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GAS SPRINGS

AZOL GAS

HIGH TEMPERATURE HT

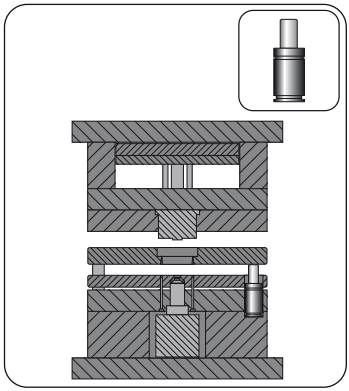
- Suit higher temperatures up to 120ºC
- Ideal for plastic mould injection
- Replacing coil springs
- Greater force in a more compact size
- Extended life and cost-effective solution
- VDI-safety devices included

AZOL GAS

CW-HT HIGH TEMPERATURE

HT SERIES

- To be used in the injection and ejector unit.
- Same functions as a latch lock.
- Higher reproductibility and productivity.
- Lower tools repair.
- Cost-effective solution, saving costs.



TECHNICAL FEATURES

MODEL	F_0 daN / lb	Ø mm / inch	S mm / inch	L1 mm / inch	Pmax bar / psi	Charge Port		
CW-HT 300 V1	300 / 674	Ø32 / Ø1.26	10 - 125 / 0.39 - 4.92	50 - 280 / 1.97 - 11.02	115-150 / 1668-2175	M6	✔	✔
CW-HT 500 V1	500 / 1124	Ø38 / Ø1.50	10 - 125 / 0.39 - 4.92	50 - 280 / 1.97 - 11.02	115-150 / 1668-2175	M6	✔	✔
CW-HT 750 V1	750 / 1686	Ø45 / Ø1.77	10 - 125 / 0.39 - 4.92	52 - 282 / 2.05 - 11.10	115-150 / 1668-2175	M6	✔	✔
CW-HT 1000 V2	1000 / 2248	Ø50 / Ø1.97	10 - 125 / 0.39 - 4.92	58 - 288 / 2.28 - 11.34	115-150 / 1668-2175	M6	✔	✔

Max. working temperature interval ºC / ºF	Max strokes per minute spm	Max. charge pressure at 20ºC bar / psi	Spring temperature ºC	ºF	Initial force CW-HT 300 V1 daN	lb	CW-HT 500 V1 daN	lb	CW-HT 750 V1 daN	lb	CW-HT 1000 V2 daN	lb
0 - 80 / 32 - 176	20	150 / 2175	80	176	363	816	568	1277	887	1994	1113	2502
			20	68	300	674	470	1057	740	1664	920	2068
80 - 100 / 176 - 212	15	125 / 1813	100	212	320	719	500	1124	781	1756	980	2203
			20	68	251	564	393	883	614	1380	770	1731
100 - 120 / 212 - 248	10	115 / 1668	120	248	310	697	485	1090	757	1702	950	2136
			20	68	231	519	361	812	565	1270	708	1592

Compact size gas springs with a wide range of forces and strokes for applications where temperature will exceed the standard operating temperature.

HT gas spring series are linkable in a hosed sytems and also repairable.

HT gas spring forces and maximum stroke frequencies depending on the working operating temperature.

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CW-HT HIGH TEMPERATURE

AZOLGAS HT SERIES

Azolgas is one of the world's leading gas spring manufacturer for metal stamping components, a **reliable and competitive partner** and pioneer company being Certified ISO 9001, 14001, Penal Compliance 19601.

We are pleased to offer you a selection of HT gas springs specially designed for applications where **temperature** will **exceed** the **standard** range of operating temperature (0º-80ºC), such as plastic mould injection.

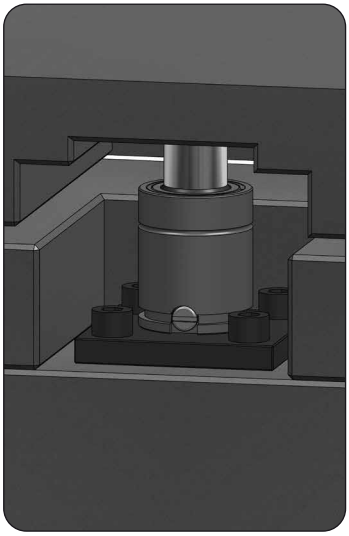
The experience of manufacturing gas springs in metal forming applications, compared to a lower stress in plastic mould field, involves a significant **long life** of HT gas springs.

By using HT gas springs you can achieve significant **advantages** compared to alternatives in terms of material fatigue (vs coil springs), no air-energy requirement (vs air springs), no oil leaks and cleaning (vs hydraulic springs).

Product available in stock for immediate delivery.

APPLICATIONS

- Specially suited for plastic mould injection.
- When require lifting movements additionally to tool opening.
- Can be used in the injection and the ejector unit.
- Provide the same functions as a latch lock.
- Replacement for coil springs, pneumatic springs and hydraulic springs.
- For both new moulds design and retrofit exisiting ones.



