

PALMER

MANUFACTURING & SUPPLY, INC.

INDUSTRIAL PROCESSING EQUIPMENT & SYSTEMS

BULK PROCESSING

Batch & Continuous Mixers
Coolers
Conveyors
Dryers
Elevators
Feeders
Heaters
Reclamation Solutions
Storage
System Design

ENGINEERING

Custom Machines
Design, Layout, Systems
Service
Testing

FOUNDRY

Continuous Sand Mixers
Coremaking - No-Bake, Cold Box, Shell
Feeders - Powder & Granular
Melt Shop - Ladles, Degasser, Porosity & Thermal Analysis
Mold & Core Coating - Spray & Flow
Mold Handlers
Mold Preheaters & Dryers
Molding Systems

- Rollovers, Carousel, Conveyor Loop
- Universal Molding Machines, Flip Molding Machines

Pattern Mounting Plates & Bottom Boards
Replacement Parts & Mixer Blades
Retrofit Pumping Systems
Sand Compaction Tables
Sand Conditioning - Heaters/Coolers/Classifiers
Sand Reclamation Systems - Mechanical/Thermal/Knock-Out
Storage, Elevators, Conveyors, Transporters

KLEIN PALMER

Batch Mixers
Pneumatic Conveying
Resin Liquid Metering Pumps

RAIL SANDING

Rail & Passenger
Vehicle Sanding Equipment

To learn more visit

**www.palmermfg.com or
call 937.323.6339 or
email sales@palmermfg.com**

Fax 937.323.2709

U.S. & Canada 800.457.5456



Made in USA



BULK PROCESSING & MATERIAL HANDLING

From custom equipment to automated systems, Palmer Manufacturing & Supply engineers bulk processing and material handling solutions specifically for your production requirements. Palmer has more than 40 years of experience designing and engineering heavy-duty equipment to convey, lift, load, discharge, weigh, feed, blend, mix, cool, dry, reclaim, store, and process common bulk solid materials.

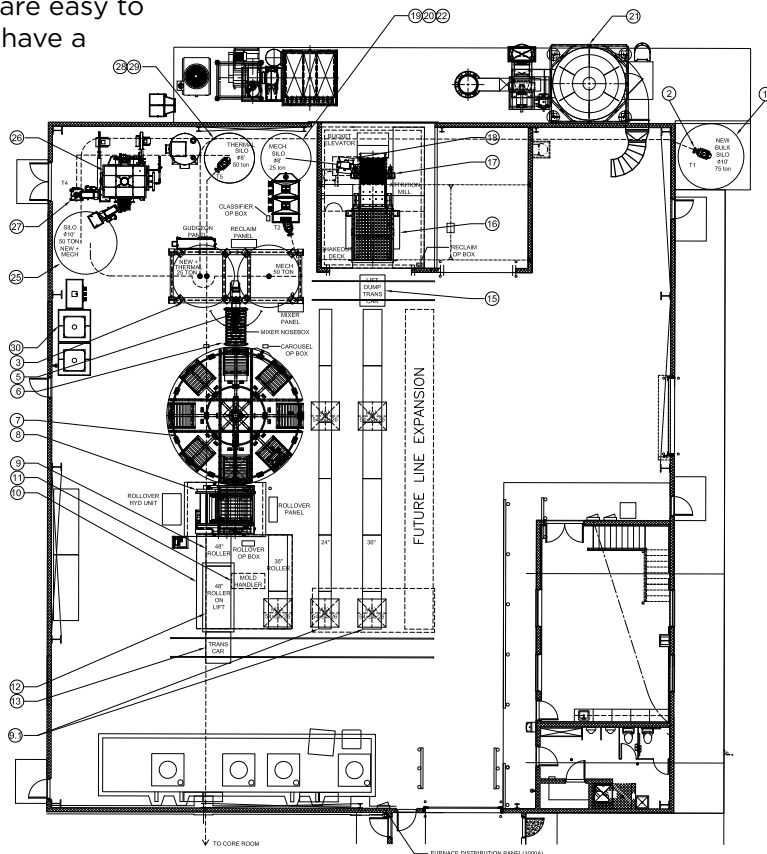
We have sold over 2,000 high speed continuous mixers and over 9,000 pieces of equipment - more than anyone else in North & South America.

Palmer provides sales, service and support to: USA, Canada, Mexico, South America, Asia - in over 22 countries.

Palmer designs easy to use equipment and complete systems that are less likely to have problems, and are rugged enough to withstand the toughest manufacturing environments. How? We like to keep it as simple and rugged as possible. We design equipment with extremely robust machine weldments, and high quality USA components that are easy to configure, exceptionally reliable, and engineered to have a very long production life.



