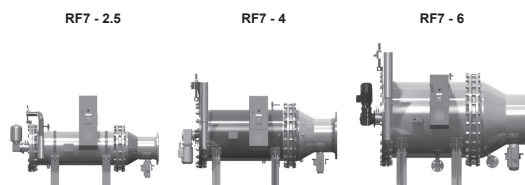


Automatic back-flushing filter AutoFilt® RF7



| Specifications | |
|---------------------|-----------------|
| Nominal size: | DN 250 – DN 900 |
| Q _{max} : | 7500 m³/h |
| p _{max} : | 16 bar |
| Filtration ratings: | 25 to 3000 µm |

1. GENERAL

Product description

- Self-cleaning automatic filter
- Horizontal design
- Separation of solid particles from low viscosity fluids

Filter element technology

- Conical filter elements
- Slotted tube: 50 to 3000 µm
- SuperMesh wire mesh: 25 to 60 µm

Product advantages

- Space-saving horizontal design – also for systems with limited space
- Automatic back-flushing reduces operating costs
- Isokinetic filtration and back-flushing provides greater efficiency
- Flow-optimised housing design
- No interruption of the filtrate flow during back-flushing
- Pulse-aided back-flushing
- Various control variants with individually adjustable control parameters

Technical data, filter housing

| Size | Pressure range [bar] | Connection inlet/outlet | Connection, back-flush line [PN 16] | Weight ¹⁾ [kg] | Volume [l] | No. of filter elements | Filter area ²⁾ [cm²] | Back-flush volume ³⁾ [l] |
|------|----------------------|-------------------------|-------------------------------------|---------------------------|------------|------------------------|---------------------------------|-------------------------------------|
| 2 | 10 | DN 200 | DN 50 | 365 | 105 | 4 x K1 4 x K2 | 8250 | 50 |
| 2.5 | 10 | DN 250 | DN 50 | 450 | 190 | 6 x K3 | 12500 | 65 |
| 3 | 10 | DN 300 | DN 65 | 570 | 280 | 9 x K3 | 18750 | 95 |
| 4 | 6 | DN 400 | DN 80 | 750 | 425 | 18 x K3 | 37500 | 210 |
| 5 | 6 | DN 500 | DN 80 | 1020 | 635 | 16 x K3 8 x K4 | 55760 | 310 |
| 6 | 6 | DN 600 | DN 100 | 1610 | 998 | 32 x K3 8 x K4 | 89100 | 485 |
| 7 | 6 | DN 700 | DN 100 | 1950 | 1355 | 24 x K3 20 x K4 | 106100 | 555 |
| 8 | 6 | DN 900 | DN 150 | 3550 | 2710 | 54 x K5 | 180700 | 720 |

Legend

¹⁾ Approx. weight when empty based on standard pressure rating.

²⁾ Only K3 filter elements are installed when using SuperMesh filter elements (KD / SKD). The number of filter elements remains unchanged.

This results in the following filter areas:

RF7-5: 50000 cm²

RF7-6: 83333 cm²

RF7-7: 91667 cm²

RF7-8: 112500 cm²

³⁾ Per cycle, based on EPT/PT control mode with opening time of back-flushing valve of 1.5 seconds and 1.5 bar differential pressure between outlet and back-flush line – with EU control, the back-flush volume increases by a factor of 5.

2. FUNCTION

FILTRATION

- The fluid to be filtered flows through the filter elements of the back-flushing filter, passing from the inside to the outside
- Contamination particles then collect on the smooth inner sides of the filter elements
- As the level of contamination increases, the differential pressure between the dirty and the clean side of the filter increases
- When the pressure drop reaches the pre-set trigger point, back-flushing starts automatically

INITIATION OF AUTOMATIC BACK-FLUSHING

- When the triggering differential pressure is exceeded
- By means of timer function
- By pressing the "TEST" button

CONTROL TYPES

EPT Electro-pneumatic cyclic control

- The gear motor rotates the back-flushing arm under the filter elements that need cleaning and stops
- The back-flushing valve is opened and the filter elements are cleaned due to the pressure drop between filtrate side and back-flush line
- Once the back-flush time per filter element has elapsed, the back-flushing valve is closed
- The gear motor rotates the flushing arm further to the next filter element
- A complete back-flush cycle is terminated once all filter elements have been cleaned
 - ➔ Special feature: rapid opening of the pneumatic back-flushing valve generates a pressure surge (clock pulse) in the filter element openings, supplementing the cleaning effect.

PT Pneumatic cyclic control

- Like EPT but with purely pneumatic components
 - ➔ Special feature: rapid opening of the pneumatic back-flushing valve generates a pressure surge (clock pulse) in the filter element openings, supplementing the cleaning effect.

PTZ Pneumatic cyclic control with timer function

- Like PT but with the option of setting a maximum filtration time between two back-flush cycles, independently of the differential pressure
- When the maximum filtration time without back-flushing is exceeded – timer function – back-flushing is triggered automatically

EU Electrical circulation control

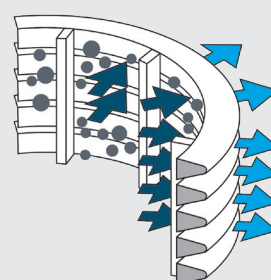
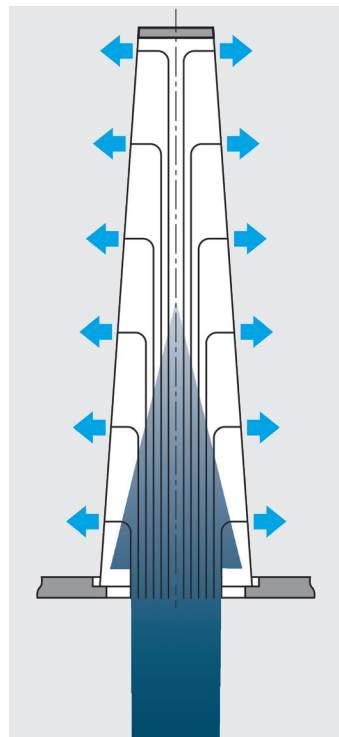
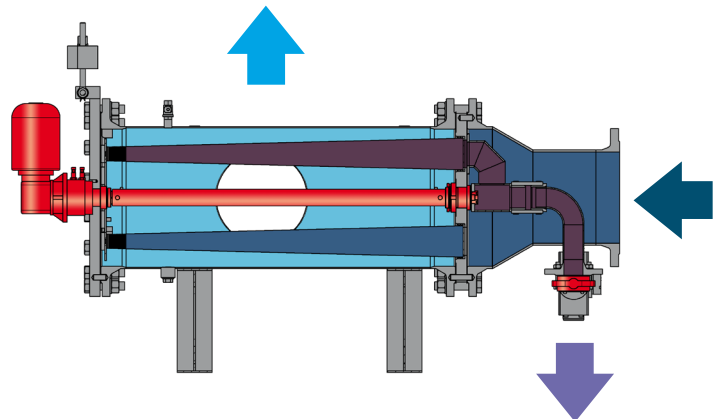
- The electrical back-flushing valve opens
- The gear motor continuously rotates the flushing arm underneath the filter elements to be cleaned
- The filter elements are cleaned due to the pressure drop between filtrate side and back-flush line
- Once the back-flushing arm reaches its initial position, the gear motor stops and the electrical back-flushing valve closes automatically
- With this type of control, the number of circulations can be preset

