

One Clarion Inc is an authorized distributor for UltraTech International Inc.

Ultra-Track Pan Submission Package

Flyer	2
Specifications	4
Exploded Parts Illustration	5
Center Pan Drawing	6
Side Pan Drawing	7
Rail Height Worksheet	8
Polyethylene Chemical Compatibility Guide.....	10
Installation Instructions	12





Ultra-Track Pans®



Capture hazardous spills from railroad tanker cars and locomotives

Ultra-Track Pans have been designed to provide spill containment at industrial rail sidings, locomotive maintenance, and fueling facilities.

Available in virtually any length, Ultra-Track Pans may be used to collect small spills and leaks OR to capture and channel off significant spills caused by defective equipment or a major overflow.

- + Prevent costly cleanup and regulatory fines.
- + Slip-resistant design.
- + All polyethylene construction — Rugged Track Pans withstand harsh chemicals and are designed to function in temperatures ranging from -40° F to +140° F.
- + Sealed System — Polyethylene gaskets[†] keep spills from falling between the rails and Pans.
- + Trucks and other vehicles can drive over Track Pans with grates in place.*
- + Economical and easy to install.



*To drive over Track Pans, firm footing must be beneath the Pans; also must "ramp up" to Side Pans with asphalt or concrete.

†Polyethylene gaskets are used from most applications. Viton gaskets are available for crude oil applications. See website for more details.



Track Pans with Grates, No Covers



Track Pans with Grates and Covers



Modular Design Center and Side Pans are 53.5" long; containment areas can be easily assembled to any length desired.



Optional Track Pan Covers keep rainwater out of the pans, providing effective stormwater management.

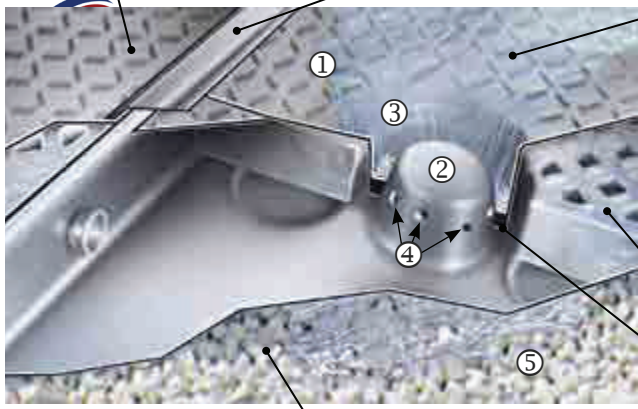
Unique stormwater feature is designed to eliminate "pooling" of rain that falls on top of the Center Pan Covers; rain is channeled onto the ballast between the tracks, stays out of the Pans.



Modular Track Pans can be assembled in any desired length — additional Pans can be added as your containment needs grow.

Center Track Pan Covers

Center Cover Overlap Lip



Stormwater Flow — Rain that falls on top of the ① Center Track Pan Cover is channeled toward the ② Stormwater Feature. It then “cascades” down the ③ cover “spout,” through the ④ “stormwater ports” and onto the ⑤ ballast.

Track Pan Grate (1 of 2 in each Center Track Pan)

Stormwater gasket seats just below the stormwater ports.

Ballast below Center Track Pans



Large, 3”-diameter flow-through channels allow spills to quickly travel from one Pan to the next. Channels are located at the low point in each Center and Side Track Pan.

Features & Benefits

- + Low Maintenance — Unlike carbon steel track pans, Track Pans will not rust or corrode. Polyethylene resin is treated with a UV inhibitor, resists degrading effects of the sun.
- + Low Cost Installation — Lightweight Track Pans can be easily installed without heavy lifting equipment, i.e., forklifts, cranes, backhoes, etc.
- + Slip Resistant Surfaces — Pans, grates and covers have been designed with safety in mind. All top surfaces resist slips when wet or oily.
- + Long Work Life — Estimated to perform for 20–30 years.
- + Protected by the industry’s strongest warranty - Five (5) years against any material or workmanship defects.
- + Meets SPCC and EPA Stormwater Management Regulations.
- + Also meets New York State Chemical Bulk Storage Regulation Section 599.17c — Secondary Containment for Transfer Stations.



All Center and Side Track Pans are molded with pipe fitting locators at their lowest point. Below-grade piping can be installed to channel large spills to oil/water separators, holding ponds, etc.

Installation Is Simple!



Flow-through channels — All Pans are connected “end-to-end” with bulkhead fittings, and a 3-inch diameter flow-through channel.



Closed-cell, polyethylene gaskets are then installed to provide a seal between the Pans and rails. (Black gaskets are provided.)



Side Pans are secured in place with 24” rebar fasteners. Typical installs require 2 pieces of rebar per Side Pan.

Visit www.trackpans.com for more detailed information.

Patents: See www.ultratechpatents.com

Part#	Description	Includes	Outside Dimensions in. (mm)	Containment Capacity gal. (L)	Weight lbs. (kg)
9566	Center Track Pan with Grates	2 bulkhead fittings, 4 gaskets and 2 grates	54 1/4" x 55 3/4" x 6" (1378 mm x 1416 mm x 153 mm)	18 (69)	112 (51)
9576	Side Track Pan with Grates	1 bulkhead fitting, 2 gaskets and 1 grate	54 1/4" x 30 1/4" x 6" (1378 mm x 768 mm x 153 mm)	19 (72)	58 (26)
9580	Center Track Pan Cover	—	55 x 52 1/2 (1,397 x 1,333)	—	24 (11)
9581	Side Pan Cover	—	55 x 28 1/4 (1,397 x 717)	—	11 (5)

Options: **9584** Rebar Fasteners with Protective Caps (20-pack) · **9559** 3" dia. Bulkhead Fitting (for below grade piping) · **9571** Grate Only for Center Pan (Left) · **9572** Grate Only for Center Pan (Right) · **9573** Grate Only for Side Pan



Ultra-Track Pans®

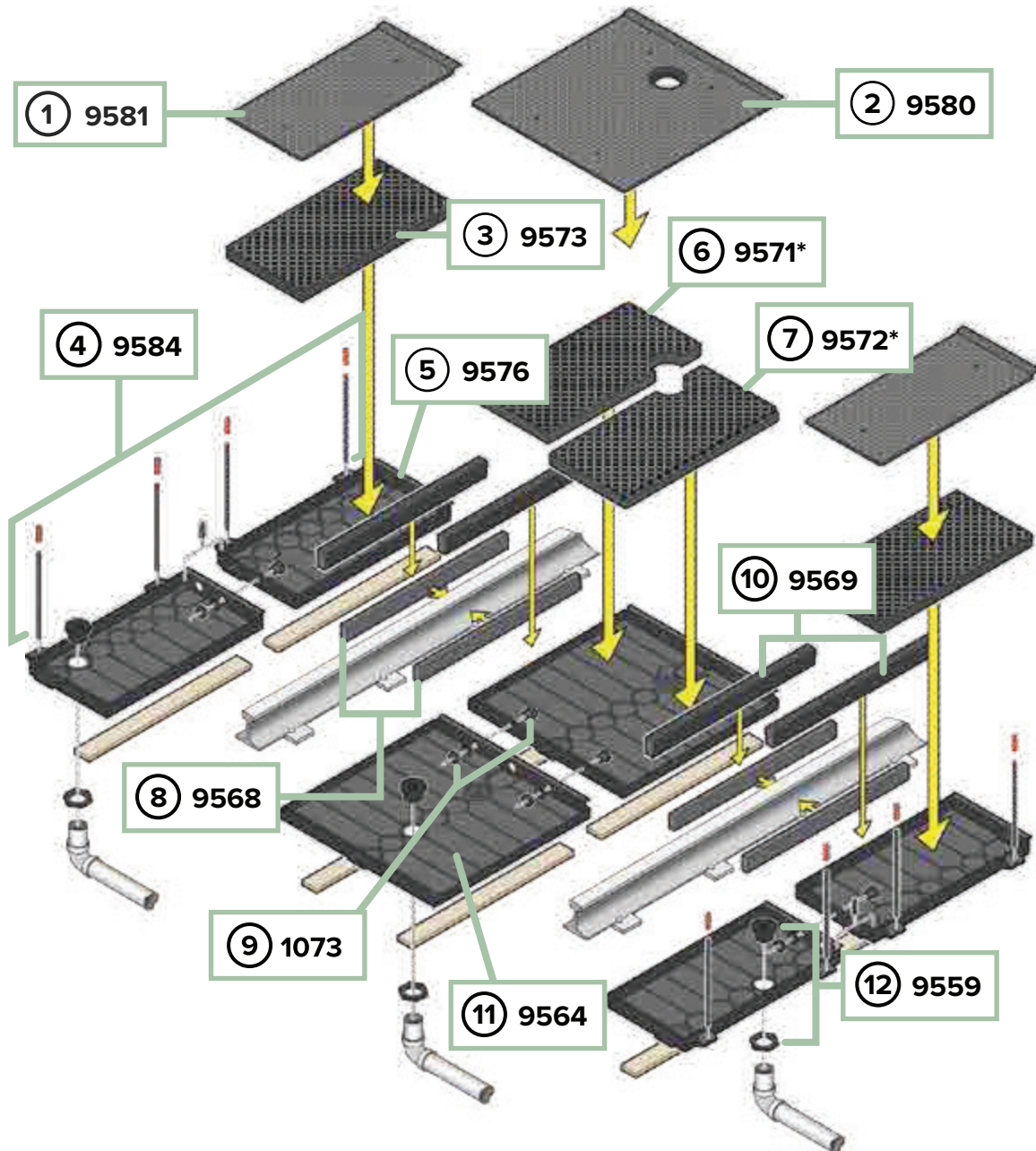
SPECIFICATIONS

Part#	Description	Dimensions in. (mm)	Containment Capacity gal. (L)	Weight lbs. (kg)
9566	Center Track Pan with Grates	53½ x 53½ x 6 (1,359 x 1,359 x 153)	18 (69)	112.0 (51.0)
9576	Side Track Pan with Grates	53½ x 27½ x 6 (1,359 x 699 x 153)	19 (72)	58.0 (26.0)
9598	Center Track Pan with Grates - INTERNATIONAL	53 x 42¾ x 4.39 (1,346 x 1,086 x 111)	14.75 (55.8)	39 (17.7)
9580	Center Track Pan Cover	55 x 52½ (1,397 x 1,333)	—	24.0 (11.0)
9581	Side Track Pan Cover	55 x 28¼ (1,397 x 717)	—	11.0 (5.0)

Options: **9584** Side Track Pan Fasteners (Qty. 20 rebar fasteners with protective caps) · **9559** Bulkhead Fittings (1 Fitting for below-grade piping)

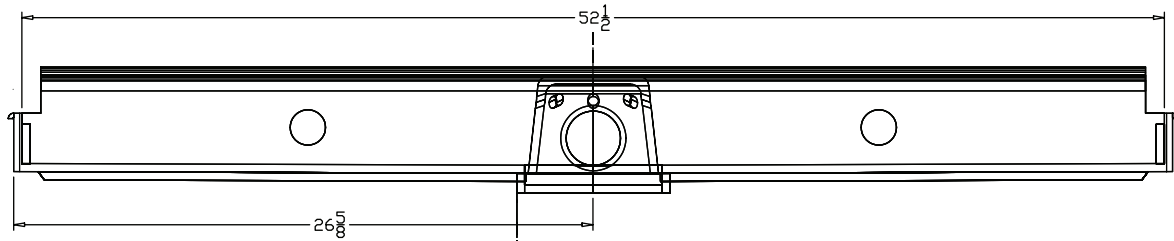
MATERIAL SPECIFICATIONS

Material of Construction	Polyethylene
Color	Black
Melt Index	3.5 g/10 min
Density	0.941 g/cm ³
Melting Point (DSC)	259° F (126° C)
Yield Strength	2,900 psi
Elongation at Yield	12%
Flexural Modulus	119,900 psi
Heat Distortion Temperature	
66 psi (4.64 kg/cm ²)	144° F (62° C)
264 psi (18.56 kg/cm ²)	109° F (43° C)
ARM Low Temperature Impact	
0.125"	49 ft-lb
0.250"	170 ft-lb

