

WARD HEATING PRODUCTS

2018 CATALOGUE

OIL HEATING



Section 6



6 OIL HEATING

Fuel Oil Pumps

Suntec "A" & "B" Fuel Oil Pumps

- 3 Year Warranty (7GPH or less)
- 2 Year Warranty (7GPH or more)
- A Pumps are single stage (less lift)
- B Pumps are two stage (greater lift)



Danfoss Fuel Oil Pumps

- No longer available.
Information for reference purposes only.



Order No.	Suntec No.	RPM Speed	Rotation & Port	Mounting Type	Strainer & Nozzle Rating	Features
B A1YA-7912	A1YA-7912	1725	CW/R	Flange	3 gph	
B A2EA-6520	A2EA-6520	3450	CW/R	Flange	4 gph	Delay Timer, 120 vac
B A2VA-7116	A2VA-7116	3450	CW/R	Flange	3 gph	
B A2YA-7916	A2YA-7916	3450	CW/R	Flange	7 gph	
B A2VA-3006	A2VA-3006	3450	CW/R	Flange	4 gph	Includes 115V Solenoid
B B2VA-4006	B2VA-4006	3450	CW/R	Flange	3 gph	2 Stage 120V Instant OValve
B B1VA-8212	B1VA-8212	1725	CW/R	Flange	3 gph	
B B2YA-8916	B2YA-8916	3450	CW/R	Flange	7 gph	
B B2TA-8245	B2TA-8245	3450	CW/R	Flange	16 gph	
B B2TA-8249	B2TA-8249	3450	CW/R	Flange	16 gph	
B B2TA-8851	B2TA-8851	3450	CW/R	Flange	16 gph	Dual Pressure (100/300)
C98042S	B2TA-8260	3450	CW/R	Flange	16 gph	Instant Open Valve
Danfoss	Replaces			Speed	Nozzle Port	Rotation
D071N1151	A2VA-7116, A2VA-7026			3450rpm	RH	CW
D071N1152	A1VA-7112, A1VA-7022			1725rpm	RH	CW



PRV-OSV Valves

Oil line break protection
Operating temperature 0 to 60 deg F
Maximum flow 55GPH



Opening Solenoid Oil Valves

Available in 12V, 120V, 230V
Pump mounted valves come with only electrical wires
Chassis mounted oil valves come with installation fittings

Order No.	Description
B 3713824	120V SOLENOID COIL FOR A2VA3006 & A2EA6520
C24638	Instant Oil Valve Kit. Contains: Instant Opening Valve with Fittings & Oil Lines
C24620	Delayed Oil Valve Kit. Contains: Delayed Opening Valve with Fittings & Oil Lines
B C642N	Pump Mounted Solenoid (120V) – Non Delay
B R642NL	Pump Mounted Solenoid (120V) – Non Delay
B R261NL	Pump Mounted Solenoid (12V) – Non Delay
B R753NL	Pump Mounted Solenoid (220V) - Non Delay
B PRV-38P	Suntec 3/8" Oil Safety Valve
B PRV-38	Suntec 3/8" Oil Safety Valve
B WEBOSV-38	Webster 3/8" Oil Safety Valve
B WEBOSV-50	Webster 1/2" Oil Safety Valve

Suntec / Inglis "J" Fuel Oil Pumps

There has been significant consolidation in the available models of J-Pumps in the past few years. Generally, two stage "H" pumps are replaced by "B" pumps, which are also two stage. Single stage "J" pumps continue to be replaced by "J" pumps.



Order No.	Suntec No.	Description
B J4NB-A1000G	J4NB-A1000G	WASTE OIL PUMP ROTARY PUMP 1725 RPM RH ROTATION)
B J4NB-D1000G	J4NB-D1000G	WASTE OIL PUMP (1 STAGE- 1725 RPM RH ROTATION) ADJ.
B J4PA-B1000G	J4PA-B1000G	OIL PUMP 1 STAGE 1725/3450 RPM RH ROTATION REPLACES
B J4PA-C1000G	J4PA-C1000G	ROTARY OIL PUMP REPLACES H4PC200H H5PANC100H
B J4PA-E1000G	J4PA-E1000G	OIL PUMP (1 STAGE 1725/3450 RPM RH ROTATION) REPLACES
B J4PB-B1000G	J4PB-B1000G	OIL PUMP 1725/3450RPM REPLACES J2BB100 J3BB100
B J4PC-C1000G	J4PC-C1000G	SINGLE STAGE OIL PUMP HUB MOUNT 1725/3450 RPM LH



Sid Harvey's 2-Speed Mini Pump

- Operates at either 1725 or 3450 RPM
- Reduces TRUCK STOCK BY HALF!
- Quality assurance with a 2 YEAR WARRANTY
- Adjustable RPM cut-off ensures NO SOOT on shutdown.

Sid Harvey's Reversing J-Pump

- Operates at 1725 or 3450 RPM with NO ADJUSTMENTS!
- Rotates either Clockwise or Counterclockwise with NO ADJUSTMENTS!
- **CUTS YOUR TRUCK STOCK by 75%**
- Quality assurance with a 2 YEAR WARRANTY
- **THE PUMP** to have on your truck for that 2AM Service Call



REMANUFACTURED PRODUCTS

Sid Harvey's remanufacturing is in a class far beyond the repair shop or "garage-based" rebuilder, who fixes only what is broken. Reuseable components and shells are first sent to the cleaning department which perfectly restores them. The thoroughly cleaned parts are then subjected to rigorous component testing. No expense is spared on critical components. They are tested on specially designed equipment and either reworked or replaced with new. Parts then go to specialized production departments, each of which has its own tooling and testing equipment that is unmatched in the industry.

Order No.	Suntec No.	RPM Speed	Rotation & Port	Mounting Type	Strainer & Nozzle Rating	Features
MP1-20R		Dual	Dual - L	Flange		Left Nozzle Port
MP1-21R		Dual	Dual - R	Flange		Right Nozzle Port
MP4-90R		Dual	CW/R	Flange		Dual Speed Mini
MP4-198R	A2EA-6250	3450	CW/R	Flange	3 gph	Beckett Cleancut 120V IOV

Sid Harvey's Remanufactured Riello Burner Parts



Riello Motor



Riello Control



Riello Pump



Take a virtual tour of the Sid Harvey Plant online at: wardheating.com

Order No.	Description
MP4-150R	Riello Fuel Pump (Remanufactured with 5 Year Warranty)
MA180-1R	Riello Burner Motor (Remanufactured with 5 Year Warranty)
MR78-10R	Riello Control Box (Remanufactured with 5 Year Warranty)

Sid Harvey Cad Cell Oil Burner Primary Controls (REMANUFACTURED)



Stack Relay



R8184G Relay

Remember to return your old R8184G Relays to us for a *credit!

*Exceptions apply. Call for details

Order No.	Description
MR75-40R	R8184G with 45 sec. safety - (Remanufactured with 2 Year Warranty)
MR75-42R	R8184G with 30 sec. safety - (Remanufactured with 2 Year Warranty)
MR20R	RA116A Stack Relay, 2 Wire, Constant Ignition (Reman with 2 Year Warranty)

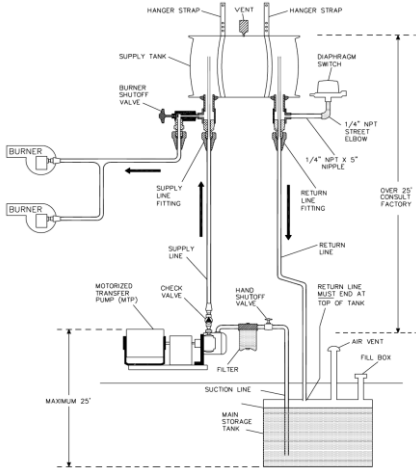
6 OIL HEATING

Central Oil Supply System, Transfer & Portable Pumps

Central Oil Supply System

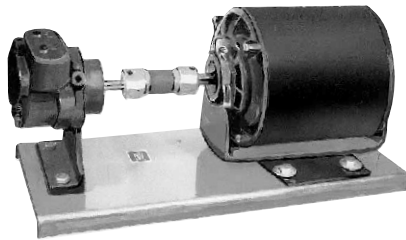
A simple and practical oil supply system for single or multiple burners located in suspended heating equipment.

- Simple, Pumping is direct, with no bypass, stand pipes, or regulating valves.
- Makes troubleshooting easy
- Least expensive, comes complete with all fittings needed.



Item	Description	QTY
MP239-10M	Central Oil Supply System, vent only	1
MP239-11M	Central Oil Supply System, oil supply switch only	1
MP239-14M	Central Oil Supply System, tank and fittings only	1
MP239-15M	Central Oil Supply System, check valve assembly only	1
MP239-16M	Central Oil Supply System, hanger strap only	2
MP239-1M	Central Oil Supply System complete, up to 24 GPH, with pump and motor, vent oil supply switch, tank and fittings, check valve assembly, hanger strap and steel mounting base	1
MP239-2M	Central Oil Supply System, 24 GPH pump only	1
MP239-9M	Central Oil Supply System, 24 GPH pump and motor set only	1

Transfer Pumps



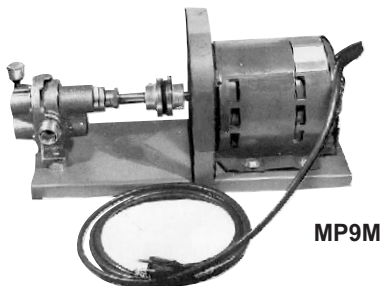
Suitable for light or heavy oil. Features 300 psi maximum discharge pressure, 115 Volt electrical, 1/2-14 taps, inlet and outlet. Other capacities, with or without regulating valve, available on request.

Item	Description	QTY
MP238-1M	Pump, transfer, 108 GPH, with motor	1
MP238-2M	Pump, transfer, 192 GPH, with motor	1
MP238-3M	Pump, transfer, 372 GPH, with motor	1
MP238M	Pump, transfer, 60 GPH, with motor	1

Portable Pump Sets



MP9-10M



MP9M

Item	Description	QTY
MP9-10M	Pump, portable set, 750 GPH @ 5 - 10 PSI head pressure, solid bronze pump housing, with flexible nitrile impeller, 3/4 HP, 1725 RPM, 115V	1
MP9-10PM	Pump, replacement pump only for P9-10M, 750 GPH @ 5 - 10 PSI head pressure	1
MP9-11GM	Gasket, pump housing gasket replacement, for P9-10M and P9-10PM	1
MP9-11M	Impeller, replacement for nitrile impeller kit for P9-10M and P9-10PM	1
MP9-1M	Portable pump, 480 GPH @ 20 ft., pump only	1
MP9-28M	Impeller Kit	1
MP9-2M	Portable pump, 480 GPH @ 20 ft., hose adapter only	6
MP9-3M	Portable pump, 480 GPH @ 20 ft., coupling only, 1/2" x 5/8"	2
MP99-5M	Pump, transfer, 60 GPH, pump only, less motor	1
MP99-8M	Pump, transfer, 372 GPH, pump only, less motor	1
MP9M	Pump, portable set, 480 GPH @ 20 ft., all bronze, 1/3" HP, 1725 RPM motor	1

Tigerloop Oil De-aerator & Booster Pumps

Tigerloop Automatic Oil De-aerator

More than just a problem solver! Whether it's air elimination, nozzle coking problems, vacuum reduction, oil preheating, or just the elimination of that potentially leaky return line, Tigerloop is today's safe, economical choice for all oil supply systems. The Tigerloop is a product designed to meet increasing demands on energy savings, and the environment

Specifications & Ratings

Nozzle Capacity	29 GPH max.	Ambient Temperature	105°F max
Return Oil Flow	32 GPH max.	Pipe Pressure	10 psi
Oil Flow	61 GPH max.	Line Feed Pressure	85 psi
Operating Temperature	105°F max	Connections	1/4"



Tigerloop De-Aerators

Order No.	Description
B S220	Tigerloop S220 Oil De-Aerator Model TN UL Listed
B S220-1	Tigerloop S220-1 Oil De-Aerator Model BIO Fuel Model
B S220-4	Tigerloop "Combi " Model Oil De-Aerator & Filter
B S220-6	Replacement filter for S220-4 "Combi" Model
B S220-8	Tigerloop "Combi" Oil De-Aerator with Spin-On Filter

The guarantee for efficient and trouble-free heating.

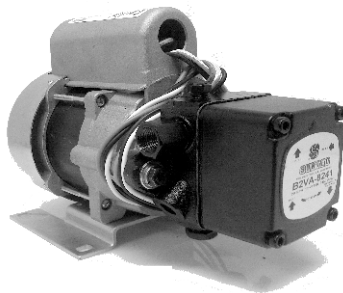
- Fewer breakdowns
- Less soot build-up
- Cleaner exhaust gasses
- Lower oil consumption
- Pre-heated oil
- Easier Troubleshooting
- No return line leakage
- Simpler and lower cost installations
- Smaller pipe dimensions
- More burners on one suction line
- Fewer problems with suction leakage on long lines

Tigerloop Accessories

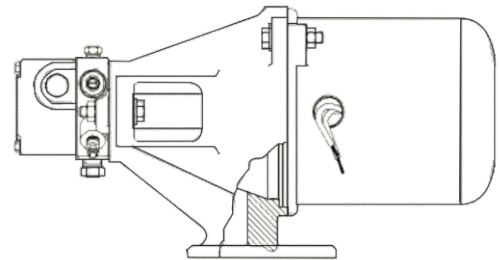
Order No.	Description
MP131-18M	Braided stainless steel hose 24" x 3/8"
MP131-19M	Braided stainless steel hose 36" x 3/8"
MP131-18FM	Braided stainless steel hose 24" (F x F)
MP131-19FM	Braided stainless steel hose 36" (F X F)

Suntec Booster Pump

The Suntec Booster Pump Assembly has recently been updated. Both old and new versions are in the field, with the biggest differences being the location of the motor and the type of coupling used. Only the newer version is available as a complete assembly, but parts are available for both.



