



SAFEJET

COMPACT, LOW-FLOW AUTOMATIC FILTER SYSTEM

Technical Specification



Product Description

SafeJet is a low-flow, automatic filter system that protects mechanical seals by handling incoming process water and eliminating impurities that cause seal malfunctions.

Design Features

The SafeJet filter system leverages a reliable, simple and cost-effective design with static self-cleaning strainers and causes no interruption of filtered water reaching mechanical seals during the filtering process.

The SafeJet filter is available in four models:

Filter Model	Capacity l/min (usgpm)	Flange Connection Size	Number of elements
SafeJet 16	160 (42)	DN 50 or ASME 2"	2
SafeJet 23	230 (60)	DN 65 or ASME 2.5"	2
SafeJet 33	330 (87)	DN 80 or ASME 3"	3
SafeJet 50	500 (132)	DN 100 or ASME 4"	4

Key Technical Information

- Flow direction during the filtration process is from the inside outwards.
- Impurities are filtered on the filter elements inner surface.
- Impurities are automatically flushed from the SafeJet system to the drain by opening flush valves.
- Flush is controlled with a timer or pressure difference and the timing can be adjusted.

Performance Parameters and Capabilities

Pressure limits	10 barg/145 psig maximum 2 barg/30 psig minimum
Temperature limits	50°C/122°F
Filtration rating	50 microns and above
Filter housing	304 stainless steel 316L available as option
Filter elements	316L stainless steel
Backflush cycle time	15 to 30 seconds
Exhaust valve	Motorized ball valve
O-rings	EPDM material
Expected lead times	12 to 14 weeks after PO placement. six weeks for replacement elements
System requirements	Capable of being connected to plant DCS system to monitor data such as pressure difference (switch on/off information)
Electrical requirements	Operates at 50 Hz in Europe, 60 Hz in Americas. Operates at 220V single phase in Europe and 110V single phase in USA/ Americas. Control voltage: 24V AC
Control box	IP 66 in Europe and NEMA 4 IN USA. Also capable of being sold into oil/gas markets



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Pressure vessel certifications

For Europe, PED rating with CE Mark. For Americas, Middle East and Asia, ASME VIII-1 certification. U- Stamp for oil/gas markets. CRN certification for sale to Canadian provinces on request.

Connections for piping

For flanges: DIN connections in Europe and ASME connections in Americas/Asia. For piping: BSP threads for Europe/Asia and NPT threads for North America

PRC

REACH, RoHS for Europe, others. TSCA/EPA Section 6(h) for USA

Provided Documents

- Instruction and Operating Manual
- Drawings
- Certificate of Conformity
- 3.1 Material certificate for wetted parts

Spare Parts

Filter Model	Filter Element, 50 microns	Exhaust Valve (1 inch) with Actuator	Flow Switch	Pressure Differential Switch
SafeJet 16	2	2	1	1
SafeJet 23	2	2	1	1
SafeJet 33	3	3	1	1
SafeJet 50	4	4	1	1

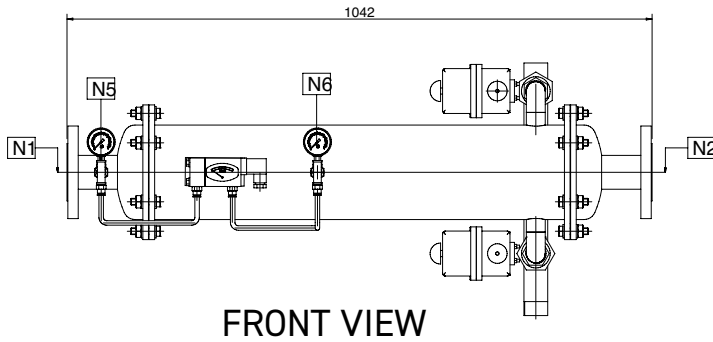


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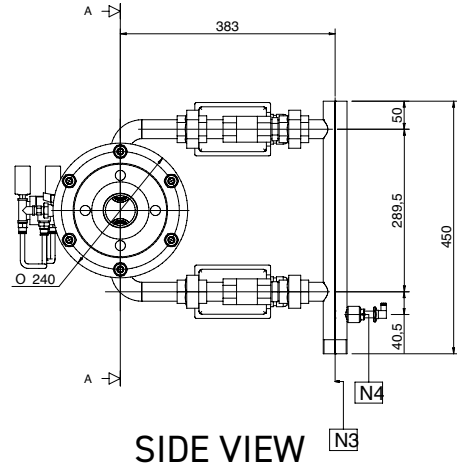
COMPACT, LOW-FLOW AUTOMATIC FILTER SYSTEM

