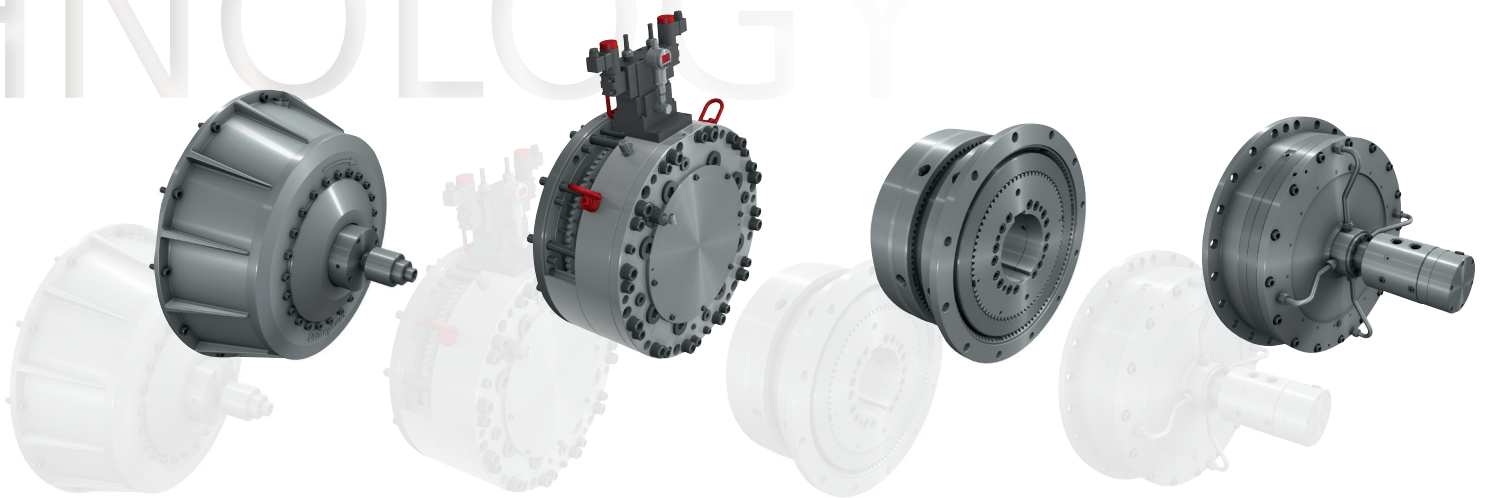


*Ortlinghaus*

METAL  
FORMING  
TECHNOLOGY



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Engineered for your success



## Ortlinghaus in Metal Forming Technology

We have been active in the field of metal forming technology for more than 75 years. Today, we offer products across the entire spectrum of mechanical presses and servo presses, from clutch/brake units, slide locking devices, brakes to mechatronic control systems. We are the only manufacturer of clutches and brakes successfully developing and producing the friction systems in-house for each and every clutch and brake we deliver to the market. Our mechatronic systems are engineered

to address the specific needs of each individual applications. Ortlinghaus has developed a reputation for quality throughout the world – and we are highly motivated to meet and exceed our previous standards. We work with our customers to create custom solutions and values that are characterized by innovation and superior engineering.



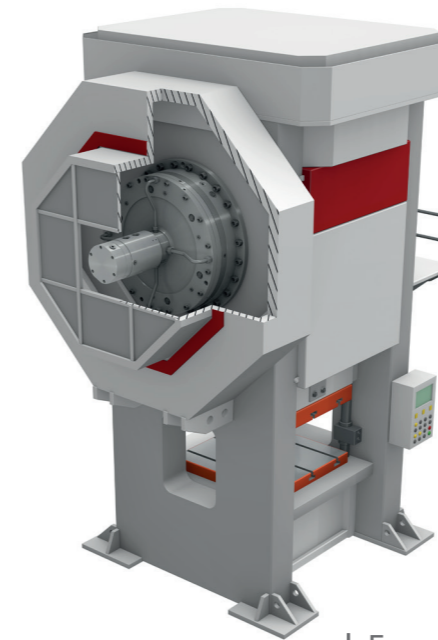
H-frame presses

>> Page 4 - 5



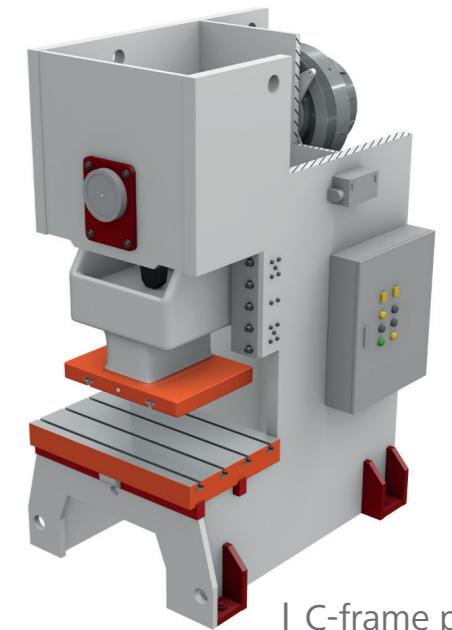
Servo presses

>> Page 6 - 7



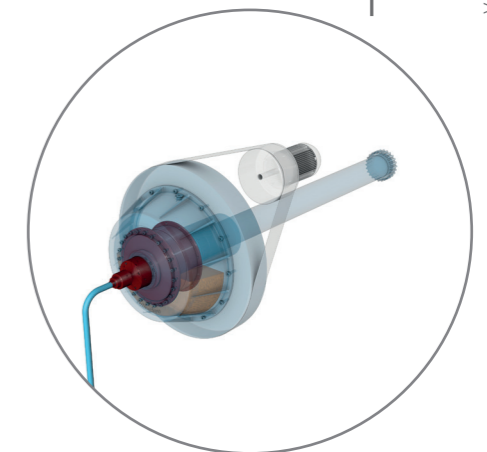
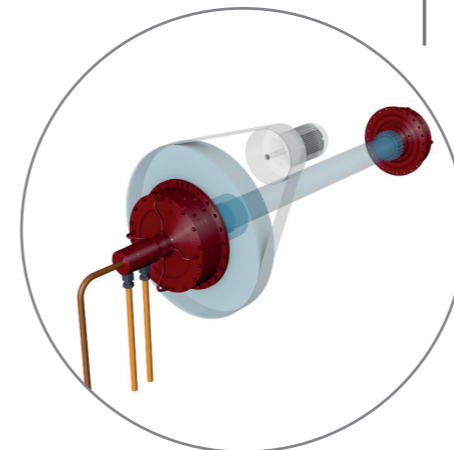
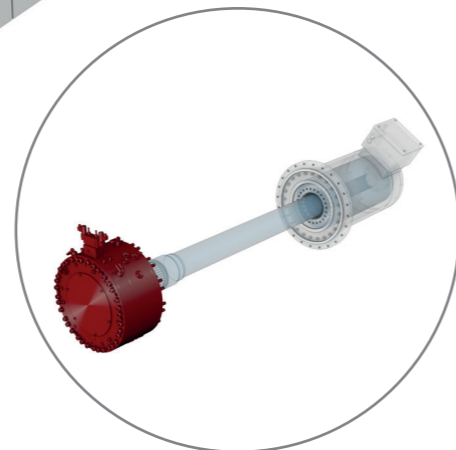
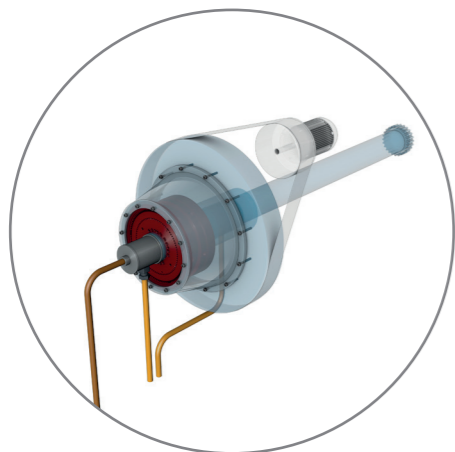
Forging presses