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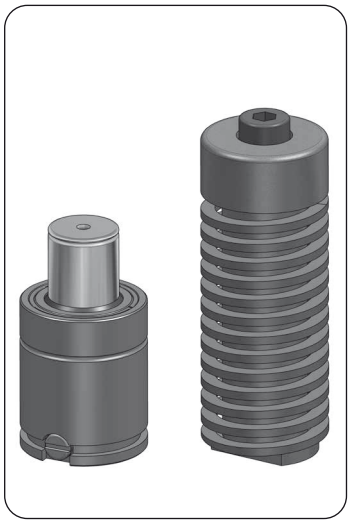
AZOL GAS

CW-HT *HIGH TEMPERATURE*

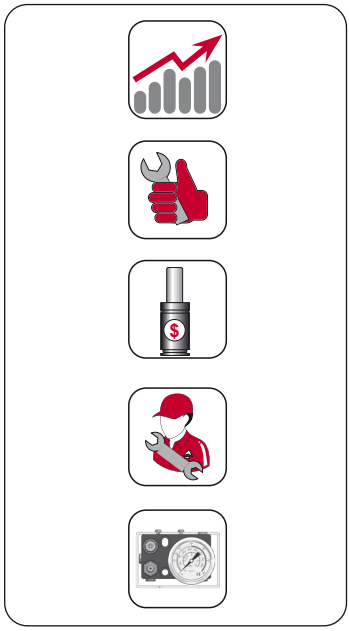
TECHNICAL FEATURES

- Greater forces in smaller size.
- Wide range of forces 100 - 1000 daN, and strokes 10-125 mm.
- Specially designed for mould applications, operating temperature up to 120ºC.
- Fluid N2: commercially available,non reactive and environment friendly.
- Constant force.
- PED 2014/68/EU compliance and equipped with VDI safety devices.



ADVANTAGES

- Longer life-time in comparison to alternatives.
- Higher reproductibility and productivity.
- Lower tools repair.
- No damage of die set parts.
- Easier installation.
- Cost-effective solution, saving costs.
- Less scrap and production downtime.
- Adjustable filling pressure.
- Pressure monitoring for early detection-prediction of potencial pressure drops.



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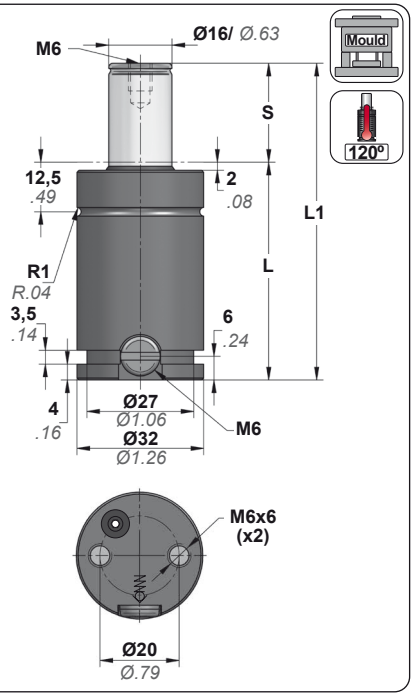
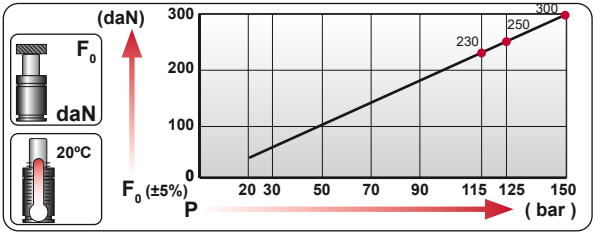
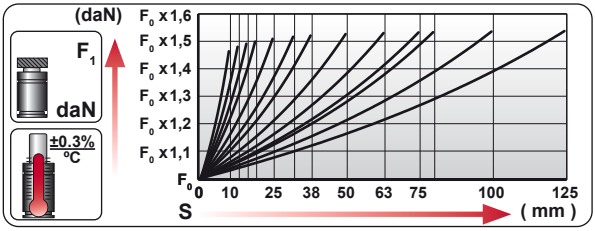
CW-HT 300 V1

