



renova
WE NEVER LOSE CONTROL

brakematic

CUSTOM-FITTED BRAKES AND CLUTCHES



Custom-fitted brakes and clutches

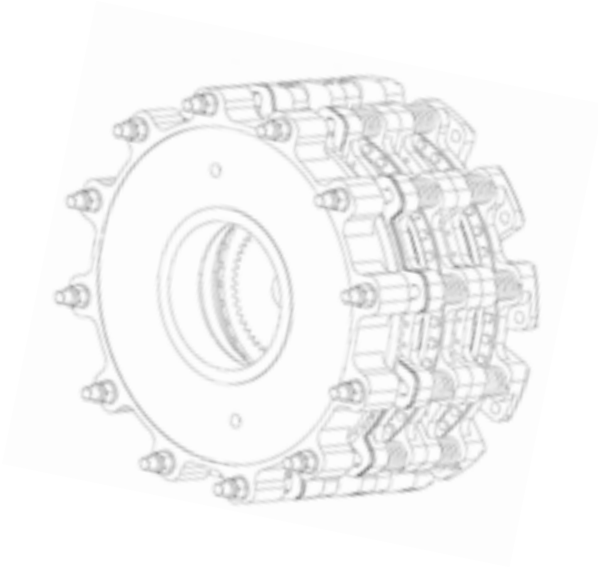
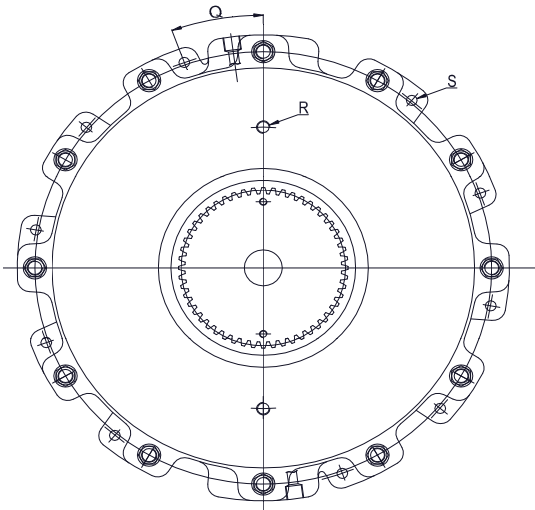
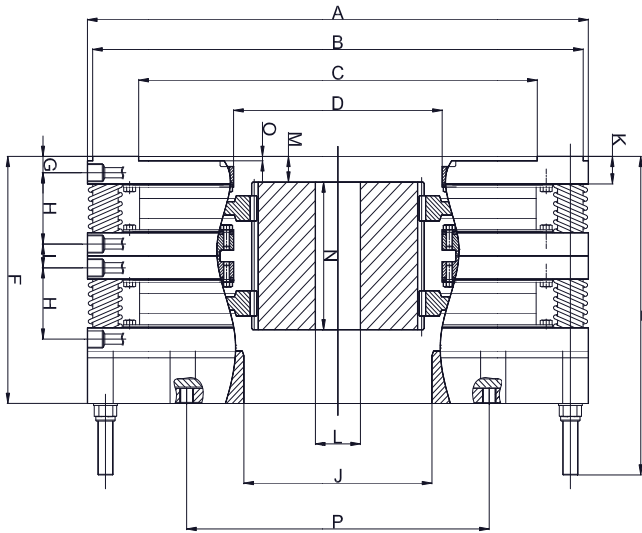
We offer a wide range of standard brakes and clutches that meet the needs of the industry through a flexible approach to application and sales support.

Thanks to an early involvement in design processes and an ever greater manufacturing and organizing flexibility, Renova offers the possibility of quickly realizing products designed and manufactured according to customized specifications to suit any application requirements.

The background image shows a large industrial machine, likely a water-cooled brake or clutch, in a factory environment. The machine has a prominent red frame and a large, grey, circular component. It is surrounded by various pipes, hoses, and mechanical parts. The lighting is industrial, with overhead lights visible. The text "WATER COOLED BRAKES AND CLUTCHES" is overlaid in white, bold, sans-serif font, with a small orange horizontal line above the word "BRAKES".

WATER COOLED BRAKES AND CLUTCHES

CBW



CBW11	CBW 111	CBW 211	CBW 311	CBW18	CBW 118	CBW 218	CBW 318	CBW 418
min torque (7 bar)	3600 Nm	7220 Nm	7220 Nm	min torque (7 bar)	3600 Nm	7220 Nm	10800 Nm	14400 Nm
max torque (7 bar)	7950 Nm	15800 Nm	15800 Nm	max torque (7 bar)	7950 Nm	15800 Nm	23800 Nm	31800 Nm
max speed	1500 rpm	1500 rpm	1500 rpm	max speed	850 rpm	850 rpm	850 rpm	850 rpm
water flow	20 l/min	40 l/min	60 l/min	water flow	45 l/min	91 l/min	136 l/min	181 l/min
inertia	0,09 kgm²	0,18 kgm²	0,27 kgm²	inertia	0,75 kgm²	1,57 kgm²	2,36 kgm²	3,17 kgm²
weight	60 kg	90 kg	120 kg	weight	189 kg	281 kg	395 kg	503 kg