>> Page 8 - 9



C-frame presses

>> Page 10 - 11

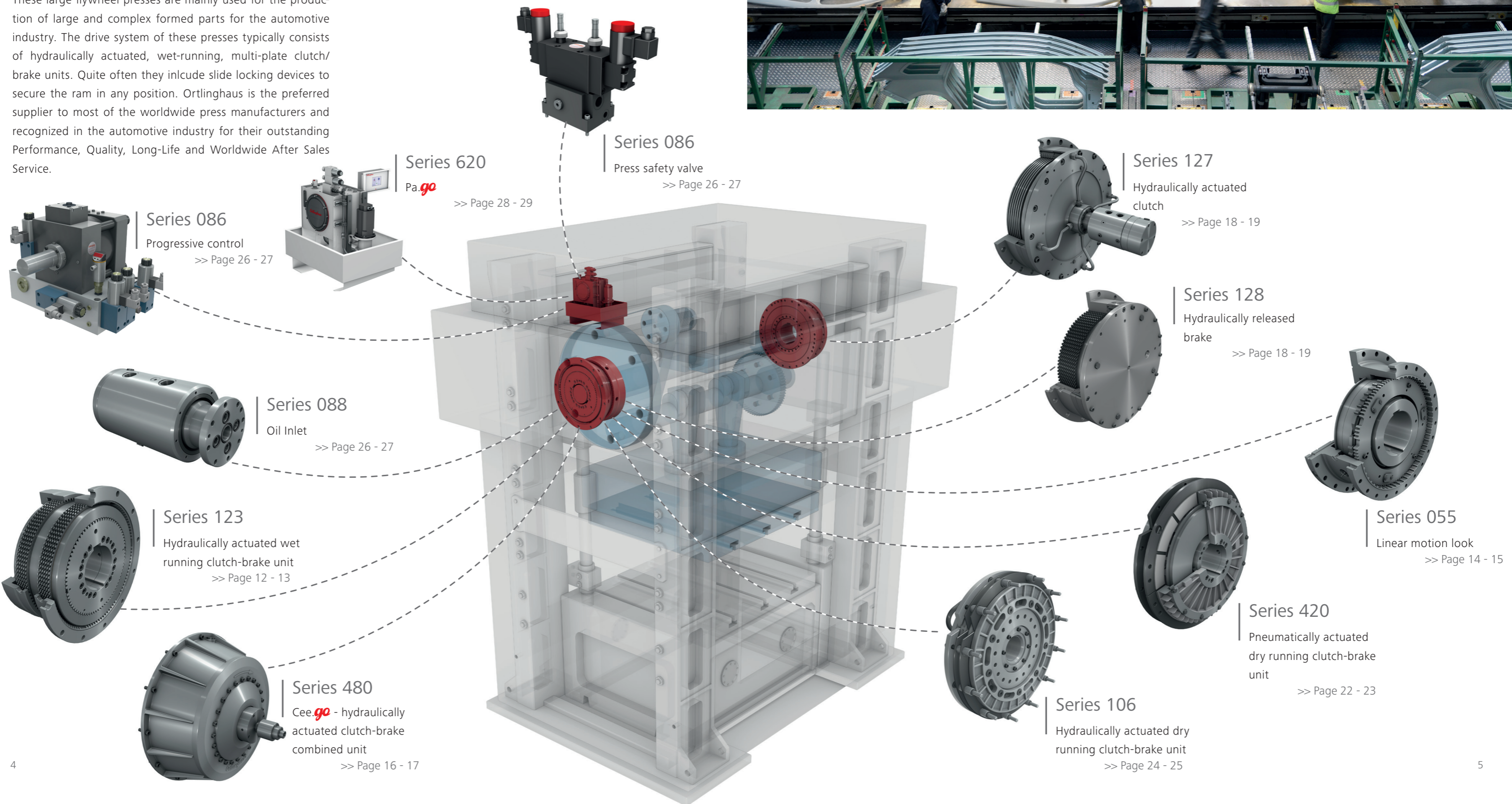




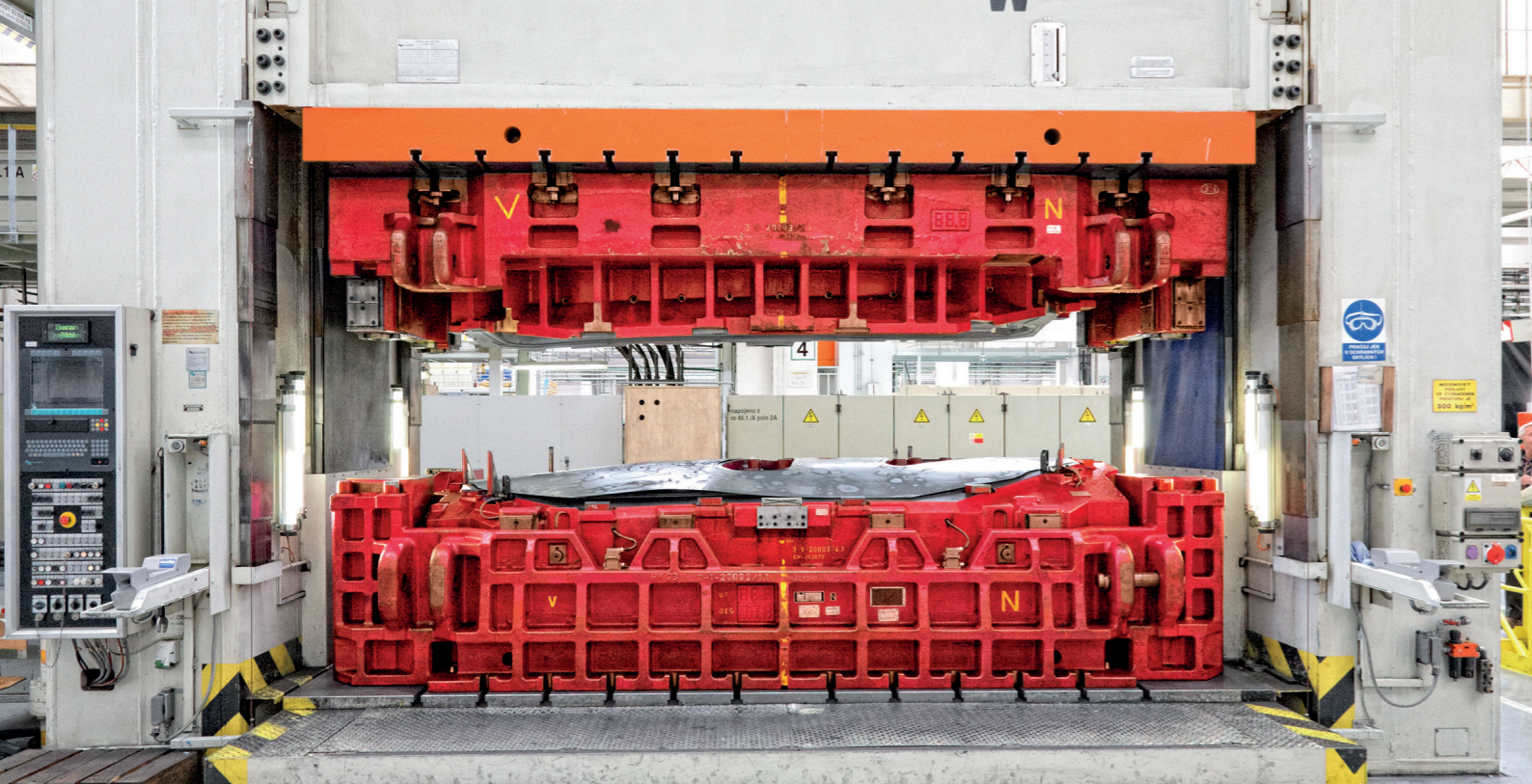
## Large H-Frame presses

### Engineered for higher performance

These large flywheel presses are mainly used for the production of large and complex formed parts for the automotive industry. The drive system of these presses typically consists of hydraulically actuated, wet-running, multi-plate clutch/brake units. Quite often they include slide locking devices to secure the ram in any position. Ortlinghaus is the preferred supplier to most of the worldwide press manufacturers and recognized in the automotive industry for their outstanding Performance, Quality, Long-Life and Worldwide After Sales Service.







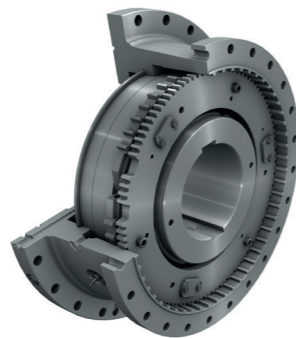
## Servo presses

### Protect your press

Servo presses are characterized by large electrical torque motors, which generates the needed forming energy directly on the eccentric shaft.

In this application the safety requirements are high and serve to protect the press drive and transfer system as well as to prevent accidents. For these safety reasons, it is necessary to implement a reliable safety brake, which in some cases should be combined with additional slide locking devices.

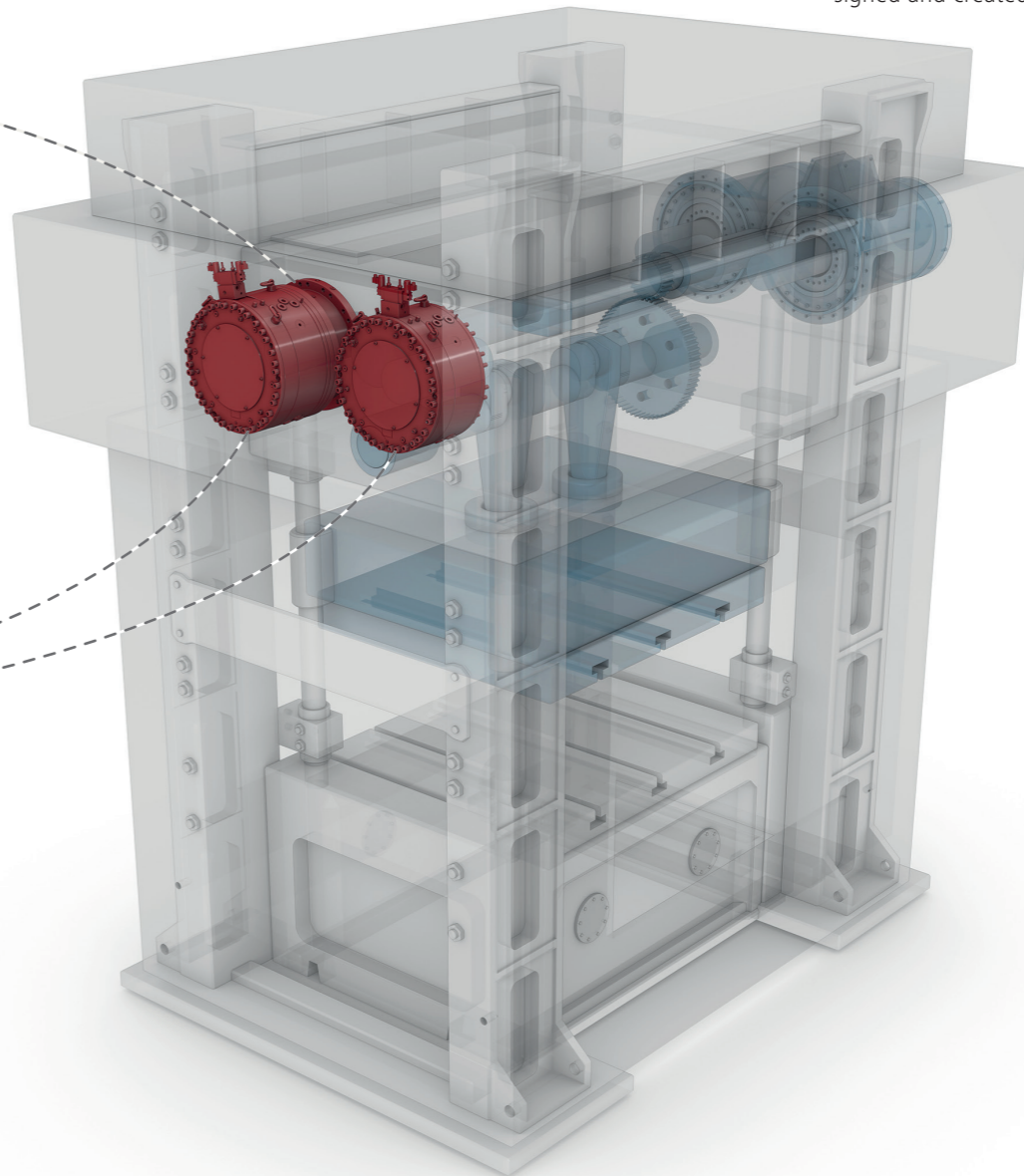
Ortlinghaus is the leading manufacturer for this type of safety brake. With our Prot.**ad** series we brought a unique and innovative design onto the market, it has been specifically designed and created for servo press applications.



