



# TPE MIDSTREAM

November 10, 2016

EPA's Natural Gas STAR and Methane Challenge Technology Transfer  
Workshop: Pipeline Blowdowns in Transmission and Distribution

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# TPE MIDSTREAM CAPABILITIES & SERVICES

**“The Only Thing That Is Constant Is Change ”**

Why purchase equipment and lock yourself in?  
TPE Midstream gives you the flexibility and lets you respond with equipment that fits your system as it grows and moves.

- **SHORT TERM RENTAL**

- TPE Midstream operates the largest fleet of high pressure temporary launchers, receivers, valves, filters, separators, flares, and pipe in the industry
- On-demand response with local inventory
- Equipment always in stock – we can draw on our international inventory

- **LONG TERM LEASE**

- An alternative to capital expenditure, TPE Midstream can lease equipment to you when you need it, and trade it out when your operation changes.
- Annual lease or multi-year lease for maximum value.
- Bulk lease discounts

- **FLEET MANAGEMENT**

- TPE Midstream can keep a fleet of equipment field-ready for your systems. A well maintained mobile fleet in place of redundant permanent assets avoids inefficient equipment purchases.

- **EQUIPMENT SALES**

- If permanent assets is the best solution for your operation, TPE Midstream can fabricate a wide variety of equipment.
- Complete packages.
- Turn-key fabrication.
- Engineering services.





## ZEVAC FUTURE

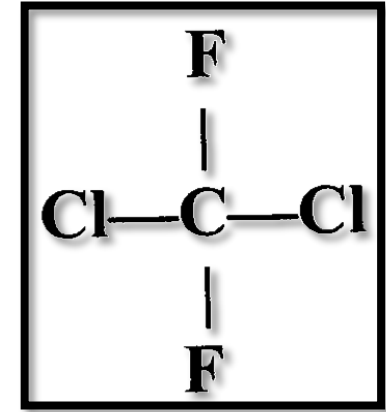
- VENT-LESS Depressurization is status-quo
  - All natural gas vessels are equipped for vent-less depressurization
  - All natural gas emission sources are evaluated for vent-less depressurization
- Venting will require permits
- Flaring will require permits
- Vacuum & Compression units are readily available (like air compressors)
- Individuals have the ability and means to perform vent-less depressurization





# EMISSION-LESS TRAIL HAS BEEN PAVED

- 1890's-1930's Discovery → Commercialization
- 1930's – "Miracle Compound" Non-toxic, non flammable alternative to Ammonia and Sulfur Dioxide
- 1930's – 1970's Widespread global production and use.
- 1973 – Discovery of Environmental Effects
- Vienna Convention 1987
  - 1996 Goal – ZERO Freon production or consumption
- EPA Clean Air Act (Including **Prohibition on Venting**)
  - Exception: "De minimis" quantities of refrigerant released while making good faith attempts to recapture and recycle or safely dispose of refrigerant including releases that occur when connecting or disconnecting hoses..."
  - Recovery equipment standards vary depending on the size and type of air-conditioning or refrigeration appliance being serviced:
  - Recovery and recycling equipment used with most air-conditioning and refrigeration equipment must meet standards.
  - Small appliance recovery equipment must be able to recover either:
    - 90 percent of the refrigerant in the small appliance when the small appliance compressor is functional, or
    - 80 percent of the refrigerant in the small appliance when the compressor is not functional.
- [AHRI Certified](#)<sup>®</sup> Refrigerant Recovery/Recycling Equipment



