

## Power, precision and durability.

# **Durable quality drives for machine tools and machining centres.**



Hollow shaft servo drive

## Power meets precision - in confined space.



To ensure your customer has a perfect product in his hands, you need equally perfected production methods. CEDS DURADRIVE equips your machine tools and machining centres

with drives that help keep this promise. The following operations are supported:

#### Swivelling

Revolver or rotary tables; solution: ZAP drives or liquidcooled motors or hollow shaft motors (also with cables passed through), torque motors

#### Linear feeding

Solution: hollow shaft with ball rollers spindle, hollow shaft motors (also with brake) suitable for threaded drives for 16 to 120 ball rollers

#### Turning

Main spindle; solution: main spindle drives (also with special shaft or pulley) or special motor kit (stator plus rotor)

#### Individual drives that fit perfectly

Your application is our drive. Irrespective of whether synchronous or asynchronous motors, servo and hollow shaft servo drives, direct current-, kit-, torque or geared motors: every drive is perfectly constructed, electrically designed, built and installed according to your needs. The coils are calculated and produced individually.

#### Sturdy construction

CEDS DURADRIVE also produces drives with housings made of stainless and acid-resistant steel.

#### **Ideal cooling**

We can offer you air-, fan- and liquid-cooled or open-circuit ventilated drives. Liquid-cooled drives have the following advantages:

- they are almost silent
- they are smaller and lighter with the same power
- they are ideally suited for high speeds
- they offer maximum dynamism through an ideal relationship of torque to mass moment of inertia
- they are extremely low in vibrations and show only the most minimal imbalances
- they are well-adapted to operation at high ambient temperatures, in clean rooms or air-conditioned rooms
- they do not release any heat to the immediate environment This is enormously important in the case of high precision machine tools
- extreme switching frequencies are permissible
- in the case of great power, energy recovery in a heating circuit is possible

#### Securely braked

Our brakes and special brakes for hollow shaft servos have a large through bore, small outside diameter and high torques.

#### The advantages of our hollow shaft servo drives

- Hollow shaft servo motors reduce the mechanical effort
- Mechanically and electrically adapted to the respective application
- A continuous hollow shaft or blind hole is possible
- The mechanical drive solution permits reduction of the mechanical transmission elements (e.g. clutch, belt drive...)
- Linear movement via threaded drive with rotating nut and spindle secured against torsion or spindle fixed on both sides
- In the case of spindles fixed on both sides, great mechanical rigidity and high permissible spindle speeds through direct drive technology without downstream mechanical elements
- Position precision in 1/1000 mm region
- Directly integrated actual value feedback through SINCOS pulse generator or encoder permits outstanding regulation properties.

#### The advantages of our torque motors

- High acceleration producing high dynamism for the entire system
- High drive rigidity
- High moment
- Very high repetition precision
- Low back lash and noise
- Outstanding regulatory properties
- Low maintenance, practically no wear
- Cost-saving thanks to low energy consumption

#### Precise design for your application

The technical data presented here are examples. If you choose a drive from CEDS Duradrive, you get a "custom-made suit" – i.e. a solution constructed and adapted perfectly to your needs. High overload capacity, precise, rigid bearing, high speed: you often have to make compromises with catalogue products – but not with us!

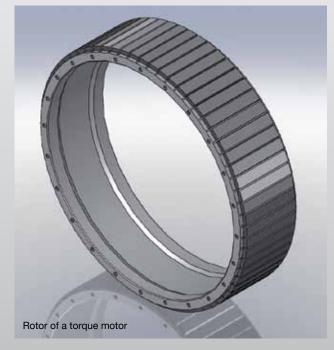
## Hollow shaft servo drive Example

Type (air-cooled)	HSDP-0314
Typ. spindle diameter	20 mm
Typ. spindle stroke	200 mm
Rated Torque	9,0 Nm
Max. Torque	37,0 Nm

### **Torque motor**

### Example

Тур	BFSDP-1330
Rated power	15,2 kW
Rated speed	66 1/Min
Design moment	2200 Nm
Number of poles	66
Operating mode	S1
Peak moment	3000 Nm





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