**GENERIC STOCK SAW (*460V 3PH 60HZ)**

The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on the date of an invitation for bids or a request for proposals shall apply.

**THE CODE OF FEDERAL REGULATIONS**

- 29 CFR 1910 Occupational Safety and Health Standards
- 29 CFR 1926 Safety and Health Regulations for Construction
- 40 CFR 261 Identification and Listing of Hazardous Waste

(Application for copies should be addressed to Superintendent of Documents, Government Printing Office, Washington, DC 20402)

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)**

- NFPA 70 National Electric Code
- NFPA 79 Electrical Standards for Industrial Equipment

(Application for copies should be addressed to National Fire Protection Association, 470 Atlantic Ave., Boston, MA 02210)

**NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION (NEMA)**

- ICS Industrial Controls and Systems
- MGI Motors and Generators

(Application for copies should be addressed to the National Electrical Manufacturers' Association, 2101 L Street, NW, Washington, DC 20037)

**AMERICAN NATIONAL STANDARDS INSTITUTE, INC. (ANSI)**

- ANSI Z535.4 Product Safety Signs and Labels

(Copies available at: http://webstore.ansi.org or ANSI Attn: Customer Service Department, 25 W 43rd Street, 4th Floor, New York, NY 10036)

**PSNS&IMF OCCUPATIONAL SAFETY AND HEALTH MANUAL**

- OSH-II-9 Hazardous Energy Control, Lock Out/Tags Plus (LOTP)

(Copies available, to be provided by Government Point of Contact as required by Section 4.2 of this specification)

1. **General Equipment Requirements**:

1.1 Electrical Components. All electrical components including motors, starters, relays, switches, and wiring shall conform to and be located in accordance with the applicable NFPA, NEMA, and ANSI standards for the intended application.

1.2 Motors. Motors shall be rated for continuous duty and shall be equipped with ball or roller bearings of the sealed and permanently lubricated type. Alternating current (AC) motors shall be designed to operate on 60 HZ. All electrical motors shall meet NEMA-MG 1 requirements. Each motor shall have an identification plate to identify the manufacturer, model identification, serial number, voltage, amperage, horsepower, phase, and frequency.

1.3 Bearings. All bearings contained within this machine and the entire system must be U.S. or Canadian manufactured. If they are not U.S. or Canadian manufactured bearings, the vendor must provide a list of exact U.S. or Canadian made equivalent bearings that can be used for replacement of each bearing

within this equipment or system. This requirement is in accordance with Defense Federal Acquisition Regulation Supplement (DFARS 252.225-7016).

1.4 Electrical System. Electrical components including motors, starters, relays, switches, and wiring shall conform to and be located in accordance with NFPA 79. Electricity available at the installation site is 460 VAC, 3 Phase, 60 Hz. The equipment shall be designed to operate on the available electric utilities. All electrical components shall conform to applicable NEMA ICS 1 standards. SPD installed in main machinery electrical panel per NFPA 79 section 7.8.

1.5 Electric Power Disconnect. A single supply circuit disconnect device shall be provided and installed on the equipment, which controls all electrical power. All electrical components shall be fused or circuit breaker protected in each phase conductor for AC circuits. Overloads, fuses, and circuit breakers shall be coordinated for maximum component protection and minimum circuit disruption. The device shall be either a fusible motor circuit switch or circuit breaker.

1.6 Energy Isolating Devices. The equipment shall be provided with energy isolation devices (e.g. power switches, safety devices, circuit breakers, valves, etc.) that protect personnel from the release of hazardous energy. Hazardous energy includes electrical, mechanical, hydraulic, pneumatic, gravity, or other energy that could harm employees involved in servicing or maintenance of the equipment. The devices shall be installed as the first energy control device on all major components of the system such that the component can be isolated at the component level. The devices shall be designed and manufactured such that they can be placed in the user-selected position (ON or OFF, OPEN or CLOSED) to prevent inadvertent or unauthorized change.

