

Sketches / Note

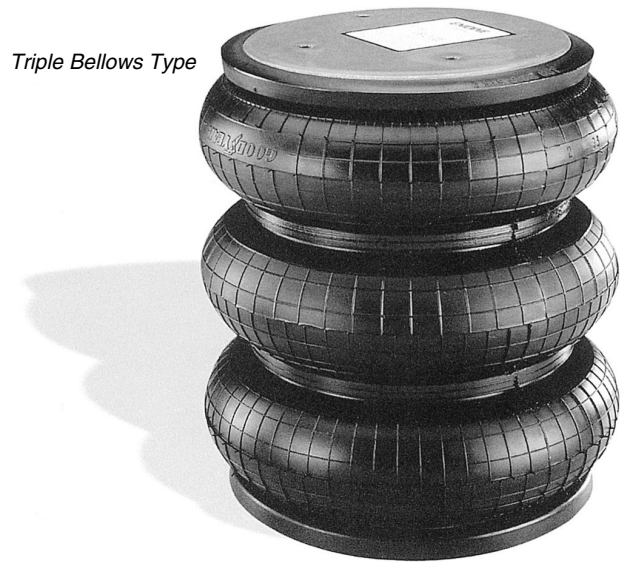
Enidine Air Springs



Air Springs



원형체의 공기 주머니로서 하중을 지지하는 개념에서 착안하여 개발된 Air Spring은 복층유연섬유 조직인 BELLOW(고무)와 알루미늄합금 재질인 RETAINER(지지대)로 구성되어 산업용 기계의 전문방진과 자동화라인에 실린더 용도로 탁월한 기능을 발휘 합니다.



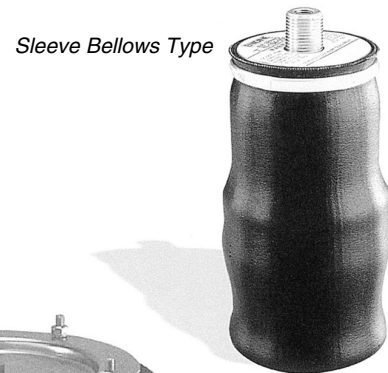
Triple Bellows Type



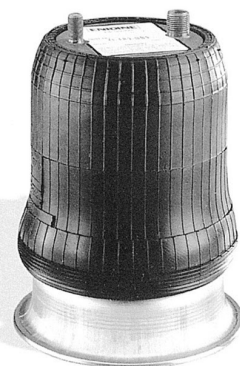
Double Bellows Type



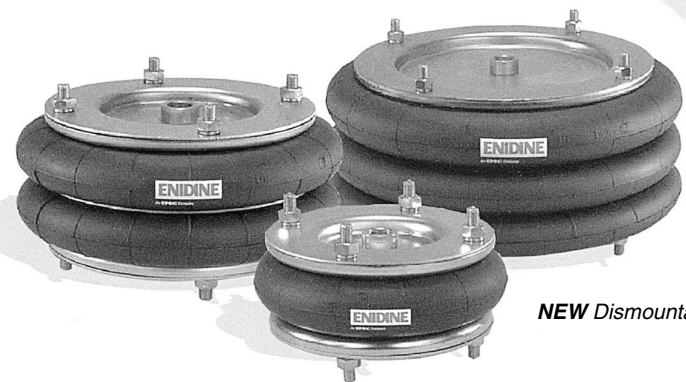
Single Bellows Type



Sleeve Bellows Type



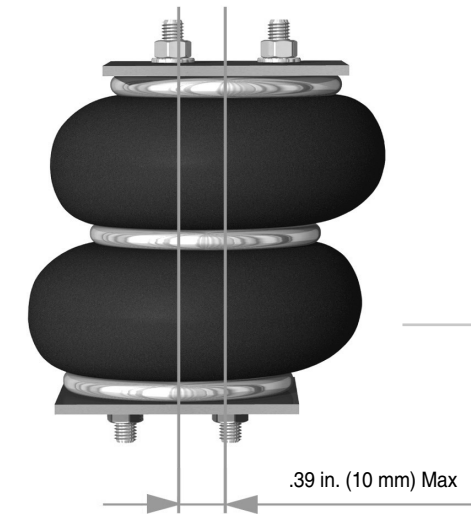
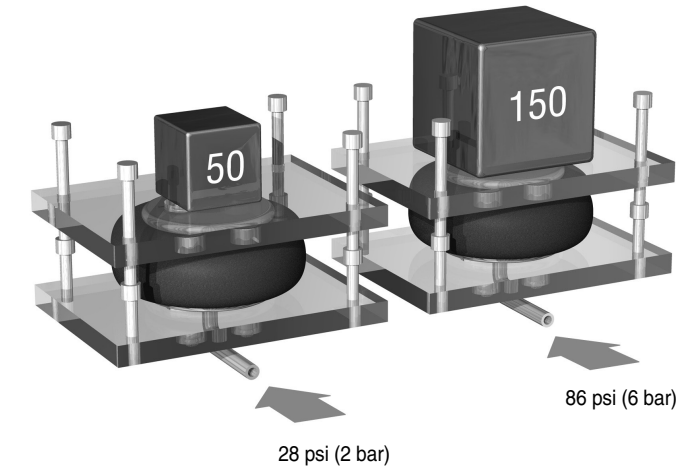
Rolling lobe Type



NEW Dismountable Air Springs

다양한 하중범위

한 모델로 공기압 조절을 통해 다양한 하중을 받을 수 있다.

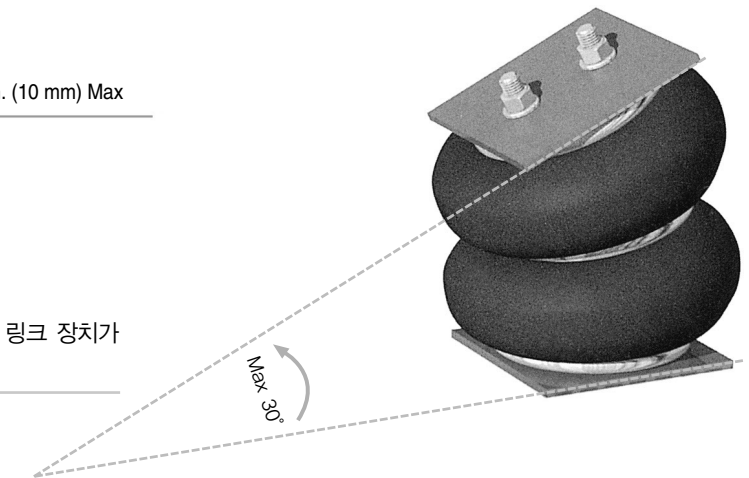


최고 10mm까지의 수평변위

상·하 플레이트 사이의 수평변위가 최대 10mm까지 가능해 취부의 간격 사용이 자유롭다.

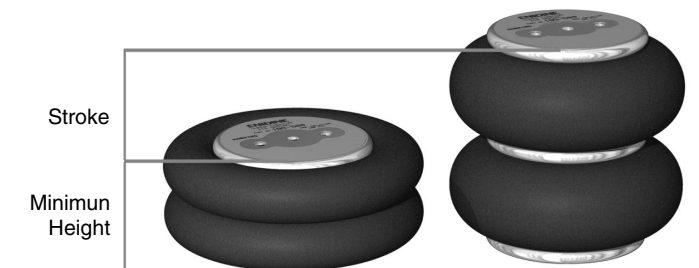
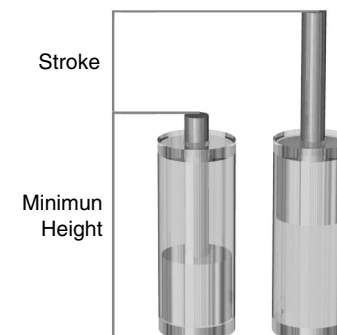
유연한 각운동

최대 30° 까지 각 운동이 가능해 링크 장치가 필요하지 않아 사용이 간편하다.



최소의 사용공간

실린더와 비교시 Air Spring은 제품 자체를 stroke로 이용 가능해 좁은 공간에서 사용이 가능하다.



제품의 구성

- Flex Members :** Fabric-reinforced Wingprene
Fabric-reinforced natural rubber
- End Retainers :** Forged steel
Cast Zinc alloy
Cast aluminum

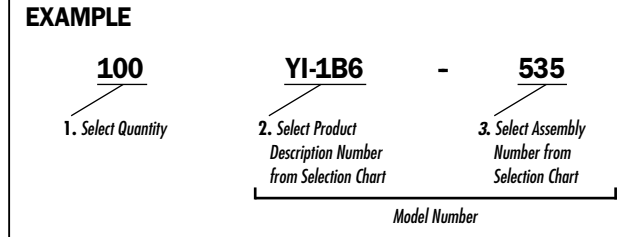
사용 온도 범위

- 모델별 사용온도
- YI-1B5~YI-2B8 (-40°C~70°C)
 - 그외 제품 (-55°C~70°C)

사용환경 주의사항

- 화학 및 오염물질로부터 보호
- 알칼리성 및 산성으로부터 보호
- 클리콜 유압유등으로부터 보호
- 풍화작용으로부터 보호

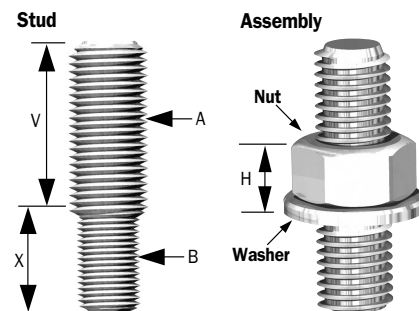
주문 방법



ACCESSORIES

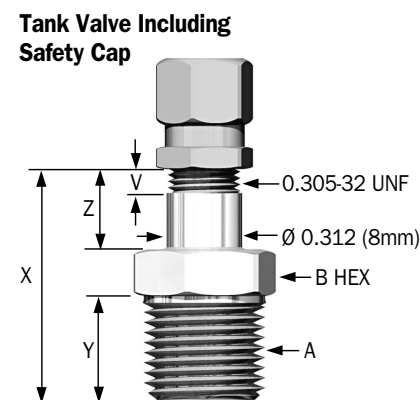
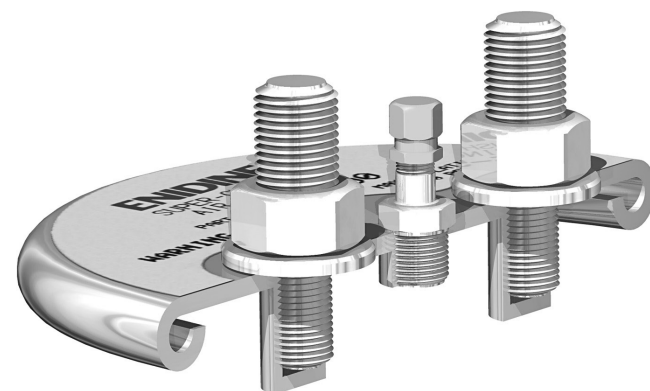
Assembly (Stud + Nut + Washer)

Part Number	A	B	H	V	X
			in. (mm)	in. (mm)	in. (mm)
YI-578-9-056	1/2 UNC	3/8 UNC	0.53 (13,5)	2.50 (63,5)	0.56 (14,2)
T9-1B5L	M10 x 1,5	3/8 UNC	0.39 (10,0)	2.50 (63,5)	0.56 (14,2)
T9-1B5LM8	M8 x 1,25	M8 x 1,25	0.32 (8,1)	2.50 (63,5)	0.56 (14,2)
T9-1B5LM10	M10 x 1,5	M8 x 1,25	0.39 (10,0)	2.50 (63,5)	0.56 (14,2)

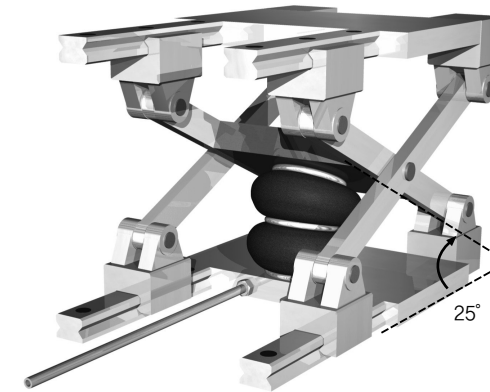


Tank Valves Including Safety Cap

Part Number	A	B	V	X	X	Z
		in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)
YI-579-08-9-033	1/8 NPTF	0.44 (11,18)	0.31 (7,9)	1.31 (33,0)	0.38 (9,7)	0.75 (19,0)
YI-578-92-9-122	1/4 NPTF	0.56 (14,2)	0.31 (7,9)	1.31 (33,0)	0.56 (14,2)	0.56 (14,2)
YI-579-08-9-033M	1/8 BSP	0.51 (12,95)	0.31 (7,9)	1.66 (42,0)	0.51 (12,95)	0.87 (22,1)
YI-578-92-9-122M	1/4 BSP	0.91 (23,1)	0.31 (7,9)	1.66 (42,0)	0.51 (12,95)	0.87 (22,1)

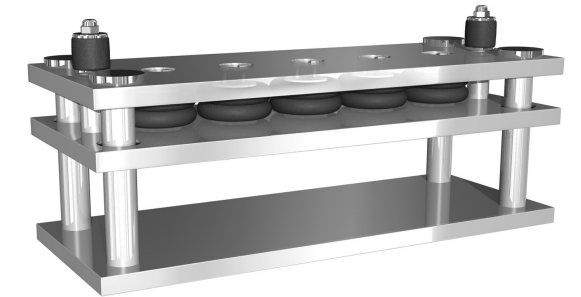


실린더 용도 사용 적용사례



Scissor Lifts

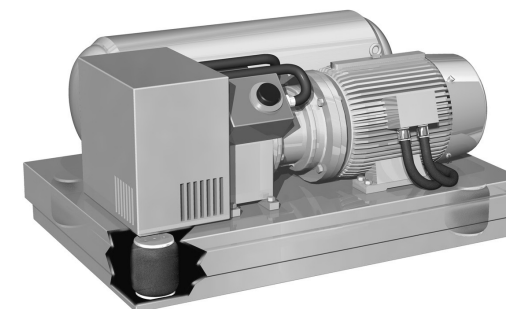
- Injection or ejection of parts in manufacturing equipment
- Vertical lift force for platform and rotating tables
- Conveyor or transfer systems
- Rotary shaft actuators



Presses

- Bin-tilting devices
- Palletizers, label applicators in packaging equipment
- Amusement park rides
- Clutch and brake systems

방진 용도 사용 적용사례



Compressors

- Vibratory conveyors
- Large drying machines
- Centrifugal separators
- Coordinate measuring tables and machinery
- Commercial laundry machines



Electronic Equipment

- Textile looms
- Conveyor loading points
- Compressors
- Electronic equipment

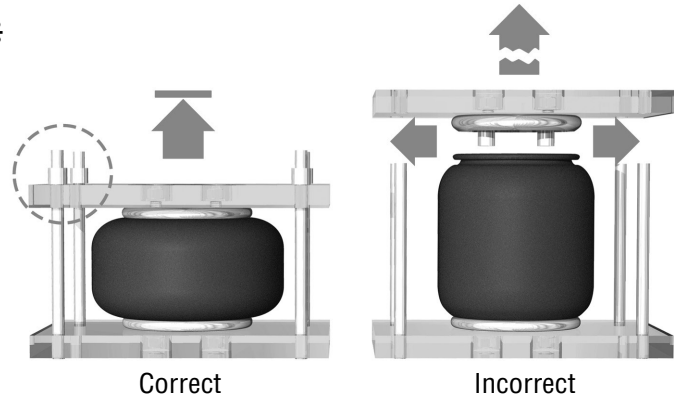
Bead Ring Type 적용사례

Applications

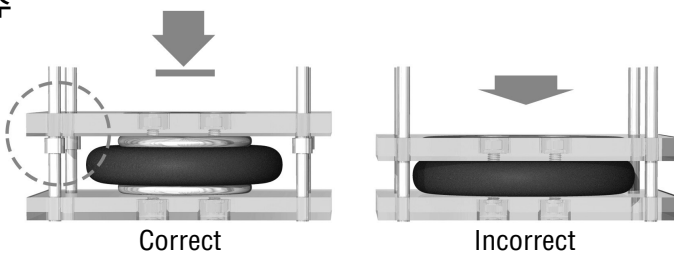
- 제지 및 펄프 제작설비
- 자동화 공장내 Stamping 압축장비
- 중공업 공장내 하역장비

사용시 주의사항

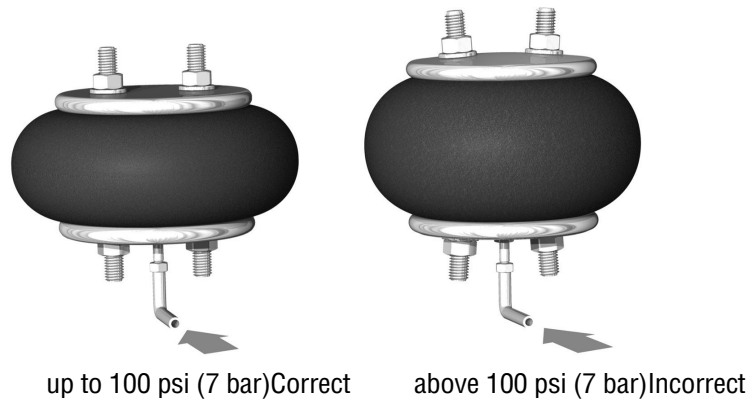
각 제품 사양에 따른 적정 Stroke 사용



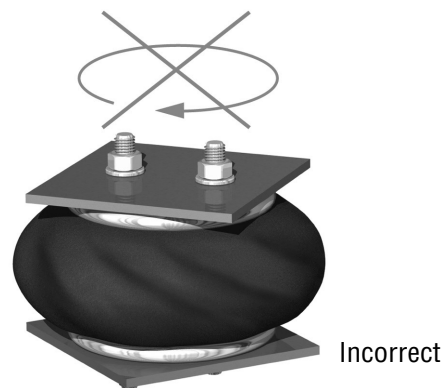
각 제품 사양에 따른 최소 높이 사용준수



공기 사용압력은 7bar 이내를 사용준수



각 제품 뒤틀리게 사용금지



Actuation(실린더용도) 사용시 모델선정 방법안내

- | | | |
|--------------------------|-------|--|
| 1. 무게 | F_i | _____ lbs. (N) |
| 2. 사용갯수 | n | _____ |
| 3. 사용 stroke | s | _____ in. (mm) |
| 4. 사용 공기압 | p | _____ psi (bar) |
| 5. 주위온도 | t | _____ °F (°C) |
| 6. 내부 bumper모델(스토퍼) 사용여부 | | <input type="checkbox"/> Internal Bumper
<input type="checkbox"/> No Bumper |

