

Durable, efficient tools and equipment can save racers precious time in the pits, and provide racing retailers with a steady source of sales throughout the year.



BY KAREN ZURVALEC

# From Jacks to Jugs **PIT**

## In

a race pit, every second counts, especially when every extra second in the pit equals lost positions on the track. Racers at all levels of competition seek tools that are strong and accurate, and that don't waste precious time. These factors motivate racers to pay particular attention to racing retailers merchandising new products in pit equipment.

Racers at all levels require standard pieces of pit equipment. To help you navigate through the different levels and options, here's a rundown of the latest offerings.

### Heavy Lifting

A staple of any racing pit, jacks come in a variety of forms, from lightweight jacks for high-level racing to garage jacks for Saturday night racers.

"If a Saturday night racer wants an aluminum jack, it's more of a convenience than a necessity, so he doesn't have to carry a heavy jack," said George Brunnhoelzl, Brunnhoelzl Racing, Mooresville, North Carolina. "As you get up to different levels of racing, where there are pit stops, then it requires racers to

get into one-pump jacks and special impact guns. But there are so many different levels of professional racing, all the way up to Cup, that they'll have a regular racing jack, a low-profile jack in case they get a flat, and a garage jack."

Brunnhoezl offers a variety of racing jacks, he continued. "We manufacture the garage jacks," he said. "Race teams use them in the garage to lift the car up during 'happy hour,' to get the car up high enough to work on it. It goes up higher than a conventional race jack.

"My company was founded around the aluminum racing jacks," Brunnhoelzl continued. "We hand-tailor our product to the individual, since not everybody wants the same jack."

"We're constantly refining our products, as we find new and better ways to do things," said Scott Breckenridge, MPD, Corona, California. "Several of our products have evolved over the past year, and we've made improvements to them. As we get feedback from our customers, we incorporate changes that are positive for everybody."

MPD continues to offer lightweight, billet aluminum jacks,





# EQUIPMENT

Breckenridge continued. "We don't skimp on any material if it's not suitable for the job, because we cannot afford to have a team lose a race because their jack failed. Our jacks are lifetime," he noted. "There's nothing that can go wrong with one of our jacks that can't be fixed. The NASCAR teams freshen the jacks up every year, just like some guys freshen up an engine or a race car. Other guys that have sprint car teams, or Late Models, or maybe even drag racing, they may only get their jacks rebuilt once every 10 years."

Bert Transmission, St. Constant, Quebec, Canada, offers the Bert Bumper Jack, said Bert Robidoux. "The application for these jacks is in two groups of racing—the IMCA modifieds and the East Coast modifieds," he said. "They are

designed for cars with tubular bumpers, cars that have bumpers that are easily accessible. Normally they come in pairs, so you use one in the front and one in the rear. They bring the car up to two and a half feet in the air, much higher than a conventional floor jack. It's something that clears the underside of the car completely, so you can not only change a wheel, you can work on the car, do some suspension adjustments, whatever you need to do.

"The lifting capacity is 2500 pounds per jack," Robidoux continued. "We have safety locks, so even if the air hose gets knocked off, there are notches in the jack, and it's mechanically held in place. You only need air supply to raise and lower the car. An interesting feature on these

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# PIT EQUIPMENT



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jacks is that the bottom legs spread out in a wide footprint for stability, but they do flip on pinions for when you want to store them. They have a very small footprint when they're in storage, or for transportation at the track."

Argo Manufacturing in Wasco, Illinois, offers an assortment of pit equipment from its all-aluminum, high-performance, lightweight race jacks and full line of one-pump Cup jacks for the green flag pit stop situations to its line of digital tire pressure gauges and air guns along with the high speed sockets that go onto the air guns "for, let's say, the quick on-ing and offing of lug nuts for these semi-blindingly fast pit stop wheel changes," said Ken Mitson.

Its best-selling product is its aluminum race jack, which is made in the US, he added. The key for Argo's dealers to make sales is for them to inform their customers that Argo products are American made, Mitson explained.

