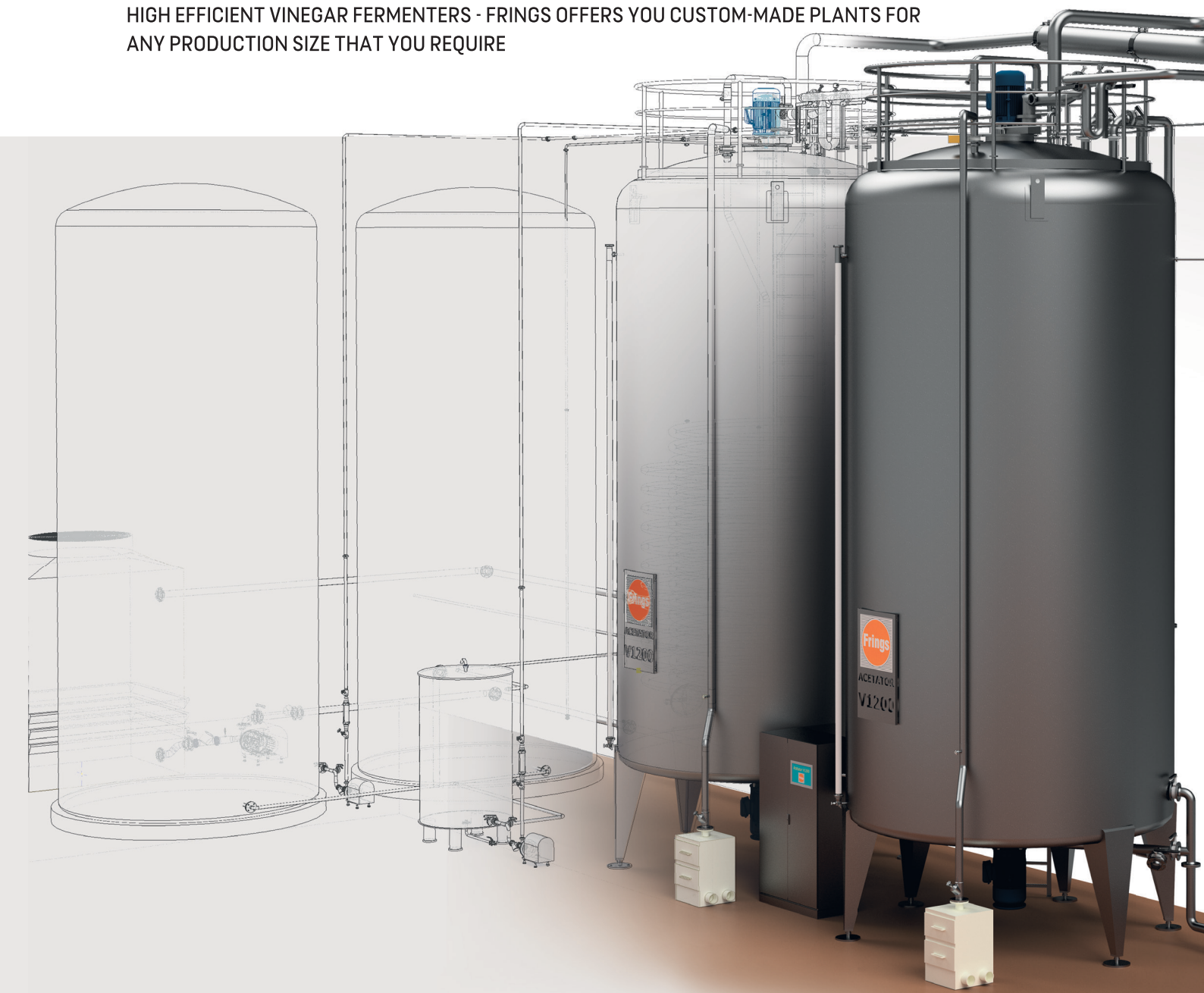


# FRINGS ACETATORS

## THE HEART OF YOUR VINEGAR PRODUCTION



HIGH EFFICIENT VINEGAR FERMENTERS - FRINGS OFFERS YOU CUSTOM-MADE PLANTS FOR ANY PRODUCTION SIZE THAT YOU REQUIRE



### Advantages:

- FRINGS is the world market leader of vinegar technology & inventor of submerged fermentation
- Longevity of all installed components
- Outstanding performance
- Extensive know-how - since 1878
- Highest efficiency
- Sophisticated automation standard
- High flexibility - all types of vinegar can be produced
- Minimal maintenance required

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## THE HEART OF YOUR VINEGAR PRODUCTION

### Description

FRINGS has developed all important innovative process technologies for vinegar production. Our invention of the submerged fermentation process in the ACETATOR was a milestone and industry defining. The continuous optimization and the consistent application of the latest methods of process control and filtration technology led to higher production performances, yields and acid strengths.



The FRINGS ACETATOR

### Scope of supply

We supply the core technology and all relevant subsidiary aggregates, from emergency backup generators to exhaust air scrubbers. Our ACETATORS generally consist of the following main high-quality components which work together seamlessly:

- High performance original aeration technology
- Tank and cooling coil made of high quality stainless steel
- Reliable defoaming system
- All necessary pumps and pipes
- Sensors - for the reliable measurements of all needed process data
- User-friendly SIEMENS based process control

### Sizes and processes

FRINGS offers systems for any production volume you require. The FRINGS pilot ACETATORS are ideally suitable for the production of your special vinegar. FRINGS offers ACETATORS for industrial scale, the largest version of which successfully produces more than 20 million litres of 10% vinegar per year for our customers. In addition to the standard series, ACETATORS are also available as Super-Charged (SC) a greatly enhanced performance version. We offer powerful solutions for producing high-quality wine, fruit and alcohol vinegars up to an acidity of 14,5%, the so-called standard process. Likewise, the single-stage high strength process (SSHS) developed by FRINGS enables the production of alcohol vinegar with an acidity considerably in excess of 20,0%.

Acetator Type	Operating Vol. [L]	Diameter [m]	Vinegar per year (10%) [L]	
			Standard	SC
F200	200	0.5	21,000	
F300	300	0.5	30,000	
V25	1,000	1	100,000	
V50	2,000	1.2	200,000	
V75	3,000	1.2	300,000	
V150	6,000	1.6	600,000	
V300 / V450	12,000	2.2	1,200,000	1,800,000
V600	24,000	3	2,400,000	> 3,600,000
V900	36,000	3.5	3,600,000	> 6,400,000
V1200	48,000	3.8	4,800,000	> 9,000,000
V1500	60,000	4	6,000,000	> 12,000,000
V1800	72,000	4.4	7,200,000	> 15,000,000
V2400	>96,000	4.8	9,600,000	> 19,000,000



ACETATOR Type F200