

# PRESSMAIR



**AISI 316 L and ALUMINIUM  
WITH AND WITHOUT LOCKING SYSTEM**

PRESSMAIR

cat. 2011/MG

**PRESSMAIR****GAS SPRINGS**

**MANUFACTURER'S DECLARATION**  
**DICHIARAZIONE DEL FABBRICANTE**  
**DECLARATION DU FABRICANT**

The Undersigned **PRESSMAIR SRL**, Via Miari 3/C, 41034 Finale Emilia, Modena, Italy, **declares** under its own responsibility that **ALL PRODUCTS AND COMPONENTS** illustrated in this Catalogue and therein described, are intended to be incorporated into a machinery subject to the application of the **89/392/CEE Directive** and subsequent amendments apply.

**Commissioning of the component or system shall be forbidden** until the machinery, into the component is to be incorporated, is declared to comply with the EEC directive.

Ing. Rodolfo Musci  
 Managing Director

La Sottoscritta **PRESSMAIR SRL**, Via Miari 3/C, 41034 Finale Emilia, Modena, Italia, dichiara sotto la propria responsabilità che **TUTTI I PRODOTTI E I COMPONENTI** illustrati sul presente catalogo ed in esso descritti, sono destinati ad essere incorporati in macchine a cui si applica la **Direttiva 89/392/CEE** e suoi successivi emendamenti.

**La messa in funzione del componente o del sistema è vietata** prima che la macchina in cui verrà incorporato venga dichiarata conforme alle disposizioni della direttiva.

Ing. Rodolfo Musci  
 Amministratore Delegato

*La Soussignée **PRESSMAIR SRL**, Via Miari 3/C, 41034 Finale Emilia, Modena, Italie, déclare sous sa propre responsabilité que **TOUS LES PRODUITS ET LES COMPOSANTS** compris et illustrés dans ce Catalogue, sont destinés à être incorporés dans une machine à laquelle s'applique la **Directive 89/392/CEE** et ses amendements successifs.*

***La mise en fonction du composant ou système est interdite** tant que la machine dans laquelle le composant ou système doit être incorporé n'aura pas été déclarée conforme à la directive.*

Ing. Rodolfo Musci  
 Administrateur

# GAS SPRINGS

# PRESSMAIR

## AISI 316 L GAS SPRINGS

### FOREWORD

#### HOW IT WORKS

A gas spring is essentially composed by a pipe case perfectly dry sealed, pressurized; inside the pipe case, a rod can move alternatively; a "pseudo-piston" is fixed to the rod; its function is only 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. This option is now available.

#### WHERE TO USE IT

Gas springs can have many industrial utilizations: generally they act as a balance force for lifting doors, hatchways or doors; but they can be used as tension devices or shock absorbers.

#### TYPICAL USE

Apparatus' doors - Boats hatchbacks - Apparatus protections - Roof lights - Heavy weight cover lift

## MOLLE A GAS IN AISI 316 L

### INTRODUZIONE

#### COME FUNZIONANO

La molla a gas è costituita sostanzialmente da un involucro a perfetta tenuta, pressurizzato, all'interno del quale può scorrere con moto alternato uno stelo; sullo stelo è fissato un fermo (pseudo -pistone) che ha il solo scopo di impedire la fuoriuscita dello stelo stesso dall'involucro, quando questo è sottoposto alla spinta del gas pressurizzato. La forza resa dalla molla a gas è quella risultante dalla spinta della pressione di precarico sulla sola sezione dello stelo. La molla a gas esegue sempre la corsa teorica totale, se non incontra riscontri meccanici che la fermano prima. E' disponibile anche una versione con blocco meccanico incorporato.

#### DOVE IMPIEGARE LE MOLLE A GAS

Le molle a gas hanno diversi impieghi di tipo industriale: generalmente sono usate per bilanciare le forze di azionamento di sportelli a sollevamento, boccaporti e/o porte; esse possono essere anche usate come dispositivi di tensionamento o come ammortizzatori.

#### IMPIEGHI PRINCIPALI

Portelloni di protezione - Portelli imbarcazioni - Lucernari - Sollevamento di pesanti coperchi.

## RESSORTS A' GAZ EN AISI 316 L

### INTRODUCTION

#### COMMENT ILS TRAVAILLENT

Le ressort à gaz est essentiellement constitué par un tuyau avec étanchéité parfaite, pressurisé, dans lequel est installée une tige qui peut bouger avec un mouvement alternatif ; sur la tige est installé un arrêt ( pseudo-piston) qui a le seul but de ne pas permettre la sortie de la tige du tuyau, quand elle est poussée par la pression du gaz pressurisé. La force utile du ressort à gaz est le résultat de la pression chargée dans le tuyau sur la surface de la section de la tige. Si la tige du ressort à gaz ne rencontre pas des arrêts mécaniques, elle fait toujours la course théorique complète. Il est disponible une version du ressort à gaz avec le blocage mécanique déjà installé.

#### OU ON UTILISE LES RESSORTS A' GAZ

Les ressorts à gaz ont plusieurs utilisations industrielles : en général ils sont employés pour balancer les forces nécessaires pour mouvoir les portières en ouverture, les écoutilles et/ou les portes ; ils peuvent être employés aussi comme dispositifs de tension et comme amortisseurs.

#### UTILISATIONS PRINCIPALES

Portelones de protection - Sabord d'accès sur les bateaux - Lucarnes - Mouvement des lourds couvercles.

## HOW TO CALCULATE GAS SPRINGS

### FOREWORD

Gas spring can only PUSH along the rod axis ( which can only push to exit but can not pull to enter, unless installed with a special cinematic mechanism ); the force changes along the stroke . Gas springs can be used to balance a force ( e.g. a weight force ) acting along the rod's axis; the following pictures show how the difference from all involved forces and distances of application points of each force compared with the rotation fulcrum, it is possible to reach different equilibrium situations.

### NOTE

Gas Spring's Force changes with the rod position, because when the rod is positioned inside the Gas Spring body, internal pressure rises and so Gas Spring force increase, as per following table, where you can read:  
 F1= Force with inside position rod F2 = Force with rod totally external

GAS SPRING TYPE	FORCE VALUE
MG 15	F1= F2 x 1.3
MG 19	F1= F2 x 1.4
MG 25	F1= F2 x 1.5
MG 30	F1= F2 x 1.5
MG 40	F1= F2 x 1.5

### GAS SPRING FORCE APPROXIMATE CALCULATION

With reference to design, balance is reached when

$$P \times \alpha = F1 \times b \text{ and } F1 = \frac{P \times \alpha}{b \times n} \times 9.8$$

Where values are:

P = Total value in kg of the force to be contrasted

α = Lever arm (mm) of the force to be contrasted

F1 = Gas spring force (with extended rod)

b = Lever arm (mm)

9,8= Conversion coefficient to transform kg in Newton

Moment's balance

$$F1 \times b = P \times a$$

$$F1 = \frac{P \times a}{b \times n} \times 9.8$$

Where you read:

P = Contrast Force (kg)

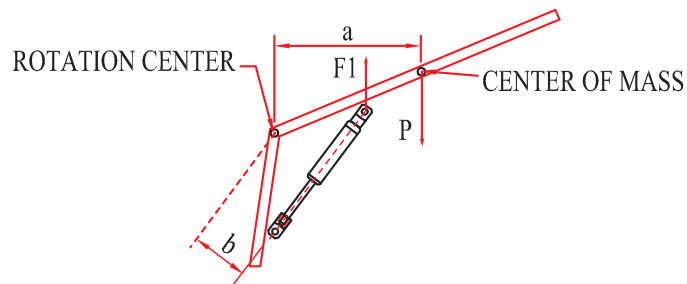
a = Usefull lever arm for contrast force (mm)

F1 = Gas Spring Force with extended rod (N)

b = Usefull lever arm for gas spring (mm)

n = Number of Gas Springs used

9.8 = Conversion number from kg to N



# GAS SPRINGS

# PRESSMAIR

## IL DIMENSIONAMENTO DELLE MOLLE A GAS

### PREMESSA

La molla a gas, per sua natura, può solo esercitare una forza di spinta lungo l'asse dello stelo ( che spinge solamente per uscite, e non può esercitare un tiro, se non è applicato ad un opportuno cinematismo); la forza varia lungo la corsa. Per questa ragione la molla a gas può essere usata per bilanciare una forza ( es. un peso) che agisca nel senso dello stelo; in riferimento al disegno allegato, ci si rende conto che in funzione delle forze applicate e delle distanze dai punti di fulcro, si possono ottenere differenti situazioni di equilibrio, che se correttamente applicate, consentono di ottenere vantaggi operativi .

### NOTE

La forza sviluppata dalla molla a gas cambia in funzione della posizione dello stelo più o meno rientrato nel corpo, poiché a stelo rientrato la pressione interna aumenta Il rapporto tra le diverse forze è espresso dalla tabella dove:  
 F1= Forza a stelo rientrato ; F2= Forza a stelo esteso

TIPO DI MOLLA	VALORE FORZA
MG 15	F1= F2 x 1.3
MG 19	F1= F2 x 1.4
MG 25	F1= F2 x 1.5
MG 30	F1= F2 x 1.5
MG 40	F1= F2 x 1.5

### Equilibrio dei momenti

$$F1 \times b = P \times a$$

$$F1 = \frac{P \times a}{b \times n} \times 9.8$$

In cui si deve intendere:

P = Forza da contrastare (kg)

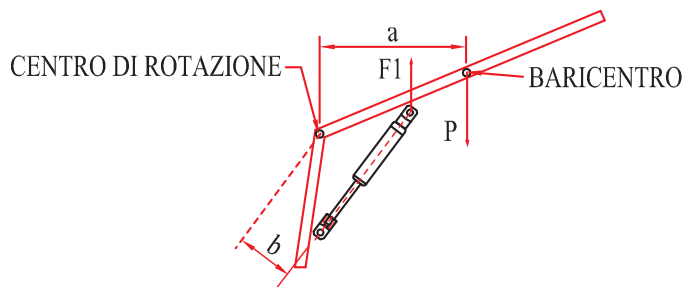
a = Braccio di leva per il calcolo del momento peso di contrasto (mm)

F1 = Forza della molla a stelo esteso(N)

b = Braccio di leva utile al calcolo del momento molla (mm)

n = Numero delle molle gas impiegate

9.8 = Coefficiente conversione da kg a N



## CALCUL DES RESSORT A' GAZ

### PREFACE

Les ressorts à gaz sont conçus pour exercer une poussée suivant l'axe de la tige (ils peuvent seulement pousser, ils ne peuvent pas tirer si non avec l'installation d'une application mécanique). La force n'est pas constante pendant l'extension de la tige. Pourtant les ressorts à gaz peuvent être employés pour s'opposer à une force qui agit en opposition à l'axe de la tige; en référence au plan attaché, on voit que en fonction des forces et des distances des bras de levier, on peut obtenir différentes situations d'équilibre, qui, si bien utilisées, donnent des avantages opératives.

### NOTES

La force réalisée par le ressort à gaz change par rapport à la position de la tige interne au corps, parce que la tige rentrée fait augmenter la pression du gaz. Le rapport entre les force est le suivant, ou l'on doit lire :  
 F1=Force avec la tige rentrée – F2=Force avec la tige sortie.

