

# DURAFLAT™



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## Installation Manual

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**1-888-4 A CHUTE**

**(1-888-422-4883)**

**[www.CHUTES.com](http://www.CHUTES.com)**

# DURAFLAT™

## Instructions for Assembly and Use of DURAFLAT's™ Plastic Debris Chute

**Thank you** for your purchase of our DURACHUTE debris chute! This system is designed for economical, easy and fast removal of debris for roofers and light renovation. When using the DURACONVERTER, these sections can be integrated with our DURACHUTE system components offering a variety of outriggers, lifting and safety devices.

**DURAFLAT's** high impact-resistant, High Density Polyethylene Debris Chute is a quick, simple, and safe debris removal system to install and use, provided that the following recommended precautions and instructions are followed.

Our debris removal system meets and/or exceeds the most rigid standards and regulations. By observing and following **ALL** of the instructions provided herein, you will have a safe and well planned chute system that will increase job safety and minimize costly clean up time.

All users of this system **MUST** be sure that all information and instructions for the assembly of the debris chute are clearly understood and followed for a safe installation and operation. If you have any questions related to the installation and operation of the **DURAFLAT** plastic debris chute system, please call **800-882-4883** for assistance.



**INCORRECT INSTALLATION OR MISUSE OF THIS DEBRIS CHUTE SYSTEM COULD RESULT IN SERIOUS INJURY, DEATH, OR SEVERE PROPERTY DAMAGE. ALL EQUIPMENT MUST BE USED IN ACCORDANCE WITH SAFETY REQUIREMENTS AND STANDARDS.**



Please note that this manual has been written in very basic and simple terminology, so that those installing the system require no advanced technical knowledge. However, the simplicity of this manual should not, in any way, detract from the importance of following all the enclosed safety guidelines and installation procedures. Therefore, please read the entire manual prior to starting any installation.

The following is a guideline only for the installation of DURAFLAT's plastic debris chute systems. Neither DURAFLAT nor CHUTES International accepts responsibility for the installation or handling of the chute unless it is installed or supervised by DURAFLAT/CHUTES International's personnel.

If at any time you have any questions regarding this information, please see your supervisor, your DURAFLAT dealer, or call us directly at 800-88-CHUTE (800-882-4883). You can also visit our website at **www.CHUTES.com**.

Additional copies of this manual or further information about our other products can be obtained by calling, faxing or visiting us on the World Wide Web.

**www.CHUTES.com**

**33 Industrial Park Drive  
Waldorf, MD 20602**

**800-88-CHUTE (800-882-4883)  
Fax: 888-4 CHUTES  
(888-424-8837)**



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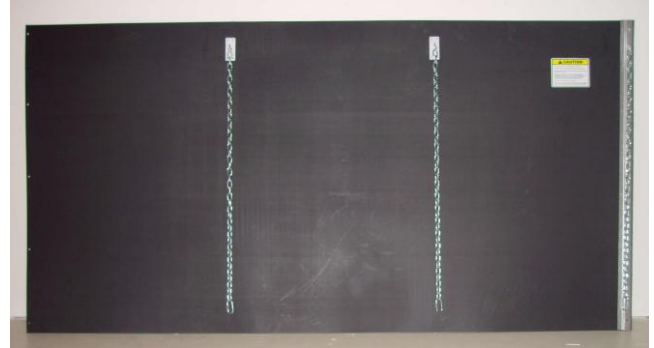
# COMPONENTS FOR DURAFLAT

## DESCRIPTION

## PICTURE

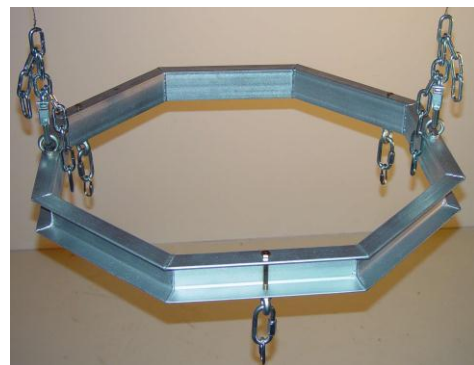
### **DURAFLAT Section w/ Chains # 0500**

- Total Length 4'
- Useable Length 3'6"
- Width 30"
- 5 Each 1/4" Bolts, Flat Washers, Lock Washers and Nuts
- Shipping Weight of 28 lbs.



### **DURACONVERTER # 0510**

- Diameter 36"
- Shipping Weight of 40 lbs.



# COMPATIBLE DURACHUTE COMPONENTS

(with the use of the DURACONVERTER)

## Intake Hopper # 0301

- Total Length 4'
- 29"W x 28"H Intake Dimensions
- Hot Dipped Galvanized Steel Components
- Shipping Weight of 62 lbs.