Series 055  
Linear motion lock  
>> Page 14 - 15



Series 172  
Prot.**ad**  
>> Page 20 - 21

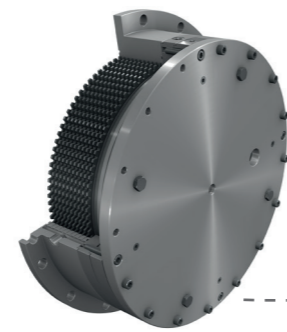




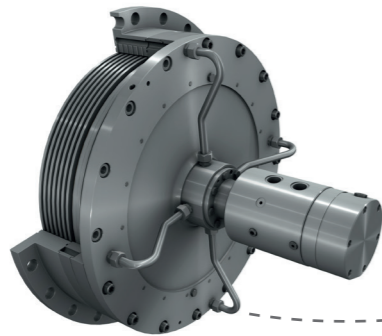
## Forging presses

### Achieve highest level of reliability

Mechanical forging presses with flywheel drives are suitable for the mass production of forged parts. Ortlinghaus provides a wide range of solutions for mechanical forging presses, such as separate clutches and brakes as well as clutch-brake units. All utilize Ortlinghaus proprietary wet-running friction systems for high output and a very long durability. Ortlinghaus as the sole manufacturer of plates with such large dimensions, can offer frictions systems with transmission torques of up to 1.55 million Nm.



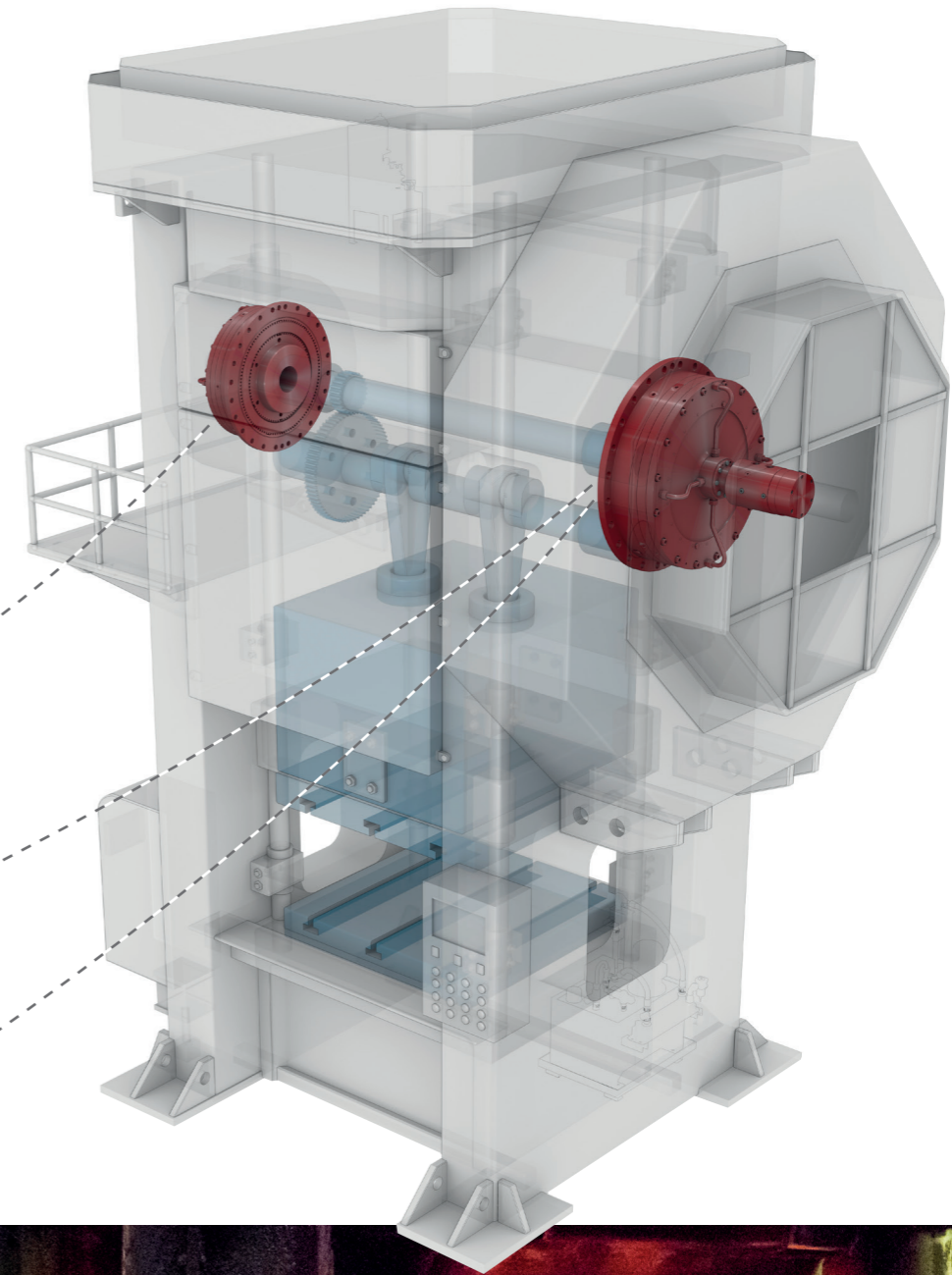
Series 128  
Hydraulically released brake  
>> Page 18 - 19



Series 127  
Hydraulically actuated clutch  
>> Page 18 - 19

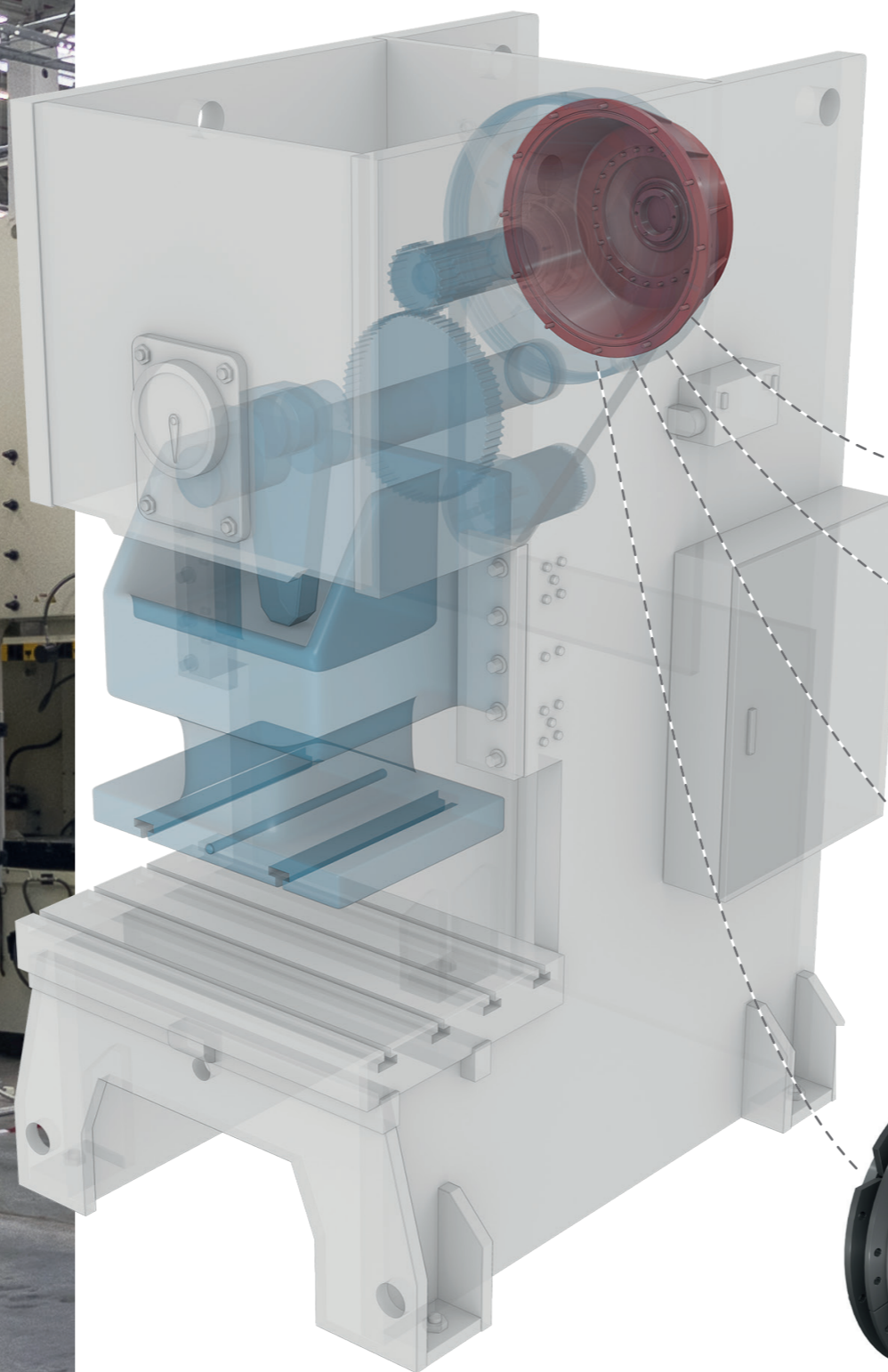


Series 123  
Hydraulically actuated wet  
running clutch-brake unit  
>> Page 12 - 13



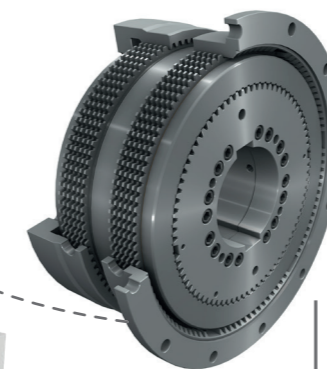


## C-frame presses



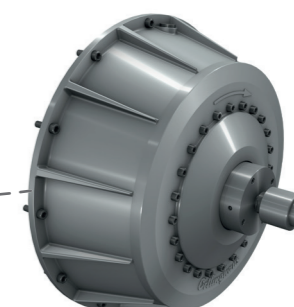
### Perform better with Cee.*go*

C-frame presses typically provide capacities from 40 to 250 tons. Most of the machines are equipped with flywheel drives. The presses can be operated manually or automatically. In recent years, Ortlinghaus has supplied many dry-running and wet-running clutch/brake units into this business. Ortlinghaus has newly developed the Cee.*go* system, providing higher output performance, extended lifetime of the friction system combined in a complete system solution.



#### Series 123

Hydraulically actuated wet running clutch-brake unit  
» Page 12 - 13



#### Series 480

Cee.*go* - hydraulically actuated clutch-brake combined unit  
» Page 16 - 17



#### Series 106

Hydraulically actuated dry running clutch-brake unit  
» Page 24 - 25



#### Series 420

Pneumatically actuated dry running clutch-brake unit  
» Page 22 - 23

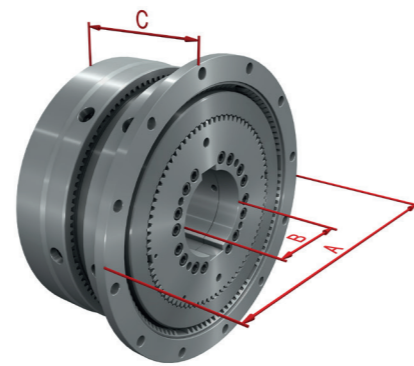
» Page 22 - 23



## Clutch-brake units series 123

### Hydraulically actuated clutch-brake units

The hydraulically actuated clutch-brake units from the series 123 work exclusively with Ortlinghaus proprietary wet-running, oil-cooled plates with friction pairing steel/sinter. This multi-plate design and the oil cooled friction pairing of steel and sinter offer a compact design and a high operating efficiency with high torque, low moment of inertia, high engagement frequencies and a minimal need of maintenance. The model series 123 operates in sealed housings which prevent leakage, air pollution and reduce engagement noise to a minimum.



