

IT'S A HOT BOX
IT'S A RECYCLER
IT'S A FALCON



IT'S A FALCON

A Falcon makes fixing potholes, repairing utility cuts and patching asphalt easy -- very easy.

When used as a **hot box**, it keeps asphalt hot all day and holds it overnight to eliminate waste that occurs when asphalt hardens in the back of an unheated truck bed.

When used as a **recycler**, it provides year-round access to hot mix asphalt.

Falcon's patented heat management system:

- Is third-party certified to operate at 92% fuel efficiency using less than three gallons of diesel fuel per 8-hour shift.
- Provides even hopper temperatures to help eliminate material scorching from hot spots and material hardening from cold spots.
- Prevents asphalt from cooling during transport by allowing the burner to run while being towed.

Hopper capacities range from 1/2 ton to 10 tons with trailer, dump box, truck-mount, hook-lift and MINI models available with over 100 bolt-on options.

VERSATILE, SAFE, EFFICIENT, DURABLE... IT'S A FALCON!



IT'S A HOT BOX

- Transport asphalt and keep it hot all day.
- Hold hot mix overnight.
- Heat and re-heat cold patch.



IT'S A RECYCLER

- Recycle leftover asphalt.
- Recycle asphalt chunks torn up from the pavement.
- Recycle asphalt millings.



IT'S A FALCON

- Patented heat management system:
 - One-piece, seamless, ceramic combustion chamber rated for 2,300° F.
 - Combustion chamber shape and construction creates a tumbling action that forces a complete blending of fuel, air and heat to achieve high combustion (fuel) efficiency.
 - Independently certified to have 92% fuel efficiency - uses less than 3 gallons of diesel fuel per 8-hour shift.
 - Even hopper temperatures to eliminate:
 - Material scorching from hot spots.
 - Material hardening from cold spots.
 - To prevent material from cooling while being transported, a Falcon is engineered to allow the burner to run while in tow.

TRAILER MODEL

AVAILABLE IN 2, 3 & 4 TON



IT'S VERSATILE

- Recycle leftover asphalt, chunks and millings.
- Transport asphalt and keep it hot all day.
- Hold hot mix overnight.
- Heat and re-heat cold patch.



DUMP BOX MODEL

AVAILABLE IN 2, 3, 4 & 6 TON



IT'S SAFE

- Rear unloading door handle is located on the curbside...
 - Allows operator to stand out of traffic when using door
 - Keeps operator away from hot asphalt when dump box is raised
- Dump box trailers are constructed with...
 - Two hydraulic cylinders that raise the hopper...
 - Each cylinder acts as a safety backup for the other
 - Dual cylinder design prevents the hopper from twisting if the load is uneven
 - Tandem axle frame to ensure stability when hopper is raised
- Hopper has triple wall construction with high-temperature insulation to keep outer hopper walls safe to the touch



TRUCK-MOUNT MODEL

AVAILABLE IN 2, 3, 4, 5, 6, 8 & 10 TON



IT'S EFFICIENT

- Combustion chamber shape and construction creates a tumbling action that forces a complete blending of fuel, air and heat to achieve high combustion (fuel) efficiency.
- Independently certified to have 92% fuel efficiency...
 - Uses less than 3 gallons of diesel fuel per 8-hour shift.
 - Extremely low carbon and NOX emissions resulting from high combustion efficiency.
- High combustion efficiency helps eliminate dirty cad cell condition caused by un-combusted fuel.
- Triple wall construction with high-temperature insulation – once heat gets in the hopper, it stays in the hopper.



FALCON
Asphalt Recycler & Hot Box

DIESEL FUEL

MINI MODEL

AVAILABLE IN 1/2 & 1 TON



IT'S DURABLE

- Trailers are constructed of structural rectangular steel tubing – all welds on frame are continuous with boxed-in and enclosed gussets.
- To ensure even distribution of heat, hopper walls have engineered steel baffles to meter the flow of heat.
- Hopper walls are one-piece, seamless steel construction. To add structural integrity and prevent the hopper from becoming out of square, the hopper walls have 10-gauge steel capping channel on the top and 10-gauge steel corner molding on the sides.
- One-piece, seamless, ceramic combustion chamber is rated for 2,300°F. Seamless combustion chamber design extends useful life of equipment.
- Wiring connections are soldered, sealed, placed in shrink-tubing then covered with high-temperature loom and protected by steel conduit. All wiring is NEMA-3 rated and external to the hopper to prevent damage from heat. Junction box includes circuit breakers to protect the tow-vehicle from the 12-volt trailer wiring and the 12-volt trailer wiring from the tow-vehicle.
- Entire machine is sandblasted then painted with an epoxy primer and urethane finish coat. All accessory bolt-on parts are sandblasted, primed and painted prior to assembly.



