



GROUP SCHUMACHER



CATALOGUE

# DriveTechnology

for headers



EWM® | The specialist in drive technology

EWM® is the brand that powers cutter bars. Loss-free power transmission is the stand-out feature of the EWM® Pro-Drive high-performance drive systems. Traditional drive systems usually lose on stroke force and range as levers and gearwheels control the power flow. Planetary gearboxes are different.

**Systems that optimize the power flow**  
EWM® has the perfect solution for any cutting system. Featuring innovative head bearings and knife heads, EWM® knife drives ensure dependable harvesting all over the world.

Renowned harvester brands in Europe, USA, Canada, Brazil, Russia and China rely on EWM® branded planetary knife drives because of their versatility and reliability.



CONTENTS

EWM®   The specialist in drive technology	Page	2 - 3
R&D cooperations and projects	Page	3 - 5
Knife drives	Page	6 - 7
Pro-Drive Module series	Page	8 - 15
Pro-Drive Economy series	Page	16 - 19
Pulleys	Page	21
Head bearings	Page	22 - 23
Knife heads	Page	24 - 25
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Harvesting Solution Partner	Page	26 - 27



R&D cooperations and projects

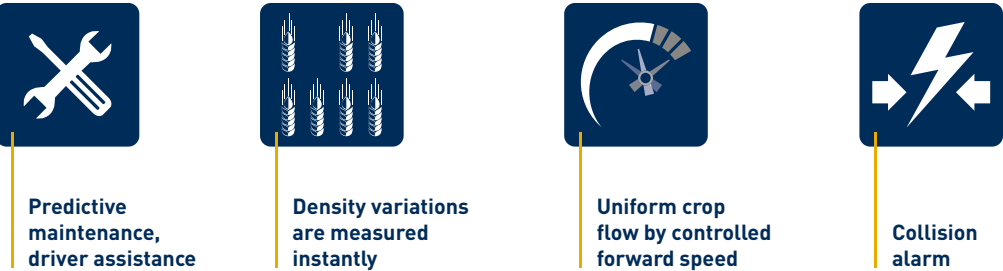
We provide expert advice, select and configure components to individual needs and tailor entire drive system to cutter bars of any size and capacity. Our EWM® brand is the synonym for a long-standing expertise in driving rigid and flexible headers. Presenting innovations and developments that meet the demands of today and tomorrow, we are your engineering partners in the following technologies:

- **Modular Pro-Drive knife drives** for high performance classes optionally in vertical or horizontal power flows
- **Economy knife drives** for mid-range performance classes optionally in vertical or horizontal power flows
- **Sensor systems** for knife drives

