

From the Hyson family of higher force gas springs

T3T Series

- Same force and diameter as T3 Series
- G 1/8" port for use with standard full size hoses
- Uses T2B flange mounts
- Five sizes from 1000 to 9500
- Up to 21,400 lbs. contact force



Hyson® Products

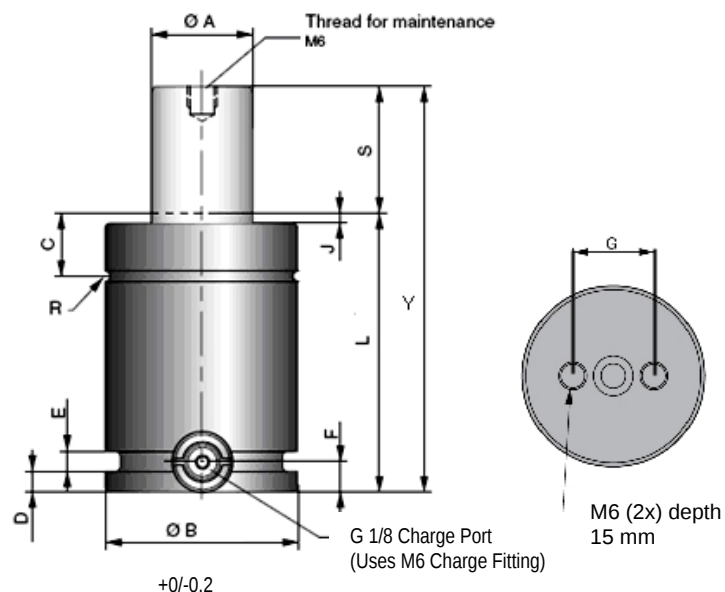
A Business of Barnes Group Inc.

Dynamic Solutions for a Global Market™



T3T-350 Gas Springs

T3T-350



Product Specifications

Pressure Medium

Charging Pressure Range

Contact Force

End Force (at full stroke)

Max. Operating Temperature

Max. Strokes/Minute

Max. Utilized Stroke

Max. Piston Rod Velocity

Inlet Valve

Charge Fitting

Repair Kit

Nitrogen Gas

Max. 180 bar/2610 psi

Min. 25 bar/360 psi

3600 N/810 lbf.

5500 N/1250 lbf.

80°C/176°F

~30-100

100%

96 mm/min. / 315 ft/min.

4018112

T2-770-3

T3TSK-350

Order No.	S	Ø A	Ø B	C	D	E	F	Ø G	J	R	L	Y
T3T-350X10	10	16	32	12.5	4	3.5	10.5	20	2	1	50	60
T3T-350X13	13	16	32	12.5	4	3.5	10.5	20	2	1	53	66
T3T-350X16	16	16	32	12.5	4	3.5	10.5	20	2	1	56	72
T3T-350X19	19	16	32	12.5	4	3.5	10.5	20	2	1	59	78
T3T-350X25	25	16	32	12.5	4	3.5	10.5	20	2	1	65	90
T3T-350X32	32	16	32	12.5	4	3.5	10.5	20	2	1	72	104
T3T-350X38	38	16	32	12.5	4	3.5	10.5	20	2	1	78	116
T3T-350X50	50	16	32	12.5	4	3.5	10.5	20	2	1	90	140
T3T-350X63	63	16	32	12.5	4	3.5	10.5	20	2	1	103	166
T3T-350X75	75	16	32	12.5	4	3.5	10.5	20	2	1	115	190
T3T-350X80	80	16	32	12.5	4	3.5	10.5	20	2	1	120	200
T3T-350X100	100	16	32	12.5	4	3.5	10.5	20	2	1	140	240
T3T-350X125	125	16	32	12.5	4	3.5	10.5		2	1	165	290

All dimensions are metric. For English equivalents, divide by 25.4.

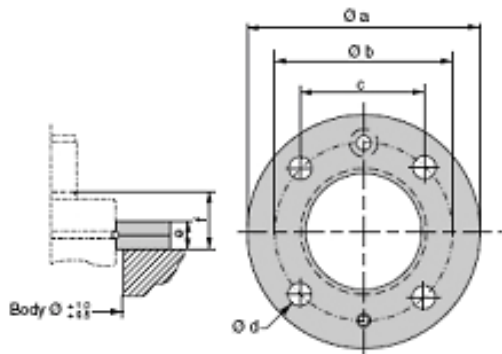
T3T-350 Gas Springs

Mounting Options

Modular flanges ordered separately.

