

DADCO Nitrogen Gas Spring Force Charts (Imperial)

Micro – C Series



Model	A(in ²)	Charging Pressure (psi)											Force (lb.)
		2560	2175	1920	1750	1500	1280	1000	750	640	500	260	
C.045	0.044	Yellow		Red			Blue			Green		Purple	Orange
C.045	0.044	112	95	84	77	66	56	44	33	28	22	–	–
C.070	0.060	154	131	115	105	90	77	60	45	38	30	–	–
C.090	0.078	200	169	150	136	117	100	78	58	50	39	20	10
C.180	0.175	450	381	337	307	263	224	175	131	112	88	–	–
C.250	0.274	701	596	526	479	411	351	274	205	175	137	–	–

To calculate forces at pressures other than those listed use the following formula: **F(lb.) = A(in²) * P(psi)**

Mini – LJ / L Series



Series	Model	A(in ²)	Charging Pressure (psi)										Force (lb.)
			2175	2000	1750	1500	1250	1000	750	500	250		
LJ	L	300	0.312	678	623	545	467	390	312	234	156	78	
LJ	L	500	0.487	1059	974	852	730	609	487	365	243	122	
LJ	L	750	0.761	1655	1522	1331	1141	951	761	571	380	190	

To calculate forces at pressures other than those listed use the following formula: **F(lb.) = A(in²) * P(psi)**

Ultra Force® and Ultra Force Extended® – U / UK / UH / UX / UT Series



Series	Model	A(in ²)	Charging Pressure (psi)													Force (lb.)
			2600	2175	2000	1750	1500	1250	1000	750	500	250				
U	–	–	–	–	0175	0.147	383	320	295	258	221	184	147	110	74	37
U	–	–	–	–	0325	0.274	715	596	548	479	411	342	274	205	137	68
U	–	UH	–	–	0400	0.312	810	678	623	545	467	390	312	234	156	78
U	–	UH	–	–	0600	0.487	–	1059	974	852	730	609	487	365	243	122
U	UK	UH	–	UX	0800	0.761	–	1655	1522	1331	1141	951	761	571	380	190
U	UK	UH	UT	UX	1000	0.954	–	2076	1909	1670	1432	1193	954	716	477	239
U	–	–	–	–	1200	1.096	–	2383	2191	1917	1643	1370	1096	822	548	274
U	UK	UH	–	UX	1600	1.578	–	3432	3155	2761	2367	1972	1578	1183	789	394
U	UK	UH	UT	UX	2600	2.465	–	5362	4930	4314	3698	3081	2465	1849	1233	616
U	–	UH	UT	UX	4600	4.383	–	9532	8765	7669	6574	5478	4383	3287	2191	1096
U	–	UH	UT	UX	6600	6.848	–	14894	13695	11983	10272	8560	6848	5136	3424	1712
U	–	–	UT	UX	9600	9.861	–	21447	19721	17256	14791	12326	9861	7396	4930	2465
U	–	–	–	UX	20000	20.574	–	44747	41147	36004	30860	25717	20574	15430	10287	5143

To calculate forces at pressures other than those listed use the following formula: **F(lb.) = A(in²) * P(psi)**

Large – 90.8 / 90.10 Series



Series	Model	A(in ²)	Charging Pressure (psi)										Force (lb.)
			2175	2000	1750	1500	1250	1000	750	500	250		
–	90.10	00170	0.175	381	351	307	263	219	175	131	88	44	
–	90.10	00500	0.487	1059	974	852	730	609	487	365	243	122	
90.8	90.10	00750	0.761	1655	1522	1331	1141	951	761	571	380	190	
90.8	90.10	01500	1.578	3432	3155	2761	2367	1972	1578	1183	789	394	
90.8	90.10	03000	3.043	6619	6087	5326	4565	3804	3043	2283	1522	761	
90.8	90.10	05000	5.143	11187	10287	9001	7715	6429	5143	3858	2572	1286	
90.8	90.10	07500	7.791	16946	15582	13635	11687	9739	7791	5843	3896	1948	
–	90.10	10000	10.987	23896	21974	19227	16480	13733	10987	8240	5493	2747	

To calculate forces at pressures other than those listed use the following formula: **F(lb.) = A(in²) * P(psi)**

