INLETS 8

CHOOSING THE PROPER INLET GRATE

Adopting an inlet grate design requires an analysis of the functions the grate should perform. A designer must review the drainage requirements and then specify which functions will be necessary for satisfactory grate and all other performance requirements of each application. For example, if the only consideration is for the grate to efficiently intercept large quantities of storm water from the gutter, then a grate with the proper geometry and flow-through area is the one to choose. Although capacity is an important function, there are other considerations that must be evaluated to satisfy the requirements of a functional, correctly located, safe grate. Designers must note that there may be other considerations in addition to those listed below that should be evaluated prior to making a choice. SEE, ESPECIALLY, "IMPORTANT INFORMATION ON CHOOSING THE RIGHT CASTING FOR YOUR APPLICATION," BEGINNING ON PAGE 7 OF THIS CATALOG, INCLUDING THE MATERIAL THERE CONCERNING HANDICAPPED PERSON, PEDESTRIAN AND BICYCLE SAFETY CONCERNS.

CONSIDERATIONS FOR HANDICAPPED PERSONS, BICYCLES AND PEDESTRIANS

Design and placement of the grate must be suitable for use in areas where handicapped persons, bicycles and pedestrians may be present.

The adoption of the Americans with Disabilities Act (ADA), the prominence of narrow-tired bicycles and concern for pedestrian safety dictates that designers carefully consider the safety of the type of grating selected for various applications. If the installation is changed in concept, scope or usage pattern at some future date, designers must at that time reconsider the types of gratings used and determine if they still meet their safety requirements. If not, designers must replace these existing grates with more appropriate styles.

GRATES FOR BICYCLES

The designer must determine the appropriate grate design and inlet location for safe use by bicycle traffic, having in mind the specific details of location and foreseeable use. The following are some important considerations:

- 1. The style of grate employed should allow bicycle travel from all accessible directions. Grates located in open areas, or adjacent to driveways, or in other locations where they are not adjacent to barrier curbs require special attention in this regard.
- 2. In general, we suggest consideration of our Type L vane style grates. Certain grates shown in our catalog are generally not suitable for use where bicycle traffic is a consideration. The designer is responsible for making the appropriate grate selection.
- 3. If slotted grates or vane-type grates other than our Type L are considered, they should have sufficiently narrow openings and/or should have appropriately spaced transverse (cross) bars to ensure that any foreseeable width and diameter of bicycle tire cannot drop down into openings to an unsafe extent.
- 4. Gutter slopes should not be substantially swaled into the curb so as to create a disturbance in the roadway which might affect the ability of bicycles or other traffic to traverse them.

GRATES FOR PEDESTRIANS AND HANDICAPPED

Various regulations or customs may dictate the use of specific types of grates, such as gratings with longitudinal slope openings no greater than 1/4" or 1/2". Designers must carefully evaluate the location and placement of grates against applicable specifications to be sure they are using grates that will satisfy the specification's requirement and provide a pathway (accessible route) for pedestrians and handicapped persons. The Americans with Disabilities Act (ADA) provides grating specification guidelines that can be used in creating accessible routes for handicapped individuals.

HYDRAULIC EFFICIENCY

The ability of a grate to intercept storm water or its hydraulic efficiency is an important function. The main considerations in design are the geometry and the flow-through area of the openings for each individual grate. NEENAH has recognized the designers need for hydraulic information on individual grates. We studied individual grate performance by establishing our own hydraulic testing program and are now capable of supplying grate capacity information on the grates shown in this catalog. Please contact us for specific charts and information.

SCREENING OUT HARMFUL DEBRIS

An inlet grate must act as a strainer and prevent harmful debris from entering sewer lines. Objects such as branches, large sheets of semi rigid material, sticks, chunks of wood, etc. which are easily passed by large curb openings (open throat) are conveniently prevented from entering the catch basin by a well chosen grate.

If large debris gets into the catch basin, it can often float or wash into the lines, clogging them at inaccessible locations and making the drainage system ineffective.

Should clogging of the grate occur at the upstream end, grates of longer lengths usually provide the extra flow-through capacity necessary to accommodate the gutter flow as well as some of the side flow.

ABILITY TO PASS UNOBJECTIONABLE DEBRIS

Organic material such as grass clippings, leaves, small stones, scraps of paper and even small twigs should be passed into the catch basin. Because of their size and configuration they are not a hazard for the sewer lines.

Grates designed with closely spaced bars for strength and safety become easily clogged from very small but always present debris. The problem is magnified even more as this debris is packed into the openings by passing traffic creating a hard, semi-solid surface. If the velocity of the gutter flow is insufficient to dislodge the packed debris, the grate becomes ineffective.

The answer then is to provide grate openings wide enough, of suitable length or of special design to pass this debris and still meet the other requirements. NEENAH has many sizes and styles that can be implemented into your designs.

STRENGTH

Inlet grates placed in roadways must be designed to withstand heavy traffic loads. A common designation for standard highway loads is described as H20-44 loading for single axle trucks and HS20-44 for tandem axle trucks (tractor semi-trailer units) The maximum axle loading in both cases is 32,000 lbs, or 16,000 lbs. for each set of dual wheels. There may be cases where more extreme design loads are necessary such as airports, commercial applications, industrial sites or installations where extra heavy loads and/or extremely hard tires are present. Refer to page 5, **Castings for Different Traffic Conditions** for additional information.

DURABILITY

A gutter inlet grate should be designed to match or exceed the expected life of the installation. The inherent rust-resisting properties of unpainted cast iron and its time-tested performance insures long life. The strength of cast iron grates resists earth and pavement pressures - qualities one should guestion in other non-cast iron materials.

STORM WATER MANAGEMENT WITH NEENAH GRATES

An important consideration in any storm water management plan is the proper selection and use of drainage grates. The NEENAH line of inlet, area and drainage grates offers hundreds and hundreds of choices. Different shapes, sizes and geometry provide varying capacities which can match your inlet and outlet control requirements.

When runoff conditions overtax sewer lines or treatment capacity, engineers frequently detain excess storm water by temporarily impounding storm water in suitable depressed open space areas, parking lots or other available basin type structures. With NEENAH capacity rated grates, ponded water can be slowly released at a controlled rate as sewer lines and treatment facilities are able to accept new discharges.

SEE "IMPORTANT INFORMATION ON CHOOSING THE RIGHT CASTING FOR YOUR APPLICATION," BEGINNING ON PAGE 7 OF THIS CATALOG, INCLUDING THE MATERIAL THERE CONCERNING HANDICAPPED PERSON, PEDESTRIAN AND BICYCLE SAFETY CONCERNS.

Specific applications of NEENAH drainage grate products include:



MEDIAN DRAIN AND FREEWAY DRAINAGE

Stormwater management on freeways is important so that roads are safe for motorists during wet weather. NEENAH offers a variety of choices for inlet boxes, median inlets or ditch checks.



TRENCH FRAME AND GRATE

For draining large impervious areas, many designers specify NEENAH trench drains. Sizes range from 6" to 48" widths. Drains can be installed in any length with direction changes to suit the area and drainage conditions.



HIGH CAPACITY VANE STYLE TYPE "L"

NEENAH's high capacity vane style grates offer designers the best combination of hydraulic efficiency and safety for triangular gutter slope applications.





SHEET FLOW INTERCEPTING GRATES

There are numerous occasions when designers desire to remove sheet flow from streets or parking lots. NEENAH has addressed this need with specialized castings suited for various situations.

TYPE "L" VANE STYLE GRATES

CAPACITY

An important function of an inlet grate is capacity - the ability to intercept the storm water from the gutter. Hydraulic tests prove the Type "L" Vane Style Grates will accept more water than any of the conventional grate styles under virtually all

flow conditions. Even with extremely high volume and velocity conditions in the gutter, there will be very little if any water that the grate will not capture, providing the water passes over it. The efficiency of these grates can be as much as 20% greater than conventional designs. For this reason, an ever increasing number of states, counties and municipalities have adopted the Type "L" Vane Style Grate as a standard.

Cross section of Vane Style Grate in testing flume showing hydraulic performance at 2 cfs.

GRATE PLACEMENT

Type "L" Vane Style Grates are being used in grate replacement programs in many cities throughout the country, not only because of their storm water capacity features but also because they are more likely to be safe for bicycles than many other styles of grates. A replacement high capacity Type "L" grate can be dimensioned to fit

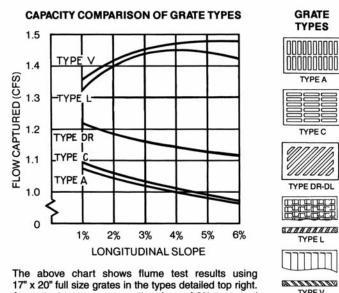
most catch basin inlets. Our Product Engineering and Sales Departments are available to assist you in developing your grate replacement program.

BICYCLE GRATES

Please read in its entirety "Pedestrian, Bicycle and Handicap Considerations" on page 7, in which we suggest consideration of Type "L" vane style grates where bicycles are a factor in the choice of a casting.

DEBRIS

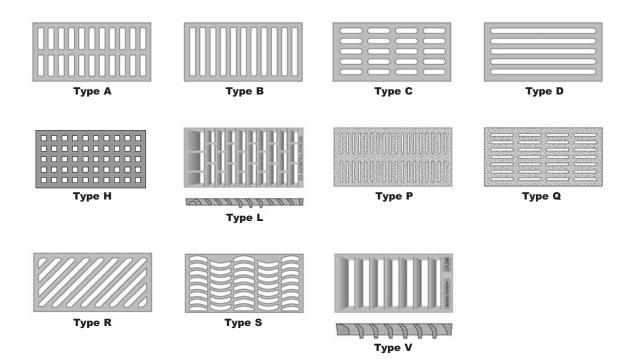
A properly functioning inlet grate such as the Type "L" Vane Style Grate must screen out the larger harmful debris and prevent it from entering and clogging the sewer pipe. Small debris, which can be easily handled by the underground portions of the storm sewer, are allowed to pass through the grate openings to prevent blockage on the surface of the grate.



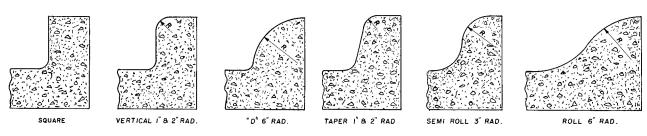
17" x 20" full size grates in the types detailed top right. A constant transverse or gutter slope of 6% was used to contain more water over the grate. The gutter flow in the channel was set at 2 cfs. Note the improved performance of the Type "L" and "V" Vane Grates.

INLETS

INLET GRATE TYPES CURB FACE TYPES



The templates shown illustrate a few of the many types of curb sections which can be properly matched with the catch basin inlets shown on the following pages. As noted, curb boxes can be adjusted to match concrete curb heights.



ENVIRO-CURB LOGOS

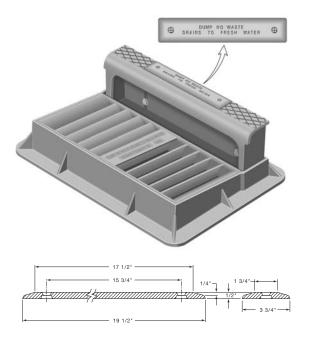
As noted on the following catalog items, our curb boxes and curb plates can be furnished with Environmental Notices which address specific drainage situations. If your installation requires such a notice, please contact NEENAH for specific availability and needs.

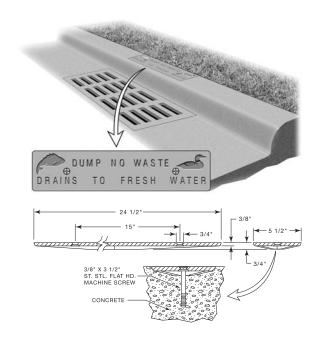


R-3000 Series

EnviroNotice Plates

Catalog No.	Туре
R-3000-A	Cast into Curb
R-3000-B	Surface Mount

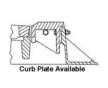


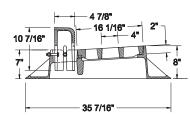


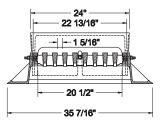
R-3010

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



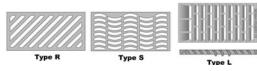






CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3010	S	1.0	4.6
R-3010	Α	1.0	4.6
R-3010	L	0.9	4.6
R-3010	R	1.1	4.6

Standard Grate (shown): Type A Alternate Grate(s):

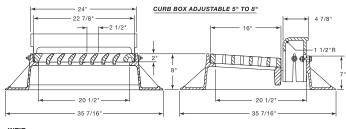


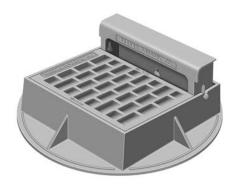
Available Curb Boxes: 1-1/2"Radius Open (standard), 3"Radius Open, 1-1/2"Radius Barred, 6"Radius Open Enviro-Curb Boxes and Enviro-Curb Plates available, see above and page 121.

R-3010-L

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





COMBINATION 3

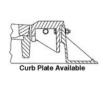
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3010-L	L	0.9	4.6

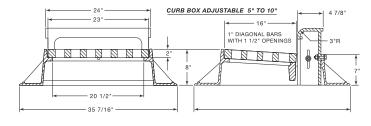
Available Curb Boxes: 1-1/2"Radius Open (standard) Enviro-Curb Boxes available, see page 121.

