

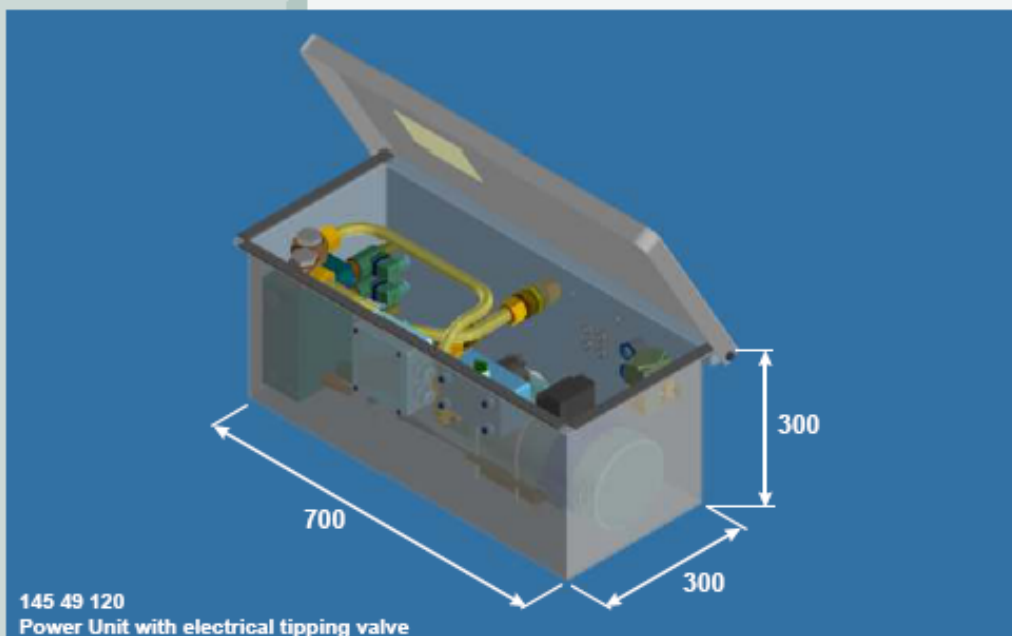


41 HYVA Kraftuttak, tanker, pumper og diverse

41.100.1.1/1

Hyva Power Unit

4500W / 6.3 cc / 24V



Hyva Power Units

The Hyva Power Units are specially designed for those situations where normal power packs fail to do the job. An ideal motor pump combination allows the Power Unit to operate much longer, and the use of a separate oil tank allows greater working volumes. So when an electrical system is needed with a flow of 7.5L at 200 bar the Hyva Power unit is your option. This makes the Hyva Power Units very suitable for silo tippers.

Two different types

All the Hyva Power Units have a pump capacity of 6.3 cc/rev., a 24V motor and a nominal power of 4500W. The only difference between the 2 types of Power Units is that one is equipped with a pre-installed electrical tipping valve.

- | | |
|------------|--|
| 145 49 110 | Hyva Power Unit 4500W / 6.3 cc / 24V |
| 145 49 120 | Hyva Power Unit 4500W / 6.3 cc / 24V with electrical tipping valve (ETV) |

Aluminium box

The motor, the relay, the valve (only 145 49 120) and the connection box including their connections are pre-installed in the aluminium box. This saves installation time. Use the 4 mounting bolts (M10) of the motor and the 2 mounting holes in the bottom of the box to mount the box to the chassis or sub frame. Both types Power Units have the same box.



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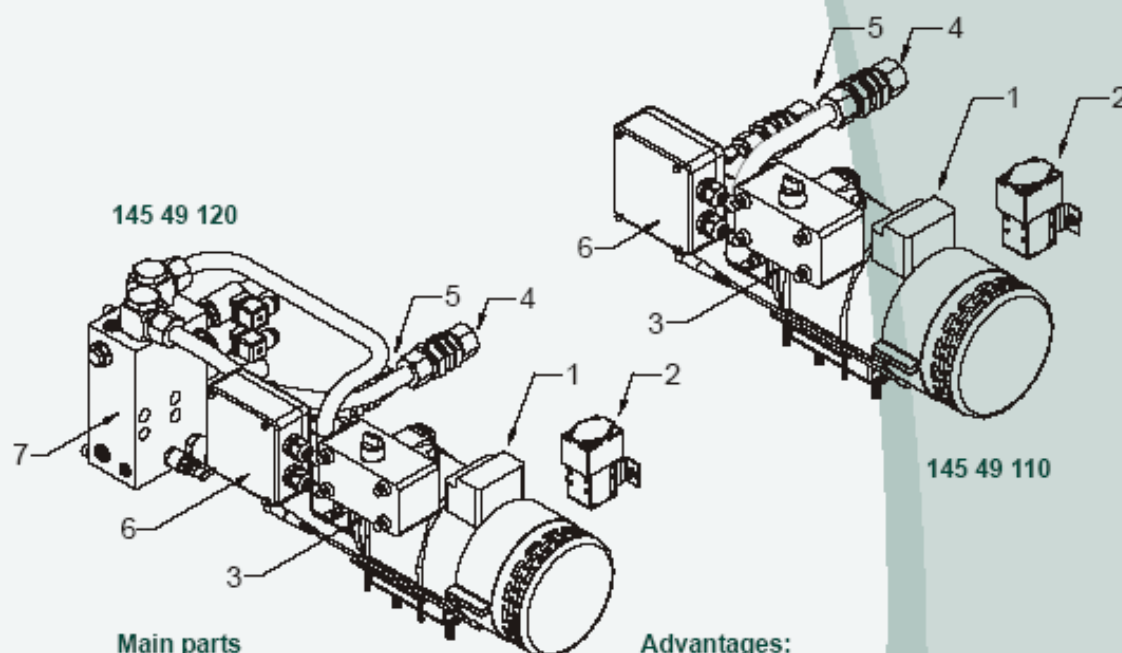
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Hyva Power Unit

4500W / 6.3 cc / 24V



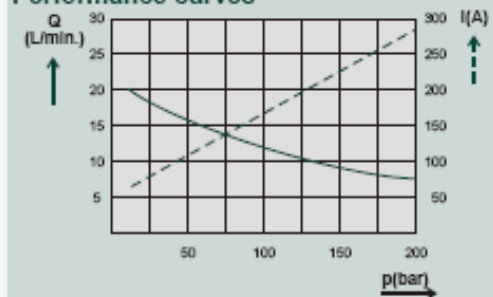
Main parts

Pos.	Description
1	motor / pump
2	relay
3	connection box
4	P-port for 20 mm pipe
5	T-port for 20 mm pipe
6	wireless remote (optional)
7	electrical tipping valve with (ETV) G=1"

Advantages:

- Specially designed for silo tipplers.
- Optimal motor pump combination.
- Motor has thermal protection.
- Protective time delay between start of motor and pump to maximise the motor life-time.
- All is contained in a strong and compact aluminium box easy to install.
- Operated via remote control. A very simple to install wireless remote control is optional.
- All Hyva Power Units are fully tested prior to delivery
- No adjustment required during installation

Performance curves



Additional advantages for Power Unit with electrical tipping valve (ETV)

- The built-in ETV provides fully controlled operation in tipping and lowering.
- Manually safety override built-in.
- Pressure sensor allows twin-speed safe lowering.

