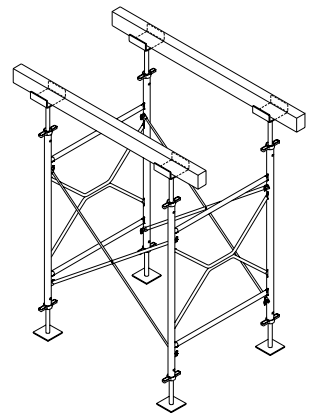


FORMWORK PRODUCT
TECHNICAL GUIDE

Acrow **V-Shore** Formwork System

General Technical and Application Manual



Genuine **Safety.**
Outstanding Service.



Acrow V-Shore Frame System simplifies your shoring needs.

SIMPLE 3 COMPONENT SYSTEM

The V-SHORE system uses only 3 basic components:

- Frames
- Braces
- Adjustable bases

This simplification of components delivers real benefits:

- Inventory cost savings
- Improved productivity
(handling, erection, stripping & storing)
- Design versatility

REDUCES YOUR INVENTORY COSTS

- Selection, assembly & erection are simplified
- Stripping is more orderly and easily managed
- Transport & storage are simplified
- Less storage space is required

V-SHORE IMPROVES YOUR PRODUCTIVITY

- The V-SHORE components are light weight & easy to handle

- Erection & stripping speeds are maximised

- The simplicity of the V-SHORE system minimises costly errors

- The V-SHORE components are compactly designed & easy to transport & store

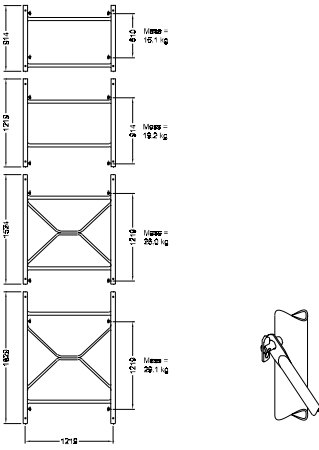
V-SHORE OFFERS DESIGN VERSATILITY

- V-SHORE design involves large grids & offers flexibility of support arrangements. These, in turn, make it easier for the engineer to increase or decrease frame grid positions relative to the concrete thickness to be supported.

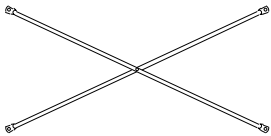

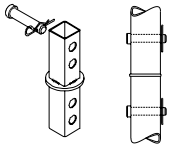
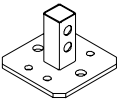
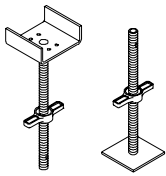
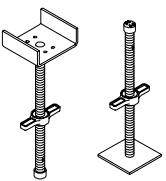
- V-SHORE also offers a shoring capability with an infinite height adjustment & a working load-carrying capacity of up to 35.1kN per leg, in accordance with AS3610. When working at above 2m above surrounding ground, suitable fall preventions must be implemented.

- V-SHORE is the ideal system for civil engineering projects such as the construction of highway bridges or the laying of heavy slabs or beams.

ACROW V-Shore System - Components

Product	Description	Code No.	Mass kg (nom.)
	V-Shore Frames V-shore Frames come in four basic sizes. They can be connected to each other using Cross Braces to form a tower and vertically using Vertical Frame Connector to form the required height.		
	V-Shore Frame 914 x 610	FVS43	16.1
	V-Shore Frame 1219 x 914	FVS44	19.2
	V-Shore Frame 1524 x 1219	FVS54	26.0
	V-Shore Frame 1829 x 1219	FVS64	29.1
	Drop Latch Pin Fast-action Drop Latch Pin accepts tubular cross brace & immediately locks in position. Also used to accept Link Spacer		