Calculation (계산식)

Force per Air Spring(개당하중범위계산)	Example (적용예)
$F = \frac{F_i}{n}$ lbs.	F_i 4,200 lbs. (18,682 N)
	n 4
	$F = \frac{F_i}{n}$ lbs.
	F 1,050 lbs. (4671 N)
Corrected Force[Fc]*(정확한 하중범위계산)	Example(적용예)
$F_c = \frac{F \times 100 \text{ psi}}{p}$	p 50 psi (3.5 bar)
F_c _____ lbs.	$F_c = \frac{1,050 \times 100}{50}$
	F_c 2,100 lbs. (9341 N)

Actuation용도로 선정시 고려사항

- 각 제품 사양에 따른 stroke 사용준수
- 환경에 따라 안정된 stroke 사용을 위해 가이드 사용요망

방진용도로 사용시 모델선정 방법안내

- | | | |
|--------------------------|-------|--|
| 1. 무게 | W_i | _____ lbs. (N) |
| 2. 사용갯수 | n | _____ |
| 3. 외부진동수 | f_i | CPM or RPM/60 HZ
_____ Hz |
| 4. 사용 공기압 | p | _____ psi (bar)*** |
| 5. 주위온도 | t | _____ °F (°C)** |
| 6. 내부 bumper모델(스토퍼) 사용여부 | | <input type="checkbox"/> Internal Bumper
<input type="checkbox"/> No Bumper |

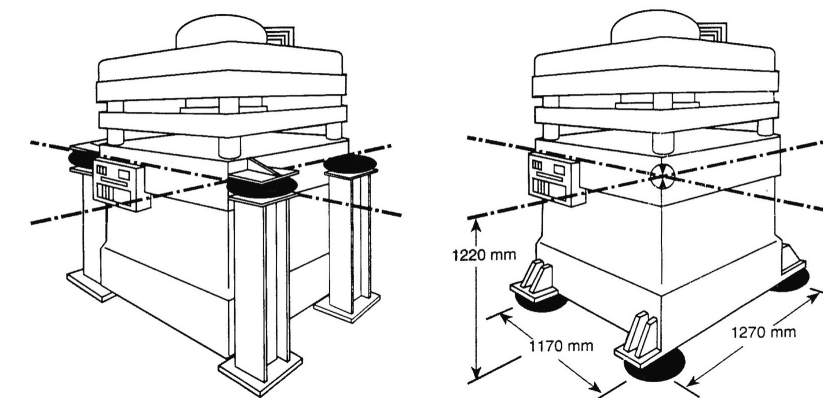
Calculation (계산식)

Load per Spring(개당하중범위계산)	Example(적용예)
$W = \frac{W_i}{n}$ lbs.	W_i 8,500 lbs. (37,810 N)
	n 4
	$W = \frac{8,500}{4}$
	W 2,125 lbs. (9452 N)
Corrected Load[Wc] : (정확한 하중범위계산)	Example(적용예)
$W_c = \frac{W \times 100 \text{ psi}}{p}$	p 100 psi (7 bar)
W_c _____ lbs.	$W_c = \frac{2,125 \times 100}{100}$
	W_c 2,125 lbs. (9452 N)

방진 용도로 선정시 고려사항

- 사용기계의 무게 중심을 Air Spring의 각 끝단 사이의 거리보다 낮게 되어야 안정성이 보장됩니다.
- 안정하게 사용하기 위해 수평가이드 설치요망
- 공기압 7bar이내 사용준수

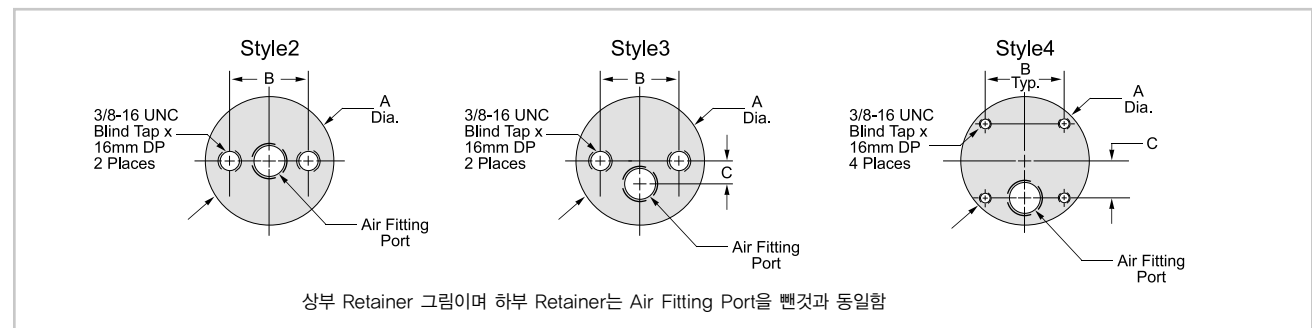
사용실례



일단 Bellows Type 모델선정 기술자료

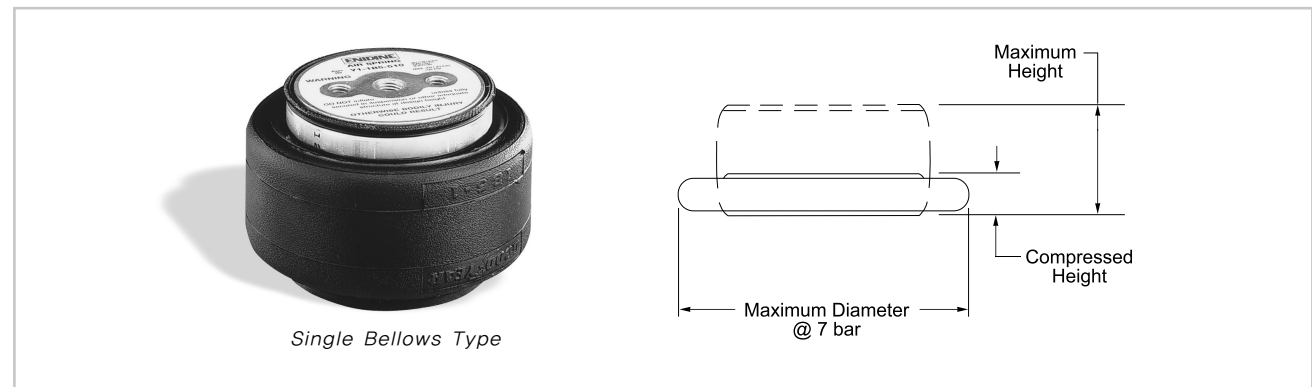
모델번호		ACTUATION 사양						방진 사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율			
			25 mm	50 mm	75 mm	최대 stroke				7.25 Hz	14.5 Hz	30 Hz	
YI-1B5	500	50	5560	2445		2445	4895-6095	195	64-76	72,0	94,0	98,3	
	510	76	6675	5340	2225	2225	4340-6940	165	64-101	82,0	96,0	99,0	
	520	76	7120	6675	5115	2000	4230-6915	160	89-127	83,0	96,2	99,0	
YI-1B6	530	71	8900	7340		3780	6455-8720	165	77-101	78,0	95,0	98,6	
	531	71	8900	7340		3780	6455-8720	165	77-101	78,0	95,0	98,6	
	532	63	8230	5785		3780	6455-8720	165	77-101	78,0	95,0	98,6	
	535	86	10 455	9790	9120	3335	5565-9830	135	102-152	90,0	97,4	99,3	
	536	86	10 455	9790	9120	3335	5565-9830	135	102-152	90,0	97,4	99,3	
	538	86	10 010	9565	8230	3335	5565-9830	135	102-152	90,0	97,4	99,3	
YI-1B7	540	81	11 125	9120	6005	2000	5785-9900	160	88-114	83,0	96,1	99,0	
	541	81	11 125	9120	6005	2000	5785-9900	160	88-114	83,0	96,1	99,0	
	542	73	10 235	7785		2000	5785-9900	160	88-114	83,0	96,1	99,0	
YI-1B8	550	83	15 350	13 125	8900	3560	7345-13 190	170	96-120	83,0	96,3	99,0	
	552	83	15 350	13 125	8900	3560	7345-13 190	170	96-120	83,0	96,3	99,0	
	553	83	15 350	13 125	8900	3560	7345-13 190	170	96-120	83,0	96,3	99,0	
	554	76	14 460	11 125	5560	3560	7345-13 190	170	96-120	83,0	96,3	99,0	
	560	81	16 020	15 130	13 570	4895	4005-14 860	140	102-165	85,0	96,6	99,1	
	563	81	16 020	15 130	13 570	4895	4005-14 860	140	102-165	85,0	96,6	99,1	
	564	81	15 350	14 460	12 680	4895	4005-14 860	140	102-165	85,0	96,6	99,1	
YI-1B9	202	73	22 470	18 465		6895	14 355-17 375	150	115-127	84,0	96,6	99,0	
	201	50	18 910	12 680		6895	14 355-17 375	150	115-127	84,0	96,6	99,0	
	207	73	22 470	18 465		6895	14 355-17 375	150	115-127	84,0	96,6	99,0	
	208	50	18 910	12 680		6895	14 355-17 375	150	115-127	84,0	96,6	99,0	
YI-1B12	313	83	38 715	35 600	30 705	16 020	30 705-39 245	140	77-127	89,0	97,3	99,3	
	301	76	37 825	34 040	28 925	16 020	30 705-39 245	140	77-127	89,0	97,3	99,3	
YI-1B14	350	83	56 290	51 175	44 055	21 805	43 055-53 330	140	102-133	86,0	96,8	99,2	
	351	35	44 720			21 805	43 055-53 330	140	108-133	86,0	96,8	99,2	
	364	152	59 000	56 000	50 000	21 000	51 000-59 000	135	82-133	87	97	99	
YI-1B15	375	88	66 305	61 855	54 290	22 025	51 065-61 140	130	112-137	91,0	97,5	99,4	
	376	40	55 180			22 025	51 065-61 140	130	112-137	91,0	97,5	99,4	

End Retainer Styles



일단 Bellows Type 모델선정 기술자료

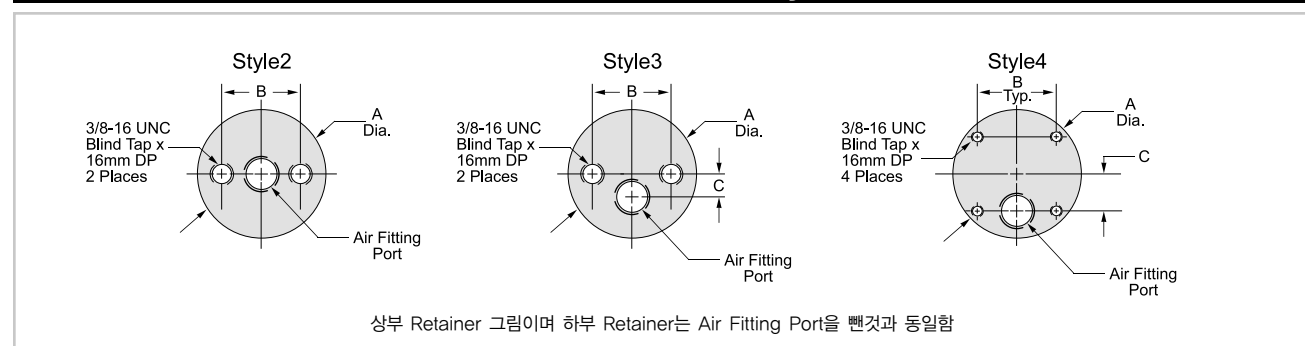
Bellows사양			취부사양			제품구성형태			모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A END PLATE RET. DIAM. (mm)	B BLIND TAP SPACING (mm)	C FILL PORT OFFSET (mm)	END RETAINER STYLE	AIR FITTING PORT (NPTF)	INTERNAL BUMPER	모델구별번호	제품번호
145	46	96	86,4	44,5	-	2	1/4 3/4	NO	500	502
153	46	122	86,4	44,5	-	2	1/4 3/4	NO	510	512
166	46	147	86,4	44,5	-	2	1/4 3/4	NO	520	521
166	46	122	105,4	44,5	-	2	1/4	NO	530	
166	46	122	105,4	69,9	34,9	3	1/4	NO	531	
166	59	122	105,4	69,9	34,9	3	1/4	YES	532	
178	46	180	105,4	44,5	-	2	1/4	NO	535	
178	46	180	105,4	69,9	34,9	3	1/4	NO	536	
178	59	180	105,4	69,9	34,9	3	1/4	YES	538	
196	46	142	105,4	44,5	-	2	1/4	NO	540	
196	46	142	105,4	69,9	34,9	3	1/4	NO	541	
196	59	142	105,4	69,9	34,9	3	1/4	YES	542	
221	46	142	127,0	69,9	-	2	1/4	NO	550	
221	46	142	127,0	69,9	-	2	3/4	NO	552	
221	46	142	127,0	69,9	34,9	3	1/4	NO	553	
221	59	142	127,0	69,9	34,9	3	1/4	YES	554	
239	46	185	127,0	69,9	-	2	1/4 3/4	NO	560	562
239	46	185	127,0	69,9	34,9	3	1/4	NO	563	
239	59	185	127,0	69,9	34,9	3	1/4	YES	564	
280	59	150	162,6	88,9	44,5	3	1/4 1/2	NO	202	204
280	82	150	162,6	88,9	44,5	3	1/4 1/2	YES	201	205
280	59	150	162,6	88,9	38,1	3	3/4	NO	207	
280	82	150	162,6	88,9	38,1	3	3/4	YES	208	
336	59	183	228,6	157,5	72,9	3	1/4 3/4	NO	313	304
336	67	183	228,6	157,5	72,9	3	1/4 3/4	YES	301	305
387	59	183	287,0	158,8	79,4	4	1/4 3/4	NO	350	352
387	107	183	287,0	158,8	79,4	4	1/4 3/4	YES	351	353
400	59	210	287,0	158,8	79,4	4	1/4 3/4	NO	364	362
445	59	201	287,0	158,8	79,4	4	1/4 3/4	NO	375	377
445	107	201	287,0	158,8	79,4	4	1/4 3/4	YES	376	378



이단 Bellows Type 모델선정 기술자료

모델번호		ACTUATION 사양					방진 사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중			방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율			
			50 mm	100 mm	150 mm				최대 stroke	435 CPM	870 CPM	1750 CPM
YI-2B6	530	114	8010	4005	2670	4785-9010	140	115-165	87,5	97,1	99,3	
	531	114	8010	4005	2670	4785-9010	140	115-165	87,5	97,1	99,3	
	532	109	7565	3560	2670	4785-9010	140	115-165	87,5	97,1	99,3	
	535	149	9790	7565	2445	6675-10 120	130	127-177	91,0	97,9	99,5	
	536	144	9565	6450	2445	6675-10 120	130	127-177	91,0	97,9	99,5	
YI-2B7	540 546	165	13 350	10 680	5560	3560	5230-11 500	125	153-203	91,0	97,8	99,5
	541	165	13 350	10 680	5560	3560	5230-11 500	125	153-203	91,0	97,8	99,5
	542	145	12 235	8900	3560	5230-11 500	125	153-203	91,0	97,8	99,5	
YI-2B8	550 552	175	15 560	11 560	7335	3780	10 000-12 010	115	178-203	93,5	97,9	99,6
	553	175	15 560	11 560	7335	3780	10 000-12 010	115	178-203	93,5	97,9	99,6
	554	167	14 900	11 120	6220	3780	10 000-12 010	115	178-203	93,5	97,9	99,6
YI-2B9	200 204	160	20 690	17 130	11 345	2225	11 570-16 085	115	204-228	92,0	97,8	99,5
	201 205	144	20 245	16 465	10 235	2225	11 570-16 085	115	204-228	92,0	97,8	99,5
	216	160	20 690	17 130	11 345	2225	11 570-16 085	115	204-228	92,0	97,8	99,5
	208	144	20 245	16 465	10 235	2225	11 570-16 085	115	204-228	92,0	97,8	99,5
	250*	182	22 025	18 690	15 575	6675	15 690-17 955	100	204-228	93,3	98,1	99,5
	251*	175	21 360	18 245	19 905	6675	15 690-17 955	100	204-228	93,3	98,1	99,5
	255	175	20 000	17 000	13 000	11 000	15 690-17 955	100	204-228	93,3	98,1	99,5
	256 263	182	21 000	17 700	14 000	11 000	15 690-17 955	100	204-228	93,3	98,1	99,5
	275	182	21 000	17 700	14 000	11 000	15 690-17 955	100	204-228	93,3	98,1	99,5
	YI-2B12	425 429	154	37 600	32 040	23 140	12 905	20 360-32 060	110	191-241	92,0	98,0
309 318		134	35 820	29 370	18 910	12 905	20 360-32 060	110	191-241	92,0	98,0	99,5
437		154	37 600	32 040	23 140	12 905	20 360-32 060	110	191-241	92,0	98,0	99,5
416 419		213	40 715	36 265	31 595	11 790	20 360-32 060	95	191-241	92,5	98,1	99,5
YI-2B14	354 352	152	57 625	50 060	37 380	15 350	35 490-50 080	110	191-241	93,0	98,1	99,5
	355 353	121	52 510	41 830	21 580	15 350	35 490-50 080	110	191-241	93,0	98,1	99,5
	362 363	203	61 855	58 070	51 620	19 135	50 175-58 180	95	191-241	93,0	98,2	99,5
	452	279	60 520	55 845	48 950	19 135	50 175-58 180	95	191-241	93,0	98,2	99,5
YI-2B15	375 377	167	61 855	55 625	46 500	18 245	45 390-56 025	100	191-241	93,0	98,2	99,5
	376 378	137	58 070	49 615	36 490	18 245	45 390-56 025	100	191-241	93,0	98,2	99,5

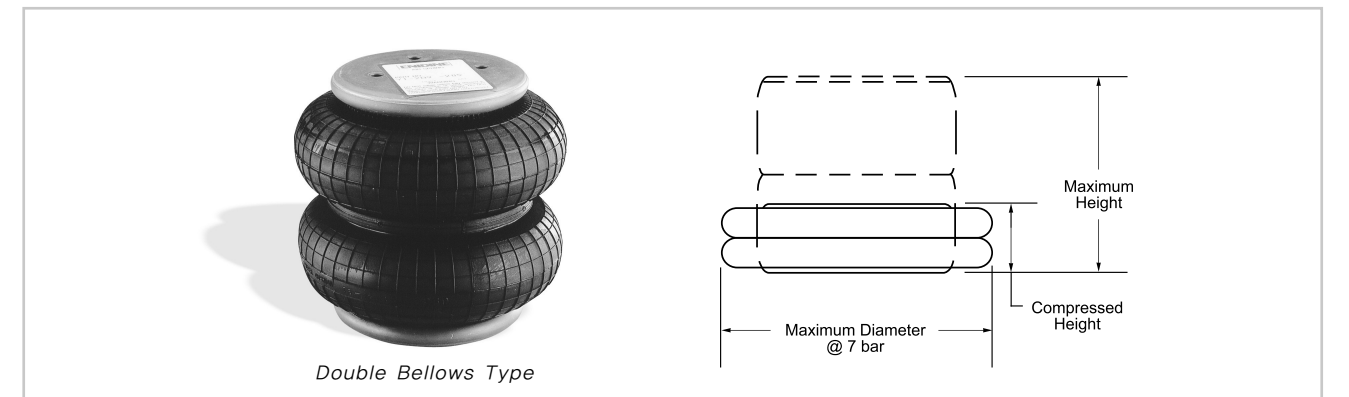
End Retainer Styles



* YI 2B9 250(YI 2B9 251)에는 1/2 13 UNC X 0.63inch long stud bolt가 있습니다.

