UFI FILTERS
HYDRAULIC DIVISION

"COMPO CARE" - Pressure filters

PF

UFI FILTERS
HYDRAULIC DIVISION

"COMPO CARE" PRESSURE FILTERS

PF

COMPATIBILITY

Full with fluids:
HH-HL-HM-HR-HV-HG
(according to ISO 6743/4).
For fluids different than the above mentioned, please contact our Sales Department.

PRESSURE

Max working	175 psi (12 bar)
Test	220 psi (15 bar)
Bursting	360 psi (25 bar)
Collapse, differential for the filter element	60 psi (4 bar)

BYPASS VALVE

Setting	25 psi (1,7 bar) +/-10%

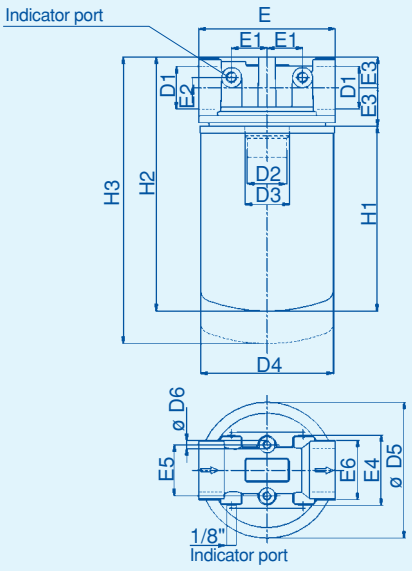
WORKING TEMPERATURE

From -15° to +230° F

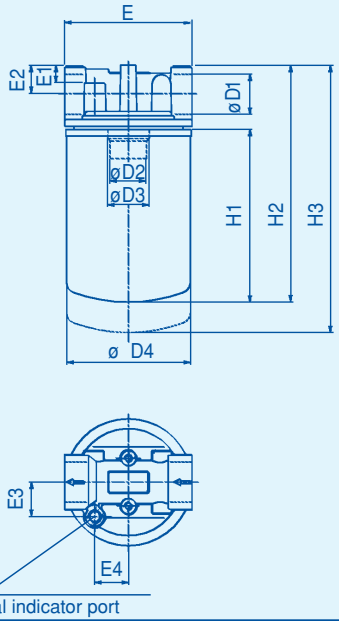
MATERIALS

Head	Aluminium alloy
Spin-on cartridge	Steel
Bypass valve	Polyammide
Seals	Nitrile (NBR) (FKM - on request fluoroelastomer)
Indicator housing	Brass

FPF 1+ & FPF 2+



FPFA+ & FPFB+



	D1	D2	D3	D4	D5	D6	E	E1	E2	E3	E4	E5	E6	H1	H2	H3	Weight lbs
FPF11	3/4"	1" - 12 UNF	=	3.78	3.78	5/16"UNC	3.74	0.80	0.27	0.78	1.92	1.26	1.45	5.70	7.40	8.18	2.6
FPF12	3/4"	1" - 12 UNF	=	3.78	3.78	5/16"UNC	3.74	0.80	0.27	0.78	1.92	1.26	1.45	7.52	9.21	10	3.3
FPF21	1 1/4"	1 1/2" 16-UN	1 1/4" BSP	5.07	5.27	5/16"UNC	5.23	1.37	0.39	1.18	2.52	1.96	2.24	7.12	9.76	10.94	4.2
FPF22	1 1/4"	1 1/2" 16-UN	1 1/4" BSP	5.07	5.27	5/16"UNC	5.23	1.37	0.39	1.18	2.52	1.96	2.24	8.89	11.53	12.71	4.4
FPFA1	3/4"	3/4" BSP	=	3.78	3.78	5/16"UNC	3.74	-	0.90	0.96	0.84	1.49	1.26	5.70	7.40	8.18	2.6
FPFA2	3/4"	3/4" BSP	=	3.78	3.78	5/16"UNC	3.74	-	0.90	0.96	0.84	1.49	1.26	7.52	9.21	10	3.3
FPFB1	1 1/4"	1 1/2" 16-UN	1 1/4" BSP	5.07	5.27	5/16"UNC	5.23	0.74	1.18	1.41	1.37	1.96	2.12	7.12	9.76	10.94	4.2
FPFB2	1 1/4"	1 1/2" 16-UN	1 1/4" BSP	5.07	5.27	5/16"UNC	5.23	0.74	1.18	1.41	1.37	1.96	2.12	8.89	11.53	12.71	4.4

