



EXTINGUISHING RETENTION BUNDS

BAF Line

Use

Mainly used for 100 to 2,500 kVA transformers located inside buildings.
 Capacitors, compensating impedances, auto-transformers, TSA - TCI, inductances coils.
 Self-supporting bunds for up to 12 ton transformers (dimensions and volumes in the appendices).
 Special bunds made to measure for up-to 25 tons transformers.

Test reports issued by the
Centre National de Prévention et de Protection
 N° PE 96 5070 from. 17/12/1996
 N° PE 09 7973 from. 25/05/2009
TÜV Rheinland
 N° 284 090 80-002

ERDF : Authorization N°10E122/ADr to use the extinguishing system

Scope

Achieving compliance with current standard measures against fire hazards. Compliance with French standards **NF C 13 200 (Rev. Sept. 2009)**.

The integrated extinguishing system allows quick dielectric discharge to the bund as well as natural fire suppression.

All the tests videos are available on our website : www.akhelec.com

Description

4 and 5mm thick GALVANIZED sheet steel.
 Grounding system with copper or stainless steel lug.
 Complete dielectric containment. Compliance with standards NF C 13 200.
 Tested sealing. Bunds are **individually tested** through the ARDROX 996 P2 process.
 Extinguishing system relying on galvanized sheet baffles assembled in the factory (**patented system**).
 This system can be fitted on any traditional pit instead of using former pebble beds.

- Optional :**
- ▣ Integrated bearing roller system;
 - ▣ Emptying valve & Siphon 1; 1,5 and 2 inches;
 - ▣ Galvanized grating covering the baffles for the circulation of the personnel;
 - ▣ Silentblocks to be placed under the bund (plates or springs for 99% absorption);
 - ▣ Insulating teflon plates;
 - ▣ **FILTRELEC®**: filtration system (Cartouche de filtration P-PIT®) placed on the drain valve of the bund allowing the rainwater disposal while trapping the traces of hydrocarbon (additional documentation available on request);

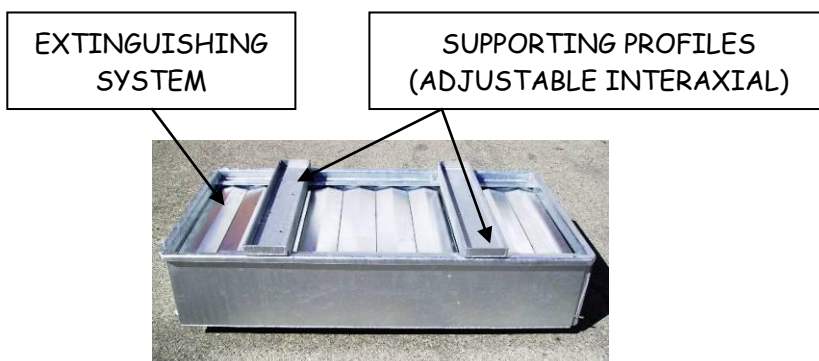
Setting-up :

The transformer is mounted on two specific galvanized profiles with adjustable width depending on the interaxial bearing rollers of the transformer.

Upon request, these profiles can be assembled lengthwise.

The integrated bearing roller system facilitates the implementation of the transformers indoor.

BAF pictures



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Delay : 5 to 6 weeks at reception of the order for the proposed standards models.

BAF & BAFR line	Volume (in liter)		Outer dimensions (mm)			Inner dimensions (mm)			Height option BAFR (mm)	Valve siphon	Weight (kg)	
	with siphon	without siphon	L x	W x	H x	L x	W x	H x			BAF	BAFR
BAF 160 GI	224	277	1325	970	362	1200	890	350	+ 50	1"	165	189
BAF 250 GI	255	315	1445	1000	362	1320	920	350			179	203
BAF 400 GI	299	370	1675	1000	362	1550	920	350			199	223
BAF 630 GI	418	519	1945	1000	412	1820	920	400		1,5"	230	255
BAF 800 GI	532	660	1945	1250	422	1820	1170	400			309	340
BAF 1000 GI	625	775	2125	1330	422	2000	1250	400			342	375
BAF 1250 GI	743	921	2295	1450	422	2170	1370	400			383	420
BAF 1600 GI	826	1025	2375	1550	435	2250	1470	400			443	527
BAF 2000 GI	910	1129	2445	1650	435	2320	1570	400			473	563
BAF 2500 GI	1321	1586	2845	1700	498	2720	1620	450			597	
BAF K5 GI	1067	1394	2416	2040	459	2270	1920	450		800		
BAF K10 GI	2052	2540	3016	2390	655	2870	2270	510		1120		
BAF K20 GI	2552	3099	3416	2350	680	3270	2230	510		1315		

These retention bunds can be manufactured with specific dimensions and for other industrial uses. In this case, please contact us.

