AutomotiveLine

NITROGEN GAS SPRINGS FOR PRESS TOOLS, DIES AND MOULDS

ARCURI CU GAZ AZOT PENTRU UNELTE DE PRESĂ, MATRIȚE ȘI MATRIȚE

BORDIGNON

Where innovation happens

www.bordignon.com

WHERE INNOVATION HAPPENS

68
YEARS of
INNOVATION

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Automotive line: flexibility and performance for the manufacturers worldwide

Linia auto: flexibilitate și performanță pentru producătorii din întreaga lume

Through our long-term and close collaboration with the manufacturers of the automotive market, we are familiar with their needs. That's why we have created a line of gas springs and accessories that combines performance, flexibility and optimization.

Prin colaborarea noastră strânsă și pe termen lung cu producătorii pieței auto, suntem familiarizați cu nevoile lor. De aceea am creat o gamă de arcuri și accesorii pe gaz care combină performanță, flexibilitate și optimizare.

The Bordignon nitrogen gas springs, if properly used, will last more than 200,000,000 mm of total stroke in normal working conditions.
Arcurile cu gaz azotic Bordignon, dacă sunt folosite corespunzător, vor rezista peste 200.000.000 mm de cursă totală în condiții normale de funcționare.

SYSTEM CERTIFICATION UNI EN ISO 9001 ITALCERT® *

RoHS 2011/65/EU

PED in accordance with 2014/68/EU

* ISO 9001 certificate available for download on www.bordignon.com
Certificatul ISO 9001 disponibil pentru descărcare pe www.bordignon.com

A pioneering approach extending the boundaries

O abordare de pionierat care a extins granițele

Starting 60 years ago, Bordignon succeeded in becoming the leading company in the reference market, developing new technological solutions applied to springs, nitrogen gas springs and solutions for press tools, dies and moulds.

Our vision about business investments aims to mainly focus on research and development, and at the same time it guarantees the highest standards of products quality and performance, thanks to highly specialised manpower and to the innovative technologies that characterise our production plants.

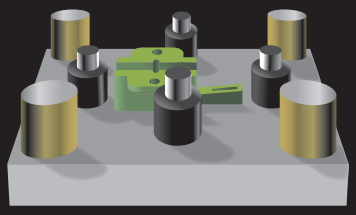
Începând cu 60 de ani în urmă, Bordignon a reușit să devină compania de top pe piața de referință, dezvoltând soluții tehnologice noi aplicate arcurilor, arcurilor cu gaz azot și soluțiilor pentru unelte de presă, matrițe și matrițe.

Viziunea noastră privind investițiile în afaceri urmărește în principal cercetarea și dezvoltarea și, în același timp, garantează cele mai înalte standarde de calitate și performanță a produselor, datorită forței de muncă extrem de specializate și tehnologiilor inovatoare care caracterizează fabricile noastre de producție.

Power & compactness

Putere și compactitate

Wire springs (low power)
Arcuri de sârmă (consum redus)



Gas springs (high power)
Arcuri cu gaz (putere mare)

Nitrogen gas springs offer many advantages over traditional wire springs: higher force, more compact dimensions (height and diameter), no pre-compression (pre-load) needed, no damage to the tool because of breakage, longer potential service life.

Reduction of die size translates into cost reduction and higher productivity, with advantages for both the die-maker and the die-user.

Arcurile cu gaz azot oferă multe avantaje față de arcurile tradiționale din sârmă: forță mai mare, dimensiuni (înălțime și diametru) mai compacte, lipsă de pre-compresie (pre-încărcare), nicio deteriorare a uneltei cauzate de rupere, durată de viață de serviciu potențială mai lungă.

Reducerea dimensiunii matriței se traduce prin reducerea costurilor și o productivitate mai mare, cu avantaje atât pentru producătorul matriței, cât și pentru utilizatorul matriței.

Durability, reliability, cost reduction

Durabilitate, fiabilitate, reducere a costurilor

The Bordignon "Automotive Line" nitrogen gas springs have been developed as a reliable, standard solution for the automotive industry. Part of their design and technology comes from the well-known Bordignon "High Performance Line" nitrogen gas springs and therefore they offer – at an advantageous price – superior performance and durability when compared to the other nitrogen gas springs on the market.
Die makers will appreciate the Bordignon "Automotive Line" nitrogen gas springs as a standard solution for the automotive industry (as well as for other fields/applications) and will be confident in a superior product reliability. Die users will appreciate the Bordignon "Automotive Line" nitrogen gas springs for their superior durability, which translates into the reduction of production stops and costs.

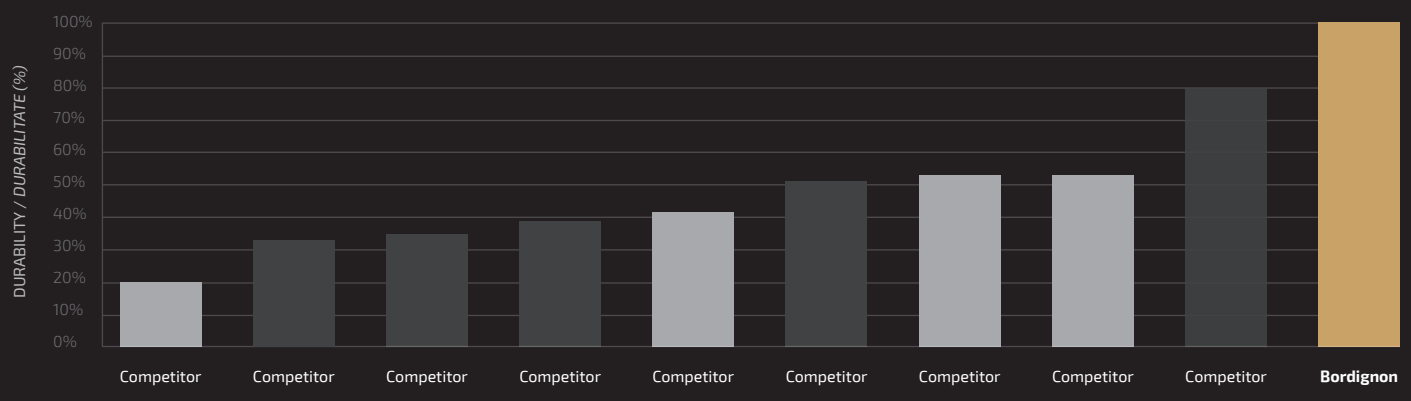
The following graph shows a relative comparison between the service life of two Bordignon "Automotive Line" nitrogen gas springs series (AGS and TGS, taken as samples for all the other series) and the service life of the other four most durable nitrogen gas springs on the market (according to the tests performed by Bordignon*). The data have been collected from tests that were performed in several, different use conditions. In all these comparison tests, the Bordignon gas spring and the corresponding "non-Bordignon" model have always been tested in the same identical use conditions: the result is that, under the same use conditions, the service life of Bordignon nitrogen gas springs is from 1.2 up to 5 times longer than the service life of the other gas springs*.

Arcurile cu gaz azot "Automotive Line" Bordignon au fost dezvoltate ca o soluție fiabilă și standard pentru industria auto. O parte din designul și tehnologia lor provine de la binecunoscutele izvoare Bordignon "High Performance Line" cu gaz de azot și, prin urmare, oferă – la un preț avantajos – performanțe și durabilitate superioare comparativ cu celelalte arcuri cu gaz azot de pe Piață.
Producătorii de matrițe vor aprecia arcurile Bordignon "Automotive Line" ca soluție standard pentru industria auto (precum și pentru alte domenii/aplicații) și vor avea încredere într-o fiabilitate superioară a produsului. Utilizatorii de matrițe vor aprecia arcurile Bordignon "Automotive Line" pentru durabilitatea lor superioară, ceea ce se traduce prin reducerea opririlor de producție și a costurilor.

Graficul următor arată o comparație relativă între durata de viață a două serii de izvoare cu gaz azot "Automotive Line" Bordignon (AGS și TGS, luate ca mostre pentru toate celelalte serii) și durata de viață a celorlalte patru izvoare cu gaz azot cele mai durabile de pe piață (conform testelor efectuate de Bordignon). Datele au fost colectate din teste efectuate în mai multe condiții de utilizare diferite. În toate aceste teste de comparație, arcul gazos Bordignon și modelul corespunzător "non-Bordignon" au fost întotdeauna testate în aceleași condiții de utilizare identice: rezultatul este că, în aceleași condiții de utilizare, durata de viață a arcurilor cu gaz azot Bordignon este de 1,2 până la 5 ori mai lungă decât durata de viață a celorlalte arcuri cu gaz*.*

DURABILITY UNDER THE SAME OPERATING CONDITIONS */ *DURABILITATE ÎN ACELEAȘI CONDIȚII DE FUNCȚIONARE* *

(The graph shows reference values / *Graficul arată valorile de referință*)



* The results of the tests performed by Bordignon are freely available on request
** Rezultatele testelor efectuate de Bordignon sunt disponibile gratuit la cerere*

Tests vs. Bordignon AGS
Teste vs. Bordignon AGS

Tests vs. Bordignon TGS
Teste vs. Bordignon TGS

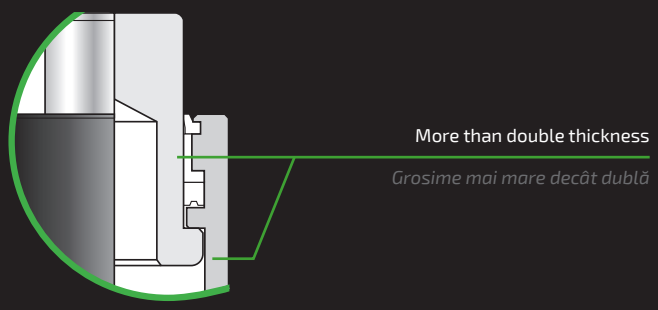
Safety & reliability

Siguranță și fiabilitate

Safety

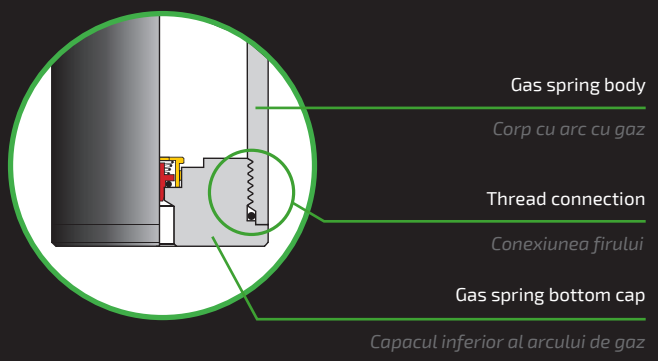
Bordignon nitrogen gas springs have always been built with single ("monolithic") thick mechanical components, in order to ensure product integrity and maximum user's safety even under the most extreme wrong use conditions (collisions, etc.).

Bordignon construction - Single "monolithic" components
Construcția Bordignon *- Componente "monolitice" unice*



Bordignon gas spring components are coupled through thread connections, for the highest possible safety. Thread connections are standard in high pressure equipment around the world, such as waterjet cutting nozzles and ultra high pressure vessels (~10000 bar).

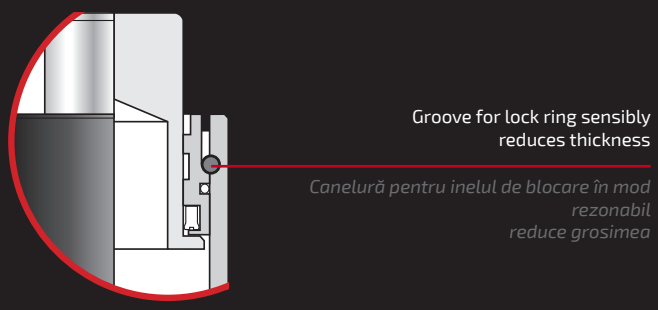
Bordignon construction - Body/bottom cap threaded junction
Construcția Bordignon *- Joncțiune filetată corp/capac inferior*



Siguranță

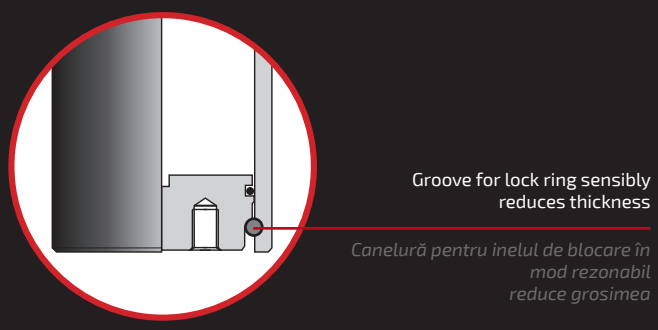
Arcurile cu gaz de azot Bordignon au fost întotdeauna construite cu componente mecanice monolitice ("monolitice"), pentru a asigura integritatea produsului și siguranța maximă a utilizatorului chiar și în cele mai extreme condiții de utilizare greșite (coliziuni etc.).

Other constructions - Several assembled components
Alte construcții *- Mai multe componente asamblate*



Componentele arcului gazos Bordignon sunt cuplate prin conexiuni filetate, pentru cea mai mare siguranță posibilă. Conexiunile filete sunt standard în echipamentele de înaltă presiune din întreaga lume, cum ar fi duzele de tăiere cu jet de apă și vasele de înaltă presiune (~10000 bar).

Other constructions - Body/bottom cap junction with lock ring
Alte construcții *- Joncțiune corp/capac inferior cu inel de blocare*

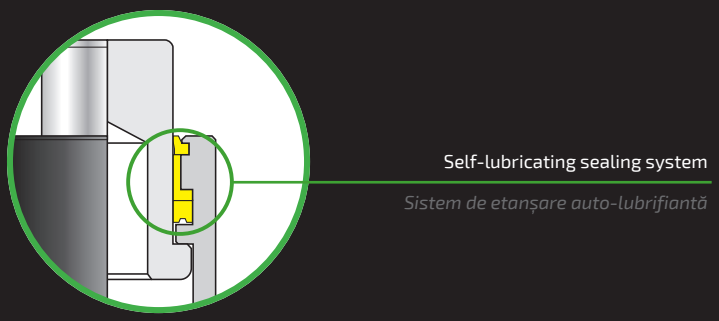


Reliability

All Bordignon nitrogen gas springs are self-lubricated, for millions of cycles, thanks to a solid lubricant.

Fiabilitate

Toate arcurile cu gaz azot Bordignon sunt auto-lubrifiate, pentru milioane de cicluri, datorită unui lubrifiant solid.



FMEA & Safety protections

FMEA și protecții de siguranță

ISO 11901-5

VDI 3003 Part 1

FMEA - Failure Mode and Effect Analysis

In addition to the reliable design and construction, Bordignon nitrogen gas springs have always been built with safety systems (tested) which minimize the possible risks arising from non-proper use, even in extreme situations, thus ensuring the highest safety level for the end user. The safety protections of the Bordignon nitrogen gas springs are in accordance with the **ISO 11901-5** and **VDI 3003 Part 1** reference standards.

FMEA - Analiza modului de defecțiune și a efectelor

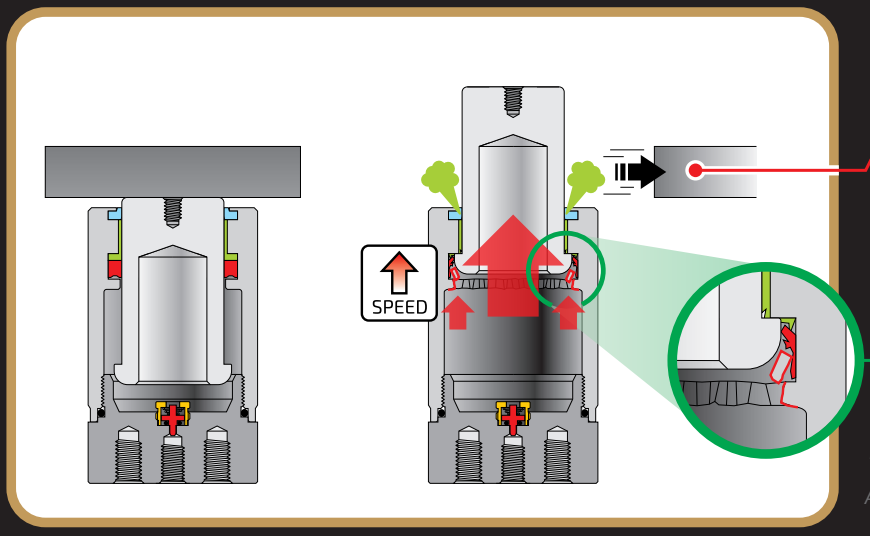
*Pe lângă designul și construcția fiabile, arcurile cu gaz azotat Bordignon au fost întotdeauna construite cu sisteme de siguranță (testate) care minimizează riscurile posibile rezultate din utilizarea necorespunzătoare, chiar și în situații extreme, asigurând astfel cel mai înalt nivel de siguranță pentru utilizatorul final. Protecțiile de siguranță ale izvoarelor cu gaz azot Bordignon sunt în conformitate cu standardele de referință **ISO 11901-5** și **VDI 3003 Partea 1**.*

Uncontrolled return stroke safety protection (piston rod free release)

It is possible that the piston rod of the nitrogen gas spring does not immediately follow the return stroke of the press: this can be caused by a jammed tool part or cam. As a result, when the jammed part is released, the piston rod of the nitrogen gas spring exceeds the permitted speed during the return stroke and the piston rod slams unchecked onto the final stop (return stroke of the rod pushing out the jammed parts without stamping counterforce). In this case, Bordignon nitrogen gas springs are designed to vent the gas to the atmosphere – thereby depressurizing the gas spring – in the event that the maximum permitted piston rod speed is exceeded. This reduces the risks caused by the possible ejection of gas spring parts.

Protecție necontrolată a cursei de retur (eliberare liberă a tijei pistonului)

Este posibil ca tija pistonului arcului cu gaz de azot să nu urmeze imediat cursa de întoarcere a presei: acest lucru poate fi cauzat de o piesă a uneltei sau cama blocată. Ca urmare, când piesa blocată este eliberată, tija pistonului arcului cu gaz azot depășește viteza permisă în timpul cursei de revenire, iar tija pistonului lovește necontrolat opritorul final (cursa de retur a tijei împinge piesele blocate fără a imprima contraforța). În acest caz, arcurile cu gaz de azot Bordignon sunt proiectate să evacueze gazul în atmosferă – depresurizând astfel arcul gazos – în cazul în care viteza maximă permisă a tijei pistonului este depășită. Aceasta reduce riscurile cauzate de posibila ejectare a pieselor arcurilor de gaz.



PISTON ROD FREE/UNCONTROLLED RELEASE
(no press counterforce)

ELIBERARE LIBERĂ/NECONTROLATĂ A TIJEI PISTONULUI
(fără contraforță de apăsare)

The piston rod mechanical stop (which is part of the gas spring body) is designed to break in case of excessive piston rod speed. The piston rod is safely retained inside the gas spring thanks to a secondary mechanical stop.
This process damages the rod seal, so that the nitrogen gas leaks and the gas spring is discharged in complete safety.

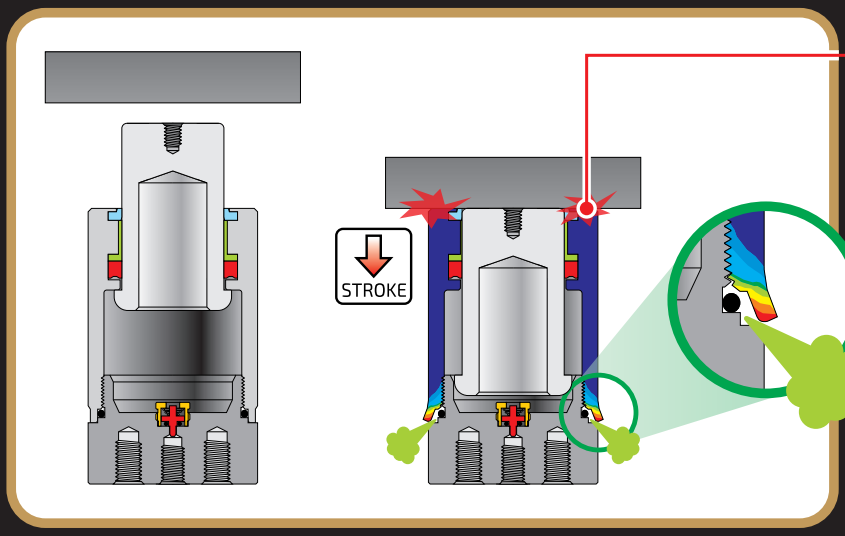
Opritorul mecanic al tijei pistonului (care face parte din corpul arcului de gaz) este proiectat să se rupă în caz de viteză excesivă a tijei pistonului. Bija pistonului este reținută în siguranță în interiorul arcului de gaz datorită unui opritor mecanic secundar.
Acest proces deteriorează etanșarea tijei, astfel încât gazul de azot se scurge și arcul gazos este evacuat în siguranță totală.

Overstroke safety protection

Overstroke occurs when the piston rod is pushed deeper into the gas spring body than nominal stroke. This could damage the gas spring. Bordignon nitrogen gas springs are designed to vent the nitrogen gas to the atmosphere in a controlled manner in the event of overstroke.

Protecția de siguranță în overstroke

Depășirea cursei apare atunci când tija pistonului este împinsă mai adânc în corpul arcului de gaz decât cursa nominală. Acest lucru ar putea deteriora arcul de gaz. Izvoarele de azot Bordignon sunt proiectate să evacueze gazul de azot în atmosferă într-un mod controlat în cazul unei supracurse cerebrale.



OVERSTROKE
(collision against the gas spring)

SUPRACURSĂ
(coliziune cu arcul de gaz)

The metal wall of the gas spring body is thinner at the bottom (where it retains the body/bottom cap junction sealing O-Ring), so that – in case of overstroke – it gets deformed first and allows a safe discharge of the gas spring, preventing the possible breakage of the gas spring body when still under pressure.

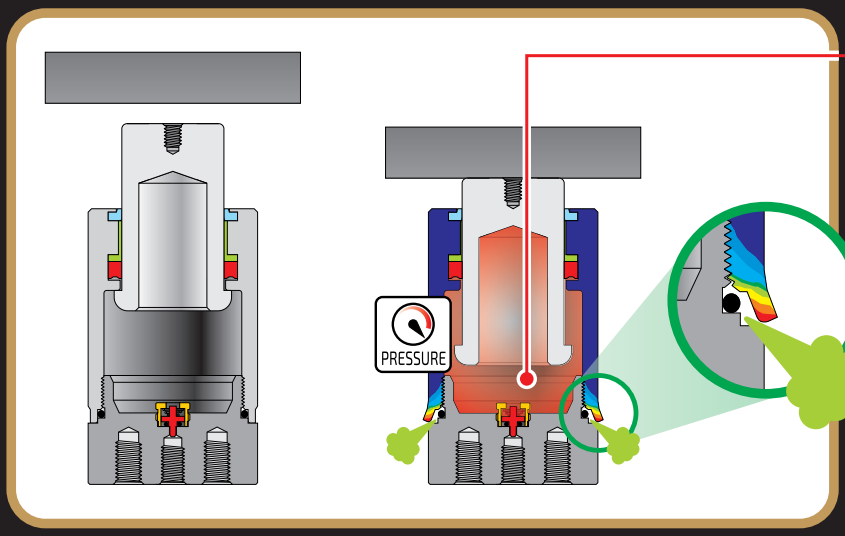
Peretele metalic al corpului arcului de gaz este mai subțire în partea de jos (unde păstrează inelul O-ring de etanșare al joncțiunii corpului/capacului inferior), astfel încât – în caz de depășire – se deformează primul și permite o evacuare sigură a arcului de gaz, prevenind astfel ruperea posibilă a corpului arcului de gaz când este încă sub presiune.

Overpressure safety protection

If the pressure inside the gas spring rises above the permitted limit, due to fluid penetration or incorrect charging, there is the risk of gas spring breakage. Bordignon nitrogen gas springs are designed with an overpressure protection: when the overpressure protection system is triggered, the gas is vented to the atmosphere.

Protecție de siguranță la suprapresiune

Dacă presiunea din interiorul arcului de gaz depășește limita permisă, din cauza pătrunderii fluidului sau a unei încărcări incorecte, există riscul de rupere a arcului de gaz. Arcurile cu gaz de azot Bordignon sunt proiectate cu protecție împotriva suprapresiunii: când sistemul de protecție împotriva suprapresiunii este declanșat, gazul este evacuat în atmosferă.



OVERPRESSURE
(excessive pressure inside the gas spring)

SUPRAPRESIUNE
(presiune excesivă în interiorul arcului de gaz)

The metal wall of the gas spring body is thinner at the bottom (where it retains the body/bottom cap junction sealing O-Ring), so that – in case of over-pressure – it gets deformed first and allows a safe discharge of the gas spring, preventing the possible breakage of the gas spring body due to extreme pressure values.
NOTE: the body/bottom cap junction sealing O-Ring is always under gas pressure, even in normal operating conditions (the thread junction does not stop the gas flow).

Peretele metalic al corpului arcului de gaz este mai subțire în partea de jos (unde păstrează inelul O de etanșare al corpului/capacului inferior), astfel încât – în caz de suprapresiune – se deformează primul și permite o evacuare sigură a arcului de gaz, prevenind astfel ruperea posibilă a corpului arcului de gaz din cauza valorilor extreme de presiune. NOTĂ: O-ringul de etanșare al joncțiunii corpului/capacului inferior este întotdeauna sub presiune a gazului, chiar și în condiții normale de funcționare (joncțiunea filetată nu oprește fluxul de gaz).

Use instructions

Instrucțiuni de utilizare

NO

The threaded hole on the piston rod is for transport and maintenance purposes only.
Do not use it for fastening the nitrogen gas spring.

Gaura filetată de pe tija pistonului este folosită doar pentru transport și întreținere.
Nu o folosi pentru fixarea arcului cu gaz de azot.

No side forces. Work stroke always perpendicular to the base of the nitrogen gas spring.

Fără forțe secundare. Cursa de lucru este întotdeauna perpendiculară pe baza izvorului de gaz cu azot.

Avoid scratching and scoring on the piston rod.

Evită zgârieturi și zgârieturi pe tija pistonului.

Do not make mechanical work on the nitrogen gas spring.

Nu face lucrări mecanice la izvorul de gaz cu azot.

Do not disassemble the nitrogen gas spring. Maintenance only by authorized people. The authorization is given only after a class held by Bordignon.

Nu demonta arcul cu gaz de azot. Întreținere doar de către persoane autorizate. Autorizarea este acordată doar după un curs susținut de Bordignon.

Max impact and max release speed: 1.6 m/s (1 m/s for TGS series). Maximum number of working cycles per minute: see product tables with the technical specifications.

Impact maxim și viteză maximă de eliberare: 1,6 m/s (1 m/s pentru seria TGS). Numărul maxim de cicluri de lucru pe minut: vezi tabelele de produse cu specificațiile tehnice.

Do not freely release the piston rod.
The piston rod goes up together with the press.
If the screws used for the base-mounting are broken or deformed (stretched), find out the possible causes and eliminate them: there might have been free/uncontrolled releases of the piston rod.

Nu eliberați liber tija pistonului.
Bija pistonului urcă împreună cu presa.
Dacă șuruburile folosite pentru montarea bazei sunt rupte sau deformate (întinse), identifică cauzele posibile și elimină-le: ar fi putut exista eliberări libere sau necontrolate ale tijei pistonului.

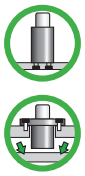
Protect against liquid or solid contaminants.
The nitrogen gas springs are protected against contaminants by wiper ring.
Do not use chemical products with low flash point (petrol, solvents, alcohol, etc.).
Clean only with a dry cloth.

Protejează-te împotriva contaminanților lichizi sau solizi.
Izvoarele cu gaz azot sunt protejate împotriva contaminanților prin inel de ștergător.
Nu folosiți produse chimice cu punct de aprindere scăzut (benzină, solvenți, alcool etc.).
Curăță doar cu o cârpă uscată.

The products in this catalogue are designed for the use in press tools, dies and moulds. We can not take any responsibility for any not proper or different use.

Produsele din acest catalog sunt concepute pentru utilizare în unelte de presă, matrițe și matrițe. Nu ne putem asuma nicio responsabilitate pentru o utilizare nepotrivită sau diferită.

YES



Always fasten the nitrogen gas spring at the base to a flat and clean support surface with high resistance screws. Gas springs with more than one threaded hole at the base: the center hole is for charging/discharging only. Use all the other holes at the base for fixing. Fixing with flange: fasten the flange to a flat and clean support surface with high resistance screws. A safety plate must be present under the gas spring.

Fixează întotdeauna arcul cu gaz azot la bază de o suprafață de susținere plată și curată cu șuruburi de înaltă rezistență. Arcuri cu gaz cu mai multe găuri filetate la bază: gaura centrală este doar pentru încărcare/descărcare. Folosește toate celelalte găuri de la bază pentru fixare. Fixarea cu flanșă: fixează flanșa pe o suprafață de susținere plată și curată cu șuruburi de înaltă rezistență. Sub arcul de gaz trebuie să fie prezentă o placă de siguranță.

Charge only with NITROGEN (N_2).

Încărcați doar cu AZOT (N_2).

Hole for cylinder body Ø +1 mm. Draining hole for liquids.

Orificiu pentru corpul cilindrului Ø +1 mm. Orificiu de scurgere pentru lichide.

Lubricate the piston rod with grease with molybdenum disulfide (MoS_2).

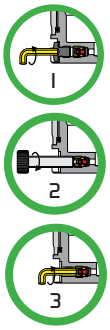
Lubrifiați tija pistonului cu vaselină cu disulfură de molibden (MoS_2).

Operating temperature: MIN 0°C (32°F) - MAX 80°C (176°F). Do not heat.

Temperatura de funcționare: MIN 0°C (32°F) - MAX 80°C (176°F). Nu încălzi.

Protect against solid contaminants with a metal bellow, liquid contaminants with a polymeric bellow.
Fasten the protection bellow to the die plate.

Protejați împotriva contaminanților solizi cu burduf metalic, contaminanților lichizi cu burdufet polimeric. Fixează burduful de sub placa matriței.



When using nitrogen gas springs in a LINKED SYSTEM, make sure to request/order the gas springs "discharged, without valve" ("L-version"). Otherwise, to adapt a self-contained gas spring for a linked system, BEFORE installing any fittings and hoses: remove the side cap using a flat-end allen key (hexagonal key); discharge the gas spring completely using the proper ADS discharging device; remove the valve cartridge using a flat-end 3 mm allen key (hexagonal key).

Când folosești arcuri cu gaz azot într-un SISTEM LEGAT, asigură-te că ceri/comanzi ca arcurile cu gaz să fie "descărcate, fără supape" ("versiunea L"). În rest, pentru a adapta un arc cu gaz autonom pentru un sistem legat, ÎNAINTE de instalarea oricărui racord și furtun: îndepărtați capacul lateral folosind o cheie allen cu capăt plat (cheie hexagonală); descărcați complet arcul gazos folosind dispozitivul de descărcare ADS corespunzător; Îndepărtați cartușul de supapă folosind o cheie allen de 3 mm cu capăt plat (cheie hexagonală).

IMPORTANT: periodically check for use instructions updates on our website. For possible additional use instructions not explicitly specified here, refer to the ISO 11901-5 standard. Pass the nitrogen gas springs use instructions to the end-user of the product.

IMPORTANT: verificați periodic actualizările cu instrucțiunile de utilizare pe site-ul nostru. Pentru posibile instrucțiuni suplimentare de utilizare care nu sunt specificate explicit aici, consultați standardul ISO 11901-5. Transmite instrucțiunile de utilizare a izvoarelor de gaz azot utilizatorului final al produsului.

Information

Informații

- 100% usable stroke
- You might adjust the initial force with the charging and discharging set (model COMPL)
- Charging pressure: MIN 20 bar - MAX see table on catalogue
- Initial force increases by ~0.34% per each 1°C increase from the reference temperature of 20°C (room temperature, do not heat)
- How to calculate the charging pressure (bar) for initial forces (daN) lower than MAX initial force on catalogue:

$$P_u = \frac{F_u \times P_{in}}{F_{in}}$$

P_u = pressure to be calculated (bar)
P_{in} = MAX pressure on catalogue (bar)
F_u = initial force (daN) for which you wish to determine the pressure
F_{in} = MAX inital force on catalogue (daN)

- How to calculate the force (daN) at intermediate strokes:

$$F_{inter} = F_{in} + \frac{S_u}{S} \times (F_{fin} - F_{in})$$

F_{inter} = intermediate force to be calculated (daN)
F_{in} = MAX inital force on catalogue (daN)
F_{fin} = MAX final force on catalogue (daN)
S_u = stroke (mm) for which you wish to calculate the force
S = MAX stroke on catalogue (mm)

- Please note: the final forces (forces at full stroke) indicated in the catalogue are reference values measured in static conditions. The actual final forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

- *Cursă 100% utilizabilă*
- *Poți ajusta forța inițială cu setul de încărcare și descărcare (model COMPL)*
- *Presiunea de încărcare: MIN 20 bar - MAX vezi tabelul din catalog*
- *Forța inițială crește cu ~0,34% la fiecare creștere de 1°C față de temperatura de referință de 20°C (temperatura camerei, nu încălziți)*
- *Cum să calculezi presiunea de încărcare (bar) pentru forțele inițiale (daN) mai mici decât forța inițială MAX în catalog:*

$$P_u = \frac{F_u \times P_{in}}{F_{in}}$$

P_u = Presiunea de calculat (BAR)
P_{in} = Presiunea MAX pe catalog (bar)
F_u = forța inițială (daN) pentru care doriți să determinați presiunea
F_{in} = Forța inițială MAX asupra catalogului (daN)

- *Cum să calculezi forța (daN) la mișcări intermediare:*

$$F_{inter} = F_{in} + \frac{S_u}{S} \times (F_{fin} - F_{in})$$

F_{inter} = Forța intermediară de calculat (daN)
F_{in} = Forța inițială MAX asupra catalogului (daN)
F_{fin} = Forța finală MAX asupra catalogului (daN)
S_u = cursa (mm) pentru care doriți să calculați forța
S = Curent MAX pe catalog (mm)

- *Vă rugăm să rețineți: forțele finale (forțele la cursa maximă) indicate în catalog sunt valori de referință măsurate în condiții statice. Forțele finale reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).*

Catalogue Help

Ajutor pentru catalog

How to order (Gas Springs)

You order (example): **No. 8 AGS1000-25-A**
You receive: 8 pieces AGS series nitrogen gas springs, ready for use, diameter Ø 50 mm, stroke 25 mm, initial force 920 daN (other specifications on the AGS series pages).
The new codes/revisions will be supplied once the old ones are out of stock. For items standardized by automotive manufacturers, orders must be placed directly using the OEM part numbers.

Cum să comanzi (Gas Springs)

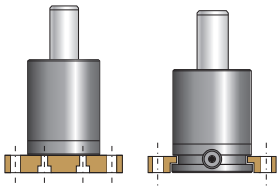
*Comanda ta (exemplu): **No. 8 AGS1000-25-A***
Primiți: 8 bucăți de arcuri cu arcuri cu gaz de azot din seria AGS, gata de utilizare, diametru Ø 50 mm, cursă 25 mm, forță inițială 920 daN (alte specificații pe paginile seriei AGS).
Noile coduri/revizii vor fi furnizate odată ce cele vechi se vor epuiza. Pentru articolele standardizate de producătorii auto, comenzile trebuie plasate direct folosind numerele de piesă OEM.

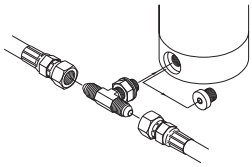
Gas Spring Accessories

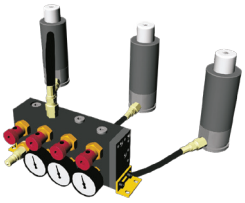
Accessories for fixing, charging/discharging, linking to open system, etc. can be found in this catalogue further on. ATTENTION: use Bordignon nitrogen gas springs with Bordignon accessories only.

Accesorii pentru arc cu gaz

Accesorii pentru reparare, încărcare/descărcare, conectare la sistemul deschis etc. pot fi găsite mai departe în acest catalog. ATENȚIE: folosiți doar arcuri cu gaz de azot Bordignon cu accesorii Bordignon.







How to order (Accessories)

You order (example): **No. 1 AP01**
You receive: 1 piece AP01 control panel (see technical specifications on the dedicated page further on).

Cum să comanzi (Accesorii)

*Comanda ta (exemplu): **No. 1 AP01***
Primiți: 1 piesă de panou de control AP01 (vedeți specificațiile tehnice de pe pagina dedicată mai departe).

AP01

2D & 3D Technical drawings

Download various 2D & 3D file formats from
www.bordignon.com

Desene tehnice 2D & 3D

Descarcă diverse formate de fișiere 2D și 3D de la
www.bordignon.com

Nitrogen gas springs

for press tools, dies and moulds

Arcuri cu gaz azot pentru unelte de presă, matrițe și matrițe

68 YEARS of INNOVATION

- One series of nitrogen gas ejectors in accordance to the VDI 3004 standard: EGS series
- Four series of nitrogen gas springs in accordance to the ISO 11901 and VDI 3003 standards: VGS (small diameters, standard forces), AGS (compact-height, high force), IGS (standard dimensions, standard force), PGS (standard dimensions, high force)
- One series of ultra-high power, compact-diameter nitrogen gas springs: TGS series
- Several other gas spring series for an enhanced use versatility
- Accessories for fixing (base plates, half-flanges, collar flanges, foot brackets, front supports)
- Accessories for linked system (hoses, fittings, control panels, pressure switches, safety valves, distribution blocks)
- Accessories for charging and discharging (charging and discharging set, charging adapters, discharging devices, Booster)
- One series of OV nitrogen gas springs for “OV system” (alternative manifold system): AGS -OV (and related accessories)
- Other accessories (hose crimping device, counter plates, identifying plates, lubrication grease, initial force gauge)

- *Ejactoare cu gaz de azot VDI 3004: seria EGS*
- *Patru serii de arcuri cu arcuri cu gaz de azot, conform standardelor ISO 11901 și VDI 3003: VGS (diametre mici, forțe standard), AGS (înălțime compactă, forță mare), IGS (dimensiuni standard, forță standard), PGS (dimensiuni standard, forță mare)*
- *O serie de arcuri cu gaz cu azot de putere foarte mare și diametru compact: seria TGS*
- *Mai multe alte serii de arcuri cu gaz pentru o versatilitate sporită a utilizării*
- *Accesorii pentru fixare (plăci de bază, jumătăți de flanșă, flanșe de guler, suporturi pentru picioare, suporturi frontale)*
- *Accesorii pentru sistemul legat (furtunuri, racorduri, panouri de control, comutatoare de presiune, supape de siguranță, blocuri de distribuție)*
- *Accesorii pentru încărcare și descărcare (set de încărcare și descărcare, adaptoare de încărcare, dispozitive de descărcare, Booster)*
- *O serie de arcuri cu gaz de azot OV pentru "sistemul OV" (sistem alternativ de colectoare): AGS -OV (și accesorii aferente)*
- *Alte accesorii (dispozitiv de sertizare a furtunurilor, plăci de contor, plăci de identificare, vaselină de lubrifiere, indicator de forță inițial)*

EGS

PED in accordance with 2014/68/EU

VDI
VDI 3004

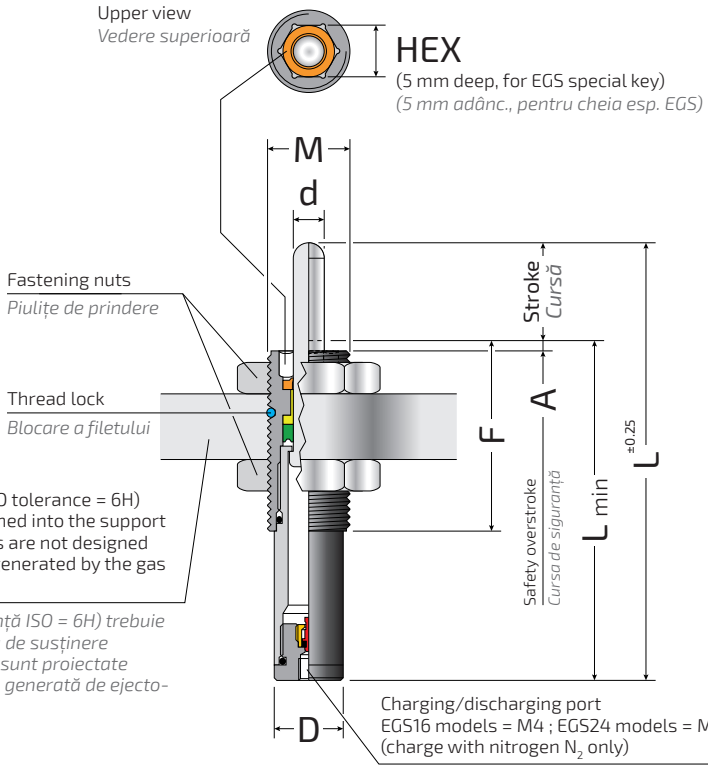
This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

Ford	W-DX35-60M
VW	39D 549

nitrogen gas ejectors / *Ejectoare de gaz azot*

EGS series nitrogen gas ejectors feature compact length and several standard forces to choose from. EGS series nitrogen gas ejectors are self-lubricated.

Ejectoarele de gaz azot din seria EGS au lungime compactă și mai multe forțe standard din care poți alege. Ejectoarele de gaz azot din seria EGS sunt auto-lubrifiate.

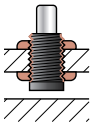


An internal thread M (ISO tolerance = 6H) must be properly machined into the support plate (the fastening nuts are not designed for sustaining the load generated by the gas ejector)

Un filet intern M (toleranță ISO = 6H) trebuie prelucrat corect în placa de susținere (piulițele de prindere nu sunt proiectate pentru a susține sarcina generată de ejector-ul de gaz)

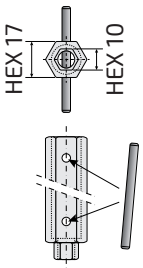
Technical notes / *Note tehnice*
Important use instructions in the dedicated catalogue section.
Instrucțiuni importante de utilizare în secțiunea dedicată catalogului.

Fixing possibilities / *Posibilități de fixare*

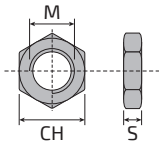


threaded hole on the die plate
gaură filetată pe placa matriței

ACCESSORIES FOR INSTALLATION / *ACCESORII PENTRU INSTALARE*



	Model *Model*
Special key for installation *Cheia specială pentru instalare*	**EGS-CH**



Model *Model*	Description *Descriere*	**M**	**S** mm	**CH** mm
EG-D-16	Fastening nut *Piuliță de prindere*	M16 x 1.5	8	24
EG-D-16-2		M16 x 2	8	24
EG-D-24		M24 x 1.5	10	36

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

EGS

Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	L min mm	L mm	M mm	F mm	A mm	d mm	D mm	HEX mm	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
EGS16x1.5-10-...	10	55	65	M16 x 1.5	35	1	6	13.5	10	See table below *Vezi tabelul de mai jos*	x	1.51	300	0.001	0.05
20-...	20	65	85									1.60	150	0.002	0.06
30-...	30	75	105									1.63	100	0.003	0.07
40-...	40	85	125									1.65	75	0.003	0.07
50-...	50	95	145									1.66	60	0.004	0.08
60-...	60	105	165									1.67	50	0.005	0.08
70-...	70	115	185									1.68	45	0.006	0.09
80-...	80	125	205									1.68	40	0.007	0.10
100-...	100	145	245									1.69	30	0.008	0.11
125-...	125	170	295									1.70	25	0.010	0.12
EGS16x2-10-...	10	55	65	M16 x 2	35	1	6	13.5	10	See table below *Vezi tabelul de mai jos*	x	1.51	300	0.001	0.05
20-...	20	65	85									1.60	150	0.002	0.06
30-...	30	75	105									1.63	100	0.003	0.07
40-...	40	85	125									1.65	75	0.003	0.07
50-...	50	95	145									1.66	60	0.004	0.08
60-...	60	105	165									1.67	50	0.005	0.08
70-...	70	115	185									1.68	45	0.006	0.09
80-...	80	125	205									1.68	40	0.007	0.10
100-...	100	145	245									1.69	30	0.008	0.11
125-...	125	170	295									1.70	25	0.010	0.12
EGS24x1.5-10-...	10	55	65	M24 x 1.5	35	1	12	21.5	17	See table below *Vezi tabelul de mai jos*	x	1.74	300	0.003	0.16
20-...	20	65	85									1.85	150	0.006	0.18
30-...	30	75	105									1.89	100	0.008	0.20
40-...	40	85	125									1.92	75	0.011	0.23
50-...	50	95	145									1.93	60	0.013	0.25
60-...	60	105	165									1.94	50	0.016	0.27
70-...	70	115	185									1.95	45	0.018	0.29
80-...	80	125	205									1.96	40	0.021	0.30
100-...	100	145	245									1.97	30	0.026	0.33
125-...	125	170	295									1.97	25	0.032	0.35

All the gas ejector models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED)
Toate modelele de ejectoare de gaz din acest tabel sunt conforme cu articolul 4.3 din Directiva UE privind echipamentele sub presiune (PED) 2014/68

Basic code *Cod de bază*	Force code *Cod de forță*	bar (MPa)	daN	daN	Label color *Culoarea etichetei*
EGS16x1.5-...-	4	12 (1.2)	4	See table above *Vezi tabelul de mai sus*	Purple / *Mov*
	6	20 (2.0)	6		Green / *Verde*
	11	40 (4.0)	11		Blue / *Albastru*
	21	75 (7.5)	21		Red / *Roșu*
	42	150 (15.0)	42		Yellow / *Galben*
	0	0	0		Black / *Negru*
	(other / *altele*)	10 (1.0)-150 (15.0)	3-42		Black / *Negru*
EGS16x2-...-	4	12 (1.2)	4	See table above *Vezi tabelul de mai sus*	Purple / *Mov*
	6	20 (2.0)	6		Green / *Verde*
	11	40 (4.0)	11		Blue / *Albastru*
	21	75 (7.5)	21		Red / *Roșu*
	42	150 (15.0)	42		Yellow / *Galben*
	0	0	0		Black / *Negru*
	(other / *altele*)	10 (1.0)-150 (15.0)	3-42		Black / *Negru*
EGS24x1.5-...-	23	20 (2.0)	23	See table above *Vezi tabelul de mai sus*	Green / *Verde*
	45	40 (4.0)	45		Blue / *Albastru*
	85	75 (7.5)	85		Red / *Roșu*
	170	150 (15.0)	170		Yellow / *Galben*
	0	0	0		Black / *Negru*
	(other / *altele*)	10 (1.0)-150 (15.0)	11-170		Black / *Negru*

How to order
Cum să comanzi

EGS16x1.5-50-42
EGS nitrogen gas ejector with M16x1.5 threaded body, 50 mm maximum available stroke length, 42 daN initial force (150 bar / 15.0 MPa charging pressure), yellow label.
Ejector de gaz azot EGS cu corp filetat M16x1.5, Lungime maximă a cursei disponibile de 50 mm, forță inițială de 42 daN (presiune de încărcare de 150 bar / 15,0 MPa), etichetă galbenă.

EGS24x1.5-80-120
EGS nitrogen gas ejector with M24x1.5 threaded body, 80 mm maximum available stroke length, 120 daN initial force (custom), black label.
Ejector de gaz azot EGS cu corp filetat M24x1.5, 80 mm lungime maximă disponibilă a cursei, forță inițială de 120 daN (personalizat), etichetă neagră.

ALL EGS MODELS ARE DISPOSABLE (REPAIR KIT NOT AVAILABLE) /
TOATE MODELELE EGS SUNT DE UNICĂ USAT (KITUL DE REPARAȚII NU ESTE DISPONIBIL)

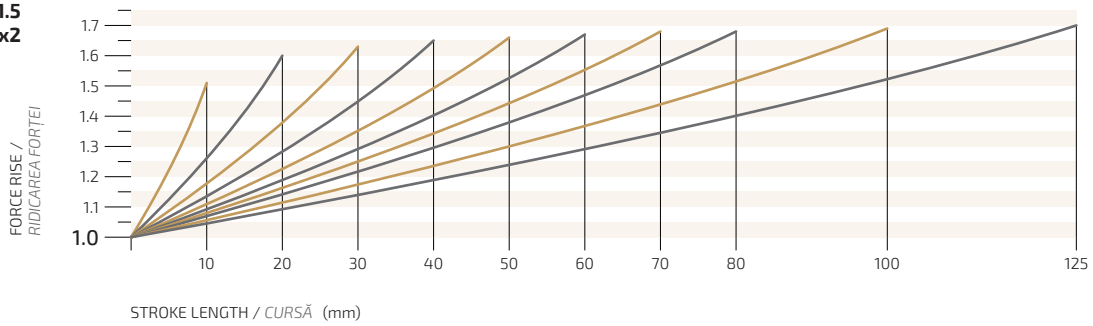
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

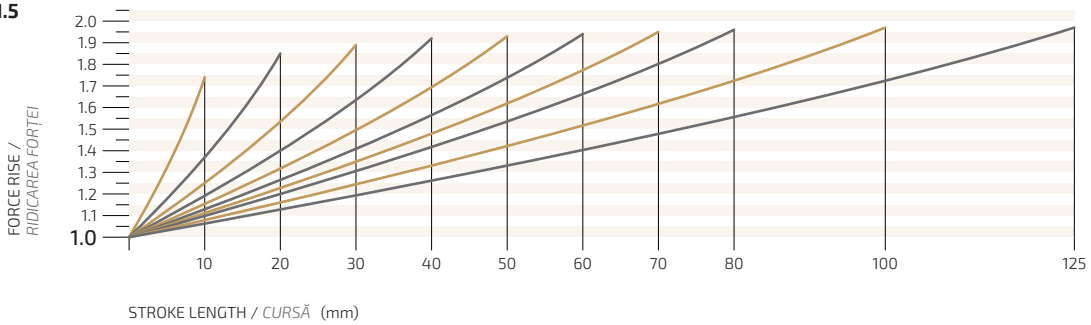
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

EGS16x1.5
EGS16x2



EGS24x1.5



VGS

50~200

ISO 11901-1 VDI 3003 Part 2

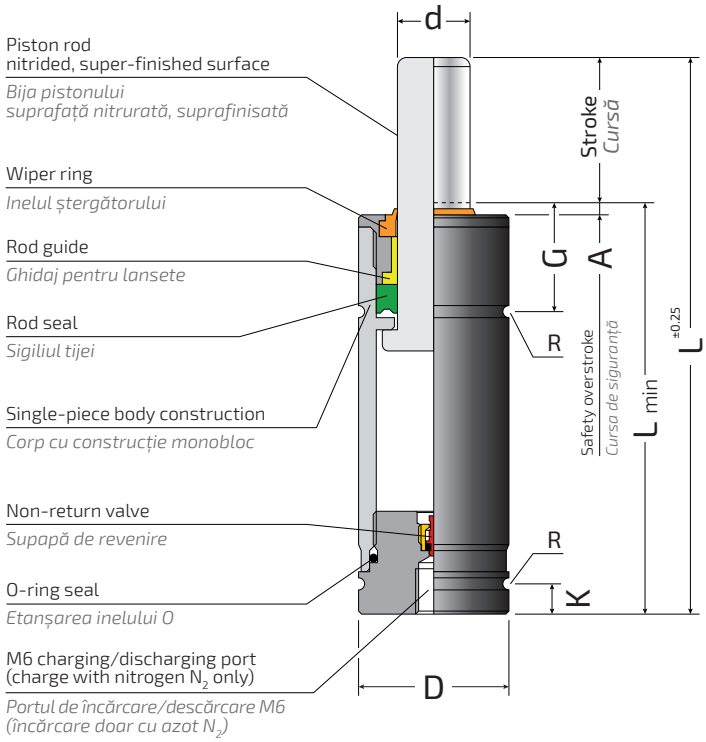
This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

BMW	B2 4007	**PSA**	E24.54.815.G
FCA	075.90.50	**Renault**	EM24.54.700
MB	B8 3180 220 000 002	**VW**	39D 878
Nissan	K32H2		

COMPACT POWER
COMPACT HEIGHT

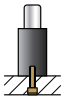
VGS series nitrogen gas springs feature standard dimensions for small diameters. With the VGS series nitrogen gas springs, Bordignon now ensures a great interchangeability and a superior reliability. VGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria VGS au dimensiuni standard pentru diametre mici. Cu arcurile cu gaz azot din seria VGS, Bordignon asigură acum o interschimbabilitate excelentă și o fiabilitate superioară. Arcurile cu gaz azot din seria VGS sunt auto-lubrifiate.

