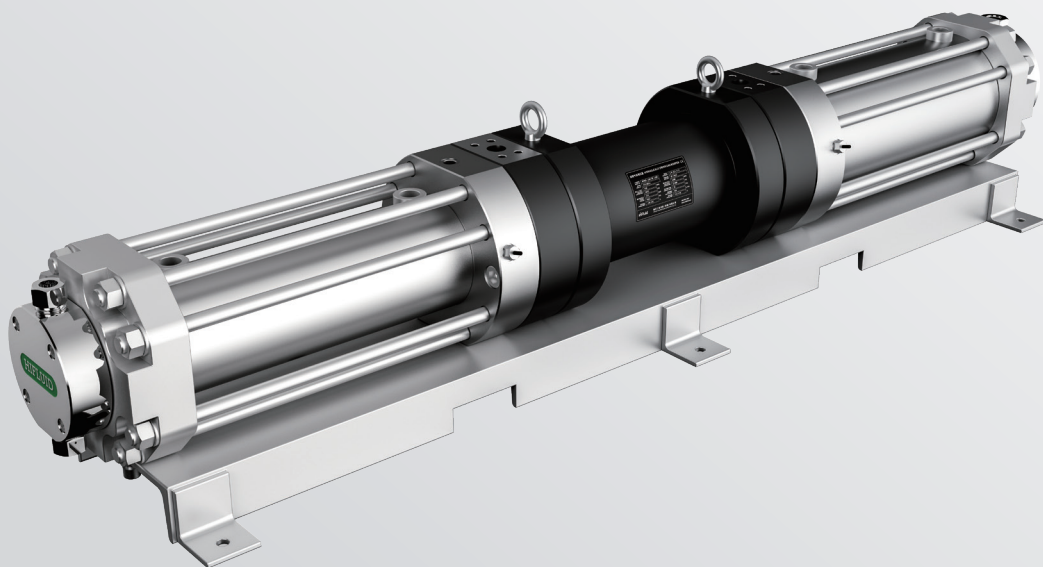


Hydraulically Driven Gas Boosters

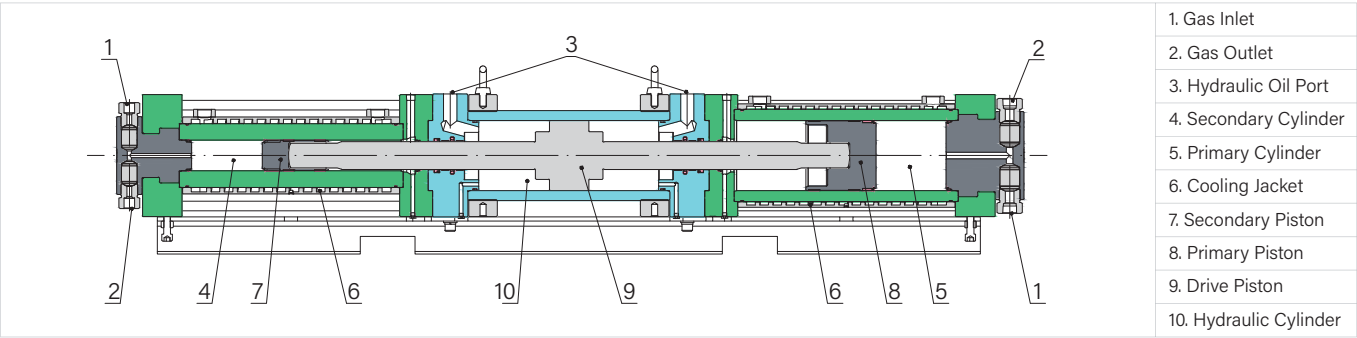


HiFluid Hydraulically Driven Gas Boosters



HiFluid offers a comprehensive product portfolio, delivering suitable solutions for a wide range of applications worldwide.

Our hydraulically driven gas boosters use low-pressure hydraulic oil as the driving source to compress gases to the required pressure. The standard design supports a maximum working pressure of 120MPa, with customized solutions available for higher pressure requirements.



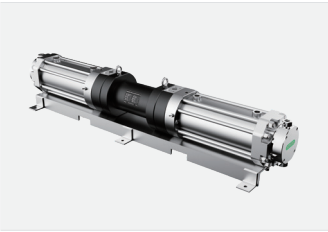
Key Advantages

- Specially designed for high-pressure gas applications, compatible with multiple gases.
- Hydrogen-compatible: materials used in hydrogen-contacting parts provide excellent resistance to embrittlement.
- Robust construction, ideal for frequent start-stop operations and continuous heavy-duty duty cycles.
- Special structure for both drive and compression ends to prevent gas contamination.
- Spiral-guided cooling design ensures uniform and efficient heat dissipation.
- Excellent primary sealing performance, operates without oil lubrication, and features long maintenance intervals.
- Maintenance-friendly design, significantly reducing seal replacement time.
- Modular design with flexible configurations and diverse options.
- Flow continuously adjustable from 0% to 100%.
- Suitable for explosion-proof environments.

