

# Water Cooled Compressors

Capacities in m<sup>3</sup>/h at: 725, 875, 975 and 1150 RPM

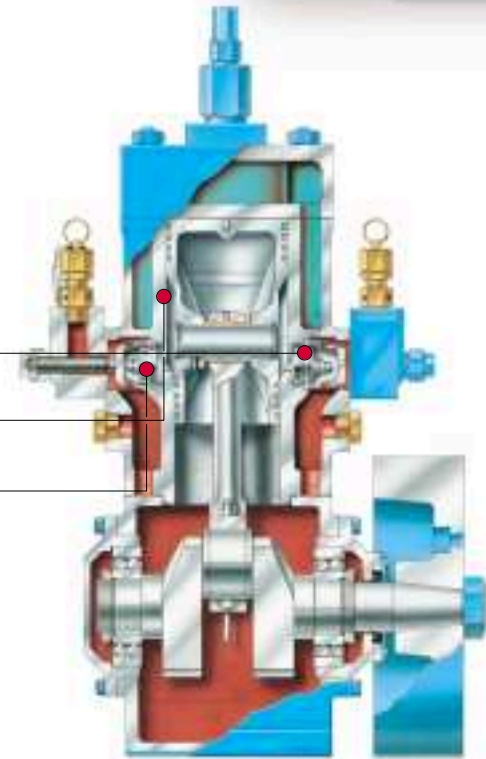
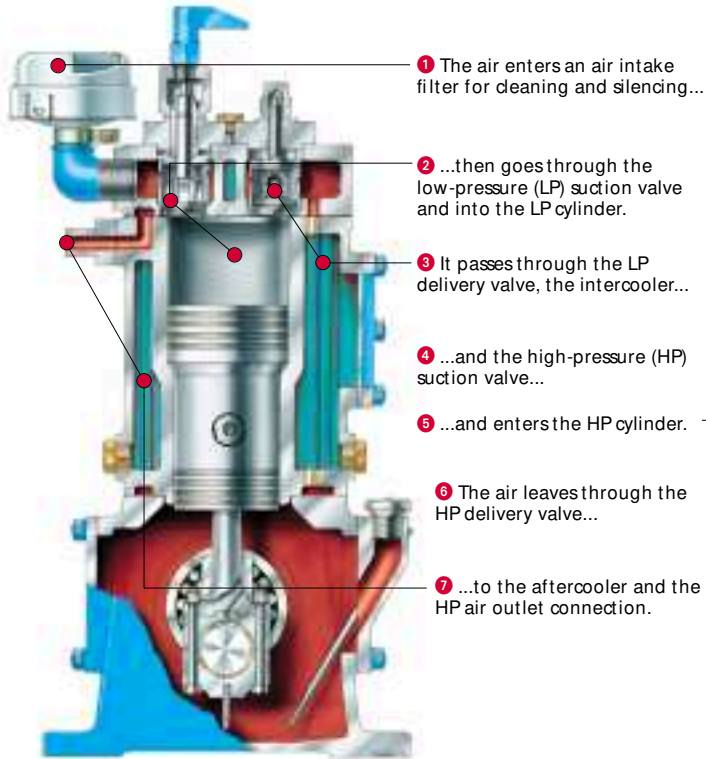


8  
BAR

TYPE	50 Hz		60Hz		PAGE
	725	975	875	1150	
HV1/85	17	23	20	26	8-11
HV1/120	34	45	41	53	8-11
HV1/140A	54	73	65	84	12-15
HV1/156A	71	95	85	111	12-15
HV2/200	120	162	145	188	16-19
HV2/210	133	178	160	208	16-19
HV2/219	144	194	174		16-19
HV2/220	190	255	229		16, 20
HV2/240	226	304	273		16, 20
HV2/270A	293	390	354		16, 22
HV2/285A	327	434	394		16, 22
HV2/300A	363	482	437		16, 22

30  
BAR

TYPE	50 Hz		60Hz		PAGE
	725	975	875	1150	
HV1/85	14	19	17	22	8-11
HV1/120	29	39	35	45	8-11
HV1/140A	46	62	56	71	12-15
HV1/156A	60	81	72	94	12-15
HV2/200	113	152	136	177	16-19
HV2/210	125	168	150	195	16-19
HV2/219	135	182	164		16-19
HV2/220	174	234	210		16, 20
HV2/240	208	279	250		16, 20
HV2/270A	266	358	321		16, 22
HV2/285A	297	398	358		16, 22
HV2/300A	328	441	396		16, 22



The cast-iron **crankcase** incorporates two side covers and two shields containing ball bearings for the crankshaft. The **cylinder block** houses the vertical air cooling tubes constituting the inter- and

aftercooler. The tubes are rolled directly into the cast-iron material of the cylinder block. The cast-iron **cylinder head** contains the two LP valves. The **crankshaft** is made of nodular iron with integral balanced

