

Recirculation pumping stations

These are groups of pre-assembled and factory tested pumps, designed for flexibility and to modulate the flow of recirculation water for industrial chillers Heavygel. They are digitally controlled by the remote controller (3PR) which automatically activates the pumping capacity necessary to maintain the flow conditions in relation to the installed cooling requirements.

The complete set-up includes the base, electrical panel and full trim, all pre-assembled and wired for a quick and functional installation.

The exclusive modular design also allows for easy and quick expansion.



Modular recirculation pumping units up to 4 for industrial chillers Heavygel

Advantages

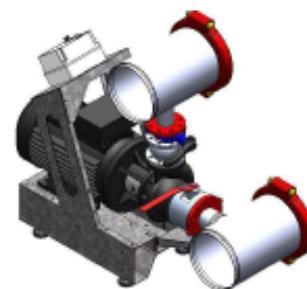
- Ready for installation
- Fully automatic operation
- Total modularity: mechanical, electrical and hydraulic
- High energy efficiency
- Plug & play concept for easy installation and expansion

Main features

- Full range: from 50 to 600 m³/hr
- Modular groups up to four pumps
- High performance centrifugal electric pumps, equipped with silicon carbide mechanical seals and IE3 efficiency class electric motors
- Electrical wiring complete with protection
- Electric panels in IP55 execution complete with general door-lock switch, magneto-thermal protection for pumps and connection terminal board
- Suction and discharge valves and discharge check valves
- Stainless steel manifolds
- Digital temperature and pressure sensors
- Galvanized steel base; each pump has its base; the various bases can be easily connected to each other
- All the pumping groups are equipped with adjustable support feet to facilitate coupling with the GPS series tanks
- Ready for connection to the 3PR remote panel

Accessories

- Additional pump kit: Complete with electric panel and base; the expansion with an additional identical fully trimmed pumping unit can be done on both sides quickly and easily
- Insulation kit: on request pump insulation kit, for low operating temperatures



Technical data

50Hz

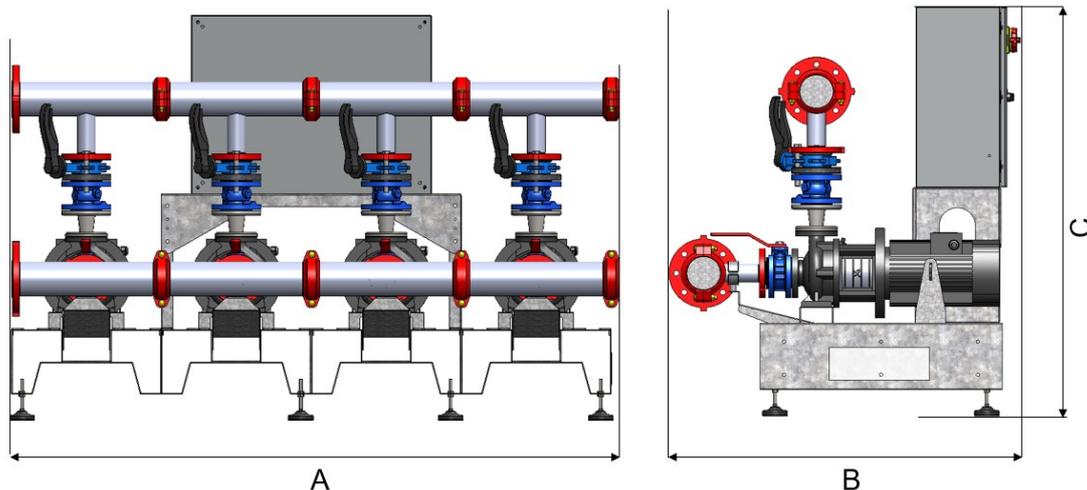
MODULAR PUMPING STATION GPA														
Model		1200			1600			2400			4800			
Power supply voltage and frequency		400V±10%/3/50Hz												
HP process pump	Type	Centrifugal												
	Qty	2	3	4	2	3	4	2	3	4	2	3	4	
	kW [each pump]	2,2	2,2	2,2	3	3	3	4	4	4	7,5	7,5	7,5	
	HP [each pump]	3	3	3	4	4	4	5,5	5,5	5,5	10	10	10	
	Motor poles number	4	4	4	4	4	4	4	4	4	4	4	4	
	Motor frequency	50	50	50	50	50	50	50	50	50	50	50	50	
	Total full load @ supply frequency	A	10,8	16,2	21,6	7,1	10,65	14,2	20,4	30,6	40,8	18,3	27,45	36,6
	Total noise pressure @ 10 meters	dB (A)	55	58	61	61	64	67	61	64	67	67	70	73
	min	m³/h	10	10	10	10	10	10	20	20	20	260	260	260
	max		65	65	65	75	75	75	110	110	110	40	40	40
max	bar	1,15	1,15	1,15	1,39	1,39	1,39	1,2	1,2	1,2	1,02	1,02	1,02	
min		0,8	0,8	0,8	0,81	0,81	0,81	0,85	0,85	0,85	0,8	0,8	0,8	
Suction connections	Type	Victaulic												
	In	168,3 - 6" - DN150			219,1 - 8" - DN200			219,1 - 8" - DN200			323,9 - 12" - DN300			
Delivery connections	Type	Victaulic												
	Out	168,3 - 6" - DN150			219,1 - 8" - DN200			219,1 - 8" - DN200			323,9 - 12" - DN300			
Weight	kg	375	530	690	400	570	750	480	700	910	790	1.150	1.500	

