

CERAMIC YARN GUIDES

FADENFÜHRER AUS OXYDKERAMIK

THE NEED FOR CONSTANT DEVELOPMENT OF CERAMIC BODIES FOR YARN GUIDES

The most recent addition to our wide range of ceramics specifically developed for textile applications is POLYCRYSTALLINE SAPPHIRE. Although somewhat harder and longer-lasting than A997 alumina, its prime advantage is the perfectly smooth, flawless surface which makes it a superb body for micro and super micro yarns and other fragile and sensitive yarns. The guides already available in this body are marked PCS against the photographs and it is anticipated that a further 20 or 30 will be available soon. Many of the existing tools are suitable for PCS manufacture so if you see an alumina guide in the catalogue which you would like in PCS, please let us know and we shall assess the possibility.

But it is not only the body which is important; SURFACE FINISH is becoming an increasingly significant factor in the choice of the correct guide and the well known convention of matt finish for flat yarn and polish finish for textured yarn no longer necessarily applies in all cases. The type of polish, the type of matt, the grain size and crystalline structure are all important, even the negative or positive surface charge has sometimes to be taken into consideration. The hardest material is not always the best in any given situation and no single body is suitable for all applications. Since our ceramics are developed solely for textile applications, we are in a position to offer a very wide range of alternative solutions.

OUR MOST POPULAR MATERIALS



PCS Polycrystalline Sapphire (99.9999% alumina). Our hardest material but its greatest advantage is its flawless smooth surface. Ideal for micro and supermicro yarns, especially when diamond polished.
Colour: translucent.



A997 An ultra high purity Al₂O₃ body, fired at very high temperature, specially developed for very high yarn speeds. Its very fine grain structure eliminates the need for diamond polish in many applications and helps to eliminate snow.
Colour: light pink or white.



A964 High purity sintered alumina which, over the years, because of its economical production costs, has become the most popular yarn guide material. Special ceramic additives restrict crystal growth, resulting in an exceptionally fine-grained, smooth-surfaced guide with outstanding wear properties.
Colour: pink or white.



A90 A general purpose alumina which is still highly wear-resistant but less expensive than the high purity bodies.
Colour: red.



T27B Titania was one of the first hard ceramics to be used for textile applications. Not quite as hard as alumina, it has however, an extremely smooth surface and is widely used for delicate yarns where alumina, particularly without diamond polishing, is too harsh.
Colour: cream.



T27C Essential for all applications where there is a danger of build up of static electricity and almost universally used on knitting machines.
Colour: dark blue/black.

TOLERANCES: $\pm 2\%$ none less than $\pm 0.2\text{mm}$.

The drawing dimensions are approximate for identification purposes only.

The guides in this catalogue illustrate our standard range and most are normally available from stock. There are another 3000 non-standard items and we can also manufacture guides to your own drawings.

DIE NOTWENDIGKEIT DER STETIGEN ENTWICKLUNG VON KERAMIKKÖRPERN FÜR FADENFÜHRER

Unsere neueste Errungenschaft im Bereich der Keramikmaterialien, die speziell für textile Anwendungen entwickelt wurden, ist POLYKRISTALLINER SAPHIR. Obwohl etwas härter und beständiger als A997 Aluminiumoxid, liegt dessen Hauptvorteil in seiner perfekten glatten, fehlerfreien Oberfläche, welche einen exzellenten Körper für Mikro- und Supermikrofasern und auch andere feine Fasern darstellt. Die bereits erhältlichen Fadenführer in diesem Körper sind mit „PCS“ neben den Photos gekennzeichnet. Wir rechnen derzeit mit zusätzlichen 20 oder 30 Fadenführern, die in kürzester Zeit erhältlich sein werden. Viele der bereits existierenden Werkzeuge sind für die PCS Erzeugung geeignet. Sollten Sie also einen Aluminiumoxidfadenführer in unserem Katalog sehen, den sie in PCS möchten, werden wir gerne diese Möglichkeit prüfen.

Aber nicht nur die Form des Fadenführers ist wichtig; auch die OBERFLÄCHENBESCHAFFENHEIT wird zu einem immer wichtigeren Auswahlkriterium für den richtigen Fadenführer, und der altbekannte Einsatz von matter Oberfläche für glatte Garne und geschliffene oder polierte Oberfläche für texturierte Garne ist nicht mehr in allen Fällen angezeigt. Die Art der Polierung, der Typ der matten Oberflächen, die Körnungsgröße sowie die kristalline Struktur sind wichtige Kriterien. Manchmal muss man sogar die negative oder positive Oberflächenspannung in Betracht ziehen. Da unsere Keramikmaterialien ausschließlich für textile Anwendungen entwickelt werden, sind wir in der Lage, eine sehr weitgefächerte Auswahl an alternative Fadenführern anbieten zu können. Das härteste Material ist nicht unbedingt immer die beste Lösung für jede Anwendung und wir können Ihnen eine große Anzahl an Alternativen aus unserer Programm anbieten.

UNSERE BELIEBTESTEN MATERIALIEN



PCS Polykristalliner Saphir (99.9999% Aluminiumoxid). Dies ist unser härtestes Material dessen größter Vorteil in seiner fehlerfreien, glatten Oberfläche liegt. Ideal für Mikro- und Supermikrogarne, besonders wenn die Oberflächenbeschaffenheit diamantpoliert ist.
Farbe: durchsichtig.



A997 Ein ultra hochreiner Aluminiumoxidkörper. Bei sehr hoher Temperatur gebrannt, speziell entwickelt für Hochgeschwindigkeitsgarne. Seine äußerst feine Körnung eliminiert in vielen Anwendungen die Notwendigkeit einer Diamantpolitur und hilft „Schnee“ auszuschalten.
Farbe: hellrosa oder weiß.



A964 Gesintertes Aluminiumoxid von hoher Reinheit. Sehr beliebtes Fadenführermaterial durch günstige Herstellung. Spezielle Keramikzusätze schränken das Kristallwachstum ein. Das Ergebnis ist ein Fadenführer mit einer außergewöhnlich feinen Körnung und glatter Oberfläche mit hervorragender Widerstandsfähigkeit.
Farbe: rosa oder weiß.



A90 Eine Standard Aluminium-Qualität für vielseitigen Einsatz, sehr dauerhaft und preisgünstiger als Teile in hoher Reinheit.
Farbe: dunkelrot.



T27B Diese Titanoxid-Keramik war eine der ersten Hartkeramiken im Textilbereich. Nicht ganz so hart wie Aluminiumoxid, hat aber eine extrem glatte Oberfläche und wird für empfindliche Garne eingesetzt, für die Aluminiumoxid, besonders ohne Diamantpolierung, zu rau ist.
Farbe: cremefarben.

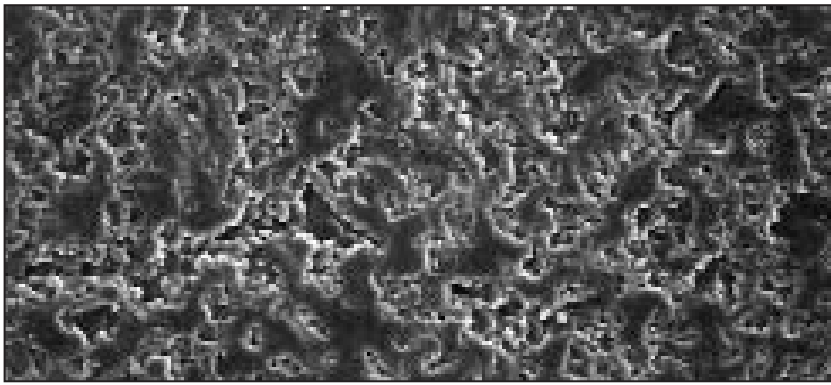


T27C Leitendes Titanoxid. Wichtig für alle Anwendungsgebiete in denen die Gefahr der statischen Aufladung besteht. Am häufigsten in der Strickmaschinenindustrie verwendet.
Farbe: blau/schwarz.

TOLERANZ $\pm 2\%$ nicht weniger als 0.2mm.

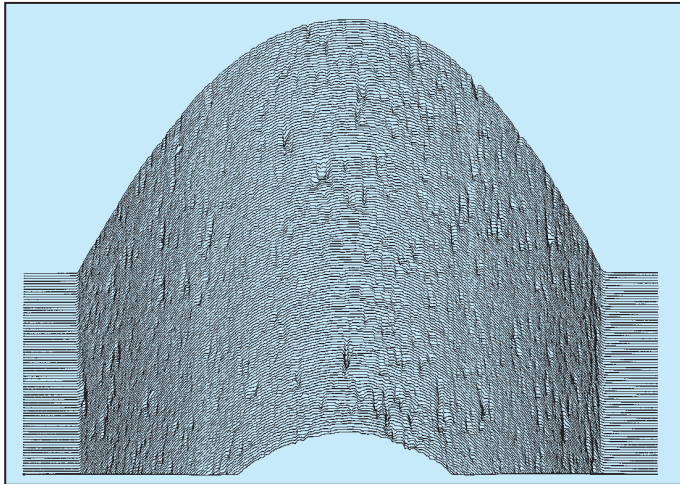
Die Dimensionen der Zeichnungen sind nur ungefähre Annäherungen für die Identifizierung.

Die Fadenführer in diesem Katalog illustrieren unsere Standard Auswahl und sind normalerweise aus unserem Lager erhältlich. Zusätzlich sind noch 3000 andere Stücke erhältlich und wir können auch Fadenführer nach ihren Zeichnungen maßanfertigen.



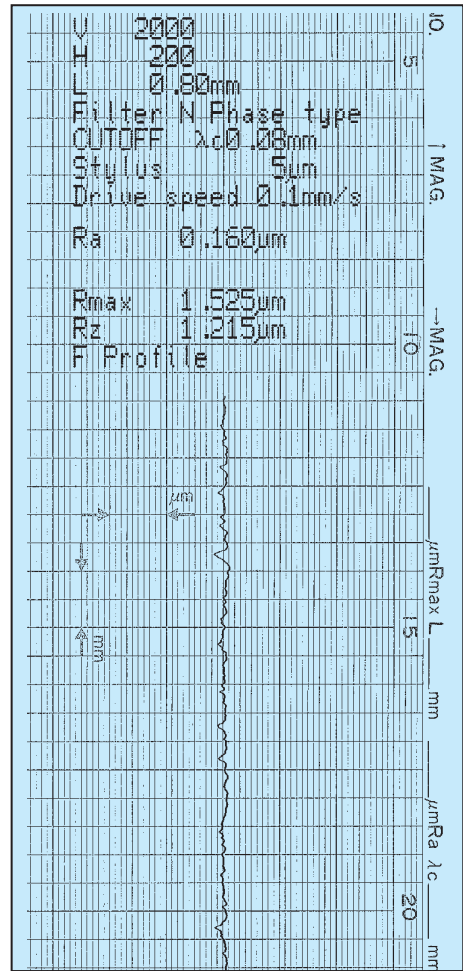
A997 N

x1,000



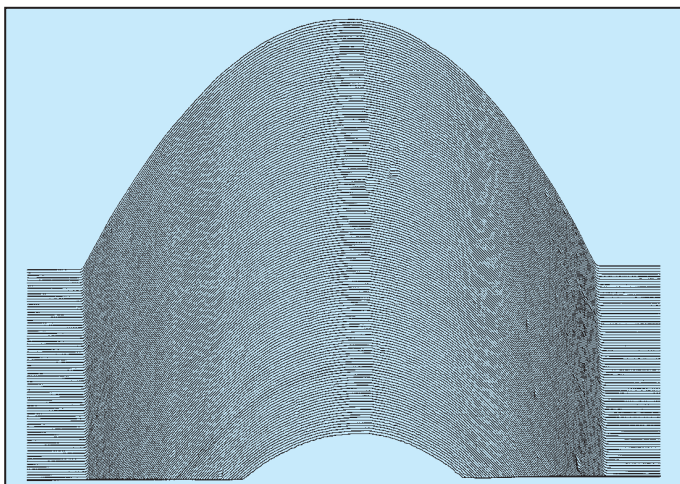
A997 N

3-D profile



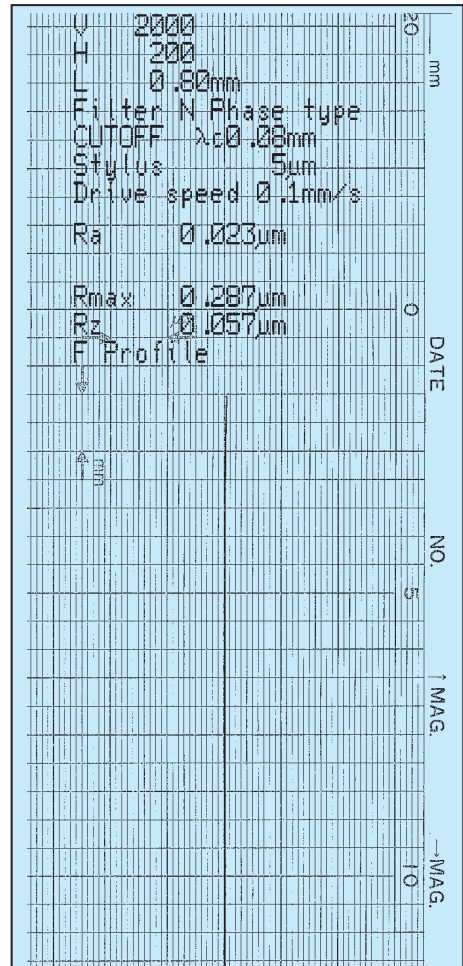
A997 DP

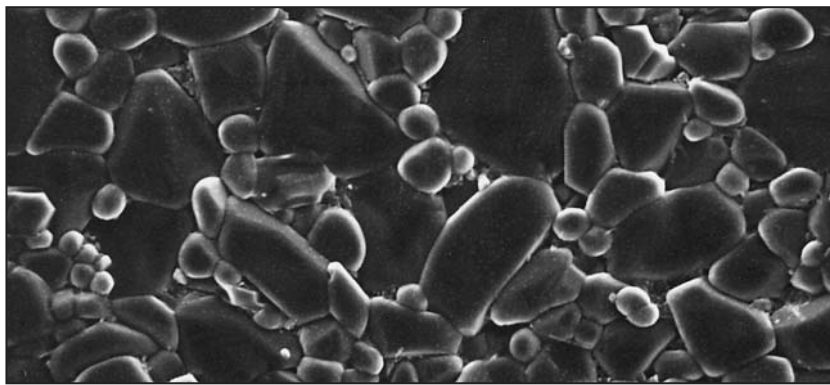
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A997 DP

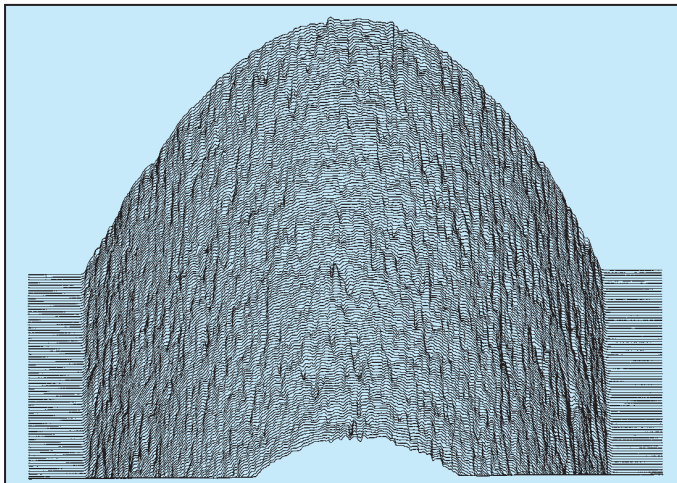
3-D profile





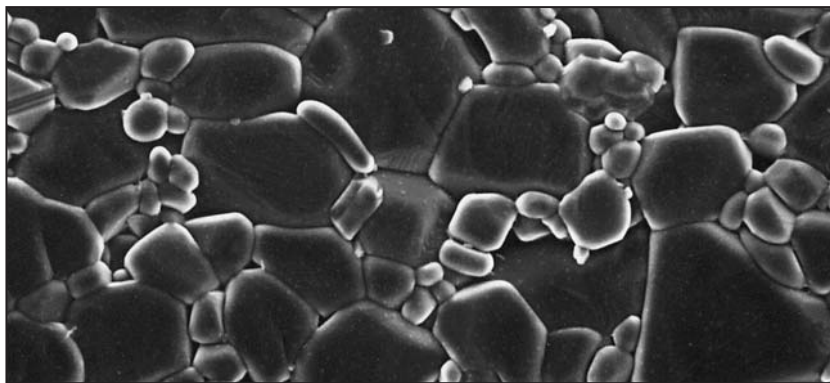
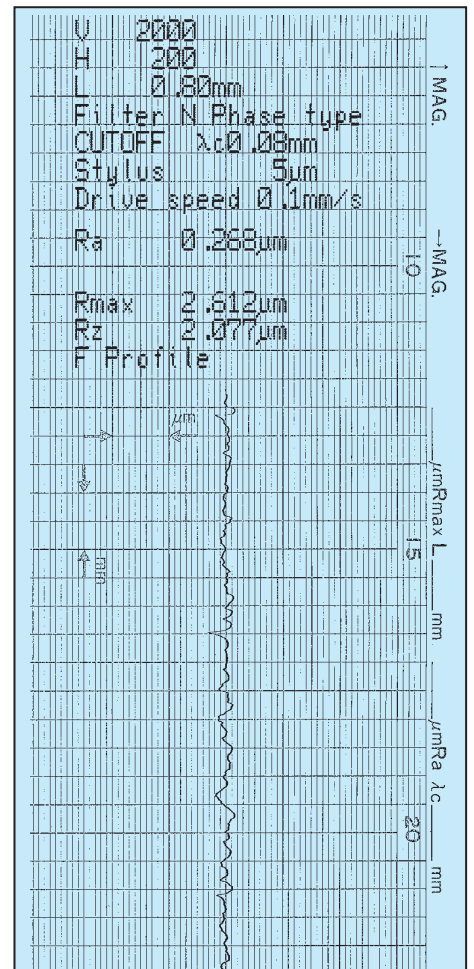
A997 MHF1

x1,000



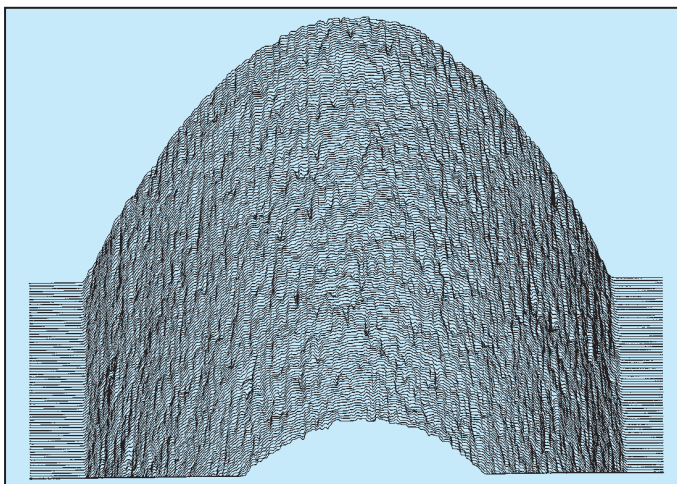
A997 MHF1

3-D profile



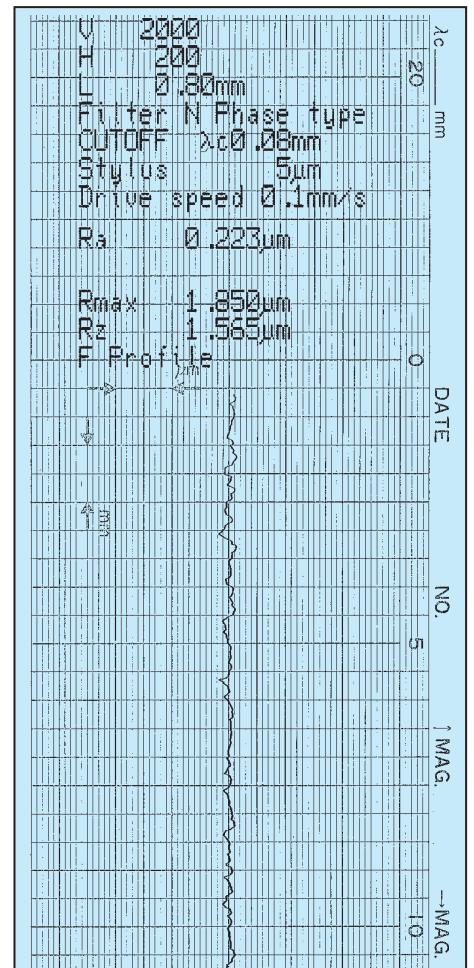
A997 MHF2

x1,000



A997 MHF2

3-D profile



SURFACE FINISHES

N	Normal (Velvet/Satin)	Ra & Rt values are influenced by each material. Details on request.
DP	Diamond Polish	
MM	Matt (produced by mechanical means)	
MHF1	Matt (produced by overfiring) A997 only	
MHF2	Diamond polished in the using area then overfired. A997 only	
GN	Centreless grinding on rods and tubes	
GDP	Centreless grinding on rods and tubes followed by DP	

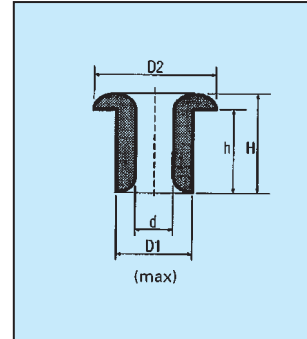
OBERFLÄCHENBESCHAFFENHEIT

N	Normal oder samtartig	Ra & Rt Werte sind bei jedem Material beeinflusst. Details bei Nachfrage.
DP	Diamantpoliert	
MM	Matte Oberfläche (mechanisch erzeugt)	
MHF1	Matte Oberfläche (erzeugt durch 'overfiring'). Nur bei A997	
MHF2	Diamantpoliert im Fadenlauf und später 'overfired'. Nur bei A997	
GN	Geschliffen an Stäben und Rohren	
GDP	Geschliffen an Stäben und Rohren gefolgt von DP	

STANDARD EYELETS

Flanged Eyelets

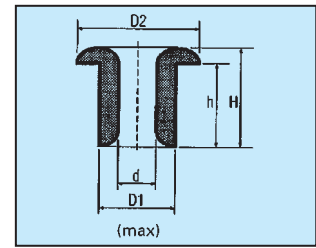
(On a minimum quantity of 5000 dimension h can be changed on most eyelets without additional tool cost)



Ref.No	D1 (max) mm	d mm	H mm	D2 mm	h mm
FT398	2.10	1.00	7.10	2.50	6.00
E002	2.10	1.00	3.00	3.10	2.00
E936	2.10	1.00	5.00	3.10	4.00
E885	2.15	1.00	2.10	3.20	1.20
E889S	2.60	1.40	3.00	3.80	2.00
E889	2.60	1.40	4.00	3.80	3.00
E136B	2.60	1.40	5.00	3.80	4.00
FT555	2.60	1.40	6.80	3.80	5.50
FT555L	2.60	1.40	8.30	3.80	7.00
E886	2.90	1.10	4.20	4.90	3.00
E952	2.90	1.50	6.50	4.80	5.00
E913	3.00	1.40	4.00	4.90	3.00
E972	3.00	1.50	7.50	4.80	6.00
E915	3.10	1.60	3.10	4.20	2.00
E001	3.10	1.70	2.00	4.20	1.00
E862	3.10	1.60	4.20	4.30	3.00
E971	3.30	1.60	3.20	5.50	2.40
E940	3.30	1.60	3.30	5.60	2.50
E951	3.30	1.70	4.75	5.70	3.50
E881	3.80	2.00	6.60	4.80	5.00
E176	3.85	2.00	5.25	5.50	3.20
E266	3.90	1.40	4.55	5.50	3.00
E868	3.90	1.90	4.00	7.00	2.50
E035	3.90	2.20	5.25	5.50	4.25
E948	3.95	2.00	4.20	5.50	3.00
E328	3.95	2.10	5.35	4.95	4.25
E839	4.00	1.90	4.30	5.55	3.00
E897	4.00	2.00	4.60	5.80	2.50
E923	4.10	2.70	5.00	5.00	4.00
E269S	4.30	2.50	5.85	5.80	4.70
E269	4.30	2.00	8.95	5.80	7.50
E843	4.30	2.50	4.35	5.80	3.00
E924	4.30	2.00	7.40	5.90	5.90
E953	4.60	1.90	3.80	6.60	2.80
E863	4.90	3.30	4.50	6.50	3.00
E865	4.90	3.30	5.60	6.50	4.00
E067	5.10	1.90	6.95	6.55	5.40
E864	5.10	1.90	3.50	6.60	2.50
E874	5.10	2.00	4.60	6.70	3.00
E979	5.20	3.30	7.00	6.80	5.00
E918	5.20	3.30	4.00	6.80	2.80
E918L	5.20	3.30	5.40	7.80	4.75
E906	5.30	2.30	4.70	7.00	3.20
E335	5.35	3.20	5.10	7.15	4.10
E911	5.40	3.30	5.20	7.00	4.00
E336	5.40	3.20	6.50	8.00	5.00
E892	5.40	3.30	7.40	7.00	6.00
E064	5.60	2.36	4.75	7.14	3.18
E305	5.60	4.00	4.70	7.00	3.20
E307	5.70	3.20	6.35	7.90	5.10
E849	5.90	2.90	5.90	7.70	4.00
E850	5.90	2.80	7.60	7.70	5.80
E942S	5.95	3.40	3.00	7.75	2.00
E166	6.00	2.85	10.00	8.00	7.75
E825	6.00	3.00	4.70	8.15	3.00

Ref.No	D1 (max) mm	d mm	H mm	D2 mm	h mm
E919	6.00	3.40	5.00	8.00	3.00
E942	6.00	3.40	6.00	7.80	4.00
E120	6.00	3.20	8.00	7.90	6.20
E980	6.00	4.00	5.00	9.00	3.00
E961	6.00	3.50	5.00	8.00	3.00
E941L	6.00	3.40	8.00	8.00	6.50
E914	6.10	3.30	3.50	7.50	2.00
E039	6.10	3.50	4.50	7.50	3.50
E004B	6.10	3.40	5.70	8.00	3.75
E941	6.10	3.40	6.50	7.80	5.00
E171	6.20	4.00	8.00	8.50	6.50
E963	6.20	4.00	10.00	10.25	7.80
E004D	6.25	2.80	5.80	7.90	4.00
E856	6.30	3.30	2.80	8.00	1.80
E857	6.40	3.50	3.50	7.90	2.50
E888	6.40	3.50	4.50	8.00	3.50
E870	6.40	3.90	8.00	8.70	6.40
E964	6.40	3.00	4.70	10.70	3.00
E329L	6.45	4.00	8.60	8.70	6.50
E177	6.45	3.00	10.36	10.60	8.40
E329S	6.50	4.00	4.60	8.70	3.00
E329	6.50	4.00	6.50	8.70	5.00
E848	6.70	3.80	7.50	8.80	6.00
E869	6.80	3.80	7.40	8.80	6.00
E815	7.00	4.50	8.00	9.00	6.80
E066	7.00	4.00	9.80	10.00	8.00
E965	7.00	4.00	11.80	10.00	10.00
E854	7.10	4.50	7.00	9.20	5.30
E937	7.10	2.70	4.50	9.20	2.80
E835	7.20	4.60	7.70	9.90	6.00
E958	7.15	3.80	7.10	9.20	5.30
E927	7.35	3.80	9.00	9.70	7.00
E982	7.35	4.80	3.00	10.00	1.50
E983	7.35	4.80	5.50	10.00	4.00
E921	7.40	3.50	11.00	9.00	9.00
E308	7.40	3.90	9.00	9.50	7.00
E308S	7.40	3.90	7.40	9.50	5.50
E070	7.50	3.25	7.14	9.90	5.10
E939	7.50	3.90	8.00	9.50	6.00
E954	7.50	5.50	9.00	9.60	6.80
E330	7.50	3.80	6.60	10.00	4.80
E330L	7.50	4.40	7.40	10.00	5.30
E038	7.60	4.50	7.00	9.50	5.00
E381	7.60	4.50	11.00	9.50	9.00
E950	7.60	5.50	15.85	9.50	13.30
E956	7.60	5.50	13.50	9.50	11.50
E823	7.70	4.90	3.00	8.45	2.00
E823L	7.70	4.90	3.70	10.70	2.00
E928	7.70	4.70	8.70	10.60	7.00
E341	7.70	4.75	5.55	10.80	3.65
E866S	8.10	4.10	6.40	10.00	4.40
E866	8.10	4.10	8.30	10.00	6.40
E946	8.10	6.00	5.00	11.00	3.00
E967	8.10	3.00	16.50	9.40	15.00
E946S	8.20	6.00	3.60	11.00	1.50

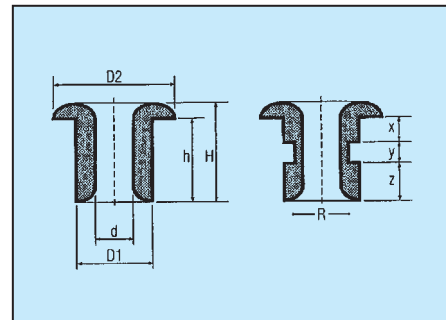
Flanged Eyelets



Ref.No	D1 (max) mm	d mm	H mm	D2 mm	h mm
E832	8.60	4.20	7.00	9.90	5.40
E829	8.70	4.80	5.00	10.70	3.50
E859	8.70	4.60	13.90	10.75	11.80
E241	8.70	4.75	7.90	10.00	5.90
E241L	8.70	4.75	10.00	10.70	8.00
E109B	8.80	5.30	13.20	12.90	11.30
E926	8.90	4.70	10.20	10.60	8.30
E103	8.90	5.30	16.00	12.90	14.00
E321	8.90	5.00	20.00	10.60	17.00
E108	9.00	4.75	13.00	10.70	11.00
E901	9.10	4.00	7.00	13.00	5.00
E109D	9.15	5.00	12.70	11.00	10.55
E049	9.20	5.30	8.60	11.50	6.85
E955	9.50	6.20	7.90	12.00	5.50
E830	9.55	6.20	6.65	12.00	4.00
E943	9.60	4.70	9.50	12.70	6.30
E968	9.60	5.50	8.20	11.70	6.00
E975	9.60	6.60	7.80	13.20	1.80
E876	9.60	2.00	8.00	12.70	5.40
E828	9.70	6.20	9.00	12.00	7.00
E063	9.70	6.20	4.70	12.00	2.50
E062	9.70	6.20	10.50	12.00	8.35
E973	9.90	4.70	7.10	12.85	4.60
E934	9.90	5.30	25.00	14.70	22.00
E878	9.95	6.10	4.40	11.90	2.80
E959	10.00	6.00	12.80	12.00	8.80
E879L	10.00	6.10	8.50	11.90	7.00
E879	10.00	6.10	4.40	11.90	2.75
E978	10.00	6.30	15.60	13.50	11.00
E384	10.00	4.00	15.00	12.00	11.00
E385	10.00	5.00	15.00	12.00	11.00
E386	10.00	6.00	15.00	12.00	11.00
E900	10.00	7.00	11.00	12.10	9.00
E900L	10.00	7.00	12.50	12.10	9.00
E042	10.00	7.00	6.00	12.10	4.00

Ref.No	D1 (max) mm	d mm	H mm	D2 mm	h mm
E935	10.10	7.00	5.00	12.10	3.00
E212	10.10	5.00	8.60	12.00	6.40
E875	10.50	7.90	8.00	12.85	4.00
E970	11.00	6.50	9.25	14.00	6.75
E969	11.00	6.50	12.70	14.00	10.20
E909	11.05	7.50	6.60	14.00	5.00
E910	11.45	7.00	9.10	14.00	7.00
E050	11.80	7.60	10.00	15.40	7.50
E377	11.95	7.60	10.20	15.45	7.20
E301B	12.00	7.60	7.00	15.40	4.00
E949	12.00	7.50	8.50	15.50	6.25
E962	12.40	8.75	9.00	16.00	7.00
E378	12.40	8.75	10.30	16.00	7.00
E144	12.55	6.80	9.80	15.80	6.30
E143	12.65	8.75	10.30	15.90	7.15
E895	12.75	4.50	7.00	15.70	4.00
E896	12.95	8.75	10.10	18.20	8.00
E041	14.15	10.00	6.00	16.00	4.00
E041L	14.15	10.00	9.60	16.00	7.50
E820	15.45	10.00	8.40	19.50	5.40
E922	15.45	9.60	17.00	19.50	14.00
E840	15.45	9.70	13.50	19.75	10.00
E842	18.55	12.00	13.60	22.00	10.00
E836	19.80	13.90	12.50	25.70	9.10
E871	22.25	16.00	11.00	28.30	7.00
E871L	22.25	16.00	14.00	28.30	10.00
E847	22.25	13.00	14.00	28.20	9.00
E960	24.25	19.00	11.00	30.00	7.00
E925	25.85	20.00	8.00	31.50	6.00
E861	30.10	20.00	25.00	35.00	20.00
E861S	30.10	20.20	10.00	35.00	5.00
E891	35.35	24.00	11.00	38.00	8.00
E966C	40.00	30.00	10.00	44.00	6.80
E938	41.80	33.00	10.80	47.50	6.80

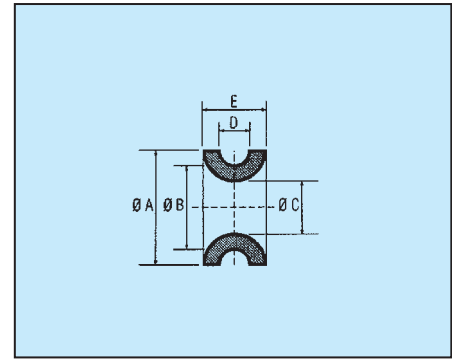
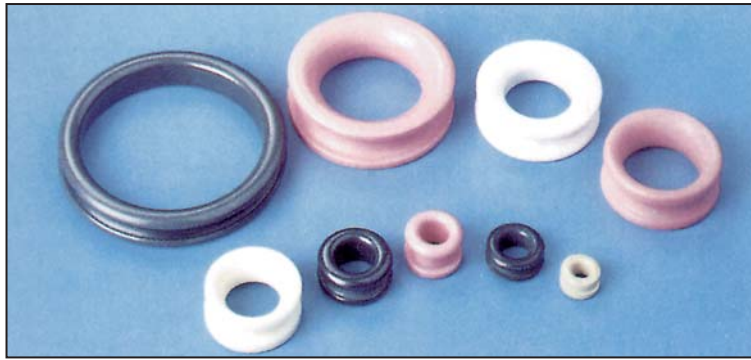
Grooved Eyelets



Ref.No	D1 (max) mm	d mm	H mm	D2 mm	h mm	x mm	y mm	z mm	R mm
E430	4.45	1.50	4.80	5.80	3.45	1.55	0.80	1.10	3.60
E474	4.60	2.00	4.80	5.80	3.70	1.90	0.80	1.00	3.80
E487	5.90	3.00	7.00	8.30	5.00	1.00	1.30	2.70	4.50
E422	6.10	3.10	5.00	7.50	3.80	1.40	1.00	1.40	5.20
E445	6.20	3.00	10.50	8.00	7.00	4.00	1.00	2.00	5.40
E472	6.30	3.00	5.80	7.90	4.00	1.60	1.00	1.40	5.20
E494	6.60	3.80	5.80	8.70	3.95	1.40	0.75	1.80	5.60
E453	6.70	3.70	9.70	8.70	7.80	5.00	1.20	1.60	5.60
E458	7.40	4.10	8.00	10.40	6.30	3.20	1.30	1.80	6.00
E473	7.40	3.40	10.60	8.80	8.40	5.90	1.10	1.40	5.90
E467	7.60	3.50	7.10	9.00	5.00	1.85	1.10	2.15	6.50
E408	7.80	4.00	7.50	9.90	5.80	3.00	1.20	1.60	6.80
E493	7.80	4.00	8.20	9.40	6.70	3.50	1.10	2.10	6.60
E431	8.00	3.90	10.50	10.00	8.30	4.80	1.00	2.50	7.00
E424	8.00	4.50	4.70	10.00	3.30	1.20	1.00	1.10	7.00
E451	8.00	3.80	6.40	9.70	4.90	1.90	1.10	1.90	7.10
E420A	8.00	1.20	8.50	9.60	6.70	3.70	1.00	2.00	7.00

Ref.No	D1 (max) mm	d mm	H mm	D2 mm	h mm	x mm	y mm	z mm	R mm
E420B	8.00	1.50	8.50	9.60	6.70	3.70	1.00	2.00	7.00
E420C	8.00	3.60	8.50	9.60	6.70	3.70	1.00	2.00	7.00
E483	8.50	4.10	7.20	10.00	5.40	2.50	1.00	1.90	7.00
E446	8.50	4.20	7.00	10.00	5.50	2.80	1.00	1.70	6.90
E441	8.80	4.50	7.20	10.00	6.00	3.00	1.00	2.00	7.70
E433	9.50	6.20	9.10	12.00	6.60	3.40	1.50	1.70	8.00
E434	9.60	6.30	10.70	12.20	8.50	4.90	1.40	2.20	8.00
E432	9.90	6.60	8.00	13.00	6.00	3.20	1.30	1.50	8.50
E466	9.90	4.70	7.10	12.90	4.65	2.15	1.10	1.40	8.60
E435	11.90	7.60	10.20	15.60	7.00	3.00	2.00	2.00	10.00
E429	12.00	8.00	11.50	15.30	8.60	5.00	1.00	2.60	10.40
E425	12.70	4.80	10.80	15.90	7.60	3.00	2.45	2.15	10.30
E402	12.90	8.70	10.30	16.00	8.00	4.20	1.80	2.00	11.20
E427	13.70	4.20	15.30	38.60	9.90	7.00	1.50	1.40	12.00
E421	15.00	9.80	9.50	20.50	6.15	2.80	1.20	2.15	13.40
E410	18.60	12.00	16.70	22.00	13.05	9.80	1.25	2.00	16.50

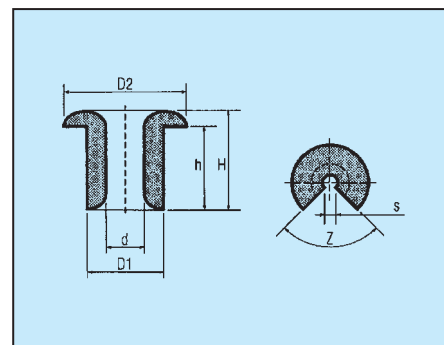
Double Flanged Eyelets



Ref.No	A mm	B mm	C mm	D mm	E mm
DF46	4.30	3.40	2.60	1.00	2.60
DF29	5.10	3.50	1.90	2.50	4.90
DF1	5.50	4.30	2.50	1.00	3.20
DF32	5.50	4.50	3.30	1.10	2.50
DF2	7.00	5.00	3.00	1.00	3.50
DF35	7.50	6.00	3.60	3.40	6.40
DF4	8.00	6.20	3.00	1.20	4.00
DF20	8.00	6.20	3.30	1.60	4.10
DF14	8.00	6.10	3.10	1.60	4.80
DF16	8.00	6.50	3.10	0.90	4.00
DF15	8.10	5.60	3.40	1.60	6.50
DF5	8.20	6.00	4.00	1.40	3.40
DF6	8.20	6.10	4.00	2.70	5.60
DF17	8.20	7.00	4.30	4.30	7.00
DF36	8.50	6.00	4.00	2.00	5.40

Ref.No	A mm	B mm	C mm	D mm	E mm
DF7	8.50	7.40	3.10	2.70	5.80
DF33	8.60	7.50	3.10	3.20	6.50
DF8	9.10	6.80	4.80	1.20	4.00
DF22	9.10	6.10	3.30	2.60	6.50
DF13	10.30	7.00	4.80	2.50	5.30
DF9	10.40	9.10	5.00	0.90	4.00
DF18	11.10	9.30	5.00	0.80	4.50
DF12	11.90	9.00	6.00	2.00	6.20
DF21	13.00	10.00	6.50	6.50	12.00
DF28	13.25	10.60	7.25	2.50	6.00
DF25	15.00	11.50	7.90	1.50	5.50
DF47	15.00	11.50	7.80	2.50	7.00
DF26	18.50	15.00	10.00	3.00	6.00
DF37	20.00	11.50	6.00	3.60	9.00
DF11	24.50	20.50	14.60	3.50	7.20
DF38	28.50	20.80	14.30	6.30	13.50
DF27	33.20	31.00	26.10	2.00	5.30

Split Eyelets

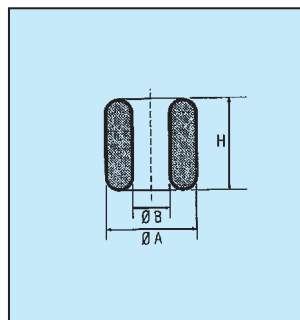


Ref.No	D1 (max) mm	d mm	H mm	D2 mm	h mm	s mm	z mm
E628	3.60	2.00	4.20	5.30	3.00	0.80	2.40
E627B	3.90	1.60	4.20	5.20	3.00	0.80	2.00
E651	6.00	3.00	2.00	10.00	1.00	1.20	5.00
E624	6.10	3.00	4.25	8.00	3.00	1.50	1.50
E653	6.60	3.00	7.60	7.80	6.40	2.60	2.60
E639	6.80	3.80	3.00	9.00	1.40	1.70	3.00
E637	6.90	3.80	6.50	9.00	5.00	1.70	3.00
E638	7.10	1.50	5.00	9.00	3.20	1.00	5.40
E617	7.40	3.80	8.00	9.60	6.50	1.00	3.00
E650	7.40	3.20	4.50	9.90	2.60	1.50	4.00
E626	7.50	5.00	5.00	10.00	3.00	2.00	2.50
E629	7.70	4.70	4.20	9.00	3.00	4.25	4.25
E642	7.80	3.10	9.80	10.20	7.20	0.90	2.50
E619B	8.10	3.20	5.50	10.50	3.50	1.00	4.50

Ref.No	D1 (max) mm	d mm	H mm	D2 mm	h mm	s mm	z mm
E619CG*	8.10	3.20	5.50	10.30	3.50	1.00	4.50
E623B	9.10	4.90	4.70	11.00	3.00	2.00	2.00
E623/90	9.10	5.00	4.50	11.00	3.00	2.00	6.50
E622	9.70	4.75	9.80	12.70	7.10	3.30	3.30
E656	9.80	5.40	5.80	14.30	3.50	1.40	5.00
E625B	10.10	6.00	4.50	12.00	3.00	2.30	2.30
E634	10.10	4.10	8.10	12.00	7.00	2.00	5.00
E655	10.10	4.10	5.50	12.00	3.60	2.00	6.00
E601	12.40	7.60	7.00	15.90	4.00	2.50	8.50
E620	13.30	4.70	12.00	17.20	9.50	1.50	7.00
E659	13.50	4.20	12.00	15.50	8.80	2.40	2.40
E603	14.40	11.00	6.00	17.40	3.00	9.00	9.00
E660	15.50	9.80	13.40	19.50	9.80	2.60	2.60
E602	19.00	9.00	27.80	28.00	21.00	5.00	5.00

*with clip groove

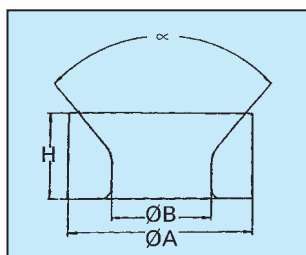
Tube Eyelets



Ref.No	A mm	B mm	H mm
TE1	4.45	2.00	4.60
TE2	5.00	2.50	6.00
TE48	5.00	3.00	5.00
TE3	6.00	3.50	6.00
TE49	6.00	3.00	2.60
TE4	6.00	3.00	8.00
TE52	6.80	4.00	2.00
TE13	7.00	3.00	5.00
TE5	7.50	4.00	4.00
TE39	7.50	4.00	12.00
TE6	8.00	3.50	10.00
TE25	8.00	4.20	2.00
TE14	8.50	6.00	4.50
TE16	8.50	5.50	10.00

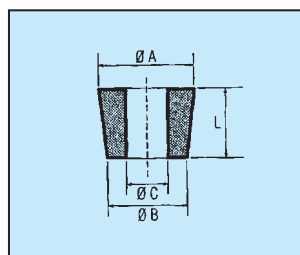
Ref.No	A mm	B mm	H mm
TE7	9.60	7.00	7.80
TE21	9.00	4.00	18.00
TE8	10.00	5.50	6.00
TE10	10.00	7.00	8.00
TE40	10.80	6.00	14.00
TE43	11.60	6.80	12.00
TE37	12.00	7.00	3.00
TE11	12.00	7.00	8.00
TE41	12.20	9.00	13.00
TE44	12.20	6.70	15.00
TE15	13.00	9.50	4.00
TE23	15.20	9.70	10.40
TE38	18.00	9.00	20.00
TE17	23.00	14.50	17.50

Ball/Spindle Eyelets



Ref.No	A mm	B mm	H mm	a
TE18	10.60	3.00	5.00	120°
TE12	11.00	4.00	4.50	120°
TE24	12.90	4.50	5.80	100°
TE26	13.00	3.00	7.00	80°
TE30	13.00	3.50	7.00	80°
TE31	13.00	4.50	6.00	76°
TE19	13.00	5.50	6.00	80°
TE32	13.00	7.10	6.00	60°
TE27*	13.90	3.00	11.00	90° & 90°
TE33	14.00	4.50	8.00	90°
TE34	17.00	4.50	8.00	84°
TE36*	20.00	3.00	17.50	90° & R8
TE35	28.00	4.80	13.00	80°

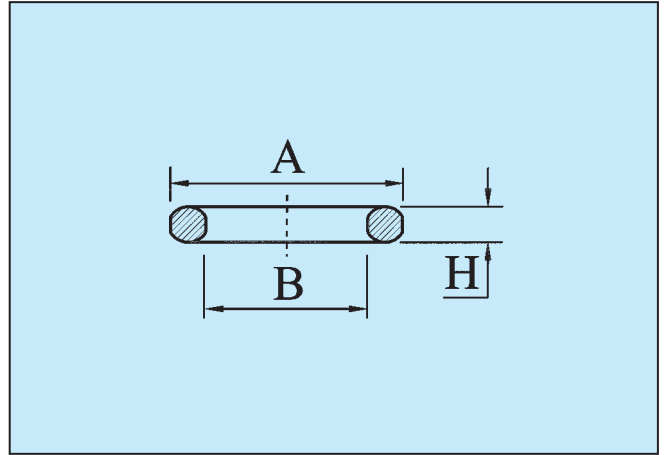
Conical Eyelets



Ref.No	A mm	B mm	C mm	L mm
CE1	6.50	6.10	3.90	4.80
CE2	6.70	6.30	3.10	4.75
CE3	6.90	6.50	3.20	5.20
CE13	8.50	8.00	5.50	5.00
CE4	10.00	9.40	6.00	12.00
CE11	10.60	8.75	3.10	17.50
CE9	12.00	11.40	7.00	12.00
CE8	12.50	11.80	6.50	15.00
CE5	14.30	13.50	6.30	6.75
CE10	18.00	17.00	10.20	15.75
CE6	20.00	19.00	8.50	6.35
CE12	32.00	28.00	16.50	35.00

*tapered both ends

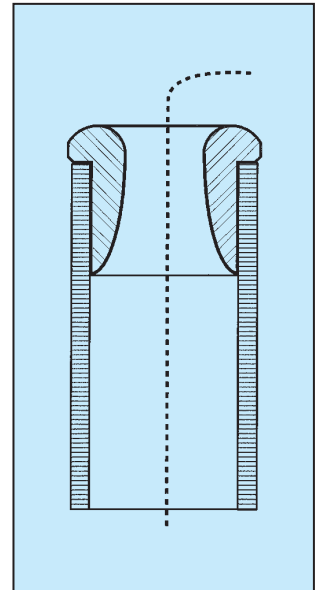
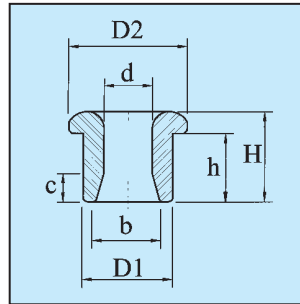
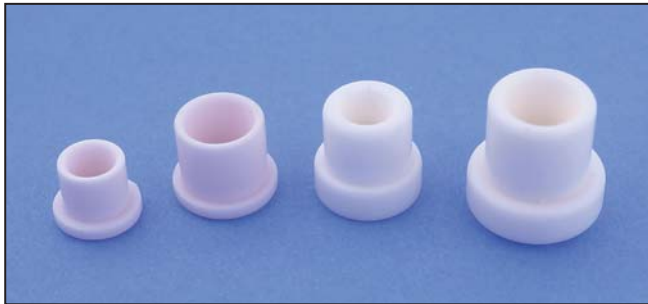
Rings



Ref.No	A mm	B mm	H mm
R52	6.80	4.00	2.00
R37	7.20	4.50	2.00
R26	8.00	4.20	2.00
R28	10.00	7.00	3.00

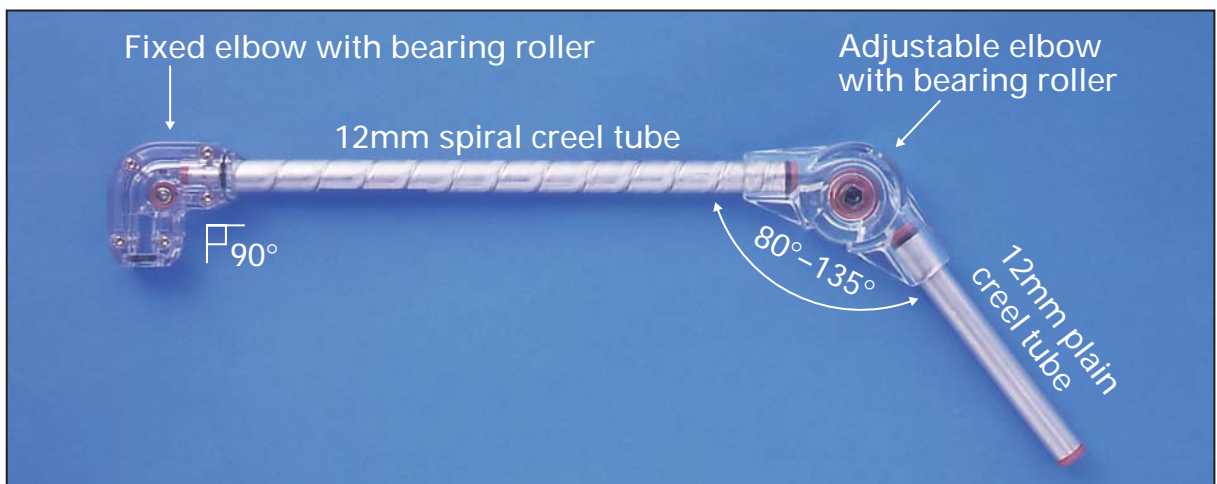
Ref.No	A mm	B mm	H mm
R19	14.00	11.00	1.30
R18	15.20	11.70	1.40
R34	18.80	13.20	3.30
R35	20.00	14.00	3.00

Flared Eyelets – for creel tubes and spindles



Ref.No	D1 (max) mm	d mm	b mm	H mm	D2 mm	h mm	c mm
FE1	6.60	4.00	5.20	6.00	8.00	4.00	4.00
FE2	7.10	3.80	5.50	7.00	9.20	5.30	2.20
FE3	7.50	4.00	5.00	8.00	10.00	6.00	6.00
FE4	9.10	6.00	7.40	7.00	11.00	5.00	3.00
FE5	9.80	4.00	6.10	12.50	12.00	7.50	4.00
FE6	10.00	6.00	7.70	10.00	12.00	8.00	6.00
FE7	11.70	5.00	8.50	13.00	15.00	9.00	6.60

Creel Tube System



Rods and Tubes can be made to any reasonable dimensions, subject to minimum batch sizes. For smaller quantities, the following standard diameters can be diamond cut to length. Many other 'non standard' diameters are usually held in stock as well.



