

INSTALLATION - Refer to Dwg. No. 320/RP/1

- 1 Position the Rollpack on a good sound floor. With the split bearing doors closed, ensure that the mandrel is level. Bolting down of the main frame is not essential.
- 2 Screw the feed table rails to the Rollpack frame, position the feed table on the rails and align the rails to ensure that the table traverses freely. Fasten the rails to the floor with foundation bolts.
- 3 Before despatch the remote start station and the slow run foot switch on the feed table are removed. Both switches are despatched with the electrical connections intact. Position and re-mount these switches, Items 11 and 14, Dwg. No. 320/RP/1.
- 4 Screw the discharge table frame to the RH end of the Rollpack frame using the tapped holes provided. Use foundation bolts in the discharge table outer feet.

The discharge table is shipped with the traversing top clamped to the frame and with the air lines disconnected. Remove clamps and connect the air lines, colour to colour at the connection points provided.

- 5 Assemble and position the fork lift frame (see Dwg. No. 320/RP/1) and fasten to the floor with foundation bolts.
- 6 Connect a mains electrical supply via isolator in panel to the relevant tapplings. Refer to Drawing ~~300~~300/RP/1. NOTE: the 3 phase mains supply should be protected by 32 amp line fuses.
- 7 Connect a mains air supply to the combined filter, regulator and lubrication unit mounted at the back of the machine. Set the pressure to 90 psi.
- 8 Check that the brake motor driving the pusher is wired to run in the correct direction. Before doing this ensure that the pusher assembly is positioned approximately midway along the slide bars i.e. well clear of the LH limit switch, before operating the drive motor.

The machine will normally be shipped with the pusher assembly in this mid-position. If not, wind by hand using the 'V' belt drive.

On pressing the pusher start button, the saddle should traverse to the right until the RH limit switch is contacted. The motor will then reverse and the pusher mechanism will stop when the LH limit switch is made. If initially the saddle travels to the left, the motor is wired incorrectly for the required direction of traverse.

Do not allow the pusher mechanism to traverse to the left until such time as it contacts the LH limit switch as this may cause jamming of the Acme Drive Nut. Stop machine and re-wire motor connections to give correct rotation. (The LH switch will not stop the pusher drive motor unless the RH switch has first been made)

MAINTENANCE

- 1 The pusher assembly has five lubrication points, one for each of the four linear slide bearings and one for the Acme threaded drive nut. A good quality grease should be applied to each lubrication point weekly or more often as conditions dictate.

The self-lube flange bearing units at each end of the Acme screw and the outer pillow block on the mandrel journal are provided with a re-greasing nipple. Re-grease periodically using a lithium based grease.

- 2 Worm Reduction Gear Unit

The base of the gearbox casting provides an ample oil reservoir in which the worm is immersed. Final bearings are grease packed and require no further attention. The reduction unit utilises extreme pressure lubricants containing lead additives which protect the teeth in the event of the oil film thinning out due to local temperature rise or high pressure due to accidental overload. The oil should be changed after every 1500 hours operation or more often as local conditions dictate.

Recommended Oil Grades

<u>Input Speed</u>	<u>Shell</u>	<u>Esso</u>	<u>Texaco</u>	<u>Mobil</u>	<u>Gulf Oil</u>
	Macoma	Spartan	Merope	Mobilgear	Gulf EP
1000 to 500 rpm	Oil R320	EP320	320	632	5104

Capacity - reduction unit type PF6 - 3.4 litres

- 3 Chain Drive - Periodically spray with a chain lube.
- 4 Combined Filter, Regulator Lubrication unit for compressed air supply. Refer to separate instructions attached.

Unit is Ref M/FDRL 14, G $\frac{1}{2}$ " combination unit with micro fog lubricator and automatic drain filter.

- 5 Grease the mandrel support bearings in the doors of the machine daily

Tensioning The Packaging Materials

The final diameter and tightness of the pack is dependant on the degree of

tension present in the material during the packing process. Two brake calipers are mounted on the left-hand end of the polyurethane coated nip roller which restrict rotation of the nip roller and provide tension in the material. Adjustment of the air regulators controlling the supply air pressure to the calipers will vary the tension in the material.

