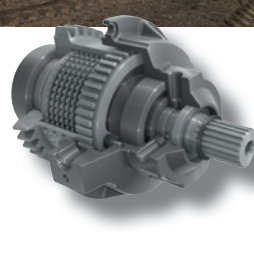
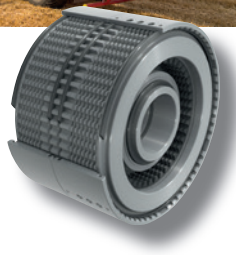


*Ortlinghaus*

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2020 / 2021  
2020 / 2021

Engage your drive



# Agriculture Technology

### Ortlinghaus in agricultural technology

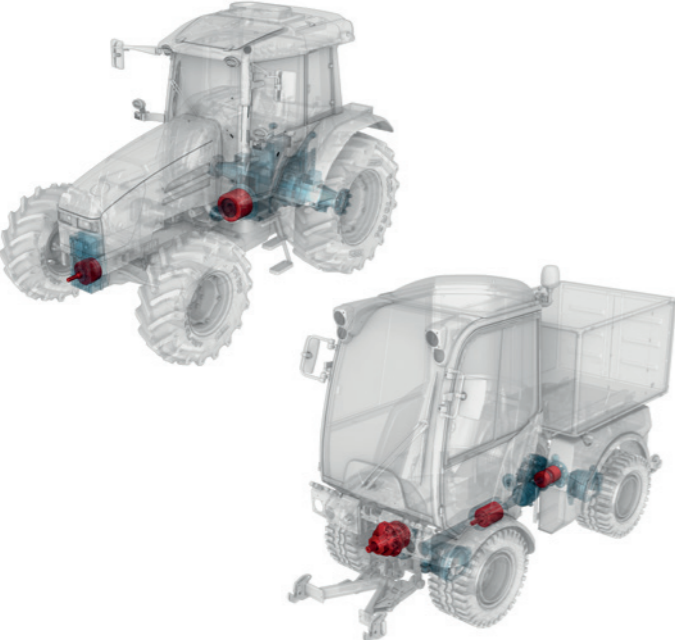
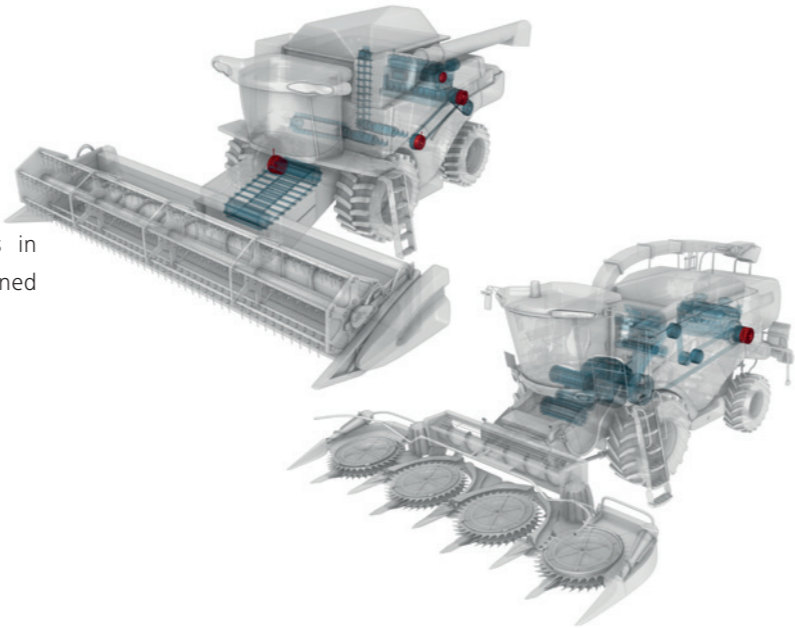
Ortlinghaus has a clear focus on the demands of customers in agricultural technology. We offer an increasing variety of modular clutch solutions that can be easily adapted to different requirements.

Due to our extensive specialist knowledge, years of experience and ongoing technical innovations we are always a qualified partner for our customers.

## | Self-propelled harvesting vehicles

### Combine harvesters & forage harvesters

Ortlinghaus clutches are used in various applications in self-propelled harvesting vehicles, such as belt drives, inclined conveyors, compressors and threshing systems.



## | Tractors and municipals

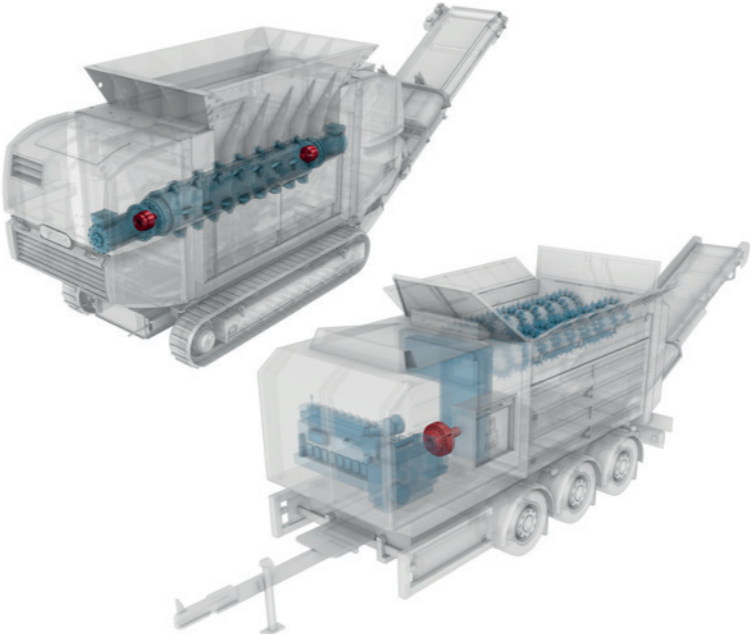
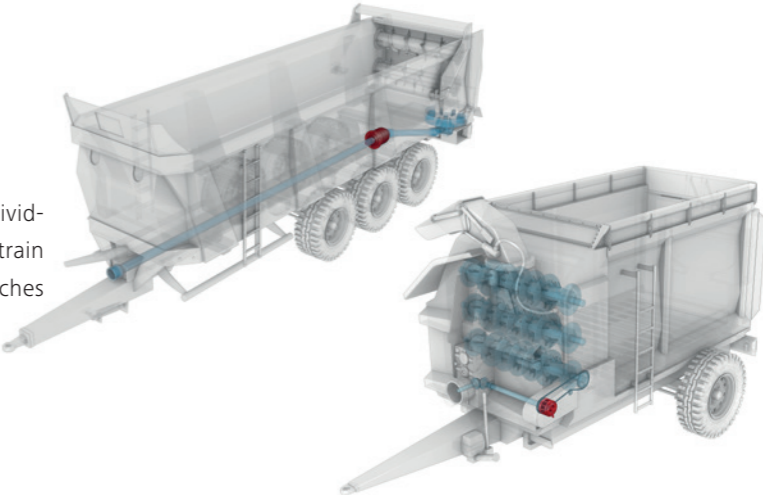
### Tractors & municipals

Tractors are used as pulling machines and provide power for attached machines. Ortlinghaus clutches are used here in PTO units or CVT gearboxes.

## | Trailers

### Trailers

Pulling vehicles provide power to attached machines. Individual drives are engaged via additional clutches in the drivetrain on attached machines. For this purpose Ortlinghaus clutches are also available with radial oil inlets.



