



VENTILATION



CLEAN AND EFFICIENT

VENTILATION 56



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CLEAN

Range air is cleaned from lead dust before being reintroduced to the range or released back into the atmosphere.



AIR FLOW

Downrange air flow keeps the range comfortable by moving particulates away from the shooter's respiratory zone.

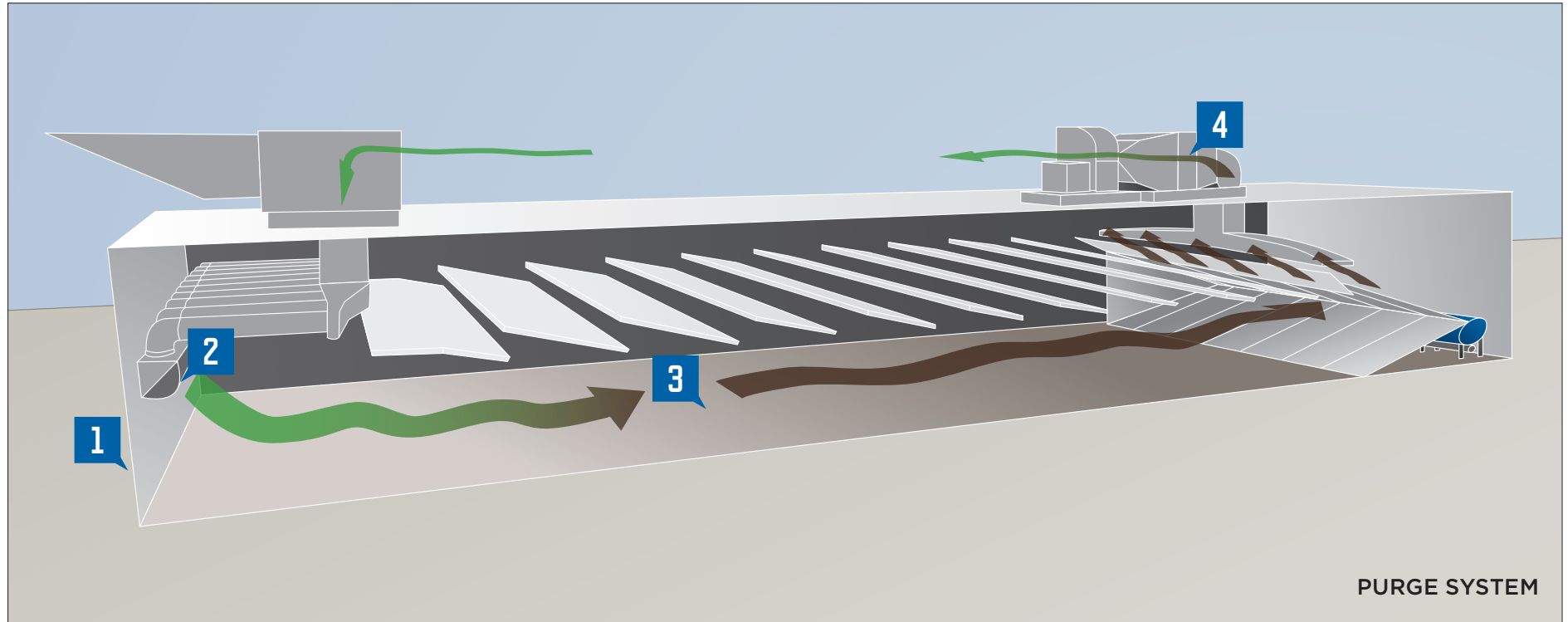


CLIMATE CONTROL

Systems adapt to changing environmental conditions to maintain required air speed and pressure conditions.

CLEAN AND EFFICIENT SHOOTING RANGE VENTILATION

Ventilation in a shooting range is an essential and vital component of the overall range design. Proper ventilation improves the shooter's experience and provides a safe atmosphere for employees and customers. Action Target provides 180-degree ceiling-mounted air delivery ventilation systems that exceed OSHA, EPA, and NIOSH regulations.



1 SYSTEM CONTROL

Available digital and analog systems give you control over the ventilation system and provide remote access for service and maintenance.



2 LAMINAR DIFFUSION

Clean air is introduced into the range behind the shooting line. A radial diffuser ensures the air is evenly distributed.



3 AIR FLOW

Negative air pressure draws hazardous dust safely away from the shooter toward the bullet trap where it enters a filtration system for a final cleaning process.



4 FILTRATION

Available purge and recirculation systems filter and collect contaminated air, meeting OSHA, EPA, and NIOSH requirements.

A SYSTEM FOR EVERY CLIMATE

Action Target offers a variety of ventilation systems to meet the needs of any range. Both purge and recirculation systems are available, as well as systems with heating and/or cooling. Ventilation can also be installed internally and externally.



