LEADING EDGE MANIPULATOR/ROBOTIC TECHNOLOGY

VTS™
HANDS ON ROBOTICS

VULCAN TACTILE SYSTEM

Utilizing an Industrial Robot with our specialized hand control system allows the operator to manually control the robot, not just program it. This system allows the operator to move the robot simultaneously with his movements for a true "hands on" experience.

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VTS™ Vulcan Tactile System

What is the VTS?

VTS™ (Vulcan Tactile System) is leading edge technology that now allows an industrial robot to be operated manually in real time. The Robot's path following capabilities and functionality can now be accessed and used by the operator without programming knowledge. The **VTS™** uses a Tactile Force Feedback system that enables the operator t o "feel" the actual process forces. The motion library provides the operator with the ability to process a product in any orientation, reducing or eliminating the need for fixtures or positioning equipment. Flash and risers can now be removed easily without over-grinding. The ability to move the machine in "free space" allows processing of any size product. This is unmatched by any competitive machines.

Typical Applications

Foundry

- Cutting off risers at any orientation
- Grinding flash at any orientation
- Grinding riser pads at any orientation

Forging

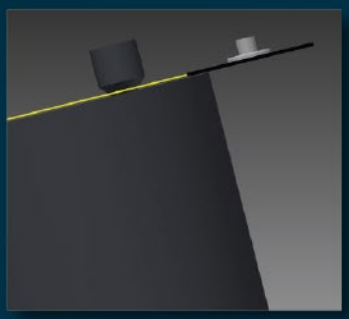
Grinding of heavy flash lines

Material Conditioning

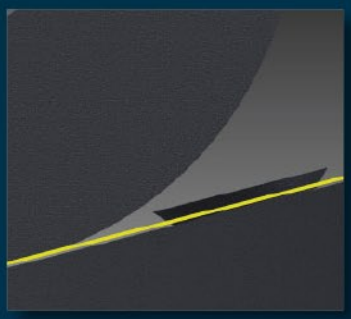
- Spot removal of defects
- Chamfering bars and rounds

Other

Any application that a Robot is a good solution, but not practical due to programing requirements.



"Cut and Grind at any orientation!"

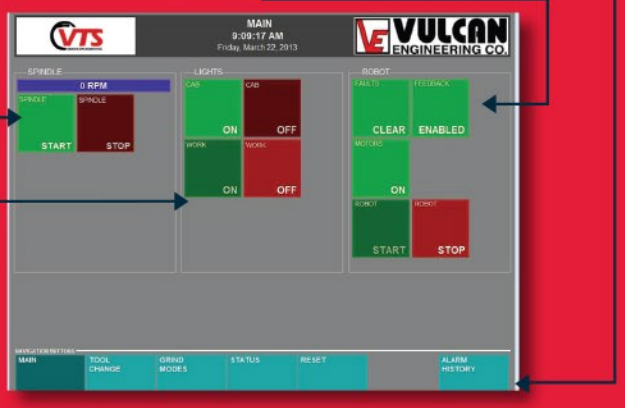


"Touch the casting - without over grinding!"

User Friendly & Intuitive Interface

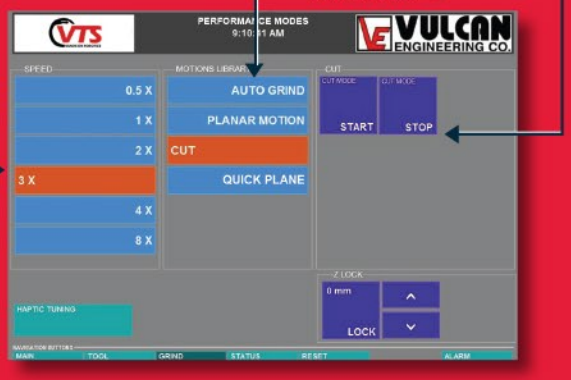
Main Screen

- Spindle Control Status
- Work and Cab Light Controls
- Robot Control and Status
- Functionality Menu



