	PVC-AN-12512

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-150 CL	1-1/2" X CL (1-3/4")	28	PVC-AN-150 CL
PVC-GN-15002	1-1/2" X 2"	34	PVC-AN-15002
PVC-GN-15002N	1-1/2" X 2-1/2"	44	PVC-AN-15002N
PVC-GN-15003	1-1/2" X 3"	56	PVC-AN-15003
PVC-GN-15003N	1-1/2" X 3-1/2"	68	PVC-AN-15003N
PVC-GN-15004	1-1/2" X 4"	80	PVC-AN-15004
PVC-GN-15005	1-1/2" X 5"	103	PVC-AN-15005
PVC-GN-15006	1-1/2" X 6"	122	PVC-AN-15006
PVC-GN-15008	1-1/2" X 8"	170	PVC-AN-15008
PVC-GN-15010	1-1/2" X 10"	216	PVC-AN-15010
PVC-GN-15012	1-1/2" X 12"	260	PVC-AN-15012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-200 CL	2" X CL (2")	16	PVC-AN-200 CL
PVC-GN-20002N	2" X 2-1/2"	22	PVC-AN-20002N
PVC-GN-20003	2" X 3"	28	PVC-AN-20003
PVC-GN-20003N	2" X 3-1/2"	36	PVC-AN-20003N
PVC-GN-20004	2" X 4"	43	PVC-AN-20004
PVC-GN-20005	2" X 5"	49	PVC-AN-20005
PVC-GN-20006	2" X 6"	64	PVC-AN-20006
PVC-GN-20008	2" X 8"	78	PVC-AN-20008
PVC-GN-20010	2" X 10"	109	PVC-AN-20010
PVC-GN-20012	2" X 12"	138	PVC-AN-20012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-250 CL	2-1/2" X CL (2-1/2")	84	PVC-AN-250 CL
PVC-GN-25003	2-1/2" X 3"	100	PVC-AN-25003
PVC-GN-25003N	2-1/2" X 3-1/2"	120	PVC-AN-25003N
PVC-GN-25004	2-1/2" X 4"	150	PVC-AN-25004
PVC-GN-25005	2-1/2" X 5"	197	PVC-AN-25005
PVC-GN-25006	2-1/2" X 6"	240	PVC-AN-25006
PVC-GN-25008	2-1/2" X 8"	329	PVC-AN-25008
PVC-GN-25010	2-1/2" X 10"	422	PVC-AN-25010
PVC-GN-25012	2-1/2" X 12"	505	PVC-AN-25012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-300 CL	3" X CL (2-5/8")	118	PVC-AN-300 CL
PVC-GN-30003	3" X 3"	130	PVC-AN-30003
PVC-GN-30003N	3" X 3-1/2"	157	PVC-AN-30003N
PVC-GN-30004	3" X 4"	200	PVC-AN-30004
PVC-GN-30005	3" X 5"	260	PVC-AN-30005
PVC-GN-30006	3" X 6"	300	PVC-AN-30006
PVC-GN-30008	3" X 8"	411	PVC-AN-30008
PVC-GN-30010	3" X 10"	528	PVC-AN-30010
PVC-GN-30012	3" X 12"	630	PVC-AN-30012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-350 CL	3-1/2" X CL (2-3/4")	160	PVC-AN-350 CL
PVC-GN-35004	3-1/2" X 4"	240	PVC-AN-35004
PVC-GN-35005	3-1/2" X 5"	320	PVC-AN-35005
PVC-GN-35006	3-1/2" X 6"	373	PVC-AN-35006
PVC-GN-35008	3-1/2" X 8"	510	PVC-AN-35008
PVC-GN-35010	3-1/2" X 10"	655	PVC-AN-35010
PVC-GN-35012	3-1/2" X 12"	785	PVC-AN-35012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-400 CL	4" X CL (2-7/8")	180	PVC-AN-400 CL
PVC-GN-40004	4" X 4"	285	PVC-AN-40004
PVC-GN-40005	4" X 5"	380	PVC-AN-40005
PVC-GN-40006	4" X 6"	440	PVC-AN-40006
PVC-GN-40008	4" X 8"	600	PVC-AN-40008
PVC-GN-40010	4" X 10"	775	PVC-AN-40010
PVC-GN-40012	4" X 12"	925	PVC-AN-40012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-500 CL	5" X CL (3")	240	PVC-AN-500 CL
PVC-GN-50005	5" X 5"	480	PVC-AN-50005
PVC-GN-50006	5" X 6"	600	PVC-AN-50006
PVC-GN-50008	5" X 8"	825	PVC-AN-50008
PVC-GN-50010	5" X 10"	1055	PVC-AN-50010
PVC-GN-50012	5" X 12"	1260	PVC-AN-50012

GRC PART NUMBER	TRADE SIZE	WEIGHT PER 100	ALUMINUM PART NUMBER
PVC-GN-600 CL	6" X CL (3")	350	PVC-AN-600 CL
PVC-GN-60005	6" X 5"	660	PVC-AN-60005
PVC-GN-60006	6" X 6"	820	PVC-AN-60006
PVC-GN-60008	6" X 8"	1125	PVC-AN-60008
PVC-GN-60010	6" X 10"	1440	PVC-AN-60010
PVC-GN-60012	6" X 12"	1720	PVC-AN-60012

BLACKGUARD TERMS & CONDITIONS

Acceptance: All orders are subject to acceptance by NEC, Inc.

Minimum Billing: $250.00* - orders of less than $250 net value will be invoiced at $250

Payment Terms: 2% 10th Prox., Net 31 days, pending credit authorization

Delivery: Delivery date given prior to or after placement of an order is determined to the best of our ability based on our normal production cycle. The delivery date is in no way guaranteed unless otherwise specified in writing. Therefore, NEC Inc is not indemnitor for any damages, losses, or claims whatsoever due to inability to meet such delivery date.

Freight Policy: F.O.B. point of shipment.

- Freight allowance is on conduit & fitting orders exceeding $6,000.00 (net), based on a single order, which is to be routed in one shipment to a single destination by common carrier via best way.
- Additional requirements will be handled pre-paid and charged or collect.
- Shipments will be completed without back orders, if a partial shipment is requested on freight allowed, freight allowance will be allowed on the portion having the greater weight.
- Purchaser is responsible to immediately inspect all goods at the time of delivery and inform driver of any damages or loss of goods; to facilitate a proper claim.

Cancellation: Orders for normal quantities of standard goods may be canceled without charge, if written instructions are received at the factory in time to stop order prior to production. Cancellation of orders for special products; including large radius elbows will not be accepted after order is released.

Return Policy: No material will be returned to, or accepted by NEC, Inc without written authorization. Upon authorization, undamaged standard stock items in resalable condition will be considered for return. A minimum restocking charge of 35% of the price originally paid for the material will apply. All transportation to NEC must be prepaid by the customer. Any damages will be reported to person who requested return; NEC will not be responsible for filing damage claims with freight carrier. The credit is subject to our confirmation of quantities and condition of material received. No material will be accepted after sixty days unless written authorization has been obtained at the time the original purchase order was accepted. Material ordered for or shipped to job sites will not be accepted for return under any condition except warranty. Under no condition will large radius elbows be accepted for return except for warranty.

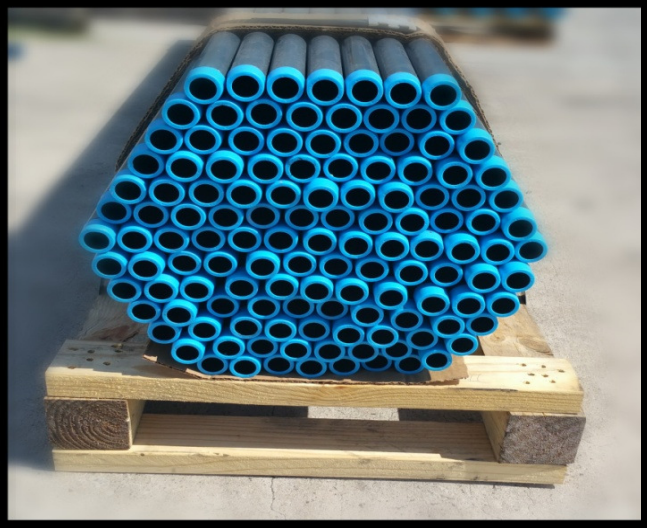
Shortages: No shortage claims will be recognized unless such shortage is reported to NEC within five (5) days from receipt of shipment at destination.

Quote policy: Quotations are valid for 14 days after issue date, unless otherwise stated. Lead times quoted valid until end of business day.

Catalog Specification: Catalog weights and dimensions are careful estimates but are not guaranteed.

Warranties: NEC, Inc. warrants **BlackGuard**™ products manufactured by the company to be free from defects in materials and workmanship for a period of 5 years from the date of shipment from plant. If within such period any such goods shall be proven to NEC's satisfaction to be so defective, then and in that event such equipment shall be repaired or replaced at NEC's option. Such correction or replacement of defective goods shall constitute a fulfillment of all liabilities in respect to such goods. Installation not in accordance with written NEC's recommendations shall void warranty.

CUSTOMIZED PALLETS FOR SHIPPING



BlackGuard™

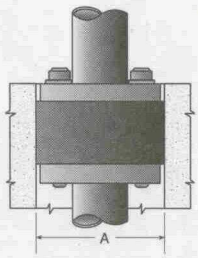
Conduit Sealing Bushings

For Use with Pipe, Conduit or Tubing

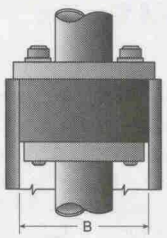
ESP EXPRESS SHIPMENT PROGRAM

✔Denotes ESP Availability

Type CSM Dimensional Data:



Core Bit Drilled Hole Diameter



Conduit or Pipe I.D.

Single Penetration Applications Dimension in Inches						Use with Core Bit Drilled Hole Dia. "A"	Conduit or Pipe I.D. "B"	Catalog Numbers					Max. O.D. for More Than One Pipe		
Steel Pipe or Conduit Nom I.D.	O.D.	Cast Iron Pipe Nom I.D.	O.D.	Copper Tubing Nom I.D.	O.D.			✔Type CSMI	✔Type CSML	Type CSMC	Type CSME	Type CSMG	2 Holes	3 Holes	4 Holes
⅜	.675			⅜	.500										
½	.840			½	.625	2	2.067	CSMI-200P	CSML-200P	CSMC-200P	CSME-200P	CSMG-200P	.790	.710	.600
¾	1.050			¾	.875										
1	1.315			1	1.125	2½	2.469	CSMI-250P	CSML-250P	CSMC-250P	CSME-250P	CSMG-250P	.970	.930	.730
1¼	1.660			1¼	1.375										
1½	1.900			1½	1.625	3	3.068	CSMI-300P	CSML-300P	CSMC-300P	CSME-300P	CSMG-300P	1.210	1.110	.930
				1¾	1.875										
	2.000			2	2.125	3½	3.548	CSMI-350P	CSML-350P	CSMC-350P	CSME-350P	CSMG-350P	1.375	1.315	1.125
2	2.375	2	2.500	2¼	2.375	4	4.026	CSMI-400P	CSML-400P	CSMC-400P	CSME-400P	CSMG-400P	1.625	1.460	1.315
		2	2.625	2½	2.625										
2½	2.875	2	2.750												
	3.000					5	5.047	CSMI-500P	CSML-500P	CSMC-500P	CSME-500P	CSMG-500P	2.000	1.875	1.625
3	3.500														
3½	4.000	3	3.660												
4	4.500	3	3.800			6	6.065	CSMI-600P	CSML-600P	CSMC-600P	CSME-600P	CSMG-600P	2.500	2.125	2.000
		3	3.960												
4½	5.000	4	4.800												
	5.250	4	5.000												
	5.500														
5	5.563					8	--	CSMI-800P	CSML-800P	CSMC-800P	CSME-800P	•	3.000	3.000	2.875
	6.000														
6	6.625														
	7.000	6	6.900												
		6	7.100			10	--	CSMI-1000P	CSML-1000P	•	CSME-1000P	•	--	--	--
	8.000														
8	8.625	8	9.050			12	--	CSMI-1200P	CSML-1200P	•	CSME-1200P	•	--	--	--
		8	9.300												
	10.000	10	11.100												
10	10.750	10	11.400			14	--	CSMI-1400P	CSML-1400P	•	CSME-1400P	•	--	--	--
	12.000	12	13.200												
12	12.750	12	13.500			16	--	CSMI-1600P	CSML-1600P	•	CSME-1600P	•	--	--	--

The suffix P in the Catalog Number indicates PVC Coated Steel Pressure Discs. For Aluminum Pressure Discs, change P to A.

•Type CSMG and CSMC are not available in these sizes.

†Blank fittings are intended as abandonment and future use devices only. Do not field drill.

ESP Availability, 2"-6".

NOTE: For additional information on Type CSM Series See Pages RA21, RA 23

✔

Conduit Sealing Bushings

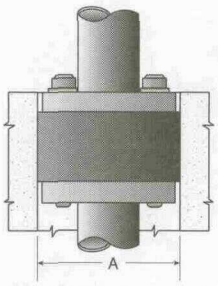
For Use with Pipe, Conduit or Tubing

Type CSM Series

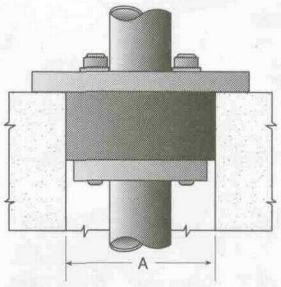
Use:
These Sealing Bushings are used to seal against fluid and gas pressure around mechanical pipes, casing, conduits or tubes. They have the same details of construction and are used for the same applications as the Type CSB Series described on Pages RA17 and RA18. In addition to sealing a pipe within a pipe, some types are specifically designed for use in core bit drilled holes or precast holes in concrete. Most of the options for the Type CSB are available in the Type CSM Series.

Specify:
1 Catalog Number
2 Diameter of core bit drilled hole, precast hole or I.D. of pipe.
3 Number and O.D. of penetrating pipe, conduit or tube
4 Disc material finish: PVC Coated Steel Discs (standard); Uncoated Aluminum Discs.
5 Segmental design, if required (Prices on application)
6 Two Neoprene Sealing Rings, if required (Prices on application)

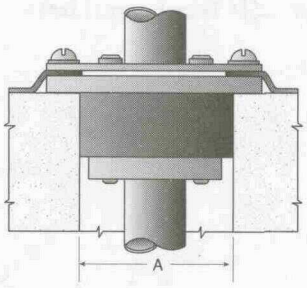
Dimensional Data:
See Pages RA22, RA23



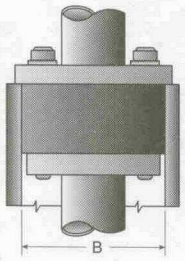
Type CSMI



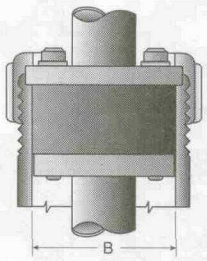
Type CSML



Type CSMC
with steel membrane clamp
for holding existing moisture membrane



Type CSME



Type CSMG

CROUSE-HINDS SERIES

Conduit Expansion/Deflection Couplings

EATON
Powering Business Worldwide

Flexible and water-tight connections that protect conduit wiring systems from damage caused by movement

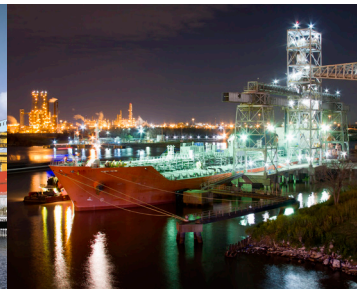
Conduit Expansion/Deflection Couplings

Conduit expansion and deflection couplings are used to accommodate expansion and deflection in rigid/IMC and EMT conduit runs in a wide variety of markets and applications. Typical installations for these fittings are driven by structural or geological conditions that often exist in commercial, light industrial and civil construction.

- Structural movement – used where a raceway crosses a structural joint intended for expansion, contraction or deflection, used in buildings, bridges, parking garages or other structures
- Long conduit runs – expansion fittings should be used in building installations with long conduit runs subject to expansion or contraction
- Earth movement – expansion fittings should be used where movement due to settlement or frost can affect direct-buried conductors, raceways or cables
- Temperature fluctuation – expansion fittings should be used where thermal fluctuation exists, causing expansion or contraction in long conduit runs

Bridges and Tunnels:


Marinas, Docks and Piers:

Building Construction and Parking Garages:


Data Centers:


Mass transit System:

Solar:


XJG Rigid/IMC Expansion Couplings

XJG Rigid/IMC expansion couplings provide flexible, water-tight connections that protect rigid and IMC conduit wiring systems from damage caused by movement

Applications:

XJG expansion couplings are used with rigid metal conduit and IMC:

- To couple together two (2) sections of conduit subject to longitudinal movement
- In conduit runs to prevent damage to conduit supports such as in a building or on a bridge
- Indoors or outdoors in long conduit runs to permit linear movement caused by thermal expansion and contraction
- In conduit runs that cross structural joints
- On long conduit runs to prevent conduit from buckling and ensuing circuit failures

Features:

- Weatherproof and approved for use indoors or outdoors without an external bonding jumper
- Available in ½" through 6" trade sizes
- For use with rigid metal and IMC conduit
- Available in 4" and 8" maximum conduit movement
- Internal bonding springs and metallic bushings create high integrity internal ground connection and eliminate need for external bonding jumpers and clamps (up to 4" trade size)
- Optional redundant tinned copper bonding jumpers (BJ Series – ordered separately)
- UL Listed for use in wet locations
- Patented design

Certifications and Compliances:

- UL Standard: 514B
- CSA 22.2 No. 18 3-12
- NEMA FB1
- Wet locations
- Third party certified as an effective grounding means (i.e. the path to ground is permanent and continuous) for two sections of conduit subject to expansion or contraction

Options:

Available in copper-free aluminum ..... **SA**
(Not available on 5" and 6" sizes)

Available hot dipped galvanized (standard on 1-1/4" and above) ..... **HDG**

Available with redundant bonding jumper for visible indication of bonding – order separately (BJ Series)†

Materials and Finishes:

Body:

- Steel - electrogalvanized
- Copper-free aluminum - natural
- Feraloy® iron alloy - electrogalvanized (5" and 6" only)

Reducer and Gland Nut:

- 1/2" through 1" - steel - electrogalvanized
- 1-1/4" through 6" - Feraloy® iron alloy - hot dip galvanized and aluminum paint
- Copper-free aluminum - natural

Packing:

- PTFE composite

Washer and Bushing:

- Steel - electrogalvanized

Gasket:

- Vellum

Ground Springs:

- Phosphor bronze - electrogalvanized

Ground Strap:

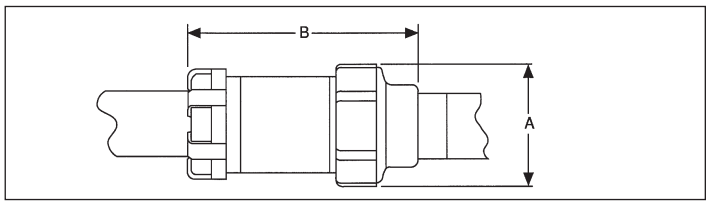
- Braided tinned copper

U-Bolts:

- Malleable iron - electrogalvanized

XJG shown with optional bonding jumper
Bonding jumper width: 0.188";
height: 0.875"

Dimensions (In.):



XJG Ordering Information:

4" will be used in lieu of 3 1/2 "

Conduit Size	Max. Conduit Movement	XJG Cat. #	XJG - Alum. Cat. #	Optional Bonding Jumper†	A Diameter	B Length	Jumper Length
1/2	4	**XJG14**	**XJG14 SA**	**BJ14**	2.25"	7.00"	20"
1/2	8	**XJG18**	**XJG18 SA**	**BJ18**	2.25"	11.00"	30"
3/4	4	**XJG24**	**XJG24 SA**	**BJ24**	2.25"	7.00"	20"
3/4	8	**XJG28**	**XJG28 SA**	**BJ28**	2.25"	11.00"	30"
1	4	**XJG34**	**XJG34 SA**	**BJ34**	2.43"	7.38"	20"
1	8	**XJG38**	**XJG38 SA**	**BJ38**	2.43"	11.38"	30"
1-1/4	4	**XJG44 HDG**		**BJ44**	3.12"	7.56"	24"
1-1/4	8	**XJG48 HDG**		**BJ48**	3.12"	11.56"	30"
1-1/2	4	**XJG54 HDG**	**XJG54 SA**	**BJ54**	3.62"	8.00"	24"
1-1/2	8	**XJG58 HDG**	**XJG58 SA**	**BJ58**	3.62"	12.00"	30"
2	4	**XJG64 HDG**	**XJG64 SA**	**BJ64**	4.38"	8.75"	24"
2	8	**XJG68 HDG**	**XJG68 SA**	**BJ68**	4.38"	12.75"	30"
2-1/2	4	**XJG74 HDG**		**BJ74**	4.87"	10.00"	24"
2-1/2	8	**XJG78 HDG**		**BJ78**	4.87"	14.00"	36"
3	4	**XJG84 HDG**	**XJG84 SA**	**BJ84**	5.37"	10.25"	30"
3	8	**XJG88 HDG**	**XJG88 SA**	**BJ88**	5.37"	14.25"	36"
3-1/2	4	**XJG94 HDG**		**BJ94**	6.62"	10.00"	30"
3-1/2	8	**XJG98 HDG**		**BJ98**	6.62"	14.00"	36"
4	4	**XJG104 HDG**	**XJG104 SA**	**BJ104**	6.62"	9.81"	30"
4	8	**XJG108 HDG**	**XJG108 SA**	**BJ108**	6.62"	13.81"	36"
5	8	**XJ128 HDG‡**		—	7.64"	14.75"	—
6	8	**XJ148 HDG‡**		—	9.56"	15.13"	—

†XJG expansion couplings use a metallic bushing and ground springs to create a high integrity internal ground connection. External ground straps offer a redundant ground path and easy visible indication of ground.
‡XJ128 and XJ148 are not internally grounded. A pair of 36" bonding jumpers are provided with fitting.

XJG EMT Expansion Couplings

XJG EMT expansion couplings provide flexible, water-tight connections that protect EMT conduit wiring systems from damage caused by movement

Applications:

XJG EMT expansion couplings are used with EMT conduit:

- To couple together two (2) sections of conduit subject to longitudinal movement
- In conduit runs to prevent damage to conduit supports such as in a building or on a bridge
- Indoors or outdoors in long conduit runs to permit linear movement caused by thermal expansion and contraction
- In conduit runs that cross structural joints
- On long conduit runs to prevent conduit from buckling and ensuing circuit failures

Features:

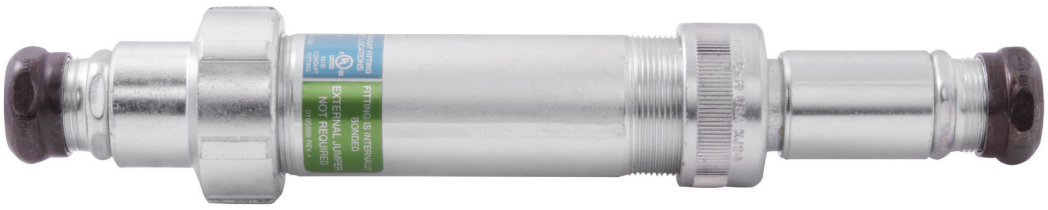
- Weatherproof and approved for use indoors or outdoors without an external bonding jumper
- Available in ½" through 4" trade sizes
- For use with EMT conduit
- Available in 4" maximum conduit movement
- Internal bonding springs and metallic bushings create high integrity internal ground connection and eliminate need for external bonding jumpers and clamps (up to 4" trade size)
- Optional redundant tinned copper bonding jumpers (BJ Series – ordered separately)
- UL Listed for use in wet locations
- Flat surface on gland nut provides smooth, flat surface for easy wrenching
- Distinct black gland nut provides quick identification as a wet location fitting
- Patented design

Certifications and Compliances:

- UL Standard: 514B
- CSA 22.2 No. 18 3-12
- NEMA FB1
- Wet locations

Options:

Available with redundant bonding jumper for visible indication of bonding – order separately (BJ Series)†



Materials and Finishes:

Body:

- Steel - electrogalvanized

Reducer and Gland Nut:

- 1/2" through 1" - Steel - electrogalvanized
- 1-1/4" through 4" - Feraloy® iron alloy - hot dip galvanized and aluminum paint

EMT Body:

- EMT compression connector – raintight – steel electrogalvanized
- Coupling – steel electrogalvanized

Packing:

- PTFE composite

Washer:

- Steel - electrogalvanized

Gasket:

- Vellum

Ground Springs:

- Phosphor bronze - electrogalvanized

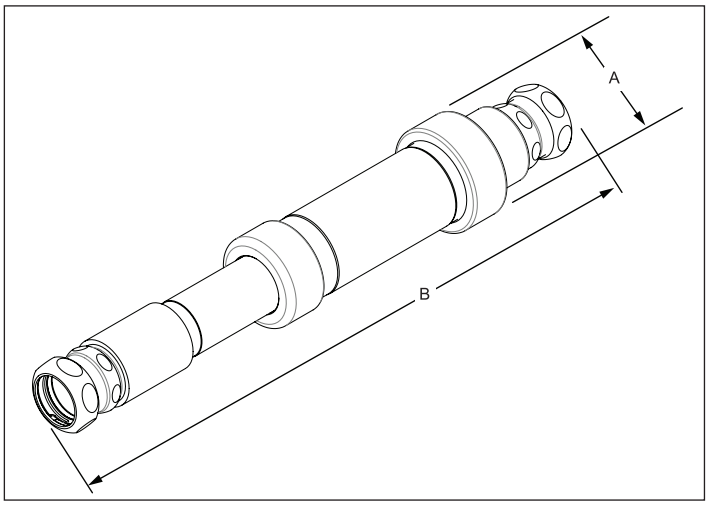
Ground Strap:

- Braided tinned copper

U-Bolts:

- Malleable iron - electrogalvanized

Dimensions (In.):



XJG EMT Ordering Information:

Conduit Size	Max. Conduit Movement	XJG EMT Cat. #	Optional Bonding Jumper†	A Diameter	B Length*
1/2	4	**XJG14 EMT**	**BJ14**	1.75"	11.36"
3/4	4	**XJG24 EMT**	**BJ24**	2.13"	11.54"
1	4	**XJG34 EMT**	**BJ34**	2.44"	11.89"
1-1/4	4	**XJG44 EMT**	**BJ44**	3.13"	12.31"
1-1/2	4	**XJG54 EMT**	**BJ54**	3.63"	13.37"
2	4	**XJG64 EMT**	**BJ64**	4.75"	15.42"
2-1/2	4	**XJG74 EMT**	**BJ74**	4.88"	19.05"
3	4	**XJG84 EMT**	**BJ84**	5.38"	19.11"
3-1/2	4	**XJG94 EMT**	**BJ94**	6.63"	19.64"
4	4	**XJG104 EMT**	**BJ104**	6.63"	19.75"

†XJG expansion couplings use a metallic bushing and bonding springs to create a high integrity internal ground connection. External ground straps offer a redundant ground path and easy visible indication of ground.
*(B) Length in fully retracted position, add 2" for mid-point length.

XD Deflection Couplings

XD deflection couplings provide flexible, water-tight connections that protect rigid/IMC or PVC conduit wiring systems from damage caused by axial expansion and contraction up to ¾" and angular and parallel misalignment

Applications:

XD couplings can be installed indoors, outdoors, buried underground or embedded in concrete in non-hazardous areas. XDs are used with standard rigid conduit or PVC rigid conduit. (PVC requires rigid metal conduit nipples and rigid metal-to-PVC conduit adapters.) XDs provide a flexible and water-tight connection for protection of conduit wiring systems from damage due to movement.

