

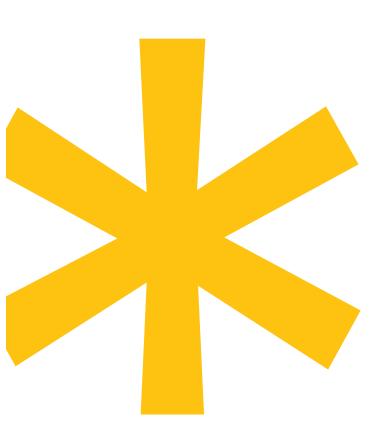
## Rolling Guard-rail Barrier

## What we make.

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It's your happiness With your family



Impact . Absorbing . Barrier . Assembly

### Rolling Guard-rail Barrier guard safety fence for median strips (Level SB4)

PROJEK GARUDA SDN BHD







Туре	Level	Specification
Rolling Guard-rail Barrier standard section for median strips	SB4	H960× W345× L700
Rolling Guard-rail Barrier end section for median strips	SB4	230× 1300

- The Rolling Guard-rail Barrier (34.5 cm in width) is narrower than typical medial strips (48 cm).
- Independent props, which can be individually repaired, reduce maintenance costs.
- Props at an interval of 0.7 m increase bearing power to prevent cars from leaving the roadway.
- High intensity reflective sheeting strengthens drivers' visibility day and night.



#### **Work Examples**







## Rolling Guard-rail Barrier for Banking Section (Level SB4)







Туре	Level	Specification
Rolling Guard-rail Barrier standard banking section	SB4	H960× W413.8× L700
Rolling Guard-rail Barrier end banking section	SB4	230× 1300



- Props at an interval of 0.7 m increase bearing power against inclines of banking section.
- It is perfect for risky districts such as inclines of riversides and banking section.
- Its height of 960 mm prevents cars from leaving the roadway.





Rotating barrel POST Frame Rotating ring TDC blot Square washer Prop cap Frame Connecting rodBuffering bracketRound rail



# Rolling Guard-rail Barrier for Roadsides (Level SB5)







Туре	Level	Specification
Rolling Guard-rail Barrier standard section for roadsides	SB5	H960×W413.8×L700
Rolling Guard-rail Barrier end section for roadsides	SB5	230×1300



- The rotating barrel converts shock energy to rotational energy.
- ▼ The EVA rotating barrel absorbs collision shock.
- The buffering bracket in the lower section absorbs the 2nd shock.
- ☑ Liquidity of railway rails absorbs the 3rd shock

#### Materials



## Rolling Guard-rail Barrier for Tunnel Fronts (Level SB5)







Туре	Level	Specification
Rolling Guard-rail Barrier standard section for tunnel fronts	SB5	H960× W413.8× L700
Rolling Guard-rail Barrier end section for tunnel fronts	SB5	230× 1300



Existing bell mouths for tunnel fronts and PE guard fences for large accidents are not effective because they are breakable or cannot absorb shocking. Rolling Guard-rail Barrier for tunnel fronts have excellent collision impact protection ability and tremendous absorption power so that the product guides cars in the moving direction upon crash to prevent 2nd collision

#### Materials

Rotating barrel POST Frame Rotating ring TDC blot Square washer Prop cap Frame Connecting rod Buffering bracket Round rail

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#### Work and Accident Example







- ✓ Installed the guard fence at Chiak Tunnel 1 front.
- Selected as an excellent work to improve vulnerable districts by Korea Expressway Corporation.
- Improvement effect: to prevent fatal accidents by minimizing collision shock and to lead gaze and improve scenery with reflective sheeting.







# Rolling Guard-rail Barrier for Road Facility Protection







#### Possible to change in varies forms

The product can change in various forms to protect different types of road facilities (including bridges and traffic signal posts)

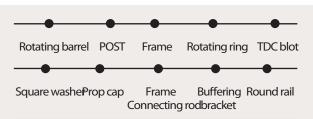
#### Examples of daytime gaze leading and nighttime clear view







#### Materials



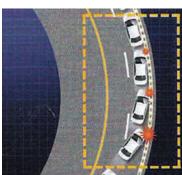






### Features of Rolling Guard-rail Barrier

- 01. A three-dimensional rotating barrel with high intensity reflective sheeting attached make vehicle protection facilities noticeable and improves drivers' visibility to prevent vehicle accidents.
- 02. The product converts shock energy to rotational energy to prevent 2 collision accidents and lane departure.
- **03**. The product guides an accident vehicle in the moving direction vehicle to prevent rear-end collisions with following cars.
- 04. EVA shock-absorbing drugs absorb great shock.
  - EVA has better flexibility and elasticity compared to other polyethylene resins, and the most similar features to rubber; it is lighter than rubber and more elastic than urethane. Therefore, it is not easily damaged.
- 05. Bearing power increased by dense props prevents accident vehicles from leaving the roadway.
- 06. Buffering brackets absorb the 2nd shock
- 07. D-shape frame structures can absorb complex shock.
- 08. Railway rails and liquid props absorb shock for accident vehicles, and frames with the smooth surface adjust tires of the vehicles and guide them in the moving direction to prevent 2<sup>nd</sup> rear-end collisions.
- 09. The product is shock-absorbing guard fence with strong frames, dense props and flexible rotating barrel.
- Independent props, which make it possible to replace only damaged parts, reduce maintenance costs

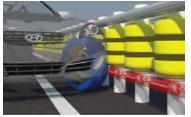




### How Rolling Guard-rail Barrier Works

- 01. The rotating barrel converts great shock from vehicle collision to rotational energy to absorb shock.
- 02. Upper and lower frames adjust tires of large and small vehicles to prevent the steering system function loss.
- 03. The three-dimensional structure of D-shaped frame and buffering bracket distribute and absorb thesabock.
- 04. Props at an interval of 0.7 m increase bearing power to prevent accident vehicles from going over the guardrail and turning over into a dangerous area.
- 05. The product has a rotating barrel made of EVA with excellent shock absorption power, three-dimensional buffering frames and dense props supporting the frames.







## Pilot Test in Malaysia FT15 Subang U-Turn



















