

## Conley Product Bulletin

### RUGGED TOP OF THE LINE PERFORMANCE ~ AFFORDABLE COST

#### Conley Floor Drain Types

- Sizes available in 3" through 12" NPS for Conley Standard Piping Systems
- Open type
- Sealable Type
- Sanitary Type
- With or without strainers

#### Description



- Extra heavy duty available in
  - ▣ Premium epoxy resin
  - ▣ Premium vinyl ester resin
  - ▣ Premium novolac vinyl ester resin
  - ▣ Premium furan resin
- Standard cover is FRP bar grate
- Optional covers are 316SS plate with or without drain holes and 316SS bar grate
- Single wall or double containment piping systems

#### Typical Applications

- Waste water
- Waste Solvents
- Pharmaceutical
- Cooling water
- Industrial waste
- Chemical processing

#### Performance



- Excellent chemical resistance inside and outside to a variety of caustics, acids, brines, and petroleum products ~ See the chemical resistance chart for fluid services
- Light weight



## Conley Floor Drain Piping Systems

### Floor Drains

A large-diameter drain with a deep sump connected to a large-diameter pipe will pass more water more rapidly than a smaller drain will. High-capacity drains are intended for use primarily in locations where the flow reaches high rates, such as in washdown areas and certain industrial applications. The open grate area of the drain should at least equal the pipe size area of the drain. For the sizing of floor drains for most indoor applications, the capacity of a drain is not extremely critical because the drain's primary function is to handle minor spillage or fixture overflow. The exceptions are, of course, cases where equipment discharges to the drain, where automatic fire sprinklers may deluge an area with large amounts of water, and where flushing of the floor is required for sanitation.

### Grates

The selection of grates is based on use and the amount of flow. Light-traffic areas may have a fiberglass reinforced grate, while mechanical areas may have a large, heavy-duty, stainless steel grate.

Where grates are not secured and are subject to vehicular traffic, it is recommended that non-tilting grates be installed. When a grate starts to follow a wheel or is hit on one edge and starts to tilt, the skirt catches the side of the drain body and the grate slides back into its original position.

### Flashing Ring

This component makes an effective seal, when caulked, which prevents water from passing around the drain to the area below.

### Strainer Basket

A "sediment bucket" is an additional internal strainer designed to collect debris that gets by the regular grate/strainer; it is required wherever the drain may receive solids, trash, or grit that could plug piping. Locations include mechanical equipment rooms, where pumps, boilers, water chillers, heat exchangers, and HVAC equipment regularly discharge and/or must be periodically drained for maintenance and repairs. Strategically located floor drains are also required in buildings with wet fire-protection sprinkler systems to drain water in case sprinkler heads are activated.

### Traps

Floor drains shall connect into a trap so constructed that it can be readily cleaned and sized to serve efficiently the purpose for which it is intended. A deep-seal-type trap should be provided. The trap shall be accessible either from the floor-drain inlet or by a separate cleanout within the drain.

### Infectious and Biological Waste Drainage Systems

Biological waste has the same basic characteristics as other types of laboratory and production facility waste, but with the addition of biohazardous material. The drainage system must be closed, which requires sealed floor drains. The drainage piping material is based on the expected chemical composition of the effluent and

the sterilization method. A double-contained piping system with leak detection may be required.

### Chemical-Waste Systems

Industrial-waste drainage systems can contain a wide variety of water-borne wastes, among them chemicals, solvents, suspended solids, and flammable liquids, as well as wastewater, many of which are considered hazardous. The floor drain and the discharge pipe from the drain must be capable of resisting chemicals discharged from the production equipment. Selection of the most appropriate piping material can only be accomplished if the nature of the effluent, both present and future, is known and Conley will assist in the selection of the best suited material. Local regulations may require the use of double-contained piping to prevent potential leakage from discharging into the environment. A leak-detection system should be provided that announces leakage.

### Cleanouts

The cleanout provides access to horizontal and vertical waste lines to facilitate inspection and provide a means of removing obstructions such as solid objects and greasy wastes. Cleanouts, in general, must be gas and water-tight, provide quick and easy plug removal, and allow ample space for the operation of cleansing tools.

Conley cleanouts are designed with an o-ring seal plug, which prevents "freezing" or binding to the fitting. All plugs are manufactured with a straight thread and a flared shoulder for the o-ring groove, permitting quick and certain removal when necessary. The seal plug or cap is provided with convenient combination hex head and key slot.

