



MEG INDUSTRY S.r.l.
Pneumatic Division

PRESSMAIR
Meg Industry registered trademark



PROFESSIONAL GAS SPRINGS FOR MARINE INDUSTRY

**FULL AISI 316L
Gas Springs
& Fittings
Catalogue**

2019
megpneumatica.com





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Pneumatic Division

PRESSMAIR
Meg Industry registered trademark

FIDEMA GROUP
synergy of skills

MEG INDUSTRY is an Italian based company founded in year 2000 by the owners of Fidema Progetti, the two companies are today part of FIDEMA GROUP.

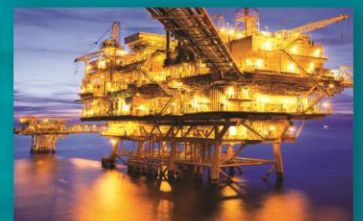
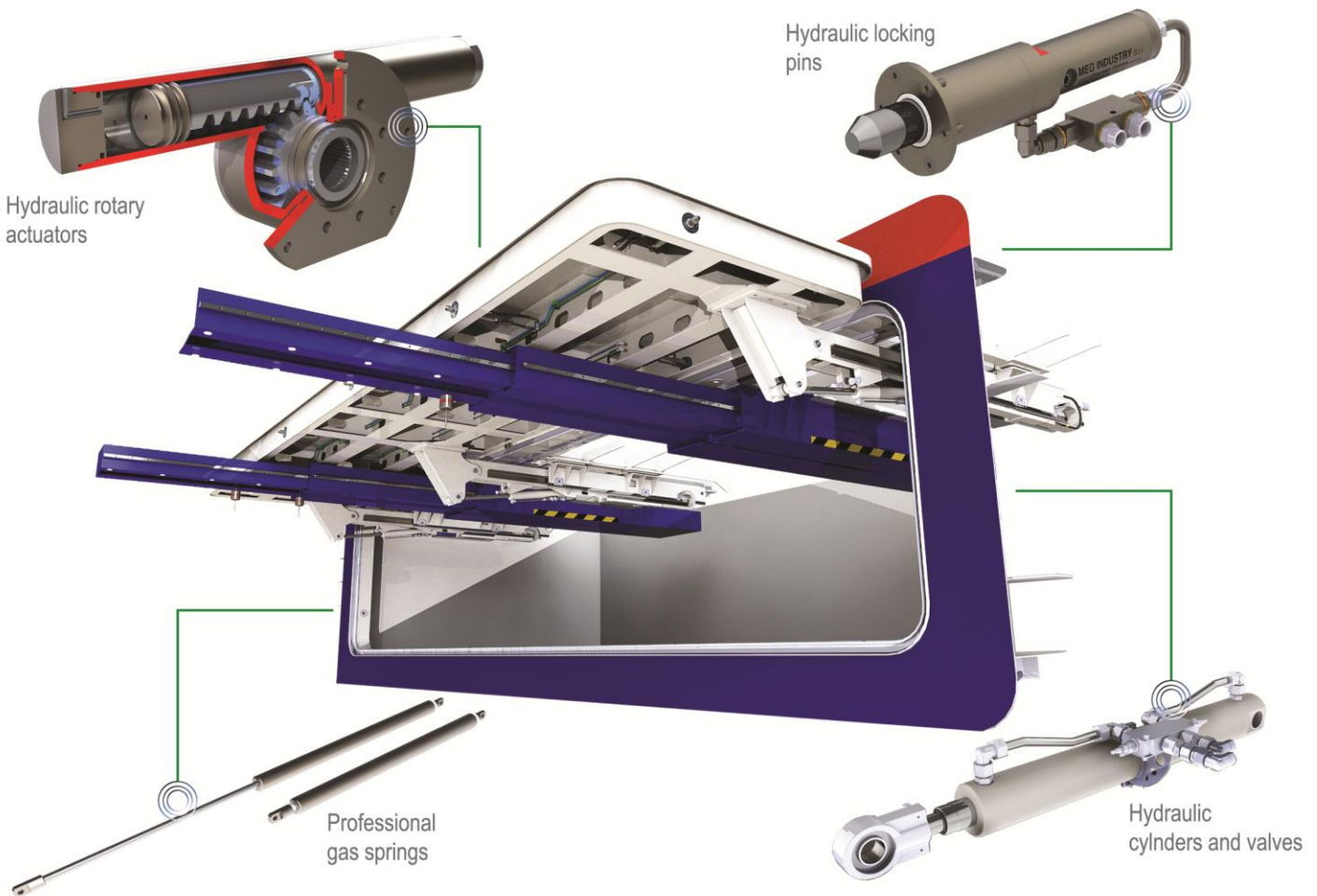
The group is divided into several sections that mainly work in:

- Naval Engineering
- Design and production of hydraulic and electrical systems
- Components for the nautical sector
- Prototyping and production through 3D printing (Additive manufacturing) for the nautical sector

Our reference sectors are cruise and yachting. In more than 20 years of activity, both with the MEG Industry brand and with the Pressmair brand (which we acquired in 2016), we have cooperated with the most known names in the yacht market, as Fidema Group we boast collaborations with many important cruise shipyards and owners.