이단 Bellows Type 모델선정 기술자료

Bellows사양			취부사양			제품구성형태			모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A END PLATE RET. DIAM. (mm)	B BLIND TAP SPACING (mm)	C FILL PORT OFFSET (mm)	END RETAINER STYLE	AIR FITTING PORT (NPTF)	INTERNAL BUMPER	모델구별번호	제품번호
166	82	196	122,9	44,5	-	2	1/4	NO	530	YI-2B6
166	82	196	122,9	69,9	34,9	3	1/4	NO	531	
166	87	196	122,9	69,9	34,9	3	1/4	YES	532	
178	82	231	122,9	69,9	34,9	3	1/4	NO	535	
178	87	231	122,9	69,9	34,9	3	1/4	YES	536	
204	64	229	127,0	69,9	-	2	1/4 3/4	NO	540 546	YI-2B7
204	64	229	127,0	69,9	34,9	3	1/4	NO	541	
204	84	229	127,0	69,9	34,9	3	1/4	YES	542	
216	82	262	149,1	69,9	-	2	1/4 3/4	NO	550 552	YI-2B8
216	82	262	149,1	69,9	34,9	3	1/4	NO	553	
216	89	262	149,1	69,9	34,9	3	1/4	YES	554	
262	89	292	162,6	88,9	44,5	3	1/4 1/2	NO	200 204	YI-2B9
262	97	292	162,6	88,9	44,5	3	1/4 1/2	YES	201 205	
262	89	292	162,6	88,9	38,1	3	3/4	NO	216	
262	97	292	162,6	88,9	38,1	3	3/4	YES	208	
262	89	325	162,6	88,9	44,5	3	1/4	NO	250	
262	97	325	162,6	88,9	44,5	3	1/4	YES	251	
262	89	325	162,6	88,9	44,5	3	1/4	YES	255	
262	89	325	162,6	88,9	44,5	3	1/4 1/2	NO	256 263	
262	89	325	162,6	88,9	38,1	3	3/4	NO	275	
331	89	282	228,6	157,5	72,9	3	1/4 3/4	NO	425 429	
331	107	282	228,6	157,5	72,9	3	1/4 3/4	YES	309 318	
331	89	282	228,6	157,5	-	2	1/4	NO	437	
348	89	365	228,6	157,5	72,9	3	1/4 3/4	NO	416 419	
384	89	287	287,0	158,8	79,4	4	1/4 3/4	NO	354 352	
384	125	287	287,0	158,8	79,4	4	1/4 3/4	YES	355 353	
407	89	386	287,0	158,8	79,4	4	1/4 3/4	NO	362 363	
407	107	386	287,0	158,8	79,4	4	1/4	YES	452	
425	89	325	287,0	158,8	79,4	4	1/4 3/4	NO	375 377	
425	125	325	287,0	158,8	79,4	4	1/4 3/4	YES	376 378	



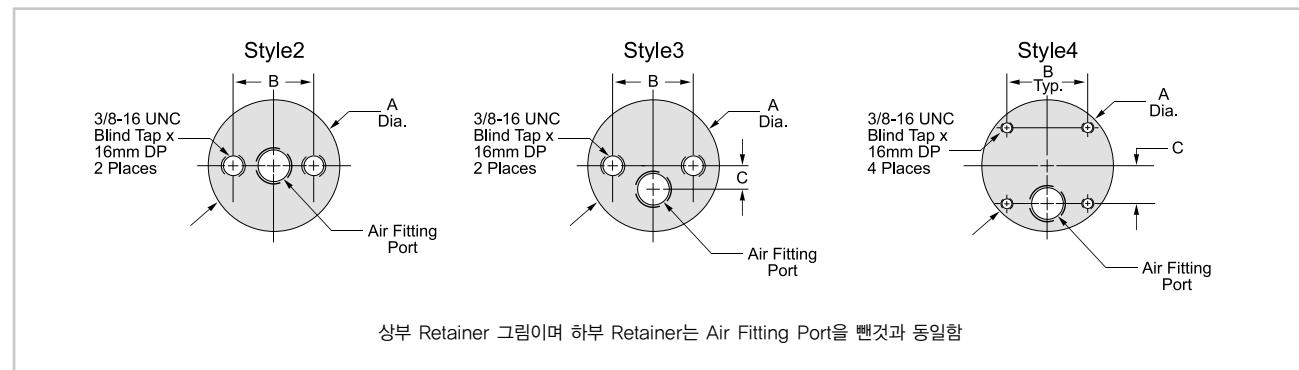
삼단 Bellows Type 모델선정 기술자료

모델번호		ACTUATION 사양					방진사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율		
			75 mm	150 mm	225 mm	최대 stroke				435 CPM	870 CPM	1750 CPM
YI-3B12	304	269	39 160	32 930	26 700	12 905	19 135-32 505	90	280-381	94,0	98,4	99,6
	305											
	308	269	39 160	32 930	26 700	12 905	43 280-53 845	90	280-381	94,0	98,0	99,0
YI-3B14	325	281	46 000	38 000	32 000	25 000	27 960-37 290	90	280-381	94,0	98,0	99,0
	326											
	403	259	60 075	52 955	43 385	21 580	43 280-53 845	90	267-317	95,0	98,5	99,6
	361											
351	200	54 065	44 500	31 815	21 580	43 280-53 845	90	267-317	95,0	98,5	99,6	
353												
450	401	55 000	48 000	42 000	19 000	45 000-48 000	75	267-317	95,0	98,5	99,6	
374												
453	396	54 000	47 000	42 000	19 000	45 000-48 000	75	267-317	95,0	98,5	99,6	
411												
YI-3B15	375	251	65 190	56 290	44 945	27 365	49 285-57 090	85	267-317	95,5	98,8	99,6
	377											
376	185	57 850	46 725	32 040	27 365	49 285-57 090	85	267-317	95,5	98,8	99,6	
378												

BEAD RING TYPE

모델번호		ACTUATION 사양					방진사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율		
			50 mm	100 mm	200 mm	최대 stroke				7.25 Hz	14.5 Hz	30 Hz
YI-2B9	240	203	20,680	17,130	2,230	2,230	11,560-16,080	115	203-228	92	98	99
YI-2B12	340	194	37,590	32,030		12,900	20,350-32,050	110	190-241	93	98	99
YI-2B19	8433	222	114,700	103,600	60,000	47,600	78,700-105,400	100	178-254	92	97	99
YI-2B22	8539	235	155,680	137,890	93,400	65,800	123,400-141,000	95	178-228	93	97	99

END RETAINER STYLES



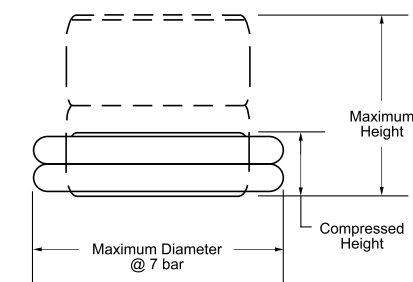
모델 선정시 반드시 문의하시기 바라며, 상세 내역의 DATA SHEET가 포함된 Catalog를 보내 드립니다.

삼단 Bellows Type 모델선정 기술자료

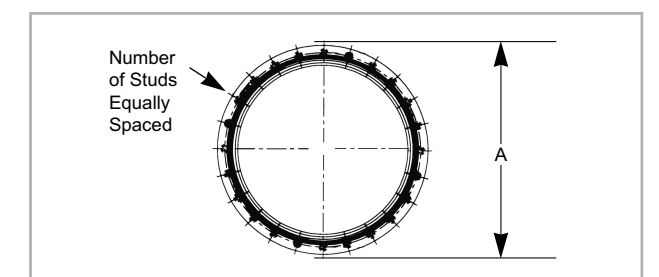
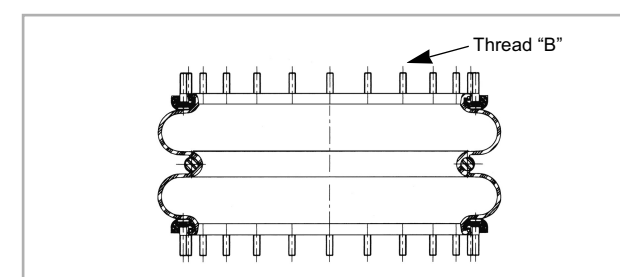
Bellows사양			취부사양			제품구성형태			모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A END PLATE RET. DIAM. (mm)	B BLIND TAP SPACING (mm)	C FILL PORT OFFSET (mm)	END RETAINER STYLE	AIR FITTING PORT (NPTF)	INTERNAL BUMPER	모델구별번호	제품번호
331	120	457	228,6	157,5	72,4	3	1/4 3/4	NO	304 305	YI-3B12
331	120	457	228,6	157,5	-	2	1/4	NO	308	
350	116	482	261,62	157,5	72,4	3	1/4 3/4	NO	325 326	
394	120	462	287,0	158,8	79,4	4	1/4 3/4	NO	354 361	YI-3B14
394	186	462	287,0	158,8	79,4	4	1/4 3/4	YES	351 353	
394	119	520	287,0	158,8	79,5	4	1/4 3/4	NO	450 374	
394	124	520	287,0	158,8	79,5	4	1/4 3/4	YES	453 411	
420	120	432	287,0	158,8	79,4	4	1/4 3/4	NO	375 377	YI-3B15
420	186	432	287,0	158,8	79,4	4	1/4 3/4	YES	376 378	

IMPERIAL(인치) BEAD RING TYPE

Bellows사양			취부사양			제품구성형태		모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A MOUNTING-DIAMETER (mm)	B THREAD	NUMBER OF STUDS	FLEX MEMBER		모델구별번호	제품번호
262	89	274	159	5/16-24 UNC	8	Y6-578-92-3-202		240	YI-2B9
330	89	282	227	5/16-24 UNC	12	Y6-578-92-3-309		340	YI-2B12
521.0	82.5	304.0	419.0	M10×1.5×52	24	Y6-556-23-8350		8433	YI-2B19
585.0	82.5	317.0	482.6	M10×1.5×52	24	Y6-556-23-8203		8539	YI-2B22



Bead Ring Dimension



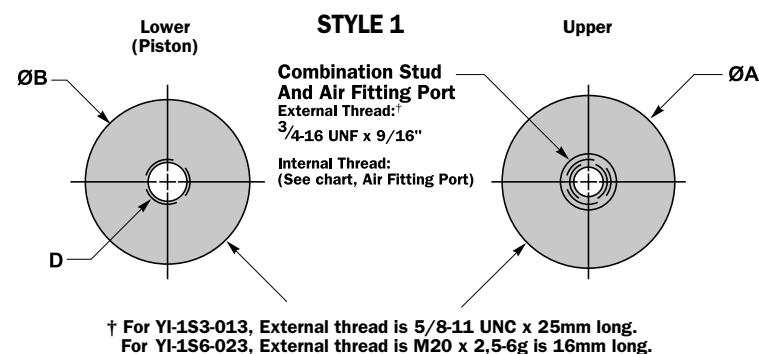
Sleeve Type 모델선정 기술자료

모델번호		ACTUATION 사양					방진사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율		
			25 mm	75 mm	125 mm	최대 stroke				435 CPM	870 CPM	1750 CPM
YI-1S3	011	111	1645	1645		485	1560-1845	120	127-152	92,0	97,8	99,5
	013	53	2580			620	2005-2670	195	51-76	71,0	93,0	98,2
YI-1S4	007	124	3915	3870		1465	3560-3915	130	97-111	90,0	97,4	99,3
	008	165	3245	3245	3245	2490	3115-4005	80	166-190	95,0	98,5	99,6
YI-1S5	005	139	4405	4405	4405	3735	3675-5025	95	158-182	95,0	98,6	99,6
	006	165	4405	4405	4405	3470	3785-5225	90	178-228	96,1	99,0	99,7
	010	101	5070	4270		2555	4120-5070	120	97-109	90,0	97,5	99,4
YI-1S6	023	172	7875	7430	7075	5470	5900-7475	95	178-218	94,0	98,4	99,6

Rolling Lobe Type 모델선정 기술자료

모델번호		ACTUATION 사양					방진사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율		
			100 mm	200 mm	300 mm	최대 stroke				435 CPM	870 CPM	1750 CPM
YI-1R8	005	330	14 685	13 125	***	***	12 460-13 970	80	267-330	95,3	98,7	99,6
	009	300	12 460	***	***	***	11 790-13 725	70	267-330	96,0	98,9	99,6
YI-1R9	003	312	15 350	14 240	6675	5785	13 130-17 020	85	204-304	93,0	98,2	99,5
	009	218	18 465	6230		4005	16 465-19 845	100	153-190	91,0	97,8	99,4
YI-1R10	044	358	24 920	24 920	17 800	11 345	23 255-26 565	75	242-342	96,1	99,0	99,7
YI-1R11	028	236	29 145	16 910		10 235	24 810-30 235	95	153-254	95,0	98,7	99,6
	039	280	30 035	25 585		10 450	28 925-31 390	100	204-304	94,0	98,6	99,5
YI-1R12	092	340	33 820	32 040	19 355	12 235	29 370-34 305	85	267-419	96,0	99,0	99,7
	095	230	31 815	16 685		10 680	30 260-32 660	95	178-228	94,0	98,4	99,6
	103	443	34 710	33 150	30 480	11 570	29 485-34 395	75	381-508	96,5	99,1	99,7
	132	275	33 820	26 255		12 015	31 150-34 775	100	204-254	93,0	98,2	99,5
	256	498	34 930	33 595	32 485	14 015	30 930-34 240	70	407-508	96,3	99,0	99,7
YI-1R14	274	374	33 595	33 595	23 360	13 350	31 930-35 840	70	287-363	96,8	99,1	99,7
	019	428	38 935	38 715	***	***	36 380-39 000	70	356-457	96,7	99,1	99,7
	018	375	38 490	38 270	26 700	11 125	36 270-38 715	75	280-419	96,3	99,0	99,7
	037	312	48 725	39 825	15 350	13 125	45 505-49 880	105	191-279	92,0	98,0	99,5

