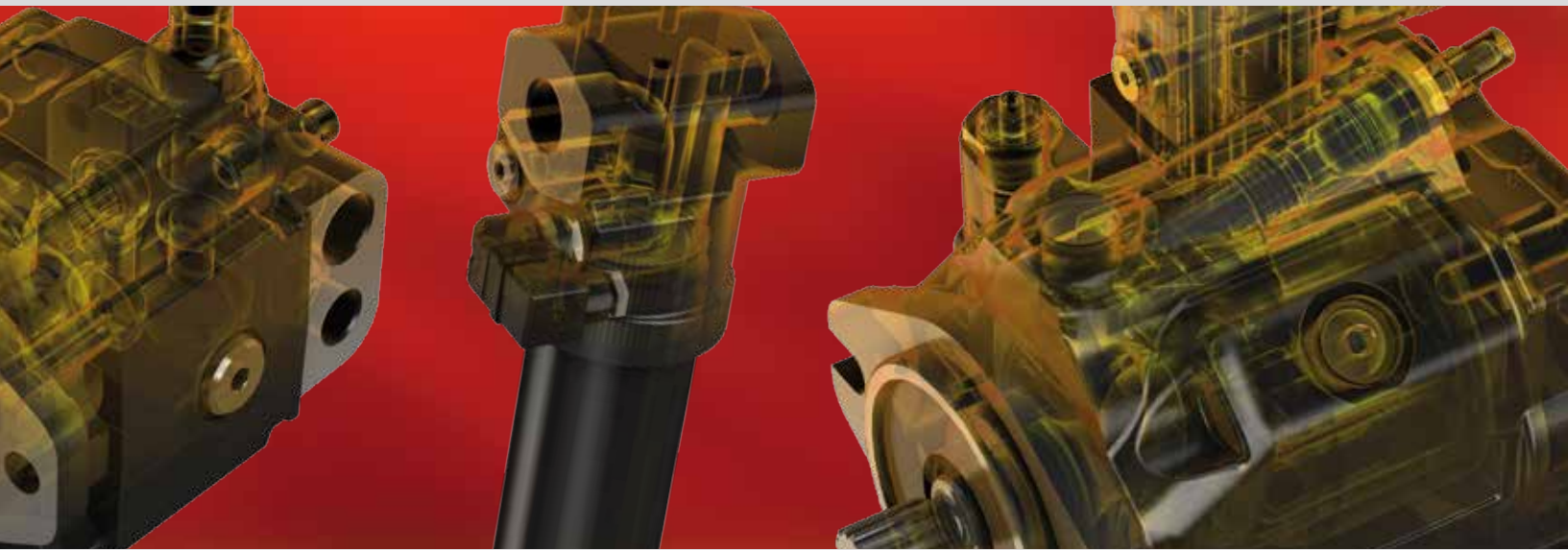


TOHIO[®]

 **CASAPPA**[®]
FLUID POWER DESIGN



HYDRAULIC
PUMPS, MOTORS
& FILTERS



Our passion for high performance in hydraulic drives us.

Constant evolution and a passion for hydraulics; this has been Casappa's strategy, a privately owned company that has been working for more than fifty years in the field of fluid power transmission.

We design and build the main components for the hydraulic system.

We listen to and work with our customers, from developing a new idea to after-sales service, anywhere around the globe.

As a tight-knit group of highly motivated and professionally qualified people, we are always ready to meet new challenges head on.

Thanks to the use of the most modern design engineering, simulation and lab testing technologies, we are always flexible and ready to quickly modify our offer to meet market demands.

We are convinced that integrating electronics with hydraulics is instrumental to improve hydraulic control circuit performance. For this reason we continuously invest in research & development, increasing the number of electronic control and regulation parts in our system.

Quality is our total commitment: that's why all of our products are thoroughly tested with constant monitoring including data analysis and traceability. Further, specific tests are performed on machines in the field to verify their effectiveness in their actual environment.

Casappa is worldwide recognized as a highly specialised manufacturer of hydraulic components.

We offer:

Fixed and variable displacement hydraulic pumps and motors

Hydraulic valves to control pressure and flow rate

Hydraulic filters



MARKET SEGMENTATION

Building & Construction	16%
Agriculture	9%
Truck Market	13%
Material Handling	18%
Industrial	3%
Turf Care	8%
Distribution	33%



Some of the major companies that rely on our specialised expertise and choose us as an important supplier of hydraulic components for a wide range of applications include:

AGCO	CATERPILLAR	GUIMA PALFINGER	JOHN DEERE	MERLO	TEXTRON
ARGO TRACTORS	CHENGGONG	HUNAN SUNWARD	JUNGHEINRICH	SANDVIK	TORO
ASTRA Veicoli Industriali	CNH	HUSQVARNA	KOMATSU	SANY	VOLVO CE
ATLAS COPCO	DAIMLER	HYUNDAI	LINDE	SCANIA	XCMG
BAI-Brescia Antincendi Int.	DOOSAN	HYVA GROUP	MANITOU GROUP	SCHMIDT	YANMAR
BOBCAT	FARID	JCB	MANITOWOC	STILL	ZAPAGROMASCH
BROKK	FOTON LOVOL	JLG	MAZ	TEREX	ZOOMLION

Product range

Aluminium body gear pumps and motors

Cast iron body gear pumps and motors

Aluminium body gear flow dividers

Cast iron body gear flow dividers

Fixed displacement axial piston pumps and motors

Variable displacement axial piston pumps

Hand pumps



A complete range of high quality pumps and motors, the end result of listening carefully to what customers need and of working closely with suppliers.

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Casappa offers nothing but the best value to its customers thanks to the skills and expertise of its workforce, investments in research and new technologies, cooperation with leading universities and electronics-hydraulics integration.

Casappa offers a wide choice of gear or piston pumps and motors for open-circuit applications. Many functions, such as valves and controls, are built directly into the products to optimise system space and costs.



POLARIS series

Gear pumps and motors built in three pieces with an extruded body in high resistance aluminium alloy. The wide choice of shafts, flanges and ports, in compliance with all international standards (SAE, DIN and EUROPEAN) allow for their use in an infinite variety of applications.

Displacements from 1,07 cm³/rev ▪ 0.07 in³/rev to 91,10 cm³/rev ▪ 5.56 in³/rev available in groups 10, 20 and 30.

Max. peak pressure up to 300 bar ▪ 4350 psi.

Max. speed up to 4000 min⁻¹.



