

ACTIVATED CARBON TOWER - TAC

DESCRIPTION

TAC activated carbon towers have been developed for separating oil vapours from compressed air⁽¹⁾ (dry type separation). TAC series is made from high quality carbon steel. Flow distributors ensure uniform distribution of air flow through activated carbon bed. Oil vapours as well as some other hydrocarbons are separated due to adsorption process. Super fine coalescing filter is required upstream TAC and 1µm dust filter is recommended downstream to intercept activated carbon dust.

APPLICATIONS⁽²⁾

- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

⁽¹⁾For any other technical gas please contact us or your local dealer

⁽²⁾TAC activated carbon tower can be used in variety of applications. For applications not listed please contact us or your local dealer.



ACTIVATED CARBON TOWER RATING ACCORDING TO ISO8573-1

Solid particles	Water	Oil
-	-	0 / 1

TECHNICAL SPECIFICATION

Operating temperature	1,5 - 50 °C	35 – 122 °F
Operating pressure	0 - 16 bar(g)	0 - 232 psi
Differential pressure	Approx. 100mbar	0,29 psi
Oil vapour content (nominal) ⁽³⁾	< 0,003 mg/m ³	

⁽³⁾at inlet concentration < 0,01 mg/m³, liquid content should be removed in advance by fine coalescing filtration

MATERIALS

Housing material	Carbon steel
Fittings, Screws	Brass, Brass-zinc plated, Steel
Sealing	Teflon
Corrosion protection (internal)	Hot-dip galvanizing (on request)
Outside protection	Powder paint coated (Epoxy-polyester base)
Lubricant	Shell cassida grease RLS 2

SIZES

ADSORBER HOUSING	CONN. SIZE ⁽⁵⁾	FLOW CAPACITY ⁽⁴⁾		DIMENSIONS			ACTIVATED CARBON	VOLUME	WEIGHT
		[m ³ /h]	[scfm]	A[mm]	B[mm]	C[mm]			
TAC 110	G 1"	110	86	1545	350	287	10	20	45
TAC 150	G 1"	150	117	1795	350	287	12	25	52
TAC 200	G 1"	200	157	1550	400	318	17	36	71
TAC 250	G 1"	250	204	1800	400	318	21	46	83
TAC 300	G 1 ½"	300	251	1565	450	373	27	55	97
TAC 400	G 1 ½"	400	321	1815	450	373	33	70	114
TAC 600	G 1 ½"	590	462	1880	450	425	48	105	160
TAC 800	G 2"	770	603	1930	650	452	61	130	201
TAC 1000	G 2"	1000	784	1985	600	503	77	170	242

⁽⁴⁾Refers to 1bar(a) and 20°C at 7 barg operating pressure and inlet temperature 20°C

⁽⁵⁾Standard connections: inlet top left, outlet bottom right (optional connections: inlet top right, outlet bottom left)

PRESSURE EQUIPMENT DIRECTIVE PED 2014/68/EU (Fluid group 2)

TAC 110 - 300	Category 2, Module H
TAC 400 - 1000	Category 3, Module H

CORRECTION FACTORS

To calculate the correct capacity of a given tower based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s).

CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x C_{OP} x C_{OT}

OPERATING PRESSURE

[bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
C _{OP}	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,0	2,13

OPERATING TEMPERATURE

[°C]	20	25	30	35	40	45	50
C _{OT}	1	0,98	0,97	0,92	0,86	0,75	0,6

MAINTENANCE

Replace activated carbon every 12 months or sooner if required. Check residual oil content with oil indicator monthly.

