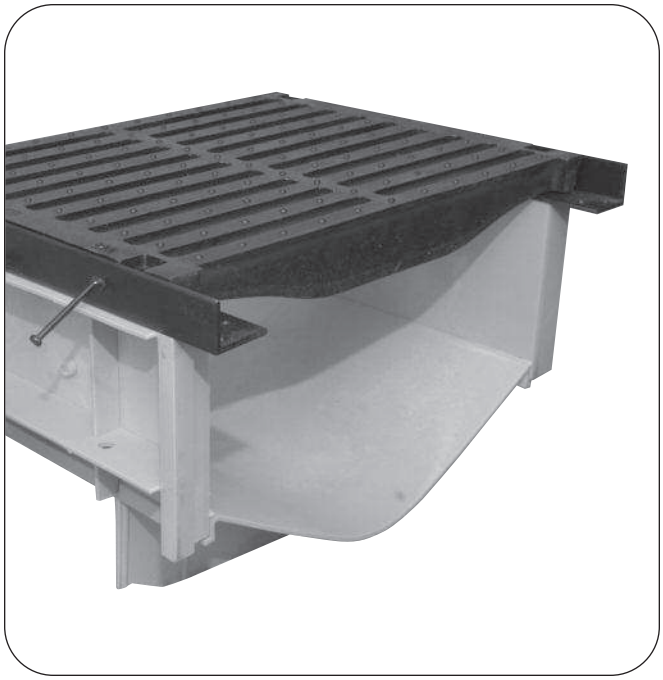
# Zurn FLO THRU Z874

## Trench Drain System

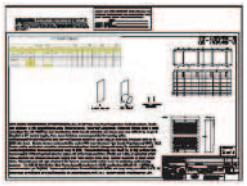


# Installation Instructions

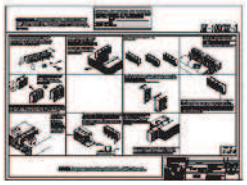
# *Z874 Accessories* *Trench Drain System*

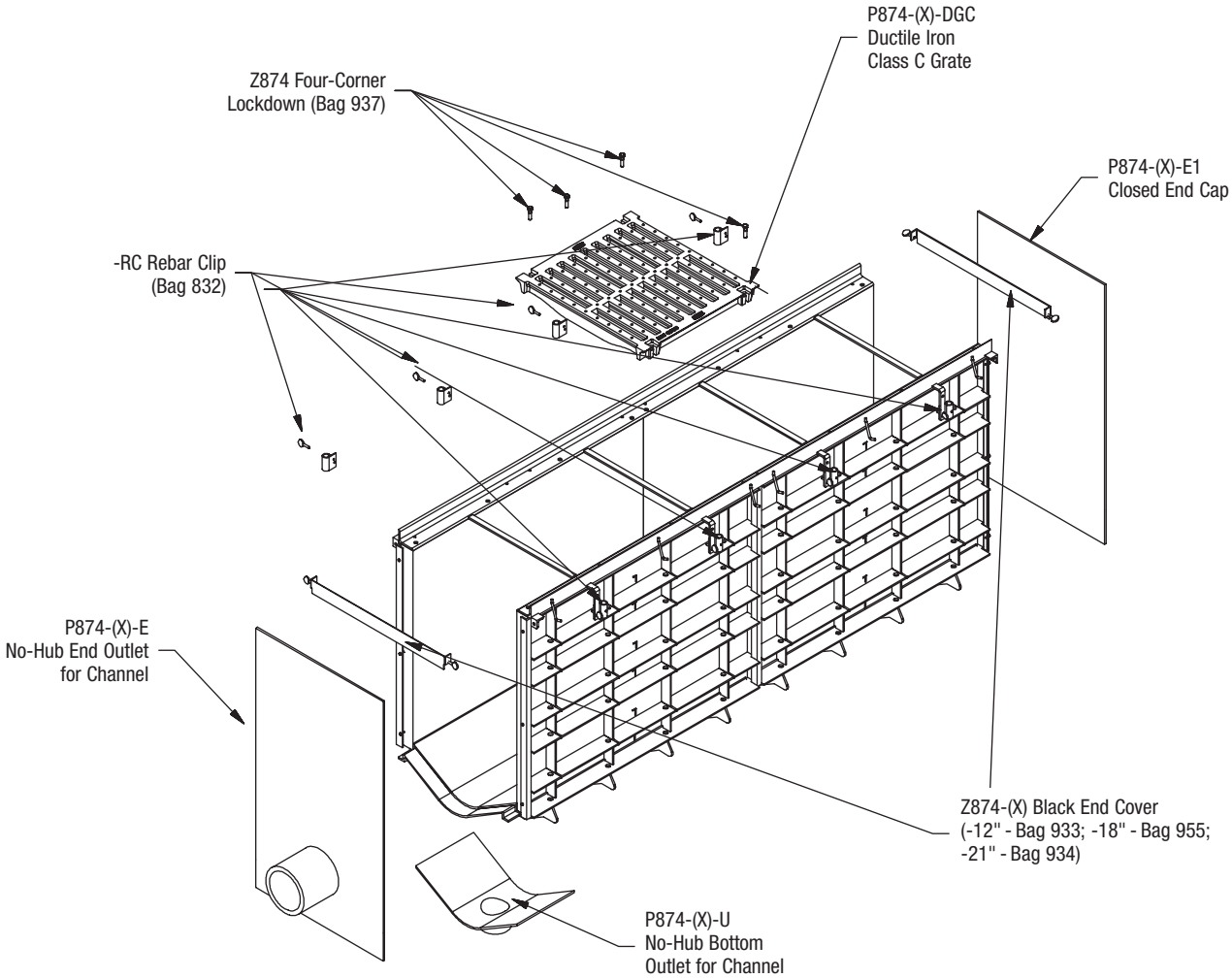
Below are the components of the Z874-X trench drain typical to an installation. Check your order to verify you have all components particular to your job before beginning your installation. Contact customer service at 877-ZURN-NOW (877-987-6669) should additional material be required.





