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Static Phase Converters...

Run 3-Phase Equipment from 1-Phase Power.

Static phase converters are the most economical method to start simple 3-phase motors on single phase power. There is no need to change motors or switch gear. All of GENTEC American Rotary's static converters are in stock and ready for immediate shipment. Our static phase converters will run three phase motors at two-thirds* the rated horsepower and up to 100% of the rated horsepower when configured as a rotary converter. The sizing information below will help you to determine which GENTEC American Rotary static phase converter is best for your application.

Static Phase Converter Prices >
Static Phase Converter Sizing >

Static Phase Converter Features:

- AutoLink™ Sensor
- Built-in Motor Starter
- DataLink™ Technology
- Aggressive Capacitive Starting
- Flexible mounting / Easy Installation
- Terminal Block Wiring
- Heavy Duty and Standard Duty
- PowerGuard™ Protection
- Run Multiple Motors
- Configure as a Rotary Converter
- Made in the USA

Rotary Phase Converters:
For applications where constant voltage balance and/or 100% of the rated hp is required.
Learn More >

Digital Phase Converters:
The ultimate in phase converter technology... 1%
voltage balance under all load conditions!
Learn More >

Basic Static Phase Converter Sizing Guidelines:

You only need to determine the horsepower range and choose between heavy-duty and standard-duty when you are sizing a GENTEC American Rotary Static Phase Converter.

Note: Please call toll free 1-888-743-6832 for sizing assistance if:
1. The motor in the equipment is older than 1965, and/or
2. The motor in the equipment is not a T-frame motor, and/or
3. The motor in the equipment is made in Taiwan, Italy, or Germany, and/or
4. The motor has a high efficiency rating (common in Europe).

Note: Static Phase Converters will *only* run motor loads. Static converters should not be used with CNC applications, resistive loads (such as ovens and other heaters), non-motor inductive loads (such as welders and battery chargers), air conditioners, and are not recommended for use with two-speed motors, or any load that will require the motor to product more than 2/3HP (including most pumps, air compressors, blowers, etc). Please see our selection of rotary phase converters and digital phase converters for these applications, or call toll free 1-888-743-6832 for assistance.

Note: All switch gear, contactors, and controls must operate from two lines only.

1. Choose the static phase converter with the hp range that includes the hp of the motor to be run.
- Unlike a rotary converter, over-sizing the converter is not necessary and will not work.
- Some of the hp ranges of the static phase converters overlap. If the equipment is hard starting, use the

larger of the two converters that still includes the hp of the machine to be run.

2. **Choose a Heavy-Duty Static Phase Converter if:**
   - The equipment is started more than 3 times per hour.
   - Instant reversing will be used.
   - The motor in the equipment is more than 1700-1800 RPM
   - The equipment has a large load to start, i.e. lathe, planer, wide belt sander, dust collector, etc.

3. **Choose a Standard-Duty Static Phase Converter if:**
   - None of the requirements for heavy-duty are met. When in doubt, use a heavy-duty static phase converter, or call our 24/7 toll free sales and technical support line at **1-888-743-6832**.

*Delta wound motors can produce up to 50% of their rated hp. They are uncommon and usually found in machines from Germany and Italy.

HP Range	Buy-It-Now Standard-Duty	Buy-It-Now Heavy-Duty	Shipping Rates	Notes:
1/3 - 3/4	$65	$75	FREE	Please call to order while we update our
3/4 - 1½	$70	$80	FREE	online database and shopping cart.
1½ - 3	$85	$95	FREE	Call Toll Free 1-888-743-6832
3 - 5	$95	$105	FREE	
4 - 8	$120	$130	FREE	
8 - 12	$160	$170	FREE	
12 - 15	$180	$190	FREE	
15 - 20	$200	$220	FREE	(20HP machines must not be hard-starting)

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Static Phase Converter Detailed Feature List:

AutoLink Sensor:

GENTEC American Rotary's AutoLink™ Sensor automatically determines when your machine is turned on. The static phase converter is wired in before the machine switch so it is not necessary to tamper with the machines internal wiring. Simply install the static phase converter between the circuit breaker and the machine. Back to top >

Built-in Motor Starter:

GENTEC American Rotary's RPM/Voltage sensor tells the static phase converter when to drop the built-in motor starter out. The equipment is then switched over to the continuous running circuit. Back to top >

DataLink Technology:

Our exclusive DataLink Technology advances performance by offering real-time component status and diagnostics. Back to top >

Aggressive Capacitive Starting:

Do you know....

GENTEC American Rotary manufactures and distributes the largest selection of phase converters in the world!

Expand to a Rotary:

By simply adding an idler motor, you can upgrade your static converter to a powerful rotary converter!

Sizing Assistance:

Our experienced staff is available 24/7 to answer your questions and help you determine if a static phase converter is right for your application.