## | Shredders

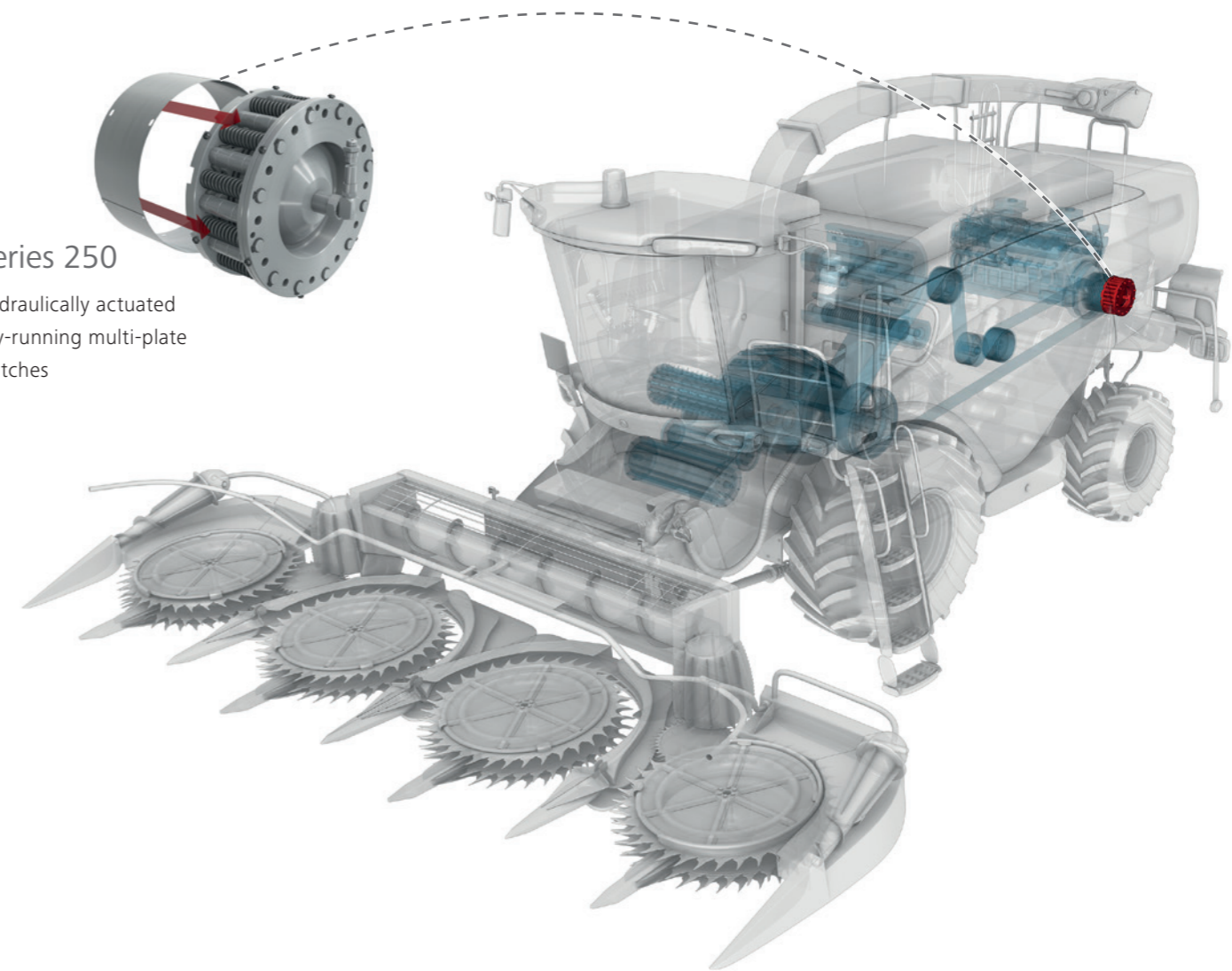
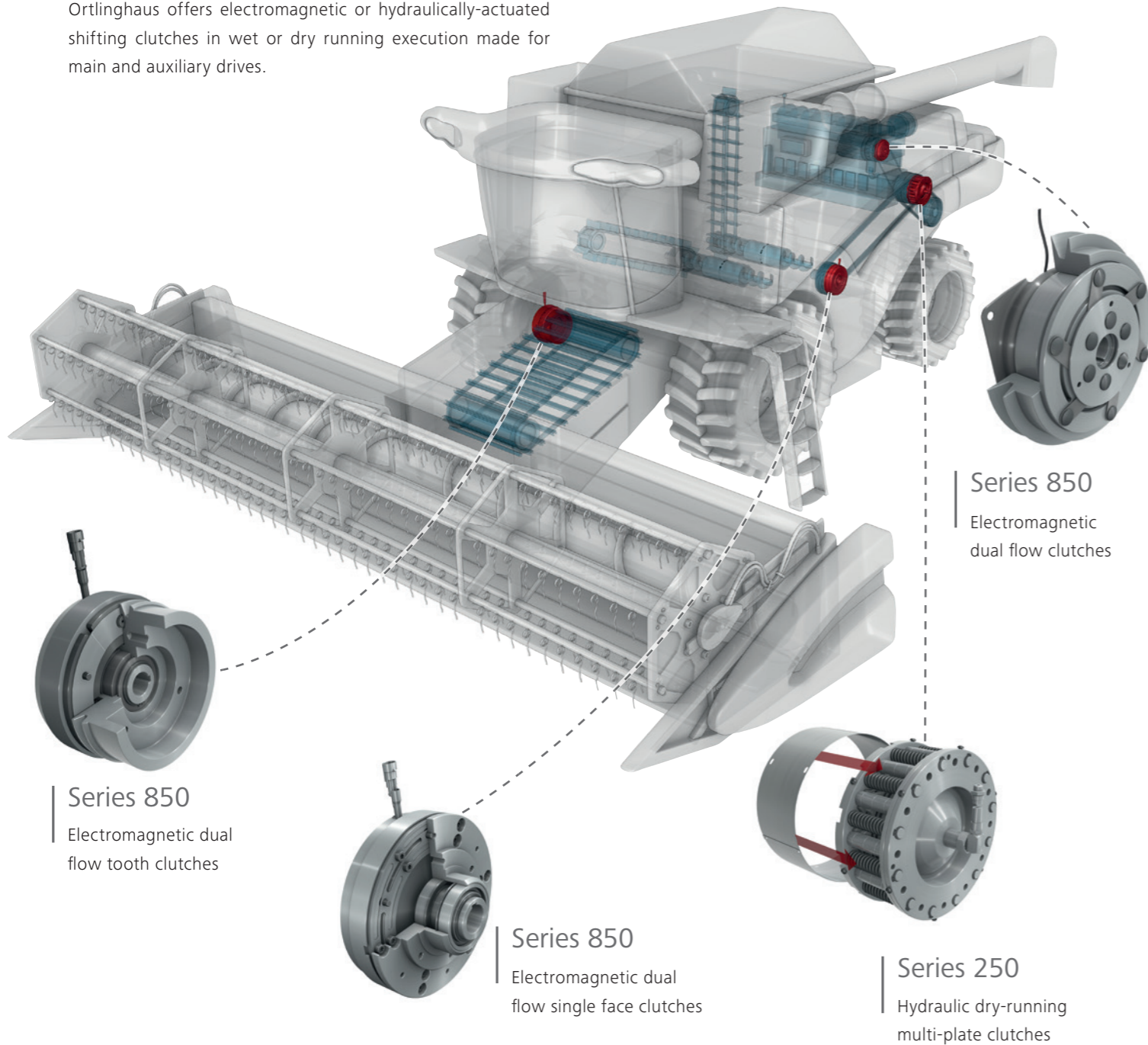
### Shredding of various materials

Shredders are used to shred different materials. Ortlinghaus supplies different clutch systems, such as shifting clutches for diesel-powered shredders which, at the same time, provides an overload safety function and, on electric-powered shredders, overload clutches for protection of the gearbox.

## Clutch solutions for self-propelled harvesting vehicles

### Self-propelled harvesters

These harvesters have a variety of drive systems that perform different functions, for which Ortlinghaus supplies customer-specific solutions. For these applications Ortlinghaus offers electromagnetic or hydraulically-actuated shifting clutches in wet or dry running execution made for main and auxiliary drives.