R-3015

Combination Inlet Frame, Grate, Curb Box

Heavy Duty

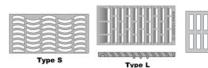






Standard Grate (shown): Type R-diagonal Alternate Grate(s):

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3015	L	0.9	4.6
R-3015	R	1.1	4.6
R-3015	S	1.0	4.6
D 201E	Α.	1.0	4.0

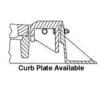


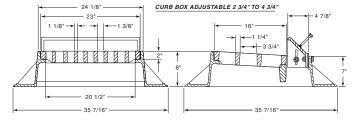
Available Curb Boxes: 1-1/2"Radius Open (standard), 3"Radius Open, 1-1/2"Radius Barred, 6"Radius Open Enviro-Curb Boxes and Enviro-Curb Plates available, see above and page 121.

R-3030

Combination Inlet Frame, Grate, Curb Box

Heavy Duty

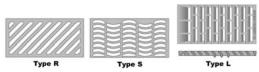






CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3030	Α	1.0	4.6
R-3030	R	1.1	4.6
R-3030	L	0.9	4.6
R-3030	S	1.0	4.6

Standard Grate (shown): Type A Alternate Grate(s):

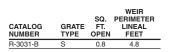


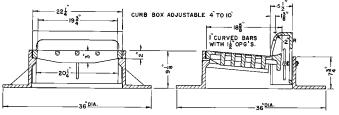
Available Curb Boxes: 1-1/2"Radius Open (standard), 3"Radius Open, 6"Radius Open Enviro-Curb Boxes available, see page 121.

R-3031-B

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



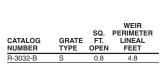


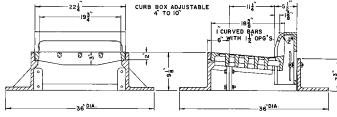


R-3032-B

Split Combination Inlet Frame, Grate, Curb Box

Heavy Duty

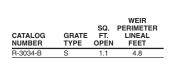


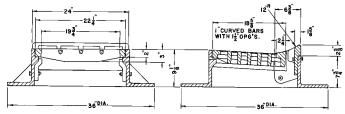




R-3034-B

Roll Type Inlet Frame, Grate, Curb Box



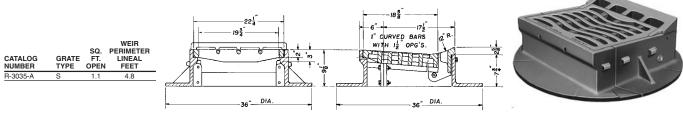




R-3035-A

Split Roll Type Inlet Frame, Grate, Curb Box





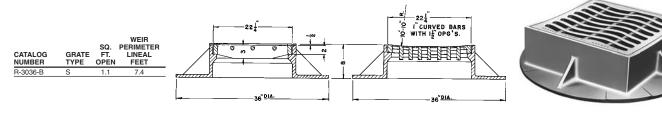
COMBINATION 3

Suitable for 24" curb and gutter, split frame facilitates forming and eliminates boxing out. When paving roadway, simply place small section of frame against the form on the pavement side at catch basin location. After forms are removed, attach large frame section and curb box using bolts provided, and pour curb and gutter section. If curb and gutter are installed first, reverse the procedure.

R-3036-B

Concave Inlet Frame, Grate

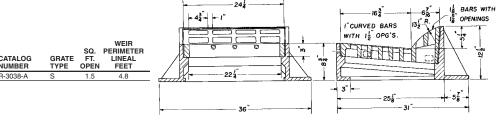
Heavy Duty



R-3038-A

Expressway Inlet Frame, Grate



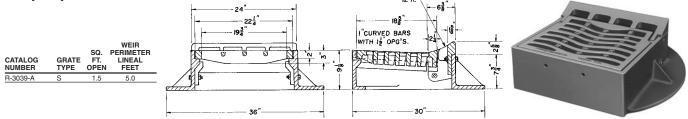




R-3039-A

Roll Type Inlet Frame, Grate, Curb Box

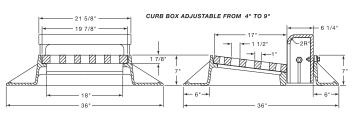




R-3065

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





 CATALOG NUMBER
 GRATE TYPE
 FT. OPEN
 WEIR PERIMETER FEET

 R-3065
 R
 0.9
 4.5

 R-3065
 A
 0.9
 4.5

 R-3065
 A
 0.9
 4.5
 Standard Grate (shown): Type R-diagonal Alternate Grate(s):

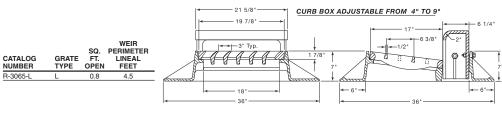


Available with Type L grate, see **R-3065-L**. Available with Type V grate, see **R-3065-V**.

R-3065-L

Combination Inlet Frame, Grate, Curb Box

Heavy Duty

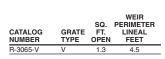


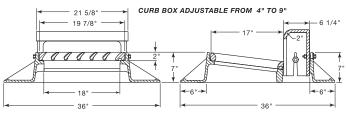


R-3065-V

Combination Inlet Frame, Grate, Curb Box



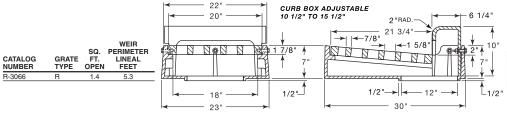






R-3066

Combination Inlet Frame, Grate, Curb Box

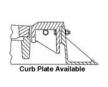


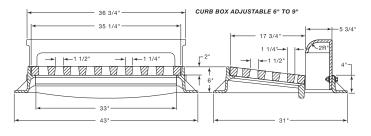


R-3067

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



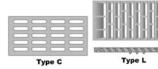




COMBINATION 3

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3067	R	2.0	5.8
R-3067	С	1.6	5.8
R-3067	L	2.1	5.8

Standard Grate (shown): Type R-diagonal Alternate Grate(s):



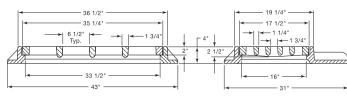
Available Curb Boxes: 2"Radius Open, 3"Radius Open, 6"Radius Open, 10"Radius Open, Mountable/Barred Enviro-Curb Boxes available, see page 121.

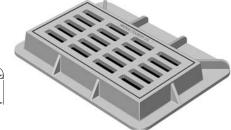
For Double and Triple units, refer to R-3295-2 and R-3295-3.

R-3067-C

Combination Inlet Frame, Grate

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3067-C	С	2.1	8.8
R-3067-C	L	2.1	8.8

Standard Grate (shown): Type C Alternate Grate(s):

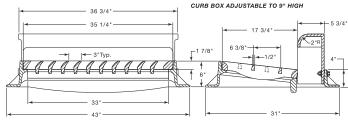


Furnished without curb box for use at driveway locations.

R-3067-L

Combination Inlet Frame, Grate, Curb Box



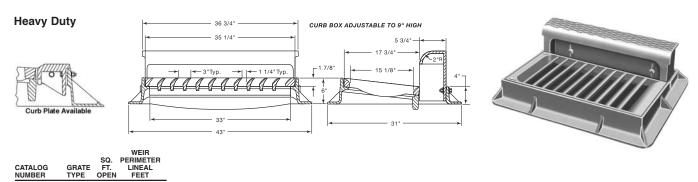




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3067-L	L	2.1	5.8

Available Curb Boxes: 2"Radius Open, 3"Radius Open. Enviro-Curb Boxes available, see page 121.

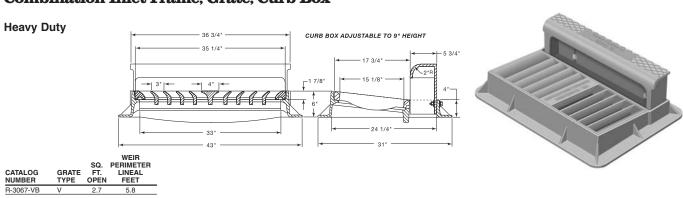
Combination Inlet Frame, Grate, Curb Box



R-3067-VB

R-3067-V

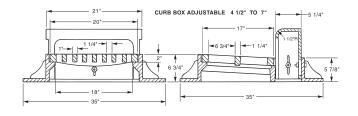
Combination Inlet Frame, Grate, Curb Box

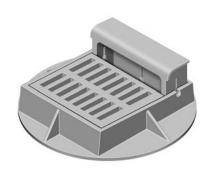


R-3070

Combination Inlet Frame, Grate, Curb Box

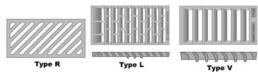
Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3070	А	0.9	4.5
R-3070	L	0.8	4.5
R-3070	R	0.9	4.5
R-3070	٧	1.3	4.5

Standard Grate (shown): Type A Alternate Grate(s):

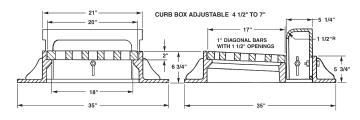


Available Curb Boxes: 1-1/2"Radius Open (standard), 1-1/2"Radius Barred, 3"Radius Open Enviro-Curb Boxes available, see page 121.

R-3075

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





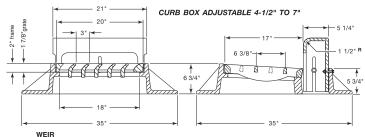
			WEIR
		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPE	OPEN	FEET
R-3075	R	0.9	4.5

Available Curb Boxes: 1-1/2" Open (standard), 1-1/2" Barred, 3" Open

R-3075-L

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



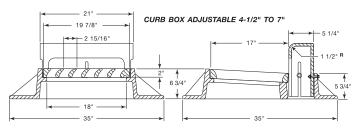


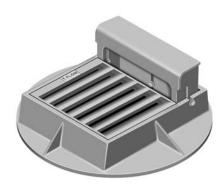
WEIR
SQ. PERIMETER
FT. LINEAL
OPEN FEET CATALOG NUMBER R-3075-L

Enviro-Curb Boxes available, see page 121.

R-3075-V

Combination Inlet Frame, Grate, Curb Box





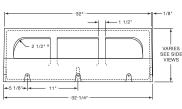
			WEIR
		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPE	OPEN	FEET
R-3075-V	V	1.3	4.5

R-3076-4M Curb Hood

R-3076-6B Curb Hood







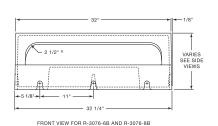
FRONT VIEW FOR R-3076-4M AND R-3076-6M

R-3076-6M Curb Hood

R-3076-8B Curb Hood







Bolt Slots on hoods for attachment to R-3076, R-3077, R-3078 and R-3079 Gutter Inlets.

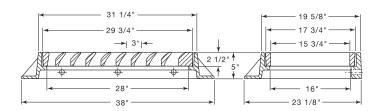
Illustrated unit composed of R-3077-L, R-3078, R-3077-R and R-3076-6B curb hoods.



R-3076

3-Flange Gutter Inlet Frame, Grate

Heavy Duty





COMBINATION 3

Standard Grate (shown): Type V Alternate Grate(s):

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3076	٧	1.5	7.9
R-3076	L	1.4	7.9



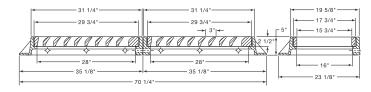
Type L

R-3077

Double Unit Inlet Frame, Grate

WEIR

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3077	V	3.0	12.9
R-3077	L	2.8	12.9
R-3077-L	V	1.5	7.9
R-3077-L	L	1.4	7.9
R-3077-R	V	1.5	7.9
R-3077-R	L	1.4	7.9

Standard Grate (shown): Type V Alternate Grate(s):



Type L

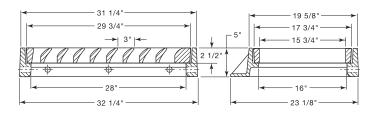
For Left section only, order **R-3077-L**. For Right section only, order **R-3077-R**.

R-3078

Inlet Frame, Grate (Center Only)

Heavy Duty

R-3078 R-3078





Illustrated between R-3077-L and R-3077-R.

WEIR SQ. PERIMETER GRATE FT. LINEAL YPE OPEN FEET

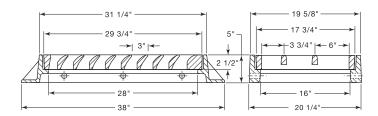
Standard Grate (shown): Type V Alternate Grate(s):

Type L

R-3079

Inlet Frame, Grate (Center Only)

Heavy Duty





Illustrated with R-3076.

Standard Grate (shown): Type L

Alternate Grate(s):



 CATALOG NUMBER
 GRATE TYPE
 FT. OPEN
 LINEAL FET

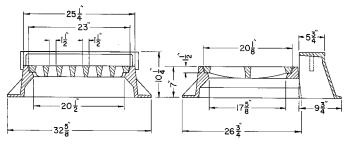
 R-3079
 L
 1.4
 5.5

 R-3079
 V
 1.5
 5.5

R-3157-1

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



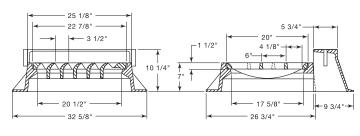


GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
Α	1.1	5.2
		GRATE FT. TYPE OPEN

R-3157-2

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





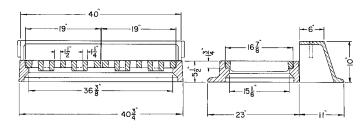
			WEIR
		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPF	OPEN	FFFT
		01 -14	
R-3157-2	L	1.6	5.2

Enviro-Curb Boxes available, see page 121.

