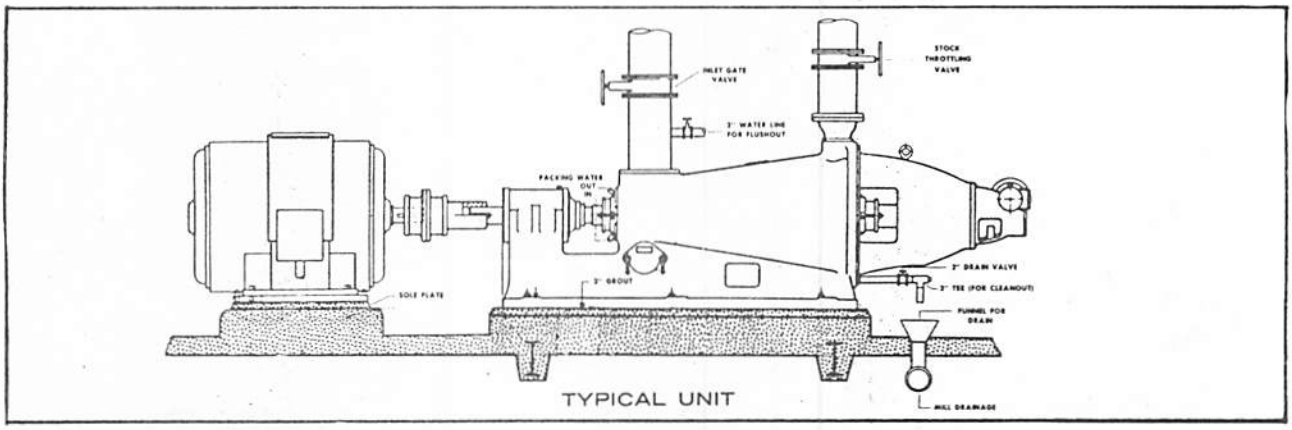
INSTRUCTION MANUAL

JONES DIVISION

2/65

LEVELING & SETTING



TYPICAL UNIT

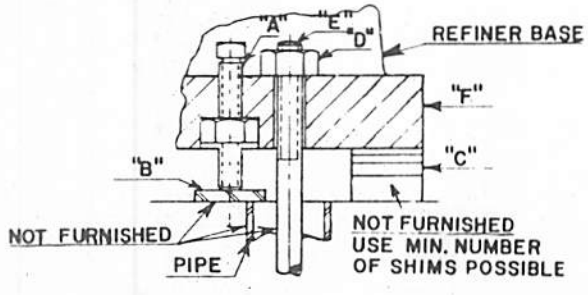
A JONES Conical Refiner is a precision built machine. To get its full value, it must be placed on a good firm foundation throughout its length and width. Accurate leveling is of the utmost importance. Unless care is taken in this detail, the base is likely to be sprung, the plug may not slide properly in the guides, and there is apt to be constant trouble with overheated bearings, accompanied by premature wear.

Refer to your refiner assembly drawing for location of anchor bolt holes. Locate the motor, so that there will be the proper distance between the motor and refiner shafts. This dimension should be as shown on your refiner assembly drawing. The motor, or auxiliary drive, must be very carefully set, and every precaution taken to line up the coupling as nearly perfect as possible (with .003" total). Even though we use high-grade flexible couplings, misalignment results in excessive wear.

The normal rotation of the plug when facing the large end is counter clockwise. It can be operated either direction or reversed periodically if it is desired to keep the cutting edges sharp. If it is not to be reversed, we prefer to see normal direction of rotation used.

LEVELING PROCEDURE:

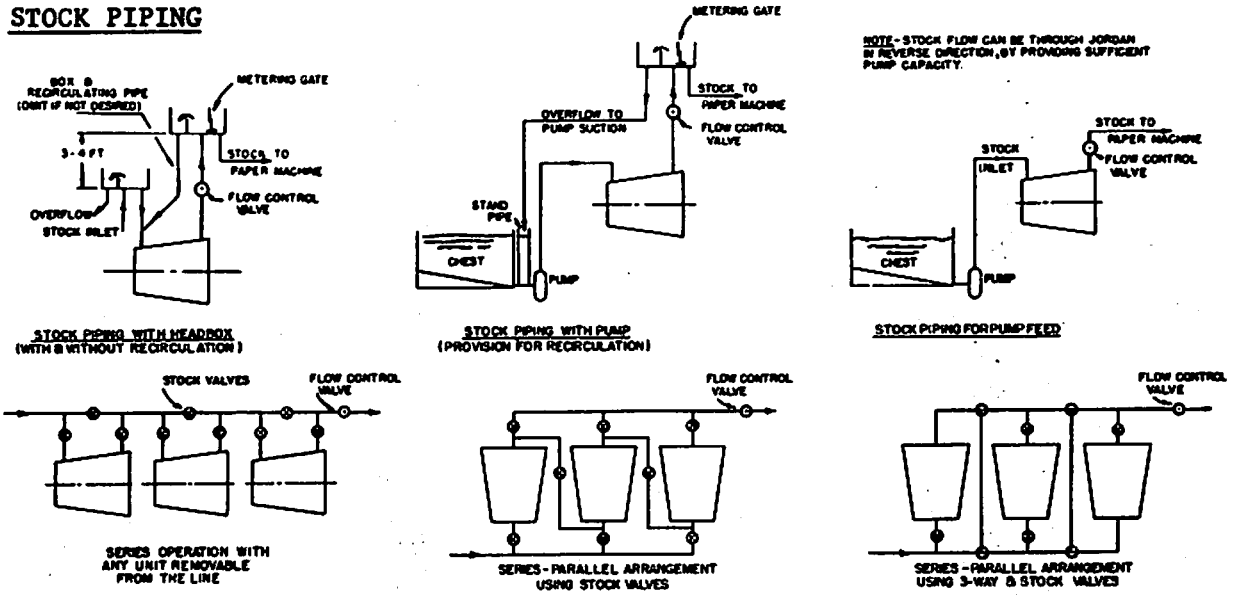
1. Place plate "B" under leveling screw "A".
2. Level refining base by adjusting screws "A".
3. Build up shims "C" to tightly fill space under base at all anchor bolt locations.
4. Back off screw "A" and draw up nut "D" on all anchor bolts. (The leveling screw should never be used to support refiner during grouting.)
5. Check refiner base for level in all directions from machined surfaces. If not level, repeat Items 2,3,4,5.
6. Tack weld nuts "D" to studs "E".
7. Grout concrete under the base.



NOTE: If anchor bolts project through floor, tack weld to plate under floor before starting to level refiner base, so studs will not turn.

JONES CONICAL REFINERS
INSTALLATION

STOCK PIPING

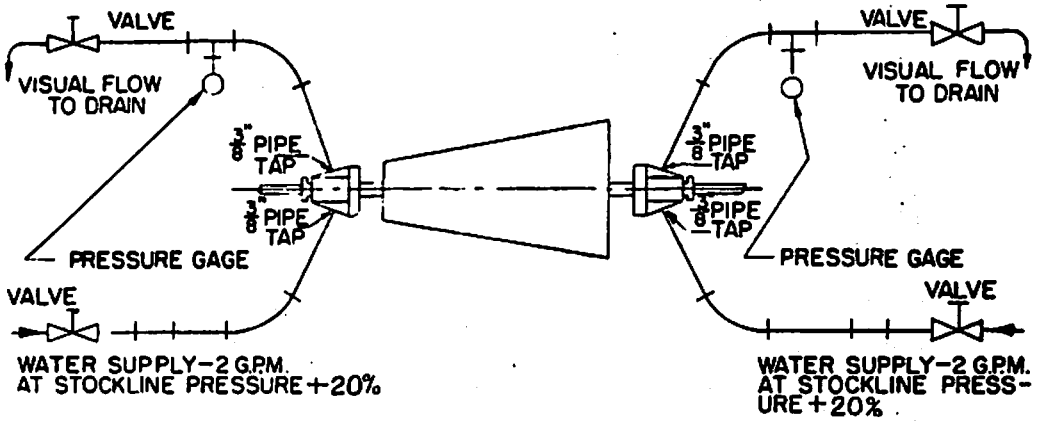


TYPICAL SERIES & PARALLEL ARRANGEMENTS

It is important to remember that the Refiner is designed to operate under pressure. This pressure may be created by either a pump or headbox of the correct design. Since the machine normally operates with a pressure gain an external pressure source is required so that the Refiner can remain full at all times when the Refiner is in operation. It is important that at the outlet, the stock piping should be equipped with a valve. The function of this valve is to restrict the discharge so that the refiner is always full. If the refiner is not kept full, there is danger of metal to metal contact between the bars. If the unit is to be fed from a headbox, keep the inlet pipe as nearly vertical as possible and the headbox as high above the machine as practical. Pipe connections are ASA standard.

