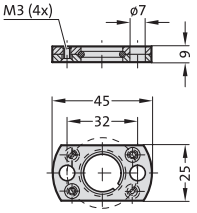
Gas Spring
POWER LINE

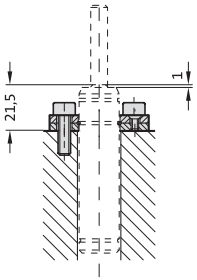
- Temperature upto 80°C

Gas Spring POWERLINE
Mounting variations

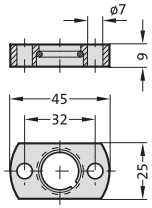
2480.051.03.00030



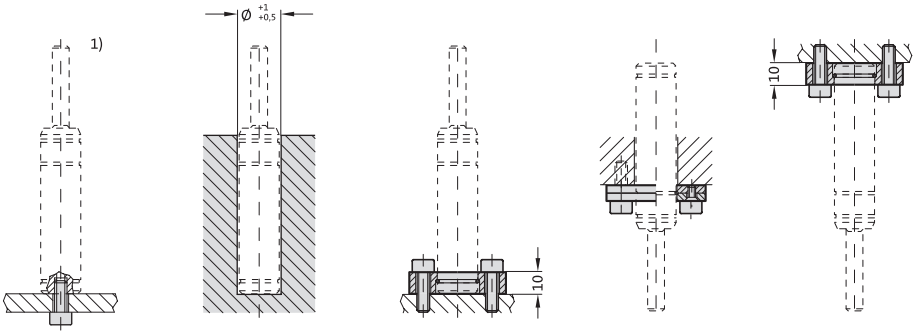
2480.051.03.00030



2480.052.00030



Mounting examples:



Gas spring POWERLINE

Note:

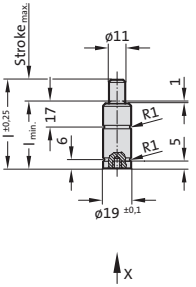
Initial spring force at 180 bar = 170 daN

Worn gas springs cannot be repaired, they have to be replaced completely.

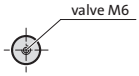
1) Fixing at bottom thread only recommanded for stroke length up to 50 mm.

Pressure medium: Nitrogen N_2
Max. filling pressure: 180 bar
Min. filling pressure: 25 bar
Working temperature: 0°C to +80°C
Temperature related force increase: ± 0.3%/°C
Max. recommended extensions per minute: approx. 40 to 100 (at 20°C)
Max. piston speed: 1.6 m/s

2487.12.00170.



View X



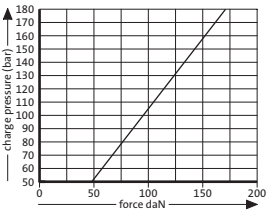
APPROVED PED 2014/68/EU | VDI | ISO

S>max | V>max | P>max

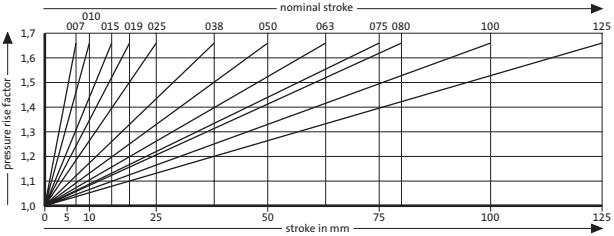
2487.12.00170.
Gas spring POWERLINE

Order No	Stroke max.	l min.	l
2487.12.00170.007	7	37	44
2487.12.00170.010	10	40	50
2487.12.00170.015	15	45	60
2487.12.00170.019	19	49	68
2487.12.00170.025	25	55	80
2487.12.00170.038	38	68	106
2487.12.00170.050	50	80	130
2487.12.00170.063	63	93	156
2487.12.00170.075	75	110	185
2487.12.00170.080	80	115	195
2487.12.00170.100	100	135	235
2487.12.00170.125	125	160	285

Initial spring force versus charge pressure



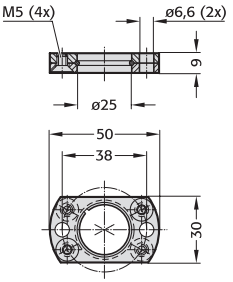
Spring force Diagram displacement versus stroke rise



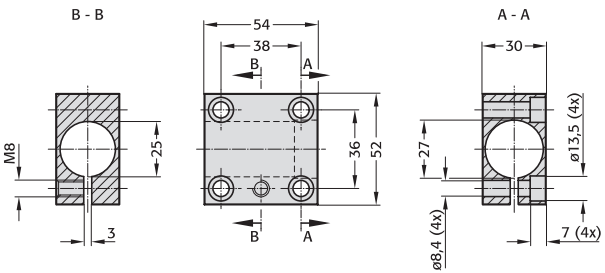
Pressure rise factor accounts for displacement but not external influences!

