HVF RT TUBE FILLER SPECIFICATIONS

HVFMODEL	RT112C	RT212C	RT112H	RT212H
Fill Heads	1	2	1	2
Speed range	20-35 cpm	40-70 cpm	20-35 cpm	40-70 cpm
Container type	metal	metal	plastic/laminate	plastic/laminate
Container volume		¼ oz (7cc) - 1	12 oz (350cc)	
Container size (max)	2"	(51 mm) Dia x 10	" (250 mm) long	
Product Viscosities to:		3 million ce	entipoise	
Includes:				
Tube Load	manual	semiauto	manual	semiauto
Fill Nozzle	diving no	zzle, full bottom u	p motion, shut off tip	w/blast
Fill Metering	volumetric	volumetric	volumetric	volumetric
Wetted parts	stainless	stainless	stainless	stainless
Open Top Hopper	5 gallon	5 gallon	5 gallon	5 gallon
Closure Style	double fold	double fold	hot air/hot jaw	hot air/hot jaw
Coding	6-digit	6-digit	6-digit	6-digit
Unload	yes	yes	yes	yes
Options		and the second second	and the second	
Tube Load Ramp	yes	standard	yes	standard
Tube Load Cassette	yes	yes	yes	yes
Tube Purge- prior to filling	yes	yes	yes	yes
Tube Purge w/ Vacuum Cleanout	yes	yes	yes	yes
Print Registration	yes	standard	yes	standard
Metal Saddle Fold	yes	yes	n/a	n/a
Ultrasonic Sealing Station	n/a	n/a	yes	yes
Slot/Hole Punch Station	n/a	n/a	yes	yes
Top Trim Station	n/a	n/a	yes	yes
Code - 7 to 18 digit or both sides	yes	yes	yes	yes
Reject Station	yes	yes	yes	yes
Tube Size Change Parts	yes	yes	yes	yes
X proof	Class 1 E	Division 1 or Divisi	on 2 Hazardous Loc	ations
Open Hopper level sensing	yes	yes	yes	yes
Pressurized Reservoir- ASME rated	yes	yes	yes	yes
Drum Pump	yes	yes	yes	yes
Drum Press	yes	yes	yes	yes

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Electrical	230v 30amp	230v 30amp	230v 30 amp	230v 60amp
Compressed air	80psi @ 25crm	80psi @ 45cfm	80psi @ 30cfm	80psi @ 50cfm
Cooling water	n/a	n/a	1 gpm	1 gpm
LxWxH	74"x61"x73"	82"x70"x86"	74"x61"x73"	82"x70"x86"
Crated Weight	2,500 lbs.	3,100 lbs.	2,300 lbs.	3,000 lbs.

START-UP & TRAINING- Available with all *HVF RT* Series machines is a factory technician to perform an installation checkout, start-up and operator training at your production facility. We include a complete instruction manual with each machine that includes operating instructions, complete bill of materials including vendors part numbers and maintenance instructions.

CUSTOM DESIGNS- Our engineering department can custom design any machine to meet your unique production requirements. Our staff will work hand in hand with your production and plant engineering department to ensure an affordable system tailored to your specific needs.

HVF RT TUBE FILLER FEATURES



FILL STATION- All *HVF RT* Series fill stations feature our innovative metering valve system engineered to handle material viscosities to 3.5 million centipoise. The fill station combines a diving nozzle mechanism, positive displacement metering, bottom-up filling and our patented "snuff-back" metering valve. The diving nozzle depth is adjustable and mechanically linked to the material metering cylinders to prevent air entrapment and deliver a full bottom-up fill. The diving fill nozzle is available with a positive shut-off tip and blast for stringy products. The positive displacement metering cylinder measures your material to a $\pm 1\%$ accuracy and features a simple stroke adjustment for changing the fill volume. All models feature a quick release metering system and feed manifold *(left)* for fast removal and cleaning of the fill station wetted parts. All wetted fill station parts are stainless steel.

HVFRT fill station MATERIAL FEED OPTIONS- An OPEN TOP HOPPER is available for non-viscous flowable materials. For viscous products our *PRESSURE RESERVOIR* is equipped with a non contact level sensor and automated infeed valve for continuous automatic loading of the reservoir from a pump. A *DRUM PUMP* is available to feed any hopper or reservoir from 55 gallon drums. Material may also be delivered directly to the *HVF RT* Fill Station from a hydraulic press. A *DRUM PRESS* is available to feed material directly from 55 gallon drums.



control devices operated by a programmable logic controller (PLC). The PLC controls each station independently and ensures that the machine cycles properly. There are no timing cams, mechanical drive linkages or central drive system to wear out or require timing adjustments. A tube "present" sensor notifies the PLC if any tube holder is missing a tube. An operator display/readout *(left)* is included to simplify troubleshooting and provide production information. The control system is available for either a non-hazardous location or a hazardous location rated CLASS I Division 1 or 2. The machine controls can also be interfaced with other packaging equipment, such as a cartoner, for total system integration.

CONTROL SYSTEM- All models are electric-air powered utilizing air cylinders and electric

control panel/display



tube load cassette

TUBE LOAD STATION- For automatically inserting empty tubes into the rotary dial. The tubes are positioned on a ramp and inserted into the tube holders by the load mechanism. The optional Tube Load Cassette *(left)* allows the operator to load a large supply of tubes into the machine.

METAL FOLD STATION- Metal tubes are closed by our precision crimp folding mechanism (*right*). All crimp contact parts are hardened tool steel for long cycle life and low maintenance. The metal tubes are flattened, folded in 2 or 3 steps and 6 digit coded. Several fold styles are available including a No. 2 or saddle fold.



metal fold

PLASTIC/LAMINATE SEALING- For plastic or laminate tubes we offer a hot air/hot jaw system for a narrow or wide seal. The inside of the tube is preheated at our *Hot Air Station*. The preheated tube is then closed at our Hot Jaw Station and cooled and coded (6 digits) at the *Cold Jaw Station*. A Top Trim Station and Slot Punch Station are available as options. For a one-step rapid narrow seal we offer an *Ultrasonic Seal Station* in place of our hot air/hot jaw system.

SIZE CHANGE-OVER- All models feature our unique adjustable tube holder (shown above right). The tube holder allows height adjustment of tube in the holder. Changing the tube diameter requires a different set of tube holders but a length change only requires a tube holder height adjustment. No height adjustments of the rotary dial or closing station tooling is required. The fill station wetted parts are quick-release, as described above, for fast product or tube size changeovers.

CONSTRUCTION- Frames are precision machined from square steel tubing, notch fitted, welded, ground and powder coated for a solid, durable chemical resistant foundation. Machine components are the highest quality available and designed for easy changeout and maximum cycle life. All non-stainless metal parts are anodized, powder coated, plated or painted to prevent corrosion.

MACHINE GUARDING & SAFETY- The machines are safety guarded to protect the operators from moving parts. All access doors are safety interlocked to prevent operation of the machine with the door open. The emergency stop switches and guard doors immediately remove all power and air from the machine when activated.

ProSys Innovative Packaging Equipment

HVF RT AUTOMATIC MODELS



(*left*) *HVF RT*112C Rotary Dial-1 head metal tube filler w/ saddle fold (*cw from the bottom*), tube load station, tube purge station, print registration station, diving nozzle fill station, tube flatten station, 1st metal fold, 2nd metal fold, 3rd saddle fold, 6 digit code station.



Model *HVF RT*112H, 2 head plastic tube filler, dual cassette tube load, diving fill nozzle for bottom-up air-free filling, wide heat seal with slot punch and top trim.



*HVF RT*112H Rotary Dial, (*cw from right*) tube load, print registration, fill, hot air preheat, hot jaw, cold jaw, slot punch, top trim and unload station.



HVF RT SQUEEZE TUBE FILLING MACHINES





- metal tubes
 plastic tubes
 - laminate tubes
- computer controlled
- viscosities to 3.5 million cps
- quick-clean metering system
- high quality components
- no timing cams or drive linkage
- rapid size change-overs

Model HVF RT112C: 1 head, metal tube filler, 1/2 to 12 ounce fill.