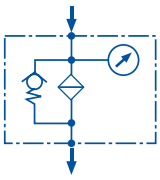
PF "COMPO CARE" PRESSURE FILTERS

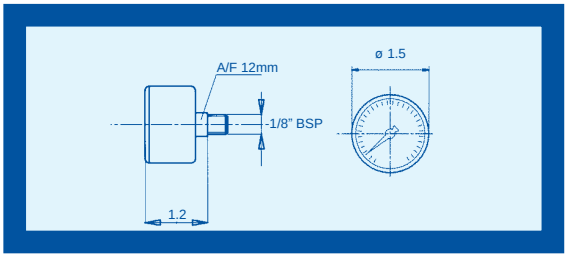
ORDERING AND OPTIONS CHART

P F	F	FILTER COMPLETE								ELEMENT	E
		FAMILY NOMINAL SIZE & LENGTH	11	12	21	22	A1	A2	B1	B2	FAMILY SIZE & LENGTH	S F
		PORT TYPE										
		N = BSP thread	N	N	N	N	N	N	N	N		
		PORT SIZE										
		06 = 3/4	06	06	-	-	06	06	-	-		
		10 = 1" 1/4	-	-	10	10	-	-	10	10		
		BYPASS VALVE										
		W = without	W	W	W	W	W	W	W	W		
		B = 25 psi (1.7 bar)	B	B	B	B	B	B	B	B		
		SEALS									SEALS	
		N = NBR Nitrile	N	N	N	N	N	N	N	N	N = NBR	
		F = FKM Fluoroelastomer	F	F	F	F	F	F	F	F	F = FKM	
		FILTER MEDIA									FILTER MEDIA	
		FA = fiber 3 μ β >200	FA	FA	FA	FA	FA	FA	FA	FA	FA = fiber 3 μ	
		FB = fiber 6 μ β >200	FB	FB	FB	FB	FB	FB	FB	FB	FB = fiber 6 μ	
		FC = fiber 12 μ β >200	FC	FC	FC	FC	FC	FC	FC	FC	FC = fiber 12 μ	
		FD = fiber 25 μ β >200	FD	FD	FD	FD	FD	FD	FD	FD	FD = fiber 25 μ	
		CC = cellulose 10 μ β >2	CC	CC	CC	CC	CC	CC	CC	CC	CC = cellulose 10 μ	
		CD = cellulose 25 μ β >2	CD	CD	CD	CD	CD	CD	CD	CD	CD = cellulose 25 μ	
		CLOGGING INDICATOR										
		06 = 1/8" ports, plugged	06	06	06	06	-	-	-	-		
		31 = pressure gauge, rear connection	31	31	31	31	-	-	-	-		
		80 = pressure switch, N.O. contacts	80	80	80	80	-	-	-	-		
		81 = pressure switch, N.C. contacts	81	81	81	81	-	-	-	-		
		0U = ports, plugged	-	-	-	-	0U	0U	0U	0U		
		U0 = differential, visual, 20 psi (1.3 bar)	-	-	-	-	U0	U0	U0	U0		
		N0 = differ. vis-electrical, 20psi (1.3 bar)	-	-	-	-	N0	N0	N0	N0		
	X	ACCESSORIES										
		X = no accessory available	X	X	X	X	X	X	X	X		

