

dp pumps



Hydro Unit

Premium Line pressure boosters

Hydro Unit

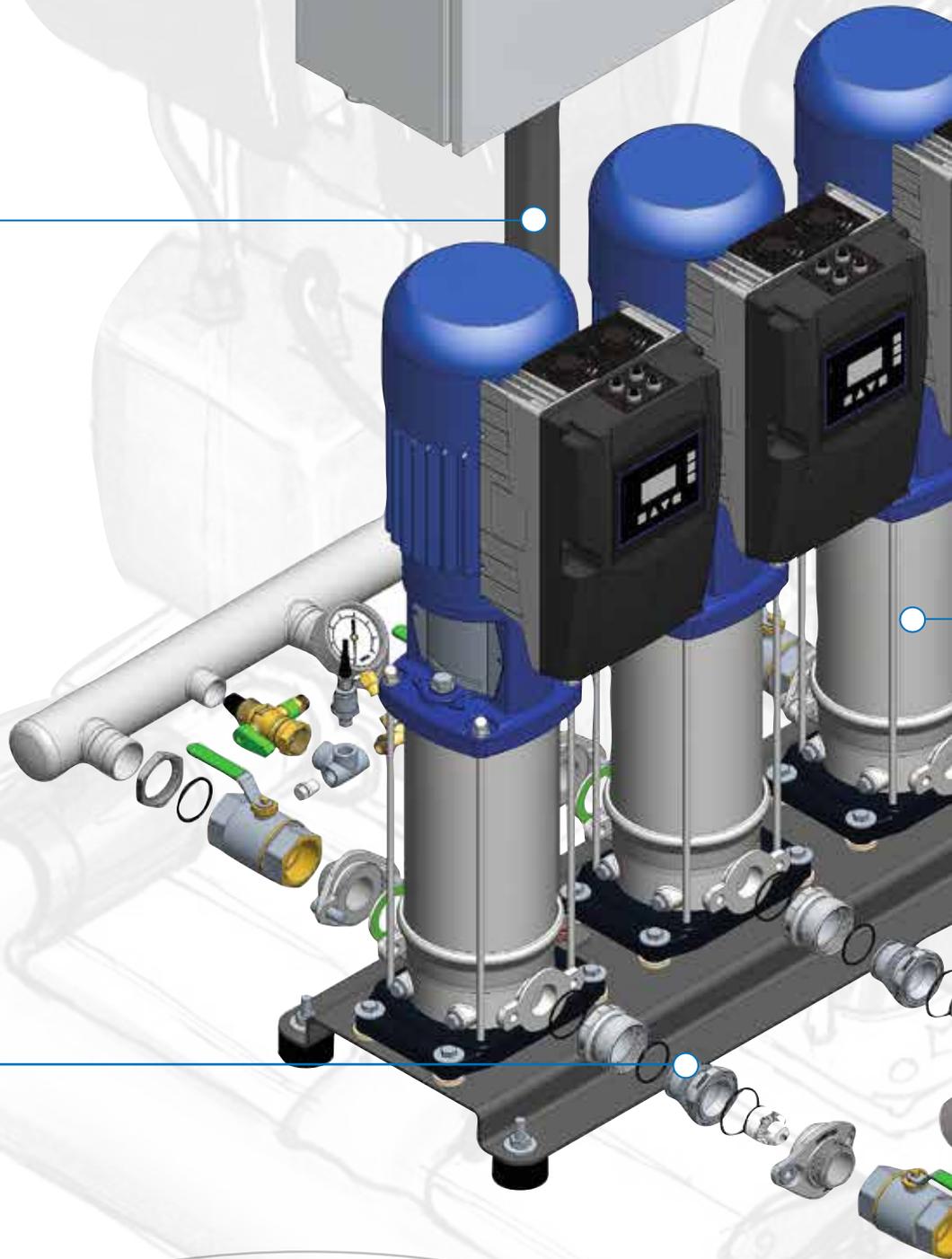
Premium Line pressure boosters

- ✓ Tailor made
- ✓ 100% made in the Netherlands
- ✓ Based on 60 years of experience