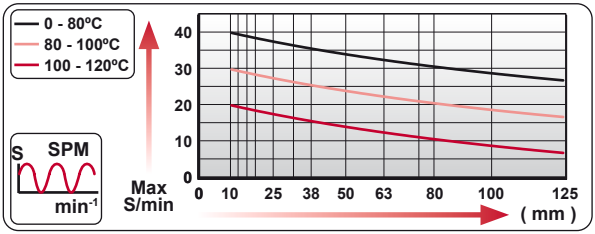
High Temperature

AZOL GAS









VDI SAFETY

STANDARDS

ORDER	S		L1 ±0.25		L		F_0 Initial Force		F_1 (ISOTHERMAL) End Force		Vol.			
	mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	cm^3	in^3	Kg.	lb
CW-HT 300 010 V1	10	0.39	50	1.97	40	1.57	300	674	527	1185	6	0.4	0.18	0.40
CW-HT 300 013 V1	13	0.51	56	2.20	43	1.69			533	1199	8	0.5	0.19	0.42
CW-HT 300 016 V1	16	0.63	62	2.44	46	1.81			537	1208	10	0.6	0.20	0.44
CW-HT 300 019 V1	19	0.75	68	2.68	49	1.93			540	1214	11	0.7	0.21	0.46
CW-HT 300 025 V1	25	0.98	80	3.15	55	2.17			544	1222	15	0.9	0.23	0.51
CW-HT 300 032 V1	32	1.26	94	3.70	62	2.44			546	1228	19	1.2	0.25	0.55
CW-HT 300 038 V1	38	1.50	106	4.17	68	2.68			548	1232	22	1.4	0.28	0.62
CW-HT 300 050 V1	50	1.97	130	5.12	80	3.15			550	1236	29	1.8	0.32	0.71
CW-HT 300 063 V1	63	2.48	156	6.14	93	3.66			551	1239	37	2.2	0.36	0.79
CW-HT 300 075 V1	75	2.95	180	7.09	105	4.13			552	1241	43	2.6	0.40	0.88
CW-HT 300 080 V1	80	3.15	190	7.48	110	4.33			552	1242	46	2.8	0.42	0.93
CW-HT 300 100 V1	100	3.94	230	9.06	130	5.12			553	1243	58	3.5	0.49	1.08
CW-HT 300 125 V1	125	4.92	280	11.02	155	6.10			554	1245	72	4.4	0.57	1.26

±5%
150 bar
2175 psi
at
20ºC
68ºF

High force and compact size gas spring specially suited for higher temperatures up to 120ºC, such as plastic moulds.

TECHNICAL DATA

Fluid	N_2	Pmin Pmax 20ºC / 68ºF	20 bar 290 psi — 150 bar 2175 psi	Charging Adapter	06 CG 2-Q
Smax	< 90%	Tmin Tmax	0 ºC 32 ºF — 120 ºC 248 ºF	Connection	CW-HT-H 300 XXX V1
Vmax	1,0 m/s	Force variation by temperature	±0,3% / ºC	Cartridge Kit	1625A135G

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AZOL GAS

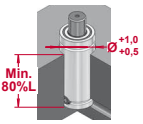
CW-HT 300 V1

High Temperature

MODEL	Max. working temperature interval ºC / ºF	Max strokes per minute spm	Max. charge pressure at 20ºC bar / psi	Force per temperature					
				Spring temperature		Initial force		End force at full stroke	
				ºC	ºF	daN	lb	daN	lb
CW-HT 300 V1 (150 bar)	0 - 80 / 32 - 176	20	150 / 2175	80	176	363	816	555	1248
				20	68	300	674	460	1034
CW-HT 300 V1 (125 bar)	80 - 100 / 176 - 212	15	125 / 1813	100	212	320	719	490	1102
				20	68	251	564	385	866
CW-HT 300 V1 (115 bar)	100 - 120 / 212 - 248	10	115 / 1668	120	248	310	697	475	1068
				20	68	231	519	354	796

Due to increase of operating temperature, the charging pressure must be reduced from the usual range of charging pressure.
The maximum stroke frequency and charging pressure will depend on the operating temperature, as showed in the table.

MOUNTING OPTIONS

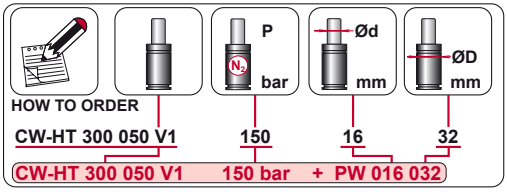
	Drop-in	Top Mount	Base Mount	Foot Mount	Support Mount
					
HOW TO ORDER		A14-032 583 A34-032 585		C20-032 601	D02-032 603

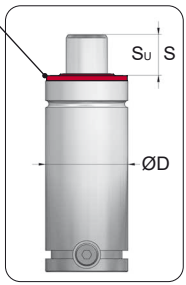
PROTECTION OPTIONS

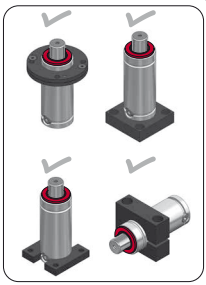
Longer life to your gas springs by using protective solutions from harsh working environment (i.e. hot stamping), specially designed to minimize the impact of solid or liquid contaminants and extending the useful life of gas springs.

PW Protective Wiper

Protective Wiper



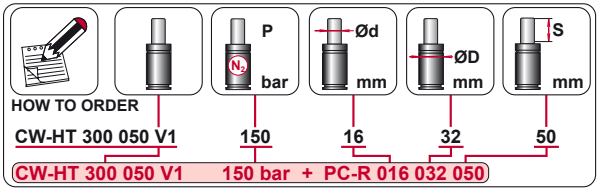


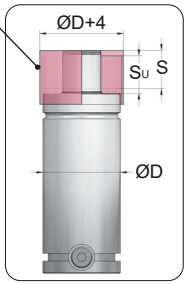


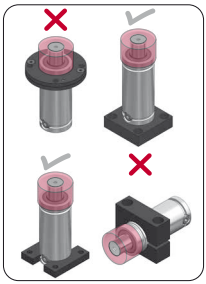
PW does not involve any variation of the dimensions of the gas spring.
The useful stroke keeps the same as nominal stroke.