Type of piping arrangements depend on the installation and mill preference. The diagram above shows suggested standard arrangements recommended by JONES for the users convenience.

PACKING BOX PIPING



The Refiner is equipped with high capacity packing boxes. To operate efficiently and attain full packing life lubrication water should be supplied to the packings. This water should be clean and filtered and supplied to the packings at a pressure not less than 20% above the stock line pressure. A valve should also be used in the outlet drain line so that positive pressure may be maintained in the packing boxes. To facilitate flushing the unit a 2 inch flush line and valve should be brought to the stock pipe inlet as close to the machine as possible.

2/65

PRE-START UP CHECK LIST

Once the Refiner has been installed as described on the pages entitled "JONES Conical Refiners - Installation," proceed as follows:

1. Bearings — Spherical Roller Bearings are standard equipment for the radial end of JONES' Conical Refiners.

   The thrust end has one of three types of roller bearings:

   A. Spherical Roller Bearings similar to the one at the radial end except larger with higher capacity.

   B. A combination of a Spherical Roller Bearing to handle the radial load, and a small back thrust, and a Spherical Thrust Bearing to carry high thrust loads.

   C. A Double Tapered Roller Bearing to carry the radial load as well as high thrust loads in either direction.

   The bearings are provided with labyrinth seals for the retention of oil and the exclusion of dirt and water.

   It is important that prior to start-up the Radial and Thrust Bearings be drained of the rust preventive solution used in this equipment during shipping.

   To Flush Bearings:

   1. Remove the drain and inlet plugs on the bearing and allow to drain.
   2. Replace plugs and fill with a light solvent, such as Savasol, or #10 oil, and flush out bearing. To do this, fill lubricant inlet with enough oil until it is detected leaking out of the seals, then turn the machine over by hand a few times (do not turn on drive)
   3. Drain the solution the same way as above.
   4. Refill with lubricant, usually of an oil with a viscosity 500-650 S, U, V, at 100°F, (See lubrication data) to the correct level.

   Bearings are now in proper condition for operation.

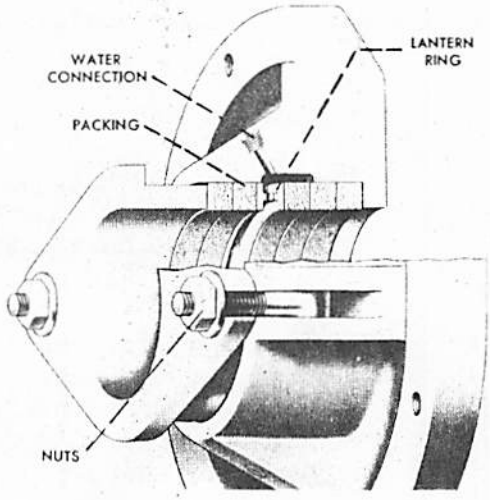
   It is suggested that the oil be replaced eight (8) hours after start-up, then change the oil every three (3) months.

2. Filling. Grind in the filling as described on the page entitled "Grinding in Conical Unit Fillings."

JONES CONICAL REFINERS
OPERATION

PRE-START UP CHECK LIST

3. Packing Box. After grinding the filling, the following attention should be paid to the packing boxes.



   1. Remove the packing gland nuts and remove gland.
   2. Remove packing.
   3. Remove lantern ring.
   4. With packing hook, remove final packing.
   5. Flush the box out with hose and repack.
   6. Reassemble packing boxes.

   During operation, periodically check the gland so that only a minimum amount of water is seeping from it. If the packing gland leaks excessively, tighten it. If, in taking up the gland to prevent heavy leakage and unusual leakage is still encountered, replace the packing and check sleeve.

   The most important maintenance instruction is to be sure that adequate, clean water is supplied to the lantern rings to lubricate and cool.

START-UP MANUAL OPERATION

1. Back off plug by turning handwheel.
2. Turn on water supply to packing glands (note that water is flowing by examining the drain).
3. With unit empty, start motor.
4. Begin stock flow into unit.
5. With stock flowing through the unit, turn the handwheel noting the power indicator until the desired power has been reached.

SHUTDOWN

1. Turn handwheel until power stops falling.
2. Shut down stock pump or close stock valve inlet.
3. Open flushing water valve, normally located at the unit's inlet pipe.
4. Open washout valve at bottom of the large end of the shell.
5. After flushing out unit, close both valves and shut down main motor.
6. If the refiner is to reamin down for any length of time, it should be filled with water and the plug run "in".

INSTRUCTION MANUAL

JONES DIVISION

2/65

LUBRICATION

Main Bearings

Use a highly refined mineral oil with a viscosity of 500-650 S.U.V. at 100° F. Drain, flush and renew every three (3) months. If unit is using a circulating oil system, use lubricant 290-500 S.U.V. at 100°F. Renew every 3 months.

Bearing Guides

Use a high grade, lime lead, extreme pressure resistant grease of approximately #0 NLGI consistency. These bearing guides need attention only every twelve (12) months. Then a fresh application of grease should be made.

Couplings

Use a good fluid lubricant no lighter than heavy engine oil or S.A.E. 70 or heavier than gear oil (1000 seconds Saybolt viscosity at 212°F). Do not use grease. The coupling should be checked periodically to make sure the proper amount of oil is maintained at all times. (See Lubrication Chart for coupling size.)

Accru-Set

Use a highly refined mineral oil with viscosity 135-160 S.U.V. at 210°F containing five to ten percent acidless tallow. Drain, flush and renew every six (6) months.

BEARINGS

1. To remove bearings from the shaft, first remove the plug from the Refiner.
2. If Refiner has a Full Travel Coupling, remove the hub from the shaft with a yoke type hydraulic pulper as the hub is shrunk on the shaft. (In some cases, hub may have slide fit and set screws.)
3. Remove housing and end cover.
4. Loosen locknut on bearing sleeve and drive sleeve towards the plug body. This will permit removal of the entire bearing.

In reassembling the bearing, it is important that the tapered sleeve be pulled up tight with the locknut and remove clearance from the bearing as noted on the bearing assembly drawing.

THRUST END

1. Remove the housing and end cover.
2. Remove the lockdisc which is fastened to the end of the shaft with cap screws.
3. If the bearing is mounted on a tapered sleeve (see thrust bearing assembly drawing), remove sleeve with a removal nut.

To reassembly, the tapered sleeve nust be set up tight to expand the bearing inner race as noted on the drawing. If the bearing is mounted directly on the shaft with a straight fit, remove the bearing with a yoke type hydraulic pulper. To reassemble, heat the bearing in oil or other approved methods to 250°F for tapered roller bearings and 400°F for spherical roller and spherical thrust bearings.

