CLEANING AND PREVENTIVE MAINTENANCE

CLEANING THE MACHINE

To achieve the best performance from your machine, it should always be kept clean and well maintained.

CAUTION

Electrical Hazard!

Before cleaning, turn off and disconnect the power.

The cleaning methods, detergents used, and frequency of cleaning must be defined by the machine owner and depends on the type of product being processed. In those cases where the product being packaged deteriorates quickly, effective disinfection methods must be used.

If unsure about the cleaning frequency to use, start by thoroughly cleaning the machine once a shift.

Evaluate the effectiveness of this cleaning cycle and then adjust accordingly.

Use an air nozzle with low pressure to blow off any loose product which has accumulated on the machine during production. Protect your eyes by using a pair of safety glasses.

Remove the forming tube; it is always best to clean it when it is taken off rather than leaving it on the machine.

When running laminate film that uses the horizontal crimp sealing jaws, look to see if the sealing jaws are dirty. If they are, remove the knife first and then clean the front faces of the sealing jaws with a light cloth and water. It is best to use a pair of heat resistant gloves when removing the knife and cleaning the jaws.

CAUTION

Hot! Burn Hazard!

Sealing jaws and knife are hot. Wear heat resistant gloves and proper Personal Protective Equipment (PPE).

All stainless steel guards can be cleaned with hot soapy water and then wiped dry.

Wipe down all of the film rollers and dry off.

Wipe down all guide bars, connecting rods, air cylinder rods, etc. Refit the forming tube (if removed) and install the film roll.

Re-thread the film through the machine so it is ready to run. Refer to the threading diagram.

Wipe down all guides and slides with mineral oil. Wipe down all guide bars, connecting rods, slides, air cylinder rods, etc.

Carrying out regular machine maintenance is the key to optimal machine performance!

Use only FDA approved lubricants! (See page 3)

During normal operation, the machine is subject to vibrations and temperature variations which may cause screws, bolts, nuts, or clamps to loosen. These must be checked and tightened at least every six months.

NOTE: When the knife fails to make a clean cut, it is time to clean or change the knife.

CAUTION

Energy Lockout!

Prior to starting any maintenance activity, the energy sources to the machine must be isolated and locked-out.

If unsure about the frequency interval needed for machine maintenance within your facility and the effect of your typical ambient conditions (temperature, humidity, dust levels, vibrations, etc.), begin by performing the following actions bi-weekly (except where noted as daily, weekly, or monthly). Monitor conditions of machine and adjust maintenance frequency as needed.

SAFETY CHECKS

Check the safety devices every shift!

Check safety switches/magnets for condition/security and function. Same for E-stop. With the main power on and faults reset, open and close the doors and verify the air is dumped when the guards open

DEFINITIONS

Term	Expanded Term	Description
HMI	Human Machine Interface	Main or primary operator station
PLC	Programmable Logic Controller	The heart of the machine control system containing all the logic, parameters, recipes, and set points needed for the machine to function.
Registered Film	Registered Film	Pre-printed film which must be sealed and cut at the correct point to make a good package (see Registration Mark).
Registration Mark	Registration Mark	Markings on the film defining the beginning or ending of each product pitch usually associated with pre-printed graphics or images on the film (see Registered Film).
Registration PE	Registration Photo Eye	Photoelectric sensor that detects registration marks on the film. (see Registered Film) (see Registration Mark)
Resistance	Resistance, units: Ohms - Ω Kilo-Ohms - KΩ Mega-Ohms - MΩ	A measurable property of material representing the conductivity of the material. A good conductor of electricity has a low resistance; a bad conductor (insulator) has a high resistance.
RTD	Resistive Temperature Detector	A temperature sensing device: the resistance of the sensing element changes as its temperature changes. This resistance value is converted to an accurate temperature reading.

FOOD GRADE LUBRICANTS

IMPORTANT

Verify Lubricant Types with Manufacturer!

Viking Masek can not be held responsible for using of improper lubricants and for damages of the machine/ machine parts by using improper and not approved type of the lubricants. Viking Masek does not guarantee the certification of the lubricant to be food grade.

All lubricants correspond (according to the information from the manufacturers) to the food grade lubrication types according to H1/FDA 178.3570.

Lubricants temperature range -25 to 40°C (-13 to 104°F).

