

# Framing Nailers

**G**ather together a room full of carpenters and eventually the conversation will turn to tools. This is only

by Eric Borden

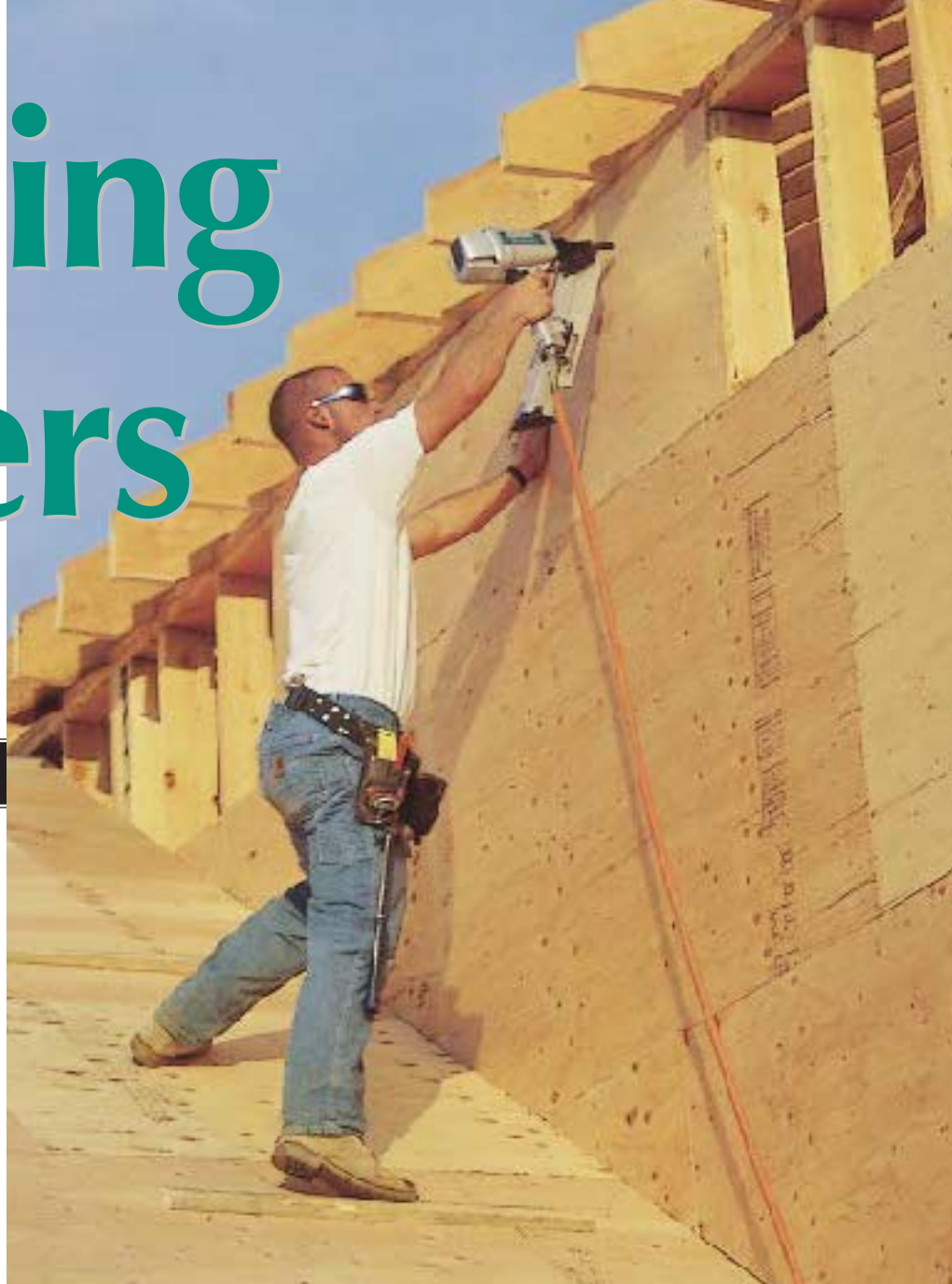
natural, since most contractors are always looking for anything that will make their work faster, easier, and, hopefully, safer.

My own rule has always been to get the latest technology and learn how to use it. I bought my first nail gun back in 1988. I learned quickly that nail guns aren't necessarily any safer than hand-nailing but that used properly, they're the only way to compete in today's business climate.

Recently, I was looking to replace my 12-year-old framing gun and was wondering which tool to buy. Researching this article gave me a perfect opportunity to find out. I've geared the review toward the tradesmen who are what I call single-truck companies. They work with one or two employees at the most and do a variety of work, from renovation to new homes. Builders like this will spend as much of their year trimming and siding as they will framing. Many companies start with a single gun and may add a dedicated sheathing gun in the future, but will probably add a trim gun before a second framing nailer.

## What to Look For in a Stick Nailer

Since that first nail gun purchase, I've had plenty of time to reflect on what makes a good framing nailer, and have also learned that everybody's opinion of the perfect tool is different. For this article, we limited our testing to stick nailers, and judged them by the following criteria.



Look for a stick nailer with plenty of power, good balance, and an effective nosepiece for toe-nailing

**Weight.** The nailer should be as light as possible so that it can be used comfortably for long periods.

**Balance.** This is probably the most subjective of the criteria. Each user will have his or her own idea of the right balance.

