



ADVANCED
DRY SUCTION
EXCAVATION
TECHNOLOGY

“You can’t use yesterday’s tools for today’s job to be successful tomorrow”

- President - Service Provider Contractor



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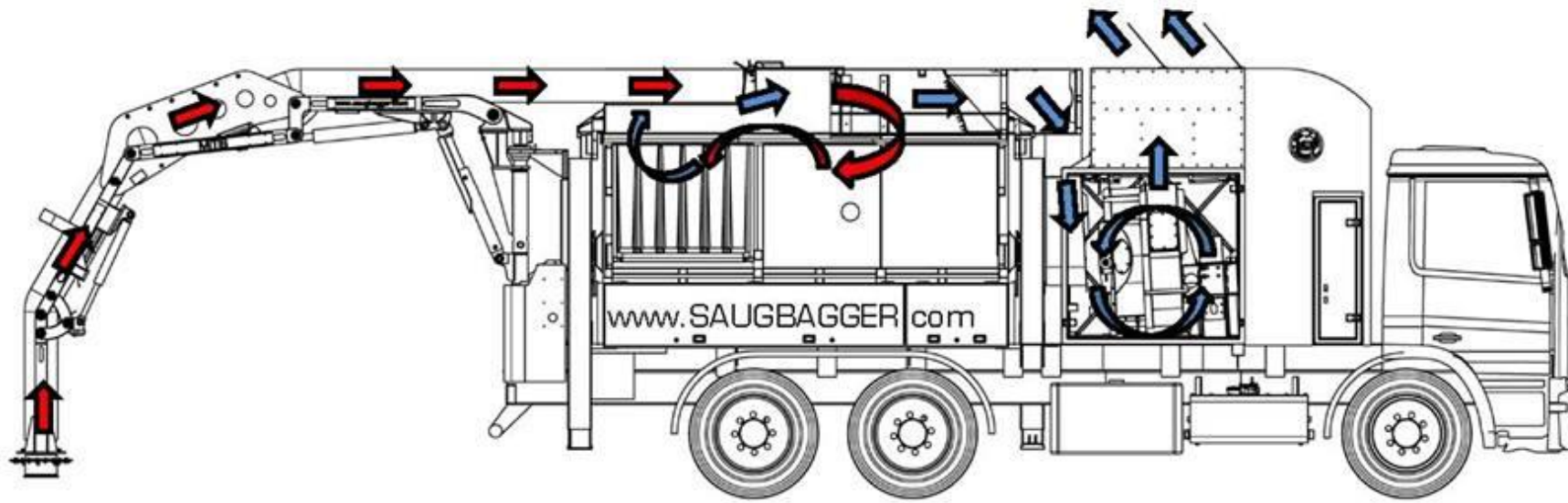
| VERSATILE



DIG SAFE WITHOUT COMPROMISE



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Twin Fans generate 24,000 cfm through the boom hose

98% of material is Gravity and Impact separated & kept in the primary container

42 cone filters remove fines

Clean Air is released through the top.
Reducing silica release

Sound dampeners keep dB ratings safe for public spaces. 82dB



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ADVANCED EXCAVATION TOOLS



SOIL PICK™

Non-conductive, non-sparking, light, and agile, the Soil Pick™ brings obvious benefit to those working in environments that may be gas enriched and/or are in close proximity to live electric lines.



AIR LANCE

Using pressurized air to break apart the soil you can dig while protecting the buried utility. The suction of the boom and dig tube is then able to remove the soil in a quick and efficient manner.



AIR SPADE

This tool is used to loosen soils more quickly. It complements the Air Lance in doing its work by quickly breaking soil that is farther away from buried infrastructure, or when the infrastructure has already been exposed.



JACKHAMMER

In very tough soil conditions (stones, concrete, clay, etc.), the jackhammer will break apart the material, while the powerful suction (which has the power to remove heavy debris) will remove any material broken off.

