

DADCO®

High Force Nitrogen Gas Springs

UH Series



PED
2014/68/EU
COMPLIANT



The global leader in nitrogen gas spring technology

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.



UH Series

Using the popular **Ultra Force**® (U) Series technology, the UH Series is slightly taller and features a common G 1/8 port for linked operations. Cylinders in this series, when ordered with an open flow fitting, ship with a common port adapter for ease of use with hose and fittings. When the gas springs are intended to operate self-contained, DADCO recommends using the U Series instead. Refer to the table below for information on the different UH models and for the U Series equivalent. Contact DADCO for more information, or visit our website, www.dadco.net.

UH Series	U Series	Diameter	Maximum Force on Contact		
UH.0400	U.0400	32 mm (1.260")	810 lb.	362 daN	0.4 ton
UH.0600	U.0600	38 mm (1.496")	1059 lb.	471 daN	0.5 ton
UH.0800	U.0800	44.5 mm (1.750")	1655 lb.	736 daN	0.7 ton
UH.1000	U.1000 / U.1200*	50 mm (1.968")	2076 lb. / 3432 lb.*	10 kN	1.0 ton
UH.1600	U.1600	63 mm (2.480")	3432 lb.	15 kN	1.7 ton
UH.2600	U.2600	75 mm (2.953")	5362 lb.	24 kN	2.6 ton
UH.4600	U.4600	95 mm (3.740")	9532 lb.	42 kN	4.7 ton
UH.6600	U.6600	120 mm (4.724")	14894 lb.	66 kN	7.4 ton

*U.1200 has more force

High Quality Construction

To ensure their exceptionally long service life, DADCO's UH Series Gas Springs have high quality construction features. All models are built with a one-piece piston rod and utilize a double lip rod seal for excellent load capacity and resistance to wear.

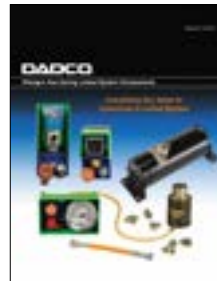
Adjustable Force

For convenience, self-contained cylinders usually are delivered pre-charged to the desired force and ready to install. If force adjustment is ever needed, a filling/draining port is located in the cylinder for safe, easy access.

UltraPak® Technology

The UH Series uses the same superior **UltraPak**® cartridge as the popular U 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 in compact height gas springs.

Numerous Piping Options



Many customers have recognized the benefits of piping gas springs to monitor, control, and adjust force from outside the die. DADCO offers a wide selection of hoses, fittings, control panels and equipment to simplify the piping process. For additional information on piping refer to DADCO's Nitrogen Gas Spring Linked System

Components Catalog.

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.

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 trained distributors providing worldwide support.

Warranty

DADCO warrants its UH 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



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 4-19.

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.

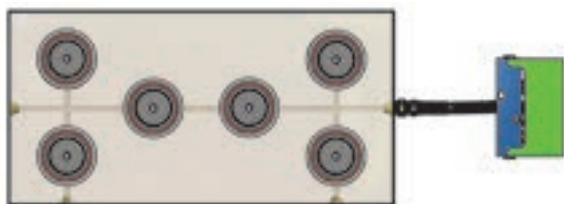
B12/B112/B212/B312 mounts must be fastened to the bottom groove only. Back-up is required to support the full load.

B21/B25/B325 mounts must be fastened to the top groove only. The wire ring supplied with mounts supports the full load.

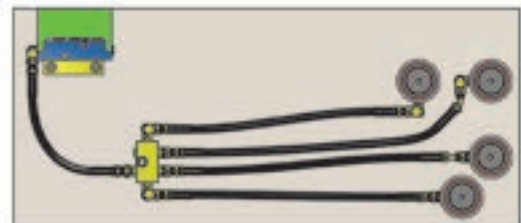
B19/B319V mounts require back-up to support the load.

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.

SMS® / SMS-i® DADCO offers customized Sectional Mounting Systems (SMS® and SMS-i®) which are fabricated to customer specifications, pressure tested and shipped ready to install.



DADCO SMS-i® with (6) UH.1600 gas springs plumbed internally and connected to a control panel.

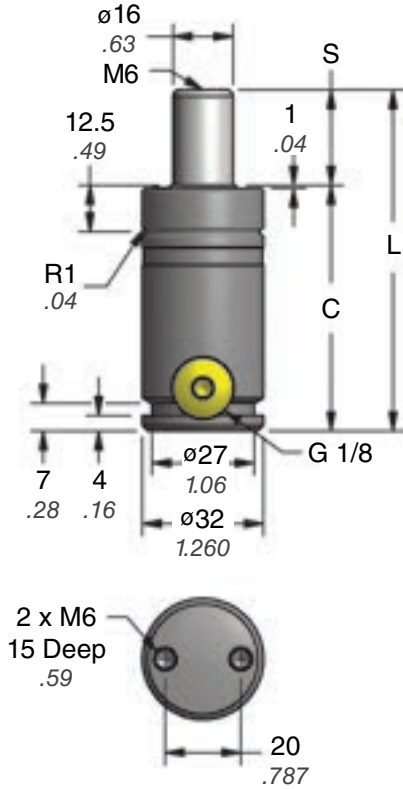


DADCO SMS® with (4) UH.2600 gas springs linked using 90.400 (Y-400) hose, fittings and a control panel.

UH Series Nitrogen Gas Springs

UH.0400 — 362 daN / 0.4 ton

For self-contained operation, refer to the recommended U.0400 model in the **Ultra Force®** Catalog.



TO - Basic Model

Part No.	S mm inch	C	L ± 0.25 ± 0.010
UH.0400.010	10 0.39	50 1.97	60 2.362
• UH.0400.013	12.5 0.49	52.5 2.07	65 2.559
UH.0400.016	16 0.63	56 2.20	72 2.835
UH.0400.019	19 0.75	59 2.32	78 3.071
• UH.0400.025	25 0.98	65 2.56	90 3.543
UH.0400.032	32 1.26	72 2.83	104 4.094
• UH.0400.038	37.5 1.48	77.5 3.05	115 4.528
• UH.0400.050	50 1.97	90 3.54	140 5.512
UH.0400.063	62.5 2.46	102.5 4.04	165 6.496
UH.0400.075	75 2.95	115 4.53	190 7.480
• UH.0400.080	80 3.15	120 4.72	200 7.874
UH.0400.100	100 3.94	140 5.51	240 9.449
UH.0400.125	125 4.92	165 6.50	290 11.417

• Preferred Sizes

Ordering Example:

UH.0400.025. TO. C. 180

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. *When not specified, default is TO.*
B319V, B21 and B25 mounts ordered with cylinder will be attached at the factory.

Charging Pressure:

15–180 bar (220–2600 psi).
When not specified, default is 180 bar.

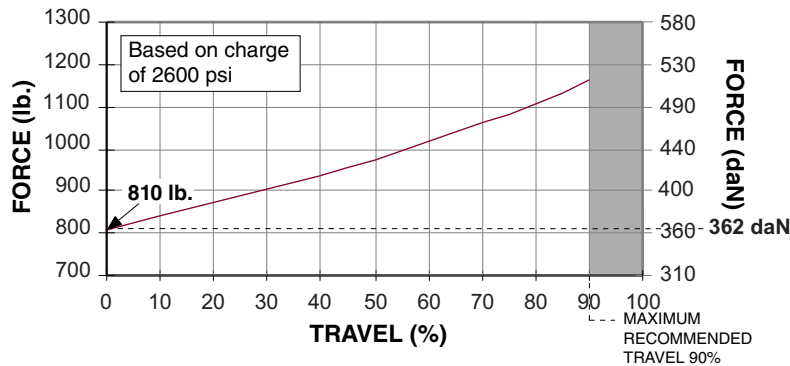
Operating System: C = Self-contained,
F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UH.0400 — 362 daN / 0.4 ton

UH.0400 Force Charts

On-Contact Force

psi	lb.
2600	810
2175	678
2000	623
1750	545
1500	467
1000	312
500	156
250	78



On-Contact Force

bar	daN
180	362
150	302
125	251
100	201
75	151
50	101
25	50
20	40

Mount Options

B12 **90.12.0400**

B319V **90.319V.0400**

B21 **C250-RF**

B25 **90.25.0400**

Ordering Example:

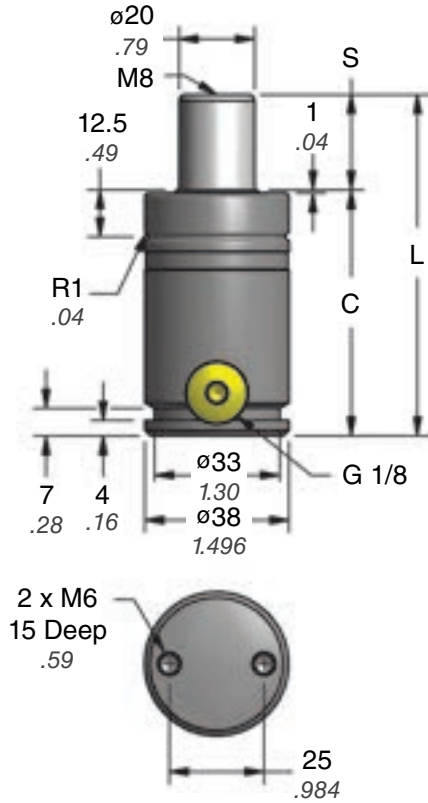
Cylinder with Mount: UH.0400.025.B12.C.180

Mount Only: 90.12.0400

UH Series Nitrogen Gas Springs

UH.0600 — 471 daN / 0.5 ton

For self-contained operation, refer to the recommended U.0600 model in the **Ultra Force®** Catalog.



