



HYDROFLO

Variable Speed Booster Sets



VDI



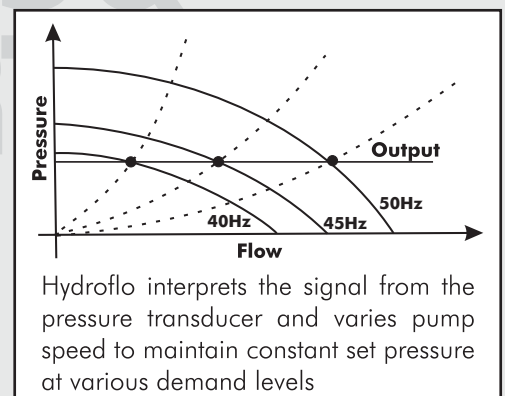
VDB

Variable Speed control is a widely used technology for pump control and works by varying the pump speed to provide system water output at a constant pressure. This provides the following benefits:

- Constant pressure providing consistent, even supply to the consumer.
- Large energy cost savings as systems are always operating at peak efficiency for the demand conditions.
- Extended pump life due to reduced electrical and mechanical operating loads.
- Silent operation with no pressure shocks.
- Simplified installation due to compact dimensions and integral pump control - no separate panel is required.

Principle system components include the drive, which is mounted on the pump motor or on the pump skid, a quality Dayliff pump, a pressure sensor and a small surge tank to smooth the operating cycle. Controllers offer the following features:-

- Varies pump speed to maintain pre-set system pressure.
- Over voltage, under voltage, single phasing and electrical overload protection.
- Dry run protection with auto restart.
- Integral soft start/soft stop function which extends pump life, reduces system pressure loads and reduces mains power loadings on start up.
- One controller can control additional pumps and multiple controller systems can be synchronised for sequenced pump operation.
- Balanced pump operation ensuring equalised operating periods for each system pump.



All Dayliff booster sets use the latest technology controllers coupled to quality Dayliff pumps and are supplied complete frame mounted with inlet and outlet manifolds and valves for simple installation. Nominal system sizes are 2.5, 4 and 6 Bar, though pressures can be set to suit site conditions and the option of two and three pump configurations are available.

Three pump systems can be specified with three controllers or two controllers/1 DOL start unit. In all systems pump operation is sequenced with the number of pumps operating increasing with system demand.

Variable speed drive is now accepted as the most efficient way to provide on-demand water supply in all sorts of industrial commercial and domestic applications. Dayliff booster sets are the ideal solution in the application of this efficient technology.

SPECIFICATIONS

2.5Bar Systems

Pumps - Dayliff DB or equivalent horizontal multistage high efficiency centrifugal pumps with stainless steel impellers and impeller housings.

Controllers - Dayliff Pumpverter drives that provide pump control system using variable frequency drive technology (VFD) to provide constant pressure regardless of the demand flow requirements.

4.0 and 6.0Bar Systems

Pumps - Dayliff DIN or equivalent in-line vertical multistage pumps with stainless steel impellers and impeller housings.

Controllers - Options of pump mounted Dayliff Pumpverter to provide constant pressure control. Also available is integrated control panel that includes Schneider Electric Altivar for the large motors. They are high specification VSDs suitable for use in residential and industrial applications. Drives are air-cooled and installed on motor or remote mounted with complete pump protection against overloading and over/under voltage, sleep and wake up function and pump dry run protection via installed pressure sensor.

Schneider Electric Altivar Drives are premium VSDs with advanced application functions dedicated for water pumping applications in industrial and commercial applications including embedded services such as energy and pump efficiency monitoring dashboards without additional softwares, and integral Modbus protocol connectivity interfaces allowing seamless integration to BMS systems. Control panel specification includes IP55 enclosure with thermal management fans, Incoming Isolator, individual pump fuses/breakers, ATV630 VFD Starters, 'On' and 'Trip' indicators, Start-Stop push button, Emergency push button and Auto-Off-Hand Selector Switch.

4.0 Bar Smart Pump Systems

Pump: Dayliff DBE5-40/12-40 pumps with integrated variable speed motor

Controller: Integrated variable speed drive that maintains constant pressure with variable demand.

