

# Mechanical Solutions for Superior Waste Management

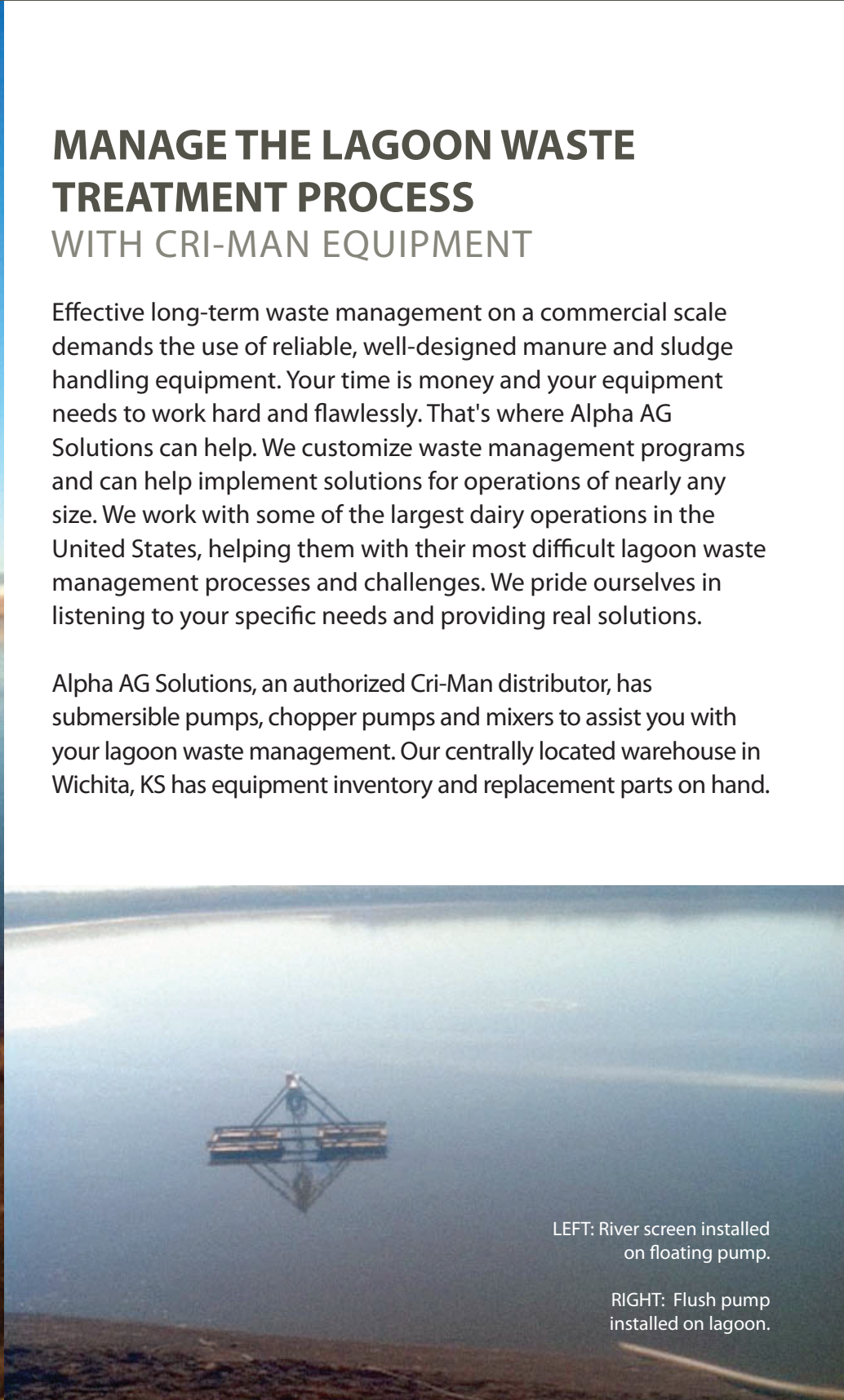
Pumps and Mixers



## MANAGE THE LAGOON WASTE TREATMENT PROCESS WITH CRI-MAN EQUIPMENT

Effective long-term waste management on a commercial scale demands the use of reliable, well-designed manure and sludge handling equipment. Your time is money and your equipment needs to work hard and flawlessly. That's where Alpha AG Solutions can help. We customize waste management programs and can help implement solutions for operations of nearly any size. We work with some of the largest dairy operations in the United States, helping them with their most difficult lagoon waste management processes and challenges. We pride ourselves in listening to your specific needs and providing real solutions.

Alpha AG Solutions, an authorized Cri-Man distributor, has submersible pumps, chopper pumps and mixers to assist you with your lagoon waste management. Our centrally located warehouse in Wichita, KS has equipment inventory and replacement parts on hand.



LEFT: River screen installed on floating pump.

RIGHT: Flush pump installed on lagoon.



TBM mixer installed in waste water pit.

Cri-Man units are precision-engineered in Italy where they're built for rugged use and trouble-free service. Equipment and components are designed to outperform and outlast other commercial brands. Features like the utilization of planetary drives, chopper pumps with three unique chopping zones, and stainless steel components work together for trouble-free service.

We take lagoon waste management seriously at Alpha AG Solutions. Everything we do is tailored to your operational needs, budget, and time frame. As your preferred partner we will help evaluate, plan, customize, and even install Cri-Man solutions on-site. We will also help consult or make service calls to help troubleshoot or repair equipment on-site.

Alpha AG Solutions wants to be your preferred partner for your lagoon waste operation.



Treated lagoon.

# VERTICAL CHOPPER PUMPS

## PT SERIES

PTE Vertical Chopper Pumps are driven by electric motors, while the PTC vertical chopper pumps, equipped with an overgear-box, are driven from a cardan stainless steel shaft.

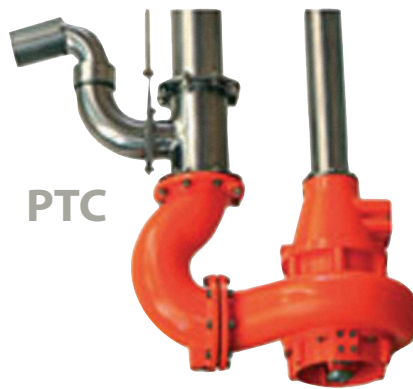
PTEM-PTCM versions are supplied with an orientating mixing nozzle. Both versions are equipped with a multi-channel impeller and double chopping system in the suction.

### OPERATING DATA PUMP WITH EXTERNAL ELECTRIC MOTOR:

- Capacity: max 79 gpm – 4,755 gpm
- Head: max 167 ft
- Motor rating: 5.3 Hp to 40 Hp
- Discharge sizes: 3 in. to 9.8 in.

### PUMP WITH OVERGEAR FOR TRACTORS:

- Capacity: max 39 gpm – 2,300 gpm
- Head: max 167 ft
- Motor rating: 26 Hp to 128 Hp
- Discharge sizes: 4 in. to 6 in.