Typical applications include:

- Underground conduit feeder runs
- Runs between sections of concrete subject to relative movement
- Runs between fixed structures
- Conduit entrances in high-rise buildings
- Bridges
- Marinas, docks, piers

Features:

- XD couplings accommodate the following movements without collapsing or fracturing the conduit, and damaging the wires it contains:
  1. Axial expansion or contraction up to 3/4"
  2. Angular misalignment of the axes of the coupled conduit runs in any direction to 30°
  3. Parallel misalignment of the axes of coupled conduit runs in any direction to 3/4"
- Inner sleeve provides a smooth insulated wireway for protection of wire insulation
- Watertight flexible-neoprene outer jacket is corrosion resistant and protects the grounding strap and the attachment points of the hubs
- Tinned copper flexible braid bonding straps assure bonding continuity
- Stainless steel jacket clamps for strength and corrosion resistance
- Standard tapered electrical threads fit standard rigid conduit
- Integral hub bushing protects insulation of conductors

Size Ranges:

- 1" to 6" (smaller sizes can be obtained by using reducing bushings)

Certifications and Compliances:

- UL Standard: 514B
- CSA 22.2 No. 18 3-12
- Wet locations

Materials and Finishes:

Hubs:

- Feraloy® iron alloy - hot dip galvanized

Outer Jacket:

- Molded neoprene - natural (black)

Jacket Clamps:

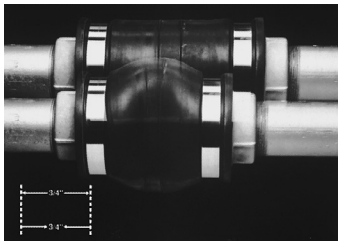
- Stainless steel - natural

Inner Sleeve:

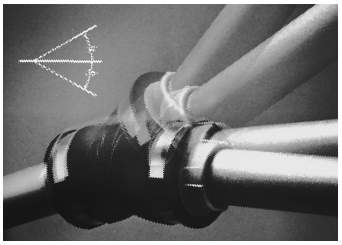
- Neoprene polyester fabric with steel coil

Bonding Strap:

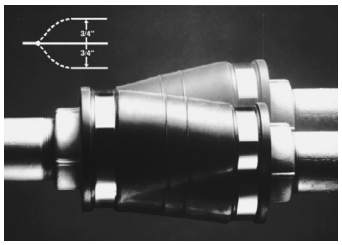
- Braided tinned copper



1. Axial expansion/contraction

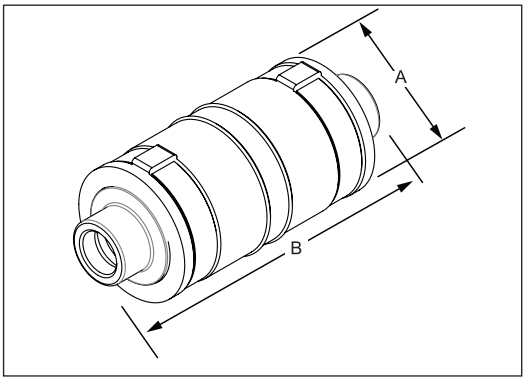


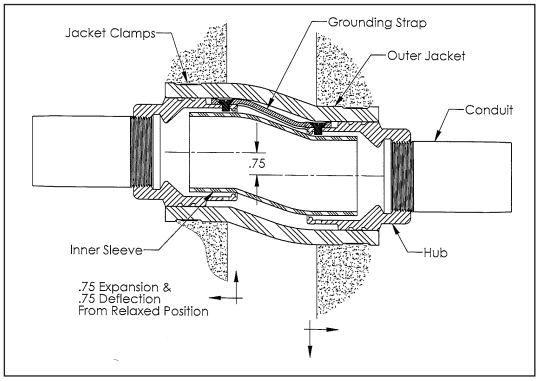
2. Angular misalignment



3. Parallel misalignment

Dimensions (In.):





XD Ordering Information:

Hub Size	Cat. #	A Diameter	B Length
1	**XD3 HDG***	3.63"	8.63"
1-1/4	**XD4 HDG**	3.96"	8.75"
1-1/2	**XD5 HDG**	4.19"	8.78"
2	**XD6 HDG**	4.63"	9.16"
2-1/2	**XD7 HDG**	5.69"	9.53"
3	**XD8 HDG**	5.72"	10.13"
3-1/2	**XD9 HDG**	6.22"	10.81"
4	**XD010 HDG**	6.75"	11.88"
5	**XD012 HDG**	7.75"	12.50"
6	**XD014 HDG**	9.00"	13.50"

*3/4" trade size can be created using third party certified 1"- 3/4" reducing bushings.

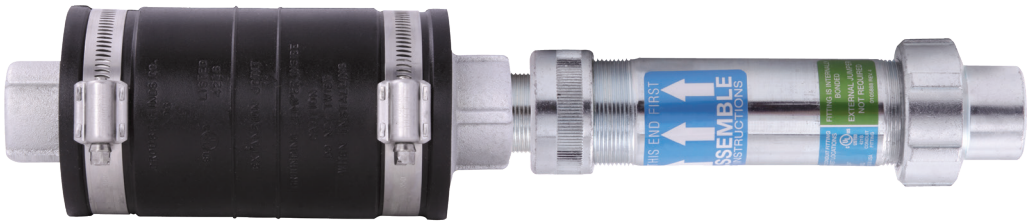
XJGD Rigid/IMC Expansion/Deflection Couplings

XJGD rigid/IMC expansion couplings provide flexible, water-tight connections that protect rigid and IMC conduit wiring systems from damage caused by expansion and contraction up to 4" and angular and parallel misalignment

Applications:

XJGD combination expansion/ deflection couplings are used with rigid metal conduit and IMC:

- To couple together two (2) sections of conduit subject to longitudinal movement
- To accommodate axial expansion, angular misalignment and parallel misalignment:
- Indoors or outdoors in long conduit runs to permit linear and axial movement caused by thermal expansion and contraction
- To maintain electrical continuity without the need for an external bonding jumper and clamps
- In conduit runs that cross structural joints
- In conduit runs to prevent damage to conduit supports such as in a building or on a bridge
- On long conduit runs to prevent conduit from buckling and ensuing circuit failures



Features:

- XJGD fittings are weatherproof and approved for use indoors or outdoors without an external bonding jumper
- Available in ½" through 4" trade sizes
- For use with rigid metal and IMC conduit
- Available in 4" maximum conduit movement
- XJGD Couplings include XD couplings which accommodate the following movements without collapsing or fracturing the conduit, and damaging the wires it contains:
  1. Axial expansion or contraction up to 3/4"
  2. Angular misalignment of the axes of the coupled conduit runs in any direction to 30°
  3. Parallel misalignment of the axes of coupled conduit runs in any direction to 3/4"
- XD component includes inner sleeve which provides a smooth insulated wireway for protection of wire insulation
- XD component contains a watertight flexible neoprene outer jacket which is corrosion-resistant and protects the grounding strap and the attachment points of the hubs
- XD component includes stainless steel jacket clamps for strength and corrosion resistance
- XJG component includes internal bonding springs and metallic bushings to create high integrity internal ground connection and eliminate need for external bonding jumpers and clamps (up to 4" trade size)
- Optional redundant tinned copper flexible braid bonding jumpers assure continuity (BJ Series – ordered separately)
- UL Listed for use in wet locations
- NPT threads fit standard rigid conduit
- Patented design

Materials and Finishes:

Body:

- Steel - electrogalvanized

Reducer and Gland Nut:

- 1/2" through 1" - Steel - electrogalvanized
- 1-1/4" through 4" - Feraloy® iron alloy - hot dip galvanized and aluminum paint

Hubs:

- Feraloy® iron alloy - hot dip galvanized

Packing:

- PTFE composite

Gasket:

- Vellum

Ground Springs:

- Phosphor bronze - electrogalvanized

XD Component Outer Jacket:

- Molded neoprene - natural (black)

XD Jacket Clamps:

- Stainless steel - natural

XD Inner Sleeve:

- Neoprene polyester fabric with steel coil

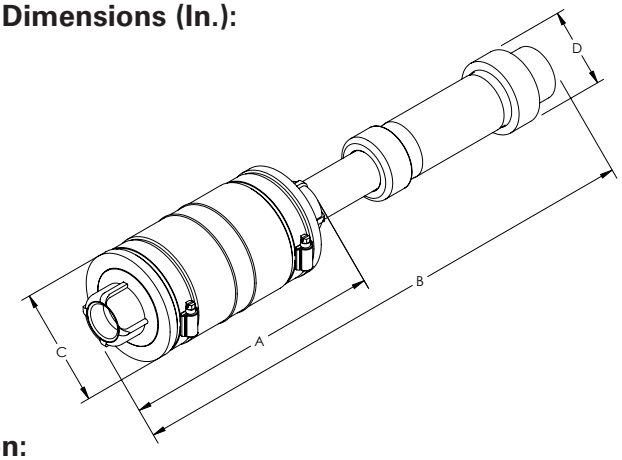
Bonding Strap:

- Braided tinned copper

Certifications and Compliances:

- UL Standard: 514B
- CSA 22.2 No. 18 3-12
- Wet locations

Dimensions (In.):



XJGD Ordering Information:

Hub Size	XJGD Cat. #	A Length	B Length*	C Diameter	D Diameter
1	**XJGD34**	8.63"	16.26"	3.63"	2.43"
1-1/4	**XJGD44**	8.75"	16.54"	3.96"	3.12"
1-1/2	**XJGD54**	8.78"	16.83"	4.19"	3.62"
2	**XJGD64**	9.16"	19.31"	4.63"	4.38"
2-1/2	**XJGD74**	9.53"	19.80"	5.69"	4.87"
3	**XJGD84**	10.13"	20.47"	5.72"	5.37"
3-1/2	**XJGD94**	10.81"	21.00"	6.22"	6.62"
4	**XJGD104**	11.88"	21.97"	6.75"	6.62"

*(B) Length in fully retracted position, add 2" for mid-point length.

U.S. (global headquarters): Eaton's Crouse-Hinds, B-Line and Oil and Gas business

1201 Wolf Street
Syracuse, NY 13208

(866) 764-5454
FAX: (315) 477-5179
FAX Orders Only:
(866) 653-0640

crousecustomerctr@eaton.com

Canada

Toll Free: 800-265-0502
FAX: (800) 263-9504
FAX Orders only: (866) 653-0645

Eaton Middle East

9714-8066100
FAX: 9714-8894813

chmesales@eaton.com

Korea

82-2-3484-6783
82-2-3484-6778

ECHKsales@eaton.com

Mexico/Latin America/Caribbean

52-555-804-4000
FAX: 52-555-804-4020

ventascentromex@eaton.com

Singapore

65-6645-9888
FAX: 65-6297-4819

chsi-sales@eaton.com

Australia

61-2-8787-2777
FAX: 61-2-9609-2342

Crousehindsanz@eaton.com

Europe (Germany)

49 (0) 6271 806-500
49 (0) 6271 806-476

info-ex@eaton.com

China

86-21-2899-3600
FAX: 86-21-2899-4055

echsales@eaton.com

India

91-124-4683888
FAX: 91-124-4683899

cchindia@eaton.com

For more information:

If further assistance is required, please contact an authorized Eaton Distributor, Sales Office, or Customer Service Department.

For additional information, visit Eaton.com

Eaton's Crouse-Hinds
1201 Wolf Street
Syracuse, NY 13208
Eaton.com

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Printed in USA
Publication No. BR406002EN
June 2021

Follow us on social media to get the latest product and support information.

Powering Business Worldwide

various combinations will be used

Specifications

Part Number	Description	Std. Carton Qty.	Std. Carton Wt. (lbs.)
SP2W20-2	2" Two-Way Snap-N-Stac Spacer - 2" Separation	56	28.5
SP2W30-2	2" Two-Way Snap-N-Stac Spacer - 3" Separation	40	23.8
SP3W20-2	3" Two-Way Snap-N-Stac Spacer - 2" Separation	40	24.0
SP3W30-2	3" Two-Way Snap-N-Stac Spacer - 3" Separation	24	17.9
SP4W15-2	4" Two-Way Snap-N-Stac Spacer - 1-1/2" Separation	26	18.3
SP4W20-2	4" Two-Way Snap-N-Stac Spacer - 2" Separation	24	18.8
SP4W30-2	4" Two-Way Snap-N-Stac Spacer - 3" Separation	20	17.6
SP5W20-2	5" Two-Way Snap-N-Stac Spacer - 2" Separation	20	17.2
SP5W30-2	5" Two-Way Snap-N-Stac Spacer - 3" Separation	14	15.5
SP6W20-2	6" Two-Way Snap-N-Stac Spacer - 2" Separation	12	12.8
SP6W30-2	6" Two-Way Snap-N-Stac Spacer - 3" Separation	12	14.1
S287F	1" Snap-Loc Reducer	100	2.1
S287J	2" Snap-Loc Reducer	100	4.8
S28612	Beaded Strap	100	0.4

How to Interpret the Part Number

Position 1	Position 2	Position 3	Position 4
Product Type	Duct Size	Duct-To-Duct Spacing - Horizontal and Vertical	Horizontal Duct Positions
SP = Spacer	2W = 2" Width	15 = 1-1/2"	2 = Two
	3W = 3" Width	20 = 2"	
	4W = 4" Width	30 = 3"	
	5W = 5" Width		
	6W = 6" Width		

Technical Information

Part Number	Duct Size	Duct OD	Horizontal Duct Positions	Duct-To-Duct Spacing		Center-To-Center Spacing		Bottom of Trench to Bottom of Duct	Bottom of Trench to Center of Bottom Duct	Overall Length
				Vertical (Inches)	Horizontal (Inches)	Vertical	Horizontal			
SP2W20-2	2"	2.375	2	2	2	4.38	4.38	3.13	4.25	8.75
SP2W30-2	2"	2.375	2	3	3	5.38	5.38	4.13	5.25	10.75
SP3W20-2	3"	3.500	2	2	2	5.50	5.50	3.63	5.38	11.00
SP3W30-2	3"	3.500	2	3	3	6.50	6.50	4.63	6.38	13.00
SP4W15-2	4"	4.500	2	1.5	1.5	6.00	6.00	3.38	5.56	12.00
SP4W20-2	4"	4.500	2	2	2	6.50	6.50	3.88	6.06	13.00
SP4W30-2	4"	4.500	2	3	3	7.50	7.50	4.88	7.06	15.00
SP5W20-2	5"	5.500	2	2	2	7.56	7.56	4.38	7.25	15.12
SP5W30-2	5"	5.500	2	3	3	8.56	8.56	5.38	8.25	17.14
SP6W20-2	6"	6.625	2	2	2	8.62	8.62	4.13	7.38	17.25
SP6W30-2	6"	6.625	2	3	3	9.62	9.62	5.13	8.38	19.25

Carlon®
LAMSON & SESSIONS

7F78 2.5M SP 10/06

Carlon® Snap-Loc® Spacers

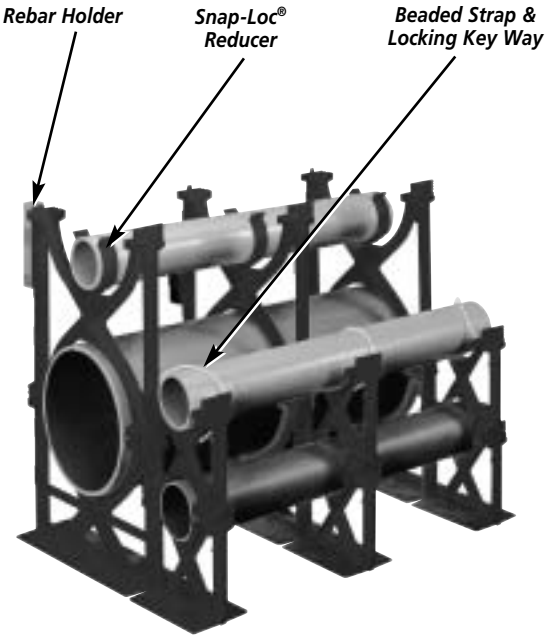
NEW! 8" Spacers

Carlon Snap-Loc duct spacers provide stability, consistent separation and relieve direct stress for duct materials encased in concrete, and direct bury applications.

Carlon Snap-Loc Spacers provide:

- A side dovetail rail and groove design allowing for side-by-side interchangeability of conduit spacer sizes while maintaining horizontal stability.
- Locking key ways incorporated into intermediate spacers eliminate the need for costly top spacers in each size. The locking key ways provide for the use of a beaded strap that secures the top section of conduit.
- 1" and 2" Snap-Loc Reducers allow fixturing of 1" or 2" conduit inside larger spacers.
- The Snap-Loc Rebar Holder provides stabilization on large banks of spacers.

Nonmetallic Snap-Loc Spacers are designed specifically for use with nonmetallic duct, with maximum O.D. dimensions as specified in NEMA TC-2, TC-6 & 8, TC-10 and ASTM F512. The innovative vertical and horizontal interlocking Snap-Loc design has tapered joining slots with maximum tolerances for easy job site assembly.



IMPORTANT:

1. The use of duct spacers for direct burial may result in excessive point deflections unless proper design engineering is applied, such as the proper compaction of the appropriate backfill material.
2. Carlon is NOT responsible for Snap-Loc Spacers used in direct bury applications... design engineers and contractors are responsible for the design of the installation.

Snap-Loc Spacers

Dimensions – Base Spacers

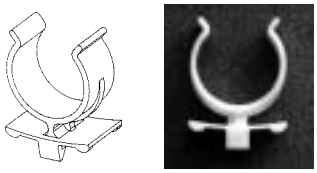
Part No.	Size*	A	C	D (Dia.)	Std. Ctn. Qty.
S288JHN	2x1 1/2	4.25	4.12	2.50	100
S288JJN	2x2	4.25	4.62	2.50	100
S288JLN	2x3	4.25	5.62	2.50	100
S288LHN	3x1 1/2	4.81	5.25	3.63	90
S288LJN	3x2	4.81	5.75	3.63	80
S288LLN	3x3	4.81	6.75	3.63	60
S288NFN	4x1	5.31	5.75	4.63	70
S288NHN	4x1 1/2	5.31	6.25	4.63	50
S288NJN	4x2	5.31	6.75	4.63	50
S288NLN	4x3	5.31	7.75	4.63	60
S288PHN	5x1 1/2	5.84	7.31	5.69	50
S288PJN	5x2	5.84	7.81	5.69	60
S288PLN	5x3	5.84	8.81	5.69	50
S288RHN	6x1 1/2	6.38	8.38	6.75	50
S288RJN	6x2	6.38	8.88	6.75	50
S288RLN	6x3	6.38	9.88	6.75	40
S288SHN	8x1 1/2	7.38	10.30	8.75	30
S288SJN	8x2	7.38	10.76	8.75	30

Dimensions – Intermediate Spacers

Part No.	Size*	B	C	D (Dia.)	Std. Ctn. Qty.
S289JHN	2x1 1/2	3.88	4.12	2.50	120
S289JJN	2x2	4.38	4.62	2.50	100
S289JLN	2x3	5.38	5.62	2.50	80
S289LHN	3x1 1/2	5.01	5.25	3.63	100
S289LJN	3x2	5.51	5.75	3.63	80
S289LLN	3x3	6.51	6.75	3.63	60
S289NFN	4x1	5.51	5.75	4.63	70
S289NHN	4x1 1/2	6.01	6.25	4.63	60
S289NJN	4x2	6.51	6.75	4.63	60
S289NLN	4x3	7.51	7.75	4.63	50
S289PHN	5x1 1/2	7.07	7.31	5.69	50
S289PJN	5x2	7.57	7.81	5.69	50
S289PLN	5x3	8.57	8.81	5.69	30
S289RHN	6x1 1/2	8.14	8.38	6.75	50
S289RJN	6x2	8.64	8.88	6.75	40
S289RLN	6x3	9.64	9.88	6.75	30
S289SHN	8x1 1/2	10.14	10.30	8.75	30
S289SJN	8x2	10.64	10.76	8.75	30

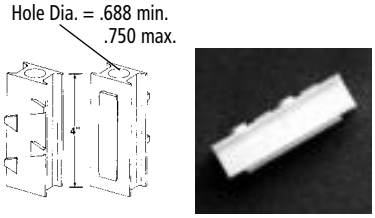
***First number indicates trade size of duct, second number indicates separation between conduits or ducts.**

Accessories



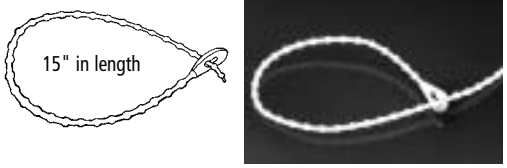
Snap-Loc® Reducer

Part No.	Size	Std. Ctn. Qty.
S287F	1"	100
S287J	2"	100



Rebar Holder

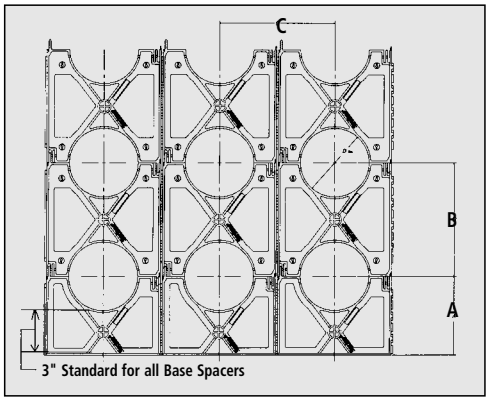
Part No.	Std. Ctn. Qty.
S258RH	100



Beaded Strap

Part No.	Std. Ctn. Qty.
S28612	100

Specifications



Suggested Specification

(Duct) (Conduit) bank shall be encased in concrete with at least three inches of concrete at the top and bottom and two inches on each side. A horizontal and vertical separation between the ducts of ____* inches shall be maintained by installing Carlon high impact spacers with horizontal and vertical locking intervals of ____** feet.

*Standard Separations of 1", 1 1/2", 2", and 3" are available.

**Preferred interval between spacer assemblies is 8 to 10 feet.

Installation note

The Spacers and Rebar Holder are designed with a dovetail tongue and groove feature for easy installation.

If required to permanently fix the position of a group of Spacers and/or Rebar Holder, the following are recommended procedures:

1. Use Carlon Quick-set Cement glue during assembly or spot glue after assembly to secure.
2. During assembly, deform the edge of the tongue or groove portion of the dovetail slide with a pair of pliers or similar tool. This deformation will create an interference, restricting movement.
3. An assembled system may be wired together for additional support.

IMPORTANT:

1. The use of duct spacers for direct burial may result in excessive point deflections unless proper design engineering is applied, such as the proper compaction of the appropriate backfill material.
2. Carlon is not responsible for Snap-Loc Spacers used in direct bury applications... design engineers and contractors are responsible for the design of the installation.

Rev. 01/2023

UNDERGROUND ENCLOSURES

Quazite®

Pencell® PLASTICS

Quazite® FRP

HUBBELL®

INTRODUCTION

Hubbell Underground Enclosures

Strength, performance, quality and outstanding customer service have been hallmarks of Hubbell underground enclosure brands for more than 40 years. The industry leader for applications in non-deliberate traffic areas, our enclosures provide rugged and cost-effective protection for a variety of electric utility, commercial and industrial, communications, water and gas equipment while meeting the specific demands of your industry.

All Hubbell underground enclosure brands come backed with cutting-edge engineering expertise and a total commitment to quality that is designed into our products. Our engineers are respected and valued advisors throughout the industry and our quality processes are among the most sophisticated in application. When you need unyielding performance and reliability, Hubbell underground enclosure brands are the right choice.

Hubbell is proud to offer the wide selection of underground enclosures found in this catalog. The following pages outline our industry leading Quazite®, Quazite FRP® and PenCell® brands. In addition to our core products and options, Hubbell can customize a solution for your project and application.

Hubbell Enclosures 4
Quazite Size Chart 5
Quazite FRP Size Chart 6
PenCell Size Chart 7
ANSI Tier Selection and Placement 8
ANSI Tier Selection Guide 10

Quazite Enclosures 12

Quazite Selection Guide 14
Quazite Size Chart 16
Drawings 17
6" x 8" PC Style 17
8" x 8" PC Style 18
8" x 18" PC Style 19
10" x 15" PT Style 20
10" x 15" PG Style 21
11" x 18" PG Style 22
11" x 18" PD Style 23
11" x 18" PC Style 24
11" x 20" PG Style 25
11" x 21" PD Style 26
12" x 12" PC Style 27
12" x 12" PX Style 28
13" x 24" PG Style 29
13" x 24" PD Style 30
13" x 24" PC Style 31
13" x 24" PT Style 32
17" x 30" PD Style 33
17" x 30" PG Style 34
17" x 30" PC Style 36
17" x 30" PT Style 37
24" x 24" PG Style 38
24" x 36" PD Style 39
24" x 36" PG Style 40
30" x 48" PG Style 42
30" x 48" PD Style 44
30" x 60" PG Style 45
36" x 36" PG Style 46
36" x 60" PG Style 48
36" x 72" PG Style 50
48" x 48" PG Style 51
48" x 60" PG Style 52
48" x 72" PG Style 53
48" x 78" PG Style 54
48" x 96" PG Style 55
Concrete H20 PG Style 56
27" Round Polymer Concrete Style 58
39" Round Polymer Concrete Style 60
5" x 16" Median Barrier Enclosure 62
10" x 12" Jersey Style Median Barrier Enclosure 63
Cell Site Enclosure 64
Communications Cabinet Foundations Information 65
Cover Options / Logo Codes 66
Dimensional Data 69
EZ Auger Upgrade Kits 70
Quazite Options 71
Dividers 73
Box Collars 74
Color Options 75
Specifications and Data 76

Hubbell Enclosures 77

G05 and F09 Valve Boxes 78

Quazite FRP 79

Quazite FRP Selection Guide 81
Quazite FRP Size Chart 82
6" x 8" Straight Wall 83
10" x 15" Straight and Flared Wall 84
11" x 18" Straight and Flared Wall 86
11" x 21" Straight Wall 88
11" x 32" Straight and Flared Wall 89
12" x 12" Straight and Flared Wall 91
13" x 24" Straight and Flared Wall 93
15" x 17" Straight and Flared Wall 95
15" x 27" Straight and Flared Wall 97
16" x 22" Straight and Flared Wall 99
17" x 30" Straight and Flared Wall 101
24" x 24" Straight Wall 104
24" x 36" Straight and Flared Wall 106
24" x 60" Flared Wall 110
30" x 48" Straight and Flared Wall 112
30" x 48" Corrugated Wall 116
30" x 60" Straight Wall 118
30" x 60" Corrugated Wall 120
36" x 36" Straight Wall 122
36" x 60" Straight Wall 124
36" x 60" Corrugated Wall 126
36" x 72" Straight Wall 128
36" x 72" Corrugated Wall 130
36" x 96" Corrugated Wall 132
48" x 48" Corrugated Wall 134
48" x 72" Corrugated Wall 136
48" x 78" Corrugated Wall 138
48" x 96" Corrugated Wall 140
78" x 96" Corrugated Wall 142
20" Round 144
27" Round 145
32" Round 146
39" Round 147
Cover Options 148
Color Options 149
Quazite FRP Options 150

PenCell 155

PenCell Selection Guide 157
PenCell Size Chart 158
PenCell Drawings 159
DT Series
11" x 18" 160
12" x 12" 161
13" x 24" 162
17" x 30" 163
24" x 36" 166
30" x 48" 168
PE Series
6" Round 170
9" Round 171
10" Round 172
14" Rectangular 173
20" Rectangular 174
30" Rectangular 175
36" Rectangular 176
10" x 15" PE series 177
11" x 18" PE series 178
13" x 24" PE series 179
17" x 30" PE series 180
PM (PEM) Series
10" x 10" 181
12" x 12" 182
12" x 18" 183
12" x 20" 184
12" x 24" 185
18" x 18" 186
18" x 24" 187
18" x 30" 188
24" x 24" 189
24" x 36" 190
24" x 48" 191
24" x 60" 192
30" x 36" 193
30" x 48" 194
30" x 60" 195
36" x 36" 196
36" x 48" 197
36" x 60" 198
PR (PEMR) Series
12" Round 199
Cover Options 200
Accessories 201
Options 203
Color Options 204
PenCell Option System 205
Installation Guide 206
EZ-Locate Installation 208
Hole Cutting Instructions 211
EZ Nut Cleaning/Replacement 212
Concrete Collar Applications 213
Internal Bracing 215
Quazite Part Number System 216
Quazite FRP Part Number System 218
PenCell Part Number System 220
Terms and Conditions 222

Hubbell Underground Enclosures

Hubbell offers three distinct brands of underground enclosures. All three are built with the same attention to quality and performance that you know and expect from Hubbell. Each brand is made of a different base material. Our comprehensive product offering is tailored to ensure that your application requirements are met, no matter what. Based on your design style preference, Hubbell offers Quazite monolithic polymer concrete, Quazite® FRP fiberglass-reinforced polymer and PenCell HDPE enclosure products. All three brands offer superior performance and unique benefits.