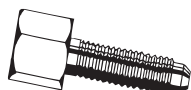
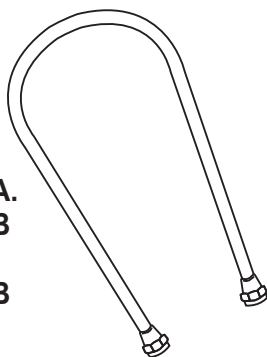
BB-1020M (New Style)



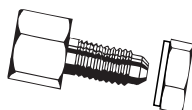
BB-1020M (Old Style)

Order No.	Description	Pump Incl	Rating
B BB-1020CM	Booster Pump Assembly with motor and pump	B2VA-8241	20gph
Replacement Parts for BB-1020CM for use with...			
B B2VA-8241	Suntec B2VA-8241 Fuel Oil Pump (New and Old Versions)		
C98022S	Motor for Booster Pump 1/7HP, 3420rpm, 48M Frame (Old Version)		
B134503	1/6 HP Motor for the BB-1020M		
M148-6	6" Coupling Kit. Contains 1 of 6" Centre Piece and reqd ends (Old Version)		
RB 3000443	Pump Drive Key for Fuel Oil Pump (New Version)		

MP127-5
MP127-5A
MP127-5B
MP127-6
MP127-6B
MP127-7



MP127-12M



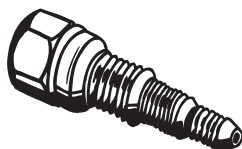
MP127-13M



MP127-8M



MP24 & MP24-1



MP127-11M



M146-2

12" CENTER PIECE



1/2"
3 EACH

7/16"
3 EACH

5/16"
2 EACH

12" Coupling Kit - 9 Pieces



MP13



MP15



MP15-2

Copper Nozzle Lines

Order No.	Description
MP127-5	Nozzle line, copper, 3/16" OD x 16" L
MP127-5AM	Nozzle line, copper, 3/16" OD x 5" L
MP127-5BM	Nozzle line, copper, 3/16" OD x 12" L
MP127-6M	Nozzle line, copper, 1/4" OD x 16" L
MP127-6BM	Nozzle line, copper, 1/4" OD x 12" L
MP127-7M	Nozzle line, copper, 3/16" OD x 8" L

Bleed Valves & Nozzle Fittings

Order No.	Description
MP131-6M	Jiffy bleed valve, 1/8" NPT
MP131-7M	Jiffy bleed valve, 1/4" NPT
MP127-10M	Oil gauge connector, 1/8" MPT x 1/4" FPT, 12" L
MP127-12M	Nozzle fitting, for Beckett AF
MP127-13M	Nozzle fitting, for Beckett AFG
MP127-14M	Nozzle fitting, for Beckett AF with 16" tubing
MP127-8M	Connector, oil gauge, 1/4" FPT connectors, 20" L

Oil Burner Couplings

Universal replacement 3 piece couplings that can be cut to size easily with a knife

Order No.	Description
M146-1M	6" Economy Pak. Kit contains: 6 of 6" Centre piece, 8 of 1/2" end, 6 of 7/16" end and 5 of 5/16" end
M146-2M	12" Coupling Kit. Kit contains: 1 of 12" Centre piece, 3 of 1/2" end, 3 of 7/16" end and 2 of 5/16" end
M146-30M	30" coupling centerpiece
M146M	5" Coupling Kit. Kit contains: 1 of 5" Centre piece, 1 of 1/2" end, 1 of 7/16" end and 1 of 5/16" end
M148-10M	5/16" end piece
M148-50M	5" coupling centerpiece
M148-60M	6" coupling centerpiece
M148-6M	6" Coupling Kit. Kit contains: 1 of 6" Centre piece, 1 of 1/2" end, 1 of 7/16" end and 1 of 5/16" end
M148-70M	12" coupling centerpiece
M148-8M	1/2" end piece
M148-9M	7/16" end piece

Bypass Plugs & Pump Mounting Flanges for Suntec & Inglis

Order No.	Description
MP24-1M	Pump bypass plug, 1/16" NPT (Pkg 10)
MP24M	Pump bypass plug, 1/8" NPT (Pkg 10)
MP13M	Flange, for mounting fuel pumps with 2-1/8" nominal dia. barrels, foot-mounted, base to center 3-1/2"
MP15-2M	Flange, for mounting fuel pumps with 2-1/8" nominal dia. barrels, 2 holes, stepped down, unthreaded
MP15M	Flange, for fuel pumps with 2-1/8" nominal dia. barrels, 2 holes, stepped down, threaded 1/2-13 bolt

Order No.	Description	Pkg Qty
M80-1M	Nozzle adapter, long, 1/4" pipe	1
M80M	Nozzle adapter, long, 1/8" pipe	1
M81-1M	Nozzle adapter, medium, 1/4" pipe	3
M81M	Nozzle adapter, medium, 1/8" pipe	6
M82-1M	Nozzle adapter, short, 1/4" pipe	1
M82M	Nozzle adapter, short, 1/8" pipe	1
M94-1	Nozzle extractor	1

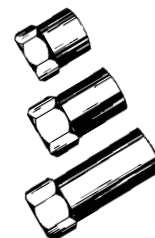
Order No.	Description	Pkg Qty
MP141-4M	Gasket, cover, for Suntec S1, S2 fuel pumps	50
MP141M	Gasket, cover, for Suntec S1, S2 fuel pumps	10
MP15-2M	Flange, for mounting fuel pumps with 2-1/8" nominal dia. barrels, 2 holes, stepped down, unthreaded	1
MP15M	Flange, for mounting fuel pumps with 2-1/8" nominal dia. barrels, 2 holes, stepped down, threaded for 1/2-13 bolt	1
MP164-1M	Gasket, cover, for Suntec H and J fuel pumps	100
MP164-4M	Gasket, cover, for Suntec H and J fuel pumps	50
MP164M	Gasket, cover, for Suntec H and J fuel pumps	10
MP165-1M	Gasket, cover, for Suntec A60 series mini pumps	10
MP165-2M	Gasket, cover, for Suntec A and B series mini pumps	10
MP165-3M	Gasket, cover, for Suntec A and B series mini pumps	50
MP165-5BM	Gasket, cover, for Suntec A and B series mini pumps, new style	50
MP165-5M	Gasket, cover, for Suntec A and B series mini pumps, new style	10
MP168-1M	Gasket, cover for Webster M series fuel pumps	10
MP169M	Gasket, cover for Webster T, Q series fuel pumps	10
MP170M	Gasket, cover, for Webster T, Q series fuel pumps	10
MP171M	Gasket, valve and strainer for Webster T, Q series fuel pumps	10
MP172M	Gasket, bellows, for Webster T, Q series fuel pumps	10
MP193 BAGM	Strainer, for Suntec H, J series fuel pumps, bagged, with cover gaskets	50
MP193-126GM		1
MP193-127M	STRAINER,GASKET,DANFOSS NEW NEW STYLE W/ O-RING	1
MP193-3AM	Strainer, for Suntec A series fuel pumps, boxed, with cover gaskets	50
MP193-3BAGM	Suntec "A" strainer, individually bagged	100
MP193-3BM	Strainer Bulk,(CS 36)	36
MP193-3M	Strainer, for Suntec A series fuel pumps, bagged, with cover gaskets	3
MP193-4M	Strainer, for Suntec A series fuel pumps, bagged, with cover gaskets	100
MP193-6BM	Strainer, for Suntec B series fuel pumps, bagged, with cover gaskets	20
MP193-6M	Strainer, for Suntec B series fuel pumps, bagged, with cover gaskets	3
MP193-9BM	Strainer, for Suntec B series fuel pumps, 1-5/8" L, bagged, with cover gaskets	20
MP193-9M	Strainer, for Suntec B series fuel pumps, 1-5/8" L, bagged, with cover gaskets	3
MP193BM	Strainer, for Suntec H, J series pumps, bagged, with cover gaskets	50
MP193M	Strainer, for Suntec H, J series fuel pumps, bagged, with cover gaskets	5

Nozzle Adapters

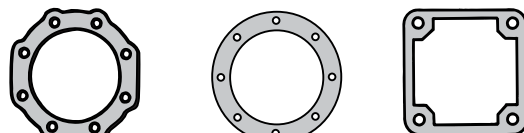
Use as a coupling between the nozzle and oil line coming from a fuel unit.

FEATURES:

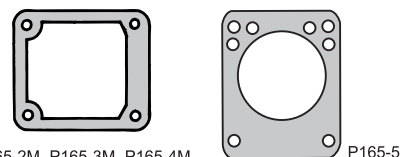
- Precision machined.
- Solid brass.



Suntec Pump Cover Gaskets



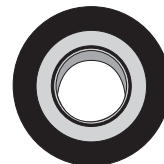
P141M, P141-4M P164M, P164-1M, P164-4M P165-1M



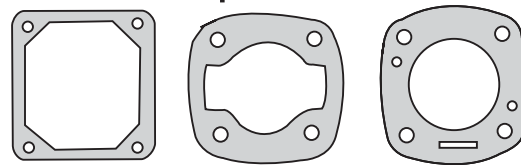
P165-2M, P165-3M, P165-4M P165-5

Suntec Pump Seal Assembly

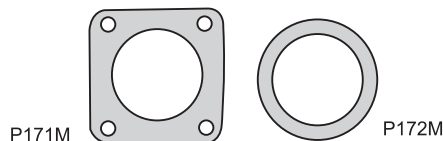
Part#	Suntec Model
P136M	J



Webster Pump Gaskets



P168-1M P169M P170



P171M P172M

Suntec Pump Strainers



P193, P193B



P193-3 SERIES
P193-6 SERIES
P193-9 SERIES

Exact replacements for Suntec Models

6 OIL HEATING

Replacement Blower Wheels & Burner Motors



Replacement Blower Wheels

The diameter (OD), width and bore sizes have been provided for most of the blower wheels in order to reduce confusion with ordering. Also, these blower wheels may fit on applications other than the burners listed.

Order No.	Dia.	Width	Bore Size	Features:	Can be used on Burner Models:
C77933	5-1/16"	2"	1/2"	CW rot. facing closed end	Carlin EZ Series
C28605	5-1/4"	2"	1/2"	CW rot. facing closed end	Carlin 99FRD
C28530	4-1/4"	2-5/16"	1/2"	CW rot. Facing closed end	Carlin 100CRD
C28506	5-1/16"	2-1/4"	1/2"	CW rot. Facing closed end	Carlin 102CRD
C28563	5-3/4"	4"	1/2"		Carlin 201 & 301CRD
C28589	6-5/16"	4"	1/2"		Carlin 601,701 & 702CRD
C98857S	6-1/2"	3-3/4"	1/2"		Carlin 601,701 & 702CRD
C98857KIT	6-1/2"	3-3/4"	1/2"	With Coupling	Carlin 601,701 & 702CRD
C28548	7"	5"	5/8"		Carlin 801CRD, 1050FFD
C28555S	7-5/8"	5"	5/8"		Carlin 1150FFD 1 phase
W20673	4-1/4"	3-1/8"	1/2"		Wayne M Series
W21642	5-1/2"	2"	1/2"		Wayne HS Oil & HSG400
W21664	5-1/4"	1-	1/2"		Wayne HSG200 Gas
W21854	6-1/4"	1-5/16"	1/2"		Wayne EH Oil & EHG Gas
W20288	5-1/4"	3-7/16"	1/2"		Wayne EH Oil Burner
W63800-001					Wayne LC-1500 & SU-6
RB C7001031					Riello F3, F5, BF3, BF5
RB 3005788					Riello F10
RB 3005799					Riello F15 & F20

Replacement OEM Burner Motors

We also sell all of these burners complete and more, please check out the Oil or gas Burners sections of the catalogue for more information.



Order No.	HP	Speed	Freq / phase	Can be used on Burner Models:
C27706S	1/2	3450	60/1	Carlin 601,701 & 702CRD
C27730S	3/4	3450	60/1	Carlin 801CRD with 1 phase
C27748S	3/4	3450	60/3	Carlin 801CRD with 3 phase
C27516S	1	3450	60/1	Carlin 1050FFD with 1 phase
C27532S	1	3450	60/3	Carlin 1050FFD with 3 phase
C27557S	1-1/2	3450	60/1	Carlin 1150FFD with 1 phase
C27565S	1-1/2	3450	60/3	Carlin 1150FFD with 3 phase
W20383	1/2	3450	60/1	Wayne EH Oil Burner
W21993-006	1/4	4500		Wayne MSR-DC
RB C7001034				Riello F3, F5 & F10
RB 3005845				Riello F15 & F20

Carlin PSC Burner Motors

We stock a large quantity of Carlin's reliable and efficient PSC burner motors. These motors feature an Auto reset thermal overload, Quiet sealed ball bearings, 3 Year warranty and are cUL recognized. They replace most 1/15HP to 1/4HP motors and have replaceable capacitors.

Order No.	HP	Speed	Freq.	Can be used on Burner Models:	Rotation
C98022S	1/6	3450	60	Beckett AF & AFG, Carlin EZ and Wayne HS & HSG	CW
C98611S	1/6	3450	60	Aero Hi-Speed	CW
C98866S	1/6	1725	60	Aero Lo-Speed	CW
C98630S	1/4	3450	60	Carlin 201 & 301 Oil	CW
C98627S	1/6	3390	50	Residential 50 Hz Burners	CW
C98629S	1/15	3450	60	Carlin EZ Gas Burner	CW

Why Carlin PSC Burner Motors Are Better:

More Efficient...

- both starting and running.

More Reliable...

- Auto reset thermal overload
- Quiet sealed ball bearings
- Eliminates centrifugal start switch
- 3 Year Warranty
- cUL recognized

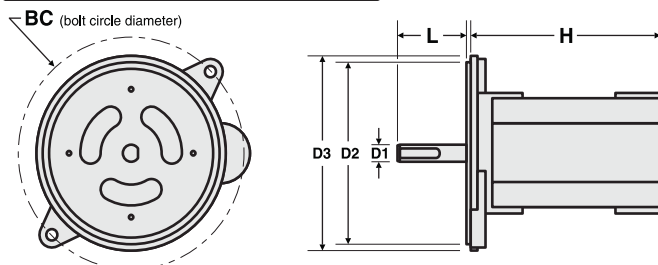
More Versatile...

- replaces most 1/15 to 1/4HP motors
- replaceable capacitor

Replacement Capacitors for PSC Motors

Part No.	Description
C98629CAPS	Replacement Capacitor for C98629S Motor
C98022CAPS	Replacement Capacitor for C98022S, C98611S, C98628S Motor
C98630CAPS	Replacement Capacitor for C98630S Motor

Dimensions (inches)



Model	Rotation	H	L	BC	D1	D2	D3
98022		4.29	1.85	6.75	0.500	5.50	5.71
		D1	D2	D3			
		0.500	110 mm	4.59			
98629		3.52	1.14	6.75	0.500	5.50	5.71
		D1	D2	D3			
		0.500	5.50	5.71			
98611 / 98866		4.29 / 4.69	1.85	7.25	0.500	6.375	6.68
		D1	D2	D3			
		0.500	6.375	6.68			
98630		4.73	1.85	7.25	0.500	6.375	6.68
		D1	D2	D3			
		0.500	6.375	6.68			
98627		4.29	1.85	6.75	0.500	5.50	5.71
		D1	D2	D3			
		0.500	5.50	5.71			
99220		4.69	1.85	7.25	0.500	6.375	6.68
		D1	D2	D3			
		0.500	6.375	6.68			

6 OIL HEATING

Fan Motors & Blower Wheels



BELTED FAN MOTOR



DIRECT DRIVE MOTOR



OIL BURNER MOTOR



UNIVERSAL WHEEL REPLACEMENT



REACH-ALL LUBRICATING OIL MF2-40M

Sid Harvey's Remanufactured Belted Fan Motors

Order No.	Description
MA22-28R	Belted Fan Motor 1/3HP, 1 Speed
MA27-32R	Belted Fan Motor 1/3HP, 2 Speed
MA22-42R	Belted Fan Motor 1/2HP, 1 Speed
MA24-48R	Belted Fan Motor 1/2HP, 2 Speed

Sid Harvey's Remanufactured Direct Drive Fan Motors

Order No.	Description
MA1-122R	Direct Drive Fan Motor 1/3HP
MA8-86R	Direct Drive Fan Motor 1/2HP

Sid Harvey's Remanufactured Oil Burner Motors

Order No.	Description
MA39-29R	Oil Burner Motor, 1/7HP 3450rpm
MA39-2R	Oil Burner Motor, 1/8HP 1725rpm
MA39-32R	Oil Burner Motor, 1/7-1/8HP, 3450rpm N-FRAME
MA39-33R	Oil Burner Motor for Beckett AFII (replaces C98628S)
MA39-321R	Oil Burner Motor for Beckett 21805U PSC, 1/7HP, —

Miscellaneous Accessory items

Order No.	Description
M A233	Lau Vibro Pad. Resilient rubber pad. (PKG 12)
M A233-14	Lau Motor Adjustment Grommets
M UE1381	Magnetek Mounting Rubbers for large 3/4" slot (3pkg)

Replacement Blower Wheels (Fans)

The diameter (OD), width and bore sizes have been provided for most of the blower wheels in order to reduce confusion with ordering.