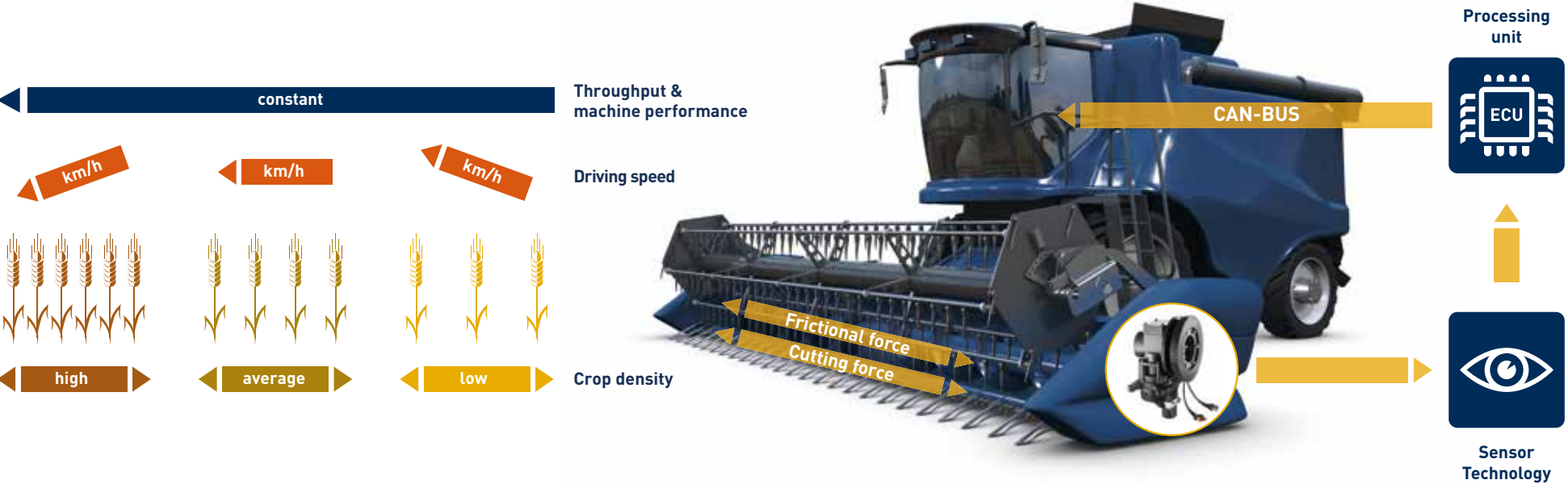


EWM® knife drives with Sensor Technology

The sensor technology allows the evaluation of performance data of a combine cutting system. Various system conditions of the cutting system such as collisions or defects can be detected in addition to throughput variations of the crop.



Honored with the DLG silver medal Award: Sensor Technology for knife drives





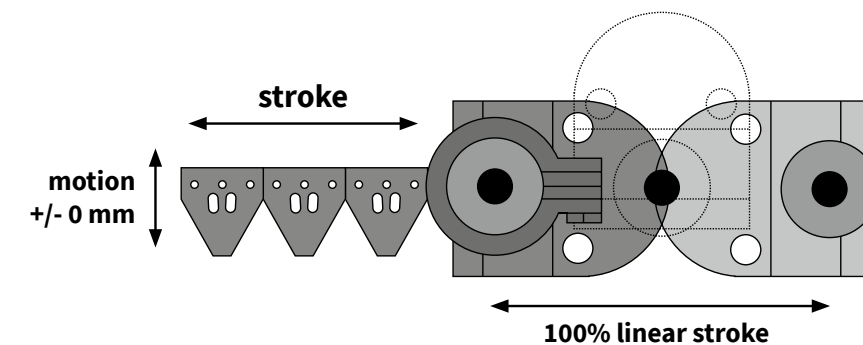
## Pro-Drive planetary drives

Solutions for all your harvest needs

Pro-Drive planetary drives generate an absolutely straight stroke and this results in an equally straight power flow and knife stroke. This loss-free transmission of power into stroke force accounts for unflinching combine performance when crops get difficult.

- High machine performance
- Optimized drive systems
- Minimum downtime risk
- Low maintenance

### Design and function



EWM® offers a variety of drive solutions that are tailored to the anticipated loads and forces and to the specific driveline.

### Pro-Drive Module series\* output features:

Made to meet the highest standards, Pro-Drive Module series knife drives are used in rigid and flex headers of very large cutting widths.

- Maximum transferrable power: 10,8 kW
- Maximum transferrable torque: 109 Nm
- Maximum rotor speed: 810 U/min



### Pro-Drive Economy series\* output features

Pro-Drive Economy series knife drives were developed for applications where less drive power is required, for example for sunflower headers.

