North America's multi-family waste equipment specialists

Keeping your chute together since 1999

647.492.0318 1.833.307.4040 www.canamwaste.ca

SPECIFICATIONS:

CanAm TriSorter Automated Recycling System

www.canamwaste.ca

CanAm Waste Products Inc.
Tel: 647.492.0318 / Email: info@canamwaste.ca

Keeping your chute together since 1999

CANAM WASTE PRODUCTS INC. – Waste Disposal & Recycling System

TriSorter WASTE AND RECYCLING SYSTEM

The system is designed to address commingled and organics-based recycling programs in multi-story buildings to allow recycling & organics to be as convenient as garbage disposal. The system allows residents to dispose of garbage and recyclables down a single refuse chute.

CanAm offers three different designs:

1. In-Line Unit
2. Corner Unit
3. End-feed Unit

The In-line unit is built with the containers arranged parallel to each other. The Corner unit is designed with the containers in a compact, perpendicular arrangement. The End-feed unit is designed for linear waste rooms. These designs allow for the use of a 3-cubic yard waste container and industry-standard 95-gallon toters or 3-yard bulk collection containers.

Tenant-activated buttons on a control panel incorporated above each chute intake door initiates the appropriate container selection in the garbage room located below. As the correct intake door is signaled available to the tenant, they then dispose of the material down the chute.

Each TriSorter Waste & Recycling System is comprised of:

- TriSorter Recycling System (In-line, Centre, or End-feed models)
- Resident Control Panels for garbage and/or recycling access
- Stationary apartment compactor such as the CANAM60 or 52
- Garbage compaction containers (3-yard) – if required
- Front or rear loading recycling containers (dual, 2,3,4 yard)
- Front or rear loading organics containers (dual, 2,3,4 yard)
- Front or rear loading bulky item containers (4-yard) – if required
- CanAm Odour Control System
- CanAm Bin Buddy container movers

Benefits:

- Minimizes size of chute/vestibule rooms on each floor and increases saleable square footage
- Convenience - Residents expect builders to provide recycling facilities that are as convenient as garbage disposal facilities
- Compliance with provincial and municipal recycling laws and by-laws
- Eliminates costs associated with floor-by-floor recycling collection & extensive cleaning of trash rooms located on each floor
- Operates only in seconds and automatically defaults to garbage position
- Saves valuable ground floor area by eliminating the recycling depot room

SECTION 11175 - WASTE / RECYCLING SYSTEM

This section is based on a system produced by:

CANAM WASTE PRODUCTS INC.
Toronto, ON Canada
T: 647.492.0318 / E: info@canamwaste.ca

The CanAm TriSorter waste recycling system, manufactured and installed by **CanAm Waste Products Inc. (CanAm)**, is comprised of a CanAm TriSorter System (in-line, corner, or end-feed model) as appropriate to the installation, resident floor control panels, a waste compactor appropriate to the installation, compaction waste containers, recycling containers and organics containers as appropriate to the installation.

Part 1 GENERAL

1.1 RELATED DOCUMENTS

A. The general provisions of the contract, including General and Division 1, General Requirements, apply to the work specified in this section.

1.2 SYSTEM OPERATION

A. The three-component sorter uses a single waste/recycling chute (“chute”) in a multi-story building to distribute materials pre-separated by tenants into three separate containers, as determined by the municipality. For example, one container will be designated for garbage; a second for newspaper and a third for commingled recyclables. The system also has organics collection capability – garbage / recyclables, organics. Tenant-activated buttons on a control panel incorporated above or in each chute intake door shall initiate appropriate container selection. As the correct container is accessed by the chute, the chute intake door is signaled available to the tenant who then disposes of the material.

1.3 DESCRIPTION OF WORK

A. Work Included: Furnish and install a Waste Recycling System where shown on drawings.

1.4 SUBMITTALS

A. Catalog Cuts: Before the waste recycling system is delivered to the job site, submit catalog cuts to the Architect in accordance with these specifications, showing all details of installation and assembly and all requirements for work by other trades.

