

Stock sizes in multiple durometers

Associated Spring Stock Urethane compression springs are designed to complement our steel wire applications where corrosion, vibration and magnetism prevent the use of a conventional steel spring. The SPEC line of urethane springs feature multiple durometers. This allows various load capacities within each specific size. SPEC urethane springs are compounded specially for optimized spring characteristics. Typical applications include vibration dampening, corrosive environments, high loads in confined spaces, cycle and static loading and nonmagnetic requirements.

Material

Urethane rubber Durometers of 60A, 80A, 90A, 95A.

SPEC urethane is compounded to provide optimum spring characteristics.

Loading Applications

Urethane is a non-compressible material. The load of urethane spring is obtained by bulging of the tube walls. Most of the bulging is to the outside diameter. The growth in outside diameter is approximately equal to the percentage of spring deflection. Example: a 25mm spring is deflected .5mm or 20%. Increase the outside diameter by 20%. A spring with an initial outside diameter 19mm would bulge to 23mm. This expansion should be considered when selecting O.D. clearances.

Note: Load data shown is from laboratory testing. Load-deflection curves for 95A durometers are not provided due to extremely high spring rates. 95A durometer is recommended for cushioning applications only.

Inside Diameters

Urethane springs can be guided through the I.D. by a rod. The rod can be that of the size listed in the data tables for an interference fit whereby the spring I.D. grips the rod. Or, the rod can be reduced for a free fit.

Properties

- Water and oil resistant.
- Non magnetic.
- 360 degree contact area.
- Bondable to mating parts.
- Can be mated to soft materials.
- series stackable for additional deflection with use of spacers.

Dimensions standard en duromètres multiples

Les ressorts de compression uréthane SPEC standard sont conçus pour compléter nos applications à fils d'acier où la corrosion, les vibrations et le magnétisme interdisent l'utilisation de ressorts en acier traditionnel. La ligne SPEC de ressorts en uréthane comprend des duromètres multiples. Cela permet d'obtenir des capacités de charge diverses dans chaque taille spécifique. Les ressorts en uréthane SPEC sont composés spécialement pour offrir des caractéristiques d'élasticité optimisées. Les applications types comprennent l'amortissement des vibrations, les environnements corrosifs, les charges élevées dans des endroits confinés, les charges cycliques et statiques et les besoins non magnétiques.

Matériau

Duromètres caoutchouc uréthane de 60A, 80A, 90A et 95A.

L'uréthane SPEC est composée pour offrir des caractéristiques d'élasticité optimales.

Applications de charge

L'uréthane est un matériau incompressible. La charge du ressort en uréthane est obtenue par le renflement des parois du tube. La plus grande partie du renflement se fait vers l'extérieur. L'augmentation du diamètre extérieur est à peu près égale au pourcentage de flexion du ressort. Par exemple, un ressort de 25 mm est fléchi de 5 mm ou 20%. Cela augmente le diamètre extérieur de 20%. Un ressort dont le diamètre extérieur initial est de 19 mm passera à 23 mm. Il convient de tenir compte de cette expansion lors de la sélection des jeux au diamètre extérieur.

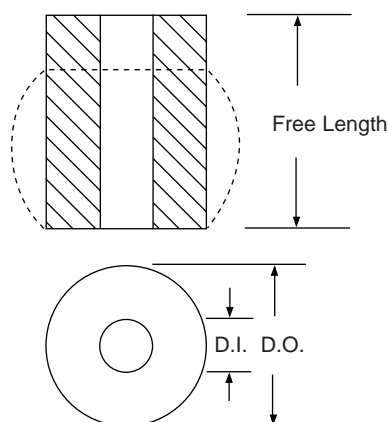
Note: les données de charge indiquées proviennent d'essais en laboratoire. Les courbes de charge-deflexion pour des duromètres 95A ne sont pas fournies en raison de taux d'élasticité très élevés. Le duromètre 95A est seulement recommandé pour des applications d'amortissement.

Diamètres intérieurs

Les ressorts en uréthane peuvent être guidés par une tige intérieure. Cette tige peut être aux dimensions indiquées dans les tableaux de données pour obtenir un ajustement serré où la paroi intérieure du ressort serre la tige. Le diamètre de la tige peut être réduit pour donner un ajustement libre.

Propriétés

- Résistant à l'eau et à l'huile
- Non magnétique
- Surface de contact de 360 degrés
- Peut être collé aux pièces correspondantes
- Peut être combiné à des matériaux tendres
- Empilable en série pour assurer une flexion supplémentaire à l'aide d'entretoises



