

Department of Transport and Main Roads

Road Safety Barrier Systems and End Treatments: Product Information Sheet

This information sheet shall be, where relevant, read in conjunction with the manufacturer's latest manual.

J-J Hooks

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Status*: Accepted

Status Commencement Date: Not Set

Status Expiry Date*: Not Set

* TMR reserves the right to alter the Status and Status Expiry Date at any time. Always refer to latest version of TMR's Road Safety Barrier Systems and End Treatments document.

Category: Longitudinal

Sub Category: Semi-Rigid

Main Material: Concrete

Gating/Non-Gating: Not Applicable

Redirective/Non-Redirective: Redirective

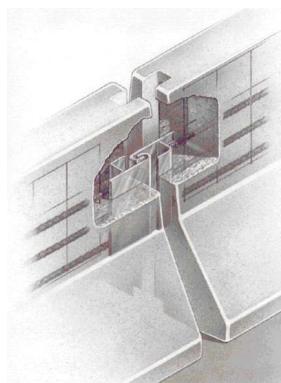
Permanent/Temporary: Temporary

Ownership:

Easi-Set Industries
Midland Virginia

Supplier:

Australian Road Barriers
RMB H535, Old Creswick Rd, Ballarat Victoria 3352
Ph: 1800 003 826 Fax: (03) 5339 9273
www.roadbarriers.com.au



Introduction:

J-J Hooks is a temporary concrete barrier system which has an 'F' type profile.

Useful Product Data

- 3.6 metre barrier unit, 2.5 tonnes
- 6.0 metre barrier unit, 4.3 tonnes

Test Level:

Partially tested (capacity test only) in accordance with AS/NZS 3845 to NCHRP 350 TL-3.

Note that Type 'F' profile concrete barriers are only accepted for use on state-controlled roads in Queensland where the speed limit is 80 km/h or lower.

Recommended End Treatments:

Absorb 350 (<=70km/hr); Quadguard CZ, SLED.

Design:

Minimum length:

- For freestanding configurations, a minimum of 30 metres of barrier should be placed on the approach to and departure from the point at which the test deflection is to be achieved, i.e., minimum length of barrier = 60 metres plus length of need.

Interaction with Kerbs

- Barriers should be placed at the same level as the travelling surface and should not be placed behind or on top of kerbing.
- If placed in front of kerbs, maximum expected deflection distance between face of kerb and back of barrier must be maintained.

End Treatments:

- A proprietary end treatment should be installed wherever any risk exists that the blunt end could be impacted.
- Any proprietary end treatment system must be specifically designed or adapted for use with "F" type barriers and must be installed and maintained strictly in accordance with the manufacturer's instructions.
- Supplier should be contacted for details of connection to an anchored crash cushion. If units are freestanding, then the system is not effective from the nose of the cushion and possibility of reverse direction impacts is not acceptable.
- Barrier flare rate should not exceed 1:10.

Maintenance:

- Units may need to be repaired or replaced after impact depending on the extent of damage. **Australian Road Barriers state that incidents resulting in damage to the barriers should be reported for investigation and/or replacement of the damaged barrier.**

Deflection:

Measured (Crash Test) Deflections:

Nominal Mass (kg)	Nominal Angle (deg)	Nominal Speed (km/h)	Dynamic Deflection (m)	Note
2000	25	100	1.30	1

Notes:

- Test ref. 400001-ESI1 dated 5-Feb-1999 conducted by TTI. Test was conducted on a 58m installation length of 3.66m units.

Actual clearance distance between the barrier and work area/hazard should be determined by risk assessment prior to installation.

Limitations:

- The crossfall between the edge of travelled way and the barrier, and the area immediately behind the barrier for the full width of the deflection shall not exceed 6%.
- Barriers can accommodate:
 - a horizontal curvature of approximately 30 metres radius,
 - a vertical curvature of 30 metres radius in sag, and
 - a 53 metres radius on a crest.

References:

- Australian Standard AS/NZS 3845
- NCHRP Report 350
- TMR Road Planning and Design Manual
- JJ Hooks Installation Manual Rev 7 A1 (Oct 2013)
- TTI Test report no. 400001-ES11 March 1999
- FHWA letter HSA-1/B52A dated 8-Dec-2000
- Proud & Ass. letter ref. 10-Dec-2013
- Austroads acceptance document (19-Aug-2014)