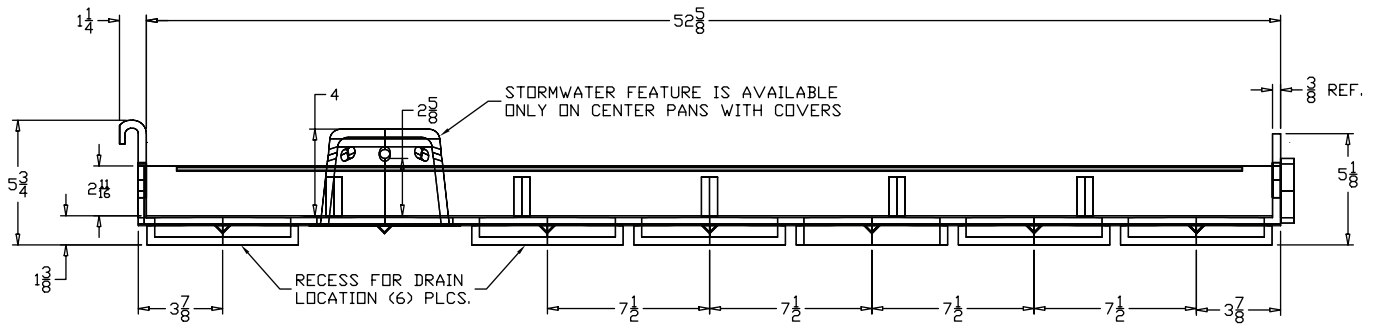


- | | | |
|---|---|---|
| ① 9581 - Side Pan Cover | ⑤ 9576 - Side Pan With Grate | ⑨ 1073 - Bulkhead Fitting |
| ② 9580 - Center Pan Cover | ⑥ 9571* - Grate Only For Center Pan - Left | ⑩ 9569 - Rail Gasket "A" |
| ③ 9573 - Side Pan Grate | ⑦ 9572* - Grate Only For Center Pan - Right | ⑪ 9564 - Center Pan with Grating and Stormwater Feature |
| ④ 9584 - Rebar Fasteners With Protective Caps (20-pack) | ⑧ 9568 - Rail Gasket "B" | ⑫ 9559 - Bulkhead Fitting - 3" |

**Only used for pans with stormwater feature, standard center pans use 9573 for both left and right.*



STANDARD CENTER PAN
FRONT VIEW
(Part# 9566)



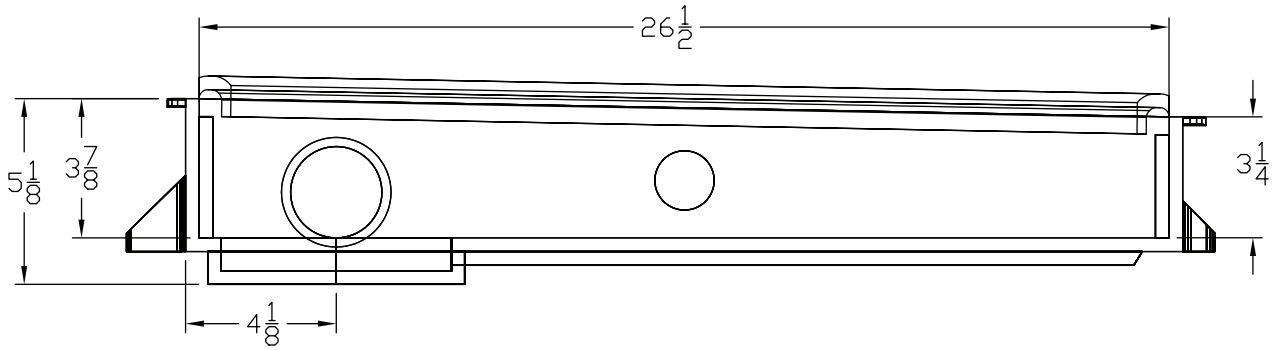
STANDARD CENTER PAN
SIDE VIEW
(Part# 9566)

ALL SYSTEM DIMENSIONS ±1%

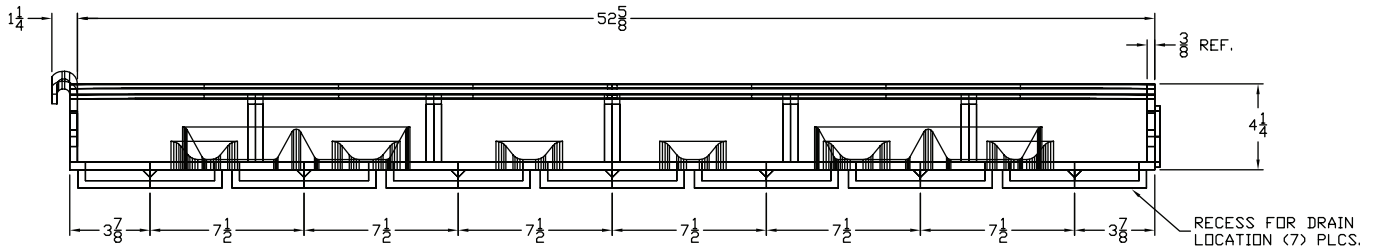
CONFIDENTIAL
This information and drawing is confidential and the property of UltraTech International, Inc. NO COPIES are to be made without express written permission from UltraTech International, Inc.

**** INSIDE MOLD DIMENSIONS ****

ADD DIMS	P.K.D. 5/11/04	SCALE: NONE		DESIGNED BY: L. M. BIERCE		ULTRA-TRACK PAN	SHEET NO.
ADD DIMS AND CALLOUTS	P.K.D. 4/29/04	PROJECT NO:		DRAWN BY: D. POTTS		CENTER PAN DIMENSIONS	1
NEW ARRANGEMENT	P.K.D. 3/10/04	FILE NAME: standard system.dwg		CHECKED BY: L. M. BIERCE		g) Showing Hidden Lines	of 2
INITIAL ISSUE	DSP: 8/17/01	11543 Dale Creek Ct. Jacksonville, Florida 32256		(904) 292-1611 Fax # (904) 292-1325 Email: joul@ultratrainment.com			



STANDARD 7 PAN (31.2 FT.) SYSTEM ELEVATION



STANDARD 7 PAN (31.2 FT.) SYSTEM PLAN VIEW

ALL SYSTEM DIMENSIONS ±1%

Consists of 7 Center Pans (Part# 9566)
and 14 Side Pans (Part# 9576)

CONFIDENTIAL

This information and drawing is confidential and the property of UltraTech International, Inc. NO COPIES are to be made without express written permission from UltraTech International, Inc.

**** INSIDE MOLD DIMENSIONS ****

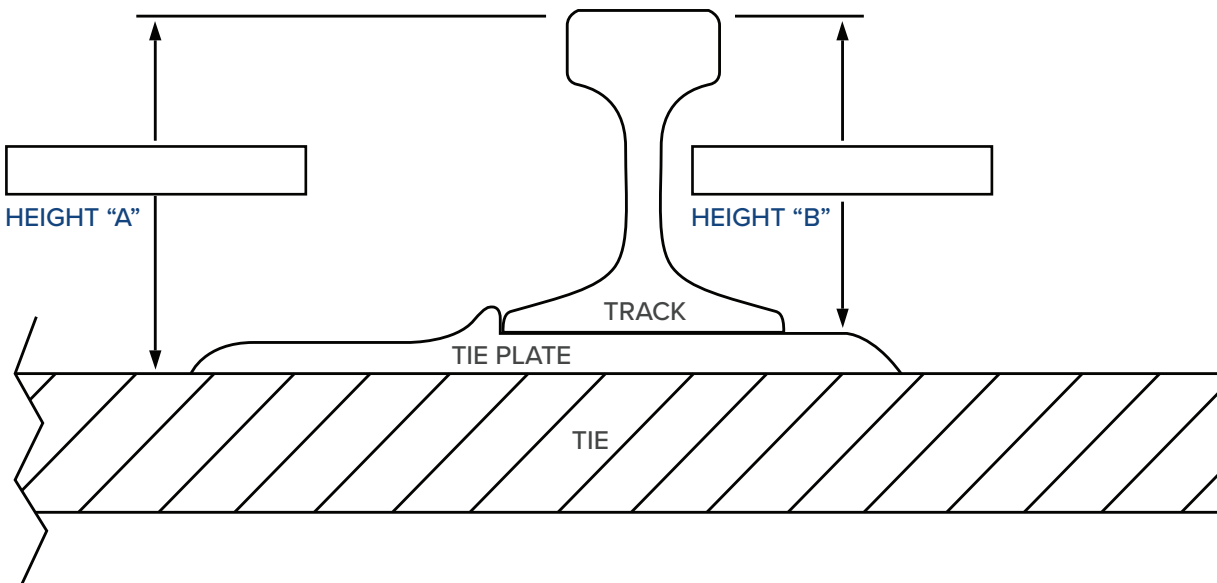
ADD DIMS	P.K.D. 5/11/04	SCALE: NONE	<p>11542 Davis Creek Ct. Jacksonville, Florida 32256 (904) 292-1811 Fax # (904) 292-1325 Email: paul@ultratechintl.com</p>	DESIGNED BY: L. M. BIERCE	ULTRA-TRACK PAN	SHEET NO.
ADD DIMS AND CALLOUTS	P.K.D. 4/29/04	PROJECT NO:		DRAWN BY: D. POTTS	STANDARD 7 PAN SYSTEM	1 of
NEW ARRANGEMENT	P.K.D. 3/20/04	FILE NAME: Standard System.dwg		CHECKED BY: L. M. BIERCE	(31.2 FT.)	2
INITIAL ISSUE	DSP 8/2/01				a) Showing Hidden Lines	

TIES & TRACK ATTACHMENT OPTIONS:

<u>TIES</u>	<u>TRACK ATTACHMENT</u>
Please check one:	Please check one:
<input type="checkbox"/> WOOD <input type="checkbox"/> CONCRETE <input type="checkbox"/> STEEL	<input type="checkbox"/> SPIKES <input type="checkbox"/> BOLTS <input type="checkbox"/> PANDROL <input type="checkbox"/> VASSLOH

Please fill out form on page 2 if you have chosen pandrols.

DRAWING & MEASUREMENTS:



How much containment is needed?

How long of a system will be needed?

Is this one system, or is this more than one system? (If more than one, how many?)

Will drains be installed?

Will the end user drive over the pans?

When is the planned or target installation date?

What is the substrate?

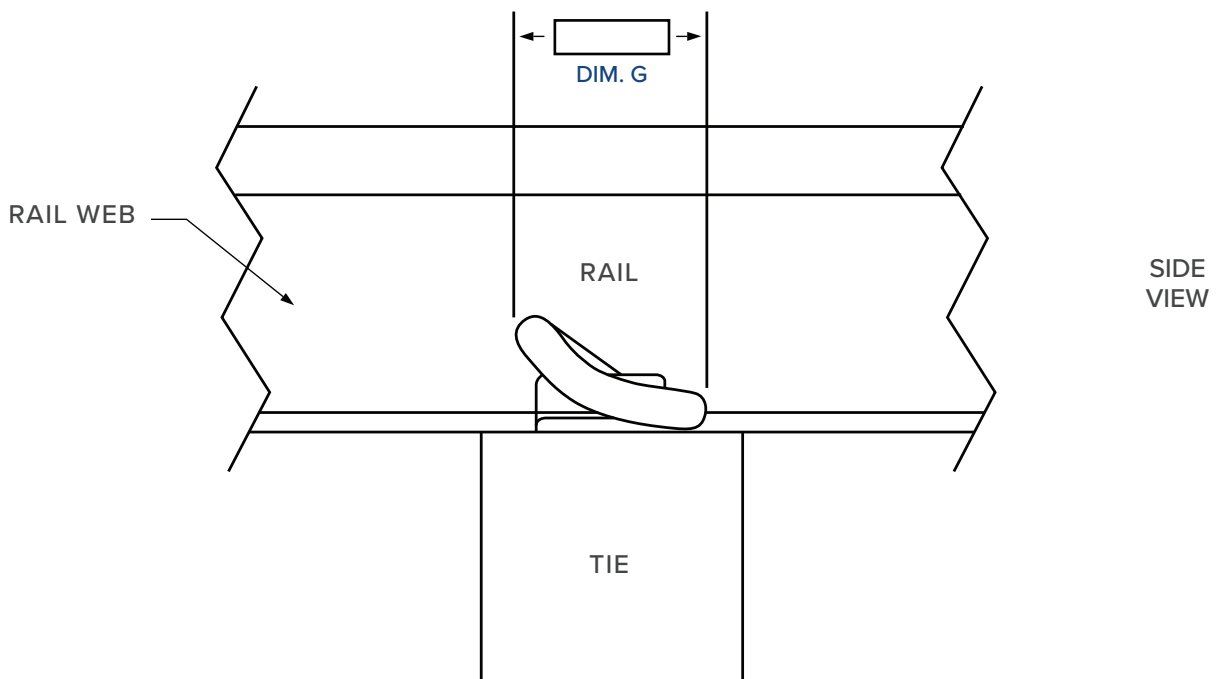
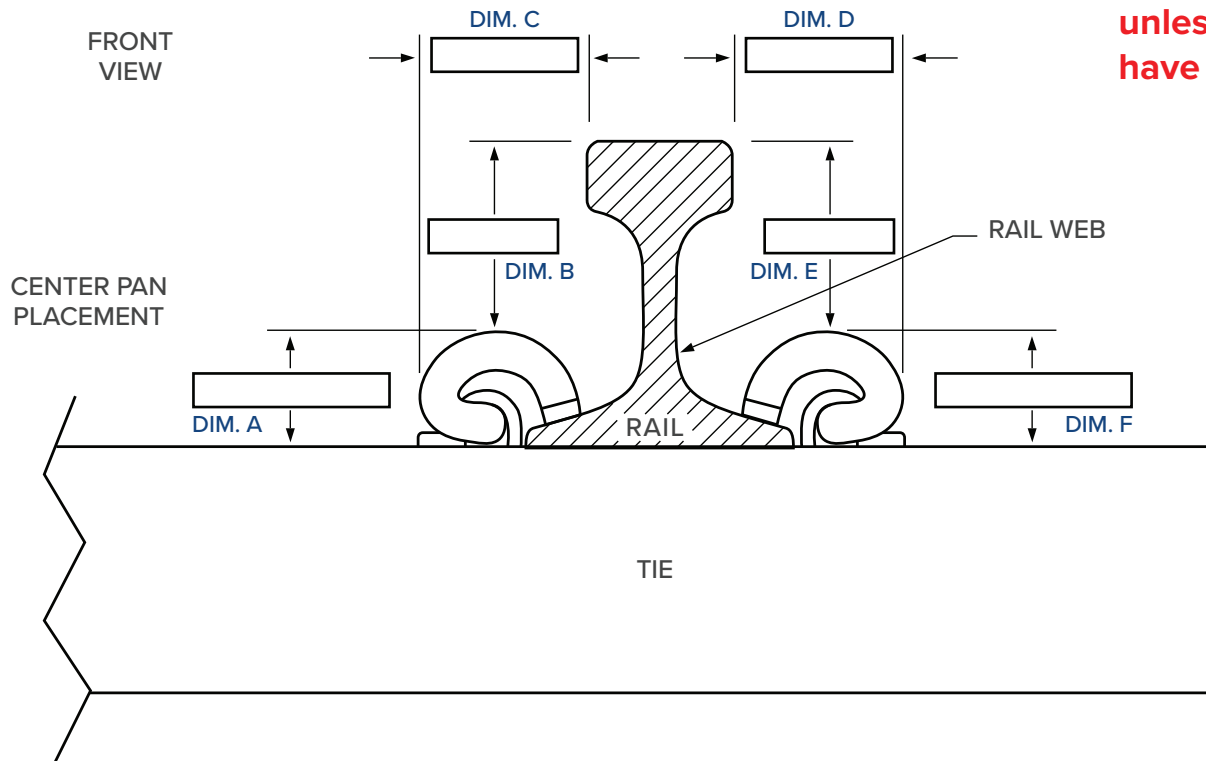
What chemical/s need to be contained?