QUOTE ITEM #	PALMER SERIAL #	DESCRIPTION
1	CFB11	NEW SAND SILO
2	PSL182	PNEUMATIC TRANSPORTER (T1)
3	CF797	MIXER MECHANICAL SAND SILO
3	CF798	MIXER NEWTHERMAL SAND SILO
3	CF799	MIXER/SILO SUPPORT STAND
5	M3073XLD	M300XLD HIGH SPEED CONTINUOUS MIXER
6	V540	V3000 COMPACTION TABLE
7	CF800	CAROUSEL MOLDING SYSTEM - 8 STATION
8	PRD235	PRD-SERIES ROLLER DRAW MACHINE
9	CF801	POWERED CONVEYOR
9.1	CF802	GRAVITY CONVEYOR SECTIONS
11	PMH2131	PHM-2000-HPR MOLD HANDLER
12	CF803	LIFT/DROP GRAVITY ROLLER CONVEYOR
13	XFER123	MANUAL TRANSFER CAR
15	XFER124	LIFT/DUMP TRANSFER CAR
16	SD1036	SHAKEOUT DECK
17	RS32	ATTRITION MILL
18	CF804	BUCKET ELEVATOR
19	CF805	PNE CLASSIFIER SAND SILO
20	HCC175	DOUBLE CLASSIFIER
21	-	MECHANICAL RECLAMATION DUST COLLECTOR (BY OTHERS)
22	PSL180	PNEUMATIC TRANSPORTER (T2)
25	CF806	PRE THERMAL RECLAMATION SURGE SAND SILO
		THERMAL RECLAMATION UNIT AND DUST COLLECTOR (BY GUDGEON)
		PNEUMATIC TRANSPORTER (T4) (BY GUDGEON)
		POST THERMAL RECLAMATION SILO
29	PSL161	PNEUMATIC TRANSPORTER (T5)
30	CF808	RESIN TOTE/DRUM RACK



BULK PROCESSING & MATERIAL HANDLING



Bulk aggregate storage system



Aggregate mixing system with weigh-belt feeder



Triple mass flow pumping system (skid mounted)



Mass flow pumping system

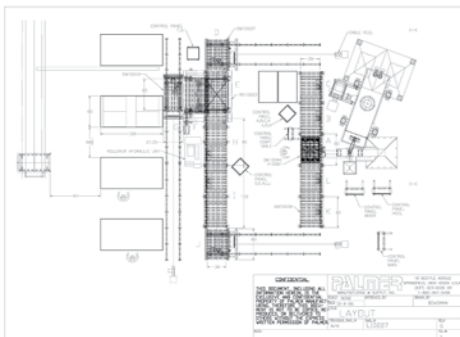
ENGINEERING

Design and Lay-out

Our engineers collaborate with your team on-site to assess your current and future production needs while aligning with your business objectives. We develop cost-effective production solutions that often incorporate your existing equipment and technology. With experience serving both large and small foundries, we welcome the opportunity to provide a comprehensive analysis of your production requirements.

Custom Designed and Engineered Machines

Palmer is a leading manufacturer of heavy-duty equipment. The Palmer difference is significant as our design and engineering department is equipped with the latest 3D CAD tools to custom design and build. Whether your needs are for a single machine or a complete facility, Palmer is your single engineering source. We take pride in our reputation for designing equipment that exceeds our customers' production goals, day-in and day-out. While others may provide basic drawings or "ideas," Palmer provides custom machine solutions that increase productivity, while reducing machinery wear and tear.



TESTING

Testing Services

Palmer offers complete testing services and routinely tests materials for these industries: sand, adhesive, rubber, concrete, golf course, Military, chemical, oil recovery, environmental waste, and a variety of material re-use applications.

Palmer can perform virtually any mixing test on granular to powder materials with any liquid chemical system. Palmer can perform resin mixing tests, reclamation tests, both mechanical and thermal, as well as rebonding cycle tests.

We have performed tests and trials on frac sand, foundry sand, rubber crumb, adhesives, wood fiber, salt, baghouse fines, oxides, carbon, titanium, carbide, and many others.

Our laboratory, The Strausbaugh Technology Center, is equipped with the necessary equipment to perform standard foundry sand tests: LOI, ADV, Screen Analysis, Tensile Testing, Transverse Testing, pH Testing, Percent Sodium or Potassium Testing, as well as other non-foundry tests.



Aggregate Coating Testing Set-up

CONTINUOUS SAND MIXERS

M-Series XLD High Speed Continuous Mixers

Considered the 'Industry Standard' in sand mixing, Palmer's line of high speed continuous mixers are built tough. Tungsten carbide tipped mixing blades provide long life, while the direct drive system ensures low maintenance. Standard features: dual mixing chamber doors (both sides for easy cleaning and maintenance, no tools required), magnetically coupled leak-free pumps with recirculating diverter valves for precise resin metering, air assisted chemical injection (a 1980 Palmer innovation), and high speed operation makes the M-Series XLD the most rugged, reliable and best performing continuous mixer on the market. Outputs 15 - 5,000 lb per minute. Standard control systems up to complete integrated Ethernet capable PLC/HMI systems.