TYPE DU RESSORT	VALEUR DA LA FORCE
MG 15	F1= F2 x 1.3
MG 19	F1= F2 x 1.4
MG 25	F1= F2 x 1.5
MG 30	F1= F2 x 1.5
MG 40	F1= F2 x 1.5

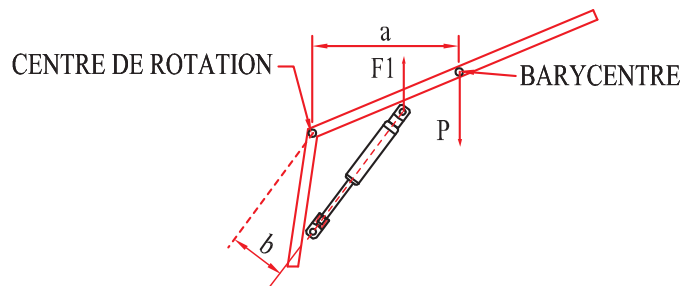
### Equilibre des moments

$$F1 \times b = P \times a$$

$$F1 = \frac{P \times a}{b \times n} \times 9.8$$

#### Legenda:

- P = Force de contrast (kg)
- a = Bras utile pour la force de contrast (mm)
- F1 = Force du ressort avec la tige sortie (N)
- b = Bras utile pour le ressort à gaz (mm)
- n = Numero des ressort à gaz employées
- 9.8 = Numéro de conversion de kg à N



## GAS SPRINGS

# PRESSMAIR

### **GAS SPRINGS TECHNICAL FEATURES**

**Gas springs are totally built using AISI 316 L Stainless Steel**

**Rod is made with AISI 316 L Chrome plated.**

**Repair kits are available for all gas springs types: if necessary it is possible to change all seals.**

**By a special tool, it is possible to perform the pressure refill of the gas spring, or to set up the internal pressure, having so the possibility of turning the usable force.**

**Dimensions, strokes and forces are indicated in the following pages.**

**It is possible to order gas springs equipped with a rod lock device usable in any stroke position you need.**

### LE CARATTERISTICHE DELLE MOLLE A GAS

Le molle a gas sono realizzate interamente in acciaio inossidabile AISI 316 L.

Lo stelo è in AISI 316 L cromato.

Esse sono concepite in modo da poter essere totalmente revisionate e rimesse a nuovo in caso di necessità.

Ogni molla è dotata di una speciale valvola per mezzo della quale è possibile, attraverso una opportuna attrezzatura, modificare la pressione interna alla molla, e perciò regolare la forza ottenuta sullo stelo.

Le dimensioni, le corse e le forze sono illustrate nelle pagine che seguono.

E' possibile ordinare le molle a gas provviste di un sistema di bloccaggio meccanico dello stelo, usabile in ogni posizione della corsa.

### *LES CARACTÉRISTIQUES TECHNIQUES DES RESSORTS A GAZ*

*Les ressorts à gaz sont totalement réalisés en acier inoxydable AISI 316 L.*

*La tige est en AISI 316 L, chromée.*

*Si nécessaire, on peut faire l'entretien complet des joints des ressorts à gaz.*

*Avec un outillage particulier, il est possible régler la pression interne, et pourtant régler la force de la tige.*

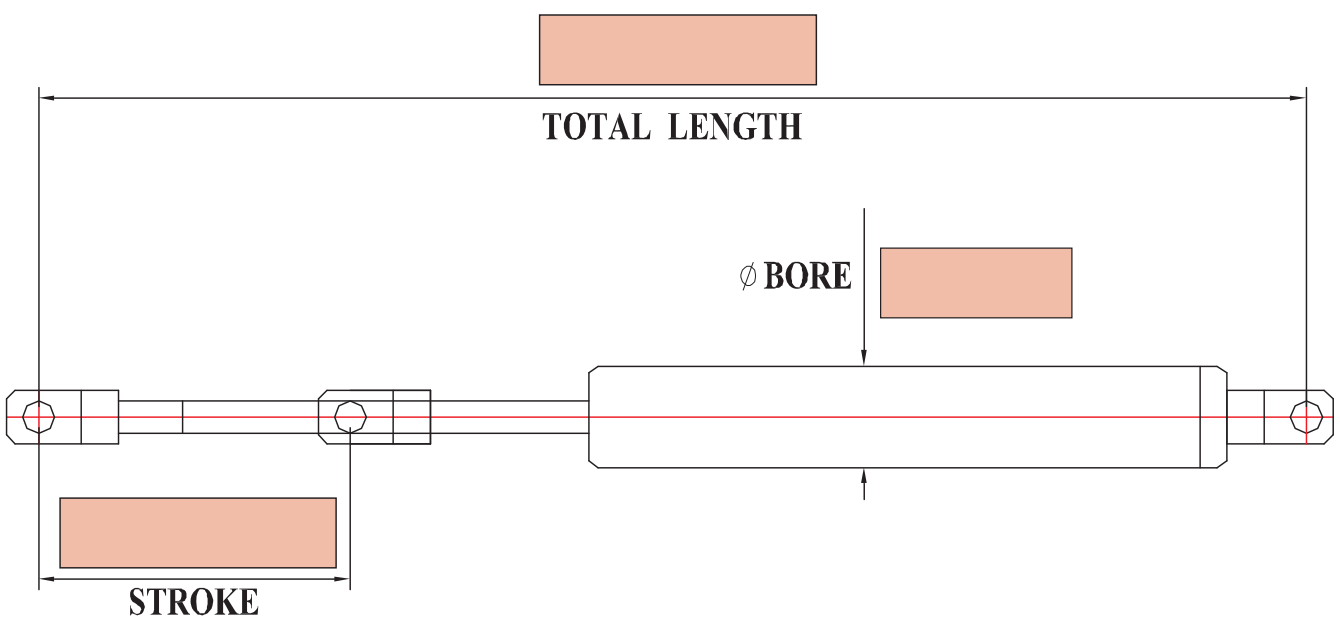
*Les dimensions, les courses et les forces sont indiquées dans le pages suivantes*

*Il est possible de commander les ressort à gaz équipés par un système de blocage mécanique de la tige dans n'importe quelle position de la course.*

## HOW TO CHOOSE A GAS SPRING

### 1 - IN CASE OF REPLACEMENT OF AN EXISTING GAS SPRING

- Are you looking for a standard gas spring ? YES / NO
- Are you looking for a gas spring with rod locking device? YES / NO
- Please fill the following form and send it by fax or e.mail to Pressmair:



- Needed force : \_\_\_\_\_ N
- Gas spring quantity you need : \_\_\_\_\_

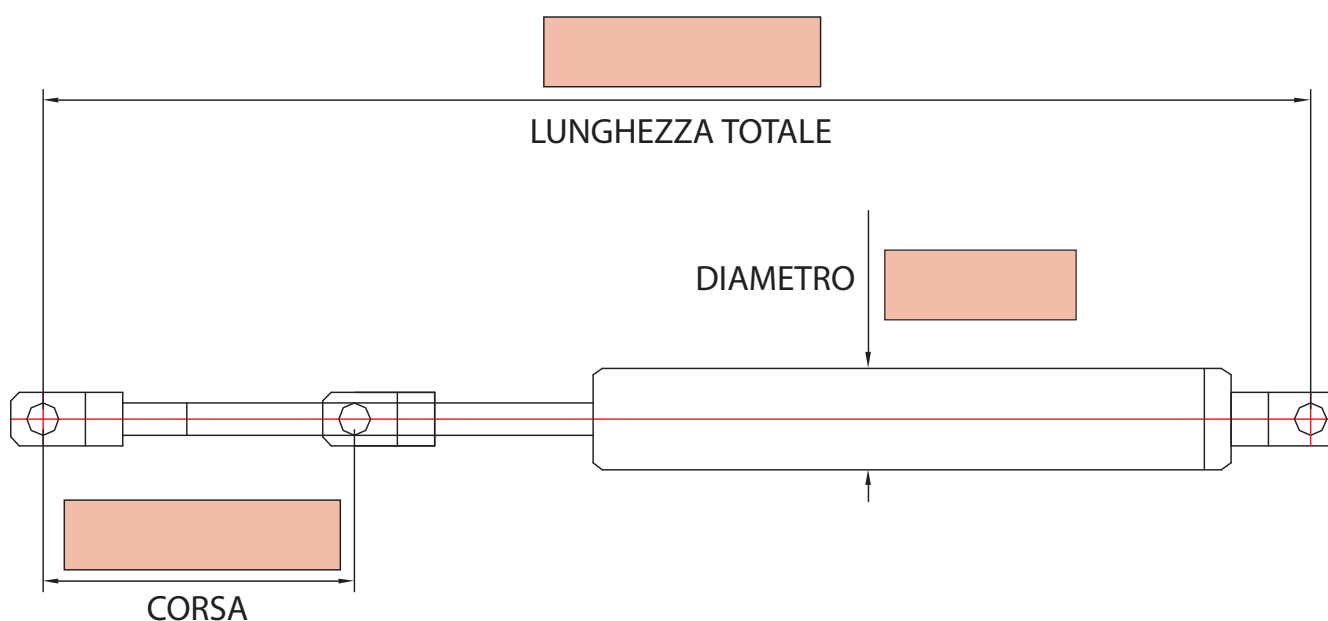
### 2 - IN CASE OF NEW APPLICATION

- Follow the instructions to calculate the spring force you need.
- Calculate the stroke you need, following your application necessities.
- Choose the right gas spring from our standard range
- If you do not find the right item in this catalogue, please contact us for a "special gas spring execution": WE CAN SOLVE YOUR PROBLEM.