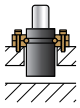


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

Fixing possibilities / *Posibilități de fixare*



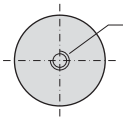
at the base with
screw
la bază cu șurub



with collar flange
cu flanșă de guler
FL

with collar flange (base)
cu flanșă de guler (bază)
FV, FL

GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



Ma
for charging/discharging
for fixing
pentru încărcare/descărcare
pentru fixare

VGS50, VGS70,
VGS90, VGS200

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED
RETURN SPEED /
VITEZA DE REVENIRE
NECONTROLATĂ

OVERSTROKE /
SUPRACURSĂ

OVERPRESSURE /
SUPRAPRESIUNE

VGS

Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	Lmin mm	L mm	D mm	d mm	G mm	A mm	R mm	K mm	Ma	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
VGS50-07-...	7	49	56	12 ±0.1	6	17	1	0.8	-	M6 x 6	See table below *Vezi tabelul de mai jos*	x	1.50	300	0.001	0.03
10-...	10	52	62										1.50	300	0.001	0.03
13-...	12.7	54.7	67.4										1.60	235	0.001	0.03
15-...	15	57	72										1.60	200	0.001	0.03
19-...	19	61	80										1.70	160	0.002	0.03
25-...	25	67	92										1.70	120	0.002	0.03
38-...	38	80	118										1.80	80	0.003	0.04
50-...	50	92	142										1.80	60	0.004	0.05
63-...	63.5	108.5	172										1.80	50	0.005	0.06
75-...	75	120	195										1.80	40	0.005	0.06
80-...	80	125	205										1.80	40	0.006	0.07
100-...	100	145	245										1.90	30	0.007	0.08
125-...	125	170	295										1.90	25	0.008	0.09
VGS70-07-...	7	49	56	15 ±0.1	7	17	1	0.8	-	M6 x 6	See table below *Vezi tabelul de mai jos*	x	1.43	300	0.001	0.04
10-...	10	52	62										1.50	300	0.001	0.05
13-...	12.7	54.7	67.4										1.50	235	0.002	0.05
15-...	15	57	72										1.57	200	0.002	0.05
19-...	19	61	80										1.57	160	0.002	0.05
25-...	25	67	92										1.64	120	0.003	0.06
38-...	38.1	80.1	118.2										1.71	80	0.004	0.07
50-...	50	92	142										1.71	60	0.005	0.08
63-...	63.5	108.5	172										1.71	50	0.007	0.09
75-...	75	120	195										1.71	40	0.008	0.10
80-...	80	125	205										1.71	40	0.008	0.10
100-...	100	145	245										1.79	30	0.010	0.12
125-...	125	170	295										1.79	25	0.013	0.14
VGS90-07-...	7	49	56	19 +0/-0.3	8	17	1	1	6	M6 x 8	See table below *Vezi tabelul de mai jos*	x	1.39	300	0.002	0.07
10-...	10	52	62										1.39	300	0.002	0.07
13-...	12.7	54.7	67.4										1.44	235	0.003	0.08
15-...	15	57	72										1.44	200	0.003	0.08
25-...	25	67	92										1.50	120	0.005	0.09
38-...	38.1	80.1	118.2										1.50	80	0.007	0.11
50-...	50	92	142										1.50	60	0.009	0.12
63-...	63.5	108.5	172										1.50	50	0.012	0.14
80-...	80	125	205										1.50	40	0.015	0.15
100-...	100	145	245										1.50	30	0.019	0.17
125-...	125	170	295										1.50	25	0.023	0.20
VGS200-07-...	7	49	56	25 +0/-0.3	12	17	1	1	5	M6 x 9	See table below *Vezi tabelul de mai jos*	x	1.43	300	0.004	0.12
10-...	10	52	62										1.48	300	0.005	0.13
13-...	12.7	54.7	67.4										1.50	235	0.006	0.13
15-...	15	57	72										1.53	200	0.006	0.14
16-...	16	58	74										1.53	190	0.007	0.14
25-...	25	67	92										1.55	120	0.010	0.16
38-...	38.1	80.1	118.2										1.60	80	0.014	0.19
50-...	50	92	142										1.60	60	0.018	0.20
63-...	63.5	108.5	172										1.60	50	0.024	0.23
80-...	80	125	205										1.60	40	0.029	0.26
100-...	100	145	245										1.60	30	0.036	0.30
125-...	125	170	295										1.63	25	0.044	0.34

All the gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED)
Toate modelele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva 2014/68/UE privind echipamentele sub presiune (PED)

Basic code *Cod de bază*	Force code *Cod de forță*	bar (MPa)	daN	daN	Label color *Culoarea etichetei*
VGS50-...-	13	45 (4.5)	13	See table above *Vezi tabelul de mai sus*	Green / *Verde*
	25	90 (9.0)	25		Blue / *Albastru*
	38	135 (13.5)	38		Red / *Roșu*
	50	180 (18.0)	50		Yellow / *Galben*
	0	0	0		Black / *Negru*
	(other / *altele*)	20 (2.0)-180 (18.0)	6-50		Black / *Negru*
VGS70-...-	18	45 (4.5)	18	See table above *Vezi tabelul de mai sus*	Green / *Verde*
	35	90 (9.0)	35		Blue / *Albastru*
	50	135 (13.5)	50		Red / *Roșu*
	70	180 (18.0)	70		Yellow / *Galben*
	0	0	0		Black / *Negru*
	(other / *altele*)	20 (2.0)-180 (18.0)	8-70		Black / *Negru*
VGS90-...-	5	10 (1.0)	5	See table above *Vezi tabelul de mai sus*	Orange / *Portocaliu*
	10	20 (2.0)	10		Purple / *Mov*
	30	60 (6.0)	30		Green / *Verde*
	50	100 (10.0)	50		Blue / *Albastru*
	70	140 (14.0)	70		Red / *Roșu*
	90	180 (18.0)	90		Yellow / *Galben*
	0	0	0		Black / *Negru*
	(other / *altele*)	10 (1.0)-180 (18.0)	5-90		Black / *Negru*
VGS200-...-	17	15 (1.5)	17	See table above *Vezi tabelul de mai sus*	Orange / *Portocaliu*
	28	25 (2.5)	28		Purple / *Mov*
	50	45 (4.5)	50		Green / *Verde*
	100	90 (9.0)	100		Blue / *Albastru*
	150	135 (13.5)	150		Red / *Roșu*
	200	180 (18.0)	200		Yellow / *Galben*
	0	0	0		Black / *Negru*
	(other / *altele*)	10 (1.0)-180 (18.0)	11-200		Black / *Negru*

How to order
Cum să comanzi

VGS90-50-90
VGS nitrogen gas spring with 19 mm body diameter, 50 mm maximum available stroke length, 90 daN initial force (180 bar / 18.0 MPa charging pressure), yellow label.
Izvor de gaz azot VGS cu diametrul corpului de 19 mm, Lungime maximă a cursei disponibile de 50 mm, forță inițială de 90 daN (presiune de încărcare 180 bar / 18,0 MPa), etichetă galbenă.

VGS200-80-175
VGS nitrogen gas spring with 25 mm body diameter, 80 mm maximum available stroke length, 175 daN initial force (custom), black label.
Izvor gazos de azot VGS cu diametrul caroseriei de 25 mm,
80 mm lungime maximă disponibilă a cursei, forță inițială de 175 daN (personalizat), etichetă neagră.

REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
VGS90-...	**KR/VGS90**
VGS200-...	**KR/VGS200**

VGS50-... AND VGS70-... MODELS ARE DISPOSABLE (REPAIR KIT NOT AVAILABLE) /
MODELELE VGS50-... ȘI VGS70-... SUNT DE UNICĂ FOLOSINȚĂ (KIT DE REPARAȚIE INDISPONIBIL)

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

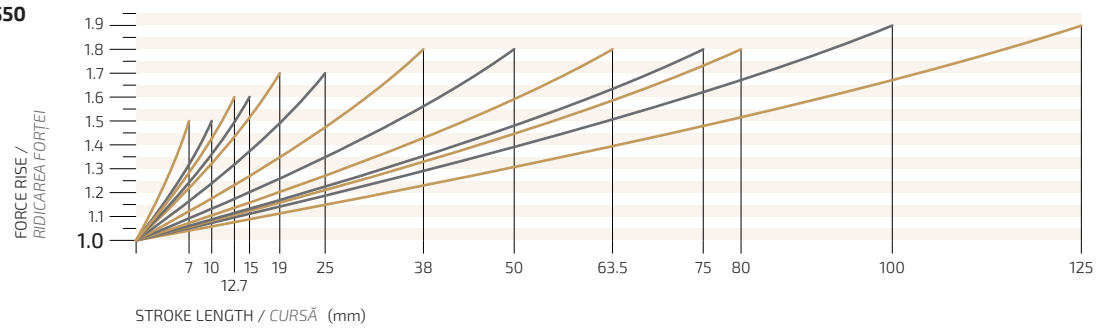
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

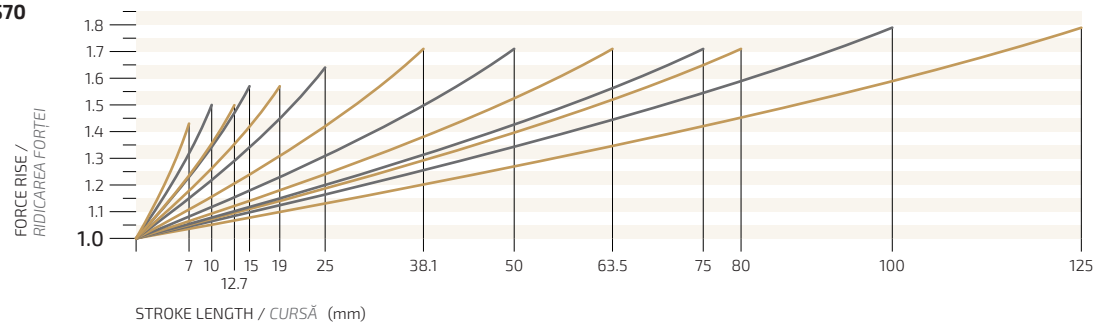
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

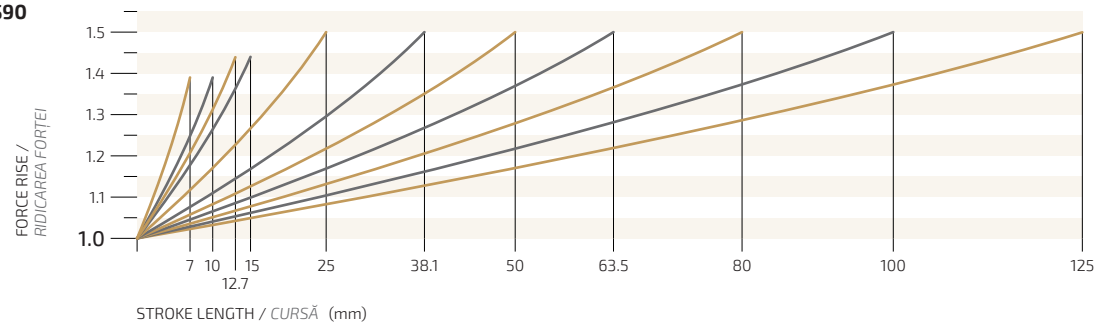
VGS50



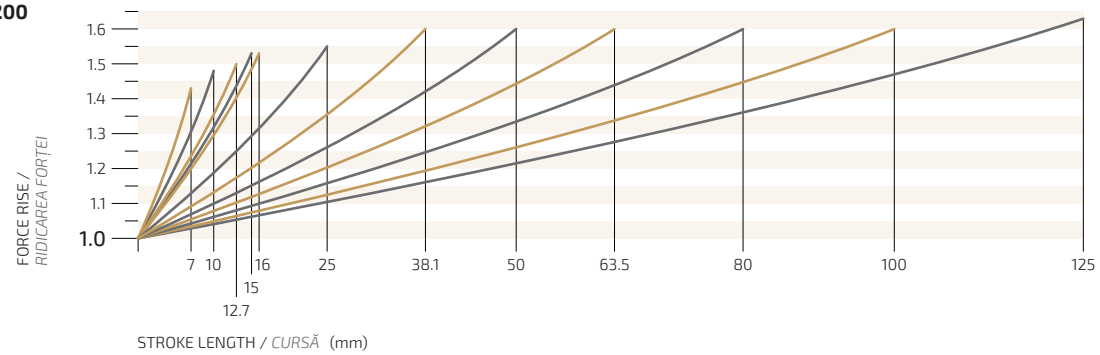
VGS70



VGS90



VGS200



AGS

170-320

ISO 11901-3 VDI 3003 Part 3

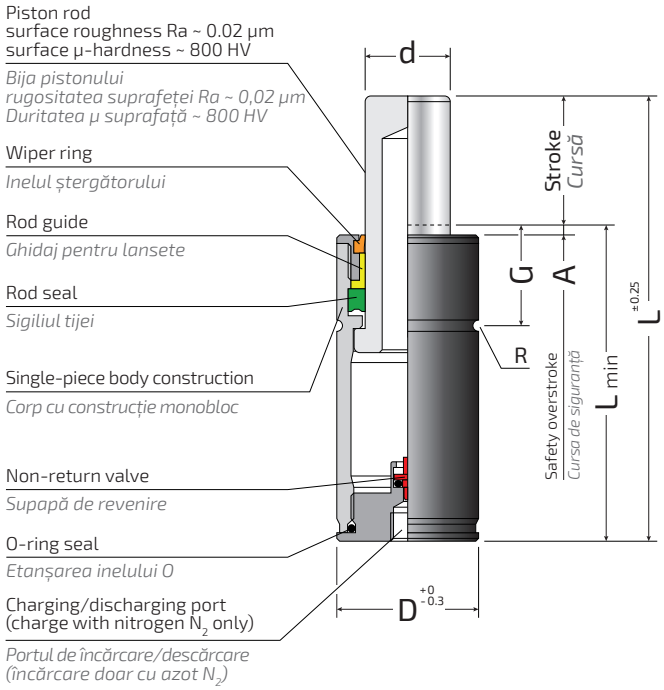
This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

BMW	B2 4005	**MB**	B8 3180 220 000 004
FCA	075.90.60	**VW**	39D 997

COMPACT POWER
COMPACT HEIGHT

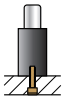
AGS series nitrogen gas springs are highly appreciated in the automotive industry thanks to the compact dimensions, the fixing and linking possibilities. With the AGS series nitrogen gas springs, Bordignon now ensures a great interchangeability and a superior reliability. AGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria AGS sunt foarte apreciate în industria auto datorită dimensiunilor compacte, posibilităților de fixare și legare. Cu arcurile gazoase cu azot din seria AGS, Bordignon asigură acum o interschimbabilitate excelentă și o fiabilitate superioară. Arcurile cu gaz azot din seria AGS sunt auto-lubrifiate.

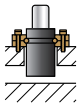


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

Fixing possibilities / *Posibilități de fixare*

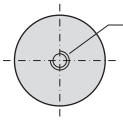


at the base with
screw
la bază cu șurub



with collar flange
cu flanșă de guler
FL

GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



Ma
for charging/discharging
for fixing
pentru încărcare/descărcare
pentru fixare

AGS170, AGS320

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED
RETURN SPEED /
VITEZA DE REVENIRE
NECONTROLATĂ

OVERSTROKE /
SUPRACURSĂ

OVERPRESSURE /
SUPRAPRESIUNE

AGS 170-320

Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	L min mm	L mm	D mm	d mm	G mm	A mm	R mm	Ma	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
AGS170-07-A	7	37	44	19	11	17	1	1	M6 x 5	180 (18.0)	170	290	300	0.002	0.06
10-A	10	40	50									295	300	0.003	0.06
13-A	13	43	56									300	230	0.003	0.07
15-A	15	45	60									310	200	0.004	0.07
19-A	19	49	68									320	160	0.005	0.08
25-A	25	55	80									330	120	0.006	0.08
32-A	32	62	94									340	90	0.007	0.09
38-A	38	68	106									340	80	0.009	0.10
50-A	50	80	130									350	60	0.011	0.12
63-A	63	93	156									355	50	0.014	0.14
75-A	75	110	185									360	40	0.017	0.16
80-A	80	115	195									360	40	0.018	0.16
100-A	100	135	235									360	30	0.023	0.19
125-A	125	160	285									360	25	0.028	0.23
AGS320-07-A	7	37	44	25	15	17	1	1	M6 x 5	180 (18.0)	320	490	300	0.004	0.10
10-A	10	40	50									490	300	0.005	0.11
13-A	13	43	56									550	230	0.006	0.12
15-A	15	45	60									550	200	0.007	0.12
19-A	19	49	68									580	160	0.008	0.13
25-A	25	55	80									600	120	0.011	0.14
32-A	32	62	94									630	90	0.013	0.16
38-A	38	68	106									640	80	0.015	0.17
50-A	50	80	130									640	60	0.020	0.20
63-A	63	93	156									640	50	0.025	0.23
75-A	75	110	185									640	40	0.031	0.26
80-A	80	115	195									640	40	0.033	0.27
100-A	100	135	235									650	30	0.040	0.32
125-A	125	160	285									660	25	0.050	0.38

All the gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED)
Toate modelele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva 2014/68/UE privind echipamentele sub presiune (PED)

REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
AGS170-...-A	**KR/AGS170-A**
AGS320-...-A	**KR/AGS320-A**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

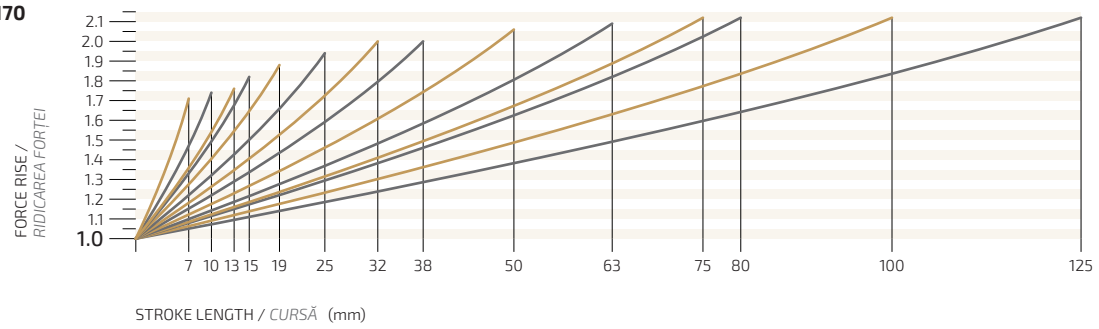
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

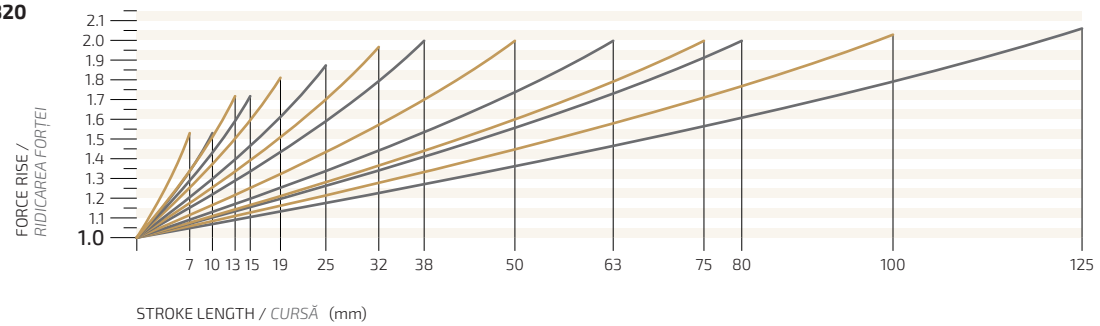
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

AGS170



AGS320



AGS

350~2400

PED In accordance with 2014/68/EU

ISO 11901-3 VDI 3003 Part 3

This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

BMW	B2 4005	**Nissan**	K32H2
FCA	075.90.60	**PSA**	E24.54.815.G
Ford	W-DX35-6204	**VW**	39D 997
MB	B8 3180 220 000 004		

COMPACT POWER

COMPACT HEIGHT

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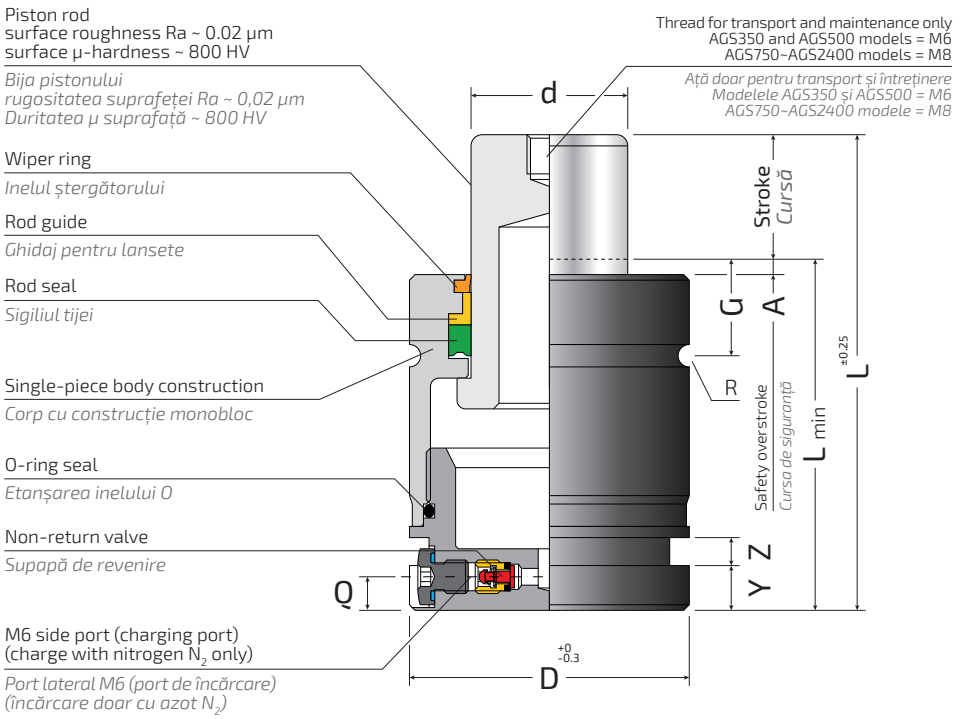
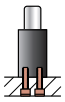
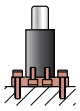


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

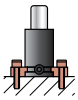
Fixing possibilities / *Posibilități de fixare*



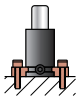
at the base with screws
la bază cu șuruburi



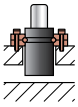
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



with half-flanges
cu semi-flanșe
SF, SFA



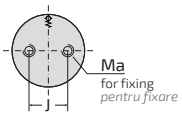
with foot brackets
cu suporturi pentru picior
ST, STA



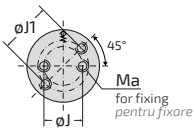
with collar flange
cu flanșă de guler
FL, FLQ

with front support
cu sprijin frontal
FT, FTA

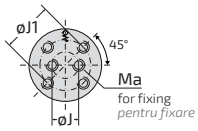
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



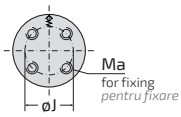
AGS350, AGS750, AGS1000, AGS1200



AGS500



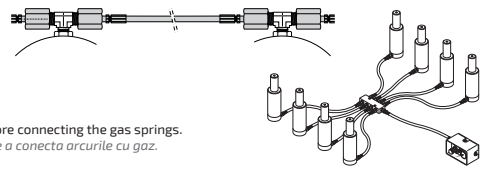
AGS1500



AGS2400

LINKING TO OPEN SYSTEM / *LEGAREA CĂTRE SISTEMUL DESCHIS*

	AGS350~AGS2400 (M6 side port / *Portul lateral M6*)	
Hoses *Furtunuri*	**ATM**	**ATNM**
Gas spring-hose fittings *Racorduri arc cu gaz-furtun*	**ARM**	**ARNM**



ATTENTION! Follow the instructions in the "LINKED SYSTEM" section before connecting the gas springs.
ATENȚIE! Urmează instrucțiunile din secțiunea "SISTEM LEGAT" înainte de a conecta arcurile cu gaz.

LINKING TO "OV SYSTEM" / *LEGAREA CĂTRE "SISTEM OV"*

"OV-version" (without valve, for direct connection to alternative manifold system) are also available.
See dedicated catalogue section.
Sunt disponibile și "versiunea OV" (fără supapă, pentru conectare directă la sistemul alternativ de colector).
Vezi secțiunea dedicată catalogului.

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

AGS 350~2400

Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	Lmin mm	L mm	D mm	d mm	G mm	A mm	R mm	Y mm	Z mm	Q mm	Ma	J mm	J1 mm	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
AGS350-10-A	10	40	50	32	16	12.5	2	1	4	4	6	M6 x 6 (2x)	20	-	180 (18.0)	360	570	300	0.006	0.19
13-A	13	43	56														570	230	0.007	0.20
16-A	16	46	62														580	190	0.009	0.21
19-A	19	49	68														580	160	0.011	0.22
25-A	25	55	80														580	120	0.015	0.24
32-A	32	62	94														590	90	0.019	0.26
38-A	38	68	106														590	80	0.022	0.28
50-A	50	80	130														590	60	0.029	0.32
63-A	63	93	156														590	50	0.037	0.36
75-A	75	105	180														590	40	0.044	0.40
80-A	80	110	190														590	40	0.047	0.42
100-A	100	130	230														590	30	0.059	0.49
125-A	125	155	280														610	25	0.074	0.58
AGS500-10-A	10	40	50	38	20	12.5	2	1	4	4	6	M6 x 6 (J: 2x) (J1: 2x)	20	25	150 (15.0)	470	720	300	0.009	0.26
13-A	13	43	56														720	230	0.012	0.28
16-A	16	46	62														730	190	0.014	0.29
19-A	19	49	68														730	160	0.017	0.30
25-A	25	55	80														740	120	0.023	0.32
32-A	32	62	94														740	90	0.029	0.35
38-A	38	68	106														740	80	0.035	0.38
50-A	50	80	130														750	60	0.046	0.43
63-A	63	93	156														750	50	0.059	0.48
75-A	75	105	180														750	40	0.070	0.52
80-A	80	110	190														750	40	0.075	0.55
100-A	100	130	230														750	30	0.094	0.63
125-A	125	155	280														760	25	0.117	0.73
AGS750-10-A	10	42	52	45	25	16.5	2	1	4	4	6	M8 x 6 (2x)	20	-	150 (15.0)	740	1200	300	0.013	0.40
13-A	13	45	58														1230	230	0.017	0.42
16-A	16	48	64														1230	190	0.021	0.44
19-A	19	51	70														1250	160	0.025	0.45
25-A	25	57	82														1250	120	0.033	0.49
32-A	32	64	96														1250	90	0.042	0.53
38-A	38	70	108														1250	80	0.050	0.57
50-A	50	82	132														1250	60	0.066	0.64
63-A	63	95	158														1260	50	0.084	0.72
75-A	75	107	182														1260	40	0.100	0.79
80-A	80	112	192														1260	40	0.106	0.82
100-A	100	132	232														1260	30	0.133	0.95
125-A	125	157	282														1260	25	0.167	1.10
AGS1000-13-A	13	51	64	50	28	17.5	3	2	8	5	6	M8 x 6 (2x)	20	-	150 (15.0)	920	1540	230	0.02	0.57
16-A	16	54	70														1540	190	0.03	0.59
19-A	19	57	76														1560	160	0.03	0.61
25-A	25	63	88														1580	120	0.04	0.66
32-A	32	70	102														1580	90	0.05	0.71
38-A	38	76	114														1580	80	0.06	0.75
50-A	50	88	138														1580	60	0.08	0.84
63-A	63	101	164														1580	50	0.11	0.93
75-A	75	113	188														1580	40	0.13	1.02
80-A	80	118	198														1580	40	0.13	1.06
100-A	100	138	238														1600	30	0.17	1.21
125-A	125	163	288														1600	25	0.21	1.40
AGS1200-13-A	13	51	64	50	28	17.5	3	2	8	5	6	M8 x 6 (2x)	20	-	173 (17.3)	1060	1820	230	0.02	0.57
16-A	16	54	70														1820	190	0.03	0.59
19-A	19	57	76														1850	160	0.03	0.61
25-A	25	63	88														1870	120	0.04	0.66
32-A	32	70	102														1870	90	0.05	0.71
38-A	38	76	114														1870	80	0.06	0.75
50-A	50	88	138														1870	60	0.08	0.84
63-A	63	101	164														1870	50	0.11	0.93
75-A	75	113	188														1870	40	0.13	1.02
80-A	80	118	198														1870	40	0.13	1.06
100-A	100	138	238														1900	30	0.17	1.21
125-A	125	163	288														1900	25	0.21	1.40
AGS1500-10-A	10	54	64	63	36	19	3	2	8	5	6	M8 x 6 (J: 2x) (J1: 4x)	20	40	150 (15.0)	1530	2220	300	0.03	0.96
13-A	13	57	70														2280	230	0.04	0.99
16-A	16	60	76														2300	190	0.05	1.02
19-A	19	63	82														2350	160	0.06	1.06
25-A	25	69	94														2390	120	0.08	1.12
32-A	32	76	108														2450	90	0.10	1.20
38-A	38	82	120														2450	80	0.11	1.26
50-A	50	94	144														2500	60	0.15	1.39
63-A	63	107	170														2510	50	0.18	1.52
75-A	75	119	194														2530	40	0.22	1.65
80-A	80	124	204														2550	40	0.23	1.71
100-A	100	144	244														2580	30	0.29	1.92
125-A	125	169	294														2640	25	0.35	2.24
AGS2400-16-A	16	61	77	75	45	21	3	2.5	8	5	6	M8 x 6 (4x)	40	-	150 (15.0)	2385	3800	190	0.07	1.54
19-A	19	64	83														3850	160	0.08	1.58
25-A	25	70	95														3900	120	0.11	1.68
32-A	32	77	109														4000	90	0.14	1.79
38-A	38	83	121														4050	80	0.16	1.89
50-A	50	95	145														4100	60	0.21	2.09
63-A	63	108	171														4100	50	0.26	2.30
75-A	75	120	195														4150	40	0.31	2.49
80-A	80	125	205														4200	40	0.33	2.57
100-A	100	145	245														4200	30	0.41	2.90
125-A	125	170	295														4200	25	0.51	3.28

All the gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED)
Toate modelele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva 2014/68/UE privind echipamentele sub presiune (PED)

"L-VERSION" (FOR LINKED SYSTEM) / *"L-VERSION" (PENTRU SISTEMUL LEGAT)*

When the gas springs are to be used in a linked system, make sure to order the "L-version" by adding "-L" after the gas spring code. The "L-version" gas springs are supplied already discharged and without valve, ready for the connection to linked system.
Example: "**AGS1000-50-A-L**"

Când arcurile cu gaz urmează să fie folosite într-un sistem legat, asigurați-vă că comandați "versiunea L" adăugând "-L" după codul arcului de gaz. Arcurile cu gaz "L-version" sunt furnizate deja descărcate și fără supape, pregătite pentru conectarea la sistemul legat.
*Exemplu: "**AGS1000-50-A-L**"*

REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*	Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
AGS350-...-A	**KR/AGS350-A**	AGS1200-...-A	**KR/AGS1200-A**
AGS500-...-A	**KR/AGS500-A**	AGS1500-...-A	**KR/AGS1500-A**
AGS750-...-A	**KR/AGS750-A**	AGS2400-...-A	**KR/AGS2400-A**
AGS1000-...-A	**KR/AGS1000-A**		

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

AGS 350~2400

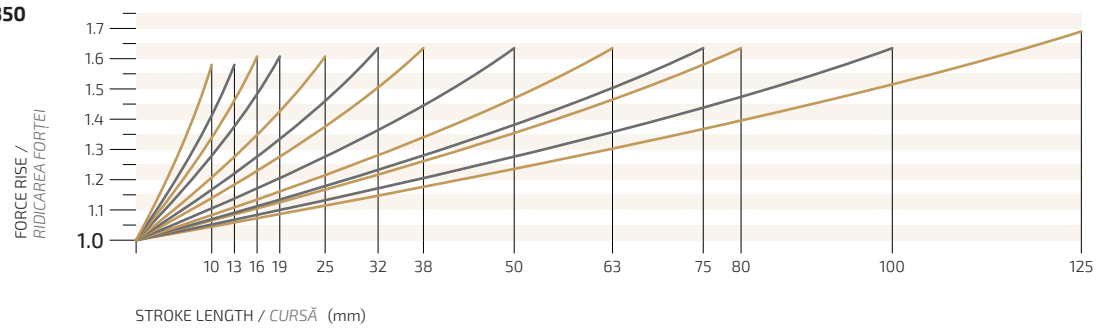
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

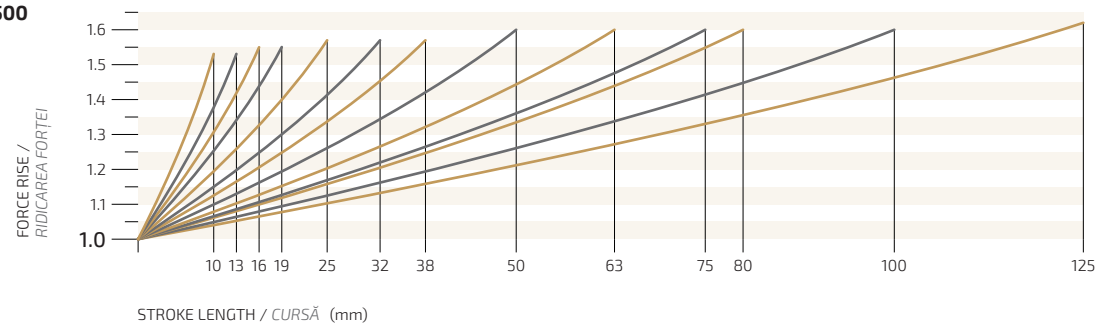
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

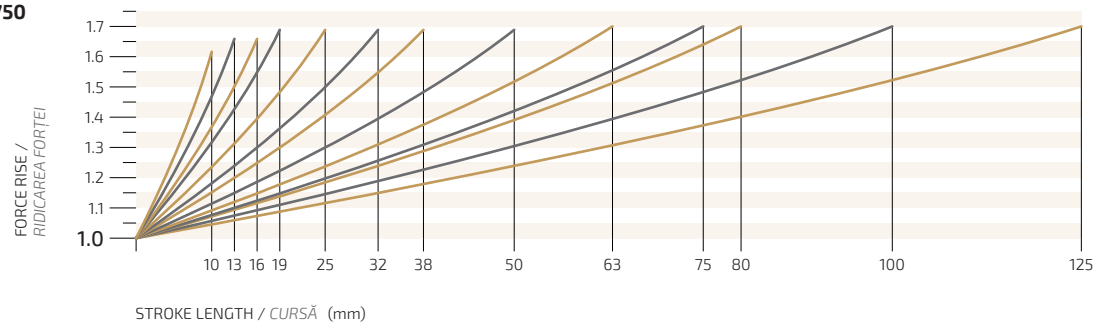
AGS350



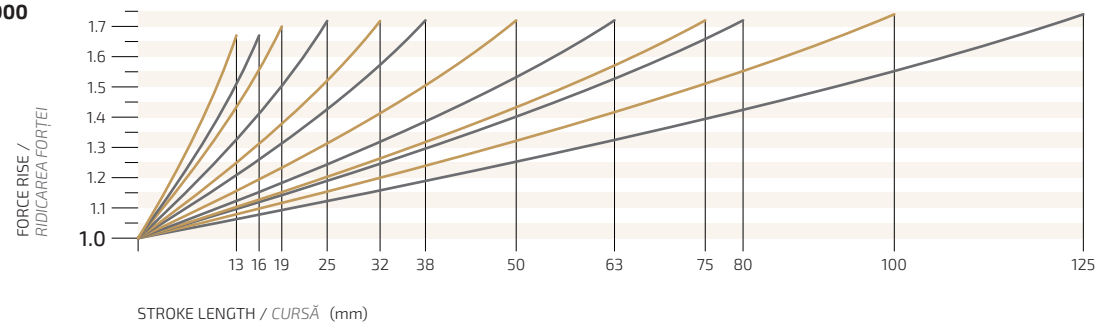
AGS500



AGS750



AGS1000



AGS 350~2400

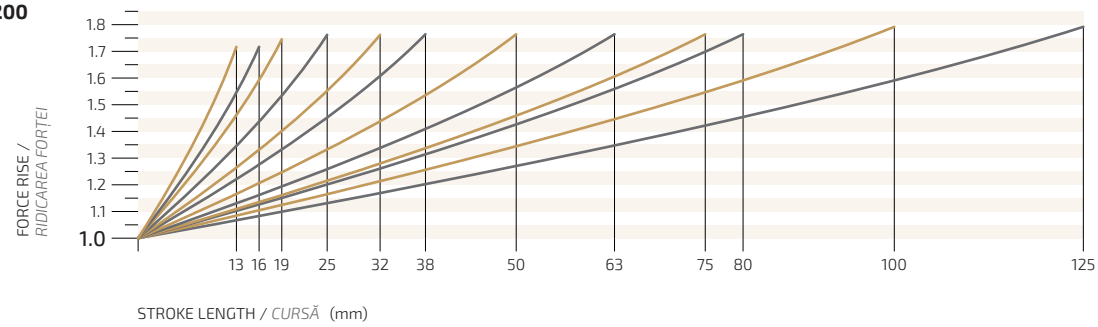
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

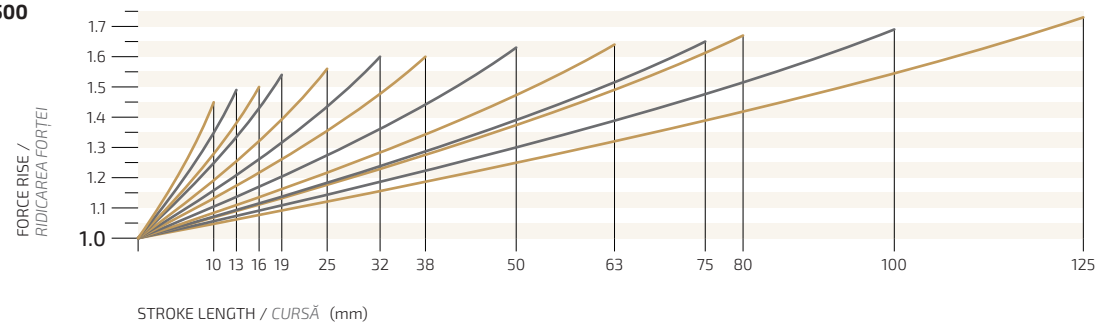
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

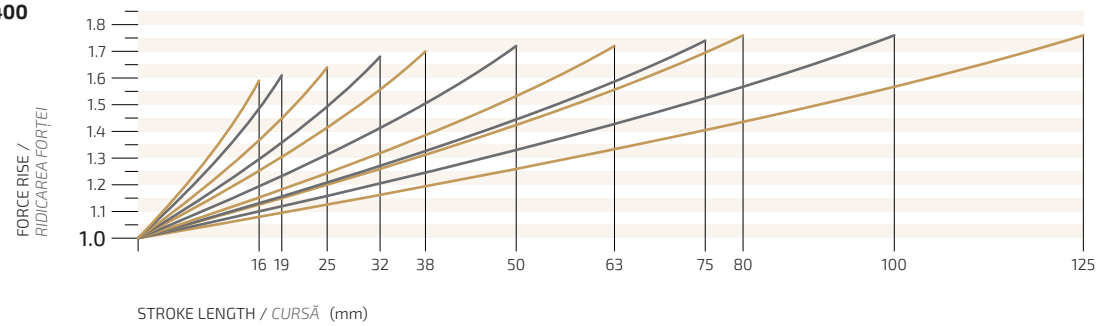
AGS1200



AGS1500



AGS2400



AGS

4200~20000

ISO 11901-3 VDI 3003 Part 3

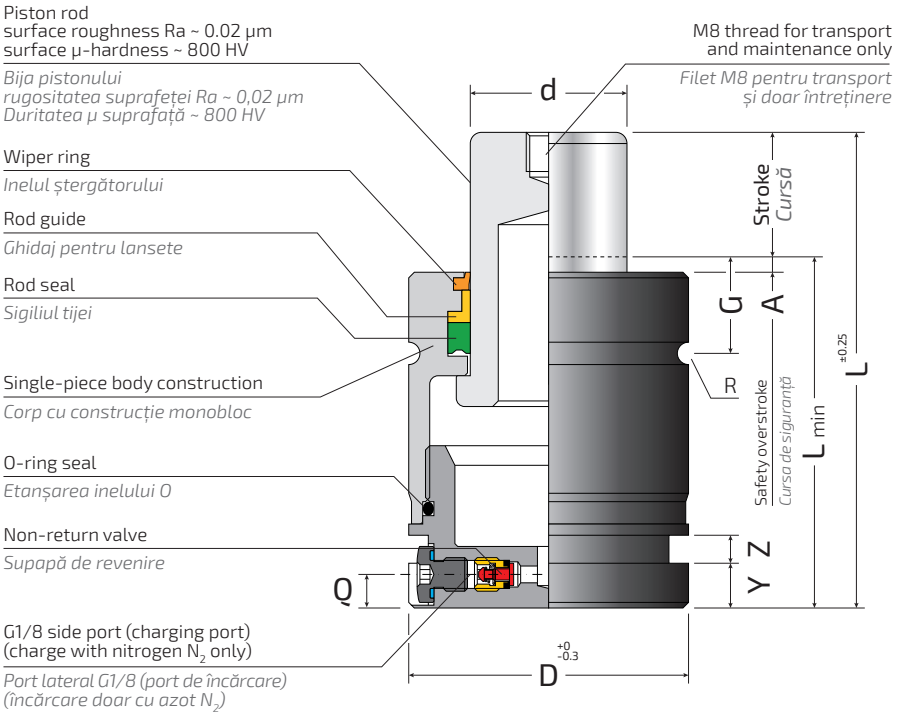
This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

BMW	B2 4005	**MB**	B8 3180 220 000 004
FCA	075.90.60	**PSA**	E24.54.815.G
Ford	W-DX35-6204	**VW**	39D 997
Mazda	PG24D		

COMPACT POWER
COMPACT HEIGHT

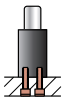
AGS series nitrogen gas springs are highly appreciated in the automotive industry thanks to the compact dimensions, the fixing and linking possibilities. With the AGS series nitrogen gas springs, Bordignon now ensures a great interchangeability and a superior reliability. AGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria AGS sunt foarte apreciate în industria auto datorită dimensiunilor compacte, posibilităților de fixare și legare. Cu arcurile gazoase cu azot din seria AGS, Bordignon asigură acum o interschimbabilitate excelentă și o fiabilitate superioară. Arcurile cu gaz azot din seria AGS sunt auto-lubrifiate.

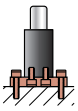


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

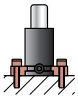
Fixing possibilities / *Posibilități de fixare*



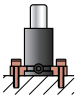
at the base with
screws
la bază cu șuruburi



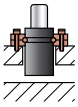
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



with half-flanges
cu semi-flanșe
SF, SFA



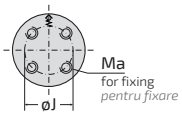
with foot brackets
cu suporturi pentru picior
ST, STA



with collar flange
cu flanșă de guler
FL, FLQ

with front support
cu sprijin frontal
FT, FTA

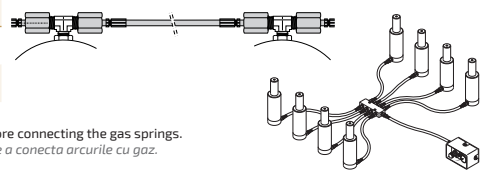
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



AGS4200~AGS20000

LINKING TO OPEN SYSTEM / *LEGAREA CĂTRE SISTEMUL DESCHIS*

	AGS4200~AGS20000 (G1/8 side port / *Portul lateral G1/8*)		
Hoses *Furtunuri*	**ATM**	**ATN**	**AT**
Gas spring-hose fittings *Racorduri arc cu gaz-furtun*	**ARM**	**ARN**	**AR**



ATTENTION! Follow the instructions in the "LINKED SYSTEM" section before connecting the gas springs.
ATENȚIE! Urmează instrucțiunile din secțiunea "SISTEM LEGAT" înainte de a conecta arcurile cu gaz.

LINKING TO "OV SYSTEM" / *LEGAREA CĂTRE "SISTEM OV"*

"OV-version" (without valve, for direct connection to alternative manifold system) are also available.
See dedicated catalogue section.
Sunt disponibile și "versiunea OV" (fără supapă, pentru conectare directă la sistemul alternativ de colector).
Vezi secțiunea dedicată catalogului.

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

AGS 4200~20000

Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	Lmin mm	L mm	D mm	d mm	G mm	A mm	R mm	Y mm	Z mm	Q mm	Ma	J mm	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
AGS4200-16-A	16	74	90													6800	190	0.13	3.13
19-A	19	77	96													6800	160	0.15	3.21
25-A	25	83	108													7000	120	0.19	3.37
32-A	32	90	122													7300	90	0.24	3.55
38-A	38	96	134													7300	80	0.28	3.69
50-A	50	108	158	95	60	24	3	2.5	8	5	10.5	M8 x 12 (4x)	60	150 (15.0)	4240	7500	60	0.36	3.98
63-A	63	121	184													7500	50	0.45	4.30
75-A	75	133	208													7600	40	0.54	4.59
80-A	80	138	218													7700	40	0.57	4.72
100-A	100	158	258													7800	30	0.71	5.22
125-A	125	183	308													7900	25	0.88	5.85
AGS6600-16-A	16	84	100													9400	190	0.22	5.67
19-A	19	87	106													9600	160	0.25	5.81
25-A	25	93	118													10100	120	0.31	6.08
32-A	32	100	132													10400	90	0.38	6.39
38-A	38	106	144													10500	80	0.44	6.66
50-A	50	118	168	120	75	25.5	3	2.5	8	5	10.5	M10 x 12 (4x)	80	150 (15.0)	6630	10700	60	0.56	7.21
63-A	63	131	194													11200	50	0.69	7.79
75-A	75	143	218													11300	40	0.81	8.32
80-A	80	148	228													11300	40	0.86	8.53
100-A CE	100	168	268													11400	30	1.07	9.45
125-A CE	125	193	318													11500	25	1.32	10.57
AGS9500-19-A	19	97	116													16000	160	0.35	10.85
25-A	25	103	128													16300	120	0.45	11.23
32-A	32	110	142													16500	90	0.56	11.69
38-A	38	116	154													16600	80	0.65	12.06
50-A	50	128	178													16800	60	0.85	12.84
63-A CE	63	141	204	150	90	27.5	3	2.5	8	5	10.5	M10 x 16 (4x)	100	150 (15.0)	9540	17000	50	1.05	13.67
75-A CE	75	153	228													17000	40	1.24	14.45
80-A CE	80	158	238													17100	40	1.32	14.77
100-A CE	100	178	278													17100	30	1.64	16.05
125-A CE	125	203	328													17200	25	2.04	17.67
AGS20000-19-A	19	129	148													30400	160	0.90	23.29
25-A CE	25	135	160													31600	120	1.08	23.92
32-A CE	32	142	174													32600	90	1.29	24.66
38-A CE	38	148	186													33300	80	1.47	25.30
50-A CE	50	160	210	195	130	33.5	3	2.5	8	8	15	M12 x 18 (4x)	120	150 (15.0)	19910	34400	60	1.83	26.55
63-A CE	63	173	236													35100	50	2.22	27.91
75-A CE	75	185	260													35600	40	2.58	29.17
80-A CE	80	190	270													35800	40	2.73	29.69
100-A CE	100	210	310													36400	30	3.33	31.80
125-A CE	125	235	360													36900	25	4.08	34.42

CE The gas spring models for which the CE symbol is indicated have an internal gas volume > 1 litre (1 dm^3). They fall into Category II of the 2014/68/EU Pressure Equipment Directive (PED).
All the other gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED).
Modelele cu arc pe gaz pentru care este indicat simbolul CE au un volum intern de gaz > 1 litru (1 dm^3). Acestea se încadrează în Categoria II a Directivei UE privind Echipamentele Sub Presiune (PED) din 2014/68.
Toate celelalte modele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva UE privind echipamentele de presiune (PED) din 2014/68.

