

DynaRound™ Hatch Guard System Installation Instructions

Estimated Installation Time: 2 Man Crew, 60 - 90 Minutes

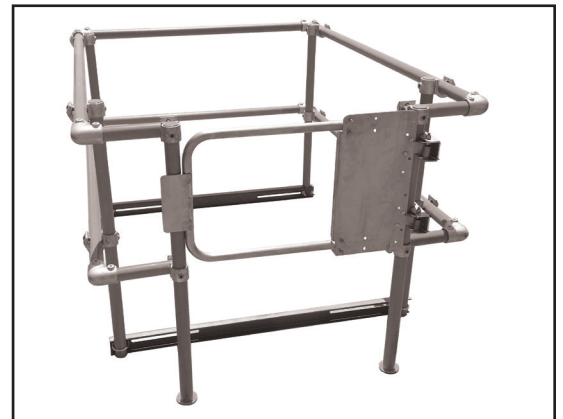
The DynaRound Hatch Guard System is designed to protect all rooftop hatch entry and exit points. This non-penetrating system is easily installed and can be used both temporarily and preeminently depending on need. The FRP railings and galvanized fittings ensure a long service life.

INSTALLATION INSTRUCTIONS ARE FOR:

- PN 5041210 DynaRound Hatch Guard –Fits Hatches 30-36 inches x 30-54 inches**
- PN 5041310 DynaRound Hatch Guard –Fits Hatches 30-36 inches x 96-114 inches**
- PN 5041410 DynaRound Hatch Guard –Fits Hatches 42-48 inches x 42-60 inches**

TOOLS REQUIRED

- 5/16-inch Hex (Allen) Wrench**
- 5/16-inch Hex Drive Socket (to fit torque wrench)**
- Torque wrench 5 – 50 lb-ft range (6.8 –67.6 N-m)**
- Socket Set with extensions – SAE (inches)**
- Open End Wrench Set – SAE (inches)**
- Marker or Pencil**
- 25-foot tape measure**
- Blue (removable) thread locking compound**



NOTE: Cuts and drilled holes must be sealed to maintain corrosion protection.

IMPORTANT

Read these instructions completely before attempting to install the DynaRound Hatch Guard. It is important to understand the installation procedure thoroughly prior to beginning work. It is the installer's responsibility to carefully follow fabrication and installation plans and instructions to ensure design performance characteristics of the DynaRound Hatch Guard. The installer could be liable for claims that result from improper installation.

ASSEMBLY INSTRUCTIONS:

1. Inspect and inventory all components of the Dynaround RG Hatch Guard and compare to the bill of materials listed on the first page of the drawings to verify that all materials are available for installation. Contact Fibergrate at 1-800-427-4043 to report missing material and obtain replacements.
2. Read these instructions and study the drawings thoroughly before attempting to install the DynaRound RG Hatch Guard. Be sure you are referring to the correct drawings for the Hatch Guard being installed.
3. Inspect the hatch and surrounding roof area where the DynaRound RG Hatch Guard is to be installed. Remove any debris or obstructions in the installation area and verify all field dimensions and conditions prior to assembling and installing the Hatch Guard.
4. It is recommended to assemble the Hatch Guard adjacent to the hatch, then lift it over the hatch and clamp the Hatch Guard in place. Prepare a suitable assembly area adjacent to the hatch and protect the roof in that area following the roofing manufacturer's recommendations
5. While the components of the DynaRound RG Hatch Protector which contact the roof are designed not to damage roofing materials, it is recommended that the roof manufacturers recommendations be followed for protecting the roofing material from abrasion damage at any location where the Hatch Protector contacts the roof.
6. Attach two Item (7) Hatch Guard 3.25" Angle into the long slots in each Hatch Guard 55" Channel or Hatch Guard 67" Channel (depending on Hatch Guard being installed) using 3/8" diameter nuts, bolts, and washer, Items (9) – (11). The washer is only required on the channel side of the connection. Install item (7) on the flange side of the channels as shown in the plan view. Build two sub-assemblies. Do not torque the bolts at this time, allowing the Angle Bracket to slide freely in the slot in the Hatch Channel.
7. Assemble two Item (15) Posts to each Item (6) Hatch Channel. Attach the Posts in the semi-circular cut-outs in the ends

