

ISO 16890

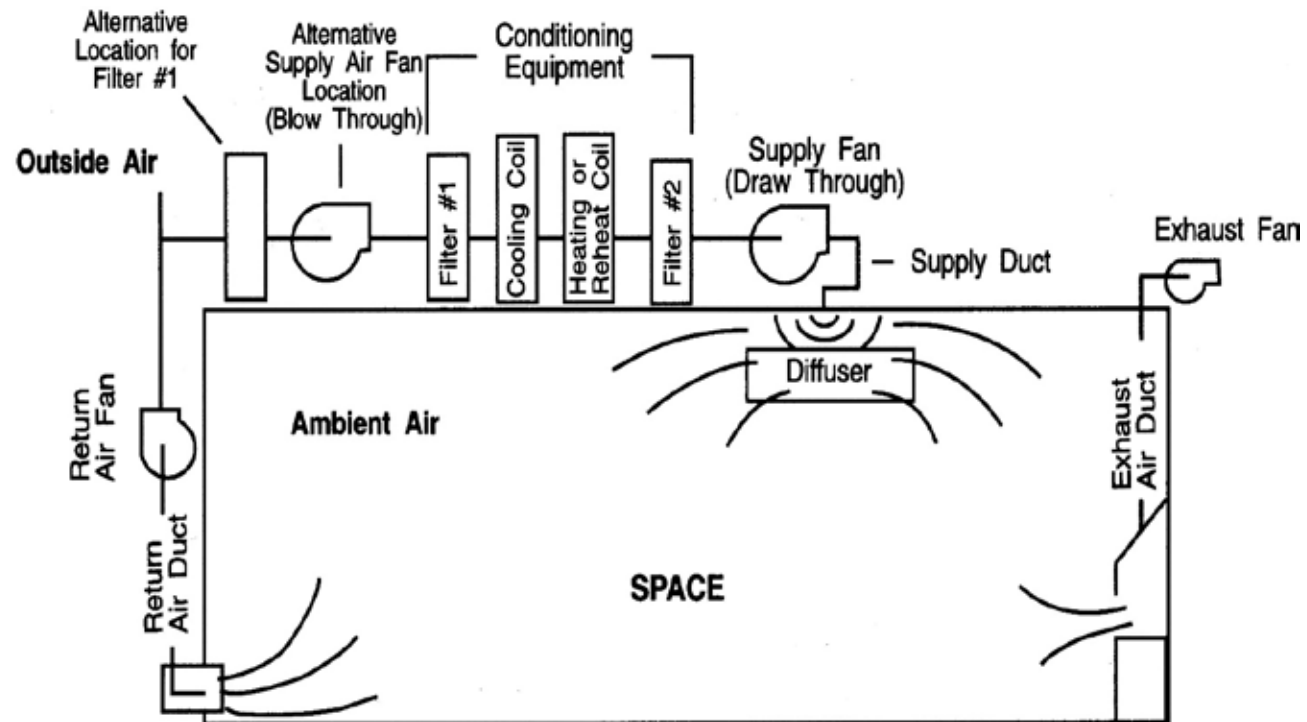


Agenda ISO 16890

- Relevance – To the North American Market
- Control – Effect input of the standards
- Education – Will this have an impact on market knowledge?
- Alternatives

Relevance

In the U.S., we rely heavily on recirculated air



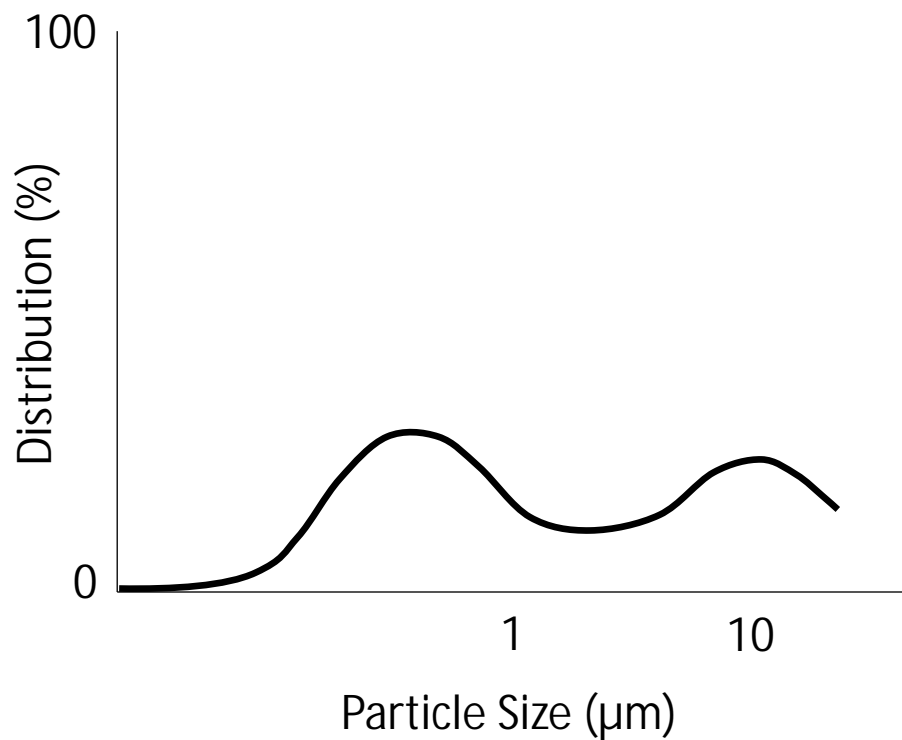
This contradicts using outdoor air distributions to assess our filters

