

DADCO®

Ultra Force Extended® Nitrogen Gas Springs

UX Series



Patented

- Reduce die construction costs
- Long stroke lengths – up to 300 mm
- Directly upgrade ISO 500-10000 models
- Variety of attachable and welded mounts





The global leader in nitrogen gas spring technology

Introduction

DADCO produces top quality products at competitive prices and provides a superior level of customer service. Founded in 1958, DADCO is the highest volume producer of gas springs for press tools. DADCO's products are widely approved and used in global operations for many industries including metal stamping, automotive, and plastic injection molding.



High Force + ISO Envelope = UX Series

DADCO's **Ultra Force Extended®** Series fits the standard full height gas spring envelope with more force on contact, making it ideal for use with high strength steel. It also means cost savings in die construction and maintenance. The UX Series is available in extended stroke lengths with a variety of welded and attachable mounts.

Model	Diameter	Maximum Force on Contact
UX.0800	44.5 mm (1.750")	7.3 kN (0.7 ton)
UX.1000 / UX.1000V	50 mm (1.968")	9.2 kN (1.0 ton)
UX.1600	63 mm (2.480")	15 kN (1.7 ton)
UX.2600 / UX.2600V	75 mm (2.953")	24 kN (2.6 ton)
UX.4600	95 mm (3.740")	42 kN (4.7 ton)
UX.6600	120 mm (4.724")	66 kN (7.4 ton)
UX.9600	150 mm (5.906")	95 kN (10.7 ton)
UX.20000	195 mm (7.677")	199 kN (22 ton)

Rapid Delivery

DADCO's modern 13,150 m² main production facility as well as satellite facilities permit the fastest deliveries in the industry. Products are available both directly and through a network of stocking distributors, providing worldwide support.

UltraPak® Technology

The UX Series uses the same superior **UltraPak®** cartridge as the popular **Ultra Force®** Series. The **UltraPak®** employs advanced materials to reduce the rod cartridge profile while increasing performance. The **UltraPak®** is comprised of a rod wiper, rod seal and guide arranged to extend life, retain lubrication, exclude contaminants, and provide excellent wear characteristics. When coupled with DADCO's superior finished piston rod, the **UltraPak®** is the ultimate sealing system.

Numerous Piping Options

With DADCO's **Ultra Force Extended®** Series, piping gas springs is easy because every necessary tool or component is readily available (e.g. reliable and cost-effective fittings, various hoses and couplings, control panels, solid fittings, crimping equipment). For additional information, refer to DADCO's Nitrogen Gas Spring Linked System Components Catalog.

SMS®

For those instances when a customer prefers to have DADCO provide a finished system, several options are available. A popular option, DADCO's Sectional Mounting System (SMS®) includes cylinders mounted to a SMS® plate and linked using hose, fittings and a control panel. Shipped ready to install, customers find the SMS® to be a trouble free, cost-effective option. For additional information, refer to catalog C13106D.

SMS-i®

Another option is the Sectional Mounting System - Internal (SMS-i®). The SMS-i® consists of an internally piped plate with mounted cylinders. DADCO recommends using the SMS-i® as a cost effective alternative to traditional manifold systems. For more information, request catalog C13106D.

Customer Satisfaction

DADCO's motto is "Whatever It Takes To Satisfy Our Customers." DADCO will assist in any way possible to ensure that customers are completely satisfied. DADCO's salespeople and distributors are solution-oriented, product-knowledgeable and eager to assist customers. DADCO's engineers are available to help customers with specific applications.

Warranty

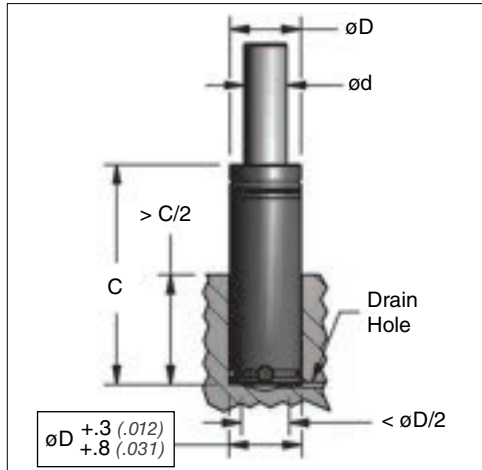
DADCO warrants its UX Series Nitrogen Gas Springs to be free from defects in workmanship or materials for a period of one year from date of manufacture.

CAD Templates On-line 

DADCO's entire product line is available on-line in solid models and 2D CAD formats. For more information, visit our website, www.dadco.net, or contact DADCO.

Installation Examples

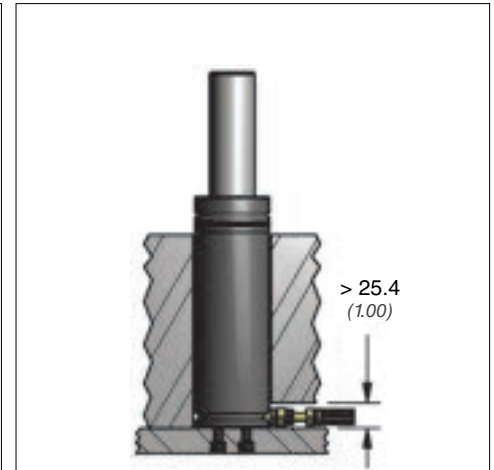
DADCO offers a variety of mount options to meet specific customer applications. Installation and fastening of the gas springs should take into consideration load support, fastener selection and torque values. For additional information on installation requirements see page 24. Cylinder and mount dimensions are shown on pages 4-21.



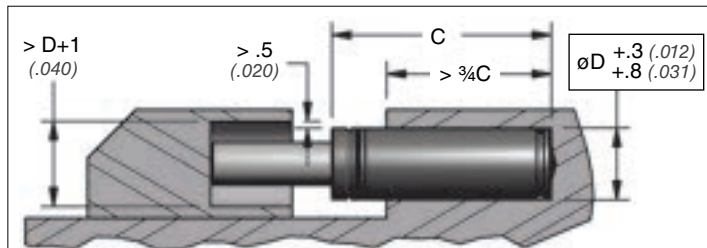
TO Basic Model in a flat bottom pocket. The pocket must be bored with a flat bottom, or a spacer must be used to create a flat surface.



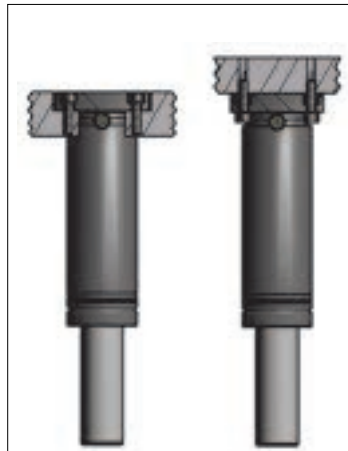
TO Basic Model mounted inverted requires back-up to support the full load. Retain inverted cylinders tight in the pocket with the appropriate length cap screw to eliminate movement.



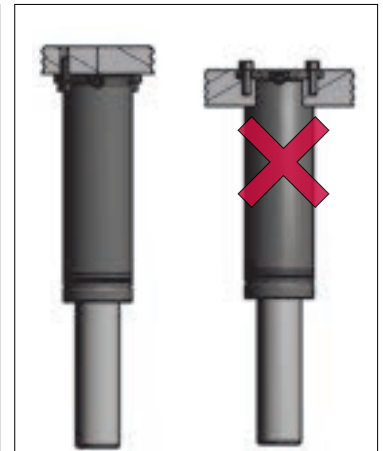
TO Basic Model mounted to a plate. Linked cylinders require clearance for the hose and fittings.



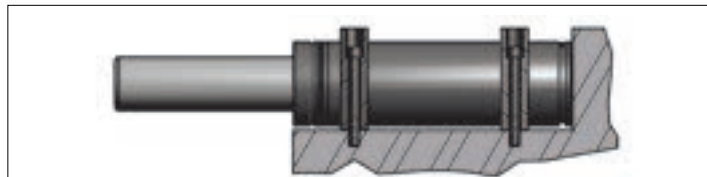
TO Basic Model mounted in a horizontal pocket. Allow clearance in the rod pocket to avoid contacting the body of the cylinder during operation. Allow the rod to locate freely.



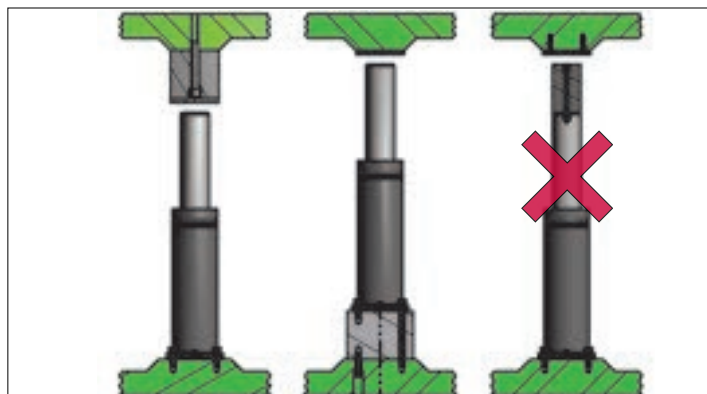
TFM/TSW/B11 mounts may be attached from the top or base. Back-up is required to support the full load. *NOTE: Mount 90.11.07500 from top only.*



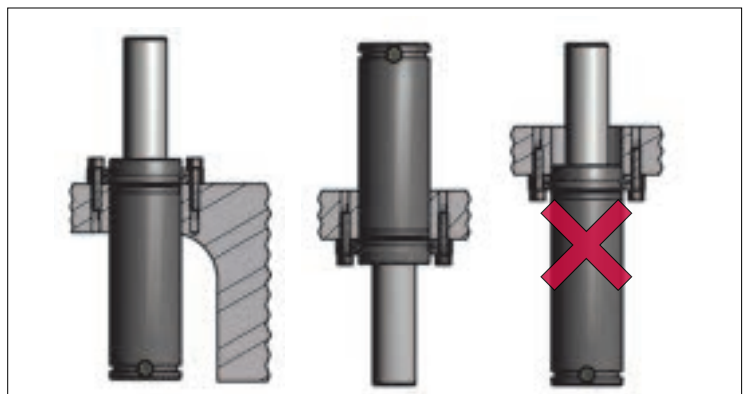
B12 mounts must be fastened to the bottom groove only. Back-up is required to support the full load.



