

## HP - MANUALLY OPERATED PUMPS - STEEL



Single or two speed operation

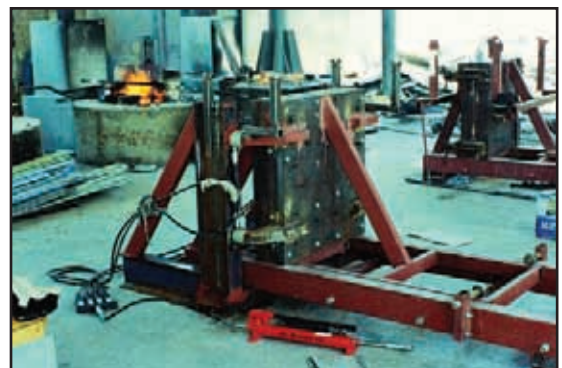
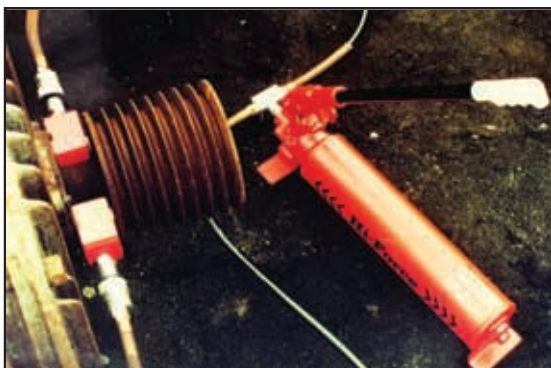
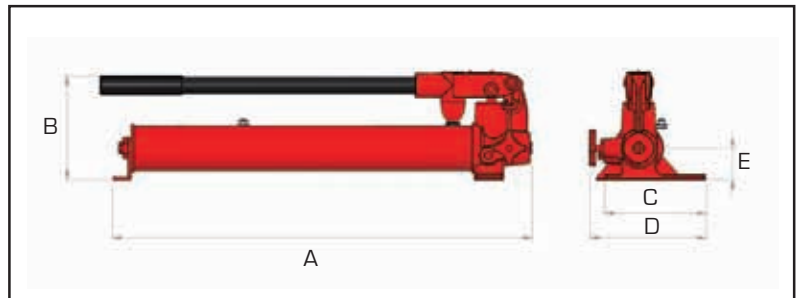
Choice of control valves

Working pressure 700 Bar

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The HP manually operated pump range offers a choice of single or two speed operation and all models are supplied complete with a pre-filled oil reservoir, ready for immediate use. All models have a maximum working pressure of 700 Bar and the range includes pump models suitable for use with either single acting cylinders or tools. The HP range offers the ideal solution for applications where completely independent, portable hydraulic power is required. With low handle effort characteristics for easy operation, all models are of strong durable construction. Hi-Force HP manually operated pumps have a proven track record industry wide and offer excellent value for money in portable hydraulic power. A full range of system components suitable for use with HP manually operated pumps is detailed on pages 49 - 56.

- >> Oil reservoir capacity up to 5 litres
- >> Durable steel construction
- >> External pressure release valve
- >> Factory set safety relief valve
- >> Changeover pressure for two speed models is 14 Bar



Model number	Valve type	Displacement per stroke cm <sup>3</sup>		Usable oil cap. litres	Handle effort kg	Weight kg
		1 <sup>st</sup> stage	2 <sup>nd</sup> stage			
Single speed hand operated pumps for single acting cylinders and tools						
HP145	2-way	2.9	-	0.45	45	4.6
HP110	2-way	2.9	-	1.0	45	5.6
Two speed hand operated pumps for single acting cylinders and tools						
HP227	2-way	12.9	2.3	2.3	38	10.5
HP257	2-way	12.9	2.3	5.0	38	15.2

Dimensions in mm				
A	B	C	D	E
360	128	145	134	40
560	128	145	134	40
544	168	145	135	53
545	168	145	135	53

## HP - MANUALLY OPERATED PUMPS - ALUMINIUM

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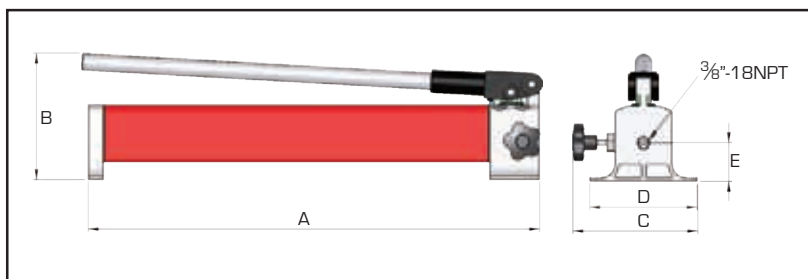
Two speed operation

Working pressure 700 Bar

Five models with choice of control valve

The HP manually operated aluminium pump range offers two speed operation and all models are supplied complete with a pre-filled oil reservoir, ready for immediate use. All models have a maximum working pressure of 700 Bar and the range includes pump models suitable for use with either single or double acting cylinders and tools. The HP range offers the ideal solution for applications where completely independent, portable hydraulic power is required. With low handle effort characteristics for easy operation and lightweight design, all models are of strong durable construction. Hi-Force HP manually operated pumps have a proven track record industry wide and offer excellent value for money in portable hydraulic power.

- >> Oil reservoir capacity up to 5 litres
- >> Lightweight aluminium construction
- >> External pressure release valve
- >> Factory set safety relief valve
- >> Changeover pressure 14 Bar



Model number	Valve type	Displacement per stroke cm <sup>3</sup>		Usable oil cap. litres	Handle effort kg	Weight kg
		1 <sup>st</sup> stage	2 <sup>nd</sup> stage			
Two speed hand operated pumps for single acting cylinders and tools						
HP212	2-way	12.9	2.3	1.0	40	4.0
HP232	2-way	12.9	2.3	2.0	40	6.9
HP252	2-way	12.9	2.3	5.0	40	9.6
Two speed hand operated pumps for double acting cylinders and tools						
HP232D	4-way	12.9	2.3	2.0	40	8.7
HP252D	4-way	12.9	2.3	5.0	40	13.6

Dimensions in mm				
A	B	C	D	E
536	142	115	100	40
536	160	140	140	51
585	160	150	140	51
555	160	180	140	32/74
600	160	180	140	32/74