**Size.** Ideally, the gun should fit in between two joists spaced 16 inches on-center. In my wistful moments, I'd like one to fit into the space between doubled joists.

**Nail capacity.** Both magazine capacity and the range in nail length are important.

**Nosepiece.** One thing that really slows down a framing gun is a poorly designed nosepiece. If the teeth don't bite into the wood easily, toe-nailing is frustrating at best and dangerous at worst.

**Durability.** Any tool manufacturer who thinks we're not going to occasionally smack lumber into place with these tools or accidentally drop them out of the rafters is dreaming.

**Controls.** Given the number of times a day you'll have to squeeze the trigger, adjust the depth-of-drive, reload nails, or stop the exhaust from hitting you in the face, these things count for a lot.

**Reliability.** The gun should require little maintenance and be able to handle the rigors of the job on a daily basis. It should also be able to work with several different manufacturer's nails. Jams should clear easily and safely. If you do need to replace parts, they should be reasonably priced and readily available.

**Power.** The ideal gun should have plenty of power to drive a nail into engineered lumber, but it should also have a depth adjustment so that you can nail sheathing without driving through the top lamination. Ideally, depth adjustment should not require tools. If you need a tool to change the depth it will probably be too much trouble to retrieve it from the truck, so the guys will most likely use the gun as is and drive the sheathing nails through the plywood.

## The Tool Testers

In order to give the results as much validity as possible, I decided to enlist several of my associates to help with the testing of these guns.

Troy Rivas, of Timberbuilt Construction, is primarily a residential custom builder with 20 years of experience. He has two employees in the field, and they build from frame to finish. Troy currently owns a Senco Frame Pro 600 and really wants to know why Senco discontinued the 325 framing nailer. Troy tested the clipped-head nailers and used them for five weeks during the framing of a 2,500-square-foot custom home.

Jeff Robinson is lead carpenter for Robert Monetti Custom Builder; he used the clipped-head nailers during the framing and renovation of an existing home. Jeff has 19 years in residential construction, and currently uses a Senco Frame Pro 600.

Jeff Van Schoick, Steven Heinz, and Bruce Jedry are independent custom home builders who teamed up to frame an 11,000-square-foot residence. Bruce currently uses a Senco SN60 and was overheard on several occasions bemoaning the loss of his old Senco 325. Steve uses a Paslode, and Jeff has several Senco SN60s. They saw most of their action on the round-

head nailers.

My company, ESB Contracting, specializes in new custom homes and renovation. Lead carpenter Scott Robinson used the clipped-head nailers during the construction of a new home. Scott spent 17 years as a custom framing contractor before joining our company. Our current nailer is a 12-year-old Hitachi NR83A.

## The Testing

We all used these guns through several jobs over four months to find out what we liked and disliked. The clipped-head nailers were broken up into three groups and rotated to a new crew about every three weeks. This gave everyone a chance to really work them out on everything from headers to sheathing to interior block-out before picking a favorite in each group. They were used from October through January in all types of weather from 60°F days to 5°F days, in sun, rain, and snow. During this time, we fed the guns a steady diet of whatever nail we happened to be using at the time. They shot Senco, Paslode, Hitachi, Duo-Fast and several types of generic fasteners. Through this, certain guns seemed to stand out, and this will be reflected in the comments found in each description. After all this work, I can tell you that we came to a definite agreement about the nailers: We agree to disagree. The argument will go on until the end of time.

## Power Counts

For a fairly objective test, I introduced the guns to "The Pincushion." This little item is a leftover 7x16x28-inch block of Parallam that you could now pick up with a magnet. I set the regulator on my Devilbiss 5-hp 20-gallon compressor to 110 psi, which is the normal working pressure that we use on site. I then connected each gun in turn to a 25-foot hose and shot 20 Paslode 3<sup>1</sup>/<sub>2</sub>-inch-long .131-inch-diameter nails and 20 Interchange Brand 3-inch-long .120-inch-diameter nails into the block and recorded the results. As expected, all of the guns handled the 3-inch nails well, but not one of the guns was able to sink all 20 of the 3<sup>1</sup>/<sub>2</sub>-inch-nails. Most of these guns are listed as 3<sup>1</sup>/<sub>2</sub>-inch-capacity nailers. Is it too much to ask them to drive a 3<sup>1</sup>/<sub>2</sub>-inch-nail flush into a Parallam?

## General Observations

All of the nailers with contact-trip triggers had a disturbing tendency to "double tap" (one nail on top of another) when nailing into hard material or used in an awkward position. The only ones that didn't were the guns equipped with the sequential-trip (single shot) triggers. Sequential-trip nailers need to have the nosepiece safety released and depressed with each pull of the trigger.

All of the full-head nailers had a nasty habit of dropping the last nail of the rack from the gun. This is not only annoying, it is something to be aware of for safety reasons, as it increases the rate of misfires.

Also, the full-head nailers use a plastic collation, so they dispense plastic shrapnel that exits the gun on the sides. This can

be dangerous and safety glasses are especially necessary when using these guns.

The full-head nailers all tend to be a little larger than their clipped-head counterparts because of the spacing necessary in the collation of the nails, and to allow their overall capacity to equal the clipped-head nailers. The average capacity of all of the nailers is 70 nails either clipped-head or round-head.