"L-VERSION" (FOR LINKED SYSTEM) / *"L-VERSION" (PENTRU SISTEMUL LEGAT)*

When the gas springs are to be used in a linked system, make sure to order the "L-version" by adding "-L" after the gas spring code. The "L-version" gas springs are supplied already discharged and without valve, ready for the connection to linked system.
Example: "**AGS6600-50-A-L**"

Când arcurile cu gaz urmează să fie folosite într-un sistem legat, asigurați-vă că comandați "versiunea L" adăugând "-L" după codul arcului de gaz. Arcurile cu gaz "L-version" sunt furnizate deja descărcate și fără supape, pregătite pentru conectarea la sistemul legat.
*Exemplu: "**AGS6600-50-A-L**"*

REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
AGS4200-...-A	**KR/AGS4200-A**
AGS6600-...-A	**KR/AGS6600-A**
AGS9500-...-A	**KR/AGS9500-A**
AGS20000-...-A	**KR/AGS20000-A**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

AGS 4200~20000

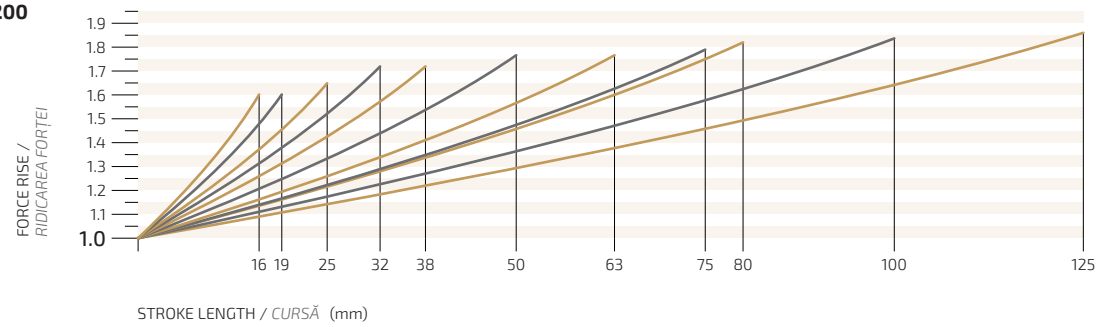
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

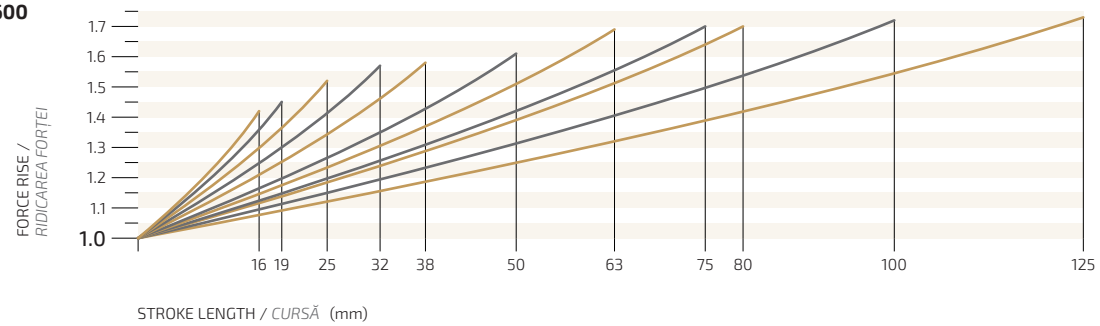
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

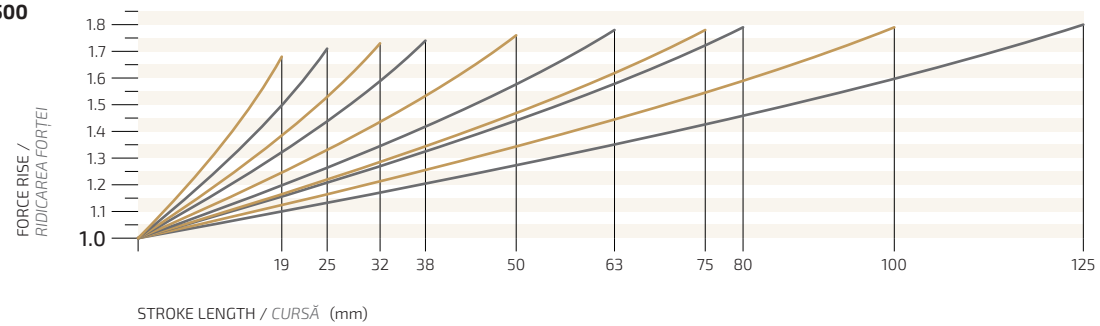
AGS4200



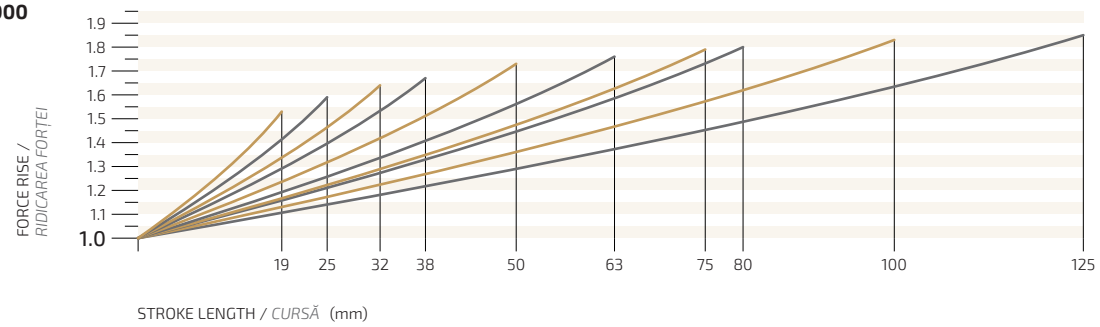
AGS6600



AGS9500



AGS20000



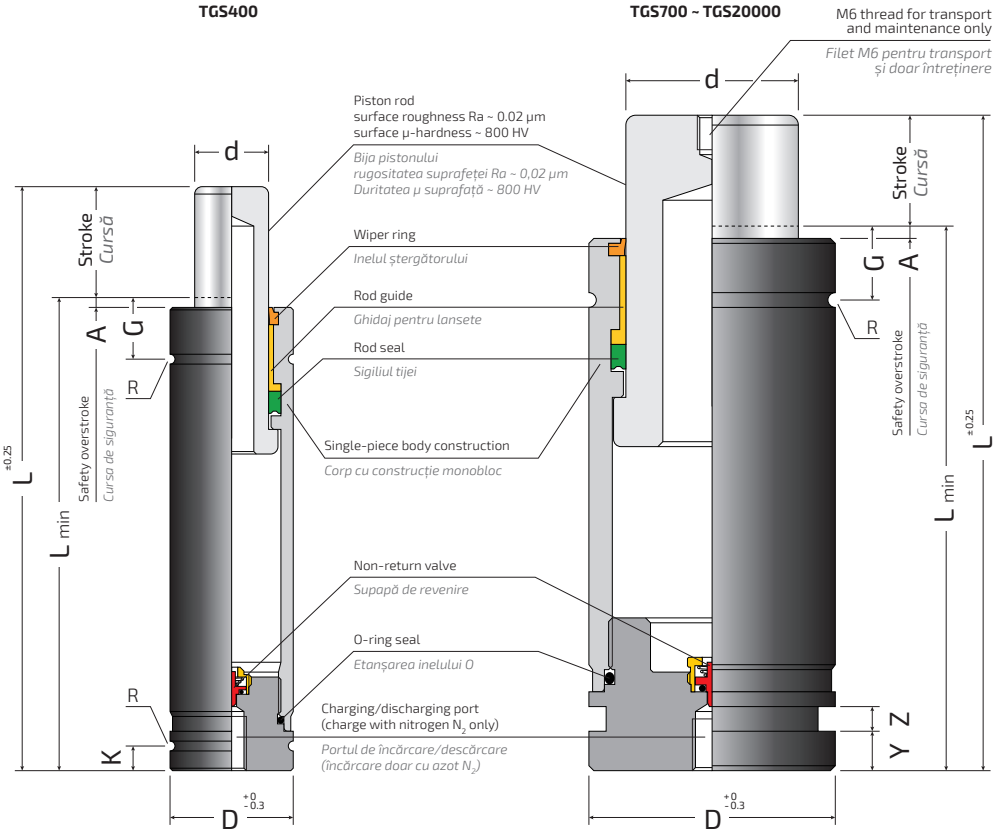
TGS

400~20000

COMPACT POWER
COMPACT HEIGHT

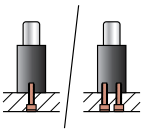
TGS series nitrogen gas springs feature high forces and compact diameters in a rod seal design. They ensure a great interchangeability (forces, dimensions and fixing possibilities) with the bore seal design nitrogen gas springs commonly available on the market, offering a higher performance (high number of cycles per minute, self-lubrication, better protection against liquid contaminants) and reliability thanks to the rod seal design. TGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria TGS au forțe mari și diametre compacte într-un design cu garnituri tip tijă. Acestea asigură o interschimbabilitate excelentă (forțe, dimensiuni și posibilități de fixare) cu arcurile cu garnitură de garnitură disponibile frecvent pe piață, oferind performanțe superioare (număr mare de cicluri pe minut, auto-lubrifiere, protecție mai bună împotriva contaminanților lichizi) și fiabilitate datorită designului garniturii tijei. Arcurile cu gaz azot din seria TGS sunt auto-lubrifiate.

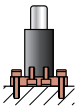


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

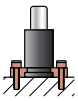
Fixing possibilities / *Posibilități de fixare*



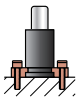
at the base
with screw(s)
La bază
cu șuruburi



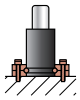
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



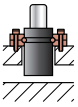
with half-flanges
cu semi-flanșe
SF, SFA



with foot brackets
cu suporturi pentru picior
ST, STA



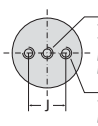
with collar flange (base)
cu flanșă de guler (bază)
FL



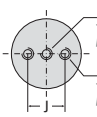
with collar flange
cu flanșă de guler
FL, FLA, FLQ, FLQA

with front support
cu sprijin frontal
FT, FTA

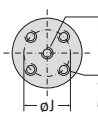
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



TGS400



TGS700, TGS1000, TGS2000, TGS3000



TGS5000, TGS8000, TGS12000, TGS20000

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

TGS

Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	L min mm	L mm	D mm	d mm	G mm	A mm	R mm	K mm	Y mm	Z mm	Ma	J mm	Mb	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
TGS400-10-A	10	60	70	25	15	11.5	1	1	5	-	-	M5 x 6 (2x)	14	M6 x 11	204 (20.4)	360	510	300	0.006	0.18
16-A	16	75	91			11.5		1		-	-						510	190	0.011	0.20
25-A	25	95	120			11.5		1		-	-						520	120	0.018	0.24
32-A	32	108	140			11.5		1		-	-						520	90	0.022	0.26
40-A	40	125	165			11.5		1		-	-						530	75	0.028	0.30
50-A	50	145	195			11.5		1		-	-						530	60	0.035	0.33
TGS700-06-A ●	6	57	63	32	20	11.5	2	1	-	-	-	M6 x 8 (2x)	15	M4	210 (21.0)	660	840	300	0.008	0.27
10-A ●	10	65	75			11.5		1		-	-						870	300	0.014	0.29
16-A	16	77	93			11.5		1		4	3.5						940	190	0.018	0.33
25-A	25	95	120			11.5		1		4	3.5						950	120	0.030	0.38
32-A	32	108	140			11.5		1		4	3.5						950	90	0.038	0.42
40-A	40	125	165			11.5		1		4	3.5						960	75	0.049	0.46
50-A	50	145	195			11.5		1		4	3.5						960	60	0.062	0.51
TGS1000-06-A ●	6	55	61	38	25	10.5	2	1	-	-	-	M6 x 8 (2x)	17	M8	205 (20.5)	1000	1350	300	0.010	0.38
10-A	10	68	78			10.5		1		4	3.5						1400	300	0.016	0.46
16-A	16	84	100			10.5		1		4	3.5						1400	190	0.028	0.52
25-A	25	110	135			10.5		1		4	3.5						1400	120	0.049	0.63
32-A	32	135	167			10.5		1		4	3.5						1450	90	0.068	0.73
40-A	40	155	195			10.5		1		4	3.5						1450	75	0.084	0.81
50-A	50	180	230			10.5		1		4	3.5						1450	60	0.104	0.92
TGS2000-06-A ● ●	6	60	66	50	35	-	2	-	-	-	-	M6 x 8 (2x)	26	M8	209 (20.9)	2000	3000	300	0.02	0.74
10-A ● ●	10	70	80			-		-		-	-						3100	300	0.03	0.82
16-A ●	16	90	106			14.5		1.5		-	-						3200	190	0.05	1.02
25-A	25	110	135			14.5		1.5		8	5						3300	120	0.07	1.25
32-A	32	130	162			14.5		1.5		8	5						3400	90	0.10	1.39
40-A	40	150	190			14.5		1.5		8	5						3400	75	0.12	1.54
50-A	50	170	220			14.5		1.5		8	5						3400	60	0.15	1.70
65-A	65	206	271			14.5		1.5		8	5						3200	45	0.20	1.99
TGS3000-10-A ● ●	10	75	85	63	45	-	2	-	-	-	-	M8 x 12 (2x)	34	M8	189 (18.9)	3000	4600	300	0.05	1.45
16-A ●	16	87	103			19		2		-	-						5000	190	0.07	1.62
25-A	25	105	130			19		2		8	5						5200	120	0.10	1.91
32-A	32	118	150			19		2		8	5						5200	90	0.14	2.07
40-A	40	135	175			19		2		8	5						5300	75	0.18	2.27
50-A	50	155	205			19		2		8	5						5300	60	0.23	2.52
65-A	65	191	256			19		2		8	5						5000	45	0.31	2.97
TGS5000-10-A ● ●	10	70	80	75	58	-	2	-	-	-	-	M8 x 12 (4x)	40	M8	190 (19.0)	5000	7400	300	0.08	1.87
16-A ●	16	90	106			18		1.5		-	-						7400	190	0.12	2.33
25-A	25	110	135			18		1.5		8	5						7600	120	0.18	2.74
32-A	32	135	167			18		1.5		8	5						7600	90	0.27	3.05
40-A	40	160	200			18		1.5		8	5						7600	75	0.36	3.38
50-A	50	190	240			18		1.5		8	5						7200	60	0.47	3.78
65-A	65	208	273			18		1.5		8	5						8000	45	0.55	4.12
TGS8000-10-A ● ●	10	80	90	95	75	-	2	-	-	-	-	M8 x 12 (4x)	52	M8	182 (18.2)	8000	10500	300	0.17	3.29
16-A ●	16	100	116			21		1.5		-	-						10800	190	0.25	3.94
25-A	25	120	145			21		1.5		8	5						11500	120	0.36	4.50
32-A	32	150	182			21		1.5		8	5						11500	90	0.54	5.05
40-A	40	170	210			21		1.5		8	5						11600	75	0.66	5.46
50-A	50	205	255			21		1.5		8	5						11600	60	0.88	6.14
65-A	65	214	279			21		1.5		8	5						12500	45	0.96	6.46
TGS12000-10-A ● ●	10	90	100	120	90	-	2	-	-	-	-	M10 x 15 (4x)	68	M8	189 (18.9)	12000	15500	300	0.25	6.22
16-A ●	16	110	126			22.5		2.5		-	-						16500	190	0.35	7.45
25-A	25	130	155			22.5		2.5		8	5						17000	120	0.49	8.59
32-A	32	155	187			22.5		2.5		8	5						17000	90	0.70	9.48
40-A	40	180	220			22.5		2.5		8	5						17000	75	0.92	10.41
50-A CE	50	210	260			22.5		2.5		8	5						16500	60	1.19	11.52
65-A CE	65	255	320			22.5		2.5		8	5						18000	45	1.59	13.27
TGS20000-10-A ● ●	10	100	110	150	115	-	2	-	-	-	-	M10 x 15 (4x)	90	M8	193 (19.3)	20000	29500	300	0.41	10.54
16-A ●	16	120	136			24.5		2.5		-	-						31000	190	0.57	12.54
25-A	25	140	165			24.5		2.5		8	5						32500	120	0.79	14.36
32-A CE	32	165	197			24.5		2.5		8	5						31000	90	1.15	15.73
40-A CE	40	195	235			24.5		2.5		8	5						30500	75	1.51	17.45
50-A CE	50	220	270			24.5		2.5		8	5						30000	60	1.94	18.91
65-A CE	65	258	323			24.5		2.5		8	5						30000	45	2.50	21.29

● Without lower (square) groove / *Fără canelură inferioară (pătrată)*

● Without upper (round) groove / *Fără canelură superioară (rotundă)*

CE The gas spring models for which the CE symbol is indicated have an internal gas volume > 1 litre (1 dm^3). They fall into Category II of the 2014/68/EU Pressure Equipment Directive (PED).
All the other gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED).
Modelele cu arc pe gaz pentru care este indicat simbolul CE au un volum intern de gaz > 1 litru (1 dm^3). Acestea se încadrează în Categoria II a Directivei UE privind Echipamentele Sub Presiune (PED) din 2014/68.
Toate celelalte modele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva UE privind echipamentele de presiune (PED) din 2014/68.

REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
TGS400-...-A	**KR/TGS400-A**
TGS700-...-A	**KR/TGS700-A**
TGS1000-...-A	**KR/TGS1000-A**
TGS2000-06-A, TGS2000-10-A	**KR/TGS2000-A-1**
TGS2000-16-A ~ TGS2000-65-A	**KR/TGS2000-A-2**
TGS3000-10-A	**KR/TGS3000-A-1**
TGS3000-16-A ~ TGS3000-65-A	**KR/TGS3000-A-2**
TGS5000-10-A	**KR/TGS5000-A-1**
TGS5000-16-A ~ TGS5000-65-A	**KR/TGS5000-A-2**

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
TGS8000-10-A	**KR/TGS8000-A-1**
TGS8000-16-A ~ TGS8000-65-A	**KR/TGS8000-A-2**
TGS12000-10-A	**KR/TGS12000-A-1**
TGS12000-16-A ~ TGS12000-65-A	**KR/TGS12000-A-2**
TGS20000-10-A	**KR/TGS20000-A-1**
TGS20000-16-A ~ TGS20000-65-A	**KR/TGS20000-A-2**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

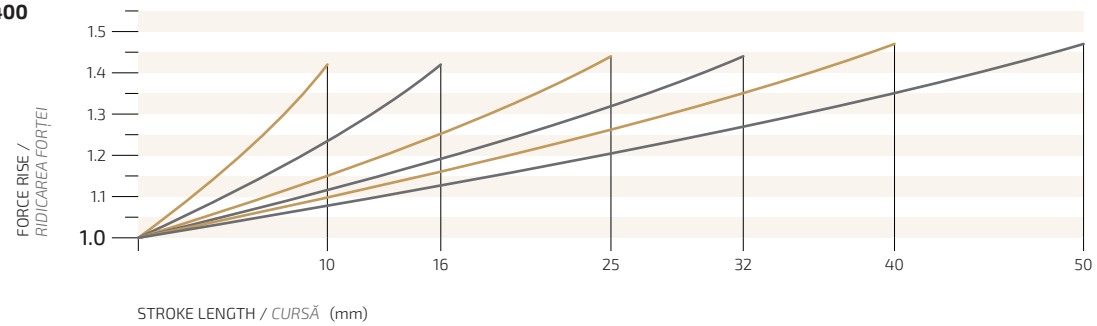
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

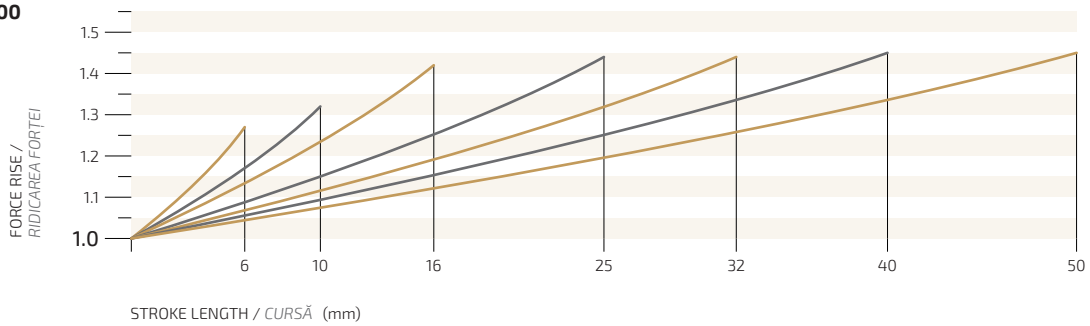
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

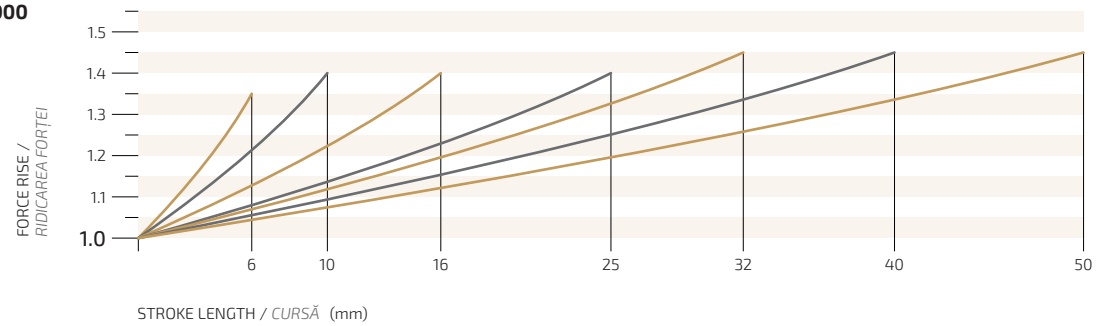
TGS400



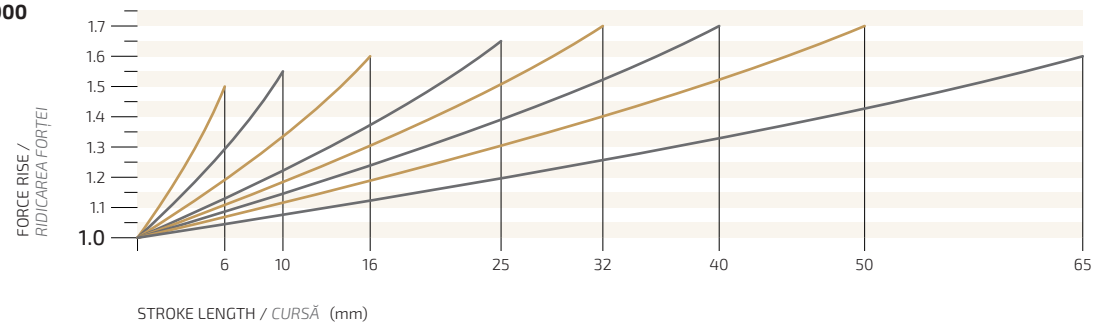
TGS700



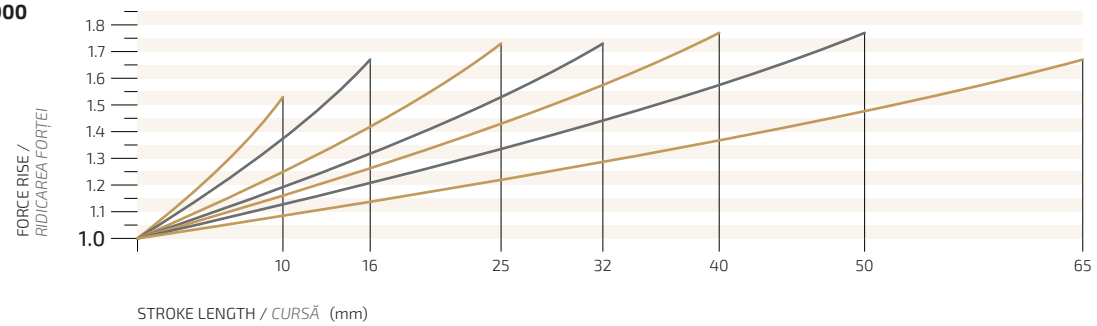
TGS1000



TGS2000



TGS3000



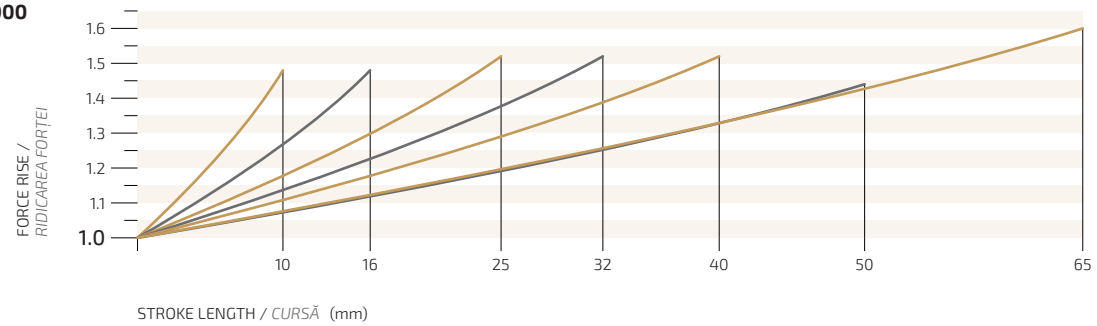
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

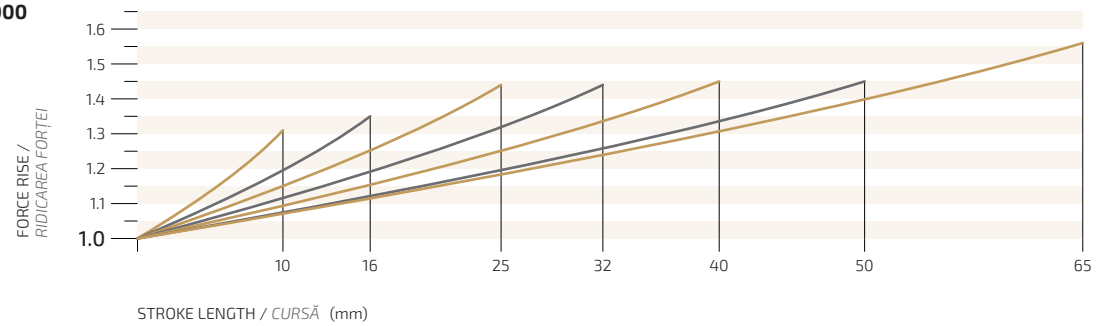
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

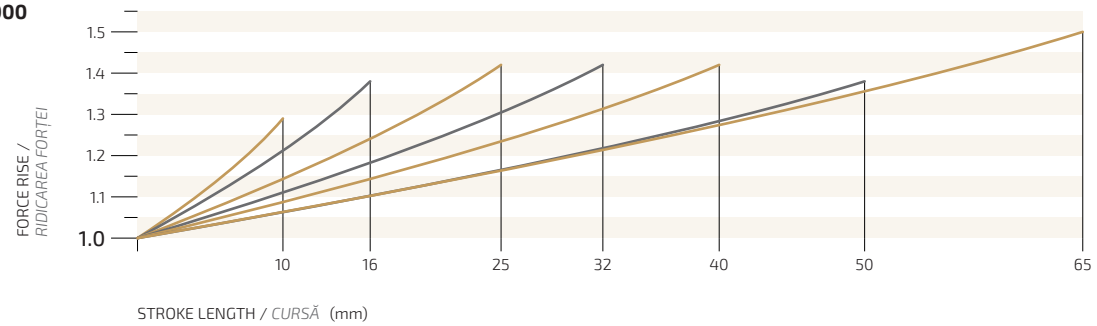
TGS5000



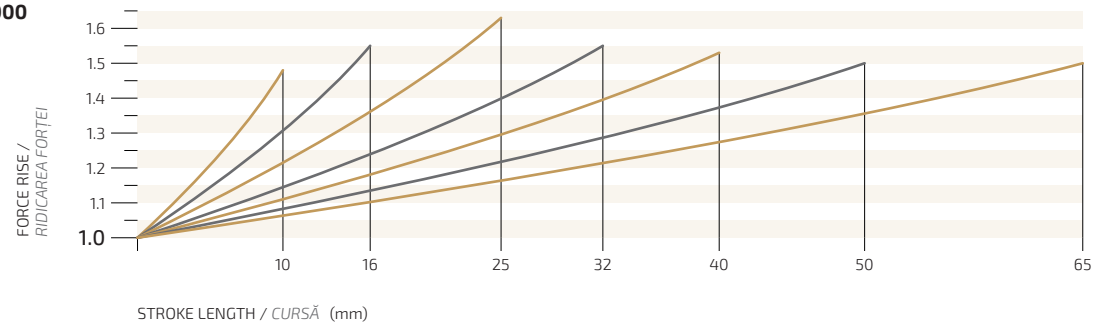
TGS8000



TGS12000



TGS20000



IGS

150~1500

PED In accordance with 2014/68/EU

ISO 11901-1

VDI 3003

This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

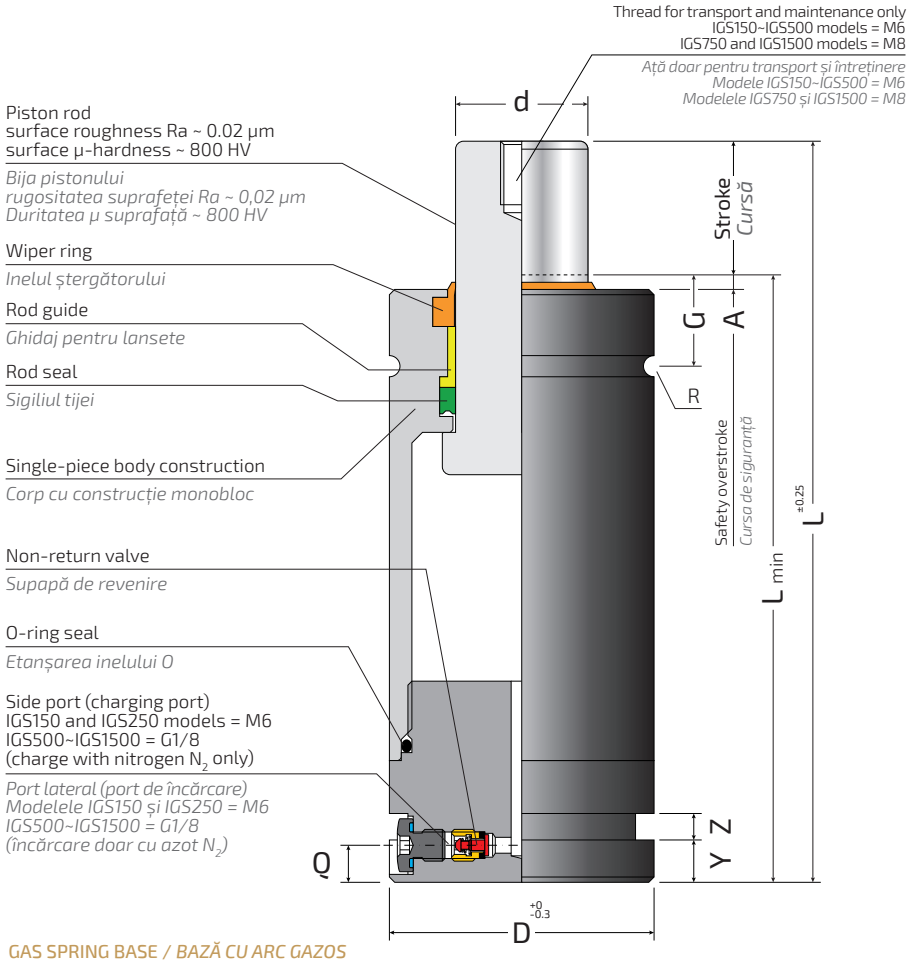
BMW	B2 4006	**Nissan**	K32S, K32C
FCA	075.90.55	**PSA**	E24.54.815.G
Ford	W-DX35-6203	**Renault**	EM24.54.700
Mazda	PG23D	**Suzuki**	SES-K 5404e
MB	B8 3180 220 000 001	**VW**	39D 878

COMPACT POWER

COMPACT HEIGHT

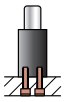
IGS series nitrogen gas springs feature standard dimensions and forces, as well as several fixing and linking possibilities. With the IGS series nitrogen gas springs, Bordignon now ensures a great interchangeability and a superior reliability. IGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria IGS au dimensiuni și forțe standard, precum și mai multe posibilități de fixare și legare. Cu arcurile cu gaz azot din seria IGS, Bordignon asigură acum o interschimbabilitate excelentă și o fiabilitate superioară. Arcurile cu gaz azot din seria IGS sunt auto-lubrifiate.

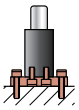


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

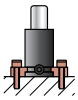
Fixing possibilities / *Posibilități de fixare*



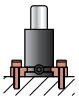
at the base with screws
la bază cu șuruburi



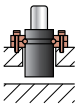
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



with half-flanges
cu semi-flanșe
SF, SFA



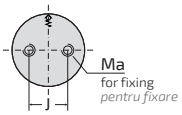
with foot brackets
cu suporturi pentru picior
ST, STA



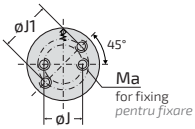
with collar flange
cu flanșă de guler
FL, FLQ

with front support
cu sprijin frontal
FT, FTA

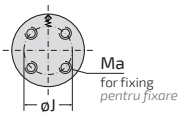
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



IGS150, IGS500, IGS750



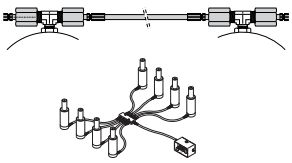
IGS250



IGS1500

LINKING TO OPEN SYSTEM / *LEGAREA CĂTRE SISTEMUL DESCHIS*

	IGS150~IGS250 (M6 side port/ *Portul lateral M6*)		IGS500~IGS1500 (G1/8 side port / *Portul lateral G1/8*)		
Hoses *Furtunuri*	**ATM**	**ATNM**	**ATM**	**ATN**	**AT**
Gas spring-hose fittings *Racorduri arc cu gaz-furtun*	**ARM**	**ARNM**	**ARM**	**ARN**	**AR**



ATTENTION! Follow the instructions in the "LINKED SYSTEM" section before connecting the gas springs.
ATENȚIE! Urmează instrucțiunile din secțiunea "SISTEM LEGAT" înainte de a conecta arcurile cu gaz.

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

IGS 150~1500

Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	Lmin mm	L mm	D mm	d mm	G mm	A mm	R mm	Y mm	Z mm	Q mm	Ma	J mm	J1 mm	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
IGS150-10	10	60	70	32	12	12.5	2	1	4	4	6	M6 x 11 (2x)	18	-	150 (15.0)	170	215	300	0.009	0.30
13	12.7	62.7	75.4														220	235	0.010	0.32
16	16	66	82														220	190	0.012	0.33
25	25	75	100														225	120	0.017	0.36
38	38.1	88.1	126.2														230	80	0.024	0.39
50	50	100	150														230	60	0.030	0.44
63	63.5	113.5	177														230	50	0.037	0.48
80	80	130	210														235	40	0.046	0.54
100	100	150	250														235	30	0.057	0.60
125	125	175	300														235	25	0.070	0.70
IGS250-10	10	60	70	38	15	12.5	2	1	4	4	6	M6 x 9 (J: 2x) (J1: 2x)	18	25	150 (15.0)	260	305	300	0.029	0.30
13	12.7	62.7	75.4														310	235	0.031	0.31
16	16	66	82														310	190	0.034	0.33
19	19	69	88														315	160	0.037	0.34
25	25	75	100														320	120	0.042	0.37
38	38.1	88.1	126.2														330	80	0.052	0.43
50	50	100	150														335	60	0.062	0.48
63	63.5	113.5	177														335	50	0.074	0.54
80	80	130	210														340	40	0.087	0.61
100	100	150	250														345	30	0.104	0.66
125	125	175	300														350	25	0.125	0.83
IGS500-10	10	95	105	45	20	16.5	2	1	4	4	10.5	M8 x 13 (2x)	20	-	150 (15.0)	470	570	300	0.033	0.78
13	12.7	97.7	110.4														580	235	0.036	0.87
25	25	110	135														610	120	0.051	0.95
38	38.1	123.1	161.2														630	80	0.066	1.04
50	50	135	185														640	60	0.080	1.12
63	63.5	148.5	212														660	50	0.095	1.20
80	80	165	245														660	40	0.115	1.30
100	100	185	285														670	30	0.138	1.41
125	125	210	335														680	25	0.167	1.60
160	160	245	405														700	19	0.192	1.93
200	200	285	485														700	15	0.239	2.10
IGS750-13	12.7	107.7	120.4	50	25	17.5	3	2	8	5	10.5	M8 x 13 (2x)	20	-	150 (15.0)	740	930	235	0.05	1.16
25	25	120	145														990	120	0.07	1.26
38	38.1	133.1	171.2														1040	80	0.09	1.37
50	50	145	195														1070	60	0.10	1.47
63	63.5	158.5	222														1090	50	0.12	1.59
75	75	170	245														1110	40	0.14	1.70
80	80	175	255														1110	40	0.15	1.74
88	87.5	182.5	270														1120	35	0.16	1.80
100	100	195	295														1130	30	0.17	1.92
113	112.5	207.5	320														1140	27	0.19	2.03
125	125	220	345														1150	25	0.21	2.13
138	137.5	232.5	370														1210	22	0.21	2.36
150	150	245	395														1210	20	0.22	2.51
160	160	255	415														1220	19	0.24	2.60
175	175	270	445														1220	17	0.26	2.73
200	200	295	495														1220	15	0.30	2.94
225	225	320	545														1220	13	0.33	3.16
250	250	345	595														1220	12	0.37	3.31
275	275	370	645														1230	11	0.40	3.59
300	300	395	695														1230	10	0.44	3.81
IGS1500-13	12.7	122.3	135	75	36	21	3	2.5	8	5	10.5	M8 x 13 (4x)	40	-	150 (15.0)	1530	1870	235	0.13	3.01
25	25	135	160														1980	120	0.17	3.27
38	38.1	148.1	186.2														2060	80	0.21	3.51
50	50	160	210														2110	60	0.25	3.73
63	63.5	173.5	237														2160	50	0.29	3.97
75	75	185	260														2190	40	0.33	4.18
80	80	190	270														2200	40	0.35	4.27
88	87.5	197.5	285														2220	35	0.37	4.39
100	100	210	310														2240	30	0.41	4.63
113	112.5	222.5	335														2260	27	0.45	4.84
125	125	235	360														2270	25	0.49	5.08
138	137.5	247.5	385														2390	22	0.47	5.77
150	150	260	410														2400	20	0.51	5.99
160	160	270	430														2400	19	0.55	6.17
175	175	285	460														2410	17	0.59	6.45
200	200	310	510														2410	15	0.67	6.90
225	225	335	560														2420	13	0.75	7.35
250	250	360	610														2420	12	0.83	7.81
275	275	385	660														2430	11	0.92	8.26
300	300	410	710														2430	10	0.99	8.72

All the gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED)
Toate modelele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva 2014/68/UE privind echipamentele sub presiune (PED)

"L-VERSION" (FOR LINKED SYSTEM) / *"L-VERSION" (PENTRU SISTEMUL LEGAT)*

When the gas springs are to be used in a linked system, make sure to order the "L-version" by adding "-L" after the gas spring code. The "L-version" gas springs are supplied already discharged and without valve, ready for the connection to linked system.
Example: "**IGS750-50-L**"

Când arcurile cu gaz urmează să fie folosite într-un sistem legat, asigurați-vă că comandați "versiunea L" adăugând "-L" după codul arcului de gaz. Arcurile cu gaz "L-version" sunt furnizate deja descărcate și fără supape, pregătite pentru conectarea la sistemul legat.
*Exemplu: "**IGS750-50-L**"*

REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
IGS150-...	**KR/IGS150**
IGS250-...	**KR/IGS250**
IGS500-10 ~ IGS500-63	**KR/IGS500-1**
IGS500-80 ~ IGS500-200	**KR/IGS500-2**
IGS750-13 ~ IGS750-50	**KR/IGS750-1**
IGS750-63 ~ IGS750-300	**KR/IGS750-2**
IGS1500-13 ~ IGS1500-50	**KR/IGS1500-1**
IGS1500-63 ~ IGS1500-300	**KR/IGS1500-2**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

IGS 150~1500

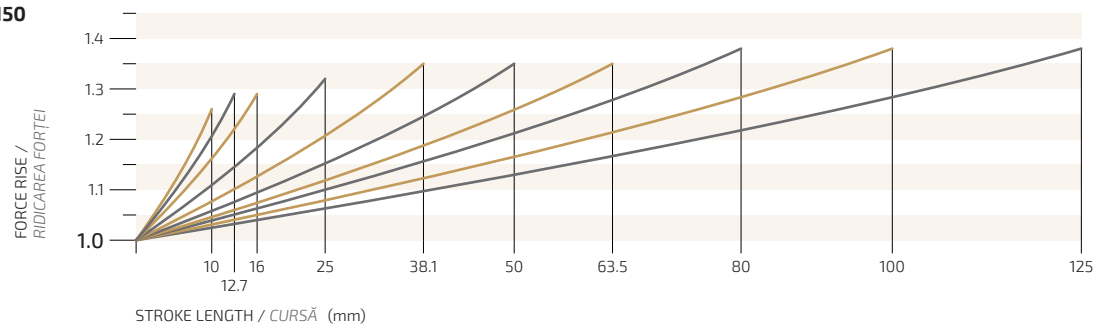
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

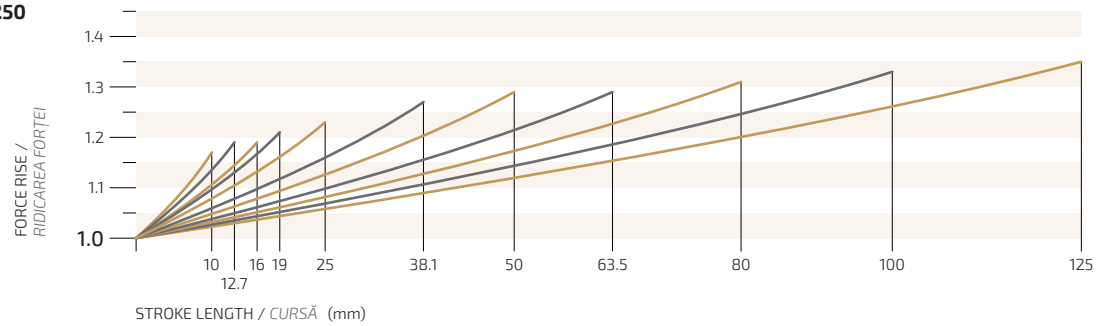
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

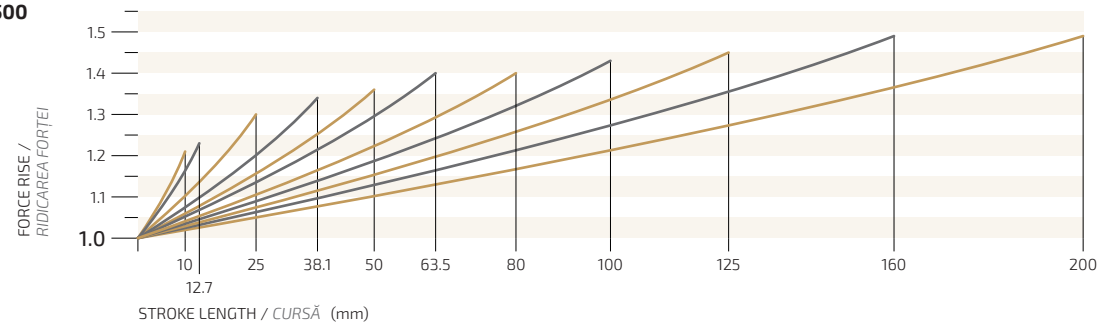
IGS150



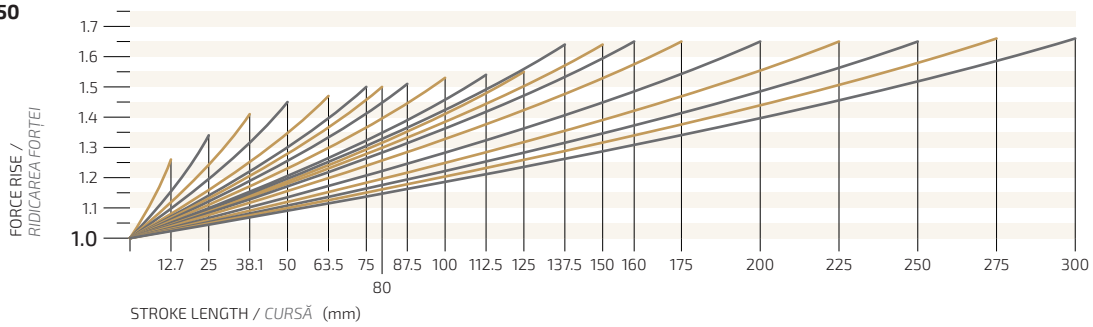
IGS250



IGS500



IGS750



IGS 150~1500

FORCE RISE VS. USED STROKE LENGTH CHARTS

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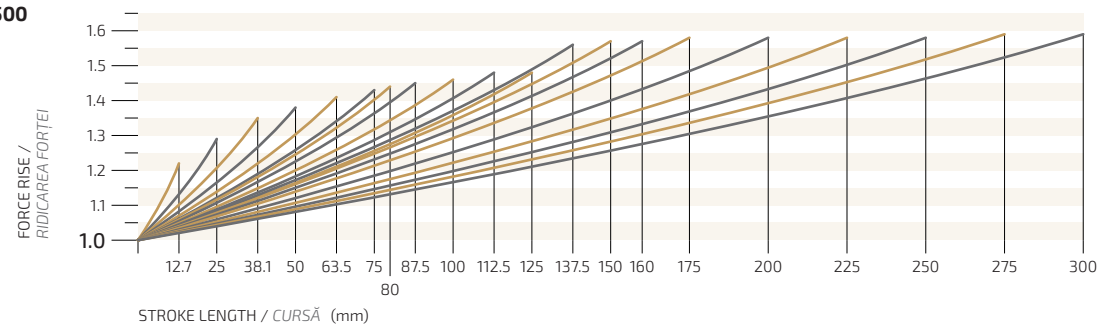
Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

IGS1500



IGS

3000~10000

ISO 11901-1

VDI 3003

This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

BMW	B2 4006	**Nissan**	K32S, K32C
FCA	075.90.55	**PSA**	E24.54.815.G
Ford	W-DX35-6203	**Renault**	EM24.54.700
Mazda	PG23D	**Suzuki**	SES-K 5404e
MB	B8 3180 220 000 001	**VW**	39D 878

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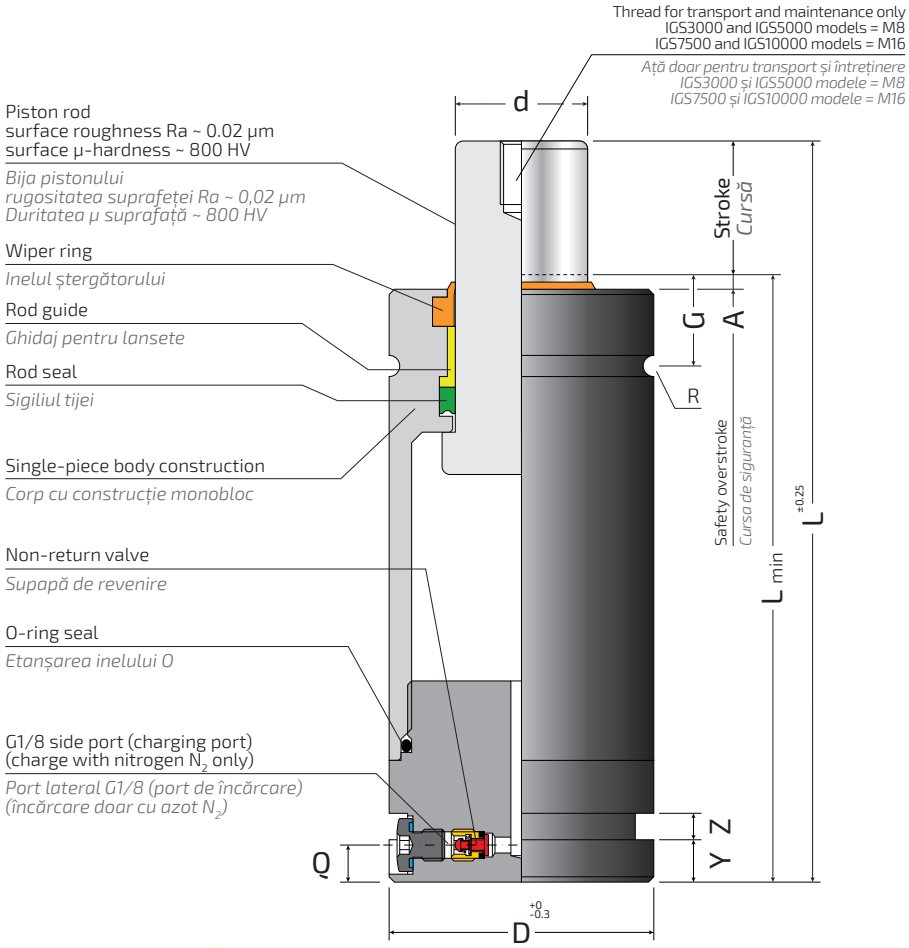
COMPACT HEIGHT

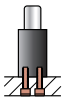
IGS series nitrogen gas springs feature standard dimensions and forces, as well as several fixing and linking possibilities. With the IGS series nitrogen gas springs, Bordignon now ensures a great interchangeability and a superior reliability. IGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria IGS au dimensiuni și forțe standard, precum și mai multe posibilități de fixare și legare. Cu arcurile cu gaz azot din seria IGS, Bordignon asigură acum o interschimbabilitate excelentă și o fiabilitate superioară. Arcurile cu gaz azot din seria IGS sunt auto-lubrifiate.

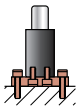


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

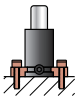
Fixing possibilities / *Posibilități de fixare*



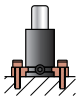
at the base with screws
la bază cu șuruburi



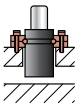
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



with half-flanges
cu semi-flanșe
SF, SFA



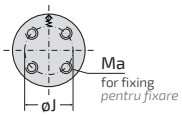
with foot brackets
cu suporturi pentru picior
ST, STA



with collar flange
cu flanșă de guler
FL, FLQ

with front support
cu sprijin frontal
FT, FTA

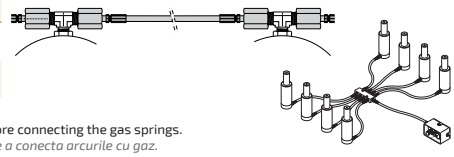
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



IGS3000, IGS5000, IGS7500, IGS10000

LINKING TO OPEN SYSTEM/ *LEGAREA CĂTRE SISTEMUL DESCHIS*

	IGS3000-IGS10000 (G1/8 side port / *Portul lateral G1/8*)		
Hoses *Furtunuri*	**ATM**	**ATN**	**AT**
Gas spring-hose fittings *Racorduri arc cu gaz-furtun*	**ARM**	**ARN**	**AR**



ATTENTION! Follow the instructions in the "LINKED SYSTEM" section before connecting the gas springs.
ATENȚIE! Urmează instrucțiunile din secțiunea "SISTEM LEGAT" înainte de a conecta arcurile cu gaz.

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

IGS 3000~10000

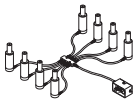
Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	L min mm	L mm	D mm	d mm	G mm	A mm	R mm	Y mm	Z mm	Q mm	Ma	J mm	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
IGS3000-13	12.7	132.3	145	95	50	24	3	2.5	8	5	10.5	M8 x 13 (4x)	60	150 (15.0)	2945	3650	235	0.24	5.15
25	25	145	170													3850	120	0.30	5.58
38	38.1	158.1	196.2													4050	80	0.37	5.97
50	50	170	220													4200	60	0.43	6.33
63	63.5	183.5	247													4300	50	0.51	6.76
75	75	195	270													4400	40	0.57	7.10
80	80	200	280													4400	40	0.59	7.25
88	87.5	207.5	295													4450	35	0.63	7.49
100	100	220	320													4500	30	0.70	7.83
113	112.5	232.5	345													4550	27	0.76	8.21
125	125	245	370													4600	25	0.83	8.59
138	137.5	257.5	395													4900	22	0.80	9.72
150	150	270	420													4900	20	0.87	10.10
160	160	280	440													4900	19	0.92	10.42
175	175	295	470													4950	17	0.99	10.87
200 CE	200	320	520													4950	15	1.13	11.64
225 CE	225	345	570													5000	13	1.26	12.40
250 CE	250	370	620													5000	12	1.39	13.16
275 CE	275	395	670													5000	11	1.53	13.92
300 CE	300	420	720													5000	10	1.66	14.70
IGS5000-25	25	165	190	120	65	25.5	3	2.5	8	5	10.5	M10 x 16 (4x)	80	150 (15.0)	4980	6600	120	0.48	10.78
38	38.1	178.1	216.2													7000	80	0.58	11.52
50	50	190	240													7300	60	0.67	12.20
63	63.5	203.5	267													7600	50	0.77	13.00
75	75	215	290													7700	40	0.85	13.62
80	80	220	300													7800	40	0.89	13.91
88	87.5	227.5	315													7900	35	0.95	14.27
100 CE	100	240	340													8000	30	1.04	14.98
113 CE	112.5	252.5	365													8200	27	1.14	15.70
125 CE	125	265	390													8300	25	1.23	16.41
138 CE	137.5	277.5	415													8900	22	1.19	18.18
150 CE	150	290	440													8900	20	1.29	18.88
160 CE	160	300	460													9000	19	1.36	19.45
175 CE	175	315	490													9000	17	1.47	20.30
200 CE	200	340	540													9100	15	1.66	21.72
225 CE	225	365	590													9200	13	1.85	23.14
250 CE	250	390	640													9200	12	2.04	24.56
275 CE	275	415	690													9300	11	2.23	25.98
300 CE	300	440	740													9300	10	2.42	27.40
IGS7500-25 CE	25	180	205	150	80	27.5	3	2.5	8	5	10.5	M10 x 16 (4x)	100	150 (15.0)	7540	9300	120	1.15	15.72
38 CE	38.1	193.1	231.2													9700	80	1.32	16.73
50 CE	50	205	255													10000	60	1.47	17.69
63 CE	63.5	218.5	282													10300	50	1.64	18.74
75 CE	75	230	305													10500	40	1.79	19.65
80 CE	80	235	315													10600	40	1.86	20.04
88 CE	87.5	242.5	330													10700	35	1.95	20.52
100 CE	100	255	355													10900	30	2.11	21.55
113 CE	112.5	267.5	380													11000	27	2.27	22.48
125 CE	125	280	405													11200	25	2.43	23.52
138 CE	137.5	292.5	430													11800	22	2.33	26.50
150 CE	150	305	455													11900	20	2.49	27.53
160 CE	160	315	475													12000	19	2.62	28.33
175 CE	175	330	505													12000	17	2.82	29.49
200 CE	200	355	555													12200	15	3.14	31.47
225 CE	225	380	605													12300	13	3.46	33.43
250 CE	250	405	655													12400	12	3.78	35.39
275 CE	275	430	705													12500	11	4.10	37.36
300 CE	300	455	755													12600	10	4.43	39.33
IGS10000-25 CE	25	185	210	195	95	33.5	3	2.5	8	8	15	M12 x 18 (4x)	120	150 (15.0)	10600	12900	120	1.87	28.39
38 CE	38.1	198.1	236.2													13300	80	2.16	29.90
50 CE	50	210	260													13700	60	2.42	31.33
63 CE	63.5	223.5	287													14000	50	2.72	32.92
80 CE	80	240	320													14300	40	3.09	34.87
100 CE	100	260	360													14600	30	3.53	37.22
125 CE	125	285	410													14900	25	4.08	40.17
160 CE	160	320	480													15900	19	4.23	49.23
200 CE	200	360	560													16100	15	5.12	53.95
250 CE	250	410	660													16300	12	6.22	59.84
300 CE	300	460	760													17200	10	6.62	71.32

CE The gas spring models for which the CE symbol is indicated have an internal gas volume > 1 litre (1 dm^3). They fall into Category II of the 2014/68/EU Pressure Equipment Directive (PED).
All the other gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED).
Modelele cu arc pe gaz pentru care este indicat simbolul CE au un volum intern de gaz > 1 litru (1 dm^3). Acestea se încadrează în Categoria II a Directivei UE privind Echipamentele Sub Presiune (PED) din 2014/68.
Toate celelalte modele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva UE privind echipamentele de presiune (PED) din 2014/68.

