

VACUUMTABLES.COM

VACUUM HOLDDOWN TABLES

FOR ALL COMMERCIAL AND
INDUSTRIAL APPLICATIONS



Ideal for:

- Plotting
- Cutting
- Engraving
- Milling
- Surface grinding
- Digital printing
- Screen printing
- And many more applications requiring precision holddown

Manufactured by



A Division of The A.W.T. World Trade Group

4321 N. Knox Avenue • Chicago, IL 60641 USA

773.725.4900 • Fax: 773.777.0909

sales@vacuumtables.com

VACUUM HOLDDOWN TABLES

Flatness and Durability Define Industry-Leading Performance

Our 30-plus years' experience in vacuum table construction has always been guided by the same goal: To build the flattest, highest-quality vacuum table possible. Using Stay Flat™ technology to guard against warping and covering them with the thickest top and bottom plates you'll find, these tables set the industry standard for flatness and durability. The lightweight sandwich design yields a superior strength-to-weight ratio, and the table's honeycomb core provides uniform airflow for maximum control of holddown.

Unusual configurations are routine for our engineers

Our vacuum tables excel at holding sensitive substrates in place during manufacturing, as well as in R&D labs where rapid prototyping is required. And in working environments where a vacuum table's appearance is as important as its function, our finish quality really shines. Edges are virtually seamless, and every table looks as great as it performs. Custom built to your specifications, tables meet or exceed OEM requirements for smoothness, flatness, and production endurance.

Unusual configurations are routine for our engineers, who always find a way of implementing the most challenging requests. While cutouts and threaded inserts are among the more frequently requested options, custom registration systems with disappearing guides are our specialty, and nobody integrates them as seamlessly as we do. We manufacture magnetic tops and, for non-conductive and material sensitive applications, phenolic tabletops. These examples illustrate our ability to help clients overcome difficult manufacturing obstacles.

For oversized substrates, we also build the world's largest vacuum table with over 200 square feet of holddown surface. Yet whatever its size, every table features the same rugged construction and unsurpassed flatness our tables are known for.

Features

- Custom manufactured to your specifications
- Aluminum honeycomb core for maximum airflow
- Super flat
- Non-warping, Stay Flat™ technology
- Rust free, non-oxidizing, anti-static
- Thickest gauge plate construction
- Superior strength-to weight ratio
- Proprietary fabrication process
- Uniform airflow edge to edge
- Lightweight sandwich design
- Unsurpassed finish quality

Options

- Disappearing registration guides
- Variety of bed thicknesses
- Pneumatic lift pins
- Bottom / side ports
- Threaded inserts
- Recessed rollers
- Zoned airflow
- Many others as required

Surfaces

- Anodized aluminum
- Stainless-steel
- Aluminum
- Phenolic
- Formica
- Enameled-core magnetic steel

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DESIGN AND APPLICATION OPTIONS

Engineered and Built to Your Specifications

3

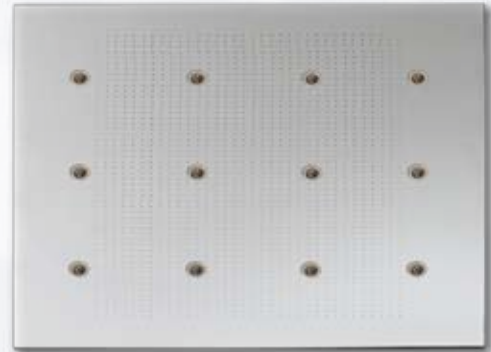
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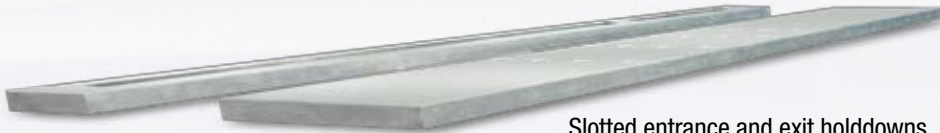
Circular holddown pattern.



Unusual shape, with take-off cutouts and disappearing guides.



Recessed, pneumatically controlled rollers for easy removal of glass or other rigid panels .



Slotted entrance and exit holddowns for specialty manufacturing needs.



Table with cutouts designed for use with rigid panel transport system.



Lift pins and disappearing guides with camera well.



Side mounted registration collar maximizes usable surface area.