EPU Electro-pneumatic circulation control

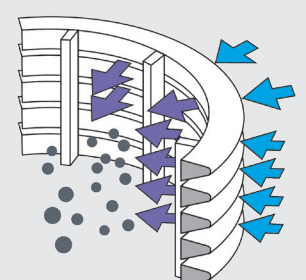
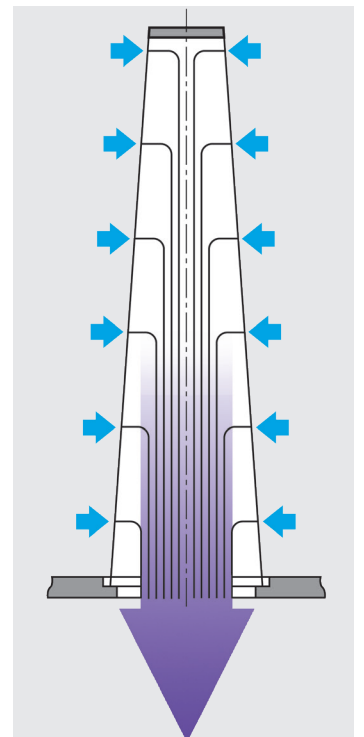
- Like EU but with the back-flush unit operated pneumatically

BACK-FLUSHING

- The gear motor rotates the back-flushing arm under the filter elements that need cleaning.
- The pressure drop between filtrate side and back-flush line flushes a small amount of the filtrate back through the contaminated filter elements.
- The particles collected on the inside of the filter elements are loosened and flushed into the back-flush line via the back-flushing arm.
- The flow of filtrate is not interrupted during back-flushing
- A complete back-flush cycle is terminated once all filter elements have been cleaned.



Filtration



Back-flushing

3. SPECIAL FEATURES

FILTER ELEMENT TECHNOLOGY

Conical filter elements

Robust wedge wire and wire mesh filter elements made from stainless steel are used in the automatic back-flushing filter HYDAC AutoFilt® RF3. The conical shape of the filter elements provides maximum efficiency during filtration and optimum effectiveness during back-flushing.

SuperFlush technology

For waste-water treatment applications, the filter elements can also be given a special non-stick coating (SuperFlush).

Advantages of the SuperFlush coating:

- High-quality SuperFlush technology
- Available for conical filter elements
- Minimises adhesive particles adhering to the filter element surface
- Reduces biofouling
- Increases the interval between two back-flushing cycles
- Increases efficiency

FLOW-OPTIMISED DESIGN

The particularly good flow characteristics allow the filter to be compact whilst achieving high filtration performance with low pressure drop.

ISOKINETIC FILTRATION AND BACK-FLUSHING

The conical shape and configuration of the filter elements allow consistent flow, resulting in a low pressure drop and complete cleaning of the filter elements.

Advantages:

- Fewer back-flushing cycles
- Lower back-flush volumes
- Lower pressure difference (Δp)

PULSE-AIDED BACK-FLUSHING

For the control types EPT and PT, rapid opening of the pneumatic back-flushing valve generates a pressure surge (clock pulse) in the filter elements, and supplements the cleaning effect of the back-flushing process.

SMALL BACK-FLUSH VOLUMES DUE TO CYCLIC CONTROL

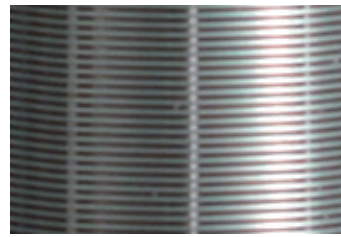
For the control types EPT and PT, the back-flushing valve opens and closes for each filter element.

READY-TO-OPERATE UNIT

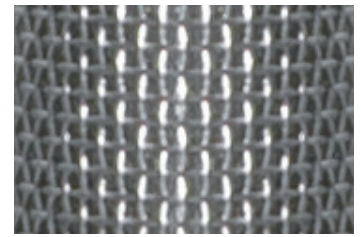
All components (controller, back-flushing valve, gear motor) are connected to the filter ready for operation. Once the pipework has been connected, all that is required is for the power supply to be applied.

VARIABLE HOUSING CONFIGURATION

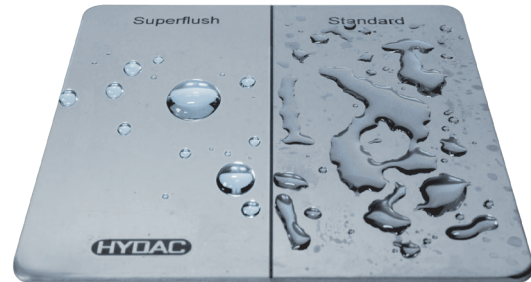
The inlet and outlet flanges and the back-flush line can be arranged in various positions in relation to one another. This makes it possible to integrate the filter easily into any system geometry (see point 1. General).