Gas spring POWERLINE
Mounting variations

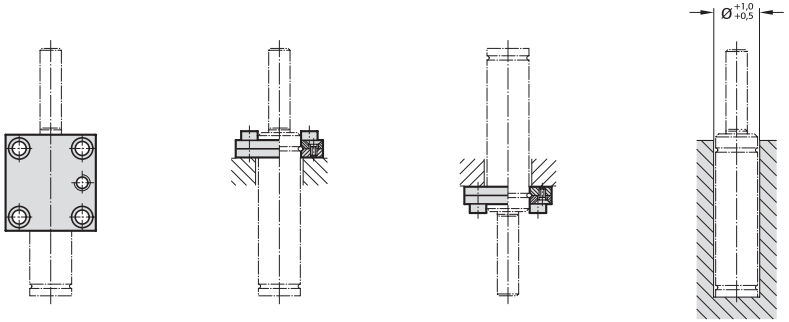
2480.051.00150



2480.053.00150



Mounting examples:



Gas spring POWERLINE

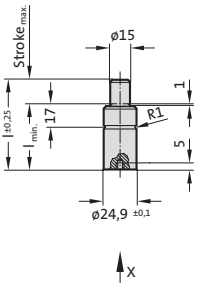
Note:

Initial spring force at 180 bar = 320 daN

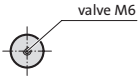
Worn gas springs cannot be repaired, they have to be replaced completely.

Pressure medium: Nitrogen N_2
Max. filling pressure: 180 bar
Min. filling pressure: 25 bar
Working temperature: 0°C to +80°C
Temperature related force increase: ± 0.3%/°C
Max. recommended extensions per minute: approx. 40 to 100 (at 20°C)
Max. piston speed: 1.6 m/s

2487.12.00320.



View X



APPROVED PED 2014/68/EU

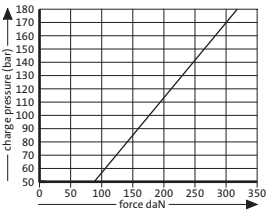
ISO

S>max V>max P>max

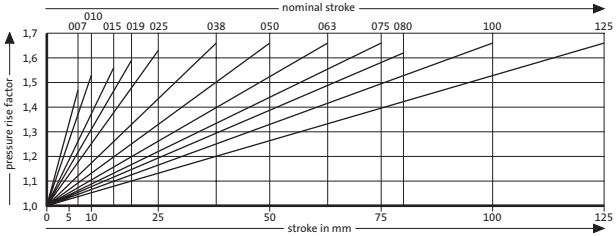
2487.12.00320.
Gas spring POWERLINE

Order No	Stroke max.	l min.	l
2487.12.00320.007	7	37	44
2487.12.00320.010	10	40	50
2487.12.00320.015	15	45	60
2487.12.00320.019	19	49	68
2487.12.00320.025	25	55	80
2487.12.00320.038	38	68	106
2487.12.00320.050	50	80	130
2487.12.00320.063	63	93	156
2487.12.00320.075	75	110	185
2487.12.00320.080	80	115	195
2487.12.00320.100	100	135	235
2487.12.00320.125	125	160	285

Initial spring force versus charge pressure



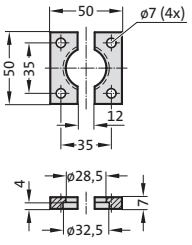
Spring force Diagram displacement versus stroke rise



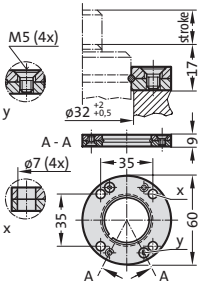
Pressure rise factor accounts for displacement but not external influences!

Gas Spring POWERLINE
Mounting variations

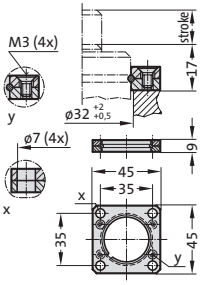
2480.022.00150



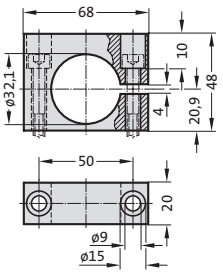
2480.055.00150



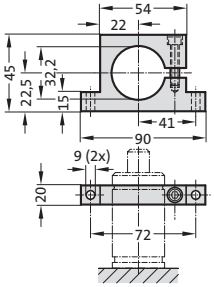
2480.057.00150



2480.044.03.00150 [2]



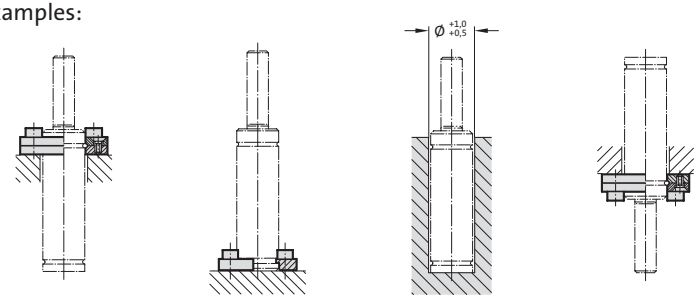
2480.044.00150 [2]



Notes:

[2] Attention:
The spring force must be absorbed by the stop surface.