PTC



PTE



Vertical chopper pump in action.

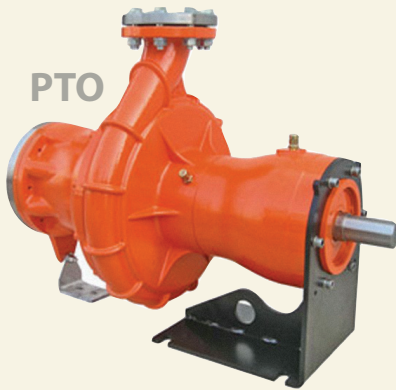
# HIGH PRESSURE CENTRIFUGAL CHOPPER PUMPS

PTH and PTO/PTF SERIES

PTH Series High-Pressure Centrifugal Chopper Pumps feature an overgear-box that can be driven from a PTO tractor shaft. They have multi-channel impellers and a double chopping system.



These pumps are recommended for applications that require substantial head and thorough chopping of the solid materials present in the liquid being pumped – such as systems with self-propelled sprinklers or marked height differences and long pipelines.



The PTO Pumps are coupled with electric motors or diesel engines by a flexible coupling.

PTF Pumps are flanged to the flywheels of diesel engines with standard “SAE” housings.

Both versions come equipped with a multi-channel impeller and double chopping system in the suction. They are recommended for systems with self-propelled sprinklers, marked height differences, and long pipelines.



## OPERATING DATA

- Capacity: max 20 gpm
- Head: max 450 ft
- Motor rating: 65 Hp to 160 Hp
- Discharge sizes: 6 in.

# HORIZONTAL & VERTICAL CHOPPER PUMPS

ETO and ETV SERIES

ETO Pumps are frame mounted and designed to be driven from standard electric motors by a flexible coupling.

## OPERATING DATA

- Capacity: max 1,439 gpm
- Head: max 324 ft
- Motor rating: 3 Hp to 60 Hp
- Discharge sizes: 2.5 in. to 6 in.



ETV Pumps are driven from standard electric motors by a flexible coupling and are mounted on vertical frames that include the suction inlet.

## OPERATING DATA

- Capacity: max 1,439 gpm
- Head: max 167 ft
- Motor rating: 3 Hp to 30 Hp
- Discharge sizes: 3.41 in. to 6 in.

All versions are equipped with multi-channel impellers and double chopping systems in the suction. These pumps are recommended for applications that require thorough chopping of the solid materials present in the liquid being pumped.

## STANDARD FEATURES

- Three phase electric motors
- Max solid content in liquid 12% continuous service

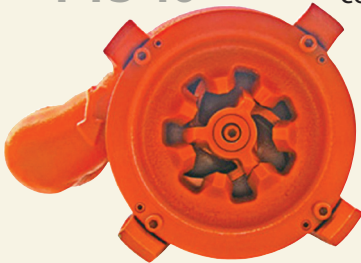
# SUBMERSIBLE CHOPPER PUMPS

## PTS SERIES

The PTS Chopper Pump is design with large through-passage, open multi-channel impeller, and double chopping systems in the suction.

Models PTS 40 (1.5 in.), 80 (3.2 in.), 100 (4 in.), and 150 (6 in.) are recommended for particularly heavy applications requiring preliminary chopping of the solid material contained in the liquid being pumped.

### PTS 40



#### OPERATING DATA

- Capacity: max 23 gpm - 1,380  
1,439 gpm - 86,384 gpm
- Head: max 70 ft
- Motor rating: 1 Hp to 25 Hp
- Discharge sizes: 1.5 in. to 6 in

#### STANDARD FEATURES

- Three phase electric motors
- N.3 Thermic probes installed in stator windings  
Temperature exceeds 270° cut out
- Max submergence depth 65 ft
- Max solid content in liquid 12% continuous service

### PTS 100 PTS 150



### PTS 80



\* Can be installed vertical or horizontal



Chopper submersible pump installation with foot coupling.

# SUBMERSIBLE HORIZONTAL MIXERS

## TBM SERIES

These mixers are used for mixing and homogenizing processes in wastewater lagoons, agricultural plants, biological tanks, industrial plants, and public purification plants. The accurate design, the combination of various employed materials and the use of propellers with self-cleaning profile are a guarantee of duration and efficiency, even in the most extreme utilization conditions.



TBM SERIES: with direct drive

### OPERATING DATA

- Capacity: 151,500 gph to 1,770,481 gph
- Axial force: 191 to 3725 N
- Motor rating: 5 HP to 25 HP planetoring drive

### STANDARD FEATURES

- Three phase electric motors
- Thermic probes installed in stator windings
- Max submergence depth 66 ft
- Max solid content in liquid 12% continuous service