### Series 123

Feature		size 75	size 80	size 86	size 90	size 94	size 96	size 98
Min. clutch torque	$T_{stat. min}$ [Nm]	4.300	8.400	17.300	34.100	68.700	138.600	277.900
Max. clutch torque	$T_{stat. max}$ [Nm]	12.000	23.300	56.800	115.700	261.400	513.200	967.600
Min. brake torque	$T_{dyn. min}$ [Nm]	1.600	3.300	6.600	15.000	47.000	87.700	147.600
Max. brake torque	$T_{dyn. max}$ [Nm]	3.300	6.700	15.900	35.900	112.700	210.500	354.100
Operating pressure	$P_B$ [bar]	63	63	63	63	87	86	84
Speed	$n$ [min <sup>-1</sup> ]	1.300	1.000	850	700	500	415	350
Outer diameter	A [mm]	290	380	440	560	710	870	1180
Max. bore diameter	$B_{max}$ [mm]	95	130	160	200	250	310	375
Length	C [mm]	177	222	325	365	508	602	725



### High torque density

The multi-plate design with oil cooled friction pairing of steel and high-performance sinter ensures high and consistent torque availability.



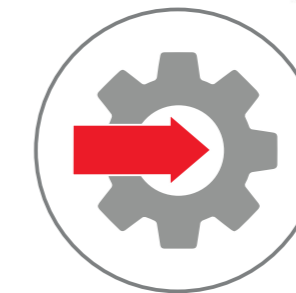
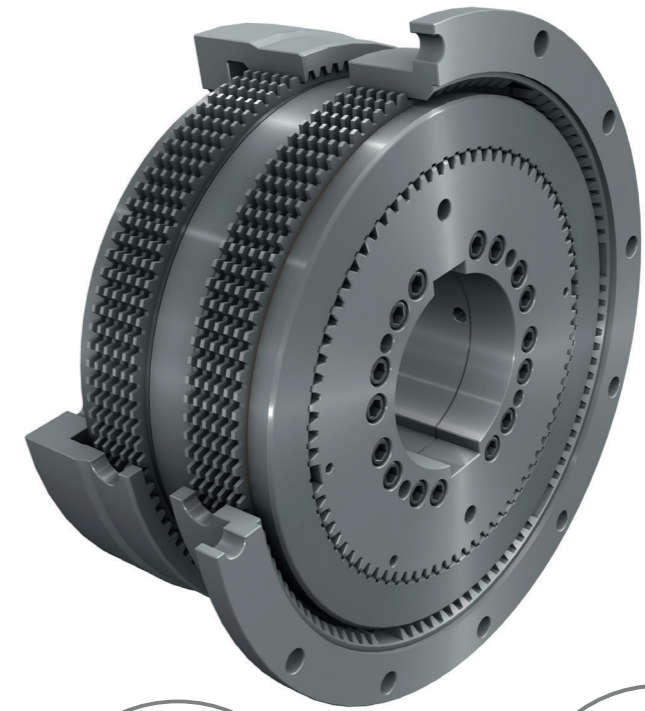
### Optimal maintenance conditions

Long maintenance intervals and a high durability lead to less service expenses.



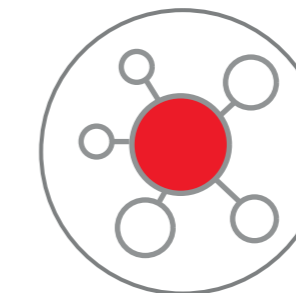
### High press availability

An optional housing cover, including Buna or Viton seal, can be supplied with the clutch/brake unit to seal the hydraulic system. This saves customers the time and effort of manufacturing their own cover.



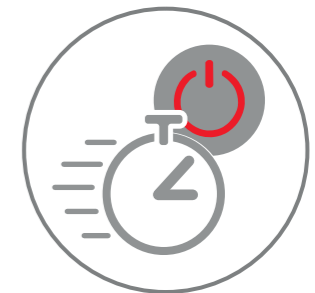
### Easy integration

Due to the compact design and the customizable interfaces with key way connection or clamping devices, for the connection to the shaft, the 123 series clutch/brake unit can be easily integrated in different press designs.



### System supplier

The clutch/brake unit can be supplied with an oil inlet, press safety valve or control unit and electronic slipping control (ESC). The ESC continuously monitors important aspects of the engagement sequence to prevent the clutch from thermal overload.



### High engagement frequency

The multi-plate design and the low moment of inertia of the series 123 combined with the Ortlinghaus progressive control guarantees shortest response times and high engagement frequencies, which leads to higher output rates.



### Modular design

The multi-plate design makes it possible to achieve a wide range of torques with each given size of this series, and the different housing options allow flexible integration into various press designs.

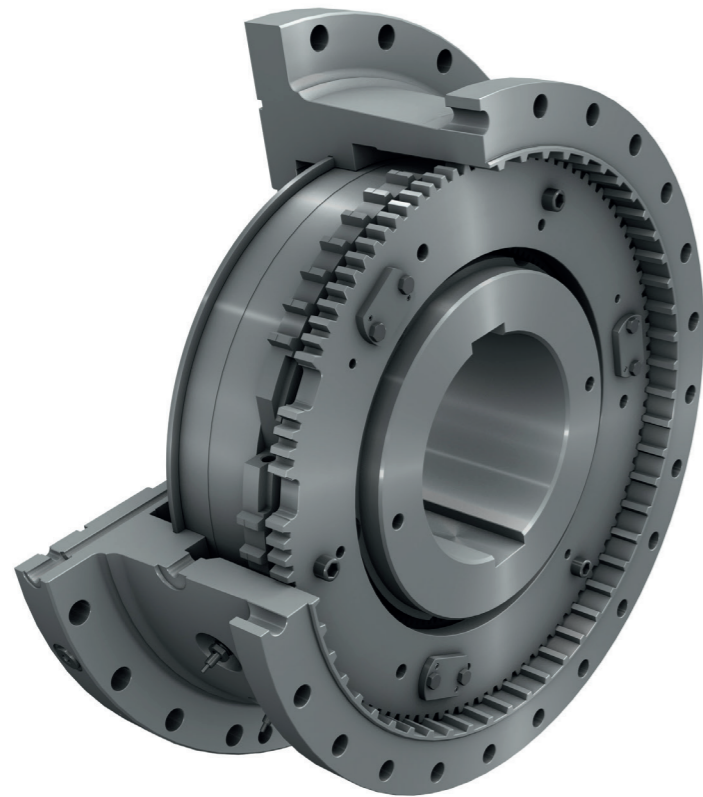


## Linear Motion Lock series 055

### Linear Motion Lock

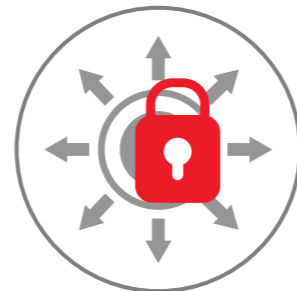
According to DIN EN ISO 16092, the relevant safety standards for press engineering, mechanical presses must have a mechanical restraining device for repair work and work between the slide and the bed. The Ortlinghaus linear motion lock series 055 is specially developed for this purpose and an approved restraining device according to the German employers' liability insurance association.

The linear motion lock is used to positively lock the ram via a shaft so that the shaft cannot rotate. This is particularly desirable for presses in order to ensure that the press ram does not move in an uncontrolled or unintentional manner during maintenance or repair work between the two halves of the die.



#### High safety level

The series 055 is a ram locking system for presses according to DIN EN ISO 16092 standard.



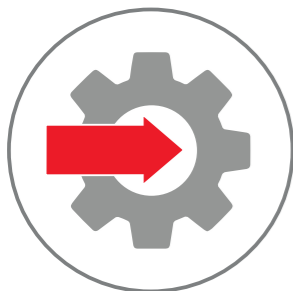
#### Unique design

The Ortlinghaus ram locking system enables a locking process of the ram to ensure the safety of the press. The ram can be locked in any position in a very short time.



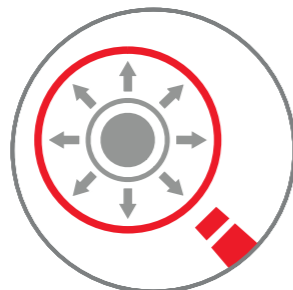
#### Long service life

The linear motion lock provides a long lasting device based on the use of form fitting spline connection.



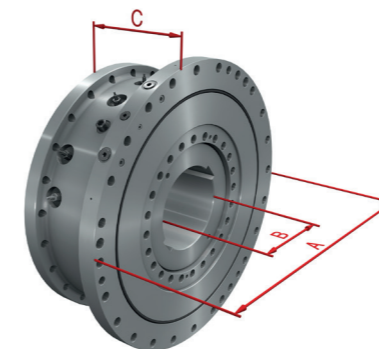
#### Easy integration

Due to its compact design and the wide range of options for connecting the linear motion lock either outside on the machine frame or inside the machine, the series 055 can be easily assembled and disassembled.



#### Full monitoring

The state of the ram locking mechanism, which is actuated by oil pressure, either locked or unlocked, is detected using inductive travel sensors and transmitted to the machine control unit.



### Series 055

	Feature	Size 86	Size 90	Size 94
Max. holding torque	$T_{stat.}$ [Nm]	22.000	50.000	100.000
Operating pressure	$P_B$ [bar]	65	65	65
Outer diameter	A [mm]	538	660	900
Max. bore diameter	$B_{max}$ [mm]	150	220	260
Length	C [mm]	220	262	325



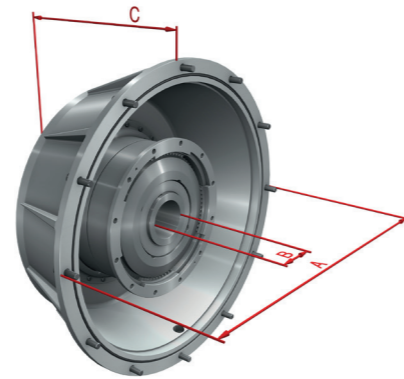
## Cee.go series 480

### Cee.go

#### Pneumatically actuated, wet-running clutch brake system

The Cee.go is an innovative wet-running and pneumatically actuated clutch/brake unit for C-frame presses.

