

Electrostatic charges occurring during production processes often cause severe disruptions, reducing production speed and product quality.

The R55/EXR55 ion blower head and the PR55/EXPR55 ion blower pistol are both components of the newly developed discharging system with ultimate depth effect. The blower head for fixed installation and the blower pistol for manual and mobile use.

The system is suitable for many discharging duties in various industries such as printing, chemical, textile, plastic, optical and packaging, for instance during separating and fanning paper and foil stacks, finishing plastic products and textiles, during the cleaning of surfaces, etc.

The EX-marked appliances are approved for use in explosive atmosphere.

The benefits:

- high discharge reach and therefore greater depth effect
- ultimate safety through passive discharge power
- safety through function and error monitoring in connection with the appropriate power supply
- no risk of personal injury through electric shock if contacting the emission tips.

## Technical Information



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### Ion Blower Head R55 / EXR55 Ion Blower Pistol PR55 / EXPR55 for AC operation



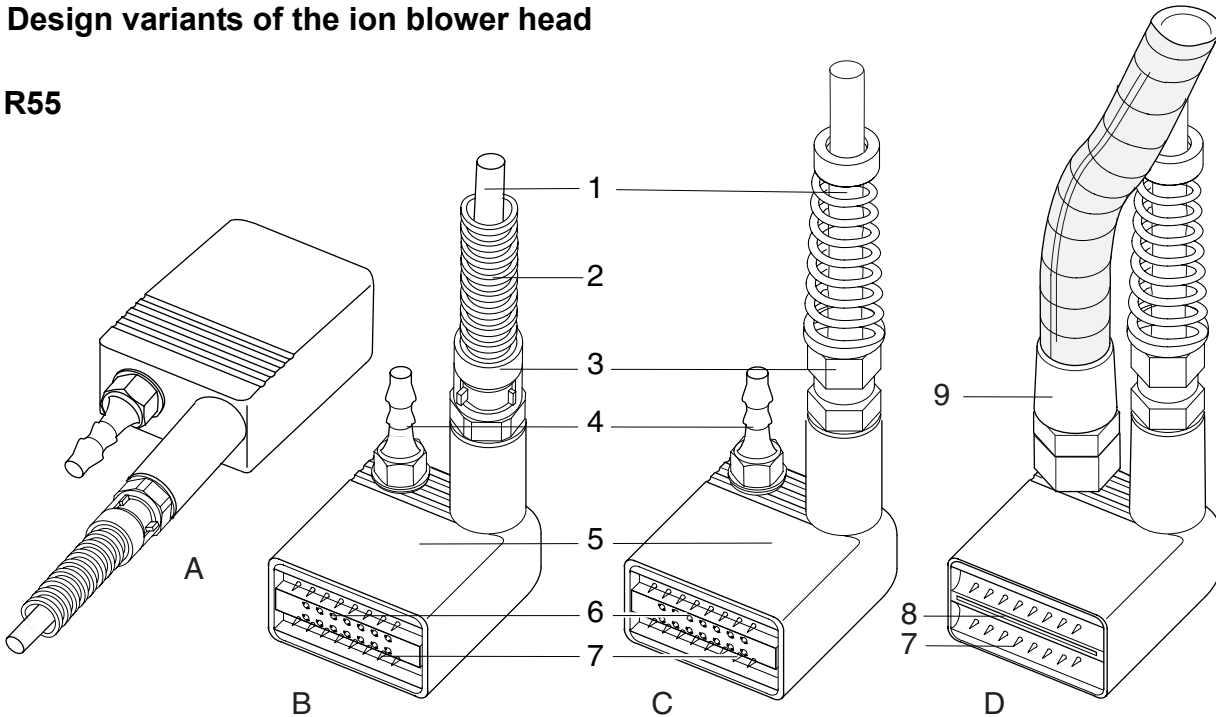
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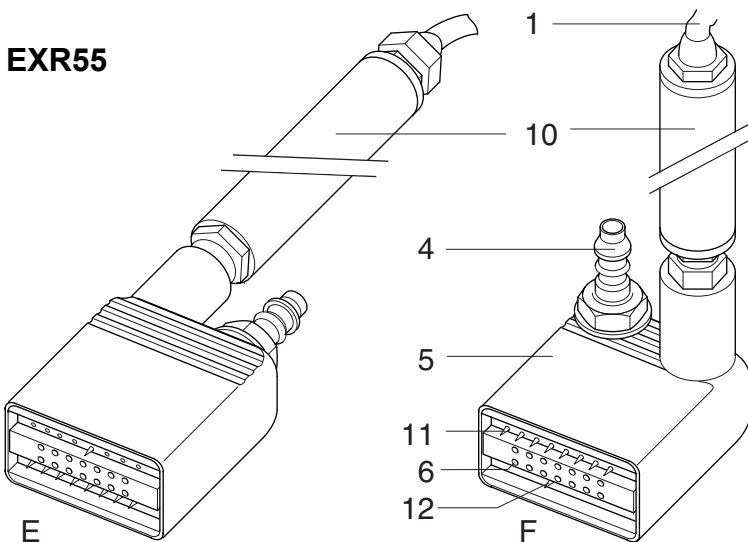
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## Design variants of the ion blower head