Min-Max Output	Lb/min	MTPH
M-50 XLD	15 - 60 lb/min	.4 - 1.6 MTPH
M-100 XLD	50 -150 lb/min	1.4 - 4 MTPH
M-200 XLD	70 - 250 lb/min	1.9 - 7 MTPH
M-300 XLD	150 - 600 lb/min	4 - 16 MTPH
M-500 XLD	300 - 1100 lb/min	11 - 30 MTPH
M-1000 XLD	400 - 1700 lb/min	21 - 51 MTPH
M-2000 XLD	1000 - 3000 lb/min	27 - 81 MTPH
M-3000 XLD	2000 - 5000 lb/min	55 - 135 MTPH



M-50 XLD



Portable Cube Mixer



M-300 XLD

CONTINUOUS SAND MIXERS



M-2000 XLD Standard Features

- Rugged - heavy-duty construction designed for years of use and abuse with minimal maintenance.
- Simple design - easy to operate/maintain.
- Multiple doors for complete access to both sides of mixing chamber.
- Tungsten-carbide tipped mixing blades for increased life. Twice the thickness of others.
- Precision magnetically coupled chemical pumps.
- Supplied 100% complete and fully assembled for easy, quick installation.
- Many options available - mixer can be custom fitted to match the application's exact requirements.
- Replacement parts from Palmer or from a high-quality industrial supply house in your area. Standard off-the-shelf components are used wherever possible so that parts availability is good and affordable.
- One year warranty.
- Capacity: 1000-3000 lb/min.



Control Panel



Electromechanical
Power Rotation



RFID Tag Read & Write Station

COREMAKING EQUIPMENT No-Bake, Cold Box, Shell

No-Bake Core Blowers – The CM-Series

Designed with ultimate simplicity and durability in mind, the Palmer Coremaker provides foundries with an economical means for the blowing of no-bake and cold box cores. With capacities up to 600 lb per blow, this versatile machine can be used by low volume jobbing and high volume shops economically and efficiently. With no need for scrubbers and other expensive peripheral equipment on the no-bake version, the Palmer Coremaker is a cost effective solution for virtually any foundry. This is not just a core-blower — as an added bonus, this mixer rotates 90° to allow mixed sand to discharge outboard of the coremaker footprint. This allows for molds and very large cores to be produced in a small production area.

Available in five sizes:

CM-25 up to 30 lb (13 kg) per blow
CM-50 up to 58 lb (26 kg) per blow
CM-100 up to 108 lb (48 kg) per blow
CM-300 up to 350 lb (159 kg) per blow
CM-500 up to 600 lb (272 kg) per blow



PHB-22 & PCB-22 Core Machine – for Shell, Hot Box, or Cold Box System

PHB-22 is durable, simple to use, and comes with roll cylinders with sensors. The sensors detect when to roll and roll back. Fast automatic and semi-automatic operations: full cycle, roll cycle, cure cycle. Also offers manual control and operations. Slotted for easy bushing changes and box adjustments.



Coremaker RFID

Palmer CM-Series CoreMakers are available with RFID tagging that saves the settings – program it once & forget it. RFID increases productivity many ways:

- Easy positioning – with the laser alignment guide
- Keep operators working – let the RFID system change settings between different boxes
- Programmable blow pressure – easily fine tune each core
- Full PLC controls of any continuous or batch mixer



Core Racks

Palmer's Portable Core Storage Racks are an easy way to store, protect and inventory cores. These racks are moved easily in the production area and can hold up to 2000 lb. Special features: heat dissipating lift handles, heavy duty shelves, large industrial casters for easy mobility. Gas Struts allow one handed lifting of shelves. Available in 3 standard sizes (4, 5, and 7 shelves) each shelf measures 29"x 68". Custom sizes available.



FEEDERS – Powder & Granular

With capacities from .1 to 140 cu. ft. per hour, the P-Series provides accurate and consistent additions of Red Iron Oxide, Black Iron Oxide, Bentonite, and other difficult to meter solids. Flexible externally massaged hopper is included. The centerless Helix in the bottom of the hopper ensures consistent density of especially difficult materials that pack, bridge and Rathole.

MELT SHOP

Acetarc Ladles

We provide a range of heavy-duty ladles, manufactured by craftsmen engineers, using long proven designs combined with the latest manufacturing techniques. Our full design & manufacturing capabilities enable us to provide tailor-made solutions for your molten metal handling requirements; from initial consultation, through to final design, manufacture and commissioning. Motorized gear options (electric and pneumatic) are available. Electric gear motors are available with radio remote control and inverter speed control. Safe-Pour (zero-harm) bottom pouring system provides fail-safe operation.

LADLE PREHEATERS

A ladle preheater heats the ladle lining just before it is filled with molten metal. Refractory linings have traditionally been thoroughly dried to remove all moisture.

LADLE PREHEATER/DRYER

A unit can function as both a preheater and a dryer, depending on the controls it operates with. Various programs and temperature controllers enable it to preheat the refractory lining and dry new linings with high moisture content. Preheater temperature controllers regulate the temperature, while Preheater/Dryer temperature controllers offer the added functionality of setting both time and temperature. Therefore, a foundry doesn't need to acquire separate units for each function.

Portable Rotary Degasser for Aluminum

The Palmer Rotary Degasser is portable and light weight (under 50 lb) with stainless steel construction for a long production life. Versatile – for dip-out or crucible furnaces with capacities from 40 to 3000 lb. Low cost with high efficiency is achieved by using a variable speed air motor. Unique one piece lance reduces cost by eliminating shaft/impeller design. This degasser can be used with Nitrogen, Argon or proprietary gas mixes and eliminates use of hazardous degassing tablets and chlorine or Freon gasses. To handle complete aluminum quality control testing, Palmer also provides: Reduced Pressure Tester, Test Bar Mold and Spectrographic Coupon Mold.