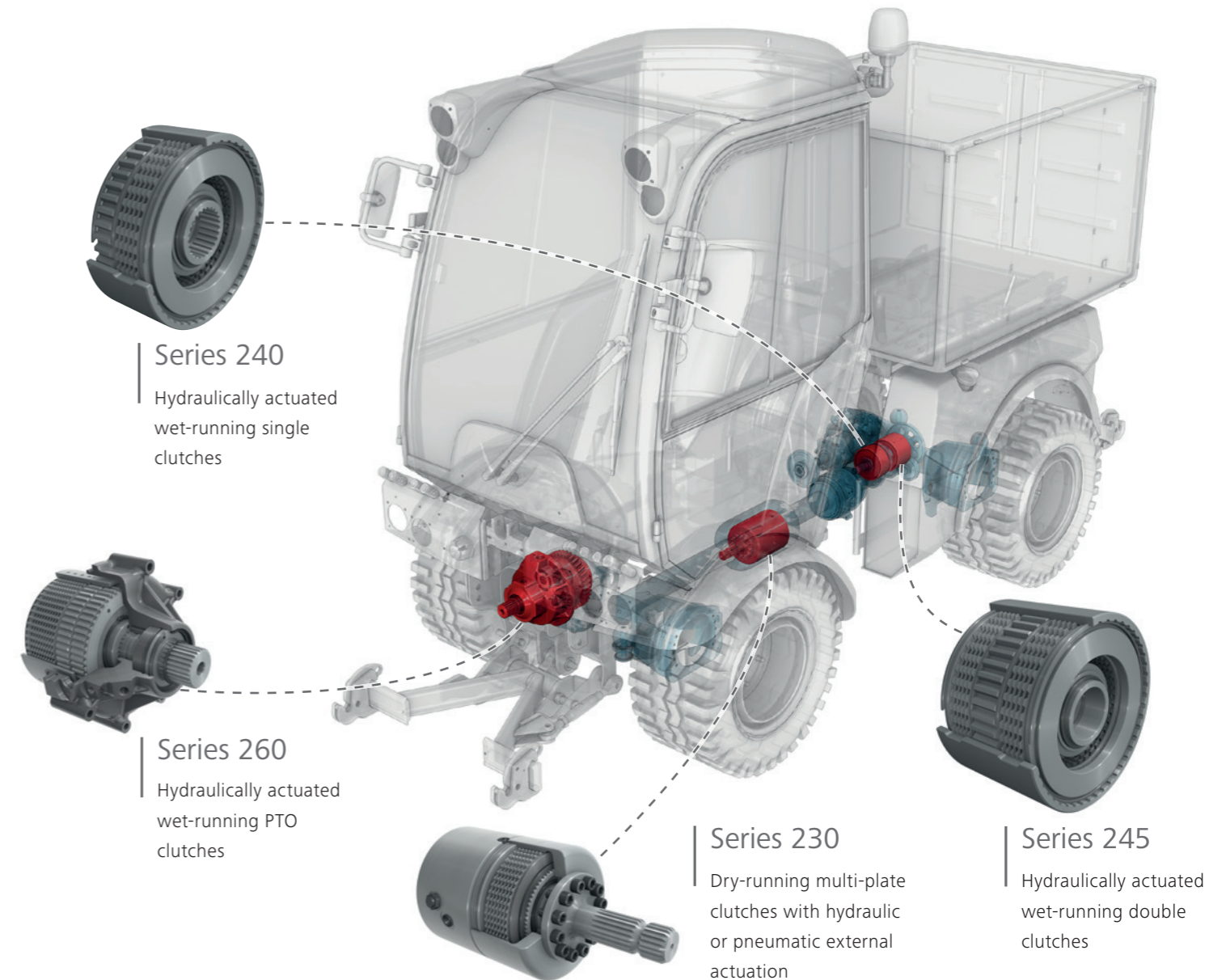
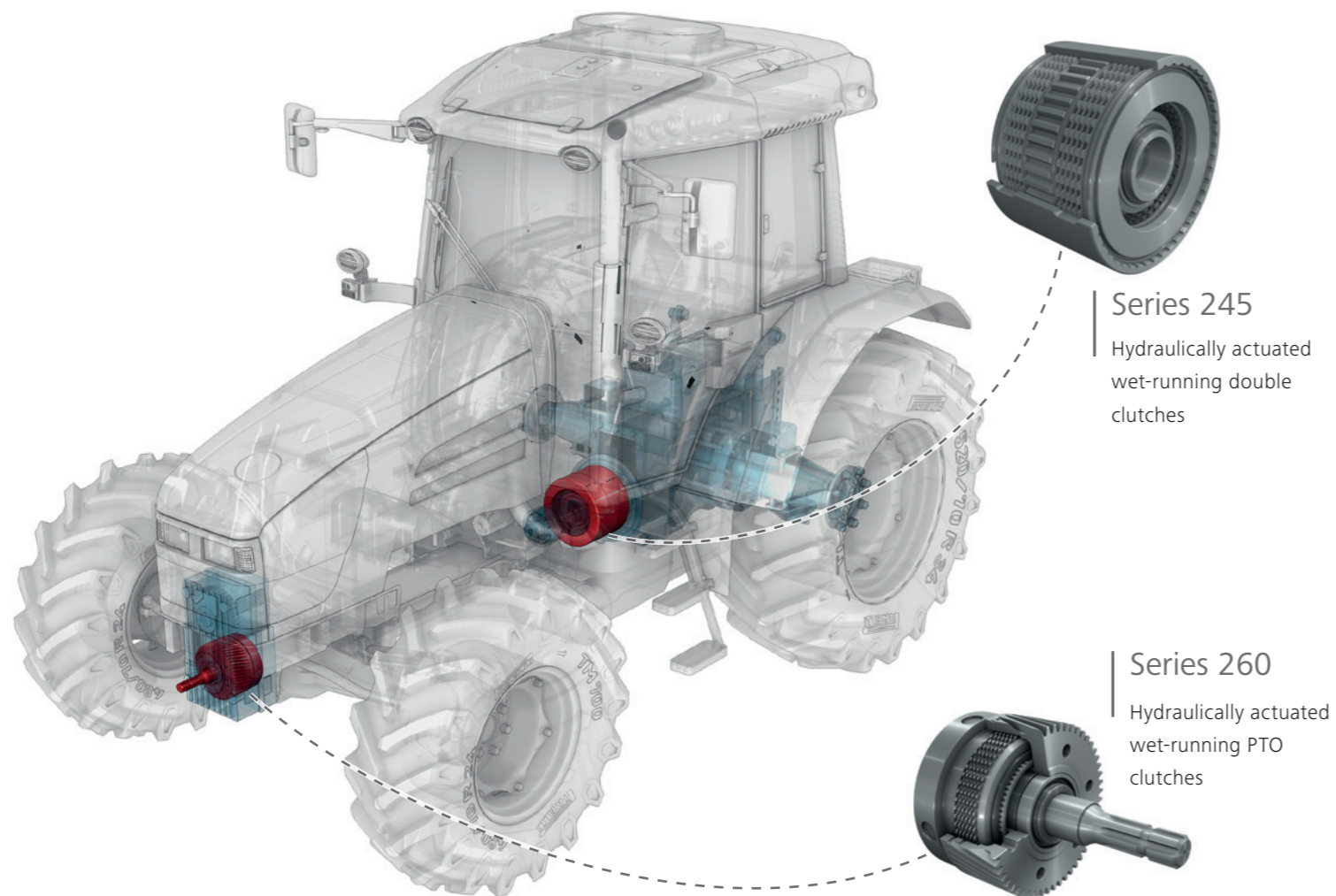




## Clutches for tractors and municipals

### Tractors and municipals

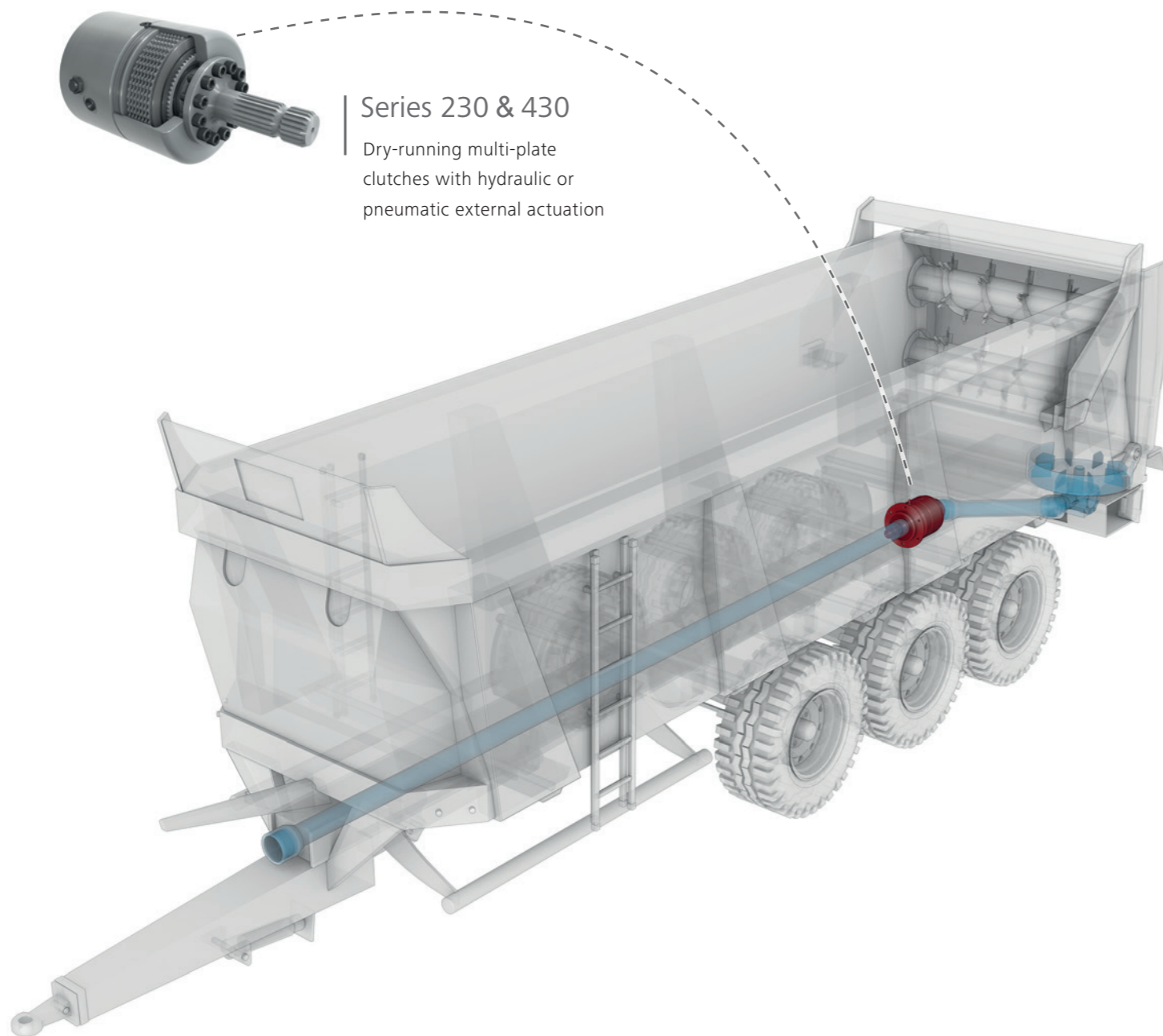
A main area of focus for Ortlinghaus are wet-running multi-plate clutches for power take-off (PTO) units and multi-plate clutches for main gearboxes. PTO units are used with front or rear power output. Suitable clutch solutions are available for power shift transmissions and continuously variable transmissions (CVT). They provide customer-specific solutions thanks to the modular clutch design.



