

**ITEM 16570.7X M - Localized Paint Removal From Structural Steel By Vacuum Contained Methods**

**DESCRIPTION.** The work shall consist of removing paint, corrosion products, dirt, salt, and other materials required by the contract documents from structural steel. All removals will be performed by means of solvents and vacuum containing paint removal equipment.

Paint removal will be done at the locations indicated by the contract documents, or where ordered by the Engineer.

**MATERIALS.** Equipment used for this work may be shrouded power tools with vacuum attachments; a vacuum blaster; a combination of the two; or any other vacuum containing method which:

1. Is capable of removing all existing paint from the steel surface.
2. Will collect and contain the removed material, and all abrasive employed.
3. Does not permit the release of visible, quantities of dust, or debris, into the atmosphere.
4. Will not vaporize existing paint into the atmosphere.

The contractor is hereby notified that some types of vacuum containing removal equipment are patented. The possibility of royalty payments exists.

All equipment will be approved by the Engineer prior to the beginning of any work. Equipment will be approved on the basis of a paint removal demonstration. For each type of equipment the Engineer will choose a demonstration site which is part of the work. Each demonstration site shall be at least 1 square meter in area unless otherwise permitted by the Engineer. Each demonstration site shall be reflective of the different configurations to be encountered and exhibit all material in need of removal. If this is not possible, the Engineer shall choose separate demonstration sites which meet the foregoing requirements. Each type of equipment will be required to remove all materials as noted in the contract documents, and conform to the requirements of this specification.

If the equipment uses abrasives, the contractor may supply any recyclable abrasive which contains less than one percent free silica. The supplied abrasive shall be compatible with the requirements of the equipment.

The Engineer is empowered to rescind approval of any piece of equipment which, in his opinion, is not performing as required. All such equipment shall be immediately removed from the work site.

**CONSTRUCTION DETAILS.** Paint removal shall be done only at those locations required by the contract documents, or where ordered by the Engineer. Unless otherwise provided by the contract documents, all existing paint shall be removed for a minimum distance of 100 mm on each side of the centerline of cut, bolt row, rivet row, or weld, as applicable. If the steel is to be heated prior to straightening, or other similar operation, the minimum removal limits shall be 100 mm beyond the direct heat application area, or as shown on the plans.

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Unless otherwise noted by the contract documents, the contractor shall assume that all paint removed is lead-based, therefore, all waste resulting from the removals shall be treated, handled and disposed of as hazardous waste in accordance with all applicable Federal, State, and Local rules and regulations. The contractors attention is directed to subsection 107-05; SAFETY AND HEALTH REQUIREMENTS.

All material not contained by the steel cleaning equipment shall be collected by vacuum methods only. No shoveling, dry sweeping, wet sweeping, or air-blowing will be permitted. All vacuums will be equipped with high efficiency particulate (HEPA) filters.

After the paint has been removed by vacuum containing methods, the location shall be inspected for cleanliness. No existing paint will be permitted to remain. If the contractor is able to effectively demonstrate that vacuum containing methods are incapable of removing remaining paint, the Engineer may permit paint removal by a supplemental method such as hand tools or chemical stripping.

Rust, mill scale, and other similar materials that are not paint, demonstrably not removable by vacuum containing methods, may be permitted to remain, or may be required to be removed by one, or more, of the foregoing methods. Removal will be ordered by the Engineer.

All removed material generated by power tool or hand cleaning methods shall be collected by vacuums equipped with HEPA filters. No other method will be permitted.

**METHOD OF MEASUREMENT.** The work will be measured as the number of square meters of steel from which paint has been removed in the manner required. Measurement will be taken as the plane projection of the measured location. No allowances will be made for irregular, or non-planar surfaces. All projections will be taken perpendicular to the surface in question. Changes in direction of ten degrees, or more, will delineate the termination line of the surface being measured.

**BASIS OF PAYMENT.** The unit price bid per square meter shall include the cost of all labor, material, and equipment necessary to complete the work.

Payment will be made under:

<b><u>ITEM NO.</u></b>	<b><u>ITEM</u></b>	<b><u>UNIT</u></b>
16570.72 M	LOCALIZED VACUUM CONTAINED CLEANING - STRUCTURAL STEEL - PLANAR SURFACES	Square Meter

<b><u>ITEM NO.</u></b>	<b><u>ITEM</u></b>	<b><u>UNIT</u></b>
16570.74 M	LOCALIZED VACUUM CONTAINED CLEANING - STRUCTURAL STEEL - BOLTED/	Square

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	RIVETED CONNECTIONS	Meter
16570.76 M	LOCALIZED VACUUM CONTAINED CLEANING - STRUCTURAL STEEL - IRREGULAR SURFACES	Square Meters

The treatment, handling and disposal of waste material will be paid for under a separate item.  
Environmental ground and waterway protection or containment enclosures will be paid for under separate items.

Spec is Dis-Approved by  
EI 05-038