



MN-PV-CIS-009

Bundle Blaster

Competency Manual

MN-PV-CIS-009 – Bundle Blaster Competency Manual
Rev 2

Updated: January 9th, 2023

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Training Expectation Letter

It is required that this document is completed prior to the Employee starting training on the Bundle Blaster. This document will serve as formal record that all parties have reviewed and understand the expectations for training on the Bundle Blaster.

Trainee Name:

Date of Discussion:

Expectations of Supervisor/Leader

- Ensuring trainee has scheduled time for training.
- Ensure trainee has reviewed and understand the technical documentation
- Ensure trainee has been provided a demonstration on equipment operation
- Verify field competency sign offs once completed
- Ensure trainee is working with a competent mentor until they are competent themselves
- Provide support for the assessor, mentor, trainer and trainee whenever possible.
- Ensure training documentation is sent to CEDA Training Department

Expectations of Trainer, Mentor, assessor

- Must be qualified in the position for which he/she is training.
- Educate and support trainee with technical review package.
- Ensure trainee has been provided a demonstration on equipment operation
- Review trainee's technical knowledge and verify acceptable understanding
- Educate and support trainee with field tasks identified in the competency check sheet
- Verify trainee has the ability to perform tasks identified in the competency check sheet
- Communicate to Supervisor that the technical review and field competency is complete

Expectations of Trainee

- Complete all prerequisites outlined within the training program.
- Understand the training process outlined in this document.
- Understanding systems and spending time in the field.
- Ensure all lessons and tasks are signed off by the appropriate personnel as indicated on the training documents.
- Inform Supervisor/Leader on progress of training through face to face meetings.
- Will utilize all the materials provided to ensure a comprehensive training program is followed.
- Provide feedback on the training process and any updates that are required to the training material.
- Inform Supervisor/Leader of any training barriers that may exist during the training process.

Training Expectation Acceptance Agreement

I, _____ understand the expectations of me as a trainee as outlined in this document

(Operator Name)

Operator/Trainee

Name

Signature

Date (MM/DD/YY)

Supervisor/Leader

Name

Signature

Date (MM/DD/YY)



Acknowledgement

This manual has been developed using information and knowledge obtained from manufacturer's documentation and input from experienced Operators. Additionally, this manual has been validated by numerous Subject Matter Experts at CEDA. We welcome any comments or suggestions pertaining to this manual and its contents.

Many thanks to those who have demonstrated a clear dedication to CEDA and our values by participating in the creation of this program.





Objective

Welcome to CEDA Bundle Blaster Operation Training Process.

This program is designed to provide you with the training necessary to carry out your job in a manner that safeguards yourself, those around you and our environment. Upon Completion of this Module you will be able to:

- Review Bundle Blaster Operations
- Set-Up Bundle Blaster
- Clean Bundles
- Maintain/ Care for Bundle Blaster

Employee(s) will demonstrate knowledge & skill in the proper application of equipment through practical application.

Instructions

This package is intended to be a self-guided process and must be complete within 1 month.

Scheduling of time to complete the self-study, on job demonstrations and assessments will be at the discretion of your Divisional Manager and yourself. All material must be completed in the order presented to ensure that prerequisites are met.

Employees will demonstrate knowledge and skill in the proper application of equipment through practical demonstration and application.

NOTE: All forms and procedures included are those required by CEDA. Work must be performed in accordance with these standards. On Client work sites, there may be additional standards and modified work procedures that will also have to be met.

Description: This is a knowledge and practical skill that requires written material to be reviewed along with the completion of an on-the-job demonstration prior to the test being written.

Whenever possible, the on-the-job demonstration should be completed at a job site or the shop under controlled conditions.

Arrange a time with your Mentor/Supervisor/Trainer to complete the On-the-Job Demonstration, where you will observe the proper operation of the Wet Vacuum unit and its components.

Assessment of Competency: Successful completion of this competency requires:

- A score of 100% on the written examination.
- A successful demonstration by trainee requiring a sign-off from Trainer.