Energy efficient
EEI 2020

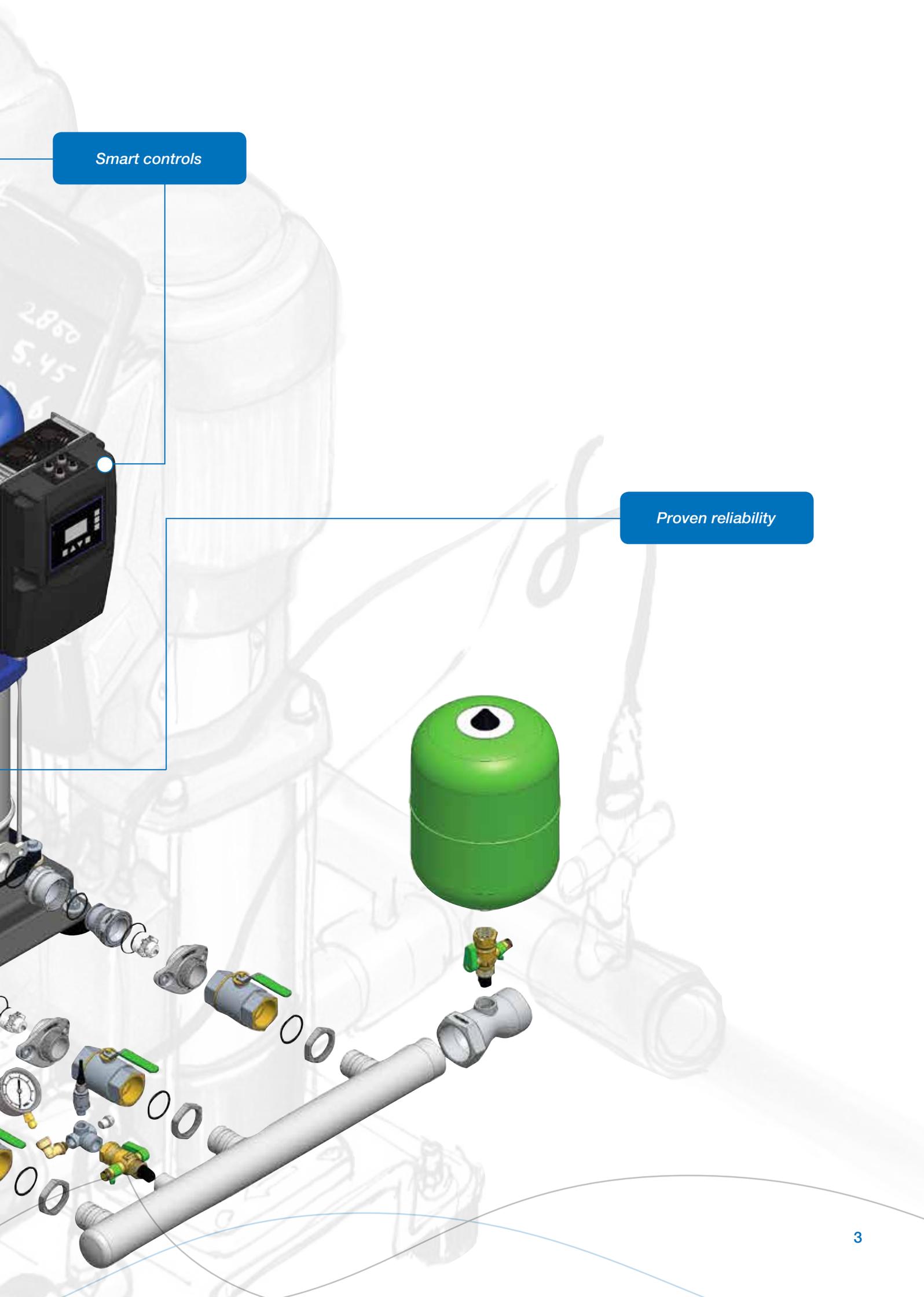


Easy to service



Smart controls

Proven reliability



PROVEN RELIABLE



Efficient, reliable stainless steel pumps. Made in the Netherlands

Reliable, comfortable and safe water pressure

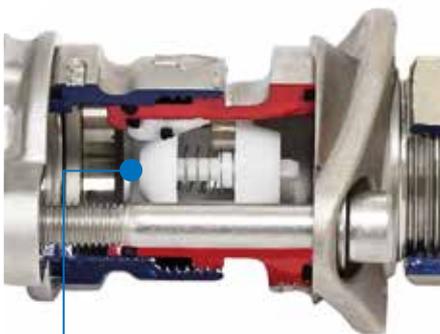
For more than 60 years we have delivered quality booster sets that provide reliable water delivery. All Premium Line installations, including the DPV vertical pumps, are manufactured at our state of the art facility in the Netherlands using durable high-grade stainless steel. The benefits of our expertise and experience extend from user-friendly controls that ensure a problem-free user-experience to the comfortable and consistent water pressure delivered with minimal energy costs.

