# WIND POWER



PASSION TO PERFORM



# ADVANCED FILTRATION AND CONTAMINATION MONITORING SOLUTIONS FOR THE WIND POWER

We offer comprehensive support to our customers in the development of hydraulic system for wind turbines, from conception to implementation.

Our products installed on wind turbines protect the internal components of the turbine, ensuring efficient and safe operation.

Our products will guarantee you:



Technology and experience are in the company's DNA

# THE MAIN FEATURES THAT DISTINGUISH OUR PRODUCTS ARE:

- Full control over every element of production from design to delivery
- Maintenance and Reliability
- The latest in Research and Development technology
- lnnovative design
- Noise and weight
- Integration with the turbine control system



# GUARANTEED PERFORMANCE

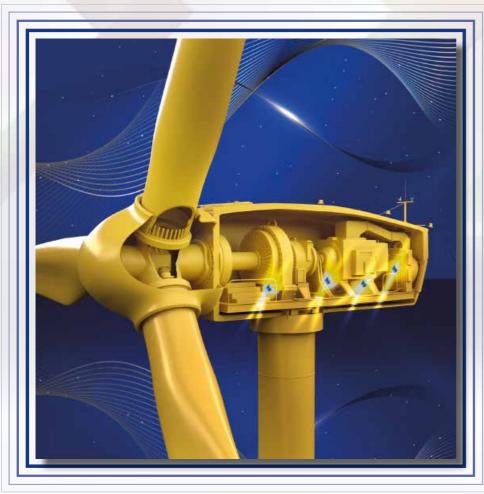
#### MULTI-PASS ISO 16889

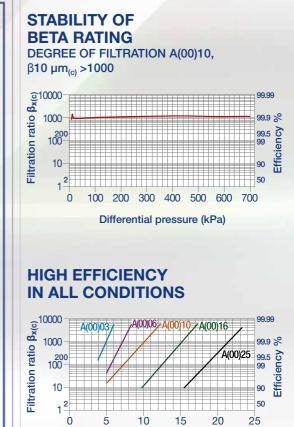
The ISO Multipass test evaluates the characteristics (or performance) of a filter element, providing data on efficiency and capacity.

ISO standard filtration compared						
β <sub>x(c)</sub> > 1000 ISO 16889	Filter media code					
ISO 16889	MP Filtri					
5 μm <sub>(c)</sub>	A(00)03					
7 μm <sub>(c)</sub>	A(00)06					
10 μm <sub>(c)</sub>	A(00)10					
16 μm <sub>(c)</sub>	A(00)16					
21 μm <sub>(c)</sub>	A(00)25					

$$\label{eq:constream} \begin{split} \frac{\text{Upstream}}{\text{particles number > X } \mu m_{(c)}} \\ \frac{\text{Downstream}}{\text{particles number > X } \mu m_{(c)}} = \beta_{x(c)} \end{split}$$

# Designed to thrive in even the most challenging working conditions





Particle size µm(c)

# **HYDRAULIC FILTRATION**

Designing an effective filtration system requires a precise evaluation of its specific features, including: sensitivity of the individual components, the degree and type of contamination, circuit pressure,

flow rate, environmental conditions, fluid used and intervention cycles, delivering longer machinery lifespans and reduced service costs.

#### **RETURN FILTERS**

6	MPFX	up to	P <sub>max</sub>	up to	Q <sub>max</sub>			
ĺ	Tank top semi-immersed filter, easy filter element	bar	psi	l/min	gpm		-	
	servicing	8	116	750	198	МРТХ	200	
2		10	145	500	132	Tank top semi-immersed filter with air breather, easy filter element servicing		
r.	МРН						-	
	The 'bubble free' deaeration filter effectively reduces the							
	air flow at the inlet to the tank	10	145	3500	925			

ELIXIR <sup>®</sup> enables easier	up to	P <sub>max</sub>	up to	<b>Q</b> <sub>max</sub>	FILTERS	
maintenance with only the FEX filter elements needing to be replaced -	bar	psi	l/min	gpm	ELIXIR M	
resulting in a lower environmental impact than other models.	16	232	300	79	SFEX SERIES - Suction RFEX SERIES - Return LFEX SERIES - Low pressure	

#### LOW PRESSURE FILTERS

	LMP 112 / 123 MULTIPORT	up to bar	up to P <sub>max</sub> bar psi		Q <sub>max</sub>		-	9
ļ	In-line filter with Multiport design for connections multiple	80	1160	175	46	LMP 900: In-line filter, with filter elements to DIN 24550 specification		
		30	435	2400	634	LMP 950: In-line filter, specifically designed for upside down mounting	LMP 900	LMP 950