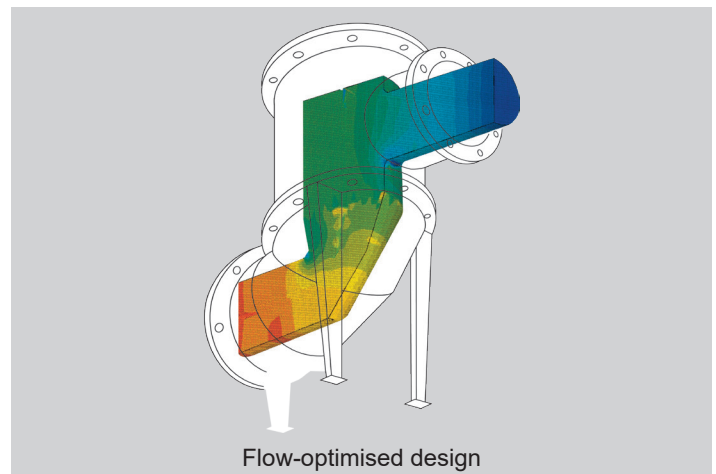
Wedge wire



SuperMesh –
Triple-layer sintered wire mesh

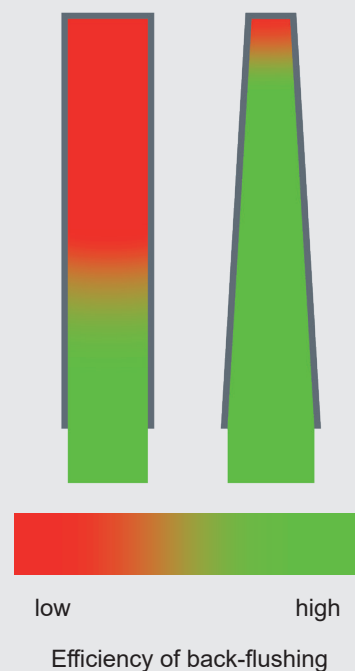


With SuperFlush/without SuperFlush
Coating technology for filter elements



Flow-optimised design

Filter elements:
cylindrical vs. conical



3. SPECIAL FEATURES

FILTER CONTROL

AUTOFILT® CONTROL UNIT ACU

Thanks to the clearly designed touchscreen, the user always has the current operating state of the filter available at a glance. The symbols used in the display are self-explanatory, based on common international standards and colour codes. The controller is designed to provide open connectivity to all customer interfaces.

Advantages of the AutoFilt® control unit:

- Intuitive menu navigation via touchscreen
- On request: open connectivity to all commonly used customer interfaces (Ethernet, USB, etc.)
- Highly precise pressure measurement using HYDAC pressure transmitter HDA
- Various menu languages to choose from
- Always up to date with simple software updates
- Additional differential pressure gauge available as an option

Customer signals on the terminal strip:

- Input (not potential-free, 24 VDC)
 - Filter remote control
- Outputs (potential-free)
 - Back-flushing active
 - General errors (power interruption, power failure, broken cable, etc.)
 - Differential pressure not potential-free (4–20mA signal)



AutoFilt® control unit ACU

4. FILTER CALCULATION*

CHECKLIST FOR FILTER CALCULATION

STEP 1: CHECKING THE PREREQUISITES

- It is crucial when operating the AutoFilt® RF7 that there is a pressure differential of at least 1.5 bar between the filter outlet and back-flush line
(See circuit diagram on the following page)
- Application data is determined using filter questionnaires
- The flow velocity of 4 m/s at the flange inlet should not be exceeded
- Permitted operating temperature from -10°C to +90°C – container with internal coating max. +60°C – higher temperatures on request
- The filter must be set up in a frost-free environment
- For environmental temperatures below 0 °C, our Head Office must be consulted with

STEP 2: FILTER SIZING

- Sizing based on the calculation table
- The flow rate curves apply to filtration ratings $\geq 100 \mu\text{m}$
- The initial differential pressure (Δp) when the filter is in a clean condition should not exceed 0.2 bar
- AutoFilt® RF7 used with low particulate loading
→ sizing Δp 0.1 to 0.2 bar
- AutoFilt® RF7 used with high particulate loading
→ sizing $\Delta p < 0.1$ bar

STEP 3: DETERMINING THE FILTRATION RATING

- **As a basic rule: as coarse as possible – as fine as necessary!**
- For filtration ratings ≤ 50 , the filter pressure drop increases by roughly 30% for all sizes

STEP 4: CHECKING THE PARTICULATE LOADING

- Rule of thumb: maximum solid particle content up to 300 mg/l depending on the particle distribution – for values outside the specified range, please contact the Head Office
- Note any fluctuations in the dirt load (e.g. seasonal fluctuations in river water)

CALCULATION TABLES

The values given below are the minimum and maximum possible flow rates for the various sizes. For values outside these ranges, please contact our Head Office.

OPERATING MEDIUM – WATER

| Size | Flow range [m³/h] |
|--|-------------------|
| The flow ranges given apply to filtration ratings $\geq 100 \mu\text{m}$ | |
| 2 | 200 - 450 |
| 2.5 | 400 - 600 |
| 3 | 550 - 860 |
| 4 | 810 - 1700 |
| 5 | 1500 - 2450 |
| 6 | 2000 - 3600 |
| 7 | 3000 - 5000 |
| 8 | 4500 - 7500 |