*"Quality means doing it right when no one is looking" ~Henry Ford*



ZEVAC

# ZERO EMISSION VACUUM And COMPRESSOR

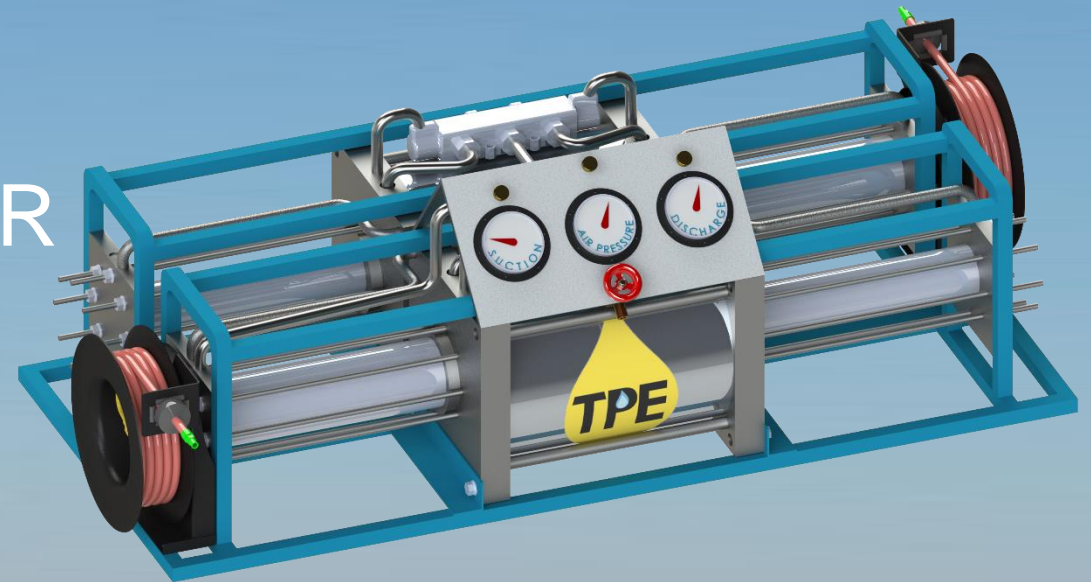


Zero Venting.

Zero Flaring.

Zero Emissions.

The TPE Midstream ZEVAC™ unit uses compressed air to suction your process vessel or pipeline segment, and compresses the gas into the adjacent pipeline or vessel. Zero emissions means zero permits, zero spark hazards, and zero greenhouse gasses released.



**ALL YOU NEED IS COMPRESSED AIR TO ELIMINATE ALL EMISSIONS**



# APPLICATIONS



TEMPORARY		PERMANENT	
HANDHELD			VESSEL
TRUCK BED			STATION
TRAILER			SEGMENT
SKID PACKAGE			TRADITIONAL



# APPLICATIONS AND LIMITATIONS

- Access to Suction Connection
  - Connection Size, Proximity
- Access to Discharge Connection
  - Connection Size, Proximity
- Compressed Air Supply
  - ZEVAC Sizing determination
- Flow Rate Required
- Vacuum Breaker Set Point





# PRICING

- Monthly Rental
  - Via TPE Midstream Dealer Network
  - Users must be TPE Certified (our version of an O.Q.)
- Contracted Emission-less Depressurization Services
  - Via TPE Midstream Authorized Service Provider Network
    - Pricing in line with similar manpower & equipment requirements
- Annual Leases
  - Lease rates by size, quantity, and duration
  - Includes Service and Repair (new unit sent, prior unit returned)
  - Includes Upgrades as new versions are developed
  - TPE Midstream goal is to deliver price points similar to equivalent gas compression leases
  - TARGET PRICING (assuming sufficient volume)
- Purchased Units
  - Not available for purchase at this time



# CASE STUDIES

- We are looking for case study partners with the following:
  - Field Crews who vent pig launchers, receivers, filters daily
  - Facility Operators who routinely vent vessels or small segments
  - Pipeline Operators who vent/flare pipeline segments regularly
  - Hot tapping contractors who can install suction & discharge points
- Our 2016-2017 Case Study Program:
  - TPE Midstream will put ZEVAC units on 1 year discounted lease to partner
  - Partner will commit to using ZEVAC wherever practical
  - TPE Midstream will train partner personnel
  - Partner will give feedback and assist TPE in data collection



# ZEVAC FUTURE

- VENT-LESS Depressurization is standard
  - All natural gas vessels are equipped for vent-less depressurization
- Venting requires or will require permits
- Flaring requires or will require permits
- Vacuum & Compression units are readily available (like air compressors)
- Individuals have the ability and means to perform vent-less depressurization

JOIN US ON THE PATH TOWARD AN EMISSION-LESS FUTURE

SIGN UP AS A CASE-STUDY PARTNER TODAY



# QUESTIONS

Please contact me at any time regarding ZEVAC opportunities

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Or visit [www.TPEMidstream.com](http://www.TPEMidstream.com) for more information