Before



After



65 Ton Ladles Sold to the US Naval Foundry



MELT SHOP, MOLD & CORE COATING



Flow Coating

Flow Coating Pans and Pumping Systems for any size mold – tailored to fit. Dip tanks for cores and tunnel flow coaters. Capacity up to 40,000 lb.

Tilting Flow Coating Machines

for in-line use, improve coating efficiency and safety.

Rotary Flow Coating Machines

for in-line use, ideal for large molds or when horizontal space is limited.

Spray Coating

Palmer has developed a complete line of mold wash spray equipment with molding efficiency in mind.



KP-5

HSS-55

KP-5 Bucket Top Coating System

use with standard 5 gallon bucket containers.

KP-55 Drum Top Coating System

use with standard 55 gallon drum containers

(available skid mount and drum lift allow drum changes by one operator).

HSS-55 Spray System

A KP-55 modified to function with many of the newer coatings with a high solids content.



Reduced Pressure Tester

Whenever degassing is a requirement of the melting process, it is desirable to verify the effectiveness of the degassing process. Palmer supplies a simple, easy to use reduced pressure test unit for this verification.

To use, the operator warms a sample cup, dips the cup into the furnace for a metal sample, quickly places the sample into the vacuum chamber, and starts the vacuum pump.

PAS3000

The Palmer PAS3000 is a better way to measure and control the porosity in your aluminum casting process. This hydrogen porosity analysis system uses a repeatable, scientific method to measure the level of porosity in Reduced Pressure Test (RPT) samples. No more sawing, polishing, and comparing to a chart. Just measure your RPT sample using the PAS3000 and in less than 30 seconds you have the result. Whether using in conjunction with a RPT machine, the PAS3000 is a safer, quicker, and more accurate way to measure and control the gas levels in your aluminum melt. The PAS3000 includes: full enclosure to reduce dust, automatic calculation of the results, a touch screen interface to guide the operator, calibration weights, and an Ethernet port to transfer the data to a computer.

Advantages

- Easy to use
- Scientific method of evaluating RPT samples (gas slugs)
- Eliminates sawing and polishing of RPT sample
- Safer, more accurate and less expensive method
- Automatic calculation of specific gravity
- Wide door with easy access tray
- Results in just a few seconds
- Precision calibration weights included



MELT SHOP, MOLD & CORE COATING

Palmer PAS5000 Melt Quality Control System

Performs & Reports RPT Sample Density, % Porosity, & Density Index all in one machine

The Palmer PAS5000 represents a breakthrough in hydrogen porosity control of the aluminum melt and castings. With precise computerized control of the vacuum setting and quick automated measurements of sample density, the long-standing problem of operator variation is virtually eliminated. The PAS5000 is the only system on the market with the ability to perform and report RPT sample density, % Porosity, and Density Index all in one machine. Test results are stored by date/time, vacuum setting, and alloy along with company information, such as furnace number and part number. Data can be directly exported to a SCADA system or retrieved through either the easy access USB port or ethernet port.

Advantages

- Digital HMI interface to Allen Bradley PLC
- Password protected Set-up Screen to enter vacuum level, solidification timing, and to populate drop-down menus for alloys
- Calibration screen to check and record calibration
- Precision digital control of vacuum setting eliminates operator from manually setting a gauge and variables
- Automatic ABORT mode if vacuum level is not reached or maintained, ensuring sample is run correctly
- Reports Density (S.G.), % Porosity, or Density Index Number
- Data stored to PLC and/or directly exported to SCADA
- Industrial Ohaus computerized scale system with wide access trays for easy operation
- Internal industrial vacuum pump with easy access
- Built-in sample quenching station
- Heavy duty welded steel frame
- Stainless steel working top and handle
- Drop-down steel cover protects system from dust
- Internal LED lighting



Foundry Solutions Thermal Analysis System (SFTA)

The SFTA Thermal Analysis System provides a complete thermal analysis solution for measuring solidification properties, including grain refinement and eutectic modification, in aluminum alloys directly on the shop floor—in just 2 to 6 minutes! This affordable and comprehensive system enables rapid adjustments to melt treatment, reduces defects, and ensures consistently high-quality casting production.



MOLD HANDLERS

Mold Handlers

The PMH line of mold handlers offers our customers a complete set of options when it comes to handling both flasked and flaskless molds. From our basic scissor-style to our full line of high capacity gantry-style units, there is a size and configuration for all requirements. No-slip urethane gripper pads available for a safe secure grip on thin-wall molds.



PMH-H-15000 Gantry



Capacities to 25,000 lb



PMH-2000 -HPR Scissors



PMH-H-12000 Gantry



UNIVERSAL & FLIP MOLDING MACHINES & SYSTEMS

INDUSTRY FIRST

Universal Molding Machines (UMM) & Flip Molding Machines (FMM)

The Palmer UMM and FMM are high production No-Bake Molding System with low capital costs to make No-Bake molds with a variety of tooling, minimal set-up, minimal tooling modifications and unskilled labor.

Flip Molding Machine (FMM) No Rollover needed

- Production rates of 30 molds per hour with a 4-station FMM are easily achieved with 1-2 operators, depending on level of mold prep needed. Uses cope/drag tooling.