HP245D

High flow manual pump

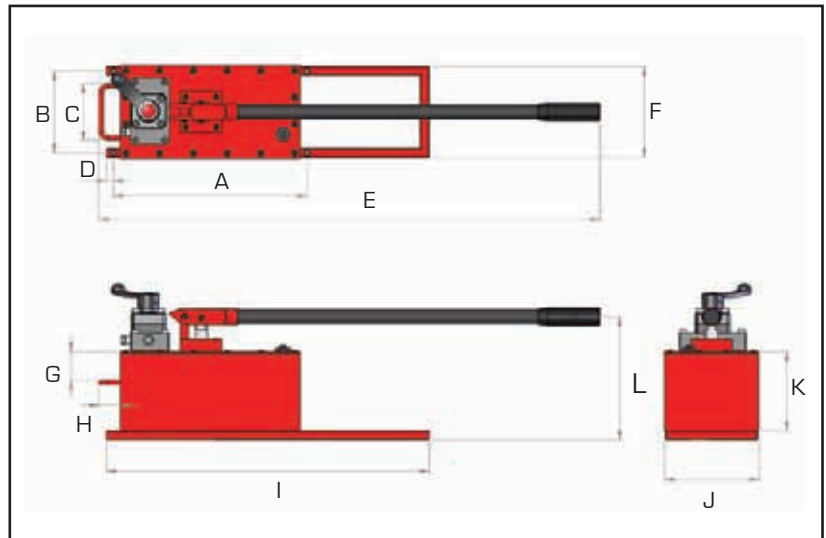
Working pressure 700 Bar

2 stage with semi automatic change-over

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The HP245 range of high flow, two speed, manually operated pumps is ideally suited for applications where high tonnage cylinders are to be used on sites, without any available electric or compressed air power supply. Both models are suitable for working pressures up to 700 Bar and the very high, low pressure displacement [113 cm<sup>3</sup> per stroke], enables fast piston extension (and retraction) under no load. These high performance pumps are also ideally suited to multiple cylinder lifting applications where a larger volume of oil is required to complete the job. Available with a 2-way valve for single acting cylinders or a 4-way valve for double acting cylinders, both models are supplied with a pre-filled 10 litre oil reservoir and are ready for immediate use.

- >> Durable steel construction
- >> Factory set safety relief valve
- >> Changeover pressure 28 Bar
- >> Low handle effort characteristics
- >> 10 litres of usable oil capacity



Model number	Valve type	Displacement per stroke cm <sup>3</sup>		Usable oil cap. litres	Handle effort kg	Material	Weight kg
		1 <sup>st</sup> stage	2 <sup>nd</sup> stage				
Two speed hand operated pump for single acting cylinders and tools							
HP245	2-Way	113	4	10	40	Steel	29.5
Two speed hand operated pump for double acting cylinders and tools							
HP245D	4-Way	113	4	10	40	Steel	31.0

Model number	Dimensions in mm											
	A	B	C	D	E	F	G	H	I	J	K	L
<b>HP245</b>	420	175	124	15	1046	200	63	47	700	205	173	270
<b>HP245D</b>	420	175	124	15	1046	200	63	47	700	205	173	270

## XHP - MANUALLY OPERATED ULTRA HIGH PRESSURE PUMP



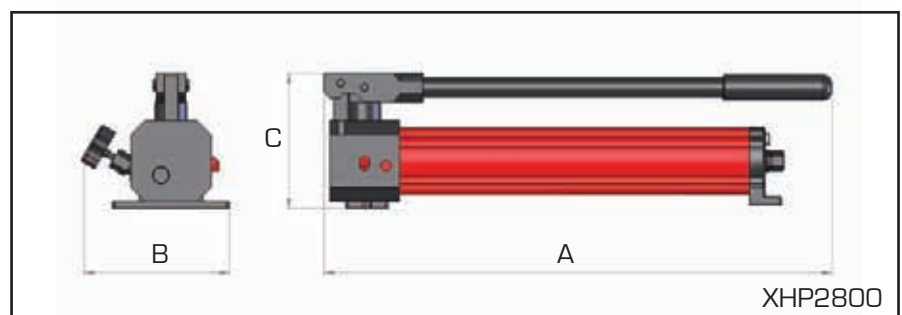
Compact design

Two speed operation

Working pressure up to 2800 Bar

- >> Lightweight aluminium construction
- >> Factory set safety relief valve
- >> External pressure release valve
- >> Low handle effort
- >> XHP1500 includes gauge as standard, optional gauge kit for XHP2800.

The XHP range of manually operated ultra high pressure hydraulic pumps is suitable for use in a wide range of high pressure applications, such as oil injection for bushing removal, valve testing, calibration work, laboratory burst and proof testing, etc. The two speed operation, with automatic changeover from low to high pressure at 14 Bar, provides easy and low handle effort operation. The XHP1500 features an integrated gauge as standard, the optional gauge kit for the XHP 2800 includes a three metre long high pressure hose with swivel fittings on both ends. Both gauges provide accurate and reliable pressure readings.



Pump specification :

Model number	Working pressure bar	Usable oil capacity litres	Displacement per stroke (cm <sup>3</sup> )		Outlet port	Weight kg
			1 <sup>st</sup> stage	2 <sup>nd</sup> stage		
<b>XHP1500</b>	1500	0.7	20.0	1.00	1/4" BSP	7.0
<b>XHP2800</b>	2800	1.0	14.0	0.65	3/4"-16 UNF	6.9

Pump only Dimensions in mm		
A	B	C
610	170	180
620	170	157

Optional gauge kit (for XHP2800 only) :

Model number	Inner scale reading	Outer scale reading	Inlet port	Outlet port	Weight kg
	PSI	Bar			
<b>XHP2800GK</b>	0-45000	0-3000	9/16"-18 UNF	9/16"-18 UNF	1.5


Pump incl. gauge kit Dimensions in mm		
Length	Width	Height
748	170	237

Supplied including adaptor to fit 3/4"-16 UNF pump outlet port and 3 m. hose assembly with swivel fittings on both ends


## POWERED PUMPS - GENERAL INFORMATION

Hi-Force offers a comprehensive range of powered pumps with a choice of either an electric driven motor, air driven motor or petrol driven motor. Depending on the required usage, please refer to the following guidelines for correct pump range selection. All models detailed below are 700 Bar maximum working pressure.


### Page 32

Light		The HEP1 series two stage electric driven hydraulic mini pump range offers a choice of 110 or 240 Volt motor, with both models being suitable for 700 Bar maximum working pressure. The two stage design offers a low pressure flow rate up to 2 litres/min with automatic changeover to high pressure, with a flow rate up to 0.25 litres/min. Incorporating a 2-way solenoid valve and internal safety overload valve, both models are extremely compact & lightweight, suitable for use with single acting Hi-Force cylinders or tools.
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### Pages 33 & 34

Standard		The HEP103 series two stage electric driven hydraulic pump range offers a choice of 110 or 240 Volt electric driven motors. All models are suitable for 700 Bar maximum working pressure. The two stage design offers a low pressure flow rate up to 2.5 litres/min with automatic changeover to high pressure, with a flow rate up to 0.35 litres/min. Available with manual or solenoid valve options, suitable for both single acting and double acting cylinders and tools in a wide variety of applications.
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### Page 35

Intermediate		The HEP2 series two stage electric driven hydraulic pump range offers a low pressure flow rate of 7 litres/min with automatic changeover to high pressure flow rate of 0.65 litres/min up to 700 Bar with a choice of 110, 240 or 380/440 Volt motor options. With 2, 3 or 4-way manual and electric solenoid valve options the HEP2 series is suitable for a wide range of applications and is the most commonly selected Hi-Force electric pump. All HEP2 series pumps are also fitted with an externally adjustable pressure relief valve for easy adjustment up to the maximum working pressure of 700 Bar.
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### Page 36