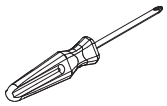




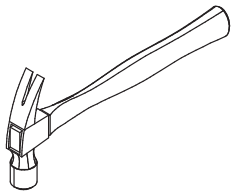
# *Z874 Tools Required*



Tape Measure



Phillips Head Screwdriver



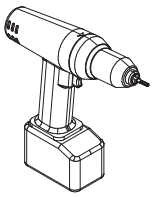
Hammer



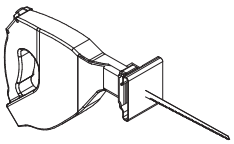
Utility Knife



Marker



Cordless Drill



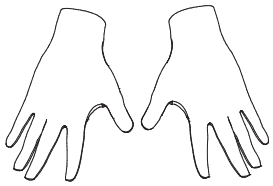
Reciprocating Saw



Ear Protection



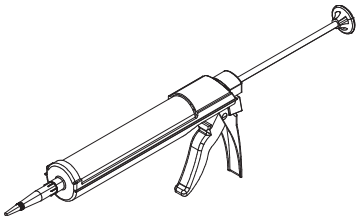
Safety Glasses



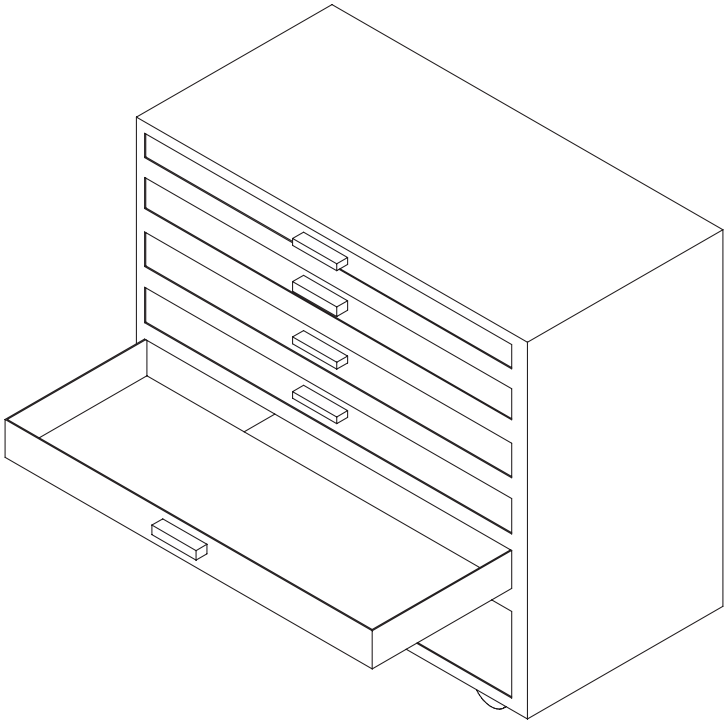
Gloves



Hole Saw



Caulk Gun

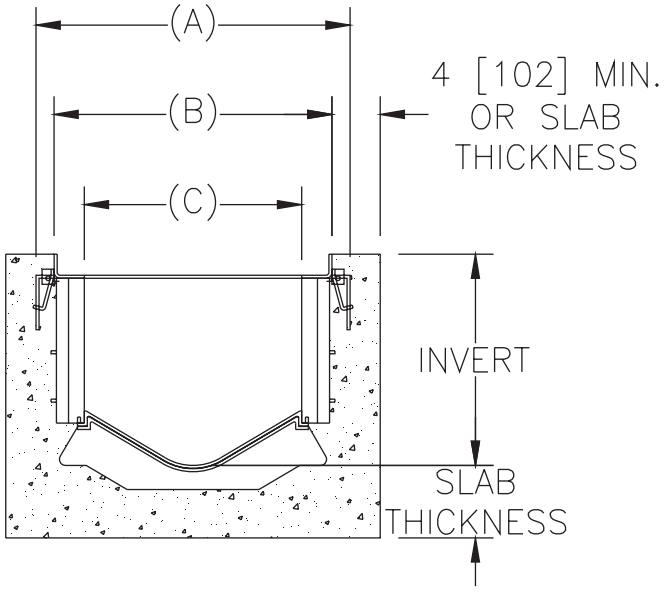


# *Z874 Encasement*

Four-inch new concrete encasement is minimum. Guidelines for reinforcing and encasement is recommended to use the same thickness and reinforcing used in the surrounding concrete slab. Concrete must be vibrated to remove air voids in encasement, especially under the frame rails.

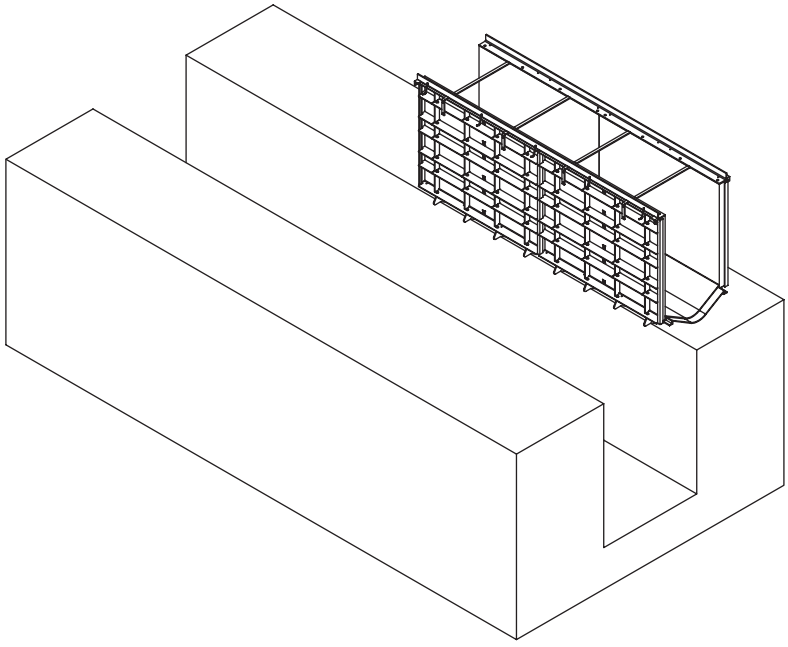
| System | Overall Width Dim. (A) In./[mm] | Grate Width Dim. (B) In./[mm] | Throat Width Dim. (C) In./[mm] |
|---|---|---|---|
| Z874-12 | 20 [508] | 17 [432] | 12 [305] |
| Z874-18 | 26 [660] | 23 [584] | 18 [457] |
| Z874-21 | 29-1/4 [743] | 26-1/4 [667] | 21-1/4 [540] |

Specifying engineer is responsible for concrete encasement and reinforcing based upon application and local codes.