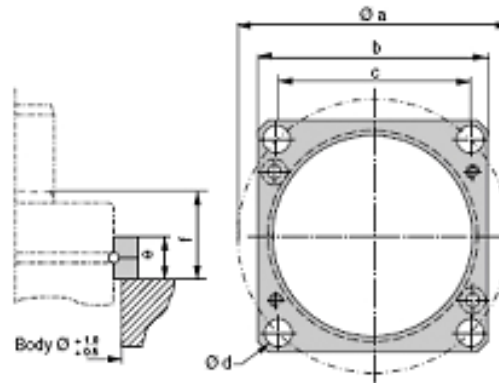
FC

Order No. T3-350-FC



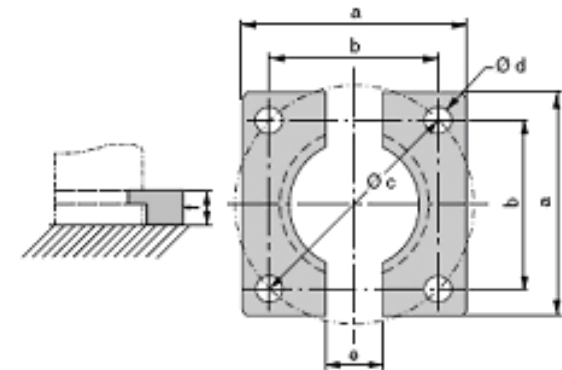
FCS

Order No. FCS-32



FFC

Order No. T3-350-FFC



Order No.	Øa	Øb	c	Ød	e	f
T3-350-FC	60	49.5	35	7	9	17

Order No.	Øa	b	c	Ød	e	f
FCS-32	49.5	45	35	7	9	17

Order No.	a	b	Øc	Ød	e	f
T3-350-FFC	50	35	49.5	7	12	6.5

All dimensions are metric.

For English equivalents, divide by 25.4.

HYSON

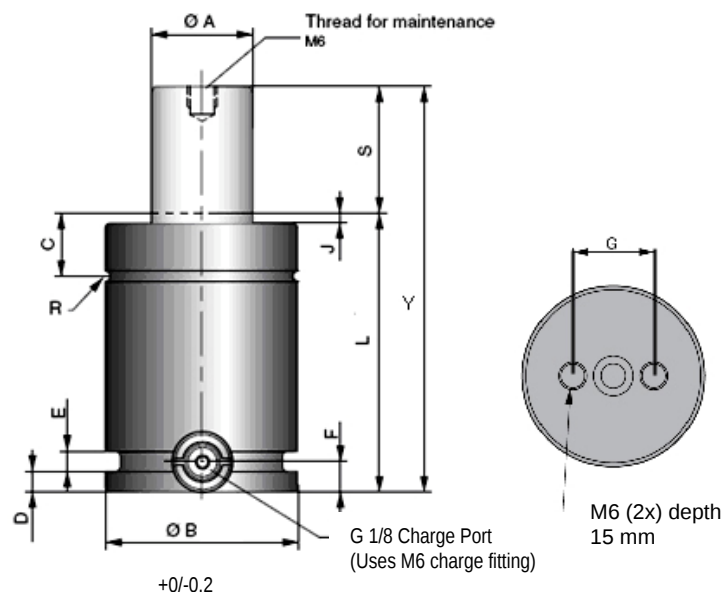
A business of BARNES GROUP INC

10367 Brecksville Road • Brecksville, OH 44141 U.S.A.
Tel: 440-526-5900 • Fax: 440-526-6807 • Email: hyson@asbg.com
www.hysonproducts.com

T3T3500609

T3T-500 Gas Springs

T3T-500



Product Specifications

Pressure Medium

Charging Pressure Range

Contact Force

End Force (at full stroke)

Max. Operating Temperature

Max. Strokes/Minute

Max. Utilized Stroke

Max. Piston Rod Velocity

Inlet Valve

Charge Fitting

Repair Kit

Nitrogen Gas

Max. 150 bar/2175 psi

Min. 25 bar/360 psi

4700 N/1060 lbf.

7200 N/1625 lbf.

80°C/176°F

~30-100

100%

96 mm/min. / 315 ft/min.

4018112

T2-770-3

T3TSK-500

Order No.	S	$\varnothing A$	$\varnothing B$	C	D	E	F	$\varnothing G$	J	R	L	Y
T3T-500X10	10	20	38	12.5	4	4	10.5	25	2	1	50	60
T3T-500X13	13	20	38	12.5	4	4	10.5	25	2	1	53	66
T3T-500X16	16	20	38	12.5	4	4	10.5	25	2	1	56	72
T3T-500X19	19	20	38	12.5	4	4	10.5	25	2	1	59	78
T3T-500X25	25	20	38	12.5	4	4	10.5	25	2	1	65	90
T3T-500X32	32	20	38	12.5	4	4	10.5	25	2	1	72	104
T3T-500X38	38	20	38	12.5	4	4	10.5	25	2	1	78	116
T3T-500X50	50	20	38	12.5	4	4	10.5	25	2	1	90	140
T3T-500X63	63	20	38	12.5	4	4	10.5	25	2	1	103	166
T3T-500X75	75	20	38	12.5	4	4	10.5	25	2	1	115	190
T3T-500X80	80	20	38	12.5	4	4	10.5	25	2	1	120	200
T3T-500X100	100	20	38	12.5	4	4	10.5	25	2	1	140	240
T3T-500X125	125	20	38	12.5	4	4	10.5	25	2	1	165	290

All dimensions are metric. For English equivalents, divide by 25.4.