## Clutches for trailers

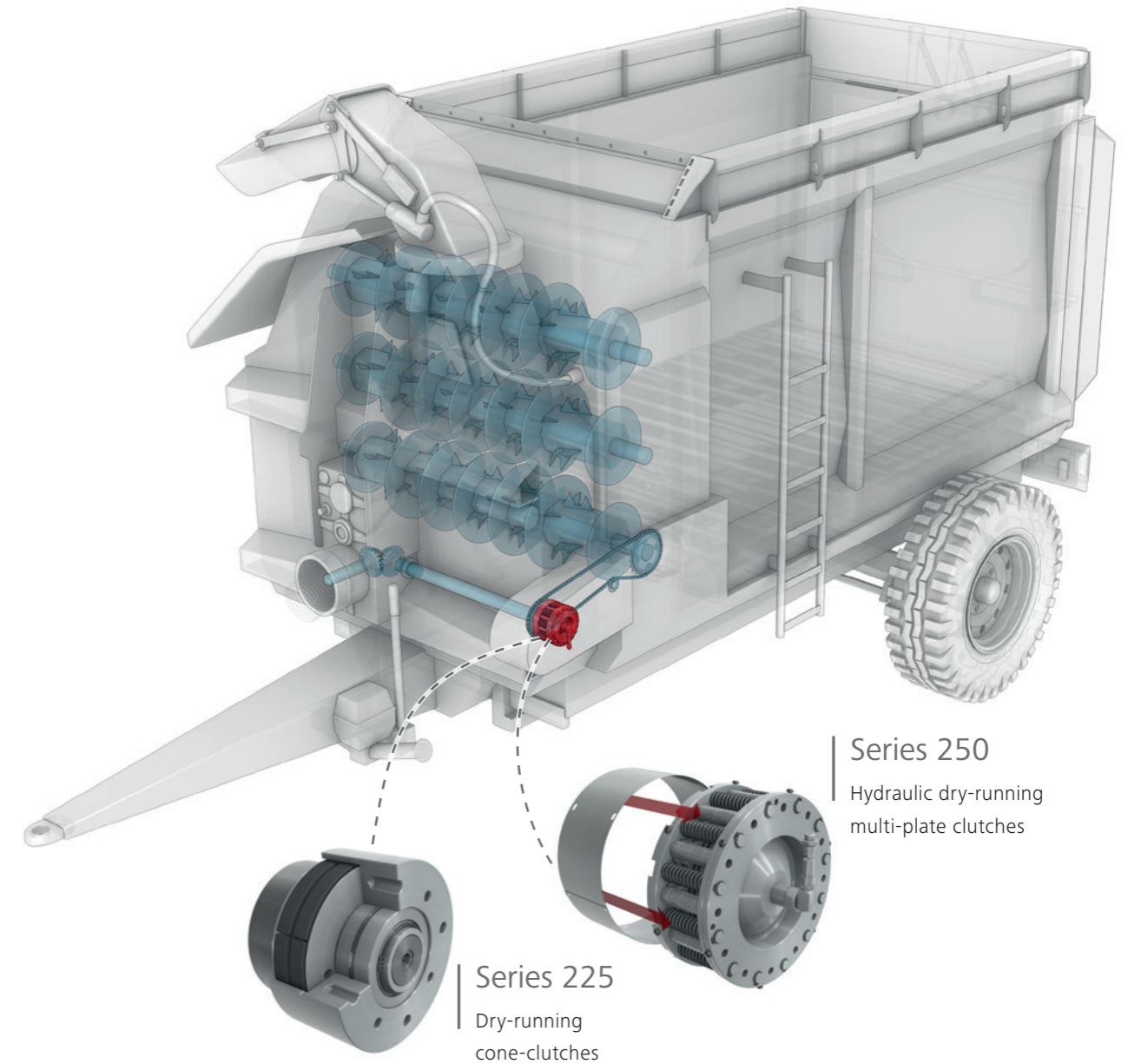
### Trailers

Auxiliary drives on trailers can be switched with the hydraulically actuated dry running clutches series 230, 430, 250 or 225 depending on the requirements and installation. This broad range provides a solution for all types of safety circuit applications, but also allows the engagement of additional drives.



