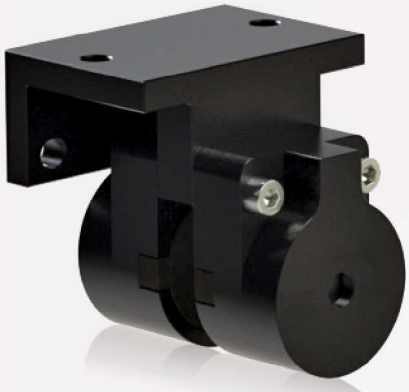
CX PNEUMATIC CALIPERS

AIR APPLIED / SPRING APPLIED

Combiflex calipers are particularly adapted for applications with low or medium braking force or for stop-brakes.
The special characteristic of this system is its modular conception: one ore more calipers can be installed on brake discs with different dimensions obtaining the perfect solution for every requirement.
Also, each caliper can be activated or disactivated on the basis of the required torque, giving maximum flexibiliy when using different kind of materials.
The same calipers are available in the spring-applied version (4,5 bar o 6 bar) for stop-braking.



CX-NANO CALIPER

CX-NANO pneumatic caliper, which is the miniature of the CX caliper, is the new solution for applications where considerable braking torques in reduced spaces are needed. It is available for different thickness discs: 6, 8 or 12,5 mm; simply selecting the right bracket during the order.

REDUCED TORQUE

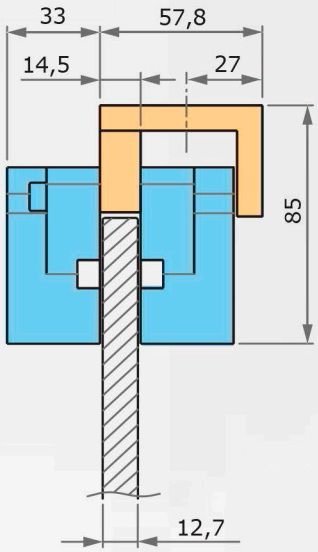
The Combiflex calipers with reduced torque have been designed for applications which require highest sensibility in terms of braking, where the required torque is very low. These calipers are adapted for very light materials as TNT, thin paper, plastic film or for narrow webs.

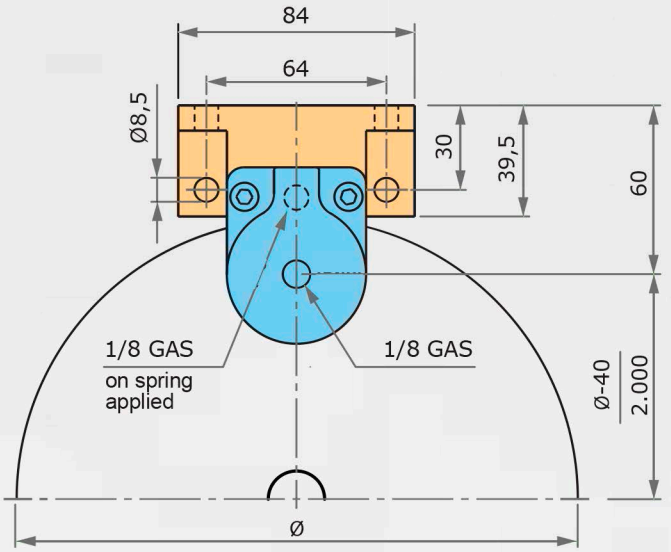
We manufacture four different types of reduced torque calipers with different braking force: standard CX at 10% 16% and 40%, CX-NANO at 30%.
The percentage value indicates the braking force in comparison with the standard caliper.

Warning: consider a torque value of 30% less than the nominal one, in applications such as stop braking or low torque. Torque values are intended at optimum conditions of the pads.