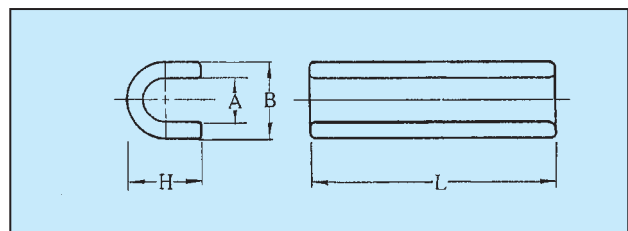
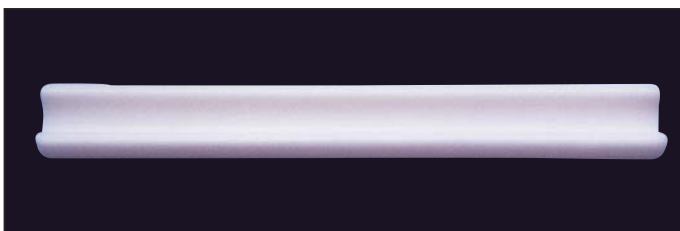
Rods

Diameter (mm)
1.5
2.0
2.5
3.0
4.0
5.0
6.0
8.0

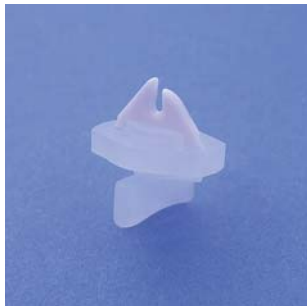
Tubes

Outside Diameter (mm)	Inside Diameter (mm) (to clear)
2.0	1.0
2.5	1.5
3.0	2.0
4.0	2.0
5.0	3.0
6.0	3.0
8.0	5.0
10.0	5.0 (6.0) (6.8)
12.0	8.0
15.0	10.0

Edge Protectors (Half Tubes) can be diamond slit to length from the following standard sizes.



Ref.No	A mm	B mm	H mm	L mm max	R1 mm	R2 mm
EP1	1.3	4.0	4.0	36.0	1.5	4.0
EP2	2.0	4.0	4.0	50.0	2.0	4.0
EP3	3.2	5.2	4.1	45.0	1.6	5.2
EP4	4.0	7.0	6.5	62.0	2.0	3.5
EP5	5.0	8.0	8.0	62.0	2.5	4.0
EP6	6.0	9.0	9.5	62.0	3.0	4.5



TWG7



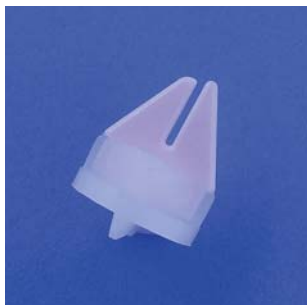
TWG14



TWG15



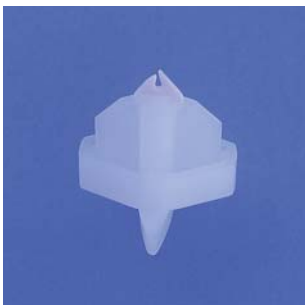
TWG25



TWG21



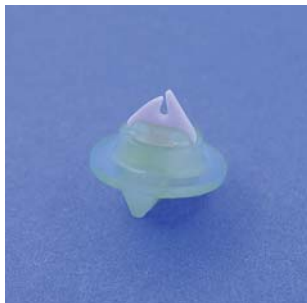
TWG1



TWG44



TWG65



TWG30



TWG31



TWG16



TWG17



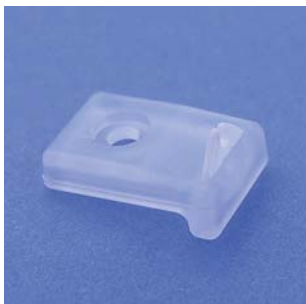
TWG40



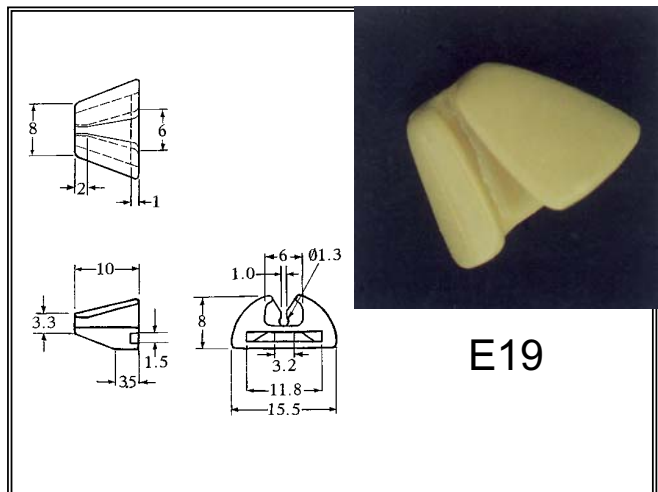
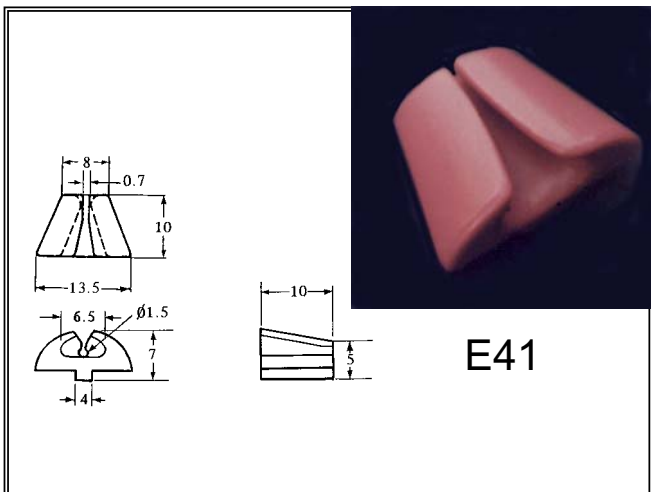
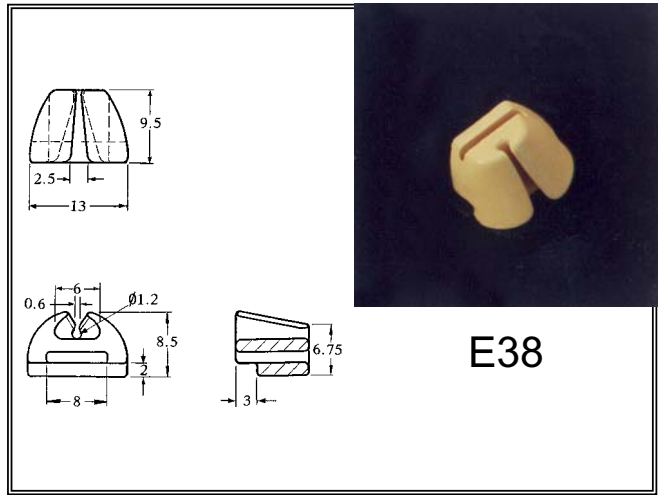
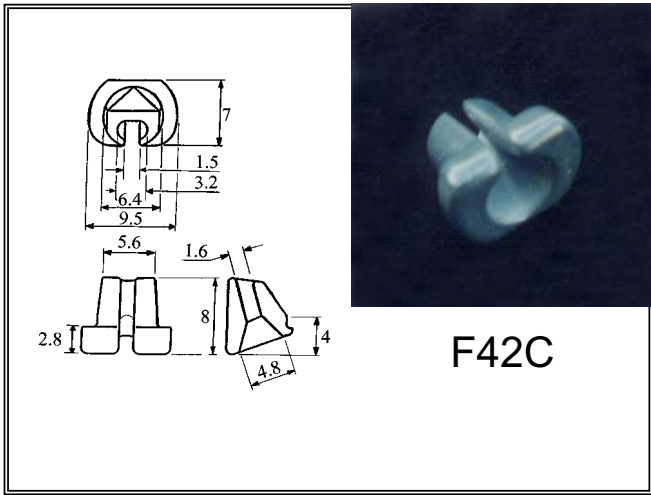
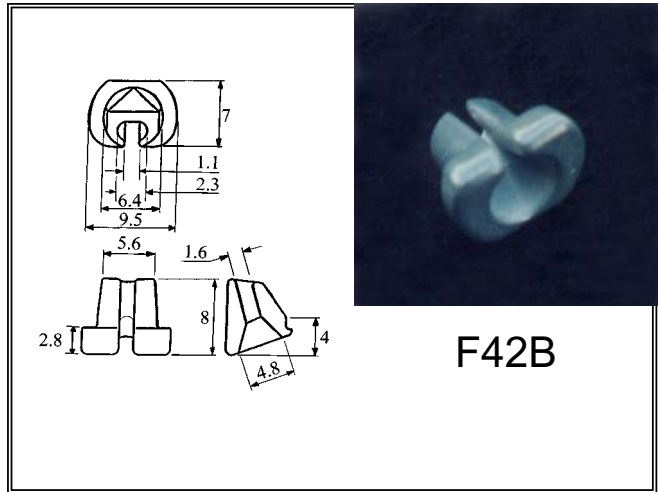
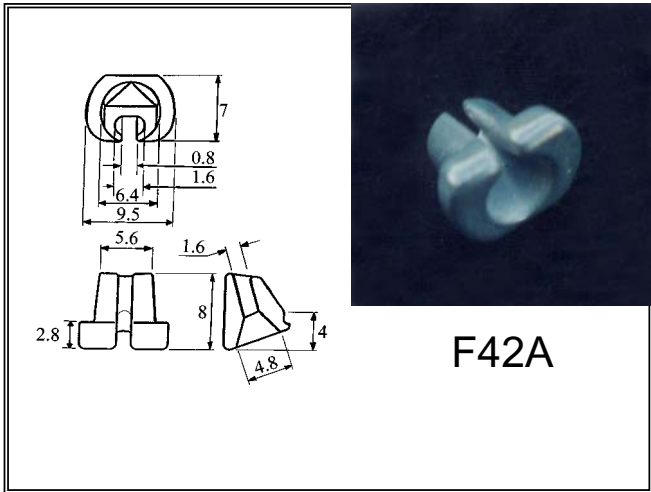
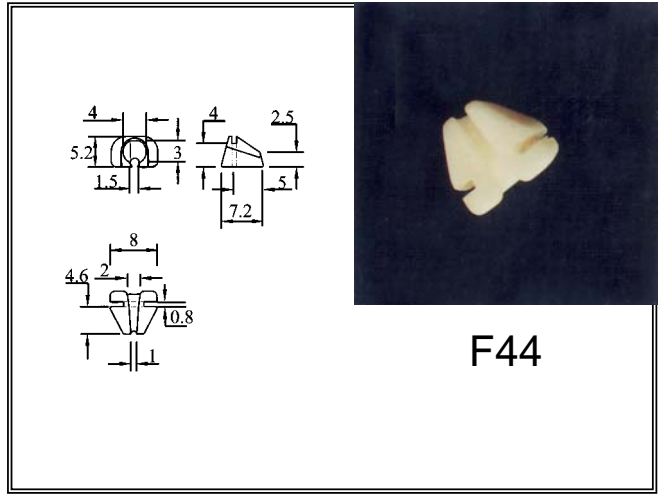
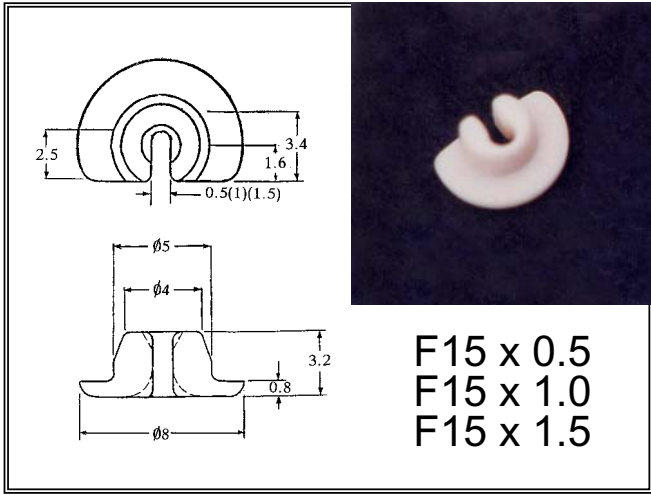
TWG80
left and right hands
available

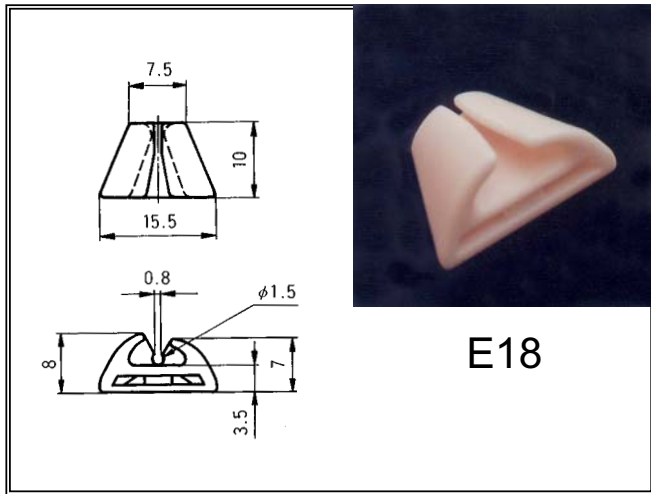


TWG84
left and right hands
available

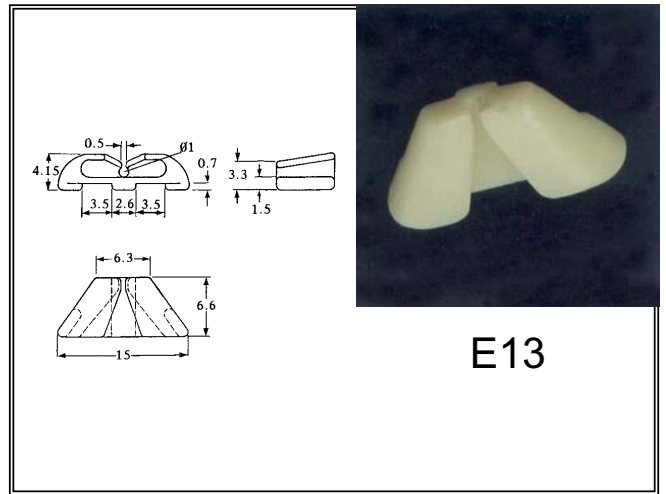


TWG67

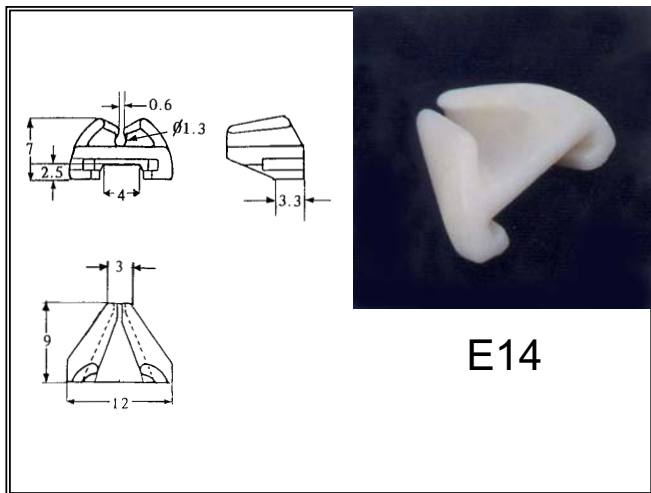




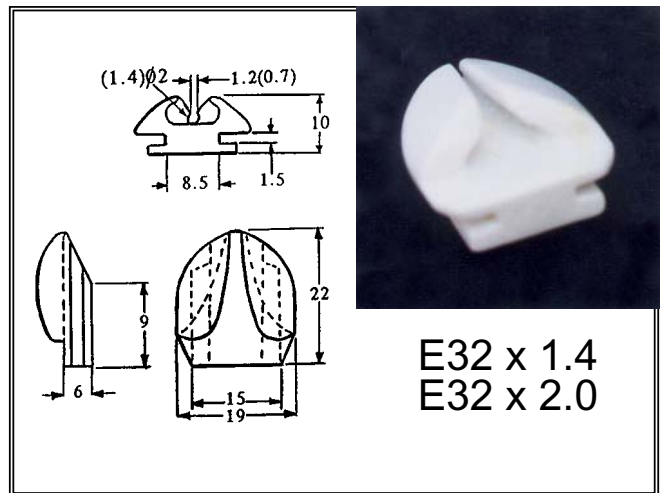
E18



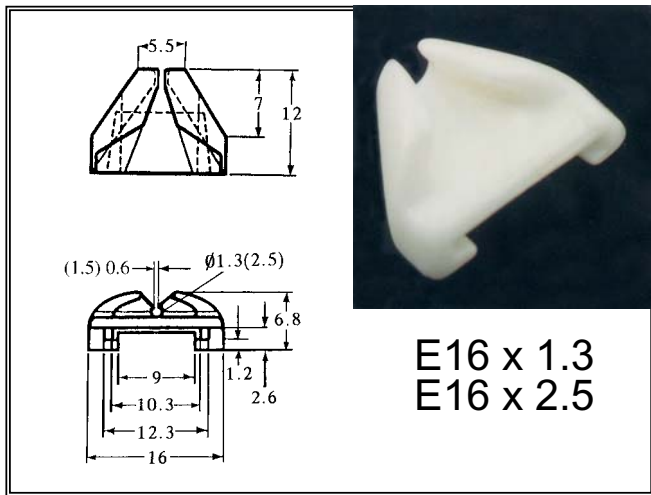
E13



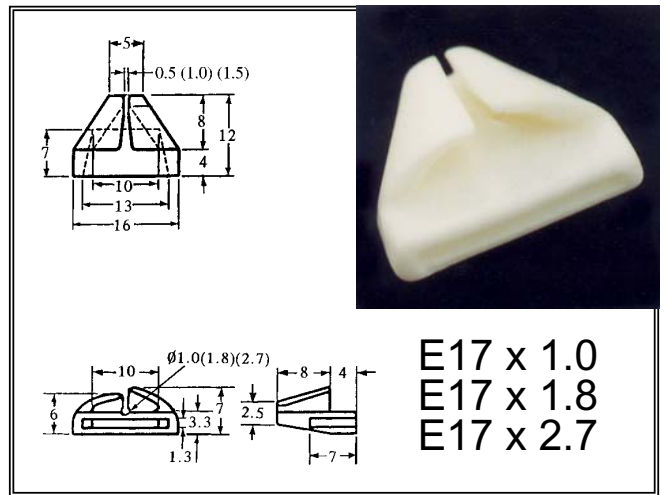
E14



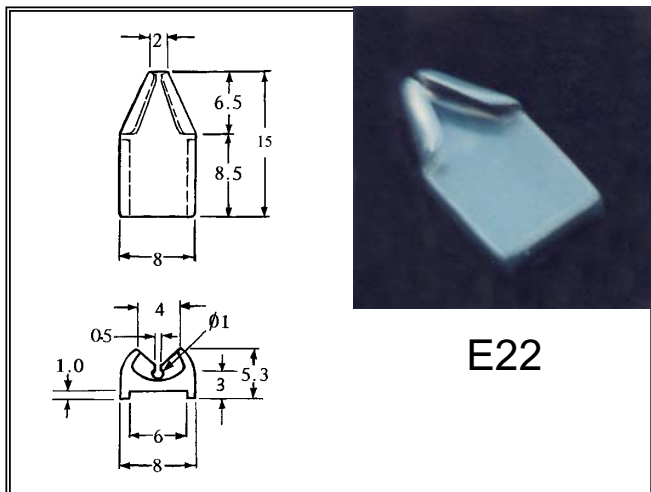
E32 x 1.4
E32 x 2.0



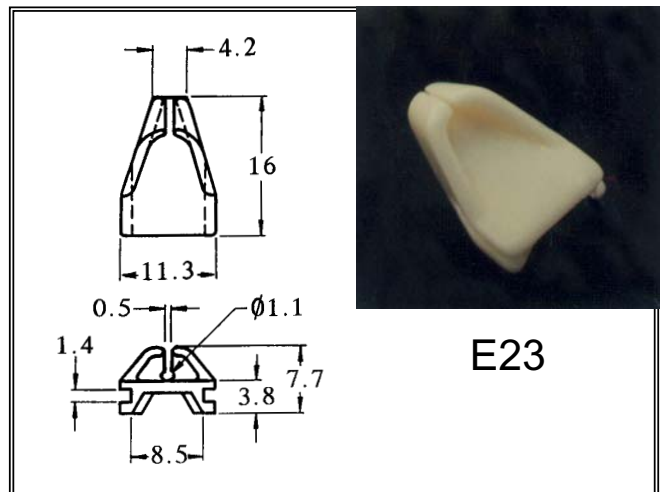
E16 x 1.3
E16 x 2.5



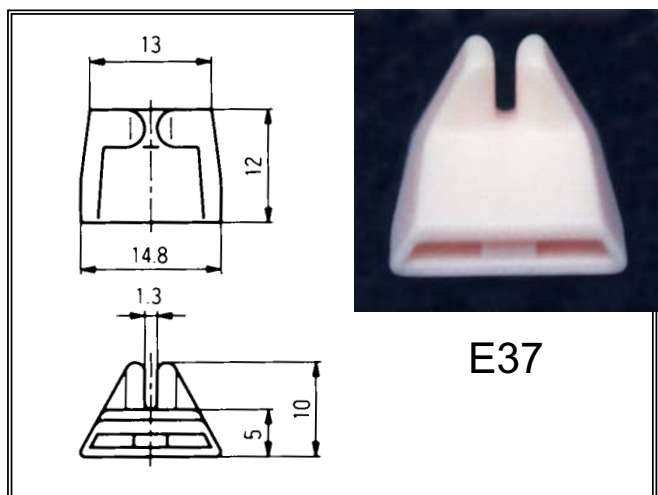
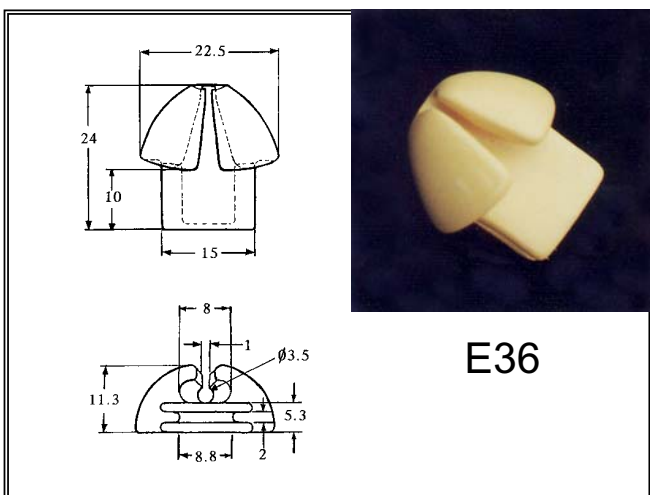
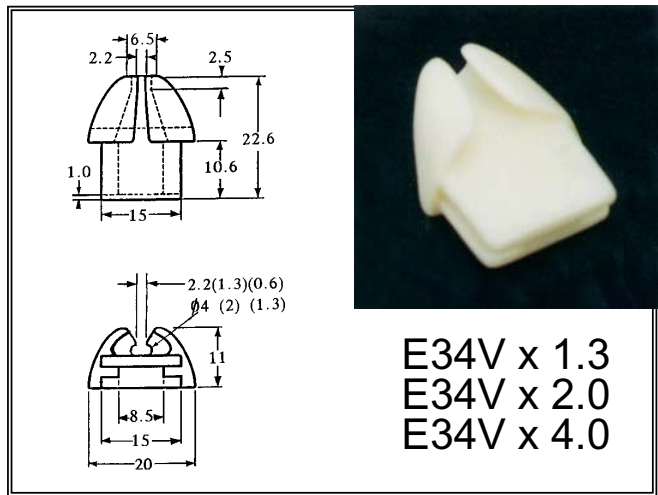
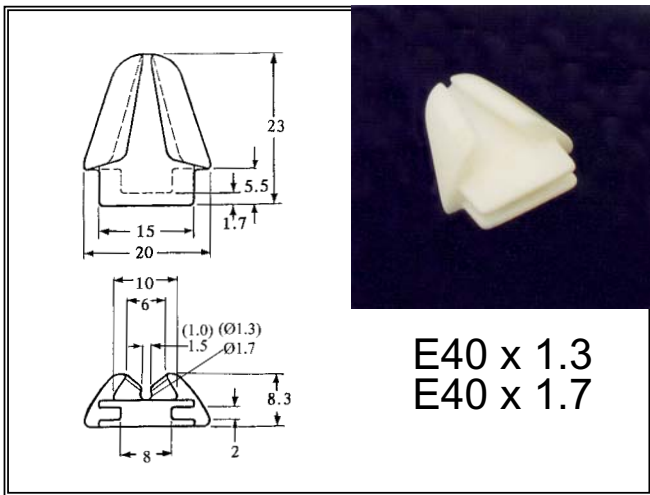
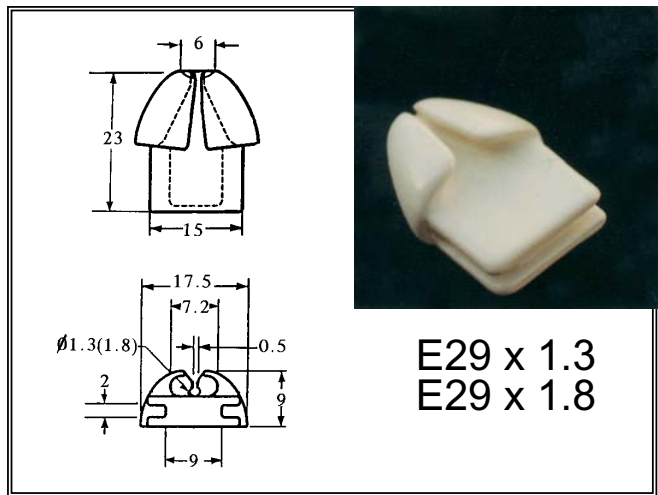
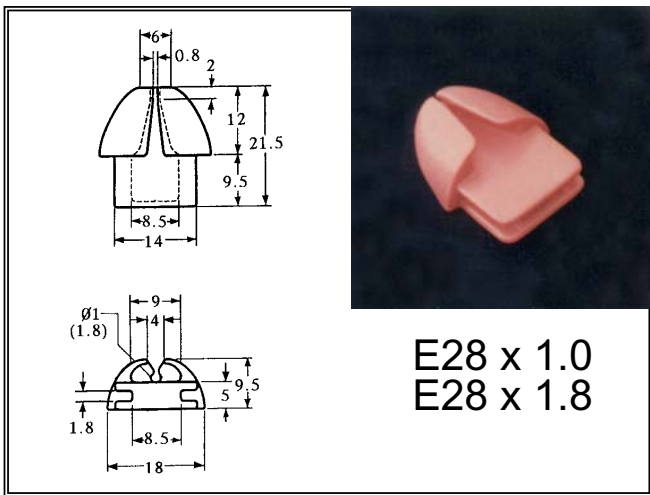
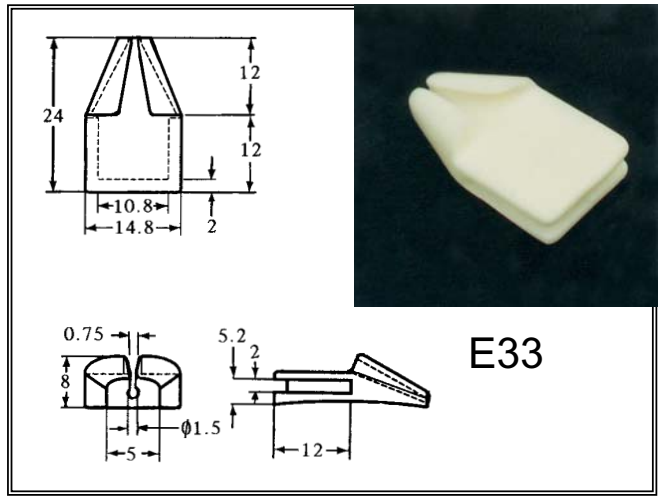
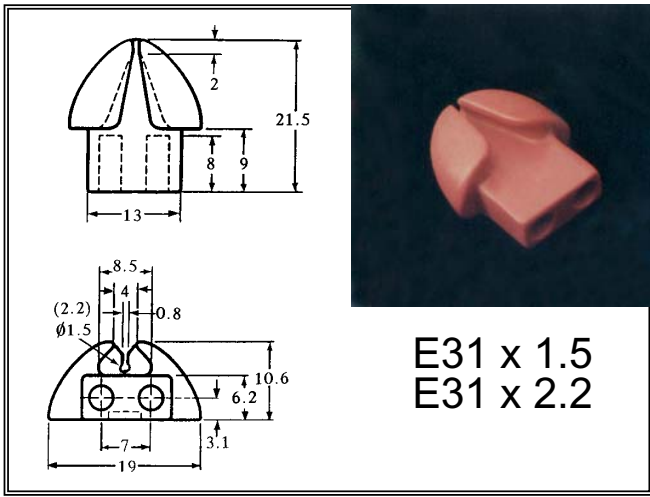
E17 x 1.0
E17 x 1.8
E17 x 2.7

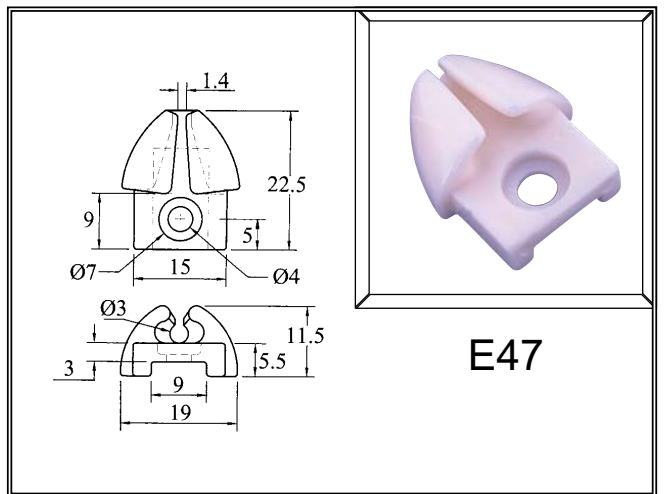
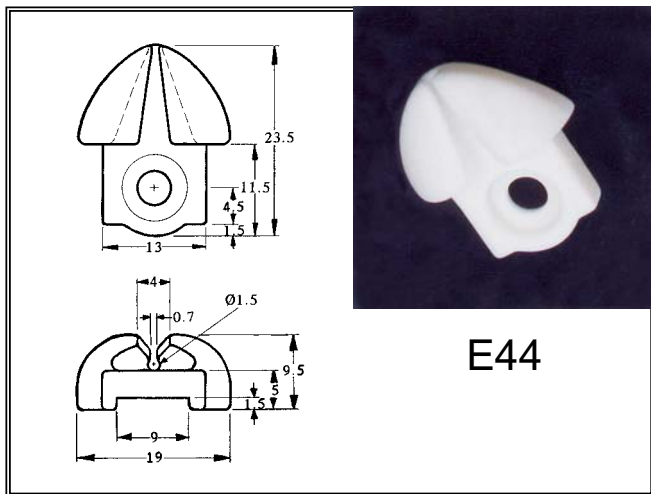
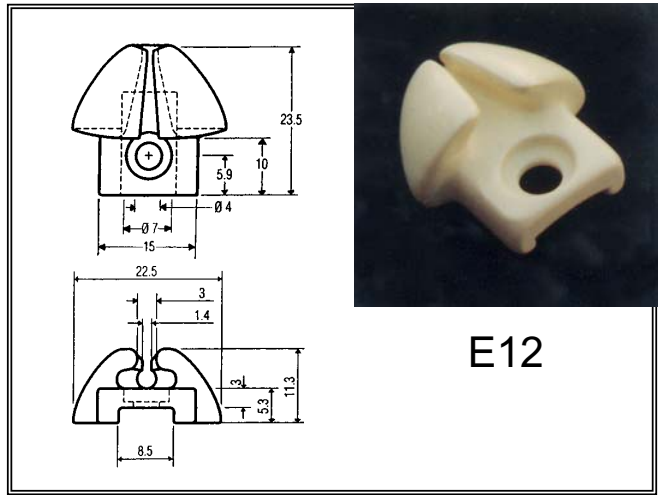
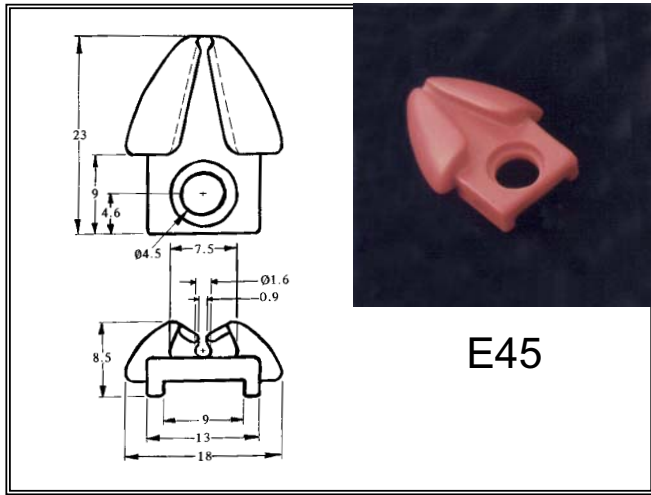
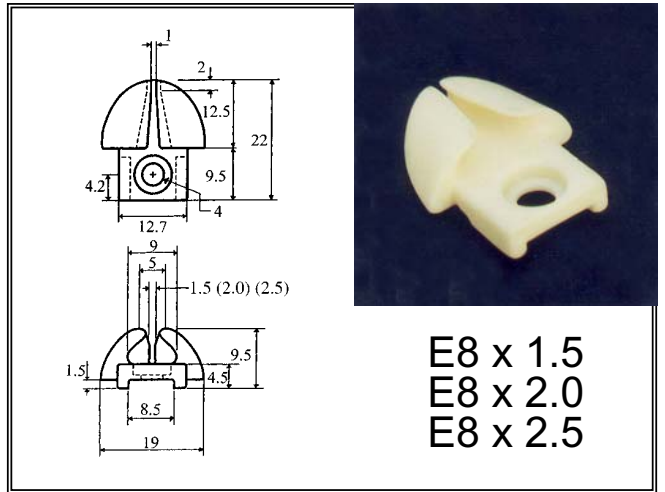
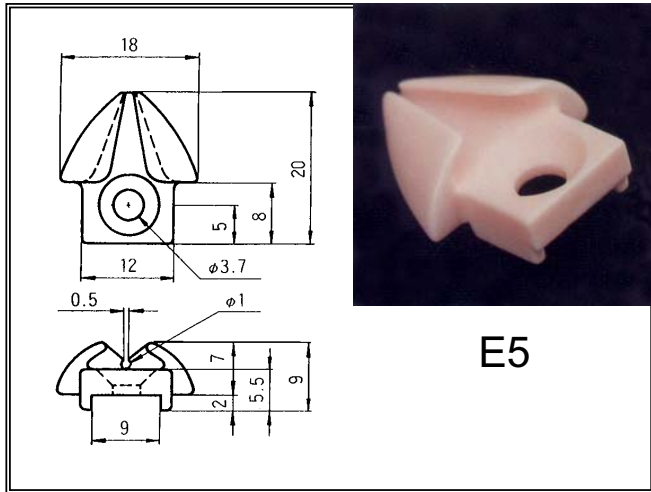
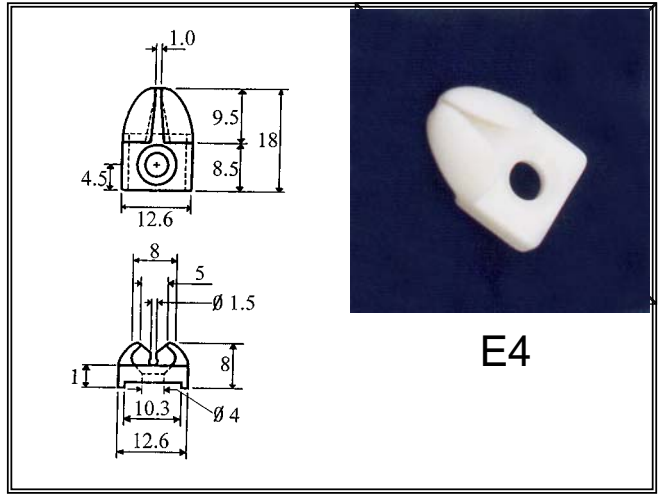
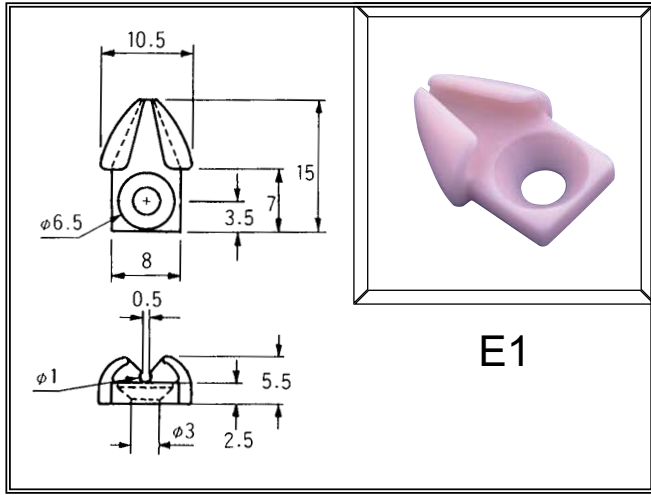


