ADAPTIVE DFS

DEPRAG FASTENING SYSTEM

DEPRAG
machines unlimited

ADAPTIVE DFS NEW GENERATION

The weapon of choice in flow-form assembly!

Closed Loop

EC-Servo
screwdriving technology

EC-Servo
stroke technology

ADAPTIVE

The recognition of penetration is independent from tolerances in the fasteners and products. The process parameters will automatically adjust thus resulting in an optimized process.

Advantages:

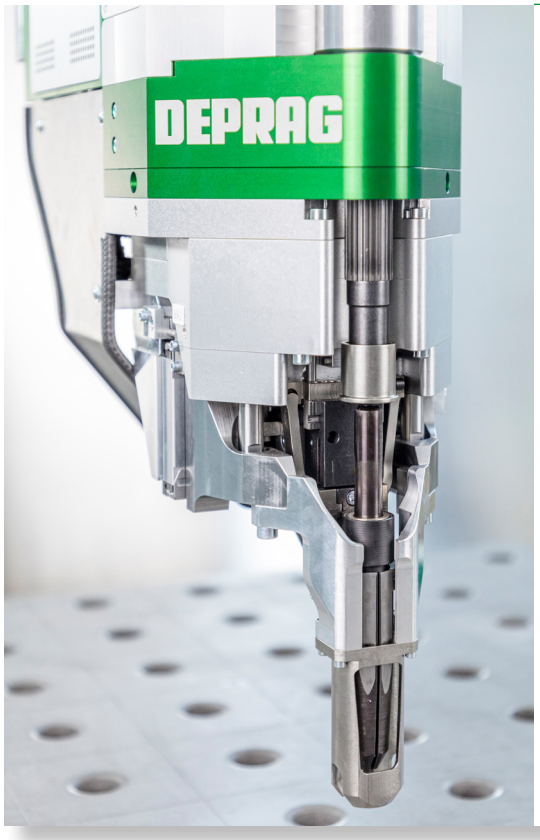
- Highest process reliability
- Shortest possible cycle time
- Optimized funnel forming
- Avoids thread damages
- Less stress on fastener and product
- Reduces set-up time
- Designed for new materials, fasteners and joining methods

The new generation of our adaptive assembly unit ADAPTIVE DFS combines EC-Servo screwdriving technology with EC-Servo stroke technology

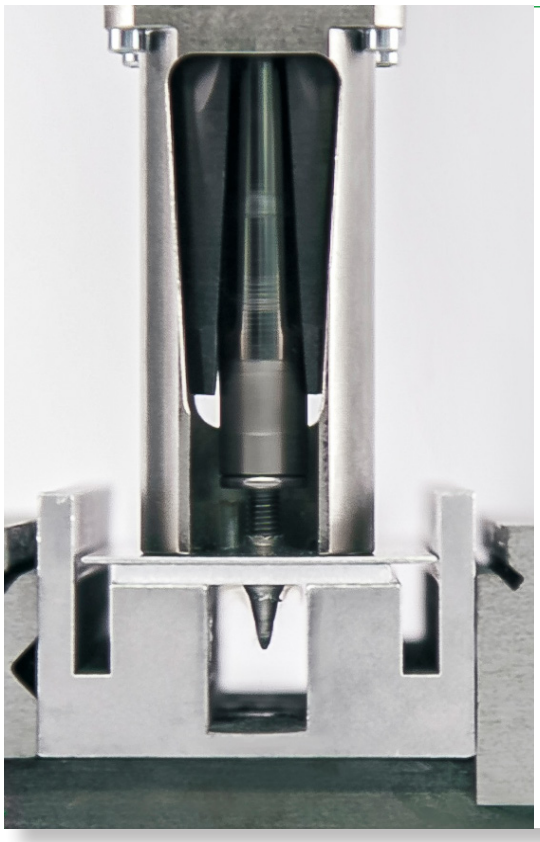
The solution for all screwdriving applications!

Please find more information on our website deprag.com/adaptive-direct-fastening.

ADAPTIVE DFS Advantages



- **Highest process reliability**
- **Shortest possible cycle time**
- **Optimized funnel forming**
- **Avoids thread damages**
- **Less stress on fastener and product**
- **Reduces set-up time**



- **Different material pairings in one screwdriving program**

Diverse material combinations possible in lightweight construction, e.g., direct assembly of aluminium to aluminium, aluminium to steel or aluminium to glass fibre reinforced plastic (GRP).

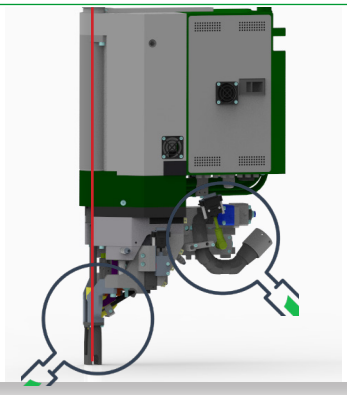
ADAPTIVE DFS Features

EC-Servo screwdriving technology

EC-Servo stroke technology

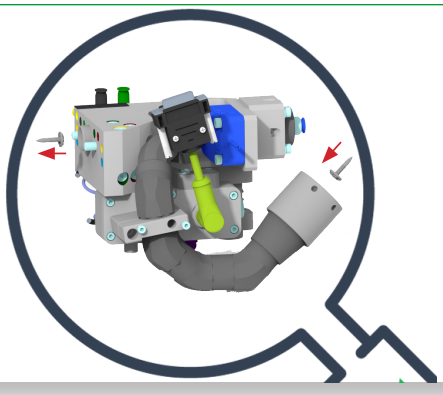
Adaptive fastening

- Automated adjustment of parameters
- Highest process security
- Shortest possible cycle time