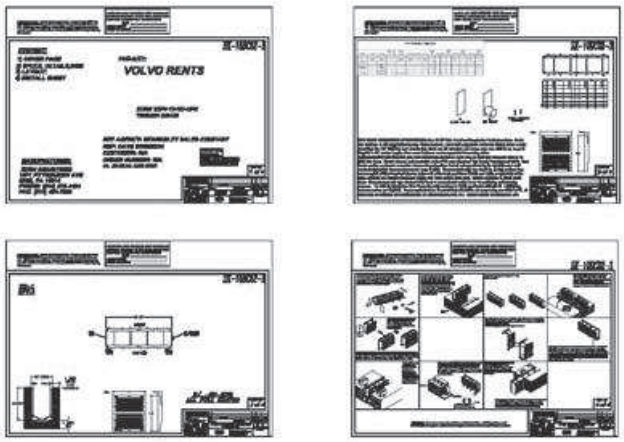

# *Excavation*

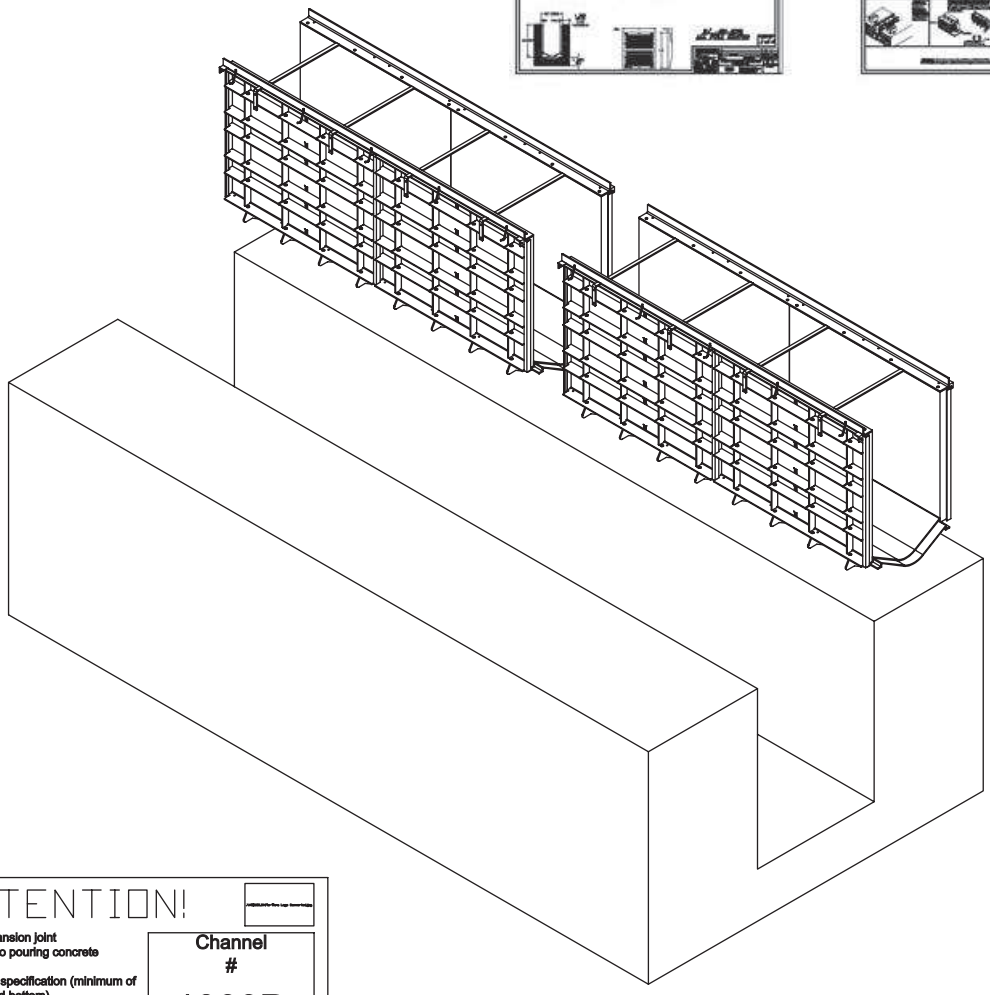
Trench excavation must include a minimum of 4" concrete encasement or specifying engineer's requirement on both sides and underneath surrounding the trench. Soft and/or shifting soil substrates may cause cracking of the concrete and consequent movement of the trench. It is critical that the concrete be poured on an adequate foundation. Verifying the depth of trench excavation allows for the same thickness of concrete under and beside the trench.



# *Z874 Layout*

Upon completion of the excavation, the channel should be placed in numeric order alongside the excavation according to the job layout. Each trench section has a trench identification number and flow direction indicating its sequence within the system. It is best to work from the deep or outlet end to the shallow. Grates are not installed at this time.



ATTENTION!

- Trench shall not be used as an expansion joint
- Verify location and elevations prior to pouring concrete
- Set trench 1/8" below finish grade
- Encase in concrete per engineering specification (minimum of 4" coomplete encasement, sides and bottom)
- Standard concrete practices with expansion and crack induction joints per codes and standards
- Internal bracing is required with channels numbers over 1810
- Multiple lifts of concrete may be used
- Vibrate concrete adequately
- Conveys fluid up to 140°F
- Max temperature variation of 80°F
- Care shall be taken not to allow concrete into the grate lockdowns
- Visit Zurn.com for more details

Channel #

1803P

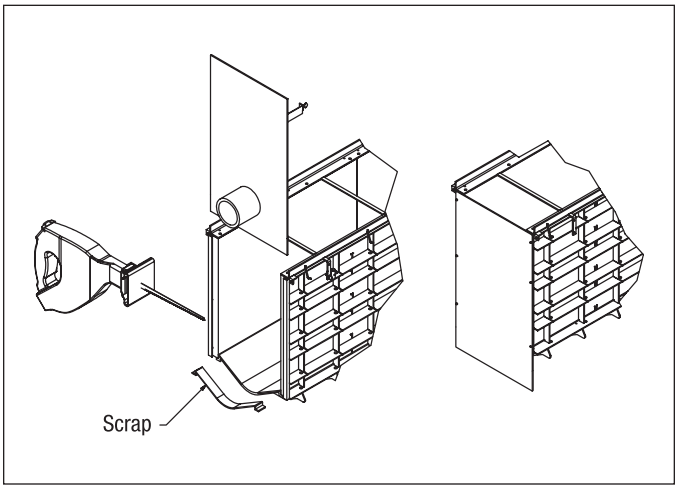
Trench Run Tag#

TO OUTLET

# *Z874 End Outlet Connection Option*

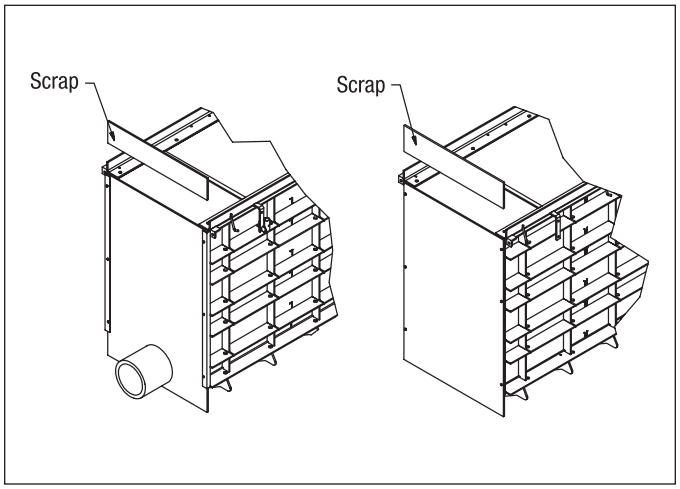
**Step 1**

When installing end cap or end outlet, remove by cutting with saw the 1-1/4" male overlap connection as shown.