PACKING SLEEVES

The packing sleeves for refiners and Jordans are made of either brass or stainless steel material. When it becomes necessary to replace a sleeve, the following method should be observed:

1. The plug must be removed from the unit and the bearing housings removed from the shaft.
2. The old sleeves have to be removed from the shaft, taking care not to score the surface under the sleeves; the area under the old sleeve must be thoroughly cleaned, free from scale and grease.
3. The heating of the sleeves should be done with caution. Brass sleeves should be heated up to, but not over, 500-600°F. Stainless steel sleeves should be heated up to, but not over, 700°F.
4. When the sleeves are heated to these respective temperatures, they will slide over the shaft easily.
5. After the sleeves have cooled and are sealed with plasgon, the plug should be set up in lathe and sleeves skin chipped for concentricity and smooth finish.
6. After the sleeves have been machined, bearing housings can be reassembled on the shafts.

INSTRUCTION MANUAL

JONES DIVISION

2/65

PLUG

For plug inspection or maintenance the following instructions should be adhered to when pulling the plug from the Jordan shell.

1. Disconnect packing gland water lines at both thrust and radial end.
2. Remove radial bearing guide cover.
3. Remove radial bearing oil pipe.
4. Disconnect coupling by loosening Jordan half coupling clamp. This will free the coupling from the shaft for further removal. (If refiner has a full travel coupling, remove spring type retaining ring, and refiner hub of coupling will pull through refiner.)
5. At the radial end remove bolts securing split head or clamp ring and packing box and take off the head or ring.
6. Secure bell end assembly with a chain fall or crane. Remove bell end assembly screws.
7. Tighten back off set screws against face of shell. This action will force bell end head away from shell.
8. Move the head out approximately 2 inches and insert wooden blocks to hold head away from shell.
9. Fasten second chain fall or crane to the Jordan shaft entending beyond radial bearing stand.
10. With both chain falls supporting bell end assembly, shaft and plug, move complete assembly forward as far as possible.
11. The radial bearing should now be inside the shell. Lower the bearing and let it rest in the shell. Remove the rear chain fall and move it forward and attach to the exposed segment of the plug. Be sure to cover the chain with canvas to prevent slippage or possible plug damage.
12. Remove complete assembly away from Refiner.

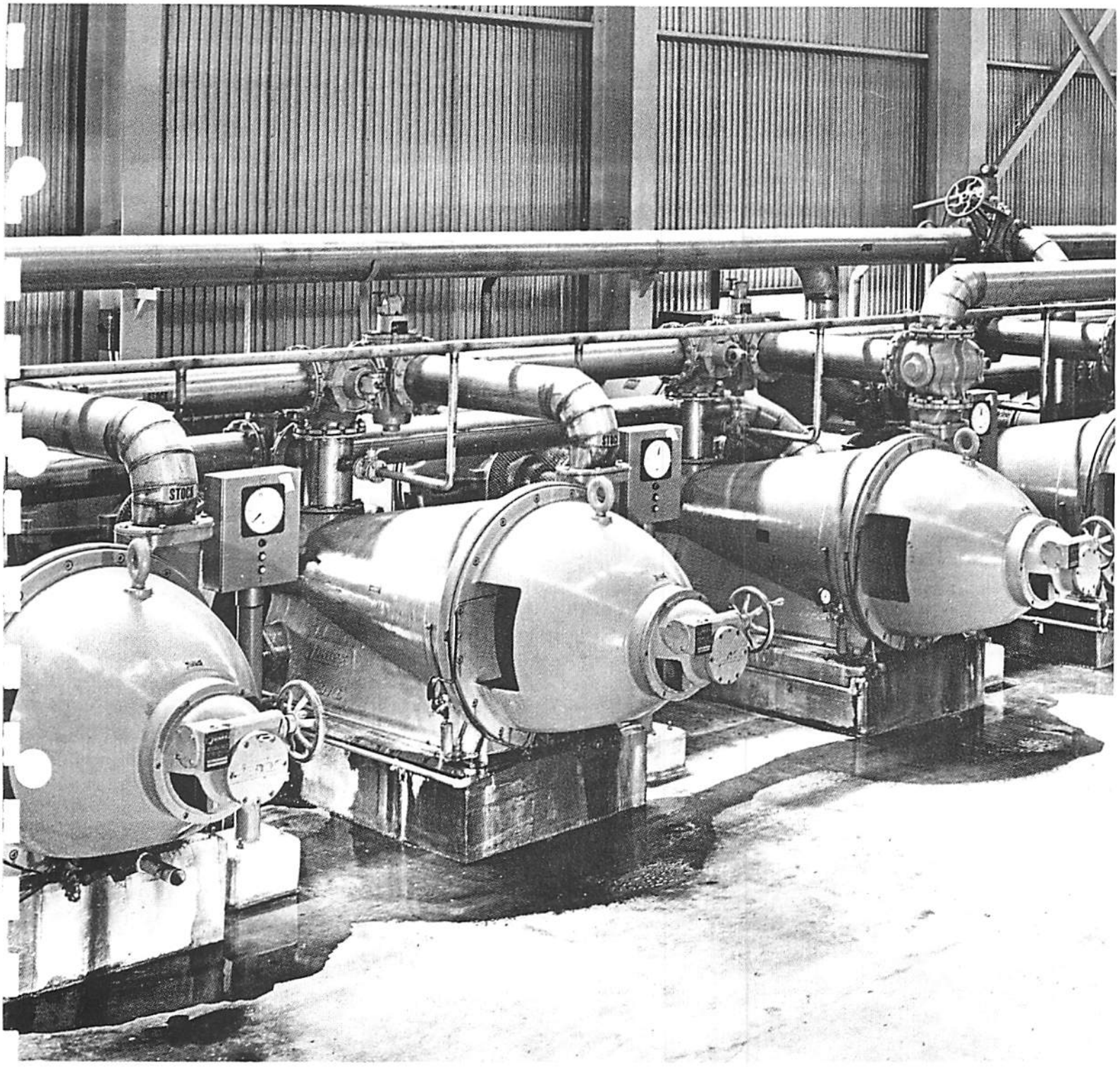
It is unnecessary to remove the bell end assembly from the complete assembly for refilling purposes. If refilling is planned, it is wise to back the plug away from the bell end with handwheel as far as possible. This will allow sufficient room for bar and wood insertion.

If it is necessary to remove the bell end assembly follow this procedure:

1. Remove screws that secure packing box to the bell end assembly.
2. Remove bolts securing adjusting mechanism at the forward end of the bell end assembly. (EXCEPT STOCKMASTER & MIDGET)
3. Rotate handwheel to remove adjusting screw from the thrust bearing and allow the bell end assembly to be removed.

The bell end will now slide over the bearing and away from the plug-bearing assembly.

To reassemble follow the above steps in reverse.