- **Takeoff/Transport Cutouts**
- **Blowback/Flotation Systems**
- **Disappearing Guides/Lift Pins**
- **Custom Sizes/Shapes/Surfaces**



Custom phenolic surface for non-conductive applications.

ADVANCED AIRFLOW MANAGEMENT

Superior Holddown Power Safely Delivered

Airflow Control Systems

Developed over the course of three decades, our holddown and flotation systems deliver the perfect balance of vacuum suction and blowback timing necessary for safe and effective material handling.

Designed for use with flat substrates, 3D components and parts, these reliable systems handle sensitive materials like glass and acrylics with the respect they deserve. In turn, scratching of the substrate is virtually eliminated as it is removed from the vacuum table. We also have the technology to help eliminate the troublesome “dimpling” on thin sheets,

Determining the right amount of vacuum force needed to adequately hold a substrate or component in place involves the control of many variables. Blower size, air hose size, port placement, substrate thickness, vacuum hole size and weight all need to be considered when designing a holddown/flotation system. Substrate volatility, material handling requirements and other factors also contribute to the list of engineering and manufacturing considerations.

Superior holddown power with the safety you need

With extensive experience in addressing a variety of manufacturing concerns, we’re all about making systems to fit your needs. That’s why we offer a range of blowback options to lift and float your stock off the table on a bed of air. Manual systems with lever-activated release still fit the needs of some operators, while automatic holddowns with foot pedal release are among today’s more popular choices. Whatever your application criteria, our staff of airflow

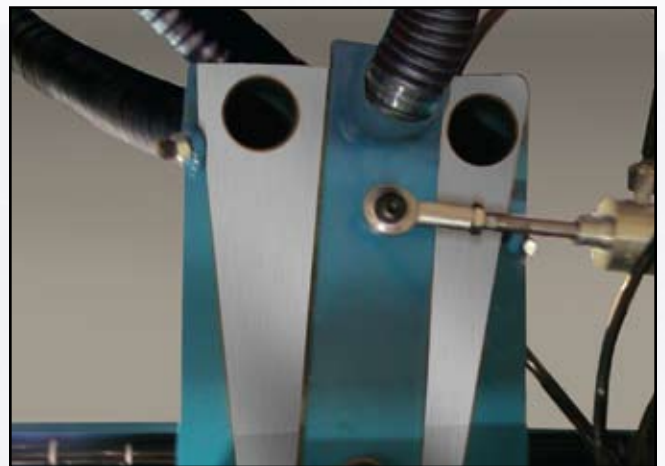
specialists will develop a system to meet your requirements. For superior holddown power with the safety you need, the latest in airflow technology is built into every table we make.

Standard Features

- Holds components in place
- Releases material easily (manually or automatically)
- Safely lifts and floats stock
- Superior holddown power
- Flotation systems for scratch-free product handling
- Works with flat or 3D objects
- Reduces friction and static

Optional Features

- Automatic or manual systems
- Preset blowback timing
- Lever or chain activation
- Foot pedal release
- Vacuum-only



Automatic Blowback/Flotation Control System with Pneumatically Operated Vacuum Diverter

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VACUUM HOLDDOWN & BLOWBACK SYSTEMS

Several Airflow Options Designed to Meet Any Production Need

G.P.I. has developed innovative airflow vacuum holddown and flotation systems for flat or 3D substrates, components and parts. This unique system incorporates blowback or flotation of parts. As a result, friction and static are reduced. This also minimizes scratching the part as it is removed from the vacuum system.

Mount these versatile vacuum holddown systems easily wherever it is needed. It is easily accessible for maximum control.

G.P.I. manufactures both manual and automated vacuum holddown & blowback systems. G.P.I. has all the parts required to assemble a complete vacuum system. Order using the part numbers listed below.

MANUAL VACUUM HOLDDOWN SYSTEMS

With the movement of a lever or a chain — depending on which system is selected — you control up to three settings: no-vacuum, vacuum holddown and optional blowback/flotation. Blowback flotation is achieved by simply adding an extra air hose connection.



