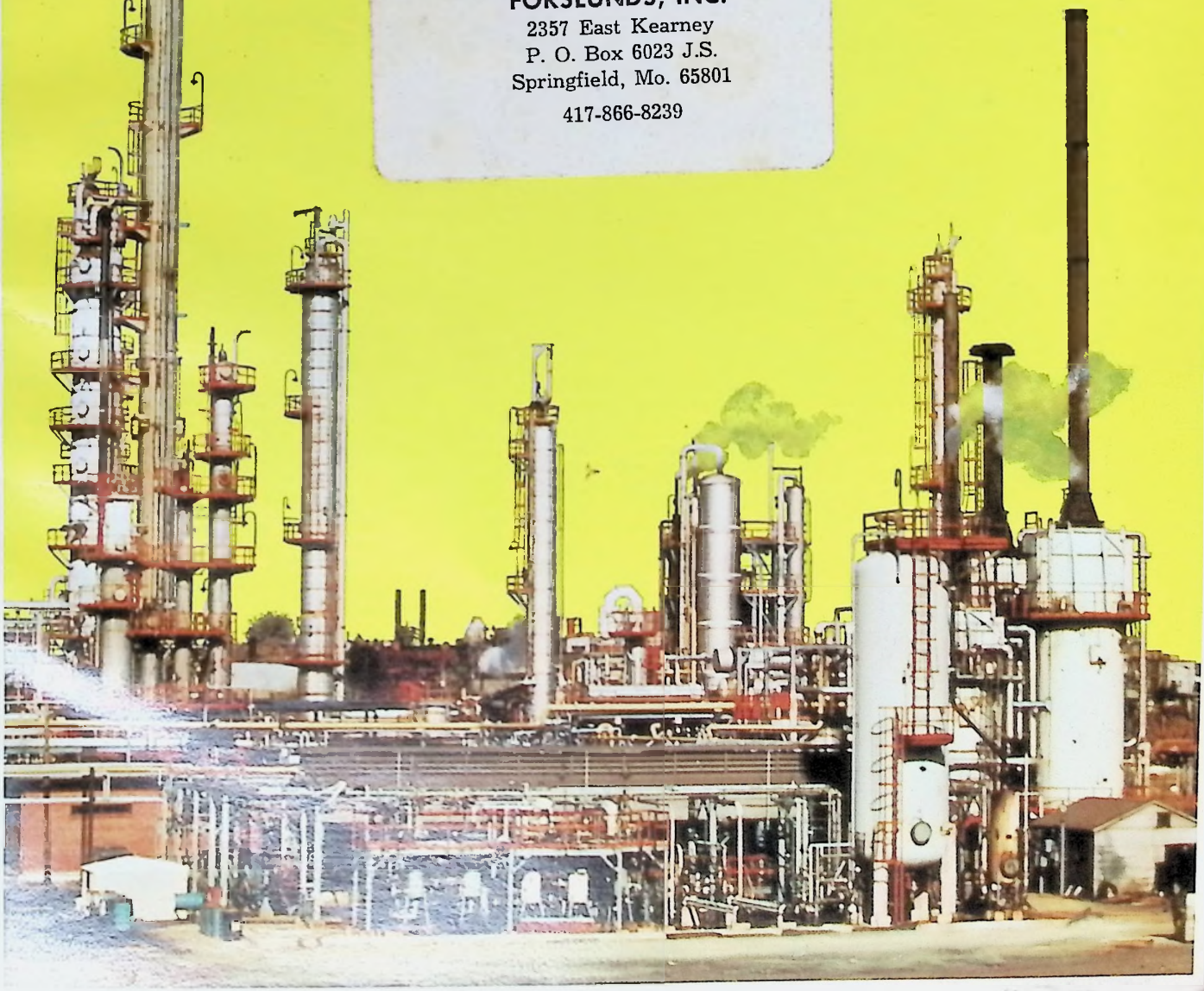
CHESTERTON®

MECHANICAL PACKINGS AND SEALS FOR INDUSTRY

FORSLUNDS, INC.
2357 East Kearney
P. O. Box 6023 J.S.
Springfield, Mo. 65801
417-866-8239



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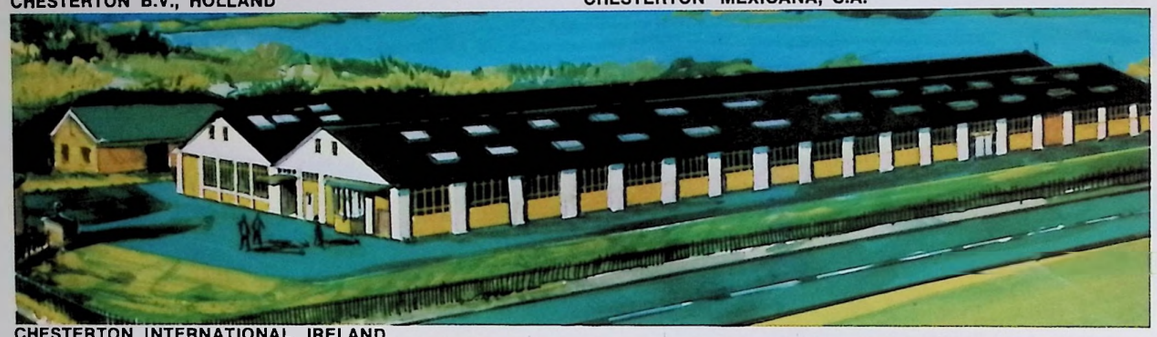
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ACL Doc 21272 · Page 3 of 87
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"It has always seemed uneconomical to us, particularly with today's high labor maintenance costs, to install other than the longest wearing, most serviceable packings and seals."

JOHN RUSKIN, the eminent philosopher, once wrote, "It is unwise to pay too much but worse to pay too little. When you pay too much, you lose a little money. That is all. When you pay too little, you sometimes lose all, because the thing you bought was incapable of doing the thing it was bought to do."

The philosophy of our family company, as it approaches its first one hundred years, is to place quality above price. We are not trying to produce the cheapest packings and seals, nor the most. Only the finest. It has always seemed uneconomical to us, particularly with today's high labor maintenance costs, to install other than the longest wearing, most serviceable packings and seals. For this reason we fabricate from only the longest and costliest of staples, from the most effective alloys; and with proven specialized lubricants developed through research. That is why Chesterton Mechanical Packings and Seals are universally recognized as the "World's Finest".

If you are not now using Chesterton Packings, Seals, or other of our fine products, we cordially invite you to join the large group of thoughtful users who have found our quality-controlled products outstanding in the field.

Chesterton Products are stocked locally by your Industrial Supply Distributor. This Distributor offers you a cheerful source of information on thousands of products he catalogs and carries for your convenience. He thereby reduces your inventory costs and provides a fast means of replenishing your supplies. He is one of the most important institutions in the structure of World Wide marketing. We are honored by our association with him and other recognized Industrial Supply Distributors throughout the world.

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TABLE OF CONTENTS



Section	Product	Page
	Index	5
	Application Data	6–15
1	ROD and VALVE STEM	16–24
2	CENTRIFUGAL PUMPS	25–36
3	VANWAY RINGS	37
4	HYDRAULICS	38–45
5	MECHANICAL SEALS	46–50
6	FLANGE and GASKETING MATERIAL	51–61
7	PLANT MAINTENANCE PRODUCTS	62–74
8	TOOLS — GAUGE GLASS	75–77
9	ENGINEERING	78–85

Sizes — Contents — Availability
All products in this catalog are subject to change without notice.

Critical material shortages and other factors beyond our control may necessitate minor changes in the design of products described herein. Careful records are kept of these changes, and any customer needing critical information regarding a particular product is encouraged to contact CHESTERTON.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 5 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/5

INDEX

Style No.	Product	Page No.
ONE	Super-Graphite Packing	25
64	Steam Packing	22
80	Lubricated Flax Packing	33 & 78
81	Graphite Lubricated Flax Packing	33 & 78
82	Lubricated Mixed Roving Packing	33 & 78
84	Lubricated Jute Packing	33 & 78
85	Lubricated Hydraulic Flax Packing	33 & 78
87	Graphited Style 82	33 & 78
90	Hydraulic Packing — regular	78
93	Hydraulic Packing — Cut Rings	
100	Red Rubber Sheet	57
119	Cloth Inserted Rubber Sheet	57
120	Diaphragm Sheet	56
122–NN	Diaphragm Sheet	56
124	Oil Resistant Rubber Sheet	57
140	Vegetable Fibre Sheet	59
145	Cork Sheet	59
210	Heavy Duty Compressed Sheet — Graphited	51
211	Heavy Duty Compressed Sheet	51
225	Compressed Asbestos Sheet	52
230	Wire Inserted Woven Cloth — Graphited One Side	58
235	Compressed Asbestos Sheet	52
240	Wire-Inserted Woven Cloth	58
250	Handhole Gaskets	60
251	Manhole Gaskets	60
260	Compressed Asbestos Acid Sheet	54
270	Compressed Asbestos Oil Sheet	53
281	Compressed asbestos wire inserted sheet	53
290	Gasket Tape — regular	61
291–N	Gasket Tape — creosote and solvents	61
292	Asbestos Wick	59
294	Candle Wick	59
296	Asbestos Rope	59
300	Cotton Packing — graphited	33
315	Asbestos Packing — graphited	34
320	Blu-Lon Acid Packing	31
322	White-Lon Multi-Service Packing	29
324	Super-Lon Packing	19
326	Ches-Lon Packing	27
328	Chemical Packing	30
329	Stern-Lon Packing	32
330	Papermill Packing	34
350	Steam Packing	23
364–T	Teflon Treated Style 64	22 & 79
375	Graphite Packing	26
382	Chemical Gasketing	55
420	Square Copper Packing	
440	Mechanical Seal — chemicals	50
500	CounterPoise Seal	48 & 49
550	Plastic Packing	36
555	Babbitt Foil Packing	35
600	Parachute Packing — nested v-ring sets	42
666	Aluminum Foil Packing	36
770	Mechanical Seal	46 & 47

Style No.	Product	Page No.
1000	Steam Valve Packing	21
1500	Power Plant Steam Valve Packing	20
1722	White-Lon Multi-Service Packing	28
1724	Super-Lon Packing	18
1724–OX	Super-Lon Packing — oxygen services	18 & 79
2000	Teflon Sheet	54
5010	Steam Valve Packing — graphited	23
6000	Monoseal — hydraulic ram packing	39
7000	Supercup	41
8000	Super-Parachute — nested v-ring sets	40
10,000	Super-Monoseal — hydraulic ram packing	38 & 39

Style No.	Mechanical Seals	Page No.
500	CounterPoise seal	48 & 49
770	Mechanical seal	46 & 47
440	Chemical seal	50

Maintenance Products	Page No.
Anti-Seizes	64
Belt-Flo — belt dressing	63
Boiler Room Tools	75
Carbon & Varnish Remover	69
Chain Drive Pin & Bushing Lubricant	65
Clear Protective Coating	65
Cold Galvanizing Compound — anti-corrosion coating	63
Cutting oil — AWC	70
Detergent Lubricating Oil	69
Dry Lubricant — FET	66
Electric Motor Cleaner	67
Electro Contact Cleaner	68
Flat Gauge Glass	77
Freeze Spray	67
Gauge Glass Cutter	76
Gauge Glass — High pressure and low pressure	77
GoldEnd Paste	73
GoldEnd Tape	74
Gear Reducer Oil	69
Industrial & Marine Solvent	71
Moisture Shield	64
Mold Release	68
Motor Degreaser	68
Packing Tools	76
Paintable Release Agent	71
Penetrant & Lubricant	62
Rustsolvo — rust penetrant	62
Silicone Lubricant	66
Silicone Spray Compound	67
Spra-Flex — chain and open gear lubricant	65
Spragrip — belt dressing	63
Sprasolvo — rust penetrant	62
Tapping Compounds	70
Teflon Coating	66
Valvelon	24
Vanway O-Ring	37
White Grease for Food Machinery	71

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 6 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/6

MAKE THIS SIMPLIFIED CHART YOUR GUIDE

SHEET PACKINGS

SERVICE	RECOMMENDED PACKINGS
Hot or cold water	Style 100
Steam to 115 P.S.I. (8 Kg/cm²)	Style 100
Steam over 115 P.S.I. (8 Kg/cm²) including superheat, compressed air, hot gases.	Styles 210, 211, 225, 235, 281
Chemicals: —	
Up to 212°F. (100°C.) — Cold oils, greases, gasoline, hydrocarbons, alcohols, ketones, lacquers, distillates.	Styles 270, 2000
Over 212°F. (100°C.) — Hot solvents and distillates as listed above; freon.	Styles 270, 2000
The milder acids and alkalies, pH values 5–9.	Styles 210, 211, 225, 235
Strong acids, pH values 1–4	Styles 260, 2000
Strong caustics, pH values 10–14.	Styles 210, 211
Teflon* Sheet.	Style 2000
Manhole and Handhole boiler plates, doors and covers of vulcanizers, heaters, and kettles.	Styles 250, 251, 290, 291-N, 382

ROD PACKINGS

RECIPROCATING RODS	RECOMMENDED PACKINGS
Hot or cold water	
Rods, general service	Styles 322, 324, 600-W, 1722, 1724
Pistons, inside packed pumps	Style 90
Plungers and Rams, outside packed	Styles 600, 6000
Steam to 115 P.S.I. (8 Kg/cm²)	Styles 64, 324, 350, 600-W, 1724
Steam over 115 P.S.I. (8 Kg/cm²)	
For either moving rods or stationary valves	Styles ONE, 64, 324, 364-T, 375, 600-S, 1724, 5010
Stationary valve stems: —	
Up to 300 P.S.I. (21 Kg/cm²) 500°F. (260°C.)	Styles 64, 324, 1000, 1500, 1724
Valves over 500°F. (260°C.)	Styles 1000, 1500
Compressed air and hot gases	Styles ONE, 64, 350, 5010
Ammonia and other refrigerants	Styles 320, 555
Oil, gasoline, solvents: —	
Up to 450°F. (230°C.)	Styles ONE, 322, 324, 375, 555, 1722, 1724, 8000
Over 450°F. (230°C.)	Styles ONE, 375, 666
Chemicals: — Same recommendations as for Chemicals listed below under Rotary Shafts.	

ROTARY OR CENTRIFUGAL SHAFTS	RECOMMENDED PACKINGS
Water up to 212°F. (100°C.)	Styles ONE, 322, 328, 375, 1722
Water over 212°F. (100°C.)	Styles ONE, 322, 328, 375, 1722
Ammonia and other refrigerants	Styles 320, 555
Oil, gasoline, solvents: —	
Up to 450°F. (230°C.)	Styles ONE, 322, 328, 375, 555, 1722
Over 450°F. (230°C.)	Styles ONE, 666
Chemicals: —	
The milder acids and alkalies, pH values 5–9**	Styles 322, 326, 1722
Strong acids, pH values 1–4**	Styles ONE, 320, 328, 375
Strong caustics, pH values 10–14	Styles ONE, 326, 328, 375

NOTE: — CHESTERTON MECHANICAL SEALS are available for all shaft services.

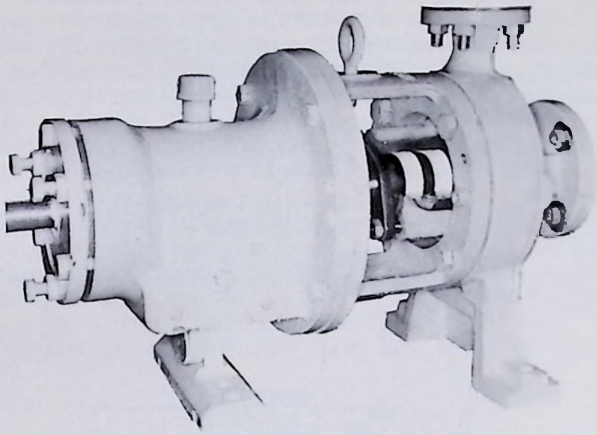
**For Applications Involving Nitric Acid — Consult Factory.

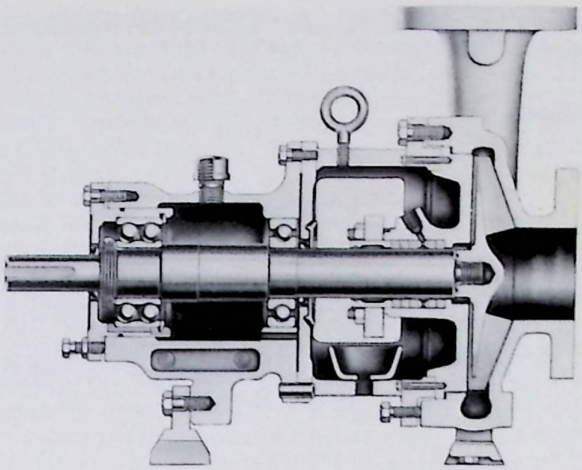
* duPont T.M.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 7 of 87
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CHESTERTON VISUAL GUIDE FOR PUMP SERVICES

CENTRIFUGAL PUMPS

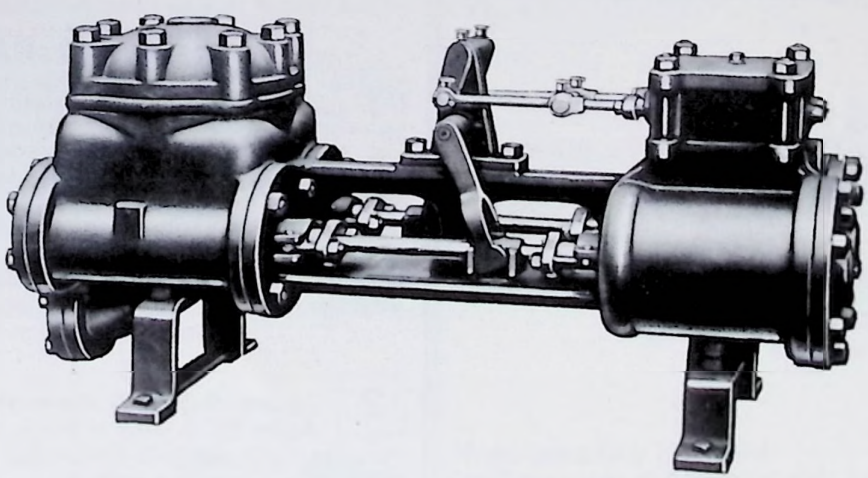




SERVICE	STYLES
Water	322, 1722
Weak Chemicals	322, 1722
*Strong Acids	ONE, 320, 328, 375
Strong Alkalies	ONE, 326, 328, 375

SERVICE	STYLES
Non-Pitting, Non-Staining	330, 322, 328, 1722
Oil, Gasoline, Solvents:	
to 450°F. (230°C.)	ONE, 322, 328, 375, 555, 1722
over 450°F. (230°C.)	ONE, 666

RECIPROCATING PUMP



LIQUID-END RODS	STYLES
Hot or cold water	322, 324, 600W, 1722, 1724
Inert liquids	322, 324, 600W, 1722, 1724
Weak chemicals	322, 1722
*Strong acids	ONE, 320, 324, 1724, 375
Strong alkalies	ONE, 324, 326, 375, 1724
Oil, Gasoline:	
to 450°F. (230°C.)	ONE, 322, 324, 375, 555, 1722, 1724
over 450°F. (230°C.)	ONE, 375, 666

STEAM-END RODS	STYLES
Steam:	
to 115 psi. (8 Kg/cm²)	64, 324, 350, 600W, 1724
over 115 psi (8 Kg/cm²)	ONE, 64, 324, 364-T, 375, 600-S, 1724, 5010

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ACL Doc 21272 · Page 8 of 87
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FOLLOW THESE CHESTERTON PROCEDURES FOR LONGER PACKING SERVICE:

HOW TO PACK A CENTRIFUGAL PUMP

Preliminary

1 For a true evaluation of packing, the equipment must be in first class condition. Sleeve, bearings, and stuffing box should be in good order if true results of packing are to be obtained. A new shaft sleeve can mean the difference between success or failure. Check shaft for rotation—whip or run out in excess of .003 is unacceptable; Use dial indicator to check same. End-play is less important (unless shaft is grooved). Replace bent shafts.

2 Condition of the stuffing box is more important than generally realized. If it is rough, it should be reworked, because it is nearly impossible to seal the O.D.* of the ring where there are rust holes or pitting. Gland take-up would then result in distortion of the rings and over compression of the packing on the shaft with resultant burn out. If gland and/or box is bevelled, it is recommended that they be faced off and bevels removed. One further point:—a throat bushing corrects for excess clearance in the bottom of box (fig. 1). Packing must not extrude in this area.

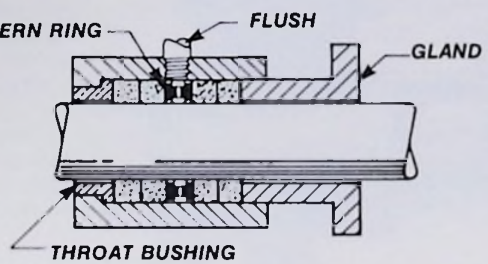


FIG. 1

3 Check to see if lantern ring is required (fig. 1). After allowing for movement of the packing as a result of gland take-up, lantern must be located directly in line with flush connection, otherwise flush may fail. Lanterns are used where the suction pressure is below atmospheric pressure and are supplied through a piping arrangement from the pump discharge pressure. Where slurries or congealing liquids are involved an independent clean liquid flush should be employed. Clean liquid flush pressure should be 10–25 P.S.I. (1–2 Kg/cm²) greater than maximum stuffing box pressure.

4 Be sure to check packing for correct *size* and for proper *type* for the application. Improper selection will result in poor service life. Check front of catalog, or with CHESTERTON, or with your CHESTERTON Distributor for proper packing selection.

HOW TO CUT RINGS

1 Make butt joint rings. The preferred way is to wind the desired number of rings on a mandrel the same diameter as the shaft (fig. 2) and cut rings by making a straight cut along the mandrel as shown.

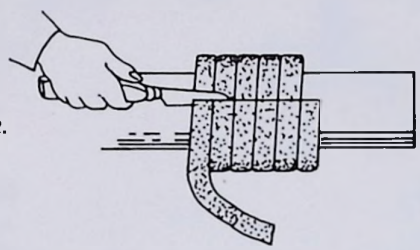


FIG. 2.

2 When removing rings from mandrel slip them off *without* opening the rings. This is especially impqrtant for metallic types such as STYLES 555 and 666. Do not open with a hinge-like action. Just slip them off unopened.

HOW TO PACK

1 Remove old rings. Wipe I.D.* of rings to be installed with CHESTERTON DETERGENT LUBRICATING OIL, and spray shaft with CHESTERTON TEFLON SPRAY, to assist installation and to help establish a proper initial seal. Check position of lantern. Fig. 1 shows properly packed box with lantern and throat bushing. Less compressible metallic rings are often advisable below the lantern to assure positioning of same in spite of gland take-up.

2 Install rings over the shaft by twisting open as in fig. 3. This is especially important for metallic rings such as STYLES 555 or 666. *Never* open rings with hinge-like action.

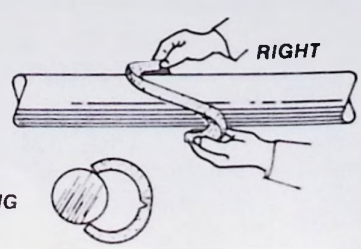


FIG. 3

*O.D. = Outside Diameter
*I.D. = Inside Diameter

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3 See if your box of CHESTERTON Packings contains any special instructions with respect to that Style. Insert rings one at a time with joints staggered 90° apart. Seat each ring individually, compressing in place with a tamping tool or by using a split hollow cylinder. Turn shaft occasionally to assist seating. Unless bottom rings are each properly seated, the gland follower will not be able to tighten the packing set, as it will leave the front rings (gland end) too tight in the box. Bear in mind that, except for abrasives, 70% of the wear normally takes place on the front two packing rings nearest the gland. Furthermore, proper seating tends to spread the wear more evenly over the entire set of rings. Adjust gland finger tight only. Especially STYLES ONE, 320, 322, 326, 328, 329, 375, 1722.

HOW TO START UP

1 The purpose of a jam packing is to control leakage, not to prevent it. Packings must leak to perform properly, otherwise they will burn up. "Teflon" Packings are especially sensitive in this respect.

2 Permit *generous* initial leakage. Gradually take up gland nuts $^{1}/_{12}$ turn (½ flat in hex nuts) at a time. WATCH temperature. Never permit heat to develop, back off gland if it does. As leakage levels off, tighten follower at 15 minute intervals until leakage is controlled, provided no excess heat is developed. Most packing on a 1" (25,4 mm) shaft can control leakage in a range of from 5 to 20 drops per minute. A 2" (50,8 mm) shaft should be allowed to leak twice as much. "Teflon" fiber packings (Styles 324, 328, 1724) must be permitted to leak at least 30 drops per minute, on a 1" (25,4 mm) shaft, and to observe recommended peripheral speed limitations as outlined elsewhere in the catalog.

3 Provide for lubrication, particularly when pumping non-lubricating liquids and gases (ammonia, freon, light hydrocarbons, solvents, creosote, very hot water). Whenever flushing through the lantern ring, a clean liquid having lubricating value should be used.

PACKING ABRASIVE LIQUIDS

As used here "abrasives" is a broad term intended to cover the problem of packing against slurries, congealing liquids, crystallizing salts and the like. They cause the greatest damage to equipment, and present difficulties for packings. In general, the cure involves flushes, purges, and temperature controls. It also calls for hardened steel shafts, or hard facings such as Stellite, Colmonoy, Chrome, Ceramic, and Tungsten Carbide.

In ordinary conditions where a lantern is used, internal lubrication is usually supplied from the pump discharge pressure by means of a by-pass line; but when pumping slurries and "abrasives" an *external* source of clear or otherwise suitable liquid must be force fed at a pressure higher than that existing in the stuffing box. This differential pressure is in the area of 10–25 psi (1–2 Kg/cm²). The problem takes various forms:—

Suspended Solids

Solids which are suspended in liquids and which are an inherent part of their structure would include starch, contaminated or muddy water, sand, and other slurries. This is best handled by an external flush of clear liquid through a lantern as shown in fig. 4.

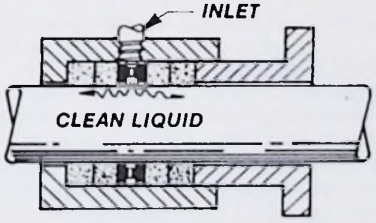


FIG. 4

Precipitating Liquids

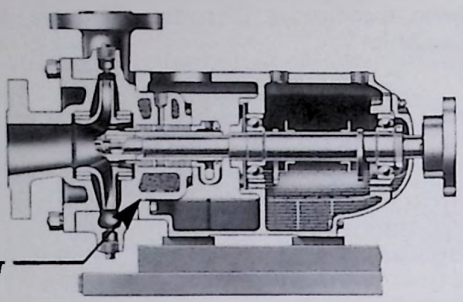
Solids which precipitate out of a liquid do so by reason of either an increase in concentration, or because of a lowering (or in some cases a raising) of temperature beyond that at which it is proper to operate. Illustrations are caustic soda and calcium hydroxide. With ammonium nitrate, for example, temperature must be controlled at an optimum level in relation to its concentration. If the temperature rises above the optimum, it will boil and form crystals; and conversely if temperature drops, it will become saturated and salt out.

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FOLLOW THESE CHESTERTON PROCEDURES FOR LONGER PACKING SERVICE:

These crystals are harmful to packing and shaft. This situation is best handled by electrically or steam controlled heat involving a jacketed pump. See fig. 5. It

FIG. 5



is important that heat be applied *before* pump becomes operational and until such time as crystals have been dissolved. Thereafter a uniform correct temperature must be maintained as long as the pump continues in operation. The jacket may also be used for cooling, as the situation dictates.

Evaporating Liquids

Solids can form as a result of heat which promotes evaporation. Examples include any of the hot chemical salts—the chlorides, chlorates, sulfates, sulfides. Cool by flushing (fig. 4) or by utilizing water jackets (fig. 5).

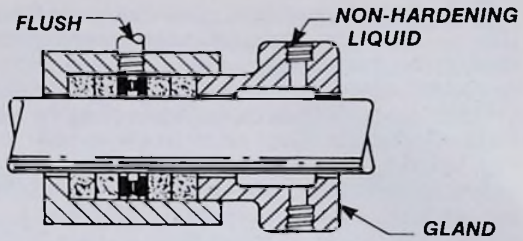
Congealing Liquids

Generally speaking, these liquids congeal either because of a drop in temperature, or as a result of drying out after exposure to air. Sugar syrups fall into both categories. A good rule is to keep the fluid moving before congealing can take place. Control with heat and/or by flush or purge.

(a) Asphalt is a typical case of a liquid which congeals as it cools, and this can be controlled by heat as in fig. 5. Some sugar syrups come under this category. Be sure to heat thoroughly before starting pump, also during operation, and after shutdown if followed by a purge.

(b) Some products harden to a solid state when exposed to air. Glue, molasses, paint, sugars are examples. An effective flush is a *gland* flush. This will keep out the air. Note that this type of flush does not enter the product, but only mixes with the product leakage. See fig. 6. It may also be desirable to flush through a lantern with a non-hardening liquid from an external source; or with a purge utilizing a solvent of the liquid being pumped.

FIG. 6



WHAT PACKINGS TO USE

For slurries and abrasive liquids, the mechanical design situation may or may not be in accordance with our recommendations as described above.

(a) **Favorable** Design and Layout:—
It is assumed that lantern, flush, etc. are available, and that shaft is hardened. Install two rings of STYLE 555 in the bottom of box below lantern (except where a ring of greater chemical resistance is required). These serve as restrictive bushings which limit product dilution, build flush pressure, minimize absorption of product, and keep lantern in proper alignment with flush hole. Balance of Packing should be of the soft variety, having lubricity, and chosen with an eye toward non-absorption and/or chemical resistance (if required). Consider especially STYLES ONE 320, 322, 326, 328, 375, 1722.

(b) **Unfavorable** Layout:—
Here we have a situation handling slurries and abrasive liquids, and there is no lantern or proper flush. The shaft may be soft. Whether to use only "soft packings" in the styles suggested in (a) or whether to use these soft packings in combination with STYLE 555 will possibly be subject to your own tests and evaluations. Conditions and results can vary. Reports from the field, however, continue to find supporting evidence that STYLE 555 can and should be used as bottom or alternating rings on abrasive materials (cement, asphalt and slurries) without lantern ring, and it should be noted that these rings are invariably "die-formed". Note that maximum service can only be obtained, however, where the mechanical design is favorable in all respects. There are definite limits to what can be expected of Packings where auxiliary implementation is absent.

MECHANICAL SEALS

CHESTERTON MECHANICAL SEALS are being used with outstanding success on thousands of varied applications including all the difficult categories outlined above. Write us or consult your CHESTERTON DISTRIBUTOR for information.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 11 of 87
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HERE ARE SOME CAUSES OF SHAFT PACKING FAILURES

A used or worn set of packing can be of value as it often indicates cause of premature packing failure. Examine same carefully. The following tabulation should be helpful in tracking down packing troubles.

INDICATION	SUGGESTIONS
No leakage at start up.	Back off gland to encourage generous leakage. If negative suction, install lantern and connect to discharge.
Excessive leakage at start up.	Check for correct packing size. Were rings installed correctly in accordance with instructions given in this section of catalog? Check pump for run-out.
Packing rings flattened out on I.D. under the rod or shaft.	Check bearings. Packing probably supporting the shaft weight.
Packing rings flattened out above rod or shaft, or on either side of same.	Check alignment of shaft. Worn bearings may be causing whip or run-out.
Distinct bulge on side of ring.	Probably too wide a gap on adjacent ring — rings cut too short.
Sides of rings shiny or worn.	Rings may be too loose and are rotating with the shaft.
Rings extruding past gland follower.	Too much clearance between O.D. of shaft and I.D. of follower. Apply bushing. May also be excessive gland pressure.
Top or gland end rings in poor condition, bottom rings O.K.	Set improperly installed. See instructions in catalog.
Rings disappear in set.	Packing entering the system. Install bottom bushing.
Packing is torn.	Check sleeve for burrs. Are there any abrasives? See instructions in catalog for corrective measures.
Rings are burned, faces dried and charred.	Check for proper size packing. Is packing the correct selection with respect to heat limitations and/or peripheral speed? Check lubrication. Are there any abrasives?
Packing hardens.	See "burned rings" above. Are there congealing liquids involved?
Packing softens.	Check for proper style selection, also for lubrication.
Excessive loss of lubricant.	Excessive gland pressure. Check for packing selection, temperature, whip in shaft.
Unexplained leakage.	Shaft sleeve may be leaking. Replace sleeve seal under sleeve.
Packing freezes to shaft after shutdown.	Liquid salting out or congealing in packing set. Provide lubrication and heating or cooling to packing before shutdown.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 12 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/12

PACKINGS CLASSIFIED BY INDUSTRIES

The following recommendations are highly successful CHESTERTON PACKINGS for specialized equipment and processes of the particular industries covered below. Although these recommendations are not all-inclusive, they do give you a starting point, an idea of the existing plant potentials, and suggestions for obtaining better packing service than may be presently had.

Many of these industries generate their own power or process steam. For their boiler and engine room packing requirements, refer to classification *"Power Generating Plants"*.

Equipment & Process	CHESTERTON *Packing Styles*
ASPHALT PLANTS	
Asphalt Pumps 600 F.P.M.†	1000
Asphalt Pumps 1200 F.P.M.†	328
Bituminous Tank Agitators	555
Asphalt Loading Pumps	322, 1722
Emulsified Asphalt Pumps	555
Solvent Pumps	322, 1722
Light Flux Pumps	328
AUTO ASSEMBLY	
Bonderite pumps	320, 328
Paint pumps	320, 328
BATTERY MANUFACTURE	
*Acid pumps	320, 328
Hydraulic platen presses	600, 6000, 8000, 10,000
BOTTLING COMPANIES	
Carbonizing CO_2 Compressors	600-W, 8000
Bottle washer	322, 326, 328, 1722
BREWERIES	
Air Compressor	64
Ammonia compressor	555
Ammonia valves	320, 322, 324, 1722, 1724
Liquid ammonia pumps	322, 326, 1722
Corn Syrup pumps	322, 330, 1722
Brine pumps	322, 1722
Beer pumps	322, 1722, Seal
Slurry pumps	322, 1722
Caustic Rinse pumps	322, 326, 1722
Storage Tanks	250, 290, 382
Feed water treatment tanks	250, 290
Cookers and Kettles	364-T, 382
BRICK MANUFACTURING	
Oven door gaskets	90, 290, 382
Steam pumps — rods	64, 324, 1724
Tunnel kiln pushers	600, 8000, 10,000
BUILDING (see construction)	
CEMENT PLANTS	
Sludge pumps	555 or Alt. rings 555-322-555, 555-1722-555
CHEMICAL PLANTS	
Mild chemicals pH 5-9	322, 326, 328, 1722
*Strong acids pH 1-4	
valves & reciprocating	ONE, 320, 324, 375, 1724
centrifugals	ONE, 320, 328, 375
Strong caustics pH 10-14	
valves & reciprocating	324, 326, 375, 1724
centrifugals	322, 326, 328, 375, 1722
Solvent pumps	ONE, 322, 328, 375, 1722
Sheet Packings:	
Tank and door gasketing:	
regular	290, 382
Solvents	291-N, 382
Cold oils	124, 140
Acids	260, 2000
Alkalies	210, 211
Hot solvents	270, 2000
Steam	210, 211, 281
COAL MINING	
Centrifugal pumps	322, 555, 1722
Plunger pumps	600, 8000, 10,000
Strip mine shovels, jacks	600, 8000, 10,000
COLD STORAGE	
Ammonia Compressors	555
Ammonia valves	320, 322, 324, 1722, 1724
COLLEGES (see hospitals)	
CONSTRUCTION	
Essex plaster mixer	555
CORN PROCESSING	
Acid pumps	ONE, 320, 328, 375
Alkaline pumps	322, 326, 328, 1722
Stock pumps	322, 330, 1722
COTTON GINNING	
Presses, hydraulic pumps	600, 8000, 10,000
COTTON SEED OIL	
Oil pumps	322, 1722
Hexane Pumps	322, 1722
Compress, rams	600, 6000, 8000, 10,000
CREOSOTE TREATING	
Pressure pumps:	
Centrifugal	Alt. 555 & 550
Reciprocating:	
Liquid rods	324, 600-CO, 1724
Steam rods	64, 324, 1724
Pressure tank door gasketing	291-N
DAIRIES	
Food or Milk	322, 1722, Seal
Homogenizers, viscolizers	600-NG**

(continued next page)

* For Applications Involving Nitric Acid — Consult Factory.
† Feet Per Minute
**NG — No graphite.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 13 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/13

Equipment & Process	CHESTERTON Packing Styles
Bottle & Can washer pumps	322, 1722
DIE CASTING (see Plastic Moulding)	
DISTILLERIES (also see Breweries)	
Whiskey pumps	320, 322, 1722, Seals
Rinse pumps	322, 326, 1722
Slop, mash pumps:	
Centrifugal	320
Reciprocating	64, 320
Evaporating drum driers	64, 324, 1724
ELECTRIC PLANTS (see Power Generating Plants)	
ELEVATOR REPAIR & MFG.	
Hydraulic Jack (ram)	600, 6000, 8000, 10,000
FARM MACHINERY (repairs, earthmoving)	
Hydraulic rams, & rods	600, 6000, 8000, 10,000
FERTILIZER PLANTS (also include recommendations for Fish Oil & Meal)	
*Acid pumps	320, 328
FIBRE BOARD (see Paper and Pulp)	
FISH OIL & MEAL	
*Acid pumps	320, 328
Caustic wash pumps	322, 326, 1722
Fish pumps:	
Centrifugal	322, 1722
Reciprocating	Alt. 80 & 90, 322, 1722
Cooker, retort gaskets	90, 290, 291-N, 382
FOOD PROCESSING (also see Meat Packing)	
Blood Cookers	320, 328
Food pumps:	
Centrifugals	322, 1722
Reciprocating	Alt. 80 & 90, 322, 1722,
Cooker or retort gasketing	290, 382
Ammonia compressors	555
Ammonia valves	320, 322, 324, 1722, 1724
Mixers	364-T
FORGING PLANTS	
Steam hammer rods:	
end rings	420
balance	64, 600S
FURNITURE MFG.	
Backbenders	600, 8000
Steam chest gasketing	64, 290
GAS MANUFACTURE	
Ammonia solutions	322, 1722

Equipment & Process	CHESTERTON Packing Styles
Ammonia valves	320, 322, 324, 1722, 1724
Crude oil	322, 555, 1722
Exhauster shafts	315
Fuels & gas oil	322, 555, 1722
Gas tar, tar water	322, 555, 1722
Generator ash & clinker doors	290, 296
Hot valves:	
generator to carburetor	64, 1500
Naphthalene	322, 555, 1722
Oil splash lubricated engines	315, 322, 1722
Purifier box cover & door seals	290
Seal, box and scrubber	315, 322, 1722
GREENHOUSES (also see Power Plants) (see pumps page 7)	
Humidifier centrifugals	322, 1722
GOLD MINES	
Reciprocating Sludge pumps	328
Reciprocating Slimes pumps	328
Centrifugals	326, 328
Acid pumps	320, 328
HOSPITALS (also see and include "Power Generating" recommendations)	
Ammonia compressor	555
Expansion joints	64, 324, 1500, 1724
Fire pumps — Centrifugals	322, 555, 1722
Feed and Vacuum pumps — see pump page 7	
Sterilizers, autoclaves	290, 382
JUNK YARDS	
Hydraulic reciprocating oil pumps	600, 8000
Body baling press	600, 6000, 8000, 10,000
LAUNDRY — DRY CLEANING (also see "Power Plants"	
Filter cloth gasket	140
Solvent pump	322, 328, 1722
Soap pump	322, 326, 1722
Air compressor	64, 555
Flat work ironer, mangles, presses	64
Other pumps — see Application Chart, pg. 6, 7	
LOADING PLATFORMS & EQUIP.	
Rams	600, 6000, 8000, 10,000
LUMBER OPERATIONS	
Shotguns, feed engines, niggers, winches, donkey engines, log turners, loaders:	
use end rings	Style 420
Balance of set	Style 64
Also recommended	Style 600, 8000
MARINE (see ships and shipyards)	

* For Applications Involving Nitric Acid — Consult Factory.

