

PRODUCT INDEX

























Hydraulic monitoring and testing equipment ensure fluid diagnostics are quick and easy to achieve.

Ideal for mobile and static plant, the range of Minimes and HSP test points, SNA adaptors, gauges and microbore hose assemblies provide in-line pressure rating for hydraulic circuits. These test products are available in handy kit form or as individual items. Microbore test point hoses can be custom manufactured to suit your needs.

Temperature sensors, flow turbines, pressure transducers and flow meters provide industry standard outputs and a high degree of accuracy when measuring oil functionality in operation. These items are ideal for test, R&D and service engineers working in the field.

Portable test equipment monitors all aspects of oil diagnosis. Simple hand held devices, through to online hydro Comsys software enabled instruments, ensure oil analysis has never been easier. GSM text alert can send information direct to your phone or by email to your computer; ensuring contamination or system health checks are available round the clock- even from remote locations.

Portable oil filtration carts are designed for constant or intermittent oil flushing and contamination control. Water removal and 0.5 to 28 micron elements allow users to select the most appropriate cleanliness level for the system. Filter carts can achieve cleanliness levels up to ISO 13/11/8 (NAS Class 2.)

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Pressure Filters

All our High Pressure filters are designed to be connected on the pressure line of the hydraulic circuit to provide filtration of contamination particles.

In Line Low Pressure Filter



Aluminium Head • Steel Bowl • Buna Seals • C/W Visual Indicator • Flow Rating up to 70 L/min
 Max Working Pressure 25 Bar • Testing Pressure 50 Bar • Burst Pressure 75 Bar
 Operating Temperature with Buna Seals -30 +90(°C) with Viton Seals -20 +110(°C)

Part Number	Thread	Flow Rate L/min	Part Number
10 MICRON			
Replacement Elements			
HHE46455	¾" BSP	50	HHC02875
HHE46575	¾" BSP	60	HHC02980
25 MICRON			
HHE46475	¾" BSP	60	HHC02890
HHE46595	¾" BSP	70	HHC02995

In Line Medium Pressure Filter HF650 Series



Aluminium Head • Steel Bowl • Buna Seals • C/W Visual Indicator • Flow Rating up to 140 L/min
 Max Working Pressure 35 Bar • Testing Pressure 70 bar • Burst Pressure 105 Bar
 Operating Temperature with Buna Seals -30 +90(°C) with viton seals -20 +110(°C)

Part Number	Thread	Flow Rate L/min	Part Number
10 MICRON			
Replacement Elements			
HHE70360	¾" BSP	65	HHC02706
HF650/002	1" BSP	85	HHC02706
HF650/003	¾" BSP	100	HHC02731
HF650/004	1" BSP	105	HHC02731
HF650/005	¾" BSP	105	HHC02756
HF650/006	1" BSP	110	HHC02756
25 MICRON			
HF650/007	¾" BSP	80	HHC02707
HF650/008	1" BSP	100	HHC02707
HF650/009	¾" BSP	110	HHC02732
HF650/010	1" BSP	120	HHC02732
HF650/011	¾" BSP	130	HHC02757
HF650/012	1" BSP	140	HHC02757

In Line Medium Pressure Filter



Inline medium pressure filters available ex stock in 3 micron

These in line medium pressure filters are specifically designed to be connected on the pressure line of the hydraulic circuit and provide versatility to safeguard the circuit components from contaminating particles.

Aluminium Head • Aluminium Bowl • Buna Seals • Flow Range 10-80 L/min
 Max Working Pressure 110 Bar • Testing Pressure 160 Bar • Burst Pressure 330 Bar
 Operating Temperature with Buna Seals -20 +80(°C) with Viton Seals -20 +110(°C)
 with fluid (HH-HL-HM-HR-HV-HG) and water emulsion (HFAE-HFAS) use buna seals
 with synthetic fluid (HS-HFDR-HFDU-HFDS) use viton seals

Part Number	Thread	Flow Rate L/min	Part Number
6 MICRON			
Replacement Elements			
HHP20035	½" BSP	15	HHC46011
HHP20535	½" BSP	45	HHC46051
10 MICRON			
HHP20155	½" BSP	25	HHC46015
HHP20655	½" BSP	60	HHC46055
25 MICRON			
HHP20185	½" BSP	40	HHC46016
HHP20685	½" BSP	80	HHC46056

In Line High Pressure Filter

The in line high pressure filter HF705 series are specifically designed to be connected on the pressure line of the hydraulic circuit and provide versatility to safeguard the circuit components from contaminating particles.

Aluminium Galvanised Body • Sintered Bronze Filter Media • Buna Seals • Flow Range 10-60 L/min
Max Working Pressure 350 Bar • Testing Pressure 500 Bar • Burst Pressure 800 Bar
Operating Temperature with Buna Seals -30 +90(°C) with viton seals -20 +110(°C)

Part Number	Thread	Flow Rate L/min	Micron Rating Sintered Bronze Media	Part Number Replacement
HHQ00030	1/4" BSP	10	10	HHC03050
HHQ00031	1/4" BSP	15	25	HHC03051
HHQ00032	1/4" BSP	20	40	HHC03052
HHQ00033	1/4" BSP	25	60	HHC03053
HHQ00034	3/8" BSP	25	10	HHC03050
HHQ00035	3/8" BSP	35	25	HHC03051
HHQ00036	3/8" BSP	45	40	HHC03052
HHQ00037	3/8" BSP	55	60	HHC03053
HHQ00038	1/2" BSP	30	10	HHC03050
HHQ00039	1/2" BSP	40	25	HHC03051
HHQ00040	1/2" BSP	50	40	HHC03052
HHQ00041	1/2" BSP	60	60	HHC03053



Bi-Directional Flow

In Line Medium Pressure Filter

The filter HF745 is suitable for working pressure up to 280 bar.

Cast Iron Head • Steel Bowl • Buna Seals • C/W Visual Indicator • Flow Rating up to 90 l/min
Max Working Pressure 280 Bar • Testing Pressure 420 Bar • Burst Pressure 560 Bar
Operating Temperature with Buna Seals -30 +90(°C) with Viton Seals -20 +110(°C)

Part Number	Thread	Flow Rate L/min	Part Number Replacement Elements
10 MICRON			
HHP50434	1/2" BSP	35	HHC745A
HF745/1	3/4" BSP	40	HHC745B
HF745/2	1/2" BSP	45	HHC745C
HF745/3	3/4" BSP	50	HHC745D
HF745/4	1/2" BSP	60	HHC745E
HF745/5	3/4" BSP	70	HHC745F
25 MICRON			
HF745/6	1/2" BSP	45	HHC745G
HF745/7	3/4" BSP	50	HHC745H
HHP51634	1/2" BSP	60	HHC745J
HF745/9	3/4" BSP	70	HHC745K
HF745/10	1/2" BSP	80	HHC745M
HF745/11	3/4" BSP	90	HHC745P



High Pressure Filters

In Line High Pressure filters series 760 are designed to be connected on the pressure line of the hydraulic circuit.



Cast Iron Body GS 450-10 uni 1801083 • Bowl: Extruded Steel • Seals: Buna • Flow Range: 30-450 L/min
 Max Working Pressure: 420 Bar • Operating Temperature -30 +90°C • C/W Bypass Set at 6 Bar • C/W Visual Differential Indicator

Part Number 10 MICRON	Thread BSP	L/min	Part Number Replacement Element	Part Number 25 MICRON	Thread BSP	L/min	Part Number Replacement Element
HHP02037	1/2"	35	HHC01902	HHP02041	1/2"	45	HHC01903
HHP02033	3/4"	40	HHC01902	HHP02032	3/4"	50	HHC01903
HHP02050	1/2"	45	HHC01906	HHP02075	1/2"	60	HHC01907
HHP02103	3/4"	50	HHC01906	HHP02198	3/4"	70	HHC01907
HHP03117	1/2"	60	HHC01910	HHP03114	1/2"	80	HHC01911
HHP03121	3/4"	70	HHC01910	HHP03118	3/4"	90	HHC01911
HHP03141	3/4"	70	HHC01914	HHP03147	3/4"	90	HHC01915
HHP03138	1"	75	HHC01914	HHP03144	1"	100	HHC01915
HHP03251	3/4"	120	HHC01918	HHP03262	3/4"	130	HHC01919
HHP03139	1"	130	HHC01918	HHP03167	1"	150	HHC01919
HHP03641	1"	140	HHC01942	HHP03701	1"	170	HHC01943
HHP03662	1 1/4"	150	HHC01942	HHP03721	1 1/4"	190	HHC01943
HHP03682	1 1/2"	150	HHC01942	HHP03742	1 1/2"	200	HHC01943
HHP03918	1"	170	HHC01930	HHP03981	1"	210	HHC01931
HHP03941	1 1/4"	190	HHC01930	HHP04005	1 1/4"	225	HHC01931
HHP03959	1 1/2"	200	HHC01930	HHP04022	1 1/2"	240	HHC01931
HHP04151	1"	240	HHC01922	HHP04172	1"	250	HHC01923
HHP04161	1 1/4"	260	HHC01922	HHP04181	1 1/4"	280	HHC01923
HHP04098	1 1/2"	280	HHC01922	HHP04108	1 1/2"	300	HHC01923
HHP04252	1"	280	HHC01926	HHP04272	1"	300	HHC01927
HHP04267	1 1/4"	310	HHC01926	HHP04282	1 1/4"	330	HHC01927
HHP04263	1 1/2"	320	HHC01926	HHP04207	1 1/2"	350	HHC01927
HHP05850	1 1/2"	375	HHC01964	HHP05950	1 1/2"	450	HHC01965