Engineered as a complete system consisting of a clutch/brake unit, cover and air inlet, it is provided to our customers as a ready-to-install-package which is easy to adopt to the press and ready for use in a short time. With a wet-running friction system, higher engagement frequencies per minute and a higher output performance of parts per minute can be achieved. With almost no wear on the friction system press downtime is reduced to a minimum and the maintenance costs are significantly lower.



### Series 480

Feature		Size 75	Size 80	Size 86
Min. clutch torque	$T_{stat. min}$ [Nm]	4.320	9.470	11.480
Max. clutch torque	$T_{stat. max}$ [Nm]	7.870	16.300	19.400
Min. brake torque	$T_{dyn. min}$ [Nm]	1.000	1.930	2.230
Max. brake torque	$T_{dyn. max}$ [Nm]	2.000	3.850	4.460
Operating pressure	$P_B$ [bar]	5 - 6	5 - 6	5 - 6
Speed	$n$ [min <sup>-1</sup> ]	450	450	450
Outer diameter	A [mm]	640	710	800
Bore diameter	B [mm]	80	100	120
Length	C [mm]	375	390	385



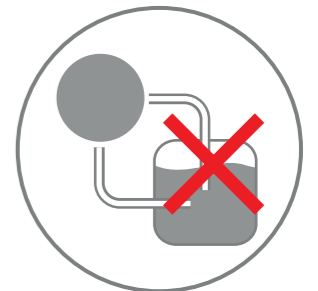
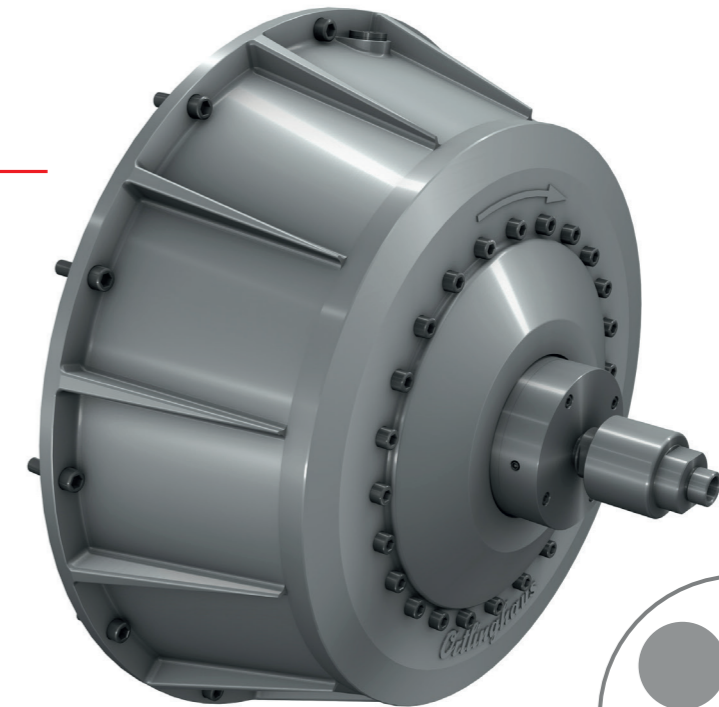
#### Design-to-cost

The design-to-cost approach enables us to offer a product with a much higher price performance compared to conventional clutch and brake systems. This aspect covers the entire process from the assembly to the operation of the product for years.



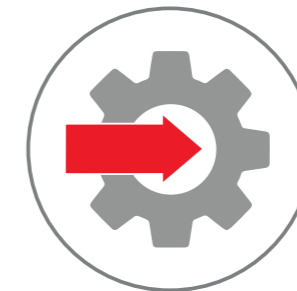
#### Wet-running

The Cee.go is a wet-running clutch/brake unit with a high thermal load capability and therefore has a higher performance level in respect of clutch engagements per minute and much less wear compared to dry-running systems.



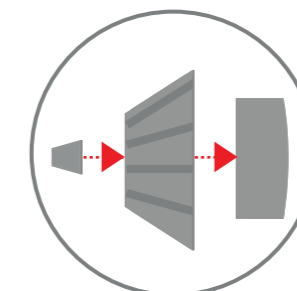
#### No external hydraulics

Since no external hydraulic system is needed, cost of installation and operation is kept low.



#### Easy integration

The Cee.go can easily be mounted on the press, the total assembly time of the press drive can be reduced significantly.



#### System solution

The Cee.go is a 3-in-1 system solution that consists of a clutch/brake unit, an air inlet and a housing cover.

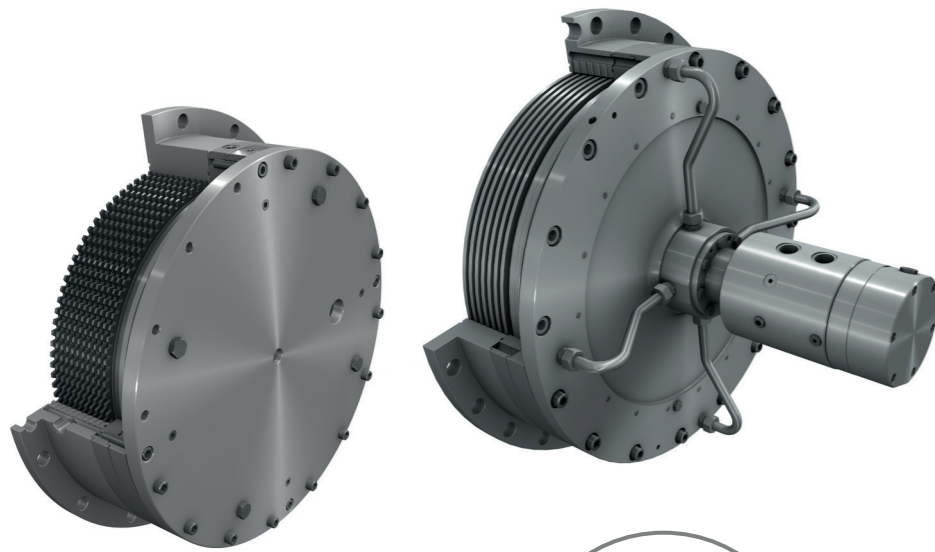


#### Ortlinghaus Quality

The Ortlinghaus quality is evident. For more than 75 years we have been supplying solutions that increase the overall productivity of presses, improve performance and enable our customers to manufacture outstanding machines for the world market.

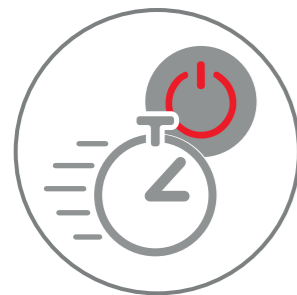


## Clutches and brakes series 127 & 128



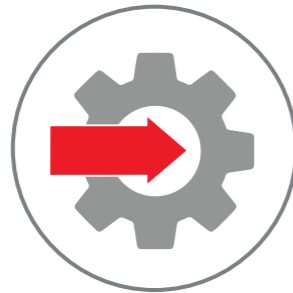
### High torque density

The multi-plate design with oil cooled friction pairing of steel and high-performance sinter ensures high and consistent torque availability.



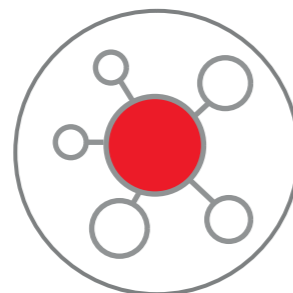
### High engagement speed

The multi-plate design and the low moment of inertia in combination with the Ortlinghaus progressive control guarantee shortest reaction times and high engagement frequencies.



### Easy integration

Due to the compact design and the customizable interfaces with keyway or clamping devices for the connection to the shaft, the clutches and brakes of series 127 and 128 can be easily integrated in any press design.



### System supplier

Both the clutch and the brake can be supplied with an oil inlet, press safety valve or control unit and electronic slipping control (ESC) which allows the monitoring of the oil volume, oil temperatures and the plate conditions.



### Optimal maintenance conditions

Long maintenance intervals and a high durability lead to less service expenses.



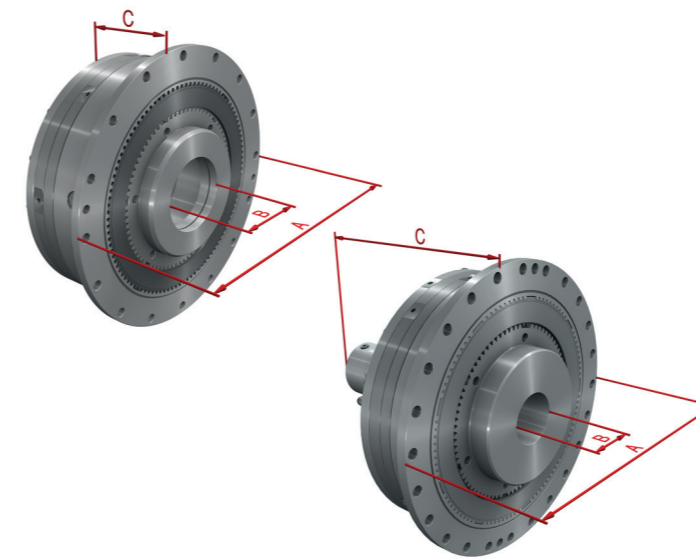
### High press availability

Both the clutch and the brake are constructed as a closed system and thus protected from external pollution like oily or dusty air, which leads to less downtime and maintenance costs.



### Modular design

The multi-plate design makes it possible to achieve a wide range of different torque sizes and can therefore be perfectly selected to fit the specification of the press.



### Hydraulically actuated separate clutches and brakes

The hydraulically actuated clutch series 127 is used to accelerate a press ram in a single-stroke mode by transferring energy from the flywheel to the press ram. This clutch series is used for very high torques at low speeds. The hydraulically released brake series 128 decelerates the press ram on forging presses in the single-stroke mode. This brake can be supplied with brake torques of up to 1 million Nm. While clutch and brake are separate units, both sizes can be selected individually according to your requirements. All benefits of series 123 can be mentioned here as well, with the friction system being the same and interchangeable.

