

# 450 SERIES

Multi-Blasters® Up To 450 HP  
Pressures from 7,000 PSI - 25,000 PSI  
Flows from 28 - 116 GPM

**GD**  
GARDNER DENVER®  
WATER JETTING  
SYSTEMS, INC.

## Versatile High Pressure Water Jetting



*A champion of industrial cleaning applications, this 475DS Multi-Blaster is equipped with a powerful TX-450SB pump capable of 8,000 PSI and flows of up to 90 GPM.*



Gardner Denver Water Jetting Systems, Inc. offers the most complete line of high-pressure water jetting units in the industry with more choices to solve your cleaning problems. Gardner Denver designs and manufactures water-jetting equipment with one goal in mind: to give our customers one of the most cost-effective, rugged, dependable machines available. By combining the exceptional efficiency of the Partek® TX-450 pump with a correctly-sized power unit and drive train, Gardner Denver has created a

perfectly-engineered system that will provide more useable energy than any other water-jetting product on the market.

Each Multi-Blaster® 450 Series unit includes a Partek® TX-450 pump with two fluid end options, a 475 HP diesel engine or electric motor, gearbox, pump filtration, fuel tank (for diesel units), unit instrumentation and safety relief systems.

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## TX-450SB/HB PUMP

The TX-450 pump consists of the power end and a fluid end. The power end, consisting of crankshaft, connecting rods and crossheads transmits power from the pump driver (either diesel or electric) to the fluid end. Two standard fluid ends are offered for the TX-450; the sectionalized "L" (TX-450SB) for pressures from 6,500 to 10,000 PSI, the Inline (TX-450HC) for pressures up to 25,000 PSI, and the inline (TX-450UH) for pressures to 40,000 PSI.

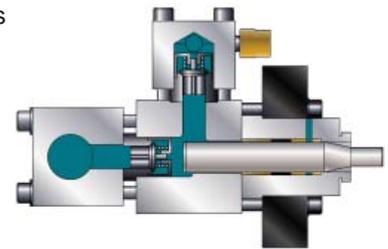
### Fluid End

All of the Partek fluid ends share several features to significantly improve the pump's life, performance and maintainability.

- ◆ All high pressure components are constructed of special high strength stainless steel to eliminate corrosion and maximize strength.
- ◆ Suction manifolds are manufactured from aircraft grade aluminum. Stainless steel is available for salt water service.
- ◆ "L" style fluid cylinders and Inline style stuffing boxes and valve seats are autofrettaged to provide maximum strength and reliability.
- ◆ Partek fluid ends are designed to insure highest possible volumetric efficiencies, allowing the pump to operate at slower, life extending speeds.
- ◆ Plungers are non threaded, collet style for positive alignment and easy and rapid removal and replacement.
- ◆ Plungers and packing are lubricated and cooled by water. Unlike messy oil or grease systems, water lubrication is environmentally safe, inexpensive and requires minimal maintenance.
- ◆ Partek's APC (advanced polymer composite) packing systems utilize space age materials to deliver long, even wear.
- ◆ Partek fluid ends are configured to permit rapid removal of packing and plungers from the rear of the stuffing box through the pump cradle.
- ◆ Valve seats utilize o-rings to facilitate sealing, reducing high internal stresses caused by traditional tapered valve seats.
- ◆ Packing loading is automatic by an internal spring, eliminating gland nut adjustments as on other pumps.

### Standard "SB" Operation to 10,000 PSI (TX-450SB)

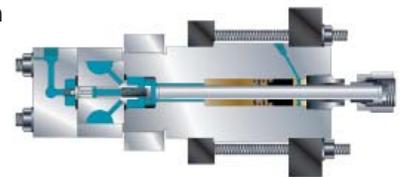
This simple design features easy removal of valves, plungers and packing for fast, efficient field maintenance. Plungers are colmonoy coated stainless steel. Valves are of the inserted type suitable for "dirty water".



### Inline Operation from 15,000 to 40,000 PSI (TX-450HC/UH)

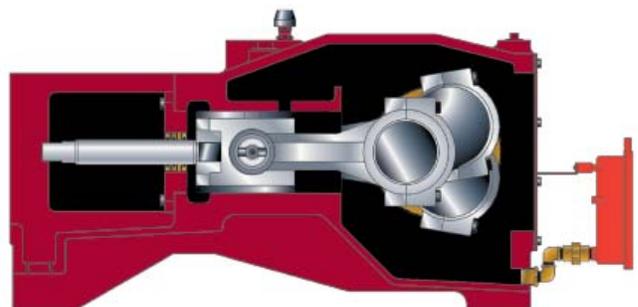
Horizontal "in line" suction and discharge valves and seats eliminate intersecting bores which can lead to premature fluid end failures at pressures above 15,000 psi.