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PACKINGS CLASSIFIED BY INDUSTRIES

Equipment & Process	CHESTERTON Packing Styles
MEAT PACKING	
Crackling press	600, 6000, 8000, 10,000
Hydraulic pumps	600, 8000
Blood cookers	320,
Tree washer pumps	322, 1722,
Cookers, dryers, blenders	64, 320
Cookers, dryers gasketing	90, 290
Stock liquor pumps	320, 328,
*Acid pumps	320, 328,
Caustic pumps	322, 326, 1722
Ammonia Compressor	555
Ammonia Valves	320, 322, 324, 1722, 1724
METAL CASTING	
Quench-Oil pumps	322, 1722
Hydraulic pumps	322, 600, 1722
Accumulators	600, 6000, 8000, 10,000
Hydraulic rams	600, 6000, 8000, 10,000
MINES (see Coal Mines; see Gold Mines; also Phosphate Mines)	
OIL REFINERIES	
For critical installations where mechanical seals are advisable because of explosive conditions, or where economy requires minimum loss of fluids, selection should be made from our range of CHESTERTON MECHANICAL SEALS. In this category of fluids are solvent vapors, solvent charges, solvent oils, propane, butane and the like. For other specific recommendations covering mechanical equipment consult Application Chart on page 6. Other recommendations for soft packings are as follows:-	
Mild chemicals — pH 5-9	ONE, 322, 1722
*Strong acids pH 1-4	
valves & reciprocating	ONE, 320, 324, 1724
centrifugals	ONE, 320, 328, 375
Strong caustics pH 10-14	
valves & reciprocating	324, 326, 1724
centrifugals	ONE, 326, 328, 375
Gasoline, Lubricating Oils, Light Fuel Oils:—	
up to 450°F. (230°C.)	ONE, 322, 324, 375, 555, 1722, 1724
over 450°F. (230°C.)	ONE, 375, 666
Hot crude charge pumps and hot oil pumps	
over 400°F. (200°C.) when flushed	322, 1722 b.r. (555†)
Note: — deep boxes over 6 rings require special bottom bushings	322, 1722
Control valves, chemical valves	
to 500°F.	ONE, 324, 375, 1724
over 500°F.	ONE, 375
Steam Valves:	
high temperature	1000, 1500
Condensate centrifugal pumps	322, 1722
Cooling tower acid pumps	320
MEK Unit Filters	324, 1000, 1500, 1724

* For Applications Involving Nitric Acid — Consult Factory.
† With Bottom Ring of Style Shown in ( ).

Equipment & Process	CHESTERTON Packing Styles
Asphalt:	
Recip. pump rods, steam end	64
Centrifugals: see pages 8–11	
Air compressor	64
Refrigeration	555
Power Plant (see "Power Generating Plants")	
Sheet Packings:	
Cold oils	140, 124
Hot Solvents	270, 2000
Acids	260, 2000
Caustics	210, 211
Steam	210, 211, 281
Gen. Purpose	210, 211, 235
Gasketing:	
Regular	290, 382
Solvents, Chemicals	291-N, 382
PACKING HOUSES (see Meat Packers)	
PAINT MANUFACTURE	
Paint pumps	320, 322, 328, 1722
Solvent pumps	322, 328, 1722
PAPER & PULP MILLS	
Control valves to 500°F. (260°C.)	324, 1724
Mild chemicals — pH 5–9	322, 1722
Strong acids — pH 1–4	
*valves & reciprocating	ONE, 320, 324, 328, 375, 1724
*centrifugals (also seals)	ONE, 320, 328, 375
Strong caustics pH 10–14	
valves & reciprocating	ONE, 324, 326, 375, 1724
centrifugals	ONE, 322, 326, 328, 375, 1722, Seals
Sheet Packings:	
Steam & general	210, 211, 281
Caustics	210, 211
Acids	260, 2000
Water	100
Stock pumps, Jordans, Claflins	322, 329, 330, 1722
Hydropulpers, hydrofiners	322, 329, 330, 1722
Refiners, stock chests	326, 329, 330, 364-T
White water pumps	330
White liquor pumps	ONE, 322, 326, 375, 1722
Black liquor pumps (also seals)	ONE, 322, 326, 375, 1722
Green liquor pumps (also seals)	ONE, 322, 326, 375, 1722
Bleach liquor pumps	ONE, 326, 328, 375
Chlorine pumps	ONE, 320, 328, 375
Evaporators	ONE, 322, 326, 375
Sulphate & Soda, digester	ONE, 322, 326, 328, 375, 1722
Sulphate digester top gland	364-T
Sulphate acid, digester	ONE, 320, 328, 375
Hypo pumps	320, 328
Zeolite pumps	322, 330, 1722
Lime Slurry	322, 1722 b.r. (555†)

(continued next page)

NOTE: When crude oil is being treated with acids or caustics in refining process, use the above packings as applicable.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 15 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/15

Equipment & Process	CHESTERTON Packing Styles
Sodium Chlorate	322, 326, 1722
Hydraulic pumps, accumulator	600, 8000, 10,000
Cold water rods	322, 1722
Cold water shafts	322, 1722
Pocket grinder	82
Raw acid pumps	ONE, 320, b.r. (555†), 375
Mixers, bleach dept.	320, 324, 1724
High density stock pump	320, 328
Drying cylinder box	322, 326, 330, 1722
Vacuum pumps	322, 1722
PHARMACEUTICAL	
Control Valves, to 500°F. (260°C.)	324, 1724
Steam Valves	64, 324, 1000, 1500, 1724
Pumps:	
Neutral liquids	322, 1722
Liquids subject to discoloration	322, 330, 1722
Acids	ONE, 320, 328, 375
Alkalies	322, 326, 1722
Solvents	322, 328, 1722
Kettle gasketing:	
glass joints	382
Teflon tape for chemicals	382
PHONOGRAPH RECORDS	
Platen moulding presses	600, 6000, 8000, 10,000
Hydraulic pumps	600, 8000
Plating pumps	320, 324, 328, 1724
PHOSPHATE MINES	
Phosphate centrifugal pumps	64, 322, 1722
*Acid pumps	320, 328
PIANO MANUFACTURE	
Platen press rams	600, 6000, 8000, 10,000
Hydraulic pump & accumulator	600, 8000, 10,000
PLASTIC MOULDING	
Rams of presses	600, 6000, 8000, 10,000
Hydraulic pump & accumulator	600, 8000, 10,000
PLYWOOD MANUFACTURE	
Curing press	600, 6000, 8000, 10,000
Lathes	600, 8000
Hydraulic pump & accumulator	600, 6000, 8000, 10,000
POTTERIES	
Glaze pumps, pottery slip	322, 1722
Soup pumps (plunger)	80, 600, 8000
POWER GENERATING PLANTS	
(For *All* Industries)	
Steam Valves:	
High temperatures	1000, 1500
under 500°F. (260°C.)	64, 324, 1000, 1500, 1724
Isolating valves	1000, 1500

*For Applications Involving Nitric Acid — Consult Factory.

Equipment & Process	CHESTERTON Packing Styles
Soot blower	1500
Stokers	1000, 1500
Ash sluice pumps:	
bottom ring	555
balance	322, 1722
Condensate pumps	322, 1722
Circulating & Cooling Pumps:	
Bottom ring	555
balance	322, 1722
Boiler Feed pumps	ONE, 375, 555
Fuel Oil Service	Alt. 322 or 1722 & 555
Transfer pumps	Alt. 322 or 1722 & 555
Milton-Roy or Proportioneers	
Chemical injectors:	
*Acid	320, 324, 1724
Alkalines	322, 324, 1722, 1724
Sheet gasket services	210, 211
Heat exchanger gasketing	210, 211, 281
QUARRYING (see Stone)	
REFINERIES (see Oil Refineries)	
REFRIGERATION (see Cold Storage)	
ROLLING MILLS	
Cooling Systems:	
Cent. pumps — coolant, booster, balance, filter:	
Oil	322, 555, 1722
Water	322, 1722
Geared pumps	555
Valves:	
Oil	324, 1724
Water	322, 550, 1722
Heat exchanger:	
head gaskets	210, 211, 281
Oil gaskets	124, 270, 291-N
Remelt Dept. — casting pit rams	600, 6000, 10,000
Pumps — furnace, casting pit, balester, cut-off saw	555, Seals
Sump pump, boring machining pump	322, 1722
Valves	322, 1722
Furnace windings	296
Scalper, skirting	119
Pump House:	
Fire pump	322, 555, 1722
Turbine pumps, condensate, water	322, 1722
Propane Plant:	
Valves	324, 1724
Compressor	64, 555
Rotary displacement meter, control valves	324, 1724
Sewage Disposal:	
Sewage	320, 324, 1724
Circulating	322, 1722

(continued next page)

† With Bottom Ring of Style Shown in ( ).

PACKINGS CLASSIFIED BY INDUSTRIES

Equipment & Process	CHESTERTON Packing Styles
Extrusion:	
Leveller rams	600, 6000, 8000, 10,000
Hydropress	6000, 10,000
Coil Annealing furnace	240, 290
Tube Dept.:	
Embosser, bridal assembly jacks	6000, 10,000
Draw bench, tube pointer pumps	555
Slitter pumps	322, 1722, Seals
Hot Mill, Tandem Mill jacks	600-CO, 8000
RUBBER MANUFACTURE	
Rams of platen presses	600, 6000, 8000, 10,000
Press pullbacks	600, 6000, 8000, 10,000
Hydraulic pumps & accumulators	600, 8000, 10,000
Solvent pumps	ONE, 322, 1722
Solvent cement mixers	555
Mills, crackers:	
Steam end	64, 1500
Water end	322, 1722
Calenders:	
Steam end	64, 324, 1724
Water end	322, 1722
Air compressors	64, 555
Steam Valves:	
High temperatures	1000, 1500
under 500°F. (260°C.)	64, 324, 1000, 1500, 1724
Regulator Valves	324, 1724
De-vulcanizers	Alt. 64, 1000
Vulcanizer gasketing	290
Pipe flange gasketing	210, 211, 281
SAW MILLS (see Lumber Operations)	
SEWAGE DISPOSAL	
Centrifugal pumps	322, 1722
Sludge pump (plunger type)	329, 600
Mudhog pump	322, 1722 (2) b.r. (555†)
Sump pumps:	
*Acid	320, 328
Alkalines	322, 326, 1722
Water Valves	324, 1724
SHIPS & SHIPYARDS	
Condenser pumps	322, 1722
Condensate pumps	322, 1722
Chemical Transfer pumps	322, 1722
Transfer pumps (neutral products)	322, 1722
Discharge pumps	322, 1722
Pure Water pumps	322, 1722
Chemical Injection pump	322, 1722
Boiler Feed pumps	ONE, 375, Alt. 550/555
Stern Tube	329
Rudder Post	329
Salt Water pumps	322, 1722
Hydraulic pumps (cent.)	322 or 1722 or Alt. 550/555
Ballast and Bilge pumps	322, 1722

* For Applications Involving Nitric Acid — Consult Factory.
† With Bottom Ring of Style Shown in ( )

Equipment & Process	CHESTERTON Packing Styles
Fire pumps	322, 1722
Fuel and Lube Oil pumps	322, 555, 1722
Steam:	
High temperature valves to 1200°F. (650°C.)	1500
Medium temperature valves to 500°F. (260°C.)	324, 1000, 1500, 1724
Low temperature valves	324, 1724
Reciprocating feed pumps	64, 322, 324, 1722, 1724
Gasketing:	
Fuel, chemical hatches	382
Steam	210, 211, 281
Water	100
Diesel Oil	140
SOAP MAKING (Generally follow the same recommendations as for Chemical Plants)	
Other suggestions:	
Tooth paste, shampoos, deodorants, hair conditioners. (slow speed pumps)	324, 1724
Agitator shafts:	
*highly acid	ONE, 320, 375
highly caustic	ONE, 322, 326, 1722
neutral	322, 330, 1722
SOLDER MFG.	
Rams extruding presses	600, 6000, 8000, 10,000
SOY BEAN OIL	
Rams of compresses	600, 6000, 8000, 10,000
Hydraulic pumps	600, 6000, 8000, 10,000
Hexane pumps	322, 1722
Oil pumps	322, 1722
Rotary driers	64
Chandler drilling machine	64
STATE INSTITUTIONS (see Hospitals)	
STONE, CRUSHED	
Air compressor	64, 555
Asphalt pump	328, 1000, 1500
Centrifugal sludge pumps:	
End rings	555
Balance	322, 1722
Clear Water pump	322, 1722
Fuel Oil pump	Alt. 322, 1722, b.r. (555†)
RAW SUGAR MILL* (Cane) (also see and include Power Generating Plant)	
Cleaning Plant	
Mud pumps	322, 1722, b.r. (555†)
Water pumps	322, 1722, b.r. (555†)
Lime slurry pumps	326, b.r. (555†)
Crushing Plant	
Raw juice pumps	322, 1722, b.r. (555†)
Water pumps	322, 1722, b.r. (555†)
Condensate pumps	322, 1722
Accumulator	322, 1722

(continued next page)

*NOTE: All recommendations are for proper flush only. SEE special instructions pages 8-10

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 17 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/17

Equipment & Process	CHESTERTON Packing Styles
RAW SUGAR MILL* **	
Boiling House	
Clarified juice pumps	322, 1722, b.r. (555†)
Sweet water pumps	322, 326, 1722
Molasses pumps	322, 1722, b.r. (555†)
Massecuite pumps	322, 1722, b.r. (555†)
Salt water	322, 1722
Caustic soda	322, 326, 1722
Limed juice	322, 1722, b.r. (555†)
Hot syrup	322, 1722, b.r. (555†)
Remelt sugar	322, 1722, b.r. (555†)
WHITE SUGAR REFINING	
Melter House	
Mingler glands	322, 1722, b.r. (555†)
Centrifugal mixer glands	322, 1722, b.r. (555†)
Affination syrup	330, b.r. (555†)
Melter liquor pumps	330, b.r. (555†)
Filter House	
Clarifier liquor pumps (treated)	322, 1722
Carbonation liquor pumps	326
Filter press, rotary and sluicing device pumps	330
Press cake slurry pump	326, b.r. (555†)
Lime slurry pump	326, b.r. (555†)
Activated carbon slurry pump	330
Filter medium slurry (diatomaceous earth)	330
*Acid pump — dilute	ONE, 320, 375
*Acid pump — concentrated	ONE, 320, 375
Pan House	
Vacuum pan circulator glands	322, 1722
Evaporator pumps	328
Crystallizer glands	322, 1722, b.r. (555†)
Centrifugal mixer glands	322, 1722, b.r. (555†)
Liquor, syrup and remelt pumps	322, 1722, b.r. (555†)
Magma pumps	555
Scale treatment pumps (caustic)	326
*Scale treatment pumps (acid)	320, 328
Condensate water pumps	322, 1722
Commercial liquor pumps	322, 1722
CO_2 pumps	ONE, 320, 375
Salt water pumps	322, 1722
TEXTILE MILLS (also see and include Power Generating Plant)	
Steam valves	64, 324, 1000, 1500, 1724
Control valves	324, 1724
Air compressor	64
Dry cans, slasher	322, 330, 1722

Equipment & Process	CHESTERTON Packing Styles
Pumps:	
Humidifier	322, 1722
Circulating	322, 1722
Screen	322, 1722
Filtrate	320
Size — starch	322, 326, 1722
Size — acrylic	320
Dye	328
Bleach	320, 326, 328
TEXTILE FINISHING & DYEING	
Service and Metering Pumps:	
Sulphuric acid	ONE, 320, 328, 375
Hydrochloric acid	ONE**, 320, 328, 375
Acetic acid	ONE, 320, 328, 375
Hydrogen Peroxide (50%)	320, 328
Sodium Hydroxide (caustic soda)	322, 326, 1722
Cloth heat treating (formaldehyde — textile resins)	320, 328
Bleaching — sodium hypochlorite	326, 328
Sizing — sodium silicate	322, 326, 1722
Steam valves on continuous service	324, 1000, 1500, 1724
Drying cylinders — end of journals	210, 211
Diaphragm motor valves	120, 122NN
Bailing presses	600, 6000, 8000, 10,000
THERMO PLASTICS (see Plastic Moulding)	
UTILITIES (see Power Generating)	
VENEER (see Plywood)	
WATER WORKS	
Plunger pumps	329, 600, 8000
Centrifugal pumps	300, 322, 329, 1722
Water treating pumps:	
Chlorine	322, 1722
Caustic	322, 326, 1722
*Acids	320, 328
Water valves	322, 1722
WHISKEY MFG. (see Distilleries)	
WINES (see Distilleries)	
WIRE MANUFACTURING	
Continuous vulcanizers	64, 324, 1000, 1500, 1724
WOOD PRODUCTION (see Lumber Operations)	

***NOTE: All recommendations are for proper flush only. SEE special instructions pages 8-10

* For Applications Involving Nitric Acid — Consult Factory.
** Do not use Style One as a Positive Electrode in the Electrolysis of an Aqueous Acid Solution.
† With Bottom Ring of Style Shown in ( ).

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 18 of 87
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CHESTERTON

CHESTERTON STYLE 1724 SUPER-LON®

Valve packing for all services



SERVICE

General valves, control valves, reciprocating rods, low-speed centrifugal shafts against the strongest chemicals, steam, and solvents to 500°F. (260°C.).

STYLE 1724 SUPER-LON is manufactured from pure Teflon fibers in Interbraid® construction, resulting in an almost perfectly square packing having increased sealing contact at reduced gland pressures. With our new technology in the continuous lubrication of yarns, the Teflon suspensoid lubricant is accurately controlled and evenly dispersed so that compressibility and recovery factors, together with density are enhanced. STYLE 1724 will withstand all chemicals and other services to 500°F. (260°C.), because the Teflon fibers and lubricant are immune to chemical attack, and the Teflon lubricant will not migrate or boil out from the packing.

STYLE 1724 SUPER-LON may be used on all valves, rods, centrifugal shafts, mixers and agitators. Its only limitations are that it should not be used above 600 feet/minute (3M/sec.), or on molten alkali metals. STYLE 1724 possesses unusual toughness in that its tensile strength is 50,000 psi (3,520 kg/cm²). For this reason, it may be used in applications approaching 4,000 psi (285 kg/cm²).

CHESTERTON STYLE 1724-OX: Where a packing is required for use in oxygen or hydrogen peroxide, STYLE 1724-OX should be used. This style is specially handled and heat treated to allow its use in oxygen. STYLE 1724-OX is supplied in sizes ⅛" through 1".

For 1724-OX Chart see page 79

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
⅛ [1]	3,2	2	0,908	3260	65.00	43,61
0.157 [1]	4,0	2	0,908	3261	50.50	33,93
3/16 [1]	4,8	2	0,908	3262	34.00	22,81
0.236	6,0	2 5	0,908 2,270	3263 3272	21.50 21.50	14,45 14,45
¼	6,4	2 5	0,908 2,270	3264 3273	17.40 17.40	11,68 11,68
5/16	7,9	2 5	0,908 2,270	3265 3274	12.70 12.70	8,52 8,52
⅜	9,5	2 5 10	0,908 2,270 4,540	3266 3275 3281	9.30 9.30 9.30	6,24 6,24 6,24
0.394	10,0	2 5	0,908 2,270	3267 3276	7.50 7.50	5,04 5,04
7/16	11,1	2 5	0,908 2,270	3268 3277	6.70 6.70	4,50 4,50
0.472	12,0	2 5 10	0,908 2,270 4,540	3269 3278 3282	6.10 6.10 6.10	4,10 4,10 4,10
½	12,7	2 5 10	0,908 2,270 4,540	3270 3279 3283	5.50 5.50 5.50	3,69 3,69 3,69
9/16	14,3	5 10	2,270 4,540	3280 3284	4.10 4.10	2,75 2,75
5/8	15,9	10	4,540	3285	3.50	2,35
11/16	17,5	10	4,540	3286	2.90	1,95
¾	19,1	10	4,540	3287	2.40	1,61
13/16	20,6	10	4,540	3288	2.10	1,41
⅞	22,2	10	4,540	3289	1.00	1.00
15/16	23,8	10	4,540	3293	1.48	0,99
1	25,4	10	4,540	3294	1.38	0,93

[1] Construction differs slightly in these sizes

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 19 of 87
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CHESTERTON

CHESTERTON STYLE 324 SUPER-LON®

Valve packing for all services



SERVICE

General valves, control valves, reciprocating rods, low-speed centrifugal shafts against the strongest chemicals, solvents and steam to 500°F. (260°C.).

STYLE 324 SUPER-LON is manufactured from pure Teflon* fibers in square plait construction. It is lubricated with Teflon suspensoid which will not migrate or boil off, resulting in a packing which may be employed on all chemical services, steam, and solvents up to 500°F. (260°C.), to give longer service life than conventional packings.

STYLE 324 SUPER-LON should be used where a softer, more compressible packing is desired than Style 1724. It may be used on valves, rods, centrifugal shafts, mixers and agitators. Its only limitations are that it should not be used above 600 feet/minute (3 M/sec.), or on molten alkali metals.

STYLE 324 possesses unusual toughness in that its tensile strength is 50,000 psi (3,520 kg/cm²). For this reason, it may be used in applications approaching 4,000 psi (285 kg/cm²).

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
1/8	3,2	2	0.908	32460	65.00	43.61
0.157	4,0	2	0.908	32461	50.50	33.93
3/16	4,8	2	0.908	32462	34.00	22.81
0.236	6.0	2 5	0.908 2.270	32463 32472	26.50 26.50	17.81 17.81
1/4	6,4	2 5	0.908 2.270	32464 32473	24.00 24.00	16.10 16.10
5/16	7,9	2 5	0.908 2.270	32465 32474	13.20 13.20	8.86 8.86
3/8	9.5	2 5 10	0.908 2.270 4.540	32466 32475 32481	9.40 9.40 9.40	6.31 6.31 6.31
0.394	10,0	2 5	0.908 2.270	32467 32476	7.20 7.20	4.84 4.84
7/16	11,1	2 5	0.908 2.270	32468 32477	6.30 6.30	4.23 4.23
0.472	12.0	2 5 10	0.908 2.270 4.540	32469 32478 32482	5.70 5.70 5.70	3.83 3.83 3.83
1/2	12,7	2 5 10	0.908 2.270 4.540	32470 32479 32483	5.20 5.20 5.20	3.49 3.49 3.49
9/16	14,3	5 10	2.270 4.540	32480 32484	4.20 4.20	2.82 2.82
5/8	15.9	10	4.540	32485	3.50	2.35
11/16	17.5	10	4.540	32486	2.90	1.95
3/4	19.1	10	4.540	32487	2.30	1.54
13/16	20.6	10	4.540	32488	2.10	1.41
7/8	22.2	10	4.540	32489	1.80	1.21
15/16	23.8	10	4.540	32493	1.60	1.08
1	25.4	10	4.540	32494	1.50	1.00

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ACL Doc 21272 · Page 20 of 87
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1 ROD and VALVE STEM

CHESTERTON

CHESTERTON STYLE 1500

POWER PLANT PACKING
For high temperature and pressure valve applications



SERVICE

All ranges of temperature and pressure, superheated or saturated.
Steam valve stems to 1200°F., (650°C.).
For turbines, general valving, expansion joints, automatic tube blowers, high temperature slide valves, low speed shafts on congealing fluids.

Chesterton Style 1500 is an entirely new concept in a high temperature (1200°F, 650°C), high pressure, valve-stem packing. Style 1500 is pliable and formable, yet easy to install. It compresses easily to required space configuration to form a tight seal. It never hardens in service, hence it is easy to remove. In the presence of condensate or superheat, this packing is and remains effortlessly adjustable, since it responds readily to gland take-up. All these desirable characteristics are attributable to its unique ingredients and construction as shown in the accompanying diagram.

The technical superiority of Chesterton Style 1500 is primarily due to the ability of the asbestos fibers in the core to slide over each other in response to gland adjustment. This is because of the complete graphite envelopment of individual core fibres (without the use of adhesives), making them immune to fiber-to-fiber bonding, even after repeated wetting and drying. This, plus its corrosion inhibitor, extra strength jacket, and low frictional contacting surfaces makes Style 1500 an outstanding high pressure, high temperature packing. Use Style 1500 on *all* ranges of steam valves. It is excellent on valves of steam turbines, automatic tube blowers, high temperature motor actuated slide valves, and on high pressure valving in general. It will also work well in granular or congealing fluids (such as pitch, tar, asphalt etc.) on low speed hardened rotary shafts.

1. Compressible extruded core material of 100% asbestos fibres and graphite is specially compounded to prevent pitting of stainless steel equipment, yet it conforms easily under minimum gland pressures.



2. Finest quality braided Inconel wire reinforced asbestos jacket for increased temperature and pressure resistance, treated with tungsten disulphide which lubricates to 2400°F. (1320°C.).

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
1/8 *	3,2	2	0,908	1560	106.8	71,66
0.157*	4,0	2	0,908	1561	77.2	51,87
3/16 *	4,8	2	0,908	1562	43.2	28,98
0.236	6,0	2 5	0,908 2,270	1563 1572	30.7 30.7	20,62 20,62
1/4	6,4	2 5	0,908 2,270	1564 1573	26.5 26.5	17,78 17,78
5/16	7,9	2 5	0,908 2,270	1565 1574	17.6 17.6	11,81 11,81
3/8	9,5	2 5 10	0,908 2,270 4,540	1566 1575 1581	11.5 11.5 11.5	7,72 7,72 7,72
0.394	10,0	2 5	0,908 2,270	1567 1576	9.4 9.4	6,32 6,32
7/16	11,1	2 5	0,908 2,270	1568 1577	8.5 8.5	5,70 5,70
0.472	12,0	2 5 10	0,908 2,270 4,540	1569 1578 1582	7.4 7.4 7.4	4,97 4,97 4,97
1/2	12,7	2 5 10	0,908 2,270 4,540	1570 1579 1583	6.5 6.5 6.5	4,36 4,36 4,36
9/16	14,3	5 10	2,270 4,540	1580 1584	4.9 4.9	3,29 3,29
5/8	15,9	10	4,540	1585	4.4	2,95
11/16	17,5	10	4,540	1586	3.3	2,22
3/4	19,1	10	4,540	1587	2.8	1,88
13/16	20,6	10	4,540	1588	2.5	1,68
7/8	22,2	10	4,540	1589	2.2	1,48
15/16	23,8	10	4,540	1593	1.9	1,28
1	25,4	10	4,540	1594	1.7	1,14

* Construction differs slightly in these sizes

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 21 of 87
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1 ROD and VALVE STEM

CHESTERTON

CHESTERTON STYLE 1000

For High Pressure Steam Valves to 1000°F. (540°C.)



for expansion joints and valves on steam turbines. STYLE 1000 is gray in color with a specially developed heat resisting lubricant. This packing lubricant will not pit or damage stainless steel stems as it contains no graphite.

CHESTERTON STYLE 1000 is made with a braided core of pure Chrysotile asbestos around which is braided a cover of 97% asbestos yarn within the strands of which is inserted Inconel wire for added strength at maximum steam pressures.

STYLE 1000 is not intended for high speed rotating shafts. It is very effective, however, on reciprocating or low-speed centrifugal pumps handling asphalt and congealing or crystallizing liquids and syrups to 600 feet per minute (3 m/sec.).

For die formed ring of 1000, specify STYLE 1000-D.

SERVICE

For Steam Valves to 1000°F., (540°C.) Expansion Joints

CHESTERTON STYLE 1000 is engineered to provide resiliency, great tensile strength and extreme heat resistance for all stationary valves operating at temperatures in the range of 1000°F (540°C.) Excellent

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft./lb.	M./kg.
1/8	3.2	2	0.908	1060	108.50	72.80
0.157	4.0	2	0.908	1061	82.60	55.50
3/16	4.8	2	0.908	1062	53.00	35.56
0.236	6.0	2 5	0.908 2.270	1063 1072	38.00 38.00	25.53 25.53
1/4	6.4	2 5	0.908 2.270	1064 1073	33.00 33.00	22.14 22.14
5/16	7.9	2 5	0.908 2.270	1065 1074	21.50 21.50	14.43 14.43
3/8	9.5	2 5 10	0.908 2.270 4.540	1066 1075 1081	13.00 13.00 13.00	8.93 8.93 8.93
0.394	10.0	2 5	0.908 2.270	1067 1076	11.06 11.06	7.43 7.43
7/16	11.1	2 5	0.908 2.270	1068 1077	10.30 10.30	6.91 6.91
0.472	12.0	2 5 10	0.908 2.270 4.540	1069 1078 1082	9.06 9.06 9.06	6.09 6.09 6.09
1/2	12.7	2 5 10	0.908 2.270 4.540	1070 1079 1083	8.00 8.00 8.00	5.36 5.36 5.36
9/16	14.3	5 10	2.270 4.540	1080 1084	7.30 7.30	4.89 4.89
5/8	15.9	10	4.540	1085	4.90	3.29
11/16	17.5	10	4.540	1086	4.70	3.16
3/4	19.1	10	4.540	1087	4.50	3.01
13/16	20.6	10	4.540	1088	3.60	2.42
7/8	22.2	10	4.540	1089	2.60	1.75
15/16	23.8	10	4.540	1093	2.55	1.71
1	25.4	10	4.540	1094	2.50	1.67

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ACL Doc 21272 · Page 22 of 87
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1 ROD and VALVE STEM

CHESTERTON

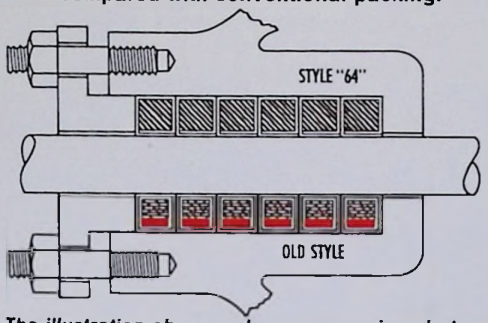
CHESTERTON STYLES 64, 364-T

Retains compressibility at high temperatures

RESISTS HARDENING



"64" compared with conventional packing.



The illustration above makes a comparison between "64" and ordinary rubberback asbestos packing in actual service. A slight increase in pressure on "64" will force the plies onto the rod, effectively establishing a seal. As pressure is relieved the packing resumes its former position and shape, and only gently contacts the rod. Friction is thereby reduced 50%, compared with old style of packing which lacks flexibility because there is no scientific method of compensating for wear.

SERVICE

Steam valves, pumps, and engines, air compressors, expansion joints, header valves—to 300 psi (21 kg/cm²).

The unique diagonal design and construction of STYLE 64 places each ply of asbestos cloth diagonal rather than parallel to the rod. Expansion and elasticity are thus provided mechanically through construction rather than from a rubber back found in ordinary type packings. Compressibility adds "life" to STYLE 64, and this means longer service and fewer replacements.

STYLE 64 is recommended for general use on rods and valves operating against high-pressure steam, superheat, and hot gases. Many applications, such as safety and blow-off valves, steam pumps and engines, air compressors, and expansion joints require this tough, resilient, long life elastic packing.

CHESTERTON STYLE 364-T

For those desiring the resiliency of STYLE 64 but without graphite, Chesterton offers STYLE 364-T. STYLE 364-T comes with a polytetrafluorethylene surface-lubricant embodying finely divided Teflon* particles. This style is especially recommended for brewing kettles, mixers, and for the top gland of pulp mill digesters where flexibility, chemical resistance, and purity of lubricants are essential combined characteristics.

For 364-T Chart see page 79

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
¼	6,4	2.00	0,91	6404	20.00	13,45
5/16	7,9	2.50	1,13	6405	13.60	9,13
3/8	9,5	2.75	1,25	6406	11.00	7,40
7/16	11,1	3.25	1,48	6407	8.60	5,76
½	12,7	3.75	1,70	6408	6.00	4,03
9/16	14,3	5.50	2,50	6409	4.90	3,30
5/8	15,9	5.75	2,61	6410	4.40	2,94
11/16	17,5	6.90	3,13	6411	3.60	2,42
¾	19,1	6.90	3,13	6412	2.90	1,94
13/16	20,6	6.90	3,13	6413	2.47	1,66
7/8	22,2	8.50	3,85	6414	2.00	1,34
15/16	23,8	8.50	3,85	6415	1.88	1,26
1	25,4	9.12	4,14	6416	1.75	1,18
1 1/16	27,0	To order		6417	1.33	0,89
1 1/8	28,6	To order		6418	1.23	0,83
1 3/16	30,2	To order		6419	1.15	0,77
1¼	31,7	To order		6420	1.10	0,74
1 5/16	33,3	To order		6421	1.00	0,67
1 3/8	34,9	To order		6422	0.90	0,61
1½	38,1	To order		6424	0.73	0,49

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ACL Doc 21272 · Page 23 of 87
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1 ROD and VALVE STEM

CHESTERTON

CHESTERTON STYLE 350



SERVICE

For saturated high pressure steam on rods and valve stems

STYLE 350 is a woven, folded asbestos packing incorporating a resilient rubber back for compressibility. It is treated with a heat-resisting binder for high temperatures, and is lubricated to insure proper operation under high pressure steam conditions. STYLE 350 is recommended for compressed air and general steam rod application up to 300 psi (20 kg/cm²). It is a proven packing against saturated steam conditions as found on pumps, engines, steam hammers, and expansion joints.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft./lb.	M./kg.
1/4	6,4	2.25	1,02	35004	17.70	11,79
5/16	7,9	2.50	1,14	35005	11.10	7,39
3/8	9,5	3.25	1,48	35006	9.30	6,20
7/16	11,1	4.00	1,82	35007	7.10	4,73
1/2	12,7	4.50	2,04	35008	5.00	3,36
9/16	14,3	6.00	2,72	35009	4.10	2,75
5/8	15,9	6.75	3,06	35010	3.70	2,49
11/16	17,5	6.75	3,06	35011	2.96	1,99
3/4	19,1	8.50	3,86	35012	2.30	1,54
13/16	20,6	8.50	3,86	35013	2.16	1,45
7/8	22,2	8.50	3,86	35014	2.00	1,34
15/16	23,8	11.50	5,22	35015	1.76	1,18
1	25.4	11.50	5,22	35016	1.50	1.01
1 1/16	27,0	To order		35017	1.25	0,84
1 1/8	28,6	To order		35018	1.03	0,69

Rubber back in 7/16" (11 mm) and larger sizes only

CHESTERTON

CHESTERTON STYLE 5010



SERVICE

Reciprocating rod and valve stem packing for superheated steam to 1000°F. (540°C.)

CHESTERTON STYLE 5010 is recommended for superheated steam to 1000°F. (540°C.), or on any installation where excessive lubrication may prove bothersome through shrinking and boil-off. Expansion joints, turbines, stems of engines and valves may be packed with STYLE 5010. It also gives excellent results on fast reciprocating rods. STYLE 5010 contains no wire.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft./lb.	M./kg.
1/16	1,6	2	0,908	5051	590.00	395,89
1/8	3,2	2	0,908	5060	145.00	97,30
3/16	4,8	2	0,908	5062	66.00	44,29
1/4	6,4	2 5	0,908 2,270	5064 5073	37.00 37.00	24,82 24,82
5/16	7,9	2 5	0,908 2,270	5065 5074	23.00 23.00	15,43 15,43
3/8	9,5	2 5 10	0,908 2,270 4,540	5066 5075 5081	16.00 16.00 16.00	10,74 10,74 10,74
7/16	11,1	2 5	0,908 2,270	5068 5077	12.00 12.00	8,05 8,05
1/2	12,7	2 5 10	0,908 2,270 4,540	5070 5079 5083	9.00 9.00 9.00	6,04 6,04 6,04
9/16	14,3	5 10	2,270 4,540	5080 5084	7.47 7.47	5,02 5,02
5/8	15,9	10	4,540	5085	5.75	3,86
11/16	17,5	10	4,540	5086	4.80	3,23
3/4	19,1	10	4,540	5087	4.00	2,68
13/16	20,6	10	4,540	5088	3.50	2,35
7/8	22,2	10	4,540	5089	3.00	2,01
15/16	23,8	10	4,540	5093	2.64	1,78
1	25,4	10	4,540	5094	2.25	1,51

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1 ROD and VALVE STEM

CHESTERTON

VALVELON™

A Packing . . . A Gasket . . . both on one handy spool!

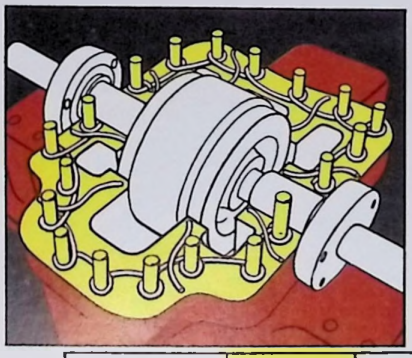
remarkable new 100% TEFLON* sealing material never hardens . . . never adheres . . . clean, economical, easy to use.



VALVES — VALVELON packs valves! Wrap several turns around the stem to fill the stuffing box. Tighten down the follower nut. The "plastic" Teflon squeezes to fill all voids making a tight seal. All-purpose VALVELON reduces the need for large inventories of valve stem packings.

GASKETING — A single strand of VALVELON forms a gasket that can be parted cleanly years later! Tightening the flange bolts squeezes the VALVELON into a continuous gasket . . . its spiral construction helps resist extrusion. All-purpose VALVELON eliminates cutting or stocking gaskets for various size flanges of pipes, tanks, vessels, ducts, etc.

DOUBLE CONSTRUCTION of VALVELON is 100% VIRGIN TEFLON* — Its core is Teflon in plastic resin form that squeezes in all directions to fill all voids. Its spiraled covering is a Teflon tape molecularly oriented to resist extrusion. This double construction enables VALVELON to conform to uneven flange surfaces, fill voids and yet resist extrusion. It is not affected by chemicals (except molten alkali metals) . . . never hardens . . . never adheres . . . completely inert.



VALVELON forms a perfect seal when laid continuously around the face (and bolts) of odd-shaped flanges. Squeezes into a custom-molded gasket. Eliminates cutting special sheet gaskets.

