ISO 9001

ZANDER®

Microfilters

Precision Filtration Products

YOUR ONE STOP FOR FILTERS

MICROFILTERS

Compressed air is an important energy source in modern factories because it is flexible and reliable, however it is only fully efficient when it is clean.

The problem

Dust particles are ever present in the atmosphere. They are drawn in and intensified 8 times by the compressor. Additionally, depending on compressor type, oil in fine aerosol form goes into the compressed air network to cause problems. In a wet compressed system, rust particles, scale and other contaminants lead to:

- Production down time
- High repair costs
- Rejected products
- Missed delivery times.

Increased automation on the one hand and higher quality requirements on the other means that these unnecessary problems must be eliminated.

ZANDER has successfully solved these problems over many years using a modular range of purification equipment.

As one of the leading companies in the compressed air and gas purification business, we have now increased the quality even further to produce the new ZANDER Microfilter.

ZANDER Microfilters offer a unique solution to compressed air purification thanks to the modular range of products.

The ZANDER range includes filter housings from 1/4" NPT to 12" flanged connections and will operate at pressures from 0 – 5000 psig so that every requirement is met with a standard range of products. Larger housings and higher pressures are available upon request.

Economical – reliable – flexible

Economical thanks to the newly developed, environmentally friendly filter media.

Reliable thanks to the compact and easy to service construction.

Flexible because 5 filter qualities are available.

The high quality standards of the ZANDER Microfilter can be identified by both a normal reference number and an easy color coding which ensures that the correct element is selected each time.

The concept

The Microfilters are designed to work efficiently either on their own or in several combinations depending on the application.

Microfilter series V

The prefilter range mainly takes out particles from the compressed air.

Thanks to the use of materials specially developed for this duty, the user enjoys a long service life with constant efficiency.

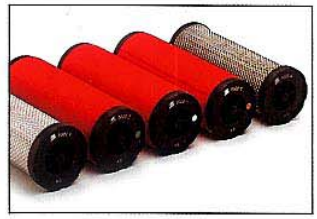
The efficiency is 99.99% of all particles of 3 micron and larger.

There are fine particles smaller than 3 micron, such as dust and especially oil aerosols which must be filtered out by a finer filter.

This is where the newly developed high efficiency depth Microfilter with its various grades are used.

Microfilter series Z (green)

Efficiency 99.99% at 1 micron. Oil retention down to $\triangleq \approx$ 0.5 ppm at 100 psig and 68°F.



Element series V, Z, Y, X, A

Microfilter series Y (white)

Efficiency 99.99% at 0.01 micron. Oil retention down to $\triangleq \approx$ 0.1 ppm at 100 psig and 68°F.

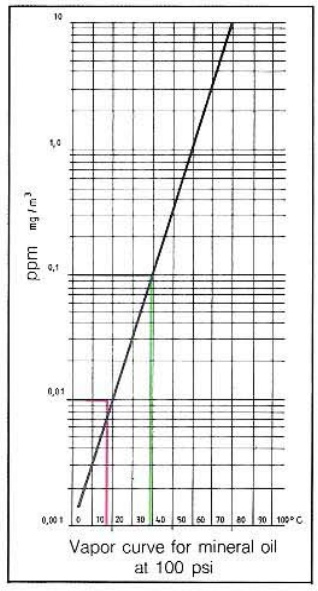
Microfilter series X (red)

Efficiency 99.9999% at 0.01 micron. Oil retention down to $\triangleq \approx$ 0.01 ppm at 100 psig and 68°F.

If an even better quality of compressed air than the series X filter is required to remove the oil vapors, then an adsorption type filter is required.

Microfilter series A

The Microfilter series A incorporates an activated carbon bed which adsorbs oil vapor. It is always preceded by a Microfilter series X to remove oil aerosols.



Vapor curve for mineral oil at 100 psi

4 PHASE FILTRATION

Microfilter series XA

The Microfilter combination XA gives technically oil free and clean air, which is essential for the protection of instruments, spray painting plants, food industry where compressed air comes into contact with product.