STOCK URETHANE COMPRESSION SPRINGS

Part No.	Di Inside Diameter mm	Do Outside Diameter mm	Free Length (approx) mm	Durometer	Load Data Graph	Price Group
P0188-0500-60A P0188-0750-60A P0188-1000-60A P0188-1250-60A	4.3	17.5	12.7 19.1 25.4 31.8	60A	P0188-XXXX-60A P0188-XXXX-60A P0188-XXXX-60A P0188-XXXX-60A	L M N O
P0188-0500-80A P0188-0750-80A P0188-1000-80A P0188-1250-80A	4.3	17.5	12.7 19.1 25.4 31.8	80A	P0188-XXXX-80A P0188-XXXX-80A P0188-XXXX-80A P0188-XXXX-80A	L M N O
P0188-0500-90A P0188-0750-90A P0188-1000-90A P0188-1250-90A	4.3	17.5	12.7 19.1 25.4 31.8	90A	P0188-XXXX-90A P0188-XXXX-90A P0188-XXXX-90A P0188-XXXX-90A	L M N O
P0188-0500-95A P0188-0750-95A P0188-1000-95A P0188-1250-95A	4.3	17.5	12.7 19.1 25.4 31.8	95A	SEE NOTE ON PAGE 86	L M N O
P0250-0500-60A P0250-0750-60A P0250-1000-60A P0250-1250-60A P0250-1500-60A	5.8	19.1	12.7 19.1 25.4 31.8 38.1	60A	P0250-XXXX-60A P0250-XXXX-60A P0250-XXXX-60A P0250-XXXX-60A P0250-XXXX-60A	L M N O P
P0250-0500-80A P0250-0750-80A P0250-1000-80A P0250-1250-80A P0250-1500-80A	5.8	19.1	12.7 19.1 25.4 31.8 38.1	80A	P0250-XXXX-80A P0250-XXXX-80A P0250-XXXX-80A P0250-XXXX-80A P0250-XXXX-80A	L M N O P
P0250-0500-90A P0250-0750-90A P0250-1000-90A P0250-1250-90A P0250-1500-90A	5.8	19.1	12.7 19.1 25.4 31.8 38.1	90A	P0250-XXXX-90A P0250-XXXX-90A P0250-XXXX-90A P0250-XXXX-90A P0250-XXXX-90A	L M N O P
P0250-0500-95A P0250-0750-95A P0250-1000-95A P0250-1250-95A P0250-1500-95A	5.8	19.1	12.7 19.1 25.4 31.8 38.1	95A	SEE NOTE ON PAGE 86	L M N O P
P0312-0500-60A P0312-0750-60A P0312-1000-60A P0312-1250-60A P0312-1500-60A	7.5 7.5	20.7 20.7	12.7 19.1 25.4 31.8 38.1	60A 60A	P0312-XXXX-60A P0312-XXXX-60A P0312-XXXX-60A P0312-XXXX-60A P0312-XXXX-60A	M N P R S
P0312-0500-80A P0312-0750-80A P0312-1000-80A P0312-1250-80A P0312-1500-80A	7.5	20.7	12.7 19.1 25.4 31.8 38.1	80A	P0312-XXXX-80A P0312-XXXX-80A P0312-XXXX-80A P0312-XXXX-80A P0312-XXXX-80A	M N P R S
P0312-0500-90A P0312-0750-90A P0312-1000-90A P0312-1250-90A P0312-1500-90A	7.5	20.7	12.7 19.1 25.4 31.8 38.1	90A	P0312-XXXX-90A P0312-XXXX-90A P0312-XXXX-90A P0312-XXXX-90A P0312-XXXX-90A	M N P R S
P0312-0500-95A P0312-0750-95A P0312-1000-95A P0312-1250-95A P0312-1500-95A	7.5	20.7	12.7 19.1 25.4 31.8 38.1	95A	SEE NOTE ON PAGE 86	M N P R S
P0375-0500-60A P0375-0750-60A P0375-1000-60A P0375-1250-60A P0375-1500-60A	9.0	22.2	12.7 19.1 25.4 31.8 38.1	60A	P0375-XXXX-60A P0375-XXXX-60A P0375-XXXX-60A P0375-XXXX-60A P0375-XXXX-60A	M N N P Q
P0375-0500-80A P0375-0750-80A P0375-1000-80A P0375-1250-80A P0375-1500-80A P0375-1750-80A	9.0	22.2	12.7 19.1 25.4 31.8 38.1 44.5	80A	P0375-XXXX-80A P0375-XXXX-80A P0375-XXXX-80A P0375-XXXX-80A P0375-XXXX-80A P0375-XXXX-80A	M N N P Q R
P0375-0500-90A P0375-0750-90A P0375-1000-90A P0375-1250-90A P0375-1500-90A P0375-1750-90A	9.0	22.2	12.7 19.1 25.4 31.8 38.1 44.5	90A	P0375-XXXX-90A P0375-XXXX-90A P0375-XXXX-90A P0375-XXXX-90A P0375-XXXX-90A P0375-XXXX-90A	M N N P Q R
P0375-0500-95A P0375-0750-95A P0375-1000-95A P0375-1250-95A P0375-1500-95A P0375-1750-95A	9.0	22.2	12.7 19.1 25.4 31.8 38.1 44.5	95A	SEE NOTE ON PAGE 86	M N N P Q R
P0500-0500-60A P0500-0750-60A P0500-1000-60A P0500-1250-60A P0500-1500-60A	12.1 12.1	25.4 25.4	12.7 19.1 25.4 31.8 38.1	60A 60A	P0500-XXXX-60A P0500-XXXX-60A P0500-XXXX-60A P0500-XXXX-60A P0500-XXXX-60A	M N N O Q R
P0500-0500-80A P0500-0750-80A P0500-1000-80A P0500-1250-80A P0500-1500-80A	12.1	25.4	12.7 19.1 25.4 31.8 38.1	80A	P0500-XXXX-80A P0500-XXXX-80A P0500-XXXX-80A P0500-XXXX-80A P0500-XXXX-80A	M N O Q R