The strength of the group lies in the possibility of providing a 360° service starting from the design and calculation, passing through the re-fitting, structural modifications, turnkey supply of hydraulic and electric movement systems (launch crane, platforms, bathing platforms, tender launch sleds, garage doors) up to the individual components and spare parts (cylinders, valves, gas springs, locking pins).

The components we design and supply are usually shared with the customer through precise technical and construction specifications and they are manufactured according to the main construction standards, also in collaboration with the various Registers and Flags with which we maintain daily reports.





PROFESSIONAL GAS SPRINGS FOR MARINE INDUSTRY

HOW THEY WORK

A gas spring is essentially composed by a perfectly dry sealed and pressurized pipe case, a cylindrical rod moves alternatively inside the pipe case and it is equipped with a piston that has the function to avoid the exit of the rod from the pipe case when it is pushed by the pressured gas. The gas spring's working force can be calculated as the result of the gas pressure on the sole rod section. The gas spring rod always performs the total theoretical stroke unless stopped before by a mechanical block.

A locking device is also available in our range.

DIMENSIONING

Gas springs perform a pushing force along the rod axis and the force changes along the stroke.

When the rod is positioned inside the gas spring's body the internal pressure rises so the force can increase.

F1=Force when rod is on the inside position

F2=Force when rod is totally extended

GAS SPRING DIAM. FORCE VALUE:

mm15..... F1 = F2 x 1,3

mm19..... F1 = F2 x 1,4

mm25..... F1 = F2 x 1,5

mm30..... F1 = F2 x 1,5

mm40..... F1 = F2 x 1,5

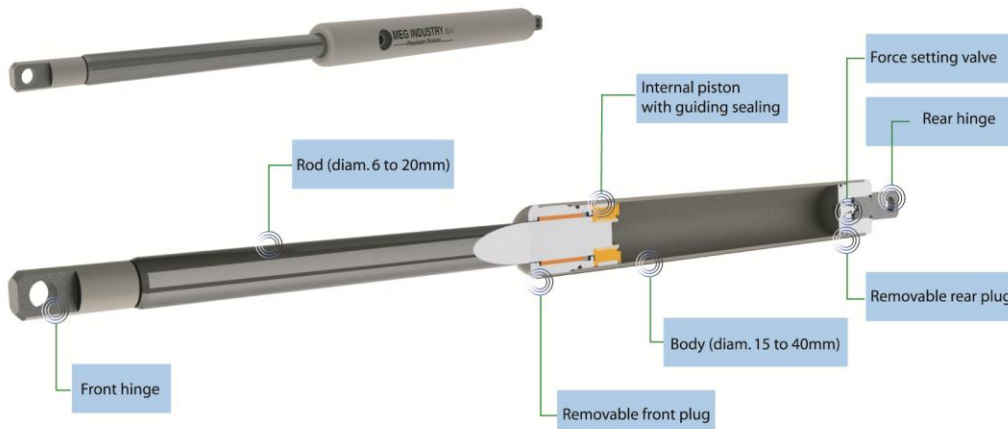
TECHNICAL FEATURES

MEG Industry's gas springs are totally built using AISI 316L Stainless Steel.

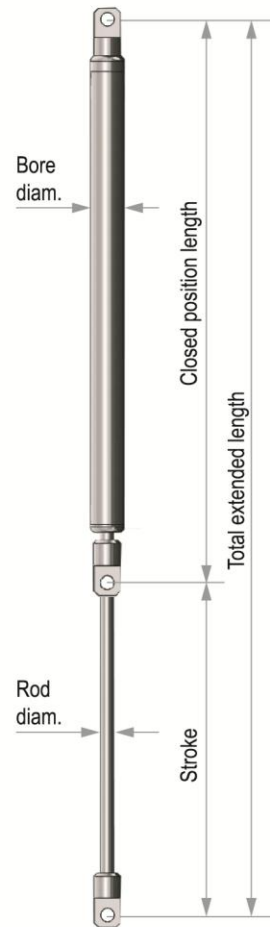
The rod is made with AISI 316L Chrome plated.

Repair kits are available for all gas springs types, when necessary gas springs can be totally revised and re-newed.

MEG Industry's gas springs are all equipped with a special valve to give the possibility to modify the gas spring pressure and set the Force at any time.