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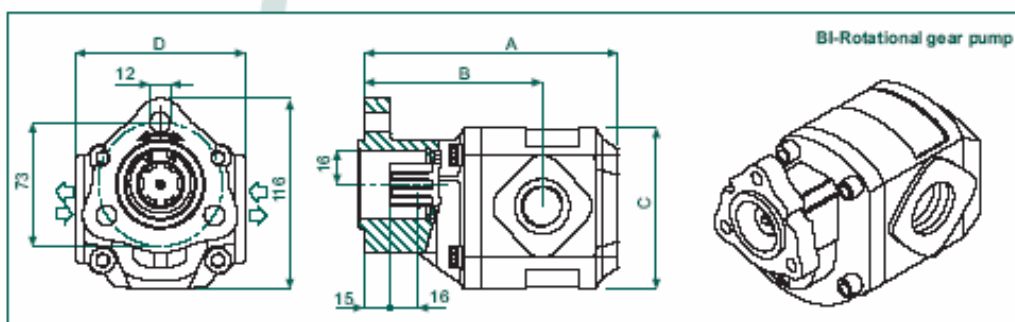


Hyva Pumps

Gear pumps UNI 3H

Gear pumps UNI 3H: BI-Rotational

Part no.	Description	displacement	weight	kit no.	suction side	suction adapter	press. side	press. adapter	rotation frequency	work. press.
145 63 026	gear pump 020L-BI-3H	20 cm ³	5.3 kg	CU020	G½"	1¼"	G½"	¾"	2000	238 bar
145 63 045	gear pump 032L-BI-3H	31.5 cm ³	6.0 kg	CU032	G¾"	1½"	G¾"	¾"	1800	180 bar



Part no.	Description	A	B	C	D
145 63 026	gear pump 020L-BI-3H	152	119	102	100
145 63 045	gear pump 032L-BI-3H	167	122	102	100





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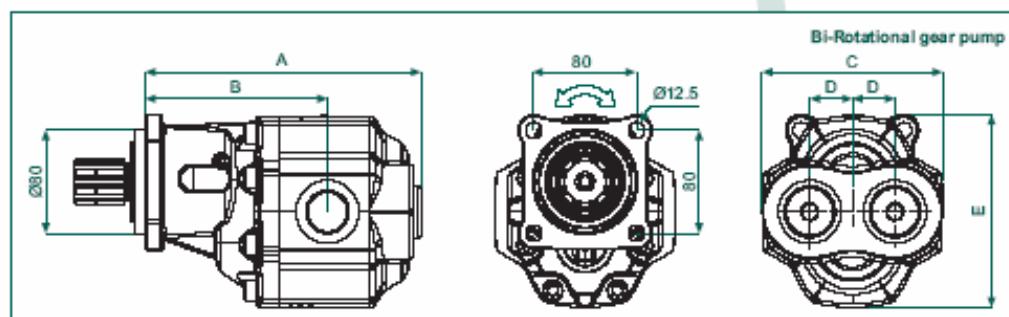
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Hyva Pumps

Gear pumps BRITE-series

Gear pumps ISO 4H BR series: BI-Rotational

Part no.	Description	displacement	weight	kit no.	suction side	suction adapter	press. side	press. adapter	rotation frequency	work. press.
145 62 005	gear pump 035L-BI-4H-BR	35 cm ³	12.6 kg	CB035	G1½"	1½"	G½"	½"	2500	250 bar
145 62 010	gear pump 052L-BI-4H-BR	52 cm ³	13.5 kg	CB052	G1"	1½"	G1"	½"	2500	275 bar
145 62 015	gear pump 061L-BI-4H-BR	61 cm ³	14.1 kg	CB061	G1"	1½"	G1"	½"	2500	250 bar
145 62 020	gear pump 073L-BI-4H-BR	73 cm ³	15.1 kg	CB073	G1"	1½"	G1"	1"	2500	225 bar
145 62 025	gear pump 082L-BI-4H-BR	82 cm ³	16.1 kg	CB082	G1"	1½"	G1"	1"	2500	225 bar
145 62 030	gear pump 092L-BI-4H-BR	92 cm ³	19.4 kg	CB092	G1½"	1½"	G1½"	1"	2500	265 bar
145 62 035	gear pump 113L-BI-4H-BR	113 cm ³	20.5 kg	CB113	G1½"	1½"	G1½"	1"	2250	225 bar



Part no.	Description	A	B	C	D	E
145 62 005	gear pump 035L-BI-4H-BR	189.0	130.5	128.0	30	149.4
145 62 010	gear pump 052L-BI-4H-BR	200.0	132.5	128.0	30	149.4
145 62 015	gear pump 061L-BI-4H-BR	206.0	138.5	128.0	30	149.4
145 62 020	gear pump 073L-BI-4H-BR	214.0	141.5	140.1	33	149.4
145 62 025	gear pump 082L-BI-4H-BR	218.5	146.5	140.1	33	149.4
145 62 030	gear pump 092L-BI-4H-BR	236.0	155.5	140.5	33	166.5
145 62 035	gear pump 113L-BI-4H-BR	246.0	165.5	140.5	33	166.5

Gear pump parts

Part no.	Description
146 25 850	gasket gear pump ISO 4H



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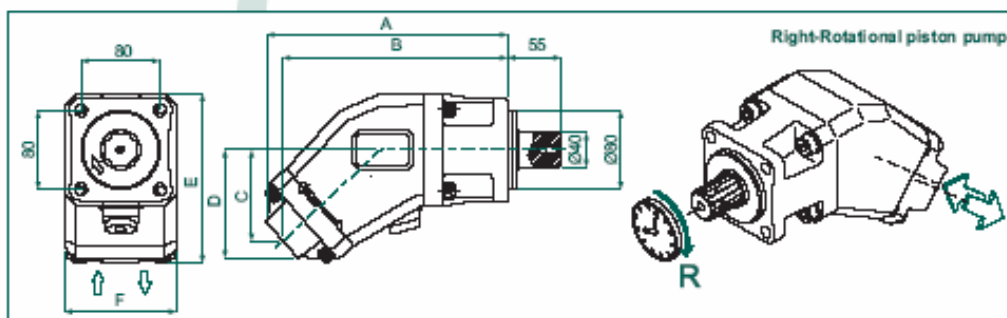


Hyva Pumps

Piston pumps UNI 4H

Piston pumps UNI 4H: Left or Right Rotational

Part no.	Description	displacement	weight	kit no.	suction side	suction adapter	press. side	press. adapter	rotation frequency	work. press.
145 64 600	Piston pump 040L-R-4H	40 cm ³	20.20	PQ440	G1"	1½"	G½"	½"	1850	380 bar
145 64 605	Piston pump 040L-L-4H	40 cm ³	20.20	PQ441	G1"	1½"	G½"	½"	1850	380 bar
145 64 610	Piston pump 050L-R-4H	50 cm ³	21.60	PQ450	G1"	1½"	G½"	½"	1700	380 bar
145 64 615	Piston pump 050L-L-4H	50 cm ³	21.60	PQ451	G1"	1½"	G½"	½"	1700	380 bar
145 64 620	Piston pump 063L-R-4H	63 cm ³	23.40	PQ463	G1"	1½"	G½"	½"	1600	380 bar
145 64 625	Piston pump 063L-L-4H	63 cm ³	23.40	PQ464	G1"	1½"	G½"	½"	1600	380 bar
145 64 630	Piston pump 080L-R-4H	80 cm ³	24.10	PQ480	G1"	1½"	G½"	1"	1300	335 bar
145 64 635	Piston pump 080L-L-4H	80 cm ³	24.10	PQ481	G1"	1½"	G½"	1"	1300	335 bar
145 64 640	Piston pump 080L-HP-R-4H	80 cm ³	24.10	PQ482	G1½"	1½"	G1"	1"	1300	380 bar
145 64 645	Piston pump 080L-HP-L-4H	80 cm ³	24.10	PQ483	G1½"	1½"	G1"	1"	1300	380 bar



Part no.	Description	A	B	C	D	E	F
145 64 600	piston pump 040L-R-4H	244	228	91	110	173	116
145 64 605	piston pump 040L-L-4H	244	228	91	110	173	116
145 64 610	piston pump 050L-R-4H	244	228	91	110	173	116
145 64 615	piston pump 050L-L-4H	244	228	91	110	173	116
145 64 620	piston pump 063L-R-4H	244	228	91	110	173	116
145 64 625	piston pump 063L-L-4H	244	228	91	110	173	116
145 64 630	piston pump 080L-R-4H	244	228	91	110	173	116
145 64 635	piston pump 080L-L-4H	244	228	91	110	173	116
145 64 640	piston pump 080L-HP-R-4H	244	228	91	110	173	116
145 64 645	piston pump 080L-HP-L-4H	269	251	108	129	198	127