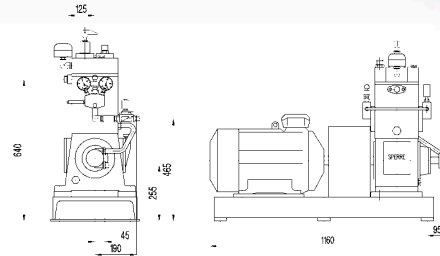
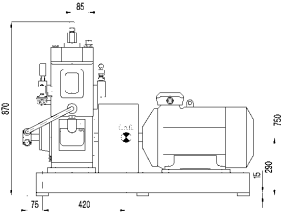
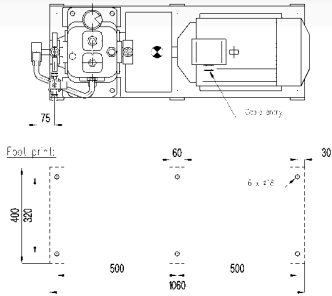
weight suspended in two ball bearings. The nodular iron **connecting rod** has big end bearings of steel – backed with white metal, a small end bushing of bronze and a gudgeon pin of hardened steel.

The high-efficiency **disc valves** for both stages are easy to dismantle and clean. On top of the cylinder head, there is a manually operated valve lifter for unloading the LP suction valve. The stage **piston** is

made of an aluminium alloy. The compression and oil scraper **rings** are made of cast iron. **Lubrication:** The cylinder walls and all bearings are splash lubricated. The jacket **cooling system** needs fresh

or sea water. A self-priming water pump driven by the crankshaft is attached to the compressor body. **Fittings:** Our standard supply includes safety valves and pressure gauges for both stages.

## HV1 85 120



Dimensions are valid for HV1/120. HV1/85 is slightly smaller.



### Design particulars

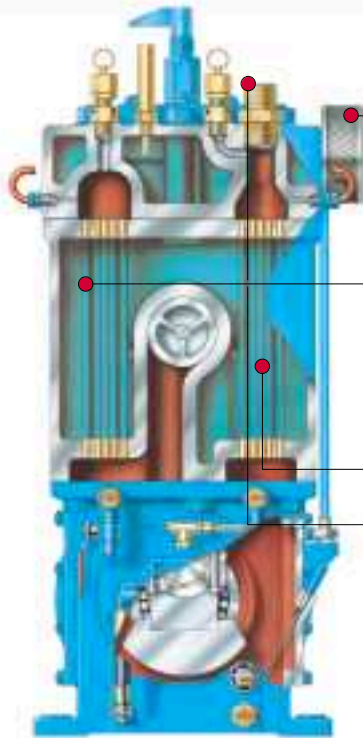
Design		
No. of cylinders	1	
No. of compression stages	2	
Cooling	Water	
Valves LP	Plate valves (suction and delivery)	
Valves HP	Plate valves (suction and delivery)	
Dimensions & weight		
	<b>HV1/85</b>	<b>HV1/120</b>
Cylinder diameter LP	85 mm	120 mm
Cylinder diameter HP	77 mm	105 mm
Stroke	85 mm	85 mm
Weight (compr./motor/baseplate)	250 kg	322 kg
Lubrication		
Sump capacity	1.5 litres	2.0 litres
Lubrication system	Splash	

Operating parameters		HV1/85	HV1/120
Maximum delivery pressure		40 bar	40 bar
Ambient temperature		45°C	45°C
Normal working pressure LP		5–7 bar	4–6 bar
Normal temperature outlet air		Approx. 20°C above cooling water outlet	
Set point thermo switch air		75°C alarm/80°C stop	75°C alarm/80°C stop
Set point thermo switch water		75°C alarm/80°C stop	75°C alarm/80°C stop
Recommended CW inlet temp. min.		30°C	30°C
Recommended CW outlet temp. max.		60°C	60°C
Required CW pressure		0.5–3.0 bar	0.5–3.0 bar
Maximum speed		1200 RPM	1200 RPM
Rotation		Anti-clockwise (looking at the drive end)	
Safety valves set point		10% above stage pressure	