An efficient and accurate packaging operation will improve your bottom line, keep you on top of your market and ahead of your competition. ProSys *High Viscosity Fill Series* squeeze tube filling equipment is specifically designed for filling low, medium or high viscosity materials such as cosmetics, pharmaceuticals, sealants, adhesives, grease, mastics, pastes and putty. All models are computer controlled with no timing cams, mechanical drive linkages or central drive systems to wear out or require timing adjustments.

All ProSys *HVF* machines are engineered to handle the special requirements of high viscosity materials and deliver the production speeds for your packaging requirements. Our patented metering valve system combines positive displacement metering with a simple "snuff-back" material cut-off and bottom-up filling for an accurate air-free fill. Models are available with production speeds from 25 to 70 tubes per minute with material viscosities to 3.5 million centipoise. ProSys *HVF RT* tube filling machines are available in 1 or 2 fill heads with a rotary indexing dial for metal, plastic or laminate collapsible tubes.

All automatic models are available with automatic empty tube cassette feed and load, no tube-no fill, print registration, patented fill system, metal fold closure, hot air/hot jaw heat seal, wide seal with hole punch, tube coding, automatic unload and fully programmable controls with an operator display.



ProSys RM FILLER SPECIFICATIONS

RM MODEL	RM112C	RM212M	RM112H
Container Type	cartridges & syringes	metal tubes	plastic/laminate tubes
Rotary Dial- Adjustable Height	8 Station	8 Station	8 Station
Maximum Speed	30 cpm	30 cpm	30 cpm
Container Volume	1/4 fl c	oz (7cc) - 17 fl oz (5	500cc)
Container Size (max)	2" (51 m	nm) dia x 10" (250 r	mm) long
Product Viscosities Up To:		3 million centipoise)
Includes;			
Tube Load	manual	manual	manual
Fill Nozzle	positive cut	off, fixed nozzle w/	container lift
LVF Fill Station- (300,000 centipoise)	volumetric	volumetric	volumetric
Wetted Parts	304 stainless	304 stainless	304 stainless
Open Top Hopper, Stainless Steel	5 gallon	5 gallon	5 gallon
Closure Style	plunger insert	double fold	hot jaw
Top Trim Station	n/a	n/a	yes
Coding	n/a	6-digit	6-digit
Unload- Automatic	yes	yes	yes
Options	1		
Plastic Wide Seal	n/a	n/a	yes
Plunger Sorter/Feeder	yes	n/a	n/a
High Viscosity Fill Station- (3,000,000 cps)	diving no	zzle, bottom-up air	free fill
Metal Saddle Fold	n/a	yes	n/a
Ultrasonic Sealing Station	n/a	n/a	yes
Slot/Hole Punch Station	n/a	n/a	yes
Code - 7 to 18 Digits Or Both Sides	n/a	yes	yes
Tube Size Change Parts	yes	yes	yes
Operator Display Panel	yes	yes	yes
Explosion Proof Controls	Class 1 Division	1 or Division 2 Haz	ardous Locations
Open Hopper Level Sensing	yes	yes	yes
Pressurized Reservoir- 110 psi	yes	yes	yes
Drum Pump Feed To Fill Station	yes	yes	yes
Drum Press Feed To Fill Station	yes	yes	yes

Standard Utilities				
Electrical	120v 20amp	120v 20	Damp	120v 30amp
Cooling Water	n/a	n/a	1	1 gpm
Compressed Air: 80psi @ 25cfm	· L x W x H: 46" x 3	6" x 72"	Crated V	Veight: 600 lbs.

CUSTOM DESIGNS- We offer combination filling machines to run metal and plastic tubes or squeeze tubes and cartridges/ syringes on the same machine. Our engineering department can custom design any machine to meet your unique production requirements. Our staff will work hand in hand with your production and plant engineering department to ensure an affordable system tailored to your specific needs.

START-UP & TRAINING- Available with all *RM* Series machines is a factory technician to perform an installation checkout, start-up and operator training at your production facility. We include a complete instruction manual with each machine that includes operating instructions, complete bill of materials including vendors part numbers and maintenance instructions.

INNOVATIVE PACKAGING EQUIPMENT



RM ROTARY FILLING MACHINES METAL TUBES • PLASTIC TUBES • SYRINGES • CARTRIDGES



COSMETICS PHARMACEUTICALS SEALANTS ADHESIVES GREASES CHEMICALS

"quick-clean" fill station
speeds to 30 per minute
high quality components
rapid size change-overs
viscosities to 3.5 million cps
portable compact design
volumetric dosing ± ½%
manual loading

Model HVF RM112C, metal tube filler

Plastic Tube Heat Seal

All *RM* automatic models feature manual loading, 8 station indexing rotary dial, "easy adjust" dial height with indicator, no tube-no fill sensor, stainless steel "Quick Clean" Fill Station, tube closure stations or plunger insertion for cartridges & syringes, automatic unload and fully programmable controls. Our patented HVF Fill Station, for high viscosity products, is available as an option. Safety guard doors are electrically interlocked with the emergency stop circuit for maximum operator safety.

<u>METAL SQUEEZE TUBES</u>: (above left) Metal tubes are closed by our precision crimp folding mechanism. Metal tubes are flattened & folded in 2 or 3 steps. Several fold styles are available including a No. 2 and saddle fold. After folding all tubes are embossed with a code. All crimp contact parts are hardened alloy steel for long cycle life and low maintenance.

<u>PLASTIC SQUEEZE TUBES</u>: (above right) For plastic or laminate tubes we offer a hot jaw system for a narrow seal or a hot air/hot jaw combination for a wide seal with slot/hole punch. Tubes are closed at our *Hot Jaw Station* and cooled and coded at the *Cold Jaw Station*. For wide seals the inside of the tube is preheated at our *Hot Air Station*. A Top Trim Station is included and a Slot/Hole Punch Station is available for wide seals. For a one-step rapid narrow seal we offer an *Ultrasonic Seal Station* to replace the hot jaw/cold jaw system.

<u>CARTRIDGES & SYRINGES:</u> (right) A wide variety of plastic, metal or fiber cartridges & syringes can be filled and closed. Metal or plastic plungers are hand oriented and fed to an infeed chute (top right). The plunger is positioned and automatically inserted into the filled cartridge using our unique air-release pin mechanism. Ring seam metal plungers can also be run using optional quick-change parts and seaming station. For air or moisture sensitive materials a Vacuum Insert Mechanism is available. An optional 4 cubic foot plunger sorter and stainless steel bulk hopper is available for automated plunger delivery.



LVF RT TUBE FILLER SPECIFICATIONS

LVF MODEL	RT 112C	RT 212C	RT 112H	RT 212H
Fill Heads	1	2	1	2
Speed range	30 - 60 cpm	70 - 120cpm	30 - 60cpm	70 -120cpm
Container type	metal	metal	plastic/laminate	plastic/laminate
Container volume		1/4 oz (7cc) -12	oz (350cc)	
Container size (max)	1	2 " (51 mm) Dia x 10)" (250 mm) long	
Product Viscosities to:		300,000 cer	tipoise	
Includes;				
Tube Load	manual	semiauto	manual	semiauto
Fill Nozzle	40 mm stroke into tube, shut off tip w/blast			
Fill Metering	volumetric	volumetric	volumetric	volumetric
Wetted parts	stainless	stainless	stainless	stainless
Open Top Hopper	5 gallon	10 gallon	5 gallon	10 gallon
Closure Style	double fold	double fold	hot air/hot jaw	hot air/hot jaw
Coding	6-digit	6-digit	6-digit	6-digit
Unload	yes	yes	yes	yes
Options	Ď			
Tube Load Ramp	yes	standard	yes	standard
Tube Load Cassette	yes	yes	yes	yes
Bottom up fill sequence	yes	yes	yes	yes
Tube Purge w/ Vacuum Cleanout	yes	yes	yes	yes

rube runge the rubulum ofcundut	100	100	100	100
Print Registration	yes	standard	yes	standard
Metal Saddle Fold	yes	yes	n/a	n/a
Ultrasonic Sealing Station	n/a	n/a	yes	yes
Slot/Hole Punch Station	n/a	n/a	yes	yes
Top Trim Station	n/a	n/a	yes	yes
Code - 7 to 18 digits or both sides	yes	yes	yes	yes
Reject Station	yes	yes	yes	yes
Tube Size Change Parts	yes	yes	yes	yes
X proof	Class 1 Division	1 or Division 2 Hazard	ous Locations	A
Open Hopper level sensing	yes	yes	yes	yes
Surge Chamber (closed system)	yes	yes	yes	yes
Drum Pump	yes	yes	yes	yes
Drum Press	yes	yes	yes	yes

Utilities				
Electrical	230v 30amp	230v 30amp	230v 30amp	230v 60amp
Compressed air	80psi @ 25cfm	80psi @ 45cfm	80psi @ 30cfm	80psi @ 50cfm
Cooling water	n/a	n/a	1 gpm	1 gpm
LxWxH	74"X61"X73"	82"X70"X86"	74"X61"X73"	82"X70"X86"
Crated Weight	2,500 lbs.	3,100 lbs.	2,300 lbs.	3,000 lbs.