Installation Instructions

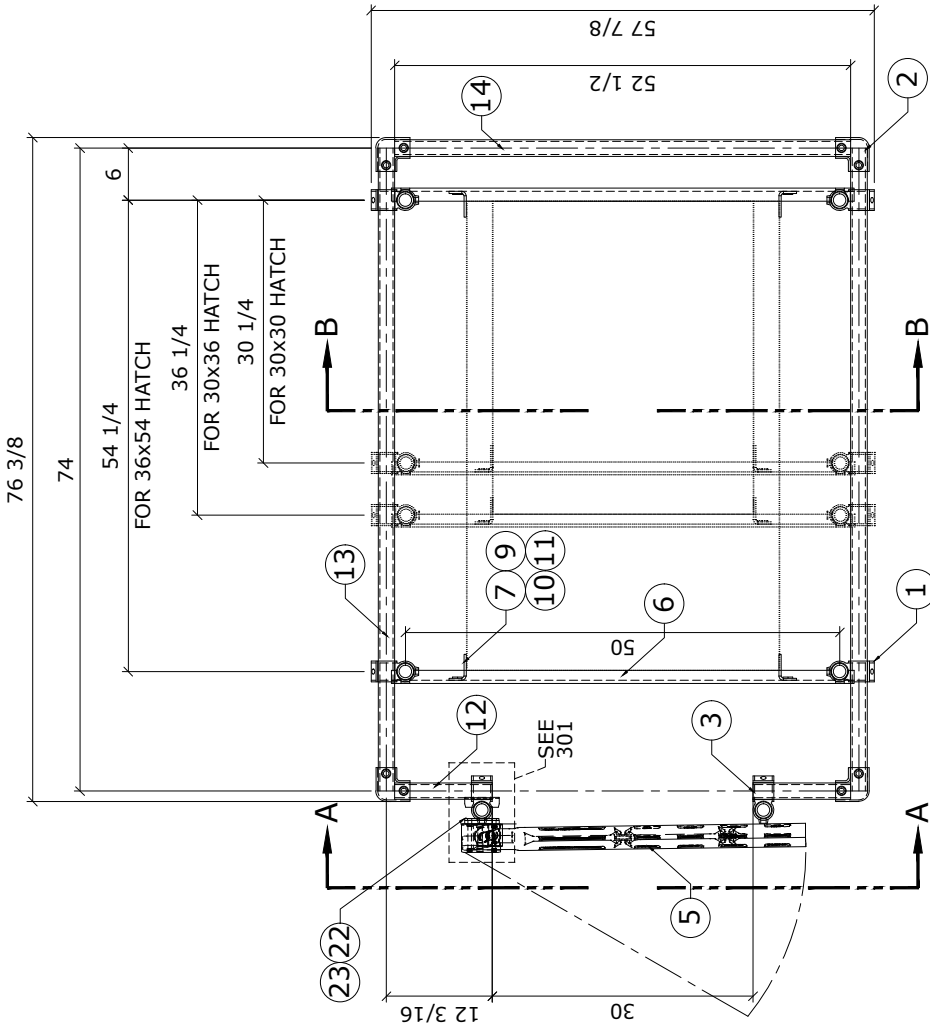
of the Hatch Channels using one each Item (8) 3/8" x 4" U-Bolts with 3/8" nuts and washers. Install each U-bolt using two flat washers and the 3/8" nuts supplied with each U-bolt. Torque the bolts to 40 lb-ft (54.1 N-m), then install a second nut on each side of the U-bolt to act as a lock nut. Then Install Item (15) Post with the plug end up and the open, bottom end flush with the bottom of Item (6) Hatch Channel. Apply blue thread locking compound to the threads and torque the bolts to 40 lb-ft (54.1 N-m). Cap the bottom of each post with one each Item (4) Yellow Flanged Plug.

8. Install two Item (1) Open Cross Over to each post as shown in the section on the right side of page 3 of 4 of the drawings. The upper Open Cross Over should be flush with the top of the post. The lower Open Cross Over should be installed 20 inches below the top of the post. Torque the set screws only as needed to hold the Open Cross Overs in place. They may require adjusting later in the assembly process.
9. Mark each of the four longest sections of 1.9" Diameter Round Tube (Item (13) for PN 5041210, Item (16) for PN 5041310, and Item (19) for PN 5041410) at 6 inches from one end.
10. Stand up the two post/channel assemblies oriented as they will be in the final assembly (flanges of the Item (6 or 21) Channel facing toward each other). Locate them approximately the maximum distance apart as shown in the drawings. Place the four long sections of 1.9" Diameter Round Tube into the Open Cross Overs and align the rails so that the center of the post opposite the gate is aligned with the marks made in Step 9. After checking that the post channel assemblies are plumb and properly aligned, torque the set screws in the Open Cross Overs only as needed to hold the 1.9" Diameter Round Tube in place.
11. Install the two 1.9" Diameter Round Tube Rails (Item (14) for PN 5041210, Item (14) for PN 5041310, and Item (20) for PN 5041410) on the side of the Hatch Guard opposite the gate using four each of Item (2) Two Way Elbow. Torque the set screws in the Two-Way Elbows only as needed to hold the 1.9" Diameter Round Tube in place.
12. Assemble the remaining two Item (15) Posts by adding two each Item (1) Open Cross Over as shown in the section in the middle of page 3 of 4 or the drawings. The upper Open Cross Over should be flush with the top of the post. The lower Open Cross Over should be installed 20 inches below the top of the post. Cap the bottom of each post with one each Item (4) Yellow Flanged Plug.
13. Following the layout shown in the section in the middle of page 3 of 4 or the drawings, connect the two assembled Item (15) Posts to the ends of the rails installed in Step (9) using Items (2) Two Way Elbows and the four short sections of 1.9" Diameter Round Tube (Item (12) for PNs 5041210 and 5041310, Item (18) for PN 5041410). Torque all set screws only as needed to hold the assembly in place. Be sure that the posts are located on the outside of the roof guard as shown in the plan on page 1 of 4.
14. Assemble and install Item (5) Intrepid Safety Gate using Item (22) Pipe Mount Kit and (23) 3/8" Shim Plate. Follow the directions for installation provided with the (5) Gate and (22) Pipe Mount Kit except that the (23) 3/8" Shim Plate is added between the Gate and Pipe mount kit as shown in the Side View shown on the left side drawing 3 of 4. When installing the gate, Check that the top of the gate is at least 42 inches above the walking surface. To install the Mount Block of the Gate, drill a 9/16" diameter hole in the (15) Post opposite the hinge side of the gate where directed in the Gate instructions. Install using the carriage bolt provided.
15. Using a minimum of two people, lift the assembled Hatch Guard over the hatch and position the hatch so that it falls between the post/channel assemblies. Orient the Hatch Guard so that the self-closing gate faces the open side of the hatch.
16. Push the assembled Hatch Guard so that the post/channel assembly that is opposite the gate bears against the hatch body. Insure that the Hatch Guard is centered on the hatch body. Slide the two Item (7) 3.25" Angle Brackets until they just contact the hatch body. Apply blue thread locking compound to the bolt threads and torque the bolts to 40 lb-ft (54.1 N-m).
17. Loosen the set screws in the Open Cross Overs on the post/channel assembly adjacent to the (5) Intrepid Safety Gate and slide the post channel assembly until it bears against the hatch body. Re-torque the set screws in the Open Cross Overs to hold the post/channel assembly in place. Slide the two Item (7) 3.25" Angle Brackets until they just contact the hatch body. Apply blue thread locking compound to the bolt threads and torque the bolts to 40 lb-ft (54.1 N-m).
18. Insure that the (5) Intrepid Safety Gate operates properly and adjust where required. Check the opening of the hatch door to ensure that the Hatch Guard does not interfere with its operation. Adjust the Hatch Guard as needed to clear the interference.
19. Verify that the tops of all rails are at least 42 inches above the roof surface and adjust if needed. After this is verified, all set screws in the (1) Open Cross Overs and (2) Two Way Elbows should have thread locking compound applied to them and be torqued to 7.5 lb-ft (10.1 N-m)
20. The installed system should be inspected annually by a qualified inspector. The inspection should include checking the set screws for correct torque, checking for corrosion of the metallic fittings, inspecting the 1.9" diameter FRP tubes for signs of damage, and checking the self-closing gate for correct operation. Any corrective actions required by this inspector must be implemented immediately or the Hatch Protector should be clearly tagged as unsafe for use. Written logs should be kept of every inspection and any corrective actions documented.