Features

- ✦ High efficiencies
- ✦ Integrated outboard bearings for heavy duty applications
- ✦ Multiple units available in standard version, common inlet and separated stages
- ✦ Electro-hydraulic fan drive system
- ✦ Custom design

Optional built-in valves

- ✦ Anticavitation valves
- ✦ Maximum pressure relief valves
- ✦ Priority valves
- ✦ Load-Sensing priority valves
- ✦ By-pass electric valves
- ✦ Proportional relief valves
- ✦ Reverse valves

Main characteristics

	Displacement	Max. continuous pressure	Max. speed
POLARIS 10	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
PL. 10•1	1,07 ▪ 0.07	260 ▪ 3750	4000
PL. 10•1,5	1,60 ▪ 0.10	260 ▪ 3750	4000
PL. 10•2	2,13 ▪ 0.13	260 ▪ 3750	4000
PL. 10•2,5	2,67 ▪ 0.16	260 ▪ 3750	4000
PL. 10•3,15	3,34 ▪ 0.20	260 ▪ 3750	4000
PL. 10•4	4,27 ▪ 0.26	250 ▪ 3600	4000
PL. 10•5	5,34 ▪ 0.33	250 ▪ 3600	4000
PL. 10•5,8	6,20 ▪ 0.38	230 ▪ 3350	3500
PL. 10•6,3	6,67 ▪ 0.41	230 ▪ 3350	3500
PL. 10•8	8,51 ▪ 0.52	180 ▪ 2600	3500
PL. 10•10	10,67 ▪ 0.65	140 ▪ 2050	3500
POLARIS 20	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
PL. 20•4	4,95 ▪ 0.30	250 ▪ 3600	4000
PL. 20•6,3	6,61 ▪ 0.40	250 ▪ 3600	4000
PL. 20•7,2	7,29 ▪ 0.44	250 ▪ 3600	4000
PL. 20•8	8,26 ▪ 0.50	250 ▪ 3600	3500
PL. 20•9	9,17 ▪ 0.56	250 ▪ 3600	3500
PL. 20•10,5	10,90 ▪ 0.66	250 ▪ 3600	3500
PL. 20•11,2	11,23 ▪ 0.69	250 ▪ 3600	3500
PL. 20•14	14,53 ▪ 0.89	250 ▪ 3600	3500
PL. 20•16	16,85 ▪ 1.03	250 ▪ 3600	3000
PL. 20•19	19,09 ▪ 1.16	200 ▪ 2900	3000
PL. 20•20	21,14 ▪ 1.29	200 ▪ 2900	3000
PL. 20•24,5	24,84 ▪ 1.52	170 ▪ 2450	2500
PL. 20•25	26,42 ▪ 1.61	170 ▪ 2450	2500
PL. 20•27,8	28,21 ▪ 1.72	130 ▪ 1900	2000
PL. 20•31,5	33,03 ▪ 2.01	130 ▪ 1900	2000
POLARIS 30	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
PL. 30•22	21,99 ▪ 1.34	250 ▪ 3600	3000
PL. 30•27	26,70 ▪ 1.63	250 ▪ 3600	3000
PL. 30•34	34,55 ▪ 2.11	240 ▪ 3500	3000
PL. 30•38	39,27 ▪ 2.40	240 ▪ 3500	3000
PL. 30•43	43,98 ▪ 2.68	230 ▪ 3350	3000
PL. 30•51	51,83 ▪ 3.16	210 ▪ 3050	2500
PL. 30•61	61,26 ▪ 3.74	190 ▪ 2750	2500
PL. 30•73	73,82 ▪ 4.50	170 ▪ 2450	2500
PL. 30•82	81,68 ▪ 4.98	160 ▪ 2300	2200
PL. 30•90	91,10 ▪ 5.56	150 ▪ 2200	2200

NOTES

PL. : PLP = pump / PLM = motor

Aluminium body gear pumps

WHISPER series: low noise emission - reduced pulsations by 75%

Gear pumps built in three pieces with an extruded body in high resistance aluminium alloy. WHISPER is a new and original technology protected by international patents and applied to a family of external gear pumps that feature low noise emissions. The wide choice of shafts, flanges and ports, in compliance with all international standards (SAE, DIN and EUROPEAN) allow for their use in an infinite variety of applications.

Displacements from 1,12 cm³/rev ▪ 0.07 in³/rev to 96,85 cm³/rev ▪ 5.91 in³/rev available in groups 10, 20 and 30.

Max. peak pressure up to 300 bar ▪ 4350 psi.

Max. speed up to 4000 min⁻¹.



Features

- ✦ High efficiencies
- ✦ Low noise emission
- ✦ Integrated outboard bearings for heavy duty applications
- ✦ Multiple units
- ✦ Custom design

Optional built-in valves

- ✦ Anticavitation valves
- ✦ Maximum pressure relief valves
- ✦ Priority valves
- ✦ Load-Sensing priority valves
- ✦ By-pass electric valves

Main characteristics

	Displacement		Max. continuous pressure	Max. speed
	cm ³ /rev	in ³ /rev		
WHISPER 10	cm ³ /rev	in ³ /rev	bar ▪ psi	min ⁻¹
WSP 10•1	1,12	0.07	260 ▪ 3750	4000
WSP 10•1,5	1,68	0.10	260 ▪ 3750	4000
WSP 10•2	2,24	0.14	260 ▪ 3750	4000
WSP 10•2,5	2,80	0.17	260 ▪ 3750	4000
WSP 10•3,15	3,48	0.21	260 ▪ 3750	4000
WSP 10•4	4,45	0.27	250 ▪ 3600	4000
WSP 10•5	5,60	0.34	250 ▪ 3600	4000
WSP 10•5,8	6,51	0.40	230 ▪ 3350	3500
WSP 10•6,3	7,00	0.43	230 ▪ 3350	3500
WSP 10•8	8,92	0.54	180 ▪ 2600	3500
WSP 10•10	11,20	0.68	140 ▪ 2050	3500
WHISPER 20	cm ³ /rev	in ³ /rev	bar ▪ psi	min ⁻¹
WSP 20•4	5,25	0.32	250 ▪ 3600	4000
WSP 20•6,3	7,00	0.43	250 ▪ 3600	4000
WSP 20•7,2	7,72	0.47	250 ▪ 3600	4000
WSP 20•8	8,74	0.53	250 ▪ 3600	3500
WSP 20•9	9,65	0.59	250 ▪ 3600	3500
WSP 20•10,5	11,54	0.70	250 ▪ 3600	3500
WSP 20•11,2	11,89	0.73	250 ▪ 3600	3500
WSP 20•14	15,39	0.94	250 ▪ 3600	3500
WSP 20•16	17,84	1.09	250 ▪ 3600	3000
WSP 20•19	20,22	1.23	200 ▪ 2900	3000
WSP 20•20	22,38	1.37	200 ▪ 2900	3000
WSP 20•24,5	26,30	1.60	170 ▪ 2450	2500
WSP 20•25	27,98	1.71	170 ▪ 2450	2500
WSP 20•27,8	29,87	1.82	130 ▪ 1900	2000
WSP 20•31,5	34,98	2.13	130 ▪ 1900	2000
WHISPER 30	cm ³ /rev	in ³ /rev	bar ▪ psi	min ⁻¹
WSP 30•22	23,38	1.43	250 ▪ 3600	3000
WSP 30•27	28,39	1.73	250 ▪ 3600	3000
WSP 30•34	36,74	2.24	240 ▪ 3500	3000
WSP 30•38	41,75	2.55	240 ▪ 3500	3000
WSP 30•43	46,76	2.85	230 ▪ 3350	3000
WSP 30•51	55,10	3.36	210 ▪ 3050	2500
WSP 30•61	65,12	3.97	190 ▪ 2750	2500
WSP 30•73	78,48	4.79	170 ▪ 2450	2500
WSP 30•82	86,83	5.30	160 ▪ 2300	2200
WSP 30•90	96,85	5.91	150 ▪ 2200	2200