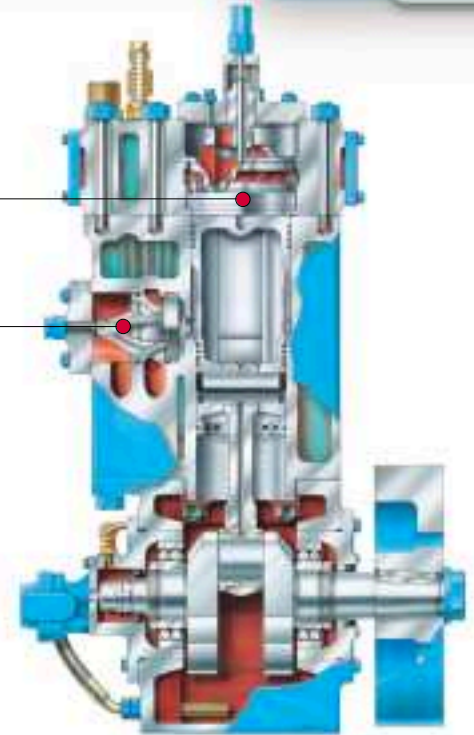
Compressor model	Speed (RPM)	Frequency (Hz)	8 bar				25 bar				30 bar				35 bar			
			Capacity FAD (m <sup>3</sup> /h)	Power req. (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m <sup>3</sup> /h)	Power req. (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m <sup>3</sup> /h)	Power req. (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m <sup>3</sup> /h)	Power req. (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)
HV1/85	725	50	17	2.1	2	1549	15	2.8	3	2046	14	3.0	3	2193	14	3.1	3	2266
	875	60	20	2.8	3	2061	18	3.5	4	2558	17	3.7	4	2704	17	3.8	4	2777
	975	50	23	3.6	4	2646	20	4.3	4	3143	19	4.4	4	3216	19	4.6	5	3362
	1150	60	26	4.3	4	3157	23	5.0	5	3654	22	5.1	5	3727	22	5.3	5	3873
HV1/120	725	50	34	4.3	4	3128	30	5.5	6	4020	29	5.8	6	4239	28	6.1	6	4458
	875	60	41	5.8	6	4224	36	7.0	7	5116	35	7.3	7	5335	34	7.6	8	5554
	975	50	45	6.4	7	4707	40	7.7	8	5627	39	8.1	8	5920	37	8.4	9	6139
	1150	60	53	7.9	8	5803	46	9.2	9	6724	45	9.6	10	7016	44	9.9	10	7235

Capacities quoted are bottle-charging rates.

**HV1** 140A  
156A



- 1 The air enters an air intake filter for cleaning and silencing...
- 2 ...then goes through the suction part of the low-pressure (LP) valve and into the LP cylinder,...
- 3 ...the intercooler...
- 4 ...and the suction part of the high-pressure (HP) valve into the HP cylinder. From there, the air leaves via the delivery part of the HP valve,...
- 5 ...to the aftercooler...
- 6 ...and the HP air outlet connection.



The cast-iron **crankcase** incorporates two side covers and two shields containing ball bearings for the crankshaft.

The **cylinder block** houses the vertical air cooling tubes constituting the inter- and aftercooler. The tubes

are rolled directly into the cast-iron material of the cylinder block. The **crankshaft** is made of nodular iron with integral balanced weight suspended in two ball bearings. The nodular iron **connecting rod** has big end bearings of

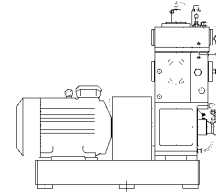
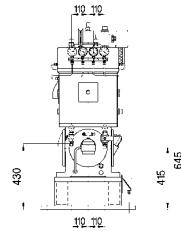
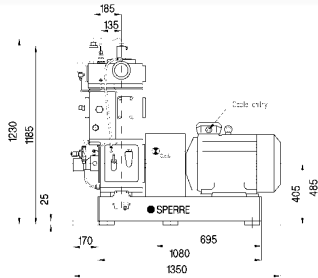
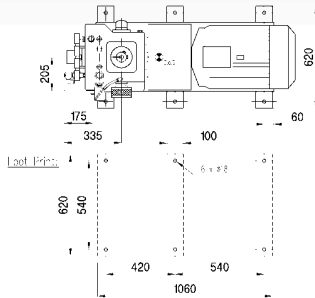
steel – backed with white metal, a small end bushing of bronze and a gudgeon pin of hardened steel. The high-efficiency disc **valves** for both stages are easy to dismantle and clean. On top of the cylinder head, there is a manually

operated valve lifter for unloading the LP suction valve. The stage **piston** is made of an aluminium alloy. The compression and oil scraper **rings** are made of cast iron and composite materials.

**Lubrication:** All bearings, except for the roller bearings, are pressure lubricated by an oil pump, direct driven by the crankshaft. The bypass valve of the oil pump provides the correct pressure for the oil.

**Fittings:** Our standard supply includes safety valves as well as pressure gauges for LP and HP air, lubrication oil and cooling water.