Is the temperature of the substance being contained warmer than ambient temperature?

Is there a curve to the rail where the pans will be installed?

DRAWING & MEASUREMENTS:

Do NOT fill out this form unless you have pandrols.





Chemical Compatibility Guide - Polyethylene

For UltraTech Spill Containment Products

This listing was prepared to provide guidance to the chemical compatibility of UltraTech Spill Containment Products which are manufactured and constructed of a molded polyethylene.

Polyethylene is susceptible to attack by some chemicals which may cause stress cracking, swelling, oxidation or may permeate the polyethylene. These reactions may reduce the physical properties of polyethylene.

- A = Suitable for long term storage at 100 degrees Fahrenheit or less.**
- B = Suitable for short term storage less than one year.**
- C = Do NOT store these chemicals in UltraTech containment products.**

User testing may prove some of these chemicals are suitable for secondary containment applications with an exposure time of one week or less.

Acetaldehyde (40%)	A
Acetamide	A
Acetone	A
Acetylene Tetrabromide	B
Acrylic Emulsions	B
Acrylonitrile	A
Adipic Acid	A
Aliphatic Hydrocarbons	A
Alkaline	A
Allyl Alcohol (96%)	A
Aluminum Chloride (20%)	A
Aluminum Fluoride	A
Aluminum Hydrogen Solution (10%)	A
Aluminum Hydroxide	A
Alums (ALL Types)	A
Ammonia (Aqueous)	A
Ammonium Acetate	A
Ammonium Bifluoride	A
Ammonium Carbonate (50%)	A
Ammonium Chloride	A
Ammonium Hydrogen Fluoride (50%)	A
Ammonium Hydroxide	A
Ammonium Metaphosphate Sat'd	A
Ammonium Nitrate Sat'd	A
Ammonium Persulfate Sat'd	A
Ammonium Phosphate	A
Ammonium Salts	A
Ammonium Sulfate Sat'd	A
Ammonium Sulfide, Sat'd	A
Ammonium Thiocyanate Sat'd	A
Amyl Acetate	A
Amyl Alcohol (100%)	A
Amyl Chloride	C
Aniline (100%)	B
Aniline Hydrochloride	B
Anti Freeze	A
Antimony Salts	A
Antimony Trichloride (90%)	A
Aqua Regia	C
Aqueous Alkalies (NaOH)	A
Arsenic Acid	A

Asctetic Acid (50%)	A
Asctetic Acid Anhydride	B
Asctetic Ether	B
Barium Carbonate	A
Barium Chloride	A
Barium Cyanide	A
Barium Hydroxide	A
Barium Nitrate	A
Barium Salts	A
Barium Sulfate	A
Barium Sulfide	A
Battery Fluid, Acid	B
Benzaldehyde	A
Benzene Sulfonic Acid	B
Benzene	B
Benzoic Acid	A
Benzyl Alcohol	A
Benzyl Chloroformate	A
Boric Acid Conc.	A
Boric Acid Dilute	A
Borzx Cold Sat'd	A
Bromine, Liquid	C
Bromine, Water	C
Bromobenzene	C
Bromoform	C
Butadiene	A
Butanediol (100%)	A
Butanol	A
Butyl Acetate	A
Butyl Alcohol (100%)	A
Butyl Phenol	C
Butylene Glycol	A
Butylene Liquid	C
Butylene	C
Butyric Acid	A
Calcium Carbonate	A
Calcium Chloride	A
Calcium Hydroxide	A
Calcium Hypochlorite	A
Calcium Nitrate (50%)	A
Calcium Sulfate	A

Carbon Bisulfide	C
Carbon Disulfide	C
Carbon Monoxide	A
Carbon Tetrachloride	C
Carbonic Acid (Aq. CO2)	A
Caustic (Aqueous)	A
Caustic Potash Sol. (50%)	A
Caustic Soda Sol. (10%)	A
Chloroacetic Acid	A
Chlorobenzene	A
Chloroform	C
Chloromethane	C
Chlorsulfonic Acid (100%)	C
Chrome Alum Sat'd	A
Chromic Acid (50%)	B
Clycolic Acid (All Conc.)	A
Copper Cyanide	A
Cresylic Acid	A
Crotonic Aldehyde	A
Cuprous Chloride Sat'd	A
Cyclohexanone	B
Cyclohexane	A
Cyclohexanol	A
Dextrin Sat'd	A
Dextrose Sat'd	A
Di Isobutyl Ketone	B
Dibutyl Ether	C
Dibutyl Sebacate	B
Dibutylphthalate	B
Dichloroacetic Acid	B
Dichlorobenzene, Liquid	C
Dichloroethylene	C
Diesel Fuel	B
Diesel Oil	B
Diethanolamine	B
Diethyl Carbonate	A
Diethylene Glycol	A
Digycolic Acid (30%)	A
Dimethyl Formamide	B
Dimethylamine	B
Dinonyl Phthalate	C

When considering an UltraTech polyethylene product for use in secondary containment applications, it is important to note that most secondary containment products are designed to hold leaked chemicals for only hours, a day, at most a week.

These secondary containment units would then be cleaned of any chemical. In these short term applications, a greater variety of chemicals may be used with the polyethylene since the exposure time of the chemical to the polyethylene is limited.



Diocetyl Phthalate	C	Magnesium Hydroxide	A	Potassium Hydroxide	A
Dioxane	A	Magnesium Nitrate	A	Potassium Nitrate Sat'd	A
Diphenyl Oxide	C	Magnesium Oxide	A	Potassium Perborate Sat'd	A
Disodium Phosphate	A	Magnesium Salts	A	Potassium Perchlorate	A
Electrolyte	A	Magnesium Sulfate	A	Potassium Phosphates	A
Ethanol	A	Maleic Acid	A	Potassium Sulfate	A
Ether	C	Methanol	A	Propanol	A
Ethyl Acetate (100%)	B	Methyl Acetate	A	Propargyl Alcohol (7%)	A
Ethyl Alcohol	A	Methyl Alcohol (100%)	A	Propionic Acid (50%)	A
Ethyl Butyrate	B	Methyl Alcohol (32%)	A	Propyl Alcohol	A
Ethyl Chloride	C	Methyl Bromide	C	Propylene Dichloride (100%)	A
Ethyl Ether	C	Methyl Chloride	C	Propylene Glycol	A
Ethylene Chloride	C	Methyl Ethyl Ketone	B	Propylene Oxide	A
Ethylene Chlorohydrin	A	Methyl Isobutyl Ketone	B	Pyridine	B
Ethylene Diamine	A	Methyl Isopropyl Ketone	B	Selenic Acid	A
Ethylene Dichloride	C	Methyl Sulfate	A	Sewage	A
Ethylene Glycol	A	Methyl Sulfuric Acid (All Conc.)	A	Silicic Acid	A
Ethylene Oxide	C	Methylene Chloride	C	Silver Nitrate	A
Fatty Acids	A	Mineral Oils	A	Soda Ash	A
Ferric Sulfate	A	Monochloroacetic Acid Ethyl Ester	A	Sodium Acetate Sat'd	A
Ferrous Salts	A	Monochloroacetic Acid Methyl Ester	A	Sodium Benzoate	A
Ferrous Sulfate	A	Mowilith D	A	Sodium Bisulfate (10%)	A
Fluoboric Acid	A	Naptha	B	Sodium Bisulfite	A
Fluosilicic Acid (All Conc.)	A	Napthalene	B	Sodium Bromate	B
Formaldehyde (40%)	A	Nicotine Dilute	A	Sodium Chloride	A
Formamide	A	Nicotinic Acid	A	Sodium Chlorite	A
Formic Acid (All Conc.)	A	Nitric Acid (50%)	A	Sodium Chromate	A
Fuel Oil	A	Nitrobenzene	B	Sodium Disulfite	A
Furfural (100%)	A	Nitrotoluene	B	Sodium Dithionite (10%)	A
Furfuryl Alcohol	C	Octyl Cresol	A	Sodium Fluoride Sat'd	A
Gallic Acid Sat'd	A	Oleic Acid (All Conc.)	A	Sodium Hydroxide Conc	A
Gasoline	A	Oleum Conc	C	Sodium Hypochlorite	A
Gluconic Acid (All Conc.)	A	Oxalic Acid (All Conc.)	A	Sodium Nitrate	A
Glycerine	A	Palmitic Acid	C	Sodium Oxalate	A
Glycol	A	Paraffin Emulsions	A	Sodium Persulfate	A
Heptane	A	Perchloric Acid (50%)	A	Sodium Phosphate	A
Hexane	A	Perchloroethylene	B	Sodium Sulfonates	A
Hydrazone Hydrate	A	Petroleum Ether	B	Stearic Acid (All Conc.)	A
Hydrobromic Acid (50%)	A	Petroleum	A	Succinic Acid	A
Hydrochloric Acid (All Conc.)	A	Phenylhydrazine	C	Sulfuric Acid (98%)	B
Hydrocyanic Acid Sat'd	A	Phosphoric Acid (All Conc.)	A	Sulfuric Acid, Fuming	C
Hydrofluoric Acid (All Conc.)	A	Phosphorous (Yellow 100%)	A	Sulfurous Acid	A
Hydrofluorisilicic Acid (All Conc.)	A	Phosphorous Chlorides	B	Sulfuryl Chloride	C
Hydrogen Bromide (10%)	A	Phosphorous Pentoxide	A	Tartaric Acid Sat'd	A
Hydrogen Peroxide (90%)	A	Photographic Solutions	A	Tetrachlorethylene	C
Hydrogen Phosphide (100%)	A	Phthalic Acid (All Conc.)	A	Tetrachloroethane	C
Hydrogen Sulfide	A	Phthalic Anhydride	A	Tetrahydrofuran	C
Hydroiodic Acid (All Conc.)	A	Pickling Baths		Tetrahydronaphthalene	C
Hydroquinone	A	• Sulfuric Acid	A	Thionyl Chloride	C
Hydrosulfite (10%)	A	• Hydrochloric Acid	A	Titanium Salts	B
Hydroxylamine Sulfate	A	Picric Acid (1%)	A	Toluene Sulfonic Acid (All Conc.)	B
Hydrozine (35%)	A	Plating Solutions	A	Toluene	B
Hydrozine Hydrochloride	A	Potassium Aluminum Sulfates (50%)	A	Transformer Oil	A
Hypochlorous Acid	A	Potassium Bichromate	A	Tributylphosphate	A
Iso Octane	B	Potassium Borate (10%)	A	Trichloroacetic Acid	B
Isopropyl Acetate	A	Potassium Bromide	A	Trichloroethane	C
Isopropyl Alcohol	A	Potassium Chlorate	A	Trichloroethylene	C
Isopropyl Ether	C	Potassium Chloride	A	Tricresyl Phosphate	A
Jet Fuel	B	Potassium Chromate	A	Triethanolamine	A
Kerosene	B	Potassium Cyanide	A	Trioctyl Phosphate	C
Lactic Acid (All Conc.)	A	Potassium Dichromate (40%)	A	Trisodium Phosphate Sat'd	A
Lead Acetate Sat'd	A	Potassium Ferri Ferro Cyanide Sat'd	A	Turpentine Oil	C
Magnesium Carbonate	A	Potassium Fluoride	A	Xylene	C



Ultra-Track Pan Installation Instructions

Before beginning the installation process, a detailed review of your Ultra-Track Pan order is recommended to make sure that all items have been received and are not damaged. Please refer any questions or problems immediately to your UltraTech Distributor or to UltraTech International, Inc., at (800) 353-1611.

