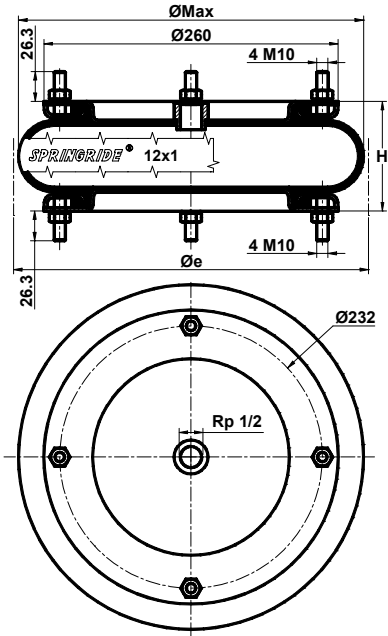


BELLOWS 12" x 1



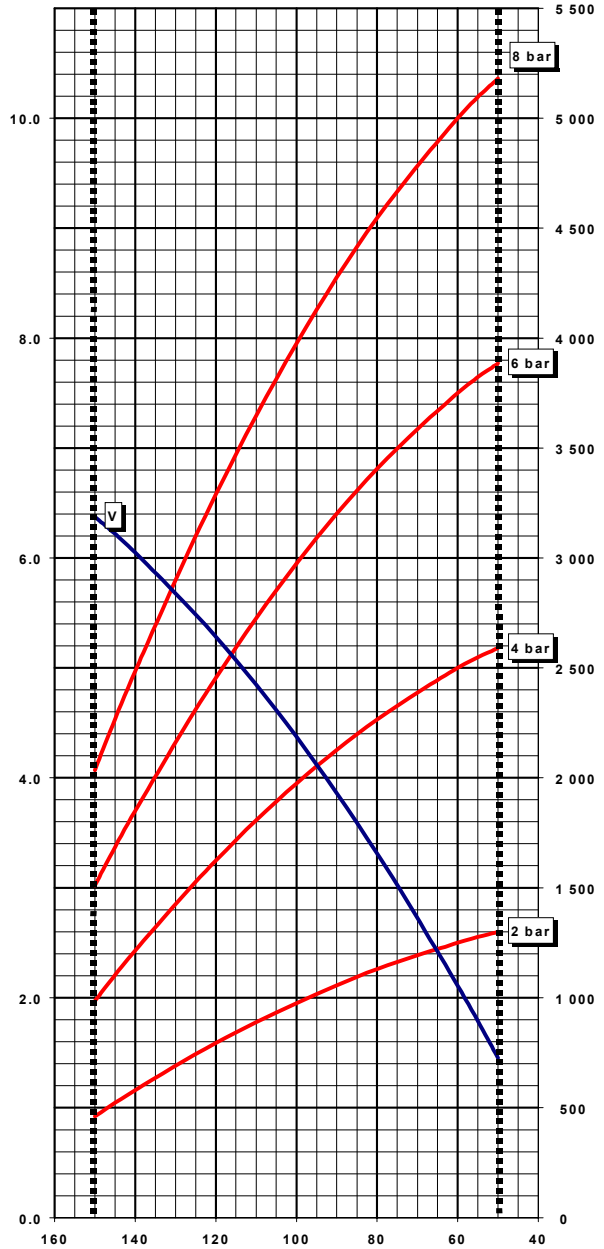
ASSEMBLED WITH 8 NUTS Hu10 AND 8 WASHERS GROWER WZ10.
FASTENING TORQUE 25 Nm

Heights (mm) (H)			Stroke (mm)
Maximum	Minimum	Design	
150	50	100	100
Diameters (mm)			Weight (kg)
Ø MAX	Overall		
330	350		5.4

Rubber Bellow	Features	Part Numbers
Standard	-Rubber Only	SP1216
-40 to 70°C	-Assembled Bellows	SP1540
Butyl	-Rubber Only	SP1136
-25 to 90°C	-Assembled Bellows	SP1677
Epichlore	-Rubber Only	SP2515
-20 to 115°C	-Assembled Bellows	SP2591

VOLUME V (dm³) at 6 bar

LOAD (daN)



HEIGHT (mm)

- Indicative value of force required to reach minimum height at atmospheric pressure : 10 daN

- Maximum pressure : 8 bar

- The datas presented on this document are liable to evolution and don't constitute a commitment from DUNLOP AIRSPRINGS (see page 5-7).

BELLOWS 12" x 1

FOR USE AS A PNEUMATIC ACTUATOR

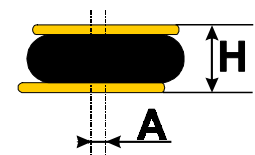
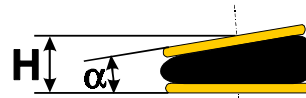
CHARACTERISTICS IN STATIC CONDITION				
HEIGHT (mm)	LOAD (daN)			
	Pressure 2 bar	Pressure 4 bar	Pressure 6 bar	Pressure 8 bar
50	1300	2590	3885	5180
60	1250	2500	3750	5000
80	1130	2265	3405	4545
100	975	1975	2975	3975
120	795	1625	2455	3290
140	580	1215	1850	2485
150	460	985	1510	2035

ANGULAR CAPABILITY

Maximum (α)	For H between	
	H mini (mm)	H maxi (mm)
5°	60	125
10°	75	115
15°	90	105

OUT OF ALIGNMENT

Maximum (A)	For H between	
	H mini (mm)	H maxi (mm)
10	70	135
20	80	130
30	90	115



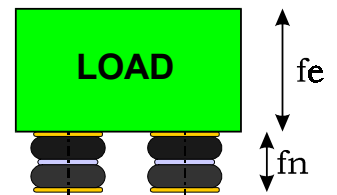
- Airsprings must not be pressurised unless they are restricted by an outside frame or by a suitable load.
- Strokes must be limited by the direct use of bump stops or external stops.
- When stacking airsprings, special cares must be taken to ensure the airsprings are guided and fixed.
- An Airspring is a single acting air actuator and must not be used below atmospheric pressure.
- Please check the over-pressure in case of quick compression.
- The datas presented on this document are liable to evolution and don't constitute a commitment from DUNLOP AIRSPRINGS (see page 5-7).

FOR USE AS AN ISOLATOR

DYNAMIC CHARACTERISTICS AT H= 120 mm *				
	Pressure 2 bar	Pressure 4 bar	Pressure 6 bar	Pressure 8 bar
LOAD (daN)	795	1625	2455	
VOLUME (dm³)	4.95	5.12	5.28	
STIFFNESS (daN/cm)	230	413	588	
NATURAL FREQUENCY (Hz)	2.69	2.51	2.44	
ISOLATION RATE at 10 Hz	92.2%	93.3%	93.7%	

- Isolation rate is given by the formula :

$$I = 1 - \frac{1}{\left(\frac{f_e}{f_n}\right)^2 - 1}$$



fe = Exciting frequency (Hz)
fn = Airspring natural frequency (Hz)

* Recommended height for better isolation.