- Maximum transferrable power: 3 kW
- Maximum transferrable torque: 49 Nm
- Maximum rotor speed: 600 U/min

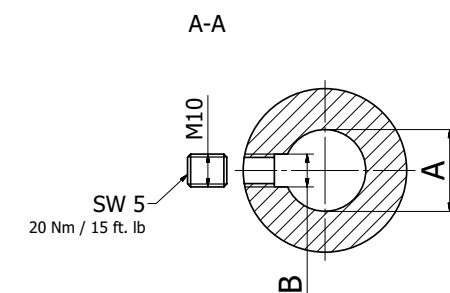
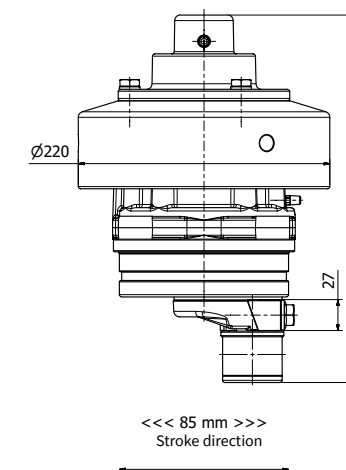
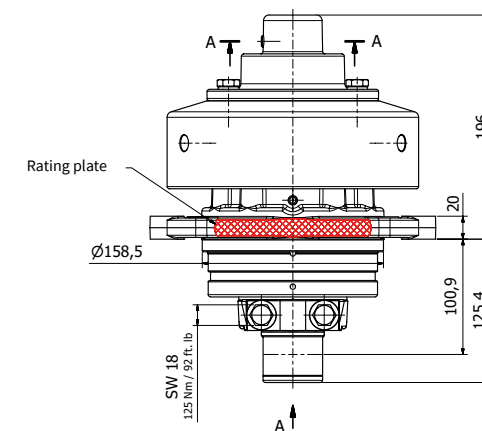


\* Figures are based on a grain header with a calculated lifetime of 2 years or 1,500 operating hours.



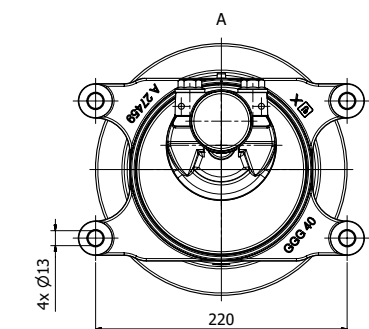
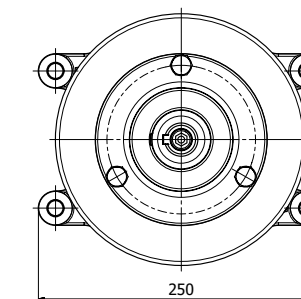
## Hydro motor system

8



Description	A (mm)	B (mm)
Hydro motor adapters (AS02)	Ø 25,00	8
Hydro motor adapters (AS11)	Ø 25,40	6,35
Hydro motor adapters (AS13)	Ø 25,40	8
Hydro motor adapters (AS03)	Ø 31,75	8
Hydro motor adapters (AS04)	Ø 32,00	10

## Hydro motor system



Version	Horizontal
Type of transmission	Hydraulic, hydro motor
Knife stroke	85 mm; 100 % linear
Gear ratio	i = 1
Head bearing type	27 mm Prisma connection
Lubricant	Lubricating grease (KP2, DIN 51502)
Adapter diameter	25 mm – 32 mm (factory-supplied by order)
Weight *1	approx. 33,6 kg
*1	Pro-Drive 85MHv GK ASM04



