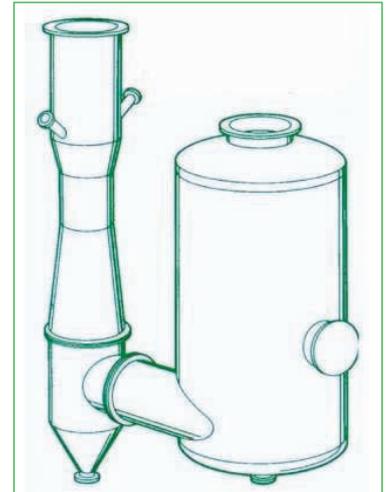


## Series 720 Venturi Fume Scrubbers

### Series 720 Venturi Scrubbers

Maskell Series 720 Venturi Scrubbers are designed to efficiently remove fumes, dust, solids and aerosols ranging in size down to 0.1 micron. This is accomplished by contacting the particulate laden gas stream with the scrubbing liquid (most commonly water) in a highly turbulent, high velocity venturi throat. As the droplets contact the particulate they begin to agglomerate in the diverging or evase section of the venturi. The entrained droplets now contaminated with particulate matter are removed from the gas stream by means of a cyclonic separator. The cleansed gas exits the top of cyclone while the recovered scrubbing liquid is returned to a separate sump tank for recycle. By selecting the appropriate pressure drop (which relates directly to throat velocity) efficiencies of 99 %+ can be achieved over the entire range of particle sizes. Although standardised in size and capacity, each individual unit is custom designed and engineered to meet the specific requirements of each application.



### Series 720 Applications

Maskell Series 720 Venturi Scrubbers have proven performance records for fume and dust control in the fertilizer industry (both in general ventilation and ventilation of specific processes), foundries, chemical plants, pulp and paper, food and food processing, smelting, aluminium processing, galvanizing and chemical waste incinerators. In general, the Series 720 Scrubbers are effective for removal of submicron sized particulates (both solid and liquid), heavy particulate loads that would clog other devices, and removal of gummy, tacky or scaling materials.



### Series 720 Features

Principal features of the Series 720 Venturi Scrubber are:

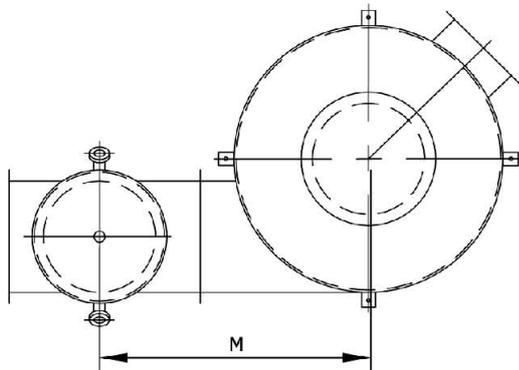
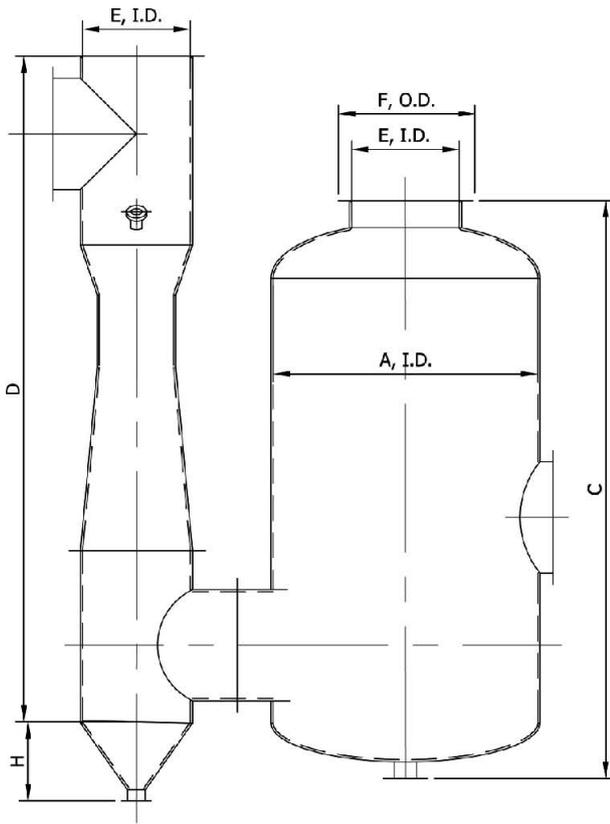
**Low maintenance cost** - No moving internal parts to wear. Large spray nozzles are used on the scrubbers to provide uniform distribution of liquid into the in-coming gas stream. The spray nozzles have large orifices and are designed to be non-clogging. They are strategically located such that they can be removed for inspection and/or replacement without having to shut down the equipment.

**High efficiency** - Proper sizing and selection of pressure drop will result in efficiencies exceeding 99% for particles ranging in size down to 0.1 micron. Since the throat section is made removable, new inserts can be provided to either increase or decrease the pressure drop to meet changing gas stream conditions.

**Low initial cost** - standard designs are available in capacities from 3,000 m<sup>3</sup>/hr to 114,000 m<sup>3</sup>/hr .

**Extended service life** - Individual units are designed with maximum corrosion resistance as a primary consideration. The wide selection of corrosion resistant materials feature FRP (fibreglass reinforced plastic) as a standard material with stainless steel and other alloy construction available.

## Series 720 Venturi Fume Scrubbers



### Series 720 Equipment Selection

The air or gas volume required to ventilate the process is the principal guide in selecting the proper sized scrubber. Where the specific volume of air required is not already known, references such as the Industrial Ventilation Handbook should be consulted. After determining the total air volume to be scrubbed, the efficiency of the unit must then be selected. The required efficiency will depend upon several factors including type of particulate, size distribution, concentration, plant location, local and national codes.

Maskell's engineers will then assist in determination of pressure drop, recirculation rate, specific material selection, as well as sizing and specification of accessory items (pumps, recirculation tanks, fans, etc.) to make the system complete. Maskell's engineers will then provide a specific quotation on the appropriate scrubber and/or system.

**Important** - The data and information represented herein refers to typical values by the methods or apparatus indicated and should be so considered. Since processing variables are a major factor in product performance, this information should serve only as a guide. Any information presented herein should not be assumed to be free of patent coverage nor taken as an inducement or encouragement to infringe if patents exist claiming the methods, apparatus or products herein described. No warranty, therefore, is thereby given concerning the existence or non-existence of any patents claiming any pertinent subject matter presented herein. The company assumes no obligation, express or implied, or liability for use of the information and data presented.

Size	A	C	D	E	F	H	M	Gas Flow	Liquid Rate
								m <sup>3</sup> / hour	litres / min
720-2	600	1500	1700	250	350	280	650	3060	53
720-3	900	2100	2200	350	450	300	950	7140	114
720-4	1200	2700	2900	500	600	450	1300	12750	204
720-5	1500	3400	3400	600	700	500	1500	19550	303
720-6	1800	3900	4100	750	850	650	1800	28050	432
720-7	2000	4500	4900	900	1050	750	2100	39100	636
720-8	2500	5200	5800	1050	1200	850	2400	51000	863
720-9	2700	5800	5400	1050	1200	850	2600	64600	1060
720-10	3000	6400	6100	1200	1300	1000	2900	79900	1340
720-11	3500	7000	7000	1350	1500	1100	3200	96900	1590
720-12	3700	7700	7800	1500	1600	1200	3500	113900	1840



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