HEAVY DUTY VERTICAL

SURFACE BROACHING

MACHINES

CAPACITY RANGES

5 TON CAPACITY

24" STROKE

THROUGH

5 TON CAPACITY

54" STROKE





THE BROACH & MACHINE CO.

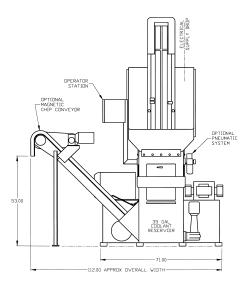
HEAVY DUTY VERTICAL SURFACE

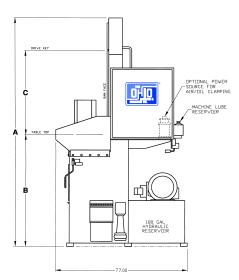
109.50 DOORS OPEN-

MACHINE DIMENSIONS

MACHINE	Α	В	С	
VSHD-524	98 3/4	54	25 5/8	
VSHD-536	110 3/4	54	37 5/8	
VSHD-548	134 3/4	66	49 5/8	
VSHD-554	147 3/4	73	55 5/8	

NOTE: The photos, drawings and dimensions contained herein are for illustrative purposes only. Should certified dimensions be required, please consult our factory.





BROACHING MACHINES

Hardened and Ground Steel Ways - The machine ways for this Model Series are composed of High Carbon Steel, hardened and tempered, then ground to closely controlled tolerances, to provide long service life and durability.

Precision Ram Slide - The Ram Slides are manufactured from close-grain, high-tensile, castiron material. Slide surfaces are hand-scraped for a precise fit and then flaked for maximum lubrication penetration.

Lubrication System - All Heavy-Duty Models utilize TRABON Pressurized, individual point lubrication. No "tree-type" lube circuits are employed. Standard system features include low reservoir level indication, anti-start interlocking (in AUTOMATIC control mode), and high pressure indication for detecting an impaired normal flow condition.

Hydraulics - A high-performance VICKERS fixed-displacement, vane pump is used in conjunction with other VICKERS valves and controls to form the basis of the standard machine drive system. This type of system is a reliable, industrial "open-loop" design.

Machine Frame – The Ram Slide and Table sub-assemblies are mounted on a rigid base weldment. The lower portion of this weldment serves as separate hydraulic and coolant reservoirs for the machine. This affords a compact design that uses a minimum of expensive plant floor space.

Standard Colors are Machine Tool Grey and Vista Green. Additional colors are available.

Standard Voltage is 440/480, 3 Phase, 60 Hz.

A-B Programmable Controller.

MACHINE SPECIFICATIONS

MACHINE	VSHD-524	VSHD-536	VSHD-548	VSHD-554
Tonnage	5 Ton	5 Ton	5 Ton	5 Ton
Stroke	24"	36"	48"	54"
Normal Cut Capacity	10,000 Lbs.	10,000 Lbs.	10,000 Lbs.	10,000 Lbs.
Broaching Speed*	100 FPM	100 FPM	100 FPM	100 FPM
Hydraulic Pump Type	"Vickers" Vane	"Vickers" Vane	"Vickers" Vane	"Vickers" Vane
Main Hydraulic Motor H.P.	30 H.P.	30 H.P.	30 H.P.	30 H.P.
Main Hydraulic Motor RPM	1200 RPM	1200 RPM	1200 RPM	1200 RPM
Coolant Motor H.P.	1/2 H.P.	1/2 H.P.	1/2 H.P.	1/2 H.P.
Coolant Motor RPM	1800 RPM	1800 RPM	1800 RPM	1800 RPM

* Other speed ranges available.

Ohio Broach

The following optional tables may be added to any Heavy-Duty Machine. All table designs (including standard Platen) are equipped with cross keyways to aid repetitive fixture change-over and include the necessary tie-in to hydraulic and electric systems.



PLATEN-TYPE TABLE A Platen Table is furnished with the standard machine. The table has a large, unobstructed perimeter.

TIP BACK TABLE Tilts the work-holding fixture back 35° from horizontal to allow the operator more convenient access for loading and unloading of workpieces. Table automatically tilts forward on command to put the loaded work-holding fixture in the proper attitude for broaching.

INFEED SHUTTLE TABLE A "fore-and-aft" sliding table that permits multiple repetitive broach cuts. The Infeed Shuttle moves in-and-out on a horizontal plane allowing the machine to make repeated passes until a predetermined depth of cut is obtained.

INFEED SHUTTLE/TIP BACK COMBINATION TABLE This patented table affords the user the maximum in versatility. It combines features of both the Tip Back and Infeed Shuttle Tables into one compact unit.



The following options may be added to upgrade manual-type work-holding fixture clamping operations:



AIR/OIL POWER CLAMPING This option provides a single-acting, air-oil booster type, power source for fixture clamping. Includes electrical pressure switch and complete electrical tie-in to machine electrics.

AUXILIARY HYDRAULIC CLAMPING This option provides a double-acting hydraulic power source for clamping of work-holding fixtures. It will provide the additional hydraulic oil necessary for large volume hydraulic cylinder or multicylinder applications. This system can also be used as a power source for automatic fixture movements.





CHIP REMOVAL CONVEYOR All machines are designed to accept conveyors that automatically remove chips from the machine base. Two alternate types are available: a magnetic-type for ferrous chips, and a mechanical drag-link for non-ferrous. Both types can be arranged for either pit or floor-surface machine installations. Appropriate baffles and electrical tie-ins are included.

OPERATOR PLATFORM Heavy-duty construction; used for floor-surface installation. Built from structural tubing and heavy-duty grating. Includes hand rail and stairway.





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