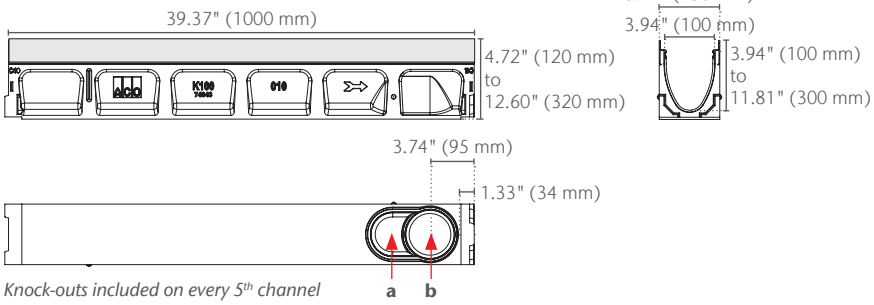
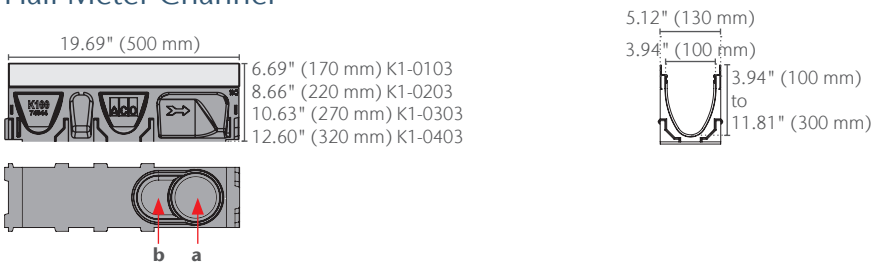
# K100 Galvanized Steel Edge Rail Channel System

## One Meter Channel

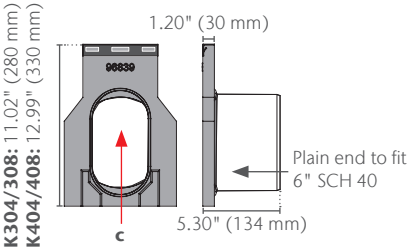



*Knock-outs included on every 5th channel*

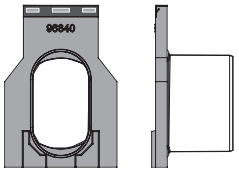
## Half Meter Channel



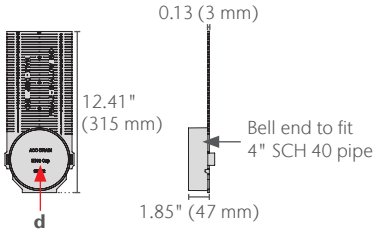

## 6" Oval Inlet Cap



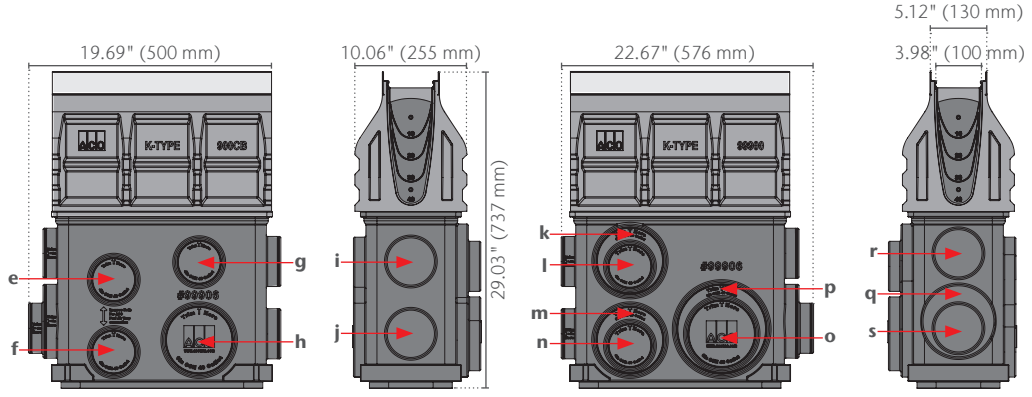

## 6" Oval Outlet Cap



## End Cap




## Type K901G In-line Catch Basin




*Total capacity = 10.49 gallons*

www.acoswm.com

# K100 Galvanized Steel Edge Rail Channel System

## Specification Summary

### General

The surface drainage system shall be ACO Drain K100 complete with gratings secured with QuickLok locking as manufactured by ACO, Inc. or approved equal.

