



APPLICATION FOR STANDARD PLAN APPROVAL  
**BUILDING COMPONENT**  
 (SEE REVERSE SIDE FOR INSTRUCTIONS ON COMPLETING THIS FORM)

SECTION 1. Standard Plan Approval (SPA) Requested:		Check appropriate box(es): Type of Accessory Building or Structure	DEPARTMENT USE ONLY
<input type="checkbox"/> Accessory Building or Structure <input type="checkbox"/> Foundation System <input type="checkbox"/> Engineered Tiedown System	<input type="checkbox"/> Awning <input type="checkbox"/> Garage <input type="checkbox"/> Ramada	<input type="checkbox"/> Cabana <input type="checkbox"/> Enclosure <input checked="" type="checkbox"/> Other ABS Pad	Collection No. <u>5746980</u> Date <u>3/25/09</u> Application Fee \$ _____ Renewal Fee \$ <u>203</u> Resubmission Fee \$ _____ Revision Fee \$ _____ Change of Name/ Ownership \$ _____ Plan Approval Fee (First Hour) \$ _____ Other _____ TOTAL <u>203</u>
Service Requested:	<input type="checkbox"/> New Application <input type="checkbox"/> Revision	<input checked="" type="checkbox"/> Renewal <input type="checkbox"/> Change of Name/Ownership	
Type of Unit:	<input type="checkbox"/> Manufactured Home/Mobilehome	<input type="checkbox"/> Commercial Modular	
Drawing Number: <u>AIT-06-1007</u>	<b>BP</b> Standard Plan Approval Number (If previously issued by the Department) <u>13-08</u>		
Model Number: <u>1055-7</u>			
Product Name: <u>ABS Pad</u>			

SECTION 2. APPLICANT INFORMATION

Applicant Name Cliver Technologies Inc Telephone Number 931-996-4555  
 Address 467 Swan Ave P.O. Box 9 City Hohenwald TN Zip 38462  
 Architect/Engineer Name GLEN Harmon Telephone Number 901-458-8784  
 Address 3440 Macon Rd City Memphis TN Zip 38122  
 License/Registration Number 00106410

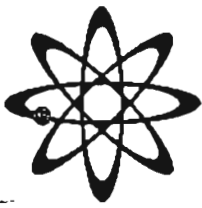
SECTION 3. APPLICANT CERTIFICATION

I hereby certify: (1) that the information I have provided is correct; (2) and that I will ensure that the manufacture and/or construction of this system is in compliance with the approved plan and the applicable provisions of Title 25, California Code of Regulations, Division 1, Chapter 2. or 2.2. I understand that failure to comply with the terms of approval shall be cause for cancellation of the Standard Plan Approval.

Executed on 3/25/09 at Memphis, TN  
 Signature [Signature] Print Name Will Jackson

NOTE: Standard Plan Approval is valid only when the design is suitable for the locality. Two (2) copies of the approved plan shall be provided with each foundation system or engineered tiedown system sold, for the purpose of obtaining a permit to construct from the enforcement agency.

Date Approved <u>4/9/09</u>	Building Component Approval Number <u>13-08</u>	DEPARTMENT USE ONLY	Expiration Date <u>3/15/2011</u>
Approved By: <u>[Signature]</u>			
The Approved plans have been:	<input checked="" type="checkbox"/> Returned to the applicant	<input type="checkbox"/> Withheld pending payment of fees	<input type="checkbox"/> Other
Comments: <u>Renewal</u>			



# AMERICAN

INDUSTRIAL TESTING  
& ANALYTICAL LABORATORIES

State of California  
Department of Housing and Community Development  
Division of Codes and Standards  
9342 Tech Center Dr. Suite 550  
Sacramento, CA 95826  
Phone: (916) 255-2501

Attention: Alvina Kidwell, District Representative II  
Northern Area Office Plan Review Section

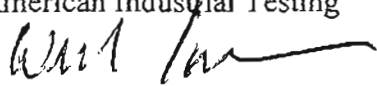
We hereby submit the attached report for ABS load bearing footings referenced as Listing Number AIT-06-1007.