**HV1** 140A  
156A



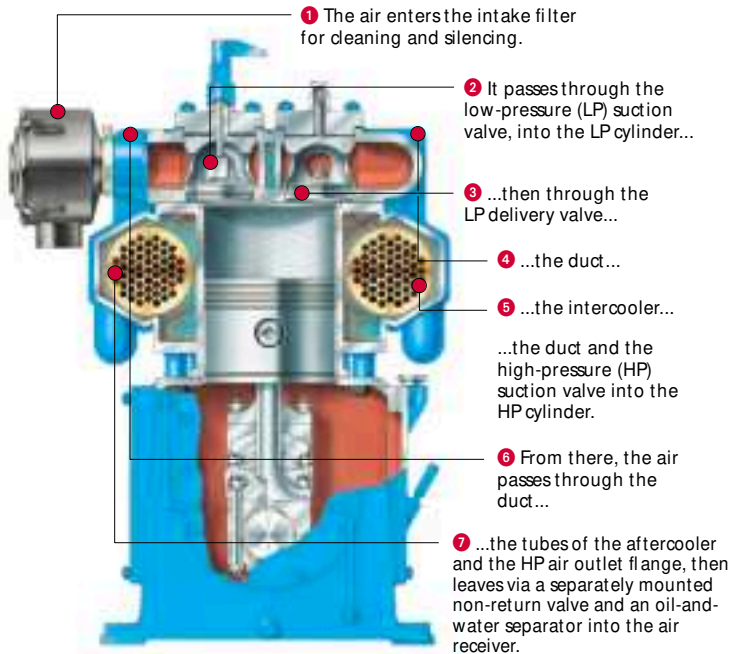
**Design particulars**

Design		
No. of cylinders	1	
No. of compression stages	2	
Cooling		
Valves LP	Concentric plate valve	
Valves HP	Concentric plate valve	
Dimensions & weight		
	<b>HV1/140A</b>	<b>HV1/156A</b>
Cylinder diameter LP	140 mm	156 mm
Cylinder diameter HP	126 mm	140 mm
Stroke	100 mm	100 mm
Weight (compressor/motor/baseplate)	622 kg	666 kg
Lubrication		
Sump capacity	4 litres	4 litres
Lubrication system	Pressure	Pressure
Recommended lub.oil pressure	1.0–2.0 bar	1.0–2.0 bar
Set point lub.oil press. switch alarm/stop	1.0 bar/0.8 bar	1.0 bar/0.8 bar

Operating parameters		HV1/140A	HV1/156A
Maximum delivery pressure		40 bar	40 bar
Ambient temperature		45°C	45°C
Normal working pressure LP		4–6 bar	4–6 bar
Normal temperature outlet air		Approx. 20°C above cooling water outlet	75°C/80°C
Set point thermo switch air alarm/stop		75°C/80°C	75°C/80°C
Set point thermo switch water alarm/stop		75°C/80°C	75°C/80°C
Recommended CW inlet temp. min.		30°C	30°C
Recommended CW outlet temp. max.		60°C	60°C
Required CW pressure		0.5–3.0 bar	0.5–3.0 bar
Maximum speed		1200 RPM	1200 RPM
Rotation		Anti-clockwise (looking at the drive end)	
Safety valves set point		10% above stage pressure	

Compressor model	Speed (RPM)	Frequency (Hz)	8 bar				25 bar				30 bar				35 bar			
			Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)
HV1/140A	725	50	54	7.9	8	5774	48	9.8	10	7162	46	10.3	10	7528	45	10.7	11	7820
	875	60	65	10.1	10	7381	58	12.0	12	8770	56	12.5	13	9135	54	12.9	13	9428
	975	50	73	10.6	11	7776	64	13.8	14	10086	62	14.7	15	10743	60	15.5	16	11328
	1150	60	84	12.8	13	9384	74	16.0	16	11693	71	16.9	17	12351	69	17.7	18	12936
HV1/156A	725	50	71	10.9	11	7966	62	12.8	13	9355	60	13.3	14	9720	58	13.6	14	9939
	875	60	85	13.1	13	9574	74	15.0	15	10963	72	15.5	16	11328	70	16.0	16	11693
	975	50	95	14.3	15	10480	83	17.5	18	12790	81	18.4	19	13447	78	19.1	19	13959
	1150	60	111	16.5	17	12088	97	19.7	20	14397	94	20.6	21	15055	91	21.5	22	15713

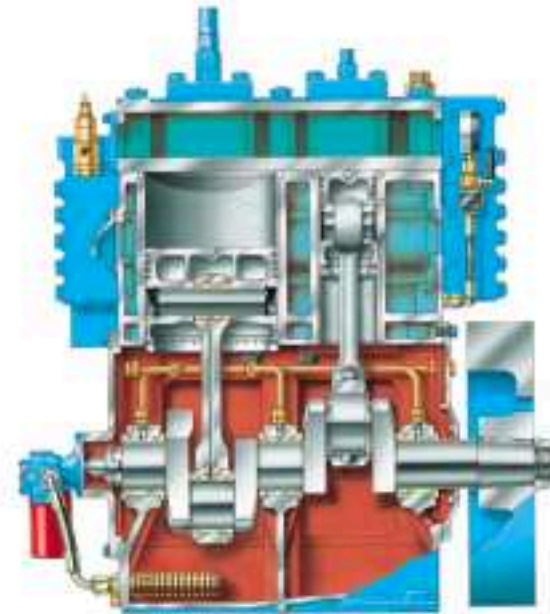
Capacities quoted are bottle-charging rates



The cast-iron **crankcase** contains three main bearings for the crankshaft. There are two side covers for inspection and access. The cast-iron **cylinder block** houses the tube bundles constituting the inter- and after-cooler. The end covers ensure easy access to both coolers. Types HV2/220-300 are fitted with cylinder liners.