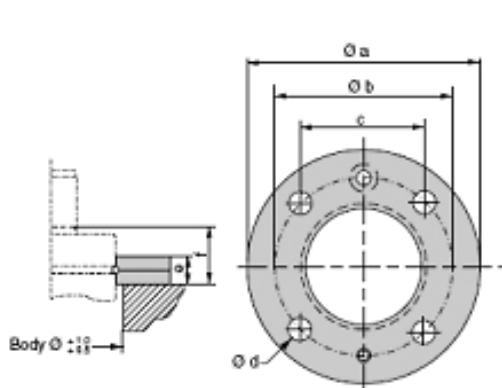
T3T-500 Gas Springs

Mounting Options

Modular flanges ordered separately.

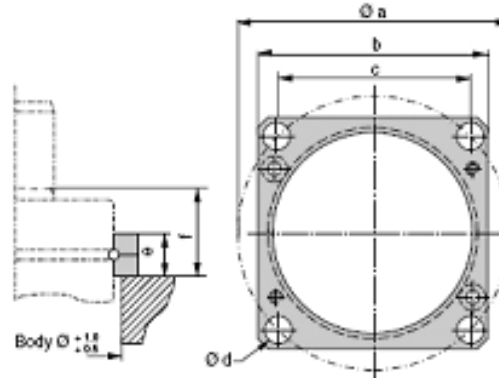
FC

Order No. T2-250-FC



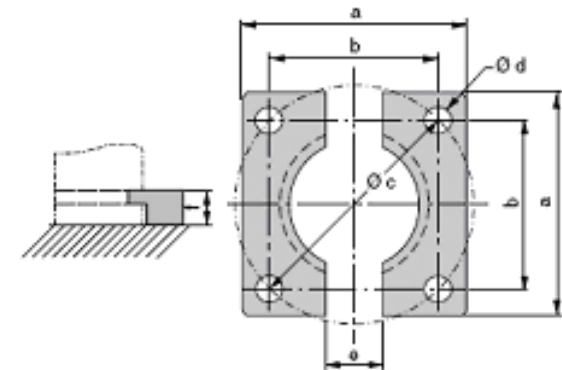
FCS

Order No. T2-250-FCS



FFC

Order No. T2-250-FFC



Order No.	Øa	Øb	c	Ød	e	f
T2-250-FC	68	56.5	40	7	9	17

Order No.	Øa	b	c	Ød	e	f
T2-250-FCS	56.5	52	40	7	9	17

Order No.	a	b	Øc	Ød	e	f
T2-250-FFC	55	40	56.6	7	12	6.5

All dimensions are metric.

For English equivalents, divide by 25.4.

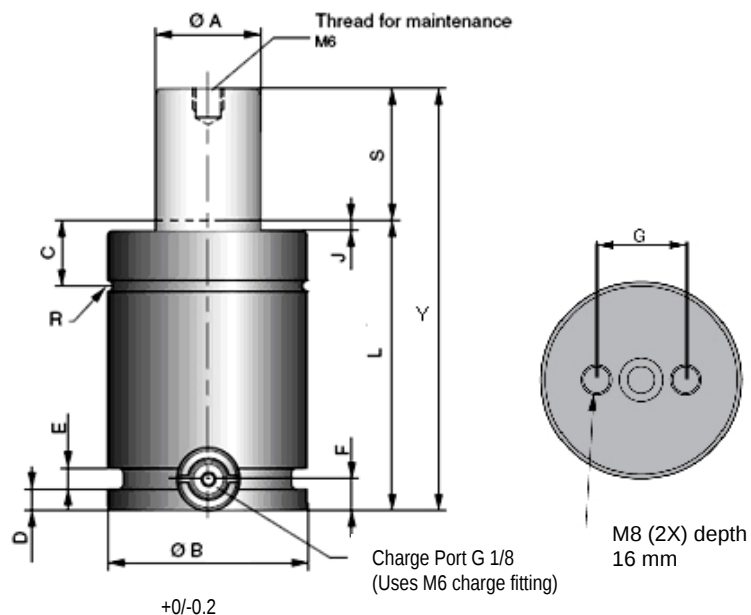


10367 Brecksville Road • Brecksville, OH 44141 U.S.A.
 Tel: 440-526-5900 • Fax: 440-526-6807 • Email: hyson@asbg.com
www.hysonproducts.com

T3T5000609

T3T-750 Gas Springs

T3T-750



Product Specifications

Pressure Medium

Charging Pressure Range

Contact Force

End Force (at full stroke)

Max. Operating Temperature

Max. Strokes/Minute

Max. Utilized Stroke

Max. Piston Rod Velocity

Inlet Valve

Charge Fitting

Repair Kit

Nitrogen Gas

Max. 150 bar/2175 psi,

Min. 25 bar/360 psi

7400 N/1665 lbf.

12000 N/2700 lbf.

80°C/176°F

~30-100

100%

96 mm/min. / 315 ft/min.