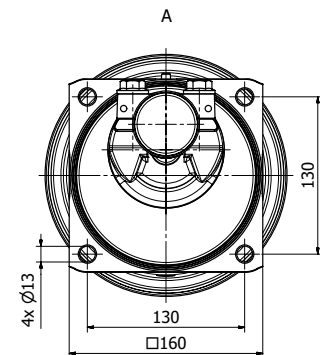
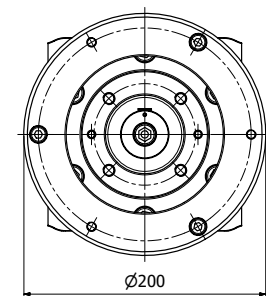
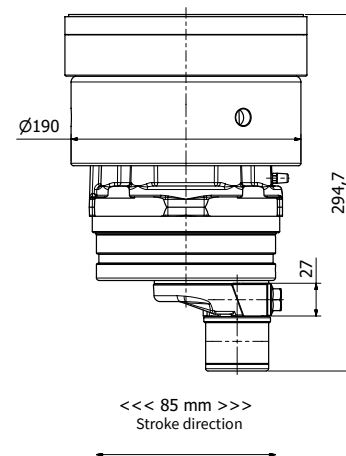
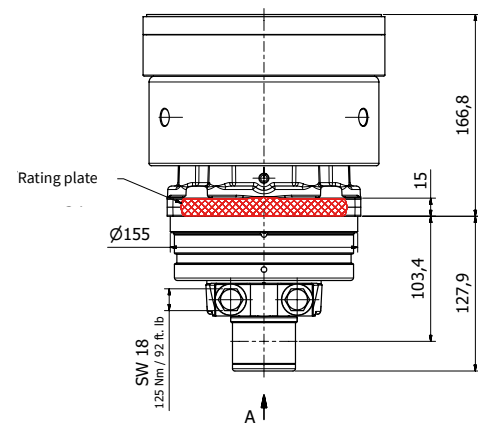


### Module series

### Pro-Drive 85MH (AS)

Cardan shaft system

This flange-mounted knife drive was developed for headers and machines that rely on a cardan shaft to drive the cutter bar. The unit is also available with a regular 1 3/8inch, six-spline pto shaft as an option. This drive is the unit of choice for headers with variable table widths.



### Pro-Drive 85MH (AS)

Cardan shaft system

### Technical data

Version	Horizontal
Type of transmission	Mechanical, cardan shaft
Knife stroke	85 mm; 100 % linear
Gear ratio	i = 1
Head bearing type	27 mm Prisma connection
Lubricant	Lubricating grease (KP2, DIN 51502)
Weight *1	approx. 33,3 kg

\*1 Pro-Drive 85MHsv GK AS21

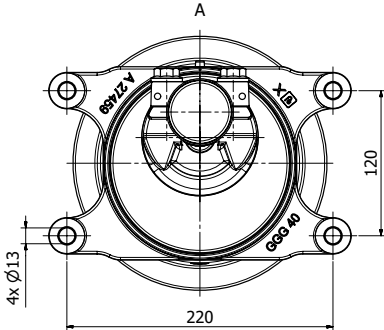
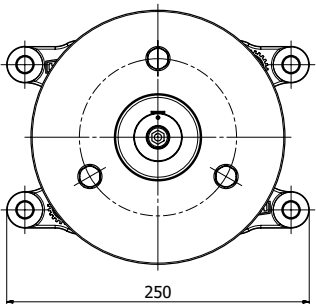
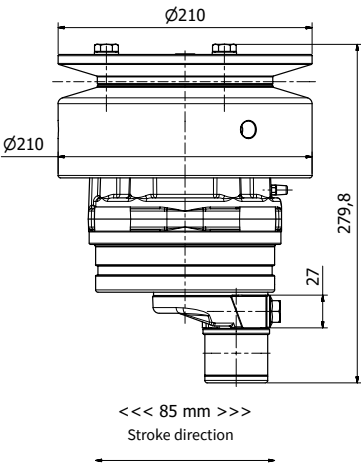
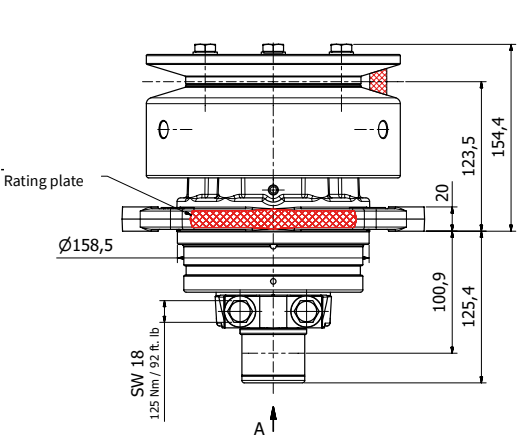


Module series

Pro-Drive 85MH (RS)

Pulley drive system

This drive transmits the power to the cutting system via a horizontal pulley. The variable working diameter of the pulley is customized and factory-fit. Typically used on standard headers.