The cast-iron **cylinder head** contains the two LP and HP valves. The top covers are easy to remove for inspecting the valves. The cooling water outlet connection is mounted on the top of the cylinder head.

The wrought-steel **crankshaft** includes separately mounted balancing weights. The **connecting rods** are made of nodular iron, with big end bearings of steel – backed with white metal, small end bushings of bronze and gudgeon pins of hardened steel.

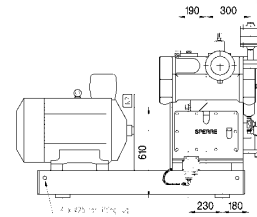
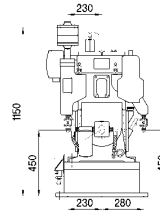
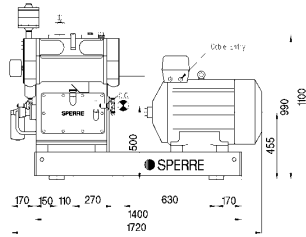
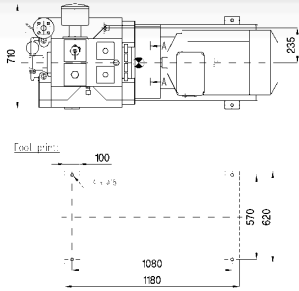


The high-efficiency disc **valves** for both stages are easy to dismantle and clean. On top of the cylinder head there is a manually operated valve lifter for unloading the LP suction valve. Both **pistons** are made of an aluminium alloy. The compression and oil scraper **rings** are made of cast iron or composite materials, depending on the mode.

**Lubrication system:** All bearings are pressure lubricated by an oil pump, direct driven by the crankshaft. The bypass valve of the oil pump provides the correct pressure for the oil.

**Fittings:** Our standard supply includes safety valves for both stages as well as pressure gauges for LP and HP air, cooling water and the lubrication oil. It also includes a solenoid LP valve for draining the intercooler and a solenoid valve which drains the after-cooler and ensures an unloaded start.

## HV2 200 210 219



### Design particulars

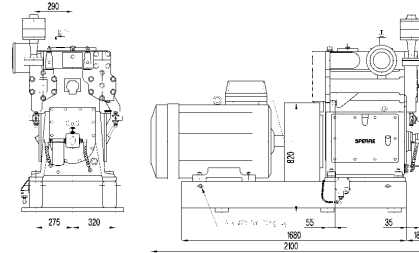
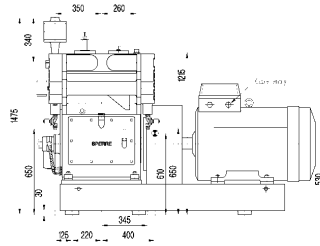
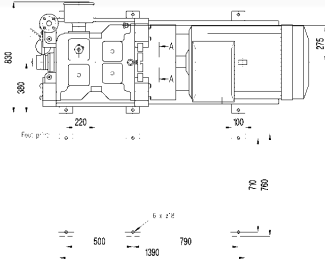
<b>Design</b>			
No. of cylinders	2		
Cylinder arrangement	In line		
No. of compression stages	2		
Cooling	Water		
Valves LP	Plate valves (suction and delivery)		
Valves HP	Plate valves (suction and delivery)		
<b>Dimensions &amp; weight</b>			
	<b>HV2/200</b>	<b>HV2/210</b>	<b>HV2/219</b>
Cylinder diameter LP	200 mm	210 mm	220 mm
Cylinder diameter HP	93 mm	93 mm	97 mm
Stroke	110 mm	110 mm	110 mm
Weight (compressor/motor/baseplate)	918 kg	918 kg	917 kg
<b>Lubrication</b>			
Sump capacity	8 litres	8 litres	8 litres
Lubrication system	Pressure		
Recommended lub.oil pressure	1.0–2.0 bar	1.0–2.0 bar	1.0–2.0 bar
Set point lub.oil press. switch alarm/stop	1.0 bar/0.8 bar	1.0 bar/0.8 bar	1.0 bar/0.8 bar

<b>Operating parameters</b>			
Maximum delivery pressure	<b>HV2/200</b>	<b>HV2/210</b>	<b>HV2/219</b>
Ambient temperature	35 bar	35 bar	35 bar
Normal working pressure LP	45°C	45°C	45°C
Normal temperature outlet air	4–6 bar	4–6 bar	4–6 bar
Set point thermo switch air alarm/stop	Approx. 5°C above cooling water outlet	75°C/80°C	75°C/80°C
Set point thermo switch water alarm/stop	75°C/80°C	75°C/80°C	75°C/80°C
Recommended CW inlet temp. min.	30°C	30°C	30°C
Recommended CW outlet temp. max.	60°C	60°C	60°C
Required CW pressure	0.5–3.0 bar	0.5–3.0 bar	0.5–3.0 bar
CW pressure drop across compressor	140–500 mm.w.c.	180–650 mm.w.c.	220–660 mm.w.c.
Maximum speed	1200 RPM	1200 RPM	1000 RPM
Rotation	Anti-clockwise (looking at the drive end)		
Safety valves set point	10% above stage pressure		