- **Do not attempt to install your Track Pan system** if any parts are missing or damaged.
- All installation personnel should **read these instructions in their entirety BEFORE** the installation process begins.
- We strongly recommend that all installation personnel also **view the installation video** in its entirety BEFORE the installation process begins. The installation video is available at www.TrackPans.com

NOTE: Proper personal protection equipment must be worn while installing Ultra-Track Pans. All safeguards must be taken to insure that the area of track where installation is to take place will have no rail traffic or other activity that may present hazards to installation personnel.

All applicable OSHA, DOT and other governing regulations must be followed. UltraTech International, Inc. is not responsible in any manner for equipment, property or personnel used in the Track Pan installation process.

THE FOLLOWING INSTALLATION INSTRUCTIONS HAVE BEEN PREPARED WITH THE ASSUMPTION THAT A COMPLETE TRACK PAN SYSTEM (i.e., Center Track Pans with Grates and Covers, Side Track Pans with Grates and Covers) IS BEING INSTALLED.

If, as an example, your installation requires center track Pans only, disregard all references to the installation of Side Track Pans. Likewise, if your installation does not require covers, disregard all references to those items.

Tools required to install Ultra-Track Pans

1. Metal Rake
2. House Broom
3. Two (2) Shovels (1 Flat, 1 spade)
4. Sledge Hammer (8 pound)
5. Circular Saw (7 1/4 inch)
6. Wood cutting blade for circular saw
7. Metal Cutting (abrasive) blade for the circular saw (May not be needed.)
8. Metal pry bar
9. Channel Lock pliers (12 inch)
10. Drill motor with #2 Phillips bit
11. Tape measure
12. Carpenter's yellow marking crayon
13. Two (2) bar clamps (deep reach with 12" opening) (deep reach bar clamps are available through W.W. Grainger, catalog # 4CN60.)

Additional materials needed for installation:

1. Two (2) wooden support boards: 1" x 4" x 4'
2. Two (2) pieces of lumber: 2" x 4" x 8'
3. Fasteners appropriate for fastening 5/4 treated lumber to the ties in your system, for example;
 - 3 inch spiral-shank nails
 - 3 inch galvanized deck screws for wooden ties
 - 2 1/2 inch concrete screws for concrete ties
 - 1 1/2 inch flat head machine screws for steel ties.

There will be 2 fasteners used for each length of lumber used under your Track Pan system.

SITE PREPARATION:

- 1. INSTALLATION AREA:** Before installing Ultra-Track Pans, minor preparation of the installation area is, in most cases, required.
 - Outline the area in which the Ultra-Track Pans are to be installed. Ultra-Track Pans are approximately 4'6" in length.
 - Multiply 4.5 x the number of Center Pans in your system and this will give you the approximate length of the system.
 - With an appropriate tape measure and marking crayon, mark the beginning and end of the system on the foot of the rails. Within this area you should be able to place the eight foot 2x4 on its edge and see that it rests on the tops of the railroad ties.
 - If it rests on ballast, weeds, or other debris then whatever is higher than the top of the ties needs to be removed.
 - Before Track Pans are installed the ballast in this area needs to be flush with or lower than the tops of the ties.
 - If your system includes Side Track Pans then the ballast on the field side of the rails will need to be flush with or lower than the tops of the ties and away from the rail three to five feet from the web of the rail depending on the width of the Side Track Pans used in your installation.
- 2. JOINT BARS:** Joint Bars hold two pieces of rail together. They are typically placed on the gauge side and field side of the rail web and are bolted together with six bolts (three bolts facing in toward the middle of the track and three facing out.) If possible, remove joint bars and the bolts and weld rails together. If this is not possible inspect joint bars and the bolts and make sure they are fully tightened using an appropriate wrench. Once they are securely tightened, place the metal cutting blade on the circular saw, and wearing proper hearing and eye protection, cut off the excess threads of these bolts. If your system only contains Center Track Pans then the bolts facing out do not need to be cut off.
- 3. RAIL ANCHORS:** Rail anchors prevent the rails from moving on the railroad ties as the locomotive pulls or stops the train. You will notice them in the area between the rails. Usually they are opposite one another and against the ties. Depending on your situation these anchors may need to be removed and replaced with a low profile anchor or removed altogether. Contact UltraTech and/or the railroad for additional guidance.
- 4. SPIKES:** Check all railroad spikes to see that they are all driven down tight to the foot of the rail.
- 5. DIRT & DEBRIS:** Remove dirt and other debris that may have collected on the inside and outside web surfaces of both rails.
- 6. SWEEP:** Finally, sweep off the tops of the ties leaving a clean surface on which to install the Ultra-Track Pan System.

Disclaimer: UltraTech International, Inc. assumes no liability for damages incurred to Ultra-Track Pans or the Ultra-Track Pan system due to installation on railroad ties that are in poor condition and thus enabling the rail anchors to damage the pans. UltraTech International, Inc. also assumes no liability for damages incurred to the Ultra-Track Pans or the Ultra-Track Pan system or loss of containment by the Ultra-Track Pan system caused by failure to remove and replace track joint bars or splice bars.

GENERAL INSTALLATION GUIDELINE

With NO Below Grade Piping:

UltraTech recommends that all Center Track Pans be completely installed BEFORE beginning installation of the Side Track Pans. The installation of the NON-PIPED system will be more efficient as a result.

WITH Below Grade Piping:

Center Track Pans and Side Track Pans (if ordered) must be installed concurrently to allow for proper positioning of the piping and filling of the pipe trenches under the Track Pans.

PVC piping is strongly recommended. PVC has adequate strength and the necessary flexibility to give a long-lasting installation. Contact UltraTech for suggested piping layouts or other information.

Installation of Treated Lumber for Center Track Pan

Treated support boards (lumber) of an appropriate length for your Track Pan system will be sent with your order. The boards should be placed with one edge against the tie-plate edges. If there are no tie-plates, install the boards 7 ½ inches from the web of the rails. (The “web” is the recessed, vertical surface located between the base of the rail and the top of the rail).

Fasten the treated support boards to the ties, with an appropriate fastener for the type of tie in your system (See suggested fasteners - page 2 - Additional Materials - Item 3), by using one fastener near each end of each treated support board.

Installation of Treated Lumber for Side Track Pan

Treated support boards of an appropriate length for your Track Pan system will be sent with your order. The boards should be placed with one edge against the tie-plate edges. If there are no tie-plates, install the boards 7 ½ inches from the web of the rails. (The “web” is the recessed, vertical surface located between the base of the rail and the top of the rail)

Fasten the treated support boards to the ties, with an appropriate fastener for the type of tie in your system, by using one fastener near each end of each treated support board.

Helpful Hint for the Installation of the Center or Side Track Pans

It is best to begin the installation process by positioning the Overlap Lip of the initial Track Pan to be installed at the very beginning of the Track Pan System. (See Diagram 1 below) Then place the Overlap Lip of the next Track Pan to be installed over the top of the installed Pan. The Lip allows the next Pan to “pivot” downward. Once the second Pan is laying flat on the top of the railroad ties, the “flow-through” male and female ports will be correctly aligned.

NOTE: It is important to note that your Track Pan order has been customized to meet your needs. The Track Pan walls that will be located at the very beginning and the very end of each System have NOT been drilled out to allow flow-through. These “non-drilled” parts are in boxes marked as END PAN “A”, “B”, “C” or “D”. Make sure that these “non-drilled” ends are positioned correctly as shown:

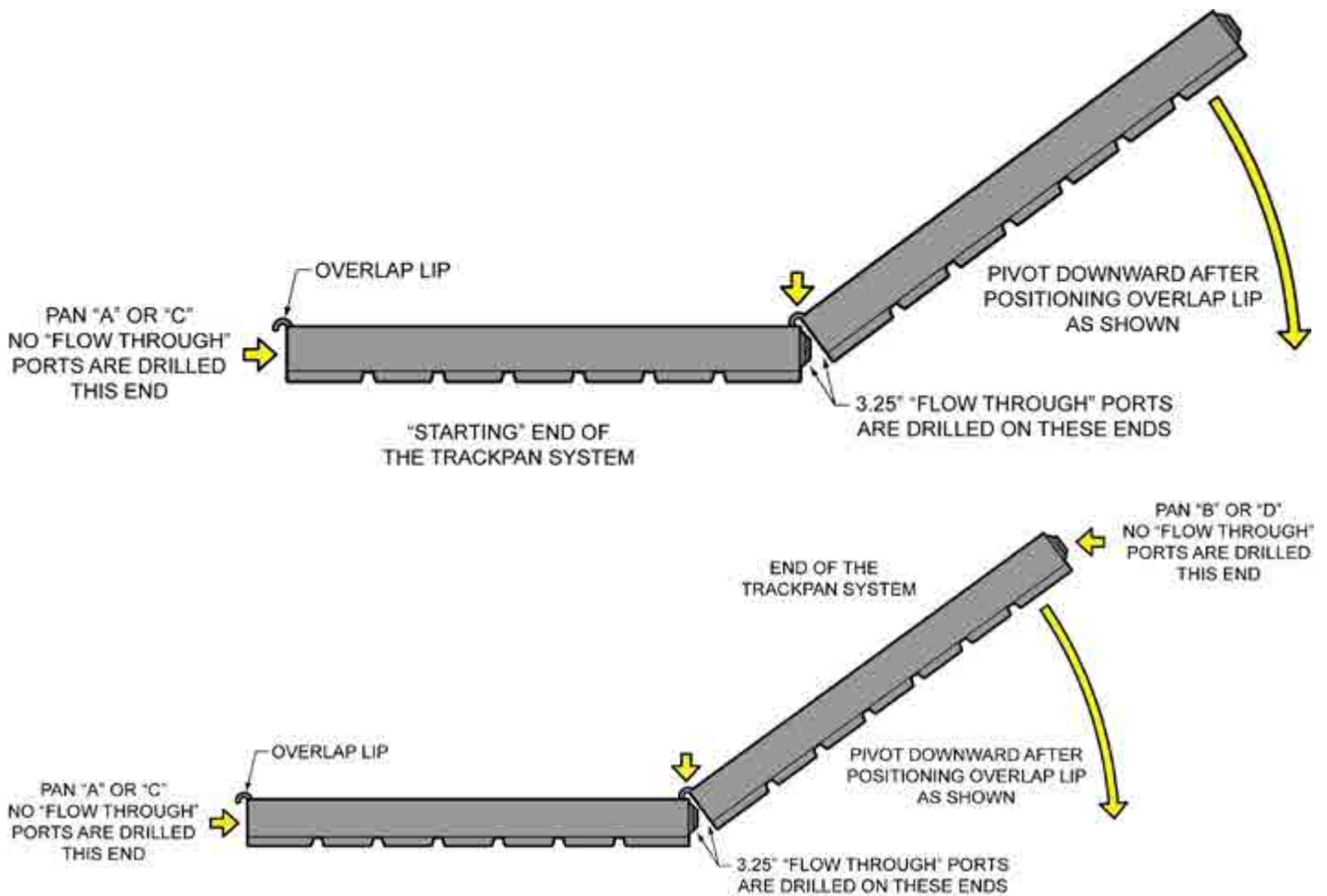


Diagram 1

Installation of Center Track Pans

1. Remove grates from center pans as each is being prepared for installation. Do not remove all grates from all center pans prior to installation. The grates help the Pans resist warping in hot environments.
2. The BEGINNING Center Track Pan should be installed with the “overlap lip” at the STARTING END of the Track pan System. See Illustration A.
3. It is important to install the Center Track Pans so that they are centered between the two rails. This will facilitate the installation of the Center Track Pan gaskets at the end of this process. In order to keep them centered UltraTech recommends cutting two blocks of wood 6 inches long and 2 1/2 inches wide depending on the thickness of the rail web and the spacing of the rails from a piece of 2 x 4. These blocks are to be used as spacers to keep the Center Track Pans centered between the two rails while assembling. See Diagram 2.
4. Two (2) 3/4” NPT bulkhead fittings are shipped with each Center Track Pan. Each bulkhead fitting includes one (1) donut-shaped flexible gasket and a rigid washer (Discard the rigid washer). Insert the male portion of the bulkhead fittings through the two smaller holes in the end of the already placed Pan. Place the flexible rubber gasket over the male portion. (The flexible rubber gasket will end up between the two pans) See Illustration B.