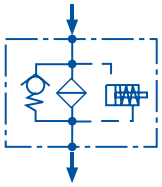
CLOGGING INDICATORS

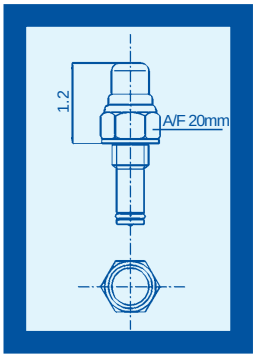
Series 31



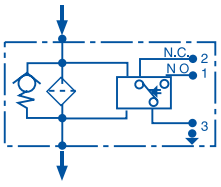


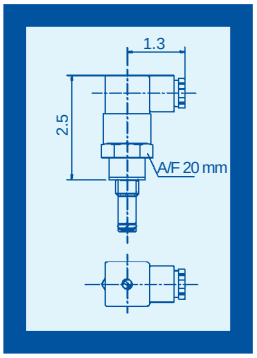
Series U0



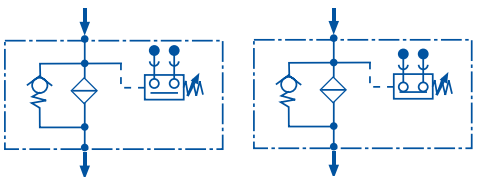


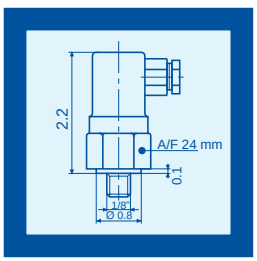
Series N0





Series 80 (N.O. contacts) & series 81(N.C. contacts)





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"COMPO CARE" PRESSURE FILTERS

PF

COMPATIBILITY

Full with fluids:
HH-HL-HM-HR-HV-HG
(according to ISO 6743/4).
For fluids different than the above mentioned, please contact our Sales Department.

PRESSURE

Max working	175 psi (12 bar)
Test	220 psi (15 bar)
Bursting	360 psi (25 bar)
Collapse, differential for the filter element	60 psi (4 bar)

BYPASS VALVE

Setting	25 psi (1,7 bar) +/-10%

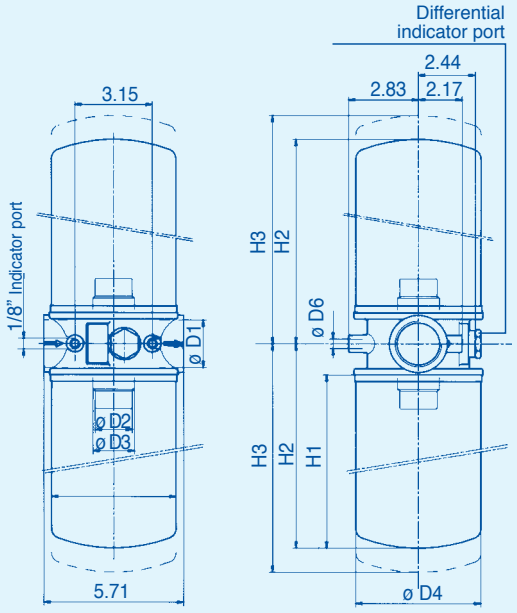
WORKING TEMPERATURE

From -15° to +230° F

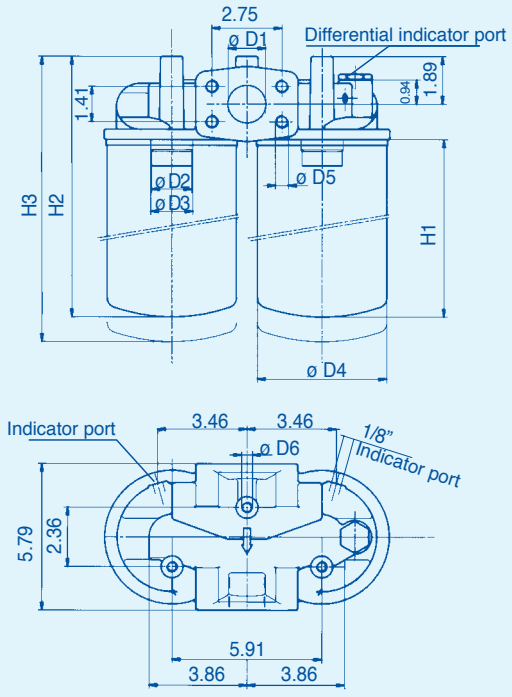
MATERIALS

Head	Aluminium alloy
Spin-on cartridge	Steel
Bypass valve	Polyammide
Seals	Nitrile (NBR) (FKM - on request fluoroelastomer)
Indicator housing	Brass