Cleanouts are also recommended in larger sizes for a variety of access for sewer video equipment.

**Conley Floor Drain Piping Systems** offer three distinct advantages.

- 1) All glass fiber construction – no metal working parts to corrode.
- 2) Ease of serviceability – drain grating is easily removed for cleaning.
- 3) Grating – standard FRP or 316 stainless steel with bars or holes.

**Conley Floor Drain Piping Systems** are available in Epoxy, Vinyl Ester, and Furan resin systems and offer complete corrosion protection both internally and externally. **Corrosion resistance** plays an important part of the Conley floor drain systems. **Light weight** is another feature of Conley Floor Drains; weighing approximately one-third the weight of their metal counterparts.

## O-Ring Materials

### VITON® Fluorelastomer

Fluorocarbon; excellent chemical compatibility with a wide range of temperature and concentrations. Can be used in most applications of mineral acids, chlorinated hydrocarbons, salt solutions and petroleum oils. Temperature rating of 20°F to 300°F.

### HYPALON®

Chlorosulfonated polyethylene; recommended for sodium chloride, chromic acid, hydrofluoric acid, sulphuric acid, hydrocarbon oils, salts, and others. Temperature rating of -5°F to 150°F.

### EPDM

Ethylene-propylene diene; recommended for ozone, phosphate, ester, ketones, alcohols, glycols, concentrated sulphuric acid, bleaching (20%), alkaline solutions in general, treated water (with caustic soda, sodium sulphate, chlorine), and hot water. Temperature rating of -30°F to 250°F.

### BUNA-N

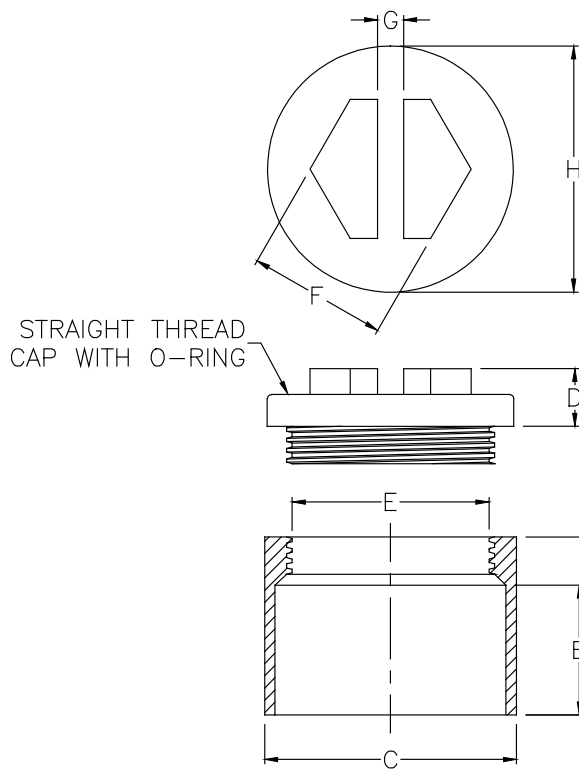
Nitrile rubber; a general purpose elastomer recommended for sealing of water, oil, mild solvents and petroleum products. Not recommended for strong acids, ketones or halogenated hydrocarbons. Excellent abrasion and tear resistance. Temperature rating of -40°F to 200°F.

### Conley Floor Drain Load Ratings

The Conley Standard #154 and #254 Floor Drain comes with a 10" diameter by 1 3/4" thick fiberglass grate in floor drain sizes through 6" as standard which is rated for foot traffic only. The actual load rating of the FRP grating is 5200 pounds per square foot uniform maximum safe load at 12" span.

Conley floor drains are available with optional stainless steel grating, 10" diameter by 1 3/4" thick bar grating in floor drain sizes through 6", and have a uniform load rating of 10,000 pounds per square foot.