DynaRound RG Hatch Guard 30-36 x 30-54

PN 5041210 (ASSEMBLY)

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PLAN VIEW

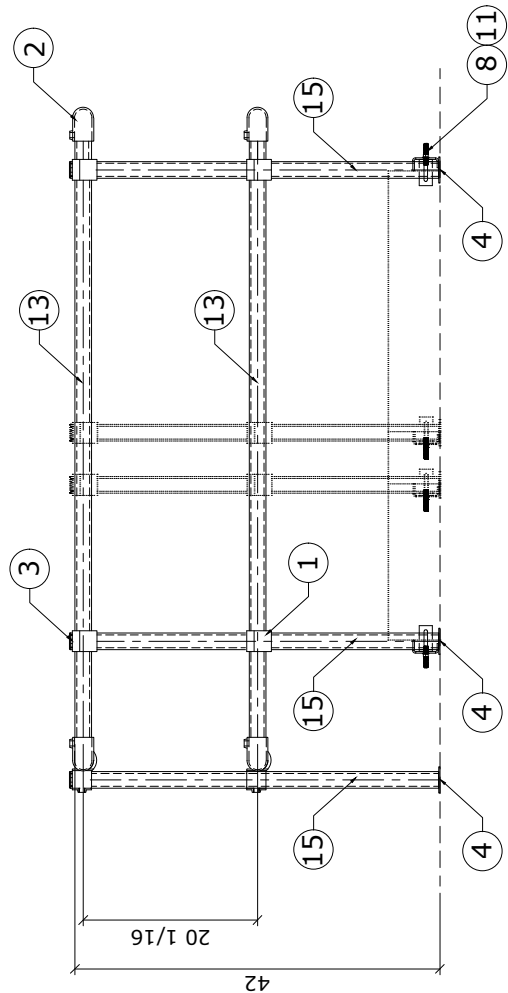
WEIGHT = 152 LBS

Material Requirements for 5041210

ITEM NO.	QTY REQ'D	DESCRIPTION	DATE	BY
23	1	UTILIZE 3/8" Thick Dark Gray ISOFR Shim Plate (Cut From Drop)		
22	1	445240 Intrepid Pipe Mount Kit For Safety Gate		
15	6	UTILIZE 1.9"Ø Round Tube - UV Coated (Parent PN 5001010)		
14	2	UTILIZE 1.9"Ø Round Tube - UV Coated (Parent PN 5001010)		
13	4	UTILIZE 1.9"Ø Round Tube - UV Coated (Parent PN 5001010)		
12	4	UTILIZE 1.9"Ø Round Tube - UV Coated (Parent PN 5001010)		
11	12	785200 3/8" Ø Washer		
10	4	784200 3/8" Ø Nut		
9	4	754530 3/8" Ø x 1 1/4" Lg. Bolt		
8	4	793114 McMaster 3/8"Ø x 4" U-Bolt W/ Nuts Zinc Plated PN 8875T858		
7	4	5041115 Hatch Guard 3.25" Angle		
6	2	5041113 Hatch Guard 55" Channel		
5	1	445225 32" Intrepid Safety Gate		
4	6	793113 Caplugs Yellow Flanged Plug WWX-17		
3	10	7926150 End Cap - UV Coated		
2	8	793125 Two Way Elbow		
1	12	793201 Open Cross Over		

REV	DESCRIPTION	DATE	BY	DESCRIPTION
0	ECN 173	09/20/17	CS	HATCH GUARD
1	ECN 184	09/10/18	CA	
				SCALE N.T.S. DATE: 09/20/17 DRAWN: CS
				DRAWING NUMBER 5041210 SHEET 1 OF 4