2.5 BAR SYSTEMS

PUMP DETAILS		2 PUMP SYSTEMS							3 PUMP SYSTEMS						DIMENSIONS		
Pump	Power (kW)	Model No.	Nominal Output (m ³ /hr)	Tank Size (lit)	Inlet (")	Outlet (")	Width (mm)	Weight (kg)	Model No.	Nominal Output (m ³ /hr)	Tank Size (lit)	Inlet (")	Outlet (")	Width (mm)	Weight (kg)	Length (mm)	Height (mm)
Dayliff DB 2-50	0.7x1ph	VDB2-6/25	6	24	1.5	1.5	600	45	VDB3-10/25	10	24	2.5	2.5	900	67	600	733
Dayliff DB 4-40	1x1ph	VDB2-10/25	10	24	2	1.5	600	50	VDB3-15/25	15	24	2.5	2.5	900	73	600	733
Dayliff DB 8-50	1.7x3ph	VDB2-20/25	20	60	2.5	2	600	85	VDB3-30/25	30	60	3.0	3.0	900	124	600	905

4.0 BAR SYSTEMS

PUMP DETAILS		2 PUMP SYSTEMS							3 PUMP SYSTEMS						
Pump	Power (kW)	Model No.	Nominal Output (m ³ /hr)	Tank Size (lit)	Inlet/Outlet (")	Width (mm)	Weight (kg)	Dimensions LxH(mm)	Model No.	Nominal Output (m ³ /hr)	Tank Size (lit)	Inlet/Outlet (")	Width (mm)	Weight (kg)	Dimensions LxH(mm)
Dayliff DIN 3-10	0.75x3ph	VDI2-7/40	7	24	2	600	80	600x927	VDI3-10/40	10	24	2.5	900	121	900x927
Dayliff DIN 5-10	1.5x3ph	VDI2-15/40	15	24	2	600	102	600x1083	VDI3-20/40	20	24	3	900	154	900x1083
Dayliff DIN 10-6	2.2x3ph	VDI2-25/40	25	60	2.5	650	133	900x1130	VDI3-40/40	40	60	3	1200	194	1200x1130
Dayliff DIN 15-5	4x3ph	VDI2-40/40	40	100	3	650	178	900x1235	VDI3-60/40	60	100	4	1300	272	1300x1235
Dayliff DIN 32-3	5.5x3ph	VDI2-60/40	60	100	4	650	271	1500x1276	VDI3-100/40	100	300	6	1800	422	1800x1645
Dayliff DIN 45-2	7.5x3ph	VDI2-80/40	80	300	6	650	318	1500x1645	VDI3-120/40	120	300	6	1800	440	1800x1645

6 BAR SYSTEMS

PUMP DETAILS		2 PUMP SYSTEMS							3 PUMP SYSTEMS						
Pump	Power (kW)	Model No.	Nominal Output (m ³ /hr)	Tank Size (lit)	Inlet/Outlet (")	Width (mm)	Weight (kg)	Dimensions LxH(mm)	Model No.	Nominal Output (m ³ /hr)	Tank Size (lit)	Inlet/Outlet (")	Width (mm)	Weight (kg)	Dimensions LxH(mm)
Dayliff DIN 3-15	1.1x3ph	VDI2-7/60	7	24	2	600	82	600x1016	VDI3-10/60	10	24	2.5	600	124	900x1016
Dayliff DIN 5-16	2.2x3ph	VDI2-15/60	15	24	2	600	110	600x1285	VDI3-20/60	20	60	3	600	170	900x1285
Dayliff DIN 10-9	3x3ph	VDI2-25/60	25	60	2.5	650	151	900x1198	VDI3-40/60	40	60	3	650	221	1200x1198
Dayliff DIN 20-5	5.5x3ph	VDI2-40/60	40	60	3	650	219	900x1218	VDI3-60/60	60	100	4	650	337	1300x1218
Dayliff DIN 32-4	7.5x3ph	VDI2-60/60	60	100	4	650	295	1500x1346	VDI3-90/60	90	300	6	650	458	1800x1645
Dayliff DIN 45-3	11x3ph	VDI2-100/60	100	300	6	650	424	1500x1645	VDI3-150/60	150	300	6	650	599	1800x1645

SMART PUMP SYSTEMS 4 BAR

PUMP DETAILS		1 PUMP SYSTEM							2 PUMP SYSTEM						
Pump	Power (kW)	Model No.	Nominal Output (m ³ /hr)	Tank Size (lit)	Inlet/Outlet (")	Width (mm)	Weight (kg)	Dimensions LxH(mm)	Model No.	Nominal Output (m ³ /hr)	Tank Size (lit)	Inlet/Outlet (")	Width (mm)	Weight (kg)	Dimensions LxH(mm)
Dayliff DBE 5-40	1.1x1ph	VDBE1 5/40	5	3	1¼/1	360	30	400x700	VDBE2 10/40	10	3	1¼/1	600	50	450x700
Dayliff DBE 12-40	2.2x1ph	VDBE1 12/40	12	3	2	360	50	675x790	VDBE2 24/40	24	3	2	600	100	675x790