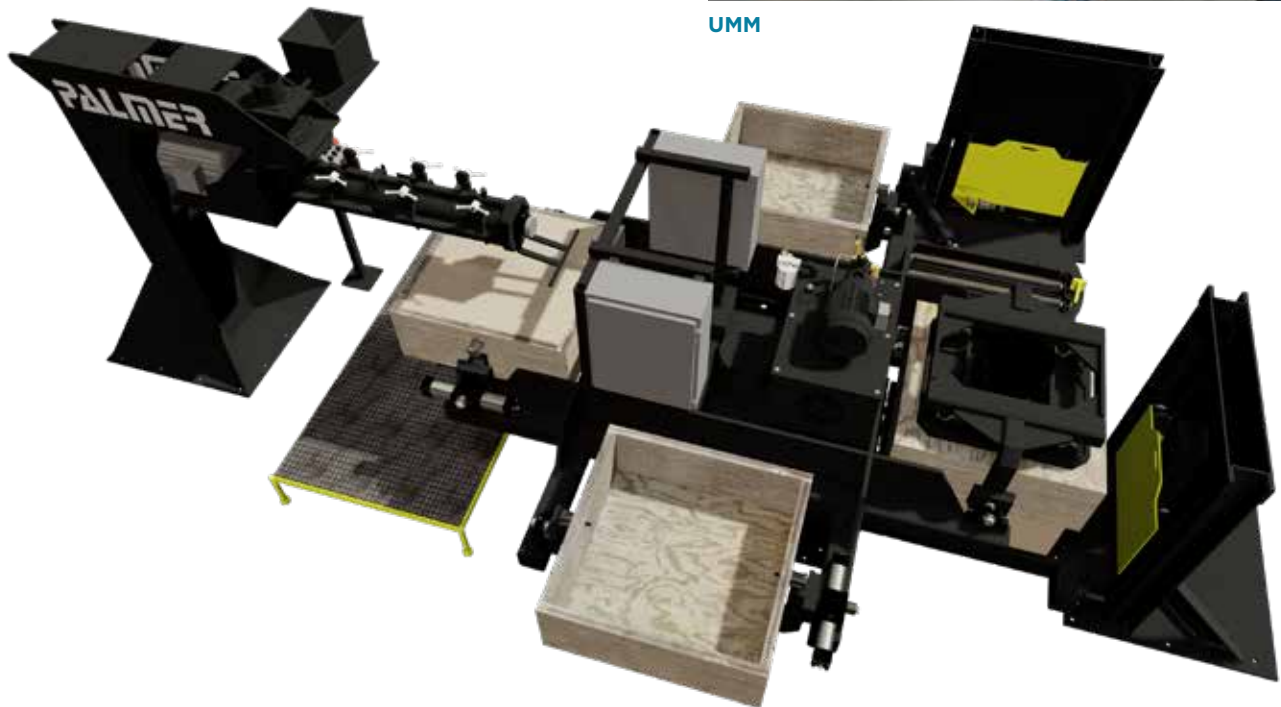
FMM

Universal Molding Machines (UMM) No Rollover needed

- Production rates of 20 molds per hour with the 2-station UMM are easily achieved with one operator. Mold per hour rates of 65 are reached with 2 - 3 operators with a 6-station UMM. Uses cope/drag, matchplate, green sand, no-bake, shell, metal, wood or plastic tooling.



UMM



ROLLOVER DRAW MACHINES AND SYSTEMS

No-Bake Molding Systems, Rollover, Carousel, Conveyor Loop

Our experienced foundry engineers provide custom designed mold and core production systems to meet your current and future requirements. We take pride in the labor saving, energy saving, and production efficient systems that Palmer has designed and installed.

Completely Integrated Sand Reclamation Systems

System components include shake-out decks, attrition mills, vibratory conveyors, cooler / classifiers, screeners, elevators, magnetic separators, hoppers, silos and Ethernet capable control systems for small CAR-1 systems to large 30 TPH reclamation systems.

Rollover Draw Machines C-Frame & Barrel

The RD-Series ranges in size from 500 - 20,000 lb. With models from manual to fully-automatic, the RD can be made to your exact specifications. Available in C-Frame and barrel configurations. High torque hydraulic rotation ensures easy and efficient rolling of even the heaviest jobs. Simple rugged alignment design for accurate and repeatable parallelity of draw. Custom designs available. Our rollovers are now available with a patented braking system for additional safety.

U.S. Patent No. 9,937,552



Foundry Molding Loop



Silos



Transfer Car



Large Barrel Rollover



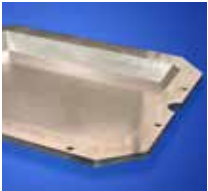
Small Barrel Rollover



C-Frame Rollover

PATTERN PLATES & MOUNTING BOARDS

PALMER
ENGINEERED PRODUCTS, INC.



Chainlock & Offset Pattern Mounting Plates

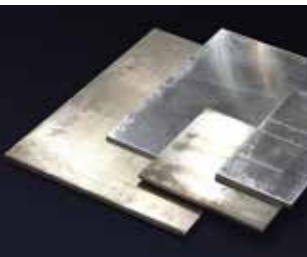
Chainlock pattern mounting plates are cast in permanent molds for maximum flatness and rigidity for: Hunter, DISA, Roberts Sinto, Beardsley & Piper.