START-UP & TRAINING- Available with all *LVF RT* Series machines is a factory technician to perform an installation checkout, start-up and operator training at your production facility. We include a complete instruction manual with each machine that includes operating instructions, complete bill of materials including vendors part numbers and maintenance instructions.

CUSTOM DESIGNS- Our engineering department can custom design any machine to meet your unique production requirements. Our staff will work hand in hand with your production and plant engineering departments to ensure an affordable system tailored to your specific needs.

ProSys Innovative Packaging Equipment 1-800-231-3455 page 5 Division of Reagent Chemical & Research, 124 River Rd. Middlesex, NJ 08846 (908) 469-0100 Fax (908) 469-9692



HP-55 HYDRAULIC DRUM PRESS





Model HP-55 - Hydraulic Drum Press, for 55 gallon drums, product outlet pressure = 150 psi max.

Stainless steel piston w/ dual seals, drum support clamps, safety guards w/ electric door interlocks.

The HP-55 hydraulic drum press is designed to feed low, medium or high viscosity materials such as cosmetics, pharmaceuticals, sealants, adhesives, grease, mastics, pastes or putty. The drum press provides rapid product or color changes due to a single moving part- the displacement piston. The piston is hydraulically driven to simplify product transfers from drums to any filling machine and is designed with dual seals for either straight sided or 2 chime 55 gallon US drums. The drum is supported by our unique clamping system which allows a maximum product outlet pressure of 150 PSI for product viscosities to 3 million centipoise. The safety guard doors are electrically interlocked with the control system and prevent operation when the doors are open. The press is also available with x-proof controls for a Class I Division 1 hazardous location.

SPECIFICATIONS:

DRUM: 55 gallon, U.S. straight sided or 2 chime. Optional-3 chime or special drum sizes. PRODUCT OUTLET: 4" NPT female, adjustable pressure = 150 PSI maximum. UTILITIES: 480 VAC, 3 phase, 15 amp. OPTIONAL CONTROLS: Class 1, Div. 1 hazardous location controls. DIMENSIONS: 115" high x 110" wide x 48" deep. SHIPPING WEIGHT: 5000 lbs.

ProSys Innovative Packaging Equipment

1-800-231-3455



COLORMIX METERING SYSTEM SPECIFICATIONS



COLORMIX MODULE COMPONENTS INCLUDE: MODULE BODY, END CAPS, MIXING ELEMENTS, PIGMENT METER ROD, ROD CAP ASSEMBLY, INLET CHECK VALVES, INLET DISCONNECT.

> DUAL RESERVOIRS 7 GALLON ASME TANK, 125 PSI RATED, REMOVABLE LID, AUTO INFEED VALVE, LEVEL SENSOR, FOLLOWER PLATE.



COLORMIX SYSTEM MODEL #	CMX-12	CMX-32	CMX-128
FILL VOLUME (fluid ounces)	0-12	10-32	30-128
PRODUCTION SPEED (per head)	20-30/min	20-30/min	15-25/min
MIX RATIOS (pigment to base)		1:1 to 1:1000	
UTILITIES- 460 VAC 3 phase Air @ 80 psi	20 amp 8 scfm	25 amp 10 scfm	30 amp 12 scfm

COLORMIX MODULE (patent pending)

Compact pigment mixing chamber, 1.5" x 8" x 11", houses the pigment metering cylinder and all static mixing elements. The module can hold 64 static mixing elements and can be expanded to 96 elements if required for complete mixing. The mixing elements are removable for easy cleaning. The Module bolts directly onto the metering valve and can be quickly replaced for fast product changes. Construction is all statinless steel with Viton/Teflon seals.

Mixing Ratio Range = 1:1 to 1:1000

Both components are measured by positive displacement cylinders which are mechanically coupled and driven by a hydraulic or pneumatic actuator. Both components are simultaneously dispensed through the static mixing elements and directly into the container. The ratio can be easily changed by replacing the pigment metering rod and cap assembly. Mix ratio accuracy is better than $\pm \frac{1}{2}$ %.

PATENTED BASE METERING VALVE

Stainless steel construction with Viton/Teflon seals, optional snuff back feature after dispensing to minimize stringing and assist in material cut-off. Compact simple design allows easy servicing and cleaning. The valve is designed for vertical bottom-up filling of the container. Metering valve can handle material viscosities to 3 million centipoise with a filling accuracy of $\pm \frac{1}{2}$ % maximum.

DUAL RESERVOIRS

For pressurized pigment and base material feed to each metering cylinder. Totally enclosed pressurized ASME tank, 0-125 psi, 7 gallon capacity with removable lid, automatic ball valve for pump infeed and non-contact level sensor for automatic material level control. Tank is nickel plated carbon steel construction with optional follower plate to prevent cavitation on high viscosity materials. The metering cylinders may also be fed directly from a hydraulic press. An optional hydraulic DRUM PRESS is available for 55 gallon drums.

COLORMIX AUTOMATIC FILLING EQUIPMENT

The *Colormix Metering System* is available on any of our manual or automatic filling machines designed for cartridges, tubes, cans or any special container. Our automatic fillers are available in 1 to 8 fill head styles with production speeds to 240 per minute. All automatic machines are available with conveyor, container load station, container capping or closure station, programmable control system, and operator control console.

ProSys INNOVATIVE PACKAGING EQUIPMENT

MADE IN USA WITH PRIDE

Division of Reagent Chemical & Research Inc., 124 River Road, Middlesex, NJ 08846 (908) 469-0100 Fax (908) 469-9692



COLORMIX METERING SYSTEM



Colormix Metering Valve.



Colormix Modulecompact mixing chamber.



Colormix Metering System Model # CMX-M12RL with lift assembly for 11 oz. cartridges.

The **ProSys** Colormix Metering System will blend a color dispersion, catalyst or any unique ingredient into your base product as it is dispensed into its packaging container. Whether you make sealants, adhesives, pastes, greases, cosmetics, pharmaceuticals or food products the Colormix Metering System will increase production by minimizing the need for mixing individual custom or color batches. This new system can mix one base material with an unlimited number of colors or custom formulations as the product is packaged. Product changes can be made in minutes instead of hours allowing production to quickly respond to special color or formulation requests. Package any number of colors from the same base material batch to reduce inventories and quickly deliver a broader range of product to your customers. Changing between colors or formulations requires switching of the Colormix Module only. This reduces waste generation and operator exposure to cleaning agents normally associated with the cleaning of batch mixers, transfer equipment and packaging machinery.

The Colormix Metering System can dispense up to one gallon and can mix any product formulation ratio. The system can handle viscosities to 3 million centipoise and includes our patented metering valve for accuracy and air-free filling. The Colormix Metering System is available on any of our automatic filling machines with production speeds to 240 per minute. Call or write with your application specifications and let us show you how our Colormix Metering System can benefit your company.

ProSys INNOVATIVE PACKAGING EQUIPMENT

1 (800) 231-3455

HVF M MANUAL FILL STATION



Cartridge Lift Mechanism



30 oz. Cartridge Metering Change-out Components



ProSys Model # HVF M10RL- 10.5 oz. cartridge filler with optional 10 gallon Reservoir and Cartridge Lift Mechanism.