Arnold Machine, Tiffin, Ohio, offers high lift air jacks for use in the paddock area, according to Zach Arnold. "It's a device that goes under each wheel of the car," he said. "It's used either in a pair, or under all four wheels. It will lift the car up to 24 inches, and evenly lift the front, back or both, so that the crew can put high stands under the car."

The lifts offer up to 1500 pounds of lift capacity per wheel, and have a three-position manual control valve, Arnold added. "The biggest thing people like about our lifts is their stability," he said. "When you get a car up that high in the air, you don't want it to be rickety. Also, you don't need even ground to work under the car. Where a regular jack has to roll to jack up the car, these don't. You can just place them underneath the wheels, and they'll pick it right up, no matter what the surface."

Arnold's jacks operate on 80 psi of compressed air or nitrogen, and are available in three models, depending on the type of vehicle, Arnold added.

Palestini Racing Products in Buenos Aires, Argentina, manufactures air jacks for race car pit stops for series all over



**Performance retailers can increase their sales of pit tools and equipment by having the products available, both in the store and at the track. One effective method is to have the tools visible from the check out area to encourage customers to make an impulse buy or an add on to their current sale. One manufacturer advised to stock up on the tools that the racer can't get at the mass merchandiser and are unique to racing.**

the world. "Its sphere of geographical activity covers most of the racing cars in Argentina and nowadays it is expanding to Latin America, Australia, and Europe," Martin Palestini said.

Palestini's air jacks come in two versions, the standard line and the premium line. "Each one comes in nine inches and 11.8 inches for stroke," Palestini explained. "The standard line air jacks are completely made of aeronautical aluminum alloy, only the piston is made of steel, and it is 1.5 inches. They work with spring, and the operating pressure is about 30 bars (450psi).

"The new premium line is made of aeronautical aluminum alloy, and they work springless so they are lighter and faster," Palestini continued. "The piston diameter is two inches so it's very stable, and the operating temperature is 25 bars (350 psi)."

Palestini also manufactures accessories like pressure regulators, the tower to lift the car high, and the piping to connect the nitrogen tube to the plug, noted Palestini.

EZcarlift in Goleta, California, is new to pit areas yet was developed with the race car in mind, as it has been used with sprint cars, Funny Cars, and dragsters, according to Boytcho Manev. "It's safe, easy to use, compact, convenient, portable, versatile, and affordable," he noted.

This lift is capable of raising a race car 26 inches, which provides comfortable working height, in 90 seconds depending on the weight of the vehicle, and even



faster for lighter weight vehicles like sprint cars. It's powered by a standard electric hand drill and is capable of lifting up to 4400 pounds of weight. There are also no external pumps, lines or associated hardware to carry around, lose or break, he said.

This free-standing car lift is lightweight and folds up to fit into a trailer, truck bed or even in the trunk of a car. Assembly is simple and often takes less than two minutes, Manev added.

The open design allows for unobstructed access to the underside of the vehicle from all four sides.

#### Tire Tools

Tire changes can make or break a team on race day. Having the right equipment to change and evaluate tires quickly and efficiently is necessary at every level of racing, from top professional teams to Saturday night racers.

Brunnhoezl continues to offer the Silver Bullet impact gun, said Brunnhoezl. The Silver Bullet is available with shockproof coating, and each gun is hand-tailored to the individual tire changer. Options include side exhaust to keep brake dust out of the tire changer's face, a billet aluminum nose cone to reduce weight and add strength, and a tapered anvil to help eliminate socket wobble and vibration.

"Pit guns that offer long lasting batteries and powerful motors have essentially replaced air tools on Saturday night pit roads," said Jeff Butcher, JOES Racing Products, Everett, Washington. "Teams should look for 24-volt systems with cases with protective rubber coating for durability and a good grip."

JOES offers a 24-volt Battery Pit Gun, Butcher said. "Battery pit guns are here to stay," he noted. "Teams that have not yet invested in a 24-volt pit gun just won't believe how well they work, and how fast tire changes become."