PC-R Protective Cover

Protective Cover







The body diameter (ØD) increases to the size of (ØPC-R).
PC-R can be used with mounts B and C, but not with mounts type A and D.

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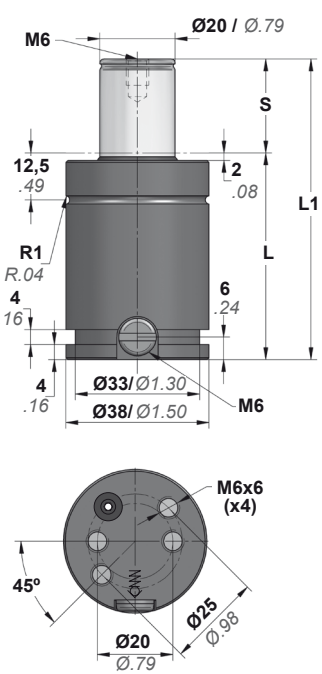
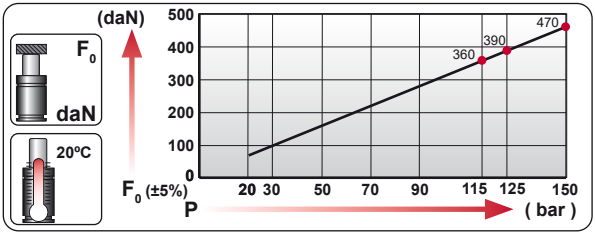
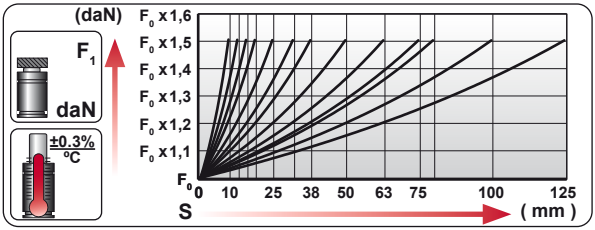
CW-HT 500 V1

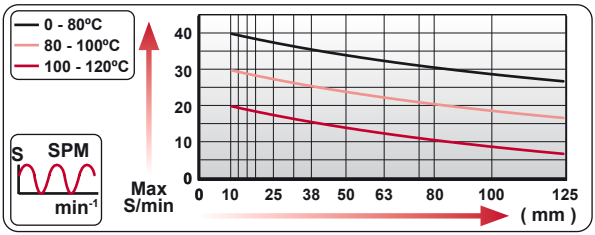
High Temperature

AZOL GAS









VDI SAFETY > S > Vmax > Pmax

STANDARDS PED

ORDER	S		L1 ±0.25		L		F0 Initial Force		F1 (ISOTHERMAL) End Force		Vol.			
	mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	cm³	in³	Kg.	lb
CW-HT 500 010 V1	10	0.39	50	1.97	40	1.57	470	1057	672	1511	10	0.6	0.24	0.53
CW-HT 500 013 V1	13	0.51	56	2.20	43	1.69			679	1527	13	0.8	0.26	0.57
CW-HT 500 016 V1	16	0.63	62	2.44	46	1.81			684	1538	16	1.0	0.27	0.60
CW-HT 500 019 V1	19	0.75	68	2.68	49	1.93			687	1545	19	1.2	0.28	0.62
CW-HT 500 025 V1	25	0.98	80	3.15	55	2.17			692	1555	25	1.5	0.31	0.68
CW-HT 500 032 V1	32	1.26	94	3.70	62	2.44			695	1562	31	1.9	0.33	0.73
CW-HT 500 038 V1	38	1.50	106	4.17	68	2.68			697	1566	37	2.2	0.36	0.79
CW-HT 500 050 V1	50	1.97	130	5.12	80	3.15			699	1572	48	2.9	0.41	0.90
CW-HT 500 063 V1	63	2.48	156	6.14	93	3.66			701	1575	60	3.7	0.46	1.01
CW-HT 500 075 V1	75	2.95	180	7.09	105	4.13			702	1578	71	4.4	0.51	1.12
CW-HT 500 080 V1	80	3.15	190	7.48	110	4.33			702	1578	76	4.6	0.53	1.17
CW-HT 500 100 V1	100	3.94	230	9.06	130	5.12			703	1581	95	5.8	0.61	1.34
CW-HT 500 125 V1	125	4.92	280	11.02	155	6.10			704	1582	118	7.2	0.71	1.57

±5% **150 bar** *2175 psi* at **20ºC** *68ºF*

High force and compact size gas spring specially suited for higher temperatures up to 120ºC, such as plastic moulds.