## Mounting Hardware

All mounting hardware is hot dipped galvanized structural steel

### DESCRIPTION

### PICTURE

## Basic Support Frame

# 0310

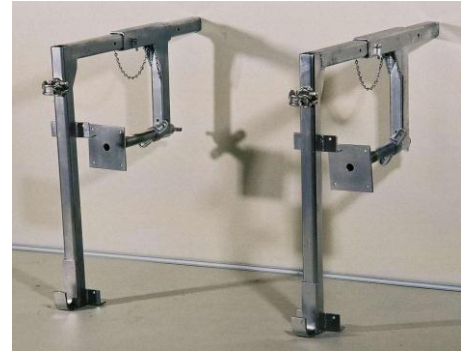
- Required With All Outriggers
- Includes Hopper Stands with 2 Hair Pin Clips & 2 Flat Washers, Picking Chains, Litch Pins, and Breakaway Cable with Caution Tag for Guide Rope attachment
- Shipping Weight of 69 lbs.





**Window/Parapet Outrigger (Set) # 0311**

- Used for Window or Parapet Mounting
- Minimum Window Opening is 38"
- Maximum Sill Depth is 30"
- 2"x 4" Softeners not provided
- Shipping Weight of 91 lbs.



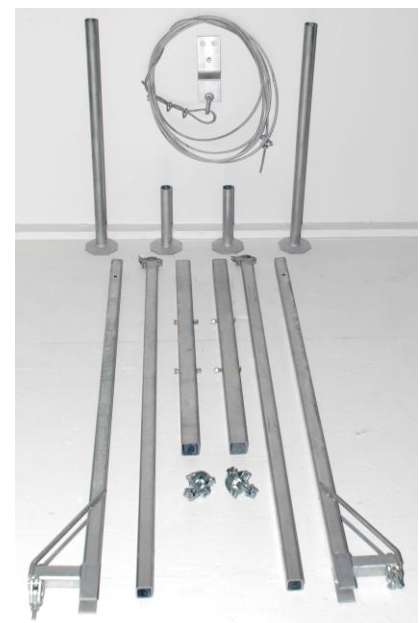
**"No-Touch" Parapet/Roof/Window Outrigger # 0313**

- 2 Counterweight Holder Stands
- Support Tube Assembly
  - o 2 Front Tubes - Chute & Hopper Support incl. Hopper Stands
  - o 2 Middle Tubes – Adjustable Insert
  - o 2 Back Tubes
- 2 Front Parapet Stands
- Cross Member w/ U-Bolts & Nuts
- Shipping Weight of 800 lbs.



**Flat Roof/Slab Outrigger (Set) # 0314**

- Used for Flat Roof or Slab Mounting
- Two (2) Front 6'Square Tubes w/ Clamps
- Two (2) Back 6'Square Tubes w/ Clamps
- Two (2) 90° Clamps
- Two (2) Outserts – 20" long
- Two (2) Kicker Stubs – 20" long
- Two (2) Counterweight Stubs - 42" Long
- Four (4) 1/2" x 3" Grade-Eight bolts w/ Self-Locking Nuts
- 1/4" Safety Tie-Back Plate
- 5/8" Shackle
- 50' of 3/8" (7x19 galvanized) Aircraft Cable
- Six (6) 3/8" Cable Clamps
- Counterweights (Item # 0320) quantity as required for length of chute (to be purchased separately)



- Shipping Weight of 215 lbs.

### **Scaffold Outrigger**

**# 0312**

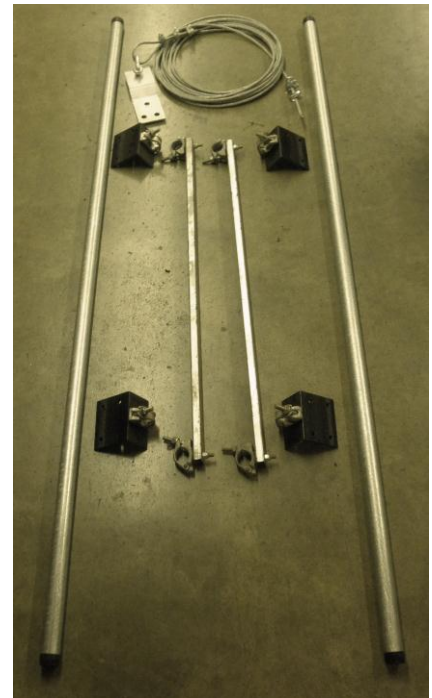
- Used for Scaffold Mounting
- Four (4) 8' Round Tubes
- Six (6) 90° Clamps
- Four (4) Swivel Clamps
- Shipping Weight of 92 lbs.



### **Pitched Roof Outrigger**

**# 0316**

- Used for Pitched Roof Mounting
- Two (2) 8' Round Tubes
- Two (2) 4' Diagonal Braces
- Four (4) Roof Tube Brackets
- Two (2) 90° Clamps
- 1/4" Safety Tie-Back Plate
- 5/8" Shackle
- 50' of 3/8" (7x19 galvanized) Aircraft Cable
- Six (6) 3/8" Cable Clamps
- Shipping Weight 115 lbs.