End Retainer Styles



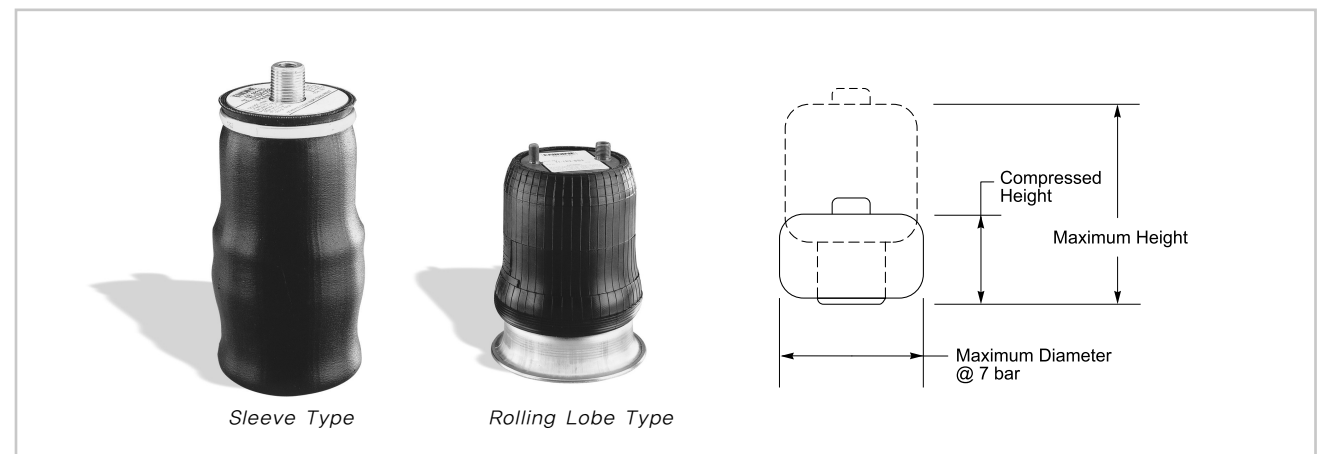
Sleeve Type 모델선정 기술자료

Bellows사양			취부사양			제품구성형태			모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A UPPER END PLATE. DIAM. (mm)	B LOWER END PLATE. DIAM. (mm)	C BLIND TAP FOR MOUNTING (mm)	END RETAINER STYLE	AIR FITTING PORT (NPTF)	INTERNAL BUMPER	모델구별번호	제품번호
83	92	203	69,9	69,9	1/2-13 UNC x 16mm Deep	1	1/8	NO	011	YI-1S3
92	39	92	61,0	86,4	5/16-18 UNC x 11mm Deep	1	1/8	NO	013	
117	56	180	104,1	104,1	3/8-16 UNC x 12mm Deep	1	1/8	NO	007	YI-1S4
117	102	267	104,1	104,1	1/2-13 UNC x 16mm Deep	1	1/8	NO	008	
143	102	241	104,1	104,1	1/2-13 UNC x 16mm Deep	1	1/8	NO	005	YI-1S5
143	102	267	129,5	129,5	1/2-13 UNC x 16mm Deep	1	1/8	NO	006	
143	56	157	129,5	129,5	3/8-16 UNC x 12mm Deep	1	1/8	NO	010	
173	105	277	160,0	160,0	M20-2.5-g x 15mm Long	1	1/8	NO	023	YI-1S6

Rolling Lobe Type 모델선정 기술자료

Bellows사양			취부사양			제품구성형태			모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A UPPER END PLATE. DIAM. (mm)	B LOWER END PLATE. DIAM. (mm)	C BLIND TAP FOR MOUNTING (mm)	END RETAINER STYLE	AIR FITTING PORT (NPTF)	INTERNAL BUMPER	모델구별번호	제품번호
221	143	473						NO	005	YI-1R8
221	173	473						YES	009	
242	143	455						NO	003	YI-1R9
242	82	300						NO	009	
282	153	511						NO	044	YI-1R10
293	94	330						NO	028	YI-1R11
298	155	435						YES	039	
320	196	536						YES	092	YI-1R12
323	112	342						YES	095	
323	242	685						YES	103	
328	155	430						YES	132	
320	242	740						YES	256	
326	206	580						YES	274	YI-1R14
361	227	655						YES	019	
361	196	571						YES	018	
376	145	457						YES	037	

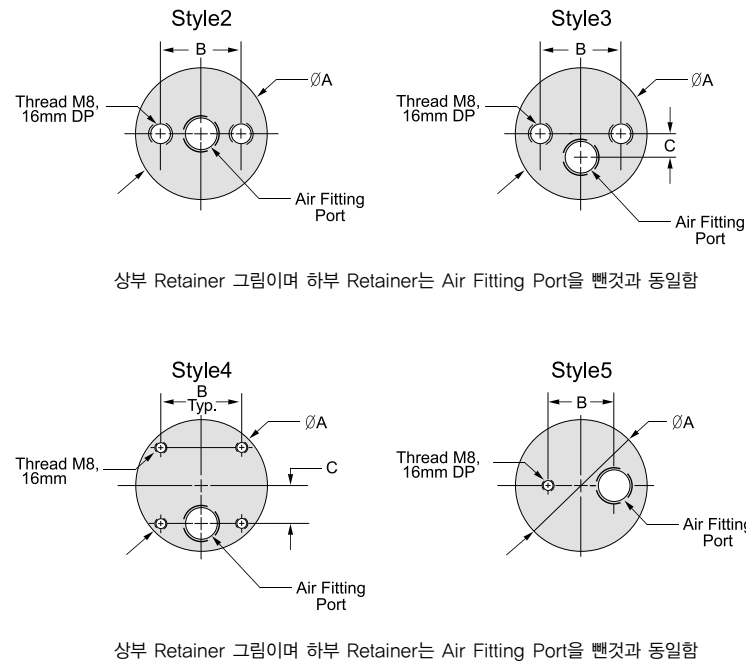
Rolling Lobe Type
 모델 사용시에 취부 및 공기주입 Port 등의 사양은 문의 해 주시기 바랍니다.



Metric 취부사양(mm) Type 일단 Bellows 모델선정 기술자료

모델번호		ACTUATION 사양					방진 사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율		
			25 mm	50 mm	75 mm	최대 stroke				7.25 Hz	14.5 Hz	30 Hz
YI-1B5	800	50	5 560	2 500		2 500	4 900-6 000	195	64-76	72	94	98
	810	76	6 560	5 115	2 300	2 300	4 670-6 675	165	64-101	82	96	99
	820	101	7 120	6 560	5 115	1 960	4 450-6 675	160	89-127	83	96	99
YI-1B6	833	71	8 460	6 680		3 780	6 680-8 460	165	77-101	78	95	98
	835	130	9 800	9 350	8 460	3 340	6 680-9 350	135	102-152	90	97	99
YI-1B7	840	81	10 680	8 460	4 900	3 780	7 120-9 800	160	89-114	83	96	99
YI-1B8	850	84	14 685	11 800	7 120	4 900	8 900-12 900	170	96-120	83	96	99
	860	119	15 575	14 690	12 900	7 100	8 450-14 690	140	102-165	85	96	99
YI-1B9	215	91	22 470	18 465	12 680	6 680	14 240-17 350	150	114-127	84	96	99
YI-1B12	318	124	38 500	35 600	31 150	16 020	32 480-39 160	140	77-127	89	97	99
YI-1B14	371	152	60 075	56 960	51 620	21 360	51 620-60 075	140	83-133	87	97	99
	372	124	56 515	52 065	44 500	21 805	44 500-55 625	140	102-133	86	96	99

END RETAINER STYLES

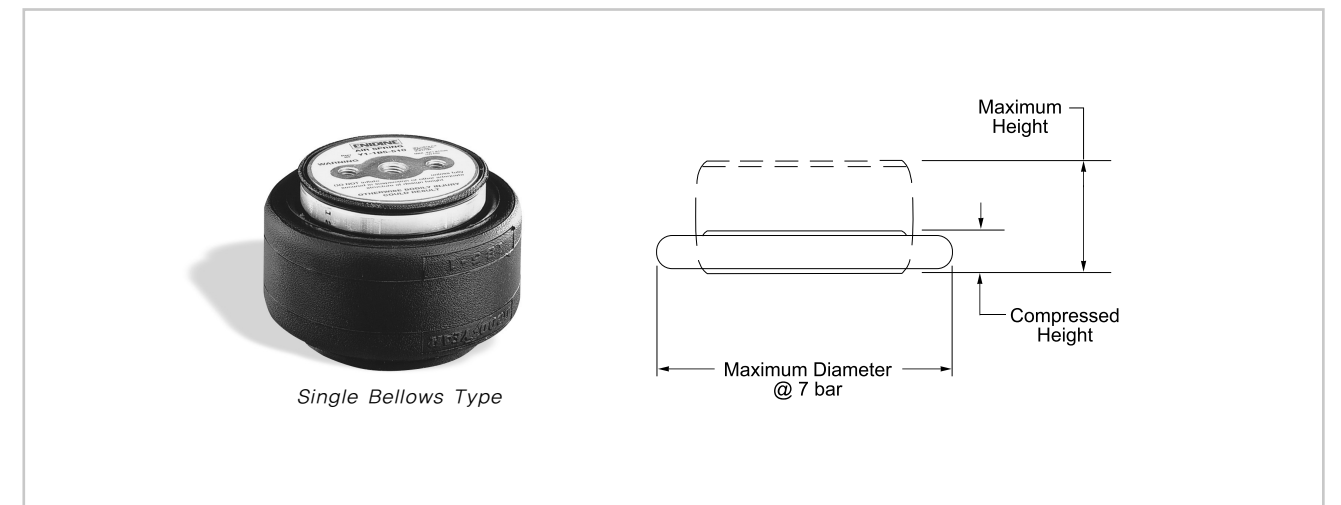


모델 선정시 반드시 문의하시기 바라며, 상세 내역의 DATA SHEET가 포함된 Catalog를 보내 드립니다.

Metric Type 일단 Bellows 모델선정 기술자료

Bellows사양			취부사양			제품구성형태			모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A UPPER END PLATE. DIAM. (mm)	B BLIND TAP SPACING (mm)	C FILL PORT OFFSET (mm)	END RETAINER STYLE	AIR FITTING PORT (BSP)	INTERNAL BUMPER	모델구별번호	제품번호
145	46	96	86,4	20,0	-	5	1/8	NO	800	YI-1B5
153	46	122	86,4	44,5	-	2	1/4	NO	810	
166	46	147	86,4	44,5	-	2	1/4	NO	820	
166	51	122	105,4	44,5	-	2	1/4	NO	833	YI-1B6
178	51*	180	105,4	44,5	-	2	1/4	NO	835	
196	51	132	105,4	44,5	-	2	1/4	NO	840	YI-1B7
221	51	134	127,0	70,0	-	2	1/4	NO	850	
239	51**	170	127,0	70,0	-	2	1/4	NO	860	YI-1B8
280	59	150	162,6	89,0	44,4	3	3/4	NO	215	
336	59	183	228,6	157,5	72,9	3	3/4	NO	318	YI-1B12
404	59	211	287,0	158,8	79,4	4	3/4	NO	371	
387	59	183	287,0	158,0	79,4	4	3/4	NO	372	YI-1B14

* Actuator 용도로 사용시에 높이를 94mm이상 올리지 마세요.
 ** Actuator 용도로 사용시에 높이를 89mm이상 올리지 마세요.



모델 선정시 반드시 문의하시기 바라며, 상세 내역의 DATA SHEET가 포함된 Catalog를 보내 드립니다.

Metric 취부사양(mm) Type 이단 Bellows 모델선정 기술자료

모델번호		ACTUATION 사양					방진 사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율		
			50 mm	100 mm	150 mm	최대 stroke				7.25 Hz	14.5 Hz	30 Hz
YI-2B6	833	114	8 010	4 005		2 580	5 780-8 900	140	115-165	85	96	99
	835	149	9 790	6 670		2 490	6 675-10 120	130	127-177	92	97	99
YI-2B7	840	165	12 900	10 230	5 560	3 560	7 115-11 120	125	153-203	91	97	99
YI-2B8	850	180	16 000	12 000	8 000	4 450	10 230-12 010	115	178-203	93	97	99
YI-2B9	235	193	20 690	17 130	11 345	4 890	10 230-16 460	115	190-241	92	97	99
	273	220	21 350	17 790	14 450	6 675	13 345-16 900	100	204-254	93	98	99
YI-2B12	343	193	37 365	32 040	23 140	12 010	23 130-32 060	110	191-241	92	98	99
	344	276	40 715	36 030	31 595	11 565	31 580-36 030	95	191-241	92	98	99
YI-2B14	467	198	57 380	49 375	37 380	15 125	37 165-49 375	110	191-241	93	98	99
	468	297	61 855	58 270	52 400	19 135	52 490-58 270	95	191-241	93	98	99

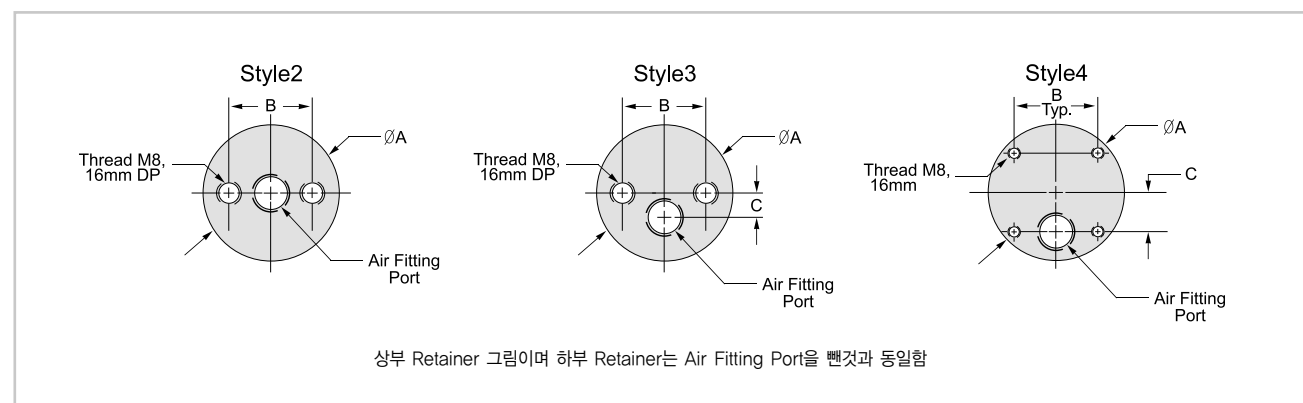
Metric 취부사양(mm) Type 삼단 Bellows 모델선정 기술자료

모델번호		ACTUATION 사양					방진 사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율		
			75 mm	150 mm	225 mm	최대 stroke				7.25 Hz	14.5 Hz	30 Hz
YI-3B12	320	337	39 160	32 250	26 700	12 905	23 130-31 580	90	280-381	94	98	99
YI-3B14	409	337	60 075	52 955	43 385	20 905	47 595-53 845	90	267-317	95	98	99

Metric 취부사양(mm) Type Bead Ring 모델선정 기술자료

모델번호		ACTUATION 사양					방진 사양					
제품번호	모델구별번호	최대사용 stroke (mm)	각 stroke 사용시 지지하중				방진하중범위 @7bars (N)	시스템 고유 주파수 (CPM)	적정사용 높이 (mm)	%주파수별 방진효율		
			50 mm	100 mm	200 mm	최대 stroke				7.25 Hz	14.5 Hz	30 Hz
YI-2B19	8423	222	114 700	103 600	60 000	47 600	78 700-105 400	100	178-254	92	97	99
YI-2B22	8529	235	155 680	137 890	93 400	65 800	123 300-141 000	95	178-228	93	97	99

End Retainer Styles



Metric Type 이단 Bellows 모델선정 기술자료

Bellows사양			취부사양			제품구성형태			모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A UPPER END PLATE. DIAM. (mm)	B BLIND TAP SPACING (mm)	C FILL PORT OFFSET (mm)	END RETAINER STYLE	AIR FITTING PORT (BSP)	INTERNAL BUMPER	모델구별번호	제품번호
166	72	196	123,0	44,5	-	2	1/4	NO	833	YI-2B6
178	82	231	123,0	70,0	-	3	1/4	NO	835	
204	64	229	127,0	70,0	-	2	1/4	NO	840	YI-2B7
224	82	257	149,0	70,0	-	2	1/4	NO	850	YI-2B8
262	89	274	162,6	89,0	44,5	3	1/4	NO	235	YI-2B9
262	89	310	162,6	89,0	44,5	3	1/4	NO	273	
331	89	282	228,6	157,5	72,9	3	1/4	NO	343	YI-2B12
348	89	365	228,6	157,5	72,9	3	1/4	NO	344	
384	89	287	287,0	157,8	79,4	4	1/4	NO	467	YI-2B14
407	89	386	287,0	158,8	79,4	4	1/4	NO	468	

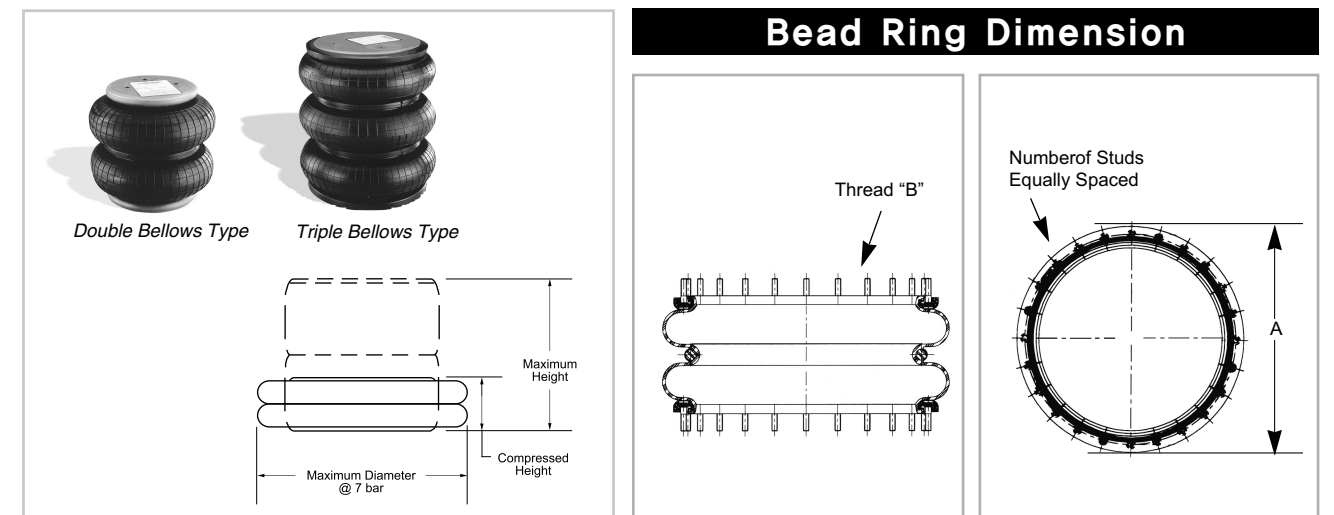
Metric Type 삼단 Bellows 모델선정 기술자료

Bellows사양			취부사양			제품구성형태			모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A UPPER END PLATE. DIAM. (mm)	B BLIND TAP SPACING (mm)	C FILL PORT OFFSET (mm)	END RETAINER STYLE	AIR FITTING PORT (BSP)	INTERNAL BUMPER	모델구별번호	제품번호
331	120	457	228,6	157,5	72,9	3	1/4	NO	320	YI-3B12
394	120	457	287,6	158,8	79,4	4	1/4	NO	409	YI-3B14

