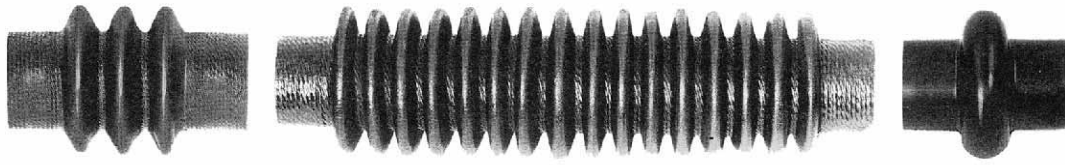


# Folding Bellows for Universal Joints and Shaft Joints



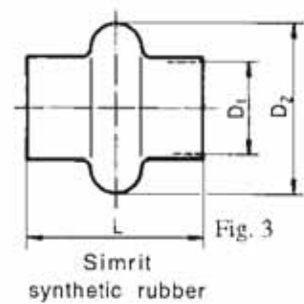
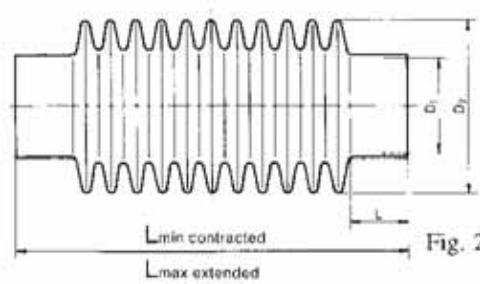
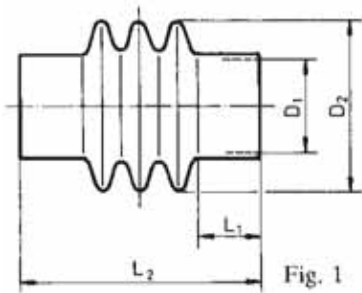
These folding bellows are made of high quality chrome tanned, black impregnated leather. They are resistant to oil, water and weather and serve as a protection for the joints against dust, humidity and acidic vapours. By filling the folding bellows with lubrication grease and then securing them with band clamp fittings, you achieve life-long lubrication. All dimensions in mm. For non-standard sizes & materials, see pages 48-51.

for Single Universal Joints (Fig. 1)					
Part No.	Size		Length		No. of Folds
	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	
20246	13	30	12	42	2
20262	16	32	15	40	2
20247	16	32	15	52	2
20248	20	35	20	62	2
20249	25	40	20	74	3
20250	32	55	20	86	3
20251	40	65	25	108	3
20263	50	75	25	105	3
20252	50	75	25	132	4
20264	63	95	30	130	4
20253	63	95	30	166	5
20265	75	105	40	160	5
20266	90	120	40	190	6

Temp.: -196°C to +90°C (-320°F to +194°F)

for Double Universal Joints (Fig. 1)					
Part No.	Size		Length		No. of Folds
	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	
20254	13	30	12	60	3
20267	16	32	15	62	3
20255	16	32	15	74	3
20256	20	35	20	88	3
20257	25	40	20	104	5
20258	32	55	20	124	5
20259	40	65	25	156	6
20260	50	75	25	188	6
20261	63	95	30	238	9
20268	75	105	40	245	11
20269	90	120	40	290	11

higher temperatures & other designs upon request



for Universal Joints - bracket versions (Fig. 1)					
Part No.	Size		Length		No. of Folds
	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	
20491	16	32	12	34	2
20270	18	35	12	40	2
20271	22	40	12	48	2
20272	26	45	12	56	2
20273	29	50	12	60	3
20274	32	55	15	68	3
20275	37	65	15	74	3
20276	42	70	20	82	3
20277	47	75	20	95	3
20278	52	80	20	105	3
20279	58	90	25	122	4

Temperature range: from -196°C to +90°C (-320°F to +194°F)

for Universal Joints - extendible (Fig. 2)						
Part No.	Size		Length			No. of Folds
	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	Lmin	Lmax	
20254	13	30	12	40	80	3
20280	16	32	15	52	102	4
20281	20	35	20	62	122	6
20282	25	40	20	67	137	7
20283	32	55	20	70	150	6
20259	40	65	25	73	175	6
20284	50	75	25	95	245	9
20285	63	95	30	117	317	11
20286	75	105	40	137	337	11
20269	90	120	40	122	360	11

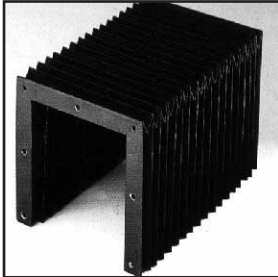
higher temperatures & other designs upon request

for Universal Joints - Simrit (Fig. 3)			
Part No.	Size		Length
	D <sub>1</sub>	D <sub>2</sub>	
20287	16	36	32
20288	18	38	38
20289	22	44	40
20290	26	50	45
20291	29	53	50
20292	32	58	60
20293	37	65	65
20294	42	71	75
20295	47	76	90
20296	52	88	95
20297	58	98	95

Temperature range: from -196°C to +90°C (-320°F to +194°F)

## Other types of Protective Bellows

Made to measure types suitable for the machine tool industry, general engineering, construction or chemical and pharmaceutical industries with critical application requirements such as: absolute impermeability; resistant to weather, UV or high temperatures; chemicals or welding sparks.

