



QuickPier[™] Helical Foundation System

The All-Inclusive Foundation Solution

Helical Piers



Pier Caps



QuickPier Adapter



Table of Contents

QuickPier Helical Foundation System Overview	2
Benefits	2
Test Summary	3
Foundation Comparison	4
General Design Notes	5
Installation	6
System Configuration	7
Adapter Configurations	8
Foundation Options for Soils (Hard Soils)	9
Foundation Options for Soils (Medium Soils)	9
Foundation Options for Soils (Soft Soils)	9
Additional Components	10
Terms and Conditions	11

OVERVIEW

Historically, concrete has been the most common solution for foundation applications. Unfortunately, concrete, with procurement and material coordination times, seasonal and weather limitations, and days or weeks of curing times, has also been a major contributor to increased project schedules and additional costs.

Meyer Utility Structures, LLC and Earth Contact Products, L.L.C. (ECP) collaborated to create a revolutionary alternative foundation system. The patented and patent-pending QuickPier Helical Foundation System is a lightweight foundation system consisting of helical piers, pier extensions, and a single-piece transitional adapter section with integrated baseplate. No concrete is required. The simplicity and practicality of the QuickPier Helical Foundation System makes it a cost effective and time saving alternative foundation to concrete for a wide range of low profile structures in a variety of industries, ranging from oil, gas and solar to transmission and substation industries.

BENEFITS

The helical pier adapter provides countless benefits, including:

- · Quick installation times
- · Multi-leg system provides redundancy
- No excavation or spoil removal
- No concrete/foundation curing times
- Reduced crew sizes and equipment requirements
- Reduced foundation installation costs
- Multiple soil condition installations
- Immediate structure loading
- Installation in limited access areas
- Only fractional installation torque required vs. traditional means
- Environmentally friendly
- Mechanical connections for eliminated field welding
- Four directions of movement for in-field leveling and adjustability
- LOWEST TOTAL FOUNDATION INSTALLATION COST







FULL-SCALE TESTING PERFORMED FOR VALIDATION

Frame Setup

Physical testing was conducted to validate the design capacities for the QuickPier Helical Foundation System. Each of the four adapters were tested in four different load directions (*Figure 1*) while installed on helical piers with bolted pier caps (*Figure 2*).



QuickPier Helical Foundation System

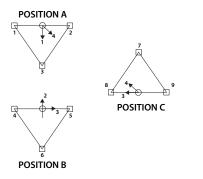


Figure 1: Testing Positions

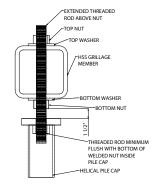


Figure 2: Bolted Pier Cap

Method of Loading

Each QuickPier Helical Foundation System entered testing with an expected shear and moment capacity which was developed using AISC design methods and Finite Element Analysis. The chart below shows the test loading for each adapter (*Table 1*).

Adapter	Shear Load Capacity	Moment Capacity
4"x 4"	2.0 K	14 K. ft.
4" x 6"	2.0 K	32 K. ft.
6" x 8"	3.125 K	50 K. ft.
8" x 8"	5.0 K	80 K. ft.

Table 1: Test Loading for Adapters



Image 1



Image 2



Image 3

Loads were applied in four different directions, twice each direction, for a total of eight tests (*Image 1*). A Certified Welding Inspector (CWI) was on-site full-time during testing (*Image 2*). Visual observations of all welds, as well as magnetic particle testing (MT), were made when loading returned to zero as well as before and after each test (*Image 3*).

Conclusion

Each QuickPier Helical Foundation System tested successfully for the specified loads. All materials and welds were tested to the expected ultimate design loads with no permanent deformation or defects. Testing also validated that the snug tight condition for the bolts attaching the adapter to the helical piers would be adequate to prevent excessive translation.