Easy maintenance

We appreciate the importance of comfort and convenience when it comes to maintenance. Our systems allow both the check valve and pump to be replaced without interrupting the watersupply.

Exchange of connections

The manifolds have been designed to be as short as possible on one side in order to minimize standing water. When integrated with our 'Easy-fit' connections the installation can accommodate the collection line from the left or right with ease.

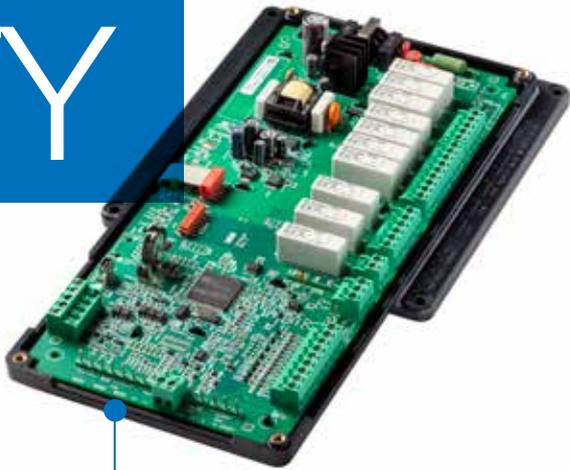


Easy to replace or inspect the check valve, without having to disassemble the pump or manifold



Easy to apply the correct alignment and tension with adjustable 'Easy-fit' fittings with O-ring seals

LITY



Smart controls, developed with more than 60 years of experience built-in"



All Premium Line units comply with European drinking water laws and directives.

All materials used meet or exceed the strict standards imposed by European legislators.



Produced with durable high-grade stainless steel



Produced with durable high-grade stainless steel

ECONOMICAL AND DURABLE



EEI2020 efficiency standard

Our Premium Line is more energy-efficient than ever before. It even meets the future European energy efficiency standard (Wire-to-water: EEI2020) that is currently being prepared.

- Smart controls
- DPV pumps with high efficiency hydraulics
- Increased flow diameters (minimizing friction loss)
- Economical IE3 motors come standard

Optional

- Frequency drive
- IE5 drive motor

Tailor made solutions

Our Premium Line solutions are built to order, offering many selection options (pressure & flow, motors, control, etc.) and can therefore be custom tailored to meet the exacting specifications of each application.



URABLE



Custom tailored for each application



Our Premium Line, already compliant with the current motor efficiency (IE) and hydraulic performance (MEI) regulations, now also meet the future European energy efficiency standard for complete installations: **EEI2020**.





