



Conveying, Drying and Blending Systems

For Extrusion, Injection and Blow Molding Plants

Our experienced systems group has raised raised the global presence of NOVATEC to new heights. We now offer a wider range of dryer technologies and blenders than any other manufacturer and our selection of standard and custom-programmed conveying controls is unmatched in the industry.



NOVATEC designs, builds and installs systems of all sizes and levels of sophistication.

NOVATEC offers a wide range of standard controls for drying, blending and conveying systems. We also provide custom programming of all major brands of controllers.



Choose from vacuum, infrared, desiccant wheel, compressed air, compressed air/membrane, dual bed desiccant, hot air, electric or gas-fired dryers... all backed by a 5-year warranty.



NOVATEC has more blenders and feeders than any other manufacturer... all with a 5-year warranty.



ISO 9001: 2000

Drying Systems

NOVATEC offers more resin dryer technologies than any other manufacturer

Infrared Rotary Dryer/Crystallizer for PET Process 200 – 4,000 lb./hr. (90 – 1800 kg/hr.)



Our infrared drying system provides super-fast drying and crystallization of virgin PET resins and PET regrind from thin sheet or film in one operation. Reduce moisture content to less than 50 ppm in 8-13 minutes! Critical resin properties are maintained and energy consumption is greatly reduced.

NovaWheel™ Desiccant Wheel Resin Dryers 100-5000 lb./hr. (45-2272 kg/hr.)

Mold Dryers 300 - 600 ft.³/min. (8.5 - 17 m³/min.)

NOVATEC has re-invented the wheel dryer with features that eliminate the disadvantages associated with previous versions... including a no-slip chain drive and a new full-function graphic control panel. The *NovaWheel* reduces floor space by up to 800% and reduces energy costs by up to 50% compared to standard desiccant dryers. Temperatures to 350°F. (177°C). -40° dew point.

Mold Dryers have the same features and are available with 300-600 ft.³ /min. (8.5 -17 m³ /min.) air flow capacities.

Micro-processor control standard or choose the optional *NovaTouch™* touch panel PLC.



Dual Desiccant Tower Dryers & Central Drying Systems Process 100-3800 lb./hr. (45-1727 kg/hr.)



NOVATEC dual-bed desiccant dryers include separate process and regeneration heaters. Guaranteed -40° dew point process air. Process temperatures up to 350°F. (177°C).

Central drying system utilizes multi-hopper, closed loop, drying system to provide custom drying of different resins simultaneously. Guaranteed -40° dew point process air is supplied to hoppers with heater-blower packages on floor stands or on individual molding machines.

Electromechanical controls are standard or choose the optional *NovaTouch™* touch panel PLC with multiple communications options.

NovaVac II 30-200 lb./hr. (14-90 kg/hr.) 800 lb./hr. (365 kg/hr.) available soon.



A vacuum dryer that is good enough to carry the NOVATEC name. Saves 70-80% on energy costs, greatly reduced footprint compared to other types of dryers and allows on-the-fly material or color changes. No desiccant, no separate drying hopper. Dries most resins in about 40 minutes using proven principles of physics. Resin is quickly heated to required temperature then high vacuum reduces boiling point of moisture to 133°F. and literally pulls moisture from the resin. Short residence time reduces degradation of material properties.

NovaDrier™ (Patent No. 6, 584,701) Process .5-150 lb./hr. (.2-68 kg/hr.)

Dries all types of plastic pellets. This compressed air/membrane dryer has no desiccant, no moving parts, no process nor regen motor, no regen heater and operates with any compressed air source. Minimal maintenance. Provides -40° dew point air to resin hoppers within 4 minutes of startup. Up to 350°F. (177°C) process air is standard. High heat available. PID solid-state temperature control. Floor or machine mount. Stainless steel hoppers to 150 lb. (68kg) are standard.

All stainless option for medical molders available on some models.



