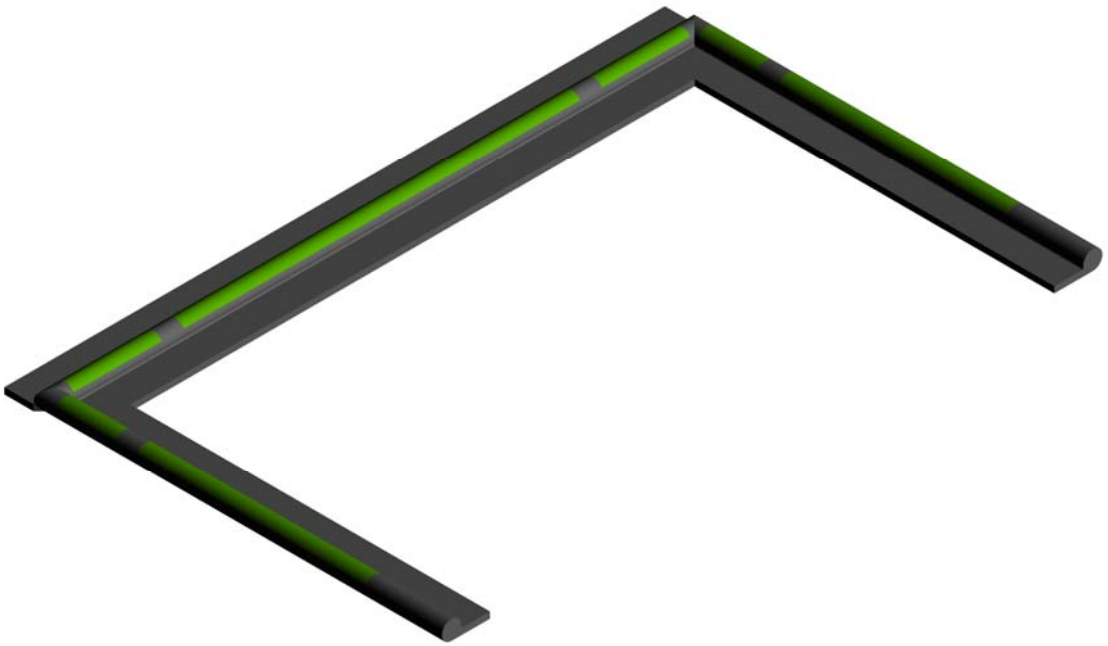
**Industrial Rubber Supply (1995) Ltd.**
*Manufacturers of Quality Industrial Products*
**55 Dunlop Avenue, Winnipeg, Manitoba, Canada R2X 2V2**
**Phone (204) 694-4444 - Fax (204) 632-6767 - www.indrub.com**
***ISO 9001:2000 Registered***

# HYDRAULIC GATE SEALS



# INDUSTRIAL RUBBER SUPPLY'S GATE SEAL PRODUCTS

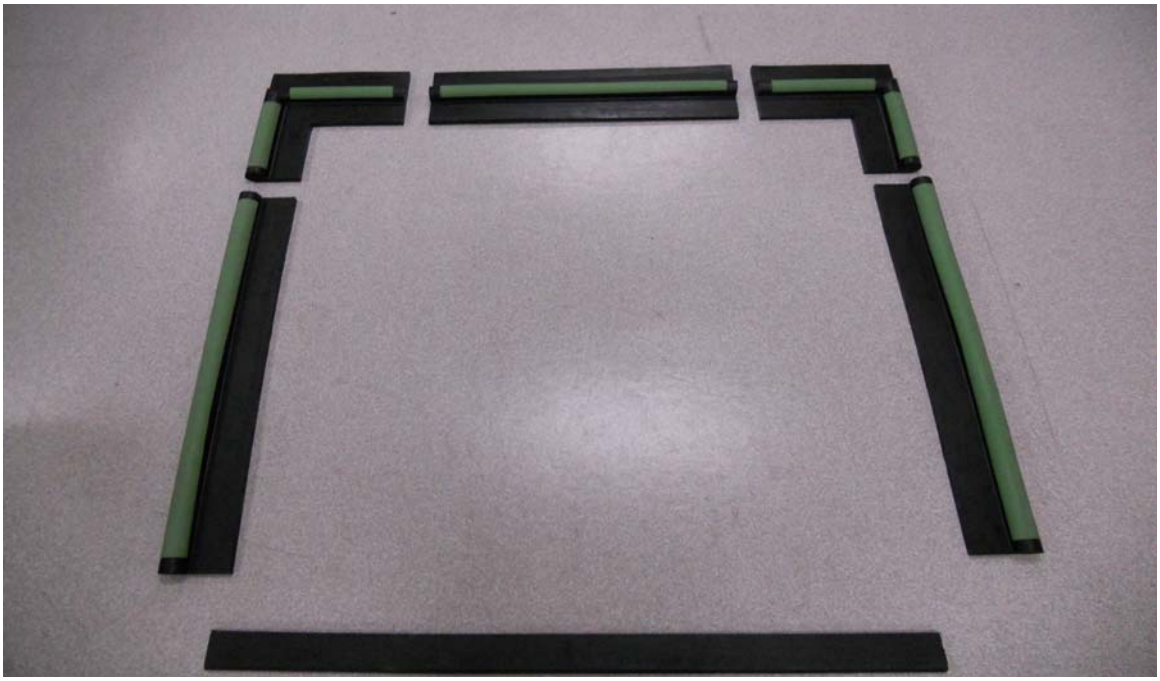
Industrial Rubber Supply manufactures Rubber Gate Seal Frames for all types of Hydraulic gates.

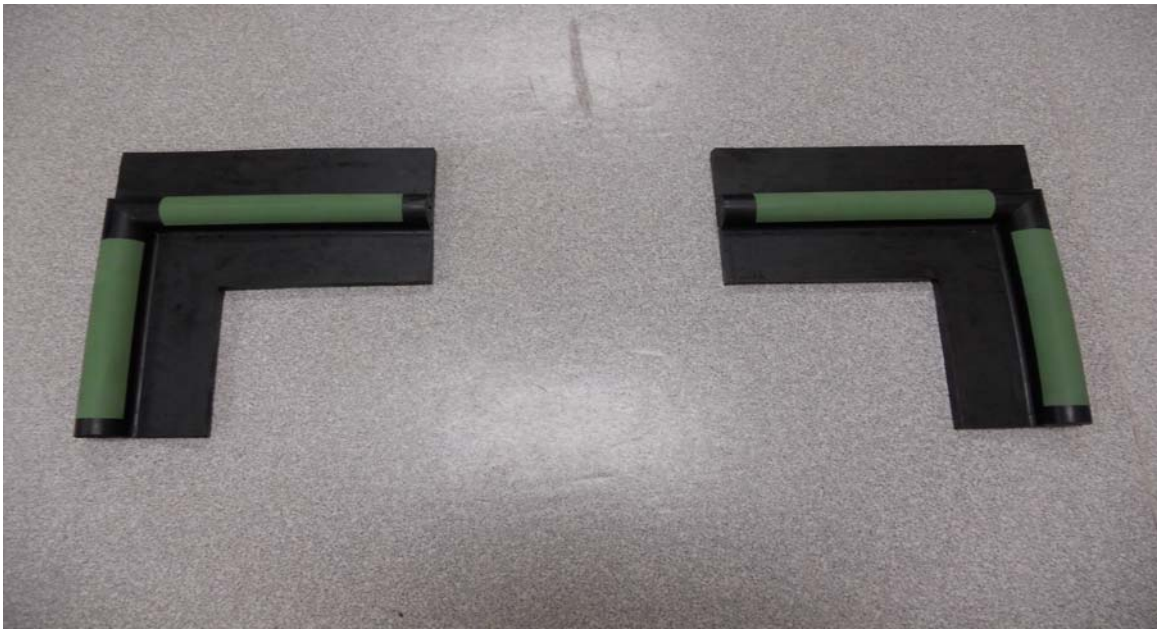
We specialize in providing complete seal frames with or without PTFE (Teflon) cladding on the specified bulb size.

Most common bulb sizes are available as well as special stop-log seals that require rubber vulcanized to customer's steel bars.

Our own in-house Mold Design and Manufacturing Department allows for quick responses on new designs and special custom products.

Only the highest quality raw materials are used for our Gate Seals. Seals that require PTFE Cladding are provided special wooden crate packaging with extra foam added for protection.





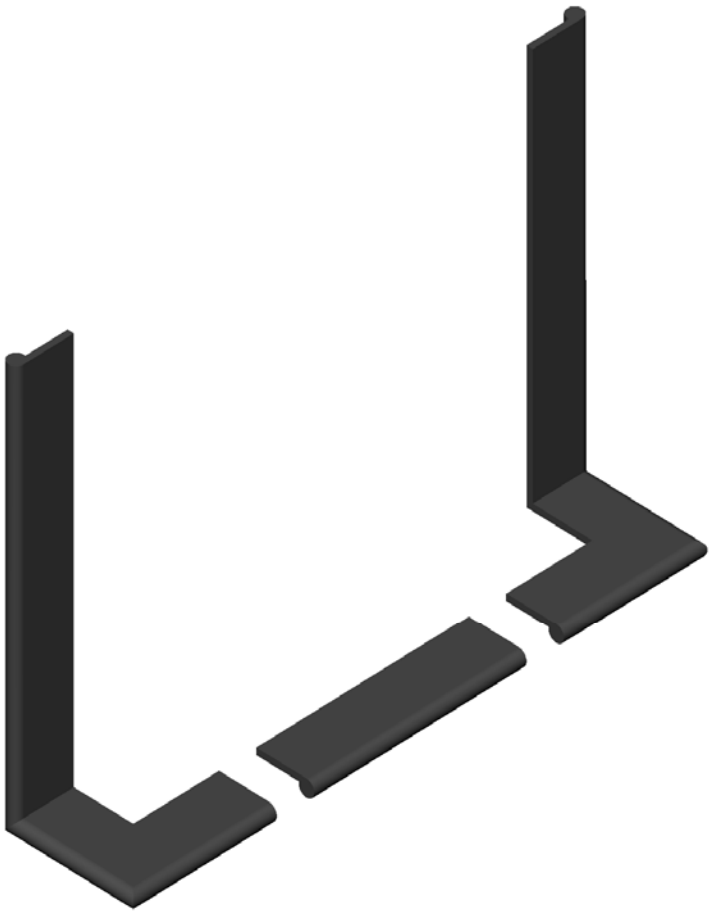
Pre-molded corners are desired for joint strength. They are available in all profile configurations for our common bulb sizes.

Our factory splices are extremely strong as a result of an extensive R&D initiative. Test results have shown the joints on occasion can hold their bond just as well as the remainder of the un-spliced areas of the seal.

Industrial Rubber Supply recommends REMA Tip Top SC2000 Cold Bonding Cement for shop and field splices. An application guide is included in this catalogue.

Bottom seals are usually provided separate of the completed seal frame. Special bottom seal corners for factory splices are available for quotation if required.

Industrial Rubber Supply also specializes in molding rubber to steel bars for special steel stop-log designs.



# Special Designs

Vertical and special transitional corners are available to produce custom seals for stop-logs.  Call for a quotation of your required corner configuration and dimensions.