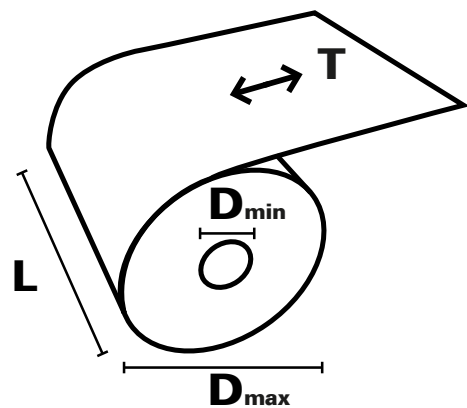
dimensions (mm)	CBW 111	CBW 211	CBW 311	CBW 118	CBW 218	CBW 318	CBW 418
A	400	400	400	600	600	600	600
B	374	374	374	590,5	590,5	590,5	590,5
C	295	295	295	463,5	463,5	463,5	463,5
D	137	137	137	280	280	280	280
E	174	266	358	210,7	340,5	472,1	602,8
F	142,3	234,3	326,3	170,7	271,4	372,1	472,8
G	20,5	20,5	20,5	21	21	21	21
H	65	65	65	71,7	71,7	71,7	71,7
J	133,6	133,6	133,6	216	216	216	216
K	33	33	33	33,5	33,5	33,5	33,5
I	27	27	27	29	29	29	29
L min	25,4	25,4	25,4	57	57	57	57
L max	76,2	76,2	76,2	136	136	136	136
M	19,1	19,1	19,1	31,75	31,75	31,75	31,75
N	73,2	155,7	238,2	50	151	252	353
O	7	7	7	6,5	6,5	6,5	6,5
P	210	210	210	363	363	363	363
Q	60°	60°	60°	20°	20°	20°	20°
R (n°)	2	2	2	2	2	2	2
R (size)	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
R (Ø)	360	360	360	360	360	360	360
S (n°)	4	4	4	10	10	10	10
S (size)	18	18	18	16	16	16	16
S (Ø)	374,65	374,65	374,65	558,8	558,8	558,8	558,8



BRAKE SELECTION

BRAKE SELECTION GUIDE

	unit of measurement		tensioning
t	braking time [s]	$T_{max} = T_s \cdot L_{max}$	maximum web tension
v	web speed [m/min]	$T_{min} = T_s \cdot L_{min}$	minimum web tension
$T_{max/min}$	max/min web tension [N]	$C_{fmax} = \frac{D_{max} \cdot T_{max}}{2}$	maximum torque
$D_{max/min}$	max/min roll diameter [m]	$C_{fmin} = \frac{D_{min} \cdot T_{min}}{2}$	minimum torque
P	heat dissipated [kW]	$P = \frac{T_{max} \cdot v}{60 \cdot 10^3}$	heat dissipated
m	roll maximum weight [kg]		
T_s	web tension per centimeter [N/cm]		
$L_{max/min}$	max/min web width [cm]	$C_{fmax} = \frac{m \cdot D_{max} \cdot v}{240 \cdot t}$	emergency stop torque



SPECIFIC TENSION VALUES FOR MATERIALS

	paper			board		
weight [g/m²]	10 - 15	30 - 60	100 - 200	100 - 150	200 - 300	400 - 700
web tension [N] per centimeter T_s	0.3 - 0.4	1 - 2.5	3.5 - 7	5 - 7.5	10 - 11.5	16 - 18
	cellophane	polythylene	polypropilene	aluminum		
N/cm per μ of thickness	0.042	0.01- 0.02	0.015 - 0.025	0.035 - 0.105		

QUESTIONNAIRE



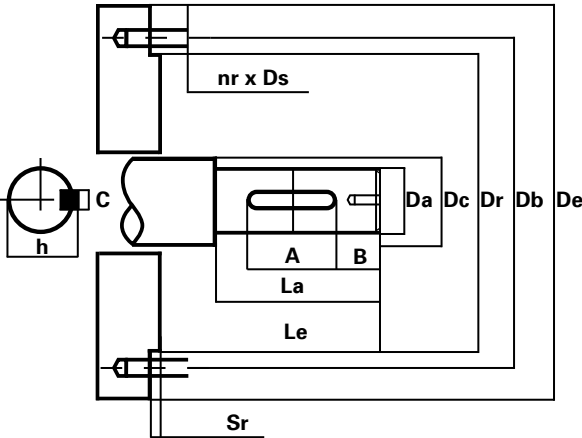
Please fill out the questionnaire, take a picture and send it via email to info@renova-srl.com

CUSTOMER

complete
name
position
company
plant
country
tel
email

APPLICATION DATA

machine type
application
n° brakes per roll 1 2
fans voltage 110 AC
220 AC
24 VDC
brakes pressure bar
roll diameter min mm
max mm
roll width min mm
max mm
roll weight min kg
max kg
speed min m/min
max m/min
type of material gr/m²
emergency stop sec