### Grates

Grates shall be specified. See separate ACO Spec Info grate sheets for details. After removal of grates and 'QuickLok' bar there shall be uninterrupted access to the trench to aid maintenance.

### Installation

The trench drain system shall be installed in accordance with the manufacturer's installation instructions and recommendations.

EN1433 Load Class E
134,885 lbs – 2,785 psi

### Materials

The trench system bodies shall be manufactured from polyester polymer concrete with the minimum properties as follows:

- Compressive strength: 14,000 psi
- Flexural strength: 4,000 psi
- Water absorption 0.07%
- Frost-proof
- Salt-proof
- Dilute acid and alkali resistant

The nominal clear opening shall be 4" (100 mm) with overall width of 5.12" (130 mm). Pre-cast units shall be manufactured with either an invert slope of 0.5% or with neutral invert and have a wall thickness of at least 0.50" (13 mm). Each unit will feature a partial radius in the trench bottom and a male to female interconnecting end profile. Units shall have horizontal cast in anchoring keys on the outside wall to ensure maximum mechanical bond to the surrounding bedding material and pavement surface. The galvanized steel edge rail will be integrally cast in by the manufacturer to ensure maximum homogeneity between polymer concrete body and edge rail. Each edge rail shall be at least 3/32" (2.5 mm) thick.