TECHNICAL DATA

Fluid	N_2	Pmin Pmax 20ºC / 68ºF	20 bar 290 psi / 150 bar 2175 psi	Charging Adapter	06 CG 2-Q
Smax	< 90%	Tmin Tmax	0 ºC 32 ºF / 120 ºC 248 ºF	Connection	CW-HT-H 500 XXX V1
Vmax	1,0 m/s	Force variation by temperature	±0,3% / ºC	Cartridge Kit	2032D125G

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AZOL GAS

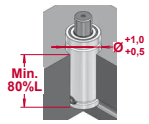
CW-HT 500 V1

High Temperature

MODEL	Max. working temperature interval ºC / ºF	Max strokes per minute spm	Max. charge pressure at 20ºC bar / psi	Force per temperature					
				Spring temperature		Initial force		End force at full stroke	
				ºC	ºF	daN	lb	daN	lb
CW-HT 500 V1 (150 bar)	0 - 80 / 32 - 176	20	150 / 2175	80	176	568	1277	869	1954
				20	68	470	1057	720	1619
CW-HT 500 V1 (125 bar)	80 - 100 / 176 - 212	15	125 / 1813	100	212	500	1124	765	1720
				20	68	393	883	601	1351
CW-HT 500 V1 (115 bar)	100 - 120 / 212 - 248	10	115 / 1668	120	248	485	1090	742	1668
				20	68	361	812	552	1241

Due to increase of operating temperature, the charging pressure must be reduced from the usual range of charging pressure.
The maximum stroke frequency and charging pressure will depend on the operating temperature, as showed in the table.

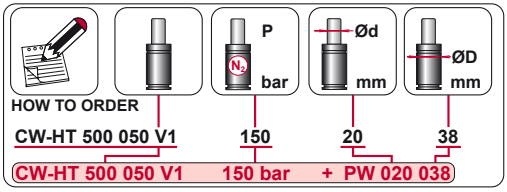
MOUNTING OPTIONS

	Drop-in	Top Mount	Base Mount	Foot Mount	Support Mount
					
HOW TO ORDER		A14-038 583 A34-038 585		C20-038 601	D02-038 603

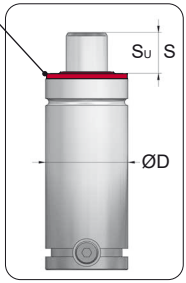
PROTECTION OPTIONS

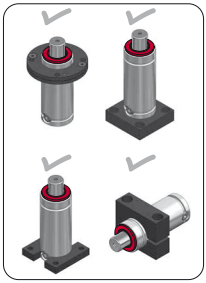
Longer life to your gas springs by using protective solutions from harsh working environment (i.e. hot stamping), specially designed to minimize the impact of solid or liquid contaminants and extending the useful life of gas springs.

PW Protective Wiper



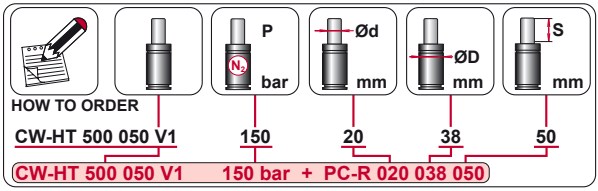
Protective Wiper



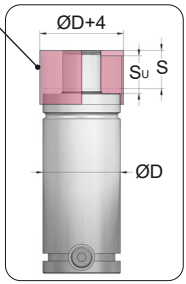


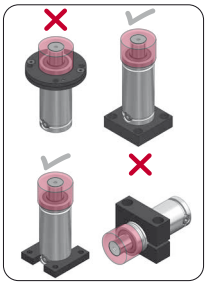
PW does not involve any variation of the dimensions of the gas spring.
The useful stroke keeps the same as nominal stroke.

PC-R Protective Cover



Protective Cover





The body diameter (ØD) increases to the size of (ØPC-R).
PC-R can be used with mounts B and C, but not with mounts type A and D.

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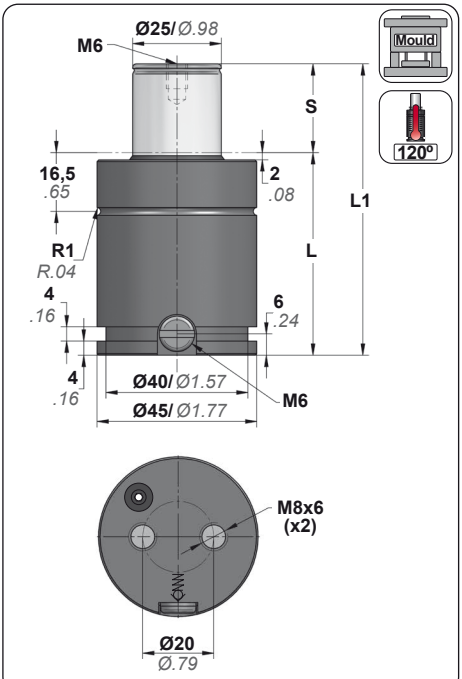
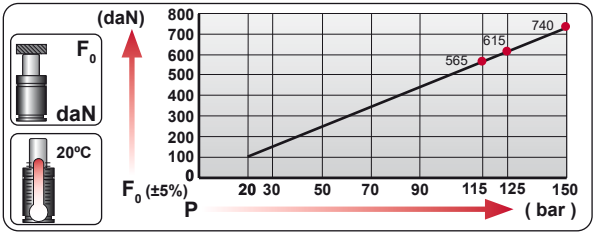
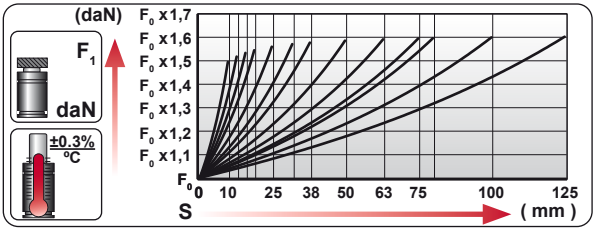
CW-HT 750 V1