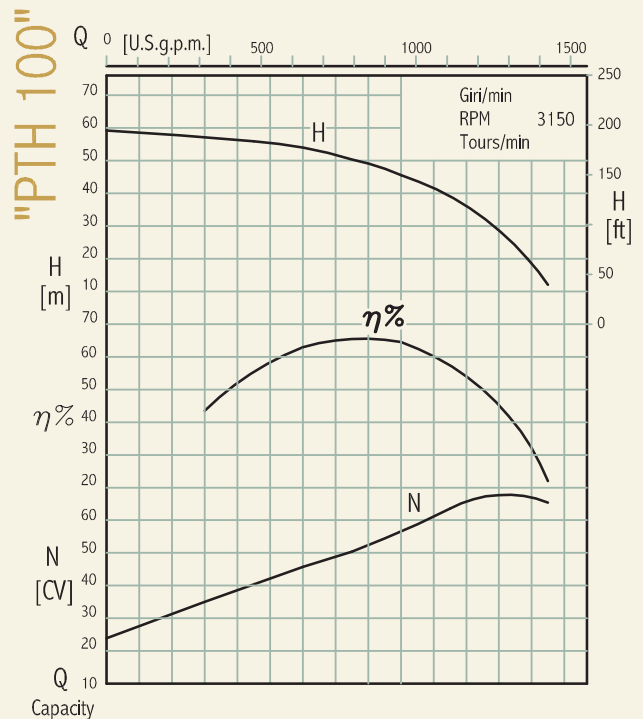
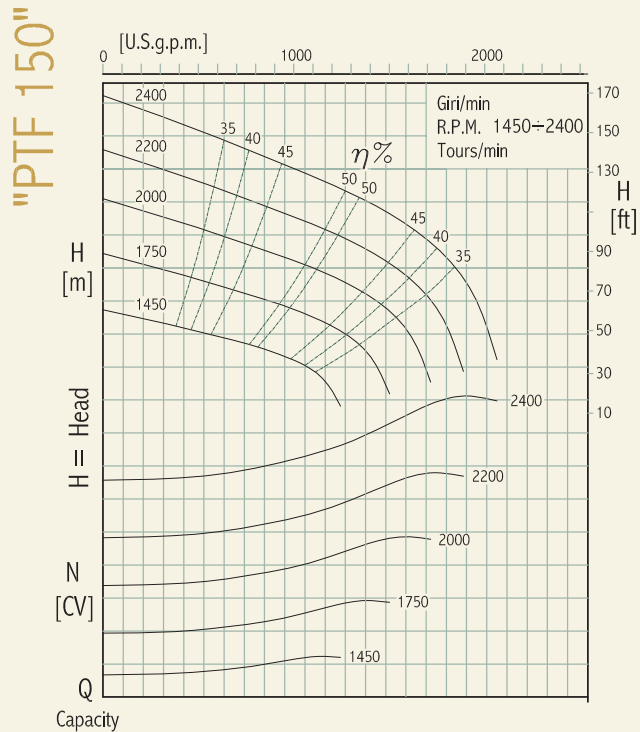
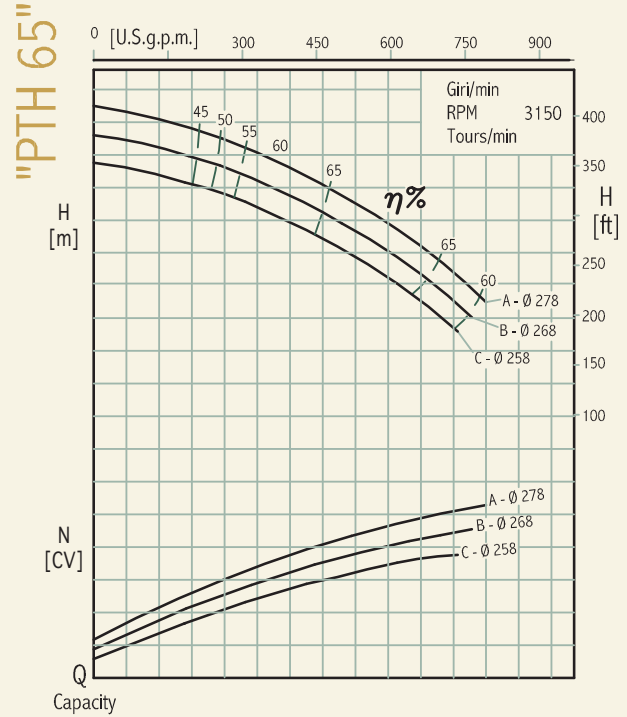
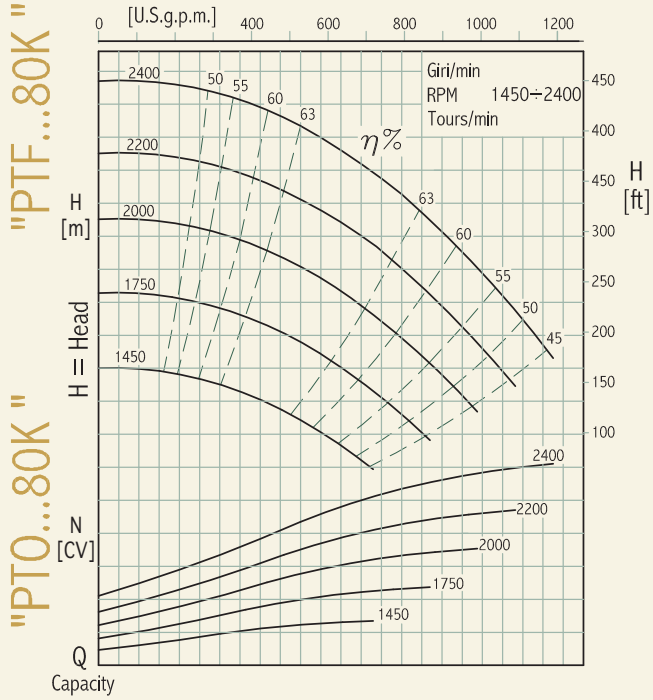


Before and after photos of TBM mixer installed in waste water pit.

# HIGH PRESSURE CENTRIFUGAL CHOPPER PUMPS

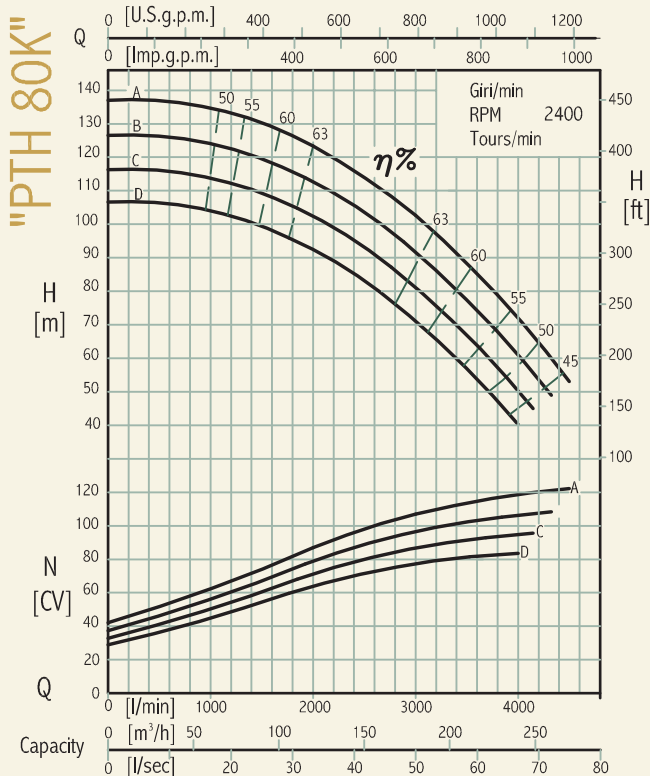
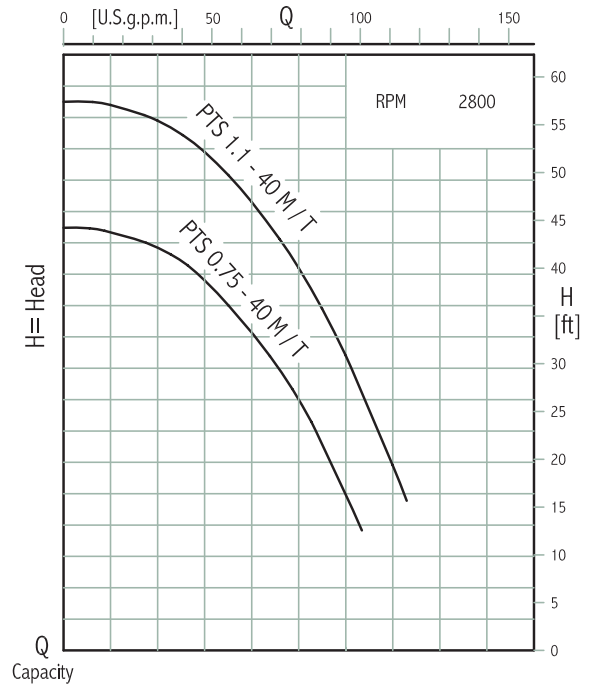
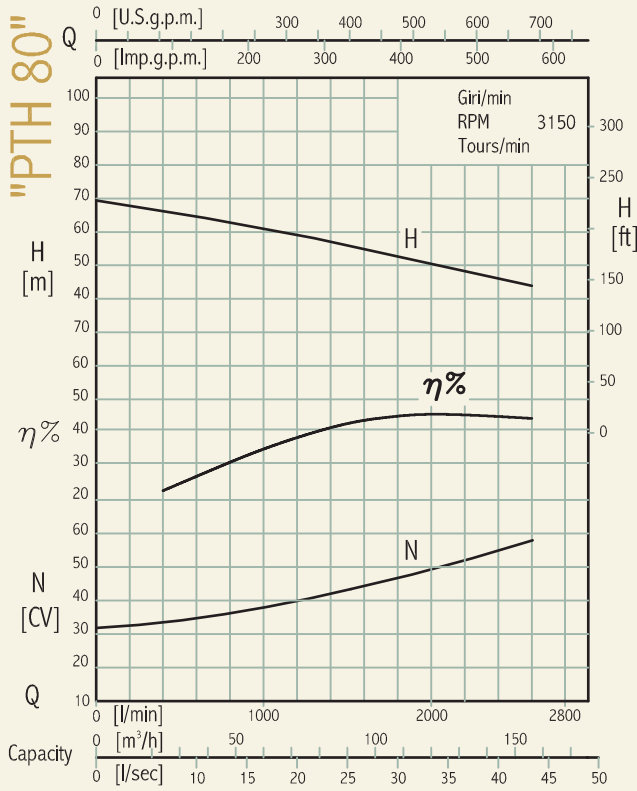
PTH and PTO/PTF SERIES

