

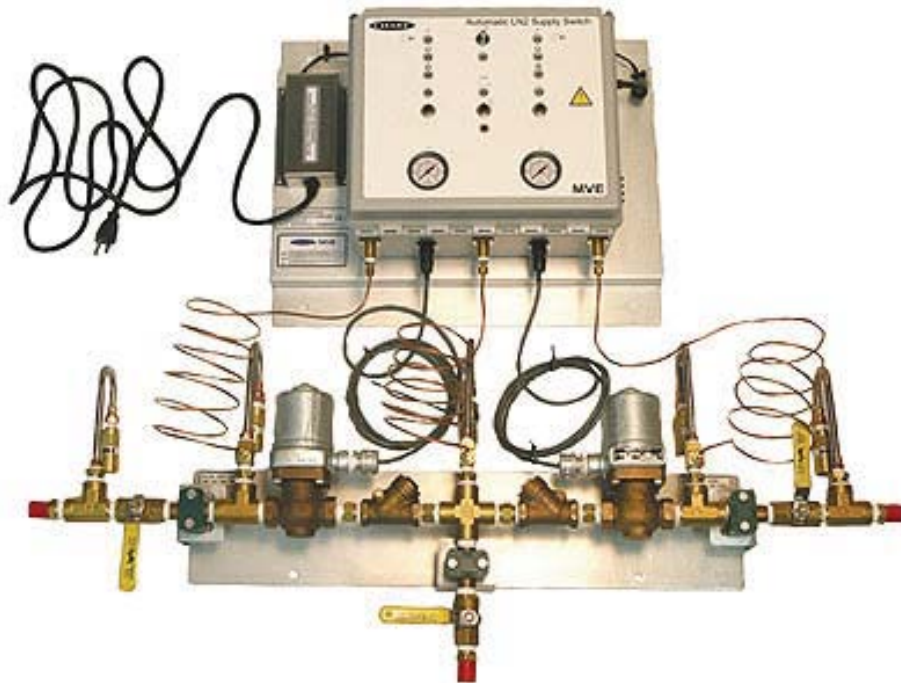
# Tech Tips

(August/ September/ October 2016)

## Product Information

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### MVE Automatic LN2 Supply Switch



The MVE automated supply tank switch, PN 13934911, is a dual inlet manifold enabling automatic switch-to-back-up supply for cryogenic storage tanks. Two liquid cylinders connect via the switching manifold directly to the nitrogen freezer(s). When the primary tank is empty, the supply line is automatically switched to the secondary or back-up cylinder.

This unattended switching ensures that supply integrity is maintained to the storage system. A visual alarm shows when the primary tank is empty. Audible and visual alarms indicate to laboratory personnel when both tanks are empty.

Note that the tank switcher is capable of filling up to two Chart MVE freezers utilizing 6 foot transfer hoses and low pressure (22-35PSI) cylinders. Contact Chart Technical Service for more details and information on the MVE LN2 Tank Switcher.

## SC 20/20 Signature Series

The Signature SC 20/20 is engineered specifically for farm use and has an improved, precision manufactured design. The Signature SC 20/20 Part Number is 20861774, and it has replaced the SC 20/20 PN 10725451.

## SC 20/20 Signature Series



### Features include:

- Engineered specifically for farm use
- Precision manufacturing design

### Maximum Storage Capacity

Number of Canisters	6
Number of 1/2 cc straws 10/cane	660
Number of 1/2 cc 1 Level Bulk	879

### Performance

LN2 Capacity L	20,5
Static Evaporation Rate L/day*	0,090
Static Holding Time days	227
Normal Working Duration days	142

### Unit Dimensions

Neck Opening in/mm	2.16/55
Overall Height in/mm	26.0/660
Outer Diameter in/mm	14.5/368
Canister Height in/mm	11.0/279
Canister Diameter in/mm	1.65/41.9
Weight Empty lb/kg	26.0/11.8
Weight Full lb/kg	62.4/28.3

\* Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the nature of the container use, atmospheric conditions, and manufacturing tolerances.

**TWO Year Standard Warranty from date of invoice**  
**FIVE Year Vacuum Warranty from date of invoice**

## Epoxy Kit

Effective immediately, Chart MVE will no longer offer Epoxy Kit PN 0010143 due to it being considered a Dangerous Good for Domestic and International Shipping. A suitable replacement may be found by searching online or at your local hardware store.