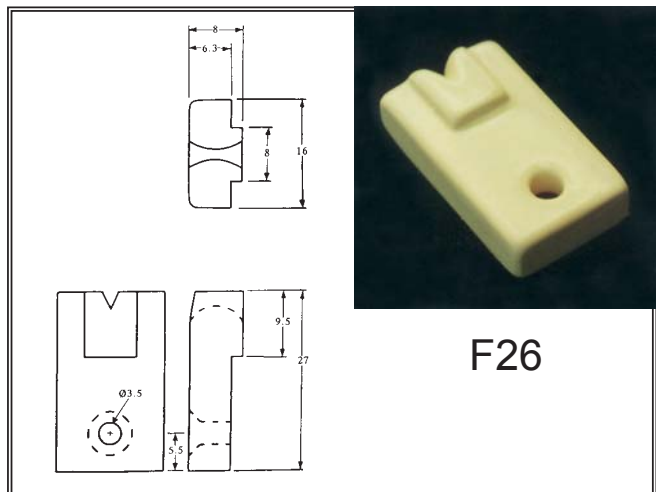
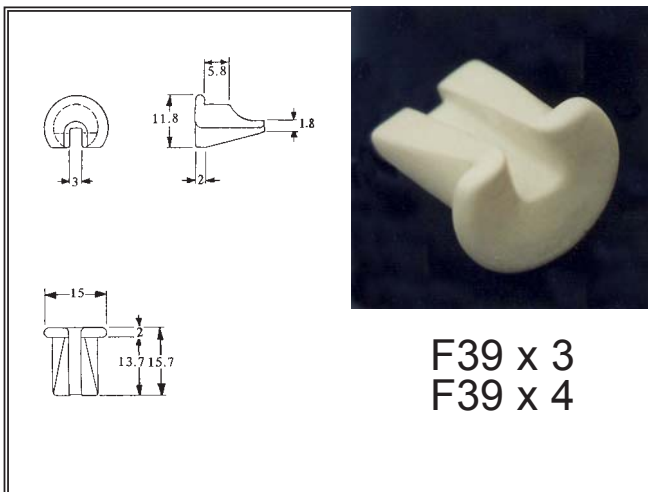
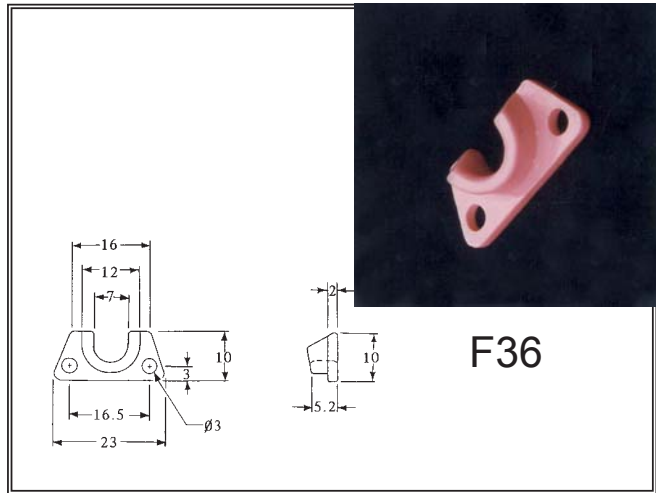
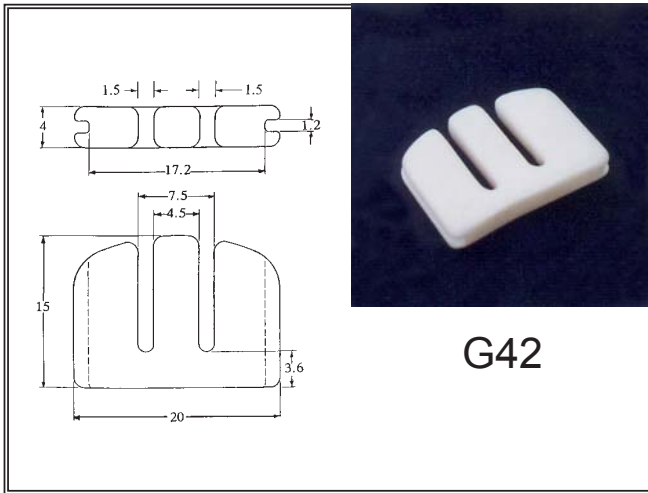
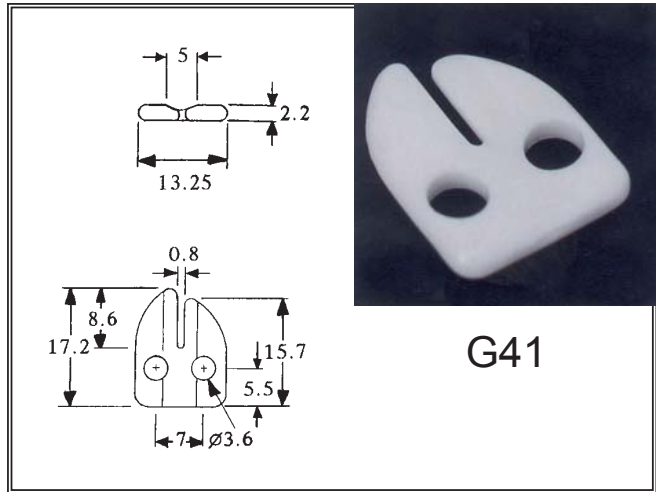
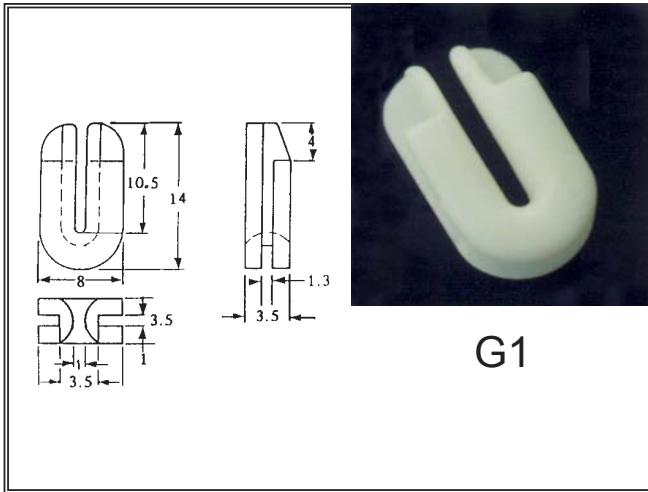
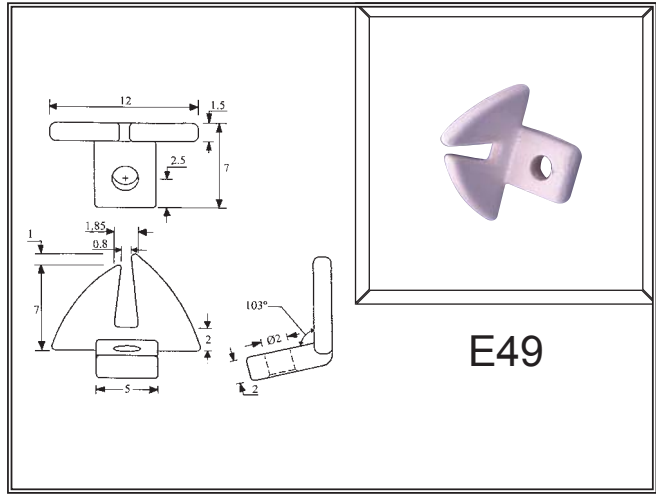
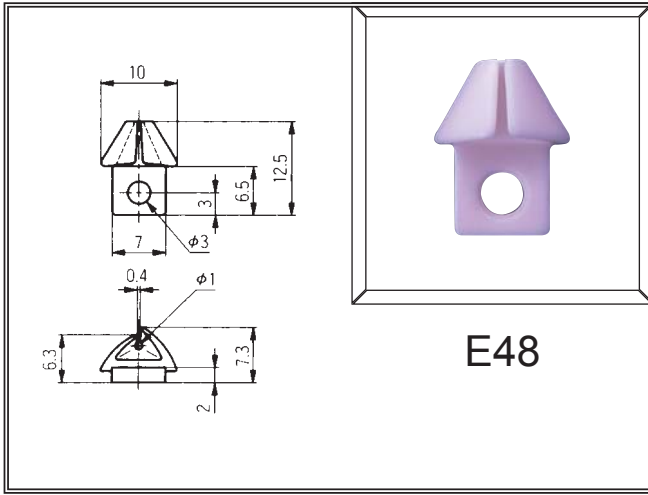
E22

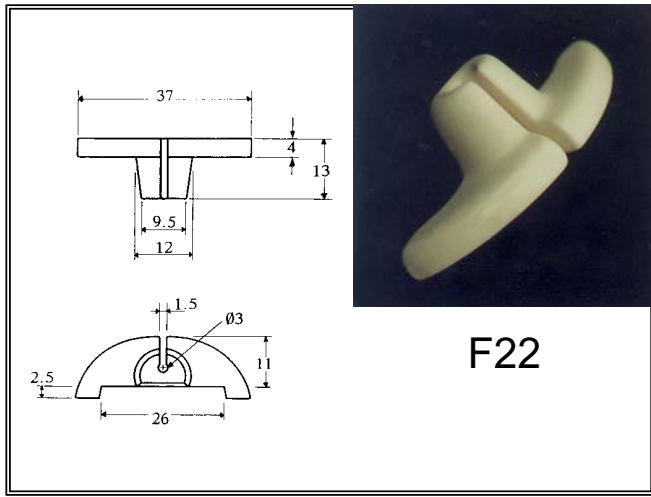


E23

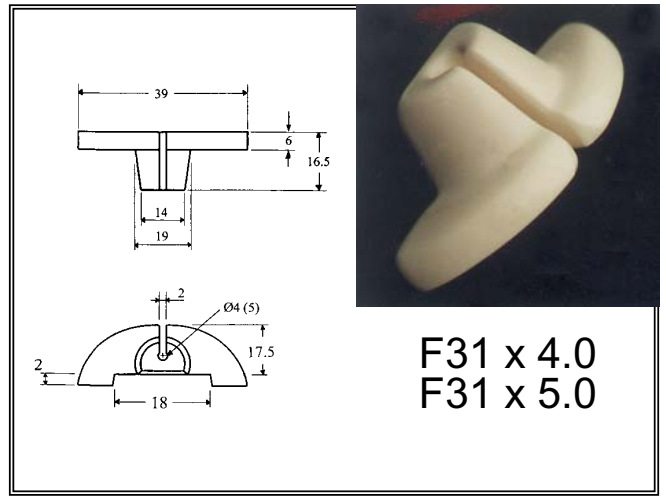




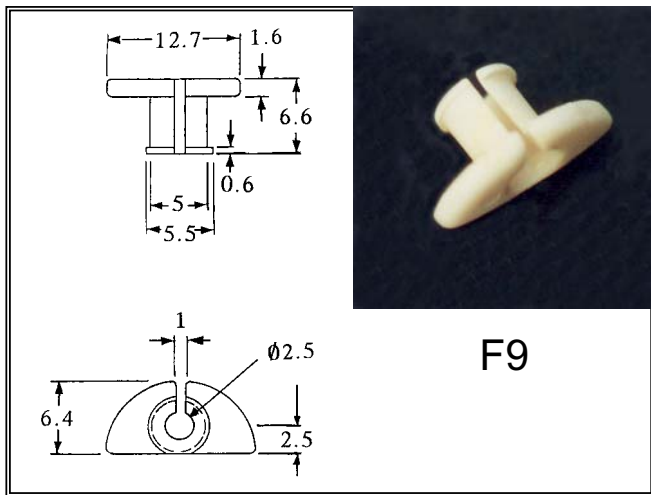




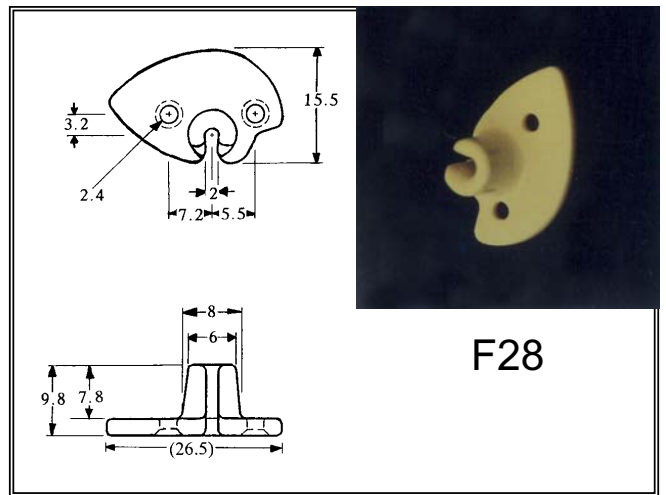
F22



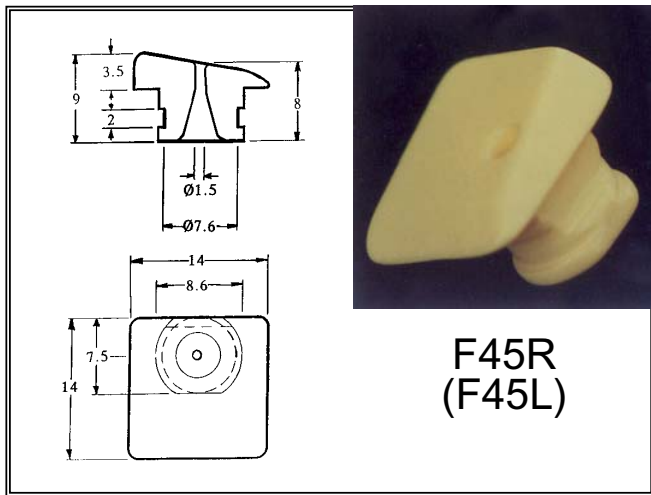
F31 x 4.0
F31 x 5.0



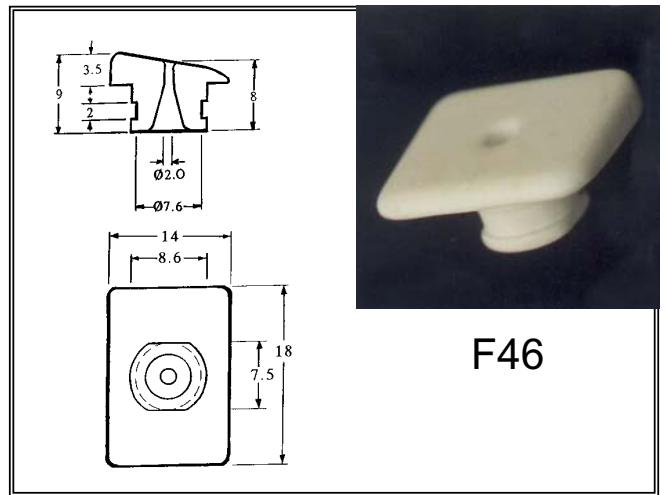
F9



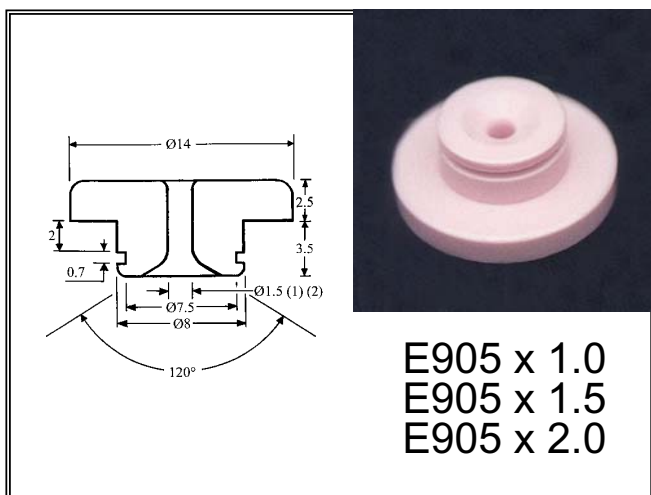
F28



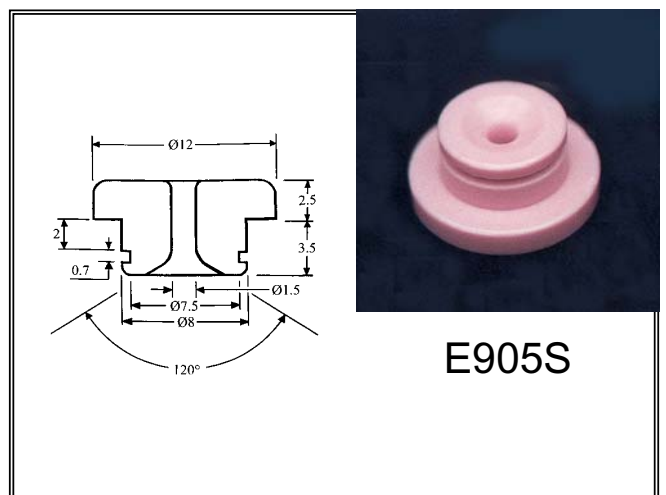
F45R
(F45L)



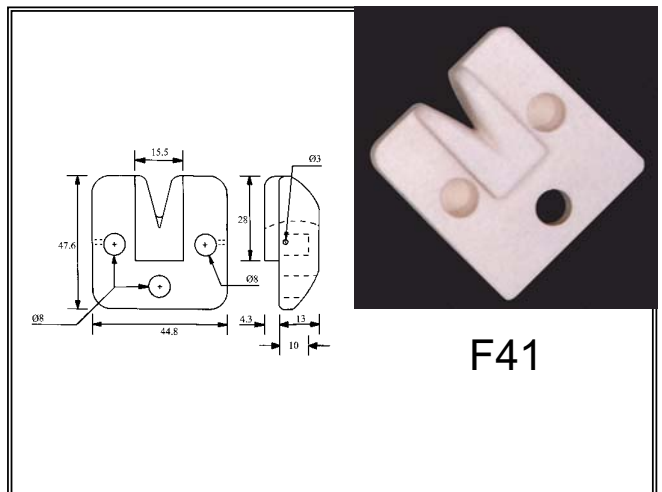
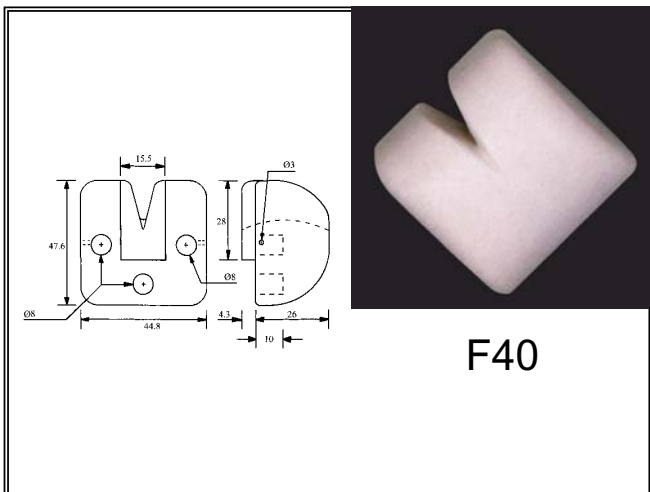
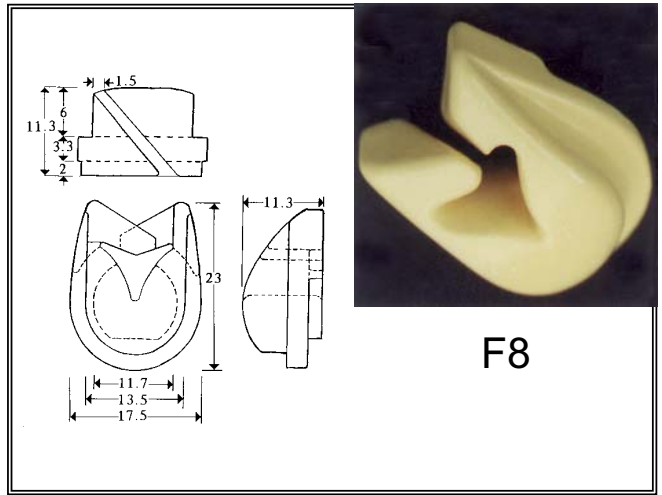
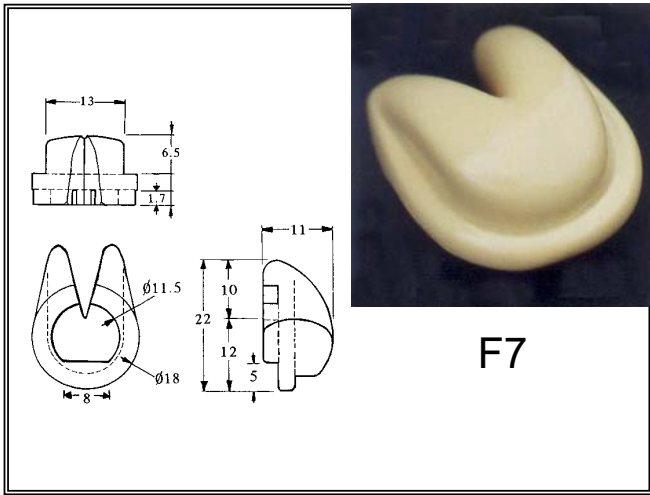
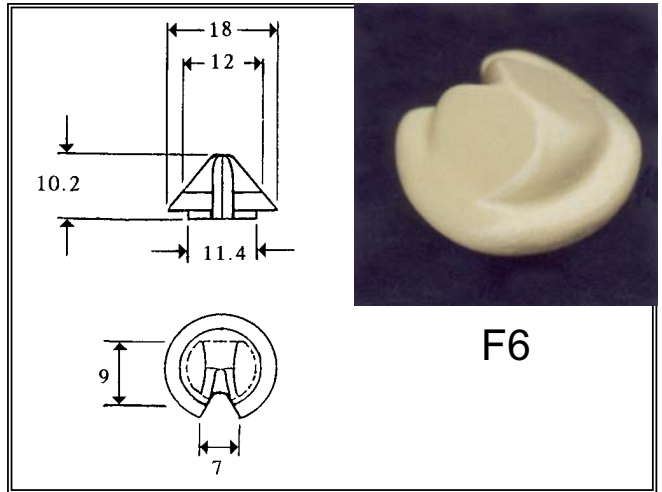
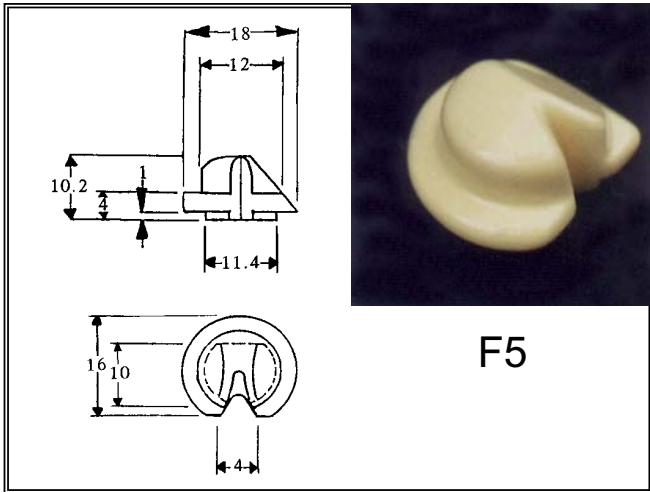
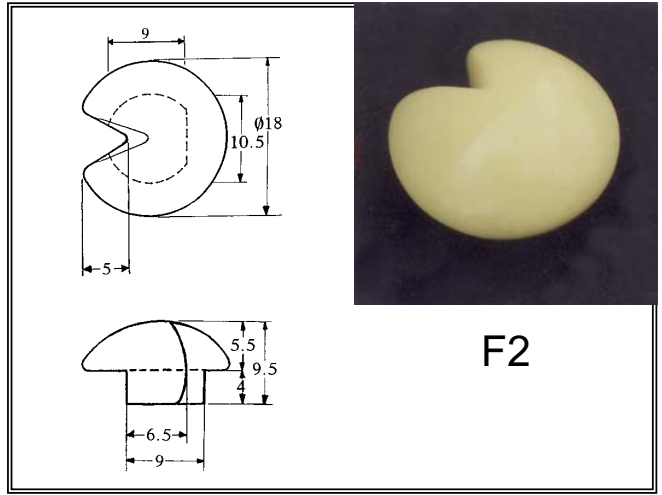
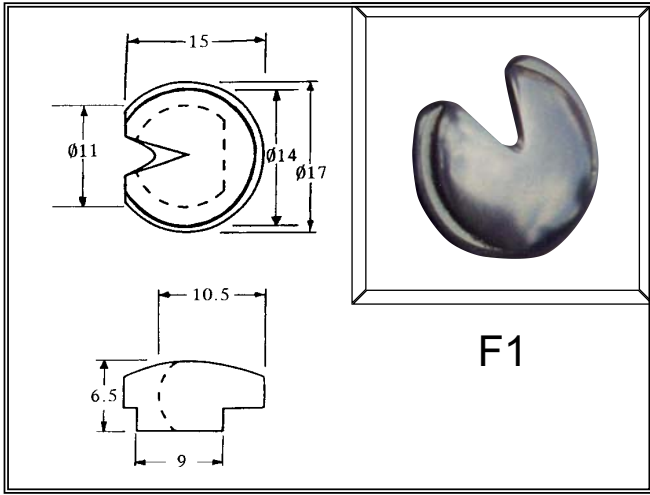
F46



E905 x 1.0
E905 x 1.5
E905 x 2.0



E905S



K1

also available in PCS

K2

also available in PCS

K3

also available in PCS

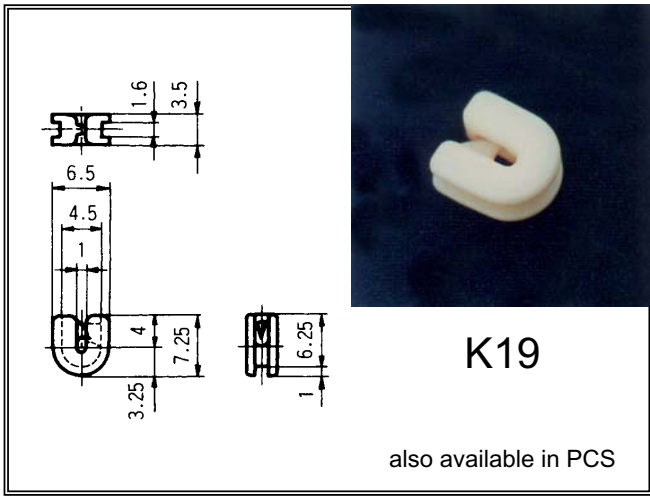
K4

K5

K6

K20

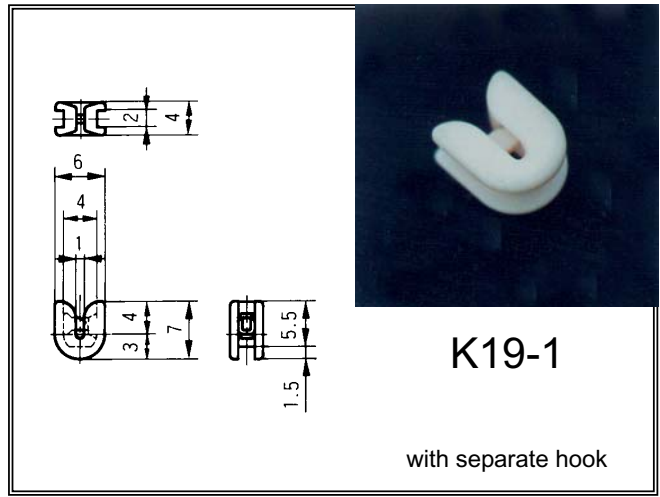
K14



Technical drawing of K19 showing dimensions: 1.6, 3.5, 6.5, 4.5, 1, 4, 7.25, 3.25, 6.25, 1. Photograph shows a white, U-shaped component.

K19

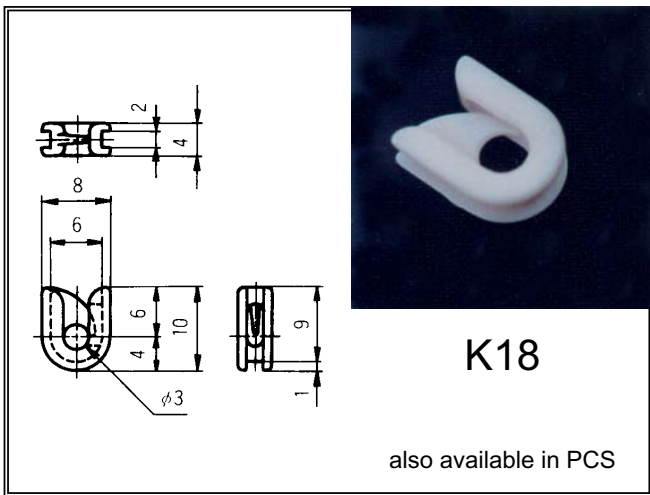
also available in PCS



Technical drawing of K19-1 showing dimensions: 2, 4, 6, 4, 1, 3, 4, 7, 5.5, 1.5. Photograph shows a white, U-shaped component with a separate hook.

K19-1

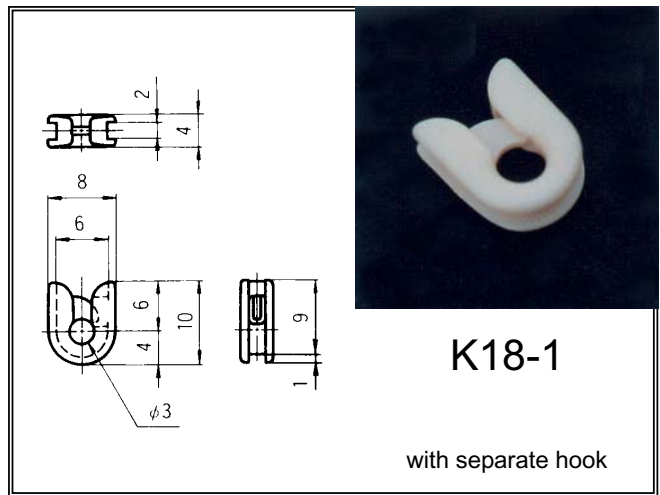
with separate hook



Technical drawing of K18 showing dimensions: 2, 4, 8, 6, 6, 4, 10, 4, 9, 1, $\phi 3$. Photograph shows a white, U-shaped component.

K18

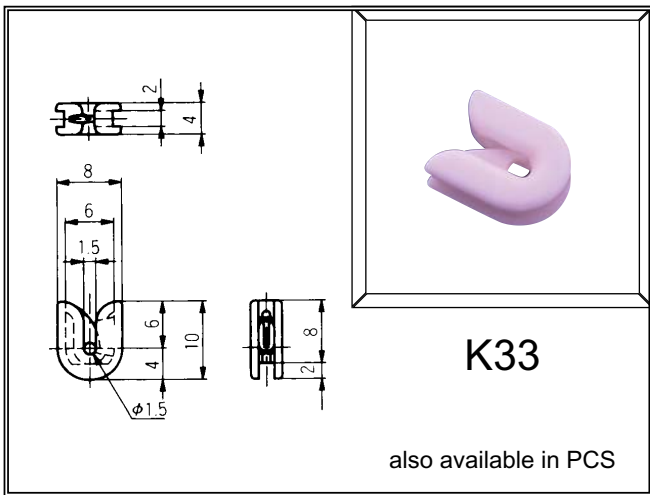
also available in PCS



Technical drawing of K18-1 showing dimensions: 2, 4, 8, 6, 6, 4, 10, 4, 9, 1, $\phi 3$. Photograph shows a white, U-shaped component with a separate hook.

K18-1

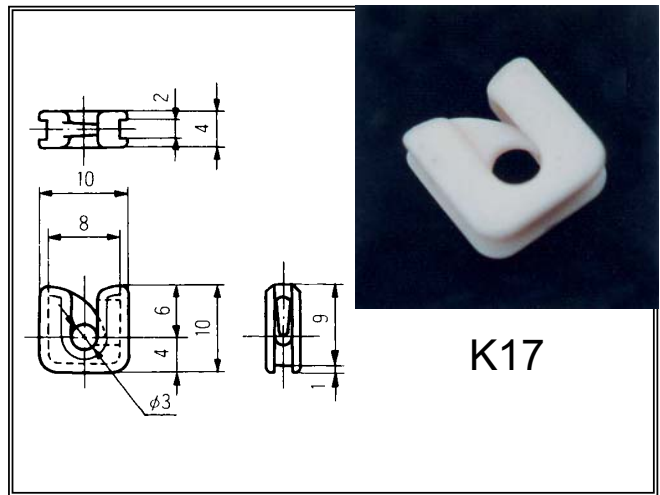
with separate hook



Technical drawing of K33 showing dimensions: 2, 4, 8, 6, 1.5, 4, 10, 4, 8, 2, $\phi 1.5$. Photograph shows a pink, U-shaped component.

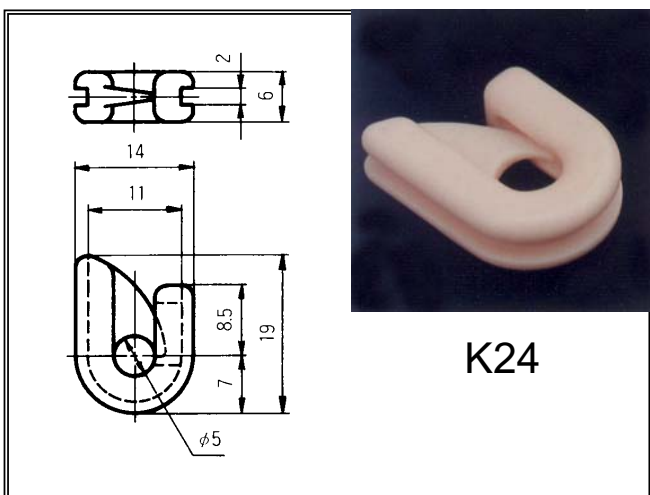
K33

also available in PCS



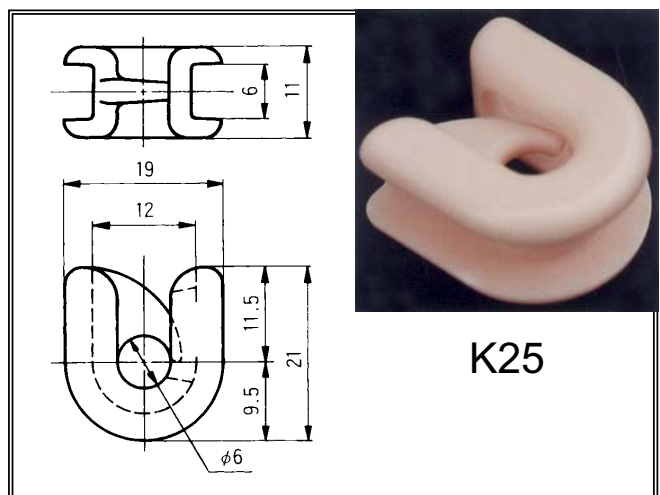
Technical drawing of K17 showing dimensions: 2, 4, 10, 8, 6, 4, 10, 4, 9, 1, $\phi 3$. Photograph shows a white, U-shaped component.

K17



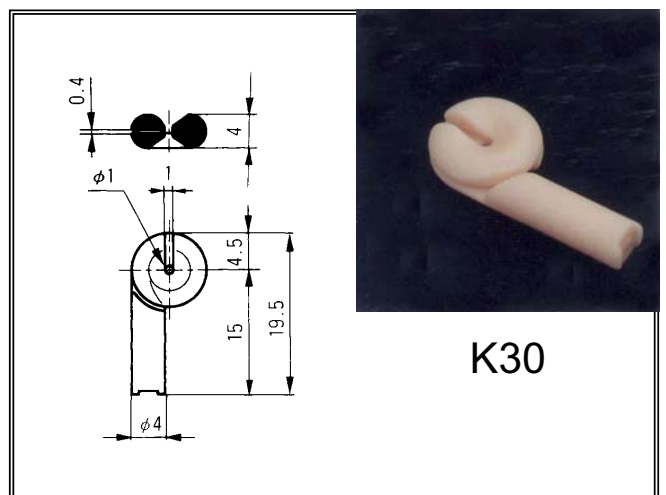
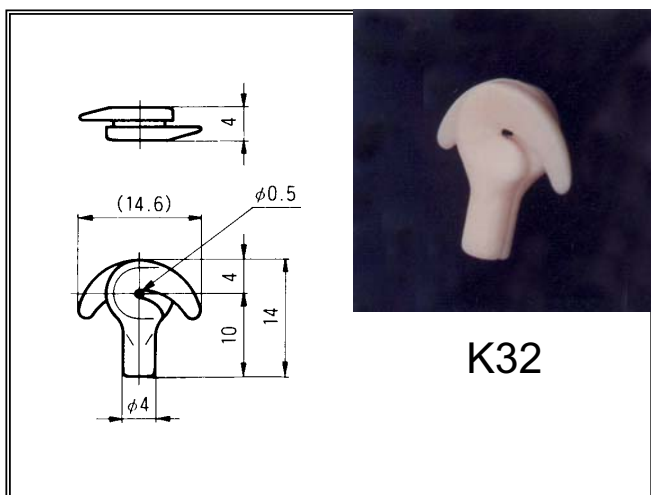
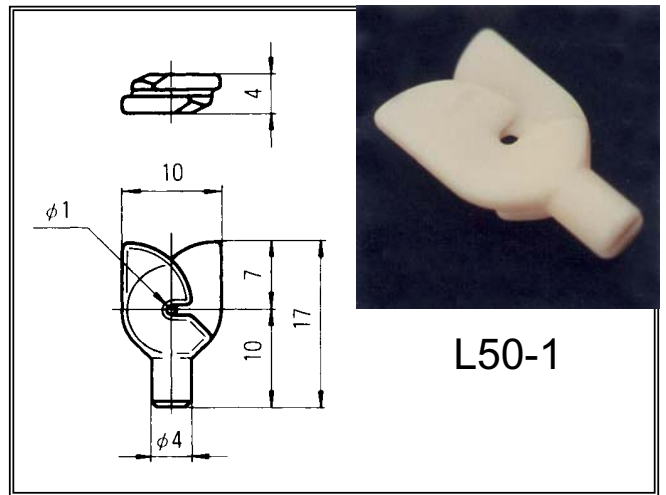
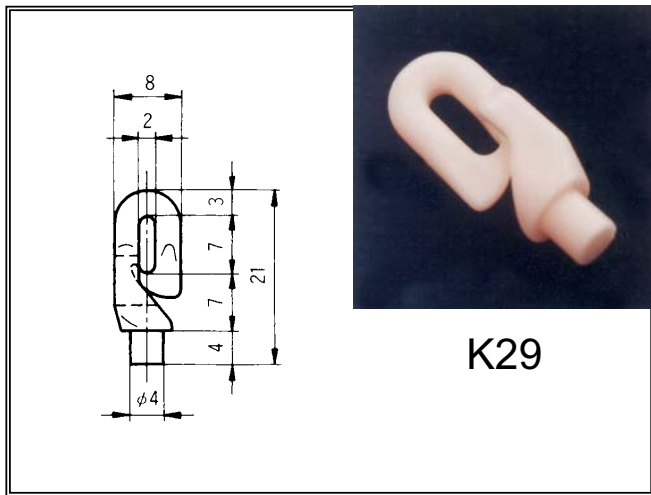
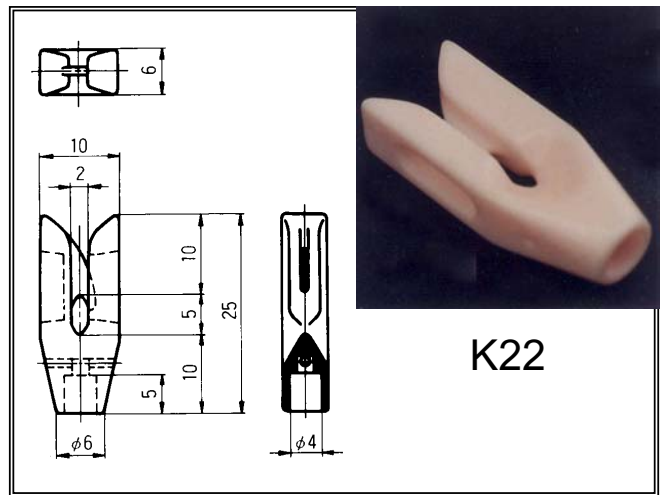
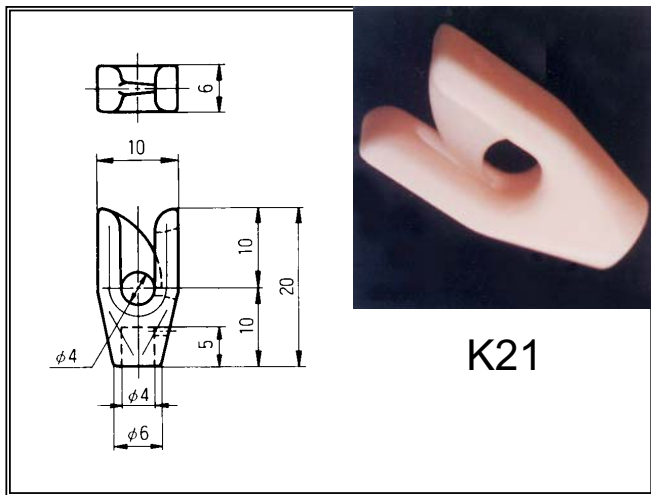
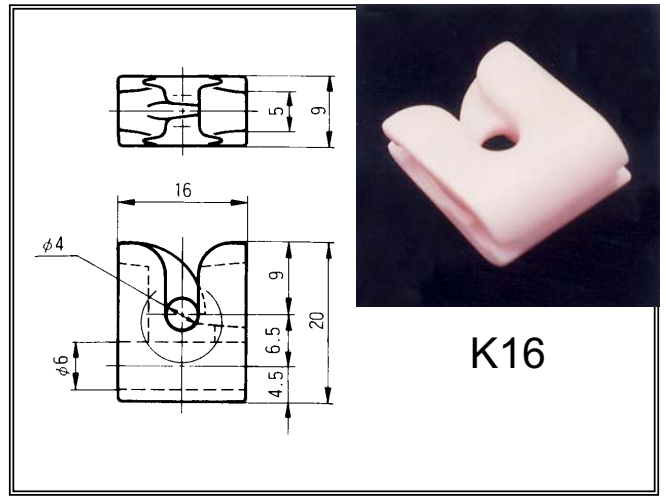
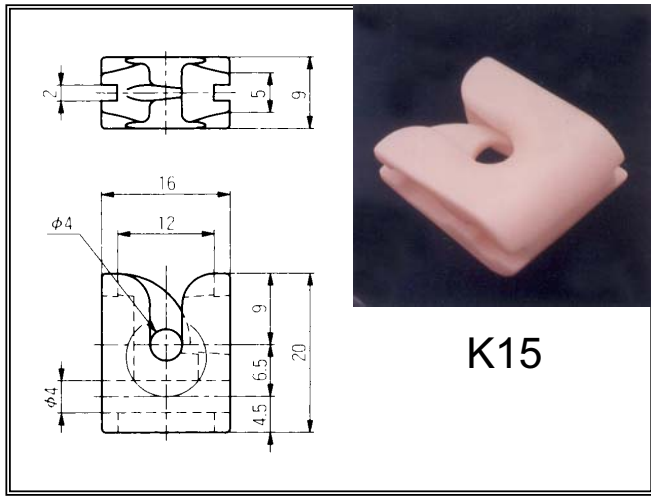
Technical drawing of K24 showing dimensions: 2, 6, 14, 11, 8.5, 19, 7, $\phi 5$. Photograph shows a white, U-shaped component.

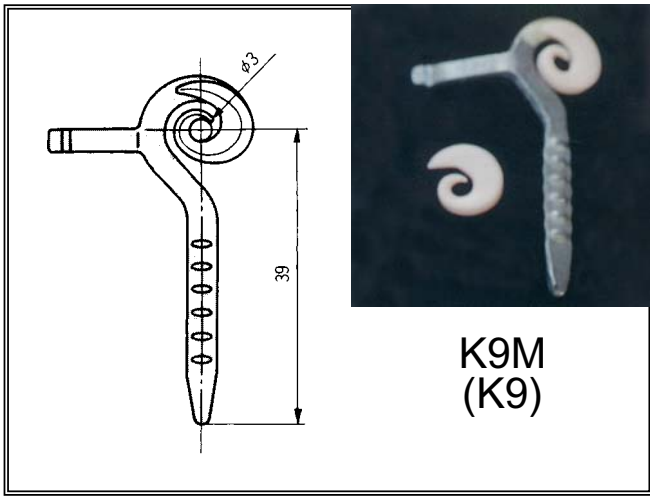
K24



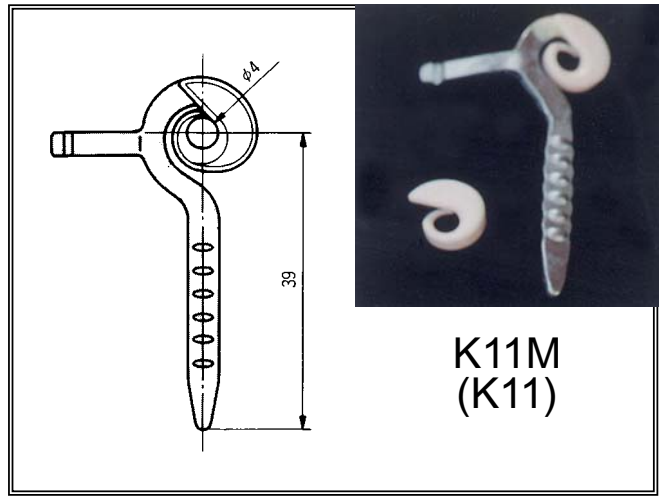
Technical drawing of K25 showing dimensions: 6, 11, 19, 12, 11.5, 21, 9.5, $\phi 6$. Photograph shows a white, U-shaped component.