### Series 230 & 430

Dry-running multi-plate clutches with hydraulic or pneumatic external actuation



### Series 250

Hydraulic dry-running multi-plate clutches

### Series 225

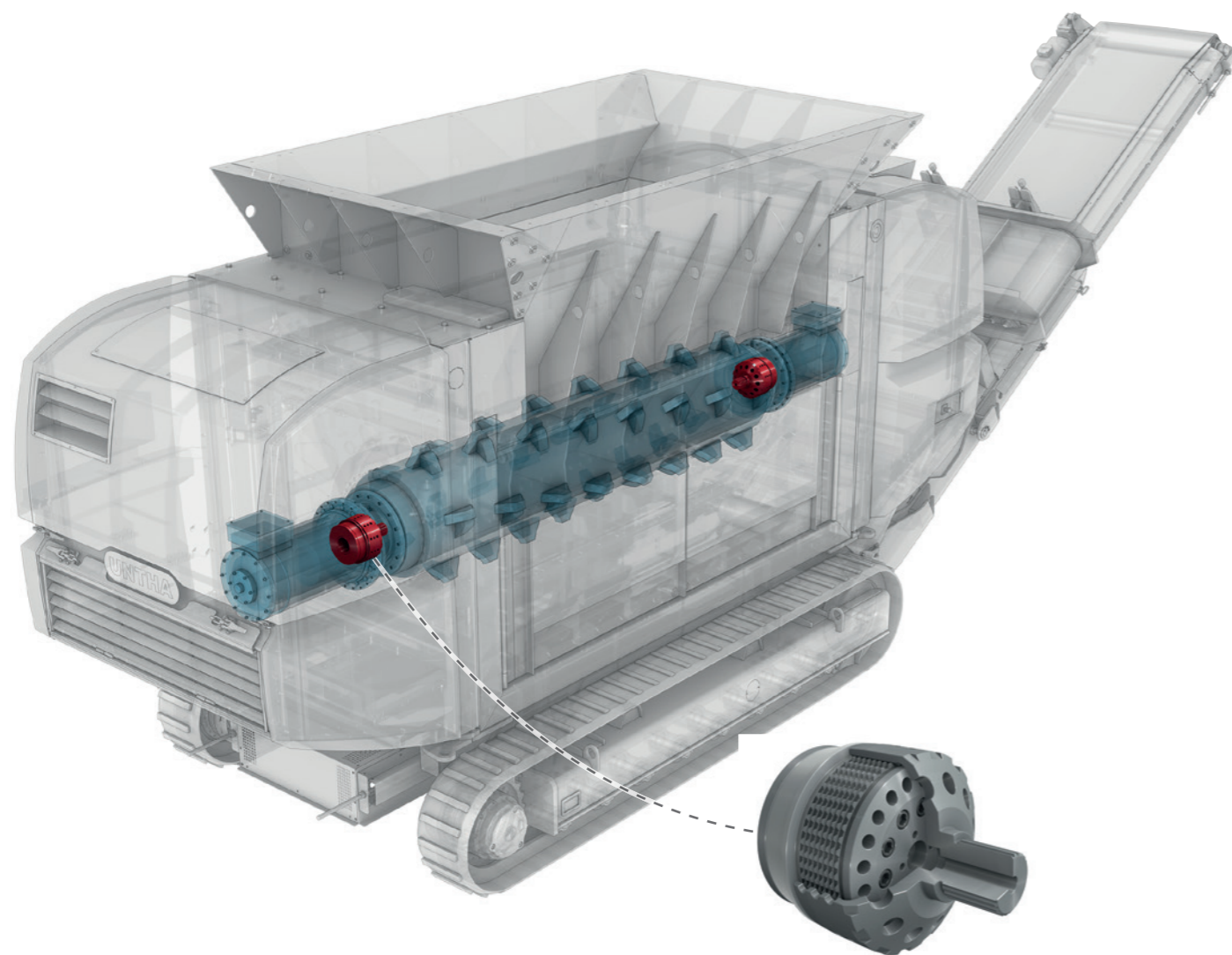
Dry-running cone-clutches



## Clutches for shredders

### Processing of different materials

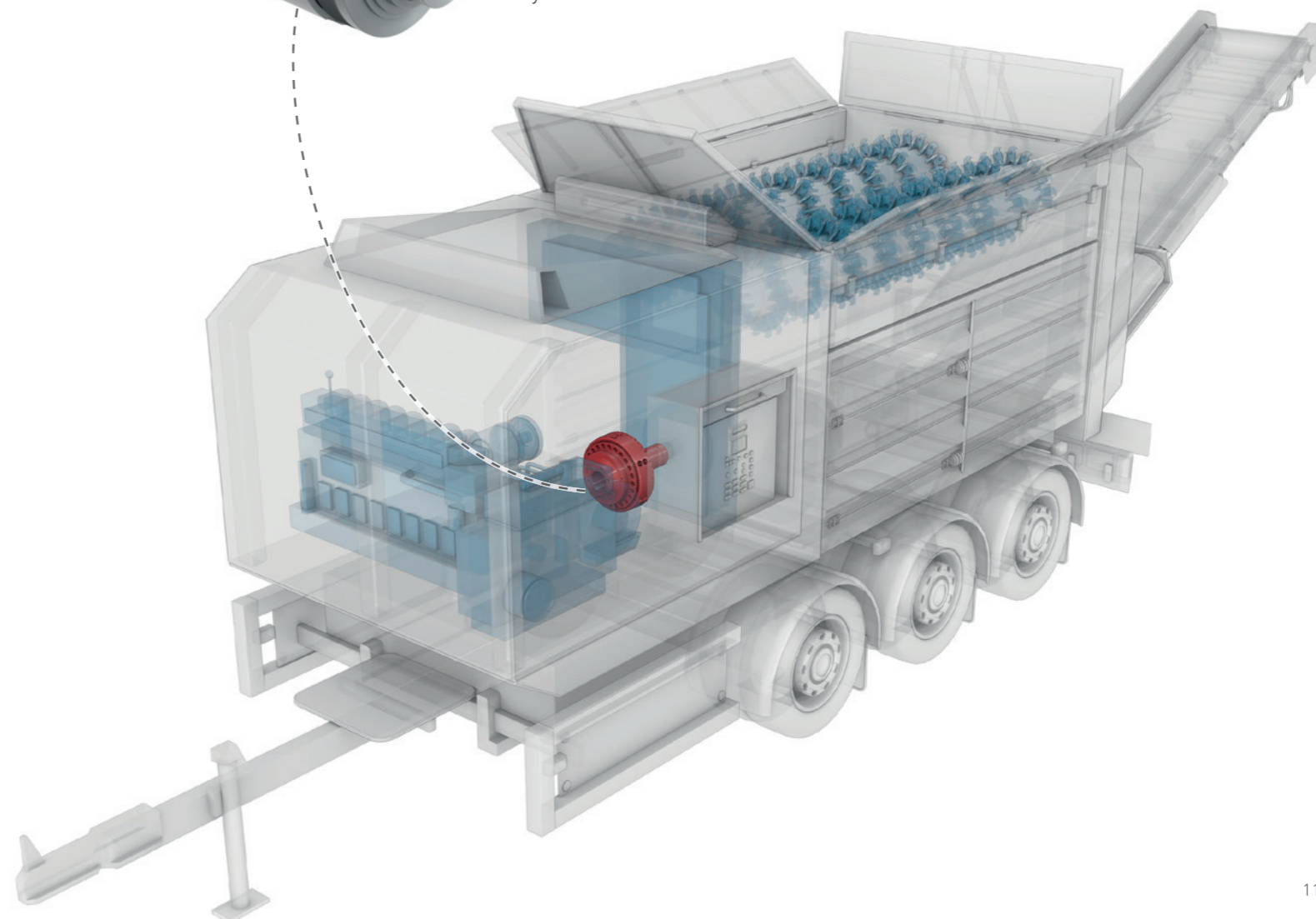
Shredders are used for processing different materials. Clutches are installed in the drivetrain to prevent the machine from being overloaded. Here, spring-loaded slipping clutches are used as well as hydraulic shifting clutches. By use of these clutches it is possible to cap load peaks and, in doing so, extend the service life of the machine and prevent damage to the drivetrain.



Series 610  
Overload clutches with preconditioned friction system



Series 610  
Overload clutch with preconditioned friction system



## Multi-plate clutches - series 240 & 245

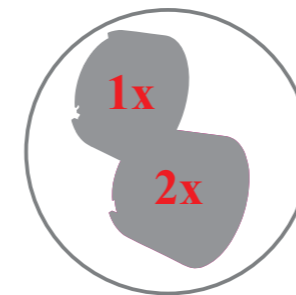
### Hydraulic wet-running multi-plate clutches

With its modular structure, this system clutch is an ideal solution for gearboxes in agricultural technology.

The clutch has a high level of adaptability and, at the same time, benefits from cost optimization. This is achieved by the configuration of the number of friction surfaces, friction lining combinations, customer interfaces and the availability of two sizes, which come with either a single or double clutch respectively.

