

# POWERDRIVE GEARBOX



## Why A Zimmatic PowerDrive Gearbox?

Because no other component on your irrigation system has to be as tough. That's why Zimmatic® has engineered extra strength and performance into almost every element of the new PowerDrive gearbox. Look it over. We're confident you won't find this combination of advantages—and long-term reliability—anywhere else.

### More Barriers To Prevent Wear

PowerDrive has the industry's most comprehensive multi-barrier sealing system. Its multi-barrier construction works to extend gearbox life by protecting input and output shafts against leakage contamination and wear.

#### UNIQUE INPUT & OUTPUT CARTRIDGE SEAL ASSEMBLY

- Turns with the shaft instead of wearing against it
- Positive, motionless fit against the shaft eliminates wear and extends seal life
- More points of sealing contact (ten barriers on input, eight on output) than other systems
- Spring-loaded cavity holds special high-temperature grease to reduce film build-up and friction
- Protected internal location resists pressure better than other designs—will not pop out



### More Strength In Critical Areas

#### INCREASED BEARING SIZE

- Larger input bearings on both ends of input shaft
- 55% greater load capacity

#### REINFORCED HOUSING

- Superior structural integrity

### More Durable Power Transmission

#### HEAVY-DUTY BULL GEAR

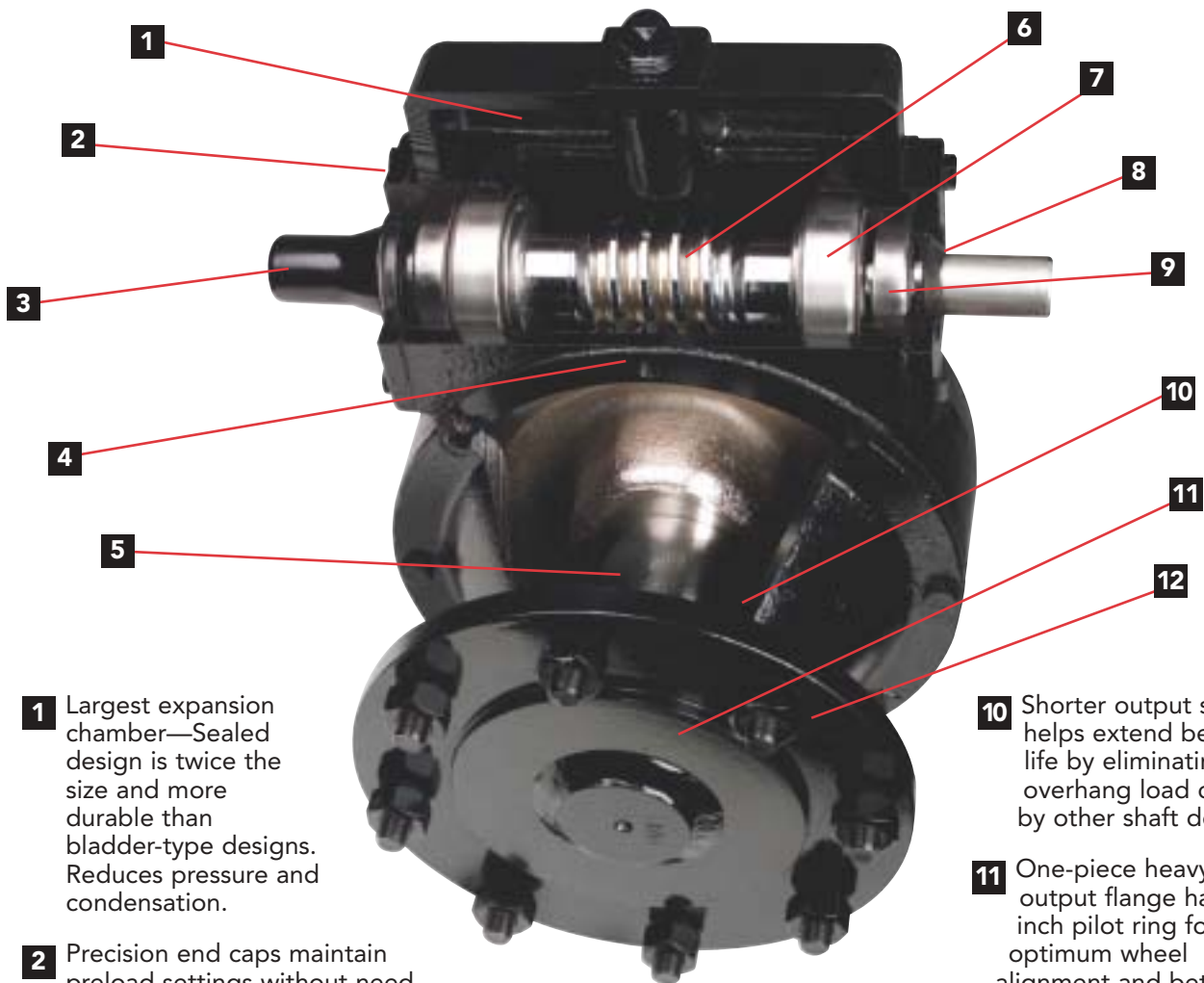
- Wider to handle extreme loads
- More tooth contact for consistent torque in rough conditions
- Less stress—Use of 14.5-degree gear-teeth angle instead of more common 25-degree angle prevents high separation loads and minimizes back drive pressure—greatly extending the life of the gearbox

