ASEAN Pre Engineered Booster

Grundfos Singapore Customer Event

2nd April 2015

Ben Leigh

be
think
innovate

GRUNDFOS

Agenda

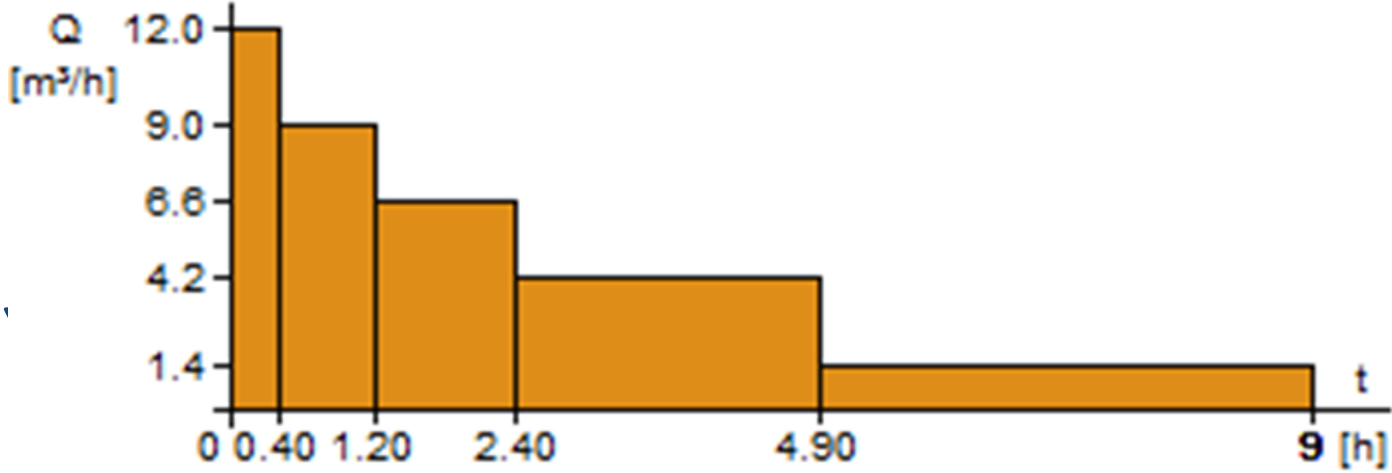
- What is a Grundfos Booster
- ASEAN Booster Product Why
- Creating value for you – our partners
- Booster Product Overview
- Why you should Partner Grundfos
- Feedback - Customer Input and Discussion
- Product Release
- Ease of Use - Hands on Demo