### Series 127

Feature		size 86	size 90	size 94	size 96	size 98	size 99
Min. clutch torque	$T_{stat. min}$ [Nm]	22.700	48.800	101.900	189.900	336.000	775.700
Max. clutch torque	$T_{stat. max}$ [Nm]	45.500	96.800	203.700	378.700	672.000	1.551.000
Operating pressure	$P_B$ [bar]	80	80	90	90	90	90
Speed	$n$ [min <sup>-1</sup> ]	850	700	500	415	350	250
Outer diameter	$A$ [mm]	550	680	850	1.060	1.230	1.415
Max. bore diameter	$B_{max}$ [mm]	200	250	320	350	375	500
Length	$C$ [mm]	629	657	750	824	1066	1153

### Series 128

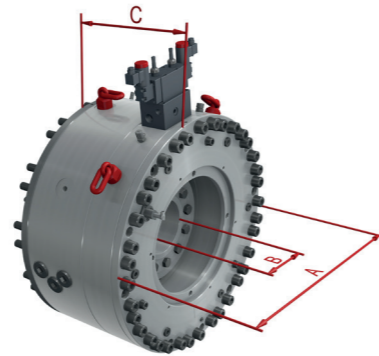
Feature		size 86	size 90	size 94	size 96	size 98	size 99
Min. brake torque	$T_{dyn. min}$ [Nm]	9.500	19.200	39.700	77.400	147.600	279.000
Max. brake torque	$T_{dyn. max}$ [Nm]	19.100	38.400	79.400	154.700	295.200	1.056.000
Operating pressure	$P_B$ [bar]	80	80	90	90	90	90
Speed	$n$ [min <sup>-1</sup> ]	850	700	500	415	350	250
Outer diameter	$A$ [mm]	550	680	850	1.060	1.230	1.415
Max. bore diameter	$B_{max}$ [mm]	200	250	320	350	375	500
Length	$C$ [mm]	200	236	320	384	437	547



## Prot.act series 172

### Prot.act: Hydraulically actuated, dry-running brake for servo presses

The Prot.act brake series 172 is specifically designed for presses driven by servomotors and is used as ram holding and as emergency brake. This brake can be installed in different arrangements, it is either mounted directly next to the servo motor or on the free shaft end. With the superior friction block design, fretting corrosion is completely avoided.



### Prot.act Performance data

Execution	Size 82			Size 87			Size 92		
	0172-100-2-disks	0172-200-3-disks	0172-300-4-disks	0172-100-2-disks	0172-200-3-disks	0172-300-4-disks	0172-100-2-disks	0172-200-3-disks	0172-300-4-disks
Min. stat. torque <sup>1)</sup> +2) [Nm]	12.000	17.100	21.600	24.000	34.000	43.000	66.000	96.000	125.000
Max. dyn. torque <sup>1)</sup> +2) [Nm]	16.700	23.700	29.900	34.000	48.000	60.000	77.000	112.000	145.000
Min. required pressure [bar]	95	95	95	95	95	95	95	95	95
Max. release pressure [bar]	120	120	120	120	120	120	120	120	120

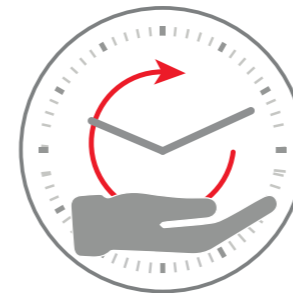
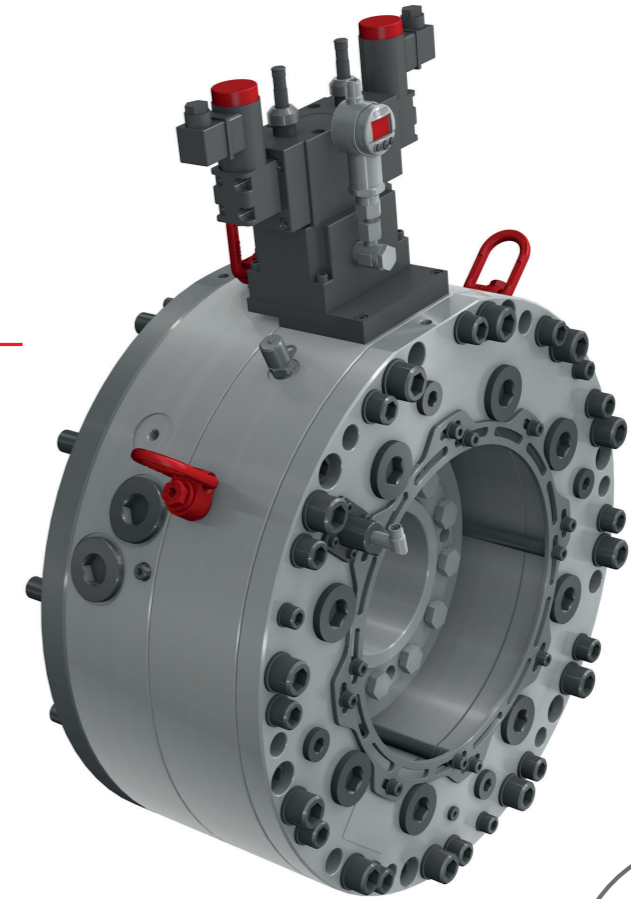
1) Minimum values in delivery condition

2) Brake torque in worn conditions is provided in the specific calculation of the press

### Prot.act Dimensions

A - Outer Ø [Nm]	Size 82			Size 87			Size 92		
	453	453	453	548	548	548	762	762	762
C - Length [Nm]	249	282	315	271	310	349	314	364	414
B - Shaft connection <sup>3)</sup>	Shrink disk for shafts -Ø: 95 H7 – 110 H7			Shrink disk for shafts -Ø: 120 H7 – 135 H7 or toothing			Shrink disk for shafts -Ø: 120 H7 – 180 H7 or toothing		
Weight [kg]	~ 209	~ 229	~ 254	~ 310	~ 350	~ 391	~ 628	~ 793	~ 863

3) Shrink disk design for shafts Ø in 5mm increments available



#### Durability and safety

The Prot.act provides a long service life due to innovative design, durability and functional reliability.



#### High press availability

The brake can be supplied with an optional cover and labyrinth sealing in order to be protected against external pollution like oily or dusty air, which leads to less maintenance costs.



#### Easy integration

With its mounting and centering aid a fast integration into the press is guaranteed.



#### Worldwide service

Our global network, which consists of more than 25 branch offices, sales partners and service points, ensures quick assistance in every situation.



#### Ready for industry 4.0

A sensor kit with temperature and wear sensors enables predictive maintenance planning and reduces the downtime of the press.



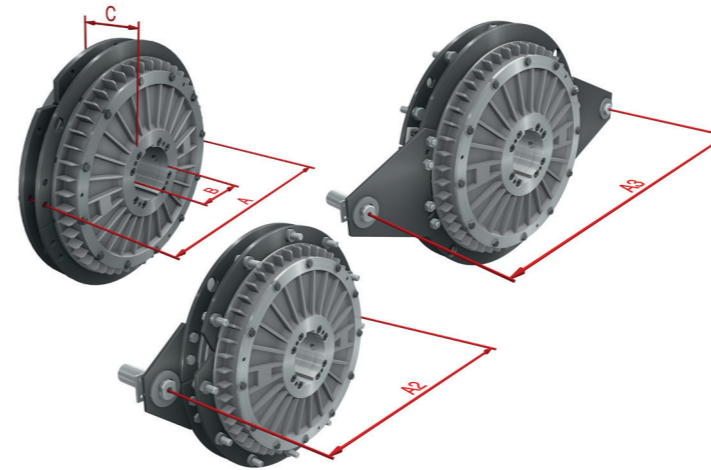
#### Verified quality

End-of-line testing of each and every brake provides first class quality to the market. Certified torque values and reaction times are documented with the product.





## Clutch-brake unit series 420



**Pneumatically actuated clutch-brake units**  
 The pneumatically actuated clutch-brake unit series 420 is the most traditional drive concept in the stamping industry over the years. With different types of suspension and a high flexibility in the connection between hub and the shaft of the customer, we typically work with keyways or clamping devices. Installations therefore are most reliable and easy to carry out.  
 Different types of friction elements are available in order to achieve the most effective operating life time and with quiet engagement processes under all operating conditions.



### High engineering competence

Ortlinghaus has been developing clutches and brakes for thousands of different applications for more than 75 years – safe, experienced and reliable.



### Modular design

The ability to use many different 2-pt. or 12-pt. arrangement combinations, of the clutch and brake suspensions, allows exceptional flexibility in integrating into the press design



### Easy connection

Engaged by air, these units can be easily integrated into any press application.



### Simple integration

Due to its compact design and various options for the shaft connections such as keyways or clamping devices, the series 420 can easily be integrated into various press drive designs.

### Series 420

Feature	size 23	size 29	size 40	size 50	size 61	size 62	size 67	size 72
Clutch torque at 5,5bar $T_{stat. 5,5}$ [bar]	260	410	840	1.580	3.450	3.500	4.700	6.600
Clutch torque at 6,0bar $T_{stat. 6,0}$ [bar]	280	450	920	1.780	3.800	4.000	5.300	7.400
Brake torque $T_{dyn}$	140	220	480	850	1.850	2.500	3.350	4.700
Speed $n$ [min <sup>-1</sup> ]	3.200	2.750	2.250	1.750	1.400	1.500	1.400	1.250
12 pt.suspension $A1$ [mm]	182	205	255	325	408	408	450	500
2 pt. suspension short $A2$ [mm]	230	250	315	390	495	495	550	610
2 pt. suspension long $A3$ [mm]	305	325	410	490	635	635	710	790
Max. bore diameter $B_{max}$ [mm]	35	35	45	65	80	90	95	105
Length $C$ [mm]	46	58	66	82	100	112	125	140

### Series 420

Feature	size 77	size 80	size 83	size 87	size 90	size 91	size 92	size 93
Clutch torque at 5,5bar $T_{stat. 5,5}$ [bar]	10.000	13.000	20.000	28.500	38.000	51.000	75.000	105.000
Clutch torque at 6,0bar $T_{stat. 6,0}$ [bar]	11.500	15.000	22.500	32.500	43.000	57.000	84.000	115.000
Brake torque $T_{dyn}$	7.300	9.700	14.300	20.800	27.000	35.000	50.000	70.000
Speed $n$ [min <sup>-1</sup> ]	1.100	1.000	850	750	700	630	560	500
12 pt.suspension $A1$ [mm]	584	640	725	810	890	965	1080	1215
2 pt. suspension short $A2$ [mm]	695	770	880	970	1.100	1.180	1.300	1.465
2 pt. suspension long $A3$ [mm]	885	990	1.135	1.235	1.450	1.525	1.645	1.855
Max. bore diameter $B_{max}$ [mm]	125	145	160	180	200	220	240	270
Length $C$ [mm]	160	185	205	230	248	260	295	330



## Clutch-brake units series 106

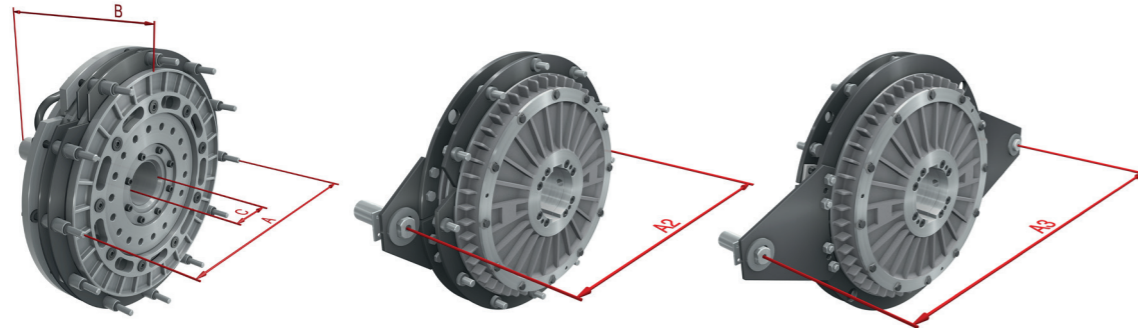
### Hydraulically actuated, dry running clutch-brake units

Due to market demands that required higher output capacities of presses, the series 106 was developed from Ortlinghaus.