#### HOT-FORGED STEEL WORM GEAR

- High-strength 1045 steel vs ductile cast iron used by others
- More contact area for greater load capabilities
- Minimizes oil leakage found with cast-iron worm gears
- All bearing and seal-contact surfaces fully ground for added precision and reduced wear



# PowerDrive Gearbox



**1** Largest expansion chamber—Sealed design is twice the size and more durable than bladder-type designs. Reduces pressure and condensation.

**2** Precision end caps maintain preload settings without need for frequent adjustment.

**3** Versatile right- and left-handed inputs fit either side of tower. Easy interchange for replacing competitive drives.

**4** **New**—Wider bull gear for increased load carrying capacity and longer life. (See at left)

**5** Large, specially heat-treated and radiused key coupled with enlarged hub to handle maximum torque.

**6** Machined from hot-forged 1045 steel, the worm gear is stronger and more durable than ductile iron.

**7** **New**—Larger bearings on both ends of input shaft provide 55% greater load capacity.

**8** Exclusive crop guard end caps prevent crop residue from damaging seal areas.

**9** **New**—Advanced design input and output cartridge seals extend life by:  
(1). Providing more barriers to leakage and contamination and  
(2). Resisting pressure that causes pop-out on other designs. (See at left)

**10** Shorter output shaft helps extend bearing life by eliminating high overhang load caused by other shaft designs.

**11** One-piece heavy-duty output flange has six-inch pilot ring for optimum wheel alignment and better support than fabricated designs.

**12** One-inch lug nuts are 15% larger than others for more secure wheel-to-flange connection.

# Zimmatic Irrigation Systems

Zimmatic® automated mechanical move irrigation systems are helping producers around the world meet a wide range of cropping, terrain and climactic challenges. Whatever your situation, Zimmatic has a center pivot, mobile, lateral or corner system that is just right for you.



## CENTER PIVOTS

- Sturdy construction
- Precise water and chemical application
- Adaptable to different landscapes and climates



## LATERAL MOVE SYSTEMS

- Achieve up to 98% application coverage
- Can be hose-fed, ditch-fed, or use an enclosed pipeline



## MOBILE PIVOTS

- Easily moved to different fields
- Economically viable for smaller operations
- Proven, reliable Zimmatic construction methods



## CORNER SYSTEMS

- Dramatically increase application coverage
- Adaptable to different field shapes
- Pivot and corner arm are coordinated to eliminate overwatering or underwatering

For more information, see your local dealer.

**Zimmatic™**  
STRENGTH TO GROW ON

Lindsay Manufacturing Co. • P.O. Box 156 • Lindsay, NE 68644 USA  
Phone: (402) 428-2131 • FAX: (402) 428-2795  
[www.zimmatic.com](http://www.zimmatic.com)

ISO 9001  
CERTIFIED

Z 2003-01