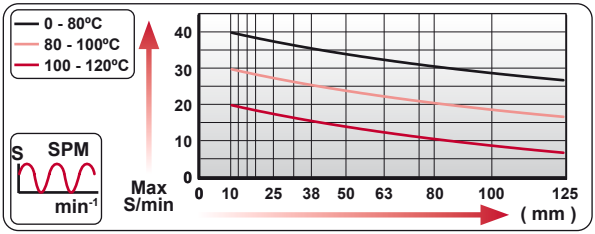
High Temperature

AZOL GAS









VDI SAFETY > S > Vmax > Pmax

STANDARDS PED

ORDER	S		L1 ±0.25		L		F_0 Initial Force		F_1 (ISOTHERMAL) End Force		Vol.			
	mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	cm³	in³	Kg.	lb
CW-HT 750 010 V1	10	0.39	52	2.05	42	1.65	740	1664	1106	2486	15	0.9	0.38	0.84
CW-HT 750 013 V1	13	0.51	58	2.28	45	1.77			1123	2525	19	1.1	0.40	0.88
CW-HT 750 016 V1	16	0.63	64	2.52	48	1.89			1135	2551	23	1.4	0.42	0.93
CW-HT 750 019 V1	19	0.75	70	2.76	51	2.01			1143	2571	26	1.6	0.44	0.97
CW-HT 750 025 V1	25	0.98	82	3.23	57	2.24			1155	2596	34	2.1	0.47	1.04
CW-HT 750 032 V1	32	1.26	96	3.78	64	2.52			1163	2615	43	2.6	0.52	1.15
CW-HT 750 038 V1	38	1.50	108	4.25	70	2.76			1168	2626	51	3.1	0.55	1.21
CW-HT 750 050 V1	50	1.97	132	5.20	82	3.23			1174	2640	66	4.0	0.63	1.39
CW-HT 750 063 V1	63	2.48	158	6.22	95	3.74			1179	2649	83	5.1	0.71	1.57
CW-HT 750 075 V1	75	2.95	182	7.17	107	4.21			1181	2655	99	6.0	0.78	1.72
CW-HT 750 080 V1	80	3.15	192	7.56	112	4.41			1182	2657	105	6.4	0.82	1.81
CW-HT 750 100 V1	100	3.94	232	9.13	132	5.20			1185	2663	131	8.0	0.94	2.07
CW-HT 750 125 V1	125	4.92	282	11.10	157	6.18			1187	2668	163	9.9	1.10	2.43

±5%
150 bar
2175 psi
at
20ºC
68ºF

High force and compact size gas spring specially suited for higher temperatures up to 120ºC, such as plastic moulds.

TECHNICAL DATA

Fluid	N_2	Pmin Pmax 20ºC / 68ºF	20 bar 290 psi	150 bar 2175 psi	Charging Adapter	06 CG 2-Q
Smax	< 90%	Tmin Tmax	0 ºC 32 ºF	120 ºC 248 ºF	Connection	CW-HT-H 750 XXX V1
Vmax	1,0 m/s	Force variation by temperature	±0,3% / ºC		Cartridge Kit	2538E150G

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AZOL GAS

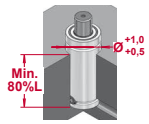
CW-HT 750 V1

High Temperature

MODEL	Max. working temperature interval ºC / ºF	Max strokes per minute spm	Max. charge pressure at 20ºC bar / psi	Force per temperature					
				Spring temperature		Initial force		End force at full stroke	
				ºC	ºF	daN	lb	daN	lb
CW-HT 750 V1 (150 bar)	0 - 80 / 32 - 176	20	150 / 2175	80	176	887	1994	1410	3170
				20	68	740	1664	1176	2644
CW-HT 750 V1 (125 bar)	80 - 100 / 176 - 212	15	125 / 1813	100	212	781	1756	1242	2792
				20	68	614	1380	975	2192
CW-HT 750 V1 (115 bar)	100 - 120 / 212 - 248	10	115 / 1668	120	248	757	1702	1205	2709
				20	68	565	1270	900	2023

Due to increase of operating temperature, the charging pressure must be reduced from the usual range of charging pressure.
The maximum stroke frequency and charging pressure will depend on the operating temperature, as showed in the table.