Mounting examples:



Gas spring POWERLINE

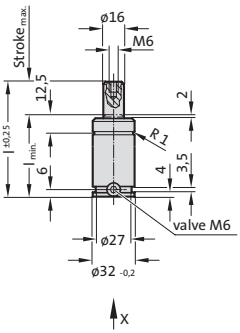
Note:

Initial spring force at 180 bar = 350 daN

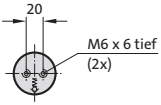
Order No for spare parts kit: 2487.12.00350

Pressure medium: Nitrogen N_2
Max. filling pressure: 180 bar
Min. filling pressure: 25 bar
Working temperature: 0°C to +80°C
Temperature related force increase: ± 0.3%/°C
Max. recommended extensions per minute: approx. 20 to 100 (at 20°C)
Max. piston speed: 1.6 m/s

2487.12.00350.



View X



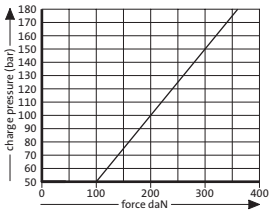
APPROVED PED 2014/68/EU | VDI | ISO

S>max | V>max | P>max | Flex Guide™

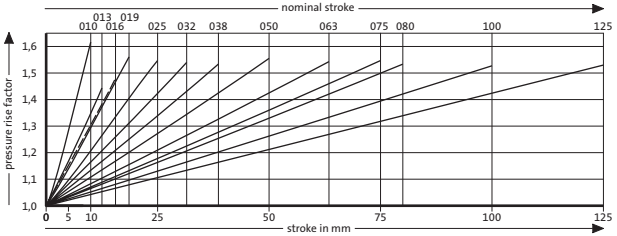
2487.12.00350.
Gas spring POWERLINE

Order No	Stroke max.	l min.	l
2487.12.00350.010	10	40	50
2487.12.00350.013	13	43	56
2487.12.00350.016	16	46	62
2487.12.00350.019	19	49	68
2487.12.00350.025	25	55	80
2487.12.00350.032	32	62	94
2487.12.00350.038	38	68	106
2487.12.00350.050	50	80	130
2487.12.00350.063	63	93	156
2487.12.00350.075	75	105	180
2487.12.00350.080	80	110	190
2487.12.00350.100	100	130	230
2487.12.00350.125	125	155	280

Initial spring force versus charge pressure



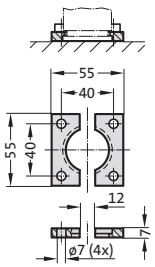
Spring force Diagram displacement versus stroke rise



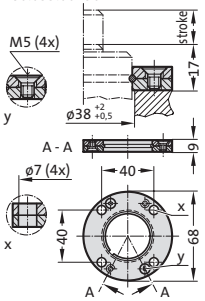
Pressure rise factor accounts for displacement but not external influences!

Gas Spring POWERLINE
Mounting variations

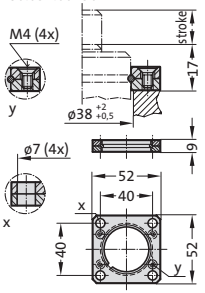
2480.022.00250



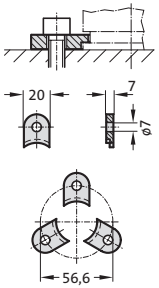
2480.055.00250



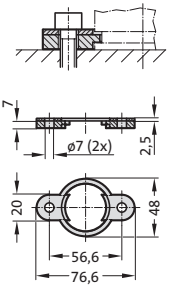
2480.057.00250



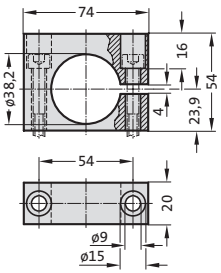
2480.007.00250



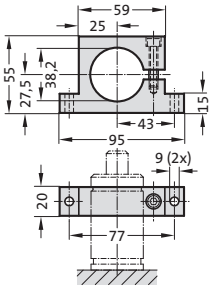
2480.008.00250 3)



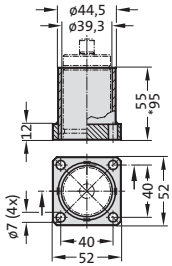
2480.044.03.00250 2)



2480.044.00250 2)



2480.010.00250.055 3)
2480.010.00250.095* 3)



Note:

2) Attention:
The spring force must be absorbed by the stop surface!

3) Not for use with composite connection.