### R55



### EXR55



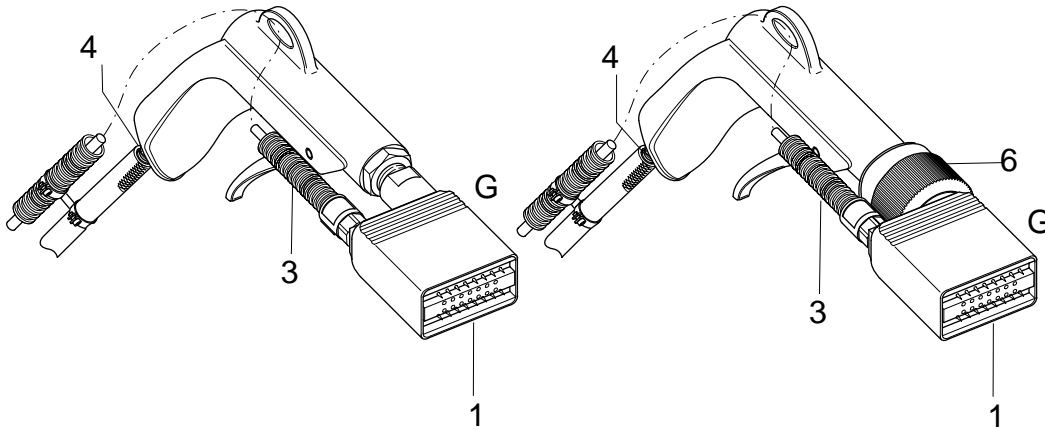
- 1 High voltage cable
- 2 Flexible tube
- 3 Cable gland
- 4 Air connection for air hose NW8
- 5 Blower head housing (POM)
- 6 Hole-type nozzle
- 7 Emission tips two rows
- 8 Fishtail nozzle
- 9 Air supply with flexible metal tube
- 10 Protective resistor EXRV55
- 11 Emission tips passive
- 12 Emission tip active (detachable)  
(air supply not included in the delivery)

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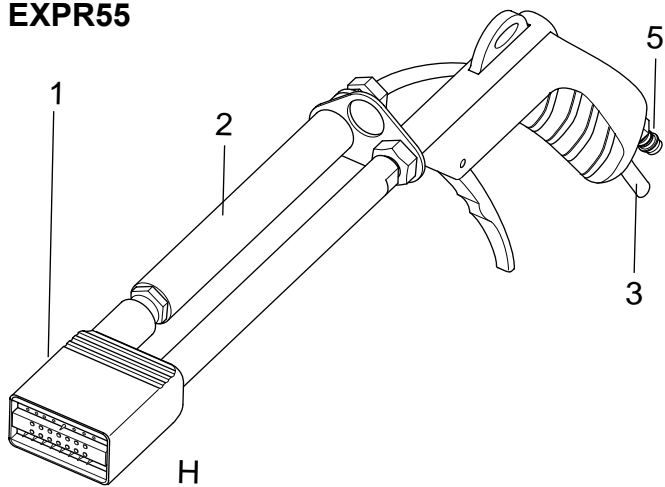
- Blower head connections: radial or axial
- Electrical connections: EXR55: high voltage cable without flexible tubing, R55: high voltage cable with or without flexible tubing
- Air outlet: through hole-type nozzles (turbulent air flow), through fishtail nozzles (optimized flow geometry for maximum reach)
- Brackets: standard bracket with steel angle pieces, universal bracket (rods), brackets with flexible metal tube (only for R55)

The different design versions can be freely combined in any configuration.

