

Duplex filter UG54

With stopcock change-over, rated pressure up to 10 bar (145 psi)
Connection sizes: DN 20 to DN 80, cast design

1. Features

High-performance, continuous filtration for plants

- Used in shipping and industry
- Continuous filtration supports rational production processes
- Mature engineering and robust design
- Compact design
- Minimal pressure drop through optimal flow design
- Elements with high differential pressure stability and dirt holding capacity
- Filter ratings from 25 to 5000 µm absolute, other ratings on request
- Suitable for use with fluids of all types
- Easy to service
- Worldwide distribution



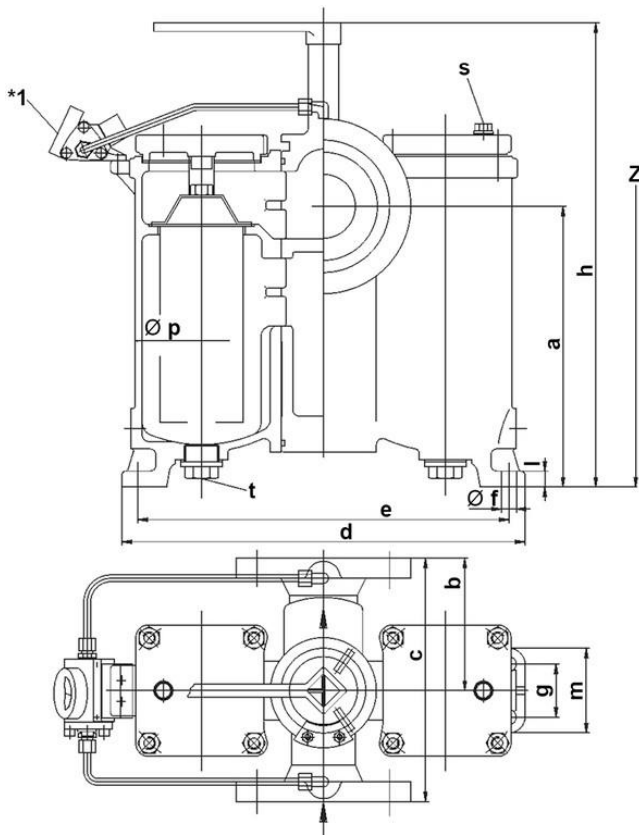
2. Operating principle

- The two bowls of the duplex filter are each fitted with a filter element (perforated, smooth or pleated) through which the medium flows from the inside to the outside.
- One filter bowl is pressurised during operation to allow the medium to flow through the filter element in the required direction.
- The filter changes over to the second bowl without interrupting the filtration process when a settable fouling threshold is reached.
- The non-operational bowl can then be opened and the filter element removed for cleaning.
- Duplex filters require no maintenance apart from cleaning the filter elements and inspecting the seals.

3. Technical Data

Connection:	DN 20 to DN 80
Flange:	DIN 2501 PN 16
Material:	Nodular cast iron 40
Max. operating pressure:	10 bar
Test overpressure:	15 bar
Max. operating temperature:	120 °C
Filter element:	Screen basket
Filter rating:	25 to 5000 µm absolute, other ratings on request

4. Dimensions



t = Drain
s = Vent
Z = Clearance required
*1 = Differential pressure indicator
optional

All dimensions except "s" and "t" in mm.

Type	DN	a	b	c	d	e	Ø f	g	m	h	l	Ø p	s	t	Z	Capacity [l]	Weight [kg]
CT093210A08	80	380	170	295	520	480	18.0	60	100	580	16	176	G1/4	G1 1/2	810	8.0	87
CT083210A07	65	330	145	260	450	410	18.0	50	90	540	14	144	G1/4	G1	685	4.3	64
CT073210A05	50	265	125	230	380	350	14.0	50	80	438	15	126	G1/4	G1	565	2.7	40
CT063210A05	40	260	100	200	350	320	11.5	50	80	425	12	126	G1/4	G1	540	2.7	35
CT053210A04	32	210	95	180	284	260	11.5	36	60	340	10	90	G1/8	G3/4	520	0.8	21
CT043210A03	25	158	83	165	272	248	11.5	36	60	310	10	90	G1/8	G3/4	315	0.8	17
CT033210A02	20	140	75	145	232	212	9.5	28	48	254	8	70	G1/8	G3/8	275	0.4	14

5. Design and application

A wide range of filter elements are available for every duplex filter. The material, type of construction and filter surface and rating are expertly adapted to the specific filtration task based on the medium and capacity.

Each duplex filter can be supplied with various options to ensure the optimum performance for each particular application.

Options:

- Heating (steam/thermal oil, electric)
- Magnetic elements
- Differential pressure indicator/switch mounted on the filter

Duplex filters are not at all complicated to use and they guarantee continuous filtration. The necessary steps are described in the following:

- The filter comprises two bowls with a cover and a parallel unit.
- Each bowl contains a vent port, a drain port and a filter element.
- The filter must be filled and vented before it is put into service. Make sure the liquid flows through the filter in the direction indicated by the arrow, so that it enters the filter element at the top.
- Cylindrical elements are used for the filtration process. Impurities are trapped in the element and removed together with the latter when it is withdrawn from the housing for cleaning. The inside of the housing is permanently dirt-free as a result.
- The filter must be changed over and cleaned when a differential pressure of approx. 7 m/water column is reached. This is done by turning the spanner in the direction of the other bowl. The spanner should be applied according to the marking. The flow direction of the medium in the pressurised bowl is indicated by a marking on the stopcock spanner hub.
- If the filter has a pressure balance pipe, the valve for this pipe must be opened and closed again prior to changing over to the other bowl.
- After the filter has been changed over, the cover of the non-pressurised bowl can be opened and the element lifted out vertically. To clean the filter element, either flush or blow it out or brush it with a soft brush. Carefully insert the cleaned element again vertically. When the cover is closed, the element is pressed against the support ring by means of the cover spring.
- The filter must be mounted without stress on flanges and feet.
- If the medium has a tendency to form deposits, the filter must not be allowed to run dry.
- If the change-over unit is stiff (because the medium has formed deposits), the stopcock must be switched once every day.
- In order to replace the O-rings, press the stopcock down so that the bottom ring can be removed, then pull it up to enable the top ring to be removed. Be careful not to adjust the stopcock any farther than is absolutely necessary to replace the O-rings.

6. Type number key

Type number key with selection example for UG54 duplex filter DN 20 to DN 80

Main product group

C Duplex filter, cast design

Series

T Duplex filter with stopcock

Inlet and outlet connections

- 03** Flange DN 20
- 04** Flange DN 25
- 05** Flange DN 32
- 06** Flange DN 40
- 07** Flange DN 50
- 08** Flange DN 65
- 09** Flange DN 80

Filter connection standard + rated pressure

3 EN 1092 PN 16 bar

Position of main connections

2 Opposite each other on the same axis

Cover fastening

1 Stud bolts or hexagon screws

Options

- 0** Standard version
- 2** Electric cartridge heater
- 3** Steam/thermal cartridge heater
- 7** Version without non-ferrous metals

Type of inner assembly

A Filter elements for simplex filter

Inner assembly size

XX

Housing version

- 2** Nodular cast iron
- E** Stainless steel

Stopcock material

2 Nodular cast iron

Number for special types or design features

XX

C T 08 3 2 1 0 A 07 2 2 00