CENTRIFUGAL CHOPPER PUMPS PERFORMANCE RANGES



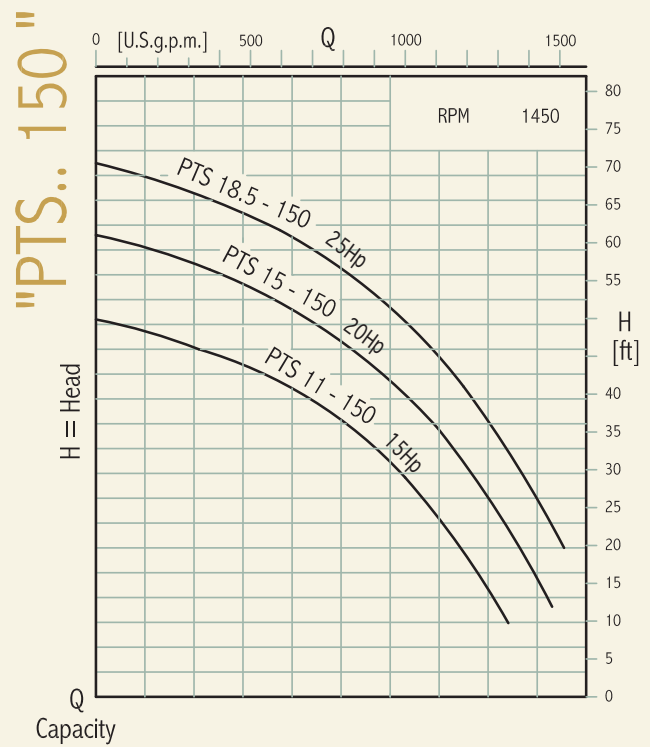
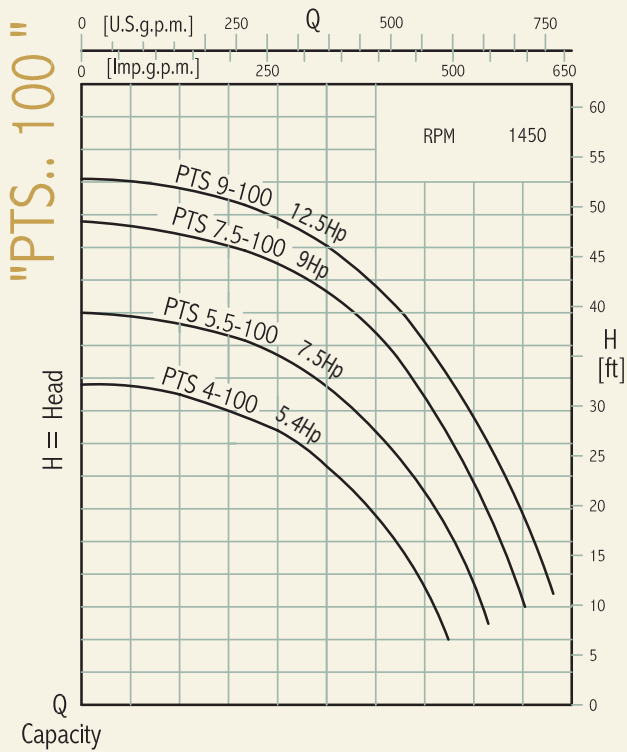
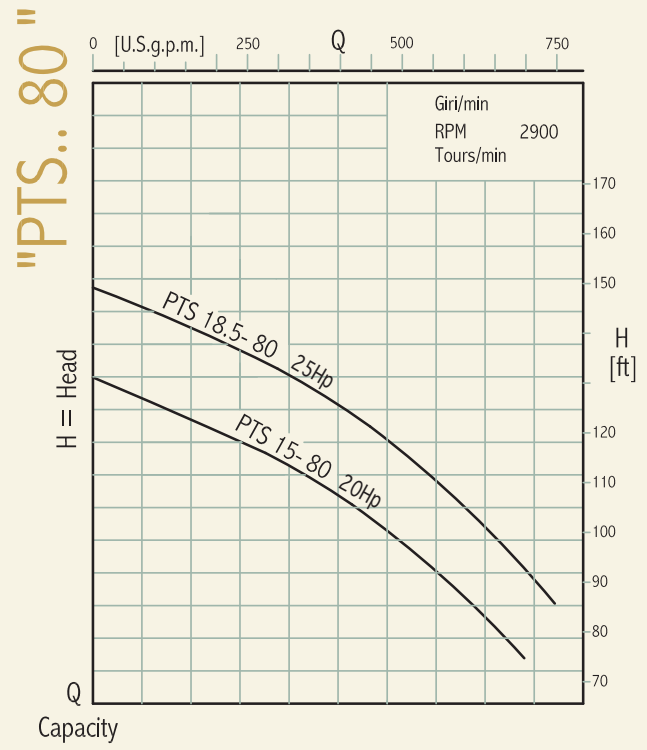
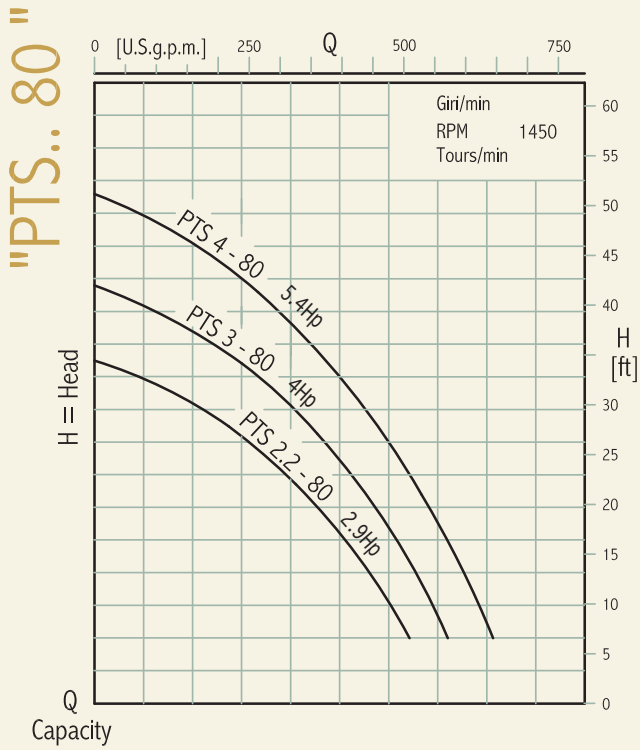
# SUBMERSIBLE CHOPPER PUMPS