Offset pattern mounting plates are cast, heat treated and fully machined for maximum accuracy.



Bottom Boards

Available for Automatic Molding Machines and Tight Flask operations. Custom bottom boards available for any size and configuration. Cast in permanent molds for maximum flatness and rigidity for: Hunter and Beardsley & Piper.



Custom Non-Ferrous Plate Cutting

Need precise aluminum, magnesium or other expensive tooling plate cut? Our custom plate cutting operation can meet your needs. Specialized equipment ensures consistent cuts at a reasonable price.



Copper & Aluminum Wood

From bulk supply of raw wool to complete pressed filter assemblies, Palmer can help you with your filtration, abrasion, packing, heat transfer, and seal needs. Used anywhere from keeping bats out of your belfry to ultra-high-specification aerospace applications, Palmer can supply wood and custom wool products to fit your exact requirements. Free samples.



PalmerVent Mold & Core Venting Tubing

Made from the highest quality materials, PalmerVent is designed for use in virtually all no-bake foundries. Venting is used when core gasses are difficult to extract in jobs like volute pumps, valve bodies, etc., and ideal for all gas prone castings.

Available in 1/16", 3/16", 1/8", 1/4", 3/8", 1/2", 3/4", 1", 2".



Urethane Gating, Mold & Alignment Components

Palmer stocks a complete line of: sprues, standard pouring basins, liners, basin & liners for insertion of foam and extruded filters, and plugs.



REPLACEMENT SPARE PARTS

Replacement Mixer Blades

The more you know about sand mixing—the more you need genuine Palmer mixer blades!

Palmer's long-life replacement blades offer exceptional durability and compatibility, making them ideal for most brands of continuous or batch mixers. After years of research and testing foundry mixers, Jack Palmer developed heavy-duty mixer blades—renowned for their unmatched toughness, and superior mixing performance. Fabricated or investment cast from alloy steels and featuring extra-thick (1/4") high quality tungsten carbide-tipped blades—these blades significantly outlast others on the market. Common mixer brands and sizes are typically available for same-day shipping from stock. Custom and specialty blades are also available for high-speed continuous mixers. Palmer makes blades for IMF, Sinto, Castec, and Kloster mixers. Over 10,000 blades in-stock.



Replacement Parts (In-Stock)

Palmer maintains over \$2 million in spare parts inventory and services literally thousands of machines globally. Most orders placed before noon EST ship the same day.



RETROFIT RESIN PUMPING SYSTEMS

About Palmer Resin Pumping Systems

Palmer Pumping Systems are completely self contained units designed to eliminate the problems associated with old, worn, poorly designed systems that cause such problems as inaccurate delivery, inconsistent delivery, resin bleed back, the need for constant re-calibration, and high replacement part cost. Palmer systems are particularly helpful when used to replace pumping systems designed around high RPM, low displacement pumps. From our basic RP packages, to high-end, fully-automated mass flow control packages, Palmer has the equipment and experience to meet your exact needs.

RP-Retrofit Pumping Systems

Palmer RP-Retrofit Pumping Systems provides a “heart transplant” for any ailing continuous or batch sand mixer. The RP is fully contained in a NEMA enclosure and is complete with pumps, motors, air actuated ball valves, and digital DC or AC/VFD speed controls – everything needed for accurate, consistent chemical delivery. The RP can be configured for any resin system, has many options and can be built for any size mixer.



Volumetric Pumping Systems

The RPV is a true volumetric pumping system designed specifically for batch mixers. Tempered glass tubes receive resins from bulk storage up to the level of the close tolerance proximity detectors. When called for, the resin in the tube is metered into the batch mixer by introducing low pressure inert gas into the top of the resin tube. Once the level reaches the bottom proximity detector, the metering valve closes and the gas pressure is vented. This system is designed for years of service with minimal maintenance. The RPV is housed in a rugged NEMA 12 enclosure and is easily integrated into any batch mixer control system.



RETROFIT RESIN PUMPING SYSTEMS

Mass Flow Pumping Systems

The Palmer MF System features Straight Tube Coriolis Mass Flow Meter- the most reliable meter in the industry. The straight tube design operates undisturbed in hostile, vibration prone applications and has proven itself well suited for operation in a foundry environment. These meters automatically adjust for material viscosity changes and minor line restrictions. System can include color HMI's, Ethernet capability and have the highest degree of accuracy available on the market today.

Bulk Transfer System

The Palmer Bulk Transfer System (BTS) draws on Palmer's decades of pumping, metering and storage of a variety of difficult to handle and store chemicals. The Palmer BTS consists of bulk storage tanks, a properly designed pumping system, small logically sized day tanks and a properly designed PLC based control system to maintain level, monitor flow rates, troubleshoot system, etc.

Day Tanks and Resin Storage Systems

The Palmer Bulk Resin Distribution System features individual day tanks for each mixer. Liquid level in each of these tanks is maintained by a resin loop system from a main bulk supply pumping system and is monitored by proximity sensors. This allows bulk resin storage in one localized area to feed several mixers. Most resin storage racks also include individual spill containment tubs for each resin component.