K25

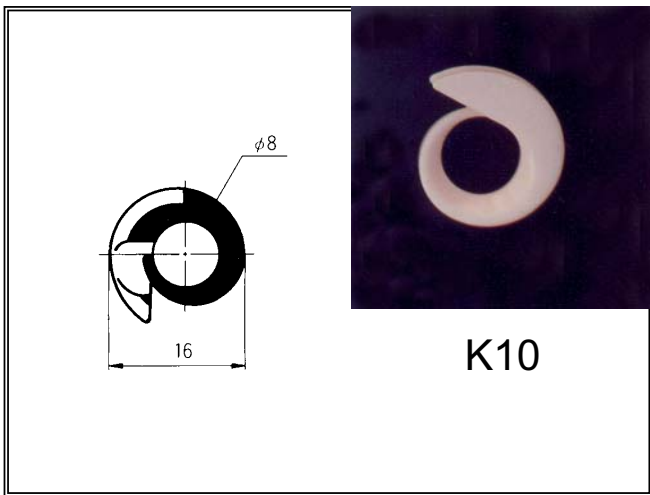




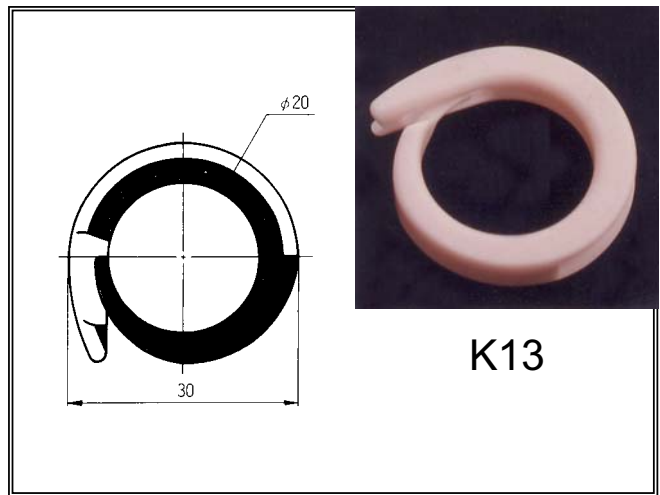
**K9M
(K9)**



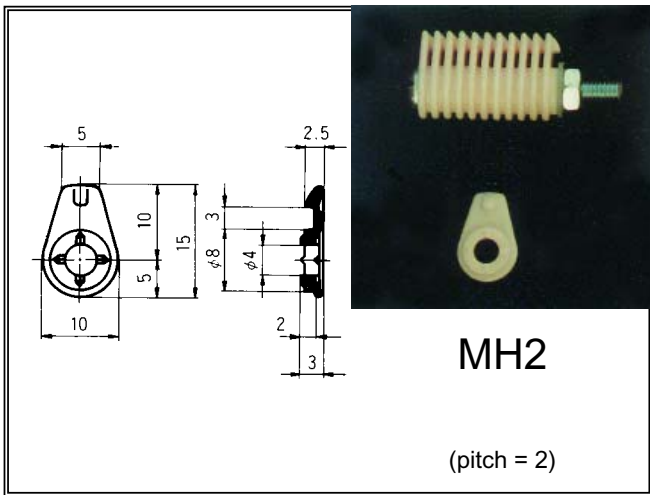
**K11M
(K11)**



K10

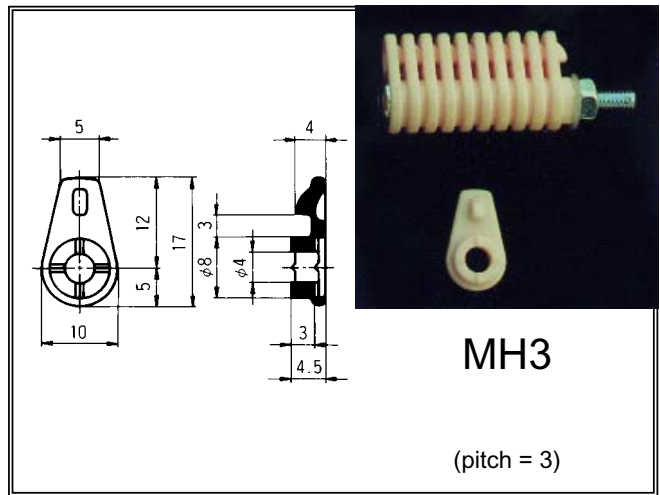


K13



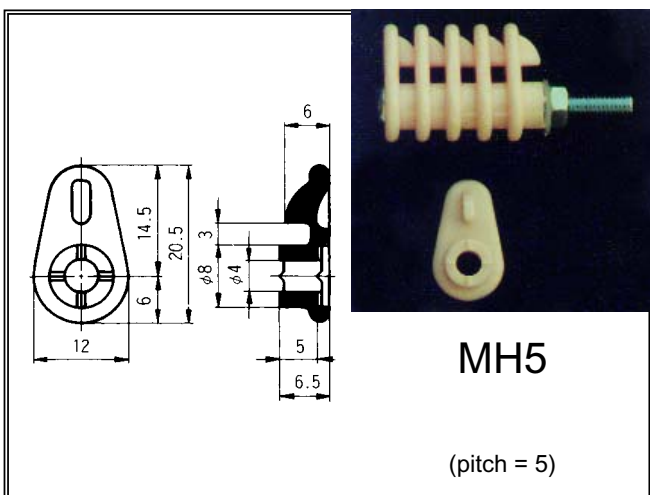
MH2

(pitch = 2)



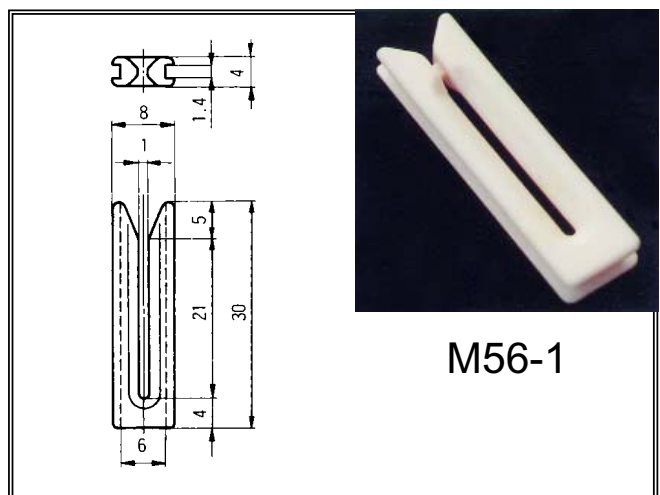
MH3

(pitch = 3)

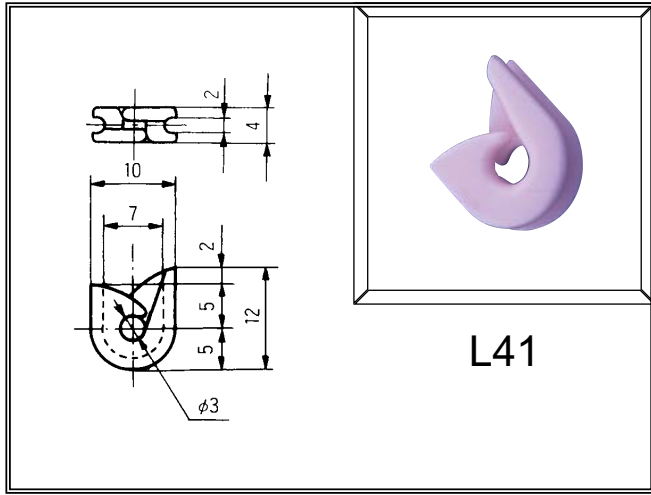


MH5

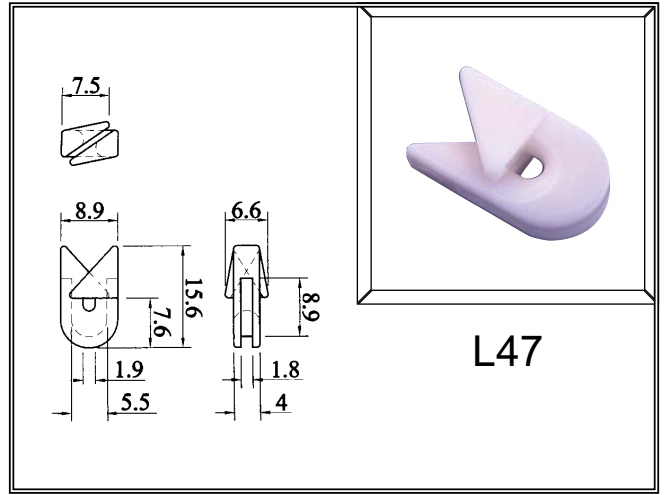
(pitch = 5)



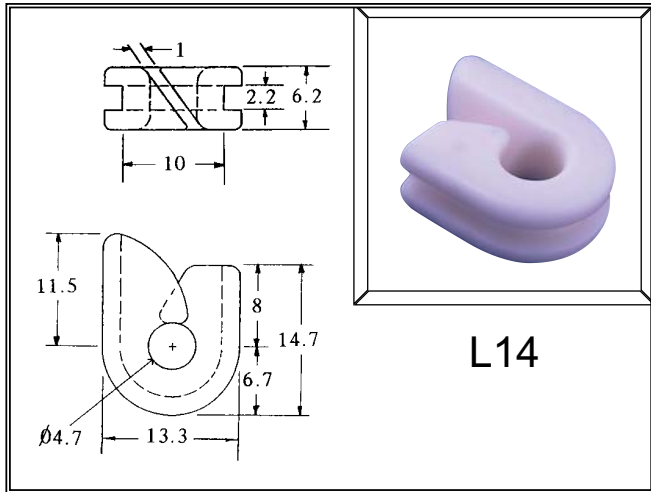
M56-1



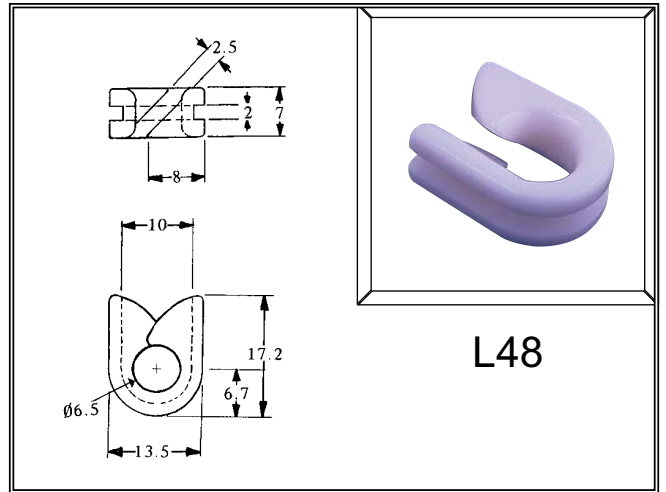
L41



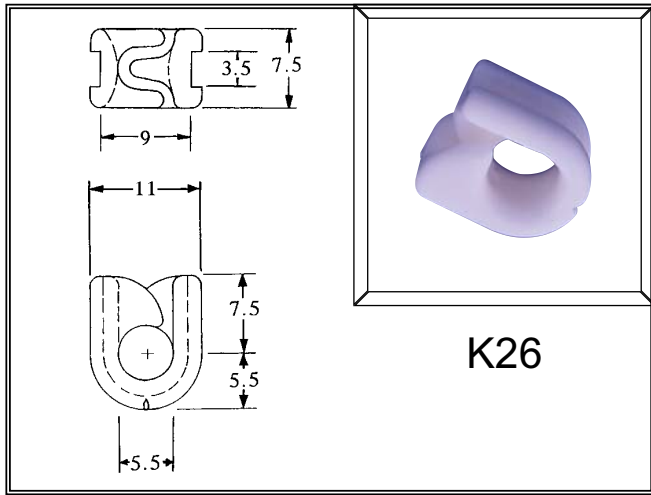
L47



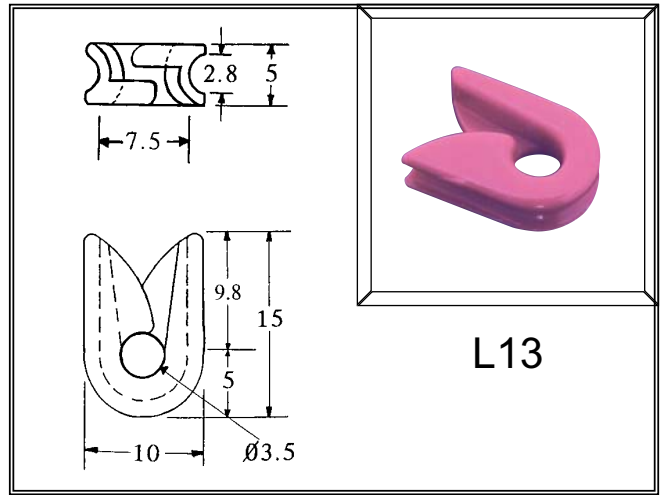
L14



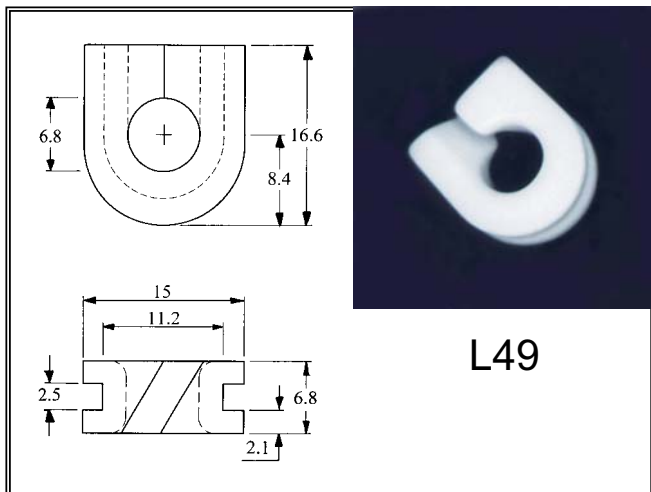
L48



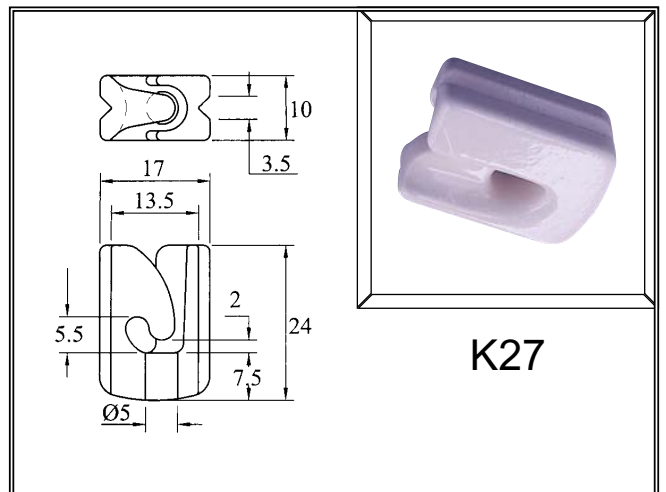
K26



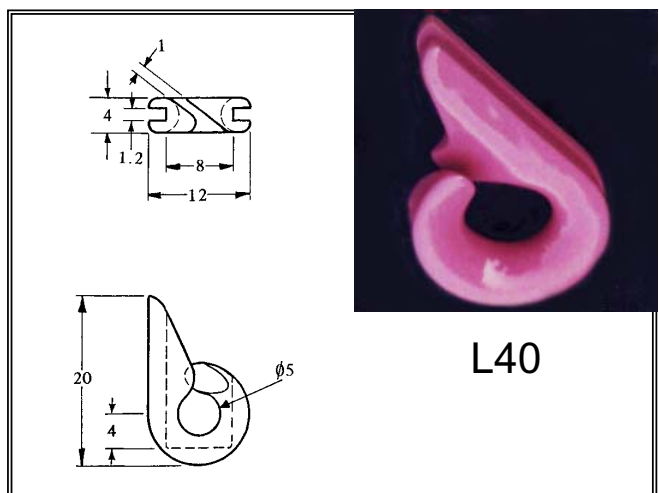
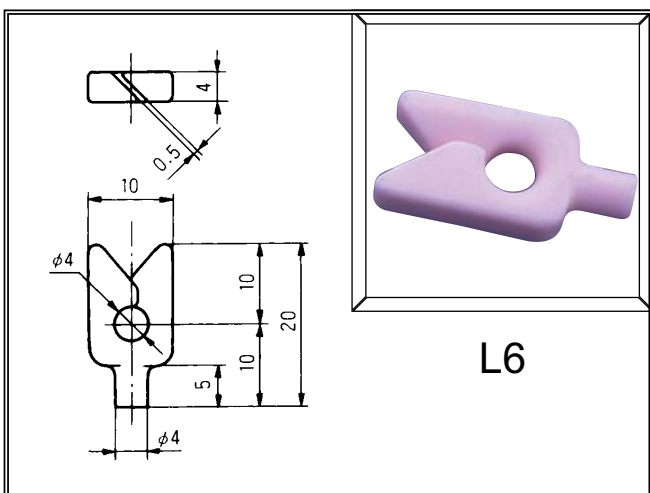
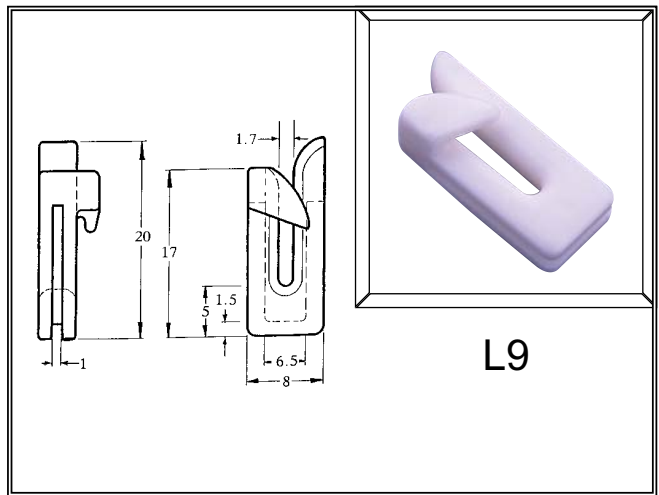
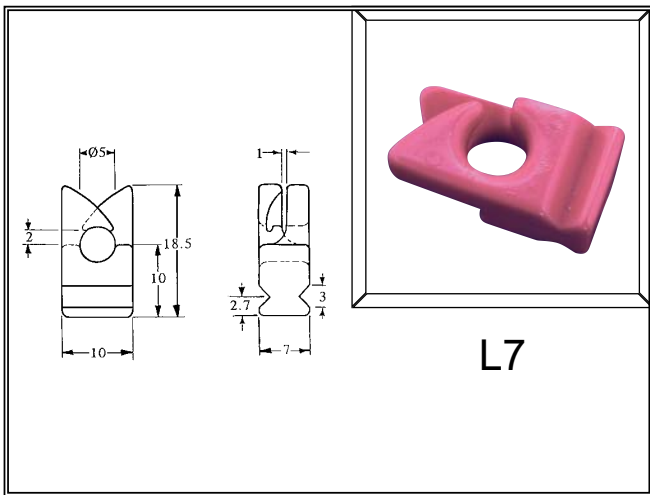
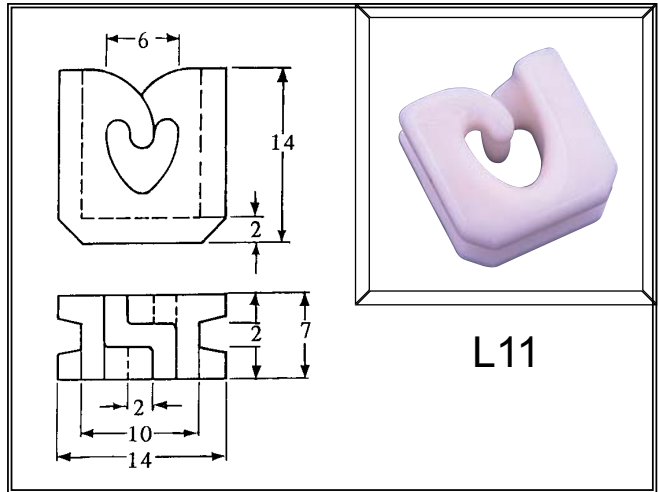
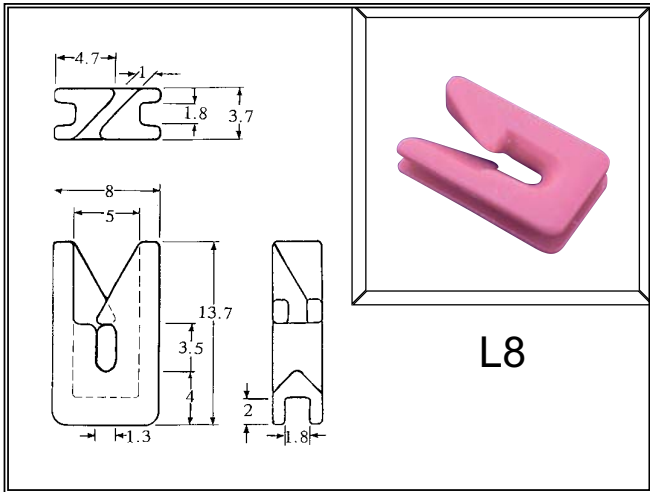
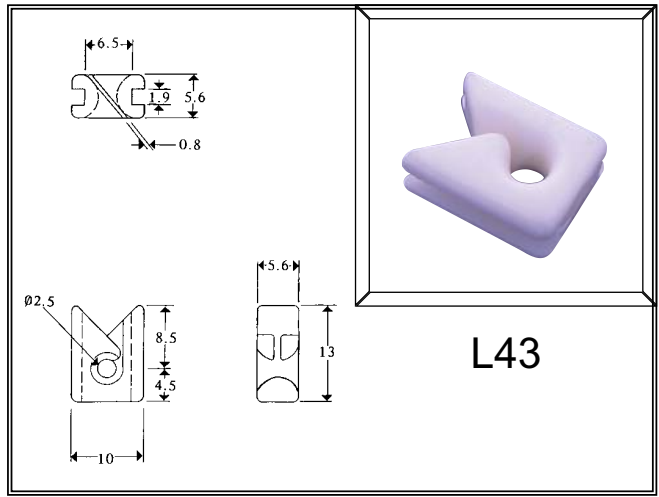
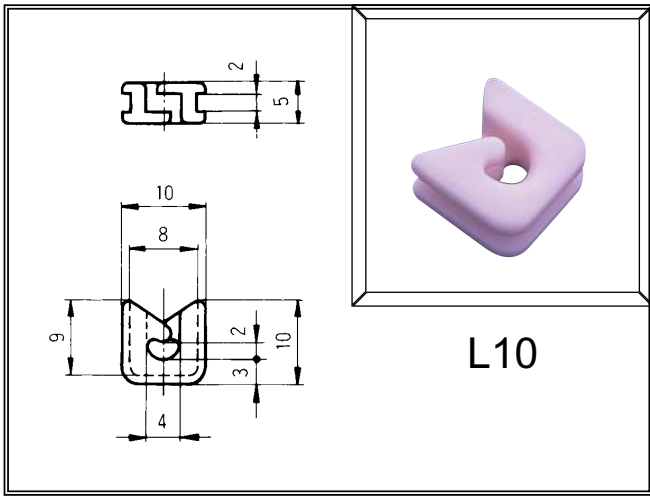
L13

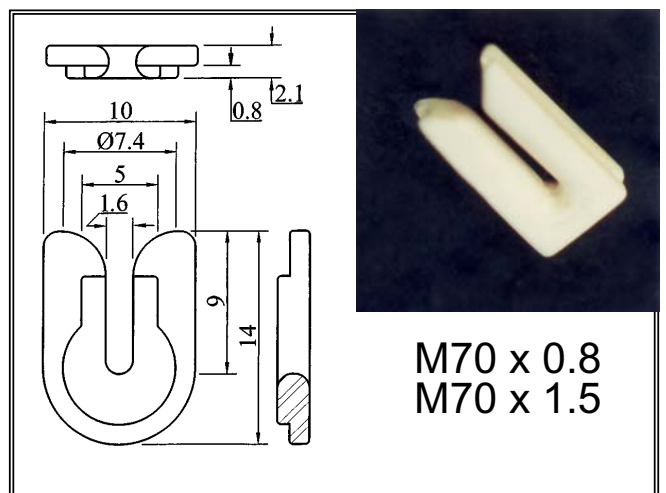
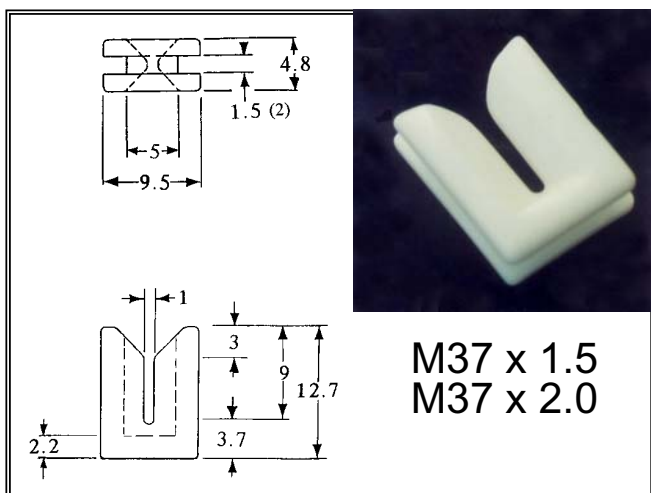
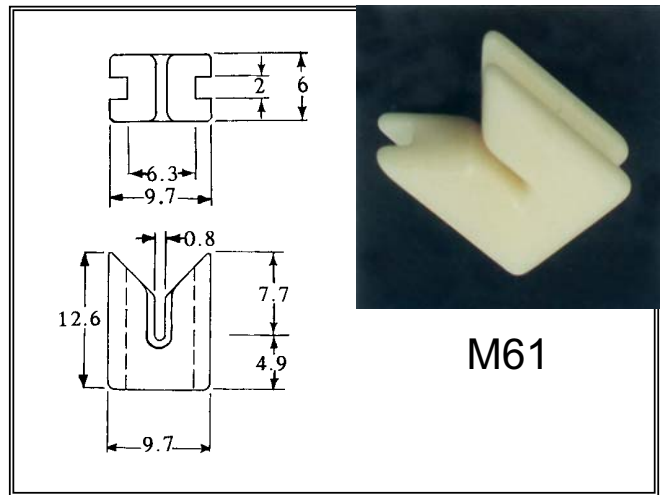
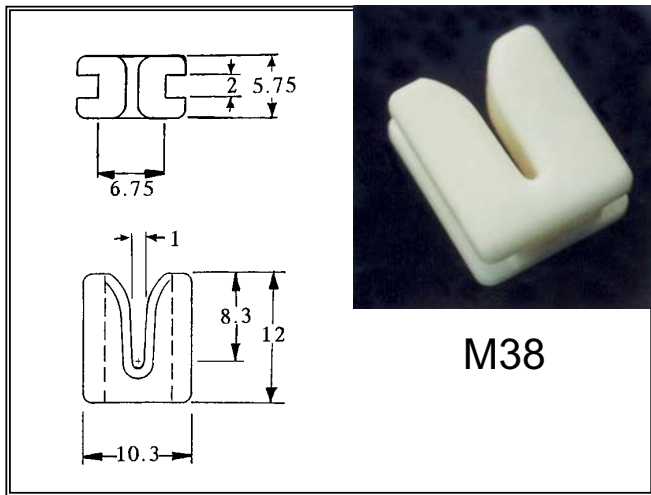
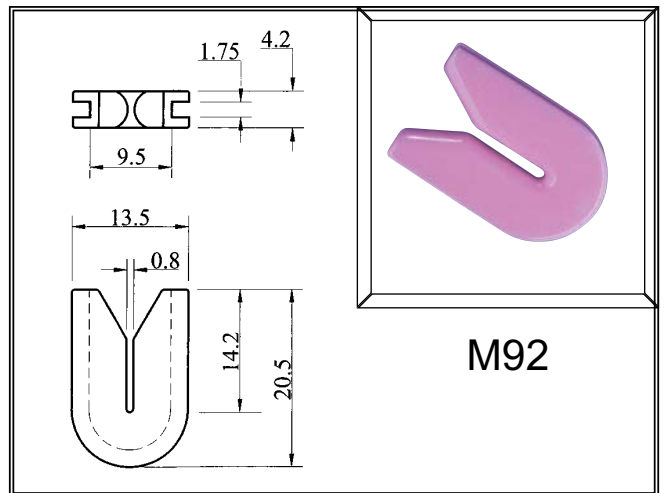
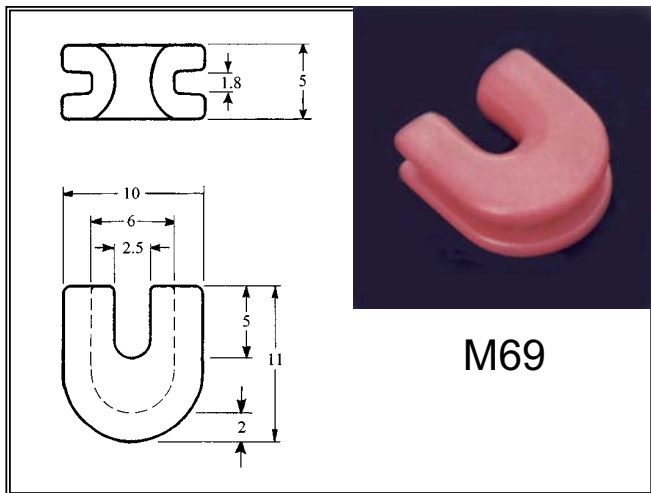
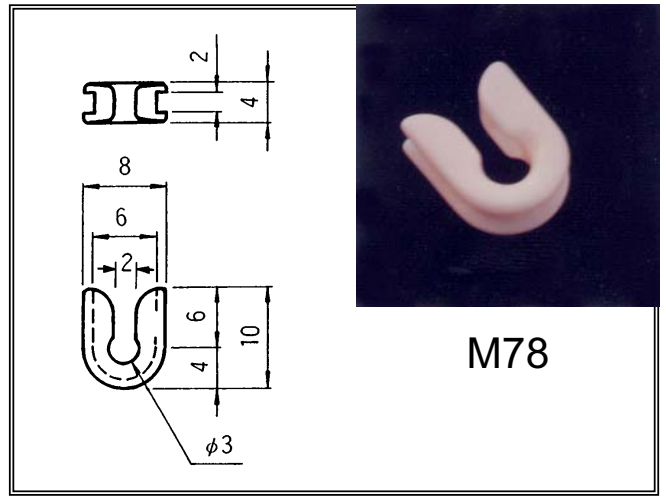
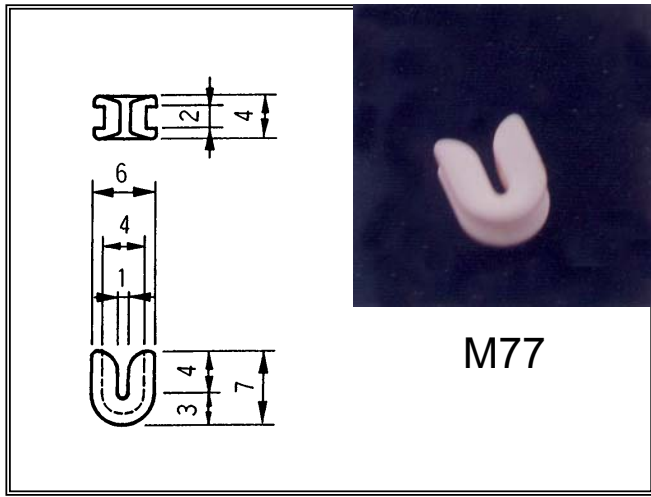


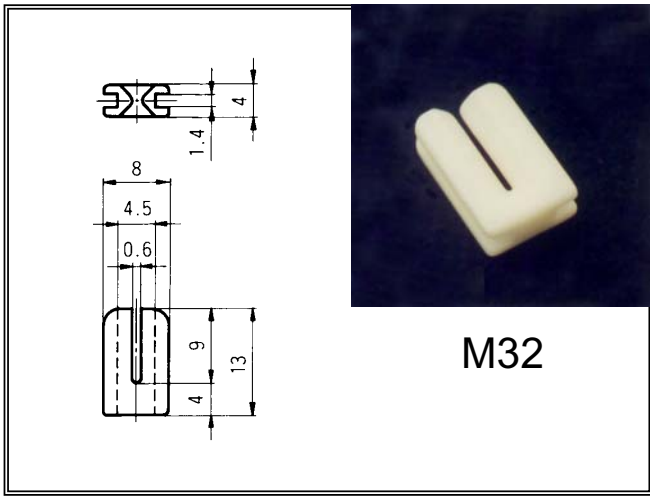
L49



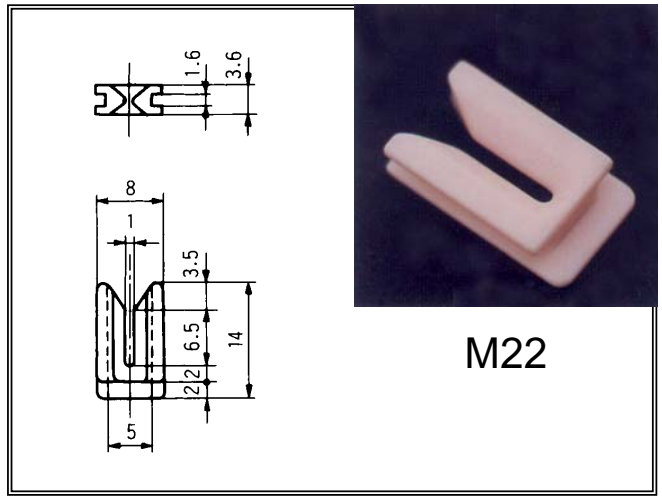
K27



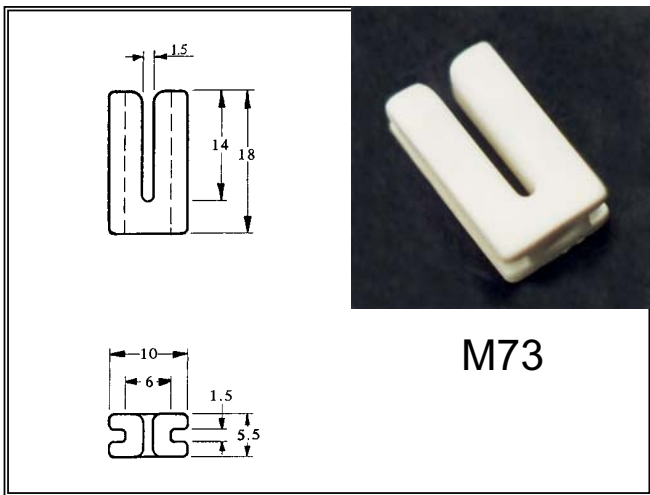




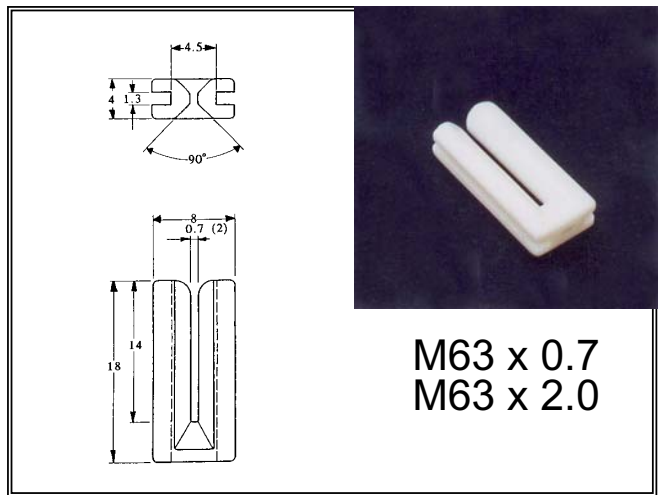
M32



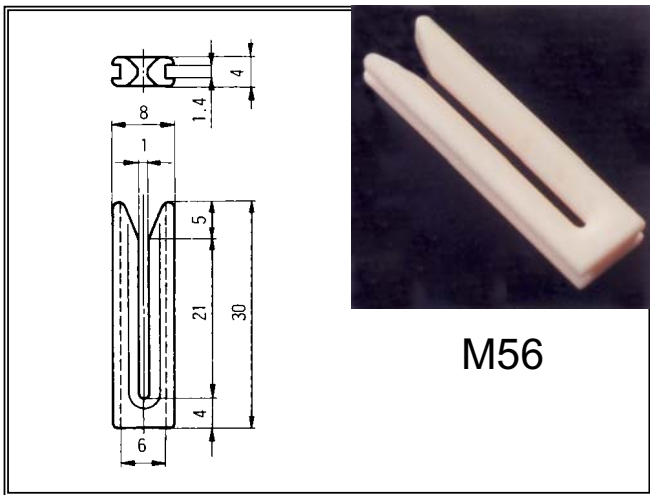
M22



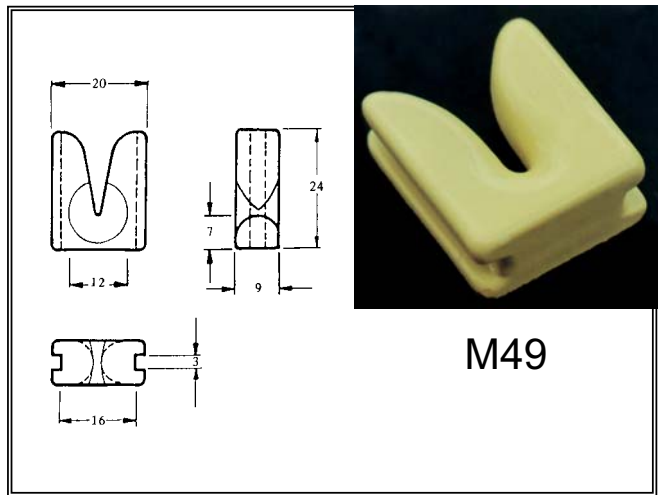
M73



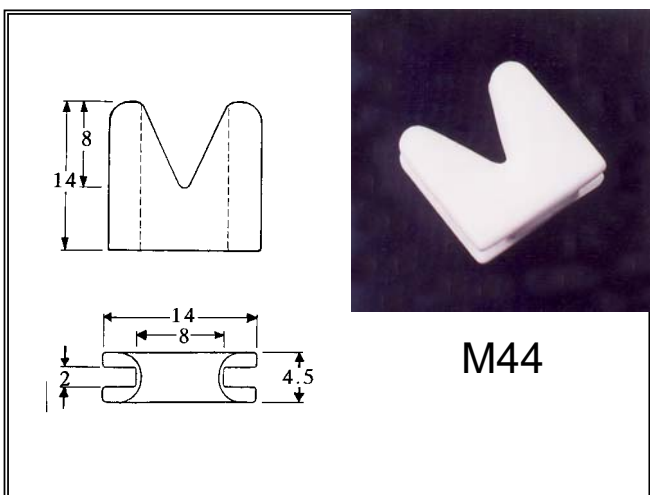
M63 x 0.7
M63 x 2.0



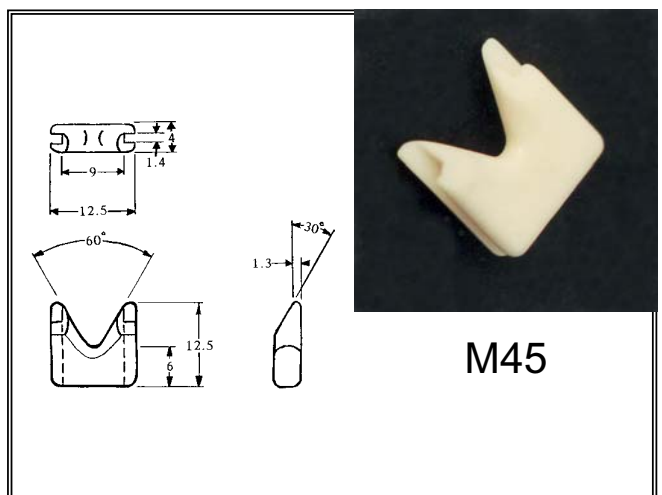
M56



M49



M44



M45

F32

also available in PCS

M42

M48

H1

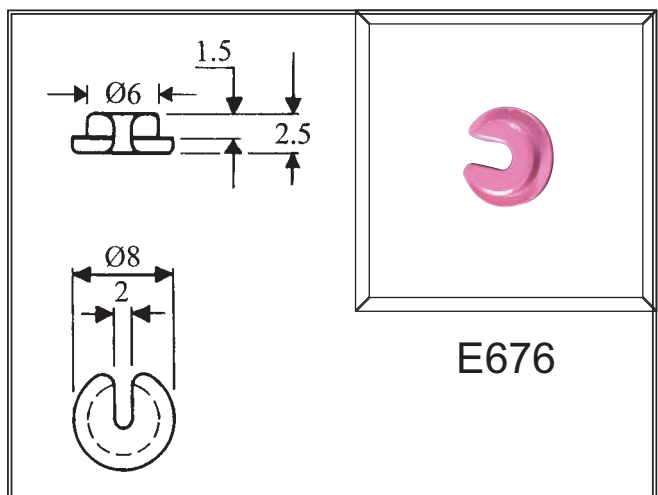
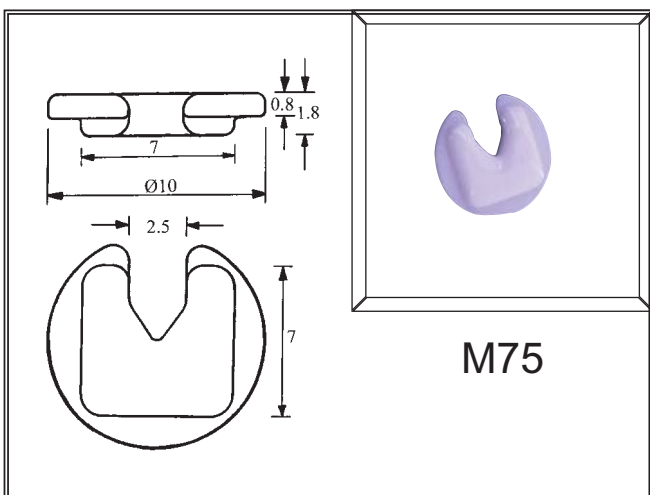
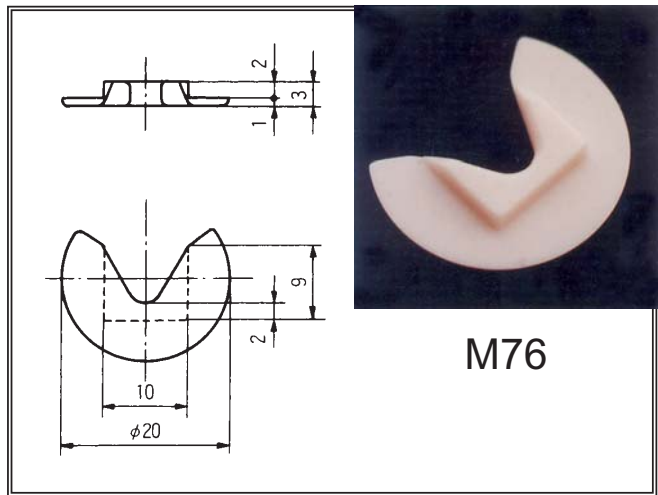
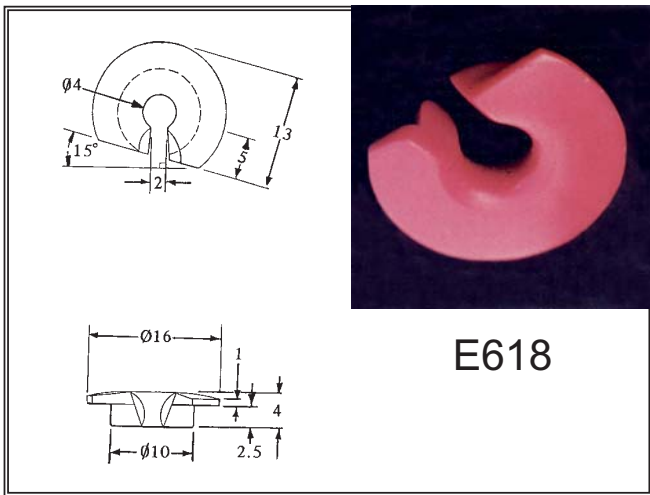
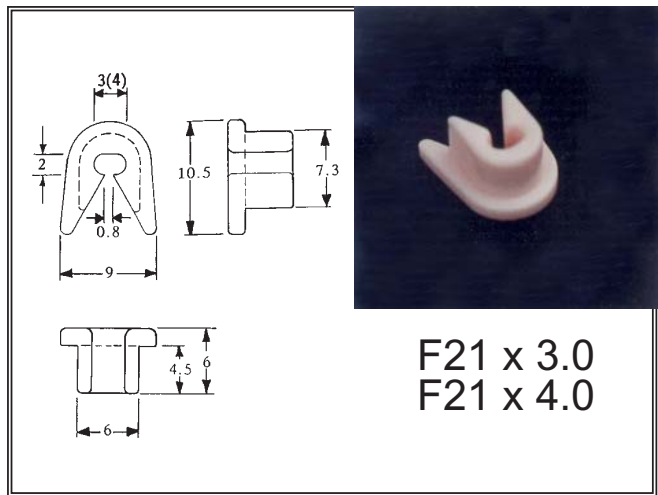
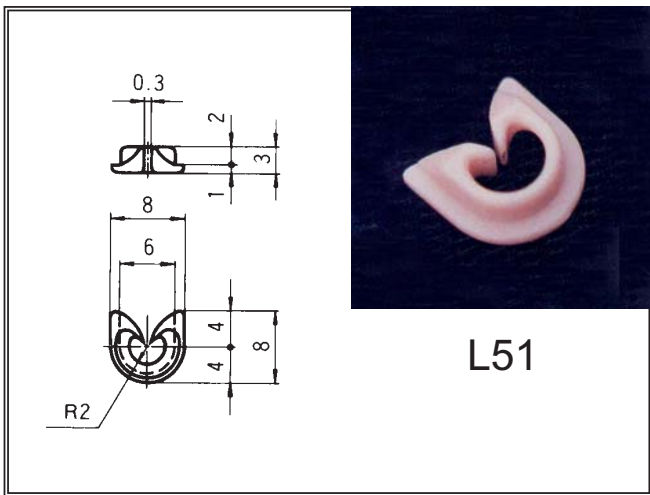
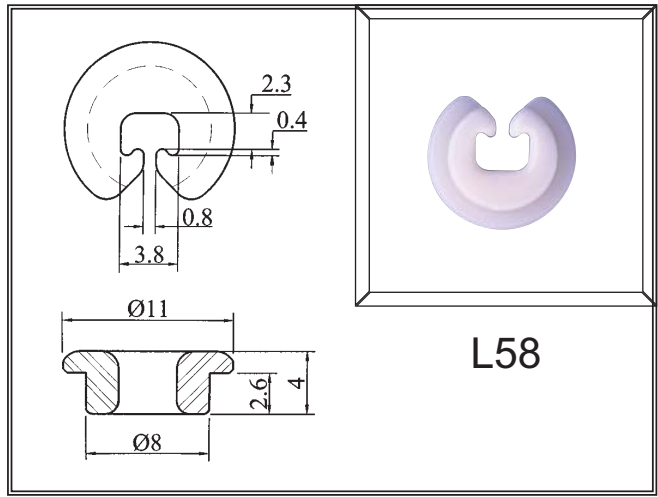
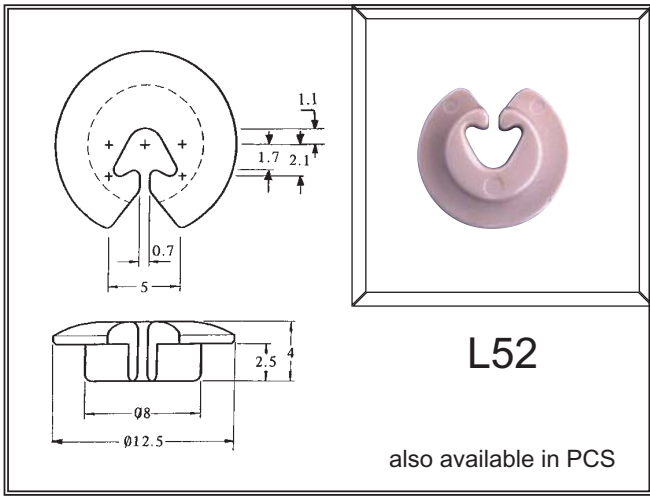
L57

