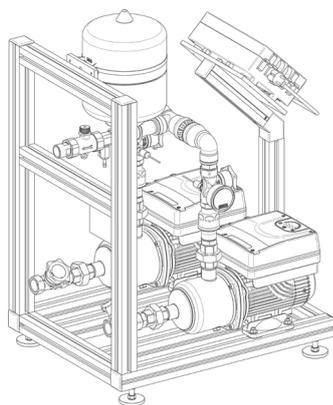
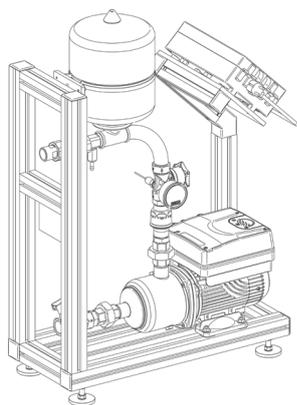


• Product Data Sheet

Pressure booster systems GENO-FU-X, GENO-HR-X,
GENO-OSMO-FU-X, GENO-OSMO-HR-X



Pressure booster systems GENO-FU-X, GENO-HR-X, GENO-OSMO-FU-X, GENO-OSMO-HR-X

Intended use

The pressure booster systems GENO-FU-X and GENO-HR-X are suitable for the low-noise supply of small and medium-sized distribution networks in buildings with raw water, softened water and partially demineralised water (permeate originating from reverse osmosis systems).

The pressure booster systems GENO-OSMO-FU-X and GENO-OSMO-HR-X may only be applied in combination with a GENO-OSMO-X reverse osmosis system.

The pressure booster systems GENO-FU-X and GENO-HR-X are designed for 100 % continuous operation.

The "N" version, for instance, is suited for the delivery of raw water, softened water or partially demineralised water of a reverse osmosis system, ultrafiltration system or nanofiltration system.

The „NE“ version is suitable for the use in combination with the GENO-EDI-X system as well as downstream of 2-stage reverse osmosis systems.

Function

In case of pressure booster systems GENO-FU-X-2 and GENO-HR-X-2, the run times of the pumps can be synchronised via an adjustable time interval. The fault changeover takes place automatically.

It is also possible to run the reverse osmosis systems in cascade operation. Thus, the delivery rate can nearly be doubled.

Pressure booster systems GENO-FU-X

The pressure booster system GENO-FU-X is speed-controlled via a pressure sensor and keeps the set delivery head constant to a large extent. Smooth start-up and run-down of the pump prevent water hammer. In addition, an expansion tank operating with forced flow, absorbs pressure fluctuations in case of major changes in the delivery volume and reduces the switching frequency in case only small amounts are withdrawn.

In case of "0" delivery volume, the integrated, special pressure controller initiates the time-delayed switch-off of the pump. LEDs at the pump's control panel inform on power supply, pump status and operating state.

Pressure booster systems GENO-HR-X

The pressure booster system GENO-HR-X is switched on via the freely adjustable pressure switch.

If the delivery volume comes to a standstill, the pump switches off after running on for a pre-set time.

The pressure at switch-off corresponds to the max. delivery head (shut-off head) of the pump.

Before the pump switches off, the diaphragm expansion tank with forced flow is filled with water. In

case of high fluctuations in the delivery flow, the switching operations of the pump are thus reduced.

Design

- Aluminium rack with adjustable feet to compensate for uneven floors
- Multi-stage centrifugal pump(s) with standard suction
- The system is activated by means of the control electronics installed at the system rack
- Control electronics with power switching
 - Versions „GENO-OSMO-FU-X“ and „GENO-OSMO-HR-X“ do not feature a control panel.
- Operating switch
- Operating record by means of SD-card
- Voltage-free signal/fault signal contact
- Two inputs for the release of the pump. Can be interconnected with bus compatible GENO-OSMO-X.
- Non-return valve
- Pressure gauge
- Draining valve
- Contact water meter to indicate the delivery volume respectively cascade connection