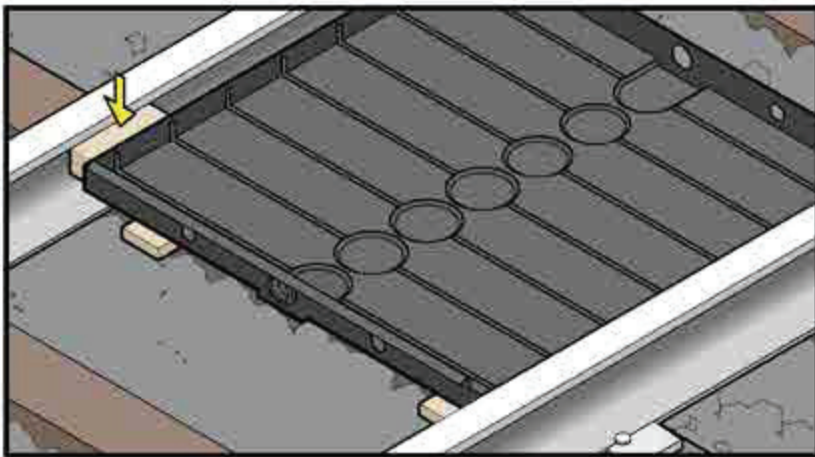


Illustration A

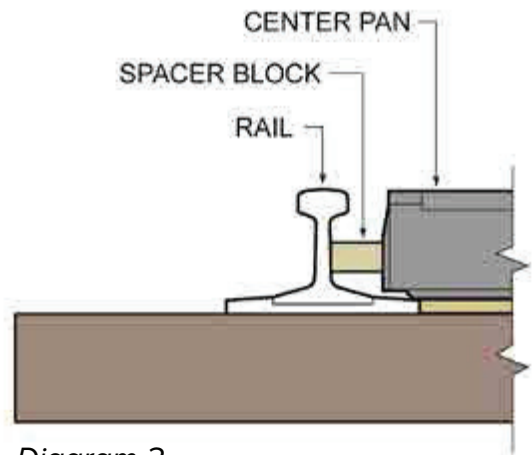


Diagram 2

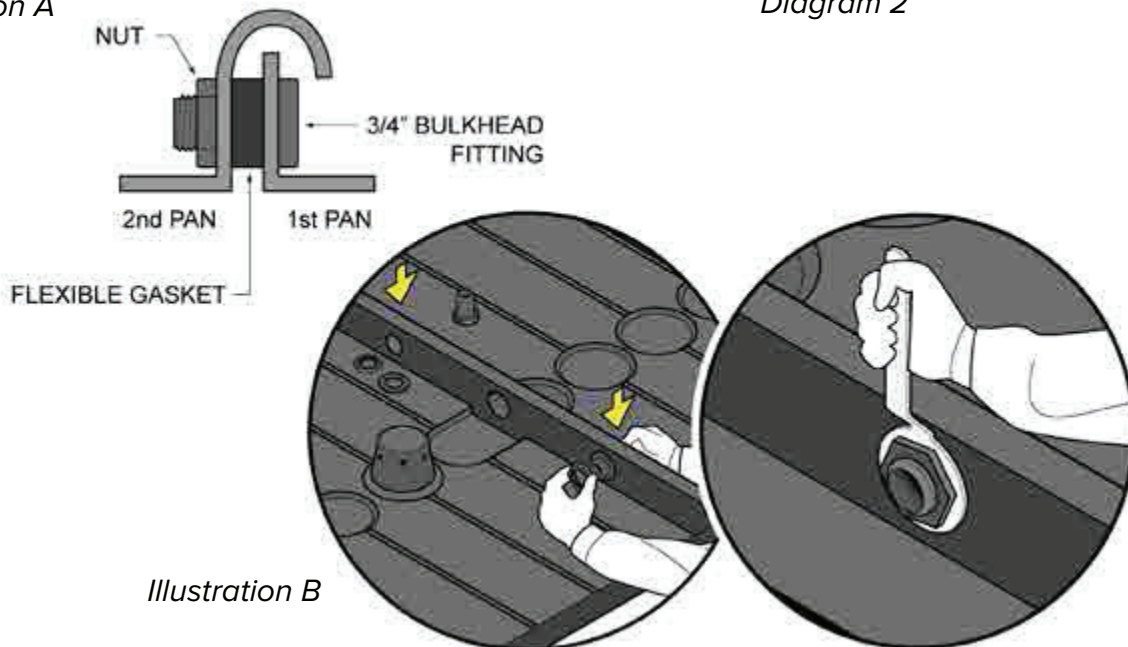


Illustration B

5. With the two (2) bulkhead fittings started through the endwall of the first Center Track Pan place the “overlap lip” of the second Center Track Pan on the endwall of the first Center Track Pan. Keep the second Center Track Pan on a 45 degree angle to begin with and slowly lower it down until the bulkhead fittings protrude through the endwall of this second pan. Three installers are best. The two kneeling in the first pan each keep a hand on the bulkhead fittings and prevent them from being dislodged by the second Center Track Pan.

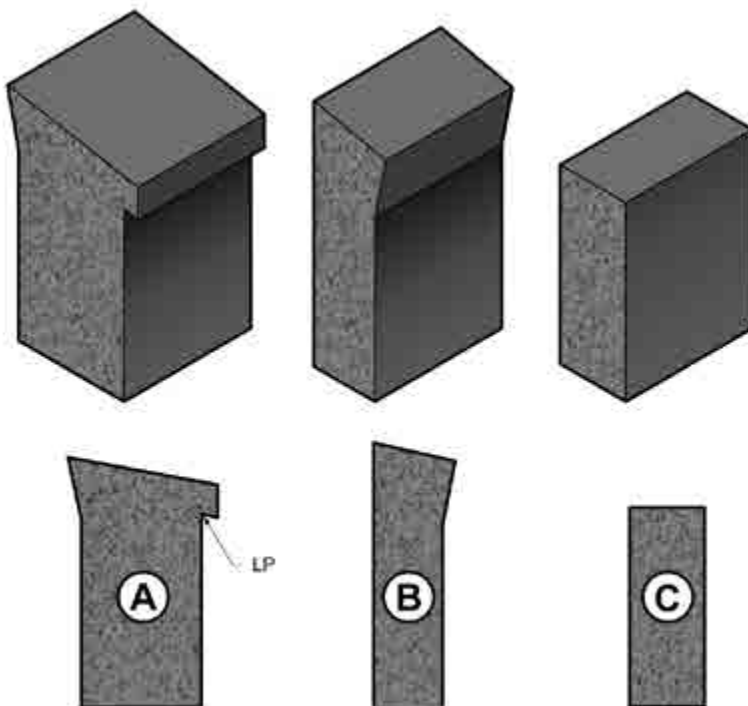
NOTE THAT THE BULKHEAD FITTINGS ARE REVERSE (LEFT HAND) THREADED WITH A SPECIAL (BUTTRESS) THREAD. THE NUT WILL ONLY TIGHTEN ON THESE FITTINGS IF IT IS PLACED WITH THE WORD “TIGHTEN” FACING OUTWARD AND IS TURNED IN A COUNTERCLOCKWISE DIRECTION.

6. Once the second Center Track Pan is fully lowered, tighten the nuts 1/4 turn beyond hand tight using the channel lock pliers. Do not over tighten the nuts. Repeat steps 4-6 until all Center Track Pans are connected together.
7. Two (2) track sealing gaskets without a lip and two (2) track sealing gaskets with a lip are shipped inside the box with each Center Track Pan. One (1) gasket without a lip and one (1) gasket with a lip are considered to be a “set.” The following steps will position one gasket set on each side of the Center Track Pan.

Note: Larger Track Pan systems do not include individually boxed Track Pans. All components such as the track sealing gaskets are bulk packed.

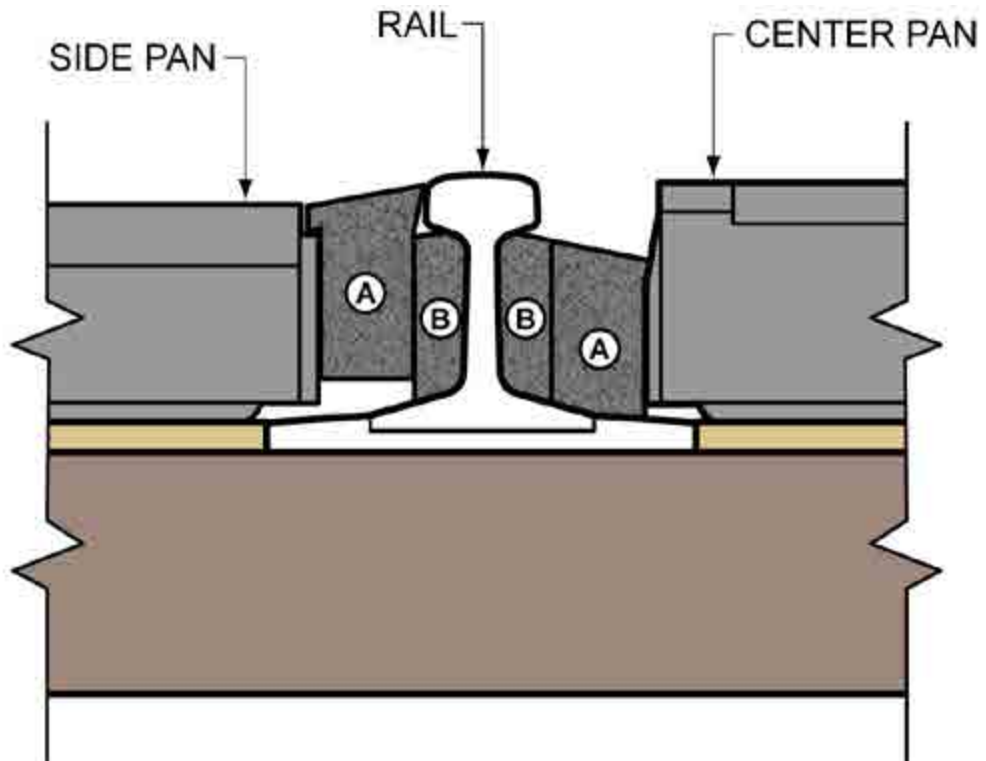
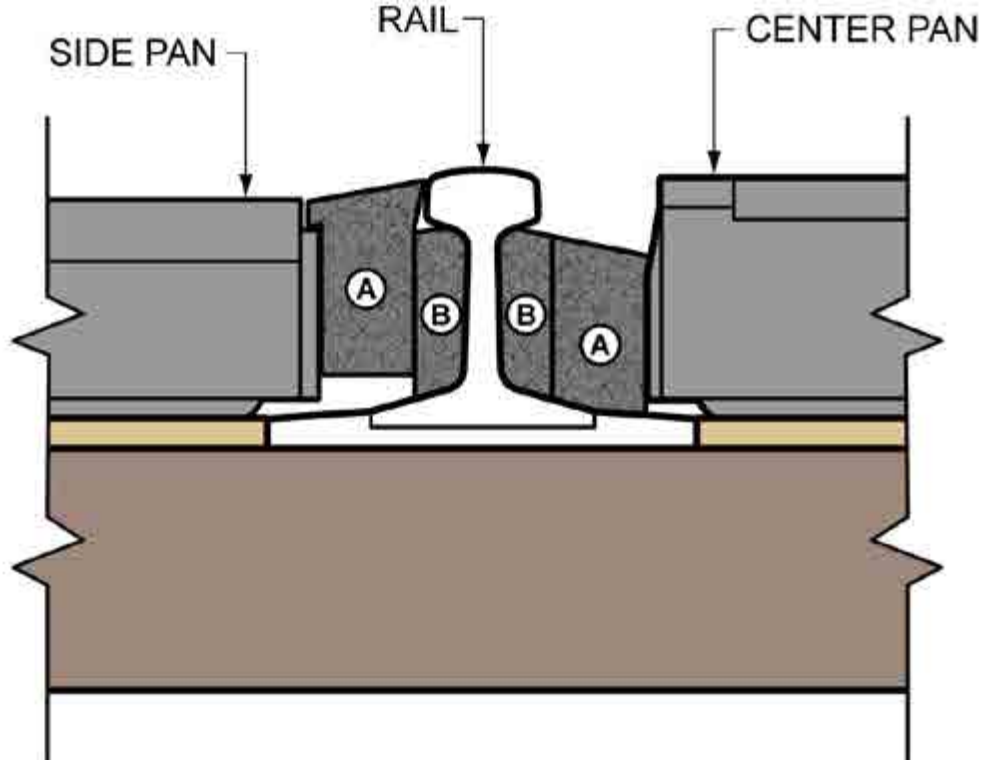
Note: there are many different sizes of rails in use. As a result, UltraTech offers various gasket configurations. Your shipment includes the correct gasket configuration to fit the rail size specified by your personnel at the time your order was placed.