Continuous		The HEP3 series two stage electric driven hydraulic pump range has all the features of the HEP2 series, but with an increased flow of 10 litres/min at low pressure and 1 litre/min at high pressure (up to 700 Bar) these pumps are particularly useful when operating high tonnage or long stroke cylinders. Both HEP2 and HEP3 range of electric pumps are fitted with totally enclosed, fan cooled, low noise, electric motors, making them ideal for quiet in-works operation or outdoor site use in most environments.
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### Page 37

Heavy duty		The HEP5 series two stage electric driven hydraulic pump range offers the highest flow rate combination in the Hi-Force range. Offering a low pressure flow rate of 17 litres/min with automatic changeover to a superb high pressure flow rate of 2 litres/min. The HEP5 offers all the features of the HEP2 and HEP3 series with the addition of a 2.2 kW high speed, heavy duty motor, making it the ideal pump unit for all heavy duty applications, requiring a high flow and intensive usage over longer time periods.
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### Pages 39 & 40

Intermediate		The HSP series electric driven split flow hydraulic pump range offers users the opportunity to operate up to 12 independent hydraulic outlets from within a single pump assembly. With easy to operate controls HSP series pumps are ideally suited for synchronous lift applications particularly where there is uneven load distribution between the multiple jacking points. All models are 380/440 volt three phase electrical supply operation.
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### Pages 41 & 42

Light		The AHP11 series of air driven single stage pumps offer an economical and faster working alternative to basic hand operated pumps. Available with both 2-way and 4-way manually operated control valves AHP series pumps incorporate an ergonomically designed pedal offering the operator the choice of hand or foot operated control (excludes 4-way valve models). Remote air powered pendant control options also available.
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### Page 43

Intermediate		The HAP series two stage air driven hydraulic pump range offers a low pressure flow rate of 10 litres/min, with automatic changeover to high pressure flow rate, of 1.3 litres/min up to the 700 Bar maximum working pressure. The modular construction of these pumps ensures that many similar features to the HEP2 & HEP3 series are included with the air motor driven motive force being the principle design difference.
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### Page 44

Intermediate		The HPP series two stage petrol engine driven hydraulic pump range offers all the modular design and performance characteristics of the HAP series with the only principle difference being the change of motive force from air driven to petrol engine driven. HPP series pumps are ideally suited for job site locations where electrical or compressed air power supply are not readily available.
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HEP1212S

Working pressure 700 Bar

Two-stage design, changeover pressure 10 Bar

Extremely compact, lightweight & powerful

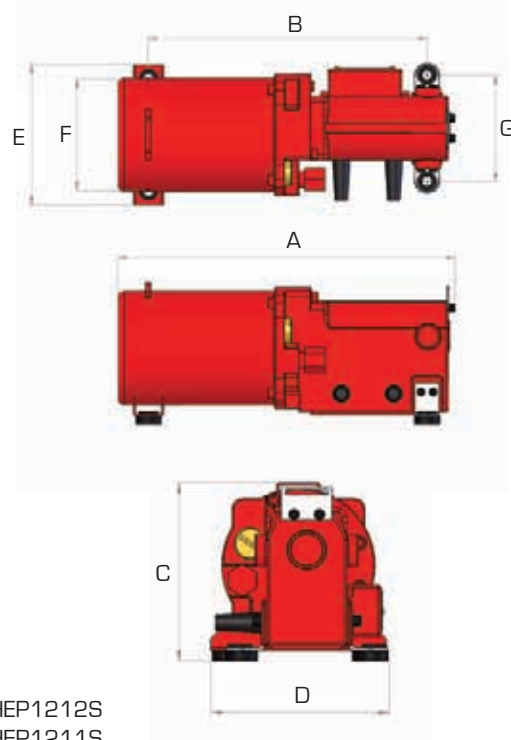
The HEP1 range of two stage electric driven hydraulic mini pumps, offers the smallest and lightest weight, electric powered pump in the Hi-Force product range. Available with a choice of 110 volt or 240 volt single phase electric motor, both models feature an electric solenoid operated valve, complete with remote hand pendant controller and 3 metre control cable as standard. The two stage design of these pumps incorporates an automatic changeover from low to high pressure ensuring that an optimum pressure and flow rate combination is achievable from an extremely compact pump.

- >> 110 or 240V single phase motor options
- >> Internal safety overload valve
- >> Supplied with carrying strap

Model number	Motor voltage	Maximum pressure bar	Maximum flow rate l/min		Valve type	Usable oil cap. litres	Weight kg
			1st stage	2nd stage			
<b>HEP1211S</b>	110 V - 1 Ph	700	2.00	0.2	2-way	0.8	7.5
<b>HEP1212S</b>	240 V - 1Ph	700	2.00	0.2	2-way	0.8	7.5



Model number	Dimensions in mm						
	A	B	C	D	E	F	G
<b>HEP1212S</b>	333	269	140	139	138	110	105
<b>HEP1211S</b>	333	269	140	139	138	110	105



HEP1212S  
HEP1211S

## HEP103 - ELECTRIC DRIVEN TWO STAGE COMPACT PUMPS



Working pressure 700 Bar

Choice of valve options

Compact, lightweight & powerful

C

The HEP103 range of two stage electric driven hydraulic pumps is suitable for a wide variety of applications and pumps are available in either 110 volt or 240 volt single phase electric motor options. Both voltage options also offer a choice of manual or electrically operated control valves, available as 2-way, 3-way or 4-way options with additional features like open centre, closed centre and locking valve designs available. Maximum working pressure is 700 Bar with automatic low to high pressure changeover fitted as standard. All models are supplied complete with a glycerine filled hydraulic pressure gauge, pre-filled 4 litre usable oil capacity reservoir with oil sight level gauge and an integral carrying handle for easy transportation of these lightweight, compact and versatile pumps to the job site.

Model number	Motor voltage	Maximum pressure Bar	Maximum flow rate l/min 1 <sup>st</sup> stage 2 <sup>nd</sup> stage	Changeover pressure Bar	Remote pendant functions	Usable oil capacity litres	Weight kg
Models featuring 2-way solenoid valve, normally closed (hold function), suitable for use with single acting cylinders and tools, requiring hold.							
<b>HEP103241LS</b>	110 V - 1 Ph	700	2.50 0.35	150	advance/retract	4	19.2
<b>HEP103242LS</b>	240 V - 1 Ph	700	2.50 0.35	150	advance/retract	4	19.2
Models featuring 2-way solenoid valve, normally open (auto retract function), suitable for use with single acting cylinders and tools, requiring auto retract.							
<b>HEP103241S</b>	110 V - 1Ph	700	2.50 0.35	150	advance/retract	4	20.5
<b>HEP103242S</b>	240 V - 1 Ph	700	2.50 0.35	150	advance/retract	4	20.5
Models featuring 3-way manually operated valve, suitable for use with single acting cylinders and tools.							
<b>HEP103341</b>	110 V - 1Ph	700	2.50 0.35	150	motor on/off	4	18.1
<b>HEP103342</b>	240 V - 1 Ph	700	2.50 0.35	150	motor on/off	4	18.1
Models featuring 4-way manually operated valve, suitable for use with double acting cylinders and tools.							
<b>HEP103441</b>	110 V - 1Ph	700	2.50 0.35	150	motor on/off	4	18.1
<b>HEP103442</b>	240 V - 1 Ph	700	2.50 0.35	150	motor on/off	4	18.1
Models featuring 4-way solenoid valve, locking feature on A and B port, suitable for use with double acting cylinders and tools, requiring hold.							
<b>HEP103441LS</b>	110 V - 1Ph	700	2.50 0.35	150	advance/retract	4	20.5
<b>HEP103442LS</b>	240 V - 1 Ph	700	2.50 0.35	150	advance/retract	4	20.5