**COME SCEGLIERE LE MOLLE A GAS**

**1 - IN CASO DI SOSTITUZIONE DI UNA MOLLA ESISTENTE**

- State cercando una molla a gas Standard SI / NO
- State cercando una molla a gas con blocca - stelo ? SI / NO
- Vi preghiamo di completare il modulo seguente, e di spedirlo a Pressmair per fax o e-mail



- Forza necessaria \_\_\_\_\_ N
- Di quante molle a gas avete bisogno ? \_\_\_\_\_

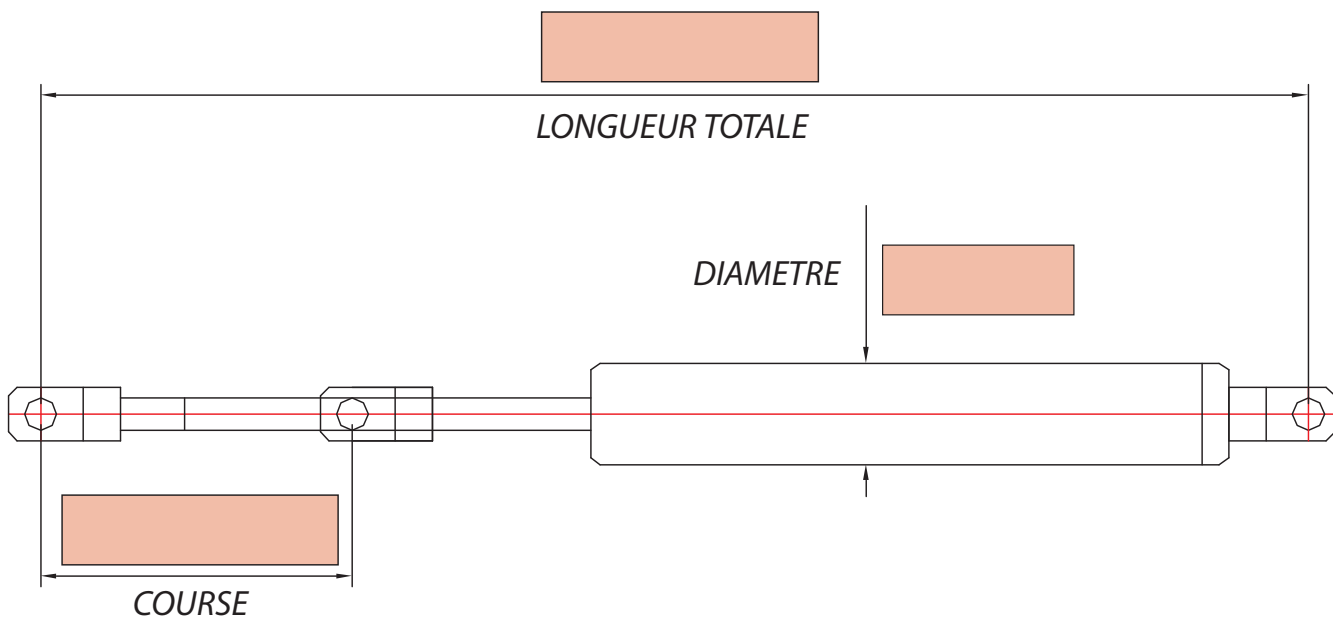
**2 - IN CASO DI UNA NUOVA APPLICAZIONE**

- Seguire le indicazioni fornite per calcolare la forza necessaria
- Calcolare la corsa in base alle necessità della vostra applicazione.
- Scegliere la molla corretta nella nostra gamma di produzione, come illustrata in questo catalogo.
- Se non trovate la molla a gas corretta, vi preghiamo di contattarci per la costruzione di una "molla a gas speciale":  
NOI POSSIAMO RISOLVERE IL VOSTRO PROBLEMA.

**CHOISIR LE RESSORT A GAZ**

**1 - SUBSTITUTION D'UN RESSORT A GAZ EXISTANT**

- Cherchez-vous une Ressort à gaz Standard ? OUI / NON
- Cherchez- vous une ressort à gaz avec système de blocage de la tige ? OUI / NON
- Prière de remplir le suivant formulaire et de l'envoyer pas télécopie ou e-mail à Pressmair



- La force nécessaire est \_\_\_\_\_ N
- Combien de pièces cherchez-vous? \_\_\_\_\_

**2 - NOUVELLE APPLICATION**

- Suivre les indications données pour la circulation de la force nécessaire.
  - Calculer la course nécessaire, en fonction des nécessités de votre application.
  - Choisissez le ressort à gaz parmi la gamme de production illustrée dans ce catalogue.
  - Si vous ne trouvez pas le ressort correct, prière de nous contacter pour la construction d'un « ressort à gaz spécial »:
- NOUS POUVONS RÉSOUDRE VOTRE PROBLÈME

## OUR SUGGESTIONS

1. Gas Springs can work in a range of temperature between -30°C to + 70°C
2. Gas Springs are filled with pure Nitrogen. Nitrogen is an inert gas, not flammable, not poisonous. All Gas Springs content high pressure gas (up to 200 Bar). Never try to open it, if you do not use the correct tool supplied by the producer.
3. Garbage disposal: Gas Springs are mainly made with metal components. They can go directly to the garbage disposal, provided that they must be cleared of the internal pressured gas.
4. All Gas Springs have a sticker showing the warning message "Do not open: High pressure- Protect from heat sources" and a second sticker with the item code.  
If you can not read this latter 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: only with this expedient it is possible to have the best cushioning action on extended rod end.
6. Gas Springs should be installed without any banding or lateral force; please check the proper fixation device, eventually equipped with the ball ring.
7. Gas Springs do not need any maintenance if installed in a clean site; do not grease or lubricate.
8. Please protect the Gas Spring's rod from knocks, scratches, filth and accidental paint. Seals can be damaged.
9. Please stock Gas Springs in a cool dry place; do not expose them to the sun ray. If properly stocked, Gas Springs will not loose their force. After a long time in stock, it is possible to have some seals stick-slip problems: it will be solved with the first Gas Spring action.
10. All Gas Springs are assembled on request; for this reason after the construction it is possible modify the force only, but not any external dimension. We can not accept any return.
11. We are open to let you have our suggestions and/or calculations to help you for the Gas Spring selection, but in any case the customer is the sole responsible for the choice.
12. Length tolerance is +/- 2,5 mm
13. Please avoid to ask for small diameter + long stroke + high force: rod will easily bend.

**PRESSMAIR****GAS SPRINGS****AISI 316L**

## I NOSTRI SUGGERIMENTI

1. Le molle a gas possono lavorare da -30°C a + 70°C
2. Le molle a gas sono riempite con Azoto puro. L'Azoto è un gas inerte, non infiammabile, non velenoso. Tutte le molle a gas contengono gas ad alta pressione (fino a 200 Bar). Non tentare mai di aprirle senza l'ausilio delle attrezzature appropriate fornite dal produttore.
3. Smaltimento: Le molle a gas sono fatte principalmente di metallo. Possono andare direttamente in discarica, purché sia stato tolto il gas in pressione contenuto.
4. Tutte le molle a gas hanno un targhetta con un messaggio di avvertimento: "Do not open: High pressure- Protect from heat sources" ed una seconda etichetta che indica il codice del prodotto. Se questa etichetta non è leggibile per qualsiasi ragione, Pressmair srl non accetterà alcun reclamo in garanzia, e non potrà essere chiamata responsabile per alcun possibile danno.
5. Le molle a gas dovrebbero essere montate con lo stelo rivolto verso il basso; solo con questo accorgimento si può avere il miglior rendimento dell'ammortizzatore a stelo esteso.
6. Le molle a gas dovrebbero essere installate in modo da non subire carichi laterali: si prega di verificare i sistemi di fissaggio, applicando ove necessario le testine oscillanti.
7. Le molle a gas non necessitano di alcuna manutenzione se installate in un ambiente pulito: non lubrificare né ingrassare.
8. Si invita a proteggere le molle a gas da urti, graffi, sporcizia e schizzi di vernice: possono danneggiare le guarnizioni.
9. Si invita a conservare le molle a gas in un posto fresco ed asciutto; non devono essere esposte ai raggi del sole. Se correttamente conservate, le molle a gas non perdono la loro forza. Dopo un lungo periodo di stoccaggio, si potrebbe presentare un problema di stick-slip (incollaggio delle guarnizioni): al primo funzionamento tale problema si risolverà.
10. Tutte le molle a gas sono prodotte su specifica richiesta del cliente: per questa ragione dopo la costruzione è possibile modificare solo la forza, ma non si può modificare alcuna altra dimensione esterna. Non si accettano ritorni per nessuna ragione.
11. Siamo disponibili a fornirvi i ns consigli e/o calcoli per aiutarvi nella scelta della corretta molla a gas; la responsabilità della scelta è in ogni caso del cliente.
12. Tolleranze sulle lunghezze : +/- 2,5 mm
13. Evitate di richiedere molle a gas di piccolo diametro + corsa lunga + forza elevata : lo stelo si piegherà facilmente.

## NOS SUGGESTIONS

1. Les ressort à gaz peuvent travailler entre  $-30^{\circ}\text{C}$  et  $+70^{\circ}\text{C}$
2. Les ressort a gaz sont remplies avec de l'azote pure. L'azote est un gaz inerte, pas inflammable, pas toxique. Tous les ressort a gaz contiennent du gaz à haute pression (jusque à 200 Bar). Jamais chercher d'ouvrir une ressort à gaz sans utiliser les correctes équipements données par le producteur.
3. *Écoulement*: les ressort à gaz sont fabriquées principalement avec du métal. Elles peuvent aller directement dans la décharge, mais il est nécessaire d'enlever le gaz en pression.
4. Toutes les ressorts à gaz ont une petite plaque avec ce message: "Do not open: High pressure-Protect from heat sources" et une seconde petite plaque avec le code du produit. Si cette dernière plaque n'est pas lisible pour n'importe quelle raison, Pressmair srl n'ira plus accepter aucune réclamation de garantie, et elle ne pourra plus être responsable pour aucun possible dommage.
5. Les ressorts à gaz devraient être installées avec la tige vers le bas; seulement avec cette précaution on peut avoir la meilleure fonction d'amortissement avec la tige étendue.
6. Les ressorts à gaz devraient être installées sans aucune charge latéral, qui les peuvent courber; on souhait votre attention sur les systèmes de fixation, avec la choix possible d'une tête pivotante.
7. Le ressorts à gaz n'ont besoin d'aucune entretien, si installées dans un milieu propre. SVP pas lubrifier et pas graisser.
8. SVP protégez les ressort à gaz du coups, égratignures, saleté et peinture: on peut endommager les joints.
9. SVP gardez les ressort à gaz dans un milieu fraîche et sec; elles ne peuvent pas être exposées au soleil direct. Si la conservation est correcte, les ressort à gaz ne perdent pas leur force. Après un long période de stockage, on pourrait avoir des problèmes de «stick-slip» sur les joints; avec la première action le problème ira disparaître.
10. Tous les ressorts à gaz sont produits sous indication spécifique du client: pour cette raison après l'assemblage il est possible de modifier seulement la force, mais on ne peut plus modifier aucune dimension externe. On n'accepte aucune restitution pour n'importe quelle raison.
11. Demandez nous nos conseils et nos calcules pour mieux choisir la ressort à gaz: nous vous les donnerons, mais rappelez vous que le seul responsable de la choix est le client.
12. Tolérances sur les longueurs:  $\pm 2,5$  mm
13. SVP ne demandez pas des ressorts à gaz de petit diamètre + longue course + force élevée: la tige ira se plier.