## Collation Angles

A question that often comes up with nail guns concerns collation angles and interchangeability of nail brands. The discussion seems to happen more with clipped-head nailers, which have three basic configurations: 28-degree paper collated, 28-degree wire collated, and 31- through 35-degree paper collated. Most of the clipped-head nailers fall into the 31- to 35-degree range.

As for interchangeability of nails, the tool manufacturers typically specify a nail for their particular tool.

In my experience, the better-quality aftermarket nails designed to fit a variety of guns in the 31- to 35-degree range perform reliably. None of the guns using the 30-35 degree nails will shoot the 28-degree nails. Only a few guns are designed for 28-degree collations, and they will not shoot the 31-degree nails reliably.

I was unhappy with several of the 28-degree guns, not from a reliability standpoint but because of the nail collation angles. Mostly this is a supply issue. If you can't easily buy the nails you need, the tool isn't going to be much good to you no matter how well it works. And why set yourself up to carry two types of nails for two different guns? Murphy says that you would always have the wrong nails with you.

## Conclusion

All of the tools tested will do an adequate job of nail placement and have plenty of power to get most jobs done. None of the tools failed miserably. It all depends on what you expect

from your nail gun. I expect a lot and am willing to pay for it so I would not hesitate to buy one of the guns with the better features. I also want to know about nails that are available in my area and where I have to go to get parts and service, if needed. None of the guns required any service during the time we tested them. Most of the major players have service outlets all over the country but some, like Fasco, ISM, and Interchange, may be a little harder to find. I would do a little research for your area of the country before committing to a specific tool.

## What We Would Buy

The final request I made of the testers was to rate their top three favorite guns. In the full-head category, the Makita was a walkaway. Everyone loved the gun and it was the first on the job every day. Second was the Hitachi NR90AC. It had a feel that everyone liked, and a good depth adjustment. Third was the Senco SN60, with the Porter-Cable close behind.

In the clipped-head category the favorite was again the Makita, but with the Paslode and Max tied for a close second. Third place went to the Sencos.

All in all, it was an interesting experience to review these guns. Are any of the testers going out and replacing their current guns with the Makita? No, but Troy Rivas said that if the gun had been available last year when he replaced his Senco 325 with a Senco FP600 he would have gotten the Makita instead.

What am I going to do about replacing my 12-year-old Hitachi? I'm leaning toward the Max, because I like the trigger, the depth adjustment, and the overall feel. Scott is petitioning heavily for the Paslode, and I still like the Senco FP600, too.

Before you buy any of these guns, check out the nail distribution and service available in your area. Try as many guns as possible. You may make a different choice than we did; if it's the one you like, it's the best.



*Eric Borden owns ESB Contracting in Forked River, N.J., and is a frequent contributor to JLC.*

See following pages for nailer reviews. See last pages for nailer comparison.

## Manufacturers of Stick Nailers

### Duo-Fast

13951 S. Quality Dr.  
Huntley, IL 60142  
888/386-3278  
www.duo-fast.com

### FASCO America

P.O. Box 2389  
Muscle Shoals, AL 35662  
800/239-8665  
www.fascoamerica.com

### Hitachi

Hitachi Power Tools  
3950 Steve Reynolds Blvd.  
Norcross, GA 30093  
800/546-1666  
www.hitachi.com

### Interchange

P.O. Box 3543  
Omaha, NE 68103  
800/458-6635

### ISM

P.O. Box 629  
Butler, PA 16003  
800/378-3430  
www.ismsys.com

### ITW/Paslode

888 Forest Edge Dr.  
Vernon Hills, IL 60061  
800/682-3428  
www.paslode.com

### Makita USA

14930 Northam St.  
La Mirada, CA 90638  
800-462-5482  
www.makitatools.com

### Max USA

585 Commercial Ave.  
Garden City, NY 11530  
800/223-4293

### Porter-Cable

4825 Hwy. 45 North  
P.O. Box 2468  
Jackson, TN 38302  
901/668-8600  
www.porter-cable.com

### Senco

8485 Broadwell Rd.  
Cincinnati, OH 45244  
800/543-4596  
www.senco.com

### Stanley Fastening Systems

Briggs Dr.  
E. Greenwich, RI 02818  
800/556-6696  
www.stanleyworks.com



## Bostitch N80SB, N86S & N100S 28-Degree Clipped-Head

Stanley-Bostitch has been making these guns for a long time, and they are essentially unchanged. I had difficulty getting the guys to try them because they use a 28-degree wire-collated fastener, which is unusual compared to the rest of these tools. Not one of the supply houses in our area carries this gun, so they are only available at the big box retailers. This means that you have to return to the same retailer to get nails. In

order to get the guys to try these guns, I had to give them a box of nails, too. The N80 is a heavy gun

(8 lb. 2 oz.) and they get heavier

from there. The N100 is so large and heavy (11.1 lb.) that

it really does not have a use

on the residential site. But it

will drive a 4-inch fastener! Drive-depth adjustment requires a wrench,

and the exhaust deflector can be rotated

with the use of a 6mm hex key. The N80 and

N86 toe-nailed well. The only real drawback to this

reliable tool is the availability of fasteners.