**Image Source: NAFA Guide to Air Filtration*

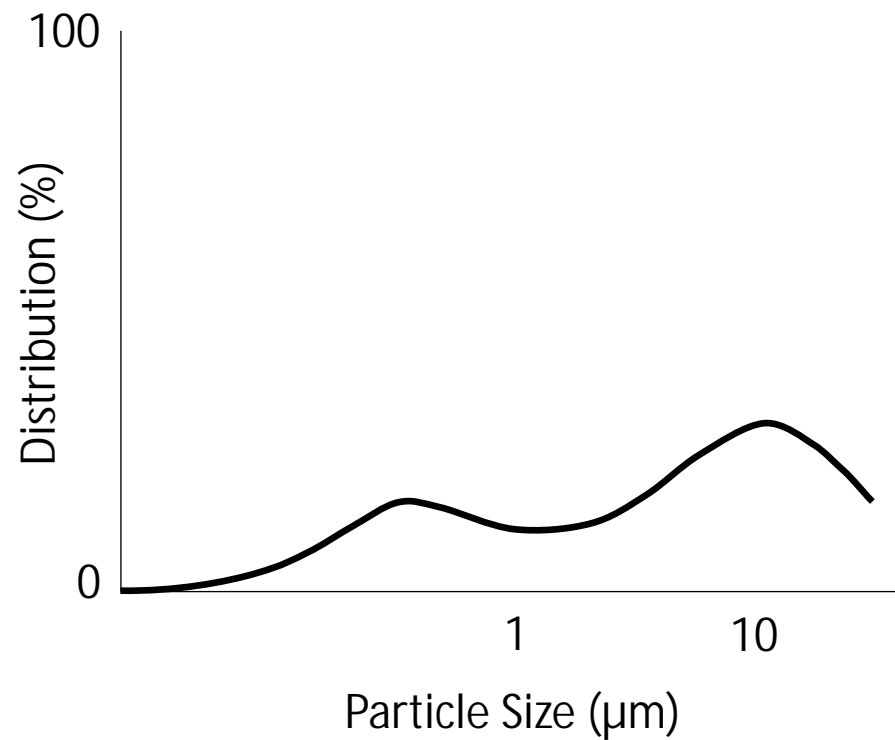
Relevance

ISO Calculates Using Outdoor Air Distributions

Urban Distribution (ePM1, ePM2.5)



Rural Distribution (ePM10, Coarse)



**Note: Images are approximations of ISO-used distribution curves and are not to scale.*

By Adopting ISO, Control U.S. Would Lose Control

- North America – over one-third of the global market
- In ISO, each country gets one vote
- Our market has different requirements
- If the industry abandons an ASHRAE standard, we will have limited ability to craft future standards

Education

Classifications: 52.2 vs. ISO 16890

- Many more classifications
- Many narrow bands
- Primarily focused on higher efficiency filters

52.2	16890			
Minimum Efficiency Reporting Value	ePM1	ePM2.5	ePM10	Coarse
1	50 – 55%	50 – 55%	50 – 55%	Initial Gravimetric Arrestance
2	55 – 60%	55 – 60%	55 – 60%	
3	65 – 70%	65 – 70%	65 – 70%	
4	70 – 75%	70 – 75%	70 – 75%	
5	75 – 80%	75 – 80%	75 – 80%	
6	80 – 85%	80 – 85%	80 – 85%	
7	85 – 90%	85 – 90%	85 – 90%	
8	90 – 95%	90 – 95%	90 – 95%	
9	>95%	>95%	<95%	
10				
11				
12				
13				
14				
15				
16				



Alternative Potential For 52.3?

- Committee is still debating new ideas for the standard
- Potential improvements to the fundamentals
- Testing using recirculated air

The Trouble With IPA Discharge

- Charged media provides real benefits in our market
- IPA vapor test is clearly designed to negate charge
- 52.2 committee voted against adding App J to standard – this would only be more extreme
- Smarter to allow market to decide where to go

	Mech 1	Mech 2	Charged
Pleat Count	16	27	19
E1	8.5%	8.3%	28.4%
E2	53.9%	40.9%	67.1%
E3	78.9%	66.5%	77.2%
Pressure Drop	0.293"	0.283"	0.270"

*Test results are Initials only, taken from filters advertised as MERV 8

In Summary

- 16890's design is not relevant to our market
- Adopting it will mean giving up control of our own standards
- It won't help educate end-users. In fact, it will cause more confusion.
- We need to make improvements with our market in mind