

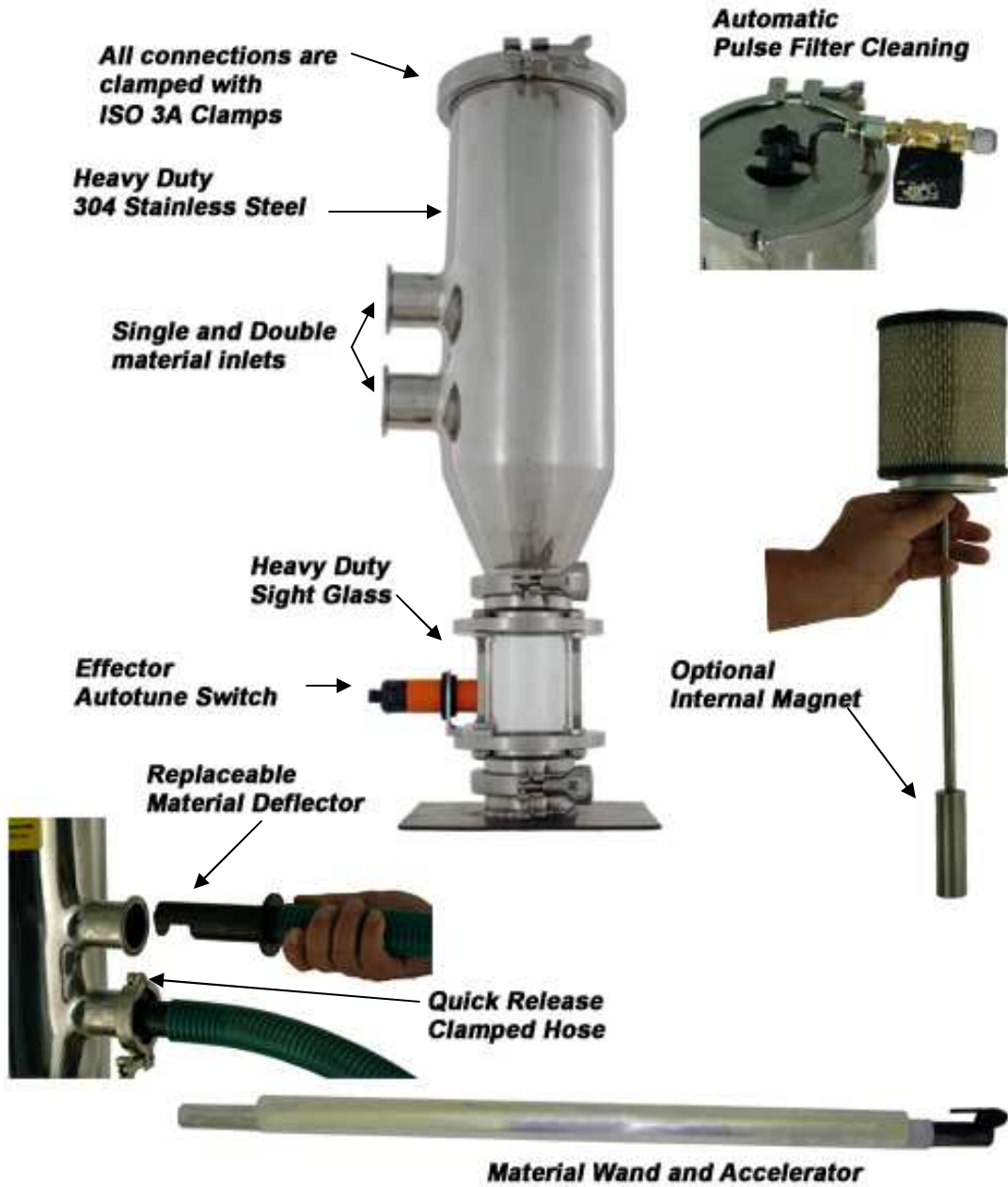
SUPER-FLEX CA6 SERIES LOADERS - DOUBLE INSTALLATION AND OPERATION MANUAL



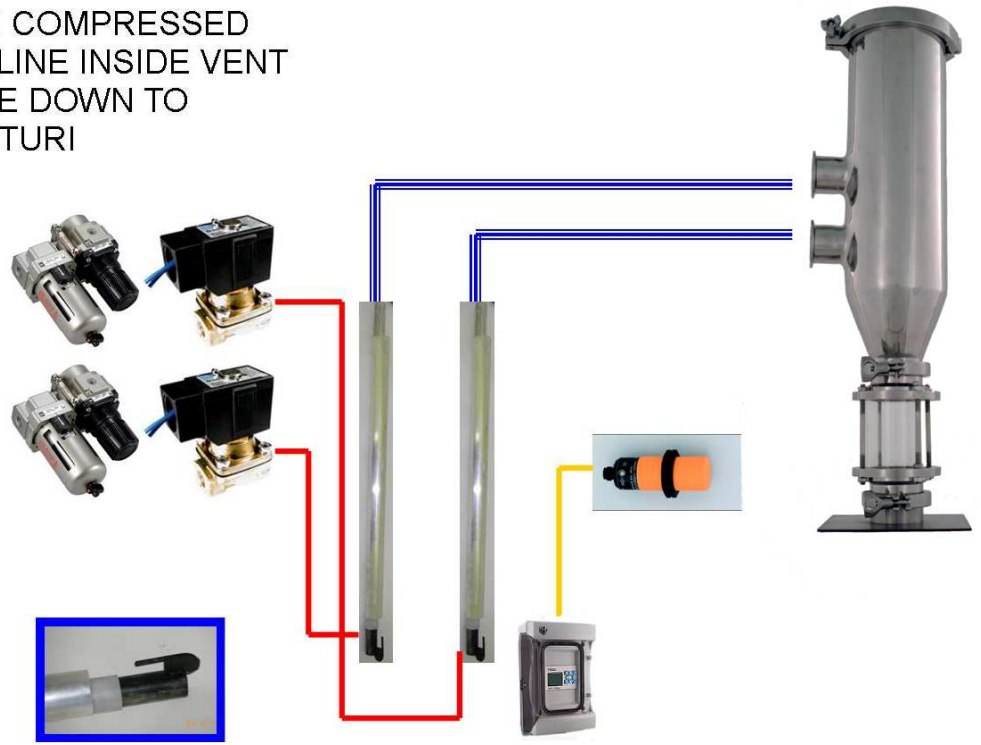
Advanced Auxiliary Equipment, Inc.
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CA6D31411

6 Series Loaders



RUN COMPRESSED
AIR LINE INSIDE VENT
TUBE DOWN TO
VENTURI



PRINCIPALS OF OPERATION

Compressed air is directed to the accelerators on the bottom of the material wands. The accelerators create a strong airflow that draws material into the wand and blows it to the receiver. Once in the receiver the material falls into the sight glass and the air exits via the air filter. The load cycle is initiated by the level switch and continues until the switch signals full.

INSTALLATION INSTRUCTIONS

1. Mount compressed air filter regulators on a secure mounting surface within 10 feet of both material sources and the level switch.
2. Securely mount the receiver on the machine flange or magnet
3. Connect flex hose to the wands and the receiver inlets. Secure with hose clamps.
4. Install material level switch on the sight glass in the top position. Connect switch to control with supplied cable.
5. Connect 3/8 inch compressed air hose to the solenoid valves and accelerators. Slide the compressed air hose inside the vent tube on the material wand and over the accelerators tube on the bottom.
6. Set Compressed air pressure at 50 PSI to start.
7. Make sure that system is properly grounded. Monitor for presence of static electricity and ground system to prevent discharge.