SERVICE

• Steam • Salt Water • Air • Fuels ○ Refrigerants • Acids & Alkalies (Sulphuric, Hydrochloric, Nitric, Sodium Hydroxide, Chromic) ○ Solvents (Kerosene, Aircraft Oils, Gasoline, Carbon Tet, Cleaning fluids) ○ Gases (Hydrogen, Ammonia, Freon, Chlorine, Propane, Butane, Nitrogen) ○ −400°F. (240°C.) to + 500°F. (260°C.) ○ Do Not use on liquid or gaseous oxygen.

SIZE	REORDER PROD NO.	SPOOLS CTN	CTN MASTER
2.4 mm • 15.3 M	[1]3566	12	12
4.0 mm • 10.7 M	[1]3570	12	12
5.6 mm • 4.6 M	[1]3574	12	12
7.1 mm • 2.7 M	[1]3578	12	12
* VALVELON KIT	3500		

(3 Spools of each of the above.
* Totaling 12 spools per carton
(12 Kits per master carton

[1]Reorder Product Number is for individual item.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 25 of 87
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asbestosclaims.law/library/21272/25

CHESTERTON

CHESTERTON STYLE ONE

Super-Graphite packing



SERVICE

Low friction, universal packing for pumps and valves. Self-lubricating fiber. High chemical immunity. For non-oxidizing services to 5000°F. (2760°C.) 100% pure graphite throughout. Low (81 ppm) chloride content. Virtually non-scoring.

The A. W. Chesterton Company set out to create a new material which would eliminate the problems found in mechanical packings and could be used in all services. The finished result of this highly scientific engineering and testing program is a packing which has such tremendous efficiencies that Chesterton decided to assign it the leading number of its line: STYLE ONE.

CHESTERTON STYLE ONE SUPER-GRAPHITE is the world's first 100% graphite packing which can be applied to virtually all pumps and valves. It is manufactured from a pure quality graphite yarn braided in the Chesterton Interbraid® method. Firmly entrapped between every fiber are tiny submicron-sized particles of pure graphite which act both as a blocking agent to prevent leakage and as a surface lubricant. This exclusive feature allows STYLE ONE to be used in extreme service where other graphite or Teflon type packings fail due to burning, migration, or loss of foreign lubricant, their "weak link." STYLE ONE contains only graphite.

STYLE ONE eliminates shaft wear associated with asbestos-T.F.E. or graphite-T.F.E. packings which burn when shaft-temperatures exceed 600°F. (315°C.). Being pure graphite, STYLE ONE will not harden or glaze over and can result in a maintenance savings many times in excess of the actual packing cost.

STYLE ONE is so efficient that it is commonly referred to as a "universal packing," that is, it can be used for virtually any sealing application where conventional packings are presently employed. In fact, STYLE ONE is so revolutionary that it has replaced mechanical shaft seals in some cases due to lower cost, easier installation and similar leakage control with minimum possible shaft scoring. STYLE ONE can truly be said to be the best packing material ever offered.

Being an all-graphite material, it can withstand temperatures to 5000°F. (2760°C.) in absence of an oxidizing agent, with practically no weight loss, and will take 800°F. (430°C.) in air with no change in characteristics. STYLE ONE also has remained flexible when tested in liquid helium to −400°F. (−240°C.).

STYLE ONE is inert to almost all chemicals from pH 1 to 14. (Exceptions are oleum, fuming nitric acid, aqua regia, and fluorine. Hydrofluoric acid and hydrochloride acids will not attack STYLE ONE unless it is used as a positive electrode in the electrolysis of an aqueous acid solution.)

Accepted by the Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA).

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft./lb.	M./kg.
1/4	6.4	1	0.454	37654	40.5	27.17
		3	1.360	37604	40.5	27.17
5/16	7.9	1	0.454	37655	29.0	19.44
		3	1.360	37605	29.0	19.44
3/8	9.5	1	0.454	37656	19.0	12.73
		3	1.360	37606	19.0	12.73
7/16	11.1	1	0.454	37657	13.3	8.91
		3	1.360	37607	13.3	8.91
1/2	12.7	1	0.454	37658	10.0	6.71
		4	1.820	37608	10.0	6.71
9/16	14.3	4	1.820	37609	8.8	5.89
5/8	15.9	4	1.820	37610	6.8	4.55
11/16	17.5	To order		37611	5.6	3.76
3/4	19.1	To order		37612	4.6	3.08
13/16	20.6	To order		37613	4.0	2.69
7/8	22.2	To order		37614	3.5	2.35
15/16	23.8	To order		37615	3.0	2.02
1	25.4	To order		37616	2.4	1.62

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 26 of 87
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CHESTERTON

CHESTERTON STYLE 375

Graphite packing



STYLE 375 is completely inert to chemical attack. (Exceptions are oleum, fuming nitric acid, aqua regia, and fluorines which attack the base yarn.) This packing is extremely pure, devoid of chemically attackable or abrasive contaminants.

STYLE 375 having a pure graphite yarn can be used readily on centrifugal pump applications because the heat generated at the shaft is carried off through the yarns to the outside of the stuffing box. In fact, there is comparatively little thermal expansion to graphite and less than that of the shaft metals themselves.

STYLE 375 is effective throughout the entire pH range in pumps and valves handling chemicals to 600°F. (315°C.).

SERVICE

For strong chemical services on centrifugal and reciprocating shafts to 600°F. (315°C.)

CHESTERTON STYLE 375 is manufactured in square braided construction from the highest quality pure graphite yarns. After braiding it is lightly treated with DuPont Teflon which acts as both a blocking agent to prevent weepage through the packing, and as a lubricant. Being manufactured from graphite yarns,

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
1/8	3,2	1	0,454	37552	86.00	57,70
3/16	4,8	1	0,454	37553	63.00	42,26
1/4	6,4	1 3	0,454 1,360	37554 37504	40.50 40.50	27,17 27,17
5/16	7,9	1 3	0,454 1,360	37555 37505	29.00 29.00	19,44 19,44
3/8	9,5	1 3	0,454 1,360	37556 37506	19.00 19.00	12,73 12,73
7/16	11,1	1 3	0,454 1,360	37557 37507	13.30 13.30	8,91 8,91
1/2	12,7	1 4	0,454 1,820	37558 37508	10.00 10.00	6,71 6,71
9/16	14,3	4	1,820	37509	8.80	5,89
5/8	15,9	4	1,820	37510	6.80	4,55
11/16	17,5	To order		37511	4.75	3,20
3/4	19,1	To order		37512	4.60	3,08
13/16	20,6	To order		37513	3.80	2,55
7/8	22,2	To order		37514	3.33	2,24
15/16	23,8	To order		37515	2.80	1,88
1	25,4	To order		37516	2.50	1,68

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 27 of 87
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CHESTERTON

CHESTERTON STYLE 326

CHES-LON® Caustic Packing
A new concept in high speed TFE packing



SERVICE

For shafts, rods, valves against the strongest alkalies, the milder acids, to 500°F. (260°C.)

CHESTERTON STYLE 326 CHES-LON is a new *high speed* packing exclusively designed for the most severe alkaline conditions such as potassium, calcium, ammonium, barium, and magnesium hydroxides, sodium hydroxide (caustic soda), and all other strong alkaline solutions. It is recommended for reciprocating rods, rotating shafts, and valves. STYLE 326, because of exclusive CHES-LON features, offers unusual service life against liquids of high pH values ranging in excess of pH 9.

CHESTERTON STYLE 326 CHES-LON is a completely *different* Packing. An exclusive development by Chesterton makes possible total elimination of the cotton "carrier" used for spinning white asbestos yarn. Previous to this innovation, white yarns usually contained a generous percentage of cotton in order to provide greater spinning strength, to decrease the harshness of asbestos, and to aid in the retention of lubricants. Since caustics destroy cotton, it has been the practice either to live with cotton, at sacrifices to packing life; or to use either blue asbestos or a 4A white yarn. Either solution, however, produces a fiber highly abrasive to shafts. The result is severe scoring of expensive shafts and sleeves, particularly those of stainless steel.

Our answer is logical: — use Teflon* *fiber* as a carrier. In STYLE 326 we now offer a *white* asbestos with low abrasive characteristics and with a chemical resistance previously associated only with blue asbestos.

Each strand of STYLE 326 CHES-LON is individually coated with DuPont Teflon, braided in our Interbraid® construction, and then again massively lubricated with an additional coating of Teflon, which gives STYLE 326 a smooth, slippery surface. This lubricant, unlike waxes or greases, is immune to acids and caustics. Furthermore, it is stable in the packing and will neither wash out nor squeeze out as a result of gland pressure, and thus the lubricant is retained in the packing throughout its life. An added benefit is the fact that crystallization through absorption does not take place in the packing because Teflon effectively seals off the surface. The result is far less packing wear on shafts, and all this at speeds in excess of normal pure Teflon packings. STYLE 326 also contains a break-in lubricant to help alleviate heat build-up during start-up.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
3/16[1]	4,8	2	0,908	32662	43.0	28,92
0.236	6,0	2 5	0,908 2,270	32663 32672	29.0	19,49
1/4	6,4	2 5	0,908 2,270	32664 32673	24.0 24.0	16,10 16,10
5/16	7,9	2 5	0,908 2,270	32665 32674	12.7 12.7	8,52 8,52
3/8	9,5	2 5 10	0,908 2,270 4,540	32666 32675 32681	9.5 9.5 9.5	6,37 6,37 6,37
0.394	10.0	2 5	0,908 2,270	32667 32676	7.0 7.0	4,70 4,70
7/16	11.1	2 5	0,908 2,270	32668 32677	6.0 6.0	4,03 4,03
0.472	12,0	2 5 10	0,908 2,270 4,540	32669 32678 32682	5.5 5.5 5.5	3,70 3,70 3,70
1/2	12,7	2 5 10	0,908 2,270 4,540	32670 32679 32683	5.1 5.1 5.1	3,42 3,42 3,42
9/16	14,3	5 10	2,270 4,540	32680 32684	4.2 4.2	2,82 2,82
5/8	15,9	10	4,540	32685	3.2	2,15
11/16	17.5	10	4,540	32686	2.7	1,79
3/4	19,1	10	4,540	32687	2.4	1,61
13/16	20.6	10	4,540	32688	2.1	1,41
7/8	22.2	10	4,540	32689	1.8	1,21
15/16	23.8	10	4,540	32693	1.6	1,08
1	25.4	10	4,540	32694	1.3	0,87

[1] Slightly different construction

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 28 of 87
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CHESTERTON

CHESTERTON STYLE 1722 WHITE-LON®

Multi-Service Packing



SERVICE

For shafts, rods, valves against water, steam, solvents, mild acids and alkalies to 500°F. (260°C.). Being white in color, it will not stain pulp and paper mill applications.

CHESTERTON STYLE 1722 WHITE-LON is manufactured from white Canadian chrysotile asbestos and Teflon suspensoid in Interbraid® construction. Prior to braiding, each strand of asbestos is individually coated with DuPont Teflon by a unique yarn coating process to accurately control and evenly disperse the lubricant. STYLE 1722 is then interbraided, and once again coated with Teflon suspensoid. To STYLE 1722 an additional break-in lubricant is added to minimize shaft damage and to allow for expansion during the break-in period. The combination of full lubrication and interbraid construction produces a natural square packing having better sealing contact with reduced gland pressures.

STYLE 1722 WHITE-LON is a truly multi-service packing capable of a wide variety of uses throughout a plant. STYLE 1722 may be used on water, steam, solvents, mild acids and alkalies in valves, pumps, expansion joints, mixers and agitators to 500°F. (260°C.). STYLE 1722 resists scoring of stainless or chrome-plated shafts; and, containing no graphite, it will not cause pitting to rods or shafts.

Marine Service: A ship can be packed from bow to stern on most applications on both pumps and valves. This effects standardization, reduces packing styles needed aboard. STYLE 1722 WHITE-LON reduces shaft wear while giving extended, virtually leak-free service.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
1/8[1]	3,2	2	0,908	3160	63.00	42,30
0.157[1]	4,0	2	0,908	3161	55.20	37,10
3/16[1]	4,8	2 5	0,908 2,270	3162 3171	39.20 39.20	26,91 26,91
0.236	6,0	2 5	0,908 2,270	3163 3172	28.60 28.60	19,22 19,22
1/4	6,4	2 5	0,908 2,270	3164 3173	22.90 22.90	15,38 15,38
5/16	7,9	2 5	0,908 2,270	3165 3174	14.68 14.68	9,86 9,86
3/8	9,5	2 5 10	0,908 2,270 4,540	3166 3175 3181	10.20 10.20 10.20	6,85 6,85 6,85
0.394	10,0	2 5	0,908 2,270	3167 3176	8.80 8.80	5,92 5,92
7/16	11,1	2 5	0,908 2,270	3168 3177	7.50 7.50	5,04 5,04
0.472	12,0	2 5 10	0,908 2,270 4,540	3169 3178 3182	7.10 7.10 7.10	4,77 4,77 4,77
1/2	12,7	2 5 10	0,908 2,270 4,540	3170 3179 3183	6.00 6.00 6.00	4,03 4,03 4,03
9/16	14,3	5 10	2,270 4,540	3180 3184	5.00 5.00	3,36 3,36
5/8	15,9	10	4,540	3185	3.40	2,28
11/16	17,5	10	4,540	3186	2.70	1,81
3/4	19,1	10	4,540	3187	2.45	1,64
13/16	20,6	10	4,540	3188	2.20	1,48
7/8	22,2	10	4,540	3189	2.07	1,39
15/16	23,8	10	4,540	3193	1.79	1,20
1	25,4	10	4,540	3194	1.56	1,05
1 1/16	27,0	To order		3117	1.25	0,84
1 1/8	28,6	To order		3118	1.20	0,80

[1] Slightly different construction

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 29 of 87
Published by AsbestosClaims.Law
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CHESTERTON

CHESTERTON STYLE 322 WHITE-LON®

MULTI-SERVICE PACKING



CHESTERTON STYLE 322 WHITE-LON is manufactured from Chrysotile asbestos yarn in square plait construction. It is massively treated and immunized by DuPont Teflon tetrafluoroethylene resin. Standard lubricants may migrate from packings due to pressure from gland take-up, heat, chemical action, or by being dissolved or washed out. WHITE-LON'S superior Teflon lubrication is resistant to these conditions, making STYLE 322 effective against even the most difficult alkaline substances. WHITE-LON also contains a break-in lubricant to help lubricate shafts during initial start-up periods.

WHITE-LON MULTI-SERVICE is ideal for use on both hot and cold water pumps because of its unusually low coefficient of friction. Expensive shafts and sleeves (often costing far in excess of packings) can be spared. WHITE-LON resists scoring of stainless steel and chrome plated shafts; and, containing no graphite, it will not cause pitting of rods or shafts. Being white in color it will not stain in pulp and paper mill applications.

SERVICE

For Shafts, Rods, Valves Against Water, Steam, Mild Acids and Alkalies, Solvents to 500°F. (260°C.)

CHESTERTON STYLE 322 WHITE-LON MULTI-SERVICE PACKING is capable of a wide variety of plant uses. STYLE 322 withstands most water, steam, solvent and chemical applications to 500°F. (260°C.) It is equally effective in reciprocating and centrifugal pumps, as well as in valves. Thus, WHITE-LON can be said to be a packing truly universal in usage.

APPROXIMATE DATA

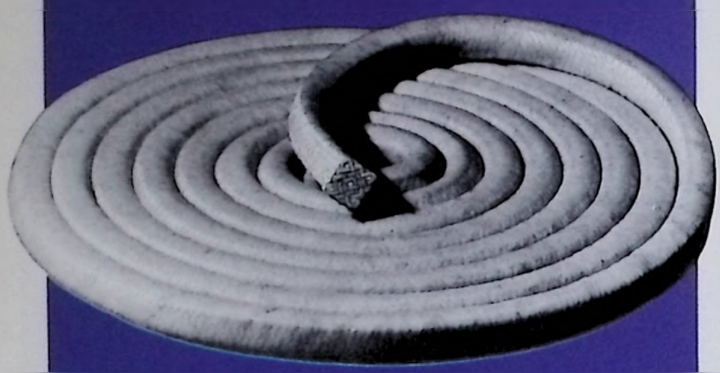
Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft./lb.	M./kg.
1/8	3,2	2	0,908	32260	63.00	42.30
0.157	4,0	2	0,908	32261	51.90	34.87
3/16	4,8	2 5	0,908 2,270	32262 32271	39.20 39.20	26,91 26,91
0.236	6,0	2 5	0,908 2,270	32263 32272	24.80 24.80	16,66 16,66
1/4	6,4	2 5	0,908 2,270	32264 32273	20.00 20.00	19,42 19,42
5/16	7,9	2 5	0,908 2,270	32265 32274	15.30 15.30	10,27 10,27
3/8	9,5	2 5 10	0,908 2,270 4,540	32266 32275 32281	10.50 10.50 10.50	7,05 7,05 7.05
0.394	10,0	2 5	0,908 2,270	32267 32276	9.00 9.00	6,05 6,05
7/16	11,1	2 5	0,908 2,270	32268 32277	8.30 8.30	5,57 5,57
0.472	12,0	2 5 10	0,908 2,270 4,450	32269 32278 32282	7.00 7.00 7.00	4,70 4,70 4,70
1/2	12,7	2 5 10	0,908 2,270 4,540	32270 32279 32283	5.80 5.80 5.80	3,90 3,90 3,90
9/16	14,3	5 10	2,270 4,540	32280 32284	4.90 4.90	3,29 3,29
5/8	15,9	10	4,540	32285	4.00	2,68
11/16	17,5	10	4,540	32286	3.10	2.08
3/4	19,1	10	4,540	32287	2.30	1,54
13/16	20,6	10	4,540	32288	2.15	1.45
7/8	22,2	10	4,540	32289	2.00	1.34
15/16	23,8	10	4,540	32293	1.80	1.21
1	25,4	10	4,540	32294	1.50	1,00
1 1/16	27,0	To order		32217	1.30	0.87
1 1/8	28,6	To order		32218	1.23	0.82
1 1/4	31,7	To order		32220	1.00	0.67

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 30 of 87
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CHESTERTON

CHESTERTON STYLE 328

Centrifugal pump packing for all chemicals



SERVICE

For shaft speeds to 1200 ft. per min. (6 m/sec.) against all chemicals also for air and gas valves

Normally, an all-fibre packing made of Teflon* (such as our STYLE 324 for valves) is limited in its ability to handle the higher shaft speeds. In STYLE 328 CHESTERTON has developed an all-Teflon fibre which has been reoriented to increase substantially the tolerance of the fibre to higher peripheral shaft speed demands. Designed for centrifugal pump service, it is a chemical packing completely inert to all materials except molten alkali metals.

CHESTERTON STYLE 328 fibres have been preshrunk and braided in our Interbraid® construction to give greater dimensional stability at elevated temperatures to 500°F. (260°C.). Additionally, DuPont Teflon suspensoid resin and other lubricants are incorporated into the fibres to resist migration, often the primary cause of leakage, and for low frictional qualities.

STYLE 328 differs from other Teflon fibre packings. It is capable of withstanding higher shaft speeds because of the inclusion of CHESTERTON'S exclusive "blocking agent". Friction between shaft and packing builds; and because Teflon is an insulator, heat is unable to escape to the casing. The incorporation of CHESTERTON'S "blocking agent" in STYLE 328 allows for expansion. The packing is permitted to breathe in the box, and heat is dissipated to prevent exothermic burning.

Shaft frictional scoring is virtually eliminated with the development of this new soft TFE form. Also excellent for air and gas valves, as STYLE 328 is easily responsive, and thus resists channeling.

The effective use of Teflon in centrifugal pumps with higher speed shafts is now significantly increased with STYLE 328 to approximately 1200 ft./min. (6 m/sec.) or higher if considerable care is used on installation and break-in. See shaft peripheral speed table in rear of catalog to determine ft./min. or m/sec.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
1/8 [1]	3,2	2	0,908	32860	76.0	50,99
0.157 [1]	4,0	2	0,908	32861	53.0	35,61
3/16 [1]	4,8	2	0,908	32862	27.0	18,12
0.236	6,0	2 5	0,908 2,270	32863 32872	22.5 22.5	15,12 15,12
1/4	6,4	2 5	0,908 2,270	32864 32873	21.0 21.0	14,09 14,09
5/16	7,9	2 5	0,908 2,270	32865 32874	12.0 12.0	8,05 8,05
3/8	9,5	2 5 10	0,908 2,270 4,540	32866 32875 32881	8.3 8.3 8.3	5,57 5,57 5,57
0.394	10,0	2 5	0,908 2,270	32867 32876	7.4 7.4	4,97 4,97
7/16	11,1	2 5	0,908 2,270	32868 32877	7.0 7.0	4,70 4,70
0.472	12,0	2 5 10	0,908 2,270 4,540	32869 32878 32882	5.8 5.8 5.8	3,90 3,90 3,90
1/2	12,7	2 5 10	0,908 2,270 4,540	32870 32879 32883	4.8 4.8 4.8	3,22 3,22 3,22
9/16	14,3	5 10	2,270 4,540	32880 32884	3.8 3.8	2,55 2,55
5/8	15,9	10	4,540	32885	3.3	2,21
11/16	17,5	10	4,540	32886	2.8	1,88
3/4	19,1	10	4,540	32887	2.4	1,61
13/16	20,6	10	4,540	32888	2.1	1,41
7/8	22,2	10	4,540	32889	1.8	1,21
15/16	23,8	10	4,540	32893	1.5	1,01
1	25,4	10	4,540	32894	1.0	0.80

[1] Slightly different construction

FOR APPLICATIONS INVOLVING NITRIC ACID — CONSULT FACTORY

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 31 of 87
Published by AsbestosClaims.Law
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CHESTERTON

CHESTERTON STYLE 320

BLU-LON® Acid Packing



SERVICE

For shafts, rods, valves against highly corrosive acids to 500°F. (260°C.)

STYLE 320 BLU-LON is a newly developed and perfected braided packing chemically resistant to such difficult acid conditions as sulphuric, sulphurous, hydrochloric and chromic. It has two primary base ingredients: first, DuPont Teflon tetrafluoroethylene resin which is inert to all materials except molten alkali metals; secondly, South African Blue Crocidolite asbestos, a chemically pure asbestos yarn recognized for its superior acid resisting properties. Each strand of this yarn is separately and completely covered with chemically inert Teflon Suspensoid, using our special and exclusive process. The packing is then manufactured in our Interbraid ® construction for added dimensional stability. Once again it is treated with DuPont Teflon to give it an additional lubricating surface, thus helping to eliminate severe shaft scoring. STYLE 320 BLU-LON is further treated with a break-in lubricant to decrease shaft damage during start-up operations.

STYLE 320 BLU-LON is superior in service to straight Teflon resins of the braided ribbon or extruded moulded types. Moulded resin packings will swell and seize high speed shafts. BLU-LON will not. Further, BLU-LON has excellent compressibility and recuperation. These desirable characteristics are not found in straight Teflon resin packings.

CHESTERTON BLU-LON Packing is recommended for strong acids ranging from pH values 1 through 4 inclusive. Ideally suited for service on chrome plated or stainless steel shafts. *Note:* Makes a fine, permanent-type ammonia valve stem packing because the lubricant does not dry out, since STYLE 320 is Teflon protected from the residual oil and water present in ammonia lines.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder	Lengths per Weight	
Inches	mm	lbs.	kg.	Product No.	Ft/lb.	M/kg.
1/8 *	3.2	2	0.908	32060	78.0	52.34
0.157 *	4.0	2	0.908	32061	57.0	38.30
3/16 *	4.8	2	0.908	32062	32.0	21.47
0.236	6.0	2	0.908	32063	24.0	16.09
		5	2.270	32072	24.0	16.09
1/4	6.4	2	0.908	32064	19.5	13.08
		5	2.270	32073	19.5	13.08
5/16	7.9	2	0.908	32065	13.2	8.86
		5	2.270	32074	13.2	8.86
3/8	9.5	2	0.908	32066	9.5	6.37
		5	2.270	32075	9.5	6.37
		10	4.540	32081	9.5	6.37
0.394	10.0	2	0.908	32067	7.8	5.23
		5	2.270	32076	7.8	5.23
7/16	11.1	2	0.908	32068	6.3	4.23
		5	2.270	32077	6.3	4.23
0.472	12.0	2	0.908	32069	5.6	3.76
		5	2.270	32078	5.6	3.76
		10	4.540	32082	5.6	3.76
1/2	12.7	2	0.908	32070	5.2	3.49
		5	2.270	32079	5.2	3.49
		10	4.540	32083	5.2	3.49
9/16	14.3	5	2.270	32080	4.2	2.82
		10	4.540	32084	4.2	2.82
5/8	15.9	10	4.540	32085	3.0	2.01
11/16	17.5	10	4.540	32086	2.7	1.82
3/4	19.1	10	4.540	32087	2.4	1.61
13/16	20.6	10	4.540	32088	2.0	1.35
7/8	22.2	10	4.540	32089	1.6	1.08
15/16	23.8	10	4.540	32093	1.5	1.01
1	25.4	10	4.540	32094	1.4	0.94

*Slightly different construction

FOR APPLICATIONS INVOLVING NITRIC ACID — CONSULT FACTORY

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 32 of 87
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CHESTERTON

CHESTERTON STYLE 329

STERN-LON PACKING

A new TFE Design in Stern Tube Packing



The purpose behind this superior packing is to carry out the following objectives:—extremely low frictional characteristics, resistance to rot, compressibility, tensile strength without sacrifice of flexibility, comparative ease of installing and of "take-up" (especially for large cross-sections), minimal shaft wear, and good peripheral seal contact.

The base fibre in STERN-LON is long-fibred roved flax of the highest quality. STYLE 329 is first impregnated with concentrated DuPont Teflon Dispersion to promote non-flowing lubricity, and to retard degradation. This is followed with a plasticizing "break-in" lubricant which assures compressibility, flexibility, and good packing-to-shaft contact. Finally, in order to minimize friction, a finely divided fluorocarbon powder is embedded into the surface of the packing. There will be virtually no wear on the shaft.

SERVICE

Marine—Tail Shaft Liners, Rudder Posts.
Paper—Jordans, Claflins, Hydro-Finers.

CHESTERTON STYLE 329 STERN-LON PACKING is an entirely new approach in the design of large cross-sectional sizes of flax packings. It is formulated to solve the exacting sealing requirements of stern tube and rudder post stuffing boxes in the marine field. It is also applicable to installations in the pulp and paper industry in connection with Jordans, Claflins, hydro-finers and the like.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft./lb.	M/kg.
1/4	6,4	5	2,270	32973	28.20	18,920
5/16	7,9	5	2,270	32974	16.50	11,070
3/8	9,5	5 10	2,270 4,540	32975 32981	11.90 11.90	7,980 7,980
7/16	11,1	5	2,270	32977	9.00	6,040
1/2	12,7	5 10	2,270 4,540	32979 32983	6.90 6.90	4,630 4,630
9/16	14,3	5 10	2,270 4,540	32980 32984	5.50 5.50	3,690 3,690
5/8	15,9	10	4,540	32985	4.30	2,880
11/16	17,5	10	4,540	32986	3.60	2,420
3/4	19,1	10	4,540	32987	3.00	2,010
13/16	20,6	10	4,540	32988	2.60	1,750
7/8	22,2	10	4,540	32989	2.10	1,410
15/16	23,8	10	4,540	32993	2.00	1,340
1	25,4	10	4,540	32994	1.90	1,270
1 1/8	28,6	To order		32918	1.70	1,140
1 1/4	31,7	To order		32920	1.30	0,870
1 3/8	34,9	To order		32922	0.98	0.660
1 1/2	38,1	To order		32924	0.84	0,560
1 5/8	41,2	To order		32926	0.62	0.420
1 3/4	44,4	To order		32928	0.60	0,400
1 7/8	47,6	To order		32930	0.56	0,380
2	50,8	To order		32932	0.48	0,320
2 1/8	54,0	To order		32934	0.43	0,290
2 1/4	57,1	To order		32936	0.38	0,250
2 3/8	60,3	To order		32938	0.35	0.230
2 1/2	63,5	To order		32940	0.32	0.210
2 5/8	66,7	To order		32942	0.29	0.185
2 3/4	69,6	To order		32944	0.26	0.170
2 7/8	73,0	To order		32946	0.23	0.154
3	76,2	To order		32948	0.21	0.140

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 33 of 87
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CHESTERTON

CHESTERTON STYLE 300



SERVICE
For centrifugal pumps handling all inert liquids up to 225°F. (110°C.)

STYLE 300 is a soft, strong, absorbent, cotton packing that presents a cushioned surface that will not score brass shafts or sleeves because the cotton constantly absorbs the liquid being pumped and maintains a soft, moist, pliable running-face on the shaft. STYLE 300 contains Molybdenum Disulfide (MoS_2) and graphite. MoS_2 reduces shaft wear because it eases fabric to metal contact, yet it embodies very high lubricating qualities, tenaciously adhering to metal shafts. MoS_2 is heat resistant, chemically stable, is insoluble in water, oil, alkalies and most acids.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder	Lengths per Weight	
Inches	mm	lbs.	kg.	Product No.	Ft./lb.	M./kg.
3/16	4,8	2	0,908	30062	29.50	19.79
1/4	6,4	2 5	0,908 2,270	30064 30073	20.50 20.50	13,75 13,75
5/16	7,9	2 5	0,908 2,270	30065 30074	17.50 17.50	11,94 11,94
3/8	9,5	2 5 10	0,908 2,270 4,540	30066 30075 30081	12.50 12.50 12.50	8,40 8,40 8,40
7/16	11,1	2 5	0,908 2,270	30068 30077	8.30 8.30	5,57 5,57
1/2	12,7	2 5 10	0,908 2,270 4,540	30070 30079 30083	7.00 7.00 7.00	4,69 4,69 4,69
9/16	14,3	5 10	2,270 4,540	30080 30084	5.80 5.80	3,89 3,89
5/8	15,9	10	4,540	30085	4,50	3,01
11/16	17,5	10	4,540	30086	3.87	2,60
3/4	19,1	10	4,540	30087	3.30	2,21
13/16	20,6	10	4,540	30088	3.10	2,08
7/8	22,2	10	4,540	30089	2.50	1,67
15/16	23,8	10	4,540	30093	2.16	1,45
1	25,4	10	4,540	30094	1.80	1,21

CHESTERTON

CHESTERTON FLAXES



CHESTERTON FLAX PACKINGS are made from the very finest imported flax rovings. They are strong, uniform and free from tow or foreign matter.

CHESTERTON STYLE 80 — lubricated flax packing

CHESTERTON STYLE 81 — graphited, lubricated flax packing

CHESTERTON STYLE 82 — lubricated mixed roving packing

CHESTERTON STYLE 84 — lubricated jute

CHESTERTON STYLE 85 — lubricated flax packing for hydraulic services to 800 psi (57 kg/Cm²)

CHESTERTON STYLE 87 — graphited mixed roving packing

For charts see page 78

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 34 of 87
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CHESTERTON

CHESTERTON STYLE 315

A Highly Lubricated Braided Asbestos Packing



SERVICE

Centrifugal pumps handling hot liquids including water, alcohol, mild acids and caustics.

CHESTERTON STYLE 315 is made from long, selected fibres of Canadian asbestos, manufactured in the square plait method which allows for maximum lubrication. STYLE 315 contains Molybdenum Disulfide (MoS_2) and graphite. MoS_2 reduces shaft wear because it eases fabric to metal contact, yet it embodies very high lubricating qualities, tenaciously adhering to metal shafts.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
3/16	4,8	2	0,908	31562	45.00	30,20
1/4	6,4	2 5	0,908 2,270	31564 31573	25.50 25.50	17,11 17,11
5/16	7,9	2 5	0,908 2,270	31565 31574	18.00 18.00	12,07 12,07
3/8	9,5	2 5 10	0,908 2,270 4,540	31566 31575 31581	11.00 11.00 11.00	7,38 7,38 7,38
7/16	11,1	2 5	0,908 2,270	31568 31577	9.70 9.70	6,50 6,50
1/2	12,7	2 5 10	0,908 2,270 4,540	31570 31579 31583	6.30 6.30 6.30	4,22 4,22 4,22
9/16	14,3	5 10	2,270 4,540	31580 31584	5.00 5.00	3,35 3,35
5/8	15,9	10	4,540	31585	4.00	2,68
11/16	17,5	10	4,540	31586	3.80	2,55
3/4	19,1	10	4,540	31587	2.90	1,95
13/16	20,6	10	4,540	31588	2.46	1,65
7/8	22,2	10	4,540	31589	2.00	1,34
15/16	23,8	10	4,540	31593	1.76	1,18
1	25,4	10	4,540	31594	1.50	1,01
1 1/16	27,0	To order		31517	1.32	0,89
1 1/8	28,6	To order		31518	1.25	0,84
1 3/16	30,2	To order		31519	1.10	0,74
1 1/4	31,7	To order		31520	1.00	0,67

CHESTERTON

CHESTERTON STYLE 330



SERVICE

Stainless [illegible] handling [illegible] chemicals.

CHESTERTON STYLE 330 is a thoroughly lubricated braided asbestos packing, white in color. Because it contains no graphite it has proven very serviceable for those rotary operations where non-discoloration of stock is an important consideration. Examples are paper stock, soaps, pulp, and a wide variety of similar materials. Recommended for alcohol; also the weaker acids and caustics with pH values 5 thru 10, inclusive.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
3/16	4,8	2	0,908	33062	37.000	24,83
1/4	6,4	2 5	0,908 2,270	33064 33073	21.500 21.500	14,43 14,43
5/16	7,9	2 5	0,908 2,270	33065 33074	16.100 16.100	10,80 10,80
3/8	9,5	2 5 10	0,908 2,270 4,540	33066 33075 33081	11.300 11.300 11.300	7,58 7,58 7,58
7/16	11,1	2 5	0,908 2,270	33068 33077	8.700 8.700	5,84 5,84
1/2	12,7	2 5 10	0,908 2,270 4,540	33070 33079 33083	6.500 6.500 6.500	4,36 4,36 4,36
9/16	14,3	5 10	2,270 4,540	33080 33084	5.000 5.000	3,35 3,35
5/8	15,9	10	4,540	33085	4.500	3,02
11/16	17,5	10	4,540	33086	3.700	2,49
3/4	19,1	10	4,540	33087	3.000	2,01
13/16	20,6	10	4,540	33088	2.520	1,69
7/8	22,2	10	4,540	33089	2.000	1,34
15/16	23,8	10	4,540	33093	1.850	1,24
1	25,4	10	4,540	33094	1.700	1,14
1 1/16	27,0	To order		33017	1.400	0,94
1 1/8	28,6	To order		33018	1.250	0,84
1 3/16	30,2	To order		33019	1.130	0,76
1 1/4	31,7	To order		33020	1.060	0,70
1 5/16	33,3	To order		33021	0.970	0,65
1 3/8	34,9	To order		33022	.925	0,62
1 1/2	38,1	To order		33024	0.750	0,51

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2 CENTRIFUGAL PUMPS

CHESTERTON

CHESTERTON STYLE 555



vent penetration of foreign substances into the packing, yet soft enough to present the shaft with a bearing alloy that reduces scoring. The foil is wrapped, twisted and crinkled in an exclusive process that traps special oils and graphite in the voids and interstices.

CHESTERTON STYLE 555 is primarily serviceable for pumps handling distillates, fuels and crude oils, mineral seal oil, fresh or salt water, and boiler feed water. STYLE 555 is particularly successful when used against abrasives, crystallizing or congealing liquids such as sugar, asphalt, and slurry (see special instructions pages). It is a preferred packing for medium temperature heat transfer fluids.

CHESTERTON STYLE 555 is a highly lubricated metallic packing suitable for temperatures to 450°F (230°C).

SERVICE

For rotating shafts to 450°F. (230°C.) on centrifugal oil pumps, High Pressure water pumps, boiler feed pumps, steam turbine shafts, air and ammonia compressors, pumps with congealing fluids, Heat Transfer fluids.

CHESTERTON STYLE 555 is a strong, compressible, antifrictional, and highly lubricated metallic packing. STYLE 555 achieves unusual resilience due to its cushioning core of asbestos rovings. About this core are folded ribbons of babbitt foil, strong enough to pre-

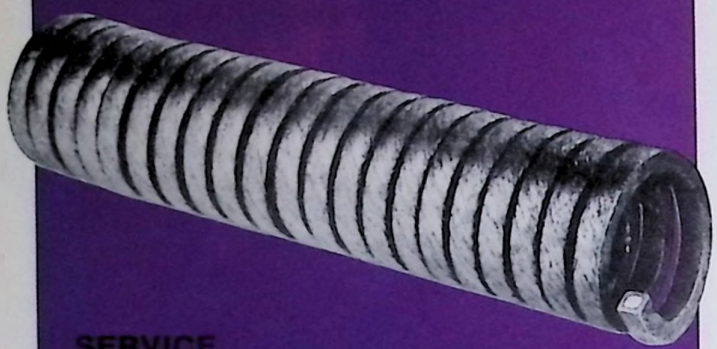
APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft./lb.	M./kg.
3/16	4.8	1.75	0.79	55503	10.70	7.18
1/4	6.4	3.10	1.42	55504	5.70	3.82
5/16	7.9	3.50	1.59	55505	5.20	3.49
3/8	9.5	5.10	2.32	55506	3.80	2.55
7/16	11.1	6.00	2.72	55507	2.60	1.74
1/2	12.7	9.00	4.09	55508	2.40	1.61
9/16	14.3	9.60	4.37	55509	2.10	1.41
5/8	15.9	12.00	5.45	55510	1.50	1.01
11/16	17.5	14.60	6.64	55511	1.30	0.85
3/4	19.1	14.60	6.64	55512	1.10	0.72
13/16	20.6	22.20	10.09	55513	0.54	0.35
7/8	22.2	25.60	11.63	55514	0.46	0.30
15/16	23.8	25.80	11.72	55515	0.40	0.26
1	25.4	33.60	15.27	55516	0.35	0.22

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ACL Doc 21272 · Page 36 of 87
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CHESTERTON

CHESTERTON STYLE 666



SERVICE

For rotating shafts of 500 Brinell hardness to 1000°F. (540°C.) on centrifugal hot oil charge pumps, diphenyl valves, still necks, hot oil valves, boiler feed pumps, heat transfer fluids.

STYLE 666 is aluminum ribbon constructed in the same manner as STYLE 555. The lubricant used will not carbonize at high temperatures, thus the heavy concentration of graphite is free to function as a true and unimpeded lubricant. Shafts should be of 500 Brinell hardness or over when STYLE 666 is employed. Typical installations include centrifugal hot oil charge pumps handling crude oil, gas oil, pressure distillate and lower fractions up to maximum temperature. Also suitable for still necks, diphenyl valves, hot oil valves, and boiler feed pumps. It is recommended for equipment found in oil refineries to 1000°F. (540°C.).

