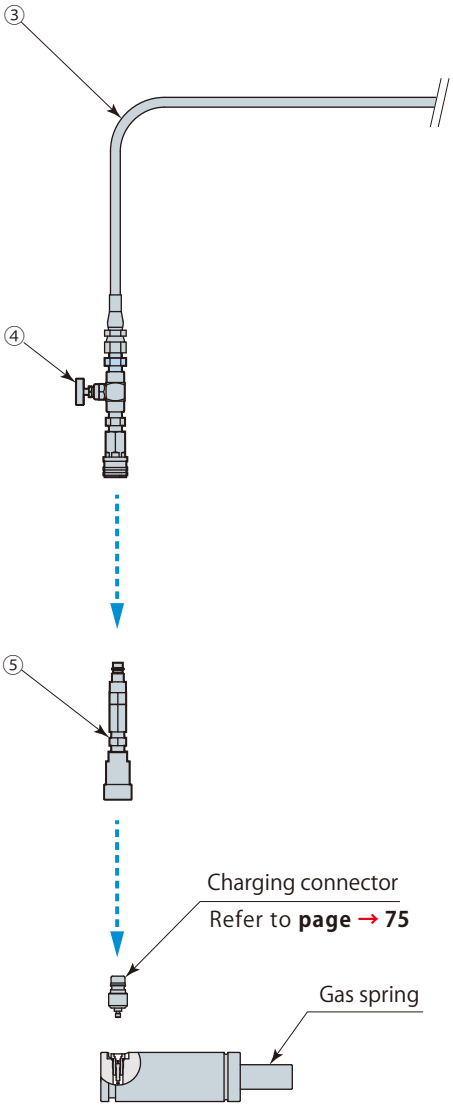
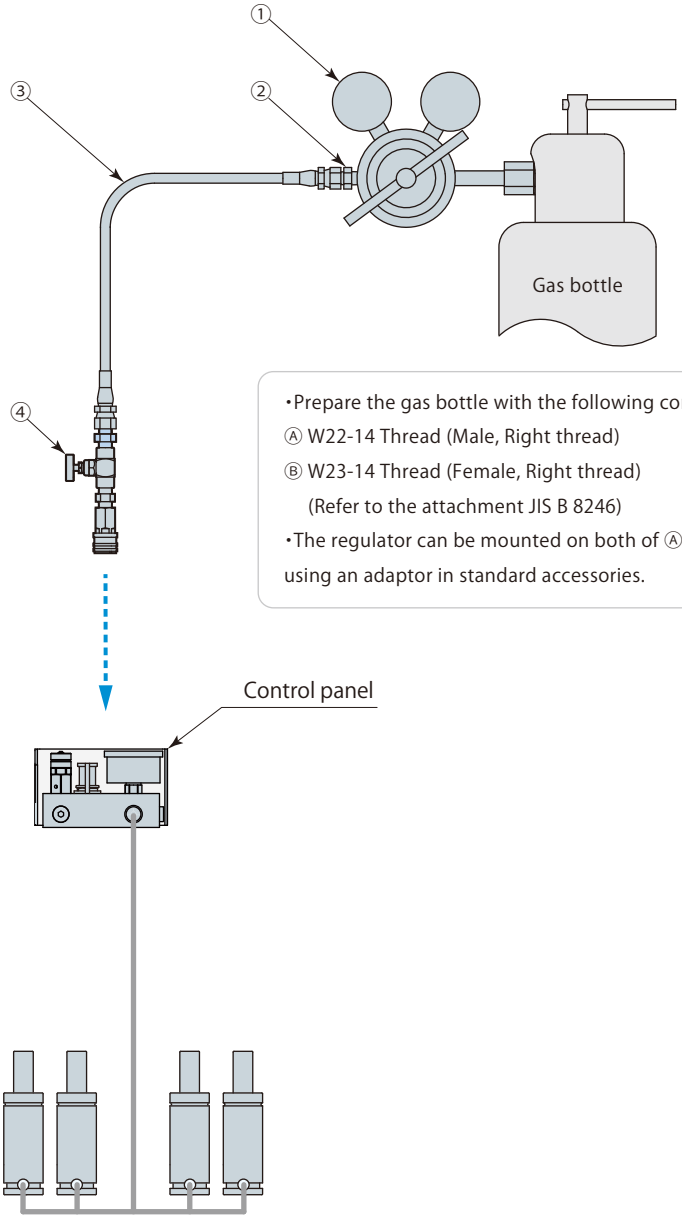