Drying Hoppers 15 -18000 lb. capacity (7-8182 kg)



Modular stainless steel construction to 150 lb. (68kg). Carbon steel on 200 lb. (90kg) and up. All hoppers are insulated and have a large clean-out door with site glass(s). Lifting lugs, slide gate discharge valve, return-air pellet screen and lid hole/bolt pattern for NOVATEC loader or receiver are also standard. Supplied complete with two 12 ft. sections of high heat silicone hose and clamps.

Accessories include floor stand package, gaylord stand package, capacitance switch and more.

5-Year warranty.

5-YEAR WARRANTY ON ALL NOVATEC DRYERS

Micro Dryers

Process 15-50 lb./hr (7-23 kg/hr.)

Dual-bed efficiency in a compact design. Machine or floor-mount convenience. Guaranteed -40° dew point process air. Temperature to 350°F . (177°C) is a no-charge option. Stainless steel hoppers to 150 lb. (68 kg) are standard. Electromechanical controls are standard or choose the *NovaTouch*[™] touch panel PLC.



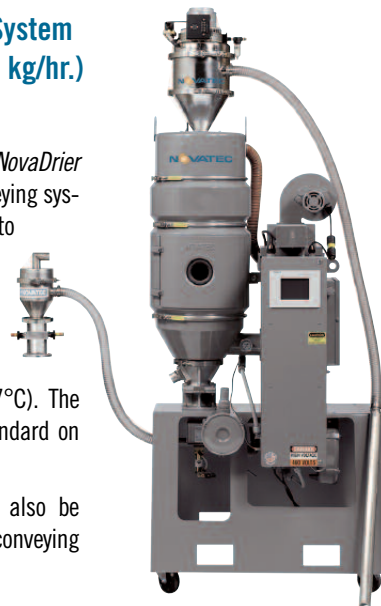
Portable Drying/Conveying System

Process 15-200 lb./hr. (7-90 kg/hr.)

Utilizes a NOVATEC dual bed dryer, a *NovaDrier* and a closed loop, line purging, conveying system to supply dried material directly to the process machine. Dedicated regenerative blower package for closed loop conveying.

Guaranteed -40° dew point process air at temperatures to 350°F . (177°C). The *NovaTouch*[™] touch panel PLC is standard on dual bed models.

Our *NovaVac II* vacuum dryer can also be utilized as part of a portable drying/conveying system.



Gas Fired Process & Regeneration Heaters

500cfm - 4000cfm (14-114m³ /min.)

For process or regeneration air.



Up to 90+% combustion efficiency produces significant cost savings over electric heaters. Safe indirect gas heating isolates process from hot gas. Process air temperature adjustable from 160°F . - 400°F . (71° - 204°C). Stainless steel combustion chamber (patent # 6044837). NFPA-86 gas train with IRI or FM as options.

UL/C-UL listed flame control panel with main disconnect switch as standard. Other local and international code options available.

HB Heater/Blower Units

15-750cfm (.4-21m³/min.)

These heater/blower packages are used independently to remove surface moisture from resins, or in conjunction with a desiccant dryer to re-heat desiccated air to remove moisture from hygroscopic resins as part of a central drying system. This eliminates the need for air balancing in central systems. Adjustable PID solid-state controls are standard.

Temperatures to 350°F . (177°C).

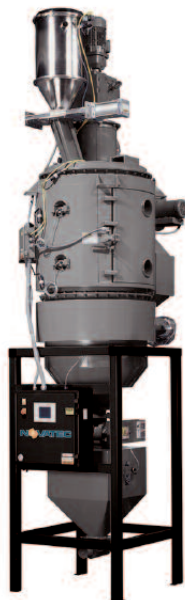


Crystallizers

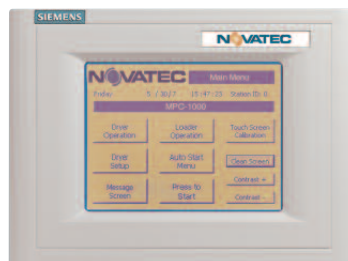
Process 100 lb-4,000 lb./hr. (45-1818 kg/hr.)

