



## **Technical Data Sheet**

### **Neustrat**

**A SPECIALIZED ANTI-STATIC SYSTEM FOR ALL TYPES OF MATERIAL CONVEYANCE, SEPARATION, AND SIZE REDUCTION SYSTEMS. AUTOMATIC, INTERMITTENT CONTROL ON GRANULATOR SYSTEMS**

#### **Product description**

*Sterling Systems' Neustrat is an Anti-Static Electricity device proven to outperform other methods of static removal such as ionized air and conductors. These methods attempt to deal with static once it has been generated, but the Neustrat provides an environment inside the process system in which static electricity cannot exist. This greatly improves material separation and optimizes system throughput while outperforming other methods.*

#### **Product advantages**

- *Easy Installation.*
- *Economical operation - Average water consumption is less than 1 U.S. gallon per hour.*
- *No Chemicals.*
- *Readily adaptable to existing systems.*

#### **Standard Features**

- *110 Volt power connection - with 50' power cord.*
- *Integral valve / pressure regulator / filter / pressure gauge.*
- *Multifunction timers for controlling spray time and delay / intervals.*
- *Built-in receptacle for Auto On / Off option (for use with Granulators or other process equipment).*
- *Push-fit locking tubing connections for easy hook-up.*

#### **Standard Configurations**

- *Primary / Secondary labeling for general use applications.*
- *Granulator / Evacuation Blower labeling for Granulator / Blower applications.*
- *Two independent circuits for controlling 2 separate spray configurations.*
- *Two or more injectors possible on each controlling circuit.*

#### **Applications**

- *Material Conveyance systems, Separation Systems (Elutriation), Granulation, and other air or blower systems where static electricity is impeding flow and / or material separation.*

## **System Integration**

- *Neustrat systems can be easily integrated with existing systems, and often optioned on new systems.*
- *The Optional Auto On / Off System mounts on or near a granulator and intermittently controls the Neustrat system relative to material being processed in the granulator cutting chamber. When the amp load increases in the cutting chamber (e.g. processing material), the Neustrat turns on. When amp load decreases, the Neustrat turns off.*
- *Auto On / Off system plugs into an existing receptacle in the Neustrat, and runs in “Automatic” mode.*

## **Use**

- *The Neustrat is a fully self-contained and adjustable unit.*
- *Selectable mode timers allow infinite spray intervals; tunable to the process*

## **Maintenance**

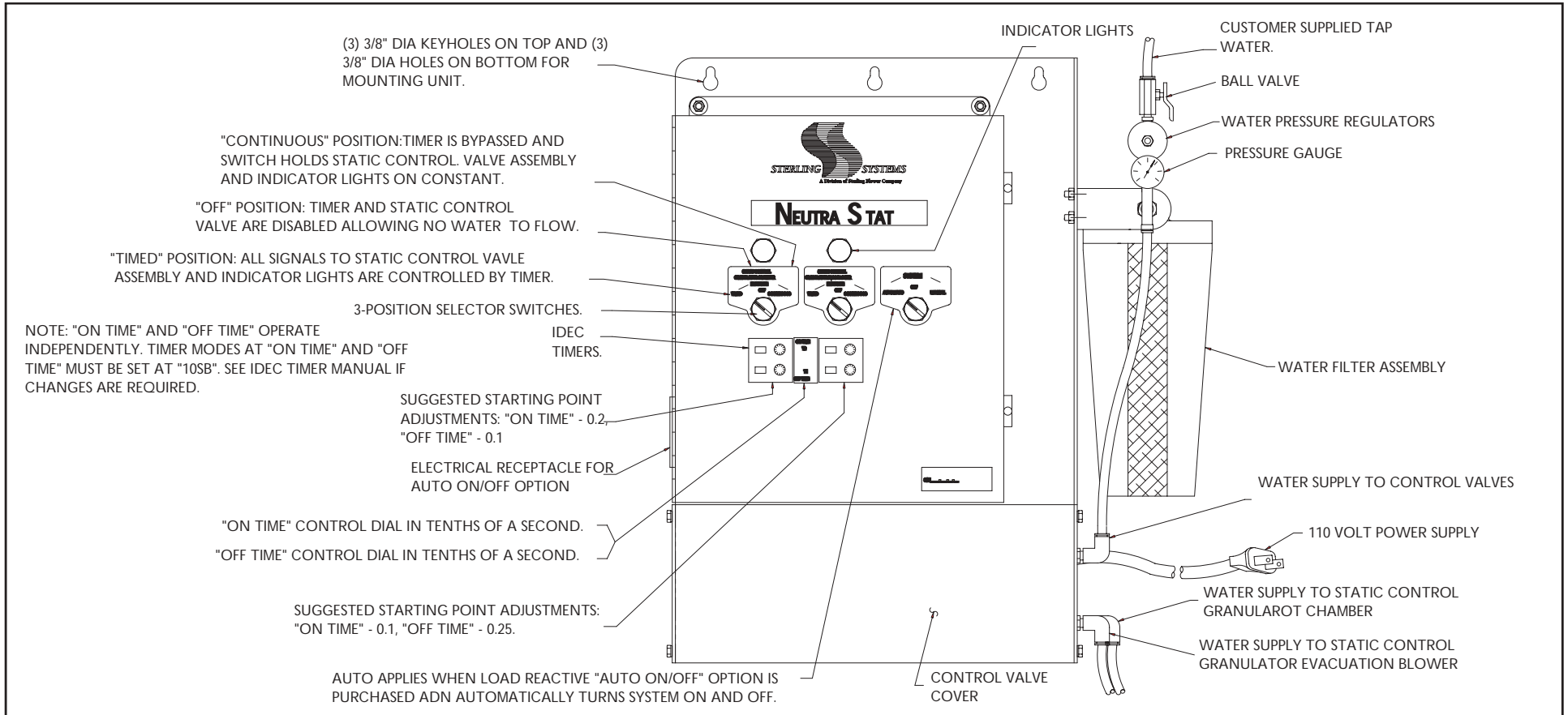
- *Replaceable water filter element on side of unit - user can visually inspect filter during operation through the clear plastic bowl.*
- *Occasional cleaning or replacing of the injector orifices may be required depending on use and application.*

