

## AIR MOTORS

Air motors are safe and robust drive systems which come into play when a resilient, overload-safe, high performance drive is required. Always ready for action long after traditional drive technologies have stopped rotating.

**Advantages: explosion proof high longevity service-friendly stainless steel compact sterilisable**

A wide range of motors is available, such as oil-free, fully sealed, cleaning agent resistant motors for use in the food industry; sterilisable motors for medical technology; motors for use under special conditions such as the resilient drain milling robot drive; and our ATEX-conform complete system of air motor - holding brake - gearing for use in potentially explosive environments. We will find the safest and most economical drive solution for your individual application, whether it is an air motor from our catalogue or a complex system solution.

### PRODUCT SPECTRUM

#### Air vane motors

- BASIC LINE
- ADVANCED LINE
- POWER LINE
- INDIVIDUAL LINE
- Drill motors, Milling motors, Grinding motors
- Motors with integrated holding brake

#### Turbines

- Turbine production according to your specific application
- Innovative turbine generator: Harnessing power from small amounts of process gas

#### Tooth-gear motors

Tooth-gear motors can be individually designed according to your requirements.

#### Speed regulator

Innovative system solution to offset speed fluctuations.

#### Accessories

Maintenance units, special oil, pressure hoses, silencer, pressure regulator valves, etc. can be found in our product catalogue D3340 E.

## AIR VANE MOTORS

### BASIC LINE



Our great value for money model for use in non-critical production environments. Additional benefit: You save production time with our patented vane exchange system!

#### Power range:

200 - 1200 W

#### Your advantages:

- ATEX certified
- patented vane exchange system
- wide speed range
- reversible
- robust design

D6200E

### ADVANCED LINE



Our product line of stainless steel motors stands out from the rest with its comprehensive range of sealed, oil-free operable, non-corrosive air motors. Particularly suitable for use in the paper industry, food processing industry, for medical technology and much more...

#### Power range:

20 - 1200 W

#### Your advantages:

- ATEX certified
- non-corrosive
- oil-free operable
- sealed
- reversible
- integrated holding brake design
- high performance, small size

D6400E

## AIR VANE MOTORS

Our product line of high performance bracket and flange motors also features wide versatility. The high starting torque with an unparalleled low performance weight, the robust and reliable design are all clear advantages in comparison with an electric drive.

**Power range:**

1.6 - 18 kW

**Your advantages:**

- ATEX certified
- high performance
- high starting torque
- low performance weight
- robust, reliable design
- long life-span

D6600E

### POWER LINE



**Individual customisation**

Great value customisation based on our modular principle, from individually designed motors to customer specific package deals, up to complete system solutions.

**Your advantage:**

- attractive price-performance ratio

### INDIVIDUAL LINE



## AIR VANE MOTORS FOR SPECIAL APPLICATIONS

Our efficient drill motors with slim design allow the smallest of drill spacings when using multi-spindle units, such as for the construction of windows.

**Power range:**

80 - 600 W

**Speed range:**

150 - 24,000 rpm

**Your advantages:**

- high precision drill chuck with taper fitting

D6800E

### Drill Motors



Our durable milling motors are particularly suitable for robot applications: space saving and high performance with high speed ranges.

**Power range:**

400 W

**Speed range:**

max. 20,000 rpm

**Your advantages:**

- robust and precise bearing
- high running precision

D6800E

### Milling Motors



Our grinding motors programme offers the advantages of the reliable handheld DEPRAG air grinding machines as an integrated version for your machine. The robust steel housing guarantees high precision and operational safety.

**Power range:**

150 - 1000 W

**Speed range:**

15,300 - 47,000 rpm

**Your advantages:**

- high precision collet for various shaft diameters
- high running accuracy

D6800E

### Grinding Motors



## AIR VANE MOTORS

### Motors with integrated holding brake



The great value complete solution: Customers benefit from our standard program of vane motors with integrated brake equipment.

Available for the series 67 and 68 from 200 W – 3.6 kW.

#### Advantage of planetary gears:

- effective holding of a large centrifugal mass
- automatic brake by pressure drop
- drive spindle can be held in position without air consumption

D6400E / D6600E

### Gear Motors



Due to the high speeds of air motors, gears are often necessary for speed adjustment when used in a machine.

DEPRAG saves systems constructors the time and effort of laborious design work and interface adaptation between gears and air motor.

Our range already consists of a variety of standard motors with high quality integrated gears at a favourable price-performance ratio. If you cannot find a suitable air motor in our catalogue we also offer several low-cost combinations of air motors and gears.