Renewal Period

The entire Module must be redone after:

- Leaving the employ of CEDA for a 6-month period,
- Leaving the Bundle Blaster Division for a period of 6 months; or
- As deemed required by CEDA.

Additionally, an annual refresher/ challenge is required.

Prerequisites

- CEDA Orientation
- CEDA Driver's Orientation
- CEDA High Pressure Water Blasting Training Review

Below is a list of the learning resources that are included and others you must obtain the most recent version from your Supervisor.

- Manufacturer's Manuals (Pump Manual)
- Work procedures (differ depending on the job)
- Gardner-Denver Manual
- Hydra Group Ltd. Operation & Maintenance Manual
- Safe Work Practices for the Use of Manually Operated High Pressure Water Jetting Equipment – Section 6: Care and Maintenance of Equipment
- Procedural Guidelines Manual
- Bundle Blaster Operations Procedure
- CEDA Bundle Blaster Pre-Use Inspection (Vehicle Inspection Report)
- Site specific documentation
- Job Hazard Analysis for the work
- CEDA FLHA
- Other CEDA procedures and practices that pertain to the job being completed

NOTE: All forms and procedures included are those required by CEDA. Work must be performed in accordance with these standards and can be found in CEDA Health, Safety and Environment Management System (HSEMS) or be requested from your Leader. On Client work sites, there may be additional standards and modified work procedures that will also have to be met.



General Overview

Federal & Provincial Legislation

All work must be completed in accordance with applicable Municipal, Provincial, & Federal Acts & Regulations, including but not limited to:

Transportation of Dangerous Goods (TDG)

- Vehicle must be DOT Approved and be equipped with appropriate safety devices
- DOT approved vehicles will have sticker on side of unit
- Operator must place appropriate placards on side of vehicle
- Operator must prepare bill of lading prior to transporting materials

The Workplaces Hazardous Materials Information System (WHMIS)

- All CEDA field employees working with or around equipment will have WHMIS and TDG training prior to starting work.

Occupational Health & Safety (OH&S)

Seat Belts

Anytime a vehicle (CEDA owned or personal) is being operated during business hours for business use, or on CEDA property, the occupants must be wearing seatbelts.



Personal Protective Equipment (PPE)

To operate the Wet Vacuum unit, employees must have and utilize the following personal protective equipment (PPE):

- CSA Certified Hard Hat
- CSA Certified Safety Boots (Boot Grips when required)
- Fire Retardant Coveralls
- Hearing Protection (plugs or muffs)
- Approved Gloves for the Site/Task including cut resistant gloves
- Close fitting safety glasses
- Rain Gear as Required

For hot materials, the following additional personal protective equipment may also be required:

- Rubber gloves
- Steel-toed rubber boots
- Face shield

Workplace Organization

CEDA's goal is to reduce waste (time, energy and materials) by maintaining an orderly and clean workplace, including our trucks and equipment. We ask that you take pride in the equipment you operate; treat it as if it were your own. A clean and organized vehicle/workspace is a safer vehicle/workspace. There are many ways to eliminate waste:

Allocation & Utilization of Resources: Have the right people and equipment in the right place, at the right time. Use equipment and resources on tasks and activities that are required and add value to our business.

Improve Productivity: Eliminate redundant or unnecessary steps/tasks without negative impact to the safety or quality of our products and services.

Use of Materials: Ensure equipment is stocked with required supplies (filter bags, duct tape etc.) before leaving for jobsite – replace the materials you have used during the shift to ensure that the next crew is adequately stocked. Use the correct materials in the quantities required to do the job safely & correctly.

Preventative Maintenance: Tools and equipment should be assessed as per the performance maintenance schedule to ensure safe operation. Regular maintenance will reduce costly breakdowns in the field.

There are steps we can take to improve our current state and move towards a more productive, organized and safe work environment. Improving workplace organization will reduce costs, improve morale and create a safer work environment. The following steps outline how best to achieve an organized workplace:

Sort, organize and eliminate unnecessary items from the workplace to eliminate clutter. Keep only essential items.

