

Appion Inc. 2800 South Tejon Street Englewood, CO 80110 USA Tel: (303) 937-1580 Fax: (303) 937-1599 www.AppionTools.com Sales@AppionTools.com

About Appion Inc.:

Appion is Star Performance. We never stop challenging ourselves to develop smaller, lighter, easier, better and less expensive ways to help HVAC/R technicians perform their everyday tasks. Our products are made from decades of manufacturing experience, and always with the needs of the HVAC/R technician in mind.

Appion Inc, based in Colorado, entered the HVAC/R market with the G5Twin, the fastest, lightest, and most versatile refrigerant recovery unit ever available in this market. The innovation continued with the release of the TEZ Speed System, representing the first major advancement in vacuum pump technology in over 40 years. With each of these products, Appion has delivered new ways to improve the results of everyday HVAC/R service, maintenance, and installation, giving technicians a new competitive advantage.

With products designed for the best performance and ease of maintenance, Appion's commitment is to serve our customers well by providing the most innovative, user-friendly tools and equipment the HVAC/R market has to offer.

Innovative equipment design and manufacturing is just the start. With hassle-free technical and troubleshooting support for the lifetime of every product, Appion stands behind the commitment to customer satisfaction that goes beyond expectations.

COPYRIGHT 2016 - APPION INC - ALL RIGHTS RESERVED







The TEZ Advantage Up to 10x Faster AC/R System Evacuation

Appion TEZ Speed System

Tez8TM: 8cfm Vacuum Pump with 5-Second Oil ChangeTM and MegaFlowTM Speed KitTM with multiple system connections

The TEZ Advantage: Faster, Lighter, More Reliable

When it comes to refrigeration and air conditioning system performance, reliability and efficiency are dependent upon a proper and thorough evacuation.

Every AC/R system should only contain the proper charge of refrigerant and refrigeration lubricant.

The presence of moisture in an AC/R system is a primary component of early system failure. Moisture combined with the refrigerant forms sludge and acids, decreasing energy (heat) transfer, damaging internal components of the system, and eventually causing total system failure.

THE IMPACT ON ENERGY AND EFFICIENCY

More than 50% of U.S. energy production is used by the HVAC/R industry. Proper system evacuation is directly related to AC/R system efficiency, which has a direct impact on the energy consumption of the entire HVAC/R industry.

While the importance of removing moisture from an AC/R system is not new, never before in the history of refrigeration has proper evacuation been more important.



Features and Benefits

Today's HVAC/R technicians need the fastest, most efficient, and most reliable equipment to maintain the competitive advantage. Here are just some of the key features of the Tez8:

- Lightweight & Compact: Weighing only 28 lbs., the Tez8 is easy to get to the jobsite, even if the jobsite is not easy to get to.
- Faster, Deeper Evacuation: Field-tested and proven to outperform 15 and 20 cfm vacuum pumps, saving hours or even days on evacuation jobs.
- Ideal for Wet or Dirty Systems: Rapid, deep evacuations of even the most contaminated systems. Ideal for evacuating systems that use R410a or any system containing POE oil.
- <u>Cooler Operation:</u> Custom 7-inch 10-blade turbine fan blasts high static pressure cooling air across the heatsinked pump, keeping the pump and oil cooler, extending the viscous life of the sealing oil.

BETTER EVACUATION RESULTS. FASTER

Now, Appion's Tez8 makes it easier and faster to perform a proper and thorough evacuation. This revolutionary 8 CFM vacuum pump puts the power and performance of a 15 or 20 CFM vacuum pump in the conveniently-small package of a 28lb portable pump.

The impressive performance of the Tez8 is achieved by increasing the flow, improving the quality of the oil, and keeping the pump running efficiently for the entire evacuation process.

What's the big deal about oil?

A vacuum pump can only pull a vacuum as deep as the vapor pressure of its sealing oil. As the oil collects contaminants and moisture during evacuation, this vapor pressure rises.

Other vacuum pumps use oversized oil reservoirs, primarily to house large amounts of moisture and sludge collected during evacuation. But without frequent oil changes and thorough cleaning, this sludge builds up in the oil sump, and the constant contamination will damage the internal pump components.



sump. If the oil is not changed regularly, these contaminants corrode the internal metal components.

How Clean is your Oil?

The sight glass on other vacuum pumps hides what's really going on inside the pump, reinforcing the practice of rarely changing the oil.





The Sight Glass is located at the top of the oil chamber. Only a thin layer of oil is visible, looking deceptively clean.

the sump.

of sight, out of mind.

When do you open and clean the sump?