"Tire gauges, both analog and digital, and tread depth gauges are necessities in every pit cart," Butcher continued. "Racers should carry top-quality pyrometers that feature large, easy-to-read numbers and include rubber bumpers to protect their investment. A quality tire

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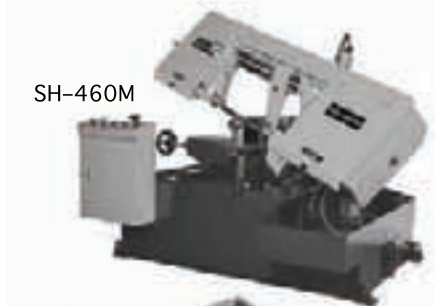
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gauge is also a must in the pit equipment tool box. Digital gauges offer great resolution, and provide easy-to-read numbers. Analog gauges have been the tire pressure standard for many years, and a high-quality analog gauge will provide the accuracy needed.

“Economical digital tread depth gauges are the new trend in Saturday night racing,” Butcher said. “Digital durometers are a JOES exclusive, and the new level of accuracy is welcomed by professional teams. New technology allows for averaging the tire rubber over a range, giving teams quick feedback when they need it most.”

Argo makes affordable air guns that are more for the Saturday night racers, according to Mitson. “In with the air guns we have a full line of high flow air regulators that go along with high flow hose connectors so that there’s minimal pressure drop from, let’s say, the nitrogen bottle to the air gun for maximum efficiency,” he said.

New in its realm of offerings is Argo’s full line of millimeter high-speed pit sockets, which it now has available in 17, 19, and 21 millimeters, which are popular in road racing.

### Fuel Cans

Containers for the safe transport of fuel and other liquids are another must-have in the pits. “At most all races, you see people carrying around five-gallon fuel jugs,” said Chuck Newton, Dragon Racing Fuels, Lafayette, Indiana.

Dragon’s utility jugs are taller and narrower than standard utility jugs, Newton noted. “They’re more compact, so they’ll fit over a fender well or something like that,” he said. “A lot of guys have storage areas for those in areas where there’s already floor space being taken, like in a fender well. These fuel jugs fit ideally over the top of them. There’s no expansion, and they have two handles, so they’re easier to handle.”

“Among the items that every team should have in their pit are VP’s five-gallon plastic Motorsport Containers and a siphon pump,” said Steve Scheidker, VP Racing Fuels, Elmendorf, Texas. “These

are essential items for handling fuel. They come in round or square designs, and we have nine colors from which to choose. Although the Motorsport Containers are primarily designed for fuel, they’re also useful for other purposes, including oil, chemicals or transporting water.”

VP offers a variety of fuel handling equipment, including siphon pumps, funnels, and drum wrenches, as well as the SEF Small Engine Fuel, Scheidker noted. “The SEF94 Small Engine Fuel is an ethanol-free unleaded 94 octane fuel designed for use in portable gasoline powered tools, including the generators frequently used by racers in their pits,” he explained. “Street gasoline containing ethanol often makes such equipment difficult, if not impossible to start, because ethanol can absorb moisture and form deposits in carburetors. This compromises fuel systems, often requiring an expensive repair, complete rebuild or replacement. These are problems that cannot be fully addressed with fuel stabilizers,” he added. “SEF94 contains no ethanol, making it a much more dependable and cost-effective solution. SEF94 is for small engines only—it is not legal for use in motor vehicles, and is harmful to vehicles equipped with pollution control devices.”

### Under Cover

Canopies are a staple of the racing pits, for a variety of reasons, said Wes Holliday, Holliday Canopies, Charleston, West Virginia. “People use these on the pit lane for a lot of different reasons,” he noted. “If you’re at a weekend event, you’re not always at the pit, and it just stakes out your space, so you have the same space all the time. A canopy is good because you can keep the tires under it, to keep them cool so you don’t get any expansion. The pressures don’t rise, because the tires are in the shade. It also keeps the fuel rig cool, since you don’t have the sun shining on it all the time. And it keeps the crew cool, so not everybody is standing around hot and sweaty when they’ve got to go over the wall. It just helps lead to better performance everywhere.”



