



K•Prene® the Unequaled urethane for....

Sheet Metal, Wood, High Performance and Industrial Applications!



Order online @ www.acrotechinc.com



## Selecting K•Prene® for Metal Forming

The K•Prene® grades listed below are the materials most often used for metal forming. The type of application, available press tonnage, and the characteristics of the metal to be formed will assist in selecting the best grade and size.

In addition, the urethane provides a unique combination of properties. These include: high loadbearing capacity; toughness; hardness; abrasion resistance; and oil and ozone resistance.

### K-800A

Requires lower tonnage. Withstands greater deflection Should not be used for material heavier than 20 gauge mild steel except in special applications. Maximum recommended deflection 35%.

### K-900A

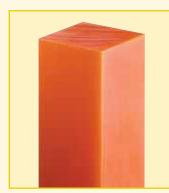
Withstands consistent flexing. Good cut resistance. Good load-bearing capacity. Recommended for most applications where large radius bends or difficult bends require large deflection or flow of K. Prene®. Maximum recommended deflection 25%.

### K-950A

High tensile strength for higher blank-holding pressure. High loadbearing capacity. Best tear strength. Best cut resistance. Best abrasion/wear resistance. Recommended for most applications. Maximum recommended deflection 15%.

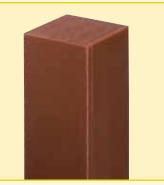
### K-750D

Greatest load-bearing capacity. Excellent machinability. Good abrasion/wear resistance. Offers greatest rigidity, yet will deflect. Maximum recommended deflection 5%.









We provide standard polyurethane materials from 10 Shore A to 85 Shore D Durometer. Consult factory.

## Industrial Products

### Stocked Durometers/Hardnesses

K-400A Yellow 40A Duro: A low durometer material with a high coefficient of friction that will satisfy countless industrial needs such as rollers, bumpers, etc.

K-600A Black 60A Duro: High coefficient of friction and excellent tensile strength makes this material a good choice for feed rolls and many other industrial applications.

K-800A Orange 80A Duro: Good tear strength, abrasion resistance and excellent flex life. Good low temperature properties.

K-900A Blue 90A Duro: Withstands constant flexing. Good cut resistance and load-bearing capacity.

K-950A Red 95A Duro: High tensile strength and load-bearing capacity. Good tear strength, cut resistance, and abrasion resistance.

K-750D Brown 75D Duro: Great load-bearing capacity. Excellent machinability and abrasion resistance. Offers great rigidity, yet will deflect.

Custom formulations available. Consult factory.



Our K•Prene® sample chains can be very helpful. Be sure to request one!

## TERMS,

## CONDITIONS

## & ORDERING

## INFORMATION

### To Order

Indicate the part number, or the dimensions if there is no part number, the durometer and quantities desired for each part. Minimum orders required as noted.

### **Terms**

Net due 30 days with approved credit, C.O.D., Visa, MasterCard, Discover and American Express.

### **Availability**

Products are stocked in K-400A, K-600A, K-800A, K-900A, K-950A and K-750D, unless noted otherwise and often can be shipped the same day as ordered.

### **Prices**

Subject to change without notice. Cutting charges may be additional.

### **Return Policy**

Please note: Custom and non-standard orders shipped to customer specifications cannot be returned.

A 20% re-stocking fee will be charged when returning stocked products.

To return defective goods for replacement or credit, Acrotech must be notified within 30 days of your receipt of the material. All requests for credited returns must be confirmed with Acrotech, before the material is returned. Acrotech's liability for returned materials is limited to the cost of our materials.

## Table of Contents

	Physical Properties of K•Prene® Urethane	2
	Application Ideas	
	K•Prene® and Metal Forming	4
	Acro-hyde <sup>™</sup> , Acroform <sup>™</sup> Inserts	
	Tru-Form® Press Brake Dies 6	
	Female Press Brake Dies	8
	Custom Bottom Dies	ç
	SurStrip <sup>™</sup> Punch Strippers	10
	Strippers-Wiedeman, Di-Acro	11
	Tubes/Springs	14
	Tubes/Springs (Metric)	14
	Round Rods (Standard & Metric)	15
	Precision Cast Sheets	16
	Square & Rectangular Bars	17
	Versa Roll™	18
NEW!	Balls	19
	Holster, Slick Strip Tape, Metal Backed Sheets	19
	Round, Square & Rectangular Bumpers	20
NEW!	Polyurethane Tape	21
	Double-faced Tape, Adhesive	21
NEW!	Wood Industry - Drive Wheels, Power Feed Tires and Hubs, OEM Replacement Parts	23
NEW!	•	
	Machining K•Prene®	
	Custom Molding - Stripping and Recovering,	_ `
	FDA approved materials etc. 27.2	26

### **Dimension Tolerances**

These tolerances cover all stocked products, except where noted. Please advise factory if closer tolerance is required.

### **SHEETS**

Length: +1/4 - 0Width: +1/4 - 0

Thickness: +/-2% or +/-.010

whichever is greater

## ROUND, SQUARE & RECTANGULAR BARS

Length: +1/4 - 0

O.D. +/-2% or +/-.010

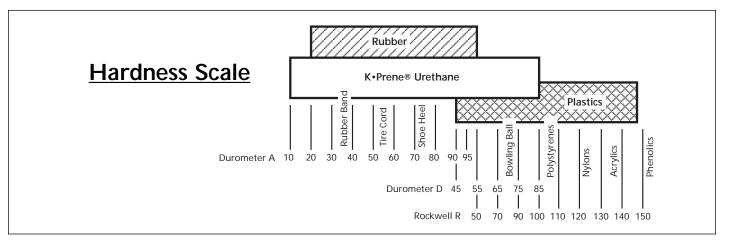
whichever is greater

To place orders online, or download information, visit www.acrotechinc.com





	ASTM STD.	K-400A	K-600A	K-800A	K-900A	K-950A	K-750D
Hardness, Shore A	D-2240	40	60	80	90	95	
Shore D	D-2240	_	_	_	43	50	75
Tensile Strength, PSI	D-412	500	3500	3000	5500	6500	9700
Elongation, %	D-412	510	530	800	430	380	250
100% Modulus, PSI	D-412	90	280	400	1100	1800	4900
300% Modulus, PSI	D-412	200	390	625	2200	4300	
Tear Strength, Split, Lb/In	D-470	20	25	70	90	130	115
Tear Strength, Die C, Lb/In	D-624	80	180	400	600	700	770
Abrasion Resistance,							
NBS Index	D-1630		45	110	175	300	475
Impact Resistance							
(Izod) ft. lb./in.	D-256	_		_		_	5
Compression Set,							
Method B, %	D-395	38	6	45	30	36	
Compression Set,							
Method A, %	D-395	_	_	_		_	15
Bashore Resilience, %	D-2632	8	32	60	42	40	44
Bell Brittle Point, F.	D-2137	_	-70	<-130	<-80	<-80	<-83
Coefficient of Friction	D-1894			0.55	0.45	0.30	0.11
Compression Modulus,							
5%, PSI	D-575	13.3	40	150	272	515	1796
Compression Modulus,							
10%, PSI	D-575	28.2	80	274	530	982	4509
Compression Modulus,							
15%, PSI	D-575	43.8	130	378	735	1372	5996
Compression Modulus,							
20%, PSI	D-575	_	180	492	940	1811	7266
Compression Modulus,							
25%, PSI	D-575	82.7	240	641	1240	2358	8433
Specific Gravity	D-792	_	1.16	1.08	1.11	1.13	1.21





## K•Prene<sup>®</sup>... unequaled results in many applications.

APPLICATIONS	Abrasin	Tensile	Tear Fee:	High Institute	Vibration	Electrical	Low Cocco	Loose tole	Bonding on met and rous	Hardness metal	Ind elongation high flex	Ozone liex life	Excellent oil resista.
Strippers, Springs			•	•	•						•		
Encapsulating & Potting													
Molds						•	•					•	
Tooling and Holding Fixtures				•						•			
Plungers	•			•			•		_	_			
Pedals									_				_
Hangers	+ +				•				_				
Casters	•												
Pulleys									•				
Oil Field Equipment	•			•				•		•			
Pallet Wheels								_					
Seals, Oil	•						•						
Metalforming Pads & Dies	+ +	•							_				
Valve Seats					•		•		_				
Heels	•		•	•						•			
Hammers & Mallets	+ -	•											_
Drive or Friction Rolls	•			•	•							•	•
Mounts, Shock Absorbing				•	•	•				•		•	
Belts (Light Drive)				-					_			-	
& Conveyor Belts	•	•	•								•	•	•
Timing Belts		•	•								•	•	•
Couplings			•	•	•			•	•	•	•	•	
Wheels & Industrial Tires	•		•	•	•				•			•	
Drives, Gear	•		•	•			•		•				
Diaphragms	•	•	•								•		•
Bushings	•			•			•	•		•			•
Packings	•				•		•			•			•
Bearings	•			•			•		•	•		•	•
Gaskets									•	•			•
Liners for Sheaves,			_										
Chutes & Hoppers	•		•		•				•	•		•	
Rotors (Pump) and Impellors	•		•						•	•	•		•
Bumpers	•		•	•	•				•	•			

The information including suggestions, in this brochure, is based upon the best laboratory and technical information available to us. Any recommendations or suggestions are made without warranty or guarantee, since the conditions of use are beyond our control. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents nor to constitute a permission, inducement or recommendation to practice any invention covered by any patent owned by Acrotech Inc. or by others, without authority from the owner of the patent.



### Why K.Prene®?

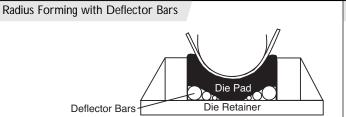
There are several families of urethane elastomers and not all of them will perform equally well. Even within one grade of a given urethane formulation, cured properties can vary widely. K • Prene® urethane is specifically compounded and processed by Acrotech Inc. to maximize the characteristics desired for optimum tool and die operation.

Some of the major advantages of urethane are non-compressibility, resiliency, and ability to form and hold metal without marring its surface finish. It behaves similar to a solid fluid with a memory; under force it will change its shape, but its volume will remain constant. Urethane will produce high, uniform and continuous counter pressure under load. And, when the load is removed, it quickly returns to its original shape.

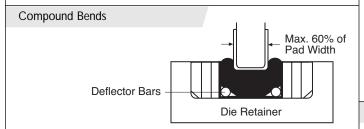
### **Tooling Advantages**

Our 48 page catalog PTB90 describes the basic principles of metal forming with K•Prene®. It is based on proven field experience and research. Contact us for a copy!

TYPICAL APPLICATIONS

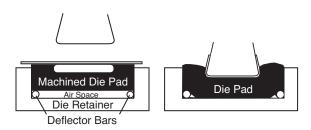


K•Prene® die with deflector bars positioned under pad. Bars are graduated in size to control deflection of K•Prene®. This helps form the difficult bends.



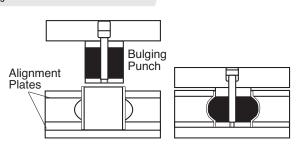
Difficult forms like these can be made with a standard K•Prene® die pad (definition is best with lighter gauges). Deflector bars beneath die pad provide air space to permit greater penetration into pad.

### Over-forming



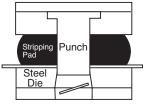
Unique adaptation of K•Prene® pad to over-form flanges. Here, the pad is cast or machined-to-shape because greater pressures are required. Compensation for springback is provided for in this design.

### **Bulging Punch**



In bulging applications, K•Prene® offers much longer service life than rubber, and is very cost effective, compared to expanding/shrinking steel punches. Displacement of K•Prene® punch under compression forces metal outward into desired shape. Amount of bulge is determined by depth of stroke. When ram is raised (after stroke), K. Prene® resumes its normal shape and bulged part can be easily removed.

### Stripping Pad For Punching

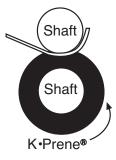


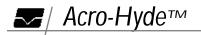
A standard K. Prene® pressure pad machined to fit around punch. This is an easy, economical method of constructing a durable, oil resistant, high pressure stripping pad.

### Roll Bending

A rotating steel shaft coated with K•Prene® working with another steel shaft positioned directly above, results in round parts with little or no flats on the leading or trailing ends.

Visit our website to see machine in action and to download brochure! Or call and request a brochure and DVD.





Acro-Hyde<sup>TM</sup>, a urethane film, prevents die marks on a wide range of materials including stainless, aluminum and other polished stocks. Manufacturing costs will be reduced significantly because secondary polishing, or having to scrap expensive blanks is eliminated. Simply cut Acro-Hyde<sup>TM</sup> to length, lay it on top of the bottom die and secure one side with double-faced tape.\*



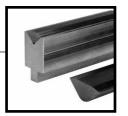
Description	Part No.	Price
.015 x 2" wide x 100 ft.	ACH-02015	\$45.00
.015 x 4" wide x 100 ft.	ACH-04015	86.62
.015 x 6" wide x 100 ft.	ACH-06015	129.69
.030 x 6" wide x 100 ft.	ACH-06030	209.00
.015 x 12" wide x 100 ft.	ACH-12015	265.00
.030 x 12" wide x 100 ft.	ACH-12030	418.00
.015 x 36" wide x 20 ft. (min.)	ACH-36015	7.81/ft.
.030 x 36" wide x 20 ft. (min.)	ACH-36030	14.50/ft.
* Double-faced tape 1" x 36 Yds.	KPT-136	13.35

General Properties: Specifications Values						
Durometer:	D2240	85A				
Specific Gravity:	D792	1.20				
Tensile Properties:	D638					
Modulus at100% strain		800 psi				
Modulus at300% strain		1800 psi				
Modulus at break		7000 psi				
Modulus of elasticity						
up to 10% strain		30 psi				
Elongation at break		400				
Set at break		30				
Tear Properties:						
Die C	D624	425				



## Acroform™ Inserts

For a quick and effective way to avoid die marks on stainless steel, pre-painted material, etc. simply position these 1" or 2" inserts in corresponding 90 degree bottom dies! The K-Prene® insert will conform to a variety of punch tips. In addition to eliminating the secondary procedure expense of removing die marks, your die will now act like a universal bottom die.