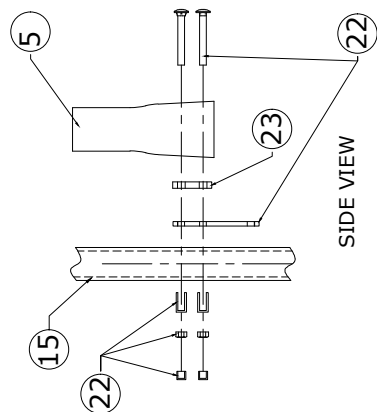
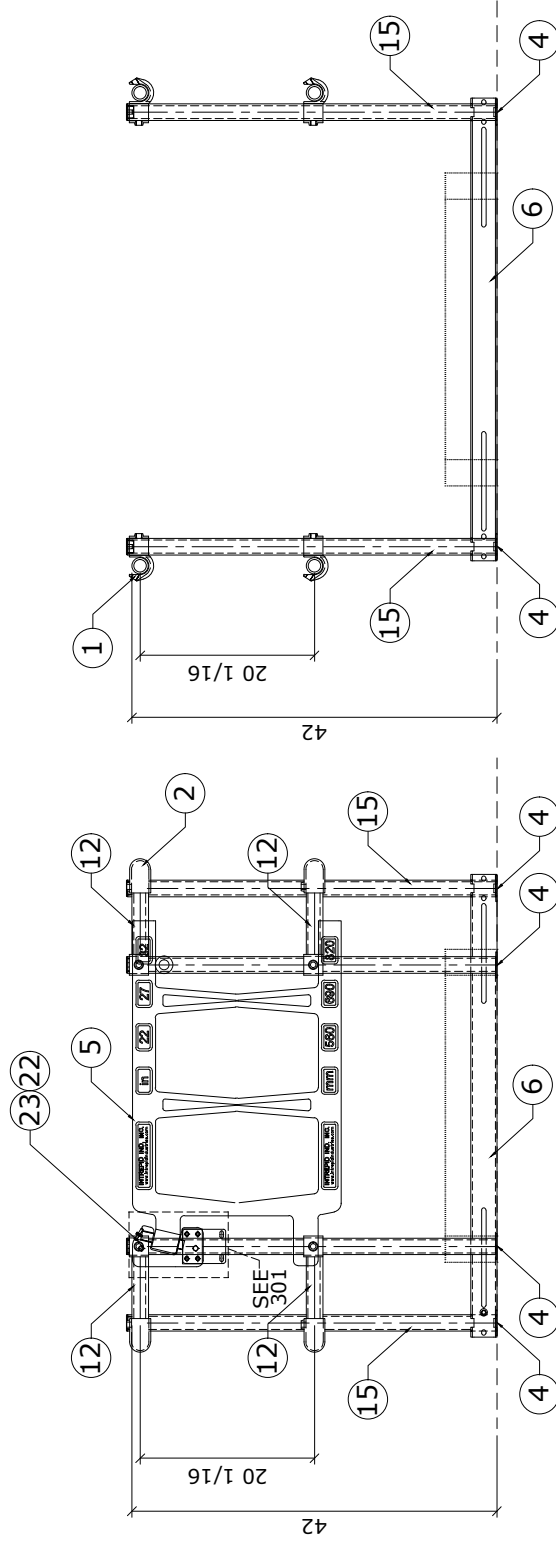




ELEVATION




REV	DESCRIPTION	DATE	BY	HATCH GUARD	
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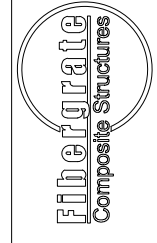
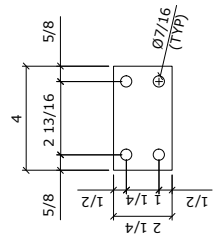
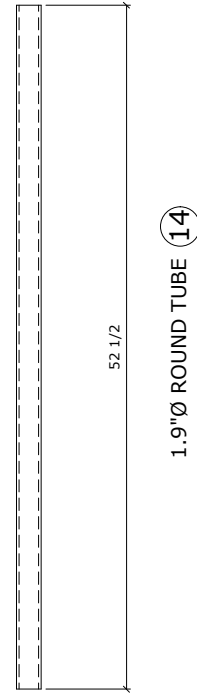
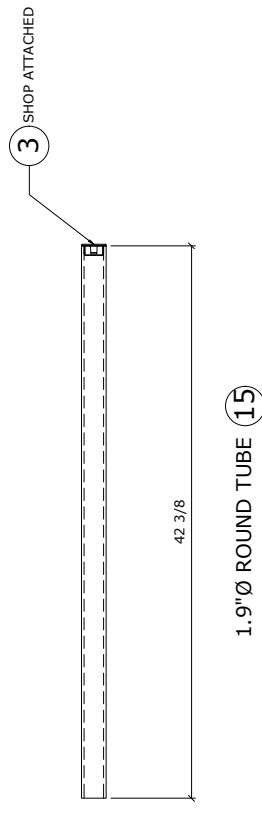
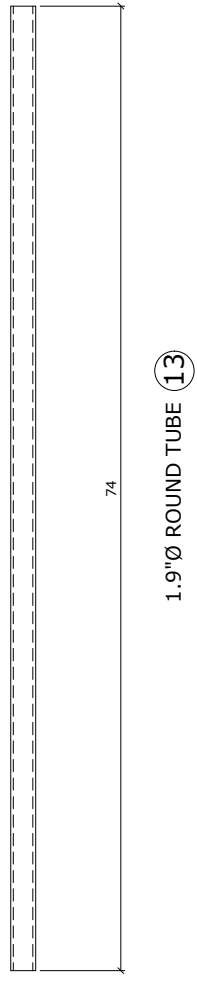
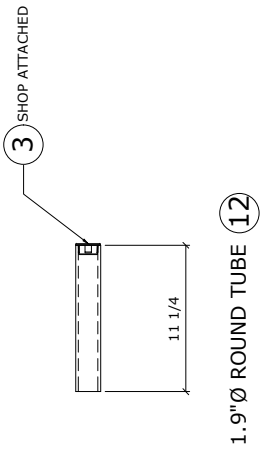