**Note:** All motors are dual frequency (50/60 Hz)

## HEP103 - ELECTRIC DRIVEN TWO STAGE COMPACT PUMPS



Working pressure 700 Bar

Choice of valve options

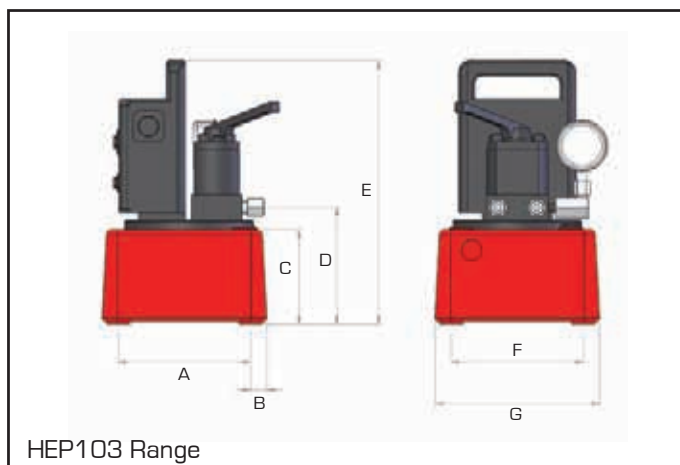
Compact, lightweight & powerful

- >> Integral carrying handle
- >> Pressure gauge and remote control fitted as standard
- >> Suitable for single and double acting cylinders and hydraulic tools
- >> All models are fitted with dual frequency (50/60 Hz) motor



Did you know ....

Hi-Force manufactures powered pumps with flow rates up to 17 litres per minute in low pressure and 2 litres per minute up to 700 Bar. See pages 35 to 37 for more details



All models	Dimensions in mm
A	170.0
B	19.0
C	117.5
D	141.5
E	342.0
F	170.0
G	212.0





HEP207214

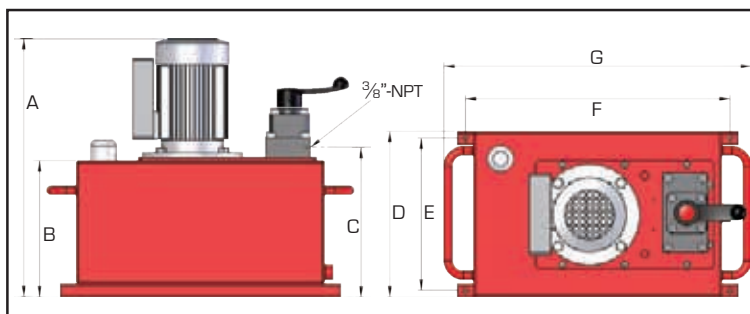
Low pressure flow rate 7 l/min. up to 70 Bar

High pressure flow rate 0.65 l/min. up to 700 Bar

Two stage hydraulic pump unit

C

- >> Externally adjustable pressure relief valve
- >> Manual valve with load holding feature fitted as standard
- >> Solenoid valve options available



Model number	Valve type	Oil cap. litres	Motor kW	Motor voltage	Weight kg
HEP207111	P-T Plate	10	1.5	110 / 115 V - 1Ph	47.0
HEP207112	P-T Plate	10	1.5	220 / 240 V - 1Ph	47.0
HEP207114	P-T Plate	10	1.5	380 / 440 V - 3Ph	47.0
HEP207121	P-T Plate	25	1.5	110 / 115 V - 1Ph	63.0
HEP207122	P-T Plate	25	1.5	220 / 240 V - 1Ph	63.0
HEP207124	P-T Plate	25	1.5	380 / 440 V - 3Ph	63.0
HEP207211	2-way	10	1.5	110 / 115 V - 1Ph	47.5
HEP207212	2-way	10	1.5	220 / 240 V - 1Ph	47.5
HEP207214	2-way	10	1.5	380 / 440 V - 3Ph	47.5
HEP207221	2-way	25	1.5	110 / 115 V - 1Ph	63.5
HEP207222	2-way	25	1.5	220 / 240 V - 1Ph	63.5
HEP207224	2-way	25	1.5	380 / 440 V - 3Ph	63.5
HEP207311	3-way	10	1.5	110 / 115 V - 1Ph	47.5
HEP207312	3-way	10	1.5	220 / 240 V - 1Ph	47.5
HEP207314	3-way	10	1.5	380 / 440 V - 3Ph	47.5
HEP207321	3-way	25	1.5	110 / 115 V - 1Ph	63.5
HEP207322	3-way	25	1.5	220 / 240 V - 1Ph	63.5
HEP207324	3-way	25	1.5	380 / 440 V - 3Ph	63.5
HEP207411	4-way	10	1.5	110 / 115 V - 1Ph	47.5
HEP207412	4-way	10	1.5	220 / 240 V - 1Ph	47.5
HEP207414	4-way	10	1.5	380 / 440 V - 3Ph	47.5
HEP207421	4-way	25	1.5	110 / 115 V - 1Ph	63.5
HEP207422	4-way	25	1.5	220 / 240 V - 1Ph	63.5
HEP207424	4-way	25	1.5	380 / 440 V - 3Ph	63.5

Dimensions in mm						
A	B	C	D	E	F	G
498	198	230	246	221	368	438
498	198	230	246	221	368	438
498	198	230	246	221	368	438
527	227	259	306	281	490	570
527	227	259	306	281	490	570
527	227	259	306	281	490	570
498	198	230	246	221	368	438
498	198	230	246	221	368	438
498	198	230	246	221	368	438
527	227	259	306	281	490	570
527	227	259	306	281	490	570
527	227	259	306	281	490	570
498	198	230	246	221	368	438
498	198	230	246	221	368	438
498	198	230	246	221	368	438
527	227	259	306	281	490	570
527	227	259	306	281	490	570
527	227	259	306	281	490	570