ACROW V-SHORE System - Components

Product	Description	Code No.	Mass kg (nom.)
	Tubular Cross Braces Braces allow frames to be used in towers. Large range available to suit varying latch pin spacing on frame legs. Made from Galtube Plus® for strength & durability.		
	FRAME X-BRACE 3048 X 914	XB103	7.9
	FRAME X-BRACE 3048 X 1220	XB104	8.1
	FRAME X-BRACE 3048 X 1524	XB105	8.4
	FRAME X-BRACE 2438 X 610	XB82	6.5
	FRAME X-BRACE 2438 X 914	XB83	6.5
	FRAME X-BRACE 2438 X 1220	XB84	6.9
	FRAME X-BRACE 2438 X 1524	XB85	7.2
	FRAME X-BRACE 2134 X 610	XB72	5.7
	FRAME X-BRACE 2134 X 914	XB73	5.8
	FRAME X-BRACE 2134 X 1220	XB74	6.2
	FRAME X-BRACE 2134 X 1524	XB75	6.6
	FRAME X-BRACE 1829 X 610	XB62	5.0
	FRAME X-BRACE 1829 X 914	XB63	5.1
	FRAME X-BRACE 1829 X 1220	XB64	5.6
	FRAME X-BRACE 1829 X 1524	XB65	6.0
	FRAME X-BRACE 1524 X 610	XB52	4.3
	FRAME X-BRACE 1524 X 914	XB53	4.5
	FRAME X-BRACE 1524 X 1220	XB54	4.9
	FRAME X-BRACE 1524 X 1524	XB55	5.5
	FRAME X-BRACE 1220 X 610	XB42	3.6
	FRAME X-BRACE 1220 X 914	XB43	3.8
	FRAME X-BRACE 1220 X 1220	XB44	4.4
	Link Spacers When excessive loads must be supported beyond the capacity of a normal 4-legged tower, the tower can be increased to an 8-legged tower by attaching additional frames each side with link spacers.	FLS	0.7
	Vertical Frame Connector & Connector Pin Connector is used to allow support frames to be connected vertically. Connector features 4 holes to allow V-SHORE to be connected to similar frame systems. When crane handling is required, a connector pin is inserted through the frame legs & frame connector & locked in position with a spring clip. Vertical Frame Connector Connector Pin	FC FLP	0.5 0.2
	Base Plate 150mmx150mm base plate used on flat surfaces, where jacks not required.	FBP88	1.6
	Tubular Adjustable Bases Tubular jacks allow up to 600mm extension. Both nut & jack threads are 'Sheradised' to reduce maintenance. U-Head measures 210mm clear between side plates. Tubular Adjustable Base Tubular Adjustable U-Head	ABTF AUHTF	6.3 10.3
	Solid Adjustable Bases Solid jacks allow up to 450mm extension & will also fit scaffold tube & system scaffold standards. Where solid jacks are used in V-SHORE frame legs, ensure they are fitted with plastic spacer nuts to control eccentricity. Adjustable Base Adjustable U-Head	ABSFS AUHSFS	7.1 11.1

ACROW V-SHORE System - Application

THE RECOMMENDED WORKING LOADS FOR V-SHORE FRAMES ARE BASED ON THE FOLLOWING REQUIREMENTS:

- Two cross braces must be used to connect two frames together at specified and specific locations at all times.
- Plastic spacer nuts must be used with all solid jacks.
- Frame connectors must be used when connecting frames vertically together. 16mm pins with clips or M16 bolts & nuts must be used if there are any uplift forces in the falsework system or if the assembly requires crane handling.
- For load charts 1 and 2 eccentricity of the load action on the U-Head must not exceed 25mm.
- Load chart 3 must be used if eccentricity of the load action is in excess of 25mm.
- Maximum out of plumb of any V-SHORE assembly shall not exceed height/200 or 40mm, whichever is less.
- Additional bracings must be provided to resist horizontal forces.
- Load charts are valid where V-SHORE frames are supported on suitable footing and foundation with adequate bearing capacity to resist imposed design leg loads. No allowance has been made for differential settlement.
- Limit state conversion factor = 1.4

