

TOOL TEST

Spray for Less

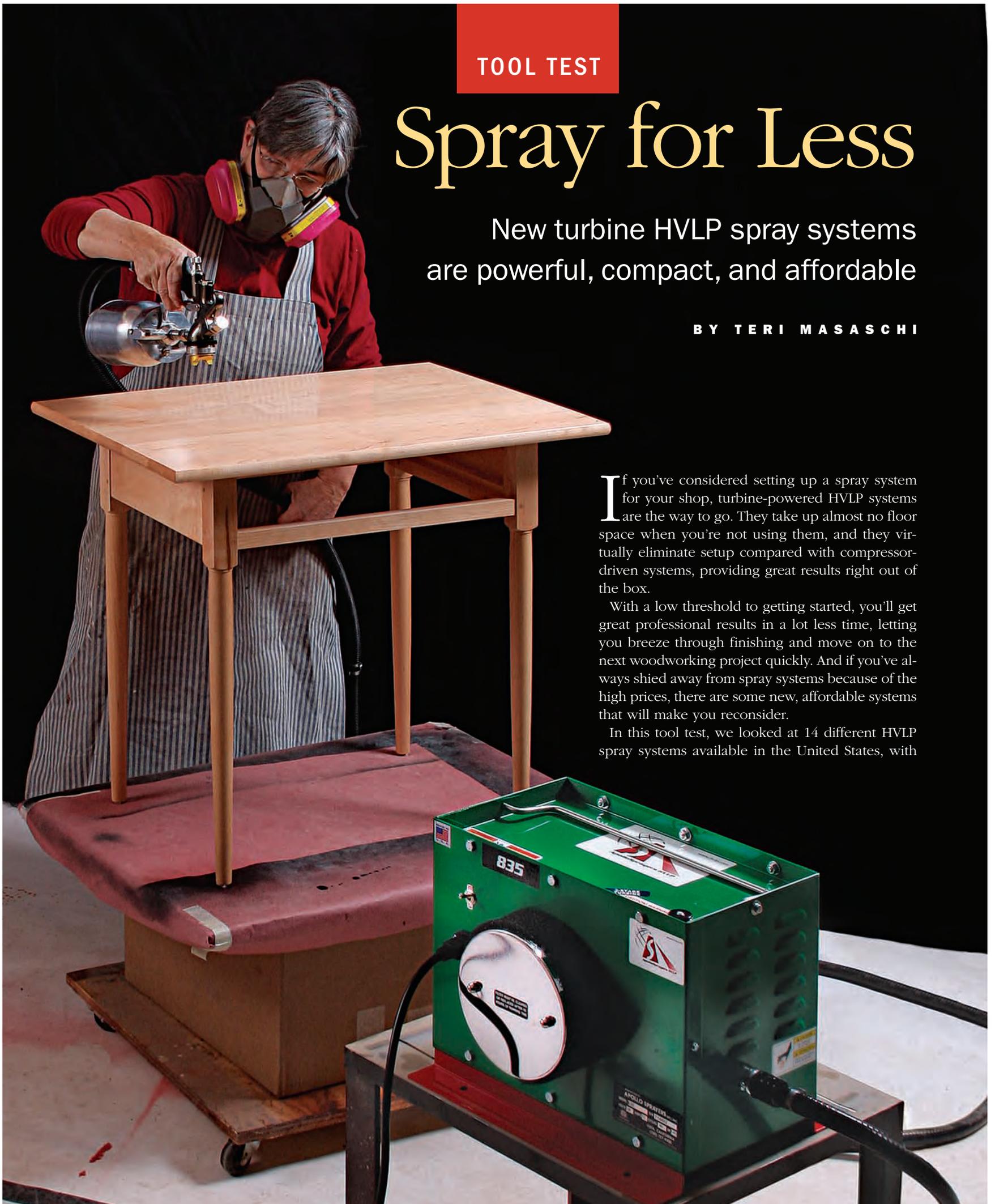
New turbine HVLP spray systems are powerful, compact, and affordable

BY TERI MASASCHI

If you've considered setting up a spray system for your shop, turbine-powered HVLP systems are the way to go. They take up almost no floor space when you're not using them, and they virtually eliminate setup compared with compressor-driven systems, providing great results right out of the box.