Metric Bead Ring Type 모델선정 기술자료

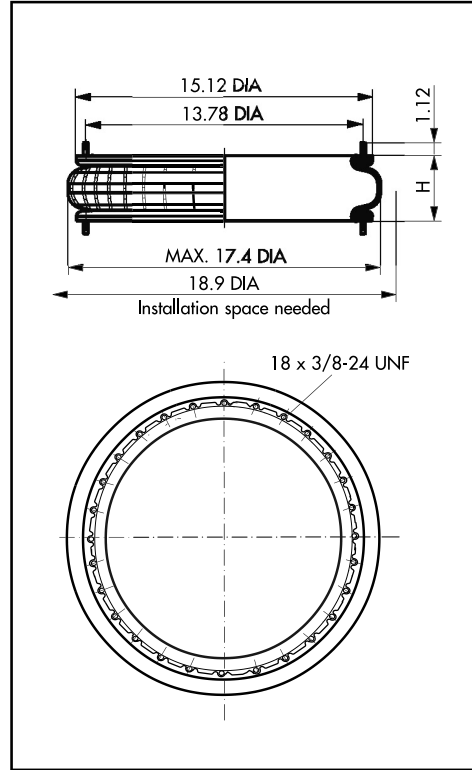
Bellows사양			취부사양			제품구성형태		모델번호	
최대지름 @7bars 사용시 (mm)	최소높이 (mm)	최대높이 (mm)	A MOUNTING DIAMETER (mm)	B THREAD (mm)	NUMBER OF STUDS	FLEX MEMBER		모델구별번호	제품번호
521,0	82,5	304,0	419,0	M10 X 1,5 x 52	24	Y6-556-23-8350		8423	YI-2B19
585,0	82,5	317,0	482,6	M10 X 1,5 x 52	24	Y6-556-23-8203		8529	YI-2B22

Bead Ring Dimension

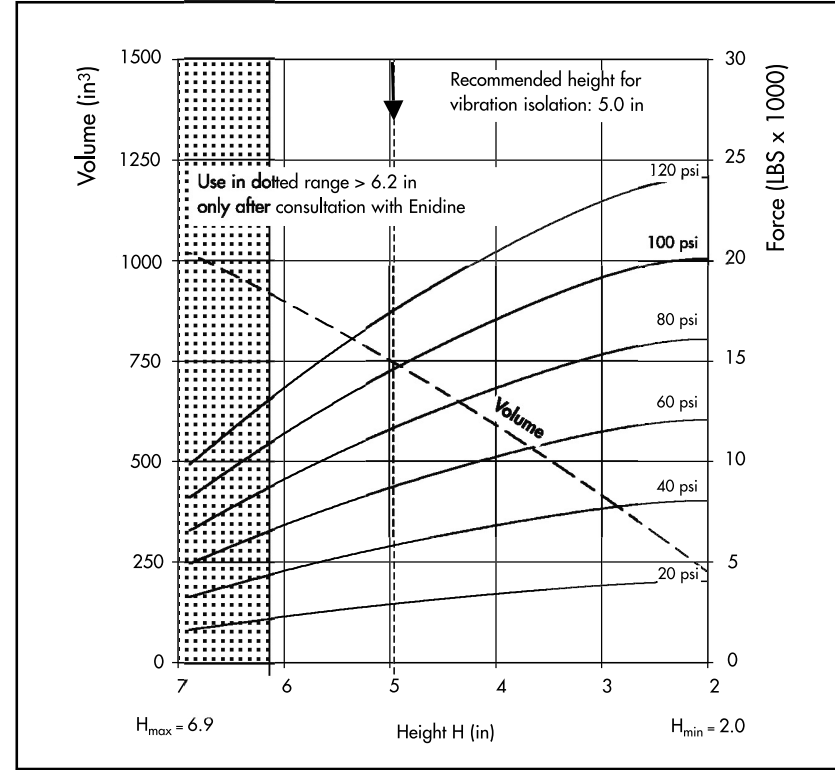


Single Convoluted Air Spring

YI-FS 960-12-478



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FS 960-12-478
Rubber bellows only	YR-FS 960-12-119

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 22 lbs
Overall weight with bead rings, bolts, nuts and washers	11 lbs

방진 사양 (동적인 상태)

Design height H: recommended 5 in, minimum 4.3 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	5780	8660	11550	14440	17330	754
Spring Rate (lbs/in)	3123	4529	5820	7176	8580	
Natural Frequency (Hz)	2.2	2.2	2.2	2.2	2.2	

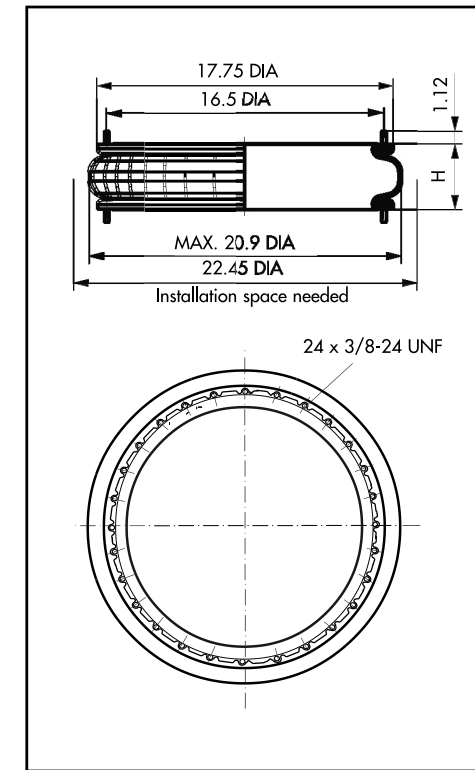
실린더 사양 (정적인 상태)

Force F (lbs)

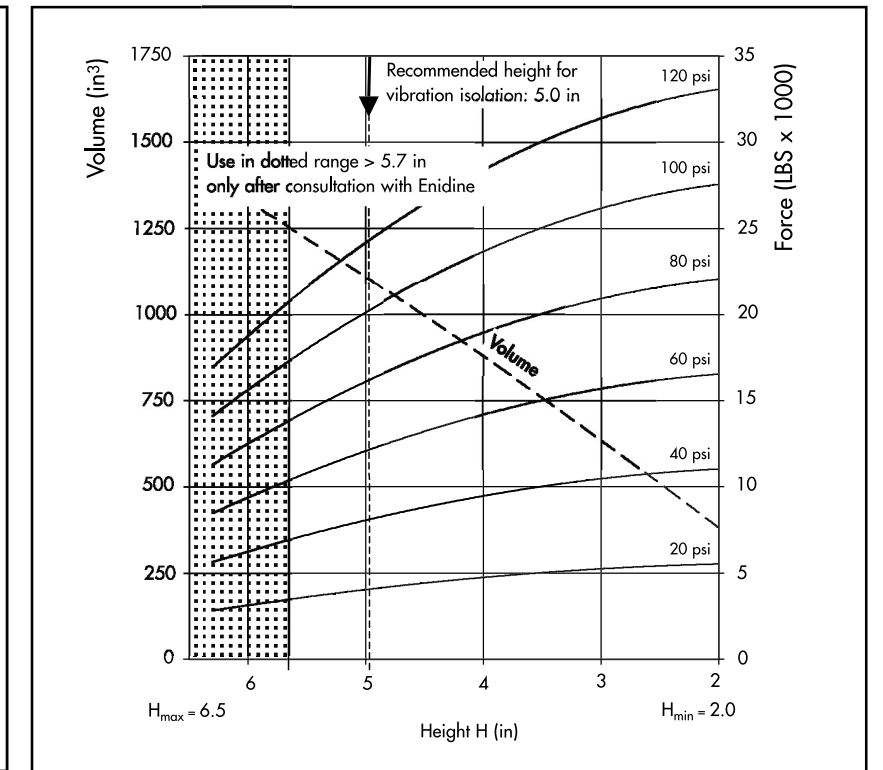
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	6	2280	4570	6850	9130	11420	892
	5.5	2610	5210	7820	10430	13040	822
	5	2890	5780	8660	11550	14440	754
	4.5	3150	6300	9450	12600	15750	675
	4	3390	6780	10170	13570	16960	591
	3.5	3640	7270	10910	14550	18180	500
	3	3820	7640	11460	15280	19100	412

Single Convoluted Air Spring

YI-FS 1330-11-197



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FS 1330-11-197
Rubber bellows only	YR-FS 1330-11-135

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 20 lbs
Overall weight with bead rings, bolts, nuts and washers	16.1 lbs

방진 사양 (동적인 상태)

Design height H: recommended 5.0 in, minimum 4.1 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	8040	12060	16080	20100	24120	1114
Spring Rate (lbs/in)	4268	6218	8025	9932	11722	
Natural Frequency (Hz)	2.2	2.2	2.2	2.2	2.2	

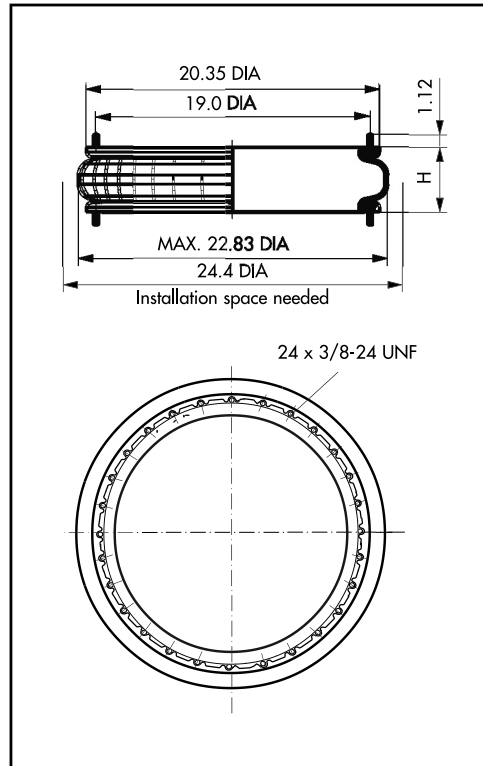
실린더 사양 (정적인 상태)

Force F (lbs)

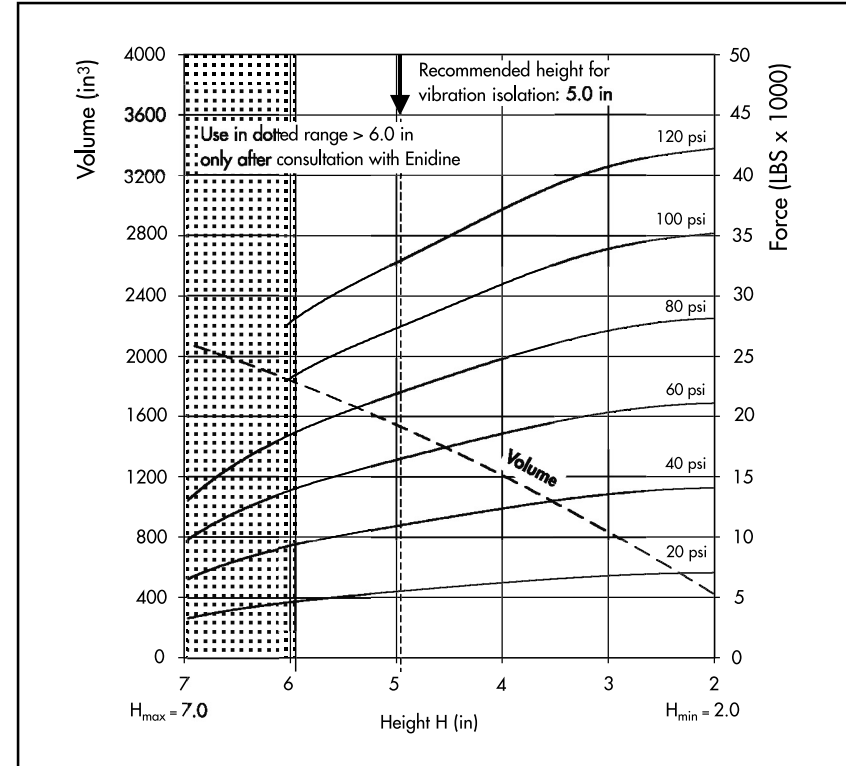
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	5.5	3620	7230	10850	14470	18080	1224
	5	4020	8040	12060	16080	20100	1112
	4.5	4370	8740	13110	17480	21850	994
	4	4720	9440	14150	18870	23590	871
	3.5	5010	10030	15040	20050	25060	766
	3	5240	10480	15720	20970	26210	632

Single Convoluted Air Spring

YI-FS 1710-12-727



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FS 1710-12-727
Rubber bellows only	YR-FS 1710-12-726

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 27 lbs
Overall weight with bead rings, bolts, nuts and washers	19.2 lbs

방진 사양 (동적인 상태)

Design height H: recommended 5 in, minimum 4.3 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	10900	16350	21800	27250	32700	1544
Spring Rate (lbs/in)	5349	7606	9770	12114	14456	
Natural Frequency (Hz)	2.2	2.2	2.1	2.1	2.1	

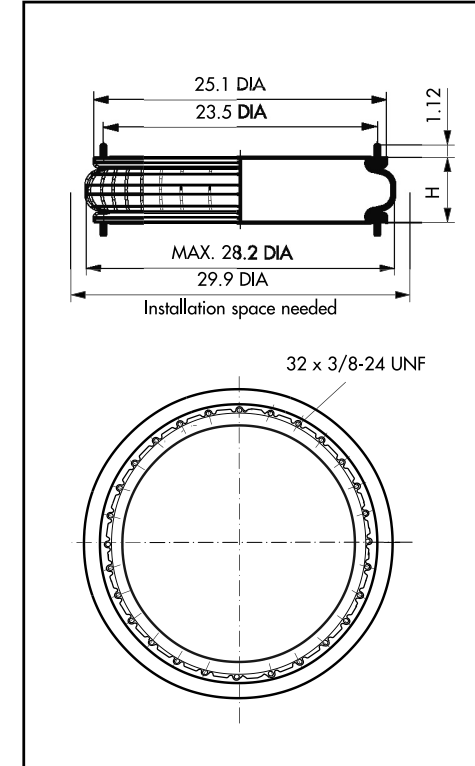
실린더 사양 (정적인 상태)

Force F (lbs)

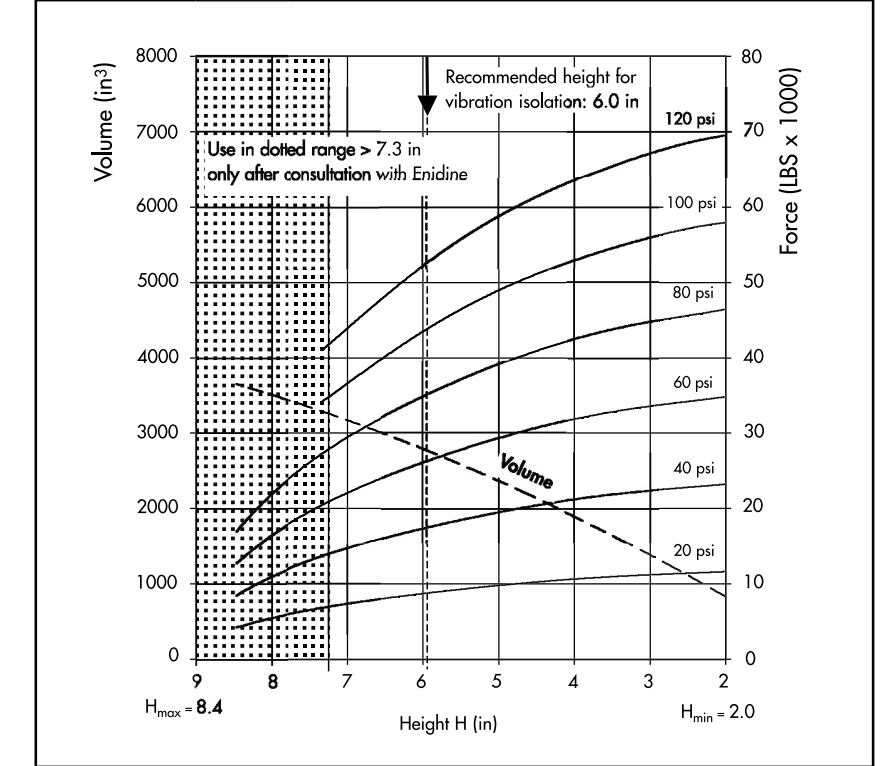
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	6	4620	9250	13870	18500	23120	1836
	5	5450	10900	16350	21800	27250	1544
	4	6190	12390	18580	24780	30970	1195
	3	6760	13510	20270	27020	33780	842

Single Convoluted Air Spring

YI-FS 2870-16-737



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FS 2870-16-737
Rubber bellows only	YR-FS 2870-16-147

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 151 lbs
Overall weight with bead rings, bolts, nuts and washers	24.5 lbs

방진 사양 (동적인 상태)

Design height H: recommended 6.0 in, minimum 5.1 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	17290	25940	34580	43230	51870	2797
Spring Rate (lbs/in)	7380	10405	13461	16000	18543	
Natural Frequency (Hz)	2.0	2.0	1.9	1.9	1.9	

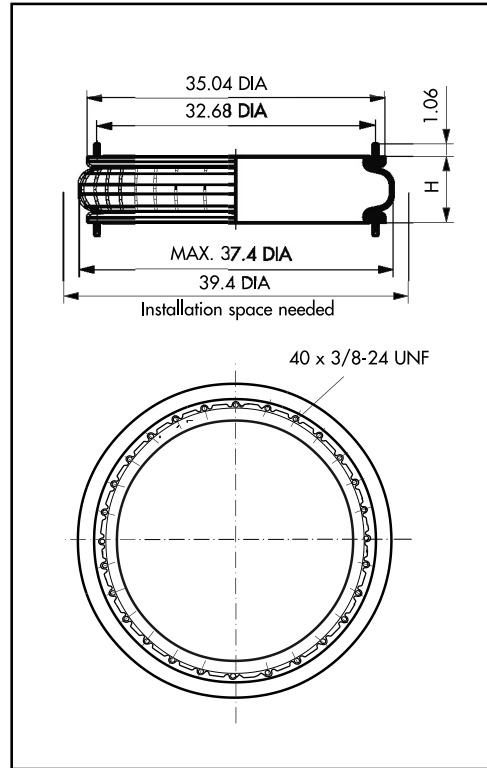
실린더 사양 (정적인 상태)