- Available supply voltage: 400V±10%/3/50Hz; 460V±10%/3/60Hz; 380V±10%/3/60Hz
- On request: UL electrical panel for 60 Hz versions
- Pumps rated up to 35% of Glycol
- Weight without water
- Not suitable for demi-water (due to ferrous components)
- Altitude limit: 2000 m a.s.l.
- Max water working pressure: 8 bar

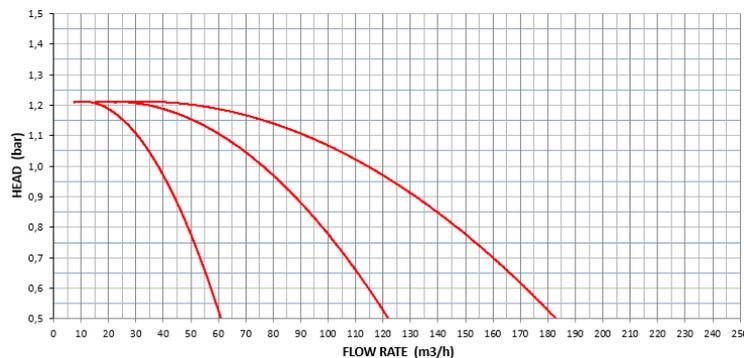
Dimensional technical data

Machine dimension													
Model		1200			1600			2400			4800		
Pumps		2	3	4	2	3	4	2	3	4	2	3	4
A	mm	1.053	1.553	2.053	1.232	1.732	2.232	1.237	1.737	2.237	1.217	1.717	2.217
B	mm	1.230	1.230	1.230	1.317	1.317	1.317	1.390	1.390	1.390	1.641	1.641	1.641
C	mm	1.350	1.350	1.350	1.351	1.351	1.351	1.351	1.351	1.351	1.501	1.501	1.501

