



# WALCOOM

Walcoom Corporation



# SAFETY GRATING

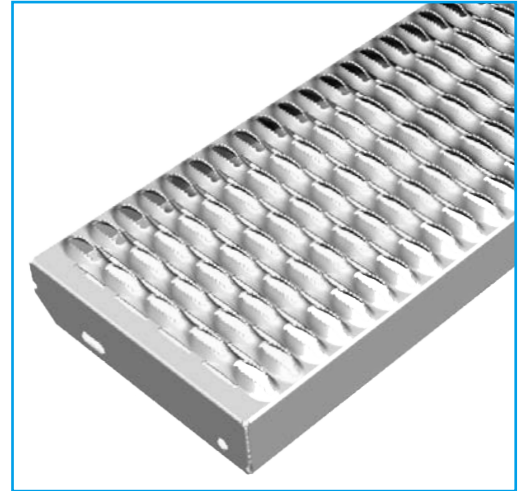
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## Diamond-Strut Safety Grating

Diamond-Strut safety grating is made of carbon steel, stainless steel or aluminum by cold forming. It can be divided into three types: plank grating, stair treads and ladder rungs.

There are two types of surface: serrated and smooth. Serrated surface prevents people from falling. And smooth surface can be used in the situations where required smooth. In addition, diamond-shaped openings allow for drainage of fluids and debris.

Due to these excellent performances, diamond-strut safety grating is widely used as floor, walkway, stair treads and platform in industrial, civil and commercial buildings.



### Feature

- High strength to weight ratio with high bearing capacity and light weight.
- Anti-slip, diamond opening and serrated surface for maximum slip resistance.
- Opening design allows for drainage of fluids and debris.
- Abrasive nosing is provided on request.
- Simple and fast installation, little maintenance after installation.
- Economical cost and long lifespan.

### Specification

#### ● Material

- Pre-galvanized carbon steel: 12 and 14 gauge.
- Aluminum 5052-H32: 10 and 12 gauge, 0.08" or 0.10" thickness.

- HRPO carbon steel: 12 and 14 gauge.
- Stainless steel 304 or 316L: 16 gauge.

#### ● Surface treatment: Galvanized, hot rolling, pickling.

#### ● Type

##### ■ Diamond-Strut plank grating

##### ◆ Width

- ▲ 2-Diamond: 4-3/4".
- ▲ 4-Diamond: 9-1/2".
- ▲ 8-Diamond: 18-3/4".

- ▲ 3-Diamond: 7".
- ▲ 5-Diamond: 11-3/4".
- ▲ 10-Diamond: 24".

##### ◆ Channel depth: 1-1/2", 2", 2-1/2".

##### ◆ Length: 10', 12' or customized.

# Safety Grating

■ **Diamond-Strut ladder rungs:** standard, reverse.

- ◆ **Width:** standard diamond 2-1/2", reverse diamond 1-5/8".
- ◆ **Height:** standard diamond 1-1/8", reverse diamond 1-5/8".
- ◆ **Length:** standard diamond 3', 4', 10', 12' or cut to size; reverse diamond 23-1/8".

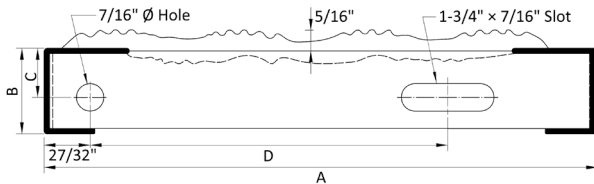
**Table 1: Specification of Diamond-Strut Stair Treads**