4018112

T2-770-3

T3TSK-750

Order No.	S	$\varnothing A$	$\varnothing B$	C	D	E	F	$\varnothing G$	J	R	L	Y
T3T-750X13	13	25	45.2	15.5	4	4	10.5	20	2	1	60	73
T3T-750X16	16	25	45.2	15.5	4	4	10.5	20	2	1	63	79
T3T-750X19	19	25	45.2	15.5	4	4	10.5	20	2	1	66	85
T3T-750X25	25	25	45.2	15.5	4	4	10.5	20	2	1	72	97
T3T-750X32	32	25	45.2	15.5	4	4	10.5	20	2	1	79	111
T3T-750X38	38	25	45.2	15.5	4	4	10.5	20	2	1	85	123
T3T-750X50	50	25	45.2	15.5	4	4	10.5	20	2	1	97	147
T3T-750X63	63	25	45.2	15.5	4	4	10.5	20	2	1	110	173
T3T-750X75	75	25	45.2	15.5	4	4	10.5	20	2	1	122	197
T3T-750X80	80	25	45.2	15.5	4	4	10.5	20	2	1	127	207
T3T-750X100	100	25	45.2	15.5	4	4	10.5	20	2	1	147	247
T3T-750X125	125	25	45.2	15.5	4	4	10.5	20	2	1	172	297

All dimensions are metric. For English equivalents, divide by 25.4.

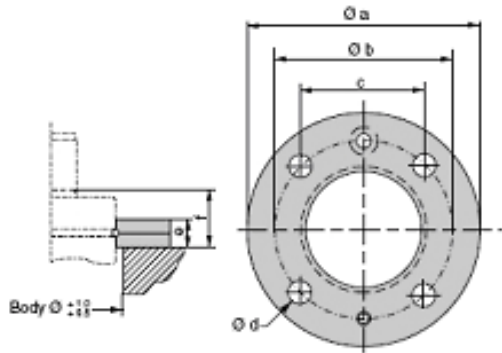
T3T-750 Gas Springs

Mounting Options

Modular flanges ordered separately.

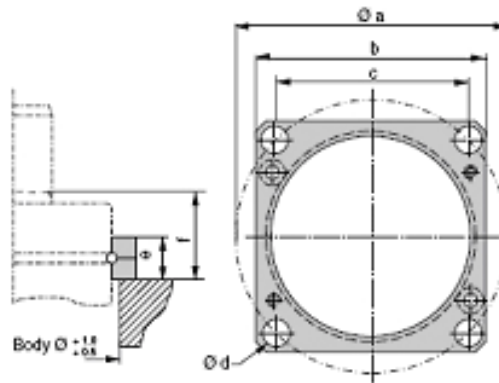
FC

Order No. T2-500-FC



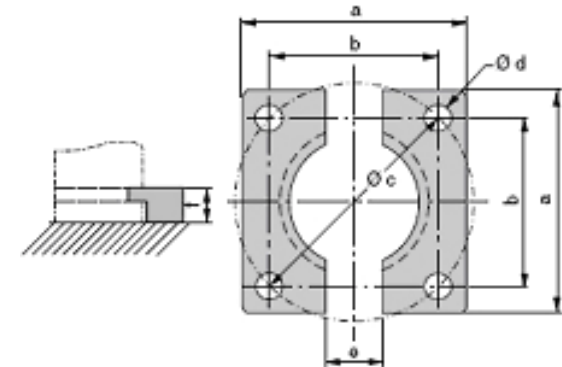
FCS

Order No. T2-500-FCS



FFC

Order No. T2-500-FFC



Order No.	Øa	Øb	c	Ød	e	f
T2-500-FC	86	70.7	50	9	13	23

Order No.	Øa	b	c	Ød	e	f
T2-500-FCS	70.7	64	50	9	13	23

Order No.	a	b	Øc	Ød	e	f
T2-500-FFC	70	50	70.7	9	20	6.5

All dimensions are metric.

For English equivalents, divide by 25.4.

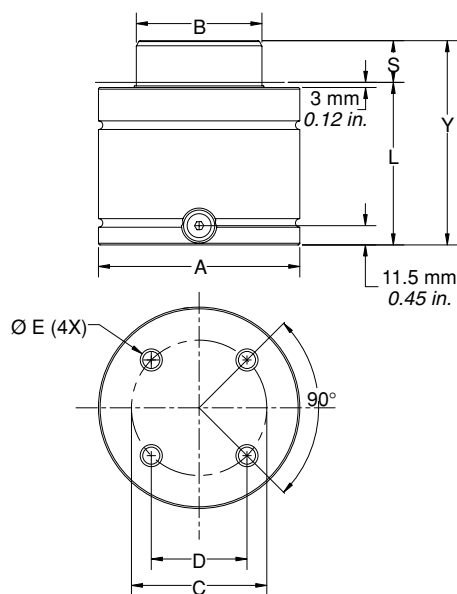
HYSON

A business of BARNES GROUP INC

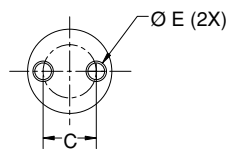
10367 Brecksville Road • Brecksville, OH 44141 U.S.A.
Tel: 440-526-5900 • Fax: 440-526-6807 • Email: hyson@asbg.com
www.hysonproducts.com