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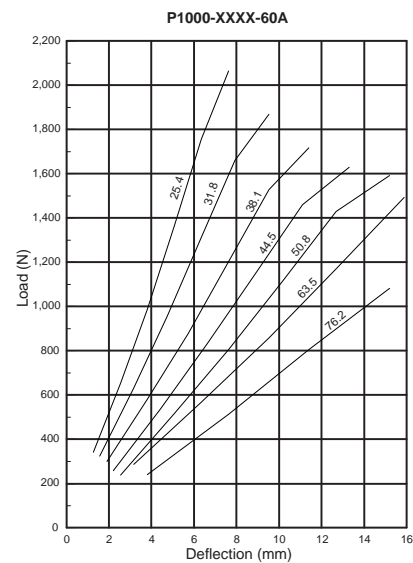
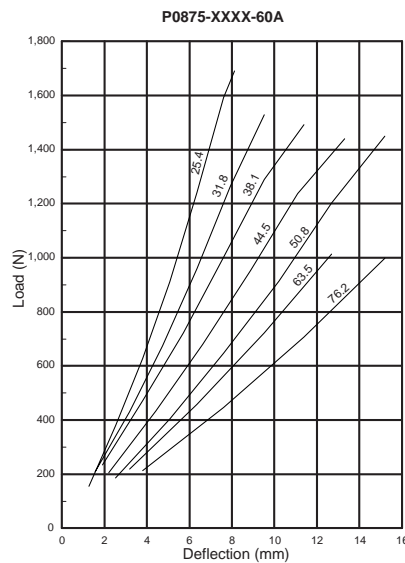
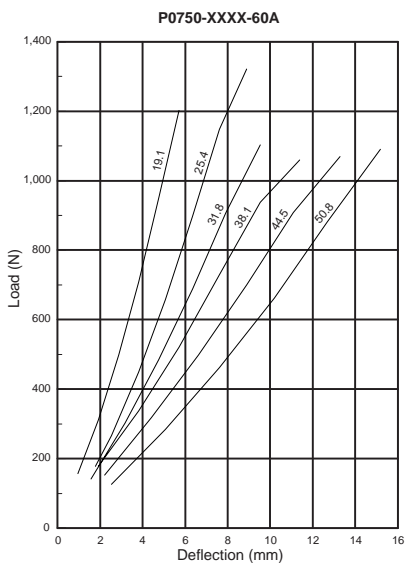
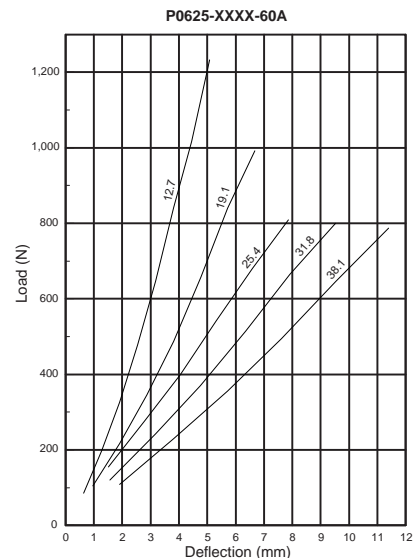
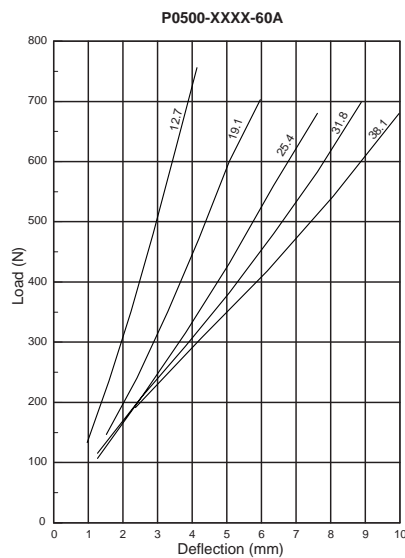
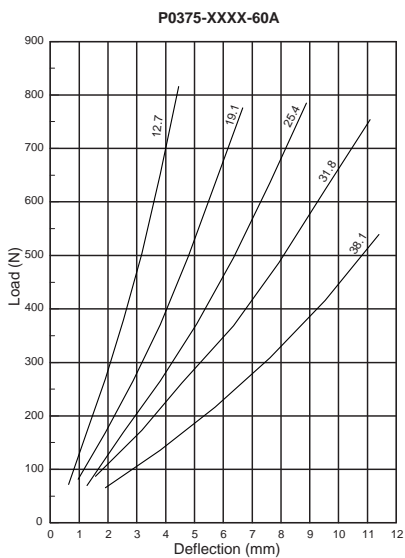
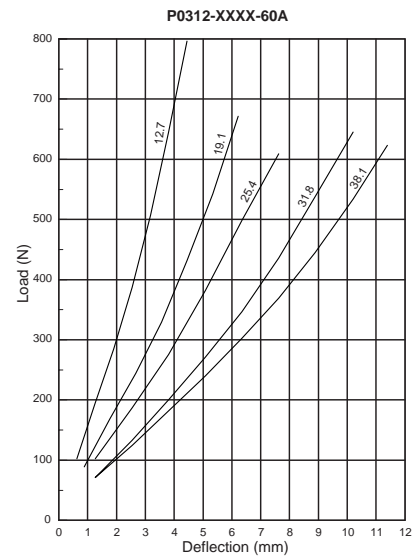
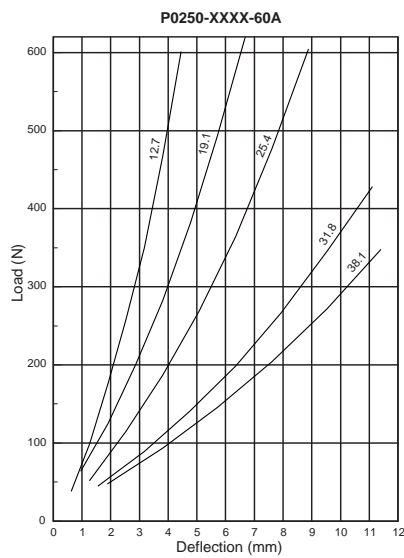
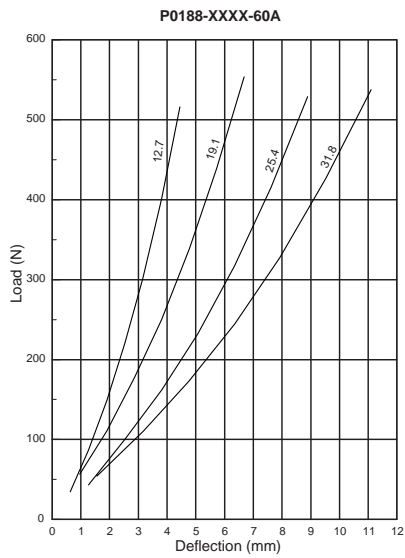
Part No.	Di Inside Diameter mm	Do Outside Diameter mm	Free Length (approx) mm	Durometer	Load Data Graph	Price Group
P0500-1750-80A			44.5		P0500-XXXX-80A	S
P0500-2000-80A			50.8		P0500-XXXX-80A	T
P0500-0500-90A	12.1	25.4	12.7	90A	P0500-XXXX-90A	M
P0500-0750-90A			19.1		P0500-XXXX-90A	N
P0500-1000-90A			25.4		P0500-XXXX-90A	O
P0500-1250-90A			31.8		P0500-XXXX-90A	Q
P0500-1500-90A			38.1		P0500-XXXX-90A	R
P0500-1750-90A			44.5		P0500-XXXX-90A	S
P0500-2000-90A			50.8		P0500-XXXX-90A	T
P0500-0500-95A			12.1		25.4	12.7
P0500-0750-95A	19.1	N				
P0500-1000-95A	25.4	O				
P0500-1250-95A	31.8	Q				
P0500-1500-95A	38.1	R				
P0500-1750-95A	44.5	S				
P0500-2000-95A	50.8	T				
P0625-0500-60A	15.2	28.6	12.7	60A	P0625-XXXX-60A	M
P0625-0750-60A			19.1		P0625-XXXX-60A	O
P0625-1000-60A			25.4		P0625-XXXX-60A	Q
P0625-1250-60A			31.8		P0625-XXXX-60A	R
P0625-1500-60A			38.1		P0625-XXXX-60A	T
P0625-0500-80A	15.2	28.6	12.7	80A	P0625-XXXX-80A	M
P0625-0750-80A			19.1		P0625-XXXX-80A	O
P0625-1000-80A			25.4		P0625-XXXX-80A	Q
P0625-1250-80A			31.8		P0625-XXXX-80A	R
P0625-1500-80A			38.1		P0625-XXXX-80A	T
P0625-1750-80A			44.5		P0625-XXXX-80A	U
P0625-2000-80A			50.8		P0625-XXXX-80A	V
P0625-0500-90A	28.6	28.6	12.7	90A	P0625-XXXX-90A	M
P0625-0750-90A			19.1		P0625-XXXX-90A	O
P0625-1000-90A			25.4		P0625-XXXX-90A	Q
P0625-1250-90A	15.2	28.6	31.8	90A	P0625-XXXX-90A	R
P0625-1500-90A			38.1		P0625-XXXX-90A	T
P0625-1750-90A			44.5		P0625-XXXX-90A	U
P0625-2000-90A			50.8		P0625-XXXX-90A	V
P0625-0500-95A	15.2	28.6	12.7	95A	SEE NOTE ON PAGE 86	M
P0625-0750-95A			19.1			O