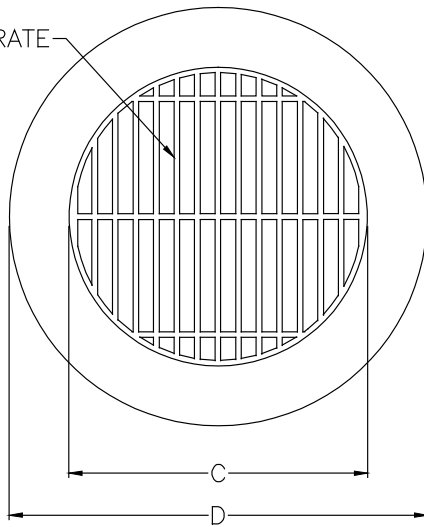


SIZE IN.	A	B	C	D	E
3	3 7/8	2	5	1	3 3/8
4	3 7/8	2 5/8	5	1	3 3/8
6	4 13/16	3 1/2	7 3/16	1 5/8	5 11/16
8	5 5/16	3 3/4	9 1/8	2 1/16	8 3/4
10	5 5/8	4	11 3/8	2 1/16	8 3/4
12	6 1/4	4 1/2	13 1/2	2 1/16	8 3/4

SIZE IN.	F	G	H	WT. LBS.
3	2 3/4	1/2	4 1/4	4.2
4	2 3/4	1/2	4 1/4	3.0
6	4	3/4	7 1/8	7.4
8	6 1/8	1	10	9.9
10	6 1/8	1	10	7.4
12	6 1/8	1	10	9.9