**PRESSMAIR**

**WITHOUT ROD LOCKING SYSTEM**  
**SENZA SISTEMA DI BLOCCO STELO**  
***SANS SYSTÈME DE BLOCAGE***  
***DE LA TIGE***

**AISI 316 L**

**PRESSMAIR**

**PRESSMAIR**

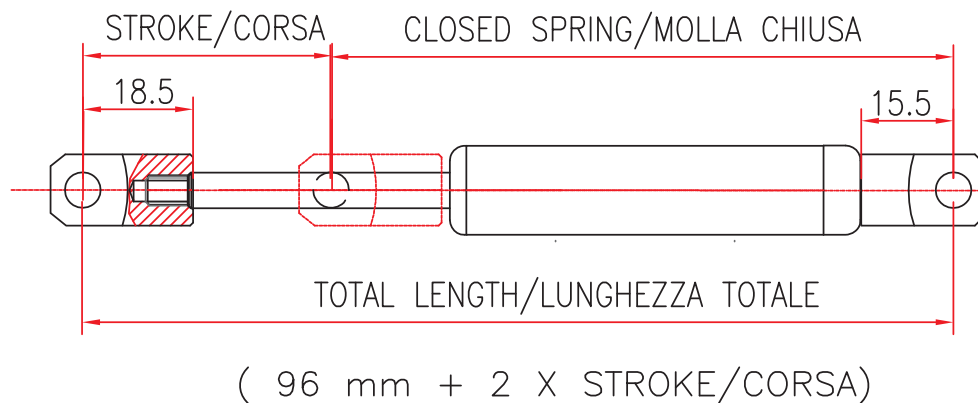
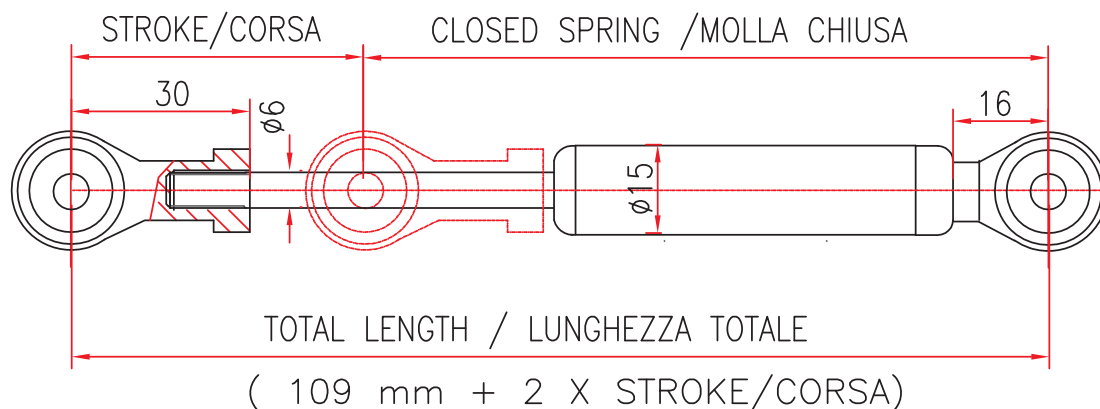
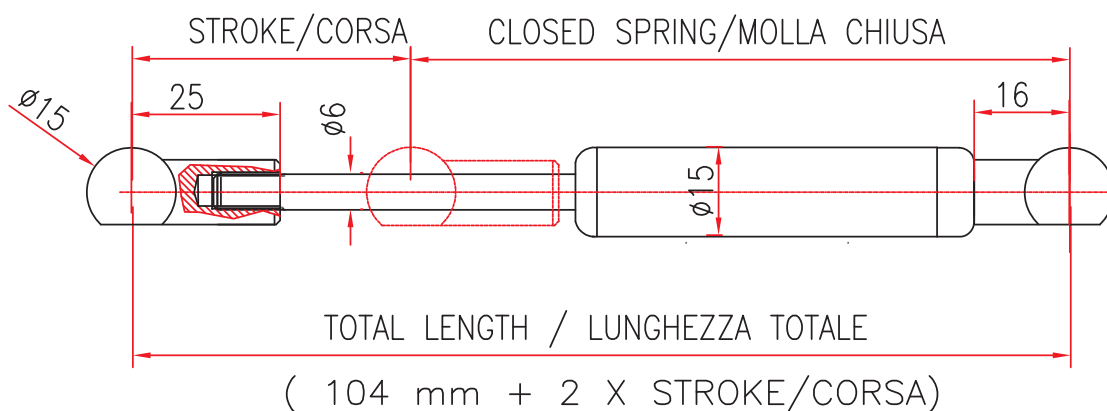
**GAS SPRINGS**

**AISI 316L**

**Bore 15 mm Gas Springs**

Molle a Gas da 15 mm

Ressort à Gaz diam. 15 mm



**Max possible force: 500 N**  
**Max available stroke: 400 mm**  
**Stroke and force: on request.**

Max forza possibile: 500 N  
 Max corsa possibile: 400 mm  
 Corsa e forza: a richiesta

*Max force possible: 500 N*  
*Max course possible: 400 mm*  
*Course et force: sur demande*

# AISI 316L

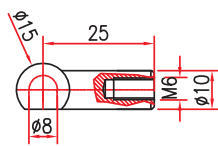
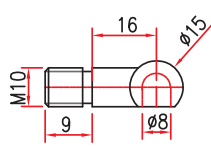
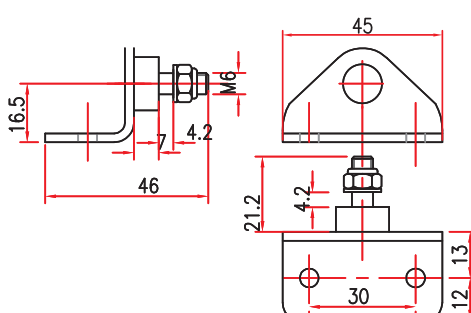
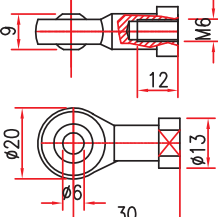
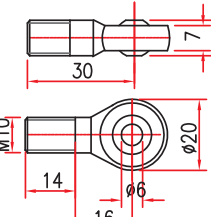
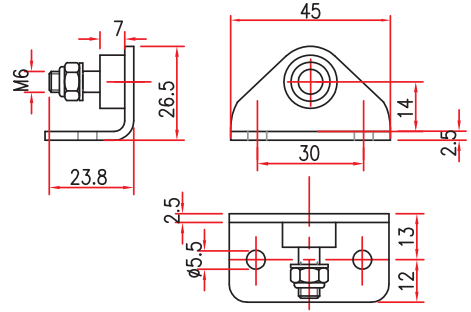
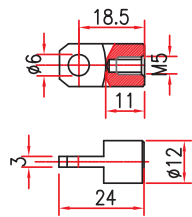
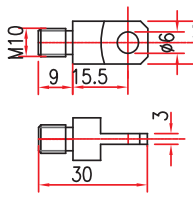
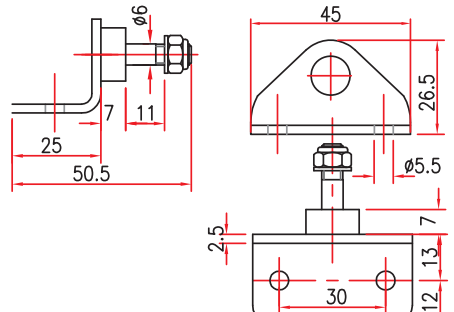
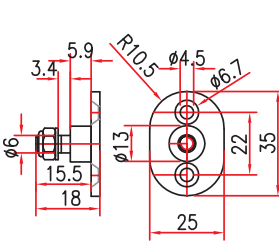
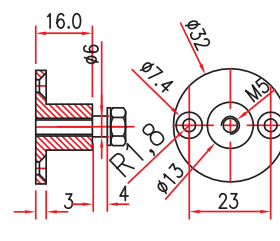
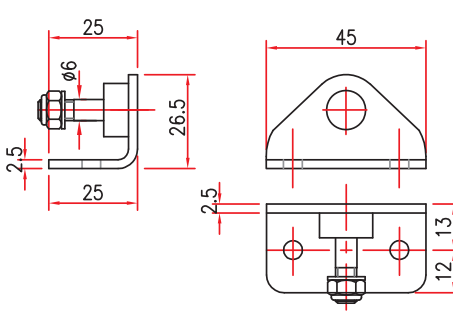
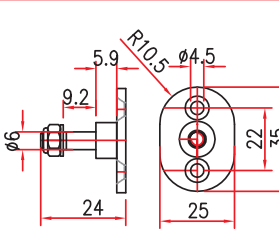
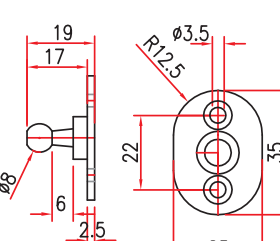
# GAS SPRINGS

# PRESSMAIR

Fixations Devices – Elementi di fissaggio – Elements de fixation.

AISI 316 L POLISHED

15 mm Gas Spring – Molle a Gas da 15 mm – Ressort à Gaz 15 mm

 <p><b>51490.01</b> Richiede molla speciale</p>	 <p><b>51490.02</b></p>	 <p><b>LP/04482.03</b></p>
 <p><b>50572</b> Richiede molla speciale</p>	 <p><b>LP/04302</b></p>	 <p><b>LP/04482.13</b></p>
 <p><b>08761</b></p>	 <p><b>08762</b></p>	 <p><b>LP/04482.04</b></p>
 <p><b>LP/04812.00</b> FLAT TYPE FOR FIXED HEAD TIPO PIANO PER TESTA FISSA</p>	 <p><b>LP/04751</b> FLAT TYPE FOR FIXED HEAD TIPO PIANO PER TESTA FISSA</p>	 <p><b>LP/04482.14</b></p>
 <p><b>LP/04812.10</b> FLAT TYPE FOR 51313 / LP/04314 TIPO PIANO PER 51313 / LP/04314</p>	 <p><b>LP/04475.03</b> FLAT TYPE FOR 51313 / LP/04314 TIPO PIANO PER 51313 / LP/04314</p>	

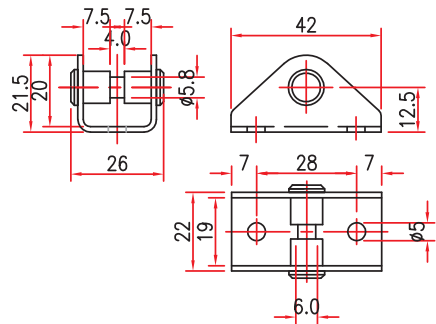
# PRESSMAIR GAS SPRINGS

## AISI 316L

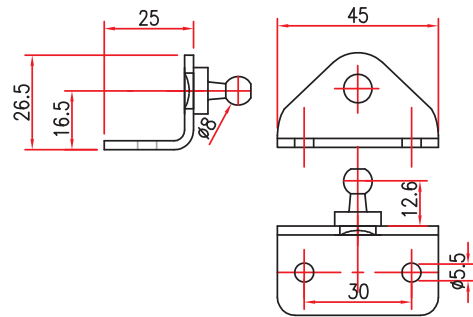
Fixations Devices – Elementi di fissaggio – *Elements de fixation.*

AISI 316 L POLISHED

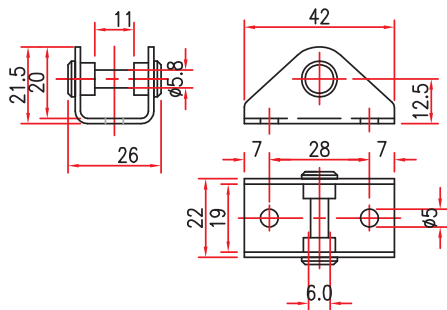
15 mm Gas Spring – Molle a Gas da 15 mm – *Ressort à Gaz 15 mm*