Force F (lbs)

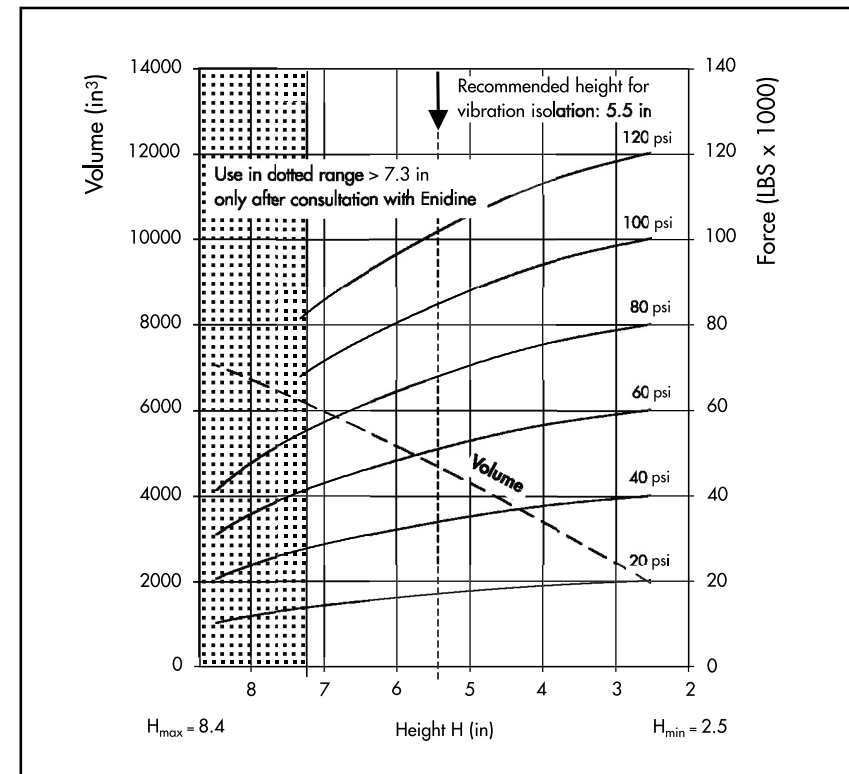
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	7	7340	14680	22020	29370	36710	3173
	6	8650	17290	25940	34580	43230	2797
	5	9790	19570	29360	39140	48930	2371
	4	10560	21130	31690	42250	52820	1865
	3	11160	22330	33490	44650	55810	1364

Single Convoluted Air Spring

YI-FS 5450-16-601



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FS 5450-16-601
Rubber bellows only	YR-FS 5450-16-021

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 310 lbs
Overall weight with bead rings, bolts, nuts and washers	48.5 lbs

방진 사양 (동적인 상태)

Design height H: recommended 5.5 in, minimum 4.7 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	33810	50720	67630	84530	101440	4713
Spring Rate (lbs/in)	13532	19511	25290	30229	35739	
Natural Frequency (Hz)	2.0	2.0	1.9	1.9	1.9	

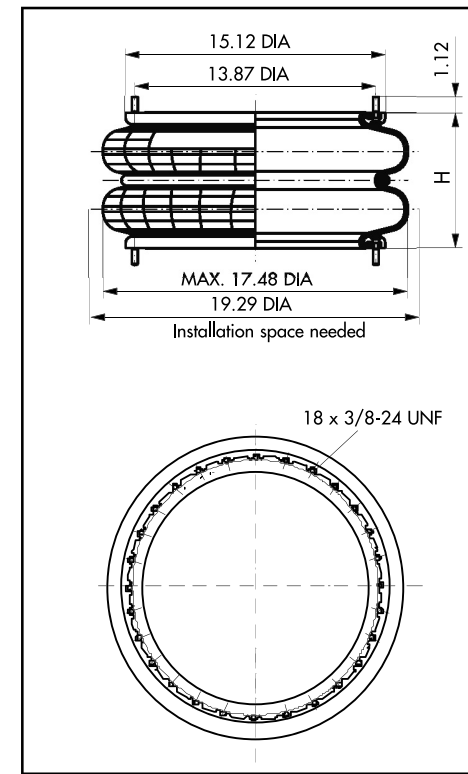
실린더 사양 (정적인 상태)

Force F (lbs)

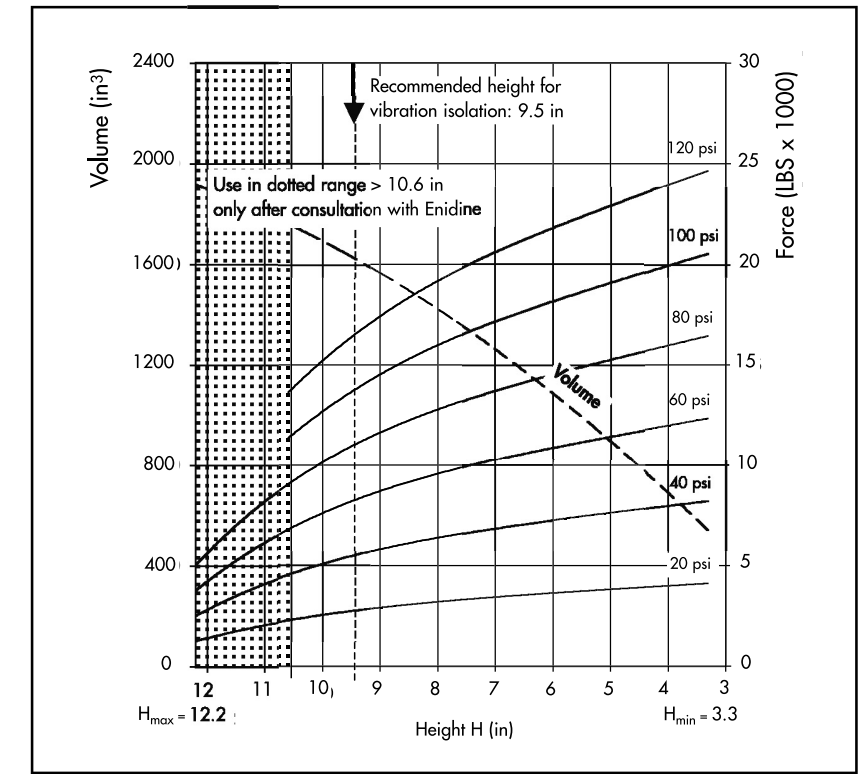
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	7	14280	28570	42850	57140	71420	6006
	6	16080	32160	48240	64320	80400	5162
	5	17580	35150	52730	70310	87890	4271
	4	18850	37710	56560	75410	94270	3410
	3	19710	39420	59130	78840	98550	2412

Double Convoluted Air Spring

YI-FD 960-22-191



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FD 960-22-191
Rubber bellows only	YR-FD 960-22-925

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 45 lbs
Overall weight with bead rings, bolts, nuts and washers	19 lbs

방진 사양 (동적인 상태)

Design height H: recommended 9.5 in, minimum 8.7 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	5450	8180	10900	13630	16350	1655
Spring Rate (lbs/in)	1638	2303	3005	3633	4317	
Natural Frequency (Hz)	1.7	1.7	1.6	1.6	1.6	

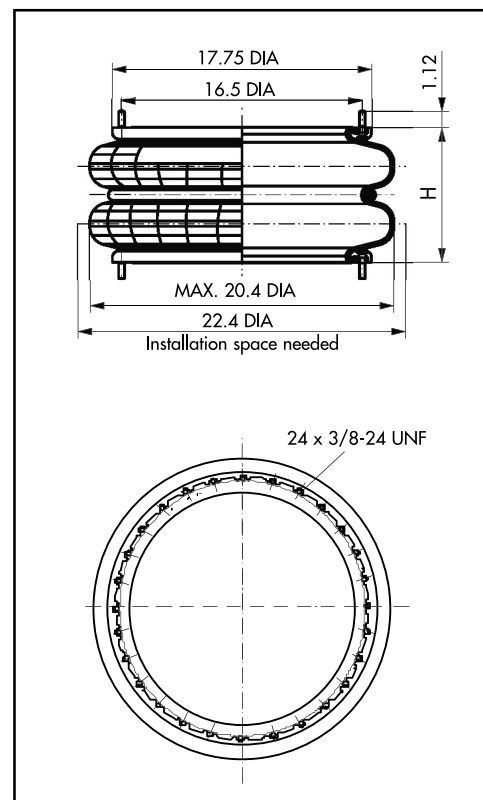
실린더 사양 (정적인 상태)

Force F (lbs)

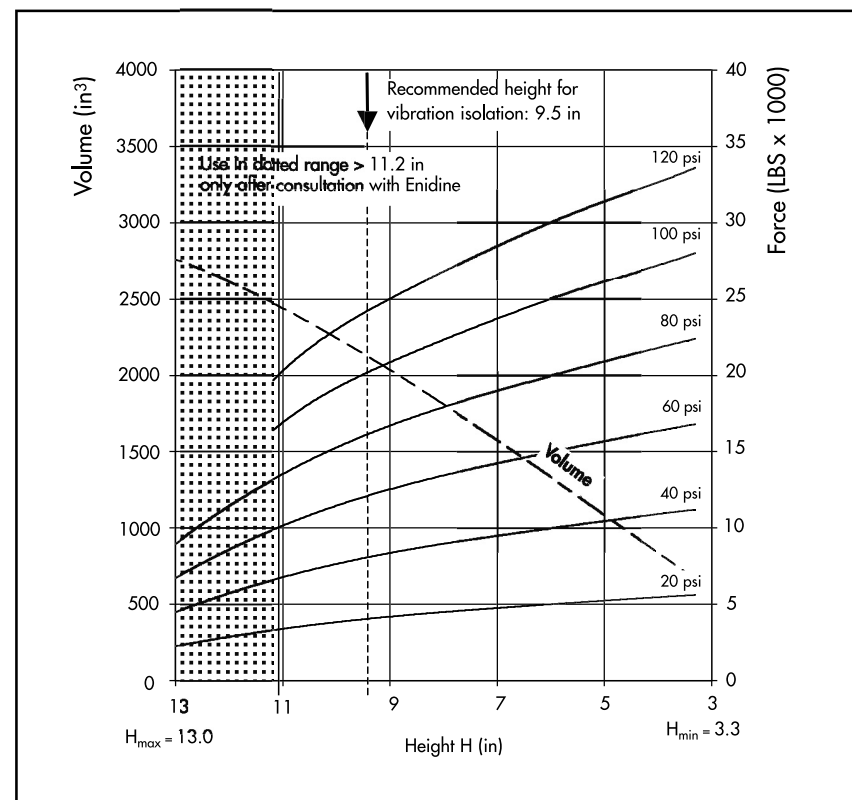
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	10	2520	5040	7560	10080	12600	1687
	9	2890	5790	8680	11580	14470	1566
	8	3190	6380	9560	12750	15940	1423
	7	3420	6840	10260	13680	17100	1265
	6	3630	7260	10890	14510	18140	1081
	5	3800	7610	11410	15220	19020	896
	4	3990	7980	11970	15960	19950	688

Double Convoluted Air Spring

YI-FD 1330-25-227



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FD 1330-25-227
Rubber bellows only	YR-FD 1330-25-205

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 40 lbs
Overall weight with bead rings, bolts, nuts and washers	23.8 lbs

방진 사양 (동적인 상태)

Design height H: recommended 9.5 in, minimum 8.7 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	7990	11990	15990	19980	23980	2145
Spring Rate (lbs/in)	2173	3171	4101	4915	5882	
Natural Frequency (Hz)	1.6	1.6	1.5	1.5	1.5	

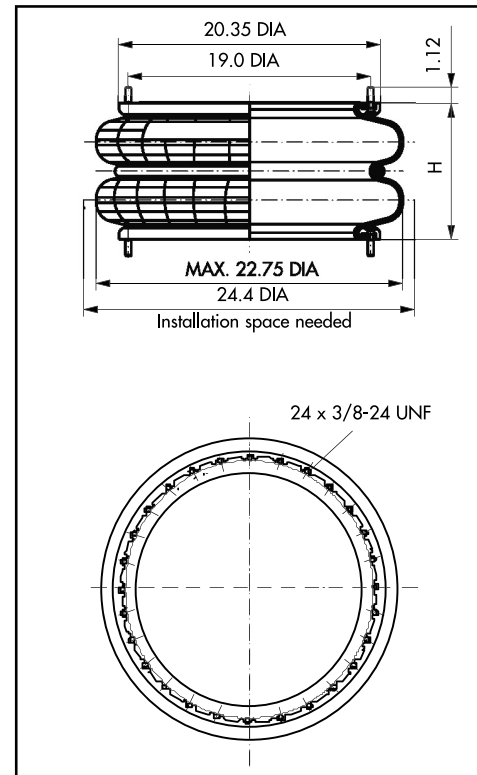
실린더 사양 (정적인 상태)

Force F (lbs)

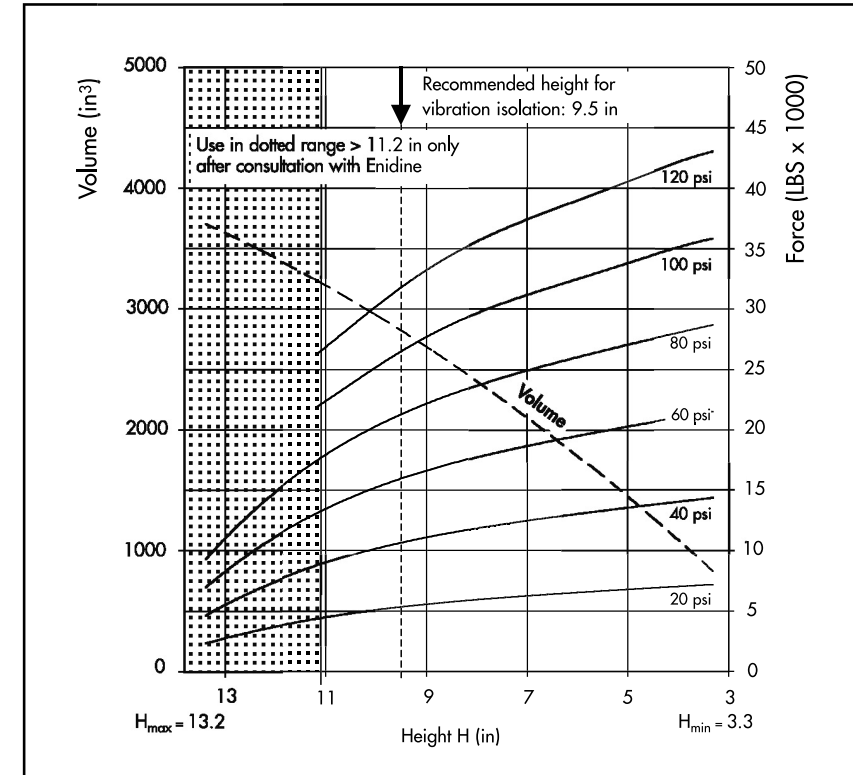
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	11	3360	6710	10070	13430	16780	2440
	10	3930	7860	11790	15720	19650	2236
	9	4180	8360	12550	16730	20910	2050
	8	4470	8930	13400	17870	22330	1821
	7	4760	9510	14270	19030	23780	1565
	6	4980	9970	14950	19930	24910	1334
	5	5220	10440	15660	20880	26100	1083

Double Convoluted Air Spring

YI-FD 1710-25-203



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FD 1710-25-203
Rubber bellows only	YR-FD 1710-25-902

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 70 lbs
Overall weight with bead rings, bolts, nuts and washers	26.5 lbs

방진 사양 (동적인 상태)

Design height H: recommended 9.5 in, minimum 8.7 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	10580	15860	21150	26440	31730	2820
Spring Rate (lbs/in)	2814	4027	5266	6299	7417	
Natural Frequency (Hz)	1.6	1.6	1.6	1.5	1.5	

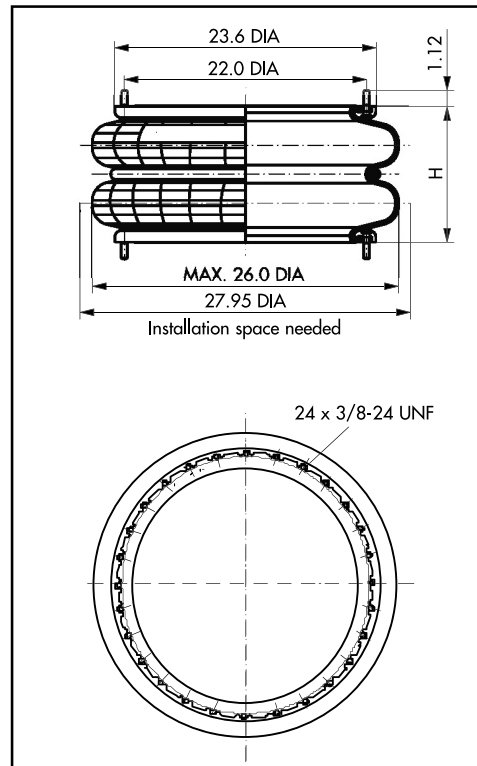
실린더 사양 (정적인 상태)

Force F (lbs)