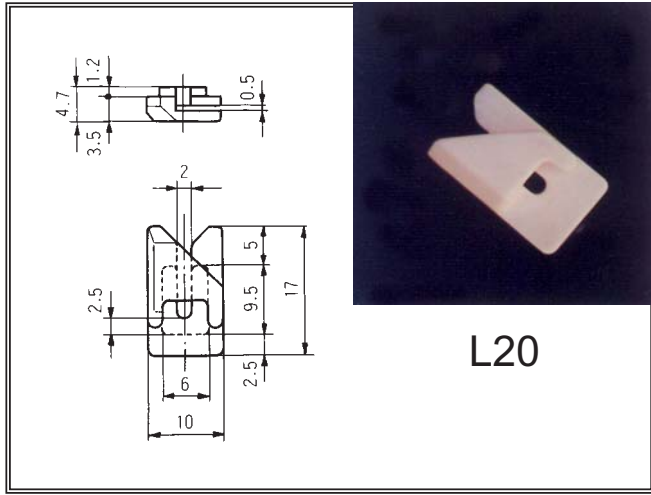
M90

M88

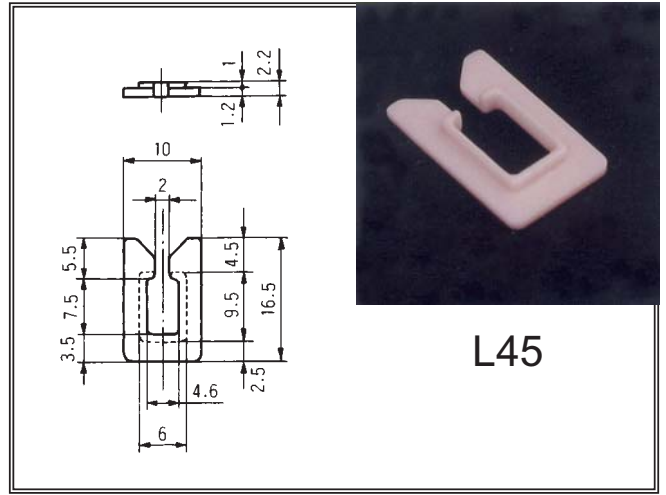
also available in PCS

M89

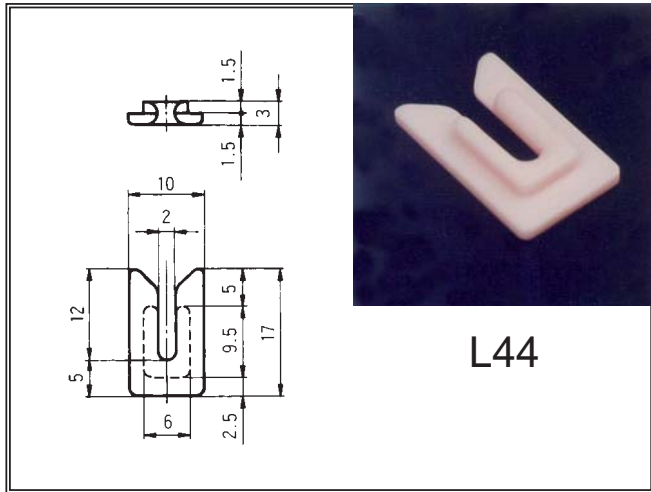




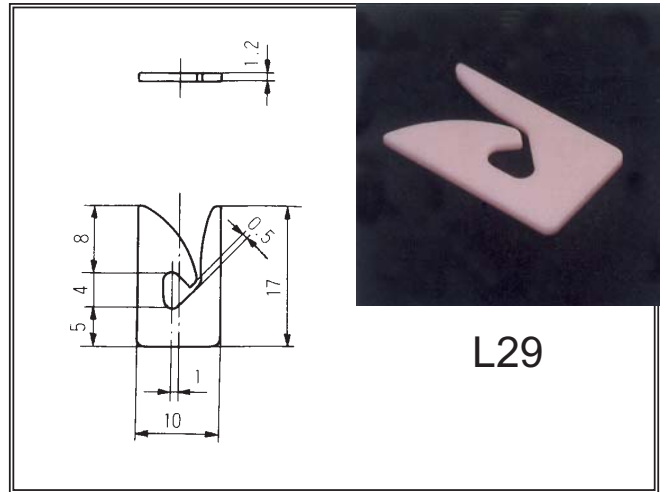
L20



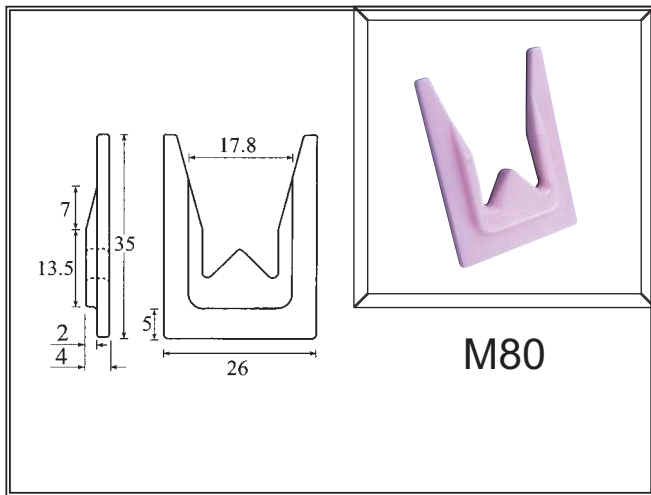
L45



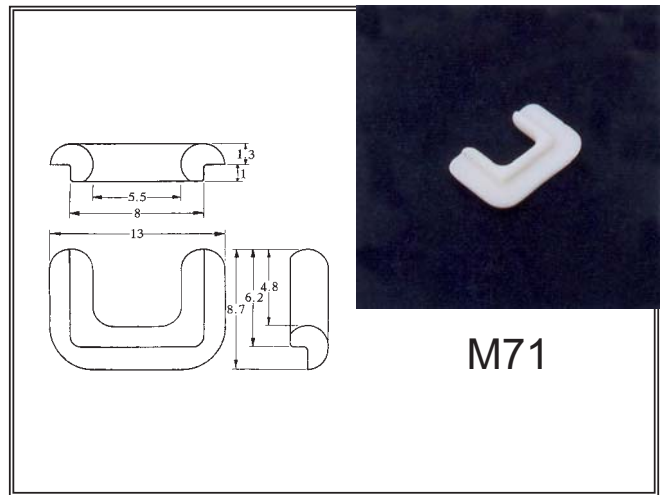
L44



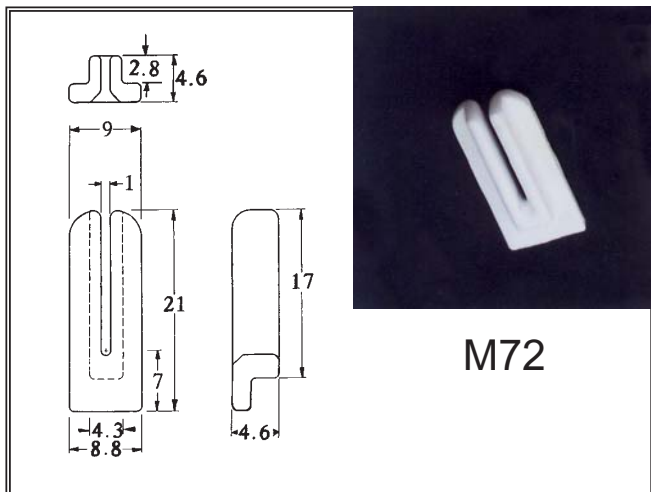
L29



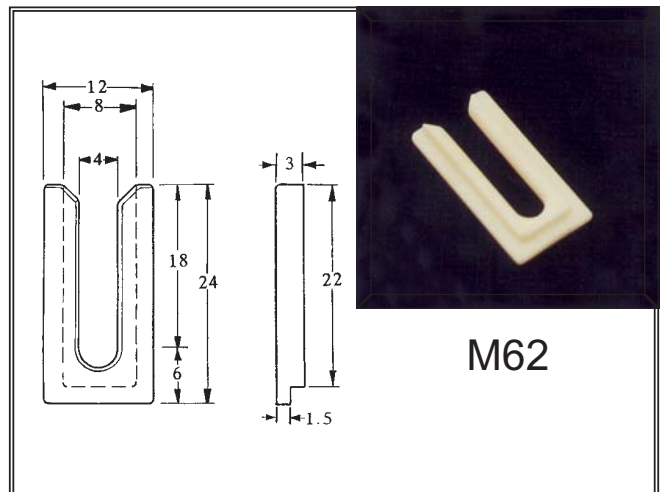
M80



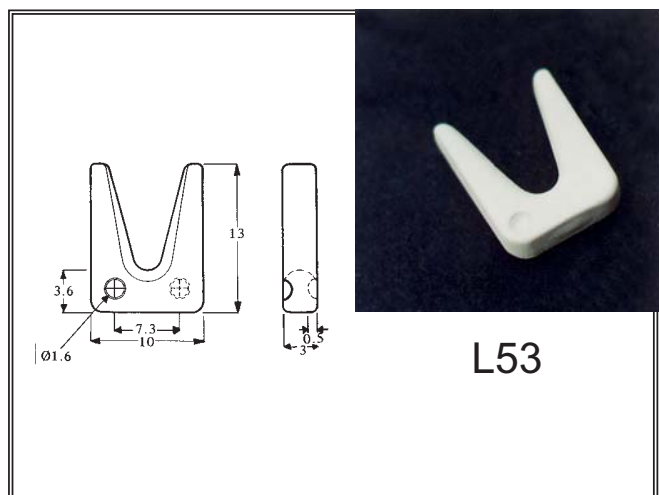
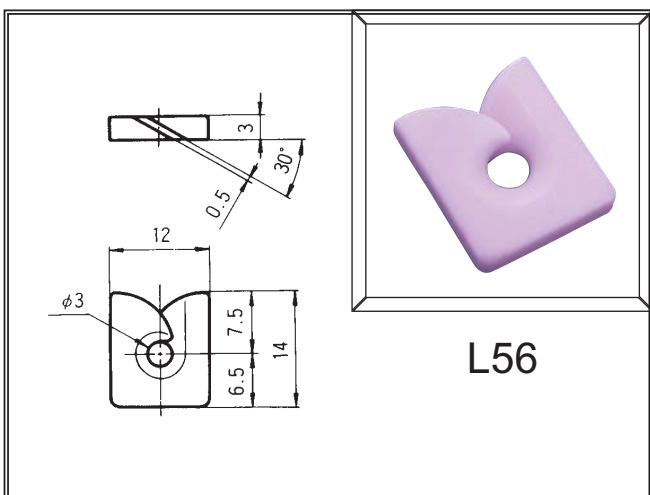
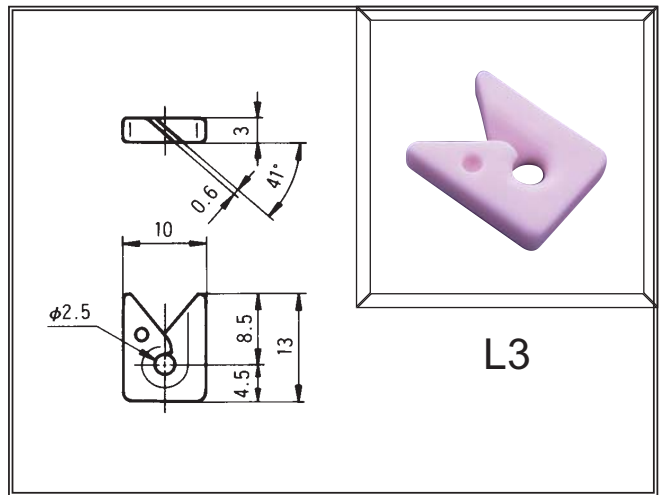
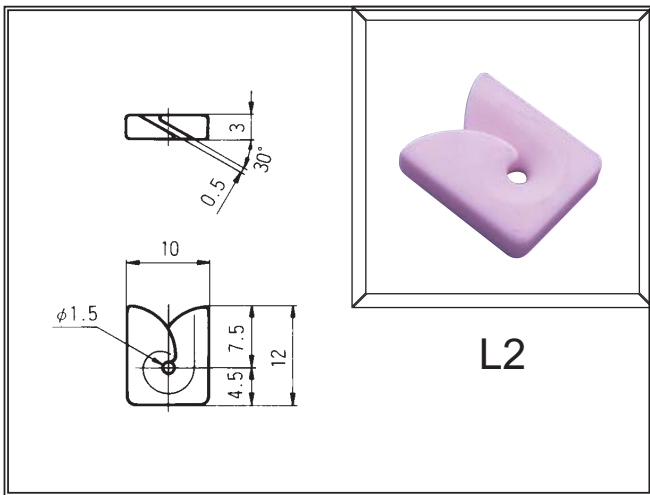
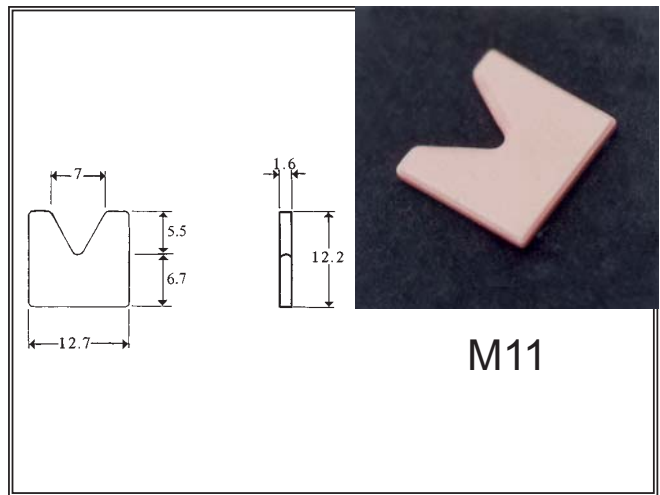
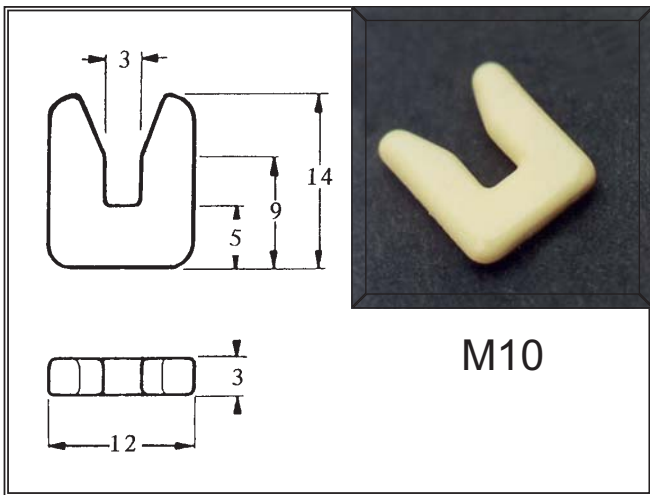
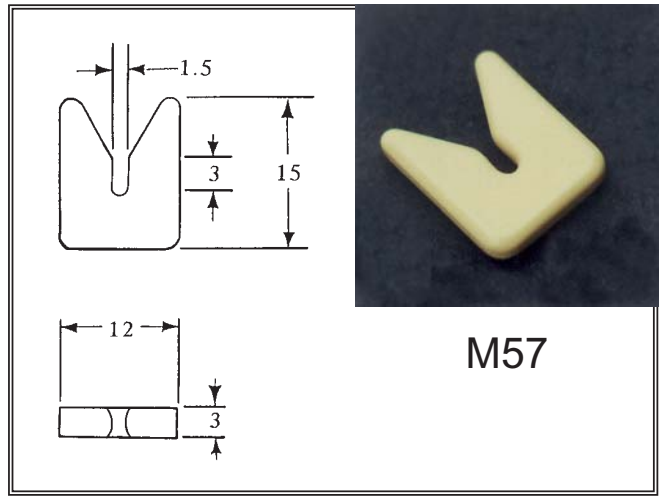
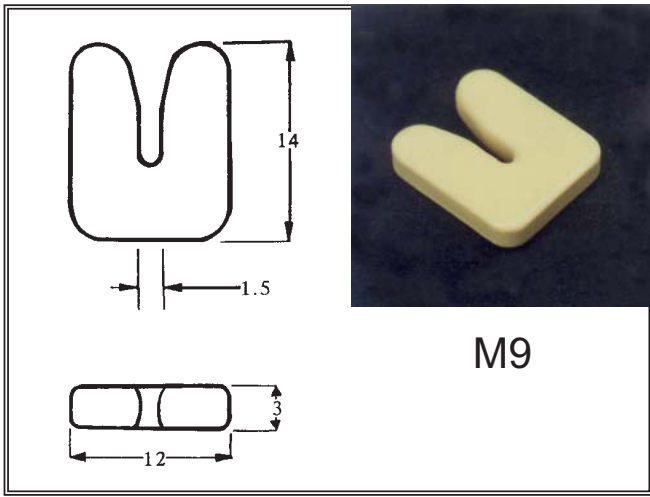
M71

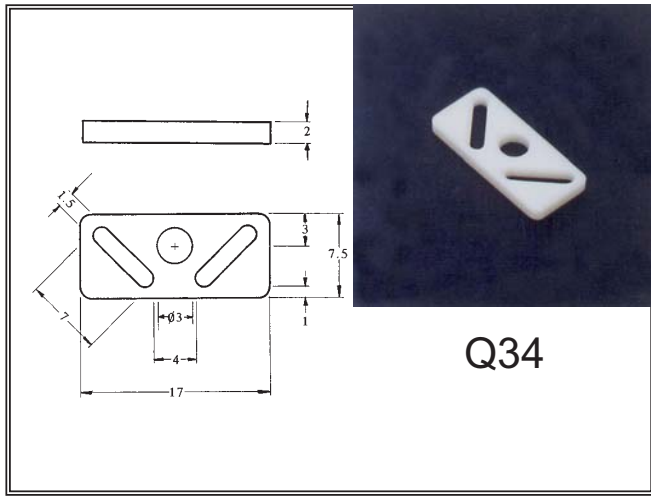


M72

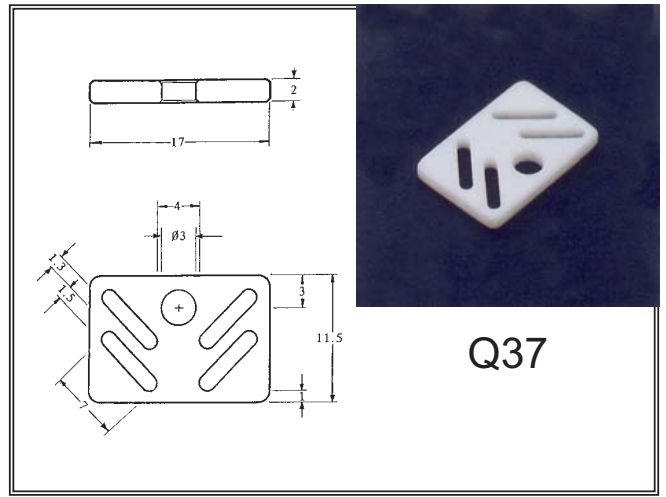


M62

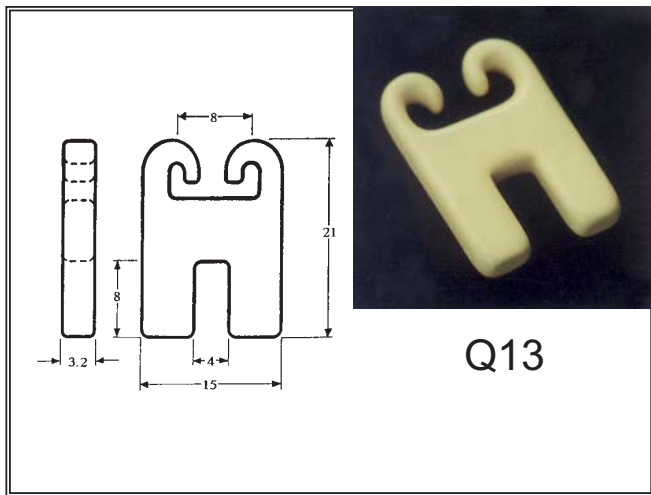




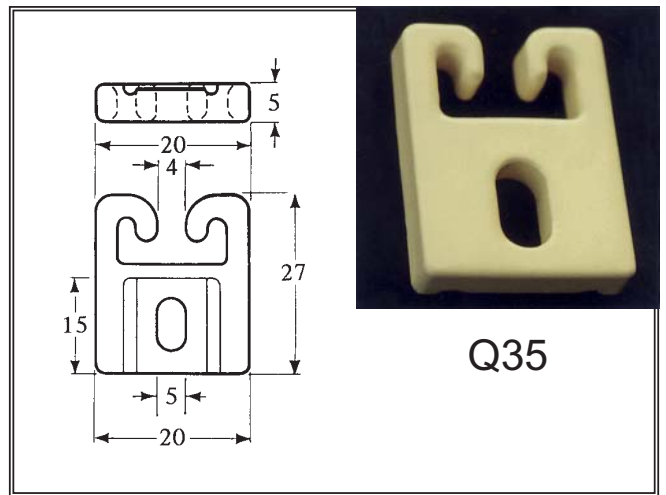
Q34



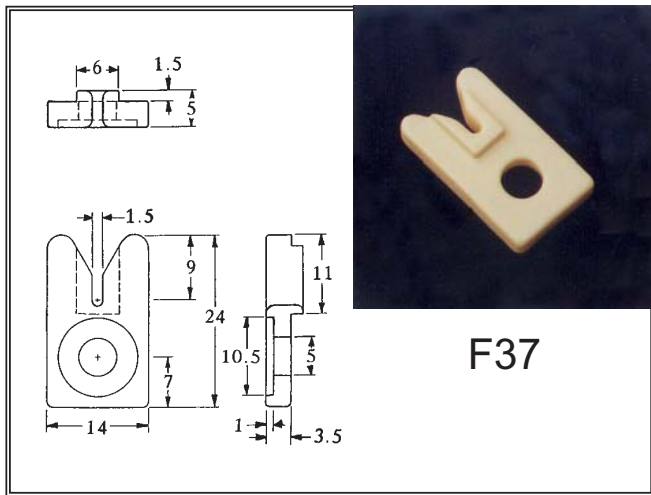
Q37



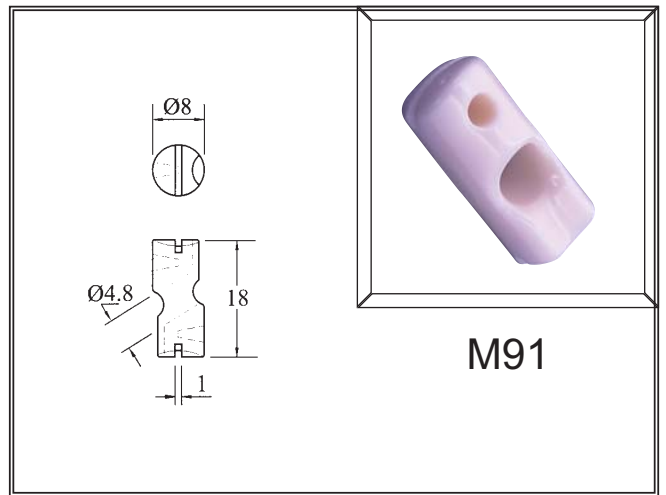
Q13



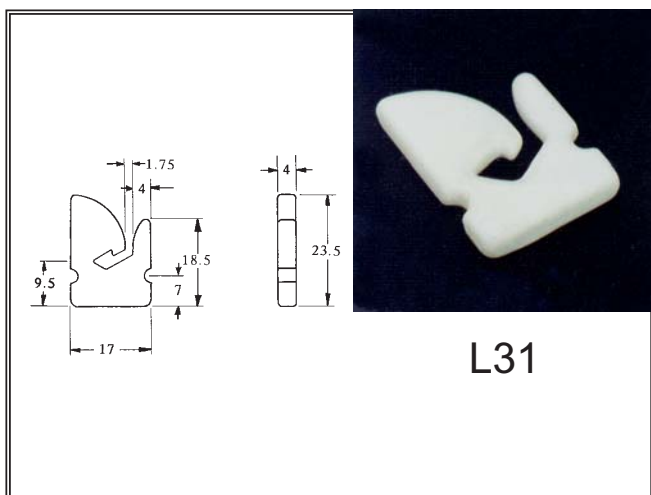
Q35



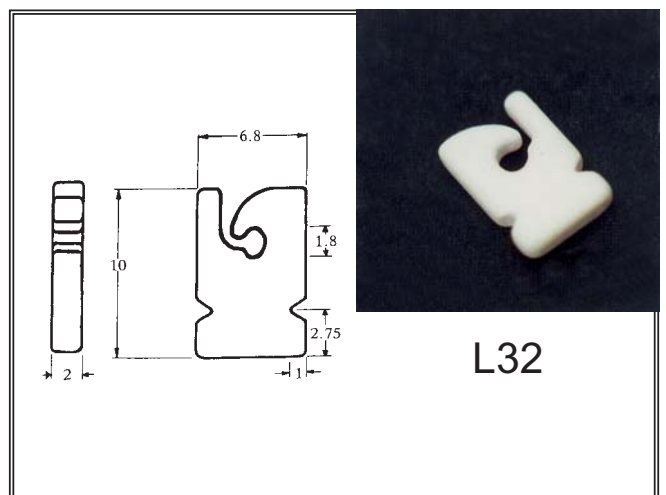
F37



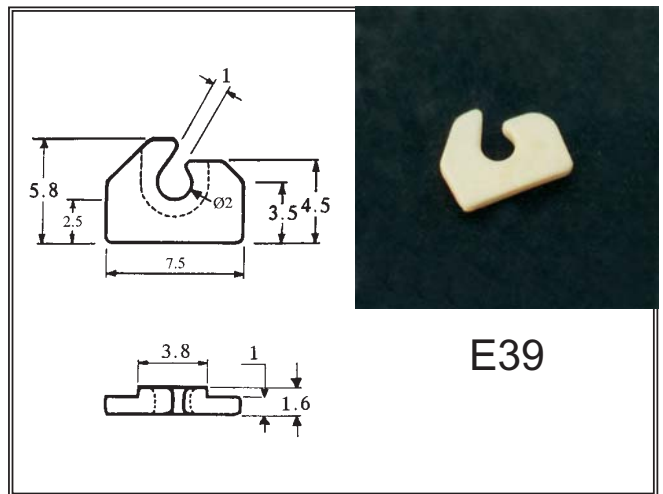
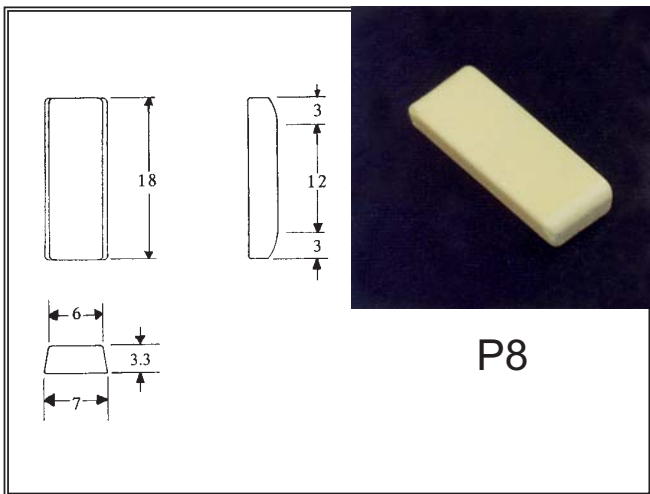
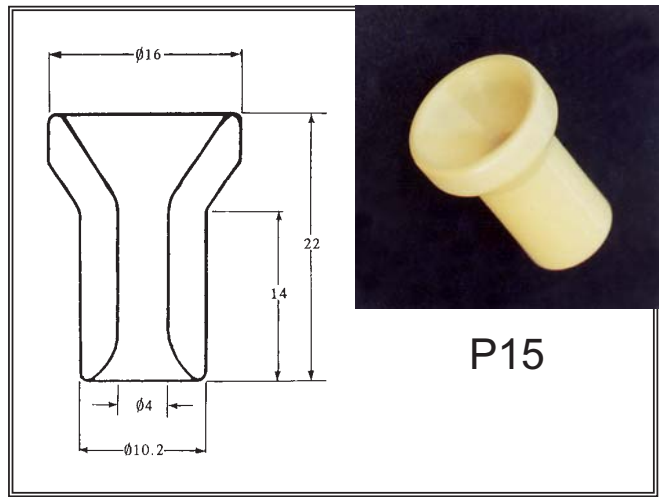
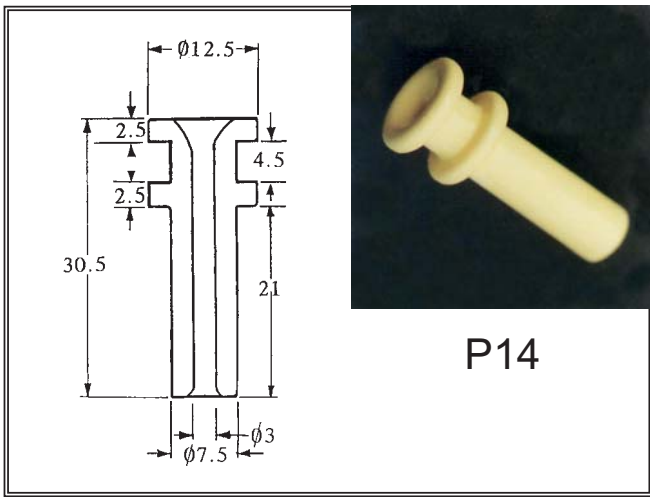
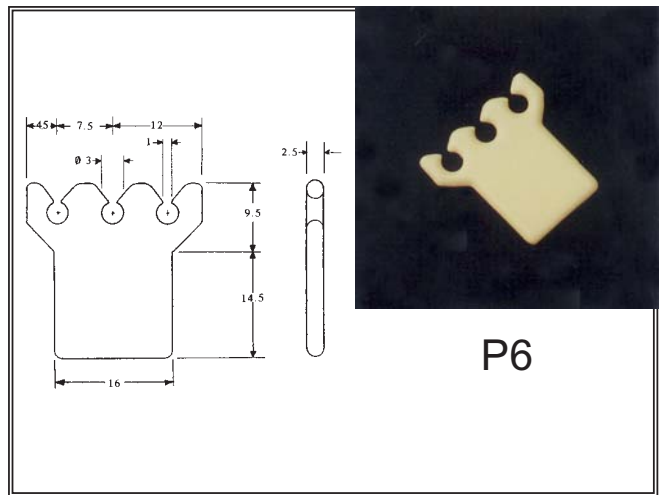
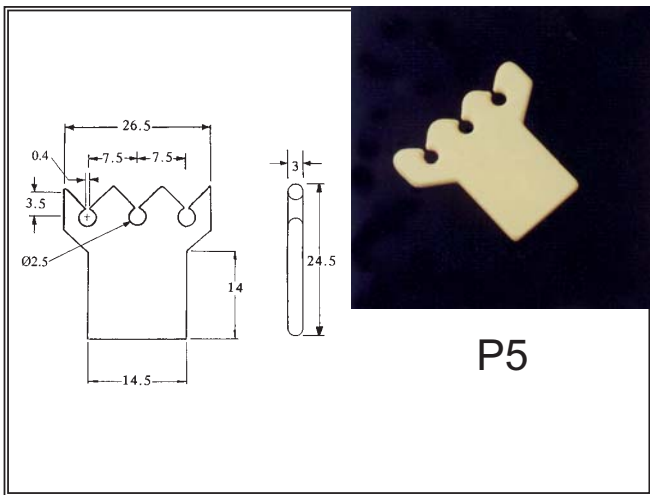
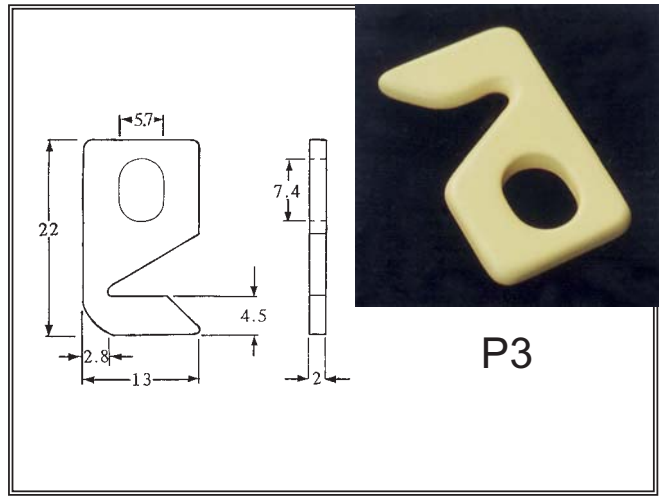
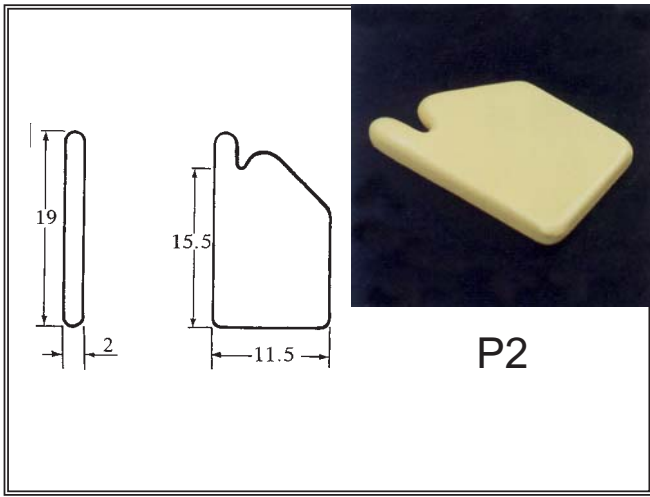
M91