PRECISION ENGINEERED

BELOIT-JONES CONICAL REFINERS

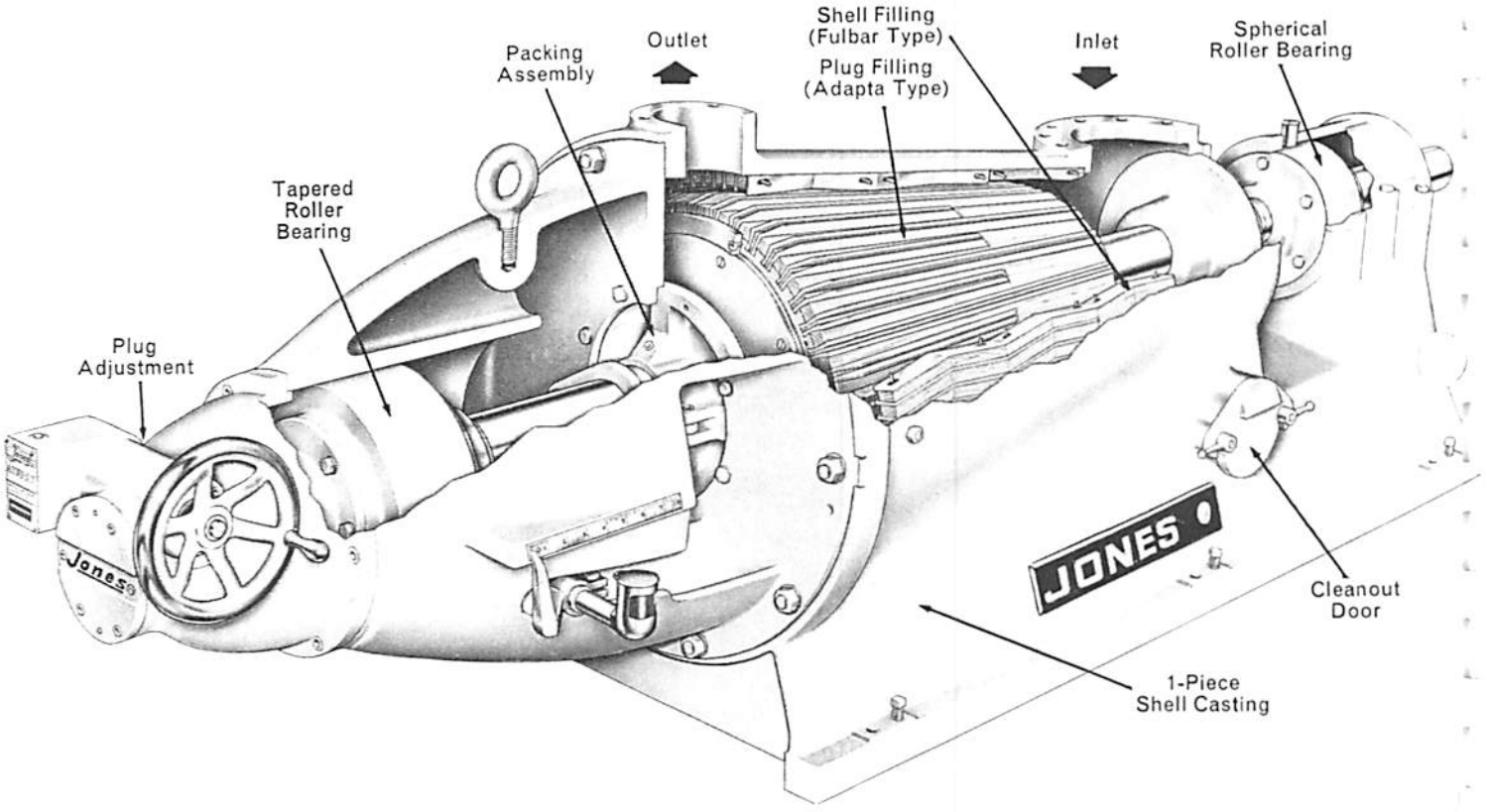
IN A COMPLETE RANGE OF SIZES TO
MEET SPECIFIC MILL REQUIREMENTS
FROM 3 TONS/DAY TO 400 TONS/DAY

OPERATING PRINCIPLES OF CONICAL REFINERS

Refining of stock in a conical refiner is achieved by causing the fiber mass to pass between stationary and rotating members which are sufficiently close to flex, bruise, split, or shorten the individual fibers. The type of action depends upon many factors including peripheral speed, clearance, and arrangement of refining members.

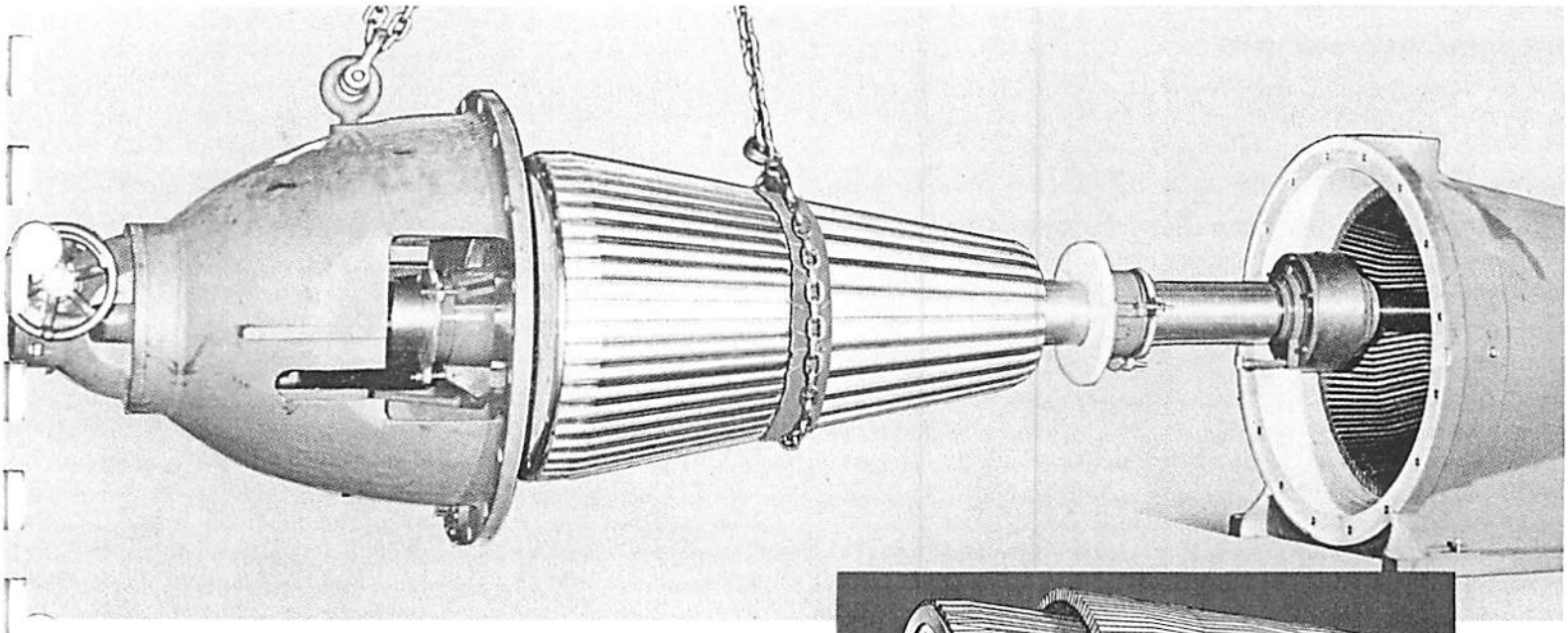
In the unit shown below, stock enters at the small end inlet, moving under line pressure into the zone between the revolving plug and stationary shell. The plug and shell each have fillings consisting of metal bars separated by hardwood or plastic spacers, arranged to form longitudinal grooves. Stock in the plug grooves is thrown out by centrifugal force toward the shell and is combed through the small clearance between the rotating and stationary bars. This process is repeated continuously as the stock spirals toward the large end where it is discharged.

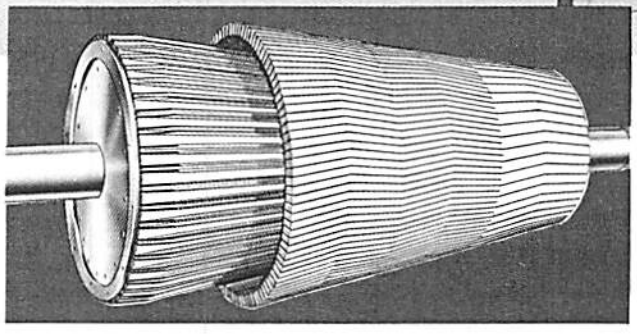
The clearance between the bars is varied by moving the conical plug longitudinally, either manually or automatically. During operation, as the plug and shell fillings wear, the plug is moved further in to maintain the desired refining action. This wear also decreases the groove depth, slowly reducing the hydraulic capacity of the refiner. The spacers periodically can be chipped down to return the grooves to their proper depth. Through these means, the life of the filling is extended to a practical maximum, after which the filling can be replaced.