## PTS PERFORMANCE RANGES



# SUBMERSIBLE CHOPPER PUMPS

## PTS PERFORMANCE RANGES

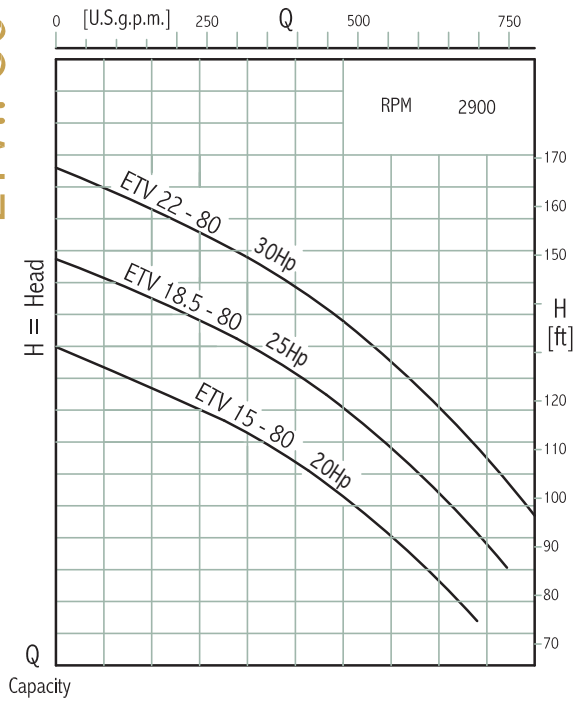


# VERTICAL CHOPPER PUMPS

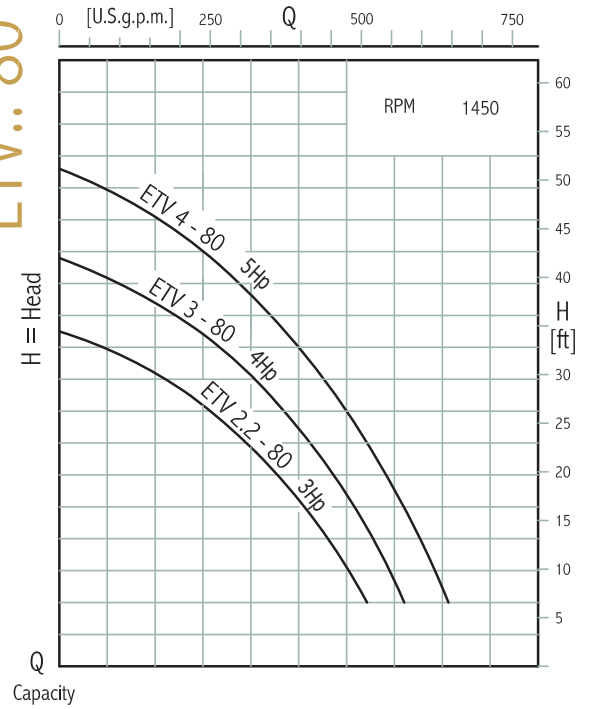
## ETV PERFORMANCE RANGES



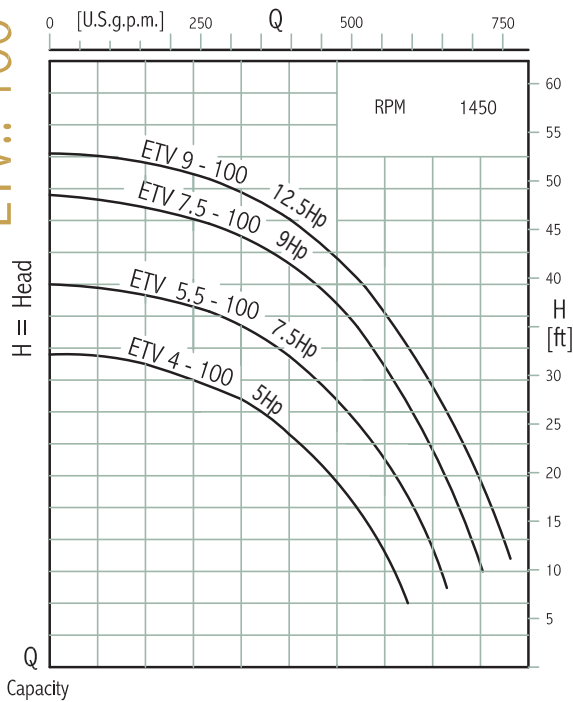
"ETV.. 80"



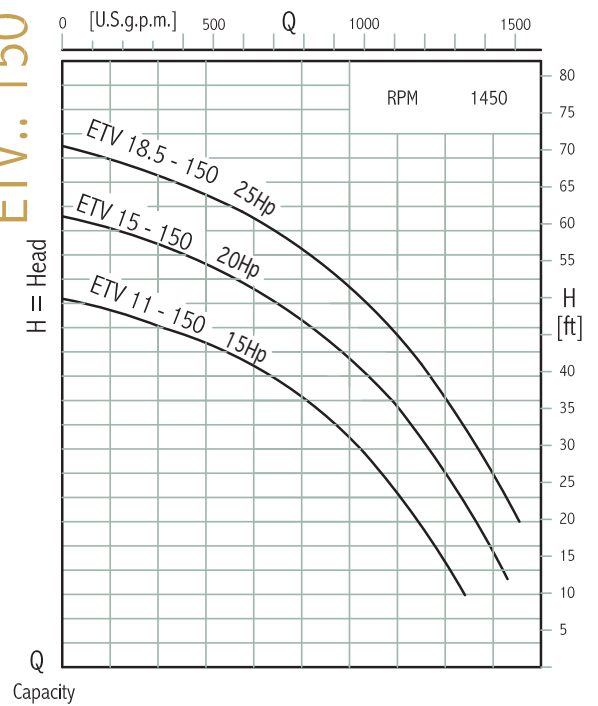
"ETV.. 80"



