



SPX[®]

Geareducer[®] Solutions

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> Marley[®]





PROVEN HISTORY

SPX Cooling Technologies, Inc. designs and manufactures Marley® Geareducers® for cooling towers in HVAC, industrial and power plant applications. For over 75 years, the Marley Geareducer has set the standard for excellence in performance and durability. Every one of over 100,000 units installed in the field embodies SPX's commitment and attention to quality standards in development, production and performance.

COOLING TOWER KNOWLEDGE

SPX, as a leading cooling tower manufacturer, designs and produces all critical components, including the Marley Geareducer, specifically for cooling tower applications. SPX understands the gearbox is an important component in meeting your cooling needs. That's why the Marley Geareducer is designed by SPX engineers to optimize the entire system, ensuring all components work together to deliver optimal thermal performance.

SUPERIOR PERFORMANCE

Marley Geareducers have set a high standard in performance and durability. The Marley Geareducer's high quality gears deliver lower sound and longer life compared to other manufacturers. High thrust load bearings offer increased service life and half the bearing maintenance costs. These key features, along with a warranty that covers the entire unit, set Marley Geareducers apart from the rest.

BREADTH OF OFFERING

SPX serves customers in all cooling tower applications and end-markets including HVAC, industrial and power. Our offering includes Geareducer sizes up to 300+ horsepower and gear ratios from 2.13 to 19.72 in both single and double reduction. We also have over 75 gearbox models in stock with over 200 assembled Marley Geareducers ready to ship. We give you the flexibility to find the Geareducer that is optimal for your particular application through our many value-added options, including premium input/output seals and an anti-reversing device that add reliability and overall life to the gearbox.

And now, we are expanding our offering! SPX is giving you a rebuild and repair option for your well worn gearbox. Not only can you get a new replacement gearbox for your cooling tower; a factory-trained technician with years of experience can repair your existing gearbox or rebuild a gearbox for you at our Marley plant in Olathe, KS. With our Geareducer Solutions program, you can be confident SPX has a solution regardless of your needs.

Marley Geareducer Solutions — Which is right for you?

GEAREDUCER COMPARISON	New Geareducer	Rebuilt Geareducer	Repaired Geareducer
NEW BEARINGS	✓	✓	✓
NEW OIL SEAL	✓	✓	✓
SANDBLASTED AND PAINTED	✓	✓	✓
FACTORY DYNO-TESTED	✓	✓	✓
NEW GEARSET	✓	As Needed	As Needed
NEW FAN SHAFT	✓	As Needed	As Needed
NEW CASTINGS	✓		
VALUE-ADD OPTIONS* AVAILABLE FOR PURCHASE	✓		
WARRANTY	2 year	1 year	1 year
LEAD TIME	In Stock ¹	2-3 Weeks ²	3-4 Weeks

¹ Over 200 new Geareducer assemblies in stock

² Assumes Geareducer core is in stock



* VALUE-ADD OPTIONS

- Premium input/output seals (Inpro, Chesterton, etc)
- Triple epoxy paint for even further corrosion protection
- Low oil level switch
- Temperature switch / RTD
- Oil heater with thermostat
- Vibration transducer mounting
- Anti-reversing device
 - External S316 stop-bracket style
 - Internal sprag clutch backstop
- Repair units with value added options will be replaced in kind

New Marley Geareducer

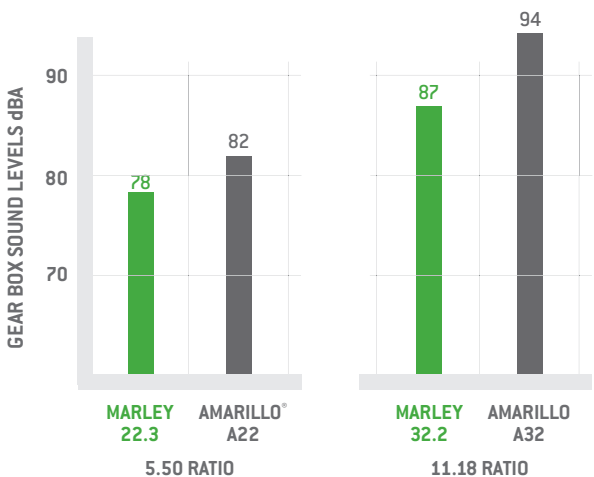
How much is your downtime worth? When performance is key and you can't afford to be down, a new Marley Geareducer is the right solution to meet your needs. In your industry, sometimes you just can't afford to compromise.

Getting a Geareducer from an industry leader in cooling towers will put you at an advantage from the start. Quality gears provide longer life and over 30% lower sound compared to lower class gear sets. Marley Geareducer bearings have twice the L_{10A} service life for input and intermediate shafts that require half the maintenance costs. Marley Geareducers have a 100,000-hour service interval on input and intermediate shaft bearings compared to the 50,000-hour service interval of other manufacturers. All of this, and more, will make you glad you didn't compromise.

Choosing a new Marley Geareducer simplifies maintenance and service intervals. The output shaft is sealed with a maintenance-free labyrinth ring and an oil pump is not required due to proven splash lubrication. The Marley Geareducer also requires fewer fluid change-outs in its lifetime, leading to reduced waste stream and environmental problems. Plus, no one else in the industry provides the same level of guarantee – a full two-year warranty on all components of the gearbox, including the seals and bearings.