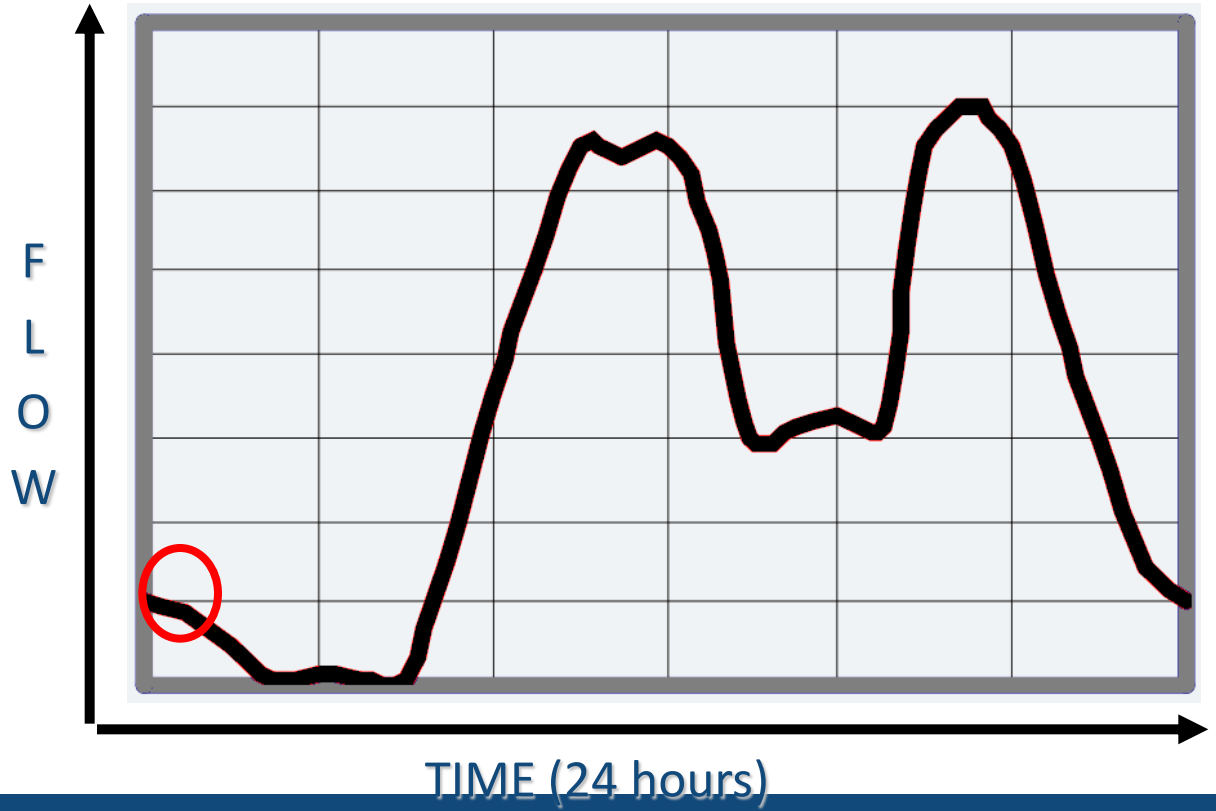


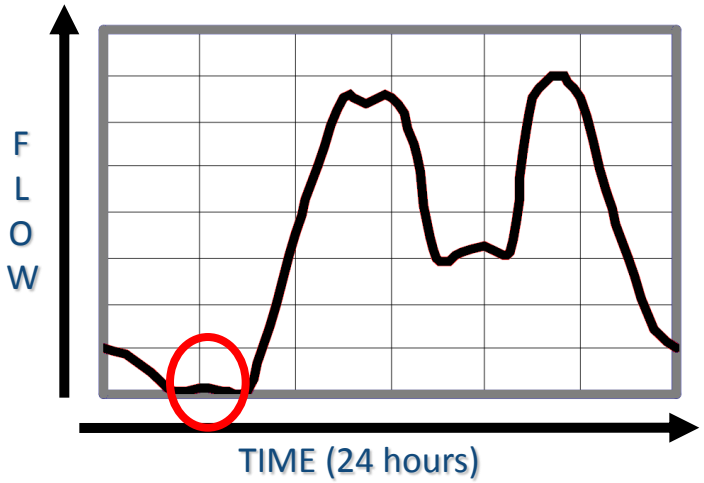




WH



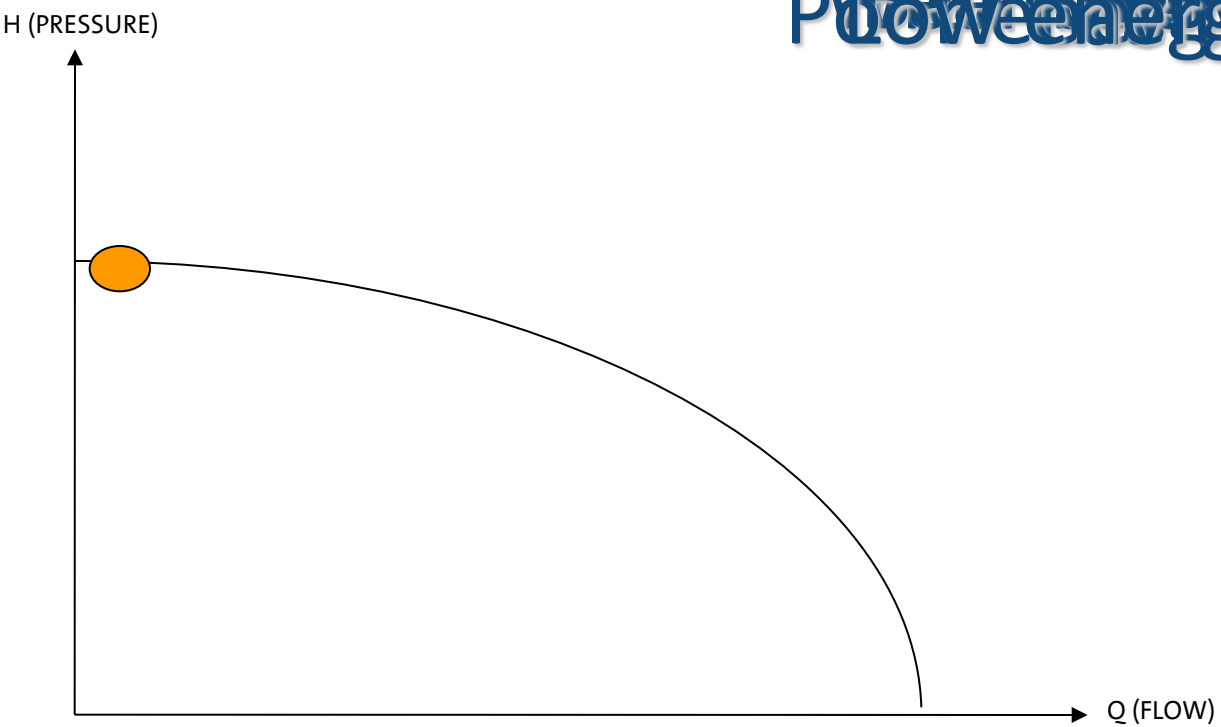