Product Data Sheet

Pressure booster systems GENO-FU-X, GENO-HR-X,
GENO-OSMO-FU-X, GENO-OSMO-HR-X

- Shut-off valves for each pump on the suction and pressure side of the pump
- Internal piping made of PE/PP and stainless steel, approved for drinking water
- Diaphragm expansion tank with forced flow
- Electrical connection to be made by others on site
- Suction and pressure lines are installed on one side (water).
- Operation on one side for test and setting purposes
- Self-venting pipes
- Low-noise pump due to multi-stage design
- Voltage-free fault signal output (NCC)

- Info display with
 - Indication of voltage supply by LED (illuminated, green LED)
 - Pump operation (illuminated, yellow LED)
 - Signalling of single fault signals by flash frequency of red alarm LED

Pressure booster system GENO-FU-X

- Centrifugal pump with highly efficient permanent magnet motor IE5.
- Frequency converter with control panel, target pressure to be set with +/- key

- Pressure sensor made of stainless steel

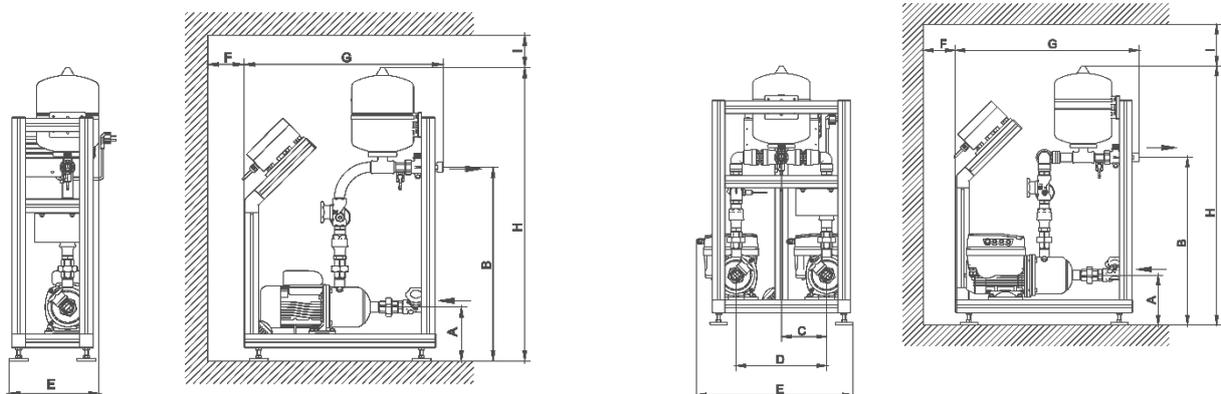
Pressure booster system GENO-HR-X

- Switch-on via pressure switch (manual) in case of pressure drop. Time delayed switch-off via contact water meter in case of zero delivery volume
- Pressure switch made of stainless steel

Scope of supply

- Compact pressure booster systems on wooden pallets with cardboard wrap, ready for connection
- Operation manual

Technical specifications | GENO-FU-X N | GENO-OSMO-FU-X N



Dimensions and weights		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
A	Height of water inlet (suction piece)	[mm]		180	
B	Height of water outlet (pressure piece)	[mm]	650	610	650
C	Centre distance (system centre – pump)	[mm]	–	163	–
D	Centre distance (centre pumps)	[mm]	–	325	–
E	System width	[mm]	300	560	300
F	Min. distance - motor fan	[mm]		200	
G	System depth	[mm]	660	660	680
H	System height	[mm]	985	940	985
I	Min. distance to pressure control	[mm]		200	
	Empty weight	[kg]	26	39	27
	Operating weight, approx.	[kg]	36	49	37
	Shipping weight, approx.	[kg]	36	48	37
	Order no. GENO-FU-X N		730 640	730 641	730 642
	Order no. GENO-OSMO-FU-X N		730 645	730 646	730 647
				730 648	730 648