Dimensions refer to units in basic configuration, without added options

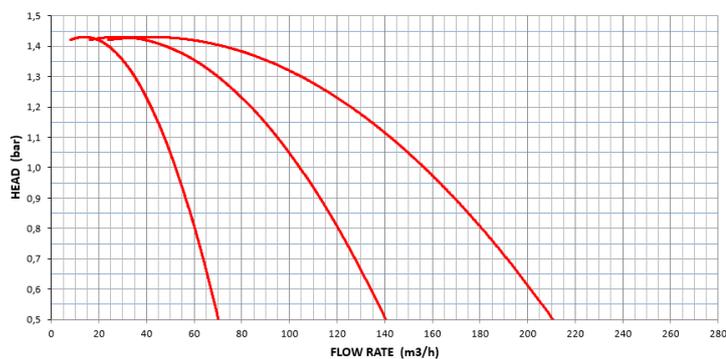


Pumps curves

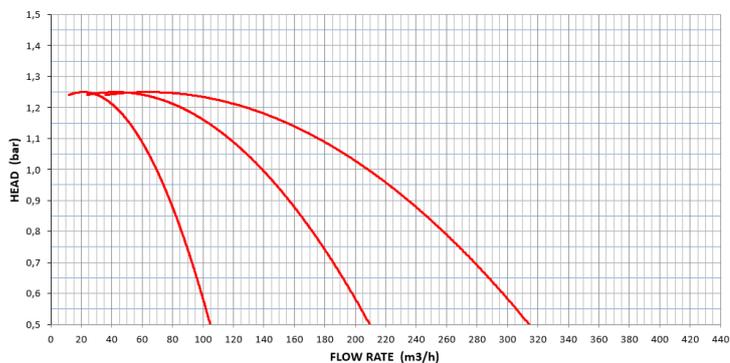


GPA 1200

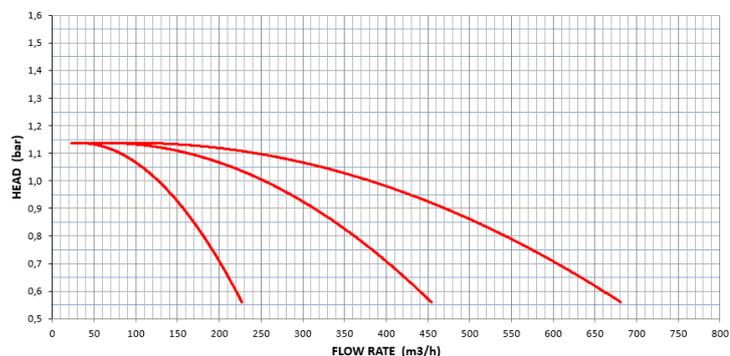
Lowest flow rate curve = 1 pump active; 1 in standby
Middle flow rate curve = 2 pumps active; 1 in standby
Highest flow rate curve = 3 pumps active; 1 in standby



GPA 1600



GPA 2400



GPA 4800

In order to select the suitable pumping system, consider the optimal working point, suction head and pipes diameter. For further questions, please contact Frigel.

