

## Drive and Motion Systems for Feed Mixer Machines



Dana Spicer<sup>®</sup> Drivetrain systems and Brevini<sup>®</sup> motion systems solutions for Feed Mixer Machines

### Full-System Solutions for Feed Mixer Machines

A cattle feed mixer can be self-propelled, trailed or stationary, and can be fitted with a Vertical or Horizontal mixer. Our current portfolio is able to support any of these configurations. Machines are designed to feed cattle on a daily basis, i.e. intensive use. The milling head gathers the fodder, pushing it into the conveyor through the desilage arm, to reach the vertical mixer, where the original fodder is mixed with a nutritional supplement for cattle. At the machine's end, a distribution system spreads the final mixed fodder evenly into the cattle storage unit. Dana Motion System's range of cattle feed mixer drives are modular planetary gear units modified to meet the operating requirements of cattle feed mixers in agricultural industries. The mixer drives combine the traditional advantages of Dana planetary technology – compactness and high efficiency – with the characteristics of strength and reliability.

The hydrostatic transmission of these machines can be made with our rigid or steering axles plus hydraulic motor or by wheel drives



#### **Brevini® Axial Piston Pumps**

Displacement up to 226 cc Medium- and high-pressure options Fixed and variable displacement available Open or closed loop circuit ATEX certification



#### **Brevini® Axial Piston Motors**

Fixed and variable displacement Displacement up to 216 cc/rev Seven or nine piston options technologies Wide range of control valves



#### **Brevini® Orbital Motors**

Support 13 to 500 cc displacement Fixed and variable displacement Roller and gearmotor type available



#### **Brevini® Pump Drives**

Input Power up to 480 kW Suitable for internal combustion engine or electric motor as input Output connection for 2, 3 or 4 hydraulic pumps Wide Range of ratios available to reduce or increase pump speed Modular concept Different pump pad available, to connect the majority of pump model

Additional pump for lubrication or cooling system available on request.



#### Brevini<sup>®</sup> Proportional -Directional Valves

Fixed and variable displacement pump options

Remote, electronic operation Smooth control to improve work function performance



#### **Brevini® Slewing Drives**

Robust output frame to sustain and drive the auger Wide range of ratios and the modular concepts available Maximum output torque up to 48 kNm Integer shaft flange Flange frame mounted Strong construction and high bearings capacity layout Two or three stages solution

Electric IEC and NEMA motor adapters



#### **Brevini® Cetop Valves**

Fixed and variable displacement options On/off or proportional directional flow Bankable cetop valves for harsh environments



#### **Brevini® Gear Pumps**

High efficiencies in compact construction High reliability Longer life in agricultural and mobile applications Low noise level



#### Brevini<sup>®</sup> Electronic Control Management

Complete solution for electric hydraulic control and human machine interface thought innovative ECUs, display and joystick.

Enhanced programming flexibility to meet any customer requirement.

Spicer® drivetrain systems include a range of axle options, wheel and track drives, hydrodynamic transmissions, and electronic controls. In addition, Brevini® motion products for the Cattle Feed Mixer include gearboxes and hydraulic components such as motors, pumps, and valves. Dana's portfolio of advanced technologies has been engineered to support increased productivity and reliability, and lower emissions. It will improve

operator safety and comfort, and reduce total cost of ownership. Dana offers customized solutions to meet a range of customer needs in the most demanding environments, developed to match the robustness and duration required for typical agriculture applications



#### Spicer<sup>®</sup> Wheel Drives

Wide range of Spicer wheel drive for self-propelled feed mixers

One effective solution provider: wheel drive equipped by hydraulic / electric motors

Robustness, compactness and reliable solution to match the high performances required by agriculture machines

Parking and dynamic braking system integrated

Mechanical disconnect device for towing

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#### **Spicer®** Axles

Multiple configurations available Bevel set and two different hub reduction sizes produce different ratios Suitable for hydrostatic or hydrodynamic drivelines Different design implemented to fulfill market demand



#### Spicer<sup>®</sup> Driveshafts

Optimized torque-carrying capability to meet vehicle demands Service-free option provides a maintenance-free product Completely interchangeable with relubeable products to reduce service parts Smaller packaging allows for greater flexibility among driveshaft configurations Industry leader providing broadest range of products to meet your requirements





## Technologies Customized to **Every Part** of the Globe

With a global presence in 33 countries, Dana incorporated boasts more than 100 engineering, manufacturing, and distribution facilities. Our worldwide network of local service centers provides assurance that each customer will benefit from the local proximity and responsiveness that they need.

#### About Dana Incorporated

Dana is an integral partner for virtually every major vehicle and engine manufacturer worldwide. We are a leading supplier of drivetrain, sealing, and thermal technologies to the global automotive, commercial-vehicle, and off-highway markets. Founded in 1904, we employ thousands of people across six continents.



About Dana Off-Highway Drive and Motion Technologies

Dana delivers fully optimized Spicer<sup>®</sup> drivetrain systems and individual product solutions to customers in construction, agriculture, material-handling, underground mining, and forestry markets, plus Brevini<sup>®</sup> motion systems for machine working functions.

# Learn more about Dana's drivetrain and motion systems at **dana**. **com/offhighway**

#### Dana.com/oh/contact

#### Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.