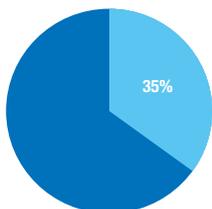
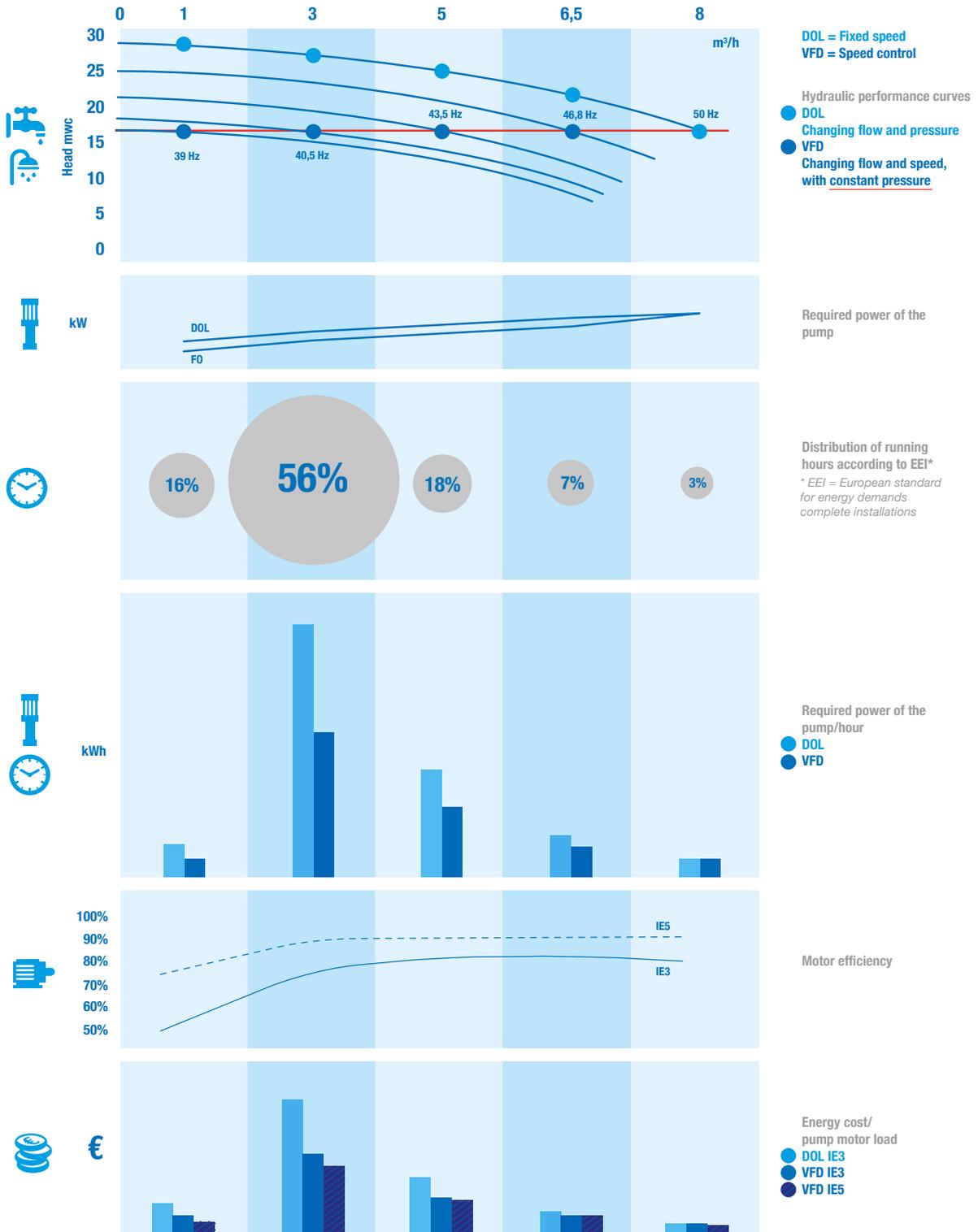
ENERGY MAKES THE DIFFERENCE

Many stories are circulating about the energy consumption of various types of pressure boosters. Ultimately, it is the combination of the purchase costs, the expected or measured operating hours, the usage pattern, motor efficiency and control that provides the best choice.

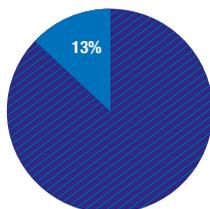
In the example (page 9), we compare the efficiency of a DPV 6/3 pomp (Q_{opt} : 6 m³/ H_{max}: 3 bar) with alternating flow in combination with constant (speed-controlled) and variable pressure (fixed speed). In addition, we calculate the effect on energy consumption of an advanced IE5 motor compared to the standard IE3 motor. We assume the distribution of the flow and running hours as used by the European Union as the basis for the future EEI energy standard.

The effect of speed control and motor efficiency on energy use*

* based on a commonly used DPV pump as a pressure booster



VFD IE3 vs DOL IE3



VFD IE5 vs IE3

Savings**

**Relative savings will increase in installations with multiple pumps as a result of the distribution of the pump motor load.



Hotels & entertainment complexes



Marine

Skyline Rotterdam

100% MADE IN THE NETHERLANDS





Tens of thousands of apartment buildings and condominiums

Torre Agbar Barcelona

DS

Applications and references

In tens of thousands of apartment buildings, condominiums, hotels, ships, sports stadiums, and many more applications; our pressure boosters deliver water pressure for the sanitary facilities and for fire suppression systems.



SMART CONTROL



The Premium Line can be operated with a user-friendly App via Bluetooth or button/menu-driven

Custom control systems

The hydraulic basis of all Premium Line versions, matching a specific Q/H, is more or less the same. With identical DPV pumps, manifolds, appendages, etc. The difference between the various Premium Line versions is mainly its control. Sometimes the version without speed control (DOL (on/off)) is sufficient for your application. But when there are requirements for energy efficiency, comfort or extra control options, the Premium Line range offers enough choice.

VFD speed control

A model with speed control is available in 3 versions.