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# NATURAL RUBBER TEST DATA
# HYDRO SPECIFICATION

| TEST | CRITERIA | REQUIRED RESULT | RESULTS |
|---|---|---|---|
| HARDNESS SHORE A | ASTM D2240-86 | 60 APPROX. | 63 |
| TENSILE PSI MIN. | ASTM D412-83 | 3000 | 3168.6 |
| ELONGATION % MIN. | ASTM D412-83 | 450 | 522.1 |
| 300% MODULUS PSI MIN. | ASTM D412-83 | 900 | 1550.8 |
| OZONE RESISTANCE 48 HRS 50 PPHM | ASTM D1149-86 | NO CRACKS | NO CRACKS |
| COMPRESSION SET % MAX. | ASTM D395-85 | 30 | 17 |
| WATER IMMERSION % WEIGHT CHANGE | ASTM D471-79 | 5 | 2.3 |
| OXYGEN BOMB % MIN ORIGINAL PSI STRENGTH | ASTM D572 | 80 | 80.4 |
| PTFE TO RUBBER ADHESION LB/IN MIN. | ASTM D429 | 40 | 64.7 |
| AFTER 46 HRS IN 70 C WATER % MIN. | ASTM D429 | 90 | 93.7 |
| PTFE TO RUBBER ADHESION LB/IN MIN. | ASTM D413 | 60 | 92.5 |
| JOINT LONGITUDUNAL STRENGTH MPa MIN. | ASTM D3183 | 6.9 | 12.5 |
| AFTER 7 DAYS IN 70 C WATER % MIN. | ASTM D3183 | 50 | 96 |

SAMPLE

May 25, 2010

# IR# NR6B09

**Polymer : NR** ***Gravity; 1.14 gr/cc**

**Specification: 4AA630 A13 B13 C12 F17 L14 Z1 Z2**
**Z1= oxygen bomb 48 hrs, min. tensile 80%**
**Z2 = conforms to Hydro Quebec J-Seal spec. Table # 3.1**

| ASTM test # | Property | Units | Spec | Result |
|---|---|---|---|---|
| *D2240 | hardness | Shore A | 60 +/-5 | 64 |
| *D412 | tensile | psi | 3000min | 3298 |
| *D412 | 300% Modulus | psi | 900 min | 1484 |
| *D412 | elongation | % | 450 min | 548 |
| D573 | heat age | change –hard (pts ) | +/-10 | +1 |
| | 70hrs @ 70 C | -tensile (%) | -25 | +1 |
| | | -elong. (%) | -25 | -2 |
| D395B | compression set 22hrs @ 70 C | % | 30 max | 16 |
| D1149 | ozone resist | | no cracks | pass |
| D2137 | cold temp. brittleness | deg C | -40 | pass |
| D471 | water volume Swell | % | 5 max | 3.2 |
| D572 | oxygen bomb | psi | 80% min | 2979 |
| D624 C | Tear C | pli | 250 | 431 |

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## ULTRAFLON 550G

### Product Description

Ultraflon 550G is a specialty fiber glass filled PTFE compound pigmented green. Ultraflon 550G is manufactured in a thickness range of0.010" to 0.064", and a width up to 12".

### Application Information

Ultraflon 550G is used in primarily bearing applications, but can also be used as a seal or thrust washer. Ultraflon 550G has the best combination of flexibility and load carrying properties of the Ultraflon series. This product has been designed for use running againsthard mating surfaces like cold rolled steel.

| Technical Data | Test Method | Results | Metric Results |
|---|---|---|---|
| Base Film | | Filled PTFE | |
| Tensile Strength | ASTM D 1457 | 1,500 psi | 0.0069 mpa |
| Elongation | ASTM D 1457 | 150 % | |
| Dielectric Strength | ASTM D 149 | 0.010" @ 900 - 1100 Volts | |
| Specific Gravity/Density | ASTM D 792 | 2.12 g/cc | |
| Deformation | ASTM D 621 | 3 % | |
| Coefficient of Thermal Expansion (in/in/F) | ASTM D 696 | Molded Direction @ 5.2 | |
| Coefficient of Thermal Expansion (in/in/F) | ASTM D 696 | Cross Direction @ 4.1 | |

| MOLD NUMBER | _ |
|---|---|
| I.R.S. PART NUMBER | _ |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/14/01 |
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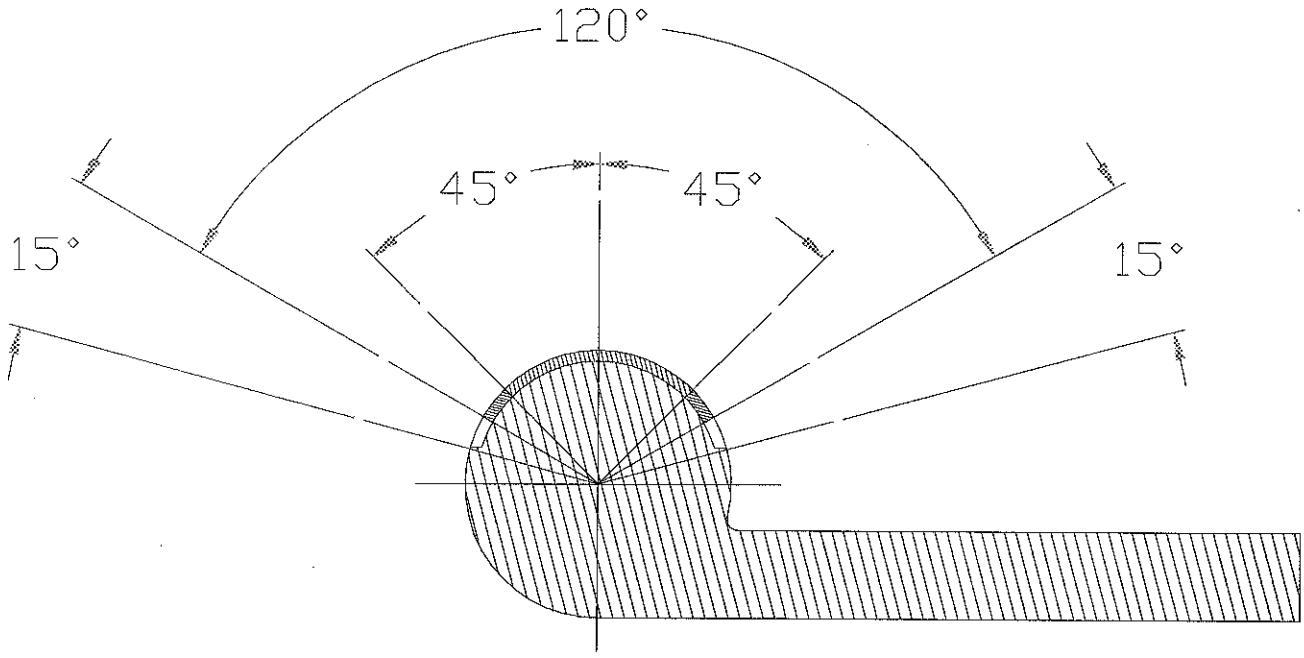
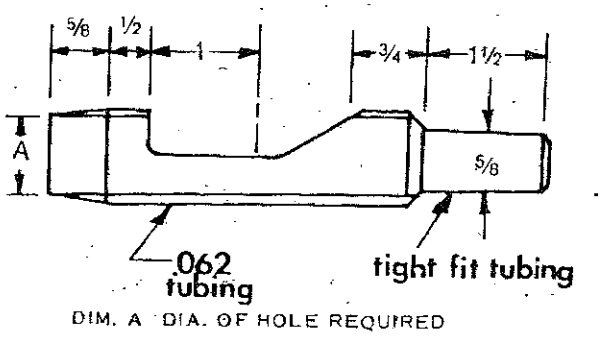
| | | | |



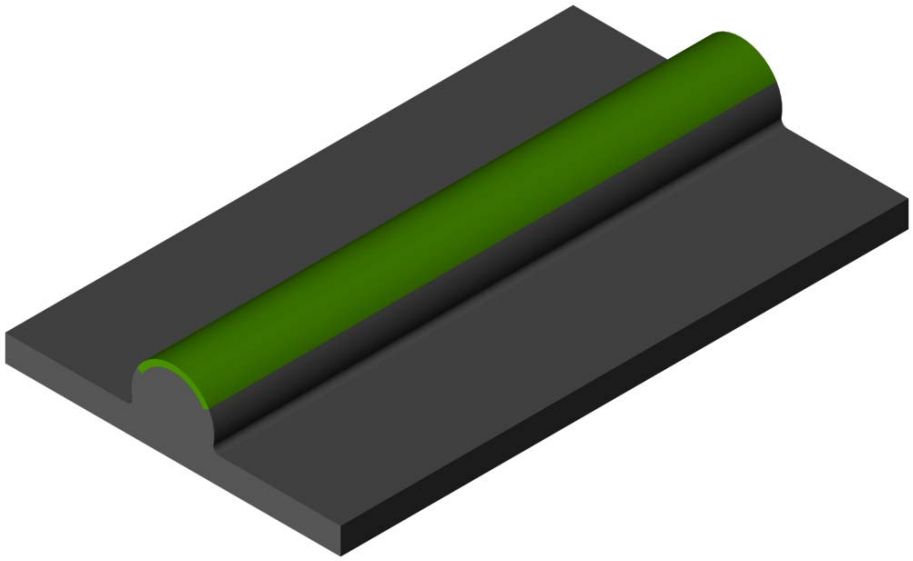

**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

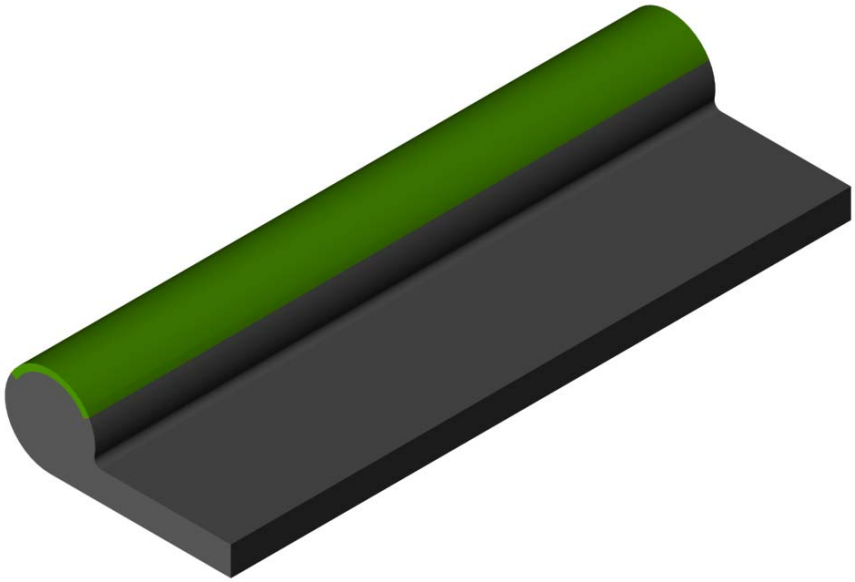
| | | | |
|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/14/01 | PART NAME: J-SEAL WITH FLUORO CARBON FILM |
| REMARKS | MATERIAL: RUBBER W/ FLUORO CARBON FILM 1/16" THICK | SHEET: 1 OF 1 | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 1:1 / REVISION: A | MOLD NUMBER: _ / I.R.S. PART NUMBER: _ |



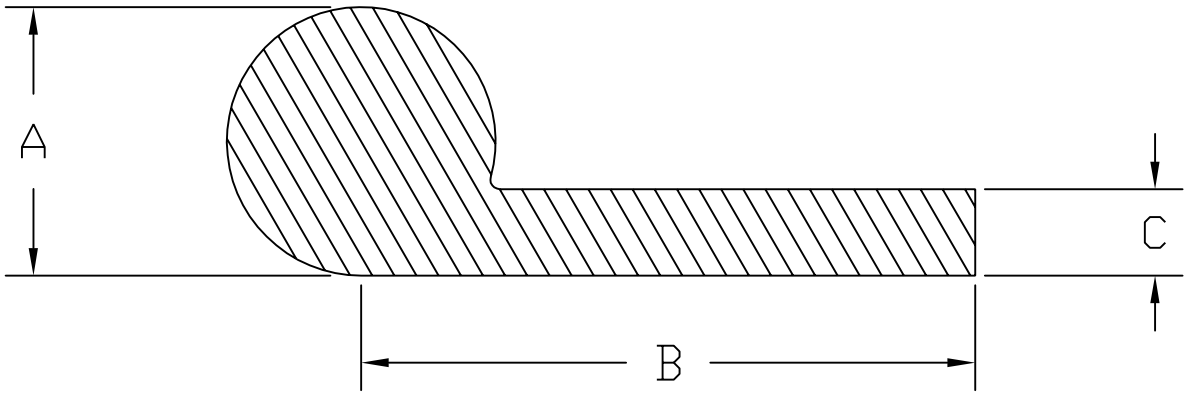

All gate seals are supplied without bolt holes. The seals are normally fitted to the gates with a clamp bar then marked and drilled by the installer.