Order No.	Dia.	Rot.	Bore	Disk*	Length	Blades	Max RPM
M A215-11	9.938	CW	0.5	Concave	9.5	43	1275
M A210-26	9.938	REV	0.75	Flat	9.5	43	2400
M A215-10	9.938	CW	0.5	Convex	7.125	43	1550
M 013325-01	10.75	CW	0.5	Convex	7	48	1350
M A215-12	11.125	CW	0.5	Convex	8	48	1240
M 013317-01	11.125	CW	0.5	Concave	9.5	48	1200
M A215-13	11.125	CW	0.5	Concave	10.625	48	1150
M A210-28	11.125	REV	0.75	Flat	10.625	48	2100
M A210-32	13.188	REV	1	Flat	12.625	43	1800
M A210-34	15.5	REV	1	Flat	15	51	1900

Reach-All Lubricating Oil

A High-grade oil specially formulated for circulator bearing assemblies, centrifugal pumps, electric motors, blowers and bearings

Item	Description	Pack Qty
MF2-31M	Oil, motor lubricating, 1-1/4" oz. tube with dispenser	6
MF2-32M	Oil, motor lubricating, 1 qt. bottle	12
MF2-40M	Oil, motor lubricating, 4 oz. Reach-All bottle with pullout spout/dispenser	12

Lau Blower Pulleys

Order No.	Description	Shaft
MA234-25	Blower pulley, 6" dia	3/4"
MA234-28	Blower pulley, 7" dia	3/4"
MA234-31	Blower pulley, 8" dia	3/4"

Blower Shafts

Order No.	Dimensions	QTY
MA224-1BM	Blower shaft, 3/4" x 16"	1
MA224-1M	Blower shaft, 3/4" x 20"	1
MA224-2M	Blower shaft, 1" x 25"	1
MA224-3M	Blower shaft, 1" x 36"	1
MA224-4M	Blower shaft 5/8" x 48"	1
MA224-5M	Blower shaft 3/4" x 48"	1
MA224-6M	Blower shaft 1" x 48"	1
MA224M	Blower shaft 5/8" x 20"	1

V-Belts (4L - Enter Required Size)

Order No.	NET Price
17-25" V Belt	\$7.90
4L-26" V Belt	\$8.06
4L-27" V Belt	\$8.19
4L-28" V Belt	\$8.29
4L-29" V Belt	\$8.42
4L-30" V Belt	\$8.55
4L-31" V Belt	\$8.68
4L-32" V Belt	\$8.81
4L-33" V Belt	\$8.94
4L-34" V Belt	\$9.13
4L-35" V Belt	\$9.26
4L-36" V Belt	\$9.44
4L-37" V Belt	\$9.57
4L-38" V Belt	\$9.78
4L-39" V Belt	\$10.01

Order No.	NET Price
4L-40" V Belt	\$10.22
4L-41" V Belt	\$10.40
4L-42" V Belt	\$10.53
4L-43" V Belt	\$10.74
4L-44" V Belt	\$10.97
4L-45" V Belt	\$11.18
4L-46" V Belt	\$11.31
4L-47" V Belt	\$11.44
4L-48" V Belt	\$11.49
4L-49" V Belt	\$11.62
4L-50" V Belt	\$11.75
4L-51" V Belt	\$11.88
4L-52" V Belt	\$12.01
4L-53" V Belt	\$12.12
4L-54" V Belt	\$12.27

Order No
4L-55" V Belt
4L-56" V Belt
4L-57" V Belt
4L-58" V Belt
4L-59" V Belt
4L-60" V Belt
4L-61" V Belt
4L-62" V Belt
4L-63" V Belt
4L-64" V Belt
4L-65" V Belt
4L-66" V Belt
4L-67" V Belt
4L-68" V Belt
4L-69" V Belt



BLOWER SHAFT

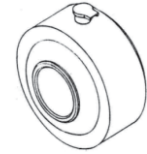
V-BELTS



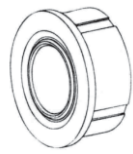
MA222 to MA222-3



MA223-15 and MA223-16



MA223, MA223-1 and MA223-2



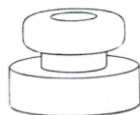
MA220, MA220-1 and MA220-2



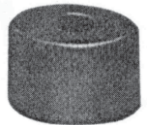
MA223-24



MA223-5 & MA223-6 MA223-7 & M38-2694-01



MA233



MA233-14



M621529-001

See Page 6-9



M UE1381

Pillow Blocks and Replacement Bearings

Order No.	Type	Shaft
MA222	Pillow Block	5/8"
MA222-1	Pillow Block	3/4"
MA222-2	Pillow Block	1"
MA222-3	Pillow Block – Heavy Duty	1"
MA223-15	Replacement Bearing	3/4"
MA223-16	Replacement Bearing	1"
MA220-3	Replacement Bearing – Heavy Duty	1"
MA223-20	Lau Sealed Type Bearing with interlocking	3/4"
MA223-21	Lau Sealed Type Bearing with interlocking	1"
MA220	Lau Cartridge Type Bearing with thrust collar	1-13/16"
MA220-1	Lau Cartridge Type Bearing with journal	1-13/16"
MA220-2	Lau Cartridge Type Bearing	1-13/16"
MA223	Lau Oil Type Bearing with Insulator	5/8"
MA223-1	Lau Oil Type Bearing with Insulator	3/4"
MA223-2	Lau Oil Type Bearing with Insulator	1"
MA223-5	Lau Sealed Type Bearing with Insulator	5/8"
MA223-6	Lau Sealed Type Bearing with Insulator	3/4"
MA223-7	Lau Sealed Type Bearing with Insulator	1"

6 OIL HEATING

Carlin Oil Burner Primary Controls

Carlin 70200 Digital Primary Control For Universal Replacement

On-Board LCD Screen:

- Provides for fast, step-by-step burner set-up
- Indicates current mode of operation and associated timing
- Displays fault messages for easy troubleshooting
- Uses easy to understand icons for common functions
- Provides cad cell reading in ohms

Fully Adjustable Settings:

- Valve Delay ON (0, 10, 15, 30, 60, 120 seconds)
- Trial for Ignition Time (15, 30, 45 seconds)
- Motor Delay Off (0, 10, 15, 30, 120, 300, 900 seconds)
- Interrupted or Intermittent Duty Operation
- Early Spark Termination Timing (0, -5, -10 seconds)
- Number of Recycles (no limit, 3, 6, 12)
- Serviceman's Reset Protection (3 or 6 attempts)
- TT option (jumpered or open)

Blocked Vent Protection:

When installed with a pressure switch



NEW! ProMaxx Series

Carlin has released the NEW ProMaxx Series platform of controls. This highly anticipated release has provided increased reliability and longevity to their line of oil burner primary controls. While the platform and look of the controls has changed, the model numbers and features remain the same.



C4010002



Enhanced Diagnostics:

Provides fault history allowing for quick, accurate service calls with no guess work.

Built-in Pump Prime:

One button pump priming for easy set-up

Universal Replacement Oil Burner Primary Control

Order. No.	Description
C70200S	Fully Adjustable Control with Alarm & Blocked Vent Contacts

Replacement Oil Burner Primary Controls

Order. No.	Description
C48245S	45 Sec TFI Constant / Intermittent Duty
C4020002S	15 Sec TFI Interrupted Duty
C4223002S	30 Sec TFI Interrupted Duty
C5020002S	15 Sec TFI Interrupted Duty, Alarm Contacts
C50212S	15 Sec TFI Interrupted Duty, Alarm Contacts 12 Volt DC, 50VA
C50240S	15 Sec TFI Interrupted Duty, Alarm Contacts 208-240V, 50/60Hz
C6020002S	15Pre/15 TFI/ 15 Post-Purge. Interrupted Duty. Alarm Contacts
C6020002S015120	15Pre/15 TFI/ 120 Post-Purge. Interrupted Duty. Alarm Contacts
C6020002S030015	30Pre/15 TFI/ 15 Post-Purge. Interrupted Duty. Alarm Contacts
C6020002S030030	30Pre/15 TFI/ 30 Post-Purge. Interrupted Duty. Alarm Contacts
C6020002S030120	30 Pre / 120 Post. Interrupted Duty. Alarm Contacts
C6020002S030300	30Pre/15 TFI/ 300 Post-Purge. Interrupted Duty. Alarm Contacts
C6020002S060010	60Pre/15 TFI/ 10 Post-Purge. Interrupted Duty. Alarm Contacts
C60212S11	10Pre/15 TFI/ 10 Post-Purge. Interrupted Duty. Alarm 12V DC
C60240S11	10Pre/15 TFI/ 10 Post-Purge. Interrupted Duty. Alarm 240V 50/60

Oil Burner Primary Control / Ignitor Combinations

***These are no longer available. The information is for reference only. No Replacement or substitute available.**

	Description
*C4010002BKS	15 Sec TFI Control/Ignitor/Cad Cell Beckett
*C4010002CAS	15 Sec TFI Control/Ignitor/Cad Cell Carlin

MORE FEATURES...BETTER VALUE...3 YEAR WARRANTY

Honeywell Cad Cell Oil Burner Primary Controls (NEW)

Order No.	Description
B R7284U1004	NEW! - R7284U1004 Universal Digital Oil Primary - Replaces nearly all legacy Honeywell R7184S and R8184S as well as Beckett, Carlin and White Rodgers Oil Primary Controls for a complete list see: www.wardheating.com
B R8184G4009	R8184G4009 with 45 sec. safety

Honeywell Fan & Limit Controls

Order No.	Description
B L4064B2210	Fan & Limit Control with 11" Insertion
B L4064B2228	Fan & Limit Control with 5" Insertion
B L4064B2236	Fan & Limit Control with 8" Insertion

Honeywell Aquastat Controls

Order No.	Description
B L6006C1018	SPDT Strap On 65-200F Aquastat High or Low Limit
B L8148E1265	Relay-Low Volt Burner Circuit Includes 40VA Transformer
B L8148A1017	Relay 140-240F Line Volt. Burner Circuit Cold Start
B L8148J1009	Relay for Millivolt or Low Voltage No Vent Damper Plug
B L4006A2007	Aquastat (100-240F) 5-30F Adjustable Differential

Honeywell Cadmium Sulfide Flame Detectors

Order No.	Description	Replaces Honeywell
B C554A 1463	Honeywell Cadmium Sulfide Flame Detector Kit Includes: Interchangeable type A, B, E, J, and P brackets. 60" Leads. Special Oil line mounting bracket.	
MR82M	Preassembled Flame Detector Kit Includes: E-style mounting bracket, 1 oil line bracket, cad cell eye & 60" leads	C554A1794
MR82-2M	Universal Flame Detector Kit Includes: 4 different style mounting brackets, 1 oil line bracket, cad cell eye and 60" leads	C554A1463
MR82-4M	Preassembled Flame Detector Kit Includes: E-style mounting bracket, Beckett cad cell eye and 30" leads	70064
MR80-100M	Cad Cell Eye Only (12.0 MA min)	130367

Honeywell Stack Relays

Order No.	Description
B RA117A1047	Honeywell Stack Relay (NEW)

White Rodgers Cad Cell Flame Detectors

Order No.	Description	Replaces White Rogers#
M R83	Flame Detector with straight bracket and 48" leads	956-1
M R83-2	Replacement "Old Style" Eye Only	F063-0485

R7284U1004



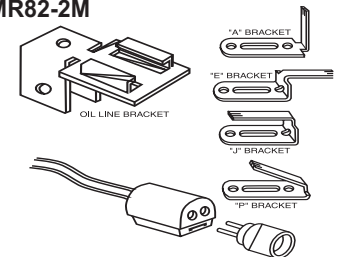
L4064B2228



C14720SOE



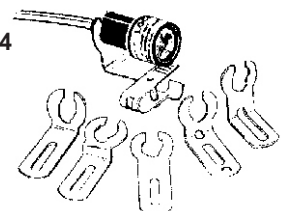
MR82-2M



RA117A1047



MR83-4



6 OIL HEATING

Carlin Electronic Ignitors for Oil Burners

Universal Oil Burner Transformer Kit

- Various Base Plates and Universal Ignitors to fit most burners in a sturdy toolbox for organization



Universal Ignitor Kit

(For use with 41000 ignitors only)

Order No.	Description
C41000SOKIT	Universal Ignitor Kit with: 2 of Carlin 41000-S Ignitors 6 of various base plates that fit most burners on the market today



C45000S



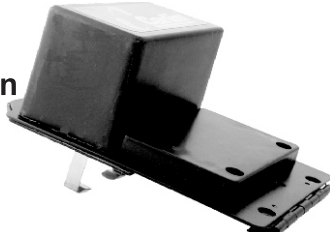
C41000S

Constant Duty Ignitor Only

(does not include base plate)

Order No.	Description
C41000S	Constant Duty Ignitor only,
C45000S	Constant Duty Ignitor, Universal
C40900S	Constant Duty Ignitor only, 12VDC

Replacement Ignitors on Base Plates



Replacement Ignitors

(Base Plate Included)

Order No.	Description	Replaces Allanson
C41000SOBK1	Replacement Ignitor for Beckett AF, AFG	2721-628 2275-628
C41000SOBK2	Replacement Ignitor for Beckett S, SR	2721-605 2275-605
C41000SOAR	Replacement Ignitor for Aero Burner	2721-456 2275-456
C41000SOCAS	Replacement Ignitor-Carlin EZ,99,100 & 102	2721-630 2275-630
C41000SOSC	Replacement Ignitor - Carlin 201 & 301CRD	2721-629 2275-629
C41000SOLC	Replacement Ignitor - Carlin Large Commercial	2721-633
C41000SOWA1	Replacement Ignitor for Wayne HS	2721-647 2275-647
C41000SOWA2	Replacement Ignitor for Wayne M Series	2721-619 2275-619
C41000SOWA3	Replacement Ignitor for Wayne E Series	2721-620 2275-620
C41000SOWM	Replacement Ignitor for Weil McLain QB	
C41000SOBAN	Replacement Ignitor - ABC Bantom T29-15	2721-411
C41000SOSUN	Replacement Ignitor - ABC Sunray D & LC	2721-631

Base Plate Kits



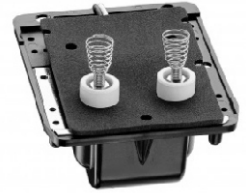
Base Plates Only

(For use with 41000 ignitors only)

Order No.	Description
C4102000BK1	Base Plate Kit for Beckett AF, AFG
C4102000BK2	Base Plate Kit for Beckett S, SR
C4102000CAS	Base Plate Kit for Carlin EZ,99,100 & 102
C4102000CSC	Base Plate Kit for Carlin 201 & 301CRD
C4102000CLC	Base Plate Kit for Carlin Large Commercial
C4102000WA2	Base Plate Kit for Wayne M Series
C4102000WA3	Base Plate Kit for Wayne E Series
C4102000WM	Base Plate Kit for Weil McLain QB
C4102000BAN	Base Plate Kit for Bantom T29-15
C4102000SUN	Base Plate Kit for ABC Sunray D & LC

Allanson Solid State Igniters

Order No.	Description	Beckett Cross Reference #
B 2275-U	Universal Solid State Ignitor	51838U
B 2275-658	Solid State Ignitor for Beckett AFII	51805U
B 2275-628G	Solid State Ignitor for Beckett A,AF,AFG	51771U
B 2275-605	Solid State Ignitor for Beckett S	51824U
B 2275-456	Solid State Ignitor for Aero	51828U
B 2275-619	Solid State Ignitor for Wayne Hi Speed M/MH	51825U
B 2275-620	Solid State Ignitor for Wayne E	51827U
B 2275-629	Solid State Ignitor for Carlin 201 & 301CRD	51840U
B 2275-630	Solid State Ignitor for Carlin 99,100, 101CRD	51826U
B 2275-647	Solid State Ignitor for Wayne Blue Angel HS	51836U
B 2275-KIT1	Universal Ignitor Kit	-
B 2604	Base Plate for Beckett	51830U



2275U
Allanson Universal



2721-628
Beckett A, AF, AFG

Production Transformers (Small Can)

120 Volt Primary 60Hz 10,000 Volt Secondary 23 M.A.

Order No.	Description
B 2721-628G	Ignition Transformer for Beckett A,AF,AFG
B 2721-605	Ignition Transformer for Beckett S
B 2721-456	Ignition Transformer for Aero
B 2721-411	Ignition Transformer for ABC Sunray
B 2721-631A	Ignition Transformer for ABC Sunray
B 2714-633	Ignition Transformer for Carlin Large Commercial
B 2721-629	Ignition Transformer for Carlin 200,201,500,501CRD
B 2721-630	Ignition Transformer for Carlin 99, 100, 101CRD
B 2721-619	Ignition Transformer for Wayne Hi Speed M/MH
B 2721-620	Ignition Transformer for Wayne E
B 2721-647	Ignition Transformer for Wayne Blue Angel HS
B 2714-656	Ignition Transformer for Beckett CF1400 & CF2300



2721-456
Aero

Production Transformers (Standard Can)

120 Volt Primary 60Hz 10,000 Volt Secondary M.P.G.

Order No.	Description
B 421-557	Ignition Transformer for Arco American Standard
B 421-430	Ignition Transformer for Ducane
B 421-331	Ignition Transformer for Lennox



2721-589
Grimsby

Service Replacements

Order No.	Description
B 421-BT290	Ignition Transformer
B 421-BT332	Ignition Transformer
B 421-BT104	Ignition Transformer
B 421-BT384	Ignition Transformer
B 421-BT387	Ignition Transformer
B 421-BT636	Ignition Transformer



