

SPECIFICATIONS

CEMSEAL VERSIJACK

BEARER AND PAVER SUPPORT

1 GENERAL

All work in this Section shall comply with the requirements of the Contract Documents. Supply and install bearer and paver supports as shown on the drawings or specified herein.

2 MATERIALS

The bearer and paver supports shall be CEMSEAL VERSIJACK high strength height-adjustable and slope-correctable pedestals supplied by Cemseal Industries Sdn Bhd (Tel: +607-558 3320, Fax: +607-556 9127, E-mail: info@cemseal.com.my) or approved equivalent.

GENERIC SPECIFICATION

The bearer and paver supports shall be high strength height-adjustable and slope-correctable pedestals.

a) For pedestal heights from 22 mm to 74 mm (stackable).

The minimum pedestal height of 22 mm may be increased where required by adding one or more 5 mm, 10 mm, 20 mm and 40 mm proprietary stackable extenders in any combination. For fine height adjustments, 1 mm and/or 2 mm thick rubber shims shall be used.

- b) For pedestal heights 75 mm and upwards (screw-adjustable).
 - (i) The 75 mm to 150 mm screw-adjustable pedestal height may be increased where required by adding one or more 75 mm to 112 mm proprietary screw-adjustable extenders.
 - (ii) Locking rings shall be used to secure all inter-connecting components against movement.
 - (iii) The screw-adjustable pedestal shall have an open internal core for additional ballast e.g. non-shrink grout infill.
- c) The pedestals shall include proprietary Bearer Holders or Spacer Tabs where applicable.
 - (i) The Bearer Holder shall be suitable for bearer widths of 50 mm to 75 mm.
 - (ii) The Spacer Tabs shall be 25 mm high with thickness (gap between pavers) of 4 mm, 6 mm or 10 mm.



SPECIFICATIONS

2 MATERIALS

- d) The pedestal base shall include drainage holes on the bottom flange to avoid water retention and prevent breeding of pests.
- e) The pedestals shall be Singapore Green Label certified.
- f) Typical properties of the pedestals are:

PROPERTY	VALUE
Material	Polypropylene
Stackable Pedestals	
(Height range 22 mm to 74 mm)	
Pedestal Height	22 mm
Extender Height	5 / 10 / 20 / 40 mm
Compressive strength (ASTM D695-96)	>30 kN
Screw-Adjustable Pedestals	
(Height range 75 mm to 900 mm)	
Pedestal Height	75 mm to 150 mm
Extender Height	75 mm to 112 mm
Compressive strength (ASTM D695-96)	>16 kN
Slope Corrector	0 to 5%
Spacer Tab thickness (gap between pavers)	4 / 6 / 10 mm
Bearer Holder size (bearer widths)	50 mm to 75 mm
Biological resistance	Unaffected by moulds and algae
Chemical properties	Resistant to rot, oils, acids, alkalis,
	bitumen and naturally occurring soil
	chemicals
Service temperature	-30°C to 80°C

3 EXECUTION

- 3.1 The proprietary materials specified herein shall be provided / installed in accordance to the project requirement as approved by the Superintending Officer.
- 3.2 Proprietary materials supplied shall be identified clearly with the product name and description. Packaged materials shall be stored in manufacturer's wrappings and containers with the manufacturer's labels and seals intact.
- 3.3 Prior to installation, the Contractor shall submit Method Statements and / or Shop Drawings for the installation of the pedestals. The latter shall be on at least A3 size paper or larger and in a CAD-recognisable format.



SPECIFICATIONS

3 EXECUTION

- 3.4 The pedestals and accessories shall be warranted by a locally domiciled company with a paid up capital of at least RM1,000,000 against defects in materials and workmanship that arise as a result of normal use for a period of ten (10) years from the completion of installation.
- 3.5 Prior to commencement of the installation of the pedestals, the approved Method Statements and Shop Drawings shall indicate the paver size, pattern and grid layout, starting point and finished elevation as endorsed by the manufacturer or its approved representative.
- Surfaces to receive the pedestals shall have at least a wood float finish and be clean and free of debris that will impair the performance of the pedestals. Concrete substrate must be cured for a minimum of 28 days and dried.
- 3.7 The finished elevation less the timber deck or paver thickness shall be established and marked around the perimeter with laser levelling devices and water levels.
- 3.8 For the installation of pavers on large areas, one paver shall be installed onto 4 pedestals at random positions for about every 200 m². The paver shall be installed at the correct elevation using a laser levelling device and serve as reference points to verify the exact elevation of the remaining pavers during the installation of the entire system.
- 3.9 Checks shall be made constantly for correct elevation of the installed bearers or pavers using a laser levelling device, automatic leveller and / or preinstalled reference pavers, markings and pedestals, individually or in combination.
- 3.10 Minor irregularities in bearer or paver thickness shall be compensated for by using one or more neoprene shims, available in 1 mm and 2 mm.
- 3.11 Complete raised finished level shall be sturdy, rigid and free of overall rocking, rattles, squeaks and noises. The finished floor shall be level within plus or minus 2.5 mm and shall be level within plus or minus 1.6 mm in any 3 m direction.
- 3.12 Installation of the pedestals shall be coordinated with other trades to maintain the integrity of the installed pedestals.