The drill bit sketch shown above may provide a suitable hole.





| REVISIONS | | | | |
|---|---|---|---|---|
| ZONE | REV | DESCRIPTION | DATE | APPROVED |




| Seal # | A | B * | C |
|---|---|---|---|
| #907 | 1 1/4" | 4" | 1/2" |
| #273 | 1 1/2" | 6" | 1/2" |
| #295 | 1 3/4" | 6" | 9/16" |

* Given "B" dimensions are maximums.
Smaller sizes available upon request.

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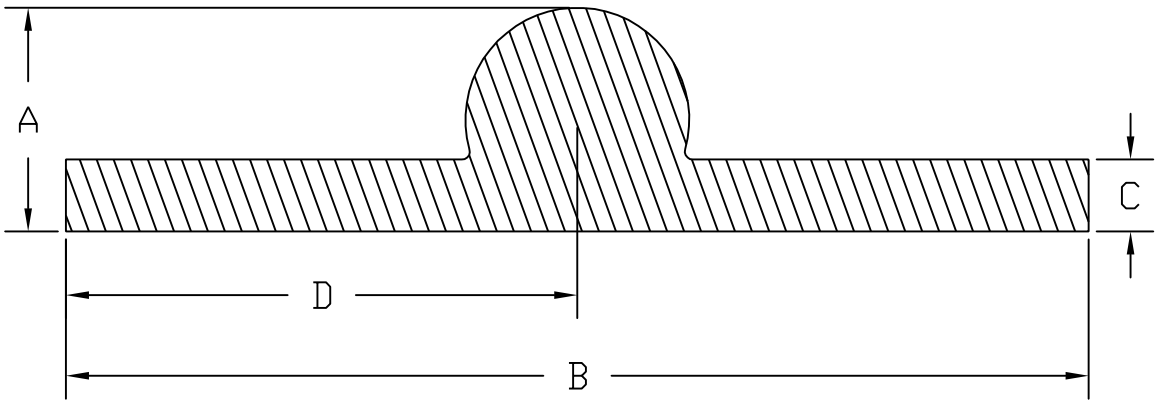
NOTE: Available with PTFE cladding on bulb.

| SIZE | FSCM NO. | DWG NO. | REV |
|---|---|---|---|
| | | J - Seal Profile | |

| SCALE | NTS | | SHEET | 1 of 1 |
|---|---|---|---|---|

| REVISIONS | | | | |
|---|---|---|---|---|
| ZONE | REV | DESCRIPTION | DATE | APPROVED |




| Seal # | A | B * | C | D |
|---|---|---|---|---|
| #908 | 1 1/4" | 8" | 1/2" | 4" |
| #603 | 1 1/2" | 12" | 1/2" | 6" |
| #178 | 1 3/4" | 12" | 1/2" | 6" |

* Given "B" dimensions are maximums.
Smaller sizes available upon request.

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NOTE: Available with PTFE cladding on bulb.

| SIZE | FSCM NO. | DWG NO. | REV |
|---|---|---|---|
| | | Center Bulb - Profile | |

| SCALE | | SHEET |
|---|---|---|
| NTS | | 1 of 1 |

| | |
|---|---|
| MOLD NUMBER | 300 |
| I.R.S. PART NUMBER | 5024 |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/14/01 |
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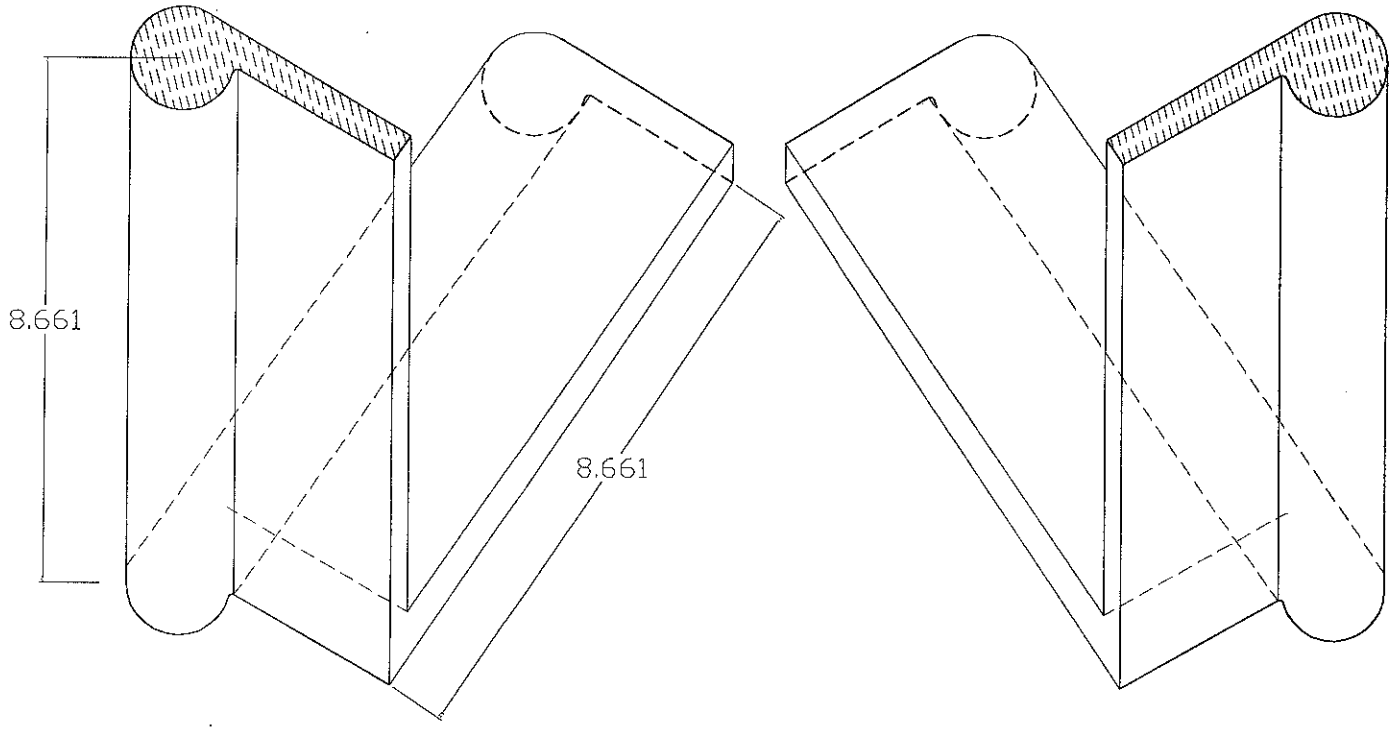


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DIMENSIONS ARE IN INCHES

REMARKS
DUROMETER HARDNESS 65
NOT AVAILABLE W/ FLUORO CARBON COATING
USE MOLD #300 BUT GRIND OFF FLAT CORNER & MAKE ROUND

| | | | |
|---|---|---|---|
| DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/13/01 | PART NAME: 90° CORNER - VERTICAL, 1-3/4" BULB | |
| MATERIAL: RUBBER | SHEET: 1 OF 1 | | |
| DIMENSION TYPE: IMPERIAL | SCALE: 3:1 | REVISION: A | MOLD NUMBER: 300 |
| | | | I.R.S. PART NUMBER: 5024 |

| | |
|---|---|
| MOLD NUMBER | 807 |
| I.R.S. PART NUMBER | 5038 |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/14/01 |
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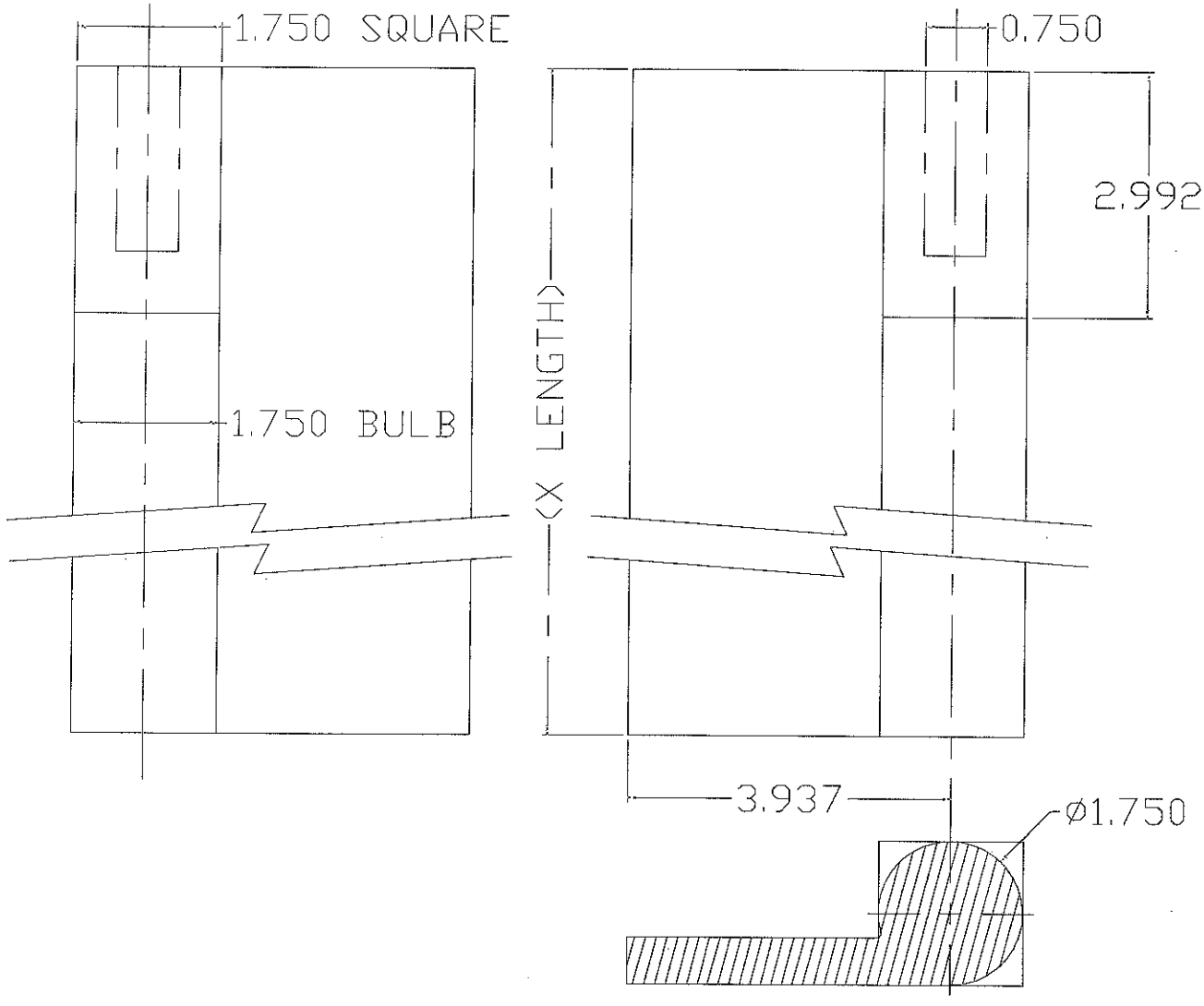