Operating Instructions

Do not jam wands into material. They will draw into the material as they start to load. If material fails to flow pull the wand out slightly and flow will start again.

Adjust compressed air pressure as needed for good conveying. Compressed air pressure normally will be between 40 and 80 PSI. Lower compressed air consumption by operating at the lowest compressed air pressure that result in reliable material transfer.

Extend control relay life by reducing material cycling and filter pulse to minimize cycles.

Filter Cleaning

The filter is cleaned by a reverse airflow entering the top of the filter. There are several adjustments that can adapt filter cleaning to the application and reduce compressed air consumption. **Pulse Cycle** is the number of load cycles the loader operates between filter cleaning. Pulse Cycle should be set between 1 and 6. 1 would be for dirty material and 6 for clean material. **Pulses** are the number of compressed air pulses each time the filter is cleaned. Pulses should be set between 3 and 6. **Pulse On** time is the time the compressed air is on. Pulse On should be set between .25 and .5. **Pulse Off** is the time the compressed air is off during cleaning. This is important because it allows the compressed air to recharge. Pulse off should be set between .1 and .5.

PLC Control

General Operation

WHEN IN DOUBT PRESS ESC TO RETURN TO MAIN MENU

- Press SEL one Time to enter operation menus.**
- Use the up and down arrow to select the menu you want.**
- Press SEL to take control of menu page.**
- Use Arrow Keys to locat the value you want to change.**
- Press SEL to select that value to change.**
- Use up and down key to change value**
- Press OK to confirm desired value.**
- Press ESC to return to main menu.**

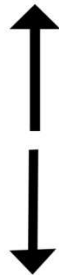


```
I.123456789ABC
Z.1234      ×
Q.12345678
STOP Sat. 13 43
```

SEL

Main Menu

- I. 1 Material Switch Input**
- Q.1 Virgin Output**
- Q.2 Regrind Output**
- Q.3 Filter Pulse Output**



SEL

```
VIRGIN ON TIME
T03=0004 Sec
REGRIND ON TIME
T04=0007 Sec
```

- T03 = Virgin On Time**
- T04 = Regrind On Time**
- *Keep Total Below 10 Seconds**

SEL

```
PULSE CYCLE
C01=000003
PULSES
C02=000003
```

- C01 = Load Cycles between Filter Cleaning (1-6)**
- C02 = Number of Pulses (3-6)**

SEL

```
PULSE ON
T02=000.2Sec
PULSE OFF
T05=000.2Sec
```

- T02 = Pulse On Time (.25 - .5)**
- T05 = Pulse Off Time (.1 - .5)**

```
SOFTWARE
CA-DR-P5210
```

- Software Version Information**

Calibration Method for Regrind and Virgin Material

Determine the percentage of regrind you want to run. Offset the initial time by one second because Regrind Material often flow slower than Virgin Material. Try to keep the compressed air pressure at the minimum required to reliably load. High compressed air pressure will load the filters and waste compressed air. If you want 25% regrind start with 3.5 seconds regrind and 6.5 seconds virgin. To calibrate fill one 5 gallon bucket with regrind and one with virgin. Weigh the buckets. After loading several cycles weigh the buckets again and confirm the correct proportion. Adjust the load times accordingly. Recalibrate as necessary.

General Maintenance

Super-Flex Loaders require inspection and observation to prevent failure. Inspect the following items as needed. If defects or potential contamination is observed discontinue use until repaired.

Filters – Filters fail due to imbedded particles over time. The smaller the particles being conveyed the shorter the filter life will be. Moisture also can cause premature filter failure. The filter should be clean at all times. Clogged filters waste compressed air and eventually cause loading failure. Inspect filters on a regular basis and clean as necessary. Clean by blowing compressed air from the outside of the filter toward the center. Wear proper safety equipment, including eye protection, when cleaning with compressed air. If filter cannot be cleaned replace the filter as needed. Inspect filter for wear and possible contamination and replace as necessary.