SAND COMPACTION & CONDITIONING

Sand Conditioning Sand Heater/Cooler/Classifiers

Heats, Cools and Classifies – ALL IN ONE MACHINE! Sand heating and cooling is efficient and dust-free with Palmer's HCCL-Series Classifiers. Ensures discharged sand at preferred temperature. Removes fines through fluidization and dust collection. Fully automatic heating/cooling switchover circuitry makes operation of this unit simple and efficient. Heating and cooling controls are included as standard. Custom sizes for any temperature range and tonnage. Available with magnetic separators, secondary screeners, surge hoppers, etc. Large access panels allow for complete access to the cooler for inspection and maintenance.

Also available as heater only and cooler only.

Electric Sand Heaters

H-Series Sand Heaters are designed to provide “set it and forget it” sand temperature control. Utilizing fully proportional SCR controls and a unique fluidization system, each heater provides uniform sand temperature regardless of duty cycle. Fluidization air is supplied through a super high-efficiency air filtration system. A summer / maintenance bypass which allows sand to go from the bulk supply to the next process without passing through the heating chamber is standard. Optional electric fluidization blower reduces the plant compressed air requirements to minimal amounts only for valve actuation. On the rare occasion when elements need to be replaced, one complete side of the heater can be removed allowing complete access to the chamber.

Compaction Tables

From 5 lb cores to 40,000 lb molds, Palmer has a compaction table to fit your exact requirements. Featuring tables with both vertical and rotary vibrators, Palmer has a table and control system to meet the needs of high quality, well compacted cores and molds with lower binder levels and increased consistency. Custom sizes are our specialty. Available to fit existing conveyor, with gravity conveyor, power conveyor, or flat topped actuation by foot pedal, push button RFID or integration with the mixer.



HCCL-Series



HCCL-Series



H-Series



Compaction Tables

SHAKE-OUT/SAND RECLAMATION SYSTEMS

Shake-Out Deck/Attrition Mill (SDAM)

Palmer's Shake-Out Deck/Attrition Mill is a low level shake-out deck with integral attrition mill. This deck requires no pit, making loading and casting removal an ergonomically correct and safer operation. The SDAM reduces molds and lumps to grain size. Labor saving features include no pit for less clean-up, large easy clean-out doors, and accessible screens. 5 sizes available with throughputs up to 22 TPH (20 MTPH) and deck loads to 25,000 lb, to fit any budget and performance level. Completely integrated for use with all chemically bonded sands. System includes SDAM, transfer elevator, vibratory screener, surge hopper, and high efficiency classifier.

Options include: rotary magnetic separator, cooling tubes, pneumatic transporters, shakeout decks, attrition mills, sand handling/classification equipment, and pneumatic transporter systems.



CAR-Series Mechanical Reclamation System

- Capacities from 1-5 TPH (0.9-4.5 MTPH)
- Shipped Skid Mounted and Ready to Run – Simply Connect Power and Begin Reclaiming Sand
- Available with Integral Dust Collector option



CAR -Series Mechanical Reclamation System
(Shipped complete with very little on-site assembly required)

Core Knock-Out

From a basic stationery impact machine to the top of the line impact/vibratory system we can manage complete core knock-out. We have a machine to fit all core removal needs. Our rugged design can reduce decoring time from minutes to seconds. Soundproof enclosure, sand removal equipment, and robotic integration available.



Core Knock-Out



PKO

STORAGE

Hoppers & Silos

Palmer can provide you with all of your hopper and silo needs. Standard products include mixer hoppers, bulk sack transfer hoppers and silos.

- 3000/4000 lb stock sizes (1350 kg-1800 kg)
- Sight glasses to determine material level

Heavy-duty Bucket Elevators

Designed by foundrymen for foundrymen, Palmer Bucket Elevators feature heavy-duty construction to prevent wear and leakage. Fully removable side plates for complete access to the elevator's internal components. Off-the-shelf motor, drive, and bearings for easy replacement. Cast iron buckets and high quality belting for the longest life. BE-Series Bucket Elevators available - up to 60 TPH (55 MTPH) tons per hour in silica sand.



KLEIN PALMER

Klein Palmer PLUG FLO® Pneumatic Transporters

In contrast to conventional pneumatic conveying systems (and the associated problems of wear and abrasion of the conveying pipes, bends and fittings) the PLUG FLO® system does not require fluidization or boosters to move the material through a conveying pipe line, but rather uses the natural properties of the material to achieve their transport. This system makes it possible to transport sand through the pipeline with practically no degradation making it especially suitable for granular, free flowing material with minimal material separation during the transport phase. Units available up to 400°F.

PLUG FLO® Dual Pneumatic Conveyor

The PLUG FLO Pneumatic Conveyor is specifically designed for conveying sand, granular and free flowing bulk materials. The PLUG FLO is the ultimate low velocity dense phase conveyor. Available in single-vessel or dual-vessel transporter systems for 3", 4" or 5" diameter transfer pipelines. Use PF-100 dual transporters for cool dry sand and PF T-Type transporters for hi-temp dry sand.

PLUG FLO Mini Pneumatic Transporter

PLUG FLO Mini pneumatic transporter is a cost effective solution for lower sand transfer capacities, shorter distance runs and where you have little headroom. It's compact design fits in tight spaces.