Pressure Surfaces

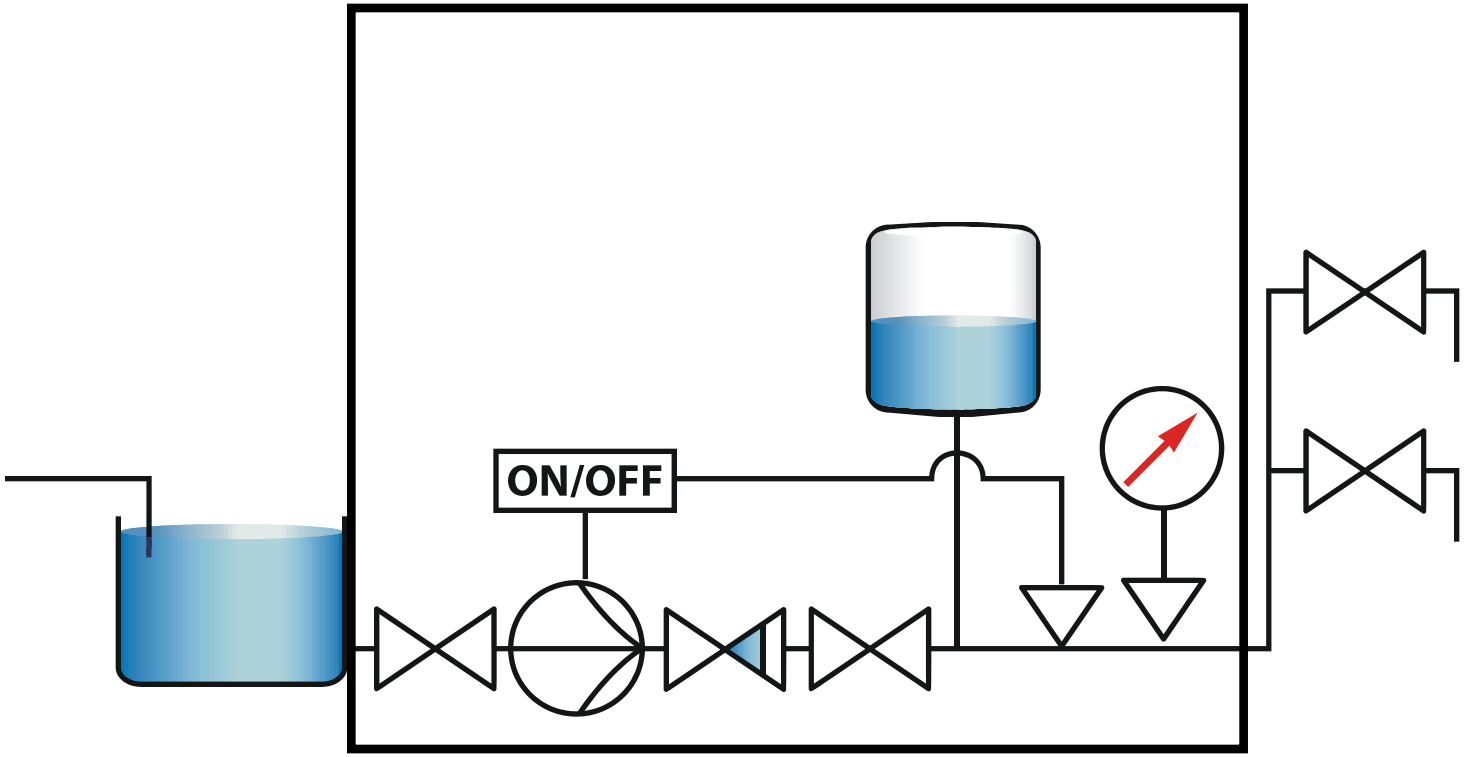
Power Energy Efficiency



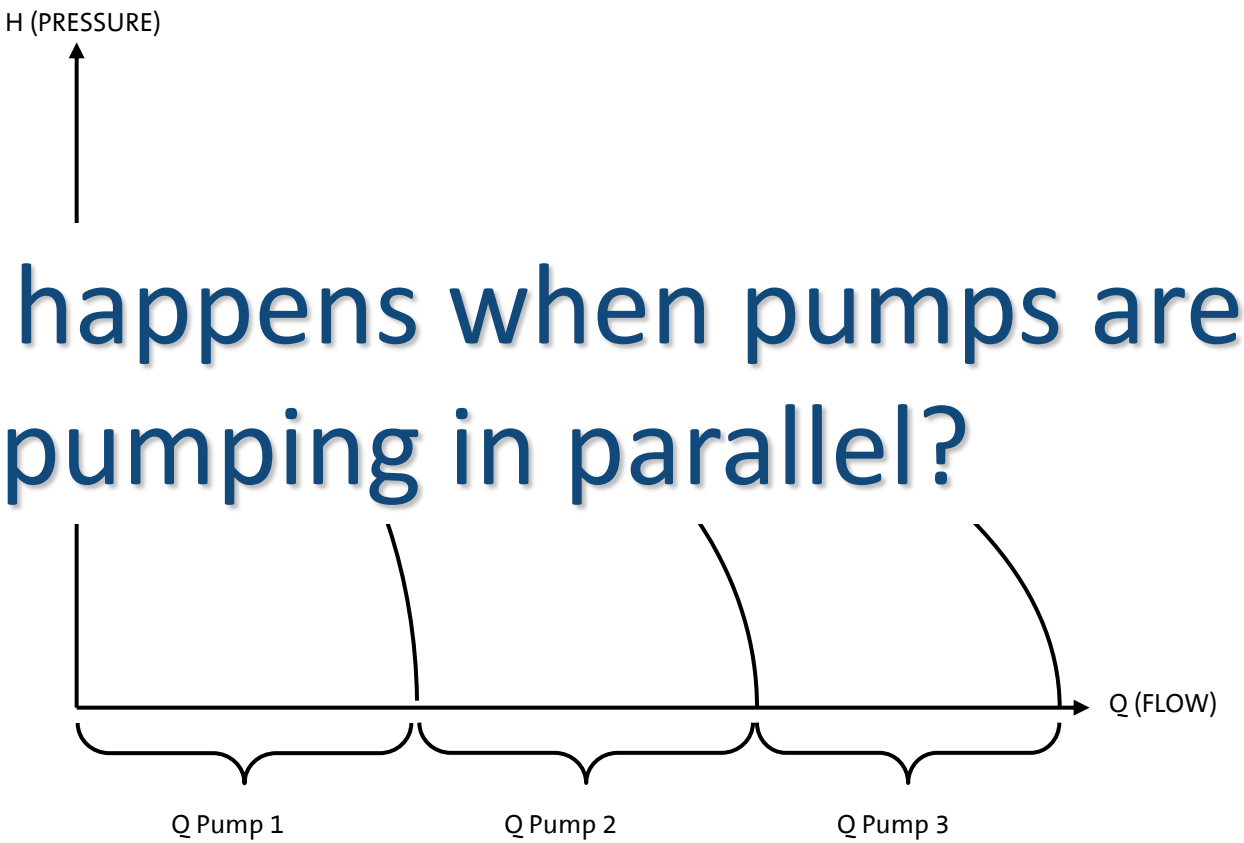
WHAT IS A BOOSTER?

- a system capable of moving water while keeping the discharge pressure at a desired level regardless of flow.

WHAT IS A BOOSTER?