"L-VERSION" (FOR LINKED SYSTEM) / *"L-VERSION" (PENTRU SISTEMUL LEGAT)*

When the gas springs are to be used in a linked system, make sure to order the "L-version" by adding "-L" after the gas spring code. The "L-version" gas springs are supplied already discharged and without valve, ready for the connection to linked system.
Example: "**IGS5000-50-L**"

Când arcurile cu gaz urmează să fie folosite într-un sistem legat, asigurați-vă că comandați "versiunea L" adăugând "-L" după codul arcului de gaz. Arcurile cu gaz "L-version" sunt furnizate deja descărcate și fără supape, pregătite pentru conectarea la sistemul legat.
*Exemplu: "**IGS5000-50-L**"*



REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
IGS3000-13 ~ IGS3000-50	**KR/IGS3000-1**
IGS3000-63 ~ IGS3000-300	**KR/IGS3000-2**
IGS5000-25, IGS5000-38	**KR/IGS5000-1**
IGS5000-50 ~ IGS5000-300	**KR/IGS5000-2**
IGS7500-25, IGS7500-38	**KR/IGS7500-1**
IGS7500-50 ~ IGS7500-300	**KR/IGS7500-2**
IGS10000-25, IGS10000-38	**KR/IGS10000-1**
IGS10000-50 ~ IGS10000-300	**KR/IGS10000-2**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

IGS 3000~10000

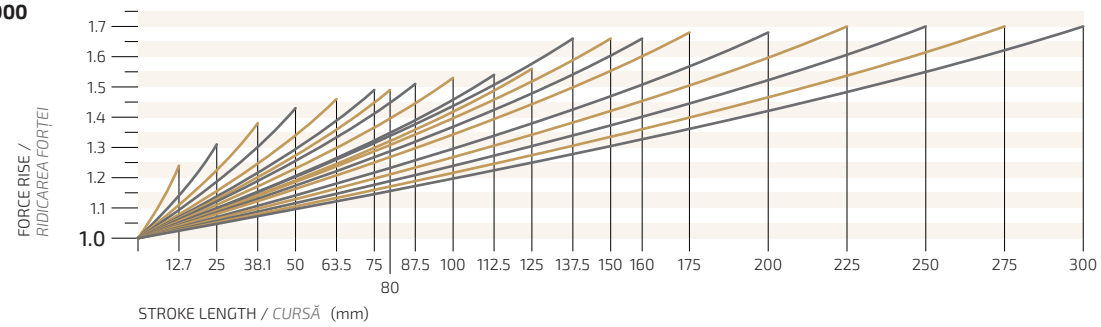
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

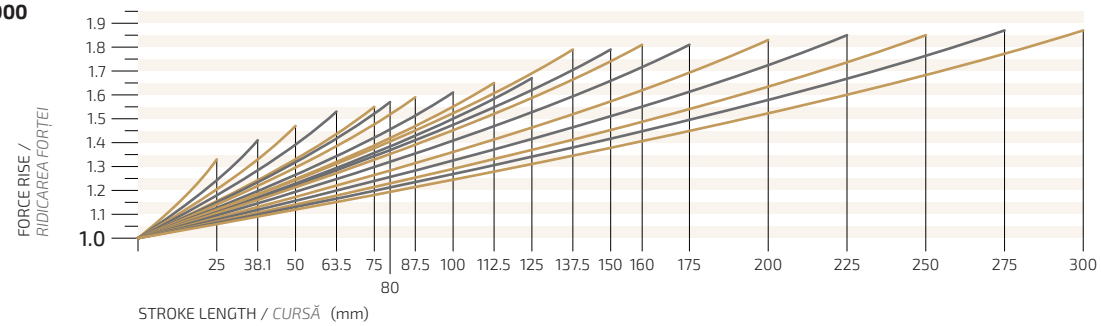
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

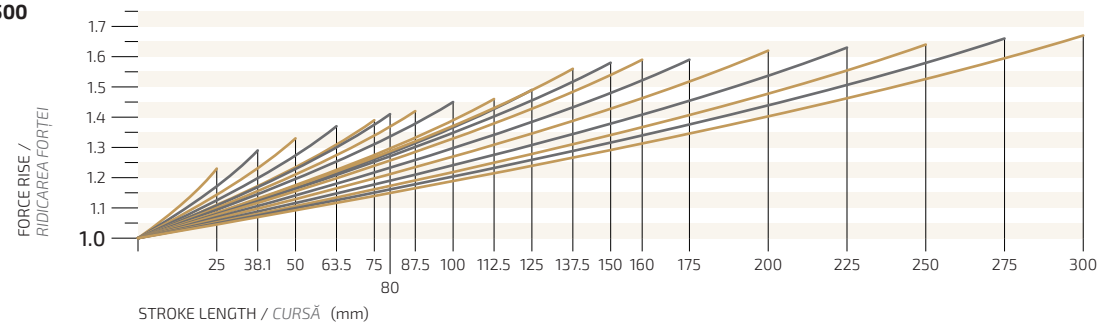
IGS3000



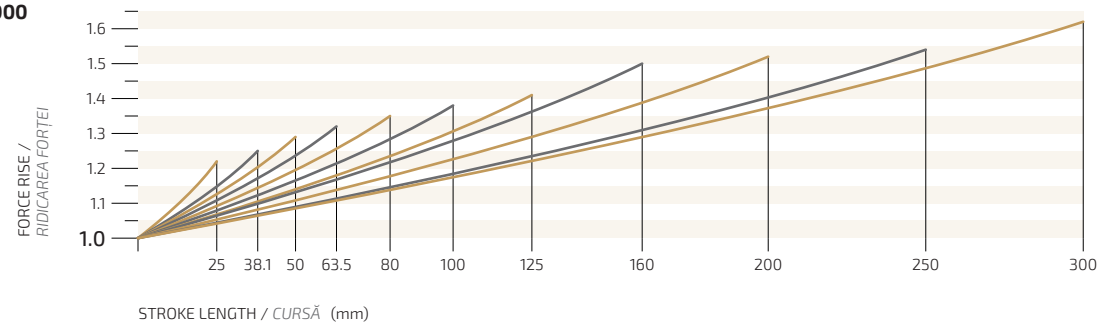
IGS5000



IGS7500



IGS10000



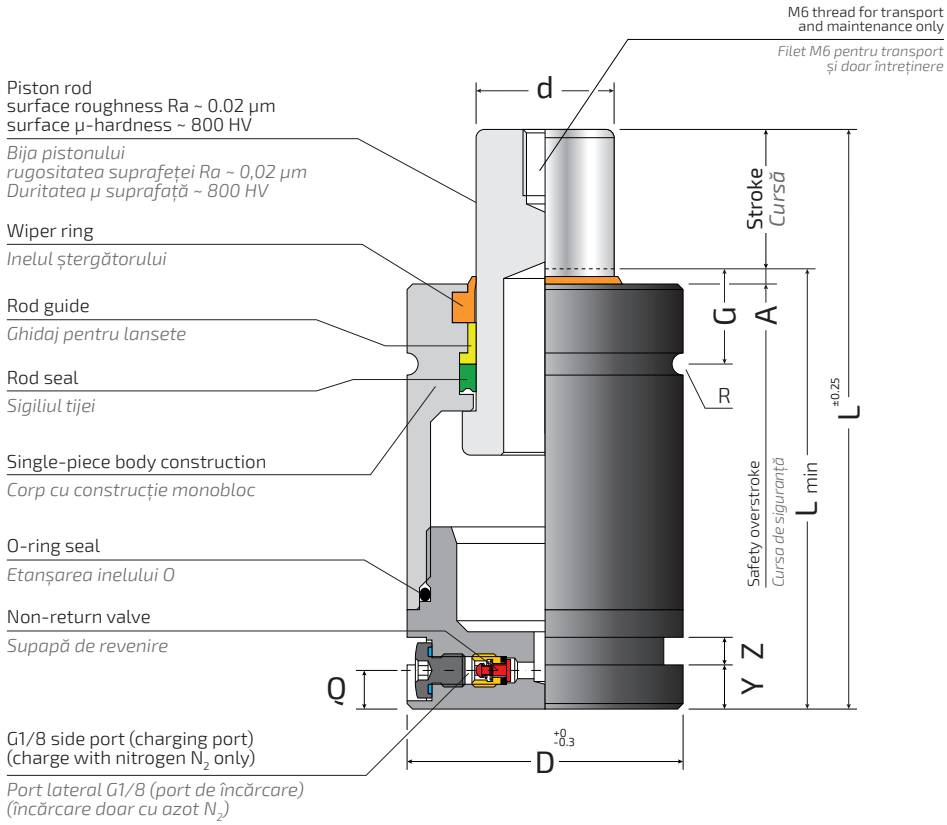
LGS

500

COMPACT POWER
COMPACT HEIGHT

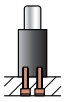
LGS series nitrogen gas springs feature standard forces and compact length, as well as several fixing and linking possibilities. With the LGS series nitrogen gas springs, Bordignon now ensures a great interchangeability and a superior reliability. LGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria LGS au forțe standard și lungime compactă, precum și mai multe posibilități de fixare și legare. Cu arcurile cu gaz azot din seria LGS, Bordignon asigură acum o interschimbabilitate excelentă și o fiabilitate superioară. Arcurile cu gaz azot din seria LGS sunt auto-lubrifiate.

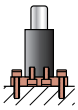


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare în secțiunea dedicată catalogului.

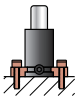
Fixing possibilities / *Posibilități de fixare*



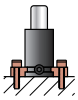
at the base with screws
la bază cu șuruburi



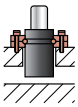
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



with half-flanges
cu semi-flanșe
SF, SFA



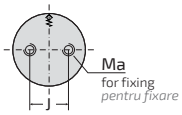
with foot brackets
cu suporturi pentru picior
ST, STA



with collar flange
cu flanșă de guler
FL, FLQ

with front support
cu sprijin frontal
FT, FTA

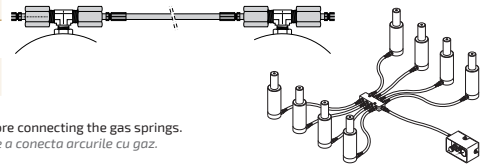
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



LGS500

LINKING TO OPEN SYSTEM / *LEGAREA CĂTRE SISTEMUL DESCHIS*

	LGS500 (G1/8 side port / *Portul lateral G1/8*)		
Hoses *Furtunuri*	**ATM**	**ATN**	**AT**
Gas spring-hose fittings *Racorduri arc cu gaz-furtun*	**ARM**	**ARN**	**AR**



ATTENTION! Follow the instructions in the "LINKED SYSTEM" section before connecting the gas springs.
ATENȚIE! Urmează instrucțiunile din secțiunea "SISTEM LEGAT" înainte de a conecta arcurile cu gaz.

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

LGS

Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	L min mm	L mm	D mm	d mm	G mm	A mm	R mm	Y mm	Z mm	Q mm	Ma	J mm	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
LGS500-80	80	130	210	45	20	15.5	2	1	4	4	10.5	M8 x 13 (2x)	20	150 (15.0)	470	700	40	0.097	0.89

All the gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED)
Toate modelele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva 2014/68/UE privind echipamentele sub presiune (PED)

"L-VERSION" (FOR LINKED SYSTEM) / *"L-VERSION" (PENTRU SISTEMUL LEGAT)*

When the gas springs are to be used in a linked system, make sure to order the "L-version" by adding "-L" after the gas spring code. The "L-version" gas springs are supplied already discharged and without valve, ready for the connection to linked system.
Example: "**LGS500-80-L**"

Când arcurile cu gaz urmează să fie folosite într-un sistem legat, asigurați-vă că comandați "versiunea L" adăugând "-L" după codul arcului de gaz. Arcurile cu gaz "L-version" sunt furnizate deja descărcate și fără supape, pregătite pentru conectarea la sistemul legat.
*Exemplu: "**LGS500-80-L**"*

REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
LGS500-...	**KR/LGS500**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

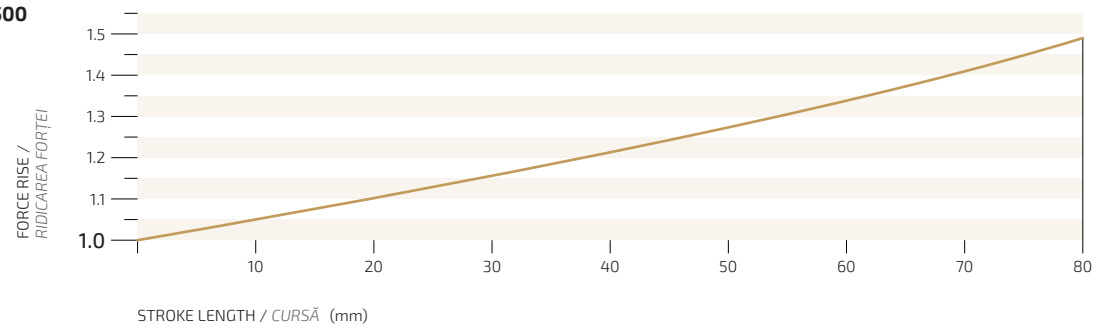
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

LGS500



PGS

300~1500

ISO 11901-4 VDI 3003 Part 4

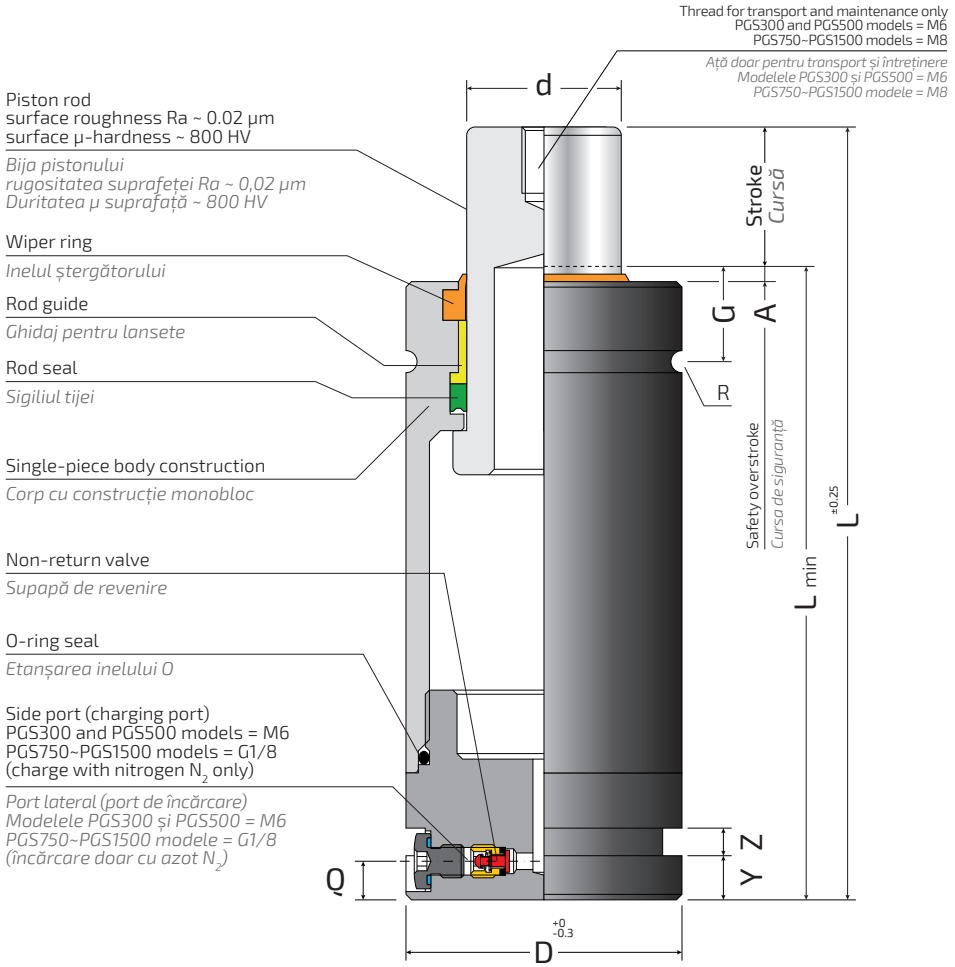
This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

BMW	B2 4008
FCA	075.90.65
VW	39D 838

COMPACT POWER
COMPACT HEIGHT

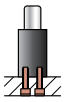
PGS series nitrogen gas springs feature standard dimensions and enhanced forces, as well as several fixing and linking possibilities. PGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria PGS au dimensiuni standard și forțe sporite, precum și mai multe posibilități de fixare și legare. Arcurile cu gaz de azot din seria PGS sunt auto-lubrifiate.

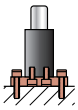


Technical notes / *Note tehnice*
Important use instructions in the dedicated catalogue section.
Instrucțiuni importante de utilizare în secțiunea dedicată catalogului.

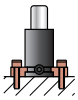
Fixing possibilities / *Posibilități de fixare*



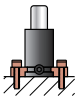
at the base with screws
la bază cu șuruburi



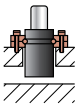
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



with half-flanges
cu semi-flanșe
SF, SFA



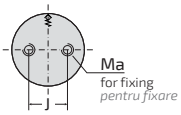
with foot brackets
cu suporturi pentru picior
ST, STA



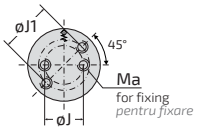
with collar flange
cu flanșă de guler
FL, FLQ

with front support
cu sprijin frontal
FT, FTA

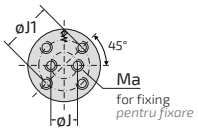
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



PGS300, PGS750, PGS1000



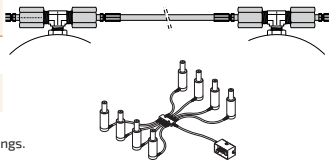
PGS500



PGS1500

LINKING TO OPEN SYSTEM / *LEGAREA CĂTRE SISTEMUL DESCHIS*

	PGS300~PGS500 (M6 side port / *Portul lateral M6*)		PGS750~PGS1500 (G1/8 side port / *Portul lateral G1/8*)		
Hoses *Furtunuri*	**ATM**	**ATNM**	**ATM**	**ATN**	**AT**
Gas spring-hose fittings *Racorduri arc cu gaz-furtun*	**ARM**	**ARNM**	**ARM**	**ARN**	**AR**



ATTENTION! Follow the instructions in the "LINKED SYSTEM" section before connecting the gas springs.
ATENȚIE! Urmează instrucțiunile din secțiunea "SISTEM LEGAT" înainte de a conecta arcurile cu gaz.

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

PGS 300~1500

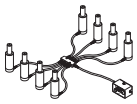
Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	Lmin mm	L mm	D mm	d mm	G mm	A mm	R mm	Y mm	Z mm	Q mm	Ma	J mm	J1 mm	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
PGS300-10	10	60	70														390	300	0.013	0.25
13	13	62.7	75.7														400	230	0.015	0.26
16	16	66	82														410	190	0.016	0.28
25	25	75	100														430	120	0.022	0.29
38	38	88	126	32	16	12.5	2	1	4	4	6	M6 x 11 (2x)	18	-	150 (15.0)	300	450	80	0.029	0.35
50	50	100	150														460	60	0.036	0.39
63	63	113.5	176.5														470	50	0.043	0.44
80	80	130	210														480	40	0.051	0.50
100	100	150	250														490	30	0.062	0.58
125	125	175	300														500	25	0.074	0.69
PGS500-10	10	60	70														610	300	0.021	0.35
13	13	62.7	75.7														640	230	0.021	0.37
16	16	66	82														650	190	0.025	0.38
19	19	69	88														670	160	0.026	0.40
25	25	75	100														690	120	0.031	0.43
38	38	88	126	38	20	12.5	2	1	4	4	6	M6 x 9 (J: 2x) (J1: 2x)	18	25	150 (15.0)	470	730	80	0.041	0.51
50	50	100	150														760	60	0.049	0.57
63	63	113.5	176.5														770	50	0.060	0.65
80	80	130	210														790	40	0.073	0.73
100	100	150	250														810	30	0.087	0.85
125	125	175	300														820	25	0.106	0.99
PGS750-10	10	95	105														980	300	0.029	0.79
13	13	98	111														1000	230	0.034	0.83
25	25	110	135														1080	120	0.050	0.91
38	38	123	161														1120	80	0.069	0.99
50	50	135	185														1160	60	0.082	1.07
63	63	148	211														1180	50	0.100	1.14
75	75	160	235	45	25	16.5	2	1	4	4	10.5	M8 x 13 (2x)	20	-	150 (15.0)	740	1200	40	0.115	1.21
80	80	165	245														1200	40	0.122	1.24
100	100	185	285														1210	30	0.149	1.35
125	125	210	335														1260	25	0.174	1.52
150	150	235	385														1270	20	0.206	1.76
160	160	245	405														1270	19	0.220	1.84
175	175	260	435														1270	17	0.241	1.90
200	200	285	485														1280	15	0.270	2.00
PGS1000-13	13	108	121														1210	230	0.05	1.10
25	25	120	145														1320	120	0.07	1.20
38	38	133	171														1390	80	0.09	1.31
50	50	145	195														1440	60	0.10	1.40
63	63	158	221														1460	50	0.13	1.51
75	75	170	245														1490	40	0.14	1.61
80	80	175	255														1490	40	0.15	1.66
100	100	195	295	50	28	17.5	3	2	8	5	10.5	M8 x 13 (2x)	20	-	150 (15.0)	920	1540	30	0.18	1.83
125	125	220	345														1560	25	0.22	2.03
150	150	245	395														1570	20	0.26	2.39
160	160	255	415														1570	19	0.28	2.47
175	175	270	445														1610	17	0.29	2.60
200	200	295	495														1610	15	0.33	2.80
250	250	345	595														1610	12	0.41	3.15
300	300	395	695														1640	10	0.48	3.63
PGS1500-13	13	108	121														1990	230	0.09	1.98
25	25	120	145														2110	120	0.13	2.16
38	38	133	171														2260	80	0.15	2.32
50	50	145	195														2280	60	0.19	2.48
63	63	158	221														2360	50	0.22	2.65
75	75	170	245														2400	40	0.26	2.80
80	80	175	255														2400	40	0.27	2.86
100	100	195	295	63	36	19	3	2	8	5	10.5	M8 x 13 (J: 2x) (J1: 4x)	20	40	150 (15.0)	1530	2450	30	0.33	3.12
125	125	220	345														2480	25	0.40	3.43
150	150	245	395														2520	20	0.46	4.05
160	160	255	415														2520	19	0.49	4.18
175	175	270	445														2560	17	0.52	4.37
200	200	295	495														2570	15	0.59	4.69
250	250	345	595														2620	12	0.71	5.30
300	300	395	695														2620	10	0.86	5.96

All the gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED)
Toate modelele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva 2014/68/UE privind echipamentele sub presiune (PED)

"L-VERSION" (FOR LINKED SYSTEM) / *"L-VERSION" (PENTRU SISTEMUL LEGAT)*

When the gas springs are to be used in a linked system, make sure to order the "L-version" by adding "-L" after the gas spring code. The "L-version" gas springs are supplied already discharged and without valve, ready for the connection to linked system.
Example: "**PGS1000-50-L**"

Când arcurile cu gaz urmează să fie folosite într-un sistem legat, asigurați-vă că comandați "versiunea L" adăugând "-L" după codul arcului de gaz. Arcurile cu gaz "L-version" sunt furnizate deja descărcate și fără supape, pregătite pentru conectarea la sistemul legat.
*Exemplu: "**PGS1000-50-L**"*



REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
PGS300-...	**KR/PGS300**
PGS500-...	**KR/PGS500**
PGS750-10 ~ PGS750-125	**KR/PGS750-1**
PGS750-150 ~ PGS750-200	**KR/PGS750-2**
PGS1000-13 ~ PGS1000-125	**KR/PGS1000-1**
PGS1000-150 ~ PGS1000-300	**KR/PGS1000-2**
PGS1500-13 ~ PGS1500-125	**KR/PGS1500-1**
PGS1500-150 ~ PGS1500-300	**KR/PGS1500-2**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

PGS 300~1500

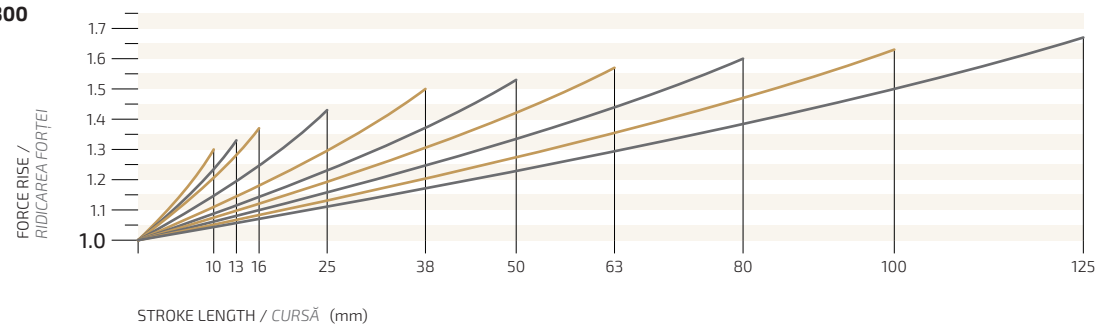
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

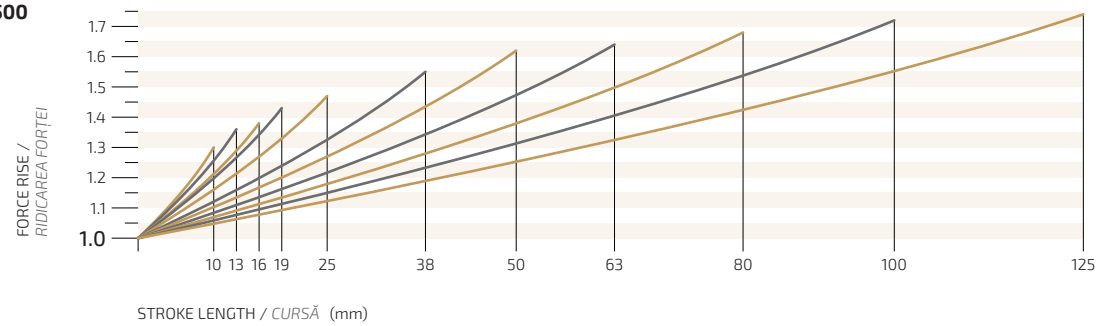
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

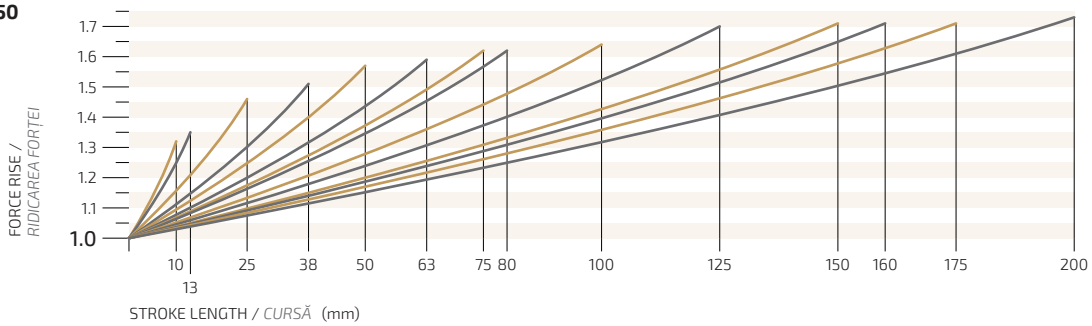
PGS300



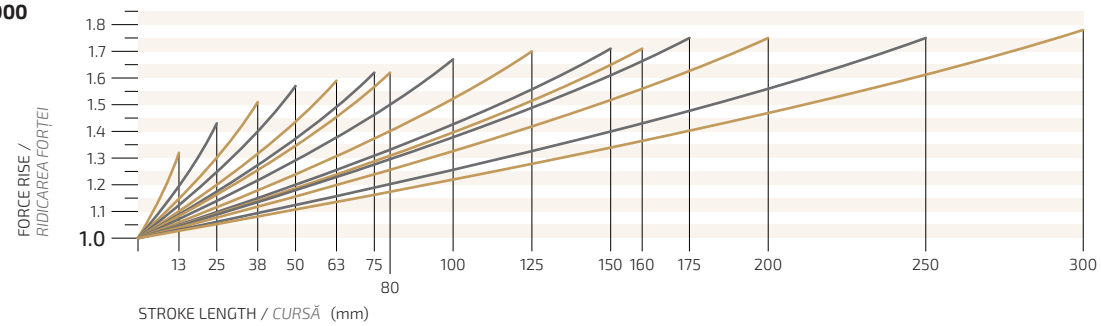
PGS500



PGS750



PGS1000



PGS 300~1500

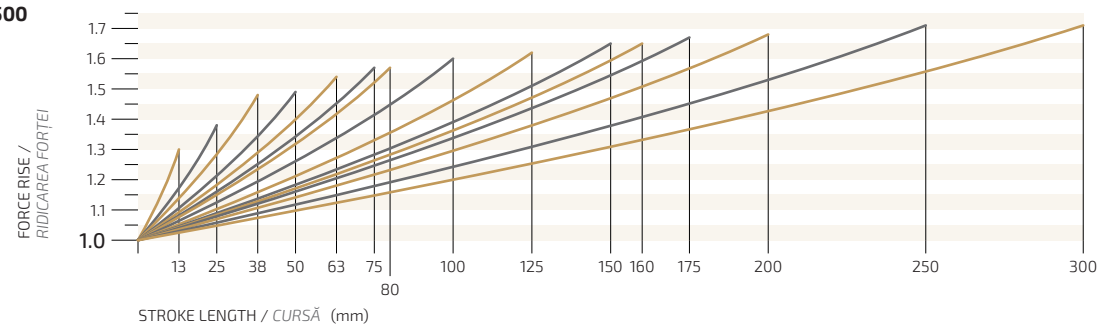
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

PGS1500



PGS

2400~20000

ISO 11901-4 VDI 3003 Part 4

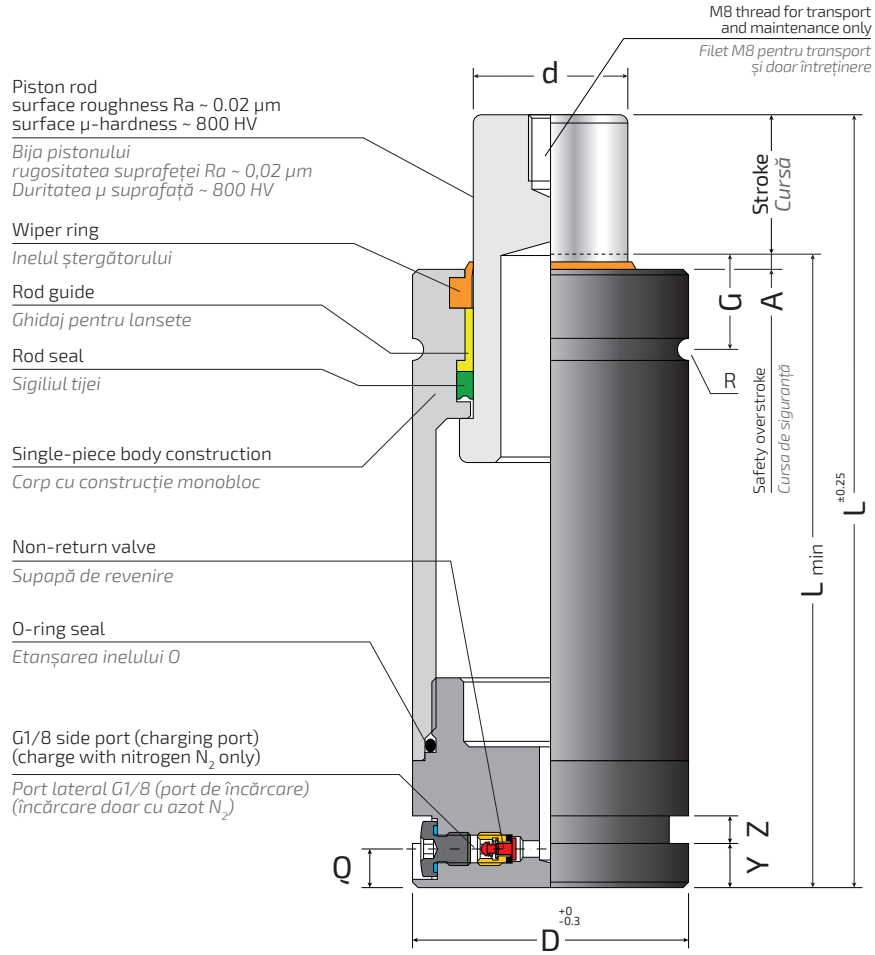
This gas spring series includes the models compliant with automotive standards /
Serie de arcuri cu gaz conforme standardelor auto

BMW	B2 4008
FCA	075.90.65
VW	39D 838

COMPACT POWER
COMPACT HEIGHT

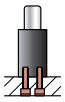
PGS series nitrogen gas springs feature standard dimensions and enhanced forces, as well as several fixing and linking possibilities. PGS series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azot din seria PGS au dimensiuni standard și forțe sporite, precum și mai multe posibilități de fixare și legare. Arcurile cu gaz de azot din seria PGS sunt auto-lubrifiate.

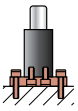


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

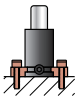
Fixing possibilities / *Posibilități de fixare*



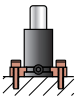
at the base with
screws
la bază cu șuruburi



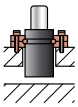
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



with half-flanges
cu semi-flanșe
SF, SFA



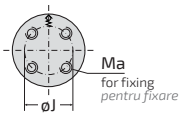
with foot brackets
cu suporturi pentru picior
ST, STA



with collar flange
cu flanșă de guler
FL, FLQ

with front support
cu sprijin frontal
FT, FTA

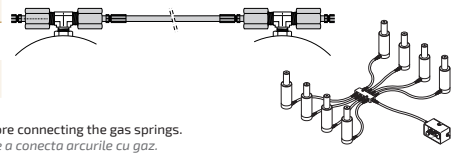
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



PGS2400, PGS4200, PGS6600, PGS9500, PGS20000

LINKING TO OPEN SYSTEM / *LEGAREA CĂTRE SISTEMUL DESCHIS*

	PGS2400~PGS20000 (G1/8 side port / *Portul lateral G1/8*)		
Hoses *Furtunuri*	**ATM**	**ATN**	**AT**
Gas spring-hose fittings *Racorduri arc cu gaz-furtun*	**ARM**	**ARN**	**AR**



ATTENTION! Follow the instructions in the "LINKED SYSTEM" section before connecting the gas springs.
ATENȚIE! Urmează instrucțiunile din secțiunea "SISTEM LEGAT" înainte de a conecta arcurile cu gaz.

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

PGS 2400~20000

Model *Model*	MAX Stroke 100% usable *Cursă MAX. 100% utilizabil* mm	L min mm	L mm	D mm	d mm	G mm	A mm	R mm	Y mm	Z mm	Q mm	Ma	J mm	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
PGS2400-25	25	135	160	75	45	21	3	2.5	8	5	10.5	M8 x 13 (4x)	40	150 (15.0)	2385	4050	120	0.11	3.11
38	38	148	186													4080	80	0.17	3.34
50	50	160	210													4130	60	0.22	3.55
63	63	173	236													4130	50	0.28	3.78
75	75	185	260													4170	40	0.32	3.98
80	80	190	270													4170	40	0.34	4.06
100	100	210	310													4200	30	0.42	4.40
125	125	235	360													4220	25	0.53	4.84
150	150	260	410													4220	20	0.63	5.71
160	160	270	430													4220	19	0.67	5.88
175	175	285	460													4250	17	0.73	6.14
200	200	310	510													4250	15	0.83	6.57
250 CE	250	360	610													4250	12	1.04	7.44
275 CE	275	385	660													4250	11	1.14	7.67
300 CE	300	410	710													4250	10	1.25	8.30
PGS4200-25	25	145	170	95	60	24	3	2.5	8	5	10.5	M8 x 13 (4x)	60	150 (15.0)	4240	5600	120	0.42	5.31
38	38	158	196													5850	80	0.53	5.68
50	50	170	220													6110	60	0.60	6.03
63	63	183	246													6280	50	0.69	6.43
75	75	195	270													6490	40	0.75	6.76
80	80	200	280													6490	40	0.80	6.90
100	100	220	320													6740	30	0.92	7.45
125 CE	125	245	370													6870	25	1.10	8.18
150 CE	150	270	420													7000	20	1.27	9.62
160 CE	160	280	440													7080	19	1.33	9.92
175 CE	175	295	470													7210	17	1.40	10.35
200 CE	200	320	520													7250	15	1.59	11.09
250 CE	250	370	620													7340	12	1.94	12.54
300 CE	300	420	720													7460	10	2.26	14.00
PGS6600-25	25	165	190	120	75	25.5	3	2.5	8	5	10.5	M10 x 16 (4x)	80	150 (15.0)	6630	8750	120	0.66	10.27
38	38	178	216													9150	80	0.83	10.97
50	50	190	240													9610	60	0.92	11.62
63 CE	63	203	266													9880	50	1.06	12.38
75 CE	75	215	290													10010	40	1.22	12.97
80 CE	80	220	300													10140	40	1.26	13.25
100 CE	100	240	340													10410	30	1.48	14.27
125 CE	125	265	390													10610	25	1.77	15.63
150 CE	150	290	440													10870	20	2.01	17.98
160 CE	160	300	460													10940	19	2.12	18.52
175 CE	175	315	490													11070	17	2.27	19.33
200 CE	200	340	540													11270	15	2.50	20.68
250 CE	250	390	640													11400	12	3.06	23.39
300 CE	300	440	740													11600	10	3.57	26.09
PGS9500-25 CE	25	180	205	150	90	27.5	3	2.5	8	5	10.5	M10 x 16 (4x)	100	150 (15.0)	9540	12400	120	1.03	14.97
38 CE	38	193	231													13070	80	1.23	15.93
50 CE	50	205	255													13640	60	1.38	16.84
63 CE	63	218	281													13930	50	1.63	17.85
75 CE	75	230	305													14210	40	1.82	18.71
80 CE	80	235	315													14210	40	1.94	19.09
100 CE	100	255	355													14690	30	2.23	20.53
125 CE	125	280	405													15170	25	2.58	22.40
150 CE	150	305	455													15360	20	3.01	26.22
160 CE	160	315	475													15450	19	3.17	26.98
175 CE	175	330	505													15650	17	3.38	28.09
200 CE	200	355	555													15740	15	3.82	29.97
250 CE	250	405	655													16030	12	4.61	33.71
300 CE	300	455	755													16220	10	5.41	37.46
PGS20000-25 CE	25	185	210	195	130	33.5	3	2.5	8	8	15	M12 x 18 (4x)	120	150 (15.0)	19910	26280	120	1.99	27.04
38 CE	38	198	236													27870	80	2.35	28.48
50 CE	50	210	260													29070	60	2.69	29.83
63 CE	63	223	286													30060	50	3.08	31.35
75 CE	75	235	310													30660	40	3.48	31.90
80 CE	80	240	320													31260	40	3.55	33.21
100 CE	100	260	360													31860	30	4.25	35.45
125 CE	125	285	410													33050	25	4.92	38.26
150 CE	150	310	460													33850	20	5.64	45.24
160 CE	160	320	480													34050	19	5.95	46.89
175 CE	175	335	510													34250	17	6.44	48.10
200 CE III	200	360	560													34840	15	7.15	51.38
250 CE III	250	410	660													35640	12	8.61	56.99
300 CE III	300	460	760													36040	10	10.15	67.93

CE The gas spring models for which the CE symbol is indicated have an internal gas volume > 1 litre (1 dm^3). They fall into Category II or Category III (**CE III**) of the 2014/68/EU Pressure Equipment Directive (PED).
All the other gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED).
*Modelele de arcuri cu gaz cu simbol CE au volum intern de gaz > 1 litru (1 dm^3). Acestea se încadrează în Categoria II sau III (**CE III**) a Directivei 2014/68/UE privind echipamentele sub presiune (PED).*
Toate celelalte modele de arcuri cu gaz din acest tabel sunt conforme cu articolul 4.3 al Directivei 2014/68/UE privind echipamentele sub presiune (PED).

"L-VERSION" (FOR LINKED SYSTEM) / *"L-VERSION" (PENTRU SISTEMUL LEGAT)*

When the gas springs are to be used in a linked system, make sure to order the "L-version" by adding "-L" after the gas spring code. The "L-version" gas springs are supplied already discharged and without valve, ready for the connection to linked system.
Example: "**PGS4200-50-L**"

Când arcurile cu gaz urmează să fie folosite într-un sistem legat, asigurați-vă că comandați "versiunea L" adăugând "-L" după codul arcului de gaz. Arcurile cu gaz "L-version" sunt furnizate deja descărcate și fără supape, pregătite pentru conectarea la sistemul legat.
*Exemplu: "**PGS4200-50-L**"*

REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
PGS2400-25 ~ PGS2400-125	**KR/PGS2400-1**
PGS2400-150 ~ PGS2400-300	**KR/PGS2400-2**
PGS4200-25 ~ PGS4200-125	**KR/PGS4200-1**
PGS4200-150 ~ PGS4200-300	**KR/PGS4200-2**
PGS6600-25 ~ PGS6600-125	**KR/PGS6600-1**
PGS6600-150 ~ PGS6600-300	**KR/PGS6600-2**
PGS9500-25 ~ PGS9500-125	**KR/PGS9500-1**
PGS9500-150 ~ PGS9500-300	**KR/PGS9500-2**
PGS20000-25 ~ PGS20000-125	**KR/PGS20000-1**
PGS20000-150 ~ PGS20000-300	**KR/PGS20000-2**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

PGS 2400~20000

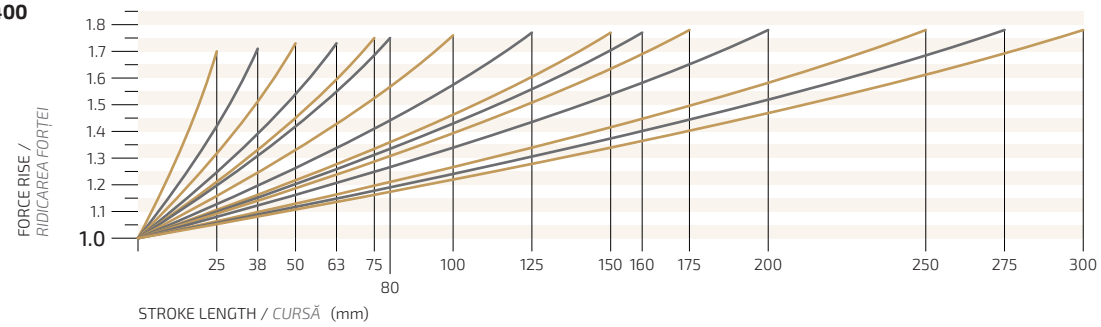
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

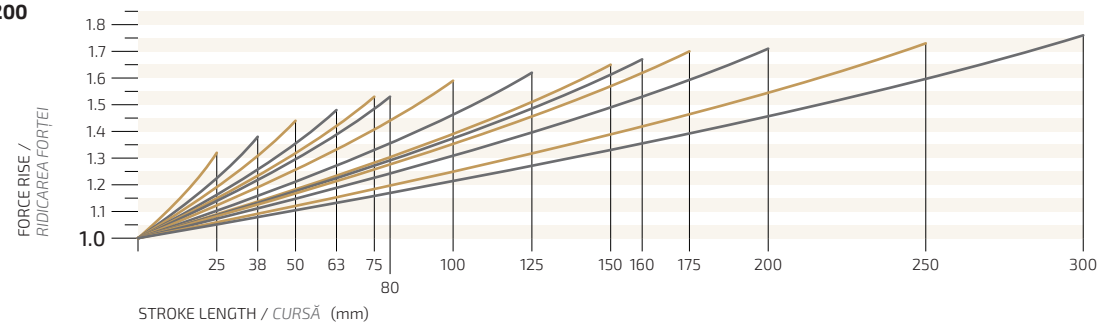
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

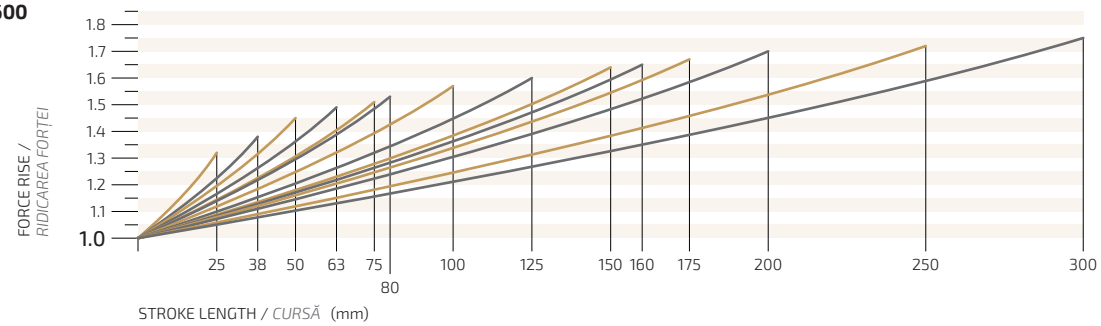
PGS2400



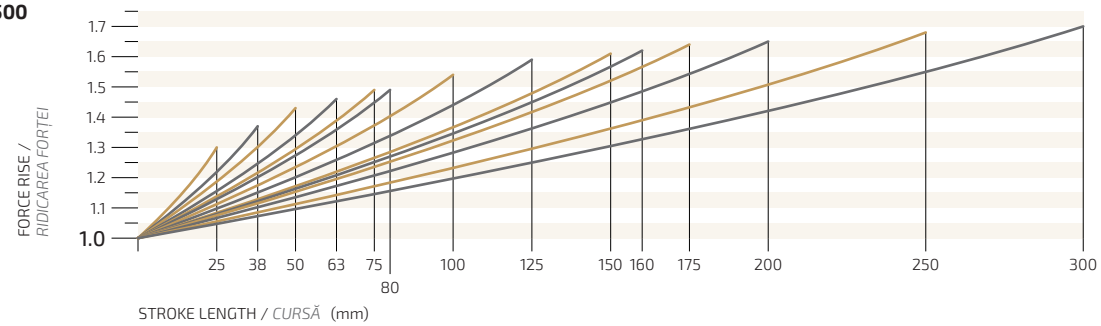
PGS4200



PGS6600



PGS9500



PGS 2400~20000

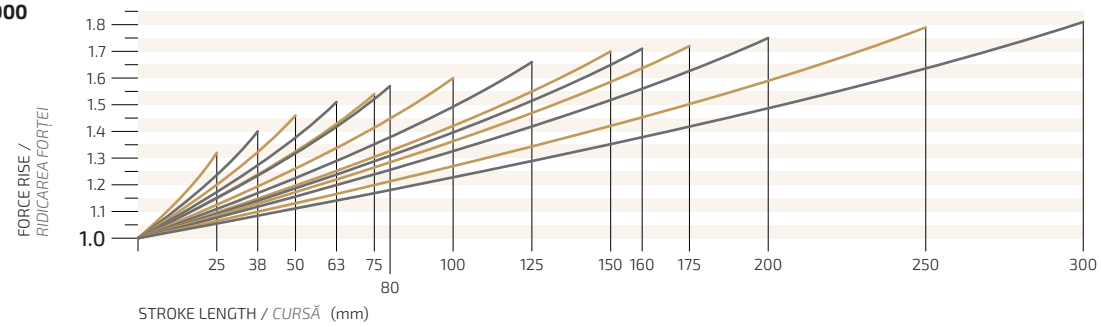
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

PGS20000

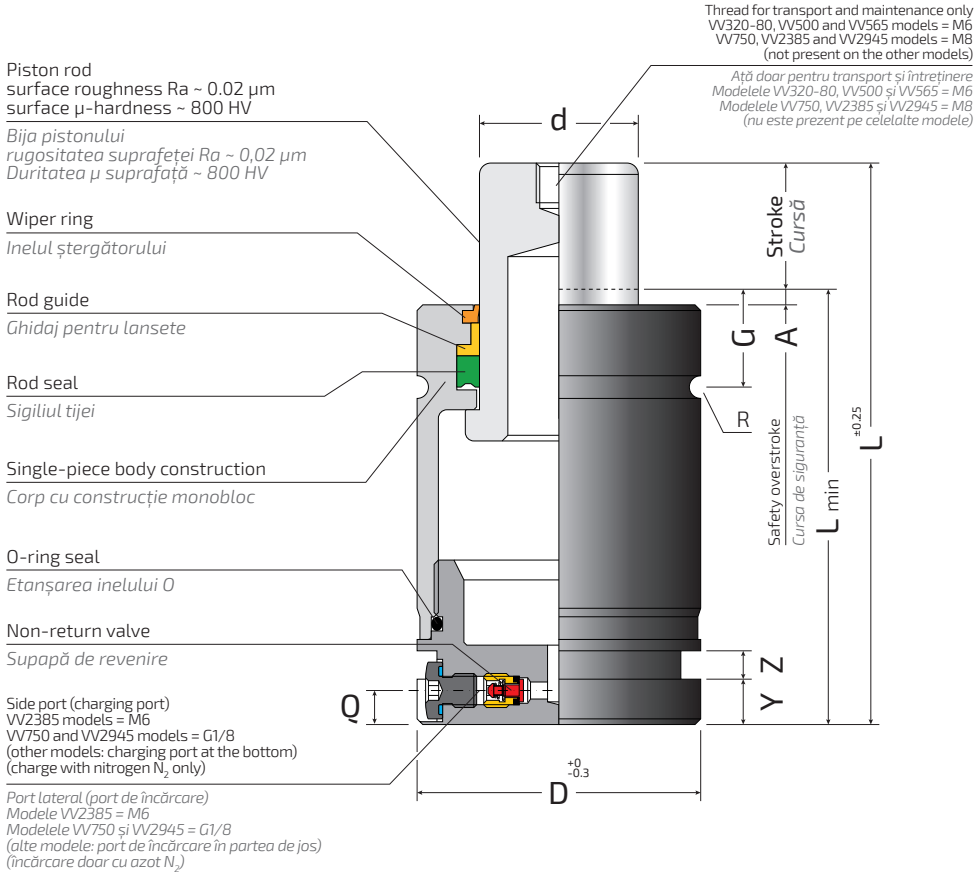


VV

170~2945

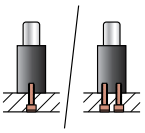
VV series nitrogen gas springs feature different dimensions and forces. VV series nitrogen gas springs are self-lubricated.

Arcurile cu gaz azotic din seria VV au dimensiuni și forțe diferite. Arcurile cu gaz azotat din seria VV sunt auto-lubrifiate.

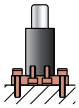


Technical notes / *Note tehnice*
Important use instructions
in the dedicated catalogue section.
Instrucțiuni importante de utilizare
în secțiunea dedicată catalogului.