Pro-Drive 85MH (RS)

Pulley drive system

Technical data

Version	Horizontal
Type of transmission	Mechanical, belt-driven
Knife stroke	85 mm; 100 % linear
Gear ratio	i = 1
Head bearing type	27 mm Prisma connection
Lubricant	Lubricating grease (KP2, DIN 51502)
Pulley diameter	178 – 200 mm (selectable, factory-fitted)
Belt tread	C (DIN 2215)
Weight *1	approx. 32,3 kg

\*1 Pro-Drive 85MH GK RSM03

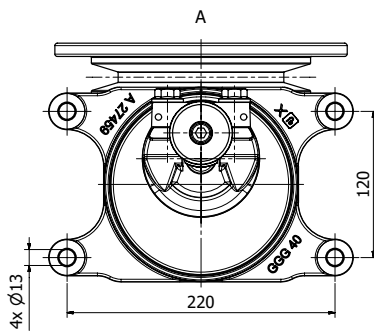
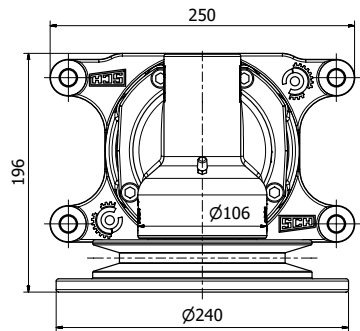
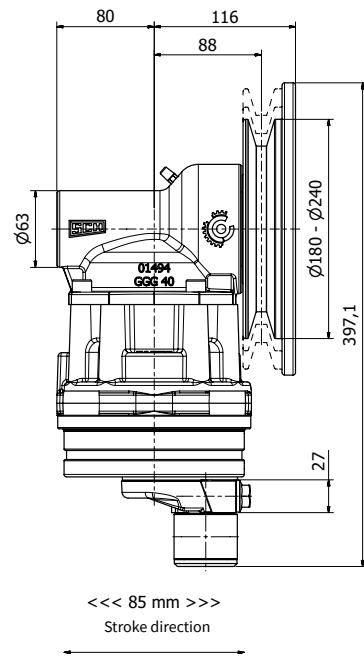
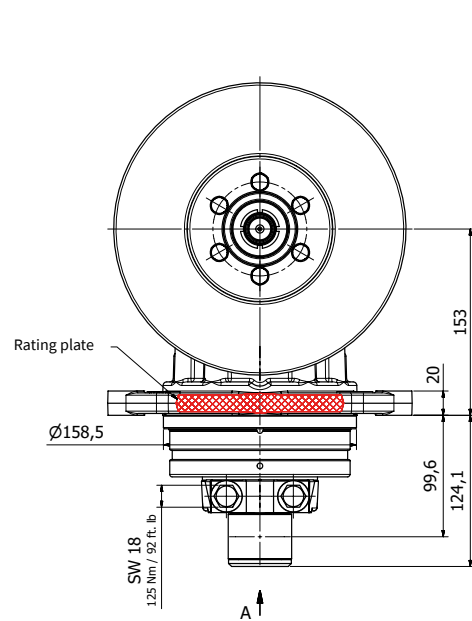


Module series

Pro-Drive 85MV (RS)

Pulley drive system

This knife drive transmits the power to the cutting system via a vertical pulley which guides the belt without redirecting the power flow. Choice of factory-fitted pulleys. This versatile drive is used in a variety of header types.