## Duo-Fast CN325B Clipped-Head & CN350B Round-Head

This manufacturer has been around for a long time and has a reputation for building a reliable gun. I don't think this has changed much in the past several years, and it shows because neither has their gun. Several years ago I worked with a company that used the Duo-Fast and this gun is not substantially different from that one. It is the only one that uses a part called a "drop-off" to help guide the nail and minimize misfires. Two different drop-offs are included with the gun, one for 2 to 2½-inch nails and one for nails from 2½ to 3¾ inches. You need a tool to change them, and I don't think many people will take the time to change the drop-off when changing nails. Most of the contractors that I know are using 2¾-inch nails for sheathing and 3-inch nails for framing, so this is a moot point.

These guns felt nose-heavy and awkward. Depth-of-drive adjustment is accomplished with a yoke extension that attaches to the nose of the gun. I can picture a problem: "Hey Scott, have you seen the yoke extension for the Duo-Fast gun? I can't remember which tool box we threw it in." The CN350B is an identical nailer, only a little larger to accommodate round-head nails up to 3¾ inches long.



### Fasco R5C RHN20-90 Round-Head & R5C HHN 31-83 Clipped-Head

The remark that sticks in my mind is “this looks like a defense contractor’s idea of a stick nailer.” There’s no depth-of-drive adjustment, no rubber grip, and a fixed exhaust, but this gun will feed and fire anything. The teeth on the nosepiece have plenty of bite to them, but are placed poorly for toe-nailing. We liked the switch located under the trigger that allows the gun to go from single-shot to contact-trip firing. This is a feature that I especially appreciate when doing blockout work in tight quarters (a single-shot, or sequential-trip, gun does not double tap like a contact-trip nailer). Despite the good features, this was another gun that did not excite any of the testers.

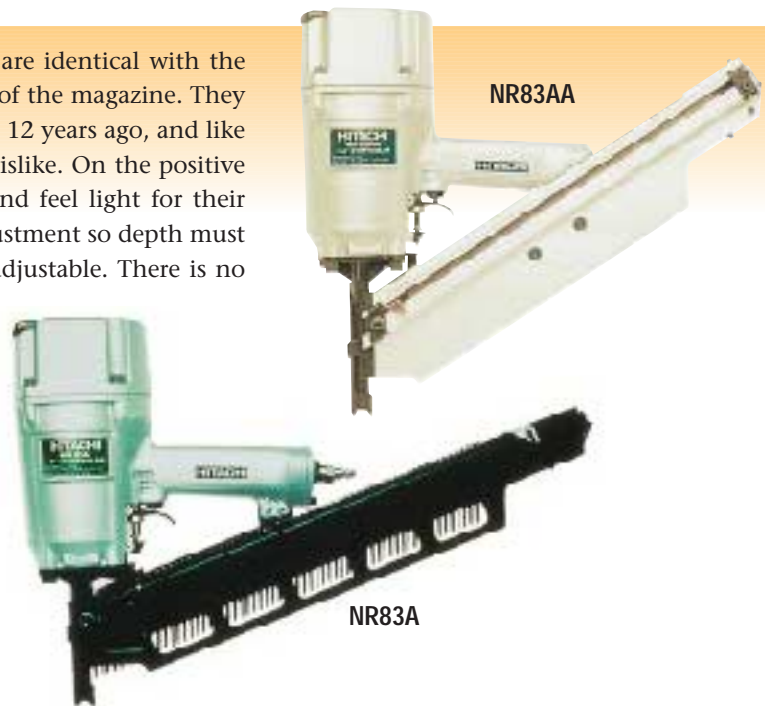


R5C RHN20-90

R5C HHN 31-83

### Hitachi NR83AA Clipped-Head & NR83A Round-Head

These guns are identical with the exception of the magazine. They are essentially the same gun that I purchased 12 years ago, and like that gun they have features that I like and dislike. On the positive side, the Hitachi guns have good balance and feel light for their size. However, there is no depth-of-drive adjustment so depth must be adjusted by air pressure. Exhaust is not adjustable. There is no access to the nose to clear jams if one occurs. The NR83A has a very strong magazine follower and will crush the plastic collation on the full-head nails if it is allowed to drop into place. Because a magazine full of uncollated nails is worse than useless, on this tool you have to control the release of the follower. All in all, a reliable performer.