- Tools and equipment that are not utilized for day-to-day operations should be re-purposed within the organization or discarded.
- Garbage or loose items should be removed or properly stored.

Prioritize tools, parts and materials based on usage and keep them in easily-accessible places.

- A place for everything and everything in its place.

Create storage areas that are easy to access and clearly laid out:

- Tools and equipment should be stored clean and ready for use.
- Storage areas and stored items should be properly identified using signage, labels or a visual outline.

Set clear standards for workplace organization:

- Hold yourself and others accountable for keeping the work areas clean and safe. Make workplace organization a standard work rule in your area.
- Clean general work areas and equipment after each shift.
- Put clean tools away in the proper place.
- Note any spills, leaks or other messes – clean and report if equipment requires maintenance
- Inspect the area(s) regularly and immediately record and correct any infractions. Handle deviations from work rules in a timely manner.
- Review processes and procedures regularly and adjust as required.

9.01 Review Bundle Blaster Operation

Graphics

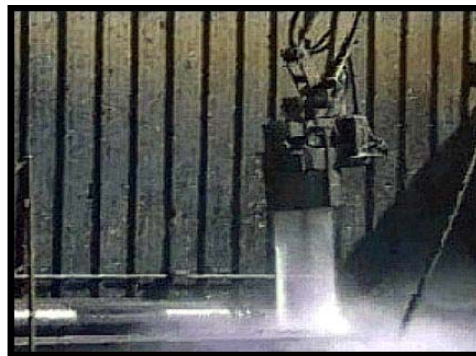
1. Bundle Blasting Unit – Side View



2. Bundle Blasting Unit – Top View (from Cab)



3. Bundle Blasting Head



(without bundle)

4. Bundle Blasting



Bundle Blaster



	NOTES
FUNCTION	
1. Fabricated equipment...	<i>... equipment not patented. Each company fabricates their own equipment.</i>
PURPOSE	
1. To clean exterior of exchanger.	
2. To reduce/ eliminate manual water blasting.	

Major Equipment and Components

EQUIPMENT AND COMPONENTS	NOTES
1. Rollers	
2. Pumps (300 hp)	
3. Engine (CAT)	
4. Blasting arm	
5. Rotating head	
6. Stabilizers	
7. Operating cab	
8. Nozzles	
9. Recovery sump/ auger	
10. PTO	
11. Hydraulic pump	
12. Levers and cables	
13. Control levers	
14. Drive chain	
15. Roll-over cable	
16. Baird valve	
17. Needle valve	

Bundle Blaster Controls



CONTROLS	NOTES
MANUAL – HYDRAULIC	
1. Water pressure controls	
AUTOMATIC – JOY STICK	
2. Cab control panel	
3. Control levers	