## **Accessories**

### **80'/150' Scaffold Manual Winch**

**# 0321/0319**

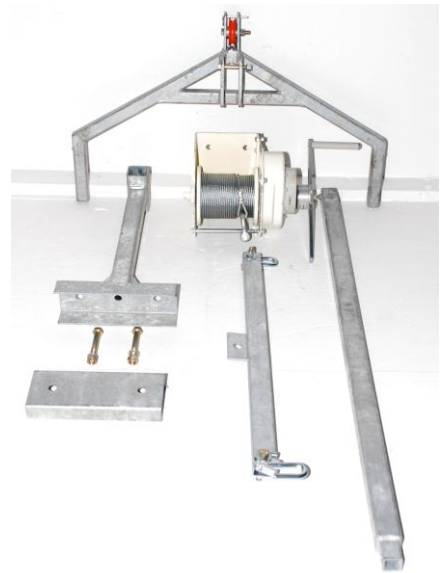
- Complete System Includes All Components (Frame, Winch, Picking Bar)
- Shipping Weight of 71/88 lbs





**80' & 150' No-Touch Parapet/Roof/Window # 0334/0333  
Winch**

- Winch Roller Bar
- Winch Bar
- Support Arm
- Winch
- 2 5/8" Bolts
- Connection Cap
- Winch Picking Bar
- Shipping Weight of 131/150lbs.



**80' & 150' In House Manual Winch**

**# 0336/0335**

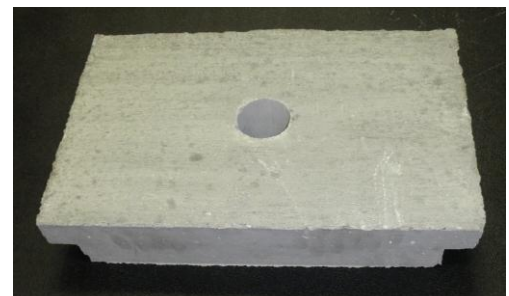
- Winch Roller Bar
- Winch Frame
- Winch
- Support Arm (2 pieces)
- Winch Picking Bar
- 5 5/8" Bolts
- 2) Frame Support Brackets w/ Caps
- Shipping Weight of 166/185lbs.



**Counterweight**

**# 0320**

- 50 lbs. Each
- Used with Flat Roof Outrigger & Roof Parapet Outrigger

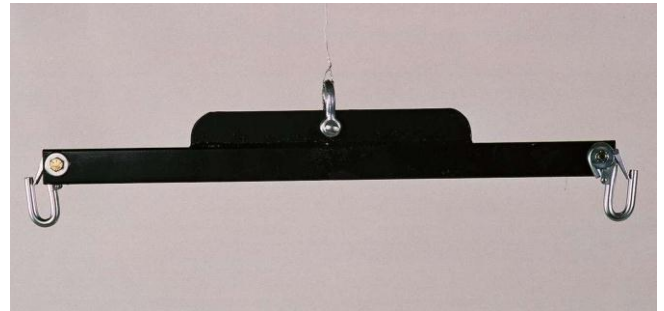


**Flat Roof Safety Frame****# 0315**

- Used with Flat Roof Mounting
- 4' High x 8' Long
- Mounting Clamps Included
- Intermediate Horizontal Bar for Additional Safety
- Shipping Weight of 42 lbs.

**Crane Picking Bar****# 0323**

- For Use When a DURACHUTETM Winch is Not Used
- 4,000 lbs. Maximum Load
- Shipping Weight of 10 lbs.

**Winch Picking Bar****# 0454**

- Picking bar w/ 2 Bolts/Nuts, 2 Hooks, 1 Shackle
- 4,000 lbs. Maximum Load
- Shipping Weight of 10 lbs.

**Section Chains w/ Bolts****# 0325**

- Sold in Pairs Only
- 2 Chains w/ Hooks, Plates & Bolts
- MUST use Retaining Compound
- Shipping Weight of 7 lbs.



**Hopper Stands – SOLD INDIVIDUALLY # 0405**

- Used with Basic Support Frame when Mounting Top Intake Hopper
- One (1) Washer and One (1) Hair Pin Clip are Included
- Shipping Weight of 3 lbs.



**Lifting Chains w/ Bolts**

**# 0324**

- Sold in Pairs Only
- 2 Chains w/ Hooks
- Shipping Weight of 4 lbs.



**Breakaway Cable**

**# 0350**

- Used with Basic Support Frame to attach Guide Rope
- Caution Tag
- Shipping Weight of 1 lb.



**Dust Gaiter**

**# 0330**

- Used to Help Contain Dust Particles in Confined Areas and on Occupied Buildings
- Fits Between Sections
- Shipping Weight of 1 lb.



**Guide Rope w/ Caution Tag**

**# 0340 & 0348**

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- 110' Rope (#0340) or
- 180' Rope (#0348)
- Caution Tag
- Quick Link or Shackle
- Shipping Weight of 2 lbs.