Below are the various track sealing gasket designs available from UltraTech:



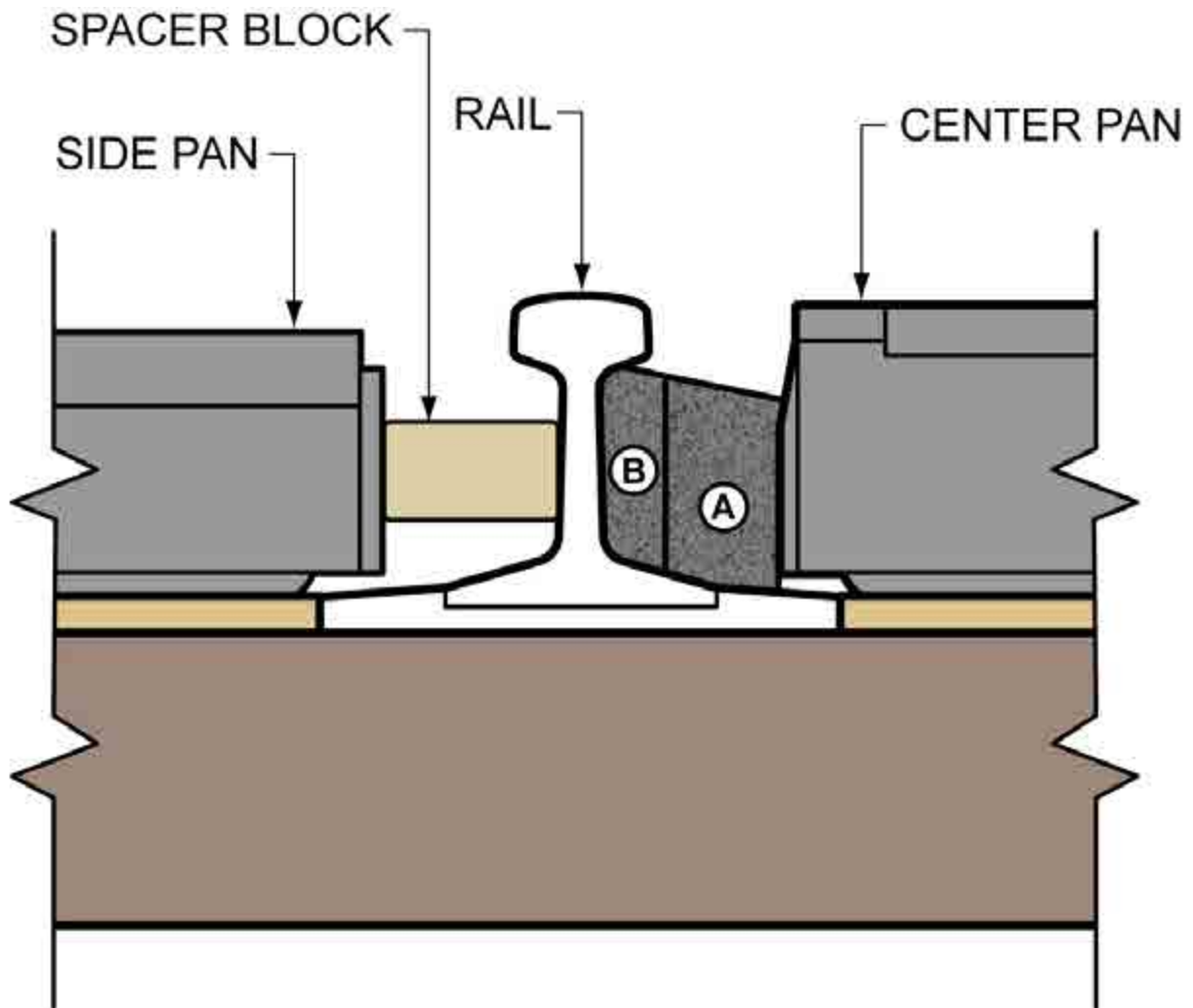
Ultra-Track Pan Gasket Configurations

Important: Refer to the appropriate sketch below as a guide for proper gasket orientation and installation.

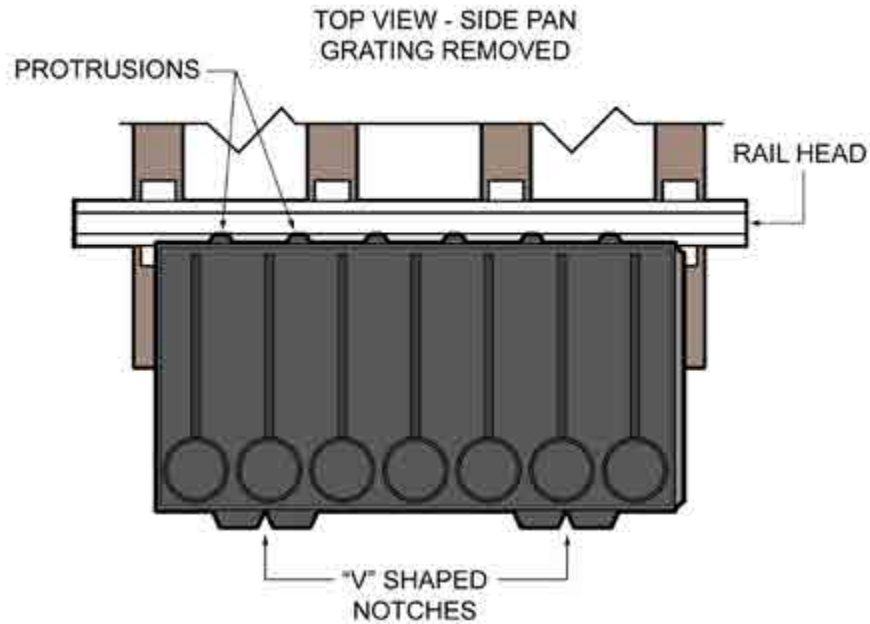


Installation of Side Track Pans

1. Remove grates from Side Track Pans as each is being prepared for installation. Do not remove all grates from all Side Pans prior to installation. The grates help the Pans resist warping in hot environments.
2. The BEGINNING Side Track Pan should be installed with the “overlap lip” at the STARTING END of the Track pan System.
3. Cut two (2) blocks of wood 6 inches long and 2 1/2 inches wide from a piece of 2 x 4. The 2 1/2 inch dimension is the one needed. Place two (2) of these blocks between the Side Track Pan and the rail effectively creating a space of 2 1/2 inch from outside of rail web to the side of the Pan.



NOTE: IT IS IMPORTANT TO NOTE THAT THERE ARE SIGNIFICANT DESIGN DIFFERENCES ON THE OUTSIDE SURFACE OF THE LONG SIDES OF THE SIDE TRACK PANS. ONE (1) SIDE HAS SIX (6) EQUALLY SPACED PROTRUSIONS NEAR THE BOTTOM EDGE. THIS IS THE SIDE THAT MUST BE POSITIONED TOWARD THE RAIL WEB. SEE DIAGRAM BELOW.



NOTE: The long side of the Side Track Pan that is farthest from the rails has two (2) molded, “V-shaped” notches, spaced approximately 19” apart. These molded, “V-shaped” notches will be used to fasten each Side Track Pan in place. These notches make the Side Track Pans run opposite directions on the two sides of the track. One set of Side Track Pans will start with a BEGINNING pan and the other set will start with an ENDING pan.

4. Place the first Side Track Pan directly on the treated lumber. With two (2) 2 1/2” spacer blocks in place apply pressure with the foot by pressing the Side Track Pan up against the spacer blocks and the web of the rail. While wearing safety equipment, hammer two (2) rebar fasteners in place. The rebar should be positioned as tightly against the “V-shaped” notch as possible. It is important to apply constant pressure on the rebar against the “V-shaped” notch as it is being driven into the ballast. The rebar should be driven in so that the top of the rebar leans slightly toward the center of the track and the top of the rebar should be at the same height as the sidewall of the Side Track Pan. Protective caps must be placed on the exposed ends of the rebar for safety reasons. See Illustration C.



Illustration C

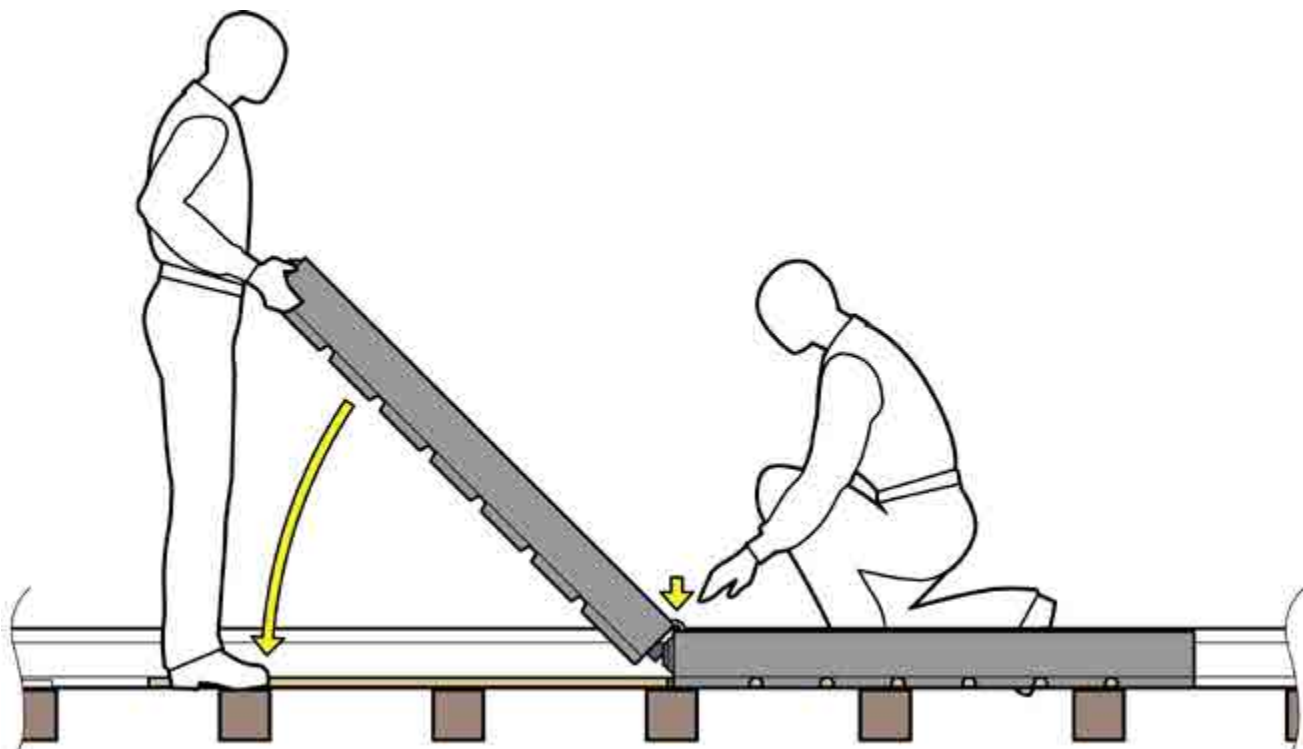
Move the spacer blocks to be ready for the next Side Track Pan. If this rail system is built on other surfaces such as concrete, appropriate fasteners will need to be specified to secure the Side Track Pans in place (see page 2). Please contact UltraTech International, Inc. with any questions or needs related to proper fastening of Side Track Pans.

NOTE: Most tracks are secured to wooden railroad ties. The ties typically rest on ballast (rocks) to provide secure footing. The soil below the ballast is engineered to withstand the dynamics associated with rail activity. UltraTech recommends using 24" long rebar pieces to secure Side Track Pans in place. Protective Caps must be placed on the exposed ends of the rebar for safety reasons. (These items are available from your UltraTech distributor. Part # 9584 is comprised of 20 rebar pieces and 20 protective caps.)

WARNING: BEFORE penetrating the soil or any other material found below grade near the rails, you must verify that the subsurface is free and clear of any obstructions that may present a hazard. It is important to review the area thoroughly to establish that no steam lines, gas lines, electrical, plumbing or other items are located in the pathway of the rebar fasteners or any other fasteners used to complete the installation of the Ultra-Track Pans.

5. One (1) 3/4" NPT bulkhead fitting is shipped with each Side Track Pan. The bulkhead fitting includes one (1) donut-shaped flexible gasket and a rigid washer (Discard the rigid washer). Insert the male portion of the bulkhead fittings through the hole in the end of the already placed Pan. Place the flexible rubber gasket over the male portion. (The flexible rubber gasket will end up between the two pans)
6. With the bulkhead fitting started through the endwall of the first Side Track Pan place the "overlap lip" of the second Side Track Pan on the endwall of the first Side Track Pan. Keep the second Side Track Pan on a 45 degree angle to begin with and slowly lower it down until the bulkhead fitting protrudes through the endwall of this second Pan. Two installers are best. One kneeling in the first pan to keep a hand on the bulkhead fitting and prevent it from being dislodged by the second Side Track Pan.

NOTE THAT THE BULKHEAD FITTINGS ARE REVERSE (LEFT HAND) THREADED WITH A SPECIAL (BUTTRESS) THREAD. THE NUT WILL ONLY TIGHTEN ON THESE FITTINGS IF IT IS PLACED WITH THE WORD "TIGHTEN" FACING OUTWARD AND IS TURNED IN A COUNTER-CLOCKWISE DIRECTION.