1.7 Electrical Connections. Electrical connections within the equipment shall be complete and shall be made via terminals on the components, terminals, or circuit boards and bussing. Splices between terminations are not permitted. Connections and terminals shall be supported and spaced without the dependence upon the wiring in the components and braced as necessary to assure withstanding the distortion forces associated with available short-circuit currents. Proper identification of wiring, bussing, terminals and circuits for function, polarity, phasing, etc., shall be adhered to throughout the equipment. Identification shall be in the form of wire markers, color coding, permanently engraved plates, and permanent markings on the devices. Adequate spacing shall be maintained throughout to avoid excessive bending of cabling and wiring, to maintain adequate separation and creepage distance between electrical potentials and between these potentials and ground, and to permit ease in disconnecting wiring and cabling during trouble-shooting and repair. In no instance shall clearances and creepage distances be less than those described under NEMA ICS, Part ICS 1-111.

1.8 Grounding. Exposed, non-current carrying metal parts shall be maintained at common, zero ground potential. A grounding stud/lug shall be provided as a means for grounding the equipment. For cord connected equipment, a NEMA type grounding plug which effectively grounds the equipment for the safety of personnel shall be acceptable in lieu of a ground stud or lug on the equipment.

1.9 Over-current Protection. All electrical components shall be fuse or circuit breaker protected in each phase conductor for AC circuits. Overloads, fuses and circuit breakers shall be coordinated for maximum component protection and minimum circuit disruption.

1.10 Electrical Enclosure. Electrical components of the equipment shall be contained in an enclosure(s) of structural and sheet steel. Provisions shall be made for power cable entrance. The enclosure(s) shall be of drip-proof construction and of minimum size consistent with good design practices and ventilation of components.

1.11 Emergency Stop Buttons. The equipment specified herein shall be provided with independent emergency stop button(s) (switches) at the equipment control panel. These stop buttons shall be colored red with a yellow background, and shall be labeled as such. When activated, the emergency stop buttons shall disconnect all electrical power to the equipment such that all operations or functions will immediately stop or cease. Upon resetting of emergency stop button, no machine movement or functions shall occur.

1.12 Painting. All surfaces shall be painted in conformance with the manufacturer's standard practices and good workmanship. Painting shall result in a highly wear-resistant finish that guarantees continued protection to surfaces in an indoor environment with a temperature range of 15° to 110° F, up to 100% Non-condensing relative humidity. The manufacturer's standard color shall be provided. **Lead or chromium base paints are prohibited.**

1.13 Controls and Instrumentation. Operator controls, instrumentation and indicators shall be mounted convenient to operating personnel. Such devices shall be clearly and legibly marked for function and identification. Controls shall be fitted with suitable handles, pushbuttons, or control knobs, as applicable. Gauges and instruments shall be designed for recalibration. Pressure gauges shall be calibrated in the U.S. system of measurement.

1.14 Safety devices. All machine parts, components, mechanisms, and assemblies furnished on the unit shall comply with all specific requirements of "OSHA Safety and Health Standard (29 CFR 1910), General Industry" that are applicable to the equipment itself.

1.15 Safety signs and labels. Safety signs and labels in accordance with ANSI Z535.4 shall be securely attached to the equipment in visible locations, with any safety precautions to be observed by the operator or maintenance personnel permanently marked on the signs.

1.16 Informational Plates. The following informational plates shall be marked by engraving or photo imaging on wear and corrosion resistant metal and permanently affixed to the equipment.

1.16.1 Identification Plate. The following information shall be securely attached to the equipment on an identification plate: Nomenclature, Contractor's name, manufacturers name, equipment model number, equipment serial number, electrical utilities (Volts, Full Load Amps, Frequency, Phases, and Short Circuit Current Rating {SCCR}), date of manufacture, contract number and any other pertinent information for identifying the part as a unique component of the system.

1.16.2 Caution and Warning Plates. "Caution" or "Warning" label plates shall be securely attached to the equipment in visible locations, with any safety precautions to be observed by the operator or maintenance personnel permanently marked on the plates.

1.17 Standard, Off The Shelf Components – All materials and parts comprising this system shall be new, of current design and manufacture and shall not have been in prior service except as required for factory testing. Standard, off the shelf components with proven reliability shall be used whenever possible to increase performance reliability and reduce costs. The equipment shall be one of the manufacturer's current production models which has been designed, engineered and sold, or is being offered for sale through advertisements or manufacturer's published catalogs or brochures. Products such as a prototype unit, pre-production model, or experimental unit DO NOT qualify as meeting this requirement. The equipment shall be complete, so that when connected to power, it can be used for the function for which it was designed and constructed.