#### **Tie Back Plate & Cable**

- 50' Cable with Plate
- 6 Cable Clamps
- Shipping Weight of 18 lbs.

**# 0326**



#### **Flat Roof Outrigger Winch Frame Brackets # 0371**

- For Use with Flat Roof Outrigger
- Sold in Pairs ONLY
- 1 Left and 1 Right
- Shipping Weight of 12 lbs.



#### **Swivel Clamps**

- For Use with Scaffold Outrigger
- Shipping Weight of 3 lbs.

**# 0368**



#### **90-Degree/Right Angle Clamps**

- For Use with Scaffold Outrigger

**# 0367**

- Shipping Weight of 2 lbs.

### **Sheave Assembly**

- For Use with Winch
- Six (6) Flat Washers
- One (1) 3" Carriage Bolt
- One (1) Sheave
- One (1) Self-Locking Nut
- Shipping Weight of 2 lbs.

**# 0372**





# PREPARATION FOR CHUTE INSTALLATION

## Recommendations for a Safe and Efficient Operation

The following procedures should be performed before loading the equipment for delivery to the jobsite:

1. Check all equipment for proper operation.
2. Check all welds and confirm that there are no visual cracks.
3. Check chain assemblies for any abnormalities. Confirm that links are uniform and not bent nor stretched, verify safety latches on hooks are in good working order and check that screw and plate are properly tightened to eye nut.
4. Check length of chute required and confirm that the number of sections and hoppers will be sufficient for building/floor heights.
5. Screw jacks should be free of any foreign material on the threads for proper tightening and maintenance free operation.
6. Check clamps and confirm that bolt threads and nuts work properly and are free of any foreign material.
7. Make sure that you have the right size winch for the job installation on hand.
8. Visually check winch cable condition for cut or broken strands and verify that the sheave and handle are in good working order.

## Tools and Accessories Required to Perform a Safe and Efficient Installation

- 1/2" Drive Ratchet with 7/8" Deep Well Socket
- 3/8" Drive Ratchet with 7/16" Deep Well Socket
- 7/16" Combination Wrench
- 2 or 3 lbs. Hammer
- 12" Adjustable Wrench (Crescent)
- 25' Tape Measure
- OSHA approved Fall Protection Equipment, if required.
- Safety Boots, Hard Hats, Eye Protection and Work Gloves.

## Unloading at Jobsite:

1. Unload and place debris chute sections so that they may be easily accessible for assembly and when installation is in progress.
2. Stock the roof with the Outrigger, Basic Support Frame, Winch, Safety Frame and Intake Hopper, as needed.
3. Ensure that ground area around chute location is clean and clear of all debris, vehicles and obstructions.



**CAUTION: DO NOT INSTALL CHUTE UNLESS YOU FULLY UNDERSTAND THE FOLLOWING INSTRUCTIONS. IF YOU HAVE ANY QUESTIONS, SEE YOUR SUPERVISOR, YOUR LOCAL DURAFLAT DISTRIBUTOR OR CALL US DIRECTLY. INSTALLING THE CHUTE WITHOUT PROPER UNDERSTANDING OF THESE PROCEDURES SHOULD NOT BE ATTEMPTED OR ALLOWED AND CAN BE DANGEROUS!**



**CAUTION: THE DURACHUTE OUTRIGGERS AND WINCHES ARE AN INTEGRAL PART OF THE COMPLETE DURACHUTE & DURAFLAT SYSTEMS. THE MANUFACTURER TAKES NO RESPONSIBILITY WHATSOEVER IF SECTIONS ARE NOT HUNG AS THIS MANUAL PRESCRIBES OR ON THE OUTRIGGERS AS MANUFACTURED BY DURACHUTE.**



## LIST OF RECOMMENDATIONS

For a quick, smooth, and safe installation and operation, and to avoid any unnecessary charges and/or back-charges, contractors are strongly advised to implement the following list of recommendations:

### Prior to Installation and Dismantling:

1. Clear all debris from work area at chute intake locations to allow a safe and suitable access for installation and dismantling operations.
2. Protect window sills and finished building facade at chute location. (NOTE: should jobsite require intermediate hoppers, please consider the DURACHUTE System).
3. Remove any heating and air conditioning units that will interfere with the **Window/Parapet Outrigger**.
4. Avoid creating angles or sharp bends within the chute. Chute should be straight or only have a **very slight, smooth curve**, if positively unavoidable.



**A SLOPED CHUTE LINE EXPOSES THE CHUTE AND ITS SUSPENSION STRUCTURE TO HIGHER LOADS AND WILL GREATLY INCREASE THE CHANCE OF CLOGGING THE CHUTE WITH DEBRIS.**



5. Provide necessary ramps, railings and safety barricades wherever required, in accordance with your local safety regulations.
6. Provide necessary protective safety equipment and clothing as required.
7. Provide suitable access for truck set-up and staging area at chute location.