PURGE SYSTEM

A purge system draws air from the atmosphere, introduces it into the range, filters the air, and then releases cleaned air back into the atmosphere. Purge systems use prefilters that are changed monthly and HEPA filters that are changed every 2,400 hours.

100% PURGE, HEATING ONLY

- Has two units: make up air (MAU) and range exhaust fan (REF).
- Primarily for colder, more humid climates (northeast, mid-west, Atlantic, Great Lakes, and northwest).

100% PURGE, HEATING, AND EVAPORATIVE COOLING

- Primarily for warmer, dry climates (southwest area).
- Air heated by a direct gas-fired system.



RECIRCULATION SYSTEM

A recirculation system reuses air from the range after filtering to ensure that reintroduced air is clean. Because the system uses air that is already cooled or heated, these systems require less energy to function.

RECIRCULATING HEAT AND MECHANICAL COOLING

- 75% recirculation and 25% outside air mix.
- Triple filtration (pre, mid, HEPA).
- Trane and Daikin cooling units.

VENTILATION AIRFLOW

Range Width	PURGE/RECIRCULATION SYSTEMS		RECIRCULATION SYSTEM	
	Supply Airflow at Firing Line (CFM)*	Exhaust Airflow at Bullet Trap (CFM)* 10% Greater than Supply	Recirculated Air (CFM)* 75% of Supply Air	Fresh Outside Air (CFM)* 25% of Supply Air
5 feet	3,000	3,300	2,250	750
10 feet	6,000	6,600	4,500	1,500
15 feet	9,000	9,900	6,750	2,250
20 feet	12,000	13,200	9,000	3,000
25 feet	15,000	16,500	11,250	3,750
30 feet	18,000	19,800	13,500	4,500
35 feet	21,000	23,100	15,750	5,250
40 feet	24,000	26,400	18,000	6,000
45 feet	27,000	29,700	20,250	6,750
50 feet	30,000	33,000	22,500	7,500
55 feet	33,000	36,300	24,750	8,250

VENTILATION FILTERS

Range Width	PURGE SYSTEM				RECIRCULATION SYSTEM					
	Pre-Filter (MERV-8)		Final Filter (HEPA, MERV-17)		Pre-Filter (MERV-8)		Mid-Filter (MERV-14)		Final Filter (HEPA, MERV-17)	
	QTY*	Size	QTY*	Size	QTY*	Size	QTY*	Size	QTY*	Size
5 feet	(2)	24" x 24" x 4"	(2)	24" x 24" x 12"	(2)	24" x 24" x 4"	(2)	24" x 24" x 12"	(2)	24" x 24" x 12"
10 feet	(4)	24" x 24" x 4"	(4)	24" x 24" x 12"	(4)	24" x 24" x 4"	(4)	24" x 24" x 12"	(4)	24" x 24" x 12"
15 feet	(6)	24" x 24" x 4"	(6)	24" x 24" x 12"	(6)	24" x 24" x 4"	(6)	24" x 24" x 12"	(6)	24" x 24" x 12"
20 feet	(9)	24" x 24" x 4"	(9)	24" x 24" x 12"	(9)	24" x 24" x 4"	(9)	24" x 24" x 12"	(9)	24" x 24" x 12"
25 feet	(9)	24" x 24" x 4"	(9)	24" x 24" x 12"	(9)	24" x 24" x 4"	(9)	24" x 24" x 12"	(9)	24" x 24" x 12"
30 feet	(12)	24" x 24" x 4"	(12)	24" x 24" x 12"	(12)	24" x 24" x 4"	(12)	24" x 24" x 12"	(12)	24" x 24" x 12"
35 feet	(15)	24" x 24" x 4"	(15)	24" x 24" x 12"	(15)	24" x 24" x 4"	(15)	24" x 24" x 12"	(15)	24" x 24" x 12"
40 feet	(15)	24" x 24" x 4"	(15)	24" x 24" x 12"	(15)	24" x 24" x 4"	(15)	24" x 24" x 12"	(15)	24" x 24" x 12"
45 feet	(18)	24" x 24" x 4"	(18)	24" x 24" x 12"	(18)	24" x 24" x 4"	(18)	24" x 24" x 12"	(18)	24" x 24" x 12"
50 feet	(20)	24" x 24" x 4"	(20)	24" x 24" x 12"	(20)	24" x 24" x 4"	(20)	24" x 24" x 12"	(20)	24" x 24" x 12"
55 feet	(24)	24" x 24" x 4"	(24)	24" x 24" x 12"	(24)	24" x 24" x 4"	(24)	24" x 24" x 12"	(24)	24" x 24" x 12"

*Values are approximate, based on average system size. Actual values may vary based on unique range conditions.

Learn more about Ventilation at
ActionTarget.com/Ventilation