POLARIS “PH” series

Gear pumps and motors built in three pieces with cast iron body. The new gear pumps and motors “PH” series is an evolution of the “POLARIS” series. “POLARIS PH” has a new body made of cast iron to have higher operating parameters and keep the full POLARIS versatility regarding shafts, flanges, ports and built-in valves.

This project is targeted for forklifts, skid steer loaders and all those applications where traditional aluminum pumps are being pushed close to their limits. The possibility to mate the body with the cast iron covers further reduces noise levels, in addition to increasing strength.

Displacements from 19,09 cm³/rev ▪ 1.16 in³/rev to 33,03 cm³/rev ▪ 2.01 in³/rev.

Max. peak pressure up to 300 bar ▪ 4350 psi.

Max. speed up to 3500 min⁻¹.



Main characteristics

POLARIS PH 20	Displacement		Max. continuous pressure		Max. speed
	cm ³ /rev	in ³ /rev	bar	psi	min ⁻¹
PH. 20•19	19,09	1.16	250	3600	3500
PH. 20•20	21,14	1.29	250	3600	3500
PH. 20•23	23,32	1.42	250	3600	3000
PH. 20•24,5	24,84	1.52	230	3350	3000
PH. 20•25	26,42	1.61	230	3350	3000
PH. 20•27,8	28,21	1.72	200	2900	2500
PH. 20•31,5	33,03	2.01	200	2900	2500

NOTES

PH. : PHP = pump / PHM = motor

Features

- ✦ High working pressure also for high displacements
- ✦ Long service life
- ✦ Low noise level
- ✦ High volumetric efficiency also at high temperature
- ✦ Inlet & Outlet optimization – High speed
- ✦ Combination in multiple pumps
- ✦ Built-in Valves simplify circuit design

Optional built-in valves

- ✦ Anticavitation valves
- ✦ Maximum pressure relief valves
- ✦ Priority valves
- ✦ Load-Sensing priority valves
- ✦ By-pass electric valves
- ✦ Proportional relief valves
- ✦ Reverse valves

KAPPA series

Gear pumps and motors made of cast iron in two pieces. KAPPA is available with mounting flanges and side or rear ports according to SAE and European standard. The rigidity of assembly ensure reliability and high volumetric efficiency also at high operating pressures.

Displacements from 4,95 cm³/rev ▪ 0.30 in³/rev to 73,82 cm³/rev ▪ 4.50 in³/rev available in groups 20 and 30.

Max. peak pressure up to 330 bar ▪ 4800 psi.

Max. speed up to 4000 min⁻¹.



Main characteristics

	Displacement		Max. continuous pressure		Max. speed min ⁻¹
	cm ³ /rev	in ³ /rev	bar	psi	
KAPPA 20	cm ³ /rev	in ³ /rev	bar	psi	min ⁻¹
K. 20•4	4,95	0.30	285	4150	4000
K. 20•6,3	6,61	0.40	285	4150	4000
K. 20•8	8,26	0.50	285	4150	3500
K. 20•11,2	11,23	0.69	275	4000	3500
K. 20•14	14,53	0.89	265	3850	3500
K. 20•16	16,85	1.03	260	3750	3000
K. 20•20	21,14	1.29	210	3050	3000
K. 20•25	26,42	1.61	180	2600	2500
K. 20•31,5	33,03	2.01	140	2050	2500
KAPPA 30	cm ³ /rev	in ³ /rev	bar	psi	min ⁻¹
K. 30•27	26,70	1.63	280	4050	3000
K. 30•34	34,56	2.11	260	3750	3000
K. 30•38	39,27	2.40	260	3750	3000
K. 30•43	43,98	2.68	250	3600	3000
K. 30•51	51,83	3.16	230	3350	2500
K. 30•56	56,54	3.45	215	3100	2500
K. 30•61	61,26	3.74	200	2900	2500
K. 30•73	73,82	4.50	180	2600	2500

Features

- ◆ High operating pressures
- ◆ High efficiency at high temperature
- ◆ Low noise emission

Optional built-in valves

- ◆ Priority valves
- ◆ Load-Sensing priority valves

NOTES

K. : KP = pump / KM = motor

KAPPA COMPACT series

Gear pumps and motors made of cast iron in two pieces. A rigid and compact structure that makes it possible to incorporate a number of functions in a limited space. The reduced dimensions as well as a large variety of drive shafts, mounting flanges and ports ensure great flexibility in the “Compact” line.

Wide range of displacements: from 19,00 cm³/rev ▪ 1.16 in³/rev to 150,79 cm³/rev ▪ 9.20 in³/rev available in groups 25, 30, 35 and 40.

Max. peak pressure up to 325 bar ▪ 4700 psi.

Max. speed up to 3500 min⁻¹.