### After Installation:

1. Check screwjacks on **Window/Parapet Outriggers** for tightness.
2. Advise user to carefully dispose of any metal studs and other sharp objects, i.e. bend metal studs into manageable sizes and throw into chute bent-end first.
3. Do not allow debris to accumulate in chute. Always confirm that the debris thrown into the chute, exits the chute.
4. Be certain chute is clear of debris and untied from dumpster prior to removal of dumpster.
5. Remove chute from dumpster at the end of each work day.
6. Never throw lighted or ignited materials into chute.

## CUSTOMIZE SECTIONS

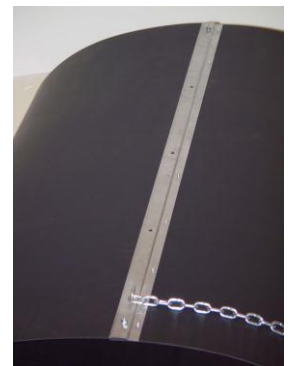
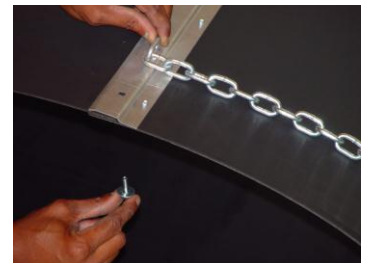
Sections can be easily customized with your company name and phone number.

- \* Using 5" paper stencils, arrange company name and phone number.
- \* Arrange stencils as desired onto flat section.
- \* Using standard white spray paint, spray directly onto stencils until all lettering has been fully covered by paint (be careful of over-spray).
- \* Carefully, to avoid smearing paint, remove stencils.



# ASSEMBLY OF SECTIONS

- \* Remove bag of assembly bolts, nuts and washers.
- \* Lay sheet on ground, chain side down.
- \* Form sheet into cylinder inserting end of sheet between metal chain bracket and chute.
- \* Align bolt holes. Note: this can be made easier by inserting a screwdriver into first hole alignment. Keep screwdriver inserted until all other holes have been aligned and bolts, nuts and washers secured.
- \* Insert flat washer on bolt.
- \* Insert bolt with threads toward outside of chute and head of bolt inside chute (see picture).
- \* Insert lock washer and nut on bolt threads outside of chute.
- \* Install all bolts, nuts and washers before fully tightening nuts to ensure correct alignment of all holes.
- \* Stand chute upright, make sure chains are hanging in correct, downward, position.



# INSTALLATION OF WINDOW/PARAPET OUTRIGGER

Used to attach chutes through window openings and onto parapet walls.

Please refer to the illustrations while going through the instructions.

Always wear your OSHA approved Fall Protection and Safety Equipment and follow all OSHA and local safety regulations.

Items used for window/parapet wall installation are the **Window/Parapet Outrigger Set (Part No. 0311)**, **Basic Support Frame (Part No. 0310)**, 2" x 4" boards (softeners for face wall not provided), and 2"x 6" oak boards (not provided).

- \* Place the two sides of the Parapet Outriggers in the desired location at an inside dimension of 34" and secure by tightening the screw jacks.
- \* Take care to insert, in sufficient length, 2"x6" oak boards (or similar) on the inside of the wall, extending beyond the left and right sides of the outrigger, to ensure proper distribution of the weight load to the structure. Tighten clamps to avoid movement. In the case of thin masonry walls (e.g. in radiator recesses), the wall must be adequately supported to resist the forces introduced by the chute (we recommend using oak boards on the outside and suitable bracing on the inside of the building). With concrete walls, check to ensure that the wall strength is sufficient to resist the chute loads without additional bracing.
- \* Make sure that the parapet outrigger is horizontally level to the sill.
- \* Install the Basic Support Frame by sliding it into the two (2) J-brackets at the bottom of the Parapet Outrigger and secure it with the two (2) half clamps mounted on the Parapet Outrigger.



**DURAFLAT RECOMMENDS THAT ALL BASIC SUPPORT FRAMES ARE TIED BACK SECURELY TO A SAFE ANCHORAGE POINT ON THE STRUCTURE BEFORE PROCEEDING WITH CHUTE INSTALLATION PER THE DESCRIPTION ON PAGE 20.**





- \* Go to page 22, **Large and Small Manual Winch**, to proceed with chute installation.
- \* After complete installation of chute and top hopper, secure the Safety Frame to the **Basic Support Frame** with the two clamps provided on the Safety Frame.

## INSTALLATION OF FLAT ROOF OUTRIGGER

Used for the installation of chutes on a flat roof or open slab.

Please refer to the illustrations while going through the following instructions. Always adhere to all OSHA and local safety regulations.

Items used for flat roof attachment are the **Flat Roof Outrigger (Part No. 0314)**, the **Basic Support Frame (Part No. 0310)**, the **Flat Roof Safety Frame (Part No. 0315)**, **Counterweights (Part No. 0320)**, and **2"x6" Oak Board** (not provided).



