

# Ultra High Pressure Blasting

REQUIRED PPE: Hard Hat, Safety Goggles & Face shield or Full Face, Double Hearing Protection (Ear Muffs & Ear Plugs), Steel Towed Rain Boots with Metatarsal Guards(Deck work), Rain coat, Gloves

STEPS BREAK JOB DOWN INTO STEPS	POTENTIAL HAZARDS WHAT COULD HARM SOMEONE	ACTION/PROCEDURE TO CONTROL OR ELIMINATE WHAT CAN BE DONE TO MAKE IT SAFE
Laying out UHP hoses and air lines.	Ergonomics – Pushing, Pulling	Stretching in the beginning of the shift Proper lifting techniques Obtain help from a co-worker.
	Line Management	Lines should be situated away from walkways, preferably hanging where possible. Chaffing protection where needed.
	Blasters situated too close to each other	Keep at least 15 feet from one blaster to the other.
Connecting 440 power cables	Electrocution Hazard, Arc Flash Hazard	Connection must be made only by a 440 Competent person trained by the electrical department.
Use of High Reach	Fall Hazard	Properly wear a harness while operating the high reach Only certified operators should operate high reach
UHP Operation	Noise levels over 100 dB outside, over 105 dB within dry-dock wing walls.	Operators must wear double protection (Ear Muffs and Ear Plugs), supporting personnel and people working in close proximity must wear ear muffs.
UHP Operation, Craft CP	Gun trigger and/or tumble box actuator could stick on. Pump must be secured to stop water flow.	UHP Technician/Mechanic is to establish a visual line of site with the blaster/rotating lance. If required due to visual obstructions an assistant must be placed to transmit information to and from the technician and blasters. Hand signals must be used because operators will not hear verbal commands.
Craft CP	Leaks in hoses and fittings result in wear and failure	Technician/Mechanic will walk down UHP supply and branch lines to look for leaks in the UHP hose as well as all joints and connections on the UHP system, proper start & stop operation and stop operation when safety is compromised.
Craft CP	Never work on any system component while the Pump is energized and the hoses have not been bled down	<b><u>At no time shall maintenance on pumps, hoses or tooling be conducted while the UHP pump is energized, pump must be locked out for maintenance.</u></b>

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	A fitting could release and the hose could whip and hit someone causing a contusion and/or injection of water	Use whip checks to prevent the lines from blowing around if connection opens during work.
	High pressure and debris blowing at people on the boat when blasting from the side.	Use wood boards as need be to protect the deck and blast water away from deck and people.
	Ergonomics – UHP gun is heavy to hold for long periods of time.	If mount exists, place the gun in the mount. If not, take periodic breaks to rest the arms.
Disconnecting 440 power cables.	Electrocution Hazard, Arc Flash Hazard	Disconnecting must be made only by a 440 Competent person trained by the electrical department.
Rolling back UHP hoses and air lines.	Ergonomics – Pushing, Pulling, back strain from long hours of operation	Stretching at the beginning of the shift Proper lifting techniques Obtain help from a co-worker.