Gardner Denver Water Jetting offers a unique reconditioning service for valves and seats which adds hundreds of hours of life while reducing operating costs. Plungers are solid polished tungsten carbide resulting in exceedingly long plunger and packing life.



### Power End

- ◆ Extra-heavy, steel crankshaft, tapered roller bearings and large cylindrical crossheads assure accurate alignment and long life.
- ◆ All components run in a heavy, precision machined cast iron frame.
- ◆ High-capacity, forced oil system through rifle-drilled crank shaft for thorough lubrication even at low RPMs.
- ◆ Triple-lip baffle seals and splash deflectors avert power end oil contamination.
- ◆ Equipped with oil level sight gauge.



# UNIT PACKAGE

## Diesel Power

- ◆ Fuel filters, dip stick, oil drain and other service points are conveniently located.
- ◆ Large, convenient engine-mounted instrument panel includes key ignition, throttle control, low oil pressure and high water temperature shut down for maximum engine protection.
- ◆ Engine is equipped with front and rear cowling and a hood for added protection.
- ◆ 150 gallon fuel tank.
- ◆ A three-plate 14" clutched PTO installed between the engine and pump drive permits independent operation of the engine. Sealed pilot bearing eliminates frequent lubrication requirements.

## Electric Power

The Multi-Blaster 450 Series can also be equipped with a 450 HP motor electric motor. Motors are available in TEFC, explosion proof or open drip enclosures with a variety of voltages and starting options.

## Drive System

The Multi-Blaster 450 Series uses an oversized, heavy duty shaft-mounted gearbox for longer life. The Multi-Blaster 450VS is equipped with a five-speed heavy duty transmission. This provides five distinct pump speeds without changing plungers or fluid ends (see page one for ranges).

- ◆ Clutch is engaged or disengaged via foot pedal for maximum operator convenience.
- ◆ Power is transmitted to the pump through a short-coupled drive shaft, which provides low vibration operation, reduces maintenance, and is tolerant of misalignment.

## Discharge Plumbing

- ◆ Gardner Denver Water Jetting Systems offers a wide variety of adapters to accommodate most applications.
- ◆ Pressure gauge is stainless-steel, glycerine-filled with an internal snubber to extend gauge life.
- ◆ The Inline fluid end includes dual rupture discs for redundant over pressure protection.
- ◆ Standard "L" fluid ends are equipped with stainless steel relief valve and rupture disc assembly.

## Suction Plumbing

- ◆ Suction piping is corrosion-resistant and includes a Y-strainer.

## Base

The Multi-Blaster 450 Series base is constructed of heavy 10-inch steel channel.

- ◆ Rigid skid design allows unit to be lifted and moved without causing drive misalignment.
- ◆ The entire footprint of the engine and pump are welded directly to structural members providing an extremely strong, low vibration design.
- ◆ The skid surface is quarter-inch thick steel floor plate to create a safer, non-slip work surface and to enhance the structural integrity of the skid.
- ◆ Fork-lift slots are standard on skid units only.

# OPTIONAL FEATURES

**Water Tank.** A 120-gallon stainless-steel tank is available.

**Suction Dampener.** Optional bladder style pulsation dampener minimizes potential for cavitation.

**Trailer Mounting.** Trailers have four wheels per 10,000-pound tandem axle with heavy-duty tongue, fenders, and adjustable height hitch. Trailer units have correct center of gravity for safe highway towing. Trailers have an oversized jack to facilitate vehicle connection. Brakes are mounted on all four wheels and can be either electric or pneumatic.

**Engine Throttle Control.** Engine is at idle RPM with gun(s) in dump mode. RPM climbs to preset level when gun trigger is depressed.

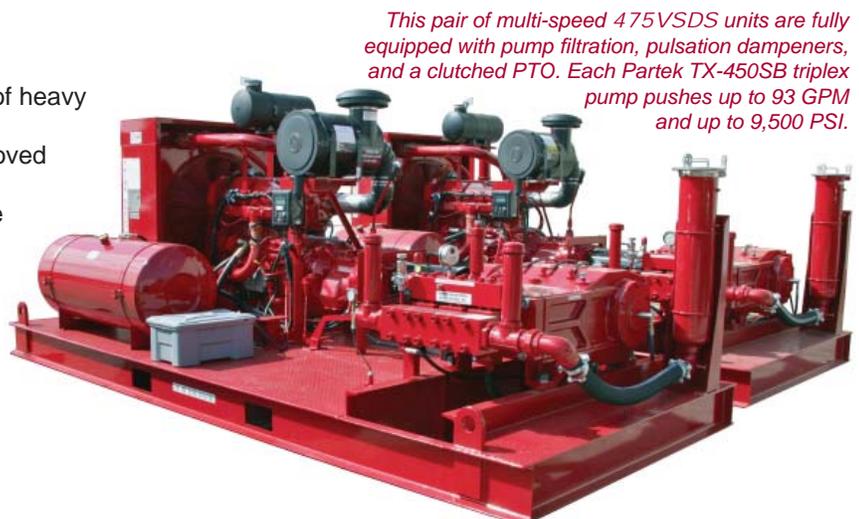
**Hoses, Rack & Fittings.** Hoses are available in standard 50' (15.2m) sections with a minimum burst of 2.5 times the working pressure. Hose rack made of tubular steel with 150' capacity. Stainless steel quick connect couplers are available for 10,000, 15,000 or 20,000 PSI working pressure. Other lengths available upon request.

