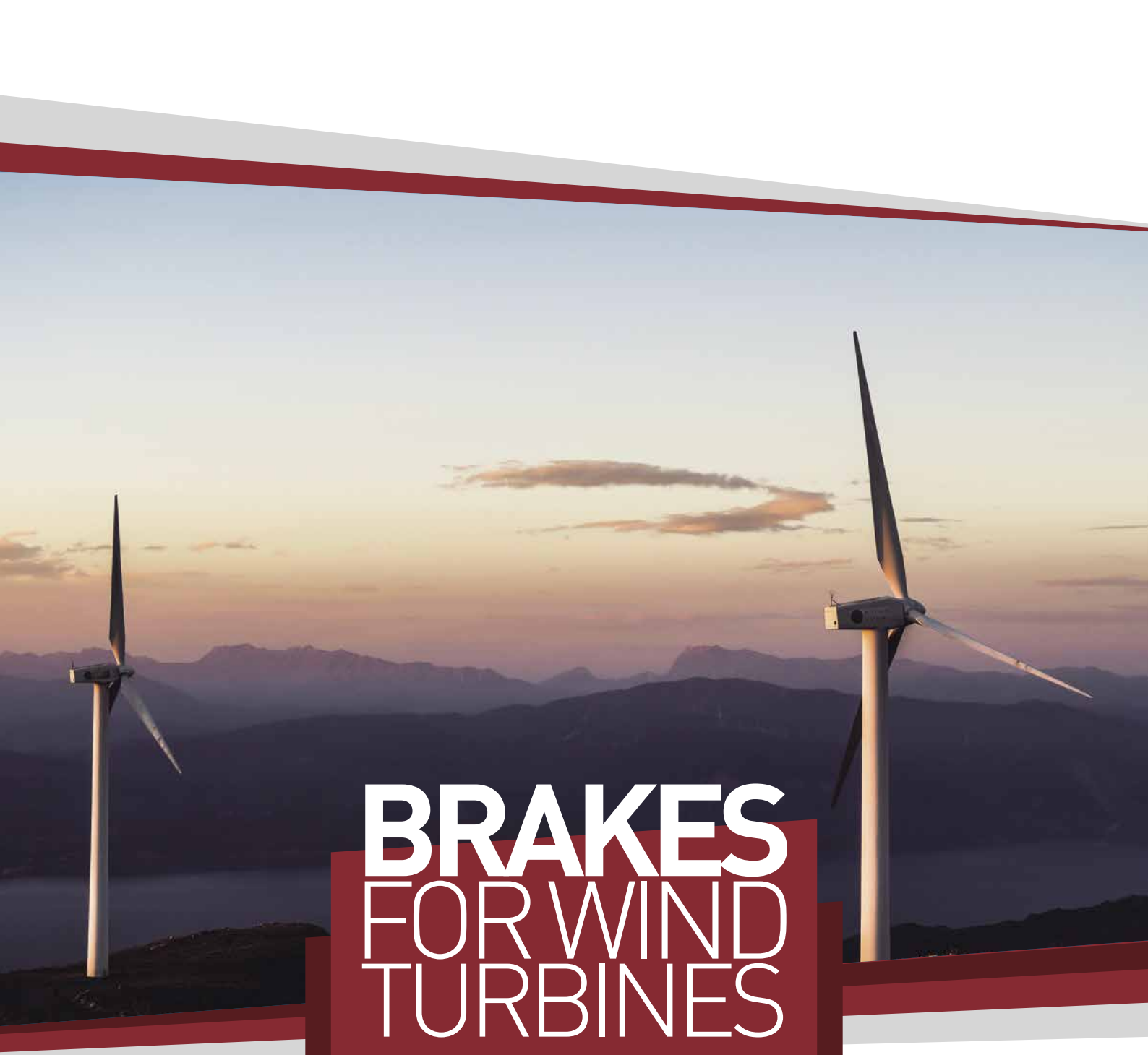


A photograph of two wind turbines on a hillside at sunset. The sky is a mix of orange, yellow, and blue, with a few clouds. The turbines are white and stand out against the colorful background. The image is framed by a dark red curved border at the top and bottom.