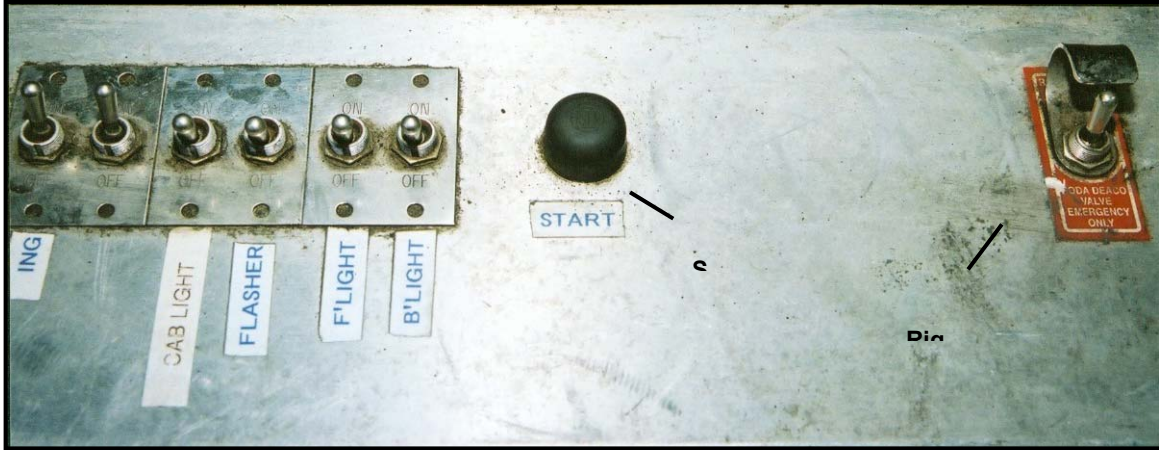
Control Panel



Joysticks



Engine Gauges



Electrical Panel

For more information, refer to ***Operation and Maintenance Manual***

Describe Operating Limits

EQUIPMENT AND COMPONENTS		NOTES
PHYSICAL LIMITS		
1.	10,000 psi (max)	
2.	Water temperature...	<i>... determined by pump.</i>
3.	Water source...	<i>... flushed.</i>
4.	Restricted operating area...	<i>... flagged off.</i>
CONSEQUENCES OF DEVIATION		
5.	Possible environmental contamination	
6.	Personal injury...	<i>... high pressure water.</i>
7.	Equipment damage...	<i>... rotating head too close to bundle.</i>

9.02 Set-up Bundle Blaster



Bundle Blaster Set-Up

PURPOSE	
To load bundles safely for cleaning...	... performed by client.
OPERATION	
Secure bundle to the blaster.	
Reverse for offloading.	

Major Equipment and Components

Slings	
Rollover protection cable	

Personnel Hazards and Safety Precautions

Noise	
Tripping/ falling	
Pinching/ crushing	
Overhead lifting	
Restrictive work area	

Operating Limits

PHYSICAL LIMITS	
Bundle length	
CONSEQUENCES OF DEVIATION	
Personal injury	
Damage to equipment/ property	

Personal Protective Equipment (PPE)



Hearing Protection	Approved Safety Glasses
Approved Steel Toed Boots	Rubber or Leather Gloves
Nomex III Coveralls	Approved Hard Hat

Bundle Blaster Set-Up Procedure

PREPARATION	NOTES
PREPARATION	
1. Don required PPE.	
2. Obtain plant permits...	<i>... if required.</i>
3. REVIEW permit, toolbox talk, job procedure, FLRA, emergency meeting point and assembly areas with everyone involved with the job.	
SET UP	
4. Park unit in desired location...	<i>... with use of a spotter if required.</i>
5. Disconnect tractor...	<i>... if required.</i>
6. Turn on night switch.	
7. Start up bundle blaster engine.	
8. Warm up engine...	<i>... to 100F.</i>
9. Level bundle blaster with outriggers.	
10. Check/ replace water filter bag...	<i>... ensuring bolts are tight.</i>
11. Lift cleaning head out of holder.	
12. MOVE cleaning head clear of bundle lift area.	
13. Connect water supply hose.	
14. Connect high pressure hose...	<i>... utilizing whip checks at each connection.</i>
15. Open water valve at the filter.	



16.	Turn on water supply.	
17.	Flush system until water is clean.	
18.	Install jets...	<i>... utilizing Teflon tape.</i>
19.	Post flags and high pressure signs...	
20.	CHECK hoses and fittings for damage and proper pressure rating.	
21.	Inform client that bundle is ready to be loaded.	

9.03 Clean Bundles

Operating Limits

	NOTES
PHYSICAL	
1. 10,000 psi (max)	
2. Water temperature	
3. Weight/ dimension of bundle	
CONSEQUENCES OF DEVIATION	
4. Damage to equipment/ property	
5. Personal injury	
6. Non-optimal efficiency of exchanger...	... if not cleaned properly.

Personnel Hazards and Safety Precautions

HAZARDS AND SAFETY PRECAUTIONS	NOTES
1. Chemical exposure (skin/ eye contact)...	... from material on bundle.
2. Noise...	... from engine/ high pressure water.
3. Tripping/ falling at/ over stairs, catwalks...	... slippery deck.