MAIN FEATURES OF A GAS SPRING



IMPORTANT NOTES

- 1) Gas springs can work between a range temperature of -30°C to 70°C
- 2) Gas springs are filled with pure Nitrogen that is an inert gas, not flammable, not poisonous. All gas springs content high pressure gas (up to 200 Bar), never try to open it.
- 3) Garbage disposal: gas springs are mainly made with metal components. They can go directly to the garbage disposal, provide that they must be cleaned of the internal pressured gas
- 4) All gas springs are labeled with a sticker showing the message "Do not open. High pressure. Protect from heat sources" and a second label with the item code. If you cannot read this sticker for any reason we will not accept any warranty compliance and we will not be responsible for any damage.
- 5) Gas springs should be installed with downward rod orientation, in this way you can reach the best cushioning action on extended rod end.
- 6) Gas springs should be installed without any banding or lateral forces, please check the proper fixation system and positionig
- 7) Protect the gas spring's rod from knocks, scratches, filth or paintings. Seals could be damaged.
- 8) In case of stocking do it in a cool dry place and do not expose them to the sun rays. If properly stocked the gas springs will not loose their force. After a long time stocking it is possible to find some stick-slip issue but they will be solved when the gas spring will be actioned.
- 9) Length tolerance is +/- 2,5mm
- 10) Force tolerance is +/- 10%

MEG Industry gas springs are compatible with all the other brands. If you need to replace a gas spring just provide these information including the Force expressed in Newton (N) or Kg.





MG15 - Bore 15mm AISI 316L Gas Spring

Gas spring Code	Body diam. mm	Rod diam. mm	Stroke (S) mm	Length (A) mm	Length (B) mm	Max Force (N)
MG15040	15	6	40	142	102	500
MG15050	15	6	50	162	112	500
MG15060	15	6	60	182	122	500
MG15070	15	6	70	202	132	500
MG15080	15	6	80	222	142	500
MG15100	15	6	100	262	162	500
MG15120	15	6	120	302	182	500
MG15130	15	6	130	322	192	350
MG15140	15	6	140	342	202	350
MG15160	15	6	160	382	122	250
MG15180	15	6	180	422	242	200

Models available on stock

GENERAL FORMULA:
 INSIDE THREAD EXTENDED LENGTH (A) = 2 x Stroke (S) + 62mm
 TOTAL EXTENDED LENGTH = LENGTH (A) + F1 + F2

MORE MODELS ARE AVAILABLE ON DEMAND

MG15 - AISI 316L Fittings

cod. LP/04482.03 (a=4mm / b=46mm)
 cod. LP/04482.13 (a=11mm / b=51mm)

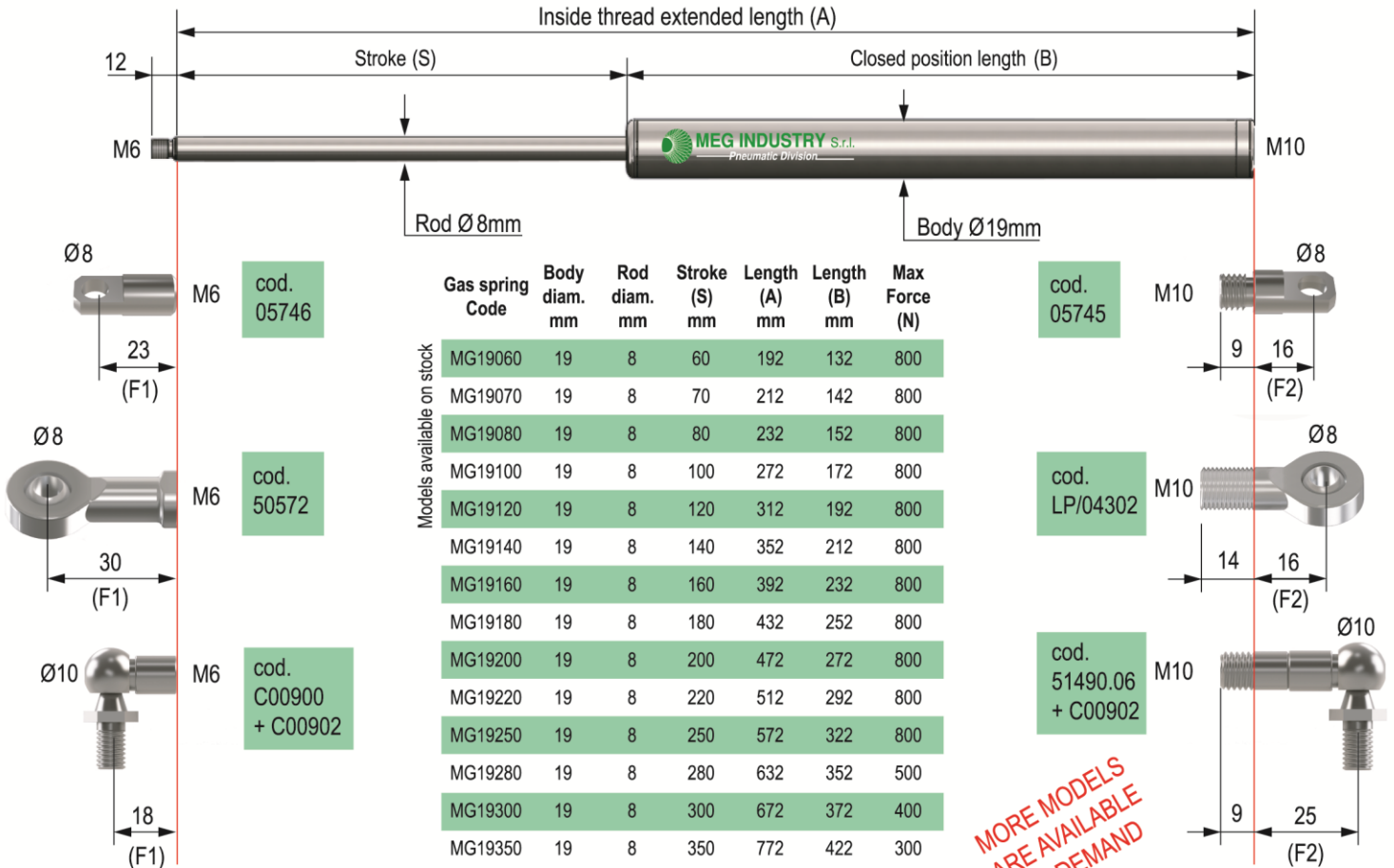
a=4mm cod. LP/04482.03
 a=11mm cod. LP/04482.04