"ETV.. 100"

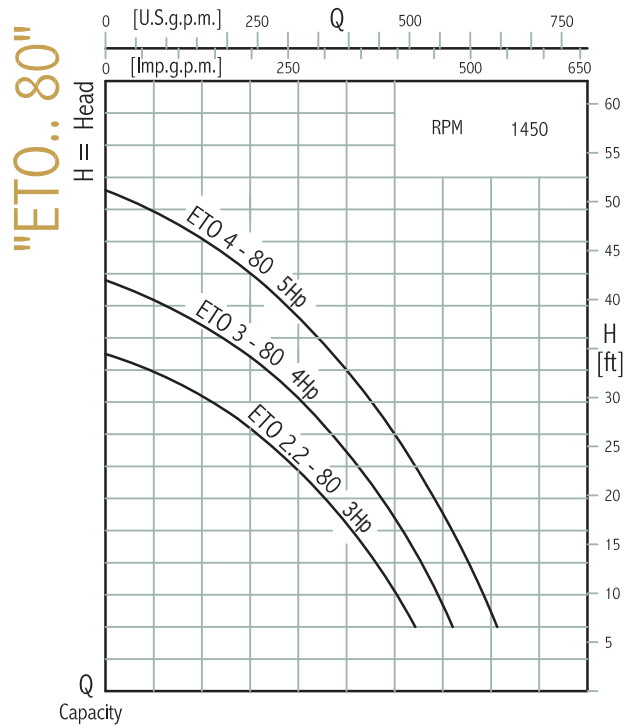
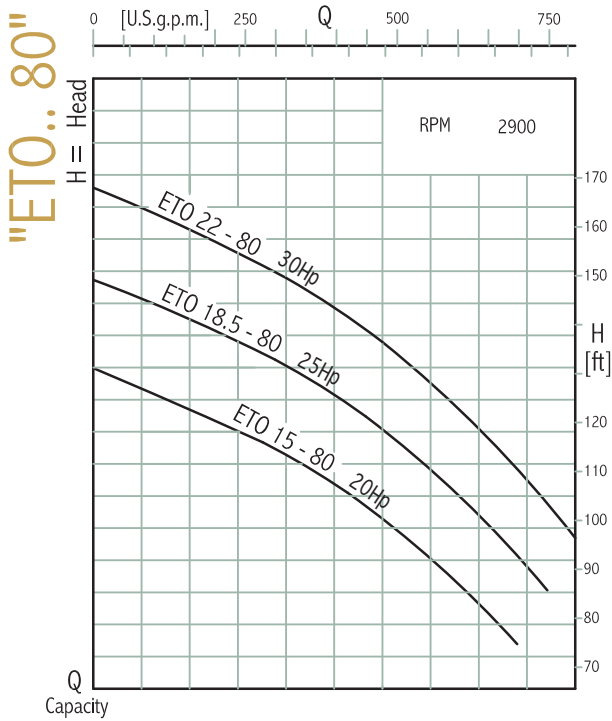
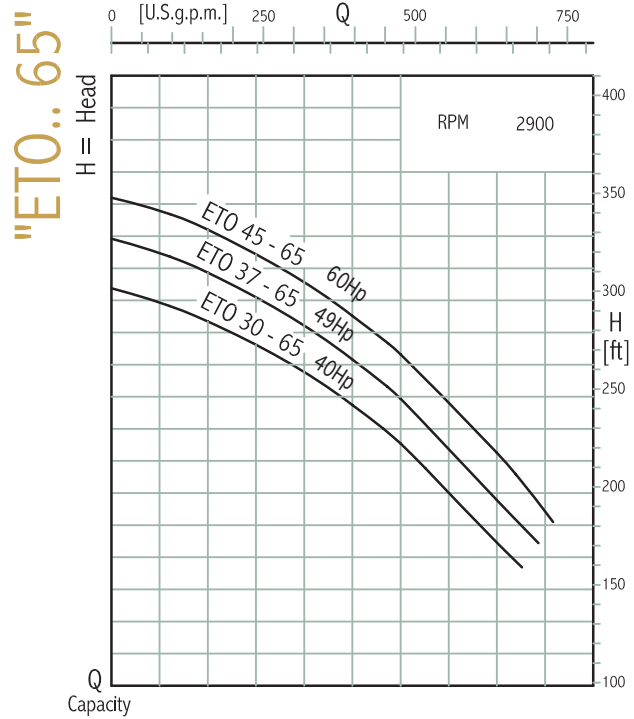
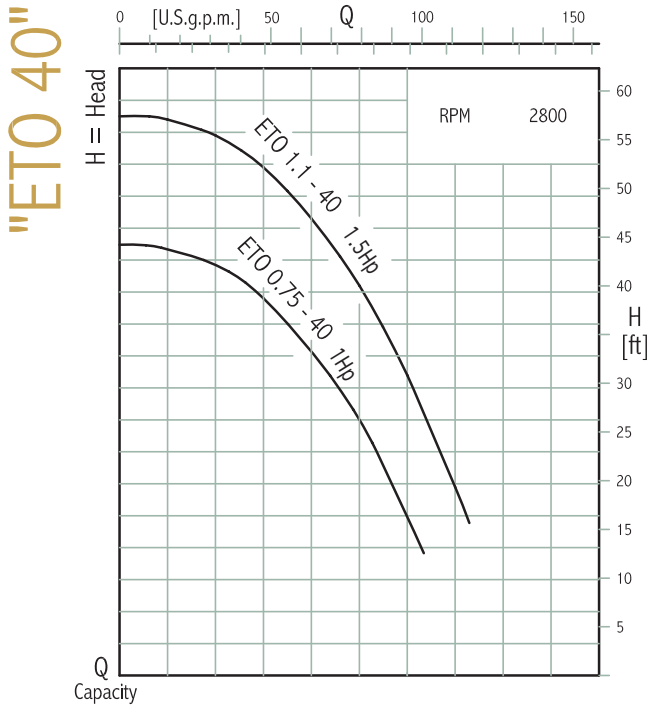


"ETV.. 150"



