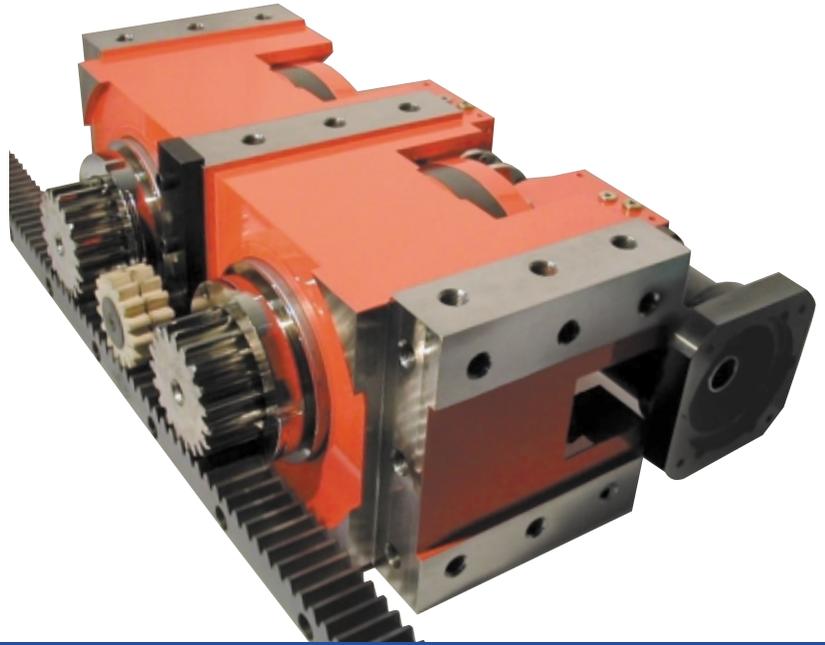


# TRANSMISSION



Preloaded Rack and Pinion Drives

DUALDRIVE & TWINDRIVE

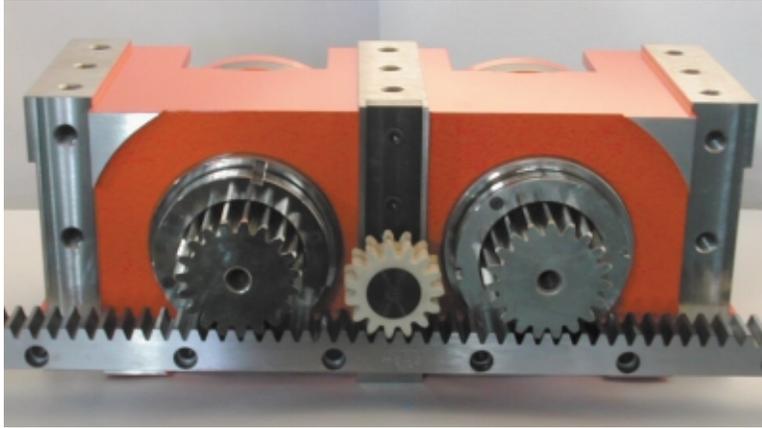
Series DRP & TRP



# Dual DRIVE & twinDRIVE

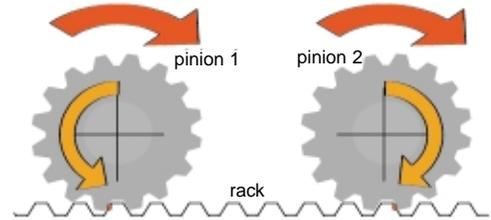
## Accurate positioning building blocks

High precision positioning on a rack and pinion axis can only be achieved by eliminating backlash. The best solution to cancel the backlash is to use two reducers with output pinions preloaded against the rack. Machine tool feed gearboxes have been using this universal mechanical principle, for years.

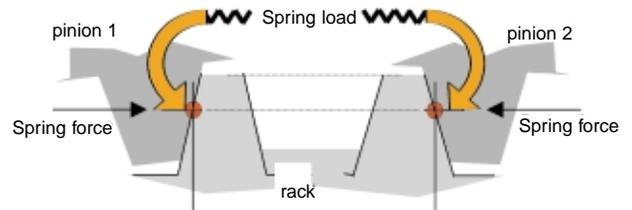
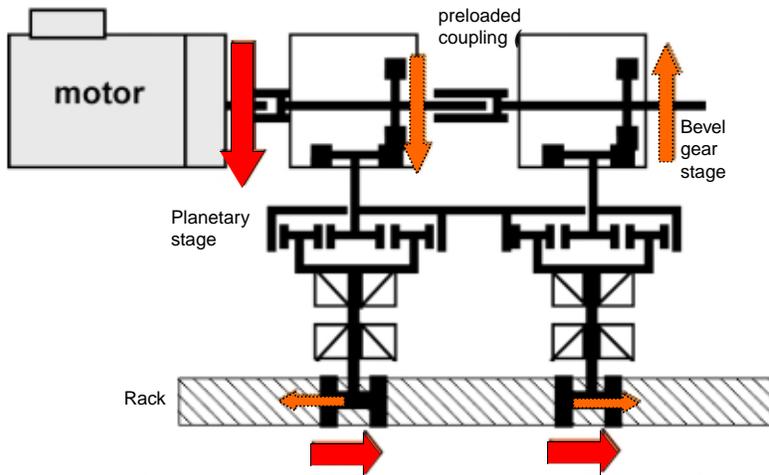


**Andantex** offers machine designers a standard range of gearboxes dedicated to preloaded rack and pinion axis drives.

*These systems provide the highest level of performance by complete backlash elimination in Reducer&Bevel gears + Rack&Pinion*