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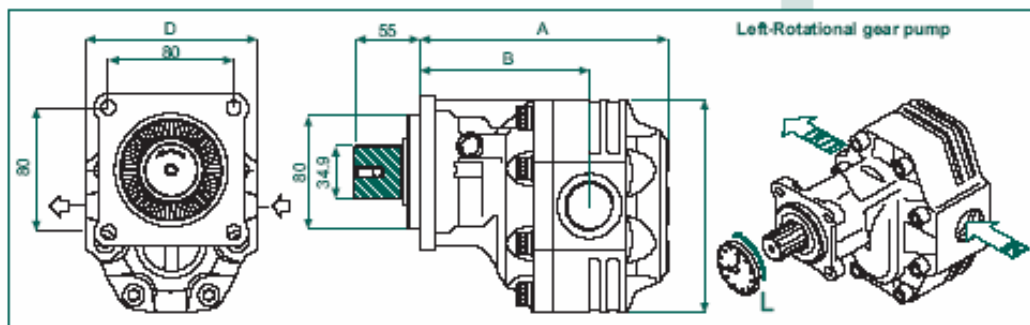
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Hyva Pumps

Gear pumps ISO 4H

Gear pumps ISO 4H: Left or Right Rotational

Part no.	Description	displacement	weight	kit no.	suction side	suction adapter	press. side	press. adapter	rotation frequency	work. press.
145 62 500	gear pump 017L-R-4H	17 cm ³	11.30 kg	CQ040	G1/2"	1 1/2"	G1/2"	3/4"	3000	315 bar
145 62 510	gear pump 017L-L-4H	17 cm ³	11.30 kg	CQ020	G1/2"	1 1/2"	G1/2"	3/4"	3000	315 bar
145 62 520	gear pump 027L-R-4H	27 cm ³	11.60 kg	CQ140	G3/4"	1 1/2"	G3/4"	3/4"	3000	315 bar
145 62 530	gear pump 027L-L-4H	27 cm ³	11.60 kg	CQ120	G3/4"	1 1/2"	G3/4"	3/4"	3000	315 bar
145 62 540	gear pump 034L-R-4H	34 cm ³	11.90 kg	CQ180	G3/4"	1 1/2"	G3/4"	3/4"	2800	300 bar
145 62 550	gear pump 034L-L-4H	34 cm ³	11.90 kg	CQ160	G3/4"	1 1/2"	G3/4"	3/4"	2800	300 bar
145 62 580	gear pump 051L-R-4H	51 cm ³	14.15 kg	CQ310	G1"	1 1/2"	G1"	3/4"	2500	280 bar
145 62 590	gear pump 051L-L-4H	51 cm ³	14.15 kg	CQ305	G1"	1 1/2"	G1"	3/4"	2500	280 bar
145 62 600	gear pump 061L-R-4H	61 cm ³	14.70 kg	CQ380	G1"	1 1/2"	G1"	3/4"	2000	240 bar
145 62 610	gear pump 061L-L-4H	61 cm ³	14.70 kg	CQ360	G1"	1 1/2"	G1"	3/4"	2000	240 bar
145 62 640	gear pump 082L-R-4H	82 cm ³	16.20 kg	CQ500	G1 1/2"	1 1/2"	G1"	1"	1800	210 bar
145 62 650	gear pump 082L-L-4H	82 cm ³	16.20 kg	CQ480	G1 1/2"	1 1/2"	G1"	1"	1800	210 bar



Part no.	Description	A	B	C	D
145 62 500	gear pump 017L-R-4H	168.5	118.5	148	120
145 62 510	gear pump 017L-L-4H	168.5	118.5	148	120
145 62 520	gear pump 027L-R-4H	174.5	124.5	148	120
145 62 530	gear pump 027L-L-4H	174.5	124.5	148	120
145 62 540	gear pump 034L-R-4H	179.5	124.5	148	120
145 62 550	gear pump 034L-L-4H	179.5	124.5	148	120
145 62 580	gear pump 051L-R-4H	190.5	128.5	148	120
145 62 590	gear pump 051L-L-4H	190.5	128.5	148	120
145 62 600	gear pump 061L-R-4H	196.5	134.5	148	120
145 62 610	gear pump 061L-L-4H	196.5	134.5	148	120
145 62 640	gear pump 082L-R-4H	209.5	140.5	148	120
145 62 650	gear pump 082L-L-4H	209.5	140.5	148	120



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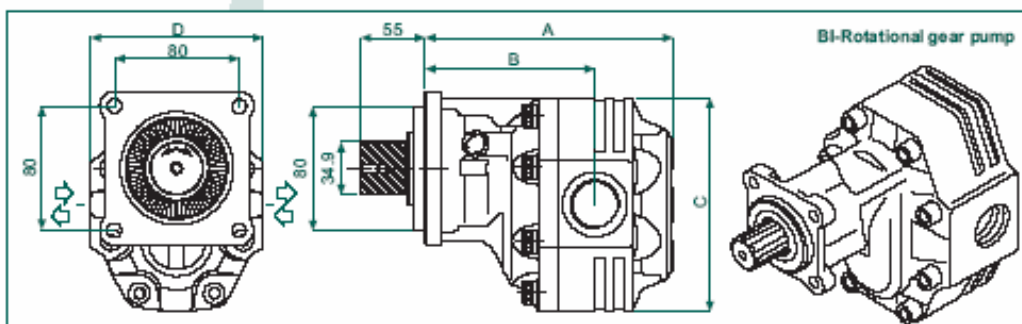
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41.128.1.1/1

Hyva Pumps Gear pumps "heavy duty" ISO 4H

Gear pumps "heavy duty" ISO 4H: Left, Right or BI-Rotational

Part no.	Description	displacement	weight	kit no.	suction side	suction adapter	press. side	press. adapter	rotation frequency	work. press.
145 62 700	gear pump 063L-R-4H	63 cm ³	20.20 kg	CQ415	G1"	1 1/4"	G1 1/2"	3/4"	2700	315 bar
145 62 710	gear pump 063L-L-4H	63 cm ³	20.20 kg	CQ405	G1"	1 1/4"	G1 1/2"	3/4"	2700	315 bar
145 62 720	gear pump 073L-R-4H	73 cm ³	21.60 kg	CQ470	G1"	1 1/4"	G1 1/2"	3/4"	2700	300 bar
145 62 730	gear pump 073L-L-4H	73 cm ³	21.60 kg	CQ450	G1"	1 1/4"	G1 1/2"	3/4"	2700	300 bar
145 62 740	gear pump 087L-R-4H	87 cm ³	23.40 kg	CQ660	G1 1/4"	1 1/4"	G1"	1"	2700	280 bar
145 62 750	gear pump 087L-L-4H	87 cm ³	23.40 kg	CQ640	G1 1/4"	1 1/4"	G1"	1"	2700	280 bar
145 62 755	gear pump 087L-BI-4H	87 cm ³	23.40 kg	CQ670	G1 1/4"	1 1/4"	G1 1/2"	1"	2700	235 bar
145 62 760	gear pump 109L-R-4H	109 cm ³	24.10 kg	CQ740	G1 1/4"	1 1/4"	G1"	1"	2700	260 bar
145 62 770	gear pump 109L-L-4H	109 cm ³	24.10 kg	CQ720	G1 1/4"	1 1/4"	G1"	1"	2700	260 bar
145 62 775	gear pump 109L-BI-4H	109 cm ³	24.10 kg	CQ750	G1 1/4"	1 1/4"	G1 1/2"	1"	2700	220 bar
145 62 780	gear pump 133L-R-4H	133 cm ³	25.30 kg	CQ840	G1 1/2"	1 1/4"	G1"	1"	2700	260 bar
145 62 790	gear pump 133L-L-4H	133 cm ³	25.30 kg	CQ820	G1 1/2"	1 1/4"	G1"	1"	2700	260 bar
145 62 795	gear pump 133L-BI-4H	133 cm ³	25.30 kg	CQ860	G1 1/2"	1 1/4"	G1 1/2"	1"	2700	220 bar



Part no.	Description	A	B	C	D
145 62 700	gear pump 063L-R-4H	199	131	184.5	150
145 62 710	gear pump 063L-L-4H	199	131	184.5	150
145 62 720	gear pump 073L-R-4H	203	135	184.5	150
145 62 730	gear pump 073L-L-4H	203	135	184.5	150
145 62 740	gear pump 087L-R-4H	208	140	184.5	150
145 62 750	gear pump 087L-L-4H	208	140	184.5	150
145 62 755	gear pump 087L-BI-4H	208	140	184.5	150
145 62 760	gear pump 109L-R-4H	216	141	184.5	150
145 62 770	gear pump 109L-L-4H	216	141	184.5	150
145 62 775	gear pump 109L-BI-4H	216	141	184.5	150
145 62 780	gear pump 133L-R-4H	225	150	184.5	150
145 62 790	gear pump 133L-L-4H	225	150	184.5	150
145 62 795	gear pump 133L-BI-4H	225	150	184.5	150