Features

- ✦ High operating pressures
- ✦ Low noise emission
- ✦ Exceptional working life expectancy
- ✦ Solid and compact design
- ✦ Custom design

Optional built-in valves

- ✦ Antishock and anticavitation valves
- ✦ Priority valves
- ✦ Load-Sensing priority valves
- ✦ By-pass electric valves

Main characteristics

	Displacement	Max. continuous pressure	Max. speed
KAPPA compact 25	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
K. 25•19	19,00 ▪ 1.16	280 ▪ 4050	3500
K. 25•21	21,07 ▪ 1.29	280 ▪ 4050	3500
K. 25•23	23,06 ▪ 1.41	280 ▪ 4050	3500
K. 25•25	25,04 ▪ 1.53	280 ▪ 4050	3500
K. 25•27	27,03 ▪ 1.65	280 ▪ 4050	3500
K. 25•31	31,09 ▪ 1.90	275 ▪ 4000	3000
K. 25•34	34,03 ▪ 2.08	275 ▪ 4000	3000
K. 25•38	38,00 ▪ 2.32	230 ▪ 3350	3000
K. 25•43	43,01 ▪ 2.62	210 ▪ 3050	3000
KAPPA compact 30	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
K. 30•22	21,99 ▪ 1.34	280 ▪ 4050	3000
K. 30•27	26,70 ▪ 1.63	280 ▪ 4050	3000
K. 30•31	30,63 ▪ 1.87	260 ▪ 3750	3000
K. 30•34	34,56 ▪ 2.11	260 ▪ 3750	3000
K. 30•38	39,27 ▪ 2.40	260 ▪ 3750	3000
K. 30•41	41,62 ▪ 2.54	250 ▪ 3600	3000
K. 30•43	43,98 ▪ 2.68	250 ▪ 3600	3000
K. 30•46	46,34 ▪ 2.83	250 ▪ 3600	3000
K. 30•51	51,83 ▪ 3.16	230 ▪ 3350	2500
K. 30•56	56,54 ▪ 3.45	215 ▪ 3100	2500
K. 30•61	61,26 ▪ 3.74	200 ▪ 2900	2500
K. 30•73	73,82 ▪ 4.50	180 ▪ 2600	2500
KAPPA compact 35	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
KP 35•63	63,88 ▪ 3.90	260 ▪ 3750	3000
KP 35•71	72,40 ▪ 4.42	260 ▪ 3750	3000
KP 35•80	80,91 ▪ 4.94	260 ▪ 3750	3000
KP 35•90	91,56 ▪ 5.59	245 ▪ 3550	2500
KP 35•100	100,08 ▪ 6.10	230 ▪ 3350	2500
KAPPA compact 40	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
K. 40•63	61,43 ▪ 3.75	300 ▪ 4350	2800
K. 40•73	72,60 ▪ 4.43	300 ▪ 4350	2800
K. 40•87	86,56 ▪ 5.28	280 ▪ 4050	2800
K. 40•109	108,90 ▪ 6.64	250 ▪ 3600	2800
K. 40•121	121,80 ▪ 7.43	230 ▪ 3350	2500
K. 40•133	134,03 ▪ 8.18	220 ▪ 3200	2500
K. 40•151	150,79 ▪ 9.20	200 ▪ 2900	2500

NOTES

K. : KP = pump / KM = motor

Cast iron body gear pumps

FORMULA and FORMULA SFP series

Gear pumps made of cast iron in two pieces, ideal for truck application.

Displacements from 8,26 cm³/rev ▪ 0.50 in³/rev to 150,79 cm³/rev ▪ 9.20 in³/rev available in groups 20, 30, 35 and 40.

Max. peak pressure up to 325 bar ▪ 4700 psi.

Max. speed up to 3000 min⁻¹.



Features

- ◆ High performance also at very low speed
- ◆ Different ports position availability
- ◆ Low noise emission
- ◆ Shaft seal system no leakage guarantee
- ◆ Modular design
- ◆ Direct mounting on the PTOs

Main characteristics

	Displacement	Max. continuous pressure	Max. speed
	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
FORMULA 20			
FP 20•8	8,26 ▪ 0.50	280 ▪ 4050	2000
FP 20•11,2	11,23 ▪ 0.69	280 ▪ 4050	2000
FP 20•16	16,85 ▪ 1.03	280 ▪ 4050	2000
FP 20•20	21,14 ▪ 1.29	260 ▪ 3750	2000
FP 20•25	26,42 ▪ 1.61	220 ▪ 3200	2000
FP 20•31,5	33,03 ▪ 2.01	190 ▪ 2750	1800
FP 20•36	35,94 ▪ 2.19	170 ▪ 2450	1800
FP 20•40	39,64 ▪ 2.42	160 ▪ 2300	1800
FORMULA 30			
FP 30•17	17,28 ▪ 1.05	290 ▪ 4200	3000
FP 30•27	26,70 ▪ 1.63	290 ▪ 4200	3000
FP 30•34	34,56 ▪ 2.11	280 ▪ 4050	2800
FP 30•38	39,27 ▪ 2.40	280 ▪ 4050	2800
FP 30•43	43,98 ▪ 2.68	270 ▪ 3900	2500
FP 30•51	51,83 ▪ 3.16	240 ▪ 3500	2500
FP 30•61	61,26 ▪ 3.74	220 ▪ 3200	2000
FP 30•73	73,82 ▪ 4.50	200 ▪ 2900	1800
FP 30•82	81,68 ▪ 4.98	190 ▪ 2750	1800
FP 30•100	100,52 ▪ 6.16	180 ▪ 2600	1800
FP 30•125	125,66 ▪ 7.67	160 ▪ 2300	1800
FORMULA 40			
FP 40•63	61,43 ▪ 3.75	290 ▪ 4200	2700
FP 40•73	72,60 ▪ 4.43	280 ▪ 4050	2700
FP 40•87	86,56 ▪ 5.28	260 ▪ 3750	2700
FP 40•109	108,90 ▪ 6.64	240 ▪ 3500	2700
FP 40•133	134,03 ▪ 8.18	220 ▪ 3200	2500
FP 40•151	150,79 ▪ 9.20	180 ▪ 2600	2500
FORMULA SFP 30			
SFP 30•34	35,43 ▪ 2.16	280 ▪ 4050	2800
SFP 30•43	45,09 ▪ 2.75	270 ▪ 3900	2500
SFP 30•51	53,14 ▪ 3.24	250 ▪ 3600	2500
SFP 30•61	62,80 ▪ 3.83	230 ▪ 3350	2500
SFP 30•73	75,68 ▪ 4.62	205 ▪ 2950	2250
SFP 30•82	83,74 ▪ 5.11	195 ▪ 2800	2250
FORMULA SFP 35			
SFP 35•90	95,99 ▪ 5.86	230 ▪ 3350	2250
SFP 35•100	104,92 ▪ 6.40	220 ▪ 3200	2250
SFP 35•112	118,31 ▪ 7.22	205 ▪ 2950	2250

MAGNUM series

Gear pumps and motors made of cast iron in three pieces. An extremely versatile and reliable design, also in the most extreme operating conditions.