Provides efficient conversion of amorphous PET resin into crystallized pellets. High efficiency heater-blower provides continuous high temperatures up to 350°F . (177°C) to assure proper reaction. Resin is conveyed into a double-insulated hopper with an internal agitator to prevent agglomeration. The *NovaTouch*[™] touch panel PLC is standard.

2-Year warranty.



NovaTouch[™] Touch Panel PLC



The optional *NovaTouch*[™] control provides greater reliability than standard microprocessor controls. It can be programmed for Drying or Conveying Systems. In addition, inexpensive modules are available to provide a variety of communications options including Modem, Modbus, Profibus or MPI. Ethernet, DeviceNet and Canbus protocols also available. Service technicians can diagnose and re-program equipment from a remote location.

Blending/Feeding Systems

The industry's largest selection of blenders and feeders including all NOVATEC/MAGUIRE products - 5-YEAR WARRANTY

Gravimetric Feeder

To 35 lb./hr. (16 kg/hr.) capacity

This gravimetric feeder is ideal for low throughputs. It has an easy-to-use micro processor controller and is the lowest priced gravimetric feeder on the market today. Accuracy is 0.1% of the shot weight. It is self calibrating and vibration resistant.



Micro-Blender

- 5 models available
- Up to 100 lb./hr. (45 kg/hr.)
- Ideal for small injection machines
- Up to 4 components



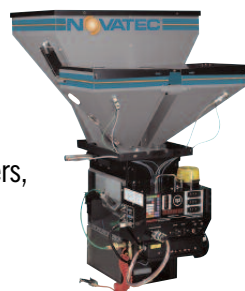
100 Series

- 5 models available
- Up to 450 lb./hr. (200 kg/hr.)
- For injection molders and small extruders
- Up to 4 components



200 Series

- 12 models available
- Up to 900 lb./hr. (400 kg/hr.)
- For injection molders, small extruders, and central blending
- Up to 8 components



400 Series

- 12 models available
- Up to 1450 lb./hr (650 kg/hr.)
- For small to medium extruders, large injection machines and central blending systems
- Up to 8 components



900 Series

- 21 models available
- Up to 4000 lb./hr. (1800 kg/hr.)
- Designed for large extruders, blown film lines and central blending systems
- 2, 4, or 6 compartment hoppers
- Up to 6 feeders



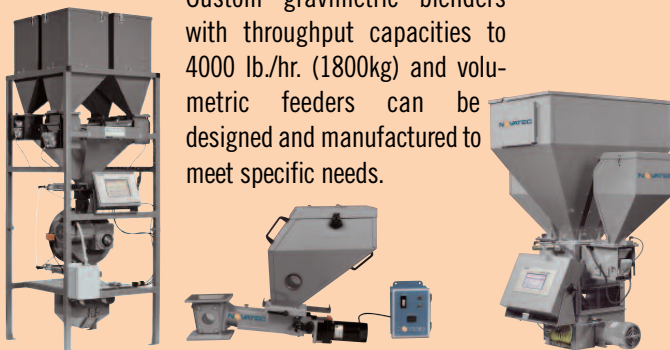
1800 Series

- 21 models available
- Up to 5000 lb./hr. (2270 kg/hr.)
- Ideal for high output extruders and large central blending systems
- Two, four, or six compartment hoppers
- Up to 6 feeders



Custom Blenders and Feeders

Custom gravimetric blenders with throughput capacities to 4000 lb./hr. (1800kg) and volumetric feeders can be designed and manufactured to meet specific needs.



Maxi-Batch Blender

- For hard-to-handle bulk powders like additives and wood flour
- Up to 8,000 lb./hr. (3,636 kg/hr.)
- For as many as 9 ingredients



Resin Conveying Systems

Vacuum Loaders For Pellets or Powders 1/8, 1/3 & 1ft.³ (.004, .01 & .028 m³) throughput rates <50-500 lb./hr. (<22-330 kg/hr.)