**Design variants of the ion blower pistol  
PR55**



**EXPR55**



- 1 Ion Blower Head  
(emission tips, hole-type nozzle,  
or opt. fishtail nozzle)
- 2 Protective resistor EXRV55
- 3 High voltage cable
- 4 Air connection for air hose NW10  
threaded connection in the pistol  
G 1/4"
- 5 Air connection NW8
- 6 Filter  
(air supply not included in the  
delivery)

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The PR55/EXPR55 ion blow pistol is available either with fishtail nozzle or with hole-type nozzles.  
The PR55 is available in the version PR55/F with grease filter for ultra-clean blowing air.

- A R55 axial design, high voltage cable with flexible tube
- B R55 radial design, high voltage cable with flexible tube, hole-type nozzle
- C R55 radial design, high voltage cable w/o flexible tube, hole-type nozzle
- D R55 radial design, high voltage cable w/o flexible tube, air supply with flexible metal tube, fishtail nozzle
- E EXR55 axial connection, with protective resistor EXRV55, hole-type nozzles
- F EXR55 radial connection, with protective resistor EXRV55, hole-type nozzles
- G PR55 with filter (PR55/N) and without filter (PR55/F)
- H EXPR55 with protective resistor EXRV55





## Technical specifications

Electrode element	acetate co-polymerisate POM, injection-moulded POM - Hostaform C 13021
Tracking resistance	DIN-IEC 112: CTI 600
Breakdown resistance	700 kV/cm, DIN 53481, VDE 0303 Part 2
Flame retardant property	UL 94-HB
Emission tips	R55/PR55: injected, current-limited and low capacitance EXR55/EXPR55: passive tips injected, active tip detachable
Operating ambient temperature	R55/PR55: 0...80 °C (+32...+176 °F) with blown air; blown air temperature max. 30 °C; 0...60 °C (+32...140 °F) w/o blown air EXR55/EXPR55: 0...70 °C (+32...+158 °F) with blown air; blown air temperature max. 30 °C; 0...60 °C (+32...140 °F) w/o blown air
Ambient humidity	max. 70%, no dewing permitted
Operating voltage	5 kV, 50/60 Hz
Short-circuit current emission tips/ground	0.040 mA
Contact protection	EN 61140:2003, paragraph 5.1.6
High voltage supply	R55/PR55: via Eltex ES5_ power supplies, operating voltage 5 kV AC EXR55/EXPR55: via Eltex ES53 power supplies, operating voltage 5 kV AC
High voltage cable	R55/PR55: shielded, prefabricated, exchangeable EXR55/EXPR55: non-detachable (specify length when ordering)
Assembly	with assembly material, available in different designs (see Fig.)
Dimensions	see Fig.
Weight (w/o bracket)	R55: approx. 100 g; EXR55: approx. 300 g PR55: approx. 200 g; EXPR55: approx. 450 g
Air connection	NW 8 mm hose (R55/EXR55/EXPR55) or NW10 hose (PR55) or flexible metal tube with a G1/4" connection
Air pressure	max. 6 bar



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## Technical specifications protective resistor EXRV55

<b>Protective resistor EXRV55</b>	Protective resistor with non-detachable, screened high voltage cable, integral part of the EXR55 ion blower head and of the EXPR55 ion blower pistol	 
Approval	PTB 00 ATEX 2071 X  II2G EEx m ib IIA T5  II3D T100°C if it is ensured that the flash power of the dust is >0.4 mJ.	
Max. safety voltage, power supply	$U_m = 250 \text{ V}$	
Ionization circuit	$U_0 = 5500 \text{ V}; I_0 = 0.067 \text{ mA}$	
Max. external capacitance	$C_0 = 20 \text{ pF}$	
Ambient operating temperature	-20... +70 °C (-4...+158 °F)	
Dimensions	see figures	
Weight	approx. 200 g	

The current approvals with their supplements can be found at: [service.eltex.de](http://service.eltex.de)