FPF 3+



FPF 4+



	D1	D2	D3	D4	D5	D6	H1	H2	H3	Weight lbs
FPF31	1 1/2"	1 1/2" 16-UN	1 1/4" BSP	5.0	=	3/8"UNC	7.12	8.50	9.68	7.9
FPF32	1 1/2"	1 1/2" 16-UN	1 1/4" BSP	5.0	=	3/8"UNC	8.89	10.27	11.45	8.3
FPF41	1 1/2"	1 1/2" 16-UN	1 1/4" BSP	5.0	1/2" UNC	3/8"UNC	7.12	10.59	11.77	10.5
FPF42	1 1/2"	1 1/2" 16-UN	1 1/4" BSP	5.0	1/2" UNC	3/8"UNC	8.89	12.36	13,54	11

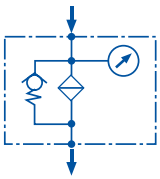
PF "COMPO CARE" PRESSURE FILTERS

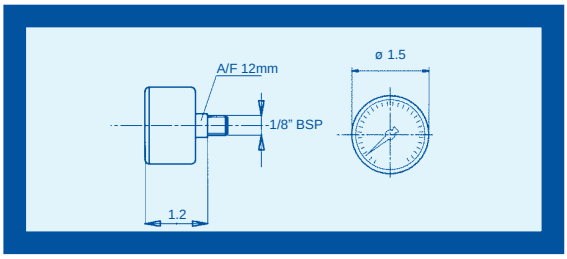
ORDERING AND OPTIONS CHART

P E	F FILTER COMPLETE FAMILY NOMINAL SIZE & LENGTH	31	32	41	42	ELEMENT E FAMILY SIZE & LENGTH S E
	PORT TYPE					NOTE : ESE31+++ = nr. 2 x ESE21+++ ESE32+++ = nr. 2 x ESE22+++ ESE41+++ = nr. 2 x ESE21+++ ESE42+++ = nr. 2 x ESE22+++
	N = BSP thread	N	N	N	N	
	D = SAE flange 3000 psi	-	-	D	D	
	PORT SIZE					
	12 = 1" 1/2	12	12	12	12	
	BYPASS VALVE					
	W = without	W	W	W	W	
	B = 25 psi (1.7 bar)	B	B	B	B	
	SEALS					SEALS
	N = NBR Nitrile	N	N	N	N	N = NBR
	F = FKM Fluoroelastomer	F	F	F	F	F = FKM
	FILTER MEDIA					FILTER MEDIA
	FA = fiber 3 μ β >200	FA	FA	FA	FA	FA = fiber 3 μ
	FB = fiber 6 μ β >200	FB	FB	FB	FB	FB = fiber 6 μ
	FC = fiber 12 μ β >200	FC	FC	FC	FC	FC = fiber 12 μ
	FD = fiber 25 μ β >200	FD	FD	FD	FD	FD = fiber 25 μ
	CC = cellulose 10 μ β >2	CC	CC	CC	CC	CC = cellulose 10 μ
	CD = cellulose 25 μ β >2	CD	CD	CD	CD	CD = cellulose 25 μ
	CLOGGING INDICATOR					
	06 = 1/8" ports, plugged	06	06	06	06	
	31 = pressure gauge, rear connection	31	31	31	31	
	80 = pressure switch, N.O. contacts	80	80	80	80	
	81 = pressure switch, N.C. contacts	81	81	81	81	
	03 = ports, plugged	03	03	03	03	
	50 = differential, visual, 20 psi (1.3 bar)	50	50	50	50	
	60 = differ. electrical, 20 psi (1.3 bar)	60	60	60	60	
	70 = differ. vis-electrical, 20 psi (1.3 bar)	70	70	70	70	
	T0 = ind. 60 + thermostat 30°C	60	60	60	60	
X	ACCESSORIES					
	X = no accessory available	X	X	X	X	