a=4mm cod. LP/04482.03
 a=11mm cod. LP/04482.04

cod. LP/04475.03



MG19 - Bore 19mm AISI 316L Gas Spring



MORE MODELS ARE AVAILABLE ON DEMAND

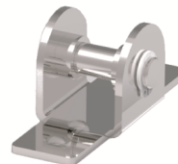
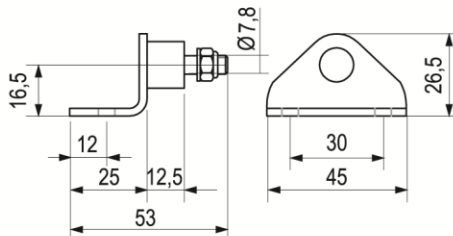
GENERAL FORMULA:

INSIDE THREAD EXTENDED LENGTH (A) = 2 x stroke + 72mm
TOTAL EXTENDED LENGTH = LENGTH (A) + F1 + F2

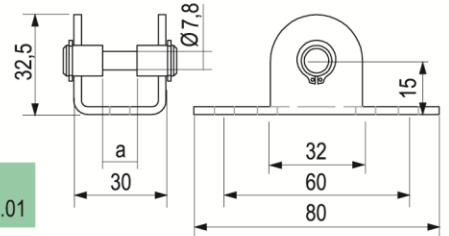
MG19 - AISI 316L Fittings



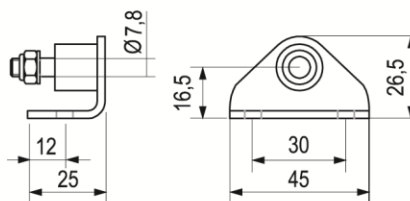
cod. LP/04482.00



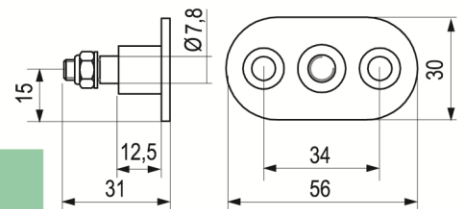
a=5mm cod. LP/04398
a=11mm cod. LP/04398.01



cod. LP/04482.10



cod. LP/04475.01





MG25 - Bore 25mm AISI 316L Gas Spring

Gas spring Code	Body diam. mm	Rod diam. mm	Stroke (S) mm	Length (A) mm	Length (B) mm	Max Force (N)
MG25070	25	12	70	226	156	1800
MG25080	25	12	80	246	166	1800
MG25100	25	12	100	286	186	1800
MG25120	25	12	120	326	206	1800
MG25140	25	12	140	366	226	1800
MG25160	25	12	160	406	246	1800
MG25180	25	12	180	446	266	1800
MG25190	25	12	190	466	276	1800
MG25200	25	12	200	486	286	1800
MG25220	25	12	220	526	306	1800
MG25250	25	12	250	586	336	1800
MG25280	25	12	280	646	366	1800
MG25300	25	12	300	686	386	1800
MG25350	25	12	350	786	436	1400
MG25400	25	12	400	886	486	1000
MG25500	25	12	500	1086	586	650