P0625-1000-95A			25.4			Q
P0625-1250-95A			31.8			R
P0625-1500-95A			38.1			T
P0625-1750-95A			44.5			U
P0625-2000-95A	50.8	V				
P0750-0750-60A	18.8	34.9	19.1	60A	P0750-XXXX-60A	O
P0750-1000-60A			25.4		P0750-XXXX-60A	Q
P0750-1250-60A			31.8		P0750-XXXX-60A	R
P0750-1500-60A			38.1		P0750-XXXX-60A	T
P0750-1750-60A			44.5		P0750-XXXX-60A	U
P0750-2000-60A			50.8		P0750-XXXX-60A	V
P0750-0750-80A	18.8	34.9	19.1	80A	P0750-XXXX-80A	O
P0750-1000-80A			25.4		P0750-XXXX-80A	Q
P0750-1250-80A			31.8		P0750-XXXX-80A	R
P0750-1500-80A			38.1		P0750-XXXX-80A	T
P0750-1750-80A			44.5		P0750-XXXX-80A	U
P0750-2000-80A			50.8		P0750-XXXX-80A	V
P0750-0750-90A	18.8	34.9	19.1	90A	P0750-XXXX-90A	O
P0750-1000-90A			25.4		P0750-XXXX-90A	Q
P0750-1250-90A			31.8		P0750-XXXX-90A	R
P0750-1500-90A			38.1		P0750-XXXX-90A	T
P0750-1750-90A			44.5		P0750-XXXX-90A	U
P0750-2000-90A			50.8		P0750-XXXX-90A	V
P0750-2500-90A			63.5		P0750-XXXX-90A	W
P0750-0750-95A	18.8	34.9	19.1	95A	SEE NOTE ON PAGE 86	O
P0750-1000-95A			25.4			Q
P0750-1250-95A			31.8			R
P0750-1500-95A			38.1			T
P0750-1750-95A			44.5			U
P0750-2000-95A			50.8			V
P0750-2500-95A	63.5	W				
P0875-1000-60A	22.0	41.3	25.4	60A	P0875-XXXX-60A	S
P0875-1250-60A			31.8		P0875-XXXX-60A	U
P0875-1500-60A			38.1		P0875-XXXX-60A	V
P0875-1750-60A	22.0	41.3	44.5	60A	P0875-XXXX-60A	W
P0875-2000-60A			50.8		P0875-XXXX-60A	X
P0875-2500-60A			63.5		P0875-XXXX-60A	X
P0875-3000-60A			76.2		P0875-XXXX-60A	Y
P0875-1000-80A	22.0	41.3	25.4	80A	P0875-XXXX-80A	S
P0875-1250-80A			31.8		P0875-XXXX-80A	U
P0875-1500-80A			38.1		P0875-XXXX-80A	V
P0875-1750-80A			44.5		P0875-XXXX-80A	W
P0875-2000-80A			50.8		P0875-XXXX-80A	X
P0875-2500-80A			63.5		P0875-XXXX-80A	X
P0875-3000-80A			76.2		P0875-XXXX-80A	Y
P0875-1000-90A			22.0		41.3	25.4
P0875-1250-90A	31.8	P0875-1000-90A		U		
P0875-1500-90A	38.1	P0875-1000-90A		V		
P0875-1750-90A	44.5	P0875-1000-90A		W		
P0875-2000-90A	50.8	P0875-1000-90A		X		
P0875-2500-90A	63.5	P0875-1000-90A		X		
P0875-3000-90A	76.2	P0875-1000-90A		Y		