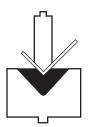


The maximum thickness capacity of the die remains the same when using  $Acroform^{TM}$ , but now you can also form lighter gauge materials. The forming of expanded metal or mesh is simplified, as cracking is reduced and often eliminated.

It is recommended to use insert lengths that are slightly longer than the actual bend length. Acroform<sup>TM</sup> inserts are manufactured in 4' lengths and multiple lengths, or sections can be butted together for longer bends. To avoid insert separation, use a double-faced tape in the bottom die.

This product is stocked in K•950A. It is available in softer grades.

Dimension	Length	Part No.	Price
1" Insert	12"	KAF-161000-12	\$12.35
	24	KAF-161000-24	24.70
	36	KAF-161000-36	37.00
	48	KAF-161000-48	49.35
2" Insert			
→ Z Insert	12	KAF-162000-12	27.60
	24	KAF-162000-24	55.20
	36	KAF-162000-36	82.80
	48	KAF-162000-48	110.25
* Double-faced tape 1" x 36 yards	KPT-136	13.35	





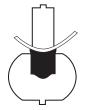
## Tru-Form® Press Brake Die

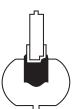






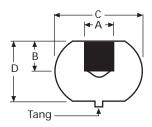








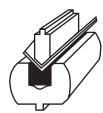




D	Dimensions						
АхВ	С	D					
1" x 1"	3-1/2"	2-3/16"					
2 x 2	5-1/2	3-7/8					
3 x 2	6-1/2	4-1/4					
Tang 1/2	Tang 1/2" x 11/16"						

### Die Retainers

Our retainers are made from a high tensile aluminum alloy. They enclose our various die pad systems, which under pressure from a punch, produce significant forming pressure. The retainers will withstand 50 tons/ft. and are available in 3 sizes, (See A x B dimensions.) in lengths up to 16'. Note - Part width, should not exceed 60% of die pad width.



## **Basic Die Pad Systems**





### K•Prene® Wafer Pad

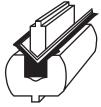
This system involves the use of four thin (1/4" or 1/2") K-Prene® strips, or wafers, which are stacked in the retainer. It allows the increased punch penetration needed for severe bends. like U-forming. It is most efficient when forming blanks lighter than 16ga ms.

### Solid K•Prene® Die Pad

Deflects to form metal under continuous high blankholding pressure before forming action literally wraps blank around punch. The three standard widths (A x B), are available in 4 ft. lengths. They can be butted together as needed. Pads can be saw-cut to fit any punch or retainer length.

### K•Prene® Die Block Pad

This system functions like a solid pad but uses 2" long blocks. The blocks allow more economical replacements, if a short section is damaged. Furnished in 1 ft. long increments only (six 2" blocks per foot).



### **Die Component Accessories**

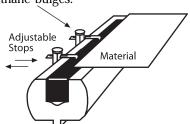


### K•Prene® Pressure Rods

When forming heavier metals or difficult shapes (like flat bottom U-forming), higher blankholding pressure can be easily generated by inserting a K. Prene® rod in the air channel under die pad. The rod acts like a "spring" to concentrate pressures additional upward. Furnished in 1/4", 1/2", and 5/8" diameters, in lengths up to 4 ft.



These 1/8" thick strips protect the forming pad from punch cuts. Available in lengths up to 4 ft. and in widths equal to our standard die pad systems. Wear pads should be as wide as die pad, or 1" wider when forming heavy metals to protect both the parts and the retainer walls.



Spring steel deflects up when urethane bulges.

## Tru-Form® Press Brake Die

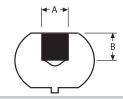
K•Prene® Grade	l" x l"	Die Pad Sizes 2" x 2"	3"x 2"	K•Prene® Wear Pads	K•Prene® Pressure Rods
K-900A Medium Pressure	For most V-forming jobs up to & including 11 ga. steel (even exotics). NOT recommended for U-forming.	Can V-form mild steel up to 1/4" thick, radius U-form up to 11 ga., or flat bottom U-form up to 16 ga.	Same as 1" and 2" wide pads, but also allows deeper punch penetration to form both wider channels and larger radius bends.	For use when deep penetration is re- quired; withstands constant flexing action.	For use when very high blankholding pressure is required for heavy metals.

K-950A High Pressure	Recommended when higher blankholding and forming pressure is required- for example, forming harder metals or sharper inside radii. Punch penetration and shorter pad life may result. Generally used for uncomplicated bends in difficult metals.	Most recommended. Harder surface can withstand more abuse. Generally not used for deep penetration.	Not recommended.
K-800A Low Pressure	Recommended for lighter metals (less than 20 ga. mild steel) when long pad life is desired. Best grade when limited press tonnage is available or if deeper punch penetration is required for complicated bends in light gages.	Not recommended.	Most recommended grade for generating additional blankholding pressure.

### **Tonnage Requirements**

Tonnage ratings are for forming a 90° bend in mild steel, using a sharp V-punch and are for guidance only. Lubrication will reduce tonnage requirement.

	Die Pad Size											
	1" × 1"				1" × 1" 2" × 2"					3"× 2"		
K•Prene®		Metal	Gage			Metal	Gage			Me	tal Gage	
Grade	20	16	14	Ш	20	16	14	П	20	16	14	Ш
K-800A	2.8	4.5	7	15.7	3	4.5	6.8	13	2.8	4	6	10
K-900A	4.2	6.5	9.5	21.5	3.5	5	7.5	14.2	3.3	4.5	6.5	11.5
K-950A	6.2	8.5	12.5	25.7	5.5	7.5	10.8	21.5	5	7	9.2	15.5



### Ordering Information (Please order in 1ft. increments)

### Basic Die:

- Die Retainer, A x B x length
   Die Pad System, Solid, Block, or Wafer, durometer, A x B x length.

### **Specify Auxiliary Components:**

- Wear Pad durometer, width x length.
   Pressure Rod durometer, diameter x length.
   Double-Faced Tape.
   Flexible Back Gages.

			Prices	
Tru-Form® Components		I" × I"	2" × 2"	3" × 2"
Retainer (16 ft. max. length)		\$127.00 Base + \$69.05/ft.	\$247.00 Base + \$140.30/ft.	\$298.00 Base + \$186.55/ft.
K•Prene®	Solid	I 6.80/ft.	39.25/ft.	59.40/ft.
Die Pad	2" long blocks (6 per ft.)	18.75/ft.	41.60/ft.	63.50/ft.
System	Wafers (set of 4)	24.30/ft. (1/4" thick ea.)	54.40/ft. (1/2" thick each)	70.60/ft. (1/2" thick each)
\A/ D1 / I	/O!! di :-1.)	5.00/ft. (I" wide)	6.10/ft. (2" wide)	7.70/ft. (3" wide)
Wear Pad (I/8" thick)		6.10/ft. (2" wide)	7.70/ft. (3" wide)	9.40/ft. (4" wide)
Pressure Rod		8.95/ft. (1/4" dia.)	10.00/ft. (1/2" dia.)	10.50/ft. (5/8" dia.)

Double-Faced Tape (I" × 36 yds.)	\$13.35 per roll		
Florible Dealesson	100.80 per set		
Flexible Backgages	161.70 per set installed		

Note: Above K. Prene® materials (except Block System) are furnished in 4 foot or shorter lengths. When used in longer retainers the materials are butted together end to end. For additional metal forming information, please request catalog PTB90.

## Press Brake Dies

Kullet Prene® urethane female dies are designed for production and will not leave "die marks"! They feature tremendous load bearing capacity and excellent resistance to abrasion. These are manufactured in 48" lengths and can be butted together as needed. They are lightweight, easy to handle, stocked for immediate delivery and may be shipped via UPS.

90 DEC	GREE	DIES	
Dimensions	Lgth.	Part No.	Price
	12"	KBDV-0104-12	\$32.55
1-3/4" TYP.	24	KBDV-0104-24	56.15
1-1/4" TYP.	36	KBDV-0104-36	81.35
	48	KBDV-0104-48	105.05
	12"	KBDV-0308-12	32.55
	24	KBDV-0308-24	56.15
3/8"	36	KBDV-0308-36	81.35
	48	KBDV-0308-48	105.05
	12"	KBDV-0102-12	32.55
	24	KBDV-0102-24	56.15
1/2"	36	KBDV-0102-36	81.35
	48	KBDV-0102-48	105.05
	12"	KBDV-0508-12	43.05
5/8" 1-7/8" TYP.	24	KBDV-0508-24	79.05
1-3/4" TYP.	36	KBDV-0508-36	113.30
	48	KBDV-0508-48	147.90
	12"	KBDV-0304-12	43.05
	24	KBDV-0304-24	79.05
→ 3/4" -	36	KBDV-0304-36	113.30
	48	KBDV-0304-48	147.90
	12"	KBDV-0708-12	48.30
	24	KBDV-0708-24	87.35
→ 7/8" ←	36	KBDV-0708-36	129.80
	48	KBDV-0708-48	165.25
	12"	KBDV-1000-12	48.30
	24	KBDV-1000-24	87.35
<b> </b>	36	KBDV-1000-36	129.80
	48	KBDV-1000-48	165.25

N	ote:	All	dies	have	standard	1/2"	x 5/8"	tang.
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	85 DEC	GREE	DIES	
Dimension	ns	Lgth.	Part No.	Price
1-1/4"	2" -2-1/2" TYP.	12" 24 36	KBDV-1104-12 KBDV-1104-24 KBDV-1104-36	\$75.60 136.25 195.70
	J <del>\</del>	48	KBDV-1104-48	252.95
		12"	KBDV-1102-12	75.60
1-1/2">		24 36	KBDV-1102-24 KBDV-1102-36	136.25 195.70
	I	48	KBDV-1102-48	252.95
Blank Die Can be machined for custom applications.		12" 24 36	KBDB-0000-12 KBDB-0000-24 KBDB-0000-36	75.60 136.25 195.70
	Ask for a quote.	48	KBDB-0000-48	252.95

30 DEC	GREE	DIES	
Dimensions	Lgth.	Part No.	Price
	12"	KBDA-0104-12	\$32.55
1-3/4"	24	KBDA-0104-24	56.15
1/4"	36	KBDA-0104-36	81.35
	48	KBDA-0104-48	105.05
	12"	KBDA-0308-12	32.55
	24	KBDA-0308-24	56.15
3/8"	36	KBDA-0308-36	81.35
	48	KBDA-0308-48	105.05
	12"	KBDA-0102-12	43.05
1-7/8"	24	KBDA-0102-24	79.05
→ 1/2" ←	36	KBDA-0102-36	113.30
*	48	KBDA-0102-48	147.90
	12"	KBDA-0508-12	43.05
	24	KBDA-0508-24	79.05
5/8"	36	KBDA-0508-36	113.30
	48	KBDA-0508-48	147.90

## **5**

## Custom Tooling Built To Your Specs!

Due to K•Prene's® versatility, it is an extremely useful and cost effective option, compared to the expense of building mating bottom dies. Acrotech has built numerous "universal" bottom dies, or other forming tooling for customers having applications that could not be satisfied by our standard tooling.

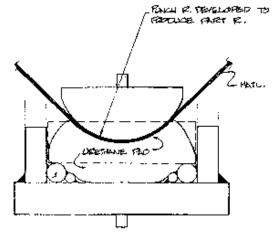
Pictured below are just a few application examples:



Radius Forming - Punch & Die



**Bulging Die** 



**End View of Universal Bottom Die** 



**Embossing Die** 

Have a question? A tooling engineer will be happy to speak with you and or examine a print!



## Roll Bending Machines

Acrotech Inc. also manufactures a line of One Pass Roll Bending Machines. If you have large volume needs for complete or partial cylinders with little or no flats on the ends, our machines will produce your parts quickly and cleanly. This includes polished materials containing large cutouts or perforations! If you would like to see our machines in action, call us for a DVD or check out the video on our web site!



## **5**

## **Custom Rolling**

If your rolled parts needs are sporadic or involve small quantities, Acrotech Inc. will roll them for you! For a quote, feel free to contact one of our machine engineers or download a "Request for quote form" from our PDF library at www.acrotechinc.com

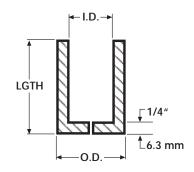




Stocked in K-950A. Other durometers available. To order indicate the part number, durometer, and quantity desired.

- Longer Tool Life These strippers generate high holding pressure and strip the blank cleanly from the punch. This results in an optimum working condition for the punch, and lengthens its effective work life.
- Easy To Use Simply push stripper onto punch shank (I.D. is slightly undersized to grip punch). First stroke of press forces punch tip through stripper bottom.