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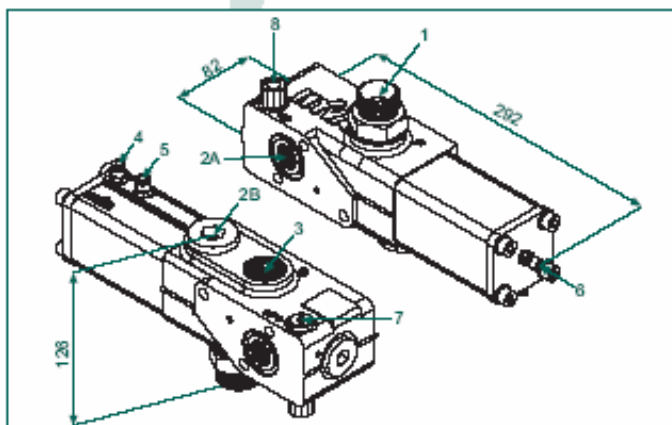
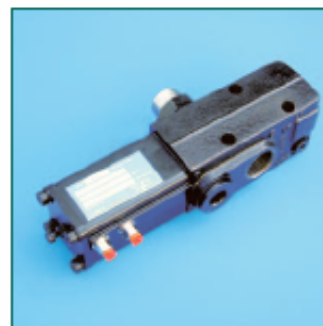
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Hyva Valves

PT 1220 valve

PT 1220 valve single pressure

Part no.	Description	Max. press. (bar)	Ports	Flow (L/min)	Weight (kg)	Kit no.
147 67 315	Valve PT - 1220 - 150	150	G1"	220	6.4	EC150 ED150
147 67 317	Valve PT - 1220 - 170	170	G1"	220	6.4	EC170 ED170
147 67 319	Valve PT - 1220 - 190	190	G1"	220	6.4	ED190 ED190
147 67 322	Valve PT - 1220 - 220	220	G1"	220	6.4	EC220 ED220
147 67 325	Valve PT - 1220 - 250	250	G1"	220	6.4	EC250 ED250
147 67 328	Valve PT - 1220 - 280	280	G1"	220	6.4	EC280 ED280
147 67 335	Valve PT - 1220 - 350	350	G1"	220	6.4	EC350 ED350



- 1 : pump connection (P)
- 2A : return tank connection (T)
- 2B : alternative return tank connection (T)
- 3 : cylinder connection (C)
- 4 : pneumatic connection of air control - flip
- 5 : pneumatic connection of air control - lower
- 6 : regulator for adjustment of lowering speed
- 7 : pressure gauge point
- 8 : cartridge

Pressure cartridge for PT 1220/2220-valve

Part no.	Description	Max. pressure (bar)
147 71 135	pressure cartridge	135
147 71 150	pressure cartridge	150
147 71 170	pressure cartridge	170
147 71 190	pressure cartridge	190
147 71 220	pressure cartridge	220
147 71 250	pressure cartridge	250
147 71 280	pressure cartridge	280
147 71 300	pressure cartridge	300
147 71 320	pressure cartridge	320
147 71 350	pressure cartridge	350

All cartridges need a bonded seal

Part no.	Description
148 42 209	bonded seal



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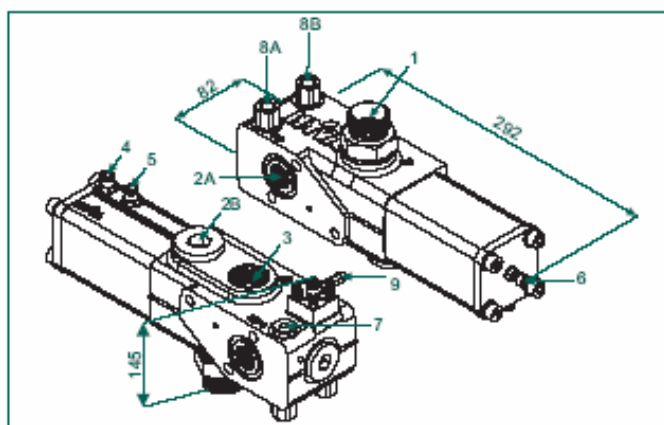
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Hyva Valves

PT 2220& PT 1140 valve

PT 2220 valve double pressure

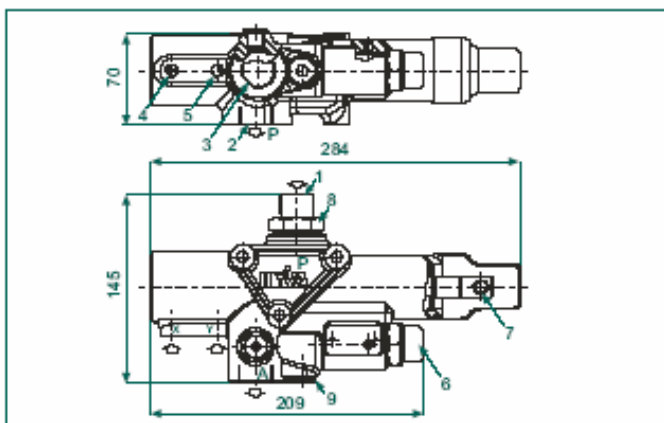
Part no.	Description	Max. press. (bar)	Ports	Flow (L/min)	Weight (kg)	Kit no.
147 67 352	Valve PT - 2220 - 150-220	150-220	G1"	220	6.4	EH220 EL220
147 67 355	Valve PT - 2220 - 150-250	150-250	G1"	220	6.4	EH250 EL250
147 67 358	Valve PT - 2220 - 150-280	150-280	G1"	220	6.4	EH280 EL280
147 67 365	Valve PT - 2220 - 150-350	150-350	G1"	220	6.4	EH350 EL350
147 67 372	Valve PT - 2220 - 170-220	170-220	G1"	220	6.4	EH372 EL372
147 67 375	Valve PT - 2220 - 170-250	170-250	G1"	220	6.4	EH375 EL375



- 1 : pump connection (P)
- 2A : return tank connection (T)
- 2B : alternative return tank connection (T)
- 3 : cylinder connection (C)
- 4 : pneumatic connection of air control - tip
- 5 : pneumatic connection of air control - lower
- 6 : regulator for adjustment of lowering speed
- 7 : pressure gauge point
- 8 : cartridge
- 9 : handle

PT 1140 valve

Part no.	Description	Press. (bar)	Ports Hydr.	Ports Pneum.	Flow (L/min)	Weight (kg)
147 08 255 H	Valve PT - 1140 - 170	170	G3/4"	G1/8"	140	4.8
147 08 256 H	Valve PT - 1140 - 190	190	G3/4"	G1/8"	140	4.8
147 08 260 H	Valve PT - 1140 - 250	250	G3/4"	G1/8"	140	4.8



- 1 : pump connection (P)
- 2 : return tank connection (T)
- 3 : cylinder connection (A)
- 4 : pneumatic connection of air control-lower (X)
- 5 : pneumatic connection of air control-tipping (Y)
- 6 : pressure relief valve (C)
- 7 : eye for cable knock-off
- 8 : non return valve
- 9 : pressure relief valve (P)

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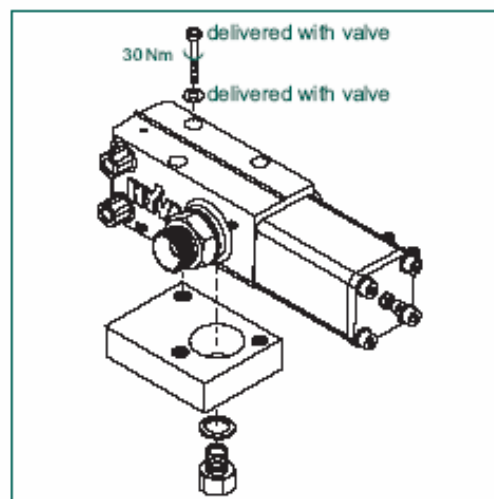