T3T7500609R

T3T Series



T3T-2400 through T3T-9500



T3T-1000

Product Specifications

Pressure Medium.....	Nitrogen Gas
Charging Pressure Range	Max. 150 bar/2175 psi
	Min. 25 bar/360 psi
Maximum Operating Temperature.....	80°C/176°F
Maximum Strokes/Minute.....	30-100 (model and stroke dependent)
Maximum Utilized Stroke	100%
Max. Piston Rod Velocity	96 mm/min
	315 ft/min
Repair Kits	T3SK-1000, T3SK-2400,
Inlet Valve	56-072-5500
Charge Fitting.....	T2-770-4

T3T-1000 Dimensional Information*

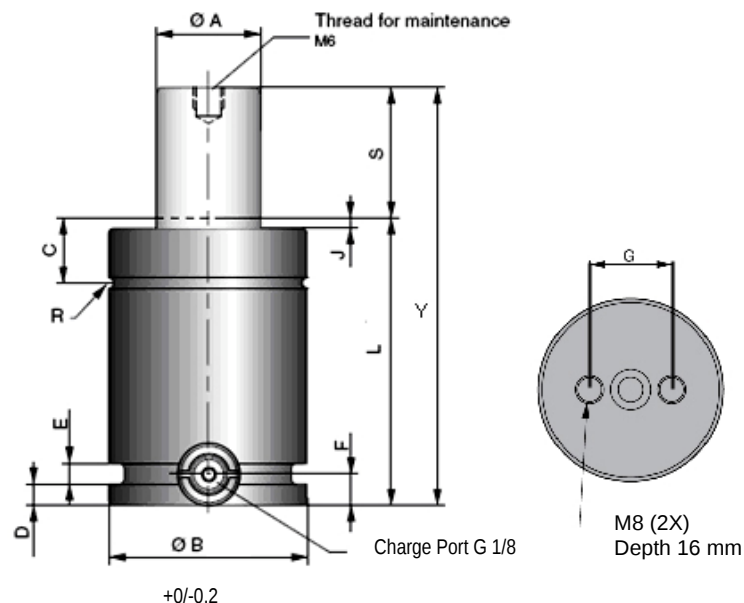
	Stroke S		Contact Force		Full Stroke Force		L		Y		A		B		C		
Order Number	mm	in.	N	lbs.	N	lbs.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	E
T3T-1000X13	13	0.51	9200 2070		13800	3105	65	2.56	78	3.07	50.2	1.98	28	1.10	31.7	1.25	M10 (2X) depth 16mm 0.63 in.
T3T-1000X16	16	0.63			13800	3105	68	2.68	84	3.31							
T3T-1000X19	19	0.75			14000	3145	71	2.80	90	3.54							
T3T-1000X25	25	0.98			14200	3190	77	3.03	102	4.02							
T3T-1000X32	32	1.26			14300	3215	84	3.31	116	4.57							
T3T-1000X38	38	1.50			14500	3260	90	3.54	128	5.04							
T3T-1000X50	50	1.97			14600	3280	102	4.02	152	5.98							
T3T-1000X63	63	2.48			14700	3305	115	4.53	178	7.01							
T3T-1000X75	75	2.95			14700	3305	127	5.00	202	7.95							
T3T-1000X80	80	3.15			14800	3325	132	5.20	212	8.35							
T3T-1000X100	100	3.94			14800	3325	152	5.98	252	9.92							
T3T-1000X125	125	4.92			14800	3325	177	6.97	302	11.89							

T3T-2400 Dimensional Information*

	Stroke S		Contact Force		Full Stroke Force		L		Y		A		B		C		D		
Order Number	mm	in.	N	lbs.	N	lbs.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	E
T3T-2400X16	16	0.63	24000 5395		38300	8610	75	2.95	91	3.58	75.2	2.96	45	1.77	53.9	2.12	38.1	1.50	M12 (4X) depth 16mm 0.63 in.
T3T-2400X19	19	0.75			38500	8655	78	3.07	97	3.82									
T3T-2400X25	25	0.98			38700	8700	84	3.31	109	4.29									
T3T-2400X32	32	1.26			38600	8680	91	3.58	123	4.84									
T3T-2400X38	38	1.50			38400	8635	97	3.82	135	5.32									
T3T-2400X50	50	1.97			39200	8815	109	4.29	159	6.26									
T3T-2400X63	63	2.48			39200	8815	122	4.80	185	7.28									
T3T-2400X75	75	2.95			39200	8815	134	5.28	209	8.23									
T3T-2400X80	80	3.15			39200	8815	139	5.47	219	8.62									
T3T-2400X100	100	3.94			39300	8835	159	6.26	259	10.20									
T3T-2400X125	125	4.92			39300	8835	184	7.24	309	12.17									

T3T-1500 Gas Springs

T3T-1500



Product Specifications

Pressure Medium

Charging Pressure Range

Contact Force

End Force (at full stroke)

Max. Operating Temperature

Max. Strokes/Minute

Max. Utilized Stroke

Max. Piston Rod Velocity

Inlet Valve

Charge Fitting

Repair Kit

Nitrogen Gas

Max. 150 bar/2175 psi,

Min. 25 bar/360 psi

15000 N/3375 lbf.

24000 N/5400 lbf.

80°C/176°F

~30-100

100%

96 mm/min. / 315 ft/min.