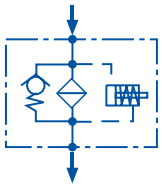
CLOGGING INDICATORS

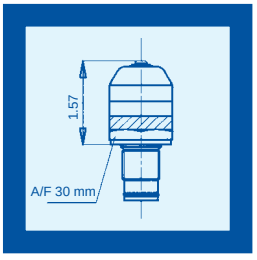
Series 31



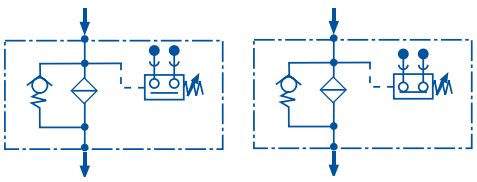


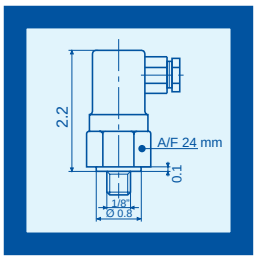
Series 50



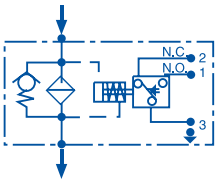


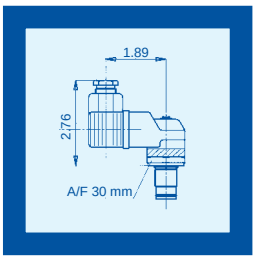
Series 80 (N.O. contacts) & series 81(N.C. contacts)





Series 70

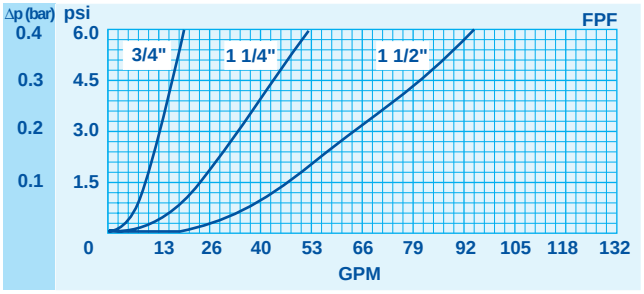




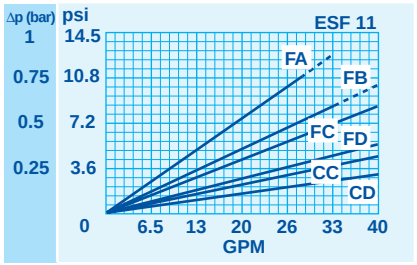
PRESSURE DROP (Δp) CURVES

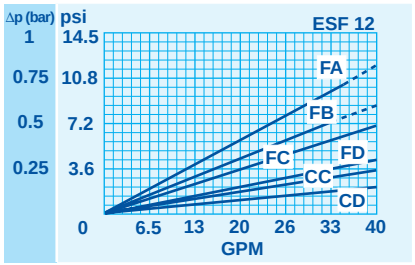
The "Assembly Pressure Drop (Δp)" is obtained by adding the pressure drop values of the filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 7 psi (0,5 bar).

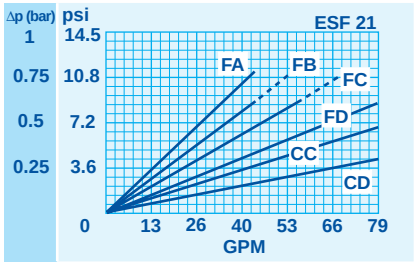
FILTER HOUSING PRESSURE DROP
(mainly depending on the port size)

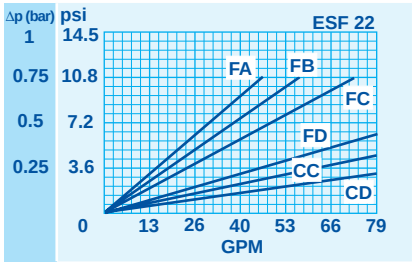


CLEAN FILTER ELEMENT PRESSURE DROP
(depending both on the internal diameter of the element and on the filter media)







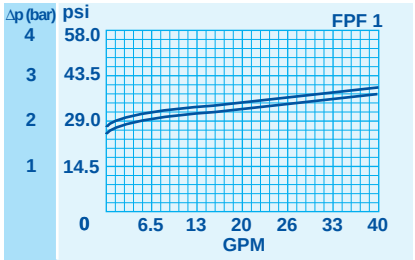


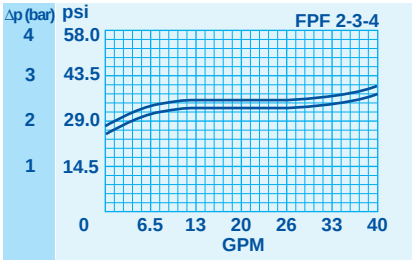
FPF3+ and FPF4+ filters use double element canisters. The Assembly Pres-sure Drop is therefore determined by adding the Housing Pressure Drop at the real flow rate and half the pressure drop of the ESF2+ element.
e.g. The pressure drop of a complete FPF31-----FC--- filter at a 16 GPM flow rate is obtained by adding the Housing Pressure Drop and half the ESF21NFC element pressure drop at 16 GPM.