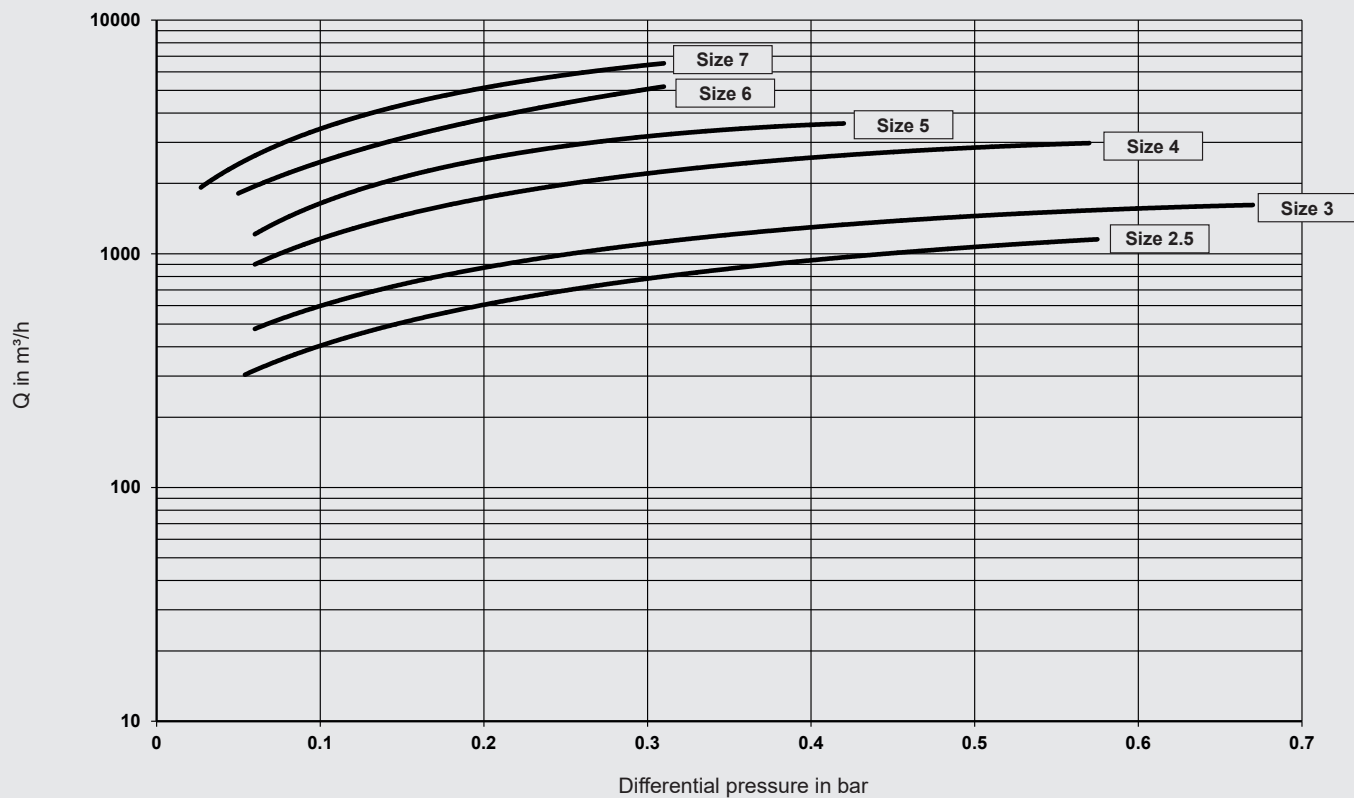
OPERATING FLUID – EMULSION (CUTTING FLUIDS, WASHING FLUIDS)

| Size | Flow range [m³/h] |
|--|-------------------|
| The flow ranges given apply to filtration ratings $\geq 100 \mu\text{m}$ | |
| 2 | 90 - 200 |
| 2.5 | 100 - 350 |
| 3 | 150 - 450 |
| 4 | 200 - 650 |
| 5 | 350 - 950 |
| 6 | 700 - 1500 |
| 7 | 1000 - 1700 |
| 8 | 1300 - 3000 |

- Valid for emulsions and oils up to a viscosity of 15 mm²/s
- Our Head Office must be consulted for applications involving grey cast iron machining, grinding, honing and fluids with a viscosity above 15 mm²/s

* Please contact our Head Office if you have any queries regarding Filter calculation.