Note: For optional extras please see page 38

C



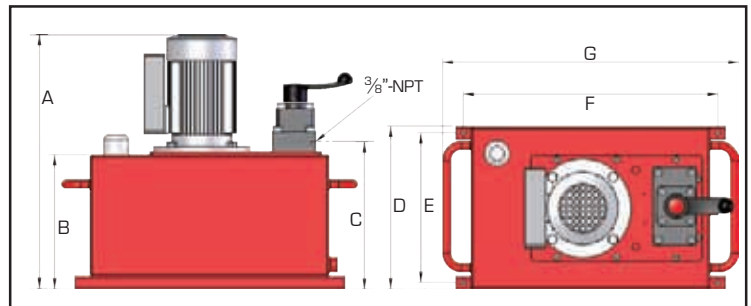
HEP310322S

Low pressure flow rate 10 l/min. up to 70 Bar

High pressure flow rate 1 l/min. up to 700 Bar

Two stage hydraulic pump unit

- >> Externally adjustable pressure relief valve
- >> Manual valve with load holding feature fitted as standard
- >> Solenoid valve options available



Model number	Valve type	Oil cap. litres	Motor kW	Motor voltage	Weight kg
HEP310121	P-T Plate	25	2.2	110 / 115 V - 1Ph	63.5
HEP310122	P-T Plate	25	2.2	220 / 240 V - 1Ph	63.5
HEP310124	P-T Plate	25	2.2	380 / 440 V - 3Ph	63.5
HEP310141	P-T Plate	40	2.2	110 / 115 V - 1Ph	88.5
HEP310142	P-T Plate	40	2.2	220 / 240 V - 1Ph	88.5
HEP310144	P-T Plate	40	2.2	380 / 440 V - 3Ph	88.5
HEP310221	2-way	25	2.2	110 / 115 V - 1Ph	64.0
HEP310222	2-way	25	2.2	220 / 240 V - 1Ph	64.0
HEP310224	2-way	25	2.2	380 / 440 V - 3Ph	64.0
HEP310241	2-way	40	2.2	110 / 115 V - 1Ph	89.0
HEP310242	2-way	40	2.2	220 / 240 V - 1Ph	89.0
HEP310244	2-way	40	2.2	380 / 440 V - 3Ph	89.0
HEP310321	3-way	25	2.2	110 / 115 V - 1Ph	64.0
HEP310322	3-way	25	2.2	220 / 240 V - 1Ph	64.0
HEP310324	3-way	25	2.2	380 / 440 V - 3Ph	64.0
HEP310341	3-way	40	2.2	110 / 115 V - 1Ph	89.0
HEP310342	3-way	40	2.2	220 / 240 V - 1Ph	89.0
HEP310344	3-way	40	2.2	380 / 440 V - 3Ph	89.0
HEP310421	4-way	25	2.2	110 / 115 V - 1Ph	64.0
HEP310422	4-way	25	2.2	220 / 240 V - 1Ph	64.0
HEP310424	4-way	25	2.2	380 / 440 V - 3Ph	64.0
HEP310441	4-way	40	2.2	110 / 115 V - 1Ph	89.0
HEP310442	4-way	40	2.2	220 / 240 V - 1Ph	89.0
HEP310444	4-way	40	2.2	380 / 440 V - 3Ph	89.0

Dimensions in mm						
A	B	C	D	E	F	G
527	227	259	306	281	490	570
527	227	259	306	281	490	570
527	227	259	306	281	490	570
636	336	368	306	281	490	560
636	336	368	306	281	490	560
636	336	368	306	281	490	560
527	227	259	306	281	490	570
527	227	259	306	281	490	570
527	227	259	306	281	490	570
636	336	368	306	281	490	560
636	336	368	306	281	490	560
636	336	368	306	281	490	560
527	227	259	306	281	490	570
527	227	259	306	281	490	570
527	227	259	306	281	490	570
636	336	368	306	281	490	560
636	336	368	306	281	490	560
636	336	368	306	281	490	560

Note: For optional extras please see page 38



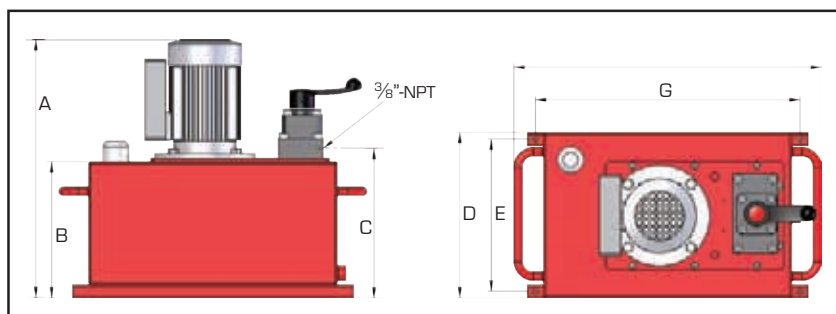
Low pressure flow rate 17 l/min up to 70 Bar

High pressure flow rate 2 l/min up to 700 Bar

Two stage hydraulic pump unit

C

- >> Manual valve with load holding feature fitted as standard
- >> Externally adjustable pressure relief valve
- >> Solenoid valve options available



Model number	Valve type	Oil cap. litres	Motor kW	Motor voltage	Weight kg
HEP517142	P-T Plate	40	2.2	220 / 240	88.5
HEP517144	P-T Plate	40	2.2	380 / 440	88.5
HEP517162	P-T Plate	60	2.2	220 / 240	120.0
HEP517164	P-T Plate	60	2.2	380 / 440	120.0
HEP517242	2-way	40	2.2	220 / 240	89.0
HEP517244	2-way	40	2.2	380 / 440	89.0
HEP517262	2-way	60	2.2	220 / 240	120.0
HEP517264	2-way	60	2.2	380 / 440	120.0
HEP517342	3-way	40	2.2	220 / 240	89.0
HEP517344	3-way	40	2.2	380 / 440	89.0
HEP517362	3-way	60	2.2	220 / 240	120.0
HEP517364	3-way	60	2.2	380 / 440	120.0
HEP517442	4-way	40	2.2	220 / 240	89.0
HEP517444	4-way	40	2.2	380 / 440	89.0
HEP517462	4-way	60	2.2	220 / 240	120.0
HEP517464	4-way	60	2.2	380 / 440	120.0

Dimensions in mm						
A	B	C	D	E	F	G
636	336	368	306	281	490	560
636	336	368	306	281	490	560
657	357	389	406	381	513	583
657	357	389	406	381	513	583
636	336	368	306	281	490	560
636	336	368	306	281	490	560
657	357	389	406	381	513	583
657	357	389	406	381	513	583
636	336	368	306	281	490	560
636	336	368	306	281	490	560
657	357	389	406	381	513	583
657	357	389	406	381	513	583
636	336	368	306	281	490	560
636	336	368	306	281	490	560
657	357	389	406	381	513	583
657	357	389	406	381	513	583

Note: For optional extras please see page 38



Protective roll frame

Model number	For all HEP and HAP models
<b>PPA10RF</b>	All pumps with 10L tank
<b>PPA25RF</b>	All pumps with 25L tank
<b>PPA40RF</b>	All pumps with 40L tank
<b>PPA60RF</b>	All pumps with 60L tank

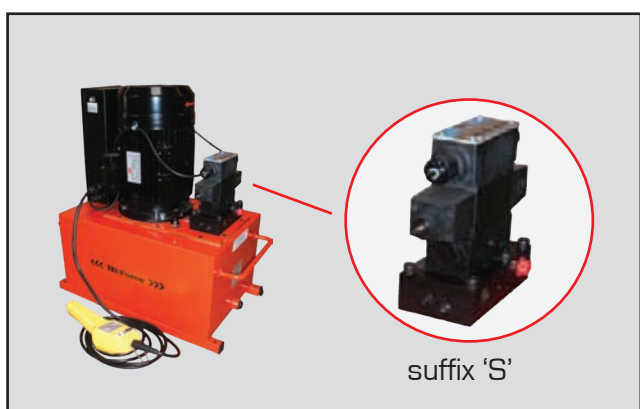
All pumps can be supplied with roll frame factory fitted.  
Just suffix pump model number with 'P'.