An additional brake caliper is fitted to the output shaft of the gearbox. This brake operates immediately power is removed from the mandrel drive motor and prevents anti-rotation of the mandrel once the machine is stopped.

The tightness of the pack is also dependant on the tension in the Extremultus conveyor belt and the clearance between the underside of this belt and the auxiliary cross roller which is supported by separate air cylinders. The cylinders carrying the belt frame and the auxiliary roller are controlled by separate balance valves. The setting of these valves is explained in Martonair leaflet 891 dealing with the S/252 balance valve. Each valve should be set to retain both sufficient tension in the main belt and adequate pressure between the auxiliary roller and the spring units. Suitable pressures must be established during initial setting-up trials with a particular type of spring unit.

ROLL-PACK MACHINE

Operating procedures for reusable woven material

The procedure is illustrated on drawing No. 320/RP/1.

Step 1

Place a roll of material in the tray (16) at the front of the feed table (2).

Step 2

Pull a sufficient length of material from the roll and lay it across the feed table (2). Pass the end of the material round the poly covered tension roller (17) and over the nip roller (18) and belt roller (19). Pass material around the back and over the mandrel finally pushing the end into the gap between the mandrel and material retainer (20).

Step 3

Step to the side of the feed table and operate the mandrel start button on the main control station (13). Allow the mandrel to rotate about $1\frac{1}{2}$ revolutions before stopping. If too much material is wound on the mandrel at this stage, difficulty may occur in pushing off the finished pack. Raise the tensioning roller by operating the lever operated valve (23).

Step 4

Push the feed table into its forward position and locate the hinged safety bar at the LH end to secure the table.

Step 5

Adjust the unit guide rail (21) to the edge of the material and lock in place.

You can now begin to feed units into the rollpack machine.

Step 6

Place the first unit onto the feed table with the knots of the springs towards the left-hand side of the machine and the top end coils of the springs nearest to the mandrel (22) in advance of the bottom end coils as shown in Fig. A, Dwg. No. 320/RP/1. This is to ensure that when the first helicals of the unit go under the mandrel the top helical will be in advance of the bottom helical. The ideal distance is between 1 to 2 cms.

Step 7

It is advantageous to feed the first two or three units into the machine at a slower speed than the normal speed of the mandrel. A foot switch is provided at the front of the feed table for this purpose. Start the mandrel by depressing the foot switch and guide the first unit into the machine. The foot switch must be held down to retain a slow speed. Subsequent units can be fed in at the faster speed by depressing and releasing the foot switch.

The slow speed can be adjusted by means of the 'Slow Speed Potentiometer' located in the main control panel (6).

Step 8

Once you are sure the first unit is going into the pack correctly place the next unit onto the material and feed it into the pack. Repeat this step until the desired number of units are in the pack. NOTE: the length of the material should equal the total length of the units being packed plus the length of two more units to allow sufficient material for the final wrapping. The machine can be stopped between units by means of the remote button (14).

Step 9

When the end of the material is approaching the tensioning rollers operate the lever operated tensioning valve (23) to lower the tensioning roller. Continue running the mandrel until the end of the material passes round the pack. Stop the machine and pull the feed table to its outer position.

Step 10

The pack must now be made secure by running two bands of adhesive tape round it approx. 20cms from either end. To run the bands round the pack pull approx. $\frac{1}{2}$ metre of tape from the roll and place it on the belt, adhesive side uppermost. Push both 'inch' buttons (12) to rotate the mandrel whilst holding the roll of tape in the other hand. When approx. two thicknesses of tape are round the pack, stop the mandrel by releasing the 'inch' buttons and cut the tape. Repeat this operation at the other end of the pack.

Step 11

Now push the 'Pusher' button once (13). This will cause the belt assembly to lower clear of the pack and the mandrel support doors (10) to open. Push the 'Pusher' button again and the pusher plate (5) will push the pack off the mandrel. NOTE : if too many wraps of material are put round the mandrel before starting to pack units the rolled pack is harder to push off.

Step 12

When the pusher plate has pushed the pack off the mandrel, the discharge table (3) will operate to move the rollpack away from the rollpack machine. When the discharge table reaches the end of its traverse, the top table will tilt and roll the pack on to the fork lift frame (4). NOTE: when the pusher plate has pushed the rollpack off the mandrel it will automatically return to its original position and the mandrel support doors (10) will close ready for the operator to start the next rollpack.