Compressed Air Filter – The useful life of the compressed air filters is dependent on the quality of the supplied compressed air. Check compressed air filters and replace as needed.

Flex Hose – Inspect Flex Hose for wear and possible contamination as needed. The life of Flex Hose will be less with abrasive material. Check for contamination in Flex Hose caused by material. Replace and repair flex hose as needed.

Gaskets and Seals – Make sure gaskets and seals are properly installed. Inspect as needed for wear and replace as needed.

Material Deflector and Clamped Hose Tube - Inspect for wear as needed. If wear is observed replace.

Material Wand and Accelerator – Inspect Material Wand and Accelerator for wear and possible contamination as needed. The life of Material Wand and Accelerator will be less with abrasive material. Check for contamination in Material Wand and Accelerator caused by material. Replace and repair Material Wand and Accelerator as needed.

Static Electricity

Static electricity can be generated during conveying plastic materials. Some material can generate dangerous levels of static electricity. Monitor the conveying system for the presence of static electricity. If static electricity is present ground the system to adequately to provide safe operation.

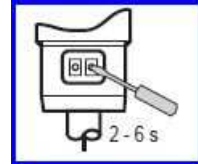
SETTING MATERIAL SENSOR

Note – ANY TIME YOU PRESS EITHER SWITCH LESS THAN 3 SECONDS YOU WILL RESET THE SWITCH!

This means that if you release the button before 3 seconds when you are teaching you will reset the switch. When teaching wait until the LED blinks fast to release. Time starts when you press the button – not when the LED starts to blink.

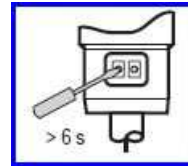
Reset or Set to Normally Closed

Press OUT/ON button until LED blinks twice – not more than 5 seconds



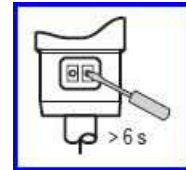
Teach Full State

Fill material to just above sensor. Press OUT/OFF until LED blinks fast – not less than 3 seconds.



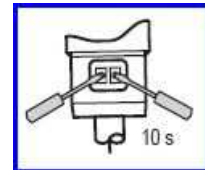
Teach Empty State

Make sure material is below switch. Press OUT/ON button until LED blinks fast – not less than 3 seconds.

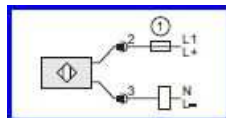


Setting Lock

Lock and unlock settings to prevent adjustment. Press OUT/ON and OUT/OFF buttons together for more than 10 seconds.



TWO WIRE DIAGRAM



Trouble Shooting Guide

Problem	Cause	Solution
Not Loading No Compressed Air	No control signal	Identify and repair
	No Compressed Air	Identify and repair
	Failed Valve	Identify and repair
	Level Switch	Adjust or replace
Not Loading Compresses Air Present	Clogged Filter Loader	Clean or replace
	Clogged Filter compressed air	Clean or replace
	Clogged Accelerator	Clear
	Excessive Load Time	Reduce load Times
	Incorrect deflector position	Turn deflector to down position
Reduced Rate	Low air pressure	Increase air pressure
	Clogged Filter Loader	Clean or replace
	Clogged Filter compressed air	Clean or replace

Warranty

AAE will repair or replace any part that fails due to defective workmanship or use in accordance with the operation manual and not limited or excluded for a period of five years. Liability is limited to repair or replacement of the defective part at the option of the company.

Warranty Limits and exclusions

The following causes of defect are excluded from warranty:

- Failure to comply with instructions included in manual.

- Abuse or misuse

- Change of ownership

The following are limits to warranty:

- Filters – warranty is limited to defects in workmanship or material reported within 60 days of invoicing.

- Flex Hose - warranty is limited to defects in workmanship or material reported within 60 days of invoicing.

- Electronic Controls – 100,000 relay cycles.