

## Other products

With its clutches, Coremo Ocmea offers solutions designed to transmit power rather than limiting it, as in the case of brakes.

Clutches perform the task of connecting together two normally separated shafts, so that the power of one of them (the drive shaft) is transferred, by means of the clutch, to the other (the driven shaft).

When selecting a clutch, special attention must be paid to the engagement speed and the calculation of the heat generated by slippage between the friction and steel disks. If the clutch is too small in terms of these parameters, not only will it be incapable of delivering the torques required, but the working life of the disks and linings will also be drastically reduced, and in the worst-case scenario the component may fail completely or seize.

Coremo Ocmea offers a range of multi-disk pneumatic clutches capable of torques from 17Nm to 49500Nm. They range from the "MINI" family of small clutches with low torque capacity to larger-sized units, such as the "VS" models, also known as ventilated clutches, the "BI" low inertia units, and, finally, the "W", series of water-cooled clutches. The last-named have high heat dissipation capacity thanks to the water pumped through their steel disks, which aids dispersal of the heat generated.

Coremo's product range is completed by electromagnetic caliper brakes. With a power supply of 110 or 220Vac at 50Hz, the D-E caliper series have a braking force of 2.5kN, 4kN and 5.7kN. Coremo has also selected a range of hydraulic power packs to be used together with its entire range of hydraulic brakes.

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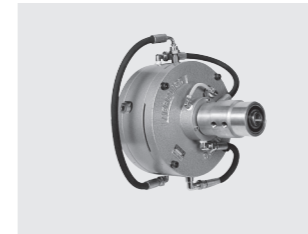
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1 Pneumatic clutch series MINI

2 Ventilated clutch series VS. Air tube designed

3 Low inertia clutch series BI. Air tube designed

4 Water-cooled clutch series W. Air tube designed

5 Electromagnetic caliper brake, series D-E

6 Hydraulic power pack, P type, for both caliper and direct oil applied hydraulic brakes

7 Hydraulic power pack, N type, for both caliper and direct spring applied hydraulic brakes

## Coremo Ocmea

Markets

# Power Transmission market

**The power generated by a main source, such as a motor, travels all the way along a complex transmission chain to the point where it is required to perform a specific type of work. Each component of these complex chains contributes to the transmission of power, force and speed, creating highly complicated systems in which the close interconnection between the various elements makes the safety factor particularly important.**

**Coremo Ocmea has a wide product offering for power transmission, covering a variety of functions. On the one hand, brakes, installed to stop or prevent a specific movement, and on the other, clutches, which modulate the power generated within the plant.**

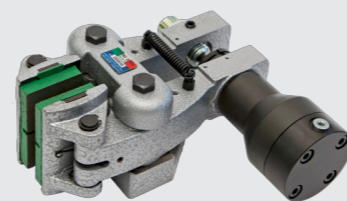


## Brakes

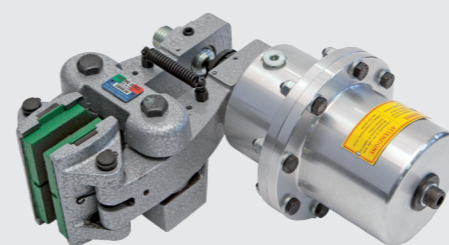
Hydraulic or pneumatic, oil-applied, air-actuated or spring-applied, Coremo brakes are installed to perform all kinds of braking functions: cyclic and emergency stopping, tensioning and holding. The brake's fundamental task is to keep all the components of the power transmission chain in a condition of safety. To perform this, brakes may be mounted on the input or output shaft of the gearbox. The first option is normally chosen, because low torques mean that smaller sized brakes and disks can be used without losing efficiency. However, if full consideration is given to the safety factor, bearing in mind, for example, the risk of a possible gearbox failure or collapse the installation of brakes on the output shaft is preferable, even though the units must be of larger size.