# K100 Galvanized Steel Edge Rail Channel System

| Product | Part No. | Invert[2] in (mm) | Weight lbs |
|---|---|---|---|
| K1-00 Neutral Channel - 39.37" (1 m) | **74041** | 3.94 (100) | 28.1 |
| K1-1 Sloped Channel - 39.37" (1 m) | **74001** | 4.13 (105) | 28.1 |
| K1-2 Sloped Channel - 39.37" (1 m) | **74002** | 4.33 (110) | 28.9 |
| K1-3 Sloped Channel - 39.37" (1 m) | **74003** | 4.53 (115) | 29.7 |
| K1-4 Sloped Channel - 39.37" (1 m) | **74004** | 4.72 (120) | 30.5 |
| K1-5 Sloped Channel - 39.37" (1 m)[1] | **74005** | 4.92 (125) | 31.3 |
| K1-6 Sloped Channel - 39.37" (1 m) | **74006** | 5.12 (130) | 32.1 |
| K1-7 Sloped Channel - 39.37" (1 m) | **74007** | 5.31 (135) | 32.9 |
| K1-8 Sloped Channel - 39.37" (1 m) | **74008** | 5.51 (140) | 33.7 |
| K1-9 Sloped Channel - 39.37" (1 m) | **74009** | 5.71 (145) | 34.5 |
| K1-10 Sloped Channel - 39.37" (1 m)[1] | **74010** | 5.91 (150) | 35.3 |
| K1-010 Neutral Channel - 39.37" (1 m)[1] | **74043** | 5.91 (150) | 35.3 |
| K1-0103 Neutral Channel - 19.69" (0.5 m)[1] | **74044** | 5.91 (150) | 17.0 |
| K1-11 Sloped Channel - 39.37" (1 m) | **74011** | 6.10 (155) | 36.1 |
| K1-12 Sloped Channel - 39.37" (1 m) | **74012** | 6.30 (160) | 36.9 |
| K1-13 Sloped Channel - 39.37" (1 m) | **74013** | 6.50 (165) | 37.7 |
| K1-14 Sloped Channel - 39.37" (1 m) | **74014** | 6.69 (170) | 38.5 |
| K1-15 Sloped Channel - 39.37" (1 m)[1] | **74015** | 6.89 (175) | 39.3 |
| K1-16 Sloped Channel - 39.37" (1 m) | **74016** | 7.09 (180) | 40.1 |
| K1-17 Sloped Channel - 39.37" (1 m) | **74017** | 7.28 (185) | 40.9 |
| K1-18 Sloped Channel - 39.37" (1 m) | **74018** | 7.48 (190) | 41.7 |
| K1-19 Sloped Channel - 39.37" (1 m) | **74019** | 7.68 (195) | 42.5 |
| K1-20 Sloped Channel - 39.37" (1 m)[1] | **74020** | 7.87 (200) | 43.4 |
| K1-020 Neutral Channel - 39.37" (1 m)[1] | **74045** | 7.87 (200) | 43.4 |
| K1-0203 Neutral Channel - 19.69" (0.5 m)[1] | **74046** | 7.87 (200) | 20.5 |
| K1-21 Sloped Channel - 39.37" (1 m) | **74021** | 8.07 (205) | 44.2 |
| K1-22 Sloped Channel - 39.37" (1 m) | **74022** | 8.27 (210) | 45.0 |
| K1-23 Sloped Channel - 39.37" (1 m) | **74023** | 8.46 (215) | 45.8 |
| K1-24 Sloped C hannel - 39.37" (1 m) | **74024** | 8.66 (220) | 46.6 |
| K1-25 Sloped Channel - 39.37" (1 m)[1] | **74025** | 8.86 (225) | 47.4 |
| K1-26 Sloped Channel - 39.37" (1 m) | **74026** | 9.06 (230) | 48.2 |
| K1-27 Sloped Channel - 39.37" (1 m) | **74027** | 9.25 (235) | 49.0 |
| K1-28 Sloped Channel - 39.37" (1 m) | **74028** | 9.45 (240) | 49.8 |
| K1-29 Sloped Channel - 39.37" (1 m) | **74029** | 9.65 (245) | 50.6 |
| K1-30 Sloped Channel - 39.37" (1 m)[1] | **74030** | 9.84 (250) | 51.4 |
| K1-030 Neutral Channel - 39.37" (1 m)[1] | **74047** | 9.84 (250) | 51.4 |
| K1-0303 Neutral Channel - 19.69" (0.5 m)[1] | **74048** | 9.84 (250) | 24.0 |
| K1-31 Sloped Channel - 39.37" (1 m) | **74031** | 10.04 (255) | 52.2 |
| K1-32 Sloped Channel - 39.37" (1 m) | **74032** | 10.24 (260) | 53.0 |
| K1-33 Sloped Channel - 39.37" (1 m) | **74033** | 10.43 (265) | 53.8 |
| K1-34 Sloped Channel - 39.37" (1 m) | **74034** | 10.63 (270) | 54.6 |
| K1-35 Sloped Channel - 39.37" (1 m)[1] | **74035** | 10.83 (275) | 55.4 |
| K1-36 Sloped Channel - 39.37" (1 m) | **74036** | 11.02 (280) | 56.2 |
| K1-37 Sloped Channel - 39.37" (1 m) | **74037** | 11.22 (285) | 57.0 |
| K1-38 Sloped Channel - 39.37" (1 m) | **74038** | 11.42 (290) | 57.9 |
| K1-39 Sloped Channel - 39.37" (1 m) | **74039** | 11.61 (295) | 58.7 |
| K1-40 Sloped Channel - 39.37" (1 m)[1] | **74040** | 11.81 (300) | 59.5 |
| K1-040 Neutral Channel - 39.37" (1 m)[1] | **74049** | 11.81 (300) | 59.5 |
| K1-0403 Neutral Channel - 19.69" (0.5 m)[1] | **74050** | 11.81 (300) | 27.5 |
| K1-901G In-line Catch Basin - 19.69" (0.5 m)[3] | **94608** | 27.63 (702) | 52.6 |
| K1-621G Catch Basin - 19.69" (0.5 m)[3] | **94617** | 28.86 (733) | 55.8 |
| K1-631G Catch Basin - 19.69" (0.5 m)[4] | **94631** | 40.86 (1,038) | 65.8 |
| K1-Series 600 Optional Plastic Riser | **99902** | - | 10.0 |
| Foul Air Trap - Fits Both 900 & 600 Series Basins | **90854** | - | 1.2 |

| Product | Part No. | Invert[2] in (mm) | Weight lbs |
|---|---|---|---|
| K1-304-6 6" Inlet Cap | **96839** | 9.84 (250) | 5.2 |
| K1-308-6 6" Outlet Cap | **96840** | 9.84 (250) | 5.0 |
| K1-404-6 6" Inlet Cap | **96834** | 11.81 (300) | 6.0 |
| K1-408-6 6" Outlet Cap | **96836** | 11.81 (300) | 5.8 |
| Universal End Cap | **96822** | 11.81 (300) | 0.4 |
| Debris Strainer for 4" Bottom Knockout | **93488** | - | 0.2 |
| 4" Oval to 6" Round Outlet Adapter | **95140** | - | 1.1 |
| K1-Installation Device | **97477** | - | 2.8 |
| Grate Removal Tool | **01318** | - | 0.3 |
| K1-QuickLok® Locking Bar | **02899** | - | 0.1 |