OPTIONS AVAILABLE UPON REQUEST

- 3 micron glassfibre
- 6 micron glassfibre
- 210 bar element collapse pressure rating
- Reversing flow with/without bypass valve
- Metric/npt ports
- Viton seals
- Electrical differential indicator
- Visual electrical differential indicator
- Electrical indicator with thermostat
- Visual electrical differential indicator with thermostat

In Line Return and Suction Filters

These filters are designed specifically to be connected on the return line of any hydraulic circuit to provide safeguard from contaminating particles.

Aluminium Head • Steel Bowl • Buna-viton Seals • C/W Visual Indicator (HF620-20)
C/W Visual Indicator (HF620-40) • Flow Range 20-400 L/min • Max Working Pressure 7 Bar
Testing Pressure 10 Bar • Burst Pressure 15bm • 3 and 6 Micron available
Operating Temperature -30 +90 (°C) Buna Seals -20 +110 (°C) Viton Seals • Bypass Valve

Part Number	Thread	Flow Rate L/min	Part number Replacement Element
10 MICRON Cellulose – Return			
HHE13576	¾" BSP	50	HHC01838
HHE18201	¾" BSP	60	HHC01836
HHE20032	1 ¼" BSP	140	HHC01834
HHE24123	1 ¼" BSP	160	HHC01832
HHE30205	1 ½" BSP	300	HHC01834*
HHE35195	1 ½" BSP	320	HHC01832*
25 MICRON Cellulose – Return			
HHE13174	¾" BSP	60	HHC01841
HHE18214	¾" BSP	70	HHC01806
HHE20028	1 ¼" BSP	180	HHC01843
HHE25214	1 ¼" BSP	190	HHC01816
HHE30190	1 ½" BSP	340	HHC01843*
HHE35131	1 ½" BSP	360	HHC01816*
60 MICRON Wiremesh – Suction			
HHE13054	¾" BSP	30	HHC01822
HHE20532	1 ¼" BSP	110	HHC01824
HHE30152	1 ½" BSP	220	HHC01824*
125 MICRON Wiremesh – Suction			
HHE13062	¾" BSP	40	HHC01827
HHE20552	1 ¼" BSP	120	HHC01809
HHE30172	1 ½" BSP	240	HHC01809*



* 2 OF REQUIRED

Suction and Return Line Filters

Anodised Aluminium Construction • Buna-viton Seals • Complete with Visual Indicator and Bypass
Flow Range 20-180 L/min • Max Working Pressure 40Bar (ask for details)
Operating Temperature -30 +90(°C) Buna Seals • Operating Temperature -20 +110(°C) Viton Seals
1/2" Ports and 1" Ports available upon request • 60 micron filtration available upon request

Part Number	Thread	Flow Rate L/min	MICRON Rating	Max Operating Pressure Bar	Part Number Replacement Element
RETURN • BYPASS 1.5Bar					
HHL01512	¾" BSP	35	10	35	HHC01104
HHL01527	¾" BSP	45	25	35	HHC01130
HHL01712	1 ¼" BSP	115	10	25	HHC01115
HHL01722	1 ¼" BSP	135	25	25	HHC01116
SUCTION • BYPASS 0.2 Bar					
HHL01514	1 ¼" BSP	160	125	35	HHC01131
HHL01717	1 ¼" BSP	180	125	25	HHC01145

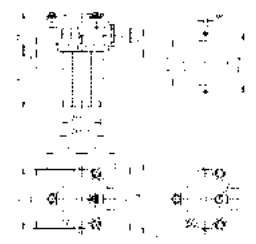


Tank Top Filter Suction Line Only

For mounting on top of a hydraulic tank to protect the suction line to the system pump from contaminating particles.

Filter Housing Aluminium Only • Seals available – Buna/Viton
Flow Range 15 L/min – 40 l/min. • Operating Temperature -30 +80(°C) Buna Seals,
-20 +110 (°C) Viton Seals • Not fitted with vis. indicator

Part Number	Thread	Flow Rate L/min	Part Number Replacement Elements
90 MICRON Steel Wiremesh			
HHL00100	½" BSP	25	HHC05000
HHL00200	¾" BSP	30	HHC05000
HHL00250	½" BSP	35	HHC05050
HHL00300	¾" BSP	40	HHC05050



Suction Strainers

Tank submerged suction strainers are fitted directly on the pump intake and provide filtration of contamination particles to the hydraulic pump system.



End Caps • Stainless Steel Media 125 micron

Flow Range 15-180 L/min • Operating Temp +90(OC) • Seals Buna

Part Number	Flow Rate	A (Thread)	B (Length)	C (O/D)
FSP003	15 L/min	½ BSP	104	44
FSP005	25 L/min	¾ BSP	127	63
FSP010	50 L/min	1 BSP	159	63
FSP015	100 L/min	1 ½ BSP	210	86
FSP040	180 L/min	2 BSP	311	86.5



Max Flow Rate: 500 L/min • Collapse Pressure: 1 Bar

Working Temperature -30°C to 110°C • Head: Nylon

Endcap: Carbon Steel • Wire Mesh: 125 micron
(60, 90 and 250 micron available upon request)

Part Number	Flow Rate	A (Thread)	B (Length)	C (O/D)
FS110B2T125	12 L/min	⅜ BSP	90	46
FS111B3T125	15 L/min	½ BSP	105	46
FS120B4T125	30 L/min	¾ BSP	109	64
FS121B5T125	35 L/min	1 BSP	139	64
FS130B5T125	40 L/min	1 BSP	139	86
FS131B6T125	45 L/min	1 ¼ BSP	139	86
FS132B7T125	50 L/min	1 ½ BSP	139	86
FS133B7T125	90 L/min	1 ½ BSP	200	86
FS134B8T125	120 L/min	2 BSP	260	86
FS140B7T125	95 L/min	1 ½ BSP	151	150
FS141B8T125	100 L/min	2 BSP	151	150
FS142B9T125	180 L/min	2 ½ BSP	211	150
FS143B10T125	300 L/min	3 BSP	272	150

Max Flow Rate: 500 L/min • Collapse Pressure: 1 Bar
 Working Temperature -30°C to 110°C
 Head: Nylon • Endcap: Carbon Steel
 Wire Mesh: 125 micron
 (60, 90 and 250 micron available upon request)

Part Number	Flow Rate	A (Thread)	B (Length)	C (O/D)
FS150B2T125	15 L/min	3/8 BSP	83	52
FS150B3T125	20 L/min	1/2 BSP	83	52
FS160B3T125	20 L/min	1/2 BSP	104	70
FS160B4T125	30 L/min	3/4 BSP	104	70
FS160B5T125	45 L/min	1 BSP	104	70
FS160B6T125	55 L/min	1 1/4 BSP	104	70
FS162B3T125	25 L/min	1/2 BSP	149	70
FS162B4T125	40 L/min	3/4 BSP	149	70
FS162B5T125	55 L/min	1 BSP	149	70
FS162B6T125	60 L/min	1 1/4 BSP	149	70
FS170B5T125	60 L/min	1 BSP	155	99
FS170B6T125	80 L/min	1 1/4 BSP	155	99
FS170B7T125	90 L/min	1 1/2 BSP	155	99
FS170B8T125	100 L/min	2 BSP	155	99
FS173B5T125	60 L/min	1 BSP	195	99
FS173B6T125	90 L/min	1 1/4 BSP	195	99
FS173B7T125	120 L/min	1 1/2 BSP	195	99
FS173B8T125	130 L/min	2 BSP	195	99
FS176B5T125	65 L/min	1 BSP	228	99
FS176B6T125	110 L/min	1 1/4 BSP	228	99
FS176B7T126	130 L/min	1 1/2 BSP	228	99
FS176B8T125	140 L/min	2 BSP	228	99
FS179B5T125	25 L/min	1 BSP	109	99
FS179B6T125	40 L/min	1 1/4 BSP	109	99
FS179B7T125	55 L/min	1 1/2 BSP	109	99
FS179B8T125	60 L/min	2 BSP	109	99
FS180B8T125	140 L/min	2 BSP	202	130
FS180B9T125	160 L/min	2 1/2 BSP	202	130
FS180B10T125	200 L/min	3 BSP	202	130
FS181B8T125	130 L/min	2 BSP	162	130
FS181B9T125	150 L/min	2 1/2 BSP	162	130
FS181B10T125	190 L/min	3 BSP	162	130
FS183B8T125	200 L/min	2 BSP	235	130
FS183B9T125	220 L/min	2 1/2 BSP	235	130
FS183B10T125	240 L/min	3 BSP	235	130
FS186B8T125	250 L/min	2 BSP	279	130
FS186B9T125	270 L/min	2 1/2 BSP	279	130
FS186B10T125	300 L/min	3 BSP	279	130