Charge the gas to an independent gas spring



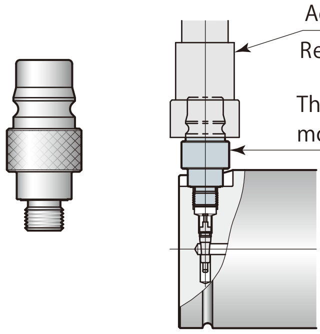
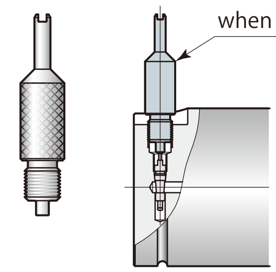
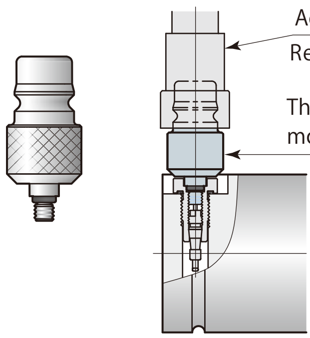
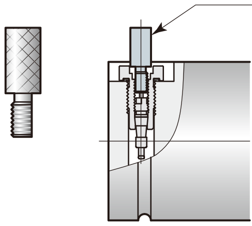
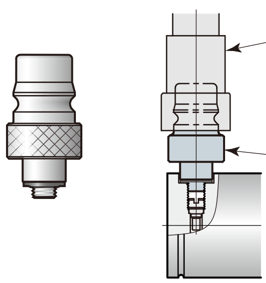
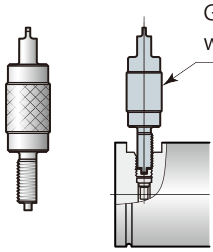
Charge the gas to a Hose-Linked gas spring system

・Prepare the gas bottle with the following connection port.
Ⓐ W22-14 Thread (Male, Right thread)
Ⓑ W23-14 Thread (Female, Right thread)
(Refer to the attachment JIS B 8246)
・The regulator can be mounted on both of Ⓐ and Ⓑ by using an adaptor in standard accessories.

No.	Name	Model	Remark	Mass g
①	Regulator ＊	3HDKA68601	Adaptor included	3200
②	Hose fitting	3HDKA68602	JIS：A1-6 (JIS B 8363), Thread size：G1/4-R1/4	40
③	High pressure hose	3HDKA68603	Max gas pressure 34MPa, Hose O.D. 10.4mm, Length 3m	400
④	Charging valve	DNJ-HDKA6840	Coupler can be disconnected under pressure.	230
⑤	Adaptor	DNJ-HDKA5470		370

＊ Make sure of thread size of the connection port of the gas bottle in case of using the regulator in overseas countries. It may be different depending upon each country.

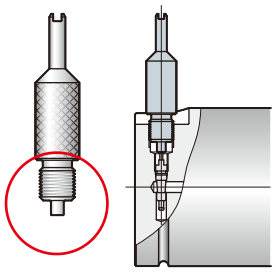
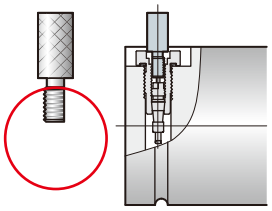
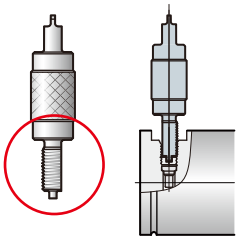
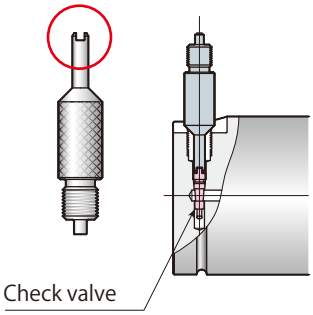
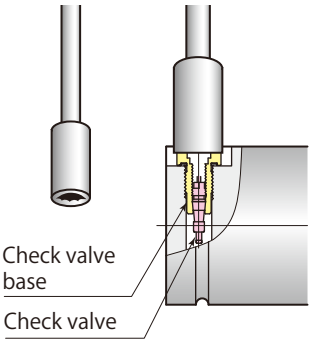
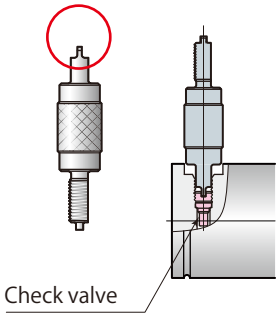
Gas charging and discharging kit (Their shape differs depending on the gas spring model.)