Pro-Drive 85MV (RS)

Pulley drive system

Technical data

Version	Vertikal
Type of transmission	Mechanical, belt-driven
Knife stroke	85 mm; 100 % linear
Gear ratio	i = 1,111
Head bearing type	27 mm Prisma connection
Lubricant	Lubricating grease (KP2, DIN 51502)
Pulley diameter	180 mm – 240 mm (factory-supplied by order)
Belt tread	SPC (DIN 7753)
Weight *1	approx. 35,2 kg

\*1 Pro-Drive 85MVv GKF RS11



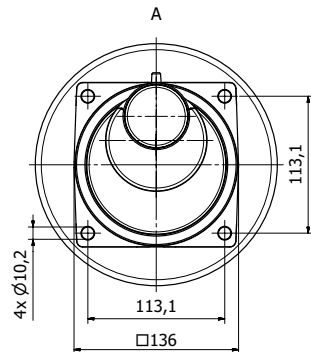
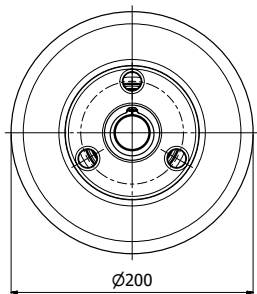
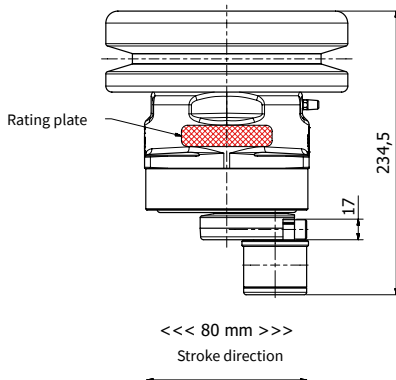
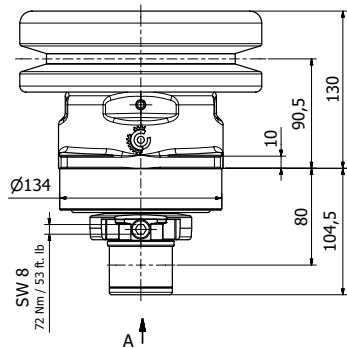


Economy series

Pro-Drive 80EH (RS)

Pulley drive system

This compact and light-weight knife drive relies on a horizontal pulley that sends the power directly to the cutter bar, making it the drive of choice for small rapeseed and sunflower headers.



Pro-Drive 80EH (RS)

Pulley drive system

Technical data

Version	Horizontal
Type of transmission	Mechanical, belt-driven
Knife stroke	80 mm; 100 % linear
Gear ratio	i = 1
Head bearing type	17 mm EasyConnect attachment
Lubricant	Lubricating grease (KP2, DIN 51502)
Pulley diameter	200 mm
Belt tread	SPC (DIN 7753)
Weight *1	approx. 22,6 kg