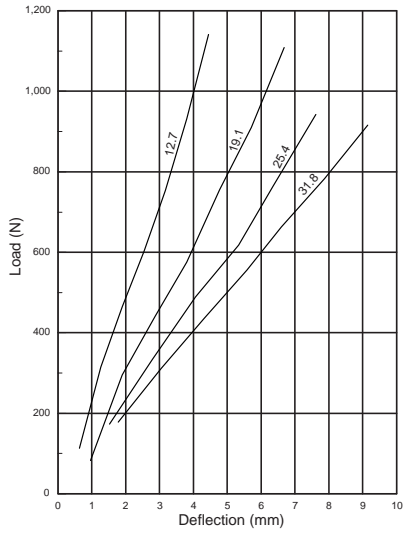
STOCK URETHANE COMPRESSION SPRINGS

Part No.	Di Inside Diameter mm	Do Outside Diameter mm	Free Length (approx) mm	Durometer	Load Data Graph	Price Group
P0875-1000-95A P0875-1250-95A P0875-1500-95A P0875-1750-95A P0875-2000-95A P0875-2500-95A P0875-3000-95A	22.0	41.3	25.4 31.8 38.1 44.5 50.8 63.5 76.2	95A	SEE NOTE ON PAGE 86	S U V W X X Y
P1000-1000-60A P1000-1250-60A P1000-1500-60A P1000-1750-60A P1000-2000-60A P1000-2500-60A P1000-3000-60A	25.2	44.5	25.4 31.8 38.1 44.5 50.8 63.5 76.2	60A	P1000-XXXX-60A P1000-XXXX-60A P1000-XXXX-60A P1000-XXXX-60A P1000-XXXX-60A P1000-XXXX-60A P1000-XXXX-60A	S U V W X X Y
P1000-1000-80A P1000-1250-80A P1000-1500-80A P1000-1750-80A P1000-2000-80A P1000-2500-80A P1000-3000-80A	25.2	44.5	25.4 31.8 38.1 44.5 50.8 63.5 76.2	80A	P1000-XXXX-80A P1000-XXXX-80A P1000-XXXX-80A P1000-XXXX-80A P1000-XXXX-80A P1000-XXXX-80A P1000-XXXX-80A	S U V W X X Y
P1000-1000-90A P1000-1250-90A P1000-1500-90A P1000-1750-90A P1000-2000-90A P1000-2500-90A P1000-3000-90A	25.2	44.5	25.4 31.8 38.1 44.5 50.8 63.5 76.2	90A 90A	P1000-XXXX-90A P1000-XXXX-90A P1000-XXXX-90A P1000-XXXX-90A P1000-XXXX-90A P1000-XXXX-90A P1000-XXXX-90A	S U V W X X Y
P1000-1000-95A P1000-1250-95A P1000-1500-95A P1000-1750-95A P1000-2000-95A P1000-2500-95A P1000-3000-95A	25.2	44.5	25.4 31.8 38.1 44.5 50.8 63.5 76.2	95A	SEE NOTE ON PAGE 86	S U V W X X Y