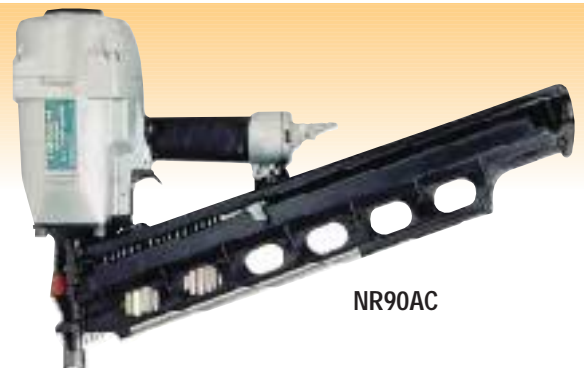


NR83AA

NR83A

### Hitachi NR90AC Round-Head

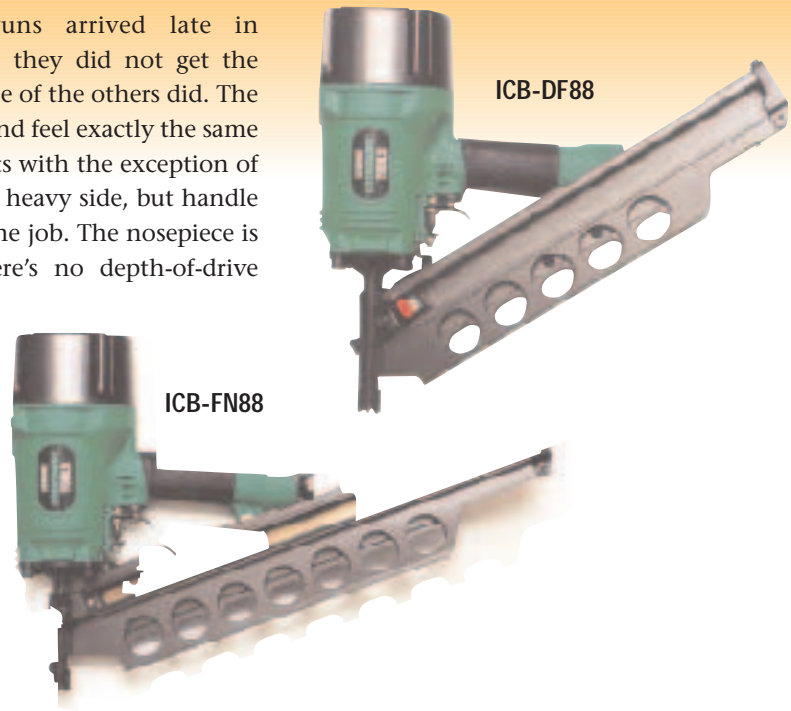
This gun is a real winner and was one of the top two in the full-head category. It has great balance and has a screw-type depth adjustment on the front of the gun. There’s plenty of power, and it will shoot a 3 1/2-inch nail. It’s heavier than the NR83A (9 lb. vs. 7.9 lb.) but that weight is distributed well and is not really noticeable. Again, you have to let the follower down or the spring will crush the collations and increase misfires and jams. The well-designed nosepiece makes toe-nailing a breeze and the exhaust port rotates easily by hand.



NR90AC

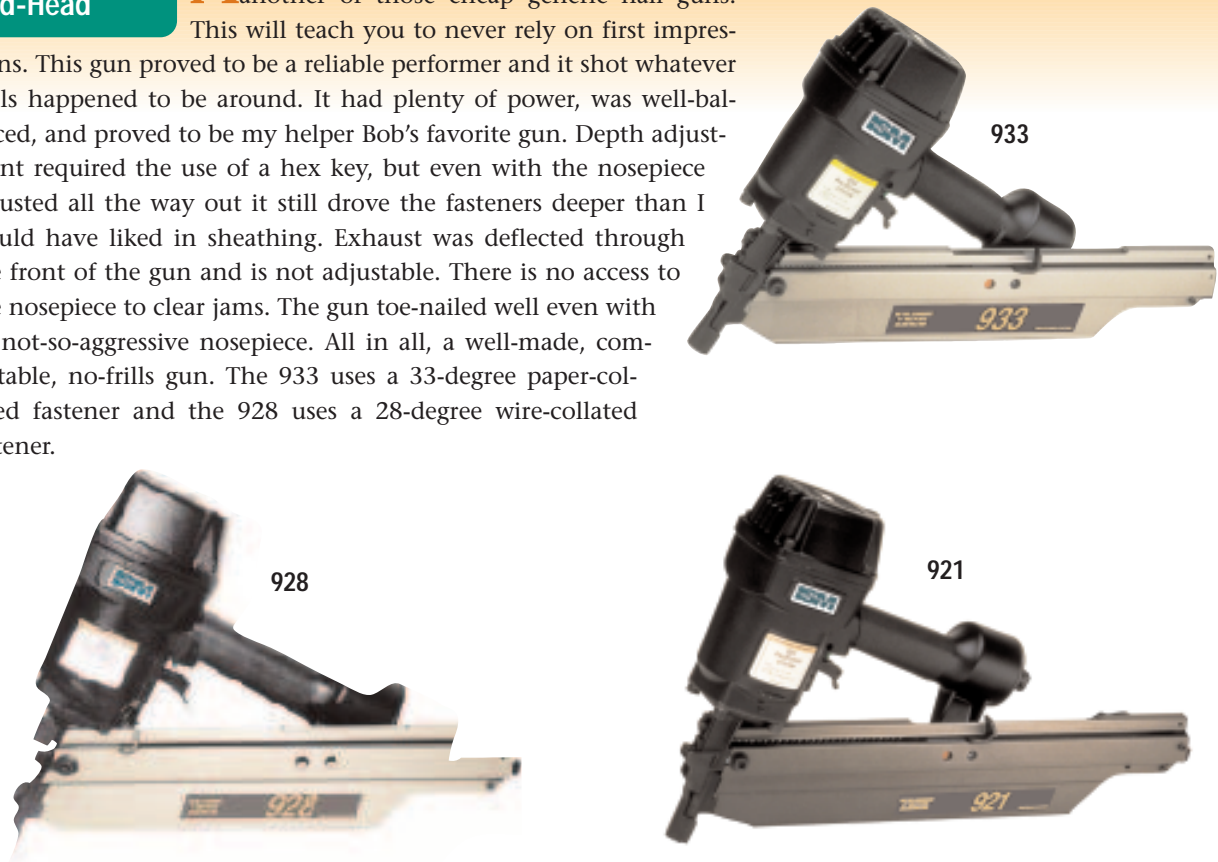
### Interchange Brands ICB-DF88 Clipped-Head & ICB-FN88 Round-Head

These two guns arrived late in December, so they did not get the workout that some of the others did. The clipped-head and round-head guns look and feel exactly the same and seem to have all interchangeable parts with the exception of the magazines. They are on the large and heavy side, but handle okay, have adequate power, and will do the job. The nosepiece is not very aggressive, but it works. There's no depth-of-drive adjustment and the exhaust ports are fixed, leaving these guns firmly in the middle of the group. The only unique feature of these guns is the hanger found on the round-head nailer, which makes it convenient to hang the gun on nearby framing.