\*1 Pro-Drive 80EH GKec RSE01

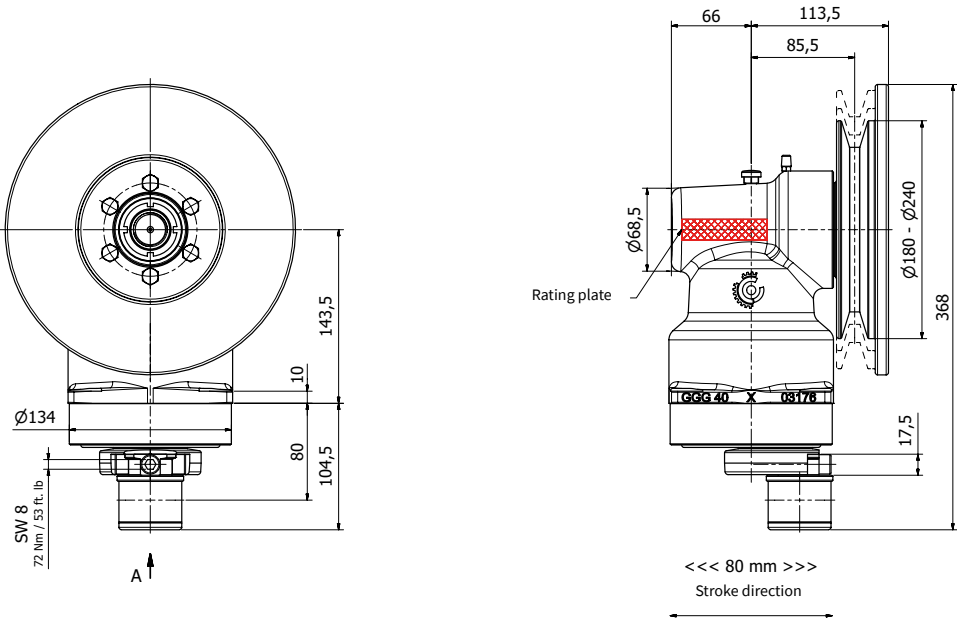


Economy series

Pro-Drive 80EV (RS)

Pulley drive system

This compact and light-weight knife drive version with vertical pulley has an integral right-angle gearbox which eliminates belt deflection. Choice of factory-fitted pulleys.



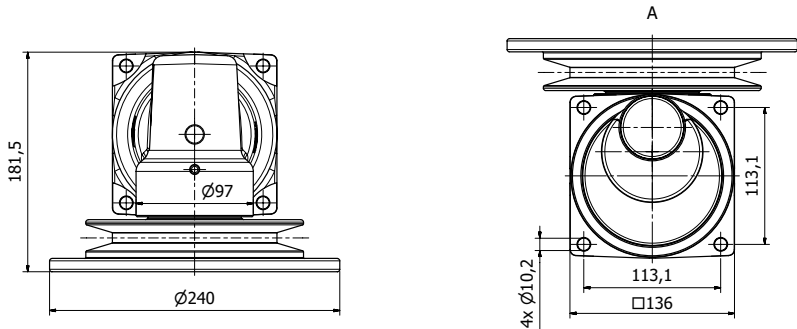
Technical data

Version	Vertical
Type of transmission	Mechanical, belt-driven
Knife stroke	80 mm; 100 % linear
Gear ratio	i = 1
Head bearing type	17 mm EasyConnect attachment
Lubricant	Lubricating grease (KP2, DIN 51502)
Pulley diameter	180 mm – 240 mm (factory-supplied by order)
Belt tread	SPC (DIN 7753)
Weight *1	approx. 24,9 kg

\*1 Pro-Drive 80EV GKecF RS15

Pro-Drive 80EV (RS)

Pulley drive system



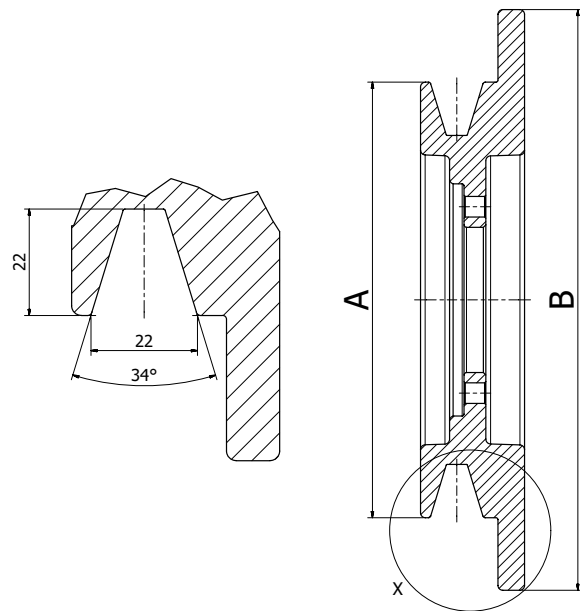




## Our standard pulleys

The Pro-Drive 85MV (RS) and Pro-Drive 80EV (RS) knife drives are available with a large range of pulleys in different sizes and specifications. All pulleys have the Profil SPC (DIN 7753) tread as standard. Further pulleys for paired and poly belts are available on request.