### BE SURE TO OBSERVE ALL LOCAL SAFETY AND ACCIDENT PREVENTION REGULATIONS.



- \* Assemble the **Flat Roof Outrigger** and the **Basic Support Frame** in their entirety at a distance of at least 6' to 8' from the edge of the roof.
- \* Connect the two free ends of the 6' tubes by putting in the insert and securing it with the bolts provided.
- \* Insert one (1) counterweight on each 42" counterweight stub, then secure the counterweight stubs to one end of the Flat Roof Outrigger by attaching the clamps above the inserted counterweight. Attach the **Basic Support Frame** on the other end. Attach the two kicker stubs (1' tubes) to the lower horizontal element of the **Basic Support Frame** and evenly space out and adjust their positions to keep the **Basic Support Frame** at a 90-degree angle with the roof outrigger tubes.
- \* Move the flat roof attachment assembly (with the two fitted counterweights) toward the outside of the building until the Basic Support Frame fits over the edge of the roof.
- \* Set the Flat Roof Outrigger on a 2"x6" Oak board, if needed, at the edge of the roof.
- \* Proceed to insert the remaining counterweights according to the length of the chute.





THE GAP BETWEEN THE ROOF EDGE AND THE BASIC SUPPORT FRAME MUST NOT EXCEED ONE INCH IN ORDER TO AVOID HAZARDOUS OVERLOADS ON THE SUPPORT TUBES. PROVIDE ADEQUATE SUPPORT ALONG THE ROOF EDGE TO DISTRIBUTE THE CHUTE LOAD. TAKE CARE NOT TO EXCEED THE MAXIMUM LOAD CARRYING CAPACITY OF THE ROOF.



The following counterweight table is given for reference purposes only, and is not to be taken as a guideline. Each job is to be figured individually based upon its own specific conditions. The following table is based on a system with one top hopper intake, outrigger, basic support frame and a safety frame:



**CHUTE LENGTH UP TO**

50' (17 Sections)  
80' (27 Sections)  
100' (34 Sections)  
120' (40 Sections)  
150' (50 Sections)

**MINIMUM NUMBER OF 50-LB.  
COUNTERWEIGHTS**

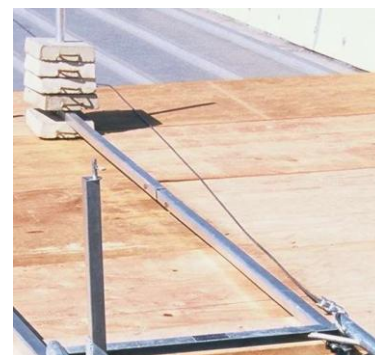
10  
14  
18  
20  
24



OSHA AND DURAFLAT REQUIRE THAT ALL FLAT ROOF OUTRIGGERS ARE TIED BACK SECURELY TO A SAFE ANCHORAGE POINT ON THE STRUCTURE (AS OUTLINED BELOW) BEFORE PROCEEDING WITH CHUTE INSTALLATION.



- \* Loop one end of tie-back cable around either left or right horizontal tube on the **Basic Support Frame** behind the  $\frac{3}{4}$ " round stock horizontal bracing, leaving a minimum of 1' (one foot) tail to be secured with three (3) cable clamps. Safely secure tie-back plate to a concrete structure on roof and loop other end of tie-back cable over shackle and secure with three (3) clamps. If unable to safely install plate, cable should be secured to a structural element on the roof.





**NOTE THAT IT IS THE CONTRACTOR/ INSTALLER'S RESPONSIBILITY TO ENSURE THE STRUCTURAL INTEGRITY OF THE TIE-BACK ATTACHMENT TO THE BUILDING.**



- \* Go to page 22, **Large and Small Manual Winch**, to proceed with chute installation.
- \* After complete installation of chute and top hopper, secure the **Safety Frame** to the **Basic Support Frame** with the two clamps provided on the **Safety Frame**.



## INSTALLATION OF SCAFFOLD OUTRIGGER

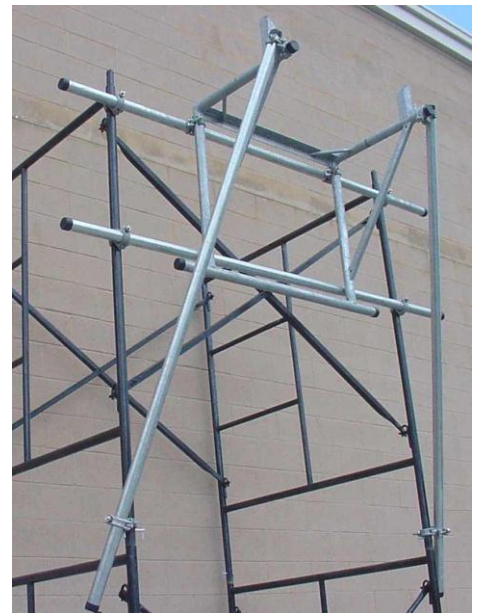
Used for the attachment of CHUTES directly onto scaffolding.