# VERTICAL CHOPPER PUMPS

## ETO PERFORMANCE RANGES

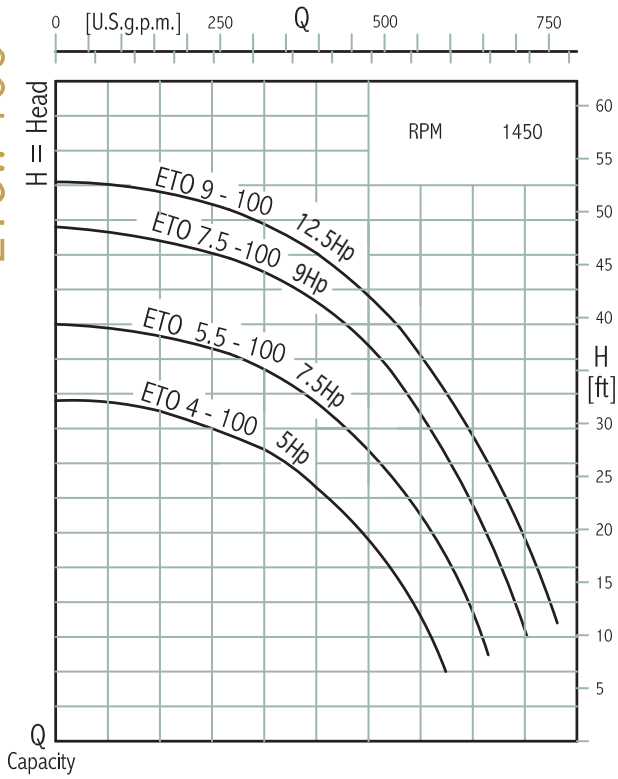


# VERTICAL CHOPPER PUMPS

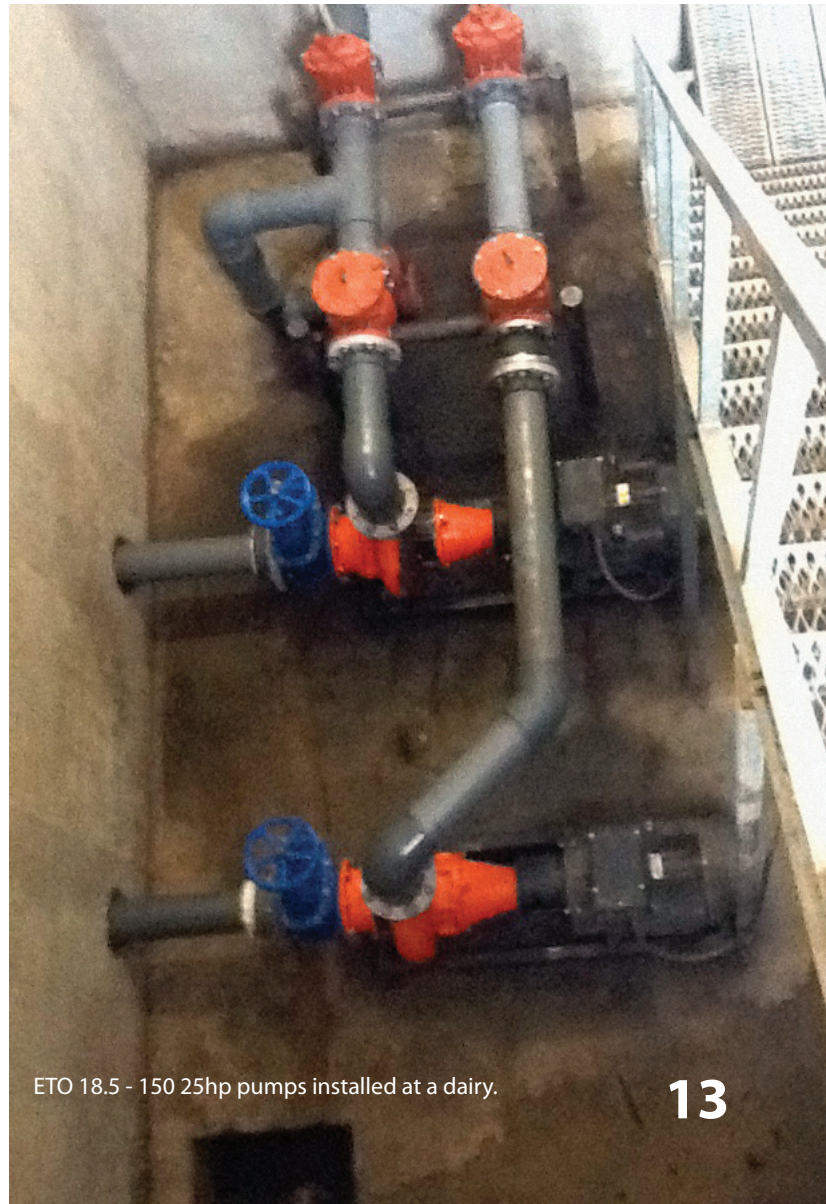
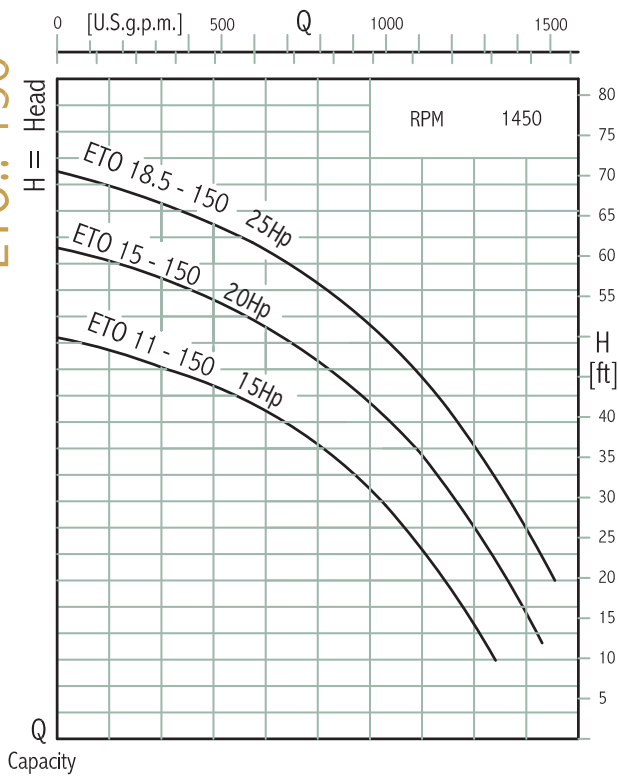
## ETO PERFORMANCE RANGES



"ETO.. 100"