**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

| | | | | |
|---|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/14/01 | PART NAME: LEFT & RIGHT ENDCUPS - 1-3/4" BULB | |
| REMARKS: DUROMETER HARDNESS 65 NOT AVAILABLE W/ FLOURO CARBON COATING | MATERIAL: RUBBER | SHEET: 1 OF 1 | | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 3:1 | REVISION: A | MOLD NUMBER: 807 |
| | | | | I.R.S. PART NUMBER: 5031(LEFT)/5032(RIGHT) |

| MOLD NUMBER | 291 |
|---|---|
| I.R.S. PART NUMBER | 5038 |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/14/01 |
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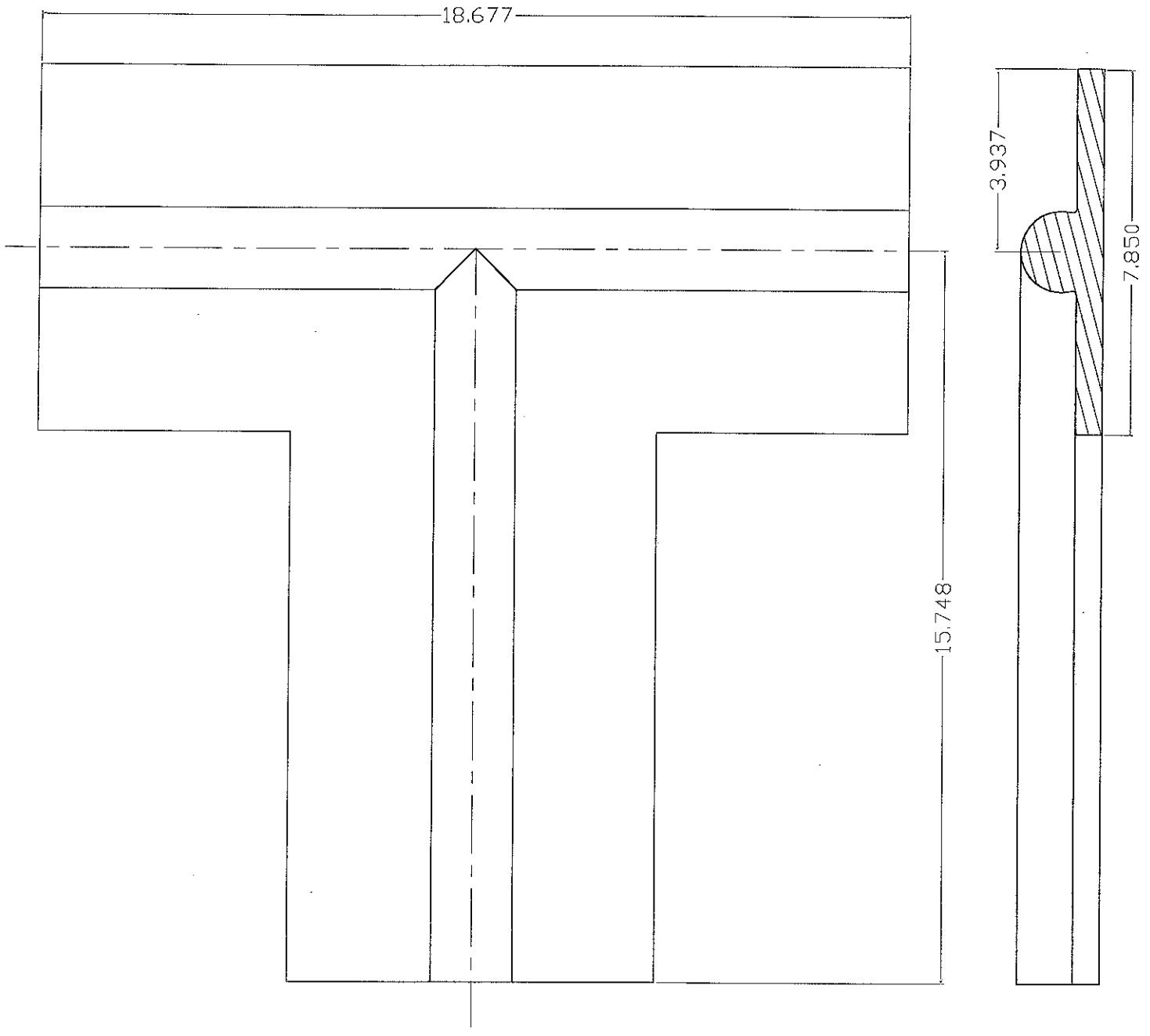


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DIMENSIONS ARE IN INCHES

REMARKS

DUROMETER HARDNESS 65

| DRAWN BY | DATE (MM/DD/YY) | PART NAME |
|---|---|---|
| PAWEL ZMUDZKI | 06/14/01 | T - CONNECTOR - 1-3/4" BULB |
| MATERIAL: RUBBER | SHEET: 1 OF 1 | |
| DIMENSION TYPE: IMPERIAL | SCALE: 3:1 / REVISION: A | MOLD NUMBER: 291 / I.R.S. PART NUMBER: 5038 |

| | |
|---|---|
| MOLD NUMBER | 253 |
| I.R.S. PART NUMBER | 5030 |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/08/01 |
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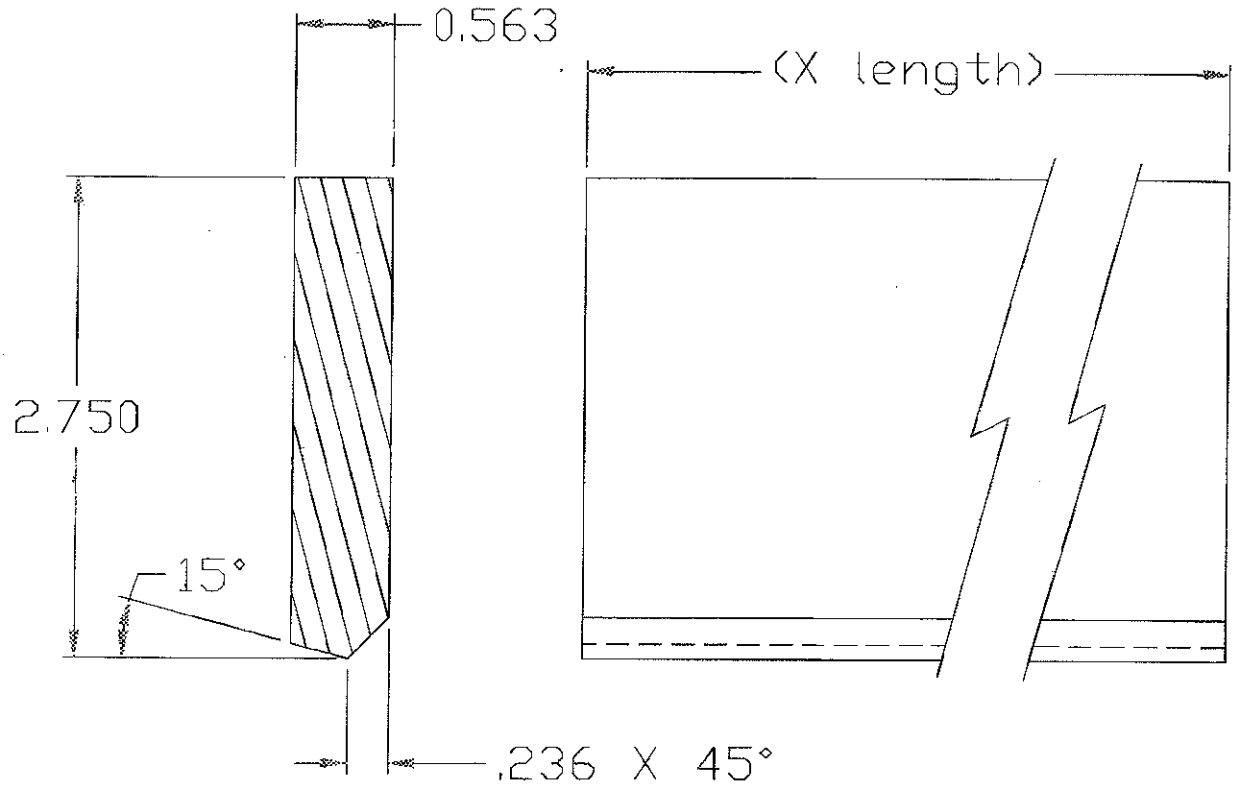


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DIMENSIONS ARE IN INCHES

REMARKS

| | | | | |
|---|---|---|---|---|
| DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/08/01 | PART NAME: BOTTOM SEAL | | |
| MATERIAL: RUBBER | SHEET: 1 OF 1 | | | |
| DIMENSION TYPE: IMPERIAL | SCALE: 1:1 | REVISION: A | MOLD NUMBER: 253 | |
| | | | I.R.S. PART NUMBER: 5030 | |

| MOLD NUMBER | 703 |
|---|---|
| I.R.S. PART NUMBER | 5035 |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/08/01 |
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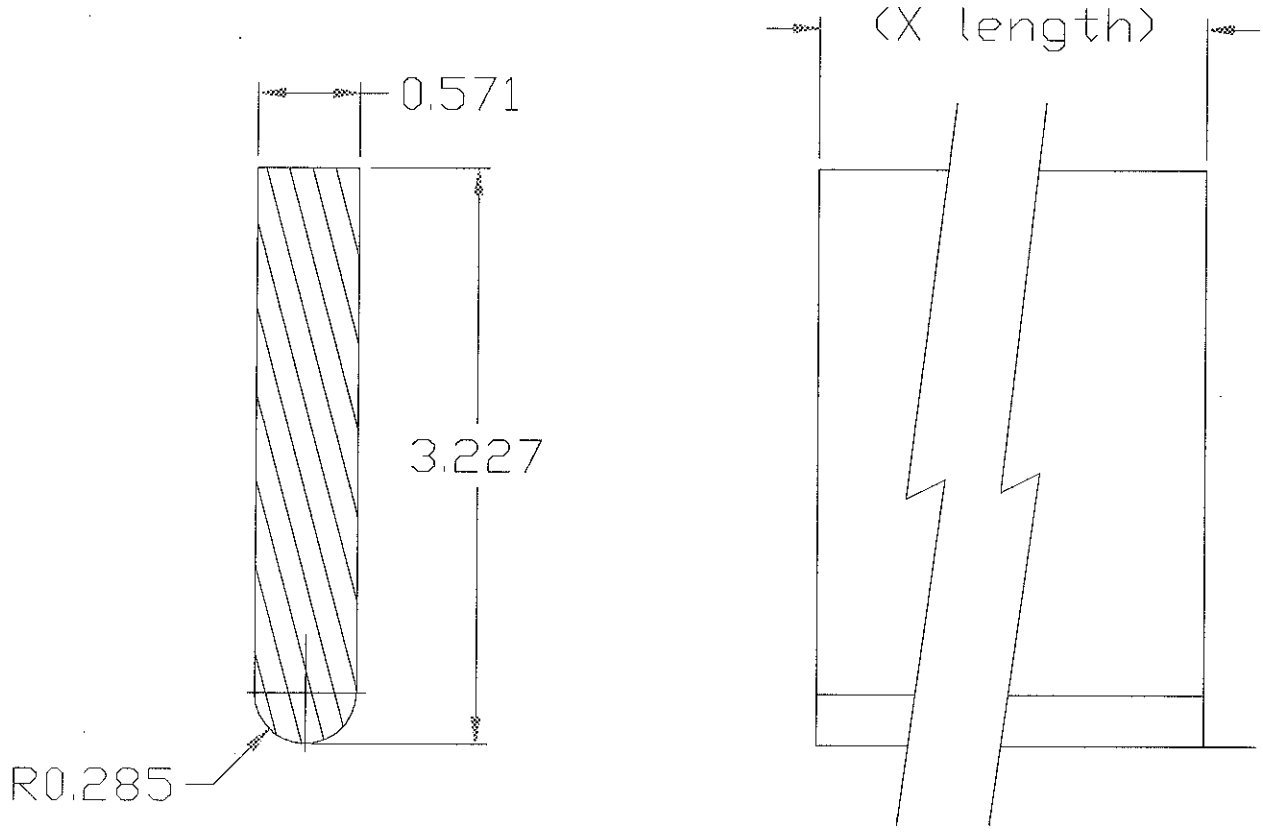