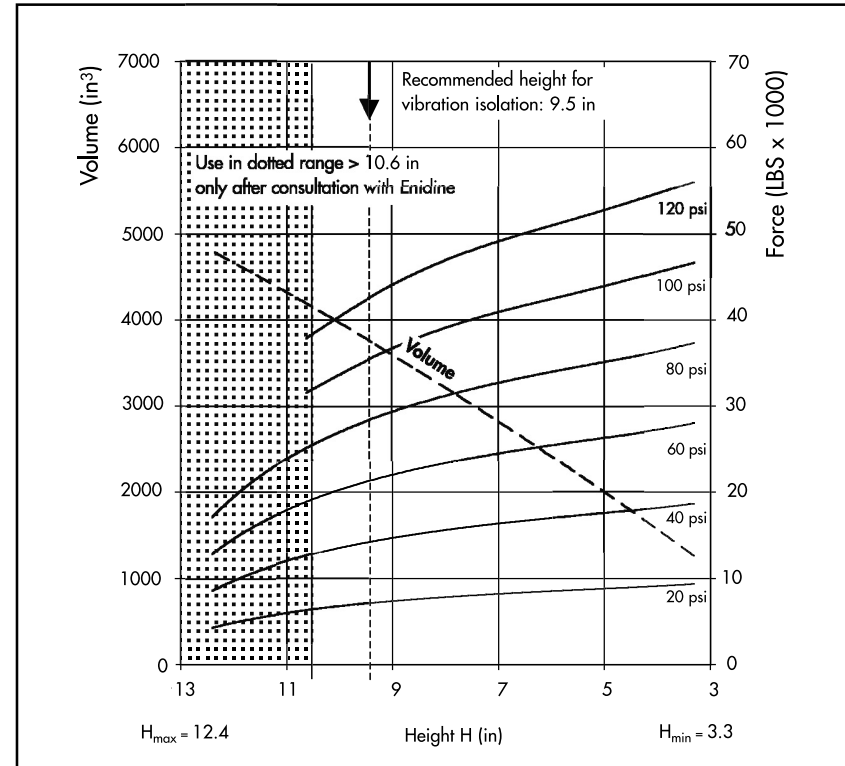
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	10	5020	10040	15050	20070	25090	2943
	8	5920	11840	17760	23680	29600	2407
	6	6490	12990	19480	25970	32460	1781
	4	7010	14020	21020	28030	35040	1076

Double Convoluted Air Spring

YI-FD 2380-24-772

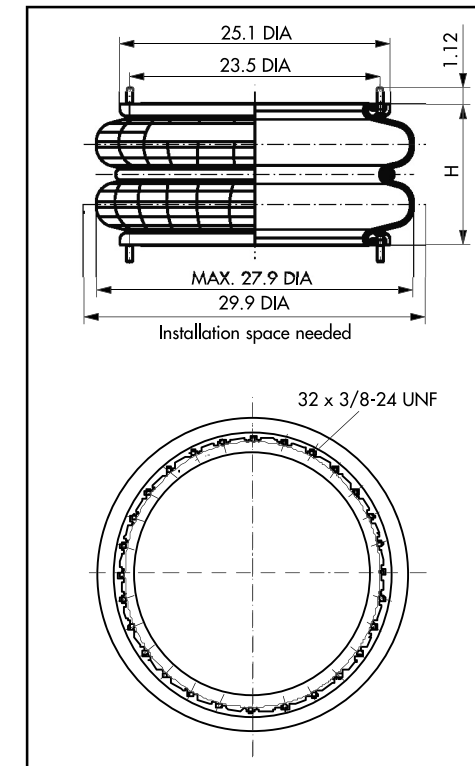


Force-Height-diagram

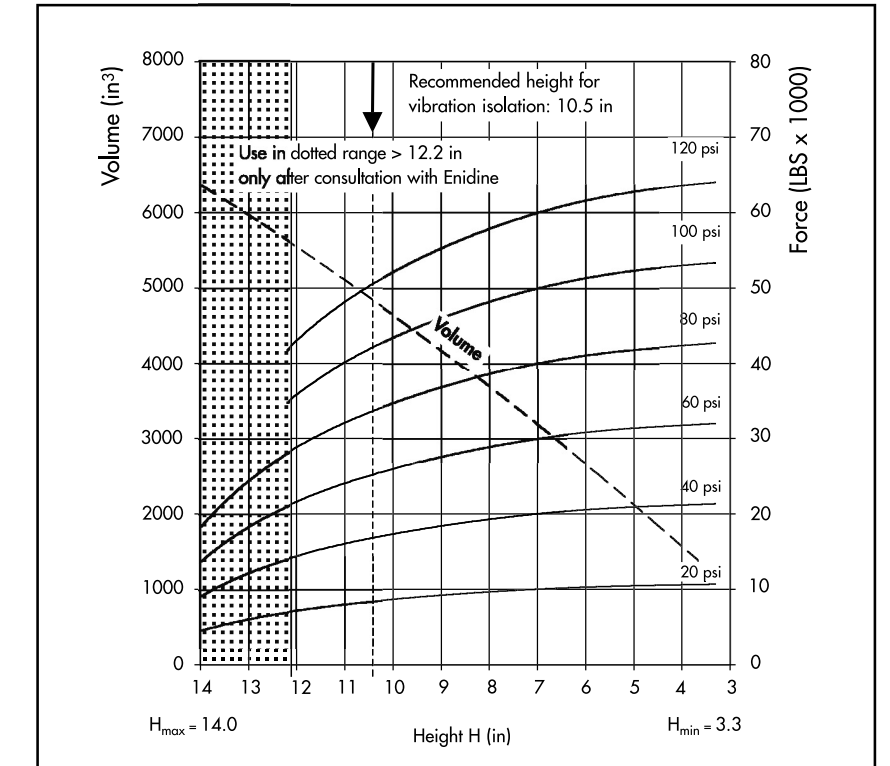


Double Convoluted Air Spring

YI-FD 2870-30-230



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FD 2380-24-772
Rubber bellows only	YR-FD 2380-24-126

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤100 lbs
Overall weight with bead rings, bolts, nuts and washers	31 lbs

방진 사양 (통적인 상태)

Design height H: recommended 9.5 in, minimum 8.7 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	14090	21130	28180	35220	42260	3778
Spring Rate (lbs/in)	3790	5344	7004	8391	10009	
Natural Frequency (Hz)	1.6	1.6	1.6	1.5	1.5	

실린더 사양 (정적인 상태)

Force F (lbs)

Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	10	6730	13470	20200	26930	33670	3968
	9	7310	14620	21930	29240	36550	3602
	8	7830	15650	23480	31300	39130	3223
	7	8160	16310	24470	32620	40780	2836
	6	8480	16970	25450	33940	42420	2407
	5	8780	17560	26350	35130	43910	1989
	4	9100	18210	27310	36420	45520	1567

주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FD 2870-30-230
Rubber bellows only	YR-FD 2870-30-912

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤157 lbs
Overall weight with bead rings, bolts, nuts and washers	34 lbs

방진 사양 (통적인 상태)

Design height H: recommended 10.5 in, minimum 9.6 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	16700	25050	33400	41750	50100	4884
Spring Rate (lbs/in)	4058	5817	7420	8734	10452	
Natural Frequency (Hz)	1.5	1.5	1.5	1.4	1.4	

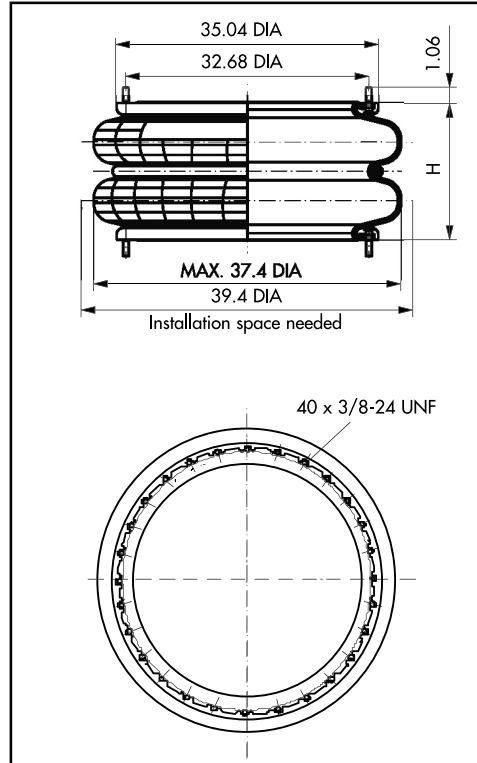
실린더 사양 (정적인 상태)

Force F (lbs)

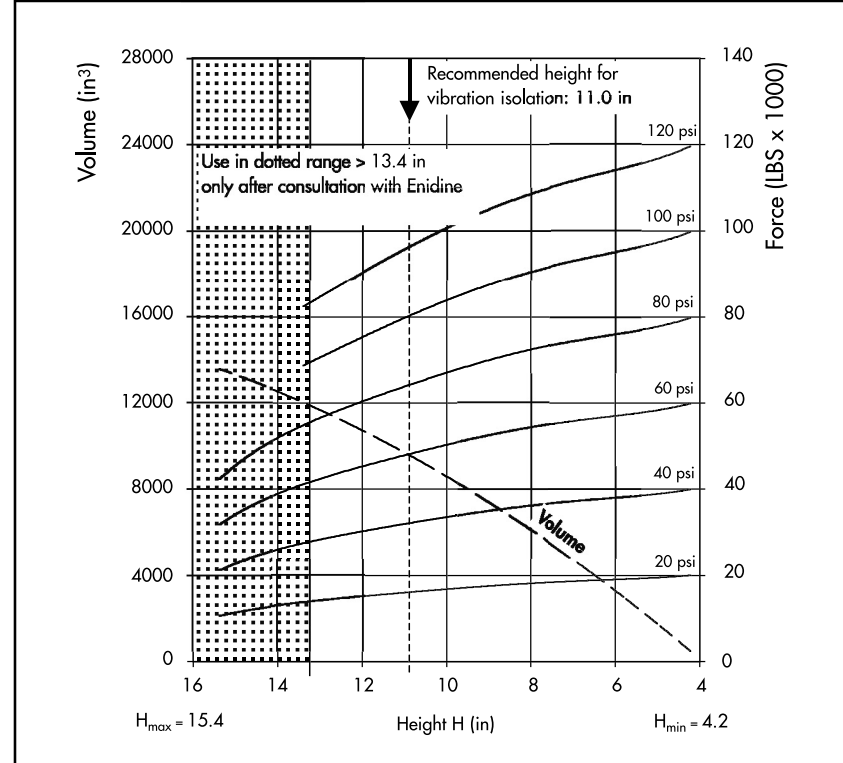
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	12	7130	14270	21400	28540	35670	5521
	10	8640	17290	25930	34570	43210	4647
	8	9640	19280	28930	38570	48210	3702
	6	10230	20460	30690	40920	51150	2657
	4	10590	21170	31760	42340	52930	1549

Double Convoluted Air Spring

YI-FD 5450-28-602

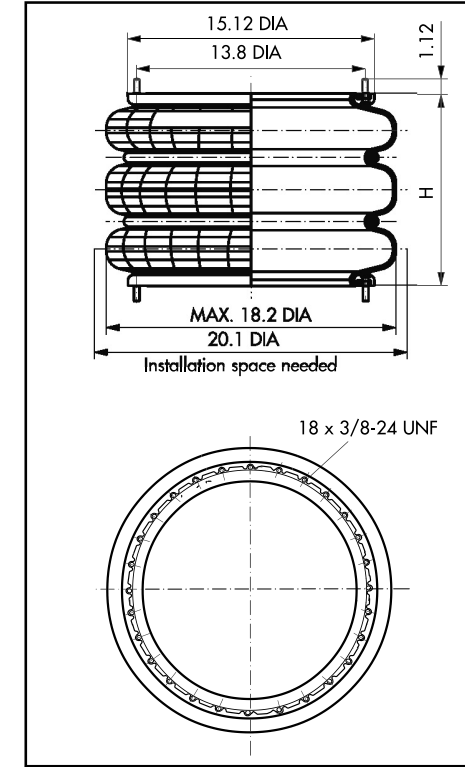


Force-Height-diagram

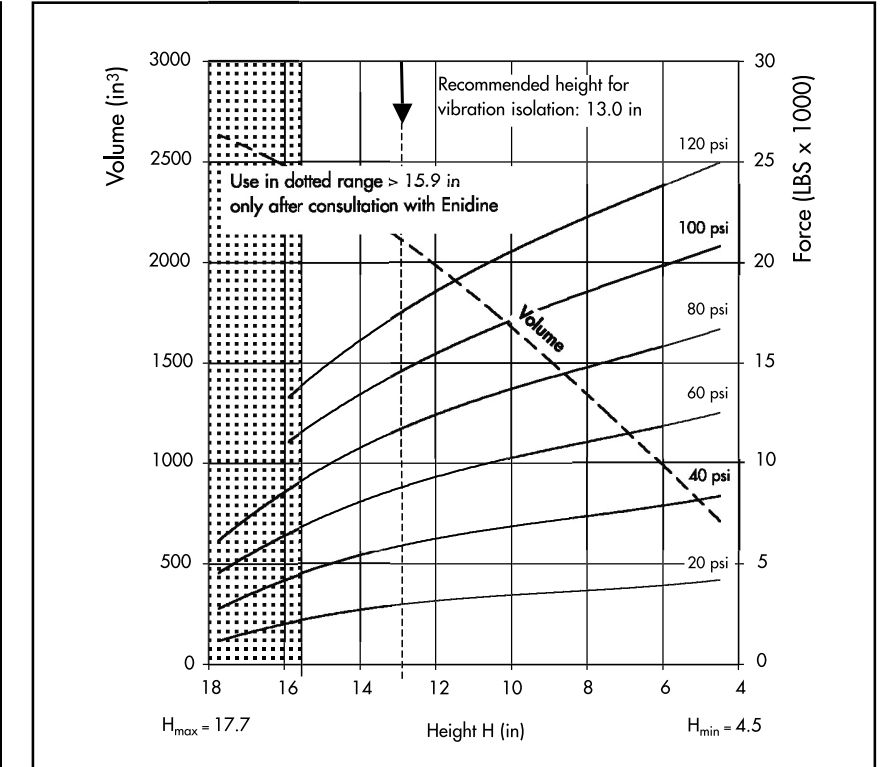


Triple Convoluted Air Spring

YI-FT 960-34-761



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FD 5450-28-602
Rubber bellows only	YR-FD 5450-28-022

Additional types on request
Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 350 lbs
Overall weight with bead rings, bolts, nuts and washers	72.5 lbs

방진 사양 (동적인 상태)

Design height H: recommended 11 in, minimum 10.2 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	31720	47590	63450	79310	95170	9577
Spring Rate (lbs/in)	6661	9336	12195	14533	17173	
Natural Frequency (Hz)	1.4	1.4	1.4	1.3	1.3	

실린더 사양 (정적인 상태)

Force F (lbs)

Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	13	14120	28240	42350	56470	70590	11677
	11	15860	31720	47590	63450	79310	9577
	9	17490	34990	52480	69980	87470	7385
	7	18520	37040	55560	74080	92600	4788
	5	19530	39070	58600	78130	97660	1789

주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FT 960-34-761
Rubber bellows only	YR-FT 960-34-914

Additional types on request
Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 135 lbs
Overall weight with bead rings, bolts, nuts and washers	21 lbs

방진 사양 (동적인 상태)

Design height H: recommended 13 in, minimum 12.4 in

Pressure p (psi)	40	60	80	100	120	Vol. V (in³)
Force (Load) (lbs)	5770	8650	11530	14420	17300	2125
Spring Rate (lbs/in)	1144	1659	2079	2610	3029	
Natural Frequency (Hz)	1.4	1.3	1.3	1.3	1.3	

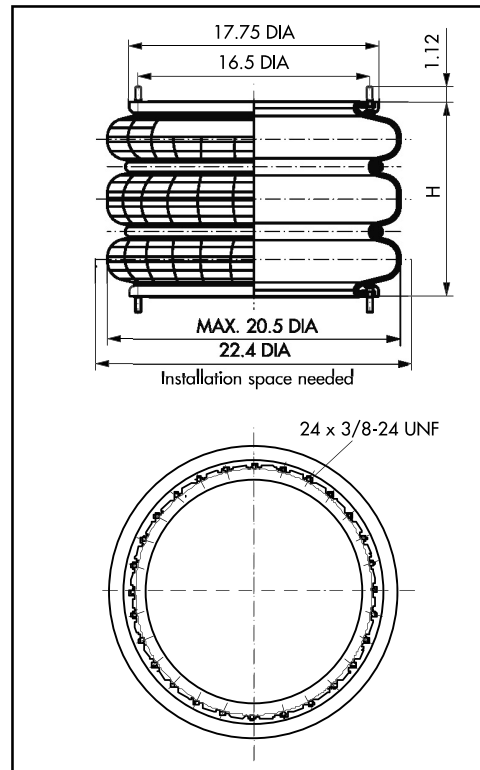
실린더 사양 (정적인 상태)

Force F (lbs)

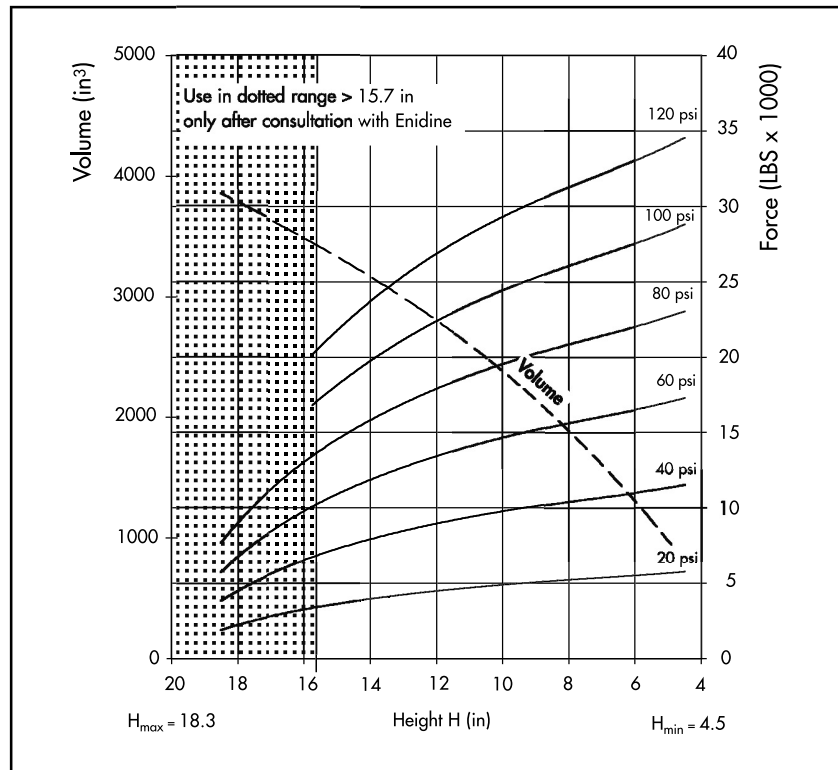
Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
Height H (in)	15	2420	4830	7250	9670	12080	2368
	13	2880	5770	8650	11530	14420	2125
	11	3270	6530	9800	13070	16330	1846
	9	3560	7130	10690	14250	17820	1511
	7	3830	7650	11480	15300	19130	1161

