

Spring Systems 101: Eight-Way Hand-Tied vs. Sinuous/Zigzag Springs

Why the spring system under the fabric matters more to how a piece feels and lasts than the fabric itself.



1. Why the spring system matters more than the fabric

Customers judge a piece by its fabric, but what they'll actually feel every time they sit down — and what determines whether the piece holds up over years of use — is the spring system underneath. Knowing the real tradeoffs between the two dominant systems lets a shop recommend (and price) honestly instead of defaulting to whatever a frame already has.

2. Eight-way hand-tied coil springs

CHARACTERISTIC	WHAT IT MEANS FOR THE CUSTOMER
Individual coil springs, hand-tied to each other in eight directions with twine	The traditional, highest-durability suspension system; widely regarded as the mark of higher-end upholstered furniture

CHARACTERISTIC	WHAT IT MEANS FOR THE CUSTOMER
Deeper, more resilient seating feel	A plusher, more contoured sit that holds its shape under weight
Labor-intensive to build and repair	Costs more in labor than sinuous springs — this is a real cost driver worth explaining to a customer comparing quotes
Long service life when properly maintained	Can outlast multiple fabric re-covers if the tying twine and frame stay sound

3. Sinuous (zigzag) springs

CHARACTERISTIC	WHAT IT MEANS FOR THE CUSTOMER
Continuous S-shaped wire springs running front-to-back, clipped to the frame	Faster and less expensive to install; standard in a large share of contemporary and mid-market furniture
Firmer, more uniform seating feel	A flatter, more consistent sit rather than hand-tied's contoured give
Individual springs can be replaced without rebuilding the whole system	Generally cheaper and faster to repair than hand-tied
Shorter typical service life than hand-tied under heavy use	Still a sound, legitimate system for the right application and price point — not an inferior shortcut, just a different tradeoff

Shop practice

Inspect the suspension system before quoting a re-cover sight-unseen. A customer asking for "just a new cover" may actually need (or want to be offered) a suspension rebuild, and that's a very different job and price than fabric alone. Flagging it up front — rather than discovering it mid-teardown — is what keeps a quote from turning into a dispute.

Sources

General trade reference reflecting standard upholstery industry terminology and practice. Specific repair and rebuild techniques vary by frame construction and manufacturer.

A note on this content: This article is general trade guidance written for Upholsterers United's member network — it isn't legal, safety, or compliance advice, and it isn't a substitute for the current text of any standard, code, or manufacturer specification it references. Standards get revised and local requirements vary; before relying on anything here for an actual compliance or liability decision, verify current requirements with the applicable standards body, code official, or material manufacturer.