Models available on stock

cod. 05750 (F1) 35

cod. 51313 (F1) 43

cod. 05749 (F2) 20 23

cod. LP/04314 (F2) 20 23

GENERAL FORMULA:
INSIDE THREAD EXTEND. LENGTH (A) = 2 x stroke + 89mm
TOTAL EXTENDED LENGTH = LENGTH (A) + F1 + F2

MORE MODELS ARE AVAILABLE ON DEMAND

MG25 - AISI 316L Fittings

cod. LP/04381.00

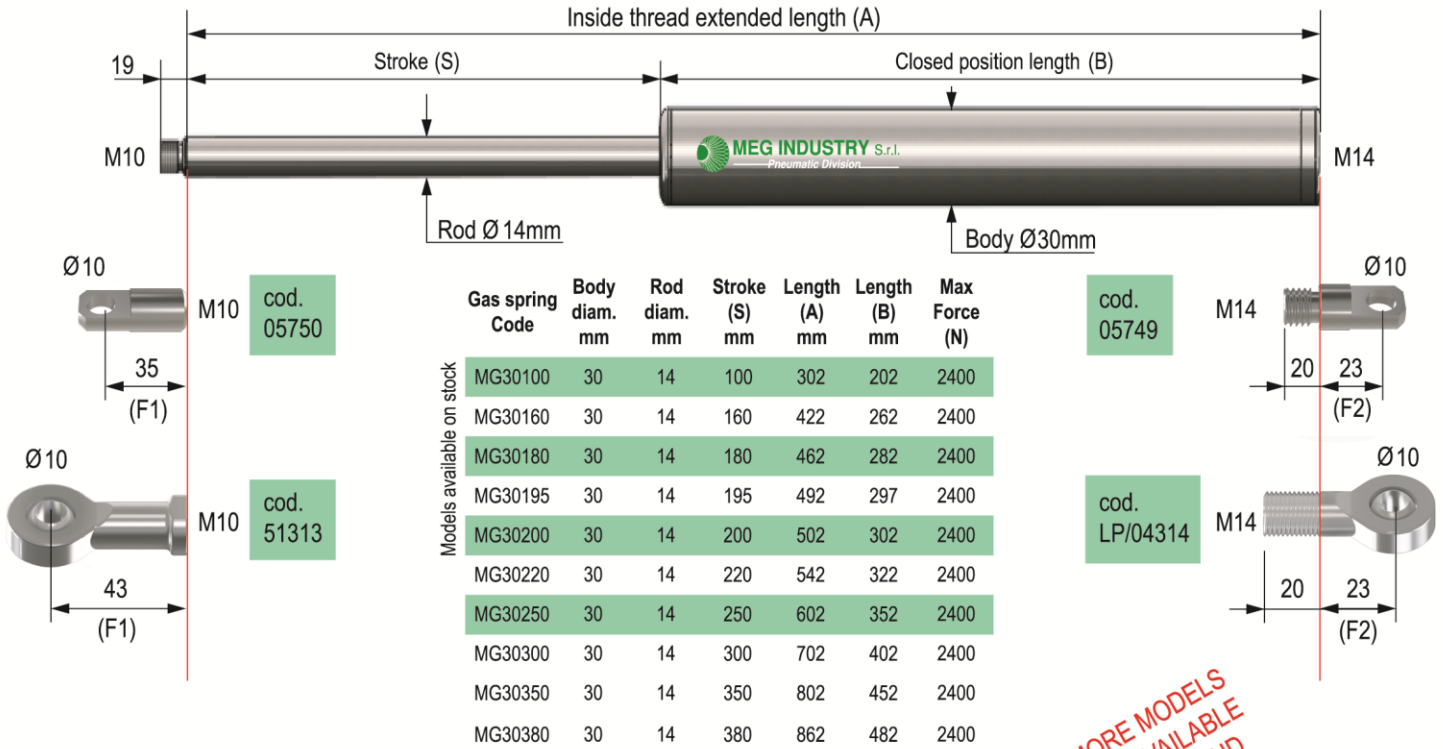