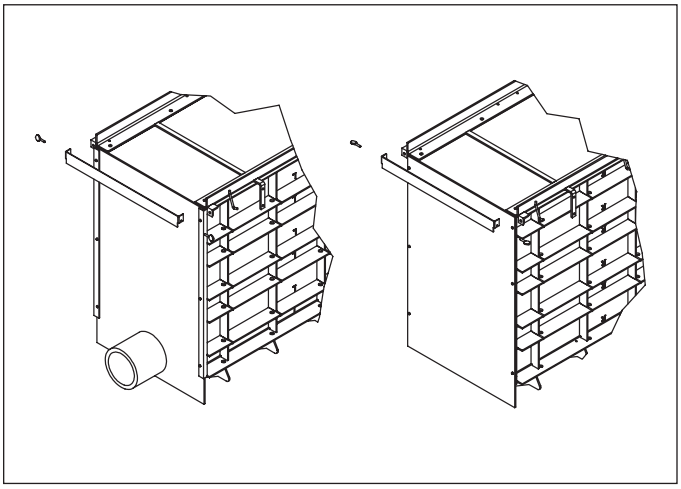

**Step 2**

Once overlap is removed, trim end cap/end outlet to desired height.



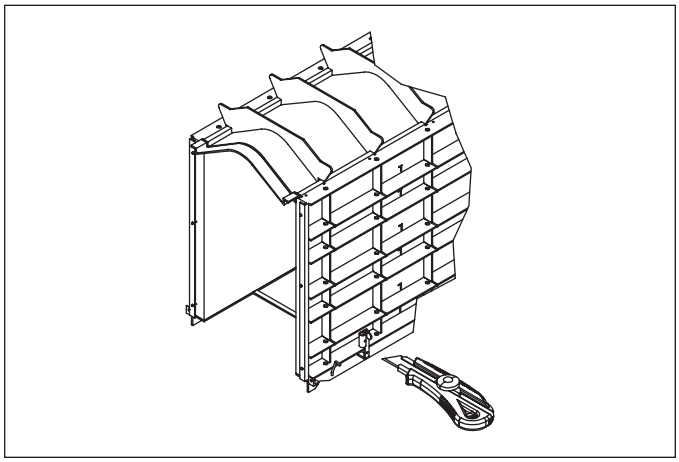

**Step 3**

Attach end outlet or end cap to the channel with hardware provided. Attach frame end piece to end with hardware provided.

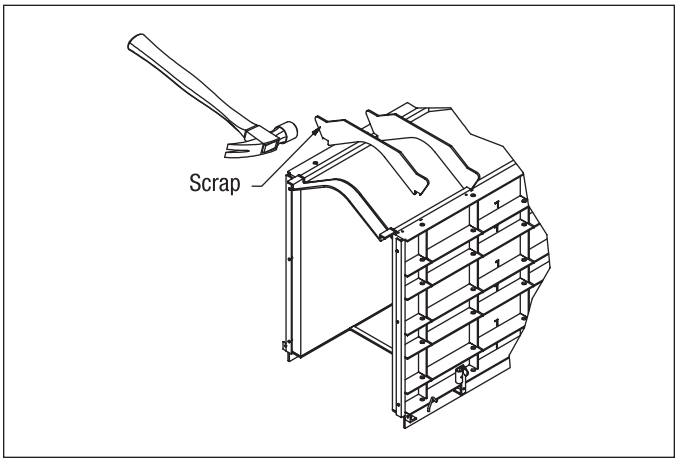


# *Z874 Bottom Outlet Connection Option*

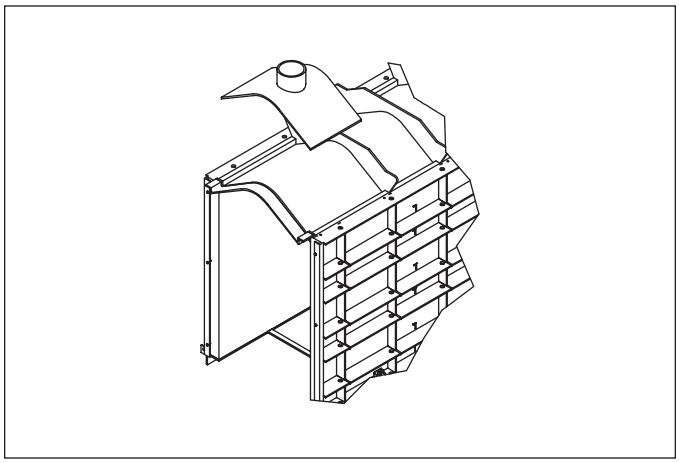
**Step 1**
Score both sides of the rib with the utility knife.



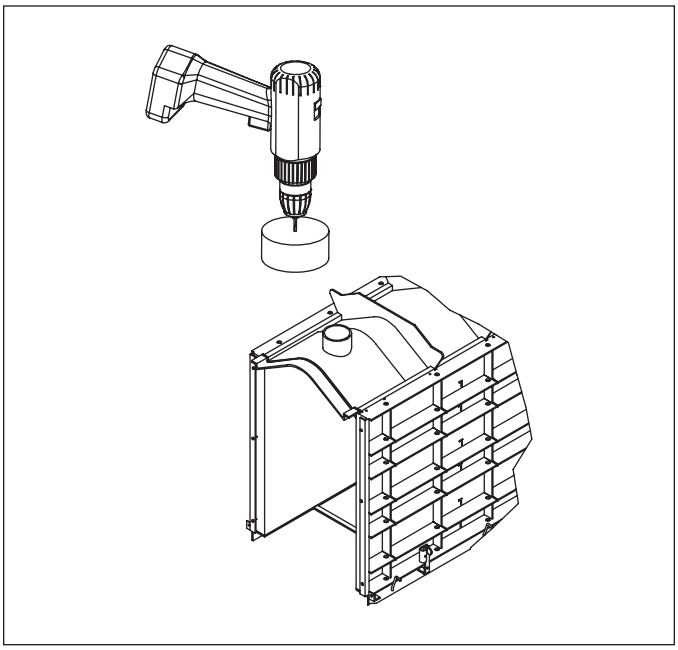
**Step 2**
Tap rib with a hammer to remove rib when necessary.




**Step 3**
Attach bottom outlet to channel with hardware provided.



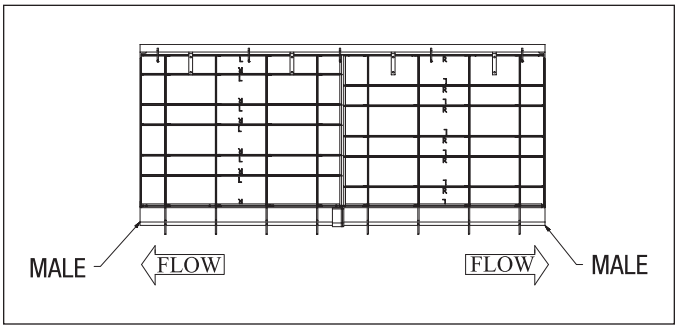
**Step 4**
Cut out hole with hole saw that matches inside diameter of outlet.



# *Z874 Channel Options*

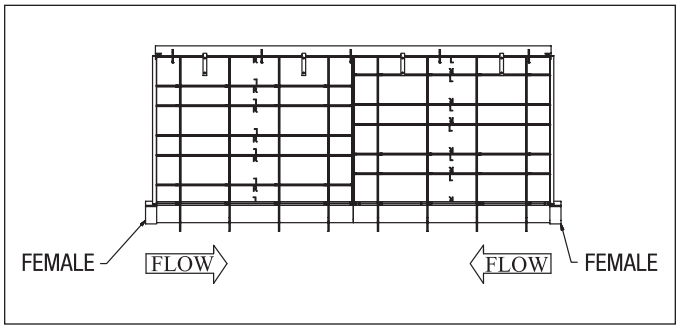
**Male - Male**

Used for connections at high point transition.