Gas spring POWERLINE

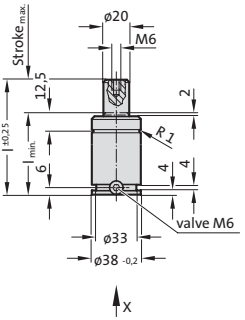
Note:

Initial spring force at 150 bar = 470 daN

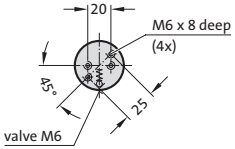
Order No for spare parts kit: 2487.12.00500

Pressure medium: Nitrogen N_2
Max. filling pressure: 150 bar
Min. filling pressure: 25 bar
Working temperature: 0°C to +80°C
Temperature related force increase: ± 0.3%/°C
Max. recommended extensions per minute: approx. 20 to 100 (at 20°C)
Max. piston speed: 1.6 m/s

2487.12.00500.



View X



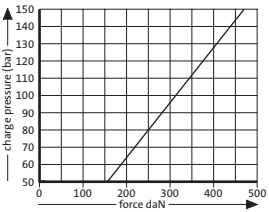
APPROVED PED 2014/68/EU | VDI | ISO

S>max | V>max | P>max | Flex Guide™

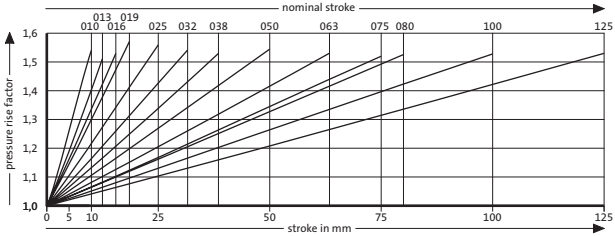
2487.12.00500.
Gas spring POWERLINE

Order No	Stroke max.	l min.	l
2487.12.00500.010	10	40	50
2487.12.00500.013	13	43	56
2487.12.00500.016	16	46	62
2487.12.00500.019	19	49	68
2487.12.00500.025	25	55	80
2487.12.00500.032	32	62	94
2487.12.00500.038	38	68	106
2487.12.00500.050	50	80	130
2487.12.00500.063	63	93	156
2487.12.00500.075	75	105	180
2487.12.00500.080	80	110	190
2487.12.00500.100	100	130	230
2487.12.00500.125	125	155	280

Initial spring force versus charge pressure



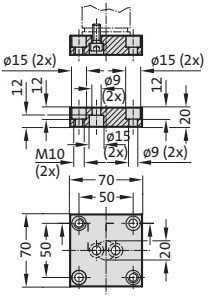
Spring force Diagram displacement versus stroke rise



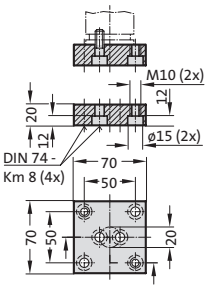
Pressure rise factor accounts for displacement but not external influences!

Gas spring POWERLINE
Mounting variations

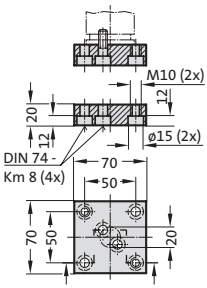
2480.011.00500.2



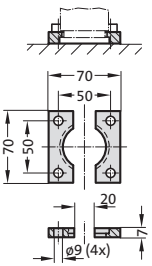
2480.011.00500



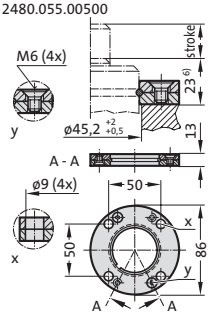
2480.011.00500.1



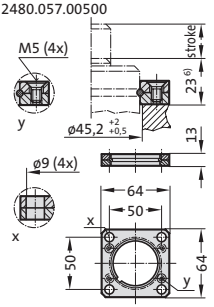
2480.022.00500



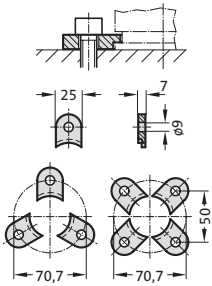
2480.055.00500



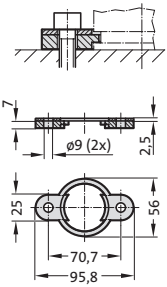
2480.057.00500



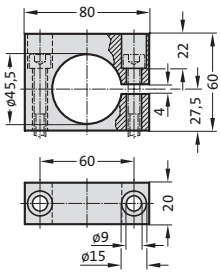
2480.007.00500



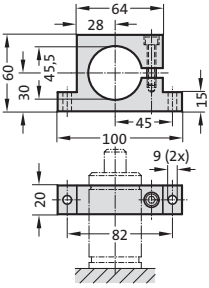
2480.008.00500 3)



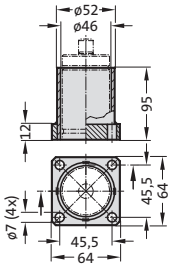
2480.044.03.00500 2)



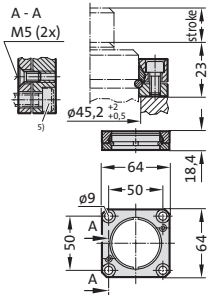
2480.044.00500 2)



2480.010.00500.095 3)



2480.064.00500 4)



Note:

2) Attention:
The spring force must be absorbed by the stop surface!