B. Product Data: Manufacturer’s product specifications, standard details and recommendations for project conditions; indicate selected sizes and installation details specific to the project.

C. Shop Drawings:

1. Plans: Scale 6 mm to 300 mm; indicate locations, dimensions, and required associated construction activities.

2. Elevations/Sections: Scale 6 mm to 300 mm; indicate locations, dimensions, and required associated required construction activities.

3. Details: Scale 6 mm to 300 mm; indicate:
   a. Shop drawings specific to project conditions
   b. Interface with adjacent construction
   c. Dimensions and tolerances
   d. Products required for installation of the waste recycling system, but not supplied by waste recycling system manufacturer.

D. Quality Assurance/Control Submittals:

1: Contractor's Certification that:

   a. Products of this section are manufactured by CANAM WASTE PRODUCTS INC. - **NO SUBSTITUTIONS.**
   b. Manufacturer's certification that installer of manufacturer's product is approved.

D. Close-out Submittals:

1. Operation and Maintenance Data:

   a. Manufacturer's printed Operation and Safety Manual
   b. Manufacturer's Building Recycling Education Package

2. Warranty Documents: Issued and executed by the manufacturer and installer of the system.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: Minimum five (5) years-documented experience producing products specified in this section.

2. Installer: Approved by the waste recycling system manufacturer, and having a minimum of five (5) year's experience.

B. Pre-Installation Meetings:

1. Convene at job-site a minimum of seven (7) calendar days prior to scheduled beginning of construction activities of this section to review requirements of this section.

2. Require attendance by representatives of the following:

   a. Waste recycling system manufacturer or designated representative
   b. Installer of this section.
   c. Other entities directly affecting, or affected by, construction activities of this section.

d. Notify Architect four (4) calendar days in advance of scheduled meeting date.

C. Workmanship shall be of highest quality, in accordance with the best standard practice for installation of this equipment. Execute work in accordance with drawings, specifications, and manufacturer's printed directions.

D. Requirements of Regulatory Agencies:

a. Comply with the requirements of the Canadian Standards Association and all local Code inspection requirements of the Electrical Safety Authority.
b. Design equipment to comply with Provincial and local Municipal Health Department requirements.

1.6 RELATED WORK BY OTHERS SPECIFIED ELSEWHERE

A. The following work is excluded from the scope of work in this section 11175 and is included in other divisions of the specifications for inclusion in the scope of work of others.

1. Electrical Standards: The following electrical circuits, with disconnects are required and are to be installed by others as shown on the plans.

a) Local load center, consisting of:

I. 110VAC, 20 amp, 1-phase, 60Hz for recycling system Master Control Panel (MCP) on TriSorter

II. 110VAC, 15 amp, 1-phase for local electrical service plug for maintenance.

III. 110VAC, 15 amp, 1-phase electrical plug to be installed where CanAm odour control system is placed on wall.

IV. 208VAC, 20 amp, 3-Phase, 4-wire, compactor circuit with neutral. (575V volt available). Connection by others.

V. Wiring conduit: EMT conduit, 1" or ¾" diameter, for vertical installation, located in accordance with shop drawings for connecting CanAm MCP control panel, chute intake door control panel and devices, and other elements indicated on the shop drawings.

VI. Connection of power conduit to CanAm TriSorter and compactor MCP to be determined by CanAm for electrician direction and installation.

VII. Provision of internet jack in the vicinity of the master control panel for remote access (building automation system) – optional for future B.A.S. functions.

2. a) Provision of electrical back boxes (6" x 6" x 4" standard electrical junction boxes) for flush-mount or surface mount installation to house on-floor electrical components to be provided by others. Boxes must have four (4) screw holes for mounting – one

hole on the outside of each corner. Enclosure to be flush-mounted to wall. Location confirmed by CanAm.

b) Other chute supplier integrated chute doors can also be used. Subsection (a) may be eliminated if another chute supplier is providing this door as part of their scope of work, and is installing the garbage chute, as all housing of electrical components will be incorporated into this chute door. All cover plates to be supplied to suit the CanAm floor control panels will be the responsibility of others. (square punch-out required).