1. *This channel offers a bottom knockout feature; 4" round/6" oval.*
2. *Inverts shown are for the male end; for female invert depth subtract 5 mm (≈0.2") from the male invert (except for neutral channels, where it will be same as male invert). To calculate the overall channel depth add 20 mm (≈0.8") to invert depth.*
3. *This catch basin kit includes a polymer concrete top, removable Quicklok locking bar, trash bucket and plastic base. Select an appropriate grate.*
4. *This catch basin kit includes a polymer concrete top, removable Quicklok locking bar, deep trash bucket, plastic riser and plastic base. Select an appropriate grate.*

## Outlet Flow Rates

| Outlet | Product | Outlet Size | Invert Depth in (mm) | GPM | CFS |
|---|---|---|---|---|---|
| a | Bottom Outlet - K00 | 4" Round | 3.94 (100) | 108 | 0.24 |
| | Bottom Outlet - K40 | 4" Round | 11.81 (300) | 187 | 0.42 |
| b | Bottom Outlet - K00 | 6" Oval | 3.94 (100) | 177 | 0.39 |
| | Bottom Outlet - K40 | 6" Oval | 11.81 (300) | 306 | 0.68 |
| c | K1-308-6 6" Outlet Cap | 6" Oval | 9.84 (350) | 233 | 0.52 |
| | K1-408-6 6" Outlet Cap | 6" Oval | 11.81 (300) | 264 | 0.59 |
| d | End Outlet - K20 | 4" Round | 7.87 (200) | 132 | 0.29 |
| | End Outlet - K40 | 4" Round | 11.81 (300) | 171 | 0.38 |
| e | Type K1-901G | 4" Round | 20.68 (525) | 235 | 0.52 |
| f | Type K1-901G | 4" Round | 27.17 (690) | 226 | 0.50 |
| g | Type K1-901G | 4" Round | 18.99 (482) | 265 | 0.59 |
| h | Type K1-901G | 6" Round | 27.17 (690) | 263 | 0.59 |
| i | Type K1-901G | 4" Round | 19.30 (490) | 222 | 0.49 |
| j | Type K1-901G | 4" Round | 25.67 (652) | 586 | 1.30 |
| k | Type K1-901G | 6" Round | 19.99 (508) | 269 | 0.60 |
| l | Type K1-901G | 4" Round | 19.36 (492) | 227 | 0.51 |
| m | Type K1-901G | 6" Round | 27.30 (693) | 604 | 1.35 |
| n | Type K1-901G | 4" Round | 26.43 (671) | 505 | 1.12 |
| o | Type K1-901G | 6" Round | 26.43 (671) | 593 | 1.32 |
| p | Type K1-901G | 8" Round | 27.30 (693) | 1051 | 2.34 |
| q | Type K1-901G | 6" Round | 25.85 (657) | 273 | 0.61 |
| r | Type K1-901G | 4" Round | 18.56 (471) | 235 | 0.52 |
| s | Type K1-901G | 4" Round | 25.30 (643) | 224 | 0.50 |

*Notes:*
*These are the pipe flow rates at the specified outlet, NOT channel flow rates.*
*Catch basin flow rates are without trash bucket (trash bucket reduces flow).*

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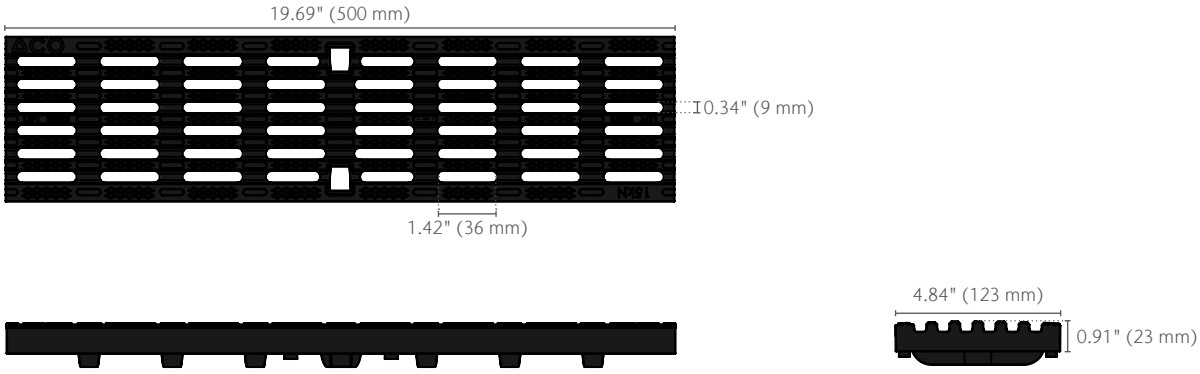
www.acoswm.com