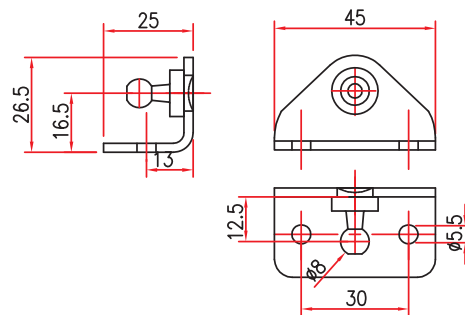
LP/04476.04



LP/04482.02



LP/04476.01



LP/04482.12

**AISI 316L**

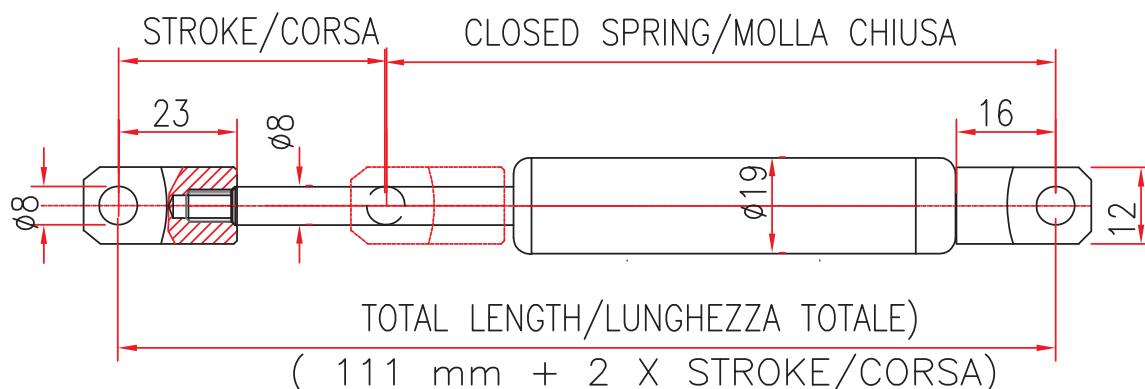
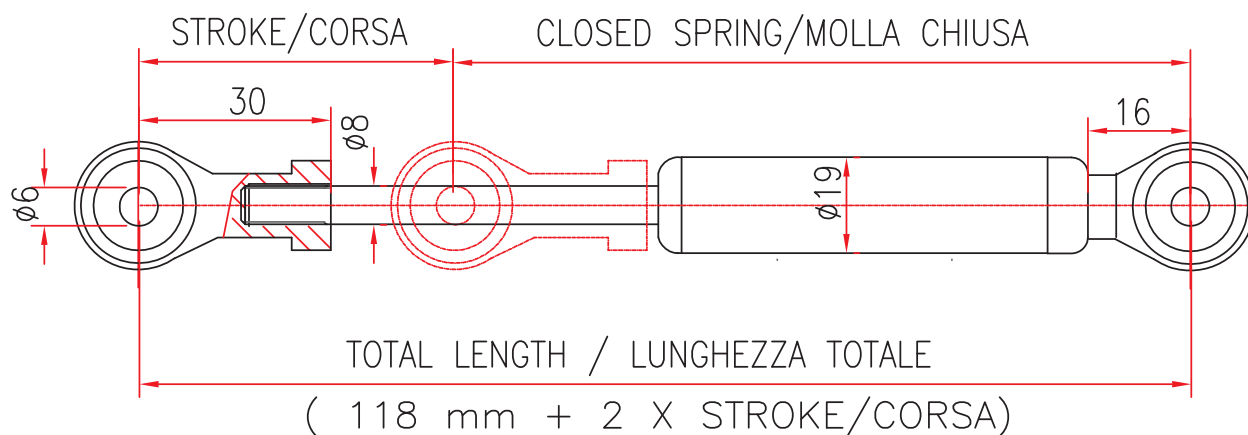
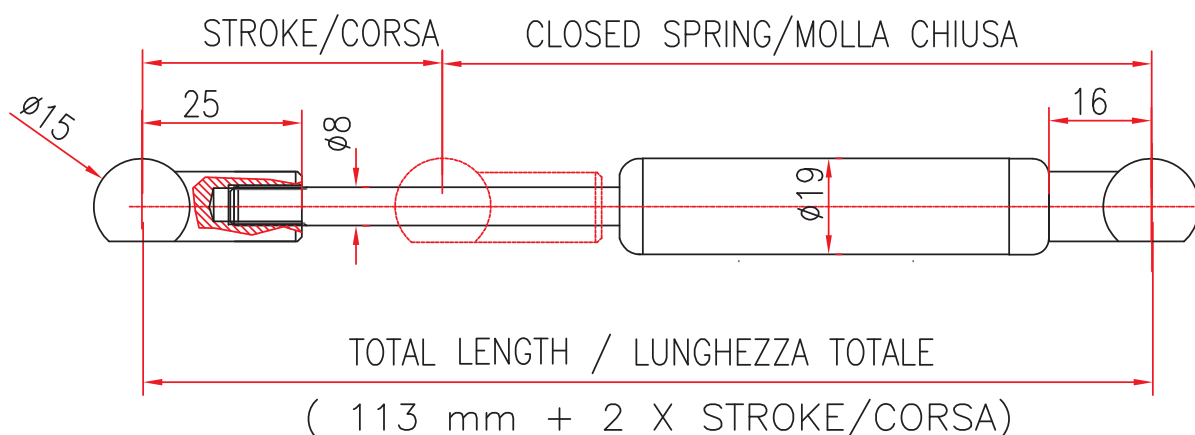
**GAS SPRINGS**

**PRESSMAIR**

**Bore 19 mm Gas Springs**

Molle a Gas da 19 mm

Ressort à Gaz diam. 19 mm



**Max possible force: 800 N**  
**Max available stroke: 500 mm**  
**Stroke and force: on request.**

Max forza possibile: 800 N  
 Max corsa possibile: 500 mm  
 Corsa e forza: a richiesta

Max force possible: 800 N  
 Max course possible: 500 mm  
 Course et force: sur demande