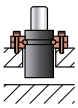
Fixing possibilities / *Posibilități de fixare*



at the base with screws
la bază cu șuruburi



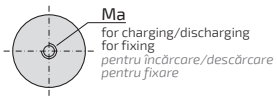
with base-plate
cu placa de bază
BF, BFA, BFB, BFR



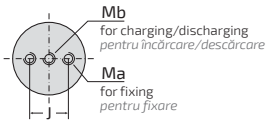
with collar flange
cu flanșă de guler
FL, FLQ

with front support
cu sprijin frontal
FT, FTA

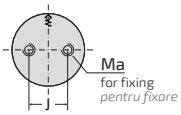
GAS SPRING BASE / *BAZĂ CU ARC GAZOS*



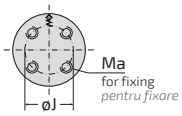
VV170, VV320-63/63H



VV320-80, VV500-63, VV565-63



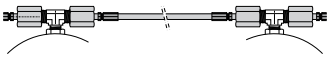
VV750

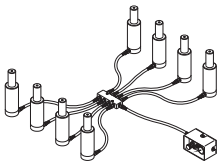


VV2385, VV2495

LINKING TO OPEN SYSTEM / *LEGAREA CĂTRE SISTEMUL DESCHIS*

	VV2385 (M6 side port / *Portul lateral M6*)		VV750, VV2945 (G1/8 side port / *Portul lateral G1/8*)		
Hoses *Furtunuri*	**ATM**	**ATNM**	**ATM**	**ATN**	**AT**
Gas spring-hose fittings *Racorduri arc cu gaz-furtun*	**ARM**	**ARNM**	**ARM**	**ARN**	**AR**





ATTENTION! Follow the instructions in the "LINKED SYSTEM" section before connecting the gas springs.
ATENȚIE! Urmează instrucțiunile din secțiunea "SISTEM LEGAT" înainte de a conecta arcurile cu gaz.

SAFETY PROTECTIONS / *PROTECȚII DE SIGURANȚĂ*

UNCONTROLLED RETURN SPEED / *VITEZA DE REVENIRE NECONTROLATĂ*

OVERSTROKE / *SUPRACURSĂ*

OVERPRESSURE / *SUPRAPRESIUNE*

VV

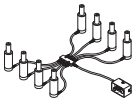
Model *Model*	MAX Stroke 100% usable *Cursă MAX.* *100% utilizabil* mm	Lmin mm	L mm	D mm	d mm	G mm	A mm	R mm	Y mm	Z mm	Q mm	Ma	J mm	Mb	bar (MPa)	daN	daN	Cycles per minute MAX *Cicluri pe minute MAX*	Gas volume *Gaz Volum* dm^3	Weight *Greutate* kg
VV170-38	38	97	135	19	11	17	1	1	-	-	-	M6 x 10	-	-	180 (18.0)	170	275	80	0.011	0.14
50	50	110	160														285	60	0.014	0.17
63	63	127	190														285	50	0.017	0.18
VV320-63	63	127	190	25	15	17	1	1	-	-	-	M6 x 9	-	-	180 (18.0)	320	540	50	0.032	0.31
63H	63	145	208														500	50	0.038	0.33
VV320-80	80	125	205	32	15	-	2	-	-	-	-	M6 x 8 (2x)	18	M6	180 (18.0)	320	520	40	0.044	0.44
VV500-63	63	132	195	32	20	-	2	-	-	-	-	M5 x 8 (2x)	15	M6	160 (16.0)	500	830	50	0.058	0.48
VV565-63	63	142	205	32	20	-	2	-	-	-	-	M5 x 8 (2x)	15	M6	180 (18.0)	565	900	50	0.064	0.50
VV750-63	63	113	176	50	25	-	2	-	-	-	10.5	M8 x 13 (2x)	20	-	150 (15.0)	740	1280	50	0.085	1.40
80	80	130	210														1270	40	0.109	2.00
VV2385-80	80	128	208	75	45	21	3	2.5	-	-	6	M8 x 9 (4x)	40	-	150 (15.0)	2385	4250	40	0.33	2.48
100	100	148	248														4300	30	0.41	2.79
VV2945-63	62.5	182.5	245	95	50	-	3	-	-	-	10.5	M8 x 13 (4x)	60	-	150 (15.0)	2945	3950	50	0.70	5.16
80	80	138	218														4850	40	0.47	5.21
100	100	158	258														4850	30	0.60	5.09
125	125	183	308														4800	25	0.75	7.24

All the gas spring models in this table are in accordance with Article 4.3 of the 2014/68/EU Pressure Equipment Directive (PED)
Toate modelele de arcuri cu gaz din acest tabel sunt în conformitate cu articolul 4.3 din Directiva 2014/68/UE privind echipamentele sub presiune (PED)

"L-VERSION" (FOR LINKED SYSTEM) / *"L-VERSION" (PENTRU SISTEMUL LEGAT)*

When the gas springs are to be used in a linked system, make sure to order the "L-version" by adding "-L" after the gas spring code. The "L-version" gas springs are supplied already discharged and without valve, ready for the connection to linked system.
Example: "**VV750-80-L**"

Când arcurile cu gaz urmează să fie folosite într-un sistem legat, asigurați-vă că comandați "versiunea L" adăugând "-L" după codul arcului de gaz. Arcurile cu gaz "L-version" sunt furnizate deja descărcate și fără supape, pregătite pentru conectarea la sistemul legat.
*Exemplu: "**VV750-80-L**"*



REPAIR KIT / *KIT DE REPARAȚII*

Gas spring code *Cod arcului cu gaz*	Repair kit code *Cod kit reparații*
VV170-...	**KR/VV170**
VV320-63, VV320-63H	**KR/VV320-63-63H**
VV320-80	**KR/VV320-80**
VV500-63	**KR/VV500**
VV565-63	**KR/VV565**
VV750-...	**KR/VV750**
VV2385-...	**KR/VV2385**
VV2945-...	**KR/VV2945**

Download repair instructions from www.bordignon.com /
Descarcă instrucțiunile de reparație de la www.bordignon.com

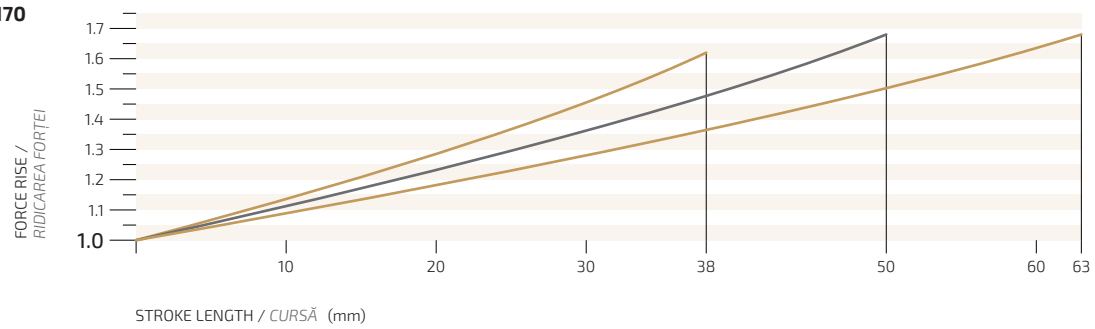
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

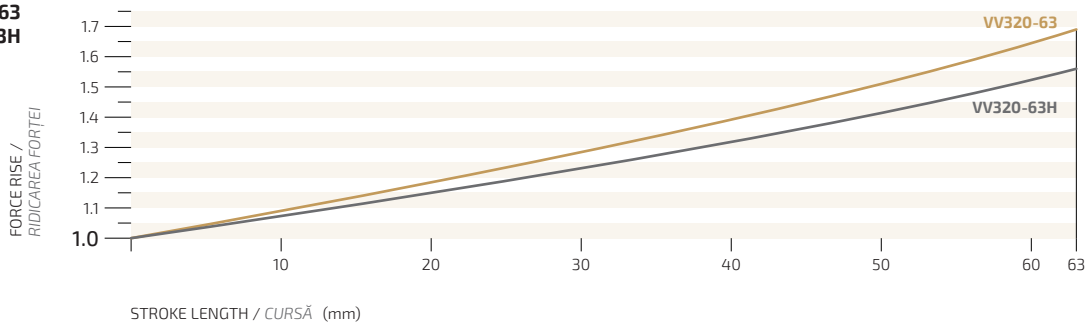
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

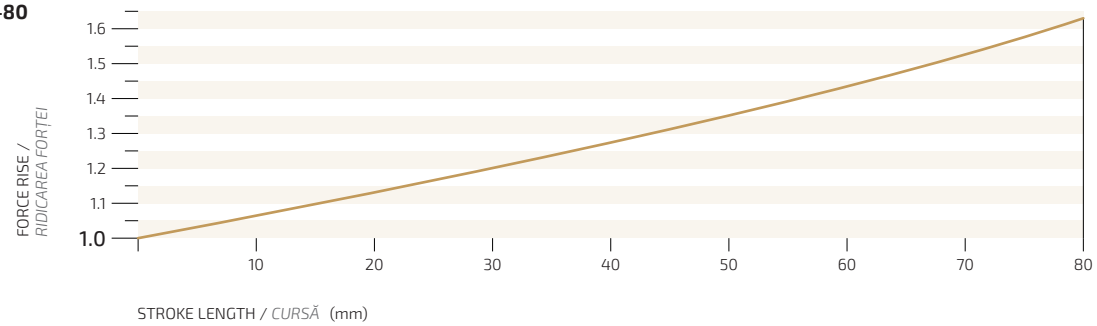
VV170



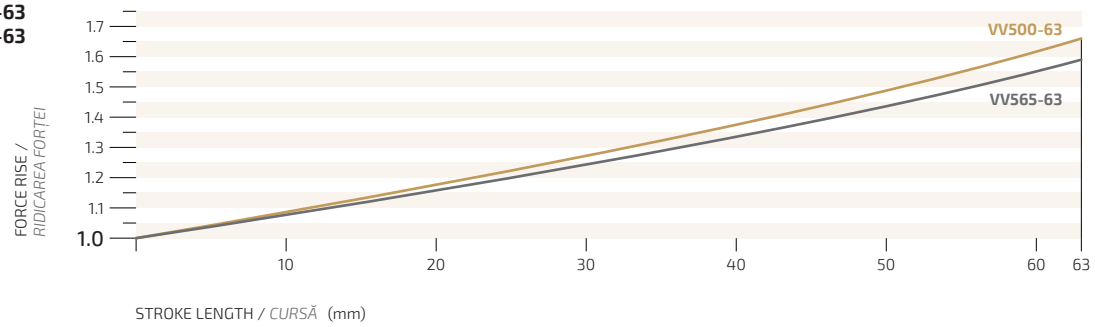
VV320-63
VV320-63H



VV320-80



VV500-63
VV565-63



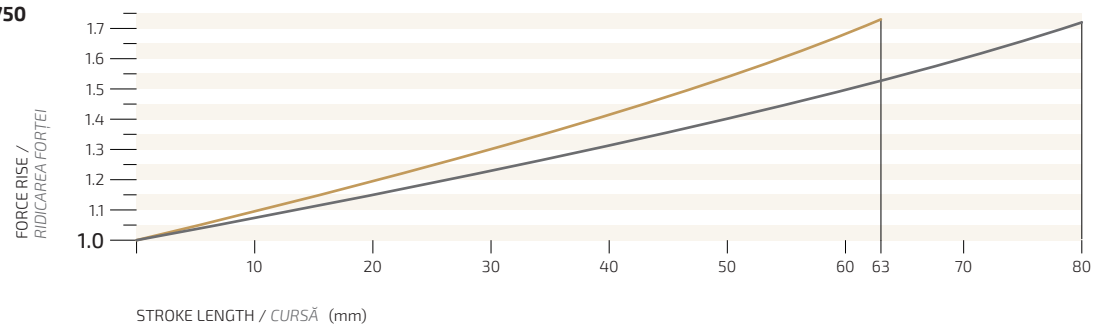
FORCE RISE VS. USED STROKE LENGTH CHARTS

The force curves in the charts below are obtained from reference values measured in static conditions. The actual forces generated under use conditions may vary, since they depend on the specific parameters of the application, such as the working speed (cycles per minute).

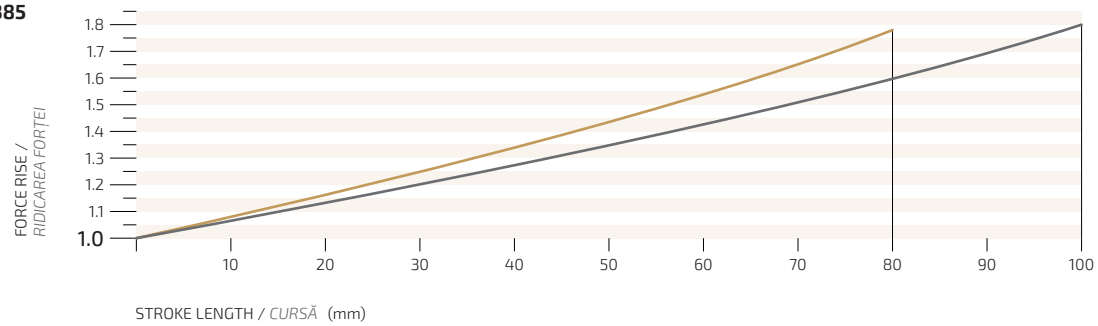
FORȚA CREȘTERII VS. GRAFICE FOLOSITE PENTRU LUNGIMEA TREPTELOR

Curbele de forță din graficele de mai jos sunt obținute din valori de referință măsurate în condiții statice. Forțele reale generate în condiții de utilizare pot varia, deoarece depind de parametrii specifici ai aplicației, cum ar fi viteza de lucru (cicluri pe minut).

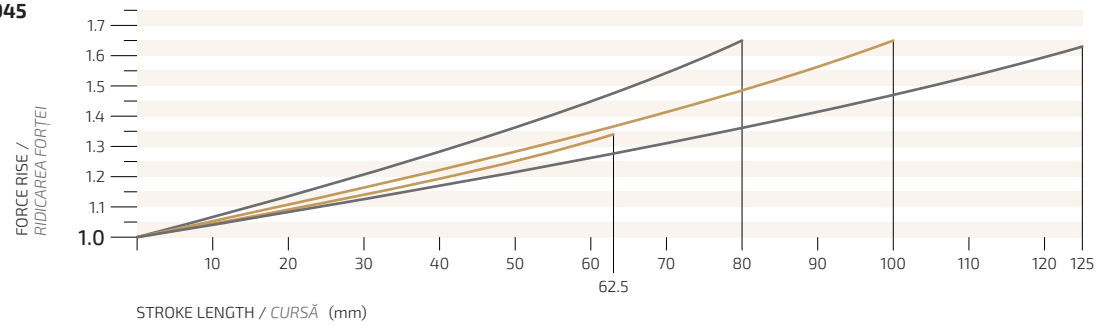
VV750



VV2385



VV2945



BF

ISO 11901-2 VDI 3003

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

General Motors	90.25.04
PSA	E24.54.815.G
Renault	EM24.54.700

Fixing base plate / *Fixarea plăcii de bază*

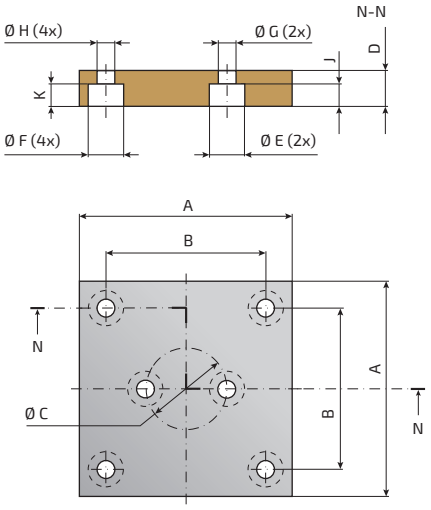


FIG. 1

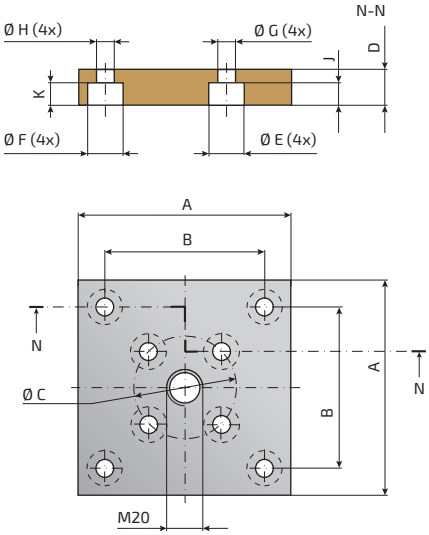
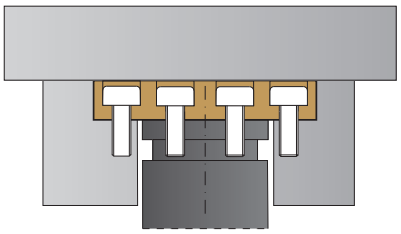
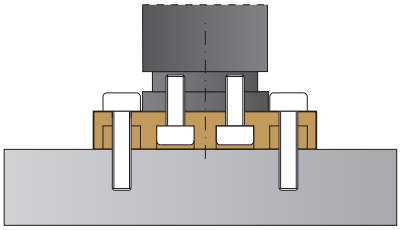


FIG. 2

Model *Model*	Reference to Standards *Referință la standarde*	For models... *Pentru modele...*	A mm	B mm	Ø C mm	D mm	Ø E mm	Ø F mm	Ø G mm	Ø H mm	J mm	K mm	FIG.
BF 45	ISO 11901-2, VDI 3003	AGS750, IGS500, LGS500, PGS750	70	50	20	20	15	15	9	9	14	12	1
50	ISO 11901-2, VDI 3003	AGS1000, AGS1200, AGS1500, IGS750, PGS1000, PGS1500, VV750	75	56.5	20	20	15	15	9	9	14	12	1
63	ISO 11901-2	AGS1500, PGS1500	100	73.5	20	20	15	18	9	11	14	12	1
75	ISO 11901-2, VDI 3003	AGS2400, TGS5000, IGS1500, PGS2400, VV2385	100	73.5	40	20	15	18	9	11	14	12	2
95	ISO 11901-2, VDI 3003	AGS4200, IGS3000, PGS4200, VV2945	120	92	60	20	15	20	9	13.5	14	13	2
120	ISO 11901-2, VDI 3003	AGS6600, IGS5000, PGS6600	140	109.5	80	20	18	20	11	13.5	15	13	2
150	ISO 11901-2, VDI 3003	AGS9500, IGS7500, PGS9500	190	138	100	25	18	26	11	17.5	15	17	2
195	ISO 11901-2, VDI 3003	AGS20000, IGS10000, PGS20000	210	170	120	25	20	26	13.5	17.5	13	17	2

Fixing possibilities / *Posibilități de fixare*



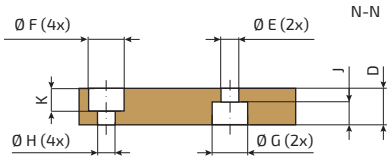


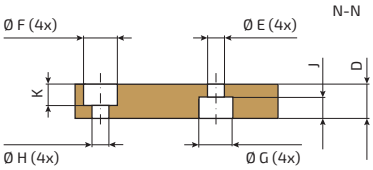
BFA

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

Renault	EM24.54.700

Fixing base plate / *Fixarea plăcii de bază*





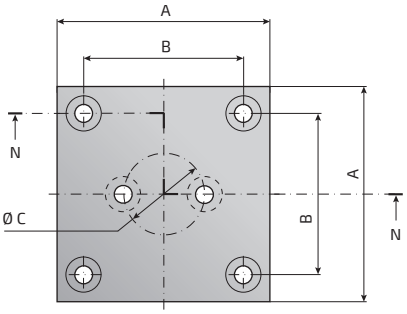


FIG. 1

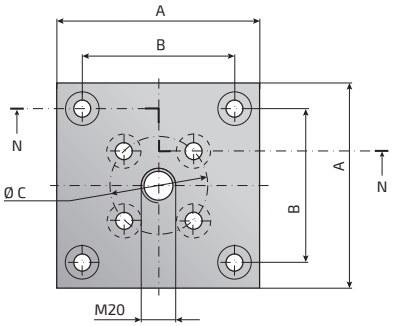
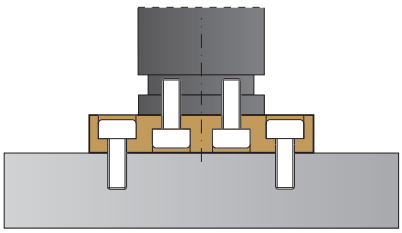


FIG. 2

Model *Model*	**Reference to Standards** *Referință la standarde*	**For models...** *Pentru modele...*	**A** mm	**B** mm	**Ø C** mm	**D** mm	**Ø E** mm	**Ø F** mm	**Ø G** mm	**Ø H** mm	**J** mm	**K** mm	**FIG.**
BFA 45	-	AGS750, IGS500, LGS500, PGS750	70	50	20	20	9	18	15	11	14	12	1
50	-	AGS1000, AGS1200, AGS1500, IGS750, PGS1000, PGS1500, VV750	75	56.5	20	20	9	18	15	11	14	12	1
75	-	AGS2400, TGS5000, IGS1500, PGS2400, VV2385	100	73.5	40	20	9	18	15	11	14	12	2
95	-	AGS4200, IGS3000, PGS4200, VV2945	120	92	60	20	9	20	15	13.5	14	13	2
120	-	AGS6600, IGS5000, PGS6600	140	109.5	80	20	11	20	18	13.5	15	13	2
150	-	AGS9500, IGS7500, PGS9500	190	138	100	25	11	26	18	17.5	15	17	2
195	-	AGS20000, IGS10000, PGS20000	210	170	120	25	13.5	26	20	17.5	15	17	2

Fixing possibilities / *Posibilități de fixare*

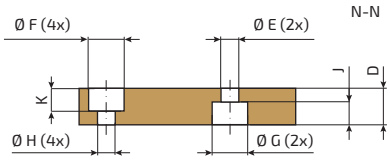


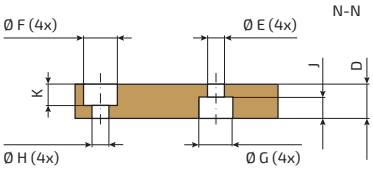
BFB

Fixing base plate / *Fixarea plăcii de bază*

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

BMW	B2 4009
MB	B8 0132 110 008 801
Renault	EM24.54.700





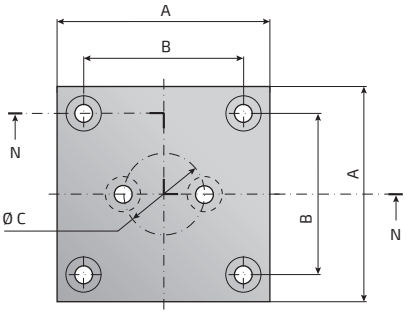


FIG. 1

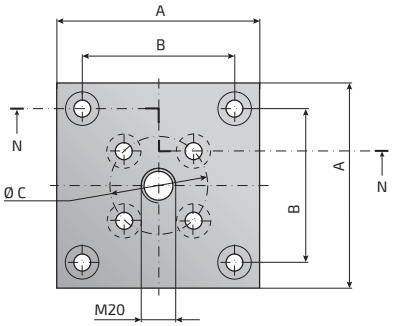
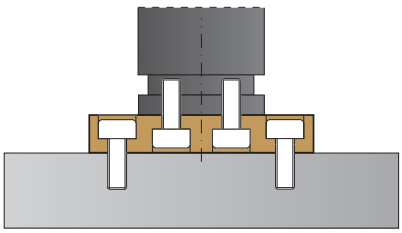


FIG. 2

Model *Model*	**Reference to Standards** *Referință la standarde*	**For models...** *Pentru modele...*	**A** mm	**B** mm	**Ø C** mm	**D** mm	**Ø E** mm	**Ø F** mm	**Ø G** mm	**Ø H** mm	**J** mm	**K** mm	**FIG.**
BFB 45	-	AGS750, IGS500, LGS500, PGS750	70	50	20	20	9	15	15	9	12	12	1
50	-	AGS1000, AGS1200, AGS1500, IGS750, PGS1000, PGS1500, VV750	75	56.5	20	20	9	15	15	9	12	12	1
63	-	AGS1500, PGS1500	100	73.5	20	20	9	18	15	11	12	12	1
75	-	AGS2400, TGS5000, IGS1500, PGS2400, VV2385	100	73.5	40	20	9	18	15	11	12	14	2
95	-	AGS4200, IGS3000, PGS4200, VV2945	120	92	60	20	9	20	15	13.5	14	13	2
120	-	AGS6600, IGS5000, PGS6600	140	109.5	80	20	11	20	18	13.5	15	13	2
150	-	AGS9500, IGS7500, PGS9500	190	138	100	20	11	20	18	13.5	15	13	2
195	-	AGS20000, IGS10000, PGS20000	210	170	120	25	13.5	26	20	17.5	15	17	2

Fixing possibilities / *Posibilități de fixare*

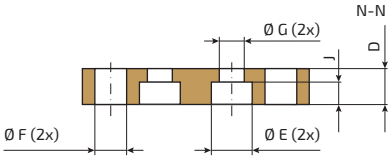


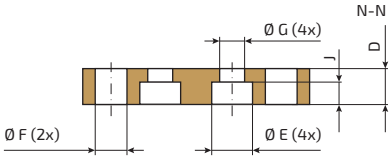
BFR

Fixing base plate / *Fixarea plăcii de bază*

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

Renault	EM24.54.700
Nissan	K32P0, K32D2





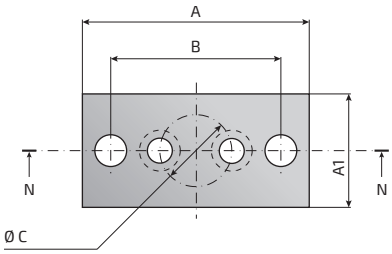


FIG. 1

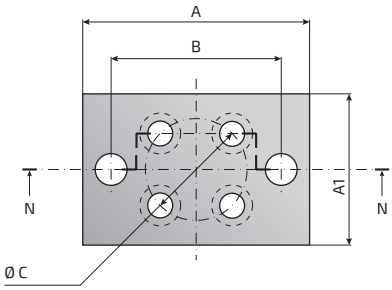
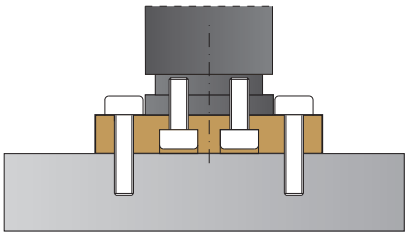


FIG. 2

Model *Model*	Reference to Standards *Referință la standarde*	For models... *Pentru modele...*	A mm	A1 mm	B mm	Ø C mm	D mm	Ø E mm	Ø F mm	Ø G mm	J mm	FIG.
BFR 45 A	-	AGS750, IGS500, LGS500, PGS750	90	45	70	20	16	14	9	9	10	1
50 B	-	AGS1000, AGS1200, IGS750, PGS1000, VV750	100	50	75	20	19	14	14	9	13	1
75 B	-	AGS1500, AGS2400, TGS5000, IGS1500, PGS1500,PGS2400, VV2385	130	80	105	40	19	14	14	9	13	2
95 B	-	AGS4200, IGS3000, PGS4200, VV2945	150	100	125	60	19	14	14	9	13	2

Fixing possibilities / *Posibilități de fixare*



SF

ISO 11901-2 VDI 3003

Fixing half-flanges / *Fixarea jumătăților de flanșă*

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

BMW	B2 4009	**MB**	B8 0138 100 000 001
FCA	075.90.90	**Renault**	EM24.54.700
Ford	W-DX35-62M	**VW**	39D 848
General Motors	90.25.01		

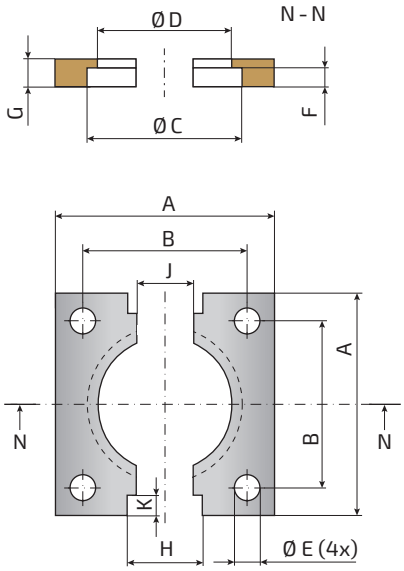


FIG. 1

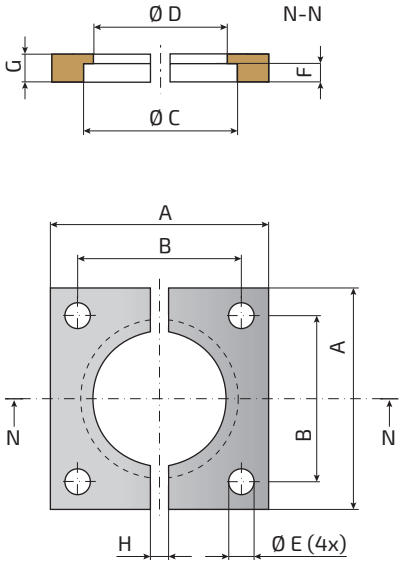
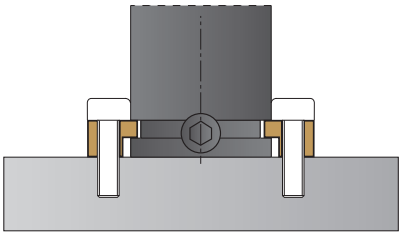


FIG. 2

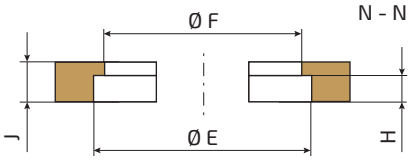
Model *Model*	Reference to Standards *Referință la standarde*	For models... *Pentru modele...*	A mm	B mm	Ø C mm	Ø D mm	Ø E mm	F mm	G mm	H mm	J mm	K mm	FIG.
SF 32	-	AGS350, TGS700, IGS150, PGS300	50	35	32.5	28.5	6.6	4	7	21	17	6.5	1
38	-	AGS500, TGS1000, IGS250, PGS500	55	40	38.5	34.5	6.6	4	7	21	17	6.5	1
45	ISO 11901-2, VDI 3003	AGS750, IGS500, LGS500, PGS750	70	50	45.5	41.5	9	4	7	20	-	-	2
50	ISO 11901-2, VDI 3003	AGS1000, AGS1200, TGS2000, IGS750, PGS1000	75	56.5	50.5	44.5	9	8	12	24	-	-	2
63	-	AGS1500, TGS3000, PGS1500	85	63.5	63.5	57.5	11	8	12	24	-	-	2
63 A	ISO 11901-2	AGS1500, TGS3000, PGS1500	100	73.5	64	57	11	8	12	24	-	-	2
75	ISO 11901-2, VDI 3003	AGS2400, TGS5000, IGS1500, PGS2400	100	73.5	75.5	68.5	11	8	12	24	-	-	2
95	ISO 11901-2, VDI 3003	AGS4200, TGS8000, IGS3000, PGS4200	120	92	95.5	88.5	13.5	8	12	24	-	-	2
120	ISO 11901-2, VDI 3003	AGS6600, TGS12000, IGS5000, PGS6600	140	109.5	120.5	113.5	13.5	8	12	24	-	-	2
150	ISO 11901-2, VDI 3003	AGS9500, TGS20000, IGS7500, PGS9500	190	138	150.5	143.5	17.5	8	12	24	-	-	2
195	ISO 11901-2, VDI 3003	AGS20000, IGS10000, PGS20000	210	170	195.5	188	17.5	8	13	24	-	-	2

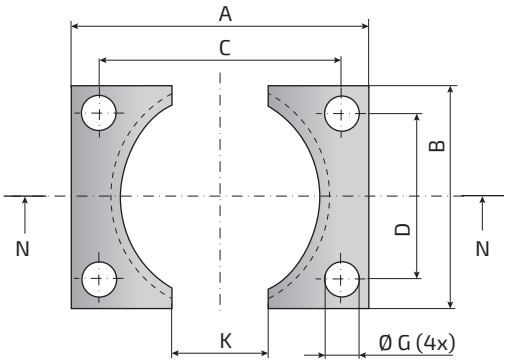
Fixing possibilities / *Posibilități de fixare*



SFA

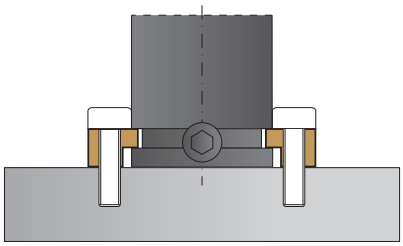
Fixing half-flanges / *Fixarea jumătăților de flanșă*





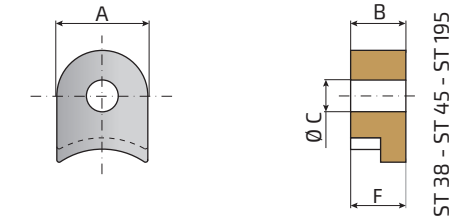
Model *Model*	**Reference to Standards** *Referință la standarde*	**For models...** *Pentru modele...*	**A** mm	**B** mm	**C** mm	**D** mm	**Ø E** mm	**Ø F** mm	**Ø G** mm	**H** mm	**J** mm	**K** mm
SFA 32	-	AGS350, TGS700, IGS150, PGS300	50	27	40	18	32.5	28.5	6.6	4	7	20
38	-	AGS500, TGS1000, IGS250, PGS500	55	33	44	20	38.5	34.5	6.6	4	7	20
45	-	AGS750, IGS500, LGS500, PGS750	70	40	57	27	45.5	41.5	9	4	7	25
50	-	AGS1000, AGS1200, TGS2000, IGS750, PGS1000	75	45	62	32	50.5	44.5	9	8	12	25
63	-	AGS1500, TGS3000, PGS1500	85	58	69	42	63.5	57.5	11	8	12	30
75	-	AGS2400, TGS5000, IGS1500, PGS2400	100	70	84	54	75.5	68.5	11	8	12	30
95	-	AGS4200, TGS8000, IGS3000, PGS4200	120	90	100	70	95.5	88.5	13.5	8	12	40
120	-	AGS6600, TGS12000, IGS5000, PGS6600	140	115	120	95	120.5	113.5	13.5	8	12	50
150	-	AGS9500, TGS20000, IGS7500, PGS9500	190	145	165	120	150.5	143.5	17.5	8	12	60
195	-	AGS20000, IGS10000, PGS20000	210	190	185	165	195.5	188	17.5	8	13	80

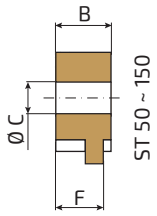
Fixing possibilities / *Posibilități de fixare*



ST

Fixing foot brackets / *Fixarea suporturilor pentru picior*





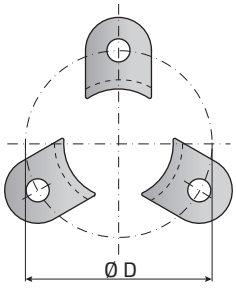


FIG. 1

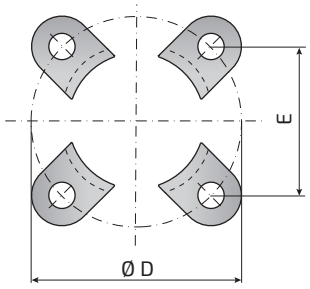
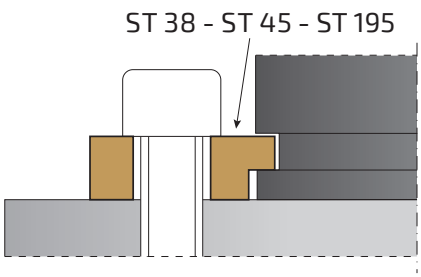
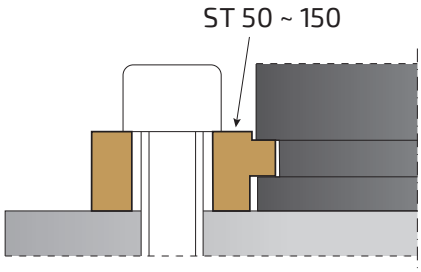


FIG. 2

Model *Model*	**Reference to Standards** *Referință la standarde*	**For models...** *Pentru modele...*	**A** mm	**B** mm	**C** mm	**Ø D** mm	**E** mm	**F** mm	**FIG.**
ST 38	-	AGS500, TGS1000, IGS250, PGS500	20	7	7	56.6	-	7	1
45	-	AGS750, IGS500, LGS500, PGS750	25	7	9	70.7	-	7	1
50	-	AGS1000, AGS1200, TGS2000, IGS750, PGS1000	30	14.2	13	80	-	13	1
63	-	AGS1500, TGS3000, PGS1500	30	14.2	13	92	65	13	2
75	-	AGS2400, TGS5000, IGS1500, PGS2400	30	14.2	13	104	73.5	13	2
95	-	AGS4200, TGS8000, IGS3000, PGS4200	40	14.2	17	130	92	13	2
120	-	AGS6600, TGS12000, IGS5000, PGS6600	50	14.2	17	155	109.5	13	2
150	-	AGS9500, TGS20000, IGS7500, PGS9500	50	14.2	21	195	138	13	2
195	-	AGS20000, IGS10000, PGS20000	58	16	21	240	169	16	2

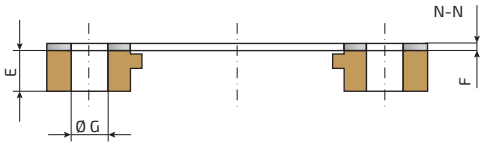
Fixing possibilities / *Posibilități de fixare*

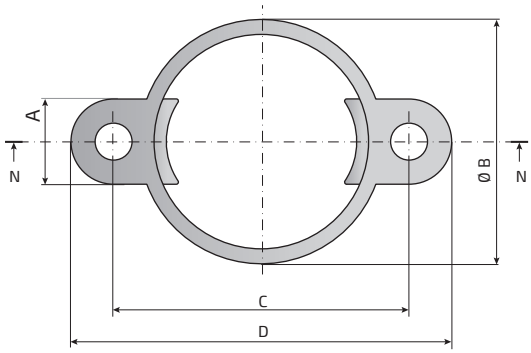




STA

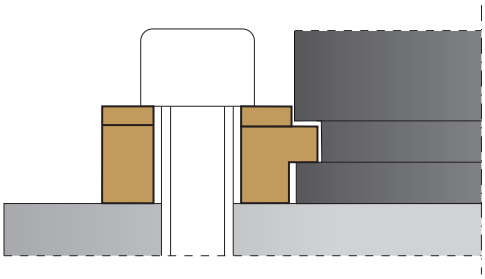
Fixing foot brackets / *Fixarea suporturilor pentru picior*





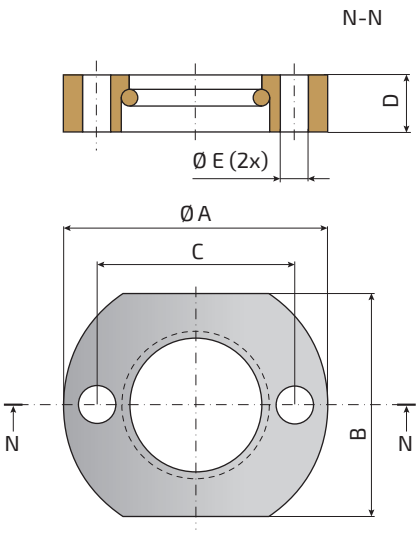
Model *Model*	**Reference to Standards** *Referință la standarde*	**For models...** *Pentru modele...*	**A** mm	**Ø B** mm	**C** mm	**D** mm	**E** mm	**F** mm	**Ø G** mm
STA 38	-	AGS500, TGS1000, IGS250, PGS500	20	48	56.6	76.6	7	2.5	7
45	-	AGS750, IGS500, LGS500, PGS750	25	56	70.7	95.7	7	2.5	9
50	-	AGS1000, AGS1200, TGS2000, IGS750, PGS1000	30	61	80	110	14.2	2.5	13
63	-	AGS1500, TGS3000, PGS1500	30	73	92	122	14.2	2.5	13
75	-	AGS2400, TGS5000, IGS1500, PGS2400	30	86	104	134	14.2	2.5	13
95	-	AGS4200, TGS8000, IGS3000, PGS4200	40	106	130	170	14.2	2.5	17
120	-	AGS6600, TGS12000, IGS5000, PGS6600	50	131	155	205	14.2	2.5	17
150	-	AGS9500, TGS20000, IGS7500, PGS9500	50	170	195	245	14.2	2.5	21

Fixing possibilities / *Posibilități de fixare*



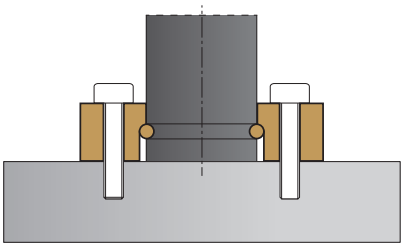
FV

Collar flange (for base-fixing) / *Flanșă de guler (pentru fixarea bazei)*



Model *Model*	**Reference to Standards** *Referință la standarde*	**For models...** *Pentru modele...*	**Ø A** mm	**B** mm	**C** mm	**D** mm	**Ø E** mm
FV 19	-	VGS90	45	25	32	9.2	7

Fixing possibilities / *Posibilități de fixare*



FL 12~25

Collar flange / *Flanșă de guler*

ISO 11901-2

VDI 3003

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

BMW	B2 4009	**MB**	B8 0134 400 008 801
FCA	075.90.75	**PSA**	E24.54.815.G
Ford	W-DX35-80M	**VW**	39D 848

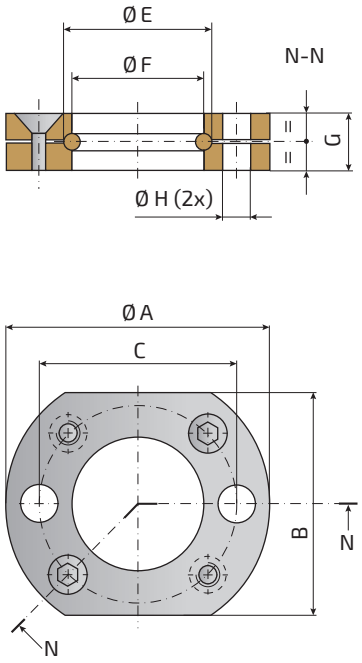


FIG. 1

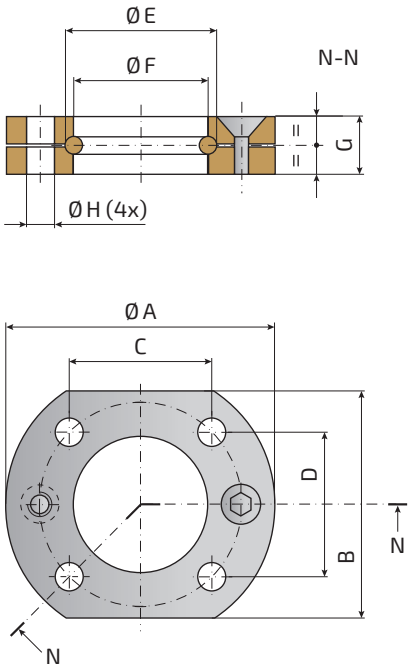
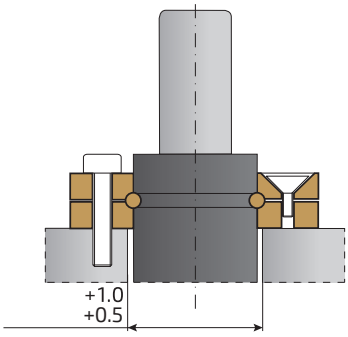


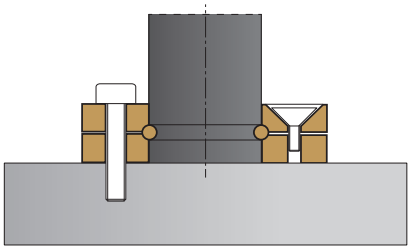
FIG. 2

Model *Model*	Reference to Standards *Referință la standarde*	For models... *Pentru modele...*	Ø A mm	B mm	C mm	D mm	Ø E mm	Ø F mm	G mm	Ø H mm	FIG.
FL 12	-	VGS50	34	21	24	-	13.6	12.5	9	6.6	1
15	-	VGS70	37	24	27	-	16.6	15.5	9	6.6	1
19 A	VDI 3003	VGS90, AGS170, VV170	44	25	32	-	21	19.5	9	6.6	1
19 B	ISO 11901-2	VGS90, AGS170, VV170	44	25	30	12	21	19.5	9	6.6	2
25 A	VDI 3003	VGS200, AGS320, TGS400, VV320-63/63H	50	30	38	-	27	25.5	9	6.6	1
25 B	ISO 11901-2	VGS200, AGS320, TGS400, VV320-63/63H	50	30	34	18	27	25.5	9	6.6	2

Fixing possibilities / *Posibilități de fixare*



Body Ø



(For VGS200 and TGS400 models only)
(Doar pentru modelele VGS200 și TGS400)

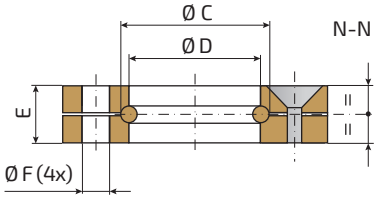
FL 32~195

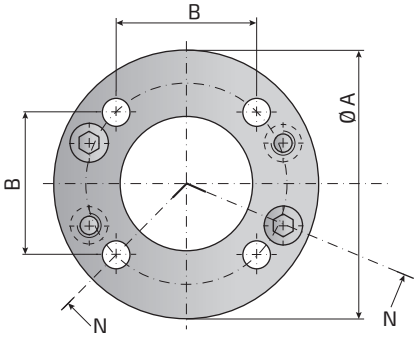
ISO 11901-2 VDI 3003

Collar flange / *Flanșă de guler*

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

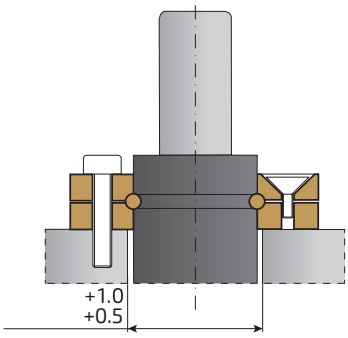
BMW	B2 4009	**MB**	B8 0134 300 000 001
FCA	075.90.80	**Renault**	EM24.54.700
General Motors	90.25.03		





Model *Model*	Reference to Standards *Referință la standarde*	For models... *Pentru modele...*	Ø A mm	B mm	Ø C mm	Ø D mm	E mm	Ø F mm
FL 32	ISO 11901-2, VDI 3003	AGS350, TGS700, IGS150, PGS300	60	35	34	32.5	9	6.6
38	ISO 11901-2, VDI 3003	AGS500, TGS1000, IGS250, PGS500	68	40	40	38.5	9	6.6
45	ISO 11901-2, VDI 3003	AGS750, IGS500, LGS500, PGS750	86	50	47	45.5	13	9
50	ISO 11901-2, VDI 3003	AGS1000, AGS1200, IGS750, PGS1000	95	56.5	54	50.5	13	9
63	ISO 11901-2	AGS1500, TGS3000, PGS1500	122	73.5	67	63.5	16	11
75	ISO 11901-2, VDI 3003	AGS2400, IGS1500, PGS2400, VV2385	122	73.5	80	75.5	16	11
95	ISO 11901-2, VDI 3003	AGS4200, IGS3000, PGS4200	150	92	100	95.5	18	13.5
120	ISO 11901-2, VDI 3003	AGS6600, TGS12000, IGS5000, PGS6600	175	109.5	125	120.5	21	13.5
150	ISO 11901-2, VDI 3003	AGS9500, TGS20000, IGS7500, PGS9500	220	138	155	150.5	27	17.5
195	ISO 11901-2, VDI 3003	AGS20000, IGS10000, PGS20000	290	170	200	195.5	27	17.5

Fixing possibilities / *Posibilități de fixare*



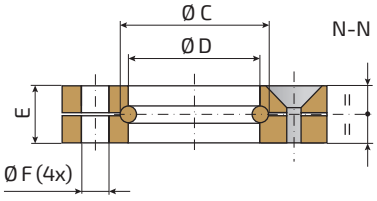
Body Ø

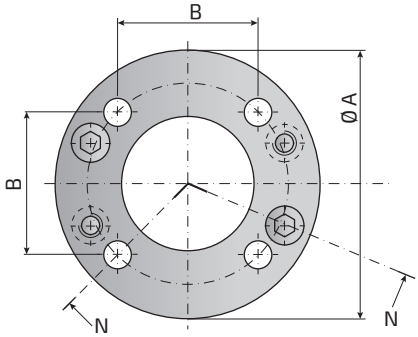
FLA

Collar flange / *Flanșă de guler*

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

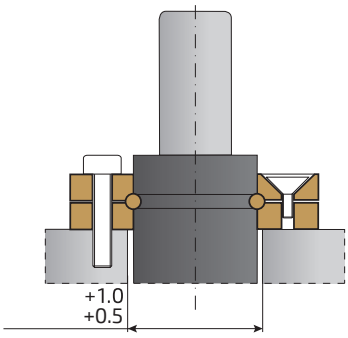
Renault	EM24.54.700





Model *Model*	**Reference to Standards** *Referință la standarde*	**For models...** *Pentru modele...*	**Ø A** mm	**B** mm	**Ø C** mm	**Ø D** mm	**E** mm	**Ø F** mm
FLA 50	-	TGS2000	95	56.5	53	50.5	13	9
75	-	TGS5000	122	73.5	78	75.5	16	11
95	-	TGS8000	150	92	98	95.5	18	13.5

Fixing possibilities / *Posibilități de fixare*



Body Ø

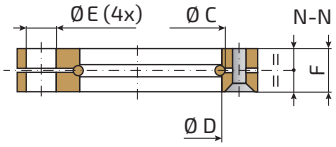
FLQ

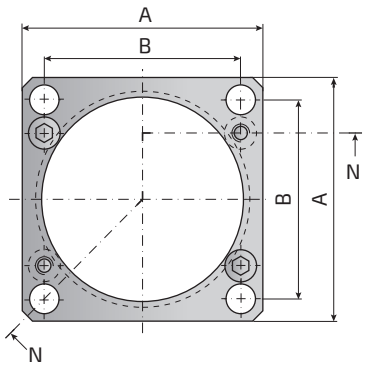
Collar flange / *Flanșă de guler*

ISO 11901-2 VDI 3003

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

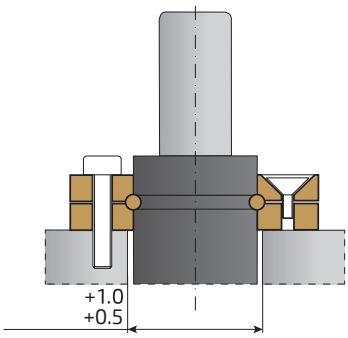
BMW	B2 4009	**General Motors**	90.25.02
FCA	075.90.85	**VW**	39D 848
Ford	W-DX35-62M		





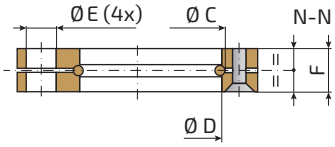
Model *Model*	Reference to Standards *Referință la standarde*	For models... *Pentru modele...*	A mm	B mm	Ø C mm	Ø D mm	Ø E mm	F mm
FLQ 32	ISO 11901-2, VDI 3003	AGS350, TGS700, IGS150, PGS300	45	35	34	32.5	6.6	9
38	ISO 11901-2, VDI 3003	AGS500, TGS1000, IGS250, PGS500	52	40	40	38.5	6.6	9
45	ISO 11901-2, VDI 3003	AGS750, IGS500, LGS500, PGS750	64	50	47	45.5	9	13
50	ISO 11901-2, VDI 3003	AGS1000, AGS1200, IGS750, PGS1000	70	56.5	54	50.5	9	13
63 A	ISO 11901-2, VDI 3003	AGS1500, TGS3000, PGS1500	80	64	67	63.5	11	16
63 B	-	AGS1500, TGS3000, PGS1500	90	73.5	67	63.5	11	16
75	ISO 11901-2, VDI 3003	AGS2400, IGS1500, PGS2400, VV2385	90	73.5	80	75.5	11	16
95	ISO 11901-2, VDI 3003	AGS4200, IGS3000, PGS4200	110	92	100	95.5	13.5	18
120	ISO 11901-2, VDI 3003	AGS6600, TGS12000, IGS5000, PGS6600	130	109.5	125	120.5	13.5	21
150	ISO 11901-2, VDI 3003	AGS9500, TGS20000, IGS7500, PGS9500	162	138	155	150.5	17.5	27
195	ISO 11901-2, VDI 3003	AGS20000, IGS10000, PGS20000	210	170	200	195.5	17.5	27