Tank Top Return Filters

These filters are designed specifically to be directly connected on the hydraulic return line on top of the hydraulic reservoir to provide safeguard from contaminating particles.

Aluminium Cover and Housing • Steel Bowl • Buna Seals • C/W Visual Indicator • Flow range up to 600 L/min
 Adjustable Bypass Valve • Max Working Pressure 8 Bar • Testing Pressure 12 Bar
 Burst Pressure 16 Bar • Operating Temperature -30 +80 (OC), Viton Seals -20 +110 (OC)



Part Number	Thread	Flow Rate L/min	Part Number Replacement Elements
10 MICRON			
HER00512	3/8" BSP	15	HHC03423
HER00670	1/2" BSP	20	HHC03423
HER01070	3/4" BSP	25	HHC03423
HER04570	1/2" BSP	35	HHC03554
HER04053	3/4" BSP	40	HHC03554
HER10200	3/4" BSP	55	HHC03577
HER10530	1" BSP	65	HHC03577
HER15555	3/4" BSP	90	HHC03612
HER16055	1" BSP	100	HHC03612
HER20070	1" BSP	85	HHC10149
HER20165	1 1/4" BSP	95	HHC10149
HER20370	1" BSP	100	HHC10192
HER20466	1 1/4" BSP	120	HHC10192
HER1	1 1/4" BSP	130	HHC10501
HER45590	1 1/2" BSP	140	HHC43977
HER3	2"	150	HHC01303
HER4	2"	200	HHC00024
HER5	1 1/2" BSP	205	HHC11131
HER6	2" BSP	305	HHC11131
HER7	2" BSP	400	HHC00028
25 MICRON			
HER00272	3/8" BSP	20	HHC03430
HER00756	1/2" BSP	25	HHC03430
HER00764	3/4" BSP	30	HHC03430
HER04446	1/2" BSP	40	HHC03561
HER04062	3/4" BSP	45	HHC03561
HER10313	3/4" BSP	60	HHC03584
HER10414	1" BSP	70	HHC03584
HER16048	3/4" BSP	100	HHC03619
HER16421	1" BSP	110	HHC03619
HER20086	1" BSP	95	HHC10152
HER20187	1 1/4" BSP	105	HHC10152
HER20387	1" BSP	120	HHC10191
HER20493	1 1/4" BSP	130	HHC10191
HER43220	1 1/4" BSP	140	HHC10500
HER8	1 1/2" BSP	150	HHC45980
HER9	2" BSP	240	HHC00022
HER10	2" BSP	320	HHC10950
HER11	1 1/2" BSP	225	HHC01205
HER12	2" BSP	325	HHC01205
HER52510	2" BSP	500	HHC00029

Reinforced Nylon Plastic Cover • Aluminium Housing • Reinforced Nylon Bowl • Buna Seals
Flow Range 20-600 L/min • Adjustable Bypass Valve • Max Working Pressure 8 Bar • Testing Pressure 12 Bar
Burst Pressure 16 Bar • Operating Temperature -30 +80°C (buna), -20 +110°C (viton)

Part Number	Thread	Flow Rate L/min	Part Number Replacement Elements
10 MICRON			
Fitter with 10 MICRON Air Breather			
HHD01050	3/8" BSP	15	HHC03423
HHD01350	1/2" BSP	25	HHC03423
HHD04310	3/4" BSP	40	HHC03554
HHD11050	1" BSP	65	HHC03577
HHD16810	1 1/4" BSP	110	HHC03612
Fitted Complete with Filler Caps			
HHA30150	1 1/4" BSP	120	HHC10192
HHA46150	1 1/2" BSP	205	HHC11131
HHA52150	2" BSP	400	HHC00028
25 MICRON			
Fitted with 10 MICRON Air Breather			
HHD01080	3/8" BSP	20	HHC03430
HHD01380	1/2" BSP	30	HHC03430
HHD04360	3/4" BSP	45	HHC03561
HHD11100	1" BSP	70	HHC03584
HHD16870	1 1/4" BSP	120	HHC03619
Fitted Complete with Filler Caps			
HHA30160	1 1/4" BSP	130	HHC10191
HHA46165	1 1/2" BSP	225	HHC01205
HHA52156	2" BSP	500	HHC00029



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Tank-Top Mounted Return Line Filters

Aluminium Cover and Housing • Steel Bowl and Diffuser • Buna Seals
Flow Range 40 - 500 L/min • Max Working Pressure 8 Bar • Testing Pressure 12 Bar • Burst Pressure 16 Bar
Operating Temperature -30 +80 (OC) Buna Seals, -20 +110 (OC) Viton Seals
Secondary return port as standard • Filler cap fitted as standard* • Diffuser fitted as standard
Full flow magnetic pre filtration on the hydraulic return line as standard

Part Number	Thread	Flow Rate L/min	Part Number Replacement Elements
10 MICRON			
HHF06815	1/2" BSP	30	HHC01760
HHF14810	3/4" BSP	50	HHC01660
HHF20060	1" BSP	90	HHC01700
HHF26020*	1 1/4" BSP	120	HHC01730
HHF36050*	1 1/2" BSP	200	HHC01480
HHF570/13	2" BSP	260	HHC01600
HHF570/14	2" BSP	360	HHC01510
HHF570/15	2" BSP	380	HHC01520
HHF570/16	2" BSP	440	HHC01530
25 MICRON			
HHF06865	1/2" BSP	40	HHC01770
HHF14860	3/4" BSP	60	HHC01670
HHF20090	1" BSP	100	HHC01710
HHF26030*	1 1/4" BSP	130	HHC01740
HHF36090*	1 1/2" BSP	220	HHC01500
HHF570/17	2" BSP	320	HHC1
HHF570/18	2" BSP	420	HHC2
HHF570/19	2" BSP	440	HHC3
HHF570/20	2" BSP	500	HHC4

Tank-Top Return Filters - Spin on Style

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Aluminium Head • Carbon Steel Housing • NBR Seal • Complete with Visual Indicator
 Material Compatibility as per ISO 2943 – mineral oil (HH-HL-HM-HR-HV-HG), water emulsions (HFAE-HFAS)
 Max Working Pressure as per NFPA T2.6.1-1974: 7 Bar • Test Pressure as per NFPA T2.6.1-1974: 14 Bar
 Burst Pressure as per NFPA T2.6.1-1974: 21 Bar • Element Collapse as ISO 2941: 4 Bar
 Bypass Setting - Return Line 1.7 Bar • Working Temperature -30 +110°C

Part Number	Thread	Flow Rate L/min	Part Number Replacement Elements
10 MICRON			
FA210C10BMR1	¾" BSP	60	A210C10BM
FA211C10BMR1	¾" BSP	80	A211C10BM
FA220C10BMR1	1 ½" BSP	140	A220C10BM
FA221C10BMR1	1 ½" BSP	180	A221C10BM
25 MICRON			
FA210C25BMR1	¾" BSP	80	A210C25BM
FA211C25BMR1	¾" BSP	100	A211C25BM
FA220C25BMR1	1 ½" BSP	170	A220C25BM
FA221C25BMR1	1 ½" BSP	220	A221C25BM

Diffusers

Diffusers reduce aeration, foaming and reservoir noise in any hydraulic fluid application. Designed to help extend all types of pump life by reducing cavitation to pump inlet. Flows ranging from 15 L/min – 454 L/min. Port sizes ¾" – 2". Made of steel and nylon end caps. Other sizes of diffusers available upon request.