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Hyva Valves Mounting & testing parts

Chassis mounting kit PT-valve

Pos.	Part no.	Description	Qty.
	147 35 208	chassis mounting kit PT-valve consisting of:	
1	147 35 210	mounting plate	1
2	012 06 837	bonded seal	1
3	147 99 175	allen plug 1/8"	1

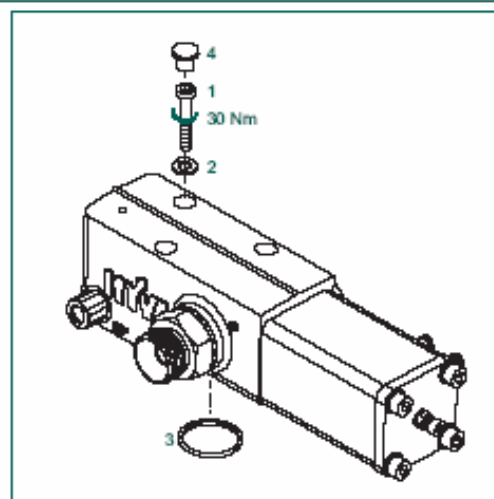


Tank mounting kit PT-valve *

Pos.	Part no.	Description	Qty.
	147 35 168	Tank mounting kit PT-valve consisting of:	
1	150 13 645	bolt	3
2	150 24 080	locking ring	3
3	012 25 607	O-ring	1
4		PVC plug	3



* This mounting kit is standard in the supply of the PT-valve



Pressure test equipment

Pos.	Part no.	Description	Qty.
	147 45 008	Pressure gauge complete consisting of:	
1		pressure gauge 400 bar	1
2		adapter 3/8"BSP OT - 1/8"BSP OT	1
3		adapter 3/8"BSP OT - 1/4"BSP OT	1

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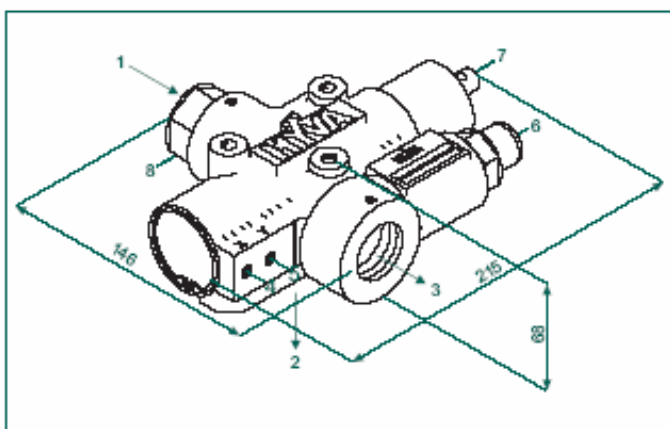
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41.146.1.1/1

Hyva Valves 3 DHMP & 3 DHMC valve

3 DHMP valve- pneumatic operated

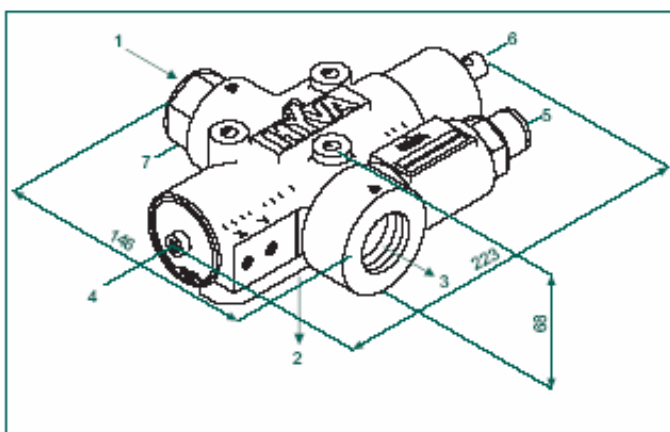
Part no.	Description	Press. (bar)	Ports Hydr.	Ports Pneum.	Flow (L/min)	Weight (kg)	Kit no.
147 08 313 H	Valve 3 DHMP 70 - 130	130	G $\frac{1}{2}$ "	G1/8"	110	3.5	EV130
147 08 316 H	Valve 3 DHMP 70 - 160	160	G $\frac{1}{2}$ "	G1/8"	110	3.5	EV160
147 08 317 H	Valve 3 DHMP 70 - 170	170	G $\frac{1}{2}$ "	G1/8"	110	3.5	EV170
147 08 319 H	Valve 3 DHMP 70 - 190	190	G $\frac{1}{2}$ "	G1/8"	110	3.5	EV190
147 08 322 H	Valve 3 DHMP 70 - 220	220	G $\frac{1}{2}$ "	G1/8"	110	3.5	EV220



- 1: pump connection (P)
- 2: return tank connection (T)
- 3: cylinder connection (A)
- 4: pneumatic connection of air control-lower (X)
- 5: pneumatic connection of air control-tipping (Y)
- 6: pressure relief valve cap
- 7: eye for cable knock-off
- 8: non return valve

3 DHMC valve - cable operated

Part no.	Description	Press. (bar)	Ports Hydr.	Flow (L/min)	Weight (kg)	Kit no.
147 08 513 H	Valve 3 DHMC 70 - 130	130	G $\frac{1}{2}$ "	110	3.5	EW130
147 08 515 H	Valve 3 DHMC 70 - 150	150	G $\frac{1}{2}$ "	110	3.5	EW150



- 1: pump connection (P)
- 2: return tank connection (T)
- 3: cylinder connection (A)
- 4: cable control connection
- 5: pressure relief valve cap
- 6: eye for cable knock-off
- 7: non return valve

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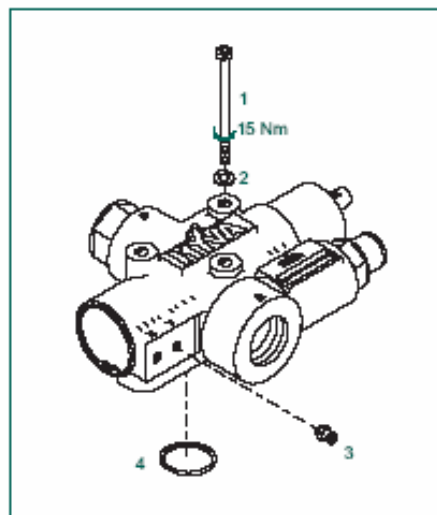
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Hyva Valves Mounting kit 3DHM valve

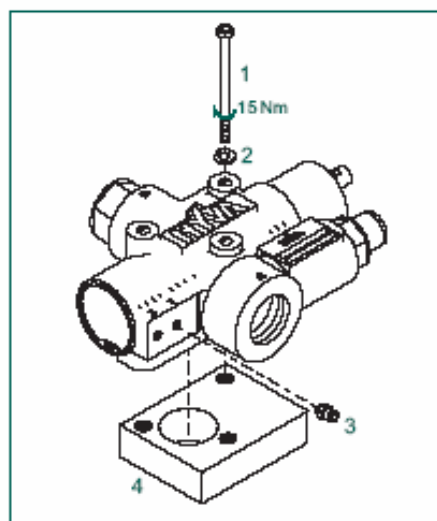
Mounting kit 3DHMP/C70 - valve on tank

Pos.	Part no.	Description	Qty.
	147 35 395	mounting kit 3DHMP/C - on tank consisting of:	
1	150 13 650	bolt	3
2	150 22 020	washer	3
3	148 10 517	air coupling	2
4	012 22 601	O-ring	1



Mounting kit 3DHMP/C70 - valve on chassis

Pos.	Part no.	Description	Qty.
	147 35 398	mounting kit 3DHMP/C - on chassis consisting of:	
1	150 13 650	bolt	3
2	150 22 020	washer	3
3	148 10 517	air coupling	2
4	147 35 210	chassis mounting plate	1