3) Not for use with composite connection.

4) Square collar flange, non-rotating, fixing for composite connection.

5) Machine screws with hexagonal socket (compact head recommended)

6) Installation height increased from 22 mm to 23 mm according to VDI 3003.

Gas spring POWERLINE

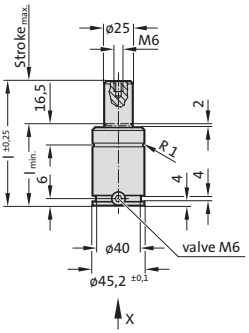
Note:

Initial spring force at 150 bar = 750 daN

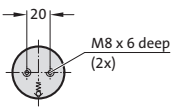
Order No for spare parts kit: 2487.12.00750

Pressure medium: Nitrogen N_2
Max. filling pressure: 150 bar
Min. filling pressure: 25 bar
Working temperature: 0°C to +80°C
Temperature related force increase: ± 0.3%/°C
Max. recommended extensions per minute: approx. 20 to 100 (at 20°C)
Max. piston speed: 1.6 m/s

2487.12.00750. .1



View X



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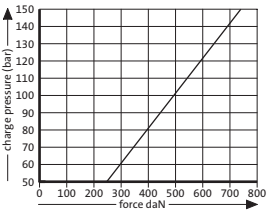
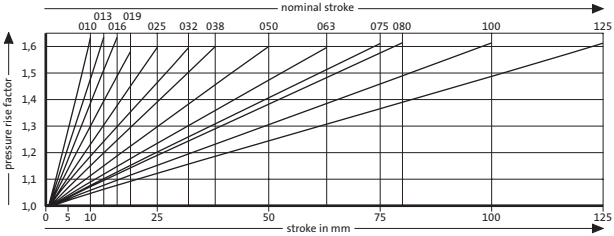
2487.12.00750. .1
Gas spring POWERLINE

Order No	Stroke$_{max.}$	l$_{min.}$	l
2487.12.00750.010.1	10	42	52
2487.12.00750.013.1	13	45	58
2487.12.00750.016.1	16	48	64
2487.12.00750.019.1	19	51	70
2487.12.00750.025.1	25	57	82
2487.12.00750.032.1	32	64	96
2487.12.00750.038.1	38	70	108
2487.12.00750.050.1	50	82	132
2487.12.00750.063.1	63	95	158
2487.12.00750.075.1	75	107	182
2487.12.00750.080.1	80	112	192
2487.12.00750.100.1	100	132	232
2487.12.00750.125.1	125	157	282

Initial spring force versus charge pressure



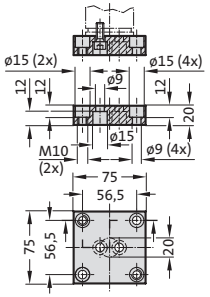
Spring force Diagram displacement versus stroke rise



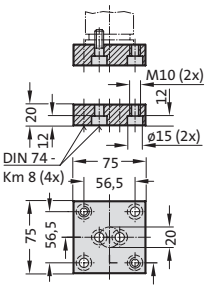
Pressure rise factor accounts for displacement but not external influences!

Gas Spring POWERLINE
Mounting variations

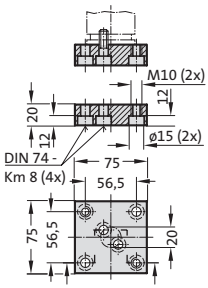
2480.011.00750.3



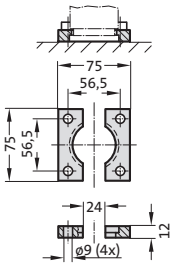
2480.011.00750



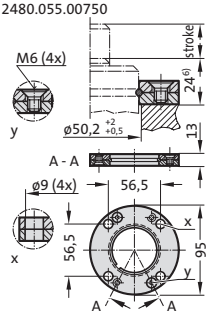
2480.011.00750.1



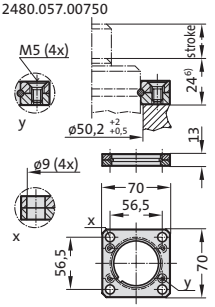
2480.022.00750



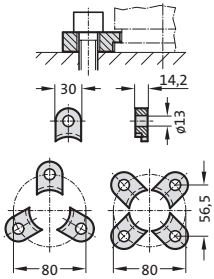
2480.055.00750



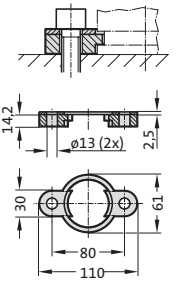
2480.057.00750



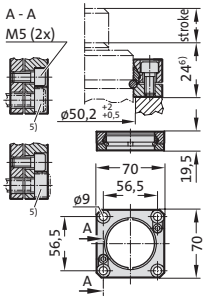
2480.007.00750



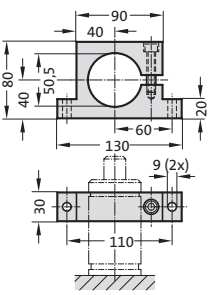
2480.008.00750 3)