PRECISION

POWER

NON-DESTRUCTIVE

DEMOLITION

SAFE DIG ZONE
AIR ONLY

ALL CLEAR | “IKE”
MECHANICAL ADVANTAGE

PRODUCTION
M3/HR



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INDUSTRY TRENDS

- Overweight Equipment
- Low Yield Loads – 33% of Tank Capacity
- Decreased Excavating Time
- Dumping – Increased Time & Charges
- Slurry Facilities Challenges
- Increased Costs to Service Provider
- Increased Costs to Utility Owners



EQUIPMENT OPTIONS

- Dry Vacuum Equipment In North America
- Insufficient Suction Power (1000-1800cfm)
- Small Debris Tanks
- Lack of Disposal Options
- Serious Lack of Appropriate Options
- Search Outside North America



EUROPEAN SOLUTION



www.saugbagger.com

- German Manufacturer Since 1998
- Suction Excavator Pioneers
- Patented Technologies
- Used In Over 40 Countries
- Responding To Global Demand



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ADVANCED FEATURES



CONTAINER

- 5 TO 15 CU.YARD CAPACITY
- SIDE-TIP DISPOSAL
- STAINLESS STEEL LINED



REMOTE CONTROL OPERATIONS

- FORWARD
- REVERSE
- STEER
- BOOM FUNCTIONS



POWER ARM

- ADVANCED ACCESSABILITY
- 10" DIA. SUCTION HOSE
- 180 DEGREE RADIUS
- HOSE VIBRATION SYSTEM



DUAL AIR COMPRESSORS

- 145 PSI | 320 CFM
- UNMATCHED PERFORMANCE



ADVANCE FILTER SYSTEM

- AUTO SELF CLEANING
- CONTINUOUS OPERATION
- WET or DRY MATERIAL



TWIN FANS

- 24,000 CFM



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ON-SITE DUMP



Dig On-Site

Dump On-Site

Stay On-Site



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ROLL-OFF BIN



Remove the spoils from the site,
not the truck!



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ADVANCED BOOM ACCESSIBILITY



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APPLICATIONS

- Gas and Pipeline
- Electrical Distribution
- Industrial Cleaning
- Soil Remediation
- Emergency Response
- Renovation
- Tree Root Protection
- Landscaping
- Railway



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CASE STUDY



- PG&E utilizes 20 hydrovacs per day
- Costs for slurry disposal, transportation, and treatment increased to exorbitant levels
- Mandated to find new technology to decrease costs while increasing production