56-072-5500

T2-770-G 1/8

T3TSK-1500

Order No.	S	Ø A	Ø B	C	D	E	F	Ø G	J	R	L	Y
T3T-1500X13	13	36	63.2	19	8	7	10.5	20	3	2	65	78
T3T-1500X16	16	36	63.2	19	8	7	10.5	20	3	2	68	84
T3T-1500X19	19	36	63.2	19	8	7	10.5	20	3	2	71	90
T3T-1500X25	25	36	63.2	19	8	7	10.5	20	3	2	77	102
T3T-1500X32	32	36	63.2	19	8	7	10.5	20	3	2	84	116
T3T-1500X38	38	36	63.2	19	8	7	10.5	20	3	2	90	128
T3T-1500X50	50	36	63.2	19	8	7	10.5	20	3	2	102	152
T3T-1500X63	63	36	63.2	19	8	7	10.5	20	3	2	115	178
T3T-1500X75	75	36	63.2	19	8	7	10.5	20	3	2	127	202
T3T-1500X80	80	36	63.2	19	8	7	10.5	20	3	2	132	212
T3T-1500X100	100	36	63.2	19	8	7	10.5	20	3	2	152	252
T3T-1500X125	125	36	63.2	19	8	7	10.5	20	2	1	177	302

All dimensions are metric. For English equivalents, divide by 25.4.

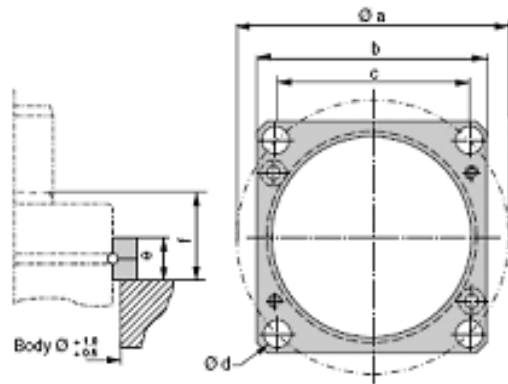
T3T-1500 Gas Springs

Mounting Options

Modular flanges ordered separately.

FCS

Order No. T2-1500-FCS

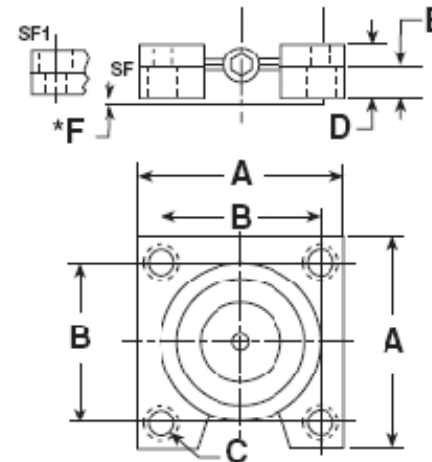


Order No.	Øa	Øb	c	Ød	e	f
T2-1500-FCS	104	90	73.5	11	16	27

All dimensions are metric. For English equivalents, divide by 25.4.

SF

Order No. T2-1500-SF



*Approximate value

Order No.	ØA	ØB	C	ØD	E	F
T2-1500-SF	100	73.5	11	25	10*	0.635

Screw countersink included with mount.

HYSON

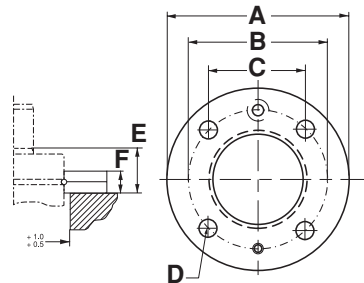
A business of BARNES GROUP INC

10367 Brecksville Road • Brecksville, OH 44141 U.S.A.
Tel: 440-526-5900 • Fax: 440-526-6807 • Email: hyson@asbg.com
www.hysonproducts.com

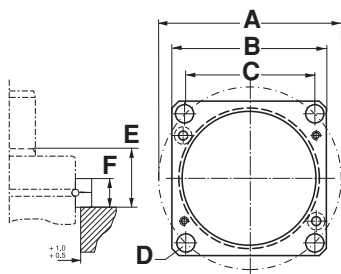
T3T15000609R

T3T Series

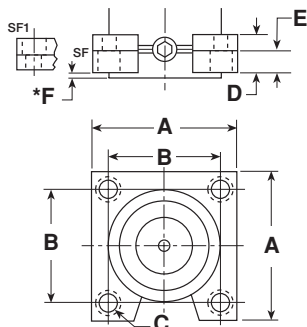
Mounting Options



FC							
Gas Spring	Order No.	A mm/in.	B mm/in.	C mm/in.	D mm/in.	E mm/in.	F mm/in.
T3T-1000	T2-750-FC	95/3.74	80/3.15	56.5/2.22	9/.35	24/.94	13/.51
T3T-2400	T2-1500-FC	122/4.80	104/4.09	73.5/2.89	11/.43	29/1.14	16/.63
T3T-4200	T2-3000-FC	150/5.91	130/5.12	92/3.62	13.5/.53	33/1.30	18/.71
T3T-6600	T2-5000-FC	175/6.89	155/6.10	109.5/4.31	13.5/.53	36/1.42	21/.83
T3T-9500	T2-7500-FC	220/8.66	195/7.68	138/5.43	17.5/.69	41/1.61	27/1.06