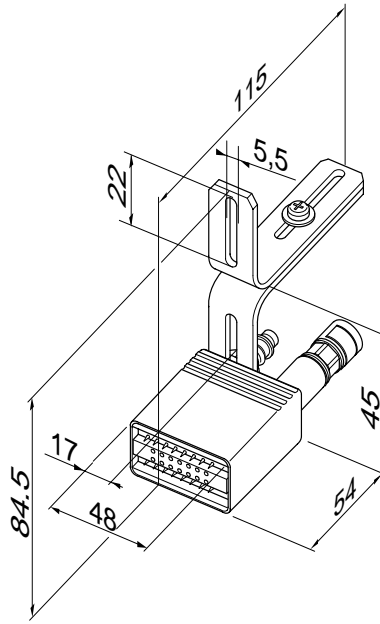
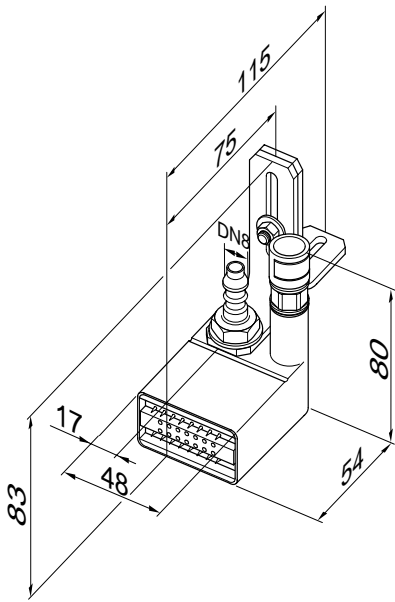
## Air consumption in m<sup>3</sup>/h (typical value)

Measured pressure in bar	0.2	0.5	1.0	1.5	2.0	2.5
Ion blower head radial with hole-type nozzles R55/RL - EXR55/RL	2.5	6.4	12.5	17.8	22.6	27.7
Ion blower head radial with fishtail nozzles R55/RB - EXR55/RB	1.8	4.7	9.5	13.5	18.1	22.1
Ion blower head axial with hole-type nozzles R55/AL - EXR55/AL	2.1	5.8	11.0	15.9	20.5	24.5
Ion blower head axial with fishtail nozzles R55/AB - EXR55/AB	1.0	2.8	5.5	8.3	11.2	14.2
Ion blower pistol with hole-type nozzles PR55/NL - EXPR55/L	1.0	2.7	5.0	7.3	9.6	11.5
Ion blower pistol with fishtail nozzles PR55/NB - EXPR55/B	0.9	2.5	4.8	7.1	9.2	11.1

## Accessories

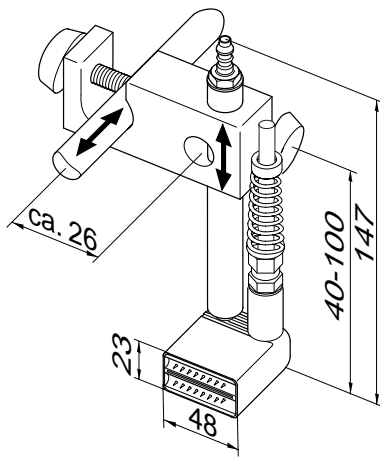
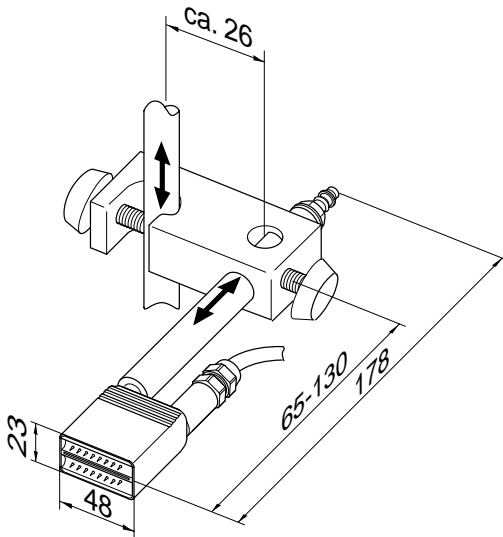
High voltage cable (specify length)	Article No.
High voltage cable from R55/PR55 to ES51 w/o flexible tube	KE/Sy ____
High voltage cable from R55/PR55 to ES51 with flexible tube	KE/Lw ____
EXPR55 with non-detachable high voltage cable for connection to ES51	EXPR55/NS ____