Displacements from 17,28 cm³/rev ▪ 1.05 in³/rev to 125,63 cm³/rev ▪ 7.66 in³/rev available in groups 30 and 35.

Max. peak pressure up to 320 bar ▪ 4650 psi.

Max. speed up to 3000 min⁻¹.



Features

- ◆ Wide range of drive shafts and flanges in SAE version
- ◆ More choices of port locations
- ◆ Integrated outboard bearings for heavy duty applications
- ◆ Multiple units available in standard version, common inlet and separated stages
- ◆ Exceptional working life expectancy

Main characteristics

	Displacement		Max. continuous pressure		Max. speed min ⁻¹
	cm ³ /rev	in ³ /rev	bar	psi	
MAGNUM 30					
HD. 30•17	17,28	1.05	280	4050	3000
HD. 30•22	21,99	1.34	280	4050	3000
HD. 30•24	24,03	1.47	280	4050	3000
HD. 30•27	26,70	1.63	280	4050	3000
HD. 30•34	34,56	2.11	270	3900	3000
HD. 30•38	39,27	2.40	270	3900	3000
HD. 30•43	43,98	2.68	260	3750	3000
HD. 30•51	51,83	3.16	230	3350	2500
HD. 30•56	56,55	3.45	215	3100	2500
HD. 30•61	61,26	3.74	200	2900	2000
HD. 30•73	73,82	4.50	190	2750	1700
HD. 30•82	81,68	4.98	170	2450	1500
MAGNUM 35					
HD. 35•40	40,46	2.47	270	3900	3000
HD. 35•50	51,10	3.12	270	3900	3000
HD. 35•63	63,88	3.90	270	3900	3000
HD. 35•71	72,40	4.42	250	3600	3000
HD. 35•80	80,91	4.94	250	3600	3000
HD. 35•90	91,56	5.59	230	3350	2700
HD. 35•100	100,08	6.10	210	3050	2700
HD. 35•112	112,85	6.88	190	2750	2700
HD. 35•125	125,63	7.66	170	2450	2500

NOTES

HD. : HDP = pump / HDM = motor

Aluminium body gear flow dividers

POLARIS series

Gear flow dividers made of high resistance aluminium alloy. These components can be used as flow equalizers, flow dividers and pressure intensifiers.

Displacements from 2,14 cm³/rev ▪ 0.13 in³/rev to 33,03 cm³/rev ▪ 2.01 in³/rev available in groups 10 and 20.

Max. peak pressure up to 280 bar ▪ 4050 psi.



Features

- ◆ Modular design
- ◆ Accurate division of flow
- ◆ Built-in relief valves
- ◆ Combinations between different groups

Main characteristics

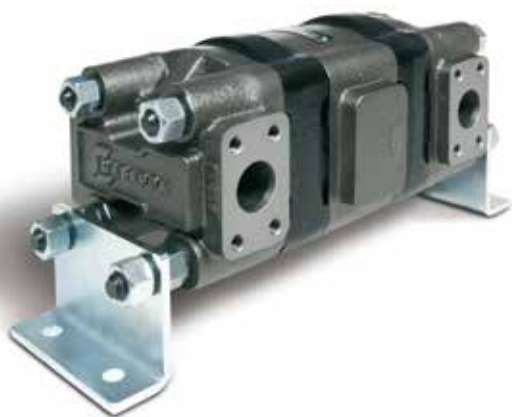
	Displacement	Max. continuous outlet pressure	Max. speed
POLARIS 10	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
PLD 10•2	2,14 ▪ 0.13	250 ▪ 3600	4200
PLD 10•3,15	3,34 ▪ 0.20	250 ▪ 3600	3990
PLD 10•4	4,27 ▪ 0.26	250 ▪ 3600	3940
PLD 10•5	5,34 ▪ 0.33	250 ▪ 3600	3680
PLD 10•6,3	6,67 ▪ 0.41	250 ▪ 3600	3500
POLARIS 20	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
PLD 20•4	4,95 ▪ 0.30	250 ▪ 3600	4100
PLD 20•6,3	6,61 ▪ 0.40	250 ▪ 3600	3970
PLD 20•8	8,26 ▪ 0.50	250 ▪ 3600	3850
PLD 20•11,2	11,23 ▪ 0.69	250 ▪ 3600	3660
PLD 20•14	14,53 ▪ 0.89	250 ▪ 3600	3460
PLD 20•16	16,85 ▪ 1.03	200 ▪ 2900	3335
PLD 20•20	21,14 ▪ 1.29	200 ▪ 2900	3125
PLD 20•25	26,42 ▪ 1.61	200 ▪ 2900	2900
PLD 20•31,5	33,03 ▪ 2.01	200 ▪ 2900	2660

MAGNUM series

Gear flow dividers made of cast iron. These components can be used as flow equalizers, flow dividers and pressure intensifiers.

Displacements from 17,28 cm³/rev ▪ 1.05 in³/rev to 125,63 cm³/rev ▪ 7.66 in³/rev available in groups 30 and 35.

Max. peak pressure up to 320 bar ▪ 4650 psi.



Features

- ✦ Modular design
- ✦ Accurate division of flow
- ✦ High flow
- ✦ Combinations between different groups

Main characteristics

	Displacement	Max. continuous outlet pressure	Max. speed
MAGNUM 30	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
HDD 30•17	17,28 ▪ 1.05	280 ▪ 4050	3000
HDD 30•22	21,99 ▪ 1.34	280 ▪ 4050	3000
HDD 30•27	26,70 ▪ 1.63	280 ▪ 4050	3000
HDD 30•34	34,56 ▪ 2.11	270 ▪ 3900	3000
HDD 30•43	43,98 ▪ 2.68	260 ▪ 3750	3000
HDD 30•51	51,83 ▪ 3.16	230 ▪ 3350	2500
HDD 30•61	61,26 ▪ 3.74	200 ▪ 2900	2000
HDD 30•73	73,82 ▪ 4.50	190 ▪ 2750	1700
HDD 30•82	81,68 ▪ 4.98	170 ▪ 2450	1500
MAGNUM 35	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
HDD 35•50	51,10 ▪ 3.12	270 ▪ 3900	3000
HDD 35•63	63,88 ▪ 3.90	270 ▪ 3900	3000
HDD 35•71	72,40 ▪ 4.42	250 ▪ 3600	3000
HDD 35•80	80,91 ▪ 4.94	250 ▪ 3600	3000
HDD 35•90	91,56 ▪ 5.59	230 ▪ 3350	2700
HDD 35•100	100,08 ▪ 6.10	210 ▪ 3050	2700
HDD 35•112	112,85 ▪ 6.88	190 ▪ 2750	2700
HDD 35•125	125,63 ▪ 7.66	170 ▪ 2450	2500

Fixed displacement axial piston pumps

STRADA series

Fixed displacement bent axis piston pumps. STRADA pumps are ideally suited for PTOs applications in vehicles.

