# **WIND POWER**



#### **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:

#### Filtration efficiency

**Resistance and durability** 

Low pressure drop

Ease of maintenance

**Environmental compatibility** 

**Protection against corrosion** 

Ability to handle operational variations

The company offers a wide range of high-performance products including:

**FMMX Series** for potentially explosive atmosphere



High Pressure Filters



Low Pressure Filters



**Return Filters** 



**High Pressure Filters** 



Moisture control desiccant air breathers



Flixir® Filters



#### **RELIABILITY AND QUALITY:** WHY MP FILTRI IS THE PERFECT PARTNER!

State-of-the-art research and development programmes ensure our products are extensively tested and perfected in our cutting-edge laboratory. A passion for innovation drives everything we do.

### **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
- Innovative design
- Noise and weight
- Integration with the turbine control system



## GUARANTEED PERFORMANCE

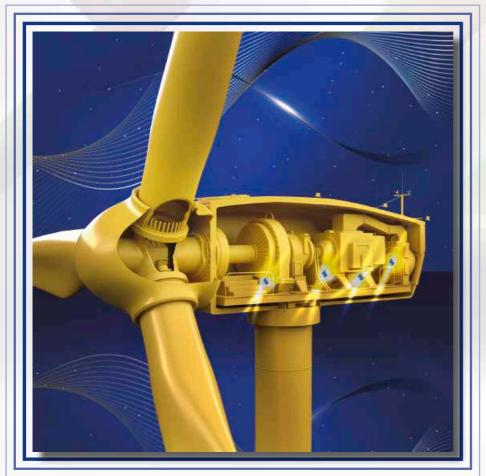
#### **MULTI-PASS ISO 16889**

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

ISO standard filtration compared		
$\beta_{x(c)} > 1000$ 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	

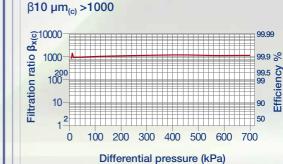
$$\frac{\text{Upstream}}{\text{particles number} > \text{X } \mu\text{m}_{\text{(c)}}} = \beta_{\text{x(c)}}$$
 
$$\frac{\text{Downstream}}{\text{particles number} > \text{X } \mu\text{m}_{\text{(c)}}}$$

### Designed to thrive in even the most challenging working conditions

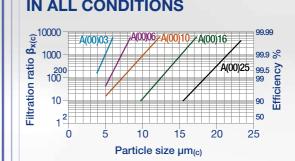


### STABILITY OF BETA RATING

DEGREE OF FILTRATION A(00)10,  $\beta$ 10  $\mu$ m<sub>(c)</sub> >1000



## HIGH EFFICIENCY IN ALL CONDITIONS



#### **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**



MPFX			
Tank to			
filter, e	asy filt	er eler	nent
servicin	ng		

up to P <sub>max</sub>		up to	to Q <sub>max</sub>	
bar	psi	l/min	gpm	
8	116	750	198	
10	145	500	132	







#### **MPH**

The 'bubble free' deaeration filter effectively reduces the air flow at the inlet to the tank

10	145	3500	925

gpm

up to  $Q_{\text{max}}$ 



**SFEX SERIES - Suction RFEX SERIES - Return** LFEX SERIES - Low pressure



ELIXIR® enables easier maintenance with only the FEX filter elements needing to be replaced resulting in a lower environmental impact than other models.

up to P <sub>max</sub>		up to Q <sub>max</sub>	
bar psi		l/min	gpm
16	232	300	79

#### **LOW PRESSURE FILTERS**



LMP 112 / 123 MULTIPORT	up to P <sub>max</sub>		up to Q <sub>max</sub>	
	bar	<b>psi</b> 1160	1/min	<b>gpm</b> 46
In-line filter with Multiport design for connections multiple	80			
	30	435	2400	634

LMP 900: In-line filter, with filter elements to DIN 24550 specification





LMP 950



#### **HIGH PRESSURE FILTERS**

FMMX
High pr
for mob
low flow

h pressure filter mobile applications, low flow rate

bar	psi	I/MIN	gpm
420	6092	300	79
420	6092	630	166

485

128

4641

up to  $P_{\text{max}}$ 

320

**FHP** 





#### **FHB**

High pressure manifold mounted filter to reduce leak paths.

#### Typical high pressure filter for mobile applications, high flow rate

#### **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.



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**



SAP115 TAP115 filter element

	up to	up to P <sub>max</sub>	
TAP90	l/min	gpm	
Filling caps and air breathers with multiple technical solutions	550	145	
TAP115 & SAP115 Filling caps and	1600	423	
air breathers with 3 and 10 µm	2000	700	

un to B

3000

793

#### **SAW115**

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



**TAP114** Nylon oil filler and air breather filler cap



#### **OIL LEVEL INDICATORS**



**ELECTROMAGNETIC LEU** 

Offered in three different sizes for easy monitoring of the oil level in the tank

#### VISUAL LVA

Available in three sizes, to monitor the fluid 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 Analysei

CML4 Compact Portable Contamination Monitor

#### **IN-LINE CONTAMINATION MONITORS**



ICM 2.0 / 4.0 In-line Contamination Monitor



**ICS** In-line Contamination Sensors

#### **MOBILE FILTRATION UNITS**











**UFM 015** 

**UFM 041** 

**UFM 051** 

UFM 181 **UFM 919** 

15 l/min 34 I/min (8.98 gpm) 50 I/min

90 I/min - 180 I/min (13.20 gpm) (23.77 gpm - 47.55 gpm)

### WORLDWIDE NETWORK

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



PASSION TO PERFORM