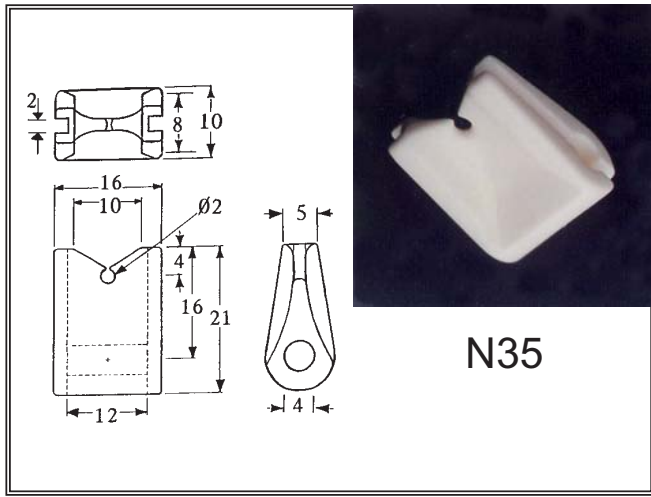


L31

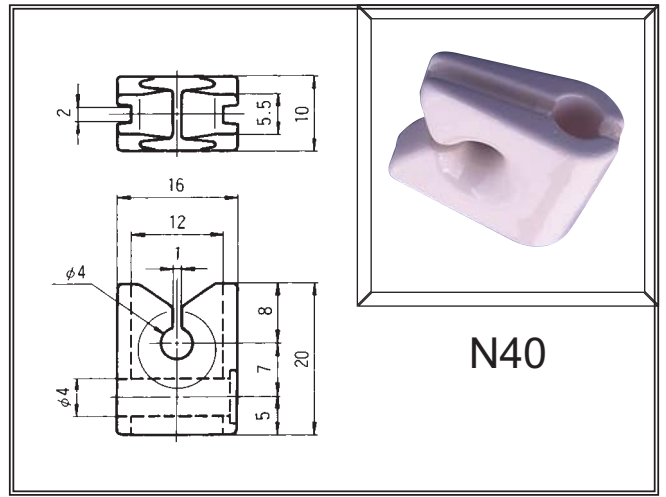


L32

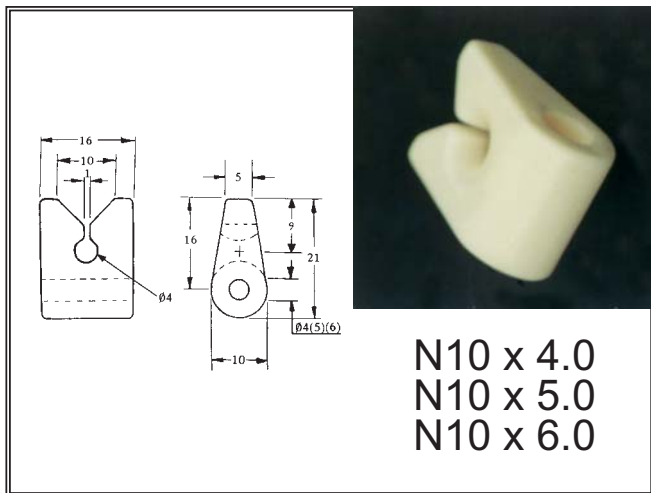




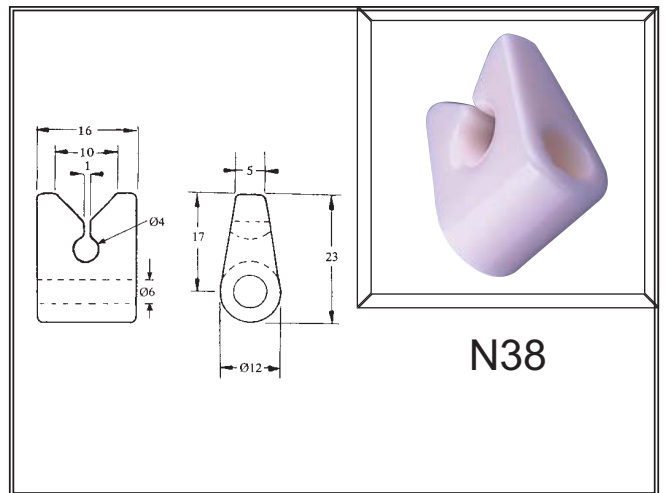
N35



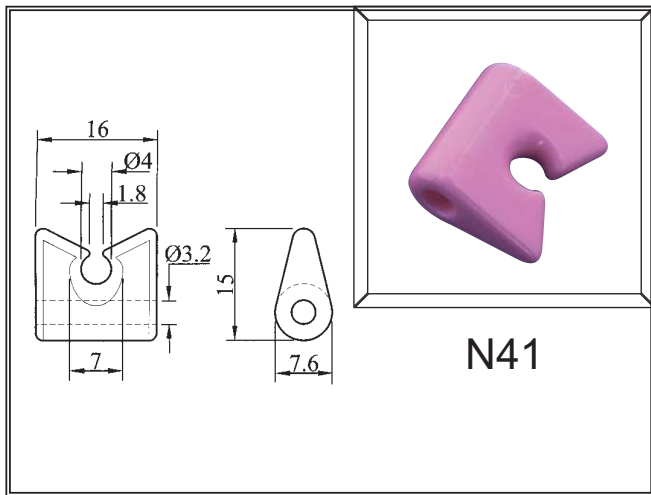
N40



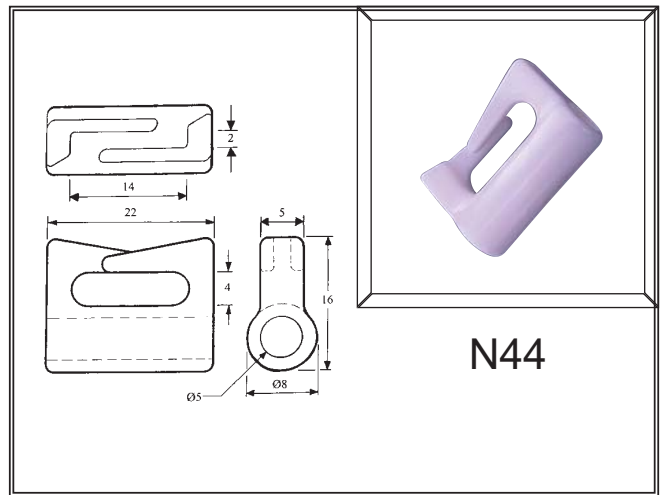
N10 x 4.0
N10 x 5.0
N10 x 6.0



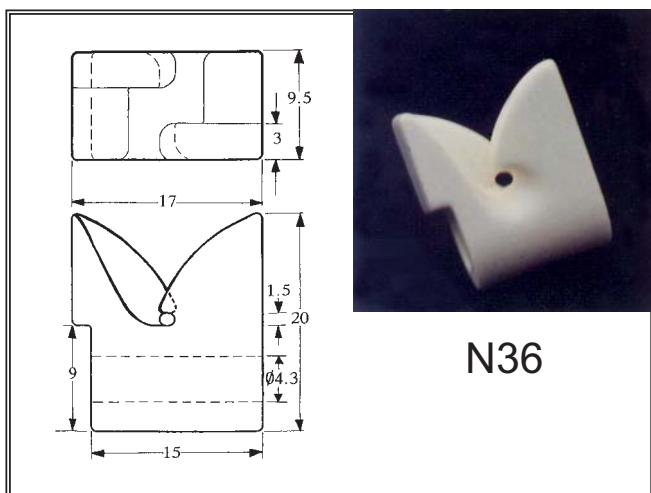
N38



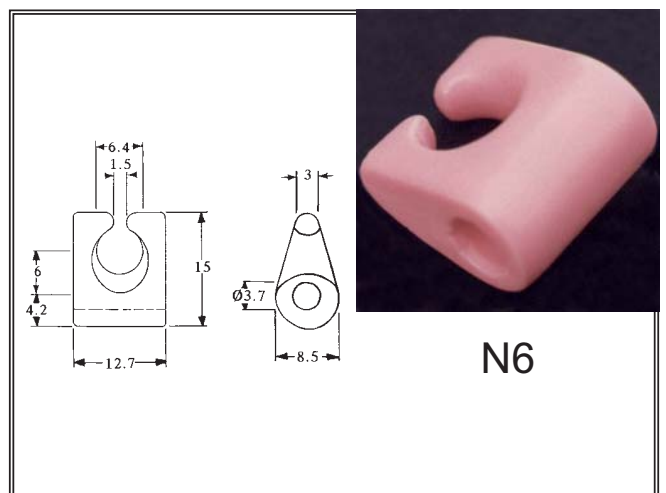
N41



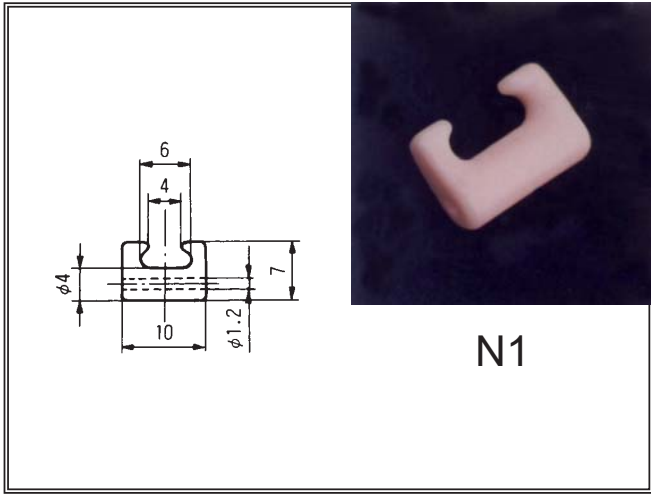
N44



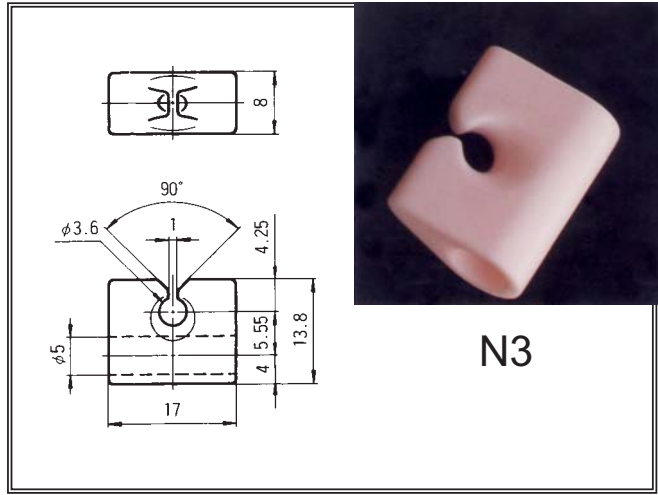
N36



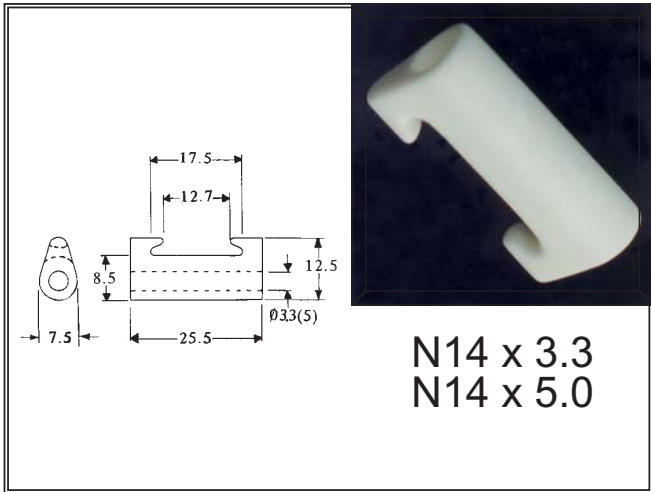
N6



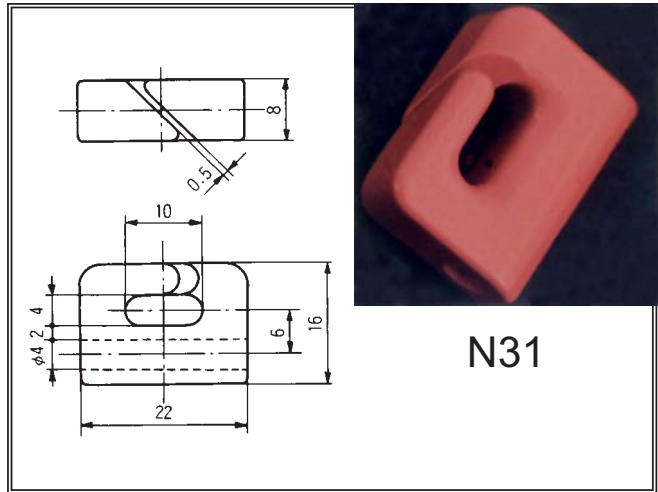
N1



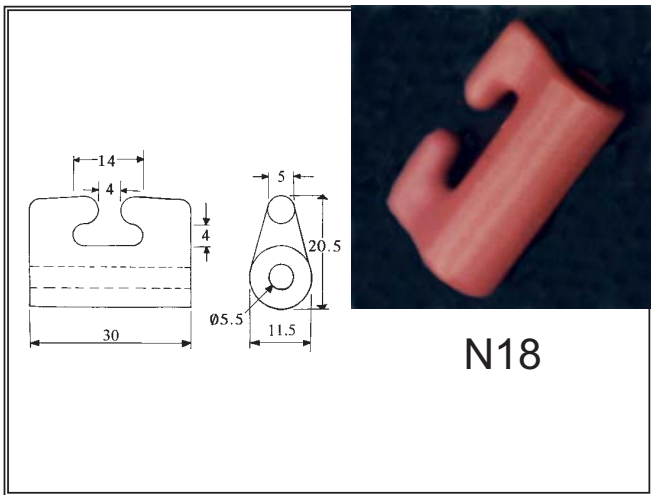
N3



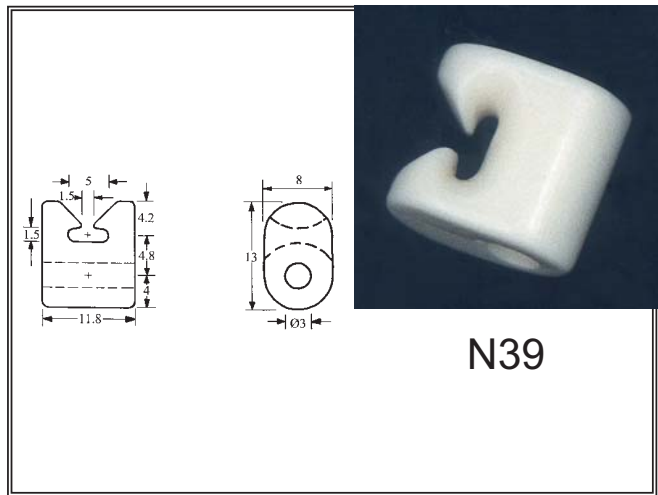
N14 x 3.3
N14 x 5.0



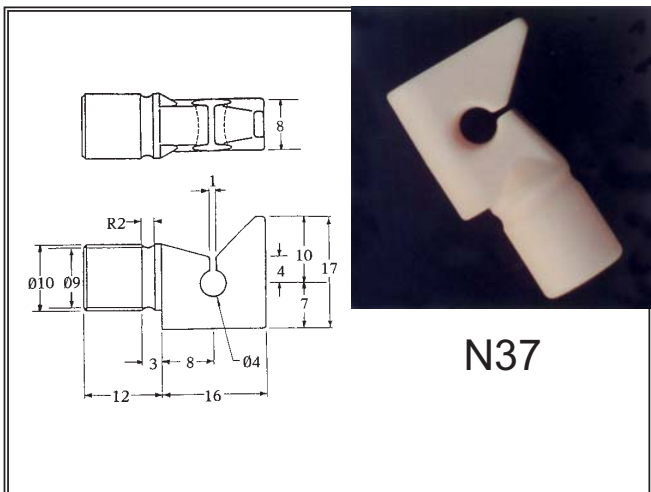
N31



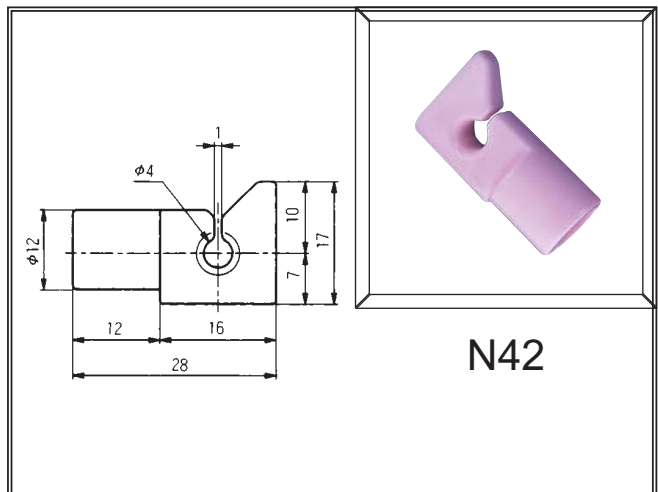
N18



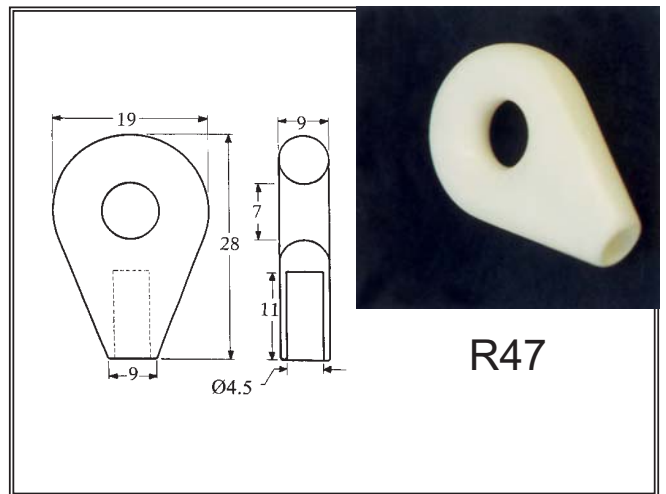
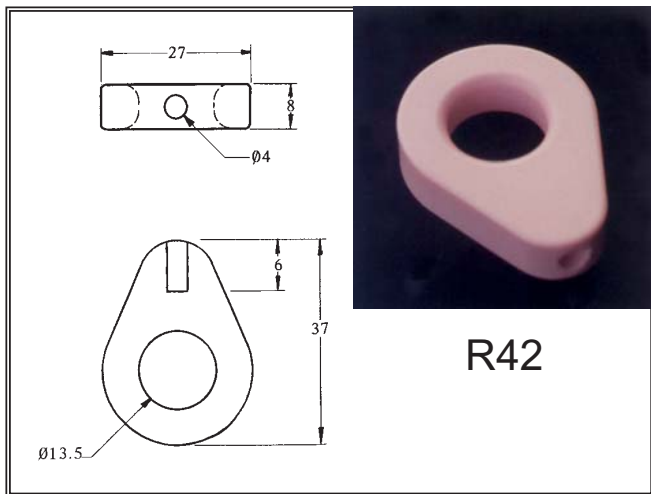
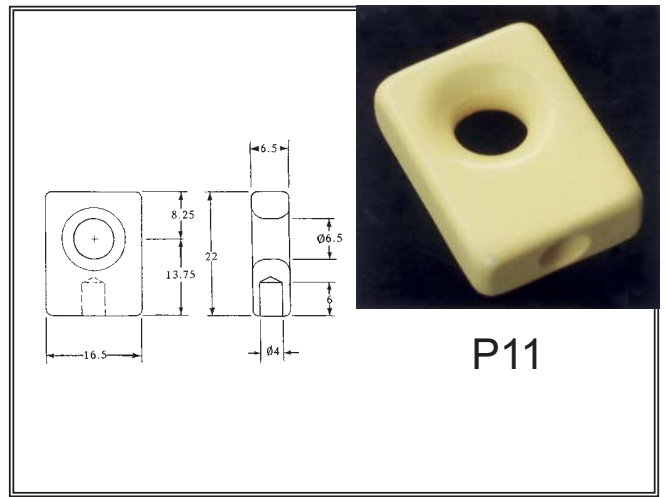
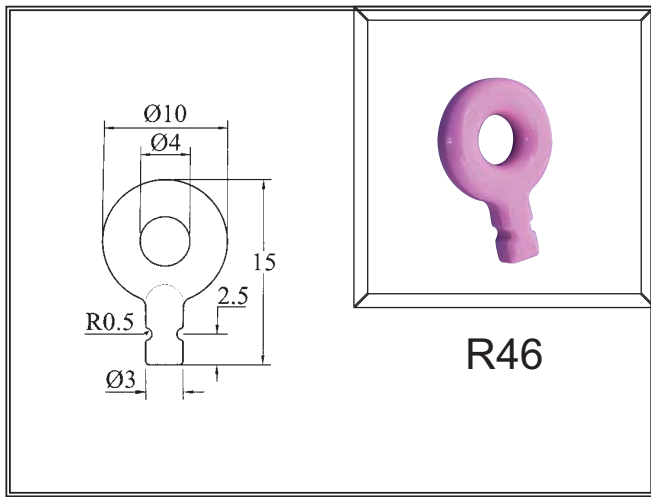
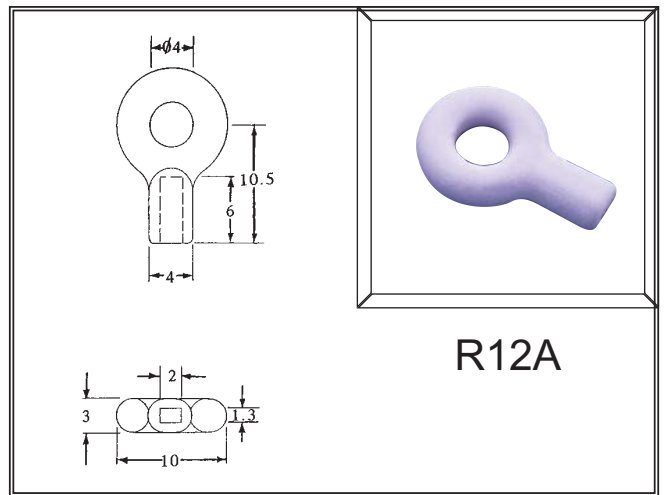
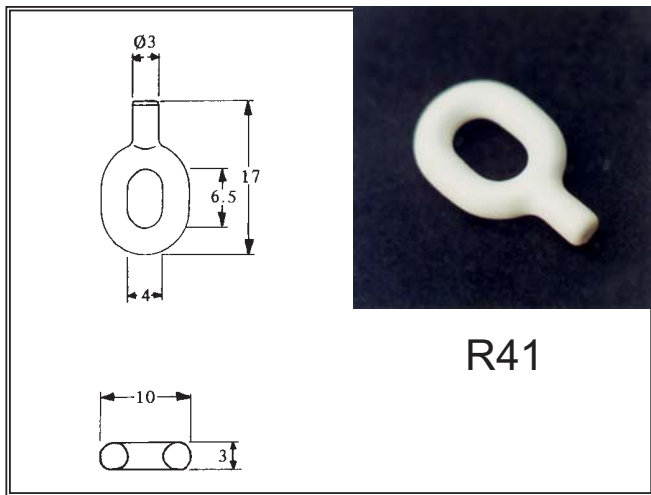
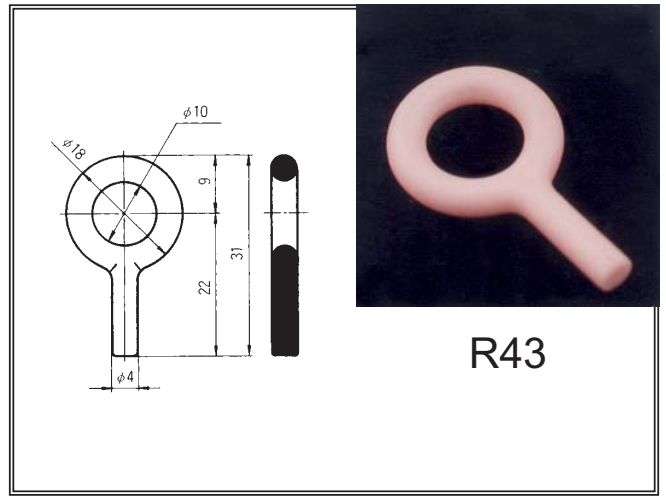
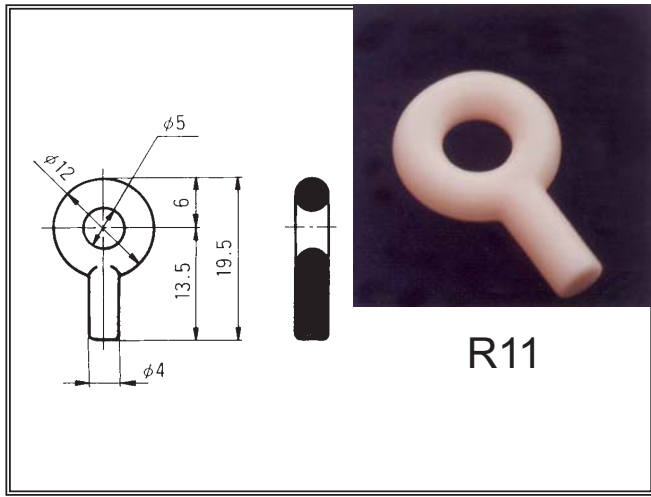
N39

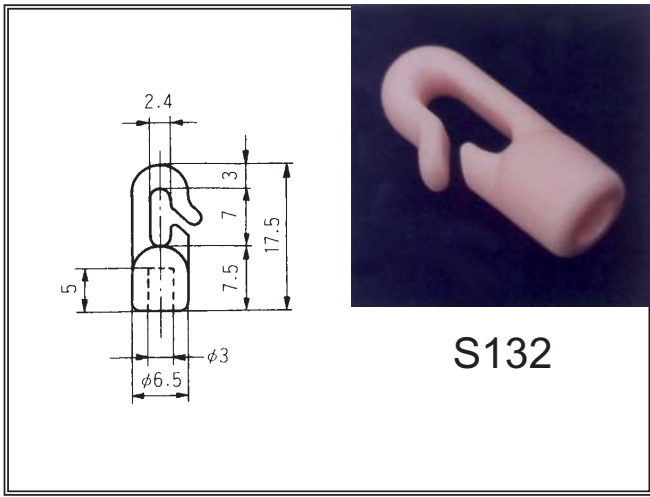


N37

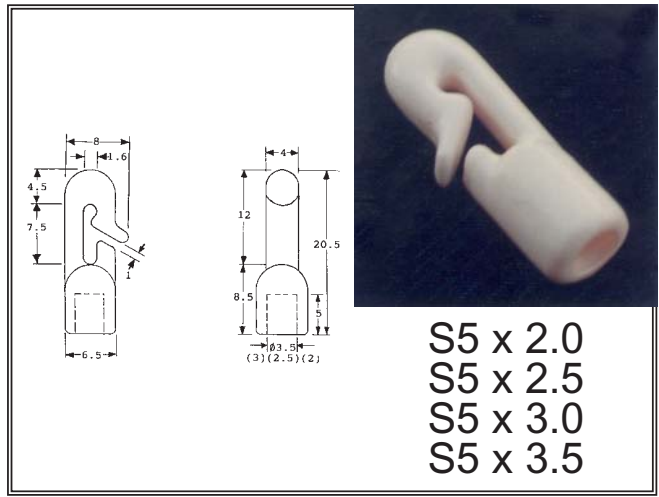


N42

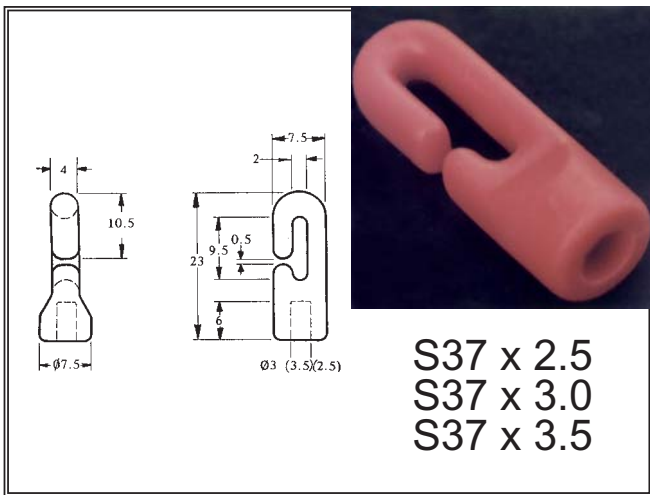




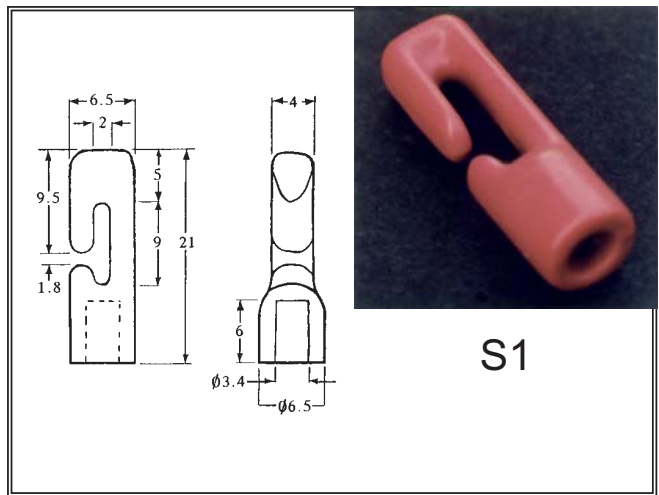
S132



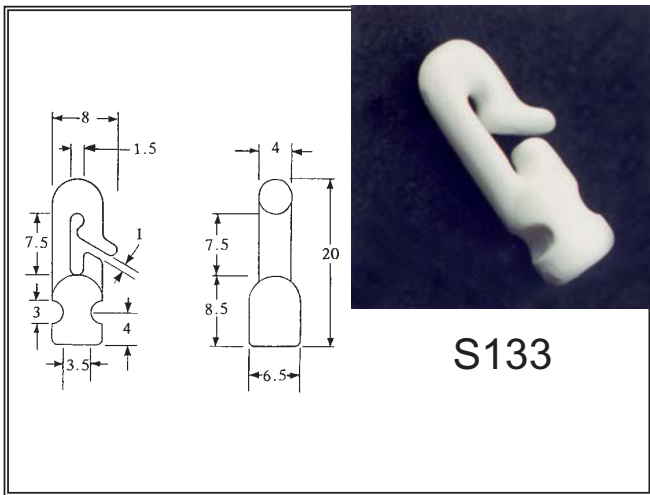
S5 x 2.0
S5 x 2.5
S5 x 3.0
S5 x 3.5



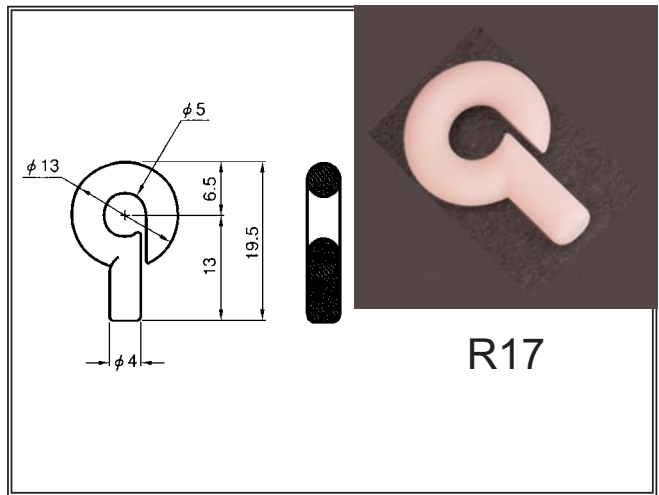
S37 x 2.5
S37 x 3.0
S37 x 3.5



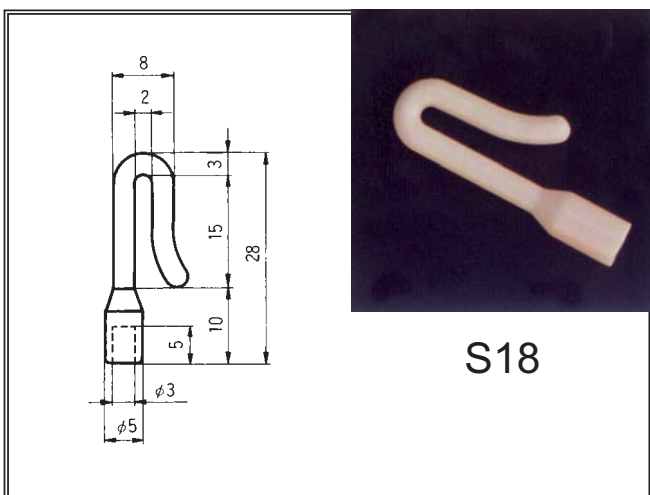
S1



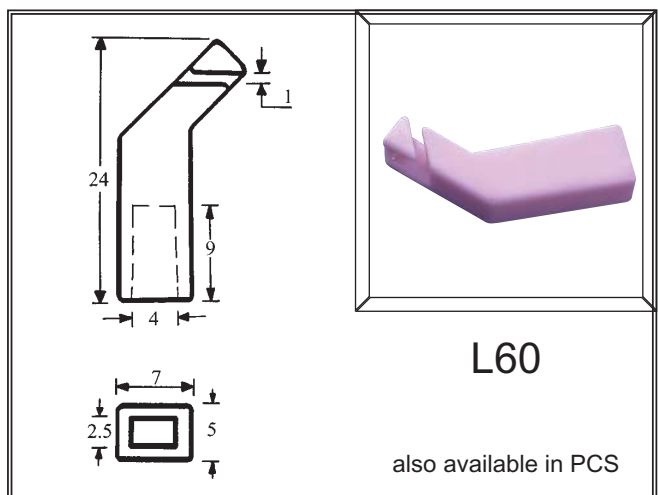
S133



R17

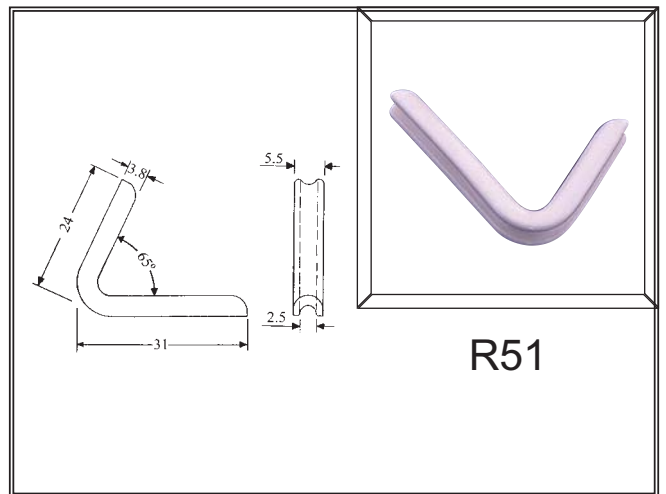
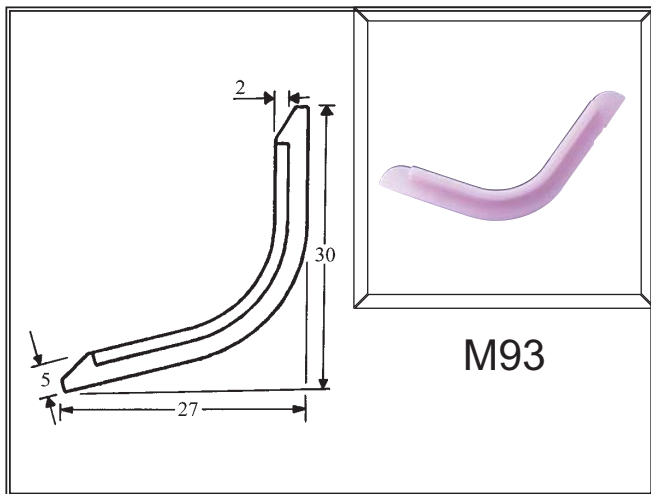
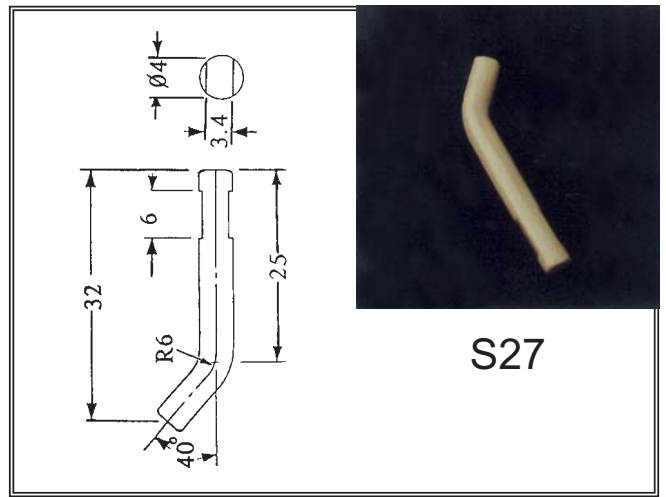
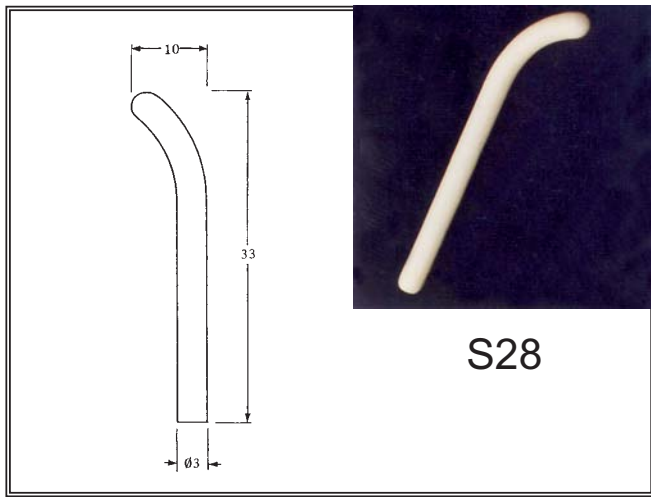
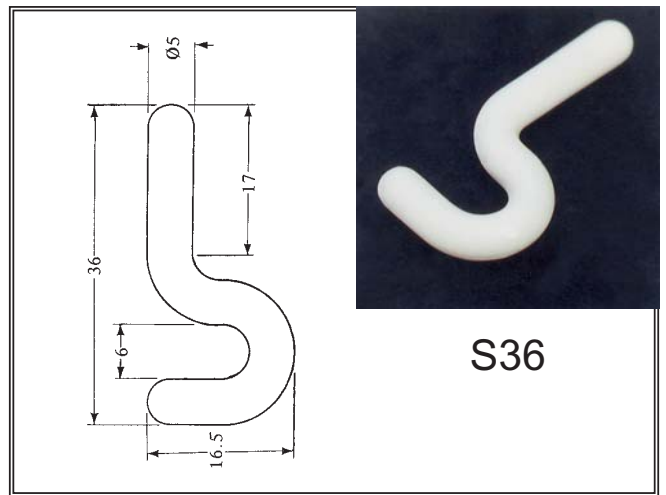
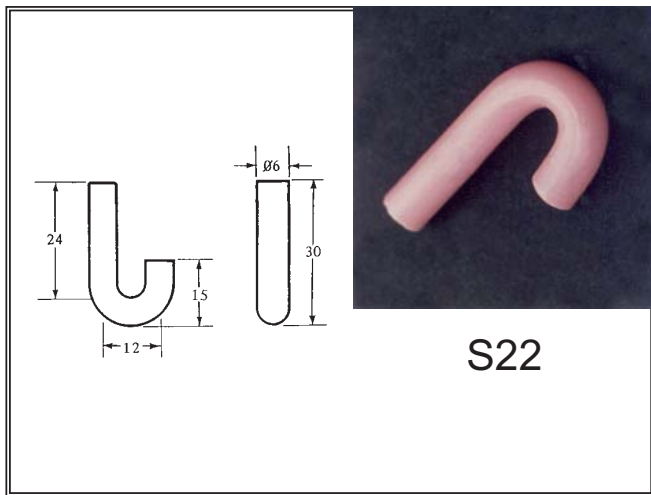
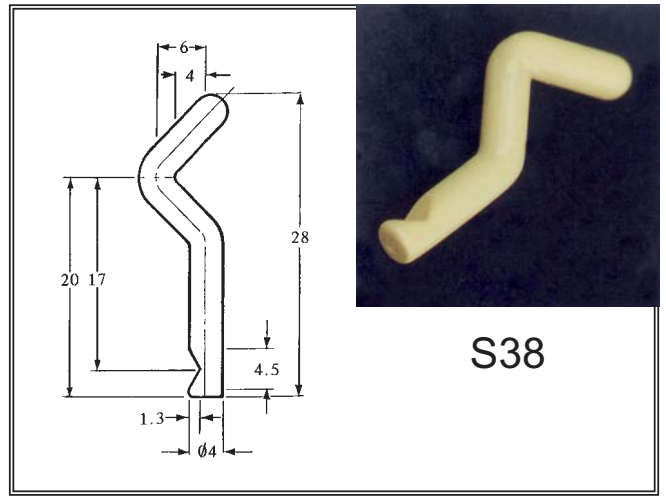
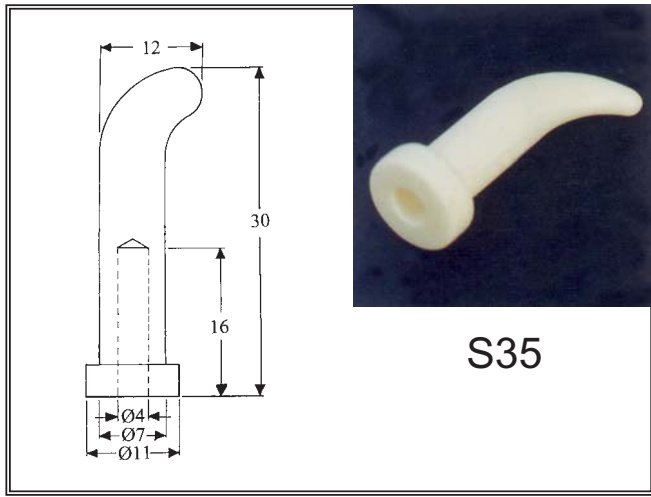


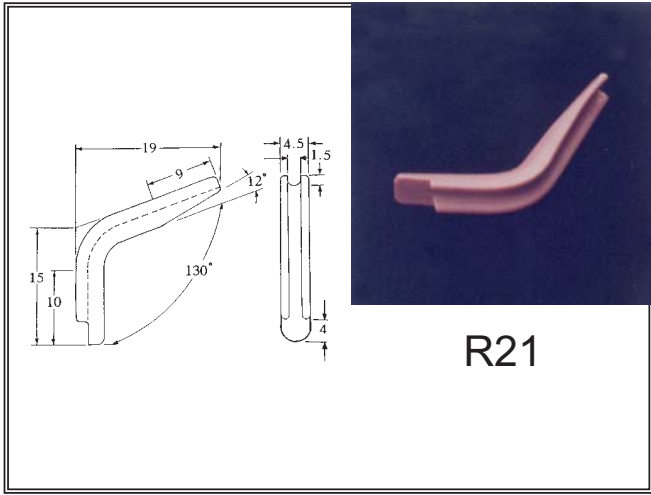
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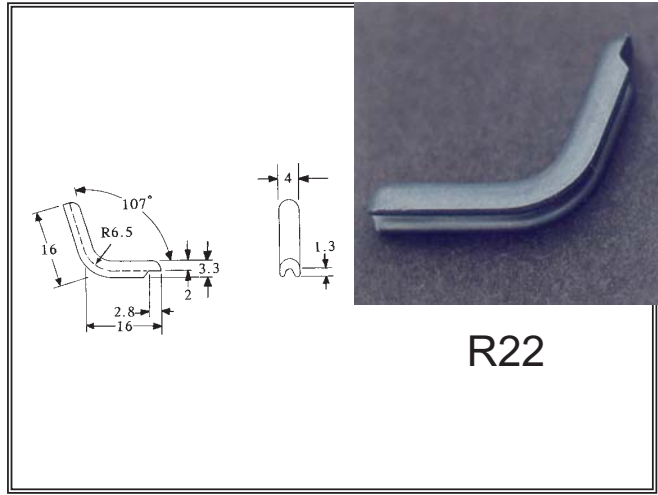
L60

also available in PCS

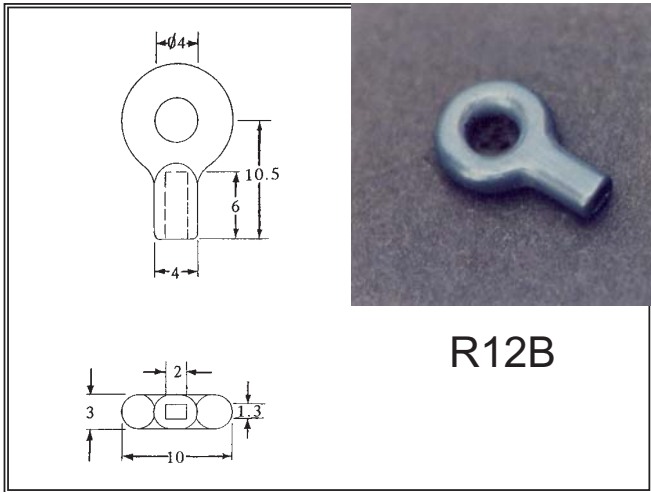




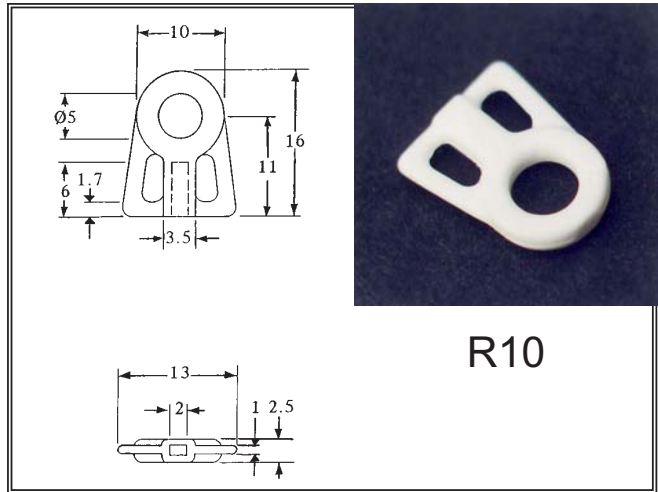
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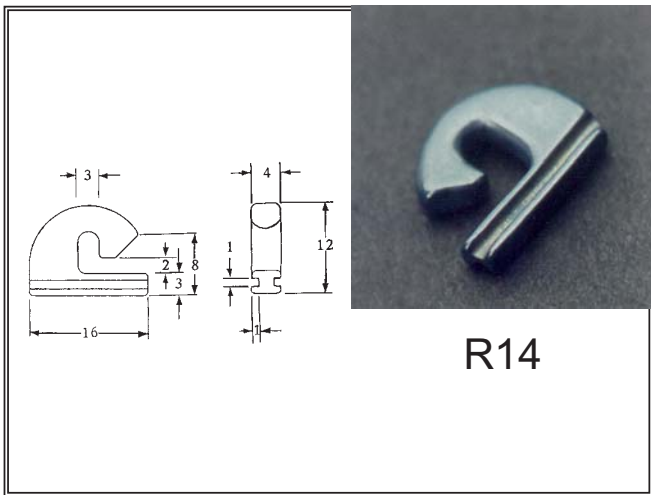
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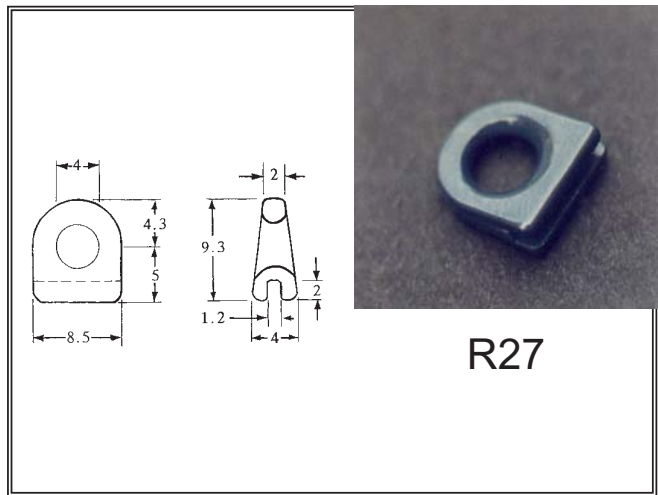
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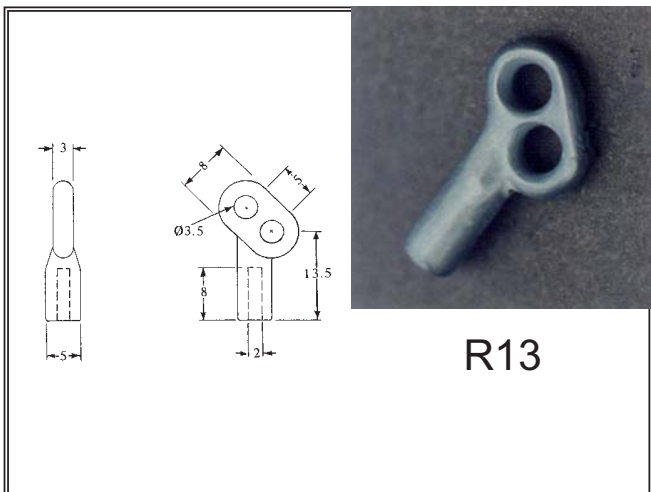
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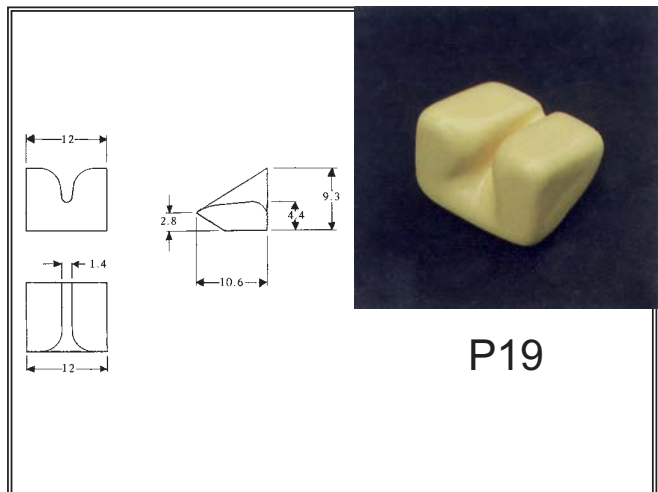
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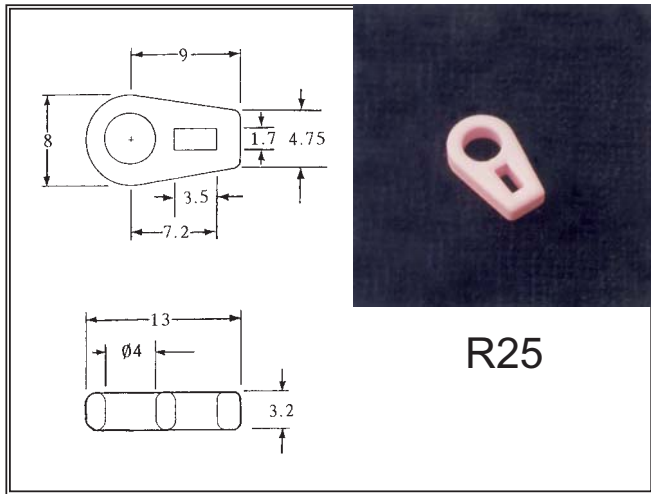
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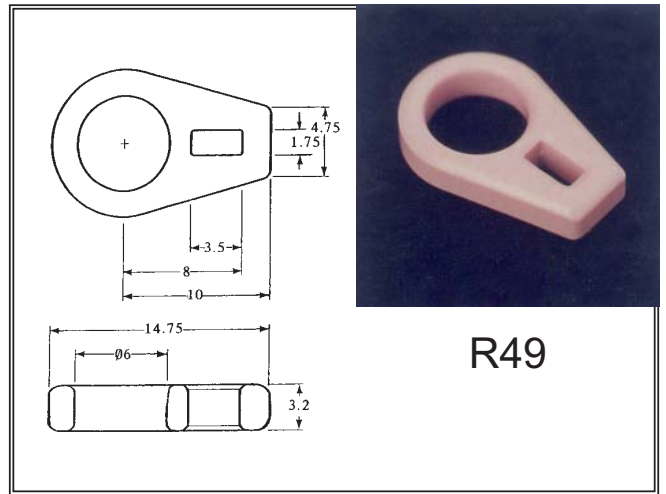
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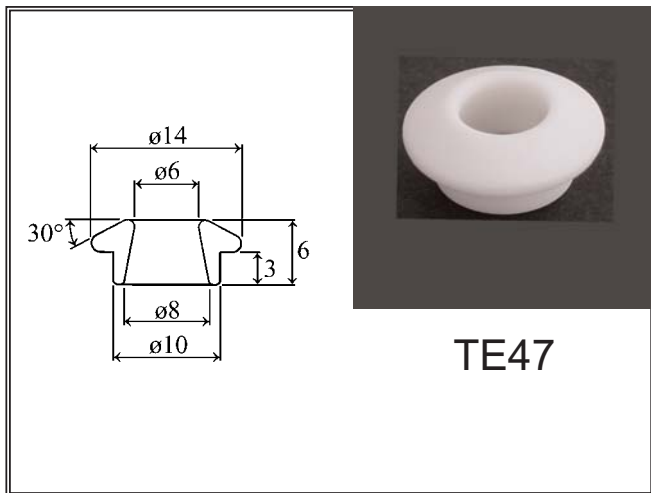
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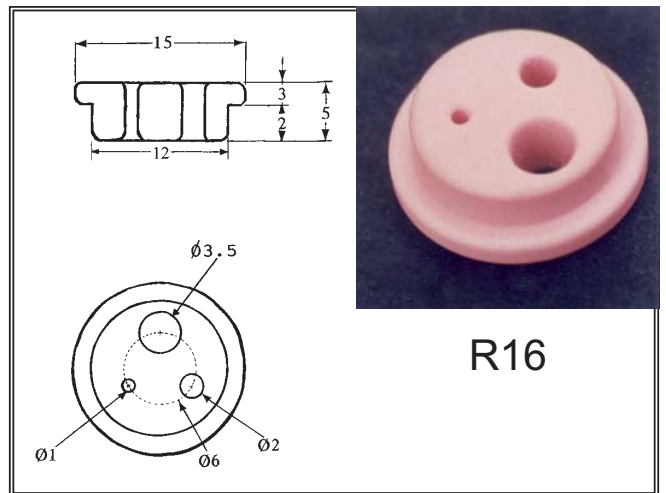
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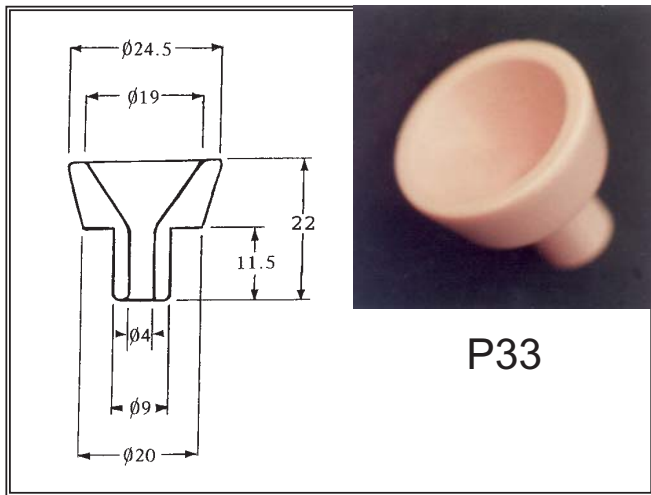
R49