421-430
Ducane

Item	Description
Oil Burner Igniters and Porcelains	
M300-1M	Porcelain, 9/16" X 4", large bore
M300M	Igniter, male, 9/16" X 4", large bore, tip length 2-5/8"
M301-1M	Porcelain, 9/16" X 4-1/2", large bore
M301M	Igniter, male, 9/16" X 4-1/2", large bore, tip length 2-5/8"
M302-1M	Porcelain, 9/16" X 4 3/4", large bore
M303-1M	Porcelain, 9/16" X 5", large bore
M303M	Igniter, male, 9/16" X 5", large bore, tip length 2-5/8"
M304M	Male igniter, 9/16" X 5", large bore, tip length 6"
M305-1M	Porcelain, 9/16" X 6", large bore
M305M	Igniter, male, 9/16" X 6", large bore, tip length 2-5/8"
M306M	Igniter, male, 9/16" X 6", large bore, 6" tip length
M307-1M	Porcelain, 9/16" X 7", large bore
M307M	Igniter, male, 9/16" X 7", large bore, tip length 2-5/8"
M308-1M	Porcelain, female, 9/16" X 4", large bore
M308M	Igniter, female, 9/16" X 4", large bore, tip length 2-5/8"
M309-1M	Porcelain, female, 9/16" X 4 1/2", large bore
M309M	Igniter, female, 9/16" X 4 1/2", large bore, tip length 2-5/8"
M310-1M	Porcelain, female, 9/16" X 5", large bore
M310M	Igniter, female, 9/16" X 5", large bore, tip length 2-5/8"
M311-1M	Porcelain, female, 9/16" X 6", large bore
M312-10M	Porcelain, female, 9/16" X 5", small bore
M312-12M	Porcelain, female, 9/16" X 5 1/2", small bore
M312-13M	Igniter, female, 9/16" X 6", small bore, tip length 2-5/8"
M312-14M	Porcelain, female, 9/16" X 6", small bore
M312-15M	Igniter, female, 9/16" X 7", small bore, tip length 2-5/8"
M312-16M	Porcelain, female, 9/16" X 7", small bore
M312-18M	Porcelain, female, 9/16" X 8", small bore
M312-1M	Porcelain, female, 9/16" X 7", large bore
M312-25M	Igniter, male, 9/16" X 4", small bore, tip length 2-5/8"
M312-26M	Porcelain, 9/16" X 4", small bore
M312-27M	Igniter, male, 9/16" X 4 1/2", small bore, tip length 2-5/8"
M312-28M	Porcelain, 9/16" X 4 1/2", small bore
M312-29M	Igniter, male, 9/16" X 5", small bore, tip length 2-5/8"
M312-30M	Porcelain, 9/16" X 5", small bore
M312-31M	Igniter, male, 9/16" X 5 1/2", small bore, tip length 2-5/8"
M312-32M	Porcelain, 9/16" X 5 1/2", small bore
M312-33M	Igniter, male, 9/16" X 6", small bore, tip length 2-5/8"
M312-34M	Porcelain, 9/16" X 6", small bore
M312-35M	Igniter, male, 9/16" X 7", small bore, tip length 2-5/8"
M312-36M	Porcelain, 9/16" X 7", small bore
M312-37M	Igniter, male, 9/16" X 8", small bore, tip length 2-5/8"
M312-38M	Porcelain, 9/16" X 8", small bore
M312-50M	Porcelain, 7/16" X 4", small bore
M312-5M	Igniter, female, 9/16" X 4", small bore, tip length 2-5/8"
M312-6M	Porcelain, female, 9/16" X 4", small bore
M312-7M	Igniter, female, 9/16" X 4 1/2", small bore, tip length 2-5/8"
M312-8M	Porcelain, female, 9/16" X 4 1/2", small bore
M312-9M	Igniter, female, 9/16" X 5", small bore, tip length 2-5/8"
M312M	Igniter, female, 9/16" X 7", large bore, tip length 2-5/8"
M313-1M	Porcelain, 7/16" X 4 1/4", small bore
M313M	Igniter, male, 7/16" X 4 1/4", small bore, tip length 2-3/4"
M314-1M	Porcelain, 7/16" X 4 1/2", small bore
M315-1M	Porcelain, 7/16" X 4 3/4", small bore
M316-1M	Porcelain, 7/16" X 6", small bore
M316M	Igniter, male, 7/16" X 6", small bore, tip length 2-3/4"
M317-1M	Porcelain, 1/2" X 4", small bore
M317M	Igniter, male, 1/2" X 4", small bore, tip length 2-5/8"
M318-1M	Porcelain, 1/2" X 5", small bore
M318M	Igniter, male, 1/2" X 5", small bore, tip length 2-5/8"
M319-1M	Porcelain, 1/2" X 6", small bore
M319M	Igniter, male, 1/2" X 6", small bore, tip length 2-5/8"

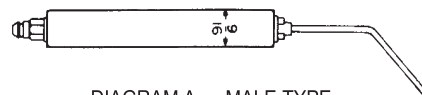


DIAGRAM A — MALE TYPE
9/16" DIAM. PORCELAIN - LARGE BORE 3/16" DIAM.

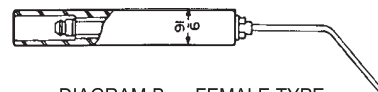


DIAGRAM B — FEMALE TYPE
9/16" DIAM. PORCELAIN - LARGE BORE 3/16" DIAM.

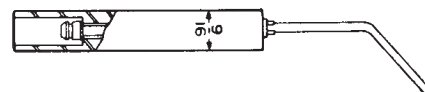


DIAGRAM C — FEMALE TYPE
9/16" DIAM. PORCELAIN - SMALL BORE 1/8" DIAM.

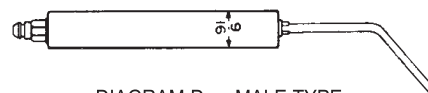


DIAGRAM D — MALE TYPE
9/16" DIAM. PORCELAIN - SMALL BORE 1/8" DIAM.

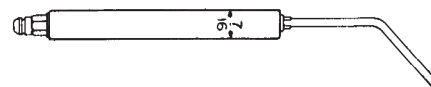


DIAGRAM E — MALE TYPE
7/16" DIAM. PORCELAIN - SMALL BORE 1/8" DIAM.

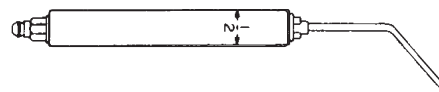
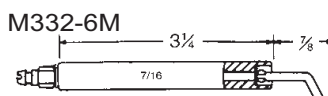
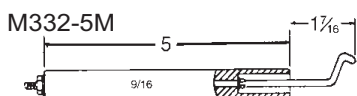
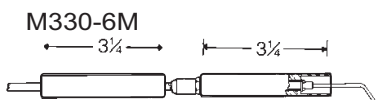
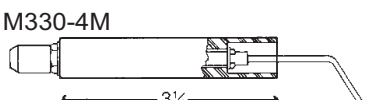
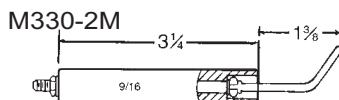
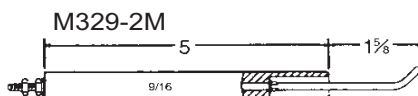
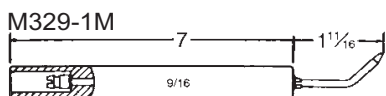
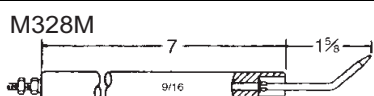
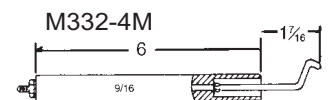
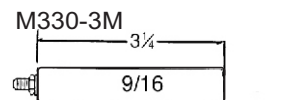
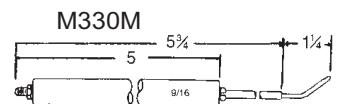
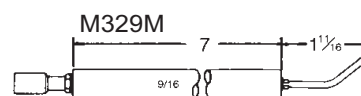
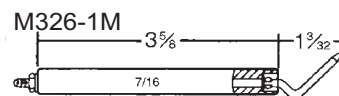
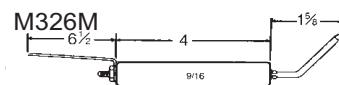
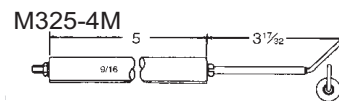
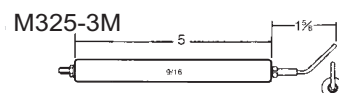
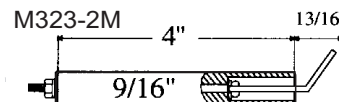
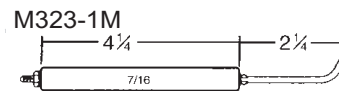
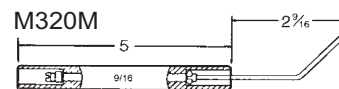
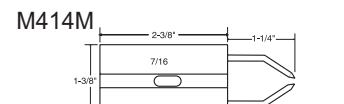
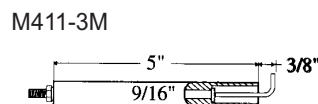
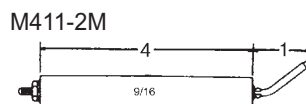
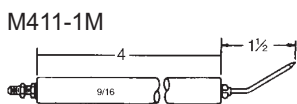
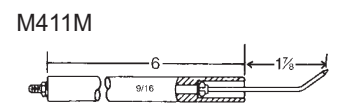
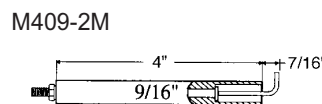
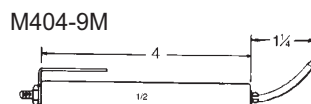
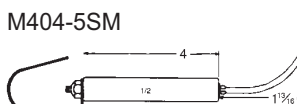
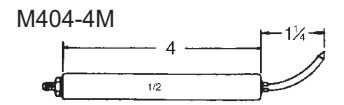
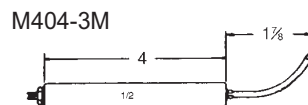
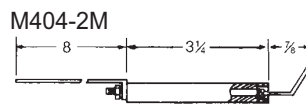
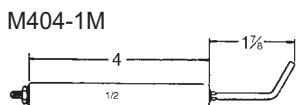
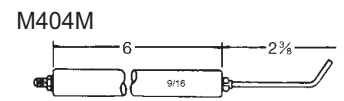
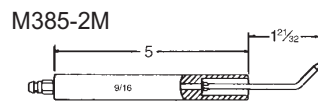
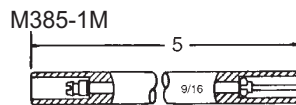
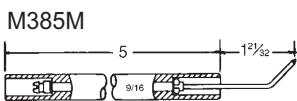
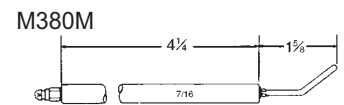
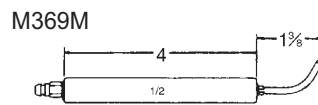
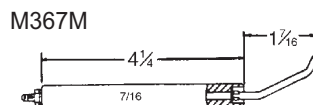
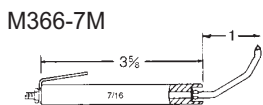
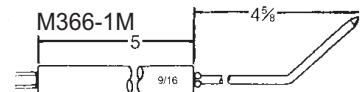
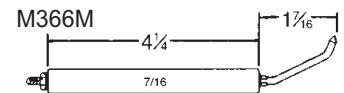
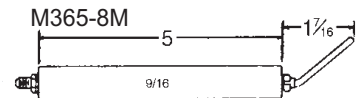
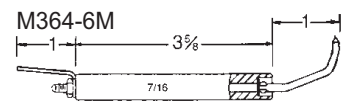
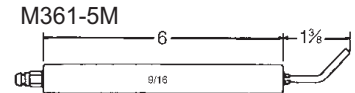
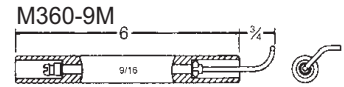
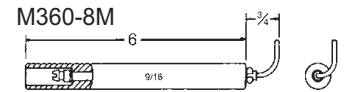


DIAGRAM F — MALE TYPE
1/2" DIAM. PORCELAIN - SMALL BORE 1/8" DIAM.

Item	Description
OEM Replacement Oil Burner Porcelains	
M320M	Ace igniter, 9/16" X 5" female, tip length 2-9/16"
M323-1M	Aero Igniter, 9/16" X 4 1/2" male, tip length 2 1/4"
M323-2M	Aero igniter, 9/16" X 4", male, tip length 13/16"
M325-3M	ABC igniter, 9/16" X 5" male, tip length 1-5/8"
M325-4M	ABC igniter, 9/16" X 5" male, tip length 3 17/32"
M326-1M	ABC igniter, 7/16" X 3-5/8" female, tip length 1-3/32"
M326M	ABC igniter, 9/16" X 4" male, tip length 1 5/8"
M328-3M	Arcoflame C igniter, 9/16" X 7", female, tip length 2-1/16"
M328M	Arcoflame C igniter, 9/16" X 7", female, tip length 1-5/8"
M329-1M	Arcoflame B-1 igniter, 9/16" X 7", female, tip length 1-11/16"
M329-2M	Armstrong igniter, 9/16" X 5", tip length 1 5/8"
M329M	Arcoflame "MF" igniter, 9/16" X 7" male, tip length 1-5/8"
M330-1M	Beckett igniter, 9/16" X 4", tip length 3 1/16"
M330-2M	Beckett igniter, 9/16" X 3 1/4", tip length 1 3/8"
M330-3M	Beckett porcelain, 9/16" X 3 1/4"
M330-4M	Beckett igniter, 9/16" X 3 1/4"
M330-6M	Beckett igniter, 9/16" X 3 1/4" X 3 1/4"
M330-7M	Beckett igniter, 9/16" X 3 3/4", tip length 1-3/4"
M330-8M	Beckett igniter, 9/16" X 4", 1-1/4" tip length
M330M	Beckett igniter, 9/16" X 5", tip length 1-1/4"
M331-1M	Bettendorf igniter, 7/16" X 5 7/8". Tip length 2 15/32"
M331-3M	Bettendorf igniter, 9/16" X 5", tip length 1-5/8"
M331M	Bettendorf igniter, 9/16" X 6", tip length 1-5/8"
M332-10M	Carlin igniter, 9/16" X 6", tip length 2 7/8", left hand, right hand
M332-1M	Caloroil igniter, 9/16" X 11 3/4", tip length 1 1/2"
M332-3M	Carlin igniter, 9/16" X 6", tip length 1-3/8"
M332-4M	Carlin igniter, 9/16" X 6", tip length 1 7/16"
M332-5M	Carlin igniter, 9/16" X 5", tip length 1-7/16"
M332-6M	Carlin igniter, 7/16" X 3 1/4", tip length 7/8"
M332-7M	Carlin porcelain, 7/16" X 3 1/4"