TO - Basic Model

Part No.	S mm inch	C	L ±0.25 ±0.010
UH.0600.010	10 0.39	50 1.97	60 2.362
• UH.0600.013	12.5 0.49	52.5 2.07	65 2.559
UH.0600.016	16 0.63	56 2.20	72 2.835
UH.0600.019	19 0.75	59 2.32	78 3.071
• UH.0600.025	25 0.98	65 2.56	90 3.543
UH.0600.032	32 1.26	72 2.83	104 4.094
• UH.0600.038	37.5 1.48	77.5 3.05	115 4.528
• UH.0600.050	50 1.97	90 3.54	140 5.512
UH.0600.063	62.5 2.46	102.5 4.04	165 6.496
UH.0600.075	75 2.95	115 4.53	190 7.480
• UH.0600.080	80 3.15	120 4.72	200 7.874
UH.0600.100	100 3.94	140 5.51	240 9.449
UH.0600.125	125 4.92	165 6.50	290 11.417

• Preferred Sizes

Ordering Example:

UH.0600.025. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. *When not specified, default is TO.*
B319V, B21 and B25 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.

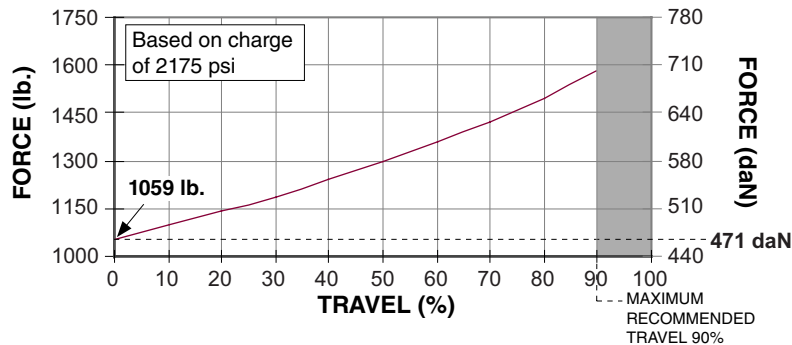
Operating System: C = Self-contained,
F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UH.0600 — 471 daN / 0.5 ton

UH.0600 Force Charts

On-Contact Force

psi	lb.
2175	1059
2000	974
1750	852
1500	730
1000	487
500	243
250	122



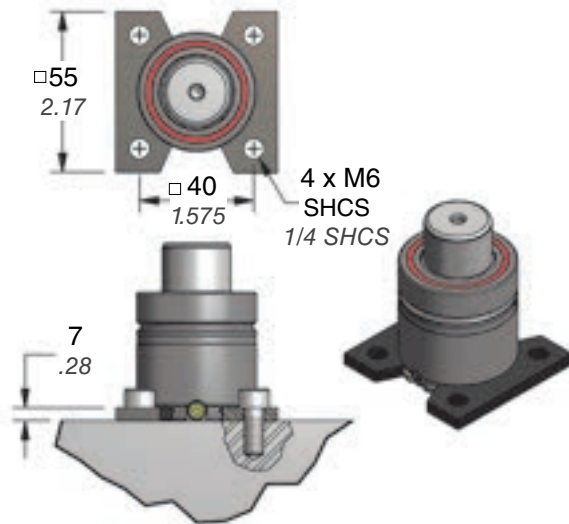
On-Contact Force

bar	daN
150	471
125	393
100	314
75	236
50	157
25	79
20	63

Mount Options

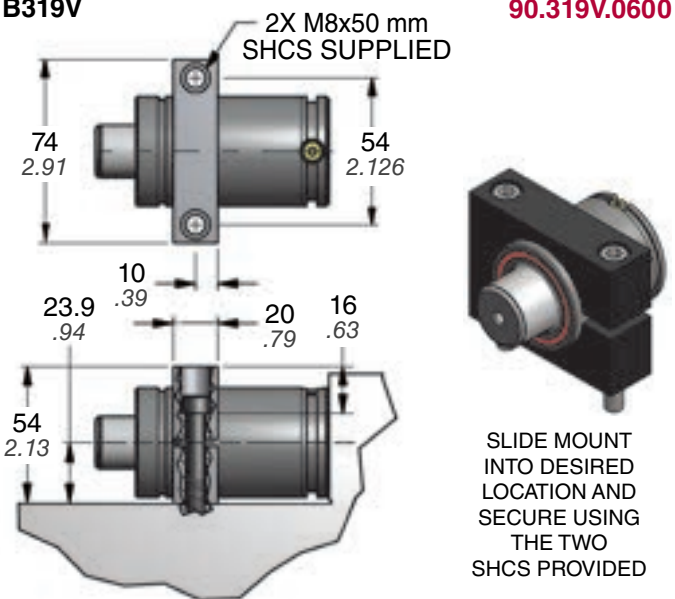
B312

90.312.00300



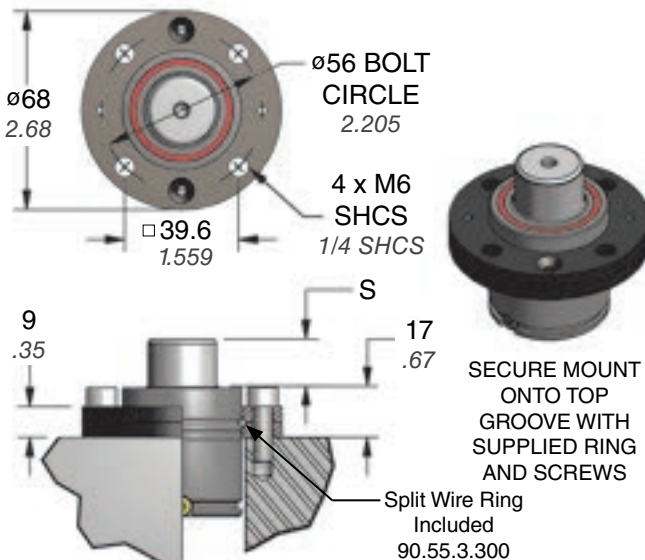
B319V

90.319V.0600



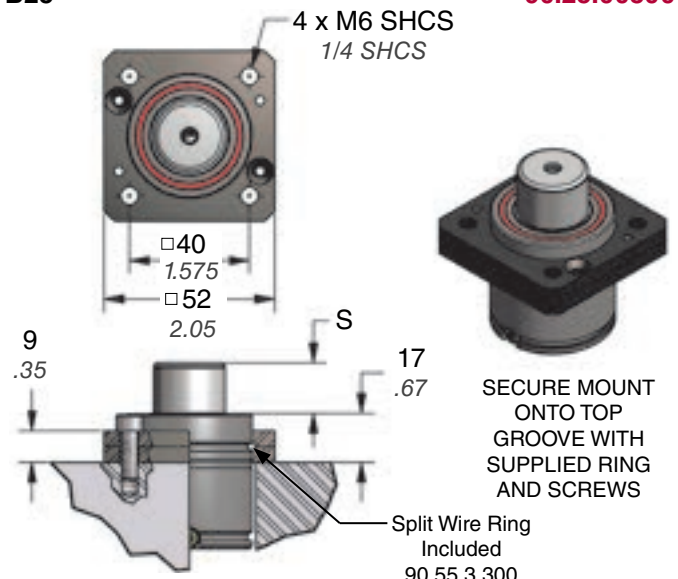
B21

90.21.00300



B25

90.25.00300



Ordering Example:

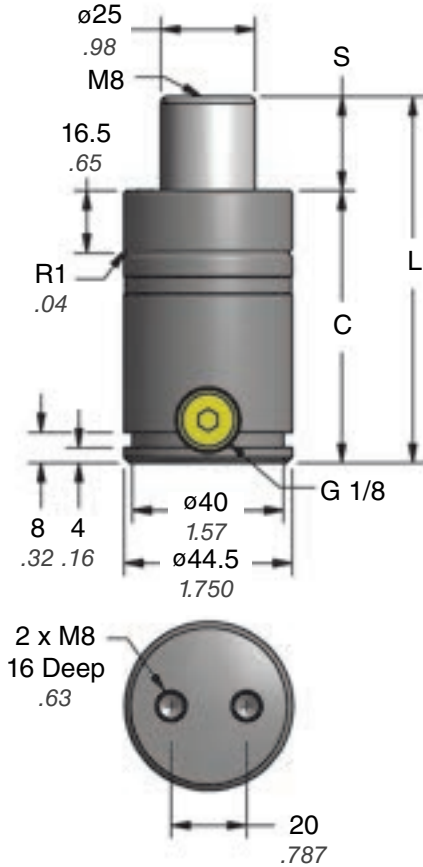
Cylinder with Mount: UH.0600.025.B312.C.150

Mount Only: 90.312.00300

UH Series Nitrogen Gas Springs

UH.0800 — 736 daN / 0.7 ton

For self-contained operation, refer to the recommended U.0800 model in the **Ultra Force®** Catalog.



TO - Basic Model

Part No.	S mm inch	C	L ± 0.25 ± 0.010
• UH.0800.013	12.5 0.49	59.5 2.34	72 2.835
UH.0800.016	16 0.63	63 2.48	79 3.110
UH.0800.019	19 0.75	66 2.60	85 3.346
• UH.0800.025	25 0.98	72 2.83	97 3.819
UH.0800.032	32 1.26	79 3.11	111 4.370
• UH.0800.038	37.5 1.48	84.5 3.33	122 4.803
• UH.0800.050	50 1.97	97 3.82	147 5.787
UH.0800.063	62.5 2.46	109.5 4.31	172 6.772
UH.0800.075	75 2.95	122 4.80	197 7.756
• UH.0800.080	80 3.15	127 5.00	207 8.150
UH.0800.100	100 3.94	147 5.79	247 9.724
UH.0800.125	125 4.92	172 6.77	297 11.693

• Preferred Sizes

Ordering Example:

UH.0800.025. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. *When not specified, default is TO.*
B319V, B21 and B25 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.