The series 106 clutch-brake unit combines the simplicity of the traditional clutch-brake unit design with hydraulic actuation. This combination simultaneously achieves highest torques on clutch and brake side which cannot be achieved by engagement through pressurized air.

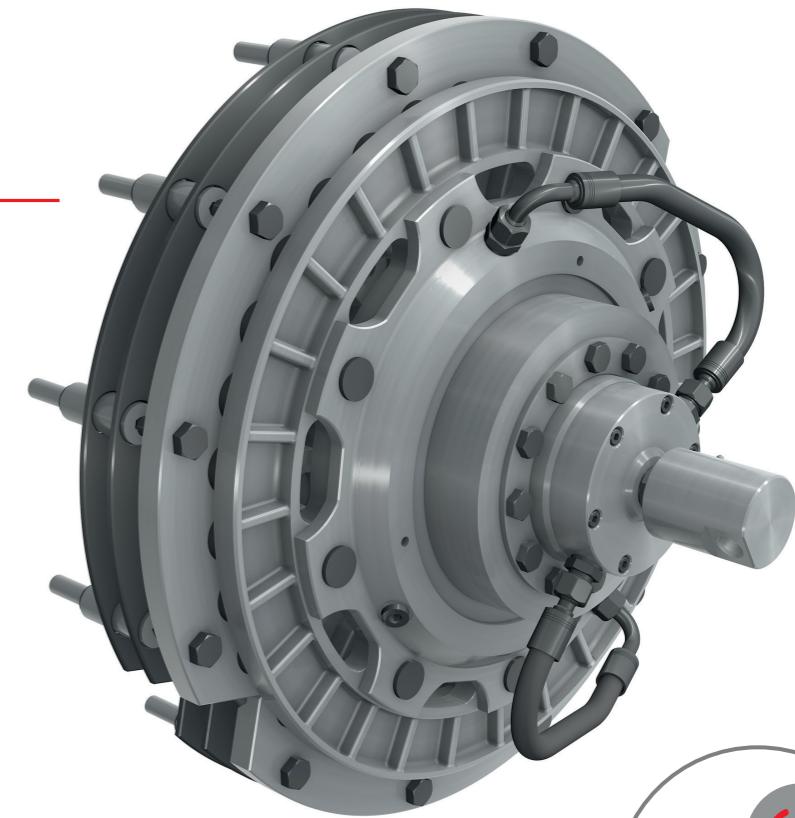
In addition, the design of these clutch-brake units enables the use of two friction plates on the brake side, which allow to use a clutch-brake unit of a smaller size than with other clutch-brake designs.

All this leads to a higher number of strokes per minute, a reduced braking angle and a lower individual moment of inertia.



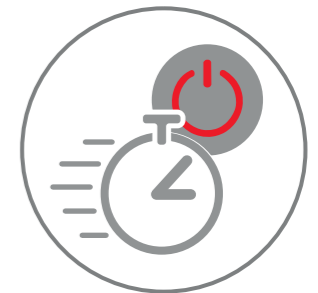
### Series 106

Feature		size 79	size 82
Clutch torque	$T_{stat.}$ [Nm]	24.500	35.000
Brake torque	$T_{dyn.}$ [Nm]	28.000	40.000
Operating pressure	$p_B$ [bar]	60	60
Speed	$n$ [min <sup>-1</sup> ]	1.000	850
12 pt.suspension	A1 [mm]	640	725
2 pt. suspension short	A2 [mm]	770	880
2 pt. suspension long	A3 [mm]	990	1135
Max. bore diameter	$B_{max}$ [mm]	115	135
Length	C [mm]	286	306



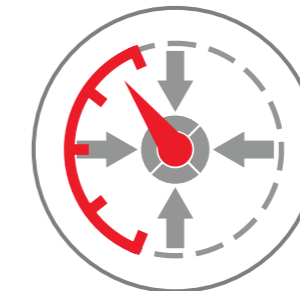
### Easy integration

Due to its compact design and different options for the shaft connections, such as shrink disks or clamping devices, the series 106 can easily be integrated in any press drive designs.



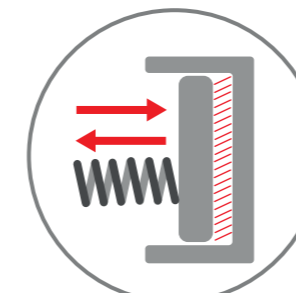
### Short reaction time

The clutch-brake unit can be supplied with a specially designed control unit that ensures short reaction times and high switching speeds.



### High torque density

The combination of hydraulically engaged clutch and the use of dry running friction material ensures highest torques on clutch and brake side, even with small dimensions.



### Fast reaction time

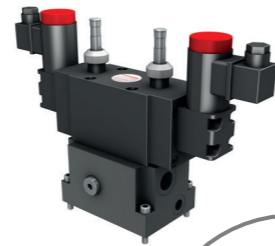
The clutch-brake unit series 106 can be engaged with any common oil up to a viscosity of 150 cSt and achieves fast engagement times due to the hydraulic actuation.



## Control systems

### Press safety valves and hydraulic control units series 086

Ortlinghaus supports customers in selecting the right control system to achieve the optimal engagement process for the clutches and brakes and supplies different control components such as press safety valves or progressive controls, that are used for the control of hydraulically actuated clutches and brakes as well as of clutch-brake units.



Economic control solution with press safety valves



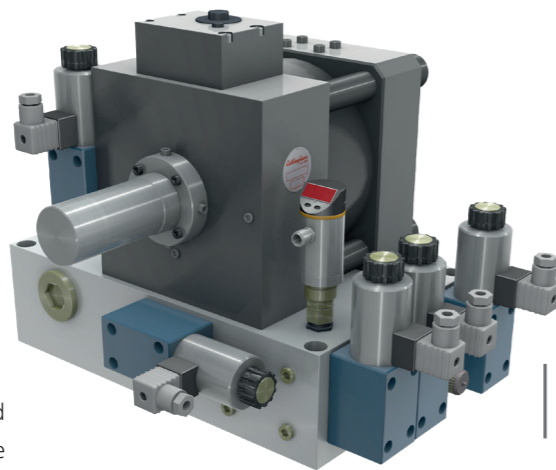
#### Hard braking and hard engagement

Direct engaging of the brake with full braking torque in emergencies.

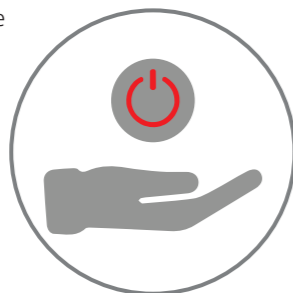


#### Monitoring of operating conditions

The integrated pressure and temperature sensors provide the possibility of monitoring the operating conditions.



Progressive control units inclusive press safety valves



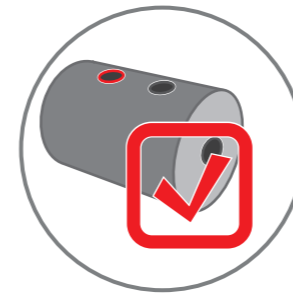
#### Soft engagement and operating comfort

With the optionally available version with a proportional valve, a soft engagement of the clutch can be realized through a very flexible and sensitive pressure control.



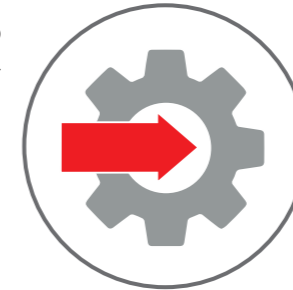
#### Soft braking

Engaging the brake with adjustable brake counterpressure to allow a soft stop of the machine.



#### One or two channel executions available

Ortlinghaus supplies one and two channel oil inlets. Additional channels on request.



#### Simple integration

Ortlinghaus can supply various mounting options for oil inlets for different setups, which enables easy integration.

### Rotary unions series 088

Ortlinghaus has been manufacturing single and multi-channel rotary inlets for several decades, which are frequently supplied as accessories for oil actuated and oil cooled clutches. These tried and tested machine components for supplying pressure and cooling oil to rotating shafts are standard products and can not only be used in conjunction with clutches. The oil inlets are available in axial and radial versions. In addition, Ortlinghaus also develops and manufactures rotary inlets according to customer's requirements, which are not listed in the catalogue of our standard products. For example, it is possible to manufacture rotary inlets with more than three channels which can conduct different media.

### Axial oil inlet

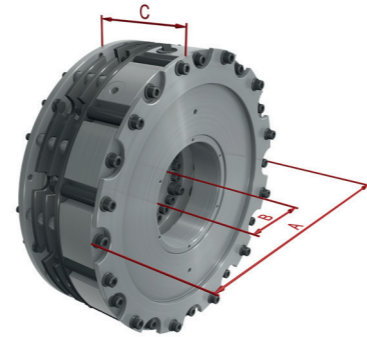
	Feature	Size 22	Size 27	Size 35
Pressure max	$P_B$ [bar]	100	100	100
Speed max	$n$ [min <sup>-1</sup> ]	1.500	1.500	1.500
Outer diameter	$A$ [mm]	120	160	180
Length	$C$ [mm]	165	247	288
Number of channels / connections	$i \times M$	2 x G1/2	2 x G3/4	2 x G1
Oil volume	$V_{oil}$ [l/min]	35	100	150



## Prot.act series 472

**Prot.act:**  
Pneumatically actuated, dry-running brake for servo presses

The Prot.act brake series 472 is specifically designed for presses driven by servomotors and is used as ram holding and as emergency brake. This brake can be installed in different arrangements, it is either mounted directly next to the servo motor or on the free shaft end. With the superior friction block design, fretting corrosion is completely avoided.