Technical data
60Hz

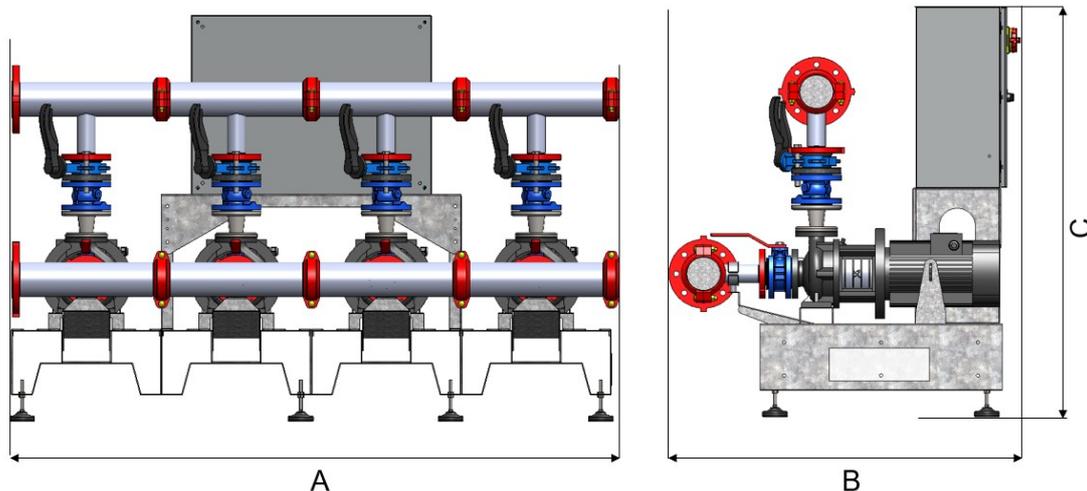
MODULAR PUMPING STATION GPA														
Model		1200			1600			2400			4800			
Power supply voltage and frequency		460V±10%/3/60Hz												
HP process pump	Type	Centrifugal												
	Qty	2	3	4	2	3	4	2	3	4	2	3	4	
	kW [each pump]	2,2	2,2	2,2	3	3	3	4	4	4	7,5	7,5	7,5	
	HP [each pump]	3	3	3	4	4	4	5,5	5,5	5,5	10	10	10	
	Motor poles number	2	2	2	2	2	2	2	2	2	2	2	2	
	Motor frequency	60	60	60	60	60	60	60	60	60	60	60	60	
	Total full load @ supply frequency	A	9,5	14,25	19	13,9	20,85	27,8	18,3	27,45	36,6	27,6	41,4	55,2
	Total noise pressure @ 10 meters	dB (A)	55	58	61	61	64	67	61	64	67	67	70	73
	min	m³/h	10	10	10	10	10	10	20	20	20	40	40	40
	max		80	80	80	90	90	90	140	140	140	200	200	200
max	bar	1,1	1,1	1,1	1,35	1,35	1,35	1,13	1,13	1,13	1,5	1,5	1,5	
min		0,72	0,72	0,72	0,9	0,9	0,9	0,5	0,5	0,5	0,9	0,9	0,9	
Suction connections	Type	Victaulic												
	In	168,3 - 6" - DN150			219,1 - 8" - DN200			219,1 - 8" - DN200			323,9 - 12" - DN300			
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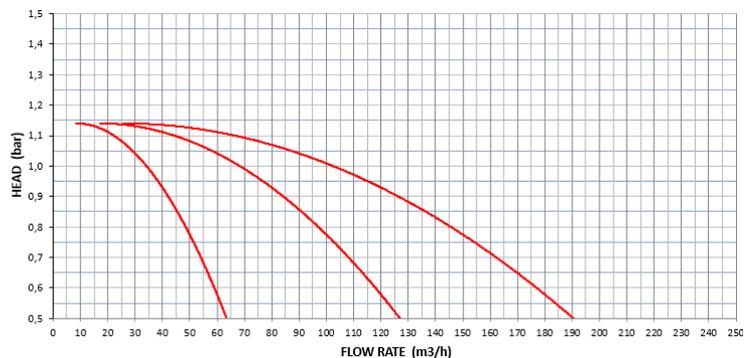
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B	mm	1.230	1.230	1.230	1.318	1.318	1.318	1.354	1.351	1.354	1.643	1.643	1.643
C	mm	1.370	1.370	1.370	1.371	1.371	1.371	1.351	1.351	1.351	1.552	1.552	1.552

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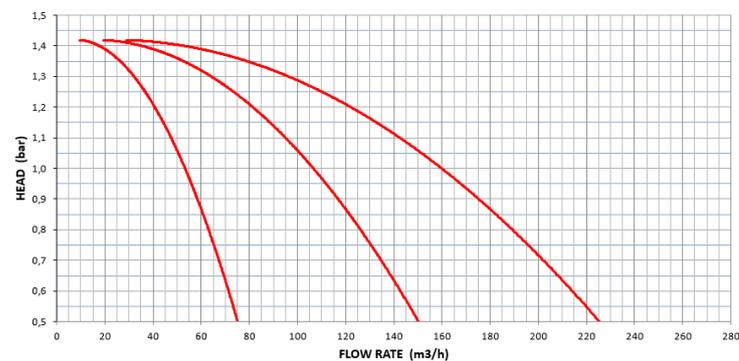


Pumps curves

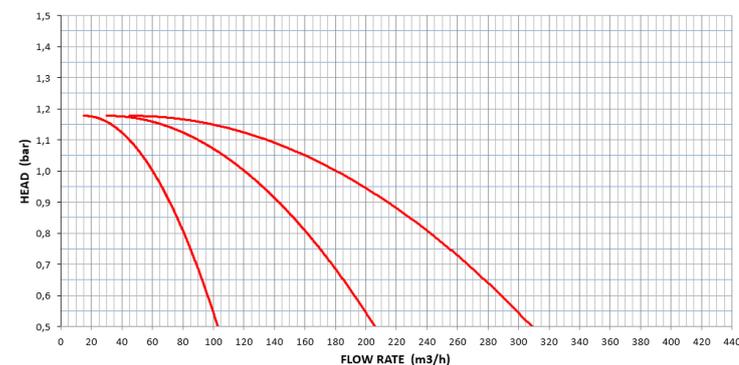
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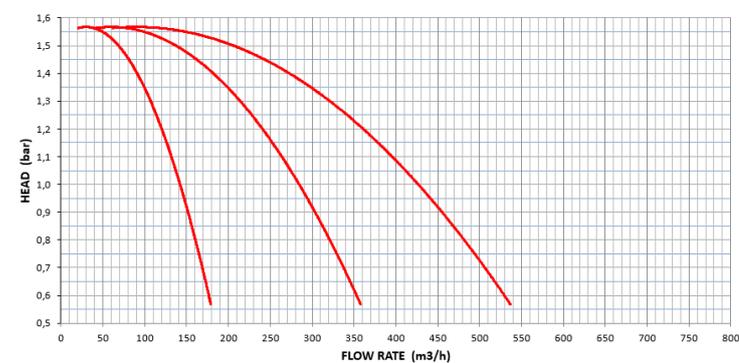
GPA 1200