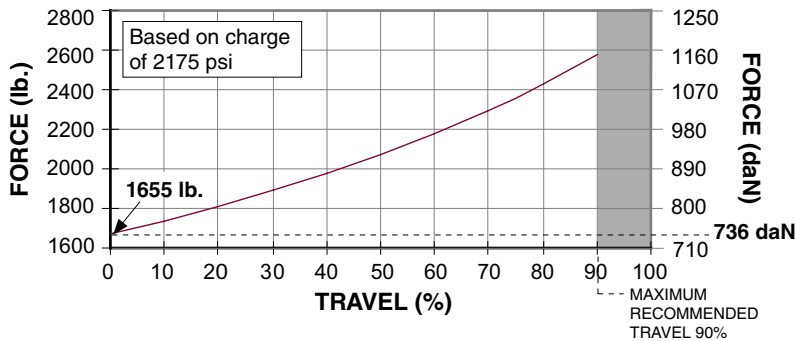
Operating System: C = Self-contained,
F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UH.0800 — 736 daN / 0.7 ton

UH.0800 Force Charts

On-Contact Force

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



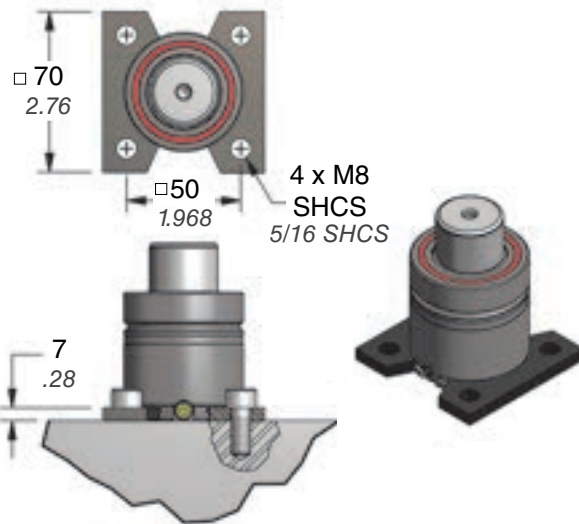
On-Contact Force

bar	daN
150	736
125	614
100	491
75	368
50	245
25	123
20	98

Mount Options

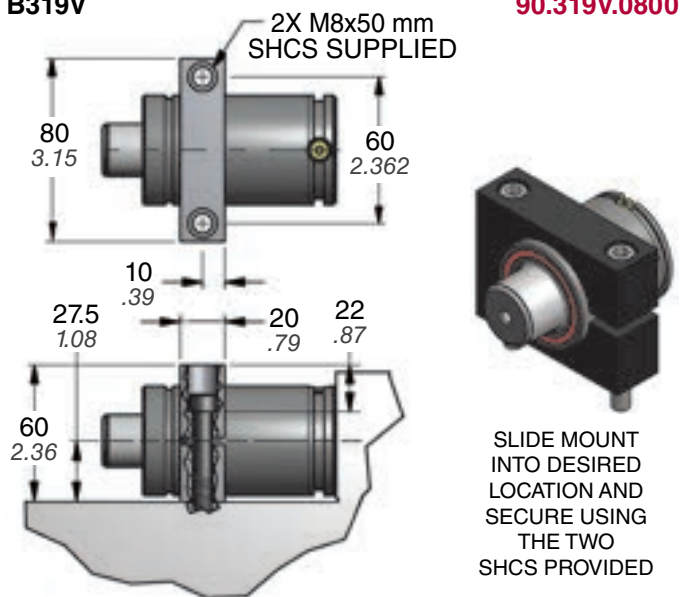
B312

90.312.00500



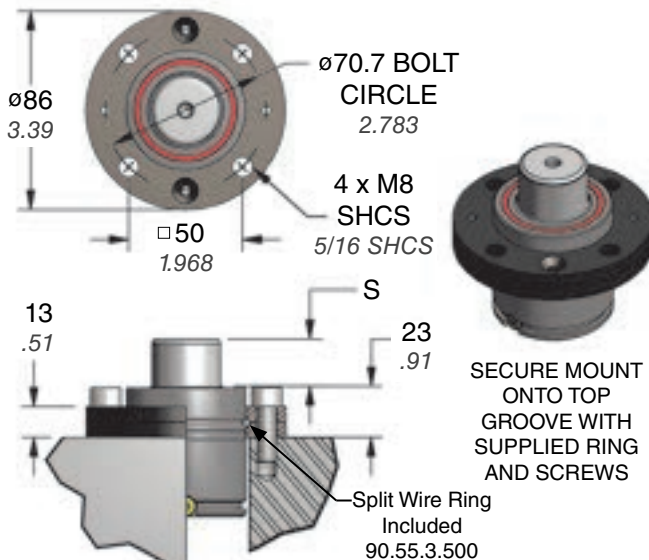
B319V

90.319V.0800



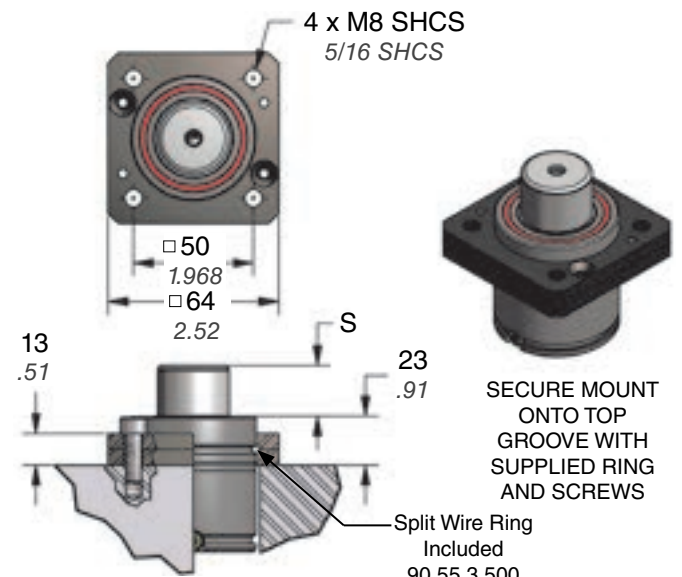
B21

90.21.00500



B25

90.25.00500



Ordering Example:

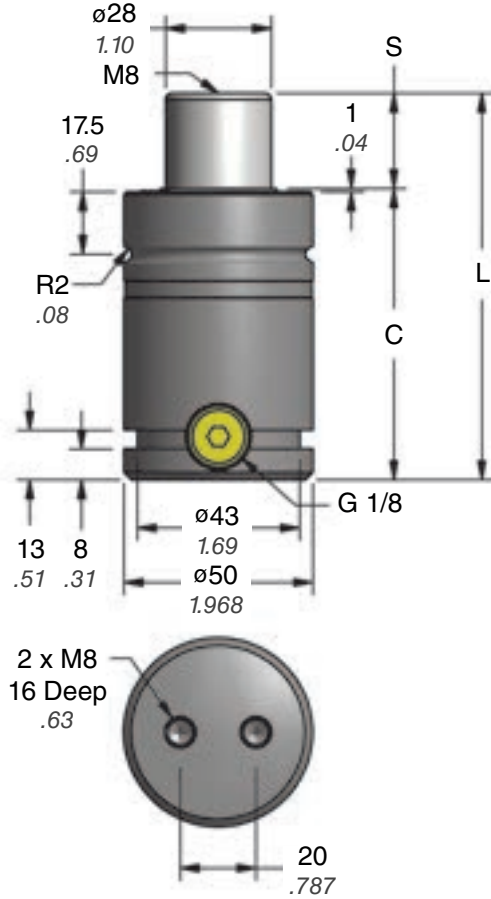
Cylinder with Mount: UH.0800.025.B312.C.150

Mount Only: 90.312.00500

UH Series Nitrogen Gas Springs

UH.1000 — 10 kN / 1.0 ton

For self-contained operation, refer to the recommended U.1000 or U.1200 models in the **Ultra Force®** Catalog.



TO - Basic Model

Part No.	S mm inch	C	L ±0.25 ±0.010
• UH.1000.013	12.5 0.49	64.5 2.54	77 3.031
UH.1000.016	16 0.63	68 2.68	84 3.307
UH.1000.019	19 0.75	71 2.80	90 3.543
• UH.1000.025	25 0.98	77 3.03	102 4.016
UH.1000.032	32 1.26	84 3.31	116 4.567
• UH.1000.038	37.5 1.48	89.5 3.52	127 5.000
• UH.1000.050	50 1.97	102 4.02	152 5.984
UH.1000.063	62.5 2.46	114.5 4.51	177 6.969
UH.1000.075	75 2.95	127 5.00	202 7.953
• UH.1000.080	80 3.15	132 5.20	212 8.346
UH.1000.100	100 3.94	152 5.98	252 9.921
UH.1000.125	125 4.92	177 6.97	302 11.890

• Preferred Sizes

Ordering Example:

UH.1000.025. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. *When not specified, default is TO.*
B319V, B21 and B25 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.