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| | | | | |
|---|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/08/01 | PART NAME: BOTTOM SEAL | |
| REMARKS | MATERIAL: RUBBER | SHEET: 1 OF 1 | | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 1:1 | REVISION: A | MOLD NUMBER: 703 |
| | | | | I.R.S. PART NUMBER: 5035 |

| MOLD NUMBER | 749 |
|---|---|
| I.R.S. PART NUMBER | 5036 |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/08/01 |
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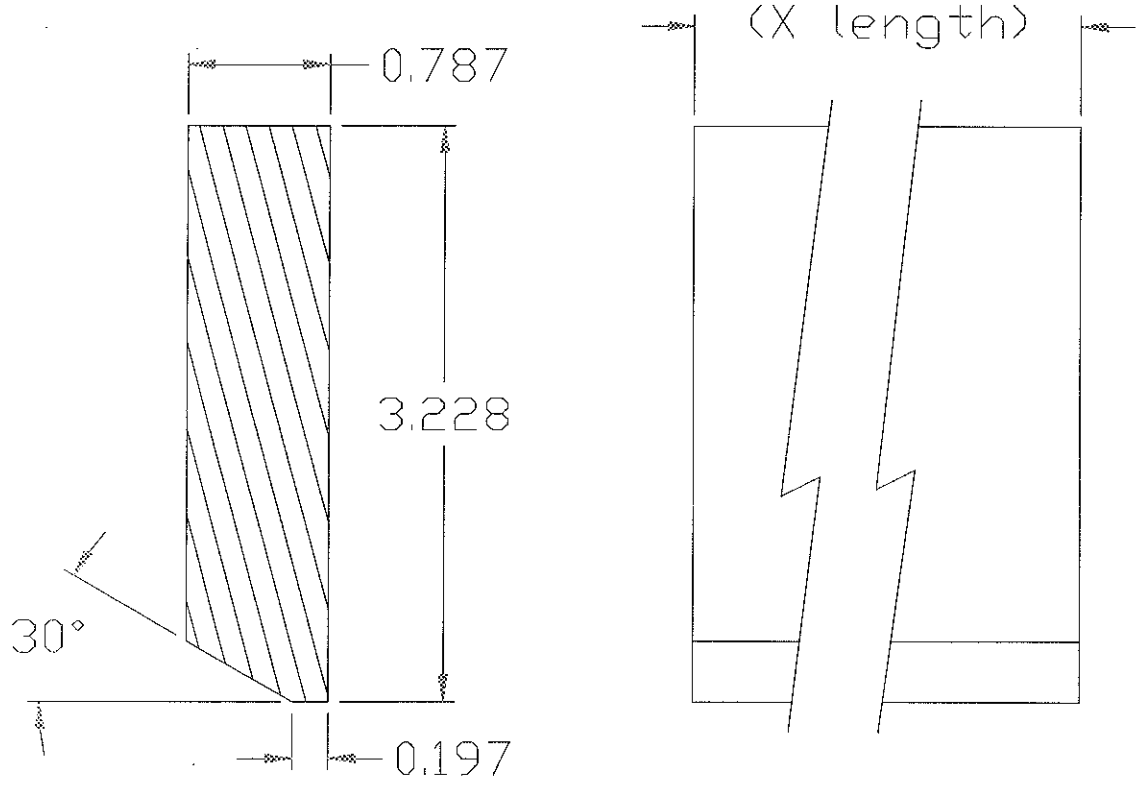


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| | | | | |
|---|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/08/01 | PART NAME: BOTTOM SEAL | |
| REMARKS | MATERIAL: RUBBER | SHEET: 1 OF 1 | | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 1:1 | REVISION: A | MOLD NUMBER: 749 / I.R.S. PART NUMBER: 5036 |

| MOLD NUMBER | 796 |
|---|---|
| I.R.S. PART NUMBER | 5037 |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/08/01 |
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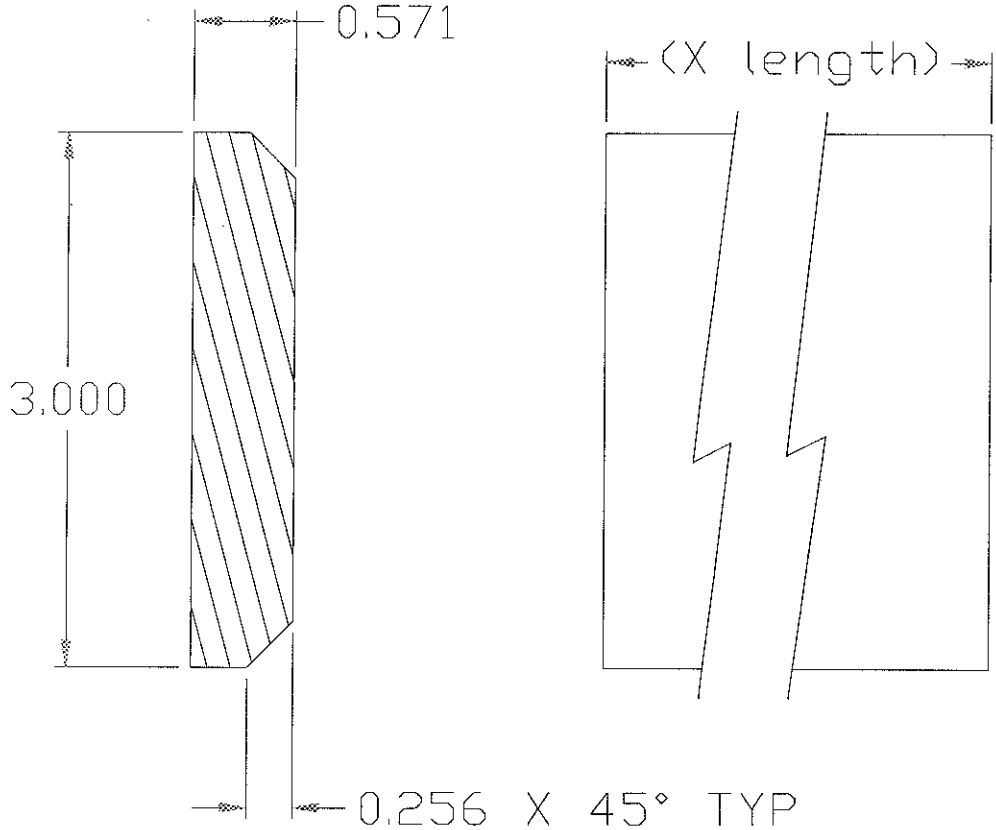


**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

| DRAWN BY | DATE (MM/DD/YY) | PART NAME |
|---|---|---|
| PAWEL ZMUDZKI | 06/08/01 | BOTTOM SEAL |
| MATERIAL: RUBBER | SHEET: 1 OF 1 | |
| DIMENSION TYPE: IMPERIAL | SCALE: 1:1 / REVISION: A | MOLD NUMBER: 796 / I.R.S. PART NUMBER: 5037 |

DIMENSIONS ARE IN INCHES

| MOLD NUMBER | 827 |
|---|---|
| I.R.S. PART NUMBER | -- |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/11/01 |
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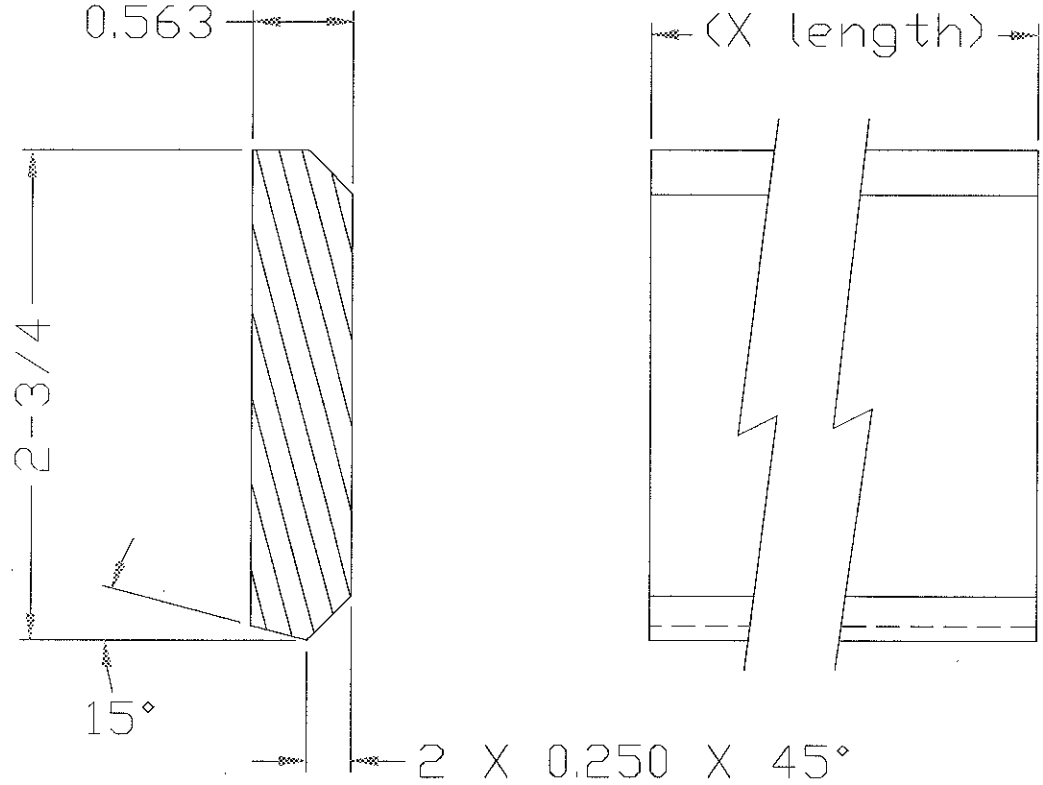