Look at last page to calculate the braking force on different disc dimensions

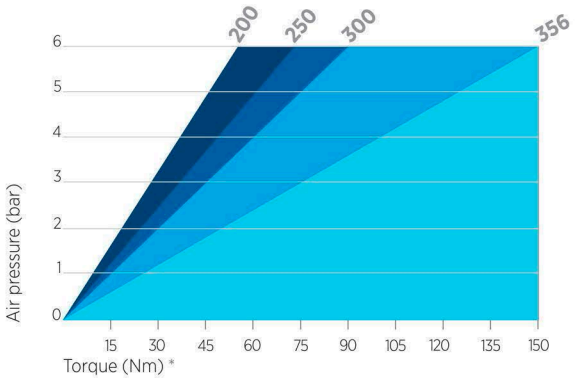
CX NANO PNEUMATIC CALIPER - AIR APPLIED/SPRING APPLIED



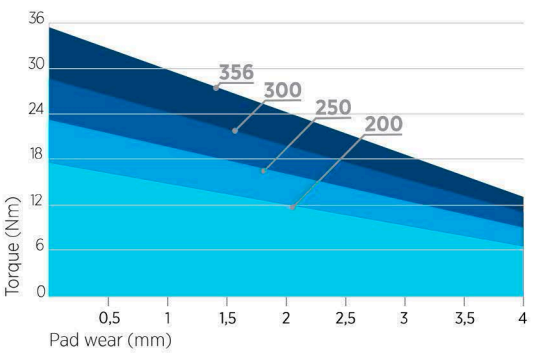


Model	Pad center (Mp)	Weight	Tangential force at 6 bar (F)	Max pressure
CX-NANO air applied	40 mm	0,55 kg	690 N	6 bar
CX-NANO spring applied	40 mm	0,55 kg	220 N	6 bar

CX-NANO air applied



CX-NANO spring applied



Disc diameter (mm)

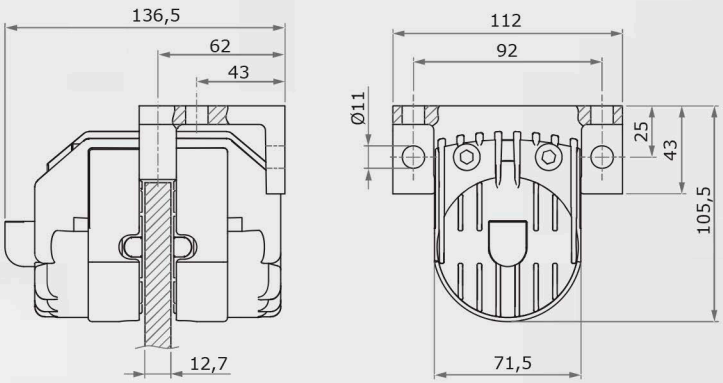
*Braking torque during dynamic slipping (Nm)

Warning: consider a torque value less than the nominal one of 30% for the air applied and 50% for the spring applied, in applications such as stop braking or low torque. Torque values are intended at optimum conditions of the pads.

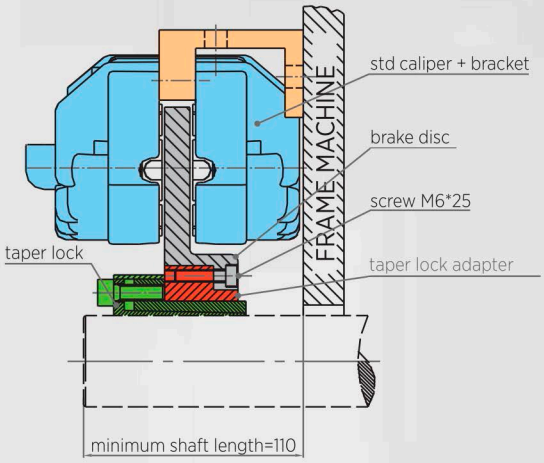
Look at last page to calculate the braking force on different disc dimensions