Siemens "LOGO" PLC control with "no-load" alarm is standard.

Self contained loaders for pellets or powders and dusty regrind. Hopper mount or Easy-Clean, machine mount JIT configurations. JIT's have photo-eye level sensor. All have electro-polished stainless steel modular bodies and SS deflectors on the inlet. Quick release clamps allow easy access. Add an external proportioning valve if needed. LOGO! can be programmed for proportioning or purge and blowback.



For Pellets or Powders

Vacuum Receivers 5 - 114 lb. capacities (2 - 52kg) Standard



For Pellets or Powders



For free-flowing pellets and powders. Hopper mount or machine mount JIT configurations. JIT's have photo-eye level sensor. All have electro-polished stainless steel modular bodies. Add an external proportioning valve if needed. Use separate central control for blowback and proportioning or purchase LOGO! accessory. Custom sizes available.

Compressed Air JIT Loaders 500 lb./hr. (227 kg/hr.) estimated throughput up to 15 ft. (5 m.)

Single and two-material loaders have stainless steel modular bodies and SS deflectors on the inlet. Available with cartridge filter or dust collection bag. Adjustable photo-eye level sensor standard.



Cyclone Filter

Catches up to 99% of fines that would normally clog a cloth filter. Uses cyclonic action, no filter element, quick release clamps on collection pan. Designed for use with pumps from 3 - 25 hp. Easy retrofit into any conveying system. Optional Donaldson filter for very dusty fines.

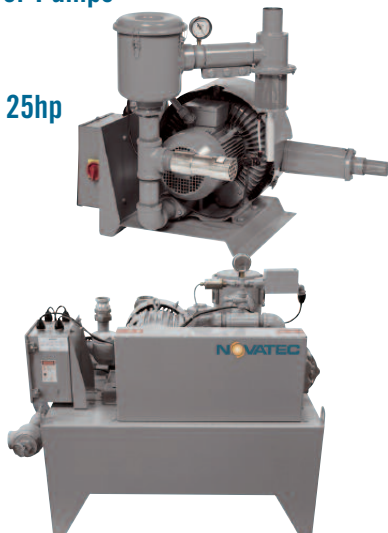


Vacuum Regenerative Blower Pumps 1.5 & 6.2hp

Vacuum Positive Displacement Pumps 3hp - 25hp

Vacuum conveying systems, move free-flowing pellets, regrind and flake with -in the plant quietly and efficiently.

NOVATEC positive displacement pumps and regeneration pumps include pump idle valves to reduce wear and quality mufflers to reduce noise and emissions.



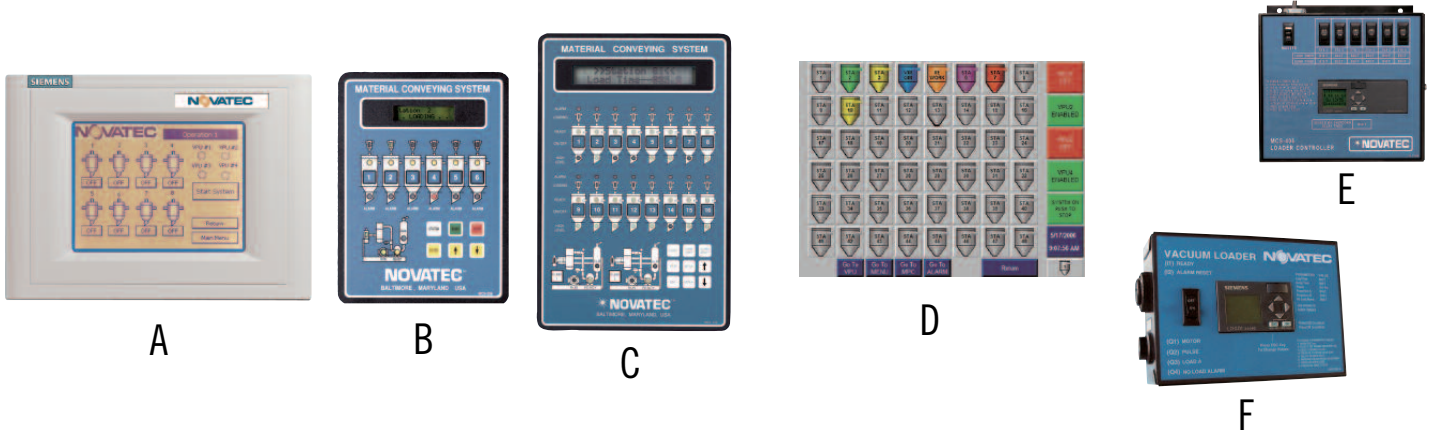
Railcar Unloaders, Silos, Surge Bins, Bulk Bag Unloaders, Tilt Tables and more.