ZANDER filter technology

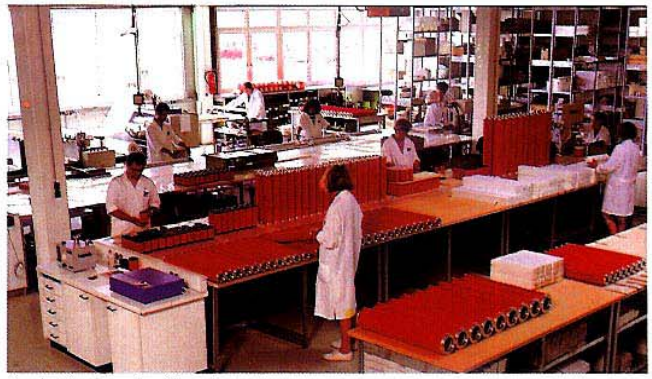
ZANDER has nearly two decades of experience using pleated filters as sterile filters, prefilters and adsorption filters in compressed air and gases. This experience has been incorporated in the latest ZANDER filter manufacturing facility.

ZANDER's application experience coupled with an aggressive research and development program has resulted in the ZANDER technology concept.

The market requires that the filter media have various degrees of efficiency so the four phases of filtration have different separation characteristics.

The pleating of the medium increases its stability under changing loads and reduces the specific surface tension. The results from this, is a higher load factor compared with conventional filters. This increases the flow capability and the dirt holding capacity.

The chart on the right shows the ZANDER advantage over conventional filters, a lower working pressure differential and a longer service life. The pleated filter element allows a higher dirt holding capacity with a comparable efficiency.



Production area for filter elements

The important criteria for the economical choice of a filter are:

- High flow capabilities
- Low differential pressure
- High dirt holding capacity by integrating the prefilter medium with the various final filtration layers.
- Long service life
- High product quality due to the latest manufacturing techniques

ZANDER Microfilter increases factory efficiency by reducing downtime and rejects. Product quality increases and delivery times decrease.

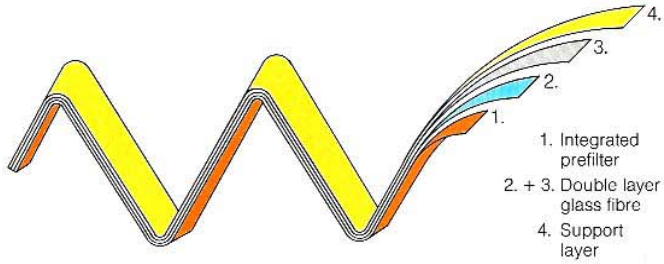
Environmentally friendly

Due to the abilities of the Microfilter range to remove dirt, oil and condensed moisture out of compressed air economically, the compressed air and gases exhausted to atmosphere are now cleaner than ever.

As costs are reduced using ZANDER Microfilter it means that it is now easier to install them in a plant thus enhancing the overall factory environment.

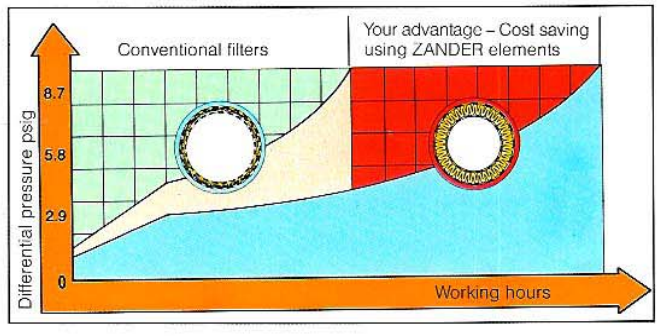
This cut away picture clearly shows the new 4 layer pleated element construction

4 Phase Filtration



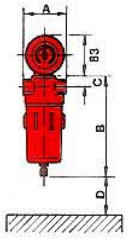
ecodrain

All Microfilters except the A range (activated carbon) come complete with automatic drain. For an even more reliable and efficient condensate removal from the filter housings, we offer our ecodrain float controlled drain as an option. Please see the ecodrain technical literature.



ZANDER®

Technical Data
Series V, Z, Y, X



Aluminium housings. Powder coated outer protection. G 3 D to G 19 D with differential pressure gauge type ZD 60

Carbon steel housings. Differential pressure gauge type ZD 70.