4.	Pinching/ crushing from...	<i>... rotating bundle, loading and offloading.</i>
5.	Restricted work area...	<i>... while blasting.</i>
6.	Rotating equipment.	
7.	Flying debris.	
8.	Exposure to high-pressure water.	
9.	Improper ventilation in enclosed wash bays.	

Potential Hazards

Rupturing of hoses	Working with high pressure water
Eye and skin contact	Lifting exchanger on and off bundle blaster
Entry of unauthorized personnel	Emergency evacuation

Bundle Cleaning Procedure

PURPOSE: The removal of scale and debris from exterior of bundles to increase the efficiency of the bundle.

ACTION	NOTES
OPERATION	
1. ENGAGE pump.	
2. ENGAGE head rotation.	
3. POSITION head directly above bundle.	
4. BRING pump to required pressure...	<i>... check for leaks. ... up to and not exceeding 10,000 psi.</i>
5. MOVE arm back and forth along entire length of bundle.	
6. ROTATE the bundle ¼ turn.	
7. REPEAT steps 5 and 6...	<i>... until bundle has fully rotated.</i>



8.	SHUT DOWN high pressure.	
9.	INSPECT bundle for cleanliness.	
10.	REPEAT steps 5 – 6...	<i>... if not entirely clean.</i>
11.	CONTACT plant for inspection...	<i>... if bundle is clean.</i>
12.	ENSURE client approves all work...	<i>... before shut down.</i>
SHUT DOWN		
13.	OFFLOAD bundle...	<i>... client to do this.</i>
14.	PERFORM rig out utilizing the following steps.	
15.	SHUT OFF water supply.	
16.	DISCONNECT water supply hose.	
17.	WINTERIZE...	<i>... following appropriate procedure.</i>
18.	DISCONNECT high pressure.	
19.	REPAIR/ REPLACE defective equipment if required...	<i>... DO NOT ATTEMPT REPAIRS WHILE SYSTEM IS UNDER PRESSURE!!</i>
20.	POSITION arm and head into holder.	
21.	LIFT outriggers.	
22.	DISENGAGE the pump...	<i>... operator to perform this.</i>
23.	SHUT DOWN engine.	
24.	TURN night switch off.	
25.	CONNECT tractor...	<i>... if required.</i>
26.	CLEAN UP work area...	<i>... flagging, etc.</i>
27.	COMPLETE Job Report form.	
28.	SIGN OFF permits.	



9.04 Maintain/Care for Bundle Blaster

Bundle Blaster Maintenance Components

Water swivels	Drive motor	Gears	Nozzles
Rotating motor	Chain/ cable	Blocks	

Bundle Blaster Maintenance Schedule

Maintenance must occur periodically throughout the bundle blasting operation. Ensure clutch is disengaged and engine shut down prior to performing maintenance. The following table presents the schedule for which maintenance should occur. Failure to maintain equipment may cause serious damage.

ACTIVITY	EQUIPMENT
DAILY	
Clean all mud and foreign debris	Rollers, nozzles, manipulator arm pivot points, travel guide, rack and pinion, hose carrier, sump auger flares, deck, etc.
Grease or lubricate as required	Bearings, bushing, gears, rollers, chains and sprockets, etc.
Clean/ lubricate	System mechanical components NOTE: Cleaning and lubricating will decrease down time and increase system life.
Inspect for leakage.	Hydraulic cooler
Clean with low pressure air or water as required.	
Straighten any bent cooling fans	
Check (before and after each job when at or near normal operating temperature)	Hydraulic oil return filter indicator NOTE: Change filter when “Tell-Alls” filter indicators shows “CHANGE”.
Change filter	



