



Effective Date: June 2024

This listing is subject to re-examination in one year.

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CSI: DIVISION: 22 00 00—PLUMBING
Section: 22 40 00—Plumbing Fixtures
Section: 22 14 13—Facility Storm Drainage Piping

Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Product: Trench Drain Systems

Listee: ACO Inc.
825 W. Beechcraft Street
Cas Grande, AZ 85122
www.aco.com

Compliance with the following codes:

2024, 2021, 2018, 2015, and 2012 *International Residential Code*® (IRC)
2024, 2021, 2018, 2015, and 2012 *International Plumbing Code*® (IPC)
2024, 2021, 2018, 2015, and 2012 *Uniform Plumbing Code*® (UPC)*
2022, 2019, 2016 and 2013 *California Plumbing Code* (CPC)
2023, 2020 and 2017 *City of Los Angeles Plumbing Code*
2020, 2015, 2010, and 2005 *National Plumbing Code of Canada* (NPC)**
* Copyrighted publication of the International Association of Plumbing and Mechanical Officials
** Copyrighted publication of the National Research Council Canada

Compliance with the following standards:

ASME A112.6.3-2019, Floor and Trench Drains
CSA B79-2008 (R2018), Commercial and Residential Drains and Cleanouts
ASME A112.6.8/CSA B79.8-2022, Trench Drains

Identification:

The trench drains shall be marked with the manufacturer's name or trademark. Markings shall be permanent, legible, and visible after installation. The ICC-ES PMG listing mark shall be on the packaging.

Installation:

The trench drains recognized in this report must be installed in accordance with the manufacturer's published instructions and the applicable codes.

These drains may be used to discharge corrosive chemicals in accordance with the manufacturer's recommendations and printed specifications. An industrial waste permit shall be obtained for systems that discharge chemical wastes.

Models:

CONCRETE DRAINS**CHANNELS:**

NW100 - sloping 1m channels 1 through 30, neutral 1m channels 02, 010, 020, 030, neutral half meter channels 0103, 0203, 0303

K/KS100 - sloping 1m channels 1 through 40, neutral 1m channels 00, 010, 020, 030, 040, neutral half meter channels 0103, 0203, 0303, 0403

K/KS200 - sloping 1m channels 1 through 40, neutral 1m channels 00, 010, 020, 030, 040, neutral half meter channels 0103, 0203, 0303, 0403

K/KS300 - sloping 1m channels 1 through 40, neutral 1m channels 00, 010, 020, 030, 040, neutral half meter channels 0103, 0203, 0303, 0403

S100K - sloping 1m channels 1 through 40, neutral 1m channels 00, 010, 020, 030, 040, neutral half meter channels 0103, 0203, 0303, 0403

S200K - sloping 1m channels 1 through 40, neutral 1m channels 00, 010, 020, 030, 040, neutral half meter channels 0103, 0203, 0303, 0403

S300K - sloping 1m channels 1 through 40, neutral 1m channels 00, 010, 020, 030, 040, neutral half meter channels 0103, 0203, 0303, 0403

K/KSSO - 1m neutral channels

SLABDRAIN - H100-8, H100-10, H100K-8, H100KS-8, H200K-13, H200KS-13, H300K-13, H300KS-13, H100SK-10, H200SK-13, H300SK-13 neutral 1m channels

END CAPS:

NW100 - N306 polymer concrete closing end cap, N104-4, N204-4, N304-4, N204-6, N304-6 polymer concrete inlet end caps, N108-4, N208-4, N308-4, N208-6, N308-6 polymer concrete outlet end caps

K/KS100 - K1-304-6, K1-404-6 polymer concrete inlet end caps, K1-308-6, K1-408-6 polymer concrete outlet end caps, K1 Universal plastic end cap

K/KS200 - K2 Universal plastic end cap

K/KS300 - K3 Universal plastic end cap

S100K - SK1-304-6, SK1-404-6 polymer concrete inlet end caps, SK1-308-6, SK1-408-6 polymer concrete outlet end caps, SK1 Universal plastic end cap

S200K - SK2 Universal plastic end cap

S300K - SK3 Universal plastic end cap

K/KS50 - K/KS50 closing end caps

SLABDRAIN - H100-8, H100-10, H100K-8, H100KS-8, H200K-13, H200KS-13, H300K-13, H300KS-13, H100SK-10, H200SK-13, H300SK-13 closing end caps

CATCH BASINS:

NW100 - N900 inline catch basin
 K/KS100 - K1-901 G/S Inline Catch Basin, K1-621 G/S Catch Basin, K1- 631 G/S Catch Basin
 K/KS 200 - K2-902 G/S In Line Catch Basin. K2-621 G/S Catch Basin, K2-631 G/S Catch Basin
 K/KS 300 - K3-903 G/S In Line Catch Basin, K3-904 G/S In Line Catch Basin
 S100K SK1-901D In Line Catch Basin, SK1-621D Catch Basin, SK1-631D Catch Basin
 S200K SK2-902D Inline Catch Basin, SK2-621D Catch Basin SK2-631 D Catch Basin
 S300K - SK3-903D, SK3-904D inline catch basin

GRATINGS:

K/KS 100 SYSTEM: 4940, 4950, 4200 , 4210 , 4500 , 4520 , 4100 , 4120 , 4510, 4530, 4470, 4480, 4920, 4250, 4260, 4550 , 4570, 4110, 4130, 4650, 4660, 4050, 4060, 4300, 4310, 4800, 4810, 4790, 4610 ,4350, 4360, 4900, 4930, 4780, BrickSlot

K/KS 200 SYSTEM: 6470, 6480, 6110, 6130, 6650, 6660, 6050, 6060, 6300, 6310, 6800, 6810, 6790, 6780, 6610

K/KS 300 SYSTEM: 8470, 8480, 8110, 8130, 8650 8660, 8050, 8300, 8800, 8810, 8790, 8780, 8610

S100K SYSTEM: SK1- slotted grate, sk1-longitudinal
 S200K System: SK2- slotted grate, sk2- longitudinal
 S300K System: SK3 slotted grate, SK3 longitudinal grate
 K/KS 50 System: galvanized steel perforated, stainless steel perforated, galvanized steel slotted, stainless steel slotted, plastic mosaic, stainless steel longitudinal, ductile iron longitudinal

ACCESSORIES:

K/KS 100 System: catch basin riser, catch basin foul air trap, debris strainer, 4" to 6" oval outlet adapter, installation device, grate removal tool, quicklock locking bar

K/KS 200 System: catch basin riser, catch basin foul air trap, debris strainer, 4" to 6" oval outlet adapter, installation device, grate removal tool, quicklock locking bar

K/KS 300 System: catch basin riser, catch basin foul air trap, installation device, grate removal tool, quicklock locking bar

S100K System: catch basin riser, catch basin foul air trap, debris strainer, 4" to 6" oval outlet adapter, installation device, grate removal tool

S200K System: catch basin riser, catch basin foul air trap, debris strainer, 4" to 6" oval outlet adapter, installation device, grate removal tool

S300K System: catch basin riser, catch basin foul air trap, debris strainer, 4" to 6" oval outlet adapter, installation device, grate removal tool

Universal Accessories: channel hanger, shovel head, Aco seal flexible joint sealant, Aco bond polymer concrete repair kit (1&5 gallons), Aco bond vinylester polymer concrete repair kit, Aco fiberglass repair kit

FIRE RATING:

Polymer Concrete material have been found to have the following ratings and are certified under UL File No. R26474

Flame Spread	Smoke Developed	Test Standard	Thickness
0	20	UL 723	4 in. max.
5	150	CAN/ULC-S102.2	12.5 mm – 100 mm

GRATES:

MODEL NO.	DESCRIPTION	LOAD CLASS See description below
Type 494Q	0.5m Black plastic longitudinal grate	A15
Type 495Q	0.5m Grey plastic longitudinal grate	A15
Type 420Q	1m galvanized slotted grate	A15
Type 421Q	0.5m galvanized slotted grate	A15
Type 450Q	1m stainless steel slotted grate	A15
Type 452Q	0.5m stainless steel slotted grate	A15
Type 410Q	1m galvanized perforated grate	A15
Type 412Q	0.5m galvanized perforated grate	A15
Type 451Q	1m stainless steel perforated grate	A15
Type 453Q	0.5m stainless steel perforated grate	A15
Type 447Q	1m stainless steel longitudinal grate	8125
Type 448Q	0.5m stainless steel longitudinal grate	8125
Type 4920	0.5m composite slotted grate	C250
Type 4250	1m galvanized slotted grate	C250
Type 4260	0.5m galvanized slotted grate	C250
Type 4550	1m stainless steel slotted grate	C250
Type 4570	0.5m stainless steel slotted grate	C250
Type 4110	1m galvanized perforated grate	C250
Type 4130	0.5m galvanized perforated grate	C250
Type 4650	1m stainless steel perforated grate	C250
Type 4660	0.5m stainless steel perforated grate	C250
Type 4050	1m galvanized mesh grate	C250
Type 4060	0.5m galvanized mesh grate	C250
Type 4300	1m stainless steel mesh grate	C250
Type 4310	0.5m stainless steel mesh grate	C250
Type 480Q	0.5m ductile iron wave grate	C250
Type 481Q	0.5m ductile iron decorative grate	C250
Type 4790	0.5m ductile iron mosaic grate	C250
Type 4610	0.5m ductile iron slotted grate	E600
Type 4350	1m galvanized slotted grate	E600
Type 436Q	0.5m galvanized slotted grate	E600
Type 490Q	1m stainless steel slotted grate	E600
Type 4930	0.5m stainless steel slotted grate	E600
Type 4780	0.5m ductile iron longitudinal grate	E600
Type 6470	1m stainless steel longitudinal grate	B125
Type 648Q	0.5m stainless steel longitudinal grate	B125
Type 6110	1m galvanized perforated grate	C250
Type 6130	0.5m galvanized perforated grate	C250
Type 6650	1m stainless steel perforated grate	C250
Type 6660	0.5m stainless steel perforated grate	C250
Type 6050	1m galvanized mesh grate	C250
Type 6060	0.5m galvanized mesh grate	C250
Type 6300	1m stainless steel mesh grate	C250
Type 6310	0.5m stainless steel mesh grate	C250
Type 6800	0.5m ductile iron wave grate	C250
Type 6810	0.5m ductile iron decorative grate	C250
Type 6790	0.5m ductile iron mosaic grate	C250
Type 678Q	0.5m ductile iron longitudinal grate	C250
Type 661Q	0.5m ductile iron slotted grate	E600
Type 8470	1m stainless steel longitudinal grate	A15
Type 848Q	0.5m stainless steel longitudinal grate	A15
Type 811Q	1m galvanized perforated grate	C250
Type 813Q	0.5m galvanized perforated grate	C250
Type 865Q	1m stainless steel perforated grate	C250
Type 866Q	0.5m stainless steel perforated grate	C250
Type 8a5Q	0.5m galvanized mesh grate	C250
Type 83aQ	0.5m stainless steel mesh grate	C250
Type 88aQ	0.5m ductile iron wave grate	C250
Type 881Q	0.5m ductile iron decorative grate	C250
Type 879Q	0.5m ductile iron mosaic grate	C250
Type 878Q	0.5m ductile iron longitudinal grate	C250

Type 861Q	0.5m ductile iron slotted grate	E600
SK1 Slotted	0.5m ductile iron slotted grate	F900
SK1 Longitudinal	0.5m ductile iron longitudinal grate	F900
SK2 Slotted	0.5m ductile iron slotted grate	F900
SK2 Longitudinal	0.5m ductile iron longitudinal grate	E600
SK3 Slotted	0.5m ductile iron slotted grate	F900
SK3 Longitudinal	0.5m ductile iron longitudinal grate	E600
K50 Galv Perf.	1m galvanized perforated grate	A15
K50 S/S Perf.	1m stainless steel perforated grate	A15
K50 Galv Slotted	1m galvanized slotted grate	A1S
K50 S/S Slotted	1m stainless steel slotted grate	A1S
K50 Plastic Mosaic	0.5m plastic mosaic grate	A15
K50 S/S Long	1m stainless steel longitudinal grate	A15
K50 D.I Long	0.5m ductile iron longitudinal grate	C250

KEY TO LOAD RATINGS:

Class A 15: Applicable for areas which can only be used by pedestrians and cyclists.
Class 8125: Applicable for walkways, pedestrian areas and comparable areas, private car parks or parking decks.
Class C250: Applicable for curbsides and non-trafficked areas of hard shoulders or similar areas.
Class E600: Applicable for areas subjected to high wheel loads, ie ports, dock sides, etc.
Class F900: Applicable for areas subjected to especially high wheel loads, ie aircraft pavements, etc

POLYMER DRAINS

FG 100

COMPONENTS OF TRENCH DRAIN SYSTEM

CHANNELS:

#401 through #402, including neutral channels
 #401N, #408N, #416N and #424N

END/OUTLET CAPS:

Closing end caps, Outlet end cap 4" PVC, Outlet adaptor

CATCH BASIN:

#880 Catch Basin

GRATES:

#410, #420, #430, #440, #450, #411, #416, #425, #485, #455, #465, #460, #456C, #477C, #461, #456D, #477D

FG 200

COMPONENTS OF TRENCH DRAIN SYSTEM

CHANNELS:

#801 through #816, including neutral channels,
 #801N, #806N, #811N and #815N
 Wall extensions #850

END/OUTLET CAPS:

#860 Closing end caps, #861 Outlet end cap, Flumed bottom outlet

CATCH BASIN:

#880 Catch Basin

GRATES:

Group 1 Ductile iron grate

Group 4 Stainless steel mesh grate

Group 2 Cast iron grate
Group 3 Galvanized mesh grate

Group 5 Fiberglass mesh grate

DESCRIPTION AND APPLICATION OF ACO GRATES FOR FG 100

MODEL NO .	DESCRIPTION	LOAD RATINGS	APPLICATIONS
410	Perforated Galvanized Steel 1/4" holes	A	Automobile / light truck or foot traffic
420	Slotted Galvanized Steel Medium duty	B	Slow speed pneumatic tire traffic / resistant to bicycle and wheelchair tires
430	Mesh Galvanized Steel	B	High flow areas with no pedestrian traffic. Large intake cross section.
440	Vinylester Fiberglass	B	High chemical resistance or non-conductivity
450	Slotted Stainless Steel Medium Duty	B	Food and beverage processing areas. High-corrosion resistance
411	Perforated Galvanized Steel 1/4" holes Heavy duty	C	Heavy loads and frequent traffic
416	Solid Galvanized Steel Heavy duty	C	Heavy loads and frequent traffic
425	Slotted Galvanized Steel Heavy duty	C	Heavy loads and frequent traffic
455	Slotted Stainless Steel Heavy duty	C	Heavy loads and frequent traffic High corrosion resistance
456	Solid Cast Iron Heavy duty	C	Heavy loads and frequent traffic
456	Slotted Cast Iron Heavy duty	C	Heavy loads and frequent traffic
460	Perforated Stainless Steel 1/4" holes Heavy duty	C	Heavy loads and frequent traffic
477C	Longitudinal Slotted Cast Iron	C	Heavy loads and frequent traffic Horizontal slots for increased intake capacity
485	Perforated Brass 1/4" holes Heavy duty	C	Heavy loads and frequent traffic Decorative appearance
461	Slotted Ductile Iron Grate	E	Dynamic loads and hard wheel forklift traffic
477D	Longitudinal Slotted Ductile Iron Extra heavy duty	E	Dynamic loads and hard wheel forklift traffic. Horizontal slots for increased intake capacity
456D	Solid Ductile Iron Extra heavy duty	E	Dynamic loads and hard wheel forklift traffic

DESCRIPTION AND APPLICATION OF ACO GRATES FOR FG 200

MODEL NO .	DESCRIPTION	LOAD RATINGS	APPLICATIONS
Group 1	Slotted Ductile Iron Extra heavy duty	E	Dynamic loads and hard wheel forklift traffic
Group 2	Slotted Cast Iron Heavy duty	C	Heavy loads and frequent traffic
Group 3	Mesh Galvanized Steel Heavy duty	C	Heavy loads and frequent traffic
Group 4	Mesh Stainless Steel Heavy duty	C	Heavy loads and frequent traffic High corrosion resistant
Group 5	Vinylester Fiberglass Heavy duty	C	High chemical resistance or non-conductivity

Key to Load Ratings:

Class A: Light Duty - Pneumatic Tires only. Light truck and auto traffic.

Class B: Medium Duty - Twenty ton gross vehicle weight, 5 ton wheel load or less.

Class C: Heavy Duty - Heavy loads to 60 ton gross vehicle weight. 10 ton wheel load at slow to moderate speed

Class E: Extra Heavy Duty - Sixty ton gross vehicle weight. 10 ton wheel load including solid tire forklift traffic.

Conditions of Listing:

1. The trench drains recognized in this report shall be installed in accordance with manufacturer's published installation instructions.
2. These drains may be used to discharge corrosive chemicals in accordance with the manufacturer's recommendations and printed specifications. An industrial waste permit shall be obtained for systems that discharge chemical wastes.
3. The trench drains recognized in this report are under a quality control program with annual inspection by ICC-ES.