**ACO, Inc.**

# Type 494D/495D/496D Longitudinal Plastic Grate (ADA) Spec Sheet

## Type 494D Longitudinal Plastic Grate

*part no. 99575*

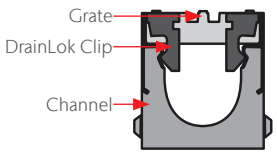



| Product Name | Part No. | Length in (mm) | Width in (mm) | Weight lbs |
|---|---|---|---|---|
| Type 494D Longitudinal Plastic Grate (ADA) | **99575** | 19.69 (500) | 4.84 (123) | 1.8 |
| Type 495D Longitudinal Plastic Grate (ADA) | **99756** | 19.69 (500) | 4.84 (123) | 1.8 |
| Type 496D Longitudinal Plastic Grate (ADA) | **99577** | 19.69 (500) | 4.84 (123) | 1.8 |

# Type 494D/495D/496D Longitudinal Plastic Grate (ADA) Spec Sheet

## DrainLok Locking Mechanism

ACO DrainLok is a patented, boltless locking system that removes the need for bolts and bars while improving the hydraulic capacity of the channel. DrainLok Clips lock into the channel's edge rail for rapid installation. ACO DrainLok grates are fitted with an anti-shunt mechanism that restricts unwanted grate movement when installed, improving durability and longevity of the system.




## Specification Summary

### General

The surface drainage system shall be ACO Drain K100, KS100, or H100K-8 channels, complete with ACO Type 494D black/495D gray/496D tan Longitudinal (ADA) Plastic grate with DrainLok locking as manufactured by ACO, Inc. or similar approved.

### Installation

The trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.

### Materials

The covers shall be manufactured from polypropylene and have minimum properties as follows:

- UV stable polypropylene
- Intake area of 27.4 $in^2$ (176.8 $cm^2$) per half meter of grate

The overall width of 4.84" (123mm) and overall length of 19.69" (500mm). Slots measure 0.34" (8mm) by 1.76" (44mm).

ADA-compliant per The Americans with Disabilities Act of 2010, Section 302.3

Slip-resistant:
BPN > 24 based on Pendulum Test

Australian Standard AS 3996 - 2006 Clause 3.3.6:
max slot length dependent on slot width for grates that are deemed Bicycle Tire Penetration Resistant.