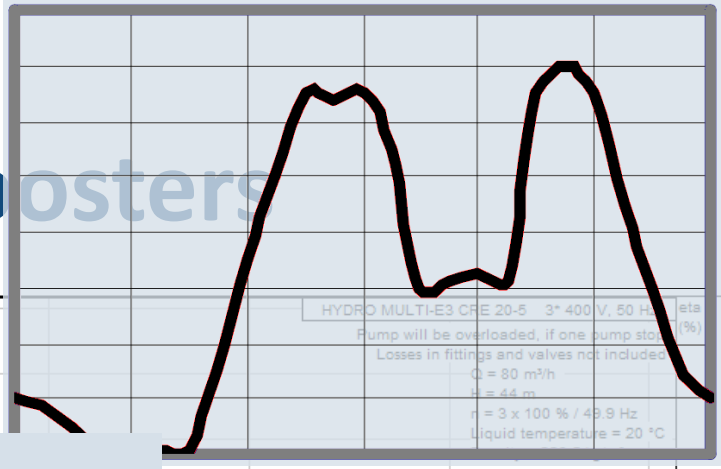


Multi Pump Boosters



What happens when pumps are pumping in parallel?

Multi Pump Boosters



Parallel pumping:

Energy effective solution.

Possibility to have standby pumps.

Better adaption to changing flows.

Easy to increase capacity.

Spot the Difference



Global Grundfos
Multi Pump Controlled
(MPC)Booster



Pre Engineered for Asia MPC Booster

Why a new range for Asia

- Grundfos a global Leader in Pump Technologies

Disadvantages	Advantages
Inflexible Product Offerings	Sustainable company here for the long run
Lack of Local Content	Regional cross border design and trade
	Single point of contact
	Global investment in documentation, innovation and improvement

Creating Value for our Customers

Engaged industry influencers and specialists, What are your needs?

- Project life cycles are getting shorter
- Project tendering is more competitive
- Project design hours are under pressure.
- Time is money!
- On site labour is expensive
- Green building / BCA green mark increasing need for life cycle evaluation
- Not all projects require traditional premium Grundfos solutions
- Simplicity of maintenance improves useability.

Pre Engineered – What does it mean



PRE-ENGINERED

- ❑ Range to Local Standard
- ❑ Fully Documented
- ❑ Options and variants to local market

BY GRUNDFOS

- ❑ BRANDING
- ❑ Same brand & Design

TESTED AND VERIFIED

- ❑ We test and document
- ❑ Our design is verified
- ❑ One Supplier, Single ownership and responsibility

ASEAN Booster Range



Grundfos Hydro MPC-A

A Range of turnkey, packaged solutions designed purely for the ASEAN built environment



Grundfos Hydro Multi-B CR

Grundfos Multi-S



MPC-A



Innovative Proven Solutions for Premium Spaces



ASEAN MPC

Comfort is paramount
Energy optimisation is key
High Level automation and Building Management integration is required
High pressures and High Flows for large buildings
Market Leading quality and solution required
Up to 6 Pumps -

Multi-B CR



ASEAN Multi-B CR



Design to value is a driver
Comfort is paramount
BMS can be a requirement
Ease of Maintenance is key
Quality & resilient turnkey solution
Medium flow Medium Heads
Up to 4 pumps

Application Variants

STANDARD!



Pressure Boosting

- Constant Presssure
- Protects against Waterhammer
- Perfect adaption to flow
- Speed controlled pumps
- Energy optimized cascade

FPV VARIANT!



Tank Filling

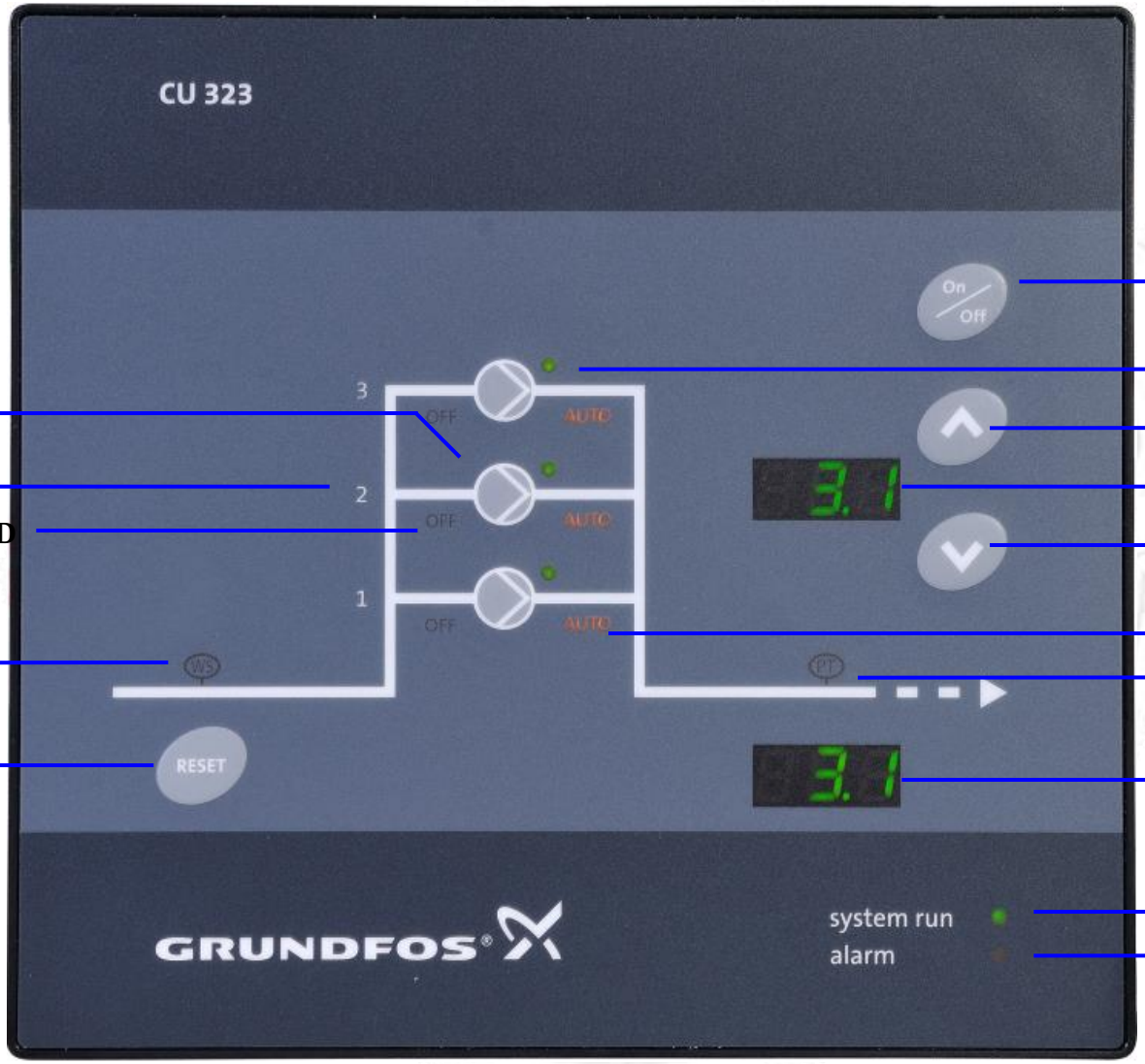
- Safe filling of Rooftanks water towers
- Protects against Waterhammer
- Standby pumps
- Switches or sensor

THE CU323

- The brain of the system!



Controls 2 – 4 pumps in parallel!
Simple interface!
Energy optimized cascade!
Handles both E and ES systems
2 Application variants!
Mounted in front of cabinet.