### ISM Propower 933 or 928 Clipped-Head, 921 Round-Head

At first glance everyone thought that this was another of those cheap generic nail guns. This will teach you to never rely on first impressions. This gun proved to be a reliable performer and it shot whatever nails happened to be around. It had plenty of power, was well-balanced, and proved to be my helper Bob's favorite gun. Depth adjustment required the use of a hex key, but even with the nosepiece adjusted all the way out it still drove the fasteners deeper than I would have liked in sheathing. Exhaust was deflected through the front of the gun and is not adjustable. There is no access to the nosepiece to clear jams. The gun toe-nailed well even with its not-so-aggressive nosepiece. All in all, a well-made, comfortable, no-frills gun. The 933 uses a 33-degree paper-collated fastener and the 928 uses a 28-degree wire-collated fastener.



## Makita AN922 Round-Head & AN942 Clipped-Head

These two new tools from Makita might make you think that the engineers were actually listening to contractors like you and me — they excited everyone who used them. How about a no-mar tip that detaches and stores on the gun? And it only starts there. Under the trigger is an easy-to-turn nine-position knob that adjusts depth-of-drive. On the left side of the gun is a three-position trigger selector switch that allows the trigger to be changed from contact-trip action to single-shot to off. This is a great feature — if you have it, you use it. The tools are a little on the heavy side (8.4 lb.), but the other features more than make up for this. The nosepieces are well-designed for toe-nailing, but the exhaust is fixed. Whenever I lined up all the test guns on the deck, these were the first ones everyone reached for.



AN922



AN942

## Max SN890CH/34 Clipped-Head

This manufacturer's latest foray into the stick nailer market shows that they are in for the long haul. We received a prototype and put it to work immediately. It is an excellent, well-made tool with several features worth getting excited about. First, the side of the nose assembly has a trap door that pivots out to help clear the nosepiece after a jam occurs. Second, the depth-of-drive adjustment is an easily turned wheel located on the right side of the nose assembly. It adjusts in half-turn increments and requires no tools. The most interesting feature is the way that the trigger operates. If you depress the nosepiece and then pull the trigger, it works like a single-shot tool and will not fire again until the trigger is released. This prevents double-tap firing. If the trigger is pulled first, then the tool may be placed against the work and operated like any other contact-trip tool. The top exhaust is rubber and can be rotated easily by hand. The nosepiece has aggressive teeth and the gun toe-nails well. My only complaint is that for a medium-sized gun it feels a little heavy.



SN890CH/34



### Paslode Powermaster Plus F350s

The Paslode Powermaster Plus stands out in the crowd. With its bright orange exhaust deflector cap and trigger, it's a good-looking gun. It is one of the most compact of the nailers: Nosepiece to top cap measures just 13 inches when depressed. This means that it will almost fit into that 13-inch doubled joist space. The exhaust deflector and drive-depth adjustment require a hex key, but the engineers at Paslode thought enough to provide storage for the wrench in the rear of the magazine.

When you pick up the gun, the handle and trigger place your hand right next to the powerhead, which makes the gun feel very light. The aggressive teeth on the nosepiece bit into framing lumber well and allowed the gun to toe-nail easily. It fired every nail that we fed it reliably. This was Scott Robinson's favorite gun (when I rotated the gun to the other crews, he complained the entire time it was gone).



F350s

### Porter-Cable FR350 Round-Head & FC350 Clipped-Head



FC350

Porter-Cable's entry into pneumatic nailers was a big event several years ago. From a top-notch power tool company a top-notch tool was expected. All of the guys tested this tool, but nobody was really excited about it. It feels large, and at

19 inches from the front to the rear of the magazine, it is. The nose-

piece is not as aggressive as those on other guns, so it was not the easiest to toe-nail with. It has

good power and handled all of the nails with equal ease. Exhaust deflector and drive-depth adjustment require the use of

hex keys. (It would be handy if they both used the same sized key.) The follower on the FR350 has to be let

down on the round-head nails or it could crush the plastic collation and cause jams and misfires. There is nothing fancy or outstanding about this gun. It is a reliable performer and falls into the middle of the group.



FR350

### Senco Frame Pro 600 & 650 Clipped-Head

When you unpack these nailers, you get the feeling that they are quality tools. The difference between the Frame Pro 600 and the 650 is in the powerhead. The 650 (14 inches) is one inch taller than the 600 (13 inches). This translates into extra power, which is necessary if you use manufactured lumber frequently. There is a no-mar tip included with the guns, and when you remove it you'll know immediately why these guns received the nickname "Jaws." The five aggressive, well-placed teeth on the nosepiece of this gun work great for toe-nailing.