1.18 Warranty. Supplies and services furnished shall be covered by warranty from defects in design, materials and workmanship. The warranty shall be the manufacturer's standard commercial warranty which shall conform to all the requirements of the contract. Acceptance of the manufacturer's standard commercial warranty shall not minimize the rights of the Government under clauses in the contract, and in any conflict that arises between the terms and conditions of the contract and manufacturer's warranty, the terms and conditions of the contract shall take precedence. The warranty period shall commence when final acceptance has been achieved as determined when all contract line item numbers have been processed through Wide Area Workflow (WAWF).

1.19 Technical Manuals. A set of three (3) technical manuals is required for each specific make, model year, and serial numbered piece of equipment scheduled for delivery under the terms of the contract.

The manuals shall provide instructions, illustrations, and other associated data for operations, maintenance, repair, overhaul, including a complete catalog of parts used in the assembly of the end item enabling an average journeyman mechanic to operate, program, maintain, repair, and overhaul the equipment. The manuals provided shall contain complete instructions and information for all equipment, components, assemblies, subassemblies, attachments, and accessories assemble in the end item. The contents of a complete set of technical manuals shall include, as a minimum, the following:

a. Operating instructions including pre-operational checks, start-up, shut down, and emergency shutdown procedures
b. Maintenance, service, and overhaul instructions, including all preventive maintenance schedules and lubrication chart
c. Trouble-shooting guides
d. Parts list containing: illustrations, part numbers, part nomenclature, original manufacturer, cross reference numbers, and recommended spare parts including quantities
e. Energy control procedure, in accordance with 29 CFR 1910.47, OSHA Energy Control Standard to bring equipment to a zero energy state for service and maintenance
f. All mechanical and electrical schematics showing discrete components/block diagrams/wiring diagrams with inputs and outputs identified/system electrical interface documents and drawings for the specific model of all machine equipment/drives/controls supplied
g. Programming requirements

2. **OSHA Approved Certification**.

2.1 The equipment installation and its component parts shall be in compliance with the applicable Occupational Safety and Health Administration (OSHA) regulations in accordance with CFR Title 29, Chapter XVII, Part 1910 and installed in accordance with NEC/NFPA requirements. Approval shall be as specified under the "Approval" and "Acceptance" criteria in the OSHA regulations Subpart "O", Machinery and Machine Guarding paragraph 1910.212 and Subpart "S" Electrical, paragraph 1910.303 and paragraph 1910.399. After equipment delivery and installation, and prior to testing, the contractor shall provide an OSHA Certification Report for approval by the Environmental, Safety, and Health Department at the Receiving Activity. Failure to provide this certification will delay acceptance of the equipment, and could result in rejection for failure to comply with the terms of the contract. The ***Stock Saw*** shall be listed or approved, and labeled by one of the following methods:

- The equipment specified herein shall be listed and labeled by an OSHA recognized and approved Nationally Recognized Testing Laboratory (NRTL). Test data reports shall be provided.

- The equipment and its installation specified herein shall be field inspected, approved, and labeled by an OSHA recognized and approved NRTL. Test data/field evaluation reports shall be provided.

3. **Security Requirements**

3.1 Access Badges (Naval Base Kitsap) Navy Commercial Access Control System (NCACS). Commander, Navy Installations Command (CNIC), has established the Navy Commercial Access Control System (NCACS), a standardized process for granting unescorted access privileges to vendors, contractors, suppliers, and service providers not otherwise entitled to the issuance of a Common Access Card (CAC) who seek access to and can provide justification to enter Navy installations and facilities. Visiting vendors may obtain daily passes directly from the individual Navy Installations by submitting identification credentials for verification and undergoing a criminal screening/background check. Alternatively, if the vendor so chooses, it may voluntarily elect to obtain long-term credentials through enrollment registration, backing vetting, screening, issuance of credentials at the vendor's own cost through a designated independent contractor NCACS service provider. Credentials will be issued every five years and access privileges will be reviewed/renewed on an annual basis. The cost incurred to obtain Navy Installation access of any kind are not reimbursable, and the price(s) paid for obtaining long-term NCACS credentials

will not be approved as a direct cost of this contract. Further information regarding NCACS can be found at:
http://www.cnic.navy.mil/CNIC_HQ_Site/WhatWeDo/AdministrativeServices/CommonAccessCardProgram/ContractorVerificationSystemCVS/CNICP_A230767