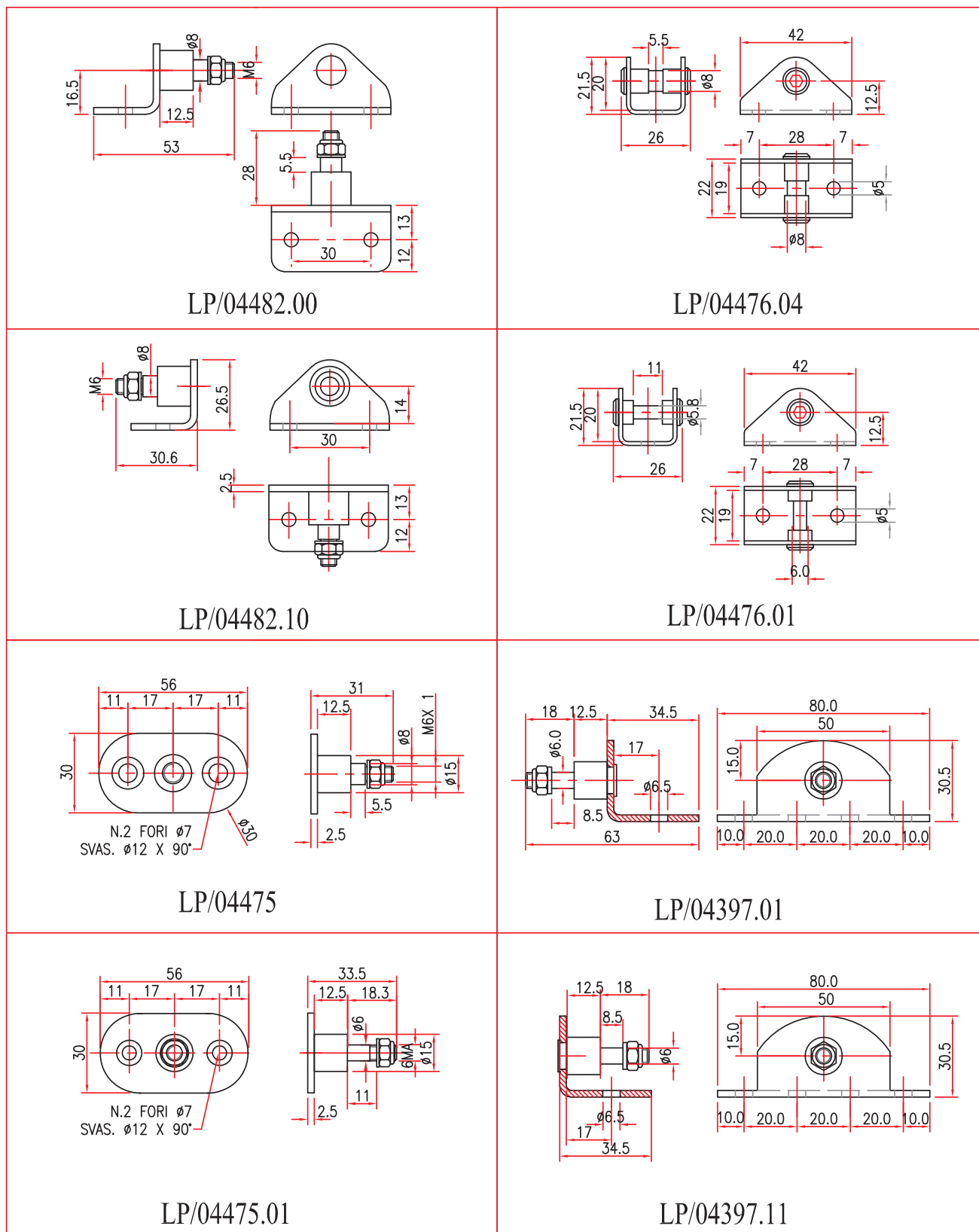
# PRESSMAIR GAS SPRINGS

# AISI 316L

Fixations Devices – Elementi di fissaggio – *Elements de fixation.*

AISI 316 L POLISHED

19 mm Gas Spring – Molle a Gas da 19 mm – *Ressort à Gaz 19 mm*





**PRESSMAIR**

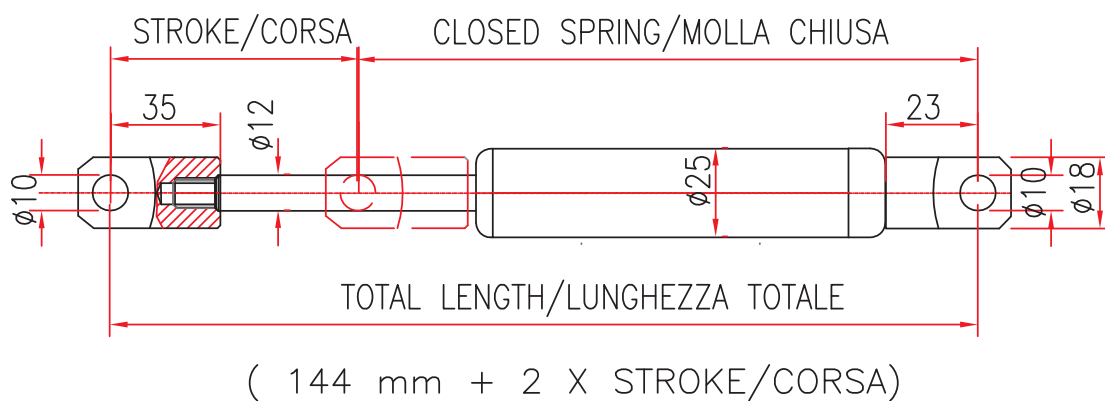
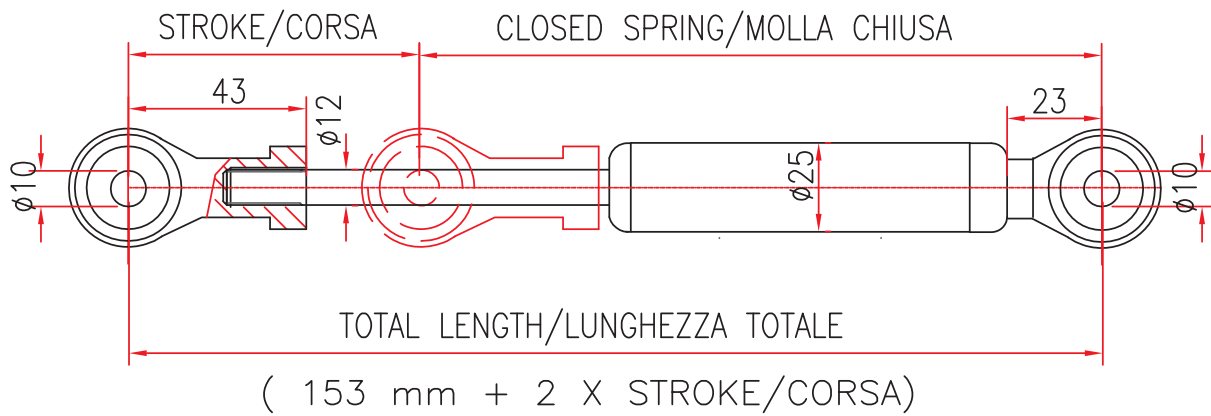
**GAS SPRINGS**

**AISI 316L**

**Bore 25 mm Gas Springs**

Molle a Gas da 25 mm

Ressort à Gaz diam. 25 mm



**Max possible force: 1800 N**  
**Max available stroke: 1000 mm**  
**Stroke and force: on request.**

Max forza possibile: 1800 N  
 Max corsa possibile: 1000 mm  
 Corsa e forza: a richiesta

Max force possible: 1800 N  
 Max course possible: 1000 mm  
 Course et force: sur demande



**PRESSMAIR**

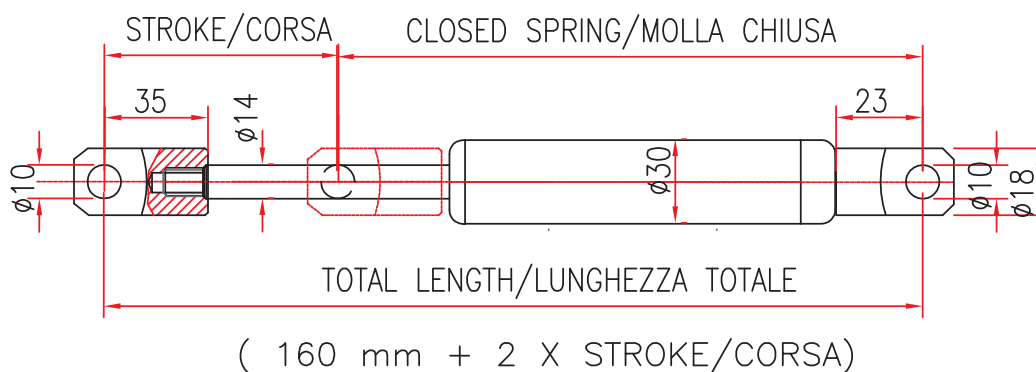
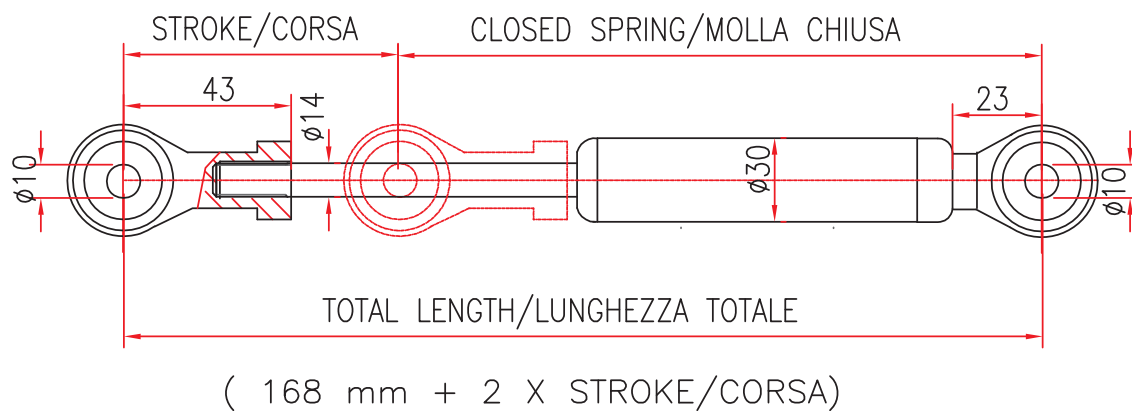
**GAS SPRINGS**

**AISI 316L**

**Bore 30 mm Gas Springs**

Molle a Gas da 30 mm

Ressort à Gaz diam. 30 mm



**Max possible force: 2400 N**  
**Max available stroke: 1400 mm**  
**Stroke and force: on request.**

**Max forza possibile: 2400 N**  
**Max corsa possibile: 1400 mm**  
**Corsa e forza: a richiesta**

**Max force possible: 2400 N**  
**Max course possible: 1400 mm**  
**Course et force: sur demande**



**PRESSMAIR**

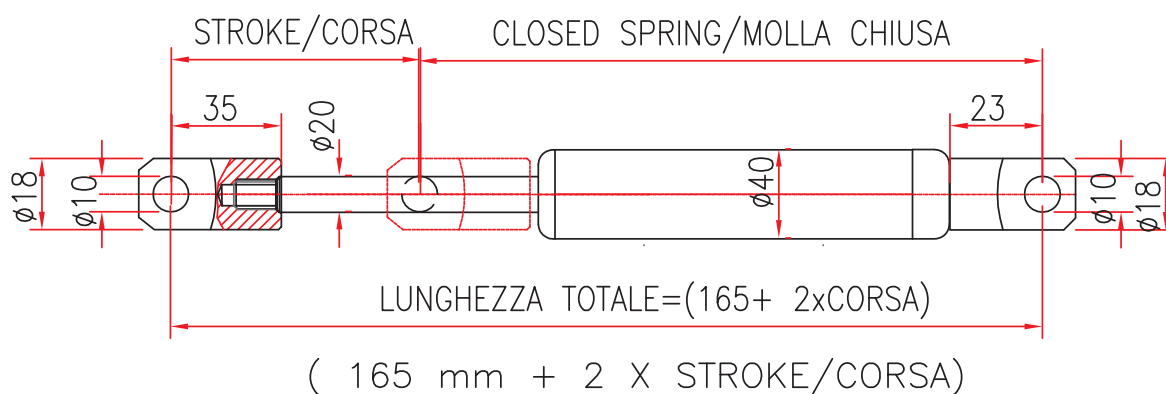
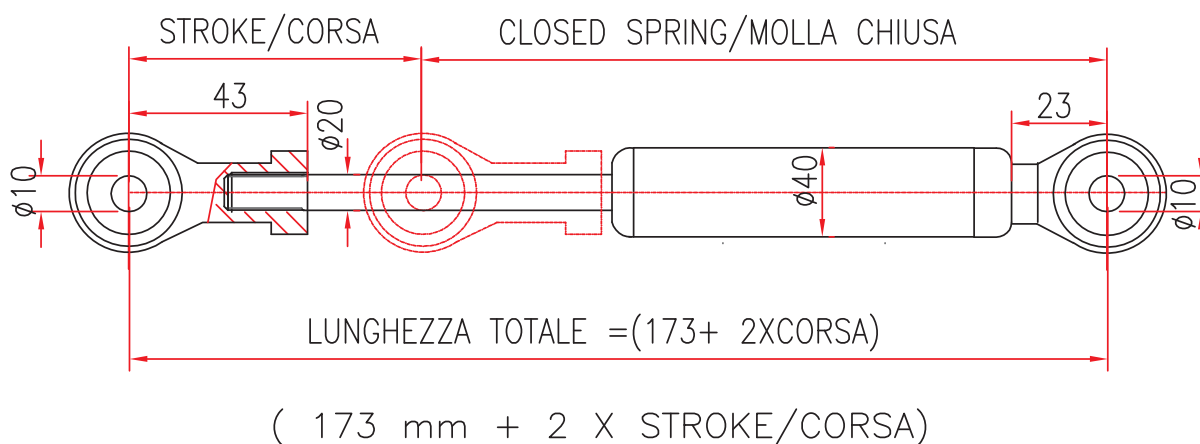
**GAS SPRINGS**

**AISI 316L**

**Bore 40 mm Gas Springs**

Molle a Gas da 40 mm

Ressort à Gaz diam. 40 mm



**Max possible force: 5000 N**  
**Max available stroke: 2000 mm**  
**Stroke and force: on request.**

Max forza possibile: 5000 N  
 Max corsa possibile: 2000 mm  
 Corsa e forza: a richiesta

Max force possible: 5000 N  
 Max course possible: 2000 mm  
 Course et force: sur demande