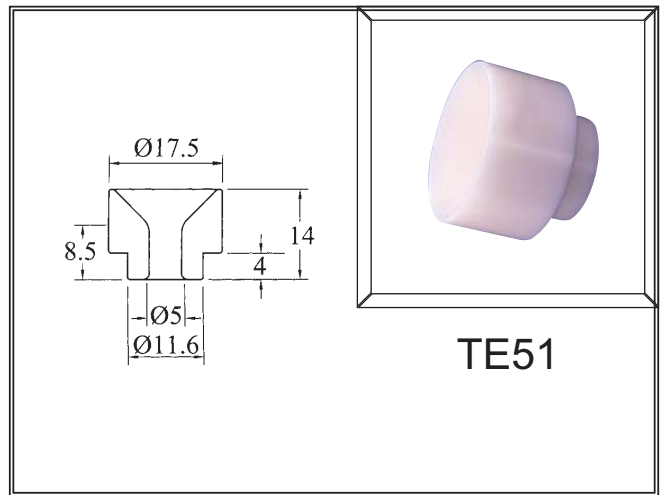
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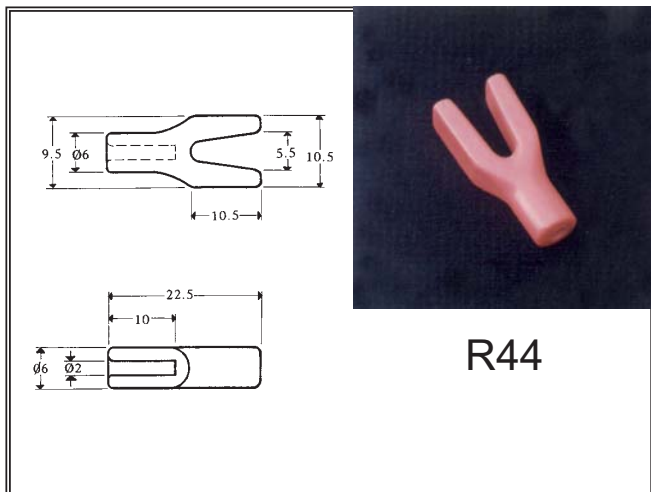
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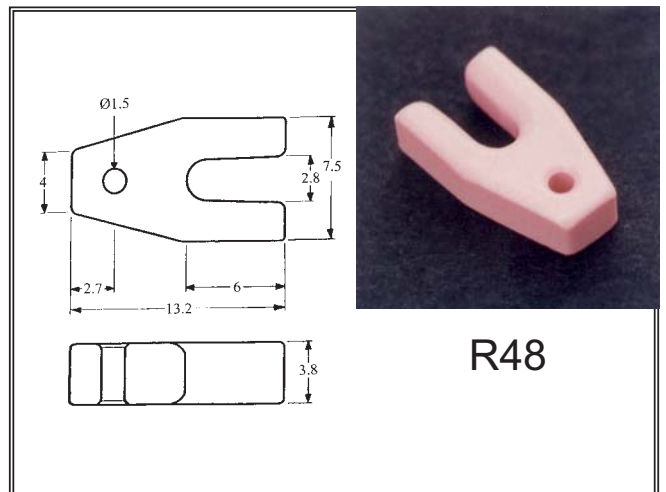
P33



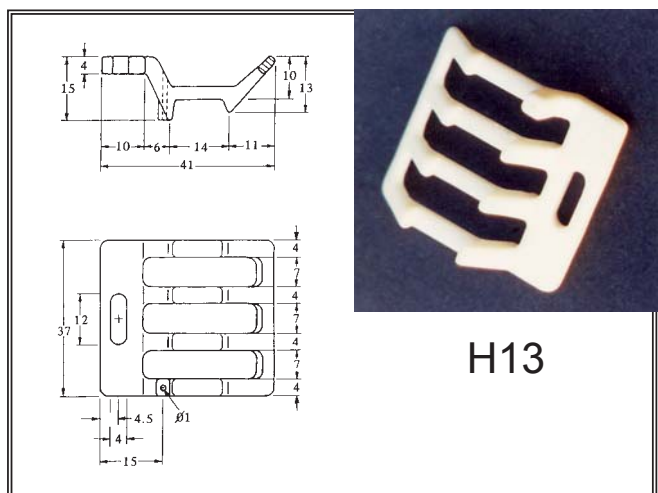
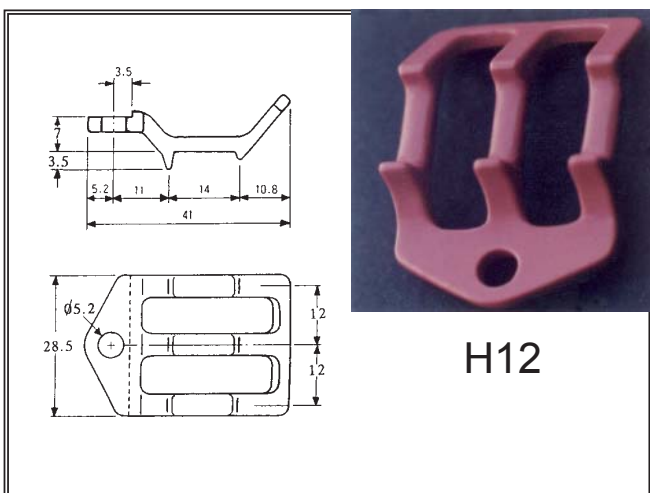
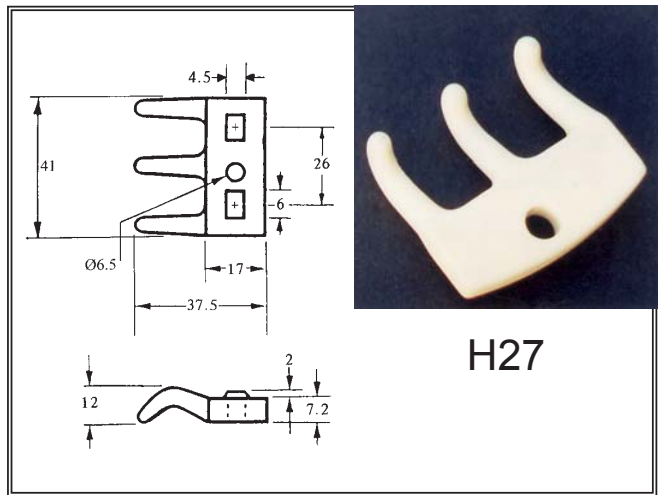
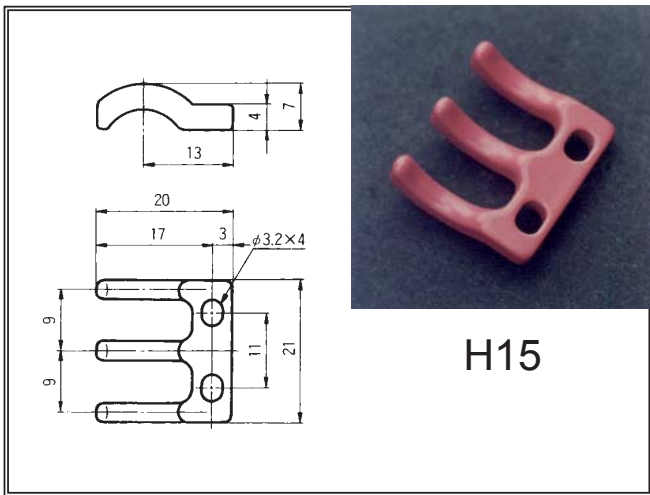
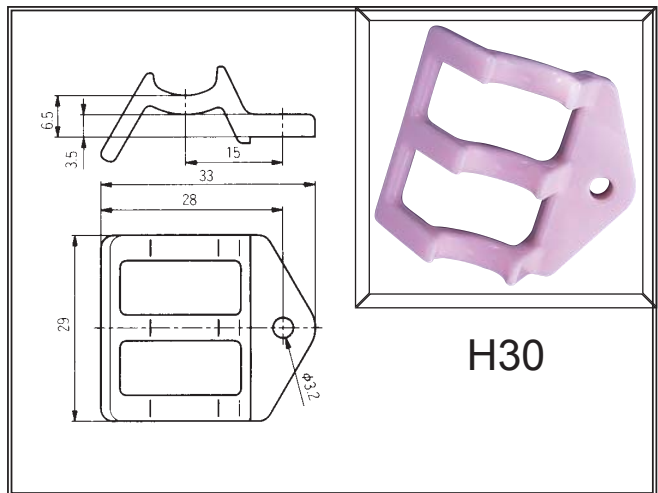
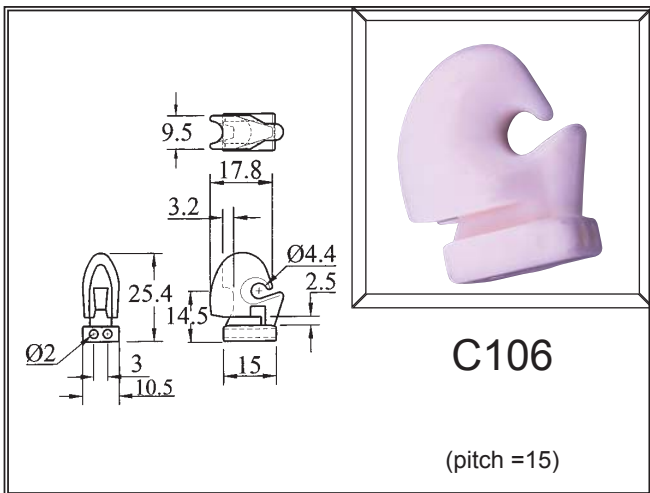
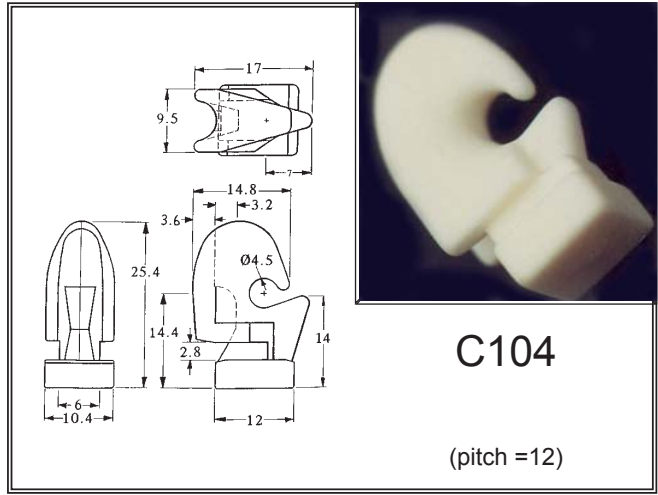
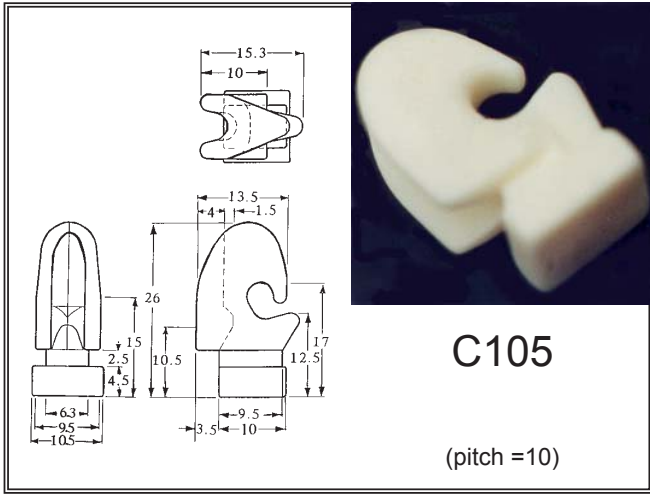
TE51



R44



R48



Yarn Slot Width

AP30	1.0
AP31	1.3
AP32	2.0

AP37

Yarn Slot Width = 1.2

AP36

Yarn Slot Width = 1.5

AP35

Yarn Slot Width = 1.0

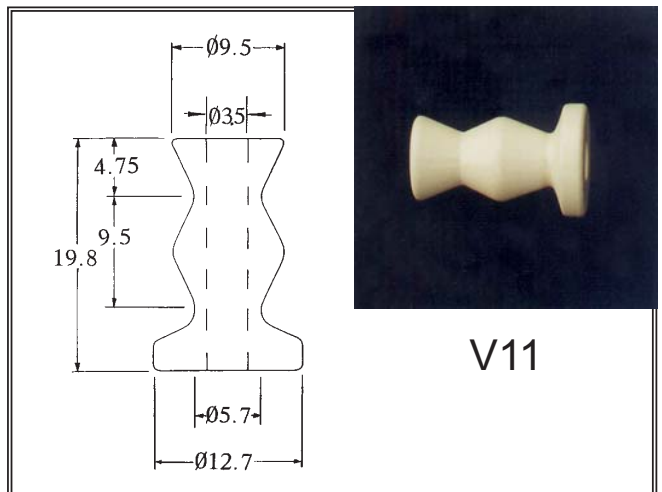
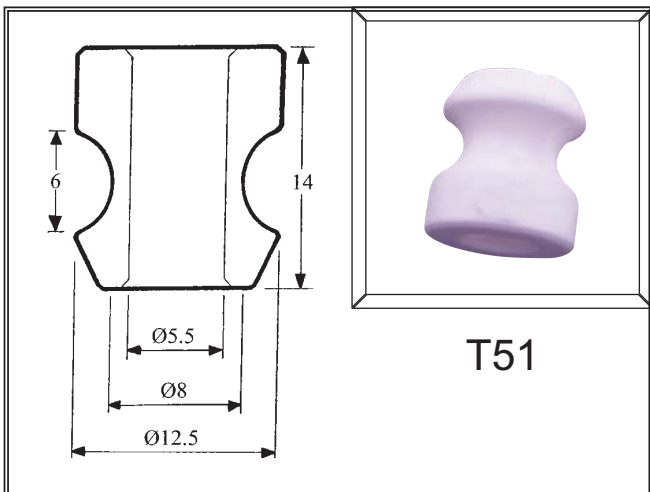
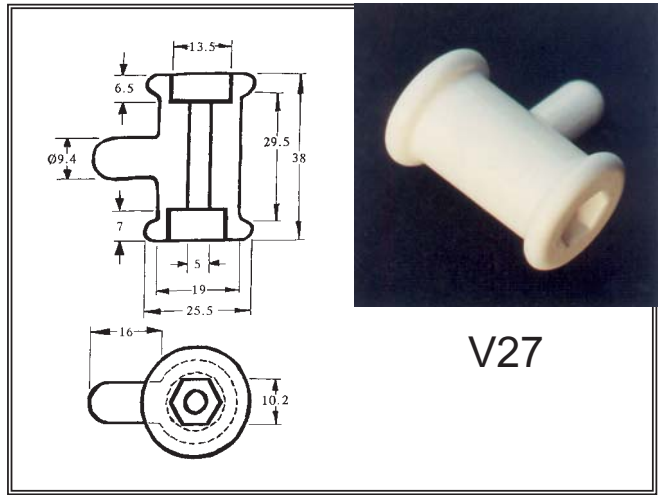
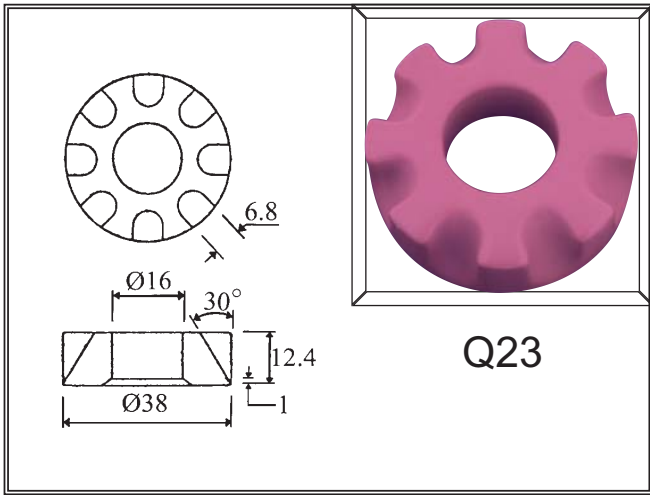
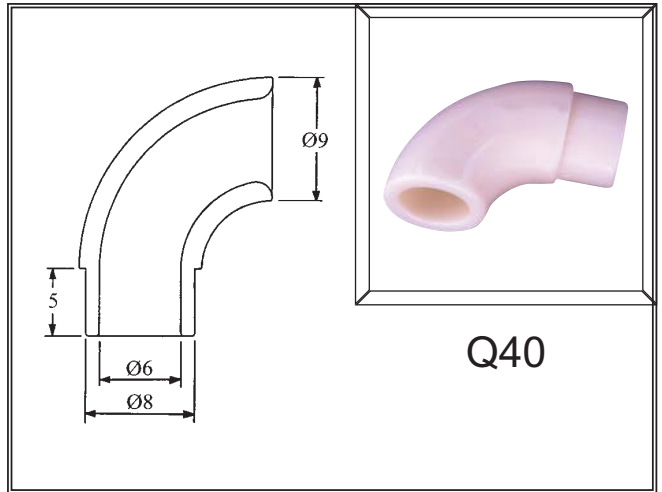
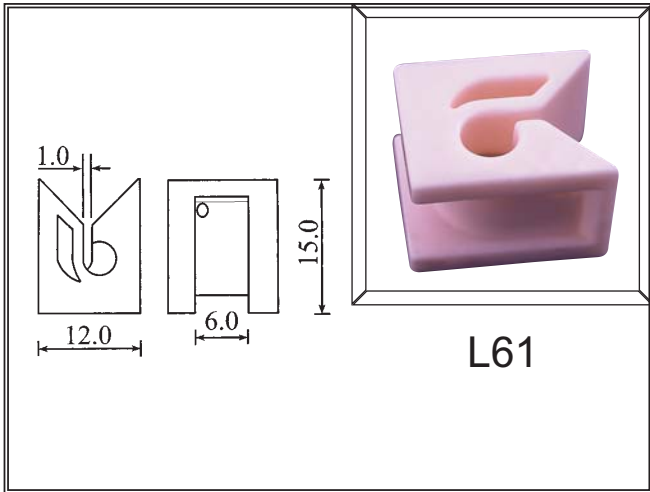
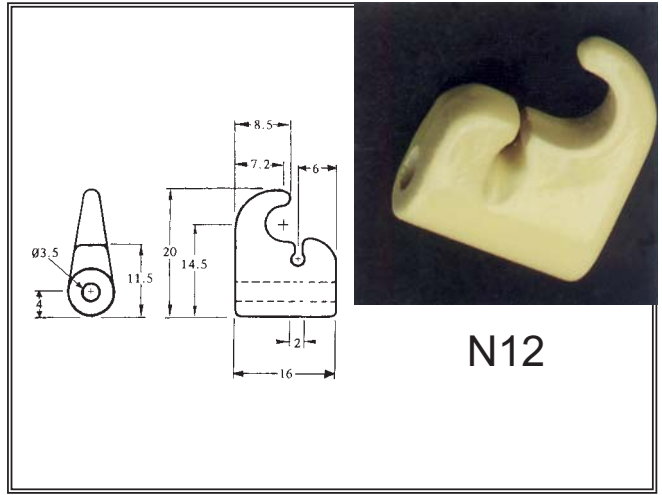
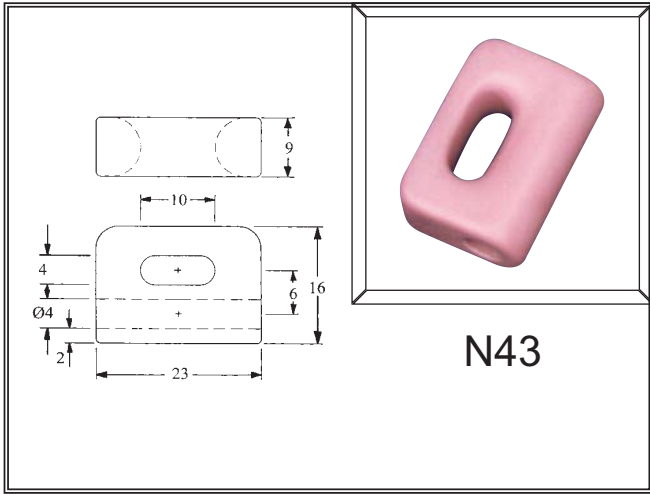
AP29

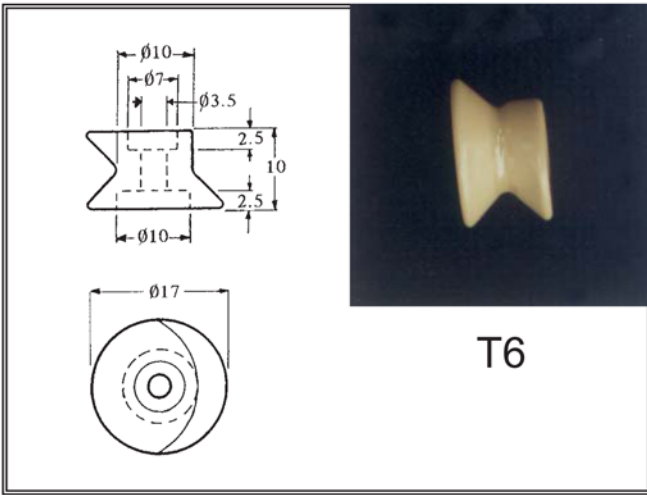
Yarn Slot Width

AP23	0.5
AP21	4.0

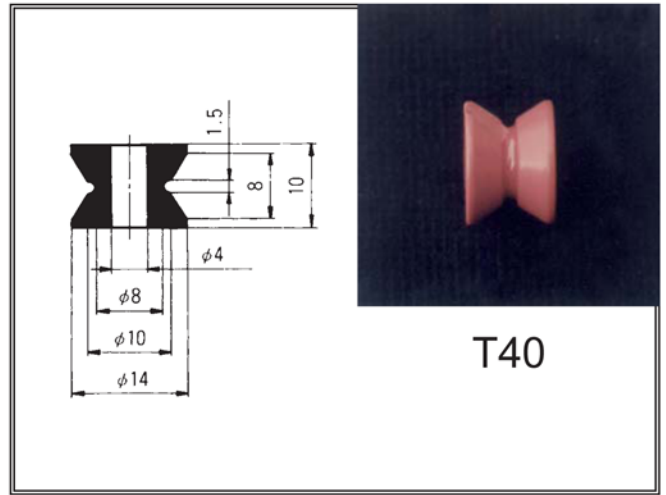
	L	X°	Y	Z
AP41	45	30	2	0.5
AP42	43	20	5	0.5
AP43	43	20	6	0.3

	A	B
AP44	31	24
AP45	34	25

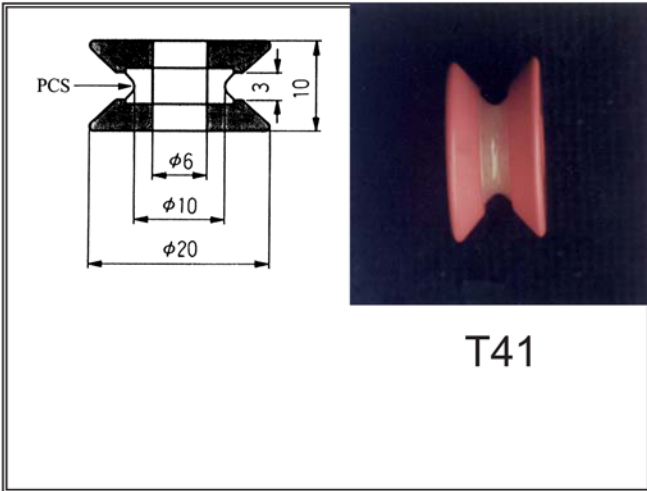




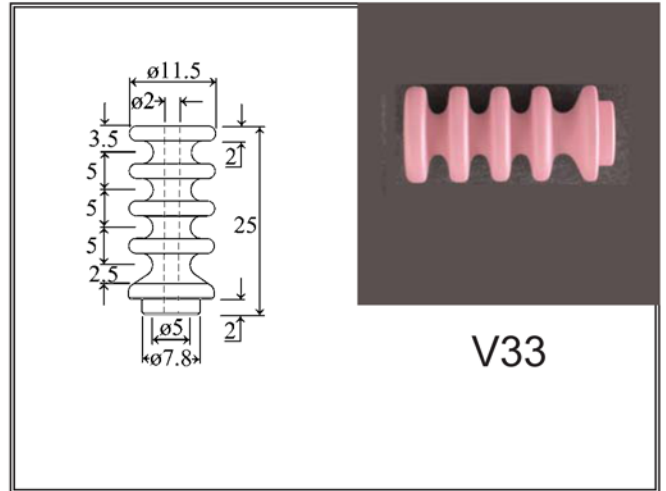
T6



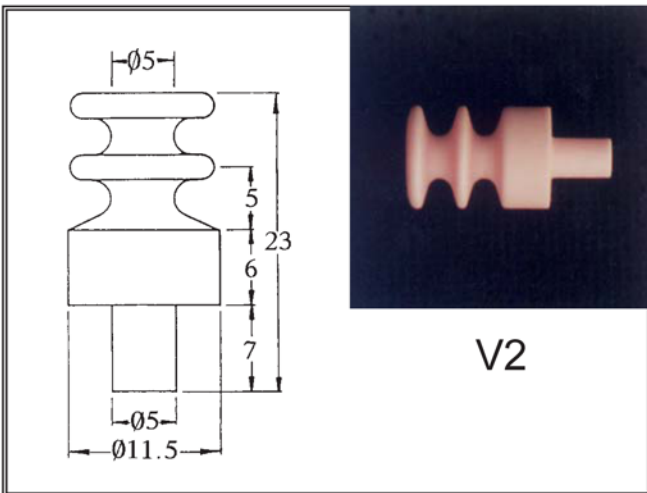
T40



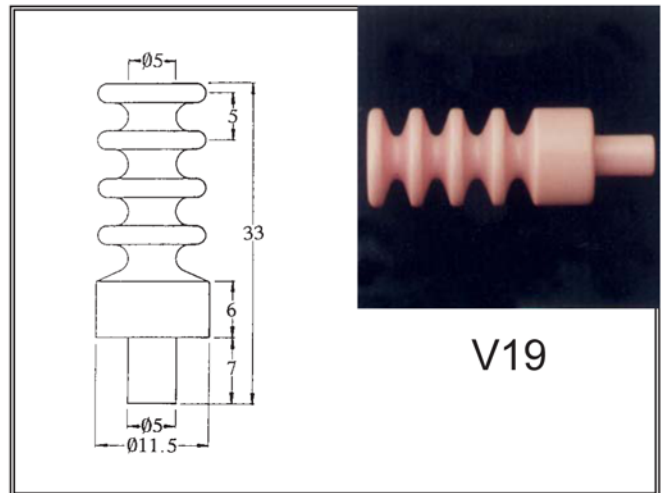
T41



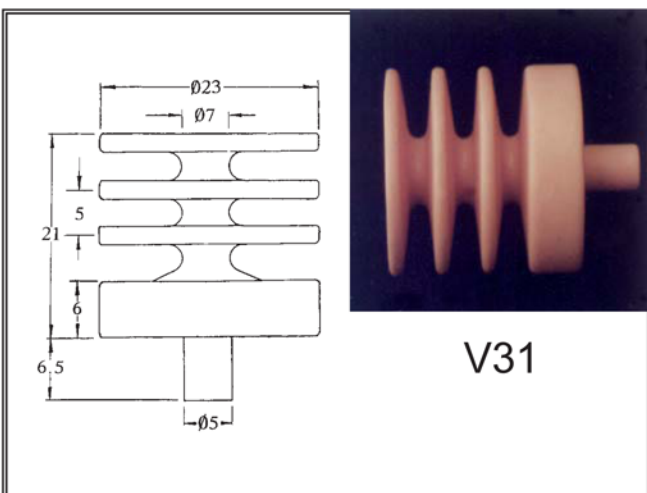
V33



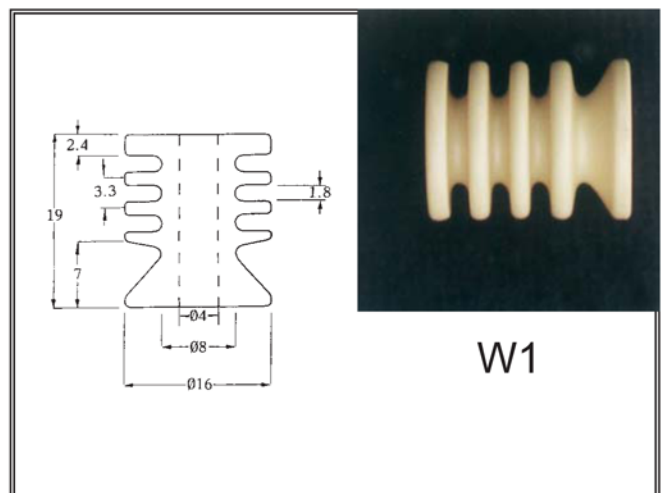
V2



V19



V31



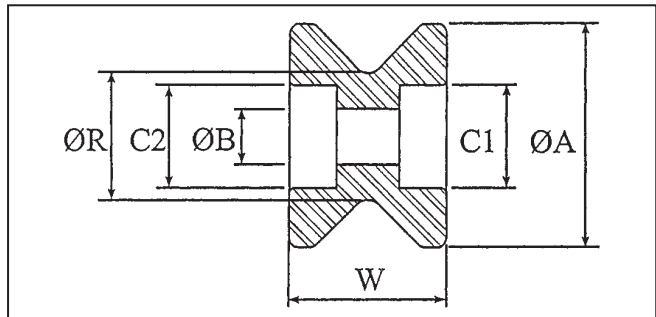
W1

Single Groove Rollers



CS = countersunk bore for screw

Ref.	øA	øB	øR	W	øC1	øC2
T34	14.0	3.2	10.0	8.0		
T2	14.0	4.3	10.0	10.0		
T42	14.0	3.5	8.0	10.0	6.5 x 3.0	
T3	16.0	4.0	10.0	9.0		
T4U	16.5	4.0	8.5	9.0		
T4V	16.5	4.0	8.5	9.0		
T28	17.0	4.0	10.0	9.0		
T37	17.0	5.0	8.0	7.0		
T25	17.0	6.0	8.0	11.0		
T47	17.0	3.3	10.0	9.5		
T32	18.0	5.0	10.0	8.0		
T23	18.2	3.3	9.5	9.0	8.0 x 0.5	
T9	19.0	3.2	10.2	12.8		
T33	20.0	4.3	9.5	11.0	10.0 x 2.0	
T45	20.0	4.3	10.0	14.1	14.4 x 2.0	14.4 x 2.0
T44	20.0	6.0	8.0	10.0		
T13A	20.5	5.0	10.0	13.5	CS	
T13	20.5	3.0	10.0	13.6	7.8 x 3.0	
T36	23.5	9.6	15.0	8.0		
T35	24.9	6.0	14.1	13.1	9.0 x 1.5	
T15	25.0	6.0	10.0	18.0	9.0 x 1.5	
T38	25.6	4.0	20.0	7.8	15.2 x 1.3	15.2 x 1.3

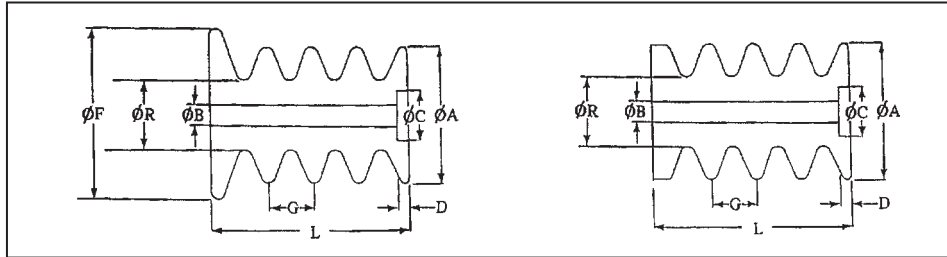
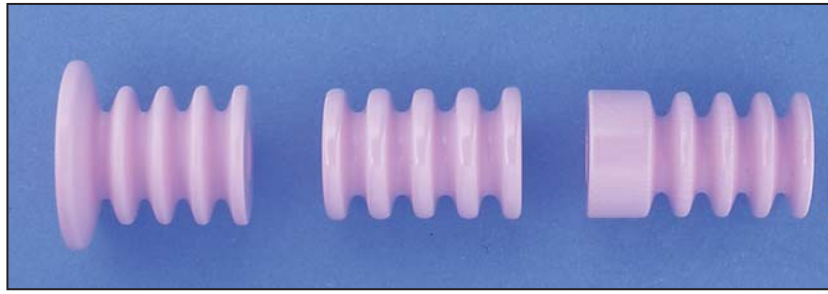


Ref.	øA	øB (to clear)	øR	W	øC1	øC2
T26*	29.3	6.0	16.5	14.0	9.0 x 1.5	9.0 x 0.8
T27*	29.3	6.0	10.0	14.0	9.0 x 1.5	9.0 x 0.8
T39	29.8	6.0	17.2	9.0	9.0 x 2.0	9.0 x 0.8
T21	38.7	4.0	26.0	9.0		
T21A	38.7	6.3	26.0	9.0		
T29	39.0	10.0	21.0	16.0		
T30	39.0	15.0	21.0	16.0		

*asymmetric groove

Drawings available upon request

Multi Groove Rollers

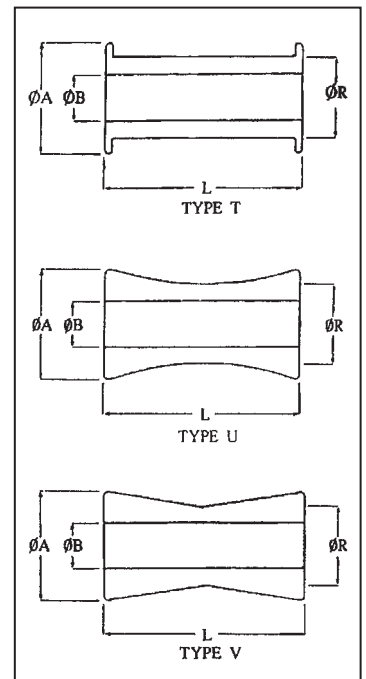


Ref	ϕA	ϕB	ϕR	ϕF	L	G	No of grooves	ϕC	D
W28	13.50	5.00	9.00		34.00	7.00	5		
V32	13.70	3.30	10.00		15.60	4.80	2		
W25	14.00	3.50	9.00		20.00	4.00	3	9.00	4.00
W26	14.00	3.30	6.00		21.00	4.50	3		
W27	15.00	4.30	9.00		20.00	3.60	4		
W35	15.00	5.00	8.00		26.50	3.00	8		
W6	15.75	3.18	7.60		30.30	3.50	6		
W37	15.90	6.30	9.00	20.00	22.00	4.60	4		
V13	16.00	3.50	8.00		19.00	3.50	3		
W31	16.00	5.30	10.00	21.00	34.00	6.00	5		
W3	16.00	6.20	9.50		27.00	4.80	4		
W9	16.00	3.50	9.50		36.50	6.30	5		
V29	16.50	4.50	10.50		12.50	4.70	2		
V28	16.50	4.50	10.50		15.80	4.20	3		
W29	16.50	4.50	10.50		18.00	4.00	4		
V30	16.50	4.50	10.50		24.00	6.00	4		
V9	17.00	5.00	8.00		20.00	10.00	2		
V10	17.00	6.00	8.00		23.00	12.00	2		
W21	17.60	3.50	10.00	23.80	9.00	—	1	6.00	4.00
W22	17.60	3.50	10.00	23.80	14.00	6.00	2	6.00	4.00
W23	17.60	3.50	10.00	23.80	20.00	6.00	3	6.00	4.00
W24	17.60	3.50	11.00	23.80	22.00	5.00	4	6.00	4.00
W30	21.00	5.30	8.20		20.00	9.00	2		
W36	21.00	5.30	9.00		21.00	5.00	3		
W32	29.00	6.20	16.00		26.00	12.50	2	10.00	3.00

*Counter bore both ends

Drawings available upon request

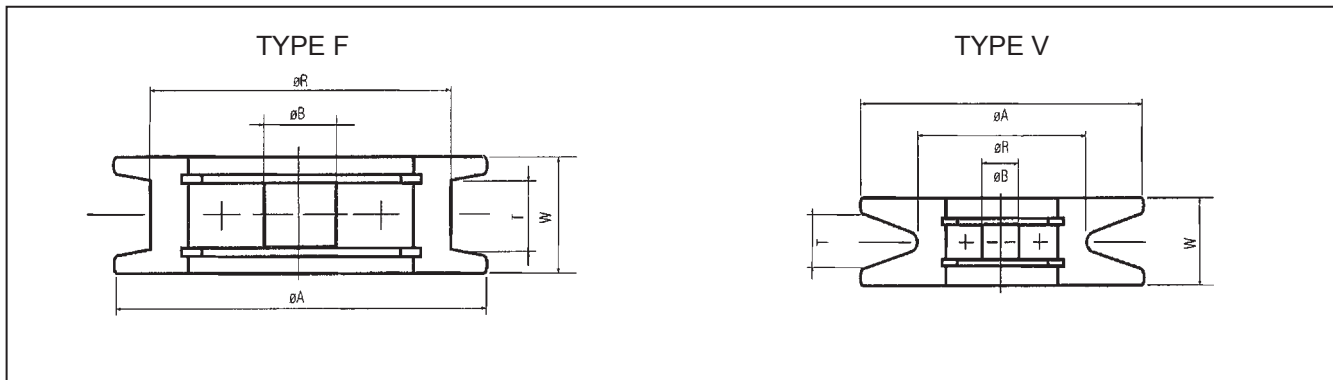
Bobbins and Diabolos



Ref.	ϕA	ϕB	ϕR	L	Type
U11	4.50	2.20	3.50	25.00	U
U18	6.00	2.00	3.50	10.50	U
U16	6.50	3.10	5.40	19.00	U
U42	8.00	3.00	5.00	10.00	U
U36	8.20	4.00	6.20	10.50	U
U37	10.80	3.20	6.80	20.00	T
U32	12.00	6.00	11.50	12.00	V
U33	12.00	6.00	10.40	20.00	U

Ref.	ϕA	ϕB	ϕR	L	Type
U34	15.00	7.50	10.40	20.00	U
U27	15.00	4.00	8.00	15.00	V
U29	15.20	4.00	9.00	21.00	T
U35*	20.00	6.30	10.00	20.00	V
U25	20.00	6.30	10.00	25.00	V
U25C*	20.00	6.30	10.00	25.00	V
U28	20.00	6.30	10.00	25.00	U
U26#	38.00	4.50	19.00	32.00	T

CERAMIC BEARING ROLLERS

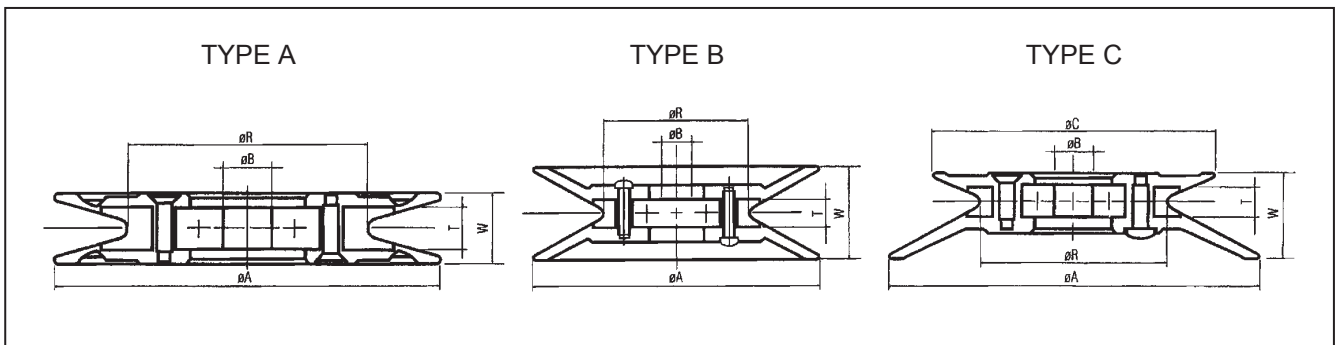


Part No	ϕA	ϕB	ϕR	W	T
CBR1V	8	1.5 or <u>2</u>	6	3	2.3
CBR2V	10	<u>2</u>	8	4	3
CBR3V	10.5	<u>2</u>	7	3.5	2.3
CBR4V	14	<u>3</u>	10	6	4
CBR5V	16.5	②, or <u>4</u>	13.5	7	4
CBR6V	17	<u>3</u>	13	12	7
CBR7V	20	②, <u>4</u> , 5 or 7	14	10	7
CBR8V	23	<u>3</u>	15	8	5.5
CBR9V	27	4, <u>5</u> or 6	15	11	8
CBR10V	27	4, <u>5</u> or 6	18.5	9.5	5.5
CBR11F	30	4, <u>5</u> or 8	22	10	5
CBR12F	30	<u>5</u>	20	24	10
CBR13V	30	<u>5</u>	15	11	9
CBR14V	40	4, <u>5</u> or 8	24	12	8
CBR15V	40	<u>8</u> or 10	27	24	18
CBR16F	50	<u>10</u>	40	16	10
CBR17F	50	<u>10</u>	40	24	18