AIR APPLIED PNEUMATIC CALIPER BRAKE - CX

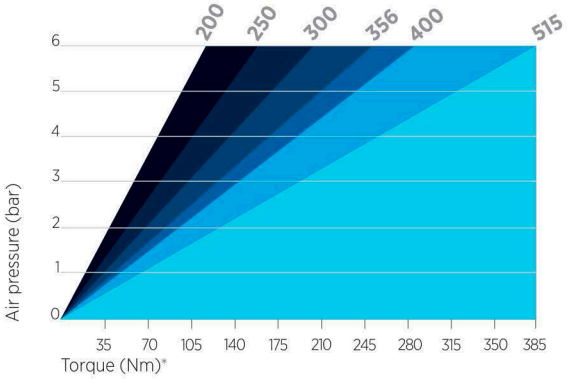
Standard caliper



Taper lock application



Tangential force at 6 bar (F)	**1682 N**
Max pressure	6 bar
Pad center (Mp)	65 mm
Weight (caliper with bracket)	1,2 kg



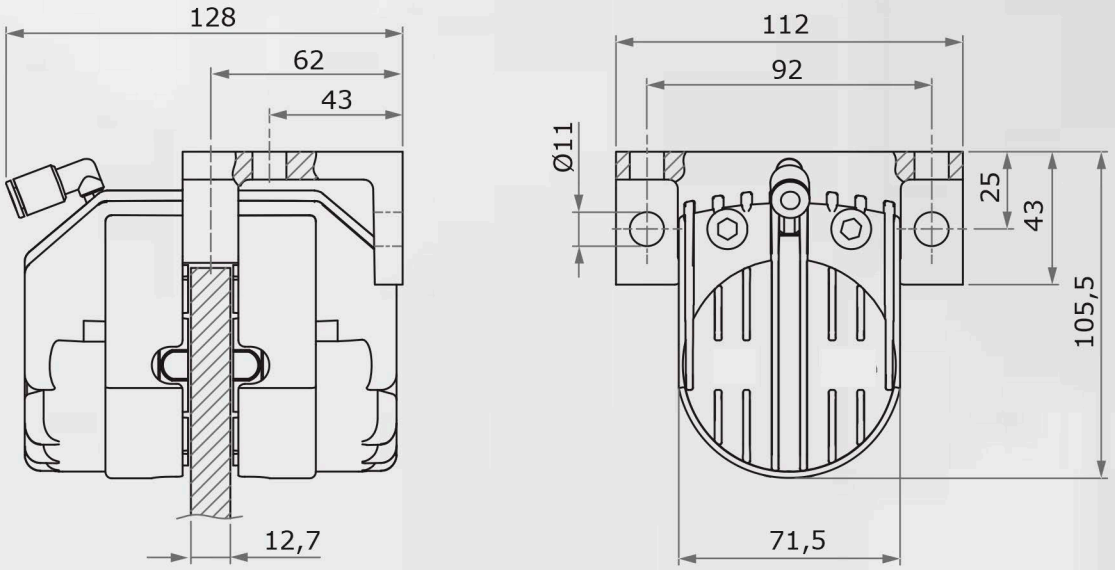
Warning: consider a torque value of 30% less than the nominal one, in applications such as stop braking or low torque. Torque values are intended at optimum conditions of the pads.

Disc diameter (mm)

*Braking torque during dynamic slipping (Nm)

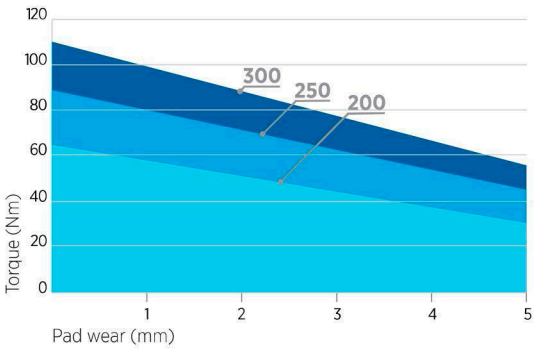
Look at last page to calculate the braking force on different disc dimensions