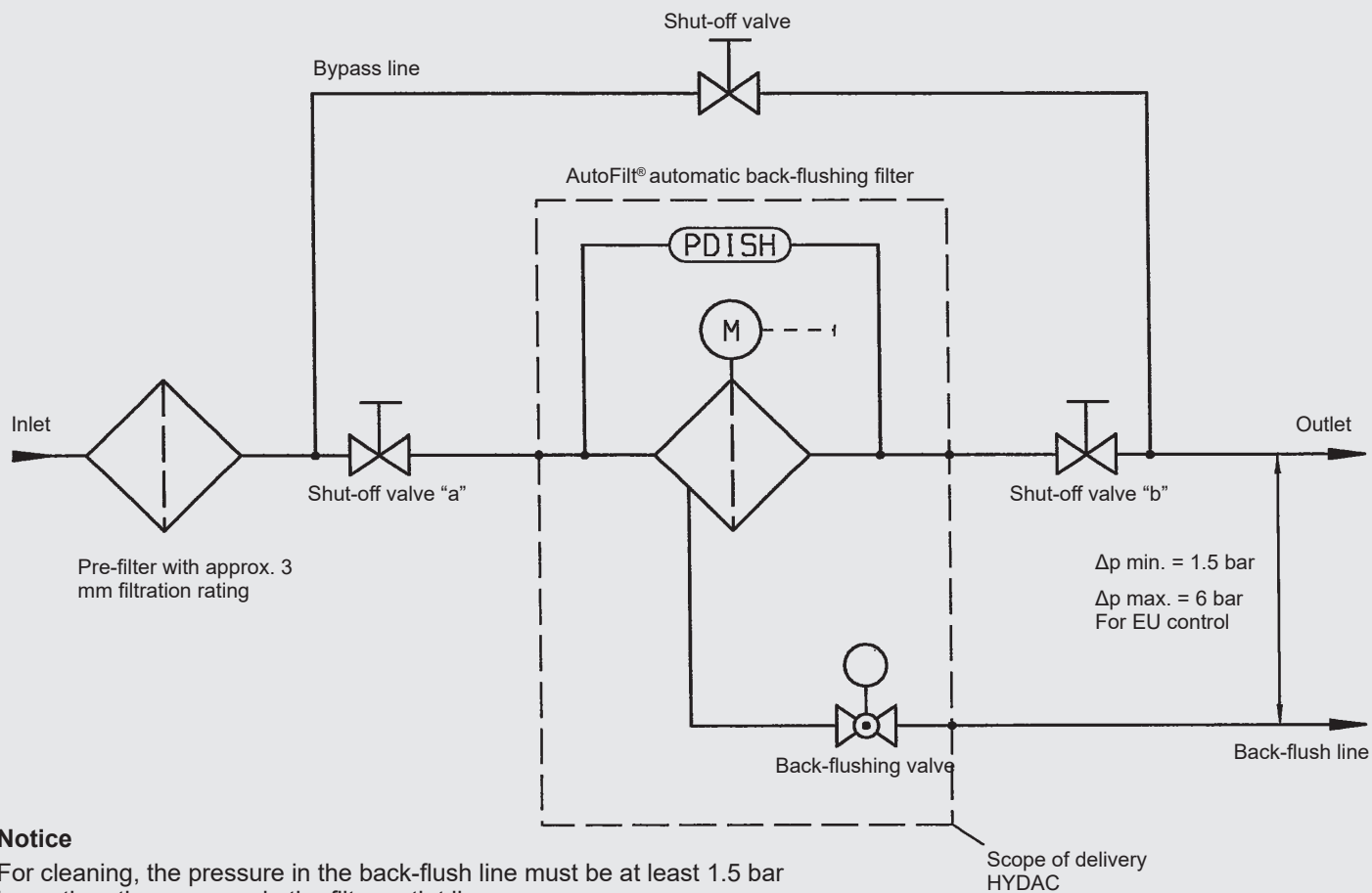
PRESSURE DROP CURVES



Notice

The flow rate ranges given apply to filtration ratings $100\ \mu\text{m}$ – $3000\ \mu\text{m}$.
At $50\ \mu\text{m}$, the pressure drop increases by approx. 30 %.
For smaller flow rates, see RF2.

CIRCUIT DIAGRAM



Notice

For cleaning, the pressure in the back-flush line must be at least 1.5 bar lower than the pressure in the filter outlet line.

5. FILTER CONFIGURATION*

| | Standard | Optional |
|--------------------------------------|--|---|
| Control parameters | <ul style="list-style-type: none"> • EPT • EU • EPU • PT • PTZ • Manual • Without controller | <ul style="list-style-type: none"> • PLC • Filter interlocking for parallel operation • UL / CSA-approved components • Safe in tropical conditions • Customised special solutions |
| Connection voltages | All current international connection voltages and frequencies can be implemented | |
| Electrical protection classes | IP65 | Other IP protection classes |
| Explosion protection | | ATEX according to Directive 94/9/EC |
| Container | Counter dimensioning and container production according to AD2000 and, as required, Pressure Equipment Directive 2014/68/EU | ASME Code Design with or without ASME stamp EN 13445 |
| Flange connections | DIN EN flanges | <ul style="list-style-type: none"> • ASME (ANSI) • JIS |
| Flange positions | Variable connection positions: filter inlet and back-flush line | |
| Housing materials | <ul style="list-style-type: none"> • Carbon steel • Stainless steel 1.4571 or similar (group 316) • Stainless steel 1.4301 or similar (group 304) | <ul style="list-style-type: none"> • Duplex • Superduplex • Various qualities of stainless steel • Various qualities of carbon steel |
| Materials of internal parts | Stainless steel 1.4301 or similar (group 304) | <ul style="list-style-type: none"> • Duplex • Superduplex • Various qualities of stainless steel |
| Material of filter elements | Wedge wire: 1.4435 or similar (Group 316) SuperMesh wire mesh, sintered (with or without support structure): 1.4401 or similar (Group 316) | <ul style="list-style-type: none"> • Duplex • Superduplex • Filter elements with SuperFlush coating • Filter elements with magnet separator technology |
| External corrosion protection | <ul style="list-style-type: none"> • 2-coat primer (not required for stainless steel housings) • Colour RAL 7040 (window grey) | <ul style="list-style-type: none"> • Multi-layer paintwork • Special paints for offshore applications • Special paints / coatings according to customer specifications |
| Internal corrosion protection | <ul style="list-style-type: none"> • 2-comp. epoxy coating • 2-comp. highly cross-linked polyurethane coating • Rubber lining | <ul style="list-style-type: none"> • Glass flake lining • Special paints / coatings according to customer specifications |
| Measurement of differential pressure | <ul style="list-style-type: none"> • Differential pressure gauge – aluminium pressure chamber • Differential pressure gauge – pressure chamber, stainless steel 1.4301 or similar (Group 316) • Differential pressure gauge – with differential pressure gauge, stainless steel 1.4571 or similar (Group 316) • Differential pressure gauge - pressure chamber, brass • Pressure transmitter HYDAC HDA 4700 stainless steel 1.4301 or similar (Group 304) • Pressure transmitter HYDAC HDA 4300 duplex | |
| Davit | | With pivoting lid device |
| Documentation | <ul style="list-style-type: none"> • Operating manual • Declaration of incorporation according to the Machinery Directive 2006/42/EC • Brief start-up guide • Circuit diagram | <ul style="list-style-type: none"> • Manufacturer test certificates • Material certificates 3.1 according to DIN EN 10204 • TR CU certificates • 3rd parties (TÜV, ABS, Lloyds, etc.) • Welding documentation e.g. WPS, PQR • Inspection plan |

* Other versions and customer-specific special solutions after consultation with our Head Office.

6. MODEL CODE

MODEL CODE AUTOFIL[®] RF7

RF7-2.5 N 2 S-A1-NM E1-N 5-1A-0-4 / SKS1000-So

Type
AutoFit[®]

Filter size (standard connection size and standard pressure range)

| | | | | | | | |
|---|------------------------------|-----|-----------------|---|----------------|---|----------------|
| C | = DN 50 (PN16) ¹⁾ | 2 | = DN 200 (PN10) | 4 | = DN 400 (PN6) | 7 | = DN 700 (PN6) |
| 0 | = DN 100 (PN10) | 2.5 | = DN 250 (PN10) | 5 | = DN 500 (PN6) | 8 | = DN 900 (PN6) |
| 1 | = DN 150 (PN10) | 3 | = DN 300 (PN10) | 6 | = DN 600 (PN6) | | |

Connection size

| Size DIN ASME JIS | A DN25 1" | W DN 40 1 1/2" | C DN 50 2" | D DN 65 2 1/2" | E DN 80 3" | F DN 100 4" | H DN 125 5" | K DN 150 6" | L DN 200 8" | M DN 250 10" | N DN 300 12" | P DN 350 14" | Q DN 400 16" | J DN 450 18" | R DN 500 20" | W DN 550 22" | S DN 600 24" | T DN 700 28" | U DN 900 36" | P DN 1000 40" |
|----------------------------|-----------------|----------------------|------------------|----------------------|------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| C | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 0 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2.5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 6 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 7 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