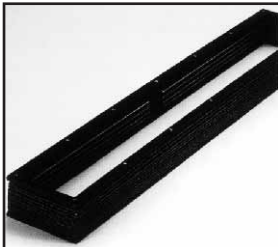


### Homogen Bellows

Standard widths: 200/250/300/350/400mm. Lengths 33mm (min) to 200mm (max).

Single layered material offering: easy mobility; holds it's shape; high linear speed; effective protection for guide ways. Available in a choice of materials for attributes such as: dust protection; safety function; high tear resistance; resistance to: oils, coolants, acids, alkaline solutions, paints and solvents; fluid tight; resistance to welding sparks and slag (does not melt through) or temperature resistance (radiant heat).

Optional guide track slides can be attached to every 3rd fold.



### Box Bellows

Ideal for increased work safety as moving parts are covered and for greater dimensional stability. Available in a choice of materials for attributes such as: dust protection and safety function; resistance to oil and coolant; welded seam for fluid tight; resistance to: acids, alkaline solutions, paints and solvents; resistance to welding sparks and slag (does not melt through) and temperature resistance (radiant heat).



### Polygonal Bellows

The standard polygonal are dimensioned hexagonally. Plastic coated material provides protection against oil, cooling emulsions, water and dust, as well as being fluid tight and providing resistance to welding sparks & radiant heat.



### Round Textile Bellows

Reliable protection from contaminants. Suitable for external applications.

Individual elements sewn together larger extension and greater compression.

Available in a choice of materials for attributes such as: dust protection and safety function; resistance to oil and coolants; fire retarding specification according to UL94 and DIN53438; resistance to: acids, alkaline solutions, paints and solvents; resistance to welding sparks and slag (does not melt through) and temperature resistance (radiant heat).

Optional external guides and expansion locks.



### Rubber Disk Bellows

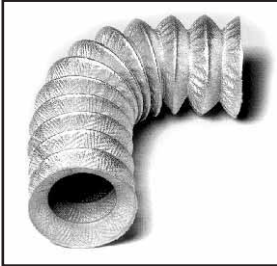
Absolutely leakproof - individual rubber disks are bonded together. High resistance to mechanical stress. Weather proof & resistant to UV radiation.

Choice of materials: **Nitrile Rubber** for reliable protection against water, oil, emulsions and motor fuel, less weather resistance than CSM. Temperature resistant for a short period at 110°C and permanently temperature resistant at 90°C. **CSM Hypalon** for a high degree of weather resistance and protection from UV radiation/, temperature resistant for a short time -20°C to 140°C. Permanent temperature resistance at +120°C and absolutely leakproof. Less resistance to oil than Nitrile rubber.



### PVC Round Bellows

Many possible dimensions. No tool costs for dipped bellows.  
 Installation of steel flanges possible.  
 Insertion of wire rings possible.  
 Zippers can be sewn in.  
 Standard or made to order options.  
 For shaft sizes 15mm to 250mm.



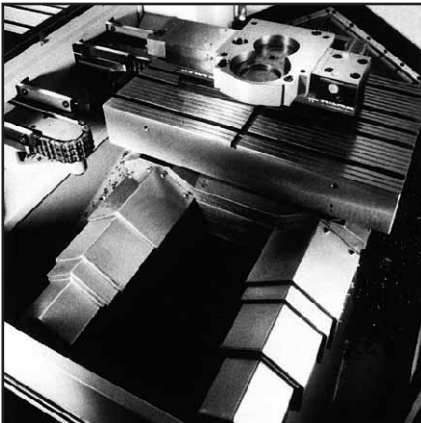
### Special Fabric Round Bellows

High capacity of resistance to wear. High degree of dimensional stability.  
 Abrasion proof. Stable up to 800°C radiating heat. Resistant to: acid, oil and weather.  
 Pressure resistant through re-enforcement with wire rings or spirals.  
 Can be supplied to open along its length i.e. with a zip.  
 Material options: CR special rubber coating for resistance to thermal, chemical and physical effects. Teflon - for higher degree of resistance to chemicals. Metal-coated Kevlar fabric for applications up to 220°C. Carbon fibre for protection against welding splash and sparks.



### Leather Round/Conical/Square/ Pyramid Shaped Bellows

Made to order sizes.  
 Fulfills even extremely difficult requirements.  
 Made of specially treated industrial grade leather.  
 Protection against water, oil, welding sparks, cutting swarfs etc.  
 Highly flexible and resistant to aging.  
 Can be supplied in a split version with snaps, velcro strips or zippers.  
 Suitable for horizontal or vertical movement.



### Steel Telescopic Sheet Bellows

Hinged telescopic sheets. Reliable protection against large quantities of swarf.  
 No glued connections.  
 High linear speeds possible.  
 Rust and acid resistant telescopic sheets.  
 Individual telescopic sheets easy to replace.  
 Also available with complete sealing against cooling emulsions if required.