cod. LP/04382

cod. LP/04381.10

cod. LP/04475.02



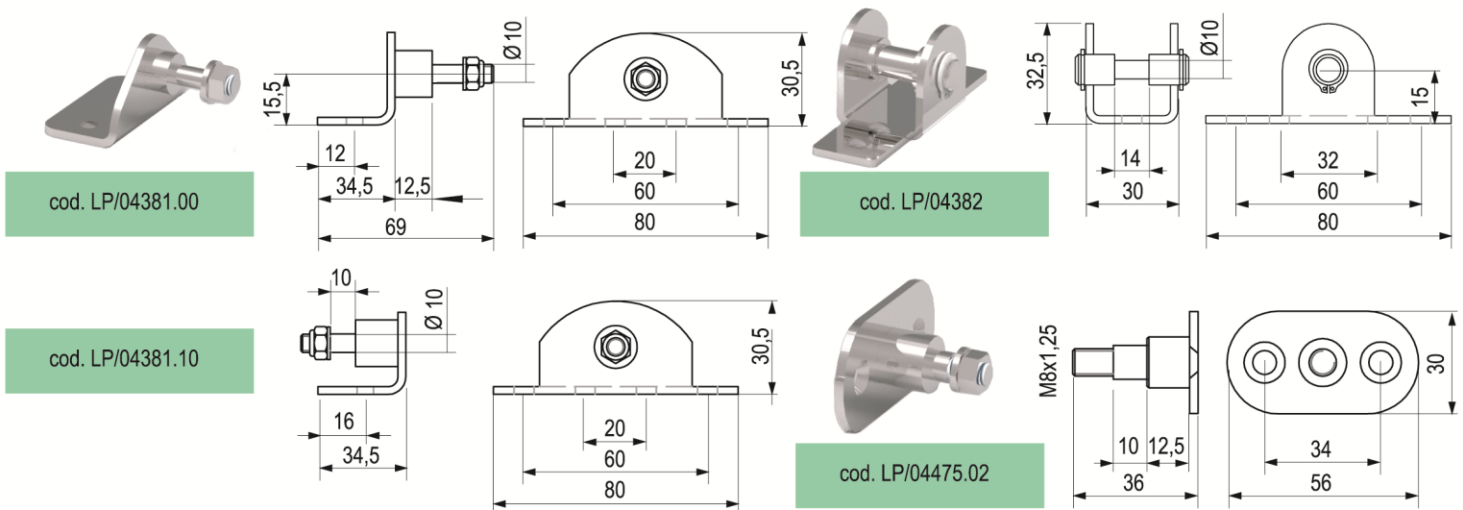
MG30 - Bore 30mm AISI 316L Gas Spring



MORE MODELS ARE AVAILABLE ON DEMAND

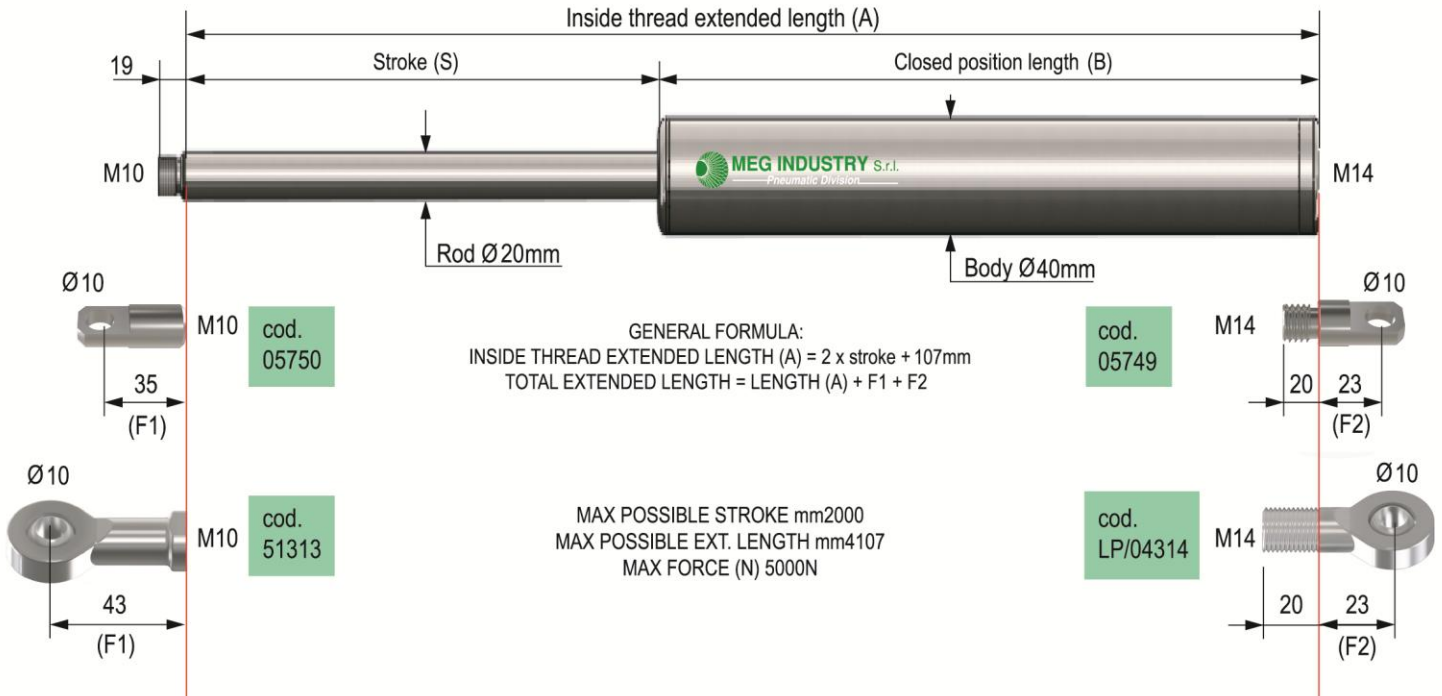
GENERAL FORMULA:
INSIDE THREAD EXTENDED LENGTH (A) = 2 x stroke + 102mm
TOTAL EXTENDED LENGTH = LENGTH (A) + F1 + F2