Flow rate L/min with AP=0.1 Bar.



Part Number	Flow Rate L/min	Thread	Length (mm)	O/D (mm)
D34	80	¾"	109	64
D100	100	1"	139	64
D114	150	1 ¼"	139	86
D112B	180	1 ½"	200	86
D200A	220	2"	260	86
D212	300	2 ½"	211	150
D300	500	3"	272	150

Carbon Steel • Basket: Plastic and 500 micron • Filter: air inner element 40 micron gaskets:
Rubberised Cork • Screws: Self Tapping

Part Number	Outer Diameter	Total Length	Width of Basket	Mounting
FBA25	76.2mm	148mm	49.2mm	6 Hole P.C.D. 70/73mm
FBA5	45mm	109mm	28mm	3 Hole P.C.D. 41.3mm
With Locking Lug				
FBA25L	76.2	148mm	49.2mm	6 Hole P.C.D. 70/73mm



Carbon Steel • Basket: Steel and 500 micron
Filter: Air Inner Element 10 micron or 40 micron • Gaskets: Cork • Screws: M5

Part Number	Outer Diameter	Total Length	Width of Basket	Length of Basket	Mounting	Air rating Inner Element
FT5C10	52mm	112mm	29mm	64mm	3 Hole P.C.D. 41mm	10 micron
FT5C40	52mm	112mm	29mm	64mm	3 Hole P.C.D. 41mm	40 micron
FT8C101	83mm	135mm	47mm	78mm	6 Hole P.C.D. 73mm	10 micron
FT8C102	83mm	205mm	47mm	148mm	6 Hole P.C.D. 73mm	10 micron
FT8C401	83mm	135mm	47mm	78mm	6 Hole P.C.D. 73mm	40 micron
FT8C402	83mm	205mm	47mm	148mm	6 Hole P.C.D. 73mm	40 micron



Non Pressurised

Carbon Steel and protected with special treatment for protection against atmospheric elements
Basket: Steel • Filter: Air Element 10 micron or 40 micron • Gaskets: Rubberised Cork • Screws: M5 • Non Pressurised

Part Number	Outer Diameter	Total Length	Width Of Basket	Length Of Basket	Mounting	Air Rating Inner Element
HHT02100	47mm	96.5mm	27.5mm	64mm	3 Hole P.C.D. 41mm	10
HHT02110	47mm	96.5mm	27.5mm	64mm	3 Hole P.C.D. 41mm	40
HHT02380	70mm	146mm	36mm	97mm	6 Hole P.C.D. 72.5mm	40

Pressurised

Carbon Steel and Protected with special treatment for protection against atmospheric elements
Basket: Steel • Filter: Air Element 10 micron or 40 micron • Gaskets: Rubberised Cork • Screws: M5

Part Number	Outer Diameter	Total Length	Width Of Basket	Length Of Basket	Mounting	Air Rating Inner Element
HHT02340	70mm	146mm	36mm	97mm	6 Hole P.C.D. 72.5mm	40



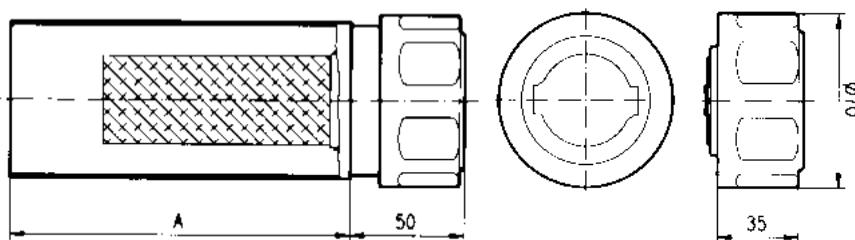
Spare Baskets to Suit all Filler Breathers Above

Part Number	Compatibility
0400200009	Fits FT8C101 and FT8C401
HHC06490	Fits HHT02380, HHT02239, HHT02240 and HHT02340



Weld on Filler Breather

40mm, 65mm, 80mm and 135mm extensions available.



Part Number	Extension A	Width of Outer Enclosure
HHT02239	65mm	63.5mm
HHT02240	135mm	63.5mm



Lockable Filler Breather



Specially suitable for filtering and cleaning the air exchanged between the tank and the outside atmosphere when the volume of fluid in the tank varies. They optimise filling of the tank with hydraulic fluid, retaining impurities and foreign bodies. They come complete with the accessories required for assembly (screws, seals etc.)
The recommended flow rate corresponds to the maximum air flow with a pressure drop of 0.015 bar.

New Lockable Filler Breather • Protect your oil and fuel • Add security now to your systems • Stop vandalism and theft • Stop unwanted contamination • Chrome Plated Steel with Bayonet Closure and Key Lock

Part Number	Air Rating Inner Element	Air Flow L/min	O/D	Length of Basket	Width of Basket	Mounting
LFB2	40	700	75	80	50	6 Hole PCD 73mm
LFB3	40	700	75	150	50	6 Hole PCD 73mm

Lockable Cleanable Filler Breather

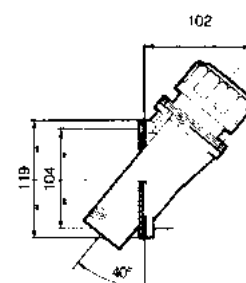
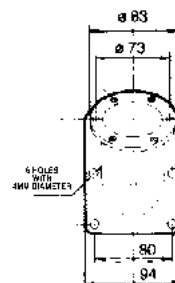


Just one hole (65mm±10) in the tank cover is needed to fix it • The 5µm. Filter element can be removed for cleaning or replacement • Lockable • Basket can be removed

Part Number	Part Number Replacement Elements
FBLC	FBLCE

Angled Filler Breather

Angled filler breather designed for installation on vertical or inclined sides. Complete with washers and screws.

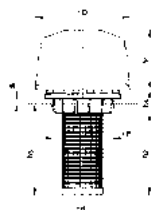


Angled Filler Breather Plate only – for Filler Breathers that can be fixed to this angled filler breather
fba25, fba25l, ft8c101, ft8c102, ft8c401, ft8c402, hht02380, hht02340, hht02550, lfb2 and lfb3 are all suitable just one hole (65mm±10) in the tank cover is needed to fix it • the 5µm. filter element can be removed for cleaning or replacement
• Lockable • Basket can be removed

Part Number

AFB1

Push in Filler Breather



Filler breather for tank top installation with breather and strainer and complete with safety chains. Just drill a hole and push in.

Now no need to drill fixing holes, just cut a hole in the top of the reservoir with a diameter of 55mm min and 55.3mm max. Wall thickness must not exceed 8mm and not less than 2mm.

Assembly contains 3 parts. To install the inside locking ring has to be removed to insert the main body into a pre-drilled hole. Once inserted the inside locking ring has to be installed and then the external locking ring has to be tightened

• Max Operating Temperature 70-80°C

Part Number	ØF	ØD	Ød	h1	h2	h3	h4	S
CTR/C	55	88	38	55	80	88	21	2-8

High capacity air filters 700 L/min and 1500 L/min displacement designed to remove airborne dirt in any hydraulic system.

Please note when fitting a pressurised breather the reservoir must be capable of withstanding pressurisation.

Mounted to top of hydraulic tank • 3 hole fixing flange
removable maintenance friendly 5 micron spin on canister

Part Number	Rated Air Flow	Air Rating Inner Element	O/D	Length (B)	Weight KG	Part Number Replacement Elements
Non Pressurised						
AIRF1	0.7m³/min	5 MICRON	96MM	114MM	0.7	RF1
AIRF2	1.5m³/min	5 MICRON	96MM	196MM	0.7	RF2



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Air Breathers

The air filters AF105 series are built in steel and are protected with a special treatment to protect them against atmospheric corrosion

Part Number	Thread	Length	O/D	Degree of Filtration	Air Flow	Weight
HHS02109	1/4"	54mm	48mm	10 micron	200 (t/min)	0.11
HHS02101	3/8"	54mm	48mm	10 micron	200 (t/min)	0.13
HHS02134	1/2"	74mm	67mm	10 micron	500 (t/min)	0.27



Air Breathers / Tank Ventilation Filters

The Flowfit air filters are built in steel and are protected with a special treatment to protect them against atmospheric corrosion

Part Number	Thread	Length	O/D	Degree of Filtration	Air Flow
FS111	3/4"	80mm	75mm	10 micron	450 (t/min)
FS114	1"	100mm	115mm	10 micron	650 (t/min)
FS116	1 1/2"	138mm	145mm	10 micron	1200 (t/min)
FS132	2"	210mm	172mm	10 micron	3000 (t/min)
FS119	2 1/2"	190mm	185mm	10 micron	2000 (l/min)



Plastic Hydraulic Threaded Air Breathers

Plastic Threaded Hydraulic Breathers with 40 Micron Filtration

Part Number	Thread	Length	O/D
PH6	1/4"	58mm	40mm
PH8	3/8"	58mm	40mm
PH10	1/2"	68mm	84mm
PH12	3/4"	68mm	84mm
PH13	1"	68mm	84mm



Steel Hydraulic Threaded Air Breathers

Steel Threaded Hydraulic Breathers wu 40 MICRON Filtration

Part Number	Thread	Length	O/D
BH4	1/8"	63mm	47mm
BH6	1/4"	66mm	47mm
BH8	3/8"	69mm	47mm
BH10	1/2"	76mm	65mm
BH12	3/4"	89mm	80mm
BH13	1"	100mm	80mm



Level Indicators

Level indicators are mounted on hydraulic reservoirs containing oil based fluids to allow the monitoring of the oil level. We also offer options with a thermometer to monitor the temperature.