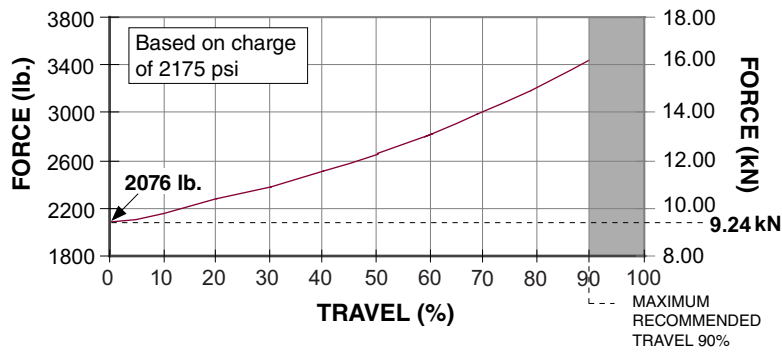
Operating System: C = Self-contained,
F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UH.1000 — 10 kN / 1.0 ton

UH.1000 Force Charts

On-Contact Force

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



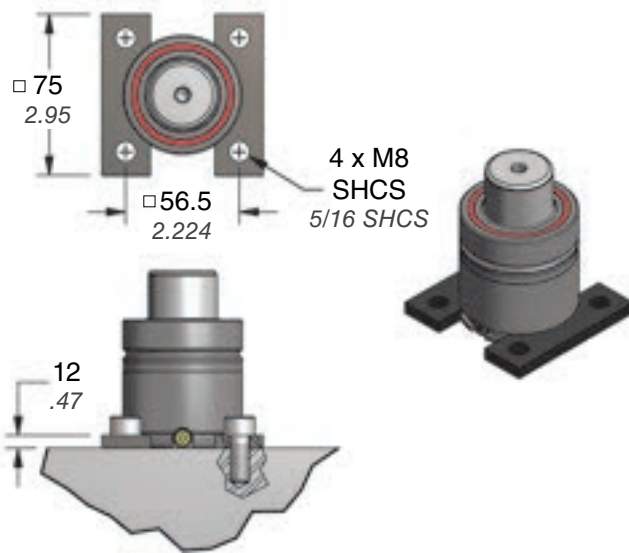
On-Contact Force

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

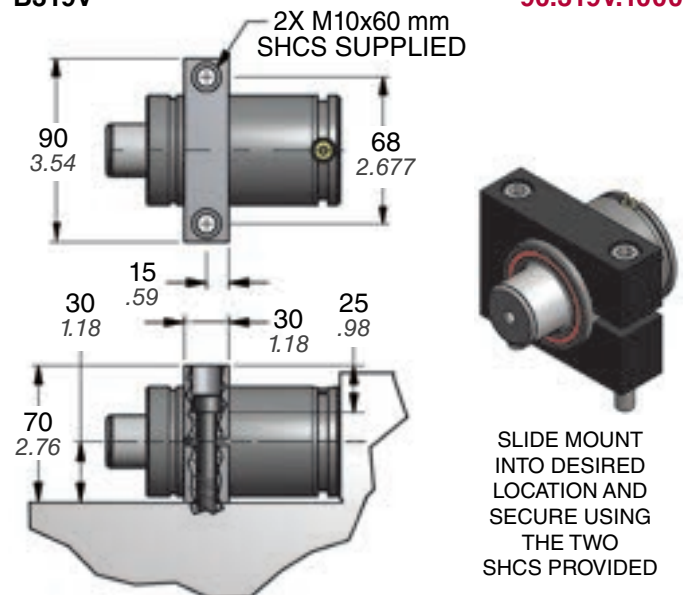
B12

90.12.00750



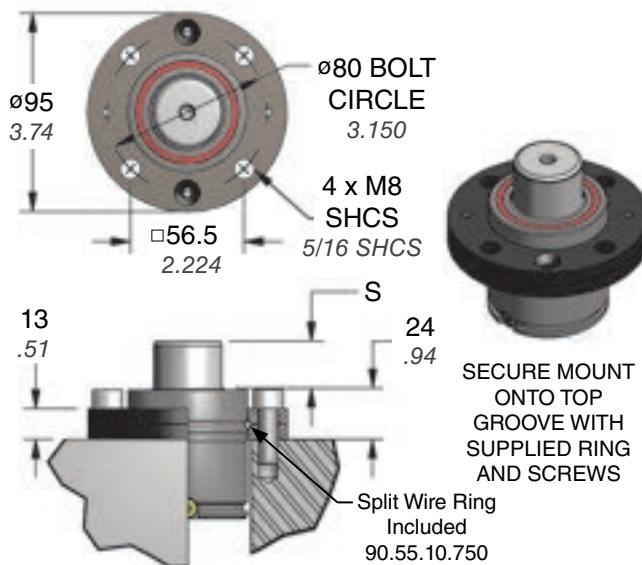
B319V

90.319V.1000



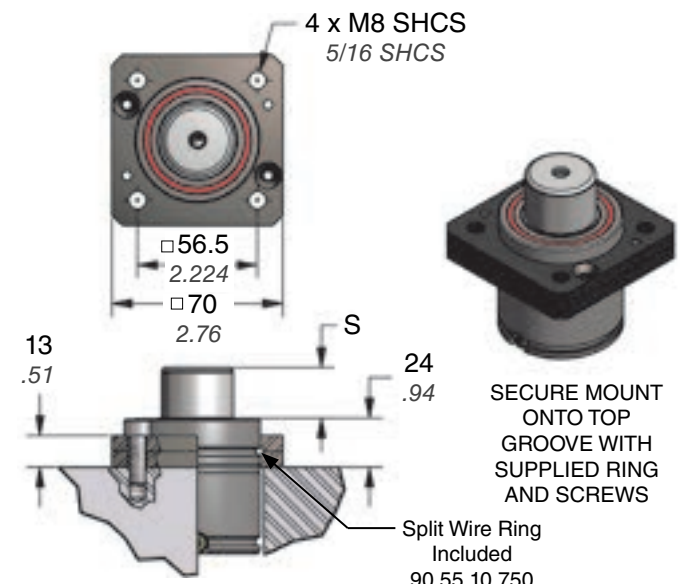
B21

90.21.00750



B25

90.25.00750



Ordering Example:

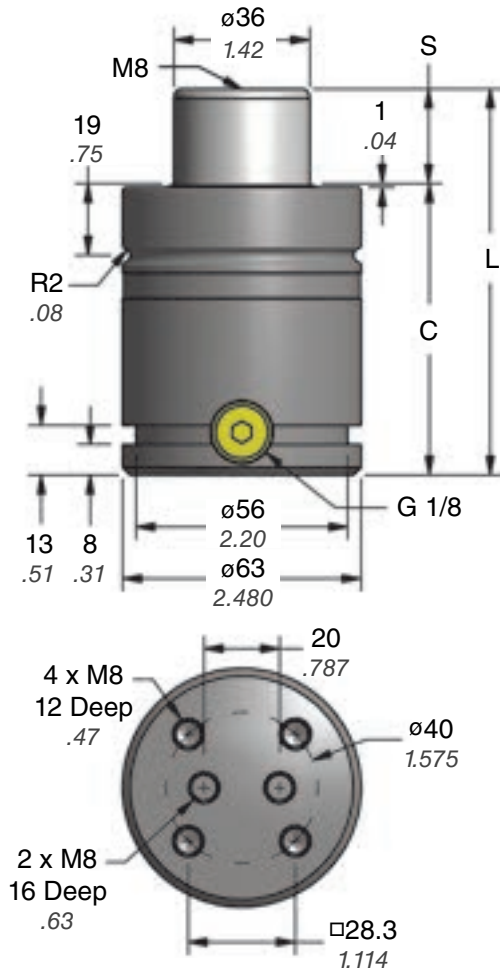
Cylinder with Mount: UH.1000.025.B12.C.150

Mount Only: 90.12.00750

UH Series Nitrogen Gas Springs

UH.1600 — 15 kN / 1.7 ton

For self-contained operation, refer to the recommended U.1600 model in the **Ultra Force®** Catalog.



AO - Basic Model

Part No.	S mm inch	C	L ± 0.25 ± 0.010
• UH.1600.013	12.5 0.49	64.5 2.54	77 3.031
UH.1600.016	16 0.63	68 2.68	84 3.307
UH.1600.019	19 0.75	71 2.80	90 3.543
• UH.1600.025	25 0.98	77 3.03	102 4.016
UH.1600.032	32 1.26	84 3.31	116 4.567
• UH.1600.038	37.5 1.48	89.5 3.52	127 5.000
• UH.1600.050	50 1.97	102 4.02	152 5.984
UH.1600.063	62.5 2.46	114.5 4.51	177 6.969
UH.1600.075	75 2.95	127 5.00	202 7.953
• UH.1600.080	80 3.15	132 5.20	212 8.346
UH.1600.100	100 3.94	152 5.98	252 9.921
UH.1600.125	125 4.92	177 6.97	302 11.890

• Preferred Sizes

Ordering Example:

UH.1600.025. AO. C. 150

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

Mount Option: —
AO = Basic Model. When not specified, default is AO.
B319V, B21, B25 and B325 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.

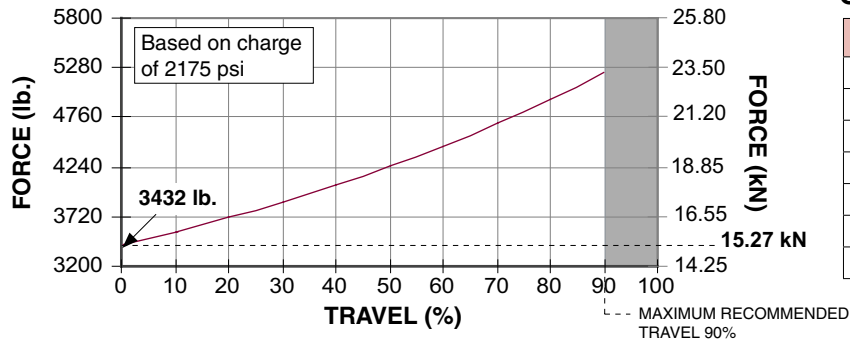
Operating System: C = Self-contained,
F = Open Flow Fitting. When not specified, default is C, self-contained.