The ABS load bearing footings (ABS Pads) were manufactured by:

Oliver Technologies Inc.  
467 Swan Ave.  
P.O. Box 8  
Hohenwald, TN. 38462

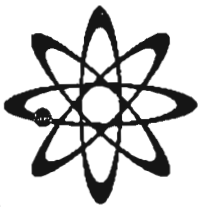
We respectfully request approval to California Administrative Code, Title 25, Section 1334 and 1336.4

Respectfully Submitted,  
American Industrial Testing

  
Will Jackson  
Assistant Manager



HCD → BP13-08 Dec 4/9/09



**AMERICAN**  
INDUSTRIAL TESTING  
& ANALYTICAL LABORATORIES

December 21, 2006

Report No. LO-FJ90021-G

Oliver Technologies, Inc.  
467 Swan Avenue  
P.O. Box 8  
Hohenwald, TN. 38462  
Phone: (931) 796-4555  
Fax: (931) 796-8811

MOBILEHOME & ACCESSORY STRUCTURE BUILDING COMPONENT  
HEALTH AND SAFETY CODE, DIVISION 13, PART 2  
APPROVED  
SUBJECT TO CORRECTIONS NOTED  
Approval does not authorize or approve any omission or deviation  
from requirements of applicable State laws and regulations.

STATE OF CALIFORNIA  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
DIVISION OF CODES AND STANDARDS

By W. D. Well Date 4/9/09  
(signature)

BP NO. 13-08

This Approval Expires 3/15/2011

ATTENTION: Mr. Scott Oliver

SUBJECT: Performance Testing of Oliver Technologies Inc. ABS Pad

*8 pages*

ITEM DESCRIPTION: ABS Pad (20" x 20" Square)  
Current Listing Number (AIT-06-1007)  
Previous Listing Number (1055-7)

METHOD OF IDENTIFICATION: See attached drawing

TEST DATE: December 18, 2006

This ABS Pad was previously approved in the State of California and referenced under listing number 1055-7 by a different testing agency. At this time American Industrial Testing on behalf of Oliver Technologies Inc. is resubmitting this pad to the State of California and will be referenced under listing number AIT-06-1007.

Test Methodology: A Performance Test was performed on the 20" x 20" ABS Pad for submittal to the State of California. This pad was manufactured and supplied to us by Oliver Technologies Inc. This Performance Test comprised of a visual inspection upon receipt of this product, a load test, and a review of your quality control program.

The visual inspection performed upon this product was to verify that dimensional specifications are within the acceptable ranges and that the identification data located on the top of the pad is correct.

The load testing performed was to simulate the load a mobile home would apply to each pad using three (3) different pier sizes and a simulated CMU. These three pier sizes included a 7 1/4", 9 1/4" and 11 1/4" piers. This pad has a working load of two thousand seven hundred fifty (2,750) pounds. All three (3) piers and the simulated CMU were consecutively loaded three (3) times to achieve an ultimate load of eight thousand two hundred fifty (8,250) pounds which is three (3) times the working load for the Single-Pad Configuration. All loading was performed using a hydraulic ram and loads were ascertained using a calibrated load cell. Deflection was measured at each one thousand (1,000) pound point. All deflection data collected was measured in sixteenths of one inch on opposing corners and data was averaged to attain overall deflection.

The Quality Control Review was performed to verify acceptable tolerances and review the QC Program that you already have in place.

**RESULTS:** All technical data that was recorded during testing is provided in the chart below.

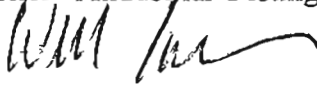
Test No.	Pad Size	Pier Size	Configuration	Load Achieved	Deflection	Results
1	20 x 20	7 1/4"	single	8,250 lbs	4.5/16"	Acceptable
2	20 x 20	7 1/4"	single	8,250 lbs	4.75/16"	Acceptable
3	20 x 20	7 1/4"	single	8,250 lbs	4.5/16"	Acceptable
1	20 x 20	9 1/4"	single	8,250 lbs	3.5/16"	Acceptable
2	20 x 20	9 1/4"	single	8,250 lbs	3.5/16"	Acceptable
3	20 x 20	9 1/4"	single	8,250 lbs	3.5/16"	Acceptable
1	20 x 20	11 1/4"	single	8,250 lbs	3/16"	Acceptable
2	20 x 20	11 1/4"	single	8,250 lbs	2.75/16"	Acceptable
3	20 x 20	11 1/4"	single	8,250 lbs	2.25/16"	Acceptable
1	20 x 20	CMU	single	8,250 lbs	3.75/16"	Acceptable
2	20 x 20	CMU	single	8,250 lbs	3.75/16"	Acceptable
3	20 x 20	CMU	single	8,250 lbs	3.5/16"	Acceptable