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
3/16	4,8	1.30	0,59	66603	27.80	16,65
1/4	6,4	1.90	0,86	66604	18.90	12,68
5/16	7,9	1.50	0,68	66605	12.10	8,12
3/8	9,5	1.70	0,77	66606	11.70	7,85
7/16	11,1	1.90	0,86	66607	8.40	5,64
1/2	12,7	2.80	1,27	66608	7.60	5,10
9/16	14,3	3.10	1,41	66609	6.50	4,36
5/8	15,9	3.70	1,68	66610	4.80	3,22
11/16	17,5	4.50	2,04	66611	3.90	2,60
3/4	19,1	4.50	2,04	66612	3.10	2,07
13/16	20,6	4.15	1,88	66613	2.89	1,94
7/8	22,2	4.76	2,16	66614	2.52	1,67
15/16	23,8	5.38	2,44	66615	2.23	1,47
1	25,4	6.06	2,75	66616	1.98	1,32

CHESTERTON

CHESTERTON STYLE 550

Braided plastic packing



SERVICE

For [illegible] (180°C.) on [illegible] air,

STYLE 550 is composed of long fibre asbestos, graphite, and anti-frictional non-scoring components all bonded together into a homogeneous product. It is covered with a light braided jacket to ensure dimensional stability. STYLE 550 is widely used to 350°F. (180°C.) on centrifugal shafts in contact with hot water, oil, and many solvents. When used with metallic STYLE 555 it is very effective on boiler feed pumps. It is also suggested as a general service packing on steam, air, oil, and water valves.

APPROXIMATE DATA

Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight	
Inches	mm	lbs.	kg.		Ft/lb.	M/kg.
1/8	3,2	2	0,908	55060	83.30	55,90
3/16	4,8	2	0,908	55062	62.50	41,94
1/4	6,4	2 5	0,908 2,270	55064 55073	28.60 28.60	19,19 19,19
5/16	7,9	2 5	0,908 2,270	55065 55074	19.20 19.20	12,88 12,88
3/8	9,5	2 5 10	0,908 2,270 4,540	55066 55075 55081	13.00 13.00 13.00	8,72 8,72 8,72
7/16	11,1	2 5	0,908 2,270	55068 55077	11.40 11.40	7,65 7,65
1/2	12,7	2 5 10	0,908 2,270 4,540	55070 55079 55083	6.80 6.80 6.80	4,56 4,56 4,56
9/16	14,3	5 10	2,270 4,540	55080 55084	5.40 5.40	3,62 3,62
5/8	15,9	10	4,540	55085	4.40	2,95
11/16	17,5	10	4,540	55086	3.66	2,46
3/4	19,1	10	4,540	55087	3.00	2,01
13/16	20,6	10	4,540	55088	2.62	1,76
7/8	22,2	10	4,540	55089	2.20	1,48
15/16	23,8	10	4,540	55093	2.10	1,41
1	25,4	10	4,540	55094	2.00	1,34

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ACL Doc 21272 · Page 37 of 87
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3 VANWAY O-RINGS

CHESTERTON

CHESTERTON VANWAY® O-RING

U.S. Patents 3,549,156 and 3,586,566—Foreign Patents Applied For
Complies with FDA regulation 121.2555

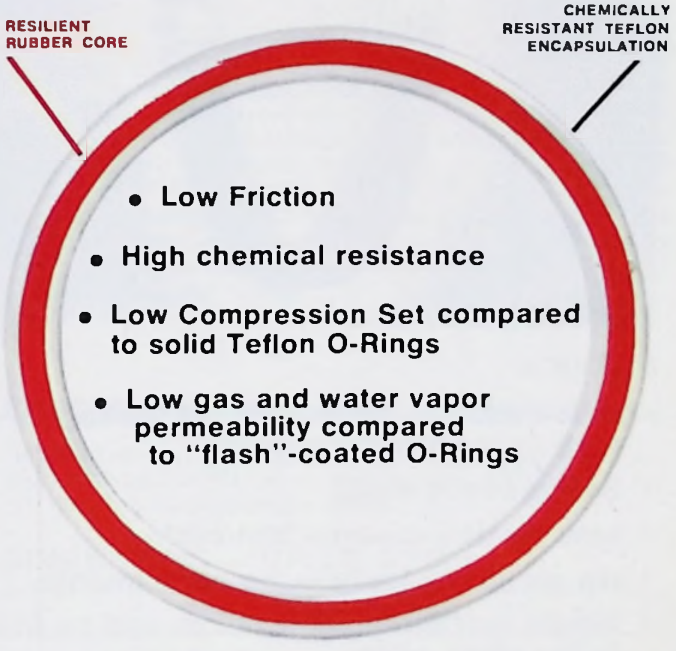
A totally different O-Ring having a resilient, synthetic rubber core which is encased in a continuous, thick Teflon* encapsulation.



The VANWAY O-RING provides the simple, one-piece solution for chemical, bio-medical, industrial, aircraft and hazardous fluid handling applications.

Repeated flexing without deterioration, handling of constant lateral movement, and resistance to corrosive liquids are some of the service conditions that the composite VANWAY O-RING can withstand in extended use in normal service. It acts as a virtually universal seal in applications now filled by elastomeric O-Rings or by solid Teflon materials where performance is frequently less than satisfactory.

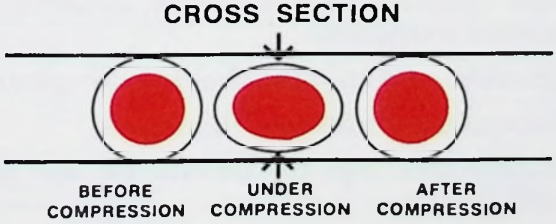
Accepted by the Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA).



SERVICES

Provides fluid sealing in O-Ring applications for harsh chemicals and for temperatures to 400°F. (205°C.); non-sticking gaskets for glass, metal, plastic, Teflon systems; and in filters; pipelines; valves; instruments and mechanical seals.

The CHESTERTON VANWAY O-RING is the ideal answer to the classic problem requiring a "rubbery" Teflon. This unique O-Ring solves the sealing problems where the chemical inertness of Teflon is a MUST and where maintenance-free dependability and long service life are required.



Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 38 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/38

CHESTERTON

CHESTERTON STYLE 10,000 SUPER-MONOSEAL

SINGLE ENDLESS RING HYDRAULIC PACKING

CHESTERTON STYLE 10,000 SUPER-MONOSEAL is a further development of our Regular MONOSEAL profile. Its new, non-absorbent, oil-resistant polymer is tough and durable — will not shrink from oil absorption. It has excellent memory — retains its lip flare permanently. SUPER-MONOSEAL has low abrasion characteristics, and extrusion is virtually eliminated as a common cause of packing failure. Gland and ram tolerances can be more liberal — flare design is gentled for easier insertion. Installation may be made without fear of damaging the rugged but sensitive sealing lips. Polymer contains molydisulphide furthering low-friction operation. Recommended for water, oils, and virtually all other hydraulic fluids except for the phosphate esters, the glycols and glycerins.





Computerized tapered Lip gives feather-touch response. Massive body withstands shocks.

CHESTERTON SUPER-MONOSEALS are the answer for hydraulic ram applications. One strong, proven, durable endless ring will seal under any pressure and will not weep at zero pressure because of the feather-touch response of this new flared-lip design. SUPER-MONOSEAL pays for itself through the retention of costly hydraulic fluids. A single ring is all that is required to pack all depths of stuffing boxes. SUPER-MONOSEAL is easily installed with no after adjustments necessary. Just insert one single ring and replace the gland. No adjusting.

SERVICE

- **Automatically seals without leakage — zero to maximum pressure**
- **Saves costly fluids**
- **Low friction assures fast cycle**
- **No gland pressure — no adjustments**
- **Single unit for shallow boxes and no box is too deep either**
- **New proven type polymer construction resists extrusion**
- **Durable — non-absorbent — long-lived**
- **Exceptional frictional qualities**
- **Unaffected by temperatures to 185°F (85°C)**

No breaking-in procedures needed. The massive top construction of SUPER-MONOSEAL withstands enormous hydraulic shock from press bumping, which would normally deform conventional U-rings or nested V type packings. Field reports confirm excellent service at pressures as high as 15,000 p.s.i. (1000 kg/cm²). This is your assurance of many years of trouble-free service plus savings in labor, fluid, and packing costs. If you have an unusually shallow box, see the practical suggestions on page 45 on how to increase its effective depth.

continued

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 39 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/39

CHESTERTON STYLE 10,000 PISTON MOUNTED SUPER-MONOSEAL

These are designed with a different lip configuration than are standard SUPER-MONOSEALS. In a piston mounted application, the specially designed SUPER-MONOSEAL is attached to and travels with the piston, and is not stationary at the top of the stuffing box, as with regular SUPER-MONOSEALS.

DIMENSIONS — STYLE 10,000

STYLE 10,000 SUPER-MONOSEAL	
Cross Section — Inches	Packing Depth*
1/4" 5/16" 3/8"-7/16" 1/2"-9/16"-5/8"-11/16" 3/4"-13/16"-7/8"-15/16" 1"	9/16" 13/16" 15/16" 1 3/16" 1 7/16" 1 9/16"
Cross Section — Metric	Packing Depth*
7mm 8mm 10mm-12mm 14mm-16mm-18mm 20mm-25mm	14mm 21mm 24mm 30mm 37mm

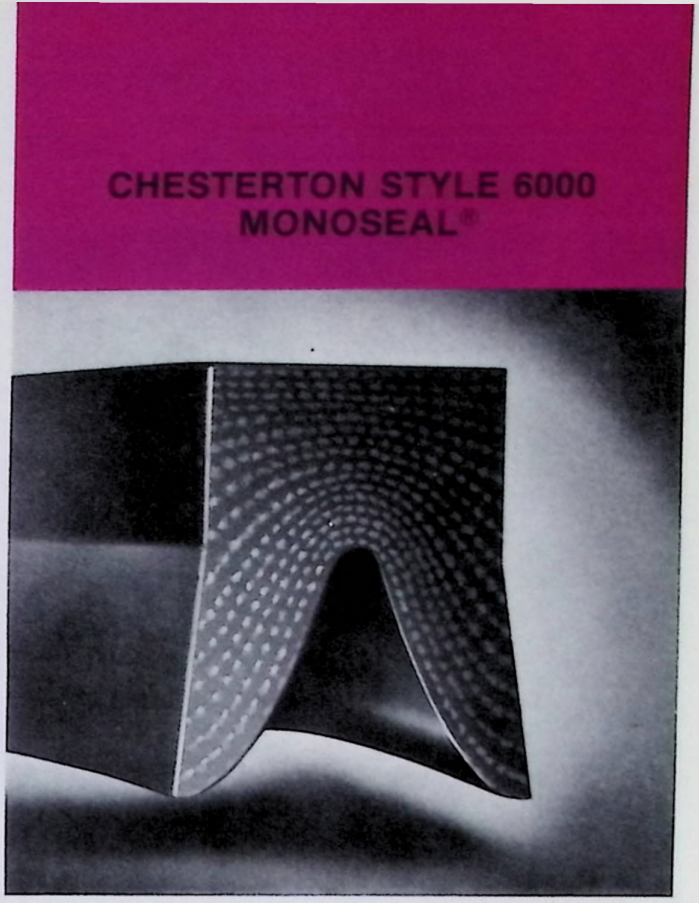
* DIMENSIONS: Stuffing box space required below bottom of gland, after gland face is fully inserted face to face. Measurements shown include 1/16" (1.6mm) extra required free space in bottom.

CHESTERTON STYLE 6000 MONOSEAL®



SERVICE

- **Suitable to temperatures of 250°F (120°C)**
- **Neoprene, synthetic-coated, fabric construction**
- **Conforms to worn equipment**



MONOSEAL STYLE 6000 is molded from Neoprene and fabric into a solid, reinforced single ring responsive to pressures varying from zero to maximum. Recommended for water, hydraulic oils, and including mineral, paraffin, napthenic, vegetable, glycols and glycerins. Not designed for the fire-proof type of phosphate ester fluids. It conforms effectively to the irregularities that are characteristic of older equipment which has been used on water service and / or where the stuffing box has become rough.

CHESTERTON STYLE 6000 PE MONOSEAL

Recommended for use against straight phosphate esters such as certain types of Pydraul. Not suitable for chlorinated hydrocarbon types.

DIMENSIONS — STYLE 6000

STYLE 6000 MONOSEAL			
Cross Section		Packing Depth*	
Inches	mm	Inches	mm
1/2" 5/8" 3/4" 7/8" 1"	12.7 15.9 19.1 22.2 25.4	1 1/16" 1 1/16" 1 5/16" 1 5/16" 1 7/16"	27.0 27.0 33.3 33.3 36.5

* Dimensions: Stuffing box space required below bottom of gland, after gland face is fully inserted face to face.
Measurements shown include 1/16" (1.6mm) extra required free space in bottom.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 40 of 87
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CHESTERTON

CHESTERTON STYLE 8000 SUPER-PARACHUTE PACKING

FULLY AUTOMATIC, MOLDED POLYMER, HYDRAULIC NESTED PACKING







Cut-away section of typical set

SERVICE

For all ram services.

Particularly adaptable to either deep or shallow stuffing boxes where endless rings cannot be installed.

Maximum temperature 185°F (85°C).

For all hydraulic fluids except phosphate esters, glycols and glycerins.

STYLE 8000 SUPER-PARACHUTE is a major new product manufactured from a similar material to CHESTERTON STYLE 10,000 SUPER-MONOSEAL, which is a tough, durable polymer material which will not swell from oil absorption. SUPER-PARACHUTE has the operating advantage of *low frictional drag and high extrusion resistance.* It also contains a special lubricating compound as an integral part of its composition, which further assures low-friction operation.

STYLE 8000 SUPER-PARACHUTE was designed to seal with a *minimal amount of gland pressure.* By design, the set stacks through the center to eliminate distortion, and yet each lip is individually flared, as in SUPER-MONOSEAL. There is a definite advantage in a flared lip design, in that it seals naturally at both low and high pressures.

STYLE 8000's non-absorbent polymer prevents the swelling and binding caused when fabric rings absorb oil. With STYLE 8000 machine operation is not interrupted due to shaft or ram seizure nor from deterioration of the ring material. The moulded polymer has extreme resistance to operational extrusion and excess clearances can be handled. This is in contrast to fabric rings which tend to extrude through clearances.

STYLE 8000's integral life-lubrication and homogeneous construction maintains smooth operation during its full life. With older type rings, the surface graphite wore off leaving the bare asbestos or duck to wear and severely score the equipment.

SUPER-PARACHUTE stacks solidly through the center of each sealing ring. Top and bottom adapter rings hold set firmly in place. A 5% void is provided at each flared lip giving it full operational play. This exclusive flared lip design permits operation from zero to extreme pressures without having to adjust for individual leakage conditions. The user need only bolt gland in place to be assured the set will not move during operation. With center-stacking there is no fear of over-compression.

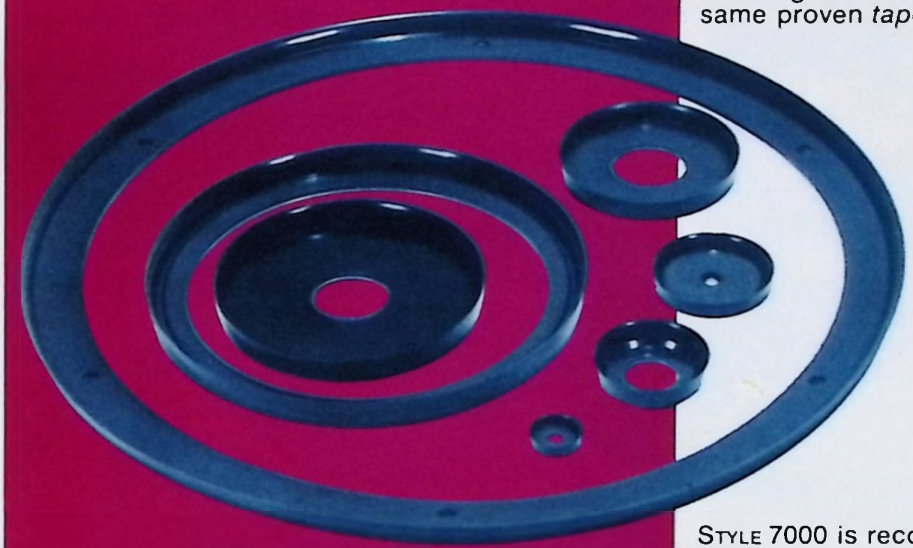
The shallow depth of the sealing rings permit more rings per inch; more back-up sealing protection; longer set life. The shallow depth is advantageous in shallow boxes where up to 50% more rings can be accommodated per set.

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ACL Doc 21272 · Page 41 of 87
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CHESTERTON

CHESTERTON STYLE 7000 SUPERCUP

AN IMPROVED HYDRAULIC CUP PACKING



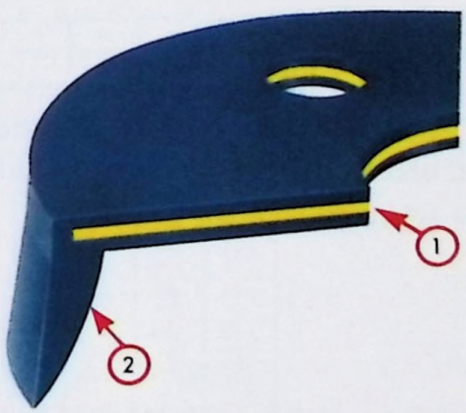
CHESTERTON STYLE 7000 SUPERCUPS overcome all these disadvantages. They contain no fabric or bonding adhesive. SUPERCUPS are produced from a similar non-absorbing, oil-resistant special polymer so successful in our proven tough and durable SUPER-MONOSEAL. They have the additional feature of a moulded-in supporting metallic disc in the base, which makes for a stable, non-distorting superior seal. This disc controls extrusion of the compound and practically eliminates cup failure. It also assures positive and accurate centering to the ram. With the inclusion of molydisulphide, operation is virtually frictionless. Lip sensitivity required for positive sealing at both high and low pressures is achieved by using the same proven *taper* lip design as in MONOSEAL.

STYLE 7000 is recommended for air, water, oils, and nearly all hydraulic fluids. Exceptions are fluids in excess of 185°F (85°C), the phosphate esters, the glycols and glycerins.

SERVICE

For reciprocating piston services up to 185°F (85°C) (except phosphate ester fluids)

CHESTERTON STYLE 7000 SUPERCUP introduces to industry a significant, major breakthrough in cup design and construction. CHESTERTON has long felt that an improved cup has been needed with which to seal hydraulic or pneumatic pistons. Competitive cups now being offered are usually fabric moulded, or of elastomers alone. They are not truly reinforced. This results in excess flow into the heel clearances, causing heel-wear and unacceptable frictional drag with predictable early cup failure. Such cups fail statically because of the lack of flange stability under the mounting washer. Furthermore, since these designs provide, at best, a lip bevel only (and in other cases a blunt lip), reliability of the dynamic seal is suspect. Conventional materials also tend to oil-soften and swell; or they otherwise dry and crack.



Cut-away section

1. Metal disc guards against cold flow. Prevents distortion. Assures accurate centering.

2. Proven variable curved lip design, molded of our special tough blue polymer, assures positive sealing at both high and low pressures.

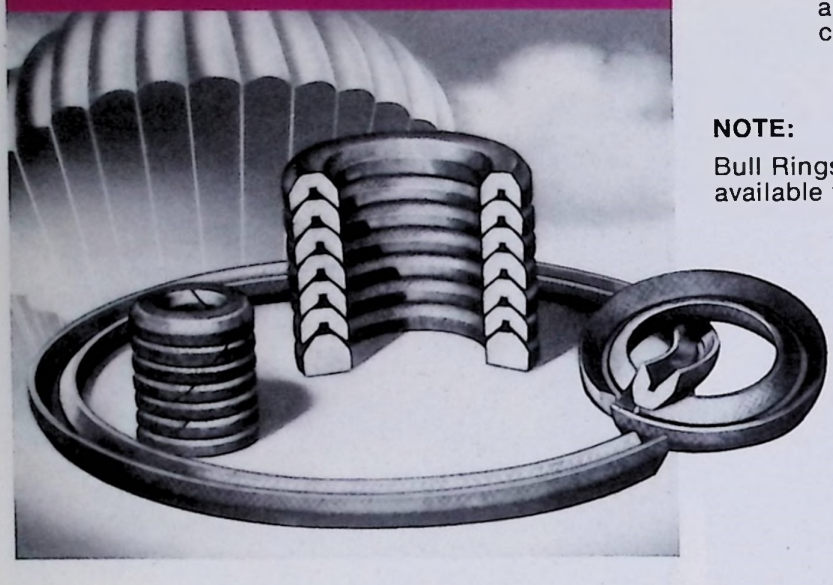
COMBINATION OF STRENGTH PLUS SENSITIVITY INCREASES RELIABILITY AND SERVICE LIFE

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ACL Doc 21272 · Page 42 of 87
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CHESTERTON

CHESTERTON STYLE 600 PARACHUTE® PACKING

NESTED RING PACKING



REGULAR STYLES:

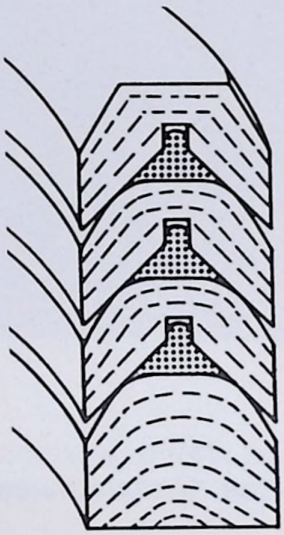
600W } -Water
600F }
600S - Steam and Compressed Air
600CO } -Cold Oils
600F }
600HO- Hot Oils and Solvents
600PE - Straight Phosphate Ester Fluids, without added Chlorinated Hydrocarbons, such as certain classes of PYDRAUL

NOTE:

Bull Rings in our Style 420 Sq. Braided Copper are available where needed.

SERVICE

For all ram services and pressures — particularly adapted for deep stuffing boxes and odd sized Rams or conditions where endless rings cannot be installed.



SPECIAL PARACHUTE
STYLE 600-F

Reinforcing filler

Prevents deformation at excessive pressures or where box is shallow in proportion to the pressure. For water or cold oil. Available ¼" up. (NOTE: Regular Style 600-CO is preferred for most stuffing boxes with depth adequate to pressure involved.)

CHESTERTON PARACHUTE® is a fully moulded fabric reinforced Packing which, because of its unique, individual lip seal design, requires little gland pressure. Wear is mostly limited to the energy stroke. Thus, PARACHUTE lasts longer than conventional V Packings. No top adapter required because of flat-top surface design. Thick bottom ring is fully moulded with straight sides permitting easy insertion and floating action without possibility of twisting in box.

PARACHUTE Packing is furnished in a wide variety of sizes in cut or endless rings for ½" to 60" ram sizes.

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ACL Doc 21272 · Page 43 of 87
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CHESTERTON

TABLE OF STYLE 8000 SUPER-PARACHUTE SET HEIGHTS NUMBER OF RINGS (Includes top and bottom adapters)

CROSS SECTION	3	4	5	6	7	8	9	10	11	12	13	14	15	16	COMBINED STACK HEIGHT OF TOP & BOTTOM ADAPTERS mm	COMBINED STACK HEIGHT OF TOP & BOTTOM ADAPTERS ins.	ADD PER SEALING RING ins.	ADD PER SEALING RING mm
1/4 6.4	13/32 10.3	17/32 13.5	21/32 16.7	25/32 19.8	29/32 23.0	1 1/32 26.2	1 5/32 29.4	1 9/32 32.5	1 13/32 35.7	1 17/32 38.9	1 21/32 42.1	1 25/32 45.2	1 29/32 48.4	2 1/32 51.6	7,1	9/32	1/8	3,2
5/16 7.9	1/2 12.7	21/32 16.7	13/16 20.6	31/32 24.6	1 1/8 28.6	1 9/32 32.5	1 7/16 36.5	1 19/32 40.5	1 3/4 44.5	1 29/32 48.4	2 1/16 52.4	2 7/32 56.4	2 3/8 60.3	2 17/32 64.3	8,7	11/32	5/32	4,0
3/8 9.5	17/32 13.5	1 1/16 17.5	27/32 21.4	1 25.4	1 5/32 29.4	1 5/16 33.3	1 15/32 37.3	1 5/8 41.3	1 25/32 45.2	1 15/16 49.2	2 3/32 53.2	2 1/4 57.2	2 13/32 61.1	2 9/16 65.1	9,5	3/8	5/32	4,0
7/16 11.1	9/16 14.3	23/32 18.3	7/8 22.2	1 1/32 26.2	1 3/16 30.2	1 11/32 34.1	1 1/2 38.1	1 21/32 42.1	1 13/16 46.0	1 31/32 50.0	2 1/8 54.0	2 9/32 57.9	2 7/16 61.9	2 19/32 65.9	10,3	13/32	5/32	4,0
1/2 12.7	5/8 15.9	13/16 20.6	1 25.4	1 3/16 30.2	1 3/8 34.9	1 9/16 39.7	1 3/4 44.5	1 15/16 49.2	2 1/8 54.0	2 5/16 58.7	2 1/2 63.5	2 11/16 59.5	2 7/8 72.0	3 1/16 77.8	11,1	7/16	3/16	4,8
9/16 14.3	21/32 16.7	27/32 21.4	1 1/32 26.2	1 7/32 31.0	1 13/32 35.7	1 19/32 40.5	1 25/32 45.2	1 31/32 50.0	2 5/32 54.8	2 1/32 59.5	2 17/32 64.3	2 23/32 69.1	2 29/32 73.8	3 3/32 78.6	11,9	15/32	3/16	4,8
5/8 15.9	1 1/16 17.5	7/8 22.2	1 1/16 27.0	1 1/4 31.8	1 7/16 36.5	1 5/8 41.3	1 13/16 46.0	2 50.8	2 3/16 55.6	2 3/8 60.3	2 9/16 65.1	2 3/4 69.9	2 15/16 74.6	3 1/8 79.4	12,7	1/2	3/16	4,8
1 1/16 17.5	2 7/32 21.4	1 3/32 27.8	1 11/32 34.1	1 19/32 40.5	1 27/32 46.8	2 3/32 53.2	2 1/32 59.5	2 19/32 65.9	2 27/32 72.2	3 3/32 78.6	3 1/32 84.9	3 19/32 91.3	3 27/32 97.6	4 3/32 104.0	15,1	19/32	1/4	6,4
3/4 19.1	7/8 22.2	1 1/8 28.6	1 3/8 34.9	1 5/8 41.3	1 7/8 47.6	2 1/8 54.0	2 3/8 60.3	2 5/8 66.7	2 7/8 73.0	3 1/8 79.4	3 3/8 85.7	3 5/8 92.1	3 7/8 98.4	4 1/8 104.8	15,9	5/8	1/4	6,4
13/16 20.6	7/8 22.2	1 1/8 28.6	1 3/8 34.9	1 5/8 41.3	1 7/8 47.6	2 1/8 54.0	2 3/8 60.3	2 5/8 66.7	2 7/8 73.0	3 1/8 79.4	3 3/8 85.7	3 5/8 92.1	3 7/8 98.4	4 1/8 104.8	15,9	5/8	1/4	6,4
7/8 22.2	1 25.4	1 5/16 33.3	1 5/8 41.3	1 15/16 49.2	2 1/4 57.2	2 9/16 65.1	2 7/8 73.0	3 3/16 81.0	3 1/2 88.9	3 13/16 96.8	4 1/8 104.8	4 7/16 112.7	4 3/4 120.7	5 1/16 128.6	17,5	11/16	5/16	7,9
15/16 23.8	1 25.4	1 5/16 33.3	1 5/8 41.3	1 15/16 49.2	2 1/4 57.2	2 9/16 65.1	2 7/8 73.0	3 3/16 81.0	3 1/2 88.9	3 13/16 96.8	4 1/8 104.8	4 7/16 112.7	4 3/4 120.7	5 1/16 128.6	17,5	11/16	5/16	7,9
1 25.4	1 1/16 27.0	1 3/8 34.9	1 11/16 42.9	2 50.8	2 5/16 58.7	2 5/8 66.7	2 15/16 74.6	3 1/4 82.6	3 9/16 90.5	3 7/8 98.4	4 3/16 106.4	4 1/2 114.3	4 13/16 122.2	5 1/8 130.2	19,1	3/4	5/16	7,9

Stack heights beyond the table range can be calculated by adding the stack height of the top & bottom adapter to the height per sealing ring as listed above.

TABLE OF STYLE 600 PARACHUTE SET HEIGHTS STACK HEIGHT PER SET, (Including one bottom ring rounded down to the nearest 1/16" per inch of depth.)

CROSS SECTION	2 RINGS	3 RINGS	4 RINGS	5 RINGS	6 RINGS	7 RINGS	8 RINGS	9 RINGS	10 RINGS	11 RINGS	12 RINGS	13 RINGS	14 RINGS	15 RINGS
3/16" 4.8	3/8 9.5	1/2 12.7	1 1/16 17.5	7/8 22.2	1 25.4	1 3/16 30.2	1 3/8 34.9	1 9/16 39.7	1 11/16 42.9	1 7/8 47.6	2 1/16 52.4	2 1/4 57.2	2 3/8 60.3	2 9/16 65.1
1/4" 6.4	7/16 11.1	5/8 15.9	1 3/16 20.6	1 1/16 27.0	1 1/4 31.8	1 7/16 36.5	1 5/8 41.3	1 7/8 47.6	2 1/16 52.4	2 1/4 57.2	2 7/16 61.9	2 11/16 68.3	2 7/8 73.0	3 1/16 77.8
5/16" 7.9	9/16 14.3	3/4 19.1	1 25.4	1 1/4 31.8	1 7/16 36.5	1 11/16 42.9	1 15/16 49.2	2 3/16 55.6	2 3/8 60.3	2 5/8 66.7	2 7/8 73.0	3 1/8 79.4	3 5/16 84.12	3 9/16 90.5
3/8" 9.5	9/16 14.3	3/4 19.1	1 25.4	1 1/4 31.8	1 7/16 36.5	1 11/16 42.9	1 15/16 49.2	2 3/16 55.6	2 3/8 60.3	2 5/8 66.7	2 7/8 73.0	3 1/8 79.4	3 5/16 84.12	3 9/16 90.5
7/16" 11.1	5/8 15.9	7/8 22.2	1 1/8 28.6	1 3/8 34.9	1 5/8 41.3	1 15/16 49.2	2 3/16 55.6	2 7/16 61.9	2 11/16 68.3	3 76.2	3 1/4 82.6	3 1/2 88.9	3 3/4 95.3	4 1/16 103.2
1/2" 12.7	5/8 15.9	7/8 22.2	1 1/8 28.6	1 3/8 34.9	1 5/8 41.3	1 15/16 49.2	2 3/16 55.6	2 7/16 61.9	2 11/16 68.3	3 76.2	3 1/4 82.6	3 1/2 88.9	3 3/4 95.3	4 1/16 103.2
9/16" 14.3	1 1/16 17.5	1 25.4	1 1/4 31.8	1 9/16 39.7	1 7/8 47.6	2 3/16 55.6	2 7/16 61.9	2 3/4 69.9	3 1/16 77.8	3 3/8 85.7	3 5/8 92.1	3 15/16 100.0	4 1/4 108.0	4 9/16 115.9
5/8" 15.9	1 3/16 20.6	1 1/8 28.6	1 7/16 36.5	1 3/4 44.5	2 1/16 52.4	2 7/16 61.9	2 3/4 69.9	3 1/16 77.8	3 3/8 85.7	3 3/4 95.3	4 1/16 103.2	4 3/8 111.1	4 11/16 119.1	5 1/16 128.6
11/16" 17.5	7/8 22.2	1 3/16 30.2	1 9/16 39.7	1 15/16 49.2	2 1/4 57.2	2 5/8 66.7	3 76.2	3 3/8 85.7	3 11/16 93.7	4 1/16 103.2	4 7/16 112.7	4 13/16 122.2	5 1/8 130.2	5 1/2 139.7
3/4" 19.1	15/16 23.8	1 5/16 33.3	1 11/16 42.9	2 1/8 54.0	2 1/2 63.5	2 7/8 73.0	3 1/4 82.6	3 11/16 93.7	4 1/16 103.2	4 7/16 112.7	4 13/16 122.2	5 1/4 133.4	5 5/8 142.9	6 152.4
13/16" 20.6	1 25.4	1 7/16 36.5	1 13/16 46.0	2 1/4 57.2	2 11/16 68.3	3 1/8 79.4	3 1/2 88.9	3 15/16 100.0	4 3/8 111.1	4 13/16 122.2	5 3/16 131.8	5 5/8 142.9	6 1/16 154.0	6 1/2 165.1
7/8" 22.2	1 1/8 28.6	1 9/16 39.7	2 50.8	2 7/16 61.9	2 15/16 74.6	3 3/8 85.7	3 13/16 96.8	4 1/4 108.0	4 11/16 119.1	5 3/16 131.8	5 5/8 142.9	6 1/16 154.0	6 1/2 165.1	7 177.8
15/16" 23.8	1 3/16 30.2	1 11/16 42.9	2 1/8 54.0	2 5/8 66.7	3 1/8 79.4	3 5/8 92.1	4 1/16 103.2	4 9/16 115.9	5 1/16 128.6	5 9/16 141.3	6 152.4	6 1/2 165.1	7 177.8	7 1/2 190.5
1" 25.4	1 1/4 31.8	1 3/4 44.5	2 1/4 57.2	2 13/16 71.4	3 5/16 84.1	3 13/16 96.8	4 5/16 109.5	4 7/8 123.8	5 3/8 136.5	5 7/8 149.2	6 7/16 163.5	6 15/16 176.2	7 7/16 188.9	7 15/16 201.6

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ACL Doc 21272 · Page 44 of 87
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STYLES OF CHESTERTON PACKINGS

STYLE 10000
SUPER-MONOSEAL
Automatic sealing action
Non-absorbent polymer
High extrusion resistance
Responsive lip design



STYLE 6000 MONOSEAL
Reinforced construction
Conforms to worn equipment
No adjustments
Proven design



STYLE 8000
SUPER-PARACHUTE
Easy installation
Near frictionless operation
Fully automatic
High extrusion resistance



STYLE 600
PARACHUTE PACKING
Reinforced construction
No top adapter required
Heavy bottom adapter
Proven performance



STYLE 7000 SUPERCUPS
Positive sealing
High extrusion resistance

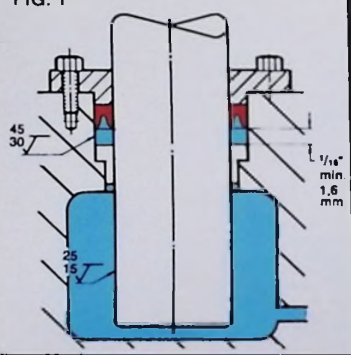
no oil absorption
metallic reinforcement
Will not dry out



TYPES OF MOUNTINGS

COL. 1 — Standard conventional stuffing box mounting in a typical hydraulic press. Note that this is the only type of application for which Style 6000 is intended. The installations shown in Figures 1, 2 and 3 are for Style 10,000 SUPER-MONOSEALS

FIG. 1



COL. 2 — Simple single acting piston mounted design. In Figure 2 the left side shows a snap over ridge for retention of the SUPER-MONOSEAL. This is the preferred method for piston mounting.

The right side shows the more conventional bolted cover plate design frequently found in existing equipment as shown in Figures 5 and 8.

FIG. 2

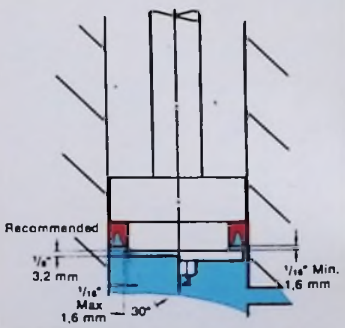


FIG. 4

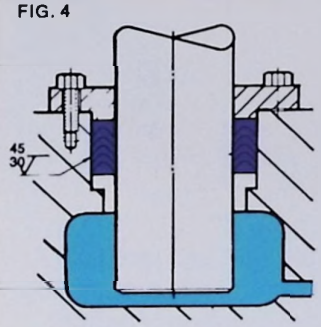


FIG. 5

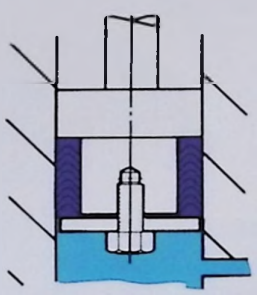


FIG. 7

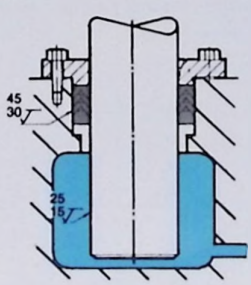


FIG. 8

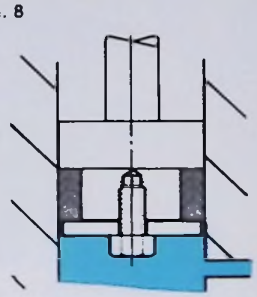
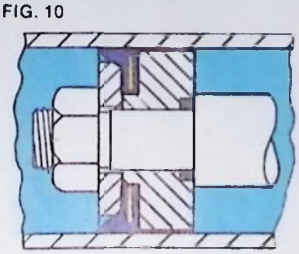
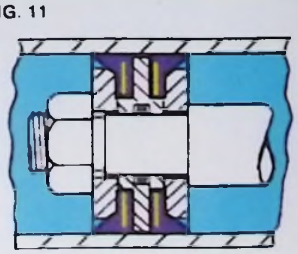


FIG. 10



7000 Supercup installed in typical single acting application

FIG. 11

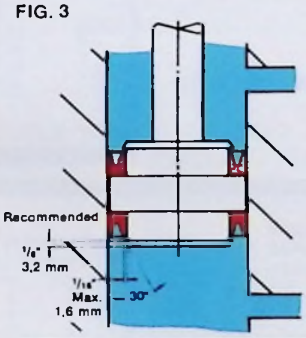


7000 Supercups installed for double acting application

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COL. 3 — Conventional double-acting, piston mounted design with packing rings positioned back to back with a portion of the piston separating them. The method of retention shown is the preferred snap over ridge design per Figure 2 left, but other methods such as bolted cover plates, snap ring, retainer, etc. can be used.

FIG. 3



ADAPTING TO STANDARD OR EXTREMELY SHALLOW STUFFING BOXES

SUPER-MONOSEAL remains stationary at the top of the box against the gland. 1/16" (1,6 mm) minimum additional clearance at the bottom of stuffing box permits hydraulic fluid to actuate the responsive SUPER-MONOSEAL lips. No gland pressure or gland adjustment is required.

NOTE: When stuffing box chamfer becomes part of seal support area, said chamfer must not exceed .030" (0,762 mm).

