

# Are your gas turbines fit for the future?

Efficiency and longevity – more important than ever.

## GT Compact Filters

### Ambitious. Flexible. Highly Reliable.

EMW® GT Minipleat compact filters incorporate an impressive range of features which add up to high filtration efficiency and low pressure drop.

**1. Highly efficient filter media:** The filter media are selected as required to ensure efficient removal of the encountered particulates even at high volume throughputs.

**2. Enormous filter area:** Minipleat technology provides maximum filter surface area in a compact, space-saving configuration while still permitting smooth aerodynamic flow.

**3. Heavy-duty frame:** The frame's material of construction and design are decisive for realizing ease of installation as well as streamlined flow for minimum pressure drop. The plastic frames of EMW® GT Minipleat compact filters are aero-dynamically optimized for flow conditions in gas turbine inlet air filtration. Simple to install, the compact filters are also fully incinerable, permitting convenient disposal after use.

**4. Leak-proof:** If the filter media are not reliably bonded to the frame, leakage can result, particularly at high air flow rates. These leaks permit free passage of air particles around the filter. To prevent problems of this nature, EMW® Minipleat filter media are bonded to the frame by a cast airtight joint. The reliable full-perimeter bond prevents leakage even at highest flow rates. In addition, all EMW® filters are available with a continuous foamed-in-place seal located on the air inlet or outlet side as desired.

**5. Superb strength:** EMW® GT Minipleat compact filters incorporate a fully synthetic nonwoven reinforcing mat on the air outlet side. This heavy-duty configuration withstands pressure drops of over 5000 Pa for many filter designs.



# Our Filter Systems

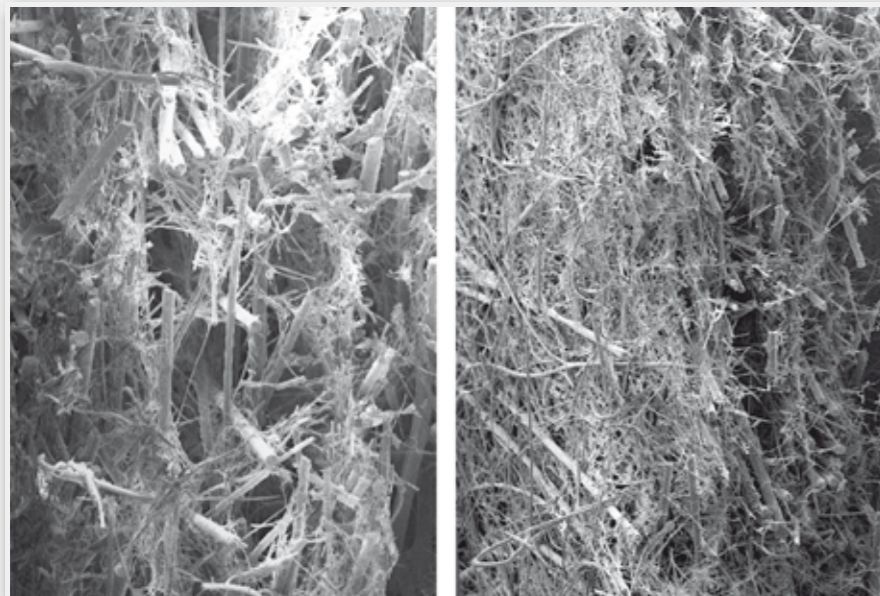
## Final Filter Unit

**EMW® GT Minipleat Compact Filters in Filter Classes F7 – F9 and the ISO 16890 filter groups** are equipped with a fully synthetic nonwoven mat on the outlet side for highest reliability even under heavy-duty conditions, withstanding even highest pressure drops e.g. > 5000 Pa.

In addition, EMW® GT Minipleat compact filters feature enormous surface areas ranging up to 34 m<sup>2</sup>. Filter box versions are available with surface areas of up to 40 m<sup>2</sup>. These high-quality filter media fulfil requirements for highest filtration efficiency of inlet air with virtually constant pressure drop.