T-Type High Temperature Pneumatic Conveyor

A Dense Phase Pneumatic Transporter for high-temperature materials up to 450°F. Applications include hot sand from thermal reclamation, other high temperature powders and granular bulk materials.

STATORMIX® Batch Sand Mixer

Specifically designed for use in cold box core room applications where sand is mixed with various resins and powders to produce high-quality cores. The StatorMix is unmatched in terms of resin efficiency usage and sand consistency and are easy to operate, calibrate, clean and maintain. Available in 3 sizes: Model 22, Model 52 and Model 122.

Vibratory Batch Sand Mixer

This mixer provides economical usage of resin to efficiently mix, blend, or coat sand for cores and molds. Precise metering of mix components and full automatic controls ensure the desired quality of mix with a standard deviation possible of less than 0.1 percent. Higher quality cores, with less binder, reduced resin consumption and automatic operation are just a few of its advantages. Ideal for cold box or hot box core making applications.

Resin Liquid Metering Pumps

Precise metering of resins and liquids using reliable and low maintenance bellows pumps or infinitely flexible continuous gear pumps.



Klein Palmer PLUG FLO®



RAIL VEHICLE SAND FILLING SYSTEMS

The World leader in Light Rail Transport (LRT) Sand Filling Systems

Leading through innovation and safety, Klein Palmer offers two types of Sand Dispensing systems for light rail and locomotive sand filling applications. Each design uses low velocity sand delivery to the dispensers and rail cars to preserve the sand size and quality, as well as protect the operators from harmful silica dust.

Klein Palmer systems automatically deliver brake sand to individual sand dispensing stations with gentle low-velocity conveying methods, which prevent dust formation and eliminates pipe wear. Each dispensing station can then be activated individually, as needed, to quickly fill rail cars with minimal labor. Return air is swept using a unique dust venturi system that protects operators from harmful silica dust.

Dust from each unit is automatically returned to a central collector for proper disposal and easy maintenance.



kleinSAND.max – “Tall and Skinny!”

kleinSAND.max sand dispensers are cleverly designed to safely fill vehicle sand boxes quickly and automatically. Insert and walk away, then return when the job is complete shortly after. The tall and skinny design saves valuable space and also served as both the sand pressure vessel and support structure.

KleinSAND.max advantages:

- Save valuable platform space
- Safe, clean and automated operation
- Available with stationary or suspended, single and double nozzles
- Twin pipe or Y-shaped models for various ceiling height and volume constraints
- Inlet head contains a special expansion disc valve for return of dust to the exhaust system
- Low velocity sand transport into the filling nozzle – less than 0.25 m/s
- Air is returned to a central collector for safe operation and easy maintenance



BSS2 – “Big Brother”

The BSS2 Series sand dispensers are larger in volume and deliver sand in larger quantities. Big Brother is hard to wear out when filling large amounts of sand into locomotives quickly. Other features are similar to the SAND.max units, except BSS2 has a vessel installed on top to contain the larger volume of sand.

Portable Rail Sander

This mobile unit enables the sand-filling process to occur beyond the dedicated sanding platform. The portable sander can navigate various compact surfaces and crossings, including inclines of up to a 5% grade.



SERVICE

Service

Palmer service technicians regularly travel throughout North America, Central America and South America. Additional international service is available upon request. Our technical service team is available for installation, equipment service, training at our facility or yours, supervision of local contractors, scheduled maintenance service, solving automation problems, and emergency service. Our mission is to keep your facility up-and-running.

Call our toll free line to speak with a skilled technician, with any troubleshooting, maintenance or installation question. With over \$2,000,000 in spare parts inventory, we have the ability to quickly handle any service call or parts shipment. Most parts ordered before noon EST can be shipped that day. Additionally, we repair ancillary and downstream equipment.



BIG MACHINES/SYSTEMS THAT OUTPERFORM & OUTLAST





ENGLISH



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SPANISH

For more than 50 years, Palmer Manufacturing and Supply, Inc., has made customer satisfaction our number one priority. That's just one reason why Palmer Manufacturing is the largest supplier to the no-bake foundry industry in the United States. With over 100,000 square feet of manufacturing, warehouse, and office space there is no project too complex for us to handle.

Palmer began as an Iron and Aluminum Green Sand No-Bake and Permanent Mold Production Foundry. Lacking heavy-duty equipment that would be both easy to operate and maintain; Palmer began developing a line of equipment to meet our needs. Using our demanding production environment to thoroughly test equipment led to the development of a line of heavy-duty easy to maintain and operate equipment for foundry and bulk processing.

Palmer designs easy to use equipment and complete systems that are less likely to have problems and rugged enough to withstand the toughest foundry environments. We take pride in equipment that has the best controls, is easy to configure, is exceptionally reliable and is engineered to have a long production life. Our equipment and complete systems are installed in foundries and processing plants globally.

Every piece of Palmer equipment or system can be completely customized to meet your specifications. Whether we modify one of our standard models or build one to your unique requirements, you can be assured that the equipment we deliver will be of the highest quality at the most reasonable cost possible.

GLOBAL SALES & SERVICE

Palmer has built a reputation for outstanding customer service. Our global sales and service organization proudly supports installations throughout USA, Canada, Mexico, South America, Europe, and Asia.



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