Compressor model	Speed (RPM)	Frequency (Hz)	8 bar				25 bar				30 bar				35 bar			
			Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)
HV2/200	525	60	97	12.9	13	9442	93	16.2	16	11840	91	16.9	17	12351	90	17.6	18	12863
	725	50	120	16.6	17	12146	114	19.9	20	14544	113	20.6	21	15055	111	21.3	22	15567
	875	60	145	19.6	20	14310	138	24.3	25	17759	136	25.0	25	18271	134	25.7	26	18782
	975	50	162	22.2	23	16225	154	27.2	28	19879	152	28.0	28	20463	150	28.7	29	20975
	1150	60	188	26.2	27	19133	179	32.1	33	23460	177	32.9	33	24044	174	33.8	34	24702
HV2/210	525	60	108	14.4	15	10539	103	17.6	18	12863	101	18.4	19	13447	100	19.1	19	13959
	775	50	133	18.1	18	13213	126	22.1	22	16151	125	22.8	23	16663	123	23.5	24	17175
	875	60	160	21.5	22	15713	152	26.5	27	19367	150	27.9	28	20390	148	28.7	29	20975
	975	50	178	24.4	25	17832	170	29.4	30	21487	168	30.9	31	22583	165	31.6	32	23094
	1150	60	208	28.8	29	21033	198	34.7	35	25360	195	36.5	37	26675	192	37.3	38	27260
HV2/219	525	60	117	15.9	16	11606	111	19.1	19	13959	110	19.9	20	14544	108	20.6	21	15055
	775	50	144	20.0	20	14617	137	24.3	25	17759	135	25.0	25	18271	133	25.7	26	18782
	875	60	174	23.7	24	17321	166	29.4	30	21487	164	30.1	31	21998	162	31.6	32	23094
	975	50	194	26.6	27	19440	184	32.4	33	23679	182	33.8	34	24702	180	34.6	35	25287

Capacities quoted are bottle-charging rates

## HV2 220 240



### Design particulars

Design		
No. of cylinders	2	
Cylinder arrangement	In line	
Cylinder liners	Replaceable dry	
No. of compression stages	2	
Cooling	Water	
Valves LP	Plate valves (suction and delivery)	
Valves HP	Plate valves (suction and delivery)	
Dimensions & weight		
	<b>HV2/220</b>	<b>HV2/240</b>
Cylinder diameter LP	220 mm	240 mm
Cylinder diameter HP	97 mm	105 mm
Stroke	140 mm	140 mm
Weight (compressor/motor/baseplate)	1527 kg	1590 kg
Lubrication		
Sump capacity	20 litres	20 litres
Lubrication system	Pressure	Pressure
Recommended lub.oil pressure	1.0–2.0 bar	1.0–2.0 bar
Set point lub.oil press. switch alarm/stop	1.0 bar/0.8 bar	1.0 bar/0.8 bar

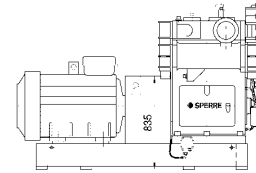
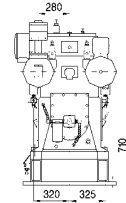
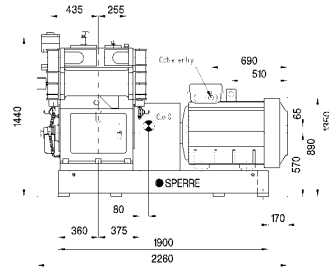
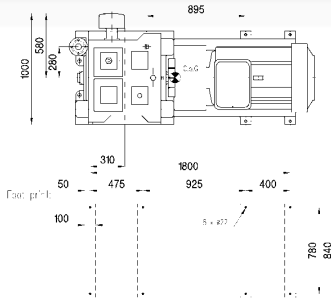
Operating parameters		HV2/220	HV2/240
Maximum delivery pressure		35 bar	35 bar
Ambient temperature		45°C	45°C
Normal working pressure LP		4–6 bar	4–6 bar
Normal temperature outlet air		Approx. 5°C above cooling water outlet	
Set point thermo switch air alarm/stop		75°C/80°C	75°C/80°C
Set point thermo switch water alarm/stop		75°C/80°C	75°C/80°C
Recommended CW inlet temp. min.		30°C	30°C
Recommended CW outlet temp. max.		60°C	60°C
Required CW pressure		0.5–3.0 bar	0.5–3.0 bar
CW pressure drop across compressor		220–680 mm.w.c.	310–890 mm.w.c.
Maximum speed		1000 RPM	1000 RPM
Rotation		Anti-clockwise (looking at the drive end)	
Safety valves set point		10% above stage pressure	