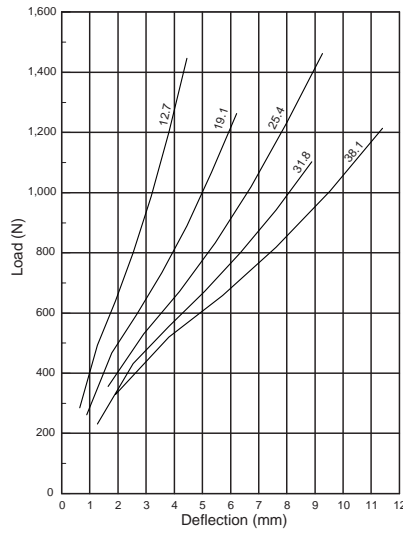




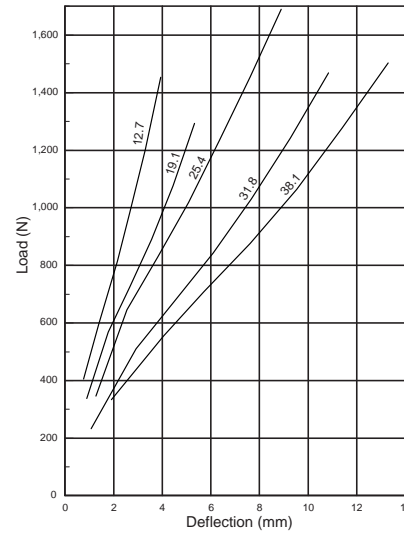
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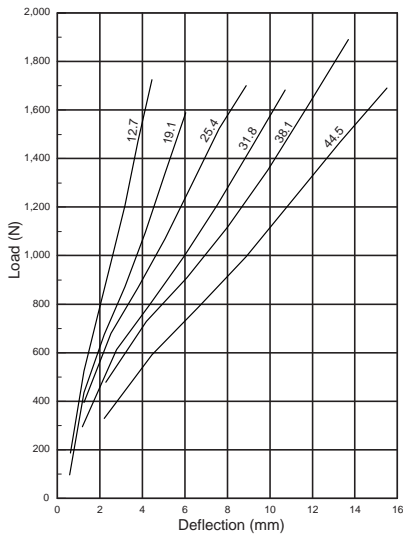
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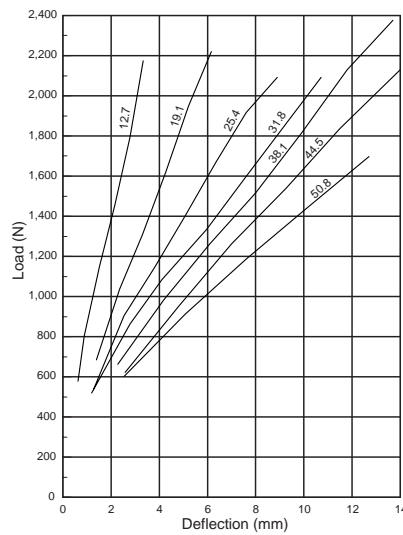
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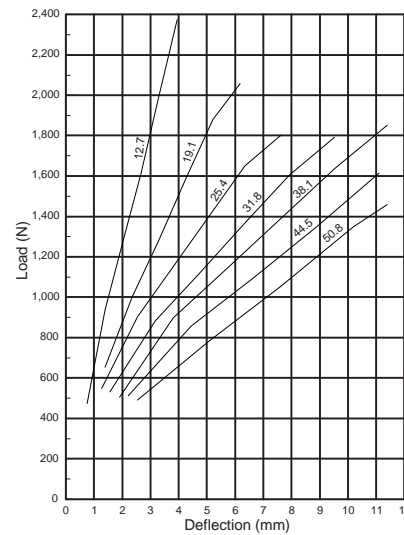
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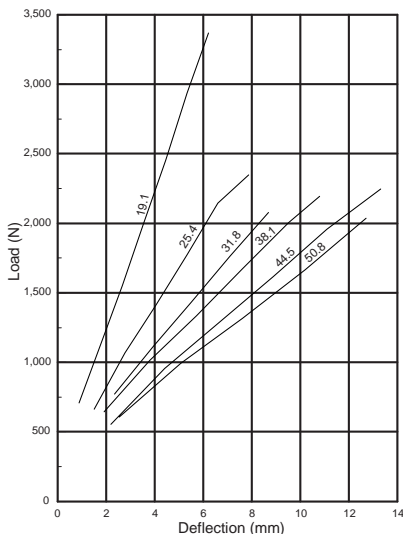
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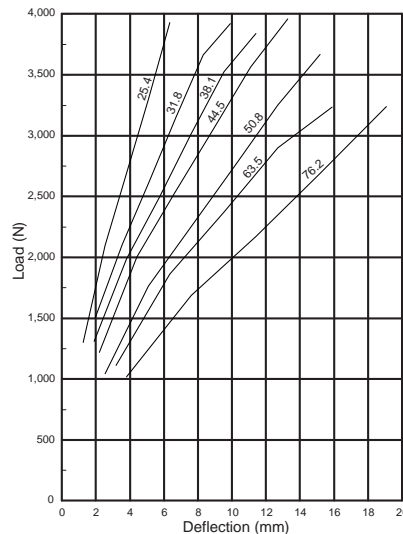