Wheel trolley

Model number	For all HEP, HAP and HPP models
<b>PPA40WT</b>	Wheel trolley for all 25 and 40 litre model pumps.
<b>PPA60WT</b>	Wheel trolley for all 60 litre model pumps.

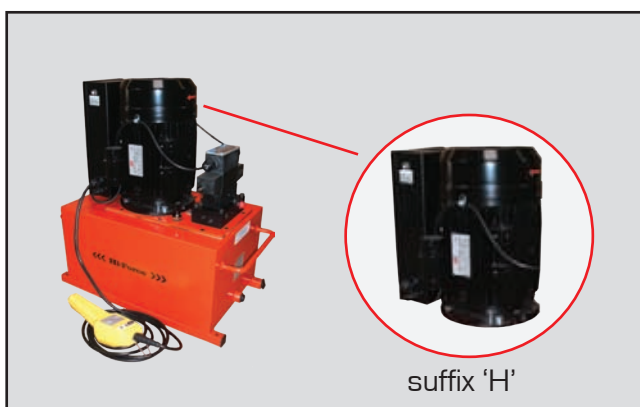
All pumps can be supplied with wheel trolley factory fitted.  
Just suffix pump model number with 'WT'.



Low voltage solenoid valve with hand pendant controller

Suffix	Description
<b>S</b>	All HEP2, 3 and 5 series electric pumps can be supplied with low voltage (24V) solenoid valve, either in 3-way or 4-way versions, both featuring a locking feature and remote pendant control as standard

To order pump with solenoid valve,  
just suffix pump model number with 'S'.



60Hz Electric Motor

Suffix	Description
<b>H</b>	All HEP2, 3 and 5 series electric pumps can be supplied with an electric motor suitable for 60 Hz.

To order pump with 60Hz motor,  
just suffix pump model number with 'H'.



Working pressure 700 Bar

Multiple outlet valve options

Precise control to achieve synchronised lift

C

The HSP range of electric driven, split flow, hydraulic pumps is designed to deliver equal volumes of oil from each individual control valve regardless of any variations in the hydraulic pressure. The range offers a selection of outlet valve configurations ranging from a 2-outlet model with manually operated directional control valves, through to a 12-outlet model with electric solenoid operated valves. Each valve outlet is connected directly to an independent internal piston pump which is driven by a common electric motive force. This technology allows each internal piston pump to deliver an equal amount of oil flow per minute regardless of any variations in the required operating pressure at each control valve outlet. With HSP split flow pumps lifting and positioning large, unevenly weighted loads using multiple jacking points in a synchronised, level lift and controlled manner is easily achievable. Individual control of each valve on all electric valve versions, is via a specially made electric control box with easily identifiable on/off switches for each applicable valve plus a synchronised lift control button for all of the selected control valves. There is also a remote hand pendant control system supplied which can easily be wired to the pump mounted control box. Model HSP24M54 is fitted with two pump mounted, manually operated 4-way valves, which can easily be activated by a single operator. Maximum working pressure of all HSP pumps is 700 Bar with an externally adjustable pressure relief valve for easy pressure adjustment between 70 and 700 Bar. Electric motors are 380/440 volt three phase operation and individual oil outlet flows range from 0.6 to 1.8 litres per minute. A full range of system components is available and detailed on pages 49 to 56.

Model number	Valve configuration	Valve type	Oil Capacity Litres	Oil flow per outlet l/min	Motor voltage	Weight kg
Version with manual control valve						
<b>HSP24M54</b>	2 x 4-way	manual	50	0.9	380 / 440	178
Versions with low voltage (24 V) control valve, control box and pendant						
<b>HSP24E54</b>	2 x 4-way	electric	50	0.9	380 / 440	180
<b>HSP34E104</b>	3 x 4-way	electric	100	1.8	380 / 440	335
<b>HSP44E104</b>	4 x 4-way	electric	100	1.1	380 / 440	274
<b>HSP64E104</b>	6 x 4-way	electric	100	0.9	380 / 440	335
<b>HSP84E104</b>	8 x 4-way	electric	100	0.9	380 / 440	370
<b>HSP104E104</b>	10 x 4-way	electric	100	0.7	380 / 440	414
<b>HSP124E104</b>	12 x 4-way	electric	100	0.6	380 / 440	460

**Note:** 3-way valve options available on request



## HSP - ELECTRIC DRIVEN SPLIT FLOW PUMPS

C

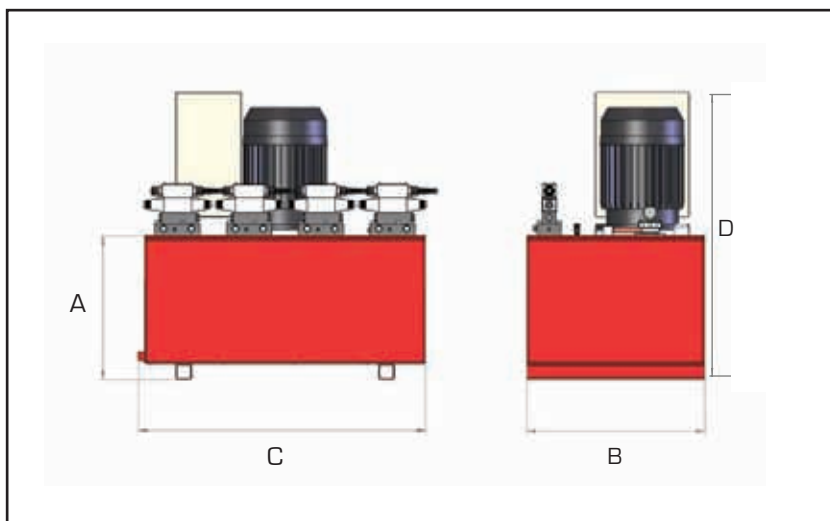


Choice of manual or electric valve options

Reservoir capacity 50 or 100 litres

Consistent single speed flow rate

- >> Working pressure 700 Bar
- >> Equal output flow regardless of pressure
- >> Control panel with selector switches for each individual outlet, allowing for single or multiple (synchronised) operation
- >> Externally adjustable pressure relief valve for control of maximum system pressure
- >> Customised models are available on request