Triple Convuluted Air Spring

YI-FT 1330-35-823

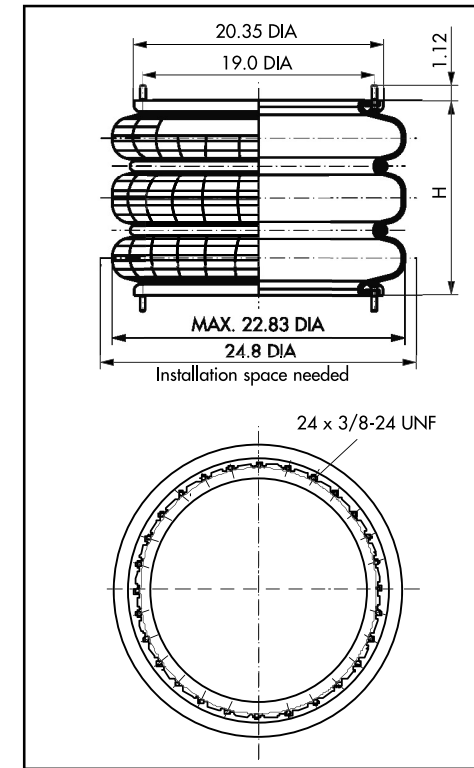


Force-Height-diagram

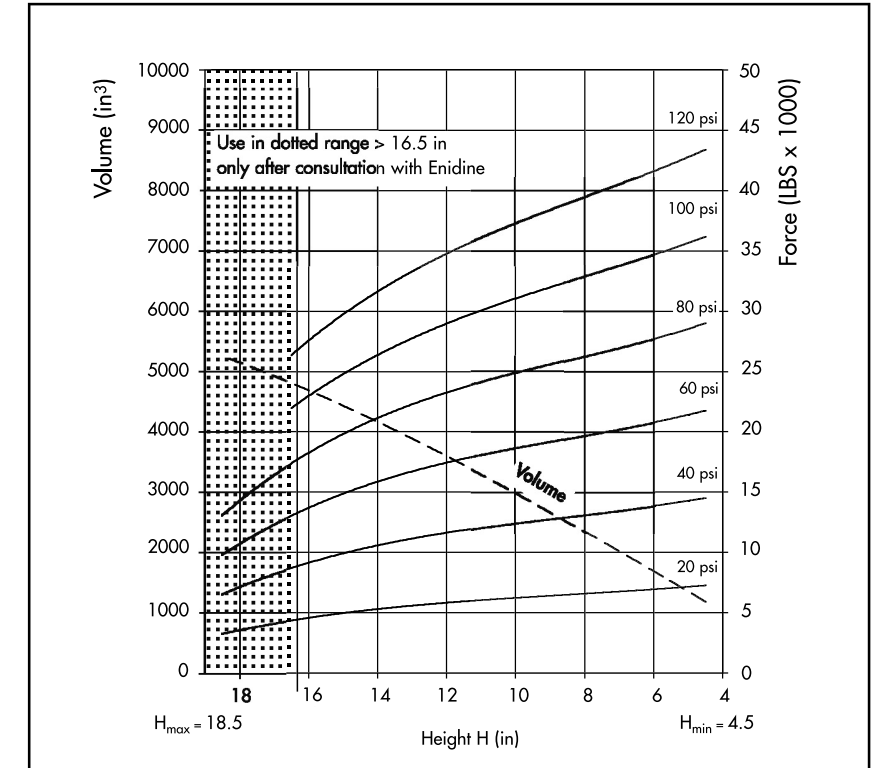


Triple Convuluted Air Spring

YI-FT 1710-38-324



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FT 1330-35-823
Rubber bellows only	YR-FT 1330-35-921

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 70 lbs
Overall weight with bead rings, bolts, nuts and washers	27.6 lbs

실린더 사양 (정적인 상태)

Force F (lbs)		20	40	60	80	100	120	Vol. (in³)
Height H (in)	15	3620	7240	10860	14480	18100	21720	3321
	13	4240	8480	12730	16970	21210	25450	2991
	11	4680	9360	14040	18720	23400	28080	2618
	9	5050	10100	15150	20200	25250	30310	2145
	7	5350	10710	16060	21410	26770	32120	1594
	5	5660	11330	16990	22660	28320	33980	950

주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FT 1710-38-324
Rubber bellows only	YR-FT 1710-38-987

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

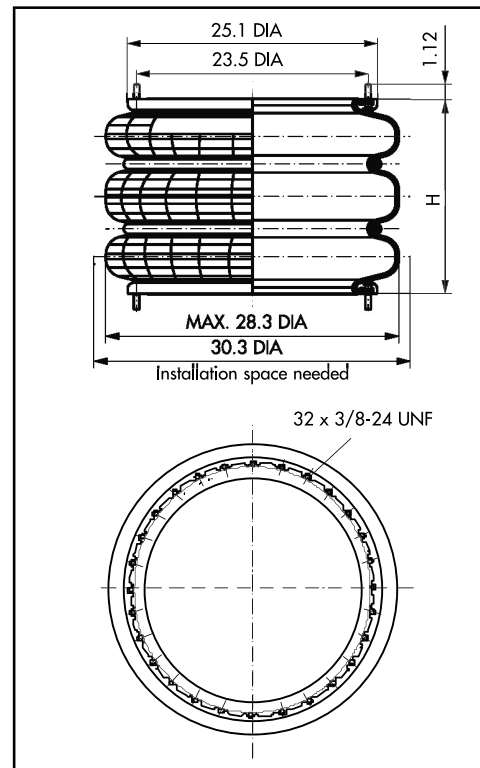
Min. Pressure	0 psi
Return Force to min. height	≤ 90 lbs
Overall weight with bead rings, bolts, nuts and washers	32 lbs

실린더 사양 (정적인 상태)

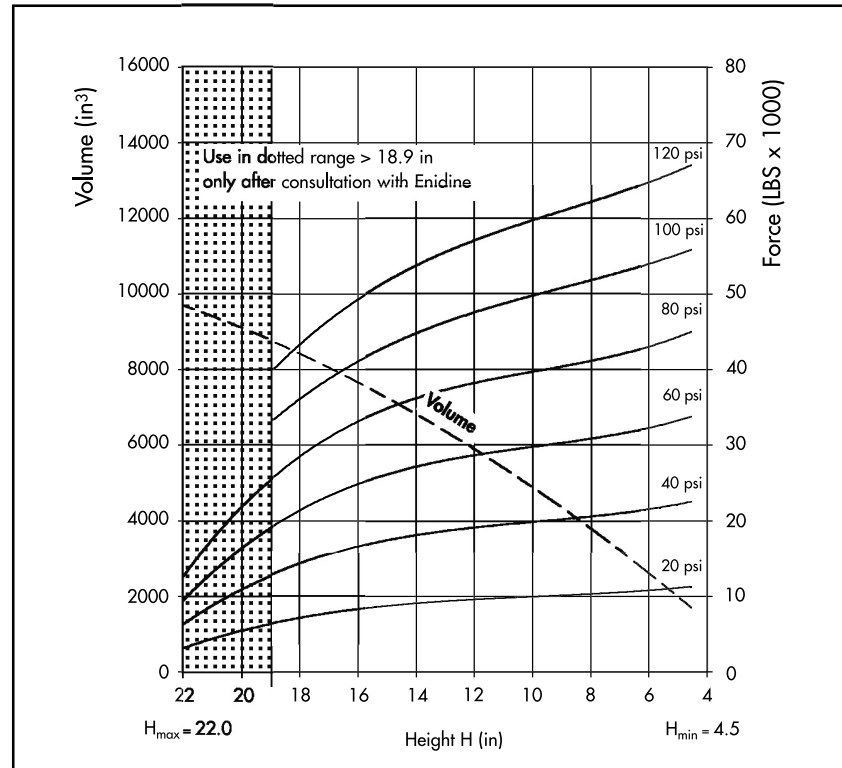
Force F (lbs)		20	40	60	80	100	120	Vol. (in³)
Height H (in)	15	4940	9880	14820	19760	24700	29640	4419
	13	5550	11100	16660	22210	27760	33310	3907
	11	6010	12030	18040	24060	30070	36090	3285
	9	6360	12720	19090	25450	31810	38170	2668
	7	6750	13500	20260	27010	33760	40510	2029

Triple Convuluted Air Spring

YI-FT 2870-45-304

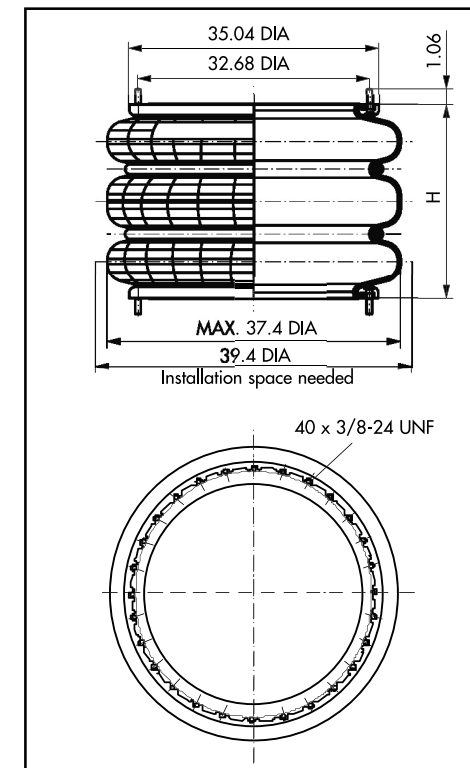


Force-Height-diagram

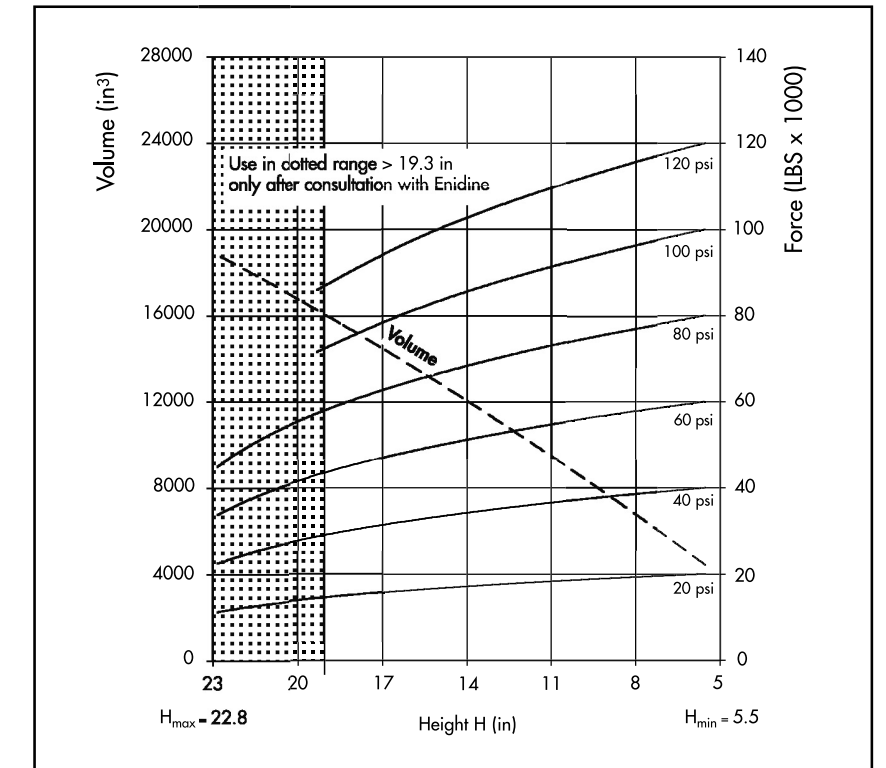


Triple Convuluted Air Spring

YI-FT 5450-44-603



Force-Height-diagram



주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FT 2870-45-304
Rubber bellows only	YR-FT 2870-45-919

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 180 lbs
Overall weight with bead rings, bolts, nuts and washers	38 lbs

실린더 사양 (정적인 상태)

Height H (in)	Force F (lbs)							
	Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
18	7180	14370	21550	28730	35920	43100	8500	
15	8580	17160	25750	34330	42910	51490	7251	
12	9510	19010	28520	38020	47530	57040	6015	
9	10120	20240	30360	40480	50590	60710	4124	
6	10820	21640	32470	43290	54110	64930	2440	

주문 사양

Type	Part Number
Bellows with bead rings, 1 7/8 bolts, nuts and washers	YI-FT 5450-44-603
Rubber bellows only	YR-FT 5450-44-023

Additional types on request

Service Instruction:
3/8-24 UNF = 28-32 FT-LBS

기술 자료

Min. Pressure	0 psi
Return Force to min. height	≤ 380 lbs
Overall weight with bead rings, bolts, nuts and washers	97 lbs

실린더 사양 (정적인 상태)

Height H (in)	Force F (lbs)							
	Pressure p (psi)	20	40	60	80	100	120	Vol. (in³)
18	15080	30170	45250	60340	75420	90500	15381	
16	16190	32380	48560	64750	80940	97130	13705	
14	17090	34190	51280	68380	85470	102560	12000	
12	17880	35770	53650	71530	89410	107300	10289	
10	18590	37170	55760	74340	92930	111520	8564	
8	19290	38590	57880	77180	96470	115760	6810	
6	19850	39700	59550	79390	99240	119090	4893	

EMA Air Mounts 방진효율이 탁월한 전문 방진 제품



■ 제품의 특징

- 공기 주입식(1~7bar) 전문방진재
- 낮은 고유진동수(2~3Hz)로 저진동 및 고진동에 탁월한 성능 발휘
- 50~4000kg까지의 넓은 하중범위

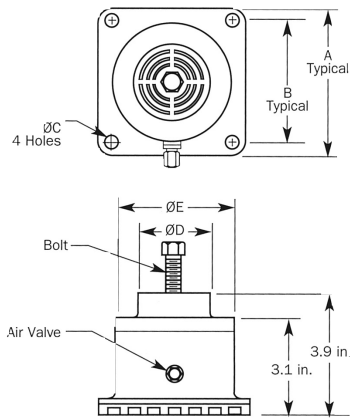
■ 제품의 구성

Resilient Element	Neoprene
Metal Structure	Structure Steel

■ 사용온도 범위 : -10°C ~ 60°C (15°F to 140°F)

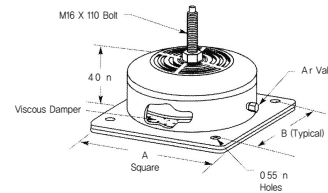
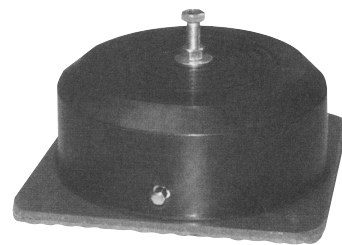
■ Air Mounts 사용예

- CMM 기계
- 공기 압축기
- 대형기계류(프레스)및 정밀기기



Part No.	Load Range (lbs.)	Part Dimensions(in.)					Bolt Size	Weight (lbs.)
		A	B	C	D	E		
EMA-2	100-200	4.92	3.94	.47	1.97	3.94	M10×40	4.2
EMA-4	200-400	4.92	3.94	.47	2.36	3.94	M12×50	4.4
EMA-8	400-800	6.30	4.92	.47	3.54	5.43	M12×50	7.7
EMA-15	800-1 500	7.87	6.30	.47	4.33	6.46	M12×50	11.7
EMA-25	1 400-2 500	9.84	7.87	.55	5.91	8.35	M16×60	15.4
EMA-45	2 400-4 500	13.78	11.81	.55	9.45	12.36	M16×60	34.2
EMA-75	4 000-7 500	17.72	15.75	.55	12.99	16.22	M16×60	83.3

AMC AIR MOUNTS



■ 제품의 구성

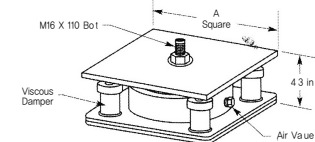
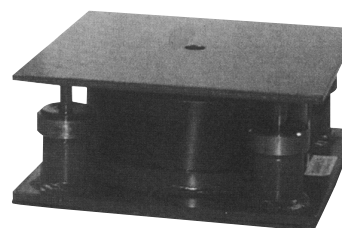
Resilient Element	Neoprene
Metal Structure	Structure Steel

■ 사용온도 범위 : -10°C ~ 60°C (15°F to 140°F)

■ 제품의 구성

Part No.	Load Range (lbs)	Part Dimension(in.)	
		A	B
AMC-25	1,400-2,500	9.84	7.87
AMC-45	2,400-4,500	13.78	11.81

AMB AIR MOUNTS



■ 제품의 구성

Resilient Element	Neoprene
Metal Structure	Structure Steel

■ 사용온도 범위 : -10°C ~ 60°C (15°F to 140°F)

■ 제품의 구성

Part No.	Load Range (lbs)	Part Dimension(in.)
AMB-25	1,400-2,500	A 11.8
AMB-45	2,400-4,500	A 15.7
AMB-75	4,000-7,500	A 19.7