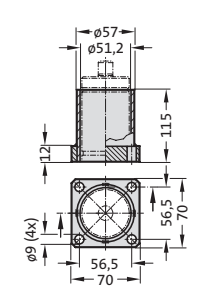
2480.064.00750 4)



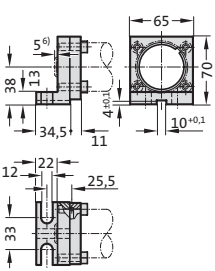
2480.044.00750 2)



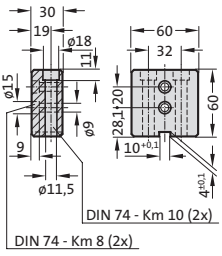
2480.010.00750.115 3)



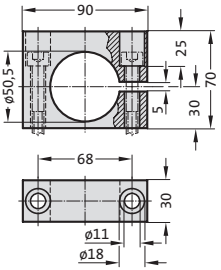
2480.045.00750 2)



2480.047.00750 2)



2480.044.03.00750 2)



Note:

2) Attention:
The spring force must be absorbed by the stop surface!

3) Not for use with composite connection.

4) Square collar flange, non-rotating, fixing for composite connection.

5) Machine screws with hexagonal socket (compact head recommended)

6) Installation height increased from 22 mm to 24 mm, installation position from 3 mm to 5 mm according to VDI 3003.

Gas spring POWERLINE

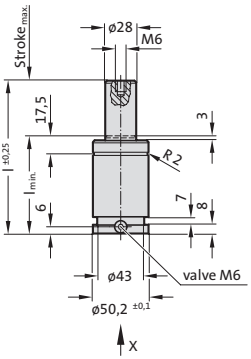
Note:

Initial spring force at 150 bar = 920 daN

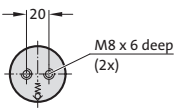
Order No for spare parts kit: 2487.12.01000

Pressure medium: Nitrogen N_2
Max. filling pressure: 150 bar
Min. filling pressure: 25 bar
Working temperature: 0°C to +80°C
Temperature related force increase: ± 0.3%/°C
Max. recommended extensions per minute: approx. 20 to 100 (at 20°C)
Max. piston speed: 1.6 m/s

2487.12.01000. .1



View X



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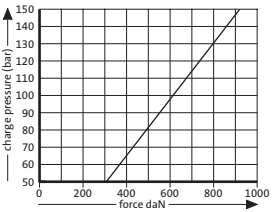
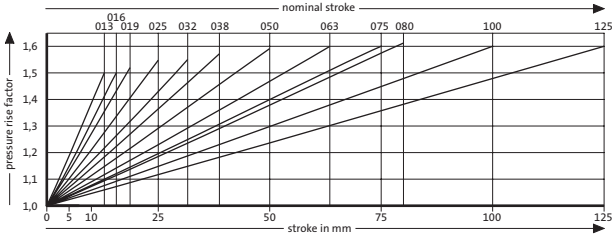
2487.12.01000. .1
Gas spring POWERLINE

Order No	Stroke max.	l min.	l
2487.12.01000.013.1	13	51	64
2487.12.01000.016.1	16	54	70
2487.12.01000.019.1	19	57	76
2487.12.01000.025.1	25	63	88
2487.12.01000.032.1	32	70	102
2487.12.01000.038.1	38	76	114
2487.12.01000.050.1	50	88	138
2487.12.01000.063.1	63	101	164
2487.12.01000.075.1	75	113	188
2487.12.01000.080.1	80	118	198
2487.12.01000.100.1	100	138	238
2487.12.01000.125.1	125	163	288

Initial spring force versus charge pressure



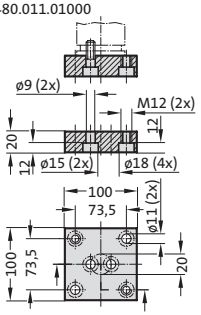
Spring force Diagram displacement versus stroke rise



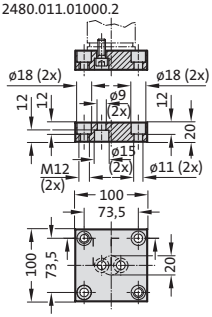
Pressure rise factor accounts for displacement but not external influences!