BRAKES FOR WIND TURBINES

CATALOGUE 2022



Reliability is a must.

1961

ESTABLISHMENT OF AME

Industrial brakes. Thrustors.
Magnetic Separators

1992

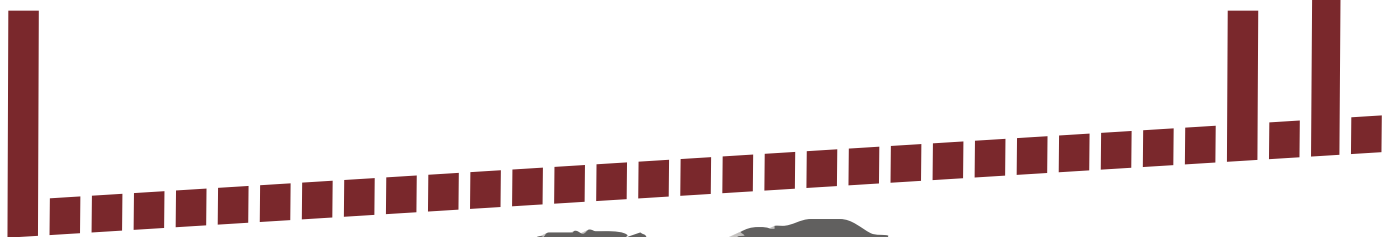
INCORPORATION OF ANTEC

Superconductivity. Applications. Development.

1990

**START OF ACTIVITY OF WIND TURBINE
GENERATOR BRAKES**

Rotor Brakes, Yaw Brakes.



2015

MEMBER OF **windbox**

Test an Research Laboratory for Big Wind Turbines.

1995

**MERGER OF AME
& ANTEC**

All production continues
under ANTEC brand.

2007

**ESTABLISHMENT IN
CHINA.**

ANTEC BRAKING
SYSTEMS (Tianjin).

2014

**ESTABLISHMENT IN
BRAZIL.**

ANTEC EÓLICA LTDA
(Bahia)

2017

ESTABLISHMENT IN INDIA.

Incorporation of ANTEC Wind India
Private LTD in Chennai.

EXPERIENCE

More than **50 years** experience in designing
and manufacturing industrial brakes.

More than 20 years experience in the Wind
Industry with over 300.000 brakes installed
in WTG throughout more than 20 countries.

Experience in onshore and offshore market.