**Lifting Eyes and/or Bail.**

**Whisperized® Enclosure.** Allows you to use the unit in areas that have noise restrictions. Sound-attenuating enclosure covers the engine.

**Filtration.** Over-sized stainless steel filter delivers clean water to the pump to increase plunger, valve and packing life. 50 micron filtration is standard for 10,000 PSI; 10 micron is standard for 20,000 PSI.

**Safety Shutdowns.** When power-end oil level falls below proper level or inlet water pressure drops below a safe level.



*This pair of multi-speed 475VSDS units are fully equipped with pump filtration, pulsation dampeners, and a clutched PTO. Each Partek TX-450SB triplex pump pushes up to 93 GPM and up to 9,500 PSI.*

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## CUSTOMIZATION

Over the years, customers of Gardner Denver Water Jetting Systems have requested some very specific modifications for our Multi-Blaster water jetting units. From top mounted motors to extra-large water tanks, Gardner Denver Water Jetting Systems is able to build the unit that meets your exact specifications.

Custom systems and options are available. Please contact your Gardner Denver sales representative or authorized dealer for details. Gardner Denver Water Jetting Systems, Inc. offers a complete line of accessories for surface preparation, tube cleaning, jet cutting and other applications. Please call or write for a free catalog today.

## Quality Parts, Reasonable Costs

Gardner Denver Water Jetting Systems, Inc. parts are designed and manufactured to fit perfectly and to last. Because every part we design is manufactured by Gardner Denver, each part is inspected to meet our demanding quality standards before it goes into a product or inventory. And with thousands of units in service, parts are manufactured in high volumes to keep your costs low.

	UNIT		PRESSURE		FLOW		PUMP			
	Model	PSI	Bar	GPM	LPM	Model				
Model 450E Electric	450-06	6,000	414	117	443	TX-450SB				
	450-07	7,200	496	100	379	TX-450SB				
	450-08	8,000	552	90	341	TX-450SB				
	450-10	10,000	689	70	265	TX-450SB				
	450-15	15,000	1034	43	163	TX-450HC				
	450-20	20,000	1380	35	132	TX-450HC				
	450-25	25,000	1724	28	106	TX-450HC				
	450-40	40,000	2758	17	64	TX-450UH				
Model 475D Diesel	475-06	6,000	414	117	443	TX-450SB				
	475-07	7,200	496	100	379	TX-450SB				
	475-08	8,000	552	90	341	TX-450SB				
	475-10	10,000	689	70	265	TX-450SB				
	475-15	15,000	1034	43	163	TX-450HC				
	475-20	20,000	1380	35	132	TX-450HC				
	475-25	25,000	1724	28	106	TX-450HC				
	475-40	40,000	2758	17	64	TX-450UH				
Model 475VSD Diesel	475-09VS	6,500-9,500	448-655	93-65	352-246	TX-450SB				
	475-10VS	7,500-10,000	517-690	82-61	310-231	TX-450SB				
	475-20VS	14,000-20,000	965-1379	44-30	167-114	TX-450HC				
	UNIT		HEIGHT		WIDTH		LENGTH		WEIGHT	
	Model	In.	mm	In.	mm	In.	mm	Lbs.	Kg	
Approximate Weights & Dimensions	Diesel Skid	74	1880	96	2438	170	4318	13,000	5897	
	Diesel Trailer	96	2438	96	2438	220	5588	14,000	6350	
	Electric Skid	65	1651	96	2438	160	4064	12,000	5443	
	Electric Trailer	85	2159	96	2438	210	5334	13,000	5897	
	Diesel Trans. Skid	82	2083	96	2438	216	5486	13,500	6124	
	Diesel Trans. Trailer	80	2032	96	2438	238	6045	14,500	6577	

### NOTES:

- Consult factory for other plunger options.
- Flow rates based on 100% volumetric efficiency; ratings may vary according to engine/motor speed.
- Actual brake horsepower required varies and is dependent on pressure rating, displacement, fluid compressibility and both mechanical and volumetric efficiency.

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