R-3157-A

Combination Inlet Frame, Double Grate, Curb Box

Heavy Duty





COMBINATION 3

Standard Grate (shown): Type K.

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3157-A	K	2.1	6.0
R-3157-A	L	1.2	6.0

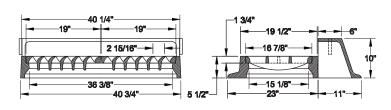


If no curb required, refer to R-3425-A or R-3425-B.

R-3157-AL

Combination Inlet Frame, Double Grate, Curb Box

Heavy Duty



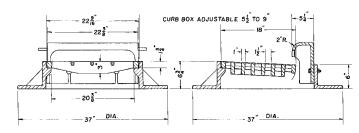


			WEIR	ł	
		SQ.	PERIMETER		
CATALOG	GRATE	FT.	LINEAL		
NUMBER	TYPE	OPEN	FEET		
R-3157-AL	L	2.3	6.0		

Enviro-Curb Boxes available, see page 121.

R-3159-A

Combination Inlet Frame, Grate, Curb Box



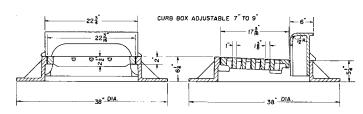


		so	WEIR PERIMETER
CATALOG NUMBER	GRATE TYPE	FT. OPEN	LINEAL
R-3159-A	S	1.3	4.9

R-3161

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



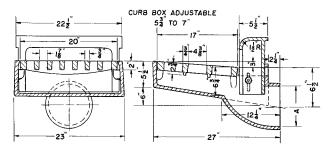


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3161	S	1.3	4.7

R-3165

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





Furnished standard with Ductile Iron grate.

For use where conditions do not permit catch basin under inlet.

Drainage is to catch basin behind curb.

Available with 8", 10" or 12" rear outlet - specify when ordering.

Standard Grate (shown): Type A Alternate Grate(s):

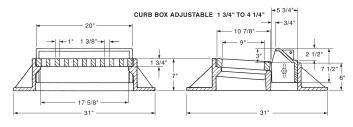
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3165	Α	1.4	4.5
R-3165	V	1.2	4.5



Available Curb Boxes: 1-1/2" Open (shown), 3" open

R-3169

Combination Inlet Frame, Grate, Curb Box





Standard Grate (shown): Type B Alternate Grate(s):

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3169	В	0.7	3.5
R-3169	Р	0.2	3.5
D 0160	-	0.5	2.5

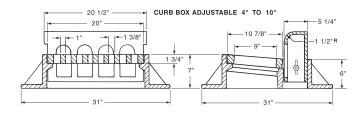




R-3170

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





COMBINATION 3

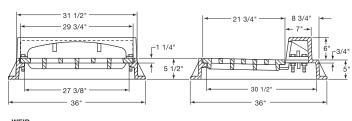
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3170	В	0.7	3.5

Available with open curb box if specified. Available without front flange if specified.

R-3188

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





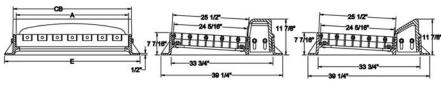
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET	
R-3188	C	0.5	8.6	

R-3191, R-3192, R-3193 Series

Frame Grate & Unmountable or Mountable Curb Box

Heavy Duty

Furnished with Reticuline Steel Grate.





A	СВ	Ε	CATALOG NO.	CATALOG NO.
27½"	29½"	35¼"	R-3191-CU1	R-3191-CM1
38"	39½"	45½"	R-3192-CU2	R-3192-CM2
47½"	49½"	55¼"	R-3193-CU3	R-3193-CM3

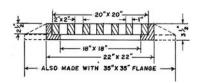
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3191	K	3.2	6.2
R-3192	K	4.4	7.8
R-3193	K	5.6	8.6

R-3203 Series

Flat Drain Frame, Grate

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3203-A	Н	1.0	6.6
R-3203-B	Н	1.0	6.6
R-3203-C	Н	1.0	6.6





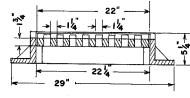
Illustrating R-3203-B with 27" x 27" frame.

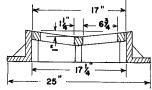
Catalog No. Description R-3203-A with 22" x 22" base R-3203-B with top 27" x 27" R-3203-C with flange 35" x 35"

R-3205

Concave Inlet Frame, Grate

Heavy Duty







Standard Grate (shown): Type K. Alternate Grate(s):

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3205	K	0.9	6.5
R-3205	Р	0.3	6.5

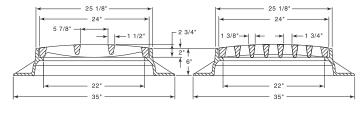


Type P

R-3210-A

Catch Basin Frame, Convex Grate

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3210-A	С	1.5	8.0
R-3210-A	Α	1.5	8.0
D 2010 A	В	16	0.0

Standard Grate (shown): Type C convex Alternate Grate(s):

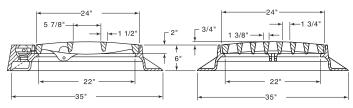




Available with Type L grate, see **R-3210-L**. Available with Type Q grate, see **R-3210-Q**.

R-3210-ALM

Catch Basin Frame, LiftMate Convex Grate



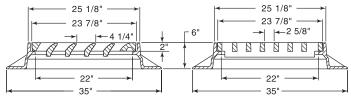


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
B-3210-ΔI M	C	1.5	8.0

R-3210-L

Catch Basin Frame, Grate

Heavy Duty





COMBINATION 3

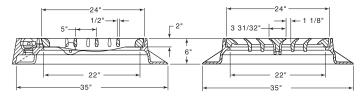
R-3210-LLM

GRATE TYPE

Catch Basin Frame, LiftMate Grate

Heavy Duty

CATALOG NUMBER R-3210-L



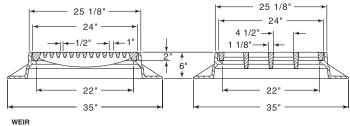


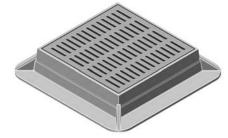
			WEIR
		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPE	OPEN	FEET
D 2210 LLM	1	1.4	0.0

R-3210-Q

Catch Basin Frame, Grate

Heavy Duty



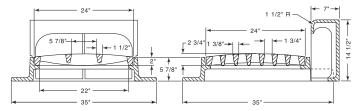


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3210-Q	Q	0.8	8.0

R-3220

Combination Inlet Frame, Convex Grate, Curb Box

Heavy Duty





Standard Grate (shown): Type C.

Alternate Grate(s):

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3220	С	1.5	8.0
R-3220	R	1.6	8.0

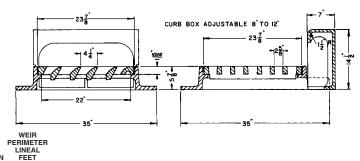


Available with square curb face or radius face of 1", 1-1/2", 2" or 3".

R-3220-L

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



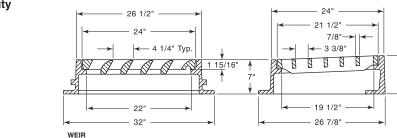


R-3222-1A

GRATE

Catch Basin Frame, Grate

Heavy Duty



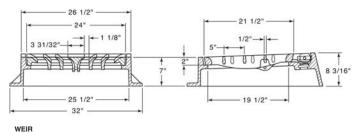


		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPE	OPEN	FEET
R-3222-1A	L	1.0	7.6

R-3222-1ALM

Catch Basin Frame, LiftMate Grate

Heavy Duty



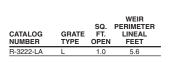


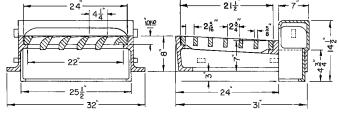
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET	
R-3222-1ALM	L	1.5	8.0	

R-3222-LA

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





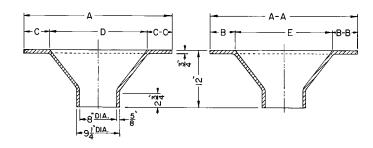


Also available with Type C grate, order as R-3222-C.

R-3223 Series

Cast Iron Sub-Basin Bowl

Heavy Duty



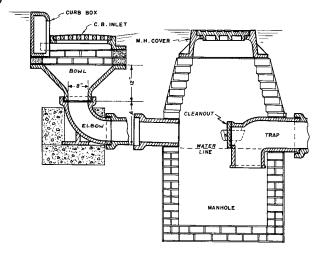


Dimensions in inches								
Catalog No.	Α	A-A	В	B-B	С	C-C	D	E
R-3223	37 3/4	35	5 1/4	5 1/4	3 1/2	5 1/4	29	24 1/2
R-3223-A	37	31	5 1/4	5 1/4	5 1/4	5 1/4	20 1/2	20 1/2
R-3223-B	31	31	5 1/4	5 1/4	5 1/4	5 1/4	20 1/2	20 1/2

R-3226 Series

Catch Basin Elbow

Heavy Duty



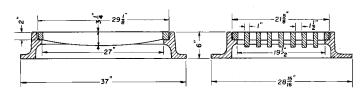


Section showing one method of catch basin assembly. Note catch basin frame, grate, curb box, catch basin bowl and elbow. See R-3705 series for catch basin trap detail.

Catalog No.	Elbow Height "A"
R-3226-A	12 1/2
R-3226-B	20

R-3227

Expressway Inlet, Frame, Grate



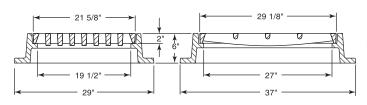


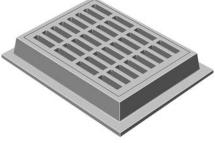
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3227	D	2.3	8.5

R-3227-C

Expressway Inlet, Frame, Grate

Heavy Duty





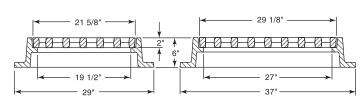
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET	
		0		
R-3227-C	С	1.9	8.5	

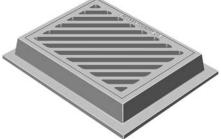
32 slotted openings, 1-7/16 x 5-3/4".

R-3227-D

Expressway Inlet, Frame, Grate

Heavy Duty



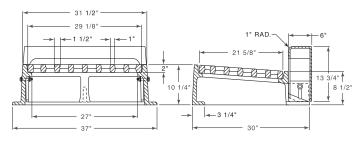


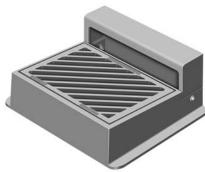
GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R	2.3	8.5
	TYPE	GRATE FT. TYPE OPEN

R-3228-BD

Combination Inlet Frame, Diagonal Grate, Curb Box

Heavy Duty





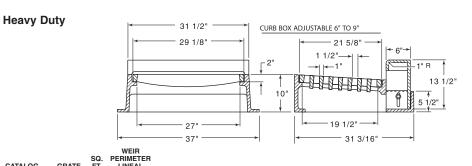
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3227-BD	R	2.3	6.0

Curb box adjustable 6" to 9".

Also available with Type C grate, order as $\mbox{\bf R-3228-BC}.$

R-3228-G

Expressway Inlet, Frame, Grate, Curb Box





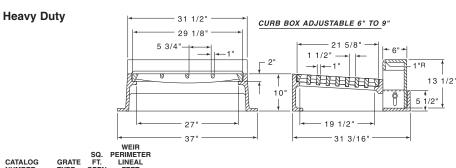
SQ. FT. CATALOG NUMBER GRATE LINEAL FEET R-3227-G

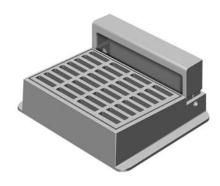
Curb box adjustable 6" to 9".

Also available with Type R-diagonal grate, order as R-3228-GD.

R-3228-H

Expressway Inlet, Frame, Grate, Curb Box





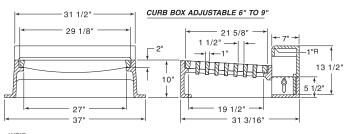
GRATE TYPE CATALOG NUMBER LINEAL FEET OPEN R-3227-H

Curb box adjustable 6" to 9".

R-3228-J

Expressway Inlet, Frame, Grate, Curb Box

Heavy Duty





WEIR SQ. PERIMETER FT. LINEA' CATALOG NUMBER GRATE TYPE

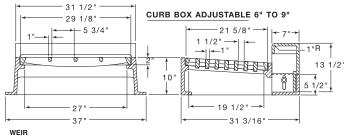
Curb box adjustable 6" to 9".

Also available with Type R-diagonal grate, order as R-3228-JD.

R-3228-K

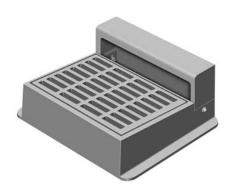
Expressway Inlet, Frame, Grate, Curb Box

Heavy Duty



WEIR PERIMETER LINEAL FEET SQ. FT. OPEN GRATE TYPE 6.0

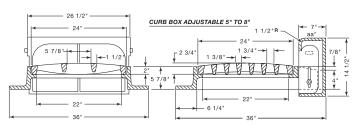
Curb box adjustable 6" to 9".