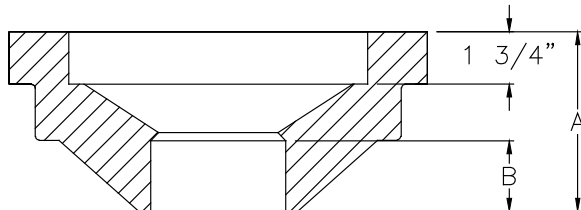
SPECIFICATION DRAWING  
#153 CLEANOUT

FRP GRATE

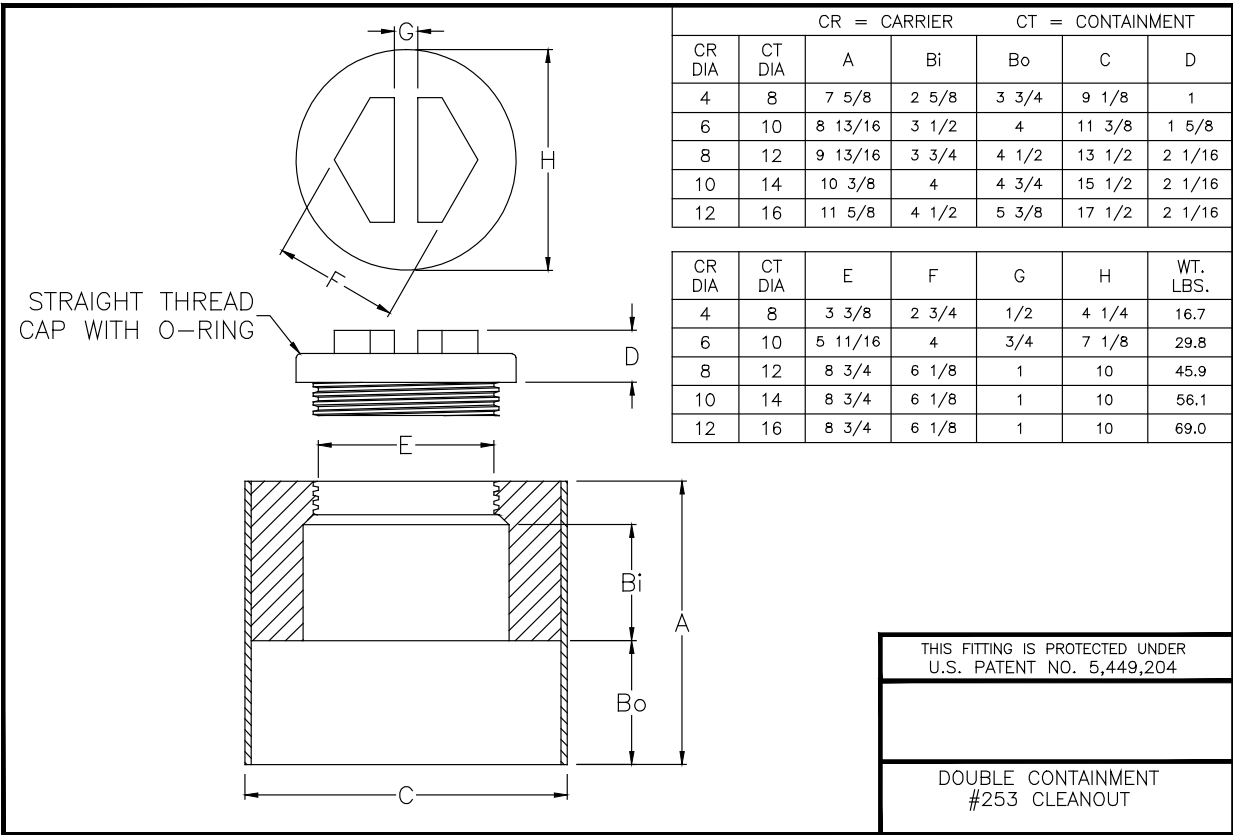
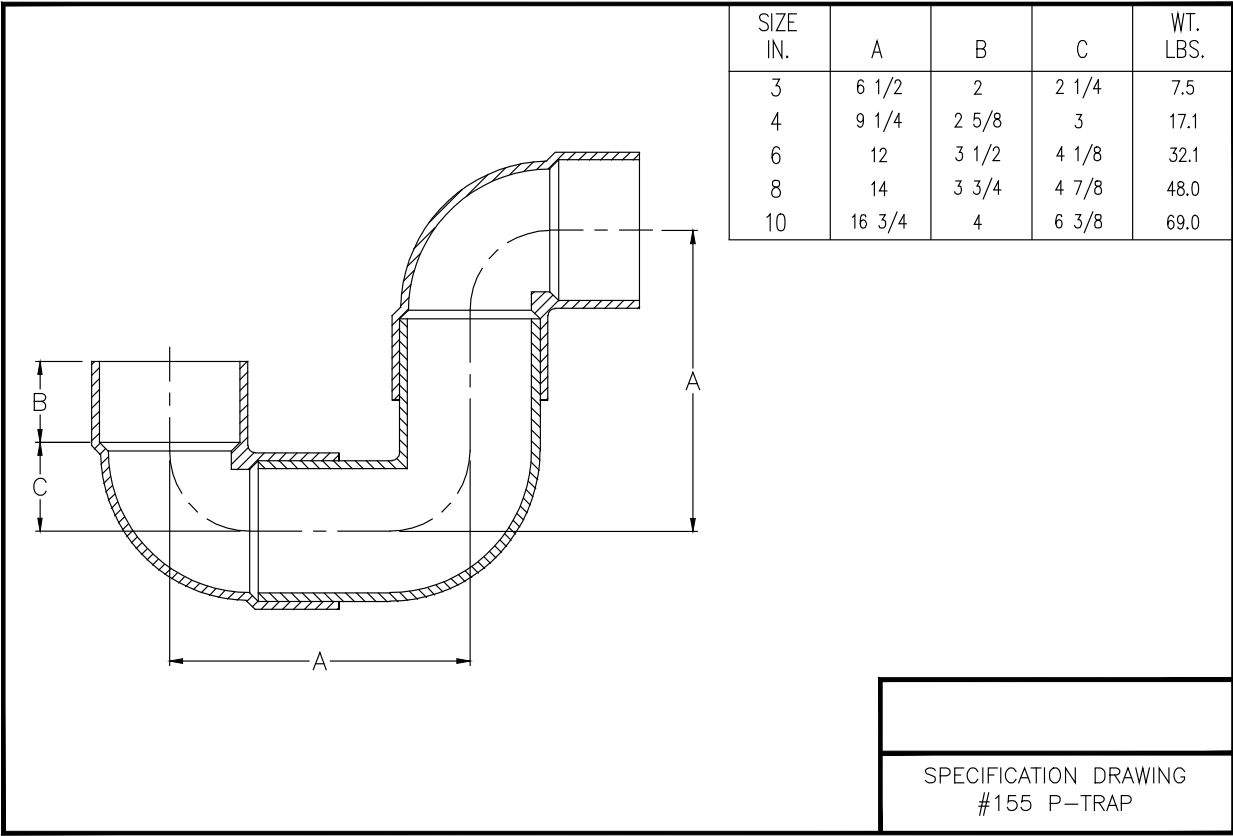


SIZE IN.	A	B	C	D	WT. LBS.
3	6	2	10	14	29.9
4	6	2 3/8	10	14	28.7
6	6	3 1/2	10	14	22.9
8	7 13/16	3 3/4	12	16	36.3
10	10 7/8	4	13 1/2	20	62.3
12	8	4 1/2	18 7/8	22 7/8	64.0