MG30 - AISI 316L Fittings

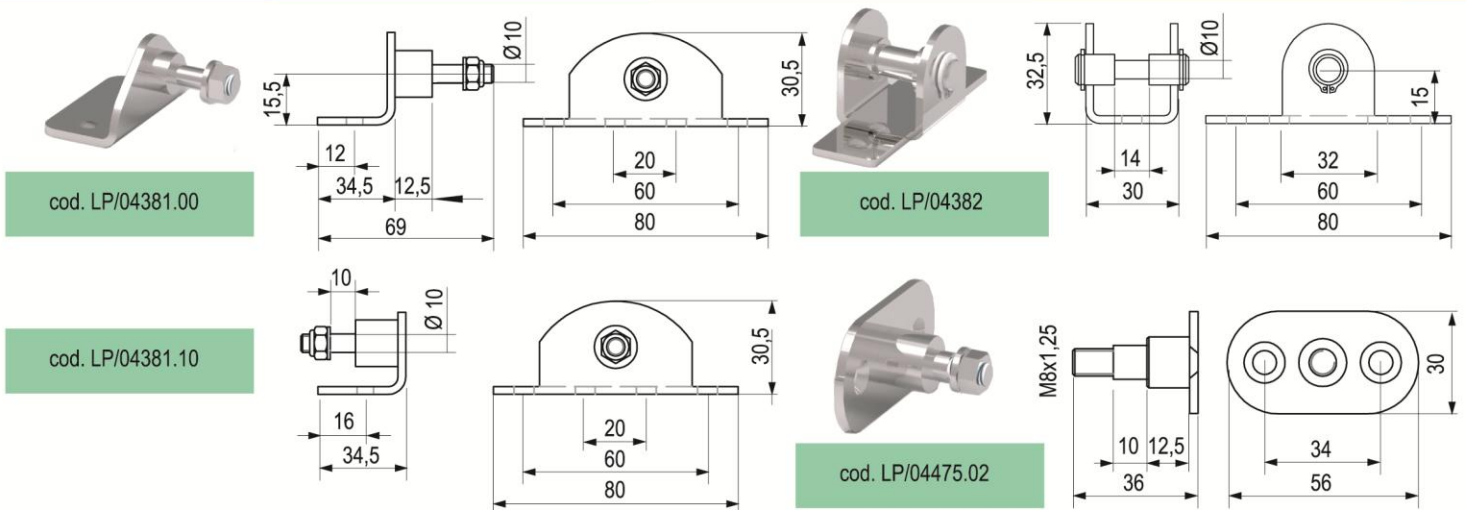




MG40 - Bore 40mm AISI 316L Gas Spring



MG40 - AISI 316L Fittings





AISI 316L SPECIAL GAS SPRINGS

Tension Gas Springs

The tension gas springs in AISI 316 L are based on the functional principle opposite to the compression ones, their use is ideal in places where there is no space for traditional compression springs; this type of gas spring finds its main application in opening systems such as doors, windows, shelves, opening downwards. Stroke and the charge can be customized according to customer use.

Technical features:

Body diameter: mm25
Rod diameter: mm8
Maximum Force (N): 1000N

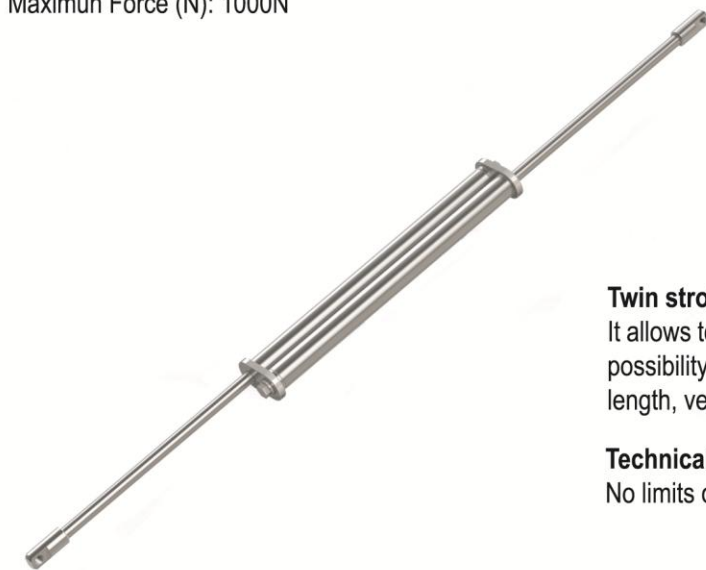


Telescopic gas spring

The AISI 316L telescopic gas spring allows to save a lot of space in closing position while giving the possibility to have a very long stroke in working position without losing operative force.

Technical features:

Body diameter: mm25 to mm19
Rod diameter: mm8
Maximum Force (N): 1000N



Twin stroke gas spring

It allows to distribute the force linearly over the entire stroke and gives the possibility of a very long maximum extension and a very small minimum length, very useful to be installed in small spaces.

Technical features:

No limits of body diameters, rod diameters, force and stroke.