UH.1600 — 15 kN / 1.7 ton

UH.1600 Force Charts

On-Contact Force

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

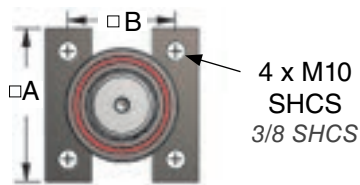


On-Contact Force

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

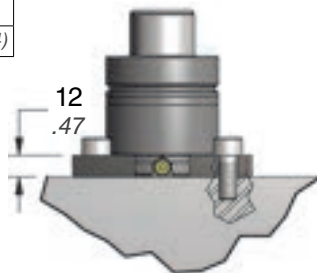
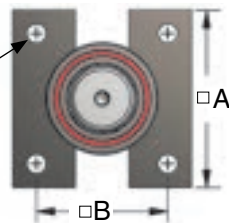
B112 / 90.112.1600



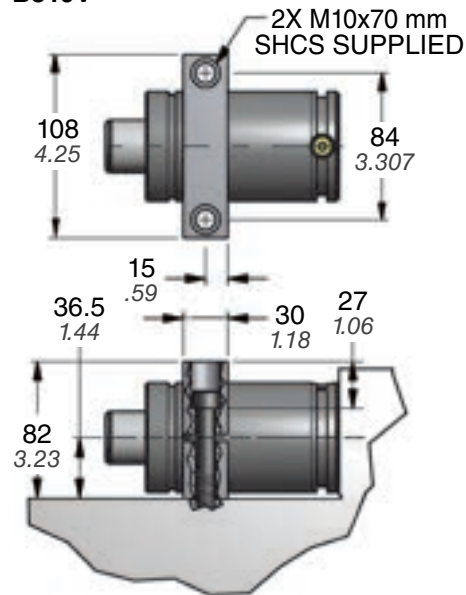
Part No.	A	B
90.112.1600	85 (3.35)	60 (2.362)
90.212.1600	100 (3.94)	73.5 (2.894)



B212 / 90.212.1600



B319V



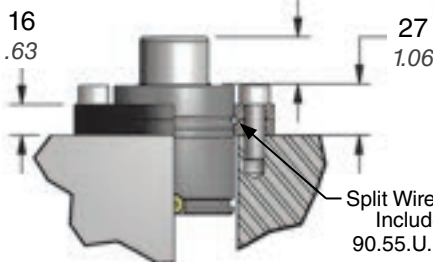
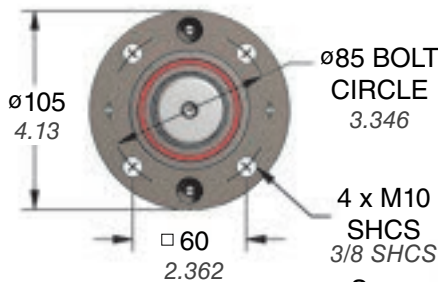
90.319V.1600



SLIDE MOUNT INTO DESIRED LOCATION AND SECURE USING THE TWO SHCS PROVIDED

B21

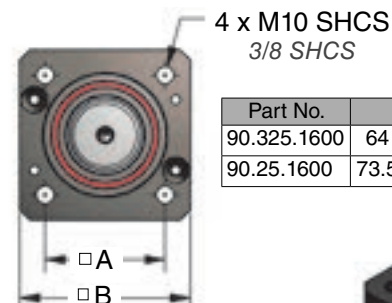
90.21.1600



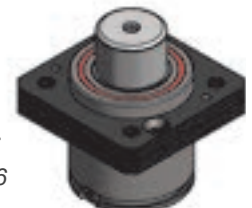
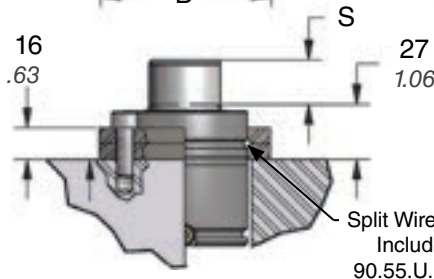
SECURE MOUNT ONTO TOP GROOVE WITH SUPPLIED RING AND SCREWS

B325 / B25

90.325.1600 / 90.25.1600



Part No.	A	B
90.325.1600	64 (2.520)	80 (3.150)
90.25.1600	73.5 (2.894)	90 (3.543)



SECURE MOUNT ONTO TOP GROOVE WITH SUPPLIED RING AND SCREWS

Ordering Example:

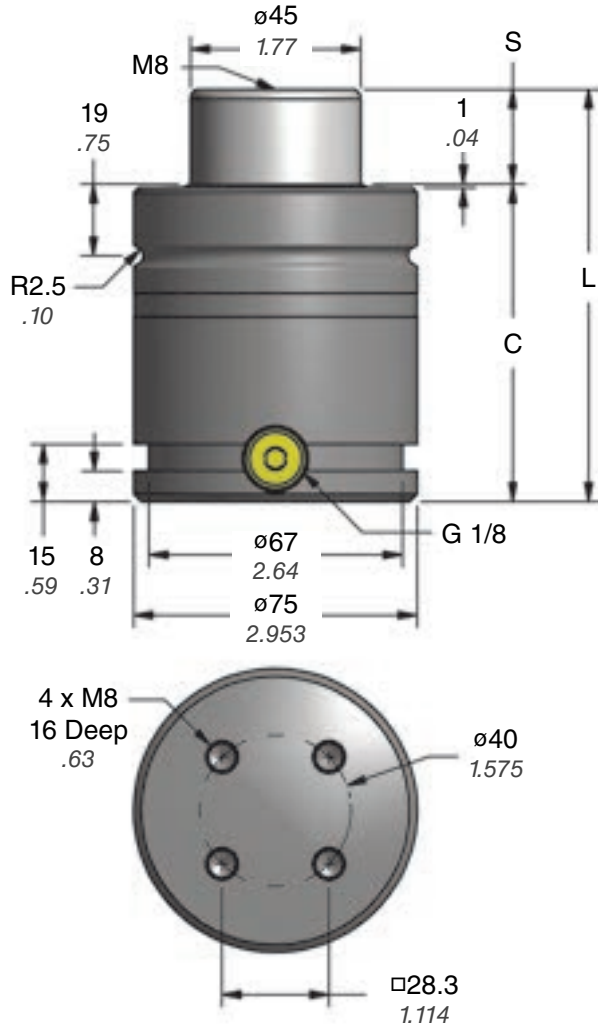
Cylinder with Mount: UH.1600.025.B112.C.150

Mount Only: 90.112.1600

UH Series Nitrogen Gas Springs

UH.2600 — 24 kN / 2.6 ton

For self-contained operation, refer to the recommended U.2600 model in the **Ultra Force®** Catalog.



TO - Basic Model

Part No.	S mm inch	C	L ±0.25 ±0.010
UH.2600.016	16 0.63	75 2.95	91 3.583
UH.2600.019	19 0.75	78 3.07	97 3.819
• UH.2600.025	25 0.98	84 3.31	109 4.291
UH.2600.032	32 1.26	91 3.58	123 4.843
• UH.2600.038	37.5 1.48	96.5 3.80	134 5.276
• UH.2600.050	50 1.97	109 4.29	159 6.260
UH.2600.063	62.5 2.46	121.5 4.78	184 7.244
UH.2600.075	75 2.95	134 5.28	209 8.228
• UH.2600.080	80 3.15	139 5.47	219 8.622
UH.2600.100	100 3.94	159 6.26	259 10.197
UH.2600.125	125 4.92	184 7.24	309 12.165

• Preferred Sizes

Ordering Example:

UH.2600.025. TO. C. 150

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

Mount Option: —
TO = Basic Model. *When not specified, default is TO.*
B319V, B21, B25 and B325 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.

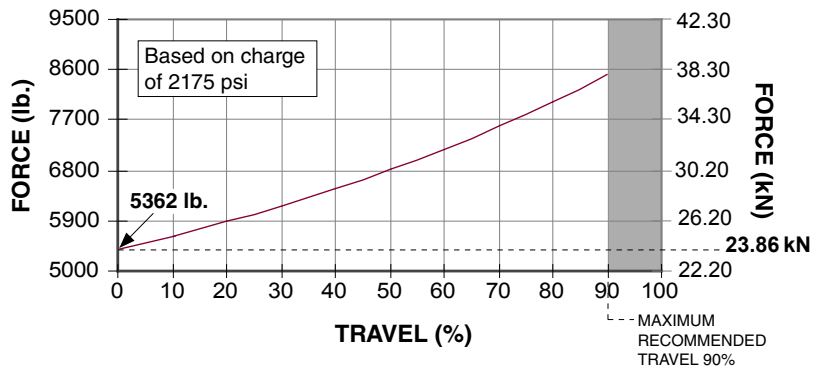
Operating System: C = Self-contained,
F = Open Flow Fitting. *When not specified, default is C, self-contained.*

