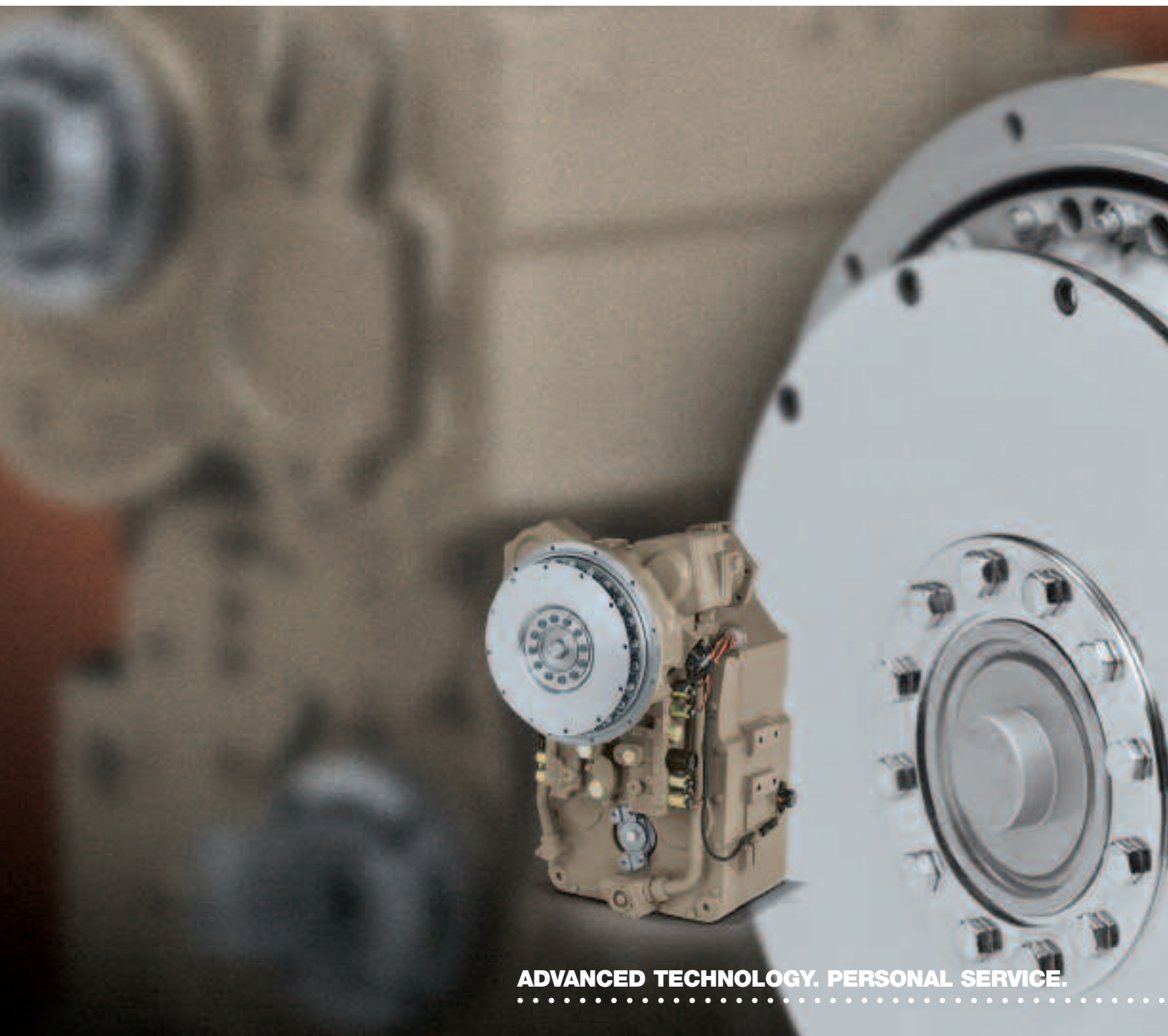




**JOHN DEERE**

*Powershift  
Transmissions For  
The Off-Road Market*

**Funk Drivetrain Components**



**ADVANCED TECHNOLOGY. PERSONAL SERVICE.**

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# DF Series Powershift Transmissions

***The DF series brings the latest in electronic powershift technology to the off-road market.***

Electronic controls enable the transmission to recognize the operator's intentions, and to control the appropriate hydraulic valves, based on the customized software programmed into the controller.

Choose from the DF150, DF180, and DF250 series, depending on your horsepower needs.