Item	Material	Span	Gauge	Channel Depth	Diamond Quantity	Size	
						Standard	With Abrasive Nosing
DSS-01	steel	up to 30"	14	1-1/2"	2	4-3/4"	-
DSS-02					3	7"	8-1/8"
DSS-03					4	9-1/2"	10-1/2"
DSS-04					5	11-3/4"	-
DSS-05		30" to 36"	14	1-1/2"	2	4-3/4"	-
DSS-06					3	7"	8-1/8"
DSS-07					4	9-1/2"	10-1/2"
DSS-08					5	11-3/4"	-
DSS-09		36" to 42"	14	1-1/2"	2	4-3/4"	-
DSS-10					3	7"	8-1/8"
DSS-11					4	9-1/2"	10-1/2"
DSS-12					5	11-3/4"	-
DSS-13		42" to 48"	14	2"	2	4-3/4"	-
DSS-14					3	7"	8-1/8"
DSS-15					4	9-1/2"	10-1/2"
DSS-16					5	11-3/4"	-
DSA-01	aluminum	up to 42"	0.08"	2"	2	4-3/4"	-
DSA-02					3	7"	8-1/8"
DSA-03					4	9-1/2"	10-1/2"
DSA-04					5	11-3/4"	-
DSA-05		up to 48"	0.10"	2"	2	4-3/4"	-
DSA-06					3	7"	8-1/8"
DSA-07					4	9-1/2"	10-1/2"
DSA-08					5	11-3/4"	-
DSSS-01	stainless steel 316L	up to 30"	16	2"	2	4-3/4"	-
DSSS-02					3	7"	8-1/8"
DSSS-03					4	9-1/2"	10-1/2"
DSSS-04					5	11-3/4"	-
DSSS-05		up to 36"	16	2"	2	4-3/4"	-
DSSS-06					3	7"	-
DSSS-07					4	9-1/2"	-
DSSS-08					5	11-3/4"	-

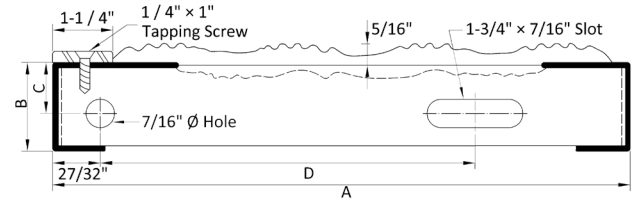


**Table 2: Specification of Diamond-Strut Carrier Plate**

Standard Diamond-Strut Tread



Diamond-Strut Tread With Abrasive Nosing



**Diamond-Strut stair treads carrier plate details**

Standard				With Abrasive Nosing			
A	B	C	D	A	B	C	D
4-3/4"	1-1/2"	3/4"	2-5/8"	-	-	-	-
2-diamond	2"	1"	2-5/8"	-	-	-	-
7"	1-1/2"	3/4"	3-3/8"	8-1/8"	1-1/2"	3/4"	4-1/2"
3-diamond	2"	1"	3-3/8"	3-Diamond	2"	1"	4-1/2"
9-1/2"	1-1/2"	3/4"	5-7/8"	10-1/2"	1-1/2"	3/4"	6-7/8"
4-diamond	2"	1"	5-7/8"	4-Diamond	2"	1"	6-7/8"
11-3/4"	1-1/2"	3/4"	8-1/8"	-	-	-	-
5-diamond	2"	1"	8-1/8"	-	-	-	-

※ **Note** : Carrier plate material: steel, aluminum and stainless steel.  
Stainless steel not available for 2-Diamond or 3-Diamond widths.

## Application

Diamond-strut safety grating is widely used as many things in industrial, civil and commercial buildings, such as:

- Walkway.
- Stair treads
- Ladder rung.
- Catwalk.
- Platform.
- Balcony.
- Ramp.
- Loading dock.
- Floor.
- Mezzanine.
- Mining.
- Building construction.

## O-Grip Safety Grating



O-Grip safety grating can be divided into two types: O-grip plank grating and O-grip stair treads. It is a one-piece metal grating that consists of large recessed holes, each of large recessed hole is surrounded by multiple raised holes that provide maximum slip resistance.

In addition, large opening areas allow free flow of liquids, grease, mud, snow and other debris. At the same time, the round opening will prevent most tools and other dangerous items from falling down and protect the safety of walkers. So it is widely used as floor, slope, catwalk, platform, walkway and stair treads.

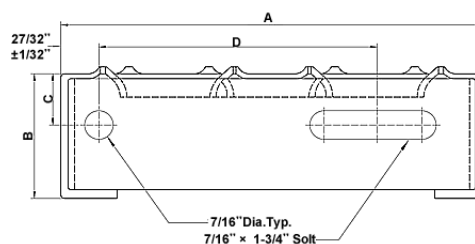
## Feature

- High strength with high bearing capacity.
- Wear resistance, not easy to deform.
- Lightweight, easy to install and disassemble.
- Durable with longer lifespan.
- Providing slip resistance in all directions.
- Large opening structure permits free flow of liquids, grease, mud, snow and other debris.