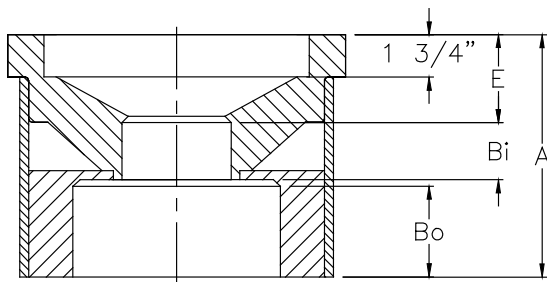
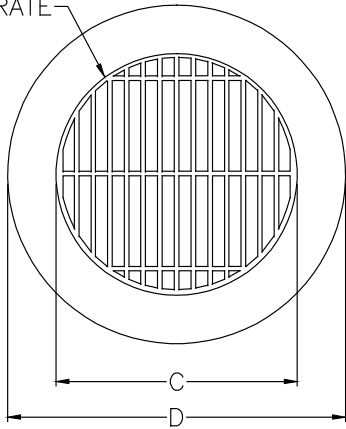
NOTE: CONTACT CONLEY CORPORATION FOR GRATE  
LOAD RATINGS. STAINLESS STEEL OR OTHER  
GRATE MATERIALS AVAILABLE.



SPECIFICATION DRAWING  
154 FLOOR DRAIN



FRP GRATE



CR DIA	CT DIA	A	Bi	Bo	C
3	6	9 13/16	2	3 1/2	10
4	8	10 1/16	2 3/8	3 3/4	10
6	10	10 3/8	3 1/2	4	10
8	12	12 7/8	3 3/4	4 1/2	12
10	14	16 1/8	4	4 3/4	13 1/2
12	16	13 7/8	4 1/2	5 3/8	18 7/8

CR DIA	CT DIA	D	E	WT. LBS.
3	6	14	4	34.9
4	8	14	3 5/8	37.8
6	10	14	2 1/2	38.6
8	12	16	4 1/16	60.6
10	14	20	6 7/8	95.0
12	16	22 7/8	3 1/2	100.0

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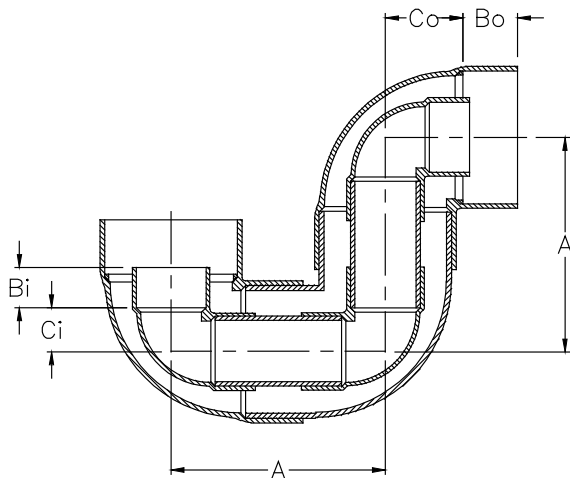
THIS FITTING IS PROTECTED UNDER  
U.S. PATENT NO. 5,449,204