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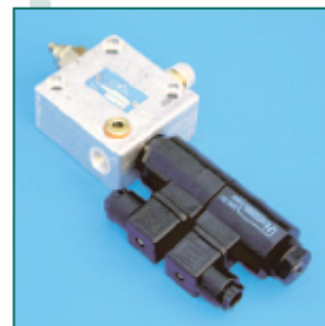
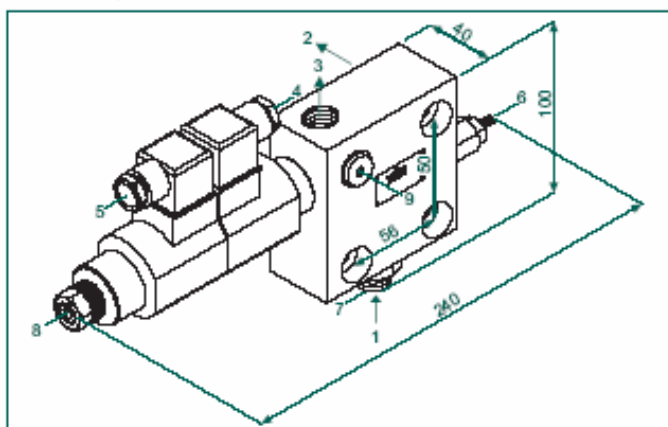
41.150.1.1/1

Hyva Valves DME Valve + DMC valve

Electical tipping Valve DME 26

Part no.	Description	Relief valve sett.	Ports	Flow (L/min)	Weight (kg)	Volt (V)	Kit no.
147 00 090 H	Valve DME 26 12V-135	135 bar	G3/8"	25	1.4	12	ES 135
147 00 093 H	Valve DME 26 12V-180	180 bar	G3/8"	25	1.4	12	ES 180
147 00 095 H	Valve DME 26 24V-135	135 bar	G3/8"	25	1.4	24	ET 135
147 00 105 H	Valve DME 26 24V-180	180 bar	G3/8"	25	1.4	24	ET 180

The hole patern of this valve is not suitable for the standard Hyva tank or chassis mounting plate. This valve can be mounted directly on oil tank SM-025L/012L-MP (Part no.140 17 005)

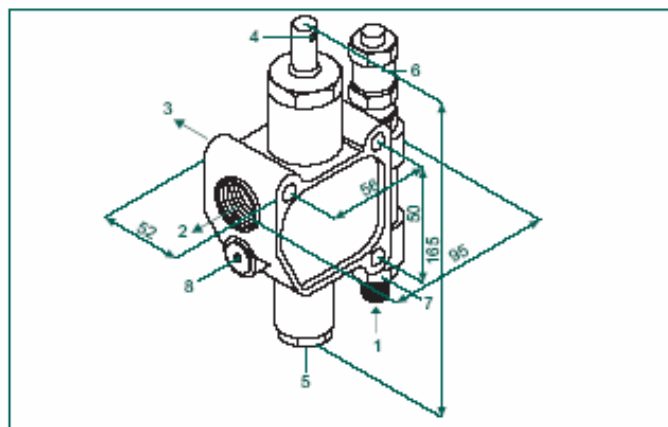


- 1: pump connection (P)
- 2: return tank connection (T)
- 3: cylinder connection (A)
- 4: electric solenoid tip
- 5: electric solenoid lower
- 6: pressure relief valve cap
- 7: non return valve
- 8: emergency push button
- 9: pressure test port 1/8"G

Cable operated tipping Valve DMM

Part no.	Description	Relief valve sett.	Ports	Flow (L/min)	Weight (kg)
147 08 725 H	Valve DMM 25 C	135 bar	G3/8"	25	??
147 08 710 H	Valve DMM 40 C	135 bar	G1/2"	40	??

The hole patern of this valve is not suitable for the standard Hyva tank or chassis mounting plate. This valve can be mounted directly on oil tank SM-025L/012L-MP (Part no.140 17 005)



- 1: pump connection
- 2: return tank connection
- 3: cylinder connection
- 4: knock-off connection
- 5: cable connection
- 6: pressure relief valve
- 7: non return valve
- 8: pressure test port 1/8"G

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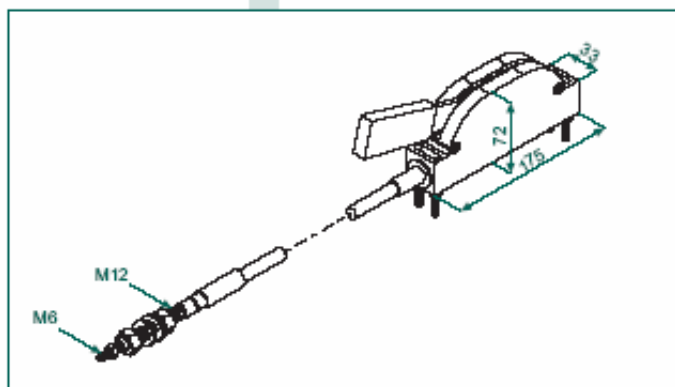
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41.152.1.1/1

Hyva Valves Cable & More section valves

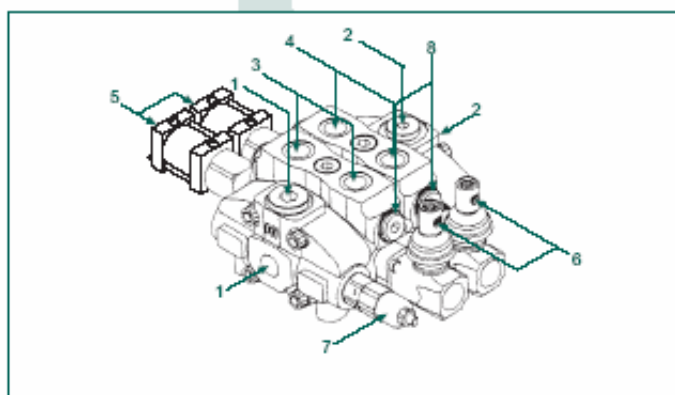
Cable Control for tipping valves

Part no.	Description	Cable length (mm)	Weight (kg)
020 10 112 H	Cable control 3 positions 1.5 m	1500	?
020 10 148 H	Cable control 3 positions 2.0 m	2000	?
020 10 122 H	Cable control 3 positions 2.5 m	2500	?
020 10 141 H	Cable control 3 positions 3.0 m	3000	?
020 10 125 H	Cable control 3 positions 3.5 m	3500	?
020 1 0126 H	Cable control 3 positions 4.0 m	4000	?
020 1 0127 H	Cable control 3 positions 4.5 m	4500	?



More-section valve

Part no.	Description	Press. (bar)	Ports			Flow (L/min)
			P	A/B	T	
147 02 610	section valve-080-2-DA/SA-180-PN	180	1/2"	1/2"	3/4"	80
147 02 620	section valve-080-2-SA/DA-280-PN	280	1/2"	1/2"	3/4"	80
147 02 710	section valve-080-3-DA/SA/SA-180-PN	180	1/2"	1/2"	3/4"	80
147 02 810	section valve-080-4-DA/DA/SA/SA-180-PN	180	1/2"	1/2"	3/4"	80
147 02 815	section valve-080-4-DA/DA/SA/SA-280-PN	280	1/2"	1/2"	3/4"	80
147 02 820	section valve-080-4-SA/SA/DA/DA-280-PN	280	1/2"	1/2"	3/4"	80
147 03 120	section valve-140-2-DA/SA-280-PN	280	3/4"	3/4"	1"	140
147 03 125	section valve-140-2-DA/SA-170-PN	170	3/4"	3/4"	1"	140
147 03 210	section valve-140-3-SA/DA/DA-170-L	170	3/4"	3/4"	1"	140
147 03 220	section valve-140-3-SA/SA/DA-280-PN	280	3/4"	3/4"	1"	140
147 03 310	section valve-140-4-DA/DA/SA/SA-280-PN	280	3/4"	3/4"	1"	140
147 05 500	section valve-160-3-DA/DA/SA-170-PN	170	1"	1"	1"	160
147 05 550	section valve-160-3-DA/SA/DA-135-L	135	1"	1"	1"	160



- 1: pump connection
- 2: tank connection*
- 3: section 1 connection
- 4: section 2 connection
- 5: air actuator
- 6: socket for handle
- 7: pressure relief valve
- 8: port relief valve

DA = double acting section
SA = single acting section
PN = pneumatic operated
L = lever operated