**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

| | | | |
|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/11/01 | PART NAME: BOTTOM SEAL |
| REMARKS | MATERIAL: RUBBER | SHEET: 1 OF 1 | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 1:1 / REVISION: A | MOLD NUMBER: 827 |
| | | | I.R.S. PART NUMBER: -- |

| MOLD NUMBER | 831 |
|---|---|
| I.R.S. PART NUMBER | __ |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/11/01 |
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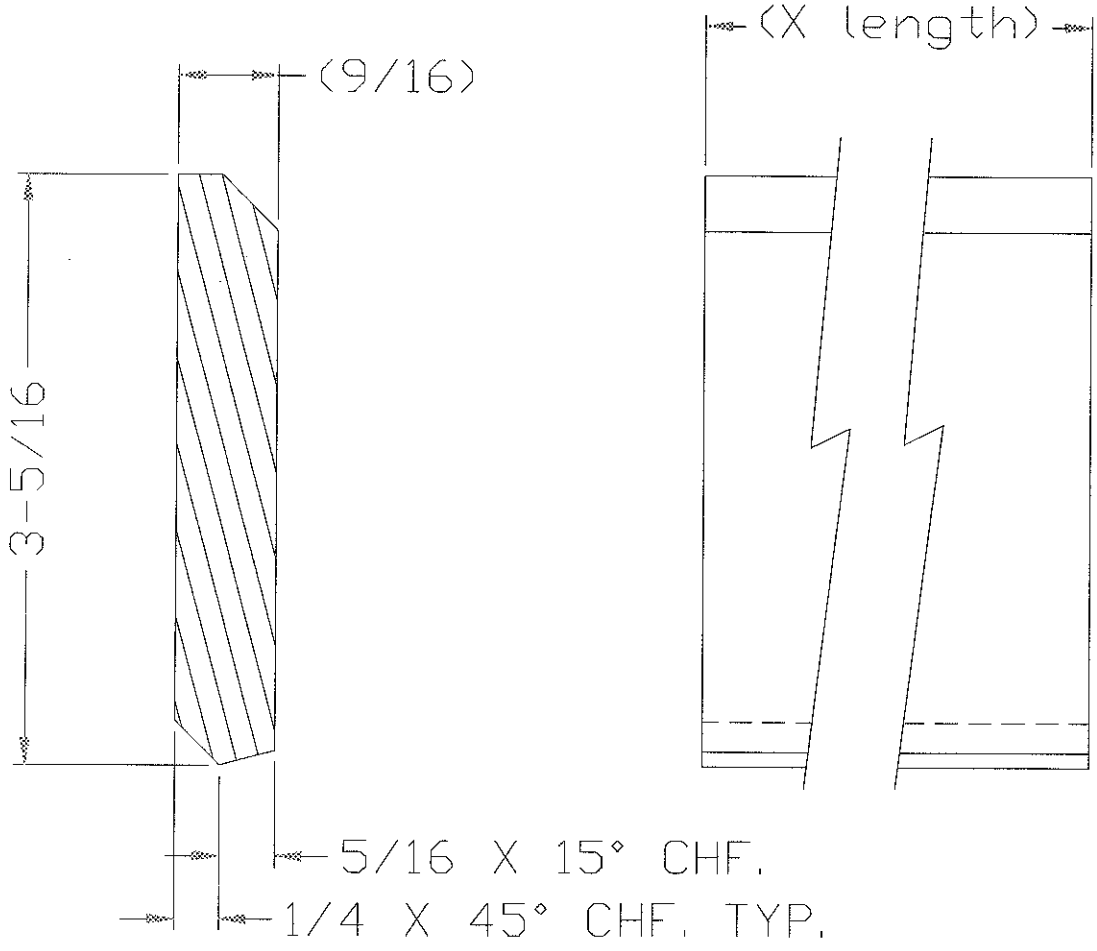


**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

| | | | |
|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/11/01 | PART NAME: HORIZONTAL SEAL |
| REMARKS | MATERIAL: RUBBER | SHEET: 1 OF 1 | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 1:1 / REVISION: A | MOLD NUMBER: 831 / I.R.S. PART NUMBER: __ |

| MOLD NUMBER | 835 |
|---|---|
| I.R.S. PART NUMBER | -- |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/11/01 |
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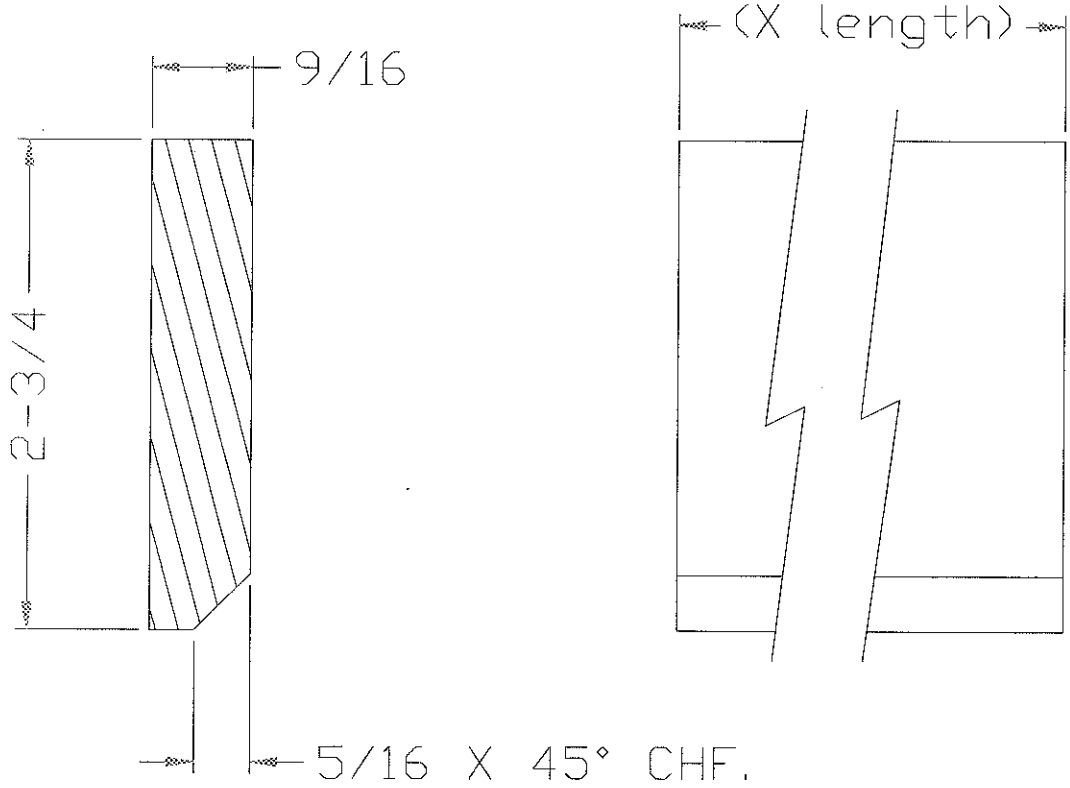


**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

| | | | |
|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/11/01 | PART NAME: HORIZONTAL SEAL |
| REMARKS: 4 PCS 2-3/4" X 334" LG | MATERIAL: NEOPRENE RUBBER ASTM D2000, 60/65 DURO | SHEET: 1 OF 1 | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 1:1 / REVISION: A | MOLD NUMBER: 835 |
| | | | I.R.S. PART NUMBER: -- |

| MOLD NUMBER | 835A |
|---|---|
| I.R.S. PART NUMBER | -- |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/11/01 |
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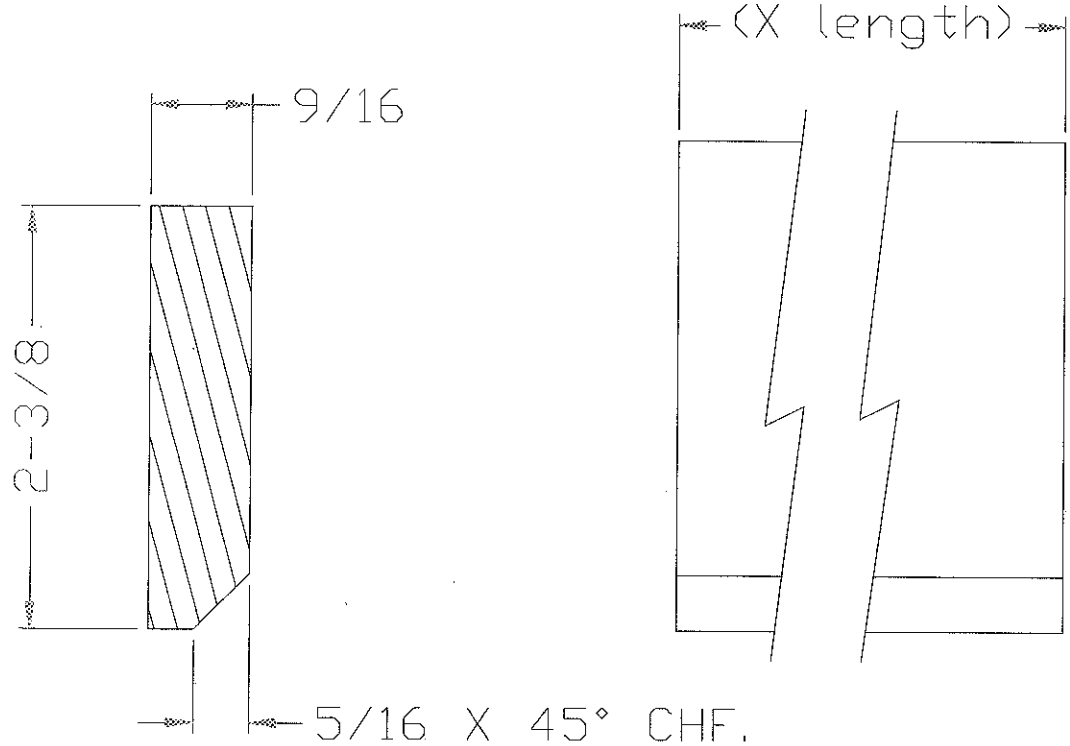
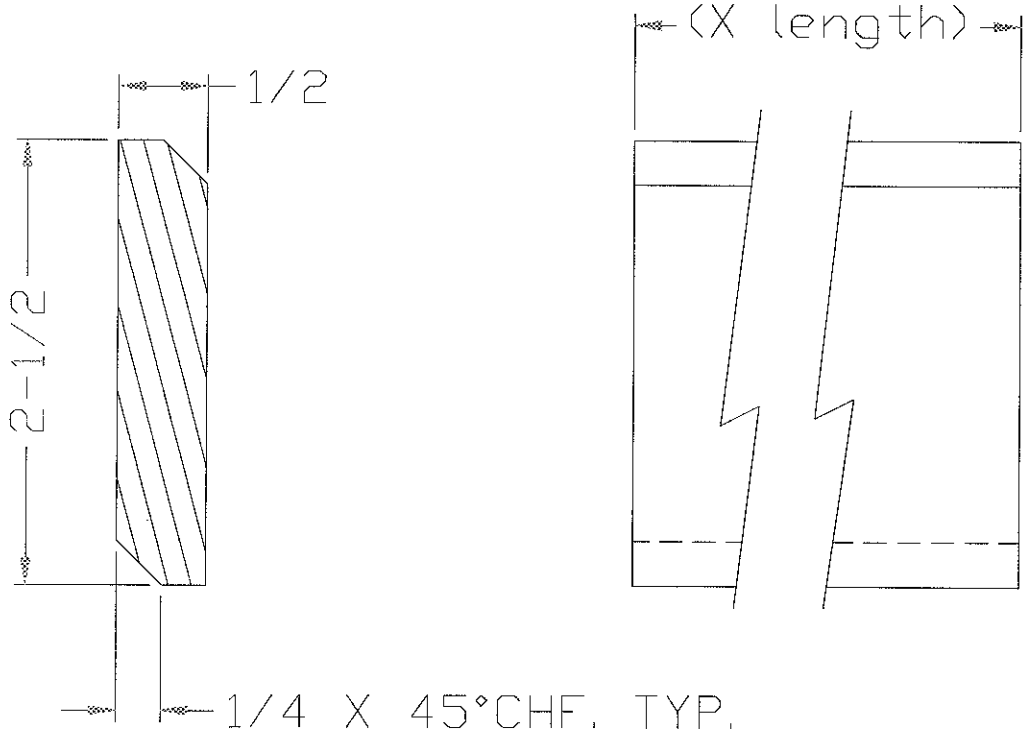



**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

| | | | |
|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/11/01 | PART NAME: HORIZONTAL SEAL |
| REMARKS | MATERIAL: NEOPRENE RUBBER ASTM D2000, 60/65 DURO | SHEET: 1 OF 1 | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 1:1 / REVISION: A | MOLD NUMBER: 835A / I.R.S. PART NUMBER: -- |

| MOLD NUMBER | 835B |
|---|---|
| I.R.S. PART NUMBER | -- |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/11/01 |
| | | | |
| | | | |