Lever Release

Part No	Hose Dia. (I.D.)
AFMB-125M-GPI	1-1/4"
AFMB-150M-GPI	1-1/2"
AFMB-175M-GPI	1-3/4"
AFMB-200M-GPI	2"
AFMB-300M-GPI	3"



Chain Release

Part No	Hose Dia. (I.D.)
AFCB-125M-GPI	1-1/4"
AFCB-150M-GPI	1-1/2"
AFCB-175M-GPI	1-3/4"
AFCB-200M-GPI	2"
AFCB-300M-GPI	3"

AUTOMATIC VACUUM HOLDDOWN SYSTEMS

This G.P.I. system is complete with a foot pedal to make operation very easy to control. The on/off switch controls vacuum and blower. Blowback time can be preset to control length of cycle. Electric and compressor are required to operate the cylinders and foot pedal in this system. (115V, 1PH, 60HZ or 220V, 1 Ph, 50 Hz)



Vacuum/Blowback System with Air Cylinder & Foot Pedal

Part No	Hose Dia. (I.D.)
AFAB-125M-GPI	1-1/4"
AFAB-150M-GPI	1-1/2"
AFAB-175M-GPI	1-3/4"
AFAB-200M-GPI	2"
AFAB-300M-GPI	3"



Vacuum System with Air Cylinder & Foot Pedal

Part No	Hose Dia. (I.D.)
AFA-125M-GPI	1-1/4"
AFA-150M-GPI	1-1/2"
AFA-175M-GPI	1-3/4"
AFA-200M-GPI	2"
AFA-300M-GPI	3"

VACUUM FLOW ADJUSTMENT

Optional Fine-Tuning Controls Regulate Amount of Flow

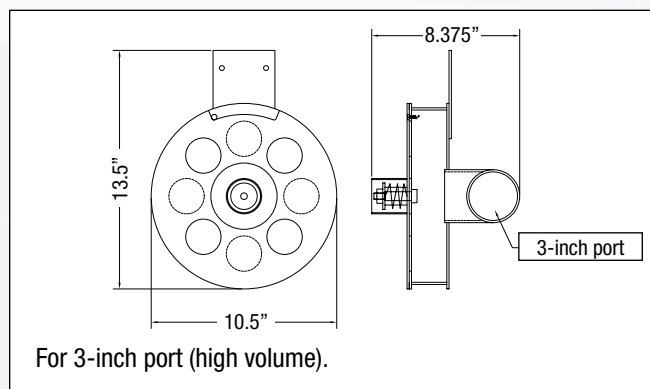
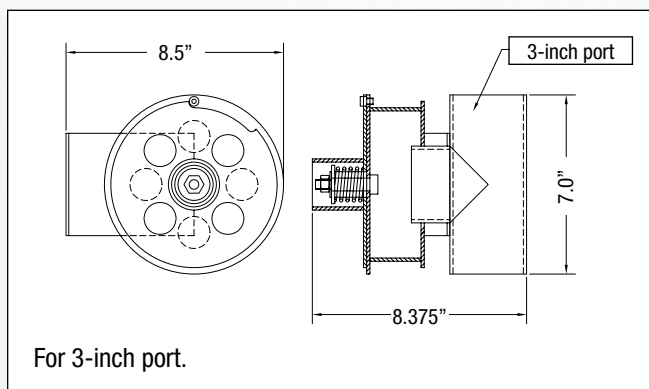
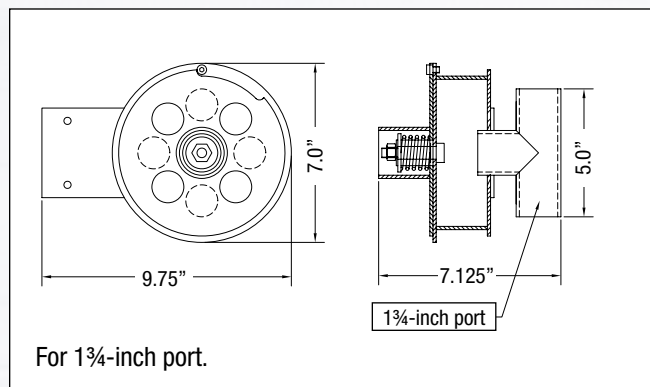
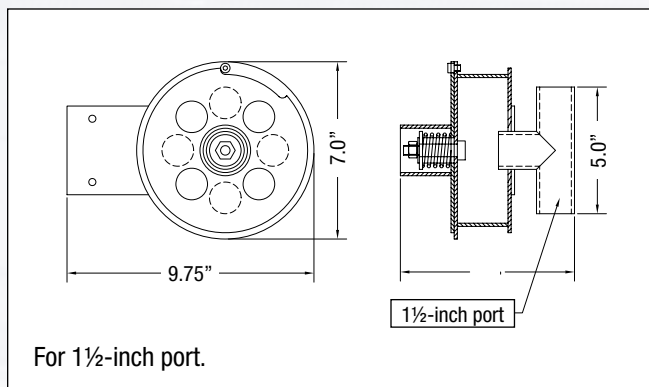
Varied Sizes / Configurations

G.P.I. manufactures air flow valves to fit ports for 1-1/2-, 1-3/4- and 3-inch air hoses (I.D.) to provide easy air adjustment through your system. (Custom sizes are also available.)

