Experimental investigation on the dynamic behaviour of metal foam: from yield to densification

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Highlights

- Dynamic densification on large size metal foam is achieved by direct impact Hopkinson bar test.
- Stress is measured by two points strain gages measurements with explicit formulae and strain by high-speed photography with digital edge detection separately.
- The principle to achieve quasi-constant impact speed is proposed.
- Dynamic full curves of different densities aluminum foams are given.