Polymer Concrete

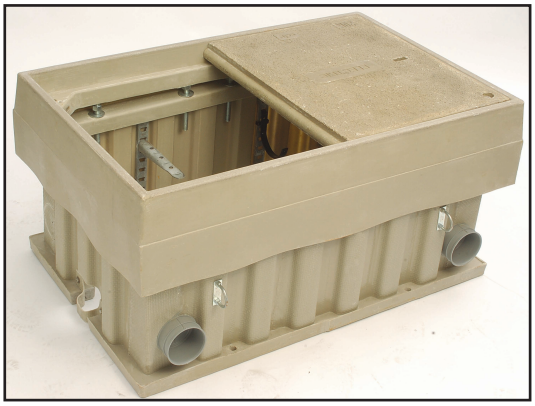
Quazite® Enclosures

Polymer concrete is made from select-grade aggregates in combination with a polymer resin system. When combined through a process of mixing, molding and curing, an extremely powerful cross-linked bond is formed. Precast polymer concrete is reinforced with fiberglass to give it additional strength and rigidity.

Fiberglass Reinforced Polymer

Quazite® FRP Enclosures

Fiberglass-reinforced polymer, also called FRP, is a special combination of polymer concrete and fiber-reinforced polymer. This hybrid construction, formed from an FRP shell and a polymer concrete ring and cover, delivers a high strength, lightweight, abrasion-resistant product that is protected from ultraviolet rays.



High Density Polyethylene (HDPE)

PenCell® Enclosures

Structural foam molded high density polyethelyne, also called HDPE, is a light weight, high strength plastic molding process that provides outstanding structural integrity and durability. HDPE enclosures are mated with covers made from a variety of materials: HDPE, polymer concrete or steel. This combination creates a highly versatile choice for underground utility enclosures where low weight and high strength are necessary.

Quazite: Available Size Chart

Style	Size	Depths	Assembly Load Rating Options	UL
PC	6x8	6 3/4	Tier 15	Yes
	8x8	12, 18	Tier 15	Yes
	8x18	7, 8	Tier 8, Tier 15	Yes
	11x18	12, 18	Tier 8	Yes
	12x12	12	Tier 8, Tier 15	Yes
	13x24	12	Tier 5	Yes
	17x30	12	Tier 5	Yes
PD	11x18	12	Tier 8, Tier 15, Tier 22	No
	11x21	12	Tier 8, Tier 15, Tier 22	No
	13x24	12, 18, 26	Tier 8, Tier 15, Tier 22	No
	17x30	12, 18, 26	Tier 8, Tier 15, Tier 22	Yes
	24x36	18, 26, 48	Tier 8, Tier 15, Tier 22	Yes
	30x48	24, 48	Tier 8, Tier 15, Tier 22	Yes
PG	10x15	12	Tier 8, Tier 15, Tier 22	No
	11x18	12, 18	Tier 8, Tier 15, Tier 22	Yes
	11x20	12, 18	Tier 8, Tier 15, Tier 22	No
	13x24	12, 18, 24	Tier 8, Tier 15, Tier 22	Yes
	17x30	12, 18, 22, 24, 30	Tier 8, Tier 15, Tier 22	Yes
	24x24	24*	Tier 8, Tier 15, Tier 22	Yes
	24x36	18, 24, 30, 36, 42*	Tier 8, Tier 15, Tier 22	Yes
	30x48	18, 24, 36, 48*	Tier 8, Tier 15, Tier 22	Yes
	30x60	21, 30, 36	Tier 5, Tier 15, Tier 22	No
	36x36	36*	Tier 8, Tier 15, Tier 22	Yes
	36x60	19, 24, 31, 36*	Tier 5, Tier 15, Tier 22	No
	36x72	21, 36	Tier 5, Tier 15, Tier 22	No
	48x48	36, 48	Tier 5, Tier 15, Tier 22	No
	48x60	48	Tier 22	No
	48x72	36, 48*	Tier 5, Tier 15, Tier 22	No
	48x78	27, 36	Design 12,000 lbs / Test 24,000 lbs	No
	48x96	48*	Tier 5, Tier 15, Tier 22	No
PT	10x15	18	Tier 8, Tier 15	No
	13x24	18	Tier 8, Tier 15	Yes
	17x30	18	Tier 8, Tier 15	Yes
PX	12x12	24	Tier 8, Tier 15	Yes
Median	5x16		Tier 8, Tier 15	No
	10x12		Tier 8, Tier 15	No
Round	27	36, 48	Tier 8, Tier 15, Tier 22	Tier 8 ONLY
	39	18, 24, 36, 48, 72	Tier 8, Tier 15, Tier 22	Yes

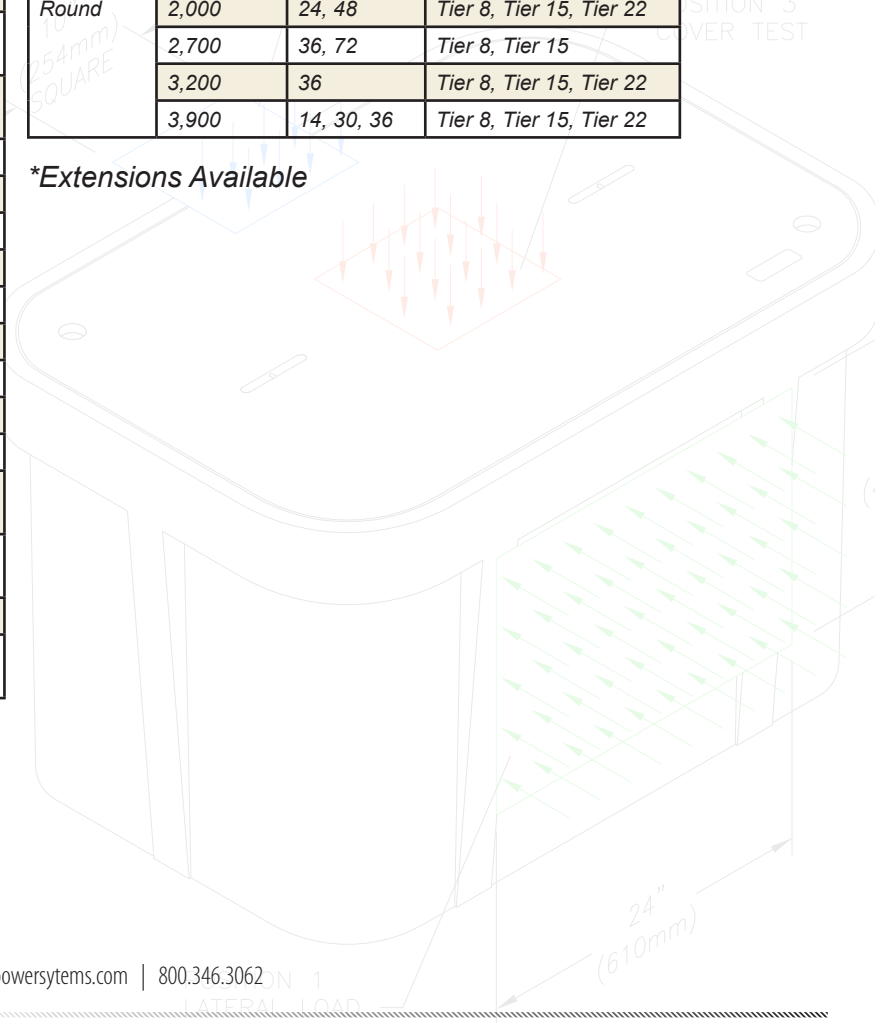
*Extensions Available

Quazite FRP: Available Size Chart

Style	Size	Depths	Load Rating Options
Straight Wall	6x8	6 3/4	Tier 8
	10x15	12	Tier 8, Tier 15
	11x18	12, 18	Tier 8, Tier 15, Tier 22
	11x21	12	Tier 5, Tier 8, Tier 15
	11x32	12	Tier 5, Tier 8, Tier 15
	12x12	12	Tier 8, Tier 15, Tier 22
	13x24	12, 18	Tier 8, Tier 15, Tier 22
	15x17	12	Tier 8, Tier 15
	15x27	12	Tier 5, Tier 8
	16x22	18	Tier 8, Tier 15
	17x30	12, 18, 22, 30	Tier 8, Tier 15, Tier 22
	24x24	12, 18, 24	Tier 8, Tier 15, Tier 22
	24x36	18, 24, 30	Tier 8, Tier 15, Tier 22
	30x48	18, 24, 36	Tier 8, Tier 15, Tier 22
	30x60	18, 30, 36, 48	Tier 8, Tier 15, Tier 22
	36x36	18, 24, 30, 36, 48	Tier 8, Tier 15, Tier 22
	36x60	18, 24, 30, 36, 48	Tier 8, Tier 15, Tier 22
	36x72	36, 48	Tier 8, Tier 15, Tier 22
Flared Wall	10x15	12, 18	Tier 8, Tier 15
	11x18	12, 18	Tier 8, Tier 15, Tier 22
	11x32	12	Tier 5, Tier 8
	12x12	12, 24	Tier 8, Tier 15
	13x24	12, 18, 24*	Tier 8, Tier 15, Tier 22
	15x17	12	Tier 5, Tier 8, Tier 15
	15x27	12	Tier 5, Tier 8
	16x22	30	Tier 8, Tier 15
	17x30	12, 18, 22, 24, 30, 34*	Tier 8, Tier 15, Tier 22
	24x36	18, 24, 30, 36. 42. 48*	Tier 8, Tier 15, Tier 22
	24x60	24	Tier 5
	30x48	18, 24, 30, 36	Tier 8, Tier 15, Tier 22

Style	Size	Depths	Load Rating Options
Corrugated Wall	30x48	18, 24, 30, 36, 48*	Tier 8, Tier 15, Tier 22
	30x60	18, 24, 30, 36, 48	Tier 5, Tier 8, Tier 15, Tier 22
	36x60	18, 24, 30, 36, 48	Tier 8, Tier 15, Tier 22
	36x72	18, 24, 30, 36, 48	Tier 8, Tier 15, Tier 22
	36x96	30, 36, 48	Tier 8, Tier 15, Tier 22
	48x48	18, 24, 30, 36, 48	Tier 8, Tier 15, Tier 22
	48x72	18, 24, 30, 36, 48	Tier 8, Tier 15, Tier 22
	48x78	18, 24, 30, 36, 48	Tier 8, Tier 15, Tier 22
	48x96	18, 24, 30, 36, 48	Tier 8, Tier 15, Tier 22
	78x96	36, 48	Tier 8, Tier 15, Tier 22
Round	2,000	24, 48	Tier 8, Tier 15, Tier 22
	2,700	36, 72	Tier 8, Tier 15
	3,200	36	Tier 8, Tier 15, Tier 22
	3,900	14, 30, 36	Tier 8, Tier 15, Tier 22

*Extensions Available



PenCell: Available Size Chart

Style	Size	Depths	Load Rating Options
DT	11x18	9, 11, 18, 20	5k, Tier 15
	12x12	14, 16, 20, 25	5K, Tier 15
	13x24	15, 17, 18, 23	5K, Tier 15
	17x30	15, 17, 18, 24, 26, 30, 32, 36, 38*	5k, Tier 15, Tier 22 (24" and 36" depth only)
	24x36	18, 24, 36	5K, Tier 15, Tier 22
	30x48	24, 36	5K, Tier 15, Tier 22
PE	6	9	5K
	9	10	5K
	10	18, 19	5K
	14	12, 17*	5K
	20	15, 17	5K, 10K
	30	12, 17, 19*	5K, 10K
	36	15	5K
	10x15	12	5K
	11x18	12	3K
	13x24	12	3K
	17x30	12	3K
PM	10x10	12	20K
	12x12	24	20K
	12x18	24	20K
	12x20	18	20K
	12x24	24	20K
	18x18	24	20K
	18x24	24	20K
	18x30	24	20K
	24x24	18, 24, 30, 36, 42, 48	5K, 20K
	24x36	18, 24, 30, 36, 42, 48	5K, 20K
	24x48	18, 24, 30, 36, 42, 48	5K, 20K
	24x60	18, 24, 30, 36, 42, 48	5K, 20K
	30x36	18, 24, 30, 36, 42, 48	5K, 20K
	30x48	18, 24, 30, 36, 42, 48	5K, 20K
	30x60	18, 24, 30, 36, 42, 48	5K, 20K
	36x36	18, 24, 30, 36, 42, 48	5K, 20K
	36x48	18, 24, 30, 36, 42, 48	5K, 20K
	36x60	18, 24, 30, 36, 42, 48	5K, 20K
Round	12x12	24	20K

*Extensions Available

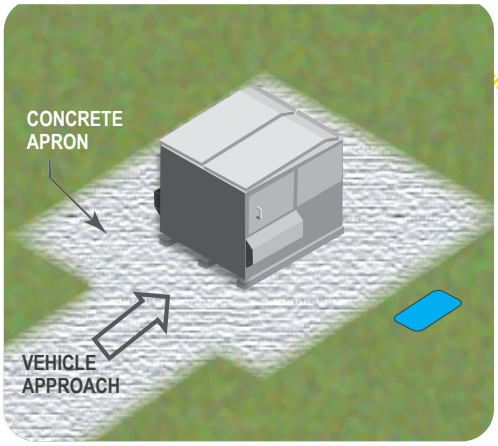
"ANSI Tier" Selection and Placement in Non-Deliberate Vehicular Traffic Applications

All load ratings are not the same

All Hubbell enclosures include load ratings either as a specified design load, or as a "Tier" Rating that designates the achievement of a particular ANSI load rating level. Most Hubbell enclosures use the ANSI Tier rating system. However, some of the PenCell enclosures use the "K" Rating system. More information on both of these ratings can be found in this catalog. If you have any questions, our engineering department is here to help.

The enclosures shown in these sketches have been color coded to indicate the proper Tier level required for the application.

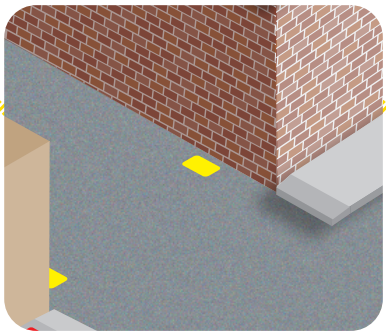
- Pedestrian/Tier 5
- Tier 8
- Tier 15 or 22

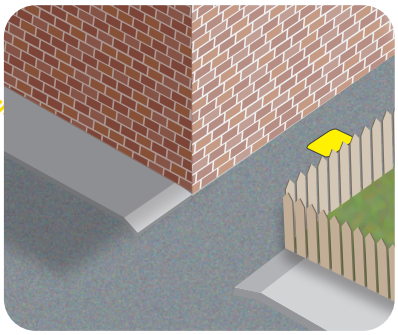


TRASH RECEPTACLE APPLICATION

(NON-DELIBERATE TRAFFIC)

Where there is a trash receptacle, place the enclosure away from the concrete that the receptacle is set on. Even though the traffic expected on the receptacle's concrete apron is occasional, it is deliberate because the traffic is both intentional and heavy in nature. Correct placement will ensure the wheels of the truck will not roll over the enclosure.





DUAL LANE ALLEY

(NON-DELIBERATE TRAFFIC)

In a single lane alleyway, the enclosure should be placed in the center of the alleyway. This minimizes the possibility of the enclosure being run over. In a dual lane alleyway, the enclosure should be placed as close to the building as possible. Typically, two vehicles will not be in the alleyway at the same time, so chances of the enclosure being run over are minimal. Knowledge of the location and expected traffic patterns should be used to determine if traffic will be deliberate or non-deliberate.

RESIDENTIAL

(NON-DELIBERATE TRAFFIC)

Enclosures may be placed in grassy areas, sidewalks or in areas next to a structure or pole where it is unlikely a vehicle will run over it. Do not place enclosures in the street or driveway where traffic is anticipated and deliberate.

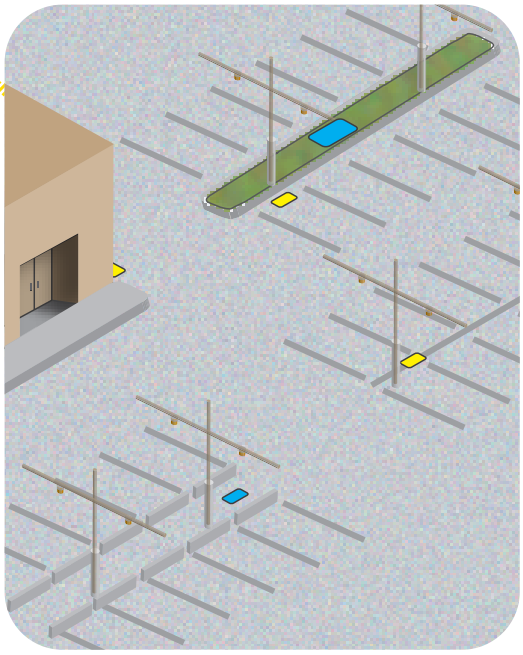
"ANSI Tier" Selection and Placement in Non-Deliberate Vehicular Traffic Applications

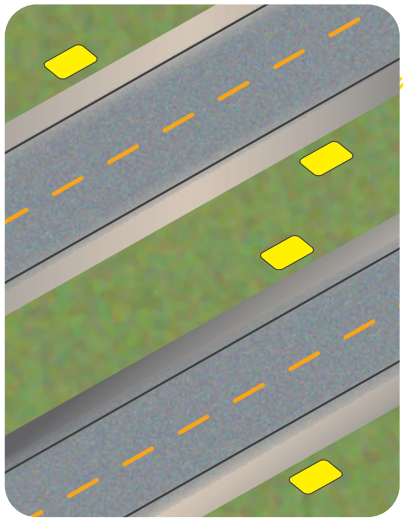
PARKING LOTS

(NON-DELIBERATE TRAFFIC)

Enclosure applications:

- In the front center of a parking space so that vehicle tires will straddle the enclosure.
- In the grassy area where the parking lot ends.
- Alongside and close to the lighting poles.
- Between parking curbs where the possibility of running over the enclosure is remote.
- Along the building but not in front of a door or pick up area where vehicular traffic is expected.





DIVIDED HIGHWAY

(NON-DELIBERATE TRAFFIC)

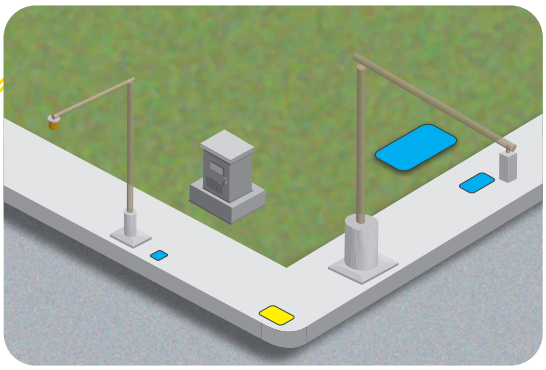
On a divided highway, place the enclosure in any area that is not paved and where deliberate traffic is not expected. They can be placed in the grassy median or off the shoulder of the highway.

NOTE: The paved shoulder of the highway is normally considered a deliberate traffic location because it may be used as a breakdown lane or as an actual traffic lane in times of construction. Therefore, an enclosure should never be placed in the paved shoulder of a road or in the road itself. The enclosure should be placed off the shoulder, in the grassy areas.

SIDEWAY and GRASSY AREA

(NON-DELIBERATE TRAFFIC)

An enclosure can be placed in any grassy area and in most sidewalks. However, an enclosure should not be placed in a sidewalk where a driveway crosses over the sidewalk.



ANSI/SCTE Tier Selection Guide

Load Ratings – Steadfast Reliability

Many Hubbell underground enclosures are designed to meet or exceed the load requirements set forth in the American National Standards Institute's ANSI/SCTE 77 2017 "Specification for Underground Enclosure Integrity." ANSI tier designations represent the minimum allowable load requirements in the industry to ensure underground enclosures are always secure and reliable.

The ANSI application tier number relates to a nominal design load multiplied by 1,000 pounds. For example, Tier 8 is 8 x 1,000 pounds, or 8,000 lbs. All ANSI tier loadings will have a corresponding test load, which is 50% greater than the design load. The maximum deflection at the indicated design load shall be a half-inch for vertical tests and a quarter-inch per foot of length for lateral tests.

Application Tiers and Static Vertical Wheel Load Ratings per ANSI/SCTE 77 2017 "Specification for Underground Enclosure Integrity"

NOTE *— Quazite® products are not intended for use in deliberate traffic areas.*

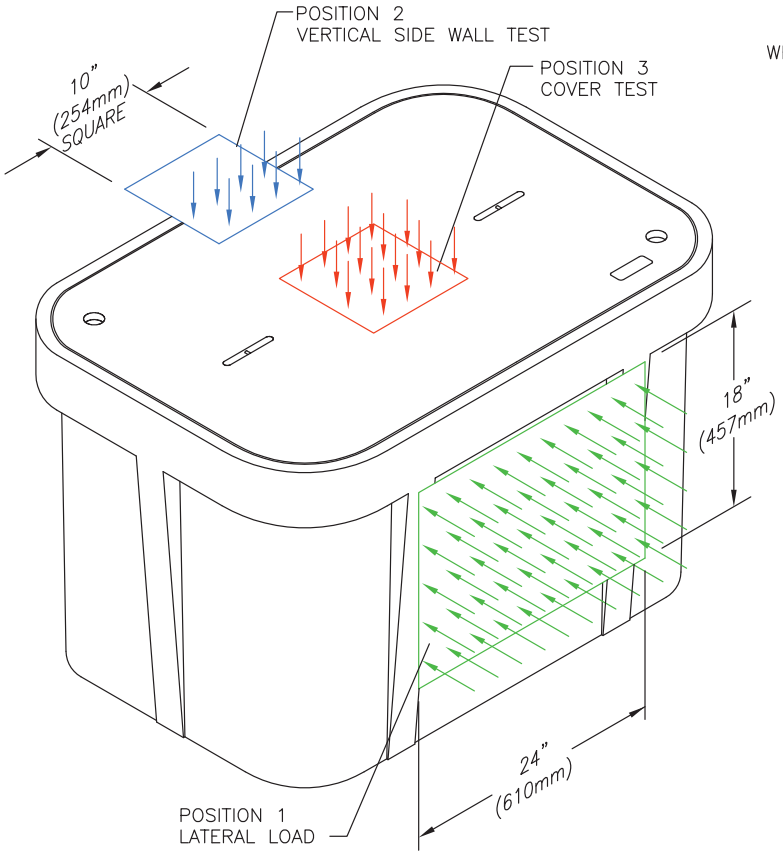
various tiers will be used depending on the location

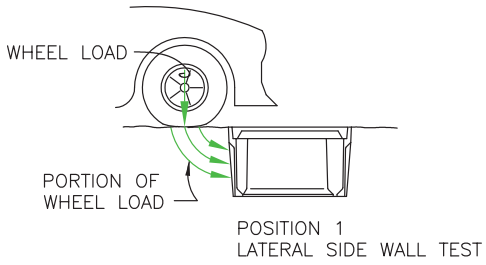
Application Tiers	Loading Requirements				UL Listed to meet ANSI 77 Requirements
Light Duty Pedestrian Traffic Only	**Vertical**	**Test Load**	13.3kN	3,000 lbs.	
Tier 5 Sidewalk applications with a safety factor for occasional non-deliberate vehicular traffic	**Vertical**	**Design Load** **Test Load**	22.2 kN 33.3 kN	5,000 lbs. 7,500 lbs.	PC 13"x24" or PC 17"x30" style enclosure and cover assemblies with standard covers **(CA)** and standard covers w/ o bolts **(WA)**.
	Lateral	**Design Load** **Test Load**	28.7 kPa 43.1 kPa	600 lbs./sq. ft. 900 lbs./sq. ft.	
TIER 8 Sidewalk applications with a safety factor for non-deliberate vehicular traffic	**Vertical**	**Design Load** **Test Load**	35.6 kN 53.4 kN	8,000 lbs. 12,000 lbs.	PG and PT style enclosure and cover assemblies up to 30" x 48" and PC style in sizes 6"x 8", 8"x18", 11"x18" and 12"x12" with standard covers **(CA)** and standard covers w/ o bolts **(WA)**.
	Lateral	**Design Load** **Test Load**	28.7 kPa 43.1 kPa	600 lbs./sq. ft. 900 lbs./sq. ft.	
TIER 15 Driveway, parking lot and off-roadway applications subject to occasional non-deliberate heavy vehicular traffic	**Vertical**	**Design Load** **Test Load**	66.7 kN 100.1 kN	15,000 lbs. 22,500 lbs.	PG, PT and PC style enclosure and cover assemblies up to 30"x48" with heavy duty covers **(HA)**.
	Lateral	**Design Load** **Test Load**	38.3 kPa 57.5 kPa	800 lbs./sq. ft. 1,200 lbs./sq. ft.	
TIER 22 Driveway, parking lot and off-roadway applications subject to occasional non-deliberate heavy vehicular traffic	**Vertical**	**Design Load** **Test Load**	100.1 kN 150.1 kN	22,500 lbs. 33,750 lbs.	PC, PD, PG and PT style enclosure and cover assemblies up to 30" x 48" with extra heavy duty covers **(HH)**.
	Lateral	**Design Load** **Test Load**	38.3 kPa 57.5 kPa	800 lbs./sq. ft. 1,200 lbs./sq. ft.	
AASHTO H-20 Deliberate vehicular traffic applications ONLY.	Certified precast concrete, cast iron or other AASHTO recognized materials.				

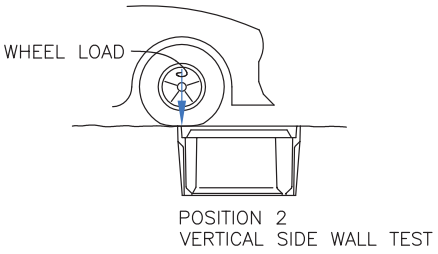
Three-Position Testing – Proven Endurance.

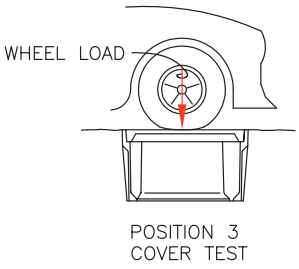
A key requirement outlined in ANSI/SCTE 77 2017 is three-position testing for enclosures. Three-position testing is a method to verify product performance and is accomplished by test loading at three pre-designated critical points. Quazite products have been tested at each of the three positions and all have met or surpassed requirements.

The latest copy of the standard may be purchased from ANSI.









Quazite®

Hubbell maintains a large inventory of Quazite enclosures to serve your needs.

NEC and Underground Enclosures

The National Electric Code states in article 314.30 that enclosures "...shall be designed and installed to withstand all loads likely to be imposed..." and "addresses issues related to enclosure size, wiring entries, enclosures without bottoms and bonding requirements for covers."

The code references the ANSI/SCTE 77 "Specification for Underground Enclosure Integrity" National Standard, which outlines various tests that enclosures must pass to meet the standard. ANSI/SCTE 77 also provides load charts with Tier ratings to help users determine the appropriate enclosure to select based on the loadings expected in the application.

Quazite® – UL-Listed to ANSI Standard

All Quazite® polymer concrete enclosures meet or exceed the test provisions of ANSI/SCTE 77 2017 and most polymer concrete enclosures sized 30" x 48" and smaller are UL-Listed to the ANSI National Standard as referenced in the 2005, 2008, 2011, 2014 and 2020 NEC. To achieve this, Quazite® enclosures must pass numerous material and product performance tests before they can meet ANSI/SCTE 77 2017.

Testing Requirements for ANSI/SCTE 77 2017

- Three-Position Load Testing to simulate actual application performance
- UV Degradation per ASTM G-154
- Fire Resistance per RUS 7CFR 1755.910 (PE-91)
- Chemical Resistance per ASTM D-543
- Water Absorption per ASTM D-570
- Impact Resistance per ASTM D2444
- Accelerated service per ASTM D-756, procedure E

Note: Quazite® recommends testing by third party organizations such as UL or ETL to verify that enclosures meet all test provisions of ANSI/SCTE 77.

Quazite® – Peace of Mind.

Quazite® enclosures have undergone rigorous physical, environmental and internal equipment-protection tests and have been found by UL to meet the requirements required by the ANSI Standard. By adhering to the NEC, ANSI and UL requirements, in the enclosure-selection process, users are ensured long service life. Quazite® enclosures offer improved manageability and cost-efficiency over other enclosures, and peace of mind as well.

National Fire Protection Agency, 2005, 2008, 2011, 2014 and 2020 National Electric Code.

Subsequent to the issuance of the 2005 NEC, ANSI approved an updated verision of the standard, ANSI/SCTE 77 2017.

The latest copy of the standard may be purchased from ANSI.

Quazite Selection Guide

Style Guide – Tailored Product Variety.