**Dimensions and brackets**



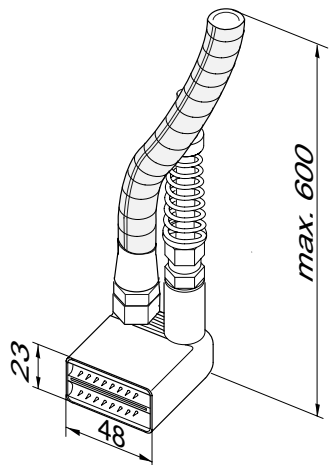
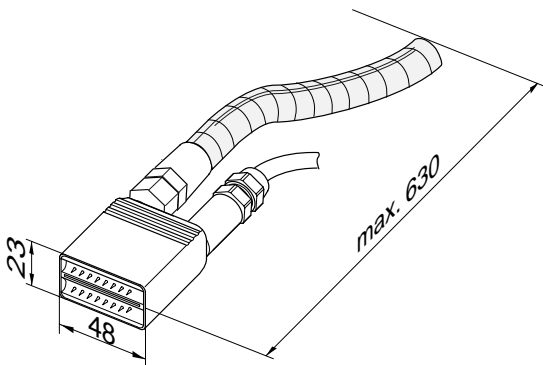
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R55 ion blower head radial and axial connection design, with standard bracket



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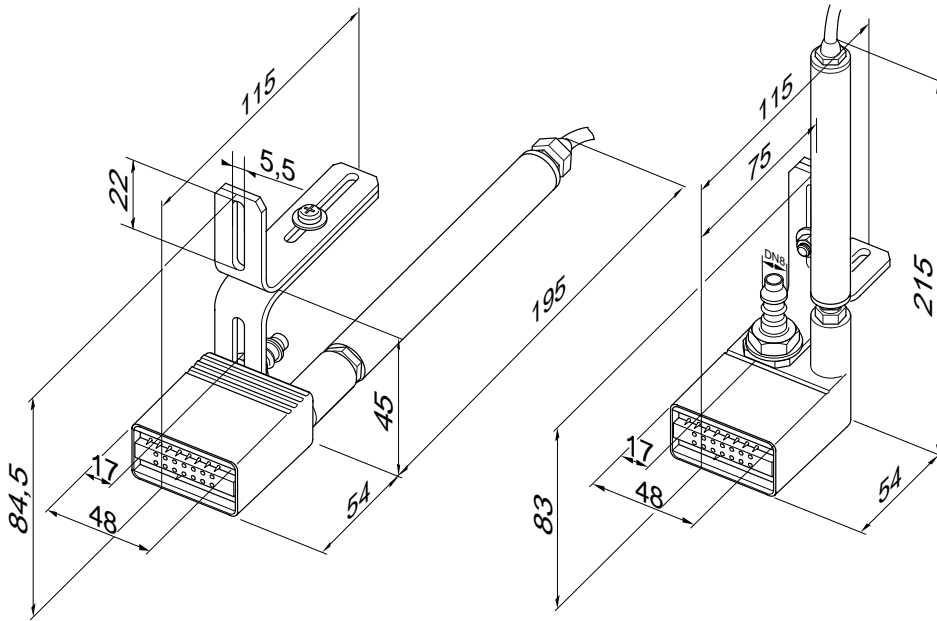
R55 ion blower head axial and radial connection design, with universal bracket



Z00028y

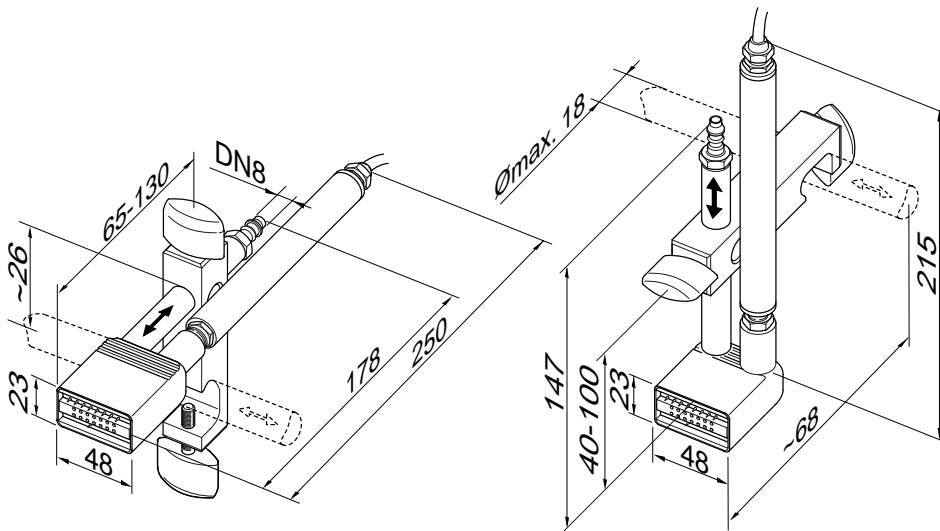
R55 ion blower head axial and radial connection design, bracket with flexible metal tube (air supply)