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41.154.1.1/1

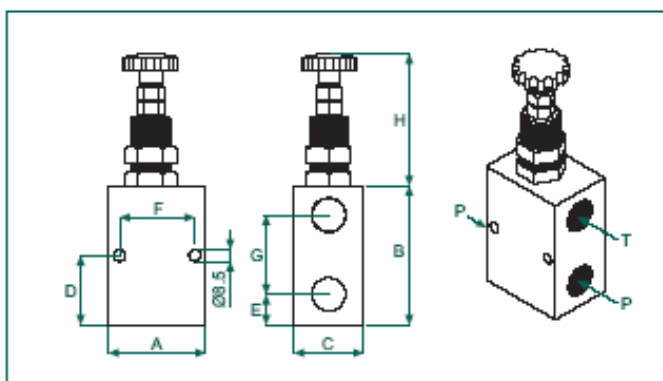
Hyva Valves

Pressure relief valve



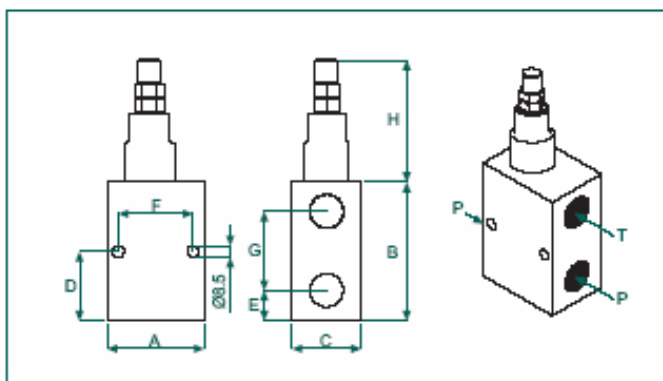
Pressure relief valve - adjustable

Part no.	Description	Press. (bar)	Ports		Flow (L/min)	Weight (kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
			P	T										
013 19 875	valve pres. relief Alu - 100L - 50-210 bar	50-210	1/2"	1/2"	100	1.1	70	100	50	50	22	54	57	95



Pressure relief valve

Part no.	Description	Press. (bar)	Ports		Flow (L/min)	Weight (kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
			P	T										
013 19 880	valve pres. relief Alu - 100L - 50-210 bar	50-210	1/2"	1/2"	100	1.1	70	100	50	50	22	54	57	76.5
013 19 885	valve pres. relief Steel - 100L - 180-210 bar	180-210	1/2"	1/2"	100	2.4	70	100	50	50	22	54	57	76.5
013 19 890	valve pres. relief Steel - 100L - 180-210 bar	180-210	1"	1"	100	2.4	85	120	60	63	30	65	65	76.5



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Hyva Valves
Pressure relief + End of stroke



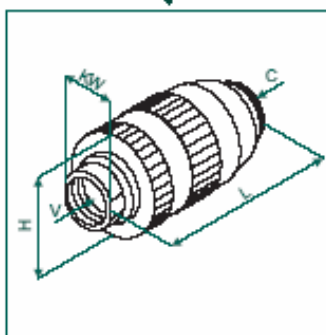
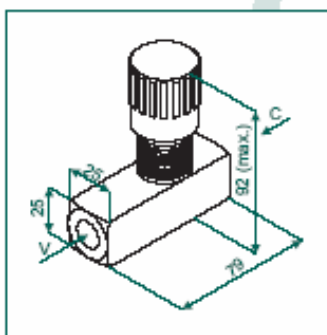


Hyva Valves

Flow restrictor valves

Flow restrictor valve

Part no.	Description	Max.press (bar)	Ports	Dimensions			Flow (L/min)	Weight (kg)
				L	H	KW		
147 00 484	flow restrictor valve	400 bar	G3/8"	72	42	24	40	
147 00 485	flow restrictor valve	300 bar	G3/4"	100	55	36	100	

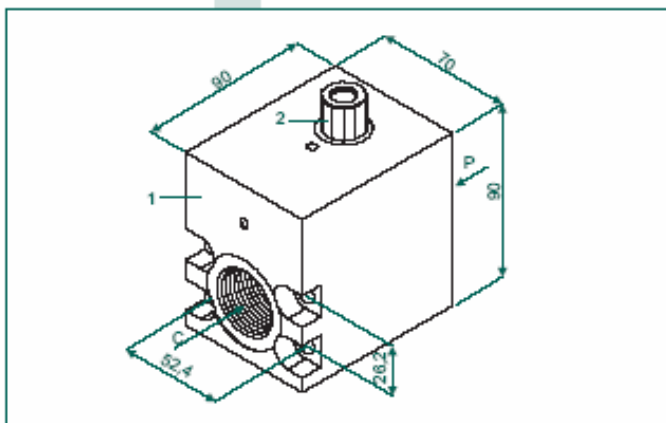


C : cylinder connection
V : valve connection

Part no.	Description	Max. press. (bar)	Ports	Flow (L/min)	Weight (kg)
092 35 651	flow restrictor valve	400 bar	3/8"	40	??

Hose burst valve with releif

Part no.	Description	Max. press. (bar)	Ports	Flow (L/min)	Weight (kg)
147 42 101	Hose burst valve 1"SAE	190 bar	1"	215	4.0



1 : valve housing
2 : pressure cartridge (1477 1170)
C : C-port; connect direct to cylinder
P : P-port; connect to hose

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■ Hyva Air controls

1- & 2-section controls



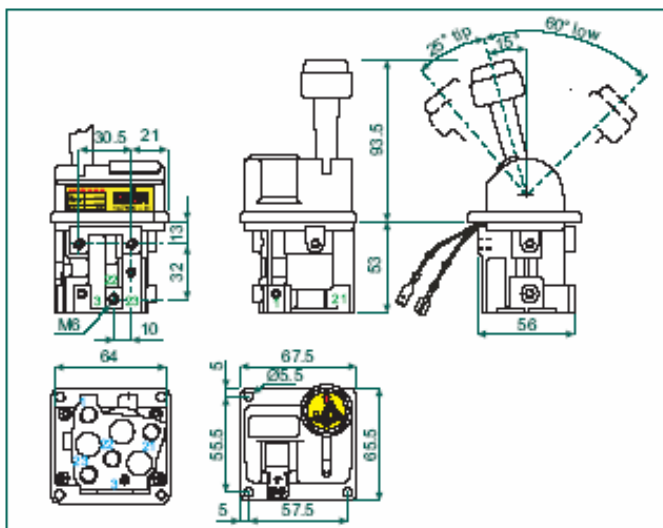
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41.182.1.1/1

Hyva Air controls 2 section air controls

Proportional air control 2 sections (P.T.O. & tipping valve control)

Part no.	Description	Max. press. (bar)	Min.press. (bar)	Ports				
				(1)	(3)	(21)	(22)	(23)
147 50 644 H	control pneumatic - 2 - TF/LF - PN	12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"	G1/8"
147 50 646 H	control pneumatic - 2 - TS/LF - PN	12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"	G1/8"
147 50 650 H	control pneumatic - 2 - TF/LF - PA	12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"	G1/8"
147 50 652 H	control pneumatic - 2 - TS/LF - PA	12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"	G1/8"



- 1 : air inlet
- 3 : air exhaust
- 21 : lowering connection
(to tipping valve)
- 22 : tipping connection
(to tipping valve)
- 23 : working port P.T.O.



Air kit 1 section control for valve

Part no.	Description	Qty.
147 52 141 K	air kit for valve consisting of:	
148 10 517	coupling for air control 1/8" 4x8	4
148 10 515	coupling for air control M5" 4x8	1
148 75 007 20	air tube 6x4 (20 m)	1
148 75 500	air tube tie	4

Air kit 2 section controls for P.T.O. & valve

Part no.	Description	Qty.
147 50 119 K	air kit for P.T.O./valve consisting of:	
148 10 517	coupling for air control 1/8" 4x8	5
148 10 515	coupling for air control M5" 4x8	1
148 75 007 25	air tube 6x4 (25 m)	1
148 75 500	air tube tie	8



Air kit 1 section control for P.T.O.