Level Indicators

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Operating Temperature -30 +80 (°C) • Thermometer double scale 0–100 (°C) / 30–210°F

Carbon Steel Frame with Nylon Face

Part Number	Hole Centre	Bolt Thread Size	Length	Width
FL1M10	76mm	M10x1.5	106mm	36mm
FL1M12	76mm	M12x1.75	106mm	36mm
FL1TM10*	76mm	M10x1.5	106mm	36mm
FL1TM12*	76mm	M12x1.75	106mm	36mm
FL2M10	127mm	M10x1.5	157mm	36mm
FL2M12	127mm	M12x1.75	157mm	36mm
FL2TM10*	127mm	M10x1.5	157mm	36mm
FL2TM12*	127mm	M12x1.75	157mm	36mm
FL3M10	254mm	M10x1.5	284mm	36mm
FL3M12	254mm	M12x1.75	284mm	36mm
FL3TM10*	254mm	M10x1.5	284mm	36mm
FL3TM12*	254mm	M12x1.75	284mm	36mm

* C/W Thermometer Double Scale 0–100°C / 30–210°F

Level Indicators

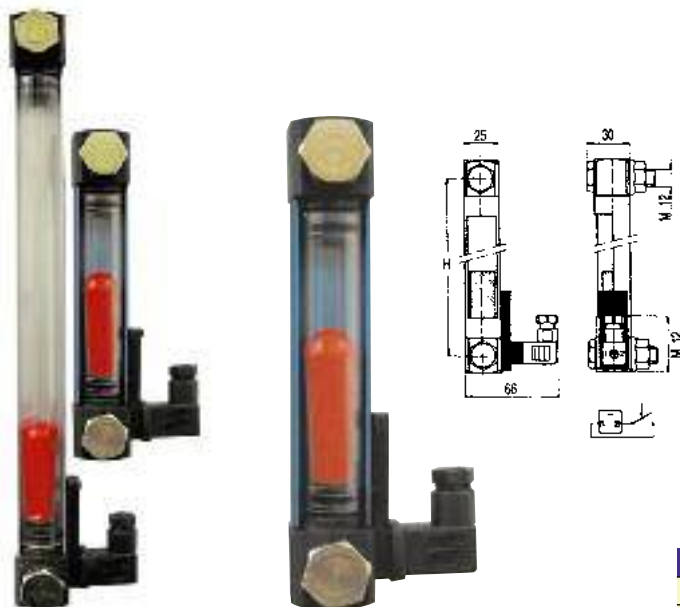


Max Operating Pressure 1 Bar • Operating Temperature -30 +90 (°C) • Thermometer Scale 0 +90 (°C)

Fluid Compatibility: Mineral oil and petroleum based fluids • Plastic material mounted on a metallic frame

Part Number	Hole Centre	Bolt Thread Size	Length	Width L2	Weight (KG)
HHI03700	76mm	M10x1.5	107mm	34mm	0.2
HHI03740	76mm	M12x1.75	107mm	34mm	0.2
HHI03720*	76mm	M10x1.5	107mm	34mm	0.2
HHI03760*	76mm	M12x1.75	107mm	34mm	0.2
HHI03780	127mm	M10x1.5	158mm	34mm	0.24
HHI03820	127mm	M12x1.75	158mm	34mm	0.24
HHI03800*	127mm	M10x1.5	158mm	34mm	0.24
HHI03840*	127mm	M12x1.75	158mm	34mm	0.24
HHI03860	254mm	M10x1.5	285mm	34mm	0.4
HHI03900	254mm	M12x1.75	285mm	34mm	0.4
HHI03880*	254mm	M10x1.5	285mm	34mm	0.4
HHI03920*	254mm	M12x1.75	285mm	34mm	0.4

Electric Type Level Indicators



- Gauge manufactured with oil proof plastic
- Suitable for use on all ac up to 220 A/AC
- DC up to 125v/dc.
- Electric features include normally open (n.a) electric contact in non alarm position

Fluid level observed at 150° angle
 o ring seals on every connection point guaranteeing leakage proof fixation
 • thermometer scale 0-100°C min/max operating temperature -20 +80°C
 max gauge pressure 0.5 Bar • Seals 70° shore
 IP65 electric protection • Maximum contact load
 alternatively current up to 220v (0.5a)
 direct current up to 125v (0.3a)

Part Number	Hole Centre	Bolt Thread Size
LIE2	127MM	M12 X 1.75
LIE3	254MM	M12 X 1.75

- Min or min/max level monitoring
- Compatible with mineral oils, oil-water emulsions, diesel and water
- Unsinkable float
- Electric contact hermetically sealed inside the float
- Flanged or nut type fixation to tank cover

Tank-top mounted they give an electrical signal when the minimum fluid level is reached. They are always supplied with open contacts.

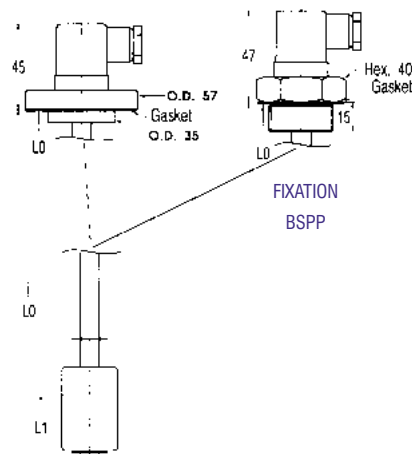
With just one contact you have both possible electric connections normally open or normally closed.



FIXATION A



FIXATION B



FIXATION BSPP

All types of fixation a, b + bspp order just the one and you have all three fixing points in one level gauge

Part Number

HLGS*100MM

HLGS*150MM

HLGS*200MM

HLGS*250MM

HLGS*300MM

HLGS*350MM

HLGS*400MM

HLGS*450MM

HLGS*500MM

VOLTAGE All voltages DC/AC up to 240V	TEMPERATURE RANGE -10 to +80°C	<p>Electric connections</p>
MAX CURRENT 220V, 60W, 60VA, A1	MAX PRESSURE 12 Bar	

PRODUCT CODE PREFIX	FIXATION	LENGTH OF FLOATING LEVEL GAUGE (mm)
HLGS	ABBSPP	XXXXMM
EG: HLGSABBSPP100MM		
		100MM 150MM 200MM 250MM 300MM 350MM 400MM 450MM 500MM

Electric Type Level Indicator Complete with External Thermometer and Temperature Probe

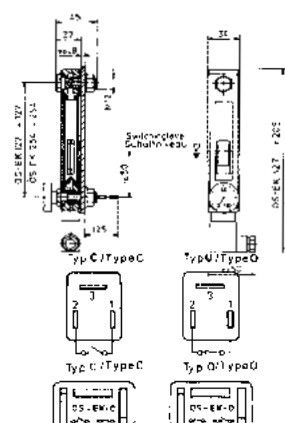
Area of Application: Visual/electrical fluid level indication in hydraulic reservoirs • Characteristics: Suitable for hydraulic oil HL, HLP, gasoline, and diesel fuels up to 60°C max. Option available with dial thermometer with probe or thermo switch, UV resistant, Available either as a break contact (Type O) or make contact (Type C) • Technical Data: Temperature Range: -20°C to +80°C, Calibration of dial thermometer with probe: 0°C to +100°C, Tank Pressure: 1 bar • Recommended tightening torque: 8Nm • Please allow a minimum spacing of 10mm between other components • Materials: Housing: AL (plastic coated), Plugs & Sight tube: PA, Float: PA

Part Number	Hole Centres	Bolt Thread Size	Electrical Function
OSEK127FPMCTM12RL	127mm	M12	Normally Open
OESK127FPMOTM12RL	127mm	M12	Normally Closed
OESK254FPMCTM12RL	254mm	M12	Normally Open
OESK254FPMOTM12RL	254mm	M12	Normally Closed

Non Electrical but complete with temp. dial gauge

OS127FPMTM12	127mm	M12	Not Fitted
OS254FPMTM12	254mm	M12	Not Fitted

Optional Thermo Switch Available upon Request



Electrical connections and Functions

Contact load: max 10W (Type C) max 3 W (Type O)	Current on Contact: max 0.5 A (Type C) max 0.25 A (Type O)	Suitable for voltages upto 50VAC / DC. EG:12VDC, 24VDC, 48VDC, 24VAC AND 48 VAC
Bias-reducing Potential: 50 V AC/DC	Electrical switch PG9 Protection IP65	Turn-On Voltage: 5 V AC/DC Switching Current: 0.2 A

Replacement Indicators

Easy to read indicators for suction, return and pressure filters.
Will fit all Ikron and Filtrac filter housings and most European filter manufacturers.

