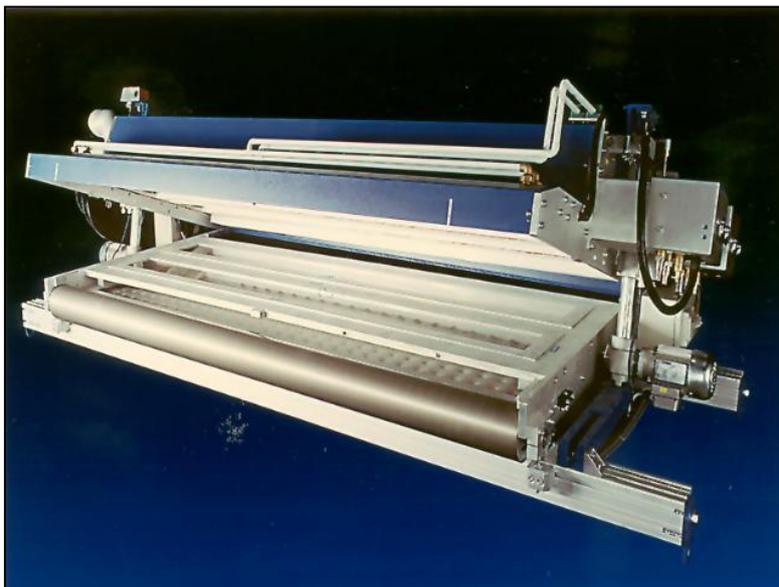


Mobile UV unit for the curing of TEGO® RC products

Test Facility

The new mobile UV station is a successor to our first inerted UV unit for the European market (sold to an European customer) and will serve as a demonstration unit for all interested customers in Europe to practically prove the advantages of Goldschmidt's catalyst-free and "cold-curing" TEGO® RC Silicones on almost all paper and film substrates.

The mobile UV station, designed and built by Messrs. Eltosch/Hamburg in co-operation with Goldschmidt, contains two banks of UV arc lamps, 160 watts/cm each, and an inerted base plate. The UV power allows line speeds up to 400 m/min. depending on the RC Silicone acrylate blend used. The maximum working width is 160 cm for paper or filmic liner substrates.



The complete demonstration unit includes a nitrogen distributor and residual oxygen analyser. We have intentionally excluded complicated automatic control systems to guarantee flexible operation under every possible working condition.

The inerted UV unit was designed for ease of installation into existing coating equipment. The equipment is mounted on the customer's coating line and connected to the existing supply systems. A contractual arrangement concerning the use of the UV equipment will be signed between Goldschmidt AG and the customer.

Technical Specifications

Working width (web width)	max.	1 600 mm	(63 inch)
Length (in direction of web travel) incl. suction unit		1 500 mm	(59 inch)
Overall height (closed)	approx.	750 mm	(30 inch)
Overall height (open)	approx.	850 mm	(34 inch)
Overall width	approx.	2 500 mm	(99 inch)

Electrical Supply (connection loads are given for each UV module)

Line voltage:	3 x 400 V, 50/60 Hz
Connection:	terminal L1 /L2/L3/PE
Power input:	approx. 55 KVA
Fuse (asymmetric load):	max. approx. 117 A
Mains fuse (customer side):	125 A (for each UV module)

Important note: The mains fuse refers to the maximum UV output of 160 W/cm; lower fuses are possible if the UV output is reduced accordingly. The two switch cabinets are to be protected by fuse separately.

Different line voltages are possible also, details will be checked for the individual case.

Water Supply

Drinking water is required with open drainage or cooling water circulation under pressure with an overpressure of 1.0 bar. (The pressure limit has to be guaranteed by the customer.)

Inlet temperature:	max.	25 °C	(77 F)
Quantity:	max.	1 300 l/h	344 US gal/h

Exhaust Air

Altogether the UV lamps require approx. 2 700 m³/h (95 350 ft³/h) cooling air. An integrated fan will convey the air out of the UV unit. The customer needs to take care for the further guidance of exhaust air. The extracted air contains a minute quantity of ozone.

Nitrogen Supply

The chemical reaction during the curing process requires the absence of oxygen in the curing chamber. The oxygen content shall not exceed 50 ppm. The UV unit is equipped with an oxygen analyser for the monitoring of the oxygen concentration.

Nitrogen consumption (depending on trial conditions):	50 – 150 m ³ /h	1 765 – 5 300 ft ³ /h
Nitrogen quality:	4.6	

The above nitrogen quality corresponds to a residual oxygen content of ≤ 5 ppm. A higher oxygen content in the nitrogen used would lead to an increased inert gas consumption. The supplier of the nitrogen has to be made aware of these conditions.

Please contact Goldschmidt for further discussions and trials.

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