STANDARD TECHNICAL SPECIFICATIONS

Patented Heat Management System

- Diesel or propane fuel source
- One-piece, seamless, ceramic combustion chamber rated for 2,300° F
- Combustion chamber designed to create a tumbling action that forces a complete blending of fuel, air and heat to achieve high fuel efficiency
- Certified 92% fuel efficiency — uses less than 3 gallons of diesel fuel per 8-hour shift
- Automatic temperature control
- 12-volt deep cycle marine grade battery
- Average annual diesel burner maintenance cost of \$150

Hopper

- Trailer hopper capacities of 2, 3 & 4 tons
- Dump box hopper capacities of 2, 3, 4 & 6 tons
- Truck-mount hopper capacities of 2, 3, 4, 5, 6, 8 & 10 tons
- MINI hopper capacities of 1/2 & 1 ton
- Triple wall construction
- All four walls are one-piece, seamless steel construction
- 10-gauge capping channel and corner molding add structural integrity to the hopper to prevent it from becoming out of square and to extend equipment's useful life
- Hopper floor is 1/4" steel
- Floor and all four walls are heated and insulated
- Burner-box is located below hopper floor
- Area beyond the back hopper wall is a heated worktable
- Hopper floor is free from any steel wall or divider obstruction

Top Loading Doors

- Fully insulated
- Hinged at the hopper corners with bolt-on, greasable pillow block bearings
- Hydraulic top loading doors standard on 3, 4, 5, 6, 8 & 10 ton truck-mount and 6 ton dump box
- MINI model utilizes hopper tarp cover

Rear Unloading Door

- Handle is located on curbside of hopper to place operator out of traffic when using door
- For ease of opening, door is equipped with replaceable CAM follower bearings
- Hydraulic rear unloading door standard on 3, 4, 5, 6, 8 & 10 ton truck-mount and 6-ton dump box
- MINI model utilizes a removable rear unloading door

Wiring

- Wiring connections are soldered, sealed, placed in shrink-tubing then covered with high-temperature corrugated loom and protected by steel conduit
- Junction box with circuit breakers protects tow-vehicle from trailer and trailer from tow-vehicle
- All wiring external to hopper to prevent heat damage
- All wiring and enclosures are NEMA-3 rated

Frame

- Electric brakes with safety breakaway (surge brakes optional)
- Single axle (1/2, 1 & 2 ton) or tandem axle (2, 3, 4 & 6 ton)
- Trailer frame constructed of structural rectangular steel tubing with boxed-in and enclosed gussets
- All welds on frame are continuous
- Pintle eye hitch is adjustable from 18" to 32" (tandem axle)

Dump Box

- Tilts hopper by means of two hydraulic cylinders
- Each cylinder acts as a safety backup to the other
- Trailer frame and hopper have 45° angled steel guides that center the lowered hopper to minimize cylinder wear

Paint

- Sandblasted then painted with two coats of epoxy primer and urethane finish
- All accessory bolt-on parts are sandblasted, primed and painted prior to assembly
- Standard colors include red, yellow, orange and black

FMCSA and NATM compliant

RECYCLING!

Our patented technology uses indirect, radiant heat to break down leftover asphalt, chunks and millings.

Hardened asphalt is mixed with rejuvenator by coating it during the hopper loading process. It is then heated overnight at the lowest possible temperature to retain the original oil content and to give the rejuvenator time to absorb into the asphalt.

Protecting original oils is the key to returning asphalt to its original state.

Earlier recycling methods shot a direct open flame onto hardened asphalt. This method burns off the original oils making the asphalt dry. Black oily smoke produced by these older recycling methods is evidence of oil loss.

By using indirect, radiant heat, Falcon solved the problem of oil loss caused by recycling with a direct open flame.

WHY SHOULD YOU RECYCLE?

- Don't waste leftover asphalt, chunks and millings — recycle them.
- Make permanent hot mix repairs year-round — eliminate temporary cold patch repairs.
- Save time traveling to the asphalt plant and waiting in line.
- Have on-site access to affordable hot mix asphalt year-round.

WHY CAN A FALCON RECYCLE?

We protect the original oils

- Protecting the original oils is the key to returning asphalt to its original state.
- Falcon protects the original oils by using indirect, radiant heat to break down the hardened asphalt at the lowest possible temperature.

We use heat very efficiently

- Combustion chamber shape and construction yields 92% fuel efficiency to make recycling affordable.
- High-density insulation retains hopper heat required to break down asphalt.
- Upper burner and cross ducts distribute heat through the center of the hopper.

We build equipment that takes “the heat and the hit”

- Heat management system components are built to withstand temperatures required for recycling asphalt.
- Hopper is built to withstand drops of large chunks of hardened asphalt from a front loader.

WHY RECYCLE OVERNIGHT?

- Protect the original oils – Time is available to slowly heat the hardened asphalt at the lowest possible temperature.
- Save time and money – Asphalt is ready at the beginning of the work shift leaving the entire day for making repairs.
- It's simple – Hardened asphalt is mixed with rejuvenator by coating it during the hopper loading process.