Model	Max input power	Max input no load speed	Max input torque	Mounting options	Gearings	Pump drive	Options
DF150	112 kW (150 hp)	3000 rpm	1288 Nm (950 lb-ft)	Engine, midship, or remote	Constant mesh, in-line, high-contact ratio ground gears; 8 fwd, 4 rev speeds	Full range of SAE mounting options	<ul style="list-style-type: none"> <li>• Magnetic pulse generator for speedometer</li> <li>• Internal engine-side axle disconnect</li> <li>• Caliper and disc or integral spring applied, pressure-released parking brake</li> <li>• Torque converter or direct drive</li> </ul>
DF180	134 kW (180 hp)	2600 rpm	1288 Nm (950 lb-ft)	Engine or remote	Constant mesh, in-line, high-contact ratio ground gears; 8 fwd, 4 rev speeds	Full range of SAE mounting options	<ul style="list-style-type: none"> <li>• Magnetic pulse generator for speedometer</li> <li>• Integral spring applied, pressure-released parking brake</li> <li>• PTO/Winch drive</li> </ul>
DF250	186 kW (250 hp)	2600 rpm	1898 Nm (1400 lb-ft)	Engine, midship, or remote	Constant mesh, in-line, high-contact ratio ground gears; 11 fwd, 4 rev speeds	Full range of SAE mounting options	<ul style="list-style-type: none"> <li>• Magnetic pulse generator for speedometer</li> <li>• Internal engine-side axle disconnect</li> <li>• Caliper and disc or integral spring applied, pressure-released parking brake</li> <li>• Torque converter or direct drive</li> </ul>



# The Shifting Is Smooth, The Service Is Exceptional

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## ***Reliable powershift transmissions.***

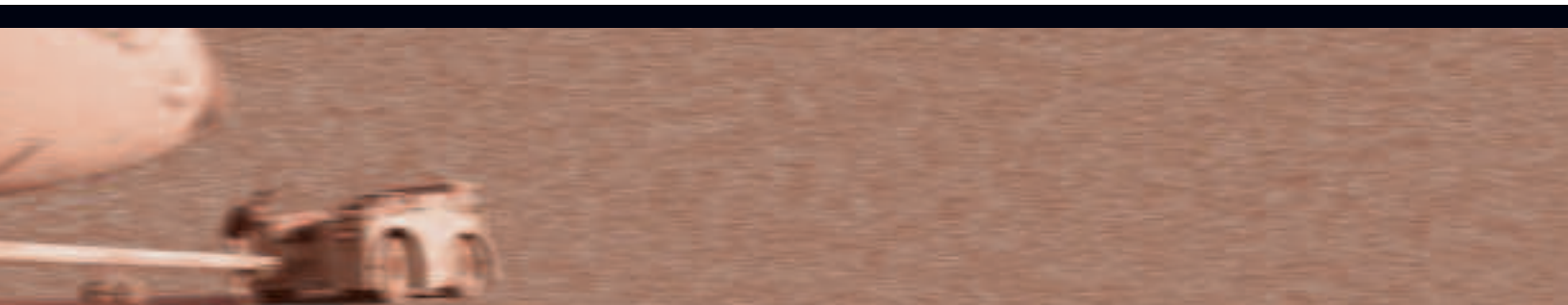
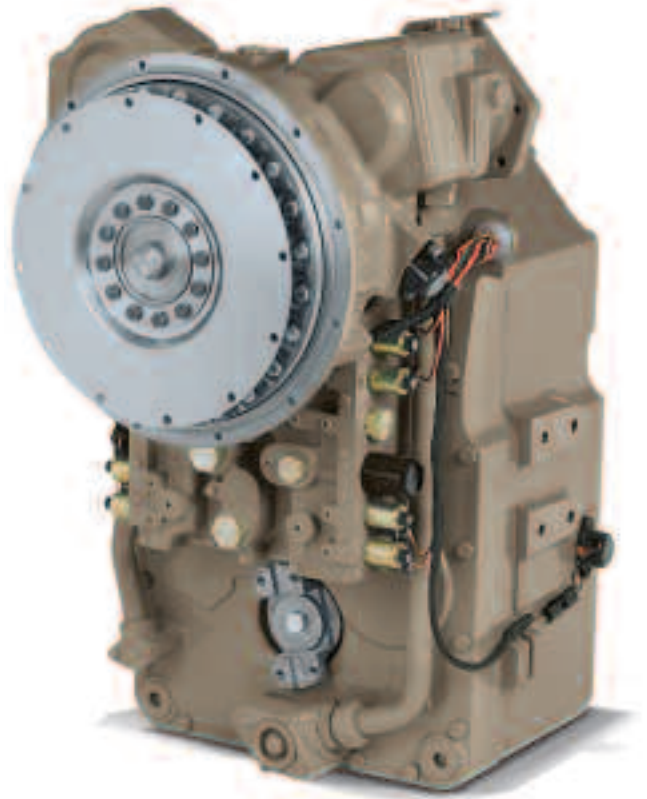
Your customers trust you to provide reliable, high-performance equipment with the most up-to-date components. We produce powershift transmissions that help you meet that need – and we do it with personal, attentive service, no matter what size your operation.