With a low threshold to getting started, you'll get great professional results in a lot less time, letting you breeze through finishing and move on to the next woodworking project quickly. And if you've always shied away from spray systems because of the high prices, there are some new, affordable systems that will make you reconsider.

In this tool test, we looked at 14 different HVLP spray systems available in the United States, with



The top performers

If you're looking to create professional-quality finishes quickly, these four sprayers won't let you down. They all excelled in finish quality and comfort, and were the most intuitive to adjust.

FUJI SPRAY MINI-MITE 3

\$590

The Fuji had a wider spray pattern than the others, and the pattern maintained a consistent shape, which was impressive. The non-bleeder-style gun has a very comfortable grip and features an easy-to-reach fan-width adjustment knob on the side. As the lowest-priced option of the three Best Overall winners, this system also gets a Best Value award.



AUTHOR'S
BEST OVERALL
CHOICE

AUTHOR'S
BEST VALUE
CHOICE



AUTHOR'S
BEST OVERALL
CHOICE

APOLLO 835 TURBOSPRAY

\$900

This system boasts plenty of power with high-quality components that did not disappoint. The grip on the non-bleeder-style gun is very comfortable, producing a soft, fine spray with an even pattern that was easy to adjust using a dedicated ring near the air cap on the front. The cup has a protective coating inside to prevent corrosion, a nice feature.



AUTHOR'S
BEST OVERALL
CHOICE

APOLLO ECO-3/E7000 GUN

\$700

This system is a great performer, producing a fine mist with a nicely shaped spray pattern that's convenient to adjust using a knob on the back of the non-bleeder-style gun. The cone-shaped interior design of the cup is a unique feature that keeps the gun from spitting air when it gets low on material, a plus.



AUTHOR'S
BEST VALUE
CHOICE

EARLEX SPRAYSTATION HV 5500

\$300

Despite its low price, this gun does not compromise on comfort or spray quality. The cup has a protective coating inside to prevent corrosion, and the air cap adjusts with nice action. The air hose connects to the top of the bleeder-style gun, which cramps finger space for the fluid knob below, but the solid performance makes the gun an amazing value.

stationary turbines that connect to the spray gun with a hose. We required that the sprayers be compatible with both water- and solvent-based lacquer, and we tested them using both. Most important, we wanted to see if these spray systems deliver a professional-quality finish.

The guns divide into two different styles. Those that continue to spray air when the trigger is released are called "bleeders," while guns that stop spraying air when you release the trigger are called "non-bleeders." Non-bleeders are nicer to use, because you don't have to worry about where the gun is pointed when you're not spraying, and you avoid the risk of blowing dust into

a freshly sprayed finish. As I used the sprayers, I also evaluated them on the adjustability of the gun controls, ease of loading and cleaning, and how comfortable each gun handle was to hold while spraying.

The proof is in the pattern

The first thing that really separated the guns from one another was the spray test. To achieve a smooth, even finish, a spray gun must produce a fine mist with a symmetrical or slightly tapered fan-shaped pattern in a nice straight line. To test each sprayer's ability to break finish into a really fine mist, I sprayed black-tinted water-based

Features that really matter

SPRAY ADJUSTERS



Conventional controls. Many guns have separate knobs that adjust the fluid volume and the air volume, which in turn control the width of the spray pattern. This traditional system, as seen on the Earlex SprayPort, is straightforward.



Innovative and easy. The gun from the Apollo 835 Turbospray has a dedicated ring near the front that makes it easy to adjust the width of the spray pattern.



Difficult. The spray pattern on the Campbell Hausfeld guns is adjusted by changing the fluid and airflow knobs in tandem with the air cap. The system made it tough to get a nice pattern.

lacquer and black solvent-based lacquer onto white cardboard. The dark finish allowed me to clearly see the shape of each gun's spray pattern, as well as how fine a mist each gun was able to create. Water-based lacquer is much safer and more widely used these days, but it's more difficult to split up into a very fine mist, so it was a challenging test for the sprayers.