CHART 1 - MAXIMUM WORKING LOAD PER LEG TO AS3610 BEAMS AT RIGHT ANGLES TO FRAMES

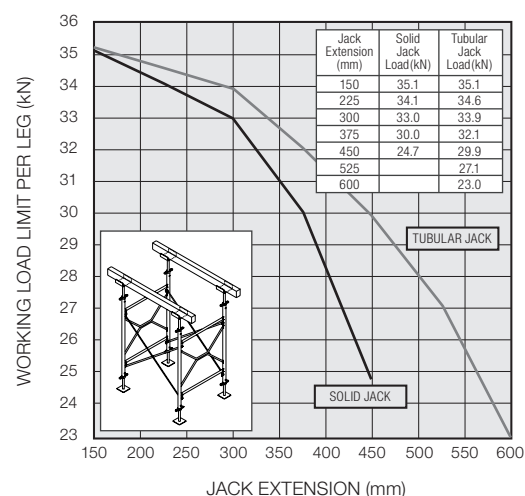


CHART 2 - MAXIMUM WORKING LOAD PER LEG TO AS3610, BEAMS IN LINE WITH FRAMES

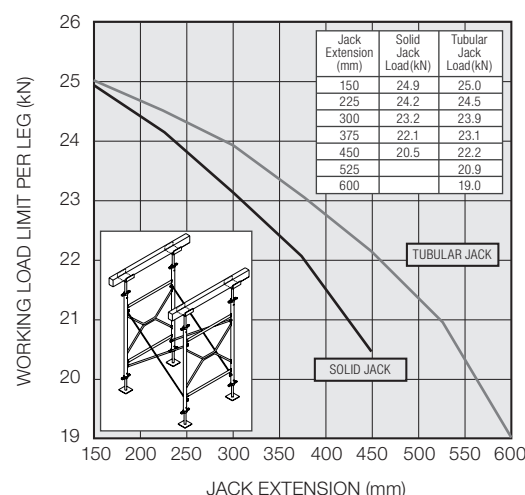


CHART 3: MAXIMUM WORKING LOAD PER LEG FOR ECCENTRICALLY LOADED JACKS

TUBULAR JACKS		
LOAD (kN)	Bottom Jack Extension	Top Jack Extension
18	600	300
15.5	600	450
10	600	600

SOLID JACKS		
LOAD (kN)	Bottom Jack Extension	Top Jack Extension
16	450	300
12	450	450

Disclaimer

1. The photos printed in this brochure show construction sites whose operation is not our responsibility. As a consequence, we cannot influence whether instructions for erection and/or use are properly observed or whether safety regulations are complied with, especially as these are momentary photos that do not represent the final and definitive state of product use.
2. Consistent with the continued development and improvement of Acrow Formwork & Scaffolding products, the details contained in this brochure may be changed without notice.
3. The safe use and application of the products must be in accordance with AS3610, Occupational Health & Safety Act, approved Industry Codes of Practice, and any other Regulatory Authority requirements.

Some practical hints for correctly using V-Shore Frames.

- Always use adjustable bases or base plates under V-SHORE frame legs.
- When solid adjustable bases are used in V-SHORE frames, ensure they are fitted with plastic spacer nuts.
- Soleplates with adequate rigidity must be used under solid adjustable bases or base plates when bearing on foundations other than concrete.
- Soleplates should span between at least two adjacent frame legs and must be positioned in the direction which limits the rotation of the solid adjustable bases or base plates.
- Soleplates must be sized to evenly transfer the applied loads to the foundation.
- Ensure that solid adjustable bases or base plates are in full contact with their supports.
- Falsework assembly must be supported on sound foundation material which provides adequate bearing capacity to support the applied leg loads.
- Stability of falsework and formwork assemblies must be maintained at all times and, if necessary, adequate bracing and anchoring must be provided.
- Do not use equipment which has a dynamic effect on falsework assembly unless permitted by design.
- Frames must be assembled the right way up, with latch pins vertical under gravity. See diagram.
- Braces must NOT be forced to fit on frames.
- Damaged components must not be used in falsework or formwork assemblies.
- Extension of solid and tubular adjustable bases must be limited to a maximum of 450mm and 600mm respectively, and as specified by formwork design.
- Check and monitor falsework and formwork assemblies and their components prior to and during concreting operations, to ensure they are in accordance with the specified requirements.
- The load charts and other information printed in this brochure apply to Acrow V-SHORE frames only.
- When working at heights 2m or more above surrounding ground, suitable working platforms or other fall prevention methods must be implemented. Refer to State's regulatory requirements for further information.
- This brochure and the information printed herein conform to the requirements of AS3610.



▲ Formwork

▲ Scaffolding

▲ Industrial & Mining Scaffolding



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