OPERATING PROCEDURES FOR EXTENSIBLE PAPER

The procedure for packing with two thicknesses of paper is the same as for the woven material except that the rolls of paper are placed behind the rollpack machine and the paper is passed under the machine and the rolls (24) before being passed round the rollers (17), (18) and (19) in the same way as when using lengths of material.

If one thickness only of paper is used, the path of the paper should be as shown in Fig. B, Drawing No. 320/RP/1.

NOTE: Once all of the units are in the pack, allow the mandrel to make 3 or 4 turns before stopping it and cutting the paper prior to binding the pack with adhesive tape. IT IS RECOMMENDED THAT SCISSORS BE USED AT ALL TIMES FOR CUTTING THE PAPER TO AVOID DAMAGE TO THE ROLLPACK BELT.

OPERATING PROCEDURE FOR RE-USING EXTENSIBLE PAPER

To re-use paper from an earlier rollpack carry out the instructions given for using material.

Balance Valves

S/252

Port size $\frac{1}{2}$ " B.S.P.

Operating Pressure

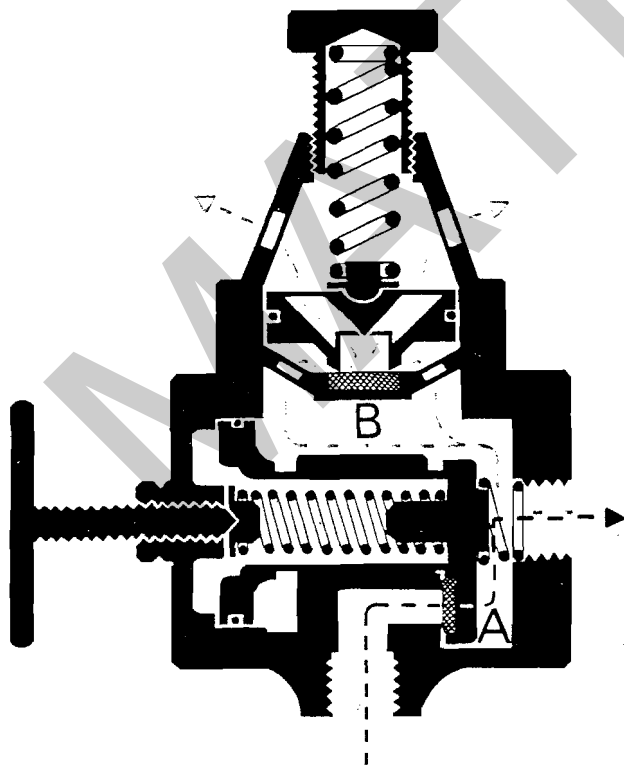
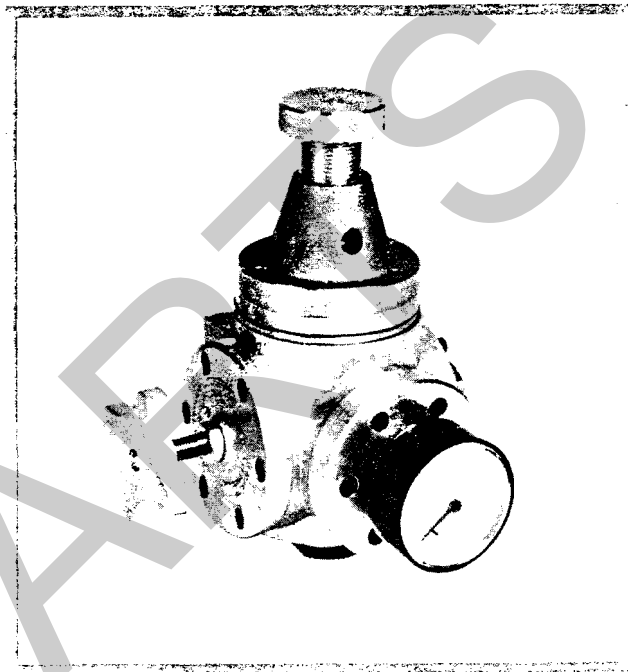
Air supply 0—7 Bar