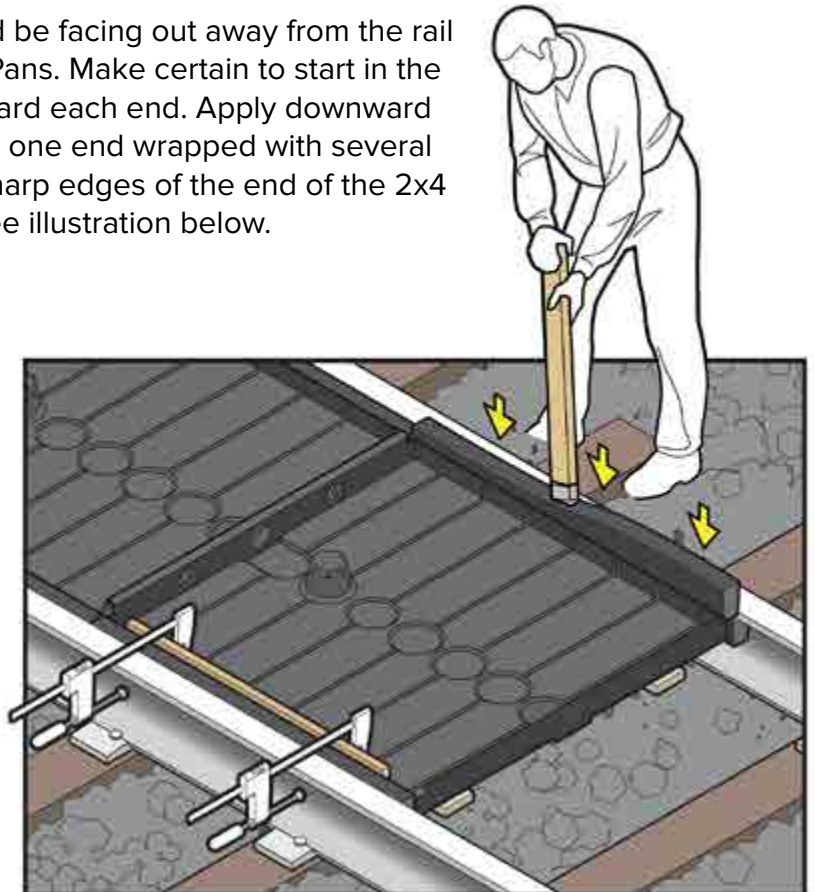


Repeat SIDE TRACK PAN INSTALLATION STEPS 1 - 6 to install all remaining Side Track Pans required to complete this side of the Track Pan System.

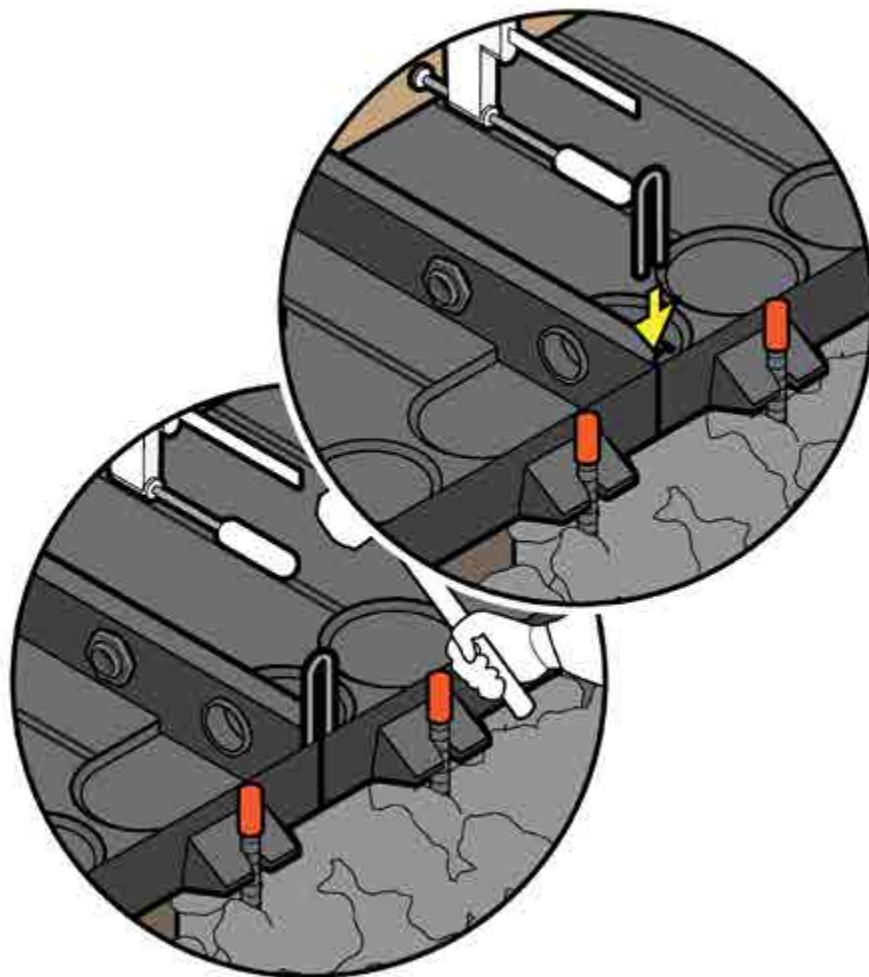
9. Once the second Side Track Pan is fully lowered, tighten the nut 1/4 turn beyond hand tight using the channel lock pliers. Do not over tighten the nut. Repeat steps 4-6 until all Side Track Pans are connected together.

NOTE: If the system being installed has piping (drains), the Side Pans should be installed at the same time as the Center Pans

10. One (1) gasket without a lip and one (1) gasket with a lip are shipped inside the box with each Side Track Pan. One (1) gasket without a lip and one (1) gasket with a lip are considered to be a "set." The following steps will position one gasket set between the rail and its adjacent Side Track Pan side.
11. For 90 lb. rails and larger place gasket "B" against the web of the rail. The "B" gasket can fit into the web area in four different ways. Use the placement that makes the "B" gasket upper edge come flush with the side of the head of the rail. Butt the ends of all gasket "B" pieces together at the joints where the pans meet. For 75 lb. rails and smaller use gasket "C." Both of these gaskets are without a lip. Each will fit against the rail "web." The "web" is the recessed, vertical surface located between the base of the rail and the top of the rail. There will be plenty of space available between the side of the Side Track Pan and the rail to place these gaskets into their proper position. Make sure to position both gaskets as shown in the appropriate drawing titled Ultra-Track Pan Gasket Configurations found on page 8. The gaskets MUST be positioned properly to allow spills that may occur on top of or near the tracks to be channeled effectively into the Side Track Pans.
12. Insert the gasket with the lip. The lip should be facing out away from the rail to allow liquids to flow into the Side Track Pans. Make certain to start in the middle of the Side Track Pan and work toward each end. Apply downward pressure utilizing a 2 foot piece of 2x4 with one end wrapped with several layers of duct tape. The tape will dull the sharp edges of the end of the 2x4 and prevent tearing the gasket material. See illustration below.

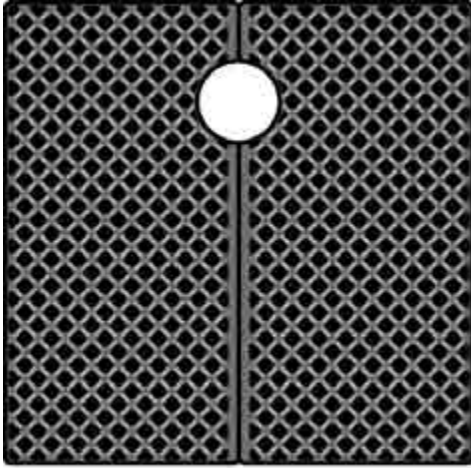


- 12A. System with NO below grade piping. If your Track Pan System requires Side Track Pans on both sides of the rails, return to step 1 of Side Track Pan Installation and begin to install the other Side Track Pans at the opposite end of the system from where you began the first Side Track Pans.
- 12B. System WITH below grade piping. If your Track Pan system requires Side Track Pans on both sides of the rails, return to step 1 of Side Track Pan Installation and begin to install the other Side Track Pan at the same end of the system from where you began the first Side Track Pans. Notice that this set of pans will be installed with the overlap lip facing in the opposite direction as the first set. As a result, the “back” end of each successive pan will need to be lifted into position under the overlap lip of the previously installed pan. In systems with piping it is best to install the Center Pans and Side Pans concurrently along the system.
13. Once the Side Track Pans have been completely installed, the last step is to install the Side Track Pan Clips. These are heavy-gauge, steel clips that are formed in the shape of a “U.” Using a rubber mallet, the clips should be installed as shown below and driven on until fully seated.



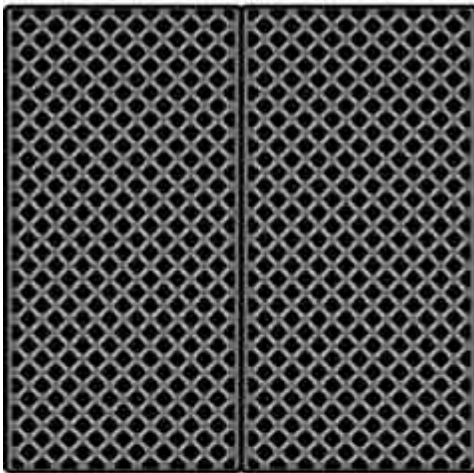
PUT GRATES BACK INTO ALL TRACK PANS

Note: All Center Track Pan Grates for use with systems with the stormwater feature have a semicircular cutout on one side. A Right and a Left Center Track Pan Grate make up a set. See diagram below. Place one (1) Center Track Pan Grate Set into each Center Track Pan. The cutouts will surround the “Stormwater Feature” when properly positioned. The Stormwater Feature is the raised, conical-shaped protrusion located in the bottom of each Center Track Pan.

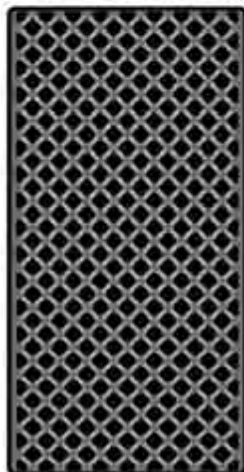


Set of Center Track Pan Grates for use with Center Track Pans that are molded with the Stormwater Feature.

Note: If you ordered standard Track Pans (i.e. - Pans WITHOUT the Stormwater Feature) the grates provided with the Center Track Pans will NOT have a semicircular cutout. See diagram below.



Set of Center Track Pan Grates for use with Center Track Pans that are molded without the Stormwater Feature.



Side Track Pan Grate

GASKET REVIEW

After all Track Pan modules have been installed, a visual inspection of all Center Track Pan track sealing gaskets and Side Track Pan track sealing gaskets is required.

Please refer any related questions or problems to UltraTech International, Inc.

INSTALL TRACK PAN COVERS

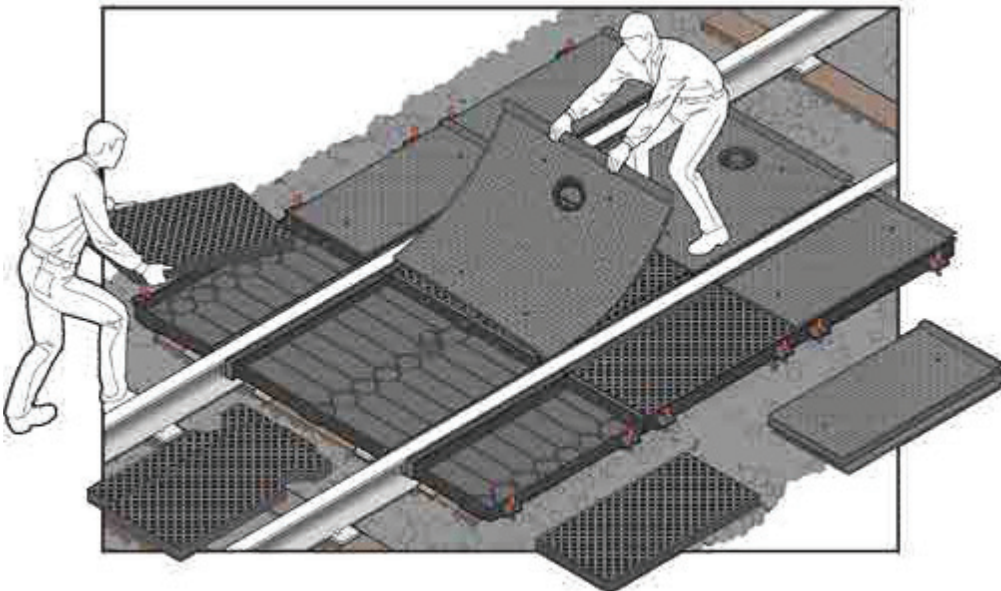
NOTE: COVERS FOR CENTER AND SIDE TRACK PANS CAN BE USED ONLY WITH GRATES INSTALLED INSIDE THE TRACK PANS. THE GRATES PROVIDE STRUCTURAL SUPPORT FOR THE COVERS. THEY ALSO PROVIDE A MEANS TO FRICTION-FIT THE COVERS IN PLACE TO REDUCE THE POTENTIAL FOR WIND BLOWING THE COVERS OFF.