Tol	erance - metric
I.D.	Slightly undersize to grip punch
O.D.	+/2 mm
Lgth.	+/2 mm



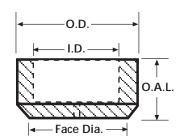
		METR	IC SIZES	
I.D. mm	O.D. mm	Lgth. mm	Part No.	Price
6	19mm	45mm	MSS-006045	\$3.80
6	19	53	MSS-006053	3.95
6	19	71	MSS-006071	4.30
8	21	45	MSS-008045	4.05
8	21	53	MSS-008053	4.20
8	21	71	MSS-008071	4.45
10	23	45	MSS-010045	4.45
10	23	53	MSS-010053	4.60
10	23	56	MSS-010056	4.75
10	23	71	MSS-010071	4.90
13	26	45	MSS-013045	4.60
13	26	53	MSS-013053	4.90
13	26	56	MSS-013056	5.00
13	26	71	MSS-013071	5.45
16	30	45	MSS-016045	4.75
16	30	53	MSS-016053	5.00
16	30	56	MSS-016056	5.10
16	30	71	MSS-016071	5.45
20	38	45	MSS-020045	5.55
20	38	53	MSS-020053	6.10
20	38	71	MSS-020071	7.80
25	50	45	MSS-025045	7.00
25	50	53	MSS-025053	7.50
25	50	71	MSS-025071	9.30
32	60	45	MSS-032045	11.60



	S	TANDA	ARD SIZES	
I.D.	O.D.	Lgth.	Part No.	Price
3/16"	11/16"	1-1/4"	KSS-316114	\$3.20
		1-1/2	KSS-316112	3.45
1/4	3/4	1-1/4	KSS-014114	3.20
		1-1/2	KSS-014112	3.45
		1-3/4	KSS-014134	3.80
5/16	13/16	1-1/4	KSS-516114	3.45
		1-1/2	KSS-516112	3.80
		1-3/4	KSS-516134	4.05
		2	KSS-516200	4.35
3/8	7/8	1-1/4	KSS-038114	3.80
		1-1/2	KSS-038112	4.05
		1-3/4	KSS-038134	4.35
		2	KSS-038200	4.65
1/2	1	1-1/4	KSS-012114	4.05
		1-1/2	KSS-012112	4.35
		1-3/4	KSS-012134	4.65
		2	KSS-012200	4.95
		2-1/4	KSS-012214	5.20
	1-1/4	1-3/4	KSS-012134A	5.35
		2	KSS-012200A	5.65
5/8	1-1/8	1-1/4	KSS-058114	4.05
		1-1/2	KSS-058112	4.35
		1-3/4	KSS-058134	4.65
		2	KSS-058200	4.95
3/4	1-1/2	1-3/4	KSS-034134	5.50
		2	KSS-034200	6.10
		2-1/4	KSS-034214	6.65
		2-1/2	KSS-034212	7.25
		2-3/4	KSS-034234	7.80
7/8	1-3/4	1-3/4	KSS-078134	6.40
		2	KSS-078200	7.00
		2-1/4	KSS-078214	7.50
		2-1/2	KSS-078212	8.15
		2-3/4	KSS-078234	8.70
1	2	1-3/4	KSS-100134	7.00
		2	KSS-100200	7.50
		2-1/4	KSS-100214	8.15
		2-1/2	KSS-100212	8.70
		2-3/4	KSS-100234	9.30
1-1/4	2-1/2	2	KSS-114200	11.60
		2-1/4	KSS-114214	12.75
		2-1/2	KSS-114212	13.90
		2-3/4	KSS-114234	15.05
		3	KSS-114300	16.20
1-1/2	2-3/4	2	KSS-112200	13.90
		2-1/4	KSS-112214	15.05
		2-1/2	KSS-112212	16.20
		2-3/4	KSS-112234	17.40
		3	KSS-112300	18.55
2	3	2-1/4	KSS-200214A	20.00
	3-1/4	2-1/4	KSS-200214	20.55
3	4	2-1/4	KSS-300214A	21.00
	4-1/2	2-1/4	KSS-300214	26.20







	For Wiedeman W-20, W-30, W45, & Centrum Models												
112	Style To	oling						114 Sty	le Toolin	g			
Static	nShape	Face Dia	. I.D.	O.D.	Lgth.	Part No.	Price	Face Dia.	I.D.	O.D.	Lgth.	Part No.	Price
В	Std.	1-5/32"	31/32"	2"	1-27/32"	500-1453	\$7.90	1-1/8"	1-1/16"	1-31/32"	2-1/4"	500-1342	\$8.95
С	Std.	1-23/32	1-15/32	2-1/2	2-1/16	500-1455	8.90	1-23/32	1-3/4	2-1/2	2-5/16	500-1344	11.00
D	Std.	2-7/32	1-31/32	3	1-1/2	500-1456	8.90	2-7/32	1-31/32	3	2-3/32	500-1351	11.00
D	1" sq.*	2-7/32	1-31/32	3	1-1/2	500-1520	10.50	2-7/32	1-31/32	3	2-3/32	500-1379	12.60
D	Rect.**	2-7/32	1-31/32	3	1-1/2	500-1511	10.00	2-7/32	1-31/32	3	2-3/32	500-1421	12.60
Ε	Std.	2-29/32	3-3/32	4-9/32	1-1/2	500-1457	11.00	2-29/32	2-31/32	4	2-3/32	500-1354	12.25
Ε	Rect.**	2-29/32	3-3/32	4-9/32	1-1/2	500-1459	12.60	2-29/32	2-31/32	4	2-3/32	500-1448	13.40
F	Std.	3-11/16	3-3/32	4-9/32	1-1/2	500-1462	11.00	3-9/32	2-31/32	4	2-3/32	500-1355	12.25
F	2" sq.*	3-11/16	3-3/32	4-9/32	1-1/2	500-1467	12.60	3-9/32	2-31/32	4	2-3/32	500-1531	13.65
F	Rect.**	3-11/16	3-3/32	4-9/32	1-1/2	500-1526	12.60	3-9/32	2-31/32	4	2-3/32	500-1530	13.65
G	Std.	4-3/16	3-15/32	4-25/32	1-1/2	500-1463	12.25	3-25/32	4-11/32	5-5/32	2-3/32	500-1359	16.55
G	2" sq.*							3-25/32	4-11/32	5-5/32	2-3/32	500-1426	17.60
G	Rect.**	4-3/16	3-15/32	4-25/32	1-1/2	500-1527	13.40	3-25/32	4-11/32	5-5/32	2-3/32	500-1528	17.60
Н	Std.							4-17/16	4-11/32	5-5/32	2-3/32	500-1360	16.55
Н	Rect.**							4-17/16	4-11/32	5-5/32	2-3/32	500-1452	17.60
J	Std.							5-11/32	4-23/32	5-13/16	2-3/32	500-1375	21.25
J	Rect.**							5-11/32	4-23/32	5-13/16	2-3/32	500-1431	23.10
K	Std.		*1" & 2"	Squares O	nly.			6-5/8	5-23/32	6-5/8	2-3/32	500-1534	25.20
K	Rect.**	**	1/2" & Nar	rower Re	ctangles O	nly.		6-5/8	5-23/32	6-5/8	2-3/32	500-1535	27.85

DiAcro 902 Series Strippers are designed for direct use in Di-Acro hand turret punches, as well as the VT-19P, VT-19S, and VT-19 NC equipped with 903 style turrets.

DiAcro 906 Series Strippers are manufactured specifically for the VT-19P, VT-19S, and VT-19 NC and the VT-36 NC equipped with the 906 style turrets.

Station	I.D.	Part No.	Price	Station	I.D.	Part No.	Price
Α	3/8"	902-1508001	\$11.30	В	3/8"	906-1508001	\$11.30
Α	3/4	902-1508002	11.80	В	3/4	906-1508002	11.80
В	1	902-1508003	16.20	С	3/8	906-1508003	16.20
В	1-1/2	902-1508004	16.20	С	3/4	906-1508004	16.20
Α	5/8	902-1508005	13.20	С	1	906-1508005	13.20
Α	3/4	902-1508006	13.20	D	1-3/8	906-1508006	13.20
В	1	902-1508007	18.70	E-F	2-1/4	906-1508007	23.65
В	1-1/2	902-1508008	18.70				

Strippers for Whitney Style #28 Punches					
I.D.	O.D.	Lgth.	Part No.	Price	
1"	1-3/4"	1-31/32"	Closed End 500-1543	\$9.20	
1	1-3/4	1-31/32	Open End 500-1544	8.15	

Strippers for Whitney Style #3 Punches						
I.D.	O.D.	Lgth.	Part No.	Price		
1/2"	1"	1-1/4"	KSS-012114	\$4.05		
1/2	1	1-1/4	KPS-0102H01104	2.90		

Springs/Strippers for Piranha Ironworkers
Stocked in K-900A. Other durometers available.

Model	I.D.	O.D.	Lgth.	Part No. I	Price
P-35	1-1/16"	2-1/4"	3"	PIR-P35	\$17.00
P-50	1-1/16	2-1/4	3	PIR-P50	17.00
P-70	1-3/8	3-1/2	5	PIR-P70	35.00
P-90	1-3/8	3-1/2	5	PIR-P90	35.00



Stocked in K-950A. A minimum order of the 12" or 24" length, is required when ordering any other durometer. Additional sizes including metrics are listed on page 14.



Fits Punch Body				Lb. Per 1/8"		Use Cap Cat.
Diam.	O.D.	Lgth.	Order No.	Def.	Price	No.
3/16"	11/16"	1-1/4"	KPS-0316 H01104	220	\$2.40	N/A
		1-1/2	KPS-0316 H01102	200	2.60	
		12	KPS-0316 H12000	*	14.80	
1/4"	3/4"	1"	KPS-0104 H01000	325	2.20	KPC-1000
	High	1-1/4	KPS-0104 H01104	250	2.70	
	Press.	1-1/2	KPS-0104 H01102	215	2.90	
		1-3/4	KPS-0104 H01304	183	3.60	
		12	KPS-0104 H12000	*	17.20	
	7/8	1	KPS-0104 V01000	475	2.30	KPC-1108
	Very	1-1/4	KPS-0104 V01104	350	2.80	
	High Press.	1-1/2	KPS-0104 V01102	302	3.10	
	PIESS.	1-3/4	KPS-0104 V01304	275	3.80	
		12	KPS-0104 V12000	*	18.50	
	1	1	KPS-0104 U01000	712	2.40	KPC-1104
	Ultra	1-1/4	KPS-0104 U01104	547	3.00	
	High	1-1/2	KPS-0104 U01102	399	3.30	
	Press.	1-3/4	KPS-0104 U01304	348	4.10	
		12	KPS-0104 U12000	*	20.00	
5/16"	13/16"	1-1/4"	KPS-0516 H01104	280	2.90	N/A
		1-1/2	KPS-0516 H01102	255	3.20	
		1-3/4	KPS-0516 H01304	235	3.60	
		2	KPS-0516 H02000	225	4.00	
		12	KPS-0516 H12000	*	19.60	
3/8''	7/8"	1"	KPS-0308 H01000	444	2.60	KPC-1108
	High	1-1/4	KPS-0308 H01104	347	3.20	
	Press.	1-1/2	KPS-0308 H01102	275	3.50	
		1-3/4	KPS-0308 H01304	224	4.00	
		2	KPS-0308 H02000	199	4.40	
		12	KPS-0308 H12000	*	22.00	
	1	1	KPS-0308 V01000	575	2.70	KPC-1104
	Very	1-1/4	KPS-0308 V01104	475	3.40	
	High	1-1/2	KPS-0308 V01102	389	3.70	
	Press.	1-3/4	KPS-0308 V01304	325	4.20	
		2	KPS-0308 V02000	286	4.70	
		12	KPS-0308 V12000	*	23.50	
	1-1/8	1	KPS-0308 U01000	800	2.90	KPC-1308
	Ultra	1-1/4	KPS-0308 U01104	593	3.60	
	High	1-1/2	KPS-0308 U01102	522	3.90	
	Press.	1-3/4	KPS-0308 U01304	450	4.50	
		2	KPS-0308 U02000	387	5.00	
		12	KPS-0308 U12000	*	25.20	
		12	13 0 0 0 0 1 2 0 0 0		20.20	

Fits Punch Body	0.0	l ath	Order No.	Lb. Per 1/8"	Drice	Use Cap Cat. No.
Diam.	O.D.	Lgth.	Order No.	Def.	Price	-
1/2"	1"	1"	KPS-0102 H01000	512	\$2.50	KPC-1104
	High Press.	1-1/4	KPS-0102 H01104	340	2.90	
	11033.	1-1/2	KPS-0102 H01102	325	3.30	
		1-3/4	KPS-0102 H01304	275	3.80	
		2	KPS-0102 H02000	250	4.10	
		24	KPS-0102 H24000	*	37.00	
	1-1/8	1	KPS-0102 V01000	681	2.70	KPC-1308
	Very	1-1/4	KPS-0102 V01104	525	3.20	
	High Press.	1-1/2	KPS-0102 V01102	424	3.60	
	11033.	1-3/4	KPS-0102 V01304	350	4.20	
		2	KPS-0102 V02000	320	4.40	
		24	KPS-0102 V24000	*	41.30	
	1-1/4	1	KPS-0102 U01000	863	2.90	KPC-1102
	Ultra	1-1/4	KPS-0102 U01104	675	3.40	
	High Press.	1-1/2	KPS-0102 U01102	550	3.90	
	F1 C33.	1-3/4	KPS-0102 U01304	492	4.50	
		2	KPS-0102 U02000	450	4.80	
		24	KPS-0102 U24000	*	46.00	
5/8"	1-1/8"	1"	KPS-0508 H01000	562	2.70	KPC-1308
	High	1-1/4	KPS-0508 H01104	446	3.20	
	Press.	1-1/2	KPS-0508 H01102	375	3.60	
		1-3/4	KPS-0508 H01304	323	4.20	
		2	KPS-0508 H02000	295	4.50	
		24	KPS-0508 H24000	*	41.50	
	1-1/4	1	KPS-0508 V01000	794	2.90	KPC-1102
	Very	1-1/4	KPS-0508 V01104	600	3.40	
	High	1-1/2	KPS-0508 V01102	510	3.90	
	Press.	1-3/4	KPS-0508 V01304	424	4.60	
		2	KPS-0508 V02000	384	4.90	
		24	KPS-0508 V24000	*	46.30	KPC-1508
	1-3/8	1	KPS-0508 U01000	975	3.10	
	Ultra	1-1/4	KPS-0508 U01104	775	3.70	
	High -	1-1/2	KPS-0508 U01102	640	4.20	
	Press.	1-3/4	KPS-0508 U01304	546	5.00	
	_	2	KPS-0508 U02000	489	5.30	
	_	24	KPS-0508 U24000	*	51.50	
3/4"	1-3/8"	1-1/4"	KPS-0304 H01104	747	3.70	KPC-1508
	High	1-1/2	KPS-0304 H01102	642	4.20	
	Press.	1-3/4	KPS-0304 H01304	554	4.90	
		2	KPS-0304 H02000	479	5.30	
		2-1/4	KPS-0304 H02104	417	6.10	