System design, installation and start-up training.

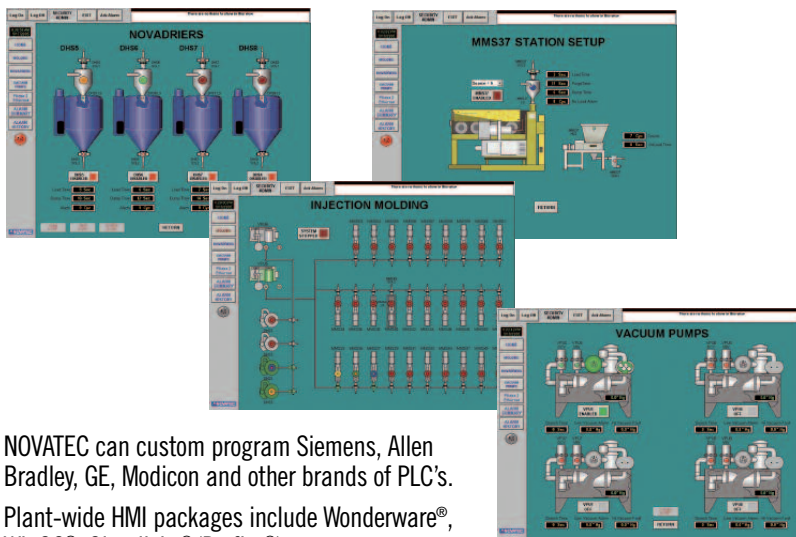
Vacuum/pressure units to 40 hp or more convey resin from railcars to silos. Novatec provides layout, design and installation of conveying systems with overhead or underground conveying lines and can include Surge Bins, Bulk Bag Unloaders, Tilt Tables and more. Mixing/Blending Silos available for PCR processors to ensure more uniform melt index.



Conveying Controls



- A - *NovaTouch*™ 500 Series touch panel PLC controls up to 64 stations and 5 pumps in the basic configuration. Blowback and/or purge and/or proportioning can be included as an option. Multiple communications options available.
- B - MCS-206 microprocessor control for up to 6 stations and one pump with blowback as an option.
- C - MCS-216 microprocessor control for up to 16 stations and 2 pumps with blowback or purge as options.
- D - *NovaTouch*™ MCS-648 & MCS-696 fully distributed I/O for up to 48 stations or up to 96 stations plus purge valves, auto ID proofing and vacuum pumps.
- E - MCS-406 Siemens LOGO!® mini PLC for up to six stations and one pump.
- F - MCS-401 Siemens LOGO!® PLC with “no-load” alarm for single station control. Proportioning or purge and blowback are included.



NOVATEC can custom program Siemens, Allen Bradley, GE, Modicon and other brands of PLC's.

Plant-wide HMI packages include Wonderware®, WinCC®, Cimplicity® (Proficy®).

Network protocols include ModBus, Profibus, ASI™, DeviceNet®, EtherNet/IP® and EtherNet II Module (embedded web page).

Technical Service Available 24/7!

More Drying, Conveying and Blending choices than any other manufacturer!



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