FOUNDATION COMPARISON









Conditions	Meyer QuickPier Helical Foundation System	Poured-in-Place Concrete Foundation	Pre-Cast Concrete Foundation	Direct Bury Foundation
All Weather Installation	√	Х	X	X
Reusable/Movable	√	Х	√	Х
Low Installation Cost	√	X	Х	Х
Uses Current Equipment	√	√	√	√
Easy to Transport	√	X	Х	√
No Soil Spoils to Remove	√	X	Х	Х
One Trip Installation of Foundation and Pole	√	Х	Х	Х
Can be Installed on Slopes	√	√	Х	Х
Eliminates Anchor Bolt Placement	√	X	√	√
Immediate Pole Setting	√	Х	Х	√
Resistant to Frost Heave	√	Х	Х	Х
All-in-One Solution	√	X	X	X



GENERAL NOTES

- A. Adapter Material Tubing: ASTM A500 C HSS 46ksi (Galvanized). Heat lot tested (CVN at 15 ft-lbs and -20deg F/-29deg C). Baseplate: ASTM A572 50ksi (Galvanized). Heat lot tested (CVN at 15 ft-lbs at -20deg F/-29deg C).
- B. Bolts: ASTM F3125 Type III 92ksi (634MPa).
- C. Welds: In accordance with AWS D1.1.
- D. Design: Moment capacities are calculated in accordance with ASCE/SEI 48 (latest version) and AISC 360 specifications. It is the customer's responsibility to select the appropriate QuickPier adapter capacity and determine the capacity of the attaching structure to resist required loading for their project.
- E. Helical piers: 84" lead pier constructed of 3" square tubing with 5/16" wall. Extension piers are 84" long, 3" square shaft with 5/16" thick wall. Piers are rated at 16,000ft-lb of torque.
- F. Connections: Fully threaded rods are ASTM F3125 Type III 92ksi (634MPa). Nuts are ASTM A563 or A194 material. Nuts connecting QuickPier Adapters to Helical Piers are tightened to "snug tight" as defined by AISC. Connection bolts to base plates (not included) to be pre-tensioned per "turn of nut" method as defined by AISC.
- G. Soils: General classification of soils is needed to select the helical piers but submission of boring data and soil reports are not required by customer for the purchasing or installation of helical piers.



INSTALLATION



1. Alignment and installation of helical piers



3. Adapter component connected to pier caps





2. Pier caps attached to embedded piers



4. Structure attached to adapter component



QUICKPIER SYSTEM CONFIGURATION

The QuickPier Helical Foundation System is an all-inclusive foundation consisting of three components: A Meyer QuickPier Adapter, ECP pier extensions, and ECP helix lead sections. Together, the components provide a reliable alternative to traditional concrete foundations, applicable to most soils and moments up to 80 ft-kips.

QuickPier Adapter Extensions Helix **Lead Sections**

Single Flight

SOIL CLASSIFICATIONS

Class	Soil Description	Geological Classification		
0	Solid hard rock (unweathered)	Granite; basalt; massive sedimentary		
1	Very dense/cemented sands; coarse gravel and cobbles	Caliche		
2	Dense fine sands; very hard silts and/or clays	Basal till; boulder clay; caliche; weathered laminated rock		
3	Dense sands/gravel, hard silt and clay	Glacial till; weathered shale; schist; gneiss; siltstone		
4	Medium dense sand/sandy gravels; very stiff/hard silt/clay	Glacial till; hardpan; marl		
5	Medium dense coarse sand and sandy gravel; stiff/very stiff silt and clay	Saprolites; residual soil		
6	Loose/medium dense fine/coarse sand; stiff clay and silt	Dense hydraulic fill; compacted fill; residual soil		
7	Loose fine sand; soft/medium clay; fill	Flood plain soil; lake clay; adobe; clay gumbo; fill		
8	Peat, organic silts, fly ash, very loose sand; very soft/soft clay	Unconsolidated fill; swamp deposits; marsh soil		

NOTES:

- 1. Soils in class "0" and "1" and a portion of class "2" are generally not suitable for tieback anchorage because the helical plates are unable to advance into the very dense/hard soil or rock sufficiently for anchorage.
- 2. When installing anchors into soils classified from "7" and "8", it is advisable to continue the installation deeper into more dense soil classified between "3" and "5" to prevent creep and enhanced anchor capacity.
- 3. Shaft buckling must be considered when designing compressive anchors that pass through class "8" soils.