Diam.       O.D.       Lgth.       Order No.       Def.       Price       No.         3/4"       1-3/8"       2-1/2"       KPS-0304 H02102       380       \$6.70         24       KPS-0304 H24000       *       51.30         1-1/2       1-1/4       KPS-0304 V01104       975       4.00       KPC-1         Very       1-1/2       KPS-0304 V01102       810       4.60         High       1-3/4       KPS-0304 V01304       688       5.40	1304
24 KPS-0304 H24000 * 51.30 1-1/2 1-1/4 KPS-0304 V01104 975 4.00 KPC- Very 1-1/2 KPS-0304 V01102 810 4.60	1304
1-1/2 1-1/4 KPS-0304 V01104 975 4.00 KPC-1	1304
Very 1-1/2 KPS-0304 V01102 810 4.60	1304
1 light 1-3/4 KF3-0304 V01304 008 5.40	
Press. 2 KPS-0304 V02000 591 5.80	- 1
2-1/4 KPS-0304 V02104 529 6.70	
2-1/4 KPS-0304 V02104 327 0.70 2-1/2 KPS-0304 V02102 475 7.30	
2-3/4 KPS-0304 V02304 418 8.10	
24 KPS-0304 V24000 * 57.00	
1-3/4 1-1/4 KPS-0304 U01104 1400 4.70 KPC-2	2108
Ultra 1-1/2 KPS-0304 U01102 1200 5.40	
High 1-3/4 KPS-0304 U01304 1015 6.40	
Press. 2 KPS-0304 U02000 896 6.80	
2-1/4 KPS-0304 U02104 796 8.00	
2-1/2 KPS-0304 U02102 707 8.80	
2-3/4 KPS-0304 U02304 551 9.80	
24 KPS-0304 U24000 * 70.10	
7/8" 1-5/8" 1-1/2 KPS-0708 H01102 855 4.30 N/A	
High 1-3/4 KPS-0708 H01304 780 5.10	
Press. 2 KPS-0708 H02000 745 5.40	
2-1/4 KPS-0708 H02104 700 6.40	
2-1/2 KPS-0708 H02102 670 7.00	
2-3/4 KPS-0708 H02304 610 7.20	
3 KPS-0708 H03000 560 7.80	
24 KPS-0708 H24000 * 56.30	
1-3/4 1-1/2 KPS-0708 V01102 1045 4.70 KPC-2	2108
Very 1-3/4 KPS-0708 V01304 955 5.60	
High 2 KPS-0708 V02000 910 6.00	
Press. 2-1/4 KPS-0708 V02104 855 7.00	
2-1/2 KPS-0708 V02102 820 7.70	
2-3/4 KPS-0708 V02304 750 7.90	
3 KPS-0708 V03000 675 8.60	
21 1000 721000 02.10	2200
2 1-1/2 KPS-0708 U01102 1475 5.50 KPC-2 Ultra 1-3/4 KPS-0708 U01304 1345 6.60	∠3UԾ
High 2 KPS-0708 U01304 1345 6.60	
Press. 2-1/4 KPS-0708 U02104 1205 8.30	
2-1/2 KPS-0708 U02102 1155 9.20	
2-1/2 KPS-0708 U02102 1135 9.20 2-3/4 KPS-0708 U02304 1055 9.50	
3 KPS-0708 U03000 955 10.20	
24 KPS-0708 U24000 * 75.90	

Punch				Per 1/8"		Cap Cat.
Body Diam.	O.D.	Lgth.	Order No.	Def.	Price	No.
1"	1-3/4"	1-1/4"	KPS-1000 H01104	1137	\$4.20	KPC-2108
	High	1-1/2	KPS-1000 H01102	940	4.80	
	Press.	1-3/4	KPS-1000 H01304	788	5.70	
		2	KPS-1000 H02000	689	6.10	
		2-1/4	KPS-1000 H02104	616	7.10	
		2-1/2	KPS-1000 H02102	548	7.80	
		2-3/4	KPS-1000 H02304	505	8.70	
		24	KPS-1000 H24000	*	61.20	
	2	1-1/4	KPS-1000 V01104	1550	4.90	KPC-2308
	Very	1-1/2	KPS-1000 V01102	1200	5.70	
	High	1-3/4	KPS-1000 V01304	971	6.80	
	Press.	2	KPS-1000 V02000	854	7.20	
		2-1/4	KPS-1000 V02104	770	8.50	
		2-1/2	KPS-1000 V02102	700	9.30	
		2-3/4	KPS-1000 V02304	636	9.60	
		3	KPS-1000 V03000	569	10.40	
		4	KPS-1000 V04000	423	13.50	
		24	KPS-1000 V24000	*	74.80	
	2-1/2	1-1/4	KPS-1000 U01104	2593	6.60	KPC-2708
	Ultra	1-1/2	KPS-1000 U01102	2136	7.70	
	High	1-3/4	KPS-1000 U01304	1796	9.20	
	Press.	2	KPS-1000 U02000	1524	9.90	
		2-1/4	KPS-1000 U02104	1316	11.70	
		2-1/2	KPS-1000 U02102	1212	12.90	
		2-3/4	KPS-1000 U02304	1106	13.30	
		3	KPS-1000 U03000	996	14.40	
		4	KPS-1000 U04000	734	18.90	
		24	KPS-1000 U24000		107.20	
1-1/4"	2-1/2"	2	KPS-1104 H02000	1860	10.40	KPC-2708
		2-1/4	KPS-1104 H02104	1750	12.30	
		2-1/2	KPS-1104 H02102	1675	13.50	
		2-3/4	KPS-1104 H02340	1530	13.90	
		3	KPS-1104 H03000	1380	15.10	
		24	KPS-1104 H24000		112.60	
1-1/2"	2-3/4"	2	KPS-1102 H02000	2105	11.10	N/A
		2-1/4	KPS-1102 H02104	1980	13.20	
		2-1/2	KPS-1102 H02102	1900	14.50	
		2-3/4	KPS-1102 H02304	1730	15.00	
		3	KPS-1102 H03000	1565	16.20	
		24	KPS-1102 H24000		121.60	

Lb.

Use

### Caps Cap O.D. Cap I.D. Order No. Price 1" 3/4" KPC-1000 \$4.00 7/8 KPC-1108 4.40 11/8 11/4 KPC-1104 4.50 1 4.70 13/8 11/8 KPC-1308 1½ 11/4 KPC-1102 5.30 1% 1% KPC-1508 5.60 13/4 11/2 6.25 KPC-1304 21/8 13/4 KPC-2108 7.00 23/8 2 KPC-2308 7.80 21/8 21/2 KPC-2708 9.40

### **Specifications**



Fits

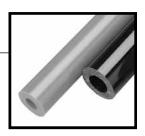
Springs: Grade- K-950A I.D.- Wring fit to punch dia. shown in table. O.D.- Bulges to cap I.D. shown in cap table. Length - Furnished 1/16" longer than table dimension to allow for permanent set that may occur during the first strokes.



Caps: Grade- K-750D, very tough, hard urethane. Can be drilled, pierced or machined to fit the punch for positive stripping while dampening vibration. Will not mar prefinished stocks. I.D.- Press fit to spring. (Use vise or arbor press to assemble caps and springs.)

## Tubes/Springs

Sizes on this page are made to order. Sizes on pages 12 and 13 are stocked.



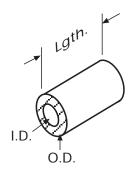
I.D.	O.D.	Lgth.	Price
3/16"	3/4"	12"	\$14.70
1/4	5/8	12	14.70
1/4	1-1/8	12	25.70
1/4	1-1/4	12	28.30
1/4	1-1/2	12	31.20
9/32	1	12	24.20
5/16	3/4	12	17.90
5/16	7/8	12	19.45
5/16	1	12	23.10
3/8	3/4	12	16.80
3/8	15/16	12	22.00
3/8	1-1/4	12	28.30
3/8	1-1/2	12	30.00
3/8	2	12	35.70
3/8	2-1/2	12	47.25
7/16	3/4	12	23.10
7/16	7/8	24	31.50
7/16	1-1/4	24	51.40
1/2	1-1/2	24	57.70
1/2	1-3/4	24	59.80

I.D.	O.D.	Lgth.	Price
1/2"	2"	24"	\$67.50
1/2	2-1/2	24	89.30
1/2	3	24	157.50
9/16	1	24	45.90
9/16	1-1/4	24	47.30
9/16	2	24	65.60
9/16	2-1/2	24	82.40
9/16	3	24	91.90
5/8	1	24	45.20
5/8	1-1/2	24	59.00
5/8	1-3/4	24	65.10
5/8	2	24	72.50
5/8	2-1/2	24	98.20
3/4	1-1/8	24	44.10
3/4	1-1/4	24	53.60
3/4	2	24	75.60
3/4	2-1/2	24	82.90
7/8	1-1/4	24	47.30
7/8	2-1/2	24	99.70
7/8	3	24	136.50
1	1-3/8	24	47.30

I.D.	O.D.	Lgth.	Price
1"	1-1/2"	24"	\$55.60
1	2-1/4	24	89.30
1	3	24	126.00
1	3-1/4	24	139.60
1	4	24	199.50
1-1/4	2	24	74.50
1-1/4	3	24	128.10
1-1/2	2	24	81.90
1-1/2	2-1/4	24	66.20
1-1/2	2-1/2	24	77.70
1-1/2	3	24	117.60
1-1/2	4	24	187.00
2	2-1/2	24	57.90
2	3	24	100.80
2	3-1/4	24	110.30
2	3-1/2	24	128.10
2	4	24	165.90
2-1/2	4	24	141.80
3	4	24	115.50
3	5	24	208.70
4	5	12	86.50



# / Tubes/Springs Metric



-	Tolera	nce
	7	
	8.5	
I.D.	11	+/- 0.2
	14	
	22	
	15	
	20	
	25	+/- 0.2
	30	
O.D.	40	
	50	+/- 0.3
	60	
	80	+/- 0.4
	100	
		+/- 0.4

I.D. mm	O.D. mm	Lgth. mm	Price
7	15	25	\$1.80
7	15	30	2.10
7	15	35	2.30
7	15	40	2.50
7	15	500	21.10
8.5	20	25	2.10
8.5	20	30	2.40
8.5	20	35	2.70
8.5	20	40	3.00
8.5	20	500	26.80
11	25	25	2.40
11	25	30	2.80
11	25	35	3.10
11	25	40	3.50
11	25	45	3.70
11	25	500	32.70
14	30	25	2.70
14	30	30	3.20
14	30	35	3.60
14	30	40	4.00
14	30	45	4.30
14	30	50	4.70
14	30	55	5.10

I.D. mm	O.D. mm	Lgth. mm	Price
14	30	60	\$5.70
14	30	500	39.30
14	40	40	5.40
14	40	50	6.30
14	40	60	7.70
14	40	500	55.90
14	50	50	6.90
14	50	60	8.50
14	50	80	11.00
14	50	500	61.60
14	60	50	8.90
14	60	60	10.90
14	60	80	14.30
14	60	500	81.40
22	80	60	16.30
22	80	80	21.50
22	80	100	25.60
22	80	500	124.40
22	100	80	31.60
22	100	100	37.80
22	100	120	47.10
22	100	500	185.30





Diameter			Length		
	6"	12"	24"	36"	48"
1/4"		\$15.40	\$20.80		
3/8		15.90	21.80		
1/2		11.60	18.20	\$24.80	\$26.40
5/8		12.50	20.00	27.50	30.00
3/4		13.60	22.20	30.80	34.40
7/8		14.90	24.80	34.70	39.60
1	<u> </u>	16.40	27.80	39.20	45.60
1-1/4	BLE	20.50	36.10	51.60	62.10
1-1/2	5	25.40	45.90	66.30	81.70
1-3/4	(NOT AVAILABLE)	32.10	59.30	86.40	108.50
2	<b>∀</b>	38.10	71.30	104.40	132.50
2-1/4	0	45.00	84.90	124.90	159.80
2-1/2	٤	52.60	100.10	147.70	190.20
2-3/4		61.00	117.00	172.90	223.90
3		72.70	140.40	208.00	270.70
3-1/4		77.90	150.70	223.60	291.40
3-1/2		88.00	171.00	253.90	331.90
3-3/4		98.90	192.80	286.60	375.50
4		110.50	216.00	321.50	422.00
4-1/2	101.50	138.40	271.80	405.10	533.50
5	112.60	197.10	356.70		
6	145.60	263.20	488.80		
7	184.70	341.30	645.10		
8	229.80	431.40	825.30		

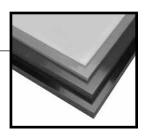
## Round Rods - Metric

Dia. mm	Tol. +/- mm	Length +5 -0	Price	Length +5 -0	Price
8	0.31	500	\$16.10	1000	\$22.10
10	0.39	500	16.70	1000	23.30
15	0.59	500	18.70	1000	27.30
20	0.79	500	21.50	1000	33.00
25	0.98	500	25.20	1000	40.40
30	1.18	500	29.70	1000	49.30
40	1.57	500	41.10	1000	72.10
50	1.97	500	55.80	1000	101.50
60	2.36	500	73.70	1000	137.30
70	2.76	500	94.90	1000	179.70
80	3.15	500	119.30	1000	228.60
100	3.94	500	178.00	1000	345.90

**Note:** Metric sizes conform to J.I.S. specifications.

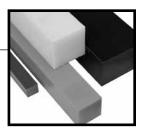


These have are more tightly controlled dimensions than open cast sheets.