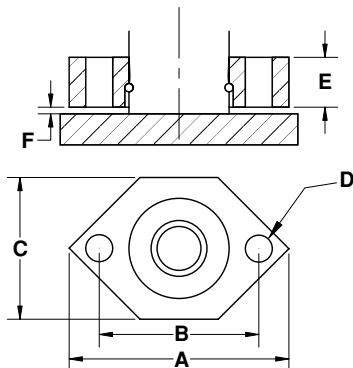


FCS							
Gas Spring	Order No.	A mm/in.	B mm/in.	C mm/in.	D mm/in.	E mm/in.	F mm/in.
T3T-1000	T2-750-FCS	80/3.15	70/2.76	56.5/2.22	9/.35	24/.94	13/.51
T3T-2400	T2-1500-FCS	104/4.09	90/3.54	73.5/2.89	11/.43	29/1.14	16/.63
T3T-4200	T2-3000-FCS	130/5.12	110/4.33	92/3.62	13.5/.53	33/1.30	18/.71
T3T-6600	T2-5000-FCS	155/6.10	130/5.12	109.5/4.31	13.5/.53	36/1.42	21/.83
T3T-9500	T2-7500-FCS	195/7.68	162/6.38	138/5.43	17.5/.69	41/1.61	27/1.06



*Approximate value

SF							
Gas Spring	Order No.	A mm/in.	B mm/in.	C	D mm/in.	E mm/in.	F mm/in.
T3T-1000	T2-750-SF	76.2/3.00	53.9/2.12	M10 / 3/8 SHCS	25/.98	11/.43	.635/.025
T3T-2400	T2-1500-SF	101.6/4.00	76.2/3.00	M12 / 1/2 SHCS	25/.98	13/.51	.635/.025
T3T-4200	T2-3000-SF	127/5.00	98.3/3.87	M12 / 1/2 SHCS	25/.98	13/.51	.635/.025
T3T-6600	T2-5000-SF	139.7/5.50	114.3/4.50	M12 / 1/2 SHCS	25/.98	13/.51	.635/.025
T3T-9500	T2-7500-SF	177.8/7.00	139.7/5.50	M16 / 5/8 SHCS	25/.98	17/.67	.635/.025

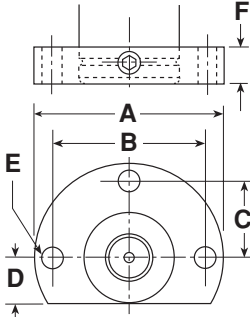


*Approximate value

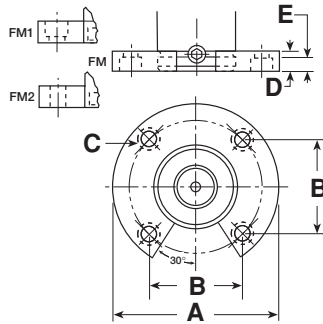
BFT							
Gas Spring	Order No.	A mm/in.	B mm/in.	C mm/in.	D	E mm/in.	F mm/in.
T3T-1000	T2-750-BFT	110/4.33	80/3.15	71/2.80	M12 / 1/2 SHCS	25/.98	.635/.025
T3T-2400	T2-1500-BFT	134/5.28	104/4.09	96/3.78	M12 / 1/2 SHCS	25/.98	.635/.025
T3T-4200	T2-3000-BFT	170/6.69	130/5.12	116/4.57	M16 / 5/8 SHCS	25/.98	.635/.025
T3T-6600	T2-5000-BFT	205/8.07	155/6.10	141/5.55	M16 / 5/8 SHCS	25/.98	.635/.025
T3T-9500	T2-7500-BFT	245/9.65	195/7.68	180/7.09	M20 / 3/4 SHCS	25/.98	.635/.025

NOTE: All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

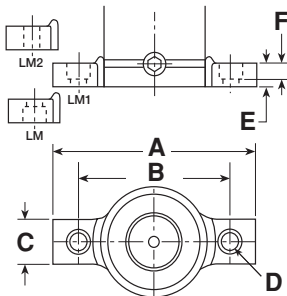
Mounting Options



NOTE: This is a welded flange and not sold separately.
Gas springs with welded flanges are not returnable.



NOTE: This is a welded flange and not sold separately.
Gas springs with welded flanges are not returnable.



NOTE: This is a welded flange and not sold separately.
Gas springs with welded flanges are not returnable.