• **Product Data Sheet**

Pressure booster systems GENO-FU-X, GENO-HR-X,
GENO-OSMO-FU-X, GENO-OSMO-HR-X

Technical specifications | GENO-FU-X NE | GENO-OSMO-FU-X NE

Dimensions and weights		2/40-1 NE	2/40-2 NE	4/40-1 NE	4/40-2 NE
A	Height of water inlet (suction piece) [mm]			180	
B	Height of water outlet (pressure piece) [mm]	650	610	650	610
C	Centre distance (system centre – pump) [mm]	–	163	–	163
D	Centre distance (centre pumps) [mm]	–	325	–	325
E	System width [mm]	300	560	300	560
F	Min. distance - motor fan [mm]			200	
G	System depth [mm]	660	660	680	680
H	System height [mm]	985	940	985	985
I	Min. distance to pressure control [mm]			200	
	Empty weight [kg]	29	45	29	45
	Operating weight, approx. [kg]	39	55	39	55
	Shipping weight, approx. [kg]	39	54	39	54
	Order no. GENO-FU-X NE	730 790	730 791	730 792	730 793
	Order no. GENO-OSMO-FU-X NE	730 795	730 796	730 797	730 798

Technical specifications | GENO-HR-X | GENO-OSMO-HR-X N

Dimensions and weights		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
A	Height of water inlet (suction piece) [mm]			180	
B	Height of water outlet (pressure piece) [mm]	625	610	625	610
C	Centre distance (system centre – pump) [mm]	–	163	–	163
D	Centre distance (centre pumps) [mm]	–	325	–	325
E	System width [mm]	300	525	300	525
F	Min. distance - motor fan [mm]			200	
G	System depth [mm]			705	
H	System height [mm]			940	
I	Min. distance to pressure control [mm]			200	
	Empty weight [kg]	25	38	16	40
	Operating weight, approx. [kg]	35	48	36	50
	Shipping weight, approx. [kg]	35	47	36	49
	Order no. GENO-HR-X N	730 460	730 461	730 462	730 463
	Order no. GENO-OSMO-HR-X N	730 466	730 467	730 468	730 469

• **Product Data Sheet**

Pressure booster systems GENO-FU-X, GENO-HR-X,
GENO-OSMO-FU-X, GENO-OSMO-HR-X

Technical specifications II GENO-FU-X N | GENO-OSMO-FU-X N

Connection data		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Nominal diameter on suction/pressure side	[DN]	25/25		32/25	
Connected load	[kW]	0.7	1.4	1.4	2.7
Power supply	[V]/[Hz]	210 - 240/50 - 60			
Protection/protection class		IP 55/⊕			

Admissible media to be pumped		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Raw water, soft water				suitable	
Permeate (= pure water of an RO system)				suitable	
Deionate (= ultra-pure water of an EDI system)				not suitable	

Performance data		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Delivery volume (best pump efficiency)	[m³/h]	3.4		6.25	
Delivery volume	[m³/h]	0.8 - 5.2		1.4 - 10.2	
Delivery head	[m]	56 - 16		67 - 17	
Max. delivery head	[m]	55	55	66	66
Maximum revolution speed	[1/min]	3600			
Nominal pressure		PN 10			
Max. inlet pressure	[bar]	4	4	3.5	3.5
Suction characteristics		standard suction			
Volume of diaphragm expansion tank	[l]	8			

Material of pump		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Impellers			1.4301		
Diffuser			1.4301		
Pump housing			1.4301		
Shaft			1.4301		
Floating ring seal			ceramic/carbon/EPDM		

General		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Water temperature	[°C]		5 - 40		
Ambient temperature	[°C]		5 - 40		
Order no. GENO-FU-X N		730 640	730 641	730 642	730 643
Order no. GENO-OSMO-FU-X N		730 645	730 646	730 647	730 648