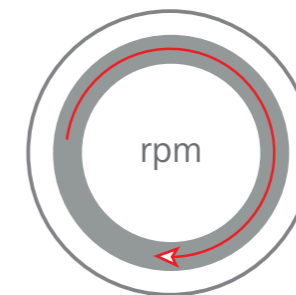
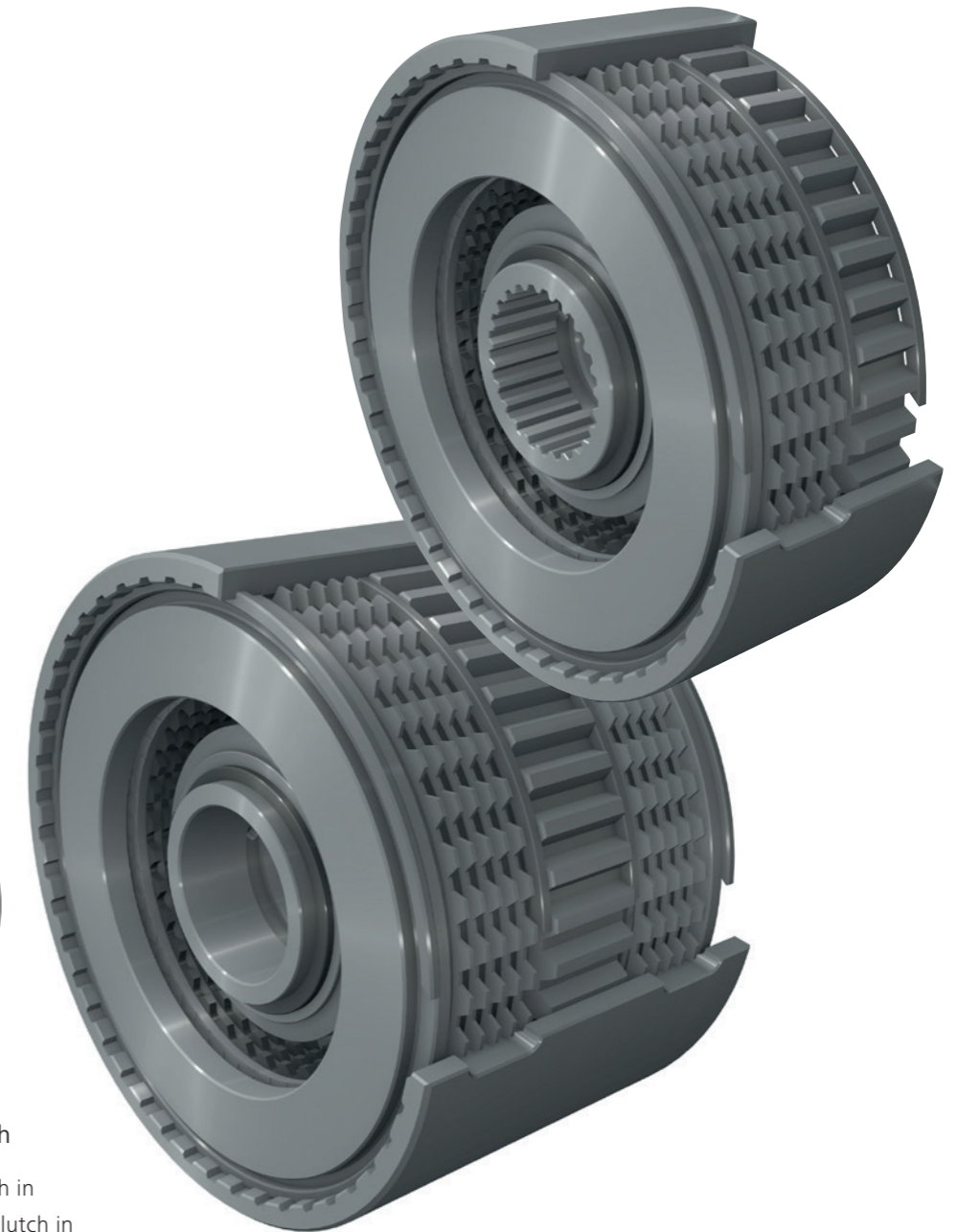
Series 240 <sup>1)</sup> & 245 <sup>1)</sup>			
	Feature	Size 31 Single clutch	Size 47 Double clutch
Dyn. torque depending on number of friction surfaces	$T_{dyn}$	up to 1200 Nm	up to 3500 Nm
Speed <sup>2)</sup>	n	2000 min <sup>-1</sup>	2000 min <sup>-1</sup>
Operating pressure	$P_o$	25 bar	25 bar
Outer diameter	D1	149 mm	200 mm
Length depending on number of friction surfaces	L1	60,5 mm	99 mm

1) Extract of available executions. Other executions on request.  
2) Higher speeds on request.



### Single or double clutch

Available as single clutch in series 240 and double clutch in series 245.



### Suitable for high speeds

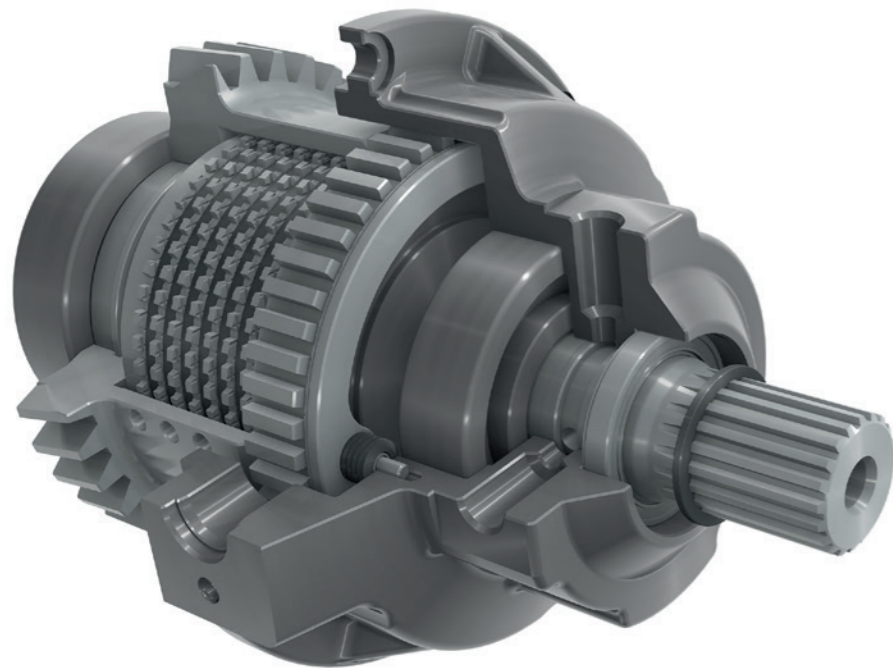
These clutches are designed for dynamic applications with high speeds.



### Configurable series

The modular structure of this design makes it possible to easily adapt it to a wide range of requirements.

## Wet-running multi-plate clutches - series 260

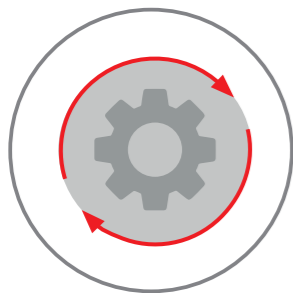


**Speed sensor**  
Integrated speed sensor available.



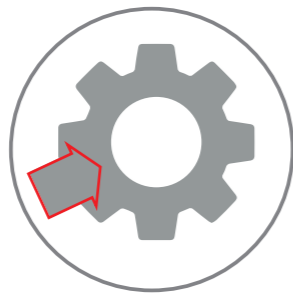
**Power take-off shaft profile in accordance with DIN**

The profile of the power take-off shaft is usually designed to comply with current standards, though it can be adapted to customer requirements if necessary.



**Integrated Brake**

The integrated friction brake system prevents the power take-off shaft from rotating further as a result of drag torque when the clutch is disengaged.



**Connection via gearwheel**

Through a gearwheel a customer specific connection and a compact design were achieved.

### Hydraulically actuated wet-running multi-plate clutches

The multi-plate clutch series 260 is used as a clutch for power take-off units (PTO) and as a 2-speed PTO version where it is integrated in the manual gearbox. Customer-specific connections via the gearwheel and the power take-off shaft profile allow different interfaces to be achieved.

	Series 260 <sup>1)</sup>			
	Feature	Size 27	Size 31	Size 47
Stat. torque	$T_{stat}$	750 Nm	1.800 Nm	3000 Nm
Speed <sup>2)</sup>	n	1200 rpm	1200 rpm	1200 rpm
Maximum speed	$n_{max}$	2000	2000	2000
Operating pressure	$p_o$	25 bar	25 bar	25 bar
Outer diameter	D1	108 mm	155 mm	200 mm
Length including PTO shaft	L1	225 mm	253 mm	295 mm

1) Extract of available executions. Other executions on request.

2) Higher speeds on request.



## Overload clutches - series 610

### Overload clutches

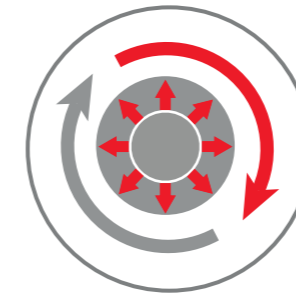
The spring-loaded overload clutches are used to protect gearboxes in case of overload peaks. The clutch has an integrated speed sensor that provides a control signal to stop the drive motor in case of overload.

Series 610 <sup>1)</sup>			
	Feature	Size 47	Size 63
Nominal torque	T	1.500 Nm	up to 10.000 Nm
Outer diameters	D1	200 mm	280 mm
Length	L1	200 mm	300 mm

1) Extract of available executions. Other executions on request.



Speed sensor  
Integrated speed sensor available.



Low inertia  
The design of the clutch is optimized to offer a low inertia of the driven parts.