## Specification

- **Material**
  - Mill galvanized carbon steel: 11 and 13 gauge.
  - Stainless steel type 316: 16 gauge.
  - Aluminum alloy: 0.125".
  - Available in HRPO plain steel and stainless steel 304.
- **Surface treatment:** Galvanized, hot rolling, pickling.
- **Thickness:** 0.06", 0.08", 0.1".
- **Type**
  - **O-Grip plank grating**
    - ◆ Width: 5" (2-Hole), 7" (3-Hole), 10" (5-Hole), 12" (6-Hole), 18" (10-Hole), 24" (13-Hole), 30" (16-Hole).
    - ◆ Length: 10' and 12'.
  - **O-Grip stair treads**
    - ◆ Channel depth: 1-1/2", 2".
    - ◆ Length: 24", 30", 36".

**Table 3: Specification of O-Grip Grating Carrier Plate**



O-Grip grating carrier plate dimensions

Grating Width A	Channel Depth B	Dimension C	Dimension D
5"	1-1/2"	3/4"	2"
	2"	1"	
7"	1-1/2"	3/4"	4"
	2"	1"	
10"	1-1/2"	3/4"	7"
	2"	1"	
12"	1-1/2"	3/4"	9"
	2"	1"	

## Application

O-Grip safety grating can be used in such place:

- Gas based power plant.
- Stadium.
- Mining and construction industries.
- Large building.
- Bridge.

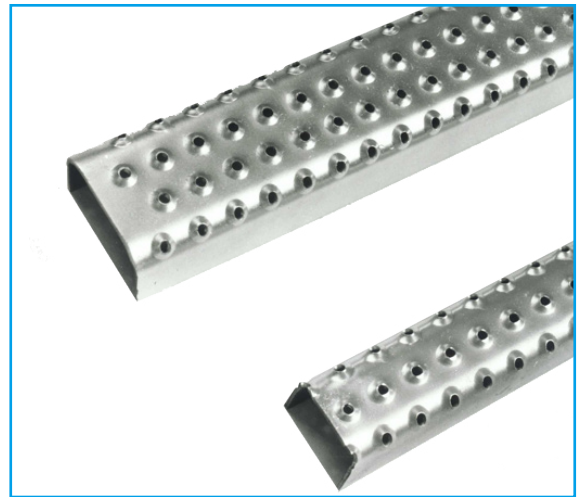
It also can be used as such things:

- Floor.
- Slope.
- Catwalk.
- Platform.
- Walkway.
- Stair treads.

## Traction-Grip Safety Grating

Traction-Grip safety grating is formed by cold forming process, and the surface of it is covered with hundreds of perforated buttons. These perforated buttons provide great friction between the foot and the grating surface to prevent pedestrians from slipping on wet or oily surfaces. It effectively resists most falls and slippage, making it a popular choice for industrial and commercial applications of walkways, floors, stair treads and platforms.

In addition, the perforated buttons also can be arranged in different patterns, you can choose according to the needs and preferences.



