

The original aluminum beam

ALUMA BEAM®



Time-tested quality and durability

Aluma Systems created the original aluminum beam more than 30 years ago. In fact, the company was built on this highly successful product. When it was introduced in the early 1970s, the Aluma Beam® set the standard for the industry. And it still does.

Much copied, the Aluma Beam® has never really been replicated. Our exacting quality assurance procedures and continual design enhancements ensure that the Aluma Beam® continues to lead the industry.

The cornerstone

As a main component of all Aluma Systems concrete forming systems, the Aluma Beam® is an essential and versatile piece of equipment. It is also compatible with most other concrete construction systems available in North America.

While the Aluma Beam® has many applications, its four main uses are:

- > *As a stringer or joist in Stationary Systems***
- > *As a joist in Flying Systems***
- > *As a stud in Ganged and Climbing Wall Systems***
- > *For Access Applications, such as work platforms and decks.***

*Strong, long-lasting and lightweight
aluminum construction*



*Versatile component for all
your concrete forming needs*

*Recycled, heavy-duty plastic nailer strip
lasts four times longer than wood*



Built to last

Exceptional Strength

One of the advantages of the Aluma Beam[®] is its exceptional strength. Aluma Systems has developed stringent and unique specifications for the aluminum alloy used in manufacturing our beam. Instead of just meeting the prescribed industry standard for aluminum alloys, every Aluma Beam[®] is built to exceed it. This delivers a safer, more durable beam. And this is why your investment in Aluma Beams[®] pays dividends for decades. Aluma Beams[®] are built to last. In fact, there are Aluma Beams[®] 25 to 30 years old that are still in use.

Along with exceeding industry standards for strength and having a higher residual value than steel or wood, the beam's aluminum construction means that it is lightweight and will not rust.



New plastic strip out performs wood

Another feature that enhances the durability of the Aluma Beam[®] is the heavy-duty plastic nail strip. On average, the plastic strip, which is made from recycled materials, lasts four times longer than traditional wood nail strips.

A full range of lengths

All these features result in a superior aluminum beam that is available to you at a competitive price. The Aluma Beam[®] is available in seven different lengths, ranging from 9 to 21 ft. (2.75 to 6.41 m). Non-standard lengths and other types of beams, such as guardrails and stringers, are also available on special order.

If you need to build an inventory of aluminum beams for your business, the Aluma Beam[®] is a safe, smart and enduring investment.



The ultimate in flexibility

The original aluminum beam

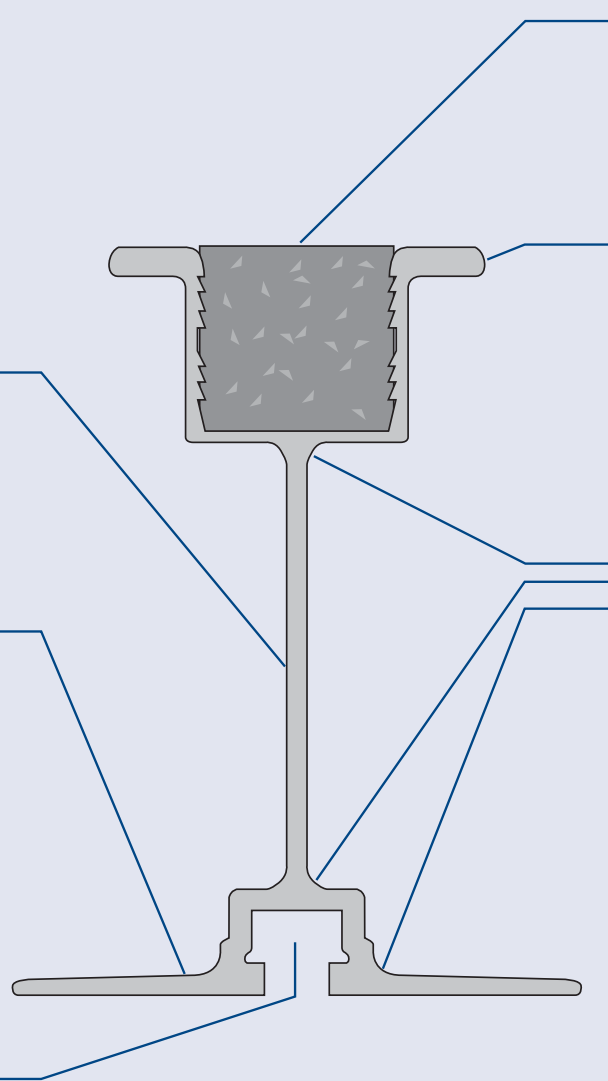
The Aluma Beam[®] is a main component of all Aluma Systems' concrete forming systems. Its major features are outlined below.

Optimally designed to be "in balance" with other components, i.e., plywood, trusses, scaffolding, etc. for all common loads.

Short web provides higher resistance to buckling and reduces need for blocking.

Concave base resists upward bending of flange which would result in "tipping". Also provides a visual check that beam is securely clamped.

Accepts standard 1/2 in. diameter bolt with square, hex or special Aluma head.



Uses ideal plastic 2 x 2 in. nailing strip (secured with screws for easy removal and replacement).

Heavy top flange for increased strength and reduced damage.

Generous radii of metal lets stresses "flow", reducing stress concentrations at corners.

Primary dimensions result in maximum strength-to-weight ratio.