Inspect for leakage.	Hydraulic and water lines
Repair as required.	
Replace	Gauges or indicators that are not in good working order.
Check and fill as required	All fluid levels (hydraulic, water, fuel, motor oil, cooling).
Tighten	Plungers
EVERY 500 OPERATING HOURS	
Replace filler breather, more frequent if used in highly contaminated environments.	
Retorque	Pony Rods
Remove/ change	Studs
Change (if required)	Bolts
PERIODICALLY	
Major service work	
Troubleshooting	

Required Specialty Tools and Equipment

TOOLS/ EQUIPMENT	NOTES
1. Valve puller	
2. Torque wrench	
3. Tip cleaner	
4. Tools	

Personnel Hazards and Safety Precautions

HAZARDS AND SAFETY PRECAUTIONS	NOTES
1. Chemical exposure (skin/ eye contact)...	<i>... from cleaner.</i>
2. Chemical exposure (inhalation)...	<i>... from residual and cleaner.</i>
3. Noise...	<i>... from engines/ high pressure water.</i>



4.	Tripping/ falling at/ over stairs, catwalks...	<i>... slippery deck.</i>
5.	Pinching/ crushing from...	<i>... rotating bundle, loading and offloading.</i>
6.	Restricted work area...	<i>... while blasting.</i>
7.	Rotating/ moving equipment.	



Multiple Choice Questions (Technical Quiz)

Complete the following test, and have it graded by your assessor. If any questions are answered incorrectly, your assessor will explain what the correct answer is, and why it is correct. Once you understand the correct answer, both the assessor and students initials are required to indicate that mentoring or coaching has taken place.

Question	Assessor's Initials	Student's Initials
SECTION 9.01 BUNDLE BLASTER OPERATION		
1. If the High Pressure unit is capable of 10,000 psi, what pressure should the Unloading Valve (Baird Valve) be set and tagged at? a. 10,000 psi b. 12,500 psi c. 14,000 psi d. 16,000 psi		
2. If the rated capacity of the High Pressure unit is 10,000 psi, what pressure should the rupture disc be set at? a. 8,000 psi b. 10,000 psi c. 12,000 psi d. 15,000 psi		
3. What is the maximum operating pressure of the bundle blaster? a. 8,000 psi b. 10,000 psi c. 12,000 psi d. 15,000 psi		
4. Which of the following barricades does CEDA require you to use? a. Caution b. Any kind of rope c. Danger Do Not Enter		
5. If a high pressure fitting begins to leak, you should? a. Keep working and try to tighten it b. Shut down immediately, and tighten or replace it. c. Wait until the job is complete.		
6. At the beginning of a shift and you have just been informed of your next task, what is required before work commences? a. Check fluid levels of motor and pumps b. Check out equipment c. Obtain a copy of the work procedure d. All of the above		
7. Hazards associated with high pressure bundle blasting are: a. slips, trips b. wet or frozen surfaces c. noise d. All of the above		
8. Warning barriers and flagging tags are required when high pressure water blasting to warn others and keep unauthorized personnel out. a. True b. False		
9. What is the minimum personal protective equipment required for bundle blasting? a. safety glasses		



	b. hearing protection c. hard hat d. rubber or leather gloves e. All of the above		
10.	High pressure injuries are uncommon, but injuries are usually severe. a. True b. False		
11.	Before commencing high pressure water blasting work, all nozzle tips should be inspected for damage and plugged jets. a. True b. False		
12.	Bundle blaster should be level and stabilizer legs down. a. True b. False		
13.	What is the consequence of not adhering to all physical limits? a. possible environmental contamination b. personal injury c. equipment damage d. All of the above		
14.	What is required after parking the unit at the correct location? a. hook up water supply b. start and warm engine c. flush system d. install the jets e. All of the above		
15.	What are the minimum requirements for hooking up tractor to bundle blaster? a. spotter b. ensure 5th wheel pin is locked c. air lines and lights hooked up and functioning d. All of the above		
SECTION 9.04 MAINTINANCE/CARE FOR BUNDLE BLASTER			
1.	How often should a suction filter be cleaned out? a. Once a week - minimum b. Once a month c. Daily d. Every shift		
2.	How frequently should the oil and water levels of the motor be checked? a. Daily b. Start of each shift c. Weekly d. When refueling		
3.	What step is completed first in preparation for maintenance? a. disconnect from source b. shut down c. ensure clutch disengaged		
4.	The only maintenance required on bundle blasting equipment is oil changes and greasing joints. a. True b. False		
5.	Hoses and fittings shall be inspected by the _____ prior to use. a. supervisor b. operator		