**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

DIMENSIONS ARE IN INCHES

REMARKS
242.5" LONG, 7 REQ.
USE MOLD 835 W/INSERT

| | | | | |
|---|---|---|---|---|
| DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/11/01 | PART NAME: HORIZONTAL SEAL ITEM 15 | | |
| MATERIAL: NEOPRENE RUBBER ASTM D2000, 60/65 DURO | SHEET: 1 OF 1 | | | |
| DIMENSION TYPE: IMPERIAL | SCALE: 1:1 | REVISION: A | MOLD NUMBER: 835B | |
| | | | I.R.S. PART NUMBER: -- | |

| MOLD NUMBER | 935C |
|---|---|
| I.R.S. PART NUMBER | -- |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/11/01 |
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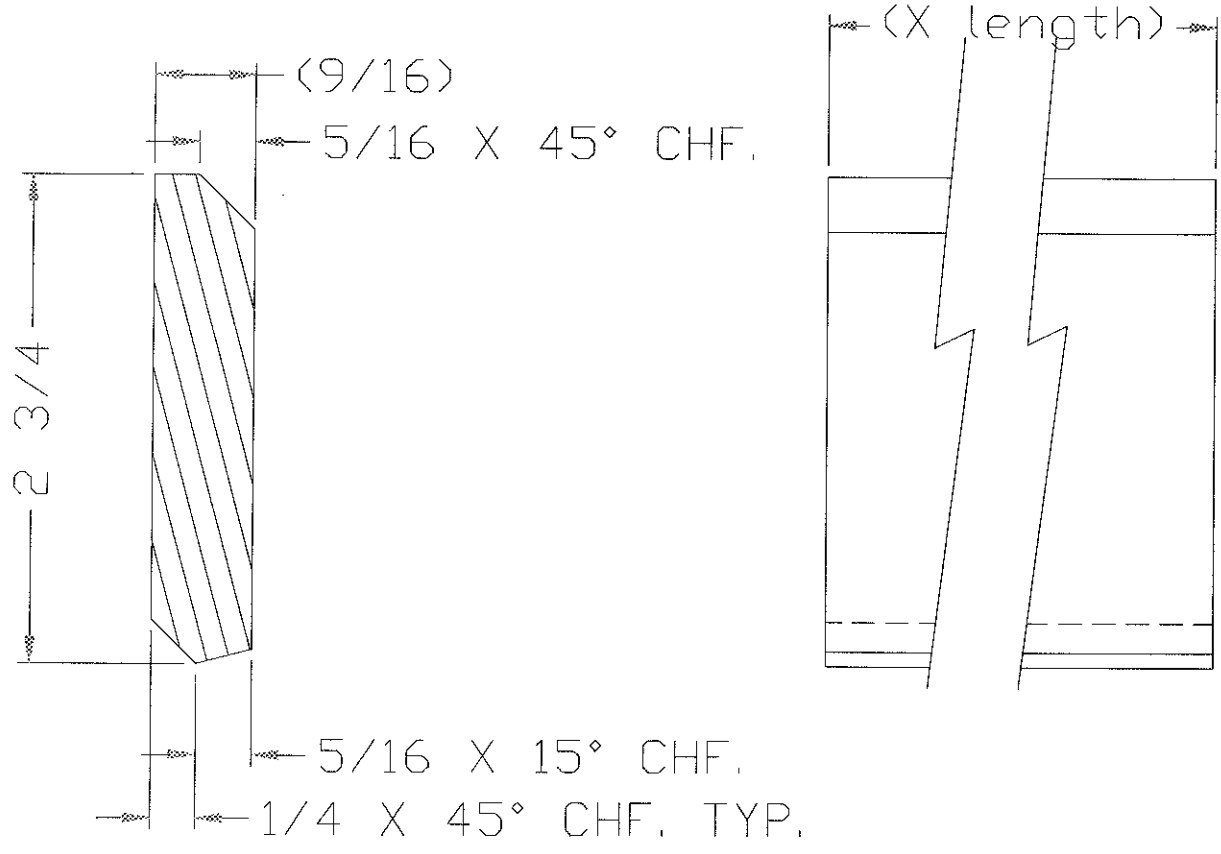


**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

DIMENSIONS ARE IN INCHES

REMARKS

| DRAWN BY | DATE (MM/DD/YY) | PART NAME |
|---|---|---|
| PAWEL ZMUDZKI | 06/11/01 | HORIZONTAL SEAL |
| MATERIAL: RUBBER | SHEET: 1 OF 1 | |
| DIMENSION TYPE: IMPERIAL | SCALE: 1:1 / REVISION: A | MOLD NUMBER: 935C |
| | | I.R.S. PART NUMBER: -- |

| MOLD NUMBER | 904 |
|---|---|
| I.R.S. PART NUMBER | -- |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/11/01 |
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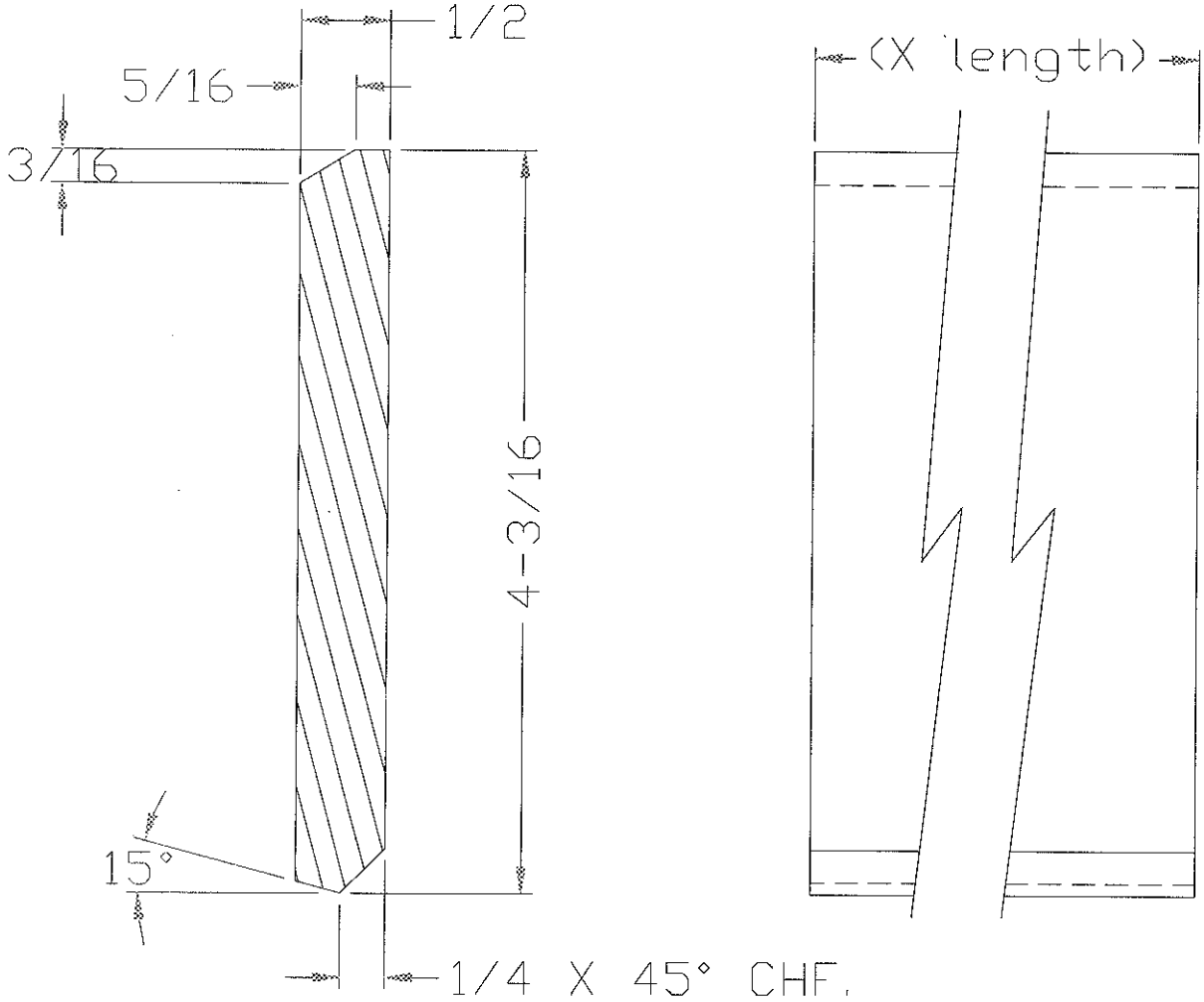


**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

DIMENSIONS ARE IN INCHES

REMARKS
PHYSICAL PROPERTIES:
TENSILE STREANGTH 3000psi (min)
ELONGATION AT BREAK 45%
DUROMETER HARDNESS-SHORT TYPA A 60 TO 70
WATER ABSORBTION 5% BY WGT. (MAX)
TENSILE STRENGTH AFTER OXYGEN BOMB AGENT 80% OF T.S

| DRAWN BY | DATE (MM/DD/YY) | PART NAME |
|---|---|---|
| PAWEL ZMUDZKI | 06/11/01 | INTAKE GATE LIP SEAL |
| MATERIAL: NATURAL RUBBER | SHEET: 1 OF 1 | |
| DIMENSION TYPE: IMPERIAL | SCALE: 1:1 / REVISION: A | MOLD NUMBER: 904 |
| | | I.R.S. PART NUMBER: -- |

| MOLD NUMBER | 727 |
|---|---|
| I.R.S. PART NUMBER | 5014 |

| REVISIONS | | | |
|---|---|---|---|
| REV | REVISED BY | INITIALS | DATE (MM/DD/YY) |
| A | PAWEL ZMUDZKI | | 06/11/01 |
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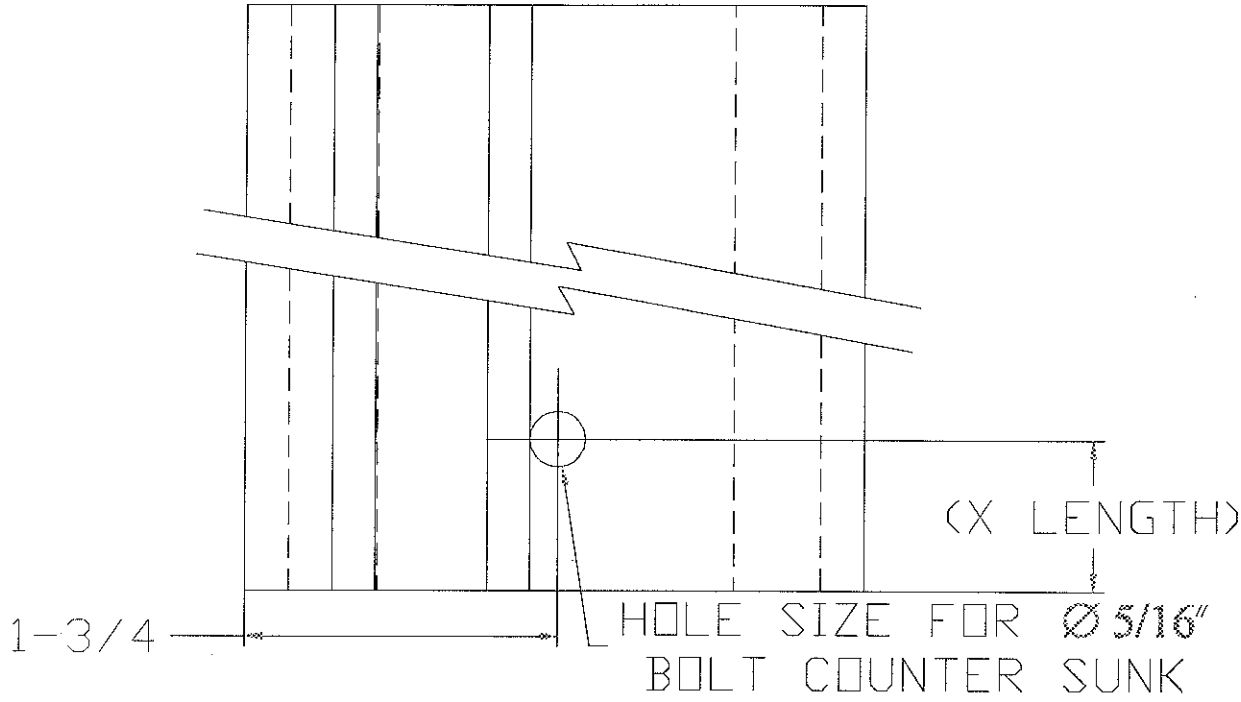