OPTIONAL :



INTEGRATED BEARING ROLLER



The transformer wheels are fixed on specific places under the bund. The transformer is mounted directly on the bund profiles so the whole set can be moved easily.

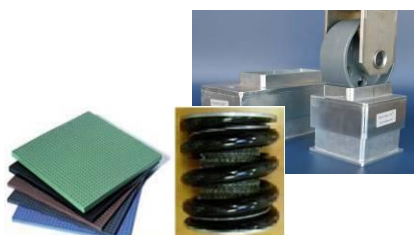


SIPHON

EMPTYING VALVE



P-PIT® filtration cartridge and its pre-filter

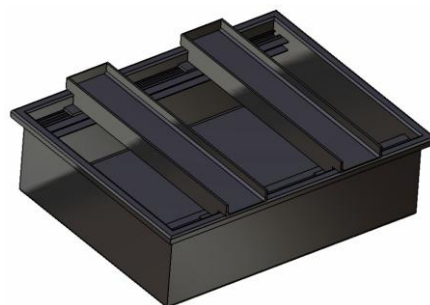


SOUND-REDUCING SYSTEMS

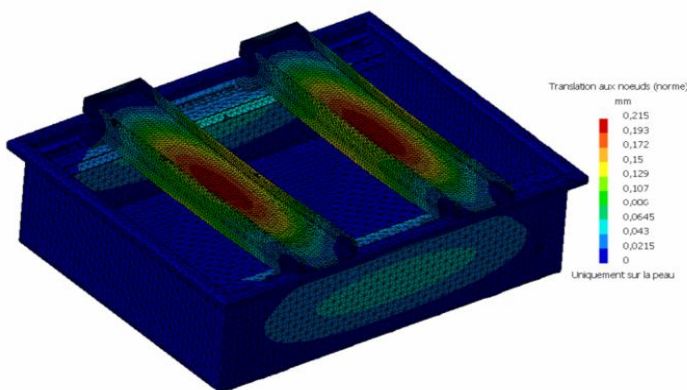


BAF Line	Support beams	Max weight of transformer (in Tons)	Transformer interaxial		
			Minimum (in mm)	Maximum (in mm)	
BAF160	IPE 180 	3.10	400	700	
BAF250		2.70			
BAF400		2.80			
BAF630		3.30			
BAF800		3.50			
BAF1000	IPE 220 	3.81		1000	
BAF1250		3.48			
BAF1600	IPE 270 	4.30		600	1200
BAF2000		4.44			
BAF2500	IPE 330 	5.60			1300
BAFK05		5.10			
BAFK10		10.80			
BAFK20	HEB 220 HEA 220 	9.60	1600		

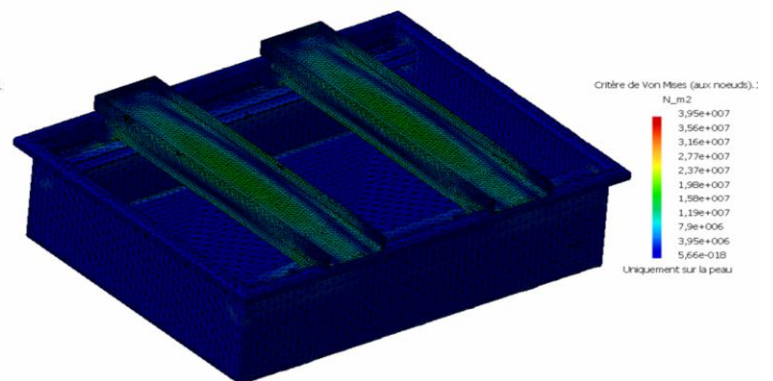
Von Mises criterion $\sigma_{max} = (\sigma^2 + 3\tau^2)^{1/2}$	$\sigma_{max} < \sigma_{adm}$
k = 1.5	$\sigma_{adm} = 2.35 \text{ e}^8 \text{ Mpa}$
E = 210.000 MPa	v = 0.3
T = 20°C	d = 8



3D modeling of the bund



Calculation of deformations of the bund



Calculation of resistance according to Von Mises criterion

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