Width	Length				Thickness			
		1/16"	1/8"	3/16"	1/4"	3/8"	1/2"	5/8"
1"	48"	\$19.30	\$21.20	\$23.10	\$25.00	\$28.80	\$32.60	\$37.60
2	48	23.50	27.40	31.20	35.00	42.60	50.30	60.30
3	48	27.80	33.60	39.30	45.00	56.50	67.90	82.90
4	48	32.00	39.70	47.30	55.00	70.30	85.60	105.60
6	6	18.20	19.60	21.10	22.50	25.40	28.20	32.00
ŭ	12	21.40	24.30	27.10	30.00	35.70	41.50	49.00
	18	24.60	28.90	33.20	37.50	46.10	54.70	65.90
	24	27.80	33.50	39.30	45.00	56.50	67.90	82.90
	36	34.20	42.80	51.40	60.00	77.20	94.40	116.90
	48	40.60	52.00	63.50	75.00	97.90	120.90	150.90
12	12	27.80	33.50	39.30	45.00	56.50	67.90	82.90
	18	34.20	42.80	51.40	60.00	77.20	94.40	116.90
	24	40.60	52.00	63.50	75.00	97.90	120.90	150.90
	36	53.30	70.50	87.80	105.00	139.40	173.80	218.80
	48	66.10	89.10	112.00	135.00	180.90	226.80	286.70
18	18	43.70	56.70	69.60	82.50	108.30	134.10	167.80
10	24	53.30	70.50	87.80	105.00	139.40	173.80	218.80
	36	72.50	98.30	124.10	149.90	201.60	253.20	320.70
	48	91.70	126.10	160.50	194.90	263.80	332.60	422.60
24	24	66.10	89.10	112.00	135.00	180.90	226.80	286.70
24	36	91.70	126.10	160.50	194.90	263.80	332.60	422.60
					239.90			
	48	102.20	148.10	194.00		331.70	423.50	543.40
	60	132.30	185.90	239.40	293.00	400.10	507.20	614.30
40	72	143.00	207.30	271.50	335.80	464.30	592.80	721.40
48	48		250.10	335.80	421.50	592.80	764.20	935.60
	96	/	421.50	592.80	764.20	1,106.90	1,449.60	1,792.40
		3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
1"	48"	\$41.50	\$62.60	\$83.20	\$83.20	\$97.80	\$117.40	\$151.50
2	48	67.90	83.20	144.50	160.60	245.80	245.80	281.00
3	48	94.40	117.40	207.30	245.80	266.70	353.80	421.50
4	48	120.90	151.50	223.90	281.00	364.40	421.50	509.50
			40.40	67.10	77.80	88.60	99.30	120.70
6	6	34.90	40.60					
6	12	34.90 54.70	66.20	108.00	129.40	150.90	172.30	215.10
6	12 18	54.70 74.60		108.00 148.90	129.40 181.00	150.90 213.20	245.30	309.50
6	12 18 24	54.70 74.60 94.40	66.20 91.80 117.40	108.00 148.90 181.00	129.40 181.00 223.90	150.90 213.20 266.70	245.30 309.50	309.50 395.20
6	12 18 24 36	54.70 74.60 94.40 134.10	66.20 91.80 117.40 168.50	108.00 148.90 181.00 245.30	129.40 181.00 223.90 309.50	150.90 213.20 266.70 400.10	245.30 309.50 464.30	309.50 395.20 592.80
6	12 18 24	54.70 74.60 94.40	66.20 91.80 117.40	108.00 148.90 181.00	129.40 181.00 223.90	150.90 213.20 266.70	245.30 309.50	309.50 395.20
12	12 18 24 36	54.70 74.60 94.40 134.10	66.20 91.80 117.40 168.50 219.70 117.40	108.00 148.90 181.00 245.30 309.50 172.30	129.40 181.00 223.90 309.50 395.20 215.10	150.90 213.20 266.70 400.10 507.20 266.70	245.30 309.50 464.30 592.80 309.50	309.50 395.20 592.80 764.20 395.20
	12 18 24 36 48 12 18	54.70 74.60 94.40 134.10 173.80 94.40 134.10	66.20 91.80 117.40 168.50 219.70 117.40 168.50	108.00 148.90 181.00 245.30 309.50 172.30 245.30	129.40 181.00 223.90 309.50 395.20 215.10 309.50	150.90 213.20 266.70 400.10 507.20 266.70 373.80	245.30 309.50 464.30 592.80 309.50 438.10	309.50 395.20 592.80 764.20 395.20 566.60
	12 18 24 36 48 12 18 24	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20	245.30 309.50 464.30 592.80 309.50 438.10 592.80	309.50 395.20 592.80 764.20 395.20 566.60 764.20
	12 18 24 36 48 12 18 24 36	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90
	12 18 24 36 48 12 18 24	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20	245.30 309.50 464.30 592.80 309.50 438.10 592.80	309.50 395.20 592.80 764.20 395.20 566.60 764.20
	12 18 24 36 48 12 18 24 36	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90
12	12 18 24 36 48 12 18 24 36 48	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60
12	12 18 24 36 48 12 18 24 36 48	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60 193.70	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40 245.30	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80 367.90	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20 464.30	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60 560.70	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90 657.10	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60 849.90
12	12 18 24 36 48 12 18 24 36 48 18 24	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60 193.70 253.20	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40 245.30 322.10	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80 367.90 464.30	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20 464.30 592.80	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60 560.70 721.40	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90 657.10 849.90	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60 849.90 1,106.90
12	12 18 24 36 48 12 18 24 36 48 18 24 36	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60 193.70 253.20 372.30	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40 245.30 322.10 475.60	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80 367.90 464.30 657.10	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20 464.30 592.80 849.90	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60 560.70 721.40 1,042.70	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90 657.10 849.90 1,235.40	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60 849.90 1,106.90 1,621.00
12	12 18 24 36 48 12 18 24 36 48 18 24 36 48	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60 193.70 253.20 372.30 491.40	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40 245.30 322.10 475.60 629.10	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80 367.90 464.30 657.10 849.90	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20 464.30 592.80 849.90 1,106.90	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60 560.70 721.40 1,042.70 1,364.00	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90 657.10 849.90 1,235.40 1,621.00	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60 849.90 1,106.90 1,621.00 2,135.10
12	12 18 24 36 48 12 18 24 36 48 24 36 48 24 36	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60 193.70 253.20 372.30 491.40 332.60 491.40	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40 245.30 322.10 475.60 629.10 424.40 629.10	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80 367.90 464.30 657.10 849.90 592.80 849.90	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20 464.30 592.80 849.90 1,106.90 764.20	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60 560.70 721.40 1,042.70 1,364.00 935.60 1,364.00	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90 657.10 849.90 1,235.40 1,621.00 1,106.90	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60 849.90 1,106.90 1,621.00 2,135.10 1,449.60 2,135.10
12	12 18 24 36 48 12 18 24 36 48 24 36 48 24 36 48	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60 193.70 253.20 372.30 491.40 332.60 491.40 635.20	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40 245.30 322.10 475.60 629.10 424.40 629.10 818.80	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80 367.90 464.30 657.10 849.90 592.80 849.90 1,106.90	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20 464.30 592.80 849.90 1,106.90 764.20 1,106.90 1,449.60	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60 560.70 721.40 1,042.70 1,364.00 935.60 1,364.00 1,792.40	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90 657.10 849.90 1,235.40 1,621.00 1,106.90 1,621.00 2,135.10	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60 849.90 1,106.90 1,621.00 2,135.10 1,449.60 2,135.10 2,820.50
12	12 18 24 36 48 12 18 24 36 48 24 36 48 24 36	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60 193.70 253.20 372.30 491.40 332.60 491.40 635.20 721.40	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40 245.30 322.10 475.60 629.10 424.40 629.10 818.80 935.60	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80 367.90 464.30 657.10 849.90 592.80 849.90 1,106.90 1,364.00	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20 464.30 592.80 849.90 1,106.90 764.20 1,106.90 1,449.60 1,792.40	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60 560.70 721.40 1,042.70 1,364.00 935.60 1,364.00 1,792.40 2,220.80	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90 657.10 849.90 1,235.40 1,621.00 1,106.90 1,621.00 2,135.10 2,649.20	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60 849.90 1,106.90 1,621.00 2,135.10 1,449.60 2,135.10 2,820.50 3,506.00
12	12 18 24 36 48 12 18 24 36 48 24 36 48 24 36 48 60	54.70 74.60 94.40 134.10 173.80 94.40 134.10 173.80 253.20 332.60 193.70 253.20 372.30 491.40 332.60 491.40 635.20	66.20 91.80 117.40 168.50 219.70 117.40 168.50 219.70 322.10 424.40 245.30 322.10 475.60 629.10 424.40 629.10 818.80	108.00 148.90 181.00 245.30 309.50 172.30 245.30 309.50 464.30 592.80 367.90 464.30 657.10 849.90 592.80 849.90 1,106.90	129.40 181.00 223.90 309.50 395.20 215.10 309.50 395.20 592.80 764.20 464.30 592.80 849.90 1,106.90 764.20 1,106.90 1,449.60	150.90 213.20 266.70 400.10 507.20 266.70 373.80 507.20 721.40 935.60 560.70 721.40 1,042.70 1,364.00 935.60 1,364.00 1,792.40	245.30 309.50 464.30 592.80 309.50 438.10 592.80 849.90 1,106.90 657.10 849.90 1,235.40 1,621.00 1,106.90 1,621.00 2,135.10	309.50 395.20 592.80 764.20 395.20 566.60 764.20 1,106.90 1,449.60 849.90 1,106.90 1,621.00 2,135.10 1,449.60 2,135.10 2,820.50





Width	Height			Length		
		12"	24"	36"	48"	2"
3/8"	3/8"	\$11.20	\$17.30	\$23.50	\$24.60	
1/2	1/2	12.10	19.10	26.20	28.20	
3/4	3/4	14.60	24.20	33.80	38.40	
1	1	20.70	36.30	52.00	62.60	\$25.70 per ft
1-1/4	1-1/4	25.30	45.50	65.80	81.00	
1-1/2	1-1/2	30.90	56.70	82.60	103.40	
* 2	2	45.20	85.30	125.50	160.60	50.20 per ft
2-1/2	2-1/2	63.50	122.00	180.50	234.00	
* 3	2	66.50	127.90	189.40	245.80	71.50 per ft
3	3	93.50	181.90	270.40	353.80	•
4	4	158.00	272.20	395.20	509.50	
5	5	222.30	400.80	588.00	766.50	
6	6	300.80	557.80	823.60	1,080.70	

<sup>\*</sup> Available with 1" diameter center hole at the same price. To order, specify "with center hole."

## Square and Rectangular Bars - Metric

Width mm +0 - 0.3	Height mm +0 - 0.3	Length mm +5 - 0	Price				
25	25	100	\$10.60				
		415	28.20				
		500	33.00				
		835	49.70				
		1000	55.90				
* 30	25	100	11.10				
		415	30.30				
		500	35.50				
		835	53.80				
		1000	61.00				
* 50	50	100	18.40				
		415	60.60				
		500	72.00				
		835	112.10				
		1000	133.90				
* 80	30	100	18.00				
		415	58.70				
		500	69.80				
		835	108.60				
		1000	129.50				
75	50	100	24.60				
		415	86.20				
		500	102.80				
		835	161.50				
		1000	195.60				
*110	45	100	28.20 33.00 49.70 55.90 11.10 30.30 35.50 53.80 61.00 18.40 60.60 72.00 112.10 133.90 18.00 58.70 69.80 108.60 129.50 24.60 86.20 102.80 161.50				
		415	106.80				
		500					
		835					
		1000	245.20				

<sup>\*</sup> These sizes fit European style bottom dies.



### Low cost alternative for wheels, castors, rollers, sheaves, etc.

- Two grades of tough K•Prene® urethane permanently bonded together, resulting in a hard anti-friction hub with softer outer tire.
- Stocked with a K-900A outer tire and an anti-friction K-750D hub.
- K-750D hub can serve as a bearing in some applications.
- ID's, OD's, lengths and profiles can be machined to fit your application.
- Use to make low cost OEM components for your manufactured products.