We offer a wide variety of box styles in order to meet your most specialized enclosure needs. Each style offers specific strengths and assets for diverse functionality

• PG Style

Straight sides allow for easy adjustment of box should the grade level change. Used for a variety of purposes, such as a splice box, pull box, equipment enclosure or for any application requiring easy access to an underground service. PG boxes are stackable for increased depth.

• PC Style

Straight sides allow for easy adjustment of box should the grade level change. All PC boxes are stackable and are available with gasketing.

• PX Style

PX Styles are excellent for service box assemblies and offer flared design to prevent frost heave. PX boxes are nestable for compact storage.

• PT Style

The flared design prevents frost heave and covers are interchangeable with many precast concrete parts. PT boxes are nestable for compact storage.

• PD Style

These enclosures feature a one degree flare for maximum strength. Flared design optimizes internal volume and minimizes frost heave.

• PR Style

This polymer concrete round enclosure can prevent a cover from falling into the box.

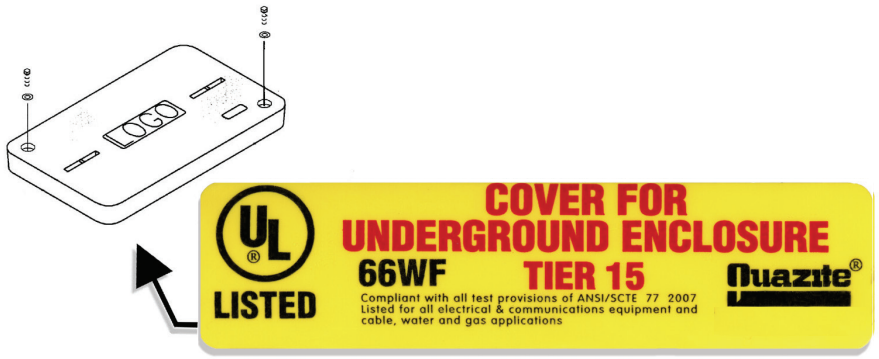
UL Listing

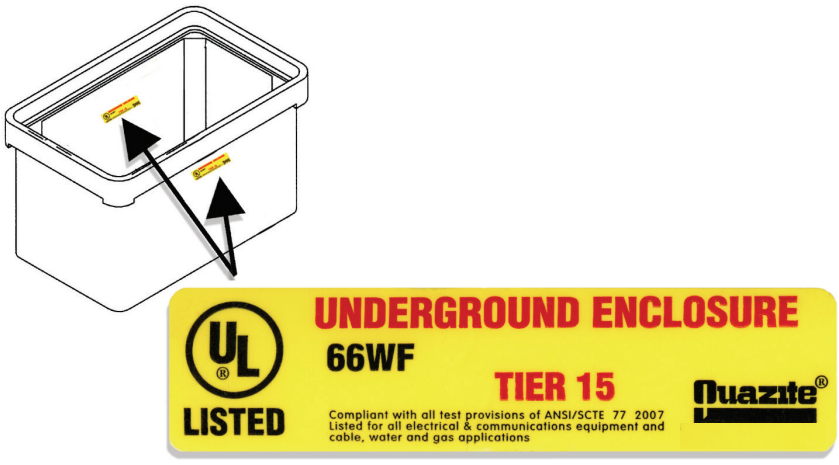
indicates UL Listing

UL Listed Enclosures

Determine if a UL listed enclosure is required for your installation. Federally funded electrical and telecom projects, as well as many state and municipal projects, generally require the use of a UL Listed product whenever one is available.

Most Quazite® polymer concrete underground handhole enclosures in sizes 30" x 48" and smaller are agency listed. These products are clearly marked with the UL label on both the box and underneath the cover. Special order boxes with holes (or mouseholes, etc.) may qualify for UL listing as long as the holes do not exceed more than 25 percent of the area of each sidewall and as long as the holes do not cut into a structural reinforcing rib, corner or box lip.





Highlighted areas indicate UL Listing

various tiers & sizes will be used

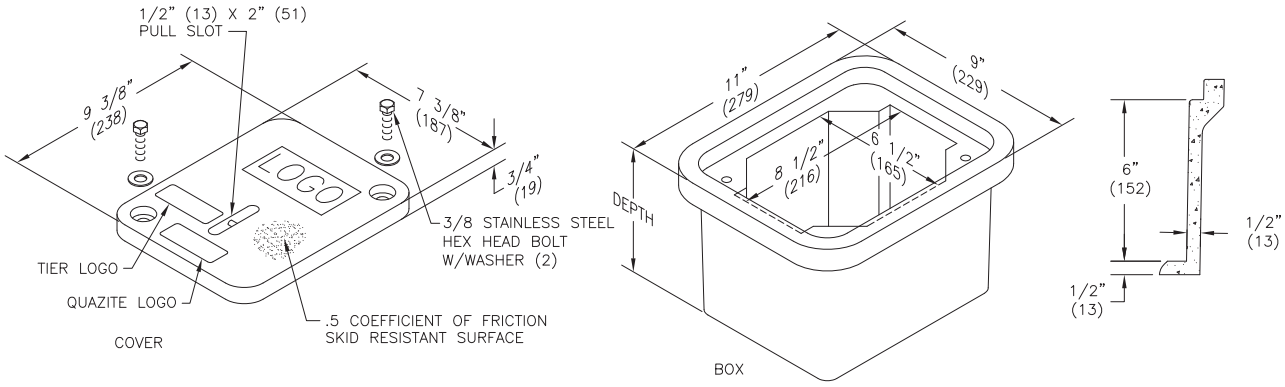
Quazite: Available Size Chart

Style	Size	Depths	Assembly Load Rating Options	UL
PC	6x8	6 3/4	Tier 15	Yes
	8x8	12, 18	Tier 15	Yes
	8x18	7, 8	Tier 8, Tier 15	Yes
	11x18	12, 18	Tier 8	Yes
	12x12	12	Tier 8, Tier 15	Yes
	13x24	12	Tier 5	Yes
	17x30	12	Tier 5	Yes
PD	11x18	12	Tier 8, Tier 15, Tier 22	No
	11x21	12	Tier 8, Tier 15, Tier 22	No
	13x24	12, 18, 26	Tier 8, Tier 15, Tier 22	No
	17x30	12, 18, 26	Tier 8, Tier 15, Tier 22	Yes
	24x36	18, 26, 48	Tier 8, Tier 15, Tier 22	Yes
	30x48	24, 48	Tier 8, Tier 15, Tier 22	Yes
PG	10x15	12	Tier 8, Tier 15, Tier 22	No
	11x18	12, 18	Tier 8, Tier 15, Tier 22	Yes
	11x20	12, 18	Tier 8, Tier 15, Tier 22	No
	13x24	12, 18, 24	Tier 8, Tier 15, Tier 22	Yes
	17x30	12, 18, 22, 24, 30	Tier 8, Tier 15, Tier 22	Yes
	24x24	24*	Tier 8, Tier 15, Tier 22	Yes
	24x36	18, 24, 30, 36, 42*	Tier 8, Tier 15, Tier 22	Yes
	30x48	18, 24, 36, 48*	Tier 8, Tier 15, Tier 22	Yes
	30x60	21, 30, 36	Tier 5, Tier 15, Tier 22	No
	36x36	36*	Tier 8, Tier 15, Tier 22	Yes
	36x60	19, 24, 31, 36*	Tier 5, Tier 15, Tier 22	No
	36x72	21, 36	Tier 5, Tier 15, Tier 22	No
	48x48	36, 48	Tier 5, Tier 15, Tier 22	No
	48x60	48	Tier 22	No
	48x72	36, 48*	Tier 5, Tier 15, Tier 22	No
	48x78	27, 36	Design 12,000 lbs / Test 24,000 lbs	No
	48x96	48*	Tier 5, Tier 15, Tier 22	No
PT	10x15	18	Tier 8, Tier 15	No
	13x24	18	Tier 8, Tier 15	Yes
	17x30	18	Tier 8, Tier 15	Yes
PX	12x12	24	Tier 8, Tier 15	Yes
Median	5x16		Tier 8, Tier 15	No
	10x12		Tier 8, Tier 15	No
Round	27	36, 48	Tier 8, Tier 15, Tier 22	Tier 8 ONLY
	39	18, 24, 36, 48, 72	Tier 8, Tier 15, Tier 22	Yes

*Extensions Available

6" x 8" PC Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



QUAZITE

Covers

	DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	W/ 2 Bolts	15	15,000 / 22,500	4	40	PC0608HA00**
UL	Gasketed w/ 4 Bolts	15	15,000 / 22,500	4	40	PC0608HG00**

Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

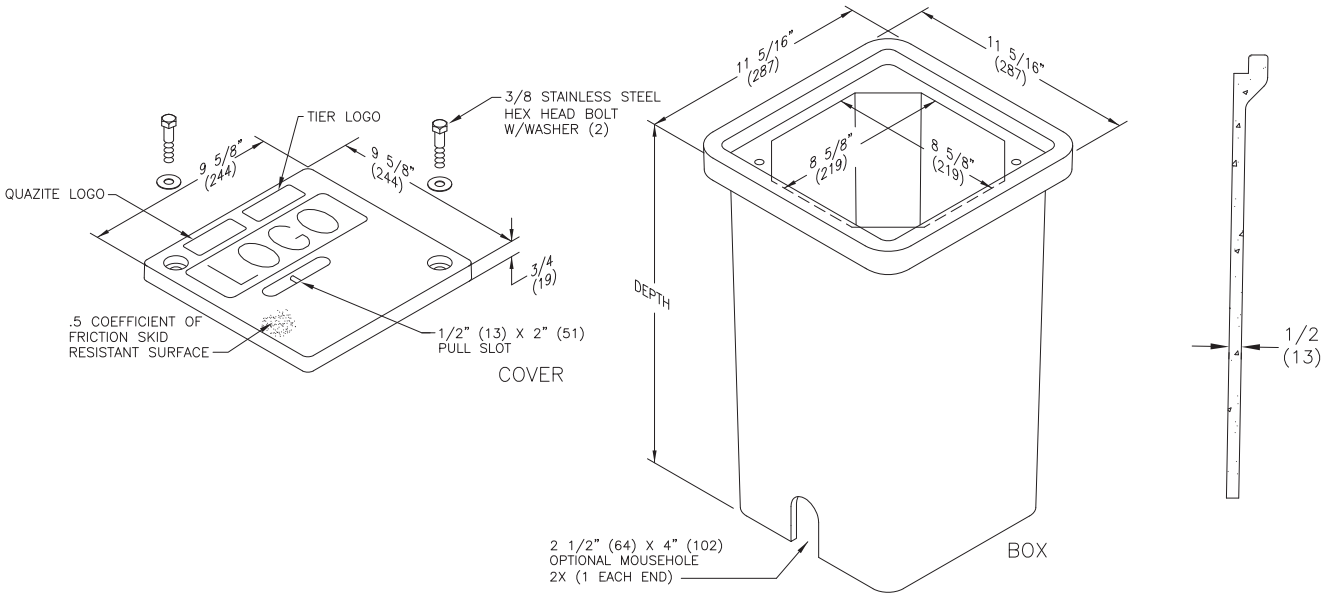
	DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	Standard Open Bottom	6 3/4"	15	15,000 / 22,500	14	160	PC0608BA06
UL	Solid Bottom	7 1/4"	15	15,000 / 22,500	15	160	PC0608DA06

To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

8" x 8" PC Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

	DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	W/ 2 Bolts	15	15,000 / 22,500	6	36	PC0808HA00**
UL	Gasketed w/ 2 Bolts	15	15,000 / 22,500	6	36	PC0808HG00**

Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

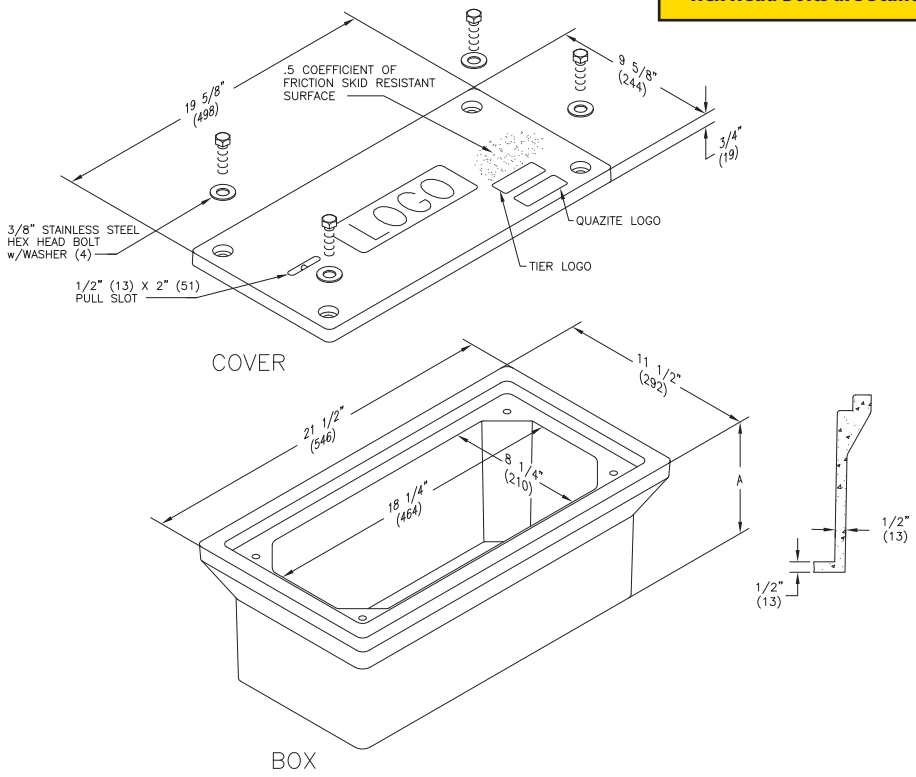
Boxes

	DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	Standard Open Bottom	12"	15	15,000 / 22,500	25	36	PC0808BA12
UL		18"	15	15,000 / 22,500	36	24	PC0808BA18
UL	Solid Bottom	18 1/2"	15	15,000 / 22,500	42	24	PC0808DA18

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

8" x 18" PC Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 4 Bolts	8	8,000 / 12,000	11	20	PC0818CA00**
No Bolts	8	8,000 / 12,000	11	20	PC0818WA00**
W/ 4 Bolts	15	15,000 / 22,500	11	20	PC0818HA00**

Replace ** with a logo code found on page 66.
To order gasketed covers replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

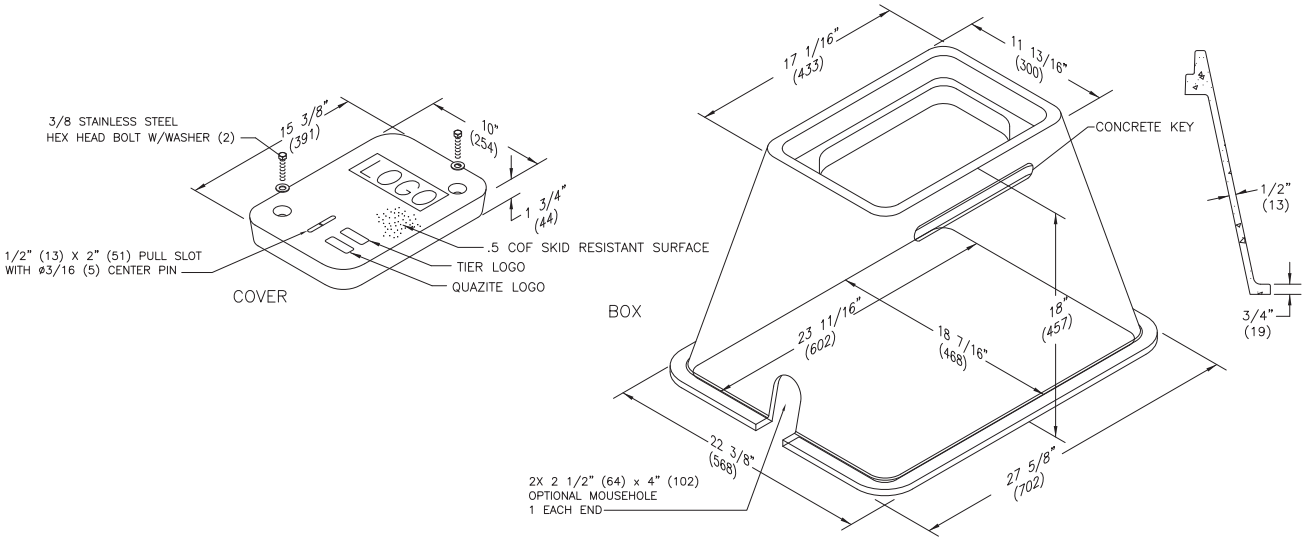
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	7"	15	15,000 / 22,500	25	20	PC0818BA07
	8"	15	15,000 / 22,500	27	20	PC0818BA08
Solid Bottom	7 1/2"	15	15,000 / 22,500	32	20	PC0818DA07
	8 1/2"	15	15,000 / 22,500	35	20	PC0818DA08

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

10" x 15" PT Style Polymer Concrete (Nestable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	20	40	PT1015CA00**
W/ 2 Bolts	15	15,000 / 22,500	20	40	PT1015HA00**
No Bolts	8	8,000 / 12,000	20	40	PT1015WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

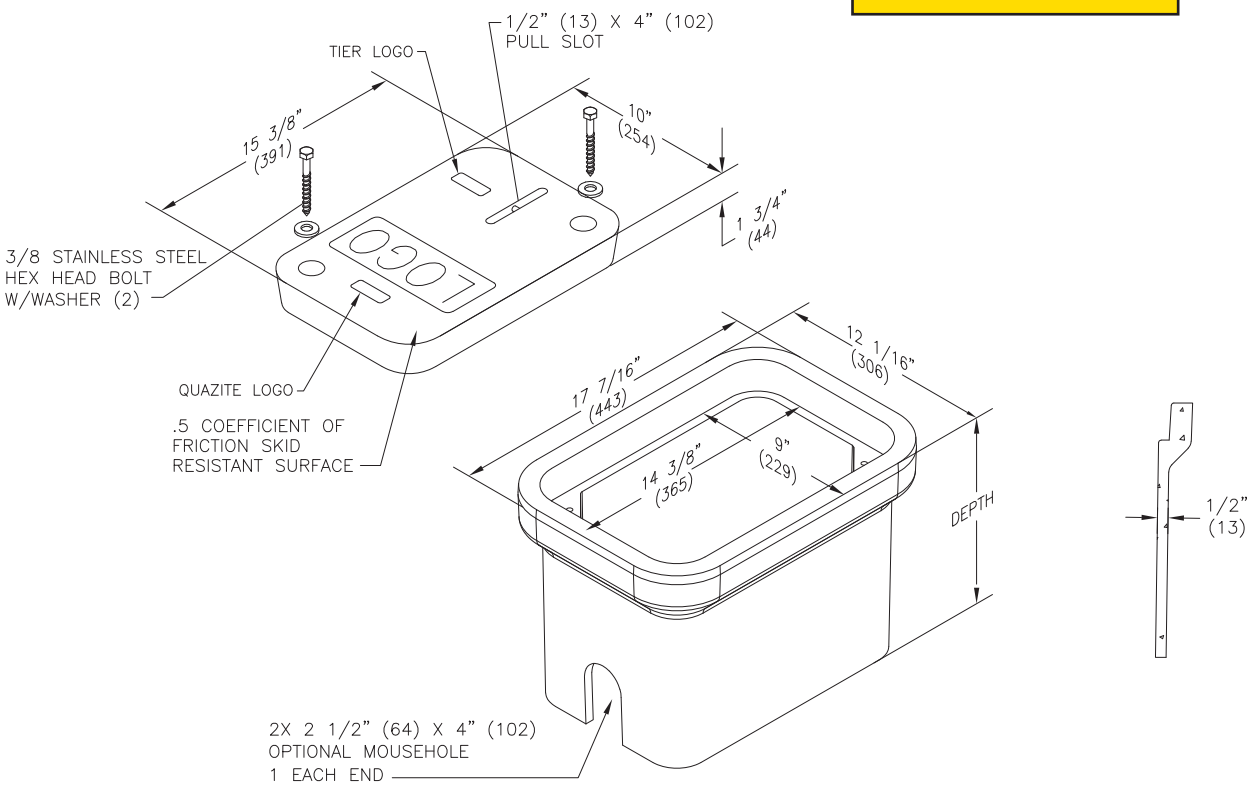
Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	18"	15	15,000 / 22,500	70	5	PT1015BA18

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

10" x 15" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	20	40	PG1015CA00**
No Bolts	8	8,000 / 12,000	20	40	PG1015WA00**
W/ 2 Bolts	15	15,000 / 22,500	20	40	PG1015HA00**
W/ 2 Bolts	22	22,500 / 33,750	20	40	PG1015HH00**

Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

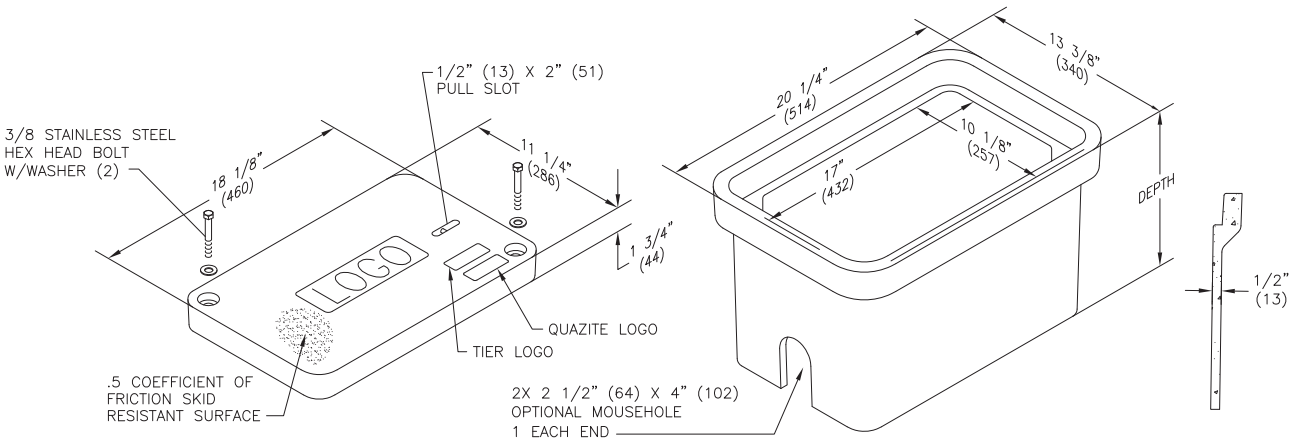
Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	22	22,500 / 33,750	35	35	PG1015BA12

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

11" x 18" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	27	40	PG1118CA00**
W/ 2 Bolts	15	15,000 / 22,500	27	40	PG1118HA00**
No Bolts	8	8,000 / 12,000	27	40	PG1118WA00**
W/ 2 Bolts	22	22,500 / 33,750	27	40	PG1118HH00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

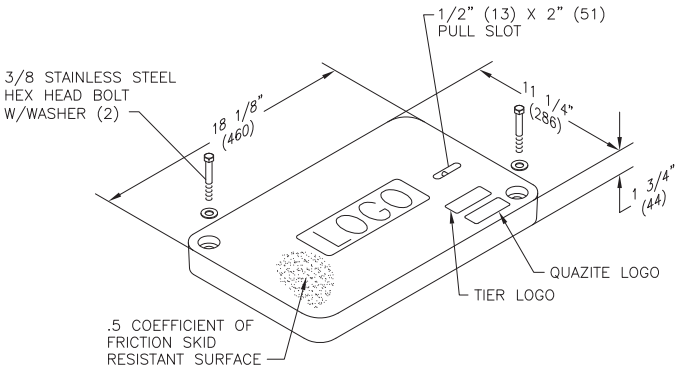
Boxes

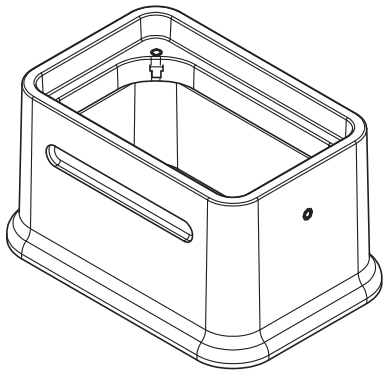
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	22	22,500 / 33,750	40	30	PG1118BA12
Standard Open Bottom	18"	22	22,500 / 33,750	53	24	PG1118BA18
Solid Bottom	12 1/2"	22	22,500 / 33,750	43	30	PG1118DA12
Solid Bottom	18 1/2"	22	22,500 / 33,750	60	24	PG1118DA18
Footed Box	12 1/2"	22	22,500 / 33,750	41	30	PG1118JA12
Footed Box	18 1/2"	22	22,500 / 33,750	55	24	PG1118JA18

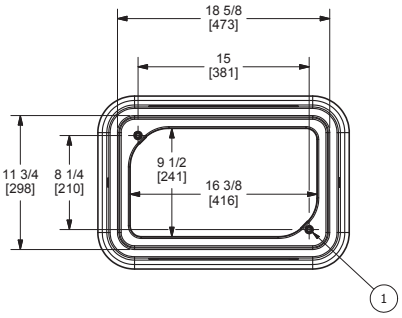
To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

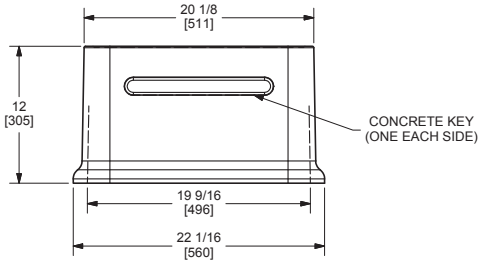
11" x 18" PD Style Polymer Concrete Assembly

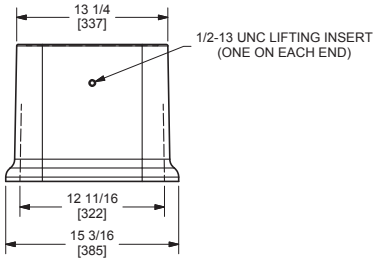
Hex Head Bolts are Standard











Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
No Bolts	8	8,000 / 12,000	27	40	PG1118WA00**
No Bolts	15	15,000 / 22,500	27	40	PG1118H500**
No Bolts	22	22,500 / 33,750	27	40	PG1118H556**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Above covers are non-bolting. If bolts are required, please contact customer service.