Precision air flow control is useful in overcoming problems such as in the case of thin substrates that “dimple” into vacuum holes. Also suitable for any application where control of airflow of anywhere from 0 to 100 percent is important.

Our engineers and technicians will help you choose the valves best suited to your needs or will provide custom designs on request. These units are built to last and will mount easily to your table or wherever you need them.

Standard Configurations



Vacuum/Air Flow Valves

G.P.I. Part No	Fits Air Hoses (I.D.)	
GPIAFV-15	1-1/4"	38 mm
GPIAFV-134	1-3/4"	44.5 mm
GPIAFV-3	3"	76 mm
GPIAFV-3L	3" (high volume)	76 mm

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CONTINUOUS UPGRADE PROGRAM

Focus on Quality Control, Customer Satisfaction

Improved CNC Capabilities

Retooling and capital investments in state-of-the-art hardware and software have further improved our production performance and accuracy. Advances in design and engineering can now be implemented in a much shorter time frame.

Greater Customer Satisfaction

As a result of our Continuous Upgrade Program, our customer satisfaction levels have never been higher. With improved fulfillment and better turnaround, we now deliver the industry's best performing vacuum tables even quicker to meet the increased demands of today's global manufacturing pace.

Flatness Inspection Report

Customers receive a flatness inspection report with every vacuum table we produce. Each table is thoroughly inspected for flatness across its entire surface by our production technicians and engineers prior to shipping.

www.vacuumtables.com
for

Advanced Airflow Engineering and Material Holddown for Any Flatbed Application

- Manufacturing
- CNC Machining
- Rapid Prototyping
- Laser/Ultrasonic Cutting
- R&D
- Inspection
- Alignment
- Quality Assurance



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HEAVY-DUTY VACUUM HOSES

Designed to Handle the Demands of Your System

G.P.I.'s heavy duty hoses and clamps complete your systems and are designed to handle to demanding vacuum applications. Vacuum hoses

come in many standard sizes ranging from 1 1/4" to 3" but, as is the case with all G.P.I. products, custom sizes are also available.



G.P.I. Part No	Air Hose Dia. (I.D.)	
GPIH125E	1-1/4"	32 mm
GPIH150E	1-1/2"	38 mm
GPIH175E	1-3/4"	44 mm
GPIH40E	2"	51 mm
GPIH3f	3"	76 mm