Nominal	Bearing			Pri	
O.D.	O.D.	I.D.	Part No.	12" length	24" length
1-1/2"	1"	No Bore	1510000	\$39.65	_
	1	3/8"	1510375	39.65	_
	1	1/2	1510500	39.65	_
	1	3/4	1510750	_	\$75.50
1-3/4	1	3/8	17510375	43.50	_
2	1	1/4	2010250	48.00	_
	1	3/8	2010375	48.00	_
	1-1/2	3/8	2015375	48.00	_
	1-1/2	1/2	2015500	48.00	_
_	1-1/2	5/8	2015625	48.00	86.50
	1-1/2	3/4	2015750	48.00	86.50
	1-1/2	7/8	2015875	_	86.50
	1-1/2	1	2015100	_	99.90
2-1/2	1-1/2	3/8	2515375	61.90	_
-	1-1/2	1/2	2515500	61.90	_
	1-1/2	5/8	2515625	61.90	111.90
and the state of t	1-1/2	3/4	2515750	61.90	111.90
	1-1/2	1	2515100	<del>-</del>	143.75
3	1-1/2	3/8	3015375	76.40	_
_	1-1/2	1/2	3015500	76.40	<del>-</del>
	1-1/2	5/8	3015625	76.40	139.45
	1-1/2	3/4	3015750	76.40	139.45
0.4/0	2	1	3020100	<u> </u>	161.05
3-1/2	1-1/2	3/8	3515375	97.25	_
-	1-1/2	1/2	3515500	97.25	470.45
and the state of t	1-1/2	5/8	3515625	97.25	179.15
2.044	1-1/2	3/4	3515750	97.25	179.15
3-3/4	2	1	37520100	107.00	198.00
4	1-1/2 1-1/2	3/8	4015375	116.90	_
	1-1/2	1/2 5/8	4015500	116.90	216.60
	1-1/2	3/4	4015625	116.90	216.60
_		3/4 1	4015750	116.90 116.90	
4-1/2	2	<u> </u> 1	4020100	110.90	216.60
5	1-1/2	3/8	4520100 5015375	168.95	283.50
5	1-1/2	1/2	5015575	168.95	_
-	1-1/2	5/8	5015625	168.95	316.15
-	1-1/2	3/4	5015750	168.95	316.15
-	2	3/4 1	5020100	168.95	316.15
6	1-1/2	3/8	6015375	243.15	310.13
	1-1/2	1/2	6015500	243.15	_
-	1-1/2	5/8	6015625	243.15	456.15
-	1-1/2	3/4	6015750	243.15	456.15
-	2	3/4 1	6020100	243.15	456.15
	Z	į.	0020100	243.13	400.10





- Nominal OD's  $1\frac{1}{2}$ " 6"  $\pm 2\%$
- I.D.'s are slightly oversized to provide running clearance for 3/8" to 1" shafts.
- · Custom sizes, shapes and formulations available.

## Solid Urethane Balls NEW!

Can be used for check valves, relief valves, light load ball bearings, etc. Made to order in several durometers and offered in different colors, including natural. Please specify durometer.

Spec	ifications	Prices				
Part No.	diameter	1-24	25-49	50+		
Ball 0304	3/4"	\$3.10	\$2.80	\$2.50		
Ball 1000	1	3.90	3.50	3.10		
Ball 1102	1-1/2	4.90	4.40	4.00		
Ball 1508	1-5/8	5.10	4.70	4.20		
Ball 2000	2	7.30	6.60	5.90		
Ball 2102	2-1/2	10.80	9.70	8.60		
Ball 2508	2-5/8	11.50	10.60	9.50		
Ball 3000	3	14.90	14.15	13.40		





## Tool Holster

Designed to reduce costly repairs and down time of expensive pneumatic tools used in fast paced assembly lines. Stocked in  $K \bullet Prene^* K-900A$  which is hard and slick, insuring easy-in and easy-out, yet will flex upon contact. Mounting holes at top and bottom mean secure and easy installation. Contact our factory for additional sizes or styles.

Part No.	Taper ID	Cup Length	Overall Length	Price
500-0221	4" to 1-1/2"	7"	8-1/2"	\$36.00





## Slick Strip<sup>™</sup> Tape

When applied to metal surfaces, this pressure sensitive tape (.005 or .010 thickness) will reduce friction and protect finished stock (wood, metal, etc.) from scratches and dents. To apply, cut to length with scissors, remove adhesive protector and apply to clean, dry surface. Work hardens.

5 Mil				10 Mil			
Part Number	Width	Length	Price	Part Number	Width	Length	Price
SST0501	1"	36 yards	\$29.00	SST1001	1"	36 yards	\$44.00
SST0515	1 1/2	36	38.00	SST1015	1 1/2	36	58.00
SST0502	2	36	46.00	SST1002	2	36	71.00
SST0503	3	36	66.00	SST1003	3	36	101.00
SST0504	4	36	87.00	SST1004	4	36	132.00
SST0522	22	10' min.	5.00/ft	SST1006	6	36	199.00
				SST1022	22	10' min.	9.00/ft

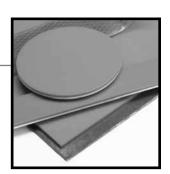




## Metal Backed Sheets

Cut, drill, saw and bend these sheets to suit your needs. Make your own bumpers, wear pads, machinery mounts, etc. Backing is 10 ga.(.135) mild steel. Available in any standard durometer. Other backings or urethane thicknesses available. Contact Acrotech Inc. for quote.

Urethane Thickness	6" x 6"	12" x 12"	24" x 24"
1/4"	\$49.00	\$85.00	\$250.00
3/8	57.00	100.00	300.00
1/2	65.00	115.00	350.00
5/8	73.00	130.00	400.00
3/4	81.00	145.00	450.00
7/8	89.00	160.00	500.00
1	97.00	175.00	550.00









**Round Bumpers:** These bumpers have steel cores with male or female threads, or a flat washer molded inside. Bumpers are stocked in K-400A, K-600A, K-800A, K-900A, and K-950A. Custom sizes and shapes are available!

Male Thread		Specification	ons		Prices			
	Dia.	Hth.	Thread	Part No.	1-24	25-49	50+	
	1"	1"	1/4-20	ROM-001	\$3.75	\$3.55	\$3.40	
	1-1/4	1	1/4-20	ROM-002	4.25	4.05	3.85	
	1-1/2	1-1/4	3/8-16	ROM-003	5.15	4.95	4.75	
	2	1-1/4	3/8-16	ROM-004	6.85	6.60	6.20	
	2-1/2	2	1/2-13	ROM-005	12.45	11.90	11.30	
	3	2-1/2	1/2-13	ROM-006	20.90	19.90	18.95	
Female Thread	1"	1"	1/4-20	ROF-001	\$3.40	\$3.20	\$3.05	
	1-1/4	1	1/4-20	ROF-002	3.90	3.75	3.55	
	1-1/2	1-1/4	3/8-16	ROF-003	4.65	4.35	4.15	
	2	1-1/4	3/8-16	ROF-004	6.25	5.95	5.70	
	2-1/2	2	1/2-13	ROF-005	11.55	11.05	10.50	
	3	2-1/2	1/2-13	ROF-006	20.00	19.05	18.15	



**Washers:** These round bumpers have a flat washer molded into the bumper and will accept a socket head cap screw of the size indicated. Stocked in K-400A, K-600A, K-800A, K-900A, and K-950A.

Washer		Specification	ons		Prices			
Flat Washer	Dia.	Hth.	Thread	Part No.	1-24	25-49	50+	
	3/4"	3/4"	1/4"	RON-001	\$2.55	\$2.45	\$2.35	
	1	1	1/4	RON-002	3.25	3.10	2.95	
<u> </u>	1-1/4	1	3/8	RON-003	3.70	3.50	3.30	
	1-1/2	1-1/4	3/8	RON-004	4.55	4.30	4.10	
	2	1-1/4	1/2	RON-005	6.10	5.85	5.60	
	2-1/2	2	1/2	RON-006	11.40	10.85	10.35	
	3	2-1/2	1/2	RON-007	17.90	17.10	16.30	



**Square and Rectangular Bumpers:** Base is 1/8" aluminum plate. Mounting holes are drilled and counterbored for 1/4" socket head cap screws. Stocked in K-400A, K-600A, K-800A, K-900A and K-950A. Custom shapes and sizes are available!

Rectangular		Spec	ification	ıs				Prices	
	Α	В	/ <b>C</b>	D	/ E	Part No.	1-24	25-49	50+
	1"	2"	1/2"	3/8"	1-1/4"	REC-001	\$4.20	\$4.00	\$3.80
B	1	2	3/4	3/8	1-1/4	REC-002	4.70	4.50	4.25
	1	2	1	3/8	1-1/4	REC-003	5.15	4.95	4.75
	1	2	1-1/2	3/8	1-1/4	REC-004	6.15	5.85	5.60
	1-1/4	2-1/2	3/4	3/8	1-3/4	REC-005	5.65	5.30	5.10
	1-1/4	2-1/2	1	3/8	1-3/4	REC-006	6.35	6.05	5.80
	1-1/4	2-1/2	1-1/2	3/8	1-3/4	REC-007	7.90	7.50	7.15
	1-1/2	3	3/4	1/2	2	REC-008	6.60	6.25	5.95
	1-1/2	3	1	1/2	2	REC-009	7.65	7.25	6.95
	1-1/2	3	1-1/2	1/2	2	REC-010	9.85	9.35	8.95
Square	F	G	/ H		I	Part No.	1-24	25-49	50+
J. H.	1"	3/4"	1 Ho	le-Cente	ered	SQU-001	\$3.65	\$3.50	\$3.30
F,	1-1/2	1	3/8"	,	3/4"	SQU-002	4.90	4.65	4.45
	2	1	3/8		1-1/4	SQU-003	7.10	6.75	6.40
	2-1/2	1	Но	le Cente	ers	SQU-004	9.75	9.25	8.85
1/2	3	1-1/2	are	1/2" fro	m	SQU-005	16.60	15.80	15.10
	4	1-1/2	ea	ach edge		SQU-006	26.15	24.95	23.75



This pressure sensitive tape is tough, transparent and conformable! It resists abrasion, punctures and will not yellow! Works well for high and low temperature applications. For best results apply to a clean dry surface and seal with a straight edge.



### Indoor Use .009

### Indoor / Outdoor Use .014

Size	Part No.	Price
1" x 30"	PT0100930	\$13.00
2 x 30	PT0200930	24.00
3 x 30	PT0300930	35.00
4 x 30	PT0400930	46.00
6 x 30	PT0600930	68.00
8 x 30	PT0800930	90.00
1 x 60	PT0100960	24.00
2 x 60	PT0200960	46.00
3 x 60	PT0300960	68.00
4 x 60	PT0400960	90.00
6 x 60	PT0600960	134.00
8 x 60	PT0800960	178.00

Size	Part No.	Price
1" x 30"	PT0101430	\$19.00
2 x 30	PT0201430	33.00
3 x 30	PT0301430	49.00
4 x 30	PT0401430	65.00
6 x 30	PT0601430	95.00
8 x 30	PT0801430	126.00
1 x 60	PT0101460	36.00
2 x 60	PT0201460	64.00
3 x 60	PT0301460	95.00
4 x 60	PT0401460	126.00
6 x 60	PT0601460	188.00
8 x 60	PT0801460	250.00

### Typical Physical Properties:

<i>J</i> 1	•	
Substrate Thickness:	.007"	.012"
Total Thickness:	.009"	.0145"
Tensile Strength:	48.0 lbs.	100.0lbs.
Elongation (at break):	500%	520%
Operating Temperature:	-65°F to 300°F	-40°F to 275°F∆
Application Temperature:	50°F to 120°F	50°F to 120°F

## K-20 Adhesive

Especially formulated to withstand continuous flexing. Exhibits great strength when used to bond K.Prene® to K.Prene®, metal, or plastic. Two-part kit composed of equal containers of resin and hardener.

Description		Part No.	Price
1/2 Pint Kit (2 –	1/4 Pint Cans)	KPA-202	\$20.95
1 Pint Kit (2 –	1/2 Pint Cans)	KPA-203	38.95
2 Pint Kit (2 –	1 Pint Cans)	KPA-204	74.70





## Double-Faced Tape

This double-face tape securely holds Acroform™ and Acro-Hyde™ in place. Eliminates the need for fixtures, clamping devices, bolts, etc.

Description	Part No.	Price
1" x 36 yds	KPT-136	\$13.35/roll



## **►** Wood Industry NEW!

## **Z**/ Drive Wheels



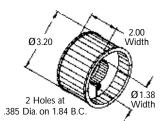
Designed with 3 or 6 bolt mounting holes to fit various hubs on molders, etc. The sizes listed are stocked in 80A durometer (others available). If the size you need is not listed, please call or fax your dimensions. When ordering, be sure to specify the durometer desired.

3 hole bolt pattern					
Part #	<u>OD</u>	<u>ID</u>	Width	<u>Price</u>	
DW3-0009	4-3/4"	2"	2"	\$22.00	
DW3-0010	5-1/2	2 3/16	2	23.00	
DW3-0012	6	2 1/4	2	33.00	
DW3-0013	6-5/16	2 3/4	2	29.00	
DW3-0014	6-5/8	2 3/4	1	20.50	
DW3-0015	6-5/8	2 3/4	2	33.00	
DW3-0016	7	2 1/4	2	42.90	
DW3-0017	8-9/16	4	2	53.66	
DW3-0018	6	2 3/4	2	28.30	
DW3-0019	5-1/2	3	2	22.50	
DW3-0020	7-5/16	2 3/4	2	49.00	
DW3-0021	5-1/2	3	1	15.00	
DW3-0022	5-1/2	2 1/4	3/4	12.50	
DW3-0023	5-1/2	2 1/4	2	22.00	
DW3-0024	5-1/2	1 1/4	3/4	39.00	

6 hole bolt pattern						
Part #	<u>OD</u>	<u>ID</u>	Width	<u>Price</u>		
DW6-0040	4-3/4"	3"	3/4"	\$11.70		
DW6-0041	5-1/2	3	3/4	13.50		
DW6-0042	6-5/8	3 3/8	3/4	15.90		
DW6-0043	4-3/4	3	2	20.15		
DW6-0044	6-1/4	3 3/8	3/4	17.10		
DW6-0045	7-1/4	3 3/8	3/4	19.91		
DW6-0047	6	3	3/4	14.57		

## Press Fit Power Feed Tires and Reusable Hubs





When ordering specify the durometer, part number, and quantity desired.  Tires are stocked in K-600A and K-700A.								
Part # Description OD Width Price								
PFT-0060	Tire	3"	1"	\$7.95				
PFT-0061	Tire	4-3/8	1-3/4	15.00				
PFT-0062	Tire	4-5/16	1-3/4	22.00				
PFT-0063	Tire	4-3/8	2	18.00				
PFT-0064	Tire	4-3/8	2-1/4	21.00				
*PFT-0065	Tire	4-3/8	2	23.50				
* This ribbed design works best for slick surfaces. Tire OD's increase when installed.								
PFH-0070	Hub-fits all tires except PFT-0060							
PFT-TOOL	Tire mounting tools 18.00							

See V-Roll & Bumpers on pages 18 and 21.