Boxes

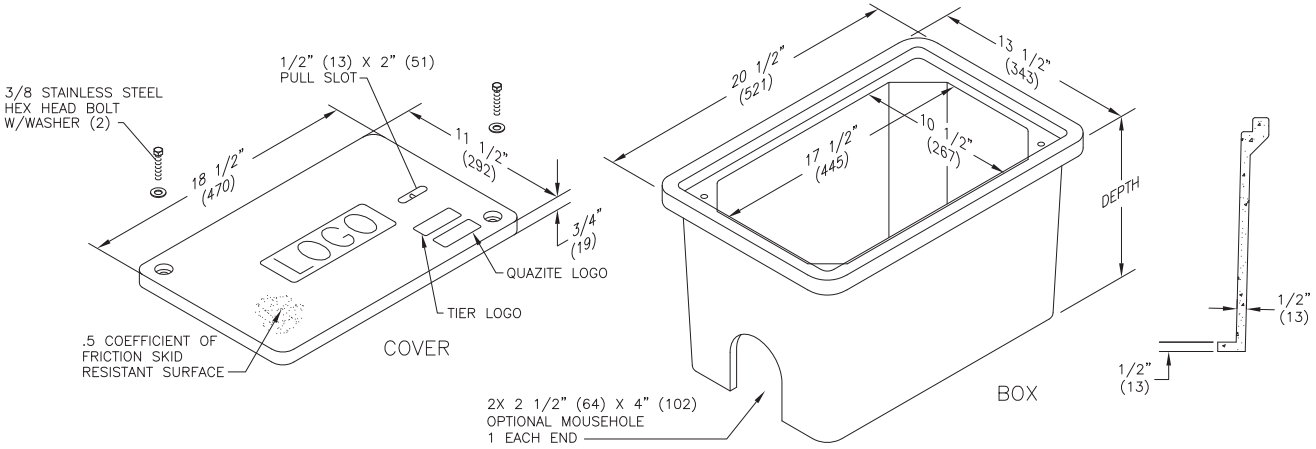
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Std. Open Bottom	12"	22	22,500 / 33,750	51	24	PD1118BA12

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

11" x 18" PC Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

	DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	W/ 2 Bolts	8	8,000 / 12,000	13	40	PC1118CA00**
UL	Gasketed w/ 4 Bolts	8	8,000 / 12,000	13	40	PC1118CG00**
UL	No Bolts	8	8,000 / 12,000	13	40	PC1118WA00**

Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

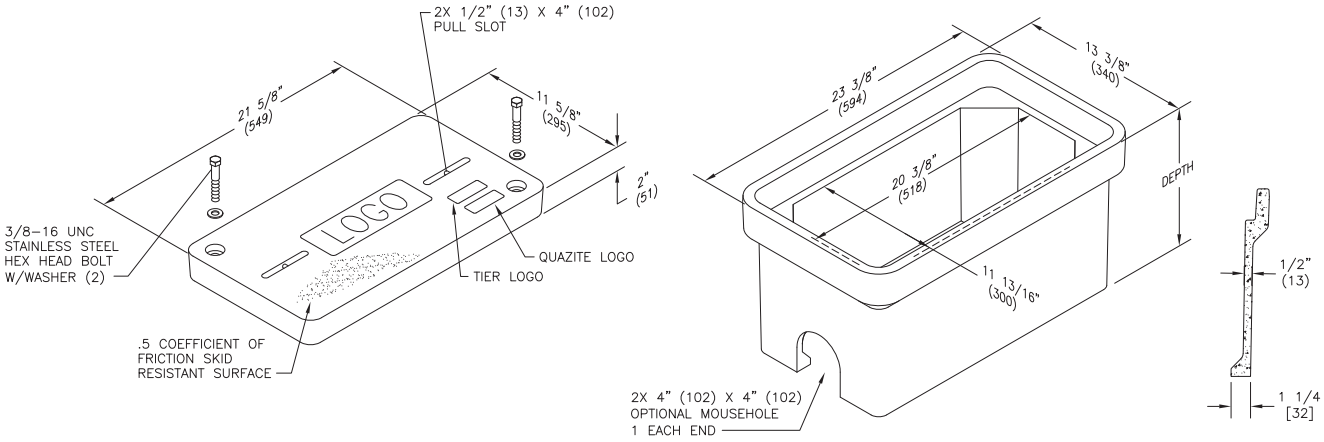
Boxes

	DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	Standard Open Bottom	12"	8	8,000 / 12,000	37	30	PC1118BA12
UL		18"		8,000 / 12,000	53	24	PC1118BA18
UL	Solid Bottom	12 1/2"	8	8,000 / 12,000	45	30	PC1118DA12
UL		18 1/2"		8,000 / 12,000	60	24	PC1118DA18
UL	Footed Box	12 1/2"	8	8,000 / 12,000	37	30	PC1118JA12
UL		18 1/2"		8,000 / 12,000	56	24	PC1118JA18

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

11" x 20" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	28	30	PG1120CA00**
W/ 2 Bolts	15	15,000 / 22,500	38	30	PG1120HA00**
No Bolts	8	8,000 / 12,000	28	30	PG1120WA00**
W/ 2 Bolts	22	22,500 / 33,750	38	30	PG1120HH00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

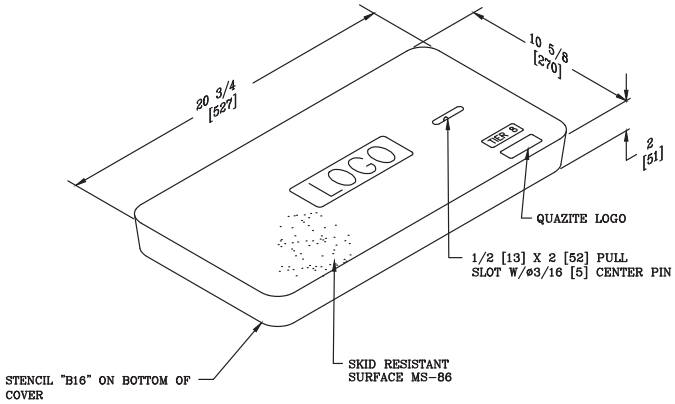
Boxes

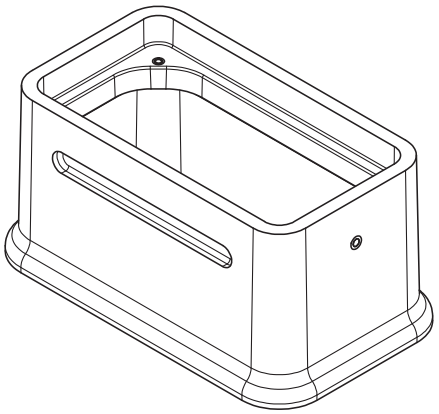
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	22	22,500 / 33,750	50	20	PG1120BA12
	18"		22,500 / 33,750	69	16	PG1120BA18
Solid Bottom	12 1/2"	22	22,500 / 33,750	58	20	PG1120DA12
	18 1/2"		22,500 / 33,750	77	16	PG1120DA18

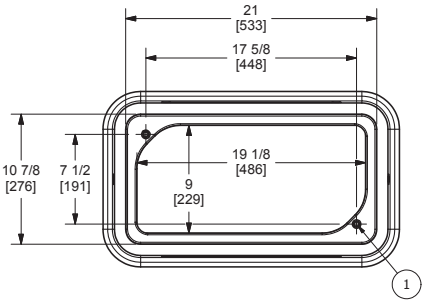
To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

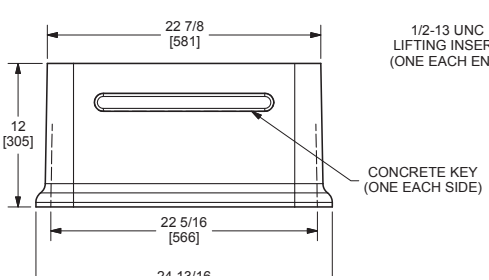
11" x 21" PD Style Polymer Concrete Assembly

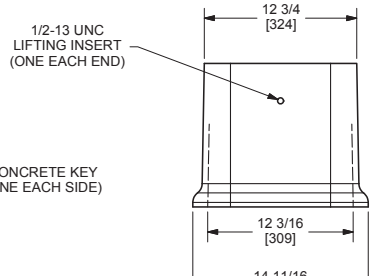
Hex Head Bolts are Standard











Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL No Bolts	8	8,000 / 12,000	33	30	PG1121WA00**
UL No Bolts	15	15,000 / 22,500	33	30	PG1121H512**
UL No Bolts	22	22,500 / 33,750	33	30	PG1121H513**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Above covers are non-bolting. If bolts are required, please contact customer service.

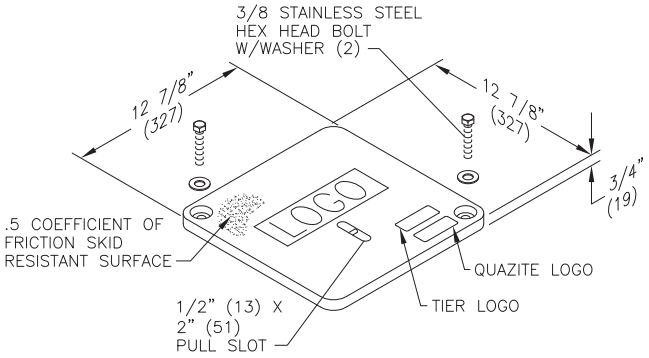
Boxes

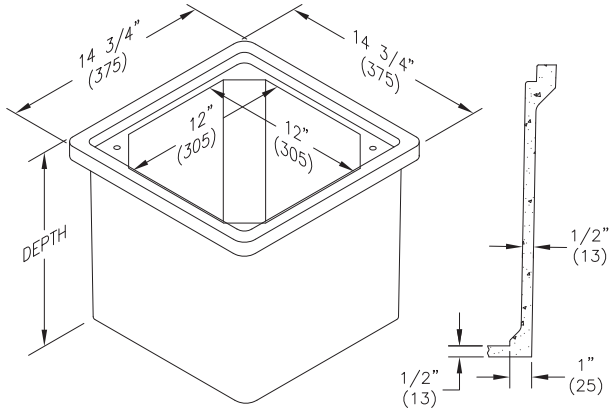
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL Std. Open Bottom	12"	22	22,500 / 33,750	52	24	PD1121BA12

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

12" x 12" PC Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard





Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	12	60	PC1212CA00**
W/ 2 Bolts	15	15,000 / 22,500	12	60	PC1212HA00**
No Bolts	8	8,000 / 12,000	12	60	PC1212WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Gasketed covers are with four bolts.
Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

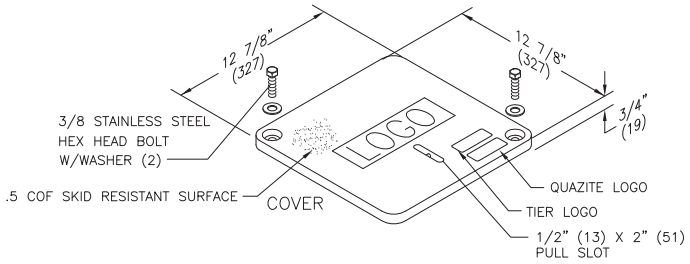
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	15	15,000 / 22,500	36	30	PC1212BA12
Solid Bottom	12 1/2"	15	15,000 / 22,500	41	30	PC1212DA12

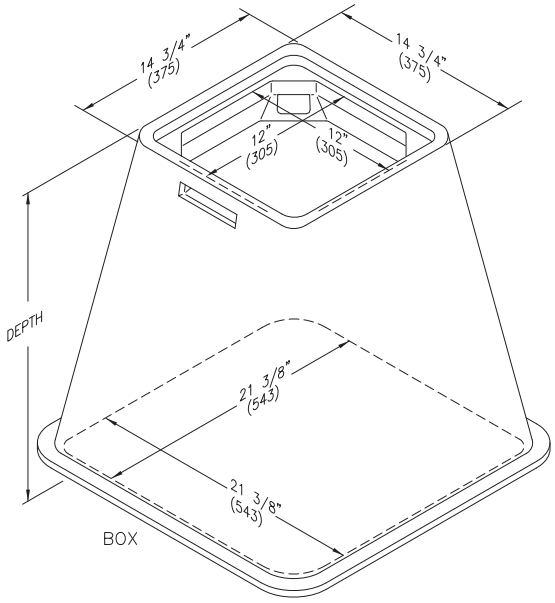
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

12" x 12" PX Style Polymer Concrete (Nestable) Assembly

Dimensions / Data

Hex Head Bolts are Standard





Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	20	60	PC1212CA00**
W/ 2 Bolts	15	15,000 / 22,500	20	60	PC1212HA00**
No Bolts	8	8,000 / 12,000	20	60	PC1212WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Gasketed covers are with four bolts.
Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

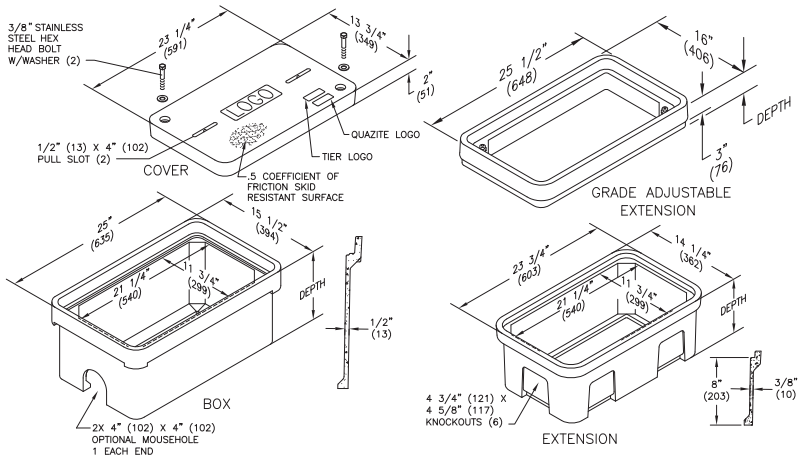
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	24"	15	15,000 / 22,500	85	5	PX1212BA24

To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

13" x 24" PG Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	33	30	PG1324CA00**
W/ 2 Bolts	15	15,000 / 22,500	51	30	PG1324HA00**
W/ 2 Bolts	22	22,500 / 33,750	54	30	PG1324HH00**
No Bolts	8	8,000 / 12,000	33	30	PG1324WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
Available with EZ Locate. See page 71 for more information.

Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	22	22,500 / 33,700	53	20	PG1324BA12
	18"		22,500 / 33,700	72	16	PG1324BA18
	24"		22,500 / 33,700	91	12	PG1324BA24
Solid Bottom	12 1/2"	22	22,500 / 33,700	63	20	PG1324DA12
	18 1/2"		22,500 / 33,700	85	16	PG1324DA18
	24 1/2"		22,500 / 33,700	107	12	PG1324DA24

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".

Extensions (for use under box only, one per box)

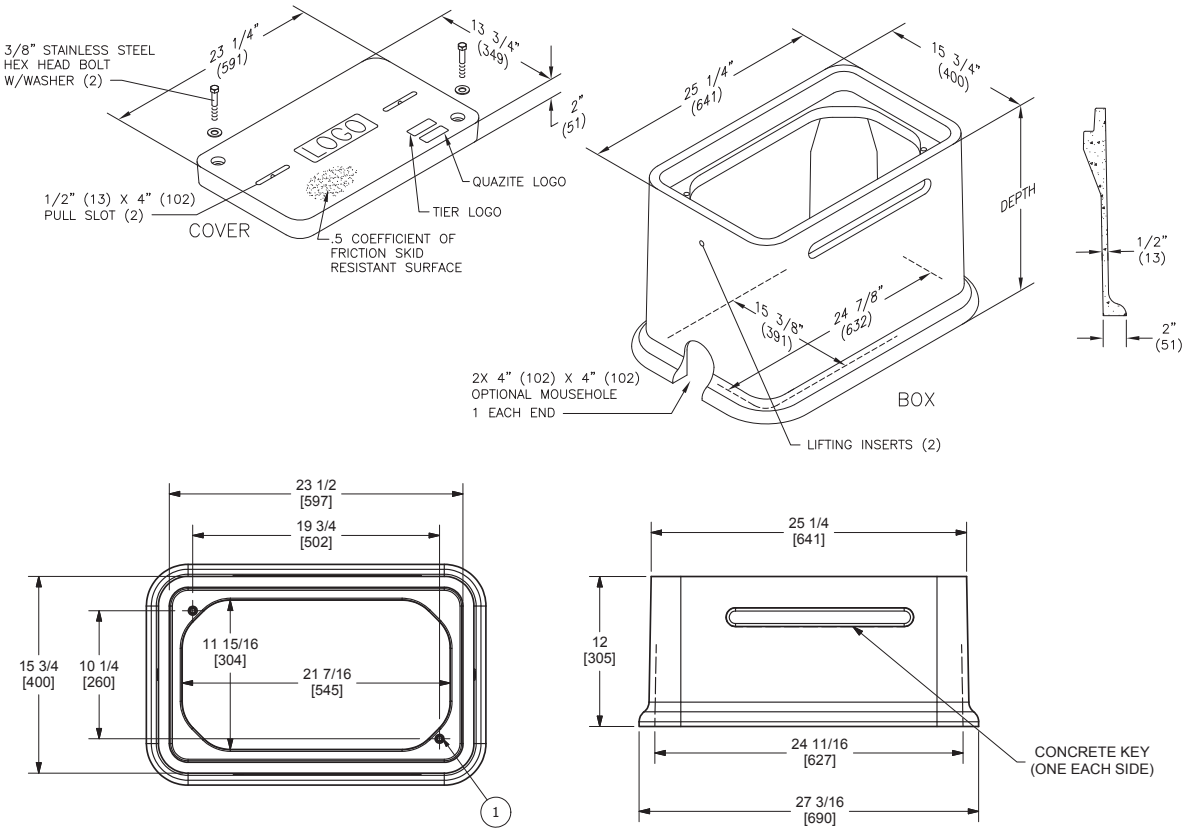
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
8" Open Bottom	8 3/4"	22	22,500 / 33,750	25	24	PG1324EA08
8" Solid Bottom	9 1/4"	22	22,500 / 33,750	35	24	PG1324RA08

Grade Adjustable Extension (for use on top of box only, one per box)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
3" Top Extension	5 1/8"	22	22,500 / 33,750	37	24	PG1324ED03

13" x 24" PD Style Polymer Concrete Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	33	30	PG1324CA00**
W/ 2 Bolts	15	15,000 / 22,500	51	30	PG1324HA00**
W/ 2 Bolts	22	22,500 / 33,750	54	30	PG1324HH00**
No Bolts	8	8,000 / 12,000	33	30	PG1324WA00**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
To order gasketed covers, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

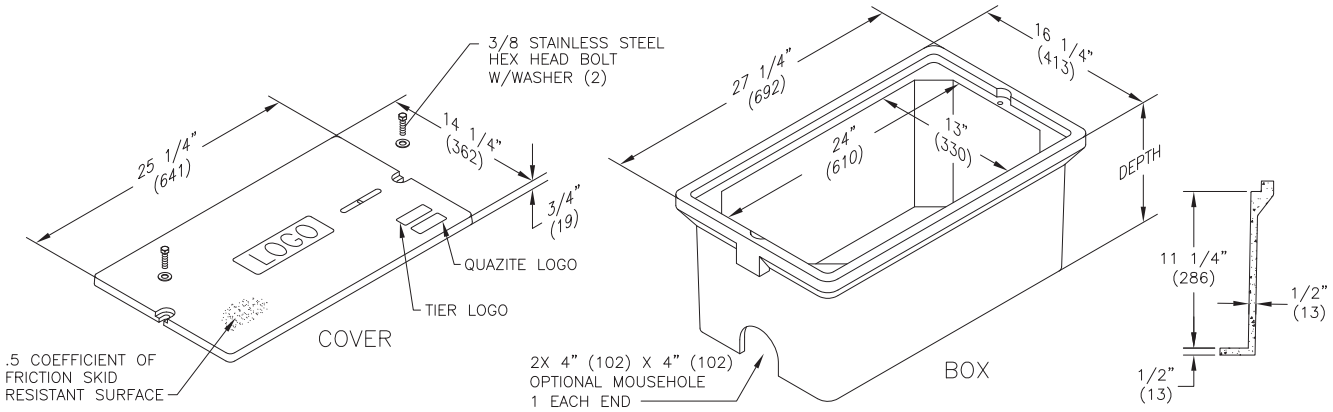
Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	22	22,500 / 33,750	74	4	PD1324BA12
Standard Open Bottom	18"	22	22,500 / 33,750	104	4	PD1324BA18
Open Bottom	26"	22	22,500 / 33,750	133	4	PD1324BA26

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

13" x 24" PC Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	5	5,000 / 7,500	23	40	PC1324CA00**
No Bolts	5	5,000 / 7,500	23	40	PC1324WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

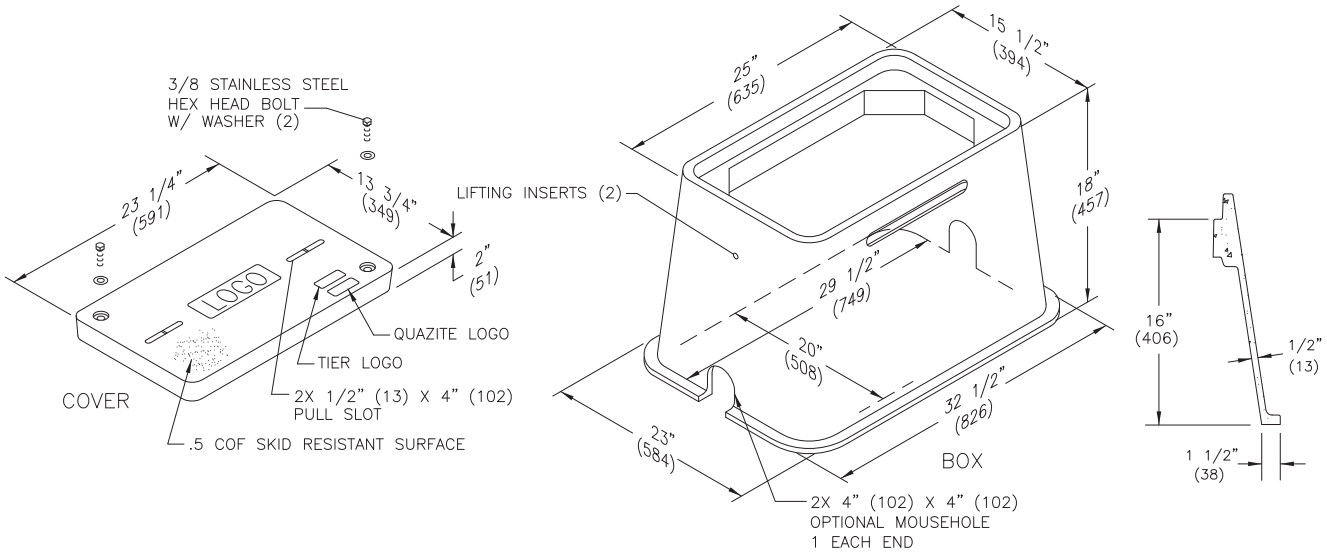
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	5	5,000 / 7,500	50	20	PC1324BA12
Solid Bottom	12 1/2"	5	5,000 / 7,500	60	20	PC1324DA12
Footed Box	12 1/2"	5	5,000 / 7,500	57	20	PC1324JA12

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

13" x 24" PT Style Polymer Concrete (Nestable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	32	30	PT1324CA00**
W/ 2 Bolts	15	15,000 / 22,500	49	30	PT1324HA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

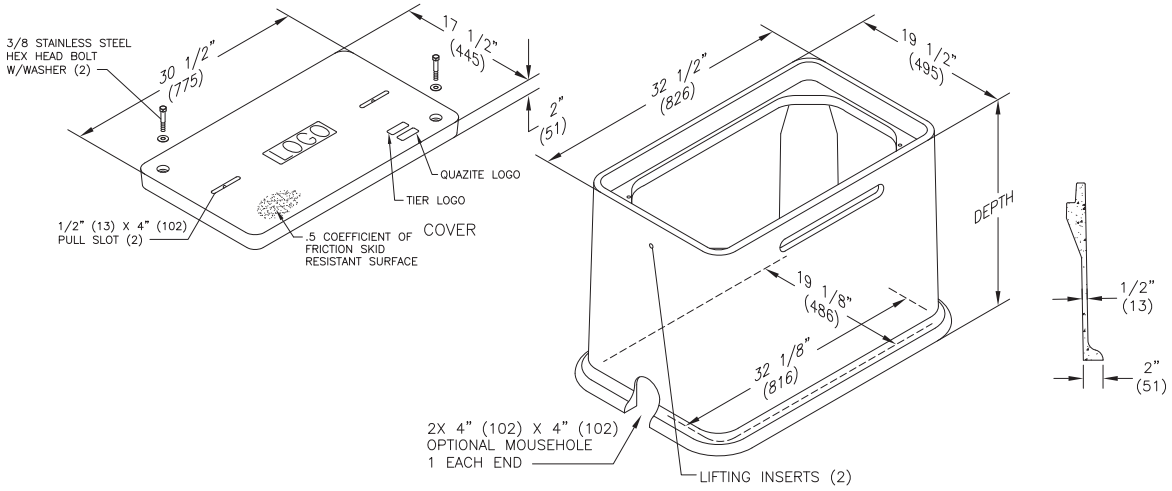
Boxes

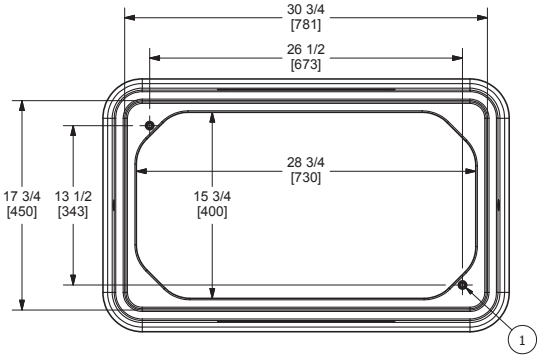
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	18"	15	15,000 / 22,500	97	5	PT1324BA18

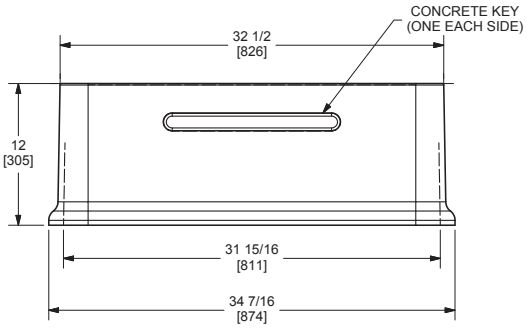
To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

17" x 30" PD Style Polymer Concrete Assembly

Hex Head Bolts are Standard







Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	52	20	PG1730CA00**
W/ 2 Bolts	15	15,000 / 22,500	83	20	PG1730HA00**
W/ 2 Bolts	22	22,500 / 33,750	83	20	PG1730HH00**
No Bolts	8	8,000 / 12,000	52	20	PG1730WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

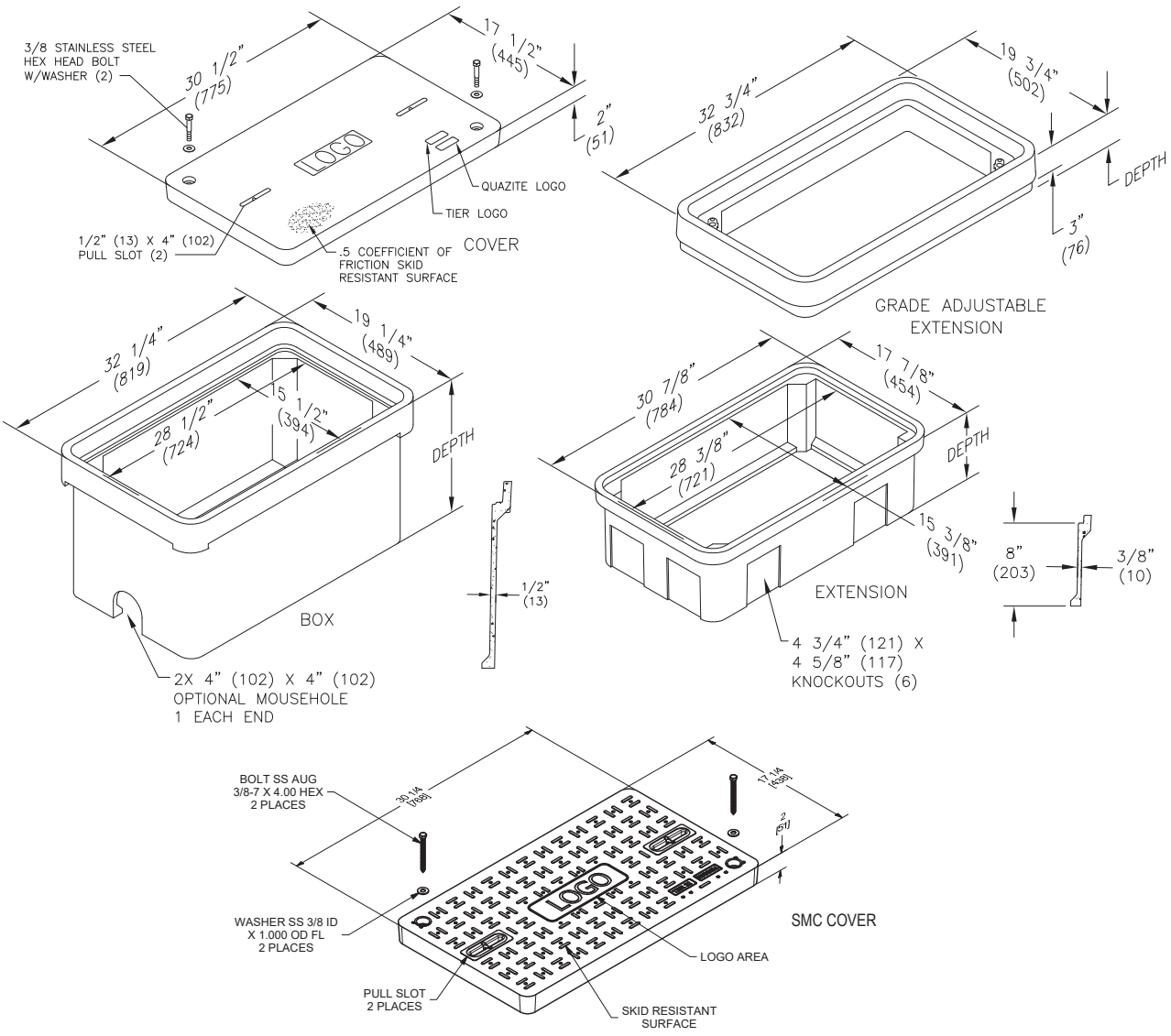
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	22	22,500 / 33,750	84	4	PD1730BA12
Standard Open Bottom	18"	22	22,500 / 33,750	129	4	PD1730BA18
Open Bottom	26"	22	22,500 / 33,750	166	4	PD1730BA26

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

17" x 30" PG Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	52	20	PG1730CA00**
W/ 2 Bolts	15	15,000 / 22,500	83	20	PG1730HA00**
W/ 2 Bolts	22	22,500 / 33,750	83	20	PG1730HH00**
No Bolts	8	8,000 / 12,000	52	20	PG1730WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
Available with EZ Locate. See page 71 for more information.