Even after the oil is changed, sludge buildup remains in the sump, contaminating the fresh oil, and eventually corroding the internal pump components.



When you have the Need for Speed.

Save Hours.

Save Days

Save Money



Above: With five simultaneous connections, the TEZ Speed System evacuates racks like these up to 10 times faster than typical vacuum pumps.



time from four days to less than 7 hours.

5x-10x Faster Evacuation

The Tez Speed System, using multiple 3/8" and 1/2" connections, can deliver a time savings ratio of at least 5-to-1 (up to 10-to-1) on residential, commercial and industrial job sites (compared to 1/4" connections).

So for every 5-10 hours currently spent evacuating, the Tez Speed System can do it in 1 hour or less.

Right: The TEZ Speed System evacuates a 250-ton chiller from atmosphere to 500 microns in only 2.5 hours... a job that used to take 26 hours.



Below: Thanks to massive flow and "on-the-fly" oil changes, in just 26 hours, the Tez8 evacuated six 1500-ton chillers, one at a time, to 500 microns... outperforming a 20-cfm belt-driven pump.



Introducing the 5-Second Oil Change

The Tez8 allows you to change the oil "on the fly" in **just 5 seconds** without interrupting the evacuation process.



Patents Pending

Introducing the 5-Second Oil Change.

The Tez8 utilizes the revolutionary TEZOM Oil Cartridge system, making it easy to monitor the condition of the oil and verify evacuation results. In **just 5 seconds**, this cartridge can be replaced with a clean, pre-charged cartridge without interrupting the evacuation process.

The Tez8's recirculating oil system keeps contaminants out of the pump and away from internal pump components. This protects the pump from contamination and prevents hidden sludge build up in the pump. The contaminants and sludge get trapped in the cartridge, so changing the cartridge is like replacing the sump.

For Better Performance: TEZOM Micron-Dry oil is a **hydrophobic;** synthetic blend engineered to repel moisture and stay dry, maintaining an ultra-low vapor pressure longer.

Debris Catch Tube in Action!

Have you ever seen the oil level on your vacuum pump rise at the start of evacuation? Now you can see why... and prevent contamination of your vacuum pump oil, too!



Above: Fire Ice Mechanical, Inc. - 2008 Contractor of the Year

Advanced Intake Monitoring & Control



- **Debris Catch Tube** traps debris with the easy-to-clean Filter Screen
- Automatic Positive Pressure Relief
 eliminates accidential oil showers
- Oil Separator catches refrigeration oil pulled in from the system, reducing pump contamination
- Clearly Visible enhanced intake monitoring allows for better control of the evacuation process

Patents Pending

THE POWER OF FLOW

When evacuating a system, the greater the flow, the faster it will go. With massive, unrestricted flow, the Tez8 can easily outperform larger, belt-driven vacuum pumps.

Hose Diameter and Flow Rate: Evacuating a 50-lb. Cylinder			
Vacuum Depth	6'x1/2" hose	6'x3/8" hose	6'x1/4" hose
1000 Microns	3 min.	4 min.	21 min.
500 Microns	6 min.	8 min.	47 min.
200 Microns	29 min.	46 min.	>100 min.

Nist-traceable results. All connections made with 1/4" FL fittings. For even faster results, connect multiple hoses simultaneously

Even when evacuating through 1/4" access ports, using hose of the shortest length and largest diameter can dramatically increase evacuation speed. Making multiple connections to the same system can reduce evacuation times even further.

Evacuating a system is like evacuating a building or a plane: the more exits you have, the faster everyone gets out.



The Tez8 was designed with simultaneous system connections in mind. The Multi-Port Input has 1/2" and dual 3/8" connections allowing **up to 16 times the flow** of pumps using 1/4" hoses.

The advanced "anti-suckback" eliminates flow restrictions caused by the check ball valves found in other pumps. And the Debris Catch Tube keeps debris away from the Filter Screen, preventing debris buildup restrictions.



Large, unrestricted connections deliver full flow for incredible time savings. Rated to 20 microns.

Patents Pending

WHEN YOU HAVE THE NEED FOR SPEED

The MegaFlow Speed Kit, with a Four-Input Manifold, 1/2" and 3/8" hoses, and valve core removal tools - all vacuum rated to 20 microns - brings the Tez8 to its full potential.

The complete TEZ Speed System makes four simultaneous full-flow connections easy, so you can save hours or days on even the largest system evacuations.

The TEZ Advantage.

The performance of belt-driven pumps in a 28 lb. package. The unprecedented versatility of four full-flow connections. Easy-to-use, advanced monitoring and control of the entire evacuation process, for better results, faster.

When you have the Need for Speed...

The TEZ Speed System delivers.