VFD with IE3 motor

- With the speed control on the pump and settings via Bluetooth/app
- Speed control in the cabinet and settings via pushbuttons and display menu (Megacontrol CM)

Both models provide efficient, consistent water pressure, with the Megacontrol CM model offering extra functionality. (See page 14/15 for details)



VFD = (speed control)

DOL = (on/off)
fixed speed

Megacontrol CM



VFD DP-Var on pump



VFD in cabinet*



DOL

Control by VFD



VFD DP-Var on pump



VFD Nastec on pump*

*up until 2,2 kW

VFD with IE5 motor

IE5 is always used in combination with the DP-Var speed control. The DP-Var can, next to controlling the speed, also control the Premium Line pressure booster. But if more functionality or ease of use is required, the Megacontrol CM can also be added as a control for the latter. (See page 14/15 for details)

Basic DOL model (fixed speed)

The Megacontrol CM takes care of controlling the Q/H, but the pumps have fixed speed. When there's a demand for water pressure, the pumps switch on one by one. The installation has been designed to provide the desired pressure at maximum capacity.



Characteristics and options

Properties	MEGACONTROL DOL	MEGACONTROL VFD
General control		
Pressure control (desired value / range)	On / Off	x
Temporarily increase the pressure slightly before switching off	x	x
Optimised pump staging	x	x
Continuously optimised after-run time of the pumps	x	x
Adjustable correction factor for pressure loss in the system	x	x
Max. run time switching	x	x
Dry running		
Adjustable delay of the underpressure / run-dry protection.	x	x
Run-dry manual / auto reset setting	x	x
Standard run-dry type	Switch	Switch
Optional run-dry type	Sensor	Sensor
Display & operation		
Information display	x	x
Alarm LEDs	x	x
Manual pump starting	x	x
Programming via Display / PC / Bluetooth	Display / PC	Display / PC
Alarm		
Voltage-free signalling "urgent" (red LED) and "not urgent" (orange LED)	Combined contact	Combined contact
High and low pressure alarm	x	x
Extra control		
Option for controlling the level in a lead tank	x	x
Test run function	x	x
Flush valve activation	x	x
Medium / area temperature measurement	Option	Option
Alternative desired value via contact / date	x	x
Leakage notification	Option	Option
External acknowledge	x	x
Generator operation	x	x
Miscellaneous		
Switch frequency	N/A	2-16 kHz
Master transfer	N/A	N/A
Multiple pressure sensors	-	-
Number of pumps	1-6	1-6
Modbus or Profibus (Building Management System connection)	Option	Option
System pressure	x	x
Pump status	x	x
Current / frequency / power	-	-
Current system/pump load	x	x
Supply pressure	x	x
Ambient temperature (optional)	x	x
Current faults	x	x
Fault history	x	x

Characteristics Premium Line

DP VAR	NASTEC
x	x
x	x
x	x
-	-
x	x
x	-
x	x
x	x
Sensor	Switch
-	Sensor
x	With App
x	x
x	x
PC (limited with Display)	Bluetooth
Failures P1 (not a combined contact)	Status of each pump (not a combined contact)
x	x
-	-
x	x
-	-
-	-
-	-
-	-
-	-
-	-
2-8kHz	2-10kHz
x	x
-	x
1-6	1-3 (In 1-2)
Option	Standard
x	x
x	x
x	x
x	x
x	Option
-	-
x	x
x	x

- Max. capacity: 40 m³/h (2 duty + 1 stand by)
- Max. pressure: 12 bar (without pre-pressure)
- Pressure class PN10 and PN16
- Ambient temperature: +4 up to and including +30 °C
- Average medium temperature: +1 up to and including +60 °C (optional up to 90 °C (without WRAS))
- WRAS + ACS certificates for potable water
- 1, 2 or 3 DPV vertical, stainless steel, multi-stage centrifugal pumps
- Quickly releasable check valve
- Easy-fit connections between valves and manifold
- Run-dry protection, consisting of pressure sensor (not for Nastec), pressure gauge and drainage point. Adjustable delay (electronic)
- Pressure control set consisting of a pressure transducer, pressure gauge and a drainage point

Tailored versions available on request

- PN25
- > 3 pumps
- Phase network monitor
- Hand-Off-Auto switches
- All alarm and operating contacts wired out
- Stainless steel and rubber pipe connection sets
- Pressure vessel 25l instead of 8l
- Wall-mounted control panel
- Room temperature sensor
- Feed tank level control: on/off or proportional
- Certificates 3.1 and 3.2
- Adjustable machine feet
- Contact in control cabinet instead of a pressure switch or pressure sensor as run-dry protection
- Equipped with break tank for the safe separation of drinking and process water or as drinking water storage
- As a fire suppressing system

dp pumps

dp pumps
P.O. Box 28
2400 AA Alphen aan den Rijn
Holland - The Netherlands

t +31 172 488 388

dp@dp-pumps.com
www.dp-pumps.com