Technical Specification

Dimensional Drawings for SafeJet 16 (metric)

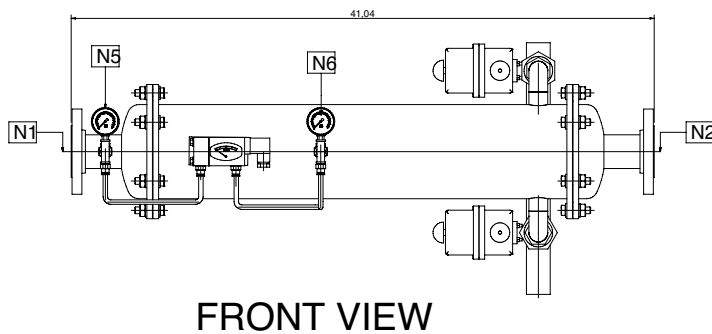


FRONT VIEW

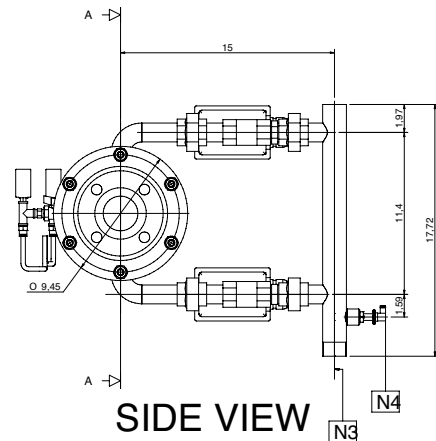


SIDE VIEW

Dimensional Drawings for SafeJet 16 (imperial)



FRONT VIEW



SIDE VIEW

Design Data

Test pressure	15 barg/217.5 psig
Design pressure	10 barg/145 psig
Color code	Stainless steel
Design temperature	50°C/122°F
Filtration rating	50 micron

Connection Table (imperial)

Mark	Connection	Quantity	Size	Flange Rating
N1	Inlet	1	DN50 – 2"	B16.5 – 150#
N2	Outlet	1	DN50 – 2"	B16.5 – 150#
N3	Drain	1	DN32 – 1 1/4"	B36.10 – SCH40
N4	Flow switch	1	DN15 – 1/2"	B16.11 – 3000#
N5	Pressure gauge	1	DN8 – 1/4"	B16.11 – 3000#
N6	Pressure gauge	1	DN8 – 1/4"	B16.11 – 3000#