SPECIFICATIONS

3 EXECUTION

3.13 Pedestal locations shall be established from approved shop drawings so that other trades can be installed without interfering with pedestal installation.

Additionally, for screw-adjustable pedestals:

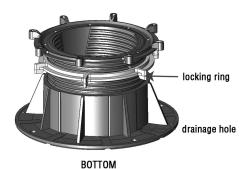
- **3.14** Locking rings shall be used wherever possible for maximum strength and stability except when height restrictions do not allow them to be inserted.
- **3.15** For loads exceeding 0.5 tonne per pedestal, the extenders shall be fully locked down.
- **3.16** For pedestal heights in excess of 600 mm, stainless steel bracing wires may be inserted through the integrated bracing tabs on the extenders for added stability.
- **3.17** All shipping tabs used to disable the safety catches to facilitate shipping and storage shall be removed prior to installation of the pedestals.



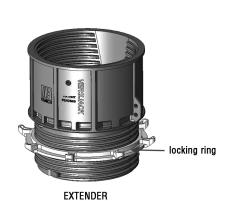
SPECIFICATIONS

CEMSEAL VERSIJACK VJ-SCP SERIES

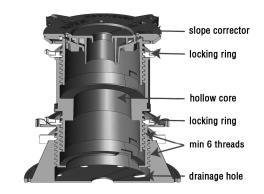




VJ - 75P



<u>VJ - 75E</u>





Pedestal Base

SCREW-ADJUSTABLE PEDESTAL



SPECIFICATIONS

CEMSEAL VERSIJACK STP SERIES



VJ - 22SCP

 22 mm high pedestal with 0 - 5% Slope Corrector and Spacer Tab



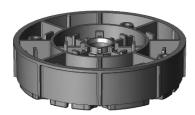
VJ - 17P/10E

- 17 mm high pedestal or
- 10 mm Extender



VJ - 27P/20E

- 27 mm high pedestal or
- 20 mm Extender



VJ - 47P/40E

- 47 mm high pedestal or
- 40 mm Extender



VJ - 5E

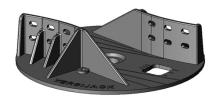
• 5 mm Extender

STACKABLE PEDESTAL



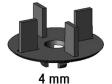
SPECIFICATIONS

CEMSEAL VERSIJACK ACCESSORIES

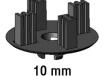


BEARER HOLDER

<u>VJ - BH</u>

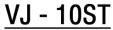


6 mm



SPACER TABS

<u>VJ - 4ST</u> <u>VJ - 6ST</u>





NEOPRENE SHIM

VJ - RSC

BEARER HOLDER, SPACER TABS & SHIM



PROJECT REFERENCES

CAIRNHILL CONDOMINIUM RSP

IMM EXTENSION DLQ Design

VIVOCITY DP Architects

NTU SCHOOL OF ARTS, DESIGN & MEDIA CPG Consultants

NTU SCHOOL OF BIOLOGICAL SCIENCE CPG Consultants

NTU NEW ADMINISTRATION BUILDING CPG Consultants

NTU SCHOOL OF PHYSICAL AND MATHEMATICAL SCIENCES CPG Consultants

WATERMARK CONDOMINIUM Archurban Architects

ALEXANDRA ARCH BRIDGE Look Architects

SWETTENHAM RISE RESIDENCE Eco-id

LAKESHORE VIEW (B2-6) K2LD

MERRILL LYNCH @ HARBOURFRONT DCA Architects

MARGOLIOUTH ROAD RESIDENCE Salad Dressing Landscape Architecture

15 TEO HONG ROAD Micro Design

303 ALEXANDER ROAD, BMW SHOWROOM RSP

103 CLOVER AVE RESIDENCE Owner

K.K. HOSPITAL STAFF LOUNGE Urban 3

SINGAPORE FLYERS ICN

THE SUITES @ CENTRAL MKPL Architect

43 SHELFORD ROAD Ng Kheng Lau Architects

RENCI HOSPITAL DP Architects

YEW TEE RESIDENCE P & T Consultant

ION ORCHARD RSP

ORCHARD CENTRAL DP Architects

SUNSET AVENUE RESIDENCE Design Shop

KEPPEL ROAD RESIDENCE Chan Sau Yan Associate