### Rigid Steel Telescopic Sheet Bellows

Permanent pressure from the steel sheets.  
 No glued connections - welded under tension.  
 High linear speeds possible. Impervious to liquids.  
 Rust and acid resistant telescopic sheets. Various shapes available.  
 Also available with complete sealing against cooling emulsions if required.

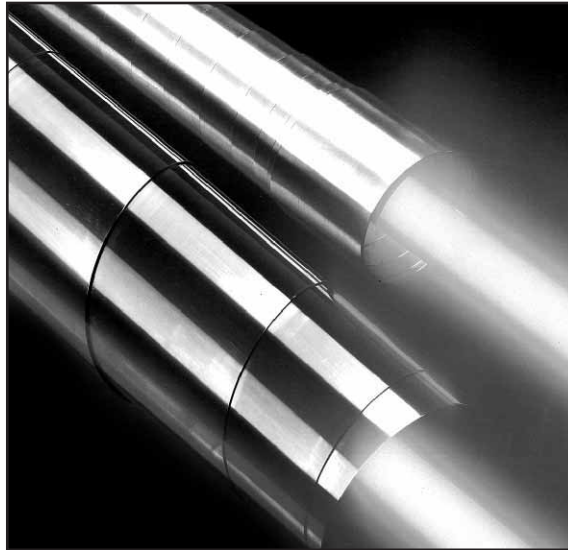


### Telescopic Steel Covers

Tightly sealed against oil, coolant and swarf. Choice of shapes and dimensions.  
 Minimum maintenance required. Individual guide variation.  
 High linear speed. Walk-on versions available.  
 Specifically developed wiper systems. Construction and development with CAD.  
 Highest precision through laser and numerically controlled manufacturing.  
 Guaranteed precision for repeat orders.  
 Special damping and buffer systems for medium to high speeds.

Please contact T.E.A. for faxed data sheets and further information

## Steel Spiral Protective Bellows



Providing clean, safe conditions for operation of linear shafts and ballscrews.

The key to this product is the proven success in the protection against chips, dust and liquids combined with high temperature stability and chemical resistance.

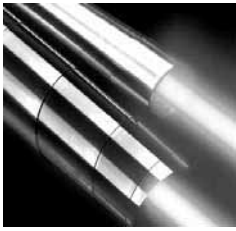
These spirals distinguish themselves in safety and performance, and in addition require little maintenance. Retrofit mounting is also possible.

They provide effective sealing and are self-cleaning when correctly installed.

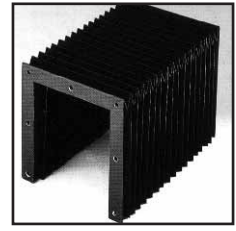
These spirals are conically wound, and follow the movement of the machine. Manufactured from high quality blue steel or alternatively from high grade stainless steel, they can operate vertically, horizontally or in a sloping position.

Material:	High quality polished blue steel or stainless steel
Operating angle:	Vertical, horizontal or sloping
Size Range:	15mm to 210mm shaft diam.
Provides protection against:	Chips, dust and/or liquid
Operating conditions:	Bellow covers are recommended for applications: <ul style="list-style-type: none"><li>- With infrequent movements</li><li>- With low linear speed</li><li>- In a dry working environment</li><li>- Where maintenance is impossible</li></ul>
Beneficial features:	High temperature stability Chemical resistance Little maintenance Retrofit mounting possible Effective sealing Self cleaning in vertical installations

Please contact T.E.A. for data sheets, or photocopy next page (page 51) complete and fax to T.E.A. for price and delivery quotation.



# Enquiry Form for Protective Bellows



Please photocopy this page, complete with as much information as possible, then fax or email to T.E.A. for a quotation. Fax: 07-4129 2437 Email: sales@tea.net.au

Date: \_\_\_\_\_ Company: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Ph: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

Type of protective bellow required: \_\_\_\_\_

Qty: \_\_\_\_\_

Material: \_\_\_\_\_

Inside diam. D1: \_\_\_\_\_

Inside diam. D2: \_\_\_\_\_

Maximum compressed length: \_\_\_\_\_

Maximum extended length: \_\_\_\_\_

Maximum diam. of convolutions D3: \_\_\_\_\_

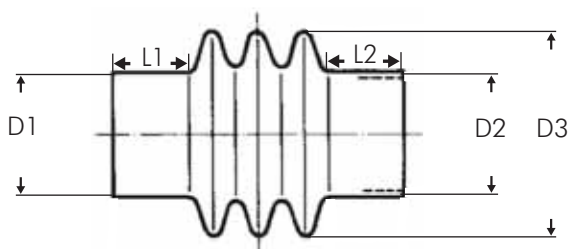
Cuff length L1: \_\_\_\_\_

Cuff length L2: \_\_\_\_\_

Shaft diam. passing through convolutions: \_\_\_\_\_

Working environment: \_\_\_\_\_

Other details: \_\_\_\_\_





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**Virginia 23230**  
**U.S.A.**

**Ph: +1-804-342-0004**

**Fax: +1-804-342-0006**

**Web: [www.teausa.net](http://www.teausa.net)**

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