### Epoxy Kit



0010143      9 oz. resin and hardener

- used for attaching canister ring to dewar or cork to cover

# Helpful Hints/FAQ's

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Q: Does PN 20582341 NER Certificate come standard with Vapor Shipper Series?

A: The NER Certificate is only available at the time the Vapor Shipper order is placed. Unfortunately it cannot be ordered after the Vapor Shippers have been built and shipped. The document is serial number specific and will have to be requested at the time the order is entered. Contact Customer Service or your Sales Representative for pricing and further information.

Q: What is the Preventive Maintenance for the Manual Discharge Device?

A: Chart's Discharge Device will provide many years of trouble-free service by following simple basic inspections. Periodic evaluation of the manual discharge device will enable to verify whether the device has a good seal to build pressure and a working relief valve to relieve pressure at 5 psi.

Inspection and replace if necessary:

1. Regularly check the safety cable, clamps and all of its components; replace if any components are broken (important safety factor).
2. Check for wear and deformation on the rubber plug. A noticeable indent or wear is normal but over time may cause leaks; replace if suspect.
3. Check that the wing nut is tight before and after transfer of LN2.
4. Check that the pressure gauge is actively reading pressure, 0 - 5 PSI is the norm.
5. Check both relief valves, vent valve, spout, discharge valve (black knob that opens and closes controlling the flow of LN2), and all related pipe fittings for any potential leaks using a soapy substance.
6. Verify the dip tube (long tube inserted into Dewar) is not bent.
7. Replace parts only with the original manufacturers specified part numbers.

\*\*Please remember to consider important safety factors, using cryogloves, cryoapron, and protective eyewear when handling the Discharge Device in a Dewar filled with LN2.

*If at any time it is determined that the Manual Discharge Device is not operating to specification, please contact Technical Service for assistance.*

Q: Can I store round canisters in the Cryosystem 6000 and 4000?

A: Yes, the Cryosystem series come standard with square racks, but Chart offers optional round canisters for the Cryosystem 4000 and 6000. The canister for the Cryosystem 4000 is PN: 11854634 and the canister for the Cryosystem 6000 is PN: 13350712. Both measure 5.96 inches (151 mm) inner diameter.

Q: Can I store canes and straws in a MVE or HE model freezer without wasting space?

A: Yes, You will need the SUC (Single Unit Canister) boxes (PN 9710491) and the SUC racks (either PN 11392644 or 11395896). These racks have a height of 25" (635 mm) so be sure the model of freezer this rack would be used in is compatible.

Q: Some of my freezers have different length temperature probes. What are the replacement part numbers I will need to replace these different probes?

A: Chart offers one temperature probe as PN 20570663. Chart has made the switch to one temperature probe measuring 65 inches (165cm) in the effort to simplify replacement orders. The current temperature probe can be used as a replacement on freezers with the 96" inch (244cm) or 44" (112cm) probe length. The 65 inch (165cm) temperature probe is robust, precise, and accurate in measuring cryogenic temperatures.

## Accessories

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### Low Level Alarms for Aluminum Dewars

Chart offers low level alarm options for aluminum Dewars that are designed to alert when the level drops. The low level alarms include a probe that is inserted through the neck and placed at a user-designated level. The alarm sounds when the liquid level drops below the probe. The Bat-1B alarm uses a 9V battery as a power source. The Therm-O-Lert uses an 110V or 230V AC power supply as well as an internal, rechargeable battery.



Bat-1B: PN 11905817  
Detachable Probe: PN 11866441



Therm-O-Lert (230 V): PN 10769489  
Therm-O-Lert (110 V): PN 9710879  
Detachable Probe: PN 11866416

### Stainless Steel Basket

Chart offers a basket assembly that is used in conjunction with the SS transfer Dewars. The basket is not designed for long term storage inside the Dewars, but rather for shrink fitting or the cryo-treating of metal parts.



PN 11066283.

### Chart MVE Freezer Step Latch Rubber Assembly

The part number of the latch (DRAW LATCH RUBBER 2"LG) for the step assembly of the HE 1500/1800 freezer series freezers is PN 11891849 and the screws are PN 11891881 (3 are needed per handle).