Grind Modes Screen

- **Speed and Scale Selection:** Allows large or precise robot movements.
- **Motion Library:** Allows for selection of Cut Mode, Planar Mode, Auto Grind and more.
- Cut Mode



Options

Spindles

- High Horsepower hydraulic spindles recommended for bonded abrasive media. Recommended spindle for cutoff and heavy grinding applications.
- Manual tool change for other wheel configurations

Auxiliary Equipment

- Casting positioners for payloads up to 5,000 pounds
- Turntables and indexers for use in Automatic Mode

Other Configurations

Stacker Crane (Gantry) Mounted

- Large castings can be ground easily as the machine can be maneuvered up, down and around castings. This eliminates/reduces repositioning of the casting.
- Cameras provided with a screen inside the cab gives a full view of the operational area.

Track Mounted

Provides the capability to move between grinding areas.

Operation Modes

Manual Control:

- Machine is moved via the Tactile Feedback controller
- Motion Library access manual operation of the robot's functionality and capabilities

Semi-Automatic Control:

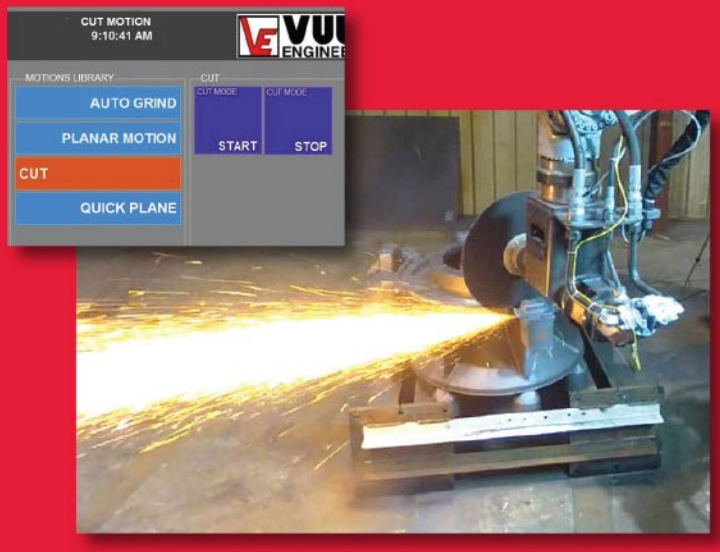
Operator inputs basic points to orient the robot and then selects desired automatic function such as gate grinding

Automatic Control:

Machine is placed into a "cell" with locating pins and bushings to perform pre-programmed tasks, just as in any typical robot cell.

Cut Mode Example- 4 Easy Steps

1) Operator Positions the Cut-Off wheel at desired angle.
2) Operator then presses the Cut Mode "Start" button, locking the wheel in the plane.
3) Using the Tactile controller, the Operator cuts through the riser manually, but is unable to move out of the plane.
4) When cut is completed, the Operator presses the "Stop" button and repositions the Robot for the next cut.



*Features and options subject to change without notice

Scan the Code

Use your smart phone and scan this QR code to get more info and video of the **VTS™** in action!

Operator Cab
(with Tactile Feedback Controller)

Industrial Robot
(with Kuka support worldwide)

Optional Positioner
Multi-axis Positioner controlled from within the cab

Large Casting Grinding Area

Robot Pedestal
Customizable Height

Robot rotates from one area to the other

FLOOR MOUNTED CONFIGURATION

VTS™ (Vulcan Tactile System) Floor Mounted configuration allows the operator to cut and grind material regardless of the orientation or angle. With the use of our Fox® Multi-axis Positioner, the operator can move and rotate the casting from within the **VTS™** operator cab. This allows for faster finishing without having to stop the grinder and manually move or adjust the material. The pedestal can be customized to fit any application. The robot rotates to provide an easy transition from work on castings in the positioner to work in an open area for larger, heavy castings. The operator cab is totally enclosed and specially designed to allow operator to view both work areas. The versatility and flexibility of the **VTS™** Floor Mounted model offers several possibilities for finishing different size and shape castings without having to reprogram the system.