"A lot of the Saturday night guys work out of their trailers, and a lot of times, they'll put up a pop-up canopy," he continued. "You can get a pop-up in a 10x20 size, and for Saturday night guys, they can just work out of their trailers and the canopy will cover the car. It's really good, especially in the early evenings, as the sun goes down, to keep the sun off. You can put walls on it, too, to keep the dust off, if you need to."

Holliday's canopies are available in a variety of standard colors and sizes, he noted. "But we specialize in the custom canopies, where we put team names and sponsor names on them, custom-made with the colors and the logos. We make products that help the race teams promote their sponsors or themselves."

"Regardless of the equipment that teams use in their race pits, they need to keep it clean and dry," said Jim Butler, Larsens, Santa Cruz, California. "That's what trailer-side and free-standing pit canopies do."

Larsens offers a variety of race canopies and pit row tents, Butler continued. "Options include electrical and compressed air in the rafters for powering tools, lights and fans; heavy-duty



Merchandising pit equipment in groups helps racers to see the items that they must have. One contact advised combining the common pit items in a group setting, where retailers can easily cross promote from one item to another.

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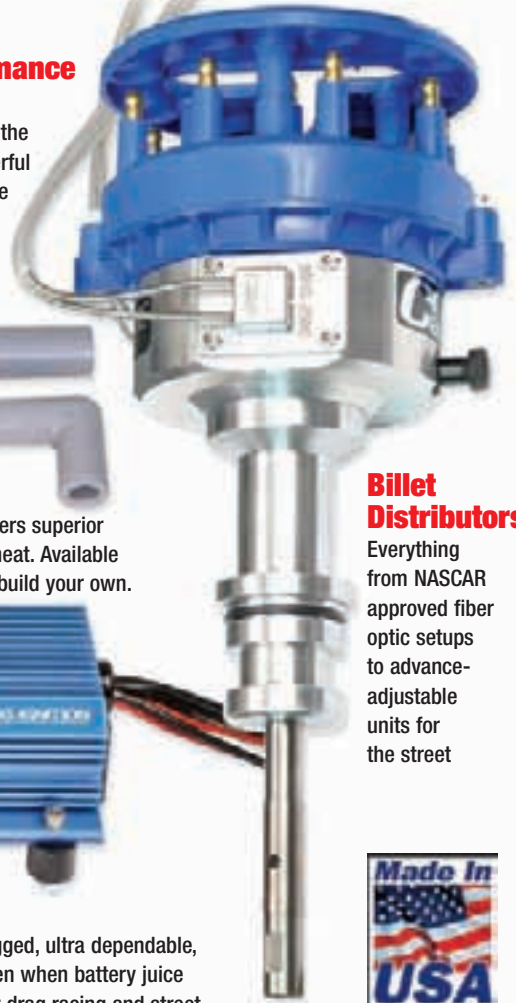
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# PIT EQUIPMENT

water-repellant covers to protect tool boxes and sensitive electrical equipment; and banners and signs," he said. "Our new wider fabric has improved the print quality and eliminated many of the seams. Fewer seams provide a more water-tight canopy, which means better protection for the cars, the tools, and let's not forget the crew. We have also upgraded our printing method from just a year ago, and are very excited to offer better graphics at a lower price than before."

Eide Industries, Cerritos, California, offers a variety of canopies designed to fit any size or shaped transporter trailers for the race industry, according to Ken Huffer. "Eide Industries Motorsports Division offers a full range of custom race canopy systems designed to cover, protect, and enclose transporter trailers and mobile marketing vehicles," said Huffer. "Manufacturing everything from one location, we offer teams the unique experience to reduce costs, produce high quality products, and deliver on-time."

He explained that the latest improvements to Eide Industries' existing models include full perimeter Velcro on its zipper flaps to provide extra water protection for its covers, improved digital graphics application to prevent logo scratching and sun fading, and the addition of black/white single layered fabric to its list of color options.

### Other Equipment

In addition to jacks and tire tools, there are a number of tools available to help racers keep their cars on the track during a race.