Super Compact – SC / SCR / SCS Series



Series	Model	A(in ²)	Charging Pressure (psi)										Force (lb.)	
			2600	2175	2000	1750	1500	1250	1000	750	500	250		
–	–	SC	00420	0.439	–	956	879	769	659	549	439	330	220	110
–	SCR	–	00500	0.394	1026	858	789	690	592	493	394	296	197	99
–	–	SC	00740	0.761	–	1655	1522	1331	1141	951	761	571	380	190
–	SCR	–	00800	0.761	1978	1655	1522	1331	1141	951	761	571	380	190
–	–	SC	01000	1.096	–	2383	2191	1917	1643	1370	1096	822	548	274
–	–	SC	01800	1.948	–	4236	3896	3409	2922	2435	1948	1461	974	487
–	SCR	–	01900	1.491	3877	3244	2983	2610	2237	1864	1491	1118	746	373
–	SCR	–	03200	2.465	6409	5362	4930	4314	3698	3081	2465	1849	1233	616
–	–	SC	03500	3.292	–	7160	6584	5761	4938	4115	3292	2469	1646	823
SCS	–	–	04300	3.683	9575	8010	7365	6444	5524	4603	3683	2762	1841	921
–	–	SC	04700	4.832	–	10509	9663	8456	7248	6040	4832	3624	2416	1208
–	–	SC	07500	7.791	–	16946	15582	13635	11687	9739	7791	5843	3896	1948
–	–	SC	11800	12.174	–	26478	24347	21304	18261	15217	12174	9130	6087	3043
–	–	SC	18300	19.021	–	41372	38043	33287	28532	23777	19021	14266	9511	4755

To calculate forces at pressures other than those listed use the following formula: **F(lb.) = A(in²) * P(psi)**

Miscellaneous Conversions

A = Area

F = Force

P = Pressure

F (kgf) = F(lb) * .4536

F (daN) = F(lb) * .4448

P (bar) = P(kg/cc²) * .9807

P (kg/cc²) = P(psi) * .0703

F (kN) = F(lb) * .004448

F (N) = F(lb) * 4.448

P (bar) = P(psi) * .06895

DADCO Nitrogen Gas Spring Force Charts (Metric)

Micro – C Series



Model	A(cm ²)	Charging Pressure (bar)											Force (daN)
		177 Yellow	150	132 Red	125	100	88 Blue	80	75	50	44 Green	18 Purple	
C.045	0.28	50	42	37	35	28	25	23	21	14	12	–	–
C.070	0.38	68	57	51	48	38	34	31	29	19	17	–	–
C.090	0.50	89	75	66	63	50	44	40	38	25	22	9	5
C.180	1.13	200	170	149	141	113	100	90	85	57	50	–	–
C.250	1.77	313	265	233	221	177	156	141	133	88	78	–	–

To calculate forces at pressures other than those listed use the following formula: **F(daN) = A(cm²) * P(bar)**

Mini – LJ / L Series



Series	Model	A(cm ²)	Charging Pressure (bar)										Force (daN)
			150	125	110	100	80	75	50	30	25	20	
LJ	L	300	2.01	302	251	221	201	161	151	101	60	50	40
LJ	L	500	3.14	471	393	346	314	251	236	157	94	79	63
LJ	L	750	4.91	736	614	540	491	393	368	245	147	123	98

To calculate forces at pressures other than those listed use the following formula: **F(daN) = A(cm²) * P(bar)**

Ultra Force® and Ultra Force Extended® – U / UK / UH / UX / UT Series



Series	Model	A(cm ²)	Charging Pressure (bar)												Force (daN)	
			180	150	125	110	100	80	75	50	25	20				
U	–	–	–	–	0175	0.95	171	143	119	105	95	76	71	48	24	19
U	–	–	–	–	0325	1.77	320	265	221	194	177	141	133	88	44	35
U	–	UH	–	–	0400	2.01	362	302	251	221	201	161	151	101	50	40
U	–	UH	–	–	0600	3.14	–	471	393	346	314	251	236	157	79	63
U	UK	UH	–	UX	0800	4.91	–	736	614	540	491	393	368	245	123	98
U	UK	UH	UT	UX	1000	6.16	–	9.24	7.70	6.77	6.16	4.93	4.62	3.08	1.54	1.23
U	–	–	–	–	1200	7.07	–	10.60	8.84	7.78	7.07	5.65	5.30	3.53	1.77	1.41
U	UK	UH	–	UX	1600	10.18	–	15.27	12.72	11.20	10.18	8.14	7.63	5.09	2.54	2.04
U	UK	UH	UT	UX	2600	15.90	–	23.86	19.88	17.49	15.90	12.72	11.93	7.95	3.98	3.18
U	–	UH	UT	UX	4600	28.27	–	42.41	35.34	31.10	28.27	22.62	21.21	14.14	7.07	5.65
U	–	UH	UT	UX	6600	44.18	–	66.27	55.22	48.60	44.18	35.34	33.13	22.09	11.04	8.84
U	–	–	UT	UX	9600	63.62	–	95.43	79.52	69.98	63.62	50.89	47.71	31.81	15.90	12.72
U	–	–	–	UX	20000	132.73	–	199.10	165.92	146.01	132.73	106.19	99.55	66.37	33.18	26.55