DOUBLE CONTAINMENT  
#254 FLOOR DRAIN

CR = CARRIER CT = CONTAINMENT

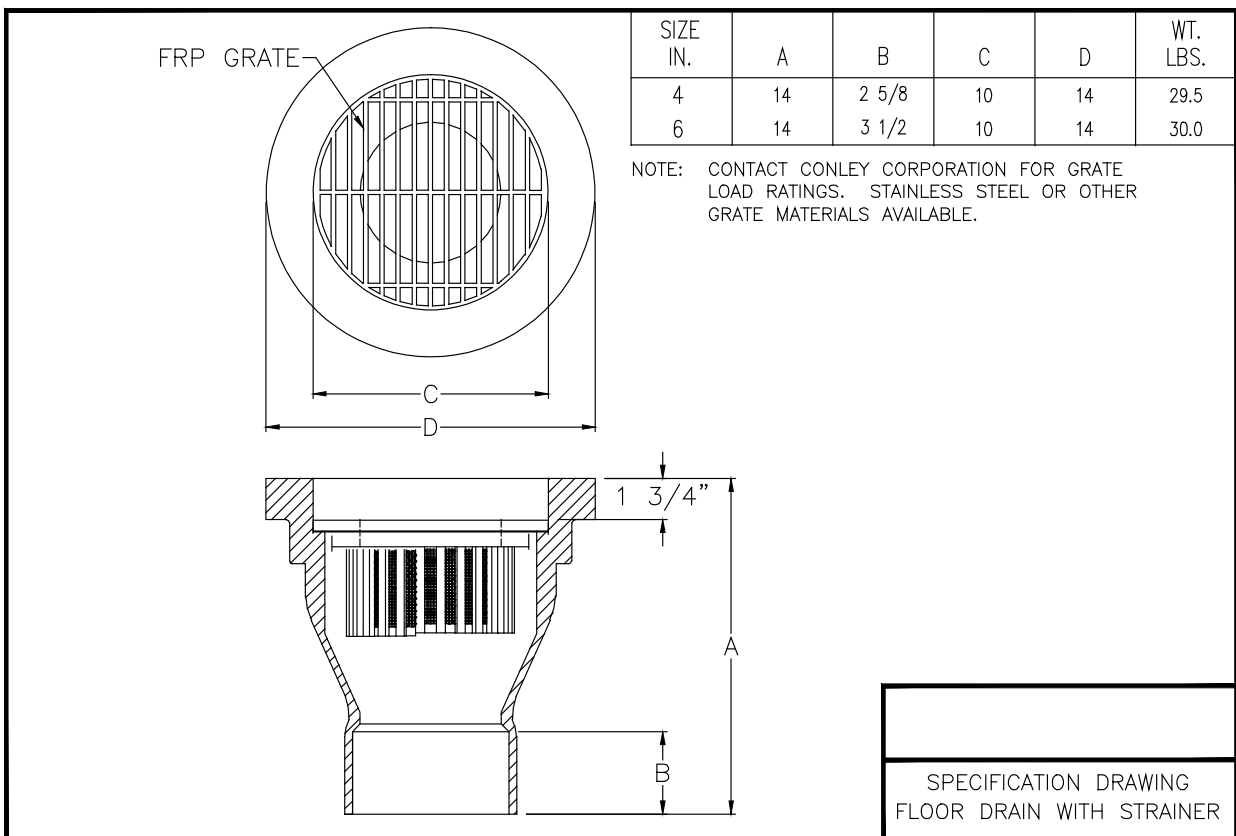
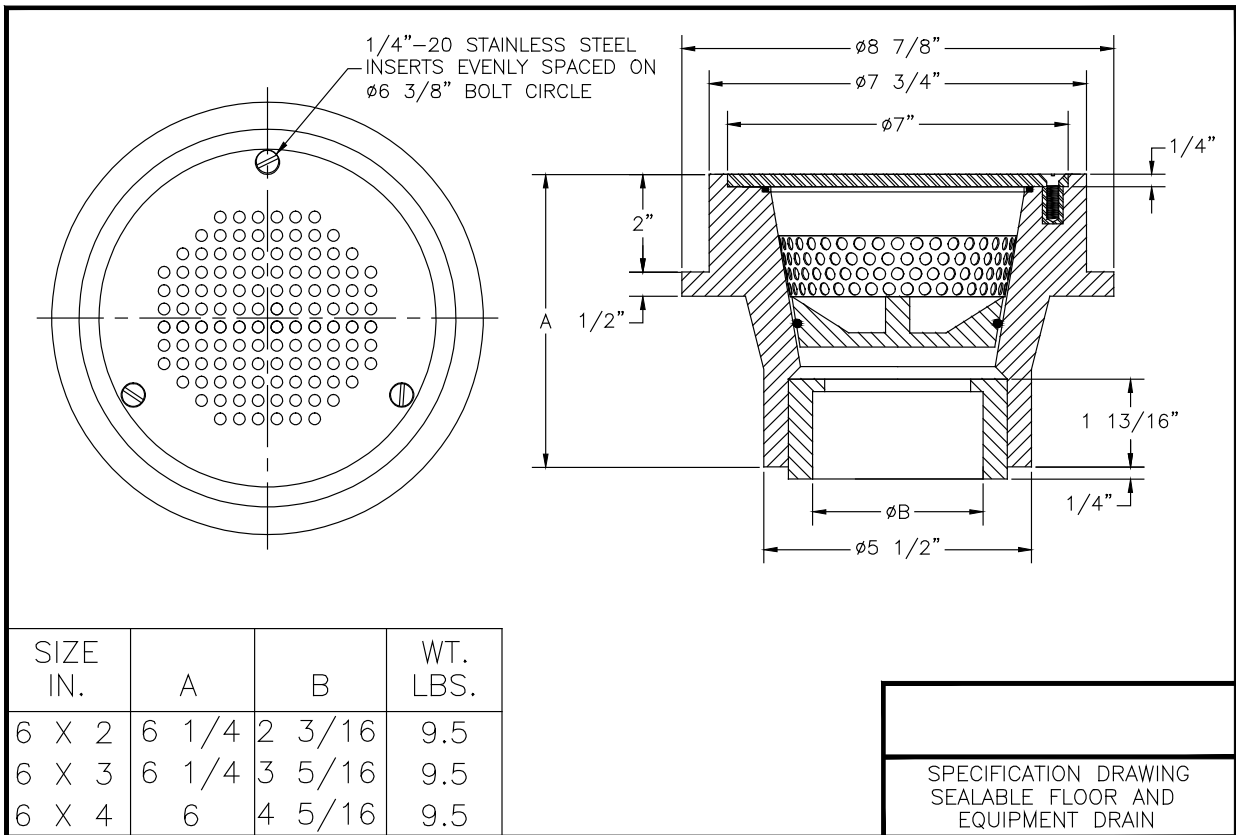
CR DIA	CT DIA	A	Bi	Bo	Ci	Co	WT. LBS.
3	6	12	2	3 5/16	2 1/4	4 1/4	43.6
4	8	14	2 5/8	3 1/4	3	5 5/8	71.6
6	10	16 3/4	3 1/2	3 1/2	4 1/8	6 7/8	111.2
8	12	20 1/4	3 3/4	3 15/16	5 1/8	8 7/8	165.0
10	14	25 1/2	4	4 3/4	6 3/8	10 3/8	227.7
* 12	16	31 7/8	4 1/2	5 3/8	8 1/4	12 3/4	297.0