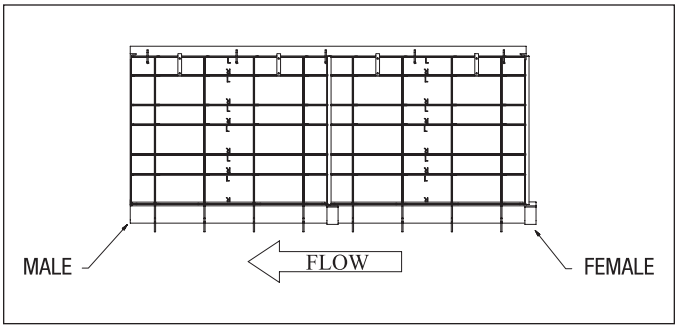



**Female - Female**

Used for connections at low point transition.

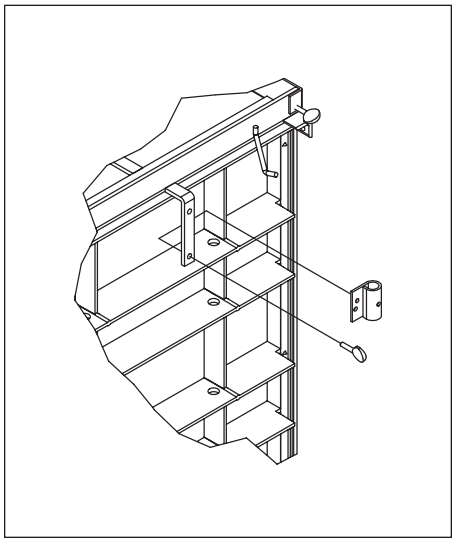



**Standard**

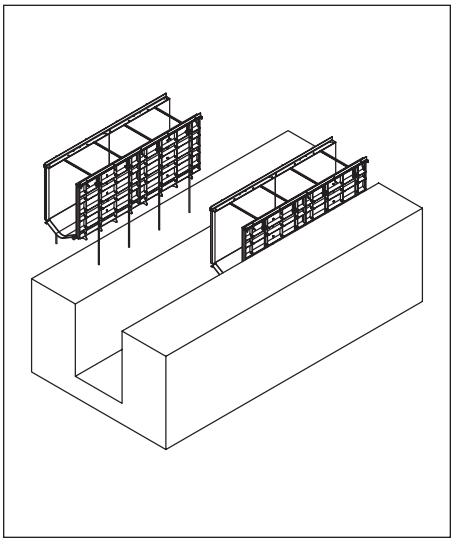


# *Z874 Channel Connection*

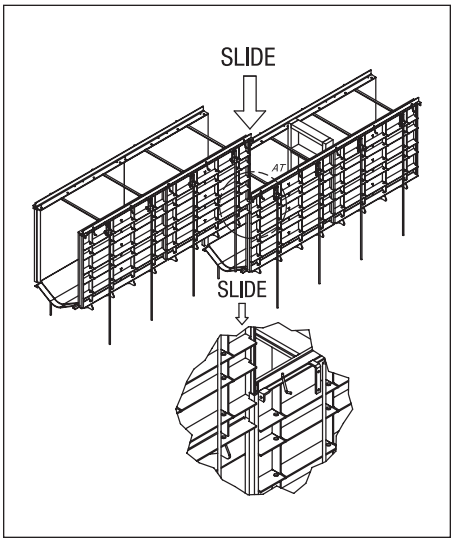
**Step 1**
Attach rebar clip with hardware provided.



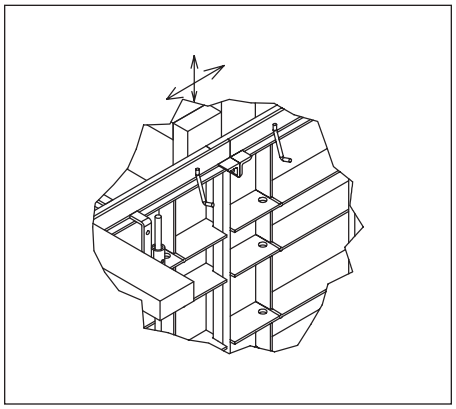
**Step 2**
Place in trench and set rebar firm in sub soil, working from deep to shallow.



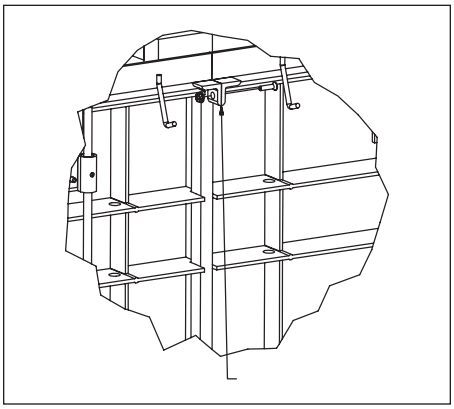
**Step 3**
Slide male end of channel in grooves of female end of set channel.



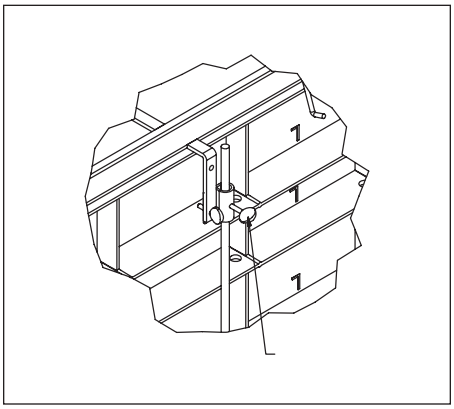

**Step 4**
Position so frames are flush and in line with each other.



**Step 5**
Attach frame tab to frame tab with hardware provided.



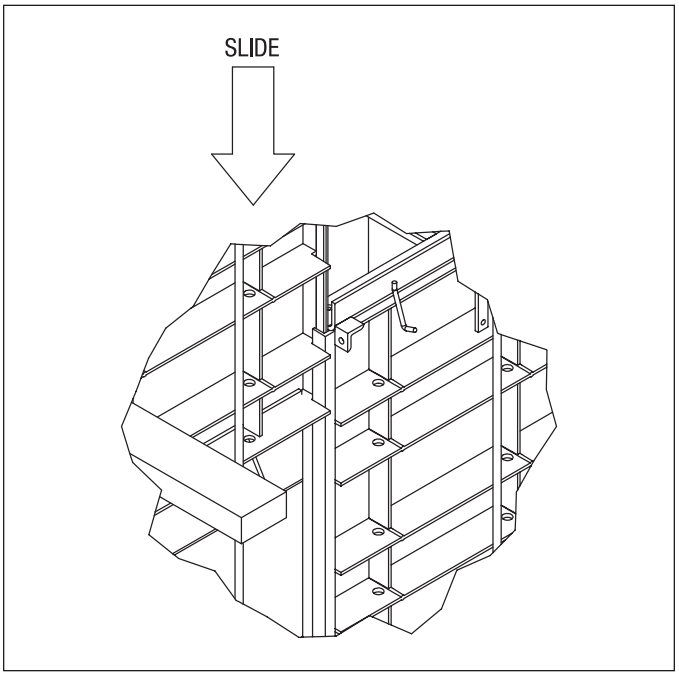
**Step 6**
Using thumbscrew on rebar clip, set the trench to the finished height.