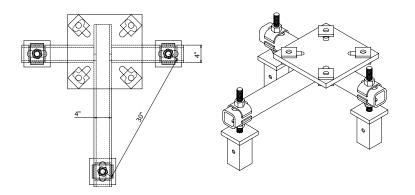
Item Number Configuration

The QuickPier Helical Foundation System components are referenced in the formation of the item number. Considering soil type and ultimate moment, the item number can be created as such:





ADAPTER CONFIGURATIONS

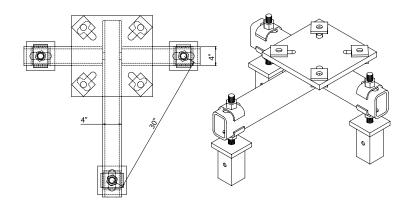


15 FT-KIP ADAPTER

SIZE: 4" X 4"

CAPACITY: 15 FT-KIP

SHEAR LOAD CAPACITY: 2 KIPS

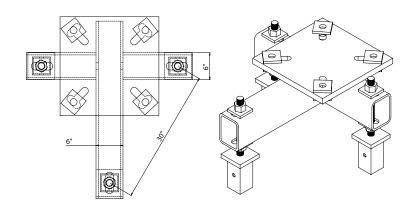


35 FT-KIP ADAPTER

SIZE: 4" X 6"

CAPACITY: 35 FT-KIP

SHEAR LOAD CAPACITY: 2 KIPS

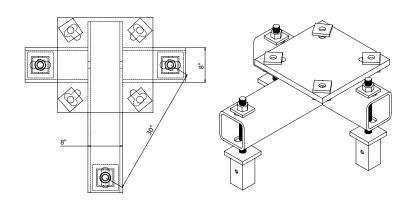


50 FT-KIP ADAPTER

SIZE: 6" X 8"

CAPACITY: 50 FT-KIP

SHEAR LOAD CAPACITY: 3.125 KIPS



80 FT-KIP ADAPTER

SIZE: 8" X 8" CAPACITY: 80 FT-KIP

ENGINEERED DESIGN ONLY



FOUNDATION OPTIONS FOR SOILS

HARD SOILS | SOIL CLASSES 2 & 3

(Dense Fine Sands, Very Hard Silt/Clay)

Item #	Maximum Groundline Moment	Base Shear (max)	Anchor Bolt Square Pattern	Number of Pier Extensions	Helix Flight Configuration	Helix Flight Plate Size	Estimated Torque (ft-lbs)
QSH-11A-15	15 ft-kip	2,000	8" – 12"	1	single	8″	3,500
QSH-11A-35	35 ft-kip	2,000	8" – 12"	1	single	8″	3,500
QSH-21A-50	50 ft-kip	3,125	11" – 16"	2	single	8″	7,000
QSH-21A-80	80 ft-kip	*	13" – 16"	*	*	*	*

MEDIUM SOILS | SOIL CLASSES 4 & 5

(Medium Dense Sand/Sandy Gravel, Very Stiff/Hard Silt and Clay)

ltem #	Maximum Groundline Moment	Base Shear (max)	Anchor Bolt Square Pattern	Number of Pier Extensions	Helix Flight Configuration	Helix Flight Plate Size	Estimated Torque (ft-lbs)
QSM-12B-15	15 ft-kip	2,000	8" – 12"	1	double	8"/10"	3,500
QSM-12B-35	35 ft-kip	2,000	8" – 12"	1	double	8"/10"	3,500
QSM-22B-50	50 ft-kip	3,125	11" – 16"	2	double	8"/10"	7,000
QSM-22B-80	80 ft-kip	*	13" – 16"	*	*	*	*

SOFT SOILS | SOIL CLASSES 5 & 6

(Medium Dense Fine/Coarse Sand and Sandy Gravel, Very Stiff Clay and Silt)

ltem #	Maximum Groundline Moment	Base Shear (max)	Anchor Bolt Square Pattern	Number of Pier Extensions	Helix Flight Configuration	Helix Flight Plate Size	Estimated Torque (ft-Ibs)
QSS-22B-15	15 ft-kip	2,000	8" – 12"	2	double	8″/10″	3,500
QSS-22B-35	35 ft-kip	2,000	8" – 12"	2	double	8"/10"	3,500
QSS-22C-50	50 ft-kip	3,125	11" – 16"	2	double	10"/12"	7,000
QSS-22C-80	80 ft-kip	*	13" – 16"	*	*	*	*

^{*} ENGINEERED DESIGN ONLY



ADDITIONAL COMPONENTS

Additional system components may be requested as needed, referencing the part numbers below.