TABLE 1. Gear Boxes

Brand	Type
ARAL	Eural Gear 220
CASTROL	Vitalube GS220
ESSO	Gear oil FM220
FUCHS	Bel-Ray No-Tox Gear oil 90, Synt gear oil 220
KLÜBER	Klüberoil 4 UH1-220N, Klübersynth UH1 6-220
MOBIL	Mobil DTE FM 220
OPTIMOL	Optileb GT220
SHELL	Shell Cassida Fluid GL 220
TRIBOL	Tribol FoodProof 1810/220

TABLE 2. Bearings

Brand	Type‘
ARAL	Eural Grease EP2
BP	BP Energrease FM2
CASTROL	Vitalube HT Urease 2
ESSO	Carum 330
FUCHS	Renolit G 7 FG 1
KLÜBER	Klübersynt UH1 14-151
MOBIL	Mobil Urease FM102
OPTIMOL	Obeen UF 2
SHELL	Shell Cassida RLS 2
TRIBOL	Motolube-Aloy Food-Proof 823-2 FM

VIKING MASEK
GLOBAL PACKAGING TECHNOLOGIES

VFFS Packaging Equipment Maintenance Worksheet

COMPANY NAME: **DATE:**

RESPONSIBLE PERSON:

PREVENTIVE MAINTENANCE SCHEDULE																																
	DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	WEEK																															
	MONTH																															
DAILY	Check cleanliness of the sealing bars																															
	Check the cleanliness of the cutting knives and anvils																															
	Check and discharge the sludge container of the pressure regulator																															
	Check cleanliness of the space inside packaging machine and filler																															
WEEKLY	Check cleanliness of the optical probes																															
	Grease and lubricate all sliding surfaces inside the machine																															
MONTHLY	Check rotation of the film rollers																															
	Inspect all moving parts, tighten all bolts and nuts and check cutting and slitter knives																															

EVERY 3 MONTHS	Lubricate all rollers bearings (LV2-3 grease or bearing oil)	last check date:	next check date:
	Lubricate all sliding surfaces	last check date:	next check date:
EVERY 6 MONTHS	Check tension and lubricate all rollers	last check date:	next check date:
	Check oil fillings in transmissions (in case they do not have lifelong fillings)	last check date:	next check date:
	Check condition of sealing jaws	last check date:	next check date:
	Clean the entire line from dust and impurities	last check date:	next check date:

PREVENTIVE MAINTENANCE CHECKLIST

ITEM	TASK	COMPLETE	REMARKS
Squeegee System (if equipped)	Check condition/security and clean/wipe with oily cloth		
Drive Units	Check security and movement		
Shafts	Check security and clean/wipe with oily cloth		
Belts	Check condition and tension – replace if signs of excessive wear		
Belt guides	Check condition/security and check springs		
Drive pulleys	Check condition/security		
Air cylinders	Check condition/security and for any air leaks		
Vacuum	Vacuum belts are easily contaminated. Check and clean often.		
Knife	Remove the knife before cleaning jaw faces. Check for wear and build-up and clean/replace if necessary. Clean knife thoroughly.		
Servo motors	Check condition/security		
Couplings	Check screws for security		
Link arms	Check condition/security		
Grease zerk fittings	Clean before and after lubricating		
Heater cables and plugs	Check condition/security		
RTD cables and plugs	Check condition/security		
Rollers, all	Check that all rollers turn freely and are clean		
Rack and pinon	Wipe clean and lightly oil		
Film roll brake	Check condition/security		
Safety Checks	Check safety switches/magnets for condition/security and function. Same for Estop. With the main power on and faults reset, open and close the doors and verify the air is dumped when the guards open.		

CONTACT

Viking Masek technical support:	(920) 564-5086 or service@vikingmasek.com
Preventive Maintenance & Service Plans:	**Click here for more information**

CAUTION

Before cleaning, turn off and disconnect the power.
Sealing jaws and knife are hot. Wear heat resistant gloves and proper Personal Protective Equipment (PPE).
Prior to starting any maintenance activity, the energy sources to the machine must be isolated and locked-out.

Check safety switches/magnets for condition/security and function. Same for E-stop. With the main power on and faults reset, open and close the doors and verify the air is dumped when the guards open.

This information is for planning purposes only. Consult your owner's manual for machine-specific instructions and safety warnings.