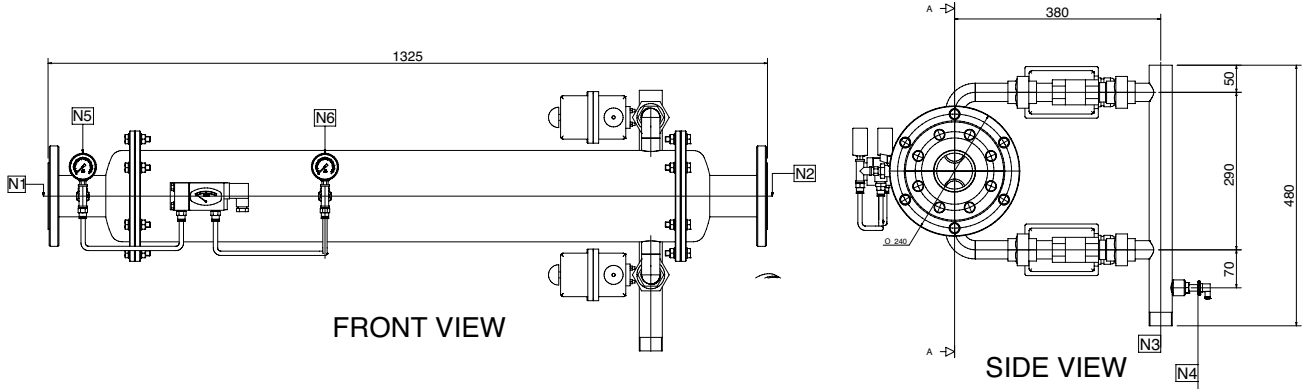


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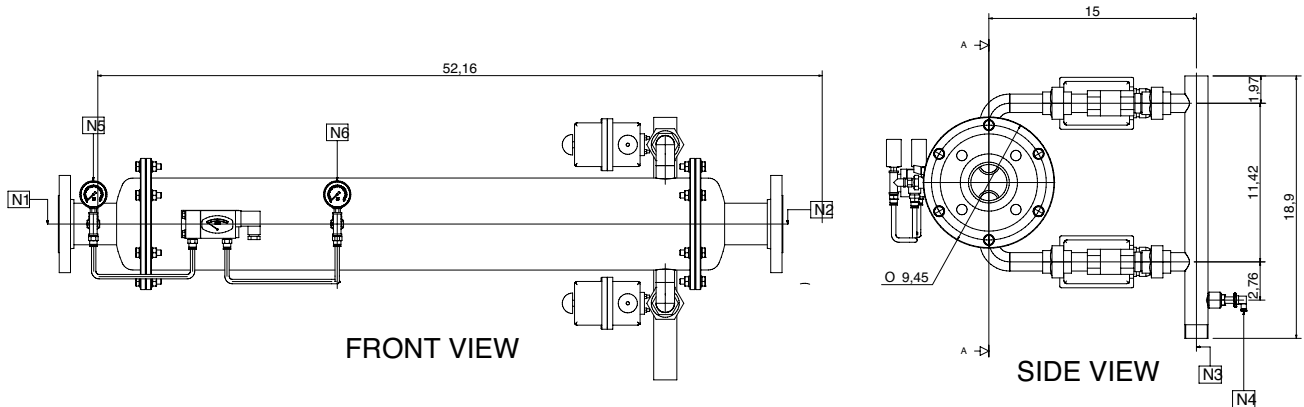
COMPACT, LOW-FLOW AUTOMATIC FILTER SYSTEM

Technical Specification

Dimensional Drawings for SafeJet 23 (metric)



Dimensional Drawings for SafeJet 23 (imperial)



Design Data

Test pressure	15 barg/217.5 psig
Design pressure	10 barg/145 psig
Color code	Stainless steel
Design temperature	50°C/122°F
Filtration rating	50 micron

Connection Table (imperial)

Mark	Connection	Quantity	Size	Flange Rating
N1	Inlet	1	DN50 – 2"	B16.5 – 150#
N2	Outlet	1	DN50 – 2"	B16.5 – 150#
N3	Drain	1	DN32 – 1 1/4"	B36.10 – SCH40
N4	Flow switch	1	DN15 – 1/2"	B16.11 – 3000#
N5	Pressure gauge	1	DN8 – 1/4"	B16.11 – 3000#
N6	Pressure gauge	1	DN8 – 1/4"	B16.11 – 3000#