CONTINUOUS CONTRIBUTIONS TO BETTER STOCK REFINING

The important relationship between proper stock preparation and a quality end product has been recognized since the earliest days of papermaking when plant fibers were pounded or beaten manually. To provide the optimum stock preparation required for today's high production of many paper grades, Beloit-Jones has developed conical refiners with such features as: in-line construction with all bearings on a common base . . . inlet and outlet pipes on main casting . . . Accruset control . . . Adapta-Plug . . . Fulbar Shell . . . temperature differential control.

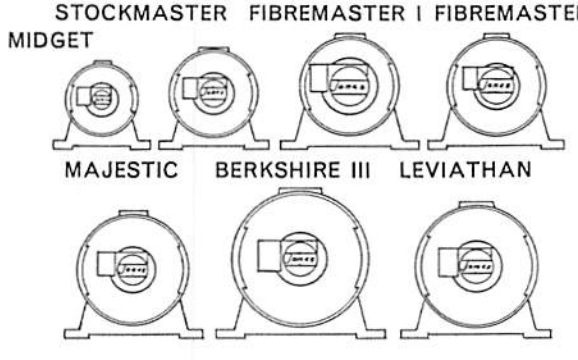




THE INSIDE STORY OF BETTER CONICAL REFINING.....

Beloit-Jones Adapta-Plug and Fulbar Shell Fillings
The Beloit-Jones Adapta-Plug has brought an entirely new concept in design. A completely bandless plug, it is easier to fill and easier to strip. A Duroid plastic strip firmly forces the full length of each bar against the dovetail slots in the plug body to provide the strongest construction yet available short of actually welding the bars on. This revolutionary design greatly reduces stripping and filling time and affords versatility—standard slots in the plug body are always the same whether the bars have wide or narrow cutting edges—and allows a filling change for different results without altering the plug in any way.

The Fulbar Shell Filling is a one-piece unit of assembled bars and wood spacers hydraulically pressed in a form which matches the shell body casting. The shape is held by heavy welded rings to provide a unit construction which eliminates fitting problems. Its unequaled simplicity, extreme strength, and substantially lower installation cost join with the outstanding features of the Adapta-Plug to provide the industry with uniform refining, reliable performance, and long life. And both are available in *any* bar combination and in *any* material. For mills whose applications require special fillings and liners, we provide lava stone, Bidwell and Fair tackle.



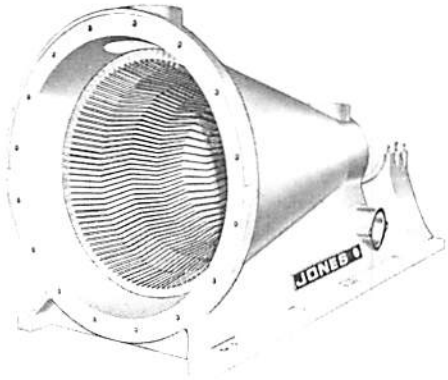
SEVEN SIZES OF BELOIT-JONES CONICAL REFINERS TO MATCH WIDE VARIETY OF NEEDS

The broad range of sizes has been made available by Jones to allow selection of a technically and economically optimum unit(s) for a given application. Once raw material, tonnage rate, and end product are established, the unit size and horsepower are easily determined. To cite extremes: low tonnage production of a paper requiring a high degree of refining would call for several small units in series, while high tonnage production of a paper requiring a low degree of refining would call for large units in parallel. When technical considerations allow an option on the number and size of units, each option is examined for capital investment requirements before final specifications are given.

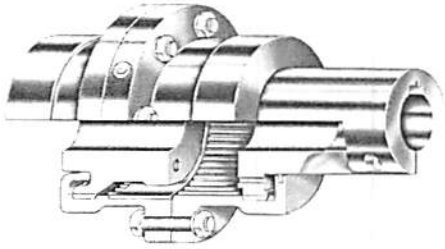
Unit	Overall Dimensions*		Nominal Rating	
	Length	Width	Tons/Day	HP
Midget (Dispersall)	9′ 2.5″	25.5″	3-10(100)	20-100
Stockmaster	7′ 10.1″	30.3″	8-25	75-150
Fibremaster I	10′ 4.6″	32″	25-100	100-250
Fibremaster II	12′ 1.9″	32″	25-150	200-350
Majestic	14′ 11.4″	42″	50-250	300-500
Berkshire III	10′ 8.9″	44″	50-250	300-400
Leviathan	17′ 5.6″	56″	120-400	500-700

*Length: Clear, from large end to end of shaft (except for Midget whose length is to the end of the motor base).
*Width: Clear

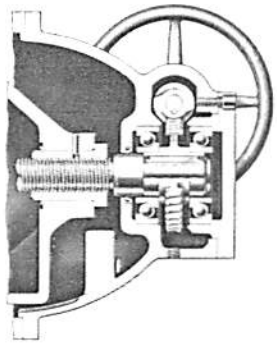
OTHER SPECIAL FEATURES OF BELOIT-JONES PRECISION ENGINEERED CONICAL REFINERS



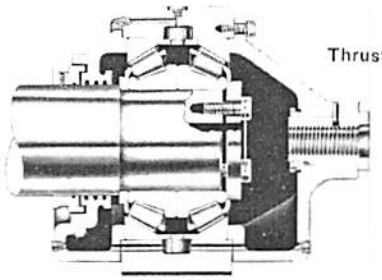
UNIT SHELL CONSTRUCTION
Combined in one rugged, main shell casting are the machine base, the shell housing, the radial bearing stand, and the inlet and outlet connections. Design simplicity contributes much to the consistent reliability of operation.

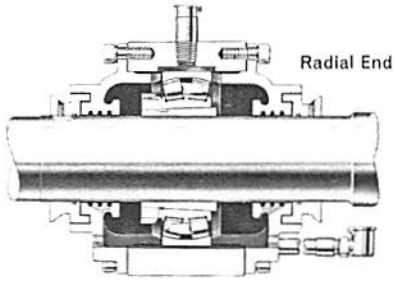


TELESCOPIC COUPLING
Telescopic couplings are standard equipment. Periodic adjustment to compensate for plug wear is the only attention necessary after initial settings.



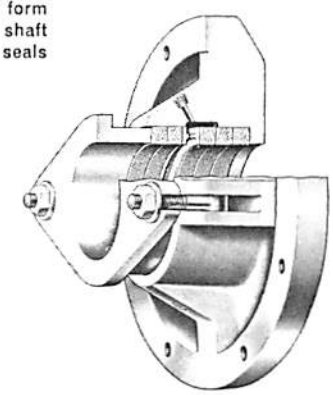
PLUG ADJUSTING MECHANISM
The manual Accruset, a precision worm gear-type adjusting mechanism, is standard. Plug location is obtained using this control in combination with the indicating scale and pointer which extends from the main bearing through the bell end assembly. A special automatic Accruset control is available. This control coupled with limit switches and other safety devices makes one of the most precise and effective Jordan controls in the industry. The controls can be located either remotely or at the machine.

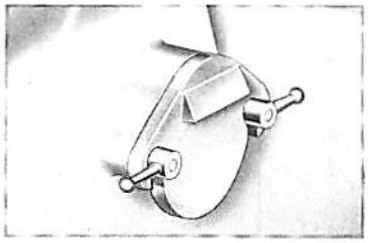




SELF-ALIGNING ROLLER BEARINGS
These antifriction bearings with their housings form self-contained units which can remain on the shaft throughout the life of the equipment. Labyrinth seals retain lubricant, exclude dirt and water.

PACKING ASSEMBLY—with lantern ring
Water inlet and outlet on each gland provide constant lubrication. In addition to cooling the packing box, this design adds considerably to the packing life, and requires only periodic attention.





CLEANOUT DOORS
Built-in sand and junk trap is easily accessible since both sides are equipped with quick-opening cleanout doors—another design feature that improves and simplifies maintenance procedure.