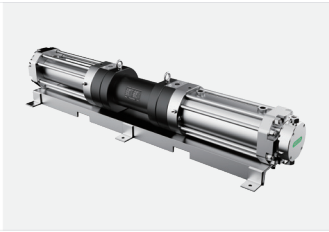
Typical Applications

- **Leak Testing:** Supplies high-pressure gas for airtightness tests to detect leaks in components.
- **Hydrogen Refueling:** Provides high-flow, contamination-free hydrogen filling into vessels, equipment, or systems to the required pressure.
- **Airbag Inflation:** Charges helium/argon mixed gases into airbag inflators.
- **Gas-Assisted Molding:** Provides high-pressure, high-flow gas to improve molding processes and product quality.
- **Hot Isostatic Pressing (HIP):** Pressurizes inert gas for HIP furnaces to achieve superior material performance.
- **Chemical Production:** Multi-stage pressurization of ethylene for polymerization in batch and tubular reactors.

Structural Types

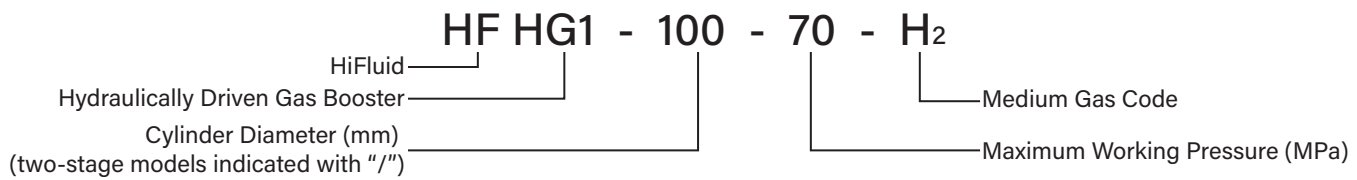


Single-Stage Double-Acting
Each cycle delivers two compressions at a single ratio, ensuring continuous high-flow output.



Double-Stage Single-Acting
Each cycle delivers a single compression at double ratio, achieving high output pressure even with low inlet pressure.

Type Coding



Product Parameters

Type	Model	Pressure Ratio	Displacement /Cycle (ml)	Pressure Limit						15 Times per Minute Typical Flow Rate Reference				
				Max. Outlet Pressure		Min. Inlet Pressure		Max. Inlet Pressure		Inlet Pressure		Outlet Pressure		Flow Rate Nm³/h
				MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	
Single-Stage Double-Acting	HFHG1-160-35	1:0.8	12868	35	5075	0.34	50	35	5075	5.5	797.5	22	3190	496
	HFHG1-100-70	1:2.1	5026	70	10150	0.34	50	70	10150	10	1450	45	6525	339
	HFHG1-70-120	1:4.4	2463	120	17400	0.34	100	120	17400	42	6090	90	13050	651
Double-Stage Single-Acting	HFHG1-160/100-70	1:0.8/1:2.1	6434	70	10150	0.69	50	35	5075	3	435	40	5800	135
	HFHG1-160/70-120	1:0.8/1:4.4	6434	120	17400	0.34	50	35	5075	4	580	90	13050	180
	HFHG1-100/70-120	1:2.1/1:4.4	2513	120	17400	0.34	50	70	10150	8	1160	90	13050	136

Installation Dimensions

Type	Model	Connection Interface			Dimensions(mm)					Weight (kg)
		Drive Port	Medium Inlet	Medium Outlet	A	B	C	D	E	
Single-Stage Double-Acting	HFHG1-160-35	SAE flange1 1/4" 6000psi	NPT 1"	NPT 1"	2074	440	430	1005	1005	620
	HFHG1-100-70	SAE flange1 1/4" 6000psi	MP 3/4"	MP 3/4"	2074	440	430	1005	1005	600
	HFHG1-70-120	SAE flange1 1/4" 6000psi	MP 3/4"	MP 3/4"	2060	440	430	1001	1001	580
Double-Stage Single-Acting	HFHG1-160/100-70	SAE flange1 1/4" 6000psi	NPT 1"	MP 3/4"	2074	440	430	1005	1005	610
	HFHG1-160/70-120	SAE flange1 1/4" 6000psi	NPT 1"	MP 3/4"	2067	440	430	1001	1005	600
	HFHG1-100/70-120	SAE flange1 1/4" 6000psi	MP 3/4"	MP 3/4"	2067	440	430	1001	1005	590