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(3)

The Performance Test of listing number AIT-06-1007 had acceptable results based on a predetermined failure criteria of 5/8" deflection. If we can answer any questions concerning this report or be any further assistance feel free to give us a call.

Respectfully Submitted,  
American Industrial Testing



Will Jackson  
Assistant Manager



HCD → BP13-08 All 4/9/09

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December 21, 2006  
Listing No. AIT-06-1007

### Quality Control Program

The quality control program for the manufacture of the individual home load bearing footings would be accomplished as follows.

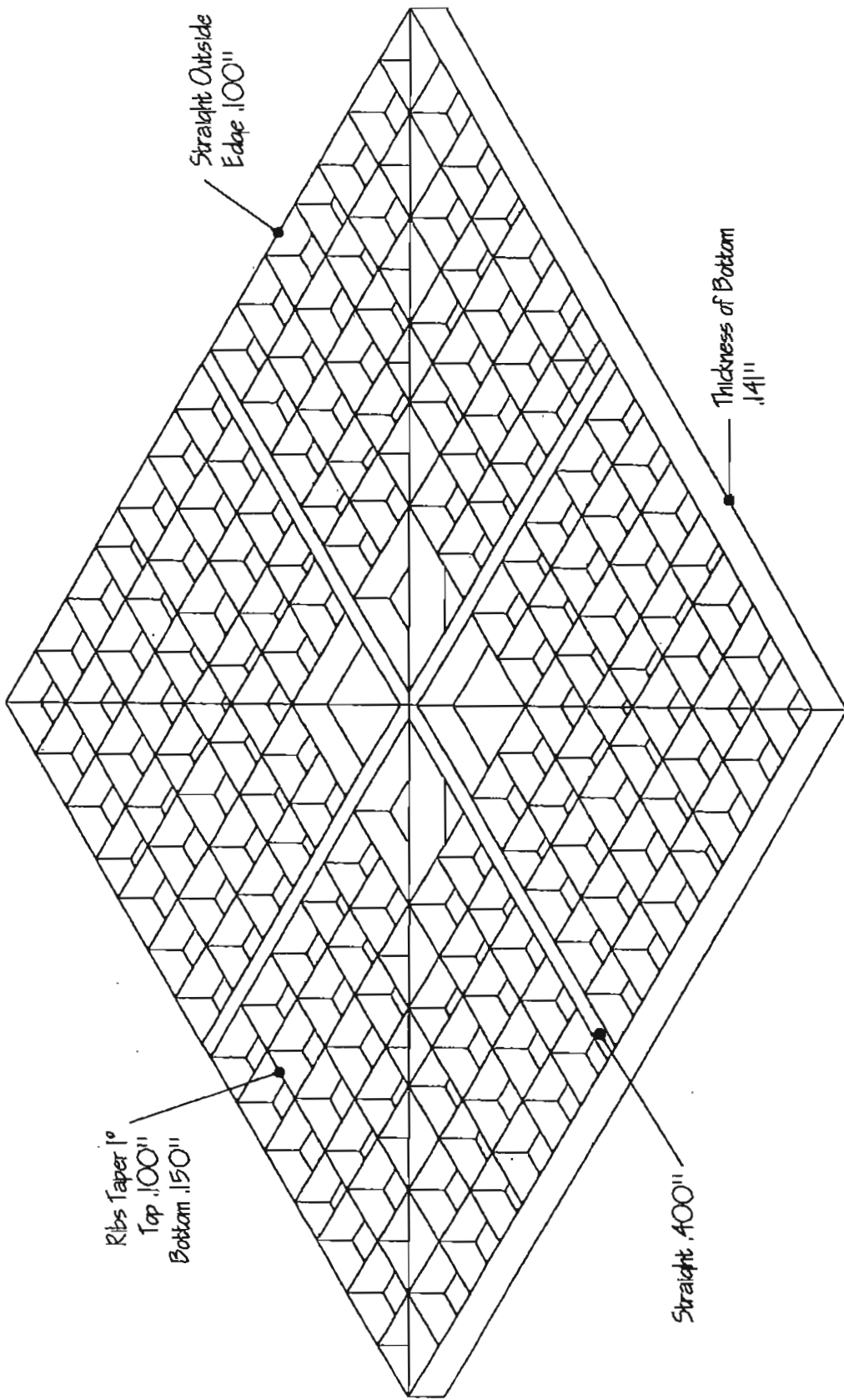
Load bearing supports would be sampled at the place of manufacture on the basis to one pad for each 1000 units of a size manufacture for distribution in California. The supports would be randomly sampled, measured and tested for conformance to the listing card. The sample would be tested in our compression machine (S.N. 64601 400,000 pound capacity). The sample shall support a load of at least 3 times the rated working load; this load shall be repeated 3 consecutive times with the deflection data averaged. The average of these three loads with a 300% safety factor would substantiate the old listing or a revised listing would be requested.