Item	Part Number	Part Description
Adapter Frame	15FRAME	QuickPier Helical Foundation System Frame for 15ft-K
Adapter Frame	35FRAME	QuickPier Helical Foundation System Frame for 35ft-K
Adapter Frame	50FRAME	QuickPier Helical Foundation System Frame for 50ft-K
Adapter Frame	80FRAME	QuickPier Helical Foundation System Frame for 80ft-K
Pier Connection Cap	TAT-30S-MRF-025	Pier Connection Cap for 15ft-K and 35ft-K frames
Pier Connection Cap	TAT-30S-MRF-050	Pier Connection Cap for 50ft-K and 80ft-K frames
Extension	TAE-30S-84	Extension, 3" Square Tube, 84" long with hardware
Extension	TAE-30S-84-12	Extension, 3" Square Tube, 84" long with 12" helical with hardware
Helix Lead	HTAH-30S-84-8	Lead, 3" Square Tube, 84" long with single 8"x ½" helical flight
Helix Lead	HTAF-30S-84-8-10	Lead, 3" Square Tube, 84" long with 8" and 10"x ½" helical flights
Helix Lead	HTAF-30S-84-10-12	Lead, 3" Square Tube, 84" long with 10" and 12"x ½" helical flights



TERMS OF SALE

MEYER UTILITY STRUCTURES Terms and Conditions of Sale - Effective 10-15-2018

These Terms and Conditions shall govern all transactions between Meyer Utility Structures, LLC ("MEYER") and any buyer or potential buyer (the "Buyer") placing orders for or otherwise purchasing products (the "Products") from MEYER. Any terms or conditions proposed or referenced in any purchase order or other document presented by Buyer that add to, vary from, or conflict with the terms herein are hereby rejected. Notwithstanding any contrary language in Buyer's purchase order or any other document purporting to set forth any additional or different terms or conditions governing the purchase and sale of the Products, these Terms and Conditions set forth the full and final expression of the complete agreement and contract of sale of Products by MEYER to Buyer. No modification of these Terms and Conditions shall be binding on MEYER unless specifically approved in writing in a written agreement signed by an authorized representative of MEYER. To the extent that the submission of any bid or quotation, or the furnishing of any Products by MEYER could be considered to operate as an acceptance of any prior terms or conditions published by Buyer, such bid, quotation or furnishing of such Products is expressly made on the condition that Buyer assents to these Terms and Conditions. Buyer specifically acknowledges that the pricing of the Products has been set based on the agreed allocation of risks contained in these Terms and Conditions. If, notwithstanding the provisions of these Terms and Conditions, a court of competent jurisdiction determines that different or additional terms and conditions apply to an order, then MEYER shall have the right to retroactively modify the prices to reflect the additional level of risk and responsibility that MEYER assumes under such additional or different terms.

1) Delivery, Title, Risk of Loss

Unless otherwise stated in MEYER's proposal or specifically agreed by MEYER in writing, all Products are sold FOB Shipping Point, freight prepaid and allowed, using carriers selected by MEYER and with shipping and handling charges included in the price of the Products. Title to and risk of loss in the Products will pass to Buyer at the FOB point.

2) Payment Terms

Payment terms for partial and compete shipments are net 30 days from date of invoice. Except as provided in paragraph 9 below, Products are invoiced upon shipment. Buyer agrees to pay a finance charge of one and one-half percent per month (or at the highest rate allowed by law, whichever is less) on all past due balances.

3) Delivery Schedules/Delays

All delivery commitments by MEYER are good faith estimates based upon current information available from our suppliers at the time the dates for delivery are established. Delivery of the Products is conditioned upon prompt receipt of Buyer's order. Quoted delivery times are subject to prior sales and raw material availability. MEYER shall not be liable for any delay or failure to perform or deliver, in whole or in part, due to: (i) conditions, circumstances, or events beyond MEYER's reasonable control, including but not limited to legal orders, acts of war, acts of terrorism, embargoes, boycotts, blockades, acts of God, unusual weather conditions, fire, accident, explosion, mill shutdowns, unavailability of transportation, unavailability of raw materials, fuel shortages, default by suppliers, and the enactment or implementation of any law, regulation, order, or decree that is not in effect at the time the order is placed; or (ii) any act or failure to act by Buyer or Buyer's agents, contractors, or representatives.