The gun feels heavy but handles comfortably and seems compact, measuring just 15<sup>1</sup>/<sub>8</sub> inches from front to rear of the magazine. Depth-of-drive adjustment requires a wrench and the exhaust is adjustable using a hex key. One unique feature of this gun is the ability to remove the magazine without tools. By loosening a knob at the rear magazine support, you can pull back on the magazine and disengage it from the nose assembly, allowing you to clear a jam quickly.



Pro 600



## Senco SN60 & SN65 Round-Head

These tools are also top quality. Although the comments about the power difference between the 600 and 650 apply here as well, these are different guns from the Frame Pro clipped-head nailers. Besides the nails, the first difference is the weight. The SN65 round-head weighs 8.1 pounds compared to 8.4 pounds for the 650 clipped-head. Height is the same on both guns, but the SN65 is much longer at 19 inches versus 15<sup>1</sup>/<sub>8</sub> inches on the 650. The nosepiece is not as aggressive as the Frame Pro's, but still works well. The depth-of-drive adjustment requires the use of a hex key and the exhaust uses a hex key also. This was a well-liked, good-quality tool.



SN60/65

## Too New To Review

Stanley-Bostitch introduced the N88WW Clipped-Head Stick Framing Nailer at the International Builders' Show in Dallas on January 14th. According to the manufacturer, at 7.8 pounds this is the lightest framing nailer in the industry, and strong enough for engineered lumber with 1,000 inch-pounds of driving force.

Features of this nailer include push-button depth control, no-tools 360-degree adjustable exhaust, and a "dual-load magazine" which can be loaded from the top or the end. Suggested retail price is \$379.



N88 WW

## NAILER COMPARISON

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Brand	Model	Price	Clipped or Round	Collation Angle in Degrees	Collation type	Nail Capacity (size)	Nail Capacity (count)
Duo-Fast	CN325B	\$350-400	CL	30	Paper	2-3 <sup>1</sup> / <sub>4</sub> "	50-60
	CN350B	\$350-400	RND	22	Plastic	2-3 <sup>3</sup> / <sub>4</sub> "	50
FASCO	R5CRHN20/90 FFCT	\$269-299	RND	20-22	Plastic	2-3 <sup>1</sup> / <sub>2</sub> "	50-75
	R5CHHN31/90 FFCT	\$269-299	CL	31-36	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	76-100
Hitachi	NR90AC	\$451	RND	21-22	Plastic	2 <sup>3</sup> / <sub>8</sub> -3 <sup>1</sup> / <sub>2</sub> "	64-70
	NR83A	\$420	RND	22	Plastic	2-3 <sup>1</sup> / <sub>4</sub> "	64-70d
	NR83AA	\$360	CL	32	Paper	2-3 <sup>1</sup> / <sub>4</sub> "	74-84d
ISM	933	\$329	CL	33	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	90d
	928	\$329	CL	28	Wire	2-3 <sup>1</sup> / <sub>2</sub> "	75
	921	\$329	RND	21	Plastic	2-3 <sup>1</sup> / <sub>2</sub> "	60
Interchange	ICB-DF88	\$299	CL	34	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	84
Brands	ICB-FN88	\$299	RND	22	Plastic	2-3 <sup>1</sup> / <sub>2</sub> "	64
Makita	AN922	\$459	RND	22	Plastic	2-3 <sup>1</sup> / <sub>2</sub> "	64-74
	AN942	\$439	CL	31	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	60-84
Max	SN890CH34	\$469	CL	34	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	90
Paslode	PowerMaster Plus	\$299	CL	30	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	74-84
Porter-Cable	FC350	\$295	CL	32-34	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	97
	FR350	\$295	RND	22	Plastic	2-3 <sup>1</sup> / <sub>2</sub> "	72
Senco	FP600	\$299-319	CL	35	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	56-80
	FP650	\$349-359	CL	35	Paper	2-3 <sup>1</sup> / <sub>2</sub> "	56-80
	SN60	\$309-319	RND	20	Plastic	2-3 <sup>1</sup> / <sub>2</sub> "	60
	SN65	\$339-349	RND	20	Plastic	2-3 <sup>1</sup> / <sub>2</sub> "	60
Stanley-Bostitch	N80SB	\$349	CL	28	Wire	2-3 <sup>1</sup> / <sub>2</sub> "	75-105
	N86S	\$699	CL	28	Wire	2-3 <sup>1</sup> / <sub>2</sub> "	75-105
	N100S	\$799	CL	28	Wire	2-4"	75-105