The load bearing support will be identified with the following information molded into the support.

Oliver Technologies, Inc.  
Listing No. AIT-06-1007  
1055-7  
Vertical Load Capacity 8,250 lbs

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AIT-06-1007

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# Installation Instructions for ABS Pads

For use on all Mobile and Manufactured Homes, including HUD approved Homes and Modular Housing  
patent# 5503500 and other patents pending

## GENERAL INSTRUCTIONS:

- All pads are to be installed flat side down, ribbed side up.
- The ground under the pads should be leveled as smooth as possible with all vegetation removed. Pads to be placed on fully compacted or undisturbed soil, at or below the frost-line, or per local jurisdiction.
- Pier & pad spacing will be determined by the manufactured homes' written set-up instructions or any local or state codes.
- The open cells between the ribbing on the upper side of the pads may be filled with soil or sand after installation to prevent any accumulation of stagnant water in the pads.
- A pocket penetrometer may be used to determine the actual soil bearing value. if no soil testing equipment is available- Use an assumed soil value of 1000 lbs. / square foot,
- All pad sizes shown are nominal dimensions and may vary up to 1/8".
- The maximum deflection in a single pad is 5/8" measured from the highest point to the lowest point of the top face. (NOTE: Actual test results were less than 5/8")
- Pad loads are the same when using single stack or double stack blocks.
- The maximum load at any intermediate soil value may be determined as the average of the next lower and next higher soil value given in the table below.
- If the home manufacturer shows soil densities greater than 3000 lb. when using ABS pads, do not exceed 3000 lb. soil pier spacings per set up manual.

Pad Size	ID No.	Pad Area	1000 PSF Soil	2000 PSF Soil	3000 PSF Soil
OVAL 16" x 18.5"	1055-23/AIT-06-1000	288 sq. in.	2000 lbs.	4000 lbs.	6000 lbs.
OVAL 17" x 22"	1055-16/AIT-06-1001	360 sq. in.	2500 lbs.	5000 lbs.	7500 lbs.
OVAL 17.5" X 22.5"	1055-21	384 sq. in.	2667 lbs.	5334 lbs.	8000 lbs.
OVAL 17.5"x 25.5"	1055-17/AIT-06-1002	432 sq. in.	3000 lbs.	6000 lbs.	9000 lbs. *
OVAL 21"x29"	1055-22/AIT-06-1003	576 sq. in.	4000 lbs.	8000 lbs. *	12000 lbs. *
OVAL 23.25" x 31.25"	1055-20/AIT-06-1004	675 sq. in.	4694 lbs.	9388 lbs. *	9388 lbs. *