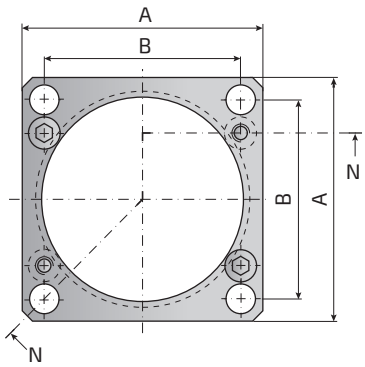
Fixing possibilities / *Posibilități de fixare*



FLQA

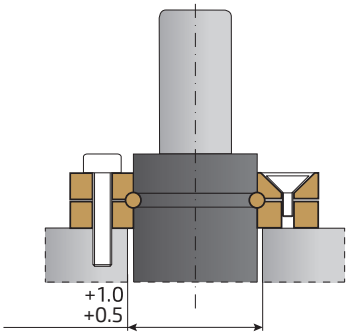
Collar flange / *Flanșă de guler*





Model *Model*	**Reference to Standards** *Referință la standarde*	**For models...** *Pentru modele...*	**A** mm	**B** mm	**Ø C** mm	**Ø D** mm	**Ø E** mm	**F** mm
FLQA 50	-	TGS2000	70	56.5	53	50.5	9	13
75	-	TGS5000	90	73.5	78	75.5	11	16
95	-	TGS8000	110	92	98	95.5	13.5	18

Fixing possibilities / *Posibilități de fixare*



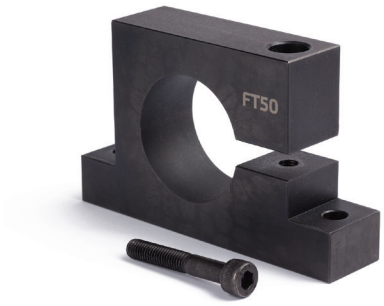
FT

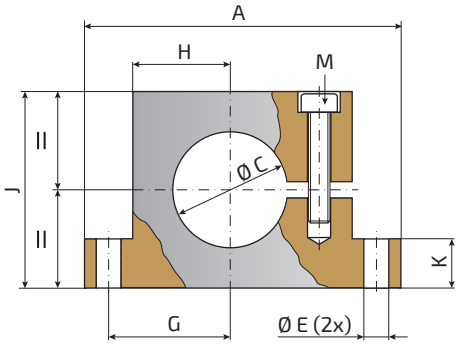
ISO 11901-2 VDI 3003

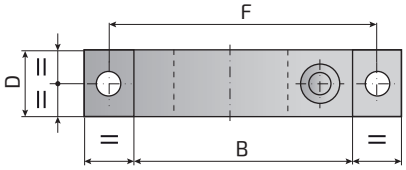
This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

BMW	B2 4009	**PSA**	E24.54.815.G
General Motors	90.25.455		

Front support / *Sprijin frontal*





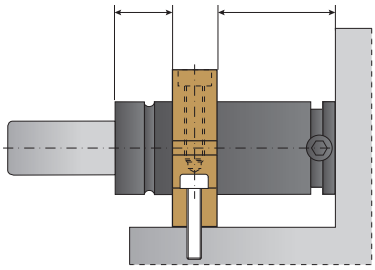


Model *Model*	Reference to Standards *Referință la standarde*	For models... *Pentru modele...*	A mm	B mm	Ø C mm	D mm	Ø E mm	F mm	G mm	H mm	J mm	K mm	M
FT 32	VDI 3003	AGS350, TGS700, IGS150, PGS300, VV320-80, VV500, VV565	90	54	32	20	9	72	31	22	45	15	M8
38	VDI 3003	AGS500, TGS1000, IGS250, PGS500	95	59	38	20	9	77	34	25	55	15	M8
45	VDI 3003	AGS750, IGS500, LGS500, PGS750	100	64	45	20	9	82	37	28	60	15	M8
50	ISO 11901-2, VDI 3003	AGS1000, AGS1200, TGS2000, IGS750, PGS1000, VV750	130	90	50	30	9	110	50	40	80	20	M8
75	ISO 11901-2, VDI 3003	AGS2400, TGS5000, IGS1500, PGS2400, VV2385	160	115	75	30	11	137	63.5	52.5	105	20	M10
95	ISO 11901-2, VDI 3003	AGS4200, TGS8000, IGS3000, PGS4200, VV2945	195	145	95	30	13.5	170	80	67.5	125	20	M12
120	ISO 11901-2, VDI 3003	AGS6600, TGS12000, IGS5000, PGS6600	220	165	120	30	13.5	195	92.5	77.5	148	20	M12
150	ISO 11901-2, VDI 3003	AGS9500, TGS20000, IGS7500, PGS9500	260	200	150	30	13.5	230	110	95	200	20	M12

Fixing possibilities / *Posibilități de fixare*

MAX
0.5 x diameter of the gas spring body
0.5 x Ø corpului arcului cu gaz

MIN
1/3 (one third) of dimension **Lmin** of the gas spring
*1/3 (o treime) din dimensiunea **Lmin** a arcului cu gaz*



Dimension **MIN** must be respected to allow the over-pressure and over-stroke safety system to work properly (see dedicated catalogue section).
*Dimensiunea **MIN** trebuie respectată pentru a permite funcționarea corectă a sistemului de siguranță împotriva supraprestiunii și supracursei (vezi secțiunea dedicată din catalog).*

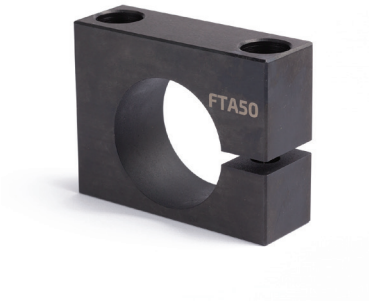
FTA

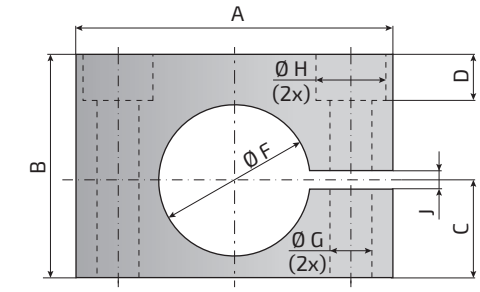
Front support / *Sprijin frontal*

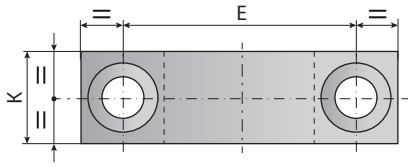
ISO 11901-2 VDI 3003

This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

BMW	B2 4009	**General Motors**	90.25.07
FCA	075.90.95	**MB**	B8 ...
Ford	W-DX35-62M	**VW**	39D 848





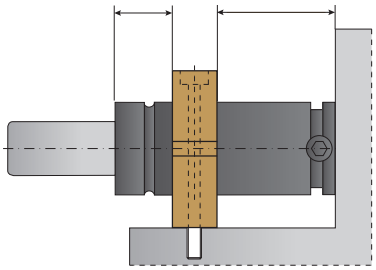


Model *Model*	Reference to Standards *Referință la standarde*	For models... *Pentru modele...*	A mm	B mm	C mm	D mm	E mm	Ø F mm	Ø G mm	Ø H mm	J mm	K mm
FTA 32	ISO 11901-2, VDI 3003	AGS350, TGS700, IGS150, PGS300, VV320-80, VV500, VV565	68	48	20.9	10	50	32.5	9	15	4	20
38	ISO 11901-2, VDI 3003	AGS500, TGS1000, IGS250, PGS500	74	54	23.9	16	54	38.5	9	15	4	20
45	ISO 11901-2, VDI 3003	AGS750, IGS500, LGS500, PGS750	80	60	27.5	22	60	45.5	9	15	4	20
50	ISO 11901-2, VDI 3003	AGS1000, AGS1200, TGS2000, IGS750, PGS1000, VV750	90	70	30	25	68	50.5	11	18	5	30
63 A	ISO 11901-2, VDI 3003	AGS1500, TGS3000, PGS1500	108	82	36.5	27	84	63.5	11	18	5	30
63 B	-	AGS1500, TGS3000, PGS1500	105	80	40	11	80	63	10.5	17	10	30
75	ISO 11901-2, VDI 3003	AGS2400, TGS5000, IGS1500, PGS2400, VV2385	125	94	42	32	100	75.5	13.5	20	5	30
95	ISO 11901-2, VDI 3003	AGS4200, TGS8000, IGS3000, PGS4200, VV2945	140	115	52.5	33	115	95.5	13.5	20	5	30
120	ISO 11901-2, VDI 3003	AGS6600, TGS12000, IGS5000, PGS6600	170	140	65	58	145	120.5	13.5	20	7	30
150	ISO 11901-2, VDI 3003	AGS9500, TGS20000, IGS7500, PGS9500	200	170	80	68	175	150.5	13.5	20	7	30

Fixing possibilities / *Posibilități de fixare*

MAX
0.5 x diameter of the gas spring body
0.5 x Ø corpului arcului cu gaz

MIN
1/3 (one third) of dimension **Lmin** of the gas spring
*1/3 (o treime) din dimensiunea **Lmin** a arcului cu gaz*



Dimension **MIN** must be respected to allow the over-pressure and over-stroke safety system to work properly (see dedicated catalogue section).
*Dimensiunea **MIN** trebuie respectată pentru a permite funcționarea corectă a sistemului de siguranță împotriva supraprestiunii și supracursei (vezi secțiunea dedicată din catalog).*

LINKED SYSTEM

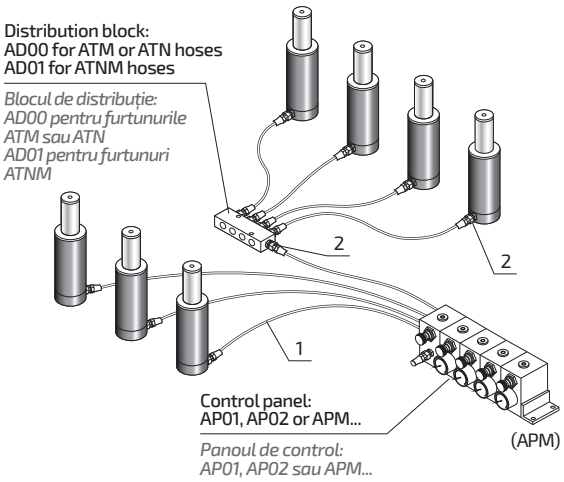
Sistem legat

LINKED SYSTEM EXAMPLES

EXEMPLE DE SISTEME LEGATE

With Ø5 mm hoses

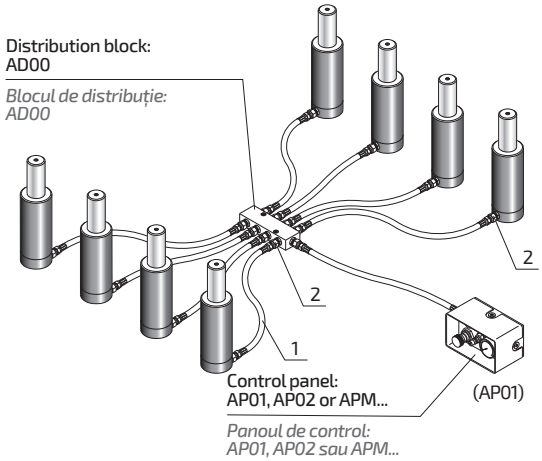
Cu furtunuri de Ø5 mm



1 - Hoses ATM or ATN or ATNM / *Furtunuri ATM sau ATN sau ATNM*
2 - Fittings ARM (for hoses ATM) or ARN (for hoses ATN) or ARNM (for hoses ATNM)
Accesorii ARM (pentru furtunuri ATM) sau ARN (pentru furtunuri ATN) sau ARNM (pentru furtunuri ATNM)

With Ø8 mm hoses

Cu furtunuri de Ø8 mm



1 - Hoses AT / *Furtunuri AT*
2 - Fittings AR / *Accesorii AR*

1 CHOOSE GAS SPRING MODEL

ALEGE MODEL CU ARC CU GAZ

Gas spring models *Modele cu arc cu gaz*	Side port *Port lateral*
AGS350~AGS2400	M6
IGS150, IGS250	
PGS300, PGS500	
VV2385	
AGS4200~AGS20000	G1/8
IGS500~IGS10000	
LGS500	
PGS750~PGS20000	
VV750, VV2945	

2 CHOOSE HOSE MODEL

ALEGE MODELUL FURTUNULUI

For gas springs with M6 side port

Pentru arcuri cu gaz cu port lateral M6

For gas springs with G1/8 side port

Pentru arcuri cu gaz cu port lateral G1/8

ATNM
Hose Ø 5 mm
(Micro-type)
Furtun Ø 5 mm
(Tip Micro)

ATM
Hose Ø 5 mm
(Minimess-type)
Furtun Ø 5 mm
(Tip Minimess)

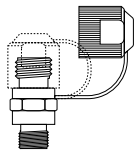
ATN
Hose Ø 5 mm
(for small available spaces)
Furtun Ø 5 mm
(pentru spații reduse)

AT
Hose Ø 8 mm
(for big available spaces)
Furtun Ø 8 mm
(pentru spații mari)

3 CHOOSE PROPER FITTINGS

ALEGE CORECT ACCESORII

ARNM
For hoses ATNM Ø 5 mm
Pt. furtunuri ATNM Ø 5 mm



ARM
For hoses ATM Ø 5 mm
Pt. furtunuri ATM Ø 5 mm

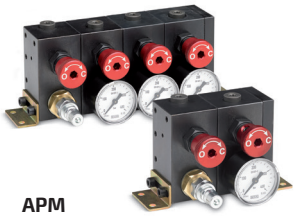
ARN
For hoses ATN Ø 5 mm
Pt. furtunuri ATN Ø 5 mm

AR
For hoses AT Ø 8 mm
Pt. furtunuri AT Ø 8 mm

4 CHOOSE CONTROL PANEL MODEL
CHOOSE CONTROL MODEL PANOU

AP01
Standard
Standard

AP02
Compact
Compact



APM
Modular
Modular

... and other available models
... și alte modele disponibile

5 DISTRIBUTION BLOCKS (IF NEEDED)
BLOCURI DE DISTRIBUȚIE (DACĂ E NEVOIE)

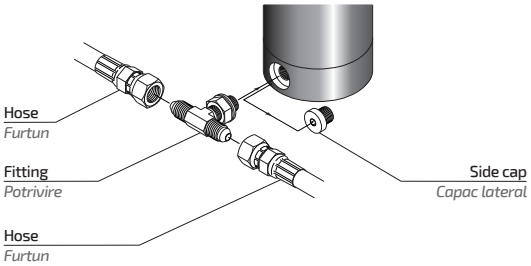
AD01

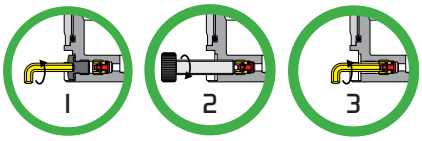
AD00

AD04

... and other available models
... și alte modele disponibile

6 CONNECTING THE GAS SPRINGS
CONECTAREA U IZVOARELE DE GAZ





⚠ ATTENTION!
Follow the instructions on page 12 before connecting the gas springs

⚠ *ATENȚIE!*
Urmează instrucțiunile de la pagina 12 înainte de a conecta arcurile de gaz

Discharge the gas spring and remove the valve before connecting to system

Descărcați arcul de gaz și îndepărtați supapa înainte de a se conecta la sistem

7 CHARGING AND DISCHARGING
ÎNCĂRCARE ȘI DESCĂRCARE

COMPL
Charging and discharging set
(also for self-contained gas springs)
Set de încărcare și descărcare
(de asemenea, pentru arcurile cu gaz autonome)

CUC01
Charging unit
(also for self-contained gas springs)
included in the complete set COMPL
Unitate de încărcare
(de asemenea, pentru arcurile cu gaz autonome)
inclus în setul complet COMPL

AN-1/4
Charging adapter for the quick coupling on the control panels
Adaptor de încărcare pentru cuplarea rapidă a panourilor de control

ATM

MINIMESS HOSES Ø 5 mm and FITTINGS

Furtunuri Ø 5 mm și accesorii (tip MINIMESS)

Flexible hose diameter 5 mm with fittings, for connecting nitrogen gas springs and many other devices.

Furtun flexibil cu diametrul 5 mm cu racorduri, pentru conectarea arcurilor de gaz azot și a multor alte dispozitive.

HOSE MECHANICAL SPECIFICATIONS

- Working temperature: -40 +100 °C
- Working pressure: max 630 bar
- Minimum bending radius: 20 mm
- Outside diameter: 5 mm

SPECIFICAȚII MECANICE ALE FURTUNULUI

- *Temperatura de lucru: -40 +100 °C*
- *Presiune de lucru: maxim 630 bar*
- *Raza minimă de îndoire: 20 mm*
- *Diametru exterior: 5 mm*

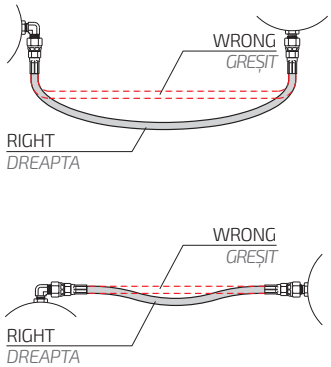
TECHNICAL NOTES

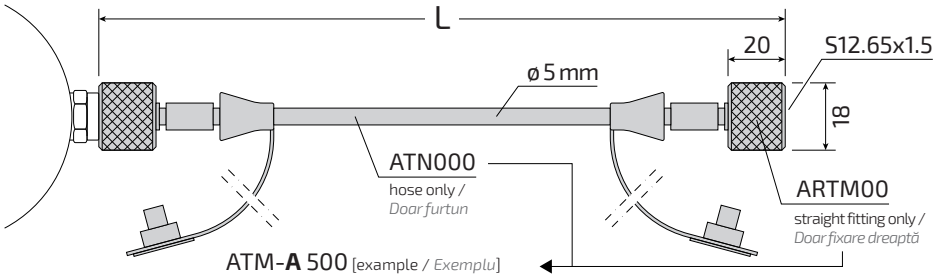
Choose the proper hose length considering the "Assembly" indications.

NOTE TEHNICE

Alege lungimea corectă a furtunului ținând cont de indicațiile "Asamblare".

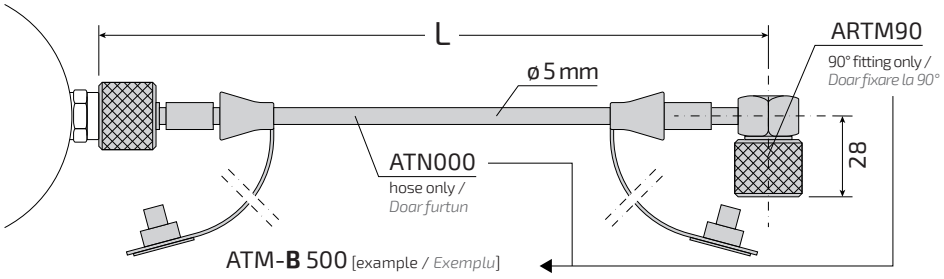
Assembly / *Adunarea*





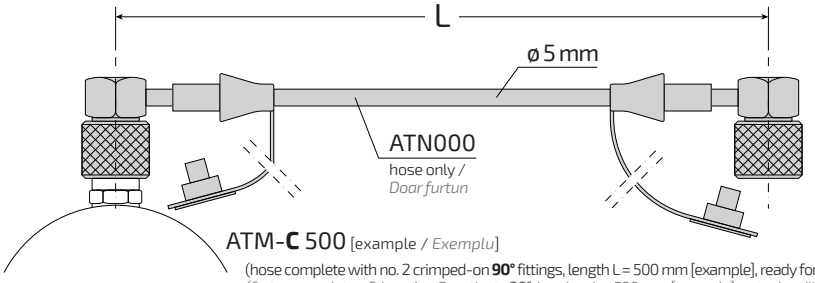
ATM-**A** 500 [example / *Exemplu*]

(hose complete with no. 2 crimped-on **straight** fittings, length L = 500 mm [example], ready for use)
*(furtun complet cu fitinguri **drepte** sertizate nr. 2, lungime L = 500 mm [exemplu], gata de utilizare)*



ATM-**B** 500 [example / *Exemplu*]

(hose complete with no. 2 crimped-on fittings (**straight** + **90°**), length L = 500 mm [example], ready for use)
*(furtun complet cu 2 accesorii sertizate (**straight** + **90°**), lungime L = 500 mm [exemplu], gata de utilizare)*



ATM-**C** 500 [example / *Exemplu*]

(hose complete with no. 2 crimped-on **90°** fittings, length L = 500 mm [example], ready for use)
*(furtun complet cu fitinguri nr. 2 sertizate **90°**, lungime L = 500 mm [exemplu], gata de utilizare)*

ORDER HOSE cod. ATN000 (quantity in metres, for example: "ATN000 10 m") and FITTINGS cod. ARTM00/ARTM90 for SELF-CUTTING and SELF-CRIMPING

COMANDĂ CODUL CU FURTUN. ATN000 (cantitate în metri, de exemplu: "ATN000 10 m") și FITTINGS cod. ARTM00/ARTM90 pentru AUTO-TĂIERE ȘI AUTO-SCRUPUL

LENGTH OF STANDARD HOSES, FITTINGS INCLUDED (Different lengths can be prepared on request - Minimum lengths: see "L MIN")

LUNGIME FURTUNURI STANDARD, INCLUSIV RACORDURI (Diferite lungimi pot fi pregătite la cerere - Lungimi minime: vezi "L MIN")

Model *Model*	L mm	Model *Model*	L mm	Model *Model*	L mm
ATM-.... 150	150	**ATM-... 400**	400	**ATM-... 1000**	1000
ATM-... 175	175	**ATM-... 500**	500	**ATM-... 1500**	1500
ATM-... 200	200	**ATM-... 600**	600	**ATM-... 2000**	2000
ATM-... 250	250	**ATM-... 700**	700		
ATM-... 300	300	**ATM-... 800**	800		
ATM-... 350	350	**ATM-... 900**	900		

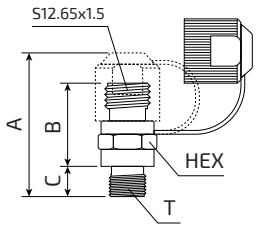
Models *Modele*	L MIN* mm
ATM-A...	90
ATM-B...	95
ATM-C...	105

* No plastic caps for L < 150 mm
** Fără capace de plastic pentru L < 150 mm*

ARM
MINIMESS FITTINGS for ATM HOSES

Fitinguri pentru furtunuri ATM (tip MINIMESS)

FITTINGS FOR LINKING GAS SPRINGS, CONTROL PANELS AND DISTRIBUTION BLOCKS
ACCESORII PENTRU LEGAREA ARCURILOR CU GAZ, PANOURILOR DE CONTROL ȘI BLOCURILOR DE DISTRIBUȚIE

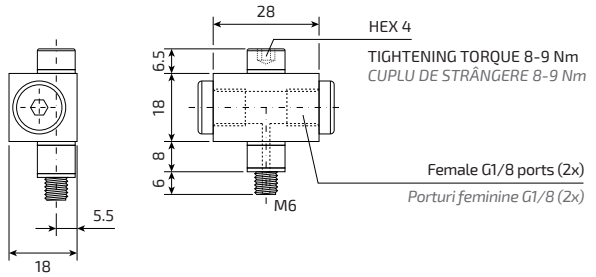


Model *Model*	A mm	B mm	C mm	T	HEX	Tightening torque *Cuplu de strângere*	Non-return valve *Supapă de revenire*
ARM000-1/8	48	30	8	G1/8	14	ca. 18 Nm	NO
ARM000-1/8V	48	30	8	G1/8	14	ca. 18 Nm	YES
ARM000-1/4	43	21	12	G1/4	19	ca. 45 Nm	NO
ARM000-1/4V	43	21	12	G1/4	19	ca. 45 Nm	YES

ATTENTION! Use fittings **without** non-return valve when connecting gas springs and other devices to open system (hose system).
*ATENȚIE! Folosește racorduri **fără** supapă de revenire atunci când conectezi arcuri de gaz și alte dispozitive la sistemul deschis (sistem cu furtun).*

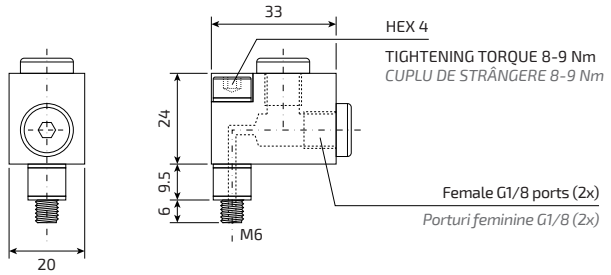
Model
Model

ARM270-M6



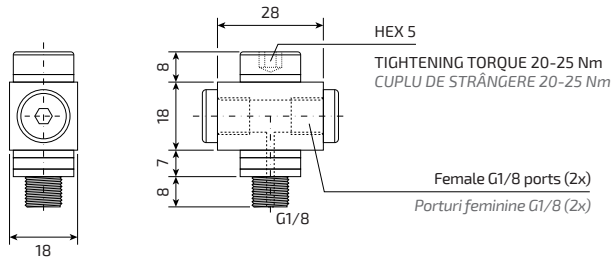
Model
Model

ARM270R-M6



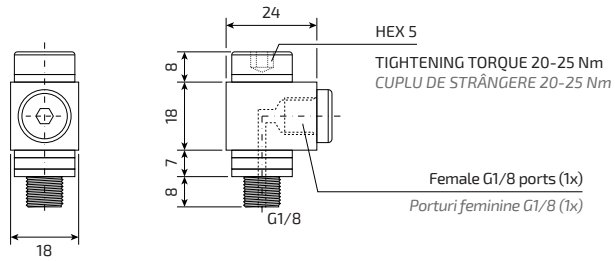
Model
Model

ARM270-1/8



Model
Model

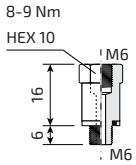
ARM090-1/8



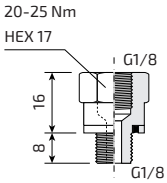
OTHER ACCESSORIES
ALTE ACCESORII

Extension fittings which may be needed in case of fixing with half-flanges
Extensii care pot fi necesare în cazul fixării cu semi-flanșe

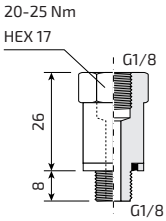
PL-M6



PL-1/8A

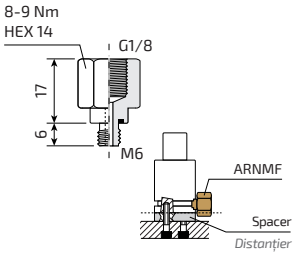


PL-1/8B



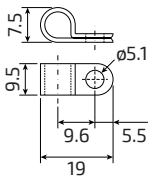
M6 to G1/8 side port converter
Convertor lateral M6 către G1/8

ARNMF



Model
Model

CFT-5



HOSE CLIP
FOR HOSES Ø5 mm
(10 pcs. box)
CLEMĂ FURTUN PENTRU FURTUN Ø5 mm (cutie de 10 piese)

ATNM
MICRO HOSES Ø 5 mm and FITTINGS

Furtunuri Ø 5 mm și accesorii (tip MICRO)

Flexible hose diameter 5 mm with fittings, for connecting nitrogen gas springs and many other devices.

Furtun flexibil cu diametrul 5 mm cu racorduri, pentru conectarea arcurilor de gaz azot și a multor alte dispozitive.

HOSE MECHANICAL SPECIFICATIONS

- Working temperature: -40 +100 °C
- Working pressure: max 630 bar
- Minimum bending radius: 20 mm
- Outside diameter: 5 mm

SPECIFICAȚII MECANICE ALE FURTUNULUI

- *Temperatura de lucru: -40 +100 °C*
- *Presiune de lucru: maxim 630 bar*
- *Raza minimă de îndoire: 20 mm*
- *Diametru exterior: 5 mm*

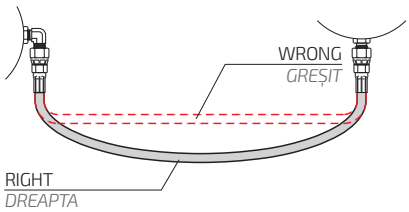
TECHNICAL NOTES

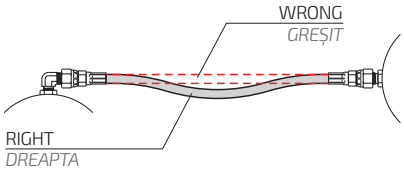
Calculating hose length:
L = (A - 20) x 1.05 (dimensions in millimetres)
L = Hose length (fittings included)
A = Distance between gas springs to be connected

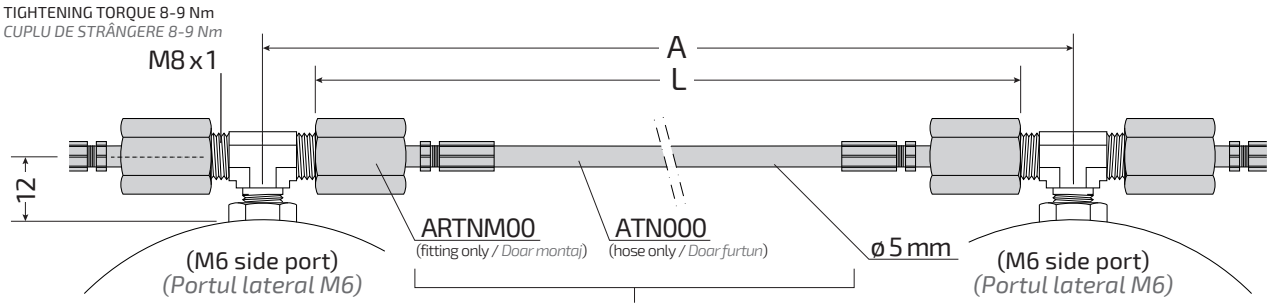
NOTE TEHNICE

Calcularea lungimii furtunului:
L = (A - 20) x 1,05 (dimensiuni în milimetri)
L = Lungimea furtunului (incluse racordurile)
A = Distanța dintre arcurile gazoase ce urmează a fi conectate

Assembly / *Adunarea*







ATNM 500 [example / *Exemplu*]
(hose complete with no. 2 crimped-on fittings, length L = 500 mm [example], ready for use)
(furtun complet cu 2 racorduri sertizate, lungime L = 500 mm [exemplu], gata de utilizare)

ORDER HOSE cod. ATN000 (quantity in metres, for example: "ATN000 10 m") and FITTINGS cod. ARTNM00 for SELF-CUTTING and SELF-CRIMPING
COMANDĂ CODUL CU FURTUN. ATN000 (cantitate în metri, de exemplu: "ATN000 10 m") și FITTINGS cod. ARTNM00 PENTRU AUTO-TĂIERE ȘI AUTO-ÎNCRUNTARE

LENGTH OF STANDARD HOSES, FITTINGS INCLUDED (Different lengths can be prepared on request - Minimum lengths L = 90 mm)
LUNGIME FURTUNURI STANDARD, INCLUSIV RACORDURI (Pot fi pregătite lungimi diferite la cerere - Lungimi minime L = 90 mm)

Model *Model*	A mm	L mm	Model *Model*	A mm	L mm	Model *Model*	A mm	L mm
ATNM 100	115	100	**ATNM 300**	306	300	**ATNM 800**	782	800
ATNM 125	139	125	**ATNM 350**	353	350	**ATNM 900**	877	900
ATNM 150	163	150	**ATNM 400**	401	400	**ATNM 1000**	972	1000
ATNM 175	187	175	**ATNM 500**	496	500	**ATNM 1500**	1449	1500
ATNM 200	210	200	**ATNM 600**	591	600	**ATNM 2000**	1925	2000
ATNM 250	258	250	**ATNM 700**	687	700			

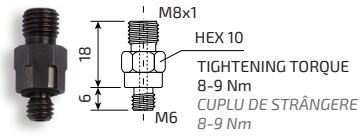
ARNM
MICRO FITTINGS for ATNM HOSES

Fitinguri pentru furtunuri ATNM (tip MICRO)

FITTINGS FOR LINKING GAS SPRINGS, CONTROL PANELS AND DISTRIBUTION BLOCKS
ACCESORII PENTRU LEGAREA ARCURILOR CU GAZ, PANOURILOR DE CONTROL ȘI BLOCURILOR DE DISTRIBUȚIE

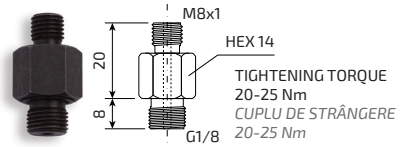
Model
Model

ARNM000



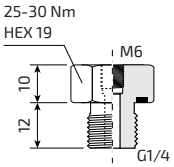
Model
Model

ARNM000CP



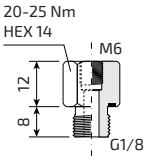
Model
Model

ARNM00P



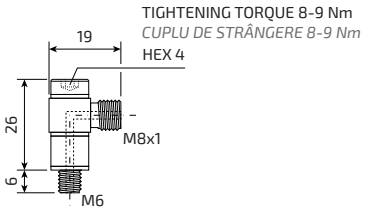
Model
Model

ARNM00G



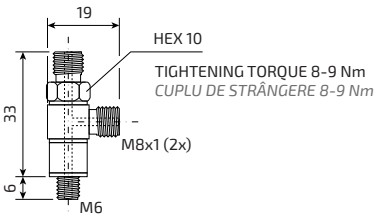
Model
Model

ARNM090



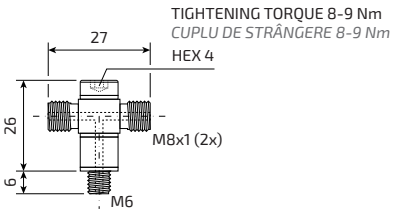
Model
Model

ARNM270R



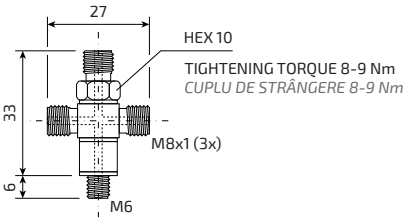
Model
Model

ARNM270



Model
Model

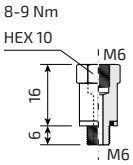
ARNM360



Extension fittings which may be needed in case of fixing with half-flanges
Extensii care pot fi necesare în cazul fixării cu semi-flanșe

Model
Model

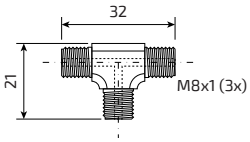
PL-M6



FITTINGS FOR HOSE-HOSE CONNECTION
RACORDURI PENTRU CONEXIUNEA FURTUN-FURTUN

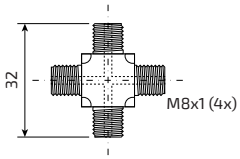
Model
Model

ARNM270T



Model
Model

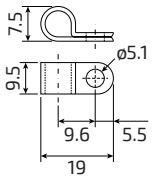
ARNM360T



OTHER ACCESSORIES
ALTE ACCESORII

Model
Model

CFT-5



HOSE CLIP
FOR HOSES Ø5 mm
(10 pcs. box)
CLEMĂ FURTUN PENTRU FURTUN Ø5 mm (cutie de 10 piese)

ATN
HOSES Ø 5 mm and FITTINGS

Furtunuri Ø 5 mm și accesorii

Flexible hose diameter 5 mm with fittings, for connecting nitrogen gas springs and many other devices.

Furtun flexibil cu diametrul 5 mm cu racorduri, pentru conectarea arcurilor de gaz azot și a multor alte dispozitive.

HOSE MECHANICAL SPECIFICATIONS

- Working temperature: -40 +100 °C
- Working pressure: max 630 bar
- Minimum bending radius: 20 mm
- Outside diameter: 5 mm

SPECIFICAȚII MECANICE ALE FURTUNULUI

- *Temperatura de lucru: -40 +100 °C*
- *Presiune de lucru: maxim 630 bar*
- *Raza minimă de îndoire: 20 mm*
- *Diametru exterior: 5 mm*

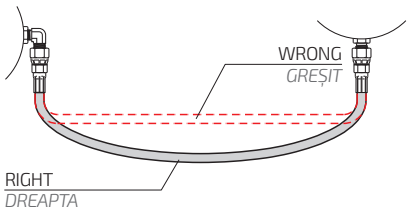
TECHNICAL NOTES

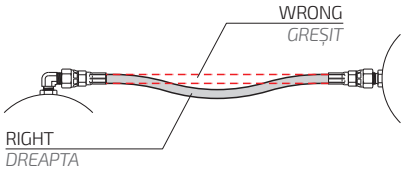
Calculating hose length:
L = (A - 25) x 1.05 (dimensions in millimetres)
L = Hose length (fittings included)
A = Distance between gas springs to be connected

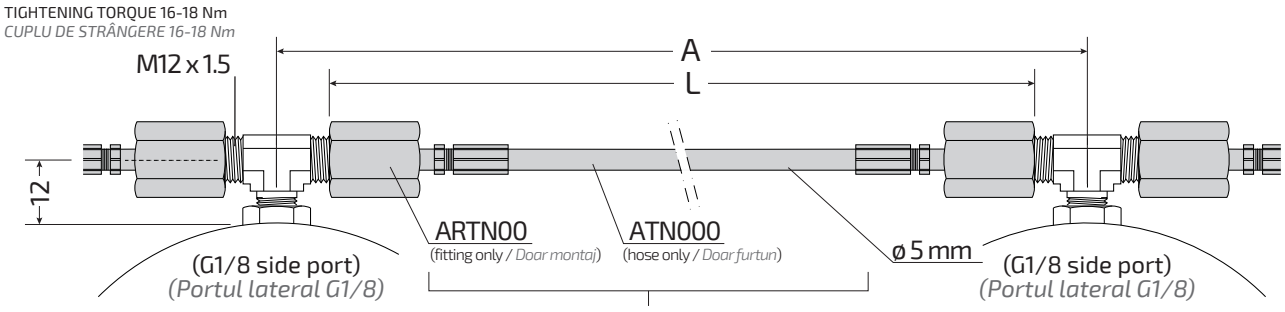
NOTE TEHNICE

Calcularea lungimii furtunului:
L = (A - 25) x 1,05 (dimensiuni în milimetri)
L = Lungimea furtunului (incluse racordurile)
A = Distanța dintre arcurile gazoase ce urmează a fi conectate

Assembly / *Adunarea*







ATN 500 [example / *Exemplu*]
(hose complete with no. 2 crimped-on fittings, length L = 500 mm [example], ready for use)
(furtun complet cu 2 racorduri sertizate, lungime L = 500 mm [exemplu], gata de utilizare)

ORDER HOSE cod. ATN000 (quantity in metres, for example: "ATN000 10 m") and FITTINGS cod. ARTN00 for SELF-CUTTING and SELF-CRIMPING
COMANDĂ CODUL CU FURTUN. ATN000 (cantitate în metri, de exemplu: "ATN000 10 m") și FITTINGS cod. ARTN00 pentru AUTO-TĂIERE ȘI AUTO-ÎNCRUNTARE

LENGTH OF STANDARD HOSES, FITTINGS INCLUDED (Different lengths can be prepared on request - Minimum lengths L = 90 mm)
LUNGIME FURTUNURI STANDARD, INCLUSIV RACORDURI (Pot fi pregătite lungimi diferite la cerere - Lungimi minime L = 90 mm)

Model *Model*	A mm	L mm	Model *Model*	A mm	L mm	Model *Model*	A mm	L mm
ATN 100	120	100	**ATN 300**	311	300	**ATN 800**	787	800
ATN 125	144	125	**ATN 350**	358	350	**ATN 900**	882	900
ATN 150	168	150	**ATN 400**	406	400	**ATN 1000**	977	1000
ATN 175	192	175	**ATN 500**	501	500	**ATN 1500**	1454	1500
ATN 200	215	200	**ATN 600**	596	600	**ATN 2000**	1930	2000
ATN 250	263	250	**ATN 700**	692	700			

ARN
FITTINGS for ATN HOSES

Fitinguri pentru furtunuri ATN

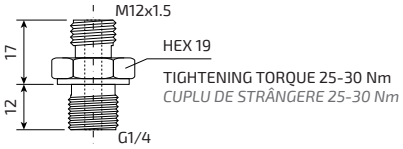
FITTINGS FOR LINKING GAS SPRINGS, CONTROL PANELS AND DISTRIBUTION BLOCKS
ACCESORII PENTRU LEGAREA ARCURILOR CU GAZ, PANOURILOR DE CONTROL ȘI BLOCURILOR DE DISTRIBUȚIE

Model
Model

ARN000

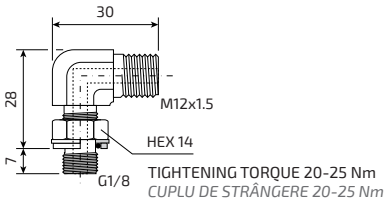
Model
Model

ARN000-1/4



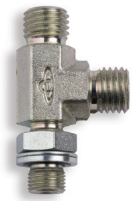
Model
Model

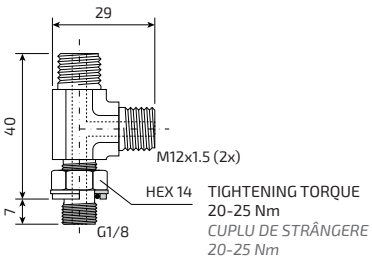
ARN090



Model
Model

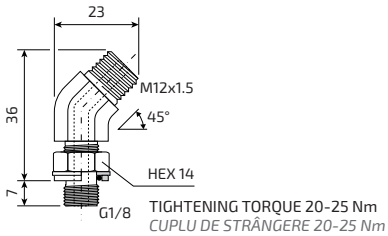
ARN270R





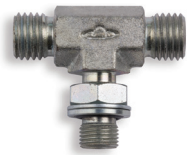
Model
Model

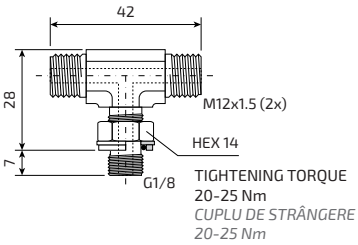
ARN045



Model
Model

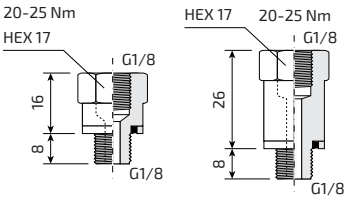
ARN270





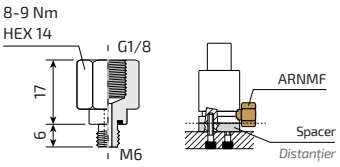
Extension fittings which may be needed in case of fixing with half-flanges
Extensii care pot fi necesare în cazul fixării cu semi-flanșe

PL-1/8A **PL-1/8B**



M6 to G1/8 side port converter
Convertor lateral M6 către G1/8

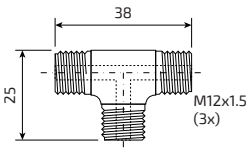
ARNMF



FITTINGS FOR HOSE-HOSE CONNECTION
RACORDURI PENTRU CONEXIUNEA FURTUN-FURTUN

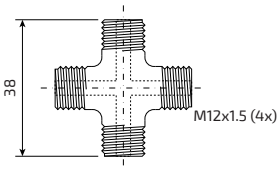
Model
Model

ARN270T



Model
Model

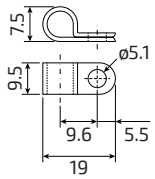
ARN360T



OTHER ACCESSORIES
ALTE ACCESORII

Model
Model

CFT-5



HOSE CLIP
FOR HOSES Ø5 mm
(10 pcs. box)
CLEMĂ FURTUN PENTRU FURTUN Ø5 mm (cutie de 10 piese)

AT
HOSES Ø 8 mm and FITTINGS

Furtunuri Ø 8 mm și accesorii

Flexible hose diameter 8 mm with fittings, for connecting nitrogen gas springs and many other devices.

Furtun flexibil cu diametrul 8 mm și racorduri, pentru conectarea arcurilor de gaz azotic și a multor alte dispozitive.

HOSE MECHANICAL SPECIFICATIONS

- Working temperature: -40 +100 °C
- Working pressure: max 630 bar
- Minimum bending radius: 40 mm
- Outside diameter: 8 mm

SPECIFICAȚII MECANICE ALE FURTUNULUI

- *Temperatura de lucru: -40 +100 °C*
- *Presiune de lucru: maxim 630 bar*
- *Raza minimă de îndoire: 40 mm*
- *Diametru exterior: 8 mm*

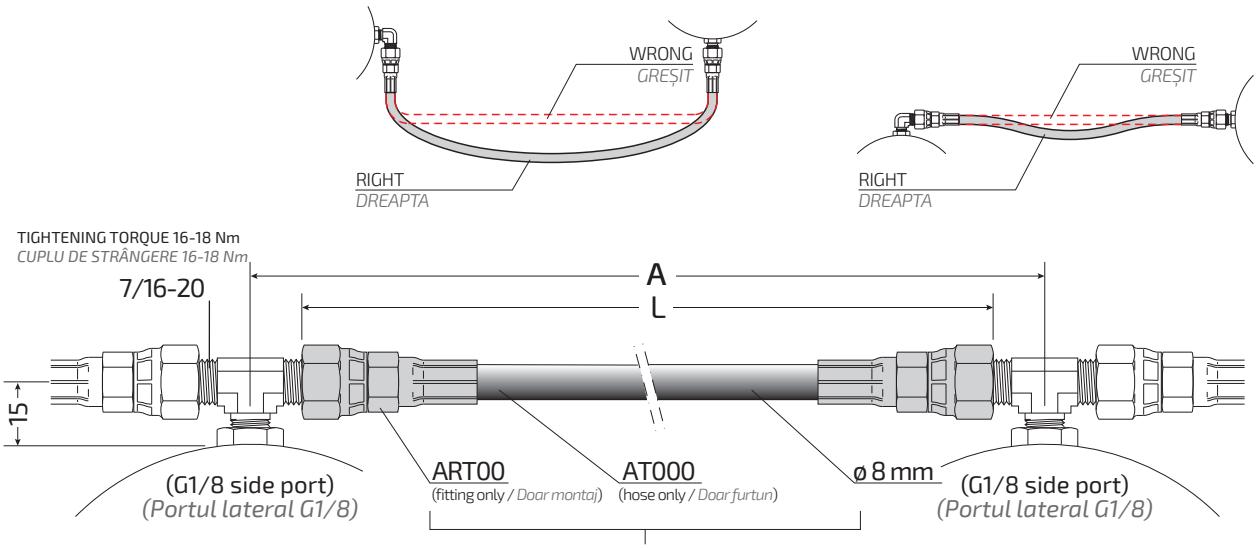
TECHNICAL NOTES

Calculating hose length:
L = (A - 25) x 1.05 (dimensions in millimetres)
L = Hose length (fittings included)
A = Distance between gas springs to be connected

NOTE TEHNICE

Calcularea lungimii furtunului:
L = (A - 25) x 1,05 (dimensiuni în milimetri)
L = Lungimea furtunului (incluse racordurile)
A = Distanța dintre arcurile gazoase ce urmează a fi conectate

Assembly / *Adunarea*



AT 500 [example / *Exemplu*]
(hose complete with no. 2 crimped-on fittings, length L = 500 mm [example], ready for use)
(furtun complet cu 2 racorduri sertizate, lungime L = 500 mm [exemplu], gata de utilizare)

ORDER HOSE cod. AT000 (quantity in metres, for example: "AT000 10 m") and FITTINGS cod. ART00 for SELF-CUTTING and SELF-CRIMPING
COMANDĂ CODUL CU FURTUN. AT000 (cantitate în metri, de exemplu: "AT000 10 m") și FITTINGS cod. ART00 PENTRU AUTO-TĂIERE ȘI AUTO-ÎNCRUNTARE

LENGTH OF STANDARD HOSES, FITTINGS INCLUDED (Different lengths can be prepared on request - Minimum length L = 125 mm)
LUNGIME FURTUNURI STANDARD, INCLUSIV RACORDURI (Pot fi pregătite diferite lungimi la cerere - Lungime minimă L = 125 mm)

Model *Model*	A mm	L mm	Model *Model*	A mm	L mm	Model *Model*	A mm	L mm
-	-	-	**AT 300**	311	300	**AT 800**	787	800
AT 125	144	125	**AT 350**	358	350	**AT 900**	882	900
AT 150	168	150	**AT 400**	406	400	**AT 1000**	977	1000
AT 175	192	175	**AT 500**	501	500	**AT 1500**	1454	1500
AT 200	215	200	**AT 600**	596	600	**AT 2000**	1930	2000
AT 250	263	250	**AT 700**	692	700			

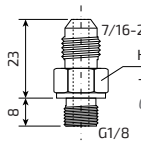
AR
FITTINGS for AT HOSES

Accesorii pentru furtunuri AT

FITTINGS FOR LINKING GAS SPRINGS, CONTROL PANELS AND DISTRIBUTION BLOCKS
ACCESORII PENTRU LEGAREA ARCURILOR CU GAZ, PANOURILOR DE CONTROL ȘI BLOCURILOR DE DISTRIBUȚIE

Model
Model

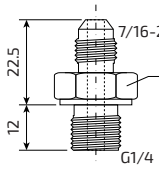
AR000



TIGHTENING TORQUE 20-25 Nm
CUPLU DE STRÂNGERE 20-25 Nm

Model
Model

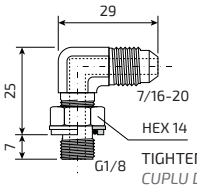
AR000-1/4



TIGHTENING TORQUE 25-30 Nm
CUPLU DE STRÂNGERE 25-30 Nm

Model
Model

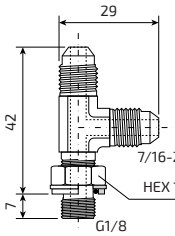
AR090



TIGHTENING TORQUE 20-25 Nm
CUPLU DE STRÂNGERE 20-25 Nm

Model
Model

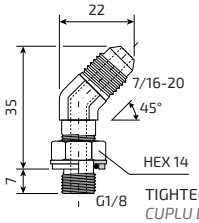
AR270R



TIGHTENING TORQUE 20-25 Nm
CUPLU DE STRÂNGERE 20-25 Nm

Model
Model

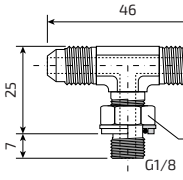
AR045



TIGHTENING TORQUE 20-25 Nm
CUPLU DE STRÂNGERE 20-25 Nm

Model
Model

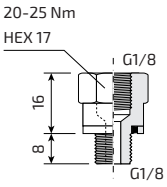
AR270



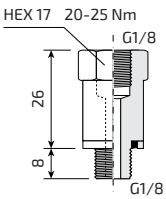
TIGHTENING TORQUE 20-25 Nm
CUPLU DE STRÂNGERE 20-25 Nm

Extension fittings which may be needed in case of fixing with half-flanges
Extensii care pot fi necesare în cazul fixării cu semi-flanșe

PL-1/8A

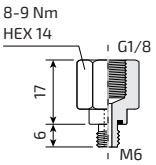


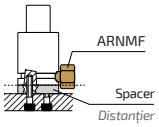
PL-1/8B



M6 to G1/8 side port converter
Convertor lateral M6 către G1/8

ARNMF

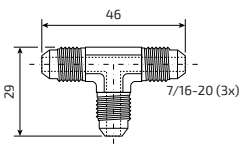




FITTINGS FOR HOSE-HOSE CONNECTION
RACORDURI PENTRU CONEXIUNEA FURTUN-FURTUN

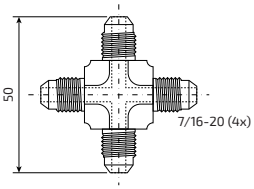
Model
Model

AR270T



Model
Model

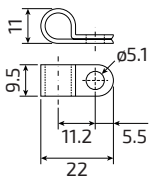
AR360T



OTHER ACCESSORIES
ALTE ACCESORII

Model
Model

CFT-8



HOSE CLIP
FOR HOSES Ø8 mm
(10 pcs. box)
CLEMĂ FURTUN PENTRU FURTUN Ø8 mm (cutie de 10 piese)

AP01CV / AP01
CONTROL PANEL

Panoul de control AP01CV / AP01

This panel allows to charge and discharge a nitrogen gas spring or a nitrogen gas springs system, and to monitor the pressure.

Acest panou permite încărcarea și eliberarea unui sistem de izvor cu gaz azot, precum și monitorizarea presiunii.