MOUNTING OPTIONS

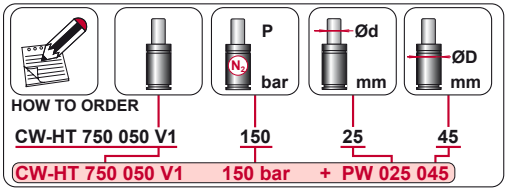
	Drop-in	Top Mount	Base Mount	Foot Mount	Support Mount
					
HOW TO ORDER		A14-045 584 A34-045 585	B21-045 593 B76-045 597	C05-045 599 C20-045 601	D02-045 603 D67-045 605

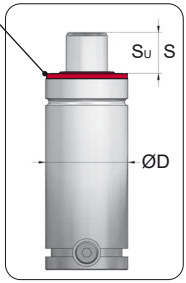
PROTECTION OPTIONS

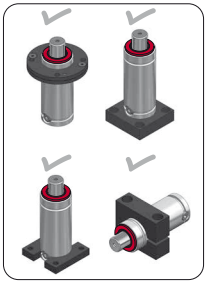
Longer life to your gas springs by using protective solutions from harsh working environment (i.e. hot stamping), specially designed to minimize the impact of solid or liquid contaminants and extending the useful life of gas springs.

PW Protective Wiper

Protective Wiper



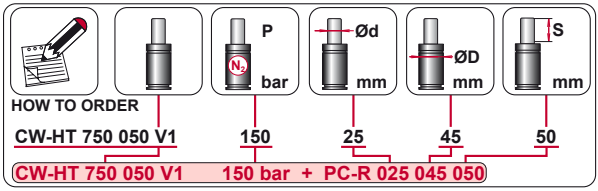


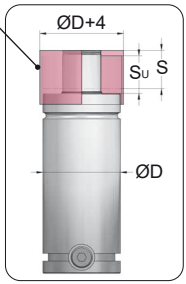


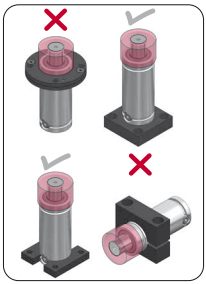
PW does not involve any variation of the dimensions of the gas spring.
The useful stroke keeps the same as nominal stroke.

PC-R Protective Cover

Protective Cover







The body diameter (ØD) increases to the size of (ØPC-R).
PC-R can be used with mounts B and C, but not with mounts type A and D.

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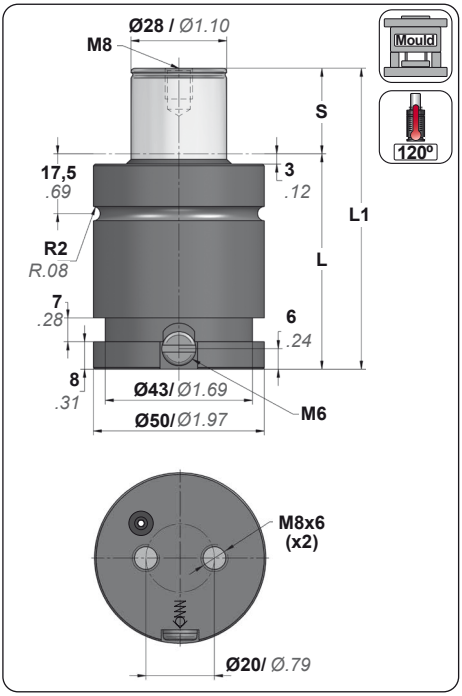
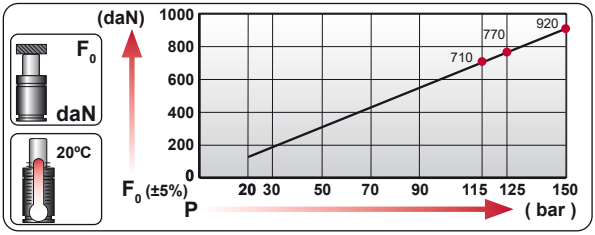
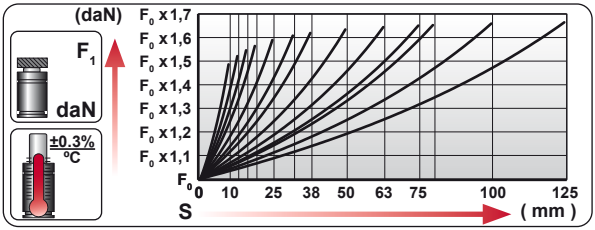
CW-HT 1000 V2

