

# **Energy and Environmental Initiative**

#### **Time savings**

- Increase of machine running times by optimising tool change time
- Reduction of machine time per piece
  - → Machine works altogether more efficiently
- Reduction of ancillary times through short tool provisioning time



- Position is uniquely identified at all times through absolute encoders
- No energy needed for horizontal magazines in standby mode
- Only little energy needed with vertical magazines for holding force with one-sided loading

## Without hydraulics

- · No hydraulic units required
- No hydraulic leaks

### Low drive power

- Reduced energy demand
- Use of energy-saving motors
- Low start-up power

#### **Minimisation of friction**

- Minimisation of sliding friction
- Use of plastic rollers

### Weight-optimised

 Choice of low-weight materials



Low-maintenance

## Choice of environmentally friendly materials

- Use of materials such as aluminium, castings, etc.
- Environmentally responsible manufacturing
- Recyclable materials
- Durable
- Low-wear (No or minimum spare parts requirements)



Tool-changing systems
Modules of automation