## **OEM Replacement Parts**



Acrotech Inc. has redesigned several parts due to requests for ones that "work better, cost less, and are more readily available!" Let us know if you have others.

### Barr Mullin Wunder Saw Rollers - Brute - Press Fit

Available in K-800A Orange. I.D. sized for press fit. Installation is quick and easy with a bench vise, or press. 4-1/2" OD x 3-1/2" wide. # 500-1600 \$27.80 4-1/2" OD x 6" wide. # 500-1599 \$39.15

## OEM Replacement Parts (cont.)



### Brandt Edge Bander/Arminus Profile Sander - Holddown Rollers

K•Prene® K-600A is permanently bonded to a steel sleeve with a high performance press fit bearing. 2-1/16" OD x 3/4" ID x 1" wide. # 500-0260 \$24.00 each

### **Challoner Tenoner Holddown Pad**

2-11/16" length x 1" wide. K•Prene® K-600A # 500-2570, K-700A #500-0295 \$4.00 each

### **Gre Con Optimizer Holddown Rollers**

Our Versa Roll<sup> $^{\text{m}}$ </sup> with a K-950A outer tire and a bronze press fit bearing. 4-7/8" OD x 3/4" ID x 1-1/2" wide. # 500-1353 \$70.00 each

### Jenkins Tenoner Hold Down Pad

2-11/16" length x 1" wide. K-400A #500-1549, K-600A #500-1547, K-700A #500-1550 \$4.00 each

### **Progress Tennon Machine Pads**

K•Prene® K-600A bonded to steel plate. Minimum orders. Two sizes. Lg. w/ center hole # 500-0995 \$26.25 Sm. w/ center hole # 500-0997 \$24.75 Lg. w/o center hole # 500-0996 \$21.75 Sm. w/o center hole # 500-0998 \$19.50

### **Shaper Feed Tires - Press Fit**

Available in K-800A with ID sized for press fit. Installation is quick and easy with a bench vise or press. 3-7/8" OD x 2-1/4" ID x 15/16" wide. # 500-0705 \$9.50 each

## **5**

## Recovering of OEM Hubs and Shafts



Hubs	Part No.	<u>O.D.</u>	<u>Width</u>	<u>Duro</u>	<u>Price</u>
Barr Mullin Wunder Saw - Turbo	500-0050	4-7/8"	3-3/8"	K-600A	\$30.42
Gre Con Optimizer In-Feed Wheel	500-0263	6	1	K-800A	43.78
Hessman Sander	500-1126	6	1	K-800A	49.05
Mattison Molder	500-1486	6- 13	4-15/16	K-600A	45.00
. Multiscore	500-1623	6-1/2	2-1/4	K-700A	20.13
Power Feeder – Sm.					
Commatic, Delta, Grizzley, etc.	RPF-001	3-1/8	1-1/8	K-700A	18.00
Power Feeder – Lg.					
Delta, Jet, Nandini, Steff, Maggi, etc.	RPF-002	4-5/8	2	K-700A	30.64
Ultimizer	500-1363	5	2-1/2	K-900A	34.75
. Weinig Molders	500-0079	5-1/2	2	K-800A	30.80
	500-0080	5-1/2	1-3/16	K-800A	24.75
	500-0081	5-1/2	3/4	K-800A	22.00
	500-1102	4-1/2	2	K-800A	25.80

With so much machinery imported, this service results in better performance, quicker delivery and reduced expenses! Here are several examples. To order, send part /parts with information re: the part number, durometer, and quantity desired.



Shafts	Part No.	<u>O.D.</u>	Width	<u>Duro</u>	<u>Price</u>
AEM Planer Sander	500-2737	2-5/16"	39-1/4"	K-700A	\$185.00
Barr Mullin - Brute Pressure Roller	500-1652	4-9/16	13-1/16	K-800A	84.54
Bridgewood Stile/Rail Trimmer	500-0651	2-1/3	14	K-850A	46.50
Delta Planer	500-0979	1-1/2	11-3/4	K-700A	41.00
Makita Wood Planer-2030	500-1507	1-3/4	12-1/8	K-700A	105.20
Mereen-Johnson Gang Rip Saw	500-0801	3	26	K-400A	93.00
Mid Oregon Gang Rip Saw	500-0305	5	16	K-850A	195.00
Progressive Gang Rip-pressure roller	500-1793	4	34	K-800A	241.15
SAC - Planer Roller	500-1257	3-1/2	6-7/8	K-700A	61.60
Sears Planer	500-1068	1-1/2	12-1/2	K-700A	40.75
Williams & Hussey Molder	500-0302	1-1/2	6-3/4	K-700A	29.20

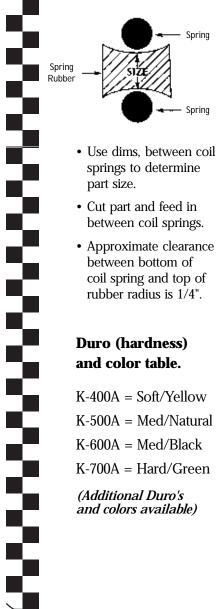
## K•Prene® and High Performance Applications NEW!



The ongoing efforts to reduce weight and increase speed and handling without sacrificing anything in the process, has resulted in K•Prene® becoming a great option for numerous applications. If you consider its characteristics - ability to absorb shock, strong, lightweight, fluid and abrasion resistance, etc. it makes perfect sense.

The processing of all the different K. Prene® formulas, involves pouring K. Prene® while it's a hot thick liquid into molds and then allowing it to cure in an oven. This process is ideally suited for producing smaller part quantities (from single digits to several thousands) and is often more cost effective than machining parts to size.

Here are some of the parts we manufacture for race applications involving cars, motorcycles, snowmobiles, etc. Looking for something else? Please contact an applications engineer!



- Use dims, between coil springs to determine part size.
- Cut part and feed in between coil springs.
- Approximate clearance between bottom of coil spring and top of rubber radius is 1/4".

### **Duro (hardness)** and color table.

K-400A = Soft/Yellow

K-500A = Med/Natural

K-600A = Med/Black

K-700A = Hard/Green

(Additional Duro's and colors available)

SPRING RUBBERS   Size   Duro   Part No.   Price		0'	D	Dt M.	D.J.
3/4	SPRING RUBBERS	Size	Duro	Part No.	Price
3/4	For 5" - 5 1/2" Springs	3/4"	K-400A	500-2448	\$29.00
3/4    K-700A   500-2850   29.00		3/4	K-500A	500-2449	29.00
7/8 K-400A 500-2450 32.00 7/8 K-500A 500-2451 32.00 7/8 K-600A 500-0124 32.00 7/8 K-700A 500-2452 32.00 1 K-400A 500-2453 37.00 1 K-500A 500-2453 37.00 1 K-600A 500-0126 37.00 1 K-600A 500-2453 37.00 1 K-700A 500-2454 37.00 1 K-700A 500-2454 47.00 1 1 K-700A 500-2455 40.50 1-1/4 K-500A 500-2457 40.50 1-1/4 K-700A 500-2457 40.50 1-1/4 K-700A 500-2457 40.50 1-1/2 K-600A 500-2459 45.00 1-1/2 K-500A 500-2450 45.00 1-1/2 K-600A 500-2460 45.00 1-1/2 K-700A 500-2461 45.00 1-1/2 K-700A 500-2462 19.00 1-1/2 K-700A 500-2465 19.00 1-1/2 K-700A 500-2527 10.00 1-1/2 K-700A 500-2527 10.00 1-1/2 K-700A 500-2527 10.00 1-1/2 K-700A 500-2470 12.75 1-1/2 K-700A 500-2470 12.75 1-1/2 K-700A 500-2471 12.75 1-1/2 K-700A 500-2472 12.75		3/4	K-600A	500-1021	29.00
7/8 K-500A 500-2451 32.00 7/8 K-600A 500-0124 32.00 7/8 K-700A 500-2452 32.00 1 K-400A 500-2453 37.00 1 K-500A 500-2454 37.00 1 K-500A 500-2454 37.00 1 K-700A 500-2455 40.50 1-1/4 K-400A 500-2455 40.50 1-1/4 K-500A 500-2456 40.50 1-1/4 K-600A 500-2456 40.50 1-1/4 K-700A 500-2457 40.50 1-1/4 K-700A 500-2457 40.50 1-1/2 K-400A 500-2459 45.00 1-1/2 K-500A 500-2459 45.00 1-1/2 K-700A 500-2459 45.00 1-1/2 K-700A 500-2460 45.00 1-1/2 K-700A 500-2461 45.00 1-1/2 K-700A 500-2462 \$19.00 600 K-500A 500-2463 19.00 600 K-600A 500-2464 19.00 600 K-700A 500-2464 20.00 700 K-400A 500-2466 20.00 700 K-500A 500-2467 20.00 700 K-700A 500-2469 20.00 850 K-400A 500-2524 21.00 850 K-500A 500-2526 21.00 850 K-600A 500-2526 21.00 850 K-500A 500-2526 21.00 850 K-500A 500-2527 21.00 1 K-400A 500-2527 21.00 1 K-400A 500-2527 21.00 1 K-400A 500-2527 21.00 1 K-400A 500-2470 21.75 1 K-500A 500-2470 21.75		3/4	K-700A	500-2850	29.00
7/8 K-600A 500-0124 32.00 7/8 K-700A 500-2452 32.00 1 K-400A 500-2453 37.00 1 K-500A 500-2454 37.00 1 K-600A 500-0126 37.00 1 K-600A 500-0126 37.00 1 K-700A 500-2455 40.50 1-1/4 K-400A 500-2455 40.50 1-1/4 K-500A 500-2456 40.50 1-1/4 K-500A 500-2457 40.50 1-1/4 K-600A 500-0129 40.50 1-1/4 K-700A 500-2457 40.50 1-1/2 K-400A 500-2457 40.50 1-1/2 K-500A 500-2457 45.00 1-1/2 K-500A 500-2459 45.00 1-1/2 K-600A 500-2460 45.00 1-1/2 K-700A 500-2461 45.00 1-1/2 K-700A 500-2462 \$19.00 600 K-500A 500-2464 19.00 600 K-500A 500-2464 19.00 600 K-700A 500-2468 20.00 700 K-600A 500-2468 20.00 700 K-600A 500-2469 20.00 850 K-400A 500-252 21.00 850 K-500A 500-252 21.00 850 K-500A 500-252 21.00 850 K-700A 500-252 21.00 1 K-400A 500-2470 21.75 1 K-500A 500-2470 21.75 1 K-500A 500-2472 21.75		7/8	K-400A	500-2450	32.00
T/8		7/8	K-500A	500-2451	32.00
1		7/8	K-600A	500-0124	32.00
1		7/8	K-700A	500-2452	32.00
1		1	K-400A	500-2453	37.00
1		1	K-500A	500-2454	37.00
1-1/4		1	K-600A	500-0126	37.00
1-1/4		1	K-700A	500-2851	37.00
1-1/4		1-1/4	K-400A	500-2455	40.50
1-1/4		1-1/4	K-500A	500-2456	40.50
1-1/2		1-1/4	K-600A	500-0129	40.50
1-1/2 K-500A 500-2459 45.00 1-1/2 K-600A 500-2460 45.00 1-1/2 K-700A 500-2461 45.00  COIL OVER SPRING RUBBERS  Size Duro Part No. Price  For 3" - 3 1/2" Springs  -600" K-400A 500-2462 \$19.00 -600 K-500A 500-2463 19.00 -600 K-600A 500-2464 19.00 -600 K-700A 500-2465 19.00 -700 K-400A 500-2466 20.00 -700 K-500A 500-2467 20.00 -700 K-600A 500-2468 20.00 -700 K-700A 500-2469 20.00 -700 K-700A 500-2469 20.00 -850 K-700A 500-2525 21.00 -850 K-500A 500-2525 21.00 -850 K-600A 500-2526 21.00 -850 K-700A 500-2527 21.00 -850 K-700A 500-2527 21.00 -850 K-700A 500-2470 21.75 -850 K-500A 500-2471 21.75 -850 K-500A 500-2472 21.75		1-1/4	K-700A	500-2457	40.50
1-1/2		1-1/2	K-400A	500-2458	45.00
T-1/2   K-700A   500-2461   45.00		1-1/2	K-500A	500-2459	45.00
COIL OVER SPRING RUBBERS  Size Duro Part No. Price  600" K-400A 500-2462 \$19.00  .600 K-500A 500-2463 19.00  .600 K-600A 500-2465 19.00  .600 K-700A 500-2466 20.00  .700 K-400A 500-2467 20.00  .700 K-500A 500-2468 20.00  .700 K-700A 500-2469 20.00  .850 K-400A 500-2524 21.00  .850 K-500A 500-2525 21.00  .850 K-700A 500-2526 21.00  .850 K-700A 500-2527 21.00  1 K-400A 500-2470 21.75  1 K-500A 500-2471 21.75		1-1/2	K-600A	500-2460	45.00
For 3" - 3 1/2" Springs  .600" K-400A 500-2462 \$19.00  .600 K-500A 500-2463 19.00  .600 K-600A 500-2464 19.00  .600 K-700A 500-2465 19.00  .700 K-400A 500-2466 20.00  .700 K-500A 500-2467 20.00  .700 K-600A 500-2468 20.00  .700 K-700A 500-2469 20.00  .850 K-400A 500-2524 21.00  .850 K-500A 500-2524 21.00  .850 K-600A 500-2525 21.00  .850 K-700A 500-2526 21.00  .850 K-700A 500-2527 21.00  .850 K-700A 500-2470 21.75  1 K-500A 500-2471 21.75  1 K-600A 500-2472 21.75		1-1/2	K-700A	500-2461	45.00
.600 K-500A 500-2463 19.00 .600 K-600A 500-2464 19.00 .600 K-700A 500-2465 19.00 .700 K-400A 500-2466 20.00 .700 K-500A 500-2467 20.00 .700 K-600A 500-2468 20.00 .700 K-700A 500-2469 20.00 .850 K-400A 500-2524 21.00 .850 K-500A 500-2525 21.00 .850 K-600A 500-2526 21.00 .850 K-700A 500-2527 21.00 .850 K-700A 500-2470 21.75 1 K-500A 500-2471 21.75 1 K-600A 500-2472 21.75	COIL OVER SPRING RUBBERS	Size	Duro	Part No.	Price
1.600   K-500A   500-2463   19.00	For 3" - 3 1/2" Springs	.600"	K-400A	500-2462	\$19.00
.600 K-700A 500-2465 19.00 .700 K-400A 500-2466 20.00 .700 K-500A 500-2467 20.00 .700 K-600A 500-2468 20.00 .700 K-700A 500-2469 20.00 .850 K-400A 500-2524 21.00 .850 K-500A 500-2525 21.00 .850 K-600A 500-2526 21.00 .850 K-700A 500-2527 21.00 1 K-400A 500-2470 21.75 1 K-500A 500-2472 21.75		.600	K-500A	500-2463	19.00
.700 K-400A 500-2466 20.00 .700 K-500A 500-2467 20.00 .700 K-600A 500-2468 20.00 .700 K-700A 500-2469 20.00 .850 K-400A 500-2524 21.00 .850 K-500A 500-2525 21.00 .850 K-600A 500-2526 21.00 .850 K-700A 500-2527 21.00 1 K-400A 500-2470 21.75 1 K-500A 500-2471 21.75 1 K-600A 500-2472 21.75		.600	K-600A	500-2464	19.00
.700 K-500A 500-2467 20.00 .700 K-600A 500-2468 20.00 .700 K-700A 500-2469 20.00 .850 K-400A 500-2524 21.00 .850 K-500A 500-2525 21.00 .850 K-600A 500-2526 21.00 .850 K-700A 500-2527 21.00 1 K-400A 500-2470 21.75 1 K-500A 500-2471 21.75 1 K-600A 500-2472 21.75		.600	K-700A	500-2465	19.00
.700 K-600A 500-2468 20.00 .700 K-700A 500-2469 20.00 .850 K-400A 500-2524 21.00 .850 K-500A 500-2525 21.00 .850 K-600A 500-2526 21.00 .850 K-700A 500-2527 21.00 1 K-400A 500-2470 21.75 1 K-500A 500-2471 21.75 1 K-600A 500-2472 21.75		.700	K-400A	500-2466	20.00
.700 K-700A 500-2469 20.00 .850 K-400A 500-2524 21.00 .850 K-500A 500-2525 21.00 .850 K-600A 500-2526 21.00 .850 K-700A 500-2527 21.00 1 K-400A 500-2470 21.75 1 K-500A 500-2471 21.75 1 K-600A 500-2472 21.75		.700	K-500A	500-2467	20.00
.850       K-400A       500-2524       21.00         .850       K-500A       500-2525       21.00         .850       K-600A       500-2526       21.00         .850       K-700A       500-2527       21.00         1       K-400A       500-2470       21.75         1       K-500A       500-2471       21.75         1       K-600A       500-2472       21.75		.700	K-600A	500-2468	20.00
.850 K-500A 500-2525 21.00 .850 K-600A 500-2526 21.00 .850 K-700A 500-2527 21.00 1 K-400A 500-2470 21.75 1 K-500A 500-2471 21.75 1 K-600A 500-2472 21.75		.700	K-700A	500-2469	20.00
.850     K-600A     500-2526     21.00       .850     K-700A     500-2527     21.00       1     K-400A     500-2470     21.75       1     K-500A     500-2471     21.75       1     K-600A     500-2472     21.75		.850	K-400A	500-2524	21.00
.850     K-700A     500-2527     21.00       1     K-400A     500-2470     21.75       1     K-500A     500-2471     21.75       1     K-600A     500-2472     21.75	<b>3</b>	.850	K-500A	500-2525	21.00
.850     K-700A     500-2527     21.00       1     K-400A     500-2470     21.75       1     K-500A     500-2471     21.75       1     K-600A     500-2472     21.75		.850	K-600A	500-2526	21.00
1 K-400A 500-2470 21.75 1 K-500A 500-2471 21.75 1 K-600A 500-2472 21.75		.850			
1 K-600A 500-2472 21.75		1	K-400A	500-2470	
1 K-600A 500-2472 21.75		1	K-500A	500-2471	21.75
1 K-700A 500-2473 21.75		1	K-600A	500-2472	21.75
		1	K-700A	500-2473	21.75