\* CONTAINMENT MITER CONSTRUCTION

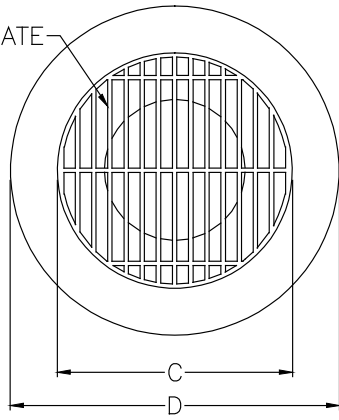


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U.S. PATENT NO. 5,449,204

DOUBLE CONTAINMENT  
#255 P-TRAP

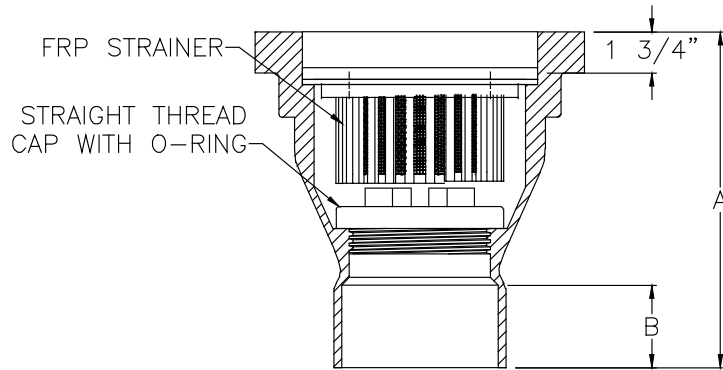


FRP GRATE



SIZE IN.	A	B	C	D	WT. LBS.
4	14	2 5/8	10	14	35.0
6	14	3 1/2	10	14	35.5

NOTE: CONTACT CONLEY CORPORATION FOR GRATE  
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GRATE MATERIALS AVAILABLE.



SPECIFICATION DRAWING  
SANITARY FLOOR DRAIN







ISO 9001:2008  
CERTIFIED  
Conley  
Composites  
Kentwood, MI

This product data sheet and recommendations it contains are based on data reasonably believed to be reliable. It is intended that this data be used by competent personnel having acceptable training in accordance with current industry practice and operating conditions. Variation in environment, application or installation, changes in operating procedures, or extrapolation of data may cause unsatisfactory results. Conley Corporation makes no representation or warranty, express or implied, including warranties of merchantability or fitness for purpose, as to accuracy, adequacy or completeness of the recommendations or information contained herein. Conley Corporation assumes no liability whatsoever in connection with this literature or the information or recommendations it contains.



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