BELOIT
JONES DIVISION
BELOIT CORPORATION, DALTON, MASS., U.S.A. 01226

SB-97-001A

PRINTED IN U.S.A.-4M-269-GL

Every conical unit after filling should be ground in before being put into service. There are several reasons for this. In the first place the shell bars are bent or "elbowed" to prevent their interlocking with the straight plug bars and causing a wreck. When placed in the conical bore of the shell casing these bars have a three point contact, one at each end of the bar and at the elbow in the center. Between these points of contact there is a slight space along the back of the bar and the shell, and there is a corresponding amount of metal at the top of the bars that must be removed to produce a true conical surface. Another reason for grinding is that in any assembly involving many separate parts, such as bars and woods, it is almost a mechanical impossibility to secure the required accuracy to produce two conical and concentric surfaces. Even if this were readily possible, the normal swell of the wood filling in soaking tends to distort the bars so that the shell should be ground to the plug.

There are several things that should be done in preparing a conical unit for grinding. The first is to soak the wood filling so that it will have a full opportunity to swell. To do this the shell is entirely filled with water and allowed to stand at least 24 hours. (The time can be shortened in an emergency by using and keeping the water warm.) Before introducing the water, screw the plug up tight into the shell so that there is no chance of the shell filling lifting due to the force of the swelling woods.

Provide a couple of barrels of good sharp sand which has been through a screen of about 1/8" x 3/16" mesh. Quartz sand is preferred if it is available. A good clean sand such as is used for standard concrete work is suitable.

To prepare the shell for grinding, remove the cover plate on the side of the small end of the shell. If there is no such shell opening, gain entrance through the inlet. Insert a hose or pipe for furnishing water, 3/4" is of ample size. There should be a control valve in the supply line so that the quantity of water can be regulated. Install a 1-1/4" or 1-1/2" valve on the washup connection near the bottom of the large end of the unit.

We now have the unit prepared and the woods soaked and are ready to grind. Back the plug away from the shell and start the motor. Turn on the water at the small end and regulate the flow to about a full 3/4" pipe without pressure. Adjust the discharge valve at the large end so as to maintain a constant level. This level should not be below the center of the shaft, or overflow the hand-hole. With this amount of water there will be a vigorous circulation from the small end toward the large end and back through the top half toward the small end. This keeps the sand agitated and provides the necessary abrasive in suspension for grinding all parts of the filling.

Now start to feed in the sand through the hand hole at the small end with a scoop or small shovel. Screw the plug in carefully until it just ticks on the shell filling and note the exact position, either by marking on the guides or noting the reading of graduated scale or dials. Work the plug gradually into contact with the shell until, from the sound, it is plain that the high spots are being ground off and better contact being secured between the plug and shell bars. The plug should not be crowded and plenty of time should be given for the high spots to grind down. When the condition is apparent from the sound, feed the plug in a little more, all the time using plenty of sand. Keep watch of the temperature of the out-flowing water and do not let it rise above 110° or 120° F. Adjust the flow of water, if necessary, to keep the temperature within bounds. If over-heating occurs, the plug or the shell may be distorted in cooling off and the benefit of the good grind job will be lost. A total movement of about 5/8" should be enough to insure full contact between plug and shell bars.

After the operation of grinding is finished, take the hand hole covers all off and wash out all the sand. Be particular to wash clean any sediment in the bottom of the shell filling or in the bottom of the large head and the throat at the small end of the shell. Remove the packing and wash out all the sand that has lodged in the packing boxes. It is good practice to grind using old packing, but be sure to repack with new before putting the unit into service.

INSTRUCTION MANUAL

JONES DIVISION

JONES ADAPTA-PLUG FILLING

IMS-05-003—164

General

The E. D. Jones Adapta-Plug is a bandless plug with the bars held in wedge-shaped slots. The double tapered bar design locks the plug woods permanently in position. Bars, filler pieces and plug woods are all standardized, regardless of bar material or width of cutting edge.

The design of this plug simplifies the removal of the old filling and likewise makes installation of new filling fast and simple. Slots machined in the plug body are a standard width, regardless of whether the bars are machined for 3/16, 1/4, 5/16 or 3/8" cutting edges.

Stripping the Old Filling

1. Remove end plate from small end of plug. Remove end ring from large end of plug.

2. Chip out the filler piece (see Figure 1) from between the bars. Do this in two passes, removing half the filler piece at each pass. It may be necessary to remove burrs from the bar edges in order to remove the filler pieces.

   Use stripping tool BT 1585-B in any of the chipping hammers in NOTE A below.

3. Remove the pair of bars from the slot, then remove the adjacent plug woods.

NOTE A: Ingersoll-Rand Model #W2A Hex Chipper with A. T. Safety Retainer Collar; Chicago Pneumatic #2R Simplate Chipper with Hex Bushing and A. T. Safety Retainer Collar; Cleco #2WAM-BJ Chipper (Hex) with A. T. Safety Retainer Collar; Thor No. 22 Hex Chipping Hammer (2 inch stroke) with A. T. Safety Retainer Collar.

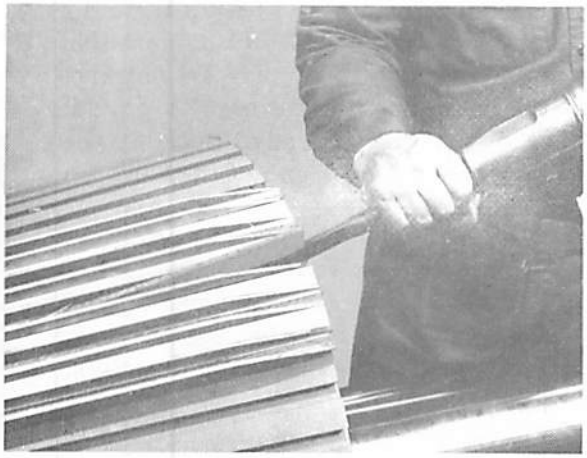


Fig. 1 Stripping the Filler Pieces

4. Repeat for each pair of bars until the plug is completely stripped.

5. Clean the plug thoroughly with special attention to the slots.

Installation of New Filling

1. Coat the small end of the plug and the inside surface of the end plate with white lead or Plasgon; attach the end plate to the small end of the plug.

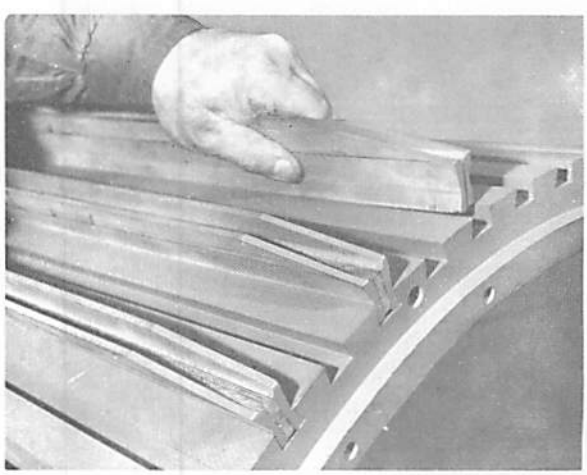


Fig. 2 Installing a Pair of Bars in the Slot

2. Insert a pair of long bars in the slot as shown in Figure 2 and butt them against the end plate. Separate the bars so the angle side of the bar matches the slot side, then insert the Duroid filler piece between the bars and drive to the bottom of the slot using a piece of 3/16" plate and a hammer as shown in Figure 3. Note that the Duroid filler strip has an entrance bevel cut at the bottom edge to provide easy access for stripping. Be sure this edge contacts the bottom of the slot.

   Also note that each end of the Duroid filler strip is cut at a slight angle to match the plug face. Match the angle ends of the filler strip to the bars before installing.