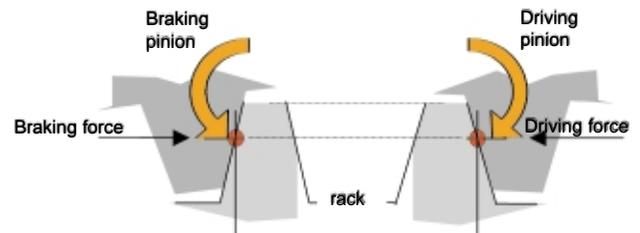
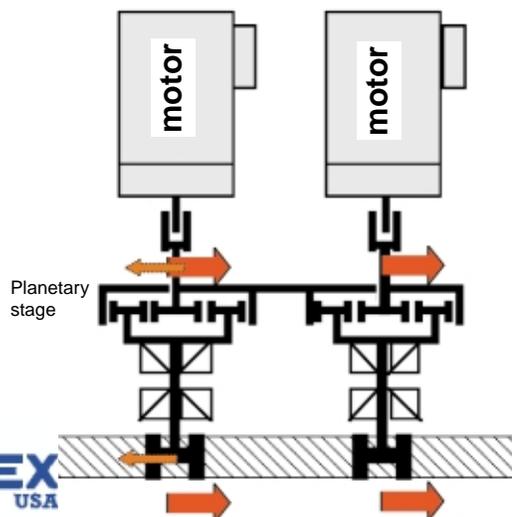


## Mechanical Preload: Dual DRIVE



Mechanically preloaded DualDRIVE units achieve the preload by torsionally winding one pinion against the other. One pinion is considered fixed and the other spring loaded. This system is driven by only one motor and does not require a special motor controller. Preload is obtained with a REDEX preloading system.

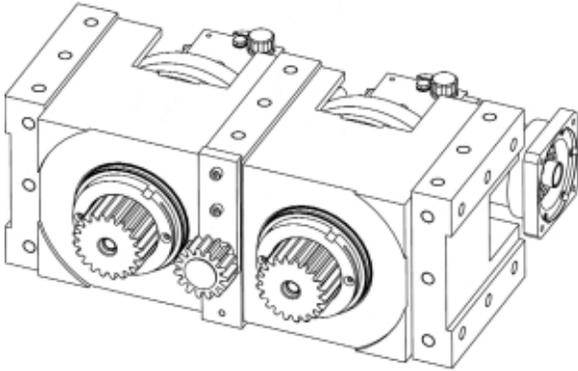
## Electrical Preload: TwinDRIVE



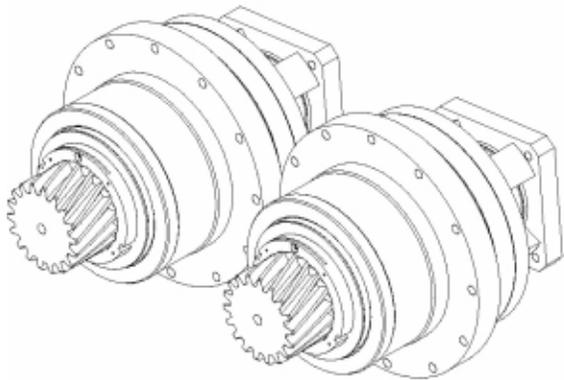
Electrically preloaded TwinDRIVE units achieve the preload by “electrically braking” one pinion against the other. One pinion is considered the driving pinion, while the other is braking. This system requires two motors and a special motor controller to handle the preload.

# Dual DRIVE & twinDRIVE

**Complete solution:** *pinion + drive + lubrication device + rack*



- \* Precise geometry for high precision meshing with the rack
- \* Felt gear with multiple locations for optimal rack and pinion lubrication
- \* 5 mounting surfaces and through holes allowing universal mounting
- \* Multiple oil drain, fill and level holes for use in any mounting position
- \* Universal motor flange
- \* Overheating detection by temperature probe
- \* Special seal for protection from chips



## High quality construction

- \* Single piece housing with ground mounting surfaces
- \* High quality spiral bevel gears
- \* Hardened and ground quality 6 (AGMA 12) integral output pinion
- \* Integrated output tapered roller bearings for maximum radial and torsional stiffness
- \* Precision reducer with minimum transmission error
- \* Mechanical preload setting device (DualDRIVE)



☞ Dedicated for rack and pinion:  
radial and torsional stiffness are optimized to obtain the maximum natural frequency

☞ Ultra high linear accuracy:

*backlash cancellation  
pinion/rack + accurate mesh  
+ very low pitch error*

☞ High quality hardened and ground gears insure smooth operation (transmission error test available) and low noise level

☞ Ready to mount, saving time and cost of multiple product integration

☞ Compact for weight and space savings

☞ 100% tested (drag torque, vibration, torsional stiffness, radial stiffness), 2 year warranty. Worldwide support available

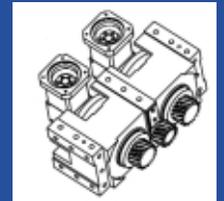
## configurations

### Dual DRIVE

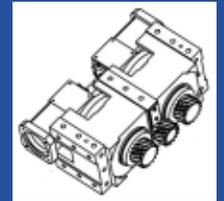


DRP

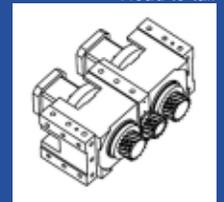
### TwinDRIVE



TRP MU  
up or down

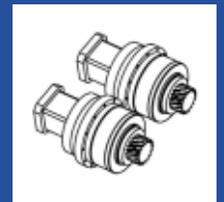


TRP HT  
Head to tail



TRP IL  
in line

### TwinDRIVE kit



TRP KI  
in line motors



TRP KR  
90° motors

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