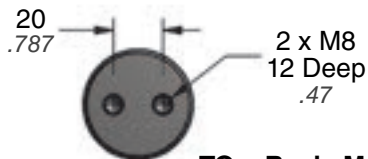
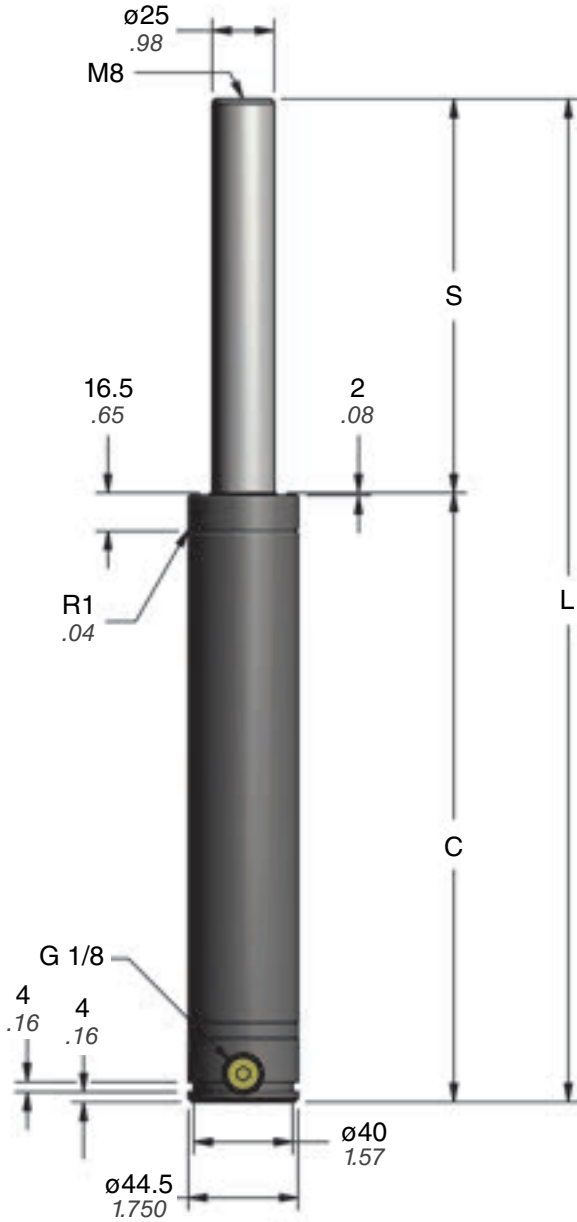
B19/B319V/B26 mounts require back-up to support the load. For long stroke models use two mounts to secure the cylinder.



Pad extensions or die shoe spacers and striker plates may be used. Never secure anything to the rod end; the rod end has a construction thread intended only for assembly purposes.



B21/B25 mounts must be fastened to the top groove only. Back-up is required to support the full load. Do not mount from the bottom side of the mount.



Part No.	S mm inch	C	L ±0.25 ±0.010
UX.0800.013	12.5 0.49	97.5 3.84	110 4.331
• UX.0800.025	25 0.98	110 4.33	135 5.315
• UX.0800.038	37.5 1.48	122.5 4.82	160 6.299
• UX.0800.050	50 1.97	135 5.31	185 7.283
UX.0800.063	62.5 2.46	147.5 5.81	210 8.268
UX.0800.075	75 2.95	160 6.30	235 9.252
• UX.0800.080	80 3.15	165 6.50	245 9.646
• UX.0800.100	100 3.94	185 7.28	285 11.220
• UX.0800.125	125 4.92	210 8.27	335 13.189
UX.0800.150	150 5.91	235 9.25	385 15.157
• UX.0800.160	160 6.30	245 9.65	405 15.945
UX.0800.175	175 6.89	260 10.24	435 17.126
UX.0800.200	200 7.87	285 11.22	485 19.094

• Preferred Sizes

Ordering Example:

UX.0800.080. TO. C. 150

Part Number: _____
 Includes Series, Model and Stroke Length.

Mount Option: _____
 TO = Basic Model. When not specified, default is TO. Mounts ordered with cylinder will be attached at the factory.

Mount Only Ordering Example: 90.21.00500

Charging Pressure: _____
 15–150 bar (220–2175 psi). When not specified, default is 150 bar.

Operating System: _____
 C = Self-contained, F = Open Flow Fitting. When not specified, default is C, self-contained.

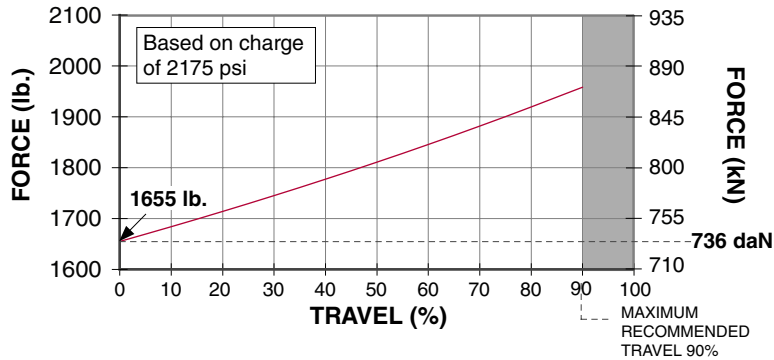
UX.0800 – 736 daN / 0.7 ton

Ultra Force Extended® Nitrogen Gas Springs

Force Charts

On-Contact Force

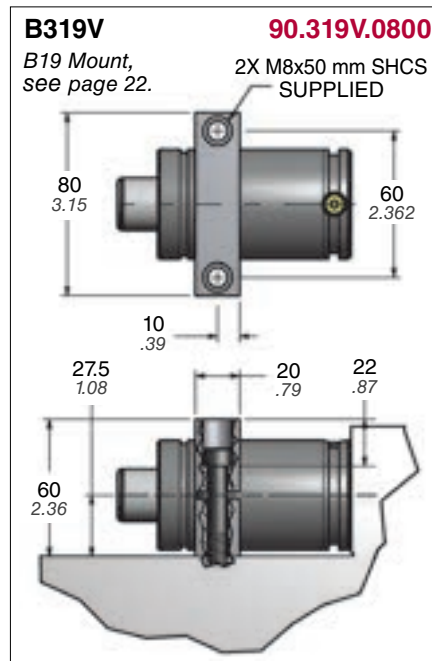
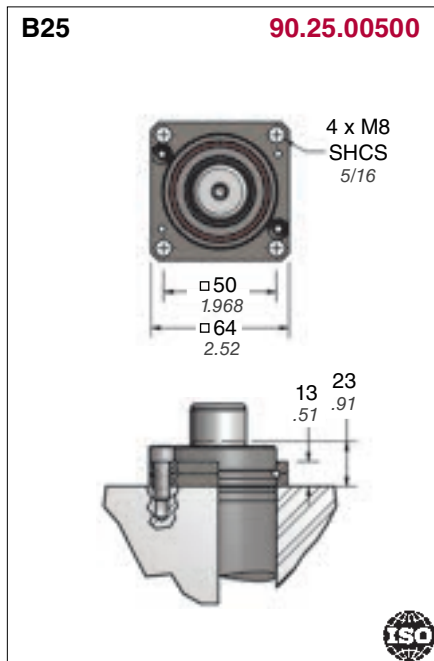
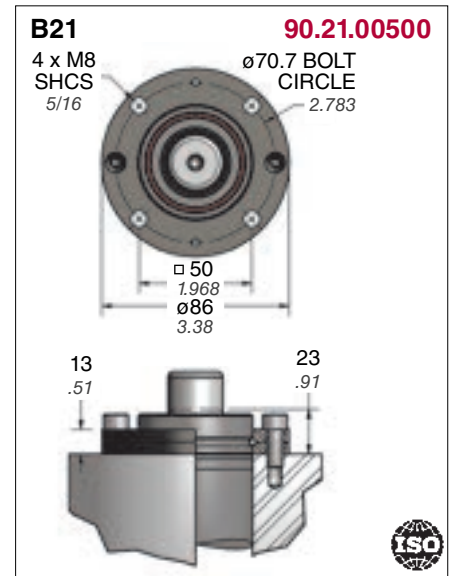
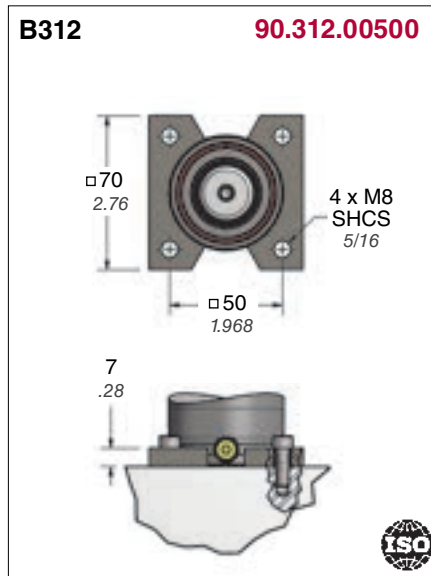
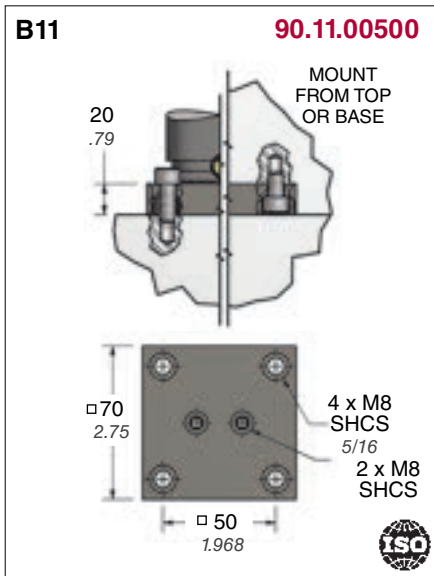
psi	lb.
2175	1655
2000	1522
1750	1331
1500	1141
1000	761
500	380
250	190



