PLAINTIFF'S EXHIBIT

DOW-923

RIC-1272

INSTRUCTIONS FOR REGASKETING APV PARAFLOW PLATES (Paracaf Gaskets – Compressed Asbestos Fibre)

While Paracaf gaskets on APV Paraflows can be replaced in the field, it is most important that the regasketing procedure be followed step by step as outlined.

To remove worn gaskets:

1) To break the thermoplastic bond between the gasket and plate, use a painter's torch at approximately 450°F to heat the back of the gasket area around a port. As the adhesive softens, pull the gasket from the groove with pliers. Continue this process until the entire gasket has been removed.

2) Any remaining traces of old adhesive, grease or dirt must be removed from the gasket grooves. *Use a solvent such as Toulene.* ***Do not use abrasives to clean the grooves.***

To attach new gaskets:

1) A set of Paracaf replacement gaskets for flow plates consists of four parts – a complete lower laminate, a partial upper laminate, and two upper port rings. These gaskets can be fitted into either right or left hand flow plates. *Gaskets for* ***end plates*** *include two additional upper port rings.*

2) Apply a thin even film of 3M formula EC-1099 cement to the gasket groove and to the bottom of the lower laminate gasket. Allow to dry until tacky and then press the gasket firmly into the groove. Coat the exposed surface of the lower laminate. When the cement becomes tacky, add the upper laminate and port rings. Apply light, even pressure.

3) Paint the top surface of each gasket with a light coat of ROCOL release agent diluted with 10% liquid paraffin.

4) After all plates have been regasketed and placed in the heat exchanger frame, tighten the plate pack just enough to prevent leakage.

5) Attach an atmospheric steam line. After all plates are hot, maintain heat for one hour. Allow to cool and then lightly retighten the tie bars. Reheat the plates with atmospheric steam, then gradually raise steam pressure to 15 psig and hold for one hour. Gasket cement now has been cured.

6) To bed down gaskets, cool plates and then use standard spanner without any extension to tighten tie bars. Use atmospheric steam to heat plates prior to gradually raising steam pressure to 15 psig for an hour. Cool plates and *again use spanner without an extension to tighten the pack to the plate* dimension shown on plate drawing. If necessary, repeat this procedure until the correct plate dimension is obtained.

7) Allow the machine to cool naturally to room temperature before opening.

APV COMPANY, INC.
395 Fillmore Ave./Tonawanda, N.Y. 14150
Phone: (716) 692-3000

ST0232119

INSTRUCTIONS FOR REGASKETING APV PARAFLOW PLATES

When regasketing, it is extremely important that care be taken to avoid using excessive amounts of cement.

This instruction is particularly important for regasketing in the field, for while a proper "cure" of the cement using steam (or even hot water) at 220° F for 3 hours is preferred, this step may be omitted as a result of lack of available time or facility.

It is, however, imperative in the food industry that a regasketed heat exchanger be sanitized by the recirculation of hot (180° F minimum) hot water, as this will assist the curing of the gasket cement.

When a regasketed heat exchanger has not been properly heat treated, circulation of a sanitizer through the machine **must be avoided.**

After hot water or steam sanitizing or curing, the plate pack should be re-opened and the plates inspected for

a) misplaced gaskets

b) any cement which has exuded onto the plate surface. If any is present, this **must** be trimmed off with a sharp knife before retightening the machine and putting into service.

NOTE: If excessive uncured gasket cement comes into contact with sanitizers, there is a definite possibility that halogenated phenol will be formed. This may impart a long lasting odor to products passing through the machine.

OVER

Publication No.2-W7/7

Provisional issue
(21.1.66)

PARAFLOWS TYPES HX18 & HXU8 WITH ASBESTOS GASKETS

Gasketing and Tightening Instructions

The following instructions are provided pending revision and re-issue of A.P.V. Technical Publication No. 2-W7 - Re-rubbering Paraflow Plates.

1. Gaskets - A complete gasket consists of four parts - bottom laminate, top laminate and two port pieces. The bottom laminate is the narrower section and completely fits the gasket groove. The gaps between the top laminate and the port pieces form the leakage grooves normally found in a rubber gasket. Since the laminates are flat, no handling is necessary, one set of parts fitting either right-or left-hand plates. The end plate gasket is formed by cutting quarter sections from the laminates and using four port pieces.

2. Gasketing - Use A.P.V. rubber cement EC1099 adhesive.
   (a) Ensure that plate groove is clean and coat evenly with EC1099. Allow to become tacky and insert the bottom laminate,applying light even pressure to ensure mating.