EN1433 Load Class A
3,372 lbs – 70 psi

**ACO, Inc.**



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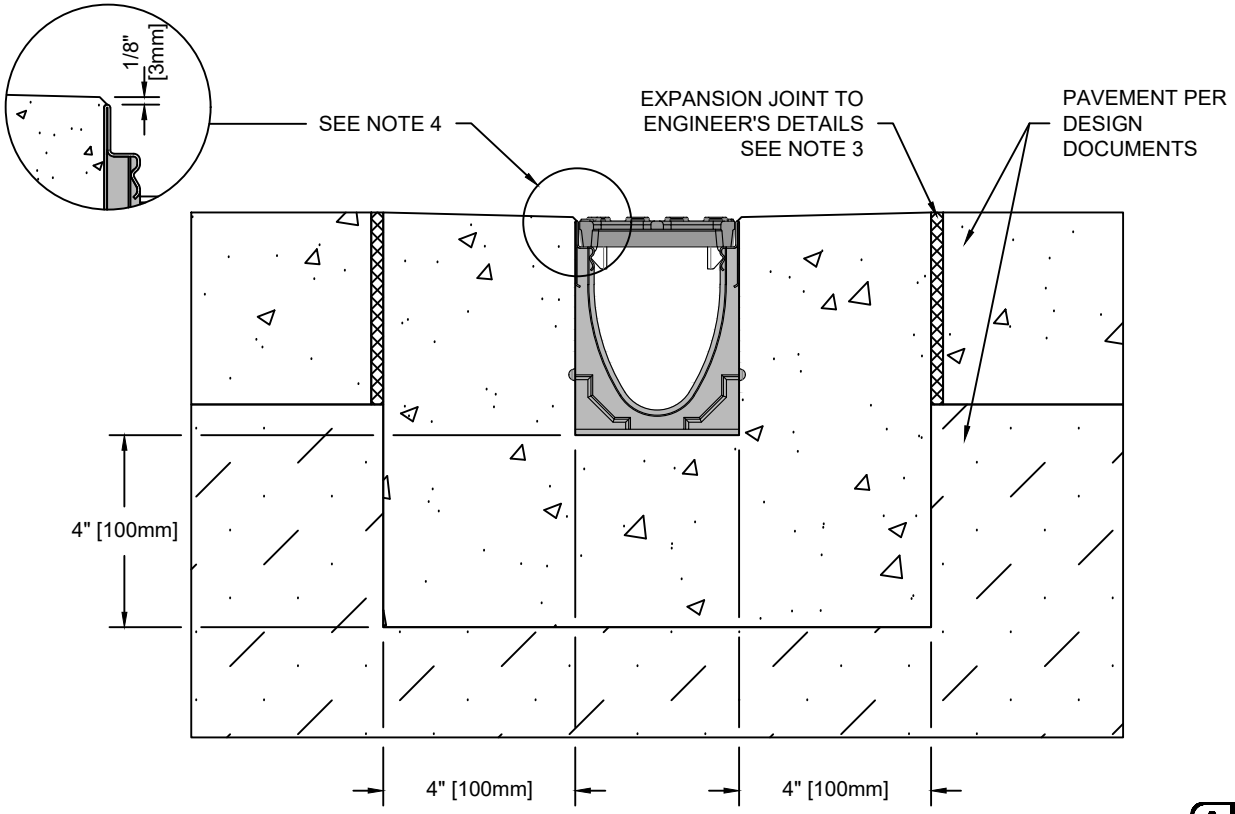
www.acousa.com




NOTES:

1. ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

## SPECIFICATION CLAUSE

### K100 KLASSIKDRAIN "DRAINLOK' LOAD CLASS A

*GENERAL*

THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K100 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO, INC.

*MATERIALS*

CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

| | |
|---|---|
| COMPRESSIVE STRENGTH: | 13,000 PSI |
| FLEXURAL STRENGTH: | 3,200 PSI |
| TENSILE STRENGTH: | 1,500 PSI |
| WATER ABSORPTION: | 0.07% |
| FROST PROOF | YES |
| DILUTE ACID AND ALKALI RESISTANT | YES |
| B117 SALT SPRAY TEST COMPLIANT | YES |

THE SYSTEM SHALL BE 4" (100mm) NOMINAL INTERNAL WIDTH WITH A 5.1" (130mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'DRAINLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