SECTION B-B

SECTION A-A

301

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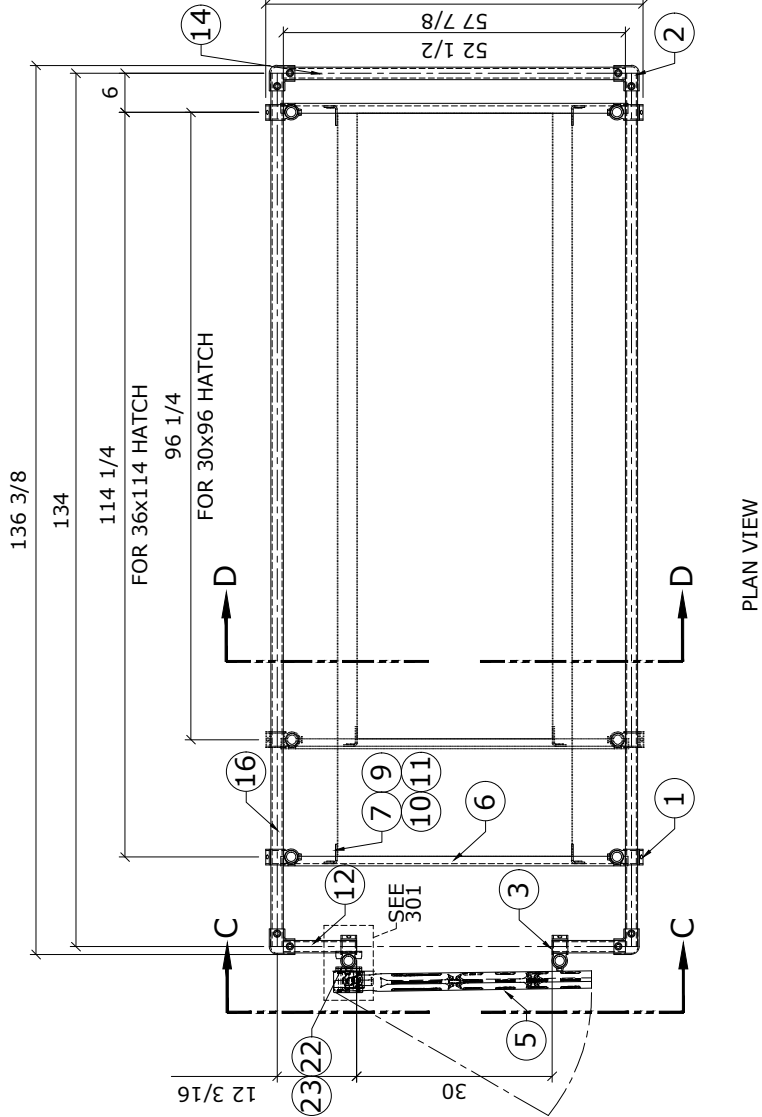


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1	ECN 184	09/10/18	CA	DATE	09/20/17
				DRAWING NUMBER	5041210
				DRAWN SHEET	4 OF 4

DynaRound RG Hatch Guard - 30-36 x 96-114

PN 5041310 (ASSEMBLY)

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Material Requirements for 5041310

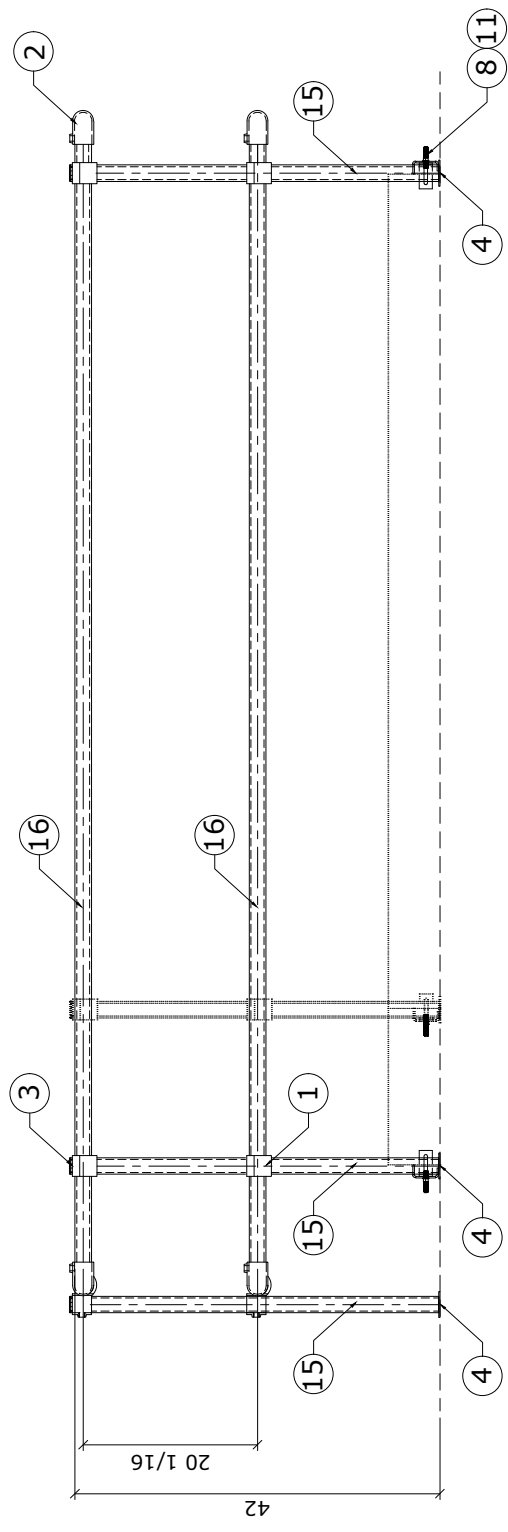
ITEM NO.	QTY REQ'D	DESCRIPTION	DATE	BY	DESCRIPTION
23	1	UTILIZE			3/8" Thick Dark Gray ISOFR Shim Plate (Cut From Drop)
22	1	445240	09/20/17	CS	Intrepid Pipe Mount Kit For Safety Gate
16	4	UTILIZE	09/10/18	CA	1.9"Ø Round Tube - UV Coated (Parent PN 5001010)
15	6	UTILIZE			1.9"Ø Round Tube - UV Coated (Parent PN 5001010)
14	2	UTILIZE			1.9"Ø Round Tube - UV Coated (Parent PN 5001010)
12	4	UTILIZE			1.9"Ø Round Tube - UV Coated (Parent PN 5001010)
11	12	785200			3/8" Ø Washer
10	4	784200			3/8" Ø Nut
9	4	754530			3/8" Ø x 1 1/4" Lg. Bolt
8	4	793114			McMaster 3/8"Ø x 4" U-Bolt W/ Nuts Zinc Plated PN 8875T858
7	4	5041115			Hatch Guard 3.25" Angle
6	2	5041113			Hatch Guard 55" Channel
5	1	445225			32" Intrepid Safety Gate
4	6	793113			Caplugs Yellow Flanged Plug WWX-17
3	10	7926150			End Cap - UV Coated
2	8	793125			Two Way Elbow
1	12	793201			Open Cross Over