3. Garbage chute and related equipment appropriate to the installation.

4. Slab openings for chute, conduit, mechanical risers, etc.

1.7 WARRANTY

A. Manufacturer's warranty: Furnish waste recycling system manufacturer's standard one (1) year warranty from date of temporary certificate of occupancy or similar, locally mandated permission to use the project common areas for their intended use. Warranty shall apply to defects in product workmanship and materials.

Part 2 - PRODUCTS

2.1 MATERIALS

A. Acceptable manufacturers: **CANAM WASTE PRODUCTS INC**., Toronto, ON, CANADA,
Telephone: 647.492.0318 / info@canamwaste.ca

B. Substitutions: **NOT PERMITTED**.

C. Components:

1. TriSorter Recycling System Construction: The system shall be of 3/16" inch (4.8 mm) welded steel plate construction. It shall utilize 1/4" inch (6.350 mm) steel diverter blades to deflect materials from the chute to appropriate containers. High torque 110VAC motors driving ball screw actuated jacks shall drive the deflector mechanisms appropriately. The system shall be shock mounted to the floor and be decoupled from the chute to decrease noise transmission. TriSorter System to be detached from the garbage chute. TriSorter System also to contain rubber impact liners on garbage diverter flap.

2. Master Control Panel: A Master Control shall be housed in a CSA approved enclosure mounted on a wall in the vicinity of the TriSorter System in the trash/garbage room a minimum of 55" (1397 mm) above the floor to the bottom of the panel. No conduit should access this panel from the bottom. The Master Control Panel shall control and monitor all mechanical and electronic operating functions of the Recycling System. Inherent in the design of the control will be suitable repair and serviceability standards including use of plug-in connectors where possible.

3. Manual Service Switch: As part of the Master Control Panel (MCP), manually actuated service switch shall be provided to permit over-riding of system as required for purposes of systems shut-down for service and other needs.

4. Floor Control Buttons: Incorporated or separate from chute door. Stations permit user selection of material types for disposal, transmit “In Use” signals to all other floor control panel units, and perform the following additional functions:

    a. Activate diverter baffles to deflect material into compactor or recycling containers as appropriate to materials selection made at a Floor Control Panel.

    b. Self-diagnostic program detects system component failure, then transmits notification to maintenance personnel on location via audible noise, and transmits “Maintenance” signal to all floor control panels.

5. Stationary Apartment Compactor: CanAm60 (or other model as specified) fully automatic, electric eye controlled, hydraulically operated, stationary ram compactor with a 38 second cycle time, displacing garbage into a heavy duty compaction container of a design compatible with local requirements. C.S.A. approved control. The compactor body and top is 1/4” inch (6.35 mm) steel plate, while the sides are 1/4” inch (6.35 mm) steel plate. The compactor ram is constructed of 1/4” inch (6.35 mm) sides and top with 1/4” inch (6.35 mm) steel plate bottom. The ram face is 1/4” inch (6.35 mm) steel plate, reinforced. The hopper is made 10 gauge (3.40 mm) steel plate with a 1/4” inch (6.35 mm) slope to take the impact of falling refuse. The compactor floor is 1/4” inch (6.35 mm) thick steel.

6. The CanAm60 produces 8,500 pounds of packing force at 800 psi. (5500 kPa). Hydraulic Power Packs: A prepackaged power system with components rated at 3000 psi operating at a recommended pressure of 800 psi for long life and low maintenance. Motor – 2 HP @ 1800 RPM.

