

## Vacmobile Modular 2S

1 vacuum pump  
12 litre resin trap

### The well proven vacuum system for manufacturing infused, or vacuum bagged composite parts

Simple to use and maintain, the Modular 2S has been purpose designed for vacuum applications in composites including resin infusion, vacuum bagging and pre-preg laminating. This system has been used around the world since 2010 by composite manufacturers, training facilities and research institutes. The Modular

I would like to congratulate you for putting in so much attention and thought. It must be the first time that I feel that what we bought was worth every penny."

Instinct Marine  
(Boatbuilder, UAE)

2S is based on a sturdy, but lightweight and mobile, docking cart. The bottom station of the cart will accommodate the vacuum pump models shown on page 2. The top station of the cart accepts the very effective Vacmobile RT19 resin trap. This resin trap has resin catching capacity of 12 litres (3.1 US gallons). Up to 8 of Vacmobiles' high integrity O-ring sealed vacuum connections can be made available on

the resin trap lid. With the unique locking system, both the pump module and the resin trap module can be replaced with back-up modules in less than a minute. This is great for peace of mind when making high value laminates.



Although we recommend having access to at least 2 vacuum systems when infusing large and high value composites, a single Modular 2S machine will comfortably infuse laminates up to 100 m<sup>2</sup> (1,100 ft<sup>2</sup>) and larger, as long as the resin overflow from the laminate can be limited to 12 litres (3.1 US gallons). For information on controlling the resin overflow from infused laminates, please see our website note "Peel ply resin breaks" ([http://www.vacmobiles.com/peel\\_ply\\_resin\\_breaks.html](http://www.vacmobiles.com/peel_ply_resin_breaks.html)).

### End Vacuum Adjustment Valve (EVA Valve) now standard on high vacuum VSV-20 pump

When the 0.5 mbar VSV-20 vacuum pump is chosen, the EVA valve is now fitted as standard. This precisely adjustable valve significantly improves the versatility of the Modular 2S (especially when used in conjunction with the optional absolute pressure gauge). With the EVA valve closed, the pump will achieve a high level of vacuum for the final stages of drying the reinforcement BEFORE infusion, or for degassing low volatility resins such as most epoxies. With the EVA valve open, the pump's end vacuum can be preset to any vacuum level between 1 mbar (99.99% vacuum) and 100 mbar (90% vacuum). The adjustable end vacuum allows previously difficult laminating situations such as high moisture content reinforcements, or high volatility resins (such as most ester type resins) to be managed without the risk of creating porous laminates. For example, if the vapour pressure of water is 40 mbar at the ambient temperature of the day, the EVA Valve may be set to limit the pump's vacuum to 50 mbar (or greater) to avoid water vapour boil-off.







### Customisable solutions to suit your requirements

Because of the modular nature of the Modular 2S, there is considerable assembly flexibility to meet specific needs. While two standard pump models are offered in 230 volt markets and one pump model in 115 volt markets, special purpose pumps can be fitted to order if they will fit in the docking cart. The trap lid can be customized to provide from 1 to 8 tubing connections from a choice of 5 tubing sizes, and can be supplied with or without external illumination of the internal catchpot. A very effective resin degassing accessory is available as an option, as is a dual-vacuum level accessory for small scale RTM Light and similar applications. Please refer to page 2.

## Typical 2S Modules & Options

Modules slide and lock into place without tools!

	<h3>Standard modules</h3> <ol style="list-style-type: none"> <li>1. Mobile docking cart</li> <li>2. Vacuum pump with on-board switch, motor overload protection and fine inlet filter. (Includes EVA valve on VSV-20 pump.)</li> <li>3. Resin trap</li> <li>4. Ultra-flexible, easy-to-connect vacuum hose</li> </ol>	<h3>Further options</h3> <p><b>Absolute pressure gauge</b> </p> <p><b>Degas-on-way-in accessory</b> </p> <p><b>Dual-vacuum accessory</b> </p>
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## Standard specifications

**Vacuum pump** 1 of the following single phase powered continuous duty oil sealed vacuum pumps:

**230 V + 5%** VSV-20. 50 Hz capacity 20 m<sup>3</sup>/h (11.8 cfm). 60 Hz capacity 24 m<sup>3</sup>/h (14.1 cfm)  
EM28/B. 50 Hz capacity 28 m<sup>3</sup>/h (16.5 cfm). 60 Hz capacity 33.6 m<sup>3</sup>/h (19.8 cfm)

**115 V + 5%** VSV-20. 60 Hz capacity 24 m<sup>3</sup>/h (14.1 cfm)

**Vacuum level** Adjustable from 20% vacuum (800 mbar absolute) to the pump's maximum vacuum:

**VSV-20** 0.5 mbar, 50 Pa, 0.38 Torr, 99.95% vacuum\*, 29.9" Hg\*, -101.25 kPa\*, -14.68 psig\*

**EM28/B** 20 mbar, 2000 Pa, 15 Torr, 98% vacuum\*, 29.3" Hg\*, -99.3 kPa\*, -14.4 psig\*

\* Please note that "gauge" vacuums are weather and altitude dependent

**Resin trap** 1 RT19 resin trap, with machined aluminium lid.  
The trap lid includes a 75 mm (3") viewport and allows up to 8 O-ring sealed tube connections. Optional illumination port. If chosen, this replaces one tubing connection.  
Choice of two types of disposable resin catchpot or a reusable polyethylene degas bucket. Please refer to RT19 information sheet for more detailed information.

**Tubing connections** The high integrity sealing quality and almost nil maintenance requirement of the Vacmobile O-ring sealed tubing connections has been proven for more than 20 years. The O-rings seal on the **outside** of extruded tubing, such as polyethylene, nylon and PVC. Standard connection sizes suit the following tubing outside diameters: 3/8" to 10 mm | 12.0 mm to 12.5 mm | 1/2" to 13 mm | 5/8" to 16 mm | 19 mm to 3/4". Adaptors available to suit 1/2" and 3/4" inside diameter tubing.

**Dimensions** Length: 465 mm (18.3") | Width: 345 mm (13.6").

Operating height: 1,145 mm (45.1") | Minimum transport height: 623 mm (24.5")

**Weight** With VSV 20 pump: 45 kg (99 lbs) | With EM28/B pump: 55 kg (121 lbs)

**Warranty** No fuss, as new repair or complete replacement warranty applicable worldwide

**"Parts received – unit back in service! (In 2 working days) Thank you so much for your help. We love our Vacmobiles."** Great Bay Community College, USA

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