REV	DESCRIPTION	DATE	BY	DESCRIPTION
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1	ECN 184	09/10/18	CA	

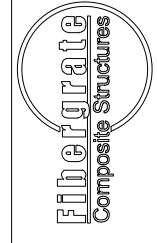
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DRAWN:			CS
SHEET		DRAWING NUMBER	5041310
			1 OF 4



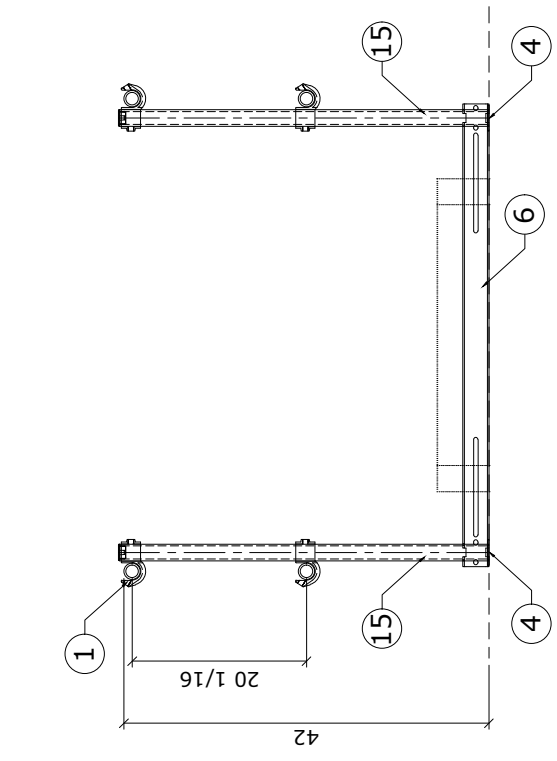
WEIGHT = 176 LBS



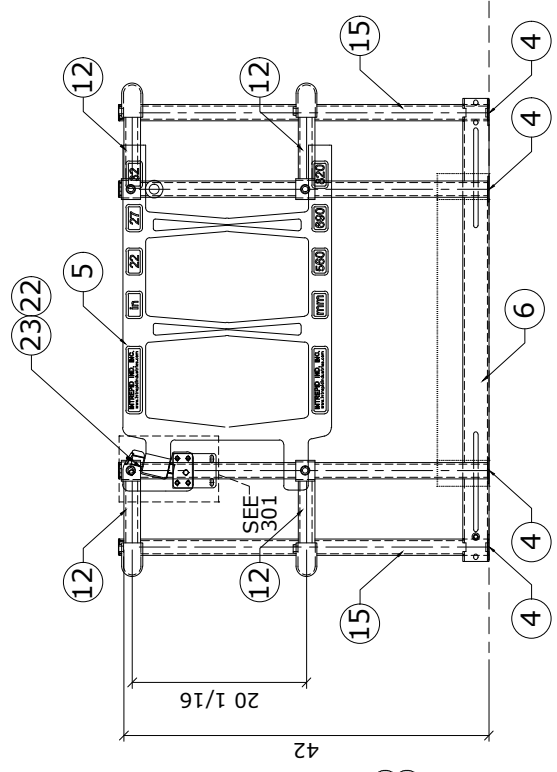
ELEVATION



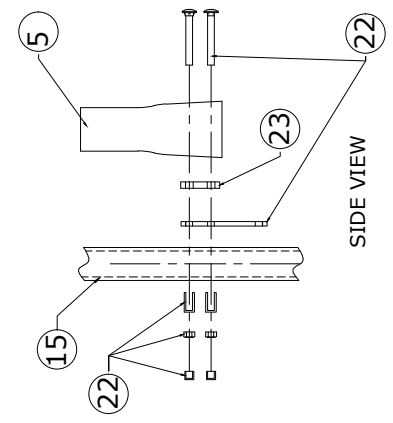
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				DRAWN:	CS
				SHEET	2 OF 4