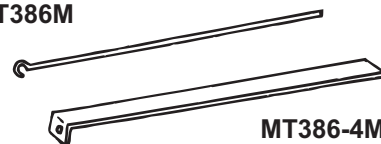
Item	Description	Pkg Qty.
OEM Replacement Burner Porcelains Cont.		
M332M	Caloroil igniter, 9/16" X 6", tip length 1 1/2"	2
M338-1M	Delco igniter, 9/16" x 4-1/2", 2" tip length	2
M360-8M	Iron Fireman igniter, 9/16" X 6", tip length 3/4"	2
M360-9M	Iron Fireman igniter, 9/16" X 6", female, tip length 3/4"	2
M361-5M	Lennox igniter, 9/16" x 6", tip length 1-3/8"	2
M364-6M	Miller igniter, 7/16" x 3 5/8", tip length 1", left hand, right hand	2
M365-8M	National igniter, 9/16" x 5", tip length 1 7/16"	2
M366-1M	Nuway igniter, 9/16" x 5", tip length 4 5/8"	2
M366-3M	Nuway igniter, 7/16" x 3 5/8", tip length 1", left hand, right hand	2
M366-7M	Nuway igniter, 7/16" x 3 5/8", tip length 1", left hand, right hand	2
M366M	Nuway igniter 7/16" x 4 1/4", tip length 1 7/16"	2
M367M	Nuway igniter 7/16" x 4 1/4", female, tip length 1-7/16"	2
M369M	Nuway igniter 1/2" x 4", tip length 1 3/8"	2
M380M	Quiet Heat igniter, 7/16 x 4 1/4, tip length 1-5/8	2
M385-1M	Shell Head porcelain only 9/16" x 5" female	2
M385-2M	Shell Head igniter only, 9/16" x 5", tip length 1-21/32"	2
M385M	Shell Head igniter, 9/16" x 5", female, tip length 1-21/32"	2
M404-1M	Wayne igniter, 1/2" X 4", tip length 1 7/8"	2
M404-2M	Wayne igniter, 7/16" X 3 1/4", tip length 7/8", 8" buss	2
M404-3M	Wayne igniter, 1/2" X 4", tip length 1 7/8"	2
M404-4M	Wayne igniter, 1/2" X 4", tip length 1-1/4"	2
M404-5SM	Wayne igniter, 1/2" X 4", tip length 1 13/16", left hand, right hand	2
M404-9M	Wayne igniter, 1/2" X 4", tip length 1 1/4", left hand, right hand	2
M404M	Wayne igniter, 9/16" X 6", tip length 2 3/8"	2
M409-2M	York igniter, 9/19" X 4", tip length 7/16, left hand, right hand	2
M411-1M	Sunray igniter, 9/16" X 4", tip length 1 1/2"	2
M411-2M	Sunray igniter, 9/16" X 4", tip length 1 "	2
M411-3M	Sunray igniter, 9/16" X 5", tip length 3/8"	2
M411-4M	Sunray igniter, 1/2" X 4", tip length 1-1/4"	2
M411M	Sunray igniter, 9/16" X 6", tip length 1-7/8"	2
M414M	Weil-McLain igniter, double, 7/16" X 2-3/8", tip length 1-1/4"	1



Ignition Leads and Buss Bars

Item	Description	Pack Qty
T386-20M	Ignition lead, 12", ring-cage	2
T386-21M	Ignition lead, 12", cage-cage	2
T386-26M	Ignition lead, 18", ring-cage	2
T386-27M	Ignition lead, 18", cage-cage	2
T386-32M	Ignition lead, 24", ring-cage	2
T386-33M	Ignition lead, 24", cage-cage	2
T386-4M	Ignition buss bar, 12", flat	1
T386M	Ignition buss bar, 12", round	1

MT386M



MT386-20M



Crown Ignition Terminal Kits

Item	Description	Pack Qty
MT392	Crown "Mini-Kit" Ignition Terminal Kit An assortment of ignition terminals in a sturdy, hinged plastic box. Kit includes the following: 20 Cages, 12 Spring, 10 Angle Cages and 12 Studs Ferrule	1
MT394	Crown Transformer Kit. Kit Contains a large assortment of transformer terminals in a sturdy hinged plastic box.	1

MT392



Ignition and Transformer Terminals

Item	Description	Pack Qty	Letter
MT382	Stud Ferrule	50	A
MT382-5	Hex Base Stud (6-32)	50	B
MT382-6	Hex Base Stud (8-32)	50	B
MT382-7	Hex Base Stud (10-32)	50	B
MT382-8	Cage / Cage	50	C
MT382-9	Spring/thread 3/8" stud (10-32)	50	D
MT382-10	Spring Hex Base (10-32)	50	E
MT382-11	Terminal Nut	50	F
MT382-12	Cage/buss bar clip	50	G
MT382-13	Spring buss bar clip	50	H
MT382-14	Hex base/buss bar clip (10-32)	50	I
MT382-15	Buss Bar Clip	50	J
MT382-16	Special hollow thread stud	50	K
MT382-17	Special hex base stud (10-32)	50	L
MT382-18	Spring Adapter	50	M
MT382-19	Spring Adapter	50	N
MT382-20	Binding Post	50	O
MT382-21	Spring Contact (10-32)	50	P
MT382-22	Spring Contact (10-32)	50	Q
MT382-23	Contact Post	50	R
MT382-24	Short "Y" Spring Adapter	50	Y
MT382-25	Long "Y" Spring Adapter	50	Z
MT383	Ring	50	S
MT384	Angle cage	50	T
MT385	Cage	50	U
MT385-1	Spring Cage	50	V



6 OIL HEATING

Beckett Oil Burner Parts

B 5780



B 7512



B 21805B



B 218440U



B 2459U



B 51771U



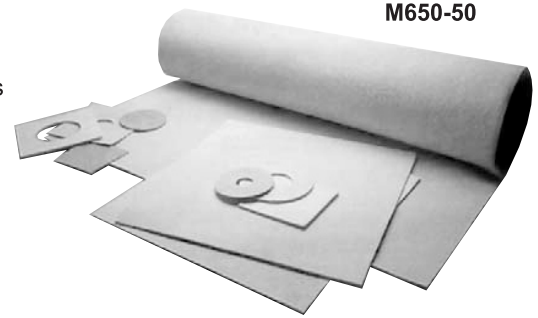
Order Number	Description
B 518	ANTI-HUM DEVICE
B 2454	COUPLING FOR A, AF, AFG & NX BURNERS REPLACES 5861
B 3666	BULKHEAD FITTING LOCKNUT
B 5432	ADJUSTABLE FLANGE FOR ALL 4" O.D. TUBES
B 5606	PEDESTAL KIT - EXTENDED
B 5636	OIL LINE ASSEMBLY FOR AF & AFG BURNERS-6-1/2"
B 5669	120V 1/8" 150 PSI DELAY OIL VALVE KIT V4046A1009
B 5685	STANDARD PEDESTAL KIT
B 5686	STANDARD PEDESTAL EXT. KIT
B 5770	JUNCTION BOX
B 5780	UNIVERSAL ELECTRODE KIT FOR MODELS AFG, AF, AR, SF
B 5782	UNIVERSAL LONG ELECTRODE KIT FOR MODELS AFG, AF, AR, SF
B 5880	LOW FIRING RATE BAFFLE
B 7512	HEAT MANAGER RESIDENTIAL BOILER CONTROL
B 7518	SENSOR FOR HEAT MANAGER BOILER CONTROL
B 31653	ROUND FLANGE GASKET REPLACES 3616
B 51480	ADJUSTABLE FLANGE KIT 3-1/2" I.D. FOR AFII
B 571801	BULKHEAD FITTING KIT ,A
B 21755U	115V VALVE COIL KIT
B 21805B	SAME AS 21805U PSC 1/7 HP 3450 RPM OIL BURNER MOTOR
B 218440U	SINGLE STAGE BECKETT CLEAN CUT PUMP (A2EA6520) WI
B 21941U	2 STAGE CLEAN CUT OIL PUMP WITH 120V COIL & PD TIMER
B 2459U	BLOWER WHEEL FOR AF 4-1/4" X 3-7/16"
B 2999U	BLOWER WHEEL FOR AFG 4-1/4" X 2-1/2"
B 51484U	UNIVERSAL ELECTRODE KIT FOR AFII, HLX TUBES
B 51838U	SOLID STATE IGNITOR ASSEMBLY FOR A,AF,AFG LESS BASE
B 51771U	SOLID STATE IGNITOR ASSEMBLY FOR BECKETT A, AF, &
B 51950U	A/C READY KIT FOR GENISYS CONTROLS
B 7505B1500	GENISYS RELAY CONTROL WITH 15 SECOND LOCKOUT
B 7600A0001U	120V AQUASMART BOILER TEMPERATURE CONTROL FOR OIL
B 7600B0001U	24V AQUASMART BOILER TEMPERATURE CONTROL FOR GAS
B AF104	10 1/2" BLAST TUBE W/ NOZZLE LINE LESS HEAD
B AF130	13" BLAST TUBE W/NOZZLE LINE LESS HEAD
B AF160	16" BLAST TUBE W/NOZZLE LINE LESS HEAD
B AF35	3 5/8" BLAST TUBE W/NOZZLE LINE LESS HEAD
B AF44	4 1/2" BLAST TUBE W/NOZZLE LINE LESS HEAD
B AF53	5 3/8" BLAST TUBE W/NOZZLE LINE LESS HEAD
B AF65	6 5/8" BLAST TUBE W/NOZZLE LINE LESS HEAD
B AF72	7 1/4" BLAST TUBE W/NOZZLE LINE LESS HEAD
B AF90	9" BLAST TUBE W/NOZZLE LINE LESS HEAD
B B2007	AFG CHASSIS W/GENISYS B CONTROL, PSC MOTOR
B F-0	.40-.75 GPH HEAD XR
B F-12	1.10-2.00 GPH HEAD XO
B F-22	1.65-2.50 GPH HEAD XP
B F-3	.75-1.25 GPH HEAD XN
B F-310	2.50-5.50 GPH HEAD
B F-4	.85-1.35 GPH HEAD
B F-6	.85-1.65 GPH HEAD YB
B T501	ELECTRODE GAUGE REPLACES T500
B Z2000U	Z GAUGE KIT

Hi Temp Paper, Gasket Material & Wet Combustion Blankets

Hi-Temp 440 Paper

M650-50: For use in wood burning stoves and electric heaters. For welding and brazing protection. Perfect for heat shield and burner flange gasket material.

- High temperature stability to 1300°F, permits a wide range of applications in various appliances.
- Thermo paper is very flexible for easy wrapping, shaping and cutting.
- Low thermal conductivity guarantees safety
- Ideal for gasketing applications, assuring on the job speed and ease.
- Sheet size: 24"x24"x1/8" package of 6 sheets.



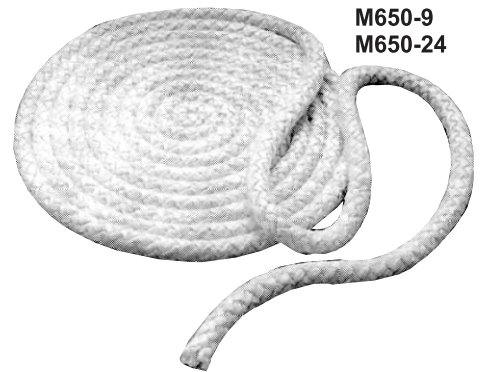
M650-50

Maniglass 1200

M650-52: High temperature gasket material. Heat resistant up to 1450 deg. F. Package includes three 24" x 24" sheets. Perfect for heat shield and burner flange gasket material.

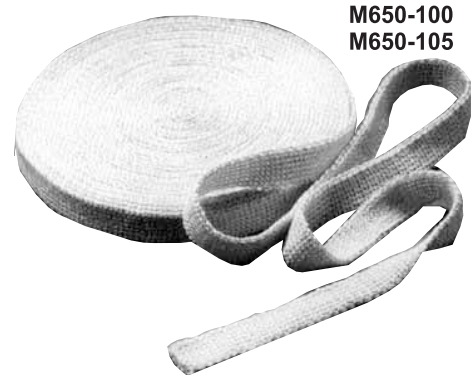
Hi-Temp Rope

- For use on boiler and furnace door packing, heat breaks, window seals, access doors gaskets.
- Non-asbestos
- Heat resistant up to 1000°F
- Available in 1/8" thru 2" diameter



**M650-9
M650-24**

Item	Description	Pack Qty
M650-100M	High temperature flat rope 1" X 25 ft.	1
M650-105M	High temperature flat rope 2" X 25 ft.	1
M650-14M	High temperature rope 1/4" X 25 ft.	1
M650-15M	High temperature rope 3/8" X 5 ft.	1
M650-16M	High temperature rope 3/8" X 25 ft.	1
M650-20M	High temperature rope 1/2" X 5 ft.	1
M650-21M	High temperature rope 1/2" X 25 ft.	1
M650-24M	High temperature rope 3/4" X 25 ft.	1
M650-50M	Thermo 440 Paper	6
M650-52M	Manniglass 1200 Gasket material, 24" x 24" sheet	3
M650-9M	Thermorope 1/8" X 25 ft.	1



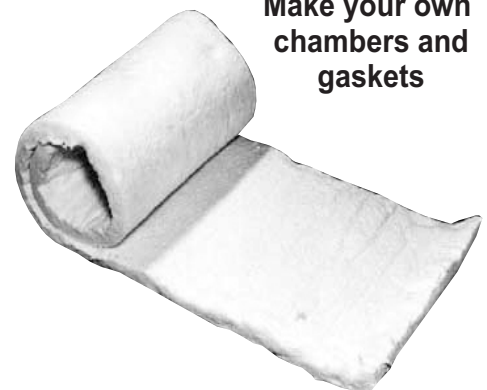
**M650-100
M650-105**

Lynn Products Golden Glo Wet Combustion Blankets

A soft, moist fiber blanket that can be formed to the shape of an existing chamber.

- High temperature ceramic fiber construction. Non-freezing.
- Kaowool construction for safety. Contains no asbestos.
- Formed and packaged wet. Hardens when burner is fired.

Item	Description	Mfg. No
M628-20	Wet Blanket Kit "A" contains: 1 of 14" x 48" x 1/2"	1032
M628-21	Wet Blanket Kit "B" contains: 1 of 14" x 48" x 1/2" & 1 of 16" x 16" x 1/2"	1033
M628-22	Wet Blanket Kit "C" contains: 1 of 16" x 48" x 1/2" & 1 of 16" x 16" x 1/2"	1034
M628-16	Wet Blanket 36" x 24" x 1/2"	1035
M628-17	Wet Blanket 36" x 18" x 1/2"	1036



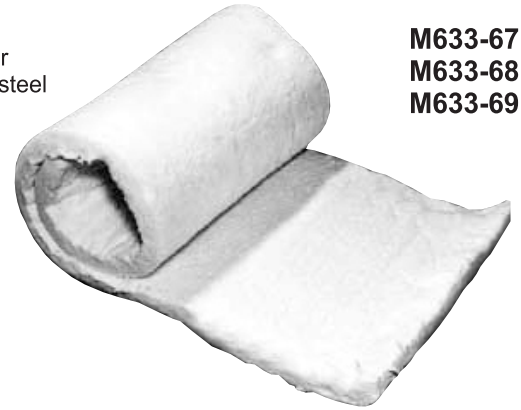
Make your own chambers and gaskets

Lynn Products Kaowool Dry Combustion Blankets

A soft, ceramic blanket that can be formed to the shape of an existing chamber. For applications where protection is required against high temperatures such as lining steel and hard brick chambers.

- Can withstand temperatures up to 2300 degrees F.
- Kaowool construction for safety. Contains no asbestos.

Order No.	Dimensions of Blanket	Mfg No.
M633-68	56" x 14" x 3/4"	9450
M633-67	48" x 16" x 1/2"	9451
M633-69	60" x 24" x 1/4"	9452



M633-67
M633-68
M633-69

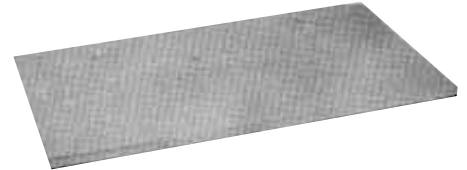
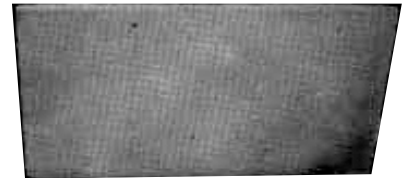
Lynn Combustion Chamber Products

Kaowool Strips: Soft ceramic fiber blanket strips commonly used as gasket material. Withstands 2300F.

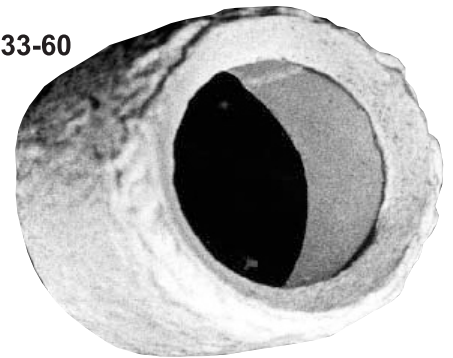
Combustion Chamber Boards: Rigid ceramic fiber board. Withstands temperatures up to 2300F. Applications include floors, walls, front-plates or target walls in combustion chambers. Easily cut with a knife or hacksaw and can be drilled.