Technical specifications

Load charts

Maximum allowable uniformly distributed load based on equal spans

Metric

Span (m)	Allowable Deflection (mm)	1 Span (kN/m)	2 Span (kN/m)	3 Span (kN/M)
1.20	3.33	47.47 M	36.64 R	41.63R
1.35	3.75	37.51 M	32.57 R	37.01 R
1.50	4.17	30.38 M	29.31 R	33.31 R
1.65	4.58	23.52 D	26.64 R	30.28 R
1.80	5.00	18.12 D	24.42 M	27.75 R
1.95	5.42	14.25 D	22.55 M	25.62 M
2.10	5.83	11.41 D	20.94 M	21.53 M
2.25	6.25	9.28 D *8.90	18.42 M	17.50 D *16.80
2.40	6.67	7.64 D *6.88	16.19 M	14.42 D *12.98
2.55	7.08	6.37 D *5.40	14.34 M *13.00	12.02 D *10.19
2.70	7.50	5.37 D *4.29	12.79 M *10.34	10.13 D *8.10
2.85	7.92	4.56 D *3.46	10.99 M *8.33	8.61 D *6.53
3.00	8.33	3.91 D *2.82	9.43 M *6.79	7.38 D *5.32
3.15	8.75	3.38 D *2.32	8.14 M *5.58	6.38 D *4.37
3.30	9.17	2.94 D *1.92	7.08 M *4.64	5.55 D *3.63
3.45	9.58	2.57 D *1.61	6.20 D *3.88	4.86 D *3.04
3.60	10.00	2.26 D *1.36	5.45 D *3.27	4.27 D *2.56

Imperial

Span (ft.)	Allowable Deflection (in.)	1 Span (lbs./ft.)	2 Span (lbs./ft.)	3 Span (lbs./ft.)
4.00	0.13	3151 M	2471 R	2808 R
4.50	0.15	2490 M	2196 R	2496 R
5.00	0.17	2017 M	1977 R	2246 R
5.50	0.18	1537 D	1797 R	2042 R
6.00	0.20	1184 D	1647 M	1872 R
6.50	0.22	931 D	1521 M	1728 R
7.00	0.23	745 D	1404 M	1406 D
7.50	0.25	606 D *606	1223 M	1144 D *1144
8.00	0.27	499 D *468	1075 M	942 D *883
8.50	0.28	416 D *367	952 M *855	786 D *693
9.00	0.30	351 D *292	845 D *704	662 D *551
9.50	0.32	298 D *235	718 D *567	563 D *444
10.00	0.33	256 D *192	616 D *462	482 D *362
10.50	0.35	221 D *158	532 D *380	417 D *298
11.00	0.37	192 D *131	463 D *315	362 D *247
11.50	0.38	168 D *110	405 D *264	317 D *207
12.00	0.40	148 D *92	356 D *223	279 D *174

Notes: 1. R denotes reaction governs. With beam fully supported on 8 in. (200 mm) Aluma J-Head.

For different support conditions consult Aluma Systems Engineering for capacity.

2. M denotes moment governs.

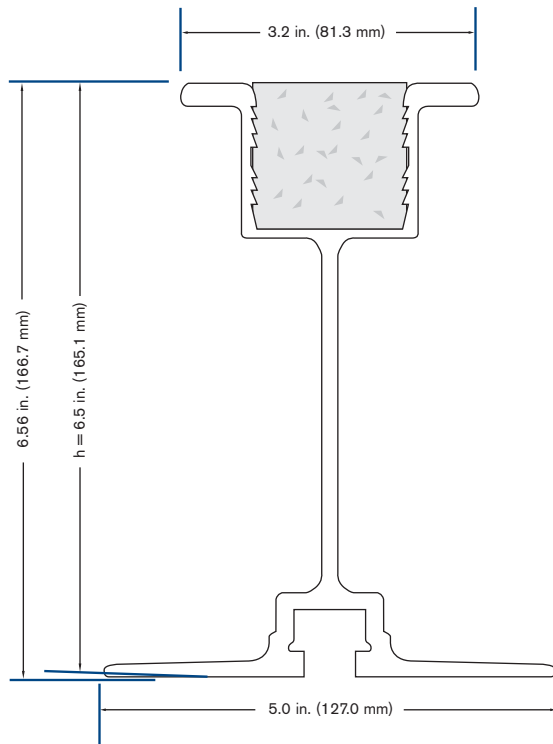
3. D denotes deflection governs (deflection < L360).

4. Value with * denotes deflection governs with deflection limited to 6 mm (or 1/4 in.).

5. Factor of Safety – 2.2:1.

Measurements

Standard lengths and weights



Item No.	Metric	Imperial
85	2.75 m/16.5 kg	9 ft./36 lb.
15	3.20 m/19.2 kg	10.5 ft./42 lb.
16	3.66 m/21.9 kg	12 ft./48 lb.
14	4.27 m/25.6 kg	14 ft./56 lb.
12	4.88 m/29.3 kg	16 ft./64 lb.
11	5.49 m/32.9 kg	18 ft./72 lb.
3739	6.41 m/38.5 kg	21 ft./84 lb.

Guidelines for the use of this product

This brochure provides general information on the Aluma Beam®. The specifications, layouts and other technical information should not be used without obtaining the express written approval of Aluma Systems' engineers.

The Aluma Beam® should only be used for the purposes for which it is intended and only per the load capacity set out herein. This product must not be used if damaged and must be in fully functional condition.

Aluma Systems' products must be inspected before use and properly stored, maintained and repaired. They must not be misused, modified or overloaded. The Aluma Beam® conforms to all applicable regulations, including CSA, CAL-OSHA, ANSI and ACI.

Specifications of products and equipment shown are subject to change without notice.

Quality products, excellent service

A construction technology pioneer, Aluma Systems has been delivering safe, smart and efficient solutions to the construction industry for more than 30 years.

In addition to its trademark Aluma Beam[®], Aluma Systems provides a comprehensive array of products and services for your forming, shoring and scaffolding needs.



If you would like further information about our concrete construction or industrial services, please contact the office nearest you and speak with one of our sales people.

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