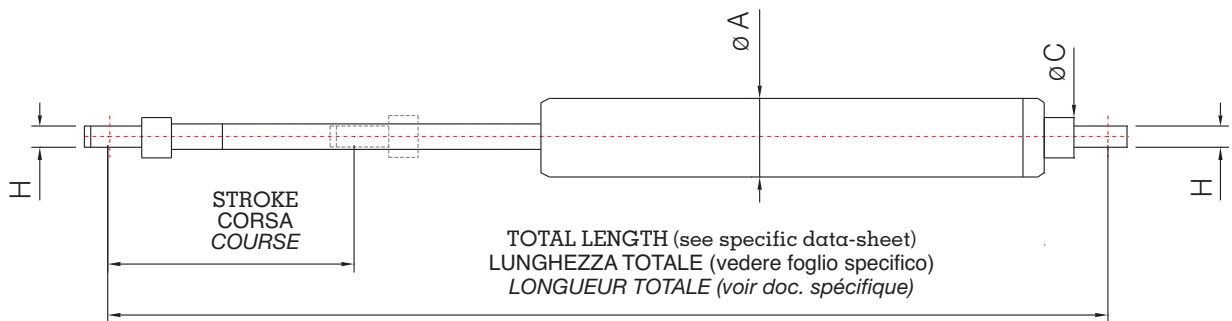
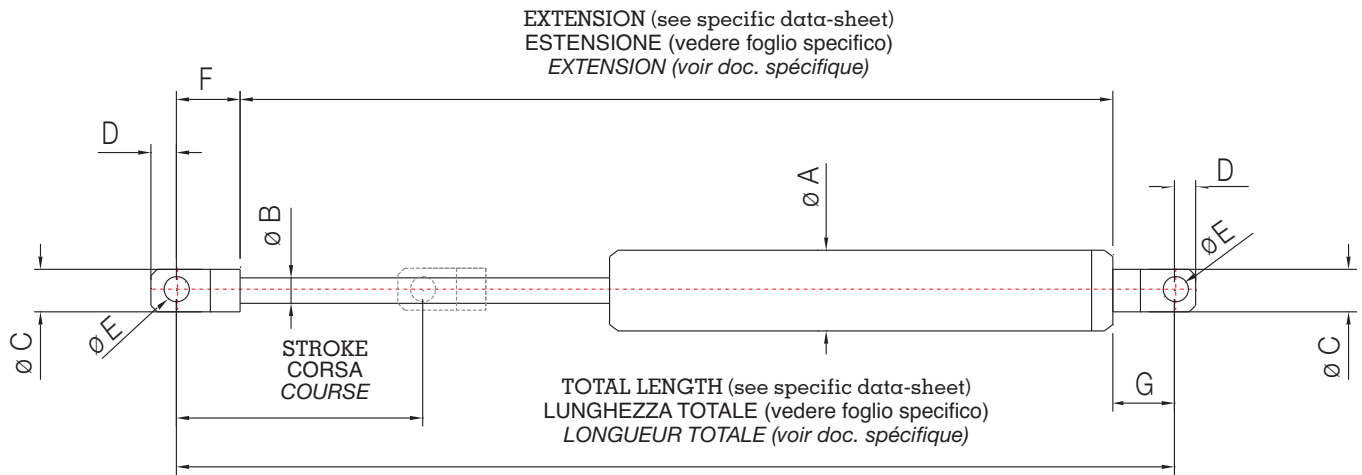
# PRESSMAIR GAS SPRINGS

## AISI 316L

### Gas Springs - General Dimensions

Molle a Gas - Dimensionamento Generale

Ressort à Gaz - Dimensions Générales



A	B	C	D	E	F	G	H
15	6,0	12,0	5,5	6,0	18,5	15,5	3,0
19	8,0	12,0	6,0	8,0	23,0	16,0	5,0
25	12,0	18,0	9,0	10,0	35,0	23,0	10,0
30	14,0	18,0	9,0	10,0	35,0	23,0	10,0
40	20,0	18,0	9,0	10,0	35,0	23,0	10,0

**PRESSMAIR**

**WITH ROD LOCKING SYSTEM**  
**CON SISTEMA DI BLOCCO STELO**  
***AVEC SYSTÈME DE BLOCAGE***  
***DE LA TIGE***

**AISI 316 L**

**PRESSMAIR**

# PRESSMAIR GAS SPRINGS

## AISI 316L

### Gas springs with rod locking system (bore 19 only)

Molle a gas con sistema di bloccaggio stelo (solo alesaggio 19)

*Ressort a gaz avec systeme de blocage de la tige (seulement diam. 19)*

**Gas Spring Bore: 19 mm**

**Equipped with Rod Locking System**

**Max Lockable force: 300 N**

**Totally interchangeable with the standard type**

**All dimensions not indicated remain unchanged**

Molla a gas da 19 mm con sistema di bloccaggio stelo.

Forza max bloccabile: 300 N

Totamente intercambiabili con il tipo standard.

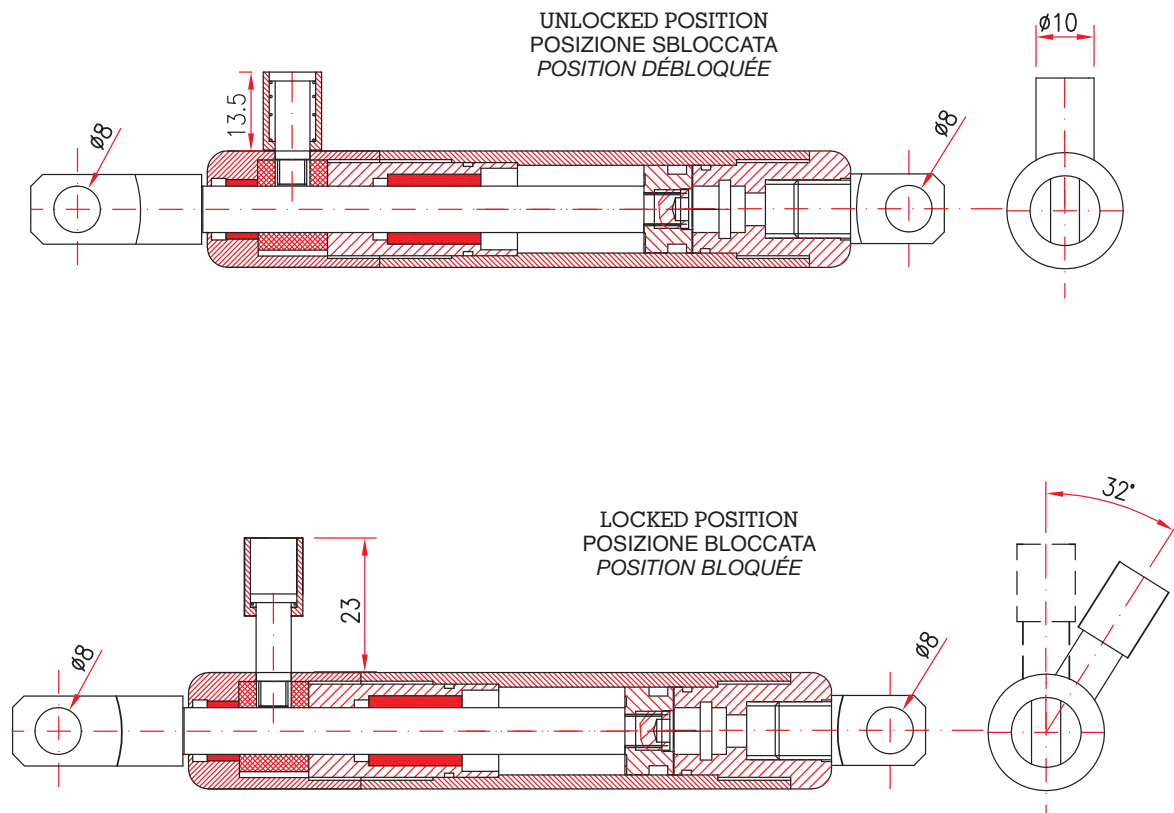
**Tutte le dimensioni non indicate restano invariate**

*Ressort à gaz diam. 19 mm avec système de blocage de la tige.*

*Maxforce qu 'on peut bloquer: 300 N*

*Totalemnt interchangeable avec le type standard.*

***Toutes les dimensions pas indiquées ne varient pas.***



**PRESSMAIR**

**WITHOUT ROD LOCKING SYSTEM**  
**SENZA SISTEMA DI BLOCCO STELO**  
***SANS SYSTÈME DE BLOCCAGE***  
***DE LA TIGE***

**ALUMINIUM**

**PRESSMAIR**

**PRESSMAIR**

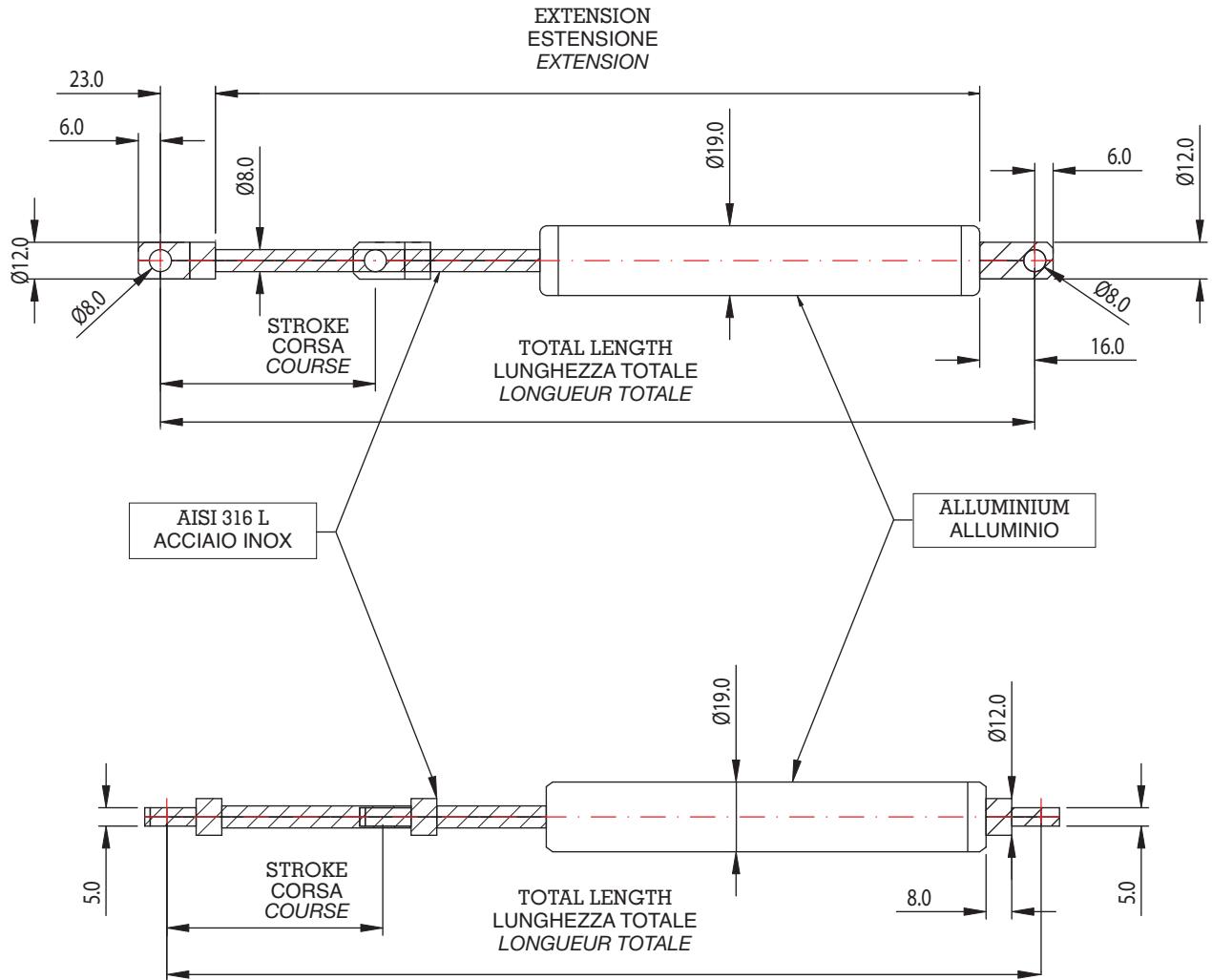
**GAS SPRINGS**

**ALUMINIUM**

**Bore 19 mm Aluminium Gas Springs**

Molle a Gas da 19 mm in Alluminio

Ressort à Gaz diam. 19 mm en Aluminium



**Max possible force: 800 N**  
**Max available stroke: 500 mm**  
**Stroke and force: on request.**

Max forza possibile: 800 N  
 Max corsa possibile: 500 mm  
 Corsa e forza: a richiesta