☑ = standard connection size (connection size added only if it deviates from the standard ☑)
✓ = optional connection size

Pressure range

| Size | 1 (PN 6) | 2 (PN 10) | 3 (PN 16) | 4 (PN 25) | 5 (PN 40) | 6 (PN 63) | 7 (PN 100) |
|------|-------------|--------------|--------------|--------------|--------------|--------------|---------------|
| C | — | — | — | — | — | — | — |
| 0 | — | — | — | — | — | — | — |
| 1 | — | — | — | — | — | — | — |
| 2 | — | — | — | — | — | — | — |
| 2.5 | — | — | — | — | — | — | — |
| 3 | — | — | — | — | — | — | — |
| 4 | — | — | — | — | — | — | — |
| 5 | — | — | — | — | — | — | — |
| 6 | — | — | — | — | — | — | — |
| 7 | — | — | — | — | — | — | — |
| 8 | — | — | — | — | — | — | — |

☑ = standard pressure range
✓ = optional pressure range
1) = pressure range on request
16 bar stainless steel

Design code

S = HYDAC standard
A = ASME VIII Div. 1 calculation, materials and manufacture without stamp
U = ASME VIII Div. 1 with stamp
E = EN 13445

Type of controller / connection voltage

A = electro-pneumatic cyclic control
B = electric circulation control
C = electro-pneumatic circulation control
D = pneumatic cyclic control with timer function
M = manual
0 = without controller, all consumers on terminal strip:
Controllers A and C (EPT and EPU): gear motor voltage 3 x 380 – 400V 50Hz / 3 x 440 – 480V 60Hz, inductive proximity switch, HDA and 24 V DC solenoid valve
Controller B (EU): Gear motor voltage 3 x 380 – 400 V 50 Hz / 3 x 440 – 480 V 60Hz, inductive proximity switch, HDA and 24 V DC solenoid valve, back-flushing valve drive 1 x 230 V / N / PE 50-60 Hz

| | | | | | | | |
|---|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|
| 1 | = 3 x 400V / N / PE 50Hz | 6 | = 3 x 415V / X / PE 50Hz | B | = 3 x 575V / X / PE 60Hz | G | = 3 x 415V / N / PE 50Hz |
| 2 | = 3 x 400V / X / PE 50Hz | 7 | = 3 x 415V / N / PE 60Hz | C | = 3 x 690V / X / PE 50Hz | H | = 3 x 220V / X / PE 60Hz |
| 3 | = 3 x 500V / X / PE 50Hz | 8 | = 3 x 460V / X / PE 60Hz | D | = 1 x 230V / N / PE 50Hz | I | = 3 x 380V / X / PE 50Hz |
| 4 | = 3 x 230V / N / PE 50Hz | 9 | = 3 x 440V / X / PE 60Hz | E | = 1 x 230V / N / PE 60Hz | K | = 3 x 480V / X / PE 60Hz |
| 5 | = 3 x 230V / X / PE 50Hz | A | = 3 x 525V / X / PE 50Hz | F | = 1 x 115V / N / PE 60Hz | | |

Housing material/corrosion protection

N = carbon steel, external primer (RAL 7040)
NM = carbon steel, external primer (RAL 7040), internal 2K epoxy paint
NP = carbon steel, external primer (RAL 7040), internal 2K highly cross-linked polyurethane coating
NG = carbon steel, external primer (RAL 7040), internal rubber lining
E1 = stainless steel 1.4301, 1.4541 or similar (Group 304/321)
E2 = stainless steel 1.4571 or similar (Group 316)
A = for ASME flange, add "A" after code
J = for JIS flange, add "J" after code

Material of internal parts & filter elements

E1 = stainless steel 1.4301, 1.4541 or similar (Group 304/321), filter element stainless steel 1.4435 (Group 316)
E2 = stainless steel 1.4571 or similar (Group 316), filter element stainless steel 1.4435 (Group 316)
ES = stainless steel 1.4571 or similar (Group 316), filter element super-duplex (only wedge wire possible)
SE = super-duplex, filter element stainless steel 1.4435 (Group 316)
DE = duplex, filter element stainless steel 1.4435 (Group 316)
DS = duplex, filter element super-duplex (only wedge wire possible)
SS = super-duplex, filter element super-duplex (only wedge wire possible)

Material for back-flushing valve

O = none
N = butterfly valve: housing coated in spheroidal graphite iron, disc and shaft stainless steel, seal ring NBR (only up to $p_{max} \leq 16\text{bar!}$)
B = butterfly valve: housing coated in spheroidal graphite iron, disc and shaft bronze, seal ring NBR (only up to $p_{max} \leq 16\text{bar!}$)
M = butterfly valve: housing coated in spheroidal graphite iron, disc in super-duplex, shaft in duplex, seal ring NBR (only up to $p_{max} \leq 16\text{bar!}$)
E = ball valve: ball stainless steel, housing stainless steel, ball seal PTFE

Measurement of pressure difference

0 = none
1 = differential pressure gauge – pressure chamber aluminium (only up to 25 bar!)
2 = differential pressure gauge – pressure chamber stainless steel 1.4301 or similar (Group 304/321)
3 = differential pressure gauge – with diaphragm seal stainless steel 1.4301 or similar (Group 304/321)
4 = differential pressure gauge – pressure chamber brass
5 = pressure transmitter stainless steel V2A group
6 = pressure transmitter duplex

Flange setting/ back-flushing line setting (each in the direction of the filter inlet)

1 = outlet to right
2 = outlet up
3 = outlet to left
A = back-flush line to left
B = back-flush line down
C = back-flush line to right

Optional equipment / documentation (multiple entries possible)

0 = none
A = Certificate of Conformance CoC
B = acceptance test certificate 3.1 to DIN EN 10204 for design, pressure and functional testing
C = acceptance test certificate 3.1 to DIN EN 10204 for design, pressure and functional testing incl. material inspection certificates according to EN 10204, 3.1 for pressure-bearing media-contacting housing parts
D = material inspection certificates according to EN 10204, 3.1 for pressure-bearing media-contacting housing parts
E = Russian equipment pass incl. explanation letter for TRCU 032 / 2013; also Declaration of Conformity for TRCU 010 / 2011
F = end position switch position indicator for back-flushing valve (micro)
G = end position switch position indicator for back-flushing valve (inductive)
H = top coat RAL 7040
I = davit
K = automatic vent valve
L = clutch bushing PE-UHMW with FKM O-rings
M = M12 x 1 male connector for electrical connections
P = all seal rings FKM or FP2000
S = seawater version
T = marine / ship version
U = paint and varnish report in acc. with DIN EN 12944-8