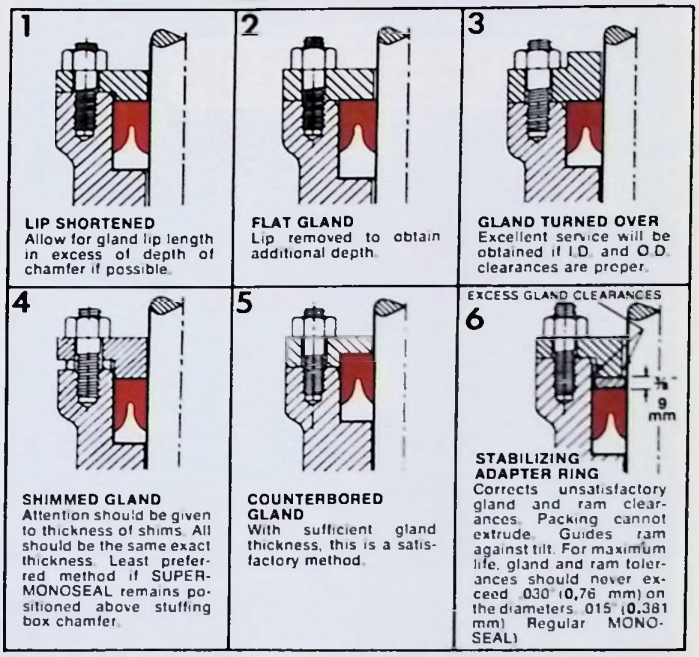


FIG. 6

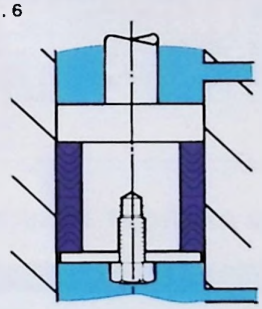
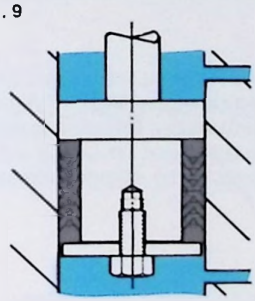


FIG. 9



INSTALLATION: Chesterton hydraulic seals are manufactured from only the finest materials available, under the most stringent, controlled conditions. However, to insure maximum service, it is suggested that the following points be adhered to when installing same:

1. The stuffing box, groove or piston, and all contacting areas should be free of rough edges, nicks, or burrs, etc.
2. Protective fixtures, materials or devices should be implemented whenever the seal is forced over threads, sharp edges, grooves and the like.
3. Installation tools should be soft metal or plastic also free of rough edges. The use of screwdrivers and other similar tools should be avoided.
4. Lubricants are acceptable and in most cases desirable. The same hydraulic medium can be used to lubricate the seal in installation. Only soft or light weight greases should be considered, if grease is to be used at all.

Finishes recommended:
15-25 RMS — Dynamic Surfaces
30-45 RMS — Static Surfaces

Clearances: (Ram to gland or piston to cylinder)
STYLES 7000. 8000 & 10,000 — .030"/dia. max. (0,762 mm)
STYLES 600, 6000 — .015"/dia. max. (0,381 mm)

CHESTERTON

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 46 of 87
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asbestosclaims.law/library/21272/46

5 SEALS

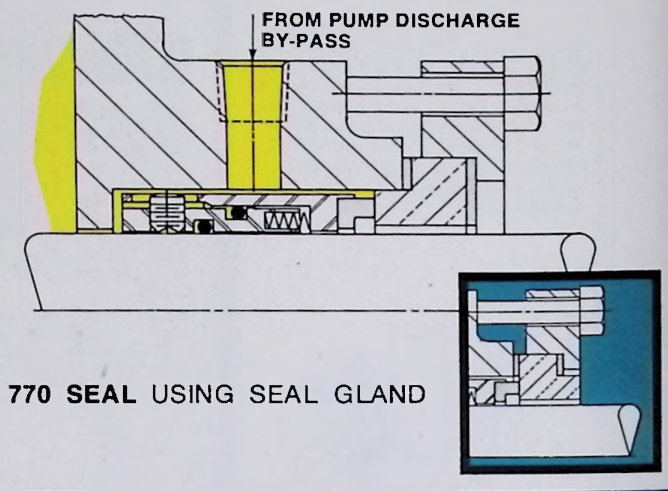
CHESTERTON

CHESTERTON

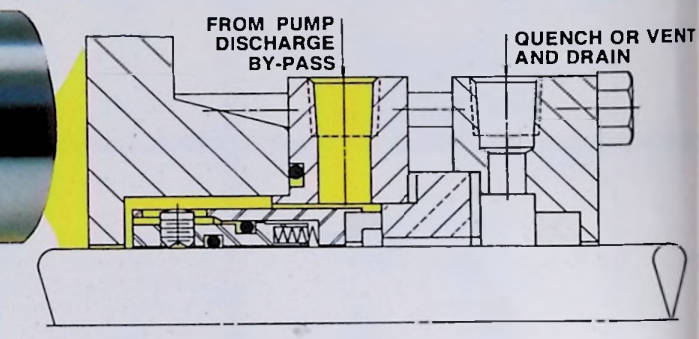
770 SEAL

Off-the-Shelf Seal





770 SEAL USING SEAL GLAND



770 SEAL IN REFINERY PUMP

SERVICE

Covers 90% of all pump applications
FITS ALL AVS PUMPS



Your distributor carries your inventory

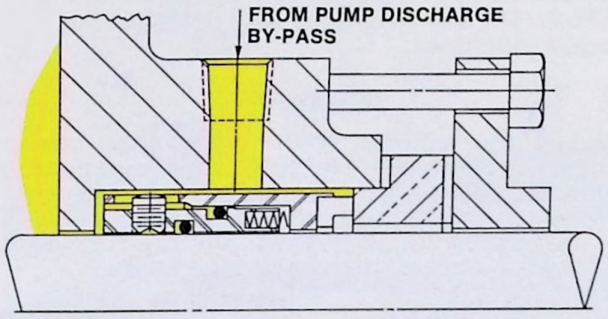
With a balanced CHESTERTON 770 SEAL you can interchange nearly any seal or packing without engineering and get improved performance. Off-the-shelf availability reduces plant investment in seals and parts and allows our distributors to supply directly from their stock.

The CHESTERTON 770 SEAL is designed to give engineered seal advantages without incurring their cost. Longer seal life is achieved resulting in lower maintenance cost.

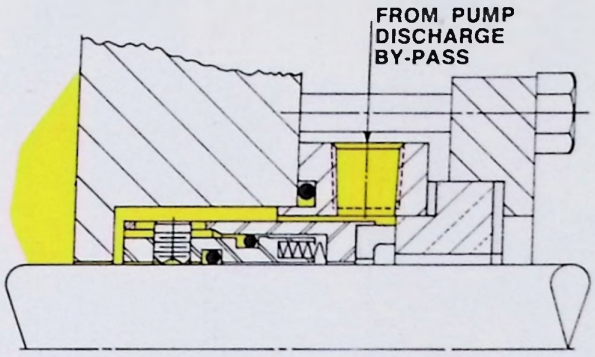
There is a trained *Chesterton Specialist* in your area. He is readily available to help solve your sealing problems. Why not telephone him at our local distributor to initiate the Chesterton cost reduction standardization program for your plant.

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ACL Doc 21272 · Page 47 of 87
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asbestosclaims.law/library/21272/47

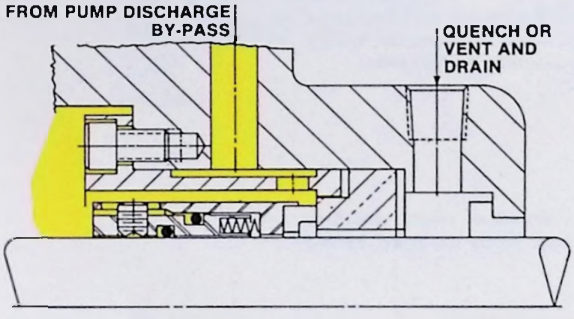
TYPICAL APPLICATIONS OF 770 SEAL TO POPULAR PUMPS



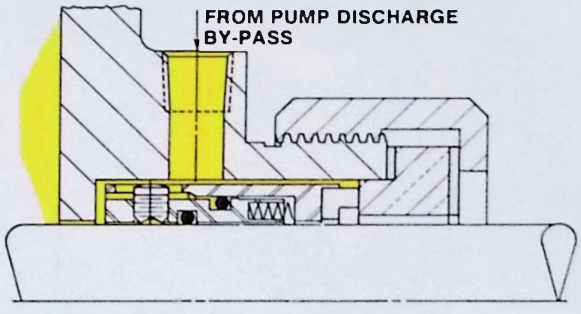
770 SEAL UTILIZING CONVENTIONAL PACKING GLAND



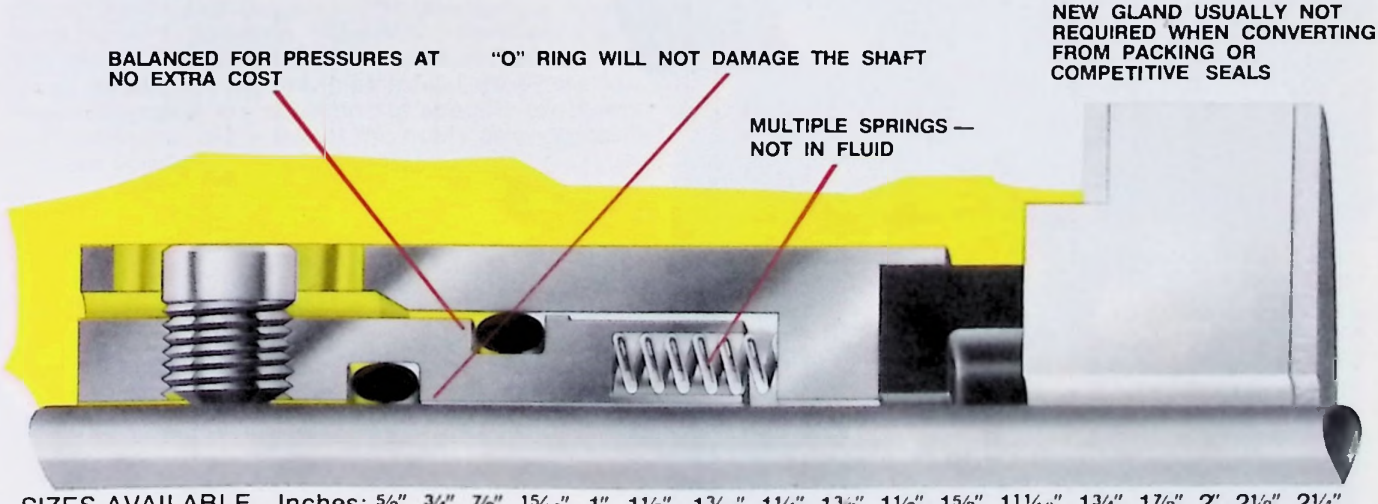
770 SEAL IN HEAT TRANSFER PUMP



770 SEAL IN "SEAL ONLY" PUMP



770 SEAL IN PUMP UTILIZING A THREADED GLAND



SIZES AVAILABLE Inches: 5/8", 3/4", 7/8", 15/16", 1", 1 1/8", 1 3/16", 1 1/4", 1 3/8", 1 1/2", 1 5/8", 1 11/16", 1 3/4", 1 7/8", 2', 2 1/8", 2 1/4", 2 3/8", 2 1/2", 2 5/8", 2 3/4", 2 7/8", 3', 3 1/8", 3 1/4", 3 3/8", 3 1/2", 3 5/8", 3 3/4", 4", 4 3/8". Metric: 25, 28, 30, 32, 35, 38, 40, 42, 45, 48, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 48 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/48

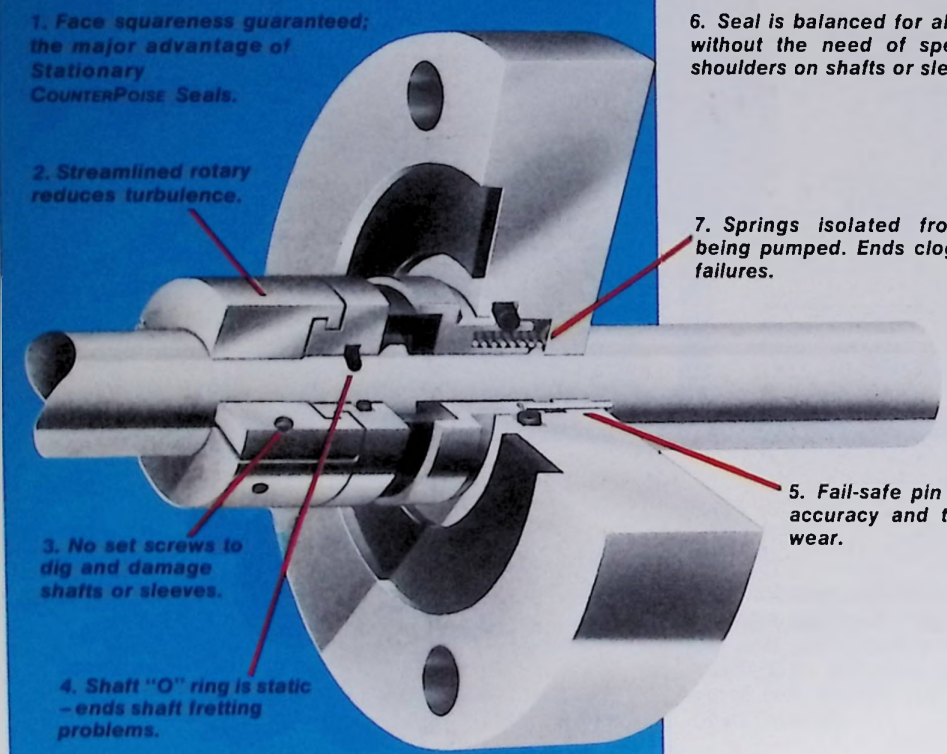
5 SEALS

CHESTERTON

CHESTERTON COUNTERPOISE® SEAL

U.S. Pat. nos. 3068012, 3188095, 3184244
Foreign patents pending

The full life stationary seal
A universal design for all types of seal applications. Performance proved in thousands of services. Especially effective for reducing pollution.



Repairable many times over—fits virtually all pumps

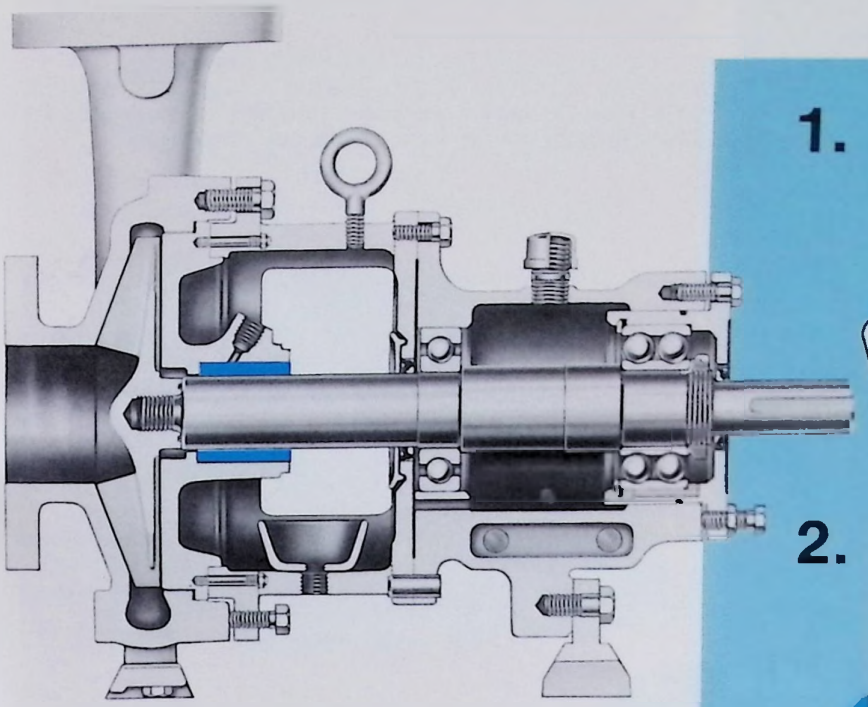
No other seal combines all of the advantages of the CounterPoise, the *first* stationary seal designed for the process industries.

Examine all the features noted. No other seal has such an extensive list. The seal finds usage in all industries. Because of its performance increases, it is one of the low cost seals of industry. Prove to yourself the advantages of the one seal that has had the greatest market impact of any seal ever made.

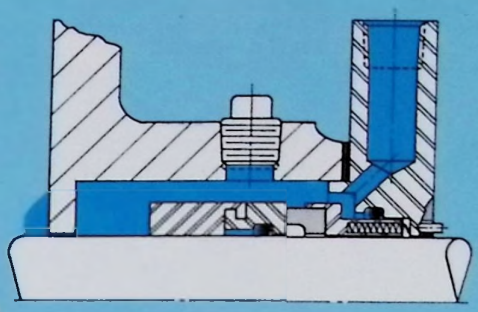
SERVICE

Especially effective on slurries, congealing fluids, corrosive liquids, at a wide range of pressures and temperatures.

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ACL Doc 21272 · Page 49 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/49

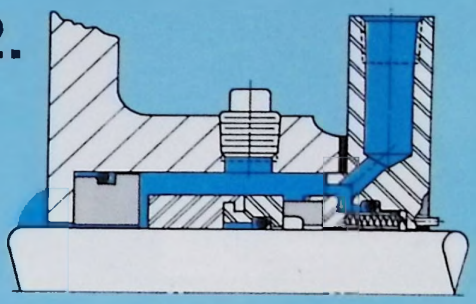


1.



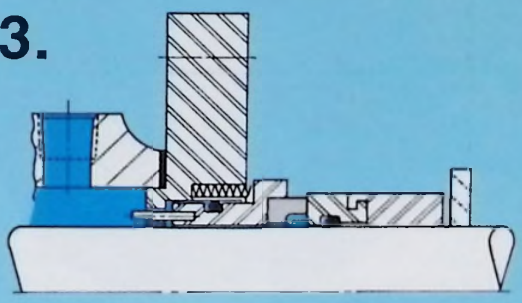
STANDARD INSIDE SEAL

2.



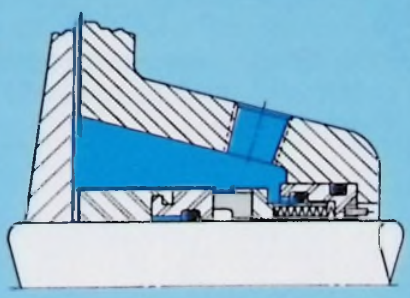
STANDARD INSIDE SEAL WITH RESTRICTION BUSHING AND INDEPENDENT CLEAN LIQUID FLUSH

3.



STANDARD OUTSIDE SEAL

4.



SEAL ONLY PUMP

CounterPoise Seals . . . are versatile. Industries and services where CounterPoise has proved to be outstanding:

Chemical Plants, Refineries, Paper Mills, Food Processing, Boiler Feed Water, Heat Transfer Fluids, Strong Acids and Caustics, Pharmaceutical Applications, Mixers, Solvents, Steel Mills, Fertilizer Plants, Sea Water, Paints, Sewage Treatment Plants.

No application is too complex for CounterPoise Seals. These diagrams are solutions to specific problems and represent *just a few* of the many arrangements that are possible!

Note: Ecology is everyone's concern. Mechanical seals are one answer for reducing pollution. Why not use the best—Chesterton CounterPoise!

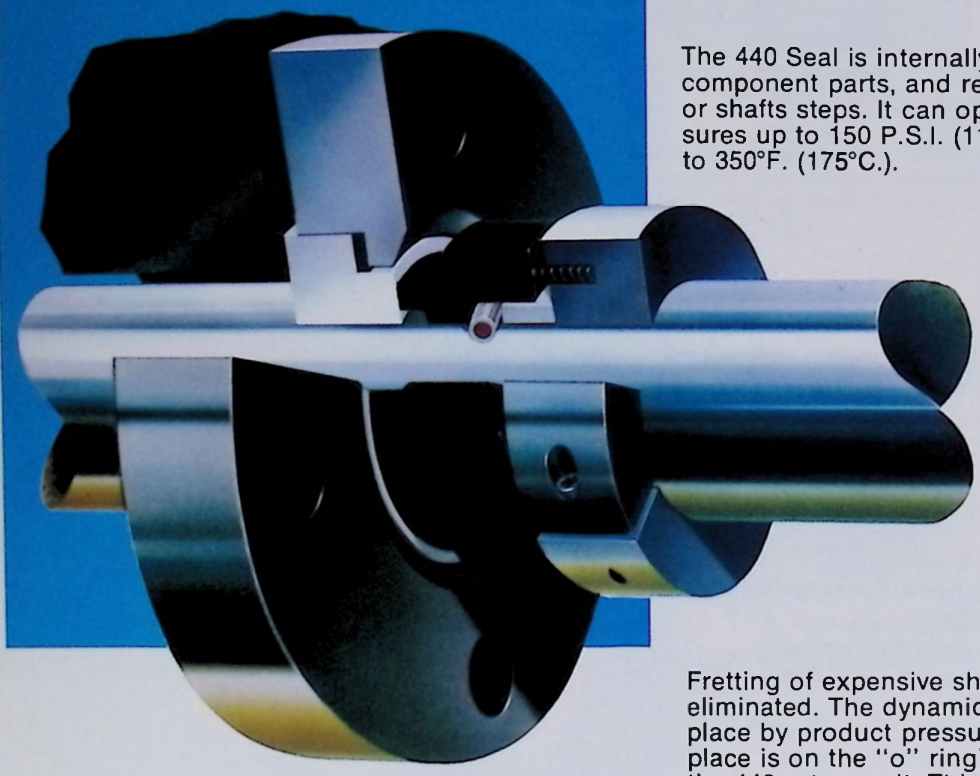
Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 50 of 87
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5 SEALS

CHESTERTON

CHESTERTON 440 SEAL

Off-the-Shelf Seal



no metal parts in contact with the fluid being pumped; because of this feature it is able to operate in a wide variety of corrosive conditions. It also operates equally well in non-corrosive conditions.

The 440 Seal mounts externally, outside the stuffing box, so installation is extremely quick and easy. Seal face wear can be easily recognized, enabling accurate judgments as to when replacement will be necessary.

The 440 Seal is internally balanced within its own component parts, and requires no expensive sleeves or shafts steps. It can operate at stuffing box pressures up to 150 P.S.I. (11 Kg/cm²) and temperatures to 350°F. (175°C.).

Fretting of expensive shafts or sleeves is virtually eliminated. The dynamic "o" ring is held firmly in place by product pressure. Any motion that takes place is on the "o" ring's outside diameter, next to the 440 rotary unit. This means expensive shafts or sleeves need never be replaced due to fretting. The saving should more than pay for the 440 Seal.

SERVICE

For corrosive fluids, low cost replacement of exotic materials, and to prevent damage to glass lined pumps.

The Chesterton 440 Seal is stocked by your local Chesterton distributors in virtually all sizes for the pumps mentioned. This gives you faster delivery and less inventory that must be carried as spare parts.

The Chesterton 440 Seal is an externally mounted seal designed for use in plastic, Teflon, carbon, glass-lined or exotic metal pumps where corrosive fluids readily attack the wetted metal parts of standard mechanical seals. The Chesterton 440 Seal has

The Chesterton 440 Seal is designed as an "off-the-shelf seal" requiring no engineering and no adaption of pump parts, while giving substantial benefits when sealing corrosive services.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 51 of 87
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CHESTERTON

CHESTERTON STYLE 210



SERVICE

Heavy duty graphited sheet to 750°F. (400°C.) against superheated or saturated steam, air, gas, ammonia, alkalies and many acids.

CHESTERTON STYLE 210 is a heavy-duty compressed asbestos sheet of exceptional quality, suitable for practically all flange use. This superior sheet with its heat-resisting graphite impregnation is recommended for super-heated or saturated steam, compressed air, ammonia, gas, and nearly all chemicals. It is made by a special method which results in an extremely tough, high-tensile sheet, since this construction places the fibres in successive layers crosswise to each other, in contrast to ordinary homogeneous sheets, and each fibre is carefully graphite-lubricated, which insures longer life against hardening.

APPROXIMATE DATA

Thickness		Reorder Product No.	Dimensions		Approx. Wts. ÷ 10%		Sheets/ Bale
Inches	mm		Inches	m	lbs.	kg.	
1/64"	0.4	21061	60" × 60"	1.52 × 1.52	3.4	1.54	27
1/32"	0.8	21062	60" × 60"	1.52 × 1.52	6.8	3.09	14
1/16"	1.6	21001	60" × 60"	1.52 × 1.52	13.7	6.22	7
3/32"	2.4	21086	50" × 75"	1.27 × 1.90	21.3	9.70	4
1/8"	3.2	21002	60" × 60"	1.52 × 1.52	28.5	12.94	3
1/32"	0.8	21074	60" × 120"	1.52 × 3.04	13.6	6.17	7
1/16"	1.6	21071	60" × 120"	1.52 × 3.04	27.4	12.44	4
1/8"	3.2	21072	60" × 120"	1.52 × 3.04	57.0	25.88	2

A Pressure times Temperature factor (P × T°F.) of 250,000 should be considered the limit for use of compressed asbestos sheet.

CHESTERTON

CHESTERTON STYLE 211



SERVICE

Heavy duty sheet to 750°F. (400°C.) against superheated or saturated steam, air, gas, ammonia, alkalies and many acids.

STYLE 211 is a heavy-duty compressed asbestos sheet equal in quality and strength to STYLE 210. The difference between these two sheets is that STYLE 211 is coated with CHESTERTON'S new "ANTI-STICK" compound, while STYLE 210 is graphited.

CHESTERTON'S "ANTI-STICK" COATING ON STYLE 211 means easier layout, cutting, and handling while at the same time insuring a material which will release easily from flange surfaces. "ANTI-STICK" invisible film also helps prevent or retard absorption of any medium, thus assuring longer gasket life.

APPROXIMATE DATA

Thickness		Reorder Product No.	Dimensions		Approx. Wts. ÷ 10%		Sheets/ Bale
Inches	mm		Inches	m	lbs.	kg.	
1/64"	0.4	21161	60" × 60"	1.52 × 1.52	3.4	1.54	27
1/32"	0.8	21162	60" × 60"	1.52 × 1.52	6.8	3.09	14
1/32"	0.8	21174	60" × 120"	1.52 × 3.04	13.6	6.17	7
1/16"	1.6	21101	60" × 60"	1.52 × 1.52	13.7	6.22	7
1/16"	1.6	21171	60" × 120"	1.52 × 3.04	27.4	12.44	4
3/32"	2.4	21186	50" × 75"	1.27 × 1.90	21.3	9.70	4
1/8"	3.2	21102	60" × 60"	1.52 × 1.52	28.5	12.94	3
1/8"	3.2	21172	60" × 120"	1.52 × 3.04	57.0	25.88	2

A Pressure times Temperature factor (P × T°F.) of 250,000 should be considered the limit for use of compressed asbestos sheet.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 52 of 87
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6 FLANGE and GASKETING MATERIAL

CHESTERTON

CHESTERTON STYLE 235



SERVICE

For general service to 700°F. (370°C.) on superheated or saturated steam, air, gas, ammonia alkalies, mild solvents and acids.

Manufactured from carefully selected asbestos fibres, STYLE 235 is cured with a heat-resisting compound, and bonded under great pressure to produce a superior high-quality general-service sheet packing suitable for steam, air, oil, hot gases, and many chemicals. STYLE 235 is extremely workable, resulting in uniform easy to cut gaskets. STYLE 235 meets MIL–G–12803A.

APPROXIMATE DATA

Thickness		Reorder	Dimensions		Approx. Wts. ± 10%		Sheets/
Inches	mm	Product No.	Inches	m	lbs.	kg.	Bale
1/64"	0,4	23561	60" × 60"	1,52 × 1,52	3.4	1,54	27
1/32"	0,8	23562	60" × 60"	1,52 × 1,52	6.8	3,09	14
1/16"	1,6	23501	60" × 60"	1,52 × 1,52	13.7	6,22	7
3/32"	2,4	23586	50" × 75"	1,27 × 1,90	21.3	9,70	4
1/8"	3,2	23502	60" × 60"	1,52 × 1,52	28.5	12,94	3
1/32"	0,8	23574	60" × 120"	1,52 × 3,04	13.6	6,17	7
1/16"	1,6	23571	60" × 120"	1,52 × 3,04	27.4	12,44	4
1/8"	3,2	23572	60" × 120"	1,52 × 3,04	57.0	25,88	2

A Pressure times Temperature factor (P × T°F.) of 250,000 should be considered the limit for use of compressed asbestos sheet.

NEW — Both sides of this sheet are now protected by an extra exclusive, ANTI-STICK SURFACING for easy removal of gaskets.

CHESTERTON

STYLE 225 CHESCO



SERVICE

For general use to 700°F. (370°C.) against superheated or saturated steam, air, gas, ammonia, solvents, weak alkalies and acids.

CHESTERTON STYLE 225 CHESCO SHEET is an extremely versatile, general service gasket material, coated with "ANTI-STICK," to insure easy gasket removal. This quality sheet is suitable for a wide range of conditions of super-heated or saturated steam, many chemicals, hot gases, compressed air, and mild solvents. STYLE 225 is manufactured from quality Canadian asbestos fibres and bonded under high pressure into a homogeneous sheet of considerable strength. STYLE 225 will meet most major demands in both industrial and marine applications. STYLE 225's versatility makes it an ideal sheet for gasket shop use. Its pliability and medium cure insure ease of cutting. STYLE 225 meets MIL–G–12803A.

APPROXIMATE DATA

Thickness		Reorder	Dimensions		Approx. Wts. ± 10%		Sheets/
Inches	mm	Product No.	Inches	m	lbs.	kg.	Bale
1/32"	0,8	262	50" × 75"	1,27 × 1,90	7.5	3.40	14
1/16"	1,6	201	50" × 75"	1,27 × 1,90	15.0	6.81	7
3/32"	2,4	266	50" × 75"	1,27 × 1,90	22.0	9.98	4
1/8"	3,2	202	50" × 75"	1,27 × 1,90	30.0	13.62	3

A Pressure times Temperature factor (P × T°F.) of 250,000 should be considered the limit for use of compressed asbestos sheet.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 53 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/53

CHESTERTON

CHESTERTON STYLE 281

Wire Inserted Sheet Packing



SERVICE

All industrial and marine boiler pipeline applications, in all areas requiring reinforced sheet gasketing, for general flanges, especially on lines subject to vibration.

CHESTERTON STYLE 281 is a heavy duty wire-inserted, compressed asbestos sheet of high tensile strength for services to 1000°F. (550°C.), 2000 PSI (140 kg/cm²). Coated with CHESTERTON ANTI-STICK COMPOUND which allows easy gasket removal from pipe flanges, even on superheat applications.

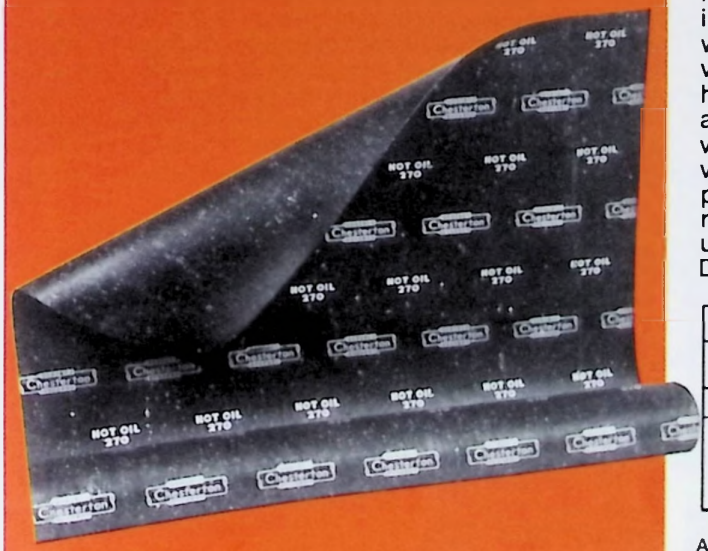
APPROXIMATE DATA

Thickness		Reorder Product No.	Dimensions		Approx. Wts. ± 10%		Sheets / Bale
Inches	mm		Inches	m	lbs.	kg	
1/32"	0,8	28162	60" × 60"	1,52 × 1,52	8.9	4,04	12
1/16"	1,6	28101	60" × 60"	1,52 × 1,52	18.6	8,45	6
3/32"	2,4	28166	60" × 60"	1,52 × 1,52	26.0	11,81	4
1/8"	3,2	28102	60" × 60"	1,52 × 1,52	33.9	15,40	3

A Pressure times Temperature factor (P × T°F.) of 250,000 should be considered the limit for use of compressed asbestos sheet.

CHESTERTON

CHESTERTON STYLE 270



SERVICE

For 700°F. (370°C.) hot oil, solvents, Freon, SO_2, hot gases, superheated steam, natural gases.

CHESTERTON STYLE 270 has been specially designed for hot oils, solvents and aeronautical applications. This is a high quality bonded compressed asbestos sheet which is recommended for use against aromatic solvents, aliphatic hydrocarbons such as butane and hexane. It shows good performance as a gasket against carbon tetrachloride, turpentine, animal and vegetable fats, formaldehyde, fuel oils, Freon, and various alkalies. It is strong and dense and yet compressible enough to compensate for flange irregularities. It is unusually resistant to plastic flow under substantial bolt loads. STYLE 270 meets ASTM D1170, G1122-1 and AMS-3232J and MIL-G-12803A.

APPROXIMATE DATA

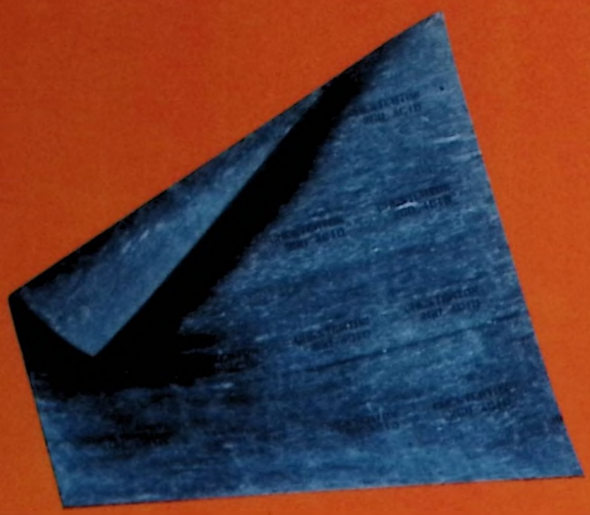
Thickness		Reorder Product No.	Dimensions		Approx. Wts. ± 10%		Sheets / Bale
Inches	mm		Inches	m	lbs.	kg	
1/32"	0.8	27062	60" × 60"	1,52 × 1,52	7.5	3.40	14
1/16"	1.6	27001	60" × 60"	1,52 × 1,52	15.0	6.81	7
3/32"	3.4	27086	50" × 75"	1,27 × 1,90	21.7	9.85	4
1/8"	3,2	27002	60" × 60"	1,52 × 1,52	30.0	13.62	3

A Pressure times Temperature factor (P × T°F.) of 250,000 should be considered the limit for use of compressed asbestos sheet.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 54 of 87
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CHESTERTON

CHESTERTON STYLE 260



SERVICE
Inorganic (mineral) acids up to 50%; all water-soluble organic acids in any concentration to 700°F. (370°C.).
NOTE: Do not use against concentrated strong mineral acids.

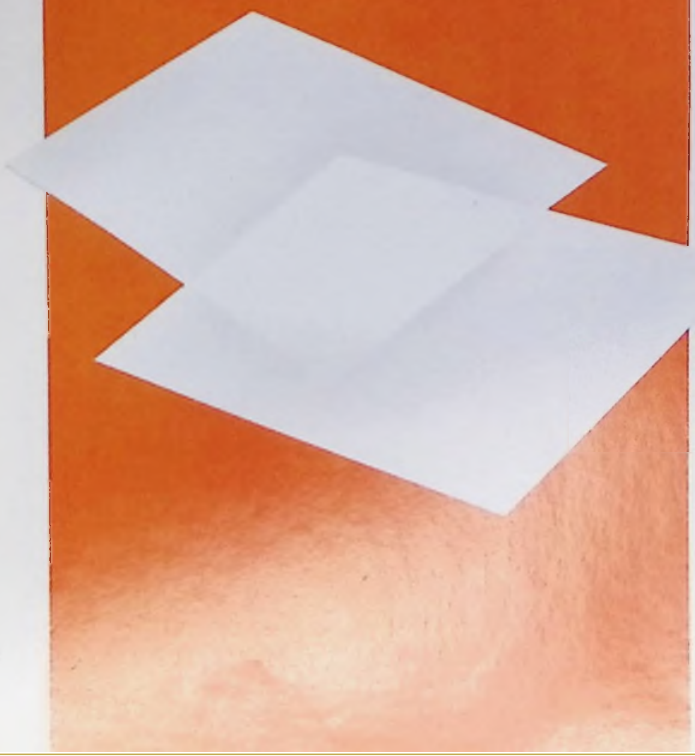
For sulphuric and other strong acids, blue asbestos is generally preferred over white. CHESTERTON STYLE 260 incorporates a blue asbestos fibre that contains no waters of hydration and is chemically pure. When bonded under pressure and vulcanized into a homogeneous sheet, STYLE 260 provides suitable compressibility for gasketing applications against hot or cold mineral acids either alone or in connection with oils or organic solvents.

APPROXIMATE DATA

Thickness		Reorder Product No.	Dimensions		Approx. Wts. ± 10%		Sheets/ Bale
Inches	mm		Inches	m	lbs.	kg.	
1/32"	0,8	26062	50" × 50"	1,27 × 1,27	5	2,27	20
1/16"	1,6	26001	50" × 50"	1,27 × 1,27	10	4,54	10
3/32"	2,4	26066	50" × 50"	1,27 × 1,27	15	6,81	9
1/8"	3,2	26002	50" × 50"	1,27 × 1,27	20	9,08	5

CHESTERTON

CHESTERTON STYLE 2000



SERVICE
2000 — For All Chemicals.

CHESTERTON STYLE 2000 Teflon sheet is made of virgin Teflon. It can resist the severest of chemicals and is useful throughout the entire pH range of 1–14. STYLE 2000 is a highly stable material with uniform thickness and close overall tolerances. It can easily be machined, punched or stamped, to produce parts such as washers, mechanical components, or gaskets. The inherent qualities of Teflon with its low frictional characteristics and non-sticking surfaces make STYLE 2000 the material to be used in a wide variety of applications to 500°F. (260°C.).

APPROXIMATE DATA

Thickness		Weight per Square Foot		Reorder Product No. Available Widths		
Inches	mm	lbs.	kg.	24" × 24"	24" × 48"	48" × 48"
1/64"	0,4	0.20	0.090	2061	2161	2261
1/32"	0.8	0.40	0.180	2062	2162	2262
1/16"	1.6	0.75	0.340	2001	2101	2201
3/32"	2.4	1.20	0.544	2066	2166	2266
1/8"	3.2	1.50	0.680	2002	2102	2202
3/16"	4.8	2.25	1.020	2003	2103	2203
1/4"	6.4	3.00	1.360	2004	2104	2204
3/8"	9.5	4.25	1.750	2006	2106	2206

24" × 24" = 0.610 m × 0.610 m
24" × 48" = 0.610 m × 1.219 m
48" × 48" = 1.219 m × 1.219 m

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6 FLANGE and GASKETING MATERIAL

CHESTERTON

CHESTERTON STYLE 382

Teflon* Fiber Chemical Gasketing



A single role of this versatile gasketing eliminates the costly stocking of a multiplicity of sizes of conventional ring-type Teflon envelope gaskets. It can be cut, shaped, and joined into endless lengths—right on the job! And only an ordinary pencil is needed to make bolt holes, if required.

STYLE 382 is especially suitable for use with glass, glass-lined porcelain, Karbate, FRP or metal flanges where the low flange pressure and flange irregularities require effortless, easy compression of the gasket. Furthermore, no shimming is needed. Tank covers, domes of trucks and tank cars, and pharmaceutical or other vessels offer exceptional opportunities for this versatile gasketing. Because it does not adhere, metal flanges need never be scraped or cleaned; it withstands all chemicals and fuels. Extrusion of the gasket is virtually eliminated because of the high mechanical strength of the braided fibre and its resistance to cold flow.