7. Compactor to be shock mounted to the floor using rubber floor mounts.

8. Control panel to be part of the power pack, located on either side of the compactor and including:

    a. On/off power switch
    b. Power on light
    c. Full light
    d. Full load reset cycle
    e. Automatic continuous cycling when electric eye is activated
    f. Automatic shut off when container is full
    g. C.S.A. approved controls

9. Recycling Containers: Industry standard 95-gallon containers or CanAm dual FEL containers, or 2/3 cubic yard (2.29 m^3) containers for recyclables (commingled or paper/container streams depending on municipality). CanAm assumes developer is in compliance with local development by-laws dealing with new developments. 6x2” polyurethane wheels with casters, 2 swivel, 2 fixed. Tow hitch included. Painted blue.

10. Organics Containers: Industry standard 95-gallon containers or CanAm dual FEL containers, or 2/3 cubic yard (2.29 m^3) containers for organics. CanAm assumes developer is in compliance with local development by-laws dealing with new developments. 6x2” polyurethane casters to be used. Tow hitch included. Painted green.

11. Garbage compaction containers: 3 cubic yards, front end loading, length 78” inch, width 47” inch, height 60” inch (overalls indicated), fully welded bottom and sides, reinforced 10 gauge (3.40 mm) steel plate. 6x2” polyurethane (152.4 mm) casters, 2

swivel, 2 fixed. Designed to mate with CANAM60 or CANAM52SH compactor, with reinforced floor and lift pockets, and standard “hold down bar” on double steel lids included. Containers will be 12 gauge (2.64 mm) steel sides, 10 gauge (3.40 mm) steel bottom, 14 gauge (1.88 mm) steel lids, 10 gauge (3.40 mm) steel channels, and 10 gauge (3.40 mm) steel charging door. CanAm assumes developer is in compliance with all local development by-laws dealing with new developments. Tow hitch included on containers. Painted black. Finish: A shop finish inside and out with corrosion resistant paint.

12. CanAm Chute Blocker – Designed to assist in safely performing maintenance functions in the garbage room by allowing the operations staff to close off the garbage chute to prevent materials from falling into compactor, recycling or organics containers.

13. Odour Control System: Supply CanAm Odour Control system in appropriate garbage room location. CanAm odour control system is comprised of HEPA and UV based fitration system. 110V standard electrical plug furnished by others.

14. Bin Buddy – Supply CanAm Bin Buddy mover. Dual-speed, dual directional walking speed device for garbage, recycling and organics container movement. Equipped with belly stop, E-stop, horn, voltage & battery indicator, and soft-take off features.

2.2 FABRICATION

A. The waste recycling system shall be fully factory assembled and welded, except those required to separate the sections for shipment and installation shall be welded at time of installation. Pre-positioned supports to be welded as installation requires. Acoustic considerations to be included to minimize noise and damage from falling refuse and recyclables from upper floors. Discharge hoppers and offsets, where required, shall be reinforced and separately supported in the impact area.

Part 3 EXECUTION

3.1 EXAMINATION

A. Verification of conditions:

1. Area in which system is to be located is correct size and location, and is prepared for installation of waste recycling system components.
2. Electrical power source is in correct location, and is correct voltage, amperage capacity, and phase for recycling system electrical components.
3. Low voltage conduit, is in correct location, and is correct size and capacity for waste recycling system low-voltage electrical components.
4. Monitoring provisions have been included by others – internet / cell phone.

B. Installer’s examination:

1. Have installer of this section examine conditions under which construction activities of this section are to be performed, then submit written notification if conditions under which construction activities of this section are to be performed are unacceptable.

2. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited.

3. General Contractor shall verify and record chute alignment with installer immediately following installation.

3.2 INSTALLATION

A. Install waste recycling system components in accordance with shop drawings and manufacturer's printed installation instructions.

3.3 DEMONSTRATION, TESTING, AND INSTRUCTION

A. Arrange demonstration of system operation, conducted by manufacturer's representative, to Owner's maintenance personnel.
B. Provide maintenance manual. Instruct owner's maintenance personnel in proper use and maintenance of equipment.

*** END OF SECTION ***