Please contact your local Pirtek Centre for compatibility.

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<p>'N' PRESSURE/VACUUM GAUGE BASE CONNECTION HHM02525</p>  <p>NON STANDARD: HF502 HF550 HF554 HF570 HF620 HF595</p>		<p>'N' PRESSURE/VACUUM GAUGE BASE CONNECTION HHM02520</p>  <p>STANDARD: HF502 HF550 HF554 HF570 HF620</p>		<p>'N' PRESSURE/VACUUM GAUGE BASE CONNECTION HHV02305</p>  <p>STANDARD: HF506</p>	
<p>'M' PRESSURE/VACUUM GAUGE BASE CONNECTION HHM02530</p>  <p>STANDARD: HF502 HF550 HF554 HF570 HF620</p>		<p>'M' PRESSURE/VACUUM GAUGE HHM02515</p>  <p>STANDARD: HF625</p>		<p>'P' VISUAL RETURN INDICATOR HHI03001</p>  <p>STANDARD: HF502 HF550 HF554 HF570 HF595 HF620</p>	
<p>'P' VISUAL RETURN INDICATOR HHI03002</p>  <p>NON-STANDARD: HF502 HF550 HF554 HF570 HF595 HF620</p>		<p>'P' VISUAL RETURN INDICATOR HHI03004</p>  <p>STANDARD: HF570</p>			
<p>'S' ELECTRICAL RETURN INDICATOR HHI03007</p>  <p>STANDARD: HF570</p>		<p>'S' ELECTRICAL RETURN INDICATOR HHI03011</p>  <p>NON-STANDARD: HF502 HF550 HF554 HF570 HF595 HF620</p>		<p>'S' ELECTRICAL RETURN INDICATOR HHI03014</p>  <p>STANDARD: HF502 HF550 HF554 HF570 HF620</p>	
		<p>'H' VISUAL DIFFERENTIAL INDICATOR HHI02030</p>  <p>STANDARD: HF760 HF745</p>			
<p>'U' VISUAL ELECTRICAL DIFFERENTIAL INDICATOR (PRESSURE LINE) HHI03035</p>  <p>STANDARD: HF760</p>		<p>'W' VISUAL ELECTRICAL DIFFERENTIAL INDICATOR WITH THERMOSTAT HHI03040</p>  <p>STANDARD: HF760</p>		<p>'V' SUCTION LINE INDICATOR HHI03045</p>  <p>NON-STANDARD: HF620 HF506</p>	
		<p>'V' SUCTION LINE INDICATOR HHI03046</p>  <p>STANDARD: HF620 HF506</p>			
<p>'E' ELECTRICAL SUCTION LINE INDICATOR HHI03050</p>  <p>NON-STANDARD: HF620 HF506</p>		<p>'E' ELECTRICAL SUCTION LINE INDICATOR HHI03051</p>  <p>STANDARD: HF620 HF506</p>		<p>'J' VISUAL DIFFERENTIAL INDICATOR HHI03070</p>  <p>STANDARD: HF690</p>	
		<p>'T' VISUAL ELECTRICAL DIFFERENTIAL INDICATOR HHI03075</p>  <p>STANDARD: HF690</p>		<p>'R1' VISUAL RETURN INDICATOR REAR CONN R1</p>  <p>GREEN YELLOW & RED DIAL</p> <p>STANDARD: FA2</p>	

Part Number	Function Type	Pressure Range	Max Bar	Type of Scale	Max Current IN Volts/AMP12V/24V	Voltage DC 110/240V AC
HHM02525	Return Visual	-1/+5 Bar	5	Bar/PSI	N/A	N/A
HHM02520	Return Visual	-1/+5 Bar	5	Bar/PSI	N/A	N/A
HHM02530	Return Visual	-1/+15 Bar	15	Bar/PSI	N/A	N/A
HHM02515	Return Visual	0/40 Bar	40	Bar/PSI	N/A	N/A
HHI03001	Return Visual	0.2/5.5 Bar	150	N/A	N/A	N/A
HHI03002	Return Visual	0.2/5.5 Bar	300	N/A	N/A	N/A
HHI03004	Return Visual	0.2/2.5 Bar	150	N/A	N/A	N/A
HHI03007	Return/Electrical	0.2/2.5 Bar	150	N/A	0.5A RES./0.2A IND.	220 ACV-30 DCV
HHI03011	Return/Electrical	0.2/5.5 Bar	300	N/A	0.5A RES./0.2A IND.	220 ACV-30 DCV
HHI03014	Return/Electrical	0.2/5.5 Bar	150	N/A	0.5A RES./0.2A IND.	220 ACV-30 DCV
HHI02030	Pressure Visual Diff. Indicator	5/25 Bar	500	N/A	N/A	N/A
HHI02050	Pressure Visual Diff. Indicator	5/25 Bar	500	N/A	0.5A RES. and IND.	250 ACV-30 DCV
HHI03040	Pressure Electrical IND. C/W Thermostat	5/25 Bar	500	N/A	0.5A RES. and IND.	250 ACV-30 DCV
HHI03045	Suction Visual Line Indicator	0.2/1 Bar	150	N/A	N/A	N/A
HHI03046	Suction Visual Line Indicator	0.2/1 Bar	150	N/A	N/A	N/A
HHI03050	Suction Line Electrical Indicator	0.2/1 Bar	150	N/A	0.5A RES./0.2A IND.	220 ACV-30 DCV
HHI03051	Suction Line Electrical Indicator	0.2/1 Bar	150	N/A	0.5A RES./0.2A IND.	220 ACV-30 DCV
HHI03070	Pressure Visual Diff. Indicator	5/25 Bar	500	N/A	N/A	N/A
HHI03075	Pressure Visual Electrical Diff. Indicator	5/25 Bar	500	N/A	0.5A RES. and IND.	250 ACV-30 DCV
HHV02305	Suction Visual Line Indicator	0.2/1 Bar	5	Bar/PSI	N/A	N/A
R1	1/4" Return Visual Indicator	0/10 Bar	10	Bar/PSI	N/A	N/A

FK

Oil Level Sight Glasses (Metal)

- Aluminium threaded with glass face
- Max temp. 150°C
- Max pressure 3 Bar
- Knob type
- Nitrile seals

Part No	Thread BSP	Width mm
FK14	1/4"	19
FK38	3/8"	22.5
FK12	1/2"	27
FK34	3/4"	32
FK10	1"	38
FK114	1 1/4"	48
FK114R	1 1/4"	51
FK112	1 1/2"	55
FK20R	2"	76

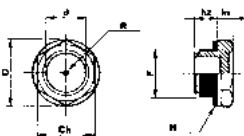


Oil Level Sight Glass (Plastic)

- Threaded Oil Level indicator, hex head with shoulder. Utilised in oil tanks, gearboxes and general machinery.
- This threaded level indicator allows a pressure of 3 bar.
- Asbestos free flat gasket. (available in NBR 70 shore on request)
- Manufactured from high density Polyimide resin, which offers high mechanical resistance and withstands oil, gasoline, fuel and most solvents.