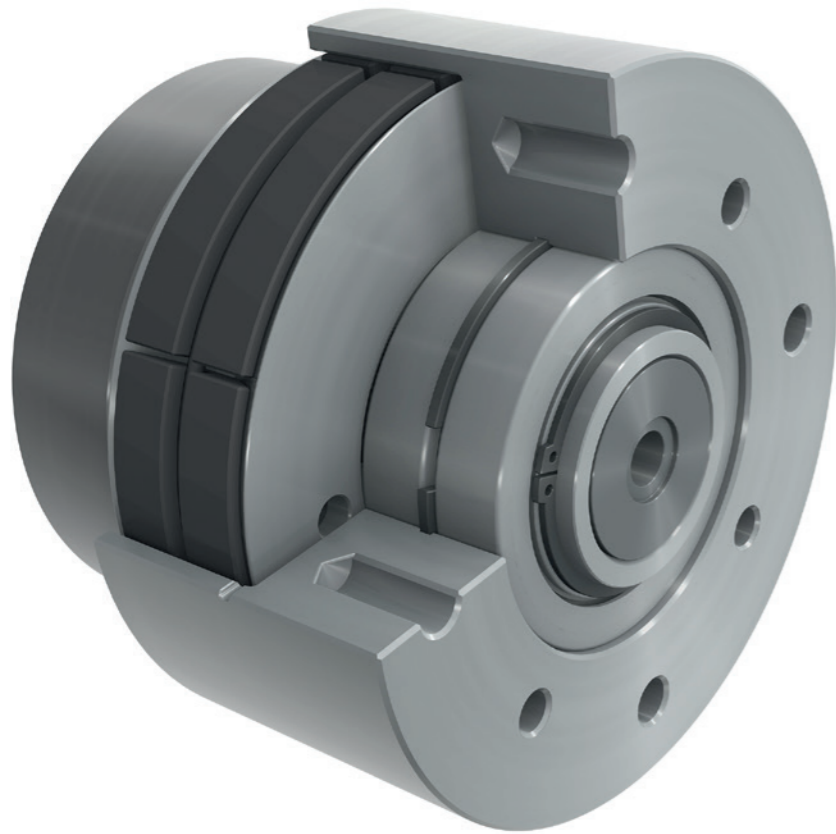


Pre-set overload torque  
Upon request the clutch can be set to a specific torque value.



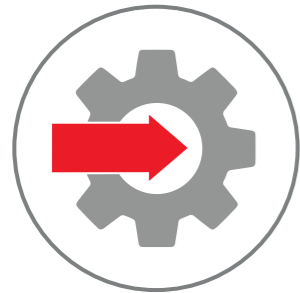
Wet or dry running  
The clutch can be adjusted to work as a wet or dry running system.

## Dry-running cone-clutches - series 225



### Force flow radial

The cone clutch works with radial forces and reduces the stress on bearings.



### Easy integration

The compact clutch can be easily integrated in customer specific components.



### Low noise

The open clutch does not emit any ringing noise as it is free from backlash of metallic parts inside.

### Hydraulic dry-running cone-clutches

Ortlinghaus clutches series 225 stand out by a high thermal load capacity. Due to the modular design of the clutch, it can be adapted flexibly to different torque requirements from 200 Nm to 1000 Nm. Furthermore, customer-specific components such as V-belt pulleys or sprockets can be integrated in the system.

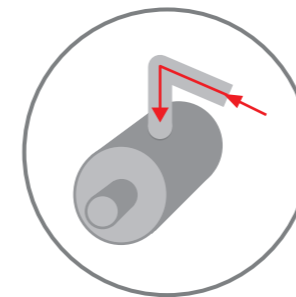
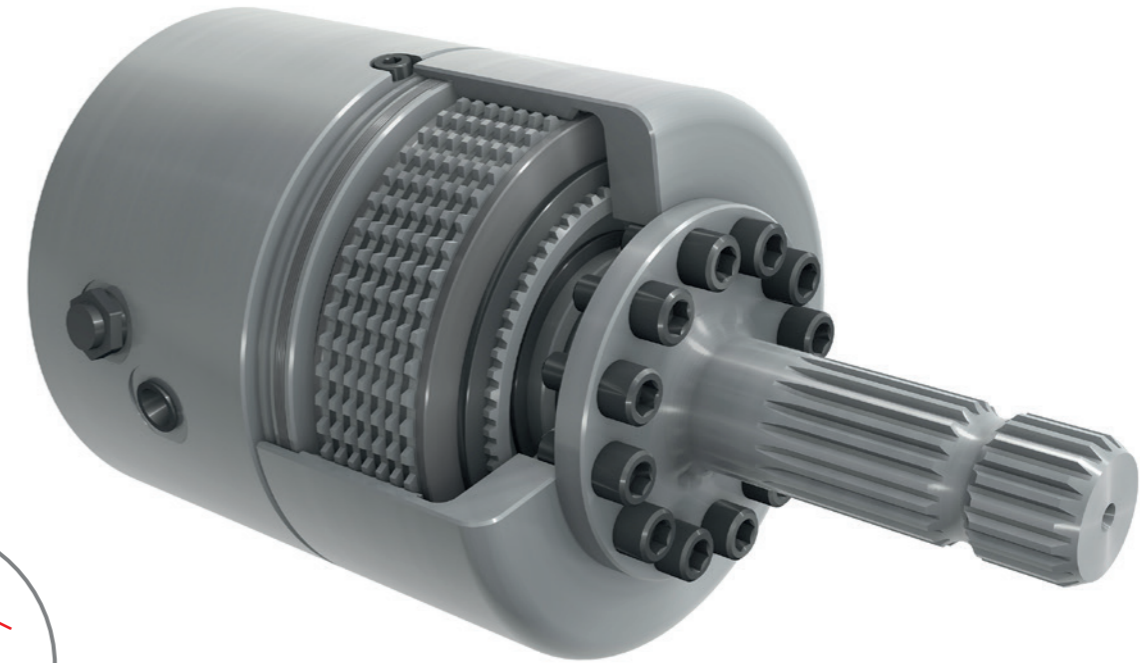
	Series 225 <sup>1)</sup>		
	Feature	Size 39	Size 47
Torque	Option 1	200 Nm	1.000 Nm
	Option 2	800 Nm	1.500 Nm
Operating pressure	P <sub>0</sub>	up to 30 bar	up to 30 bar
Spring return Pressure	P <sub>S</sub>	up to 3,0 bar	up to 3,0 bar
Outer diameters	D1	180 mm	200 mm
Length	L1 max	130 mm	140 mm

1) Extract of available executions. Other executions on request.

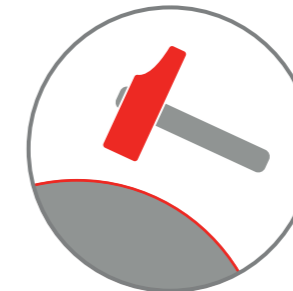
## Multi-plate clutches - series 230 & 430

### Dry-running multi-plate clutches with external actuation

The series 230 is the hydraulically actuated and the series 430 is the pneumatically actuated execution of this clutch design. Through external, radial actuation this clutch can be used in cases in which it is not possible to supply the actuation oil centrally through the shaft. Dry-running plates allow a compact design. In addition this clutch can be delivered with different input and output profiles.

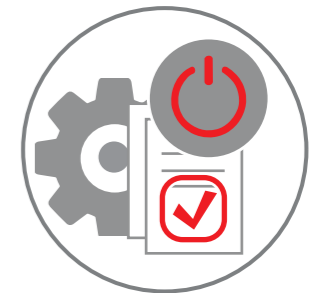


**Radial actuation**  
Radial actuation allows the clutch to be used flexibly.



**Protected against external influences**

The sturdy housing reliably protects the actuator unit and the plate pack.