4) Taxes

Product prices do not include any taxes. Buyer shall be solely responsible for the payment of any and all sales taxes, ad valorem taxes, value added taxes, goods and services taxes, use taxes, excise taxes, tariffs, import duties, export duties, and other taxes, fees and charges imposed by any governmental authority, whether foreign or domestic, upon any Product purchased and sold hereunder or upon the manufacture, sale, transfer, transportation, use or delivery thereof. The amount of any such present, future or retroactive taxes, fees, and charges required to be collected by MEYER will be invoiced by MEYER, and Buyer agrees to pay the same, except to the extent that Buyer has furnished MEYER with an exemption certificate acceptable to the appropriate taxing authorities.

5) Inspection and Acceptance

Buyer may inspect the Products during business hours at MEYER's facility on reasonable notice to MEYER, provided such inspection does not unreasonably interfere with MEYER's operations. Buyer agrees to inspect the Products promptly following receipt, and will report to MEYER any shortage, damage or visually detectable discrepancy within 30 days following receipt of delivery. All claims for shortages, damage and visually detectable discrepancies not reported to MEYER in writing within such 30 day period are waived by Buyer.

6) Compliance with Laws

In connection with the transactions governed by these Terms and Conditions, Buyer and MEYER agree and covenant that they will each comply with all applicable laws and regulations of the United States and all other foreign state and local jurisdictions regarding the manufacture, marketing, seriesale, use, export and distribution of the Products, including, but not limited to, the U.S. export control laws and the U.S. Foreign Corrupt Practices Act.

7) Warranty

MEYER warrants that Products are being sold to Buyer free and clear of any encumbrances arising through MEYER. In addition, MEYER warrants that all Products will conform to any mutually agreed specifications for the Products and will otherwise be free from defects in materials and workmanship for a period ending on the earlier of 12 months from the date of installation or 18 months from the date of shipment. MEYER will, at its option, repair or replace any Product that is not in conformance with the foregoing warranties. MEYER will arrange transportation for the return of warranted Products and any replacement Products, and will be responsible for payment for such transportation arranged by MEYER. MEYER will have no liability for any costs, losses, expenses or damages beyond the cost of repair or replacement, and transportation arranged by MEYER. Any repair or replacement by MEYER shall not extend the original warranty period. MEYER's obligations under all warranties shall be waived if Buyer fails to (i) provide MEYER written notice of Buyer's specific warranty claim and the Product(s) affected within the warranty period, and (ii) provide MEYER with reasonable opportunity to inspect the Product(s) that are the subject of Buyer's warranty claim. If any technical advice is furnished by MEYER with respect to Buyer's specifications or use of the Products, MEYER assumes no obligation or liability for the advice given, or results obtained, with all such advice being given and accepted at Buyer's risk.

Other than the warranty of title, the warranties herein do not apply under any circumstances to: (i) any type of corrosion, irrespective of the cause; (ii) damage due to normal wear and tear, misuse, mishandling, or accident; (iii) any Product that has been modified or repaired by a party other than MEYER without MEYER's specific prior approval; (iv) any Product that has not been installed or maintained in accordance with MEYER's erection drawings or prudent industry practices; or (v) any Product that has experienced loading in excess of the maximum factored design loads or fatigue damage due to dynamic or cyclic loading.

THE WARRANTIES AND REMEDIES STATED HEREIN ARE MEYER'S SOLE WARRANTIES GIVEN WITH RESPECT TO THE PRODUCTS AND BUYER'S SOLE REMEDIES FOR ANY FAILURE OF THE PRODUCTS TO CONFORM TO SUCH WARRANTIES. THESE WARRANTIES ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES, GUARANTEES AND REMEDIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY SPECIFICALLY DISCLAIMED.

8) Indemnification

MEYER and Buyer will defend and indemnify one another and their respective directors, officers and employees against any and all claims, losses, liability, damages, or expenses incurred on the account of any injury or death to persons and damage to property, to the extent such injury, death or damage is caused by or attributable to a party's negligence or willful misconduct in connection with the Products or the transactions to which these Terms and Conditions apply. Neither MEYER nor Buyer shall be obligated to indemnify one another in any manner whatsoever for the other party's own negligence or willful misconduct, or for the negligence or willful misconduct of others.