SPRING APPLIED PNEUMATIC CALIPER BRAKE - CX

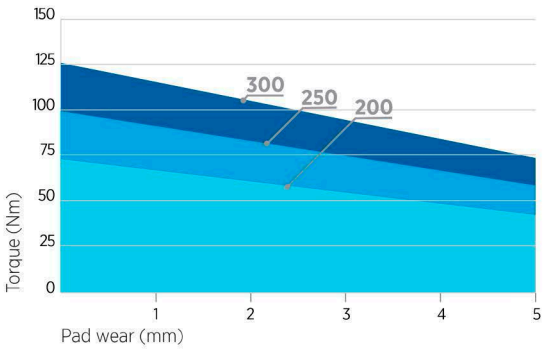


Model	Pad center (Mp)	Weight	Tangential force at 6 bar (F)	Max pressure
CX spring applied 4,5 bar	65 mm	1,2 kg	855 N	4,5 bar
CX spring applied 6 bar	65 mm	1,2 kg	1000 N	6 bar

CX spring applied 4,5 bar



CX spring applied 6 bar



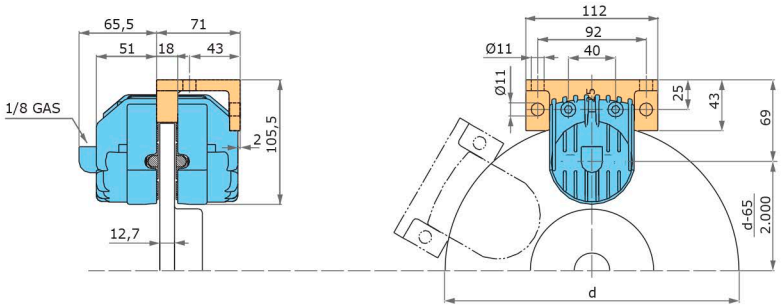
Disc diameter (mm)

Look at last page to calculate the braking force on different disc dimensions

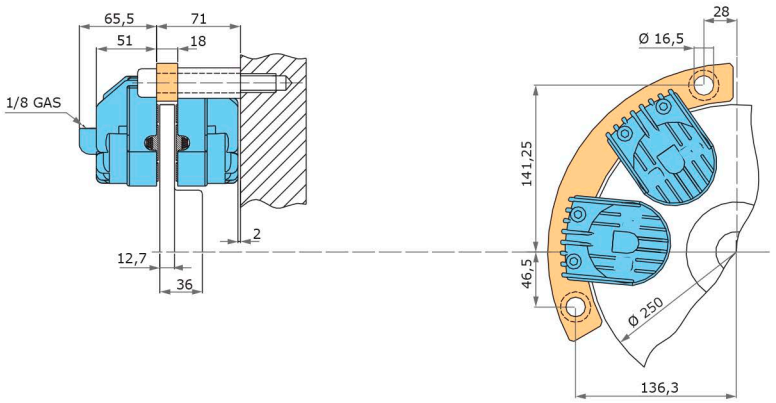
Warning: consider a torque value of 50% less than the nominal one, in applications such as stop braking or low torque.

MOUNTING SCHEME FOR CX CALIPERS

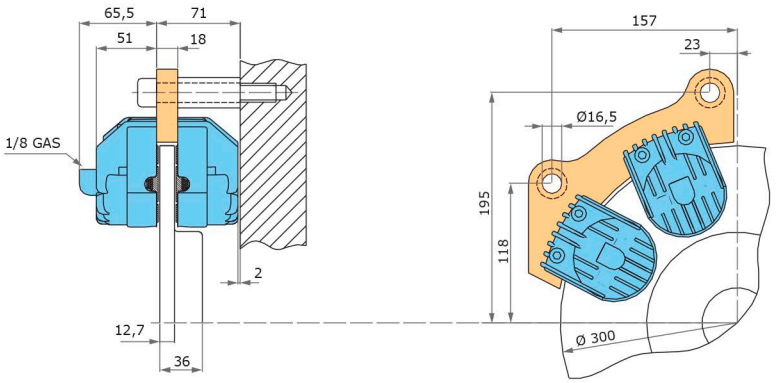
AIR APPLIED / SPRING APPLIED / REDUCED TORQUE