## Our standard pulleys



## Technical data

Description	A (mm)	B (mm)
Standard pulley D=180 (RS15)	180	240
Standard pulley D=190 (RS19)	190	240
Standard pulley D=200 (RS10)	200	240
Standard pulley D=210 (RS20)	210	240
Standard pulley D=220 (RS11)	220	240
Standard pulley D=230 (RS12)	230	240
Standard pulley D=240 (RS13)	240	240





## Head bearing for Pro-Drive planetary drives

### A unique connection

Pro-Drive planetary drives transmit the power to the cutting system via custom-design bearings. EWM® head bearings offer two different connections that suit the specific knife drive.

The head bearings for the Pro-Drive M series drives have prismatic connections. Fixed by two bolts, the snug-fit design offers particularly high resistance to stress and strain.

By contrast, Pro-Drive E series drives feature the EasyConnect connection, which stands out for its very easy, fast and single-bolt assembly.



**The EasyConnect connection**

**The prismatic connection**

### Head bearing with plastic ring



- Replaceable plastic ring
- This type of connection suits less demanding harvest conditions and medium cutting widths of up to 7.50 m
- For less contaminating conditions

### Head bearing with steel ring



- Also for 7.50 m+ cutting widths
- A steel ring allows the power transmission between the drive head and the bearing
- The power flows radially into the core of the head bearing
- Heat can dissipate more easily; more self-adjusting
- Reduces fitting and adjusting errors

### Head bearing with steel pot



- Also for 7.50 m+ cutting widths
- A steel pot allows the power transmission between the drive head and the bearing
- The power flows radially into the core of the head bearing
- Heat can dissipate more easily; more self-adjusting
- The bearing is fully enclosed and protected from shock loads and the ingress of soil

## Head bearing for Pro-Drive planetary drives



## Knife heads

The key to the cutting system

Knife heads are as versatile as the machines they are built into. The design and specification of the knife head is critical for the life span of the entire cutting system. Our long-standing experience allows us to design the perfect solution for your cutting system. We design and manufacture your knife head as welded assemblies or the cast assembly.



## Knife heads for Pro-Drive knife drives

### Welded assemblies



- A large choice of different assemblies allows you to choose the perfect connection for your cutting system
- Custom production including low-volume series
- Designs with plastic ring or cylindrical hole suit different types of head bearings
- Also available with ball joint to connect to a wobble gearbox

### Cast assemblies



- Consistent power flow from the knife head to the cutting system
- Economical for high-volume productions
- Designs with plastic ring or cylindrical hole to suit different head bearings



# GROUP SCHUMACHER

## Components & systems for harvesting machines

GROUP SCHUMACHER is a medium-sized global player in agricultural technology and an employer of 600 people around the world.

We are driven by the passion to improve harvester systems and components and make them available to all users.

Drawing on an extensive experience and market proximity, we develop innovative harvesting solutions that boost the productivity of manufacturers, farmers, contractors and dealers alike.

HARVESTING SOLUTION PARTNER

## Our product portfolio for:

- **Combine harvester**
- **Balers**
- **Grassland**
- **Landscaping**



## Our worldwide services:

Technical cooperation	R&D projects	Pre-assemblies	Custom systems
Just-in-time dispatch	Training and consultancy	Parts supply services	Marketing & public relations



# Perfect Harvest.

**SCHUMACHER GmbH**

Siegener Straße 10 . 57612 Eichelhardt / Germany

Phone +49 (0) 2681 8009 - 0 . [info@groupschumacher.com](mailto:info@groupschumacher.com)

[www.groupschumacher.com](http://www.groupschumacher.com)