Displacements from 40,9 cm³/rev ▪ 2.49 in³/rev to 110 cm³/rev ▪ 6.71 in³/rev available in groups 32 and 37.

Max. peak pressure up to 400 bar ▪ 5800 psi.

Max. speed up to 2950 min⁻¹.



Main characteristics

	Displacement	Max. continuous pressure	Max. speed
STRADA 32	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
BAP 32•40	40,90 ▪ 2.49	350 ▪ 5100	2950
BAP 32•50	50,10 ▪ 3.06	350 ▪ 5100	2750
BAP 32•63	63,00 ▪ 3.84	350 ▪ 5100	2450
BAP 32•71	71,60 ▪ 4.37	315 ▪ 4600	2250
BAP 32•80	78,30 ▪ 4.78	315 ▪ 4600	2200
STRADA 37	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
BAP 37•80	79,10 ▪ 4.83	350 ▪ 5100	2500
BAP 37•110	110,00 ▪ 6.71	300 ▪ 4350	2300

Features

- ◆ Low noise level
- ◆ Direct mounting on the PTOs
- ◆ Compact design
- ◆ High volumetric, mechanical and overall efficiency
- ◆ Available in ISO and UNI standard

PLATA series

Fixed displacement axial piston pumps and motors swash plate design for open circuit applications. The design itself is extremely compact while integrating a number of functions, with an electrically controlled valve on the pump and antishock valves on the motor.

Unidirectional pumps LFP48: displacements from 27 cm³/rev ▪ 1.65 in³/rev to 48,2 cm³/rev ▪ 2.94 in³/rev.

Reversible motors LFM30: displacements from 22 cm³/rev ▪ 1.34 in³/rev to 30,2 cm³/rev ▪ 1.84 in³/rev.

Max. peak pressure up to 350 bar ▪ 5100 psi.



Main characteristics

	Displacement		Max. continuous pressure		Max. speed min ⁻¹
	cm ³ /rev	in ³ /rev	bar	psi	
PLATA pumps	cm ³ /rev	in ³ /rev	bar	psi	min ⁻¹
LFP 48•27	27,00	1.65	280	4050	2600
LFP 48•34	34,00	2.07	280	4050	2600
LFP 48•36,7	36,70	2.24	280	4050	2600
LFP 48•45,5	45,50	2.78	280	4050	2600
LFP 48•48	48,20	2.94	280	4050	2600
PLATA motors	cm ³ /rev	in ³ /rev	bar	psi	min ⁻¹
LFM 30•22	22,00	1.34	280	4050	4900
LFM 30•26,5	26,50	1.62	280	4050	4800
LFM 30•28,5	28,50	1.74	280	4050	4700
LFM 30•30,2	30,20	1.84	280	4050	4500

Pumps features

- ✦ Three-position electrically controlled valve with relief valve
- ✦ Electronic control of the rotor start-up and stop ramps
- ✦ Rotation reverse with controlled delay
- ✦ Easy integration with the machine cabin controls
- ✦ Auxiliary gear pump with common suction, available with either cast-iron or aluminium body

Motors features

- ✦ Reversible rotation with integral antishock valves
- ✦ European and SAE standard mounting flanges
- ✦ Side or rear inlet options
- ✦ Compact size

Variable displacement axial piston pumps

PLATA LVP series

Variable displacement axial piston pumps swash plate design. PLATA pumps are ideally suited for medium and high pressure open circuit applications.

Displacements from 28,70 cm³/rev ▪ 1.75 in³/rev to 87,90 cm³/rev ▪ 5.36 in³/rev.

Max. peak pressure up to 350 bar ▪ 5100 psi.

Max. speed up to 3000 min⁻¹.



Main characteristics

PLATA LVP	Max displacement	Max. continuous pressure	Max. speed
	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
LVP 30	28,70 ▪ 1.75	280 ▪ 4050	3000
LVP 48	45,40 ▪ 2.77	280 ▪ 4050	2600
LVP 75	73,60 ▪ 4.49	280 ▪ 4050	2600
LVP 90	87,90 ▪ 5.36	250 ▪ 3600	2200

Features

- ✦ Energy savings
- ✦ Low noise emission
- ✦ Short response time
- ✦ Drive shaft bearing suitable for radial and axial loads
- ✦ Multiple combinations

Controls

- ✦ Pressure compensator
- ✦ Flow and pressure compensator (Load-Sensing)
- ✦ Torque limiter
- ✦ Electrohydraulic servocontrols

MVP and MVPD series

Variable displacement axial piston pumps swash plate design ideally suited for open circuit in mobile hydraulic applications. The compact design allows to be mounted directly on engine motors.

The new "MVPD" series allow higher flow rates than traditional pumps with same dimensions, higher machine speeds without affecting the design of the hydraulic system and a high power-to-dimensions ratio.

Displacements from 28 cm³/rev ▪ 1.74 in³/rev to 84,7 cm³/rev ▪ 5.17 in³/rev.

Max. peak pressure up to 350 bar ▪ 5100 psi.

Max. speed up to 3700 min⁻¹.



Main characteristics

	Max displacement	Max. continuous pressure	Max. speed
MVP	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
MVP 30.28	28,00 ▪ 1.74	280 ▪ 4050	3500
MVP 30.34	34,80 ▪ 2.12	250 ▪ 3600	2900
MVP 48.45	45,00 ▪ 2.75	280 ▪ 4050	3000
MVP 48.53	53,70 ▪ 3.28	250 ▪ 3600	2500
MVP 60.60	60,00 ▪ 3.66	280 ▪ 4050	3000
MVP 60.72	72,00 ▪ 4.39	280 ▪ 4050	2700
MVP 60.84	84,70 ▪ 5.17	250 ▪ 3600	2500
MVPD	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
MVPD 30.34	34,00 ▪ 2.07	230 ▪ 3350	3700
MVPD 30.45	45,80 ▪ 2.75	230 ▪ 3350	3500
MVPD 48.60	60,00 ▪ 3.66	230 ▪ 3350	2600
MVPD 48.65	65,00 ▪ 3.97	230 ▪ 3350	2800

Features

- ✦ Exceptional working life expectancy
- ✦ Low noise emission
- ✦ Drive shaft bearing suitable for radial and axial loads
- ✦ Multiple combinations
- ✦ Short response time

MVPD additional features

- ✦ Higher speed
- ✦ Higher power-to-weight ratio
- ✦ Cost-optimized design

Controls

- ✦ Min. and max. displacement limiter
- ✦ Pressure compensator
- ✦ Flow and pressure compensator (Load-Sensing)
- ✦ Torque limiter
- ✦ Electronic controls

Variable displacement axial piston pumps

TVP series

Variable displacement axial piston pumps swash plate design ideally suited for open circuit truck applications.