HVF FILL STATION SPECIFICATIONS:

HVF MODEL	M6	M10	M14	M30
FILL VOLUME (max. fluid ounces)	7 oz.	12 oz.	15 oz.	32 oz.
PRODUCTION SPEED (per minute)	20-25	16-22	14-20	12-18

UTILITIES: 120 VAC 3 amp, 12 SCFM compressed air.

DIMENSIONS: 90"H x 36"W x 30"D (w/floor stand). Shipping Weight = 900 lbs.

OPERATION: Footpedal or Container Activated.

CONSTRUCTION: Frame: epoxy coated steel, metering valve: hard anodized aluminum body, stainless piston rod, teflon/viton seals. OPTIONS: (code)

RESERVOIR (**R**)-10 gallon ASME pressure vessel (110 psi), totally enclosed, clamp on lid, follower plate, level control and autovalve for continuous feed. Nickel Plated carbon steel, Stainless Steel optional. (see photo and specifications on page 2).

HAZARDOUS CONTROLS (X)- Pneumatic control system designed for operation in a CLASS I Division 1 hazardous location. Explosion-proof electrical wiring for reservoir level controls.

STAINLESS STEEL (SS)- 303 Stainless Steel Metering components including "snuff back" valve, metering cylinder, and plumbing. LIFT MECHANISM (L)- Container handling mechanism holds cartridge during entire filling operation. This minimizes operator fatigue and air entrapment during filling.

FILL STATION HEATING (H)- Metering valve and reservoir heating (0-150 F) for material viscosity control. Includes digital temperature control. 120 VAC, 5 amp. Not available with explosion proof controls.

METERING CONVERSION (MC)- for filling other volumes on any model. Specify new volume (MC10 = 10.5 oz.), lift mechanism not included.

page 6

HVF AUTOMATIC MODELS

Machines are available for 11 oz. or 32 oz. standard caulk cartridges and 14 oz. grease cartridges. Any model can be designed for a special cartridge size not listed on page 5.





Model # HVF R110 - 11 oz. automatic cartridge filler, 1 fill head, indexing dial. Production rates = 15-22/min.

12 Station Indexing Dial, vertical fill station, plunger insertion and unload.

HVF R ROTARY MODELS (*above left*)- Single head automatic filler for production speeds of 15-22 per minute. Conveying of the cartridges is handled by a 12 station rotary indexing dial (*above right*). The dial is driven by a motor powered cam style indexing mechanism for precise positioning of the cartridges at each station on the filler. Cartridges are manually oriented and loaded into the semi-automatic cartridge bin. The bin's capacity is approximately 100 cartridges. The bin delivers the cartridges to the load mechanism where they are automatically inserted into the rotary indexing dial.

HVF L LINEAR MODELS (shown page 1)- Two, three, four or six head automatic fillers for production speeds of 30-120 per minute. Conveying of the cartridges is handled by a linear indexing system (see page 4). Cartridges are manually oriented and loaded into the semi-automatic cartridge bin. The bin's capacity is approximately 60 cartridges. The bin delivers the cartridges to the load mechanism where they are automatically inserted into the conveyor carriers. A bulk cartridge bin or automatic 100 cuft hopper/sorter are available as options.

HVF TL TANDEM LINEAR MODELS- For high production requirements we offer two tandem models, 6 and 8 fill head machines. Both models are configured as tandem units, two-3 fill head or two-4 fill head machines operated independently by one main control system. You can run both machines with different materials or one machine while changing over or servicing the 2nd machine. A common bulk cartridge bin or automatic 100 cuft hopper/sorter are available as options.

HVF AUTOMATIC SERIES- STANDARD FEATURES



control panel/display

CONTROL SYSTEM- All models are electric-air powered utilizing air cylinders and electric control devices operated by a programmable logic controller (PLC). The PLC controls each station independently and ensures that the machine cycles properly. There are no cams, mechanical drive linkages or central drive system to wear out or require timing adjustments. A cartridge "present" sensor signals the PLC and operator if any conveyor carrier is missing a cartridge. Safety devices include 2 EMERGENCY STOP switches, conveyor "clear" photoeyes and an operator display/readout (*left*) to prevent conveyor jams and simplify troubleshooting. The control system is available for either a non-hazardous location, a hazardous location rated CLASS I Division 2 or CLASS I Division 1. The machine controls can also be interfaced with other packaging equipment, such as case packers, for total system integration.

LINEAR CONVEYOR- The HVF L and HVF TL linear models are driven by a high speed DC servo (right) for fast, accurate and repeatable conveyor indexing. The DC servo system operates independent of the other stations on the machine. This allows the operator to JOG the conveyor at low speeds in forward or reverse directions. The conveyor system features an automatic alignment that precisely repositions the conveyor to each station on the machine.



linear servo drive



cartridge load bin

CARTRIDGE LOAD STATION- All machines include an empty cartridge load station for inserting the cartridges into the conveyor carriers. The cartridges load bin *(left)* allows the operator to load a large supply of cartridges into the machine (approx. 60). The cartridges are automatically positioned and inserted into the conveyor carrier by the load mechanism. For higher production speeds a bulk cartridge hopper (capacity = 400) or a 100 cuft automatic cartridge hopper/sorter (capacity = 1600) are available as options.



PLUNGER INSERTION STATION- Metal or plastic plungers are sorted from a 6 cubic foot stainless steel bulk hopper (*right*). A plunger sensor confirms that all plungers are in position before insertion into the cartridges. The plungers are positioned and automatically inserted into the filled cartridges using our unique air-release pin mechanism (*left*). Ring seam metal plungers can also be run using optional quick-change parts. For air or moisture sensitive materials a Vacuum Insert Mechanism is available.

plunger insertion station plunger hopper/ sorter

RING SEAM STATION- For seaming 1 or 2 piece metal ring seam plungers to cartridges. A lift mechanism raises the cartridges into the motor driven seaming chuck. The seaming is a two stage operation with a precurl wheel and final curl wheel. The chuck and seam wheels are hardened tool steel (55Rc) for high cycle life.

UNLOAD STATION- All models incorporate an automatic unload mechanism to remove the filled cartridges from the conveyor carriers. A photoeye confirms that the cartridges are completly unloaded from the conveyor.

CONSTRUCTION- All frames are precision machined from 2.5" square steel tubing, notch fitted, welded, ground and powdered coated for a solid, durable chemical resistant foundation. Machine components are the highest quality available and designed for easy changeout and maximum cycle life. All metal parts are anodized, powder coated, plated or painted to prevent corrosion.

MACHINE GUARDING & SAFETY- The machines are safety guarded with coated metal mesh to protect the operators from moving parts. All access doors are safety interlocked to prevent operation of the machine with the doors open. The emergency stop switches immediately remove all power and air from the machine when activated.

START-UP & TRAINING- Available with all *HVF* Series machines is a factory technician to perform an installation checkout, startup and operator training at your production facility. We include a complete instruction manual with each machine that includes operating instructions, complete bill of materials including vendors part numbers and maintenance instructions.

HVF AUTOMATIC SERIES SPECIFICATIONS

HVF MODEL	CARTRIDGE SIZE (oz.)	PRODUCTION RATES (min.)	FILL HEAD	CONVEYOR SYSTEM	DIMENSIONS LxWxH / WEIGHT	UTILITIES AIR/ELECTRIC
R110 R114 R130	11 14 30	15-22 13-18 10-15	1	ROTARY	72"x72"x85" 2200 lbs.	15 scfm 80 psi 220vac 15A 3 PH
L210 L214 L230	11 14 30	30-45 28-36 25-35	2	LINEAR SERVO	100"x88"x110" 2600 lbs.	25 scfm 80 psi 220vac 20A 3 PH
L310 L314 L330	11 14 30	45-60 42-55 40-50	3	LINEAR SERVO	100"x88"x110" 2800 lbs.	40 scfm 80 psi 220vac 20A 3 PH
L410 L414 L430	11 14 30	60-80 56-72 50-60	4	LINEAR SERVO	100"x95"x110" 3000 lbs.	50 scfm 80 psi 220vac 25A 3 PH
L610 L614 L630	11 14 30	90-120 84-110 80-100	6	LINEAR or TANDEM	100"x108"x110" 3700 lbs.	70 scfm 80 psi 220vac 40A 3 PH
TL810 TL814 TL830	11 14 30	120-160 110-144 100-120	8	TANDEM LINEAR only	100"x200"x110" 4300 lbs.	80 scfm 80 psi 220vac 50A 3 PH

OPTIONS (code)

SEAMING STATION (S)- designed to ring seam metal plungers to cartridge. This station adds 48" to the overall length of all LINEAR models and 220 vac 6 Amps 3 PH utilities.