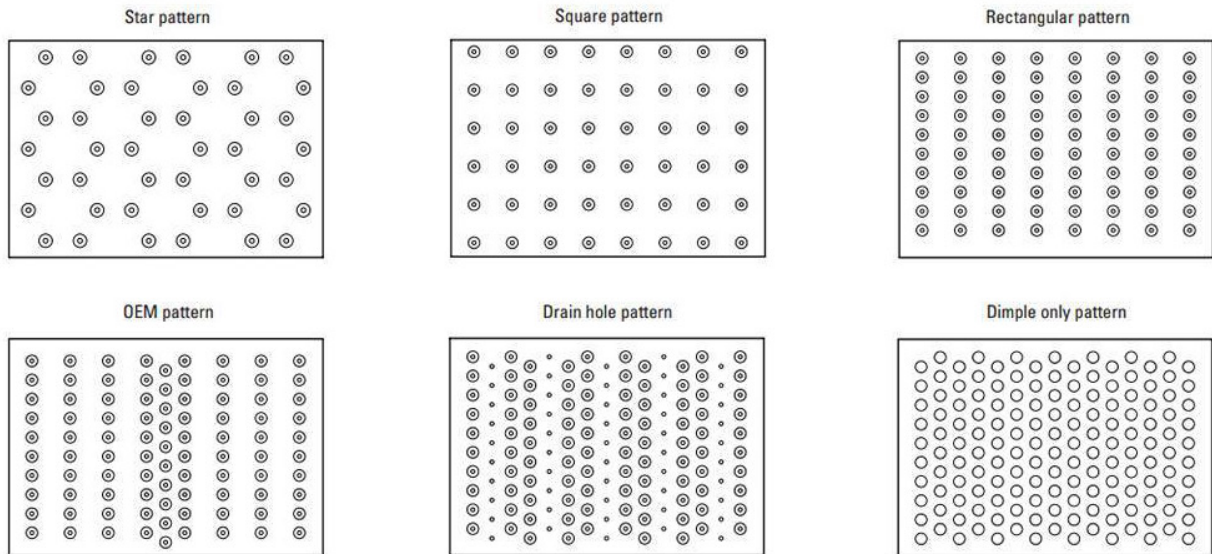
## Feature

- High strength with high bearing capacity.
- Circular raised perforated buttons provide good slip resistance.
- Wear resistance, not easy to deform.
- Lightweight, complete with carrier plates in each end for easy installation.
- Long lifespan requiring little maintenance.

## Specification

- **Material**
  - **Carbon steel:** HRPO(hot rolled, pickled and oiled), 11, 13 and 16 gauge.
  - **Galvanized steel:** 11, 13 and 16 gauge.
  - **Aluminum 5052-H32:** 0.125".
  - **Stainless steel 304 or 316L:** 14 and 16 gauge.
- **Surface treatment:** Galvanized, hot rolling, pickling.
- **Thickness:** 0.06", 0.08", 0.1".
- **Hole pattern**

# Safety Grating



## ● Type

### ■ Traction-Grip ladder rungs

- ◆ Hole type: 2-hole, 3-hole and 4-hole.
- ◆ Width: 1-1/4", 1-5/8" and 2-1/4".
- ◆ Depth: 1-1/2", 1-1/8" and 1-1/2".
- ◆ Length: 48", 60" or cut length.

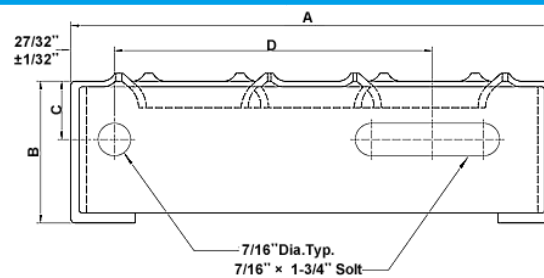
### ■ Traction-Grip plank grating

- ◆ Width: 7", 10" and 12".
- ◆ Length: 120" and 140".
- ◆ Channel depth: 1-1/2" and 2".

### ■ Traction-Grip stair treads

- ◆ Width: 7", 10" and 12".
- ◆ Channel depth: 2".
- ◆ Length: 30", 48" or any cut length.

**Table 4: Specification of Traction-Grip Carrier Plate**



Traction-Grip stair treads carrier plate

Tread Width A (inch)	Depth B (inch)	Dimension C (inch)	Dimension D (inch)
5"	1-1/2"	3/4"	2"
	2"	1"	
7"	1-1/2"	3/4"	4"
	2"	1"	
10"	1-1/2"	3/4"	7"
	2"	1"	
12"	1-1/2"	3/4"	9"
	2"	1"	

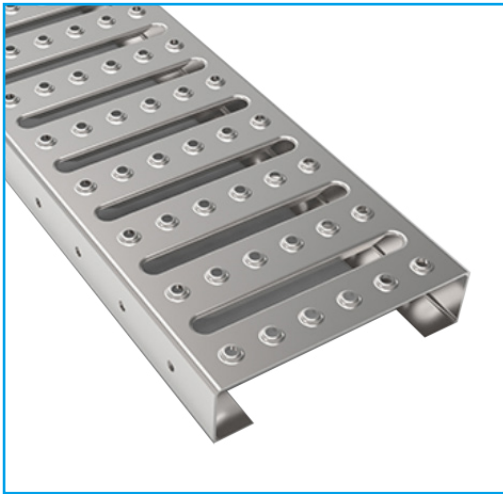
## Application

Traction-Grip safety grating is widely used as such things:

- Ramp.
- Ladder rung.
- Platform.
- Stair treads.
- Drainage channel.
- Floor.
- Walkway.