WHAT CAN A FALCON RECYCLE?



ASPHALT CHUNKS



LEFTOVER ASPHALT



ASPHALT MILLINGS

ASPHALT RECYCLING PROCESS



COAT ASPHALT WITH REJUVENATOR



LOAD HOPPER



RECYCLE ASPHALT OVERNIGHT



BUILD YOUR BIRD

Trailer Model

- Dump Box for Trailer Units
(12-volt electric over hydraulic; tandem axle)
- Extended Frame
(2 or 4 foot extension)
- Hydraulic Unloading and Loading Doors
(12-volt electric over hydraulic)

Fuel Source

- Diesel Burner / Auto Temp Control / 12-Volt Battery
- Propane Burner / Auto Temp Control / 12-Volt Battery (propane tanks not included)
- Cold Weather Package
(DAVCO diesel fuel preheater)
- Diesel Burner Tune-Up Kit

Asphalt Recycling Options

- Dual Burner Recycling Package
(2nd burner, 2nd heat duct and 24-hour timer included)
- Spray System for Heated Rejuvenator or Tack
(for spraying water-based rejuvenator or tack only)
- Hose Reel (for spray system)
- Battery Charger Package
- Timer - 24-Hour
- Timer - 7-Day

Truck-Mount Model

- Upgrade Hydraulic Loading Doors to Bi-Fold
(recommended for all truck-mount units with hydraulic doors)
- Hook Lift Sub-Frame

Warning Light Options

- Arrow Board (LED or non-LED)
- Arrow Stick (LED or non-LED)
- Backup Lights
- LED Lighting Upgrade
(two red LED 4" round stop/tail/turn lights per side)
- LED Lighting Upgrade
(one red LED 4" round stop/tail/turn light and one amber strobe per side)
- LED Lighting Upgrade
(two red LED 4" round stop/tail/turn lights and one amber strobe per side)
- Night Work Lights (LED or non-LED)
- Warning Light / STROBE

Asphalt Rejuvenator and Release Agent

- Rejuvenating Liquid for Asphalt Recycling
(5-gallon pail or 55-gallon drum)
- Asphalt Release Agent
(5-gallon pail or 55-gallon drum)
- Asphalt Release Agent Dispenser Holder for Solvent Sprayer (sprayer not included)

Rejuvenator / Emulsion Tack Tank Options

- 15 or 30 Gallon Non-Heated/Non-Insulated Gravity Feed
- 15 or 30 Gallon Non-Heated/Insulated Gravity Feed
- 15 or 30 Gallon Heated/Insulated Gravity Feed (dedicated burner)
- Oil-Jacketed Heated Tack Tank Upgrade (for petroleum-based liquid material only)
- Spray System for Heated Tack (for spraying water-based tack only)
- Hose Reel (for spray system)
- Pour Pot with Mounting Bracket

Compaction Equipment & Mounting Options

- Bomag Plate Compactor
14" x 22" plate - w/o water (BVP10/36-2)
or w/ water (BVP10/36-2W)
18" x 22" plate - w/o water (BVP18/45-2)
or w/ water (BVP18/45-2W)
- Bomag Plate Compactor Wheels
- VIBCO Vibratory Roller (GR-1600) - 8" x 12" Drum
- VIBCO Vibratory Roller (GR-3200) - 18" x 24" Drum
- Basket for Mounting Plate Compactor or Roller (ID 24" x 24")
- Hoist with Manual Winch
- Hoist with 12-Volt Winch
- Infrared Transporter (includes hoist with 12-volt winch)

Other Equipment & Options

- 16" Tire Upgrade
- Backup Alarm
- Battery Charger Package
- Drinking Water Cooler
- Emergency Stop Button
- Extended Trailer Hitch (2 or 3 feet total)
- Fire Extinguisher (5 or 10 pound) with Mounting Bracket
- Front and Rear Hopper Extensions
- Hand-Held Torch with Bracket for 20 lb. Cylinder (propane tank not included)
- Propane Torch Hose Reel
- Hour Meter (for primary burner)
- Matching Spare Tire On Wheel
- Spare Tire Mounting Bracket
- Hopper Access Step
- 50/550 Analog Thermometer
- Timer - 24-Hour
- Timer - 7-Day
- Tool Holder - 2, 3, 4 or 5-Positions
- Toolbox - 10" W x 10" H x 25" L
- Warning Triangles
- Water Tank (15-gallons)
- Wheel Chocks with Mounting Bracket

Asphalt Volume Calculator

- 1 Ton: 6' x 6' x 4" Depth
- 2 Ton: 9' x 9' x 4" Depth
- 3 Ton: 11' x 11' x 4" Depth
- 4 Ton: 12' x 13' x 4" Depth
- 5 Ton: 14' x 14' x 4" Depth
- 6 Ton: 15' x 16' x 4" Depth
- 8 Ton: 18' x 18' x 4" Depth
- 10 Ton: 20' x 20' x 4" Depth

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