MEYER will defend any suit or proceeding brought against Buyer to the extent that such suit or proceeding is based on a claim that any Product purchased by Buyer or any part thereof constitutes an infringement of any United States patent issued as of the date of MEYER's quotation or proposal. MEYER shall have no obligation of defense or indemnity to the extent that any alleged infringement is attributable to any design or other special requirement specified by Buyer.

TERMS AND CONDITIONS OF SALE

In the event that a Product for which MEYER has an obligation to indemnify Buyer hereunder, or part thereof, is held to infringe a patent and the use thereof is enjoined, MEYER shall, at its expense and option, either (a) obtain for Buyer the right to continue using such Product or part, (b) replace the Product or part with a Product or part that is non-infringing, (c) modify the Product or part so that it becomes non-infringing, or (d) accept the return of the Product and refund the purchase price, less applicable depreciation.

9) Modification; Cancellation; Delay by Buyer

No order accepted by MEYER may be modified or cancelled by Buyer except upon MEYER's prior written approval. In the case of any request for changes to an order, including, but not limited to changes in delivery dates, increases in quantities, and modifications to Products, MEYER's approval shall be conditioned upon Buyer's agreement to MEYER's revised pricing and dates of delivery for the Products affected thereby, including charges for any work or materials rendered unnecessary by such changes, and anticipated inventory carrying costs to be incurred by MEYER as a result of such changes. In the case of any request for cancellation of all or any portion of an order by Buyer, MEYER shall be adequately compensated by Buyer for all work, materials and overhead expended in connection with the cancelled Products, which amount shall be based upon the degree of completion of the cancelled Products at the time of cancellation; provided, however, that the minimum cancellation charge, regardless of degree of completion, shall be 15% of the price of the cancelled Products.

If MEYER is delayed in or prevented from performing any of its obligations due to the acts or omissions of Buyer or its agents or contractors (including but not limited to failure to provide prompt drawing approvals and/or such other information as MEYER reasonably requires to proceed expeditiously with its obligations under the order), delivery dates and Product prices may be adjusted by MEYER to reflect then current delivery schedules and raw material costs.

If, having been notified when the Products will be ready for shipment, Buyer fails to provide adequate delivery instructions, fails to take delivery, or requests that MEYER delay the delivery of the Products, MEYER shall be entitled to complete the fabrication of the Products and to place the Products into storage at Buyer's expense. Buyer agrees to compensate MEYER in the amount of 1.5% of the Product purchase price for each 15 day period that Products remain in storage at MEYER's facility beyond the originally scheduled delivery date. MEYER further reserves the right to deliver to Buyer at Buyer's principal place of business any Products that have remained in storage at MEYER's facility for more than 60 days.

10) Limitation of Liability

THE REMEDIES OF BUYER SET FORTH IN THESE TERMS AND CONDITIONS ARE EXCLUSIVE AND ARE BUYER'S SOLE REMEDIES FOR ANY FAILURE OF MEYER TO COMPLY WITH ITS OBLIGATIONS HEREUNDER OR UNDER THE TRANSACTIONS TO WHICH THESE TERMS AND CONDITIONS APPLY. NOTWITHSTANDING ANY PROVISION IN THESE TERMS AND CONDITIONS TO THE CONTRARY, IN NO EVENT SHALL MEYER BE LIABLE TO BUYER IN CONTRACT, WARRANTY, TORT (INCLUDING STRICT LIABILITY) OR OTHERWISE FOR LOSS OF PROFITS OR REVENUE, BUSINESS INTERRUPTION, LOSS OF USE OF PRODUCTS OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, DOWNTIME, COST OF SUBSTITUTE EQUIPMENT, COST OF PURCHASED POWER, OR ANY OTHER INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, THE TOTAL CUMULATIVE LIABILITY OF MEYER IN CONNECTION WITH ANY TRANSACTION GOVERNED BY THESE TERMS AND CONDITIONS, WHETHER THE CLAIMS ARE BASED IN CONTRACT, WARRANTY, TORT (INCLUDING STRICT LIABILITY) OR OTHERWISE, SHALL NOT EXCEED THE PRICE PAID BY BUYER FOR THE PRODUCT(S) UPON WHICH SUCH CLAIM OR LIABILITY IS BASED. The forgoing exclusions and limitations of damages will apply even if any warranty stated herein fails of its essential purpose.