TECHNICAL NOTES

NOTE TEHNICE

A **Charging valve:**
- **AP01CV**: CEJN-type, compatible with most non-Bordignon charging systems
- **AP01**: Bordignon-standard, to be used only with CUC01 or COMPL or BOOSTER

*A **Supapa de încărcare:***
- ***AP01CV**: Tip CEJN, compatibil cu majoritatea sistemelor de încărcare non-Bordignon*
- ***AP01**: Bordignon-standard, pentru a fi folosit doar cu CUC01 sau COMPL sau BOOSTER*

B Discharging valve
C Pressure gauge
D No. 3 connection ports (G1/8)
E Plug ready for safety pressure switch
F No. 2 fixing holes for M6 hex-socket screws
G The connection ports are plugged

B Supapa de descărcare
C Manometru
D Porturile de conexiune nr. 3 (G1/8)
E Priză pregătită pentru întrerupător de presiune de siguranță
F Nr. 2 pentru găurile de fixare pentru șuruburile hexagonale M6
G Porturile de conexiune sunt blocate

⚠ ATTENTION! USE NITROGEN N_2 ONLY

⚠ *ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2*

Most used
Cele mai folosite

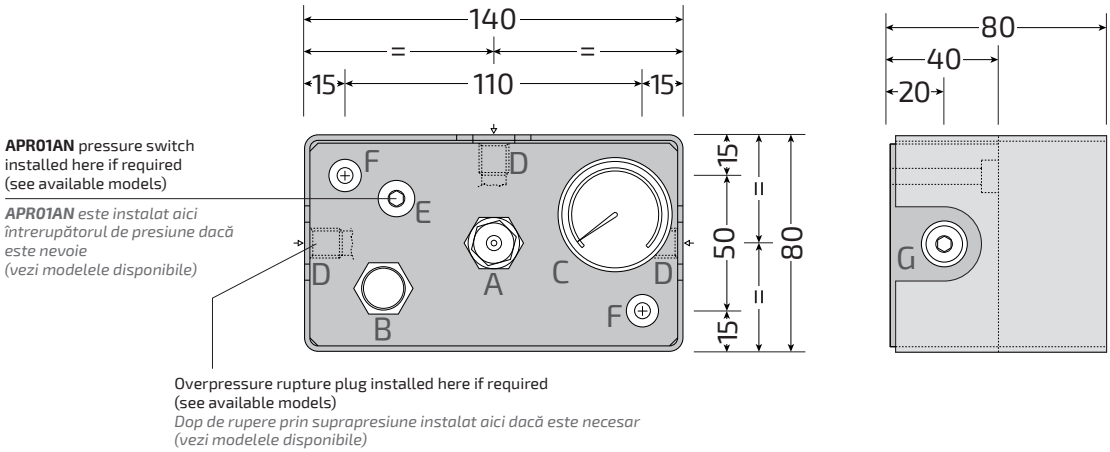
AP01CV

CEJN 10 358

AP01

Bordignon-standard
Standardul Bordignon

Dimensions / *Dimensiuni*



Model *Model*	Model *Model*	
AP01CV	**AP01**	Control panel *Panoul de control*
AP01PANCV	**AP01PAN**	Control panel with APR01AN pressure switch (50-300 bar normally open) *Panoul de control cu APR01AN întrerupător de presiune (50-300 bar, de obicei deschis)*
AP01RPCV	**AP01RP**	Control panel with overpressure rupture plug *Panoul de control cu dop de ruptură prin suprapresiune*
AP01FCV	**AP01F**	Control panel with APR01AN pressure switch (50-300 bar normally open) and with overpressure rupture plug *Panou de control cu APR01AN întrerupător de presiune (50-300 bar, de obicei deschis) și cu dop de ruptură la supraprecsiune*

Add "LOCK" after the control panel code to receive it with lockable discharging valve for Lockout-Tagout applications. Order padlock (code: PADLOCK) separately (also usable with BRADY part no. 850821 padlock). Example: "AP01FLOCK" = control panel AP01F with lockable discharging valve.
Adaugă "LOCK" după codul panoului de control pentru a o primi cu supapă de descărcare blocabilă pentru aplicațiile Lockout-Tagout. Comandă lacătul (cod: PADLOCK) separat (utilizabil și cu lacătul piesei BRADY nr. 850821). Exemplu: "AP01FLOCK" = panou de control AP01F cu supapă de descărcare blocabilă.

All models are available with safety valve VS500 already assembled (on request). / ***Toate modelele sunt disponibile cu supapa de siguranță VS500 deja asamblată (la cerere).***

AP02CV / AP02
CONTROL PANEL (COMPACT)

Panou de control AP02CV / AP02 (compact)

This compact panel allows to charge and discharge a nitrogen gas spring or a nitrogen gas springs system, and to monitor the pressure.

Acest panou compact permite încărcarea și evacuarea unui sistem de izvor cu gaz de azot sau a unui sistem de arcuri cu gaz de azot și monitorizarea presiunii.

TECHNICAL NOTES

NOTE TEHNICE

A **Charging valve:**
- **AP02CV**: CEJN-type, compatible with most non-Bordignon charging systems
- **AP02**: Bordignon-standard, to be used only with CUC01 or COMPL or BOOSTER

B Discharging valve

C Pressure gauge

- No. 2 fixing holes for M5 hex-socket screws
- No. 5 connection ports (G1/8)
- The connection ports are plugged

⚠ ATTENTION! USE NITROGEN N_2 ONLY

*A **Supapa de încărcare:***
- ***AP02CV**: Tip CEJN, compatibil cu majoritatea sistemelor de încărcare non-Bordignon*
- ***AP02**: Bordignon-standard, pentru a fi folosit doar cu CUC01 sau COMPL sau BOOSTER*

B Supapa de descărcare

C Manometru

- *Nr. 2 pentru găurile de fixare pentru șuruburile hexagonale M5*
- *Porturile de conexiune nr. 5 (G1/8)*
- *Porturile de conexiune sunt blocate*

⚠ *ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2*

Most used
Cele mai folosite

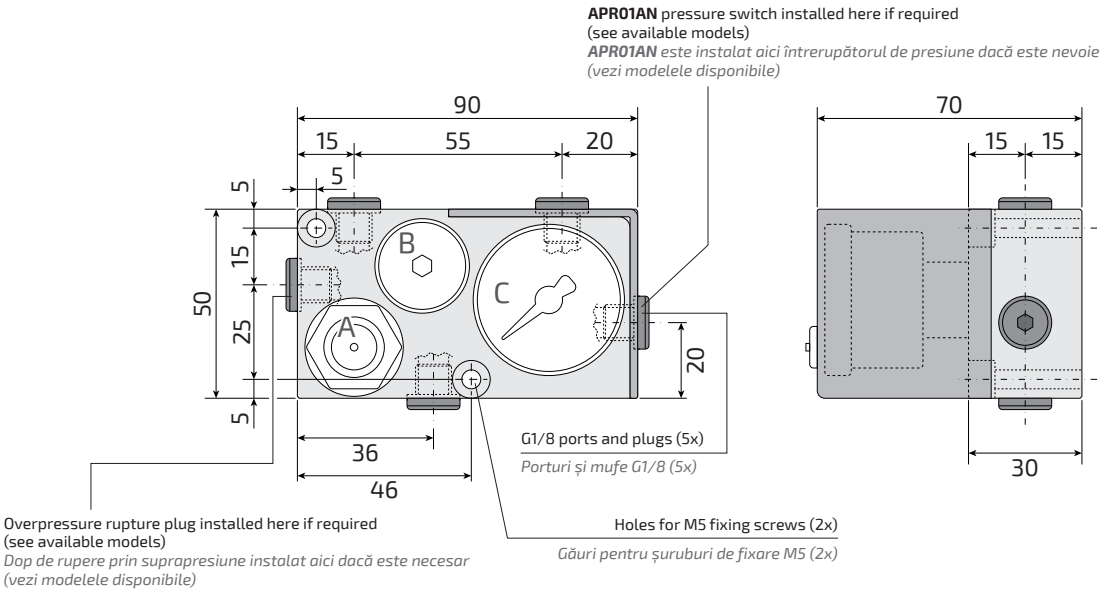
AP02CV

CEJN 10 358

AP02

Bordignon-standard
Standardul Bordignon

Dimensions / *Dimensiuni*



Model *Model*	Model *Model*	
AP02CV	**AP02**	Control panel (compact version) *Panoul de control (versiune compactă)*
AP02PANCV	**AP02PAN**	Control panel (compact version) with APR01AN pressure switch (50-300 bar normally open) *Panou de control (versiune compactă) cu întrerupător de presiune APR01AN (50-300 bar deschis normal)*
AP02RPCV	**AP02RP**	Control panel (compact version) with overpressure rupture plug *Panou de control (versiune compactă) cu dop de ruptură la suprapresiune*
AP02FCV	**AP02F**	Control panel (compact version) with APR01AN pressure switch (50-300 bar normally open) and with overpressure rupture plug *Panou de control (versiune compactă) cu APR01AN întrerupător de presiune (50-300 bar de obicei deschis) și cu dop de rupere la suprapresiune*

All models are available with safety valve VS500 already assembled (on request). / ***Toate modelele sunt disponibile cu supapa de siguranță VS500 deja asamblată (la cerere).***

AP03CV / AP03
CONTROL PANEL (COMPACT)

Panou de control AP03CV / AP03 (compact)

This compact panel allows to charge and discharge a nitrogen gas spring or a nitrogen gas springs system, and to monitor the pressure.

Acest panou compact permite încărcarea și evacuarea unui sistem de izvor cu gaz de azot sau a unui sistem de arcuri cu gaz de azot și monitorizarea presiunii.

TECHNICAL NOTES

NOTE TEHNICE

A **Charging valve:**
- **AP03CV**: CEJN-type, compatible with most non-Bordignon charging systems
- **AP03**: Bordignon-standard, to be used only with CUC01 or COMPL or BOOSTER

B Discharging valve
C Pressure gauge
D No. 3 connection ports G1/4
E No. 2 connection ports G1/8
- The connection ports are plugged
- No. 2 fixing holes for M6 hex-socket screws

ATTENTION! USE NITROGEN N_2 ONLY

*A **Supapa de încărcare:***
- ***AP03CV**: Tip CEJN, compatibil cu majoritatea sistemelor de încărcare non-Bordignon*
- ***AP03**: Bordignon-standard, pentru a fi folosit doar cu CUC01 sau COMPL sau BOOSTER*

B Supapa de descărcare
C Manometru
D Porturile de conexiune nr. 3 G1/4
E Porturile de conexiune nr. 2 G1/8
- *Porturile de conexiune sunt blocate*
- *Nr. 2 pentru găurile de fixare pentru șuruburile hexagonale M6*

ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2

Most used
Cele mai folosite

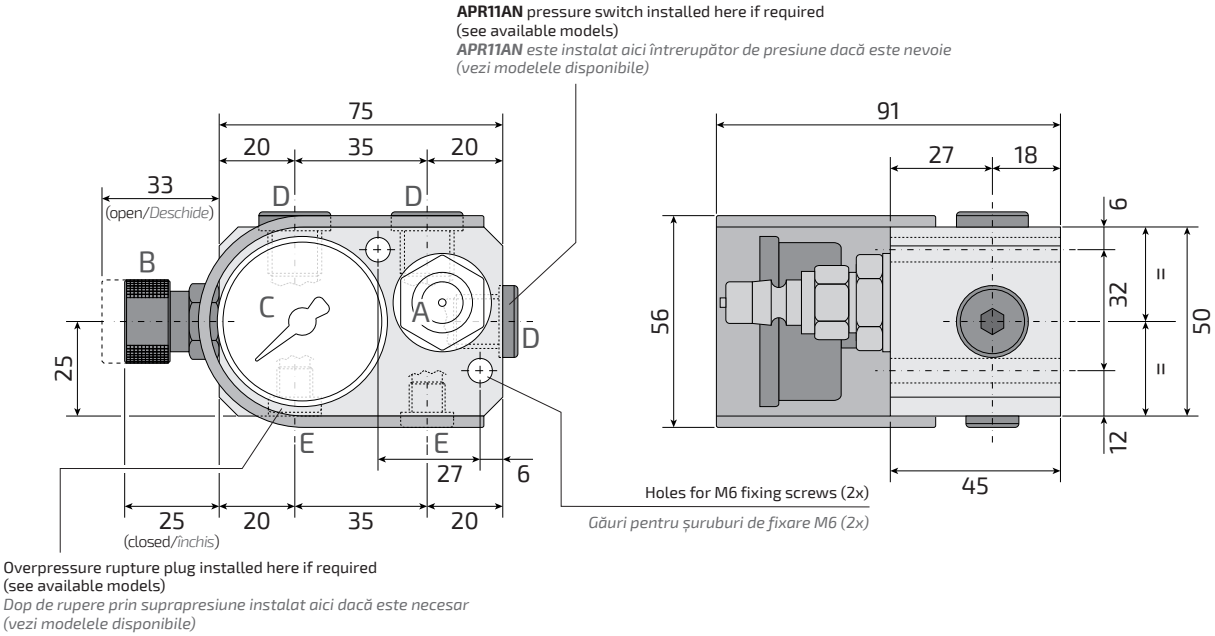
AP03CV

CEJN 10 358

AP03

Bordignon-standard
Standardul Bordignon

Dimensions / *Dimensiuni*



Model *Model*	Model *Model*	
AP03CV	**AP03**	Control panel (compact version) *Panoul de control (versiune compactă)*
AP03PANCV	**AP03PAN**	Control panel (compact version) with APR11AN pressure switch (50-300 bar normally open) *Panou de control (versiune compactă) cu APR11AN întrerupător de presiune (50-300 bar, de obicei deschis)*
AP03RPCV	**AP03RP**	Control panel (compact version) with overpressure rupture plug *Panou de control (versiune compactă) cu dop de ruptură la supapresiune*
AP03FCV	**AP03F**	Control panel (compact version) with APR11AN pressure switch (50-300 bar normally open) and with overpressure rupture plug *Panou de control (versiune compactă) cu APR11AN întrerupător de presiune (50-300 bar deschis normal) și cu dop de rupere la supapresiune*

All models are available with safety valve VS500 already assembled (on request). / ***Toate modelele sunt disponibile cu supapa de siguranță VS500 deja asamblată (la cerere).***

AP04CV / AP04
CONTROL PANEL

Panoul de control AP04CV / AP04

This panel allows to charge and discharge a nitrogen gas spring or a nitrogen gas springs system, and to monitor the pressure.

Acest panou permite încărcarea și eliberarea unui sistem de izvor cu gaz azot, precum și monitorizarea presiunii.

TECHNICAL NOTES

A **Charging valve:**
- **AP04CV**: CEJN-type, compatible with most non-Bordignon charging systems
- **AP04**: Bordignon-standard, to be used only with CUC01 or COMPL or BOOSTER

B Discharging valve
C Pressure gauge
D No. 1 connection port G1/4 **
E No. 7 connection ports G1/8
- The connection ports are plugged
- No. 2 fixing holes for M10 hex-socket screws

⚠ ATTENTION! USE NITROGEN N_2 ONLY

NOTE TEHNICE

A ***Supapa de încărcare:***
- ***AP04CV**: Tip CEJN, compatibil cu majoritatea sistemelor de încărcare non-Bordignon*
- ***AP04**: Bordignon-standard, pentru a fi folosit doar cu CUC01 sau COMPL sau BOOSTER*

B Supapa de descărcare
C Manometru
*D Portul de conexiune nr. 1 G1/4 ***
E Porturile de conexiune nr. 7 G1/8
- *Porturile de conexiune sunt blocate*
- *Nr. 2 găuri de fixare pentru șuruburi hexagonale M10*

⚠ *ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2*

Most used
Cele mai folosite

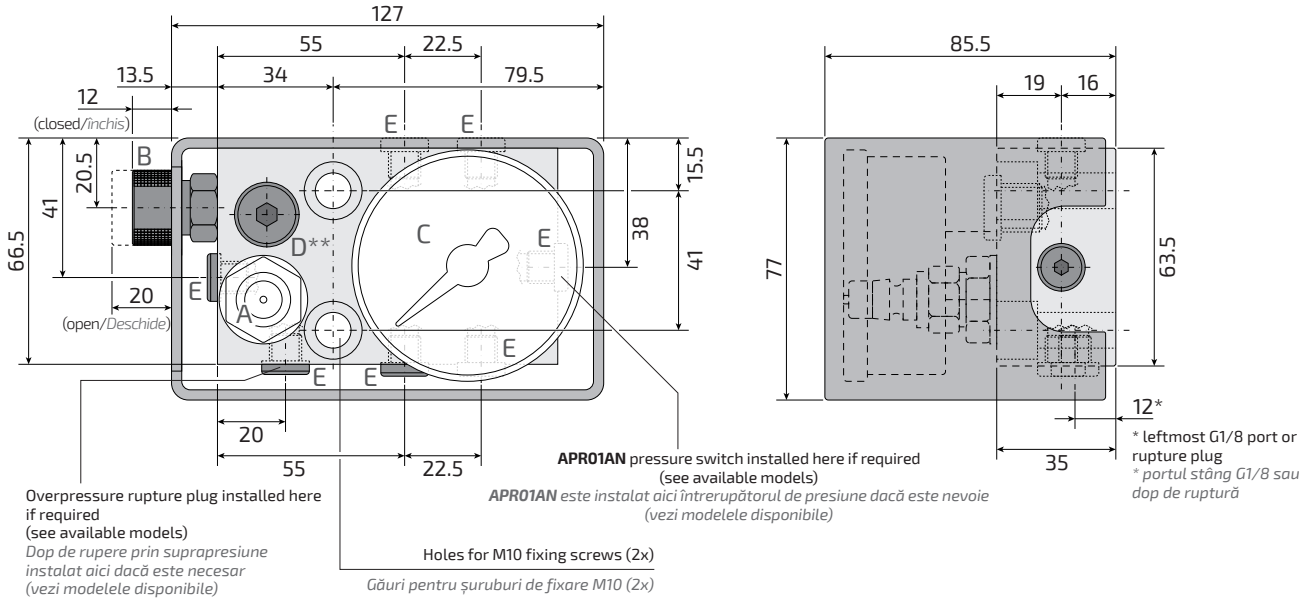
AP04CV

CEJN 10 358

AP04

Bordignon-standard
Standardul Bordignon

Dimensions / *Dimensiuni*



** NOTE: for the AP04CV models, the CEJN-type charging valve will not allow the connection of safety switches or safety valves on the front G1/4 port (port "D" on the drawing above).
*** NOTĂ: pentru modelele AP04CV, supapa de încărcare de tip CEJN nu permite conectarea întrerupătoarelor de siguranță sau a supapelor de siguranță pe portul frontal G1/4 (portul "D" din desenul de mai sus).*

Model *Model*	Model *Model*	
AP04CV	**AP04**	Control panel *Panoul de control*
AP04PANCV	**AP04PAN**	Control panel with APR01AN pressure switch (50-300 bar normally open) *Panoul de control cu APR01AN întrerupător de presiune (50-300 bar, de obicei deschis)*
AP04RPCV	**AP04RP**	Control panel with overpressure rupture plug *Panoul de control cu dop de ruptură prin suprapresiune*
AP04FCV	**AP04F**	Control panel with APR01AN pressure switch (50-300 bar normally open) and with overpressure rupture plug *Panou de control cu APR01AN întrerupător de presiune (50-300 bar, de obicei deschis) și cu dop de ruptură la suprapresiune*

All models are available with safety valve VS500 already assembled (on request). / ***Toate modelele sunt disponibile cu supapa de siguranță VS500 deja asamblată (la cerere).***

AP05CV / AP05
CONTROL PANEL

Panoul de control AP05CV / AP05

This panel allows to charge and discharge a nitrogen gas spring or a nitrogen gas springs system, and to monitor the pressure.

Acest panou permite încărcarea și eliberarea unui sistem de izvor cu gaz azot, precum și monitorizarea presiunii.

Most used
Cele mai folosite

AP05CV

CEJN 10 358

AP05

Bordignon-standard
Standardul Bordignon

TECHNICAL NOTES

A **Charging valve:**
- **AP05CV**: CEJN-type, compatible with most non-Bordignon charging systems
- **AP05**: Bordignon-standard, to be used only with CUC01 or COMPL or BOOSTER

B Discharging valve
C Pressure gauge
D No. 9 connection ports G1/4
E No. 1 connection port G1/8
- The connection ports are plugged
- No. 2 fixing holes for M8 hex-socket screws
- Shut off valve for protecting the pressure gauge from pulsating pressure during operation

⚠ ATTENTION! USE NITROGEN N_2 ONLY

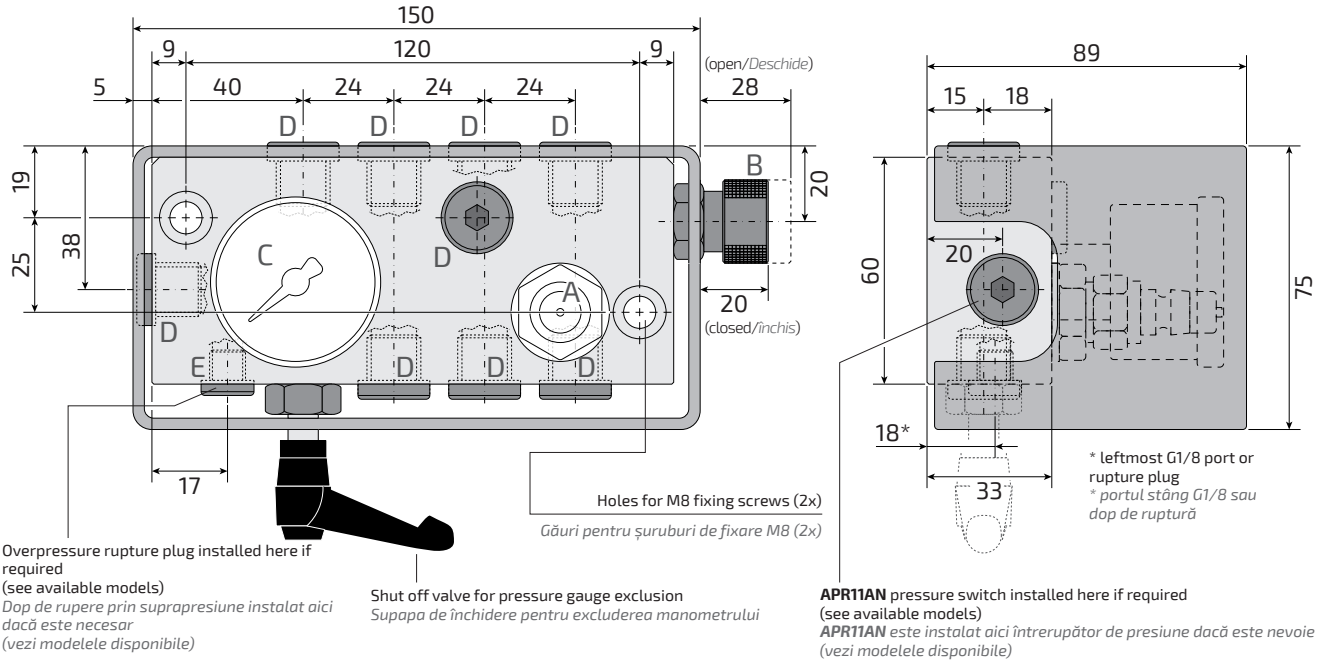
NOTE TEHNICE

A ***Supapa de încărcare:***
- ***AP05CV**: Tip CEJN, compatibil cu majoritatea sistemelor de încărcare non-Bordignon*
- ***AP05**: Bordignon-standard, pentru a fi folosit doar cu CUC01 sau COMPL sau BOOSTER*

B Supapa de descărcare
C Manometru
D Porturile de conexiune nr. 9 G1/4
E Portul de conexiune nr. 1 G1/8
- *Porturile de conexiune sunt blocate*
- *Nr. 2 pentru găurile de fixare pentru șuruburile hexagonale M8*
- *Supapă de închidere pentru protejarea mano-nomerului de presiunea pulsatorie în timpul funcționării*

⚠ *ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2*

Dimensions / *Dimensiuni*



Model *Model*	Model *Model*	
AP05CV	**AP05**	Control panel *Panoul de control*
AP05PANCV	**AP05PAN**	Control panel with APR11AN pressure switch (50-300 bar normally open) *Panoul de control cu APR11AN întrerupător de presiune (50-300 bar, deschis normal)*
AP05RPCV	**AP05RP**	Control panel with overpressure rupture plug *Panoul de control cu dop de ruptură prin suprapresiune*
AP05FCV	**AP05F**	Control panel with APR11AN pressure switch (50-300 bar normally open) and with overpressure rupture plug *Panou de control cu APR11AN întrerupător de presiune (50-300 bar, de obicei deschis) și cu dop de ruptură la suprapresiune*

All models are available with safety valve VS500 already assembled (on request). / ***Toate modelele sunt disponibile cu supapa de siguranță VS500 deja asamblată (la cerere).***

AP06CV / AP06
CONTROL PANEL (MICRO-TYPE PORTS)

Panoul de control AP06CV / AP06 (porturi de tip MICRO)

This panel allows to charge and discharge a nitrogen gas spring or a nitrogen gas springs system, and to monitor the pressure.

Acest panou permite încărcarea și eliberarea unui sistem de izvor cu gaz azot, precum și monitorizarea presiunii.

TECHNICAL NOTES

NOTE TEHNICE

A **Charging valve:**
- **AP06CV**: CEJN-type, compatible with most non-Bordignon charging systems
- **AP06**: Bordignon-standard, to be used only with CUC01 or COMPL or BOOSTER

*A **Supapa de încărcare:***
- ***AP06CV**: Tip CEJN, compatibil cu majoritatea sistemelor de încărcare non-Bordignon*
- ***AP06**: Bordignon-standard, pentru a fi folosit doar cu CUC01 sau COMPL sau BOOSTER*

B Discharging valve
C Pressure gauge
D No. 1 connection port G1/4
E No. 1 connection port G1/8
F No. 15 connection ports M6 (5x top, 5x bottom, 5x rear)
- The connection ports are plugged
- No. 6 (4x + 2x) fixing holes for M6 hex-socket screws

B Supapa de descărcare
C Manometru
D Portul de conexiune nr. 1 G1/4
E Portul de conexiune nr. 1 G1/8
F Porturile de conexiune nr. 15 M6 (5x sus, 5x jos, 5x spate)
- *Porturile de conexiune sunt blocate*
- *Nr. 6 (4x + 2x) reparând găurile pentru șuruburi hexagonale M6*

⚠ ATTENTION! USE NITROGEN N_2 ONLY

⚠ *ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2*

Most used
Cele mai folosite

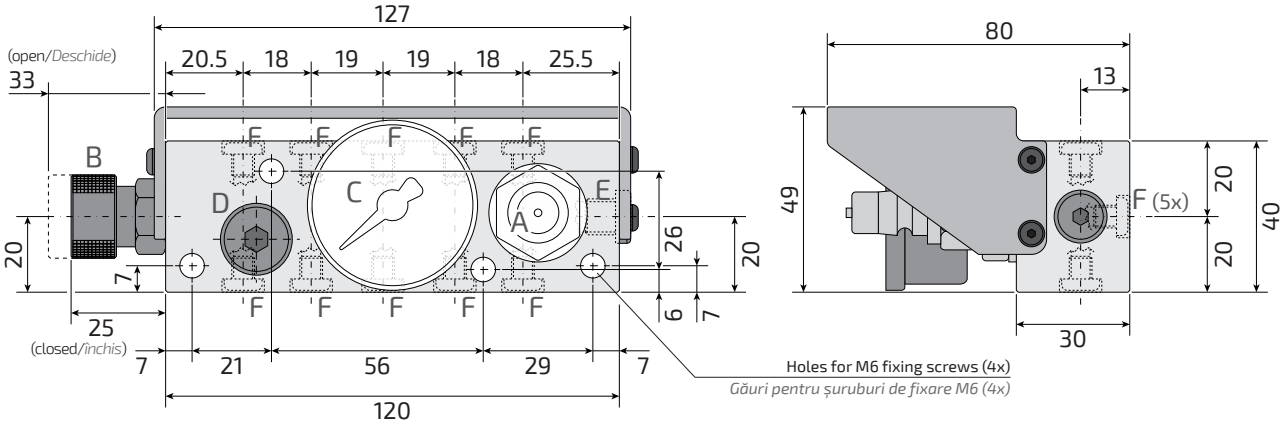
AP06CV

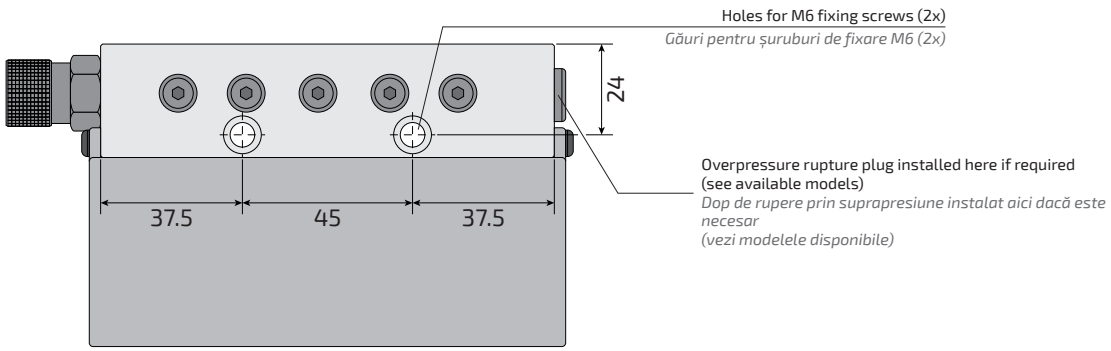
CEJN 10 358

AP06

Bordignon-standard
Standardul Bordignon

Dimensions / *Dimensiuni*

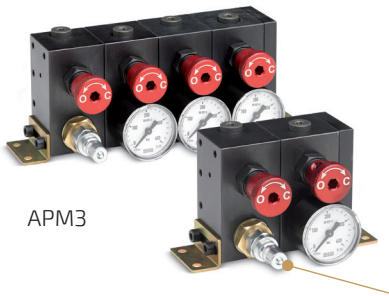




Model *Model*	Model *Model*	
AP06CV	**AP06**	Control panel (MICRO-type ports) *Panou de control (porturi de tip MICRO)*
AP06RPCV	**AP06RP**	Control panel (MICRO-type ports) with overpressure rupture plug *Panou de control (porturi de tip MICRO) cu dop de ruptură prin suprapresiune*

APM...CV / APM...
MODULAR CONTROL PANEL

APM... CV / APM... Panoul de control modular



This panel allows to charge and discharge a nitrogen gas spring, or a nitrogen gas springs system, or multiple independent nitrogen gas springs systems, and to monitor the pressure. Each module can be charged at a different pressure.

Acest panou permite încărcarea și eliberarea unui arc de gaz azot, sau a unui sistem de arcuri cu gaz azot, sau a mai multor sisteme independente de arcuri cu gaz azot, precum și monitorizarea presiunii. Fiecare modul poate fi încărcat la o presiune diferită.

Most used
Cele mai folosite

APM...CV

CEJN 10 358

APM...

Bordignon-standard
Standardul Bordignon

TECHNICAL NOTES

A **Charging valve:**
- **APM...CV**: CEJN-type, compatible with most non-Bordignon charging systems
- **APM...**: Bordignon-standard, to be used only with CUC01 or COMPL or BOOSTER

B Discharging valve

C M5 fixing hole

D Single-module charging or discharging valve (always turned off during use)

E Connection ports (G1/8)

F Each module may be connected with more nitrogen gas springs.

It allows to check the pressure of each module separately.
No limit as to the quantity of connectible modules.

⚠ ATTENTION! USE NITROGEN N_2 ONLY

NOTE TEHNICE

A ***Supapa de încărcare:***
- ***APM...CV**: Tip CEJN, compatibil cu majoritatea sistemelor de încărcare non-Bordignon*
- ***APM...**: Bordignon-standard, pentru a fi folosit doar cu CUC01 sau COMPL sau BOOSTER*

B Supapa de descărcare

C Gaura de fixare M5

D Supapă de încărcare sau descărcare cu un singur modul (întotdeauna închisă în timpul utilizării)

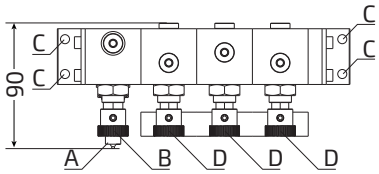
E Porturi de conexiune (G1/8)

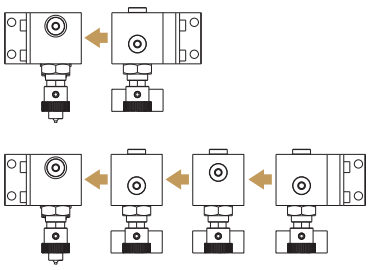
F Fiecare modul poate fi conectat cu mai multe izvoare de gaz azot.

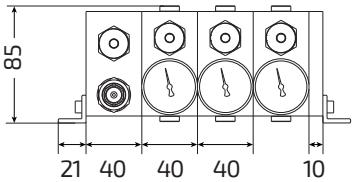
Permite verificarea presiunii fiecărui modul separat. Nu există limită pentru numărul de module conectabile.

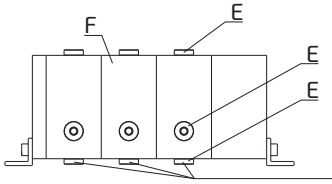
⚠ *ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2*

Dimensions / *Dimensiuni*





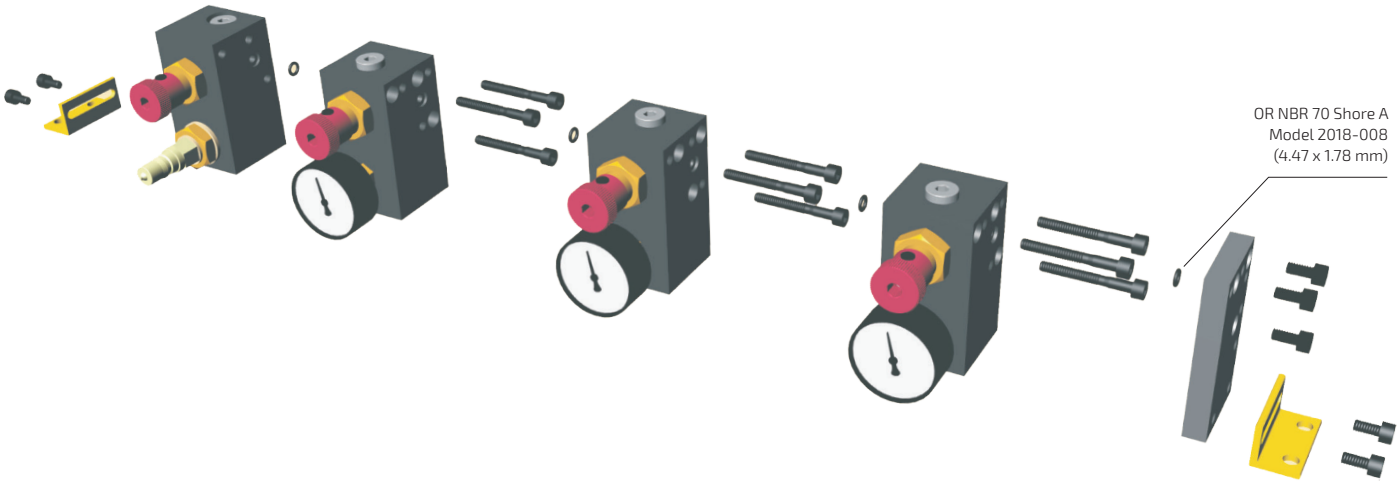




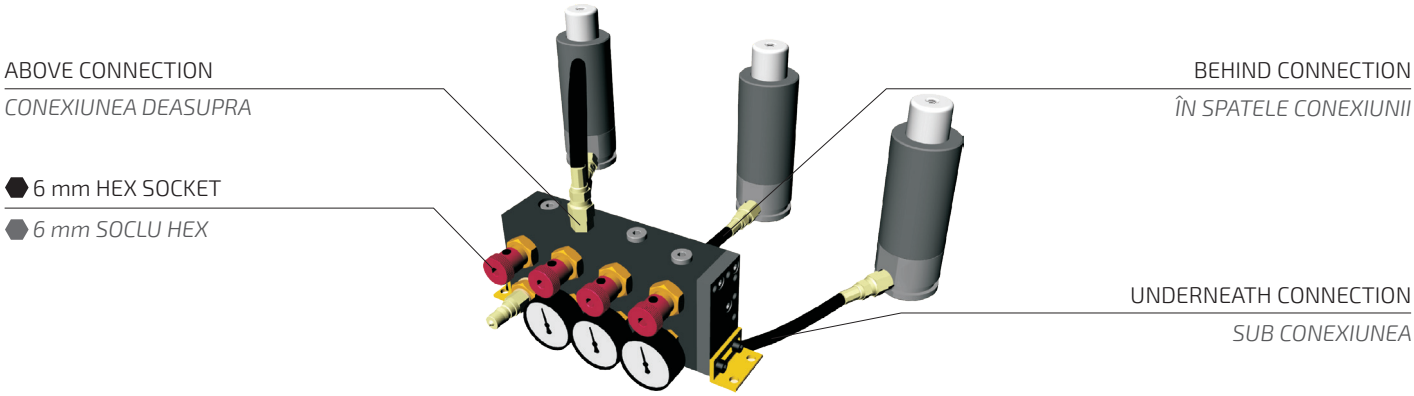
Overpressure rupture plugs (one for each module) installed here if required (see available models)
Dopuri de ruptură prin suprapresiune (câte unul pentru fiecare modul)
Instalat aici dacă este nevoie (vezi modelele disponibile)

Model *Model*	Model *Model*		Model *Model*	Model *Model*	
APM1CV	**APM1**	Control panel with 1 module *Panou de control cu 1 modul*	**APM1RPCV**	**APM1RP**	Control panel with 1 module, with overpressure rupture plug *Panou de control cu 1 modul, cu dop de rupere la suprapresiune*
APM2CV	**APM2**	Control panel with 2 modules *Panou de control cu 2 module*	**APM2RPCV**	**APM2RP**	Control panel with 2 modules, with 2 pcs. overpressure rupture plugs *Panou de control cu 2 module, cu 2 PC-uri. Dopuri de ruptură la suprapresiune*
APM3CV	**APM3**	Control panel with 3 modules *Panou de control cu 3 module*	**APM3RPCV**	**APM3RP**	Control panel with 3 modules, with 3 pcs. overpressure rupture plugs *Panou de control cu 3 module, cu 3 PC-uri. Dopuri de ruptură la suprapresiune*
APM4CV	**APM4**	Control panel with 4 modules *Panou de control cu 4 module*	**APM4RPCV**	**APM4RP**	Control panel with 4 modules, with 4 pcs. overpressure rupture plugs *Panou de control cu 4 module, cu 4 PC-uri. Dopuri de ruptură la suprapresiune*
APM...CV	**APM...**	Control panel with ... modules *Panou de control cu ... Module*	**APM...RPCV**	**APM...RP**	Control panel with ... modules, with ... pcs. overpressure rupture plugs *Panou de control cu ... module, cu ... PCS. Dopuri de ruptură la suprapresiune*

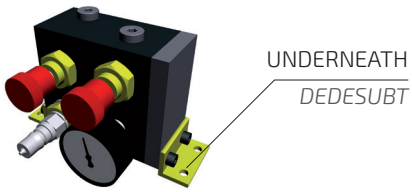
ASSEMBLY SCHEME / ***SCHEMA DE ASAMBLARE***

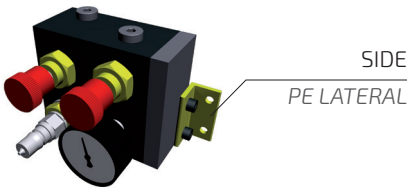


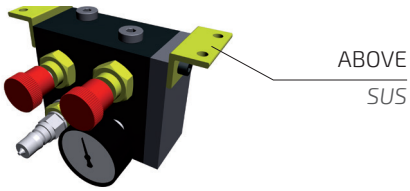
VARIOUS POSSIBILITIES FOR CONNECTING THE NITROGEN GAS SPRINGS / ***DIVERSE POSIBILITĂȚI DE CONECTARE A IZVOARELOR CU ARCURI CU GAZ DE AZOT***



FIXING POSSIBILITIES / ***POSIBILITĂȚI DE FIXARE***







SAFETY PRESSURE SWITCHES

Comutatoare de presiune de siguranță

DIGITAL *Digital*

Digital pressure switch that can be set from 4 to 400 bar, available for the assembly on control panels.

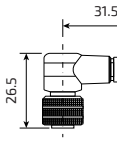
Comutator de presiune digital care poate fi setat de la 4 la 400 bar, disponibil pentru asamblare pe panourile de control.

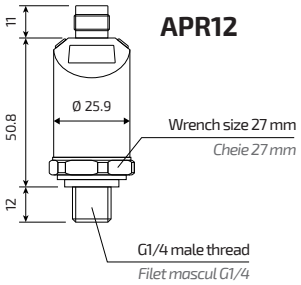
TECHNICAL NOTES

- No. 2 PNP transistor switching outputs
- Switching current: max 250 mA per output
- Technical data sheet on request

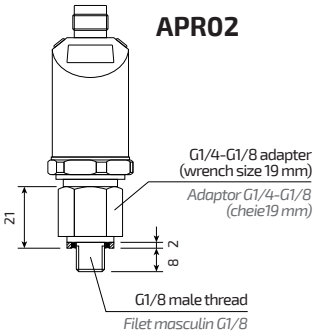
NOTE TEHNICE

- *Ieșiri de comutare a tranzistorului PNP nr. 2*
- *Curent de comutare: maxim 250 mA pe ieșire*
- *Fișă tehnică la cerere*



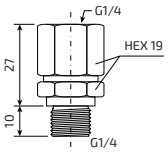


TIGHTENING TORQUE 25-30 Nm
CUPLU DE STRÂNGERE 25-30 Nm



TIGHTENING TORQUE 20-25 Nm
CUPLU DE STRÂNGERE 20-25 Nm

Model *Model*	Thread *Fir de ață*
APR02	G1/8
APR12	G1/4



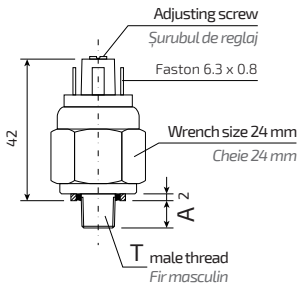
Model *Model*
RGV14

Swivel fitting for pressure switch orientation (for APR02 model: install between pressure switch body and G1/4-G1/8 adapter - see drawing)
Potrivire pivotantă pentru orientarea întrerupătorului de presiune (pentru modelul APR02: instalare între corpul întrerupătorului de presiune și adaptorul G1/4-G1/8 - vezi desenul)

ANALOG *Analog*

Pressure switches, which can be set from 50 to 150-300 bar depending on model, available for the assembly on control panels.

Comutatoare de presiune, care pot fi setate între 50 și 150-300 bar, în funcție de model, sunt disponibile pentru asamblare pe panourile de control.



Model *Model*	T	Tightening torque *Cuplu de strângere* Nm	A mm	Range *Areal* bar	Type *Tip*	MAX voltage *Tensiunea MAX*	MAX current *Curent MAX*
APR01A	G1/8	20-25	8	50-150	Normally open *De obicei deschis*	48V ac/dc	0.5 A
APR01AN	G1/8	20-25	8	50-300	Normally open *De obicei deschis*	48V ac/dc	0.5 A
APR11A	G1/4	25-30	10	50-150	Normally open *De obicei deschis*	48V ac/dc	0.5 A
APR11AN	G1/4	25-30	10	50-300	Normally open *De obicei deschis*	48V ac/dc	0.5 A

SAFETY VALVE

Supapa de siguranță

Overpressure safety valve, available for the assembly on control panels.

Supapa de siguranță peste presiune, disponibilă pentru asamblare pe panourile de control.

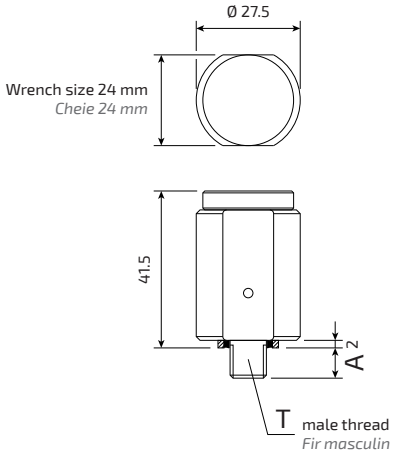
TECHNICAL NOTES

- Nominal activation pressure: 500 bar
- In case of valve activation, contact Bordignon for reparation

NOTE TEHNICE

- *Presiunea nominală de activare: 500 bar*
- *În caz de activare a supapei, contactați Bordignon pentru reparații*

Dimensions / *Dimensiuni*



Model *Model*	T	Tightening torque *Cuplu de strângere* Nm	A mm
VS500	G1/8	20-25	8
VS500-1/4	G1/4	25-30	10

DISTRIBUTION BLOCKS

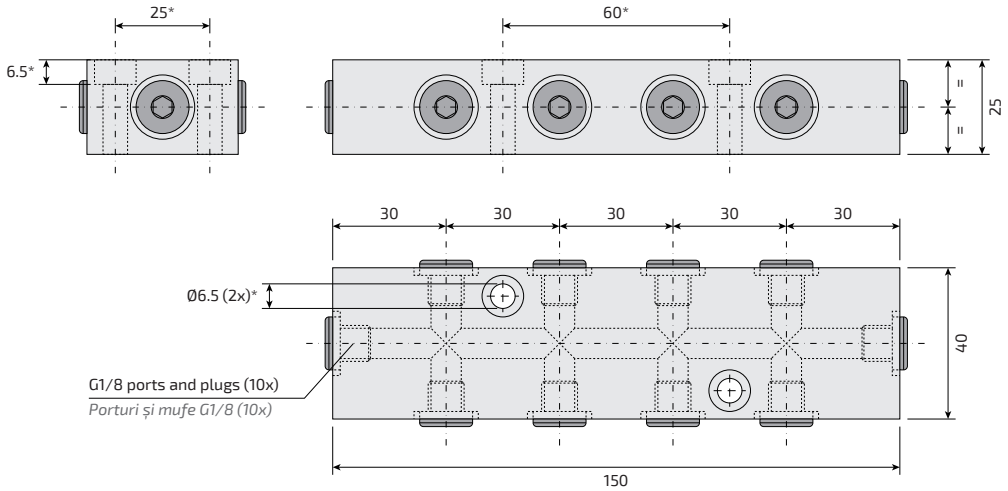
Blocuri de distribuție

The distribution blocks allow several gas springs to be connected in a battery.
Each block can connect several gas springs equipped with side port, and several blocks can be interconnected.
Choose the proper fittings for hose connection.

Blocurile de distribuție permit conectarea mai multor arcuri de gaz într-o baterie.
Fiecare bloc poate conecta mai multe arcuri de gaz echipate cu port lateral, iar mai multe blocuri pot fi interconectate.
Alege racordurile potrivite pentru conexiunea furtunului.

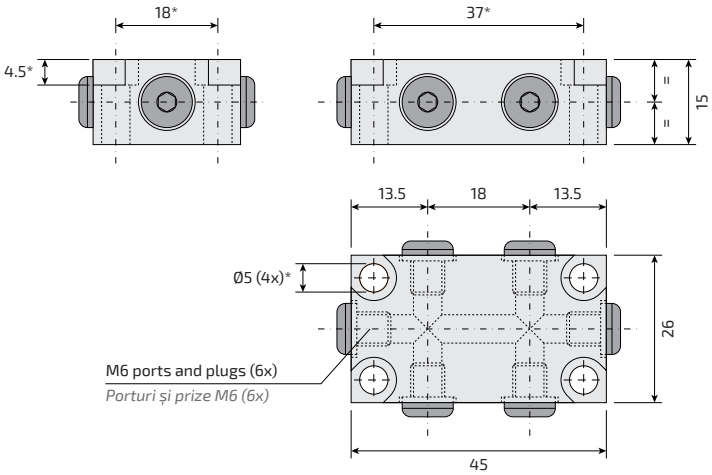
Dimensions / *Dimensiuni*

Model *Model*
AD00



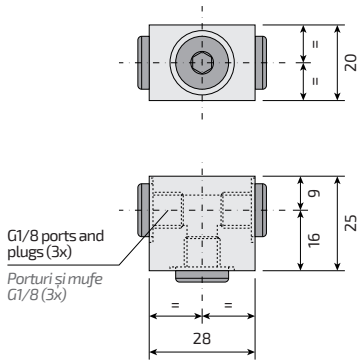
* For M6 fixing screws (2x) / *Pentru șuruburi de fixare M6 (2x)*

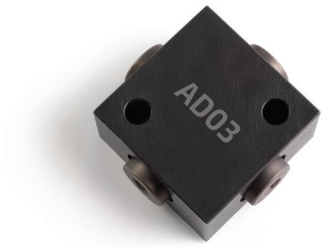
Model *Model*
AD01



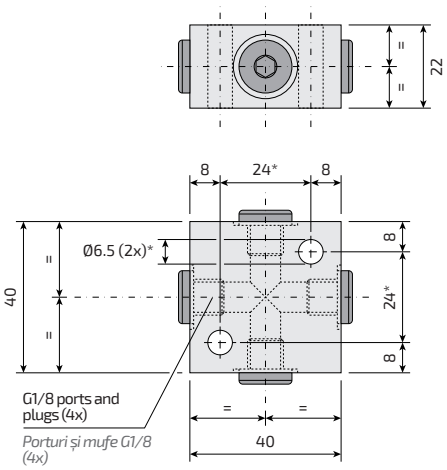
* For M4 fixing screws (4x) / *Pentru șuruburi de fixare M4 (4x)*

Model *Model*
AD02



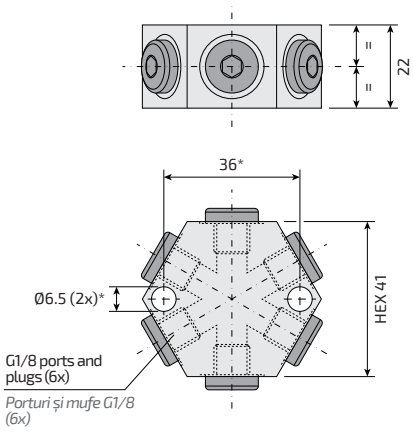


Model *Model*
AD03



* For M6 fixing screws (2x) / *Pentru șuruburi de fixare M6 (2x)*

Model *Model*
AD04

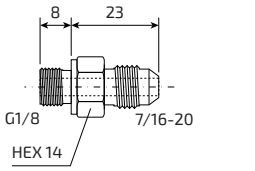


* For M6 fixing screws (2x) / *Pentru șuruburi de fixare M6 (2x)*

FITTINGS for CONNECTING SEVERAL DISTRIBUTION BLOCKS

Accesorii pentru conectarea mai multor blocuri de distribuție

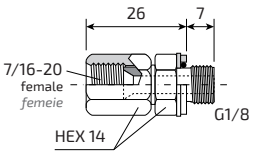
Model *Model*
AR000



TIGHTENING TORQUE 20-25 Nm
CUPLU DE STRÂNGERE 20-25 Nm

(only for AD00 with G1/8 ports)
(doar pentru AD00 cu porturi G1/8)

Model *Model*
AR000G



TIGHTENING TORQUE 20-25 Nm
CUPLU DE STRÂNGERE 20-25 Nm

(only for AD00 with G1/8 ports)
(doar pentru AD00 cu porturi G1/8)

CHARGING and DISCHARGING set

Set de încărcare și descărcare

Complete series of charging unit, charging adapters and discharging devices, for both self-contained gas springs and control panels.

Serie completă de unități de încărcare, adaptoare de încărcare și dispozitive de descărcare, atât pentru arcuri de gaz autonome, cât și pentru panouri de control.

Model *Model*
COMPL

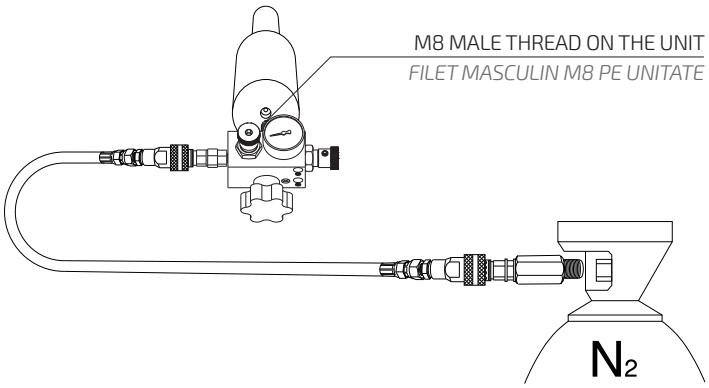
CHARGING UNIT

Unitate de încărcare

This device allows to charge Bordignon self-contained gas springs and control panels with nitrogen gas.