Compressor model	Speed (RPM)	Frequency (Hz)	8 bar				25 bar				30 bar				35 bar			
			Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m³/h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)
HV2/220	580	60	154	20.0	20	14617	145	24.3	25	17759	141	25.7	26	18782	137	26.5	27	19367
	725	50	190	25.1	26	18373	179	30.4	31	22217	174	31.6	32	23094	170	33.1	34	24191
	875	60	229	30.3	31	22144	216	36.8	37	26895	210	38.2	39	27918	204	39.7	40	29014
HV2/240	975	50	255	33.7	34	24644	240	41.2	42	30110	234	42.6	43	31134	227	44.1	45	32230
	580	60	183	23.7	24	17321	172	29.4	30	21487	168	30.1	31	21998	163	31.6	32	23094
	725	50	226	30.0	30	21940	213	36.8	37	26895	208	37.5	38	27406	202	39.0	40	28503
HV2/240	975	60	273	35.9	36	26252	254	44.1	45	32230	250	45.6	46	33326	243	47.1	48	34422
	975	50	304	40.3	41	29467	287	49.3	50	36030	279	50.7	51	37053	271	52.2	53	38150

Capacities quoted are bottle-charging rates



## HV2 270A 285A 300A



### Design particulars

Design			
No. of cylinders	2		
Cylinder arrangement	In line		
Cylinder liners	Replaceable dry		
No. of compression stages	2		
Cooling			
Valves LP	Plate valves (suction and delivery)		
Valves HP	Plate valves (suction and delivery)		
Dimensions & weight			
	<b>HV2/270A</b>	<b>HV2/285A</b>	<b>HV2/300A</b>
Cylinder diameter LP	270 mm	285 mm	300 mm
Cylinder diameter HP	118 mm	124 mm	130 mm
Stroke	140 mm	140 mm	140 mm
Weight (compressor/motor/baseplate)	2197 kg	2192 kg	2266 kg
Lubrication			
Sump capacity	24 litres	24 litres	24 litres
Lubrication system	Pressure	Pressure	Pressure
Recommended lub.oil pressure	1.0–2.0 bar	1.0–2.0 bar	1.0–2.0 bar
Set point lub.oil press. switch alarm/stop	1.0 bar/0.8 bar	1.0 bar/0.8 bar	1.0 bar/0.8 bar

Operating parameters		<b>HV2/270A</b>	<b>HV2/285A</b>	<b>HV2/300A</b>
Maximum delivery pressure		35 bar	35 bar	35 bar
Ambient temperature		45°C	45°C	45°C
Normal working pressure LP		4–6 bar	4–6 bar	4–6 bar
Normal temperature outlet air		Approx. 5°C above cooling water outlet		
Set point thermo switch air alarm/stop		75°C/80°C	75°C/80°C	75°C/80°C
Set point thermo switch water alarm/stop		75°C/80°C	75°C/80°C	75°C/80°C
Recommended CW inlet temp. min.		30°C	30°C	30°C
Recommended CW outlet temp. max.		60°C	60°C	60°C
Required CW pressure		0.5–3.0 bar	0.5–3.0 bar	0.5–3.0 bar
CW pressure drop across compressor		490–130 mm w.c.	600–1600 mm w.c.	710–2100 mm w.c.
Maximum speed		1000 RPM	1000 RPM	1000 RPM
Rotation		Anti-clockwise (looking at the drive end)		
Safety valves set point		10% above stage pressure		

Compressor model	Speed (RPM)	Frequency (Hz)	8 bar			25 bar			30 bar			35 bar						
			Capacity FAD (m <sup>3</sup> /h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m <sup>3</sup> /h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)	Capacity FAD (m <sup>3</sup> /h)	Power requirements (kW)	Cooling water req. l/min	Heat dissipation (kCal/h)				
HV2/270A	580	60	237	30.3	31	22144	218	36.8	37	26895	216	38.2	39	27918	213	39.7	40	29014
	725	50	293	37.6	38	27509	270	46.3	47	33838	266	47.8	49	34934	262	49.3	50	36030
	875	60	354	45.9	47	33545	325	55.9	57	40854	321	57.4	58	41950	316	59.6	60	43558
HV2/285A	975	50	390	50.3	51	36761	362	62.5	63	45677	358	64.7	66	47285	353	66.9	68	48893
	580	60	265	33.7	34	24644	243	41.2	42	30110	240	42.6	43	31134	237	44.1	45	32230
	725	50	327	42.2	43	30841	301	51.5	52	37638	297	52.9	54	38661	293	55.1	56	40269
HV2/300A	875	60	394	51.0	52	37302	362	62.5	63	45677	358	64.0	65	46773	353	66.2	67	48381
	975	50	434	56.6	57	41380	403	69.1	70	50501	398	71.3	72	52108	393	74.3	75	54301
	580	60	293	37.3	38	27275	269	45.6	46	33326	266	47.1	48	34422	262	49.3	50	36030
HV2/300A	725	50	363	46.6	47	34086	333	56.6	57	41365	328	58.8	60	42973	324	61.0	62	44581
	875	60	437	56.6	57	41380	402	69.1	70	50501	396	71.3	72	52108	391	73.5	75	53716
	975	50	482	62.5	63	45692	447	76.5	78	55909	441	79.4	81	58028	435	82.4	84	60221