Selecting the brake's size therefore requires an in-depth analysis, which strikes a difficult balance between two fundamental but conflicting factors. On the one hand, compliance with safety coefficients calculated on the basis of the type of braking function to be performed and any potential anomalous conditions (contaminated disks, variations in friction coefficient, etc.) or situations in which the normal parameters of use supplied when the brake was chosen are exceeded. On the other hand, the need to supply brakes and disks which are not too large for the application, since they could damage mechanical parts of the transmission chain and place the safety of staff and the plant itself at risk.

The know-how and experience built up by Coremo Ocmea in its more than fifty years in business, and its close, intelligent cooperation with its customers and suppliers, enable it to select brakes and disks ideally suited to the specific needs and characteristics of the intended application, bearing the above trade-off in mind.



**Hydraulic actuated caliper brakes**  
From 15kN to 16kN braking force



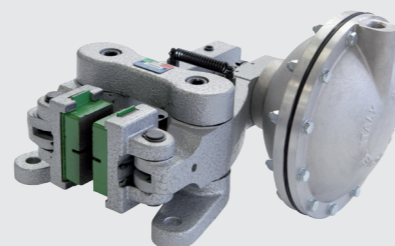
**Spring applied hydraulic caliper brakes**  
From 6kN to 42kN braking force



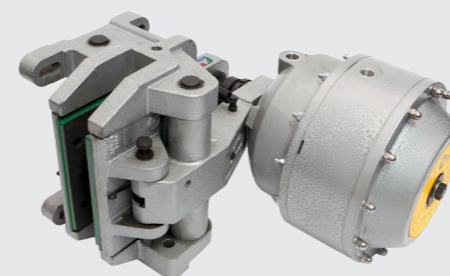
**Hydraulic actuated direct brakes**  
From 20kN to 300kN braking force



**Spring applied hydraulic direct brakes**  
From 8kN to 270kN braking force



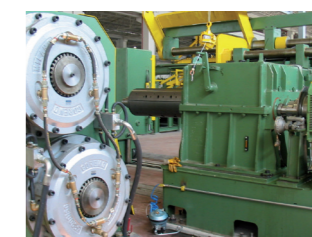
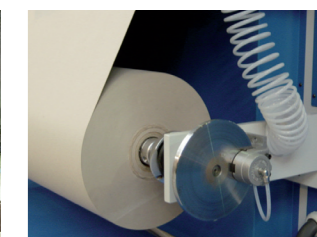
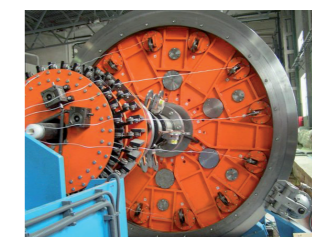
**Pneumatic actuated caliper brakes**  
From 1kN to 37kN braking force



**Spring applied pneumatic caliper brakes**  
From 1kN to 37kN braking force



**DUAL (Combined, air & spring applied) pneumatic caliper brakes**  
Air applied from 4kN to 12kN / spring applied from 5kN to 11kN braking force.



## Markets & environments

Power transmission is a constant in all markets and all production sectors. Therefore, brake and clutch applications converge on a vast horizon, ranging from on-shore and off-shore applications to energy generation (wind turbines, solar panels and water turbines) and steel (gantry and tower cranes), and from the marine or defence sector to mining and textiles, by way of rubber, wires and cables, entertainment and rolling mills.

Each of these markets has specific demands in terms of environmental and chemical factors, regulatory framework and logistical problems, creating additional technical factors of crucial importance for the Coremo technical department during the calculation, sizing and selection of the braking system.

To enable the braking system to provide the best performance in relation to the application's technical specifications, Coremo Ocmea offers its customers a wide and varied range of friction materials: organic, synthetic and, if required, compatible with potentially explosive environments. What's more, special metal coatings and treatments are also available to protect the braking system from aggressive and oxidising chemicals. Last but not least, special steels are used for brakes required to operate at particularly low temperatures, down to -40°C.