CENTER TRACK PAN COVERS

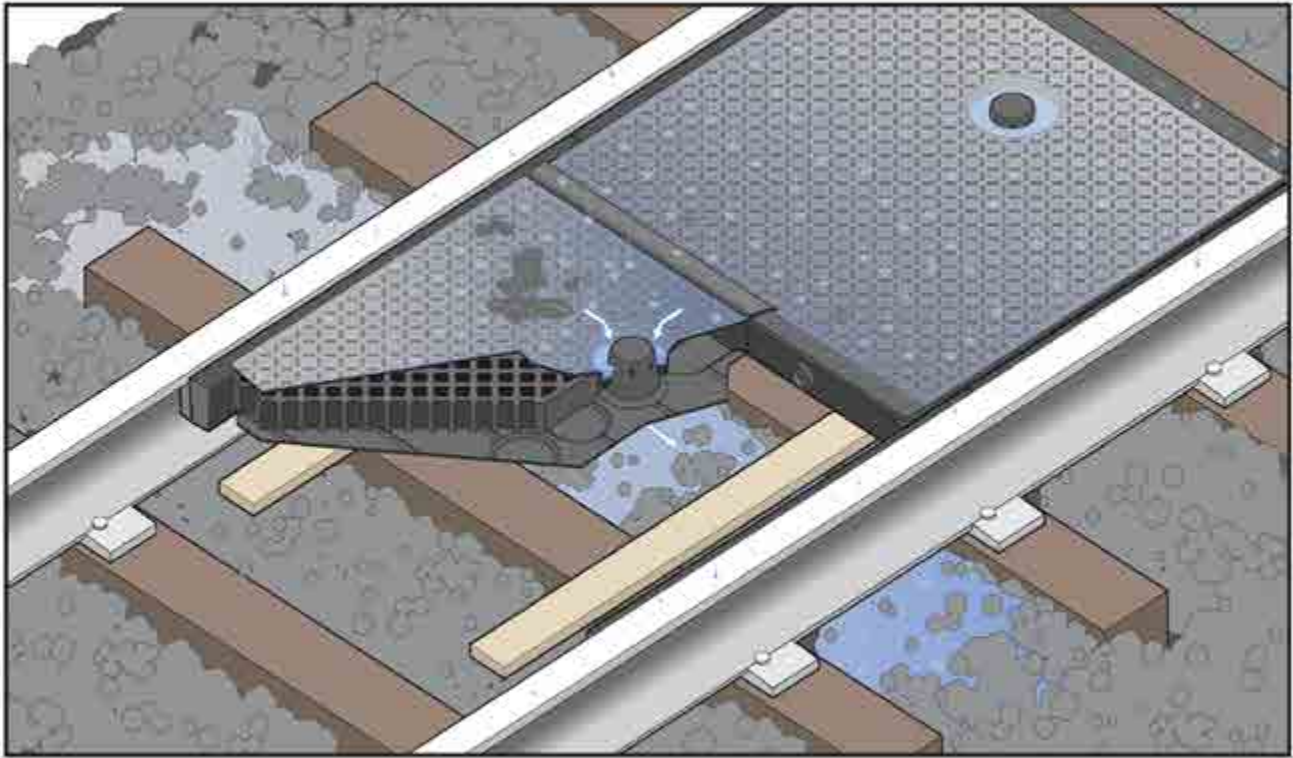
NOTE: Covers will only work with Center Track Pans WITH the Stormwater Feature. The Center Track Pan Covers measure 55”L x 52 1/2”W. An “overlap lip” is molded into one (1) end of the Cover, along the 52 1/2” dimension. Each Center Track Pan Cover has four (4) molded-in “securing pegs” located on its underside. One (1) of the “pegs” is larger in diameter than the other three (3) pegs. The larger diameter peg is designed to provide a “friction-fit” inside the hole in the Center Track Pan grate that is located directly below the peg.

NOTE: Each Center Track Pan has one (1) “Stormwater Feature” that is molded into its bottom. The Stormwater Feature is conical-shaped and protrudes upward from the Center Track Pan bottom. It is approximately 4” tall, with an approximate 4 1/2” diameter. THE STORMWATER FEATURE IS LOCATED IN A POSITION THAT IS OFFSET TOWARD THE END ON THE CENTER TRACK PAN WITH THE OVERLAP LIP. Each Cover for the Center Track Pans has a molded-in “spout” that seals off around the Stormwater Feature when it is put in place.

You will observe that all installed Center Track Pans face the same direction, with their respective Stormwater Features in the same position. (See diagram below.)



Starting at the end of the Center Track Pan System that has the Stormwater Feature closest to the end, place one (1) Center Track Pan Cover on top of the grates. Make sure that the “securing pegs” are facing down. Center the Cover on top of the Center Track Pan grates. The large “spout” in the Cover will be positioned directly above the Stormwater Feature. Once centered, the “pegs” will be correctly located above their corresponding grate holes. Apply a modest amount of hand or foot pressure to friction-fit the large diameter peg into its grate hole, and to seal the “spout” gasket over top of the Stormwater Feature. The “spout” gasket should be seated just below the drain holes that are located near the top of the Stormwater Feature (see illustration below). The non-slip, top surface of the Center Track Pan Covers will be the exposed surface when the Covers are installed properly. Continue installing Center Track Pan Covers following the same steps used to install the first Center Track Pan Cover. Each “overlap lip” will overlap its adjacent Center Track Pan Cover by approximately 1”.



SIDE TRACK PAN COVERS

The Side Track Pan Covers measure 55”L x 28 1/4”W. An “overlap lip” is molded into one (1) end of the Cover, along the 25 1/4” dimension. Each Side Track Pan Cover has two (2) molded-in “securing pegs” located on its underside, one (1) peg with a larger diameter than the other. The large peg is designed to friction fit inside a hole in the Side Track Pan grate.

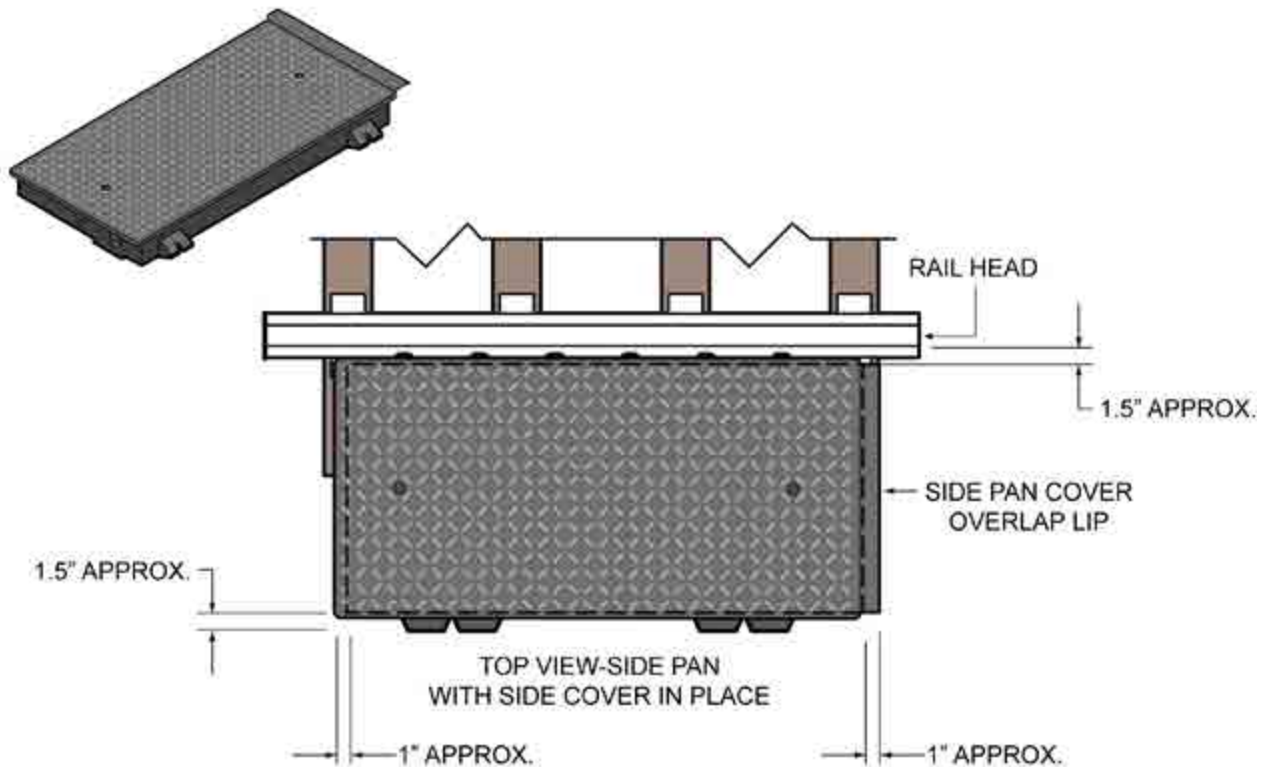
Each Cover for the Side Track Pans has “ ↑ RAIL ↑ ” molded into its upper surface. To position Side Covers properly, THE ARROWS MUST POINT TOWARD THE RAILS.

(Continued on next page)

While standing off to the side of the Track Pan System, install the first Side Track Pan Cover on the Side Track Pan located at the far right hand end of the System. Apply a modest amount of hand or foot pressure to friction-fit the large securing peg into its grate hole.

Continue installing Side Track Pan Covers following the same steps used to install the first Side Track Pan Cover. **MAKE SURE THAT ALL "OVERLAP LIPS" ARE FACING THE SAME DIRECTION.**

Please refer to the diagram below to assure proper installation of the Side Track Pan Covers:



Side Track Pan Covers should be positioned as follows:

- Cover should be located approximately 1.5" from the outside edge of the rail head.
- The Side Track Pan Cover "overlap lip" will overhang the end of its Side Track Pan by approximately 1".
- The end of the Side Track Pan Cover that is opposite the "overlap lip" will overhang the end of its Side Track Pan by approximately 1".
- The outer edge of the Side Track Pan Cover will overhang the outer side wall of the Side Track Pan by approximately 1.5".

Ultra-Track Pan installation steps are now completed (see below if installing below grade piping).

For future reference, refer to Appendix A (next page) for a complete list of Ultra-Track Pan Replacement Parts and Accessories.

Please refer any questions or needs to your UltraTech Distributor or contact UltraTech International for additional information.

Notes on installing below grade piping for Ultra-Track Pan Systems

If below grade piping is going to be installed, it is strongly suggested that it be PVC or CPVC. UltraTech has drawings showing suggested piping arrangements for the installation of drain piping under the pans. The installation will be more stable for the long term if these suggestions are incorporated into your installation. Some of the key reasons for the details of these recommendations are:

1. The 3-inch piping is used to avoid trenching below the bottom of the ties adjacent to the piping. Trenching lower than the tie bottom will reduce the stability of the ballast and allow a “SOFT” spot to develop in the track system.
2. The 4 x 3 reducer ells are used to create a “slip” fit connection between the drain bulkhead fitting and the pipe and to allow for slight misalignment. The “slip” fit allows the pans to be installed and removed without having to get underneath to tighten/loosen the connections to the piping.
3. The molding process used to make the Ultra-Track Pans uses only an external mold. The part once molded shrinks freely inside the mold. Shrinking freely is part of what gives the plastic its chemical resistance. The drawback is that the pans are not all the same length. On a long system the misalignment from one side to the other of a system can become significant. Installation will be easier by NOT manifolding the pans across a system into a single pipe. The pans also vary in lateral placement due to gauge variation, joint bars, and flexing, making a single manifold length impractical.
4. The use of the flexible couplings is also important for the longevity of the system. The flexible couplings allow for differential “pumping” between the center portion of the pipes and the outer portions without causing breakage at the joints or “jacking” of the pan connections out of the fittings. The flexible couplings also allow for the slight bends that allow the far side pipe to come through the same trench with the center-pan pipe.
5. In almost all cases the PVC or CPVC will be adequate chemically because in a properly designed system the piping will only be exposed to the chemicals for a short period during an “event” then will dry out.

IF THIS SYSTEM WILL HAVE “DRIVE ON/OVER” TRAFFIC

The Ultra-Track Pans can only be driven on/over if they are installed on a bedding of adequate strength for the drive-over traffic and the bedding fully supports the underside of the pans.

The Ultra-Track Pans can only be driven on if installed as above and **only if the vehicle has rubber tires.** Any form of hard wheel will damage the grating.

The Ultra-Track Pans can only be driven on if installed as above and the drive over is in a relatively straight line. The anti-slip that is molded into the upper surface of the grating is very aggressive and **will be damaged by sharp turning of tires while a vehicle is on the grating.**

The Ultra-Track Pans can only be driven on if installed as above and any starts or stops of a vehicle while on the grating is done slowly. The anti-slip that is molded into the upper surface of the grating is very aggressive and will be damaged by rapid starting or stopping while a vehicle is on the grating.

The Ultra-Track Pans can only be driven on if installed as above and a “ramp” of adequate capacity (asphalt, concrete or other) is provided to raise the vehicle tires to the level of the upper surface of the grating. This “ramp-up” is required to avoid damage to the sides of the pans and grates.

Appendix A

Ultra-Track Pan Replacement Parts and Accessories

Description	Qty	Part
1. Gasket "A"	1 ea.	9569
2. Gasket "B"	1 ea.	9568
3. Gasket "C"	1 ea.	9563
4. 3/4" NPT Bulkhead Fitting Assembly (includes nut, donut-shaped gasket and rigid washer)	1 ea.	1073
5. Threaded Plug for Bulkhead Fitting	1 ea.	9960
6. Center Track Pan Grate (right), with cutout	1 ea.	9572
7. Center Track Pan Grate (left), with cutout	1 ea.	9571
8. Side Track Pan Grate, also Center Track Pan Grate without cutout	1 ea.	9573
9. 24" Rebar with Protective Caps	20-pack	9584
10. Wrench for Bulkhead Fittings	1 ea.	0464
11. 3 1/4" diameter gasket to seal off large "flow throughs" in Center and Side Track Pans.	1 ea.	9557
12. 3" NPT Bulkhead Fitting Assembly (includes nut, donut-shaped gasket and rigid washer)	1 ea.	9559