## **Neustrat Specifications**

- *NEMA 12 Enclosure with the following components: Fractional second timers, (3) 3-Position selector switches, Overload fuse, Indicator lights, 110 Volt Dual control system (automatic and manual modes), 50 ft. 110 V power cord with plug.*
- *1/2” FTP Pipe water connection with ball valve.*
- *All brass hardware and fittings.*
- *Water Pressure regulator - 25 to 75 psi.*
- *Water Pressure gauge - 0 to 60 psi.*
- *Aqua Pure sediment cartridge in see-thru bowl.*
- *Individual Controls for internal solenoid valves.*
- *3/8” tube size instant push outlet and injector connections.*
- *100 ft. roll of semi-rigid plastic tubing.*
- *Water spraying system with two (2) or more nozzles.*
- *Pre assembled for simple installation.*

## **Auto On/Off Specifications**

- *Operates with Neustrat system in “Automatic” mode and monitors the amperage load and subsequently controls the Neustrat’s activities.*
- *Minimizes operator input during intermittent and erratic use of process equipment.*
- *NEMA 12 enclosure with the following components: Heavy duty terminal block, Pre-wired internals, Current sensing relay with adjustable set-point (specify 1-10 amp or 10-100 amp range), 50 ft. cord with special plug for connection to Neustrat central unit.*
- *Unit is compatible with single phase and three phase electrical power.*
- *Designed to easily integrate with process equipment from material handling to size reduction - new or existing.*
- *Pre-Assembled for simple installation.*
- *Includes installation and adjustment instructions.*



**Installation and Start Up**

1. Mount Neustrat Control Unit.
2. Connect supply (tap) water to unit.
3. Connect 110VAC power to unit.
4. Install water lines to each injector location.  
With tap water connected and ball valve open, air can be bled from the water lines by switching to "Continuous" on the control unit.  
Note: For most efficient injector function, all air must be bled from the water lines.
5. Make water connections to all injector locations.

**To Detect Static**

1. Visual Inspection
  - A. Large clumps of material sporadically falling out of cyclone or Elutriator
  - B. Agglomerated material build-up clinging to containers
  - C. Agglomerated material build-up clinging to cyclone / Elutriator discharge collar
2. Electrostatic Detection device

