

TOOL GAS SPRINGS





Dadco are regarded as one of the foremost manufacturers of gas springs in the world. Their designs contain a patented seal, and guarantee 1 million load oscillations without reconditioning.

Gas springs of this type are predominantly used in production tools; however, they can also be used in a number of other mechanical applications, where high forces in a limited space are required.

Dadco products range from the micro-series up to the largest, which has a maximum stroke of 250 mm and a force of 75 kN (7 500 kp).

This catalogue includes gas springs of up to 30 kN (3 000 kp). Upon request, we will send you information detailing gas springs and fittings outside our catalogue range.

With the exception of the micro-series, it is possible to refurbish the gas spring by changing the seal; this operation can be carried out by the user.

The difference between the tool gas spring and an ordinary die spring is the force that is initially gained occurs without having to pre-load the spring. This will therefore result in an increase in the possible stroke. Also, the force increase under compression is limited and does not result in increased stress.

Socket and fittings

In addition to the sockets presented in this catalogue, there are a number of other different sockets and fittings available. These are specific to such applications as filling equipment etc. Please contact us for further information.

Piston rod and seal

All Dadco gas springs have an extremely fine surface finish on the piston rod. Combined with the patented seals (including a special synthetic temperature resistant oil) which are mounted in a special housing (Gold Cartridge), the result is a minimum of friction which acts to prolong the life of all components. Due to the use of the double seal and temperature resistant oil, this range of springs can be used in a variety of harsh environments.

Long life

Dadco guarantees at least 1 million load oscillations per year at a 50 mm stroke (=10 000 metres of stroke). However, in practice, the component life is substantially longer.

Stock

Tool gas springs are not kept in stock. General delivery time is approximately 1 week.

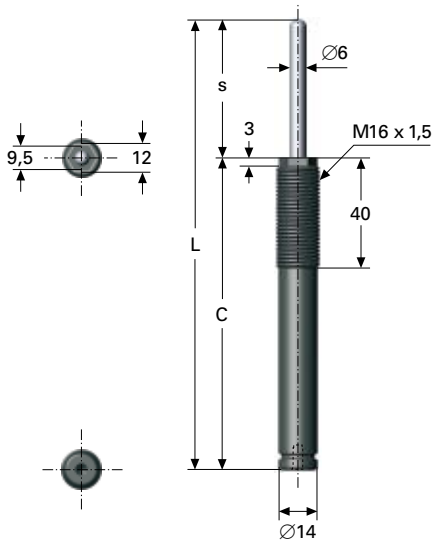
TOOL GAS SPRINGS

Dadco Micro SL 16

DADCO MICRO

The Micro models are the most compact gas springs on the market, with very high operational reliability. They are primarily used in tooling applications, but are very versatile and can be used in a variety of applications. The springs are supplied in different force classes: orange, purple, green, blue, red and yellow, and all come with a black wiper and offer valve adjustable spring force. For further details please refer to the table below.

Type 90 is available with both plain and threaded tubes; SL 16 is only available with a threaded tube and type 180 and 250 with a plain tube. A threaded tube gives the added advantage of easy length adjustment. Type SL 16 is adjusted by an external hex nut and type 90 by an internal socket. We recommend that not more than 90% of the stroke is used. Not kept in stock.



MICRO SL 16

All dimensions are in mm

s = Stroke length

C = Tube length

L = Total unloaded length

F₀ = Spring force in Newtons at start

Charging Medium: Nitrogen gas

Charging pressure: 25–175 bar

Recommended operating temperature: -30 – +72 °C

Recommended maximum speed of stroke: 35 metres/minute

The initial force for the spring (F₀) gradually increases by up to 30% at complete compression.