Order No.	Description	Mfg No.
M633-95	Combustion Chamber Board Contains: Qty 2 of 20" x 20" x 1" For floors, walls, front plate or target installation in chambers. Made of rigid Kaowool. Withstands temperatures up to 2300°F. Easily cut with a hacksaw or knife. Can be drilled.	1019
M633-60	Burner Head Protectors Contains: Qty 1 Use to protect against high flame temperatures. Useful as a sizing aid. Fits up 4" OD Oil & Gas Burner Heads	1030
M624-20	Refractory Cement Contains: Qty 1 qt. Waterglass special for Kaowool. Ideal for bonding Kaowool to metal and other surfaces.	5061
M633-98	Hole Plug Contains: Qty 100. For 5/16" flue pipe holes. Used to plug combustion test holes.	6010
M633-90	Kaowool Strip Contains: Qty 1 of 150" x 2" x 1" Use as gasket material and end cone protection. Substitute for asbestos rope.	9500

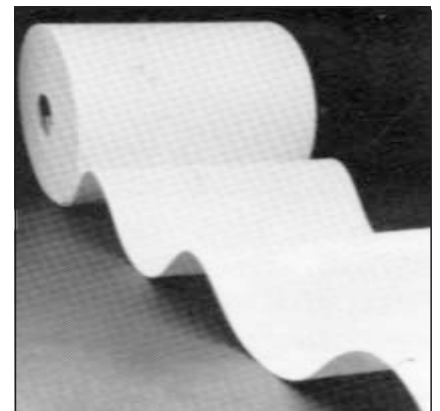
M633-95



M633-60



M633-90



Lynn Products Instant-Glo "Quickie" Combustion Chambers

For wet base boilers where combustion area is limited. One piece vacuum-cast Kaowool. Sound absorbent & made for quick installation.

M633-70 - M633-73

Item	Firing Rate GPH	Outside Dimensions	Model #	Mfg #
M633-70	0.75 to 1.25	11-1/2"x11"x10/34"	100	1050-1
M633-71	1.35 to 1.75	12" x 13-3/4" x 12"	200	1051
M633-72	1.75 to 2.25	12" x 18" x 12"	300	1052LY
M633-73	0.65 to 1.00	11"x10-1/4"x10-1/4"	400	1004



Lynn Products Instant-Glo "Time-Saver" Combustion Chambers

Pre-formed replacement chambers for wet and dry base boilers and furnaces. One piece vacuum-cast Kaowool. Sound absorbent & made for quick installation. Can easily be sawed in half if necessary.

M633-79 - M633-85

Item	Firing Rate GPH	Outside Diameter	Height	Model #	Mfg #
M633-79	0.50 to 0.65	9" Round	13-1/4"	7	1007
M633-80	0.65 to 0.85	10-1/2" Round	14-3/4"	9	1009LY
M633-81	1.00 to 1.25	12-1/2" Round	15-1/2"	11	1011LY
M633-82	1.35 to 1.75	14-1/2" Round	16"	13	1033
M633-83	1.75 to 2.00	17" Round	16"	15	1015LY
M633-85	2.25 to 3.00	14" Wide Oval	16"	3.00*	1017LY



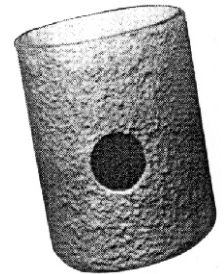
Lynn Products Golden Glo Wet Form Combustion Chambers

For small opening installations where conventional chambers will not fit. One piece construction. High temperature ceramic fiber construction. Non-freezing. Safe – contains no asbestos. Formed and packaged wet. Chamber hardens when burner is fired.

Dimensions: Bottom is round with 1/2" minimum thickness. Height: 18"

M628 - M628-7

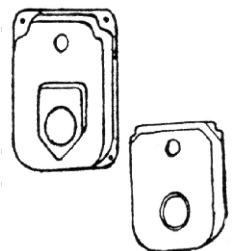
Item	Firing Rate GPH	Inside Diameter	Mfg #
M628	0.40 to 0.65	8"	1037
M628-1	0.65 to 0.95	9"	1038
M628-3	0.85 to 1.05	10"	1039
M628-5	1.00 to 1.25	11"	1040
M628-6	1.25 to 1.50	12"	1041
M628-7	1.50 to 1.75	13"	1042



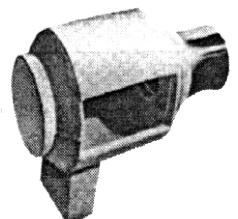
Lynn Products Combustion Chamber Kits

Item	Description	Pack Qty
M1060	Combustion Chamber Kit for Weil-McLain Model 66, 68 & 68V Oil-Fired boiler. Contains: ceramic fiber-molded front refractory, ceramic fiber wet-moldable rear refractory, ceramic fiber blanket base liner, boiler sealant, waterglass & instructions	
M633-58	Combustion Chambers for Base Heating. Ideal for small or suspended furnaces, round steel furnaces, wet-base or flat bottom boilers or Tuxedo boilers. Firing Rate: 0.65 to 1.10 gph Material: Kaowool. Dimensions: 8-1/4" OD x 11-3/4" long	

M1060



M633-58



6 OIL HEATING

Oil Filters

M264-1A
M265-1A



Fuel Oil Filter Elements

Order No.	Description	Replaces	Case Qty
M264-1A	Felt Filter Element & Gasket	General 1A-25A Unifilter 77 Westwood S254	48
M264-48	Microflow Filter Element & Gasket	General 1A-25A Unifilter 77 Westwood S254	48
M265-1A	Felt Filter Element & Gasket	General 2A-700	12
M265-12A	Microflow Filter Element & Gasket	General 2A-700	12
M250-48	Microflow Filter Element & Gaskets	Fulflo FB4	48
M251-20AM	Microflow Filter Element & Gaskets	Fulflo FB6	10
M252-40AM	Microflow Filter Element & Gaskets	Fulflo FB8	6
M252-50AM	Microflow Filter Element & Gaskets	Fulflo FB10	4
M250-2M	Felt Filter Elements	Fulflo FB4	30

M264-48
M264-12A



Fuel Oil Filters

Order No.	Description	Replaces	Case Qty
R E404-999U	Complete Fuel Oil Filter, 17GPH, 3/8NPT	General 1A-25A Unifilter 77	1
R F65-999U	<i>Replaced by M265F</i>	General 2A-700	1
264M	Filter-in-a-Can, Micro-Flow, General 1A-25A, 15 GPH		1
265F	Complete oil filter, large capacity w/Micro-Flow		1

R E404-999U
R F65-999U



Spin-On Fuel Oil Filters

Order No.	Description	Replaces	Case Qty
R EX10-999U	Spin-On Filter Cartridge Small Can for M Head	K10	12
NG-3500-M	Spin-On Filter Cartridge Large Can for M Head	Large General	12
NG-3500-G	Spin-On Filter Cartridge Large Can for M Head	Garber	6
NG 8000939	M-Style Head for Spin-On		6
NG 8001030	L-Bracket for Spin-On		6
M264-90GBM	Spin-on filter, complete with mounting bracket and gauge, 40GPH, 3/8"NPT	GAR-BER RB	1
M264-90GM	Spin-on filter complete with gauge, 40GPH, 3/8"NPT	GAR-BER RB	1
M264-90M	Spin-on filter, complete with top, 40GPH, 3/8" NPT	GAR-BER 11VF-OB	1

R EX10-999U



M264-90M



Mitco Spin-On Filters

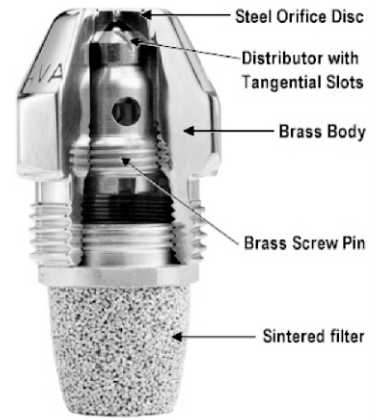
For use in residential and commercial applications

Features:

- Heavy duty outer shell construction is plated and chemically treated to resist corrosion
- 10 Micron pleated composite element is three times thicker than standard filters for deeper filtration
- Rated 60 PSI maximum working pressure - "Highest in Industry"
- Rate 40 GPH flow rate - "Highest in Industry"
- USR Recognized in US and Canada

Delevan Oil Burner Nozzles

Description	
Low Range Nozzles	Nozzles Under .50 gallon
Standard Nozzles	Nozzles 0.50 to 3.00 gallons
High Range Nozzles	Nozzles 3.25 to 7.75 gallons
High Range Nozzles	Nozzles 8.00 to 15 gallons
High Range Nozzles	Nozzles 15.25 gallons and up



At the forefront of nozzle development, Delevan created its nozzle using bi-metal construction. The Brass body and stainless steel metering parts permit machining to close tolerances for precision and consistently high performance. Brass transmits heat fast from the nozzle face to reduce the possibility of varnish and oil residue buildup.

Delevan Nozzle Selection Chart

GPH	45 Deg.			60 Deg.					70 Deg.					80 Deg.					90 Deg.				Spray Patterns			
	A	W	B	A	D	W	R	AR	B	A	W	R	AR	B	A	D	W	R	AR	B	A	D		W	B	
0.40																										
0.50																										
0.55																										
0.60																										
0.65																										
0.70																										
0.75																										
0.85																										
0.90																										
1.00																										
1.10																										
1.20																										
1.25																										
1.35																										
1.50																										
1.65																										
1.75																										
2.00																										
2.25																										
2.50																										
3.00																										
GPH	45 Deg.			60 Deg.					70 Deg.					80 Deg.					90 Deg.				Spray Patterns			
	A	W	B	A	D	W	R	AR	B	A	W	R	AR	B	A	D	W	R	AR	B	A	D		W	B	

W= Semi-Solid Green Vial

A= Hollow Red Vial

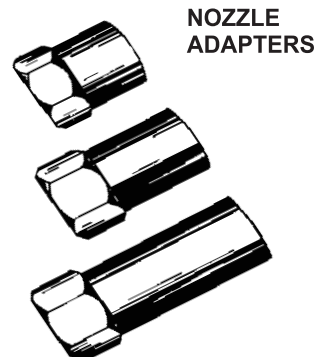
B= Solid Royal Blue

AR= Solid White Vial

D= Solid White Vial

Oil Burner Nozzle Accessories

Item	Description	Pack Qty
M80-1M	Nozzle adapter, long, 1/4" pipe	1
M80M	Nozzle adapter, long, 1/8" pipe	1
M81-1M	Nozzle adapter, medium, 1/4" pipe	1
M81M	Nozzle adapter, medium, 1/8" pipe	1
M82-1M	Nozzle adapter, short, 1/4" pipe	1
M82M	Nozzle adapter, short, 1/8" pipe	1
M94-1	Nozzle extractor	1



6 OIL HEATING

Danfoss Oil Burner Nozzles

Danfoss Oil Burner Nozzles

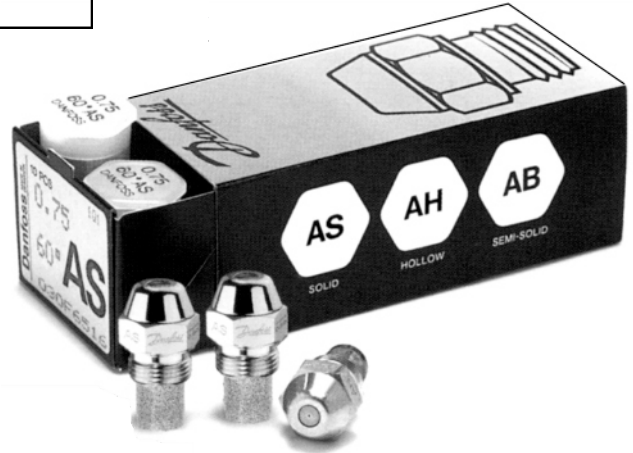
Description	Box Qty
Firing Range: 0.40 gph to 3.00 gph All Spray Angles & Patterns - Based On Availability	10
Firing Range: 3.50 to 15.00 gph All Spray Angles & Patterns - Based On Availability	10

**YOUR TOP
SOURCE FOR
DANFOSS-HAGO**

Danfoss presents the well known "A" and "OD" programs of brass oil nozzles. The North American "A" series nozzles are available in 5 different spray angles between 45° and 90° in capacities from .30 to 3.00 USgal/h. Above 3.00 USgal/h and below 0.4 USgal/h the "OD" type is used.

Each nozzle is thoroughly tested both electronically and visually for function and uniformity.


To optimize operating performance and out of consideration for the environment, we recommend changing the nozzle once a year.





TYPE AH (Hollow)				
GPH	45°	60°	70°	80°
0.40				
0.50				
0.55				
0.60				
0.65				
0.75				
0.85				
1.00				
1.10				
1.20				
1.25				
1.35				
1.50				
1.65				
1.75				
2.00				
2.25				
2.50				
2.75				
3.00				

TYPE AB (Semi-Solid)				
GPH	45°	60°	70°	80°
0.40				
0.50				
0.55				
0.60				
0.65				
0.75				
0.85				
1.00				
1.10				
1.20				
1.25				
1.35				
1.50				
1.65				
1.75				
2.00				
2.25				
2.50				
2.75				
3.00				

TYPE AS (Solid)				
GPH	45°	60°	70°	80°
0.40				
0.50				
0.55				
0.60				
0.65				
0.75				
0.85				
1.00				
1.10				
1.20				
1.25				
1.35				
1.50				
1.65				
1.75				
2.00				
2.25				
2.50				
2.75				
3.00				

 Normally stocked. Note:
10 pcs per box

 Limited stock. Min. Order
quantities may apply.

 Special Order. Min. Order
quantities may apply.

Hago Oil Burner Nozzles

Description	Box Qty
Firing Range: 0.30 gph to 2.75 gph All Spray Angles & Patterns - Regular Stock Only	12
Firing Range: 3.00 gph to 8.50 gph All Spray Angles & Patterns - Regular Stock Only	12
Firing Range: 0.30 gph to 2.75 gph All Spray Angles & Patterns - Special Order	12
Firing Range: 3.00 gph to 8.50 gph All Spray Angles & Patterns - Special Order	12
Firing Range: 9.00 to 32.00 gph All Spray Angles & Patterns - Special Order	12



Danfoss Hago presents a complete selection of stainless steel simplex oil nozzles available in capacities from 0.30 to 35.00 USgal/h in a variety of oil spray cone patterns and spray angles.