Capacities quoted are bottle-charging rates

# Delivery scope

■ Direct gear driven as standard    
 ■ Standard supply    
 ■ Option    
 ■ Oil level switch (as option)    
 ■ Only available for LP compressors (as standard)

Mechanical components	8-30 BAR COMPRESSORS											
	HV1/85	HV1/120	HV1/140A	HV1/156A	HV2/200	HV2/210	HV2/219	HV2/220	HV2/240	HV2/270A	HV2/285A	HV2/300A
Non-return valve	■	■	■	■	■	■	■	■	■	■	■	■
Oil & water separator	■	■	■	■	■	■	■	■	■	■	■	■
1st stage safety valve	■	■	■	■	■	■	■	■	■	■	■	■
2nd stage safety valve	■	■	■	■	■	■	■	■	■	■	■	■
1st stage air pressure gauge	■	■	■	■	■	■	■	■	■	■	■	■
2nd stage air pressure gauge	■	■	■	■	■	■	■	■	■	■	■	■
Thermometer air outlet	■	■	■	■	■	■	■	■	■	■	■	■
Lub.oil pressure gauge	N / A	N / A	■	■	■	■	■	■	■	■	■	■
Cooling water pressure gauge	N / A	N / A	■	■	■	■	■	■	■	■	■	■
Cooling water sight glass	■	■	■	■	■	■	■	■	■	■	■	■
Cooling water bursting disc	■	■	■	■	■	■	■	■	■	■	■	■
Cooling water safety valve	■	■	■	■	■	■	■	■	■	■	■	■
Thermometer cooling water inlet	■	■	■	■	■	■	■	■	■	■	■	■
Thermometer cooling water outlet	■	■	■	■	■	■	■	■	■	■	■	■
SW/FW Heat Exchanger	■	■	■	■	■	■	■	■	■	■	■	■
3-way thermostatic valve (wax type)	N / A	N / A	N / A	N / A	■	■	■	■	■	■	■	■
Oil dip stick	■	■	■	■	■	■	■	■	■	■	■	■
Lub.oil pump with filter	N / A	N / A	■	■	■	■	■	■	■	■	■	■
Oil level sight glass	N / A	N / A	■	■	■	■	■	■	■	■	■	■
Air suction filter	■	■	■	■	■	■	■	■	■	■	■	■
Intercooler	■	■	■	■	■	■	■	■	■	■	■	■
Aftercooler	■	■	■	■	■	■	■	■	■	■	■	■
Vibration dampers	■	■	■	■	■	■	■	■	■	■	■	■
Flexible hoses	■	■	■	■	■	■	■	■	■	■	■	■
Manual unloader (unloaded running)	■	■	■	■	■	■	■	■	■	■	■	■
Lifting lugs	■	■	■	■	■	■	■	■	■	■	■	■
<b>Electrical components</b>												
Starter panel	■	■	■	■	■	■	■	■	■	■	■	■
Junction box with internal wiring	■	■	■	■	■	■	■	■	■	■	■	■
Start/stop pressure switch	■	■	■	■	■	■	■	■	■	■	■	■
High air/water discharge temp. alarm device	■	■	■	■	■	■	■	■	■	■	■	■
High air/water discharge temp. stop device	■	■	■	■	■	■	■	■	■	■	■	■
Low oil pressure alarm	N / A	N / A	■	■	■	■	■	■	■	■	■	■
Low oil pressure stop	■	■	■	■	■	■	■	■	■	■	■	■
Electrically driven cooling water pump	■	■	■	■	■	■	■	■	■	■	■	■
Solenoid valve cooling water inlet	■	■	■	■	■	■	■	■	■	■	■	■
Solenoid HP drain/unloaded start device	■	■	■	■	■	■	■	■	■	■	■	■
Solenoid drain valve LP	N / A	N / A	N / A	N / A	■	■	■	■	■	■	■	■
Solenoid valve unloaded running	N / A	N / A	■	■	■	■	■	■	■	■	■	■
<b>Other</b>												
Manufacturer's test protocol	■	■	■	■	■	■	■	■	■	■	■	■
Class certificate	■	■	■	■	■	■	■	■	■	■	■	■
Spares acc. to class/manufacture's std.	■	■	■	■	■	■	■	■	■	■	■	■