ANTEC BRAKING SYSTEMS

Tianjin-China

ANTEC

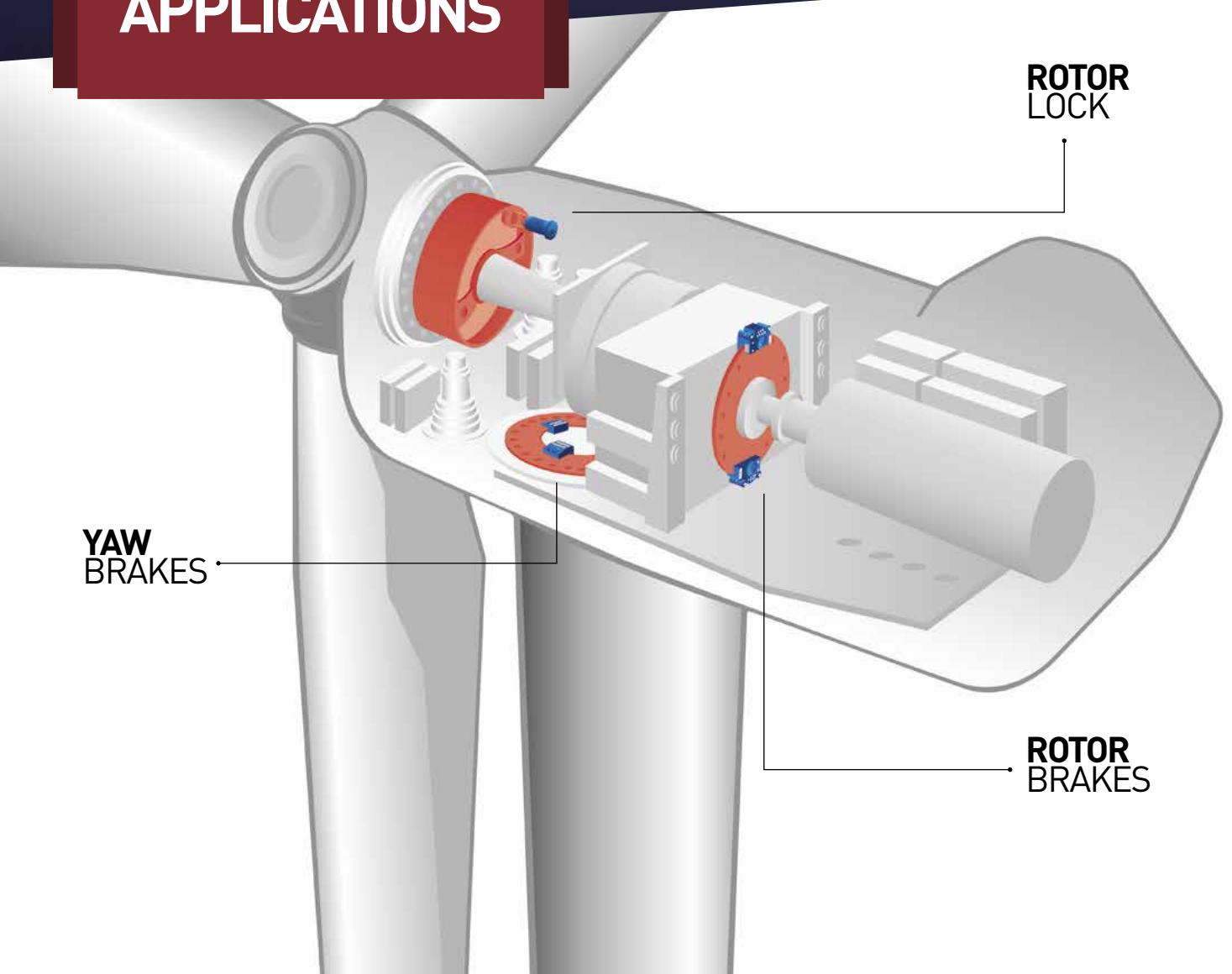
Portugalete-Spain

ANTEC EÓLICA

Camaçari-Brazil

BRAKES FOR WIND TURBINES

APPLICATIONS





BUSINESS

We are specialists in designing and manufacturing wind turbine brakes for onshore and offshore markets. We also have extensive experience in developing braking systems tailored to our customers' needs.

ACTIVITY

WIND TURBINE GENERATOR BRAKES

Our experience and knowledge, and the continuous investment in R&D, allow us to continue with the development of innovative rotor and yaw brakes, fulfilling all the requirements of our numerous customers.

Whole Power range Wind Turbines
Onshore and Offshore platforms
After Sales. Service and Maintenance

MARKETS

ONSHORE

ANTEC is a world leader in onshore market. More than 30 years of experience delivering braking systems tested and optimized in weight and cost to meet the market's requirements. We have extensive knowhow in friction materials to supply noise-free and vibration-free braking solutions, the main challenge for wind turbine manufacturers.

OFFSHORE

The offshore market calls for additional technology and product guarantees and reliability. As a result, customers choose ANTEC as braking systems supplier for this application as well. We also have innovative monitoring systems to diagnose our brakes' parameters (friction material wear, open/closed brake position, number of operations, etc.) in real time

AFTER-SALES

ANTEC has over 50 references in the industry. From our sales service we supply both, spares for wind turbines (brake pads, linings, pistons, seals, seal kits...) and complete yaw and rotor brakes. We can also diagnose and repair your brakes or give you technical assistance on site if necessary.