Pad Size	ID No.	Pad Area	1000 PSF Soil	2000 PSF Soil	3000 PSF Soil
16" x 16"	1055-14/AIT-06-1005	256 sq. in.	1780 lbs.	3560 lbs.	5333 lbs.
18.5" x 18.5"	1055-9/AIT-06-1006	342 sq. in.	2375 lbs.	4750 lbs.	7100 lbs. *
20" x 20"	1055-7/AIT-06-1007	400 sq. in.	2750 lbs.	5500 lbs.	8250 lbs. *
24" x 24"	1055-13/AIT-06-1008	576 sq. in.	4000 lbs.	8000 lbs. *	8000 lbs. *

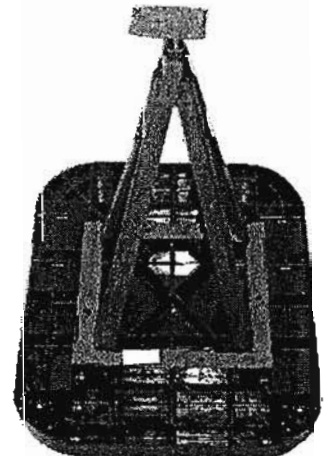
\* Concrete blocks are required to be double blocked.

- Any ABS pad configuration may be used to replace a home manufacturer's recommended concrete or wood base pad
- ALABAMA ONLY: The 16" x 16" ID# 1055-14, 16" x 18.5" ID# 1055-23, 17" x 22" ID# 1055-16, 17.5" x 22.5" ID# 1055-21, 17.5" x 25.5" ID# 1055-17 are the only pads approved in the state of Alabama, and must not have more than 3/8" deflection. See chart below for details on correct installation in Alabama.
- TEXAS ONLY: 17.5"x22.5" ID# 1055-21 and 23.25"x31.25" ID# 1055-20 may not be installed in the State of Texas.
- Steel Piers: All pads are tested with steel piers on 1000 PSF soil density unless otherwise noted. (See 15) Attach with (04) 2"#12 x 1/2" hex tech screws, Minimum Pier Base 7 1/4 inches. Multi-Pad configuration 35" x 25.5" ID# AIT-06-1002 (03) requires minimum 9 1/4" pier base.
- Available pads tested on 2000 PSF soil density are: ID#'s 1055-14, 1055-9, 1055-7 and 1055-13.
- CALIFORNIA . Use an assumed value of 1000 lb/sq. ft. unless engineering and calculations are provided.

Example: 16' x 80' section (Alabama)

PAD SIZE	1000 Lb Psf	2000 Lb Psf
16" x 16" Pad	2' 9"	5' 6"
16" x 18.5" Oval Pad	3' 0"	6' 0"
17" x 22" Oval Pad	3' 9"	7' 6"
17.5" x 22.5" Oval Pad	4' 0"	8' 0"
17.5" x 25.5" Oval Pad	4' 5"	8' 0"
21" x 29" Oval Pad	6' 0"	8' 0"

Revision 12.26.06



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## Instructions for Multi - Pad Configurations