K1D-A-ECP

DATE: 12/18/25

# K100 - KLASSIKDRAIN - LOAD CLASS: A

## Exposed Concrete Pavement

## INSTALLATION DRAWING - ACO DRAIN

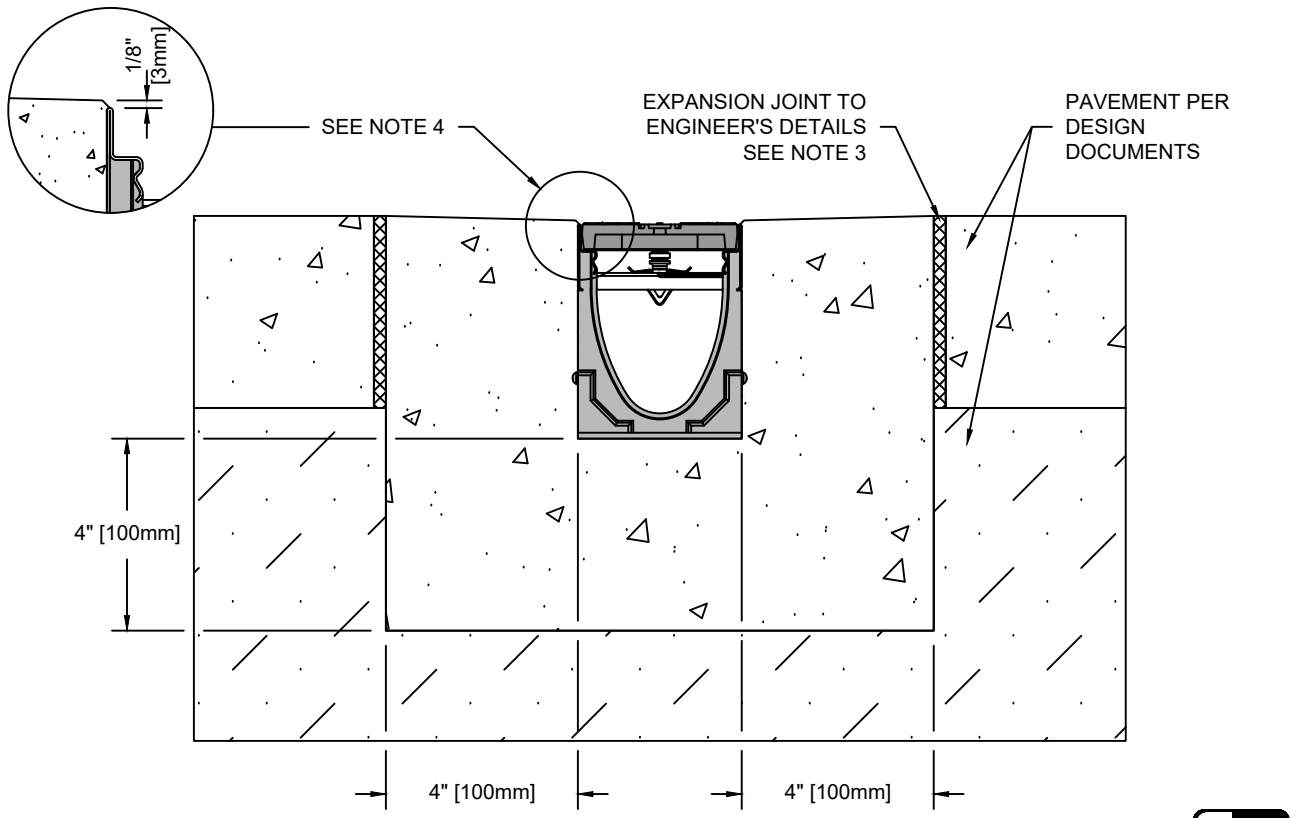
**ACO, Inc.**

825 W. Beechcraft St
Casa Grande, AZ 85122
Tel: 520-421-9988
Fax: 520-421-9899

9470 Pinecone Dr.
Mentor, OH 44060
Tel: 440-639-7230
Fax: 440-639-7235

481 Munn Rd. Suite #225
Fort Mill, SC 29715
Tel: 440-639-7230
Fax: 803-802-1063

Arizona Tel: 888-490-9552 e-mail: sales@acousa.com Ohio Tel: 440-639-7230 www.acoswm.com South Carolina Tel: 440-639-7230




NOTES:
1. ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

## SPECIFICATION CLAUSE

### K100 KLASSIKDRAIN "QUICKLOK' LOAD CLASS A

*GENERAL*

THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K100 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO, INC.

*MATERIALS*

CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

| | |
|---|---|
| COMPRESSIVE STRENGTH: | 13,000 PSI |
| FLEXURAL STRENGTH: | 3,200 PSI |
| TENSILE STRENGTH: | 1,500 PSI |
| WATER ABSORPTION: | 0.07% |
| FROST PROOF | YES |
| DILUTE ACID AND ALKALI RESISTANT | YES |
| B117 SALT SPRAY TEST COMPLIANT | YES |

THE SYSTEM SHALL BE 4" (100mm) NOMINAL INTERNAL WIDTH WITH A 5.1" (130mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'QUICKLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

K1Q-A-ECP

DATE: 12/18/25

# K100 - KLASSIKDRAIN - LOAD CLASS: A

## Exposed Concrete Pavement

## INSTALLATION DRAWING - ACO DRAIN

**ACO, Inc.**

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Casa Grande, AZ 85122
Tel: 520-421-9988
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481 Munn Rd. Suite #225
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