ROTOR BRAKES



Failsafe Brakes

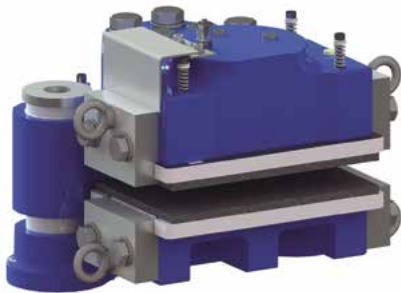


Active Brakes

NHC 1400

Characteristics and Options

- Spring applied braking. (Failsafe)
- Hydraulically released.
- Self-aligning.
- Wear indicator.
- Floating caliper.
- Organic or sintered metal linings.
- Clamping force up to 150 KN.
- End stops for easy lining replacement.



Active Brakes

NHCEN 900

Characteristics and Options

- Hydraulically applied. (Active)
- Spring released.
- Self-aligning.
- Wear indicator.
- Floating caliper.
- Organic or sintered metal linings.
- Clamping force up to 60 KN.
- End stops for easy lining replacement



Active Brakes

NHCE 1400

Characteristics and Options

- Hydraulically applied. (Active)
- Spring released.
- Self-aligning.
- Wear Indicator.
- Floating caliper.
- Organic or sintered metal linings.
- Clamping force up to 150 KN.
- Automatic wear adjustment for a constant gap between lining and disc (as an option).
- Hydraulic unit. (As an option)
- Ends stops for easy lining replacement.

HE-3-120

Characteristics and Options

- Hydraulically applied. (Active)
- Spring released.
- Organic or Sinter Metal linings.
- Clamping force up to 810 KN
- End stops for easy lining replacement.
- Automatic wear adjustment for a constant gap between lining and disc (as an option).
- Wear indicator. (Visual, Electrical, Inductive)

YAW BRAKES



HE-3-120

Characteristics and Options

- Hydraulically applied.
- Organic linings.
- Clamping force up to 810 KN
- End stops for easy lining replacement (as an option).
- Wear indicator. (Visual, Electrical, Inductive)



MECHANICAL MODULAR BRAKE

Characteristics and Options

- Spring applied.
- Plastic linings.
- Wear indicator. (Visual, Electrical, Inductive)

TAYLOR MADE BRAKES



Characteristics and Options

- Special designs according to customer requirements.
- Combination of active and passive actuators.

ROTOR LOCK



Characteristics and Options

- Hydraulic rotor lock for wind turbines .
- Locks the rotor on the low speed shaft side .
- Locking operation controlled via sensors.
- According to customer requirements.

SPARE PARTS

We have all the spare parts your brakes may need. We can also make a complete diagnosis and refurbish your brakes in our workshop, extending their working life and ensuring the proper operation in the wind turbine.



ORGANIC BRAKE PADS



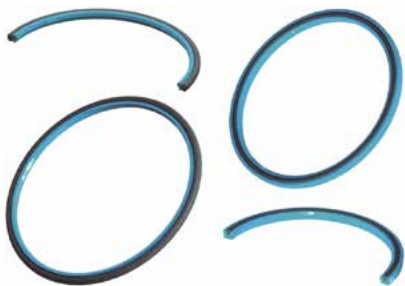
SINTERED BRAKE PADS



PLASTIC BRAKE PADS



PISTONS



SEALS AND SCRAPERS

Reliability is a must.