## Interlocking Safety Grating



Interlocking safety grating is made of carbon steel, stainless steel and aluminum. The surface of interlocking safety grating has long circular grooves, coupled with the interlocking structure, it is easy for installing and removing, saving the cost and time.

In addition, interlocking safety grating has two surface types: serrated and smooth. Serrated surface ensures the safe walking surfaces in any weather. At the same time, the opening area allows rain, snow, soil and other debris to pass through. Interlocking safety grating is widely used as platform, stair treads, walkway, trench drainage and floor in industrial building.

## Feature

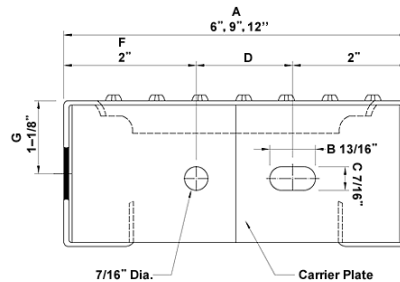
- High strength and high bearing capacity.
- Do not accumulate rain, snow and dust.
- Durable and economical, the lifespan is long.
- Anti-slip to ensure that people are safe.
- Easy to install and disassemble.

## Specification

- **Material**
  - pre-galvanized carbon steel.
  - 5052-H32 mill finish aluminum.
  - HRPO carbon steel.
  - stainless steel 304 or 316.
- **Surface treatment:** Galvanized, hot rolling, pickling.
- **Surface type:** Smooth surface and serrated surface.
- **Length:** 6000 mm.
- **Width (mm):** 150, 200, 250, 300.
- **Height (mm):** 25, 40, 50, 75.
- **Thickness (mm):** 1.5, 2.0, 2.5.



**Table 5: Specification of Interlocking Safety Grating Carrier Plate**



Interlocking safety grating carrier plate

Item	A Tread Width	D Dimension	F Dimension	G Dimension
stair treads without nosing				
IGCP-1	6"	2"	2"	1-1/8"
IGCP-2	9"	5"	2"	1-1/8"
IGCP-3	12"	8"	2"	1-1/8"
stair treads with nosing				
IGPN-1	7-1/2"	4-1/2"	2-1/2"	1-1/8"
IGPN-2	10-1/2"	7"	2-1/2"	1-1/8"
IGPN-3	13-1/2"	7"	2-1/2"	1-1/8"

## Application

Interlocking safety grating is widely used as:

- Platform.
- Walkway.
- Floor.
- Stair treads.
- Mezzanine.
- Trench drainage.

## Safety Grating Accessories



There are also so many accessories can be used with safety grating to make the installation of safety grating easier and faster, such as J-clips, walkway splice plates, hold-down clamps and hold-down clips, anchor plates and so on.

Fixation can be achieved by placing the J-bolt into the opening of the anchor plate opposite the J-bolt. Walkway splice plates used for connecting side channels. And hold-down clamp is used for fixing interlocking safety grating to I-beam or other anchoring cross-member. All in all, all kinds of accessories can play their role to make the safety grating work better.

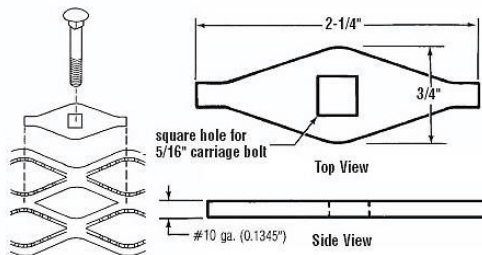
## Feature

- Galvanized surface treatment protect the accessories against corrosion.
- Making the installation of safety grating faster.
- Accessories can be used year after year.
- Durable with longer lifespan.

## Application

- Diamond anchor, anchor plate and walkway splice plate used for diamond-strut safety grating.
- Bolt washer seat, J-clip, mid clip kit, surface splice plate and walkway splice plate used for O-grip safety grating.
- Hold-down clamp, hold down clip and anchor j-bolt used for interlocking safety grating.