### Prot.act Performance data

	Size 82
Execution	0472-200-3-disks
Min. stat. torque <sup>1)</sup> + <sup>2)</sup> [Nm]	8.100
Max. dyn. torque <sup>1)</sup> + <sup>2)</sup> [Nm]	12.300
Min. required pressure [bar]	4,5
Max. release pressure [bar]	6,0

1) Minimum values in delivery condition  
2) Brake torque in worn conditions is provided in the specific calculation of the press

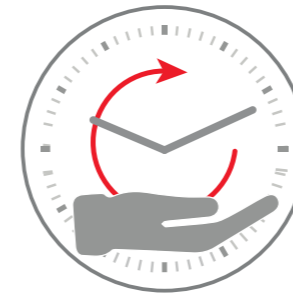
### Prot.act Dimensions

	Size 82
A - Outer Ø [mm]	510
C - Length [mm]	197,4
B - Shaft connection	Clamping device 140 x 190
Weight [kg]	~ 145



#### Easy connection

Engaged by air, these units can be easily integrated into any press application.



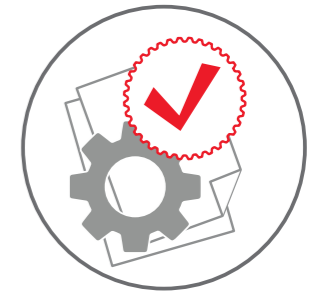
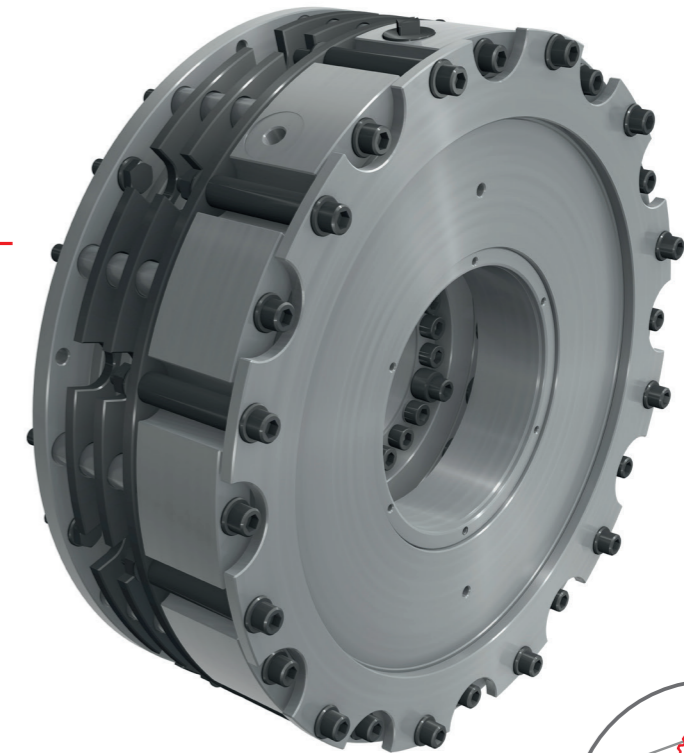
#### Durability and safety

The Prot.act series 472 provides a long service life due to innovative design, durability and functional reliability.



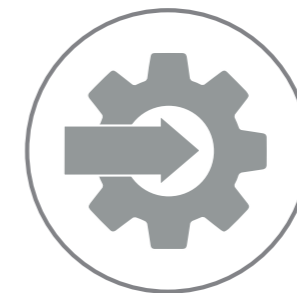
#### Optimal maintenance conditions

Long maintenance intervals and a high durability lead to less service expenses.



#### Verified quality

End-of-line testing of each and every brake provides first class quality to the market. Certified torque values and reaction times are documented with the product.



#### Easy integration

With its mounting and centering aid a fast integration into the press is guaranteed.



#### High press availability

The brake can be supplied with an optional cover and labyrinth sealing in order to be protected against external pollution like oily or dusty air, which leads to less maintenance costs.



#### Design-to-cost

The design-to-cost approach enables us to offer a product with a much higher price performance compared to conventional brakes. This aspect covers the entire process from the assembly to the operator of the product for



## Diagnosis and control platform DC650



### Low integration effort

- Integrated system solution
- Plug and play
- Fieldbus interface for communication with customer control system

### Continuous condition monitoring

- Wear monitoring
- Critical condition detection
- Enabling digitalization through cloud connection

### Easily accessible service

- Remote maintenance function
- System check without downtime



### Protection against unwanted failures

This platform measures values uninterruptedly and provides all data needed to prevent the press from unwanted failures, faulty operations and thus press downtime.



### WiFi

All data can be retrieved via WiFi connection.



### Plug and play

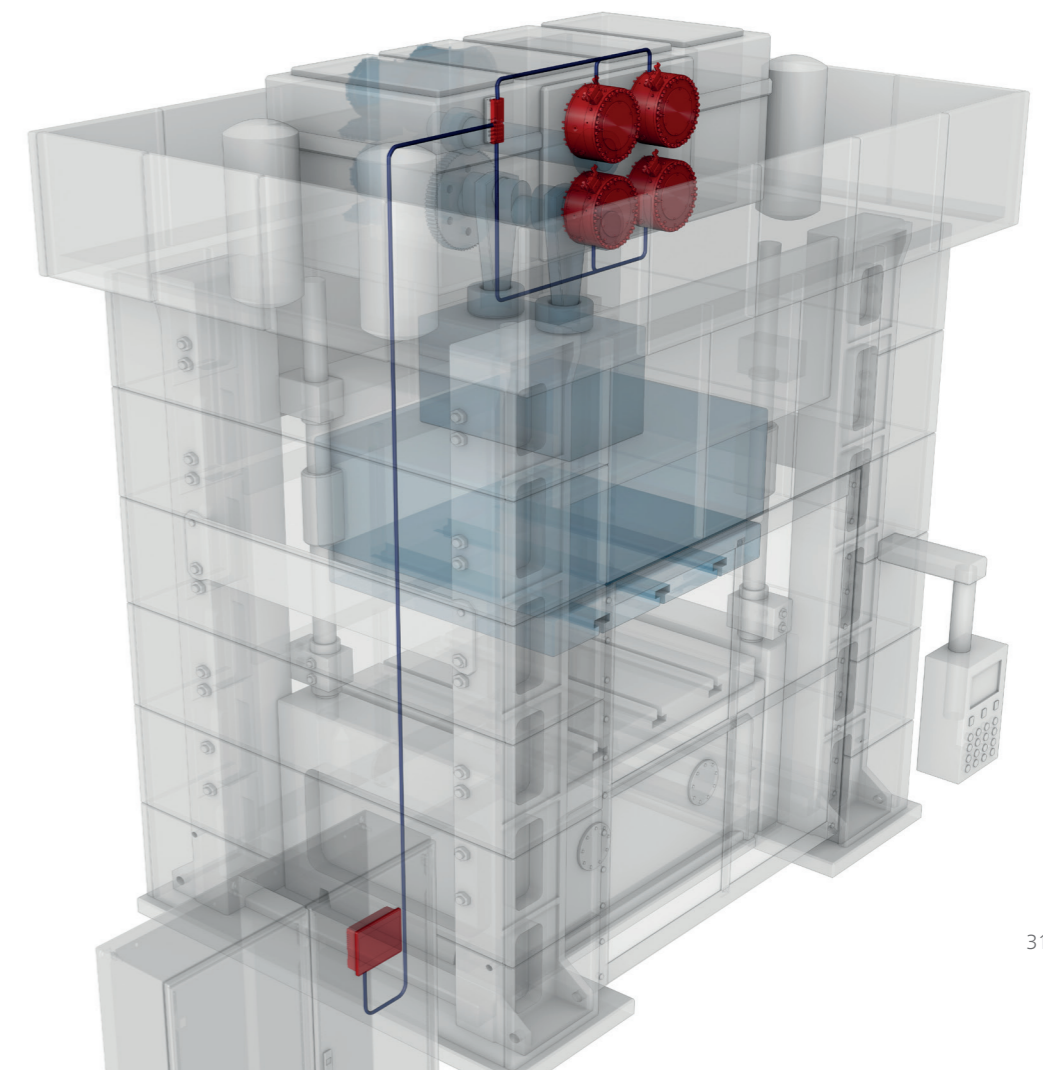
Due to the anybus interface the integration into the press systems can be realized easily.

### Diagnosis and control platform

The new innovative diagnosis and control platform DC650 was developed by Ortlinghaus to meet the market requirements regarding the digitalization of press data and availability of this information.

This platform enables digitalization with the possibility of cloud integration and brings easily accessible services which can be reached through WiFi, LAN or a cloud service. As a plug-and-play-solution with fieldbus interface for the communication with the press control system it ensures low and cost-effective integration efforts.

The integration of this system into a press control brings the possibilities of continuous condition monitoring with wear and detection of critical condition, whereby failures and machine





## In good hands from the beginning



### Enquiry

- via contact form on our website  
>> [www.ortlinghaus.com](http://www.ortlinghaus.com)
- directly via mail to  
>> [info@ortlinghaus.com](mailto:info@ortlinghaus.com)
- contact through one of our world wide sales representatives  
> [www.ortlinghaus.com](http://www.ortlinghaus.com)  
>> Contacts & Media  
>>> Contacts



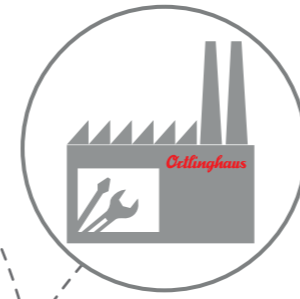
### Technical consultancy

- many thousands of products for different applications
- selection of technically and economically best fitting products



### Order

- quick response times
- friendly support
- flexible order handling



### Production

- more than 100 years of production know-how
- high quality



### Delivery

- safe and reliable shipping methods according to customer requirements
- world wide delivery
- known consigner



### After Sales

- world wide after sales service
- high availability
- commissioning
- contact via mail to  
>> [service@ortlinghaus.com](mailto:service@ortlinghaus.com)

### Get in touch

Talk to one of our experts. Our Industry Manager Henry Kalkofen is pleased to get in touch with you.



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# Ortlinghaus worldwide

Founded in: 1898

Subsidiaries:  
 Ortlinghaus (U.K.) Ltd. / Great Britain  
 Ortlinghaus France Transmissions SARL/ France  
 Ortlinghaus GmbH Gams/ Switzerland  
 Ortlinghaus Drive Technology (Shanghai) Co., Ltd / China  
 Ortlinghaus Drive Technology India Pvt.Ltd. / India  
 Ortlinghaus America Latina / Brazil

Manufacturing:  
 Wermelskirchen / Germany  
 Gams / Switzerland  
 Jinan / China

Sales: Worldwide via agencies

● Sales & Service hub with spare parts  
 ● Sales & Service hub



Original spare parts



Product overhaul at Ortlinghaus



Service & repair worldwide



Condition check



High After-Sales-Service availability (24/7)

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