UH.2600 — 24 kN / 2.6 ton

UH.2600 Force Charts

On-Contact Force

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



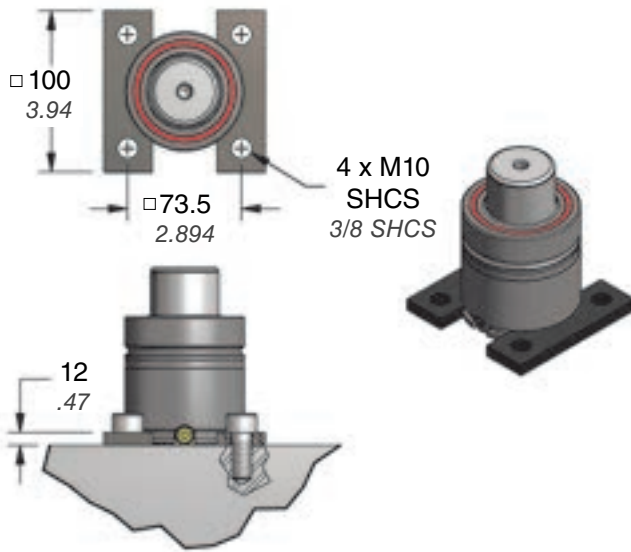
On-Contact Force

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

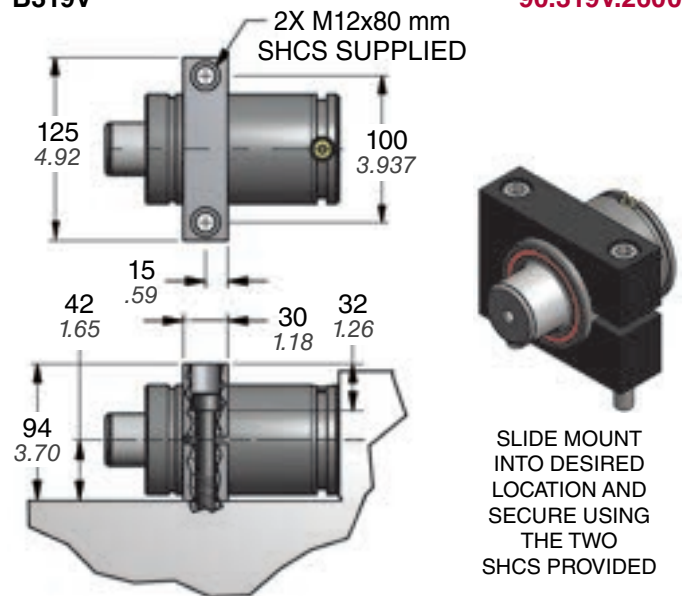
B12

90.12.01500



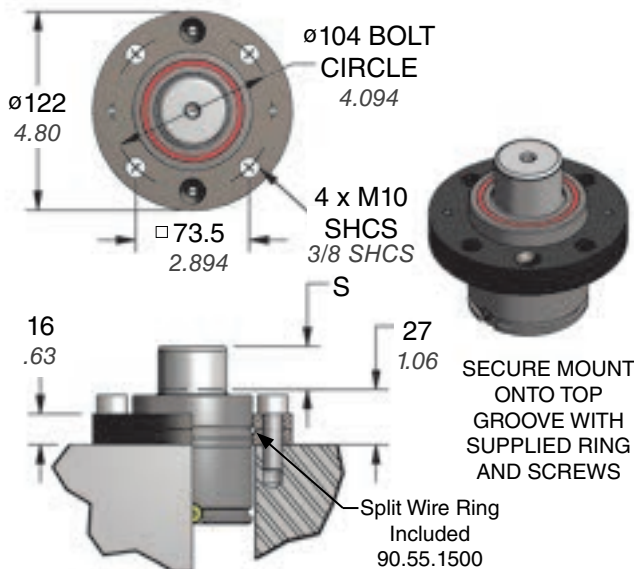
B319V

90.319V.2600



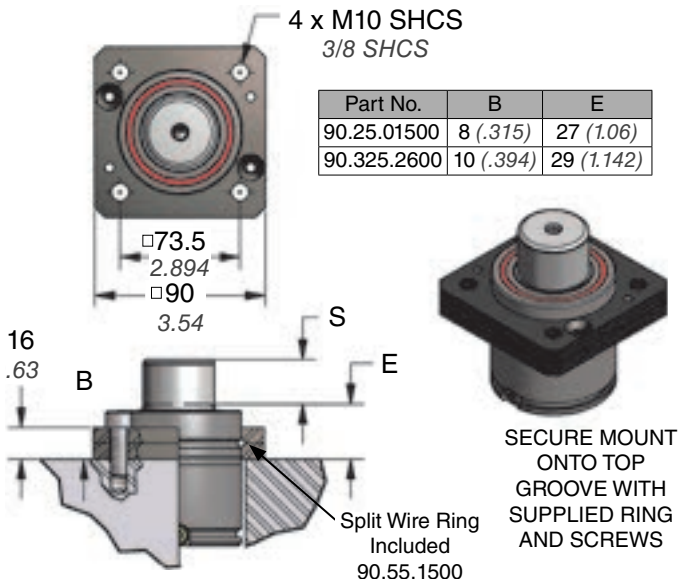
B21

90.21.01500



B325 / B25

90.325.2600 / 90.25.01500



Ordering Example:

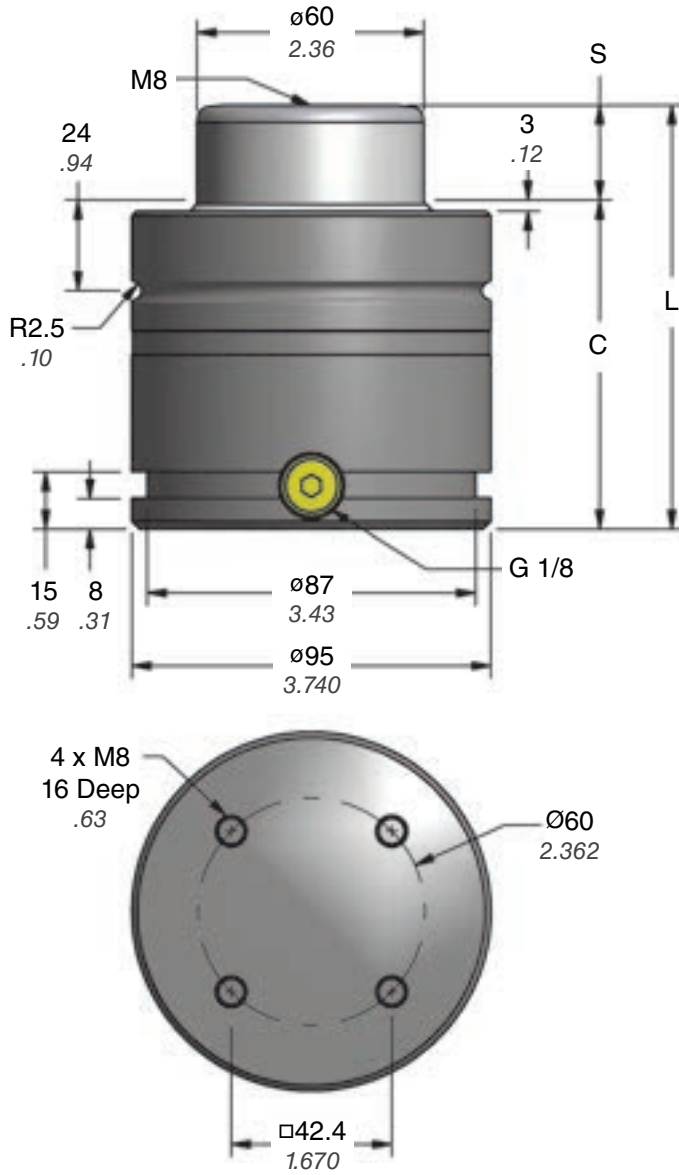
Cylinder with Mount: UH.2600.025.B12.C.150

Mount Only: 90.12.01500

UH Series Nitrogen Gas Springs

UH.4600 — 42 kN / 4.7 ton

If standard does not require this overall length, refer to the recommended U.4600 model in the **Ultra Force®** catalog. This product is similar and 4mm shorter.



TO - Basic Model

Part No.	S mm inch	C	L ± 0.25 ± 0.010
UH.4600.016	16 0.63	78 3.07	94 3.701
UH.4600.019	19 0.75	81 3.19	100 3.937
• UH.4600.025	25 0.98	87 3.43	112 4.409
UH.4600.032	32 1.26	94 3.70	126 4.961
• UH.4600.038	37.5 1.48	99.5 3.92	137 5.394
• UH.4600.050	50 1.97	112 4.41	162 6.378
UH.4600.063	62.5 2.46	124.5 4.90	187 7.362
UH.4600.075	75 2.95	137 5.39	212 8.346
• UH.4600.080	80 3.15	142 5.59	222 8.740
UH.4600.100	100 3.94	162 6.38	262 10.315
UH.4600.125	125 4.92	187 7.36	312 12.283

• Preferred Sizes

Ordering Example:

UH.4600.025. TO. C. 150

Part Number:
Includes Series, Model and Stroke Length.

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

Mount Option:
TO = Basic Model. When not specified, default is TO.
B319V, B21 and B25 mounts ordered with cylinder will be attached at the factory.

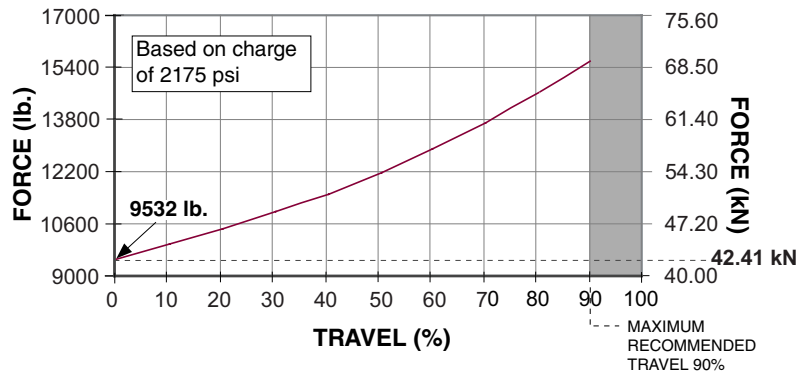
Operating System: C = Self-contained,
F = Open Flow Fitting. When not specified, default is C, self-contained.

UH.4600 — 42 kN / 4.7 ton

UH.4600 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

B12 **90.12.03000**

4 x M12 SHCS
1/2 SHCS

B319V **90.319V.4600**

2X M12x100 mm SHCS SUPPLIED

SLIDE MOUNT INTO DESIRED LOCATION AND SECURE USING THE TWO SHCS PROVIDED

B21 **90.21.03000**

ø130 BOLT CIRCLE 5.118

4 x M12 SHCS
1/2 SHCS

Split Wire Ring Included 90.55.3000

SECURE MOUNT ONTO TOP GROOVE WITH SUPPLIED RING AND SCREWS

B25 **90.25.03000**

4 x M12 SHCS
1/2 SHCS

Split Wire Ring Included 90.55.3000

SECURE MOUNT ONTO TOP GROOVE WITH SUPPLIED RING AND SCREWS

Ordering Example:

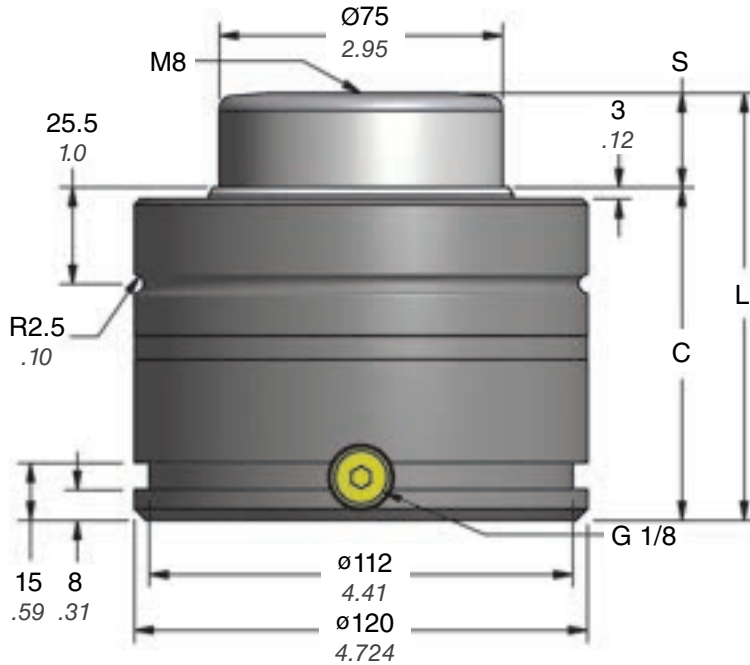
Cylinder with Mount: UH.4600.025.B12.C.150

