

The ZENA™ Backpack™ Welder our most unique "tool for remote locations"

Need an inexpensive 150A, 100% duty commercial DC arc welder that you can take anywhere?

There has never been anything like this ultra lightweight go-anywhere welder -- a welder so compact that it comes mounted on a fully functional backpack frame -- literally a backpack welder. Not surprising, since it has never before been possible to build commercial duty, x-ray quality, high power welders as small, and yet as incredibly powerful and reliable, as those made using ZENA, Incorporated's patented welding technology.

The ZENA Backpack™ welder is powered by a small, heavy duty 2-cycle gas engine originally developed to power military drone aircraft, industrial fire fighting pumps, portable concrete cutters, and racing go-carts -- which has been reconfigured to provide a perfect power plant for our popular MW150 DC welding system.

It's a precision engine that produces more than enough power for continuous high power 100% duty cycle welding, yet it's light enough so that when combined with the equally light and compact ZENA welding system, the entire weight of the Backpack welder, including the frame, pack straps, and 20' of welding cables, is only about 65 lb.! And, like all other parts manufactured by ZENA for use in ZENA welding systems, the engine used in this incredible welder is also made right here in the United States of America!



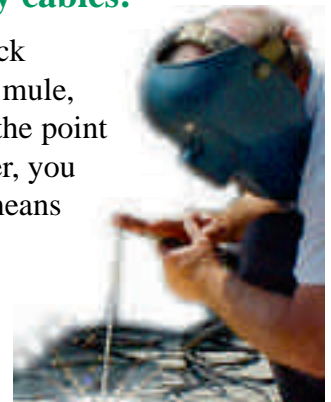
This is NOT a "hobby" welder!

This backpack transportable welder is designed to outperform, and outlast, big expensive commercial welders. It's a fully functional ZENA welding system -- identical to our industrial retrofit units -- including remote controls.

But, while ultra low cost, reliability, and performance are certainly key features with all ZENA welders, the truly great thing about this model is its incredible portability.

If you can get there, your welder can get there! And, you don't need long, heavy cables!

For example, ride out with this backpack mounted welder strapped to your pack mule, pack horse, or ATV. When you get to the point where even your mule can go no farther, you don the welder, easily carrying it, by means of its fully functional backpack frame, waist belt and shoulder strap system -- on to a job site where even your mule, horse, or 4x4 couldn't go!



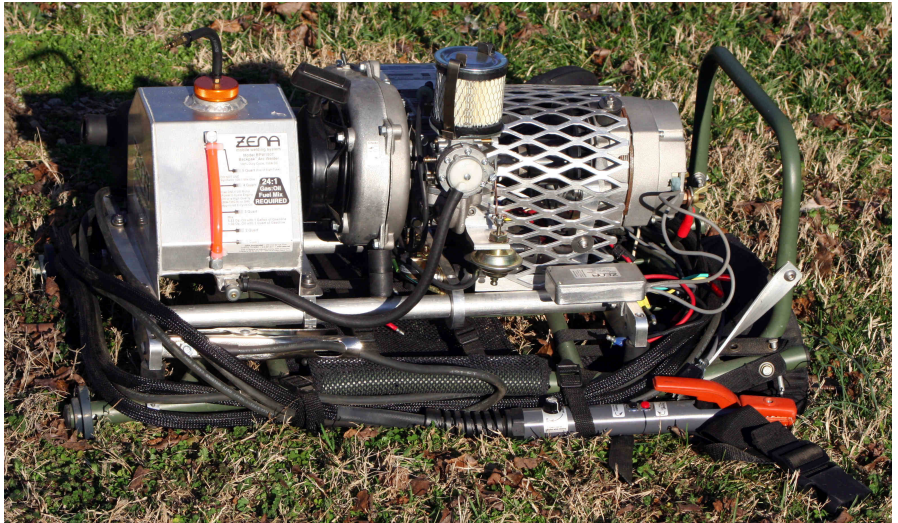
You're not tethered to, or limited by, anything!

High power, professional caliber welding can be done anywhere, at any time, with no need to ever carry long heavy welding leads again!

This welder is light enough for easy transport to a work locations hundreds (or even thousands) of feet in the air!

You Pay NO PREMIUM for PERFORMANCE and FLEXIBILITY -- In fact, You Pay MUCH LESS!

That's right, this welder -- with remote controls -- is **less than 2/3 the cost of a conventional engine driven commercial welder** with similar 100% duty welding power. Plus, it welds better and has a longer warranty!



This compact, light weight welding powerhouse is ready to work wherever you are!

This is also the first, and only, portable welder perfect for transport in small aircraft.

At 65 lb., even the smallest aircraft can easily carry this welder! We have customers transporting Backpack welders, in small planes and helicopters, to remote locations to make repairs (often to other aircraft), or do fabrication work, that previously could only be accomplished with large welders, and hundreds of feet of heavy welding cable, carried at great expense to the work site by cargo helicopters (which, themselves, typically cost more to operate for a single hour than the price of this incredible Backpack welder).