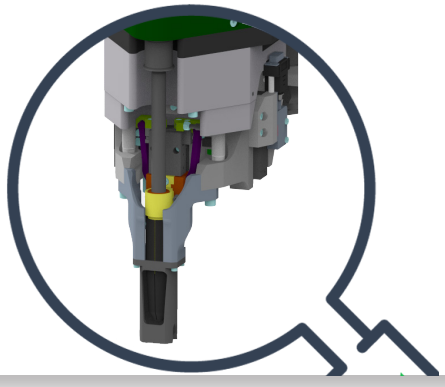
Thrust applied to the center of the assembly axis

- Direct transfer of thrust into the assembly axis
- No lateral forces on guide mechanism, etc.
- Lightweight design
- Less wear and tear



Feeding principle

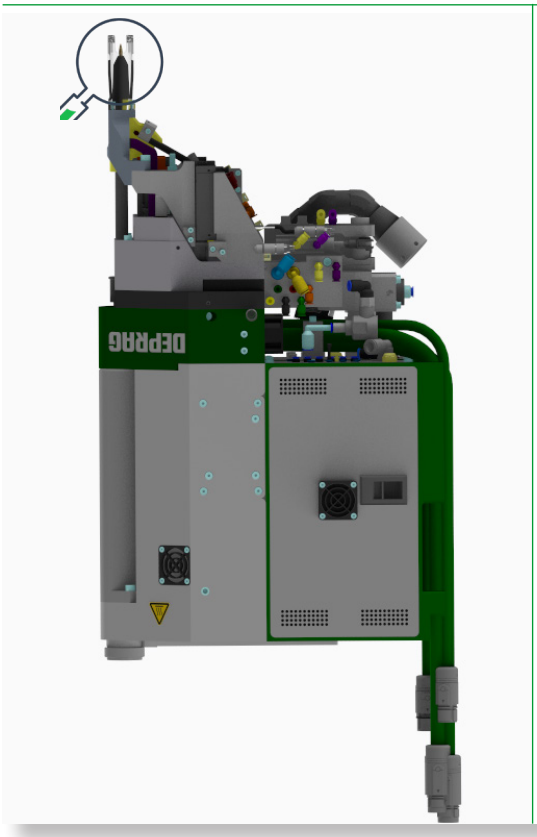
- Feeding the screw head first into the rotary separator
- No damage to the screws‘ tip and threads
- Screw preload function (buffer) optimizes the cycle time



Interchangeable mouthpiece without tools

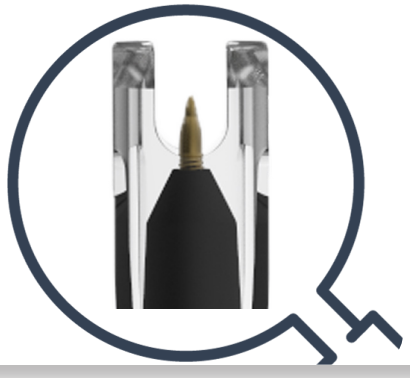
- No need to disconnect any cables or hoses

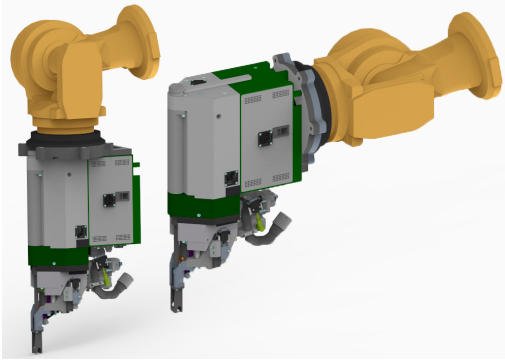
ADAPTIVE DFS Features



Screw pre-engagement

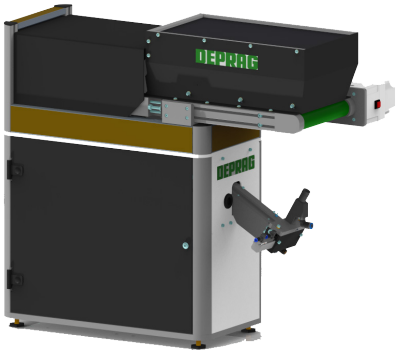
- The socket engages with the screw and holds it in position





Connection to robot

- From top
- From backside



Feeding technology

- Blow feeding
- Magazine

ADAPTIVE DFS Integration

DEPRAG Cockpit

Maintain an overview of your ADAPTIVE DFS screwdriving systems with the DEPRAG Cockpit. The software enables supervision and analysis of all process parameters of adaptive assembly units and provides analysis tools for continuous process optimization, recognition of trends and predictive maintenance.

The DEPRAG Cockpit can even be used to supervise and analyse screwdriving systems from other manufacturers.

- Data supply via OPC UA
- Central platform for screwdriving and assembly technology
- Reliable processing data acquisition
- Detailed capacity and usage statistics
- Process monitoring and notifications
- Analysis and recognition of trends from system messages

ADAPTIVE DFS Technical data

- **Speed: max. 8000 rpm**
- **Torque: max. 15 Nm**
- **Feed stroke force: max. 3500 N, freely programmable**
- **Feed stroke freely programmable: Speed, distance and force monitoring and controlling**
- **Downholder force: max. 1200 N, freely programmable**
- **Weight: 35 kg**
- **Assembly directions: any (from above, underneath, at any angle)**

DEPRAG

Your worldwide partner for screwdriving technology and automation

More information:
www.deprag.com

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