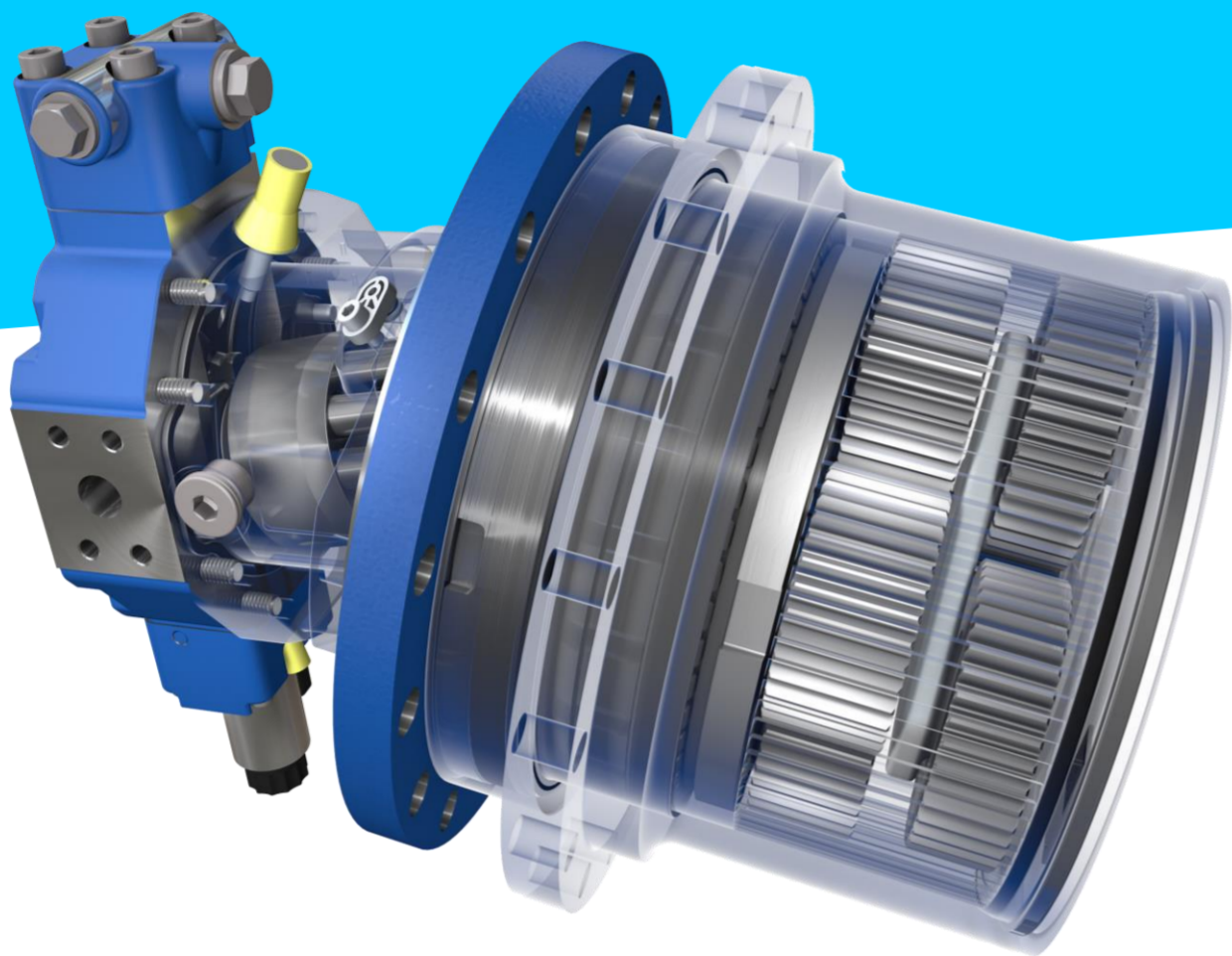


HYDROTRAC GFT series 8000

for mobile equipment

Transmission units for high-mileage vehicles



Among mobile equipment, the term mobility is a relative notion. Some machines do their work largely from a single spot and are transferred by a low-loader from one deployment site to the next. In other applications, moving from spot to spot is one of the primary tasks. Among the latter group – the so-called “high-mileage” vehicles – are bulldozers, agricultural sprayers, heavy duty vehicles, pavers, and rollers. Mechanical planetary gearboxes are often used to transform the torque generated by the hydrostatic motor so that it can be used at the wheels or tracks. Consistent with the typical tough conditions for use, equipment manufacturers prefer extremely rugged designs with long service lives. When seeking appropriate solutions, further criteria are decisive: compact shape, a large selection of gear ratios and drive torques, and easy configuration.