Mount Only: 90.12.03000

UH Series Nitrogen Gas Springs

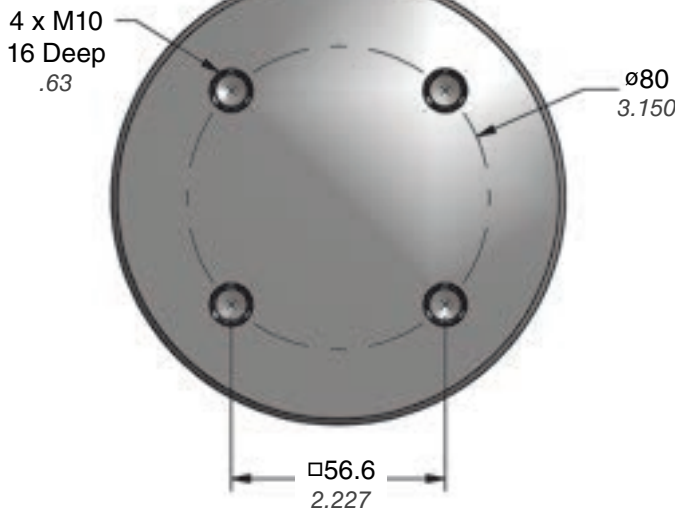
UH.6600 — 66 kN / 7.4 ton

If standard does not require this overall length, refer to the recommended U.6600 model in the **Ultra Force®** catalog. This product is similar and 4mm shorter.



Part No.	S mm inch	C	L ±0.25 ±0.010
UH.6600.016	16 0.63	88 3.46	104 4.094
UH.6600.019	19 0.75	91 3.58	110 4.331
• UH.6600.025	25 0.98	97 3.82	122 4.803
UH.6600.032	32 1.26	104 4.09	136 5.354
• UH.6600.038	37.5 1.48	109.5 4.31	147 5.787
• UH.6600.050	50 1.97	122 4.80	172 6.772
UH.6600.063	62.5 2.46	134.5 5.30	197 7.756
UH.6600.075	75 2.95	147 5.79	222 8.740
• UH.6600.080	80 3.15	152 5.98	232 9.134
UH.6600.100	100 3.94	172 6.77	272 10.709
UH.6600.125	125 4.92	197 7.76	322 12.677

• Preferred Sizes



TO - Basic Model

Ordering Example:

UH.6600.025. TO. C. 150

Part Number:

Includes Series, Model and Stroke Length.

Mount Option:

TO = Basic Model. When not specified, default is TO.
B319V, B21 and B25 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.

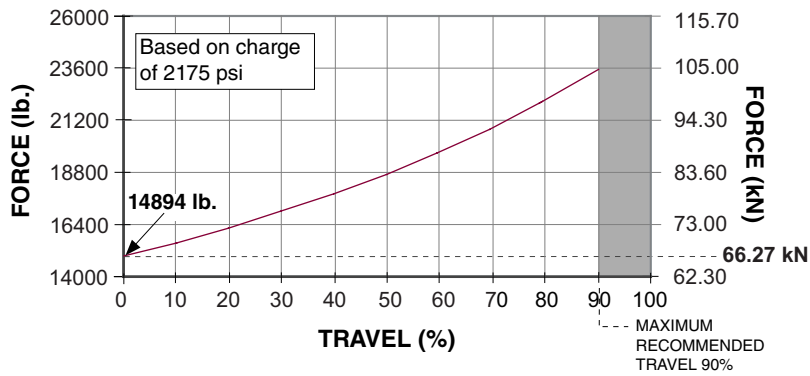
Operating System: C = Self-contained,
F = Open Flow Fitting. When not specified, default is C, self-contained.

UH.6600 — 66 kN / 7.4 ton

UH.6600 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

B12 **90.12.05000**

4 x M12 SHCS
1/2 SHCS

B319V **90.319V.6600**

2X M12x100 mm SHCS SUPPLIED

SLIDE MOUNT INTO DESIRED LOCATION AND SECURE USING THE TWO SHCS PROVIDED

B21 **90.21.05000**

ø155 BOLT CIRCLE 6.102

4 x M12 SHCS 1/2 SHCS

Split Wire Ring Included 90.55.5000

SECURE MOUNT ONTO TOP GROOVE WITH SUPPLIED RING AND SCREWS

B25 **90.25.05000**

4 x M12 SHCS 1/2 SHCS

Split Wire Ring Included 90.55.5000

SECURE MOUNT ONTO TOP GROOVE WITH SUPPLIED RING AND SCREWS

Ordering Example:

Cylinder with Mount: UH.6600.025.B12.C.150

Mount Only: 90.12.05000

Digital Load Cell

90.305.BGA (Meter)

90.305.LC.05A (22.2 kN Load Cell)

90.305.LC.50A (222 kN Load Cell)

The 90.305.BGA meter can display force in Newtons, Kg or lbs. When paired with the 90.305.LC.05A Load Cell it may be used to measure gas spring force up to 5,000 lbs. When paired with the 90.305.LC.50A Load Cell gas spring force can be measured up to 50,000 lbs. For more information request bulletin B04106E.



90.305.BGA



90.305.LC.05A



90.305.LC.50A

Standard Test Stand

90.305.3

Use the Standard Test Stand in conjunction with a Standard Load Cell for precise measurement of gas spring force on contact. For use with UH.0600 - UH.6600 models. For more information request bulletin B16112A.



Mini Test Stand

90.305.2 Standard Configuration
90.305.2D Digital Configuration

Use the Mini Test Stand in conjunction with a Standard Load Cell or Digital Load Cell for precise measurement of spring force on contact. For use with UH.0400 - UH.1600 models only. For more information request bulletin B08108B.



Quick Disconnect Charging Assembly

90.310.040

Use the DADCO Quick Disconnect Charging Assembly, 90.310.040, with the 90.310.143 or 90.310.111 Charging Nipple or 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. The 90.310.040 includes the 90.310.201 Pressure Regulator, 90.310.252 Hose Assembly and the 90.310.338 Quick Disconnect Filling Assembly.



Hose Assembly
3m (10 feet)
90.310.252

Pressure Regulator
90.310.201
Quick Disconnect Filling Assembly
90.310.338

Standard Load Cell

90.300.0300 (UH.0400)

90.300.0500 (UH.0600)

90.300.0750 (UH.0800)

90.300.1000 (UH.1000)

90.300.01500 (UH.1600)

90.300.2600 (UH.2600)

90.300.4600 (UH.4600)

90.300.6600 (UH.6600)

The Standard Load Cell gives precise measurement of gas spring charging pressure. Each model requires its specified load cell. Use the load cells with the 90.305.3 Standard Test Stand.



Accessories & Repair Tools

T-Handle

- 90.320.1 (M6: UH.0400)**
- 90.320.2 (M8: UH.0600 - UH.6600)**

To remove the piston rod when disassembling and position correctly when reassembling.



DADCO Electronic Pressure Monitors

DADCO's Electrical Pressure Monitors indicate if pressure drops below a preset level, alerting the press controller to shut down the press. They are available in a variety of configurations to suit a variety of applications. For more information request bulletin B10105B or contact DADCO.



DADCO Repair Tool Kits

DADCO's most popular repair tools are now available in boxed sets for each of our three main classifications of nitrogen gas springs: Micro, Mini and Large Series. Kits may include DADCO load cells, charging nipples and various repair tools. Separate repair tool and load cell sets are also available. For more information request bulletin B05143B.



DADCO Pressure Monitor

- 90.421.1 (120 VAC)**
- 90.421.2 (24 VAC)**
- 90.421.2D (24 VDC, SPDT)**

The DADCO Pressure Monitor indicates if pressure drops below a pre-set level, alerting the press controller to shut down the press. The shutdown point is adjustable between 15 and 200 bar (200 - 3000 psi). For additional information request bulletin B10105B.



Quick Disconnect Charging Nipple

90.310.111

Use the DADCO Quick Disconnect Charging Nipple to charge self-contained UH Series Gas Springs. For more information contact DADCO.



90.310.111

DADCO Pressure Analyzer

90.315.5

Use the DADCO Pressure Analyzer to easily charge, discharge, and gauge the pressure in DADCO's UH Series Gas Springs. For more information request bulletin B01133F.



C-Ring Installation Tool

90.352 (UH.1600 - UH.6600)

To insert the C-style retaining ring into the retaining ring groove.



C-Ring Removal Tool

90.355 (UH.0400 - UH.0800) B13113A
90.356 (UH.1000 - UH.6600) B15127A

To remove C-style retaining rings safely in a single controlled motion.



C-Ring Installation Tool

90.351.00400 (UH.0400)
90.351.00300 (UH.0600)
90.351.00500 (UH.0800)
90.350.00750 (UH.1000)
90.351.01600 (UH.1600)

To insert the C-style retaining ring into the retaining ring groove.



Removal Sleeve

90.340.00400 (UH.0400)
90.340.00600 (UH.0600)
90.340.00750 (UH.0800)
90.340.00750 (UH.1000)
90.340.01600 (UH.1600)
90.340.01500 (UH.2600)
90.340.03000 (UH.4600)
90.340.05000 (UH.6600)

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



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.



Port Servicing Tool

90.320.8

To perform all necessary servicing to the valve compartment. For more information request bulletin B05110A.