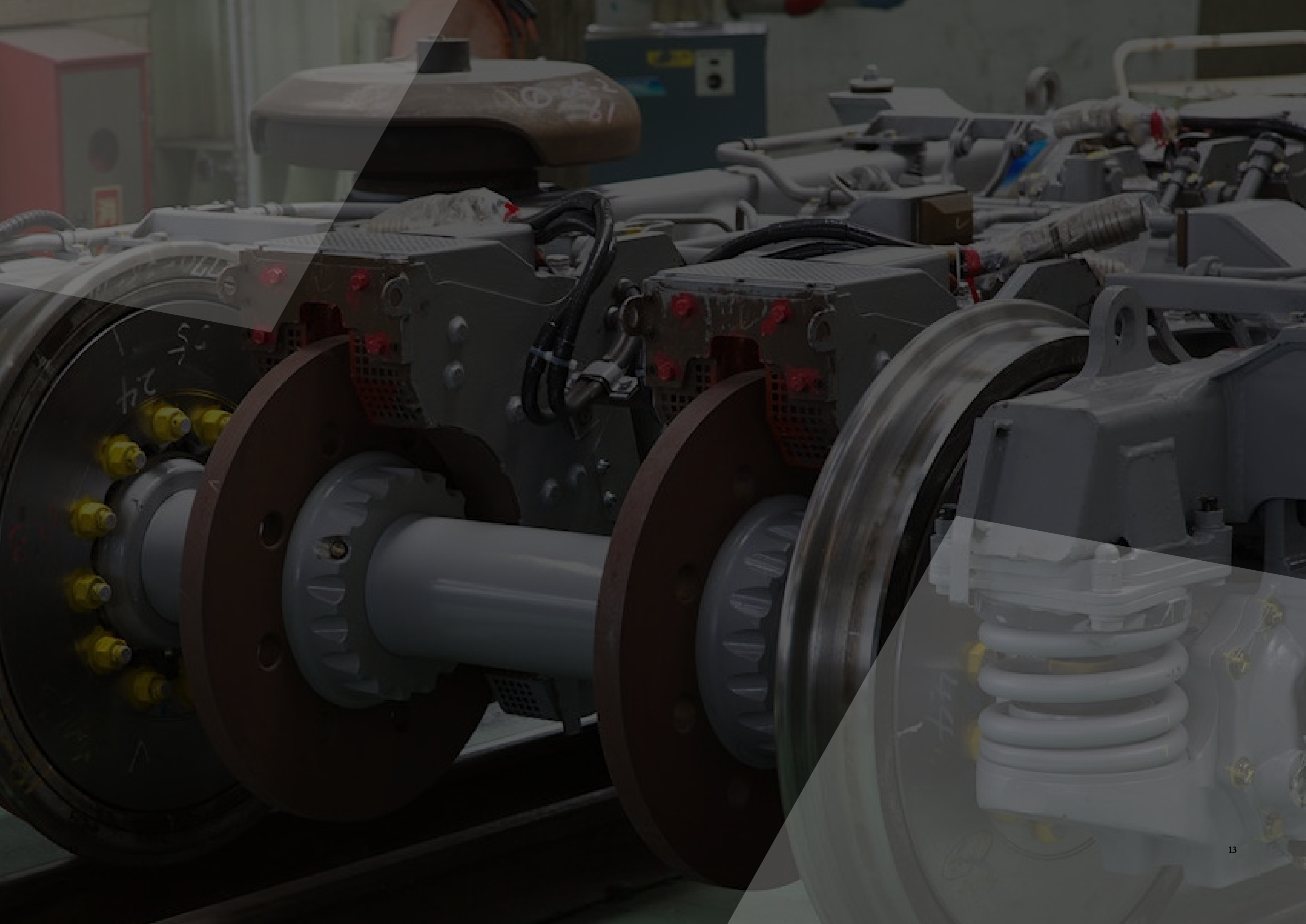


FLANGE DIMENSION

external diameter (De) mm
centering diameter (Dr) mm
centering thickness (Sr) mm
holes position diameter (Db) mm
nr per Ø of holes (nr x DS)
angles between holes (b°)

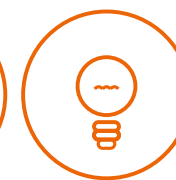
SHAFT DIMENSION

shaft diameter (Da) mm
shaft lenght (La) mm
shaft diameter (Dc) mm
total lenght (Le) mm
key dimensions (C x h) mm
blocking system seeger
bolt
threaded ring
dimension for hub/disc A mm
B mm





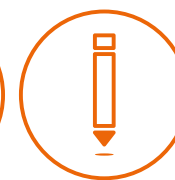
MADE IN ITALY
Our products are 100% designed and made in Italy



SUPPORT
Our staff is always available to answer your questions, also in the after-sales phase



QUALITY
All Renova's products are managed by TUV ISO 9001



CUSTOM PROJECTS
Projects large or small, we work with you to provide the solution that fits



SUSTAINABILITY
Sustainable products, sustainable company.
Renova has joined Erion



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