Hago Nozzles Availability Chart

TYPE H (Hollow)						TYPE SS (Semi-Solid)						TYPE P (Solid)					
GPH	30°	45°	60°	70°	80°	GPH	30°	45°	60°	70°	80°	90°	GPH	45°	60°	70°	80°
0.65						0.65							2.00				
0.70						0.75							2.25				
0.75						0.85							2.50				
0.85						0.90							2.75				
0.90						1.00							3.00				
1.00						1.10							3.25				
1.10						1.20							3.50				
1.20						1.25							3.75				
1.25						1.35							4.00				
1.35						1.50							4.25				
1.50						1.65							4.50				
1.65						1.75							4.75				
1.75						2.00							5.00				
2.00						2.25							5.50				
2.25						2.50							6.00				
2.50						2.75							6.50				
3.00						3.00							7.00				
3.25						3.25							7.50				
3.50						3.50							8.00				
3.75						3.75							8.50				
4.00						4.00							9.00				
4.50						4.25							10.00				
5.00						4.50							11.00				
5.50						4.75							12.00				
6.00						5.00							13.00				
6.50						5.50							14.00				
7.00						6.00							15.00				
7.50						6.50							16.00				
8.00						7.00							17.00				
8.50						7.50							18.00				
9.00						8.00							19.00				
9.50						8.50							20.00				
10.00						9.00							21.00				
11.00						9.50							22.00				
12.00						10.00							23.00				
13.00						11.00							24.00				
14.00						12.00							25.00				
15.00						13.00											
16.00						14.00											
17.00						15.00											
18.00						16.00											
19.00						17.00											
20.00						18.00											
						19.00											
						20.00											
						21.00											
						22.00											
						23.00											
						24.00											
						25.00											

Effective Date:
May 22, 2015.
Please visit:
www.wardheating.com
for the most updated charts

Spray Pattern	Description
H	Hollow Cone
SS	Semi-Solid Cone
ES	Solid Cone
B	Solid Cone
P	Solid Cone
W	Universal Nozzle
DFN	Dual Filtration

TYPE ES (Solid)					
GPH	45°	60°	70°	80°	
0.65					
0.70					
0.75					
0.85					
0.90					
1.00					
1.10					
1.20					
1.25					
1.35					
1.50					
1.65					
1.75					

TYPE B (Solid)					
GPH	45°	60°	70°	80°	
0.65					
0.75					
0.85					
0.90					
1.00					
1.10					
1.20					
1.25					
1.35					
1.50					
1.65					
1.75					
2.00					

TYPE H DFN					
GPH	45°	60°	70°	80°	
0.30					
0.35					
0.40					
0.45					
0.50					
0.55					
0.60					

TYPE B DFN					
GPH	45°	60°	70°	80°	
0.30					
0.35					
0.40					
0.45					
0.50					
0.55					
0.60					

NEW FOR 2015

- Normally stocked.
- Minimum Order: 48 pieces
- Minimum Order: 48 pieces



Combo
Gauge/Whistle
& Standard
ULC Gauge



R E201

R E600

R E102

R E202



R EDR5-999
R EDR5-999C



R E500-999UA



R E404-999



R E205F-999



R EX10-999



R E456-999U



R EKIT

Order No.	Description	Pkg Qty
Gauges & Combo Whistle/Gauges		
RE024N-999U	ULC Oil Tank Gauge 24", Bushing 1-1/2"	25
RE028N-999U	ULC Oil Tank Gauge 28", Bushing 1-1/2"	25
RE032N-999U	ULC Oil Tank Gauge 32", Bushing 1-1/2"	25
RE044N-999U	ULC Oil Tank Gauge 44", Bushing 1-1/2"	25
RE580-924	Combo 24" Gauge / alarm, 2"x 1-1/4"	10
RE580-928	Combo 28" Gauge / alarm, 2"x 1-1/4"	10
RE580-932	Combo 32" Gauge / alarm, 2"x 1-1/4"	10
RE580-944	Combo 44" Gauge / alarm, 2"x 1-1/4"	10
RE585-924	Combo 24" Gauge / alarm, 2"x2"	10
RE585-928	Combo 28" Gauge / alarm, 2"x2"	10
RE585-932	Combo 32" Gauge / alarm, 2"x2"	10
RE585-944	Combo 44" Gauge / alarm, 2"x2"	10
RE144-777S	Gauge Repair Kit	50
Fill & Vent Caps		
RE102-999	1 1/4" vent cap	25
RE102-999SC	1 1/4" vent cap with screen (ZAMAK)	25
RE103-999	2" Vent cap	25
RE103-999SC	2" Vent cap with screen (ZAMAK)	25
RE201-999	Threadless Fill Cap 2" Female w/ set screw (ZAMAK)	25
RE202-999	Threaded Fill Cap 2" Female (ZAMAK)	25
RE600-999	Hinged Fill Cap 2" Female Rustproof (ZAMAK)	25
R E105-999	Slip-On 1-1/4" Vent Cap with Screen (zinc plated)	25
R E110-999	Slip-On 2" Vent Cap with Screen (zinc plated)	25
Rope Gauges, Tank Whistles & Draft Regulators		
RE456-999U	48,60,72" Rope Tank Gauge	8
RE500-999UA	Tank Whistle 1-1/4" x 2" & 1-1/4 with Aluminum Inside	25
RE678-999	Draft Regulator for 6",7" and 8" Pipe	27
REDR5-999	Draft Regulator for 4",5" and 6" Pipe	27
REDR5-999C	Draft Regulator for 4",5" and 6" Pipe with Collar	27
Duplex Bushings		
E205-999	Duplex Bushing, 2" male NPT x 4-way tap 3/8" NPT	24
E205F-999	Duplex Bushing, 2" male NPT with 3/8" Slip-Thru Fittings	24
E206-999	Duplex Bushing, 2" male NPT x 4-way tap 1/2" NPT	24
E206F-999	Duplex Bushing, 2" male NPT with 1/2" Slip-Thru Fittings	24
Tank Outlet Valves		
RE900-999	1/2" x 3/8" Oil Tank Valve	25
RE990-999	1/2" x 3/8" 90 degree Oil Tank Ball Valve	25
Filters		
R EX10-999U	10 Micron Spin-On replacement filter, UL-listed. 10gph	12
R EX11-999U	3/8" NPT Filter head for EX10 Spin-On Filter	1
R E404-999U	Complete Fuel Oil Filter, 17GPH, 3/8NPT	1
Tank Legs		
RE011-999N	11" Black Iron Tank Legs (Black Steel)	32
RE012-999N	12" Black Iron Tank Legs (Black Steel)	32
Tank Kits		
REKIT02-999	Comes complete with:	10
Bottom Outlet	E044-999U 44" Tank Gauge E500-999U Tank Whistle E400-999U 10GPH Regular oil filter E102-999T 1-1/4" Galvanized Vent Cap E201-999T 2" galvanized threadless fill cap E990-999 1/2" x 3/8" 90 degree Oil Tank Valve	

Shut off Inline Valves

For inline installation. Heavy duty high quality Brass design. Flare and Threaded designs in 1/4" through 1" sizes.

Shut off Burner (Angle) Valves

Used at Burner as secondary protection. Heavy duty high quality Brass design. 3/8" and 1/2" Flare tubing fittings and 1/4" NPT to burner. Three lengths available to handle most installation situations.

Check Valves

Used to prevent 'back-flow' in fuel oil lines. Uses Viton® equivalent seal.

Item	Description
HCV Check Valves - Soft Seat - Machined Brass	
B B100HCV	3/8" NPT (F) X 3/8" NPT (F) INLINE, SILVER CAP
B B105HCV	3/8" FLARE X 3/8" FLARE INLINE, SILVER CAP
B B200HCV	1/2" NPT (F) X 1/2" NPT (F) INLINE, SILVER CAP
Valves - Machined Brass	
B B50F	1/4" NPT (F) X 1/4" NPT (F) INLINE
B B100F	3/8" NPT (F) X 3/8" NPT (F) INLINE
B B104F	3/8" COMP X 1/4" NPT (M) BURNER, 1 5/8" SHANK
B B104FXL	3/8" COMP X 1/4" NPT (M) BURNER, 2" SHANK
B B104CF	3/8" FLARE X 1/4" NPT (M) BURNER, 1 5/8" SHANK
B B104CFXL	3/8" FLARE X 1/4" NPT (M) BURNER, 2" SHANK
B B105F	3/8" FLARE X 3/8" FLARE INLINE
B B200F	1/2" NPT (F) X 1/2" NPT (F) INLINE
B B204CFXL	1/2" FLARE X 1/4" NPT (M) BURNER, 2" SHANK
B B205F	1/2" FLARE X 1/2" FLARE INLINE
B B300F	3/4" NPT (F) X 3/4" NPT (F) INLINE
B B400F	1" NPT (F) X 1" NPT (F) INLINE
Hand Wheels	
B HW-165	FOR ALL FUSIBLE VALVES AND THERMAL SWITCHES (165°F) "SILVER"
B HW-200	FOR FUSIBLE VALVES (200°F) "COPPER"
B HW-400	FOR 1" FUSIBLE VALVE (165°F) "SILVER"
Tank Valves - Cast Bronze	
B B131-TF	3/8" NPT (M) X 3/8" NPT (MALE OR FEMALE)
B B141-TF	1/2" NPT (M) X 3/8" NPT (MALE OR FEMALE)
Tank Valves - Sludge Bypass - Cast Bronze	
B B141TFSBV	1/2" NPT (M) X 1/2" NPT (MALE OR FEMALE)
Thermal Switches	
B TS150B	FOR 3-1/4" AND 4" ROUND JUNCTION BOX (UL)
B TS300B	FOR 3" AND 4" SQUARE JUNCTION BOX (UL)



6 OIL HEATING

Permanent, Washable Air Filters

Mitco makes replacement filters for heating and A/C blowers and exhaust fans and hoods. Custom sizes made to order quickly.

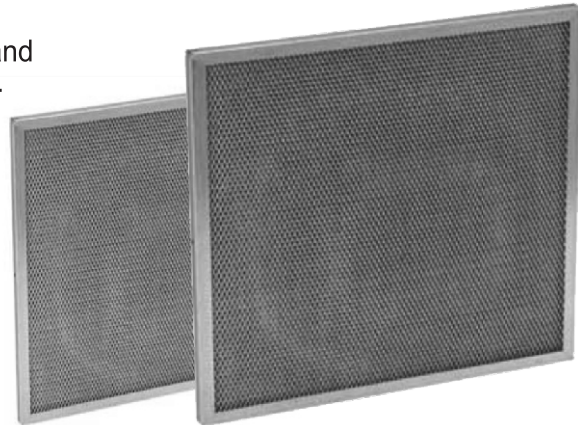
FEATURES:

- High efficiency foam media reinforced with aluminum wire screen.
- Encased in heavy-duty aluminum frame.
- Available in any size in 1/2", 1" or 2" thicknesses.

CUSTOM ORDER SIZES

Calculate size by determining the area in sq. in.
(Width x Length = sq. in. area)

Once you've calculated the size in sq. in.,
select from part numbers below.



Item	Description
------	-------------

Standard Sizes

ML13-10-20-1PM	10" x 20" x 1"
ML13-14-30-1PM	14" x 30" x 1"
ML13-15-20-1PM	15" x 20" x 1"
ML13-16-20-1PM	16" x 20" x 1"
ML13-16-25-1PM	16" x 25" x 1"
ML13-20-20-1PM	20" x 20" x 1"
ML13-20-25-1PM	20" x 25" x 1"
ML13-20-30-1PM	20" x 30" x 1"
ML13-24-24-1PM	24" x 24" x 1"
ML13-24-30-1PM	24" x 30" x 1"

Item	Description	NET Price
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1" Thick Filters Custom Sizes

ML13-1-49-1PM	1-49 sq. in., 1" thick	\$17.74
ML13-50-99-1PM	50-99 sq. in., 1" thick	\$24.86
ML13-100-149-1PM	100-149 sq. in., 1" thick	\$26.48
ML13-150-199-1PM	150-199 sq. in., 1" thick	\$30.97
ML13-200-249-1PM	200-249 sq. in., 1" thick	\$32.10
ML13-250-299-1PM	250-299 sq. in., 1" thick	\$43.36
ML13-300-349-1PM	300-349 sq. in., 1" thick	\$44.32
ML13-350-399-1PM	350-399 sq. in., 1" thick	\$48.48
ML13-400-449-1PM	400-449 sq. in., 1" thick	\$54.21
ML13-450-499-1PM	450-499 sq. in., 1" thick	\$58.77
ML13-500-549-1PM	500-549 sq. in., 1" thick	\$60.32
ML13-550-599-1PM	550-599 sq. in., 1" thick	\$61.17
ML13-600-649-1PM	600-649 sq. in., 1" thick	\$73.86
ML13-650-699-1PM	650-699 sq. in., 1" thick	\$67.40
ML13-700-749-1PM	700-749 sq. in., 1" thick	\$70.31
ML13-750-799-1PM	750-799 sq. in., 1" thick	\$71.72
ML13-800-849-1PM	800-849 sq. in., 1" thick	\$77.22
ML13-850-899-1PM	850-899 sq. in., 1" thick	\$75.27
ML13-900-949-1PM	900-949 sq. in., 1" thick	\$76.12
ML13-950-999-1PM	950-999 sq. in., 1" thick	\$81.40
ML13-1000-1049-1PM	1,000-1,049 sq. in., 1" thick	\$79.95
ML13-1050-1099-1PM	1,050-1,099 sq. in., 1" thick	\$82.44

Item	Description
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2" Thick Filters Custom Sizes

ML13-1-49-2PM	1-49 sq. in., 2" thick
ML13-50-99-2PM	50-99 sq. in., 2" thick
ML13-100-149-2PM	100-149 sq. in., 2" thick
ML13-150-199-2PM	150-199 sq. in., 2" thick
ML13-200-249-2PM	200-249 sq. in., 2" thick
ML13-250-299-2PM	250-299 sq. in., 2" thick
ML13-300-349-2PM	300-349 sq. in., 2" thick
ML13-350-399-2PM	350-399 sq. in., 2" thick
ML13-400-449-2PM	400-449 sq. in., 2" thick
ML13-450-499-2PM	450-499 sq. in., 2" thick
ML13-500-549-2PM	500-549 sq. in., 2" thick
ML13-550-599-2PM	550-599 sq. in., 2" thick
ML13-600-649-2PM	600-649 sq. in., 2" thick
ML13-650-699-2PM	650-699 sq. in., 2" thick
ML13-700-749-2PM	700-749 sq. in., 2" thick
ML13-750-799-2PM	750-799 sq. in., 2" thick
ML13-800-849-2PM	800-849 sq. in., 2" thick
ML13-850-899-2PM	850-899 sq. in., 2" thick
ML13-900-949-2PM	900-949 sq. in., 2" thick
ML13-950-999-2PM	950-999 sq. in., 2" thick
ML13-1000-1049-2PM	1,000-1,049 sq. in., 2" thick
ML13-1050-1099-2PM	1,050-1,099 sq. in., 2" thick

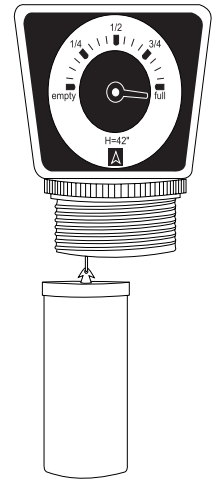
Fluid Level String Gauge

Universal mechanical level gauge for measuring fuel levels in oil tanks

Features:

- Reversible scale - 24" and 42" fluid heights (275 gal. tanks) for use with a wide variety of fuel oil storage tanks
- 1-1/2" and 2" MPT threads
- Easy to read dial face with high reliability

Item	Description	Qty
M577M	Afriso #16511 fluid level string tank gauge, for 275 gal.	1



Odor Eliminator Spray

8oz pump spray. Does not mask or cover up odors. Completely neutralizes odors by chemical bonding with odor-carrying molecules. Effective against the harshest of odors.

Item	Description	Qty
MF1-75M	Odor Eliminator spray, 8 oz. pump spray (Case of 12)	12

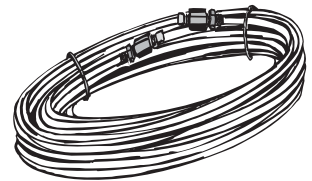
Emergency Oil Lines

For temporary hook-up of suction lines.

Features:

- Plastic tubing rated at 30' vacuum and 300 lb pressure
- Use over and over

Item	Description	Qty
MP127-9AM	Oil line, emergency hook-up, 3/8" OD, 1/4" FPT fitting, 50'	1
MP127-9M	Oil line, emergency hook-up, 3/8" OD, 1/4" FPT fitting, 10'	1



Kwik-Wick Absorbent Spill Kit

Effectively controls leaks and spills. For use with oil, grease, coolants and other industrial fluids.

Features:

- Powerful wicking action quickly absorbs.
- Socks are filled with safe, non-toxic material.
- Absorbs up to 6-3/4 gallon of oil or the equivalent of 320 pounds of clay.

Item	Description	Qty
MF1-86M	Kwik-Wick absorbent spill kit, 11 pads, 3 socks, 3 bags	1
MF1-87M	Kwik-Wick absorbent sock, 4" x 46"	40
MF1-88	Absorbent Pad (200 PACK)	1
MF1-89M	Kwik-Wick absorbent pad, 18" x 18"	100



Kwik-Sorb Natural Industrial Absorbent

An environmental alternative to clay.

Features:

- Absorbs 3 times its weight. 5 times more absorbent than clay.
- Produced from virgin, recycled pulp (Sorbital R)
- Safe - can be fuel blended and incinerated.

Item	Description	Qty
MF1-83M	Kwik-Sorb industrial absorbent, clay alternative, 40 lb.	1



Oil Fill Flags

Flags (5" x 6") for marking oil fill tanks and carrier probe for inserting flags in the ground. Bright, yellow plastic flags on 27" tall PVC poles make tank identification easy in heavy snow or overgrown areas. Handy carrier probe protects hands and makes insertion into hard or frozen soil quick and easy. Tubular probe holds as many as 100 flags.