c.	plant foreman		
6.	It is the responsibility of the employee to inform the _____ of any unsafe tools or equipment that need repairing or replacement. a. supervisor b. plant foreman c. co-worker		
7.	What is the minimum PPE required for performing maintenance in the shop? a. Approved steel toed boots b. Approved safety glasses c. Coveralls d. All of the above		
8.	Employees must take into consideration all the hazards and safety precautions associated with using the bundle blaster. a. True b. False		
9.	A work order must be completed before maintenance can take place? a. True b. False		
10.	After how many hours should an engine oil change occur? a. 150 b. 250 c. 500 d. 350		
11.	Ensure all gauges are operating and functional. a. True b. False		
12.	Operators can perform all maintenance on bundle blasters. a. True b. False		
13.	A consequence of not maintaining the bundle blaster is engine failure? a. True b. False		
14.	How often should the plungers be tightened? a. daily b. weekly c. periodically d. every 500 operating hours		
15.	Upon completion of a job, what are the steps required in the process? a. park unit b. turn off night switch c. wash and fuel the unit d. All of the above		
16.	Maintenance files are kept for reference purposes. a. True b. False		



Practical Assessment – Bundle Blaster

This form is to be filled out by the assessor as they observe the student successfully demonstrate these items in order to be deemed competent.

Assessment Check List

#	Identify the following components, explain their purpose, inspection requirements and preventative maintenance measures	Trainee Initials	Assessor's Initials
Identify...			
1	Rollers		
2	Pumps (300 hp)		
3	Engine		
4	Blasting Arm		
5	Rotating Head		
6	Stabilizers		
7	Operating Cab		
8	Nozzles		
9	Recovery Sump/ auger		
10	PTO		
11	Hydraulic Pump		
12	Levers and cables		
13	Control levers		
14	Drive chain		
15	Roll-over cable		
16	Baird valve		
17	Needle valve		
18	Water pressure controls		



19	Cab control panel		
20	Control levers		
Preparation			
1	Don required PPE: - approved steel toed boots - Nomex III coveralls - approved safety glasses - rubber or leather gloves - approved hard hat hearing protection.		
2	Obtain plant permits.		
3	Reviewed pre-job meeting, toolbox talk, job procedure, FLRA, emergency meeting point and assembly areas with everyone involved with the job targeting potential hazards and steps to minimize hazards.		
4	Read, understand, and adhere to all permits and procedures.		
5	Aware of the emergency assembly areas and emergency meeting points.		
Set up			
6	Park unit in desired location, using spotter if required.		
7	Disconnect tractor.		
8	Turn on night switch.		
9	Start up bundle blaster engine.		
10	Warm up engine to 100F...		
11	Level bundle blaster with outriggers.		
12	Check/ replace water filter bag...		
13	Ensure bolts are tight after replacement.		
14	Lift cleaning head out of holder.		
15	Move cleaning head clear of bundle lift area.		



16	Connect water supply hose.		
17	Connect high pressure hose utilizing whip checks at each connection.		
18	Open water valve at the filter.		
19	Turn on water supply.		
20	Flush system until water is clean.		
21	Install jets utilizing Teflon tape.		
22	Post required signage (DANGER, DO NOT ENTER, High Pressure signs).		
23	Inform client bundle is ready to be loaded.		
24	Stand clear of lifting radius when client lifting bundles on to bundle blaster.		
25	Keep area clean and neat.		
26	Inspect all equipment, hoses, and connections prior to starting work.		