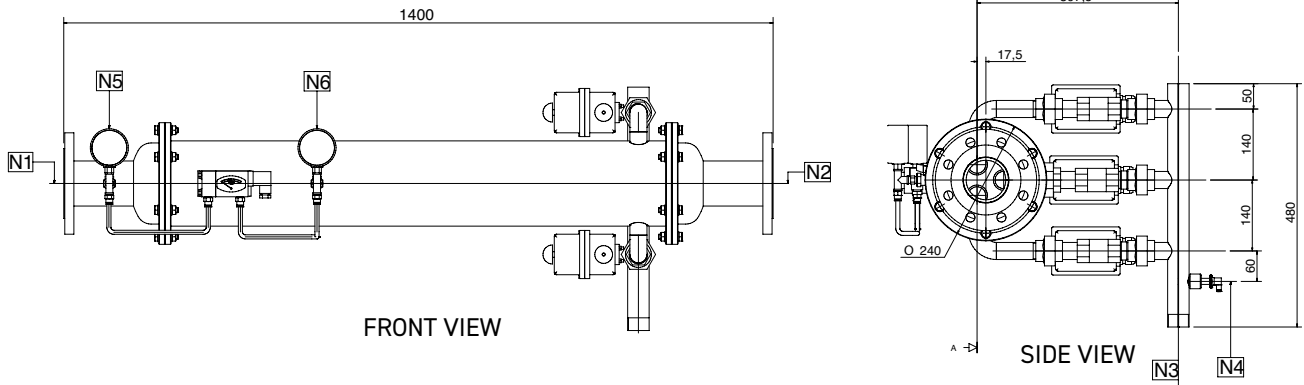


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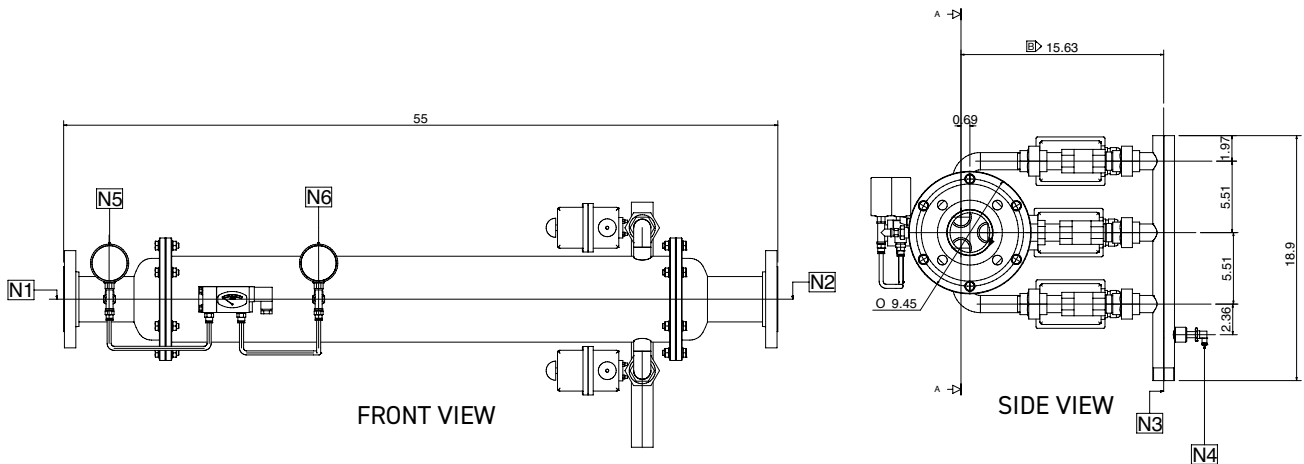
COMPACT, LOW-FLOW AUTOMATIC FILTER SYSTEM

Technical Specification

Dimensional Drawings for SafeJet 33 (metric)



Dimensional Drawings for SafeJet 33 (imperial)



Design Data

Test pressure	15 barg/217.5 psig
Design pressure	10 barg/145 psig
Color code	Stainless steel
Design temperature	50°C/122°F
Filtration rating	50 micron

Connection Table (imperial)

Mark	Connection	Quantity	Size	Flange Rating
N1	Inlet	1	DN50 - 2"	B16.5 - 150#
N2	Outlet	1	DN50 - 2"	B16.5 - 150#
N3	Drain	1	DN32 - 1 1/4"	B36.10 - SCH40
N4	Flow switch	1	DN15 - 1/2"	B16.11 - 3000#
N5	Pressure gauge	1	DN8 - 1/4"	B16.11 - 3000#
N6	Pressure gauge	1	DN8 - 1/4"	B16.11 - 3000#

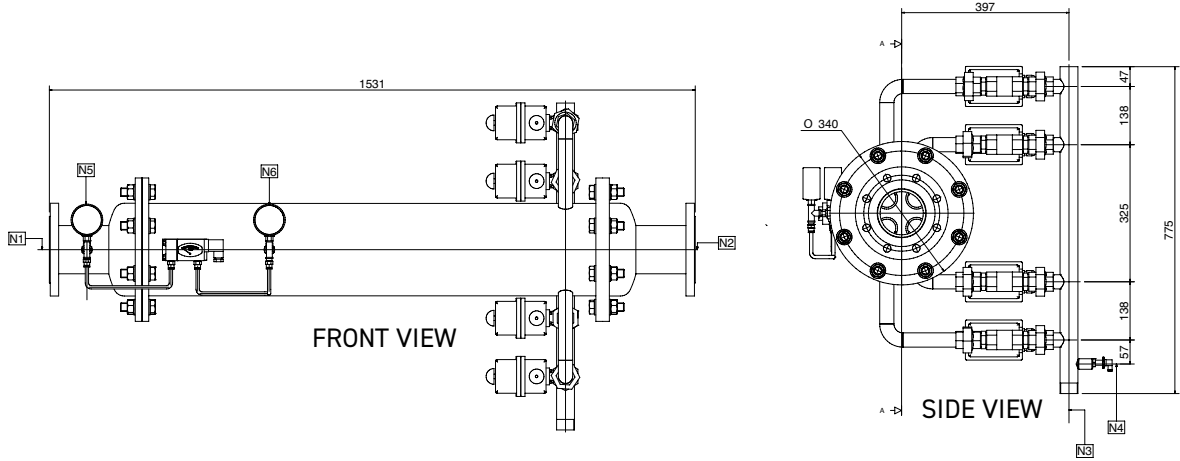


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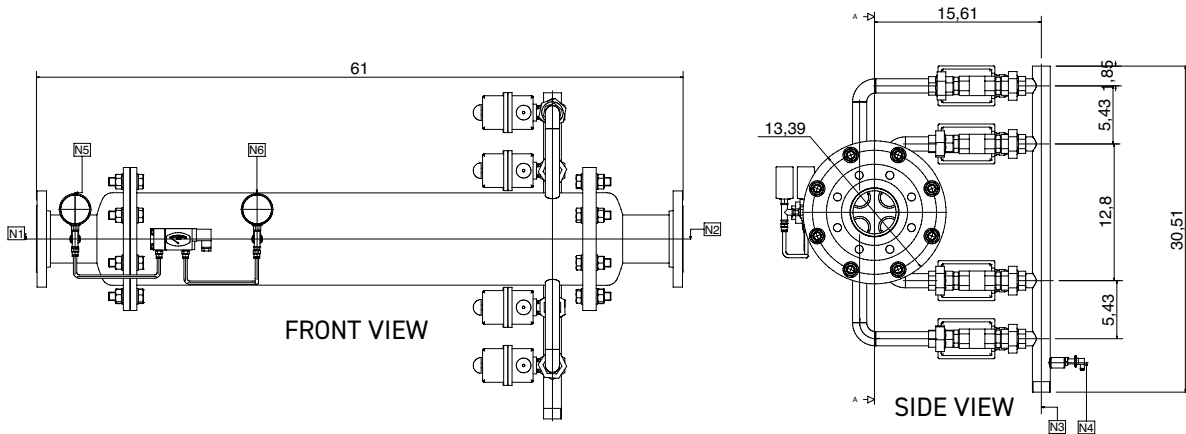
COMPACT, LOW-FLOW AUTOMATIC FILTER SYSTEM

Technical Specification

Dimensional Drawings for SafeJet 50 (metric)



Dimensional Drawings for SafeJet 50 (imperial)



Design Data

Test pressure	15 barg/217.5 psig
Design pressure	10 barg/145 psig
Color code	Stainless steel
Design temperature	50°C/122°F
Filtration rating	50 micron

Connection Table (imperial)

Mark	Connection	Quantity	Size	Flange Rating
N1	Inlet	1	DN50 – 2"	B16.5 – 150#
N2	Outlet	1	DN50 – 2"	B16.5 – 150#
N3	Drain	1	DN32 – 1 1/4"	B36.10 – SCH40
N4	Flow switch	1	DN15 – 1/2"	B16.11 – 3000#
N5	Pressure gauge	1	DN8 – 1/4"	B16.11 – 3000#
N6	Pressure gauge	1	DN8 – 1/4"	B16.11 – 3000#



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