3.2 Access Badges (Controlled Industrial Area). Upon contract award, employees or representatives of the contractor will require access to the Puget Sound Naval Shipyard Controlled Industrial Area (CIA) and shall be admitted to the work site only after they have been issued a Security Pass/ID Badge. Persons who are currently on probation or parole from a felony conviction cannot qualify for a Security Pass/ID Badge and will be denied access to the Shipyard. A request for Visitor Badge, PSNS Form 5512/127, completed by the contractor, and submitted by the Government POC to the Pass and I.D. Office, at least seven (7) business days before the badges are needed. Contractors, their sub-contractors and vendors requesting access to the CIA will be required to view an orientation videotape lasting approximately 30 minutes prior to receiving a badge. Each employee shall visibly display/wear the Government issued badge chest high over the front of their outermost clothing. It shall be the contractor's responsibility to collect and account for all Security Pass/I.D. Badges issued to their personnel upon termination of any employee, expiration of the badge, completion of the contract, or when access is no longer required. Badges, passes and permits shall be returned to the Pass and I.D. Office immediately. Contractors working within the CIA are required to be United States citizens and must show proof of citizenship prior to receiving a badge. Proof of U.S. citizenship shall be hand carried by the contract employee to the Pass and I. D. Office located at Bldg. 981, when picking up the badge. Foreign Nationals (non U.S. Citizens) or persons affiliated with, or employed by, a foreign, or foreign owned company will not be granted access to Puget Sound Naval Shipyard CIA without prior written approval from Commander, Naval Sea Systems Command (NAVSEA). Acceptable forms of proof are:

a. Original Birth Certificate (with raised state seal)
b. Original Department of State Birth Certificate
c. Certificate of Person Born Abroad
d. Original Naturalization Certificate
e. Valid United States Passport

4. **Other Considerations**

4.1 Personal Health and Safety. The proposed work described herein will be performed in an industrial manufacturing area under the guidelines of OSHA and the receiving activity's Environmental, Safety and Health Office. The contractor shall conduct all work in a safe manner and shall provide all necessary safety equipment. Contractor personnel shall perform all work in accordance with references provided on page one of this document.

4.2 Energy Control. The Government will provide the Contractor with a copy of the Hazardous Energy Control, Lock Out/Tags Plus (LOTP) manual used by the Government facility where the equipment is to be installed. The Contractor shall meet with the Government Point of Contact to discuss Lockout/tags-plus interface. The Contractor shall use and follow the Receiving Activity's Hazardous Energy Control, Lock Out/Tags Plus (LOTP) reference. Contractors shall train their employees to the Hazardous Energy Control, Lock Out/Tags Plus (LOTP) reference. Audits, surveillances, and incident investigations may be performed per the Hazardous Energy Control, Lock Out/Tags Plus (LOTP) reference.

4.3 Privately Owned Computers. The use of privately owned personal computers by contractor personnel at Puget Sound Naval Shipyard is restricted. Contractors requiring such devices in the performance of this contract shall obtain a copy of the applicable form(s) from the Contracting Officer. The completed applicable form(s) shall be returned and routed for Government approval. The use of cell phones are not permitted at any time while driving anywhere within the Government Activity.

4.4 Photography/Recording. Contractor personnel are prohibited from having photographic equipment (including cell phones and watches capable of taking pictures), tape recorders, zip drives, personal electronic management devices, or other recording devices in their possession while inside the Government Controlled Industrial Area (CIA).