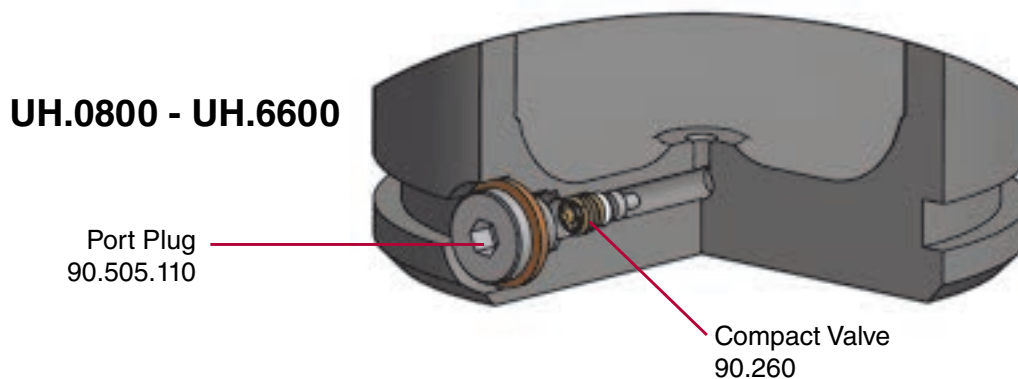
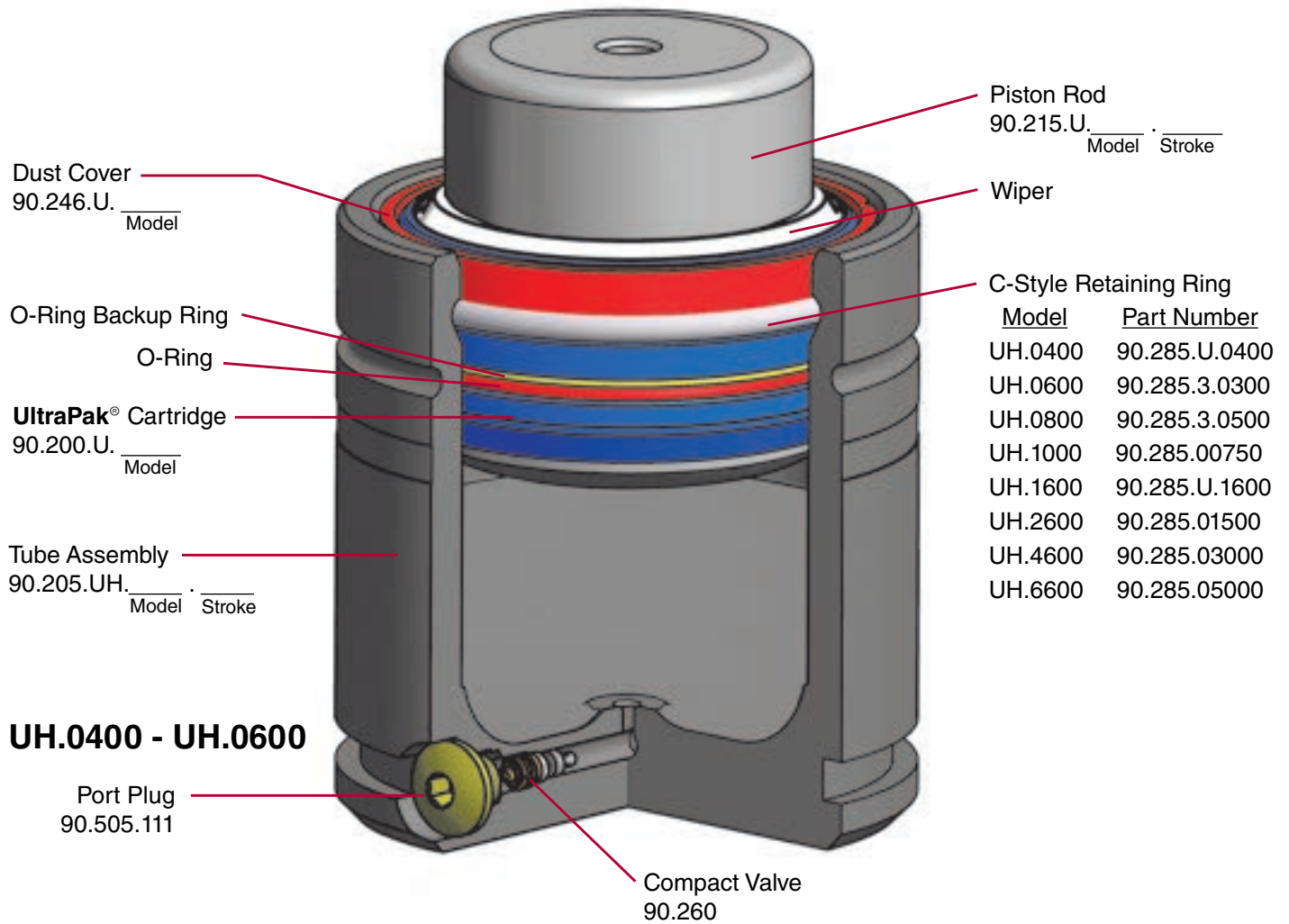
Repair Kits

Includes a fully assembled cartridge, dust cover, bottle of assembly oil and a maintenance manual.

<u>Model</u>	<u>Kit Number</u>	<u>Model</u>	<u>Kit Number</u>
UH.0400	90.108.00400	UH.1600	90.108.01600
UH.0600	90.108.00600	UH.2600	90.108.02600
UH.0800	90.108.00800	UH.4600	90.108.04600
UH.1000	90.108.01000	UH.6600	90.108.06600



Parts List



Part Ordering Example:

Piston Rod: 90.215. U. 0400. 025

Part Number

Series

Stroke (mm)

Model: 0400, 0600, 0800, 1000,
1600, 2600, 4600, 6600

Note: The UH Series Nitrogen Gas Springs are permanently marked with model number, serial number and repair kit number. Please refer to these when ordering replacement parts.

Technical Data

Operating Specifications

Charging Medium:	Nitrogen Gas
UH.0400 Charging Pressure:	15 – 180 bar (220 psi – 2600 psi)
UH.0600 – UH.6600 Charging Pressure:	15 – 150 bar (220 psi – 2175 psi)
Operating Temperature:	4°C – 71°C (40°F – 160°F)
Maximum Speed:	1.6 m/sec (63 in/sec)

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

Installation Requirements

Provide Stroke Reserve

- DADCO UH 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 (F.1 and F.2).

Avoid Side Loading

- A misaligned press or die can cause side loading that increases wear on the bearing, seal, and piston rod (F.4). Therefore, avoid side loading when possible (F.3).

Rod End Thread

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

Protect From Fluids

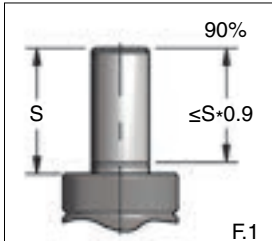
- Direct contact with certain die lubricants and cleaners should be avoided (F.6). Protect gas springs by providing adequate drainage in gas spring pockets (F.5).

Discharging Self-Contained Gas Spring

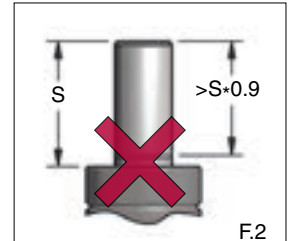
- The DADCO Pressure Analyzer (90.315.5), detailed on page 21, allows for charging, discharging and gauging of the pressure in the UH Series gas springs (F.7). For information on completely exhausting the gas spring refer to DADCO's U Series Maintenance Instructions.

Recharging Self-Contained Gas Spring

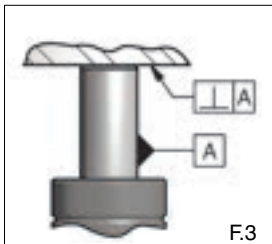
- Hold the spring vertically at all times during filling. Never compress the gas spring in a vice or clamp outside of the die or application as damage to the gas spring can result (F.8).
- Never fill a gas spring unless the rod is in the fully extended position (F.10). Thread the T-handle (90.320.1 or 90.320.2), detailed on page 21, into the rod end and depress the valve stem with the Valve Bleed Tool (90.360.4) or Port Servicing Tool (90.320.8), detailed on page 22. Pull the rod cartridge assembly up until it is seated firmly against the retaining ring (F.9). Remove the T-handle from the rod and charge the gas spring to the desired pressure. Refer to DADCO's U Series Maintenance Instructions for complete step-by-step instruction.



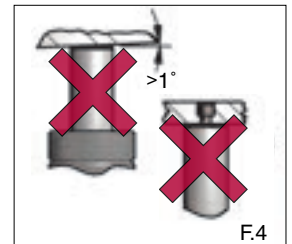
F.1



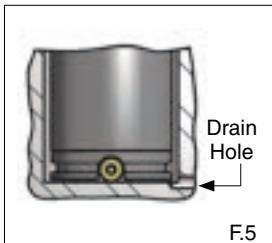
F.2



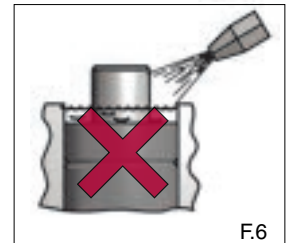
F.3



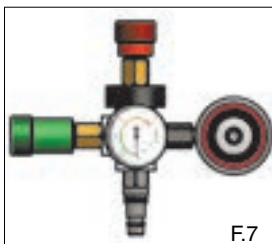
F.4



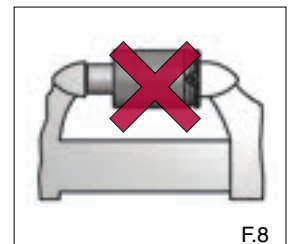
F.5



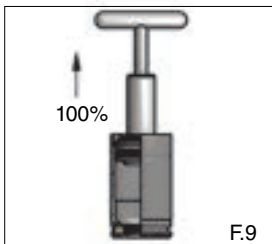
F.6



F.7



F.8



F.9



F.10

DADCO®

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