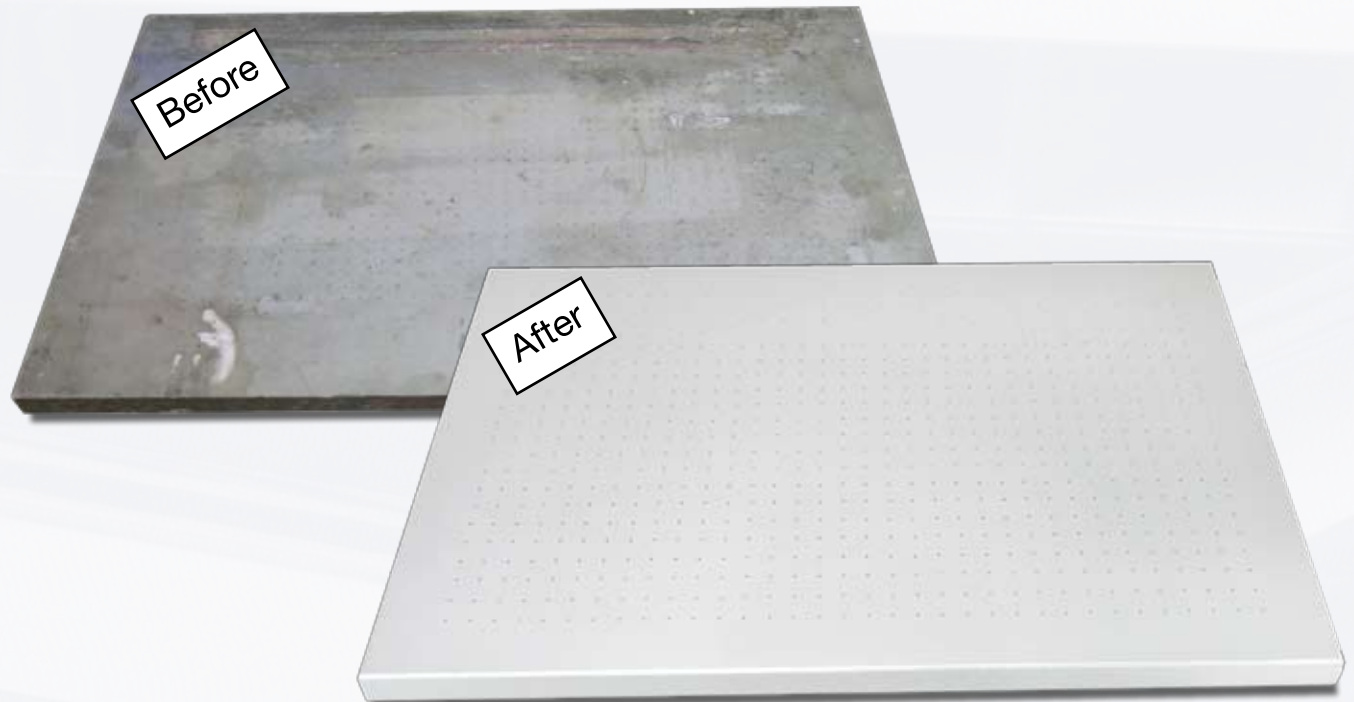
G.P.I. Part No	Fits Air Hoses (I.D.)	
GPIMD1116114	11/16" – 1-1/4"	17-32 mm
GPISLD34234	3/4" – 1-3/4"	19-44 mm
GPISLD158312	1-5/8 – 3-1/2"	41-89 mm

VACUUM TABLE REBUILDING SERVICES

Like new performance and appearance

For customers who want to upgrade their existing vacuum table without the expense of buying a new one, we offer a full range of rebuilding services designed to keep costs down. Whether your table needs only resurfacing or is due for a complete overhaul, our rebuilding services can restore the look and performance

of your original table. Flatness, holddown, and airflow are all checked to ensure OEM specifications have been met, and with quick turnaround and great service, our rebuilding services help keep production moving at the pace your business requires.



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VACUUM MOTORS DELIVER QUIET EFFICIENCY

Maintenance Free / Low Noise / Energy Efficient

Quiet Vacuum Motors

Designed and built from the inside out, our airflow management systems consistently meet the most demanding application requirements.

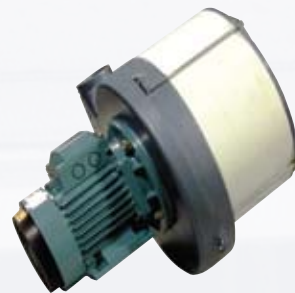
At their core, you'll find a carefully selected series of highly efficient vacuum motors that are the quietest in the industry. Tight tolerances between blades and blower housing create a deep vacuum, and the multi-stage centrifugal motor ensures that the proper volume of air is generated for precise holddown. Brushless and maintenance free, these motors boast an impeccable safety record. Together with the table's honeycomb inside, they deliver just the right amount of air to a series of optimally spaced holes at the table's surface to lock materials into precise working position.

The quietest and most efficient airflow in the industry

Regardless of how complex your situation may be, our airflow specialists are up to the task. Zoned airflow, various hole sizes, and custom hole spacing are just a few of the customer requests we have successfully implemented. With the quietest and most efficient airflow in the industry, our vacuum tables keep things in place without fanfare or interruption.

Standard Features

- Sealed ball bearings never need lubrication
- More than 20,000 hours of continuous use
- Direct mount dynamically balanced impeller
- Low noise rating, 53.3 – 72.5 dB
- Multistage centrifugal design
- CFM range from 38 – 250
- 50 Hz /60 Hz operation
- Brushless and sparkless
- Maintenance Free
- Minimal Vibration
- Energy efficient
- More than 50 styles to choose from
- C.S.A. approved



Energy efficient



Brushless / sparkless



Low noise rating



Multistage centrifugal design

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Featuring G.P.I.'s Proprietary
Stay Flat™ Technology



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