   NOTE A: The Duroid fillers in every case are properly sized by E. D. Jones to have a light to medium drive fit at assembly. Each set (includes a pair of bars and the Duroid filler strip) should be kept together. Normal blows with a two pound hammer should drive the filler strip to the bottom of the slot. If considerable difficulty is experienced in seating the filler strip, it may be necessary to dress one side of the filler strip. Duriod can be worked on a jointer like wood.

Fig. 3 Installing the Filler Piece between Bars

   Duroid is a plastic-type material with excellent compressive strength and endurance. Three extra over sized Duroid filler pieces are included with each set of Adapta-Plug filling for use if needed.

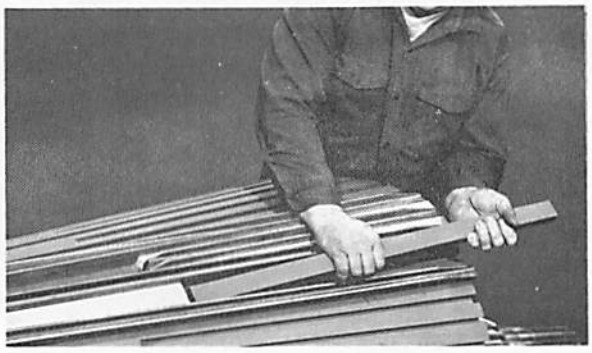


Fig. 4 Driving Small End Plug Woods Into Position

3. Repeat step 2 for all long bars.

4. Install the small-end plug woods (dressing slightly on the sides if necessary) so they will slide freely to within 3/4 inch of their final position. Drive the plug woods to the end plate. A steel bar 3 or 4 feet long as shown in Figure 4 is useful for driving the plug woods into position.

5. Follow the same procedure for installing the short bars as previously described for installation of the long bars (Par. 2). Keep the ends of the short bars flush with the body casting at the large end of the plug when installing the filler strips.

6. Install the large-end plug woods as shown in Figure 5, dressing the sides slightly if necessary. These woods should also slide freely to within 3/4 inch of their final position. Drive the large-end plug woods to the small-end plug woods and flush

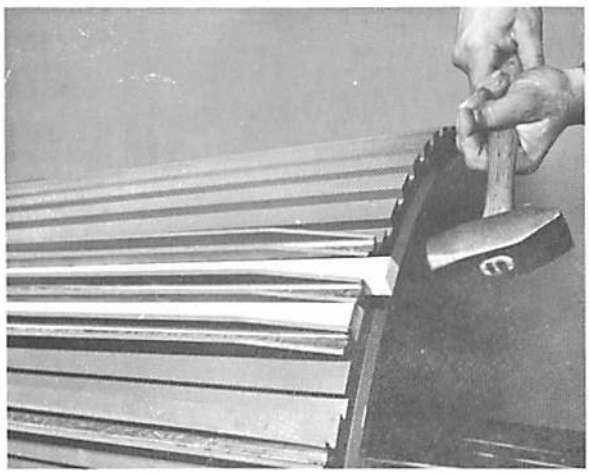


Fig. 5 Driving Large End Plug Woods Into Position

with the large end. Seat all plug woods against the plug body, as shown in Figure 6.

7. If any bars or plug woods extend past the large end of the plug, sand off, taking care not to damage the end of the plug.

8. Coat the large end of the plug with white lead or Plasgon and attach the end ring. Secure the end ring with socket head capscrews.

9. Soak the new filling thoroughly to swell the Duroid filler strips and plug woods before grinding. See grinding instructions.

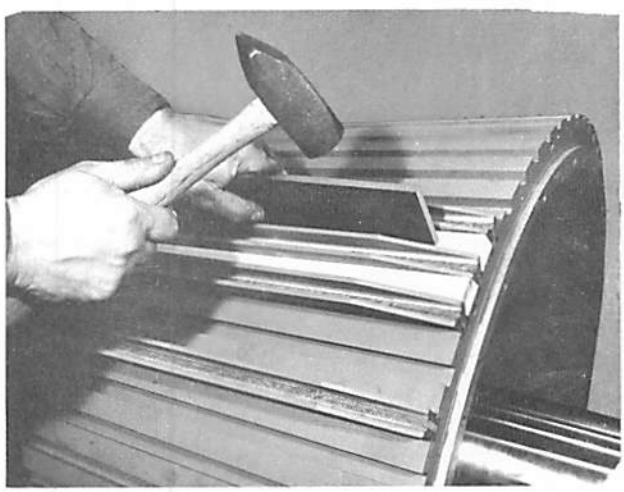


Fig. 6 Seating the Plug Woods

JONES SHELL FILLING FULBAR

IMS-05-002—11/63
2.5C—E. D. J.

Removing the Filling

1. Remove anchors at large end (if used).

2. Drive filling back from small end until loose, or chip out a wood entire length of filling. Then drive filling back. Fig. 1.

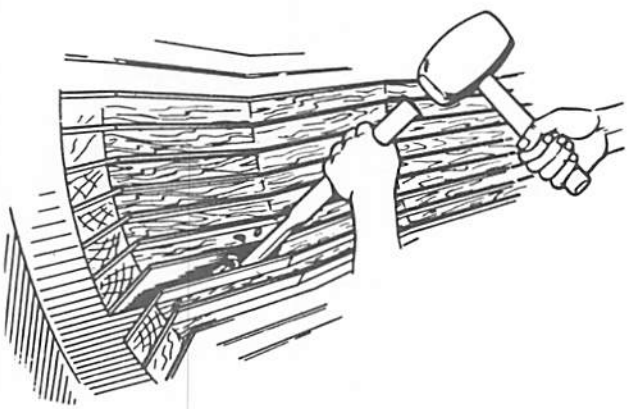


Fig. 1 Chipping Out One Wood to Loosen Filling

3. Clean and paint the shell.

Installing the Filling

1. Place Fulbar filling inside shell, either by hand or with a fork lift truck. If it does not slide to within about ½ inch of shoulder in small end, a small amount of fitting may be required.

   a: If too large (for example, from having been stored in damp place) remove from shell, and tap woods outward and sand off all around circumference. Fig. 2.

   b. If too small, sand off small end of shell filling to permit it to be driven in further (not more than ¼"), or place filling in shell and dampen with water until wood expansion tightens it.

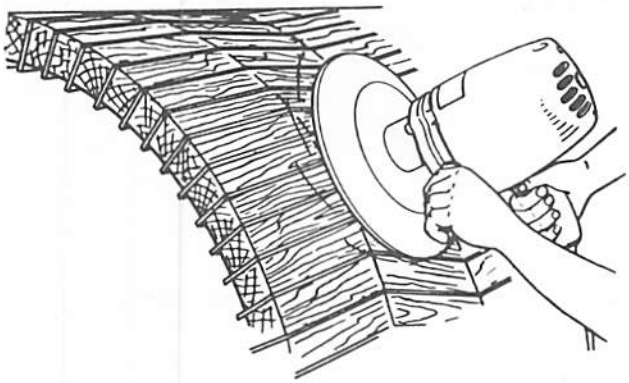


Fig. 2

2. Drive filling into position against shoulder at small end using a hardwood block and rotating hammer blows around large end circumference. Fig. 3.

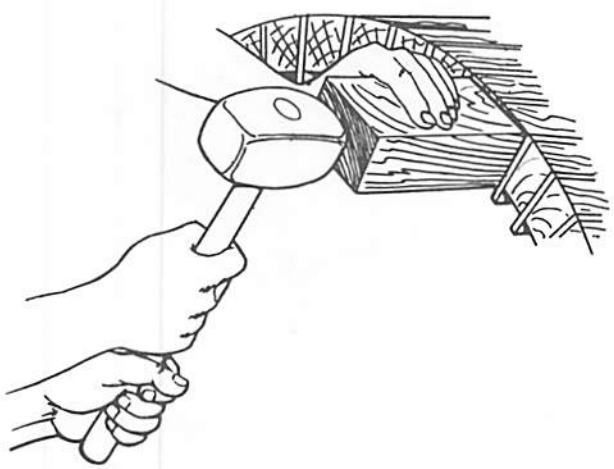


Fig. 3 Driving Filling Against Shoulder In Small End

3. Go over all shell bars and woods with a lead or copper hammer to make sure they rest firmly against the shell at all points. Any bars not seated properly will cause difficulty when installing the plug and when grinding. Fig. 4.