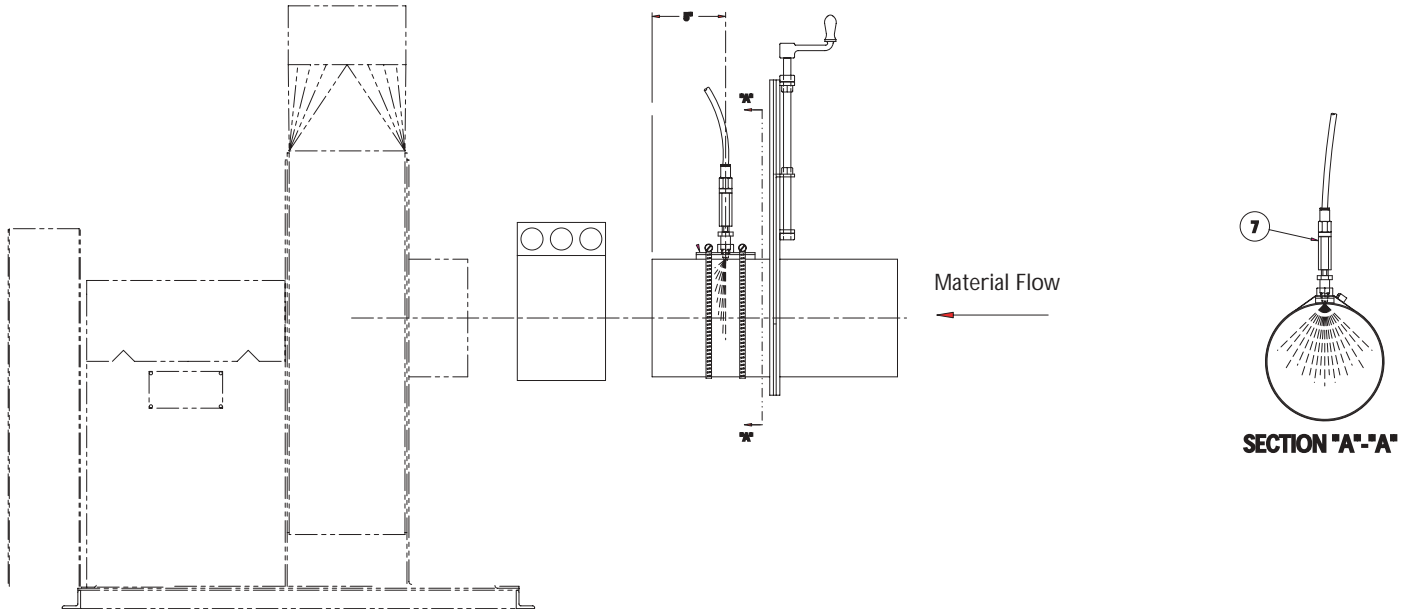
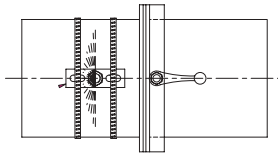
**To Control Static**

1. Increase "Timer On" frequencies in increments starting with Granulator first
2. If excess moisture is detected in conveyance line, decrease "On Time" frequency in increments starting with evacuation blower