Pump Auto/off

Pump number

Pump manual stop LED

Water Shortage

System Reset

On/Off Button

Pump status LED

Up Button

Set point

Down Button

Auto LED

Sensor Fault LED

Process value

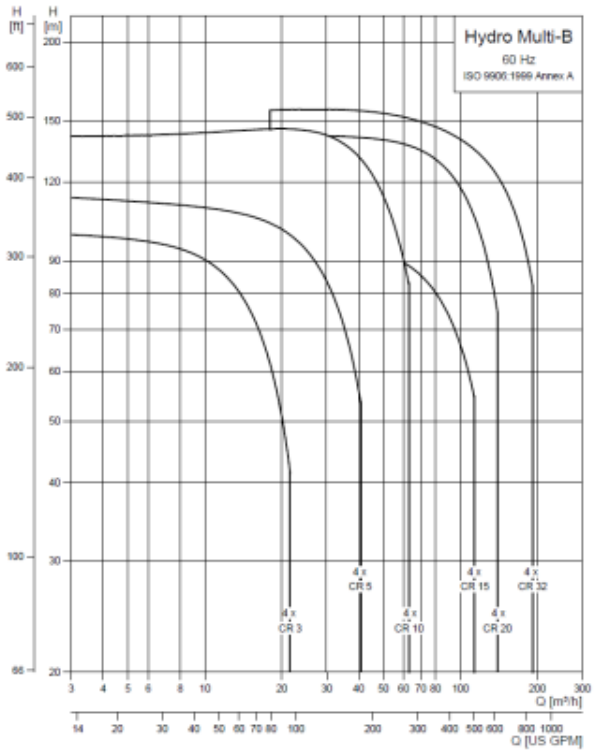
System running LEI

System alarm LED

Multi-B Functionality

FUNCTIONS VIA THE CU 323 CONTROL PANEL	CONSTANT PRESSURE		TANK FILLING	
	E	ES	E	ES
Proportional Pressure control	o	●	o	●
Automatic cascade control	●	●	●	●
Automatic pump changeover	o	o	o	o
Standby pumps	o	o	o	o
Reduant sensor	●	●	●	●
Digital input for external start/stop relay	●	●	●	●
Automatic resetting of dry-running fault	o	o	o	o
Water shortage protection	●	●	●	●
System alarm and operation outputs	●	●	●	●
Motor protection	●	●		
Maximum pressure protection	●	●	●	●
Sensor fault protection			●	●
High tank level protection	●	●	●	●
COMMUNICATION				
CIM (Communication Interface Module)	o	o	o	o
External GENIbus correction (option)	o	o	o	o