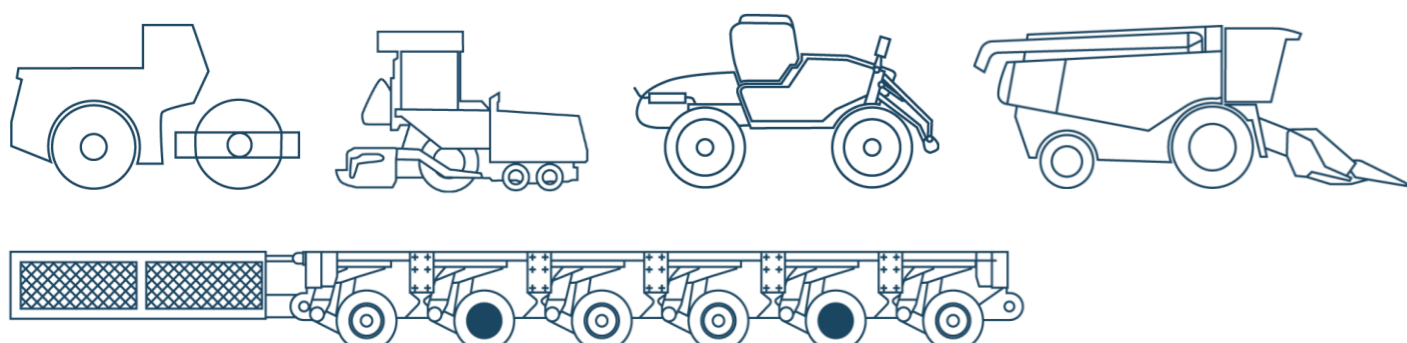
CUSTOMER BENEFITS

- Space-saving design thanks to high power density and perfect matching of the gearbox ratio and the hydraulic motor
- Wide selection of rated sizes, output torques and transmission ratios; they can be combined with Rexroth’s extensive line of motors
- Easy, fast configuration and modular design shorten delivery times
- Complete delivery of gearing and motor in a single transmission unit reduces logistics costs
- Maintenance-free dynamic brake (optional)
- Mechanical disconnect for towing purposes

FUNCTION AND BENEFITS

The HYDROTRAC GFT series 8000, developed by Rexroth especially for high-mileage mobile equipment, offers more in this respect. Combining two- or three-stage planetary gearbox with a bent-axis design axial piston motor results in a very compact transmission unit, saving space in wheeled and tracked vehicles. The HYDROTRAC GFT series 8000 offers, for the first time, the opportunity to integrate Rexroth A6VE hydraulic motors drawn from series 71. In this way, the power density of the entire drive unit can be raised even further. This increase is made possible by the higher displacement of the A6VE/71. Higher torques of around ten percent compared to the previous series are the result, as well as the corresponding power increase. In addition to the functional benefits resulting from optimal matching of the mechanical gearbox with the hydraulic motor, the product also offers an advantage in terms of logistics. By purchasing a complete transmission unit from a single plant, the procurement processes are simplified.

APPLICATIONS



TECHNICAL DATA

GFT	Torque [Nm]	Transmission ratio i	Hydraulic motors
8110 E	10.000	25,2 – 54,7	A2FE 28 ; 32 / A6VE 28 / A10FE 28 ; 40 ; 45 / A10VE 28 ; 45
8120 E	15.000	19,0 – 39,1	A2FE 45 ; 56 ; 63 / A6VE 55 ; 60 ; 80 ; 85
8130 E	20.000	26,0 – 50,6	A2FE 45 ; 56 ; 63 ; 80 ; 90 / A6VE 55 ; 60 ; 80 ; 85
8140 F	30.000	90,4 – 137,1	A2FE 45 ; 56 ; 63 / A6VE 55 ; 60
8144 E	30.000	23,0 – 31,3	A6VE 115 ; 160 ; 170
8145 F	36.000	115,0 – 161,0	A2FE 45 ; 56 ; 63 ; 80 ; 90 / A6VE 55 ; 60 ; 80 ; 85
8150 E	42.000	32,3 – 50,6	A2FE 80 ; 90 / A6VE 80 ; 85 ; 107 ; 115 ; 160 ; 170
8160 F	52.000	73,8 – 138,9	A2FE 80 ; 90 ; 107 ; 125 / A6VE 80 ; 85 ; 107 ; 115
8170 F	70.000	95,0 – 140,5	A2FE 107 ; 125 / A6VE 107 ; 115
8180 E	70.000	44,1 – 54,7	A6VE 160 ; 170 ; 200 ; 215
8185 F	100.000	76,4 – 185,1	A2FE 107 ; 125 ; 160 ; 180 ; A6VE 107 ; 115 ; 160 ; 170
8190 F	130.000	93,8 – 209,0	A2FE 107 ; 125 ; 160 ; 180 / A6VE 107 ; 115 ; 160 ; 170

E: 2-stage / F: 3-stage



Especially in agricultural sprayers, the advantages of the internal multi-disc brake come fully to bear. It is lighter in weight than conventional designs and its protection against grime greatly reduces the need for maintenance.

Extensive product range with flexible options

The modular and flexible design of the product range means virtually off-the-shelf availability and short delivery periods. Additionally, it offers a very wide spectrum of nominal sizes and transmission ratios, combined with easy and quick configuration. The portfolio in the 8000 series comprises a total of twelve nominal sizes, for use in open or closed-loop hydraulic circuits. Beginning with the HYDROTRAC GFT 8110, with its rated output torque of 10,000 Nm, and up to model 8190 at 130,000 Nm, a number of different transmission ratios is possible in each case.

Multi-disc brake integrated into the system

The models 8120, 8130, 8144 and 8150 can optionally be fitted with a dynamic multi-disc brake. For instance, in combination with the High Level Braking HLB from Rexroth, self-propelled equipment can thus fulfil the stringent safety criteria as required in many regions such as Germany (StVZO) or the USA (ASAE) for travel speeds up to 50 kph. Series-manufactured machines that are equipped with a Rexroth transmission unit including a multi-disc brake have been approved in both countries according to the respective regulations. A special feature: The multi-disc brake is located inside the gearbox, so that it is protected against grime and the weather. This makes a crucial contribution to the compactness of the entire transmission unit and, at the same time, results in low-maintenance operation. In this way the multi-disc brake in the HYDROTRAC GFT offers an advanced alternative to conventional disk or drum brakes and, in addition, is up to 75 percent lighter than these conventional brakes.