QUALITY-ISO 9001 CERTIFICATE



Sistema de
Gestión
ISO 9001:2015



www.tuv.com
ID 9105025252

REFERENCES CUSTOMERS

Cliente	Platform	Power	Year	Type	Market
 Acciona	AW-1500	1,5 MW	2007	Rotor/Yaw	Onshore
 NORDEX Acciona	AW-3000	3 MW	2014	Rotor/Yaw	Onshore
 Adwen	AD 8	8 MW	2015	Yaw	Offshore
 Aerodyn	SCD 6.0 MW NEDO	6 MW	-	Yaw	Offshore
 ALSTOM	ECO 80/86	1,67 MW	2010	Yaw	Onshore
 ALSTOM	ECO 100/122	3 MW	2008	Yaw	Onshore
 ALSTOM 	Haliade 150	6 MW	2013	Yaw/Rotor Lock	Offshore
 AREVA	J48-2	0,75 MW	2014	Yaw	Onshore
 CRRC	4,8	4,8 MW	2018	Rotor/Yaw	Onshore
 CRRC	3,0	3,0 MW	2017	Rotor/Yaw	Onshore
 CRRC	2,5	2,5 MW	2015	Rotor/Yaw	Onshore
 DOOSAN	DS205	8,0 MW	2021	Rotor/Yaw/Rotor Lock	Offshore
 DOOSAN	wINDs5500	5,4 MW	2018	Rotor/Yaw/Rotor Lock	Offshore
 ENVISION	4.0-130	4,0 MW	2019	Rotor	Onshore
 ENVISION	3.0-130	3,0 MW	2018	Rotor	Onshore
 ENVISION	2.X	2,0 MW	2014	Rotor	Onshore
 EWT	DW 52/54	0,75 MW	2013	Rotor	Onshore
 Gamesa	G10X	5 MW	2007	Yaw	Onshore
 SIEMENS Gamesa	G114	2,1 MW	2013	Yaw	Onshore
 SIEMENS Gamesa	SG5X 155 / 170	5,X MW	2020	Rotor/Yaw	Onshore
 SIEMENS Gamesa	SG145	4,X MW	2019	Yaw	Onshore
 SIEMENS Gamesa	G9X	2,0 MW	2011	Yaw	Onshore
 SIEMENS Gamesa	G132	3,4 MW	2017	Yaw	Onshore
 SIEMENS Gamesa	G80	2,0 MW	2002	Yaw	Onshore

Cliente	Platform	Power	Year	Type	Market
 SIEMENS Gamesa RENEWABLE ENERGY	G5X	800 KW	2001	Yaw	Onshore
	Hailade X	12 MW	2018	Yaw	Offshore
 GOLDWIND	3S	3.X MW	2019	Rotor/Yaw	Onshore
 GOLDWIND	2.X	2 MW	2011	Rotor/Yaw	Onshore
 GOLDWIND	2,5	2,5 MW	2016	Rotor/Yaw	Onshore
 联合动力 United Power	UP 4800	4,8 MW	2021	Rotor/Yaw	Onshore
 联合动力 United Power	UP 4500	4,5 MW	2020	Rotor/Yaw	Onshore
 联合动力 United Power	UP 3000	3,0 MW	2014	Rotor/Yaw	Onshore
 联合动力 United Power	UP 2000	2,0 MW	2013	Rotor/Yaw	Onshore
 联合动力 United Power	UP 1500	1,5 MW	2008	Rotor/Yaw	Onshore
 JSW THE JAPAN STEEL WORKS, LTD.	J82	2 MW	2008	Rotor/Yaw	Onshore
 Lagerwey	LW100/2500	2,6 MW	2013	Rotor/Yaw	Onshore
 Made	AE46	660 KW	2002	Rotor/Yaw	Onshore
 Made	AE61	1,32 MW	2002	Rotor/Yaw	Onshore
 MINGYANG MING POWER 明阳风电	MY 2.0	2,0 MW	2014	Rotor/Yaw	Onshore
 MINGYANG MING POWER 明阳风电	MY 1.5	1,5 MW	2010	Rotor/Yaw	Onshore
 TORRES	TWT-1, 65-80-70 IIIb	1,5 MW	2007	Rotor/Yaw	Onshore
 Pioneer Wincon	P750	750 KW	2016	Rotor	Onshore
 ReGen POWERTECH	VENSYS 77/82/87	1,5 MW	2017	Rotor/Yaw	Onshore
 SANY	SE14630	3,0 MW	2019	Rotor/Yaw	Onshore
 SANY	SE14125	2,5 MW	2019	Rotor/Yaw	Onshore
 SUZLON	S9X	2,1 MW	2011	Rotor	Onshore
 WINDFLOW	Windflow 500	0,5 MW	2004	Rotor	Onshore
 WinWind Increasing the acceptance of Wind Energy	SW 70	1 MW	2008	Yaw	Onshore
 Zephyros	Z72	2 MW	2011	Yaw	Onshore



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