Part no.	Description	Qty.
147 51 094 K	air kit for P.T.O. consisting of:	
019 15 307	elbow coupling for air control M12-6mm	4
148 75 007 15	air tube 6x4 (15 m)	1
148 75 500	air tube tie	4



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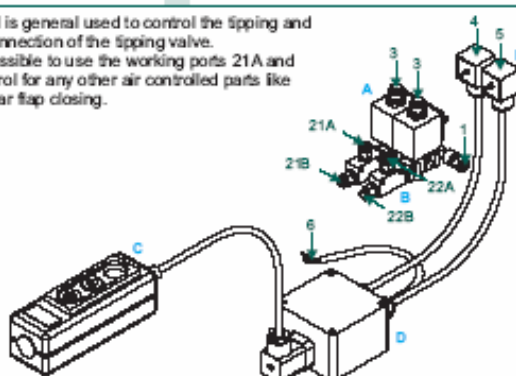
41.184.1.1/1

Hyva Air controls 2 section air controls

Electro pneumatic air control 2 sections

Part no.	Description	Max. press. (bar)	Min.press. (bar)	Ports				Volt (V)
				(1)	(3)	(21)	(22)	
147 52 201	control electro pneumatic dual - 2 - TS/LF	12 bar	5 bar	G1/8"	G1/8"	G1/8"	G1/8"	24

This control is general used to control the tipping and lowering connection of the tipping valve.
It is also possible to use the working ports 21A and 22A to control for any other air controlled parts like P.T.O. or rear flap closing.



- 1 : air inlet
- 3 : air exhausts
- 21A : lowering connection
(to tipping valve)
- 21B : lowering connection
(from cab air control)
- 22A : tipping connection
(to tipping valve)
- 22B : lowering connection
(from cab air control)
- 4 : lowering solenoid
connector
- 5 : tipping solenoid connector
- 6 : power supply connection

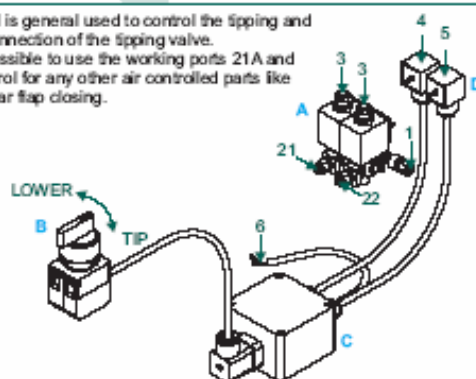
Spare parts

Pos.	Part no.	Description	Qty.
A	147 52 221	electro pneumatic valves (complete)	1
B	147 52 222	shuttle valve set	1
C	147 52 225	remote control	1
D	147 52 226	connecting box	1
E	147 01 157	push-in connector	5

Electro pneumatic air control 2 sections

Part no.	Description	Max. press. (bar)	Min.press. (bar)	Ports				Volt (V)
				(1)	(3)	(21)	(22)	
147 52 200	control electro pneumatic - 2 - TS/LF	12 bar	5 bar	G1/8"	G1/8"	G1/8"	G1/8"	24

This control is general used to control the tipping and lowering connection of the tipping valve.
It is also possible to use the working ports 21A and 22A to control for any other air controlled parts like P.T.O. or rear flap closing.



- 1 : air inlet
- 3 : air exhausts
- 21 : lowering connection
(to tipping valve)
- 22 : tipping connection
(to tipping valve)
- 4 : lowering solenoid connector
- 5 : tipping solenoid connector
- 6 : power supply connection box

Spare parts

pos.	part no.	description	Qty.
A	147 52 221	electro pneumatic valves (complete)	1
B	147 01 154	electric tipping switch	1
C	147 01 156	connecting box	1
D	147 01 157	push-in connector	3

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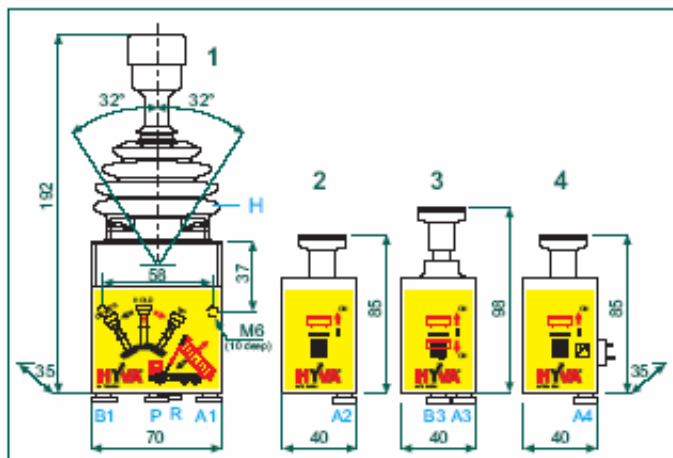
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41.186.1.1/1

Hyva Air controls multisection air controls

Proportional air control multi section with optional additional sections

Part no.	Description	Pos.	Max. press. (bar)	Min.press. (bar)	Ports			
					(A)	(B)	(P)	(R)
147 50 430 H	control pneumatic - MS - TS/LF	1	12 bar	5 bar	6 mm	6 mm	6 mm	6 mm
147 50 455 H	control pneumatic - MS - PN	2	12 bar	5 bar	6 mm	-	-	-
147 50 460 H	control pneumatic - MS - DA	3	12 bar	5 bar	6 mm	6 mm	-	-
147 50 450 H	control pneumatic - MS - PNL	4	12 bar	5 bar	6 mm	-	-	-



- P : air inlet
- R : air exhaust
- A1 : tipping connection
(to tipping valve)
- B1 : lowering connection
(to tipping valve)
- A2 : working port additional
3/2 section
- A3 : working port additional
4/3 section
- A4 : working port additional
3/2 section with pressure
switch
- B3 : working port additional
4/3 section
- H : rubber for handle



Mounting kit for multi section

The components should be ordered and will be supplied as loose parts and should be assembled during installation. To combine the valves you need to order mounting kits for the extra sections. Mounting kit numbers are 147 50 51x H, where x is the number of sections you want to add (so 147 50 513 H for three extra sections). The pneumatic hose sizes must have 6 mm OD, because connectors are integrated in the air control.

Part no.	Description
147 50 511 H	mounting kit for one extra section
147 50 512 H	mounting kit for two extra sections
147 50 513 H	mounting kit for three extra sections



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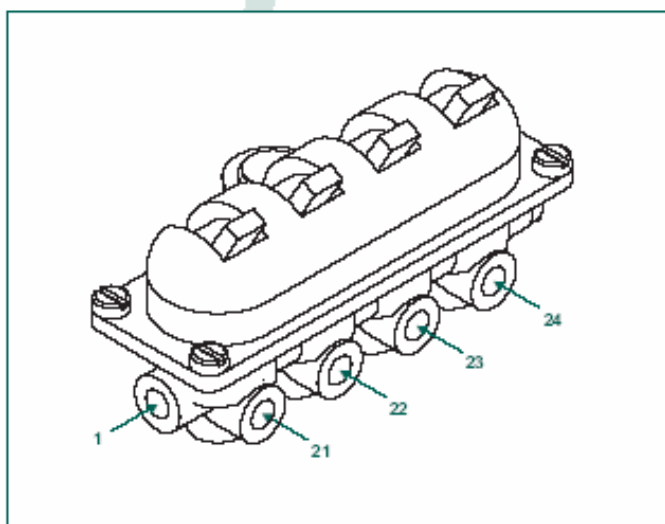
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41.188.1.1/1

Hyva Air controls CAC air controls

Air control multi section CAC series

Part no.	Description	Max. press. (bar)	Min.press. (bar)	Ports					
				(1)	(21)	(22)	(23)	(24)	
147 50 210 H	control pneumatic - 1 - TF/LF - PNL	12 bar	5 bar	M12x1,25	M12x1,25	-	-	-	
147 50 220 H	control pneumatic - 1 - TF/LF - PN	12 bar	5 bar	M12x1,25	M12x1,25	-	-	-	
147 50 230 H	control pneumatic - 2 - TF/LF - PNL	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	-	-	
147 50 240 H	control pneumatic - 2 - TF/LF - PN	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	-	-	
147 50 250 H	control pneumatic - 3 - TF/LF - PNL	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	M12x1,25	-	
147 50 260 H	control pneumatic - 3 - TF/LF - PN	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	M12x1,25	-	
147 50 270 H	control pneumatic - 4 - TF/LF - PNL	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	M12x1,25	M12x1,25	



- 1 : air inlet
- 21 : working port 1
- 22 : working port 2
- 23 : working port 3
- 24 : working port 4



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