# **HIGH PRESSURE FILTERS**

H	FMMX High pressure filter for mobile applications,	up to P <sub>max</sub>		up to Q <sub>max</sub>			
		bar	psi	l/min	gpm		TF
	low flow rate	420	6092	300	79	FHP	
	FHB High pressure manifold mounted filter to reduce leak paths.	420	6092	630	166	Typical high pressure filter for mobile applications, high flow rate	Ļ
		320	4641	485	128		



#### **FILTER ELEMENTS**



**DUAL STAGE - FILTER ELEMENTS OPTIMISED** FOR USE IN THE VARIOUS CONTROL AND LUBRICATION SYSTEMS **OF WIND TURBINES** 

Thanks to the DUAL stages, downstream coarse filtration keeps oil clean, even with an open bypass valve.

#### Plus:

- High resistance to harsh conditions
- High viscosity
- Low temperatures
- Capture contamination
- Moisture control



#### WIDE RANGE OF ELEMENT OPTIONS FOR MYCLEAN AND ZEROSPARK® **CONCEPT FILTERS**

Wide range of filter elements in various filtration grades for all MP Filtri filters and as interchangeable.

CLEAN THE X CONCEPT FOR OUR FILTERS

zerospark\* THE ANTI-STATIC FILTERS THE ANTISTATIC Z CONCEPT FOR OUR FILTERS

# **TANK ACCESSORIES**

The complete range of tank accessories for hydraulic circuits comprises breather filters, filler and breather filters, filler caps, visual and electrical level indicators, pressure gauges selectors, flanges for fixing the oil tubes on the tank cover and inspection covers.

Filler and breather filters have a dual function at the tank inlet filtering incoming air and pre-filtering the fluid through the basket. This prevents the entry of foreign bodies during the filling or refilling operations.

#### AIR BREATHERS AND FILLER PLUGS



TAP90 Filling caps and air breathers with multiple technical solutions

TAP115 & SAP115Filling caps and<br/>air breathers<br/>with 3 and 10 μmSAP115TAP115

up to P<sub>max</sub> I/min gpm 550 145

1600

3000

145

423

793

Moisture control desiccant air breathers Max air flow up to 453 l/min

> TAP114 Nylon oil filler and air breather filler cap

**SAW115** 





# **OIL LEVEL INDICATORS**



ELECTROMAGNETIC LEU Offered in three different sizes

for easy monitoring of the oil level in the tank





# POWER TRANSMISSION

#### COUPLINGS

Drive couplings provide the means by which power is transmitted from the electric motor to the hydraulic pump.



The e-PTO coupling is specifically for electrically powered power take-offs

#### **BELL-HOUSINGS**

Bell-Housings are used as connecting elements between IEC electric motors and a wide range of hydraulic pumps available on the international market

#### **CONTAMINATION CONTROL SOLUTIONS**

MP Filtri designs and manufactures a complete range of contamination control solutions aimed at increasing the life and the productivity of the hydraulic circuits. The technology developed by our Contamination Monitoring Products division allows preventive and predictive maintenance, guaranteeing maximum continuity of operation, a longer life cycle of the components and a relative reduction in costs. A complete solution that combines highly functional and energy-efficient systems with a wide range of after-sales services.

#### CONTAMINATION MONITORING PRODUCTS



LPA3 Portable Light Extinction Particle Analyser





ICM 2.0 In-Line Contamination Monitor



**ICM 4.0** 

Wifi-enabled

In-line

**Contamination Monitor** 



**UFM 015** 



**MOBILE FILTRATION** 

UNIT

**UFM 051** 



UFM 091 UFM 181 UFM 919

#### 15 l/min (3.96 gpm) (8

34 I/min (8.98 gpm)

**UFM 041** 

50 l/min 90 l/min / 180 l/min (13.20 gpm) (23.77 gpm / 47.55 gpm)



CANADA • CHINA • FRANCE • GERMANY • INDIA • SINGAPORE UNITED ARAB EMIRATES • UNITED KINGDOM • USA

HQ



PASSION TO PERFORM

in 🖾 🖻 f



MF002000160 EN - 2024.09

Filtri reserves the right to make modifications to the models and versions of the described products at any time for both technical and/or con For updated information please visit our website: www.mpfiltri.com. The colors and the pictures of the products are purely indicat Any reproduction, partial or total, of this document is strictly forbidden. All rights are strictly reserved