17" x 30" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard

SMC Covers Only

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
SMC 1 piece W/ 2 Bolts	15	15,000/22,500	29	10	SM1730HA00**
SMC 1 piece W/ 2 Bolts	22	22,500/33,750	29	10	SM1730HH00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes (box depths 22" thru 30" must be used as bottom of any stack)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	22	22,500 / 33,750	67	10	PG1730BA12
	18"		22,500 / 33,750	94	8	PG1730BA18
	22"		22,500 / 33,750	106	6	PG1730BA22
	24"		22,500 / 33,750	122	6	PG1730BA24
	30"		22,500 / 33,750	144	4	PG1730BA30
Solid Bottom	12 1/2"	22	22,500 / 33,750	85	10	PG1730DA12
	18 1/2"		22,500 / 33,750	112	8	PG1730DA18
	22 1/2"		22,500 / 33,750	124	6	PG1730DA22
	24 1/2"		22,500 / 33,750	137	6	PG1730DA24
	30 1/2"		22,500 / 33,750	150	4	PG1730DA30

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed cover and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Bottom Extensions (for use under 12" and 18" boxes only, one per box)

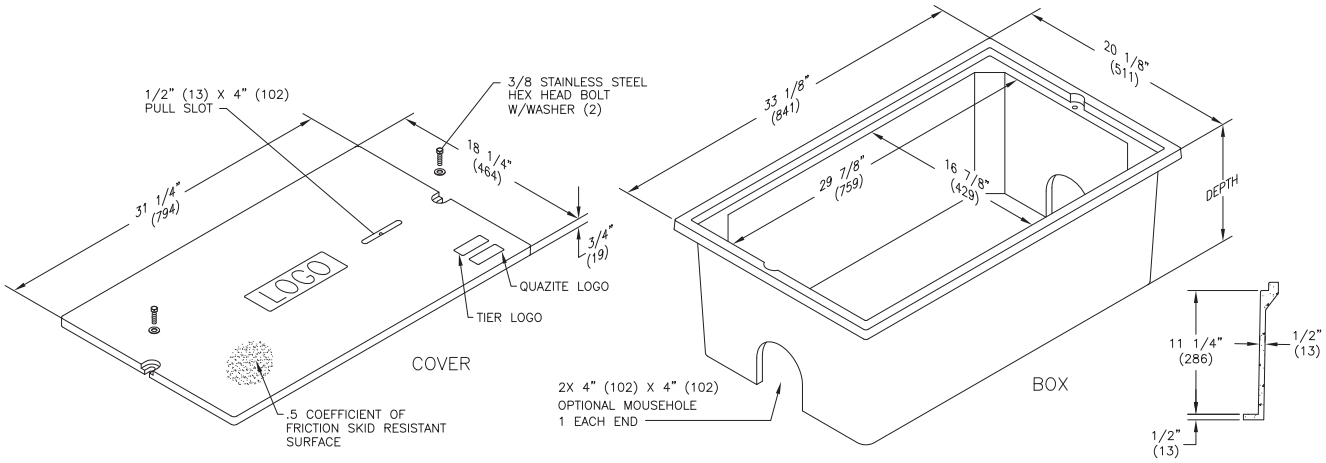
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom	8 3/4"	22	22,500 / 33,750	36	12	PG1730EA08
Solid Bottom	9 1/4"	22	22,500 / 33,750	55	12	PG1730RA08

Grade Adjustable Extension (for use on top of box only, one per box)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
3" Top Extension	5 1/8"	22	22,500 / 33,750	48	12	PG1730ED03

17" x 30" PC Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	5	5,000 / 7,500	33	30	PC1730CA00**
No Bolts	5	5,000 / 7,500	33	30	PC1730WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

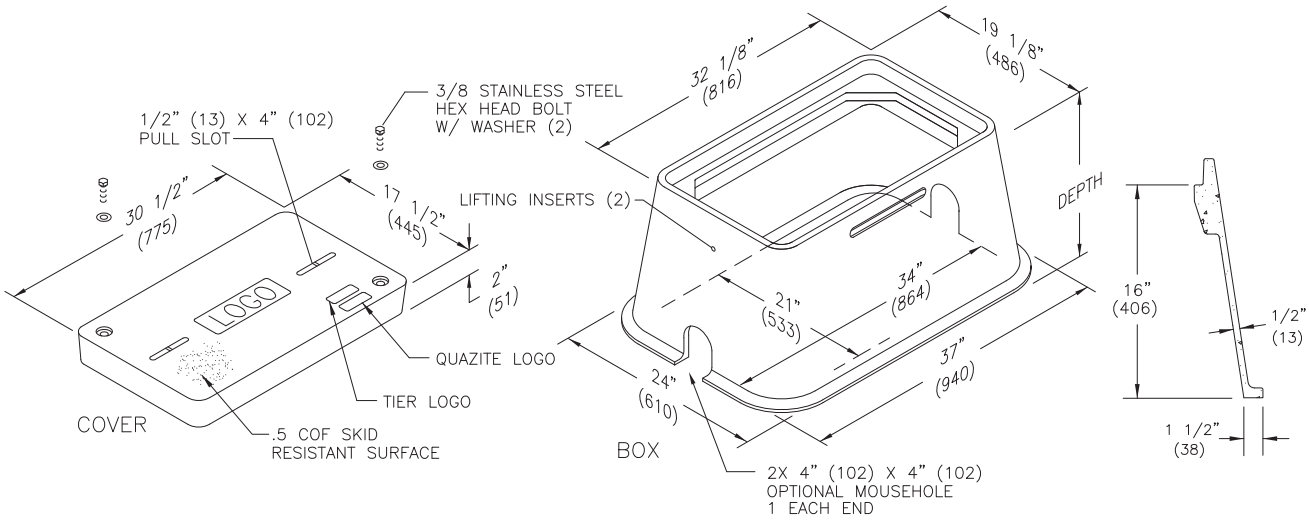
Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	12"	5	5,000 / 7,500	58	10	PC1730BA12
Solid Bottom	12 1/2"	5	5,000 / 7,500	83	10	PC1730DA12
Footed Box	12 1/2"	5	5,000 / 7,500	67	10	PC1730JA12

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

17" x 30" PT Style Polymer Concrete (Nestable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	52	20	PT1730CA00**
W/ No Bolts	8	8,000 / 12,000	52	20	PT1730WA00**
W/ 2 Bolts	15	15,000 / 22,500	83	20	PT1730HA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

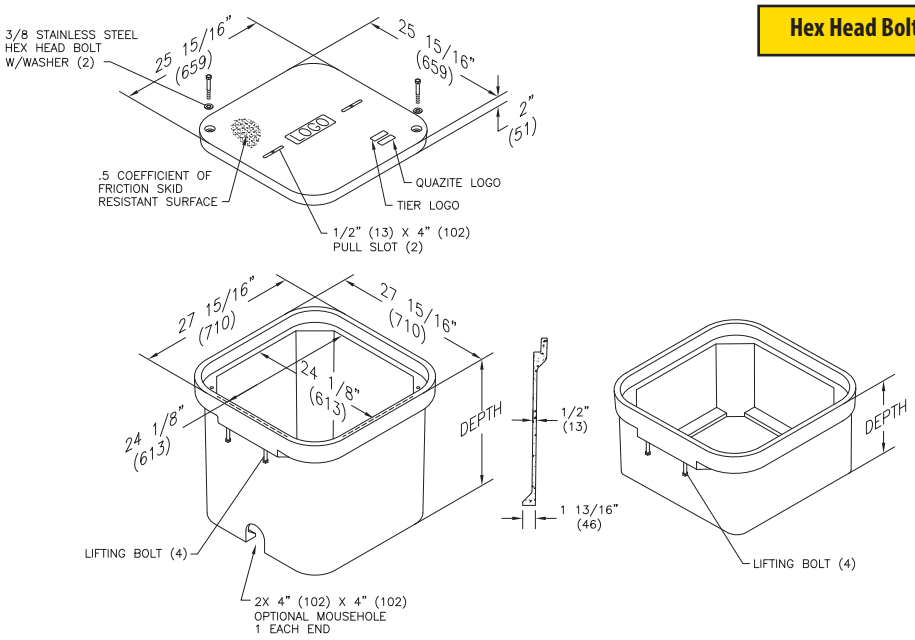
Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	18"	15	15,000 / 22,500	126	5	PT1730BA18

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

24" x 24" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	70	10	PG2424CA00**
W/ 2 Bolts	15	15,000 / 22,500	100	10	PG2424HA00**
W/ 2 Bolts	22	22,500 / 33,750	100	10	PG2424HH00**
No Bolts	8	8,000 / 12,000	70	10	PG2424WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	24"	22	22,500 / 33,750	165	2	PG2424BA24
Solid Bottom	24 1/2"	22	22,500 / 33,750	185	2	PG2424DA24

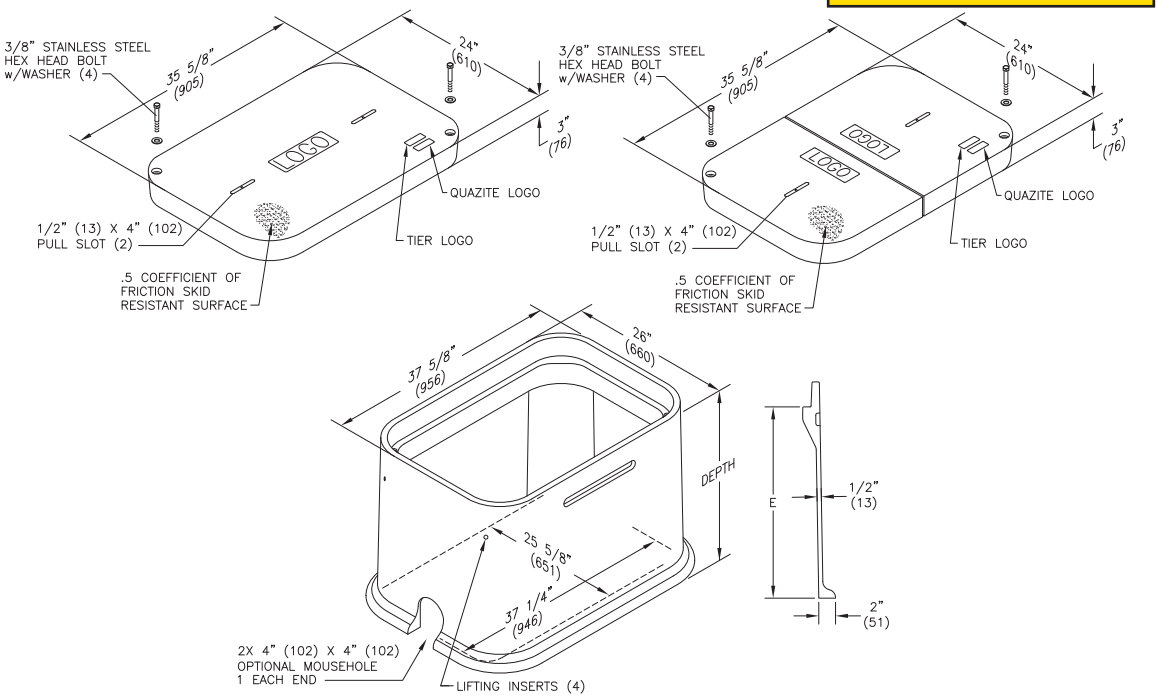
To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Extensions (open bottom can be used as top or bottom; solid bottom is bottom extension only)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom	14"	22	22,500 / 33,750	112	6	PG2424EA12
Solid Bottom	14 1/2"	22	22,500 / 33,750	130	6	PG2424RA12

24" x 36" PD Style Polymer Concrete Assembly

Hex Head Bolts are Standard



Covers

	DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	W/ 2 Bolts	8	8,000 / 12,000	100	10	PG2436CA00**
	2 Piece w/ 2 Bolts	8	8,000 / 12,000	122	10	PG2436CS00**
UL	W/ 2 Bolts	15	15,000 / 22,500	115	10	PG2436HA00**
UL	2 Piece w/ 2 Bolts	15	15,000 / 22,500	122	10	PG2436HS00**
UL	W/ 2 Bolts	22	22,500 / 33,750	122	10	PG2436HH00**
	2 Piece w/ 2 Bolts	22	22,500 / 33,750	202	10	PG2436H544**
UL	No Bolts	8	8,000 / 12,000	100	10	PG2436WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

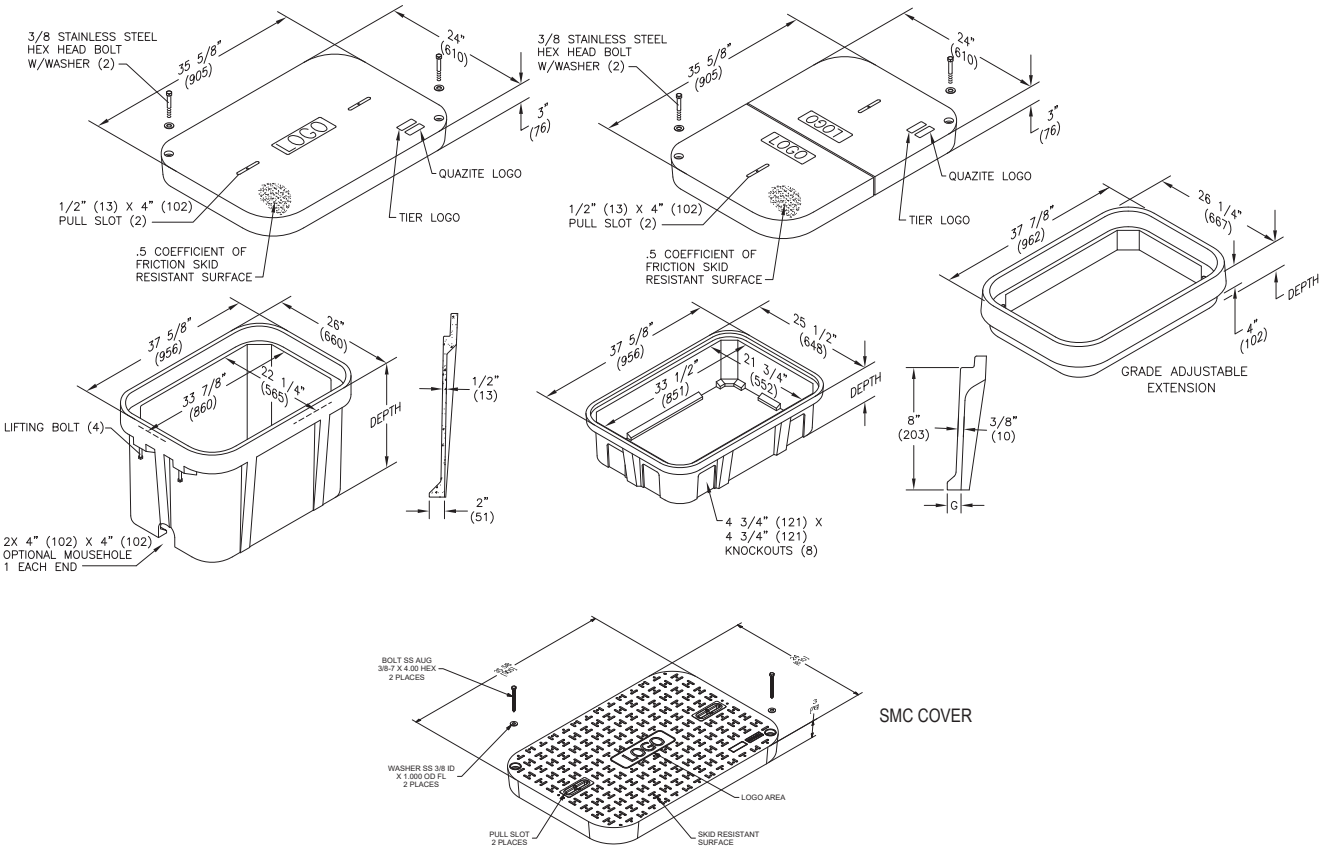
	DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	Standard Open Bottom	18"	22	22,500 / 33,750	159	2	PD2436BA18
UL		26"	22	22,500 / 33,750	199	2	PD2436BA26
		48"	22	22,500 / 33,750	313	1	PD2436BA48

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

24" x 36" PG Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

	DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	W/ 2 Bolts	8	8,000 / 12,000	100	10	PG2436CA00**
	2 Piece w/ 2 Bolts	8	8,000 / 12,000	122	10	PG2436CS00**
UL	W/ 2 Bolts	15	15,000 / 22,500	115	10	PG2436HA00**
UL	2 Piece w/ 2 Bolts	15	15,000 / 22,500	122	10	PG2436HS00**
UL	W/ 2 Bolts	22	22,500 / 33,750	122	10	PG2436HH00**
	2 Piece w/ 2 Bolts	22	22,500 / 33,750	202	10	PG2436H544**
UL	No Bolts	8	8,000 / 12,000	100	10	PG2436WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
Available with EZ Locate. See page 71 for more information.

24" x 36" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard

SMC Covers Only

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
SMC 1 piece W/ 2 Bolts	15	15,000/22,500	51	10	SM2436HA00***
SMC 1 piece W/ 2 Bolts	22	22,500/33,750	51	10	SM2436HH00***

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes (box depths 24" thru 42" must be used as bottom of any stack)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	18"	22	22,500 / 33,750	141	4	PG2436BA18
	24"		22,500 / 33,750	180	3	PG2436BA24
	30"		22,500 / 33,750	196	2	PG2436BA30
	36"		22,500 / 33,750	254	2	PG2436BA36
	42"		22,500 / 33,750	293	1	PG2436BA42
Solid Bottom	18 1/2"	22	22,500 / 33,750	171	4	PG2436DA18
	24 1/2"		22,500 / 33,750	228	3	PG2436DA24
	30 1/2"		22,500 / 33,750	238	2	PG2436DA30
	36 1/2"		22,500 / 33,750	282	2	PG2436DA36
	42 1/2"		22,500 / 33,750	321	1	PG2436DA42

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Bottom Extensions (for use under 18" boxes only, one per box)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom	8 3/4"	22	22,500 / 33,750	81	6	PG2436EA08
Solid Bottom	9 1/4"	22	22,500 / 33,750	95	6	PG2436RA08

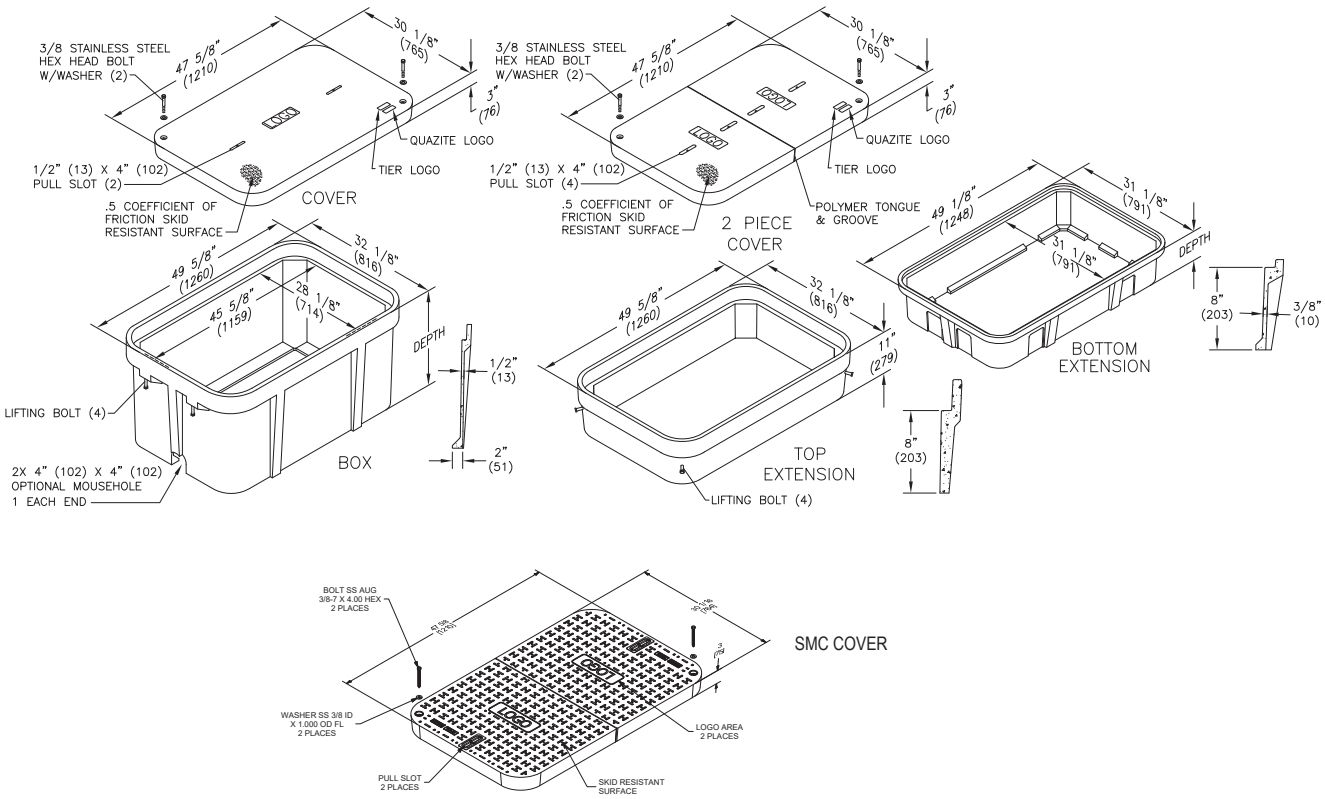
Grade Adjustable Extension

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
4" Top Extension, 1/2 Thread	7 1/8"	22	22,500 / 33,750	80	6	PG2436ED04
4" Top Extension, 3/8 Thread	7 1/8"	22	22,500 / 33,750	80	6	PG2436E503

30" x 48" PG Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

	DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	W/ 2 Bolts	8	8,000 / 12,000	159	10	PG3048CA00**
	2 Piece w/ 2 Bolts	8	8,000 / 12,000	181	10	PG3048CS00**
UL	W/ 2 Bolts	15	15,000 / 22,500	206	10	PG3048HA00**
UL	2 Piece w/ 2 Bolts	15	15,000 / 22,500	206	10	PG3048HS00**
UL	W/ 2 Bolts	22	22,500 / 33,750	220	10	PG3048HH00**
	2 Piece w/ 2 Bolts	22	22,500 / 33,750	202	10	PG3048H510**
UL	No Bolts	8	8,000 / 12,000	159	10	PG3048WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
Available with EZ Locate. See page 71 for more information.

30" x 48" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard

SMC Covers Only

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
SMC 2 piece W/ 2 Bolts	15	15,000/22,500	111	10	SM3048HA00***
SMC 2 piece W/ 2 Bolts	22	22,500/33,750	111	10	SM3048HH00***

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes (box depths 24" thru 48" must be used as bottom of any stack)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	18"	22	22,500 / 33,750	185	4	PG3048BA18
	24"		22,500 / 33,750	236	3	PG3048BA24
	36"		22,500 / 33,750	343	2	PG3048BA36
	48"		22,500 / 33,750	450	1	PG3048BA48
Solid Bottom	18 1/2"	22	22,500 / 33,750	220	4	PG3048DA18
	24 1/2"		22,500 / 33,750	287	3	PG3048DA24
	36 1/2"		22,500 / 33,750	394	2	PG3048DA36
	48"		22,500 / 33,750	501	1	PG3048DA48

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Top Extension

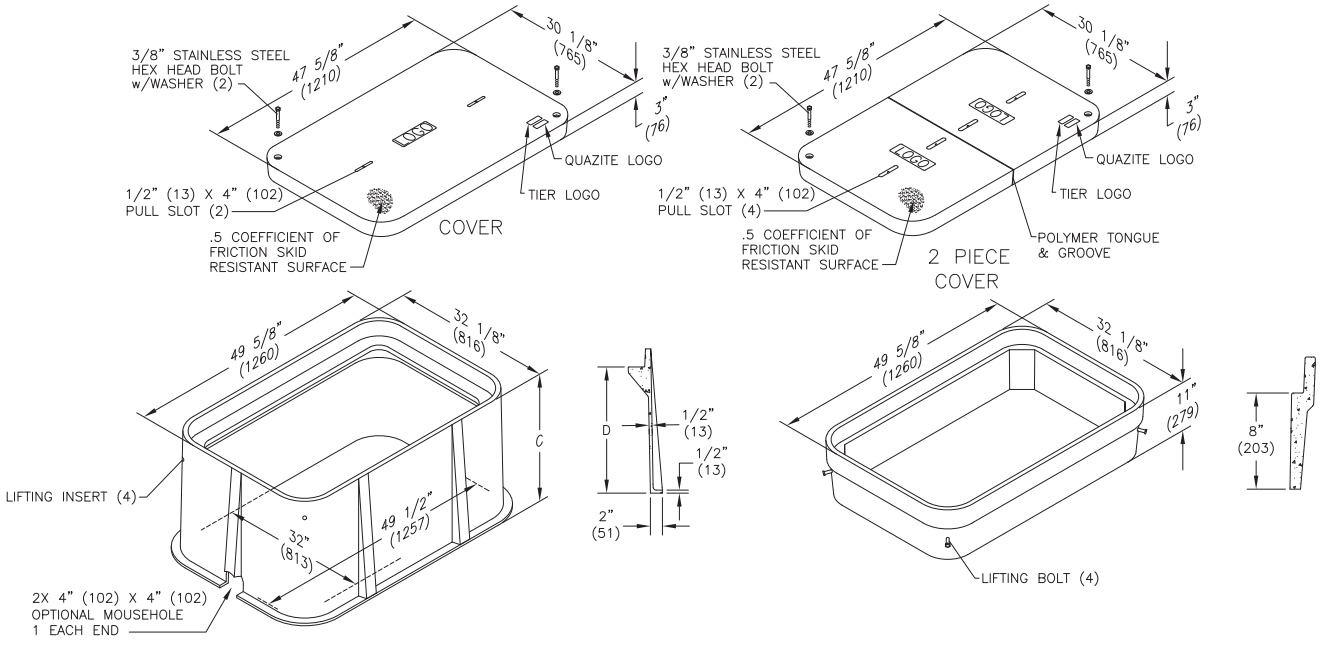
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom	11"	22	22,500 / 33,750	100	8	PG3048EA11

Bottom Extensions (for use under 18" box only, one per box)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom	8 3/4"	22	22,500 / 33,750	102	8	PG3048EA08
Solid Bottom	9 1/4"	22	22,500 / 33,750	151	8	PG3048RA08

30" x 48" PD Style Polymer Concrete (Nestable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 2 Bolts	8	8,000 / 12,000	159	10	PG3048CA00**
2 Piece w/ 2 Bolts	8	8,000 / 12,000	181	10	PG3048CS00**
W/ 2 Bolts	15	15,000 / 22,500	206	10	PG3048HA00**
2 Piece w/ 2 Bolts	15	15,000 / 22,500	206	10	PG3048HS00**
W/ 2 Bolts	22	22,500 / 33,750	220	10	PG3048HH00**
2 Piece w/ 2 Bolts	22	22,500 / 33,750	202	10	PG3048H510**
No Bolts	8	8,000 / 12,000	159	10	PG3048WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

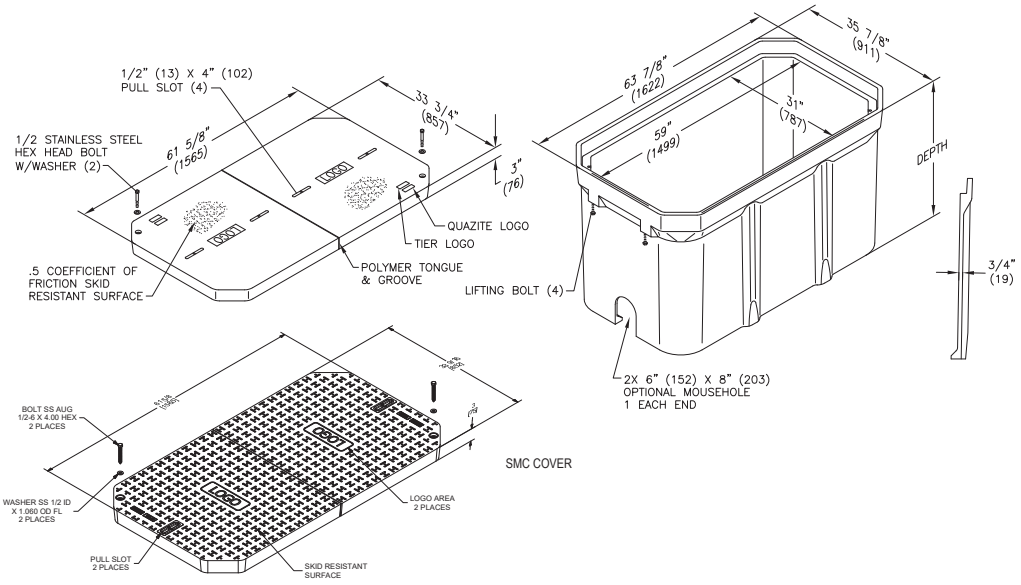
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	24"	22	22,500 / 33,750	286	2	PD3048BA24
	48"	22	22,500 / 33,750	614	1	PD3048BA48

Top Extension

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom	11"	22	22,500 / 33,750	100	8	PG3048EA11

30" x 60" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Lightweight 2 Bolts	5	5,000 / 7,500	228	10	LG3060CA00**
W/ 2 Bolts	15	15,000 / 22,500	346	10	PG3060HA00**
W/ 2 Bolts	22	22,500 / 33,750	368	10	PG3060HH00**
Lightweight No Bolts	5	5,000 / 7,500	228	10	LG3060WA00**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.