"For pit communications, we cover everything that has to do with crew-oriented two-way communications, from in-car communication, to the pit crews, through outfitting haulers with communications," said Shawn Sampson, Sampson, Oak View, California. "We even outfit pit carts with full communication systems," he said. "If there were five people standing around, they could all plug into an intercom system that would be on a pit cart and have a conversation. Nobody outside of that conversation would hear what was discussed, since it's not over

a two-way system, but strictly on the intercom system, which is built into the pit cart. It has the capability to have a 25-watt radio system on the pit cart, so you have plenty of power to communicate around a road track, and never lose communication with the driver."

Since some communications need to be private, Sampson's Pro systems are equipped with scramblers, he added.

Moroso, Guilford, Connecticut, offers a variety of tools for the race pits, said Thor Schroeder. "Moroso offers a Coil Over Shock Adjusting tool, Quick Fastener Wrenches for quarter-inch turn fasteners, 3/8-inch slot head, 3/16-inch hex drive, jet tools, valve seat pressure testers, and LED magnifying flashlights," he said.

"The biggest news is that Moroso just came out with Oil Pan T-Handle Wrenches for 1/2-inch 12 point, and 7/16-inch 12 point," he said. "In the racing community, most of us know the benefits of an oil pan with a power kick out or pouch. It gives a place for the oil to go after it gets flung off the crank. When this type of oil pan has to be fastened to the engine block through plugs in the bottom of the oil pan, it can be hard not to drop the hardware, or be able to tighten the fasteners. The Moroso Oil Pan T-Handle Wrenches have a spring-loaded magnetized socket that makes installing an oil pan with plugs in the bottom of it a snap."

Moroso also offers the Cylinder Leak Down Tester. "The Moroso Degree Wheels, engine bags, engine brushes, power speed calculator, Quick Fastener Wrenches, safety wire, Ignition Wire Strippers, Moroso Power Charger Battery Charger, Moroso Race Write window marker and range of tire pressure gauges are all items that historically our retailers have done well with," he added.

"Each team should always have a backup for all critical pit equipment, such as air jack lance, fuel filling nozzle, and impact gun," said Jeff Barrow, Stäubli, Duncan, South Carolina. "What is overlooked quite often is a quality quick release connector. The quick release coupling should already be plumbed on the backup system, so if a failure



happens, another complete assembly can be quickly plugged in and you're back in business. The quick release couplings must also be able to handle the higher pressures.

"Stäubli carries a full line of quick release couplings to handle high pressures," Barrow continued. "We also have high-pressure hoses for air and nitrogen, fuel filling hoses, and air jack lances and plugs for jack systems. We now have a new and improved fuel filling hose, the Fillflex 38. The hose is clear with a very smooth 38 mm bore. This speeds up flow significantly over a typical ribbed flexible hose. It also has the ground wire molded into the hose, not dangling in the way, so there is less chance of it getting tangled up or pulled off."

"We offer a stopwatch that was designed for car racing," said Butcher. "Many stopwatches on the market were designed for track and field. While they measure time accurately, the features are not as well suited for racing. The JOES stopwatch is designed for racing, and the quick, one-button memory recall is very cool. One touch starts a session, and lap times are recorded automatically."

High-quality tape is essential for any pit, said Dan Northrop, ISC Racers Tape, Fairless Hills, Pennsylvania. "Everybody uses tape in the racing industry, no matter what kind of racing it is, from IndyCar to off-road trucks," he said. "Every trailer in the world that is racing has a roll of tape. Even on the dirt, racers will use it on the mud plugs, the foam inserts you put in the wheel, so it keeps the mud out of the wheel."

"We also have wheel weight tape, aluminum foil for wheel weights when people are balancing their tires. That always comes in handy," Northrop said. "We have brake pedal tape, which is a non-slip tape, to get traction on the car or on the pit cart. All our tape is industrial grade tape. It's not the everyday hardware store-style silver duct tape. We also have Extreme Duty tape for different applications," he added. "We have all the colors that will match your car, and different types, grades, and sizes." **PR**

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