   (b) Coat the exposed surface of the bottom laminate already in the groove with EC1099 and allow to become tacky. Insert the top laminate and port sections and apply light even pressure to ensure mating.

   Note: Apply only a light but even film of EC1099, otherwise excess cement will exude onto the next plate.

   (c) As the plates are gasketed, apply a light load by weights or in the machine frame to ensure good contact of gaskets while the cement is curing. The plates must not be fully tightened together before the release agent is applied.

3. Application of Release Agent - This is 'Rocol' anti-scuffing paste thinned with 10 per cent light liquid parafin of specific gravity 0.835 - 0.850 which is added to assist application.

   (a) Ensure that top face of gasket is clean and then apply a thin coat of paste using a brush.

4. Bedding Down of Gaskets

   (a) Assemble plates in machine and tighten all bolts evenly to a torque of 100-150 lb. ft. (13.82 - 20.73 kg. m.).

(b) Circulate near boiling water or atmospheric steam for 30 minutes.

(c) Re-tighten all bolts to a torque of 100-150 lb. ft. (13.82 - 20.73 kg. m.).

(d) Check that plate pitch is not more than 0.185 in.(4.69mm) and preferably 0.180 in. (4.57mm).

(e) If the plate pitch is more than 0.185 in. (4.69mm) after the first bed down, repeat the above tightening and heating cycle.

Important:- Only a left-hand plate must be adjacent to the machine follower.

5. Machine Opening and Closing during Servicing

(a) If plates do not part easily on opening, apply a coating of release agent before re-closing.

(b) Gasket surfaces must be perfectly clean before re-closing; wipe surfaces with a clean, soft cloth.

(c) When tightening, the tie-bar nuts must be screwed down evenly so that the follower is always square and parallel to the head and exactly parallel to the head.
The only precise guide to even tightening is by the use of a torque spanner. As an indication, the maximum degree of tightening should not exceed 150 lb. ft. (20.73 kg. m.) per nut.

(d) When plates are re-assembled in the machine, they must be Checked to ensure that they are in the correct order before tightening.

ST0632122

Publication No.2-W7/7

Provisional issue
(21.1.66)

PARAFLOWS TYPES HXL8 & HXU8 WITH ASBESTOS GASKETS

Gasketing and Tightening Instructions

The following instructions are provided pending revision and re-issue of A.P.V. Technical Publication No. 2-W7 - Re-rubbering Paraflow Plates.

1. Gaskets - A complete gasket consists of four parts - bottom laminate, top laminate and two port pieces. The bottom laminate is the narrower section and completely fits the gasket groove. The gaps between the top laminate and the port pieces form the leakage grooves normally found in a rubber gasket. Since the laminates are flat, no handling is necessary, one set of parts fitting either right-or left-hand plates. The end plate gasket is formed by cutting quarter sections from the laminates and using four port pieces.

2. Gasketing - Use A.P.V. rubber cement EC1099 adhesive.
   (a) Ensure that plate groove is clean and coat evenly with EC1099. Allow to become tacky and insert the bottom laminate,applying light even pressure to ensure mating.

   (b) Coat the exposed surface of the bottom laminate already in the groove with EC1099 and allow to become tacky. Insert the top laminate and port sections and apply light even pressure to ensure mating.

   Note: Apply only a light but even film of EC1099, otherwise excess cement will exude onto the next plate.

   (c) As the plates are gasketed, apply a light load by weights or in the machine frame to ensure good contact of gaskets while the cement is curing. The plates must not be fully tightened together before the release agent is applied.

3. Application of Release Agent - This is 'Rocol' anti-scuffing paste thinned with 10 per cent light liquid parafin of specific gravity 0.835 - 0.850 which is added to assist application.

   (a) Ensure that top face of gasket is clean and then apply a thin coat of paste using a brush.

4. Bedding Down of Gaskets

   (a) Assemble plates in machine and tighten all bolts evenly to a torque of 100-150 lb. ft. (13.82 - 20.73 kg. m.).

(b) Circulate near boiling water or atmospheric steam for 30 minutes.

(c) Re-tighten all bolts to a torque of 100-150 lb. ft. (13.82 - 20.73 kg. m.).

(d) Check that plate pitch is not more than 0.185 in.(4.69mm) and preferably 0.180 in. (4.57mm).

(e) If the plate pitch is more than 0.185 in. (4.69mm) after the first bed down, repeat the above tightening and heating cycle.

Important:- Only a left-hand plate must be adjacent to the machine follower.

5. Machine Opening and Closing during Servicing

(a) If plates do not part easily on opening, apply a coating of release agent before re-closing.

(b) Gasket surfaces must be perfectly clean before re-closing; wipe surfaces with a clean, soft cloth.