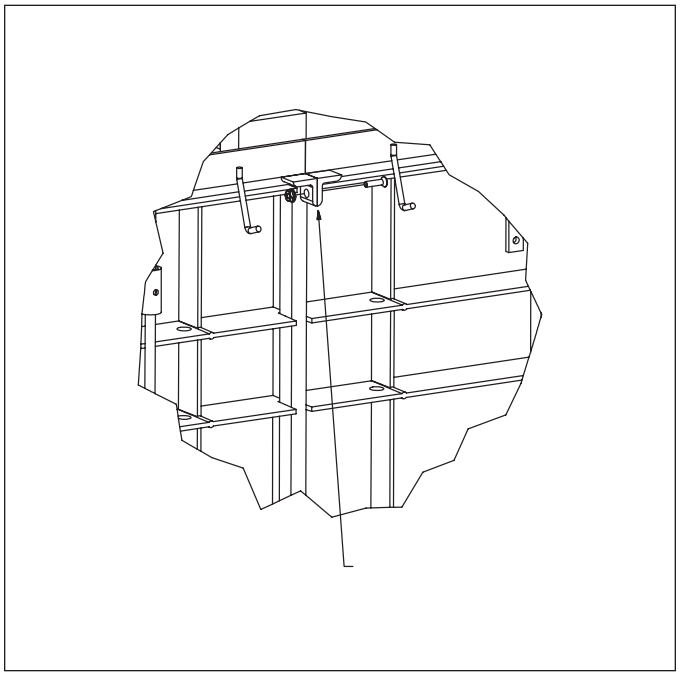
**Note:** Channel should be set so it is 1/8" below finished floor.

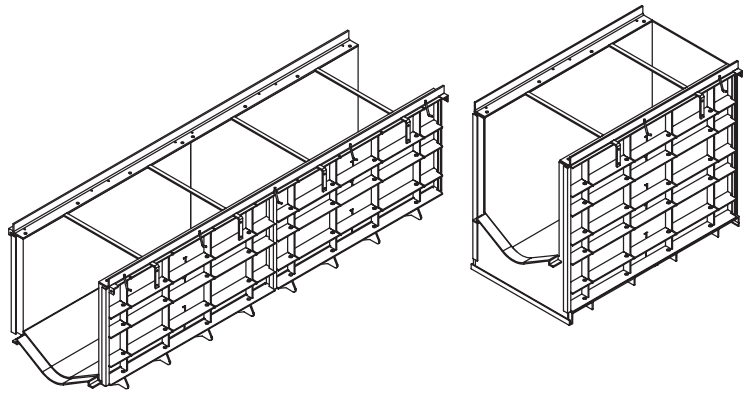
# *Z874 Catch Basin Connection*

**Step 1**
Slide male end of channel in grooves of female end of set channel.




**Step 2**
Attach frame tab to frame tab with hardware provided.

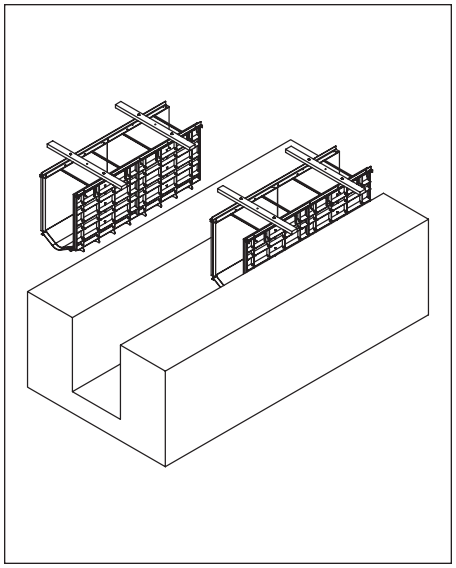




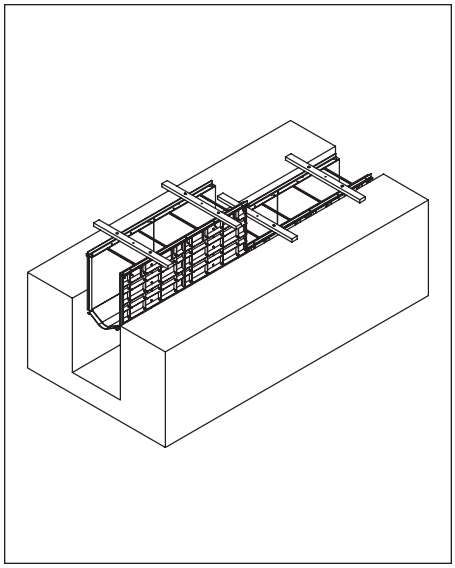
Z874-1B

# *Z874 Retrofit Installation*

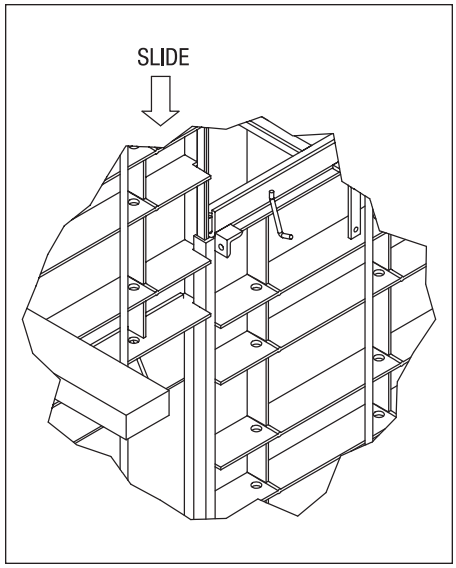
**Step 1**
Attach 2x4 to span proposed trench opening using wire ties or 3/8-16 bolts threaded into the lockdown holes on the frame. Channel should be held 1/8" below 2x4 so trench is 1/8" below finished floor.



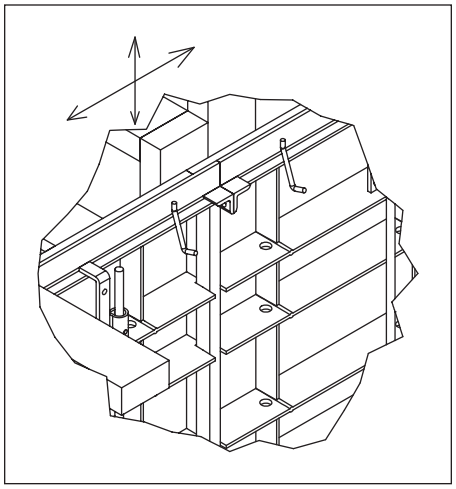
**Step 2**
Place in trench working from deep to shallow.