Operating Temperature

-20 °C to +80 °C

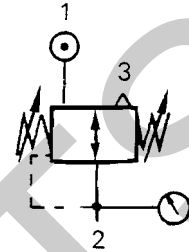
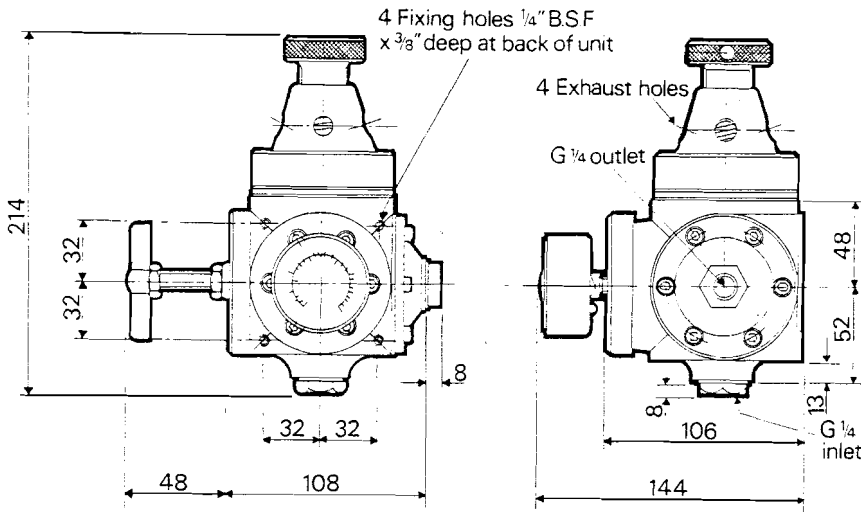
The S/252 Balance Valve is provided with an adjustable relief feature. The valve consists of a pressure regulator, providing a reduced secondary pressure from a primary pressure input, together with the adjustable relief which may be set close to, or far from, the secondary pressure.

Air returning through the valve from the 'outlet' port may thus be exhausted at pressure only slightly higher than the secondary pressure itself, and the thrust applied by a cylinder kept within very close limits.



When the downstream pressure drops below the level set by the loading of bottom (horizontal) spring, the bottom seat "A" will open and air will flow from inlet to outlet as shown by the black flow path. The top seat remaining shut.

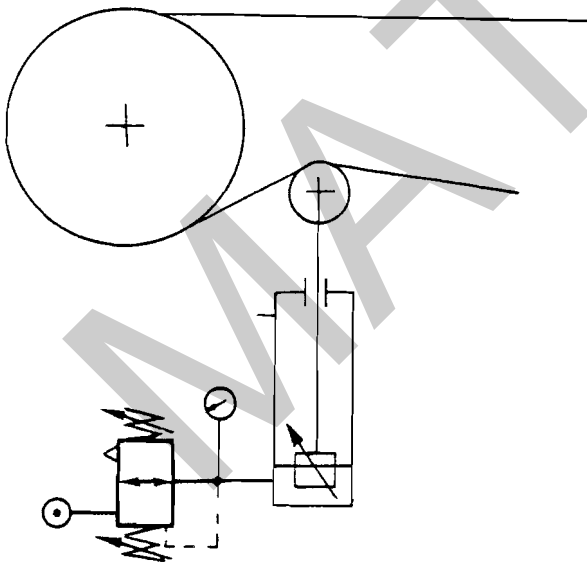
When the downstream pressure rises above that set by the top (vertical) spring, the top seat "B" will open and air will blow off from outlet to exhaust to atmosphere as shown by the blue flow path, the bottom seat remaining shut.



S/252

Balance valve

Note: For $\frac{1}{2}$ " B.S.P. remove adaptors at inlet and outlet ports.



S/252 valves are widely used in tensioning and balancing devices. In the circuit shown the exhausting or relief pressure is set just above the secondary pressure, and thus constant pressure is applied to the cylinder and tensioning roll, regardless of the physical position of the roll.

3.4.340

All dimensions shown in millimetres

Dimensions and technical information shown were correct at the time of going to Press, but due to continued improvements equipment may vary slightly from the details shown above. Certified information available on request from our Technical Sales Department.