Max force possible: 800 N  
 Max course possible: 500 mm  
 Course et force: sur demande

# ALUMINIUM

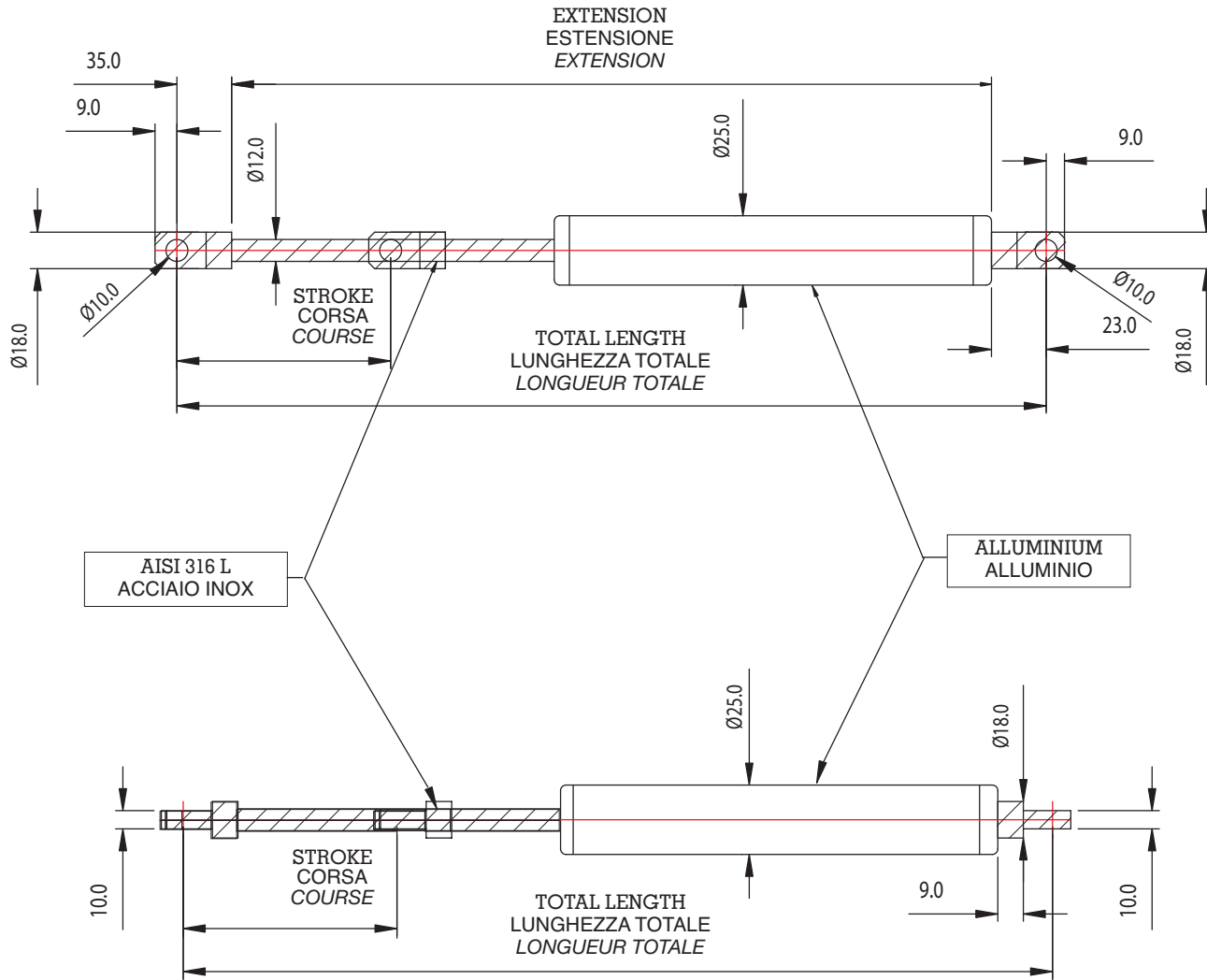
# GAS SPRINGS

# PRESSMAIR

## Bore 25 mm Aluminium Gas Springs

Molle a Gas da 25 mm in Alluminio

Ressort à Gaz diam. 25 mm en Aluminium



**Max possible force: 1800 N**  
**Max available stroke: 1000 mm**  
**Stroke and force: on request.**

**Max forza possibile: 1800 N**  
**Max corsa possibile: 1000 mm**  
**Corsa e forza: a richiesta**

**Max force possible: 1800 N**  
**Max course possible: 1000 mm**  
**Course et force: sur demande**

## AISI 316 L Spinning Heads

Teste a snodo in AISI 316 L  
Chapes Rotulées en AISI 316 L

Gas Spring Bore 19: Code 50572  
Gas Spring Bore 25/30/40: Code 51313

Gas Spring Bore 19: Code LP/04302  
Gas Spring Bore 25/30/40: Code LP/04314

	$\alpha^\circ$	$\text{ØA}$	B	C	D1	D2	E	F	G	GL	K	$\text{ØO}$
$\text{Ø}15$	13°	12,70	9	M 10 x 1,5	20	6	5,0	30	M 6 x 1	12	13	8,9
$\text{Ø}19$	13°	12,70	9	M 14 x 1,5	20	6	5,0	30	M 6 x 1	12	13	8,9
$\text{Ø}25$	13°	19,05	14	M 14 x 1,5	28	10	6,5	43	M 10 x 1,5	20	19	12,9
$\text{Ø}30$	13°	19,05	14	M 14 x 1,5	28	10	6,5	43	M 10 x 1,5	20	19	12,9
$\text{Ø}40$	13°	19,05	14	M 14 x 1,5	28	10	6,5	43	M 10 x 1,5	20	19	12,9

## Accessories for Gas Springs All Type

Accessori per tutti i tipi di Molle a Gas  
Accessoires pour tous types de Ressort à Gaz

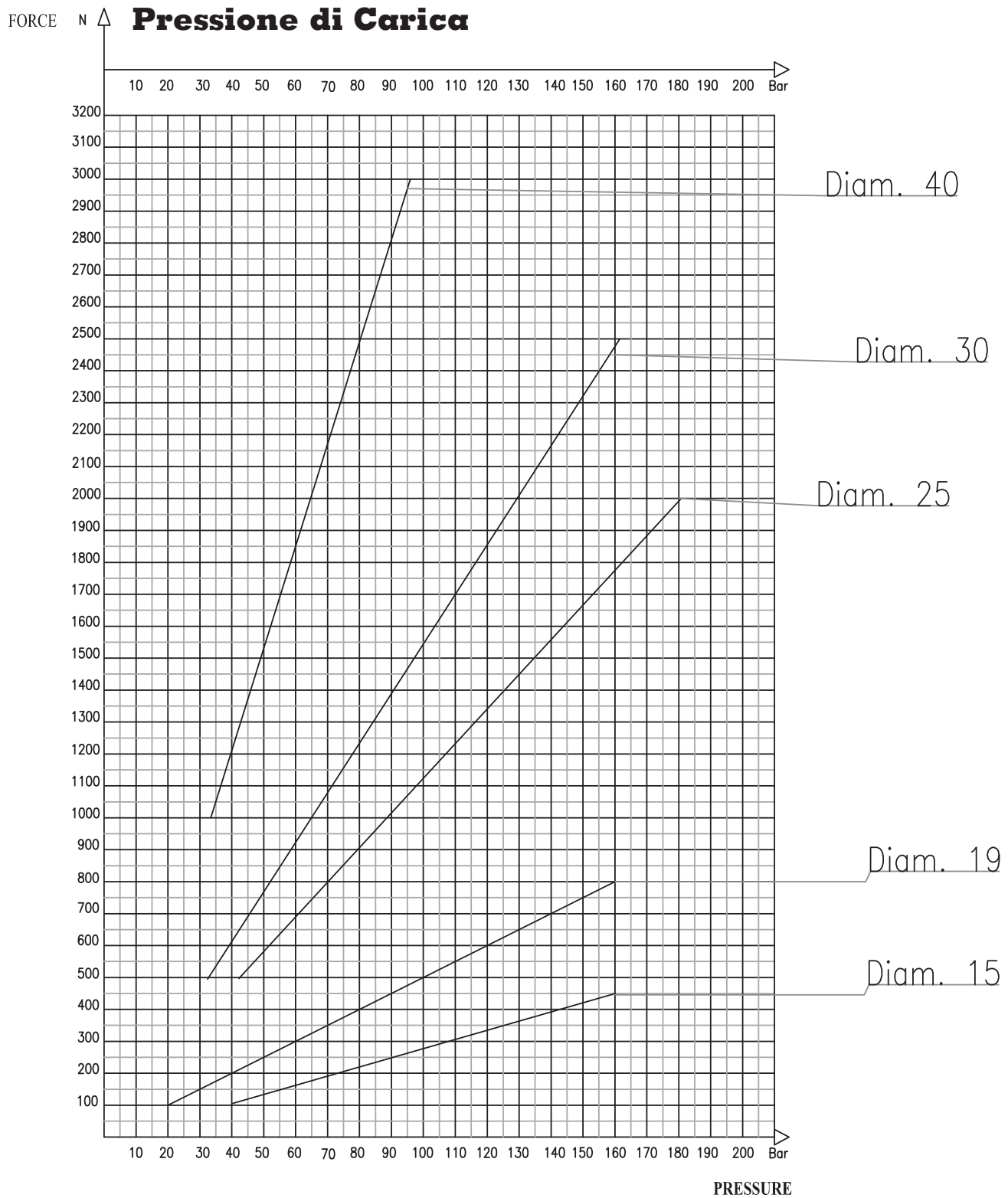


	Code
Special valve for charge and set-up of Gas Spring Valvola speciale per la ricarica e la regolazione delle molle a Gas Valve special pour recharge et mise à point des Ressorts à Gaz	<b>LP/04306</b>
Pressure Regulator I.P 200 Bar - O.P. 100 Bar Regolatore di pressione P.I. 200 Bar - P.U. 100 Bar Régulateur de Pression P.I. 200 Bar - P.S.100 Bar	<b>51685</b>
Connecting Flexible Pipe Tubo Flessibile di Collegamento Tube Flexible de connection	<b>51526</b>

# GAS SPRINGS

# PRESSMAIR

## Diagramma Forze/Pressioni



\_\_\_\_\_ Diam. 15      \_\_\_\_\_ Diam. 19      \_\_\_\_\_ Diam. 25      \_\_\_\_\_ Diam. 30      \_\_\_\_\_ Diam. 40  
 1Bar = 2.83 N      1Bar = 5 N      1Bar = 11.3N      1Bar = 15,4N      1Bar = 31.4N









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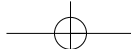
**NAVAL ENGINEERING AND CONSTRUCTION**

**INDUSTRIAL PNEUMATIC AND HYDRAULIC COMPONENTS**

*41034 Finale Emilia (Modena) ITALY - Via Miari, 3/C*

**PH. ++39.0535.760343 - Fax ++39.0535.760356**

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