SLNS

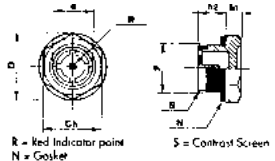
Threaded Oil Level Indicators



Part No.	Ch	F	D	d	h1	h2	Nm
SLNS14	17	1/4" BSP	20	15	7	8	6
SLNS38	18	3/8" BSP	22	14	6.5	10.5	8
SLNS12	24	1/2" BSP	28	16	8	11	12
SLNS34	30	3/4" BSP	35	21	8	12	16
SLNS1	35	1" BSP	43	32	11	12	
SLNS114	42	1 1/4" BSP	51	33	10	16	
SLNS112	50	1 1/2" BSP	58	40	10	20	
SLNS2	64	2" BSP	74	48	12	20	

SLNT

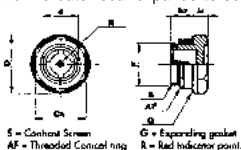
Threaded oil level indicators with contrast screen for clearer indication of the oil level



Part No.	Ch	F	D	d	h1	h2	Nm
SLNT38	18	3/8" BSP	22	14	6.5	10.5	8
SLNT12	24	1/2" BSP	28	16	8	11	12
SLNT34	30	3/4" BSP	35	21	8	12	16
SLNT1	35	1" BSP	43	32	11	12	
SLNT114	42	1 1/4" BSP	51	33	10	16	
SLNT112	50	1 1/2" BSP	58	40	10	20	
SLNT2	64	2" BSP	74	48	12	20	

SLE

Level indicator designed for use in thin wall reservoirs and tanks (min 1mm). fit in pre drilled hole, turn with hex spanner and indicator seal expands to seal

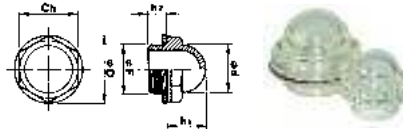


Part No.	Diam Ø	Ch	D	d	h1	h2
SLE20	20	18	22	14	6.5	12
SLE26	26	24	28	16	8	8
SLE30	30	30	35	21	8	13
SLE40	40	35	43	32	11	14
SLE50	50	42	51	33	10	18

LSB

Oil level indicator in transparent thermo plastic

- Dome shaped Level Indicator, transparent, with incorporated hex, which enables to read Oil level an angle.
- Material is transparent Polyimide resin, which resists most chemicals, oil, gasoline, fuel and a variety of solvents.
- Maximum operating temperature: 100°C.
- Flat asbestos free, oil resistant seal.
- Nm = Applicable maximum tightening torque.



Part No.	Thread BSP	Ch	D	d	h1	h2	Nm
LSB38	3/8"	19	22	15	16	10	8
LSB12	1/2"	24	28	20	17	10	12
LSB34	3/4"	30	35	25	20	10	16
LSB1	1"	36	42	31	24	10.5	

CF2

CF - Dome shaped threaded oil level indicator
GF - Steel mounting flange

- Transparent halfball shaped level indicator, available with 2" and 3" threaded weld-on steel flanges.
- Made from Thermo Polycarbonate for optimal shock resistance and ensuring unbreakability.
- Product is utilised on truck/tankers and larger reservoirs containing liquids.

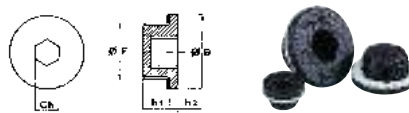


Part No.	Thread BSP	D	h1	h2
CF2	2"	59	22	32
CF3	3"	85	32	63
GF2	2"	70	20	
GF3	3"	102	30	

TCNB

Low Profile Plugs

- Socket style low profile threaded plug.
- This low profile plug is made from reinforced Thermoplastic and provides an excellent mechanical resistance at both low and higher temperatures. (Max. 110°C.)
- Flat asbestos free seal
- For tightening torques (Nm) see table below.
- Special plugs in Polyimide IXEF 1022 are available for increased mechanical torque and temperatures up to 150°C. (see table Nm (IXEF)).



Part No.	F	Ch	D	h1	h2	Nm	Nm(IXEF)
TCNB14	1/4" BSP	6	20	8	2.5	3	5
TCNB38	3/8" BSP	8	22.5	10.5	3.5	6	
TCNB12	1/2" BSP	10	28.5	10.5	3.5	8	10
TCNB34	3/4" BSP	12	35	10.5	4	10	18

TCN

Oil Fill Plugs

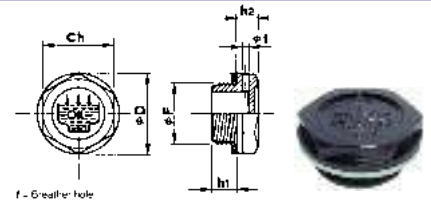
TCNS

Oil Fill Plug with Breather Hole

TSN

Oil Drain Plug

- Hex threaded oil fill plug in Thermoplastic material ensuring high mechanical resistance at both low and higher temperature (max. 100/110°C), dimensional stability and shock resistant.
- Flat asbestos free oil resistant seal.
- Style TCN and TCNS have the UNI fill symbol and the word OIL molded on top; the model TCNS has a breather hole located in the side of the hex with a diameter of 2-2.5mm.
- Style TSN has the UNI drain symbol on top.



Type	F	Ch	D	h1	h2	Nm
TCN						
TCN14	1/4" BSP	17	19.5	9	7	5
TCN38	3/8" BSP	18	22	10	7.5	8
TCN12	1/2" BSP	24	28	11	7.5	9
TCN34	3/4" BSP	30	34	11	9	11
TCN1	1" BSP	35	42	12	10.5	
TCN114	1 1/4" BSP	42	51	13.5	12	
TCN112	1 1/2" BSP	50	58	16	10	
TCN2	2" BSP	64	74	16	12	
TCNS						
TCNS14	1/4" BSP	17	19.5	9	7	5
TCNS38	3/8" BSP	18	22	10	7.5	8
TCNS12	1/2" BSP	24	28	11	7.5	9
TCNS34	3/4" BSP	30	34	11	9	11
TCNS1	1" BSP	35	42	12	10.5	
TCNS114	1 1/4" BSP	42	51	13.5	12	
TCNS112	1 1/2" BSP	50	58	16	10	
TCNS2	2" BSP	64	74	16	12	
TSN						
TSN14	1/4" BSP	17	19.5	9	7	5
TSN38	3/8" BSP	18	22	10	7.5	8
TSN12	1/2" BSP	24	28	11	7.5	9
TSN34	3/4" BSP	30	34	11	9	11
TSN1	1" BSP	35	42	12	10.5	
TSN114	1 1/4" BSP	42	51	13.5	12	
TSN112	1 1/2" BSP	50	58	16	10	
TSN2	2" BSP	64	74	16	12	

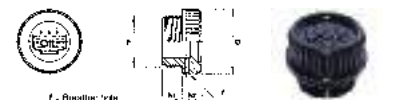
TCZ

Knurled Oil Fill Plug

TCZS

Knurled Oil Fill Plug with Breather Hole

- Threaded plug with knurled head in Thermoplastic material (Polyimide 66) ensuring high mechanical resistance at both low and high temperature (max. 100/110°C). Excellent dimensional stability and shock resistant.
- O' ring seal or 70 shore rubber seal.
- Available in standard black colour, red on request.
- Style TCZ and TCZS have molded UNI fill symbol and the text "OIL" molded on top.
- Style TSZ has the UNI drain symbol molded on top.
- The style TCZS incorporates a breather hole, located on the knurled rim with a diameter of 2-3mm.



Type	F	D	h1	h2
TCZ				
TCZ14	1/4" BSP	20	9	9
TCZ38	3/8" BSP	20.5	10	9
TCZ12	1/2" BSP	28	10.5	10.5
TCZ34	3/4" BSP	31	11	12
TCZ1	1" BSP	39	12	12
TCZ114	1 1/4" BSP	49	13.5	13
TCZ112	1 1/2" BSP	55	14.5	14.7
TCZ2	2" BSP	68.5	16	15
TCZS				
TCZS14	1/4" BSP	20	9	9
TCZS38	3/8" BSP	20.5	10	9
TCZS12	1/2" BSP	28	10.5	10.5
TCZS34	3/4" BSP	31	11	12
TCZS1	1" BSP	39	12	12
TCZS114	1 1/4" BSP	49	13.5	13
TCZS112	1 1/2" BSP	55	14.5	14.7
TCZS2	2" BSP	68.5	16	15

TMA

Aluminium Drain Plug With Magnet

- Hex plug manufactured from aluminium 11s complete with asbestos free flat seal
- Fitted with pressed-in cylindrical magnet
- Fitted to base of tanks to remove ferrous particles
- Text — magnetic



Type	F	Ch	d	h1	h2
TMA14	1/4" BSP	18	8	7	10
TMA38	3/8" BSP	22	10	7	10
TMA12	1/2" BSP	27	10	8	10
TMA34	3/4" BSP	34	13	8	10
TMA1	1" BSP	40	13	8	14

TCSA

Oil Fill Plug With Breather And Vane

TCSF

Oil Fill Plug With Breather, Vane And Filter

- Hex head oil fill plug made from Thermoplastic material (Polyimide 66), ensuring high mechanical resistance at both low and higher temperatures. (max. 100/110 °C).
- This product offers excellent dimensional stability and is shock resistant.
- Asbestos free flat oil resistant seal.
- The plugs are marked with the UNI fill symbol and the word OIL, the breather hole is located on the side of the hex, with a diameter of 2-3mm.
- The incorporated oil dampening vane will reduce spillage when strong oil movement in the container or reservoir takes place.
- The Polyurethane foam filter prevents contamination from the ambient atmosphere polluting the oil.