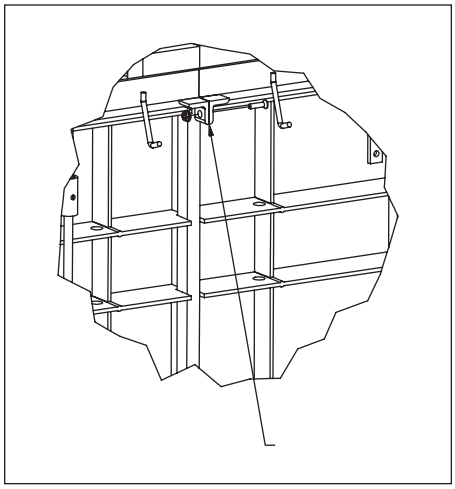
**Step 3**
Slide male end of channel in grooves of female end of set channel.

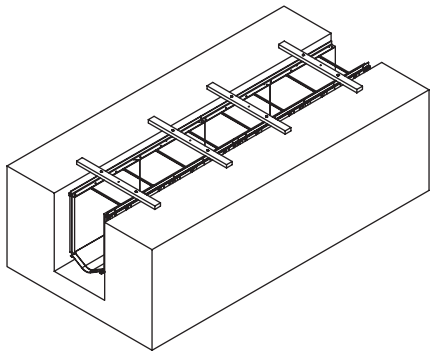



**Step 4**
Position so frames are flush and in line with each other.



**Step 5**
Attach frame tab to frame tab with hardware provided.

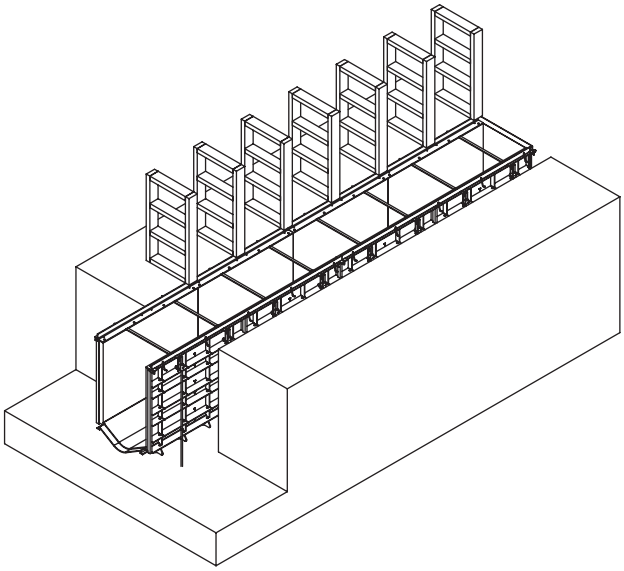


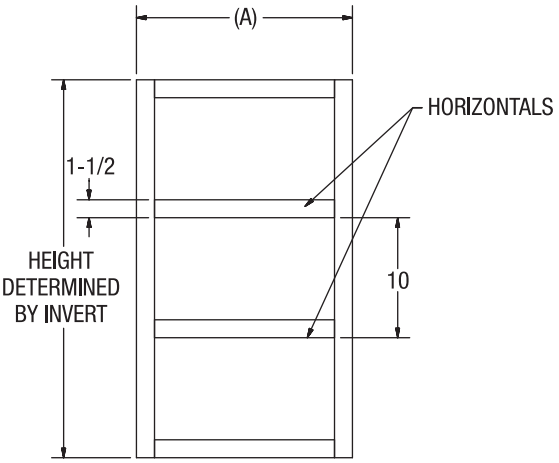


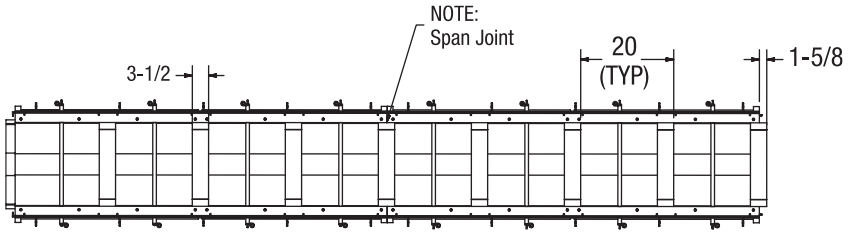
# *Z874 Internal Bracing*

Internal sidewall bracing is recommended approximately every 20" for any 874 channel with an invert deeper than 16". Bracing shall be made from standard 2x4 and shall be provided and constructed on site by others. Internal bracing shall be (A) wide (see chart) and the height will be determined to match the invert depth, and horizontal braces shall be placed every 10".

| System | Dim. (A) |
|---|---|
| Z874-12 | 12 [305] |
| Z874-18 | 18 [457] |
| Z874-21 | 21-1/4 [540] |





# *Z874 Concrete Pour and Finish*

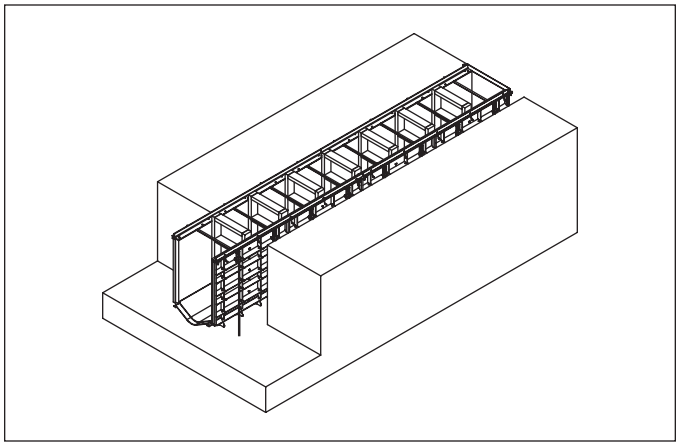
Pour the concrete around the three sides of the trench drain. Be certain to adequately **vibrate** the concrete as it is being placed. Proper vibration will eliminate any unwanted voids within the concrete pour. If sidewalls are used, a first and second pour are recommended. Care shall be taken not to allow concrete into the grate lockdowns.

**Placing Concrete**

- Check that the trench drain is in the location required per the layout drawings prior to pouring concrete.
- Standard concrete practices with expansion and crack induction joints shall be followed based upon local codes and standards.
- The trench drain **shall not** be used as an expansion joint.

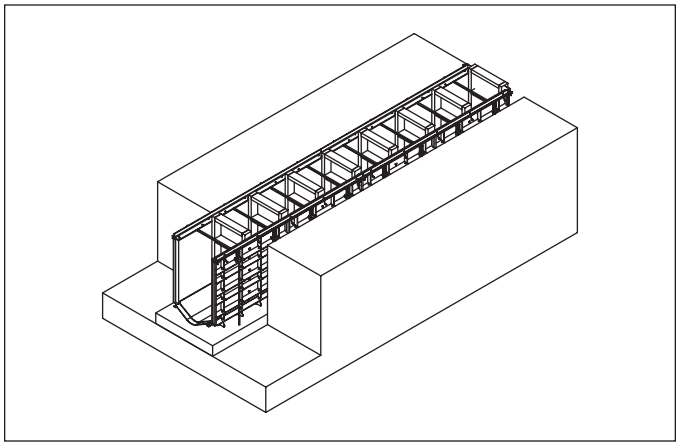
**Step 1**

Verify layout is correct prior to pouring concrete.