**Table 6: Diamond Anchors Kit for Diamond-Strut Safety Grating**



Diamond washer details

Item	Specification	Number
<b>Diamond Washer</b>	2-1/4" × 3/4"	1
<b>Carriage Bolt</b>	5/16"-18	1
<b>Flat Washer</b>	5/16"	1
<b>Hex Nut</b>	5/16"-18	1

※ **Material:** mill galvanized plain steel or stainless steel 304.

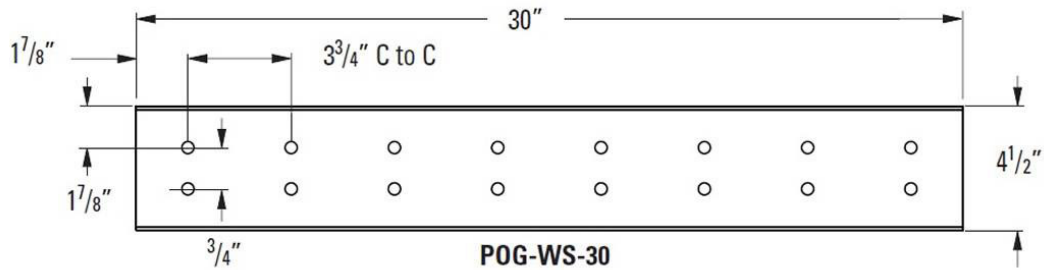
**Table 7: Anchor Plate Kit for Diamond-Strut Safety Grating**

Item	Specification	Number
<b>Anchor Plate</b>	3-1/2" × 3-1/2"	1
<b>J-Bolts</b>	3/8"-16	2
<b>Flat Washer</b>	3/8"	2
<b>Hex Nut</b>	3/8"-16	2

※ **Material:** mill galvanized plain steel or stainless steel 304.

# Safety Grating

**Table 8: 30" Long Walkway Splice Plate Kit for Diamond-Strut Safety Grating**



30 inches long splice plate details

Item	Specification	Number
Splice plate	4-1/2" x 30"	2
Hex bolt	1/2"-13 x 1-1/4"	32
Hex nut	1/2"-13	32
Washer	1/2"	32

※ **Plate thickness:** 12 gauge.

※ **Finish:** mill-galvanized.

**Table 9: 7" Long Walkway Splice Plate Kit for Diamond-Strut Safety Grating**

Item	Specification	Number
Splice plate	4" x 7"	2
Hex bolt	7/16"-14 x 1-1/4"	16
Hex Nut	7/16"-14	16
Washer	7/16"	16

※ **Plate thickness:** 10 gauge.

※ **Finish:** mill-galvanized.

**Table 10: Bolt Washer Seat Kit for O-Grip Safety Grating**

Item	Specification	Number
Bolt Washer Seat	-	1
Carriage Bolt	3/8"-16	1
Flat Washer	3/8"	1
Hex Nut	3/8"-16	1

※ **Plank carriage bolt height:** side channel height + 1".

※ **Walkway way carriage bolt:** 5/16"-18 x 2".

# Safety Grating

**Table 11: J-Clip Kit for O-Grip Safety Grating**

Item	Specification	Number
P-Bolt Seat	-	1
Carriage Bolt	3/8"-16	1
Flat Washer	3/8"	1
Hex Nut	3/8"-16	1

※ **Plank carriage bolt height:** side channel height + 1".

※ **Walkway carriage bolt:** 5/16"-18 × 2".

**Table 12: Walkway Splice Plate Kit for O-Grip Safety Grating**

Item	Specification	Number
Walkway Splice Plate	4-1/2" × 30"	2
Hex Bolt	1/2" × 1-1/4"	32
Hex Nut	1/2"-13	32
Flat Washer	1/2"	32

**Table 13: Hold-Down Clamp Kit for Interlocking Safety Grating**

Item	Specification	Number
Hex Head Cap Screw	5/16"-18	1
Flat Washer	5/16"	1
Hex Nut	5/16"-18	1

※ **Material:** mill galvanized plain steel or stainless steel 304.

**Table 14: Anchor J-Bolt for Interlocking Safety Grating**

Item	Specification	Number
J-Bolt	5/16"-18 × 2-13/16"	1
Flat Washer	5/16"	2
Hex Nut	5/16"-18	2

※ **Material:** mill galvanized plain steel or stainless steel 304.

# SAFETY GRATING

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