Gas spring POWERLINE
Mounting variations

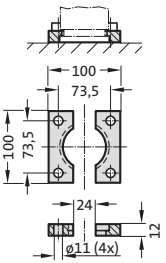
2480.011.01000



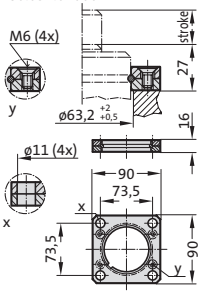
2480.011.01000.2



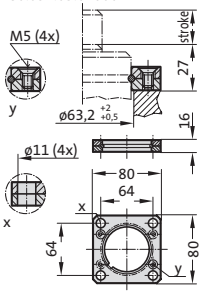
2480.022.01000



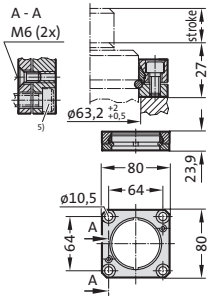
2480.057.01000



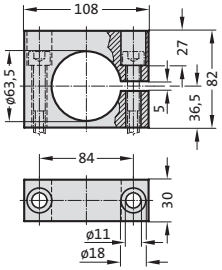
2480.057.03.01000



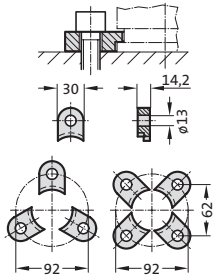
2480.064.01000 4)



2480.044.03.01000 2)



2480.007.01000



Note:

2) Attention:
The spring force must be absorbed by the stop surface!

4) Square collar flange, non-rotating, fixing for composite connection.

5) Machine screws with hexagonal socket (compact head recommended)

Gas spring POWERLINE

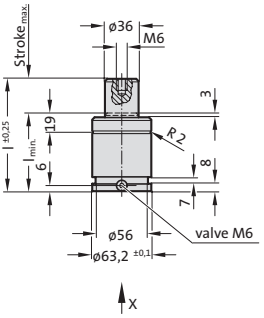
Note:

Initial spring force at 150 bar = 1500 daN

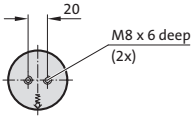
Order No for spare parts kit: 2487.12.01500

Pressure medium: Nitrogen N_2
Max. filling pressure: 150 bar
Min. filling pressure: 25 bar
Working temperature: 0°C to +80°C
Temperature related force increase: ± 0.3%/°C
Max. recommended extensions per minute: approx. 50 to 100 (at 20°C)
Max. piston speed: 1.6 m/s

2487.12.01500.



View X



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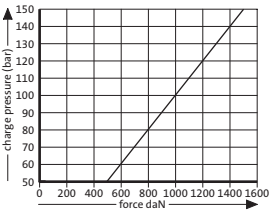
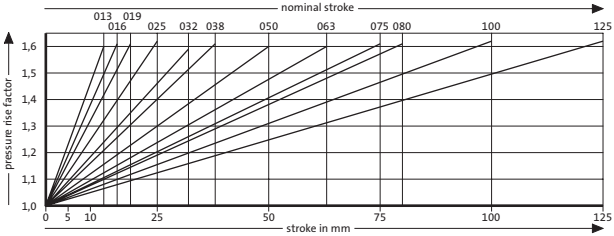
2487.12.01500.
Gas spring POWERLINE

Order No	Stroke max.	l min.	l
2487.12.01500.013	13	57	70
2487.12.01500.016	16	60	76
2487.12.01500.019	19	63	82
2487.12.01500.025	25	69	94
2487.12.01500.032	32	76	108
2487.12.01500.038	38	82	120
2487.12.01500.050	50	94	144
2487.12.01500.063	63	107	170
2487.12.01500.075	75	119	194
2487.12.01500.080	80	124	204
2487.12.01500.100	100	144	244
2487.12.01500.125	125	169	294

Initial spring force versus charge pressure



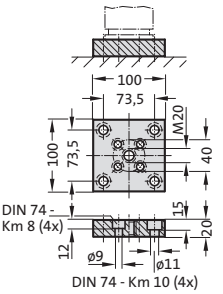
Spring force Diagram displacement versus stroke rise



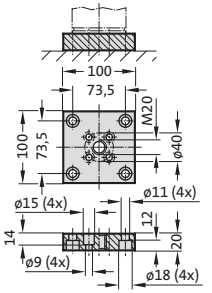
Pressure rise factor accounts for displacement but not external influences!