The Fuji Spray Mini-Mite 3, Apollo ECO-3, 3M, Lex-Aire, Earlex SprayStation HV 5500, Earlex SprayPort HV 6003, and Apollo 835 systems all did well in this round of tests.

Comfort is critical

When you're holding onto something for an hour or more at a time, comfort can

be a very big deal. There are many good designs among the sprayers tested, so you won't have to compromise on this feature. We tested the gun handles for both small and large hands, and then averaged the scores, but the scores were pretty consistent between the two. The top scorers on comfort were the two Apollo guns, the Fuji Spray Mini-Mite 3, and the 3M.

Spray adjustments should be simple

To test the adjustability of each sprayer, I focused on ease of adjustment, intuitive design that doesn't leave you guessing at which knob to turn, smooth action, and convenient placement of the knobs that doesn't interfere with other gun features.



CAMPBELL HAUSFELD HV2002



CAMPBELL HAUSFELD HV2500



CAMPBELL HAUSFELD HV3000

CUP DESIGN



Coating protects. The Earlex SprayStation and the Apollo 835 Turbospray both have cups with a protective coating inside that guards against corrosion.



Spit proof. The cup from the Apollo ECO-3/E7000 system has a cone-shaped bottom, which helps keep the gun from picking up air when the fluid gets low—a helpful feature.



Watch out for threaded cups. The threads, shown here on the Wagner Flexio 890, are difficult to clean, and once they form a buildup of old finish, they become hard to use.

HOSE LOCATION

The SprayPort, the ECO-3 with the E7000 gun, the Fuji, and the Apollo 835 all were simple to adjust, fast and intuitive to figure out, and had overall nice fit and finish, allowing you to turn the knobs with a light twist of the fingers. The controls on these systems also adjusted the spray width from an even, wide pattern down to a small circular one almost effortlessly.

Four sprayers rise to the top

In the end, three systems emerged as Best Overall: the Apollo 835, the Apollo ECO-3 with the E7000 non-bleeder-style gun, and the Fuji Spray Mini-Mite 3. All three had superior quality spray, very comfortable handles, and easy-to-use, ergonomic



In the way. The hose on the Earlex SprayStation is close to the fluid-adjustment knob underneath, making it harder to turn the knob, and also to spray in tight spaces.



Out of the way. The hose on the Fuji Spray Mini-Mite 3 attaches out of the way at the end of the handle, and has an easy-to-grip coupling that makes it a snap to attach.



EARLEX SPRAYPORT HV 6003



GRACO FINISHPRO 7.0



LEX-AIRE LX-60C

The bottom line: How well do they spray?



Best test. Masaschi tested each system by spraying dark-colored solvent-based and water-based lacquer onto white cardboard, making it easy to see the size of the spray droplets and the shape of the spray pattern.

adjustment knobs that adjust the spray very nicely.

For the Best Value award, the Fuji Spray Mini Mite 3 and the Earlex SprayStation HV 5500 both win. At \$590, Fuji rings in

at about half the price of the Apollo 835 without compromising on features. If you want to start spraying but the Fuji is still a little out of reach, the Earlex SprayStation is even more affordable at \$300, and has a great spray quality, if you don't mind compromising on a few adjustability features. □

Teri Masaschi has been a finishing pro for 45 years and teaches regularly across the country.