Have a Question?

Our static phase converter utilizes custom-built motor starting capacitors, which offer a gentle, yet aggressive starting cycle. These capacitors are designed to start even the most stubborn and hard starting equipment while gently handling easy-start precision machines without overexciting the motors. Back to top >

Flexible Mounting Options / Easy Installation:

Each GENTEC static phase converter has five different mounting configurations built in so that you don't have to compromise when mounting. Mounting hardware is includes as well as diagrams that show the different positions. Back to top >

Terminal Block Wiring:

Forget the wires! We have included oversized, easy to use terminal blocks labeled for easy wiring. The terminal blocks are housed in an oversized conduit box with pre-punched knockouts for quick and easy wiring and installation. Back to top >

Heavy Duty and Standard Duty:

All GENTEC static phase converter components are sized for a lifetime of motor starting. Custom designed capacitors and switchgear are used to insure that your equipment will start each and every time - for a long time. Choose our Heavy-Duty static converter for machines that have a longer start time, such as machines with a flywheel or high RPM's (these include machines such as gear-head lathes, flywheel shears, etc.), other machines can use our standard duty static phase converter. Back to top >

PowerGuard Protection:

The static phase converter automatically shuts down in case of a power failure. When the power is reinstated, the converter is ready to go again. For your protection, it will not restart your motor starter controlled equipment. Back to top >

Run Multiple Motors:

Due to the fact that our static converters are passive (this means that they are used only when starting a machine), once the main machine is started, other machines may be started on the same circuit. Back to top >

Configure as a Rotary Phase Converter:

Adding an idler motor and/or voltage balancer can turn your GENTEC static phase converter into a powerful rotary phase converter. Details on how to do this are included in the installation/operation manual. Back to top >

GENERAL INFORMATION ABOUT STATIC PHASE CONVERTERS:

About American Rotary

GENTEC American Rotary manufactures and distributes the largest selection of phase converters in the world. Established in 1991, GENTEC has consistently led the industry in innovation and design. We have expanded our product line to include electric motors, load centers, transformers, generators, safety switches, three-phase accessories, frequency drives, air compressors, and more... for use in industrial, small business, and hobby applications.

The company is a member of the Better Business Bureau and strictly adheres to Truth in Advertising, ethics, and privacy standards. We are proud to serve our industry with complete dedication to providing outstanding products and customer service.

Please email sales@AmericanRotary.com or call toll free **1-888-743-6832**.

Sales Hours: Monday-Sunday 6AM-10PM with 24-hour toll free technical support.

TOLL FREE
24/7 TECH SUPPORT
1-888-743-6832

What is a static phase converter?
A static phase converter is simply a starting circuit, or motor starter. Once the 3-phase motor starts, the static phase converter disengages and leaves the 3-phase motor to run on single-phase power. There are several advantages as well as a few disadvantages to this method of phase conversion.

Why would I use a static converter?
Static phase converters provide the least expensive way to attain generally good phase conversion for most machine tools. There is no change to the motor speed. All switch gear will operate normally, motors will instant reverse, and motor speed is not changed.

What are the disadvantages of a static phase converter?
The primary disadvantages of using a static phase converter are 1) the motor winding currents will be very unbalanced, and 2) the motor will only operate at about two-thirds its rated horsepower. When balanced voltage is desired and/or required, a rotary phase converter or digital phase converter is indicated.

There are two basic categories of traditional phase converters – rotary and static phase converters. Rotary, as well as static phase converters are used to convert single-phase power to three-phase power. A phase converter is necessary to run commercial or industrial grade equipment, tools or electric motors that require three-phase power when only single phase power is available.. However, there are several key differences between rotary and static phase converters in the methods these phase converters use and their ultimate reliability.

A static phase converter simply acts as a means to start an electric motor. Once that motor is started, a static phase converter disengages - leaving the electric motor to run on single-phase power. The equipment can only operate up to about two-thirds the rated horsepower without forcing too much current through the motor windings. Static phase converters tend to be hard on 3-phase equipment and therefore, their use is limited. They are not be the best choice for many applications. For example, static phase converters should not be used with CNC equipment, resistive loads (such as welders), pumps, air compressors, inductive loads (such as ovens and heaters), air conditioners, and are not recommended for use with two-speed motors.

On the other hand, a balanced rotary phase converter allows an electric motor to operate at or near full capacity. The rotary phase converter supplies an electrical current in all three phases of an electric motor's operation and so provides a consistent flow of energy. In this way and others, a rotary type is preferred over a static phase converter.

If quick and easy setup is important and the loss of power isn't an issue, a static converter may be an appropriate selection for your application; however, if your application requires a constant current and full horse power, a rotary phase converter - still quite easy to install - is a better choice.

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