To calculate forces at pressures other than those listed use the following formula: **F(daN) = A(cm²) * P(bar)**

F(kN) = A(cm²) * P(bar) * .01

Large – 90.8 / 90.10 Series



Series	Model	A(cm ²)	Charging Pressure (bar)									Force (daN)
			150	125	110	100	80	75	50	25	20	
–	90.10	00170	1.13	170	141	124	113	90	85	57	28	23
–	90.10	00500	3.14	471	393	346	314	251	236	157	79	63
90.8	90.10	00750	4.91	736	614	540	491	393	368	245	123	98
90.8	90.10	01500	10.18	15.27	12.72	11.20	10.18	8.14	7.63	5.09	2.54	2.04
90.8	90.10	03000	19.63	29.45	24.54	21.60	19.63	15.71	14.73	9.82	4.91	3.93
90.8	90.10	05000	33.18	49.77	41.48	36.50	33.18	26.55	24.89	16.59	8.30	6.64
90.8	90.10	07500	50.27	75.40	62.83	55.29	50.27	40.21	37.70	25.13	12.57	10.05
–	90.10	10000	70.88	106.32	88.60	77.97	70.88	56.71	53.16	35.44	17.72	14.18

To calculate forces at pressures other than those listed use the following formulas: **F(daN) = A(cm²) * P(bar)**

F(kN) = A(cm²) * P(bar) * .01

Super Compact – SC / SCR / SCS Series



Series	Model	A(cm ²)	Charging Pressure (bar)										Force (daN)	
			180	150	125	110	100	80	75	50	25	20		
–	–	SC	00420	2.84	–	425	354	312	284	227	213	142	71	57
–	SCR	–	00500	2.54	458	382	318	280	254	204	191	127	64	51
–	–	SC	00740	4.91	–	736	614	540	491	393	368	245	123	98
–	SCR	–	00800	4.91	883	736	613	540	491	393	368	245	123	98
–	–	SC	01000	7.07	–	10.60	8.84	7.78	7.07	5.65	5.30	3.53	1.77	1.41
–	–	SC	01800	12.57	–	18.85	15.71	13.82	12.57	10.05	9.42	6.28	3.14	2.51
–	SCR	–	01900	9.62	17.31	14.43	12.02	10.58	9.62	7.70	7.21	4.81	2.40	1.92
–	SCR	–	03200	15.90	28.62	23.85	19.87	17.49	15.90	12.72	11.92	7.95	3.97	3.18
–	–	SC	03500	21.24	–	31.86	26.55	23.36	21.24	16.99	15.93	10.62	5.31	4.25
SCS	–	–	04300	23.76	42.76	35.64	29.70	26.13	23.76	19.01	17.82	11.88	5.94	4.75
–	–	SC	04700	31.17	–	46.76	38.97	34.29	31.17	24.94	23.38	15.59	7.79	6.23
–	–	SC	07500	50.27	–	75.39	62.83	55.29	50.26	40.21	37.70	25.13	12.57	10.05
–	–	SC	11800	78.54	–	117.80	98.17	86.39	78.54	62.83	58.90	39.27	19.63	15.71
–	–	SC	18300	122.72	–	184.07	153.39	134.99	122.71	98.17	92.03	61.36	30.68	24.54

To calculate forces at pressures other than those listed use the following formulas: **F(daN) = A(cm²) * P(bar)**

F(kN) = A(cm²) * P(bar) * .01

Miscellaneous Conversions

A = Area
F = Force
P = Pressure

F (lb) = F(N) * .2248

F (lbs) = F(daN) * 2.248

P (kg/cc²) = P(bar) * 1.0197

F (lb) = F(kN) * 224.8

F (lb) = F(kgf) * 2.2046

P (psi) = P(bar) * 14.50