Acest dispozitiv permite încărcarea arcurilor gazoase autonome și panourilor de control Bordignon cu gaz azot.

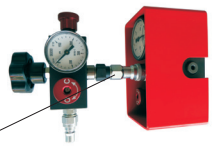
Specifications / *Specificații*



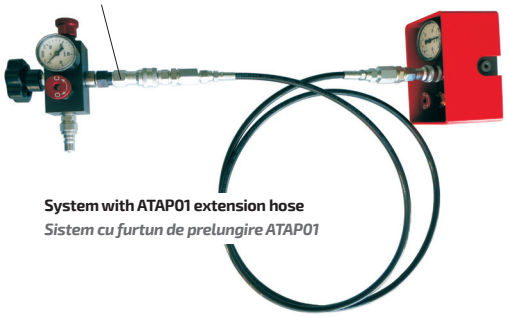
Model *Model*
CUC01

Model (optional) *Model (opțional)*	
ATAP01	Extension hose (length: 2 metres) for an easier charging of control panels *Furtun de extensie (lungime: 2 metri) pentru încărcarea mai ușoară a panourilor de control*

Standard system (direct connection of charging unit CUC01 to control panel)
Sistem standard (conectare directă a unității de încărcare CUC01 la panoul de control)



(AN-1/4 charging adapter for control panels)
(Adaptor de încărcare AN-1/4 pentru panourile de control)



System with ATAP01 extension hose
Sistem cu furtun de prelungire ATAP01

CHARGING ADAPTERS

Adaptoare de încărcare

Adapters for the nitrogen gas springs charging unit (only for gas springs with charging hole different from M8). Gas springs with charging hole M8 (not listed in table below) must be charged with CUC01 unit with no adapter.

Adaptoare pentru unitatea de încărcare a arcurilor cu gaz de azot (doar pentru arcurile cu gaz cu orificiu de încărcare diferit de M8). Arcurile cu gaz cu orificiu de încărcare M8 (care nu sunt listate în tabelul de mai jos) trebuie încărcate cu unitatea CUC01 fără adaptor.

	Model *Model*	**For gas spring models...** *Pentru modelele cu arcuri pe gaz...*	**Control panels** *Panouri de control*
M4 M8	**AN-M4**	EGS16, TGS700	-
M5 M8	**AN-M5**	EGS24	-
M6 M8	**AN-M6**	AGS170-AGS320, TGS400, VGS (all models), VV170, VV320-63/63H, VV320-80, VV500, VV565	-
M6 M8	**AN-M6/2**	AGS350~AGS2400, IGS150-IGS250, PGS300-PGS500, VV2385	-
G1/8 M8	**AN-1/8**	AGS4200~AGS20000, IGS500~IGS10000, LGS500, PGS750~PGS20000, VV750, VV2945	-
Quick coupling *Cuplaj rapid* M8	**AN-1/4**	-	All models except "CV" versions *Toate modelele, cu excepția versiu-nilor "CV"*

DISCHARGING DEVICES

Dispozitive de descărcare

Devices for discharging the nitrogen gas springs.

Dispozitive pentru descărcarea arcurilor de gaz de azot.

	Model *Model*	**For gas spring models...** *Pentru modelele cu arcuri pe gaz...*	**Control panels** *Panouri de control*
M4	**ADS-M4/2**	TGS700	-
M4	**ADS-M4/3**	EGS16	-
M5	**ADS-M5/2**	EGS24	-
M6	**ADS-M6**	TGS400	-
M6	**ADS-M6/2**	AGS170-AGS320	-
M6	**ADS-M6/3**	AGS350~AGS20000, IGS (all models), LGS500, PGS (all models), VV750, VV2385, VV2945	-
M6	**ADS-M6/4**	VGS (all models), VV170, VV320-63/63H, VV320-80, VV500, VV565	-
M8	**ADS-M8**	TGS1000~TGS20000	-

BOOSTER for NITROGEN N_2

Booster pentru azot N_2

The Bordignon Booster is a pneumatic pump. By using compressed air, it increases the nitrogen N_2 pressure during the charging operation of gas springs for dies, in a safe and very precise way. Light and compact, the Bordignon Booster has a low compressed air consumption, resulting in savings of time and costs.

Bordignon Booster este o pompă pneumatică. Prin utilizarea aerului comprimat, aceasta crește presiunea de azot N_2 în timpul funcționării de încărcare a arcurilor gazoase pentru matrițe, într-un mod sigur și foarte precis. Ușor și compact, Bordignon Booster are un consum scăzut de aer comprimat, ceea ce duce la economii de timp și costuri.

USE INSTRUCTIONS

- Connect nitrogen N_2 tank (pressure: minimum 20 bar / maximum 220 bar) to the Booster (it's necessary to have the hose model ATBOOSTER).
- Connect Booster to the nitrogen gas spring (it's necessary to have the charging set mod. COMPL).
- Connect the compressed air (max pressure 8 bar; use lubricated air when working continuously for more than 30 minutes).
- Turn off the discharging valve.
- Turn on the charging valve of the Booster.
- Turn on the compressed air and slowly turn on nitrogen N_2 tank.
- When the nitrogen gas spring has reached the required pressure, turn the charging valve off, turn on discharging valve and disconnect the nitrogen gas spring.
- Once finished, turn off both the compressed air and the nitrogen N_2 tank.

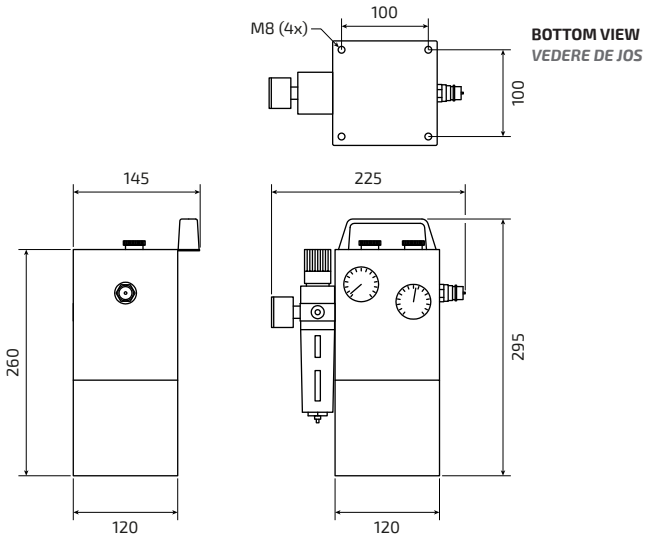
INSTRUCȚIUNI DE UTILIZARE

- *Conectează rezervorul de azot N_2 (presiune: minim 20 bar / maxim 220 bar) la Booster (este necesar să ai furtunul model ATBOOSTER).*
- *Conectează Booster-ul la izvorul de gaz azot (Este necesar să ai mod-ul setului de încărcare. COMPL).*
- *Conectează aerul comprimat (presiune maximă 8 bar; folosiți aer lubrifiat când lucrați continuu mai mult de 30 de minute).*
- *Închide supapa de evacuare.*
- *Pornește supapa de încărcare a Booster-ului.*
- *Pornește aerul comprimat și activează încet rezervorul de azot N_2.*
- *Când arcul cu arcuri cu gaz de azot a atins presiunea necesară, închideți supapa de încărcare, porniți supapa de descărcare și deconectați arcul de gaz cu azot.*
- *După ce ai terminat, oprește atât aerul comprimat, cât și rezervorul de azot N_2.*

⚠ ATTENTION! USE NITROGEN N_2 ONLY

⚠ *ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2*

Dimensions / *Dimensiuni*



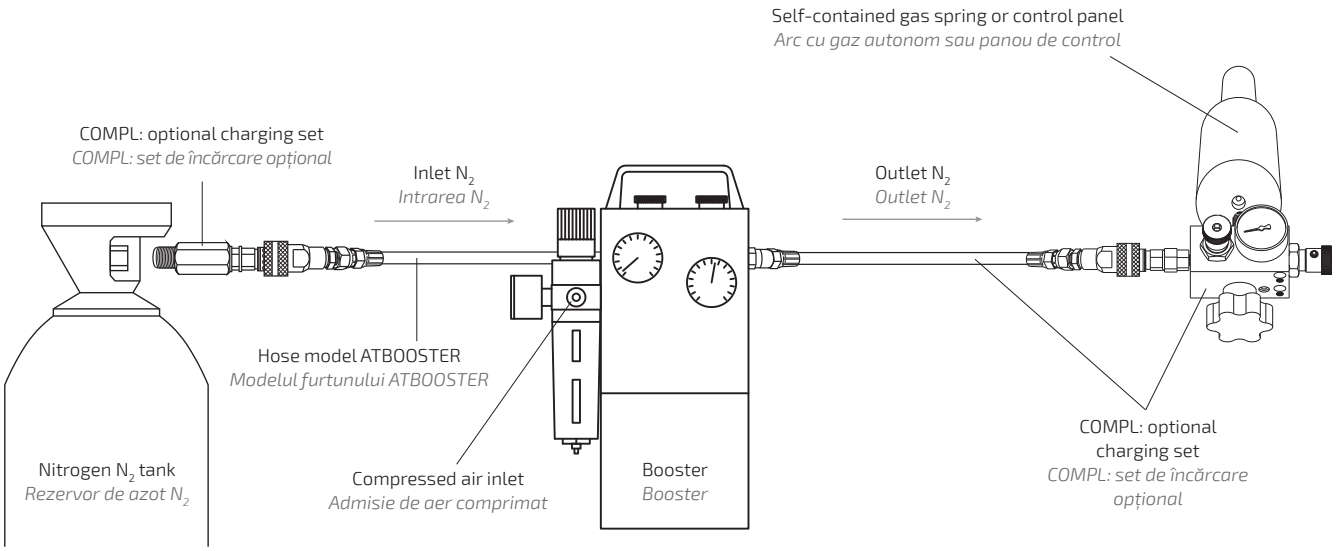
Model *Model*	Weight (kg) *Greutate (kg)*
BOOSTER	9.5

COMPONENTS / *COMPONENTE*

The support for on-tank installation is always supplied together with the BOOSTER as a separate component. To install it on the BOOSTER: unscrew the handle, fit the support, screw the handle back on.

Suportul pentru instalarea în rezervor este întotdeauna furnizat împreună cu BOOSTER-ul ca componentă separată. Pentru a-l monta pe BOOSTER: desfiletează mânerul, montează suportul, înșurubează mânerul la loc.

OPERATING SCHEME / *SCHEMA DE OPERARE*



MAX reachable outlet nitrogen pressure in relation to the compressed air pressure

MAX presiunea de azot la ieșire în raport cu presiunea aerului comprimat

Compressed air pressure (bar) *Presiunea aerului comprimat (bar)*	7	4	2
N_2 max outlet pressure (bar) *N_2 presiunea maximă la priză (bar)*	220	125	60

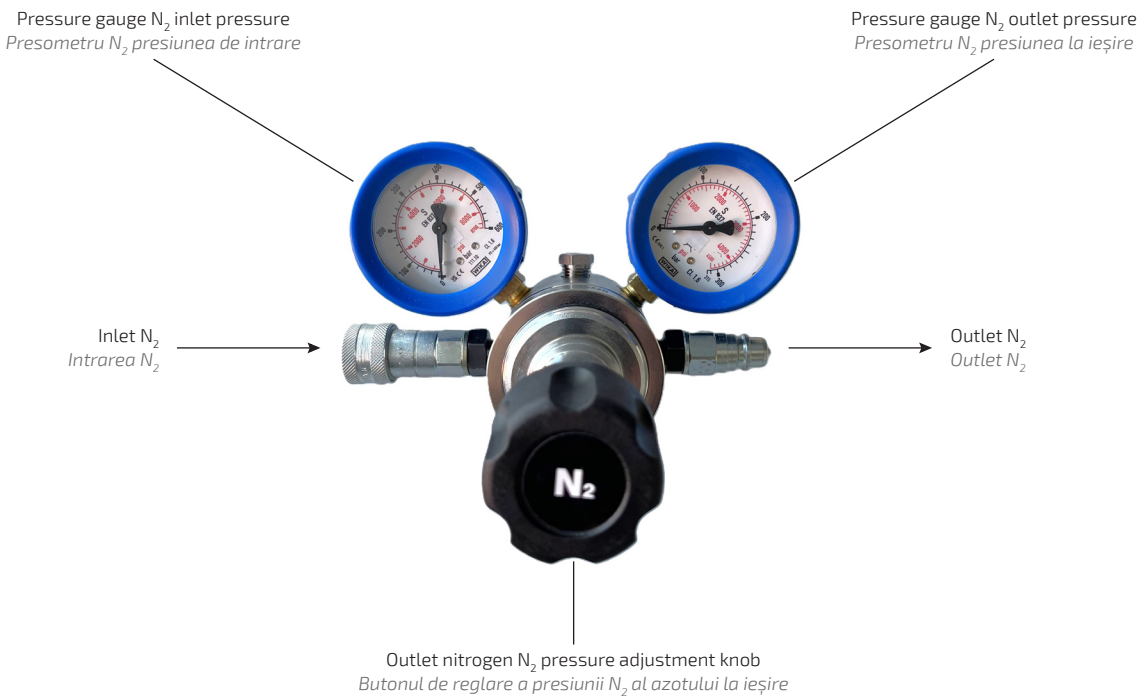
PRESSURE REGULATOR

Regulator de presiune

Pressure regulator for nitrogen N_2 gas.

Regulator de presiune pentru gaz azot N_2.

Specifications / *Specificații*



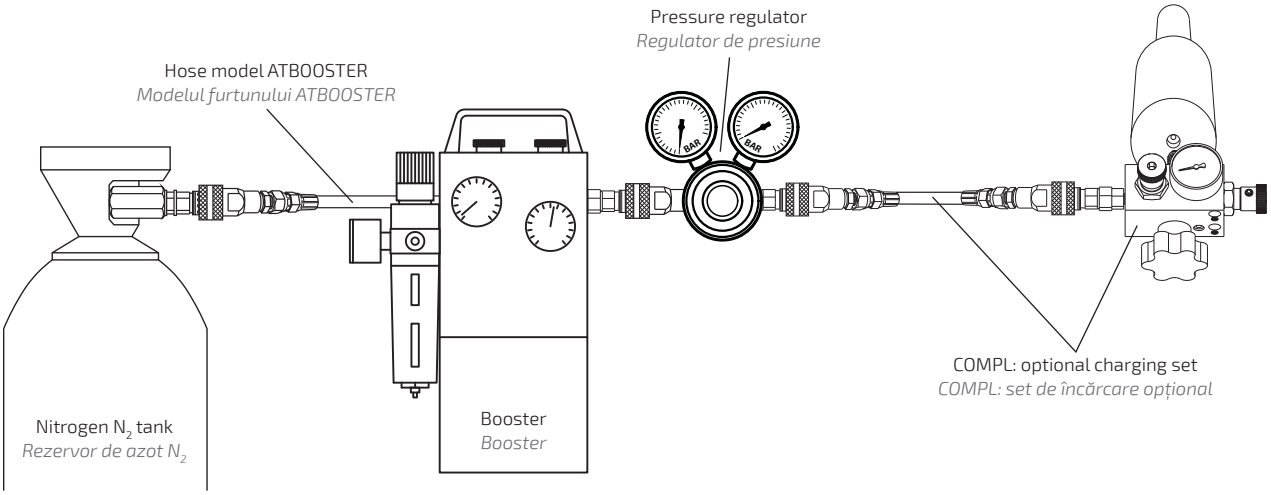
Model ***Model***	**MAX inlet N_2 pressure** ***Presiunea MAX de admisie N_2*** bar	**Outlet range pressure** ***Presiunea intervalului de ieșire*** bar	**Inlet** ***Intrare***	**Outlet** ***Outlet***
REG220	300	20-220	Bordignon-standard quick coupling (female) *Cuplu rapid Bordignon standard (femeie)*	Bordignon-standard quick coupling (male) *Cuplu rapid Bordignon standard (masculin)*

⚠ ATTENTION! USE NITROGEN N_2 ONLY

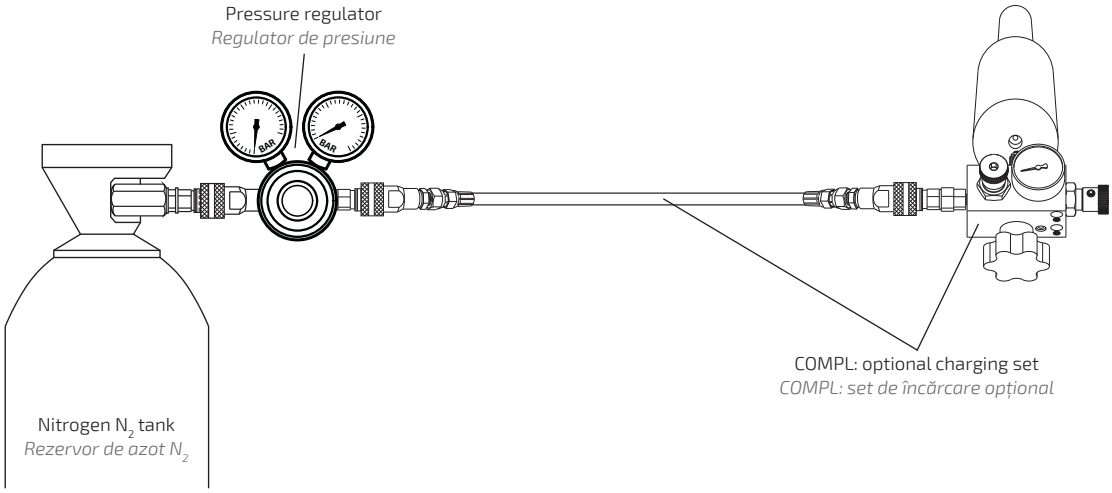
⚠ *ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2*

USE EXAMPLES / ***FOLOSIȚI EXEMPLE***

Pressure regulator on Booster outlet
Regulator de presiune la ieșirea booster-ului



Pressure regulator on nitrogen N_2 tank
Regulator de presiune pe rezervorul de azot N_2



OV GAS SPRING SYSTEM (ALTERNATIVE MANIFOLD)

Sistemul de arcuri gazoase OV (varietate alternativă)

Valveless nitrogen gas springs for an **alternative manifold connection ("OV system")**:

- Use of standard gas springs, fast delivery!
- Lower manufacturing and maintenance costs than traditional manifold plates and dedicated manifold gas springs
- More compact plate dimensions
- Simple gas spring fixing with through-plate screws
- OV gas springs available strokes, dimensions, and the other specifications not listed on the next page, are the same as the corresponding standard models (example: the unlisted specifications of model AGS1000-50-A-OV are the same as model AGS1000-50-A)

*Arcuri de azot fără supapă pentru o **conexiune alternativă a colectorului ("sistem OV")**:*

- *Folosirea arcurilor standard cu gaz, livrare rapidă!*
- *Costuri de fabricație și întreținere mai mici decât plăcile tradiționale ale colectorului și arcurile dedicate pentru gaze*
- *Dimensiuni ale plăcii mai compacte*
- *Fixare simplă a arcurilor pe gaz cu șuruburi prin placă*
- *Cursele disponibile, dimensiunile și celelalte specificații care nu sunt listate pe pagina următoare sunt aceleași cu modelele standard corespunzătoare (exemplu: specificațiile nelistate ale modelului AGS1000-50-A-OV sunt aceleași ca ale modelului AGS1000-50-A)*

TECHNICAL NOTES

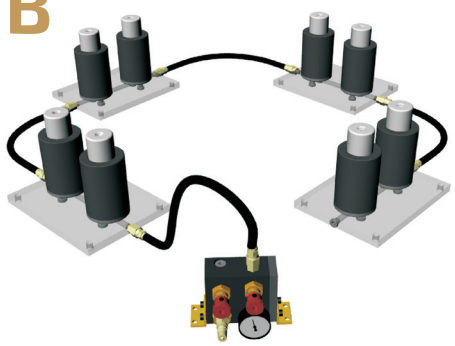
- **OV gas springs use instructions:**
  - Mounting instructions on the next page
  - Use instructions, information and catalogue help: see dedicated catalogue section
  - Cycles per minute MAX: see specifications tables for the corresponding standard model
- Plate material requirements:
  - Resilience KV ≥ 27 J (at 0°C)
  - Elongation at break A ≥ 14%
  - Respect national regulations about pressure equipment
- Minimum plate thickness = 25 mm

NOTE TEHNICE

- ***Instrucțiuni de utilizare pentru arcurile gazoase OV:***
  - Instrucțiuni de montare pe pagina următoare
  - Folosește instrucțiunile, informațiile și ajutorul pentru catalog: vezi secțiunea dedicată catalogului
  - Cicluri pe minut MAX: vezi tabelele de specificații pentru modelul standard corespunzător
- *Cerințe privind materialul plăcilor:*
  - Rezistență KV ≥ 27 J (la 0°C)
  - Alungirea la ruperea A ≥ 14%
  - Respectați reglementările naționale privind echipamentele de presiune
- *Grosimea minimă a plăcii = 25 mm*

A

B



USE EXAMPLES

A OV gas springs and OV control panel fixed on a single low-thickness plate, without connection hoses.

B OV gas springs fixed on smaller plates connected by hoses, and standard control panel connected by hose.

FOLOSIȚI EXEMPLE

A *Arcurile gazoase OV și panoul de control OV sunt fixate pe o singură placă cu grosime mică, fără furtunuri de conexiune.*

B *Arcurile de gaz OV fixate pe plăci mai mici conectate prin furtunuri și panoul de control standard conectat prin furtun.*

OV CONTROL PANELS & OTHER ACCESSORIES FOR OV SYSTEM

See further on in this catalogue.

PANOURI DE CONTROL OV & ALTE ACCESORII PENTRU SISTEMUL OV

Vezi mai departe în acest catalog.

OV GAS SPRINGS

Arcuri gazoase OV

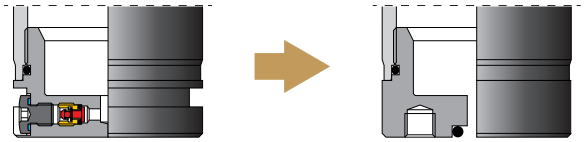
This gas spring series includes the models compliant with automotive standards / *Serie de arcuri cu gaz conforme standardelor auto*

VW 39D 22100

GENERAL FEATURES / *CARACTERISTICI GENERALE*

In comparison with the corresponding standard models, OV gas springs are valveless (no side port), they have a bottom hole for direct connection (OR-sealed) to manifold plate, and they do not feature the bottom (square) groove.

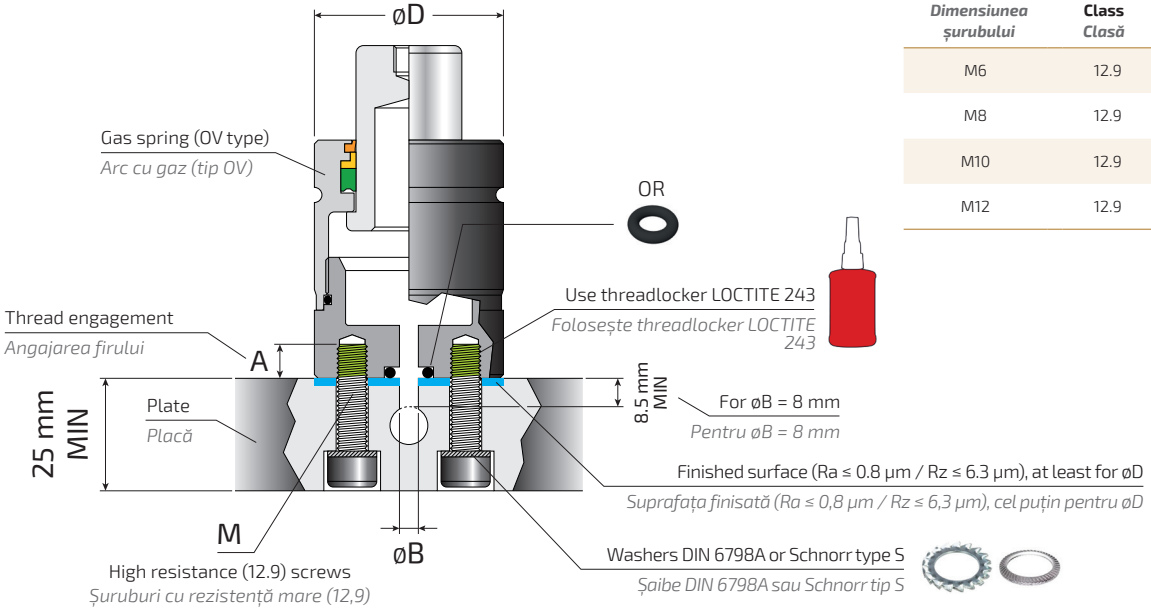
În comparație cu modelele standard corespunzătoare, arcurile gazoase OV sunt fără supapă (fără port lateral), au un orificiu inferior pentru conectare directă (sigilat OR) la placa colectorului și nu au canelul inferior (pătrat).



Standard model
Model standard

Corresponding OV model
Modelul OV corespunzător

MOUNTING AND TECHNICAL SPECIFICATIONS / *MONTARE ȘI SPECIFICAȚII TEHNICE*



Screw size *Dimensiunea șurubului*	**Class** *Clasă*	**Tightening torque** *Cuplu de strângere*
M6	12.9	10.5 Nm
M8	12.9	26 Nm
M10	12.9	51 Nm
M12	12.9	89 Nm

Models *Modele*	**Ø D (MIN)** mm	**Ø B ± 0.1** mm	**M** ●	**A** ● mm	**OR** ● **NBR 90 Sh. A**
AGS 350-...-A-**OV**	32	5	M6	6	2025-010 (6.07 x 1.78)
AGS 500-...-A-**OV**	38	5	M6	6	2025-010 (6.07 x 1.78)
AGS 750-...-A-**OV**	45	5	M8	6	2025-010 (6.07 x 1.78)
AGS 1000-...-A-**OV**	50	5	M8	6	2025-010 (6.07 x 1.78)
AGS 1200-...-A-**OV**	50	5	M8	6	2025-010 (6.07 x 1.78)
AGS 1500-...-A-**OV**	63	5	M8	6	2025-010 (6.07 x 1.78)
AGS 2400-...-A-**OV**	75	5	M8	6	2025-010 (6.07 x 1.78)
AGS 4200-...-A-**OV**	95	8	M8	12	112-613 (9.92 x 2.62)
AGS 6600-...-A-**OV**	120	8	M10	12	112-613 (9.92 x 2.62)
AGS 9500-...-A-**OV**	150	8	M10	16	112-613 (9.92 x 2.62)
AGS 20000-...-A-**OV**	195	8	M12	18	112-613 (9.92 x 2.62)

● Number and layout of the threaded holes on the gas springs base: see corresponding standard models.
Numărul și dispunerea găurilor filetate pe Baza GazSprings: Vezi modelele standard corespunzătoare.

● The thread engagement length **A** is the maximum available thread depth. Do not use thread engagement lengths < **A**.
*Lungimea de angajare a firului **A** este maxima disponibilă Adâncimea firului. Nu folosiți lungimile de angajare a firului < **A**.*

● 1 pc. OR is supplied with each OV gas spring
1 PC. OR este furnizat cu fiecare arc gazos OV

APV...CV / APV...
CONTROL PANEL FOR OV SYSTEM

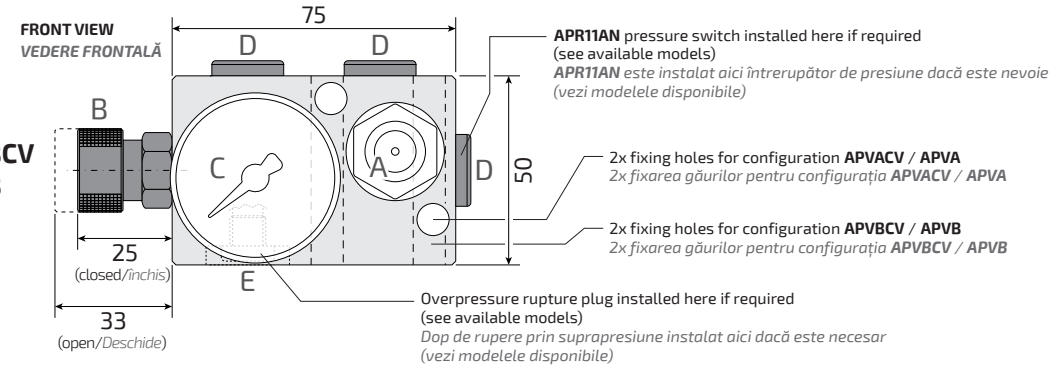
APV... CV / APV... Panou de control pentru sistemul OV

This panel allows to charge and discharge a manifold plate ("OV system" or other) using a direct-coupling to the plate (no need for hoses).

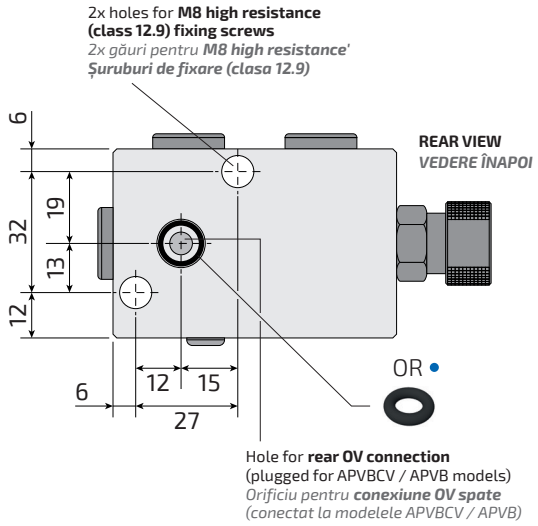
Acest panou permite încărcarea și descărcarea unei plăci de colector ("sistem OV" sau altceva) folosind o cuplare directă la placă (fără a fi nevoie de furtunuri).

CONFIGURATIONS AND DIMENSIONS / *CONFIGURAȚII ȘI DIMENSIUNI*

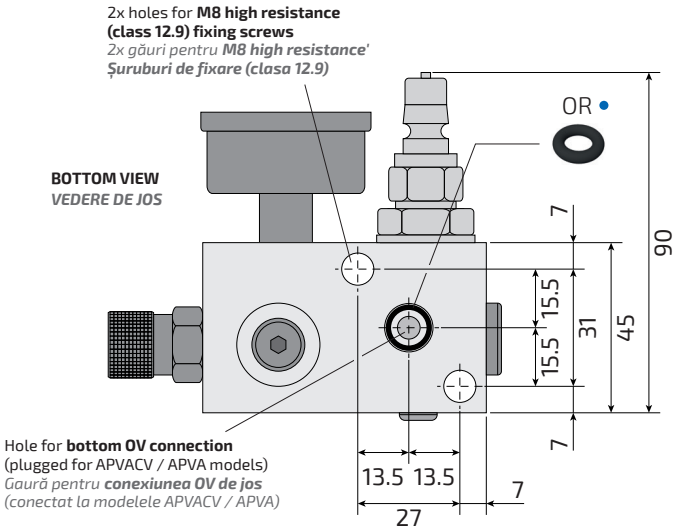
APVACV / APVBCV
APVA / APVB



Configuration for model APVACV / APVA
Configurație pentru modelul APVACV / APVA



Configuration for model APVBCV / APVB
Configurație pentru modelul APVBCV / APVB



Model *Model*	Model *Model*	
APVACV	**APVA**	Control panel for OV system with **rear** direct-connection to plate *Panou de control pentru sistemul OV cu conexiune directă **spate** la placă*
APVBCV	**APVB**	Control panel for OV system with **bottom** direct-connection to plate *Panou de control pentru sistemul OV cu conexiune directă **bottom** la placă*
APVAPANCV **APVBPANCV**	**APVAPAN** **APVBPAN**	Control panel for OV system with APR11AN pressure switch (50-300 bar normally open) *Panoul de control pentru sistemul OV cu APR11AN întrerupător de presiune (50-300 bar, în mod normal deschis)*
APVARPCV **APVBRPCV**	**APVARP** **APVBRP**	Control panel for OV system with overpressure rupture plug *Panou de control pentru sistemul OV cu dop de ruptură suprapresiune*
APVAFCV **APVBFCV**	**APVAF** **APVBF**	Control panel for OV system with APR11AN pressure switch (50-300 bar normally open) and with overpressure rupture plug *Panou de control pentru sistemul OV cu APR11AN întrerupător de presiune (50-300 bar, de obicei deschis) și cu dop de rupere la suprapresiune*

All models are available with safety valve VS500 already assembled (on request). / *Toate modelele sunt disponibile cu supapa de siguranță VS500 deja asamblată (la cerere).*

Most used
Cele mai folosite

APV...CV

CEJN 10 358

APV...

Bordignon-standard
Standardul Bordignon

TECHNICAL NOTES

A **Charging valve:**
- **APV...CV**: CEJN-type, compatible with most non-Bordignon charging systems
- **APV...**: Bordignon-standard, to be used only with CUC01 or COMPL or BOOSTER

B Discharging valve
C Pressure gauge
D No. 3 connection ports G1/4
E No. 1 connection port G1/8
- The connection ports are plugged
- No. 2 fixing holes for M8 high resistance (12.9) hex-socket screws

ATTENTION! USE NITROGEN N_2 ONLY

NOTE TEHNICE

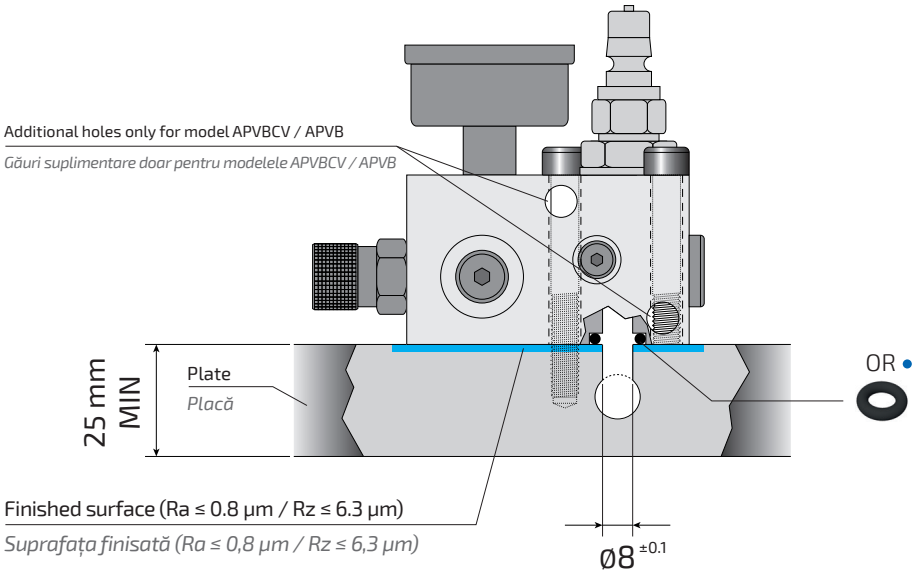
A ***Supapa de încărcare:***
- ***APV...CV***: *Tip CEJN, compatibil cu majoritatea sistemelor de încărcare non-Bordignon*
- ***APV...***: *Bordignon-standard, pentru a fi folosit doar cu CUC01 sau COMPL sau BOOSTER*

B Supapa de descărcare
C Manometru
D Porturile de conexiune nr. 3 G1/4
E Portul de conexiune nr. 1 G1/8
- *Porturile de conexiune sunt blocate*
- *Găurile de fixare nr. 2 pentru șuruburile hexagonale M8 cu rezistență înaltă (12.9)*

ATENȚIE! FOLOSEȘTE DOAR AZOTUL N_2

APVACV / APVA MOUNTING
MONTAREA APVACV / APVA

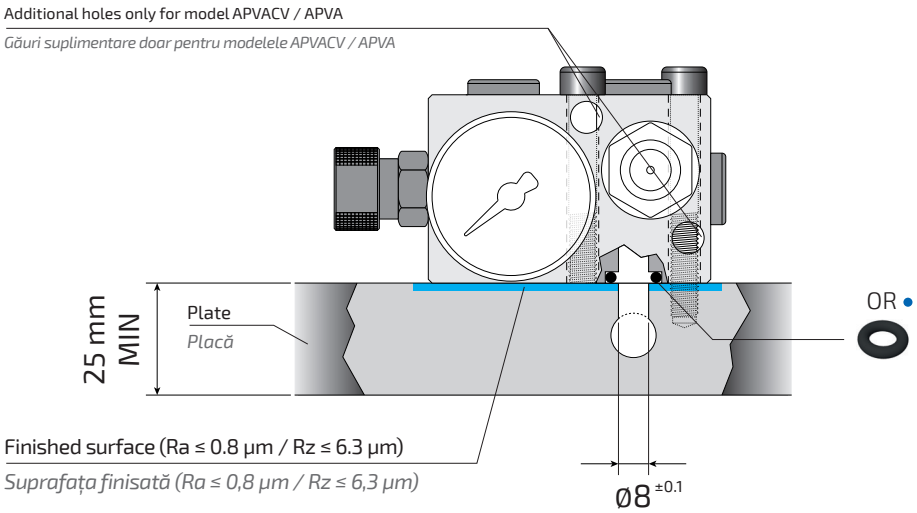
APVACV / APVA



- 1 pc. OR NBR 90 Shore A model 2037-012 (9.25 x 1.78 mm) is supplied with the control panel / *1 PC. OR NBR 90 Shore A modelul 2037-012 (9,25 x 1,78 mm) este furnizat cu panoul de control*

APVBCV / APVB MOUNTING
MONTAREA APVBCV / APVB

APVBCV / APVB



- 1 pc. OR NBR 90 Shore A model 2037-012 (9.25 x 1.78 mm) is supplied with the control panel / *1 PC. OR NBR 90 Shore A modelul 2037-012 (9,25 x 1,78 mm) este furnizat cu panoul de control*

HOSE CRIMPING DEVICE

Dispozitiv de sertizare a furtunurilor

Portable hand-operated hose crimping device designed for Bordignon fittings and hoses. Lightweight, compact, and easy to use, it is ideal for carrying out on-site operations. Supplied complete with accessories and use instructions.

Dispozitiv portabil de sertizare manuală a furtunurilor, proiectat pentru fitinguri și furtunuri Bordignon. Ușor, compact și ușor de folosit, este ideal pentru desfășurarea operațiunilor la fața locului. Livrat complet cu accesorii și instrucțiuni de utilizare.

Model *Model*	**Weight (kg)** *Greutate (kg)*	**Dimensions ↔ × ↗ × ↕ (mm)** *Dimensiuni ↔ × ↗ × ↕ (mm)*
CR01M	23	330 x 490 x 210

HCA

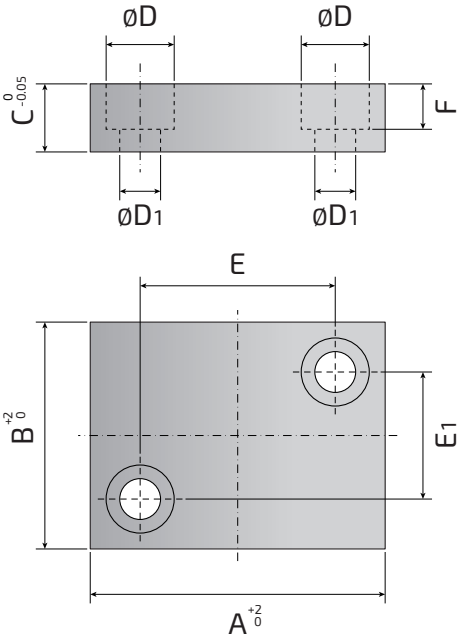
VDI

VDI 3003

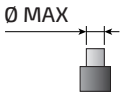
This series includes the models compliant with automotive standards /
Serie include modele conforme standard auto

BMW	**MB**	**VW**
FCA	**Renault**	**Volvo**

Counter plate / *Placă de lucru*

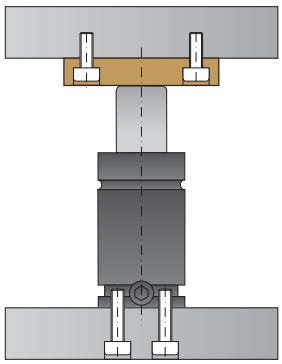


Hardened steel
Oțel călit



Model *Model*	Reference to Standards *Referință la standarde*	A mm	B mm	C mm	Ø D mm	Ø D1 mm	E mm	E1 mm	F mm	For gas springs with piston rod diameter MAX *Pentru arcurile cu gaz cu diametrul tijei pistonului MAX* mm
HCA 4040A	VDI 3003, FCA	40	40	15	15	9	21	21	10	20
4040B	BMW, VW	40	40	12	11	7	24	24	7	20
4040C	-	40	40	15	11	7	24	24	7	20
5656	FCA, Renault	56	56	20	18	11	32	32	13	36
6060A	BMW, VW	60	60	15	15	9	40	40	9	36
6060B	MB	60	60	12	14	9	38	38	9	36
7070	VDI 3003, BMW, VW	70	70	15	15	9	50	50	9	60
7171	FCA	71	71	20	18	11	48	48	13	60
8080	Volvo	80	80	16	15	9	62	0	10	65
9090A	-	90	90	12	15	9	64	64	9	80
9090B	VDI 3003	90	90	15	15	9	70	70	9	80
9090C	FCA, Renault, Volvo	90	90	20	18	11	67	67	13	80
9090D	MB	90	90	12	14	9	70	70	9	80
100100A	Volvo	100	100	16	15	9	82	0	10	90
100100B	BMW, VW	100	100	20	18	11	74	74	11	90
100100C	MB	100	100	12	14	9	81	81	9	90
140140A	VW	140	140	20	18	11	110	110	11	130
140140B	FCA, Renault	140	140	20	18	11	110	110	13	130
5025	VDI 3003, FCA	50	25	12	11	7	32	8	8	15
5030	FCA	50	30	12	11	7	40	14	8	20
5030A	FCA	50	30	12	11	7	35	14	7	20
5530	VDI 3003	55	30	12	11	7	40	14	8	20
5532	Volvo	55	32	16	15	9	37	0	10	20
6550	Volvo	65	50	16	15	9	47	0	10	36
7035	VDI 3003, FCA	70	35	15	15	9	48	14	10	30
7550	VDI 3003, FCA	75	50	15	15	9	56	30	10	36
8060	Volvo	80	60	16	15	9	62	0	10	55
8560A	FCA	85	60	15	15	9	56	40	10	55
8560B	VDI 3003	85	60	15	15	9	66	40	10	55
10080	VDI 3003, FCA	100	80	20	18	11	72	56	12	70
110100	FCA	110	100	20	18	11	85	75	12	100

Use example / *Exemplu de utilizare*



IDENTIFYING PLATE

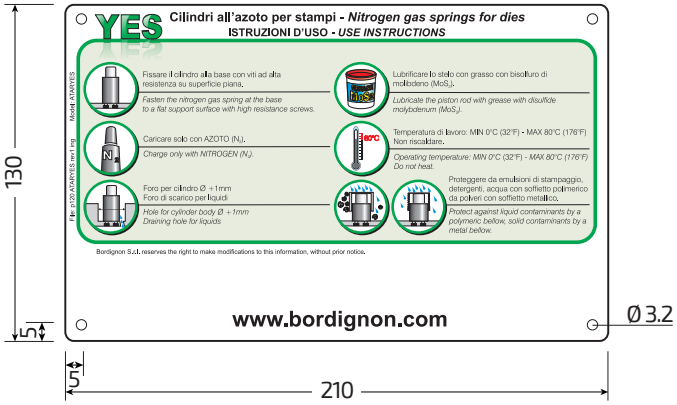
Plăcuță de identificare

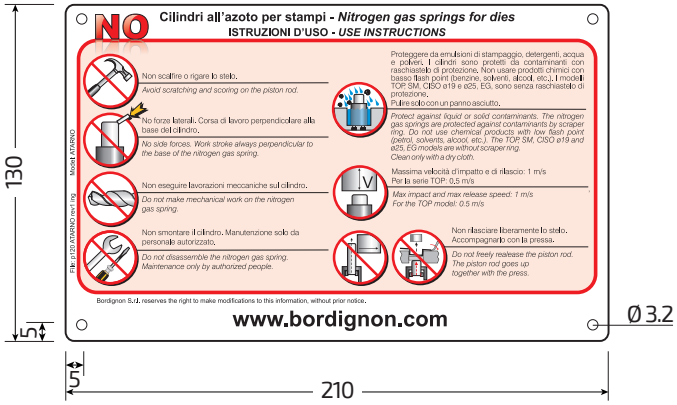
Identifying plate to be used on the press tools, dies and moulds equipped with nitrogen gas springs.
Different languages on request.
Different writings on request.

Placă de identificare ce urmează să fie folosită pe uneltele de presă, matrițe și matrițe echipate cu arcuri de gaz azot.
Limbi diferite la cerere.
Scrieri diferite la cerere.

Model *Model*
ATARYES

Model *Model*
ATARNO

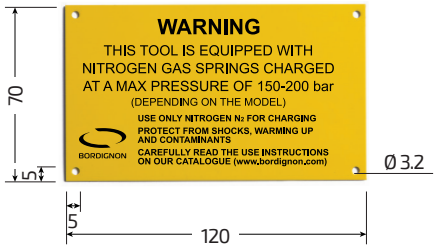




Model *Model*
ATAR EN

Model *Model*
ATAR IT

Model *Model*
ATAR DE



Model *Model*
ATAR CN

LUBRICATION GREASE

Vasală de lubrifiere

It is necessary to keep the piston rod lubricated for a longer life of the gas spring. We can supply grease with molybdenum disulfide in 600 g cartridges.

Este necesar ca tija pistonului să fie lubrifiată pentru o durată de viață mai lungă a arcului cu gaz. Putem furniza ulei cu disulfură de molibden în cartușe de 600 g.

Model *Model*
PLUB2

DEVICE for the NITROGEN GAS SPRINGS INITIAL LOAD CHECK

Dispozitiv pentru verificarea inițială a încărcării arcurilor cu gaz azot

This device is a load gauge for nitrogen gas springs. This device is usually used to measure the initial force of nitrogen gas springs, in order to verify that they are actually charged.

Acest dispozitiv este un indicator de sarcină pentru arcurile cu gaz azot. Acest dispozitiv este folosit de obicei pentru a măsura forța inițială a arcurilor de gaz cu azot, pentru a verifica dacă acestea sunt cu adevărat încărcate.

Model *Model*		
AK2	Hydraulic force-measuring device MAX 12000 daN *Dispozitiv hidraulic de măsurare a forței MAX 12000 daN*	●

● **Load cells have to be ordered separately (see below)**
Celulele de sarcină trebuie comandate separat (vezi mai jos)

Model *Model*	
AH1000	Analog load cell 100-1000 daN *Celulă de sarcină analogică 100-1000 daN*
AH4000	Analog load cell 400-4000 daN *Celulă de sarcină analogică 400-4000 daN*
AH10000	Analog load cell 1000-10000 daN *Celulă de sarcină analogică 1000-10000 daN*

Model *Model*	
AHD1000	Digital load cell 100-1000 daN *Celulă de sarcină digitală 100-1000 daN*
AHD5000	Digital load cell 500-5000 daN *Celulă de încărcare digitală 500-5000 daN*
AHD10000	Digital load cell 1000-10000 daN *Celulă de încărcare digitală 1000-10000 daN*

Model *Model*		
AHD1000T630	Digital load cell 100-1000 daN with hose L = 630 mm *Celulă de încărcare digitală 100-1000 daN cu furtun L = 630 mm*	●
AHD5000T630	Digital load cell 500-5000 daN with hose L = 630 mm *Celulă de încărcare digitală 500-5000 daN cu furtun L = 630 mm*	●
AHD10000T630	Digital load cell 1000-10000 daN with hose L = 630 mm *Celulă de sarcină digitală 1000-10000 daN cu furtun L = 630 mm*	●

● **Different hose lengths available on request: 300 mm (models: AHD...T300), 500 mm (models: AHD...T500), 1000 mm (models: AHD...T1000**
Lungimi diferite de furtun la cerere: 300 mm (modele: AHD...T300), 500 mm (modele: AHD...T500), 1000 mm (modele: AHD...T1000)

Model *Model*	
AHDTFX	Fixing bracket for load cells with hose *Suport de fixare* *pentru celule de sarcină cu* *furtun*

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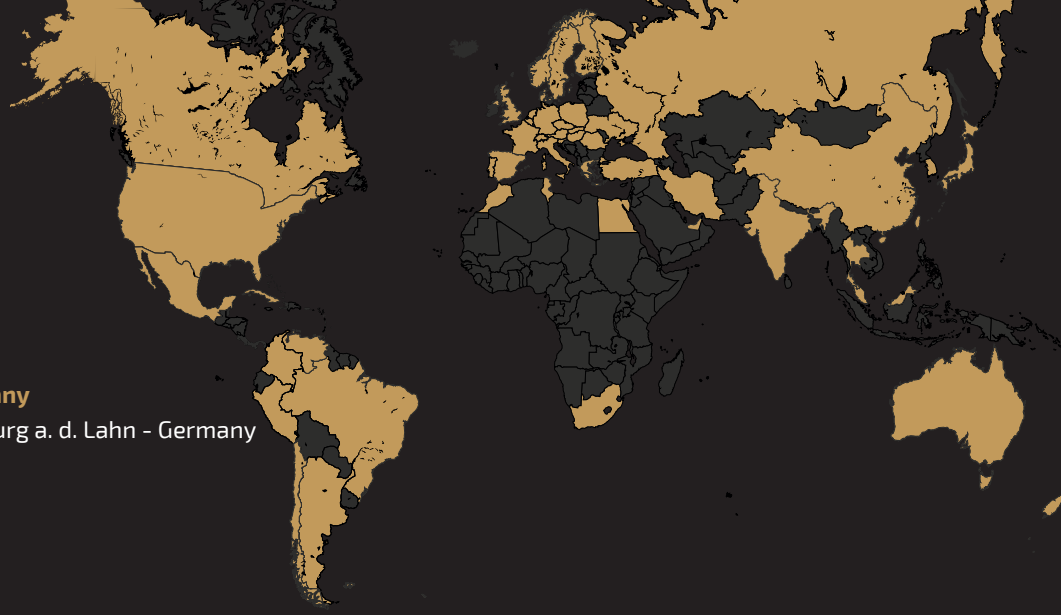

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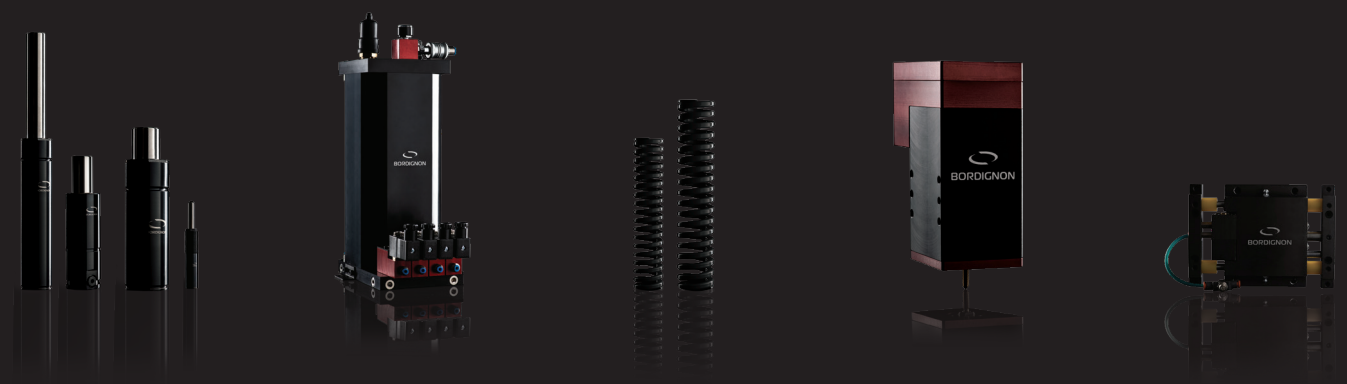

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