The compact design allows to be mounted directly on the PTOs.

Displacements from 60,0 cm³/rev ▪ 3.66 in³/rev to 84,7 cm³/rev ▪ 5.17 in³/rev.

Max. peak pressure up to 400 bar ▪ 5800 psi.

Max. speed up to 3000 min⁻¹.



Main characteristics

TVP	Max displacement	Max. continuous pressure	Max. speed
	cm ³ /rev ▪ in ³ /rev	bar ▪ psi	min ⁻¹
TVP 60.60	60,00 ▪ 3.66	350 ▪ 5100	3000
TVP 60.72	72,00 ▪ 4.39	350 ▪ 5100	2700
TVP 60.84	84,70 ▪ 5.17	350 ▪ 5100	2500

Features

- ✦ Pump internal drain line
- ✦ Compensators external drain line
- ✦ Direct mounting on the PTOs
- ✦ Body width 124,2 mm (4.8898 in)
- ✦ Compact design
- ✦ Low noise emission

Controls

- ✦ Min. and max. displacement limiter
- ✦ Flow and pressure compensator (Load-Sensing)
- ✦ Electro-proportional pressure compensator

PLATA SVP - DVP series

Variable displacement axial piston pumps swash plate design for open circuit applications. SVP single flow, DVP dual flow on piston pump and an additional piggybacked gear pump. The automatic overall torque limiter allows to optimize the performance of the machine. SVP and DVP pumps have been designed specifically for mini excavators where compactness and ease of installation are critical.

Piston pump: displacements from 7,8 cm³/rev ▪ 0.48 in³/rev to 30 cm³/rev ▪ 1.83 in³/rev.

Gear pump: displacements from 4,95 cm³/rev ▪ 0.30 in³/rev to 21,14 cm³/rev ▪ 1.29 in³/rev.

Max. speed up to 2600 min⁻¹.



SVP and DVP features

- ‡ Compact design
- ‡ Torque limiter
- ‡ Energy savings
- ‡ Low noise emission
- ‡ Long service life

Main characteristics

	Max displacement		Max. continuous pressure		Max. speed min ⁻¹
	cm ³ /rev	in ³ /rev	bar	psi	
PLATA SVP	cm ³ /rev	in ³ /rev	bar	psi	min ⁻¹
SVP 7,8	15,60	0.95	210	3050	2600
SVP 8	16,00	0.98	210	3050	2600
SVP 8,5	17,00	1.04	210	3050	2600
SVP 9	18,00	1.10	210	3050	2600
SVP 10	20,00	1.22	210	3050	2600
SVP 11	22,00	1.34	210	3050	2600
SVP 12,5	25,00	1.53	210	3050	2600
SVP 14	28,00	1.71	210	3050	2600
SVP 15	30,00	1.83	210	3050	2600
PLATA DVP	cm ³ /rev	in ³ /rev	bar	psi	min ⁻¹
DVP 7,8	7,80x2	0.48x2	210	3050	2600
DVP 8	8,00x2	0.49x2	210	3050	2600
DVP 8,5	8,50x2	0.52x2	210	3050	2600
DVP 9	9,00x2	0.55x2	210	3050	2600
DVP 10	10,00x2	0.61x2	210	3050	2600
DVP 11	11,00x2	0.67x2	210	3050	2600
DVP 12,5	12,50x2	0.76x2	210	3050	2600
DVP 14	14,00x2	0.85x2	210	3050	2600
DVP 15	15,00x2	0.91x2	210	3050	2600
Gear pump	cm ³ /rev	in ³ /rev	bar	psi	min ⁻¹
KP 20•4	4,95	0.30	285	4150	2600
KP 20•6,3	6,61	0.40	285	4150	2600
KP 20•8	8,26	0.50	285	4150	2600
KP 20•11,2	11,23	0.69	275	4000	2600
KP 20•14	14,53	0.89	265	3850	2600
KP 20•16	16,85	1.03	260	3750	2600
KP 20•20	21,14	1.29	210	3050	2600

Hand pumps

Up Easy series

Double acting hand pumps providing flow in both directions of lever movement.
 Displacement from 12 cm³/cycle ▪ 0.73 in³/cycle to 45 cm³/cycle ▪ 2.75 in³/cycle.
 Max. pressure 315 bar ▪ 4600 psi.



Main characteristics

Up Easy	Displacement	Max. pressure
	cm ³ /cycle ▪ in ³ /cycle	bar ▪ psi
EP 12	12 ▪ 0.73	315 ▪ 4600
EP 25	25 ▪ 1.53	250 ▪ 3600
EP 45	45 ▪ 2.75	220 ▪ 3200

Features

- ◆ New interchangeable modular design for maximum flexibility
- ◆ Same pumping group with or without reservoir
- ◆ Suitable for auxiliary or emergency applications



Product range

Suction filters

In line filters spin-on

Tank mounted return line filters

In line medium and high pressure filters

Accessories



IKRON "Fluid Filtration", real specialist in designing and manufacturing of hydraulic filters. More than fifty years of experience taught Casappa just how important filtering is to optimise hydraulic control system efficiency and to extend component service life.

Since its foundation, IKRON has followed the ISO 9001 procedures, guaranteeing the care and professionalism for which its production has always been distinguished, from design to delivery. This is why our customers rely on IKRON every day.

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IKRON uses virtual simulation tools during the design phase to analyse and predict how its products will behave when installed in the hydraulic circuit.

Ikron offers a wide range of filters and accessories. Suction filters, return filters, in line spin-on filters, medium and high pressure filters. Clogging indicators, level and temperature gauges, filler breathers.





Suction filters

The tank submerged suction filters are designed to be fitted directly on pump intake and provide versatility to safeguard the hydraulic components from contaminating particles.