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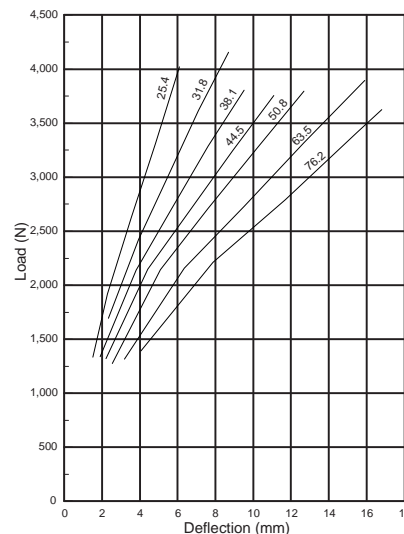
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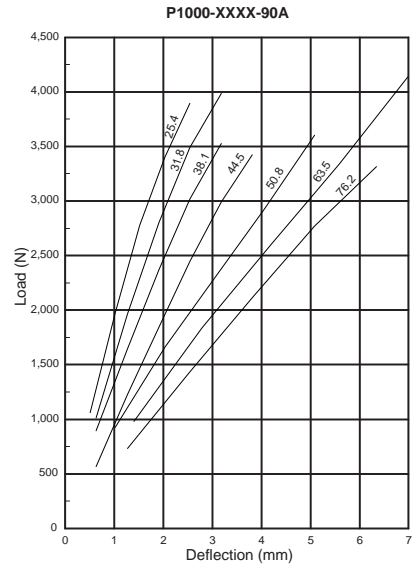
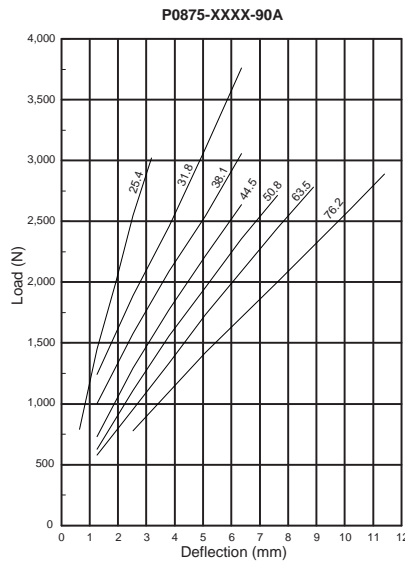
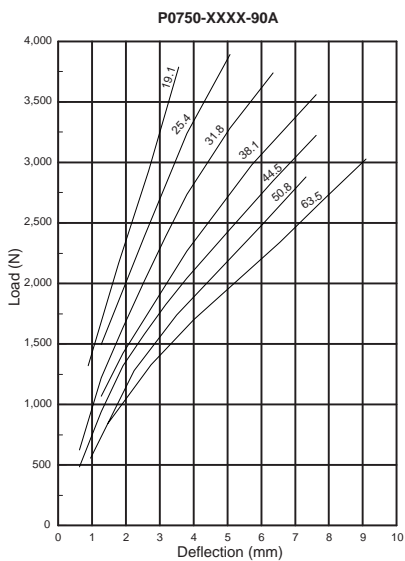
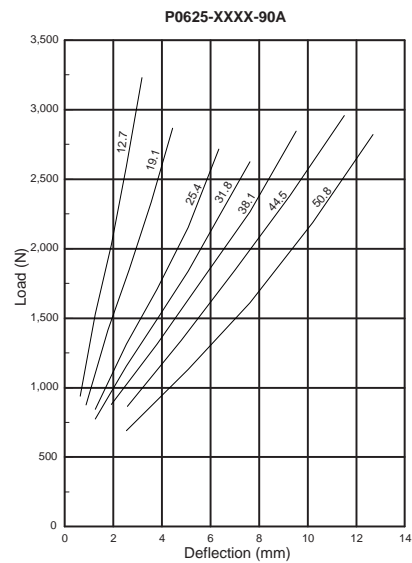
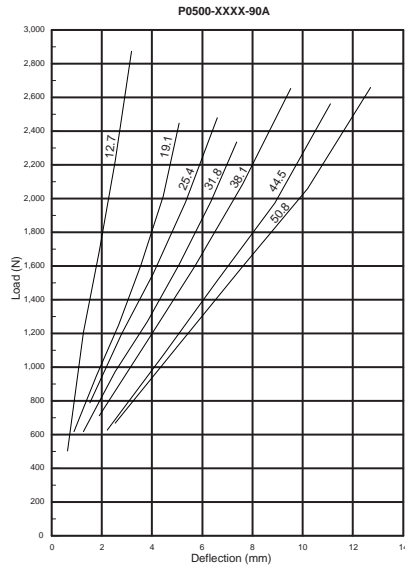
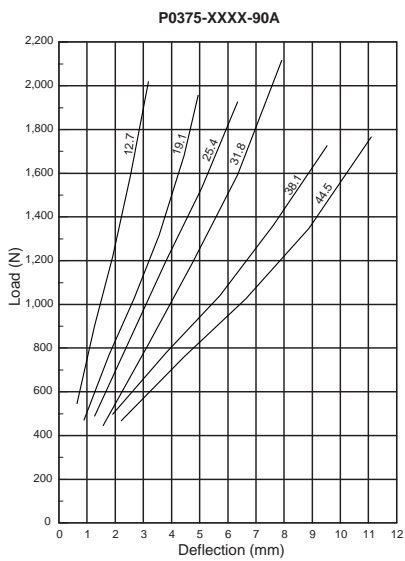
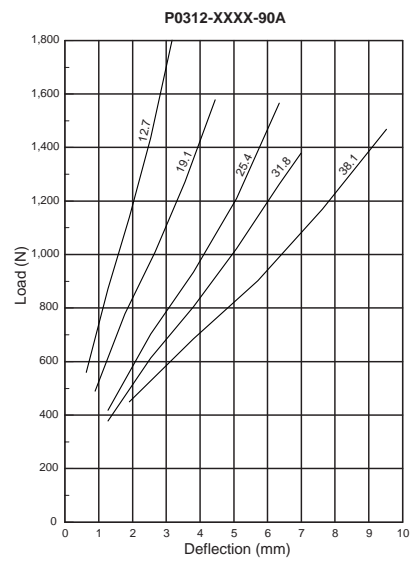
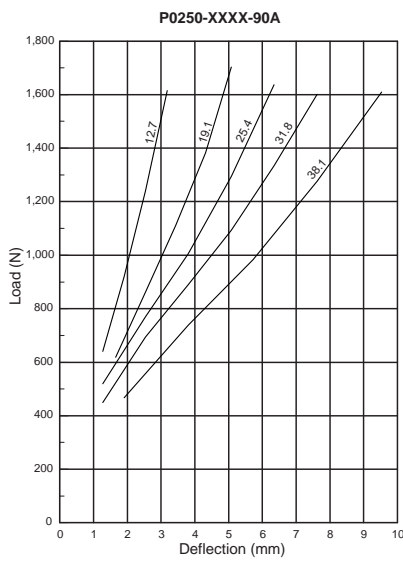
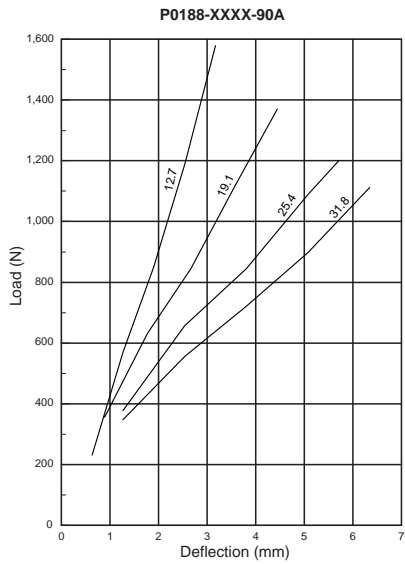