Made out of  $K \bullet Prene^* K-750D$ , these slugs weigh 50% less than aluminum parts, yet have significant tensile strength! Parts are offered with the standard hole positions or without. Brown in color.

Specifications			Prices	
Hole Position	Part No.	1-24	25-49	50+
0" offset	500-5143	\$3.75	\$3.50	\$3.25
1/8 offset	500-5144	3.75	3.50	3.25
1/4 offset	500-5145	3.75	3.50	3.25
3/8 offset	500-5146	3.75	3.50	3.25
No hole	500-5147	3.75	3.50	3.25



## **Z**/ Bushings

With all the different  $K \bullet Prene^{\circ}$  formulas available, our standard bushing sizes can be quickly and easily be produced to meet your needs. Please specify color and durometer. Looking for a size or style not offered? Simply contact one of our application engineers for a fast, no obligation quote.



Specifications Pr										Prices
ID	minor OD major	Flange	Length	Duro	Color	Part No.	<b>Description</b>	1-24	25-49	50+
1/2"	1-5/16" 1-1/2"	1/4"	1-1/4"	90A	Black	500-5180	K-member	\$3.95	\$3.70	\$3.45
11/16	1-1/8 1-1/4	1/4	13/16	90A	Black	500-5181	Harley Riser	3.16	2.88	2.72
3/4	1-1/8 1-1/4	1/4	11/16	90A	Black	500-5250	Control Arm	3.10	2.75	2.50

## Spring Splice

Featuring K750D, these spring splices weigh less than the existing metal styles. Length can be shortened. Color brown.

Specifications								
ID	minor OD major		Length	Part No.	Price			
2.150"	2.490"	3.50"	3"	500-5346	\$32.50			



See friction reducing and part protection tapes on page 19-21

Machining of K•Prene® Machining of K•Prene® urethane proves useful when the required tolerances cannot be obtained by conventional molding methods, or when low production runs do not justify the cost of molds. We maintain a complete inventory of sheet, rounds, rods, and bars in six different hardnesses which can often be used to make prototypes or limited production quantities.

The table below details the general machining characteristics of K•Prene® urethane K-900A durometer and harder. For K•Prene® urethane below K-800A durometer, cutting tools are often not satisfactory and grinding may be required. In some cases, machinability can be improved by freezing K•Prene® urethane below K-800A durometer with dry ice or liquid nitrogen.

Machining of K•Prene® urethane is similar to that of metals, and in most cases the same tools can be used. The principle differences between metal and urethane machining are:

### **Modulus of Elasticity**

Urethanes are resilient and can be easily distorted. Because of this, care must be taken to avoid distortion due to holding or cutting forces.

### **Softening Point**

26

Gumming, poor finishes, and poor dimensional control will readily occur if excess heat is generated and allowed to accumulate. Proper tool geometry, feed rates and cutting speed in conjunction with coolants usually can overcome these problems. Water-soluble cutting oils and/or light machine oils are good coolants for urethanes.

### **Lower Thermal Conductivity**

Heat generated by the cutting tools stays close to the tool and raises the urethane temperature rapidly. This heat must be controlled. Melting can occur above 350° F.

### **Elastic Memory**

Elastic recovery occurs in urethanes both during and after machining, and the cutting tool must provide clearance to compensate for this. Without this compensation, expansion of the urethane after cutting will result in increased friction between the cut surface and the cutting tool. Excess heat build-up will result. Elastic recovery after machining can result in smaller internal diameters or larger external diameters than were measured during cutting.

Machining Applications	Recommended Tools	Size Limitations	Maximum Speeds	Workholding Recommendations	Suggestions
Bandsawing	Sharp 2-4 hook carbide blade with raker set	Max. 8" thick Min. 1/8" thick sheets	1800 ft./min. (reduce to 1200 ft./min below K-900A)	Vises or clamps (Not required with flats or sheets)	Rotate rounds when sawing     Maintain high blade tension
Cutting Shearing Slitting	Shears or belt-cutting machines with up to 1/8" knife blade.	Thin sheets (up to 1/2")		Friction clamps	Use bevel edge blades (square degree, com- press urethane, resulting in uneven cuts)
Drilling	High speed 90° + twist drills with blunt point	Min. of 3/8" (no minimum if clamped between steel)	600-800 RPM	Vises or clamps	Good tolerances possible with K-750D, for other grades use over-size drills
Tapping	Regular high speed taps	None		Vises or clamps	Except for K-750D, use over-size tap to allow for shrinkage or urethane
Turning Boring	H.S.S. tool bits with positive rake of 5°-10°	No limits on dia. length restricted (long soft bars may flex)	800 surface ft./min.	Angle of cut to work: 90° - 120°.	• Form tools may be used (especially when machining K-750D)
Grinding	Tool post grinder 20-80 grit wheel		Lathe–150 RPM or lower Grinder–2000-3500 RPM	Fixtures or friction mandrels	Air blast to eliminate build up
Knifing	Carbide or H.H.S. razor sharop and as thin as possible		600-1000 RPM	Fixtures or friction mandrels	Use lubricant to help prevent dishing
Milling	Sharp single-blade flycutters with 10° back rake and good clearance	Min. 3/8" thick	Approx. 2000 sur- face ft./min.	Vise or double-face clamping tape.	Flycutting at approx. 3" dia. give best results.

## Z Custom Molding

- Need a new part?
   Want to improve an existing part?
- Need one part for maintenance?
   Need one thousand parts for production?

From conception to completion, Acrotech Inc. can help with design considerations, material formulation, secondary operations and mold design and manufacture!

Because of low mold costs, compared to other molding procedures, custom molding with K. Prene® can be very cost effective for prototype through production. The molds are generally machined from steel or aluminum depending on the application or can even be cast from a flexible mold material using an existing part as a master.





This check valve ball and valve seat are made in several sizes to control flow in pump applications. Tremendous resistance to abrasion is required along with the ability to withstand significant pressure. K•prene® has surpassed the stainless steel components previously used!



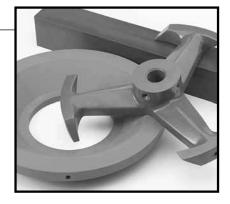
## 🐷 / AcroKast - A castable plastic

For prototype or production runs.

### Combines the rigidity of structural plastic with the advantages of liquid castability, such as:

- Low Cost Tooling
- Excellent Machinability
- Excellent dimensional control
- High Load Bearing
- Low Volumes
- · Cost Effective

Available in any of our standard shapes or cast to your specifications. 80D Durometer.







## Washers, Seals & Gaskets

Almost any O.D./I.D. combination can be supplied. We have provided parts from 1/4" dia. to 6" dia. in quantities of thousands to just a few pieces. Material, size, color, etc., all supplied to your specifications. Bulk or specific quantity packaging is available. Contact Acrotech Inc. for details.





## FDA approved Polyurethane

Acceptable for repeated contact with food under section #177.2600, subpart F, and can be used in continuous and repetitive contact with dry, aqueous and fatty foods. Typical features of these urethanes include outstanding abrasion resistance, high tensile and tear strength, and excellent load bearing capabilities.



## **Physical Properties:**

		/	/	/	/	
	K-551A	K-651A	K-751A	K-853A	K-954A	
Hardness, Shore A	55	65	75	85	94	
100% Modulus, PSI	210	320	450	750	1500	
300% Modulus, PSI	320	580	950	1800	NA	
Tensile, PSI	3000	430	5600	6200	7800	
Elongation, %	560	500	460	430	430	
Split Tear, D-470, PLI	50	65	75	100	140	
Tear, Die C, PLI	180	240	330	500	760	
Bashore Resilience, %	53	44	38	34	24	
Color	White	White	White	White	White	

## **Typical Applications Include:**

- Conveyor Systems
- Chutes and Chute Liners
- Inspection Tables
- Custom Molded Parts

- Rollers and Wheels
- · Bumpers and Feet
- Hoppers and Transfer Systems
- Gaskets and Seals



## Roller Manufacturing & Recovering

Manufacturing of steel shafts coated with K•Prene®, complete with various groove types is available to satisfy many applications. Removal of worn out or damaged coatings and re-covering with K•Prene® is also available. Contact factory to receive a quote or download PDF quote form from our web site.







## Water Jet Cut Parts

One part or a thousand. Water Jet cutting may be the answer. Cut from plain or metal backed sheet. Intricate design or a simple washer. All could be cost effective to produce with this relatively new technology as relates to urethane processing. Think you may have an application? Give Acrotech a call.



## Secondary Operations

K•Prene® was bonded to these aluminum hubs and then machined to finish specs. Secondary procedures can be performed by Acrotech. See page 20 for guidelines if you wish to do in-house.



Acrotech has made bumpers in countless shapes and sizes. If you have a requirement for a bumper a little out of the ordinary, send us a print. We can help you.



Please contact our applications department at 1-800-345-0583 with any other possible applications you would like to discuss. In addition to a general description, a print or a sketch, and sample parts, if available, will be helpful.

We are proud of the solutions we have provided our customers and we look forward to the privilege of assisting you.

Thanks for your consideration! ACROTECH INC.

# Custom Molding

with K•Prene® the unequaled urethane





800-345-0583 / www.acrotechinc.com / Fax: 651-345-3759