VACUUM PLUNGER INSERTION (V)- for inserting straight sided metal or plastic plungers into filled cartridges under vacuum. Designed to evacuate air between material and plunger. Includes vacuum pump.

RESERVOIR (R)- Enclosed ASME pressure vessel (0-110 psi) with level controls and auto-valve for continuous feed. Nickel Plated carbon steel tank, Stainless Steel optional. Consult engineering for recommended size for your filler model and application.

HAZARDOUS CONTROLS (X1)- Entire machine and control system designed for operation in a Class I Division1 location. Main control panel is wired intrinsically safe and mounted in a safe area or pressurized in accordance with NEC & NFPA codes.

HAZARDOUS CONTROLS (X2)- Entire machine and control system designed for operation in a Class I Division 2 location. Main control panel is wired intrinsically safe and mounted in a safe area or pressurized in accordance with NEC & NFPA codes.

STAINLESS STEEL (SS)- Stainless Steel Metering components including "snuff back" valve, metering cylinder, material inlet manifold, and plumbing.

BULK CARTRIDGE HOPPER (B)- Cartridge magazine with a capacity of 400 empty cartridges for bulk feeding. Cartridges are manually oriented and loaded into the bin.

CARTRIDGE CODING (C)- Ink stamp, embossing or ink jetting to meet your current coding procedures.

PUMPING EQUIPMENT- We can supply air-operated drum ram pumps or transfer pumps to feed any model from your mixer, storage tank or 55 gallon drum. Pumps are positive displacement piston pumps all air operated.

HP-55A DRUM PRESS- To feed material directly from 55 gallon drums. The drum press is hydraulically powered and has a maximum product outlet pressure of 180 psi, 480 vac, 30A, 3 PH.

CUSTOM DESIGNS- Our engineering department can custom design any machine to meet your unique production requirements. Our staff will work hand in hand with your production and plant engineering departments to ensure an affordable system tailored to your specific needs.

NTED HVF METERING VALVE SYSTEM



HVF L410 fill station

FILL STATION- All HVF Series fill stations feature our innovative metering valve system engineered to handle material viscosity's to 3.5 million centipoise. The fill station combines a mechanically interlocked cartridge lift mechanism, positive displacement metering, bottom-up filling and our patented "snuff-back" metering valve. The cartridge lift mechanism is designed to lift the cartridges over the dispense nozzles prior to filling. The lift height is adjustable and mechanically locked to the material metering cylinders to prevent air entrapment and deliver a bottom-up fill. The positive displacement metering cylinder measures your material to a $\pm 1\%$ accuracy and features a simple stroke adjustment for changing the fill volume. The metering cylinders are reloaded with material while the machine is indexing empty cartridges into the fill station maximizing production speed. Multiple head models feature a quick release feed manifold and metering system (left) for fast removal and cleaning of the fill station wetted parts.

The heart of the fill station is our patented "snuff back" metering valve. The valve is a simple 3 port design with one moving hardened stainless steel valve rod to connect the ports together. Large porting is incorporated to allow adequate flow of viscous materials and minimizes the shear to thixotropic materials. Flow passages through the valve are machined smooth for ease in cleaning and color change. The valve is manufactured from high strength aluminum and hard anodized to a Rockwell 50c for abrasion and corrosion resistance (optional stainless steel construction is available). The "snuff-back" operating sequence, explained below, is designed to provide a simple material cut-off between the dispense nozzle and the filled cartridge. This action minimizes the stringing that generally occurs from filling high viscosity materials. For extremely stringy materials a cartridge wipe mechanism is included at the fill station on all automatic models. This mechanical wipe eliminates any stringing or small cobwebs that may exist.



SEQUENCE #1 (left)- The valve rod is in the "closed position allowing material to flow from the reservoir into the metering cylinder.

SEQUENCE #2 (right)- The rod slides forward into the "open" position closing off the material inlet and opening the dispense nozzle. The premeasured volume of material is dispensed from the metering cylinder thru the nozzle into the cartridge.

SEQUENCE #3 (left)- After dispensing is completed the rod slides back toward the "closed" position and seals off the dispense nozzle from the metering cylinder.

SEQUENCE #4 (right)- As the rod continues to slide it creates a suction on the dispense nozzle which draws the material up the nozzle. This action forces the material in the nozzle to separate from the filled cartridge.







MATERIAL FEED OPTIONS:

HVF Fill Stations must be fed with material at a constant flow rate and pressure to ensure accurate fill rates. The following two methods are recommended for delivering high viscosity materials to the fill station.

1) RESERVOIR - For pump feeding from drums or storage a pressurized reservoir is required to buffer the pulsating pressure and flowrate of any pump. Our standard 10 gallon reservoir (right) is equipped with a non-contact level sensor and automated infeed valve for continuous automatic loading of the reservoir from a pump. The reservoir is an ASME 110 psi rated pressure vessel and includes a removable lid, safety relief valve, pressure regulator and follower plate to prevent material cavitation. Additional reservoir sizes are available upon request. A DRUM PUMP is available to feed the reservoir from 55 gallon drums or storage tanks.

2) PRESS FEED - Material may also be delivered directly to the HVF Fill Station from a hydraulic press. Since a press will provide a constant low pressure flowrate no reservoir is

required. Consult engineering for minimum pressures and flowrates. A press typically allows for faster color or material change overs. A model HP-55A DRUM PRESS is available to feed material directly from 55 gallon drums. The drum press is hydraulically powered and has a maximum product outlet pressure of 180 psi.





HVF CARTRIDGE FILLING MACHINES



- caulk cartridges
- grease cartridges
- production speeds to 160 per minute
- viscosity's to
 3.5 million CPS
- computer controlled
- accurate air-free filling
- quick disconnect fill system
- compact design
- no timing cams or drive linkages

ProSys Model # HVF L410: 4 head, 11 ounce automatic cartridge filler. Production Rates= 60-80 /minute. (guarding removed for clarity)

An efficient and accurate packaging operation will improve your bottom line, keep you on top of your market and ahead of your competition. ProSys *High Viscosity Fill Series* cartridge filling equipment is specifically designed for filling high viscosity materials such as sealants, adhesives, grease, mastics, pastes and putty.

Inaccurate fills, air entrapment, low production speeds, and equipment downtime can be costing your company thousands of dollars each year. Inaccurate fill volumes will cost your company on overfills and can create costly merchandise returns on underfills. Air entrapment can reduce cartridge shelf life, cause inaccurate fill levels and premature material curing. Low production speeds and equipment downtime can seriously effect your plants ability to meet production quotas and customer shipments.

All ProSys *HVF* machines are engineered to handle the special requirements of high viscosity materials and deliver the production speeds for your packaging requirements. Our patented metering valve system combines positive displacement metering with a simple "snuff-back" material cut-off and bottom-up filling for an accurate air-free fill. Different models are available with production speeds from 15 to 160 cartridges per minute with material viscosity's to 3.5 million centipoise. ProSys *HVF* cartridge machines are available in a Manual Fill Station or seven automatic models for 11 oz., 14 oz. or 32 oz. cartridges:

Model	Conveyor System	Fill Heads	Production Rates
HVF M	MANUAL STATION	1	15-22/min.
HVF R	ROTARY	1	15-22/min.
HVF L	LINEAR	2, 3, 4 or 6	30-120/min.
HVF TL	TANDEM LINEAR	6 or 8	120-160/min.

All automatic models are available with automatic empty cartridge sorting and load, cartridge missing sensors, patented fill system, plunger missing sensor, plunger insertion, ring seaming, cartridge coding, automatic unload and fully programmable controls.