ROCKLER HVLP SPRAY SYSTEM



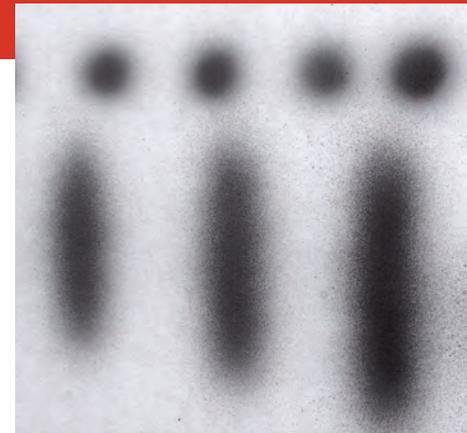
3M 23K-PRO1



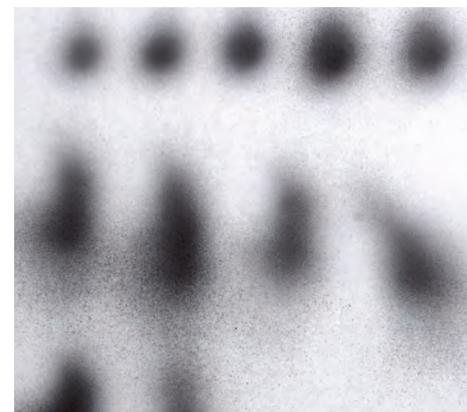
TITAN CAPSPRAY 75



WAGNER FLEXIO 890



Good pattern. You want a tapered, symmetrical spray pattern that makes it easy to lay down an even coat of finish and overlap strokes without leaving lines behind.



Poor pattern. A sloppy or pear-shaped spray pattern makes it almost impossible to blend overlapping strokes together.

MODEL	STREET PRICE	EASE OF ADJUSTMENT	SPRAY QUALITY	COMMENTS
 Apollo 835 Turbospray	\$900	Excellent	Excellent	Tested with the A7500 QT non-bleeder-style gun that's comfortable to hold, and easy to use and adjust.
 Apollo ECO-3/E7000 gun	\$700	Excellent	Excellent	Non-bleeder-style gun is comfortable to use and simple to adjust. System produces a nice spray pattern.
Campbell Hausfeld HV2002	\$250	Poor	Poor	Gun has an uncomfortable handle, and the top-mount hose interfered with spray adjustments. This bleeder-style gun requires the user to adjust three controls to change the spray pattern.
Campbell Hausfeld HV2500	\$400	Poor	Fair	Gun has the same setup as the HV2002. Produced an asymmetrical spray pattern, and could not produce a fine spray.
Campbell Hausfeld HV3000	\$460	Poor	Poor	Same gun setup as other Campbell Hausfeld systems. Did not produce a symmetrical spray pattern.
Earlex SprayPort HV 6003	\$550	Excellent	Excellent	Air and fluid knobs located on the back of a non-bleeder-style gun, making it easy to dial in a nice spray pattern. The system had plenty of power, but the gun was not as comfortable as several others.
 Earlex SprayStation HV 5500	\$300	Good	Very good	Great performance with a comfortable bleeder-style gun and simple controls.
 Fuji Spray Mini-Mite 3 T-Series	\$590	Excellent	Excellent	Gun has a comfortable handle and a dedicated spray-width adjustment knob. The spray pattern was consistent and impressive.
 Graco FinishPro 7.0	\$900	Good	Good	This gun worked well, but sprays fast and heavy, making it better suited to professionals covering large areas. The non-bleeder-style gun has a comfortable handle and the system packs nicely into the carrying-case-style turbine.
Lex-Aire LX-60C	\$995	Fair	Very good	Air volume and spray pattern on this bleeder-style gun are both controlled by adjusting the air cap, which was stiff and difficult to turn.
Rockler HVLP Spray System	\$147	Poor	Poor	Cup mounts to gun with threads, making it difficult to clean. The gun handle is uncomfortable, and the bleeder-style gun could not be adjusted to spray a fine mist. Hose attaches to top of the gun, and often got in the way.
3M 23K-Pro 1	\$850	Very good	Very good	This non-bleeder-style gun worked well and was comfortable to hold. But it uses a cup system with disposable liners that added inconvenient steps to the process.
Titan Capspray 75	\$900	Poor	Good	This non-bleeder-style gun produced a nice spray pattern but sprays fast and heavy, making it better suited to professionals covering large areas. Gun was not very comfortable, with overly complicated adjustments.
Wagner Flexio 890	\$190	Poor	Poor	Convenient on/off switch on the body. Produced a nice spray pattern, but not a very fine spray. There is no hook to hang the spray gun from, and the hose is permanently connected to the gun, so it tips over easily.