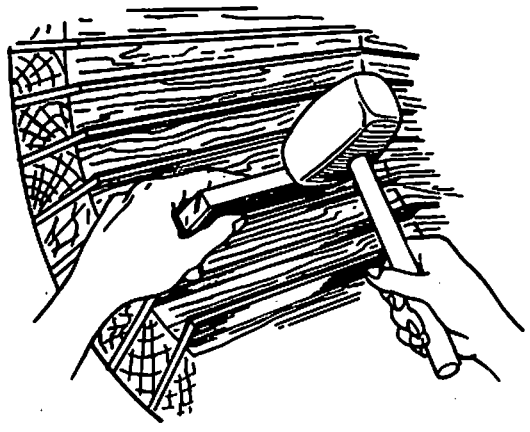


Fig. 4 Seating Bars Against Shell

4. Install the anchors provided to prevent the filling from sliding back out. For some sizes these will be anchors as indicated. In other cases the head casting itself, or set screws through it hold the filling in position. Fig. 5

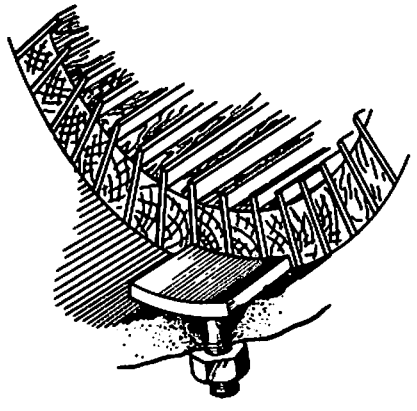


Fig. 5 Typical Anchor Arrangement

5. Figs. 6A through 6D show alternate methods of anchoring the shell filling. If an adequate anchoring method is not incorporated in the unit design, contact E. D. Jones for recommendations before installation of the filling.

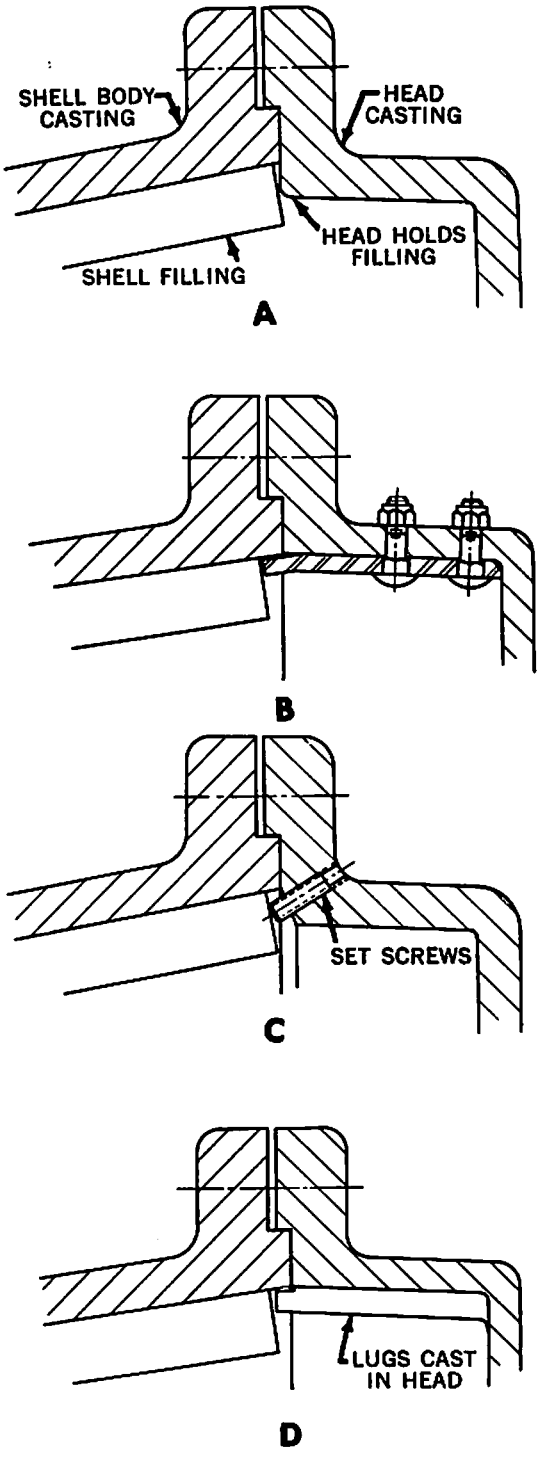


Fig. 6 Alternate Shell Anchoring Methods

6. Soak the new filling thoroughly, swelling it tightly into position before grinding. See grinding instruction.

IMPORTANT

Plug Must Be Adjusted Tight Against Shell Bars While Soaking Woods, To Prevent Movement Of Shell Filling.

BELOIT
JONES DIVISION
BELOIT CORPORATION, DALTON, MASS., U.S.A. 01226

SPARE PARTS LIST

LIST Nº SPL12-104M
DATE EFFECTIVE 10/31/75
SUPERSEDES LIST Nº SPL12-104L 12/12/73

Stockmaster (W/Adapta-Plug & Timken Thrust Bearing)

PART NUMBER	DESCRIPTION	QTY PER ASS'Y	RECOMMENDED SPARES 1-3 UNITS	RECOMMENDED SPARES 4-10 UNITS	QUANTITY REQ'D	UNIT PRICE
	Adapta-plug w/packing boxes & bearings (w/o filling)	1	0	1		5123 00
	Shaft Bearing Thrust End Timken or equiv.					
011255	(2) H924045 - (2) H924010 Bearing (1) H924010 EA Spacer	1	1	1		219 11
	Shaft Bearing Radial End SKF or Equiv.					
011652	22218K	1	1	1		78 93
630052	SNW 18 - x 3-7/16 Adapter w/Lock-nut and washer	1	1	1		19 50
603918	Packing JM-263 - 1/2" Sq. Inter-lock Braided Asbestos	2.5# (13')	2.5# (13')	10# (52')		6 60 /#
A12-312008	Shaft Sleeve Thrust End S/S 3.548" ID x 11"	1	1	1		125 00
A12-312005	Shaft Sleeve Radial End S/S 3.548" ID x 16-1/2 lg.	1	1	1		161 00
	NOTE: EDJ-1040 Bulletin must be enclosed with each sleeve.					
	Filling Complete:					

	Plug	Shell
Type	ADAPTA	FULBAR
Material	S/S	S/S
Bar Thick.	3/16"	3/16"
No. Bars	32L-32S	30L-30S
Type Wood	MAPLE	MAPLE

2137 — /set

REMARKS:

SHIPMENT: Plug - allow 4-6 weeks, Filling - allow 4 weeks - Other Items - allow 1-2 weeks.

PRICES: F.O.B. point of shipment, freight prepaid and allowed on Fillings only (when not installed), subject to change without notice.

TERMS: Net 30 Days.

PART NUMBER	DESCRIPTION	QTY PER ASS'Y	RECOMMENDED SPARES 1-3 UNITS	RECOMMENDED SPARES 4-10 UNITS	QUANTITY REQ'D	UNIT PRICE	
	Control Parts (if used)						
581010	Gearmotor, Flange Mounted, 3 pH, 50/60 cy, 208/220/440V	1	0	1		373	00
A24-424001	Shear Pin Gearmotor Clutch	1	3	6		5	50
A97-941003-12	Limit Switch	1	1	1		31	00
	Refer to Remote Control Parts List For Panel Items						