## Dimensions and brackets



Z00026y

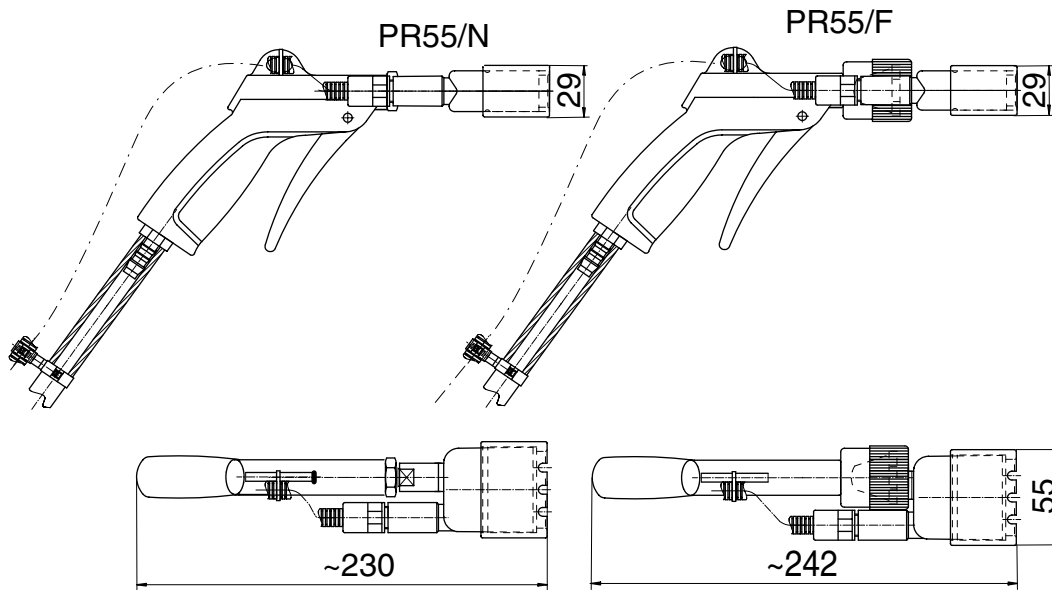
EXR55 ion blower head  
axial and radial  
connection design,  
with standard bracket



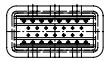
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EXR55 ion blower head  
axial and radial  
connection design,  
with universal bracket

## Dimensions



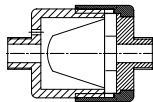
PR55 ion blower pistol, without and with filter



Hole-type nozzles

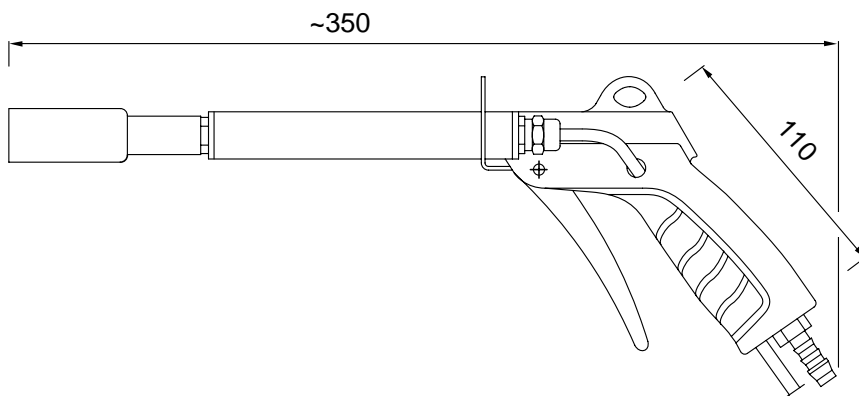


Fishtail nozzles



Filter

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EXPR55 ion blower pistol

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