SECTION C-C



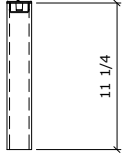
SECTION D-D



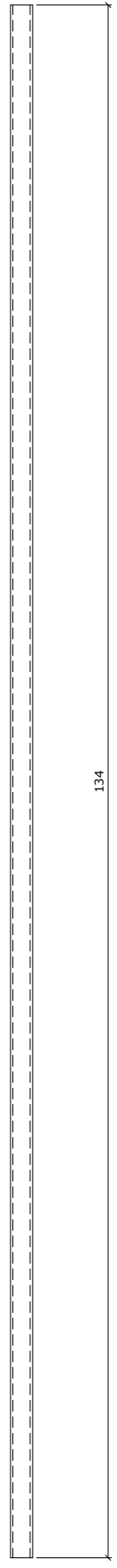
SIDE VIEW
301

		REV	DESCRIPTION	DATE	BY	HATCH GUARD	
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				SHEET	3 OF 4		

3 SHOP ATTACHED

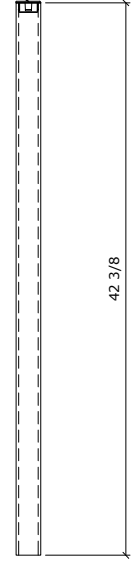


1.9"Ø ROUND TUBE (12)

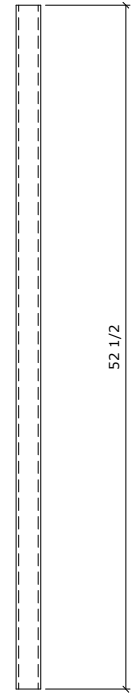


1.9"Ø ROUND TUBE (16)

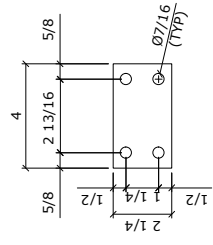
3 SHOP ATTACHED



1.9"Ø ROUND TUBE (15)



1.9"Ø ROUND TUBE (14)



3/8" THICK SHIM PLATE (23)
(SCALED 2X)

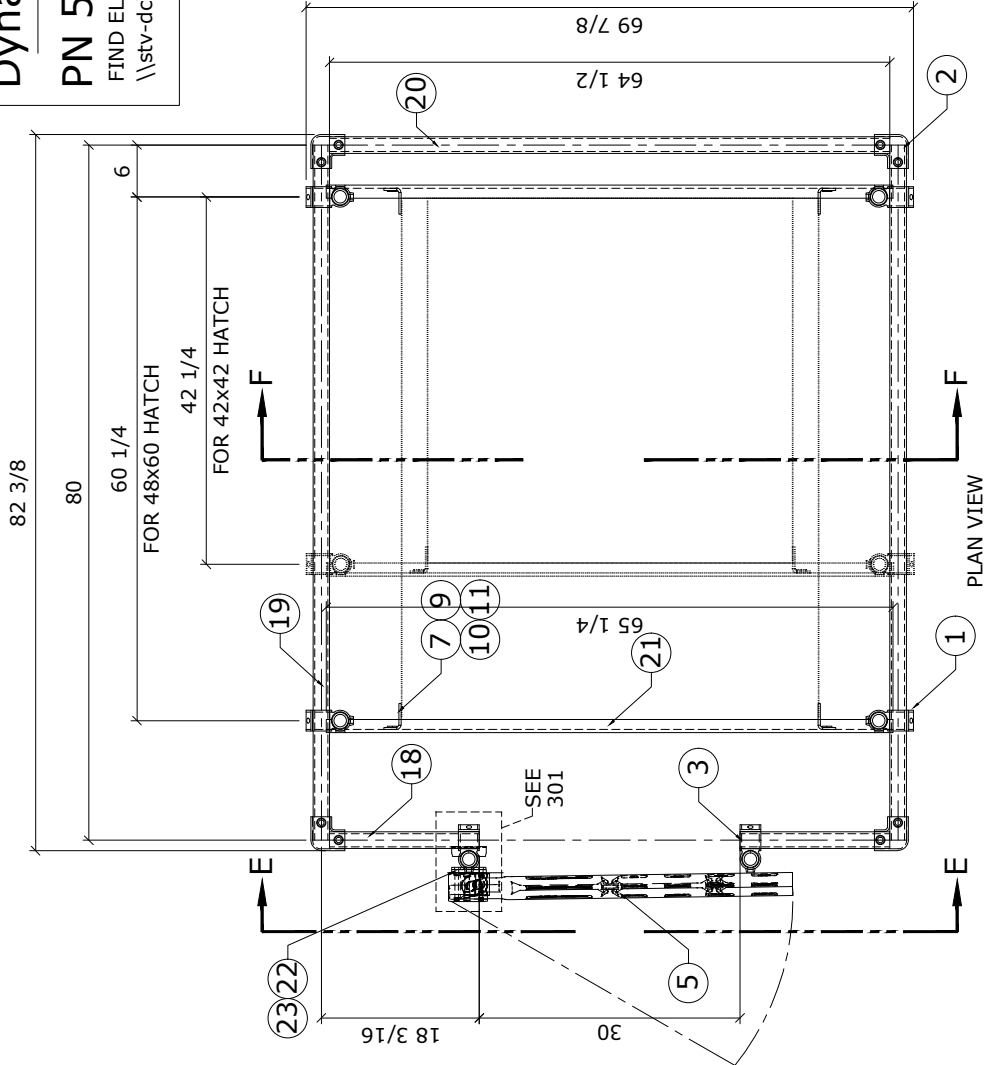


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1	ECN 184	09/10/18	CA	DATE	09/20/17
				DRAWING NUMBER	5041310
				DRAWN:	CS
				SHEET	4 OF 4

DynaRound RG Hatch Guard - 42-48 x 42-60

PN 5041410 (ASSEMBLY)