GPA 1600



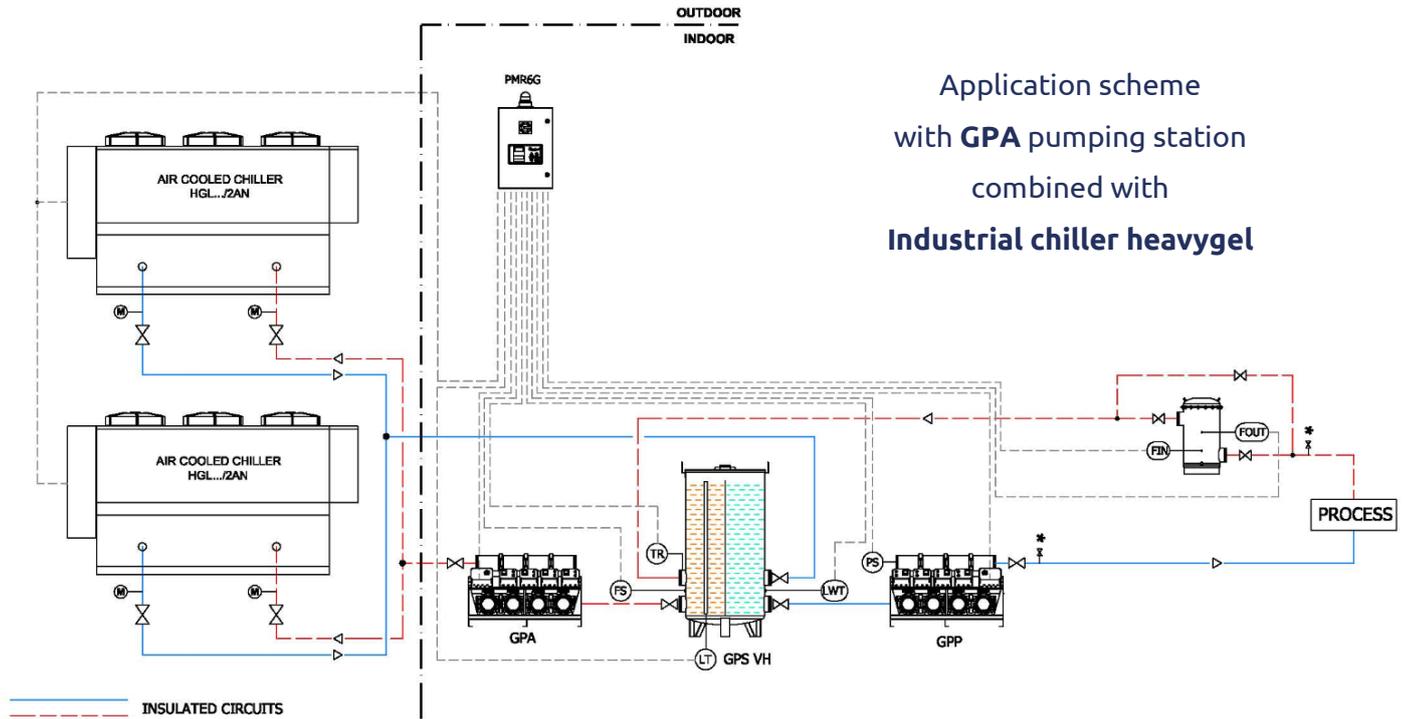
GPA 2400



GPA 4800

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Order Code