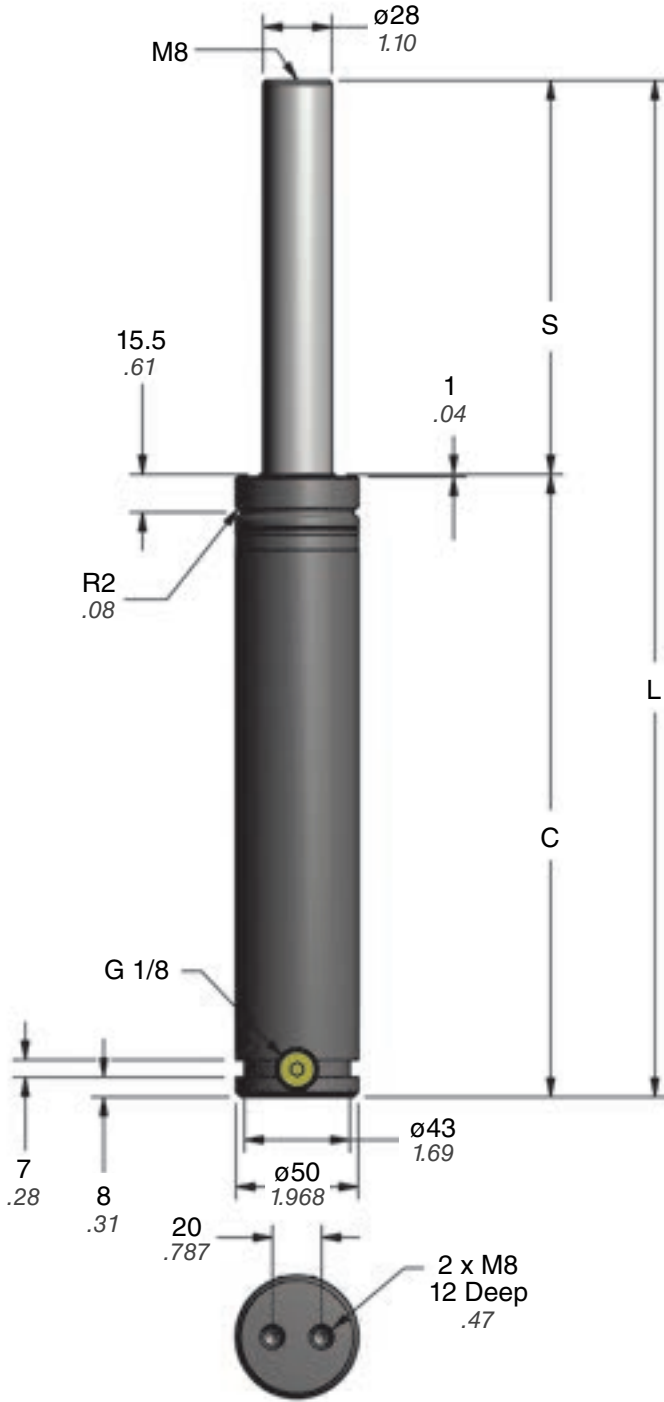
On-Contact Force

bar	daN
150	736
125	614
100	491
75	368
50	245
25	123
20	098

Mount Options



DADCO offers a wide variety of mounts. If the mounts above are not suitable for the application, contact DADCO.



TO – Basic Model

*Refer to page 20 for model matching
 European Standards.*

Part No.	S mm inch	C	L ±0.25 ±0.010
UX.1000.013	12.5 .49	105.5 4.15	118 4.646
• UX.1000.025	25 0.98	118 4.65	143 5.630
• UX.1000.038	37.5 1.48	130.5 5.14	168 6.614
• UX.1000.050	50 1.97	143 5.63	193 7.598
UX.1000.063	62.5 2.46	155.5 6.12	218 8.583
UX.1000.075	75 2.95	168 6.61	243 9.567
• UX.1000.080	80 3.15	173 6.81	253 9.961
• UX.1000.100	100 3.94	193 7.60	293 11.535
• UX.1000.125	125 4.92	218 8.58	343 13.504
UX.1000.150	150 5.91	243 9.57	393 15.472
• UX.1000.160	160 6.30	253 9.96	413 16.260
UX.1000.175	175 6.89	268 10.55	443 17.441
UX.1000.200	200 7.87	293 11.54	493 19.409
UX.1000.225	225 8.86	318 12.52	543 21.378
UX.1000.250	250 9.84	343 13.50	593 23.346
UX.1000.275	275 10.83	368 14.49	643 25.315
UX.1000.300	300 11.81	393 15.47	693 27.283

• Preferred Sizes

Ordering Example:

UX.1000.080. TO. C. 150

Part Number: _____
 Includes Series, Model and Stroke Length.

Mount Option: _____
 TO = Basic Model. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

Mount Only Ordering Example: 90.21.00750

Charging Pressure: _____
 15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

Operating System: _____
 C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

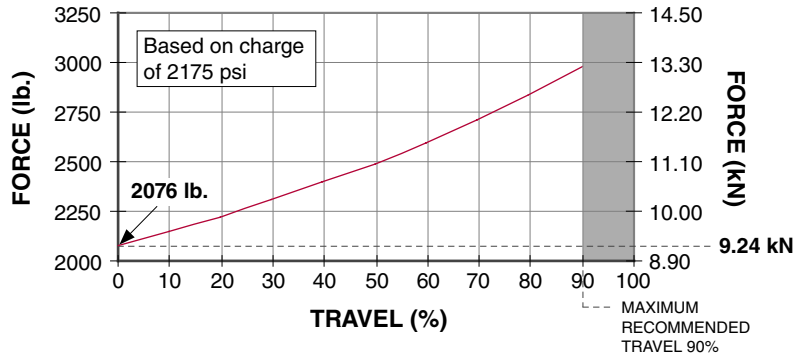
UX.1000 – 9.2 kN / 1.0 ton

Ultra Force Extended® Nitrogen Gas Springs

Force Charts

On-Contact Force

psi	lb.
2175	2076
2000	1909
1750	1670
1500	1432
1000	954
500	477
250	239



On-Contact Force

bar	kN
150	9.24
125	7.70
100	6.16
75	4.62
50	3.08
25	1.54
20	1.23

Mount Options

TFM Welded

TSW Welded

B11 90.11.00750

B12 90.12.00750

B21 90.21.00750

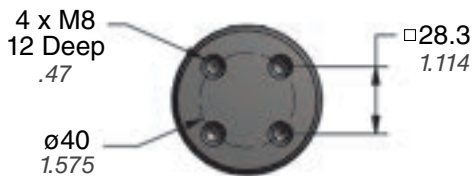
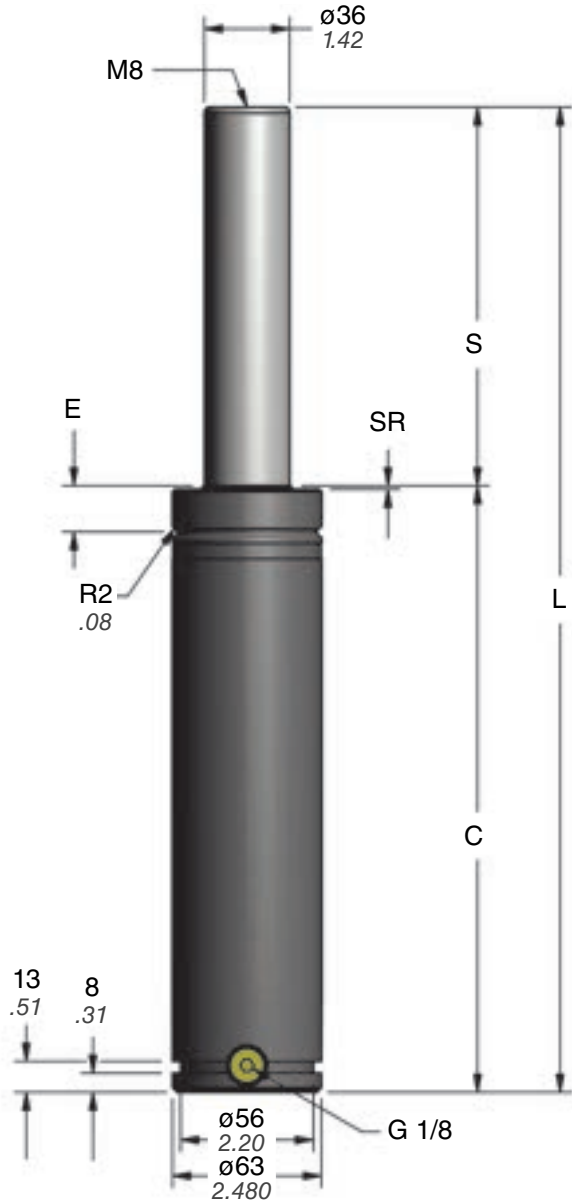
B25 90.25.00750

B319V 90.319V.1000

B19 Mount, see page 22.

2X M10x60 mm SHCS SUPPLIED

DADCO offers a wide variety of mounts. If the mounts above are not suitable for the application, contact DADCO.



TO – Basic Model

Part No.	S mm inch	C	L ±0.25 ±0.010
UX.1600.013	12.5 0.49	107.5 4.23	120 4.724
• UX.1600.025	25 0.98	120 4.72	145 5.709
• UX.1600.038	37.5 1.48	132.5 5.22	170 6.693
• UX.1600.050	50 1.97	145 5.71	195 7.677
UX.1600.063	62.5 2.46	157.5 6.20	220 8.661
UX.1600.075	75 2.95	170 6.69	245 9.646
• UX.1600.080	80 3.15	175 6.89	255 10.039
• UX.1600.100	100 3.94	195 7.68	295 11.614
• UX.1600.125	125 4.92	220 8.66	345 13.583
UX.1600.150	150 5.91	245 9.65	395 15.551
• UX.1600.160	160 6.30	255 10.04	415 16.339
UX.1600.175	175 6.89	270 10.63	445 17.520
UX.1600.200	200 7.87	295 11.61	495 19.488
UX.1600.225	225 8.86	320 12.60	545 21.457
UX.1600.250	250 9.84	345 13.58	595 23.425
UX.1600.275	275 10.83	370 14.57	645 25.394
UX.1600.300	300 11.81	395 15.55	695 27.362

• Preferred Sizes

Part Nos.	E mm inch	SR	MH*
UX.1600.013 – UX.1600.125	19 0.75	1.0 0.04	27 1.06
UX.1600.150 – UX.1600.300	21 0.83	3.0 0.12	29 1.14

* See page 9.