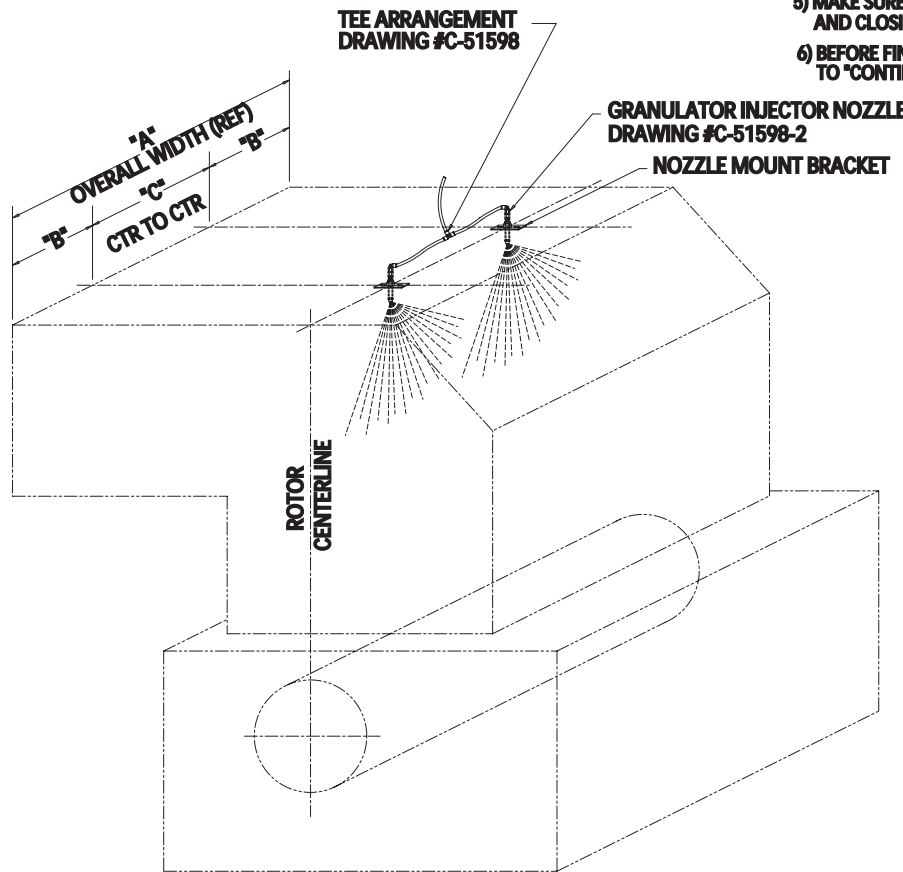
**INSTALLATION NOTES:**

- 1) FOR LOCATION AND ATTACHMENT OF INJECTOR ASSEMBLY, SEE VIEW BELOW. IF A 3/4" DIA. HOLE IS NOT PRE-DRILLED AT THE PROPER LOCATION, ONE WILL HAVE TO BE FIELD-DRILLED. BE SURE TO ALLOW ROOM AT END OF COLLAR FOR COMPRESSION COUPLING ATTACHMENT (WHEN APPLICABLE).
- 2) IF NO GATE VALVE IS BEING USED, LOCATE 3/4" HOLE FIVE INCHES FROM END OF TUBING WHERE IT WILL BE CONNECTED TO BLOWER INLET.
- 3) LOCATE NOZZLE MOUNT WITH RUBBER GASKET UNDERNEATH OVER HOLE IN TUBING AND FASTEN IN PLACE USING THE TWO BAND CLAMPS (SUPPLIED BY STERLING).
- 4) LEAVE AT LEAST 1/8" OF THREAD SHOWING ON ALL THREADED FITTINGS WHEN APPLYING TEFLON THREAD SO THAT TAPE FRAGMENTS WILL NOT ENTER SYSTEM AND CLOG NOZZLE(S).
- 5) SPECIAL CARE MUST BE USED TO MAINTAIN CLEANLINESS WHILE ASSEMBLING NOZZLE ASSEMBLY TO PREVENT DIRT OR TRASH FROM ENTERING SYSTEM AND CLOGGING NOZZLE(S)
- 6) CONNECT POLY TUBING TO INJECTOR. AFTER WATER SUPPLY HAS BEEN MADE, INJECTOR MUST BE CHECKED TO MAKE SURE NOZZLE SPRAY IS "FANNING" ACROSS WIDTH OF TUBING WHICH WOULD ALSO BE PERPENDICULAR TO THE TUBING LENGTH. ROTATE INJECTOR TO CHANGE DIRECTION OF SPRAY "FAN".
- 7) CONNECT GATE VALVE TO BLOWER INLET USING COMPRESSION COUPLING (ITEM 3).



**INSTALLATION NOTES:**

- 1) LOCATE NOZZLE MOUNT BRACKET ON GRANULATOR AS SHOWN AND DRILL (2) 5/16" DIA HOLES FOR MOUNTING BRACKET AND (1) 3/4" DIA. HOLE FOR INJECTOR TO PASS THRU.
- 2) TAP THE (2) 5/16" HOLES FOR 3/8"-16 UNC BOLTS AND FASTEN BRACKET IN PLACE. MAKE SURE GASKET IS UNDERNEATH BRACKET BEFORE FASTENING IT TO GRANULATOR.
- 3) LEAVE AT LEAST 1/8" OF THREAD SHOWING ON ALL THREADED FITTINGS WHEN APPLYING TEFLON THREAD TAPE SO TAPE FRAGMENTS WILL NOT ENTER SYSTEM AND CLOG NOZZLES.
- 4) AFTER WATER SUPPLY IS CONNECTED, MAKE SURE NOZZLE SPRAY IS "FANNING" ACROSS WIDTH OF GRANULATOR. ROTATE INJECTOR TO CORRECT DIRECTION OF SPRAY "FAN".
- 5) MAKE SURE LENGTH AND POSITIONING OF WATER SUPPLY TUBING ALLOW FOR SAFE OPENING AND CLOSING OF GRANULATOR.
- 6) BEFORE FINAL INSTALLATION, PLACE INJECTOR INTO EMPTY CONTAINER, TURN CONTROLS TO "CONTINUOUS" AND BLEED AIR FROM LINES.



"A"	"B"	"C"
36"	13"	10"
40"	15"	10"
50"	15"	20"

FOR GRANULATORS 36" WIDE AND UP

Typical Nozzle Installation for Granulator Installation