• **Product Data Sheet**

Pressure booster systems GENO-FU-X, GENO-HR-X,
GENO-OSMO-FU-X, GENO-OSMO-HR-X

Technical specifications II GENO-FU-X NE | GENO-OSMO-FU-X NE

Connection data		2/40-1 NE	2/40-2 NE	4/40-1 NE	4/40-2 NE
Nominal diameter on suction/pressure side	[DN]	25/25		32/25	
Max. power input	[kW]	0.7	1.4	1.4	2.7
Power supply	[V]/[Hz]	230/50			
Protection/protection class		IP 55/⊕			

Admissible media to be pumped		2/40-1 NE	2/40-2 NE	4/40-1 NE	4/40-2 NE
Raw water, soft water				suitable	
Permeate (= pure water of an RO system)				suitable	
Deionate (= ultra-pure water of an EDI system)				suitable	

Performance data		2/40-1 NE	2/40-2 NE	4/40-1 NE	4/40-2 NE
Delivery volume (best pump efficiency)	[m³/h]	3.4		6.25	
Delivery volume	[m³/h]	0.8 - 5.2		1.4 - 10.2	
Delivery head	[m]	56 - 16		67 - 17	
Max. delivery head	[m]	55	55	66	66
Maximum revolution speed	[1/min]	3600			
Nominal pressure		PN 10			
Max. inlet pressure	[bar]	4	4	3.5	3.5
Suction characteristics		standard suction			
Volume of membrane pressure vessel	[l]	8			

Material of pump		2/40-1 NE	2/40-2 NE	4/40-1 NE	4/40-2 NE
Impellers				1.4404	
Diffuser				1.4404	
Pump housing				1.4404	
Shaft				1.4404	
Floating ring seal				ceramic/carbon/EPDM	

General		2/40-1 NE	2/40-2 NE	4/40-1 NE	4/40-2 NE
Water temperature	[°C]			5 - 40	
Ambient temperature	[°C]			5 - 40	
Order no. GENO-FU-X NE		730 790	730 791	730 792	730 793
Order no. GENO-OSMO-FU-X NE		730 795	730 796	730 797	730 798

• **Product Data Sheet**

Pressure booster systems GENO-FU-X, GENO-HR-X,
GENO-OSMO-FU-X, GENO-OSMO-HR-X

Technical specifications II GENO-HR-X N | GENO-OSMO-HR-X N

Connection data		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Nominal diameter on suction/pressure side	[DN]	25/25		32/25	
Max. power input	[kW]	1.1	2.1	1.4	2.7
Power supply	[V]/[Hz]	230/50			
Protection/protection class		IP 55/⊕			

Admissible media to be pumped	
Raw water, soft water	suitable
Permeate (= pure water of an RO system)	suitable
Deionate (= ultra-pure water of an EDI system)	not suitable

Performance data		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Delivery volume (best pump efficiency)	[m³/h]	2.0		4.0	
Delivery volume	[m³/h]	1.0		2.4 - 7.2	
Delivery head	[m]	54 - 24		50 - 16	
Max. delivery head	[m]	58		60	
Nominal revolution speed (50 Hz)	[1/min]	2900			
Nominal pressure		PN 10			
Max. inlet pressure	[bar]	4			
Suction characteristics		standard suction			

Material of pump		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Impellers		technical polymer			
Diffuser		1.4301			
Pump housing		1.4301			
Shaft		1.4301			
Floating ring seal		ceramic/carbon/EPDM			

General		2/40-1 N	2/40-2 N	4/40-1 N	4/40-2 N
Water temperature	[°C]	5 - 40			
Ambient temperature	[°C]	5 - 40			
Order no. GENO-HR-X N		730 460	730 461	730 462	730 463
Order no. GENO-OSMO-HR-X N		730 466	730 467	730 468	730 469