N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0.9; for fluids with different features, please consider the factors described in the first part of this catalogue.

BYPASS VALVE PRESSURE DROP

When selecting the filter size, these curves must be taken into account if it is foreseen that any flow peak is to be absorbed by the bypass valve, it also must be of proper configuration to avoid pressure peaks. The valve pressure drop is directly proportional to fluid specific gravity.



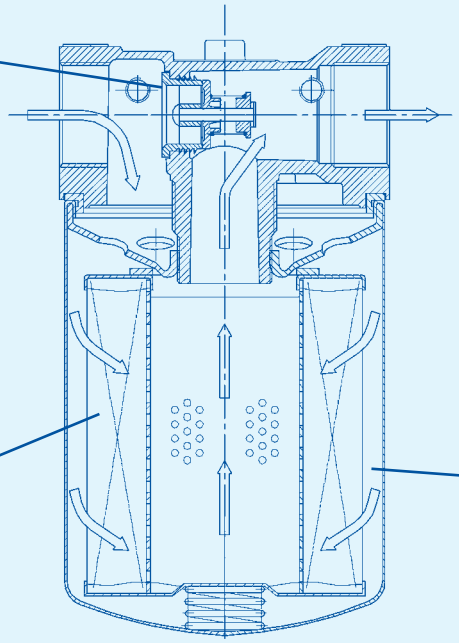


N.B. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

PF "COMPO CARE" PRESSURE FILTERS

CROSS FUNCTIONAL VIEW

BYPASS VALVE
In the head, a full-flow bypass valve can be mounted as an option; the bypass flow is designed in such a way that the contaminant is retained in the filter element during bypass conditions.



STRONG CONSTRUCTION
The materials and the design ensure a superior resistance to fatigue even at working pressures up to 174 psi(12 bar).

"LONG LIFE" FILTER ELEMENT
The filter elements are designed with a very large filter area giving a highest dirt holding capacity.

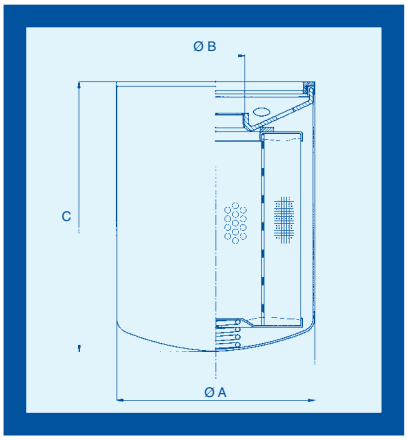
EASY MAINTENANCE
The spin-on cartridge filter element allows a easy and quick replacement of the element itself.

SPARE PARTS ORDERING INFORMATION

(from the code of the complete filter, fill the digits corresponding to the boxes)

Head	B P F ☐ X ☐ ☐ ☐ ☐ ☐ X X ☐ ☐ X
Seal kit	S P F ☐ X X X X X ☐ X X X X X

DIMENSIONS OF THE FILTER ELEMENT



Type	A	B	C	Area (in²) Media F+	Area (in²) Media C+
E SF11	3.80	1" 12 UNF	5.75	331.7	512.3
E SF12	3.80	1" 12 UNF	7.52	562.7	735.5
E SF21	5.08	1 1/2" 16 UNF	6.93	615.4	768.8
E SF22	5.08	1 1/2" 16 UNF	10.71	1,091.2	1,364.0

UFI Universal Filter International - Hydraulic Division: 9337 Ravenna Road, Unit G - Twinsburg, OH 44087
Phone (330) 4051800 - Fax (330) 4051801 - E-mail: ufifilters@uhiltd.com

UFI HYDRAULIC DIVISION - PLANET FILTERS S.p.A.
via S.Chierico, 24 - 24060 Bolgare BG - Tel. 035 4493831 - Fax 035 843743
e-mail: info@ufifilter.it - http://www.ufifilter.com