11) Default and Termination for Cause

Each of MEYER and Buyer shall be entitled, without prejudice to any other rights they may have hereunder, to terminate and cancel any order or transaction governed by these Terms and Conditions upon notice in writing to the other party, if the other party is in default of any of its obligations under the transaction and has failed to remedy or cure such default within 30 days following the date it receives notification in writing of the existence of the default.

Further, MEYER may terminate or cancel any transaction governed by these Terms and Conditions immediately upon notice to Buyer if Buyer becomes insolvent, ceases to pay its debts as they come due, makes a general assignment for the benefit of creditors, suffers or permits the appointment of a receiver for its business or assets, or avails itself of or becomes subject to any proceeding under the Federal Bankruptcy Act or any other applicable law relating to insolvency or the protection of rights of creditors. In the event that MEYER terminates an order or transaction as provided in this paragraph 11, MEYER shall be entitled to recover from Buyer or Buyer's representative the amounts that MEYER would be entitled to collect from Buyer upon a cancellation by Buyer under paragraph 9 above.

12) Backcharges and Setoffs

Buyer shall not withhold any backcharges, setoffs, deductions or credits against amounts otherwise due MEYER unless such charges are authorized by MEYER in writing in advance.

13) Use of Intellectual Property

The ownership of all copyrights and other intellectual property rights in all designs, drawings, technical reports and technical calculations developed or provided by MEYER will remain with MEYER. MEYER grants to Buyer a royalty- free, non-exclusive license to use and reproduce any designs, drawings, technical reports and technical calculations developed by MEYER in connection with the Products. This license is limited to the right to use and reproduce such designs, drawings, reports and calculations for Buyer's or Buyer's contractors' own use in the erection, installation, operation and maintenance of the specific Product for which the applicable design, drawing, report or calculation was developed.

14) Insurance

MEYER agrees to maintain the following insurance:

- Commercial General Liability with policy limits of \$5 million per occurrence.
- (ii) Workers' Compensation in accordance with statutory requirements of the state where Meyer's manufacturing facility is located and Employers' Liability with policy limits of \$1 million.
- (iii) Automobile Liability Insurance with policy limits of \$5 million per occurrence covering owned, non-owned and hired vehicles.

A certificate of insurance evidencing the above coverage will be furnished upon request.

15) Miscellaneous

All typographical or clerical errors made by MEYER in any quotation, acknowledgment or publication are subject to correction. The validity, construction and interpretation of these Terms and Conditions, all orders and transactions to which these Terms and Conditions apply, the sale of the goods or materials by MEYER to Buyer, the rights and duties of the parties with respect to such sale, the relationship between MEYER and Buyer, and any disputes arising out of the foregoing shall be governed by and construed under the laws of the State of Tennessee, U.S.A. without regard to its conflicts of law rules and without regard to the United Nations Convention on Contracts for the International Sale of Goods. Any dispute between MEYER and Buyer shall be heard exclusively in the state or federal courts located in Shelby County, Tennessee, and Buyer specifically consents to the jurisdiction and venue of such courts. MEYER AND BUYER HEREBY IRREVOCABLY WAIVE THEIR RIGHT TO TRIAL BY JURY IN ANY ACTION OR PROCEEDING RELATING TO THE PRODUCTS OR THE TRANSACTIONS GOVERNED BY THESE TERMS AND CONDITIONS.

These terms and conditions supersede all other communications, negotiations and prior oral or written statements regarding the subject matter of these terms and conditions. No conditions, usage of trade, course of dealing or performance, understanding or agreement purporting to modify, vary, explain, or supplement these terms and conditions shall be binding unless hereafter made in writing and signed by the party to be bound. Any failure or delay on the part of either MEYER or Buyer to exercise any right, power, privilege or remedy herein shall not constitute a waiver thereof. If any provision or portion of these terms shall be adjudged invalid or unenforceable for any reason by a court of competent jurisdiction or by operation of any applicable law, that invalidity or unenforceability shall not affect the other provisions of these terms, all of which shall remain in full force and effect. Buyer shall not assign its rights or delegate its duties hereunder or any interest herein without the prior written consent of MEYER, and any such assignment, without such consent, shall be void.