#### Advantages of planetary gears:

- compact design
- high degree of efficiency
- optional installation position
- gear ratio 5 - 50

#### Advantages of spur gears:

- good value for money
- gear ratio: optional ( $i = 7 - 238$ )

#### Advantages of worm gears:

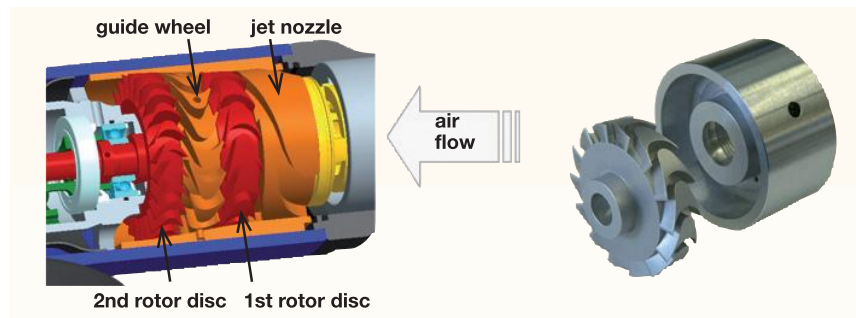
- good value for money
- compact design
- high gear ratio possible in one step from 14 - 80
- self-locking

## TURBINES

Our turbines are energy efficient, high speed drives which are suitable for continuous use and have an optimal performance weight and guarantee low air consumption. Each turbine is fluid-dynamically designed, calculated and individually produced specific to your application.

### Function of a turbine

Turbines are turbo machines which can be designed to be single level or multi-level. The transformation of pressure energy into kinetic energy happens in the entry jet. On a two level turbine the largest part of the kinetic energy is transferred to the first rotor disc. The air flow is diverted over the fixed rotor disc. The remaining energy is transferred to the second rotor disc.

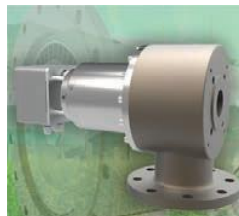


The turbine does not need any tangential sealing. Operation of the turbine with oil-free air is therefore completely wear free. Turbo machines optimally use the energy of pressurised air. This reduces the air consumption by a third in comparison with an air motor. The performance weight [kilos/kW] is only half as big.

### Application examples of our turbine drives

#### Application of turbines for energy reclamation

Our turbine generator enables power to be reclaimed from small amounts of process gas. With a small investment you can turn used energy into hard cash!



#### Application of turbines for aircraft emergency exits

A pyrotechnic ignition indirect turbine drive with reduction gear in PYROTAK emergency door activator provides high power density in a small package.

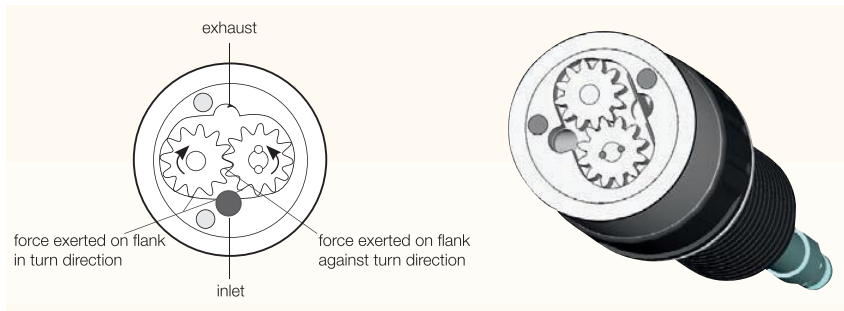


## TOOTH-GEAR MOTORS

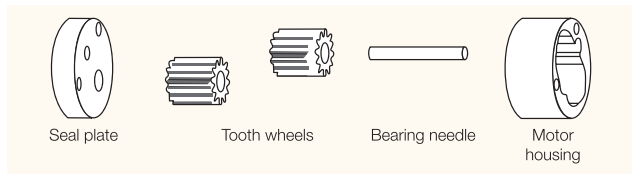
Our tooth-gear motors provide made-to-measure drive solutions for your individual application needs.

### Function of the Tooth-Gear Motor

Tooth-gear motors consist of two tooth wheels which turn with little play within a housing. One wheel is connected to rotate with the drive shaft, the other generates torque. Force is exerted on two flanks in the turn direction and one flank against the turn direction. Exhaust air builds up in chambers between the tooth flanks and housing wall, then is guided to the exhaust side and rotational movement is generated.



### Structure of a Tooth-Gear Motor



DEPRAG tooth-gear motors are oil-free operated.

## SPEED REGULATOR

**Innovative system solution to offset speed fluctuations.**

- universally applicable due to parameter options
- wide range up to 80,000 1/min
- precise, high resolution controller



## ACCESSORIES

- designed for DEPRAG air motors
- service friendly
- economical

Maintenance units, special oil, pressure regulator valves, pressure hoses, hose clamps and connectors can be found in our product catalogue D3340E.



You can find the compatible silencer for your air motor in our motor catalogues. Compatible valves for the reversal and speed regulator can be purchased from any valve manufacturer.