HF 410 series

- ✦ Flow up to 300 lpm ▪ 79.3 US gpm
- ✦ By-pass valve
- ✦ Oversized filtering surface

HF 431-434-437 series

- External tank connection ◀
- Aluminium head ◀
- Special version on request ◀
- Washable filtering media ◀



Main characteristics

Type	Nominal flow up to		Degree of filtration*	
	l/min	US gpm	MS (µm)	MI (µm)
HF 410	300	▪ 79.3	90	25-60-125-250
HF 431	220	▪ 58.1		60-125-250
HF 434	160	▪ 42.3		60-125-250
HF 437	160	▪ 42.3		60-125-250

NOTES

(*): MS = zinc plated steel wire mesh / MI = stainless steel wire mesh

In line filters spin-on

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



HF 620-625 series

- ▶ Easy filtering elements replacement
- ▶ Differential visual indicator
- ▶ Interchangeable with major manufacturers

HF 650 series

- Easy filtering elements replacement ◆
- High filtration performances ◆
- Operating pressure 35 bar ▪ 510 psi ◆
- Interchangeable with major manufacturers ◆



Main characteristics

Type	Nominal flow up to		Operating pressure		Degree of filtration*			
	l/min	US gpm	bar	psi	FG (µm)	MS (µm)	SP (µm)	RP (µm)
HF 620	350	▪ 92.5	12	▪ 174	10-25	60-90-125	10-25	
HF 625	220	▪ 58.1	25	▪ 360	10-25	60-90-125	10-25	
HF 650	180	▪ 48	35	▪ 510	3-6-10-16-25			10-25

NOTES

(*): FG = micro-fibre glass / MS = zinc plated steel wire mesh / SP = cellulose / RP = reinforced cellulose



Tank mounted return line filters

These filters are specifically designed to be directly connected on the hydraulic circuits return line and provide versatility to safeguard the circuit components from contaminating particles.



HF 502 series

- ▶ Operating pressure 8 bar ▪ 115 psi
- ▶ Interchangeable with major manufacturers
- ▶ Filler cap



HF 547 series

- ▶ Air breather (available also with pressurized version)
- ▶ Antisplash system
- ▶ Anodized housing
- ▶ Flange with four holes (only HF 547-20)



HF 508 series

- Flow up to 1000 lpm ▪ 264 US gpm
- Double inlet port
- Extension on the oil way out of the pipe union
- Fluid-decelerating diffuser



HF 570-575-578 series

- ▶ Inside-to-outside flow direction
- ▶ Magnetic pre-filtration
- ▶ Filler cap
- ▶ Interchangeable with major manufacturers



HF 554 series

- Air breather (available also with pressurized version)
- Antisplash system
- Anodized housing

Main characteristics

Type	Nominal flow up to		Operating pressure		Degree of filtration*				
	l/min	US gpm	bar	psi	FG (µm)	MS (µm)	MI (µm)	SP (µm)	RP (µm)
HF 502	630	▪ 166.5	8	▪ 115	3-6-10-25	90	25-60-125	10-25	10-25
HF 508	1000	▪ 264	8	▪ 115	3-6-10-25	90	25-60-125	10-25	10-25
HF 547	200	▪ 53	8	▪ 115	3-6-10-25	90	25-60-125	10-25	10-25
HF 554	630	▪ 166.5	8	▪ 115	3-6-10-25	90	25-60-125	10-25	10-25
HF 570	600	▪ 158	8	▪ 115	10-25			10-25	
HF 575	1200	▪ 317	8	▪ 115	10-25			10-25	
HF 578	1200	▪ 317	8	▪ 115	10-25		60-125	10-25	

NOTES

(*): FG = micro-fibre glass / MS = zinc plated steel wire mesh / MI = stainless steel wire mesh / SP = cellulose / RP = reinforced cellulose

In line medium and high pressure filters

The in-line medium and high 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.



HF 705 series

- ✦ Sintered bronze filter element
- ✦ Bidirectional flow
- ✦ Aluminium housing

HF 710 series

- Aluminium housing ✦
- Operating pressure 250 bar ▪ 3600 psi ✦
- Compact design and lightness ✦
- By-pass valve ✦
- Filtration ratio $\beta_x \geq 200$ ✦



HF 725 series

- ✦ CETOP 3 connections with reference to ISO4401
- ✦ Operating pressure 350 bar ▪ 5100 psi
- ✦ Modular assembly
- ✦ Compact design
- ✦ Filtration ratio $\beta_x \geq 200$



HF 733 - HF 735 series

- Multilayer system ✦
- Flanged directly on valve blocks and hydraulic Power-Pack ✦
- Filtration ratio $\beta_x \geq 200$ ✦



Main characteristics

Type	Nominal flow up to l/min ▪ US gpm	Operating pressure bar ▪ psi	Degree of filtration*		
			FG (µm)	MI (µm)	SB (µm)
HF 705	115 ▪ 30.4	350 ▪ 5100			10-25-40-60
HF 710	47 ▪ 12.4	250 ▪ 3600	3-6-10-25		
HF 725	20 ▪ 5.3	350 ▪ 5100	3-6-10-25	10-25	
HF 733	80 ▪ 21.1	250 ▪ 3600	3-6-10-25		
HF 735	150 ▪ 39.7	320 ▪ 4650	3-6-10-25		

NOTES (*): FG = micro-fibre glass / MI = stainless steel wire mesh / SB = sintered bronze


In line medium and high pressure filters

HF 743 - HF 745 - HF 748 series

- ▶ Interchangeable with major manufacturers
- ▶ Multilayer system
- ▶ Filtration ratio $\beta_x \geq 200$

HF 760-761 series

- Multilayer system ▶
- Wide range 20 - 30 - 40 ▶
- Interchangeable with major manufacturers ▶
- Filtration ratio $\beta_x \geq 200$ ▶


Main characteristics

Type	Nominal flow up to		Operating pressure		Degree of filtration*
	l/min	US gpm	bar	psi	FG (µm)
HF 743	95	25.1	250	3600	3-6-10-25
HF 745	170	45	280	4050	3-6-10-25
HF 748	145	38	280	4050	3-6-10-25
HF 760	450	120	420	6100	3-6-10-25
HF 761	420	111	420	6100	3-6-10-25

NOTES (*): FG = micro-fibre glass

Accessories

Filler breathers - Air filters - Level and temperature gauges - Pressure gauges - Pressure/Vacuum gauges - Clogging indicators: visual, electrical, visual differential and electrical visual differential.



DOC 02 R A

Edition: 02/02.2014

Replaces: DOC 01 R A



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