Advantages over coil springs

1. More force in less space

A compact nitrogen spring BKH 50.0=025-135(cylinder diameter 75mm, stroke 25mm) is equivalent to 14 SSW H50-300 super-heavy duty coil springs (diameter 50mm, 20mm preload K=16.7, Pre-pressure =20mm X 16.7=334kgf,4700/334=14 coil springs)
Advantages:
Reduced installation area: Nitrogen springs require 44.16 square centimeters, while coil springs require 247.75 square centimeters, nearly 6 times
Lower mounting height: the nitrogen spring cylinder requires only 135 cm, while the coil spring requires 280 cm
Reduced installation space: The nitrogen spring requires only 596.16 square centimeters, while the coil spring requires 7963 square centimeters, and the installation of 14 coil springs,1 nitrogen spring does not require preloading, guiding and positioning operations

2. Under the premise of equal working travel, the overall height is greatly reduced

A short nitrogen spring BKJ5.0-080-210 (diameter of 45mm, stroke of 80mm, total height of 210mm, final pressure of 636kgf) is equivalent to a medium load coil spring, diameter of 63mm, working stroke of 80mm, total height of 305mm, final elasticity of 518kgf
Advantages:
With the same working stroke and elasticity, the height is significantly reduced
The structure of the mold becomes compact and the cost is reduced

3. Has a larger initial load

The nitrogen spring can provide a large known initial force when in contact with the die, from 45daN (BKB0.45 bore 12mm) to 18,300 Dan (BKB180.0 bore 150mm), while the helical spring requires a pre-loaded load to achieve this initial force
Advantages:
The nitrogen spring does not require a preload
Nitrogen spring installation is easier and faster, reducing costs

4. Balance and control your elasticity

After the nitrogen spring is connected into a pipeline system through the hose, the pressure of the gas inside each nitrogen spring is the same, so that the entire system is balanced. These cannot be achieved by using coil springs, because the force provided by each coil cannot be exactly the same.
Advantages:
Each contact point has an equal force - a balanced die
The elastic output of the nitrogen spring can be set according to the need - easy production
The gas pressure inside the system can be monitored at any time - producing high-quality parts
It does not require mold repair, does not cause production suspension, extends the life of punches and other components, and reduces costs

5. Adjustable pressure

The initial force of the nitrogen spring can be adjusted by changing the internal gas pressure. For the pipe connection, the pressure can be adjusted by the control meter (maximum pressure is 150bar), while the helical spring force is not adjustable.