There are guidelines as to the use of STYLE 382 where temperature and pressure are combined: At a low pressure of 28 PSI (2 Kg/cm²), STYLE 382 is effective slightly above 400°F. (205°C.). However, as the internal vessel pressure is increased, the maximum temperature must proportionately be decreased.

The maximum temperature/pressure combination for STYLE 382 is 200 PSI (14 Kg/cm²) at 250°F. (120°C.). Negative pressures to 28" Hg are permissible.

APPROXIMATE DATA

Sizes		Packaged ± 10%		Reorder Product No.	Lengths / Weight	
Inches	mm	Ft.	M		Ft./lb.	M/kg.
⅛ x ½	3,2 x 12,7	25	7,62	38211	16.0	10,75
		50	15,24	38212	16.0	10,75
		100	30,48	38213	16.0	10,75
		or to order		38214	16.0	10,75
⅛ x 1	3,2 x 25,4	25	7,62	38221	7.7	5,17
		50	15,24	38222	7.7	5,17
		100	30,48	38223	7.7	5,17
		or to order		38224	7.7	5,17
¼ x 1	6,4 x 25,4	15	4,57	38231	5.0	3,36
		25	7,62	38232	5.0	3,36
		50	15,24	38233	5.0	3,36
		or to order		38234	5.0	3,36
¼ x 1½	6,4 x 38,1	25	7,62	38241	3.0	2,01
		50	15,24	38242	3.0	2,01
		or to order		38243	3.0	2,01
¼ x 2	6,4 x 50,8	25	7,62	38251	2.6	1,74
		50	15,24	38252	2.6	1,74
		or to order		38253	2.6	1,74

*DuPont T.M.

SERVICE

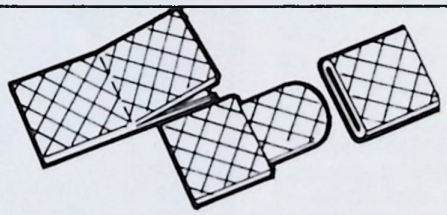
Forms an endless seal for any diameter flange on reactor vessels, tank covers, domes, pipes, etc. Replaces envelope gaskets.

CHESTERTON STYLE 382 is made of a special, tough braided DuPont Teflon fibre that is stronger and more compressible than ordinary sintered resin Teflon.



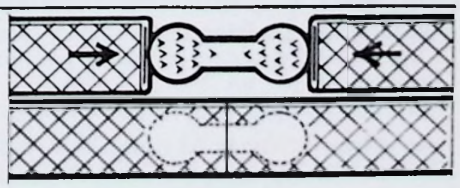
GASKET LIES FLAT

Construction bends to conform perfectly to flange diameter or possible imperfections. Leakage is prevented.



TONGUE TYPE ENDLESS JOINT

Leak-proof joint formed "on-the-job" by cutting and shaping one end to fit into hollow center of other end.



NEW—
BARB CONNECTOR JOINT

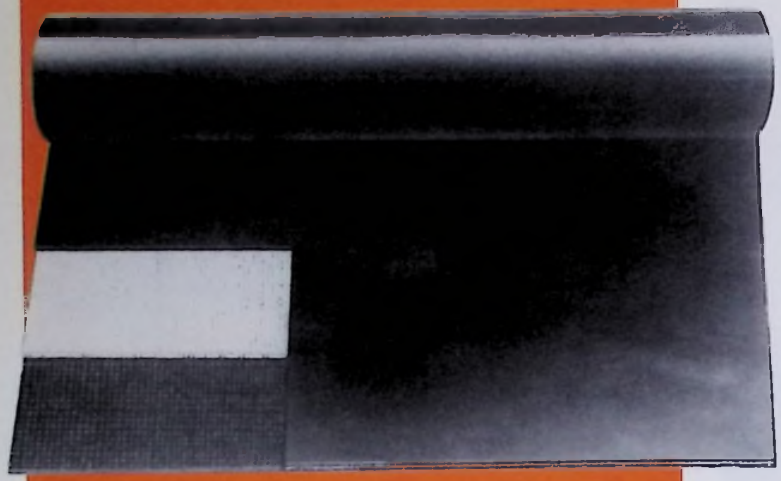
Optional, quick joining method utilizes Chesterton 382 Barb Connector of 316 stainless steel. Slips into open, butt cut ends and holds them firmly together.

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ACL Doc 21272 · Page 56 of 87
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CHESTERTON

CHESTERTON STYLES 120, 122-NN

DIAPHRAGM SHEET



Our regular grade is STYLE 120—and our premium grade heavy-duty oil resistant sheet is our STYLE 122–NN, each described below. The latter is used where pressure, a minimum of extrusion, oil resistance, and resiliency are important.

CHESTERTON STYLE 120
A good grade of diaphragm sheet for general service against steam, water, and gas. Extensively used on regulators and reducing valves. Cover is strong flexible rubber, and the fabric is heavy duck, one ply for each 1/16" of thickness. Furnished in approximate 100# rolls (45,4 kg).

STYLE 120			
		psi	kg / cm²
Mullen Burst Test Data 1/16" thickness over a 2" opening (1,6 mm thickness over a 50,8 mm opening)		150	10,71
Tensile Strength— Cover Compound		900	64,2
Width of Material		42"	1,06 m
Weights per Lineal Yard	Reorder Product No.	42" × 36"	1,1 m × ,91 m
1/16" (1,6 mm)	12001	5.84 lbs.	2,65 kg.
1/8" (3,2 mm)	12002	11.68 lbs.	5,30 kg.
3/16" (4,8 mm)	12003	17.52 lbs.	7,96 kg.
1/4" (6,4 mm)	12004	23.40 lbs.	10,62 kg.
Shore Durometer—60; Elongation 340%			

SERVICE

For Steam, Gas, Air, Oil, Water, Solvents On Regulators, Diaphragm Motors, Reducing Valves, Fuel Pumps

Two different types of diaphragm stock are offered, STYLE 122–NN and STYLE 120. Selection depends upon the service involved. Two factors should be considered: the rubber covering, and the fabric insertion. The purpose of the rubber cover is to seal the fabric against fluid penetration. The type of rubber will depend upon temperature of the fluid and whether or not oil is present. As for the fabric insertion, strength should be combined with flexibility. Additional plies or heavier fabric add to pressure resistance, but the penalty is greater stiffness.

CHESTERTON STYLE 122–NN
Designed for oil and solvents and for excessive pressures where a super-quality diaphragm sheet is indicated. The cover is oil resisting Neoprene. Fabric is Nylon 8.25 oz. double strand 2 × 2 basket weave 33 ×31, 16.5 × 15.5, single ply throughout. While steam has little effect, direct exposure of the fabric insert is necessarily limited to 250°F. (120°C.). Furnished in 100# rolls (45,4 kg).

STYLE 122–NN			
		psi	kg / cm²
Mullen Burst Test Data 1/16" thickness over a 2" opening (1,6 mm thickness over a 50,8 mm opening)		650	46,41
Tensile Strength— Cover Compound		1500	107,1
Width of Material		48"	1,22 m
Weights per Lineal Yard	Reorder Product No.	48" × 36"	1,22 m × ,91 m
1/16" (1,6 mm)	12201	4.88 lbs.	2,22 kg.
1/8" (3,2 mm)	12202	10.20 lbs.	4,63 kg.
3/16" (4,8 mm)	12203	16.00 lbs.	7,26 kg.
1/4" (6,4 mm)	12204	21.40 lbs.	8,71 kg.
Shore Durometer—60; Elongation 340%			

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ACL Doc 21272 · Page 57 of 87
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6 FLANGE and GASKETING MATERIAL

CHESTERTON

CHESTERTON STYLE 124



SERVICE
For water, low pressure steam, non-aromatic solvents to 300°F. (150°C.).

CHESTERTON STYLE 124 is made of oil resistant materials and a fortified carbon black compound for gasketing against fatty oils or solvents and non-aromatic petroleum products. It is medium-soft in density so that it can be employed not only on precision-finished flanges where resistance to gasket flow under heavy bolt loads is a requirement, but also when bolt loads are light or where flanges are irregular.

This quality sheet should be used when oil resistance is an important consideration, or when temperatures are higher than those considered suitable for red rubber sheet packing. Temperature range is approximately 300°F. (150°C.). Furnished 36" (90cm) wide in 100 lb. rolls. (45,4 kg).

APPROXIMATE DATA

Thickness		Reorder	Weights ± 10%		General
Inches	mm	Product No.	lbs./sq. yd.	kg./m²	Information
1/16"	1,6	12401	4.5	2,45	Tensile — 1200 psi (85 kg/cm²)
1/8"	3,2	12402	9.0	4,90	Elongation — 400%
3/16"	4,8	12403	13.5	7,35	Shore Duro — 60 ± 5
1/4"	6,4	12404	18.0	9,80	Density — 1.55
					Color — Black

CHESTERTON STYLE 119



SERVICE
For heavy hydraulic service; low pressure steam.

CHESTERTON STYLE 119 is a black rubber cloth inserted sheet packing of great tensile strength, rendering it especially adaptable to heavy hydraulic service. It may be used generally in place of STYLE 100, if preferred, against hot or cold water, low pressure steam and ammonia to 250°F. (120°C.).

The cloth insertion is on the inside, both sides protected by a rubber cover. Because it resists creeping, STYLE 119 makes an excellent flange gasket for hydraulic work. Furnished 36" (90cm) wide.

APPROXIMATE DATA

Thickness		Reorder	Weights ± 10%		Approx. Weights per Roll	
Inches	mm	Product No.	lbs. per yd.	kg./m²	lbs.	kg.
1/16"	1,6	11901	6	3,3	100	45.4
3/32"	2,4	11966	9	4,9	100	45.4
1/8"	3,2	11902	12	6,5	100	45.4
3/16"	4,8	11903	18	9,8	100	45.4
1/4"	6,4	11904	24	13,0	100	45.4

CHESTERTON STYLE 100



SERVICE
Red rubber gasketing for hot or cold water, low pressure steam, ammonia and air.

CHESTERTON STYLE 100 is a quality red rubber and should not be confused with commercial rubber. It is made from high grade rubber, and compounded so that it remains soft and pliable either in service or in stock. It is particularly suitable and recommended for low pressure or saturated steam, hot or cold water, ammonia, and caustic soda to 250°F. (120°C.). Furnished 36" (90cm) wide.

APPROXIMATE DATA

Thickness		Reorder	Weights ± 10%		Approx. Weights per Roll	
Inches	mm	Product No.	lbs. per yd.	kg./m²	lbs.	kg.
1/16"	1,6	10001	6	3.3	100	45.4
3/32"	2,4	10066	9	4.9	100	45.4
1/8"	3.2	10002	12	6,5	100	45.4
3/16"	4.8	10003	18	9.8	100	45.4
1/4"	6.4	10004	24	13,0	100	45.4

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ACL Doc 21272 · Page 58 of 87
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CHESTERTON

CHESTERTON STYLE 230



SERVICE

To 400 PSI (28,5 kg/cm²) on cylinder heads, diesel engines, flanged joints, on hot gases, saturated steam.

STYLE 230 is a woven asbestos cloth having an insertion of fine brass wire twisted into each strand. The sheet is treated on one side with graphite, and on the other side with a special red adhesive compound to adhere to one surface while easily separating from the other.

Specially processed with heat-resisting material, STYLE 230 is suitable for use in connection with internal combustion engines. Up to 400 PSI (28,5 kg/cm²) saturated steam.

STYLE 230 is furnished as shown, in rolls 40 inches (1,016 M.) wide.

APPROXIMATE DATA								
Thickness		Reorder Product No.	Length per Roll		Weights (± 10%) lbs.		Approx. Weight per Roll	
inches	mm		yds.	M.	per yd.	kg./m²	lbs.	kg.
1/16"	1,6	23001	50	45,7	5	2,77	250	113,4
1/8"	3,2	23002	25	22,8	10	5,55	250	113,4

CHESTERTON

CHESTERTON STYLE 240



SERVICE

To 400 PSI (28,5 kg/cm²) on cylinder heads, diesel engines, flanged joints, on hot gases, saturated steam.

STYLE 240 is manufactured into a hard-woven asbestos cloth incorporating an insertion of fine brass wire twisted into each strand for reinforcement. This sheet is treated with a special white heat-resistant compound which has adhesive qualities.

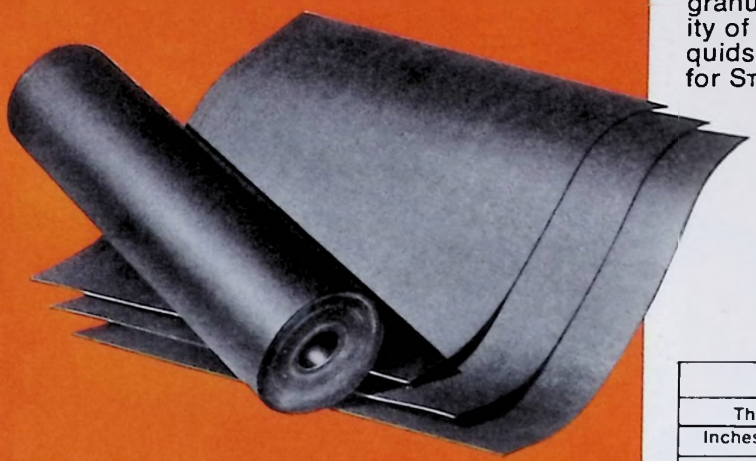
STYLE 240 is fundamentally intended for operation against high pressure steam and superheat on installations requiring a gasket with a narrow flange, or where considerable vibration is in evidence. The reinforced wire insertion renders it especially serviceable on steam cylinder heads having numerous bolt holes disproportionate to the size of the flange. Width 40" (1,016 M.).

APPROXIMATE DATA								
Thickness		Reorder Product No.	Length per Roll		Weights (± 10%) lbs.		Approx. Weight per Roll	
inches	mm		yds.	M.	per yd.	kg./m²	lbs.	kg.
1/16"	1,6	24001	50	45,7	5	2,77	250	113,4
1/8"	3,2	24002	25	22,8	10	5,55	250	113,4

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ACL Doc 21272 · Page 59 of 87
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CHESTERTON

CHESTERTON STYLES 140, 145



SERVICE

For gasketing to 212°F. (100°C.) against water, gasoline, alcohol, lacquers, ketones and other solvents.

STYLE 140 is a vegetable fibre sheet, tan in color, and chemically treated by a special process which renders it impervious to gasoline, oil, grease, coal tar, and water. STYLE 140 is a highly flexible sheet with great resiliency, adaptable to uneven flanges. Width 36 inches. For liquid solutions not to exceed 212°F. (100°C.). NOTE: For those who prefer the inclusion of granulated cork, attention is directed to the availability of STYLE 145. Resilient, highly compressible for liquids in the range of 212°F. (100°C.). Sizes same as for STYLE 140.

APPROXIMATE DATA					
Thickness		Reorder Product No.		Length per Roll	
Inches	mm	140	145	yds.	M
1/64"	0.4	14061	14561	50	45.70
1/32"	0.8	14062	14562	50	45.70
1/16"	1.6	14001	14501	25	22.80
3/32"	2.4	14066	14566	25	22.80
1/8"	3.2	14002	14502	25	22.80
1/4"	6.4	14004	14504	36" Sheets	0.91

CHESTERTON

CHESTERTON STYLES 292, 294, 296



STYLE 292 — Asbestos Wick

A twisted asbestos roving ¼" (6,4mm) in diameter furnished in ½ and 1 lb. balls — 43 ft. per lb. (0,227 Kg. and 0,454 Kg. balls, 5,9 M/Kg.)

STYLE 294 — Candle Wick

A cotton wicking consisting of 12 twisted strands totalling 1/16" (1,6mm) diameter. Furnished in 2 oz. (0,06 Kg.) balls, 5 lbs. (2,27 Kg.) per bag.

STYLE 296 — Asbestos Rope

A durable twisted material for blowoff pipes and general gasketing. Furnished in 25 lb. (11,35 Kg.) and 50 lb. (22,7 Kg.) packages.

APPROXIMATE DATA				
Style	Size		Reorder Product No.	
	Inch	mm	½ lb. (0.227 kg.)	1 lb. (0.454 kg.)
292	¼"	6.4	29201	29200
294	1/16"	1.6	29401	
			25 lb. (11.35 kg.)	50 lb. (22.7kg.)
296	¼"	6.4	29604	29654
	3/8"	9.5	29606	29656
	½"	12.7	29608	29658
	5/8"	15.9	29610	29660
	¾"	19.1	29612	29662
	7/8"	22.2	29614	29664
	1"	25.4	29616	29666
	1¼"	31.7	29620	29670
	1½"	38.1	29624	29674
	2"	50.8	29632	29682

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ACL Doc 21272 · Page 60 of 87
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6 FLANGE and GASKETING MATERIAL

CHESTERTON

CHESTERTON STYLES 250, 251



STYLE 250 MANHOLE and STYLE 251 HANDHOLE GASKETS are an old, reliable, time-tested standard. These superior gaskets are fabricated from long fibres of selected Canadian asbestos, through the yarn of which is spun a fine brass wire which gives these gaskets added reinforcement and strength.

It is noteworthy that 250 and 251, though containing the same amount of asbestos as other reputable brands, are generally lighter in weight. This difference is due to the fact that 250 and 251 contain ample friction compounds, but are not loaded with weight-adding compounds. This results in an economical gasket which will make up and remain tight, assuring maximum service. Compare their performance with that of other gaskets and thus determine to your own satisfaction that 250 and 251 offer more value in dependable gasket service.

SERVICE

Manhole and handhole gaskets for boilers and other applications.

STOCK SIZES of 250 & 251 GASKETS, Standard 4-Ply 1/4" (6,4 mm) Thickness. 12 pieces of a size per box.

APPROXIMATE DATA		
Sizes		[1]Reorder Product No.
Inches	mm	
10 x 14 x 1	254,0 x 355,6 x 25,4	25126
10 x 14 x 1¼	254,0 x 355,6 x 31,7	25127
10 x 15 x 1	254,0 x 381,0 x 25,4	25128
10 x 15 x 1¼	254,0 x 381,0 x 31,7	25129
10½ x 14½ x 1¼	266,7 x 368,3 x 31,7	25130
10½ x 15 x 1	266,7 x 381,0 x 25,4	25131
10½ x 15 x 1¼	266,7 x 381,0 x 31,7	25132
11 x 14 x 1¼	279,4 x 355,6 x 31,7	25133
11 x 14½ x 1¼	279,4 x 368,3 x 31,7	25134
11 x 15 x 1	279,4 x 381,0 x 25,4	25135
11 x 15 x 1¼	279,4 x 381,0 x 31,7	25136
12 x 15 x 1	304,8 x 381,0 x 25,4	25137
12 x 15 x 1¼	304,8 x 381,0 x 31,7	25138
12 x 16 x 1	304,8 x 406,4 x 25,4	25139
12 x 16 x 1¼	304,8 x 406,4 x 31,7	25140

[1]Reorder Product Number is per piece.

APPROXIMATE DATA		
Sizes		[1]Reorder Product No.
Inches	mm	
2½ x 3 x 5/16	63,5 x 76,2 x 15,9	25027
2½ x 3½ x ½	63,5 x 88,9 x 12,7	25001
2½ x 3½ x 5/8	63,5 x 88,9 x 15,9	25002
2½ x 4 x ½	63,5 x 101,6 x 12,7	25003
3 x 3½ x 5/8	76,2 x 88,9 x 15,9	25004
3 x 4 x ½	76,2 x 101,6 x 12,7	25005
3 x 4 x 5/8	76,2 x 101,6 x 15,9	25006
3 x 4 x ¾	76,2 x 101,6 x 19,1	25007
3 x 4½ x ½	76,2 x 114,3 x 12,7	25008
3 x 4½ x 5/8	76,2 x 114,3 x 15,9	25009
3 x 5 x ½	76,2 x 127,0 x 12,7	25010
3 x 5 x 5/8	76,2 x 127,0 x 15,9	25011
3 x 5 x ¾	76,2 x 127,0 x 19,1	25012
3½ x 4 x ½	88,9 x 101,6 x 12,7	25013
3½ x 4 x 5/8	88,9 x 101,6 x 15,9	25014
3½ x 4½ x ½	88,9 x 114,3 x 12,7	25015
3½ x 4½ x 5/8	88,9 x 114,3 x 15,9	25016
3½ x 4½ x ¾	88,9 x 114,3 x 19,1	25017
3½ x 5 x 5/8	88,9 x 127,0 x 15,9	25018
3½ x 5½ x 5/8	88,9 x 139,7 x 15,9	25019
4 x 5 x 5/8	101,6 x 127,0 x 15,9	25020
4 x 5 x ¾	101,6 x 127,0 x 19,1	25021
4 x 5½ x ¾	101,6 x 139,7 x 19,1	25022
4 x 6 x 5/8	101,6 x 152,4 x 15,9	25023
4 x 6 x ¾	101,6 x 152,4 x 19,1	25024
4½ x 6½ x ¾	114,3 x 165,1 x 19,1	25026
6 x 8 x ¾	152,4 x 203,2 x 19,1	25025
6 x 8 x 1	152,4 x 203,2 x 25,4	25028

[1]Reorder Product Number is per piece.

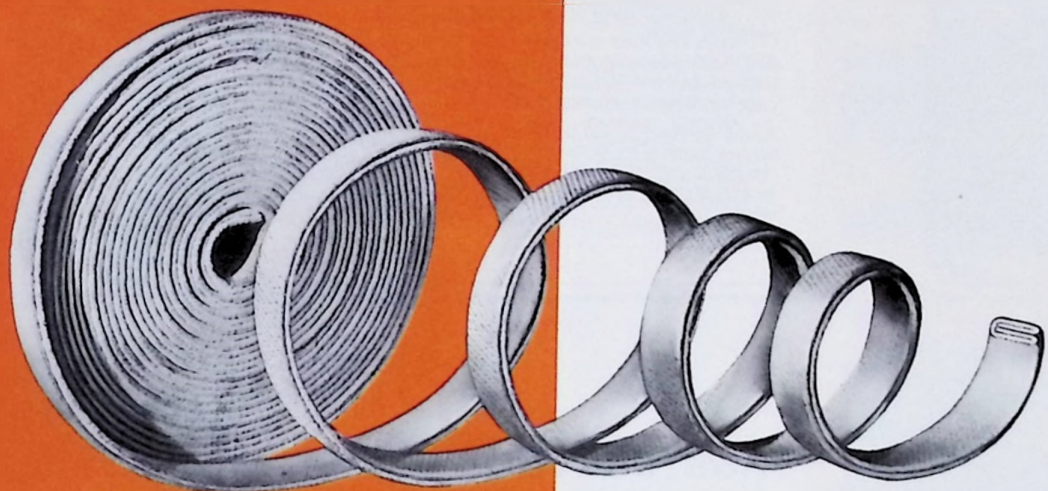
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ACL Doc 21272 · Page 61 of 87
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CHESTERTON

CHESTERTON STYLES 290, 291–N

GASKET TAPES

STYLE 290 GASKET TAPE is manufactured from brass wire inserted asbestos cloth coated with a heat resisting rubber compound, white in color. This tape serves a useful purpose in functioning as a high pressure steam gasketing material. Typical installations are the doors or covers of heaters, vulcanizers, kettles, cylinder heads, retorts. It will withstand the wear and abrasion where steam doors must be opened many times daily.



For creosote or solvents which normally attack heat resisting rubber compounds, specify STYLE 291–N. This style is fabricated as above except that Neoprene is used in place of a rubber compound, and it is black in color instead of white.

Gasket tape is furnished in any width, and in thicknesses ranging from 1/16" to 1½" (1,6mm to 38,1 mm). May be had in a variety of shapes and dimensions—and in square form from ⅜" to 1½" (9,5 mm to 38,1mm). All tape is made only to special order.

SERVICE

To 400 P.S.I. (28 Kg/cm²) on Cookers, Autoclaves, Vulcanizers, Groove Flanges, Door Gasketing, Against Steam, Air, Gas, Oil, Creosote, Alkalies

STYLES 290, 291–N	
Style	Reorder Product No.
290	290
291–N	291

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ACL Doc 21272 · Page 62 of 87
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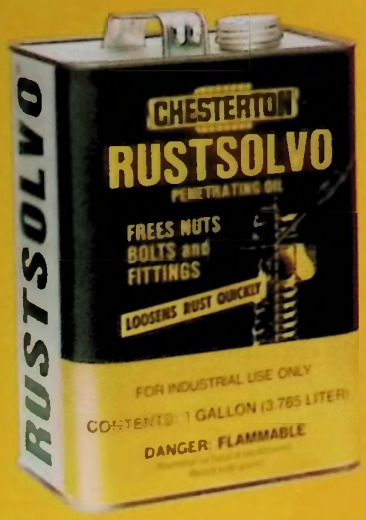
CHESTERTON SPRASOLVO

CHESTERTON SPRASOLVO is a uniquely formulated rust busting compound which penetrates quickly and effectively so that nuts may be quickly loosened. SPRASOLVO will loosen not only rust but also red and white lead, tars, greases, dirt, carbon deposits, graphite, corrosion, etc., without injury to the basic metal, paint or wood.

SPRASOLVO may be sprayed in any direction so that virtually all applications can be effectively reached.

Allow SPRASOLVO to penetrate anywhere from 5 to 60 seconds, depending on the condition of the application, prior to attempting loosening of rusted or corroded nuts.

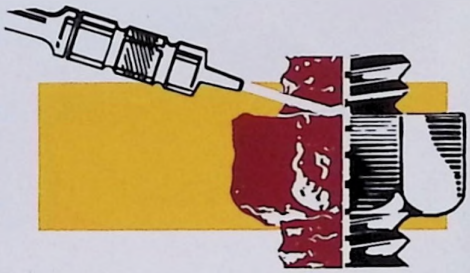




RUSTSOLVO

CHESTERTON RUSTSOLVO is the same unique compound as Chesterton Sprasolvo, only packaged in convenient pints, quarts, 5 gallon cans and 55 gallon drums.

RUSTSOLVO is free-flowing under all weather conditions.





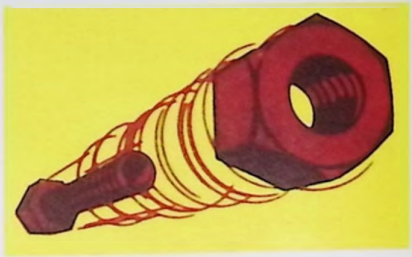
CHESTERTON PENETRANT & LUBRICANT
(For Food Machinery)

CHESTERTON PENETRANT & LUBRICANT is designed for use on food plant or general plant equipment. It complies with Section CFR 121.2589(B) of Food and Drug Administration's Regulations for "food additives resulting from contact with containers or equipment and food additives otherwise affecting food."

CHESTERTON PENETRANT & LUBRICANT is a highly effective formula developed especially for use on conveyors, mixers and other food processing equipment. It penetrates rust, scale, dirt, etc., to loosen nuts, bolts and fittings. It is an efficient and safe general purpose lubricant. The pressurized can may be sprayed upward to overhead bolts or sideways into countersunk nuts.

Accepted by the Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA).

CHESTERTON PENETRANT & LUBRICANT provides a spray that will reach inaccessible places that gravity poured liquids will not reach. Contains no acid. Has no unpleasant odor.



For Reorder Product Numbers see page 72

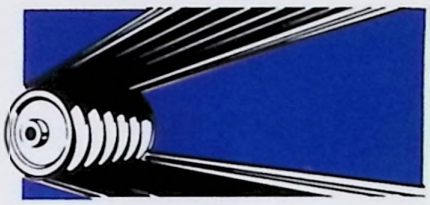
Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 63 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/63



CHESTERTON SPRAGRIP

CHESTERTON SPRAGRIP is a unique belt dressing compound designed to increase belt pulling power up to 50%.

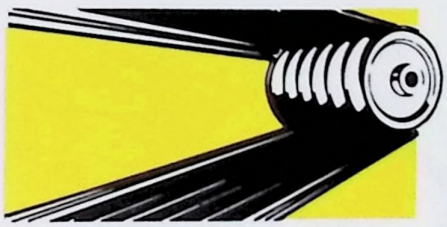
This remarkable product differs in formulation and action from all other belt dressings. It produces immediate results that are not lost due to aging, oxidizing, hardening, or drying out. Its non-slip surface is retained by just an occasional further application. SPRAGRIP is an effective treatment for V-belts in a modern pressurized applicator can. Just press the button to spray easily and safely the sheaves of V or round belts. The directional spray also makes it ideal for treating hard-to-reach inner surfaces of flat belts. SPRAGRIP has been job tested in nearly every conceivable industry during the past few years and has unquestionably proven itself to be a vastly superior belt treatment for flat and V-belts of leather, rubber or fabric. It is successfully used indoors and outdoors where it combats belt slippage due to heat, cold, dampness or dust. It contains no asphalt oil or rosin and therefore gives belts longer life. Follow directions on label.





CHESTERTON BELT-FLO

CHESTERTON BELT-FLO is the same compound as Chesterton Spragrip but in a pour can. CHESTERTON BELT-FLO is equally effective in ending slippage, in preserving belts, preventing their hardening and eliminating the collection of dirt. CHESTERTON BELT-FLO is especially recommended for large, wide, flat belts. CHESTERTON BELT-FLO is packaged in pints, quarts, 5-gallon cans, and 55-gallon drums. Follow label directions carefully.





CHESTERTON COLD GALVANIZING COMPOUND

CHESTERTON COLD GALVANIZING is a smooth flowing zinc-rich compound which dries to a flexible, non-cracking coating to protect all iron and steel surfaces. The zinc in CHESTERTON COLD GALVANIZING COMPOUND acts as a sacrificial metal protecting iron (steel) against the rusting effects of water. This action also forms zinc oxide which is itself insoluble in water and forms a secondary protective coating.

CHESTERTON COLD GALVANIZING COMPOUND protects welds on both bare metal or previously galvanized surface. It may also be used as a touch-up for marred, hot-galvanized surfaces.

CHESTERTON COLD GALVANIZING COMPOUND forms an excellent base for paints or it may be left as the final protective coating.

CHESTERTON COLD GALVANIZING COMPOUND may be used on industrial equipment, piping, ducts, structural work, water tanks, automotive works, marine applications, etc. It may be used indoors or outdoors — above ground or under ground — above or below water.



For Reorder Product Numbers see page 72

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 64 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/64

CHESTERTON ANTI-SEIZE COMPOUND



CHESTERTON ANTI-SEIZE is a high temperature, extreme pressure sealant designed to speed maintenance work while reducing down time and saving parts. CHESTERTON ANTI-SEIZE COMPOUND permits firmer tightening, easier opening, at reduced torque requirements. It will save threads and parts from galling, distorting and breaking while guarding against rust and corrosion. CHESTERTON ANTI-SEIZE is made from a pure copper base, and it plates mating surfaces to prevent parts from fusing or welding together under pressure. CHESTERTON ANTI-SEIZE COMPOUND leaves no abrasive carbon residue so it will not wear out protected surfaces. CHESTERTON ANTI-SEIZE COMPOUND is effective to 2200°F. (1200°C.) at extremely high pressures and may be used on a great variety of applications to reduce wear and to extend equipment life. Meets MIL-A-907D.



CHESTERTON NICKEL ANTI-SEIZE COMPOUND



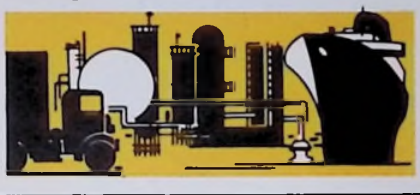
CHESTERTON NICKEL ANTI-SEIZE COMPOUND is an extremely corrosion-resistant, high temperature, extreme pressure sealant which may be used on a wide variety of equipment applications to speed maintenance work, reduce down time, and save wear on parts.

CHESTERTON NICKEL ANTI-SEIZE COMPOUND offers maximum resistance to corrosion, high heat and aging. It is superior to Copper Base Anti-Seize Compound in applications subject to severe conditions. Its extremely fine dispersion of pure nickel fills minute indentations and completely covers mating surfaces with a non-aging, lubricating, parting film.

CHESTERTON NICKEL ANTI-SEIZE COMPOUND is resistant to acids, alkalies, and chemicals, yet capable of withstanding temperatures to 2600°F. (1430°C.) under extreme pressures.

CHESTERTON NICKEL ANTI-SEIZE COMPOUND is similar to Chesterton Copper Base Anti-Seize Compound except CHESTERTON NICKEL ANTI-SEIZE COMPOUND is recommended for higher temperatures, more severe corrosive conditions and where metallic copper is incompatible.

CHESTERTON NICKEL ANTI-SEIZE COMPOUND is designed to protect mating surfaces against seizure, galling, rusting, corrosion, pitting, galvanic action and to eliminate costly thread and parts breakage.



CHESTERTON MOISTURE SHIELD



CHESTERTON MOISTURE SHIELD is a new type of conditioner for both old and new metal.

On clean metal surfaces, CHESTERTON MOISTURE SHIELD displaces condensation, penetrates metal's pores, works into close tolerances and deep recesses. A transparent, thin film is left that protects against moisture, salt spray, industrial corrosive atmospheres, etc. Don't repair equipment and place it back in service only to corrode again. If you can't paint it, shield it, with MOISTURE SHIELD protective coating. Leaves an excellent lubricative film that resists oxidation for months, −100°F. to 300°F. (−75°C. to 150°C.). (Lubricant is a synthesized formula used in space vehicles.) Protects bare metal parts in process, transit or storage against dirt, corrosion or fingerprinting.

On corroded metal surfaces, CHESTERTON MOISTURE SHIELD penetrates to loosen rust and corrosion. With extremely low surface tension, it creeps under moisture and water and even into the metal's pores. It leaves a protective shield to stop further deterioration until corrective action can be taken.

On electrical equipment, CHESTERTON MOISTURE SHIELD cleans and dries metal, rubber, and most plastic surfaces without affecting electrical characteristics. Compressed air can be used to speed drying of displaced moisture. Highly effective after floods and in humid conditions.



For Reorder Product Numbers see **page 72**

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 65 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/65

CHESTERTON CLEAR PROTECTIVE COATING

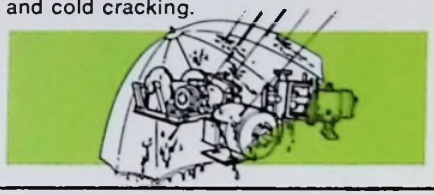


CHESTERTON CLEAR PROTECTIVE COATING is designed for use in industrial, commercial and marine applications.

CHESTERTON CLEAR PROTECTIVE COATING (CPC) applies as a crystal clear, colorless, transparent, hard shield which resists the elements, waterproofs, prevents rust and corrosion, and can keep metal surfaces new and shiny for years. It adheres to all clean metals, wood, paper, and forms a tough, hard-wearing film to protect against wear, handling and abrasion. It resists salts, mild acids and alkalies- also screens out ultra-violet rays of the sun to retard bleaching.

CHESTERTON CPC is an indispensable maintenance product used for the quick protection of nearly any material that will be subject to corrosion from air, smog, water, salt spray, most chemicals. It forms a continuous, clear acrylic coating that protects the surface finish or printing, on components, piping, boxes, instruments, enclosures, hardware, ship's chrome, and hundreds of other items. It also moistureproofs electrical connectors, spark plugs, battery terminals, ignition and high voltage wires.

CHESTERTON CPC conforms to Federal Specification TT-L-50F which requires products to contain no toxic substances, dry dust-free in five minutes maximum, have resistance to water immersion, self-lifting, and to be tested for flexibility and cold cracking.

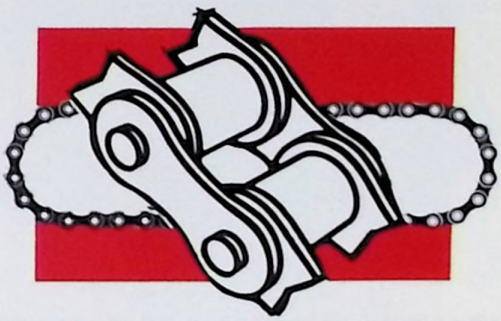


CHESTERTON CHAIN DRIVE PIN & BUSHING LUBRICANT



CHESTERTON CHAIN DRIVE PIN & BUSHING LUBRICANT is specially formulated to penetrate between the close tolerances of chain drive bushings. The pins — usually starved for oil — take on a new life — run smoothly with far less wear. The tremendous penetrating properties of CHESTERTON CHAIN DRIVE PIN & BUSHING LUBRICANT make it effective in even small amounts. Its directional spray lets it be applied safely to moving chains. Also lubricates any open bearing. (Keep hands away from moving chains.)

NOTE: To cushion metal-to-metal contact between sprocket and chain (or between open gear faces) use CHESTERTON SPRAFLEX — extra-pressure, wear-shield lubricant.

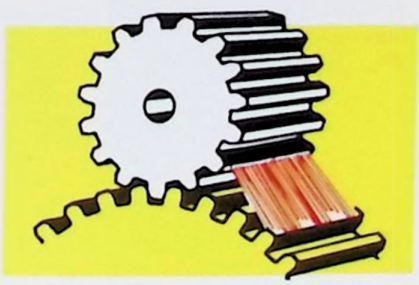


CHESTERTON SPRAFLEX



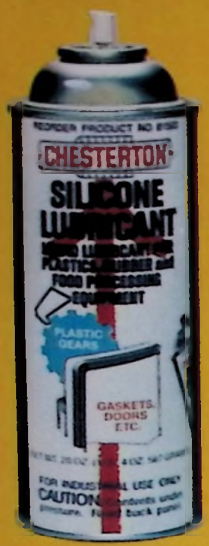
CHESTERTON SPRAFLEX is a complex blend that lubricates and protects wearing surfaces, reduces wear and noise. Where extreme pressures would extrude ordinary oils or greases, SPRAFLEX bonds a wear-shield to metals, thus holding a cushion of lubrication between friction surfaces. Not only does SPRAFLEX resist extrusion, it constantly replaces its own lubricant every revolution by forming an elastic retractable film. It waterproofs and rustproofs, excellent on any metal parts, tools, machines, etc.

NOTE: To lubricate internal bushings and pins, use CHESTERTON CHAIN DRIVE PIN & BUSHING LUBRICANT.



For Reorder Product Numbers see page 72

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 66 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/66



CHESTERTON SILICONE LUBRICANT

CHESTERTON SILICONE LUBRICANT is an efficient lubricant for mechanical parts constructed of plastics, rubber, neoprene, laminated fabrics, wood, etc. It can also be safely used on metals or on metal-to-synthetics friction areas to lubricate and reduce wear. It provides a slippery, long-lasting, continuous film that stays clean and leaves no stain, oily ring or gummy residue. It is non-evaporating at room temperatures and is effective from −40°F. to 400°F. (−40°C. to 205°C.). It penetrates surfaces of porous synthetics, rubber, fabrics, wood, etc., to lubricate, prevent sticking and make them water resistant. It is non-toxic.

Accepted by the Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA).