Gas Spring POWERLINE
Mounting variations

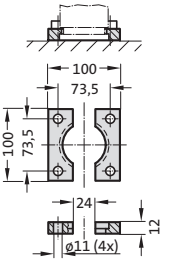
2480.011.01500



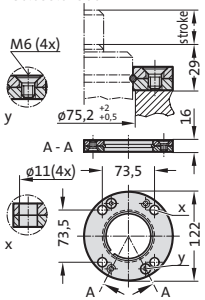
2480.011.01500.2



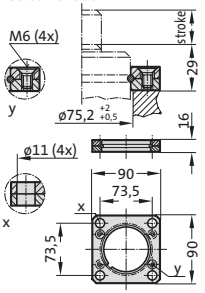
2480.022.01500



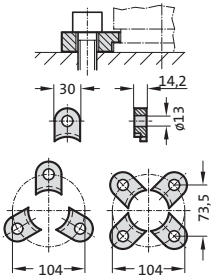
2480.055.01500



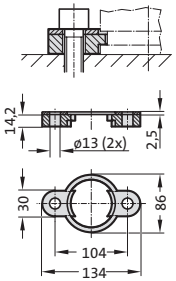
2480.057.01500



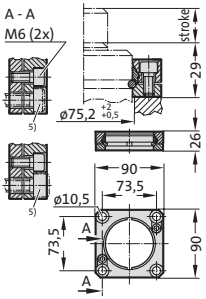
2480.007.01500



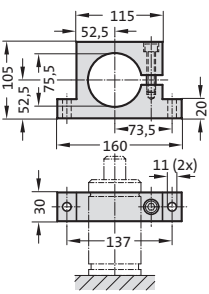
2480.008.01500 3)



2480.064.01500 4)



2480.044.01500 2)



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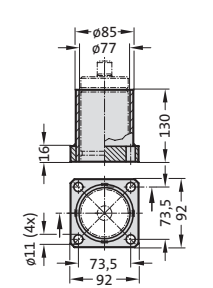

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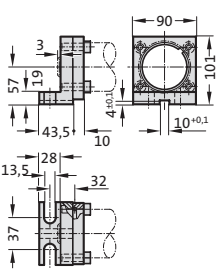

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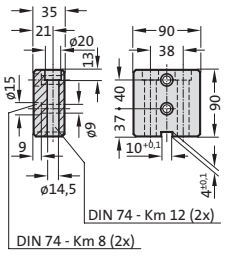

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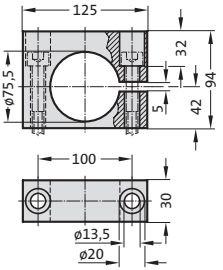


Note:

2) Attention:
The spring force must be absorbed by the stop surface!

3) Not for use with composite connection.

4) Square collar flange, non-rotating, fixing for composite connection.

5) Machine screws with hexagonal socket (compact head recommended)

Gas spring POWERLINE

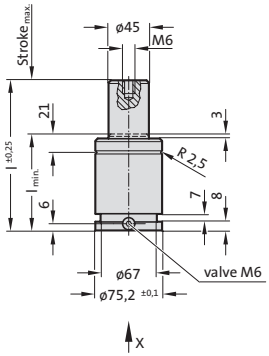
Note:

Initial spring force at 150 bar = 2400 daN

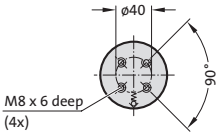
Order No for spare parts kit: 2487.12.02400

Pressure medium: Nitrogen N_2
Max. filling pressure: 150 bar
Min. filling pressure: 25 bar
Working temperature: 0°C to +80°C
Temperature related force increase: ± 0.3%/°C
Max. recommended extensions per minute: approx. 20 to 100 (at 20°C)
Max. piston speed: 1.6 m/s

2487.12.02400.



View X



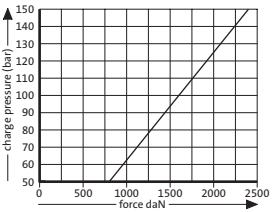
APPROVED PED 2014/68/EU | VDI | ISO

S>max | V>max | P>max | Flex Guide™

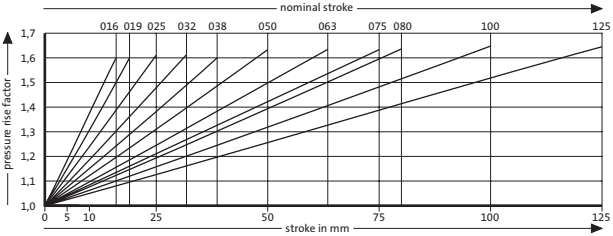
2487.12.02400.
Gas spring POWERLINE

Order No	Stroke max.	l min.	l
2487.12.02400.016	16	61	77
2487.12.02400.019	19	64	83
2487.12.02400.025	25	70	95
2487.12.02400.032	32	77	109
2487.12.02400.038	38	83	121
2487.12.02400.050	50	95	145
2487.12.02400.063	63	108	171
2487.12.02400.075	75	120	195
2487.12.02400.080	80	125	205
2487.12.02400.100	100	145	245
2487.12.02400.125	125	170	295

Initial spring force versus charge pressure



Spring force Diagram displacement versus stroke rise



Pressure rise factor accounts for displacement but not external influences!