

Tehnična navodila za plinske vzmeti

Technical instructions of gas springs

- Plinska vzmet je napolnjena z zelo visokim pritiskom plina, zato je ne smemo nikoli odpirati, izpostavljati visokim temperaturam, mehansko poškodovati ali obremeniti s silami, ki niso predvidene pri normalni uporabi.
- Vgradnja: plinsko vzmet vgradimo tako, da je batnica obrnjena navzdol. Takšen položaj omogoča mazanje tesnil in dušenje ob koncu hoda. Če je potreben drugačen vgradni položaj, navedite to ob naročilu.
- Skladiščenje: plinska vzmet se lahko skladišči v poljubnem položaju, vendar ne priporočamo skladiščenja daljšega od enega leta, ker se lahko pri prvi uporabi po daljšem mirovanju pojavi « slip stick effect » – zatikanje vzmeti zaradi lepljenja tesnila ob cilinder. Paziti je treba, da se plinska vzmet pri skladiščenju mehansko ne poškoduje.
- Plinska vzmet ima svojo življenjsko dobo. Po določenem številu hodov spusti in ne deluje več, zato njene uporabe ne smemo predvideti kot varnostni element. Pri delovanju lahko na batnici ostane manjša količina olja, ki ne sme priti v stik s hrano, vodo ali podobnimi stvarmi.
- Pri uporabi, kjer so prisotne vibracije, morajo biti priključki močnejše privijačeni ali zalepljeni, da se ne odvijajo. Visoka frekvenca delovanja povzroča segrevanje plinske vzmeti in poškodbo tesnil.
- Plinska vzmet naj bo vgrajena tako, da ne pride do kolizije pri stiskanju. Priključki morajo biti namaščeni, da ne bi prihajalo do prevelikih stranskih sil in s tem do zvijanja batnice. Izogibati se je treba neaksialnim silam.
- Mehanske poškodbe, ostanki barv ali nečistoče lahko poškodujejo tesnilni del plinske vzmeti. Cilinder se ne sme poškodovati ali deformirati. V vseh navedenih primerih se garancija ne prizna. Za področja uporabe, kjer lahko pride do omenjenih poškodb, se lahko izdelajo plinske vzmeti z zaščitno cevjo.
- Plinska vzmet ne sme biti obremenjena z nateznimi silami, ki so za več kot 30% višje od nazivne sile. Kjer je to mogoče, naj bosta končna položaja bremena pri odpiranju in zapiranju 5 mm pred minimalno in maksimalno dolžino plinske vzmeti.
- Temperaturno območje uporabe plinske vzmeti je med -30 in +80°C. Če se plinska vzmet uporablja izven dovoljenega temperaturnega območja, navedite to ob naročilu. Spreminjanje temperature vpliva na silo plinske vzmeti, in sicer za 3,5% za vsakih 10°C.
- Batnica pri nastavljeni plinski vzmeti je izdelana iz cevi, v kateri drsi sprožilec. Nečistoče in vlaga lahko povzročijo korozijo znotraj cevi, kar lahko blokira sprožilec in onemogoči aktiviranje plinske vzmeti. Nastavljiva plinska vzmet naj bo vgrajena tako, da je batnica obrnjena navzdol. Pri aktiviranju vzmeti se lahko sprožilec poda največ do začetka batnice.
- Iz naročila mora biti razvidno, ali se bo plinska vzmet uporabljala pod »normalnimi« pogoji (nazivna sila pri 20°C, naravno okolje zrak) ali v posebnih razmerah. Če ob naročilu nismo seznanjeni z vsemi posebnostmi delovnega okolja plinske vzmeti, izdelamo standardno varianto in ne jamčimo za pravilno delovanje v okviru garancijskega roka.
- Ko plinska vzmet ni več uporabna, je ne smemo kar tako odvreči med ostale odpadke. Na cilindru je treba izvrtati luknjo 2mm, ki je približno 20mm oddaljena od konca cilindra, gledano s strani, kjer ni batnice. Ker lahko preostali plin v cilindru z visoko hitrostjo eksandira, je še posebej treba paziti, da trdi delci od vrtenja ne poškodujejo oči. Preostalo olje je treba izliti med odpadna olja, nato pa lahko plinsko vzmet odvržemo med ostale kovinske odpadke.
- The gas spring is filled with gas under very high pressure, so it must never be opened, exposed to high temperatures, mechanically damaged or used to lift a heavier load than recommended.
- Mounting: the gas spring must be mounted with the piston rod downwards. This position enables lubrication of the seals and damping at the end of the stroke. If a different mounting position is required, it must be specified in the order.
- Storage: gas springs can be stored in whatever position. However, it is not recommended to store them longer than one year because of “a slip-stick effect” which may be caused by the seals sticking on the cylinder when gas springs are used for the first time after a long period of rest. It is extremely important to avoid any mechanical damage.
- Gas springs have a particular lifespan – they wear out after a certain number of strokes, so they should not be considered as safety elements. Minor quantities of oil which may remain on the piston rod must not get in contact with food, water or similar goods.
- If gas springs are exposed to strong vibrations, the end fittings need to be strongly fastened or glued to avoid loosening. High frequency of strokes may heat the gas spring and consequently damage the seals.
- The mounting position of gas springs should be such as to prevent collision when compressed. The end fittings must be lubricated in order to avoid the effect of side forces which may bend the piston rod. Non-axial forces must be avoided.
- Mechanical damage, corrosion, paint residues or dirt may seriously damage the sealing unit of a gas spring. The cylinder must not be damaged or deformed. In case any of the above mentioned effects causes inadequate functioning of gas springs, they are no longer covered by our guarantee. If a particular application of gas springs implies danger of such damage, protective tubes for gas springs can be produced.
- The gas spring must not be exposed to any forces that exceed the extension force for more than 30%. If possible, the final positions of the load when compressed or extended should be 5 mm before the minimum or maximum length of the gas spring.
- The temperature range of the application of gas springs is between -30°C to + 80°C. If gas springs are to be used within a different temperature range, it should be specified in the order. The change in temperature affects the extension force of the gas spring – approximately 3,5% for every 10°C.
- The piston rod of a locking gas spring in made of a tube with a release pin. It is extremely important to avoid any dirt or moisture which may cause corrosion inside the tube, consequently block the release pin and prevent the activation of the gas spring. Locking gas springs should be mounted with the piston rod downwards. When the locking gas spring is activated, the release pin can only go as far as the beginning of the piston rod.
- In the order, it should be clearly indicated if gas springs are to be used in normal conditions (extension force defined at 20°C, natural environment – air) or in special circumstances. If there are no specific requirements, we normally produce standard gas springs.
- When a gas spring is out of use, it should not be disposed of without a preliminary preparation. On the cylinder, a borehole of 2 mm should be made about 20 mm from the end of the cylinder – on the side which is not connected to the piston rod. Special precautions should be taken because the remaining gas in the cylinder may expand with very high speed and throw around hard pieces of boring which may damage the eyes. The rest of oil should be disposed of like any other waste oil and the empty gas spring can be treated just like any other metal waste.

Tolerance, karakteristike

- Toleranca dolžine: +/- 2 mm
- Toleranca nazivne sile: +/- 10N oziroma +/- 5%
- Maksimalna hitrost raztegotovanja: cca. 0,30 m/s.
- Življenjska doba: 30.000 hodov

Tolerances, characteristics

- Length tolerance: +/- 2mm
- Extension force tolerance: +/- 10N or +/-5%
- Maximum extension speed: approximately 0,30 m/s
- Lifespan: 30.000 strokes