Ordering Example:

UX.1600.080. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

Mount Only Ordering Example: 90.21.1600

Charging Pressure:

15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

Operating System:

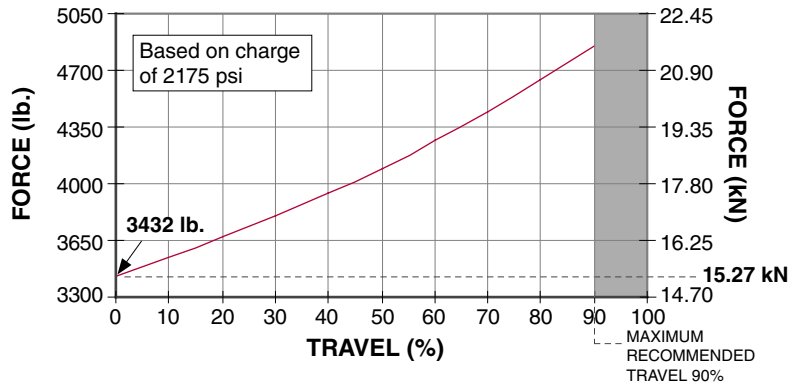
C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UX.1600 – 15 kN / 1.7 ton

Force Charts

On-Contact Force

psi	lb.
2175	3432
2000	3155
1750	2761
1500	2367
1000	1578
500	789
250	394



On-Contact Force

bar	kN
150	15.27
125	12.72
100	10.18
75	7.63
50	5.09
25	2.54
20	2.04

Mount Options

B112 / 90.112.1600 **B212 / 90.212.1600**

Part No.	A	B
90.112.1600	85 (3.35)	60 (2.362)
90.212.1600	100 (3.94)	73.5 (2.894)

B21 **90.21.1600**

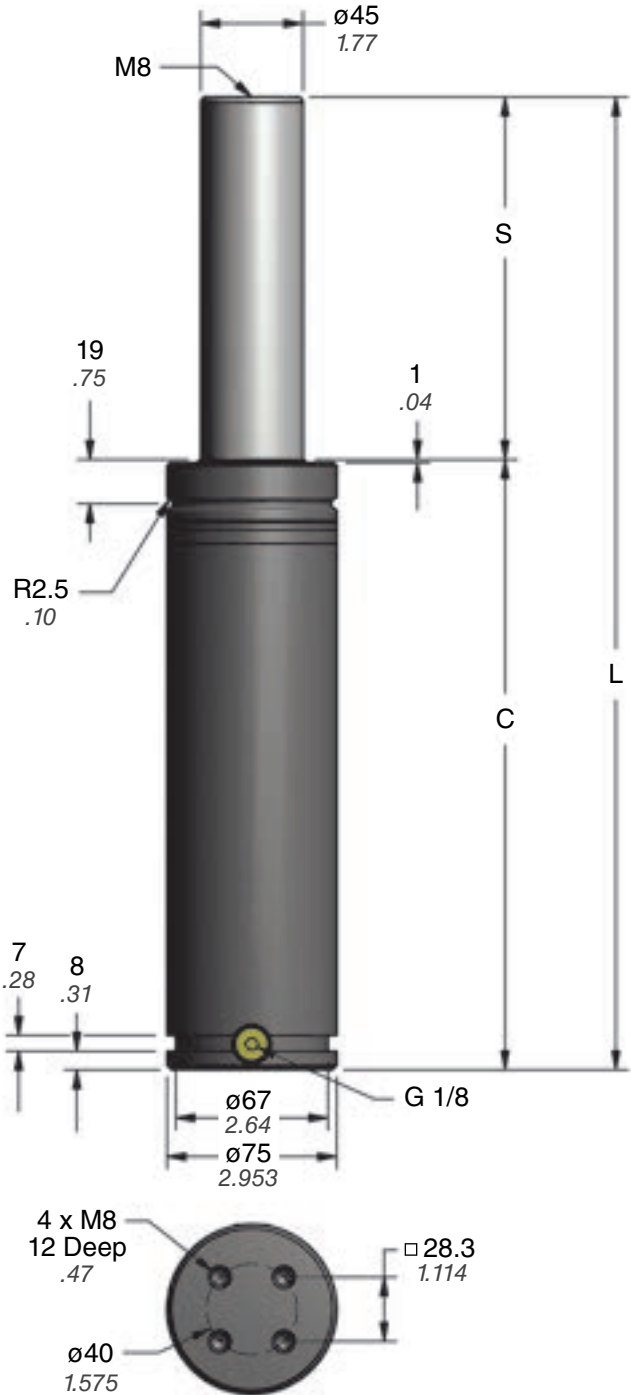
B325/B25 **90.325.1600/90.25.1600**

Part No.	A	B
90.325.1600	64 2.520	80 3.54
90.25.1600	73.5 2.894	90 3.54

B319 **90.319.1600**

B319V **90.319V.1600**

DADCO offers a wide variety of mounts. If the mounts above are not suitable for the application, contact DADCO.



TO – Basic Model

*Refer to page 21 for model matching
 European Standards.*

Part No.	S mm inch	C	L ± 0.25 ± 0.010
• UX.2600.025	25 0.98	133 5.24	158 6.220
• UX.2600.038	37.5 1.48	145.5 5.73	183 7.205
• UX.2600.050	50 1.97	158 6.22	208 8.189
UX.2600.063	62.5 2.46	170.5 6.71	233 9.173
UX.2600.075	75 2.95	183 7.20	258 10.157
• UX.2600.080	80 3.15	188 7.40	268 10.551
• UX.2600.100	100 3.94	208 8.19	308 12.126
• UX.2600.125	125 4.92	233 9.17	358 14.094
UX.2600.150	150 5.91	258 10.16	408 16.063
• UX.2600.160	160 6.30	268 10.55	428 16.850
UX.2600.175	175 6.89	283 11.14	458 18.031
UX.2600.200	200 7.87	308 12.13	508 20.000
UX.2600.225	225 8.86	333 13.11	558 21.968
UX.2600.250	250 9.84	358 14.09	608 23.937
UX.2600.275	275 10.83	383 15.08	658 25.906
UX.2600.300	300 11.81	408 16.06	708 27.874

• Preferred Sizes

Ordering Example:

UX.2600.080. TO. C. 150

Part Number: _____
 Includes Series, Model and Stroke Length.

Mount Option: _____
 TO = Basic Model. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

Mount Only Ordering Example: 90.21.01500

Charging Pressure: _____
 15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

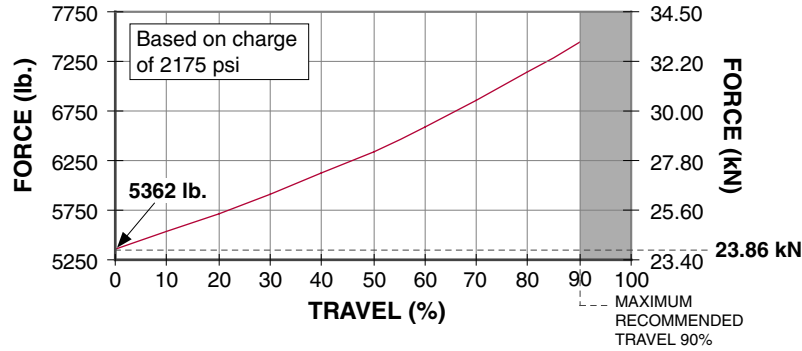
Operating System: _____
 C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UX.2600 – 24 kN / 2.6 ton

Force Charts

On-Contact Force

psi	lb.
2175	5362
2000	4930
1750	4314
1500	3698
1000	2465
500	1233
250	616



On-Contact Force

bar	kN
150	23.86
125	19.88
100	15.90
75	11.93
50	7.95
25	3.98
20	3.18

Mount Options

TFM **Welded**

TSW **Welded**

B11 **90.11.01500**

B12 **90.12.01500**

B21 **90.21.01500**

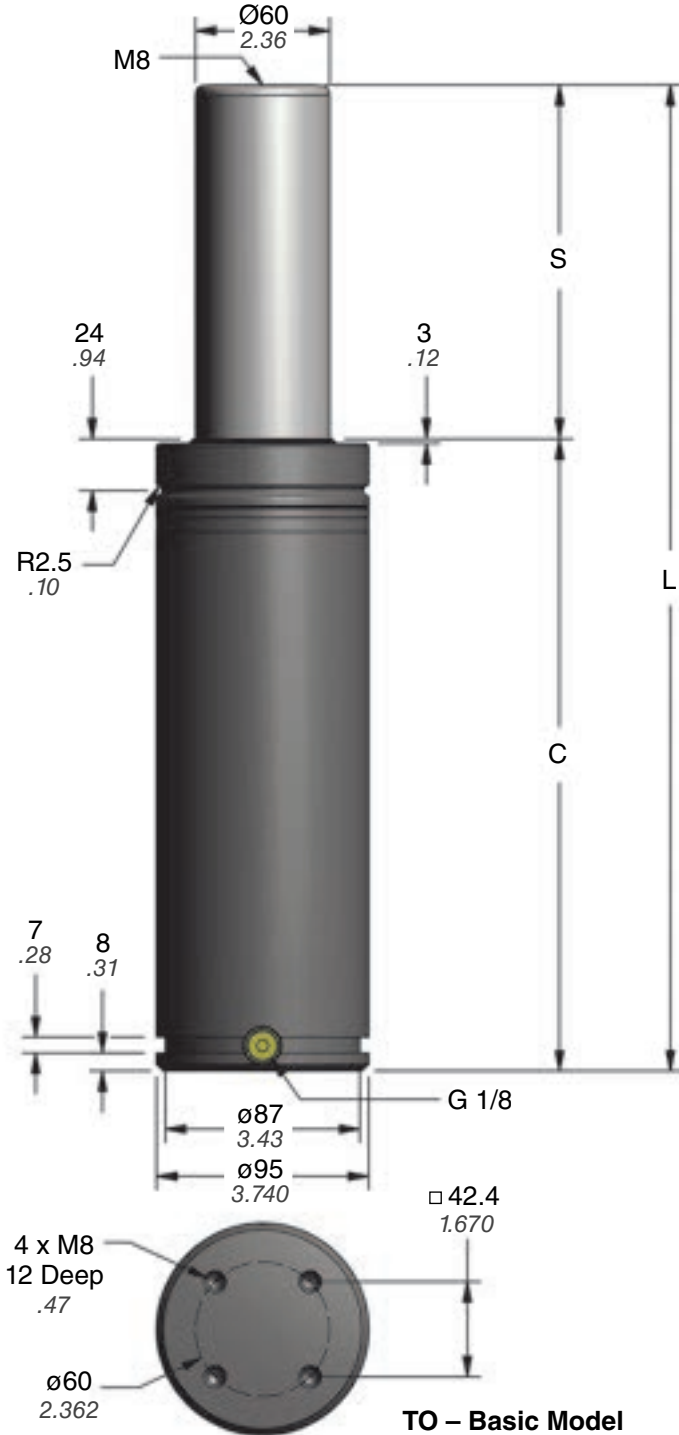
B325 **90.325.2600**

B319V **90.319V.2600**

B19 Mount, see page 22.

2X M12x80 mm SHCS SUPPLIED

DADCO offers a wide variety of mounts. If the mounts above are not suitable for the application, contact DADCO.