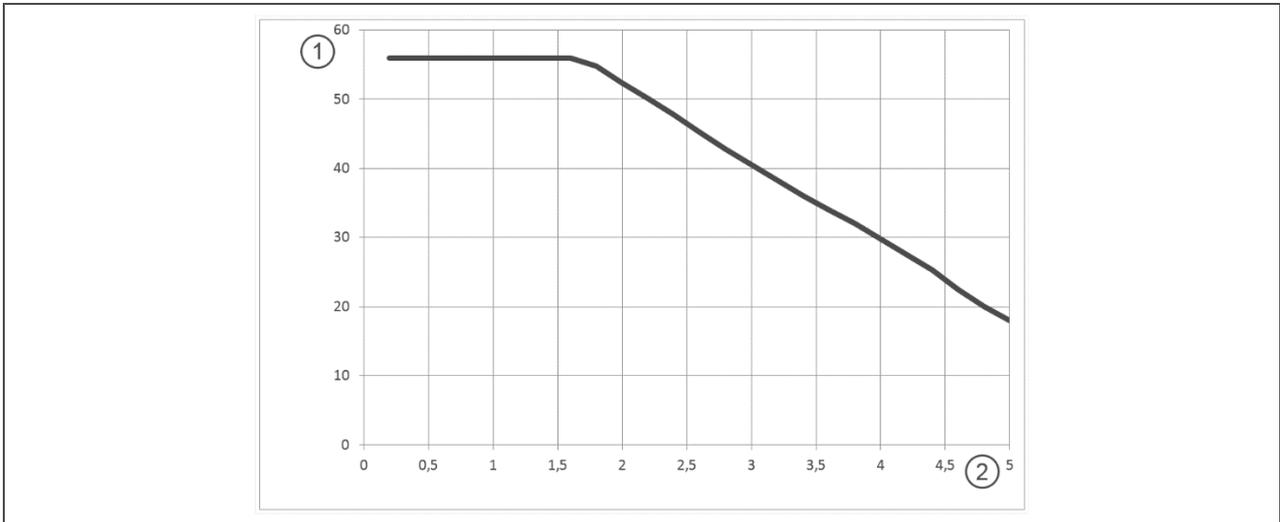
• **Product Data Sheet**

Pressure booster systems GENO-FU-X, GENO-HR-X,
GENO-OSMO-FU-X, GENO-OSMO-HR-X

Characteristic curves:

Pressure booster system GENO-FU-X 2/40 N | GENO-FU-X 2/40 NE

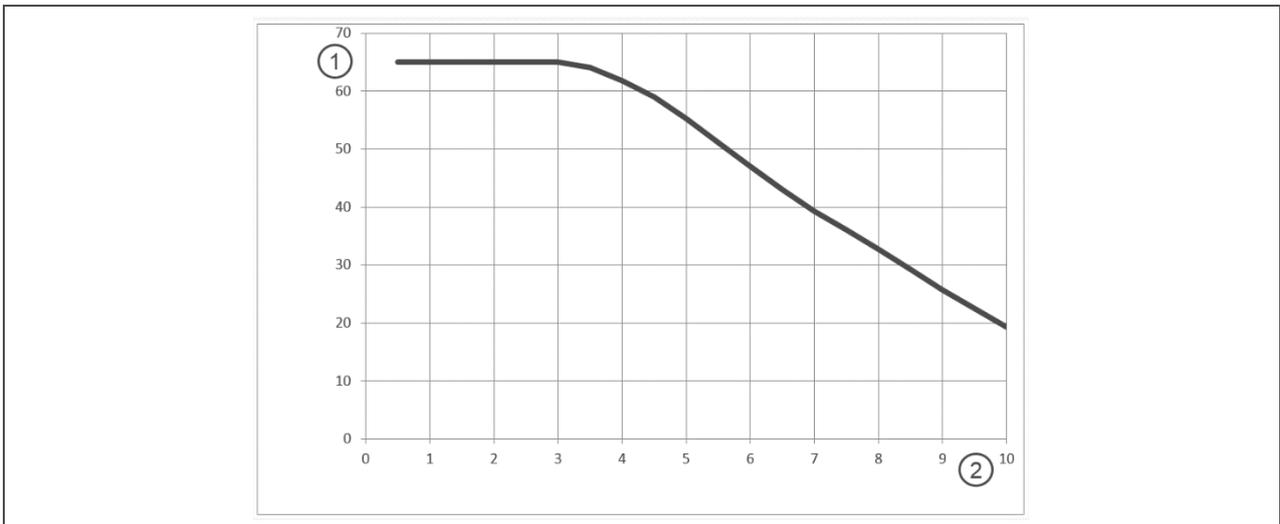
Pressure booster system GENO-OSMO-FU-X 2/40 N | GENO OSMO-FU-X-2/40 N