HVFI IN-LINE FILLING MACHINES

PRODUCT APPLICATION- All models are outfitted per your specific application. The *HVF I* fillers perform equally well for light viscosity through high viscosity products due to our patented metering system. A choice of product contact parts and seals are available to ensure product compatibility. Typical applications include; solvents, water thin products, creams, lotions, adhesives, pastes, sealants, mastics and putty.

STANDARD FEATURES

FILL STATION- All *HVF I* Series fill stations feature our innovative metering valve system engineered to handle material viscosities to 3.5 million centipoise. The fill station is available with a fixed or diving nozzle mechanism. The diving nozzle depth is adjustable to deliver a full bottom-up, air free fill. The fill nozzle is available with a positive shutoff tip and blast for stringy products. The patented "snuff-back" metering valve and positive displacement metering cylinder measures your material to a $\pm 1\%$ accuracy and features a simple stroke adjustment for changing the fill volume. All models feature a quick release metering system and feed manifold for fast removal and cleaning of the fill station wetted parts. Optional stainless steel wetted parts are available.

MATERIAL FEED OPTIONS- An *OPENTOP HOPPER* is available for non-viscous flowable materials. For viscous products our *PRESSURE RESERVOIR* is equipped with a non-contact level sensor and automated infeed valve for continuous automatic loading of the reservoir from a pump. A *DRUM PUMP* is available to feed any hopper or reservoir from 55 gallon drums. Material may also be delivered directly to the *HVF I* Fill Station from a hydraulic press. A *DRUM PRESS* is available to feed material directly from 55 gallon drums.

CONTAINER INDEXING- Adjustable air-actuated stops and "container present" photoeyes are used to stage empty containers to the fills nozzles. A "no can-no fill" safety circuit ensures all containers are present at the fill station.

CONTROL SYSTEM- All models are electric-air powered utilizing air cylinders and electric control devices. With all systems, individual air regulators control the pressure and speed of each station. All models are operated by a programmable logic controller (PLC). The PLC controls the overall machine sequencing and operation allowing flexibility to customize the machine to your production requirements. The emergency stop switches immediately remove all power and air from the machine when activated. An operator display/readout is available as an option for production counts and troubleshooting.

CONSTRUCTION- All frames are precision machined from square steel tubing, notch fitted, welded, ground and powder coated for a solid, durable chemical resistant foundation. Machine components are the highest quality available and designed for easy changeout and maximum cycle life. All non-stainless steel metal parts are either anodized, powder coated, plated or painted to prevent corrosion.

START-UP & TRAINING- Available with all *HVF I* Series machines is a factory technician to perform an installation checkout, start-up and operator training at your production facility. We include a complete instruction manual with each machine that includes operating instructions, complete bill of materials including <u>vendors part numbers</u> and maintenance instructions.

UTILITIES:	120 VAC 3 amp, 20 SCFM compressed air				
DIMENSIONS:	1 & 2 head frame;	90" H x 36" W x 30" D	Shipping Weight = 900 lbs.		
	3 & 4 head frame;	90" H x 45" W x 30" D	Shipping Weight = 1,200 lbs.		

OPTIONS: (code)

CONVEYOR (C10)- Flat top chain, adjustable side guides, variable speed control. 120VAC 15 amp.

RESERVOIR (R)- 10 gallon ASME pressure vessel (110 psi), clamp on lid, follower plate, level controls and auto-valve for continuous feed. Nickel Plated carbon steel, Stainless Steel optional.

HOPPER (H)- 10 gallon open top cone hopper, 304 Stainless Steel as standard.

HAZARDOUS CONTROLS (X)- Purged and intrinsically safe control system designed for operation in a CLASS I Div 1 or Div 2 hazardous location. Explosion-proof electrical wiring for reservoir level controls.

STAINLESS STEEL (SS)- 303 Stainless Steel Metering components including "snuff back" valve, metering cylinder, and plumbing.

METER CONVERSION (MC)- for filling other volumes on any model. Specify new volume (MC10 = 10 oz).

LID CLOSING (LD)- for automatic placement and closing of friction type metal/plastic lids.

ProSys Innovative Packaging Equipment1-800-231-3455page 2Division of Reagent Chemical & Research, 124 River Rd. Middlesex, NJ 08846(908) 469-0100Fax (908) 469-9692



HVF I IN-LINE FILLING MACHINES

An efficient and accurate packaging operation will improve your bottom line, keep you on top of your market and ahead of your competition. ProSys *High Viscosity Fill Series;* In-line filling equipment is specifically designed for adaptability to fill a wide range of materials and container types. With a choice of either fixed position or bottom up fill, the versatile ProSys filler can package water thin materials or extremely viscous products such as mastics and puttys.







Model # HVF 1248 - 48 oz automatic can filler, 2 fill heads, Production rates = 15-45/ min.

Fill head, positive closure nozzle, "quick adjust" height, center distance and volume.

HVF I MODELS (1248 shown above). One, two, three or four head automatic fillers for production speeds of 10-90 per minute. As standard, movement of the containers are handled by a flat top conveyor system. Containers are manually loaded onto the conveyor and then delivered to the fill station and/or closing stations via automatic indexing. Fill sequence occurs only when all containers are present under the fill station. Either a stationary or diving nozzle is available. All adjustments to fill head, conveyor and container indexing are "quick adjust" ratchet style locking devices.

HVF / Model	Fill Heads	Production Rates	Control System	Expandable
I148	1	10-25/min.	PLC	to 2 heads
1248	2	20-45/min.	PLC	to 4 heads (option)
1348	3	30-65/min.	PLC	to 4 heads
1448	4	40-90/min.	PLC	N/A



ProSys RM FILLER SPECIFICATIONS

RM MODEL	RM112C	RM212M	RM112H		
Container Type	cartridges & syringes metal tubes		plastic/laminate tubes		
Rotary Dial- Adjustable Height	8 Station	8 Station	8 Station		
Maximum Speed	30 cpm	30 cpm	30 cpm		
Container Volume	1/4 fl c	oz (7cc) - 17 fl oz (5	500cc)		
Container Size (max)	2" (51 m	nm) dia x 10" (250 r	mm) long		
Product Viscosities Up To:		3 million centipoise			
Includes;					
Tube Load	manual	manual	manual		
Fill Nozzle	positive cut	off, fixed nozzle w/	container lift		
LVF Fill Station- (300,000 centipoise)	volumetric	volumetric	volumetric		
Wetted Parts	304 stainless	304 stainless	304 stainless		
Open Top Hopper, Stainless Steel	5 gallon	5 gallon	5 gallon		
Closure Style	plunger insert	double fold	hot jaw		
Top Trim Station	n/a	n/a	yes		
Coding	n/a	6-digit	6-digit		
Unload- Automatic	yes	yes	yes		
Options	1				
Plastic Wide Seal	n/a	n/a	yes		
Plunger Sorter/Feeder	yes	n/a	n/a		
High Viscosity Fill Station- (3,000,000 cps)	diving nozzle, bottom-up air free fill				
Metal Saddle Fold	n/a	yes	n/a		
Ultrasonic Sealing Station	n/a	n/a	yes		
Slot/Hole Punch Station	n/a	n/a	yes		
Code - 7 to 18 Digits Or Both Sides	n/a	yes	yes		
Tube Size Change Parts	yes	yes	yes		
Operator Display Panel	yes	yes	yes		
Explosion Proof Controls	Class 1 Division 1 or Division 2 Hazardous Locations				
Open Hopper Level Sensing	yes	yes	yes		
Pressurized Reservoir- 110 psi	yes	yes	yes		
Drum Pump Feed To Fill Station	yes	yes	yes		
Drum Press Feed To Fill Station	yes	yes	ves		

Standard Utilities				
Electrical	120v 20amp	120v 20amp		120v 30amp
Cooling Water	n/a n/a		1	1 gpm
Compressed Air: 80psi @ 25cfm	L x W x H: 46" x 36" x 72" Cr		Crated	Weight: 600 lbs.

CUSTOM DESIGNS- We offer combination filling machines to run metal and plastic tubes or squeeze tubes and cartridges/ syringes on the same machine. Our engineering department can custom design any machine to meet your unique production requirements. Our staff will work hand in hand with your production and plant engineering department to ensure an affordable system tailored to your specific needs.