Modification number

X = the latest version is always supplied (currently 3 for RF7-C...2.5 / currently 4 for RF7-3...8)

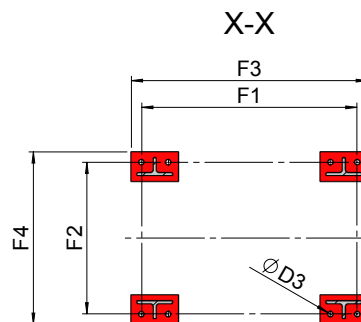
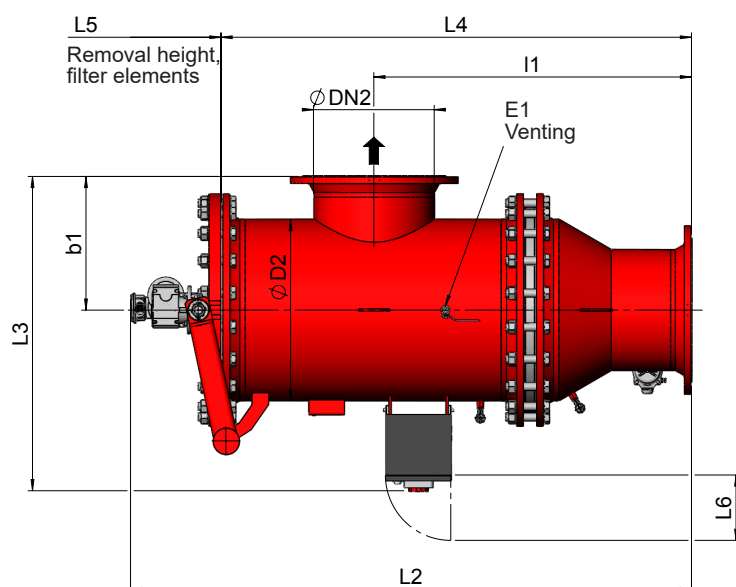
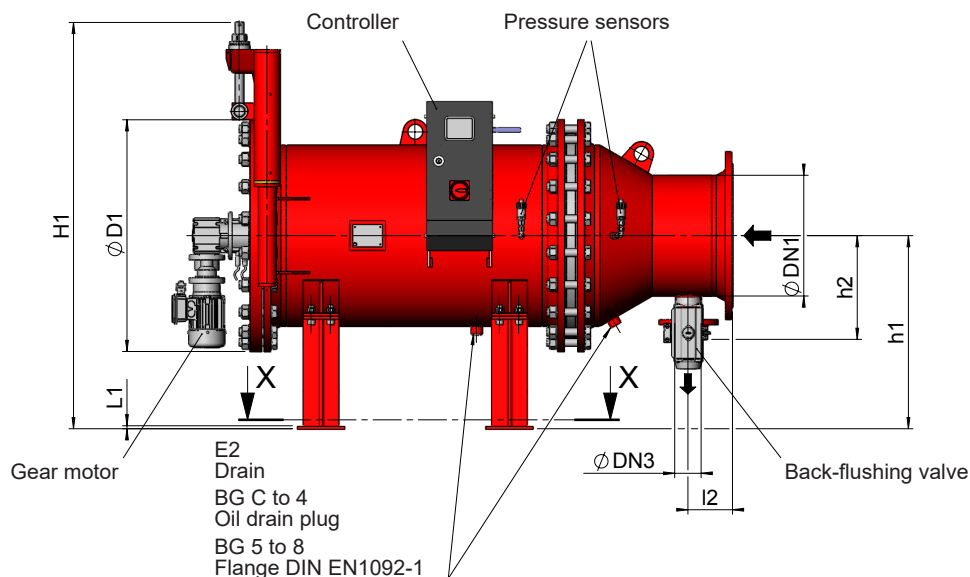
Filter element set and filtration rating

KS = conical wedge wire (50–3000 µm)
KW = conical SuperMesh (25 / 40 / 60 µm)
SKS = conical wedge wire with SuperFlush non-stick coating
SKW = conical SuperMesh with SuperFlush non-stick coating

Special number

For special version (special number issued after technical clarification in Head Office)