Item	Designation	Item	Designation
1	Delivery head [m]	2	Delivery rate [m³/h]

Pressure booster system GENO-FU-X 4/40 N | GENO-FU-X 4/40 NE

Pressure booster system GENO-OSMO-FU-X 4/40 NE | GENO-OSMO-FU-X-4/40 NE

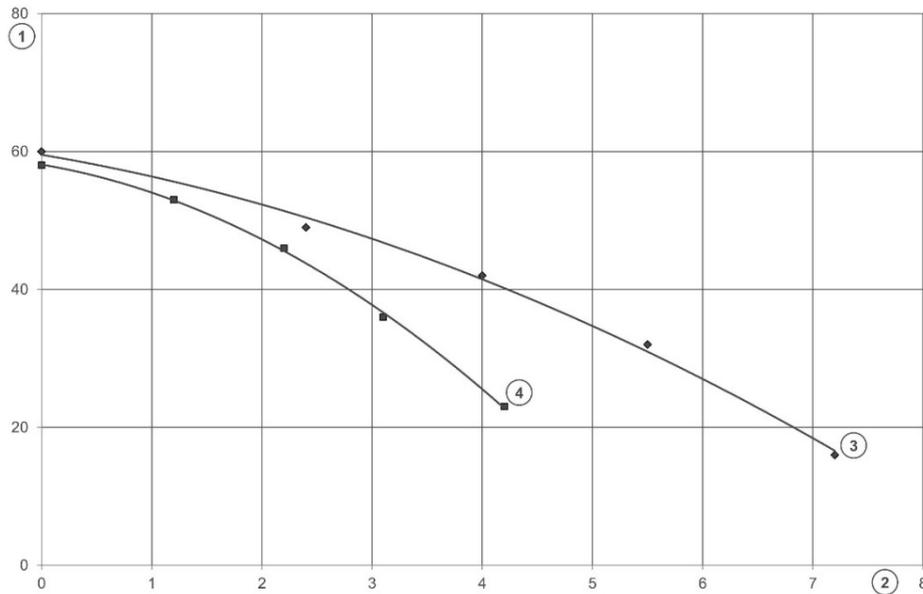


Item	Designation	Item	Designation
1	Delivery head [m]	2	Delivery rate [m³/h]

• **Product Data Sheet**

Pressure booster systems GENO-FU-X, GENO-HR-X,
GENO-OSMO-FU-X, GENO-OSMO-HR-X

Pressure booster system GENO-HR-X 4/40 N | GENO-HR-X 2/40 N
Pressure booster system GENO-OSMO-HR-X 4/40 N | GENO-OSMO-HR-X 2/40 N



Item	Designation	Item	Designation
1	Delivery head [m]	3	GENO-HR-X 4/40 N GENO-OSMO-HR-X 4/40 N
2	Delivery capacity [m³/h]	4	GENO-HR-X 2/40 N GENO-OSMO-HR-X 2/40 N

Installation requirements

Observe local installation directives, general guidelines and technical specifications.

The installation site must be frost-proof. The system must be protected from chemicals, dyes, solvents and vapours.

An adequate distance for installation and service work must be observed.

The installation room must have a floor drain. If no floor drain is available, an appropriate safety device (e.g. protectliQ) has to be installed.

Floor drains that discharge to a lifting system do not work in case of a power failure.

Contact

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