

Converting Oil Hydraulics to Electric Drives with Valley Components



RELIABLE

DURABLE

PRECISE

EASY-TO-USE

RESPONSIVE





1

Adjustable leg mounts



2



3



4



5



7



6

- 1) The Valley heavy duty universal base beam converts your oil hydraulic drive to electric with ease. Special adjustable design allows adaptation to different models allowing conversion of machines of all ages.
- 2) Tower legs bolt directly to the base beam without requiring in-field modifications. Drive shafts, u-joints and gearmotors are located for easy access. Valley gearboxes provide unmatched reliability and durability over years of tough field conditions. (In some cases, the design allows for re-use of existing gearboxes.)
- 3) Valley alignment components provide unmatched reliability. Exclusive Valley designed components such as microswitches and contactors provide many years of trouble-free performance that you expect. Bolt-up mounting allows for quick, easy and accurate installation.
- 4) Valley control panels are easily installed and provide fingertip control right at the pivot point – exactly where you need it.
- 5) Choose from four different control panels: Classic, Classic Plus, Select and Pro2 to meet all of your irrigation needs.
- 6) Valley_® Tracker allows the grower to check status via phone or web. It has the ability to instantly contact you in the event of a shutdown. Available in the United States and Canada only.
- 7) Easily manage your irrigation operations right from your personal computer with BaseStation2.

Converting from Oil Hydraulic Drives to

Convenience.
Efficiency.
Productivity.

As a grower, these are words to live by and what you require in mechanized irrigation.

You depend on irrigation equipment to operate under a variety of conditions around the clock. You expect a high level of performance without a lot of hassle. A level of performance you can get from electric drive technology with an oil hydraulic conversion using Valley irrigation components – the proven choice of growers worldwide.

Specially engineered drive train and alignment conversion packages convert your oil hydraulic machine to a reliable electric drive machine with durable Valley components, increasing energy efficiency and reducing labor and energy costs.

Valley offers three conversion solutions engineered specifically for your machines. Converting to an electric drive machine is as easy as:

- 1) Drive train & alignment
- 2) Pivot controls and power delivery
- 3) Low pressure sprinkler package updates



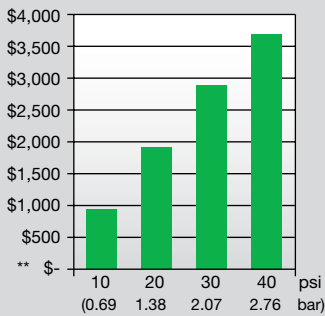
Energy Saving Valley® Technology

Low-Pressure Sprinklers Lower Pumping Costs

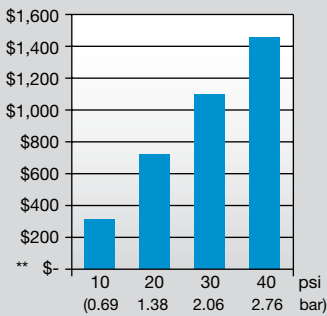
In the past many irrigation machine designs were configured without booster pumps, creating reduced initial up-front costs. However, in order to effectively operate an end gun, many of these machines were designed to operate at 50 psi (3.45 bar) or greater. Creating unnecessary pressure creates higher pumping costs.

Add up the savings each year if you can save 20, 30 or 40 psi (1.38, 2.06, or 2.76 bar) in operating pressure with an updated Valley low pressure sprinkler package and an easy add-on booster pump option.

Potential Savings per 1000 Hours of Operation with Diesel



Potential Savings per 1000 Hours of Operation with Electricity



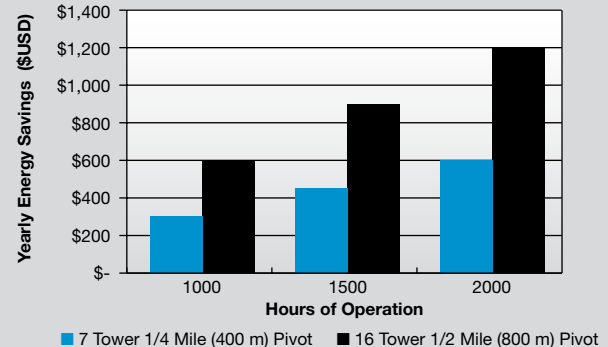
Based on 850 gpm (54 L/s), 80% pump efficiency, \$2.50/gallon (\$0.66/litre) diesel fuel or \$0.07/kW-hr electricity. Savings will also vary on how well the pump and engine fit the lower operating pressure.

**All dollar amounts are in \$USD.

Electric Drive Pivots Cost Less to Operate than Oil Hydraulic Drives

Electric drive center pivots can use up to 75% less energy* to move the machine around the field. The oil hydraulic pumping unit must provide a constant 1750-1800 psi (121 -124 bar) operating pressure at all times, no matter what speed. Electric drive machines provide power only when needed, thus reducing the overall energy costs.