R-3229-A

Combination Inlet Frame, Convex Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3229-A	С	1.5	8.0
R-3229-A	R	1.6	8.0
R-3229-A	D	1.6	8.0

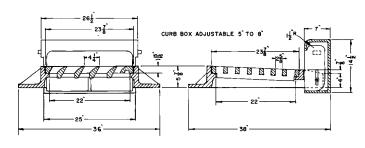
Standard Grate (shown): Type C Alternate Grate(s):



R-3229-L

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



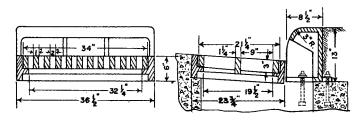


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3229-L	L	1.5	6.0

R-3233

Large Combination Inlet Frame, Grate, Curb Box

Heavy Duty





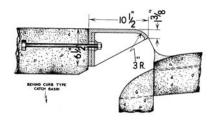
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3233	Α	2.8	6.4

To order without curb box, see R-3469.

R-3233-A

Combination Inlet Drain

Heavy Duty





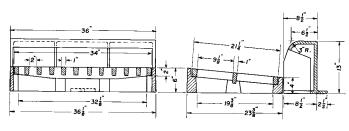
Multiple sections usually furnished in heavy drainage areas. Concrete catch basin constructed behind curb, using R-6040. Behind-the-curb manhole illustrated with R-3469. Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines. 7/8" diameter anchor bolts furnished by others.

Can be used either single or in combination as shown.

R-3233-D

Large Combination Inlet Frame, Grate, Curb Box

Heavy Duty

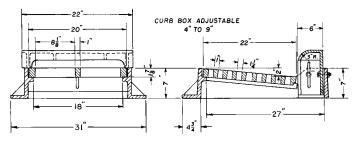




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3233-D	Α	2.8	6.4

R-3234-B1

Combination Inlet Frame, Grate, Curb Box





Standard Grate (shown): Type A Alternate Grate(s):

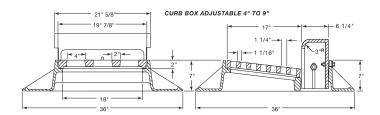
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3234-B1	Α	1.1	5.3
R-3234-B1	R	1.4	5.3

nn	00000	70
111		7
111		7
V//		7
44	UUUUL	6

R-3235

Combination Inlet Frame, Grate, Curb Box

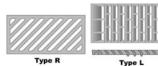
Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3235	С	0.7	4.5
R-3235	Α	0.9	4.5
R-3235	L	0.8	4.5
R-3235	R	0.9	4.5

Standard Grate (shown): Type C Alternate Grate(s):

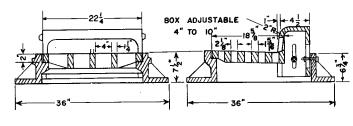




R-3236

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



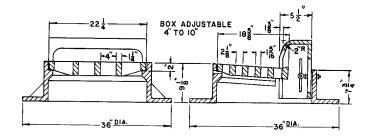


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET	
B-3236	С	1.2	4.9	•

R-3236-1

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



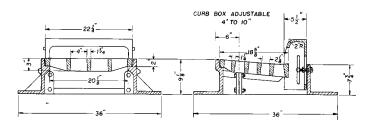


TYPE	OPEN	FEET
С	1.2	4.9

Weep holes furnished standard.

Split Combination Inlet Frame, Grate, Curb Box

Heavy Duty





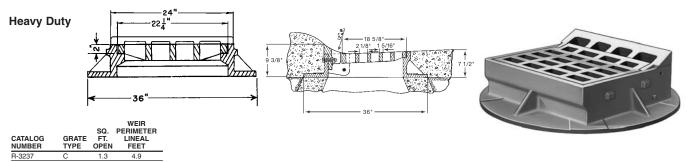
WEIR PERIMETER LINEAL FEET SQ. FT. OPEN GRATE TYPE

Weep holes furnished standard.

Split design facilitates forming for pavement or gutter. NO BOXING OUT, NO SPECIAL FORMS REQUIRED. Either the curb-side portion or the street-side portion of the casting may be placed against the form at the prescribed location so that concrete may be poured with the unit in place. When form is removed, the corresponding portion of the casting may be bolted to the portion in position to form a complete unit.

See pages 201-205 for more Roll Type products

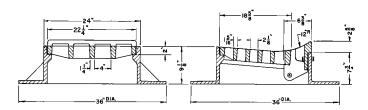
Roll Type Inlet Frame, Grate, Curb Box



Same as R-3236 except curb box is designed for roll type curb.

R-3237-1

Roll Type Inlet Frame, Grate, Curb Box





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3237-1	С	1.3	4.9

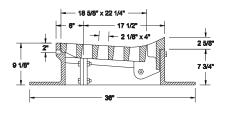
R-3237-A

Split Roll Type Inlet Frame, Grate, Curb Box

Heavy Duty

Same as R-3236-A except curb box is designed for roll type curb.

		SQ.	WEIR PERIMETER
CATALOG NUMBER	GRATE TYPE	FT. OPEN	FEET .
R-3237-A	С	1.3	4.9

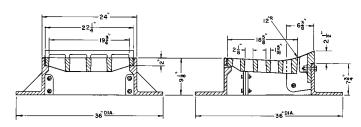




R-3237-B

Split Roll Type Inlet Frame, Grate, Curb Box

Heavy Duty

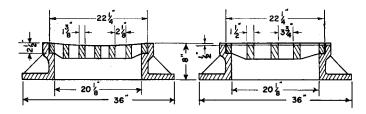




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3237-B	С	1.3	4.9

R-3238

Concave Inlet Frame, Grate



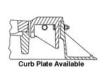


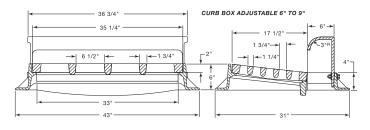
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
B-3238	С	1.3	7.4

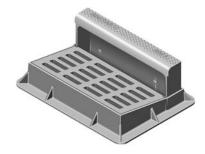
R-3246

Combination Inlet Frame, Grate, Curb Box

Heavy Duty







COMBINATION 3

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3246	С	1.6	5.8
R-3246	L	2.1	5.8
B-3246	V	24	5.8

Standard Grate (shown): Type C Alternate Grate(s):



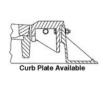


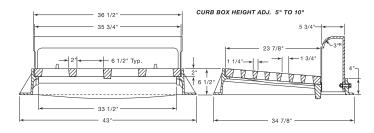
Also available with square, 1" radius, 2" radius or D-shaped curb face. Order **R-3246-1** for curb plate.

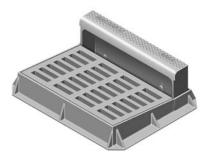
R-3246-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty







Standard Grate (shown): Type C Alternate Grate(s):



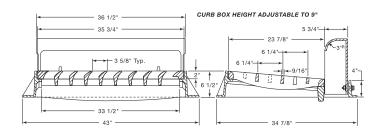
Also available with square, 1" radius, 2" radius or D-shaped curb face. Order R-3246-AP for curb plate.

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3246-A	С	2.2	7.0
R-3246-A	R	2.7	7.0

R-3246-AL

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3246-AL	L	3.1	7.0
R-3246-AL	R	2.7	7.0

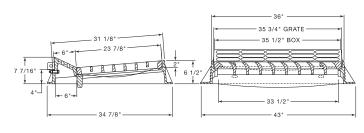
Standard Grate (shown): Type L Alternate Grate(s):



R-3246-AM

Combination Inlet Frame, Grate, Mountable Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3246-AM	R	1.9	5.8
R-3246-AM	L	3.1	5.8

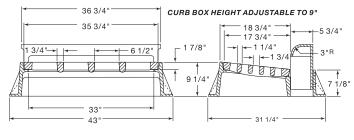
Standard Grate (shown): Type L Alternate Grate(s):

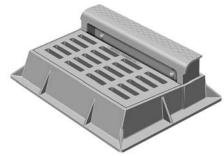


R-3246-CC

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3246-CC	С	1.8	5.8
R-3246-CC	R	1.9	5.8

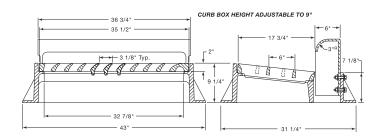
Standard Grate (shown): Type C.
Also available with grate Type R-diagonal.



R-3246-CL

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





COMBINATION 3

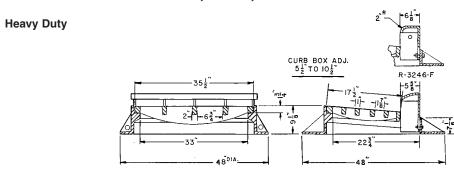
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3246-CL	L	1.6	5.8
B-3246-CL	C	21	5.8

Standard Grate (shown): Type L. Also available with grate Type C.



R-3246-E

Combination Inlet Frame, Grate, Mountable Curb Box





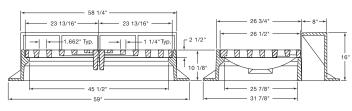
GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
С	1.6	5.8
		GRATE FT. TYPE OPEN

Also available with 2" radius curb box, order R-3246-F.

R-3247-2D

Combination Inlet Frame, Grates, Curb Box

Heavy Duty





GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R	3.8	8.4
L	4.6	8.4
Q	1.8	8.4
	R L	GRATE TYPE FT. OPEN R 3.8 L 4.6

Can be furnished without curb box, see R-3572 and R-3573 series. Available with 2-piece Type Q grate, order R-3247-2Q. Available with 2-piece Type L grate, order R-3247-2L.

Standard Grate (shown): Type R.

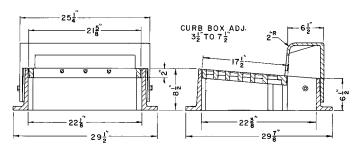




R-3249-F

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



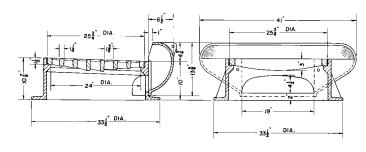


			WEIR
		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPE	OPEN	FEET
B-3249-F	S	1.1	4.7

R-3250-1

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3250-1	K	1.5	5.5

Note lug preventing grate rotation.

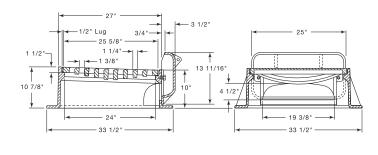
Extended curb box provides additional drainage capacity through curb. Note sweeping radius for efficiency in self-cleaning and reduction of turbulence.

IMPORTANT- remove cap screws from curb box when concrete curb has set.

R-3250-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3250-A	K	1.5	5.5

Note lug preventing grate rotation.

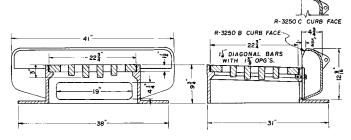
Also available with straight face curb.

IMPORTANT- remove cap screws from curb box when concrete curb has set.

R-3250-B

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





COMBINATION 3
INLETS

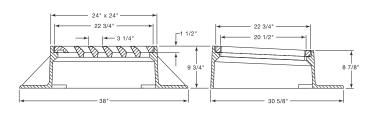
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3250-B	R	1.4	5.8
R-3250-C	R	1.4	5.8

Also available with straight face curb box, order R-3250-C.

R-3250-BSP

Catch Basin Frame, Grate

Heavy Duty





WEIR
PERIMETER
LINEAL
FEET
7.6

7.6

Standard Grate (shown): Type V.

Also available with grate Type D or Type L.

Type D



R-3250-CL

GRATE TYPE

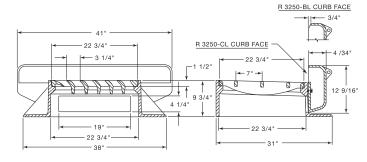
1.0

Combination Inlet Frame, Grate, Curb Box



CATALOG NUMBER

R-3250-BSP R-3250-BSP





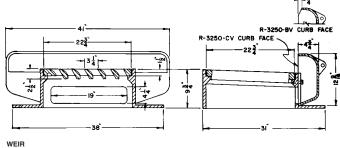
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3250-CL	L	1.0	5.8
R-3250-BL	L	1.0	5.8

Also available with tapered face curb box, order R-3250-BL.

R-3250-CV

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





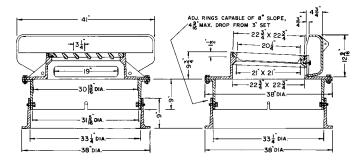
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3250-CV	V	1.3	5.8
R-3250-BV	V	1.3	5.8

Also available with tapered face curb box, order R-3250-BV.