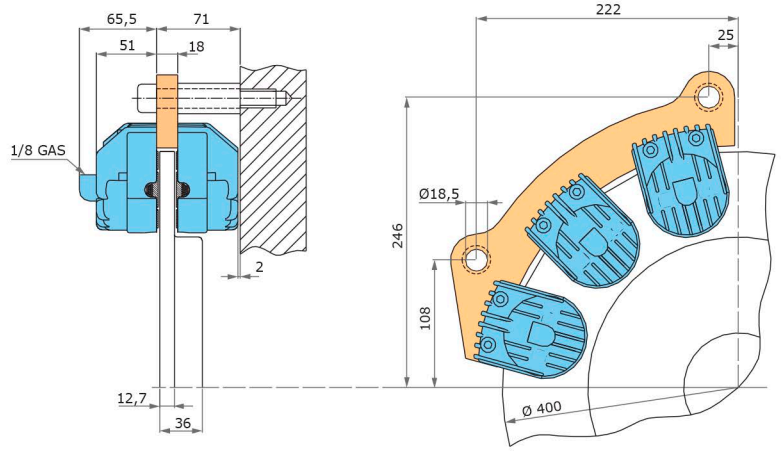
Single CX caliper



Bracket for PX250

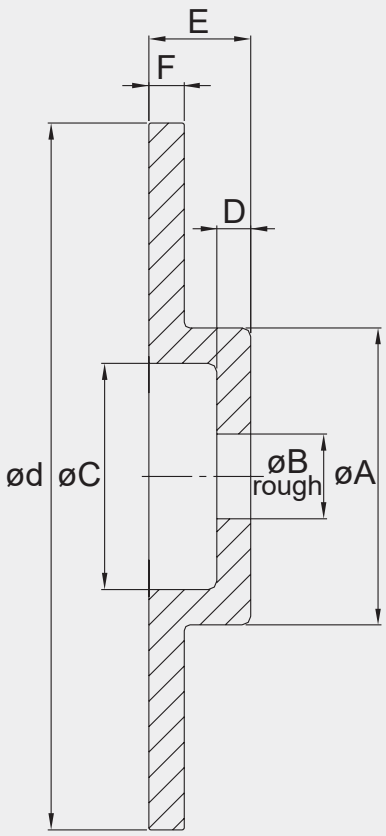


Bracket for PX300



Bracket for PX400

DISCS



To calculate the dynamic torque (Cd) of the CX caliper use the following formula:

Cd = Rm · F

F = thrust force of the caliper on the disc's surface including the friction of the pad

$$\textbf{Rm} = \frac{d - Mp}{2000}$$

Rm = medium radius [m]
d = diameter of the discs [mm]
Mp = pad center [mm]*
Cd = dynamic torque [Nm]

* variable dimension related to the selected caliper size (see at the related page)

Model	Dimensions							Inertia Kgm²	Weight Kg	Rpm n.
	Ø d	A	B	C	D	E	F			
PX-PZ	250	105	20	80	12	36	12,7	0,04	4	2700
PZ	250	128	20	118	6	36	12,7	0,04	4,1	2700
PX-PZ	300	150	30	130	13	41	12,7	0,09	7	2300
PZ	300	181	30	163	13	41	12,7	0,09	7,4	2300
PX-PZ	356	210	40	173	16	54	12,7	0,2	12	2100
PX-PZ	406	260	44	236	16	54	12,7	0,32	14	1700
PX-PZ	457	311	44	276	16	54	12,7	0,6	20	1500
PX-PZ	514	368	44	340	16	54	12,7	0,7	24	1300
PX-PZ	610	464	44	430	16	54	12,7	1,81	35	1100
PX-PZ	711	565	80	528	16	54	12,7	3,4	55	900