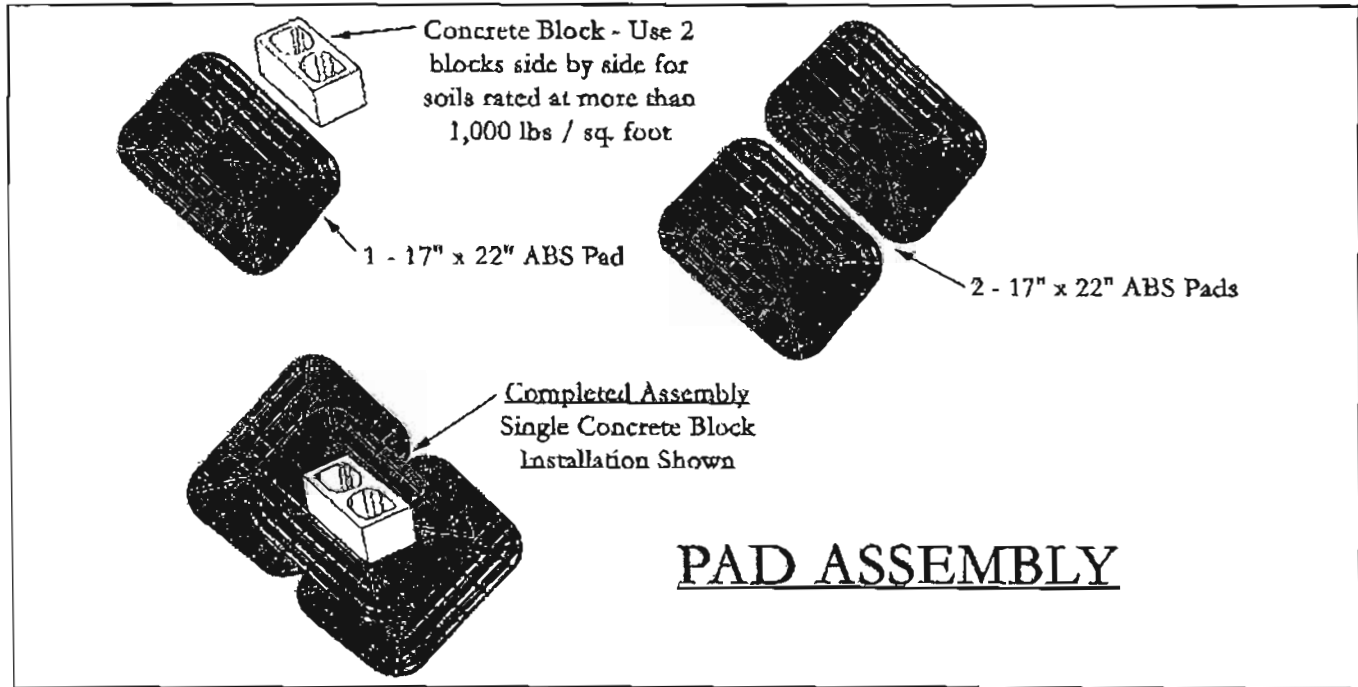
### ABS PAD TYPES:

1. 16" x 18.5" Pad	2.00 square feet	ID# 1055-23/AIT-06-1000
2. 32" x 18.5" Pad Configuration	4.00 square feet	
3. 17" x 22" Pad	2.50 square feet	ID# 1055-16/AIT-06-1001
4. 34" x 22" Pad Configuration	5.00 square feet	
5. 17.5" x 25.5" Pad	3.00 square feet	ID# 1055-17/ AIT-06-1002
6. 35" x 25.5" Pad Configuration	6.00 square feet	

### MAXIMUM PIER LOAD IN POUNDS:

	8" Cell Block	Soil Bearing Value	Maximum Load
32" x 18.5" Pad Configuration	Single Stack	1000 lbs. / sq. foot	4000 lbs.
	Double Stack	2000 lbs. / sq. foot	8000 lbs. *
34" x 22" Pad Configuration	Single Stack	1000 lbs. / sq. foot	5000 lbs.
	Double Stack	2000 lbs. / sq. foot	10000 lbs. *
35" X 25.5" Pad Configuration	Single Stack	1000 lbs. / sq. foot	6000 lbs.
	Double Stack	2000 lbs. / sq. foot	12000 lbs. *

\* Concrete blocks are only rated at 8000 pounds, 8001 pounds and higher must be double blocked.



1. General instructions (on reverse) apply to all multi - pad configurations.
2. The 32" x 18.5" pad configuration is formed by using (3) 16" X 18.5" ABS Pads. Place (2) 16" X 18.5" side by side, and place (1) 16" x 18.5" on top, laid in the opposite direction as the bottom pads
3. The 34" x 22" pad configuration is formed by using (3) 17" x 22" ABS Pads . Place (2) 17" x 22" pads side by side , and (1) 17" x 22" pad on top. The top pad is laid in the opposite direction as the bottom pads.
4. The 35" x 25.5" pad configuration is formed by using (3) 17.5" x 25.5" ABS Pads. Place (2) 17.5" x 25.5" pads side by side, and (1) 17.5" x 25.5" pad on top. The top pad is laid in the opposite direction as the bottom pads.

OLIVER TECHNOLOGIES, INC.

www.olivertechnologies.com

1-800-284-7437

Revision 12.26.06

HCD → BP 13-08 ALK 4/2/09