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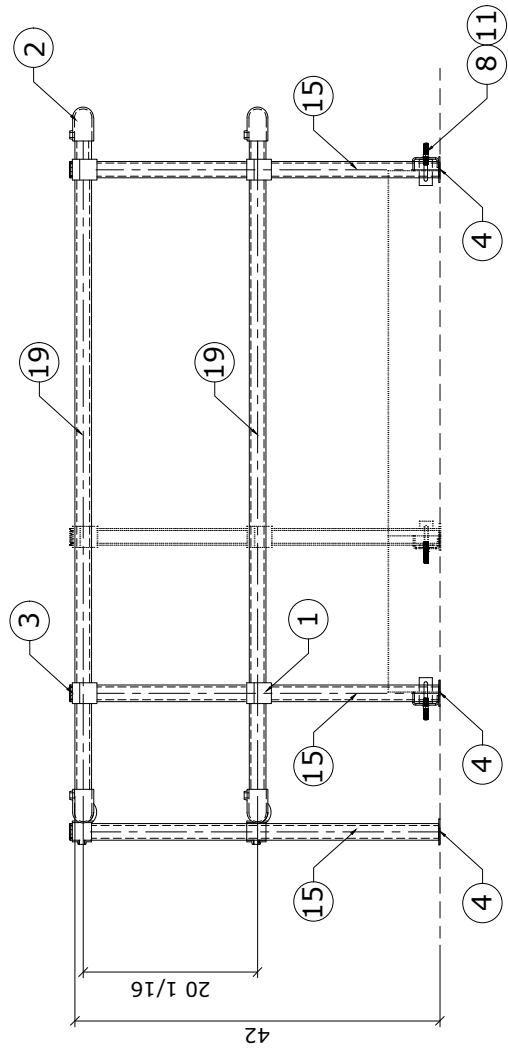
Material Requirements for 5041410

ITEM NO.	QTY REQ'D	DESCRIPTION	DATE	BY
23	1	UTILIZE 3/8" Thick Dark Gray ISOFR Shim Plate (Cut From Drop)		
22	1	445240 Intrepid Pipe Mount Kit For Safety Gate		
21	2	5041114 Hatch Guard 67" Channel		
20	2	UTILIZE 1.9"Ø Round Tube - UV Coated (Parent PN 5001010)		
19	4	UTILIZE 1.9"Ø Round Tube - UV Coated (Parent PN 5001010)		
18	4	UTILIZE 1.9"Ø Round Tube - UV Coated (Parent PN 5001010)		
15	6	UTILIZE 1.9"Ø Round Tube - UV Coated (Parent PN 5001010)		
11	12	785200 3/8" Ø Washer		
10	4	784200 3/8" Ø Nut		
9	4	754530 3/8" Ø x 1 1/4" Lg. Bolt		
8	4	793114 McMaster 3/8"Ø x 4" U-Bolt W/ Nuts Zinc Plated PN 8875T858		
7	4	5041115 Hatch Guard 3.25" Angle		
5	1	445225 32" Intrepid Safety Gate		
4	6	793113 Caplugs Yellow Flanged Plug WWX-17		
3	10	7926150 End Cap - UV Coated		
2	8	793125 Two Way Elbow		
1	12	793201 Open Cross Over		

REV	DESCRIPTION	DATE	BY	DESCRIPTION
0	ECN 173	09/20/17	CS	HATCH GUARD
1	ECN 184	09/10/18	CA	
		SCALE	N.T.S.	DATE: 09/20/17
		DRAWING NUMBER		5041410
		DRAWN: CS		SHEET 1 OF 4



WEIGHT = 163 LBS

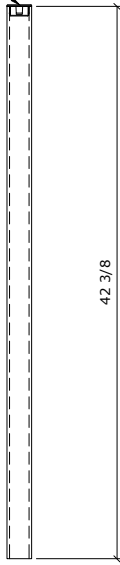


ELEVATION



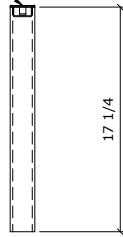
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				DRAWN	CS
				SHEET	2 OF 4

3 SHOP ATTACHED

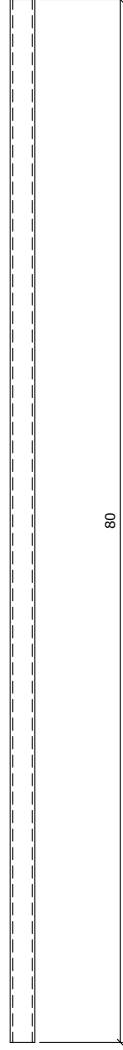


1.9"Ø ROUND TUBE 15

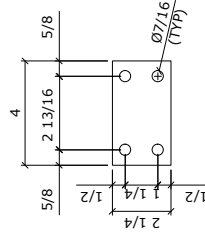
3 SHOP ATTACHED



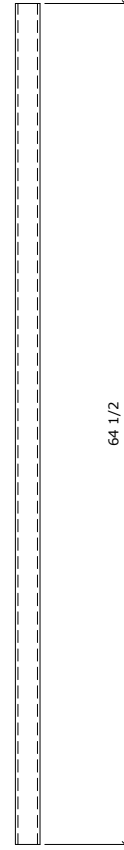
1.9"Ø ROUND TUBE 18



1.9"Ø ROUND TUBE 19



3/8" THICK SHIM PLATE 23
(SCALED 2X)



1.9"Ø ROUND TUBE 20



REV	DESCRIPTION	DATE	BY	HATCH GUARD	
0	ECN 173	09/20/17	CS	SCALE	DRAWN: CS
1	ECN 184	09/10/18	CA	N.T.S.	DATE: 09/20/17
				DRAWING NUMBER	SHEET
				5041410	4 OF 4