

Acrow Soldier Props



- ✓ High prop capacity
- ✓ Ideal for large panels
- ✓ Flexible lengths
- ✓ Fine adjustment

Usage Recommendations

- Minimum of two Acrow Soldier props per precast panel
- Where possible the Soldier props should be fixed to the precast panel before the panel is lifted.
- When it is necessary to attach the Soldier prop after the panel has been positioned, the panel must be held firmly and safely by the crane whilst the Soldier props are attached to the panel and fixed to the slab.
- When the use of cast-in anchors in the slab or panel is not possible, only mechanical fixings, load controlled expansion anchors or chemical anchors that have been proof tested should be used.
- The loads imposed by the wall and its relevant wind loads must be checked against the Working Load Limits of the Acrow Soldier Prop prior to using them. In some cases, to sustain the loads, additional bracing may be required.

WORKING LOAD LIMITS – ACROW SOLDIER PROPS

The precast panel will be subjected to wind forces which will induce either tension or compression in the Soldier prop

Table 1 shows the working loads for a range of effective strut lengths when the soldier prop is subject to axial Compression.

Table 2 shows the maximum working loads for Soldier props in Tension with pinned ends to support vertical precast or tilt slab panels.

The **lesser** of the values from **Table 1 & 2** shall be adopted as the maximum allowable capacity. Local regulations/conditions may affect the use of the Soldier props.

TABLE 1

Effective Length (mm)	Horizontal	Angle of Soldier Prop to the Horizontal (θ)							Vertical	
	Pinned	10°	20°	30°	40°	45°	50°	60°	Pinned	Tilt Head
	Working Load Limit (kN)									
Up to 4700	100	100	100	100	100	100	100	100	100	76
5240	96	96	97	98	99	99	100	100	100	76
5770	81	81	82	83	84	84	85	87	92	76
6290	68	68	69	70	71	72	72	74	79	68
6820	58	58	59	60	61	61	62	64	69	60
7340	50	50	51	52	53	53	54	56	61	54
7860	43	43	44	45	46	46	47	49	55	49
8390	37	37	38	39	40	40	41	43	49	44
	Note: Soldier props that have an effective length longer than 8390mm Can <u>only</u> be used to restrain forces due to wind <u>only</u> .									
8910	32	32	33	34	35	36	36	38	44	40
9440	28	28	28	29	30	31	32	33	40	36

Capacities shown are based on the Universal Tilt Base being anchored using two suitable anchors

Capacities for intermediate effective lengths and angles may be determined by interpolation

TABLE 2

Effective Length (mm)	Horizontal	Angle of Soldier Prop to the Horizontal (θ)								Vertical
	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
	Working Load Limit (kN)									
Up to 9440	66	67	70	76	86	86	76	70	67	66

Note: AS3850 requires a safety factor of 2.5 minimum on the Universal Tilt Bases.

Capacities shown are based on the Universal Tilt Base being anchored using two suitable anchors.