Please refer to the illustrations while going through the following instructions.

Always adhere and conform to all OSHA and local safety regulations.

Items used for scaffold attachment are the **Scaffold Outrigger (Part No. 0312)**, and the **Basic Support Frame (Part No. 0310)**.

- \* Install the two (2) horizontal cross tubes onto scaffolding at the top intake location. Cross tubes to be installed 24" apart on center using four (4) 90-degree clamps.



- \* Attach the Basic Support Frame to the two (2) cross tubes using two (2) 90-degree clamps and brace with the two (2) additional tubes. Use four (4) swivel clamps for this purpose.



**MAKE SURE THAT THE STRENGTH AND STABILITY OF THE SCAFFOLDING INTENDED FOR DEBRIS CHUTE ATTACHMENT IS VERIFIED BY THE CONTRACTOR. THIS IS THE RESPONSIBILITY OF THE CONTRACTOR.**



- \* Go to page 22, **Large and Small Manual Winch**, to proceed with chute installation.
- \* After complete installation of chute and top hopper, secure the **Safety Frame** to the **Basic Support Frame** with the two clamps provided on the **Safety Frame**.



# LARGE (150') AND SMALL (80') MANUAL WINCH

The 150' and 80' winches are intended **EXCLUSIVELY** for the raising and lowering of the DURACHUTE and DURAFLAT systems **DURING** installation and dismantling. DURACHUTES's winch is a complete system that requires no additional site assembly.

- \* Set the Winch Frame into the Basic Support Frame by inserting the two legs of the Winch Frame into the two Brackets on the top of the Basic Support Frame as shown in the illustration.
- \* Slide the Winch onto the horizontal arm of the Winch Frame all the way until it hits the diagonal brace. Tighten the set bolt with a crescent wrench.
- \* Pass the cable with the Picking Bar over the sheave and lock the thru-pin on the sheave bracket.
- \* Clockwise raises the chute; counterclockwise lowers the chute.
- \* Remove both picking chains from the Basic Support Frame and hook one side of the picking chain by the third link (from the picking chain hook) on the hook at each end of the picking bar leaving the other length of chain hanging free.



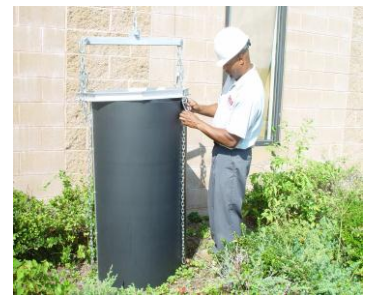
**A MINIMUM OF THREE (3) WRAPS MUST ALWAYS REMAIN ON DRUM OF WINCH BEFORE RAISING CHUTE.**





# HOISTING THE CHUTE

- \* Lower the picking bar to ground level. Position DURACONVERTER with its two (2) eyenuts on top and its three (3) eyenuts facing downward (as shown).
- \* Hook the two (2) picking chains to the DURACONVERTER's two (2) eye nuts on top of converter.
- \* Hoist picking bar 4' and connect DURACONVERTER's bottom quicklinks to each of the welded links of the three (3) section chains.
- \* Hoist and add the next section by sleeving it over the previous section, then secure it by connecting the chains from the section above into its welded link.



**⚠ CHECK THAT THE CHAINS ARE IN A RELAXED POSITION BEFORE HOOKING THEM TO THE SECTION BELOW TO AVOID ANY TWISTING OF THE CHAINS THAT WOULD CAUSE UNDUE STRESSES ON THE MATERIAL. ⚠**

- \* Hoist up approximately 4' and repeat above step for remaining chute sections to achieve desired chute length.
- \* Raise chute until the Picking Bar goes past the top of the Basic Support Frame by a couple inches.
- \* Attach the DURACONVERTER by inserting the third link of free sides of picking chains over the lugs on each side of the Basic Support Frame. (Pictured on next page,)
- \* Lower picking bar so weight of chute is supported by Basic Support Frame.
- \* Unhook picking bar from picking chains.



- \* Wrap the now free lengths of picking chains around the Basic Support Frame and insert end links over the lugs and secure with the litch pins.
- \* Remove Winch Frame from Basic Support Frame.