Operation

The following tasks must be completed in the prescribed sequence. Any exceptions must be noted in the comments section with justification. Assessor will check YES column if the item was actioned satisfactorily, or circle the number in the NO column if it was not. If enough demerits are accumulated to warrant a fail, or employee performs an unsafe or dangerous action, the assessment may be terminated immediately. If necessary, all near-miss/incident reporting requirements must be met.

Operation

1	Engage pump.		
2	Engage head rotation.		
3	Position head directly above bundle.		
4	Bring pump to required pressure up to and not exceeding 10,000 psi.		
5	Check for leaks.		
6	Move arm back and forth along entire length of bundle.		
7	Rotate the bundle ¼ turn.		



8	Complete cleaning process until bundle is clean.		
9	Shut down high pressure.		
10	Inspect bundle for cleanliness.		
11	Contact plant for inspection if bundle is clean.		
12	Acquire approval from client in order to shut down.		
Shutdown			
13	Perform rig out utilizing the following steps.		
14	Shut off water supply.		
15	Disconnect water supply hose.		
16	Winterize bundle blaster correctly (according to procedure).		
17	Disconnect high pressure.		
18	Repair/ replace defective equipment if required.		
19	Position arm and head into holder.		
20	Lift outriggers.		
21	Disengage the pump.		
22	Shut down engine.		
23	Turn night switch off.		
24	Connect tractor if required.		
25	Clean up work area (flagging, etc.)		
26	Sign off permits.		
The following precautions must be observed at all times. Assessor will check YES column if the item was actioned satisfactorily or NO column if it was not. If the employee fails to adhere to any of these precautions at any time, it constitutes a fail and the assessment shall be terminated immediately. If necessary, all near-miss/incident reporting requirements must be met.			
1	PPE: Has all necessary PPE to perform task. PPE has been inspected and is in good condition. Proper PPE is worn at all times. (Dual Hearing protection as required).	YES	
2	Backing: Operator- Proper spotter briefing and walk down of area with spotter before backing. Window down, radio off, hearing	YES	



	protection removed. Confirmed hands signals with spotter before backing for the first time. Sounds horn prior to backing, keeps spotter in mirror, follows spotters direction.		
3	Backing: Labourer- Proper spotter briefing and walk down of area with operator before backing. Wears high visibility vest, confirms hand signals with operator before backing for the first time. Uses proper hand signals, does not walk backwards while spotting or repositioning, always facing unit while it is in motion.	YES	
4	Line of fire: Does not place themselves in the line of fire at any time. This includes standing off to the side when opening valves, removing caps, and disconnecting hoses. Does not place themselves directly in front of/behind unit while in motion. Uses whip checks on all connections	YES	
5	Communication: Has established and reviewed method of communication with co-workers to ensure equipment is operated safely and all hand signals are understood.	YES	
6	Paperwork: Properly complete or participate in the completion of any required paperwork. Have necessary paperwork completed prior to commencing a task.	YES	

Assessment Sign Off

All boxes must be completed before signing an employee competent.

- ☐ Expectation Letter Signed
- ☐ Minimum 100 hours of on the job training completed
- ☐ On the Job Practical Assessment Completed by an approved Assessor
- ☐ Has reviewed and understands the operator manuals
- ☐ Reviewed and understands Procedures and Safety Documentation
- ☐ Technical review and Knowledge Exam complete
- ☐ Training documentation sent to CEDA Training Department

Assessor

I, _____ have taken the below named employee through this Assessment, and he/she has successfully demonstrated competence in the areas identified.

Signature Date

Student

I, _____ have completed this competency, including the on-job demonstration, practical assessment and multiple-choice questions. I understand the information presented and agree to follow all of the rules and procedures set out by CEDA.

Signature Date



Revision Log

Revision Date	Section Affected	Changes Made
January 9 th , 2023	All	Updated Template, multiple changes throughout.



Training Change Request Form

Date: _____

Location: _____

Name: _____

Contact information: _____

Email/Phone number

Description

Please use the back of this sheet to make additional comments.

Section Name: _____

Page Number: _____

Description of Problem/ Suggested Resolution:
