RUBENA Type Air Springs

The air springs are generally intended for many different applications where is necessary to eliminate the vibration and beats. For example they may be used for the resilient mounting of bus or truck driver seats, trucks, trolley-buses, tractors, railway-carriage, tramway waggons and car axles, etc. They are used for suspension the resilient mounting of heavy machines, shock-creating and vibrating devices (such as forging presses, power hammers, textile looms, etc.). They are suitable for insulating laboratory devices from vibrations. They are also recommended for the resilient mounting of trailers. Other applications should be discussed with the manufacturer.

Using the air springs in vehicles is advantageous in many ways, e.g. slower tyre wear and tear, lower fuel consumption, sparing the vehicles. The air-spring pressure control function facilitates reaching the optimum height of the vehicle and thus the correct functioning of vehicle lights. Resilient-mounted seats in trucks and tractors increase drivers' comfort. The negligible maintenance cost and longer durability make using air springs preferable in comparison with normal springs.

A complete air spring consists of a corrugated air spring body made of rubberized fabric, two clamping rings, the top clamp plate with air inlet, the bottom plate and centre rings. The plates are designed to be attached to nonresilient and resilient-mounted parts of the vehicle (device). Further informations you can get on sales or engineering department.

The air springs can be mounted either individually or in panels (where the requested number of air springs is connected), depending on the weight of the vehicle (device). The rubberized-fabric wall of the body must not come into contact with sharp or hot objects (iron scale, edges, exhausts, etc.)

The air springs can be inflated either individually or centrally. It is recommended to connect them to the pressurized air source via a control valve.

The air springs (air spring bodies) may be used up to the maximum operating overpressure (P_{max}) according to individual models and basic specifications valid for static height H_{STAT} given in the table.

The air springs can be used within the temperature range from -30 °C to +60 °C. For other applications please contact producer.

The rubber of the body is not resistant to crude-oil products such as oil, diesel, petrol, kerosene, etc.). If contaminated, please wash it with warm water and wipe.

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BASIC SPECIFICATIONS

Air Spring **A**/Number of convolutions	$A_{max.}$ [mm]	B [mm]	C [mm]	$H_{stat.}$ [mm]	Z [mm]	V [cm^3]	Sef. [cm^2]	Pmax. [PMa]	m [kg]
130/1	140	80	53,6	75	± 30	638	74	0.5	0.3
130/2	140	145	53,6	130	± 40	1 155	73	0.5	0.4
130/3	140	210	53,6	170	± 60	1 515	77	0.5	0.5
170/1	180	92	90	80	± 30	960	152	0.7	0.4
170/2	180	162	90	135	± 60	1 945	154	0.7	0.6
170/3	180	232	90	180	± 100	2 760	156	0.7	0.9
190/1	200	140	96	130	± 30	2 410	154	0.5	0.5
✧ **190/2**	200	210	96	200	± 60	3 640	153	0.5	0.8
190/3	200	280	96	240	± 100	4 935	155	0.7	1.1
280/1	295	108	150	100	± 30	4 480	385	0.7	2.1
280/2	295	179	150	165	± 60	6 720	387	0.7	2.6
✧ **280/3**	295	250	150	230	± 100	8 970	389	0.7	3.2
290/1	310	93	154	115	± 60	4 300	342	0.7	2.2
✧ **290/2**	310	162	154	175	± 90	7 315	400	0.7	2.8
✧ **290/3**	310	231	154	240	± 100	10 150	438	0.7	3.4
✧ **340/2**	345	162	192	170	± 90	9 500	600	0.7	1.8
✦ **34/3**	345	231	192	240	± 100	14 900	600	0.7	2.4
380/1	395	106	234	110	± 30	7 300	714	0.7	2.2
380/2	395	175	234	170	± 75	12 900	739	0.7	3.0
380/2T	400	200	213	230	± 80	–	700	1.0	4.3
✦ **38/3**	395	244	234	240	± 100	19 650	756	0.7	3.7
410/1	410	130	270	130	± 30	11 000	973	0.7	2.4
✧ **410/2**	410	206	270	205	± 75	18 000	975	0.7	3.4
✧ **410/3**	410	280	270	280	± 120	26 700	1 000	0.7	4.3

Legend:

A = outside diameter of the bellow in the mould (in mm)
$A_{max.}$ = max outside diameter of the bellow at $H_{stat.}$ and $P_{max.}$
B = bellow high in the mould
C = inside diameter at the bellow in the mould
H_{stat} = static (assembling) height of the bellow
Z = stroke of the bellow from $H_{stat.}$
V = volume of the bellow at $H_{stat.}$
$S_{ef.}$ = effective area of the bellow at $H_{stat.}$
$P_{max.}$ = max operating overpressure at $H_{stat.}$
✦ – outside diameter of the bellow (in cm)
✧ – job- order manufacture