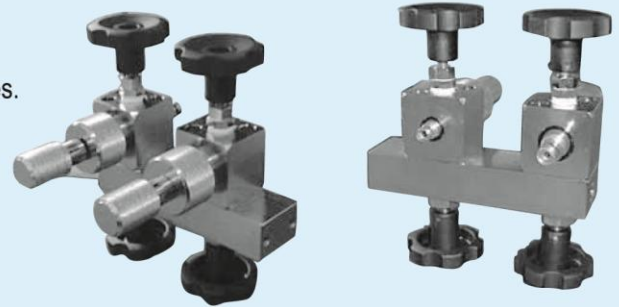




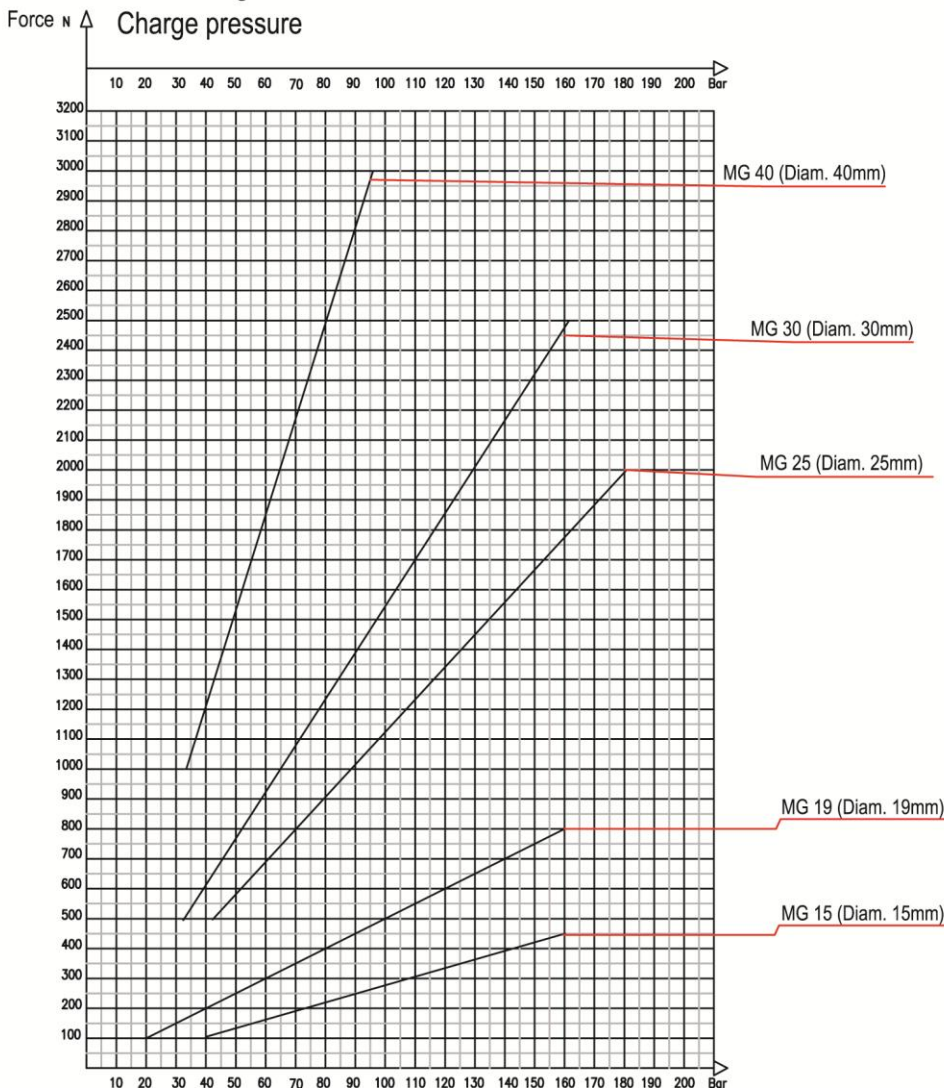
SERVICES

Gas springs recharge

After some years of use the gas springs can suffer a Force loss.
MEG Industry provides a recharge service to all the gas springs it supplies.
A gas spring recharge/setting tool is also available for our Customers.
cod. LP/04306 - Special valve for charge and set-up
cod. 51685 - Pressure regulator I.P. 200 Bar - O.P. 10 Bar
cod. 51526 - Connecting flexible pipe



Force / Pressure Diagram



Engineering service:

MEG Industry can provide a complete support in the engineering of your opening system. Please contact us for any doubt or request you may have while using gas springs for your project, we can suggest the best possible solution providing drawings and calculation to help you and your ideas.

Just send an email to
tech@megindustry.com

MG15 Diam. 15 1Bar = 2,83N MG19 Diam. 19 1Bar = 5N MG25 Diam. 25 1Bar = 11,3N MG30 Diam. 30 1Bar = 15,4N MG40 Diam. 40 1Bar = 31,4N



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NOTES

A large rectangular area with a light blue background and horizontal dashed lines, intended for writing notes.





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