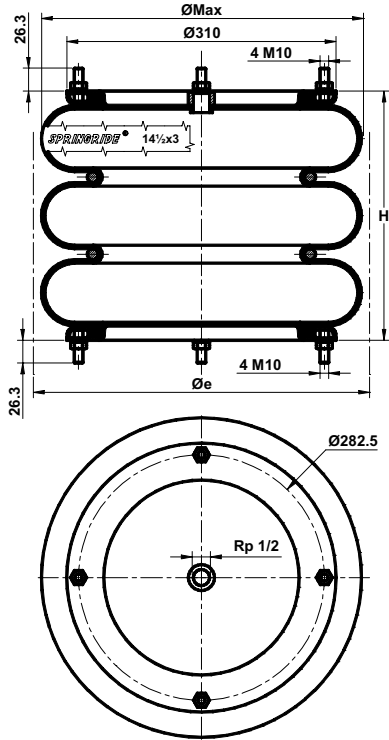


BELLOWS 14½" x 3



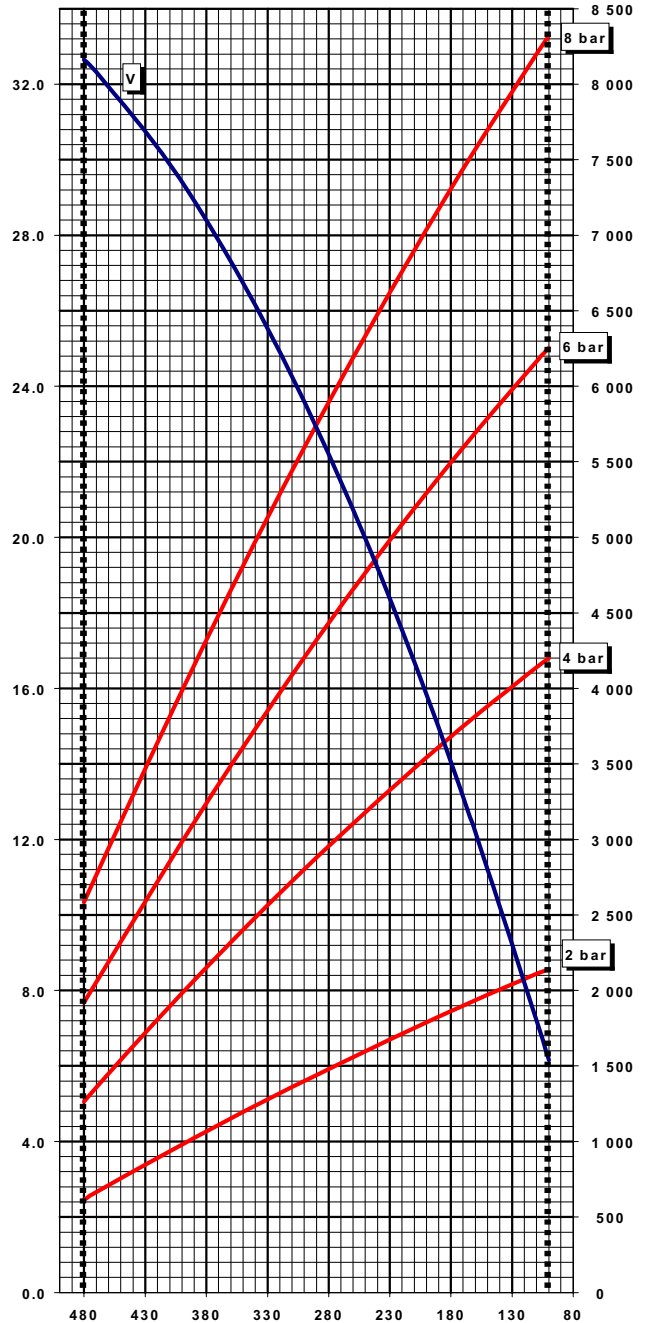
ASSEMBLED WITH 8 NUTS Hu10 AND 8 WASHERS GROWER WZ10.
FASTENING TORQUE 25 Nm

Heights (mm) (H)			Stroke (mm)
Maximum	Minimum	Design	
480	100	290	380
Diameters (mm)			Weight (kg)
Ø MAX	Overall		
400	425		10.5

Rubber Bellow	Features	Part Numbers
Standard	-Rubber Only	SP1477
-40 to 70°C	-Assembled Bellows 4 studs	SP1558
Butyl	-Rubber Only	SP1518
-25 to 90°C	-Assembled Bellows 4 studs	SP1732
Epichlore	-Rubber Only	SP2648
-20 to 115°C	-Assembled Bellows 4 studs	SP2733

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).

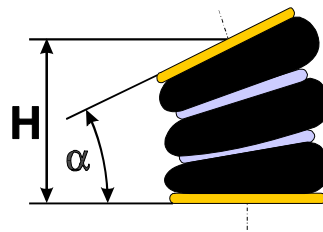
BELLOWS 14½" x 3

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
100	2140	4200	6255	8320
170	1900	3750	5595	7440
230	1675	3325	4980	6620
290	1440	2880	4320	5745
350	1195	2400	3610	4810
410	935	1895	2855	3815
480	615	1265	1920	2585

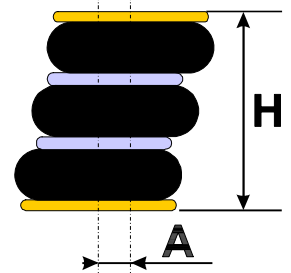
ANGULAR CAPABILITY

Maximum (α)	For H between	
	H mini (mm)	H maxi (mm)
5°	280	430
10°	300	390
15°	310	370



OUT OF ALIGNMENT

Maximum (A) (mm)	For H between	
	H mini (mm)	H maxi (mm)
10	180	450
20	205	440
30	225	425
40	245	410
50	260	385



- 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.

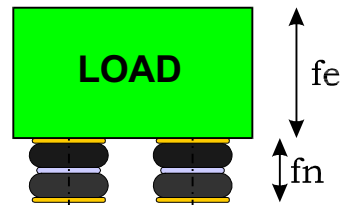
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FOR USE AS AN ISOLATOR

DYNAMIC CHARACTERISTICS AT H= 370 mm *				
	Pressure 2 bar	Pressure 4 bar	Pressure 6 bar	Pressure 8 bar
LOAD (daN)	1110	2235	3365	
VOLUME (dm³)	26.07	26.97	27.86	
STIFFNESS (daN/cm)	92	163	233	
NATURAL FREQUENCY (Hz)	1.43	1.35	1.31	
ISOLATION RATE at 10 Hz	97.9%	98.1%	98.2%	

- 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)

Warning : 3 convolutions bellows are laterally instable, when used as isolators, they need special guides.

* Recommended height for better isolation.