### High-Quality Glass-Fibre Media in Action

The outstanding particulate retention of EMW® air filters can be seen in the SEM photographs shown below. EMW® filter media fulfil highest requirements for physical strength and filtration efficiency.



#### Filter Media Comparison

Picture on the left shows a medium in F9, whereas the picture on the right shows a medium in H13 with a much denser fibre structure.



### Filter F7 and ISO ePM<sub>1</sub>

Type		MPK 47 - 20 GT	MPK 37 - 23 GT	MPK 47 - 31 GT
Filter class	(EN 779)	F7	F7	F7
	(ISO 16890)	ISO ePM <sub>1</sub> 55%	ISO ePM <sub>1</sub> 50%	ISO ePM <sub>1</sub> 50%
Dimensions	mm	592 x 592 x 296	592 x 592 x 400	592 x 592 x 400
	inch	23.31 x 23.31 x 11.65	23.31 x 23.31 x 15.75	23.31 x 23.31 x 15.75
Air flow rate		3400 m <sup>3</sup> /h (2000 cfm)	3400 m <sup>3</sup> /h (2000 cfm)	3400 m <sup>3</sup> /h (2000 cfm)
		4250 m <sup>3</sup> /h (2500 cfm)	4250 m <sup>3</sup> /h (2500 cfm)	4250 m <sup>3</sup> /h (2500 cfm)
Initial pressure drop		90 Pa (0.36" wg)	55 Pa (0.22" wg)	60 Pa (0.24" wg)
		115 Pa (0.46" wg)	75 Pa (0.30" wg)	90 Pa (0.36" wg)

### Filter F8 and ISO ePM<sub>1</sub>

Type		MPK 48 - 20 GT	MPK 38 - 23 GT	MPK 48 - 31 GT
Filter class	(EN 779)	F8	F8	F8
	(ISO 16890)	ISO ePM <sub>1</sub> 65%	ISO ePM <sub>1</sub> 65%	ISO ePM <sub>1</sub> 70%
Dimensions	mm	592 x 592 x 296	592 x 592 x 400	592 x 592 x 400
	inch	23.31 x 23.31 x 11.65	23.31 x 23.31 x 15.75	23.31 x 23.31 x 15.75
Air flow rate		3400 m <sup>3</sup> /h (2000 cfm)	3400 m <sup>3</sup> /h (2000 cfm)	3400 m <sup>3</sup> /h (2000 cfm)
		4250 m <sup>3</sup> /h (2500 cfm)	4250 m <sup>3</sup> /h (2500 cfm)	4250 m <sup>3</sup> /h (2500 cfm)
Initial pressure drop		100 Pa (0.40" wg)	90 Pa (0.36" wg)	65 Pa (0.26" wg)
		135 Pa (0.54" wg)	125 Pa (0.50" wg)	90 Pa (0.36" wg)

### Filter F9 and ISO ePM<sub>1</sub>

Type		MPK 49 - 20 GT	MPK 39 - 23 GT	MPK 49 - 31 GT
Filter class	(EN 779)	F9	F9	F9
	(ISO 16890)	ISO ePM <sub>1</sub> 80%	ISO ePM <sub>1</sub> 85%	ISO ePM <sub>1</sub> 80%
Dimensions	mm	592 x 592 x 296	592 x 592 x 400	592 x 592 x 400
	inch	23.31 x 23.31 x 11.65	23.31 x 23.31 x 15.75	23.31 x 23.31 x 15.75
Air flow rate		3400 m <sup>3</sup> /h (2000 cfm)	3400 m <sup>3</sup> /h (2000 cfm)	3400 m <sup>3</sup> /h (2000 cfm)
		4250 m <sup>3</sup> /h (2500 cfm)	4250 m <sup>3</sup> /h (2500 cfm)	4250 m <sup>3</sup> /h (2500 cfm)
Initial pressure drop		105 Pa (0.42" wg)	80 Pa (0.32" wg)	65 Pa (0.26" wg)
		155 Pa (0.62" wg)	115 Pa (0.46" wg)	100 Pa (0.40" wg)