Part No.	S mm inch	C	L ±0.25 ±0.010
• UX.4600.025	25 0.98	145 5.71	170 6.693
• UX.4600.038	37.5 1.48	157.5 6.20	195 7.677
• UX.4600.050	50 1.97	170 6.69	220 8.661
UX.4600.063	62.5 2.46	182.5 7.19	245 9.646
UX.4600.075	75 2.95	195 7.68	270 10.630
• UX.4600.080	80 3.15	200 7.87	280 11.024
• UX.4600.100	100 3.94	220 8.66	320 12.598
• UX.4600.125	125 4.92	245 9.65	370 14.567
UX.4600.150	150 5.91	270 10.63	420 16.535
• UX.4600.160	160 6.30	280 11.02	440 17.323
UX.4600.175	175 6.89	295 11.61	470 18.504
UX.4600.200	200 7.87	320 12.60	520 20.472
UX.4600.225	225 8.86	345 13.58	570 22.441
UX.4600.250	250 9.84	370 14.57	620 24.409
UX.4600.275	275 10.83	395 15.55	670 26.378
UX.4600.300	300 11.81	420 16.54	720 28.346

• Preferred Sizes

Ordering Example:

UX.4600.080. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

Mount Only Ordering Example: 90.21.03000

Charging Pressure:

15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

Operating System:

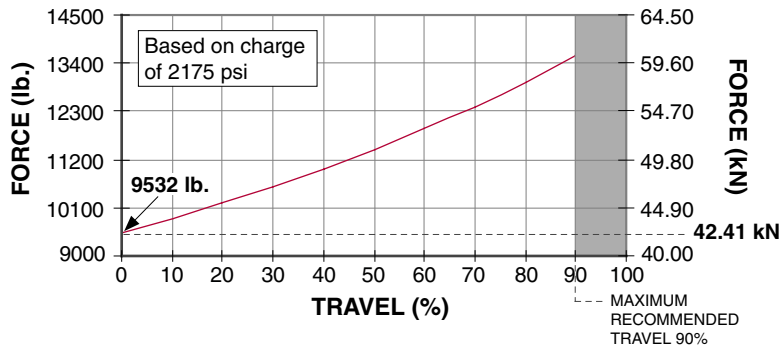
C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UX.4600 – 42 kN / 4.7 ton

Force Charts

On-Contact Force

psi	lb.
2175	9532
2000	8765
1750	7669
1500	6574
1000	4383
500	2191
250	1096



On-Contact Force

bar	kN
150	42.41
125	35.34
100	28.27
75	21.21
50	14.14
25	7.07
20	5.65

Mount Options

TFM **Welded**

TSW **Welded**

B11 **90.11.03000**

B12 **90.12.03000**

B21 **90.21.03000**

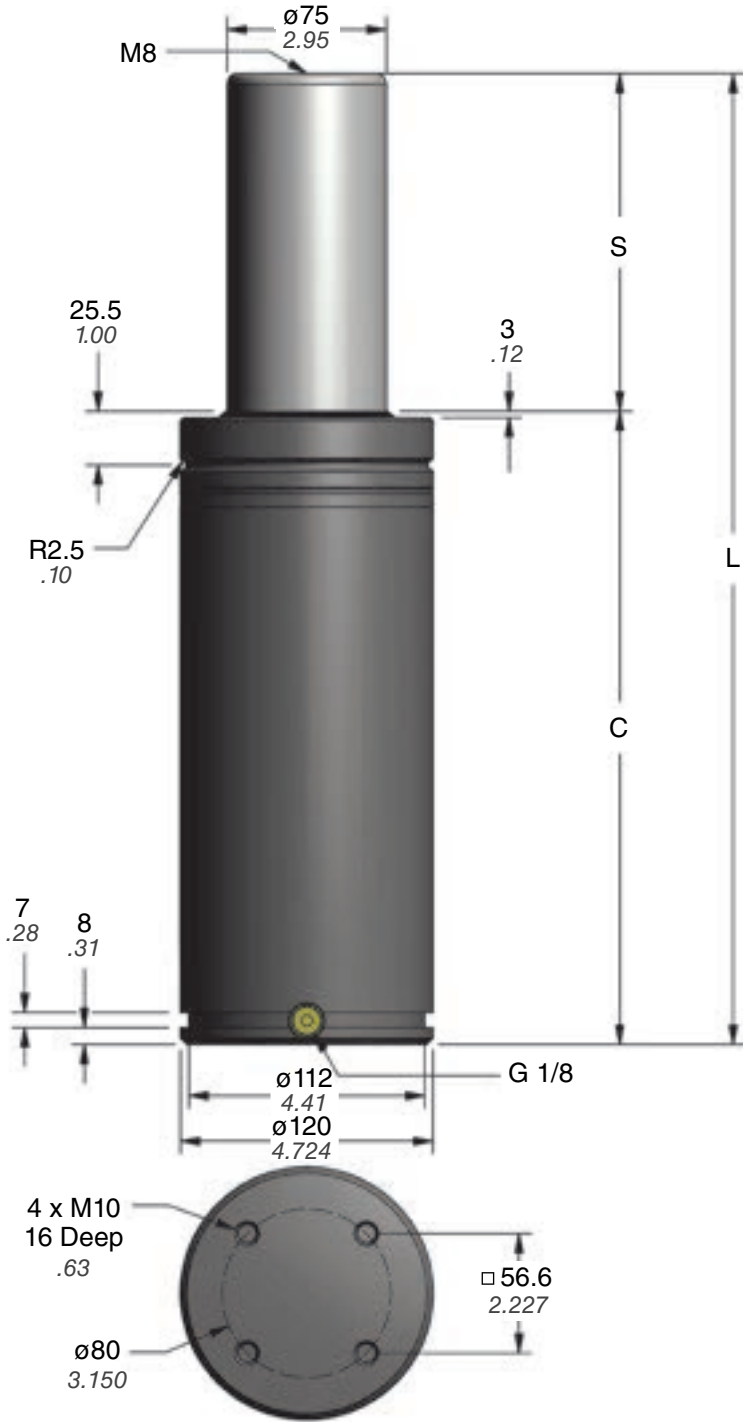
B25 **90.25.03000**

B319V **90.319V.4600**

B19 Mount, see page 22.

2X M12x100 mm SHCS SUPPLIED

DADCO offers a wide variety of mounts. If the mounts above are not suitable for the application, contact DADCO.



TO – Basic Model

Part No.	S mm inch	C	L ± 0.25 ± 0.010
• UX.6600.025	25 0.98	165 6.50	190 7.480
• UX.6600.038	37.5 1.48	177.5 6.99	215 8.465
• UX.6600.050	50 1.97	190 7.48	240 9.449
UX.6600.063	62.5 2.46	202.5 7.97	265 10.433
UX.6600.075	75 2.95	215 8.46	290 11.417
• UX.6600.080	80 3.15	220 8.66	300 11.811
• UX.6600.100	100 3.94	240 9.45	340 13.386
• UX.6600.125	125 4.92	265 10.43	390 15.354
UX.6600.150	150 5.91	290 11.42	440 17.323
• UX.6600.160	160 6.30	300 11.81	460 18.110
UX.6600.175	175 6.89	315 12.40	490 19.291
UX.6600.200	200 7.87	340 13.39	540 21.260
UX.6600.225	225 8.86	365 14.37	590 23.228
UX.6600.250	250 9.84	390 15.35	640 25.197
UX.6600.275	275 10.83	415 16.34	690 27.165
UX.6600.300	300 11.81	440 17.32	740 29.134

• Preferred Sizes

Ordering Example:

UX.6600.080. TO. C. 150

Part Number: _____
 Includes Series, Model and Stroke Length.

Mount Option: _____
 TO = Basic Model. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

Mount Only Ordering Example: 90.21.05000

Charging Pressure: _____
 15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

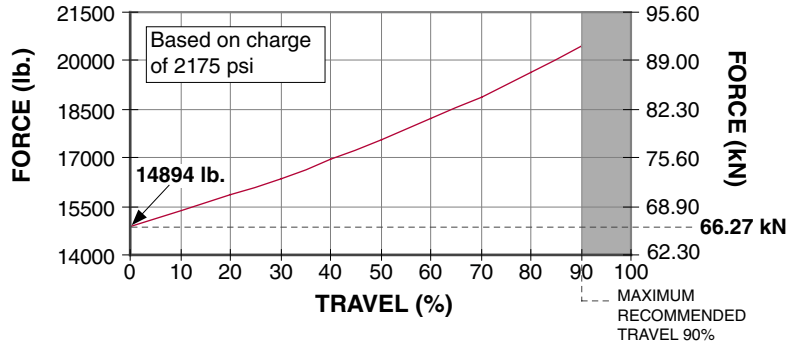
Operating System: _____
 C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UX.6600 – 66 kN / 7.4 ton

Force Charts

On-Contact Force

psi	lb.
2175	14894
2000	13695
1750	11983
1500	10272
1000	6848
500	3424
250	1712



On-Contact Force

bar	kN
150	66.27
125	55.22
100	44.18
75	33.13
50	22.09
25	11.04
20	8.84

Mount Options

TFM **Welded**

TSW **Welded**

B11 **90.11.05000**

B12 **90.12.05000**

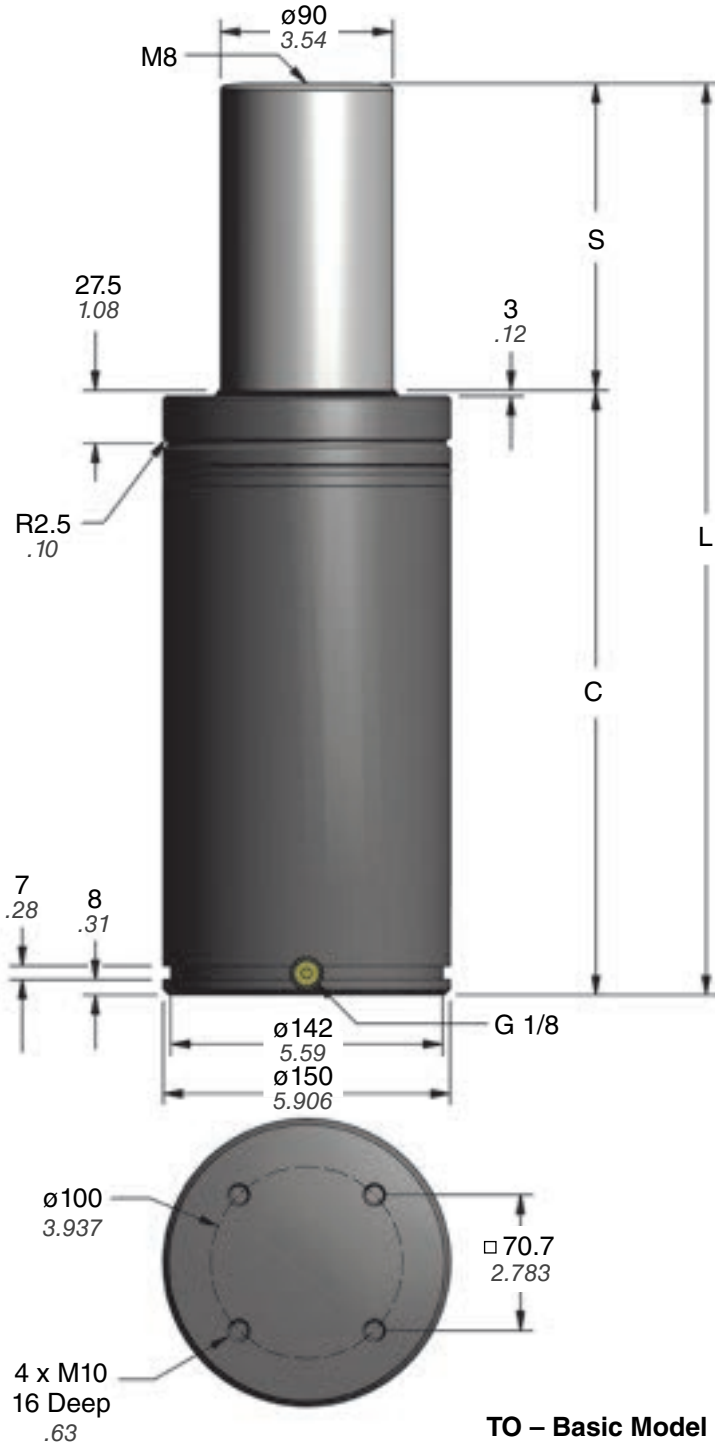
B21 **90.21.05000**

B25 **90.25.05000**

B319V **90.319V.6600**

B19 Mount, see page 22.