Item	Description	Qty
M425-12M	Oil fill flags	12
M425M	Oil fill flags	50
M428M	Oil fill flag carrier probe	1



6 OIL HEATING

Specialty Fuel Treatments

STR-2+ Sludge Dispersant and De-Icer

Fuel conditioner for all season maintenance.

FEATURES:

- Disperses and eliminates sludge in oil storage tanks.
- Improves combustion and fuel efficiency.
- Reduces filter plugging and clogging.
- Stabilizes fuel during storage.
- Prevents and controls ice formation in fuel.
- Enhances cold climate fuel operability.
- Lowers pour and plug point.
- Controls water condensation.
- Emulsifies water allowing it to burn-off.



246 Super Sludge Dispersant

By TECHNOL

Fuel conditioner for regular conditioning maintenance or for contamination clean-up.

FEATURES:

- Eliminates sludge build-up.
- Cleans nozzles, lines and tanks.
- Inhibits corrosion.
- Improves fuel combustion.
- Retards biological growth in fuel.
- Completely miscible in fuel.



050 Cold Flow Improver

By TECHNOL

Cold weather anti-gel cold flow improver.

FEATURES:

- Maximizes cold weather diesel and distillate machinery and vehicle operability limits (CFPP) by up to 30°F.
- Permits smooth flowing fuel under the most extreme cold weather conditions.
- Lowers fuel pour point by over 50°F and reduces fuel's tendency to plug filters and lines.
- Melts existing ice in fuel and prevents ice formation in filters and fuel lines.
- Eliminates the use of expensive kerosene.



Biobor JR Microbiocide

By HAMMONDS

Fuel conditioner used to combat fungus and other microbes found in hydrocarbon fuels.

FEATURES:

- Eliminates the growth of HUM-bugs (hydrocarbon utilizing micro-organisms) which cause fuel tank contamination, clog filter and corrode metal surfaces.
- Dual action - kills present fungal growth, prevents future growth.



Item	Description	Pack Qty	Treatment (Gallons)
050 Cold Flow Improver			
M050M	Cold flow Improver, 32 oz.*	1	Initial: 250 Maintenance: 500
M050-BM	Cold flow Improver, 55 gal. drum	1	Shock: 55,000 Maintenance: 110,000
STR-2+ Sludge Dispersant and De-icer			
MF2-17M	STR-2+ sludge dispersant and de-icer, 8 oz., 1-Shot dose	12	275
MF2-18M	STR-2+ sludge dispersant and de-icer, 55 gal. drum	1	220,000
MF2-19M	STR-2+ sludge dispersant and de-icer, 1 gal., Tip-N-Pour	4	4,000
MF2-23M	STR-2+ sludge dispersant and de-icer, 1 gal., standard jug	4	4,000
246 Super Sludge Dispersant			
MF2-246M	Technol 246 super duty sludge dispersant, 8 oz.*	1	No. 2 Oil: 250 No. 4 Oil: 125 No. 6 Oil: 65
Biobor JR Microbiocide			
MF2-26M	Biobor JF microbiocide treatment, 16 oz.*	1	Shock: 64 Maintenance: 600



HOT 4 in 1 Heating Oil Treatment

HOT is a concentrated Heating Oil Treatment that provides superior winter and year round protection for outside, Inside and underground storage tanks.

Features:

- Disperses water and controls waxing and gelling
- Improves combustion for more BTUs
- Helps stabilize fuel
- Removes varnishes from pumps and filters
- Prevents corrosion in the entire fuel system
- Provides for cleaner burning, less smoke and a cleaner flame
- Prevents sludge and slime
- Removes microbes and fungi growth

Order No.	Description	Treats (gallons)	Case Qty
F90161	HOT 4in1 - 16 oz. bottle	275	24
F90164	HOT 4in1 - 1 gallon bottle	2,200	4
F00163	HOT 4in1 - 55 gallon drum	121,000	1

We stock the F00161. Others are special order.

SBG "Sludge Be Gone" Fuel Oil Sludge Remover

SBG Fuel Oil Sludge Remover is formulated to eliminate sludge and water. SBG's specially formulated chemical base dissolves the sludge into a combustible substance in such a way as not to clog nozzles, while assuring clean filters and strainers. SBG also helps to improve atomization and will provide a more efficient combustion.

Features:

- Cleans filters and strainers
- Provide for more efficient combustion
- Dissolves all types of sludge into a combustible substance that will not clog nozzles
- Help improve atomization
- Help stabilize fuel
- Effective in #1,2,3,4,5 and 6 fuels



Order No.	Description	Treats (gallons)	Case Qty
F90342	SLUDGE BE GONE - 32 oz. bottle	1,000	12
F00359P	SLUDGE BE GONE - 5 gallon bottle	20,000	1
F00360	SLUDGE BE GONE - 55 gallon drum	220,000	1

We stock the F00342. Others are special order.

Melt Down Vehicle Starter

Melt Down is a highly effective formula specifically formulated to provide significant performance benefits in all diesel fuels, including ultra low sulfur diesel and bio-diesel fuel blends.

Melt Down is specifically formulated to dissolve gelled fuel back into solution and return the flow in approximately 20 minutes. It will not harm fuel pumps, nozzles, or any pre-combustion components.

Meltdown is an emergency fuel treatment only. For preventative maintenance in applications using diesel fuel use either FPPF Total Power or FPPF Polar Power. For applications involving Home Heating Oil, Heating Oil, or Bunker Fuels use FPPF HOT 4 In 1.



Order No.	Description	Case Qty
F90124	MELT DOWN - 32 ounce bottle	12
F90330	MELT DOWN - 1 gallon jug	4

We stock the F90124. F90330 is special order.

6 OIL HEATING

Oil Storage Solutions



TANK TUB

Double Wall UL Listed
110% Containment for 275gal.
and 330gal. oil tanks

Dimensions:
78" long, 28" wide, 60" high

Features:

- UL Listed-Two piece construction made of space age Dura-Vinyl.
- Meets & exceeds EPA requirements for 110% containment for both 275 vertical gal. and 330 vertical gal. oil tanks
- Easy to install with new or existing oil tanks.
- An attractive addition to any home.
- Protect your tank from the elements
- Heavy Duty - Weight:189lbs.
- Tank legs stand on galvanized steel plates.
- 20 Year limited warranty

TANK MATE TALL

Custom Oil Tank Cover
Approved to Cover the
ROTH TANK!

Dimensions:
74" high, 78" Long, 36" deep

TANK MATE SHORT

Oil Tank Cover

Dimensions:
59" High, 75" Long, 33" Deep



Features:

- One piece construction made of space age Dura-Vinyl. It has a UV protect ant to resist effects of sunlight and it is also resistant to all extreme temperatures.
- Key Benefits
- Protect your tank from the elements including rain, snow and winter wind chill.
- An attractive addition to any home.
- Easy to install with new or existing oil tanks.



TANK TRAY 50

50 Gallon Containment for
330 vertical gal. 330 horizontal
gal. 275 vertical gal. & 275
horizontal gal. oil tanks

Dimensions:
85" long, 36" wide, 4" high

Features:

- Avoid damage from tank or oil line leaks with TANK TRAY.
- Easy to install with new or existing oil tanks.
- Made of Space Age Dura Vinyl with aluminum stress supports.

TANK PAN 15

15 Gallon Containment for
existing 275 gal. tank

Dimensions:
72" long, 15" wide, 4" high

Features:

- Avoid damage from tank or oil line leaks with TANK PAN.
- Easy to install with existing oil tanks in seconds
- Made of Space Age Dura Vinyl with aluminum stress supports.



**Installs in less
than 30 seconds!**



TANK TRAY 25

25 Gallon Containment for
275 vertical gal. & 275
horizontal gal. oil tanks

Dimensions:
60" long, 33" wide, 4" high

Features:

- Avoid damage from tank or oil line leaks with TANK TRAY.
- Easy to install with new or existing oil tanks.
- Made of Space Age Dura Vinyl with aluminum stress supports.

TANK ALARM

Early warning system when
used with TANK TRAY

Features:

- AVOID ENVIRONMENTAL DISASTERS AND EXPENSIVE OIL CLEANUP
- Secure your customer's confidence in oil heat and giving oil heat the safe image it deserves.



Order No.	Description
TANK TUB*	78" Long, 28" Wide, 60" Wide 110% Containment Tub for 275 gal. & 330 gal. oil tanks
TANK TUB w/o LID*	78" Long, 28" Wide, 60" Wide 110% Containment Tub for 275 gal. & 330 gal. oil tanks
TANK MATE TALL*	74" high, 78" Long, 36" Deep Oil Tank Cover (Custom Cover for Roth Tanks)
TANK MATE SHORT*	74" High, 78" Long, 36" Oil Tank Cover
TANK TRAY-50	36" Wide, 85" Long, 4" High 50 Gallon Containment Tray (see description above)
TANK TRAY-25	33" Wide, 60" Long, 4" High 25 Gallon Containment Tray (see description above)
TANK PAN-15	15" Wide, 72" Long, 4" High 15 Gallon Containment Tray for Existing 275 gal. tank.
TANK ALARM	Early Warning System for use with TANK TRAY

*Delivery not included on TANK TUB, TANK TRAY and TANK MATE

Oil Solutions Powder

The Complete Solution for Remediation & Clean-up of Fuel, Oil and other Hydrocarbon Spills Using Environmentally Safe "Micro-encapsulation"

Easily Cleans Up:

Crude Oil - Heating Oil - Gasoline - Kerosene - Jet Fuel - Hydraulic Fluids - Motor Oil - Diesel

For Oil Spills on Water or Surfaces

Oil Solutions polymer powder is a unique super-absorbent that can reduce the time and costs associated with remediation and clean-up of a wide variety of fuel, oil, and other hydro-carbon spills on water or on surfaces.

While reducing risk, liability, and costs, Oil Solutions Powder provides a safe, simple, and effective means for not just absorption, but microencapsulation of oil spills on water or on any surface.



FOR SPILLS ON HARD SURFACES AND SOILS
CEMENT - SOIL - WOOD - ASPHALT - METAL - STONE - VINYL SIDING - PLANTS/GRASS

Oil Solutions Step1/Step2

The Complete Solution for Remediation & Clean-up of Fuel, Oil and other Hydrocarbon Spills Using Environmentally Safe "Micro-encapsulation"

Easily Cleans Up:

Crude Oil - Heating Oil - Gasoline - Kerosene - Jet Fuel - Hydraulic Fluids - Motor Oil - Diesel

For Oil Spills on Hard Surfaces and Soils

Oil Solutions Step 1 / Step 2 is a unique absorbent that remediates and cleans up hydrocarbon spills from hard surfaces and soils. Through a patented microencapsulation process, the hazardous characteristics of the waste such as ignitability, corrosivity, reactivity and toxicity, are quickly eliminated. Upon contact the odor of the waste and the stain left behind are also eliminated. This two-part solution rapidly absorbs, emulsifies, and binds spilled materials into a solid, inert, stable white powder. The resulting silica (sand) matrix is resistant to water leaching and effectively locks the hazardous components into a stable, environmentally-safe residue.



FOR SPILLS ON HARD SURFACES AND SOILS
CEMENT - SOIL - WOOD - ASPHALT - METAL - STONE - VINYL SIDING - PLANTS/GRASS

Oil Solutions Emergency Spill Kit

The Complete Solution for Remediation & Clean-up of Fuel, Oil and other Hydrocarbon Spills Using Environmentally Safe "Micro-encapsulation"

Easily Cleans Up:

Crude Oil - Heating Oil - Gasoline - Kerosene - Jet Fuel - Hydraulic Fluids - Motor Oil - Diesel

Ward Heating Products has put together everything you need to clean up hydrocarbon spills from hard surfaces, soils & water and packaged it for easy storage and ordering. Make sure to have one in your service truck because **when you need it, you need it RIGHT NOW!**



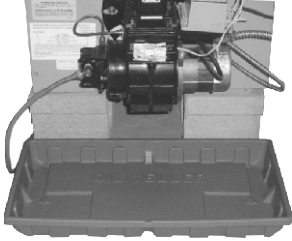
Order No.	Description
TANK OS SPILL KIT	Kit Contains: (2) 32 oz Spray Bottles (Step1/2), 5 lb bag of powder, Scraper and Storage Container
TANK OS POWDER 5LB	Oil Solutions Powder in 5 lb Bag (absorbs approx. 3 gallons)
TANK OS POWDER 10LB	Oil Solutions Powder in 10 lb Bag
TANK OS POWDER 30LB	OS* Oil Solutions Powder in 30 lb Bag
TANK OS STEP1/STEP2 32OZ	Oil Solutions in 32oz Spray Bottle
TANK OS STEP1/STEP2 1GAL	Oil Solutions 1 Gallon Jugs
TANK OS STEP1/STEP2 5GAL	OS* Oil Solutions 5 Gallon Pails



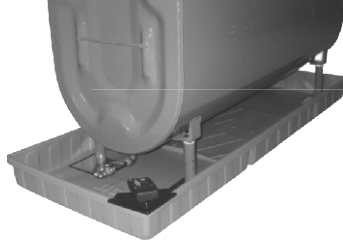
OIL YELLER

Heating Oil Leak Detection

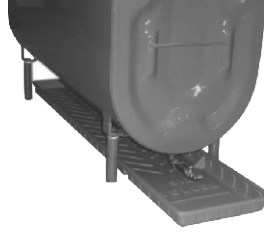
For Indoor Tanks, Filters and Burner Applications



Rectangular Filter



Wide Trays for New 200



Narrow Trays for



L-Shaped Burner Trays

Oil Yeller Tray Features:

- Promotes clean and safe heating oil storage
- Designed to capture leaks from tank, filter, burner fittings or overflow situation.
- Designed to protect environment during annual filter replacement. No drips on the floor.
- Material: Oil Resistant High Density Polyethylene.
- All tank trays extend approximately 1ft beyond tank to accommodate filter and valve connections
- Choose from two options for tank trays: Wide trays for new 200 and 250 gallon tank installations and Narrow trays for retrofitting existing tanks
- L-Shaped Burner Tray fits under burner

Oil Yeller Alarm Features:

- Prevents leak detection alarming
- Trips immediately in the presence of pooled oil
- Velcro mounted for easy installation
- Two models to choose from: 9 volt battery or direct connection to security system
- Typical 9 volt battery performance 3 years (10 years lithium)
- Low battery warning alarm
- Easy self check design and reliable spring

**Recommended
protection by
insurers and
fire marshals**



Leak Detection Alarms

Order No.	Description	Case QTY
YLL PA-001*	WIDE 200 Imp gal (909L) Tank Tray (install tank in tray) size:(72" x 27" x 5") - Req. BP-002	5/box
YLL PA-002	Narrow 200 Imp gal (909L) Tank Tray (retrofit or new) size:(72" x 14.5" x 2.75")	10/box
YLL PA-003*	WIDE 250 Imp gal (1137L) Tank Tray (install tank in tray) size:(84" x 30" x 5") - Req. BP-002	5/box
YLL PA-004	Narrow 250 Imp gal (1137L) Tank Tray for new Granby Tanks (angled legs) size:(72" x 17.25" x 2.75")	10/box
YLL PA-005	Burner L-shape tray (slides under burner & filter area) Used for boilers size:(31" x 13" x 2.75")	10/box
YLL PA-008	Rectangular Filter Tray. Place under burners and/or filters size:(24" x 13" x 2.75")	10/box
YLL PA-009	NEW Tray for Granby & Roth 2-in-1 (680L to 1000L) Steel tank (680L) Vilco 125	5/box
YLL PA-010	NEW Tank Tray for Roth 2-in-1, Models 400 / 620 L	5/box
YLL A-003	ALARM: Model MK-003 Type 9 Volt battery operated (battery incl)	
YLL A-004	ALARM: Model MK-004 Type Direct Connection to security system	
YLL BP-002*	Install Kits: (4) steel plate & gasket set, for installation of PA-001 & PA-003	10/box
YLL EB-002	Extension Bracket, designed to extend a PA-002 for a 250 gal tank	