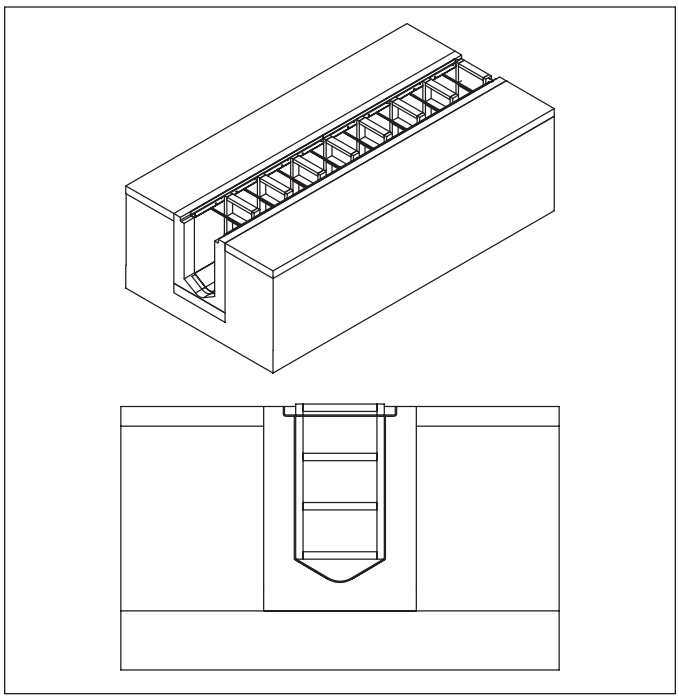
**Step 2**

Slurry pour to lock rebar into place.



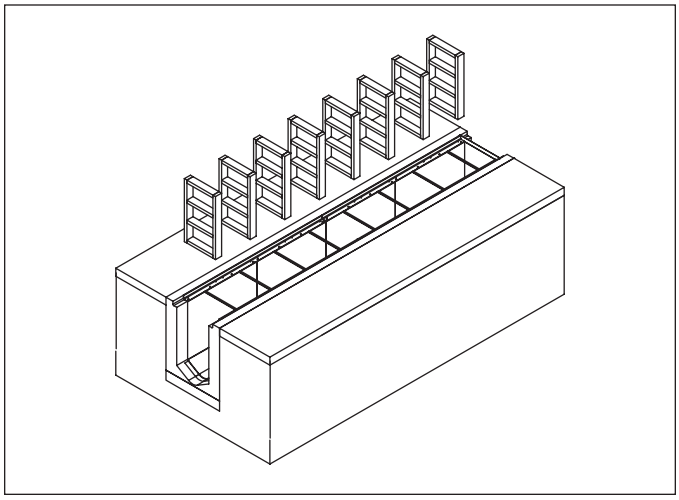
**Step 3**

Finish troweling should be done to set the top edge of the trench drain 1/8" below the floor grade. Remember to compensate for the concrete shrink that may occur during cure so that the edge of the trench drain does not protrude above the finished floor grade.



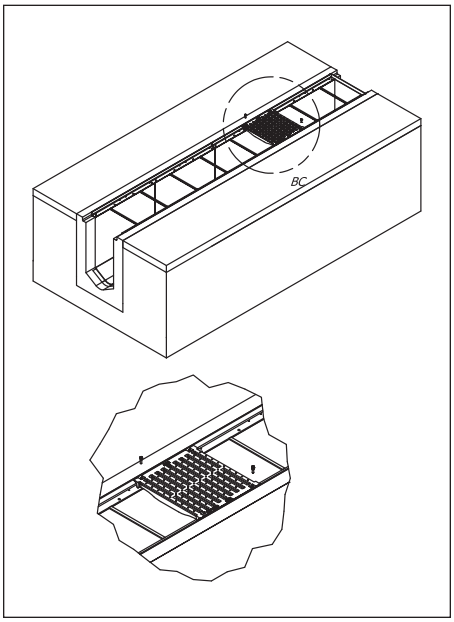
**Step 4**

Remove internal bracing.

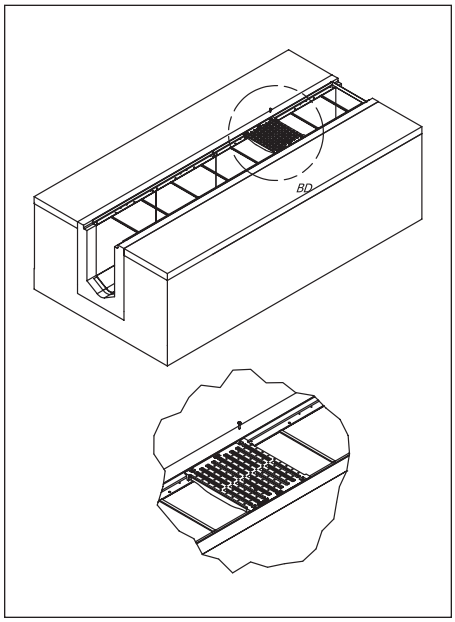


# *Z874 Installing Grates*

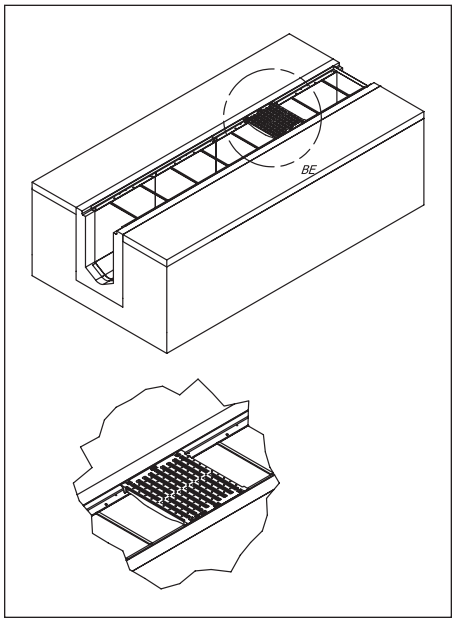
**Step 1**
Start bolts by hand 1 to 2 complete revolutions on opposite corners. **Do not** tighten completely.

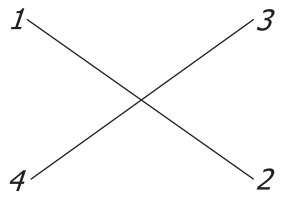



**Step 2**
Start bolts on remaining corners 1 to 2 complete revolutions. **Do not** tighten completely.




**Step 3**
Once all 4 bolts are started, tighten all 4 bolts with a socket in a crisscross method.





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