SMC Covers Only

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
SMC 2 piece W/ 2 Bolts	15	15,000/22,500	159	10	SM3060HA00***
SMC 2 piece W/ 2 Bolts	22	22,500/33,750	159	10	SM3060HH00***

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.

Boxes (box depths 30" and 36" must be used as bottom of any stack)

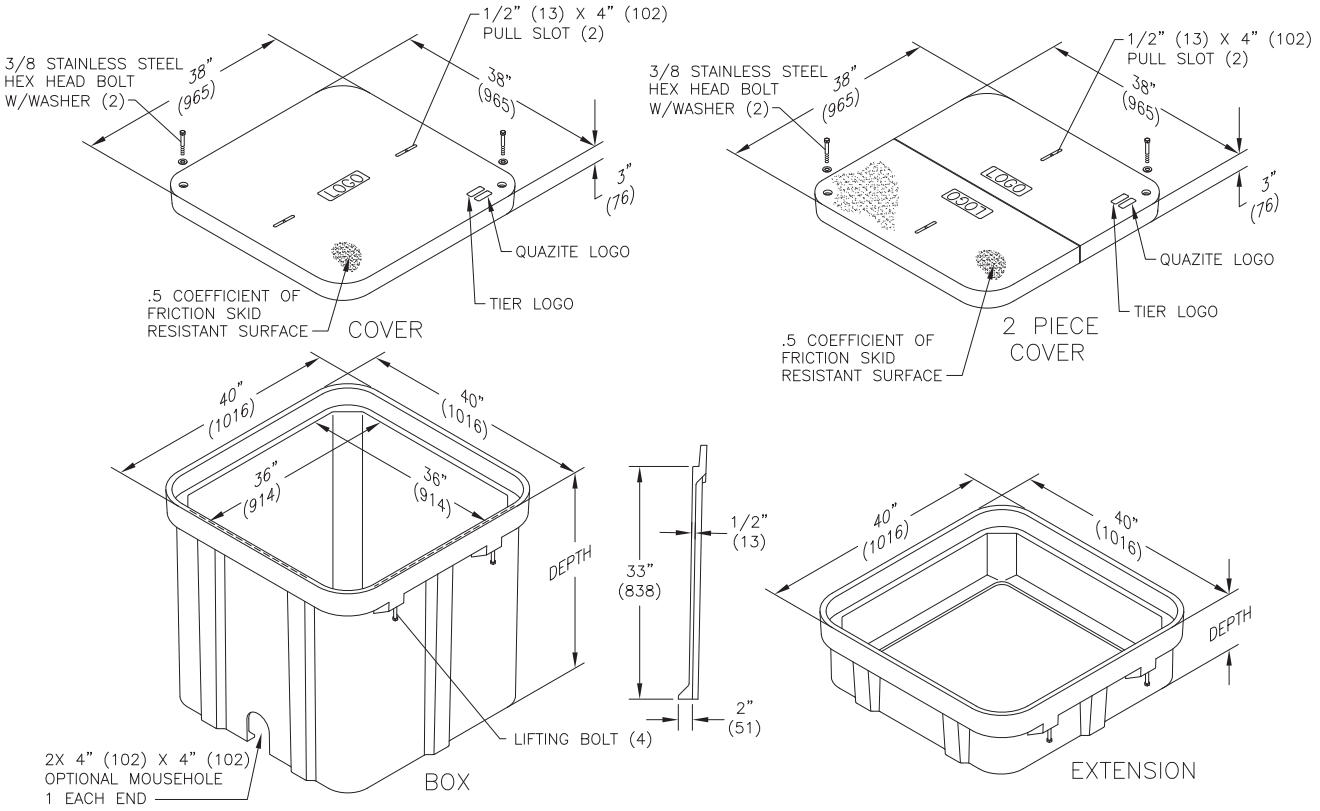
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	21"	22	22,500 / 33,750	350	4	PG3060BA21
	30"		22,500 / 33,750	492	3	PG3060BA30
	36"		22,500 / 33,750	565	2	PG3060BA36
Solid Bottom	21 1/2"	22	22,500 / 33,750	420	4	PG3060DA21
	30 1/2"		22,500 / 33,750	532	3	PG3060DA30
	36 1/2"		22,500 / 33,750	601	2	PG3060DA36

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".

36" x 36" PG Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

	DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	W/ 2 Bolts	8	8,000 / 12,000	174	10	PG3636CA00**
	2 Piece w/ 2 Bolts	8	8,000 / 12,000	220	10	PG3636CS00**
UL	W/ 2 Bolts	15	15,000 / 22,500	220	10	PG3636HA00**
UL	2 Piece w/ 2 Bolts	15	15,000 / 22,500	220	10	PG3636HS00**
UL	W/ 2 Bolts	22	22,500 / 33,750	330	10	PG3636HH00**
	2 Piece w/ 2 Bolts	22	22,500 / 33,750	202	10	PG3636H517**
UL	No Bolts	8	8,000 / 12,000	174	10	PG3636WA00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

36" x 36" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard

Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	36"	22	22,500 / 33,750	367	2	PG3636BA36
Solid Bottom	36 1/2"		22,500 / 33,750	407	2	PG3636DA36

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".
To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

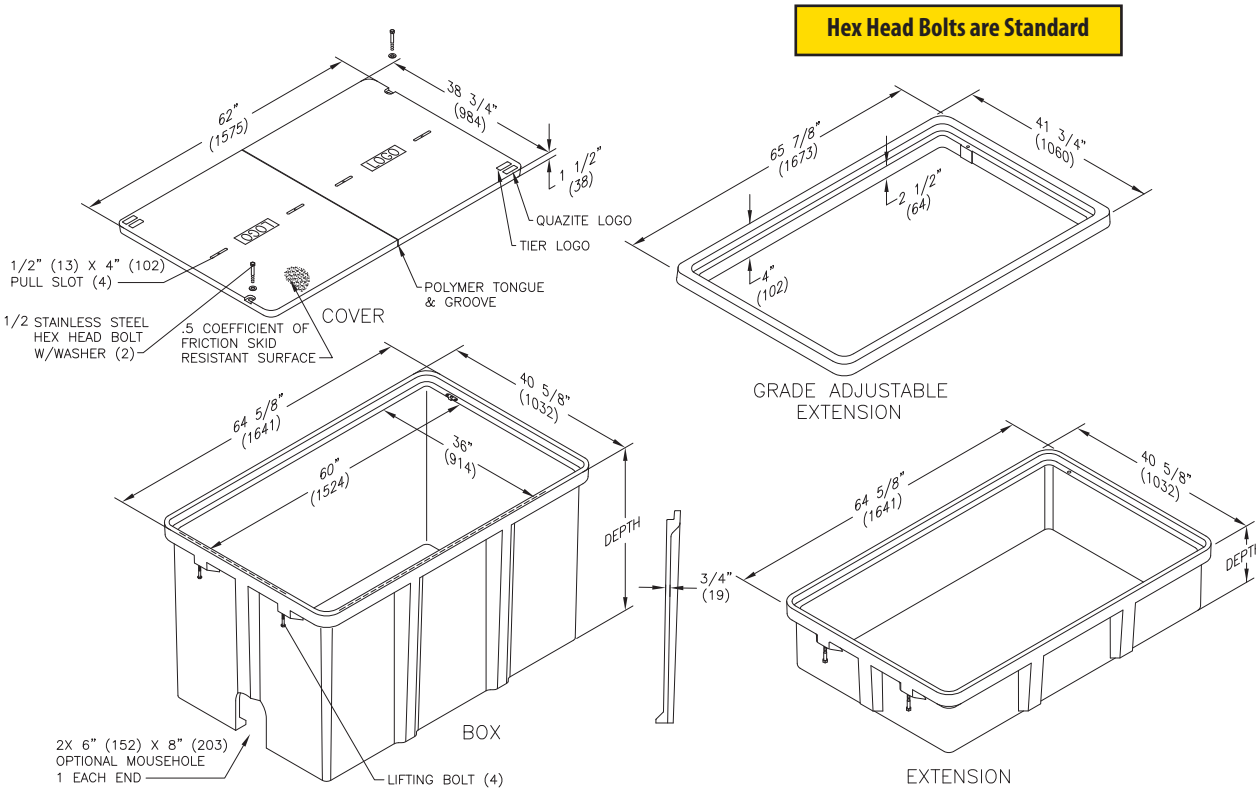
Top Extensions

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom	12"	22	22,500 / 33,750	129	6	PG3636EA12

36" x 60" PG Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Lightweight 2 Bolts	5	5,000 / 7,500	222	10	LG3660CA00**
W/ 2 Bolts	15	15,000 / 22,500	384	10	PG3660HA00**
W/ 2 Bolts	22	22,500 / 33,750	470	10	PG3660HH00**
Lightweight No Bolts	5	5,000 / 7,500	222	10	LG3660WA00**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.

Boxes (box depths 31" and 36" must be used as bottom of any stack)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	19"	22	22,500 / 33,750	381	4	PG3660BA19
	24"		22,500 / 33,750	397	3	PG3660BA24
	31"		22,500 / 33,750	481	2	PG3660BA31
	36"		22,500 / 33,750	647	2	PG3660BA36
Solid Bottom	19 1/2"	22	22,500 / 33,750	479	4	PG3660DA19
	24 1/2"		22,500 / 33,750	495	3	PG3660DA24
	31 1/2"		22,500 / 33,750	590	2	PG3660DA31
	36 1/2"		22,500 / 33,750	738	2	PG3660DA36

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".

36" x 60" PG Style Polymer Concrete (Stackable) Assembly

Grade Adjustable Extension

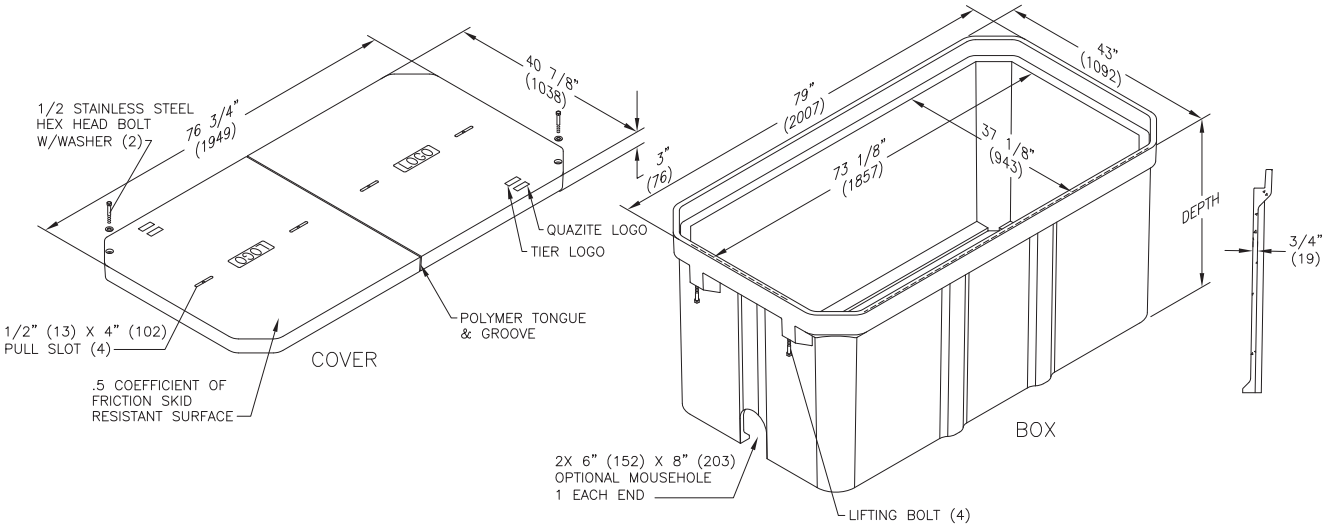
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Top Extension	2 1/2"	22	22,500 / 33,750	116	6	PG3660ED03

Top Extension

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom	11 1/2"	22	22,500 / 33,750	200	6	PG3660EA12

36" x 72" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Lightweight 2 Bolts	5	5,000 / 7,500	310	10	LG3672CA00**
W/ 2 Bolts	15	15,000 / 22,500	488	10	PG3672HA00**
W/ 2 Bolts	22	22,500 / 33,750	544	10	PG3672HH00**
Lightweight No Bolts	5	5,000 / 7,500	310	10	LG3672WA00**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.

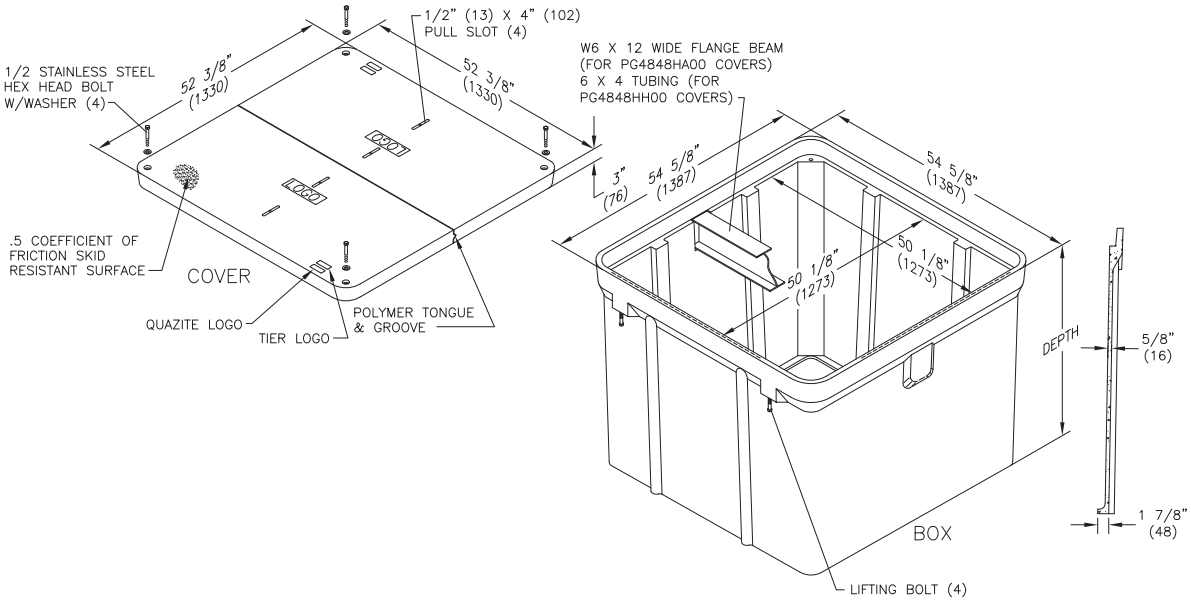
Boxes (box depth 36" must be used as bottom of any stack)

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	21"	22	22,500 / 33,750	448	3	PG3672BA21
	36"		22,500 / 33,750	768	2	PG3672BA36
Solid Bottom	21 1/2"	22	22,500 / 33,750	569	3	PG3672DA21
	36 1/2"		22,500 / 33,750	822	2	PG3672DA36

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".

48" x 48" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Lightweight 4 Bolts	5	5,000 / 7,500	286	10	LG4848CA00**
W/ 4 Bolts	15	15,000 / 22,500	364	10	PG4848HA00**
W/ 4 Bolts	22	22,500 / 33,750	596	10	PG4848HH00**
Lightweight No Bolts	5	5,000 / 7,500	286	10	LG4848WA00**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options. Available with EZ Locate. See page 71 for more information.

Boxes

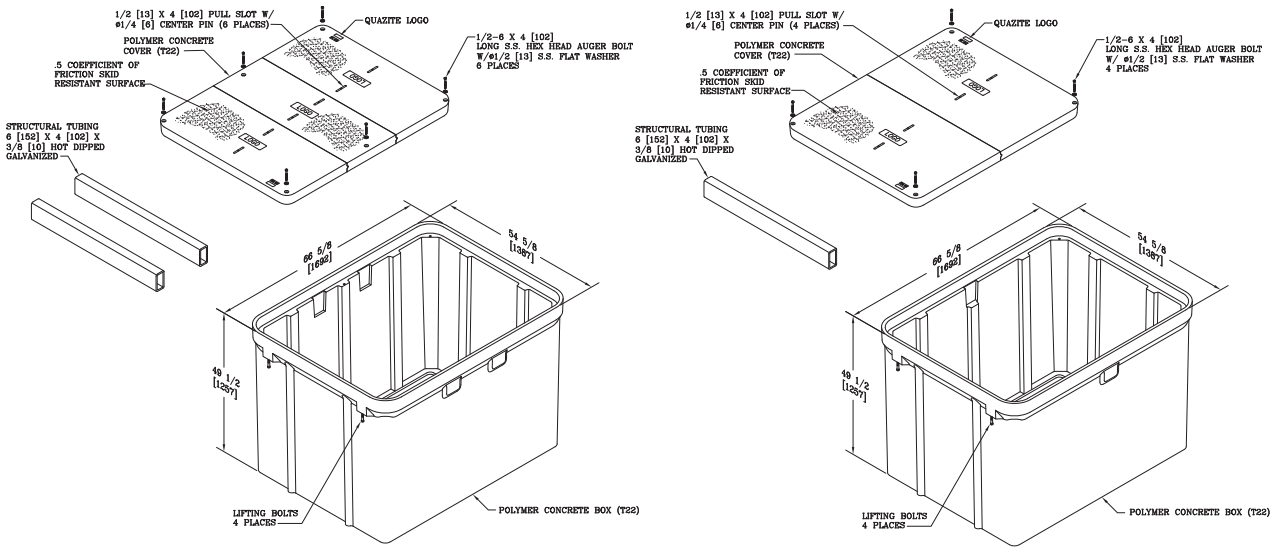
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	36"	22	22,500 / 33,750	629	2	PG4848BA36
	48"		22,500 / 33,750	866	2	PG4848BA48
Solid Bottom	36 1/2"	22	22,500 / 33,750	663	2	PG4848DA36
	48 1/2"		22,500 / 33,750	940	2	PG4848DA48

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".

48"x 60" PG Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Assemblies

DESCRIPTION	DEPTH	TIER	DESIGN LOAD#	WEIGHT #	PALLET QTY	PART NUMBER
Standard 2-Piece Polymer Concrete Cover and Open Bottom Box	48"	22	22,500 / 33,750	1,460	1	PG4860Z502
Standard 3-Piece Polymer Concrete Cover and Open Bottom Box	48"	22	22,500 / 33,750	1,460	1	PG4860Z500

Covers

DESCRIPTION	DEPTH	TIER	DESIGN LOAD#	WEIGHT #	PALLET QTY	PART NUMBER
Two Piece Cover w/ 4 bolts	3"	22	22,500 / 33,750	507	2	PG4860H504***
Three Piece Cover w/ 6 bolts	3"	22	22,500 / 33,750	507	2	PG4860HH00***

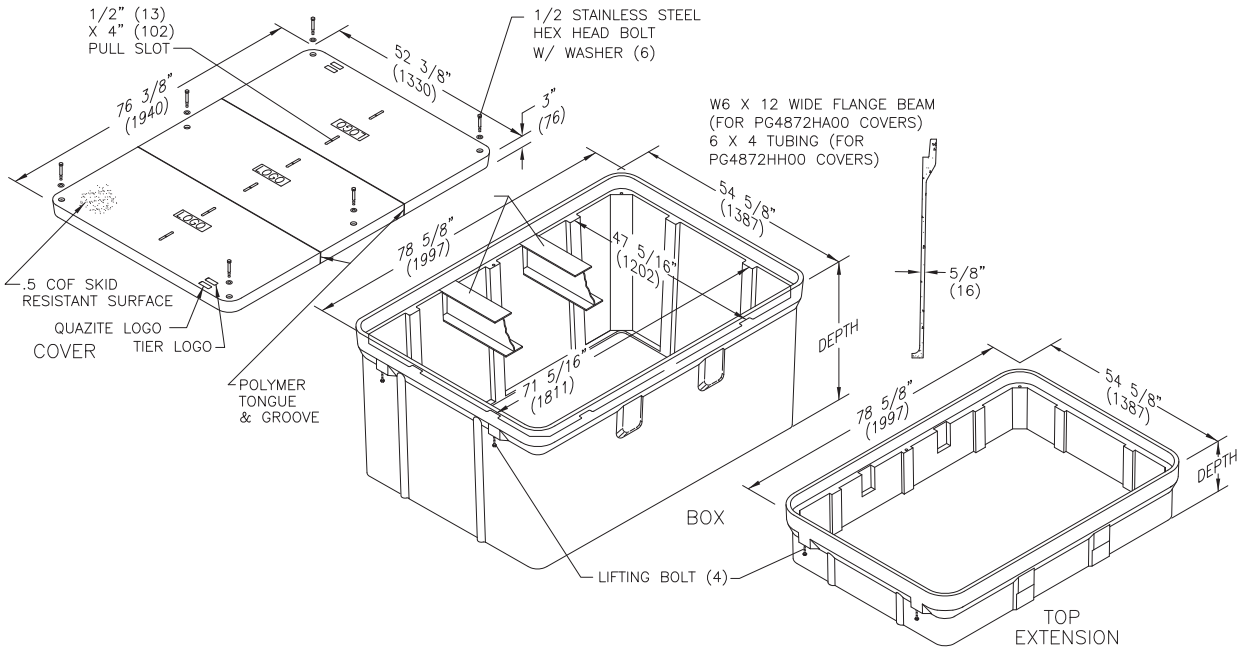
Replace ** with a logo code found on page 66.

Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	48"	22	22,500 / 33,750	953	1	PG4860BA48
Standard Open Bottom	48"	22	22,500 / 33,750	953	1	PG4860B504

48" x 72" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Lightweight 6 Bolts	5	5,000 / 7,500	447	2	LG4872CA00**
W/ 6 Bolts	15	15,000 / 22,500	573	2	PG4872HA00**
W/ 6 Bolts	22	22,500 / 33,750	891	2	PG4872HH00**
Lightweight No Bolts	5	5,000 / 7,500	447	2	LG4872WA00**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.

Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	36"	22	22,500 / 33,750	810	2	PG4872BA36
	48"		22,500 / 33,750	1,050	1	PG4872BA48
Solid Bottom	36 1/2"	22	22,500 / 33,750	1,065	2	PG4872DA36
	48 1/2"		22,500 / 33,750	1,245	1	PG4872DA48

To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".

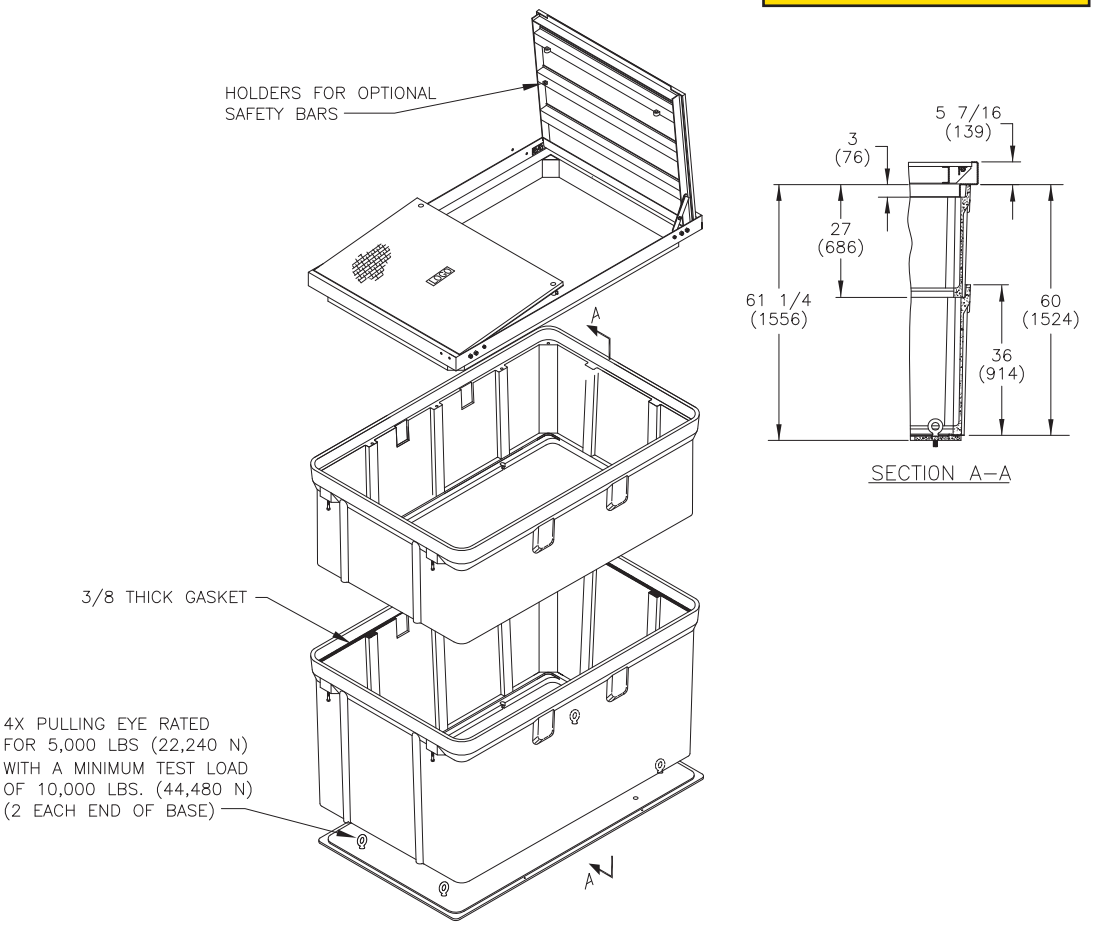
Top Extension

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom, No Beam Provided	15"	22	22,500 / 33,750	359	5	PG4872EA12

48" x 78" PG Style Polymer Concrete (Stackable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Torsion	N/A	12,000 / 24,000	622	10	PG4878CTG0**

Replace ** with a logo code found on page 66.