4.5 Contractor Vehicles. Contractors will be allowed to bring company vehicles into the CIA based upon the nature of their work as determined by the Commanding Officer in conjunction with the Industrial Security Officer. Contractors shall clearly display an authorized company sign or logo on their vehicle. Privately owned vehicles are not authorized. The contractor shall provide current vehicle registration and insurance information in electronic format to the Receiving Activity POC a minimum of 10 business days before the vehicle pass is needed. Each contractor, sub-contractor and vendor vehicle shall be registered with the Pass and I.D. Office located in Bldg. 981. The contractor shall provide the vehicle registration or a photocopy and proof of insurance documents of each approved vehicle to the Pass and I.D. Office to obtain a Service Permit.

**Specifications and Required Features for Stock Saw Machine: (Marvel Series 8 Mark III or equivalent) shall have the minimum salient characteristics:**

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| • Input Power: | 460 Volts, 3 Phase, 60 Hertz |
| • Capacity: | Blade at 90°: 18" (457 mm) x 22" (558 mm) Vertical<br>Blade at 45°: Right 18" (457 mm) x 14.5" (368 mm) Vertical<br>Blade at 45°: Left 18" (457 mm) x 13" (330 mm) Vertical<br>Blade at 60°: Right 18" (457 mm) x 9.7" (246 mm) Vertical<br>Blade at 60°: Left 18" (457 mm) x 7.3" (185 mm) Vertical<br>Column in 3° forward cant position: 17.5" (445 mm) Horizontal, 22" (558 mm) Vertical |
| • Speed Range: | 50-450 fpm (15-137 m/min) infinitely variable with inverter drive. |
| • Front Mounted Speed Control: | Allows blade to be adjusted from the operator's control station. |
| • Feed Range: | 0-250 lbs infinitely variable with control on operator's panel and Automatic Column Return. |
| • T-Slotted Work Table: | Work area 24.25" x 33" (616 mm x 838 mm); table height 38" (965 mm); two machined T-Slots. |
| • Wheel Diameter: | 19" (482 mm), cast iron wheels. |
| • Blade Break/Stall Detection: | Standard equipment, shuts off machine in the event of blade breaking or stalling. |
| • Miter Cutting: | Column and blade tilt up to 60° right and left of vertical; work always stationary. Built-in protractor. |
| • Quick-Action Vise: | Maximum opening 18" (457 mm). Jaws can be shifted to either right or left side of blade. Jaws are 6" (152 mm) high and 12" (305 mm) wide. |
| • Automatic Stops: | Adjustable stops can be pre-set to stop advance and return of blade, and also to stop motor at any location within the 18" (457 mm) travel of the blade. |
| • Coolant System: | Built in with flood coolant system, controlled by on-off selector switch at operator's control station. Tank capacity of 21 gallons (79 liters). |
| • Flushing Hose: | Washes chips from hard-to-get at places reducing clean-up time. |
| • Power Chip Brush: | Together with blade wipers and flood coolant keep blade teeth free of chips. |
| • Carbide Guide System: | Solid carbide post design. Upper and lower guides have preloaded carbide faced back-up blocks to support back edge of blade. |
| • Blade: | 15'4" (4674 mm) long x 1.25" (32 mm) wide, 0.042" (1.07 mm) thick. |
| • Blade Tension: | Blade tension ratchet stops automatically at factory pre-set, 40,000 psi (A compressed air connection is required for standard operation, 5 CFM, 80 psi minimum). |

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| • Motors: | -Main motor - 5 HP (3.75 kW), 1800 RPM, total enclosed fan cooled.<br>-Coolant Pump – 1/8 HP (0.1 kW), totally enclosed motor-built-in integrally.<br>-Motors shall be configured for 460V, 3 Phase, 60 Hz input power. |
| • Controls: | IEC fused disconnect switches and magnetic motor starters, with overload and low-voltage protection. DC power provides low voltage control (24 Volts) to all push buttons at operator's control panel and machine lighting circuits. PLC control apparatus mounted in moisture proof NEMA 12 compartment. The Electrical Control Panel shall be UL labeled. |
| • Cutting Fluids: | No cutting fluid shall be provided with this equipment. |

Additional Required Features:

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| • Powered Column Tilt | Powered tilting of saw column up to 60° to both right and left sides. |
| • Digital Tilt Readout | Electronic digital display mounted on the saw column. |