- Prior to shipment, all Marley Geareducers are factory dyno-tested under full load to ensure factory specifications are met
- Gear sets are AGMA Quality Class 9 to 11, increasing gear life compared to the lower quality class gear sets of other manufacturers
- Fine gear mesh minimizes sound levels to produce a gearbox with 30% lower sound
- Runs cool – no auxiliary fan or oil cooler needed
- Low-level oil indicator switches, anti-reversing devices and oil seal options are available to add value and flexibility to your new Marley Geareducer
- **Full two-year warranty on all Geareducer components**

- Sound levels are 30% lower than other manufacturers, verified by third party testing



Gearbox sound level tests conducted by National Technical Systems (NTS) in accordance with SAE J2101 under fully loaded conditions

BEARING LIFE	Marley Geareducer	Amarillo
INPUT SHAFT BEARINGS	100,000 hr	50,000 hr
INTERMEDIATE SHAFT* BEARINGS	100,000 hr	50,000 hr
OUTPUT SHAFT BEARINGS	100,000 hr	100,000 hr

*Intermediate shaft on double reduction gear boxes

Rebuilt Marley Geareducer

SPX understands that not everyone can buy new. However, that does not mean you have to settle. With our Marley Geareducer rebuild option, you can have the reliability and quality of the new product that you really want – at a reduced price.

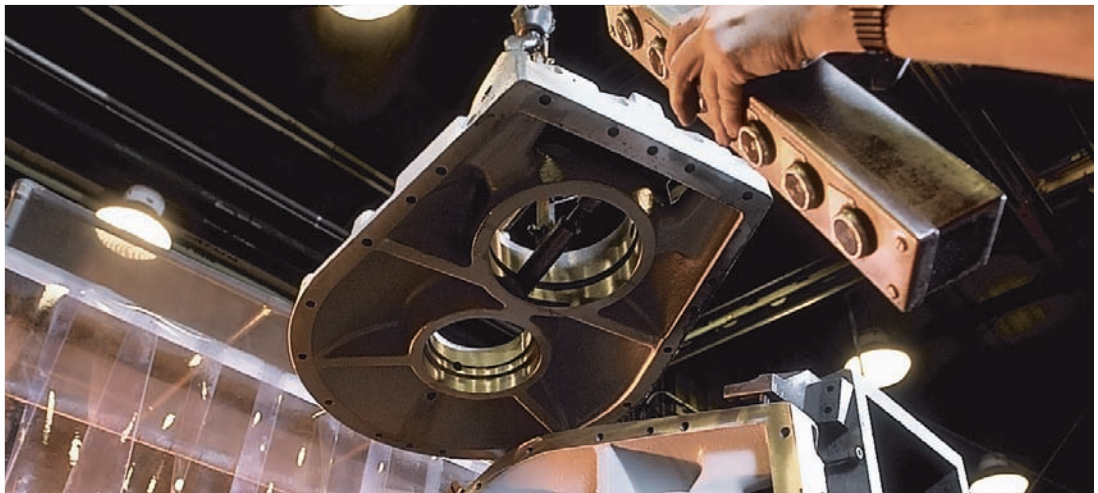
When SPX rebuilds a gearbox, you can have the confidence that it will perform like new. Only genuine Marley OEM components ensure the appearance, reliability and performance you have come to expect from a new Marley Geareducer. And, to give you added comfort, all rebuilt Marley Geareducers have a one-year warranty that covers all gearbox components, including the seals and bearings. All of this, plus exceptional service, is included at a price you can afford.

Upon ordering, a pre-owned gearbox casing is assembled by a qualified SPX technician at our Marley plant with components that meet the specifications of a new Marley Geareducer. Critical components and cores are stocked to meet your specific needs with short lead times. Prior to shipment, all Marley Geareducers are factory dyno-tested under full load*, to ensure factory OEM specifications are met.



**The factory dyno-test under full load ensures the gearbox has been re-assembled properly and is capable of running at the rated torque and horsepower.*

- High quality tapered roller bearings with 100,000 hours minimum L_{10A} life and seals are included in each rebuild to give you added service life and reduced maintenance costs
- The oil seals, gaskets and bearings are replaced on all rebuilt gearboxes
- Genuine Marley OEM components and a one-year warranty help provide years of additional optimal performance for your cooling tower
- The gearbox case is solvent-cleaned and the exterior is bead-blasted prior to the application of a primer and two coats of epoxy-polyamide paint for superior rust protection



Repaired Marley Geareducer

Your Marley Geareducer is one of the most critical components in your cooling tower. The long-term reliability of your system requires regular care and maintenance of your gearbox. When it is time for an overhaul, depend upon the people who built your Marley Geareducer in the first place.

Why trust a local repair shop to fix your most critical component? With our Marley Geareducer repair option, a qualified SPX technician will use the factory-designed tools, dies and jigs to repair your unit to meet all Marley OEM performance specifications. During the disassembly process, measurements are made to determine the condition and setup of the gearbox. Checking these measurements is essential in determining if the gearbox has been serviced improperly during prior work or if certain components have become worn and are no longer within specification. Upon completion of this process, you will receive a detailed report to help you make a well-informed decision about having your gearbox repaired.



After re-assembly, all Marley Geareducers are factory dyno-tested under full load prior to shipment. This ensures the Geareducer is capable of running at the rated torque and horsepower. Can your local repair shop do all of that?



- All repaired Marley Geareducers have a comprehensive one-year warranty that covers all components of the gearbox, including the seals and bearings
- Based on the findings in the initial inspection, a new gear set and fan shaft may be installed in your gearbox
- High quality tapered roller bearings and seals are included to ensure longer service life
- For added protection from rust, the gearbox case receives primer and two coats of epoxy-polyamide paint





GEAREDUCER
SOLUTIONS

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In the interest of technological progress, all products are subject to design and/or material change without notice.

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