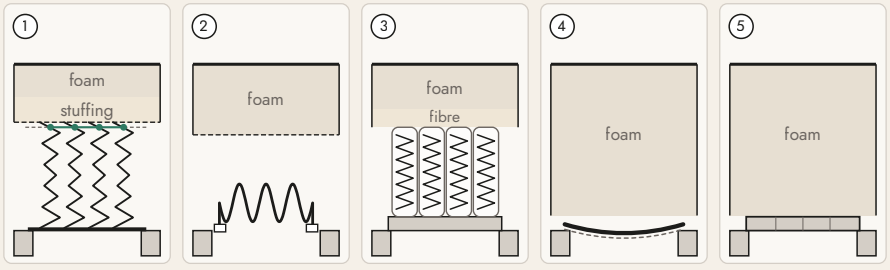
Seat *suspension* systems compared

Five systems carry almost every upholstered seat: eight-way hand-tied springs, sinuous springs, pocket springs, webbing and a foam deck. The suspension is hidden once the cover is on, so name it in the specification and ask for build photographs. Builds are typical practice for the partner upholsterer to confirm.

AT A GLANCE

System	How it carries the sitter	Feel	Typical use	Relative cost class
Eight-way hand-tied	Tapered coils on webbing, tied to each other and the frame in eight directions.	Deep, slow, progressive	Deep traditional and lounge seats	Highest (hand labour)
Sinuous springs	S-shaped wire clipped across the rails and cross-tied.	Firmer, more immediate; slimmer	Contemporary and contract seats	Mid
Pocket springs	Coils sewn into fabric pockets, in strips on a board or in the cushion.	Even and buoyant	Seat units, spring-interior cushions	Mid to high
Webbing	Straps woven across the rails under the foam.	Light, springy, shallow	Slim tailored seats; the base under springs	Low to mid
Foam deck	A rigid board with foam on top. The foam is the only spring.	Flat and firm	Banquettes, dining and bar seating	Low (cost moves to the foam)

Cost class is a relative order for a like-for-like seat (labour and materials, not prices); the partner workshop confirms the order for the actual build. Feel and use are typical practice, not figures from a standard.



Five seat suspension systems in section, front to back, from the cover down to the frame rails. Schematic and not to scale: the foam is drawn thickest where the foam does most of the work. Original drawing by Make Bespoke Studio.

INSPECT BEFORE YOU SIGN

- Ask for the build in writing: system, spring or wire type and count, fixing and tying, base, foam.
- Ask for build photographs or a cut-away sample for each seat type; only these show the tied springs.
- Name the suspension on the build-up section. Change it only by written variation.

SPECIFICATION WORDING

SUSPENSION NAMED IN THE BUILD-UP

Seat suspension: [eight-way hand-tied / sinuous springs / pocket springs / webbing / foam deck on board] as shown on the build-up section [drawing ref, revision]. Not to be changed or substituted except by written variation approved by the designer.

EIGHT-WAY HAND-TIED

Eight-way hand-tied: [tapered coil springs, [ ] per seat, shown on the shop drawing] fixed to [jute] webbing across [ ] mm seat rails, each spring tied to its neighbours and to the frame with [laid twine] in eight directions, to a [flat / slightly crowned] height of [ ] mm above the rails, covered with [hessian] before stuffing and wrap. Photographs of the tied springs to be provided before covering.

SINUOUS SPRINGS

Sinuous springs: [ ] mm wire [size stated by the workshop], [ ] wires per seat at [ ] mm centres running [front to back], fixed to the rails with [steel clips] at both ends and cross-tied with [ ] ties per wire. [Hessian or insulator pad] over the springs before the foam.

WEBBING OR FOAM DECK

Seat base: [jute / elastic / synthetic] webbing [ ] mm wide at [ ] mm centres, woven in both directions and fixed to the rails with [ ]. OR: seat base: [ ] mm [plywood] deck fixed to the frame with [ ], with foam to the foam specification [ref].

INSPECTION RECORD

For each seat type, before production: a cut-away sample or build photographs showing suspension, fixing, foam and cover with a scale in shot, and inspection of the first production item before it is covered. Photographs filed with the shop drawing.

TERMS USED

Eight-way hand-tied springs

A seat suspension where coil springs are tied to each other and the frame by hand in eight directions, giving support that is firm but gives slightly. It is the most labour-intensive and costly system.

Sinuous spring

S-shaped steel wire running front to back across the seat frame, clipped at intervals. It is cheaper than hand-tied and tends to give a firmer, more even seat.

Pocket spring

A coil sewn into its own fabric pocket so each spring moves independently. Used in seat cushions, mattresses and some sofa decks.

Webbing

Straps (jute, elastic or synthetic) woven across the seat rails to carry the seat. Under traditional springs it is the base the springs sit on; on its own it is the lightest of the suspension systems.

Foam deck

A rigid base, usually plywood, fixed to the frame with foam on top. It has no springs, so the foam is the only cushioning.

STANDARDS AND SOURCES

- No standard defines these five systems: trade descriptions; no figure for springs, wire or webbing is given.
- BS EN 16139:2025: Non-domestic seating, safety, strength and durability. BSI listing: current. Tests the seating item; scope excludes upholstery durability, ageing and flammability.
- BS EN 1728:2012: Seating, test methods for strength and durability. BSI listing: test methods only.

Full guide: https://makebespoke.com/trade/technical/seat-suspension-systems-compared. Make Bespoke Studio coordinates manufacture through its partner workshops. Figures are guidance only and your specification governs; some may be superseded, so contact the studio to verify.