7. DIMENSIONS

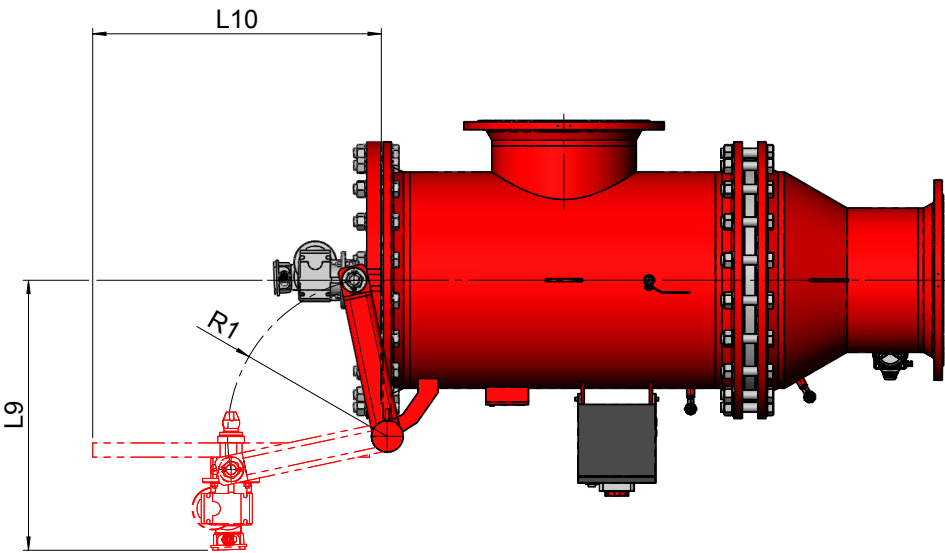
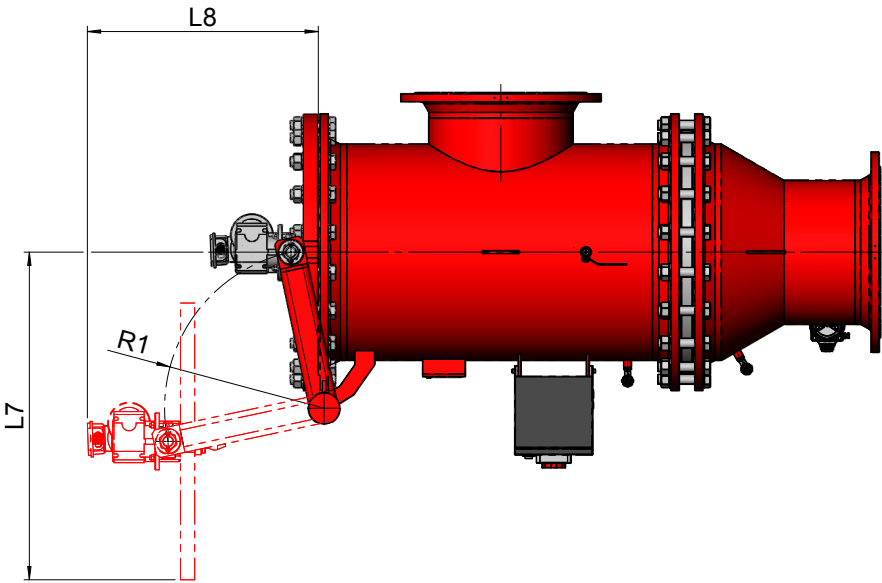


The dimensions indicated have ± 10 mm tolerances.
Subject to technical modifications.

| Size | DN1 | DN2 | DN3 | b1 | h1 | h2 | l1 | l2 | H1 | L1 | L2 | L3 | L4 | L5 | L6 |
|---------|-----|-----|-----|-----|------|-----|------|-----|------|----|------|------|------|------|-----|
| RF7-2 | 200 | 200 | 50 | 325 | 500 | 265 | 885 | 175 | 1000 | 5 | 1428 | 829 | 1140 | 700 | 500 |
| RF7-2.5 | 250 | 250 | 50 | 325 | 500 | 222 | 1024 | 132 | 1000 | 5 | 1806 | 799 | 1488 | 700 | 500 |
| RF7-3 | 300 | 300 | 65 | 380 | 590 | 280 | 1042 | 280 | 1205 | 10 | 1852 | 897 | 1550 | 700 | 500 |
| RF7-4 | 400 | 400 | 80 | 450 | 650 | 350 | 1069 | 150 | 1370 | 10 | 1888 | 1058 | 1584 | 1000 | 500 |
| RF7-5 | 500 | 500 | 80 | 550 | 750 | 400 | 1139 | 162 | 1532 | 10 | 1934 | 1188 | 1588 | 1000 | 500 |
| RF7-6 | 600 | 600 | 100 | 625 | 840 | 476 | 1159 | 198 | 1740 | 10 | 2046 | 1370 | 1690 | 1200 | 500 |
| RF7-7 | 700 | 700 | 100 | 750 | 890 | 510 | 1200 | 220 | 1833 | 10 | 2056 | 1519 | 1710 | 1300 | 500 |
| RF7-8 | 900 | 900 | 150 | 950 | 1200 | 680 | 1474 | 250 | 2242 | 20 | 2450 | 1827 | 2124 | 1500 | 500 |

| Size | L7 | L8 | L9 | L10 | R1 | D1 | D2 | D3 | E1 | E2 | F1 | F2 | F3 | F4 |
|---------|------|------|------|------|-----|------|------|----|------|-----------|-----|------|-----|------|
| RF7-2 | 685 | 605 | 665 | 590 | 345 | 565 | 406 | 18 | G1/4 | G3/4 | 604 | 648 | 220 | 320 |
| RF7-2.5 | 685 | 605 | 665 | 590 | 345 | 565 | 406 | 18 | G1/4 | G3/4 | 656 | 700 | 220 | 320 |
| RF7-3 | 765 | 705 | 725 | 745 | 390 | 670 | 508 | 18 | G1/4 | G3/4 | 576 | 736 | 430 | 500 |
| RF7-4 | 830 | 765 | 840 | 760 | 450 | 780 | 610 | 18 | G1/4 | G3/4 | 724 | 794 | 510 | 580 |
| RF7-5 | 974 | 845 | 977 | 855 | 530 | 895 | 711 | 18 | G1/4 | DN40 PN10 | 745 | 815 | 630 | 700 |
| RF7-6 | 1195 | 957 | 1200 | 870 | 642 | 1115 | 914 | 18 | G1/4 | DN40 PN10 | 735 | 805 | 770 | 840 |
| RF7-7 | 1380 | 1010 | 1295 | 1075 | 697 | 1230 | 1016 | 18 | G1/4 | DN40 PN10 | 710 | 780 | 770 | 840 |
| RF7-8 | 1505 | 1125 | 1513 | 1120 | 810 | 1405 | 1220 | 35 | G1/4 | DN40 PN10 | 900 | 1040 | 820 | 1060 |

7. DIMENSIONS



The dimensions indicated have ± 10 mm tolerances.
Technical modifications are reserved.

| Size | L7 | L8 | L9 | L10 | R1 |
|---------|------|------|------|------|-----|
| RF7-2 | 685 | 605 | 665 | 590 | 345 |
| RF7-2.5 | 685 | 605 | 665 | 590 | 345 |
| RF7-3 | 765 | 705 | 725 | 745 | 390 |
| RF7-4 | 830 | 765 | 840 | 760 | 450 |
| RF7-5 | 974 | 845 | 977 | 855 | 530 |
| RF7-6 | 1195 | 957 | 1200 | 870 | 642 |
| RF7-7 | 1380 | 1010 | 1295 | 1075 | 697 |
| RF7-8 | 1505 | 1125 | 1513 | 1120 | 810 |

NOTE

The information in this brochure relates to the operating conditions and applications described.

For applications and/or operating conditions not described please contact the relevant technical department.

Subject to technical modifications.

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