Our powershift transmissions are available in both torque converter and direct drive options, covering applications in ag, construction, forestry, mining, aircraft ground support, railroad maintenance, and other industries. Mounting options include engine, midship, and remote.

Funk transmissions are built in one of the most advanced power transmission manufacturing facilities in the world. Our leading-edge technology means your OEM machines have smoother shifting, along with fingertip speed and directional control. This enables the operator to get more production out of the machine, more quickly and with less effort.

Best of all, we still believe in personal service, so when you have a specialty order or other unique need, we respond. Our application engineering group will work closely with you, providing a detailed concept performance analysis of your vehicle. Knowing your vehicle's expected performance beforehand will eliminate risks, such as costly and time-consuming redevelopment.

All models in the Funk powershift transmission line feature a high degree of parts interchangeability, minimizing your parts inventory.



## DFR: Engine-Mounted PTO

### ***Electronic or mechanical controls to fit your applications.***

Our 2000 powershift transmission series features mechanical/electric controls, while our DF series employs an electronic control unit. The DF series can communicate with other parts of your equipment, including the engine, and includes neutral start protection, inching/clutch control, automatic or operator selective shifting, and more.

The front housing of our DF150 and DF250 products is our DFR engine-mounted PTO, which can also be purchased as a stand-alone product. The DFR mounts to the engine and can be used to power the transmission, as well as a variety of external equipment.

#### **Ratings**

- Input power (max): 224 kW (300 hp)
- Input no load speed (max): 3000 rpm

#### **Engine housing**

- SAE #2 or #3

#### **Options**

- Direct-drive or converter
- Dual pump drive pads with a variety of yoke and flange outputs



# Series 2000 Specifications

## SERIES 2000

### Ratings

- Input power (max): 168 kW (225 hp)
- Input no load speed (max): 3000 rpm
- Turbine stall torque (max): 1627 Nm (1200 lb-ft)

### Mounting options

- Engine, midship, or remote

### Converter

- Three element, single-stage, with free wheel or fixed stator
- Size options:
  - 298.5 mm (11.75 in) stall torque ratio, 2.01-2.9
  - 323.9 mm (12.75 in) stall torque ratio, 2.10-2.7
  - 355.6 mm (14.00 in) stall torque ratio, 2.16-3.0

### Gearing

- Constant mesh, in-line, high-quality spur gears
- Up to six speeds full powershift forward (no range shift required), three speeds reverse

### Controls

- Electric solenoid control valve with full clutch modulation, mounted on the transmission as standard

### Options

- Single-lever operator controller (includes neutral start and reverse warning alarm switch)
- Magnetic pulse generator for speedometer
- Integral engine side axle disconnect
- Integral no-spin differential
- Disc parking brake
- Converter lock-up



Pump drive pads	Left	Right
Rotation (viewing drive pad)	Counterclockwise	Counterclockwise
Ratio (engine speed to pump speed)	1:1	1.15:1
Mounting and spline size	SAE A, B, or C	SAE A, B, or C
Disconnect available for mounting size	SAE C	SAE C, B
Power (intermittent, max)	168 kW (225 hp)	168 kW (225 hp)



For additional information, contact:

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# Proven Off-Highway Performance

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## *Your equipment deserves nothing less.*

Funk drivetrain components are backed by over 50 years of OEM and off-highway experience. This tradition of quality engineering and manufacturing goes into each powershift transmission we produce.

When you choose a Funk powershift transmission, you know you are getting the best combination of product design, manufacturing quality, application engineering support, and dedicated service.

To see how Funk drivetrain components can add value to your equipment call 1-800-533-6446.



**JOHN DEERE**