Type	Capacity (scfm) at 100 PSI effective working pressure nominal	maximum	Connection NPT/FL	Dimensions (inches) A	B	C	D	Max. operat. pressure (PSI)	Weight (lbs)	Filter element number/ type
G 2	18	24	¼"	2.36	6.57	0.06	2.36	228	1.76	1/1030
G 3	29	35	¼"	3.43	8.23	0.83	2.95	228	3.30	1/1050
G 5	41	47	⅜"	3.43	8.23	0.83	3.54	228	3.30	1/1070
G 7	59	71	½"	3.43	10.98	0.83	6.30	228	3.74	1/1140
G 9	106	118	¾"	5.12	12.40	1.69	5.31	228	9.46	1/2010
G 11	177	200	1"	5.12	16.34	1.69	9.25	228	11.00	1/2020
G 12	277	318	1½"	5.12	20.28	1.69	13.19	228	12.10	1/2030
G 13	412	471	1½"	5.12	28.15	1.69	20.67	228	15.18	1/2050
G 14	553	618	2"	6.46	32.40	1.89	20.47	228	21.12	1/3050
G 17	853	924	2"	6.46	42.24	1.89	30.31	228	39.38	1/3075
G 18	1,142	1,324	2½"	9.84	41.42	2.91	24.02	228	44.00	1/5060
G 19	1,412	1,648	3"	9.84	47.32	2.91	29.92	228	60.50	1/5075
F 17	853	924	3" FL	14.96	49.61	6.69	20.87	228	118.80	1/3075
F 19	1,412	1,648	3" FL	17.32	51.57	7.87	20.87	228	176.00	1/5075
F 20	1,707	1,848	4" FL	19.68	56.69	9.05	21.65	228	237.60	2/3075
F 30	2,560	2,772	4" FL	19.68	56.69	9.05	21.65	228	242.00	3/3075
F 40	3,413	3,696	6" FL	25.20	62.60	11.02	21.65	228	332.20	4/3075
F 60	5,120	5,544	6" FL	31.10	65.35	11.81	21.65	228	466.40	6/3075
F 80	6,827	7,392	8" FL	31.10	68.70	13.38	21.65	228	510.40	8/3075
F 100	8,533	9,239	8" FL	33.07	70.08	14.17	21.65	228	785.40	10/3075
F 120	10,240	11,087	10" FL	37.00	75.98	16.53	23.62	228	1001.00	12/3075
F 160	13,653	14,783	10" FL	37.00	75.98	16.53	23.62	228	1016.40	16/3075
F 200	17,066	18,479	12" FL	37.00	77.16	17.22	23.62	228	1161.60	20/3075

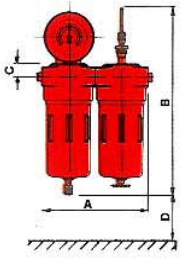
Nominal initial pressure differential in clean condition

Series V = 0.44 psig
Series Z = 0.44 psig
Series Y = 0.73 psig
Series X = 1.31 psig

Performance:

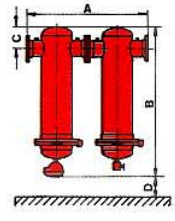
Series V = 99.99% at 3 micron
Series Z = Oil retention* down to 0.5 ppm
Series Y = Oil retention* down to 0.1 ppm
Series X = Oil retention* down to 0.01 ppm
*at 68°F and 101.5 psi

Technical Data
Series XA



Aluminium housings. Powder coated outer protection. G 3 XAD OP to G 19 XAD OP with differential pressure gauge ZD 60 on the first stage and oil indicator type 01 (option) on the second activated carbon stage.