START-UP & TRAINING- Available with all *RM* Series machines is a factory technician to perform an installation checkout, start-up and operator training at your production facility. We include a complete instruction manual with each machine that includes operating instructions, complete bill of materials including vendors part numbers and maintenance instructions.

INNOVATIVE PACKAGING EQUIPMENT



RM ROTARY FILLING MACHINES METAL TUBES • PLASTIC TUBES • SYRINGES • CARTRIDGES



Model HVF RM112C, metal tube filler

Plastic Tube Heat Seal

All *RM* automatic models feature manual loading, 8 station indexing rotary dial, "easy adjust" dial height with indicator, no tube-no fill sensor, stainless steel "Quick Clean" Fill Station, tube closure stations or plunger insertion for cartridges & syringes, automatic unload and fully programmable controls. Our patented HVF Fill Station, for high viscosity products, is available as an option. Safety guard doors are electrically interlocked with the emergency stop circuit for maximum operator safety.

<u>METAL SQUEEZE TUBES:</u> (above left) Metal tubes are closed by our precision crimp folding mechanism. Metal tubes are flattened & folded in 2 or 3 steps. Several fold styles are available including a No. 2 and saddle fold. After folding all tubes are embossed with a code. All crimp contact parts are hardened alloy steel for long cycle life and low maintenance.

<u>PLASTIC SQUEEZE TUBES</u>: (above right) For plastic or laminate tubes we offer a hot jaw system for a narrow seal or a hot air/hot jaw combination for a wide seal with slot/hole punch. Tubes are closed at our *Hot Jaw Station* and cooled and coded at the *Cold Jaw Station*. For wide seals the inside of the tube is preheated at our *Hot Air Station*. A Top Trim Station is included and a Slot/Hole Punch Station is available for wide seals. For a one-step rapid narrow seal we offer an *Ultrasonic Seal Station* to replace the hot jaw/cold jaw system.

<u>CARTRIDGES & SYRINGES:</u> (right) A wide variety of plastic, metal or fiber cartridges & syringes can be filled and closed. Metal or plastic plungers are hand oriented and fed to an infeed chute (top right). The plunger is positioned and automatically inserted into the filled cartridge using our unique air-release pin mechanism. Ring seam metal plungers can also be run using optional quick-change parts and seaming station. For air or moisture sensitive materials a Vacuum Insert Mechanism is available. An optional 4 cubic foot plunger sorter and stainless steel bulk hopper is available for automated plunger delivery.

COSMETICS PHARMACEUTICALS SEALANTS ADHESIVES GREASES CHEMICALS

- "quick-clean" fill station
- speeds to 30 per minute
- high quality components
- rapid size change-overs
- viscosities to 3.5 million cps
- portable compact design
- volumetric dosing ± ½%
- manual loading





HVF RT TUBE FILLER SPECIFICATIONS

HVFMODEL	RT112C	RT212C	RT112H	RT212H	
Fill Heads	1	2	1	2	
Speed range	20-35 cpm	40-70 cpm	20-35 cpm	40-70 cpm	
Container type	metal	metal	plastic/laminate	plastic/laminate	
Container volume		¼ oz (7cc) - 1	12 oz (350cc)		
Container size (max)	2"	(51 mm) Dia x 10	" (250 mm) long		
Product Viscosities to:		3 million ce	entipoise		
Includes:					
Tube Load	manual	semiauto	manual	semiauto	
Fill Nozzle	diving no	zzle, full bottom u	p motion, shut off tip	w/blast	
Fill Metering	volumetric	volumetric	volumetric	volumetric	
Wetted parts	stainless	stainless	stainless	stainless	
Open Top Hopper	5 gallon	5 gallon	5 gallon	5 gallon	
Closure Style	double fold	double fold	hot air/hot jaw	hot air/hot jaw	
Coding	6-digit	6-digit	6-digit	6-digit	
Unload	yes	yes	yes	yes	
Options	and the second				
Tube Load Ramp	yes	standard	yes	standard	
Tube Load Cassette	yes	yes	yes	yes	
Tube Purge- prior to filling	yes	yes	yes	yes	
Tube Purge w/ Vacuum Cleanout	yes	yes	yes	yes	
Print Registration	yes	standard	yes	standard	
Metal Saddle Fold	yes	yes	n/a	n/a	
Ultrasonic Sealing Station	n/a	n/a	yes	yes	
Slot/Hole Punch Station	n/a	n/a	yes	yes	
Top Trim Station	n/a	n/a	yes	yes	
Code - 7 to 18 digit or both sides	yes	yes	yes	yes	
Reject Station	yes	yes	yes	yes	
Tube Size Change Parts	yes	yes	yes	yes	
X proof	Class 1 Division 1 or Division 2 Hazardous Locations				
Open Hopper level sensing	yes	yes	yes	yes	
	VOC	yes	yes	yes	
Pressurized Reservoir- ASME rated	yes				
Pressurized Reservoir- ASME rated Drum Pump	yes	yes	yes	yes	

Unintes	the second se			
Electrical	230v 30amp	230v 30amp	230v 30 amp	230v 60amp
Compressed air	80psi @ 25crm	80psi @ 45cfm	80psi @ 30cfm	80psi @ 50cfm
Cooling water	n/a	n/a	1 gpm	1 gpm
LxWxH	74"x61"x73"	82"x70"x86"	74"x61"x73"	82"x70"x86"
Crated Weight	2,500 lbs.	3,100 lbs.	2,300 lbs.	3,000 lbs.

START-UP & TRAINING- Available with all *HVF RT* Series machines is a factory technician to perform an installation checkout, start-up and operator training at your production facility. We include a complete instruction manual with each machine that includes operating instructions, complete bill of materials including vendors part numbers and maintenance instructions.

CUSTOM DESIGNS- Our engineering department can custom design any machine to meet your unique production requirements. Our staff will work hand in hand with your production and plant engineering department to ensure an affordable system tailored to your specific needs.

HVF RT TUBE FILLER FEATURES



FILL STATION- All *HVF RT* Series fill stations feature our innovative metering valve system engineered to handle material viscosities to 3.5 million centipoise. The fill station combines a diving nozzle mechanism, positive displacement metering, bottom-up filling and our patented "snuff-back" metering valve. The diving nozzle depth is adjustable and mechanically linked to the material metering cylinders to prevent air entrapment and deliver a full bottom-up fill. The diving fill nozzle is available with a positive shut-off tip and blast for stringy products. The positive displacement metering cylinder measures your material to $a \pm 1\%$ accuracy and features a simple stroke adjustment for changing the fill volume. All models feature a quick release metering system and feed manifold *(left)* for fast removal and cleaning of the fill station wetted parts. All wetted fill station parts are stainless steel.

HVFRT fill station MATERIAL FEED OPTIONS- An OPEN TOP HOPPER is available for non-viscous flowable materials. For viscous products our *PRESSURE RESERVOIR* is equipped with a non contact level sensor and automated infeed valve for continuous automatic loading of the reservoir from a pump. A *DRUM PUMP* is available to feed any hopper or reservoir from 55 gallon drums. Material may also be delivered directly to the *HVF RT* Fill Station from a hydraulic press. A *DRUM PRESS* is available to feed material directly from 55 gallon drums.



control panel/display



tube load cassette

CONTROL SYSTEM- All models are electric-air powered utilizing air cylinders and electric control devices operated by a programmable logic controller (PLC). The PLC controls each station independently and ensures that the machine cycles properly. There are no timing cams, mechanical drive linkages or central drive system to wear out or require timing adjustments. A tube "present" sensor notifies the PLC if any tube holder is missing a tube. An operator display/read-out (*left*) is included to simplify troubleshooting and provide production information. The control system is available for either a non-hazardous location or a hazardous location rated CLASS I Division 1 or 2. The machine controls can also be interfaced with other packaging equipment, such as a cartoner, for total system integration.

TUBE LOAD STATION- For automatically inserting empty tubes into the rotary dial. The tubes are positioned on a ramp and inserted into the tube holders by the load mechanism. The optional Tube Load Cassette *(left)* allows the operator to load a large supply of tubes into the machine.