Model number	Dimensions in mm			
	A	B	C	D
HSP24M54	406	570	640	817
HSP24E54	406	570	640	817
HSP34E104	406	570	1370	867
HSP44E104	459	570	920	867
HSP64E104	406	570	1370	867
HSP84E104	426	700	1020	887
HSP104E104	406	750	1250	867
HSP124E104	406	750	1520	867



Working pressure 700 Bar

Operates from standard 7 Bar air supply

Compact, lightweight & powerful

C

The AHP11 single stage air powered hydraulic pump range provides an economical, portable alternative to manually operated hydraulic pumps. Designed to operate from a standard 7 Bar compressed air supply, these versatile compact pumps are ideally suited for use with Hi-Force hydraulic cylinders and tools in maintenance and construction applications. The ergonomically designed pump treadle can be operated by hand or foot for better versatility. With a choice of reservoir capacities, all models are supplied pre-filled with hydraulic oil ready for immediate use. A full range of system components suitable for use with AHP11 series pumps is detailed on pages 49 - 56.

- >> Choice of 2-way or 4-way control valves
- >> Internal safety overload valve
- >> Reservoir oil sight level gauge
- >> Standard oil reservoir capacities up to 10 litres



OPTIONAL REMOTE PENDANT:

Please suffix model number with 'R' for remote pendant options to suit AHP1120, AHP1121 and AHP1122.

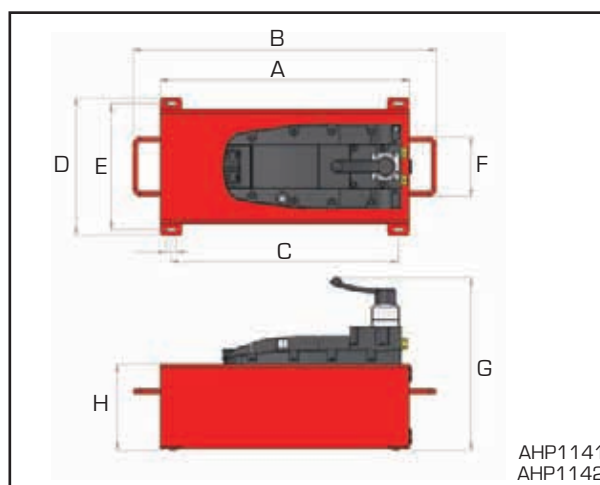
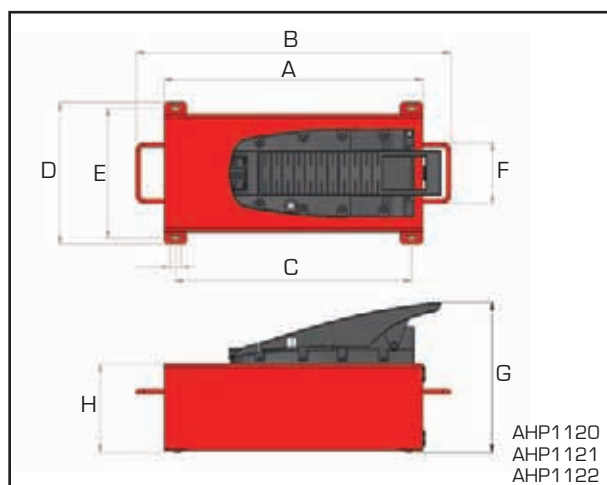
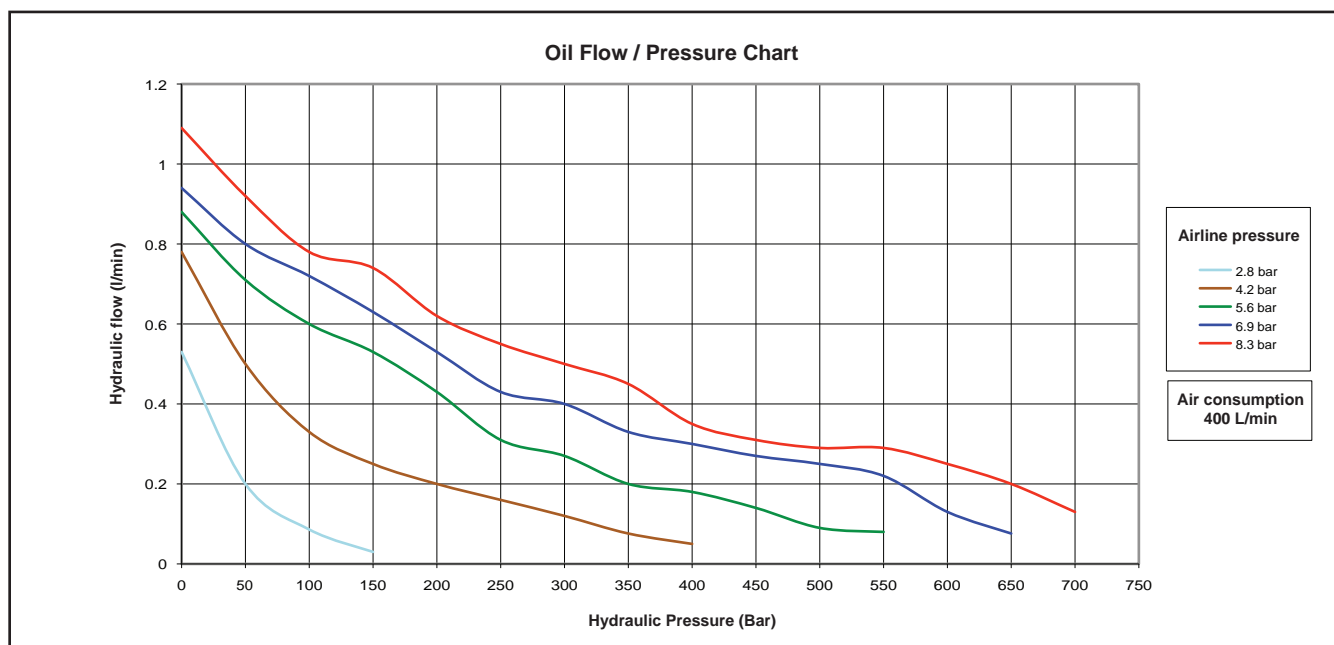
Model number	Maximum pressure bar	Maximum flow rate l/min	Valve type	Usable oil capacity litres	Air inlet connection G	Oil outlet connection NPTF	Weight kg
<b>AHP1120</b>	700	0.8	2-way	2.4	1/4"	3/8"	4.7
<b>AHP1121</b>	700	0.8	2-way	5.0	1/4"	3/8"	9.0
<b>AHP1122</b>	700	0.8	2-way	10.0	1/4"	3/8"	17.8
<b>AHP1141</b>	700	0.8	4-way	5.0	1/4"	3/8"	9.5
<b>AHP1142</b>	700	0.8	4-way	10.0	1/4"	3/8"	18.3