Type	Capacity (scfm) at 100 PSI effective working pressure nominal	maximum	Connection	Dimensions (inches) A	B	C	D	Max. operat. pressure (PSI)	Weight (lbs)	Filter element number/type 1. stage	2. stage
G 2 XA	18	24	¼"	4.72	6.57	0.06	2.36	228	3.52	1/1030 X	1/1030 A
G 3 XA	29	35	¼"	6.86	8.23	0.83	2.95	228	6.60	1/1050 X	1/1050 A
G 5 XA	41	47	⅜"	6.86	8.23	0.83	3.54	228	6.60	1/1070 X	1/1070 A
G 7 XA	59	71	½"	6.86	10.98	0.83	6.30	228	7.48	1/1140 X	1/1140 A
G 9 XA	106	118	¾"	10.24	12.40	1.69	5.31	228	19.58	1/2010 X	1/2010 A
G 11 XA	177	200	1"	10.24	16.34	1.69	9.25	228	23.54	1/2020 X	1/2020 A
G 12 XA	277	318	1½"	10.24	20.28	1.69	13.19	228	25.52	1/2030 X	1/2030 A
G 13 XA	412	471	1½"	10.24	28.15	1.69	20.67	228	31.24	1/2050 X	1/2050 A
G 14 XA	553	618	2"	13.38	32.40	1.89	20.47	228	43.34	1/3050 X	1/3050 A
G 17 XA	853	924	2	13.38	42.24	1.89	30.31	228	56.76	1/3075 X	1/3075 A
G 18 XA	1,142	1,324	2½"	20.28	41.42	2.91	24.02	228	88.00	1/5060 X	1/5060 A
G 19 XA	1,412	1,648	3"	20.28	47.32	2.91	29.92	228	122.76	1/5075 X	1/5075 A
F 17 XA	853	924	3" FL	29.92	49.61	6.69	20.87	228	237.60	1/3075 X	1/3075 A
F 19 XA	1,412	1,648	3" FL	34.65	51.57	7.87	20.87	228	352.00	1/5075 X	1/5075 A
F 20 XA	1,707	1,848	4" FL	39.37	56.70	9.06	21.65	228	473.00	2/3075 X	2/3075 A
F 30 XA	2,560	2,772	4" FL	39.37	56.70	9.06	21.65	228	481.80	3/3075 X	3/3075 A
F 40 XA	3,413	3,696	6" FL	50.39	62.60	11.02	21.65	228	666.60	4/3075 X	4/3075 A
F 60 XA	5,120	5,544	6" FL	62.20	65.35	11.81	21.65	228	935.00	6/3075 X	6/3075 A
F 80 XA	6,827	7,392	8" FL	62.20	68.70	13.39	21.65	228	1,027.40	8/3075 X	8/3075 A
F 100 XA	8,533	9,239	8" FL	66.14	70.08	14.17	21.65	228	1,577.40	10/3075 X	10/3075 A
F 120 XA	10,240	11,087	10" FL	74.02	75.98	16.54	23.62	228	2,013,00	12/3075 X	12/3075 A
F 160 XA	13,653	14,783	10" FL	74.02	75.98	16.54	23.62	228	2,037.20	16/3075 X	16/3075 A
F 200 XA	17,066	18,479	12" FL	74.02	75.98	17.72	23.62	228	2,327.60	20/3075 X	20/3075 A



Carbon steel housing. Differential pressure gauge type ZD 70 on the first stage and oil indicator type 01 (option) on the second activated carbon stage.

Nominal initial pressure
Differential in clean condition

Series XA 2.9 psig

Performance

Oil retention down down to ≦ 0.005 ppm at 68°F and 100 psig

Conversion factor f for other operating pressures

Pressure, psig	14	28	43	57	71	86	100	114	128	142	157	171	186	200	214	228
f =	0.25	0.38	0.5	0.65	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

ZANDER produces:

Microfilters for oil-free and clean compressed air and gases · Activated-carbon adsorbers for odour-free and neutral compressed air · Sterilizing filters for aseptic compressed air · Steam filters · Ventilation filters · Autoclave filters · Vacuum filters · High-pressure filters up to 5000 psi · Microfilter mufflers · MIN-DRY terminal dryers Electronically controlled condensate drain: series ecodrain · Oil/Water separating systems: series ecosep, aquafil, aquatec · Heat regenerated adsorption dryers: series WI, WE, WEV, WK · Heatless regenerated adsorption dryers: series KEN, KEA, KEP, HDK · Adsorption drying installations for special gases, such as CO_2, natural gas, inert gas · Refrigeration dryers · Breathing air processing equipment ecolight · ecopac · Dew point meter

We reserve the right to change design and dimensions.

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