Boxes (box depth 36" must be used as bottom of any stack)

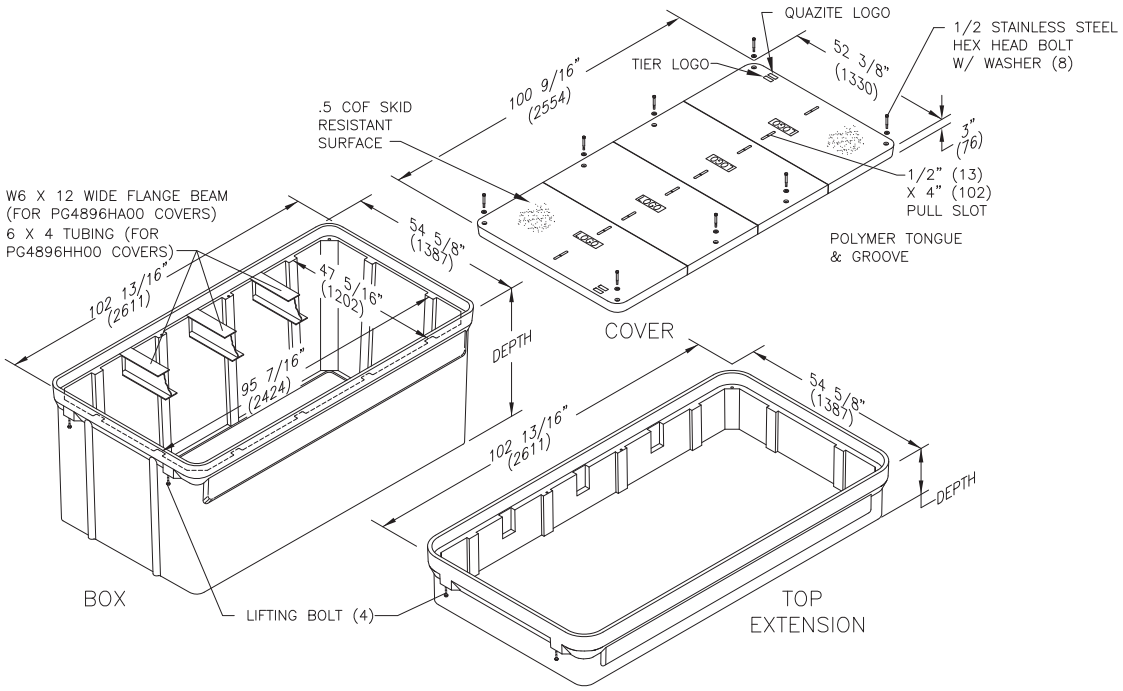
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	27"	22	22,500 / 33,750	867	1	PG4878BA27
	36"	22	22,500 / 33,750	707	1	PG4878BG36

Base

DESCRIPTION	WEIGHT #	PART NO.
Bottom w/ Pulling Eyes and Ground Holes	555	PG4878D500

48" x 96" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Lightweight 8 Bolts	5	5,000 / 7,500	608	2	LG4896CA00**
W/ 8 Bolts	15	15,000 / 22,500	794	2	PG4896HA00**
W/ 8 Bolts	22	22,500 / 33,750	1,186	2	PG4896HH00**
Lightweight No Bolts	5	5,000 / 7,500	608	2	LG4896WA00**

Replace ** with a logo code found on page 66. See page 72 for meter and touch/radio read cover options.

Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	48"	22	22,500 / 33,750	1,384	1	PG4896BA48
Solid Bottom	48 1/2"	22	22,500 / 33,750	1,537	1	PG4896DA48

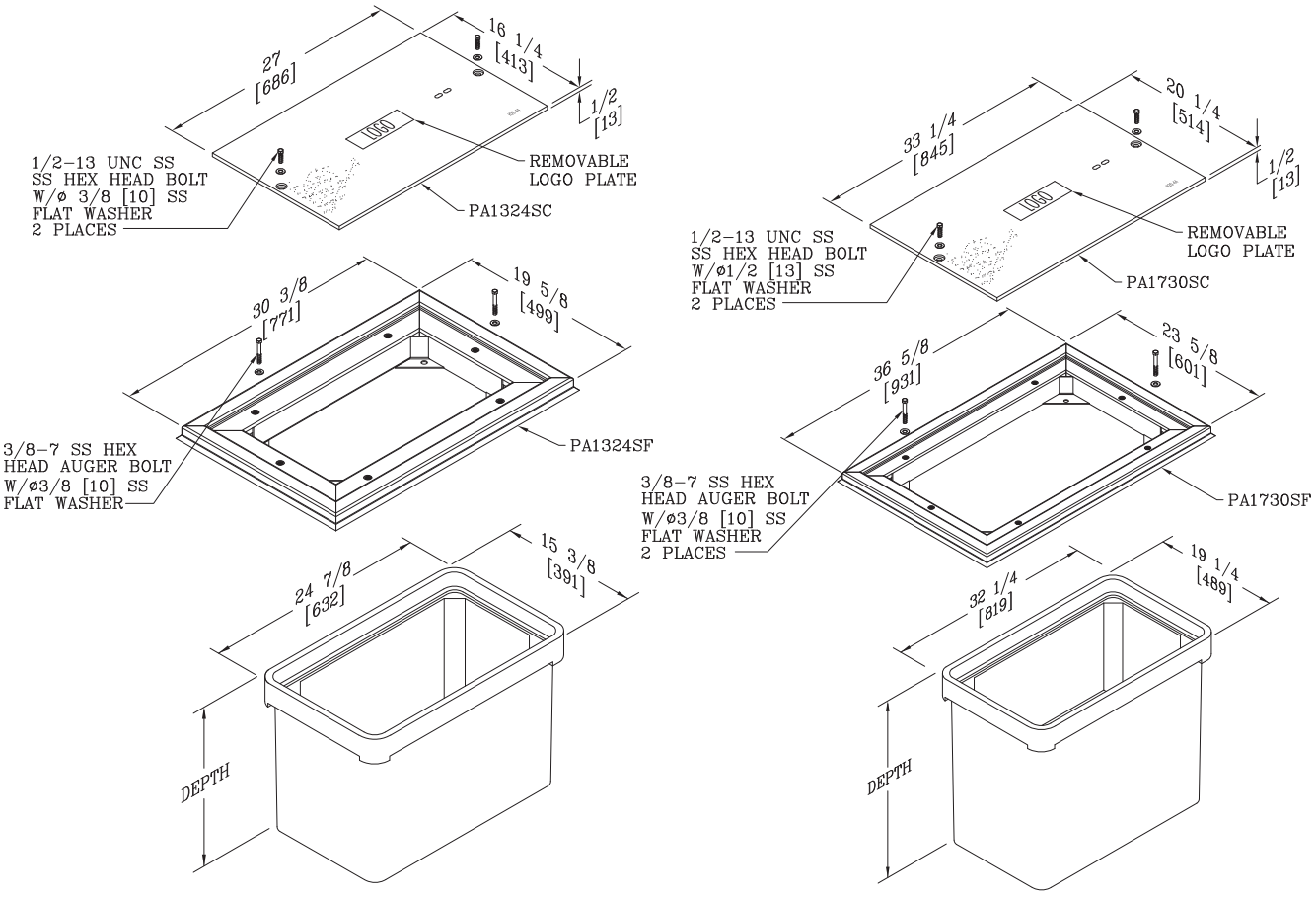
To order boxes with two standard mouseholes, replace the letter "A" with the letter "B".

Top Extension

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Open Bottom, No Beam Provided	15"	22	22,500 / 33,750	485	5	PG4896EA12

PG Style Polymer Concrete H20 (Stackable) Assembly

Dimensions / Data



ASSEMBLIES

DESCRIPTION	DEPTH	TIER	DESIGN LOAD (lbs)	WEIGHT (lbs)	PALLET QTY	PART NO.
Assembly; Open Bottom Box and Galvanized Steel Cover and Frame	12"	H20	16,000	204		PG1324Z119**
Assembly; Open Bottom Box and Galvanized Steel Cover and Frame	18"	H20	16,000	230		PG1324Z120**
Assembly; Open Bottom Box and Galvanized Steel Cover and Frame	24"	H20	16,000	258		PG1324Z121**
Assembly; Open Bottom Box and Galvanized Steel Cover and Frame	12"	H20	16,000	273		PG1730Z286**
Assembly; Open Bottom Box and Galvanized Steel Cover and Frame	18"	H20	16,000	301		PG1730Z287**
Assembly; Open Bottom Box and Galvanized Steel Cover and Frame	24"	H20	16,000	316		PG1730Z288**

Replace ** with a logo code found on page 66.

PG Style Polymer Concrete H20 (Stackable) Assembly (continued)

COVERS

DESCRIPTION	DEPTH	TIER	DESIGN LOAD (lbs)	WEIGHT (lbs)	PALLET QTY	PART NO.
Galvanized Steel Cover 13"x24" W/2 Bolts		H20	16,000	70		PA1324SC**
Galvanized Steel Cover 17"x30"W/2 Bolts		H20	16,000	103		PA1730SC**

Replace ** with a logo code found on page 66.

FRAMES

DESCRIPTION	DEPTH	TIER	DESIGN LOAD (lbs)	WEIGHT (lbs)	PALLET QTY	PART NO.
Galvanized Steel Frame 13"x24" W/2 Bolts		H20	16,000	83		PA1324SFHW
Galvanized Steel Frame 17"x30" w/2 Bolts		H20	16,000	104		PA1730SFHW

ASSEMBLIES

DESCRIPTION	DEPTH	TIER	DESIGN LOAD (lbs)	WEIGHT (lbs)	PALLET QTY	PART NO.
Standard Open Bottom Box 13"x24"	12	22	22,500	53	20	PG1324BA12
Standard Open Bottom Box 13"x24"	18	22	22,500	72	16	PG1324BA18
Standard Open Bottom Box 13"x24"	24	22	22,500	91	12	PG1324BA24
Standard Open Bottom Box 17"x30"	12	22	22,500	67	10	PG1730BA12
Standard Open Bottom Box 17"x30"	18	22	22,500	94	8	PG1730BA18
Standard Open Bottom Box 17"x30"	24	22	22,500	106	6	PG1730BA24

QUAZITE H20 assemblies are designed to handle frequent loading from vehicular traffic including industrial loading zones, parking facilities, roadside utilities or anywhere that enclosures are likely to be hit by frequent traffic.

QUAZITE H20 assemblies require cast-in-place concrete that surrounds the enclosure.

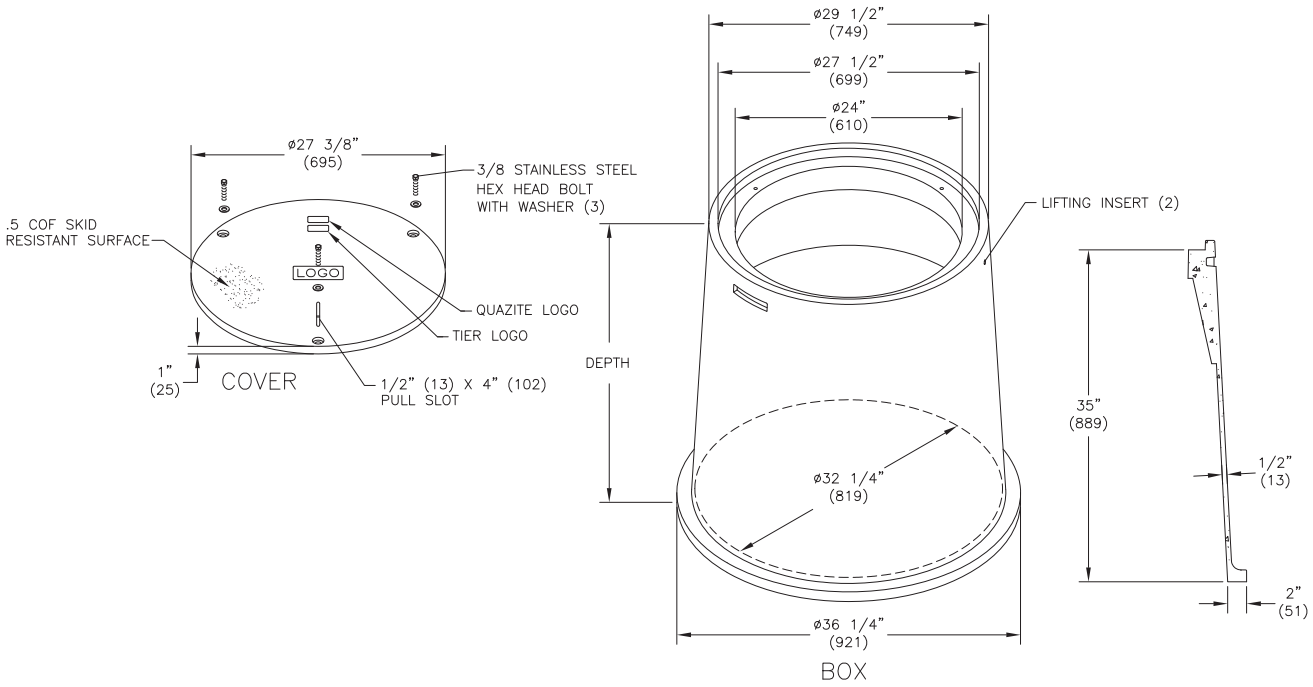
The galvanized steel frame is embedded into the concrete and the galvanized cover then fits into the frame. The concrete is typically a minimum of six inches deeper than the enclosure depth. The wall thickness of the concrete is a minimum of 3 inches.

When installed as directed, these assemblies meet the American Association of State Highway and Transportation Officials (AASHTO) H20 application specifications. Complete installation instructions found at:

Hubbell Quazite H20 Enclosures Installation Video

27" Round Style Polymer Concrete (Nestable) Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 3 Bolts	8	8,000 / 12,000	53	10	PR2700CA00**
W/ 3 Bolts	15	15,000 / 22,500	75	10	PR2700HA00**
W/ 3 Bolts	22	22,500 / 33,750	75	10	PR2700HH00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

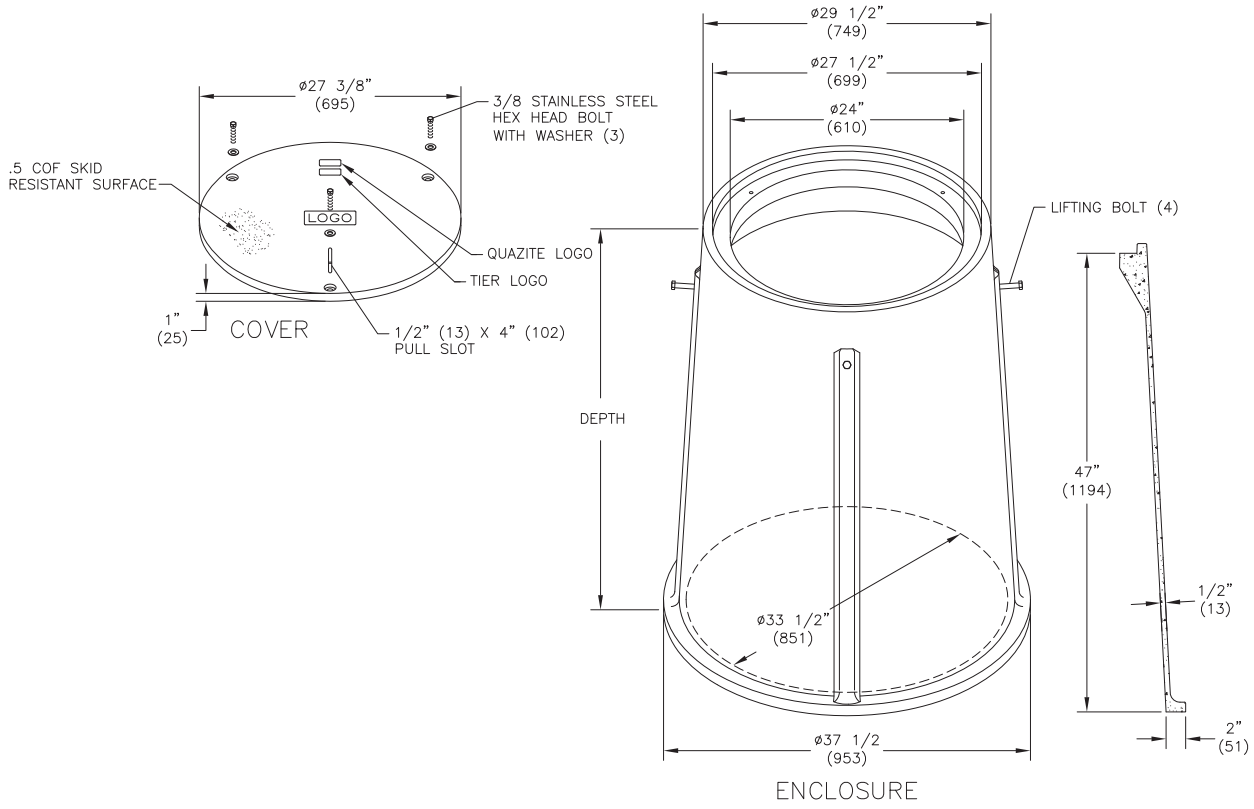
Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	36"	22	22,500 / 33,750	278	3	PR2732BA36

To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

27" Round Style Polymer Concrete Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 3 Bolts	8	8,000 / 12,000	53	10	PR2700CA00**
W/ 3 Bolts	15	15,000 / 22,500	75	10	PR2700HA00**
W/ 3 Bolts	22	22,500 / 33,750	75	10	PR2700HH00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

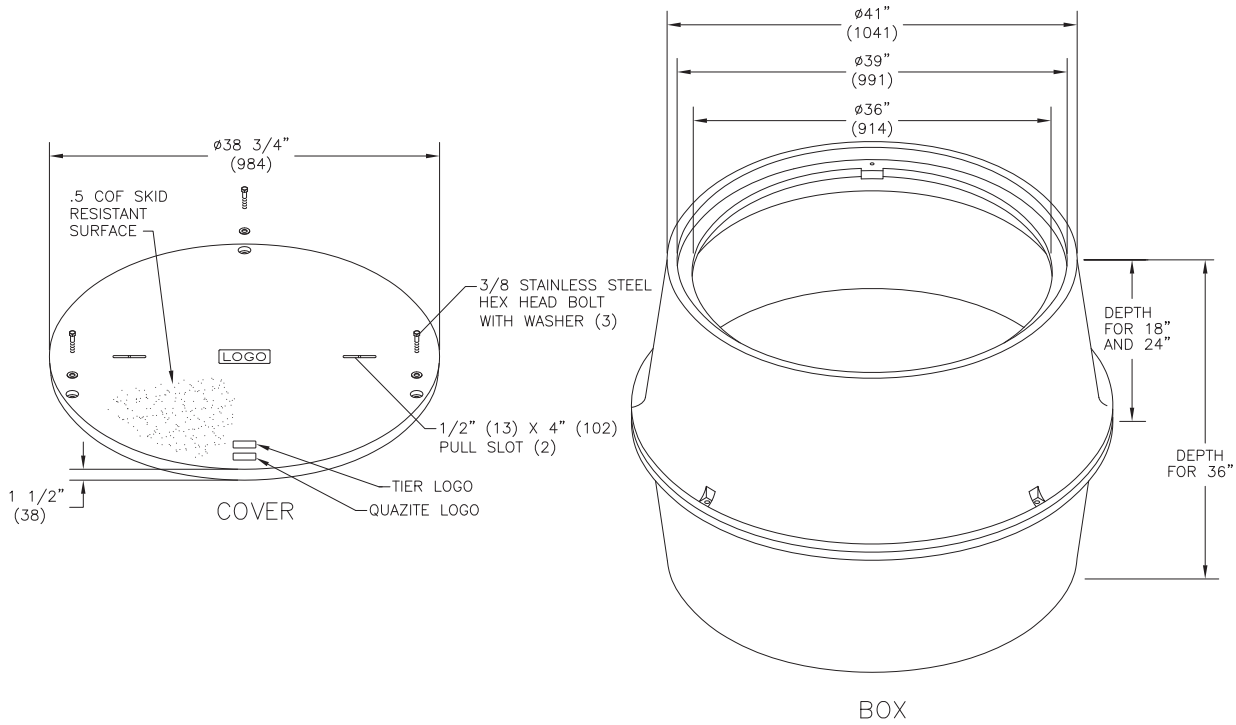
DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	48"	22	22,500 / 33,750	283	2	PR2733BA48

To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

39" Round Style Polymer Concrete (Nestable) Assembly

Dimensions / Data

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 3 Bolts	8	8,000 / 12,000	141	10	PR3900CA00**
W/ 3 Bolts	15	15,000 / 22,500	180	10	PR3900HA00**
W/ 3 Bolts	22	22,500 / 33,750	180	10	PR3900HH00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

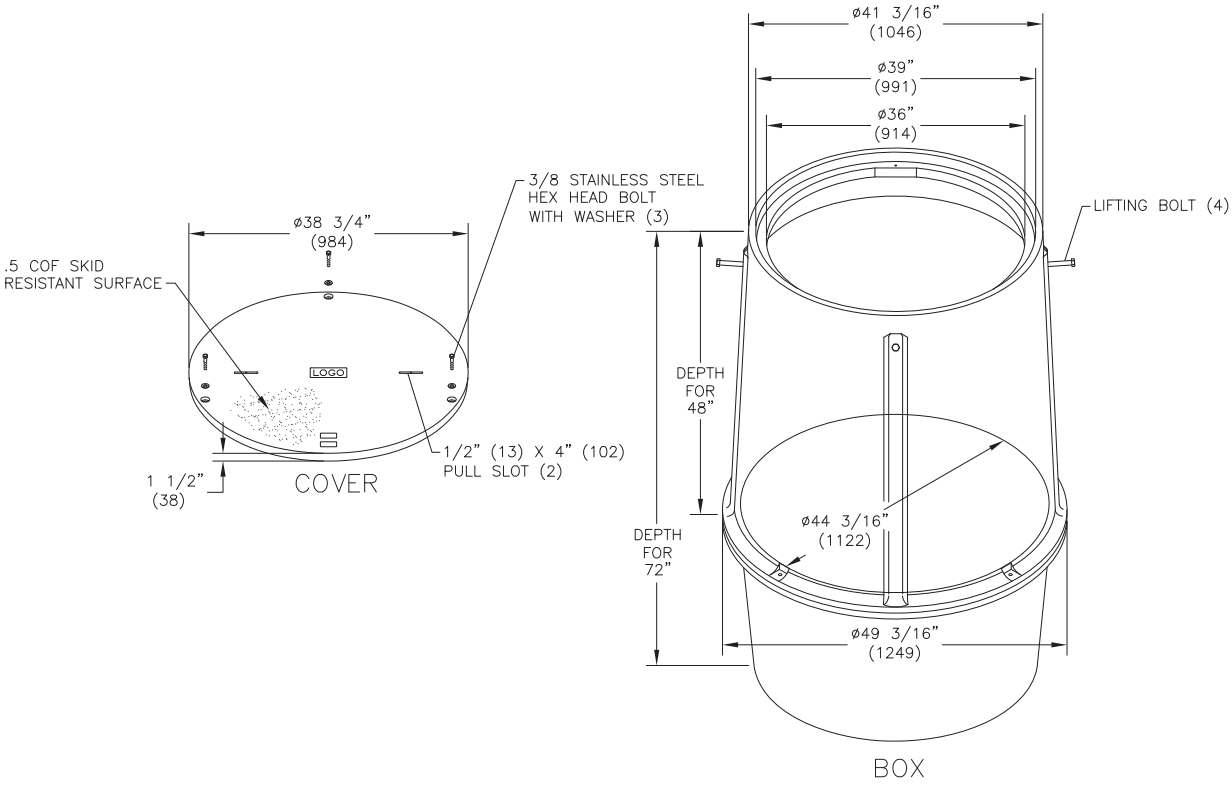
Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	18"	22	22,500 / 33,750	244	3	PR3943BA18
	24"	22	22,500 / 33,750	326	2	PR3944BA24
	36"	22	22,500 / 33,750	488	1	PR3943BA36

To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
NOTE: 36" depth created by bolting 2-18" deep boxes bottom to bottom.

39" Round Style Assembly

Hex Head Bolts are Standard



Covers

DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
W/ 3 Bolts	8	8,000 / 12,000	141	10	PR3900CA00**
W/ 3 Bolts	15	15,000 / 22,500	180	10	PR3900HA00**
W/ 3 Bolts	22	22,500 / 33,750	180	10	PR3900HH00**

To order gasketed covers, replace the letter "A" with the letter "G".
Replace ** with a logo code found on page 66.
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

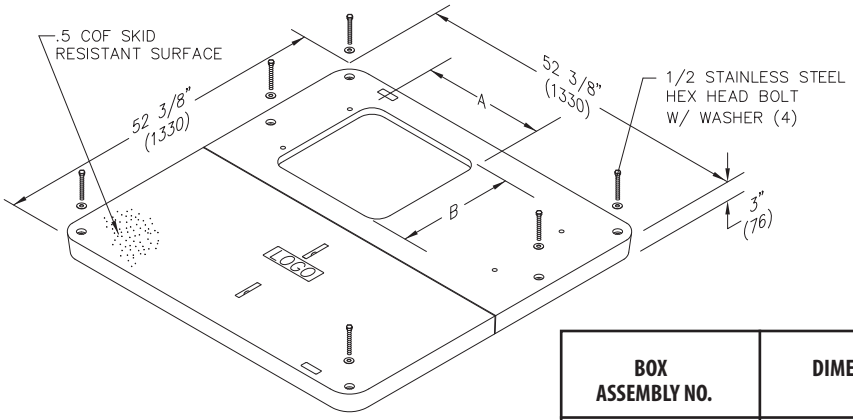
Boxes

DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
Standard Open Bottom	48"	22	22,500 / 33,750	377	2	PR3944BA48
	72"	22	22,500 / 33,750	707	1	PR3944BA72

To order gasketed boxes, replace the letter "A" with the letter "G".
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.
NOTE: 72" depth created by bolting 1-48" and 1-24" deep box bottom to bottom.

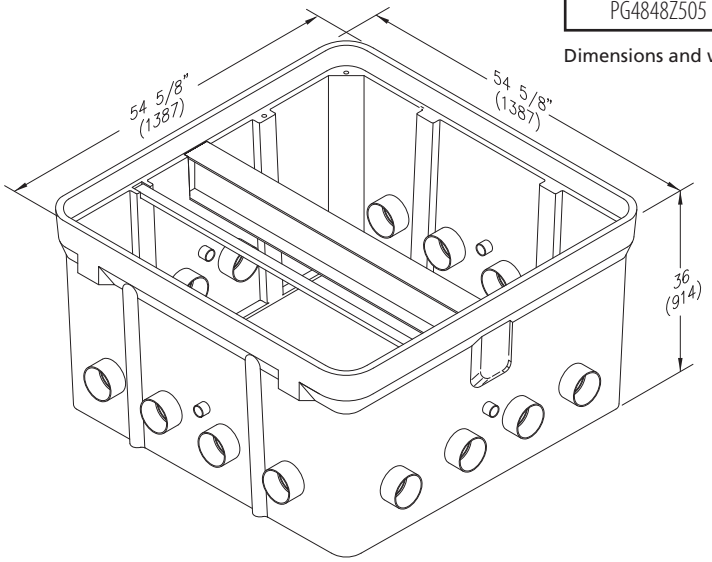
Cell Site Enclosure

Hex Head Bolts are Standard



BOX ASSEMBLY NO.	DIMENSION A	DIMENSION B
PG4848Z511	19" (483 mm)	18 1/8" (460 mm)
PG4848Z505	10" (254 mm)	18 1/4" (464 mm)

Dimensions and weights in parentheses are metric equivalent.



QUAZITE® cell site enclosures allow cellular providers easy access to their cable lines and provide plenty of room for the addition of new lines. Sixteen 4" terminators enable providers to easily add new feeder cables to existing sites. The terminators also reduce the risk of disturbing existing service when adding new cables because installers can clearly see where other cables are entering the box.

QUAZITE® cell site enclosures also make equipment changes and upgrades easy and cost effective. Poured-in-place pads must be completely replaced if changes and upgrades became necessary, but QUAZITE® cell site enclosures feature replaceable covers and an open area inside the enclosure. As a result, new cable lines can easily be added without replacing the pad. Also, providers only need to replace the covers if cabinets with new bolt patterns are installed.

For other sizes and configurations contact your Hubbell/Quazite representative.

Most commonly used cover logos are shown below. Custom Logos are available. Contact your Quazite/Hubbell Representative.

Quazite® Cover Options

POLYMER CONCRETE LOGO CODES	DESCRIPTION
09	BLANK
10	CATV
12	COMMUNICATIONS
14	CONTROLS
17	ELECTRIC
21	FIBER OPTICS
22	FIRE ALARM
23	GAS
24	GROUND
26	HIGH VOLTAGE
29	LIGHTING
36	SECURITY
38	SIGNAL
40	STATE TRAFFIC SIGNAL
41	STREET LIGHTING
42	TELECOM
43	TELEPHONE
44	TRAFFIC
45	TRAFFIC CONTROL
46	TRAFFIC SIGNAL
48	TV
50	WATER
57	EMERGENCY
65	ILLUMINATION
81	DANGER HIGH VOLTAGE
84	POWER
92	TELECOMMUNICATIONS
3A	DOT
6B	INSTRUMENTATION
ZA	IRRIGATION
K91	RECLAIMED WATER
KH1	FIBEROPTIC