# NAILER COMPARISON

Continued on next page

Brand	Model	Nail Capacity (inches dia.)	Weight lb. (empty)	Dimension - Head to toe (depressed)	Dimension Front to Back	Fits Well into 16" O.C. Joist Bay	Balance
Duo-Fast	CN325B	.113-.131	9.25	13 <sup>3</sup> / <sub>4</sub> "	20 <sup>11</sup> / <sub>16</sub> "	Good	Fair
	CN350B	.113-.131	8.4	12 <sup>11</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>8</sub> "	Good	Fair
FASCO	R5CRHN20/90 FFCT	.113-.131	8.6	13 <sup>1</sup> / <sub>4</sub> "	21"	Good	Fair
	R5CHHN31/90 FFCT	.113-.131	8.6	13 <sup>1</sup> / <sub>4</sub> "	18"	Good	Fair
Hitachi	NR90AC	.113-.162	9	13 <sup>7</sup> / <sub>8</sub> "	21 <sup>9</sup> / <sub>16</sub> "	Good	Exc
	NR83A	.113-.131	7.9	13 <sup>3</sup> / <sub>8</sub> "	21 <sup>3</sup> / <sub>16</sub> "	Good	Good
	NR83AA	.113-.131	7.9	14 <sup>3</sup> / <sub>16</sub>	16 <sup>3</sup> / <sub>4</sub> "	Fair	Good
ISM	933	.113-.131	7.5	13 <sup>1</sup> / <sub>4</sub> "	17"	Good	Good
	928	.113-.131	7.5	13 <sup>1</sup> / <sub>4</sub> "	17"	Good	Good
	921	.113-.131	8	13 <sup>1</sup> / <sub>4</sub> "	19"	Good	Good
Interchange	ICB-DF88	.113-.148	8.4	13 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub> "	Good	Fair
Brands	ICB-FN88	.113-.148	8.4	13 <sup>1</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>2</sub> "	Good	Fair
Makita	AN922	.113-.162	8.4	13 <sup>3</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub> "	Fair	Exc
	AN942	.113-.131	8.4	13 <sup>3</sup> / <sub>4</sub> "	17 <sup>1</sup> / <sub>2</sub> "	Fair	Exc
Max	SN890CH34	.113-.148	8	14"	17"	Fair	Good
Paslode	PowerMaster Plus	.113-.148	7.9	13"	19 <sup>1</sup> / <sub>2</sub> "	Exc	Exc
Porter-Cable	FC350	.113-.131	7.5	14 <sup>5</sup> / <sub>8</sub> "	19 <sup>1</sup> / <sub>2</sub> "	Poor	Fair
	FR350	.113-.148	7.5	14 <sup>5</sup> / <sub>8</sub> "	20 <sup>1</sup> / <sub>2</sub> "	Poor	Fair
Senco	FP600	.113-.148	8	13 <sup>1</sup> / <sub>4</sub> "	15"	Exc	Exc
	FP650	.113-.148	8.4	14 <sup>1</sup> / <sub>4</sub> "	15"	Fair	Good
	SN60	.113-.148	7.7	13"	19 <sup>3</sup> / <sub>4</sub> "	Exc	Exc
	SN65	.113-.148	8.1	13 <sup>5</sup> / <sub>8</sub> "	19 <sup>3</sup> / <sub>4</sub> "	Exc	Good
Stanley-	N80SB	.113-.131	8	13 <sup>1</sup> / <sub>4</sub> "	18 <sup>3</sup> / <sub>8</sub> "	Fair	Good
Bostitch	N86S	.113-.131	9.75	14 <sup>3</sup> / <sub>8</sub> "	18 <sup>3</sup> / <sub>8</sub> "	Fair	Good
	N100S	.113-.131	11.1	15 <sup>13</sup> / <sub>16</sub> "	19"	Poor	Good

# NAILER COMPARISON

Brand	Model	Magazine Reload	Drive Depth Adjust	Trigger Mode Switch	Jam Clear Feature	3 1/2" Nail into PSL @ 110 psi	Ease of Toe-Nailing	Comfort	Air Exhaust Deflector
Duo-Fast	CN325B	Top	Tool req	No	None	11/20	Fair	Fair	Fixed
	CN350B	Top	Tool req	No	None	14/20	Fair	Fair	Fixed
FASCO	R5CRHN20/90 FFCT	Top	None	No	None	3/20	Fair	Poor	Fixed
	R5CHHN31/90 FFCT	Top	None	No	None	0/20	Fair	Poor	Fixed
Hitachi	NR90AC	Top	Hand	No	None	12/20	Exc	Exc	Move w/o tool
	NR83A	Top	None	No	None	13/20	Fair	Good	Fixed
	NR83AA	Top	None	No	None	12/20	Fair	Good	Fixed
ISM	933	Top	Tool req	No	None	10/20	Good	Good	Fixed
	928	Top	Tool req	No	None	n/t	Good	Good	Fixed
	921	Top	Tool req	No	None	12/20	Good	Good	Fixed
Interchange	ICB-DF88	Top	None	No	None	0/20	Good	Fair	Fixed
Brands	ICB-FN88	Top	None	No	None	0/20	Good	Fair	Fixed
Makita	AN922	Rear	Hand	Yes	None	7/20	Exc	Exc	Fixed
	AN942	Rear	Hand	Yes	None	7/20	Exc	Exc	Fixed
Max	SN890CH34	Top	Hand	No	Trap door	4/20	Exc	Good	Move w/o tool
Paslode	PowerMaster Plus	Top	Tool req	No	None	3/20	Exc	Exc	Tool req
Porter-Cable	FC350	Top	Tool req	No	None	7/20	Good	Fair	Tool req
	FR350	Top	Tool req	No	None	7/20	Good	Fair	Tool req
Senco	FP600	Rear	Tool req	No	Magazine	0/20	Exc	Good	Tool req
	FP650	Rear	Tool req	No	Magazine	12/20	Exc	Good	Tool req
	SN60	Rear	Tool req	No	Magazine	n/t	Good	Good	Tool req
	SN65	Rear	Tool req	No	Magazine	11/20	Good	Good	Tool req
Stanley-	N80SB	Top	Tool req	No	None	15/20	Good	Good	Tool req
Bostitch	N86S	Top	Tool req	No	None	20/20	Good	Fair	Tool req
	N100S	Top	None	No	None	20/20	Good	Poor	Tool req