R-3250-DV

Adjustable Combination Inlet

Heavy Duty





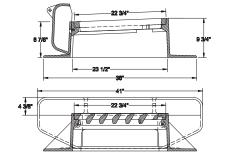
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
B-3250-DV	V	1.3	5.8

R-3250-DVSP

Adjustable Combination Inlet

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET	
B-3250-DVSP	V	1.3	5.8	

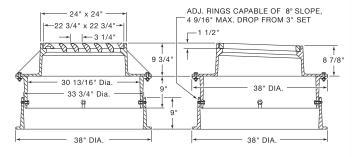




R-3250-EV

Adjustable Combination Inlet

GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
V	1.3	7.6
		GRATE FT. TYPE OPEN



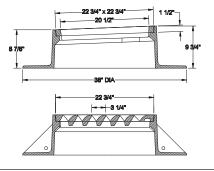


R-3250-EVSP

Adjustable Combination Inlet

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3250-EVSP	٧	1.3	7.6



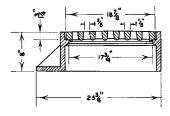


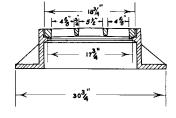


R-3251

Catch Basin Inlet Frame, Convex Grate

Heavy Duty





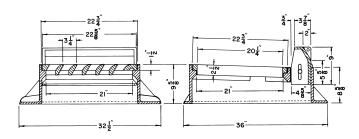


		so	WEIR PERIMETER
CATALOG NUMBER	GRATE TYPE	FT. OPEN	LINEAL
B-3251	C	1.0	6.3

R-3252-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



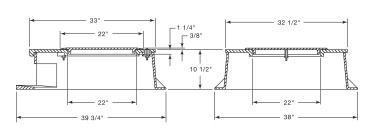


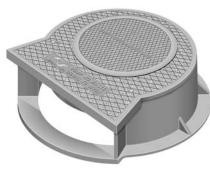
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3252-A	V	1.3	5.8

R-3256

Inlet Frame, Lid, Access Lid

Heavy Duty



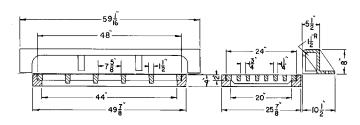


Large lid furnished standard with straight face as shown. Also available for 8-foot or 20-foot corner radius.

R-3260-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3260-A	Α	3.2	8.0
R-3260-A	L	3.0	8.0

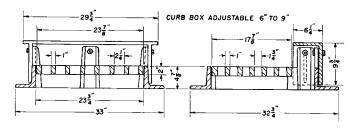
Standard Grate (shown): Type C.
Also available with 2-piece grate Type L.



R-3261-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



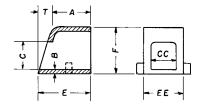


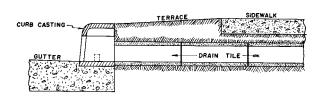
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3261-A	Н	1.1	5.5

R-3262 Series

Storm Water Curb Openings

Heavy Duty







Curb opening castings are used as shown, where it is adventageous to transmit storm water from downspout in shallow drains and discharge it through the curb to the street gutter.

Dimensions in inches								
Catalog No.	Α	В	С	C-C	E	E-E	F	Т
R-3262-1	5	1/2	4	4	6	5	7	1
R-3262-2	6	1/2	4	4	8 1/4	5	6	2 1/4
R-3262-3*	5	1/2	4	5 1/2	6	6 1/2	6 1/2	1
R-3262-4	5	1/2	4	16	7	17	6 3/8	2
R-3262-6	6	1/2	6	6	8	7 1/4	9	2

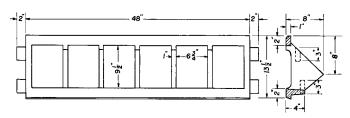
^{*4&}quot; ID outlet is optional



Rear view of R-3262-3 only. (optional)

Storm Water Curb Opening

Heavy Duty



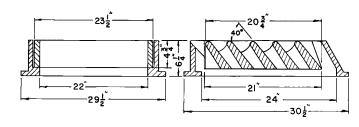


COMBINATION 3

R-3266

Torrent Inlet Frame, Grate

Heavy Duty



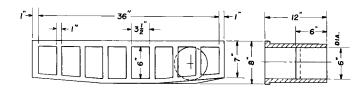


		SQ.	PERIMETER
CATALOG NUMBER	GRATE TYPE	FT. OPEN	LINEAL FEET
R-3266	V	1.8	7.3

R-3268

Storm Water Curb Opening

Heavy Duty

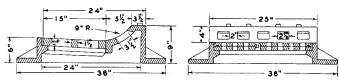




R-3270

Roll Type Inlet Frame, Grate

Heavy Duty



CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3270	Α	0.9	4.4

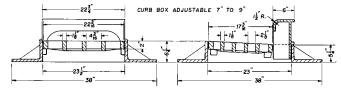
Image shows casting installed in roll type curb. Concrete over top of frame is reinforced to prevent breaking away.



R-3273-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



Standard Grate (shown): Type C. Also available with grate Type S.

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3273-A	С	1.2	4.7
R-3273-A	S	1.0	4.7

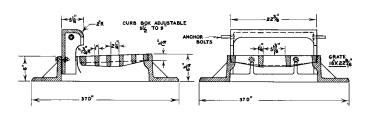




R-3274

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3274	С	1.2	4.9
B-3159-A	S	13	49

Standard Grate (shown): Type C.
Also available with grate Type S, order **R-3159-A**.

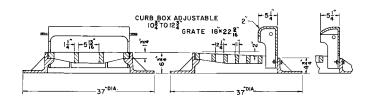


Available with 3" radius semi-roll curb box.

R-3274-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3274-A	С	1.4	4.9
R-3274-A	S	1.3	4.9
R-3274-B	С	1.4	4.9
R-3274-B	S	1.3	4.9

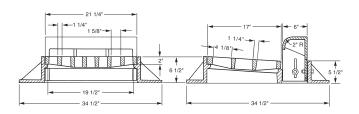
Standard Grate (shown): Type C. Also available with grate Type S.



Available with mountable curb box, order R-3274-B.

Combination Inlet Frame, Grate, Curb Box

Heavy Duty







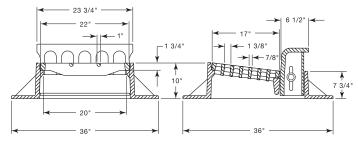
| VEIR |

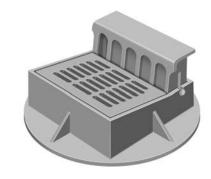
Available with barred curb box.

R-3277-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3277-A	С	1.2	4.6
R-3277-A	R	1.2	4.6

Standard Grate (shown): Type C.
Also available with grate Type R or Type L.

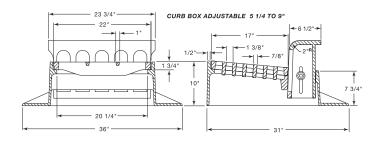




R-3278-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3278-A	С	1.2	4.6
R-3278-AR	R	1.2	4.6

Standard Grate (shown): Type C.
Also available with grate Type R-diagonal, order R-3278-AR.



Available with Type L grate, see R-3278-AL.

Available with open curb box.

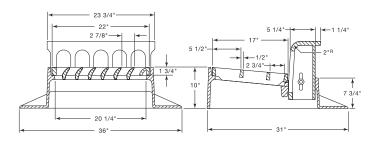
Frame available with 4-sided flange support.

2-1/4" adjusting ring available, see R-1979 series.

R-3278-AL

Combination Inlet Frame, Grate, Curb Box

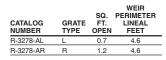
Heavy Duty





Standard Grate (shown): Type L.

Also available with grate Type R-diagonal, order R-3278-AR.





Available with Type C grate, see R-3278-A.

Available with open curb box.

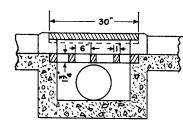
Frame available with 4-sided flange support.

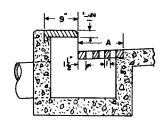
2-1/4" adjusting ring available, see R-1979 series.

R-3280 Series

Curb Plate, Grate

Heavy Duty







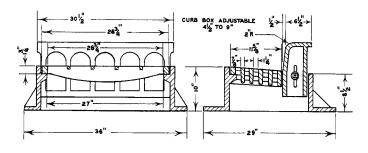
Catalog No.	Α
R-3280-A	18
R-3280-B	12

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3280-A	С	1.8	5.5
R-3280-B	С	1.2	4.5

R-3281-A

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





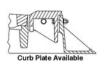
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3281-A	С	1.0	4.3

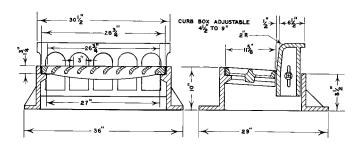
Available with 3" radius curb box, open curb box, or curb grate. Enviro-Curb Boxes available, see page 121.

R-3281-AL

Combination Inlet Frame, Grate, Curb Box

Heavy Duty







COMBINATION 3

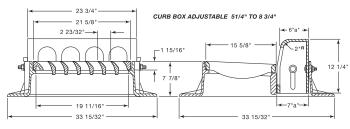
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3281-AL	L	0.5	4.3

Available with 3" radius curb box or open curb box. Enviro-Curb Boxes available, see page 121.

R-3286-8V

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





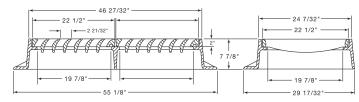
			WEIR
		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPE	OPEN	FEET
R-3286-8V	V	0.7	4.4

Available with 3" radius curb box.

R-3287-5

Combination Inlet Frame, Grate

Heavy Duty





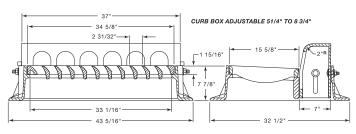
GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
V	3.2	11.3
		GRATE FT. TYPE OPEN

2-1/2" adjusting ring available, see R-1979 series.

R-3287-10V

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





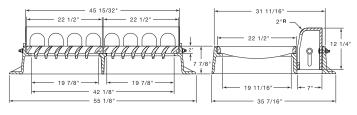
			WEIR
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3287-10V	V	2.1	5.5

Available with 3" radius curb box.

R-3287-15

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



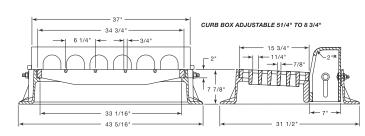


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
B-3287-15	V	3.2	7.5

R-3287-SB10

Combination Inlet Frame, Grate, Curb Box

Heavy Duty



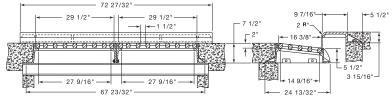


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET	
R-3287-SR10	9	1.5	5.5	•

R-3288-E2

Double Inlet Frame, Two-Piece Grate, Curb Plate

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3288-E2	R	2.6	7.6
D 2200 E2	1/	0.0	7.0

Optional cast support beam available.

Standard Grate (shown): Type R-diagonal. Also available with grate Type V.

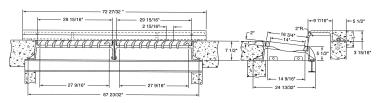


160

R-3288-HV2

Double Inlet Frame, Two-Piece Grate, Curb Plate

Heavy Duty



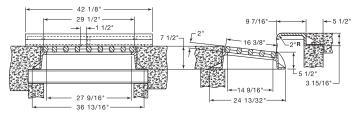


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FFFT	
NOWBER	IIFE	OPEN	FEET	
R-3288-HV2	V	2.8	7.6	

R-3289-C

Single Inlet Frame, Grate, Curb Plate

Heavy Duty

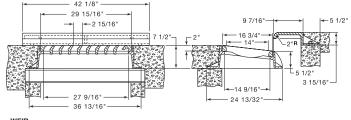




		SQ.	PERIMETER
CATALOG NUMBER	GRATE	FT. OPEN	LINEAL
NUMBER	ITPE	OPEN	FEET
D 2200 C	D	1.0	E 2

R-3289-HV

Single Inlet Frame, Grate, Curb Plate



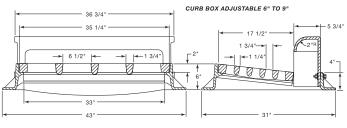




Combination Inlet Frame, Grate, Curb Box

Heavy Duty







 CATALOG NUMBER
 GRATE TYPE
 FT. OPEN
 WEIR PERIMETER LINEAL FEET

 R-3290
 C
 1.6
 5.8

 R-3290
 R
 1.9
 5.8

 R-3290
 R
 1.9
 5.8
 Standard Grate (shown): Type C.
Also available with grate Type V, Type R-diagonal or Type L.





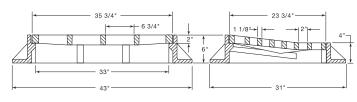


Available Curb Boxes: 2"Radius Open (standard), 3"Radius Open Enviro-Curb Boxes available, see page 121.

R-3290-A

Gutter Inlet Frame, Grate

Heavy Duty





GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
С	2.6	9.9
Α	2.6	9.9
	C	GRATE FT. TYPE OPEN C 2.6

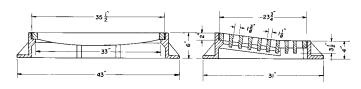
Standard Grate (shown): Type C. Also available with grate Type A.



Furnished without curb box for use at driveway locations and in gutters.

R-3290-B

Gutter Inlet Frame, Grate



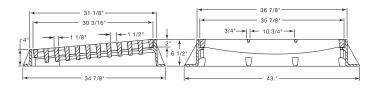


			WEIR
		SQ.	PERIMETER
CATALOG NUMBER	GRATE TYPE	FT. OPEN	LINEAL FEET
R-3290-B	D	3.5	9.9

R-3290-C

Gutter Inlet Frame, Grate

Heavy Duty





COMBINATION 3

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3290-C	D	3.7	11.0
R-3290-C	С	3.7	11.0

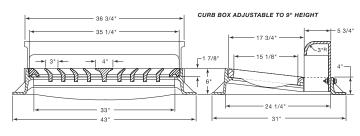
Standard Grate (shown): Type D. Also available with grate Type C.