1 kp = 9.807 Newtons, 1 Newton = 0.10197 kp

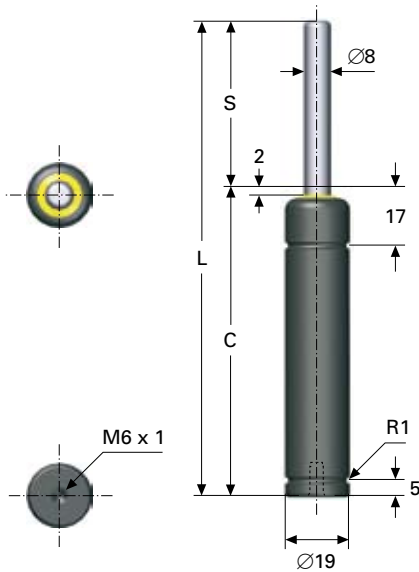
s	C	L	F ₀	Cat.no	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.
10	70	80	57	4750	113	4759	212	4768	424	4777	509	4786
20	80	100	57	4751	113	4760	212	4769	424	4778	509	4787
30	90	120	57	4752	113	4761	212	4770	424	4779	509	4788
40	100	140	57	4753	113	4762	212	4771	424	4780	509	4789
50	110	160	57	4754	113	4763	212	4772	424	4781	509	4790
60	120	180	57	4755	113	4764	212	4773	424	4782	509	4791
70	130	200	57	4756	113	4765	212	4774	424	4783	509	4792
80	140	220	57	4757	113	4766	212	4775	424	4784	509	4793
100	160	260	57	4758	113	4767	212	4776	424	4785	509	4794

TOOL GAS SPRINGS

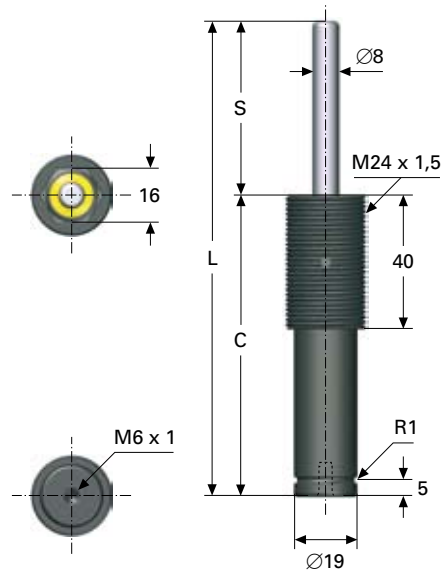
Dadco Micro 90



MICRO 90 PLAIN



MICRO 90 THREADED



MICRO 90 PLAIN

s	C	L	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀ *	Cat. no.		
7	49	56	50	5496	90	5507	220	6601	440	6602	670	6603	890	6604	50-890	5538
10	52	62	50	5497	90	5508	220	5518	440	5523	670	5528	890	5533	50-890	5539
12,7	54,7	67,4	50	5498	90	5509	220	5519	440	5524	670	5529	890	5534	50-890	5540
15	57	72	50	5499	90	5510	220	6605	440	6606	670	6607	890	6608	50-890	5541
25	67	92	50	5500	90	5511	220	6609	440	6610	670	6611	890	6612	50-890	5542
38	80	118	50	5501	90	5512	220	6613	440	6614	670	6615	890	6616	50-890	5543
50	92	142	50	5502	90	5513	220	6617	440	6618	670	6619	890	6620	50-890	5544
63,5	108,5	172	50	5503	90	5514	220	5520	440	5525	670	5530	890	5535	50-890	5545
80	125	205	50	5504	90	5515	220	6621	440	6622	670	6623	890	6624	50-890	5546
100	145	245	50	5505	90	5516	220	5521	440	5526	670	5531	890	5536	50-890	5547
125	170	295	50	5506	90	5517	220	5522	440	5527	670	5532	890	5537	50-890	5548

* Please specify required force when ordering.