P0875-XXXX-80A



P1000-XXXX-80A





TUBE & ROD LENGTHS 305mm

URETHANE TUBES 305mm length

Part No.	Di Inside Dia. mm	Do Outside Dia. mm	Free Length (approx) mm	Durometer	Price Group	Part No.	Di Inside Dia. mm	Do Outside Dia. mm	Free Length (approx) mm	Durometer	Price Group
P0188-1200-60A P0188-1200-70A P0188-1200-80A P0188-1200-90A P0188-1200-95A	4.3	17.5	305	60A 70A 80A 90A 95A	BX	P0625-1200-60A P0625-1200-70A P0625-1200-80A P0625-1200-90A P0625-1200-95A	15.3	28.6	305	60A 70A 80A 90A 95A	CA
P0250-1200-60A P0250-1200-70A P0250-1200-80A P0250-1200-90A P0250-1200-95A	5.8	19.0	305	60A 70A 80A 90A 95A	BY	P0750-1200-60A P0750-1200-70A P0750-1200-80A P0750-1200-90A P0750-1200-95A	18.8	34.9	305	60A 70A 80A 90A 95A	CC
P0312-1200-60A P0312-1200-70A P0312-1200-80A P0312-1200-90A P0312-1200-95A	7.5	20.5	305	60A 70A 80A 90A 95A	CA	P0875-1200-60A P0875-1200-70A P0875-1200-80A P0875-1200-90A P0875-1200-95A	22	41.3	305	60A 70A 80A 90A 95A	CD
P0375-1200-60A P0375-1200-70A P0375-1200-80A P0375-1200-90A P0375-1200-95A	9.0	22.3	305	60A 70A 80A 90A 95A	CA	P01000-1200-60A P01000-1200-70A P01000-1200-80A P01000-1200-90A P01000-1200-95A	25.2	44.5	305	60A 70A 80A 90A 95A	CD
P0500-1200-60A P0500-1200-70A P0500-1200-80A P0500-1200-90A P0500-1200-95A	12.1	25.4	305	60A 70A 80A 90A 95A	CA						

URETHANE RODS 305mm length

Part No.	Do Outside Dia. mm	Free Length (approx) mm	Durometer	Price Group	Part No.	Do Outside Dia. mm	Free Length (approx) mm	Durometer	Price Group
PR0250-1200-60A PR0250-1200-70A PR0250-1200-80A PR0250-1200-90A PR0250-1200-95A	6.35	305	60A 70A 80A 90A 95A	BW	PR0750-1200-60A PR0750-1200-70A PR0750-1200-80A PR0750-1200-90A PR0750-1200-95A	19.05	305	60A 70A 80A 90A 95A	BY
PR0375-1200-60A PR0375-1200-70A PR0375-1200-80A PR0375-1200-90A PR0375-1200-95A	9.53	305	60A 70A 80A 90A 95A	BW	PR0875-1200-60A PR0875-1200-70A PR0875-1200-80A PR0875-1200-90A PR0875-1200-95A	22.23	305	60A 70A 80A 90A 95A	CA
PR0500-1200-60A PR0500-1200-70A PR0500-1200-80A PR0500-1200-90A PR0500-1200-95A	12.70	305	60A 70A 80A 90A 95A	BX	PR01000-1200-60A PR01000-1200-70A PR01000-1200-80A PR01000-1200-90A PR01000-1200-95A	25.40	305	60A 70A 80A 90A 95A	CC
PR0625-1200-60A PR0625-1200-70A PR0625-1200-80A PR0625-1200-90A PR0625-1200-95A	15.88	305	60A 70A 80A 90A 95A	BX	PR01250-1200-60A PR01250-1200-70A PR01250-1200-80A PR01250-1200-90A PR01250-1200-95A	31.75	305	60A 70A 80A 90A 95A	CC