● Standard
o On request



Expansion Vessel Sizing

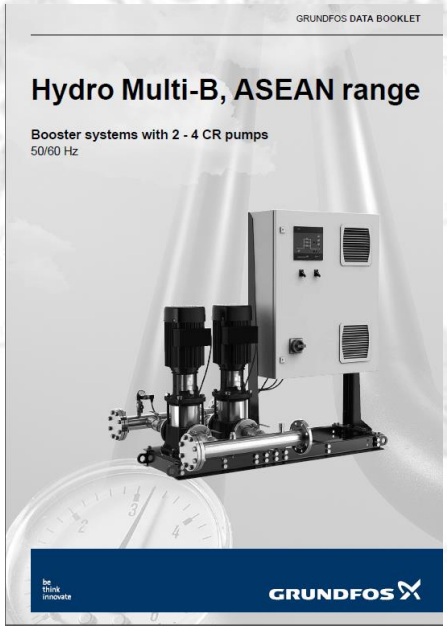


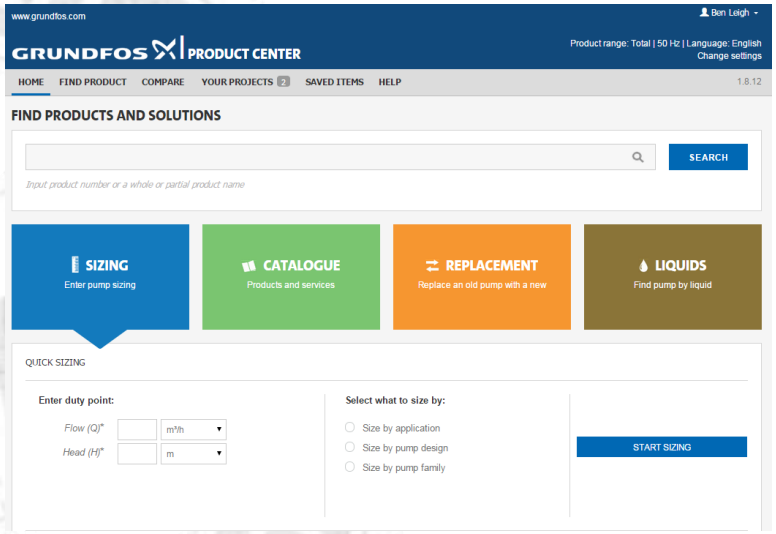


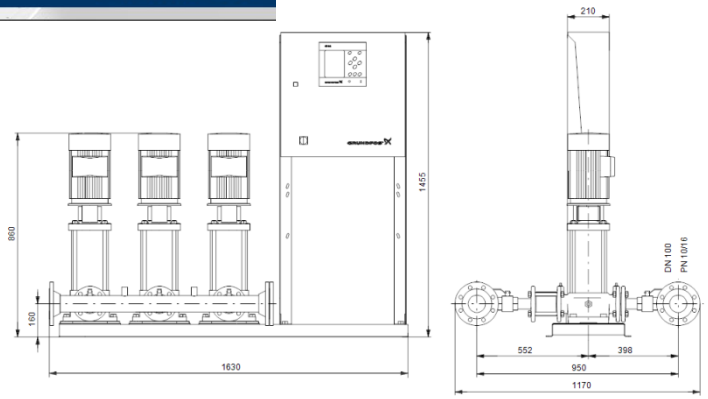
Animation

Fast Track Sizing, Documentation and Delivery





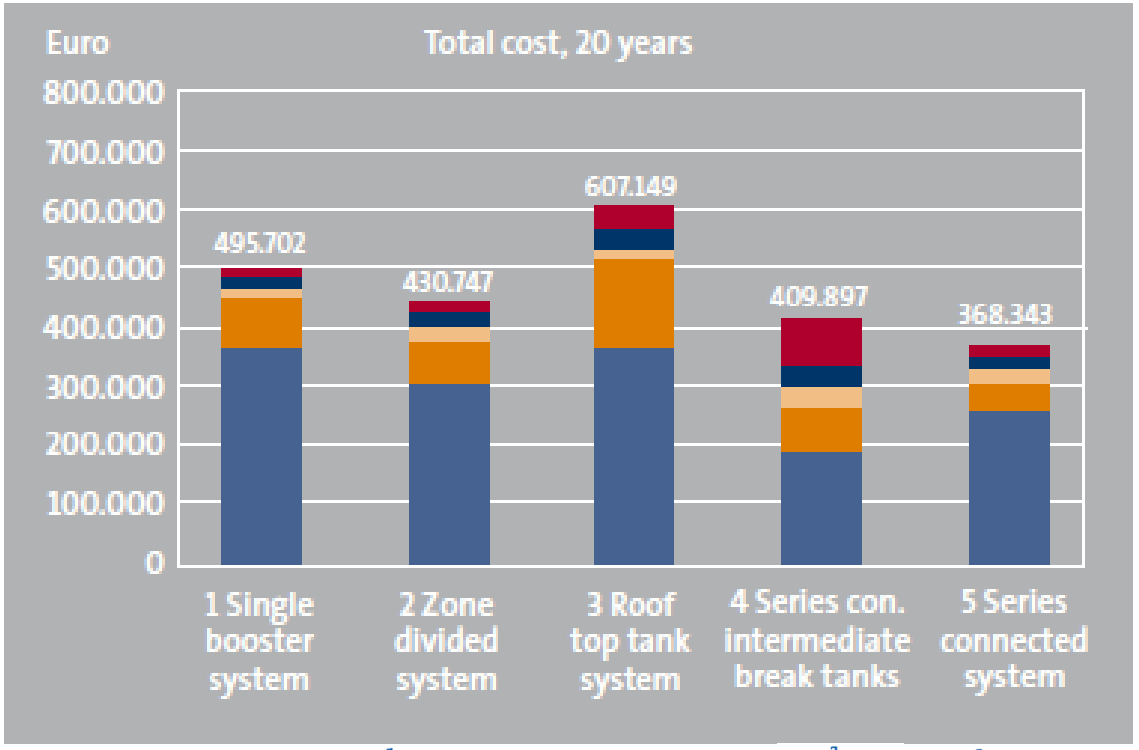


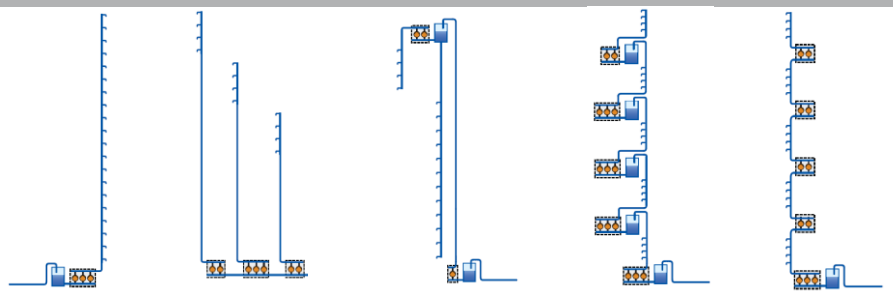


What makes up a life cycle costing

What are the 5 parameters that make up a true picture of the life cycle cost of a booster system. ??

- Energy costs, 20 years. €
- Initial cost, tanks and piping. €
- Initial cost, boosters. €
- Maintenance costs, 20 years. €
- Lost revenue, 20 years. €





Replace this high maintenance wasted space



With this, high rental yield, Penthouse suite



Feedback and Questions