DADCO offers a wide variety of mounts. If the mounts above are not suitable for the application, contact DADCO.



Part No.	S mm inch	C	L ±0.25 ±0.010
• UX.9600.025	25 0.98	180 7.09	205 8.071
UX.9600.038	37.5 1.48	192.5 7.58	230 9.055
• UX.9600.050	50 1.97	205 8.07	255 10.039
UX.9600.063	62.5 2.46	217.5 8.56	280 11.024
UX.9600.075	75 2.95	230 9.06	305 12.008
• UX.9600.080	80 3.15	235 9.25	315 12.402
• UX.9600.100	100 3.94	255 10.04	355 13.976
• UX.9600.125	125 4.92	280 11.02	405 15.945
UX.9600.150	150 5.91	305 12.01	455 17.913
• UX.9600.160	160 6.30	315 12.40	475 18.701
UX.9600.175	175 6.89	330 12.99	505 19.882
UX.9600.200	200 7.87	355 13.98	555 21.850
UX.9600.225	225 8.86	380 14.96	605 23.819
UX.9600.250	250 9.84	405 15.94	655 25.787
UX.9600.275	275 10.83	430 16.93	705 27.756
UX.9600.300	300 11.81	455 17.91	755 29.724

• Preferred Sizes

Ordering Example:

UX.9600.080. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

Mount Only Ordering Example: 90.21.07500

Charging Pressure:

15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

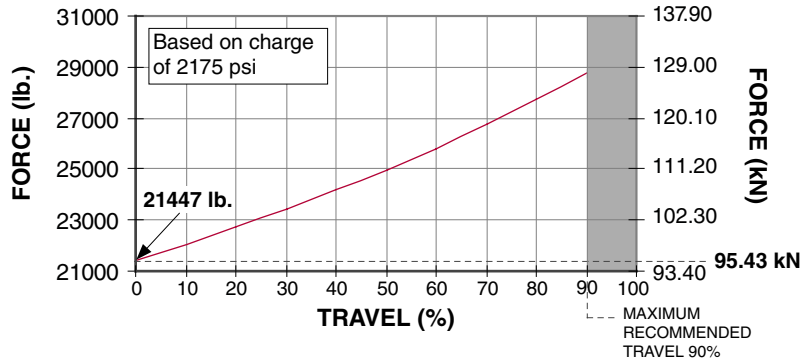
Operating System:

C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

Force Charts

On-Contact Force

psi	lb.
2175	21447
2000	19721
1750	17256
1500	14791
1000	9861
500	4930
250	2465



On-Contact Force

bar	kN
150	95.43
125	79.52
100	63.62
75	47.71
50	31.81
25	15.90
20	12.72

Mount Options

TFM Welded

TSW Welded

B11 90.11.07500

B12 90.12.07500

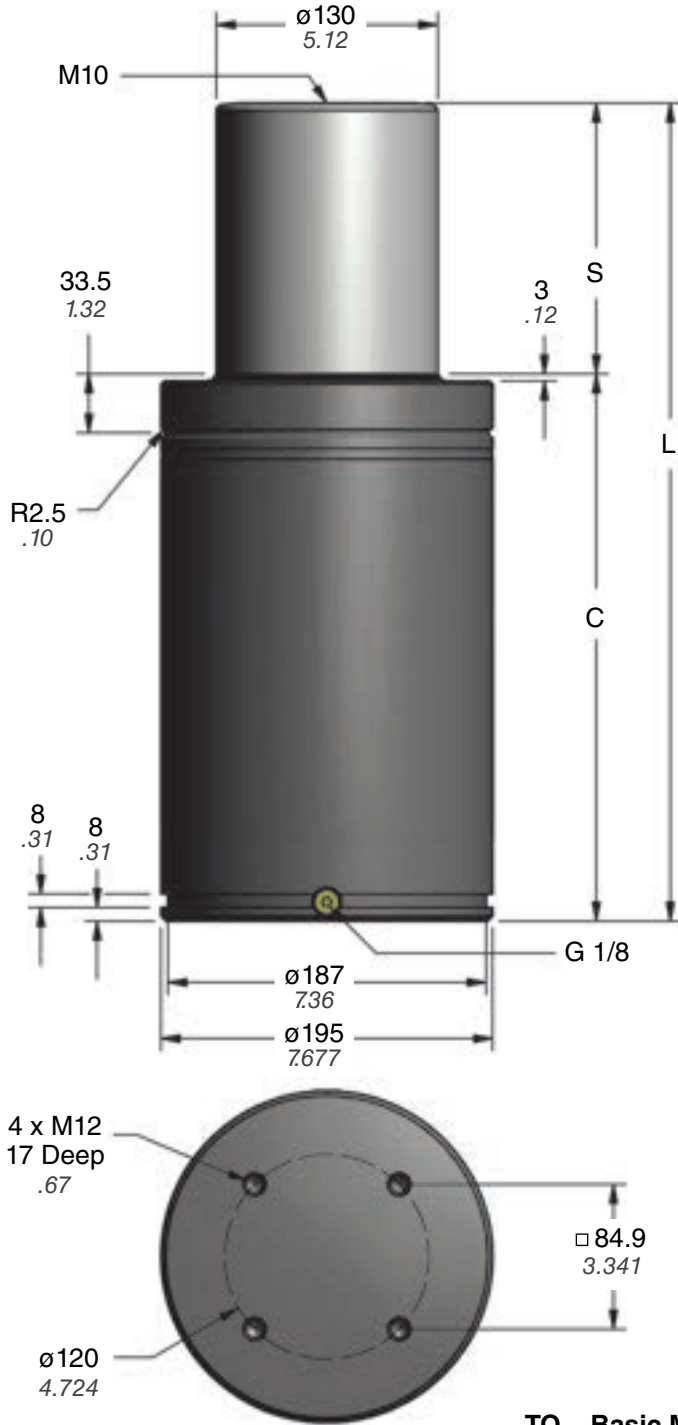
B21 90.21.07500

B25 90.25.07500

B319V 90.319V.9600

B19 Mount, see page 22.

DADCO offers a wide variety of mounts. If the mounts above are not suitable for the application, contact DADCO.



TO – Basic Model

Part No.	S mm inch	C	L ±0.25 ±0.010
• UX.20000.025	25 0.98	185 7.28	210 8.268
UX.20000.038	37.5 1.48	197.5 7.78	235 9.252
• UX.20000.050	50 1.97	210 8.27	260 10.236
UX.20000.063	62.5 2.46	222.5 8.76	285 11.220
UX.20000.075	75 2.95	235 9.25	310 12.205
• UX.20000.080	80 3.15	240 9.45	320 12.598
• UX.20000.100	100 3.94	260 10.24	360 14.173
• UX.20000.125	125 4.92	285 11.22	410 16.142
UX.20000.150	150 5.91	310 12.20	460 18.110
• UX.20000.160	160 6.30	320 12.60	480 18.898
UX.20000.175	175 6.89	335 13.19	510 20.079
UX.20000.200	200 7.87	360 14.17	560 22.047
UX.20000.225	225 8.86	385 15.16	610 24.016
UX.20000.250	250 9.84	410 16.14	660 25.984
UX.20000.275	275 10.83	435 17.13	710 27.953
UX.20000.300	300 11.81	460 18.11	760 29.921

• Preferred Sizes

Ordering Example:

UX.20000.080. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

Mount Only Ordering Example: 90.21.10000

Charging Pressure:

15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

Operating System:

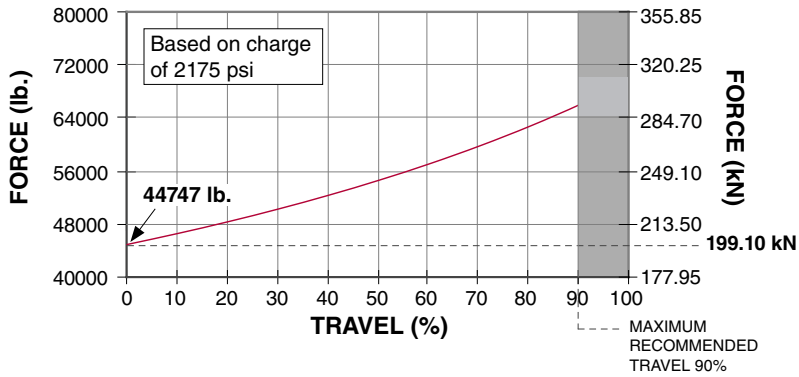
C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UX.20000 – 199 kN / 22 ton