②, = Special low torque bearing

Bearings (ϕB) underlined indicate standard sizes

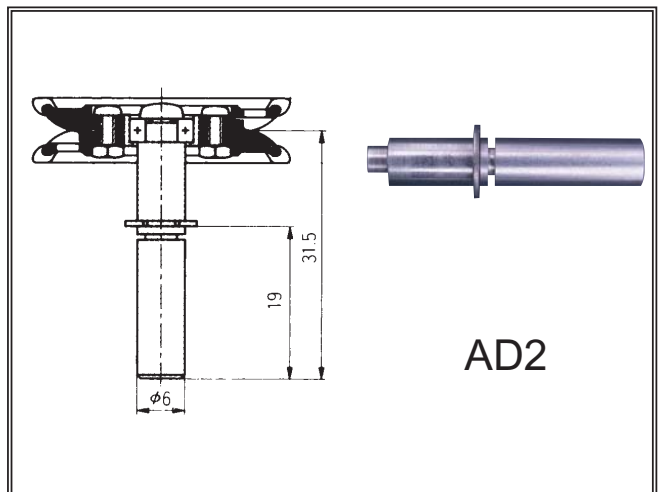
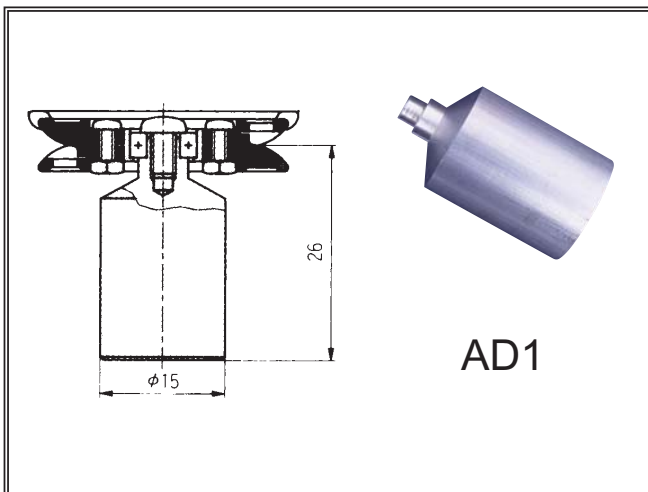
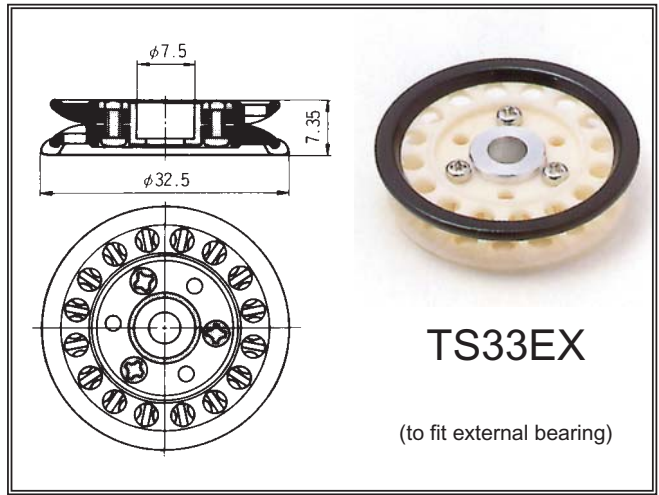
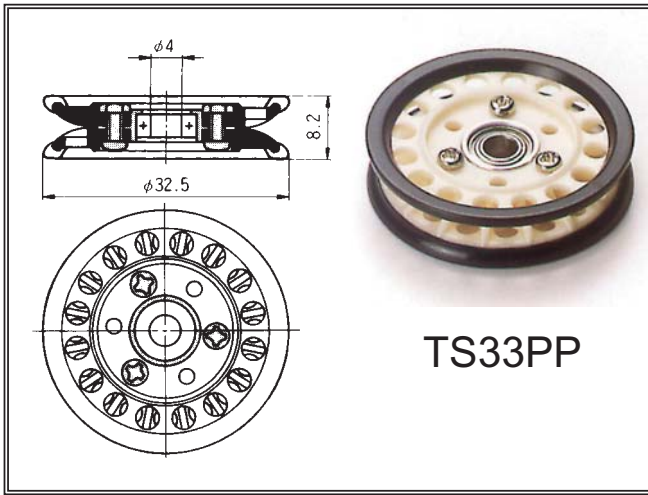
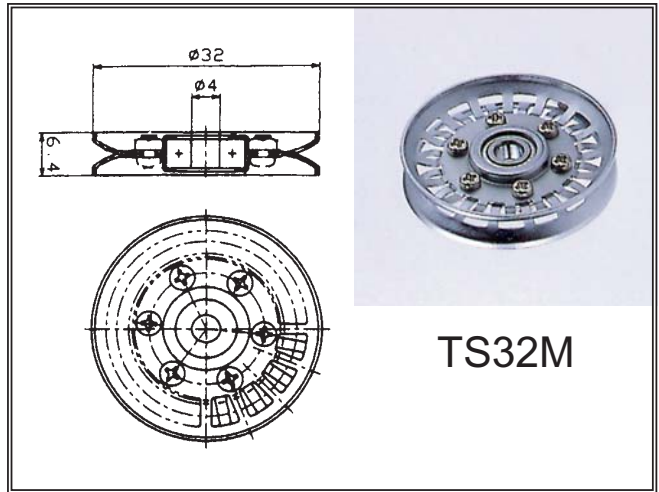
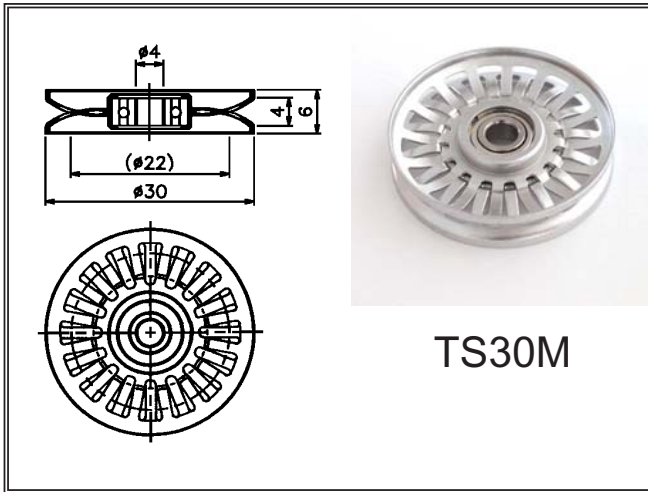
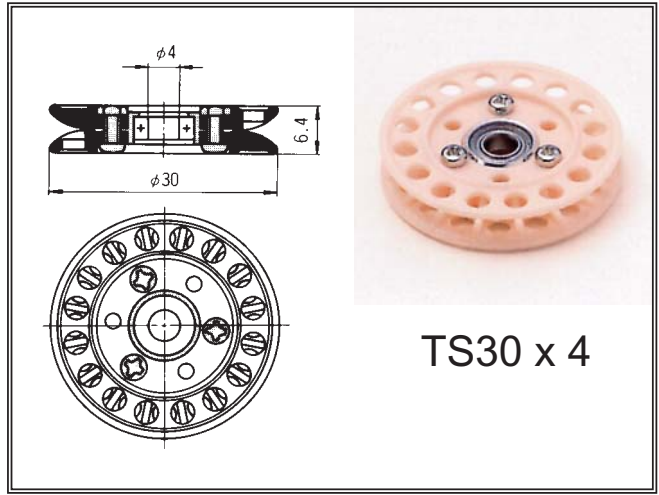
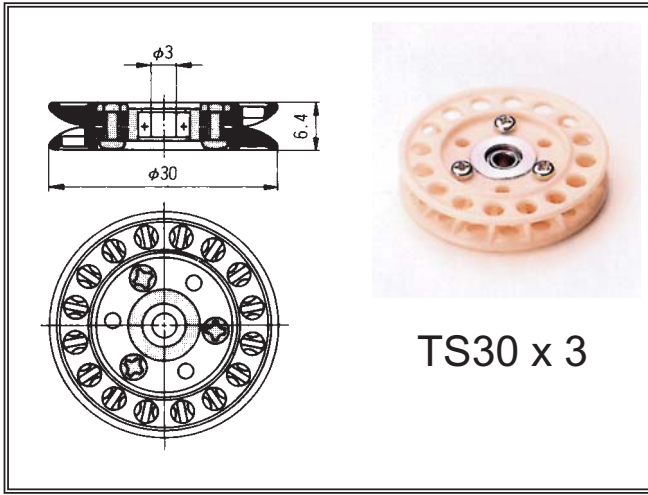
CERAMIC BEARING ROLLERS

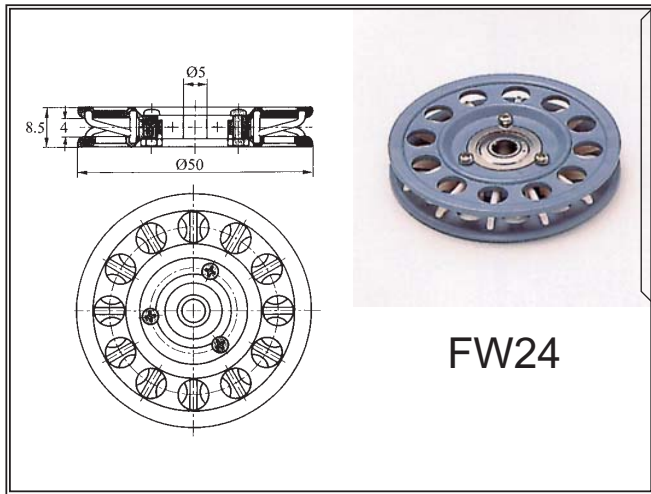


Part No	øA	øB	øC	øR	W	T
PCBR1A	20	<u>3</u>		15	4	3
PCBR2A	28.5	②, <u>4</u> or 5		20	6	4
PCBR3B	30	<u>3</u>		15	10	3
PCBR4C	30	<u>3</u>	20	15	7	3
PCBR5B	40	②, <u>4</u> or 5		20	15	4
PCBR6C	40	②, <u>4</u> or 5	28.5	20	10.5	4
PCBR7A	45	④, <u>5</u> , <u>6</u> , 7 or 8		30	10	6
PCBR8A	60	7 or <u>8</u>		40	12	6
PCBR9B	60	④, <u>5</u> , <u>6</u> , 7 or 8		30	20	6
PCBR10C	60	④, <u>5</u> , <u>6</u> , 7 or 8	45	30	15	6
PCBR11A	80	<u>10</u>		50	15	9
PCBR12B	80	<u>8</u>		40	25	6
PCBR13C	80	<u>8</u>	60	40	18.5	6
PCBR14B	100	<u>10</u>		50	30	9
PCBR15C	100	<u>10</u>	80	50	22.5	9

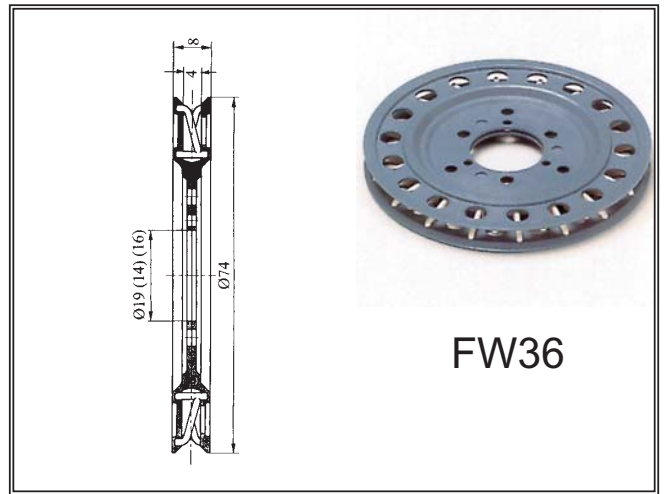
②, ④ = Special low torque bearing

Bearings (øB) underlined indicate standard sizes

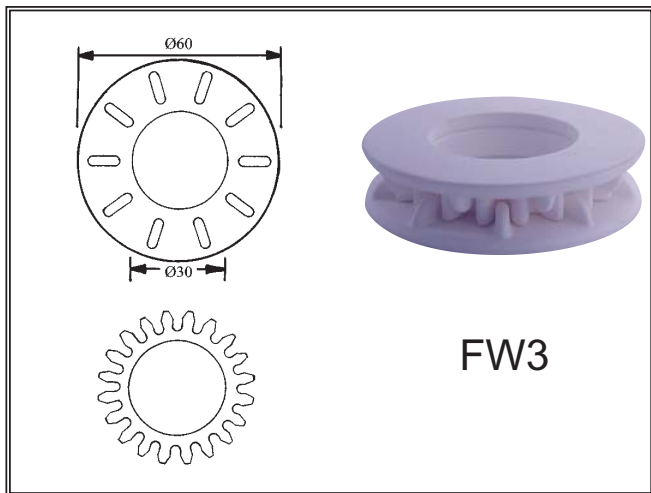




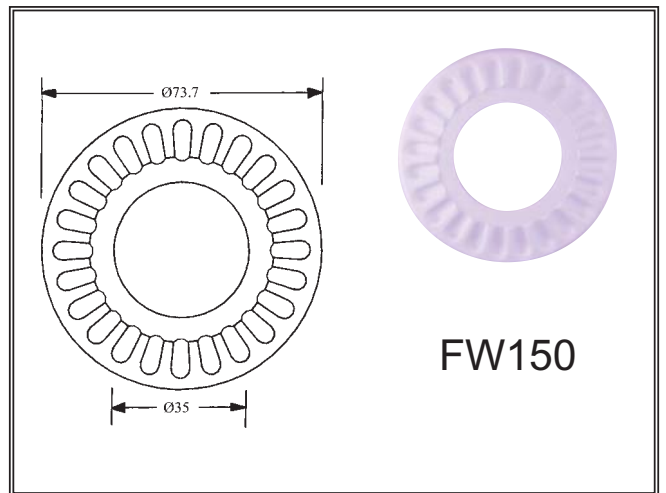
FW24



FW36



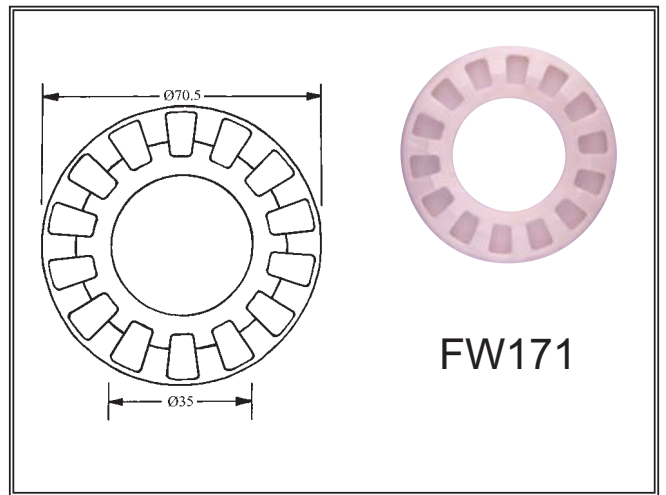
FW3



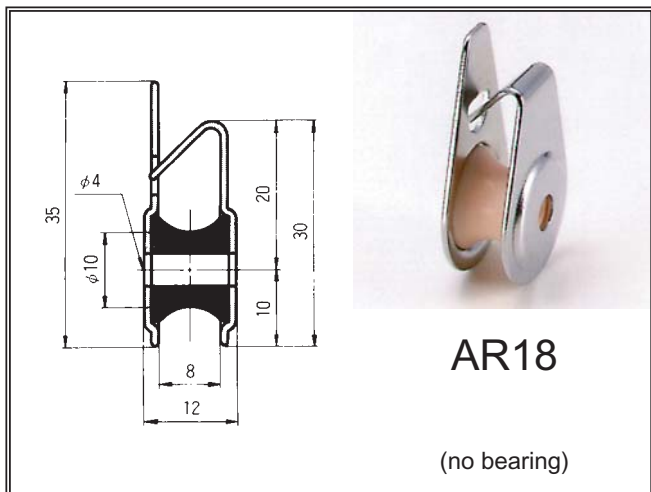
FW150



FW46

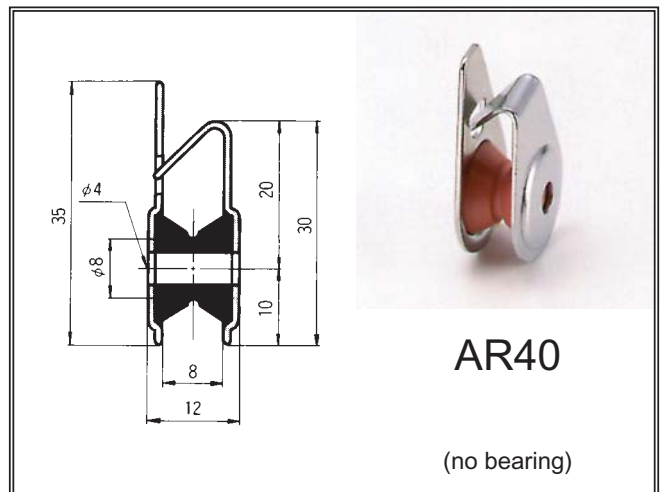


FW171



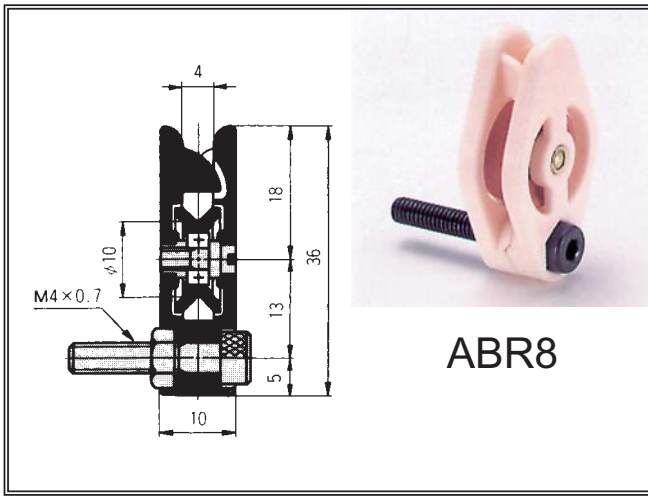
AR18

(no bearing)

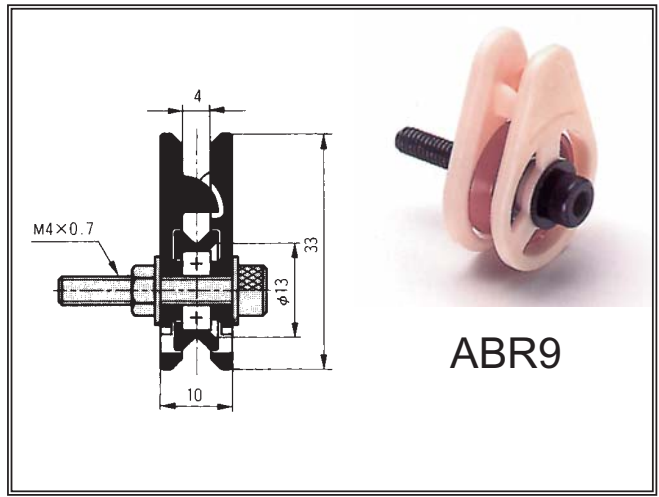


AR40

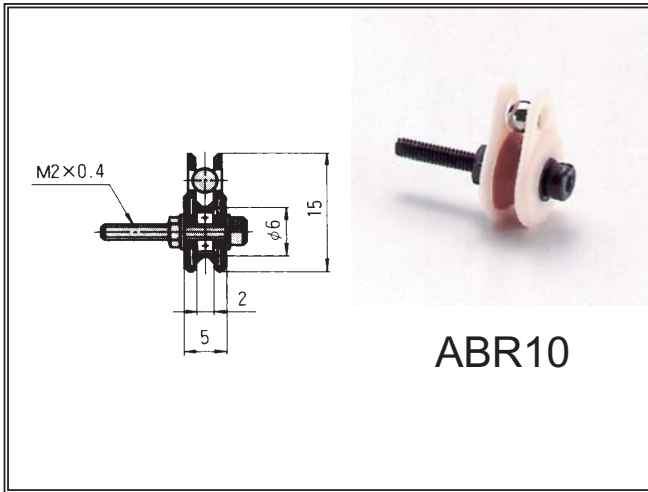
(no bearing)



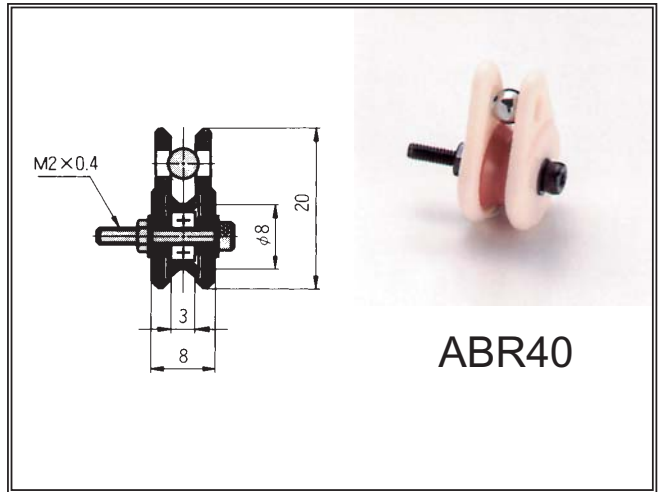
ABR8



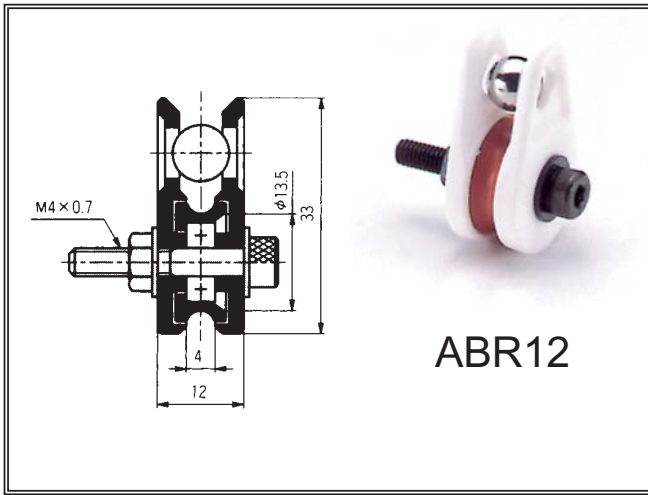
ABR9



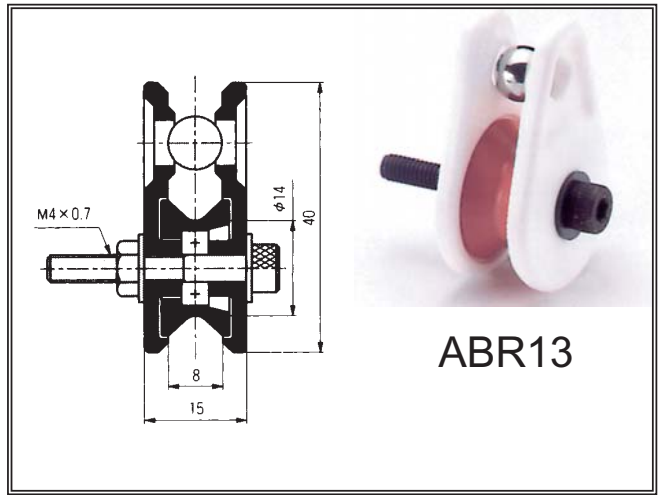
ABR10



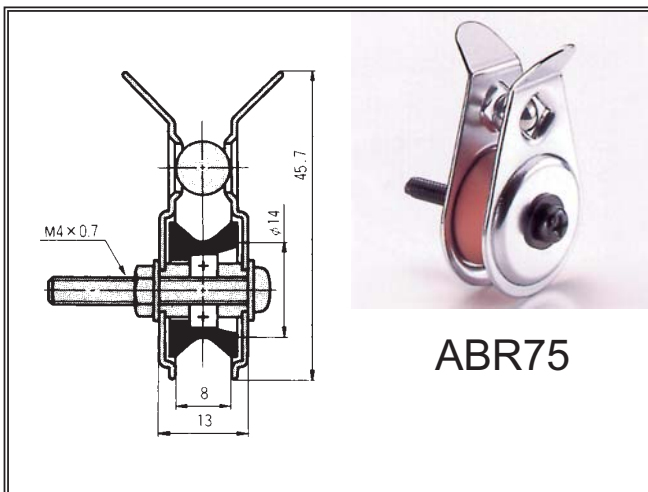
ABR40



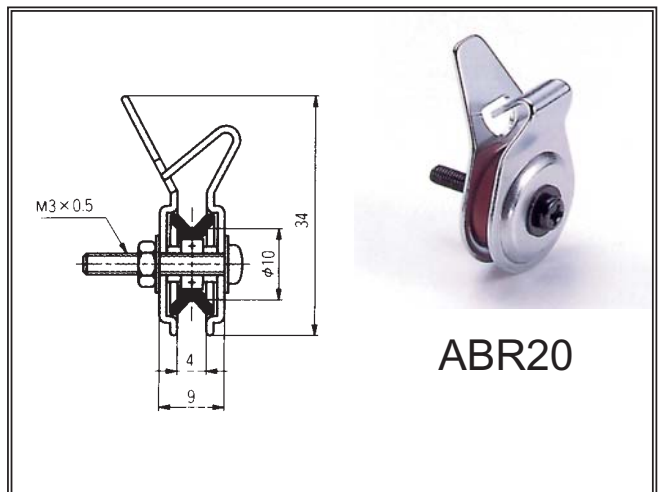
ABR12



ABR13

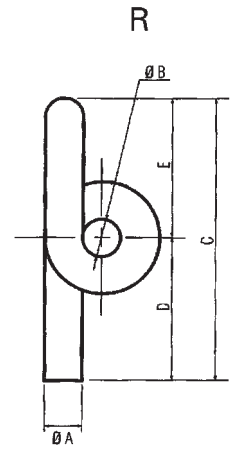
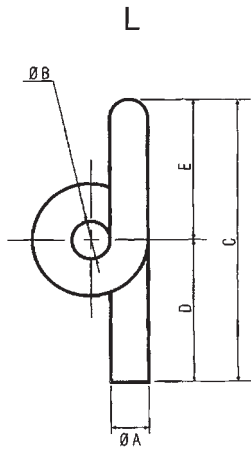


ABR75



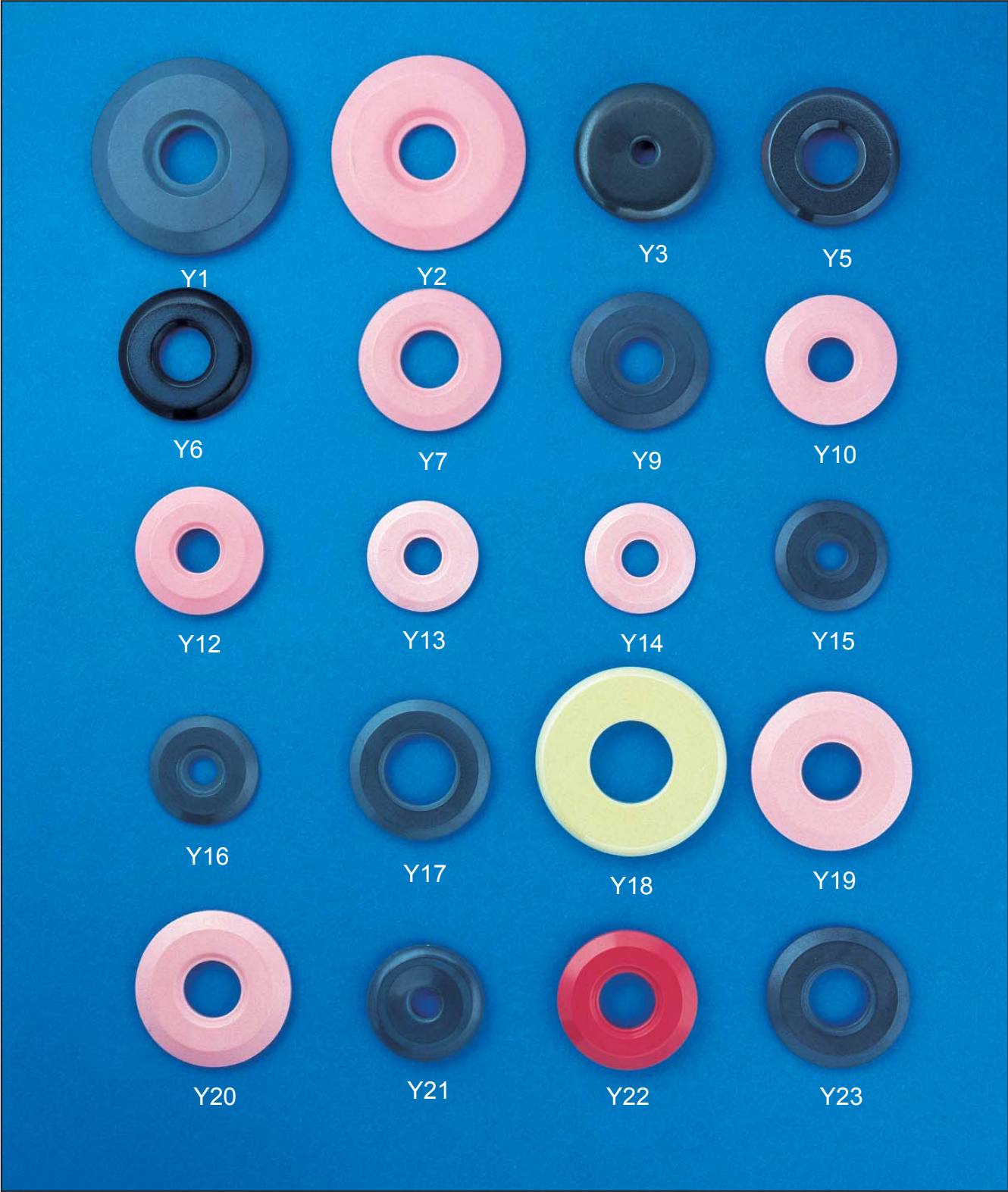
ABR20

PIGTAILS

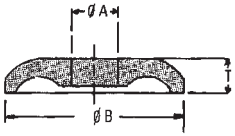


Ref.	R or L HAND	øA	øB	C	D	E	REMARKS
C50	R & L	3.0	1.0	21.5	15.0	6.5	
C52	R	3.0	2.0	22.0	17.0	5.0	
C30	R & L	3.0	3.0	25.0	14.0	11.0	
C9	R & L	3.0	2.0	27.0	20.0	7.0	
C10	R & L	3.0	3.0	27.0	20.0	7.0	Eye in line with shank
C32	R	3.2	5.5	36.0	25.0	11.0	
C36	R & L	3.2	4.0	32.0	21.0	11.0	Eye in line with shank
C2	R & L	4.0	1.0	20.0	10.0	10.0	▲Section eye
C4	R & L	4.0	1.0	30.0	15.0	15.0	▲Section eye
C31	R & L	4.0	4.0	25.0	15.0	10.0	
C13	R	4.0	3.0	28.0	20.0	8.0	
C20	R & L	4.0	4.0	35.0	20.0	15.0	
C14	R & L	4.0	3.0	28.0	20.0	8.0	Fixing hole 1.5
C15	L	4.0	4.5	33.0	22.0	11.0	
C22	R	4.0	6.0	53.0	37.0	16.0	
D8	R & L	5.0	5.0	42.0	30.0	12.0	
D16	L	5.0	5.0	50.0	38.0	–	Double coil
D11	R & L	5.0	5.0	55.0	42.0	13.0	
D12	R	5.5	5.0	46.0	31.0	15.0	
C17	R & L	6.0	1.5	25.0	10.0	15.0	Fixing hole 3.2
D17	L	6.0	3.0	25.0	15.0	10.0	Fixing hole 2.0
D15	R & L	6.0	1.5	31.0	25.0	6.0	
D18	R & L	6.0	10.0	60.0	45.0	15.0	

STANDARD TENSION DISCS

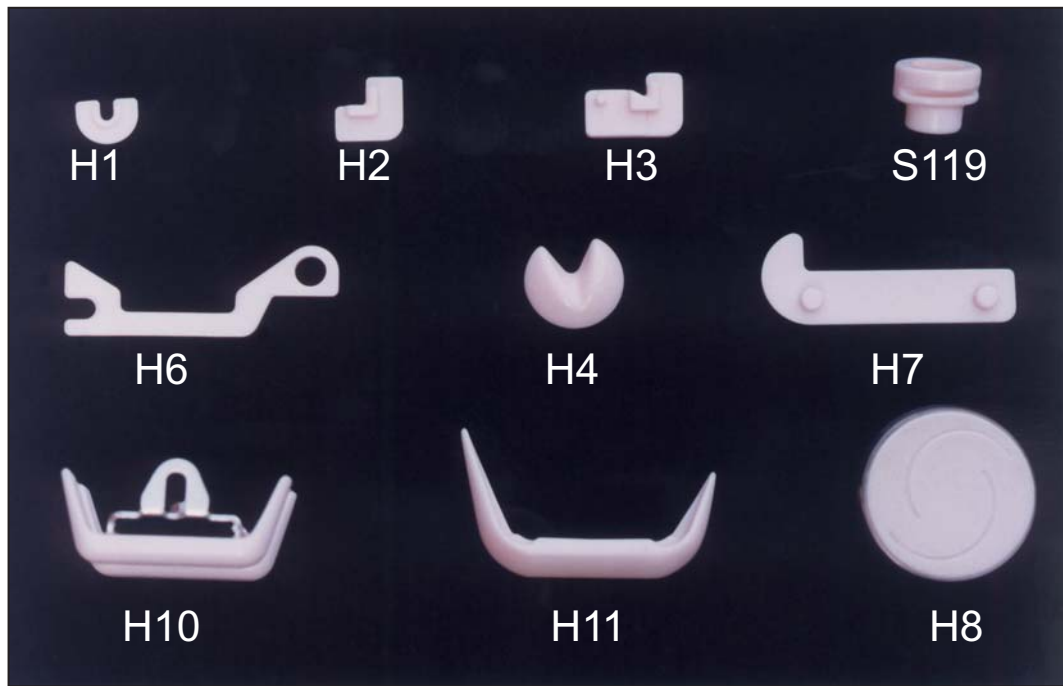


Ref.	A (to clear)	B	T	Approx. Weight (g)
Y1	10.0	37.0	4.8	11.5
Y2	10.0	36.4	3.5	7.5
Y3	4.0	25.4	4.0	7.0
Y5	10.0	25.6	4.8	6.5
Y6	10.0	25.0	3.0	2.1
Y7	10.0	24.7	3.0	3.0
Y9	8.5	26.0	2.8	3.5
Y10	8.0	24.2	3.0	3.2
Y12	8.1	24.0	3.1	3.3
Y13	6.5	20.5	2.8	2.0

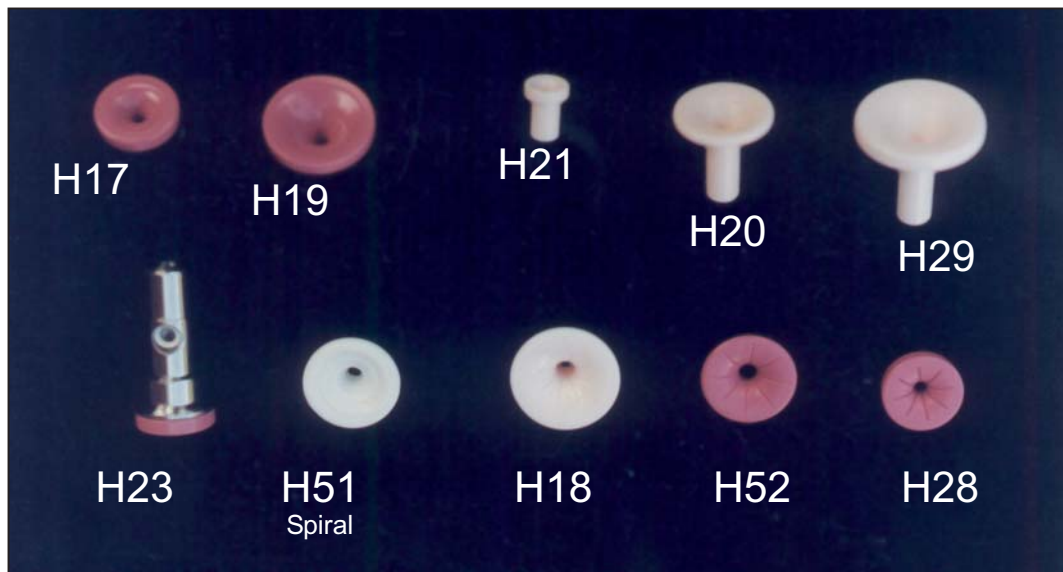


Ref.	A (to clear)	B	T	Approx. Weight (g)
Y14	6.5	20.5	2.3	1.0
Y15	5.0	20.5	2.8	2.0
Y16	5.0	20.5	2.2	1.0
Y17	12.5	26.5	2.8	3.3
Y18	15.0	35.2	3.8	11.3
Y19	10.5	29.5	4.0	5.0
Y20	10.5	29.5	3.0	3.6
Y21	5.0	22.0	3.5	3.0
Y22	10.5	26.0	4.0	5.0
Y23	10.5	26.4	2.8	3.5

Autoconer Guides



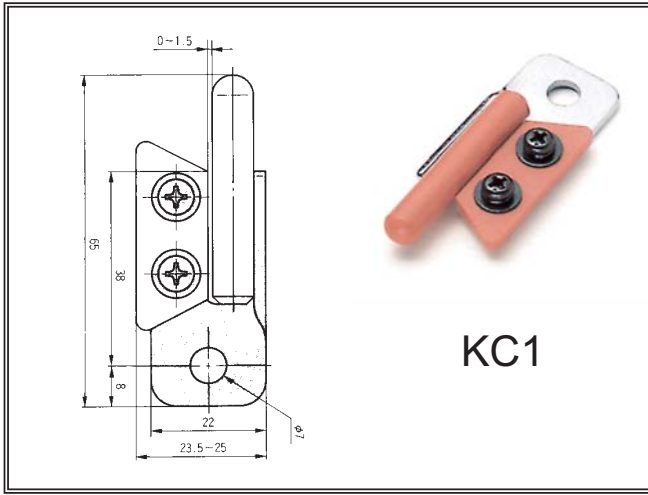
OE Guides



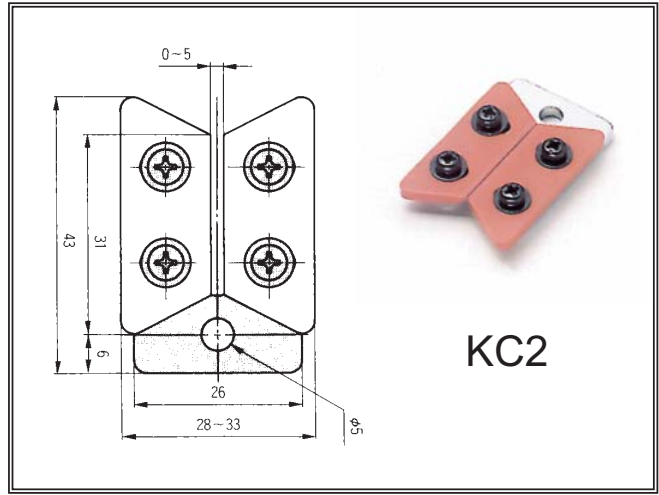
	No. of Yarn Grooves
H59	0
H60	4
H63	8

Hx x M
(standard)

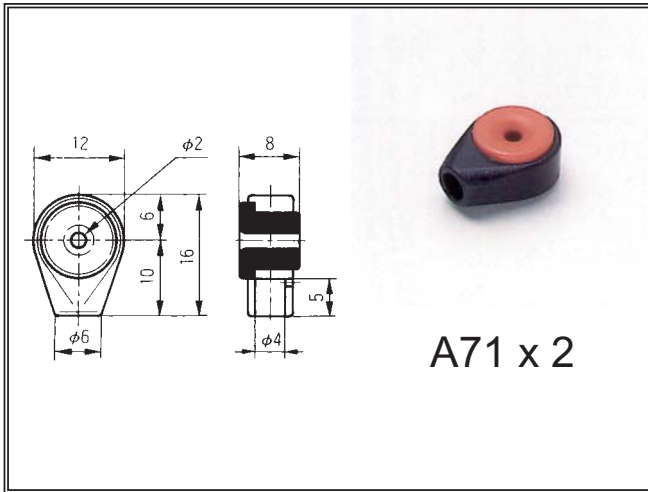
Hx x M1
(with tube eyelet)



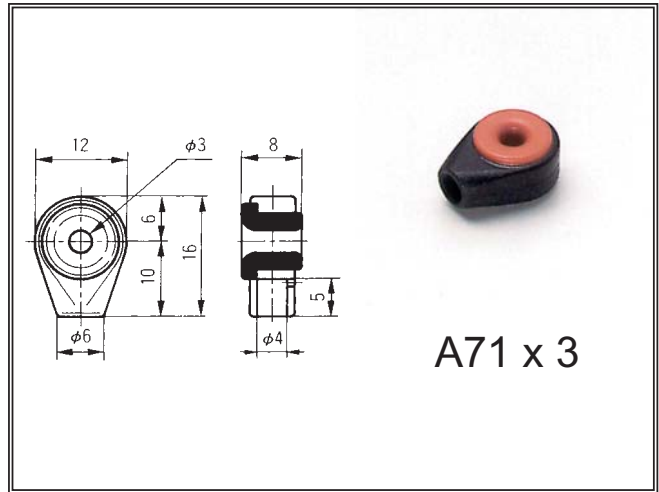
KC1



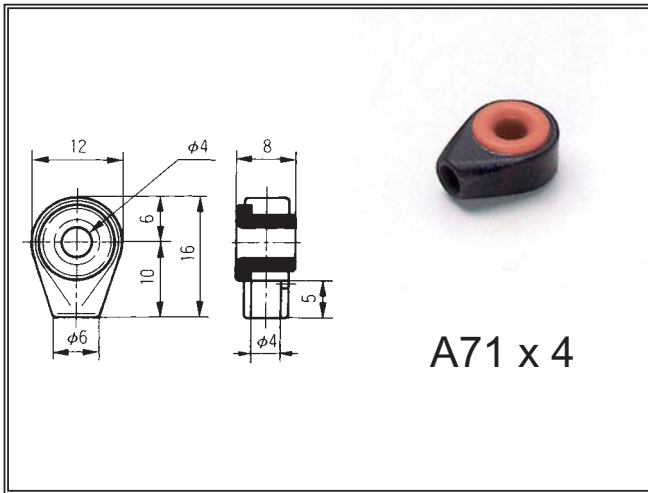
KC2



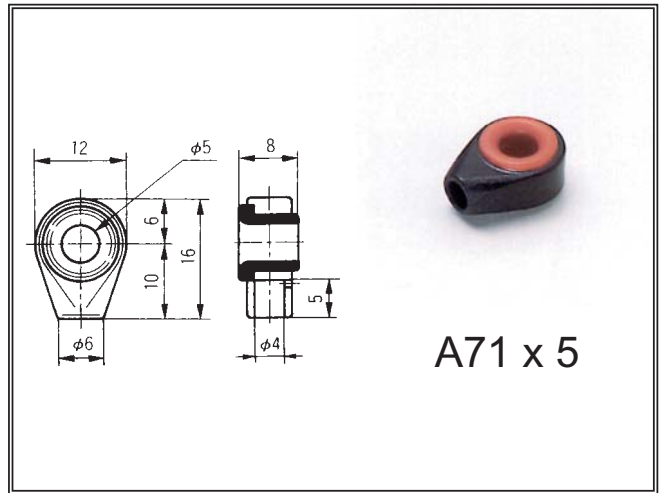
A71 x 2



A71 x 3



A71 x 4

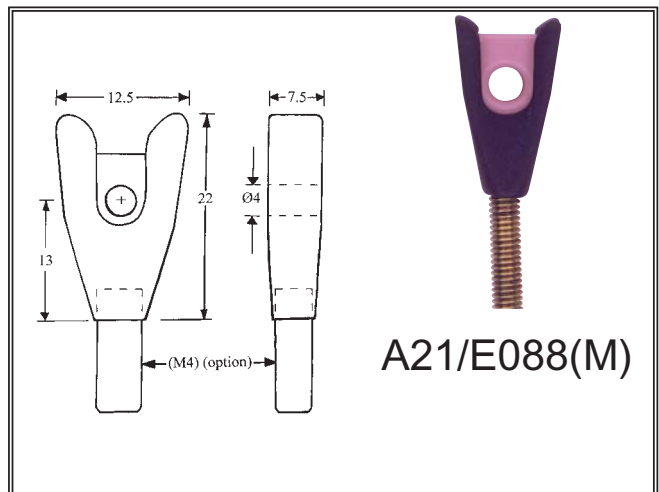


A71 x 5



A21/K18(M)

also available in PCS



A21/E088(M)

C13R/M4
(C13R/M5)
(C13R/M6)

C20R/M4
(C20R/M5)
(C20R/M6)

Left hand also available

D18LM

Right hand also available

D18L/M6

Right hand also available

R43/M4
(R43/M5)
(R43/M6)

R11/M4
(R11/M5)
(R11/M6)

S132/M4
(S132/M5)
(S132/M6)

(S132M = M3; no collar)

S35/M4
(S35/M5)
(S35/M6)

(S35M = M3; no collar)

A62/L2

also available in PCS

A62/L3

also available in PCS

A63/K18

also available in PCS

A64/K18

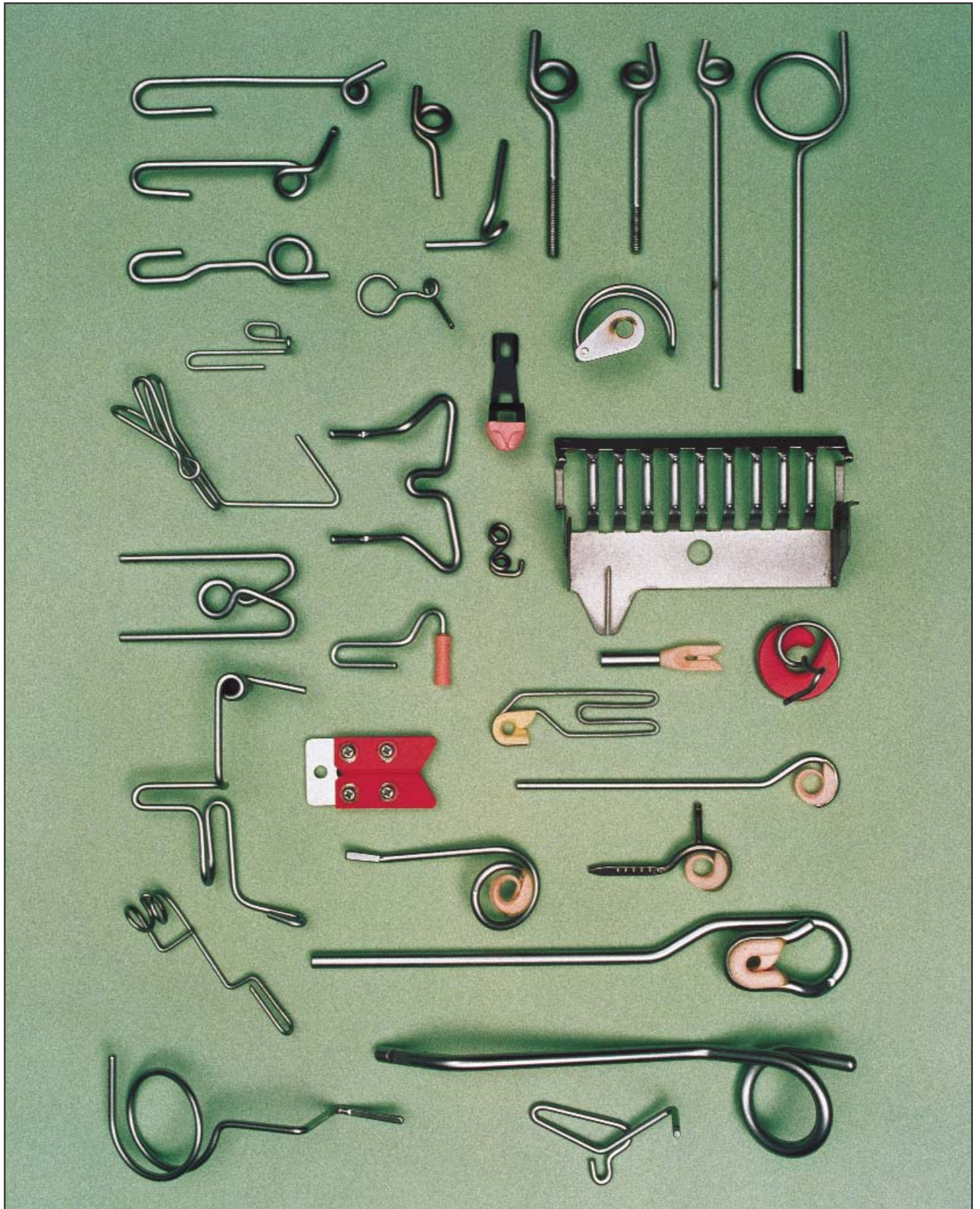
also available in PCS

X27

X28



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