R-3290-VB

Gutter Inlet Frame, Grate

Heavy Duty

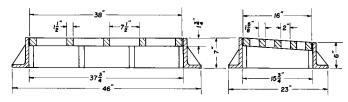




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3290-VB	V	2.7	5.8

R-3291

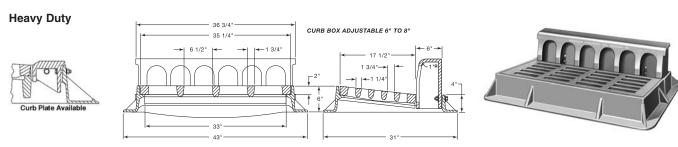
Gutter Inlet Frame, Grate





			WEIR
		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPE	OPEN	FEET
R-3291	С	1.7	9.0

Combination Inlet Frame, Grate, Curb Box



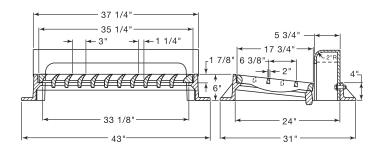
SQ. PERIMETER
CATALOG GRATE FT. LINEAL
NUMBER TYPE OPEN FEET
B-3992 C. 16 5.8

Available with mountable grated or solid curb plate in place of curb box.

R-3295

Combination Inlet Frame, Grate, Curb Box

Heavy Duty

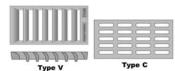




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3295	L	2.1	5.8
R-3295	С	2.1	5.8
B-3295	V	24	5.8

Standard Grate (shown): Type L.

Also available with grate Type V or Type C.

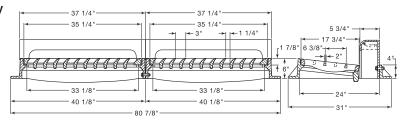


R-3295-2

Double Unit Frame, Grate, Curb Box

WEIR

Heavy Duty

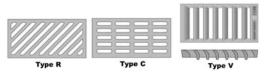




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3295-2	L	4.2	8.8
R-3295-2	V	4.8	8.8
R-3295-2	С	4.2	8.8
R-3295-2	R	3.8	8.8

Standard Grate (shown): Type L.

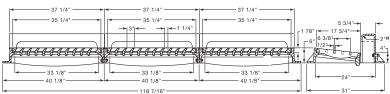
Also available with grate Type R-diagonal, Type C or Type V.



R-3295-3

Triple Unit Frame, Grate, Curb Box

Heavy Duty





COMBINATION 3
INLETS

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3295-3	L	6.3	11.8
R-3295-3	V	7.2	11.8
R-3295-3	С	6.3	11.8
B-3295-3	B	5.7	11.8

Standard Grate (shown): Type L.

Also available with grate Type C, Type R-diagonal or Type V.





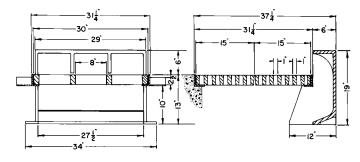


Additional center sections can be added for greater overall length - please specify.

R-3297-1

Combination Inlet Frame, Grate, Curb Box

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3297-1	С	2.3	7.5
B-3297-1	L	2.4	7.5

Standard Grate (shown): Type C. Also available with grate Type L.

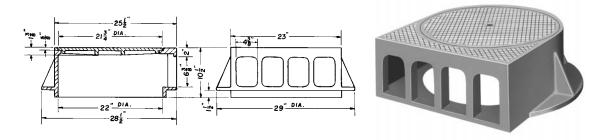


Fabricated steel frame, Gray iron grates and curb box.

R-3303

Catch Basin Frame, Lid

Heavy Duty

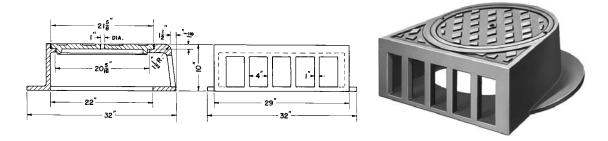


For behind-the-curb construction.

R-3305

Catch Basin Frame, Lid

Heavy Duty

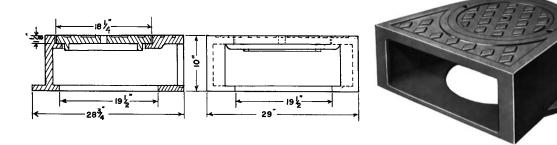


For behind-the-curb construction.

R-3308

Catch Basin Frame, Lid

Heavy Duty

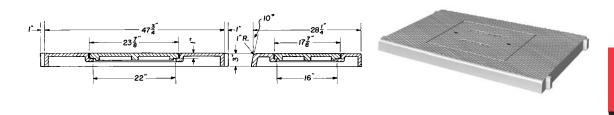


For behind-the-curb construction.

R-3312-A

Single Catch Basin Frame, Lid

Heavy Duty



For behind-the-curb construction.

Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines.

R-3312-B

Double Catch Basin Frame, Lid

Heavy Duty



See 3312-A for additional dimensional information.

For behind-the-curb construction.

Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines.

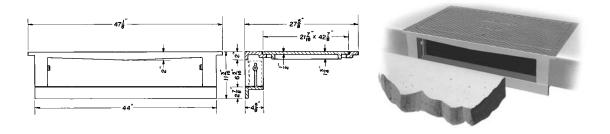
Double unit consists of two sections placed end to end with butting joint machine-finished.

1" steel rod keeps frames tightly together.

R-3313

Catch Basin Frame, Lid

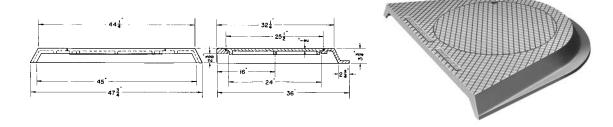
Heavy Duty



R-3318

Catch Basin Frame, Lid

Heavy Duty

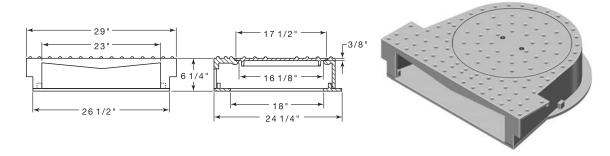


Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines.

R-3323

Inlet with Flat Pan Outlet

Heavy Duty

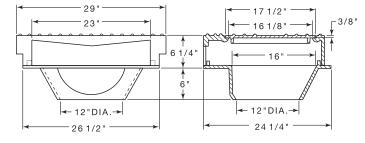


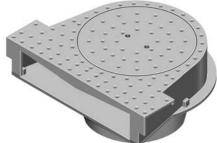
Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines.

R-3323-P

Inlet with Deep Pan Outlet

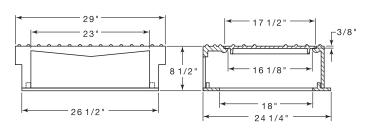
Heavy Duty

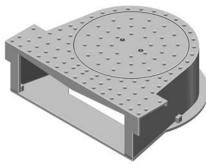




Inlet with Flat Pan Outlet

Heavy Duty





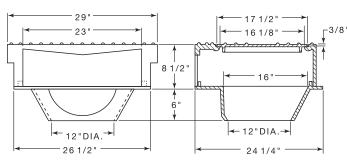
COMBINATION 8

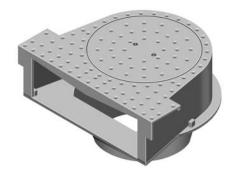
Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines.

R-3324-P

Inlet with Deep Pan Outlet

Heavy Duty



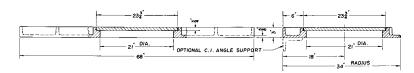


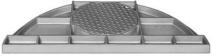
Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines.

R-3326

Large Catch Basin Frame, Lid

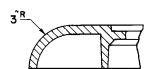
Heavy Duty





Available with 3" radius curb front, order R-3326-A.

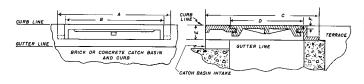
Specify cast iron angle support if required.



R-3330 Series

Catch Basin Frame, Lid

Heavy Duty





Illustrating R-3330

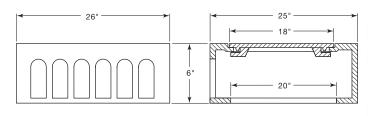
Not recommended for use in areas where large gutter trash objects are prevalent. Curb opening, without gutter grate, allows large trash to enter catch basin and clog lines.

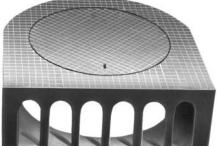
		Dimen	sions in inches			
Catalog No.	Α	В	С	D	E	F
R-3330	34 1/2	30	34	23 1/2	4	1
R-3331	34	30	31 3/4	22 3/4	4	7/8

R-3333-A

Catch Basin Frame, Lid

Heavy Duty





For behind-the-curb construction.

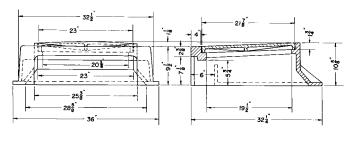
Lids furnished standard with type "F" locks.

Openings are 3" x 4-1/2".

R-3334-F

Catch Basin Frame, Lid

Heavy Duty



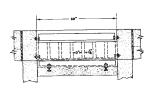


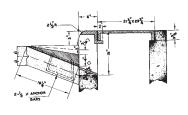
For behind-the-curb construction.

R-3335-1

Combination Inlet Gutter Plate, Curb Box, Solid Lid

Heavy Duty







For behind-the-curb construction.

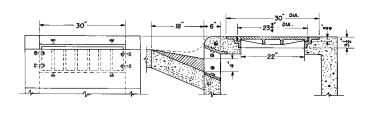
Has removable cast iron cover.

Also furnished with curb casting for 10 and 20 foot corner radius in double unit. Used in multiples of 3 or 4 single units for heavy drainage area. Specify when multiples or radius units are required.

R-3335-B

Combination Inlet Gutter Plate, Curb Box, Access Frame, Lid

Heavy Duty



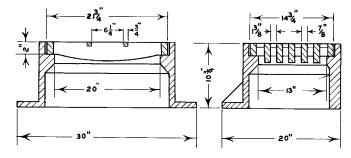


For behind-the-curb construction.

For heavy drainage areas, can be supplied in multiples of 2, 3 or 4 single units with one catch basin access cover. Specify the number of curb and gutter units required for multiple design.

R-3337-A

Gutter Inlet Frame, Grate



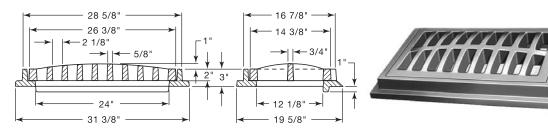


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3337-A	С	1.1	6.0

R-3338-F

Single Convex Inlet Frame, Grate

Heavy Duty



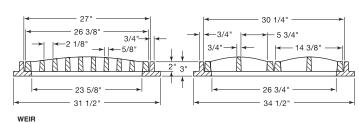
		SQ.	WEIR PERIMETER
CATALOG NUMBER	GRATE TYPE	FT. OPEN	LINEAL FEET
R-3338-F	Α	1.4	6.5

Grate reversible if flat top inlet is required. Four wall frame is also available.

R-3338-G

Single Convex Inlet Frame, Double Grate

Light Duty





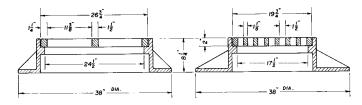
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3338-G	Α	2.8	9.5

Grate reversible if flat top inlet is required.

R-3339

Catch Basin Inlet Frame, Grate

Heavy Duty



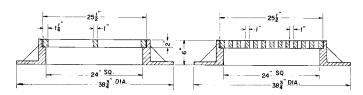


	TALOG	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-C	3339	С	1.6	7.8
R-	3339-1	С	1.4	7.8

Alternate grate available (1-1/2" x 4-15/16" slots), order as $\bf R$ -3339-1.