Maybe we should have called it a helicopter welder? Or, bush plane welder?

We also have adapters for mobile MIG, or TIG, equipment.

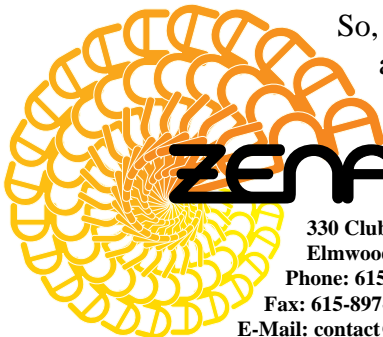
That's right, with your existing TIG torch, MIG spool gun or MIG spool feeder, and the appropriate ZENA power control adapter, your Backpack welder can also become an incredibly portable MIG or TIG welder! The Backpack welder is also compatible with our ultra compact, light weight, ready-to-go, spool gun kits!

The list of people who can benefit from this incredible welding machine is long indeed:

Built for remote site commercial duty, including rental operations, the Backpack welder is the perfect tool for loggers, forest workers, fence builders, sign installers, ironworkers, mechanics, blacksmiths, firefighters, conservationists, sailors, emergency service personnel, missionaries, off-roaders, 4x4 enthusiasts, and, of course, the guys who do almost all of these things almost every day -- farmers!

And, yes -- our Backpack welder can also be an ideal, and exceptionally cost effective, tool for a wide range of combat and/or support related military applications.

So, whether you are a ski lift operator who needs a welder that can be transported by a skier to work on a lift tower on the side of a mountain, a dock owner on a remote South Pacific island, a rancher building fences on a hillside, a bush pilot repairing a damaged landing gear, or a sailor welding a fitting on the bow of a cargo ship -- this is the tool for you!



ZENA Incorporated

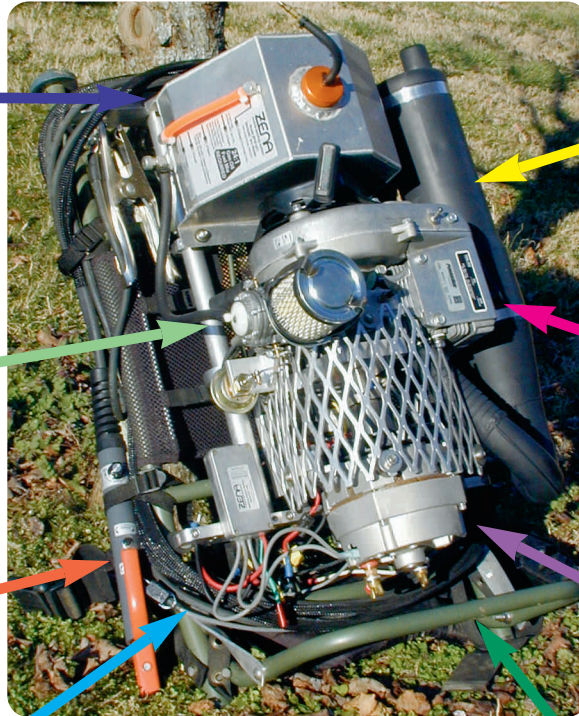
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Get Yours Today!

ZENA™ Backpack™ Welder Specifications / Features

Key Backpack™ Welder Features At-A-Glance



Five quart TIG welded aluminum fuel tank w/built in, calibrated, fuel level gauge, fuel shut off valve, and double vented position sensitive cap (vents during operation & seals for carrying)

Race Tuned Exhaust System maximizes fuel economy, increases engine power and efficiency at welding speed, provides smooth performance, and reduces smoke and other engine emissions

Fully adjustable (for high altitude use) Tillotson carburetor equipped with a ZENA electronic engine speed control -- engine speeds up for welding & idles when not welding

Powerful, easy to start, U.S. Motor Power Two-Stroke Single Cylinder Engine with internal alternator and high performance ignition system -- fully shock mounted with three levels of vibration isolated

20' welding cables equipped with our unique built-into-the electrode holder ZENA fingertip remote welding power control system

ZENA 150A, 100% duty cycle, high frequency DC welding power generator is direct coupled to drive engine for vibration free, 100% efficient, energy transfer