METAL FOLD STATION- Metal tubes are closed by our precision crimp folding mechanism (*right*). All crimp contact parts are hardened tool steel for long cycle life and low maintenance. The metal tubes are flattened, folded in 2 or 3 steps and 6 digit coded. Several fold styles are available including a No. 2 or saddle fold.



metal fold

PLASTIC/LAMINATE SEALING- For plastic or laminate tubes we offer a hot air/hot jaw system for a narrow or wide seal. The inside of the tube is preheated at our *Hot Air Station*. The preheated tube is then closed at our Hot Jaw Station and cooled and coded (6 digits) at the *Cold Jaw Station*. A Top Trim Station and Slot Punch Station are available as options. For a one-step rapid narrow seal we offer an *Ultrasonic Seal Station* in place of our hot air/hot jaw system.

SIZE CHANGE-OVER- All models feature our unique adjustable tube holder (shown above right). The tube holder allows height adjustment of tube in the holder. Changing the tube diameter requires a different set of tube holders but a length change only requires a tube holder height adjustment. No height adjustments of the rotary dial or closing station tooling is required. The fill station wetted parts are quick-release, as described above, for fast product or tube size changeovers.

CONSTRUCTION- Frames are precision machined from square steel tubing, notch fitted, welded, ground and powder coated for a solid, durable chemical resistant foundation. Machine components are the highest quality available and designed for easy changeout and maximum cycle life. All non-stainless metal parts are anodized, powder coated, plated or painted to prevent corrosion.

MACHINE GUARDING & SAFETY- The machines are safety guarded to protect the operators from moving parts. All access doors are safety interlocked to prevent operation of the machine with the door open. The emergency stop switches and guard doors immediately remove all power and air from the machine when activated.

ProSys Innovative Packaging Equipment

ProSys Squeeze Tube Filler Specifications

SPECS.		RT112C	RT212C	RT112H	RT212H
BASE MACHINE			1		
BASE MACHINE	# of boards	1	2	1	2
	# Of fieldus	30.60000	70-120cpm	30_60cpm	70-120cpm
	Container tune	- so-oucpin	metal	plas /laminate	plas /laminate
	Container type	5-12 07	5-12.07	5-12 07	5-12 07
	Viscositios to:	300,000,000	300,000,000	300,000,000	300.000 cps
	Viscosities to.	300,000 Cps	300,000 Cps	500,000 Cps	300,000 cps
Includes;					
	tube load	manual	semiauto	manual	semiauto
	Nozzle	40mm stroke	40mm stroke	40mm stroke	40mm stroke
	Fill	volumetric	volumetric	volumetric	volumetric
	Wetted parts	stainless	stainless	stainless	stainless
	Cone Hopper	5 gal.	10 gal.	5 gal.	10 gal.
	Closure std.	double fold	double fold	hot air/hot jaw	hot air/hotjaw
	coding	6-digit	6-digit	6-digit	6-digit
	eject	yes	yes	yes	yes
Options Available					-
e prietie i tri antennie	Bulk bin	Ves	Ves	Ves	ves
	load	Ves	std	Ves	std
	Purae	Ves	Ves	Ves	Ves
	Orient	Ves	Ves	Ves	Ves
	saddle fold	Ves	Ves		p/g
	ultrasonic	p/a	p/a	Ves	Ves
	slot/hole punch		n/a	yos ves	VOS
	Code	std	std	std	std
	Reject	VOS	Ves	Vos	Vos
	Vol change parts	VOS	YOS	yos Vos	yes vos
	Y proof	quailable	gyailable	NO	NO
	Drum Dump	uvuluule	uvuluble	NO	INC
	Drum Press	ves	ves	ves	ves
Utilities	Electrical	230v 30amp	230v 30amp	230, 30000	230v 60amo
	Compressed air	8000 000mp	80psi@45cfm	80pci @ 30cfm	2000 000mp
	Cooling water	n/a	n/a	1 apm	lapm
		1			
Size		0.100 #	0.000 Ibs	0.000 11-2	0.000
Dry weight		2,100 lbs.	2,900 lbs.	2,000 lbs	2,800
LXWXH		74"X61"X73"	82"X70"X86"	74"X61"X73"	82"X70"X86"
# of Pieces Std.		2	2	2	2
Crated Weight		2,500 lbs.	3,100 lbs	2,300 bs.	3,000 lbs.
Crate Sizes	Machine	82"X69"X73"	90"X78"X92"	82"X69"X73"	90"X78"X92"
A. S. SANTA CO	Accessory	48"X48"X48"	48"X48"X48"	48"X48"X48"	48"X48"X48"
# of Pieces Export		1		1	1
Crated Weight		2,700 lbs	3500 lbs	2,500 lbs	3,400 lbs
Crate Sizes	Machine	96"X90"X92"	96"X90"X92"	96"X90"X92"	96"X90"X92"
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HVF RT AUTOMATIC MODELS



(left) HVF RT112C Rotary Dial-1 head metal tube filler w/ saddle fold (cw from the bottom), tube load station, tube purge station, print registration station, diving nozzle fill station, tube flatten station, 1st metal fold, 2nd metal fold, 3rd saddle fold, 6 digit code station.



Model *HVF RT*112H, 2 head plastic tube filler, dual cassette tube load, diving fill nozzle for bottom-up air-free filling, wide heat seal with slot punch and top trim.



*HVF RT*112H Rotary Dial, (*cw from right*) tube load, print registration, fill, hot air preheat, hot jaw, cold jaw, slot punch, top trim and unload station.



HVF RT SQUEEZE TUBE FILLING MACHINES





- metal tubes
 plastic tubes
 - laminate tubes
- computer controlled
- viscosities to 3.5 million cps
- quick-clean metering system
- high quality components
- no timing cams or drive linkage
- rapid size change-overs

Model HVF RT112C: 1 head, metal tube filler, 1/2 to 12 ounce fill.

An efficient and accurate packaging operation will improve your bottom line, keep you on top of your market and ahead of your competition. ProSys *High Viscosity Fill Series* squeeze tube filling equipment is specifically designed for filling low, medium or high viscosity materials such as cosmetics, pharmaceuticals, sealants, adhesives, grease, mastics, pastes and putty. All models are computer controlled with no timing cams, mechanical drive linkages or central drive systems to wear out or require timing adjustments.

All ProSys *HVF* machines are engineered to handle the special requirements of high viscosity materials and deliver the production speeds for your packaging requirements. Our patented metering valve system combines positive displacement metering with a simple "snuff-back" material cut-off and bottom-up filling for an accurate air-free fill. Models are available with production speeds from 25 to 70 tubes per minute with material viscosities to 3.5 million centipoise. ProSys *HVF RT* tube filling machines are available in 1 or 2 fill heads with a rotary indexing dial for metal, plastic or laminate collapsible tubes.

All automatic models are available with automatic empty tube cassette feed and load, no tube-no fill, print registration, patented fill system, metal fold closure, hot air/hot jaw heat seal, wide seal with hole punch, tube coding, automatic unload and fully programmable controls with an operator display.





INNOVATIVE PACKAGING EQUIPMENT



Wednesday, April 23, 1997

Patrick Quinn **AARON EQUIPMENT COMPANY** 735 E. Green Street Bensenville, IL 60106 630-350-2200

Dear Mr. Quinn:

Thank you very much for responding to our recent advertisement in PMP News Magazine and for your interest in our **ProSys** filling equipment for **squeeze tubes**.

The ProSys, **Squeeze Tube Filling Machines** are available in a single head *semiautomatic* version (RM series), as well as *fully automated systems* (RT series), which are available in 1 and 2 head models. Our two different series types provide a production range of 20 to 120 tubes per minute and a price range to meet every budget need.

The ProSys squeeze tube fillers utilize positive displacement metering and field proven components for accurate, reliable operation. Virtually all the various closure styles, tube materials and tube sizes are able to run on any of our systems. In addition to our patented metering valve for viscous materials and a true bottom up fill for precise air free filling, a wide variety of options are available to meet your specific need.

Again, we are very pleased that you have taken an interest in the equipment we have to offer. Should you require additional information on any of our systems or if you have an immediate question, please feel free to call.

Best redaids:

Gary T. Lowden ProSys Sales Manager

GTL: me cc: GL Pkg. Dave Pritchard