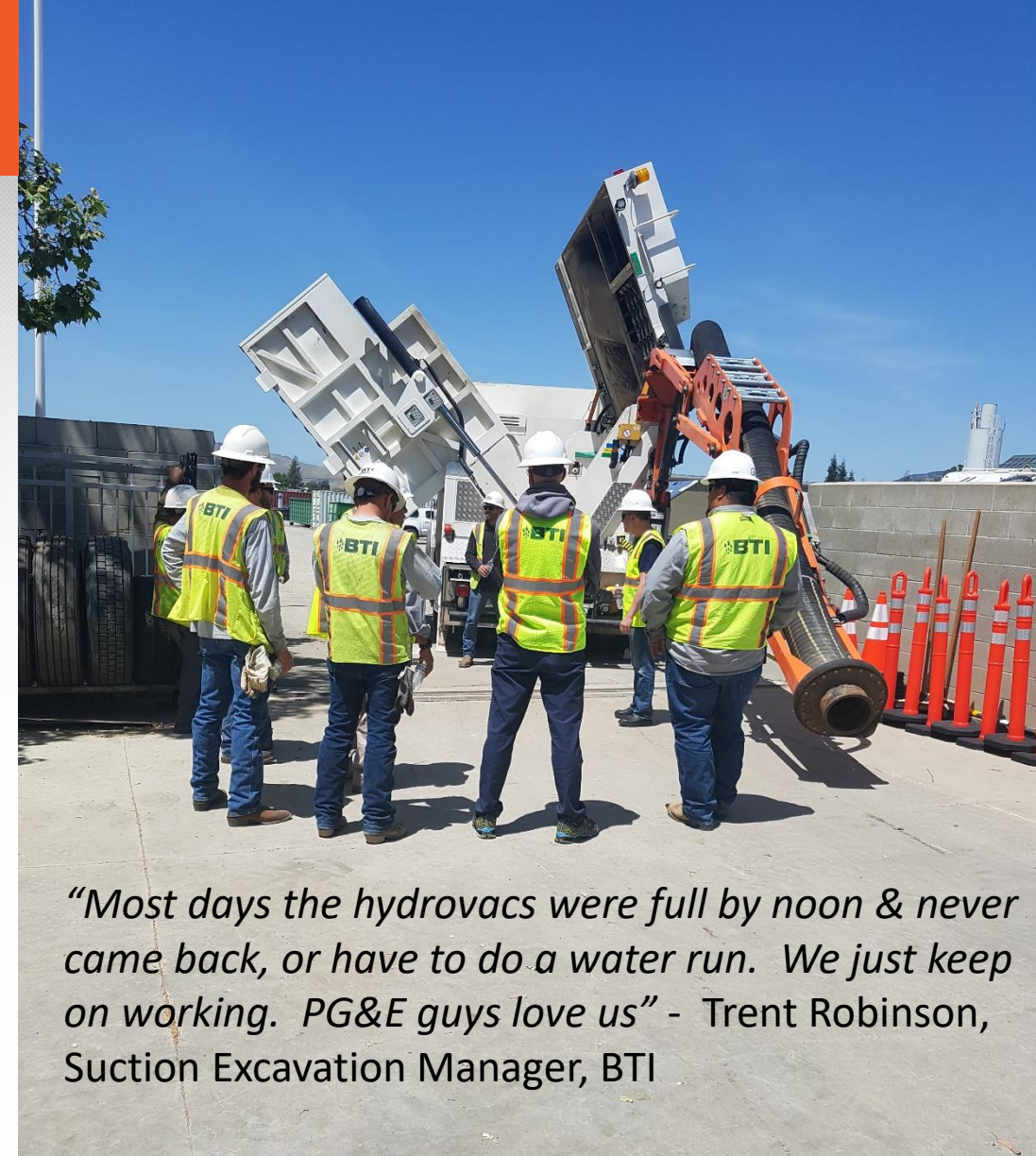


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BRADLEY TANKS INC.

- Northern California
- Slurry Transport & Disposal
- P.G. & E. — Largest Utility Provider in NA
- Costs Savings Initiative
- Mandate For Dry Excavations
- Dino8s in demand
- Daily Outperforming Hydrovacs in both Productivity & Cost



“Most days the hydrovacs were full by noon & never came back, or have to do a water run. We just keep on working. PG&E guys love us” - Trent Robinson, Suction Excavation Manager, BTI



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CASE STUDY



- BTI crews exposing lateral crossings, through keyhole cored openings, to facilitate new PE main installations via HDD for Pacific Gas & Electric
- BTI crews utilize a reducer tube on the Suction Excavator to bring the suction tube from 10" diameter to 5" to allow for the small 10" diameter cored openings



CASE STUDY



- The Suction Excavator remains on site all day - unlike other hydrovac excavation equipment, which are making two trips to dispose of 1000 gallon tanks of wet slurry each day and to refill with water
- The production rate of the Suction Excavator is at least twice that of the Hydrovac, with no associated wet slurry disposal charges
- Cost analysis have determined savings in excess of \$500k/Year/Suction Excavator

- PG&E Spokesperson at GTI Meeting - October 2017



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GAS & PIPELINE

- Strathroy
 - 250'L x 10"W x 2.5'D
 - 2 x 12' deep holes for large anodes.
 - Soil dumped on-site in and re-used
 - 2.5 Loads
 - 12 hours



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GAS & PIPELINE

"We used the 4-blade cutter for the anode holes, 12ft deep 13" diameter hole in about 10-15 min in clay..."

Anode installer said it was a tenth of the time he's used to for those anode holes... spectacular"



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ELECTRICAL DISTRIBUTION

- Mississauga

- 10' x 6' x 4' pit for primary splicing
- 3' Hard clay then sand padding
- 11 Cubic Yards
- 5.5 hours

“Hydrovac would've had to do two loads or 2 tanks of water with a bigger tanked truck”



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SOIL REMEDIATION

- Contaminated Soil
- Buried Utilities
- Water Prohibited
- Disposed into Wrapped Bins
- 40 Cubic Yards
- 2 Days



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THANK YOU!



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