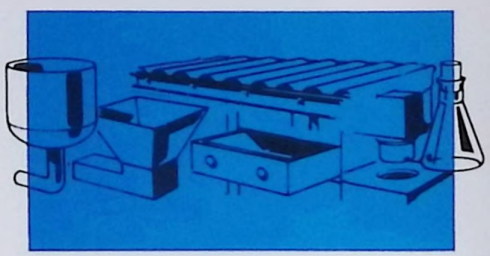




CHESTERTON TEFLON COATING

CHESTERTON TEFLON COATING contains pure Teflon specially combined with an acrylic carrier to provide a coating which both protects and lubricates. It resists surface attack of many mild acids and alkalies, water, and some solvents, yet is greaseless, non-staining and will not easily rub off.

CHESTERTON TEFLON COATING provides a slippery coating for many surfaces and may be used as a long-lasting, general purpose lubricant for metals, plastics, wood, leather, rubbers, glass or painted surfaces. It can be applied to virtually all types of equipment to increase *slipper-ability* or where lubricants that stain are a problem.



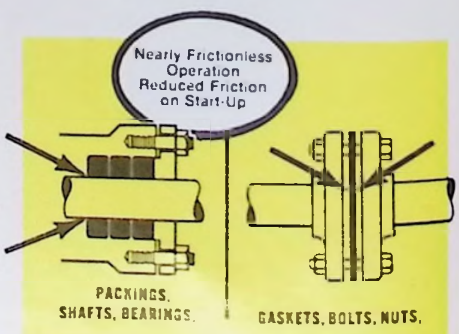


CHESTERTON DRY LUBRICANT FET

CHESTERTON DRY LUBRICANT is a new type of all-purpose lubricant effective to 400°F. (204°C.). One of the slipperiest substances known to science (DuPont's fluorocarbon telomer) is used to form a light surface lubricant on any material — wood, metal, leather, plastic, elastomers, fibers, glass, etc. A thin coating is easily and economically applied by a pressurized spray. It can be applied on any dry surface.

Excellent breaking-in lubricant for packing and gaskets . . . prevents sticking. A light coating of CHESTERTON DRY LUBRICANT on the wearing surfaces of packing and shaft will provide reduced friction at start-up and as a result it greatly extends packing life.

For a longer lasting surface lubricant, use CHESTERTON TEFLON COATING.



For Reorder Product Numbers see page 72

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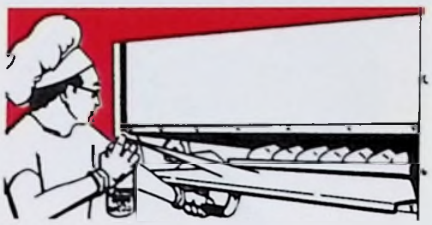
CHESTERTON SILICONE SPRAY COMPOUND

CHESTERTON SILICONE SPRAY COMPOUND is a specially thickened product which outlasts silicone oils as a release agent and lubricant. It leaves a heavier grease-like film, unlike oils which tend to spread and thin out.

CHESTERTON SILICONE SPRAY COMPOUND is a high-temperature compound in easy-to-use spray can for food handling containers and machinery. Lubricates and prevents food from sticking to ovens, freezers, baking pans, soup kettles, conveyors, bottlers, etc.

CHESTERTON SILICONE SPRAY COMPOUND can be used in contact with fresh, frozen, cooked or baked foods. Meets requirements under FDA Regulation 121.1058, "food additives permitted for human consumption," and Regulations 121.2531 and 121.2553, when used as directed.

CHESTERTON SILICONE SPRAY COMPOUND is also highly recommended for General Purpose and industrial applications, and as a heavy-duty mold release for aircraft/automotive plastics, rubbers, etc. It keeps glue, wax and adhesives from sticking to heat-sealing bars, paper and plastic film processing equipment. It is non-corrosive, and can be used in hundreds of applications where a stable, thickened silicone compound is needed.





CHESTERTON FREEZE SPRAY

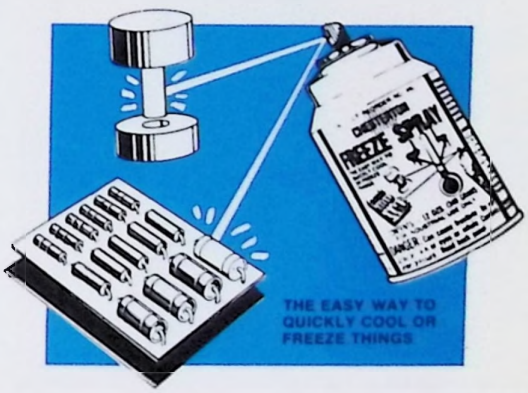
CHESTERTON FREEZE SPRAY is a special multi-purpose product designed to quickly cool or freeze small items.

CHESTERTON FREEZE SPRAY can be used by electronic technicians for rapid cooling of individual components during trouble shooting of intermittent faults. An extension tube is provided for small, hard-to-reach components.

CHESTERTON FREEZE SPRAY is excellent for machinists and mechanics to use during shrink fitting of bearings, sleeves, and dowel pins. By cooling and shrinking one part of an assembly, it may not be necessary to use *dangerous* heating or open flame to accomplish the needed differential dimensions.

CHESTERTON FREEZE SPRAY is used for making frozen cryostat sections for biomedical laboratory analysis.

This unique product is non-flammable, leaves no residue, and cools rapidly down to −50°F. (−42°C.).





CHESTERTON ELECTRIC MOTOR CLEANER

Avoid the hazardous fumes of carbon-tet cleaning by using this safe, new CHESTERTON ELECTRIC MOTOR CLEANER. It will dissolve grease and sludge accumulations on nearly any type of electrical or electrically powered equipment. Spray it into all parts of motors — inside and out — windings, armatures, contacts, casings, etc. A clean armature prevents sparking and arcing and delivers full energy especially important to hand power tools.

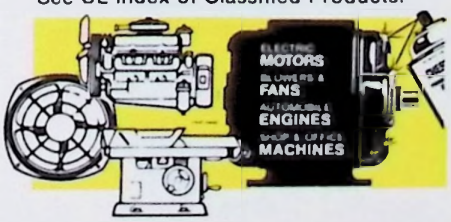
CHESTERTON ELECTRIC MOTOR CLEANER may be sprayed on surrounding drives, structures and machinery to loosen greasy dirt anywhere.

CHESTERTON ELECTRIC MOTOR CLEANER is designed to safely dissolve oils and greases, and to loosen dirt deposits without harming electrical wiring, contacts, insulation, or rubber parts.

CHESTERTON ELECTRIC MOTOR CLEANER will not cause moisture condensation.

On plastic, paint or rubber parts it is suggested that a small area be tested prior to full application. CHESTERTON ELECTRIC MOTOR CLEANER may be sprayed into operating motors and equipment without harmful effects. Follow directions on label.

Classified by Underwriters' Laboratories, Inc. as to fire hazard only. CHESTERTON PRESSURIZED ELECTRIC MOTOR CLEANER AND DEGREASER. Spray does not propagate flames. Deposited liquid residue is classed 5 to 10, less hazardous than paraffin oil in respect to fire hazard. See UL Index of Classified Products.



For Reorder Product Numbers see page 72

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 68 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/68



CHESTERTON MOTOR DEGREASER

CHESTERTON MOTOR DEGREASER is designed to remove greases, oils and dirt deposits by totally immersing the soiled parts in the DEGREASER tank.

This economical solvent contains no hazardous carbon-tet yet it quickly and thoroughly cleans electric motors, fans, engines, shop and office machines. The penetrating and cleaning power of CHESTERTON MOTOR DEGREASER quickly and thoroughly reaches into all parts and components to dissolve and remove heavy dirts, greases, and other power-robbing soils which can reduce efficiency and shorten machine life.

By treating your machines and motors to the two-part treatment of CHESTERTON MOTOR DEGREASER followed by application of the proper high quality CHESTERTON OIL or LUBRICATING GREASE, higher efficiencies, longer machine life, and lower costs can result.

On plastic, paint or rubber parts it is suggested that a small area be tested prior to full application. Always use adequate ventilation and do not use near open flame or live electrical circuits.





CHESTERTON ELECTRO CONTACT CLEANER

CHESTERTON ELECTRO CONTACT CLEANER is a 100% volatile solvent which dissolves accumulated oils, loosens dust and dirt. The force of the spray helps flush waste away, leaving no residue. Electrical contact surfaces are cleaner for trouble-free operation.

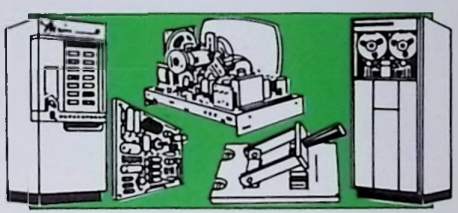
CHESTERTON ELECTRO CONTACT CLEANER can be used on production lines and by maintenance men to clean fouled switches and relays.

CHESTERTON ELECTRO CONTACT CLEANER is non-flammable with no flash point. It has no fire point, is non-conductive, and may be sprayed into operating equipment.

CHESTERTON ELECTRO CONTACT CLEANER contains no lubricants; only high purity halogenated hydrocarbon which leaves no residue, and it is non-staining, odorless, and will not harm electrical insulation, metals, plastics or elastomers.

CHESTERTON ELECTRO CONTACT CLEANER also cleans accumulated oil, dust and dirt from levers and switches of electromechanical devices.

CHESTERTON ELECTRO CONTACT CLEANER can be used on coin-op machines, TV and radio equipment, electrical switches and relays, telephone equipment, printed circuit boards, computers, tape heads, magnetic tape, motors, instruments, bearings, office machines, calculators, cash registers, etc.





CHESTERTON MOLD RELEASE

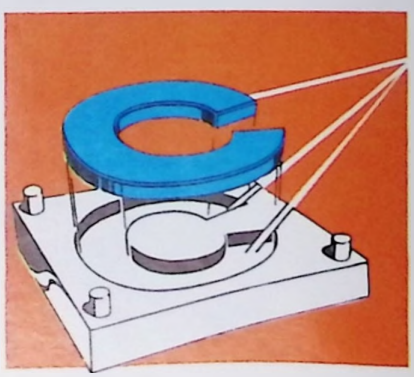
The "WET LOOK" — high gloss finish

CHESTERTON MOLD RELEASE is a new and highly effective release agent. It produces especially fine results with hard-to-release materials such as polyurethane but can also be used as a general purpose agent.

CHESTERTON MOLD RELEASE helps prevent sticking on straight sides or tearing on thin sections, helps eliminate orange peel and blisters, will not oxidize or carbonize, keeps molds in service longer, reduces stripping cycle, is easily applied, speeds work and increases production, gives multiple releases with one application from molds of aluminum, steel, etc., on cast, compression or injection molding operations.

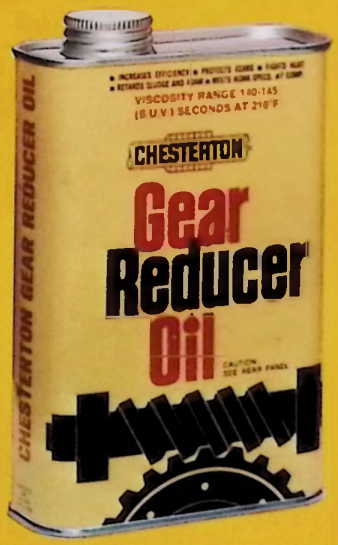
CHESTERTON MOLD RELEASE is effective from room temperature to 300°F. (150°C.) yet has no flash point as supplied. Release film deposited on mold has a flash point of 530°F. (275°C.).

With CHESTERTON MOLD RELEASE, if a thin coat is required, it will not alter mold dimensions or details.



For Reorder Product Numbers see **page 72**

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 69 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/69



CHESTERTON GEAR REDUCER OIL

This high performance lubricant for enclosed worm gear reducers holds its viscosity at elevated temperatures. It meets American Gear Manufacturers Association Specs. #7 compounded for lubrication of enclosed gearing. It is the first worm gear lubricant packaged in convenient, easy-to-use cans that keep the oil clean and available at every location. It is compounded to meet requirements for complete lubrication and maximum protection. Recommended for break-in and for oil changes every 1,000 hours thereafter.





CHESTERTON DETERGENT LUBRICATING OIL

CHESTERTON DETERGENT LUBRICATING OIL is a premium all-purpose lubricant. It has a super-active built-in formula which keeps it moving until it finds hidden friction areas.

Ordinary lubricating oils are not detergent; do not creep and spread; work only in ideal conditions. CHESTERTON DETERGENT LUBRICATING OIL IS SUPERIOR: Detergent and solvent additives wash dirt and particles from critical machinery wear surfaces, increase spreadability as the compound works its way into clogged or close tolerance areas leaving a load carrying film. Unique dual action produces remarkable results. Recommended for fine machinery, instruments, tools, etc., and as a general purpose industrial and marine lubricant.





CHESTERTON CARBON & VARNISH REMOVER

CHESTERTON CARBON & VARNISH REMOVER is a high speed remover of carbon, varnish or paint from electric motors, engine parts and accessories.

CHESTERTON CARBON & VARNISH REMOVER quickly loosens carbon deposits, dirt, grease, varnish and paints without harming machine metals.

CHESTERTON CARBON & VARNISH REMOVER when placed in a cleaning tank may be used over and over as it has extra strength for extended usage.

CHESTERTON CARBON & VARNISH REMOVER may be used to strip engines, electric motors, pump housings, etc.



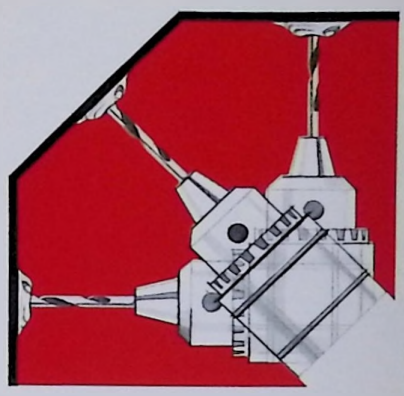
For Reorder Product Numbers see page 72

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 70 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/70

CHESTERTON AWC CUTTING OIL



CHESTERTON AWC CUTTING OIL is an entirely new cutting concept; a reinforced, heavy bodied compound formulated from chlorinated paraffin and sulphurized oils, which do not run off the work. CHESTERTON AWC CUTTING OIL gives an amazing performance working with soft metals like aluminum or brass or with the difficult stainless steels. CHESTERTON AWC CUTTING OIL can be sprayed on hard to lubricate areas such as the inside threading of pipe. Many users report a can of CHESTERTON AWC CUTTING OIL goes as far as a gallon of ordinary cutting oil because it is directed to the cutting area without unnecessary waste. For faster, easier, cleaner and more economical work specify CHESTERTON AWC CUTTING OIL.



CHESTERTON TAPPING COMPOUND



CHESTERTON TAPPING COMPOUND — prevents galling (self-welding of cut chips back to the parent metal). Galling is the main cause of broken taps and rough threads.

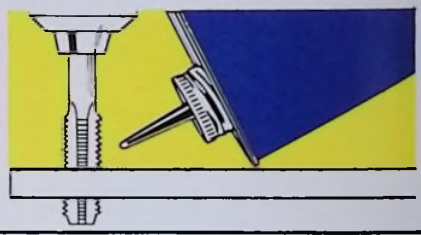
CHESTERTON TAPPING COMPOUND gives "Break-Free" tapping for all sizes of threads. The tap moves easily through the metal giving longer life to tap and die tools.

It is effective for all machine and hand tool operations that demand smooth finishes and close tolerance results. Especially effective for dryseal threads that must be true and tight.

CHESTERTON TAPPING COMPOUND evaporates to dryness, allowing all chips to be easily removed from the work and tools with a short compressed air application. It eliminates the need for costly secondary cleaning operations to remove chips from the work piece.

Also eliminates need to brush the tap or die to remove chips, thus greatly increasing tool life.

For aluminum tapping specify CHESTERTON ALUMINUM TAPPING COMPOUND.



CHESTERTON ALUMINUM TAPPING COMPOUND



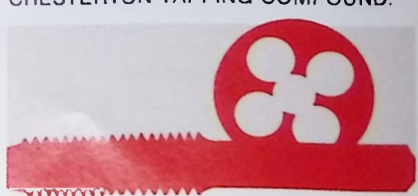
CHESTERTON ALUMINUM TAPPING COMPOUND is specially formulated to give "Break-Free" tapping and threading for pure aluminum and all aluminum alloys. Recommended for all sizes of tapped holes, threaded rods, piping, and tubing.

Prevents galling (self-welding of cut chips back to the parent metal). Galling is the main cause of broken taps and rough threads.

CHESTERTON ALUMINUM TAPPING COMPOUND contains only lubricants which are fully compatible with aluminum. Other tapping compounds or cutting oils may contain chlorinated hydrocarbons which can cause corrosion of aluminum resulting in short tool life and poor thread finish. CHESTERTON ALUMINUM TAPPING COMPOUND contains no chlorinated hydrocarbons and thus provides longer tool life and results in high-quality thread finishes.

CHESTERTON ALUMINUM TAPPING COMPOUND is clear and colorless. Leaves no dark residue as many other cutting oils do. It is effective for all machine and hand tool operations that demand smooth finish and close tolerance results.

For tapping or threading steel, brass, stainless, or other metals, specify regular CHESTERTON TAPPING COMPOUND.



For Reorder Product Numbers **see page 72**

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CHESTERTON INDUSTRIAL & MARINE SOLVENT

CHESTERTON INDUSTRIAL & MARINE SOLVENT is a new water soluble, multi-purpose detergent cleaner. It penetrates, emulsifies, and removes dirt, oil, wax, gasoline, mildew, bilge scum, grease and grime.

CHESTERTON INDUSTRIAL & MARINE SOLVENT is designed for use in maintenance and clean-up operations in ships, automotive and machine shops, hospitals, schools, institutions, and general industrial and commercial buildings. It will not pollute water systems as it is biodegradable. Can economically be diluted up to 15 times with ordinary water and still be effective.

CHESTERTON INDUSTRIAL & MARINE SOLVENT is safe to use as it contains no hazardous solvents and is absolutely non-flammable.

CHESTERTON INDUSTRIAL & MARINE SOLVENT can be easily applied by spray, mop, brush, or wipe for fast, easy cleaning. It wipes clean or can be rinsed off with water. Leaves no oily film.





CHESTERTON WHITE GREASE (With TEFLON*, Meets FDA) (For Food Machinery)

CHESTERTON WHITE GREASE complies with the Food and Drug Administration Regulations 121.2553 and 121.2555 for "food additives resulting from contact with container or equipment and food additives otherwise affecting food." It is a superior quality, multi-purpose grease for food and beverage plants.

CHESTERTON WHITE GREASE has an extremely broad temperature range, exceeding 200°F. (95°C.) usually encountered in food processing. It provides protection against corrosion and rust as well as offering outstanding anti-wear, torque reducing and load bearing properties. It resists water, steam, food, vegetable juices, and beverages.

Because CHESTERTON WHITE GREASE incorporates Teflon it has better load-carrying capacity, better lubricity, better anti-wear properties, a reduction of torque, and longer service life for cams, bearings, packings, o-rings, rollers, conveyors, etc. All of the above means extended equipment service life and greatly reduced down time, meaning additional production profits.



*T.M. E.I. DuPont



CHESTERTON PAINTABLE RELEASE AGENT

CHESTERTON PAINTABLE RELEASE AGENT is a specially designed release for practically all molded products which require painting after molding. This convenient-to-use spray provides excellent release properties and leaves the molded piece with a non-slippery film to which most paints will adhere directly, thus eliminating the costly secondary cleaning operation prior to painting.

CHESTERTON PAINTABLE RELEASE AGENT can be used for polyurethane, polyester, epoxy, and various other plastics and rubbers such as found in refrigerators, football helmets, aircraft and automotive parts. It can provide several releases with only one application, thus saving material and labor costs and reducing mold turn-around time.

CHESTERTON PAINTABLE RELEASE AGENT can be used for temperatures to 400°F. (205°C.) and is supplied in a spray can which can be used in any position, easily reaching the underside of the top mold. To eliminate risk of airborne particles from regular release reaching and contaminating your paintable molding operation, use CHESTERTON PAINTABLE RELEASE AGENT for all molding throughout your plant.



For Reorder Product Numbers see page 72

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 72 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/72

CHESTERTON®

PRODUCT PACKAGING CHART

Product Name	Spray Can	½ Pint	Pint	Quart	Gallon	5 Gallon	30 Gallon	55 Gallon	1 # Can	Cartridge
Anti-Sieze — Nickel	82351					82354	82355		82352	
Anti-Seize — Regular	82301					82304	82305		82302	
A.W.C. Cutting Oil	80102				80104	80106		80107		
Belt-Flo			80303	80304	80305	80306		80307		
Carbon & Varnish Remover						82901		82902		
Chain Drive Pin & Bushing Lub.	81902				81904	81906		81907		
Clear Protective Coating	84901					84906		84907		
Cold Galvanizing	82601	82602		82603	82604					
Detergent Lubricating Oil	81102		81103	81104	81105	81106		81107		
Electric Motor Cleaner	80502									
Electro Contact Cleaner	82501									
Fet Dry Lubricant	80708									
Freeze Spray	83101									
Gear Reducer Oil			80903	80904	80905	80906		80907		
Industrial & Marine Solvent						83204		83205		
Moisture Shield	82102				82104	82106		82107		
Mold Release	81801									
Motor Degreaser					80505	80506		80507		
Paintable Release Agent	81802									
Penetrant & Lubricant	82706				82703	82704		82705		
Rustsolvo			81303	81304	81305	81306		81307		
Silicone Compound	81507									
Silicone Lubricant	81502				81504	81505		81506		
SpraFlex	81702					81706		81707		
SpraGrip	80308									
SpraSolvo (Rustsolvo)	81308									
Tapping Compound — Aluminum	85201		85203	85204	85205	85506		85507		
Tapping Compound — Regular	85101		85103	85104	85105	85106		85107		
Teflon Coating	82808									
White Grease			85302		85303	85304				85301

Reorder Product Number is for individual item.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 73 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/73

CHESTERTON

CHESTERTON GOLDEND PASTE

CHESTERTON GOLDEND PASTE is classified by Underwriters Laboratories, Inc., as to fire hazard only.

CHESTERTON GOLDEND PASTE classed 10 to 20 with paraffin oil in respect to fire hazard. For use in devices handling gasoline, petroleum oil, natural gas (pressure not over 100 P.S.I.G.), butane or propane. See UL Index of Classified Products.

Accepted by the Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA).



SERVICES

Steam — Salt Water — Air — Fuels — Refrigerants. All Acids & Alkalies. All Solvents. Gases including Hydrogen, Ammonia, Freon, Chlorine, Propane, Butane, Nitrogen. −400°F. (240°C.) to +500°F. (260°C.). (Not for use on liquid or gaseous oxygen.) For Nitric Acid service, consult factory.

CHESTERTON GOLDEND PASTE may be used on steam, salt water, air, fuels, refrigerants, all acids, alkalies, and solvents. It may also be used on gases such as hydrogen, ammonia, freon, chlorine, propane, butane and nitrogen. CHESTERTON GOLDEND PASTE will operate from −400°F. to +500°F. (−240°C. to +260°C.). Do not use on liquid or gaseous oxygen.

CHESTERTON GOLDEND PASTE is a non-corrosive, non-toxic, odorless paste that stops leakage thru threads. Mouldable Teflon* particles crush to form a continuous, vibration-proof seal. GOLDEND PASTE doesn't harden; joints are easily made, easily opened thus saving fittings for reuse. GOLDEND PASTE is not messy and will not drip or run.

PACKAGED			
REORDER PRODUCT NO.	INDIV. NET CONTENTS	QUANTITY PER CARTON	CARTONS PER MASTER CARTON
901[1] 902[1] 903[1]	Cans 1 lb. (454 gms.) Tubes 8 oz. (227 gms.) Tubes 3 oz. (85 gms.)	12 24 24	6 6 6

[1]Reorder Product Number is for individual item.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 74 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/74

CHESTERTON

CHESTERTON GOLDEND TAPE

CHESTERTON GOLDEND thread seal tape is manufactured to the highest tape specifications. As such, it is the highest quality Teflon* tape available which results in savings at the user level. It is easier to install, usually requires only one layer to effect a seal, will not leak due to vibration or severe chemical contact, yet releases easily when joints need to be removed.

CHESTERTON GOLDEND TAPE will withstand pressures to 2500 P.S.I. It is effective from −400°F. to +500°F. (−240°C. to +260°C.).

CHESTERTON GOLDEND TAPE is UL listed, meets MIL-T-27730A, and complies with Food and Drug Administration regulations for incidental food contact.



FDA Classified
Meets MIL–T 27730A

All ingredients comply with FDA additives regulations for incidental food contact.

SERVICES

Steam — Salt Water — Air — Fuels — Refrigerants. All Acids and Alkalies. All Solvents. Gases to all pressures including Hydrogen, Ammonia, Freon, Chlorine, Propane, Butane, Nitrogen. −400°F. (−240°C.) to +500°F. (260°C.). FDA Classified. Meets MIL-T-27730A. Do not use on liquid oxygen. For Nitric Acid service, consult factory.

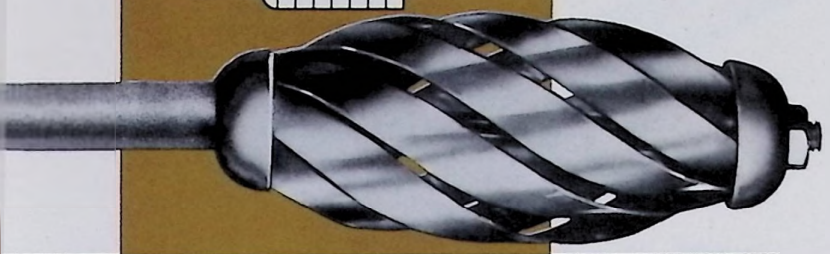
PACKAGED			
Size	Reorder Prod. No.	Spools / Ctn.	Ctn. / Master
½" × 180" (12.7 mm × 4572 mm)	801[1]	12	12
½" × 540" (12.7 mm × 13716 mm)	802[1]	12	12
½" × 1296" 12.7 mm × 32918 mm)	803[1]	12	12

[1]Reorder Product Number is for individual item.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 75 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/75

CHESTERTON

CHESTERTON BOILER TUBE CLEANERS



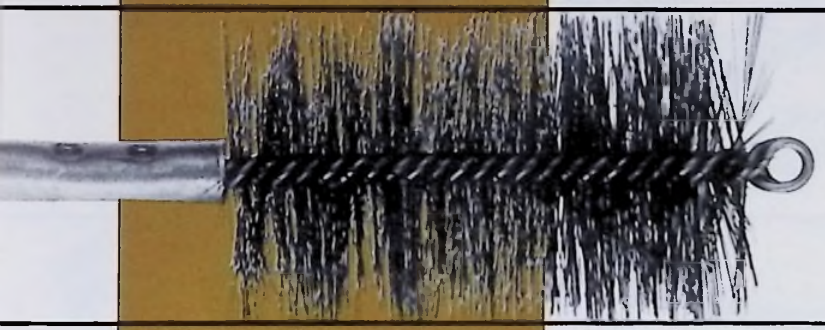
TUBE SCRAPER

Effectively removes hard deposits because of its flexibility and bias-cutting operation. During normal operation the cutting steels are practically self-sharpening. Sizes 1¼, 1½, 1¾, 2, 2½, 3, 3½, and 4 inches, boiler tube sizes (O.D. of tubes). Threads: — 1¼"–⅛" male; 1½" thru 1¾"–¼" male; 2" thru 3½"–⅜" female; 4"–½" female.



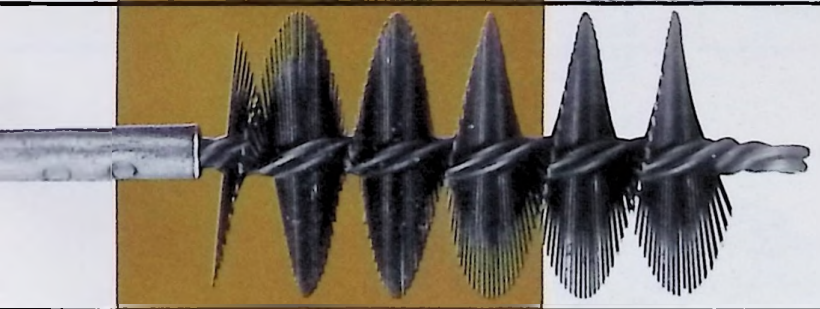
TUBE BRUSH

Stiff flat wires will not pull out or lay back, are dense to remove accumulated matter, but spaced to permit scale to drop, facilitating freedom of movement and easy removal. Sizes 2, 2½, 3, 3½, 4 inches, boiler tube sizes (O.D. of tube). All threads are ⅜" female, pipe.



FINE WIRE BRUSH

Made of fine, round, tempered steel wire. A good brush to be used in connection with a scraper, or in low pressure boilers. Sizes 1 to 4 inches. Thread, all sizes, ¼" male.



SPIRAL TUBE BRUSH

A durable, stiff, flat wire brush for cleaning tubes of either marine or stationary boilers. Sizes 1 to 4 inches. Thread, all sizes, ¼" male.



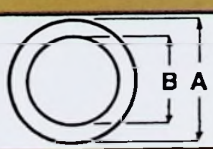
COMBINATION SCRAPER

The self-adjusting combination scraper has specially hardened scraping arms. Spring expands arms to required diameter. With rugged, flatwire brush attached, the COMBINATION SCRAPER is "Two Tools in One." Sizes 2, 2½, 3, 3½, 4 inches, boiler tube sizes (O.D. of tubes). All threads are ⅜" female, pipe.



CONDENSER TUBE BRUSH

Made of fine round steel wire with ⅛" nipple in sizes ½, ⅝, ¾, ⅞, and 1", *actual diameter* of brushes. Condenser tubes are measured I.D. instead of O.D. Thread, all sizes, ⅛" male.



HOW TO ORDER

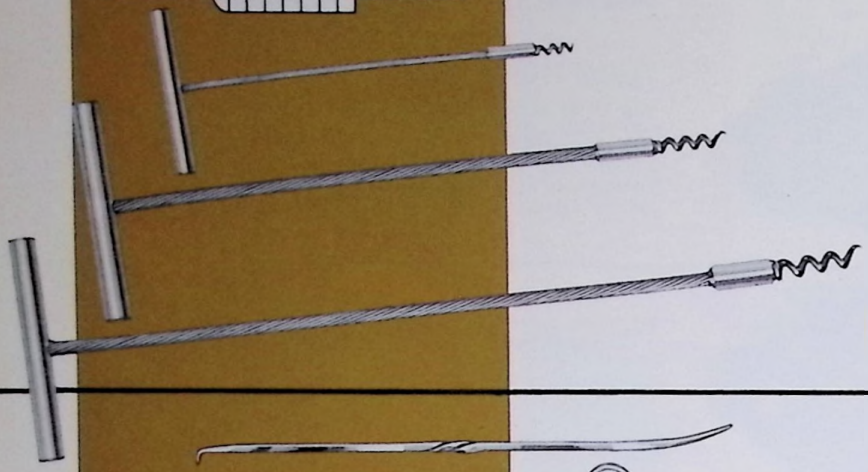
"A" is the O.D. of boiler tube. This is the size to order for all cleaners except the Condenser Tube Brush which is ordered by I.D. dimension "B".

For charts see page 79

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 76 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/76

CHESTERTON

CHESTERTON PACKING TOOLS

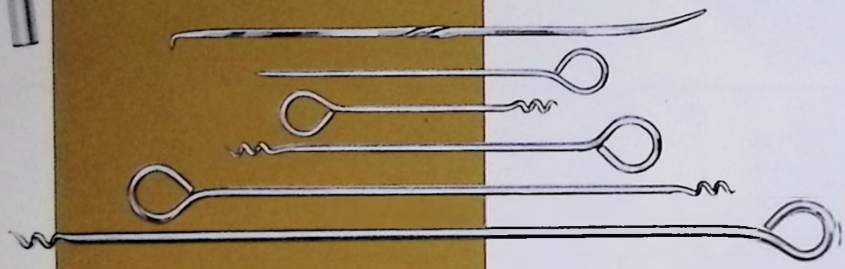


FLEXIBLE PACKING EXTRACTORS

Designed for strong pull packing removal. Construction features include high strength aircraft cable, precision heat-treated extracting worm, and unbreakable rotary-swaged assembly. Worm tips have plastic protective coating, easily removable. Large, smooth, easy-grip handle. Furnished in sets of 3 tools.

Reorder Product No. 2500

For charts see page 78



STIFF PACKING TOOLS

Made of special tool steel. Warranted not to break when removing packing from any type of stuffing box. Will withstand the roughest usage.

SOLD IN COMPLETE SETS ONLY

Reorder Product No. 2401 (4)
Reorder Product No. 2402 (6)

For charts see page 78

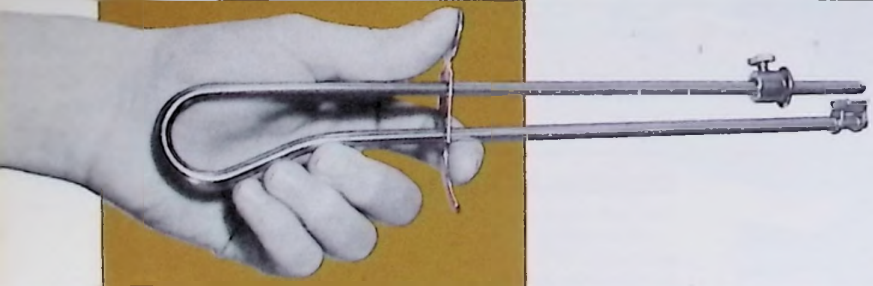


PACKING CUTTING KNIFE

Fine bevelled blade cuts braided packings
Serrated blade cuts moulded items

Blade 5″—127 mm Overall 10″—254 mm
Case included.
Fits Chesterton Ring Cutter

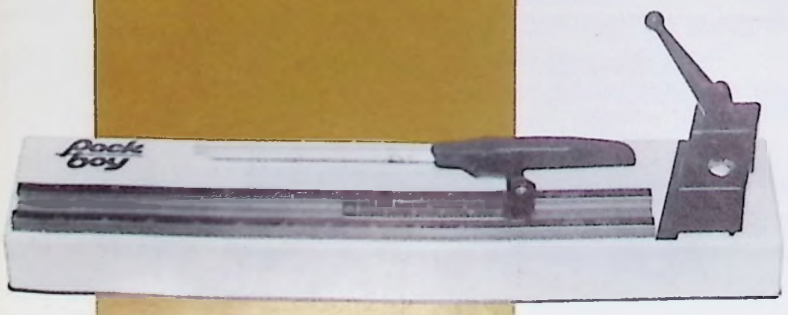
Reorder Product No. 2300



CHESTERTON GAUGE GLASS CUTTER

In this cutter, recognized by leading engineers everywhere as the outstanding gauge glass cutter, the sliding lever can be placed close to the work, and thus more power obtained than in any other cutter. The steel cutting wheel can be used much longer than in ordinary cutters. Will cut the hardest type of glasses.

Reorder Product No. 2700



CHESTERTON RING PACKING CUTTER

This new device permits accurate cutting of rings from spiral or flat coil packings. The SCALE reads directly in terms of shaft sizes, either in inches or in millimeters. To operate, simply set one scale to correspond with cross-sectional size of packing, set other scale for shaft diameter, and cut ring. Handles packing sizes ⅛″ through 1″ and shaft sizes up to 4″. Avoid delays, cut your own rings, and save up to $10.00 per pound of packing cost. Accommodates the Chesterton Packing Cutting Knife.

Reorder Product No. 3400

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 77 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/77

CHESTERTON



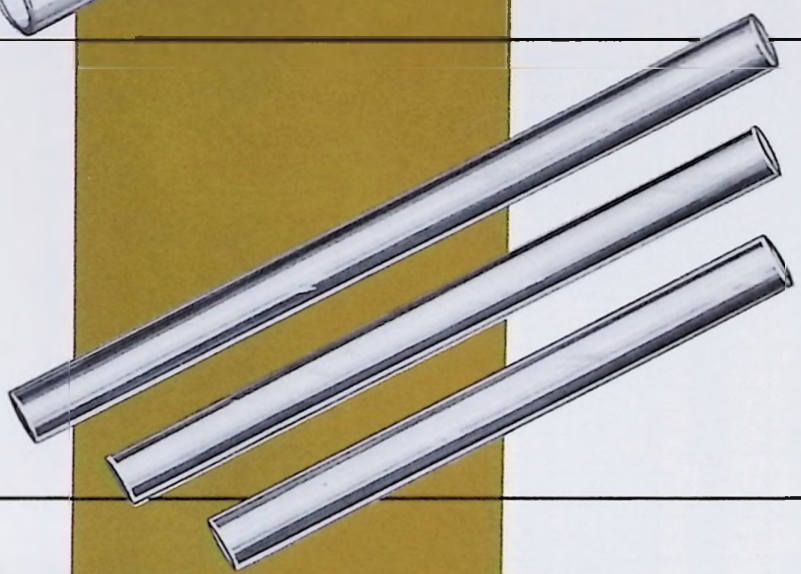
HIGH PRESSURE GAUGE GLASS

Since this first borosilicate-type glass was introduced many years ago, thus pioneering the high pressure gauge glass industry, it has steadily maintained its recognition as the standard of comparison for all gauge glasses.

CHESTERTON HIGH PRESSURE GLASS is hard, clear, and resistant to acid corrosion and thermal shock. Its low coefficient of expansion helps to maintain pressure and temperature stresses within reasonable but undefined limits.

SIZES: O.D. ½", ⅝", ¾", ⅞", 1". Standard packages of half dozen glasses in standard lengths: 8", 10", 12", 14", 15", 16", 18", 20", 22", 24", 30", 36", 48", 60", 72". Over 72" to order. Can be supplied to any length. ½" O.D. supplied in standard package of one dozen.

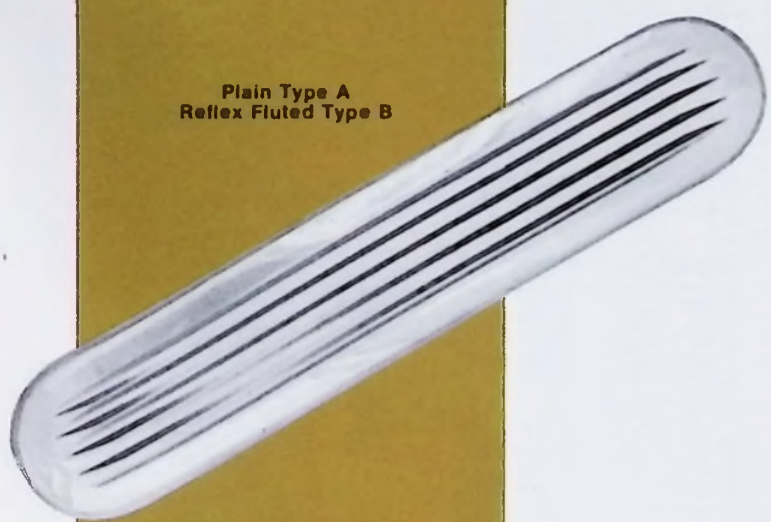
WASHERS AVAILABLE



LOW PRESSURE GAUGE GLASSES

Chesterton low pressure Gauge Glasses are designed to fit all applications where low pressures are involved. Chesterton low pressure Gauge Glass is clear, non-colored, and it is easy to read the liquid level.