Potential Yearly Energy Savings of Electric vs. Oil Hydraulic Center Pivot
(1" / 25mm of Water applied per Revolution)

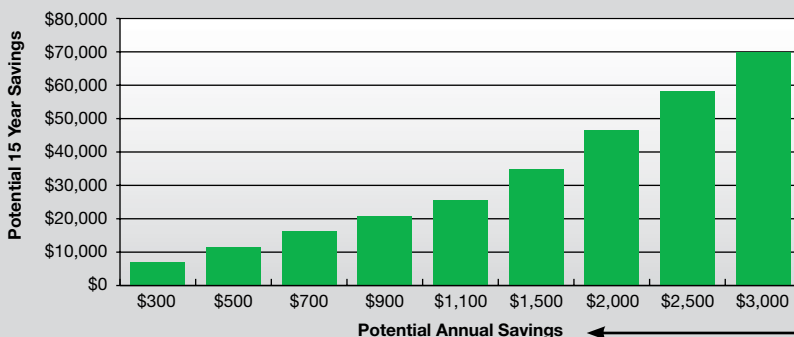


Assumption: Electricity at \$0.07/kW-Hr
*Results will vary based on model types, soil conditions, terrain and speed.

Yearly Savings Add Up Over Time

Yearly operating savings in energy costs can add up over years of operation. Converting an oil hydraulic drive with low pressure sprinklers, Valley controls, and Valley drive train lets you put these savings in your pocket while enjoying all the benefits of electric drive technology.

Potential Savings Compounded Over 15 Years at 6% Interest**



**All dollar amounts are in \$USD based on North America energy costs.

My Low Pressure Savings/Year	= \$	_____
My Pivot Operating Savings/Year	= \$	_____
Potential ANNUAL Savings (see chart for potential 15 year savings)	= \$	_____

A Valley Conversion - Convenient and Versatile

Maximum management capabilities with a minimum investment due to the convenience and flexibility of electric controls.

- Adjust water application rate and direction of travel right from the pivot point as a standard feature. Put water exactly where you need it.
- On-screen water application display with Select and Pro2 Control options for easy and precise water application control.
- Endgun management is easy with Valley Controls. Change settings at the pivot point and easily add a booster pump and an energy saving sprinkler package for low pressure applications.
- Electrical collector ring provides for full and part circle operation without having to disconnect the power source.
- A Valley conversion offers a wide range of tire sizes and motor speeds for quick revolution times, perfect for field operations and light applications.
- Remotely monitor and control your converted pivot with Tracker*, Tracker SP* or BaseStation2.

*Tracker and Tracker SP are available in the United States and Canada only.



The Difference is Clear

There are many reasons why over 95% of the world's center pivots are electric drive machines. Electricity is an everyday form of power. Experience the benefits of electric drive technology with a conversion solution from your local Valley dealer:

- Electric drive center pivots can use up to 75% less energy to move the machine around the field.
- Savings to run electric vs. hydraulic drive center pivots can save you thousands of dollars in operating expenses over years of operation.
- Many oil hydraulic drive machines require high pivot water pressures of 50 psi (3.45 bar) or more just to operate the end gun efficiently without a booster pump.
- Lowering your sprinkler operating pressure by 20-40 psi (1.38-2.76 bar) can result in additional big annual savings in energy costs.
- Efficient electric drive conversions from Valley are specifically engineered for your oil hydraulic machine, providing you with a solution that looks good and performs under tough conditions.



- Electricity is the most convenient and versatile form of energy to operate a center pivot. Electrical controls provide for the utilization of technology on your center pivot – NOW and in the FUTURE.
- The Valley limited warranty supports new electric drive conversion parts and Valley dealers provide unmatched sales and service support of the product.

Warranty Support

All oil hydraulic conversions are covered by a Valley warranty on new Valley components.

Factory trained dealers focused full time on your irrigation needs are driven by the industry's best warranty that compensates them for warranty time and costs.

Contact your local Valley dealer today for more information on the simple and money-saving conversion from an oil hydraulic drive to electric, and experience the performance and reliability that only Valley can give you.



Rely on Valley® Dealers

Valley dealers have built their reputation on responsive service with factory-trained technicians. Valley dealers are full time irrigation professionals focused on meeting your needs throughout the growing season in an effort to minimize downtime.

The conversion solution you invest in from a Valley dealer has been designed with standard Valley components that dealers stock – thus ensuring you of parts availability. Plus, Valley dealers have access to five factory-owned parts distribution centers across the United States providing our customers with the fastest parts availability in the industry.

Valley dealers combine their product training and knowledge of local agricultural practices and field conditions with irrigation experience to design the conversion solution that's right for your field.



Conserving Resources. Improving Life.

7002 North 288th Street
Valley, Nebraska 68064-0358 USA
Phone: 402-359-2201 (Ext. 3415)
Fax: 402-359-4429
E-mail: irrigation@valmont.com

International Fax: 402-359-4948
E-mail: vintl@valmont.com

www.valmont.com/irrigation

* See your local authorized Valley Dealer for complete details.

Valmont, Irrigation has a policy of continuous product improvement and development. As a result, certain changes in standard equipment, options, price, etc., may have occurred after the publication of this brochure. Some photographs and specifications may not be identical to current production. Your local Valley, dealer is your best source for up-to-date information. Valmont Irrigation reserves the right to change product design and specification at any time without incurring obligations.

©2007 Valmont Industries, Inc., Valley, NE 68064 USA. All rights reserved.

AD11100 CP 06/07