R-3339-A

Catch Basin Inlet Frame, Grate





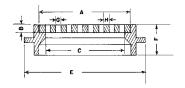
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3339-A	A or C	1.8	8.5

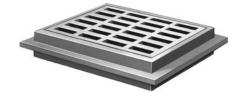
R-3340 Series

Slab-Type Frame, Grate with Anchor Flange

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3340-B	С	1.3	6.8
R-3340-D	С	1.2	7.5

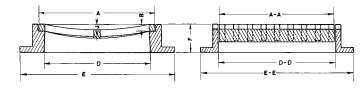




Dimensions in inches								
Catalog No.	Α	В	С	D	E	F	G	Н
R-3340-B	17 1/4 x 23 3/4	2	15 1/8 x 22	17 1/2 x 24	23 1/2 x 30	5	2 x 6	1 1/8
R-3340-D	20 x 25	2	18 x 23	20 x 25	26 x 31	5	1 1/2 x 4 3/4	1 5/8

R-3341 to R-3351 Series

Concave Gutter Inlet Frame, Grate





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3341	K	0.3	3.2
R-3342	K	0.5	4.4
R-3344	K	1.1	6.2
R-3345	K	1.1	6.8
R-3346	С	1.4	8.9
R-3347	K	1.3	7.4
R-3347-A	K	2.3	10.4
R-3348	Α	1.9	8.0
R-3349-A	K	1.8	7.7
R-3350	K	2.2	9.3
R-3351	С	2.7	9.3

		Dime	ensions in in	nches				
Α	A-A	В	D	D-D	Е	E-E	F	J
7 1/2	11 1/2	1 1/2	8	11 1/2	15 1/2	19	6	3/4
11 1/2	15	1	10	15	30	-	9 1/2	1
13	24	2	13	24	23	34	9 1/2	1
15	26	1 1/2	12	26	20	34	6	1 1/2
15	38 1/2	1 1/4	16 1/2	40	23	47	7 1/2	1
22 1/4	22 1/4	2 1/2	20 1/8	20 1/8	36	Dia.	8	1/2
22 7/8	39 5/8	2	18 1/2	35 1/4	29 3/4	46 1/2	6	1
24	24	2	26 1/2	26 1/2	35	35	7	1
18	28	2 1/4	16	26	25	35	4 1/2	3/4
28	28	1 3/4	29	29	35	35	6	1 3/8
28	28	1 1/2	29	29	35	35	6	1 3/4
	7 1/2 11 1/2 13 15 15 22 1/4 22 7/8 24 18 28	7 1/2 11 1/2 11 1/2 15 13 24 15 26 15 38 1/2 22 1/4 22 1/4 22 7/8 39 5/8 24 24 18 28 28 28	A A-A B 7 1/2 11 1/2 1 1/2 11 1/2 15 1 13 24 2 15 26 1 1/2 15 38 1/2 1 1/4 22 1/4 22 1/4 2 1/2 22 7/8 39 5/8 2 24 24 2 18 28 2 1/4 28 28 1 3/4	A A-A B D 7 1/2 11 1/2 1 1/2 8 11 1/2 15 1 10 13 24 2 13 15 26 1 1/2 12 15 38 1/2 1 1/4 16 1/2 22 1/4 22 1/4 2 1/2 20 1/8 22 7/8 39 5/8 2 18 1/2 24 24 2 26 1/2 18 28 2 1/4 16 28 28 1 3/4 29	7 1/2 11 1/2 1 1/2 8 11 1/2 11 1/2 15 1 10 15 13 24 2 13 24 15 26 1 1/2 12 26 15 38 1/2 1 1/4 16 1/2 40 22 1/4 22 1/4 2 1/2 20 1/8 20 1/8 22 7/8 39 5/8 2 18 1/2 35 1/4 24 24 2 26 1/2 26 1/2 18 28 2 1/4 16 26 28 28 1 3/4 29 29	A A-A B D D-D E 7 1/2 11 1/2 1 1/2 8 11 1/2 15 1/2 11 1/2 15 1 10 15 30 13 24 2 13 24 23 15 26 1 1/2 12 26 20 15 38 1/2 1 1/4 16 1/2 40 23 22 1/4 22 1/4 2 1/2 20 1/8 20 1/8 36 22 7/8 39 5/8 2 18 1/2 35 1/4 29 3/4 24 24 2 26 1/2 26 1/2 35 18 28 2 1/4 16 26 25 28 28 1 3/4 29 29 35	A A-A B D D-D E E-E 7 1/2 11 1/2 1 1/2 8 11 1/2 15 1/2 19 11 1/2 15 1 10 15 30 - 13 24 2 13 24 23 34 15 26 1 1/2 12 26 20 34 15 38 1/2 1 1/4 16 1/2 40 23 47 22 1/4 22 1/4 2 1/2 20 1/8 20 1/8 36 Dia. 22 7/8 39 5/8 2 18 1/2 35 1/4 29 3/4 46 1/2 24 24 2 26 1/2 26 1/2 35 35 18 28 2 1/4 16 26 25 35 28 28 1 3/4 29 29 35 35	A A-A B D D-D E E-E F 7 1/2 11 1/2 1 1/2 8 11 1/2 15 1/2 19 6 11 1/2 15 1 10 15 30 - 9 1/2 13 24 2 13 24 23 34 9 1/2 15 26 1 1/2 12 26 20 34 6 15 38 1/2 1 1/4 16 1/2 40 23 47 7 1/2 22 1/4 22 1/4 2 1/2 20 1/8 20 1/8 36 Dia. 8 22 7/8 39 5/8 2 18 1/2 35 1/4 29 3/4 46 1/2 6 24 24 2 26 1/2 26 1/2 35 35 7 18 28 2 1/4 16 26 25 35 4 1/2 28 28 1 3/4 29 29 35 35 <td< td=""></td<>

^{*} Only available with 30" diameter base flange.

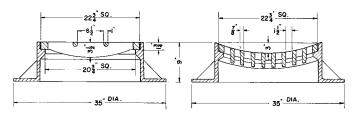
** Furnished with openings parallel with gutter.

*** Grate supported by lugs.

R-3356-A

Concave Gutter Inlet Frame, Grate

Heavy Duty



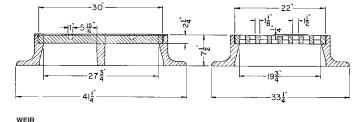


	CATALOG IUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
F	R-3356-A	С	1.5	7.6

R-3357-A

Concave Gutter Inlet Frame, Grate

Heavy Duty



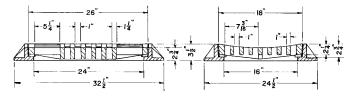


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3357-A	С	2.0	8.7

R-3359

Concave Gutter Inlet Frame, Grate

Heavy Duty

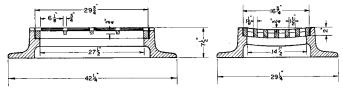




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3359	K	1.1	7.3

R-3360-A

Single Valley Gutter Inlet Frame, Grate





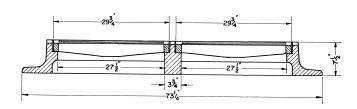
Standard Grate (shown): Type C. Also available with grate Type D.

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3360-A	С	1.6	7.8
B-3360-A	D	17	7.8



Double Valley Gutter Inlet Frame, Grate

Heavy Duty





COMBINATION 3

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3361	K	3.4	12.7
R-3361	С	3.2	12.7

Standard Grate (shown): Type D. Also available with grate Type C.

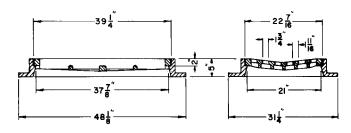


Гуре С

R-3362

Concave Gutter Inlet Frame, Grate

Light Duty



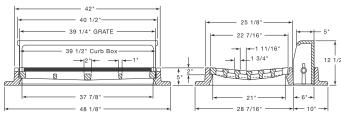


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
HOMBEN		OI LIV	11
R-3362	С	2.3	10.3

R-3362-1

Concave Gutter Inlet Frame, Grate, Curb Box

Light Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3362-1	С	2.3	7.0
R-3362-1	L	2.9	7.0

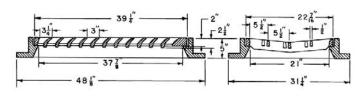
Standard Grate (shown): Type C. Also available with grate Type L.



R-3362-L

Concave Gutter Inlet Frame, Grate

Heavy Duty





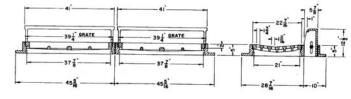
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
B-3362-I		2.9	10.3

Can be furnished as double unit with side flanges removed as shown in R-3363-1.

R-3363-1

Double Unit Inlet Frame, Grate, Curb Box

Light Duty



Standard Grate (shown): Type C.



CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3363-1	С	4.6	10.3
D 0000 1			10.0

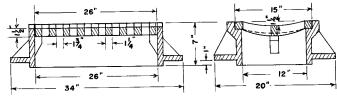


Type L

R-3381

Concave Gutter Inlet Frame, Grate

Heavy Duty

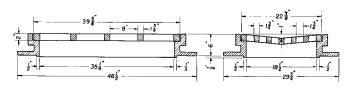




		SQ.	WEIR PERIMETER
CATALOG NUMBER	GRATE TYPE	FT. OPEN	LINEAL
D 2201	Λ.	1.0	6.0

R-3382

Concave Gutter Inlet Frame, Grate



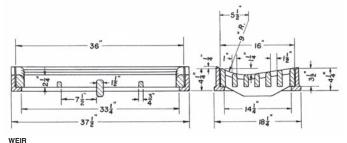


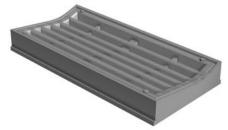
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3382	С	2.3	10.4

R-3393-A

Concave Gutter Inlet Frame, Grate

Heavy Duty





Grates are bolted to frame.

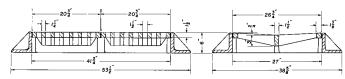
OMBINATION 8

R-3396

GRATE TYPE

Concave Gutter Inlet Frame, Grate

Heavy Duty



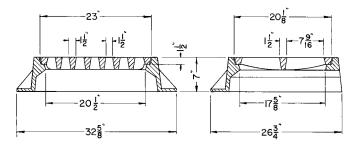


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3396	С	3.2	11.4

R-3397

Gutter Inlet Frame, Grate

Heavy Duty



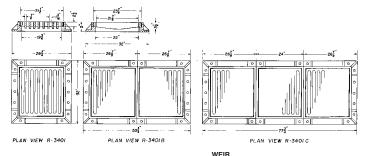


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3397	Α	1.1	7.2

Note opening at rear of frame.

R-3401 Series

Gutter Inlet Frame, Grate



Illustrating R-3401

Catalog No.	No. of grates
R-3401	single grate
R-3401-B	double grate
R-3401-C	triple grate

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3401	D	1.9	7.6
R-3401-B	В	3.8	11.2
R-3401-C	В	5.7	14.7

R-3402 to R-3403 Series

Gutter Inlet Frame, Grate

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3402	Н	0.4	4.0
R-3402-E	A or C	2.1	8.0
R-3403	Α	1.1	6.5





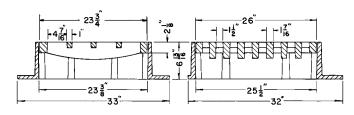
Illustrating R-3402-E

			Dimensions in it	nches			
Catalog No.	Α	В	D	E	F	G	<u>H</u>
	Square						
R-3402	11 7/8 x 11 7/8	1 1/8	11 7/8 x 11 7/8	17 x 17	4	1 1/2 x 1 1/2	5/8
R-3402-E	24 x 24	1 1/2	24 x 24	29 3/4 x 29 3/4	5	2 5/8 x 6 1/2	1
	Rectangular						
R-3403	16 3/4 x 22 1/4	1 13/16	16 3/4 x 22 1/4	25 x 30 3/8	5 7/8	1 7/8 x 4 1/16	1

R-3403-A1

Gutter Inlet Frame, Grate

Heavy Duty

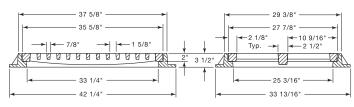




CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3403-A1	Α	1.5	8.3

R-3403-F

Gutter Inlet Frame, Grate





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3403-F	Α	3.2	10.6

R-3404 to R-3405 Series

Gutter Inlet Frame, Grate

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3404	Н	1.4	7.2
R-3405	Н	1.5	7.9
R-3405-A	Н	1.3	8.0
R-3405-A	L	1.5	8.0
R-3405-B	Н	1.3	8.0
R-3405-B	L	1.5	8.0





Illustrating R-3405

			Dimensions in	inches			
Catalog No.	Α	В	С	E	F	G	Н
R-3404	21 1/2 x 21 1/2	1 1/2	20 1/8 x 20 1/8	30 5/8 x 30 5/8	5 1/8	2 x 2	15/16
R-3405	23 5/8 x 23 5/8	1 1/2	22 x 22	32 3/4 x 32 3/4	6	2 1/8 x 2 1/8	1
R-3405-A **	23 7/8 x 23 7/8	2	22 x 22	32 1/8 x 32 1/8	6 1/8	2 1/4 x 2 1/4	1 7/16
R-3405-B * **	23 7/8 x 23 7/8	2	22 x 22	32 1/8 x 29	6 1/8	2 1/4 x 2 1/4	1 7/16

^{*} Same as R-3405-A except base flange on 3 sides only.

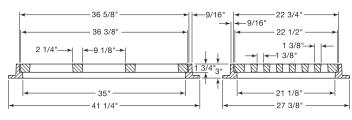
** Also available grate Type L.



R-3406

Single Gutter Inlet Frame, Grate

Heavy Duty





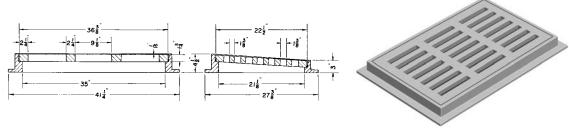
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3406	С	1.8	9.8
R-3406-2	С	3.7	15.9

Double unit available with 27 3/8" x 79" outside frame dimension, order R-3406-2.

R-3406-A

Single Gutter Inlet Frame, Grate

Heavy Duty



CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3406-A	С	1.8	9.8
R-3406-A2	С	3.7	15.9

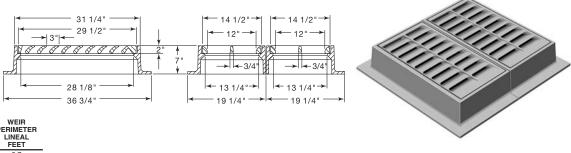
Note sloping top.