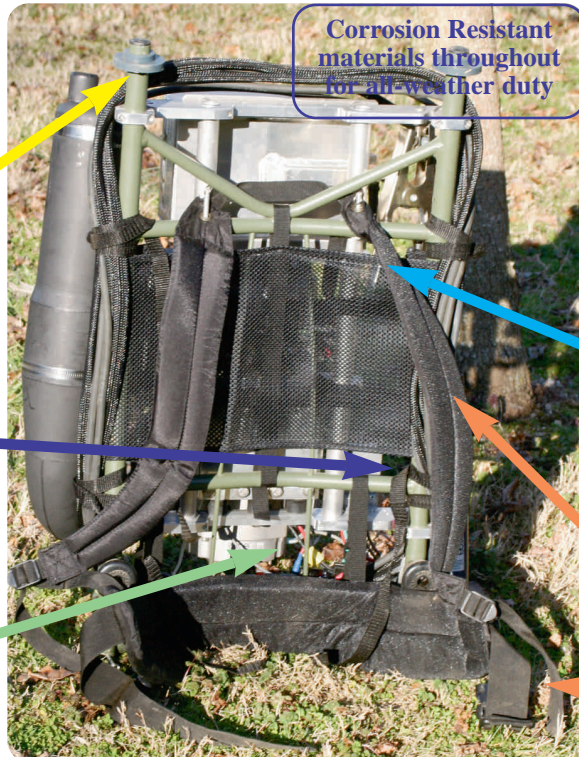
Need More Info? See us on the web:

www.zena.net

OR call us at 615-897-2011 or (toll free in USA) 877-ZENA INC

Welding cables and controls are easily stored and supported during travel and storage by circling engine support frame (fixing straps are included with welder)

Backpack frame is equipped with an aluminum upright support bail to make it easier to put on or take off your Backpack welder AND to protect the Backpack welder components



Corrosion Resistant materials throughout for all-weather duty

Welder is supported during operation by vibration isolating Polyurethane "feet"

Maintenance-Free Overspeed-Limiting Electronic Ignition and Extra Flywheel Mass make engine starting easier, and Fully Balanced Engine components induce less vibration for longer engine service life

ALL Welding System Electronic Controls are completely waterproof - sealed permanently in solid blocks of plastic

Automatic Engine Speed Control insures good fuel economy, minimizes engine noise, and extends engine service life

Fully functional backpack frame with high quality belt and shoulder strap suspension system

Backpak™ Welder Specifications

Backpak Welder Models	BPW150T (w/built in fuel tank) BPW150 (for use with ext. fuel tank)	Either model can be field converted to the other's fuel tank configuration.
Welding Generator Model Number	ZENA™ SR150.12	
Power Output @ 100% Duty	150 amps. max. / 20 amps. min.	
Dimensions	18" W x 24.5" L x 14" H	(Clear space clearance requirement -- including air cleaner)
Weight	65 lb.	(Fuel tank empty, with 20' long welding cables and backpack suspension system)
Typical Voltage Output @ Full Power w/Arc Established	22-26V Ultra High Frequency DC	(Typically 18,000-21,000 pulses/controlled wave form transitions/second)
Typical Voltage Output @ Full Power w/NO Arc Established	74-78V Ultra High Frequency DC	(Typically 18,000-21,000 pulses/controlled wave form transitions per second)
Min. Power Generator Shaft Speed for Maximum Output Power	Approximately 7,000 RPM	(Higher speeds — up to approximately 10,000 rpm - have no detrimental effect on welding performance)
Engine Type / Power	Single Cylinder, Two-Cycle, Gasoline 8 hp @ 7,500 rpm	(Est. fuel consumption, continuous full power welding, approx. 1 gal./hr.)
Welding System & Engine Cooling	High Efficiency Forced Air	
Engine Lubrication	2-Cycle Motor Oil Mixed with Fuel (50:1 fuel:oil mix ratio, when using recommended synthetic oils)	NOTE: A 24:1 fuel oil mix is allowed for short- term emergency use with non-specified 2-cycle oils when recommended oils are not available)
Periodic Maintenance Requirement	Welding System, None Required Engine, None Other than Annual Spark Plug Change	NOTE: Cleaning (with water and/or compressed air) may be required if operating in very dirty conditions, or if chemical contamination occurs.
DC Power for Welding System	100ma to 6A @ 12-14VDC -- generated by system engine's internal alternator.	(No external power required.)
Control Circuit Protection	External Fuse Internal Fuses (2) in WC.12 Module Internal Fuse (1) in WSC Module	(15A) (2 amp & 10 amp) (2 amp)
Welding System Controls	Internal, Electronic, Solid State, Sealed, with Built-In System Diagnostics	(Built into electrode holder/welding cable assembly)
Automatic Engine Speed Control Circuits	Internal, Electronic, Solid State, Sealed, with Built-In System Diagnostics	(Throttle control by means of vacuum actuator assembly)
Welding Rod Sizes	1/16" to 5/32"	
Welding Rod Compatibility	ALL Types, AC or DC	Including: Mild Steel, Low Hydrogen Steel, Stainless, Aluminum, Nickel, Nomacast, Hard Surfacing
Limited Warranty	ZENA Welding System -- 3 Years Engine -- 1 Year by Engine Manufacturer when operated consistently with manufacturer's engine oil (at their recommended mix) OR with Amsoil® Dominator® 2-cycle racing oil at manufacturer's recommended 50:1 gasoline to oil mix.	(NO limitations on commercial use) (The engine warranty is limited to 90 days if engine is operated with a non-synthetic 2-cycle engine oil mixed to engine manufacturers required 24:1 fuel/oil mix for this type of oil)

**Three Year
Limited Warranty**