(c) When tightening, the tie-bar nuts must be screwed down evenly so that the follower is always square and parallel to the head and exactly parallel to the head. The only precise guide to even tightening is by the use of a torque spanner. As an indication, the maximum degree of tightening should not exceed 150 lb. ft. (20.73 kg. m.) per nut.

(d) When plates are re-assembled in the machine, they must be Checked to ensure that they are in the correct order before tightening.

S1-2121

INSTRUCTIONS FOR REGASKETING APV PARAFLOW PLATES

When regasketing, it is extremely important that care be taken to avoid using excessive amounts of cement.

This instruction is particularly important for regasketing in the field, for while a proper "cure" of the cement using steam (or even hot water) at 220° F for 3 hours is preferred, this step may be omitted as a result of lack of available time or facility.

It is, however, imperative in the food industry that a regasketed heat exchanger be sanitized by the recirculation of hot (180° F minimum) hot water, as this will assist the curing of the gasket cement.

When a regasketed heat exchanger has not been properly heat treated, circulation of a sanitizer through the machine **must be avoided**.

After hot water or steam sanitizing or curing, the plate pack should be re-opened and the plates inspected for

a) misplaced gaskets

b) any cement which has exuded onto the plate surface. If any is present, this **must** be trimmed off with a sharp knife before retightening the machine and putting into service

NOTE: If excessive uncured gasket cement comes into contact with sanitizers, there is a definite possibility that halogenated phenol will be formed. This may impart a long lasting odor to products passing through the machine.

ST0632129

OVER

Publication No.2-W7/7

Provisional issue
(21.1.66)

PARAFLOWS TYPES HXL8 & HXU8 WITH ASBESTOS GASKETS

Gasketing and Tightening Instructions

The following instructions are provided pending revision and re-issue of A.P.V. Technical Publication No. 2-W7 - Re-rubbering Paraflow Plates.

1. Gaskets - A complete gasket consists of four parts - bottom laminate, top laminate and two port pieces. The bottom laminate is the narrower section and completely fits the gasket groove. The gaps between the top laminate and the port pieces form the leakage grooves normally found in a rubber gasket. Since the laminates are flat, no handling is necessary, one set of parts fitting either right-or left-hand plates. The end plate gasket is formed by cutting quarter sections from the laminates and using four port pieces.

2. Gasketing - Use A.P.V. rubber cement EC1099 adhesive.
   (a) Ensure that plate groove is clean and coat evenly with EC1099. Allow to become tacky and insert the bottom laminate,applying light even pressure to ensure mating.

   (b) Coat the exposed surface of the bottom laminate already in the groove with EC1099 and allow to become tacky. Insert the top laminate and port sections and apply light even pressure to ensure mating.

   Note: Apply only a light but even film of EC1099, otherwise excess cement will exude onto the next plate.

   (c) As the plates are gasketed, apply a light load by weights or in the machine frame to ensure good contact of gaskets while the cement is curing. The plates must not be fully tightened together before the release agent is applied.

3. Application of Release Agent - This is 'Rocol' anti-scuffing paste thinned with 10 per cent light liquid parafin of specific gravity 0.835 - 0.850 which is added to assist application.

   (a) Ensure that top face of gasket is clean and then apply a thin coat of paste using a brush.

4. Bedding Down of Gaskets

   (a) Assemble plates in machine and tighten all bolts evenly to a torque of 100-150 lb. ft. (13.82 - 20.73 kg. m.).

(b) Circulate near boiling water or atmospheric steam for 30 minutes.

(c) Re-tighten all bolts to a torque of 100-150 lb. ft. (13.82 - 20.73 kg. m.).

(d) Check that plate pitch is not more than 0.185 in.(4.69mm) and preferably 0.180 in. (4.57mm).

(e) If the plate pitch is more than 0.185 in. (4.69mm) after the first bed down, repeat the above tightening and heating cycle.

Important:- Only a left-hand plate must be adjacent to the machine follower.

5. Machine Opening and Closing during Servicing

(a) If plates do not part easily on opening, apply a coating of release agent before re-closing.

(b) Gasket surfaces must be perfectly clean before re-closing; wipe surfaces with a clean, soft cloth.

(c) When tightening, the tie-bar nuts must be screwed down evenly so that the follower is always square and parallel to the head and exactly parallel to the head.
The only precise guide to even tightening is by the use of a torque spanner. As an indication, the maximum degree of tightening should not exceed 150 lb. ft. (20.73 kg. m.) per nut.

(d) When plates are re-assembled in the machine, they must be Checked to ensure that they are in the correct order before tightening.