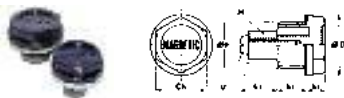


Type	F	Ch	D	h1	h2	Nm
TCSA						
TCSA14	1/4" BSP	17	19.5	9	7	5
TCSA38	3/8" BSP	18	22	10	7.5	8
TCSA12	1/2" BSP	24	28	11	7.5	9
TCSA34	3/4" BSP	30	34	11	9	11
TCSA1	1" BSP	35	42	12	10.5	
TCSA114	1 1/4" BSP	42	51	13.5	12	
TCSF						
TCSF38	3/8" BSP	18	22	10	7.5	8
TCSF12	1/2" BSP	24	28	11	7.5	9
TCSF34	3/4" BSP	30	34	11	9	11
TCSF1	1" BSP	35	42	12	10.5	
TCSF114	1 1/4" BSP	42	51	13.5	12	

TM

Drain Plug With Magnet

- Thermoplastic hex plug with magnet.
- The plug is mounted on the bottom of the transmission or tank, to be used as drain plug. The magnetic disk will attract ferrous metal parts and contains them, preventing damage to gears and other moving components.
- This plug is manufactured in the colour black, with a hot painted description MAGNETIC in a bright colour.
- Oil resistant asbestos free seal.
- In larger quantities, these plugs are available with other than the shown threads, ie: M16 18 20 22.



Type	F	Ch	D	h1	h2	h3
TM14	1/4"	17	20	9	7	5
TM38	3/8"	18	22	10	7.5	10
TM12	1/2"	24	27	11	8	9
TM34	3/4"	30	34	11	9	6.5

KMF

Metal Filler Plug With Filter

- Sintered metal filter 50/60 micron
- Fibre asbestos - free seal
- Four breather holes are located under the hex head providing an adequate breathing capacity
- Ideal for gearboxes and transmission applications



Type	ØD	Ch	A	B
KMF14	1/4" BSP	18	13	9
KMF38	3/8" BSP	22	14	10
KMF12	1/2" BSP	27	14	10

TCAS

Hex Plug With Dipstick And Breather Hole

- Hex threaded plug with dipstick (diam. 4.5mm steel), material plug: (Polyimide 66) maximum temperature 100/110 °C.
- Oil resistant seal. ('O' ring, 70 shore)
- The model TCAS has a breather hole located in the side of the knurled head, with a diameter of 2-2.5mm.
- The standard dipstick is delivered in a 200mm length, on larger quantities they can be manufactured to the customers specific length, and MIN-MAX notches can be placed in the desired position.



Type	F	Ch	D	h1	h2
TCAS					
TCAS14	1/4" BSP	17	19	7	9
TCAS38	3/8" BSP	18	22	7.5	10
TCAS12	1/2" BSP	24	28	7.5	11
TCAS34	3/4" BSP	30	34	9	11
TCAS1	1" BSP	35	42	10.5	12
TCAS114	1 1/4" BSP	42	51	12	13.5
TCAS2	2" BSP	64	74	13.5	16

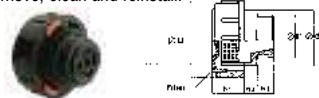
TMD

Filler breather with double breather hole

TMDF

Filler breather with double breather hole and filter

- Round headed Filler Breather, with vertical ribs for better grip. Oil resistant seal. ('O' ring, 70 shore)
- The Filler Breather is produced from Polyimide 66, ensuring high mechanical resistance at both low and higher temperatures. (maximum temperature 100/110 °C)
- This product offers excellent dimensional stability and is shock resistant.
- These Filler Breathers allow air passage at high volume, through the vents located on the bottom of the head. They are recommended to be used in systems where a large amount of oil level changes take place in a short amount of time, allowing the air to enter and leave the system without any unwanted air pressure increase or decrease.
- Style TMDF has a standard Polyurethane foam filter (60 Micron) built in. This filter is located under the red lid, easy to remove, clean and reinstall.



Type	F	D	d	h1	h2	h3
TMD						
TMD38	3/8"	36	23	17	5	11
TMD12	1/2"	41	28	18	5	12
TMD34	3/4"	47	33	17	5	12
TMD1	1"	52	38	20	5	12
TMD114	1 1/4"	63	49	23	5	13
TMD112	1 1/2"	63	55	23	5	13.5
TMDF						
TMDF38	3/8" BSP	36	23	17	5	11
TMDF12	1/2" BSP	41	28	18	5	12
TMDF34	3/4" BSP	47	33	17	5	12
TMDF1	1" BSP	52	38	20	5	12
TMDF114	1 1/4" BSP	63	49	23	5	13
TMDF112	1 1/2" BSP	63	55	23	5	13.5

TMDA

Filler Breather With Large Breather Hole and Dipstick

TMDFA

Filler Breather With Large Breather Hole, Dipstick and Filter

- The below Filler Breathers have the same characteristics as the models TMD - TMDF, but are equipped with a dipstick.
- The standard dipstick is 200mm in length.



Type	F	D	d	h1	h2	h3
TMDA						
TMDA38	3/8" BSP	36	23	17	5	11
TMDA12	1/2" BSP	41	28	18	5	12
TMDA34	3/4" BSP	47	33	17	5	12
TMDA1	1" BSP	52	38	20	5	12
TMDA114	1 1/4" BSP	63	49	23	5	13
TMDA112	1 1/2" BSP	63	55	23	5	13.5
TMDFA						
TMDFA38	3/8" BSP	36	23	17	5	11
TMDFA12	1/2" BSP	41	28	18	5	12
TMDFA34	3/4" BSP	47	33	17	5	12
TMDFA1	1" BSP	52	38	20	5	12
TMDFA114	1 1/4" BSP	63	49	23	5	13
TMDFA112	1 1/2" BSP	63	55	23	5	13.5

TSF

New Vent Plug To Reduce Oil Oil Damp Escape

- Filler Breather with easy grip vertical ribs, manufactured from Thermoplastic material (Polyimide 66). Maximum working temperature 100 °C.
- These style Filler Breathers are produced in black with a red lid, with the text "OIL". On large orders a custom text or company logo is possible.
- A standard flat rubber seal is used, but a 'O' ring seal is available, both in NBR 70 shore.
- Located under the lid is a Polyurethane foam filter (50 Micron) installed, which is easy to be cleaned once the lid is removed.
- The series TSF has a specially designed cavity which prevents oil from escaping through the Breather holes when it is splashed in an upward direction, often occurring when there is a strong oil movement due to rotating gears.
- The inside of the TSF features a conical cavity which, due to its design entraps oil but allows air to escape and enter (within limitations).
- These Filler Breather plugs are utilised on hydraulic power packs, oil tanks, gear reduction boxes, gearboxes or any application where strong movement causes splashing oil in or around the Filler Breather.



Type	F	D	h1	h2
TSF14	1/4" BSP	30	21	10
TSF38	3/8" BSP*	30	21	10
TSF12	1/2" BSP*	30	21	10

*On request available in NPT

TPF

Press-Fit Filler Breather With Large Breather Hole And Filter

- Press-fit Filler Breather with easy grip vertical ribs.
- These Filler Breathers are not threaded, but fit snugly into a pre-drilled hole and seal by means of 'O' rings located on the stem. Hole tolerances: -0 + 0.1mm.
- These Filler Breathers are produced from Thermoplastic Polyimide 66 which offers high mechanical resistance at both lower and higher temperatures (100 °C max).
- Seals: 2 Oil resistant 'O' Rings, NBR 70 shore.
- The Filler Breather model TP/F has a large breathing capacity and is applied where a high volume of air change takes place, in example, hydraulic systems that utilise high ratio hydraulic cylinders. They are not recommended for usage on mobile equipment, where strong movement of the oil tank is present.

Type	F	D	d	h1	h2	h3
TPF						
TPF18	18	36	23	17	5	10
TPF20	20	36	24	17	4	19
TPF26	26	41	28	17	4	21
TPF30	30	47	33	17	4	21