FMCW

Gas Spring	Order No.	A mm/in.	B mm/in.	C mm/in.	D mm/in.	E mm/in.	F mm/in.
T3T-1000	FMCW	108/4.25	88.9/3.50	44.5/1.75	16/.63	11/.43	19/.75
T3T-2400	FMCW	152.4/6.00	120.6/4.74	60.3/2.37	28/1.10	14/.55	19/.75
T3T-4200	FMCW	171/6.73	140/5.51	70/2.76	41/1.61	14/.55	25/.98
T3T-6600	FMCW	197/7.76	165.2/6.50	82.6/3.25	54/2.13	18/.71	25/.98
T3T-9500	FMCW	229/9.02	196.9/7.75	98.5/3.88	68/2.68	M16 / 5/8 SHCS	25/.98

FMW

Gas Spring	Order No.	A mm/in.	B mm/in.	C	D mm/in.	E mm/in.
T3T-1000	FMW	116/4.57	63/2.48	M10 / 3/8 SHCS	19/.75	11/.43
T3T-2400	FMW	152/5.98	85/3.35	M12 / 1/2 SHCS	19/.75	11/.43
T3T-4200	FMW	172/6.77	99/3.90	M12 / 1/2 SHCS	25/.98	13/.51
T3T-6600	FMW	196/7.72	117/4.61	M16 / 5/8 SHCS	25/.98	17/.67
T3T-9500	FMW	234/9.21	138/5.43	M20 / 3/4 SHCS	25/.98	17/.67

LMW

Gas Spring	Order No.	A mm/in.	B mm/in.	C mm/in.	D	E mm/in.	F mm/in.
T3T-1000	LMW	116/4.57	89/3.50	32/1.26	M10 / 3/8 SHCS	19/.75	11/.43
T3T-2400	LMW	152/5.98	121/4.75	38/1.50	M12 / 1/2 SHCS	19/.75	13/.51
T3T-4200	LMW	178/7.01	146/5.75	38/1.50	M12 / 1/2 SHCS	19/.75	13/.51
T3T-6600	LMW	196/7.72	165/6.50	38/1.50	M12 / 1/2 SHCS	19/.75	13/.51
T3T-9500	—	—	—	—	—	—	—

NOTE: All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

T3T Accessories

Service Gauge Assembly Part No.: MGA-3000

Charging and discharging the T3T for use in the self-contained mode is simple, when the MGA-3000 is used.

NOTE: Male quick disconnect charge fitting (T2-770-4) sold separately.



Male Quick Disconnect (Charge Fitting) Part No. T2-770-4

The T2-770-4 quick disconnect is used along with the MGA-3000 service gauge assembly when charging and discharging T3T Series gas springs in the self-contained mode.



7/16-20 Port

Nitrogen Charging Assembly Part Nos. NCA-2600 & NCA-2600-HP

The NCA-2600 charging assembly is used to transfer nitrogen from a commercial bottle to T3T gas springs. The charging assembly includes a CGA-580 bottle fitting, regulator with bottle and system pressure gauges, shut-off valve and 10 feet of high pressure hose with a fitting for the control panel quick disconnect inlet or to the MGA-3000 service gauge assembly.

NOTE: The NCA-2600-HP is available for use with 3000-5000 psi bottles. CGA-680 bottle fitting provided with HP Series.



Seal Kits and Tool Kits

T3T gas springs are field repairable. There is a seal kit with detailed instructions for each size gas spring. Tool kits are also available.

Gas Spring	Seal Kit Number	Tool Kit Number	Inlet Valve Removal Tool
T3T-1000	T3SK-1000	T2TK-250-750	T2TK-IN
T3T-2400	T3SK-2400	T2TK	
T3T-4200	T3SK-4200		
T3T-6600	T3SK-6600		
T3T-9500	T3SK-9500		

NOTE: All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

T3T Ordering Options

T3T-2400	X	63	–	FCS	–	2175
Model		Stroke		Mounting		Charge Pressure*
T3T-1000		See		FC		Max. 2175 psi
T3T-2400		Dimensional		FCS		
T3T-4200		Information		SF		
T3T-6600				BFT		
T3T-9500				FMCW**		
				FMW**		
				LMW**		

*All T3T gas springs shipped at maximum charge pressure unless otherwise specified.

**Counterbore must be specified.

NOTE: All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.



Tanker®T and Tanker®S Gas Springs



Nitro-Dyne® XP Manifolds



Mini Manifolds



Force Manager™ Systems



T3 Gas Springs



Adaptive Cams



Mechanical Cams



T2 Standard Gas Springs



Controllable Gas Springs



Delay Return Manifolds



Mini Gas Springs



Accessories

Hyson® Products

A Business of Barnes Group Inc.

10367 Brecksville Road
Brecksville, OH 44141 USA
Tel: 1-800-876-4976, 440-526-5900
Fax: 440-526-6807
Email: hyson@asbg.com
www.hysonproducts.com

3100 Mainway
Burlington, ONT L7M 1A3 Canada
Tel: 905-331-1311
Fax: 905-331-1342

Bld. Rogelio Gonzalez Caballero #500
Parque Industrial STIVA Aeropuerto
Apodaca, NL CP 66600 Mexico
Tel: 5281 8145-0570
Fax: 5281 8145-0571

©Hyson Products 2007
T3T3M0907