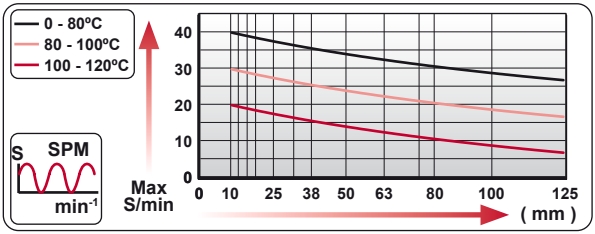
High Temperature

AZOL GAS









VDI SAFETY

STANDARDS

ORDER	S		L1 ±0.25		L		F_0 Initial Force		F_1 (ISOTHERMAL) End Force		Vol.			
	mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	cm³	in³	Kg.	lb
CW-HT 1000 010 V2	10	0.39	58	2.28	48	1.89	920	2068	1404	3156	18	1.1	0.53	1.17
CW-HT 1000 013 V2	13	0.51	64	2.52	51	2.01			1432	3219	22	1.4	0.56	1.23
CW-HT 1000 016 V2	16	0.63	70	2.76	54	2.13			1451	3261	27	1.6	0.58	1.28
CW-HT 1000 019 V2	19	0.75	76	2.99	57	2.24			1465	3293	31	1.9	0.61	1.34
CW-HT 1000 025 V2	25	0.98	88	3.46	63	2.48			1483	3335	41	2.5	0.66	1.46
CW-HT 1000 032 V2	32	1.26	102	4.02	70	2.76			1497	3366	51	3.1	0.72	1.59
CW-HT 1000 038 V2	38	1.50	114	4.49	76	2.99			1505	3384	60	3.7	0.77	1.70
CW-HT 1000 050 V2	50	1.97	138	5.43	88	3.46			1516	3408	78	4.8	0.87	1.92
CW-HT 1000 063 V2	63	2.48	164	6.46	101	3.98			1523	3424	98	6.0	0.98	2.16
CW-HT 1000 075 V2	75	2.95	188	7.40	113	4.45			1528	3435	116	7.1	1.08	2.38
CW-HT 1000 080 V2	80	3.15	198	7.80	118	4.65			1529	3438	124	7.5	1.12	2.47
CW-HT 1000 100 V2	100	3.94	238	9.37	138	5.43			1534	3448	154	9.4	1.29	2.84
CW-HT 1000 125 V2	125	4.92	288	11.34	163	6.42			1538	3456	192	11.7	1.50	3.31

±5%
150 bar
2175 psi
at
20ºC
68ºF

High force and compact size gas spring specially suited for higher temperatures up to 120ºC, such as plastic moulds.

TECHNICAL DATA

Fluid	N_2	Pmin Pmax 20ºC / 68ºF	20 bar 290 psi — 150 bar 2175 psi	Charging Adapter	06 CG 2-Q
Smax	< 90%	Tmin Tmax	0 ºC 32 ºF — 120 ºC 248 ºF	Connection	CW-HT-H 1000 XXX V2
Vmax	1,0 m/s	Force variation by temperature	±0,3% / ºC	Cartridge Kit	2840K169G

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AZOL GAS

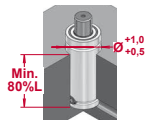
CW-HT 1000 V2

High Temperature

MODEL	Max. working temperature interval ºC / ºF	Max strokes per minute spm	Max. charge pressure at 20ºC bar / psi	Force per temperature					
				Spring temperature		Initial force		End force at full stroke	
				ºC	ºF	daN	lb	daN	lb
CW-HT 1000 V2 (150 bar)	0 - 80 / 32 - 176	20	150 / 2175	80	176	1113	2502	1750	3934
				20	68	920	2068	1450	3260
CW-HT 1000 V2 (125 bar)	80 - 100 / 176 - 212	15	125 / 1813	100	212	980	2203	1540	3462
				20	68	770	1731	1210	2720
CW-HT 1000 V2 (115 bar)	100 - 120 / 212 - 248	10	115 / 1668	120	248	950	2136	1490	3350
				20	68	708	1592	1110	2495

Due to increase of operating temperature, the charging pressure must be reduced from the usual range of charging pressure.
The maximum stroke frequency and charging pressure will depend on the operating temperature, as showed in the table.

MOUNTING OPTIONS

	Drop-in	Top Mount	Base Mount	Foot Mount	Support Mount
					
HOW TO ORDER		A14-050 584 A34-050 585	B21-050 593 B76-050 597	C05-050 599 C20-050 601	D02-050 603 D67-050 605

PROTECTION OPTIONS

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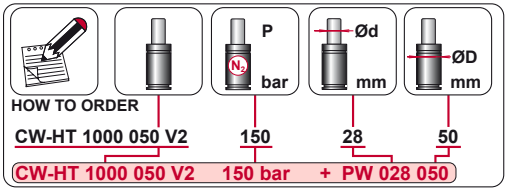
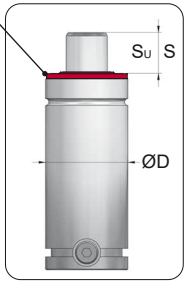
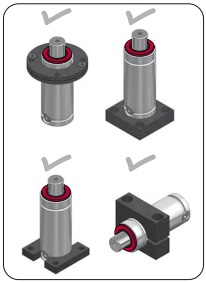
PW Protective Wiper



Protective Wiper





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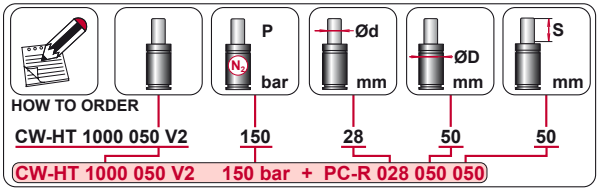
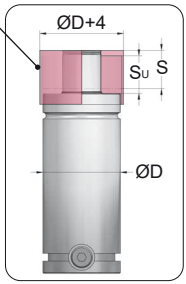
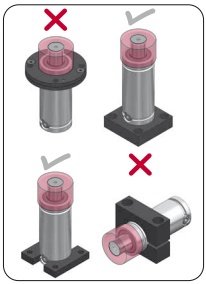
PC-R Protective Cover



Protective Cover





The body diameter (ØD) increases to the size of (ØPC-R).
PC-R can be used with mounts B and C, but not with mounts type A and D.

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