**THE CHUTE MUST BE HOISTED UP IN A VERTICAL LINE. RAISING THE CHUTE AT AN ANGLE MIGHT DANGEROUSLY DAMAGE THE HOISTING FRAME AND CAUSE UNDUE STRESSES ON THE SUPPORTING STRUCTURE.**



**ALL HOOKS, EYENUTS, QUICKLINKS AND CHAINS ARE TO BE KEPT IN A STRAIGHT, VERTICAL LINE WHILE SECTIONS ARE HOISTED.**



**ALWAYS HAVE THE QUICKLINKS OF THE SECTION ABOVE INTO THE WELDED LINK OF THE SECTION BELOW.**



**THE MAXIMUM LENGTH OF CHUTE ON ONE (1) SET OF HANGERS IS 150'.**



# INSTALLATION OF THE TOP INTAKE HOPPER



**ENSURE THAT THE GUIDE ROPE IS ATTACHED TO THE BASIC SUPPORT FRAME PRIOR TO INSTALLING THE TOP INTAKE HOPPER.**



- \* Insert the two (2) Hopper Stands into the brackets on each side of the Basic Support Frame with the pins turned to the inside.
- \* Simply insert the Top Intake Hopper into the DURACONVERTER and the uppermost chute section.
- \* Make sure that the hopper eyenuts are turned horizontally, and insert them over the pins on the Hopper Stands.
- \* Secure the eyenuts with attached washers and hair pin clips.
- \* Wrap the chains around the Basic Support Frame and hook to chain link, as per illustration.



# INTERMEDIATE ANCHORING

Debris chute systems measuring up to 100' in length may generally be installed without intermediate anchoring unless jobsite conditions and/or location (wind, etc.) require it. Longer chutes should be secured at intermediate levels.



**USERS ARE CAUTIONED THAT JOB SITE CONDITIONS DIFFER FROM JOB TO JOB AND EVERY INSTALLATION SHOULD BE EVALUATED ON ITS OWN MERITS.**



## GUIDE ROPE TIE-OFF

- \* Connect Guide Rope to the Breakaway cable attached to the Basic Support Frame.
- \* Two sizes are available: 110' and 180'.
- \* Run the rope inside the chute system's second section from the top and secure it to a fixed ground point.
- \* Disconnect tie-off from dumpster prior to moving or emptying the dumpster.
- \* Remove chute from dumpster at the end of each work day.



## DISMANTLING CHUTE

The installation process is reversed to dismantle the chute. The top Hopper and Hopper Stands are removed; the Winch is installed; the Picking Bar is hooked to the picking chains; chute picked up; picking chains unwrapped from Basic Support Frame; chute is lowered to the ground. The Winch, Basic Support Frame, and Outrigger are removed.

DURAFLAT Sections should be unassembled and stored in a flat position, back-to-back either on pallets or racks. Nuts, bolts and washers should be stored and saved for the next use.



# TRANSPORTING CHUTE

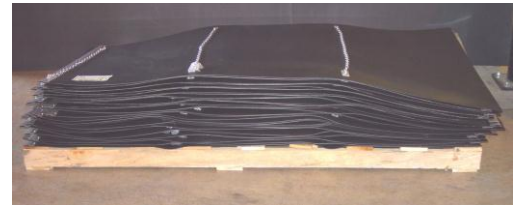
DURAFLAT Sections should be stacked back-to-back and strapped down on pallets. Pallets can easily be lifted onto/off of trucks with fork lift or pallet jack. This is the most safe and secure method of transporting sections.



50' of chute w/ DURACONVERTER easily fit in the back of a pick-up

## STORAGE

DURAFLAT Sections should be unassembled and stored in a flat position, back-to-back either on pallets or racks. Nuts, bolts and washers should be stored and saved for the next use.



100' of DURAFLAT can easily be stored on a pallet requiring minimal storage space.

## PRECAUTIONS

Always take adequate operating precautions to prevent the chute from getting clogged, as any obstruction may cause hazardous overloading of the chute and rigging. Ensure that no piece of debris with any dimension larger than 2' is thrown into the chute.

If the chute does get clogged despite these precautions, stop using it immediately and call your local dealer and DURAFLAT. The obstruction must be cleared before any more debris is introduced into the chute. A crane or hoist will most likely be required to lower the clogged chute to the ground where the sections will be taken apart to clear the obstruction.

Do not get into chute. Do not put head, arms or legs into the chute. Do not stand under chute or in dumpster while attempting to unclog.

Check that the outlet opening is free from obstructions at all times in order to prevent clogging and overloads.

If clogging does occur, check load-bearing elements (chains, suspension brackets, cross members, frame components, etc.) for deformations or damage and replace as necessary.



Make it a habit to inspect all load-bearing elements and wearing parts at regular intervals, at minimum at the end of every job and before the sections are restocked for reuse on the next job. Get a specialist to inspect your material debris chute for safety at least once a year, or more frequently as dictated by operating conditions.

Never dispose ignited or burning materials into chute.

## LIMITED WARRANTY AND NOTIFICATION OF DEFECTS

Our products come with a six-month warranty from the date of delivery. This warranty is limited to actual material and labor defects; it does not cover degradations due to natural wear and tear, improper handling, or acts of God. We reserve the right to determine how (and by whom) such defects are to be remedied.

## DISCLAIMER OF WARRANTIES

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DURAFLAT™ has a company policy of continuous improvement and development; therefore, these specifications are subject to change without notice. The Company accepts no responsibility for discrepancies in the specifications or illustrations contained in its publication.

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