Force Charts

On-Contact Force

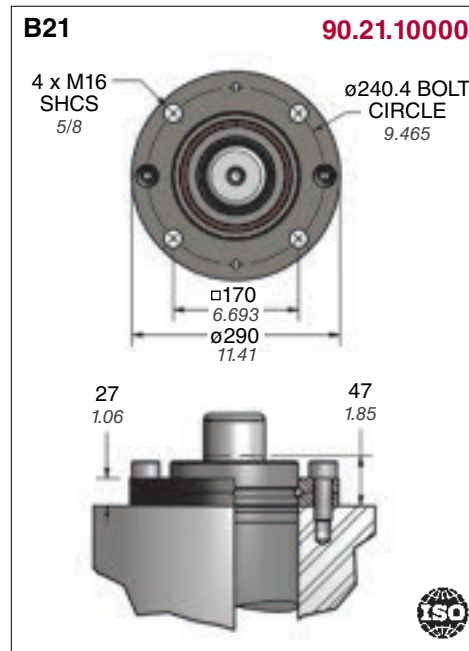
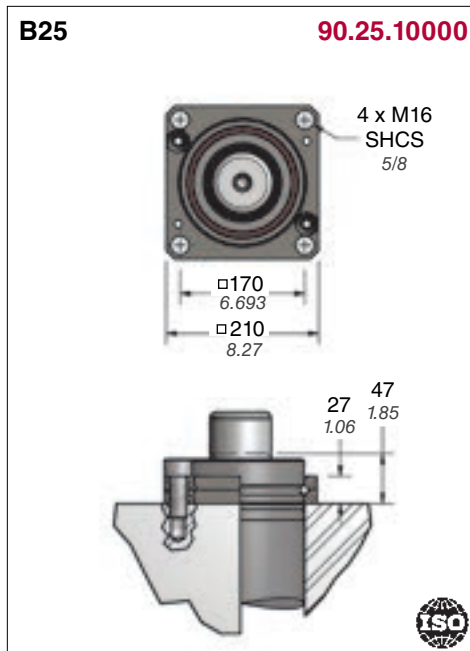
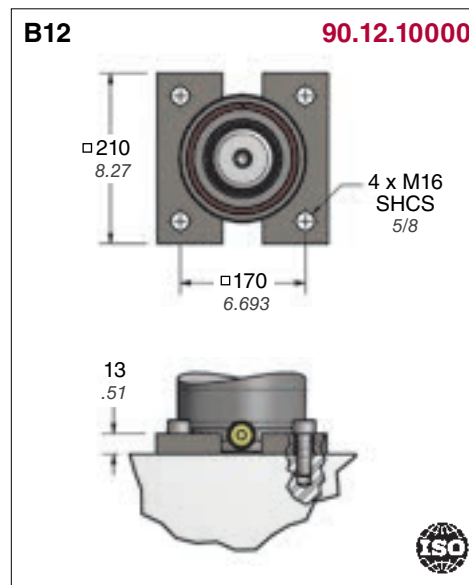
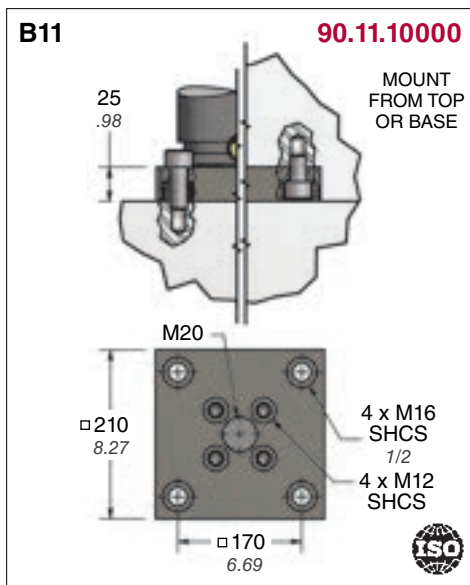
psi	lb.
2175	44747
2000	41147
1750	36004
1500	30860
1000	20574
500	10287
250	5143



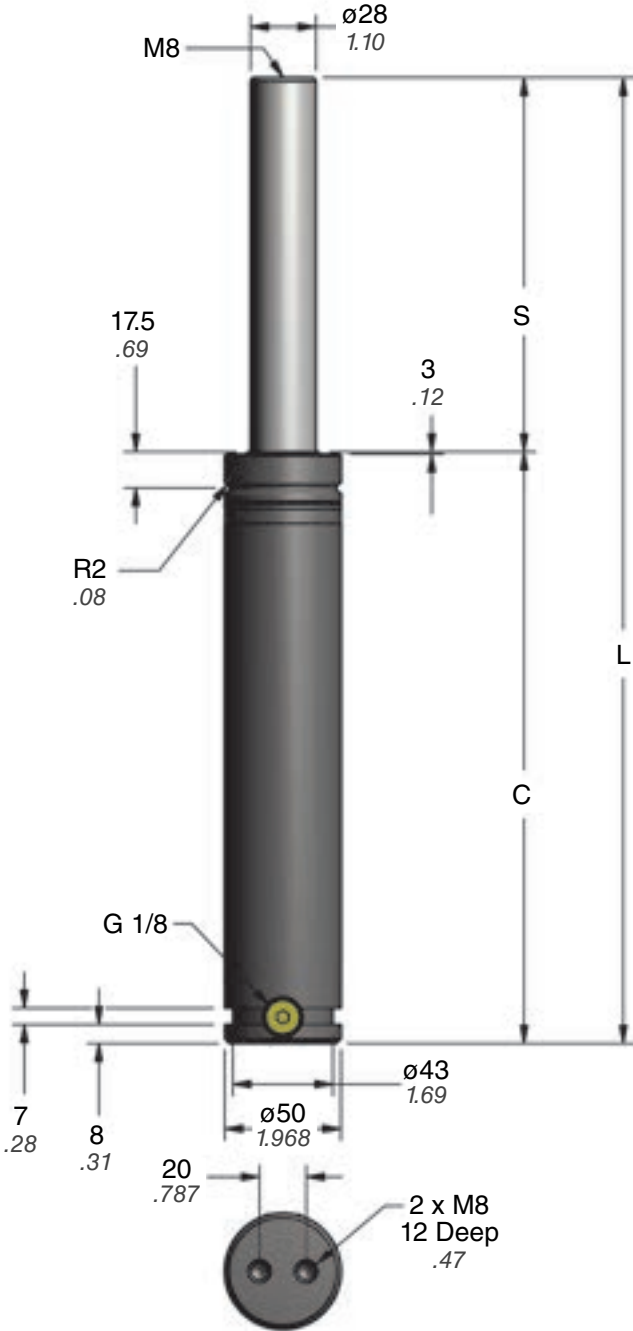
On-Contact Force

bar	kN
150	199.10
125	165.92
100	132.73
75	99.55
50	66.37
25	33.18
20	26.55

Mount Options



DADCO offers a wide variety of mounts. If the mounts above are not suitable for the application, contact DADCO.



TO – Basic Model

Matches European Standards

Part No.	S mm inch	C	L ±0.25 ±0.010
UX.1000V.013	12.5 .49	107.5 4.23	120 4.724
UX.1000V.025	25 0.98	120 4.72	145 5.709
UX.1000V.038	37.5 1.48	132.5 5.22	170 6.693
UX.1000V.050	50 1.97	145 5.71	195 7.677
UX.1000V.063	62.5 2.46	157.5 6.20	220 8.661
UX.1000V.080	80 3.15	175 6.89	255 10.039
UX.1000V.100	100 3.94	195 7.68	295 11.614
UX.1000V.125	125 4.92	220 8.66	345 13.583
UX.1000V.160	160 6.30	255 10.04	415 16.339
UX.1000V.200	200 7.87	295 11.61	495 19.488
UX.1000V.250	250 9.84	345 13.58	595 23.425
UX.1000V.300	300 11.81	395 15.55	695 27.362

On-Contact Force

psi	lb.	bar	kN
2175	2076	150	9.24
2000	1909	125	7.70
1750	1670	100	6.16
1500	1432	75	4.62
1000	954	50	3.08
500	477	25	1.54
250	239	20	1.23

Ordering Example:

UX.1000V.080. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model.

Refer to page 7 for mount options. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

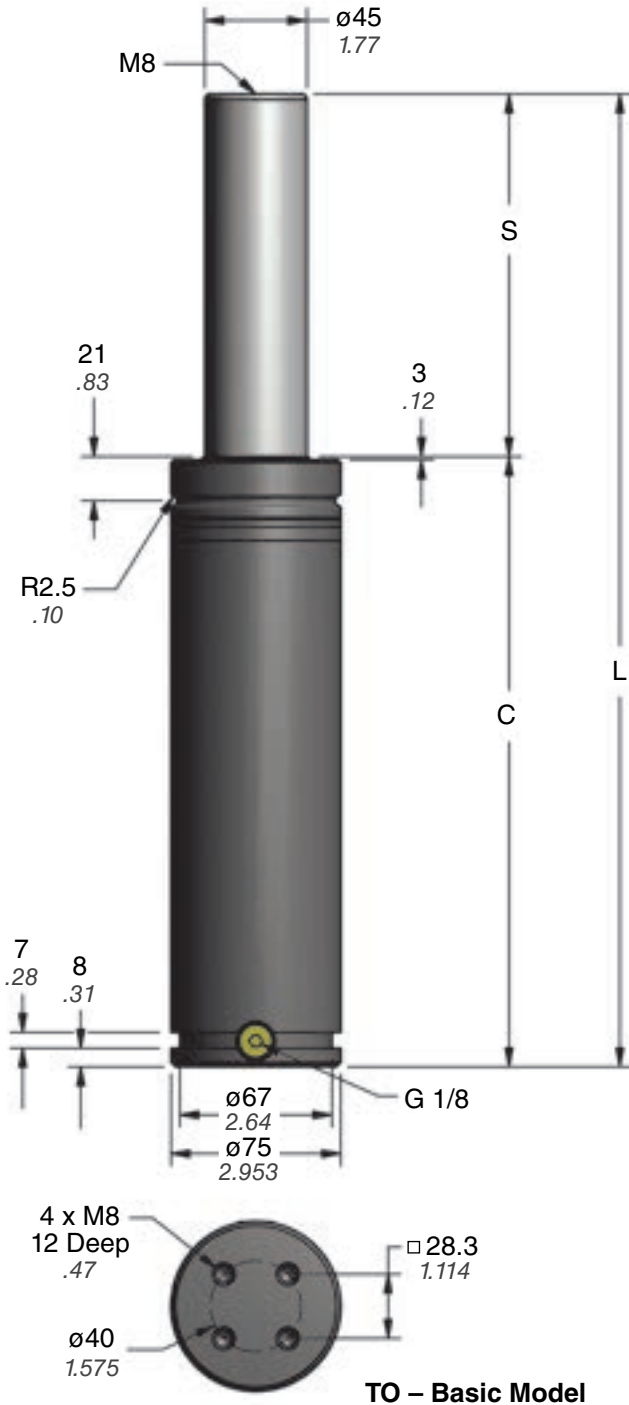
Charging Pressure:

15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

Operating System:

C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UX.2600V – 24 kN / 2.6 ton



Matches European Standards

Part No.	S mm inch	C	L ±0.25 ±0.010
UX.2600V.025	25 0.98	135	160 6.299
UX.2600V.038	37.5 1.48	147.5	185 7.283
UX.2600V.050	50 1.97	160	210 8.267
UX.2600V.063	62.5 2.46	172.5	235 9.251
UX.2600V.080	80 3.15	190	270 10.629
UX.2600V.100	100 3.94	210	310 12.204
UX.2600V.125	125 4.92	235	360 14.173
UX.2600V.160	160 6.30	270	430 16.929
UX.2600V.200	200 7.87	310	510 20.079
UX.2600V.250	250 9.84	360	610 24.016
UX.2600V.300	300 11.81	410	710 27.953

On-Contact Force

psi	lb.	bar	kN
2175	5362	150	23.86
2000	4930	125	19.88
1750	4314	100	15.90
1500	3698	75	11.93
1000	2465	50	7.95
500	1233	25	3.98
250	616	20	3.18

Ordering Example:

UX.2600V.080. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model.