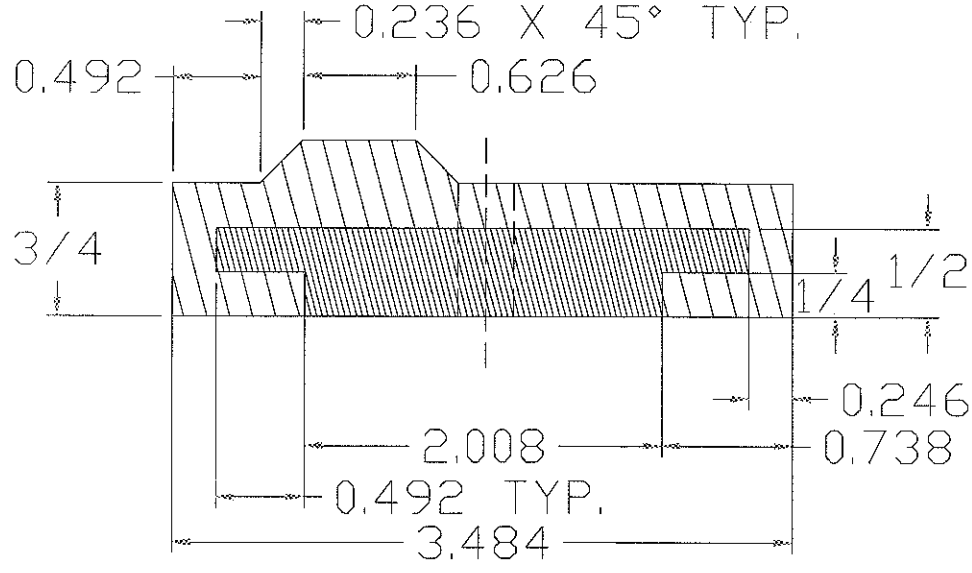


**INDUSTRIAL RUBBER SUPPLY CO. LTD.**

| | | | | |
|---|---|---|---|---|
| DIMENSIONS ARE IN INCHES | DRAWN BY: PAWEL ZMUDZKI | DATE (MM/DD/YY): 06/11/01 | PART NAME: STOP LOG SEAL | |
| REMARKS: DUROMETER HARDNESS 40 | MATERIAL: NATURAL RUBBER | SHEET: 1 OF 1 | | |
| | DIMENSION TYPE: IMPERIAL | SCALE: 1:1 | REVISION: A | MOLD NUMBER: 727 / I.R.S. PART NUMBER: 5014 |

REMA TIP TOP/NORTH AMERICA INC.
North America, Headquarters (800) 225-REMA
Atlanta Technical Hotline (800) 334-REMA
Arizona Office (800) 772-REMA
Nevada Office (800) 428-REMA
WEB SITE: www.rema.com

# REMA Tip Top North America, Inc.
# SC-2000 COLD BONDING CEMENT

Widely recognized as the worlds finest cold vulcanizing cement REMA SC-2000 is the solution to your industrial bonding problems. By using REMA UTR 20 hardener with the SC-2000 cement natural rubber, neoprene rubber, SBR rubber and others can be bonded to each other, fabric and to steel without the aid of heat, pressure or special equipment.

**Description**
REMA SC-2000 is a two component, room temperature curing chloroprene based liquid rubber adhesive that, when catalyzed with the appropriate amount of UTR-20 Hardener, yields high strength adhesions. REMA SC-2000 is ideal for use in lining installations, when bonding rubber to rubber, rubber to fabric, rubber to steel, rubber to concrete, fiberglass, and urethane, as well as the splicing and repair of fabric conveyor belting. Repair to existing rubber lined vessels and rubber components is also recommended.

**Mixing instructions**
The REMA SC-2000 cement system is comprised of cement and hardener in the ratio of 1 Kg of cement to 40 Grams of hardener. These two components must be thoroughly mixed (stirred). The mixed portion should be used within 2 hours.

## Surface Preparation & Application Methods

**Rubber to Steel**
All surfaces must be clean, dry and free of oil, paint and other contamination. Steel and other metallic surfaces should be sandblasted to a 4 mil profile (SSPCV-SP-5-63 "White Metal Blast Cleaning") to obtain maximum adhesion. A brushing application to all substrates is the preferred method to avoid possible bridging of a high profile surface. Metal surfaces should first be cleaned with REMA CLEAN solvent and then sandblasted and cleaned again with REMA CLEAN solvent. The metal surface should then have REMA READI FAST METAL PRIMER applied. Take special care to insure all directions on the container are followed. After allowing the primer coat to cure or dry for (30 min) before proceeding with bonding procedures.

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**Fiberglass**
The surface should be prepared by first cleaning with REMA CLEAN solvent , then sanded, and recleaned with REMA CLEAN solvent to help remove abraded particles. Allowing the solvent to evaporate. Then the prepared surface must then be primed with REMA SC-2000 cement. The prime coat of cement should be allowed to partially cure at least 1 hour (overnight is ideal). After allowing the prime coat to cure or dry for at least 1 hour, proceed with bonding procedures.

**Rubber to Rubber**
The surface should be prepared by first cleaning with REMA CLEAN solvent to remove all mould releases. Rubber that does not have the special REMA CN bonding layer, requires cleaning with REMA CLEAN solvent and when dry, buffing to a RMA #4 textured finish. The rubber dust should be removed with a dry brush and then wipe the surface with REMA CLEAN solvent again before the prime coat of REMA SC-2000 cement is applied to the prepared surface. The applicator should use a scrubbing-like motion when applying the REMA SC-2000 cement. A scrubbing motion is preferred so that all voids on the buffed surface to be bonded are filled in. After allowing the prime coat to cure or dry for at least 1 hour (overnight is ideal) proceed with bonding procedures.

**Concrete**
The best surface preparation for concrete is sandblasting to provide a clean, dry and sound substrate. When sand-blasting is not practical, the surface may be acid etched following the manufacturer's recommendations. After sandblasting or etching, the surface must be primed with REMA SC-2000 cement. For ease of application the prime coat could be roller applied by diluting the REMA SC-2000 cement with REMA CLEAN solvent, about 50%. This dilution will assure better absorption. The second coat of REMA SC-2000 cement must not be diluted for optimum adhesion.

**Wood**
The best surface preparation for wood is sandblasting. Wood must be dry. After sandblasting, the surface must be primed with REMA SC-2000 cement. For ease of application the prime coat could be roller applied by diluting the REMA SC-2000 cement with REMA CLEAN solvent, about 50%. This dilution will assure better absorption. The second coat of REMA SC-2000 cement must not be diluted for optimum adhesion.

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**Fabric to Fabric**
Fabric that is R.F.L. treated should be clean and dry and the number of coats of REMA SC-2000 cement will depend on the weight and weave of the fabric. Take special care to insure all indentations are filled (such as heavy conveyor belt fabric).

**Bonding**
When applying the REMA SC-2000 cement a scrubbing motion is preferred so that all voids on the surface to be bonded are filled in. The first coat of cement should be allowed to partially cure at least 1 hour (overnight is ideal.) The second coat should not be scrubbed because the solvent in the cement would attack and lift the first coat. This is more evident when the first coat has a short cure time.

To the properly prepared or primed surfaces apply a tack coat of REMA SC-2000. cement to each surface at the same time so they dry at the same rate. As rapidly as possible, apply a uniform coat with a brush. Avoid heavy builds, puddles, uneven coating. Surfaces must dry uniformly.

When surfaces dry to a tack, about 3-6 minutes, they are ready to bond (This tack or bonding time will be about 10-15 minutes, if the surfaces become too dry, apply another tack coat to each). Test the cement with the back of a dry finger, it should feel tacky and not leave any cement on the finger. SURFACES MUST BE TACKY WHEN BONDED. Join surfaces together when the cement is still tacky but not wet to the touch. and roll with a 2" wide roller with appropriate pressure to bond surfaces together. Use overlapping roller strokes making sure both surfaces fully contact each other and all air is expelled..

For additional information Contact your REMA TIP TOP rubber specialist.

**Bond Evaluation**
REMA SC-2000 is capable of bonding rubber to steel in the range of 60-70 lbs. peel per inch width. Bond strengths of fabric to fabric, such as fabric conveyor belting develops over 500 lbs. in shear.

**Bond strengths measured in Lbs per Inch peel strength**

| | 2 hrs | 5 hrs | 12 hrs | 24 hrs | 7 days |
|---|---|---|---|---|---|
| Rubber to Steel | 60 | 63 | 64 | 65 | 72 |
| Rubber to Rubber | 24 | 29 | 34 | 40 | 60 |
| Fabric to Fabric | 20 | 24 | 25 | 28 | 32 |
| Rubber to Fabric | 18 | 24 | 26 | 28 | 55 |

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**Pot Life**
The gel time or working life of the mixture is approximately 2 hours at 70° F.

**Coverage**
Approximately 20 sq. ft. per 1 lb. @ brush coating.

**Physical Properties**

| | |
|---|---|
| Color | Black |
| Weight per Gallon | 11 lbs. |
| Consistency | Brushable liquid |
| Tensile Strength | 2,600 lbs |
| Diluents | Chlorinated or Ketones Solvents |
| Oil Resistance | Excellent |
| Working Temp | -40° to 200° F. (-40° to 93° C.) |

**Storage**
Shelf life of unopened containers is 2 years. REMA SC-2000 cement and hardener should be stored in a cool dark place away from heat, sparks and flame under 70° F (20 C).

**Safety**
REMA SC-2000 contains solvents, the inhalation of excessive amounts of vapor may induce an allergic respiratory reaction to sensitized individuals. Avoid skin contact. Wear protective clothing, impervious rubber gloves, and safety glasses. In case of skin contact, wash well with soap and water. Spills should be absorbed with absorbent material and water added to destroy isocyanates. When applying REMA SC-2000 cement in confined areas, suction ventilation equipment should be in operation. The equipment should be arranged so that vapors are drawn down and away from the applicator. REMA SC-2000 cement is non-flammable. The UTR 20 Hardener is flammable although when mixed together they become non-flammable. As always the usual fire safety measures should be observed. Keep away from heat, sparks and open flame. Do not use until the MATERIAL SAFETY DATA SHEET and INSTRUCTIONS have been read and understood.

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**Packaging Sizes and Hardener Amounts**

- 1 Pt REMA SC-2000 cement with one 20 grm. UTR 20 Hardener
- 1 Qt REMA SC-2000 cement with one 40 grm. UTR 20 Hardener
- 1 Gal REMA SC-2000 cement with five 40 grm UTR 20 Hardener
- 55 Gal REMA SC-2000 with (275) 40 grm UTR 20 Hardeners

The recommendations for the use of our products are based on tests believed to be reliable but no warranty is given. Since conditions of use are beyond our control all risks of use are assumed by the user.

**For Technical Assistance and Professional Advice**
**Please Contact you Local REMA Agent or Call (800) 225-REMA**