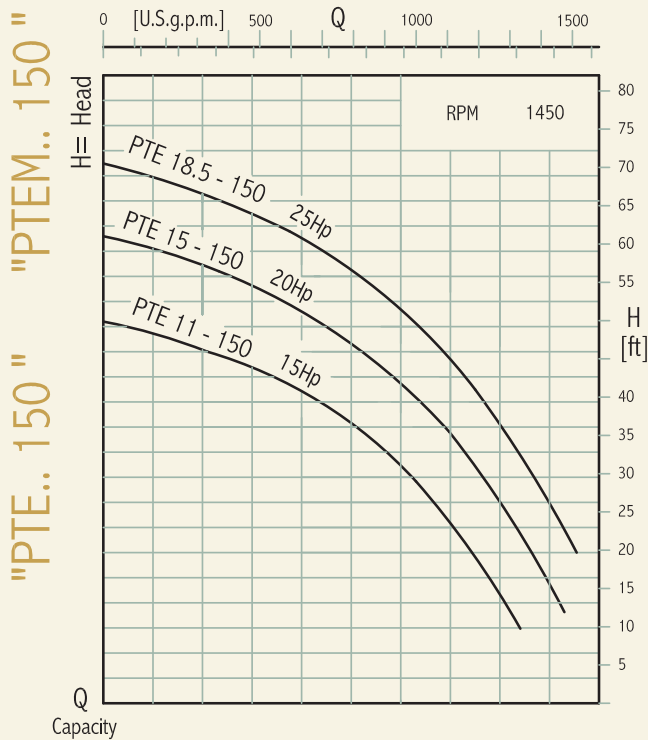
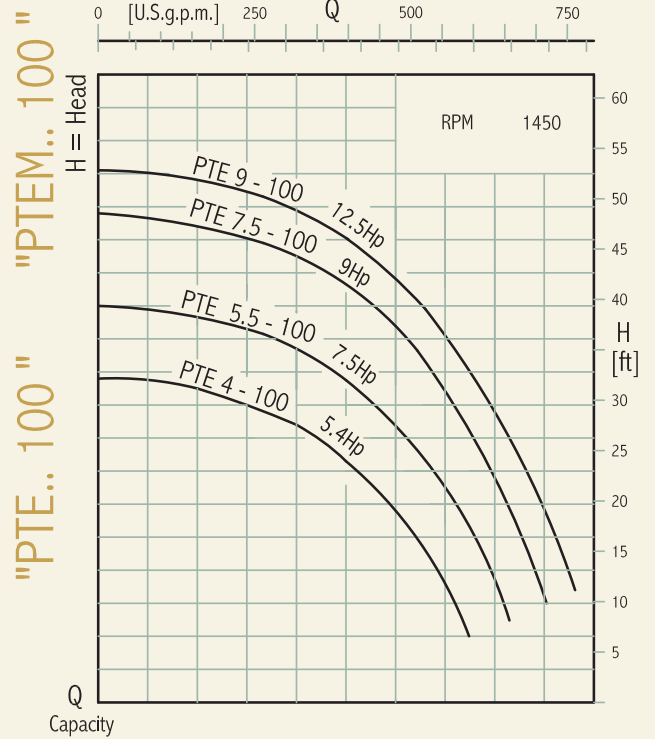
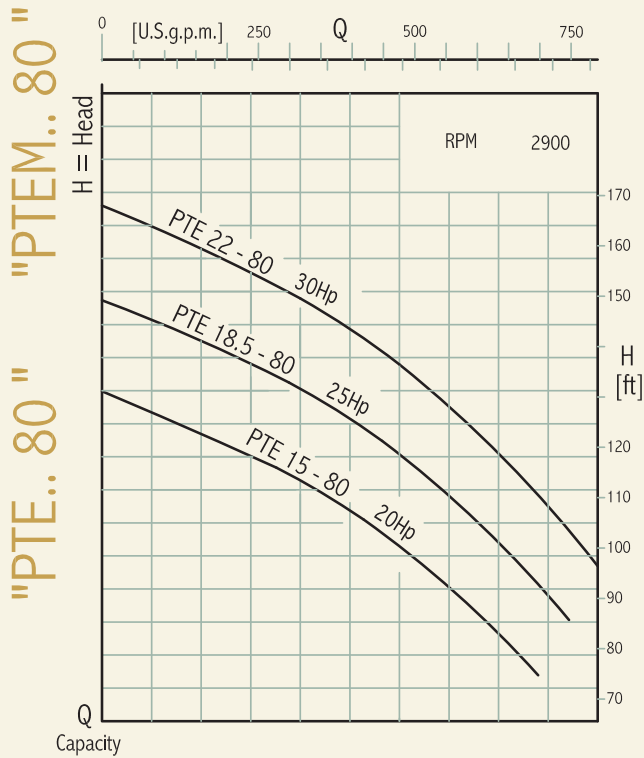
"ETO.. 150"



ETO 18.5 - 150 25hp pumps installed at a dairy.

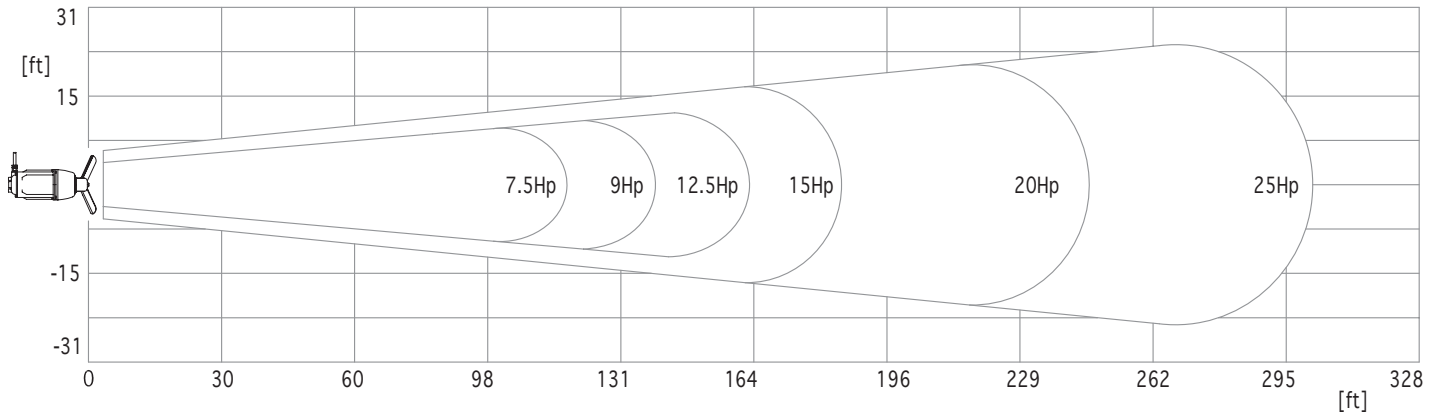
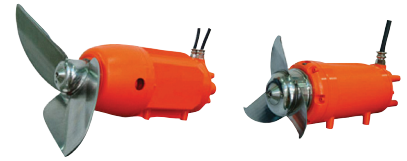
# VERTICAL CHOPPER PUMPS

## PTE PERFORMANCE RANGES



# SUBMERSIBLE HORIZONTAL MIXERS

## TBM SERIES PERFORMANCE RANGES



### Choice of Mixer

Mixing power must be chosen in proportion to the volume of the tank and type of sewage to be treated.



Treated lagoon.



Compost off separator at a dairy.



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