Gas spring model	Charging connector	Discharging tool
DNK1500～9500 DNR4200～9500 DNA1500～5000	model **DNJ-C-CMG** Mass : 50 g  	model **DNJ-C-G** Mass : 30 g 
DNK0750 ・ 1000 DNP1000～18300 DNA0250～0750	model **DNJ-C-CM** Mass : 50 g  	model **DNJ-C-5** Mass : 10 g 
DNK0350 ・ 0500 DNR0350 ～ 2400 DNP0420 ＊	model **DNJ-C-CM6** Mass : 60 g  	model **DNJ-C-M6** Mass : 30 g 

＊ Gas discharging tool is not available for model DNP0420. In case of disposal, drill a dia 2.5mm hole at the M6 tap at the bottom of the DNP and then discharge N_2 gas completely. Wear safety glasses during discharging job.

How to change the standard body gas spring to piping style (Not covered by warranty)

A check valve with the plug or the valve base must be removed from the body when changing a piping type gas spring.The way of removal of check valve differs according to the shape of the plug.

Check the shape of plug.			
Plug	Round, Silver	Round, Black	Round, Black
Check valve base	—	Hexagonal , Silver	—
Gas discharging tool	model DNJ-C-G	model DNJ-C-5	model DNJ-C-M6
Necessary tool	Allen key wrench (5mm)	Flathead screwdriver, 14mm Socket wrench	Allen key wrench (2.5mm)
1 Remove a plug with the tool.	Allen key wrench (5mm)	Flathead screwdriver	Allen key wrench (2.5mm)
2 Discharge the gas by using the thread side of gas chaging tool.	model DNJ-C-G 	model DNJ-C-5 	model DNJ-C-M6 
3 Remove a check valve/check valve base by using the gas charging tool (the other side of thread) or 14mm socket wrench.	model DNJ-C-G 	14mm Socket wrench 	model DNJ-C-M6 

- When removing the a check valve, be careful not to make any chips and depris intrude into the check valve.
- The above modification shall be performed at customer's own risk.

Gas Charge / Discharge

- Charge Nitrogen (N_2) gas only. Never charge flammable, explosive gas and volatile liquid as they may cause an explosion accident. (FIG. 1)

- The charging pressure should be below the designated pressure in the marking. (FIG. 2)
  Gas charging range : 3.4 MPa ～ 15 MPa (at 20℃).
  3.4 MPa ～ 18 MPa for model DNK0350 and DNR0350 only.

- Continue to charge gas till the sound of gas flow disappear even if the pressure gauge points the set pressure. (FIG. 2)

- Gas charging should be done with the piston rod fully out. If piston rod retracted in the cylinder, start charging as lower pressure as possible (0.5 MPa or lower) then increase the pressure gradually till the piston rod extended out, in order to avoid personal injury and damages of facility and equipments. (FIG. 3)

- Do not charge/discharge gas while the gas spring is under load.

- Exhaust the N_2 gas completely before disposal. Refer to **page → 75** for gas discharging tool.

- Those gas springs for use outside Japan (specified as -OS) are shipped without gas. The user needs to charge gas before use. After charging gas, the charging gas pressure should be recorded on the pressure indication label of each gas spring by a permanent marker.

FIG. 1

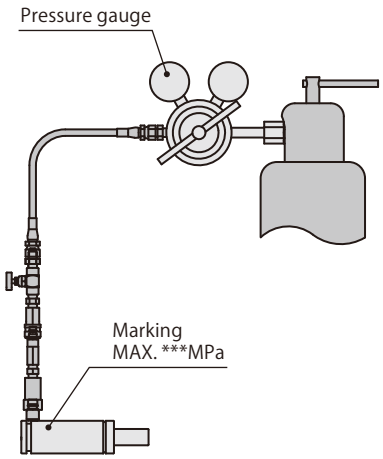


FIG. 2

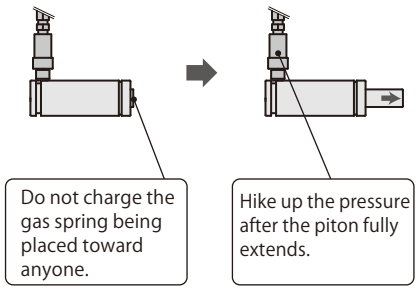


FIG. 3