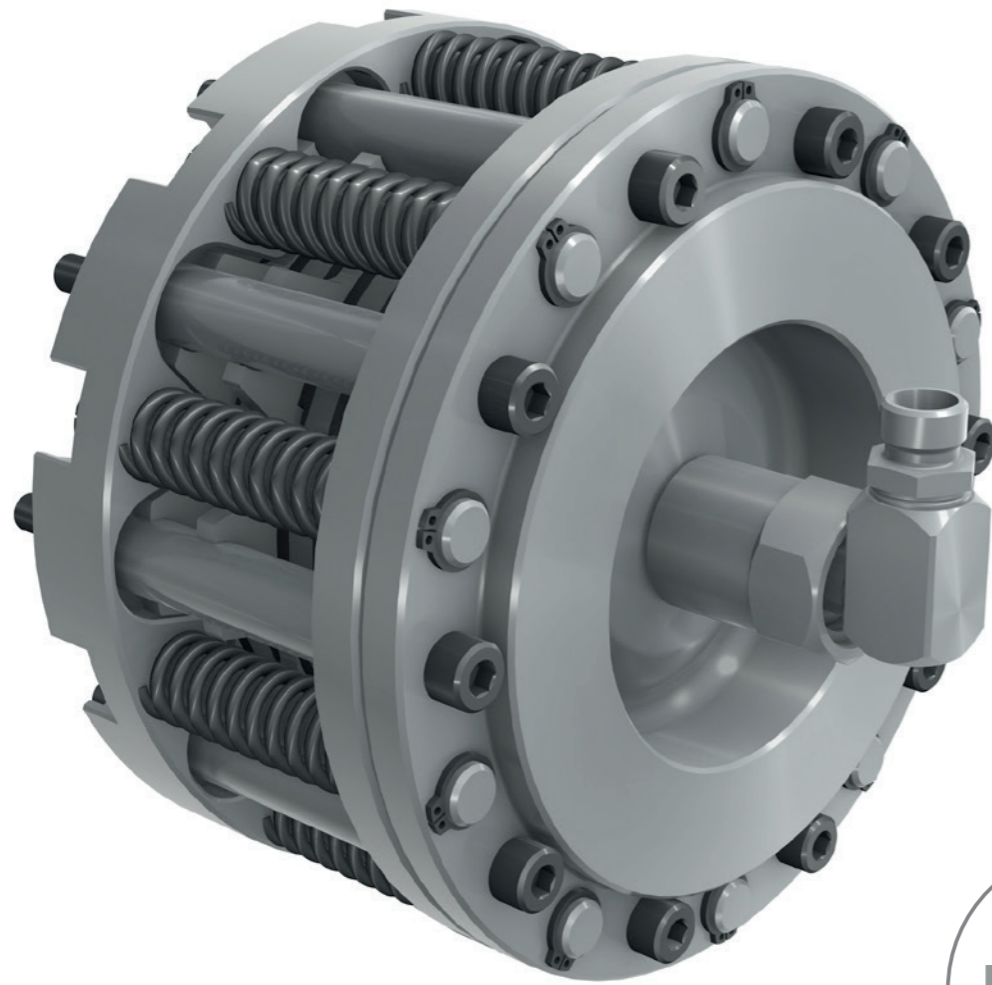
**Standardized actuator unit**

The executions for input and output can be easily adapted to customer requirements. There is no need to modify the actuator unit.

Series 230 <sup>1)</sup> & 430 <sup>1)</sup>			
	Feature	Size 31	Size 43
Torque at 33 bar	T	700 Nm	4.000 Nm
Speed <sup>2)</sup>	n	1.000 min <sup>-1</sup>	1.000 min <sup>-1</sup>
Maximum speed	n <sub>max</sub>	3.000 min <sup>-1</sup>	2.500 min <sup>-1</sup>
Outer diameter	D1	156 mm	220 mm
Length	L1	283 mm	364 mm

1) Extract of available executions. Other executions on request.  
2) Higher speeds on request.

## Dry-running multi-plate clutches - series 250



Dust cover

Optional dust cover provides additional protection against dirt.



Configurable series

The modular structure of this design allows to easily adapt it to a wide range of requirements.



Quiet engagement

Innovative, newly-developed friction materials have been used to eliminate noise during the engagement procedure.



Soft engagement

The clutch can be actuated with precision, which facilitates soft engagement.

### Hydraulic dry-running multi-plate clutches

Ortlinghaus clutches of series 250 stand out by a high thermal load capacity. Due to the modular design the clutch can be adapted flexibly to different torque requirements from 500 Nm to 10,000 Nm. Furthermore, customer-specific components such as V-belt pulleys or sprockets can be integrated in the system. As an option this clutch can be supplied with a rotary inlet and dust cover.

	Series 250 <sup>1)</sup>		
	Feature	Size 44	Size 77
Torque	2 friction surfaces	700 Nm	3.300 Nm
	4 friction surfaces	1.400 Nm	6.600 Nm
	6 friction surfaces	2.100 Nm	10.000 Nm
Operating pressure	$p_o$	30 bar	30 bar
Spring return pressure	$p_s$	uo to 3,0 bar	up to 3,1 bar
Outer diameters	D	185 mm	290 mm
Length	L	109,5 mm	118 mm

1) Extract of available executions. Other executions on request.

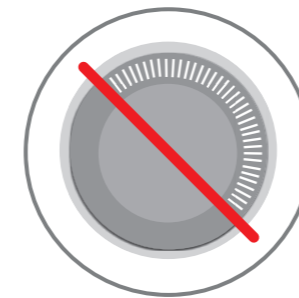
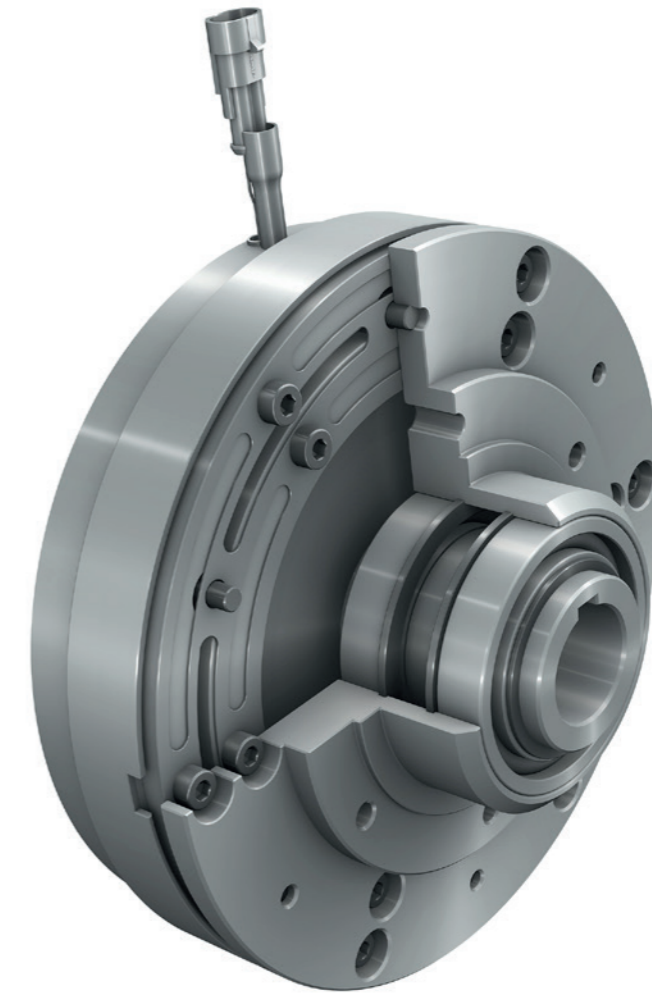
## Electromagnetic clutches - series 850

### Electromagnetic dry-running dual flow clutches

Our clutches of series 850 have a broad power spectrum thanks to the dual flow, which makes them ideal for small installation spaces.

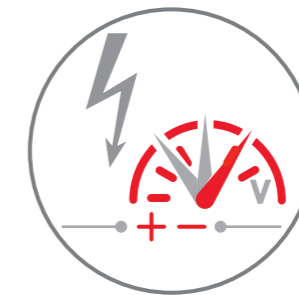
		Series 850 <sup>1)</sup>		
	Feature	Size 59	Size 64	Size 70
Dyn. torque	$T_{dyn}$	400 Nm	630 Nm	950 Nm
Stat. torque	$T_{stat}$	1.000 Nm	1.200 Nm	1.300 Nm
Speed <sup>2)</sup>	$n$	825 min <sup>-1</sup>	438 min <sup>-1</sup>	200 min <sup>-1</sup>
Maximum speed	$n_{max}$	2.500 min <sup>-1</sup>	2.500 min <sup>-1</sup>	2.200 min <sup>-1</sup>
Power consumption	at 80°C	72 W	98 W	95 W
Outer diameter	D1	266 mm	290 mm	266 mm
Length	L1	131	131	199

1) Extract of available executions. Other executions on request.  
2) Higher speeds on request.



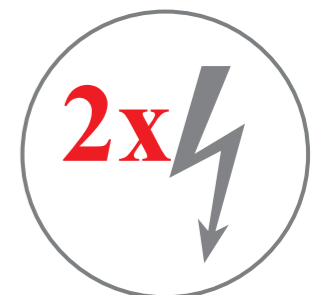
### Single face clutch or tooth clutch

The electromagnetic clutch of series 850 is available as a single face clutch as well as a tooth clutch.



### Different voltages

The clutch can be provided suitable for different activation voltages.



### Dual flow

The electric dual flow allows this clutch to have a very wide power spectrum.

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