MICRO 90 THREADED

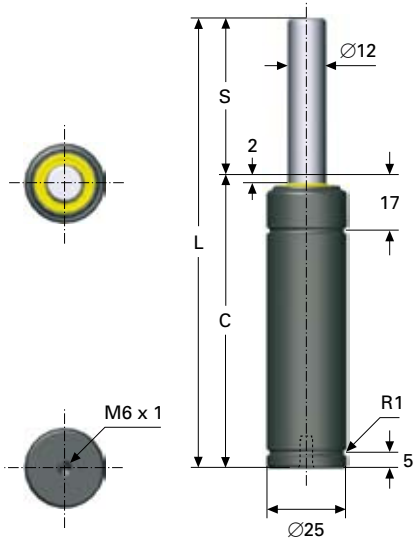
s	C	L	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀ *	Cat. no.		
7	49	56	50	5549	90	5560	220	5571	440	5582	670	5593	890	5604	50-890	5615
10	52	62	50	5550	90	5561	220	5572	440	5583	670	5594	890	5605	50-890	5616
12,7	54,7	67,4	50	5551	90	5562	220	5573	440	5584	670	5595	890	5606	50-890	5617
15	57	72	50	5552	90	5563	220	5574	440	5585	670	5596	890	5607	50-890	5618
25	67	92	50	5553	90	5564	220	5575	440	5586	670	5597	890	5608	50-890	5619
38	80	118	50	5554	90	5565	220	5576	440	5587	670	5598	890	5609	50-890	5620
50	92	142	50	5555	90	5566	220	5577	440	5588	670	5599	890	5610	50-890	5621
63,5	108,5	172	50	5556	90	5567	220	5578	440	5589	670	5600	890	5611	50-890	5622
80	125	205	50	5557	90	5568	220	5579	440	5590	670	5601	890	5612	50-890	5623
100	145	245	50	5558	90	5569	220	5580	440	5591	670	5602	890	5613	50-890	5624
125	170	295	50	5559	90	5570	220	5581	440	5592	670	5603	890	5614	50-890	5625

* Please specify required force when ordering.

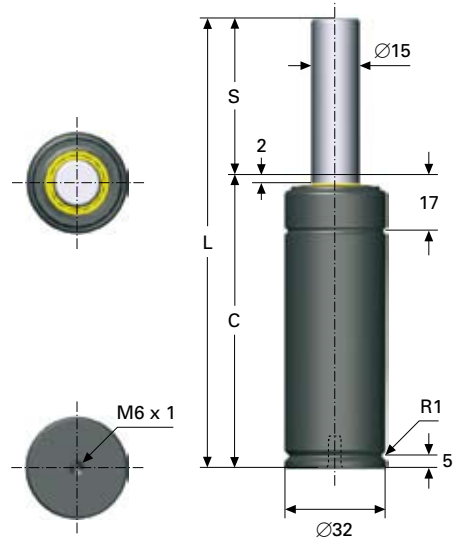
TOOL GAS SPRINGS

Dadco Micro 180 and 250

MICRO 180



MICRO 250



MICRO 180

s	C	L	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀ *	Cat. no.
7	49	56	500	6625	1000	6626	1500	6627	2000	6628	390-2000	5646
10	52	62	500	5626	1000	5631	1500	5636	2000	5641	390-2000	5647
12,7	54,7	67,4	500	5627	1000	5632	1500	5637	2000	5642	390-2000	5648
15	57	72	500	6629	1000	6630	1500	6631	2000	6632	390-2000	5649
25	67	92	500	6633	1000	6634	1500	6635	2000	6636	390-2000	5650
38	80	118	500	6637	1000	6638	1500	6639	2000	6640	390-2000	5651
50	92	142	500	6641	1000	6642	1500	6643	2000	6644	390-2000	5652
63,5	108,5	172	500	5628	1000	5633	1500	5638	2000	5643	390-2000	5653
80	125	205	500	6645	1000	6646	1500	6647	2000	6648	390-2000	5654
100	145	245	500	5629	1000	5634	1500	5639	2000	5644	390-2000	5655
125	170	295	500	5630	1000	5635	1500	5640	2000	5645	390-2000	5656

* Please specify required force when ordering.