SIZES: O.D. ½", ⅝", ¾". Standard packages of half dozen glasses in standard lengths: 8", 10", 11", 12", 13", 14", 15", 16", 17", 18", 19", 20", 22", 24", 30", 36", 48", 60", 72". ½" O.D. supplied in standard packages of one dozen.



Plain Type A
Reflex Fluted Type B

CHESTERTON FLAT GAUGE GLASSES

CHESTERTON FLAT GLASSES are in two types. The Plain, or Type A, are transparent and are generally used in pairs with the liquid column enclosed between the glasses. The liquid level is observed by looking through the two glasses which must be illuminated from the rear. Usual practice against steam is to use a mica shield on the pressure side in addition to the regular gaskets.

The Reflex, or Fluted Type B, is used singly. Vertical prisms show the water level and the appearance is black below the level, bright silver above. Two gaskets are used with each glass.

SIZE	LENGTH	
	inches	mm
9	13⅜	340
8	12⅝	320
7	11	280
6	9⅞	250
5	8⅝	220
4	7½	190
3	6½	165
2	5½	140

Width: 15/16"; Thickness: 11/16"; Type B Reflex has 5 flutes.

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 78 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/78

CHESTERTON

STYLES 80, 81, 82, 84, 85 and 87

APPROXIMATE DATA												
Sizes		Packaging		Reorder Product No.						Length per Weight	
Inches	mm	Lbs.	Kg.	Style 80	Style 81	Style 82	Style 84	Style 85	Style 87	Ft./lb.	M/kg.
1/8	3,2	2 5	0,908 2,270	8060 8002	NA NA	8260 NA	NA NA	NA NA	8760 NA	145.00 145.00	97,30 97,30
3/16	4,8	2 5	0,908 2,270	8062 8003	NA NA	8262 NA	NA NA	NA NA	8762 NA	64.00 64.00	42,90 42,90
1/4	6,4	2 5	0,908 2,270	8064 8073	NA 8173	8264 8273	NA 8473	NA NA	NA 8773	36.00 36.00	24,20 24,20
5/16	7,9	2 5	0,908 2,270	8065 8074	NA 8174	8265 8274	NA 8474	NA NA	NA 8774	21.50 21.50	14,40 14,40
3/8	9,5	2 5 10	0,908 2,270 4,540	8066 8075 8081	NA 8175 8181	8266 8275 8281	NA 8475 8481	NA 8575 8581	NA 8775 8781	16.00 16.00 16.00	10,70 10,70 10,70
7/16	11,1	2 5	0,908 2,270	8068 8077	NA 8177	8268 8277	NA 8477	NA 8577	NA 8777	10.70 10.70	7,20 7,20
1/2	12,7	2 5 10	0,908 2,270 4,540	8070 8079 8083	NA 8179 8183	8270 8279 8283	NA 8479 8483	NA 8579 8583	NA 8779 8783	9.00 9.00 9.00	6,00 6,00 6,00
9/16	14,3	5 10	2,270 4,540	8080 8084	8180 8184	8280 8284	8480 8484	8580 8584	8780 8784	7.00 7.00	4,70 4,70
5/8	15,9	10	4,540	8085	8185	8285	8485	8585	8785	5.70	3,80
11/16	17,5	10	4,540	8086	8186	8286	8486	8586	8786	4.80	3,23
3/4	19,1	10	4,540	8087	8187	8287	8487	8587	8787	4.00	2,70
13/16	20,6	10	4,540	8088	8188	8288	8488	8588	8788	3.40	2,29
7/8	22,2	10	4,540	8089	8189	8289	8489	8589	8789	2.70	1,80
15/16	23,8	10	4,540	8093	8193	8293	8493	8593	8793	2.50	1,68
1	25,4	10	4,540	8094	8194	8294	8494	8594	8794	2.30	1,50
1 1/16	27,0	To order		8017	8117	8217	8417	8517	8717	1.90	1,28
1 1/8	28,6	To order		8018	8118	8218	8418	8518	8718	1.75	1,18
1 3/16	30,2	To order		8019	8119	8219	8419	8519	8719	1.43	0,96
1 1/4	31,7	To order		8020	8120	8220	8420	8520	8720	1.40	0,94
1 5/16	33,3	To order		8021	8121	8221	8421	8521	8721	1.30	0,87
1 3/8	34,9	To order		8022	8122	8222	8422	8522	8722	1.20	0,81
1 1/2	38,1	To order		8024	8124	8224	8424	8524	8724	1.00	0,67
1 5/8	41,2	To order		8026	8126	8226	8426	8526	8726	0.85	0,57
1 3/4	44,4	To order		8028	8128	8228	8428	8528	8728	0.68	0,45
1 7/8	47,6	To order		8030	8130	8230	8430	8530	8730	0.63	0,42
2	50,8	To order		8032	8132	8232	8432	8532	8732	0.56	0,38

NA = Not Available

STIFF PACKING TOOLS

Type	Length		Stock		Worm	
	in.	mm	in.	mm	in.	mm
Double End	12	305,0	1/4	6,4	—	—
Hook	8	203,2	3/16	4,8	—	—
Worm	6	152,4	3/16	4,8	5/16	7,9
Worm	10	254,0	1/4	6,4	7/16	11,1
Worm	14	356,0	1/4	6,4	1/2	12,7
Worm	18	457,0	5/16	7,9	1/2	12,7

Set of four eliminates second and last items

FLEXIBLE PACKING TOOLS

One Set	Length		For Min. Packing Size		Reorder Product No.
	Inches	mm	Inch	mm	
Small	7	178	5/16	7.9	2501
Medium	11	279	3/8	9.5	2502
Large	14	356	1/2	12,7	2503

STYLE 90

APPROXIMATE DATA							
Size		Packaged ± 10%		Reorder Product No.	Lengths per Weight		Coils per Box
Inches	mm	lbs.	kg.		Ft/lb.	m/kg.	
3/16	4,8	2.43	1,100	9003	37.00	24,81	6
1/4	6,4	3.96	1,800	9004	22.70	15,22	6
5/16	7,9	5.32	2,420	9005	14.10	9,45	5
3/8	9,5	6.06	2,750	9006	9.90	6,64	4
7/16	11,1	7.06	3,210	9007	6.40	4,29	3
1/2	12,7	7.92	3,600	9008	5.70	3,82	3
9/16	14,3	7.20	3,270	9009	4.20	2,82	2
5/8	15,9	8.16	3,710	9010	3.70	2,48	2
11/16	17,5	9.87	4,490	9011	3.04	2,04	2
3/4	19,1	11.67	5,300	9012	2.60	1,74	2
13/16	20,6	14.88	6,760	9013	2.02	1,35	2
7/8	22,2	15.96	7,250	9014	1.90	1,27	2
15/16	23,8	19.80	9,000	9015	1.52	1,02	2
1	25,4	20.25	9,200	9016	1.50	1,00	2

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 79 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/79

BOILER TUBE CLEANERS

APPROXIMATE DATA			
Type	Sizes Inch	Sizes mm	Reorder Product No.
TUBE SCRAPERS	1¼	31,7	1720
	1½	38,1	1724
	1¾	44,4	1728
	2	50,8	1732
	2½	63,5	1740
	3	76,2	1748
	3½	88,9	1756
	4	101,6	1764
TUBE BRUSHES	2	50,8	1632
	2½	63,5	1640
	3	76,2	1648
	3½	88,9	1656
	4	101,6	1664
COMBINATION SCRAPERS	2	50,8	1832
	2½	63,5	1840
	3	76,2	1848
	3½	88,9	1856
	4	101,6	1864
FINE WIRE BRUSHES	1	25,4	1216
	1¼	31,7	1220
	1½	38,1	1224
	1¾	44,4	1228
	2	50,8	1232
	2¼	57,1	1236
	2½	63,5	1240
	2¾	69,8	1244
	3	76,2	1248
	3¼	82,5	1252
	3½	88,9	1256
	3¾	95,2	1260
	4	101,6	1264
SPIRAL TUBE BRUSHES	1	25,4	1316
	1¼	31,7	1320
	1½	38,1	1324
	1¾	44,4	1328
	2	50,8	1332
	2¼	57,1	1336
	2½	63,5	1340
	2¾	69,8	1344
	3	76,2	1348
	3¼	82,5	1352
	3½	88,9	1356
	3¾	95,2	1360
	4	101,6	1364
CONDENSER TUBE BRUSHES	½	12,7	1408
	⅝	15,9	1410
	¾	19,1	1412
	⅞	22,2	1414
	1	25,4	1416
COMBINATION SCRAPERS BRUSHES	2	50,8	1932
	2½	57,1	1940
	3	76,2	1948
	3½	88,9	1956
	4	101,6	1964

STYLE 364–T

APPROXIMATE DATA						
Size Inches	Size mm	Packaged ± 10% lbs.	Packaged ± 10% kg.	Reorder Product No.	Lengths per Weight Ft./lb.	Lengths per Weight M./kg.
¼	6,4	2.00	0,91	36404	20.00	13,45
5/16	7,9	2.50	1,13	36405	13.60	9,13
⅜	9,5	2.75	1,25	36406	11.00	7,40
7/16	11,1	3.25	1,48	36407	8.60	5,76
½	12,7	3.75	1,70	36408	6.00	4,03
9/16	14,3	5.50	2,50	36409	4.90	3.30
⅝	15,9	5.75	2,61	36410	4.40	2,94
11/16	17,5	6.90	3,13	36411	3.60	2,42
¾	19,1	6.90	3,13	36412	2.90	1,94
13/16	20,6	6.90	3,13	36413	2.47	1,66
⅞	22,2	8.50	3,85	36414	2.00	1,34
15/16	23,8	8.50	3,85	36415	1.88	1,26
1	25,4	9.12	4,14	36416	1.75	1,18
1 1/16	27,0	To order		36417	1.33	0,89
1⅛	28,6	To order		36418	1.23	0,83
1 3/16	30,2	To order		36419	1.15	0,77
1¼	31,7	To order		36420	1.10	0,74
1 5/16	33,3	To order		36421	1.00	0,67
1⅜	34,9	To order		36422	0.90	0,61
1½	38,1	To order		36424	0.73	0,49

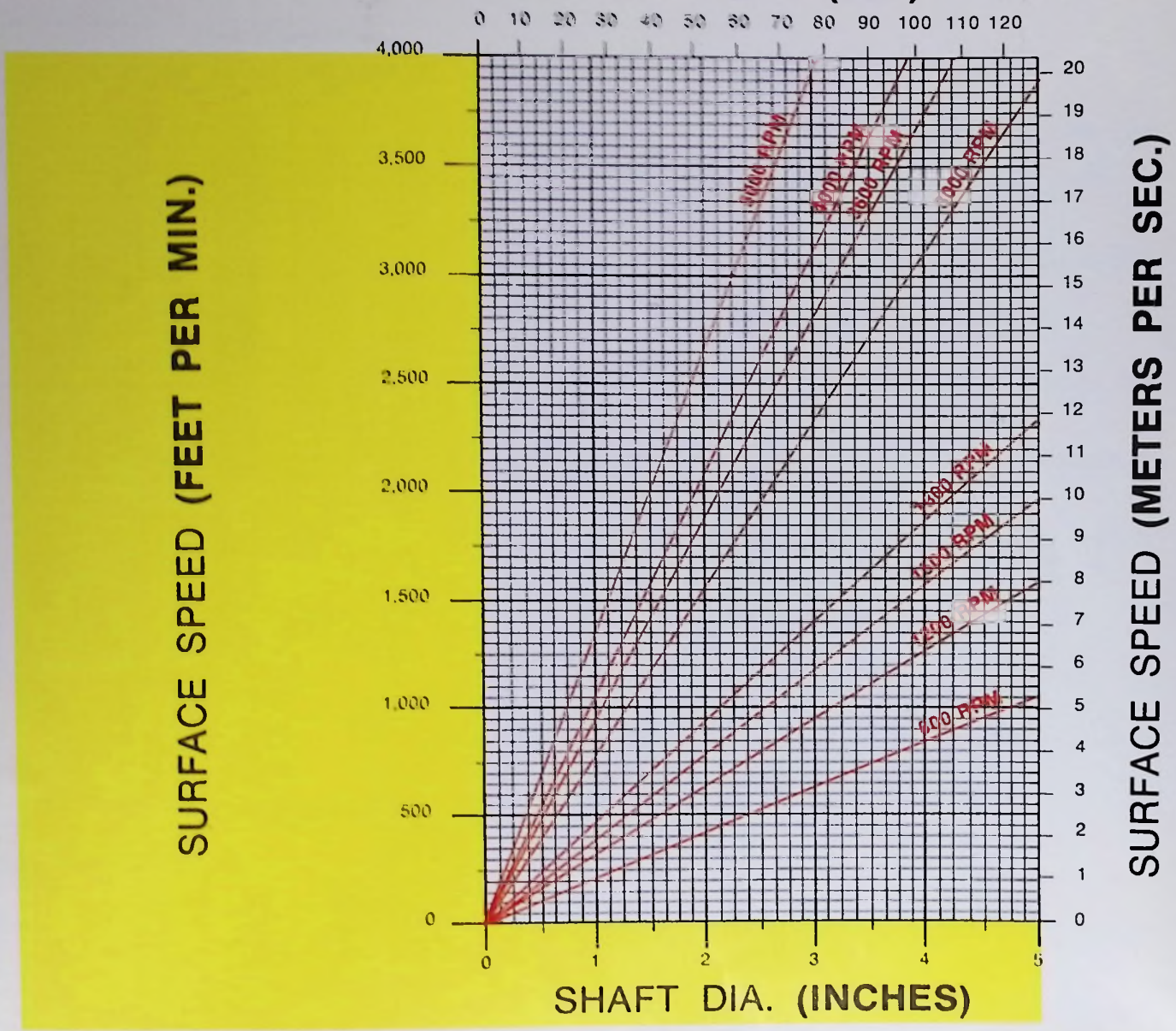
STYLE 1724-OX

APPROXIMATE DATA						
Size Inches	Size mm	Packaged ± 10% lbs.	Packaged ± 10% kg.	Reorder Product No.	Lengths per Weight Ft./lb.	Lengths per Weight M./kg.
⅛	3,2	2	0.908	32560	65.00	43.61
3/16	4,8	2	0.908	32562	34.00	22.81
¼	6,4	2	0.908	32564	17.40	11.68
		5	2,270	32573	17.40	11,68
5/16	7.9	2	0.908	32565	12.70	8.52
		5	2,270	32574	12.70	8,52
⅜	9,5	2	0.908	32566	9.30	6.24
		5	2.270	32575	9.30	6.24
		10	4.540	32581	9.30	6.24
7/16	11,1	2	0.908	32568	6.70	4.50
		5	2,270	32577	6.70	4.50
½	12.7	2	0.908	32570	5.50	3.69
		5	2,270	32579	5.50	3.69
		10	4.540	32583	5.50	3.69
9/16	14.3	5	2,270	32580	4.10	2.75
		10	4.540	32584	4.10	2.75
⅝	15.9	10	4.540	32585	3.50	2.35
11/16	17.5	10	4.540	32586	2.90	1.95
¾	19.1	10	4.540	32587	2.40	1.61
13/16	20.6	10	4.540	32588	2.10	1.41
⅞	22.2	10	4.540	32589	1.70	1,14
15/16	23.8	10	4.540	32593	1.48	0.99
1	25.4	10	4.540	32594	1.38	0.93

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 80 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/80

CHESTERTON

CHESTERTON SHAFT SPEED CONVERSION CHART



DECIMAL EQUIVALENTS

1/64"	0.0156"	9/64"	0.1406"	17/64"	0.2656"	25/64"	0.3906"	33/64"	0.5156"	41/64"	0.6406"	49/64"	0.7656	57/64"	0.8906"
1/32"	0.03125"	5/32"	0.15625"	9/32"	0.28125"	13/32"	0.40625"	17/32"	0.53125"	21/32"	0.65625"	25/32"	0.78125"	29/32"	0.90625"
3/64"	0.0469"	11/64"	0.1719"	19/64"	0.2969"	27/64"	0.4219"	35/64"	0.5469"	43/64"	0.6719"	51/64"	0.7969"	59/64"	0.9219"
1/16"	0.0625"	3/16"	0.1875"	5/16"	0.3125"	7/16"	0.4375"	9/16"	0.5625"	11/16"	0.6875"	13/16"	0.8125"	15/16"	0.9375"
5/64"	0.0781"	13/64"	0.2031"	21/64"	0.3281"	29/64"	0.4531"	37/64"	0.5781"	45/64"	0.7031"	53/64"	0.8281"	61/64"	0.9531"
3/32"	0.09375"	7/32"	0.21875"	11/32"	0.34375"	15/32"	0.46875"	19/32"	0.59375"	23/32"	0.71875"	27/32"	0.84375"	31/32"	0.96875
7/64"	0.1094"	15/64"	0.2344"	23/64"	0.3594"	31/64"	0.4844"	39/64"	0.6094"	47/64"	0.7344"	55/64"	0.8594"	63/64"	0.9844"
1/8"	0.1250"	1/4"	0.2500"	3/8"	0.3750"	1/2"	0.5000"	5/8"	0.6250"	3/4"	0.7500"	7/8"	0.8750"	1"	1.0000"

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 81 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/81

CONVERSION TABLES — FEET AND INCHES TO MILLIMETERS

	0″	1″	2″	3″	4″	5″	6″	7″	8″	9″	10″	11″
1′	305	330	356	381	406	432	457	483	508	533	559	584
2′	610	635	660	686	711	737	762	787	813	838	864	889
3′	914	940	965	991	1016	1041	1067	1092	1118	1143	1168	1194
4′	1219	1245	1270	1295	1321	1346	1372	1397	1422	1448	1473	1499
5′	1524	1549	1575	1600	1626	1651	1676	1702	1727	1753	1778	1803
6′	1829	1854	1880	1905	1930	1956	1981	2007	2032	2057	2083	2108

CONVERSION TABLES — INCHES TO MILLIMETERS

	0″	1/16″	1/8″	3/16″	1/4″	5/16″	3/8″	7/16″	1/2″	9/16″	5/8″	11/16″	3/4″	13/16″	7/8″	15/16″
0″	—	1,6	3,2	4,8	6,4	7,9	9,5	11,1	12,7	14,3	15,9	17,5	19,1	20,6	22,2	23,8
1″	25,4	27,0	28,6	30,2	31,75	33,3	34,9	36,5	38,1	39,7	41,27	42,9	44,45	46,0	47,6	49,2
2″	50,8	52,4	54,0	55,6	57,15	58,7	60,3	61,9	63,5	65,1	66,7	68,3	69,85	71,4	73,0	74,6
3″	76,2	77,8	79,4	81,0	82,55	84,1	85,7	87,3	88,9	90,5	92,1	93,66	95,25	96,8	98,4	100,0
4″	101,6	103,2	104,8	106,4	108,0	109,5	111,1	112,7	114,3	115,9	117,5	119,1	120,7	122,2	123,8	125,4
5″	127,0	128,6	130,2	131,8	133,4	134,9	136,5	138,1	139,7	141,3	142,9	144,5	146,1	147,6	149,2	150,8
6″	152,4	154,0	155,6	157,2	158,8	160,3	161,9	163,5	165,1	166,7	168,3	169,9	171,5	173,0	174,6	176,2
7″	177,8	179,4	181,0	182,6	184,2	185,7	187,3	188,9	190,5	192,1	193,7	195,3	196,9	198,4	200,0	201,6
8″	203,2	204,8	206,4	208,0	209,6	211,1	212,7	214,3	215,9	217,5	219,1	220,7	222,3	223,8	225,4	227,0
9″	228,6	230,2	231,8	233,4	235,0	236,5	238,1	239,7	241,3	242,9	244,5	246,1	247,7	249,2	250,8	252,4
10″	254,0	255,6	257,2	258,8	260,4	261,9	263,5	265,1	266,7	268,3	269,9	271,5	273,1	274,6	276,2	277,8
11″	279,4	281,0	282,6	284,2	285,75	287,3	288,9	290,5	292,1	293,7	295,3	296,9	298,45	300,0	301,6	303,2
12″	304,8															

CONVERSION TABLE — MILLIMETERS TO INCHES

mm.	Inches	mm.	Inches	mm.	Inches	mm.	Inches	mm.	Inches
,02	= .00078	,62	= .0244	12	= .4724	42	= 1.6535	72	= 2.8346
,04	= .00157	,64	= .0252	13	= .5118	43	= 1.6929	73	= 2.8740
,06	= .00236	,66	= .02598	14	= .55118	44	= 1.73228	74	= 2.91338
,08	= .0031	,68	= .02677	15	= .59055	45	= 1.77165	75	= 2.95265
,10	= .0039	,70	= .02755	16	= .6299	46	= 1.8110	76	= 2.9921
,12	= .0047	,72	= .0283	17	= .66929	47	= 1.85039	77	= 3.03549
,14	= .0055	,74	= .0291	18	= .70866	48	= 1.88976	78	= 3.07086
,16	= .0063	,76	= .0299	19	= .7480	49	= 1.9295	79	= 3.1102
,18	= .00708	,78	= .0307	20	= .7874	50	= 1.9685	80	= 3.1496
,20	= .0078	,80	= .0315	21	= .82677	51	= 2.00787	81	= 3.18897
,22	= .00866	,82	= .03228	22	= .8661	52	= 2.0472	82	= 3.2283
,24	= .0094	,84	= .0330	23	= .9055	53	= 2.0866	83	= 3.2677
,26	= .0102	,86	= .03385	24	= .94488	54	= 2.12598	84	= 3.30708
,28	= .0110	,88	= .0346	25	= .98425	55	= 2.16535	85	= 3.34645
,30	= .0118	,90	= .0354	26	= 1.0236	56	= 2.2047	86	= 3.3858
,32	= .0126	,92	= .0362	27	= 1.06299	57	= 2.24409	87	= 3.42519
,34	= .01338	,94	= .0370	28	= 1.10236	58	= 2.28346	88	= 3.46456
,36	= .01419	,96	= .0378	29	= 1.1417	59	= 2.3228	89	= 3.5039
,38	= .0149	,98	= .03858	30	= 1.1811	60	= 2.3622	90	= 3.5433
,40	= .0157	1,00	= .03937	31	= 1.22047	61	= 2.40157	91	= 3.58267
,42	= .0165	2	= .0787	32	= 1.2598	62	= 2.4409	92	= 3.6220
,44	= .0173	3	= .1181	33	= 1.2992	63	= 2.4803	93	= 3.6614
,46	= .0181	4	= .15748	34	= 1.33858	64	= 2.51968	94	= 3.70078
,48	= .0189	5	= .19685	35	= 1.37795	65	= 2.55905	95	= 3.74015
,50	= .01968	6	= .2362	36	= 1.4173	66	= 2.5984	96	= 3.7795
,52	= .02047	7	= .27559	37	= 1.45669	67	= 2.63779	97	= 3.81889
,54	= .02125	8	= .31496	38	= 1.49606	68	= 2.67716	98	= 3.85826
,56	= .0220	9	= .3543	39	= 1.5354	69	= 2.7165	99	= 3.8976
,58	= .0228	10	= .3937	40	= 1.5748	70	= 2.7559	100	= 3.9370
,60	= .0236	11	= .43307	41	= 1.61417	71	= 2.79527	200	= 7.874
								300	= 11.811
								400	= 15.748
								500	= 19.685
								1000	= 39.370

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 82 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/82

Conversion Table for Cutting Ring Packings from Coil or Spiral

SIZE OF PACKING	ROD DIAMETERS						Lengths (in inches) to cut coil packings in order to make Ring Sizes.																		
	9/16"	11/16	3/4	13/16	7/8	15/16	1	1 1/16	1 1/8	1 3/16	1 1/4	1 5/16	1 3/8	1 7/16	1 1/2	1 9/16	1 5/8	1 11/16	1 3/4	1 13/16	1 7/8	1 15/16	2	2 1/16	2 1/8	2 3/16	2 1/4
3/16"	2 9/16	2 3/4	2 15/16	3 1/8	3 5/16	3 9/16	3 3/4	3 15/16	4 1/8	4 5/16	4 1/2	4 3/4	4 15/16	5 1/8	5 5/16	5 1/2	5 11/16	5 7/8	6 1/16	6 5/16	6 1/2	6 11/16	6 7/8				
1/4"	2 3/4	2 15/16	3 1/8	3 5/16	3 9/16	3 3/4	3 15/16	4 1/8	4 5/16	4 1/2	4 3/4	4 15/16	5 1/8	5 5/16	5 1/2	5 11/16	5 7/8	6 1/16	6 5/16	6 1/2	6 11/16	6 7/8	7 1/16	7 1/4	7 1/2	7 11/16	7 7/8
5/16"			3 5/16	3 5/16	3 3/4	3 15/16	4 1/8	4 5/16	4 1/2	4 3/4	4 15/16	5 1/8	5 5/16	5 1/2	5 11/16	5 7/8	6 1/16	6 5/16	6 1/2	6 11/16	6 7/8	7 1/16	7 1/4	7 1/2	7 11/16	7 7/8	8 1/16
3/8"						4 1/8	4 5/16	4 1/2	4 3/4	4 15/16	5 1/8	5 5/16	5 1/2	5 11/16	5 7/8	6 1/16	6 5/16	6 1/2	6 11/16	6 7/8	7 1/16	7 1/4	7 1/2	7 11/16	7 7/8	8 1/16	8 1/4
7/16"							4 1/2	4 3/4	4 15/16	5 1/8	5 5/16	5 1/2	5 11/16	5 7/8	6 1/16	6 5/16	6 1/2	6 11/16	6 7/8	7 1/16	7 1/4	7 1/2	7 11/16	7 7/8	8 1/16	8 1/4	8 7/16
1/2"											5 1/2	5 11/16	5 7/8	6 1/16	6 5/16	6 1/2	6 11/16	6 7/8	7 1/16	7 1/4	7 1/2	7 11/16	7 7/8	8 1/16	8 1/4	8 7/16	8 5/8
9/16"																	6 7/8	7 1/16	7 1/4	7 1/2	7 11/16	7 7/8	8 1/16	8 1/4	8 7/16	8 5/8	8 7/8
5/8"																							8 1/4	8 7/16	8 5/8	8 7/8	9
11/16"																											9 1/4
3/4"																											

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 83 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/83

Where Size of Rod and Cross Sectional Size of Packing Are Known

2 5/16	2 3/8	2 7/16	2 1/2	2 9/16	2 5/8	2 11/16	2 3/4	2 13/16	2 7/8	2 15/16	3	3 1/16	3 1/8	3 3/16	3 1/4	3 5/16	3 3/8	3 7/16	3 1/2	3 9/16	3 5/8	3 11/16	3 3/4	3 13/16	3 7/8	3 15/16	4
8 1/16	8 1/4	8 7/16	8 3/8																								
8 1/4	8 7/16	8 3/8	8 7/8	9	9 1/4	9 7/16	9 3/8	9 13/16	10																		
8 7/16	8 3/8	8 7/8	9	9 1/4	9 7/16	9 3/8	9 13/16	10	10 3/16	10 7/16	10 3/8	10 13/16	11	11 3/16	11 3/8												
8 3/8	8 7/8	9	9 1/4	9 7/16	9 3/8	9 13/16	10	10 3/16	10 7/16	10 3/8	10 13/16	11	11 3/16	11 3/8	11 7/16	11 13/16	12	12 3/16	12 3/8	12 7/16	12 3/4						
8 7/8	9	9 1/4	9 7/16	9 3/8	9 13/16	10	10 3/16	10 7/16	10 3/8	10 13/16	11	11 3/16	11 3/8	11 7/16	11 13/16	12	12 3/16	12 3/8	12 7/16	12 3/4	13	13 3/16	13 3/8	13 7/16	13 1/4	13 15/16	14 1/8
9	9 1/4	9 7/16	9 3/8	9 13/16	10	10 3/16	10 7/16	10 3/8	10 13/16	11	11 3/16	11 3/8	11 7/16	11 13/16	12	12 3/16	12 3/8	12 7/16	12 3/4	13	13 3/16	13 3/8	13 7/16	13 1/4	13 15/16	14 1/8	14 5/16
9 1/4	9 7/16	9 3/8	9 13/16	10	10 3/16	10 7/16	10 3/8	10 13/16	11	11 3/16	11 3/8	11 7/16	11 13/16	12	12 3/16	12 3/8	12 7/16	12 3/4	13	13 3/16	13 3/8	13 7/16	13 1/4	13 15/16	14 1/8	14 5/16	14 1/2
9 7/16	9 3/8	9 13/16	10	10 3/16	10 7/16	10 3/8	10 13/16	11	11 3/16	11 3/8	11 7/16	11 13/16	12	12 3/16	12 3/8	12 7/16	12 3/4	13	13 3/16	13 3/8	13 7/16	13 1/4	13 15/16	14 1/8	14 5/16	14 1/2	14 3/4
			10 3/16	10 7/16	10 3/8	10 13/16	11	11 3/16	11 3/8	11 7/16	11 13/16	12	12 3/16	12 3/8	12 7/16	12 3/4	13	13 3/16	13 3/8	13 7/16	13 1/4	13 15/16	14 1/8	14 5/16	14 1/2	14 3/4	14 15/16

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 84 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/84

CHESTERTON

AREAS OF CIRCLES

Diam.	Area	Diam.	Area	Diam.	Area	Diam.	Area	Diam.	Area	Diam.	Area	Diam.	Area	Diam.	Area
1/64	.00019	9/8	.3068	2	3.142	4	15.90	8	50.27	13	132.7	18	254.5	23	415.5
1/32	.00077	41/64	.3223	1/16	3.341	1/2	16.35	1/8	51.85	1/8	135.3	1/8	258.0	1/8	420.0
3/64	.00173	21/32	.3382	1/8	3.547	9/16	16.80	1/4	53.46	1/4	137.9	1/4	261.6	1/4	424.6
		43/64	.3545	3/16	3.758	5/8	17.26	3/8	55.09	3/8	140.5	3/8	265.2	3/8	429.1
1/16	.00307					11/16									
5/64	.00479	11/16	.3712	1/4	3.976		17.72	1/2	56.74	1/2	143.1	1/2	268.8	1/2	433.7
3/32	.00690	45/64	.3883	5/16	4.200	3/4	18.19	5/8	58.43	5/8	145.8	5/8	272.4	5/8	438.4
7/64	.00940	23/32	.4057	3/8	4.430	13/16	18.67	3/4	60.13	3/4	148.5	3/4	276.1	3/4	443.0
		47/64	.4236	7/16	4.666	7/8	19.15	7/8	61.86	7/8	151.2	7/8	279.8	7/8	447.7
1/8	.01227					15/16									
9/64	.01553	3/4	.4418	1/2	4.909		19.63	9	63.62	14	153.9	19	283.5	24	452.4
5/32	.01917	49/64	.4604	9/16	5.157	5	20.13	1/8	65.40	1/8	156.7	1/8	287.3	1/4	461.9
11/64	.02320	25/32	.4794	5/8	5.412	1/16	20.63	1/4	67.20	1/4	159.5	1/4	291.0	1/2	471.4
		51/64	.4987	11/16	5.673	1/8	21.14	3/8	69.03	3/8	162.3	3/8	294.8	3/4	481.1
3/16	.02761					3/16									
13/64	.03241	13/16	.5185	3/4	5.940		21.65	1/2	70.88	1/2	165.1	1/2	298.6	25	490.9
7/32	.03758	53/64	.5386	13/16	6.213	1/4	22.17	5/8	72.76	5/8	168.0	5/8	302.5	1/4	500.7
15/64	.04314	27/32	.5591	7/8	6.492	5/16	22.69	3/4	74.66	3/4	170.9	3/4	306.4	1/2	510.7
		55/64	.5800	15/16	6.777	3/8	23.22	7/8	76.59	7/8	173.8	7/8	310.2	3/4	520.8
1/4	.04909					7/16									
17/64	.05542	7/8	.6013	3	7.069		23.76	10	78.54	15	176.7	20	314.2	26	530.9
9/32	.06213	57/64	.6230	1/16	7.366	1/2	24.30	1/8	80.52	1/8	179.7	1/8	318.1	1/4	541.2
19/64	.06922	29/32	.6540	1/8	7.670	9/16	24.85	1/4	82.52	1/4	182.7	1/4	322.1	1/2	551.5
		59/64	.6675	3/16	7.980	5/8	25.41	3/8	84.54	3/8	185.7	3/8	326.1	3/4	562.0
5/16	.07670					11/16									
21/64	.08456	15/16	.6903	1/4	8.296	3/4	25.97	1/2	86.59	1/2	188.7	1/2	330.1	27	572.6
11/32	.09281	61/64	.7135	5/16	8.618	13/16	26.53	5/8	88.66	5/8	191.7	5/8	334.1	1/4	583.2
23/64	.1014	31/32	.7371	3/8	8.946	7/8	27.11	3/4	90.76	3/4	194.8	3/4	338.2	1/2	594.0
		63/64	.7610	7/16	9.281	15/16	27.69	7/8	92.89	7/8	197.9	7/8	342.2	3/4	604.8
3/8	.1104														
25/64	.1198	1	.7854	1/2	9.621	6	28.27	11	95.03	16	201.1	21	346.4	28	615.8
13/32	.1296	1/16	.8866	9/16	9.968	1/8	29.46	1/8	97.21	1/8	204.2	1/8	350.5	1/4	626.8
27/64	.1398	1/8	.9940	5/8	10.32	1/4	30.68	1/4	99.40	1/4	207.4	1/4	354.7	1/2	637.9
		3/16	1.108	11/16	10.68	3/8	31.92	3/8	101.6	3/8	210.6	3/8	358.8	3/4	649.2
7/16	.1503														
29/64	.1613	1/4	1.227	3/4	11.04	1/2	33.18	1/2	103.9	1/2	213.8	1/2	363.1	29	660.5
15/32	.1726	5/16	1.353	13/16	11.42	5/8	34.47	5/8	106.1	5/8	217.1	5/8	367.3	1/4	672.0
31/64	.1843	3/8	1.485	7/8	11.79	3/4	35.78	3/4	108.4	3/4	220.4	3/4	371.5	1/2	683.5
		7/16	1.623	15/16	12.18	7/8	37.12	7/8	110.8	7/8	223.7	7/8	375.8	3/4	695.1
1/2	.1963														
33/64	.2088	1/2	1.767	4	12.57	7	38.48	12	113.1	17	227.0	22	380.1	30	706.9
17/32	.2217	9/16	1.917	1/16	12.96	1/8	39.87	1/8	115.5	1/8	230.3	1/8	384.5	1/4	718.7
35/64	.2349	5/8	2.074	1/8	13.36	1/4	41.28	1/4	117.9	1/4	233.7	1/4	388.8	1/2	730.6
		11/16	2.237	3/16	13.77	3/8	42.72	3/8	120.3	3/8	237.1	3/8	393.2	3/4	742.6
9/16	.2485														
37/64	.2625	3/4	2.405	1/4	14.19	1/2	44.18	1/2	122.7	1/2	240.5	1/2	397.6	31	754.8
19/32	.2769	13/16	2.580	5/16	14.61	5/8	45.66	5/8	125.2	5/8	244.0	5/8	402.0	1/4	767.0
39/64	.2916	7/8	2.761	3/8	15.03	3/4	47.17	3/4	127.7	3/4	247.4	3/4	406.5	1/2	779.3
		15/16	2.948	7/16	15.47	7/8	48.71	7/8	130.2	7/8	250.9	7/8	411.0	3/4	791.7

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 85 of 87
Published by AsbestosClaims.Law
asbestosclaims.law/library/21272/85

CHESTERTON

Temperature Conversion Table — Centigrade to Fahrenheit

C.	F.	C.	F.	C.	F.	C.	F.	C.	F.	C.	F
0	32.0	44	111.2	280	536	720	1328	1150	2102	1580	2876
1	33.8	45	113.0	290	554	730	1346	1160	2120	1590	2894
2	35.6	46	114.8	300	572	740	1364	1170	2138	1600	2912
3	37.4	47	116.6	310	590	750	1382	1180	2156	1610	2930
4	39.2	48	118.4	320	608	760	1400	1190	2174	1620	2948
5	41.0	49	120.2	330	626	770	1418	1200	2192	1630	2966
6	42.8	50	122.0	340	644	780	1436	1210	2210	1640	2984
7	44.6	51	123.8	350	662	790	1454	1220	2228	1650	3002
8	46.4	52	125.6	360	680	800	1472	1230	2246	1660	3020
9	48.2	53	127.4	370	698	810	1490	1240	2264	1670	3038
10	50.0	54	129.2	380	716	820	1508	1250	2282	1680	3056
11	51.8	55	131.0	390	734	830	1526	1260	2300	1690	3074
12	53.6	56	132.8	400	752	840	1544	1270	2318	1700	3092
13	55.4	57	134.6	410	770	850	1562	1280	2336	1710	3110
14	57.2	58	136.4	420	788	860	1580	1290	2354	1720	3128
15	59.0	59	138.2	430	806	870	1598	1300	2372	1730	3146
16	60.8	60	140.0	440	824	880	1616	1310	2390	1740	3164
17	62.6	61	141.8	450	842	890	1634	1320	2408	1750	3182
18	64.4	65	149.0	460	860	900	1652	1330	2426	1760	3200
19	66.2	70	158.0	470	878	910	1670	1340	2444	1770	3218
20	68.0	75	167.0	480	896	920	1688	1350	2462	1780	3236
21	69.8	80	176.0	490	914	930	1706	1360	2480	1790	3254
22	71.6	85	185.0	500	932	940	1724	1370	2498	1800	3272
23	73.4	90	194.0	510	950	950	1742	1380	2516	1810	3290
24	75.2	95	203.0	520	968	960	1760	1390	2534	1820	3308
25	77.0	100	212.0	530	986	970	1778	1400	2552	1830	3326
26	78.8	110	230.0	540	1004	980	1796	1410	2570	1840	3344
27	80.6	120	248.0	550	1022	990	1814	1420	2588	1850	3362
28	82.4	130	266.0	560	1040	1000	1832	1430	2606	1860	3380
29	84.2	140	284.0	570	1058	1010	1850	1440	2624	1870	3398
30	86.0	150	302.0	580	1076	1020	1868	1450	2642	1880	3416
31	87.8	160	320.0	590	1094	1030	1886	1460	2660	1890	3434
32	89.6	170	338.0	600	1112	1040	1904	1470	2678	1900	3452
33	91.4	180	356.0	610	1130	1050	1922	1480	2696	1910	3470
34	93.2	190	374.0	620	1148	1060	1940	1490	2714	1920	3488
35	95.0	200	392.0	630	1166	1070	1958	1500	2732	1930	3506
36	96.8	210	410.0	640	1184	1080	1976	1510	2750	1940	3524
37	98.6	212	413.6	650	1202	1090	1994	1520	2768	1950	3542
38	100.4	220	428.0	660	1220	1100	2012	1530	2786	1960	3560
39	102.2	230	446.0	670	1238	1110	2030	1540	2804	1970	3578
40	104.0	240	464.0	680	1256	1120	2048	1550	2822	1980	3596
41	105.8	250	482.0	690	1274	1130	2066	1560	2840	1990	3614
42	107.6	260	500.0	700	1292	1140	2084	1570	2858	2000	3632
43	109.4	270	518.0	710	1310						

Chesterton: Mechanical Packings and Seals for Industry (Bulletin 71250) (1974)
ACL Doc 21272 · Page 86 of 87
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