Working pressure 700 Bar

Operates from standard 7 Bar air supply

Compact, lightweight & powerful



Model number	Dimensions in mm							
	A	B	C	D	E	F	G	H
AHP1120	365	*	237	157	66-90	*	210	125
AHP1121	420	*	380	240	220	*	223	114
AHP1122	464	560	*	210	*	108	274	158
AHP1141	420	*	380	240	220	*	265	114
AHP1142	464	560	*	210	*	*	315	158

\* Not applicable

## HAP - AIR DRIVEN PUMPS - GENERAL DUTY HIGH FLOW



HAP21026

Low pressure flow rate 10 litres/min up to 70 Bar

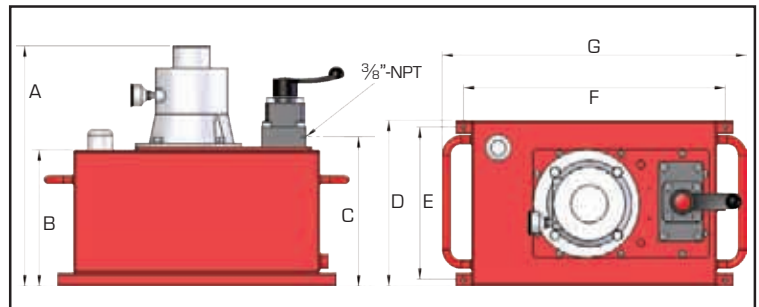
High pressure flow rate 1.3 litres/min

Working pressure 700 Bar

C

The HAP two stage air powered hydraulic pump range offers a low pressure flow of 10 litres/min with automatic changeover to 700 Bar high pressure flow rate of 1.3 litres/min. Driven by a powerful 3 kW rotary air motor with a maximum air consumption of 2.4m<sup>3</sup> per minute at 7 Bar inlet air pressure, the HAP range offers a choice of pump mounted or remote control valves (page 55) and oil reservoirs all fitted with filler and drain plugs. A full range of system components suitable for use with HAP pump units is detailed on pages 49 - 56.

- >> Two stage hydraulic pump unit
- >> Powerful air motor
- >> Externally adjustable pressure relief valve
- >> Choice of control valves
- >> Manual valve with load holding feature fitted as standard



Model number	Valve type	Oil cap. litres	Motor kW	Weight kg
HAP21011	P-T Plate	10	3.0	41.5
HAP21012	P-T Plate	25	3.0	57.5
HAP21014	P-T Plate	40	3.0	71.5
HAP21016	P-T Plate	60	3.0	96.5
HAP21021	2-way	10	3.0	42.0
HAP21022	2-way	25	3.0	58.0
HAP21024	2-way	40	3.0	72.0
HAP21026	2-way	60	3.0	97.0
HAP21031	3-way	10	3.0	42.0
HAP21032	3-way	25	3.0	58.0
HAP21034	3-way	40	3.0	72.0
HAP21036	3-way	60	3.0	97.0
HAP21041	4-way	10	3.0	42.0
HAP21042	4-way	25	3.0	58.0
HAP21044	4-way	40	3.0	72.0
HAP21046	4-way	60	3.0	97.0

Dimensions in mm						
A	B	C	D	E	F	G
393	198	230	246	221	368	438
422	227	259	306	281	490	570
531	336	368	306	281	490	560
552	357	389	406	381	513	583
393	198	230	246	221	368	438
422	227	259	306	281	490	570
531	336	368	306	281	490	560
552	357	389	406	381	513	583
393	198	230	246	221	368	438
422	227	259	306	281	490	570
531	336	368	306	281	490	560
552	357	389	406	381	513	583

**Note:** For optional extras, please see page 38

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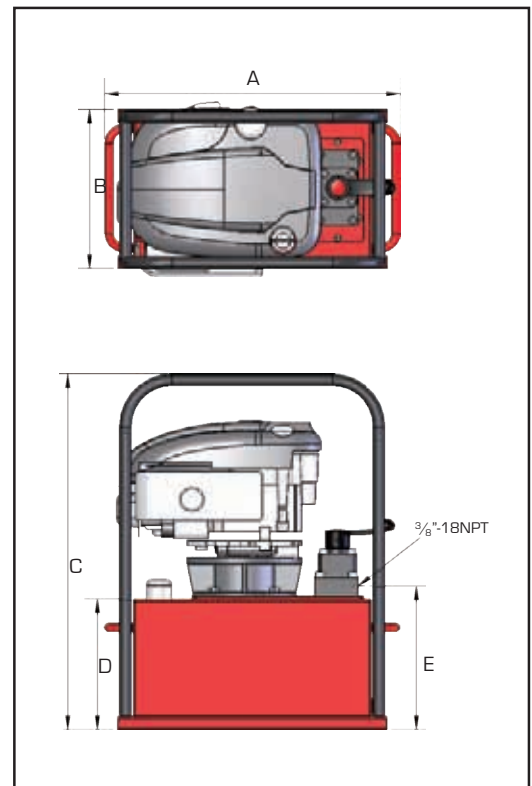
Low pressure flow rate 10 litres/min up to 70 Bar

High pressure flow rate 1.3 litres/min

Working pressure 700 Bar

The HPP range of two stage petrol engine driven hydraulic pumps is ideally suited for applications in locations where there is no electricity or compressed air supply available. The range has similar reservoir and valve options (excluding solenoid valves) as electric and air powered pumps. All models are 700 Bar maximum working pressure and offer a low pressure flow rate of 10 litres/min with automatic changeover to a high pressure flow rate of 1.3 litres/min. Powered by a 3.35 kW rated four stroke engine, the HPP range provides reliable, independent hydraulic power. All models are fitted with a protective roll bar carrying frame for easy transportation and handling. A full range of system components suitable for use with HPP pumps is detailed on pages 49 - 56.

- >> Two stage hydraulic pump unit
- >> Powerful 3.35 kW four stroke petrol engine
- >> Externally adjustable pressure relief valve
- >> Roll bar protection frame included
- >> Manual valve with load holding feature fitted as standard



Model number	Valve type	Oil cap. litres	Motor kW	Weight kg
HPP21012	P-T Plate	25	3.35	70.5
HPP21014	P-T Plate	40	3.35	85.5
HPP21016	P-T Plate	60	3.35	113.5
HPP21022	2-way	25	3.35	71.0
HPP21024	2-way	40	3.35	86.0
HPP21026	2-way	60	3.35	114.0
HPP21032	3-way	25	3.35	71.0
HPP21034	3-way	40	3.35	86.0
HPP21036	3-way	60	3.35	114.0
HPP21042	4-way	25	3.35	71.0
HPP21044	4-way	40	3.35	86.0
HPP21046	4-way	60	3.35	114.0

Dimensions in mm				
A	B	C	D	E
570	306	686	227	259
560	306	795	336	368
583	406	816	357	389
570	306	686	227	259
560	306	795	336	368
583	406	816	357	389
570	306	686	227	259
560	306	795	336	368
583	406	816	357	389
570	306	686	227	259
560	306	795	336	368
583	406	816	357	389