Double unit available with 27 3/8" x 79" outside frame dimension, order **R-3406-A2**.

R-3408-AL

Double Gutter Inlet Frames, Grates

Heavy Duty

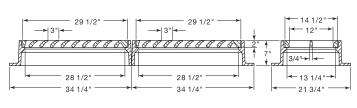


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3408-AL	L	2.4	9.7

R-3408-BL

Double Gutter Inlet Frames, Grates

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
B-3408-BL	L	2.4	12.5

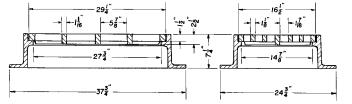
R-3408-L

Single Gutter Inlet Frame, Grate

WEIR SQ. PERIMETER CATALOG GRATE FT. LINEAL NUMBER TYPE OPEN FEET	29 1/2"	16 3/6 14 1/2" — 1/2" 1/2"	
R-3408-L L 1.2 7.3		7"	
	28 1/8"	13 1/4"	

Gutter Inlet Frame, Grate

Heavy Duty





COMBINATION 3

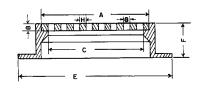
			WEIR
		SQ.	PERIMETER
CATALOG NUMBER	GRATE TYPE	FT. OPEN	LINEAL FEET
R-3409	С	1.5	7.6

R-3413 to R-3416 Series

Long Gutter Inlet Frame, Grate

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3413	С	1.5	9.0
R-3415	Α	4.1	13.5
R-3416	Α	1.4	9.8



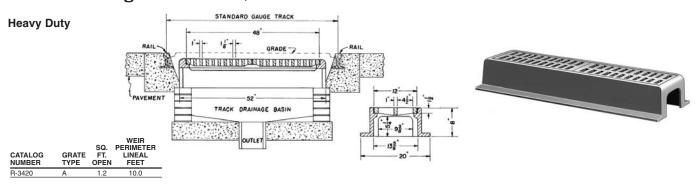


Dimensions in inches								
Catalog No.	Α	В	С	E	F	G	Н	
R-3413	18 x 36	2	16 x 34	28 x 46	7	1 3/4 x 6 1/4	1 1/4	
R-3415 *	23 x 58	1	21 x 56	35 x 70	8 1/2	1 x 8	1	
R-3416	23 1/2 x 35 1/2	2	22 x 33	34 x 46	6 1/4	2 x 9 3/4	1 1/4	

^{*} Grate in two sections.

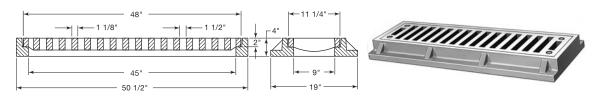
R-3420

Track and Bridge Drain Frame, Grate



R-3423

Track and Bridge Drain Frame, Grate

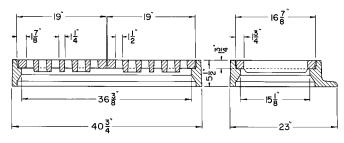


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3423	В	1.6	9.9

R-3425-A

Single Flange Gutter Inlet Frame, Double Grate

Heavy Duty





Standard Grate (shown): Type K. Also available with grate Type L.

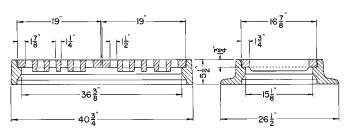
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3425-A	K	2.1	9.4
R-3425-A	L	2.3	9.4



R-3425-B

Double Flange Gutter Inlet Frame, Double Grate

Heavy Duty





Standard Grate (shown): Type K. Also available with grate Type L.

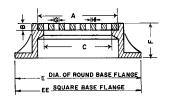
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3425-B	K	2.1	9.4
R-3425-B	L	2.3	9.4



R-3429 to R-3438 Series

Square and/or Round Gutter Inlet Frame, Grate

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3429-A	A or C	1.0	6.0
R-3430	A or C	0.9	6.6
R-3433	A or C	1.5	8.0
R-3433	L	1.6	7.9
R-3437	A or C	3.3	12.0
R-3438-A	A or C	7.0	16.6





Illustrating R-3430

Dimensions in inches								
Catalog No.	Α	В	С	E	EE	F	G	Н
R-3429-A	18 x 18	1 1/2	16 1/4 x 16 1/4	30" Dia	-	6	2 1/4 x 4 1/4	
R-3430	20 x 20	1 3/4	18 x 18	36" Dia	31 x 31	5	1 3/8 x 3 1/2	1 1/4
R-3433 **	24 x 24	2	22 x 22	38" Dia	35 x 35	6	1 3/4 x 6	1 3/8
R-3437 *	36 x 36	1 3/4	34 x 34	-	45 x 45	7	2 x 4	1 3/8
R-3438-A *	50 x 50	1 3/4	48 x 48	-	59 x 59	8	1 1/2 x 6 1/4	1 1/8
	50 x 50			-		8	1 1/2 x 6 1/4	

^{*} Grate furnished in two pieces.

^{**} Also available with grates A/C or Type L.

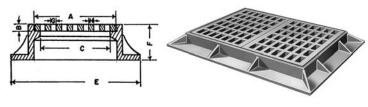
R-3448 to R-3457 Series

Rectangular Gutter Inlet Frame, Grate

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3448-B	Α	1.1	6.8
R-3448-C	С	0.9	6.8
R-3448-D	S	1.2	6.8
R-3449	Α	0.9	6.8
R-3451	С	1.5	7.3
R-3451-B	С	1.7	7.8
R-3454	Α	4.1	13.2
R-3454-B	D	2.5	9.9

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3454-BL	L	3.1	7.0
R-3454-C	С	2.9	13.2
R-3455-A	Α	2.6	9.8
R-3455-C	Α	2.6	10.0
R-3457-C2	Α	6.0	14.0



Dimensions in inches								
Catalog No.	Α	В	С	E	F	G	Н	
R-3448-B	17 3/4 x 22 3/4	1 3/4	***	23 3/4 x 32	6 3/4	1 5/8 x 3 1/4	1 1/8	
R-3448-C	17 3/4 x 22 3/4	1 3/4	***	34	6 3/4	1 1/2 x 3	1 1/4	
R-3448-D **	17 3/4 x 22 3/4	1 3/4	***	34	6 3/4	1 1/2 x 5 3/8	1	
R-3449	18 x 23	2	***	24 x 29	5	1 1/4 x 7	1 1/8	
R-3451	18 x 36	2	16 x 34	28 x 46	7	1 3/4 x 6 1/4	1 1/4	
R-3451-B	19 3/4 x 26 3/4	2	17 1/2 x 24 1/2	38	8 1/4	1 1/2 x 11 3/8	1 1/2	
R-3454 *	22 5/8 x 56 3/4	1	21 x 56	35 x 70	8 1/2	1 x 6 1/4	1	
R-3454-B	23 3/4 x 35 7/8	2	21 3/4 x 33 3/8	31 x 45	6 1/2	1 x 32 3/8	1	
R-3454-BL §	23 3/4 x 35 7/8	2	21 3/4 x 33 3/8	31 x 45	6 1/2		1	
R-3454-C	23 3/4 x 35 7/8	2	21 3/4 x 33 3/8	31 x 45	6 1/2	1 3/4 x 6 1/2	1 1/4	
R-3455-A	23 1/2 x 35 1/2	2	22 x 33	34 x 46	6 1/4	2 x 9 3/4	1 1/4	
R-3455-C	24 x 36	1 3/4	22 x 34	36 x 48	9	1 3/4 x 6	1	
R-3457-C2 ¥	36 x 48	1 3/4	***	42 x 54	5 1/2	1 7/8 x 21 3/8	1 1/4	

R-3460 Series

Special Gutter Inlet Frame, Grate

Heavy Duty

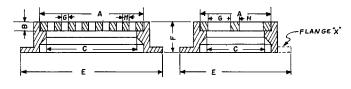
CATALOG NUMBER

R-3460-A

R-3460-A

R-3460-D

R-3460-D





Illustrating R-3460-D

WEIR PERIMETER LINEAL I FEET 6.0 6.0

Type A grate furnished, Type C availbable on request.

\supset \subset	\supset \subset	\supset \subset	$\overline{}$		
\supset \subset	\supset \subset	\supset \subset	$\overline{}$		
\supset \subset	\supset \subset	\supset \subset	=		
\supset \subset	\supset \subset	\supset \subset	=		
\neg \subset	\neg \subset	\supset \subset	$\overline{}$		
Type C					

Dimensions in inches								
Catalog No.	Α	В	С	E	F	G	Н	
R-3460-A	14 1/2 x 21 1/2	2	13 x 20	23 x 30	5 1/2	1 21/32 x 5 11/32	1 1/4	
R-3460-D *	14 1/2 x 21 1/2	2	13 x 20	20 x 30	10 1/2	1 21/32 x 5 11/32	1 1/4	

^{*} Flange "x" removed making 3-flange inlet.

SQ. FT. OPEN

1.1

0.8

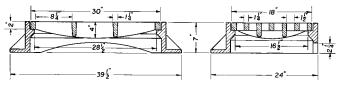
GRATE TYPE

R-3461

3-Flange Gutter Inlet Frame, Grate

6.0

6.0





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3461	С	1.5	8.0

^{*} Grate in two sections.

** Sinusoidal style (Type S) grate.

*** Frames provided with lugs supporting grates at corners.

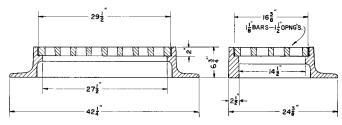
* Frame and Grate furnished in two pieces. Frame with center support bar.

[§] Vane style (Type L) grate.

R-3462-B

Single Gutter Inlet Frame, Grate

Heavy Duty



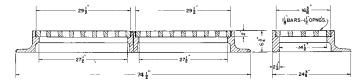


			WEIR
		SQ.	PERIMETER
CATALOG	GRATE	FT.	LINEAL
NUMBER	TYPE	OPEN	FEET
B-3462-B	R	1.8	7.6

R-3463-B

Double Gutter Inlet Frames, Grates

Heavy Duty





CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3463-B	R	3.5	12.6

R-3465

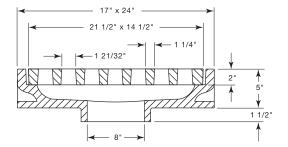
Gutter Inlet Frame, Grate

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3465	Α	0.8	6.0
R-3465	С	1.1	6.0

Standard Grate (shown): Type A. Also available with grate Type C.







R-3466-A

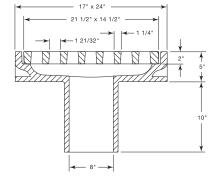
Gutter Inlet Frame, Grate

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3466-A	Α	0.8	6.0
R-3466-A	С	0.8	6.0

Standard Grate (shown): Type A. Also available with grate Type C.



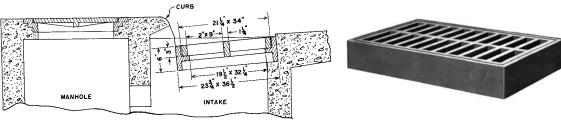




R-3469

Gutter Inlet Frame, Grate

Heavy Duty



	CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
Ē	R-3469	Α	2.7	9.2

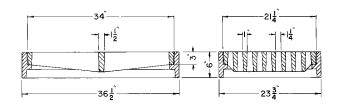
The drawing shows one method of installing as a combination intake and manhole The cleanout manhole listed under Neenah $\bf R\text{-}6040$ is not furnished as part of this combination and should be ordered separately.

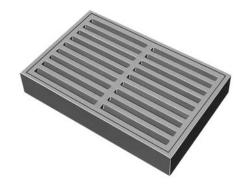
When increased drainage is required, two or more inlets are placed end to end in combinations over large basins or trench drains.

R-3469-E2

Gutter Inlet Frame, Grate

Heavy Duty





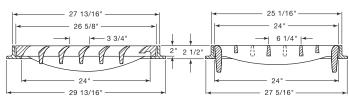
CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	PERIMETER LINEAL FEET
R-3469-E2	С	2.3	9.2
R-3469-E2	Α	2.7	9.2

Standard Grate (shown): Type C. Also available with grate Type A.



R-3470

Gutter Inlet Frame, Grate



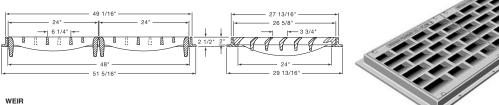


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET	
R-3470	L	2.2	8.4	•

R-3470-2

Double Gutter Inlet Frame, Grates

Heavy Duty

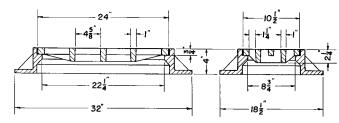


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET	
B-3470-2	L	4.4	12.4	

R-3471

Narrow Gutter Inlet Frame, Grate

Heavy Duty



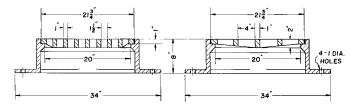


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FFFT
R-3471	С	0.6	5.8

R-3472

Gutter Inlet Frame, Grate

Heavy Duty



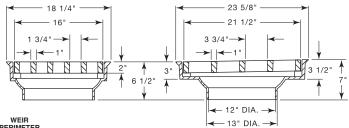


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3472	A or C	1.3	7.3

R-3473

Gutter Inlet Frame, Grate







CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3473	С	0.9	6.3