MICRO 250

s	C	L	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀	Cat. no.	F ₀ *	Cat. no.
7	49	56	780	0945	1560	0956	2340	0967	3120	0978	600-3130	0989
10	52	62	780	0946	1560	0957	2340	0968	3120	0979	601-3130	0990
12,7	54,7	67,4	780	0947	1560	0958	2340	0969	3120	0980	602-3130	0991
15	57	72	780	0948	1560	0959	2340	0970	3120	0981	603-3130	0992
25	67	92	780	0949	1560	0960	2340	0971	3120	0982	604-3130	0993
38	80	118	780	0950	1560	0961	2340	0972	3120	0983	605-3130	0994
50	92	142	780	0951	1560	0962	2340	0973	3120	0984	606-3130	0995
63,5	108,5	172	780	0952	1560	0963	2340	0974	3120	0985	607-3130	0996
80	125	205	780	0953	1560	0964	2340	0975	3120	0986	608-3130	0997
100	145	245	780	0954	1560	0965	2340	0976	3120	0987	609-3130	0998
125	170	295	780	0955	1560	0966	2340	0977	3120	0988	610-3130	0999

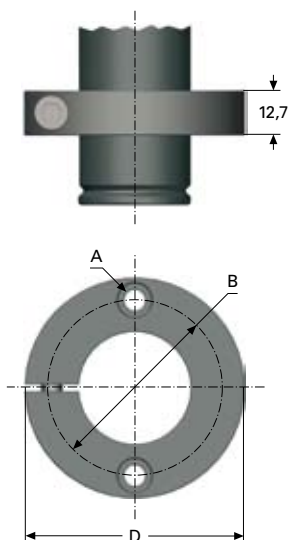
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TOOL GAS SPRING SOCKETS

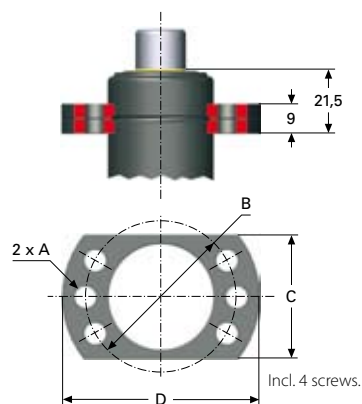
Dadco Micro 90, 180 and 250



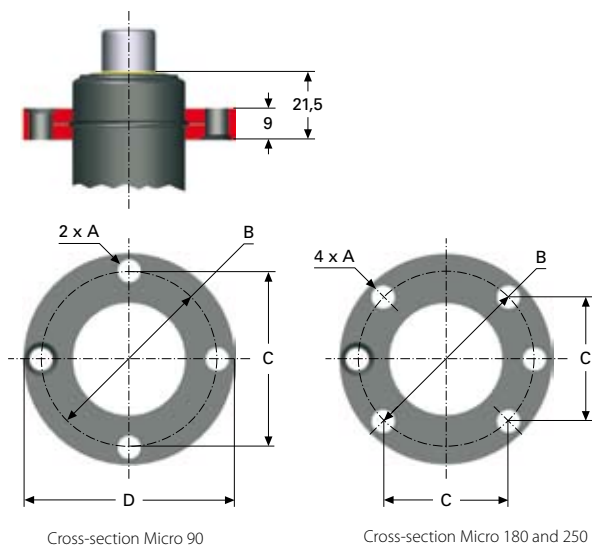
TYPE 1



TYPE 2



TYPE 3



Cross-section Micro 90

Cross-section Micro 180 and 250

Spring type	End fitting type	A	B	C	D	Cat.no
90	1	2 x M5	31,8		43	8149
90	2	6,6	32	25	44	8150
90	3	6,6	32		44	9993
180	1	2 x M5	38,1		50	8151
180	2	6,6	38	30	50	8152
180	3	6,6	38	26,9	50	9994
250	1	2 x M6	50		63	9995
250	2	6,6	50	37,5	60	9996
250	3	6,6	50	35,4	60	9997