Refer to page 11 for mount options. *When not specified, default is TO.* Mounts ordered with cylinder will be attached at the factory.

Charging Pressure:

15–150 bar (220–2175 psi). *When not specified, default is 150 bar.*

Operating System:

C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

B19 **90.19.**_____

Model	0800	1000	2600	4600	6600	9600	20000
Part No.	00500	00750	01500	03000	05000	07500	10000
A	100 3.94	130 5.12	160 6.30	195 7.68	220 8.66	260 10.24	310 12.20
B	46 1.81	60 2.36	75 2.95	92.5 3.64	105 4.13	125 4.92	150 5.91
D	37 1.46	50 1.97	63.5 2.50	80 3.15	92.5 3.64	110 4.33	135 5.31
E	82 3.228	110 4.331	137 5.394	170 6.693	195 7.677	230 9.055	280 11.02
F	18 .71	20 .79	22.5 .89	25 .98	27.5 1.08	30 1.18	30 1.18
G	M8 5/16	M8 5/16	M10 3/8	M12 1/2	M12 1/2	M12 1/2	M12 1/2
H	M8	M8	M10	M12	M12	M12	M12
J	60 2.36	80 3.15	105 4.13	125 4.92	148 5.83	200 7.87	250 9.84
K	30 1.18	40 1.57	52.5 2.06	62.5 2.46	74 2.91	100 3.94	125 4.92
M	15 .59	20 .79	20 .79	20 .79	20 .79	20 .79	20 .79

Accessories

T-Handle
90.320.2 (M8: UX.0800 – UX.9600)
90.320.10 (M10: UX.20000)
 To remove the piston rod when disassembling and position correctly when reassembling.

Port Servicing Tool
90.320.8
 To perform all necessary servicing to the valve compartment.

C-Ring Removal Tool
90.355 (UX.0800, UX.1600, UX.2600)
90.356 (UX.1000-UX.20000)
 To remove the C-Style Retaining Ring safely in a single controlled motion. For more information contact DADCO.

Valve Bleed Tool
90.360.4
 Use the DADCO Valve Bleed Tool to slowly discharge a spring to the desired pressure. For more information contact DADCO.

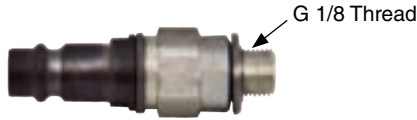
C-Ring Installation Tool
90.351.00500 (UX.0800)
90.351.00750 (UX.1000)
90.351.01600 (UX.1600)
 To insert the C-Style Retaining Ring into the retaining ring groove.

C-Ring Installation Tool
90.352 (UX.2600 – UX.9600)
90.352.10000 (UX.20000)
 To insert the C-Style Retaining Ring into the retaining ring groove.

Tools & Accessories

**Quick Disconnect Charging Nipple
90.310.111**

Use the DADCO Quick Disconnect Charging Nipple to charge the UX Series gas springs. For more information, contact DADCO.



- Removal Sleeve**
 90.340.00750 (UX.0800)
 90.340.01200 (UX.1000)
 90.340.01600 (UX.1600)
 90.340.01500 (UX.2600)
 90.340.03000 (UX.4600)
 90.340.05000 (UX.6600)
 90.340.07500 (UX.9600)



To position the cartridge below the C-ring groove when assembling or disassembling a gas spring.

**DADCO Pressure Analyzer
90.315.5**

DADCO's Pressure Analyzer includes two interchangeable bits to easily charge, discharge and gauge the pressure in any DADCO Nitrogen Gas Spring; request bulletin B01133E.



**Portable Test Stand
90.305.3**

Use the Portable Test Stand in conjunction with a Standard Load Cell for precise measurement of gas spring force. For use with UX.0800 – UX.6600 models only. For more information request bulletin B16112A.



Standard Load Cell

- | | | |
|------------------------|-----------------------|-------------------------|
| 90.300.0750 (UX.0800) | 90.300.2600 (UX.2600) | |
| 90.300.1000 (UX.1000) | 90.300.4600 (UX.4600) | 90.300.9600 (UX.9600) |
| 90.300.01500 (UX.1600) | 90.300.6600 (UX.6600) | 90.300.20000 (UX.20000) |

The Standard Load Cell gives precise measurement of gas spring charging pressure. Each model requires its specified load cell; request bulletin B16119A.



Quick Disconnect Charging Hardware

Use the DADCO Quick Disconnect Charging Assembly, 90.310.040, with the 90.310.143 or 90.310.111 Charging Nipple or the 90.315.5 Pressure Analyzer to charge self-contained gas springs. The 90.310.040 can also be used with a DADCO control panel to charge linked systems.

Optionally, the 90.310.044 Quick Disconnect Filling Assembly with self-venting capabilities releases residual pressure after charging self-contained or linked nitrogen gas spring systems for easy decoupling between the filling assembly and charging nipple or filler valve.

For more charging hardware options request bulletin B16118B.

90.310.040

Hose Assembly 90.310.252 3 m / 10 ft

Pressure Regulator 90.310.201

Quick Disconnect Filling Assembly 90.310.338

90.310.044 (Self-Venting)

Hose Assembly 90.310.252 3 m / 10 ft

High Pressure Regulator 90.310.205

Quick Disconnect Filling Assembly 90.310.340

UX Series Repair Kits

The UX Series repair kit includes a fully assembled cartridge, dust cover, bottle of assembly oil and maintenance manual.

Model	Kit Number	Model	Kit Number
UX.0800	90.108V.00800	UX.2600V	90.108V.02600
UX.1000	90.108.01000	UX.4600	90.108.04600
UX.1000V	90.108V.01000	UX.6600	90.108.06600
UX.1600	90.108.01600	UX.9600	90.108.09600
UX.2600	90.108.02600	UX.20000	90.108.20000

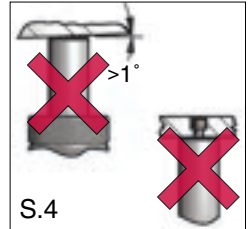
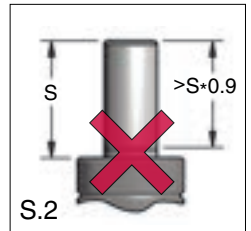
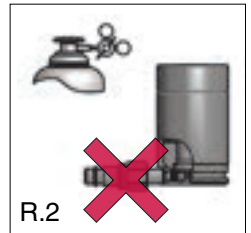
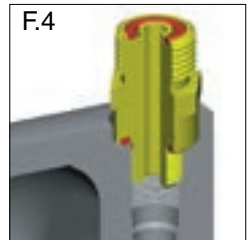
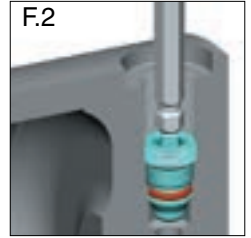
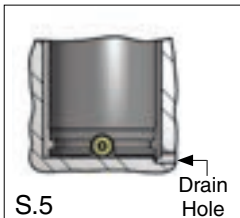
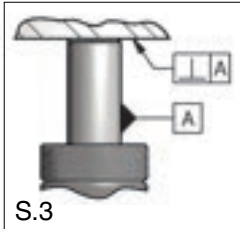
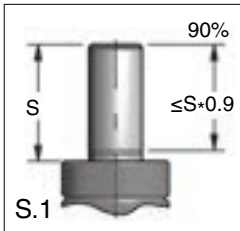
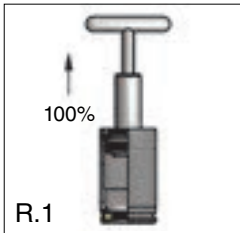
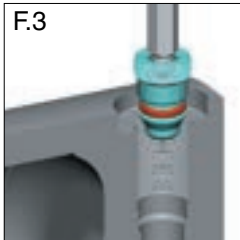
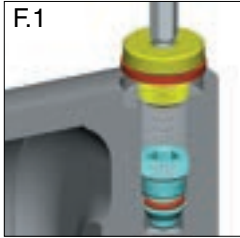
Ultra Force Extended® Technical Data

Operating Specifications

Charging Medium:	Nitrogen Gas
Charging Pressure Range:	15 – 150 bar (220 – 2175 psi)
Operating Temperature:	4°C – 71°C (40°F – 160°F)*
Maximum Speed:	1.6 m/sec (63 in/sec)

*For extended range applications contact DADCO.

CAUTION! DO NOT attempt maintenance on spring until internal pressure is exhausted.



Self-contained to Linked Operation

- Always wear safety glasses when maintaining gas springs. When exhausting pressure, place the gas spring horizontally with the port up for safety.
- Remove port plug, 90.505.110 (F.1).
- With the cylinder in the horizontal position, depress the valve stem using the appropriate tool (F.2). Cover the port with a cloth to absorb discharge.
- After all of the gas pressure is exhausted, be sure that the piston rod will retract into the tube manually. If not, try depressing the valve again. If still unsuccessful, stop and contact your DADCO Service Representative.
- Remove the valve using the appropriate tool (F.3). Lubricate the threads and o-ring of the port adapter being installed (F.4).
- Install port adapter in open port (F.4). A wide variety of port adapters are available, refer to DADCO's Nitrogen Gas Spring Linked System Catalog.

Recharging Self-contained Gas Spring

- Hold the spring vertically at all times during filling. Never compress the gas spring in a vice or clamp outside of the die or application as damage to the gas spring can result.
- Never fill a gas spring unless the rod is in the fully extended position (R.1). Filling a gas spring with its rod down can result in improper retaining ring seating (R.2). Thread the T-handle, 90.320.2 or 90.320.10, into the rod end and depress the valve stem with the appropriate tool, then pull the rod cartridge assembly up until it is seated firmly against the retaining ring (R.1).
- Charge the gas spring to the desired pressure. Refer to DADCO's UX Series Maintenance Instructions for complete step-by-step instruction.

Provide Stroke Reserve

- DADCO's UX Series Gas Springs will permit travel of the full nominal stroke; however, at least a 10% stroke reserve is recommended to achieve optimal performance and safety (S.1, S.2).
- Overstroking the rod or impacting the top of the gas spring will cause permanent damage.

Avoid Side Loading

- Side loading resulting from press action or die construction causes increased wear on bearing, seal and piston rod (S.4). Therefore, avoid side loading when possible (S.3).

Rod End Thread

- The end of the piston rod has a construction thread intended for assembly and disassembly only and should never be used to mount or secure the gas spring (S.4). Die vibration and/or misalignment will damage the spring.

Protect From Fluids

- Direct contact with certain die lubricants and cleaners should be avoided (S.6). Protect gas springs by providing adequate drainage in gas spring pockets (S.5).

DADCO The global leader in nitrogen gas spring technology
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