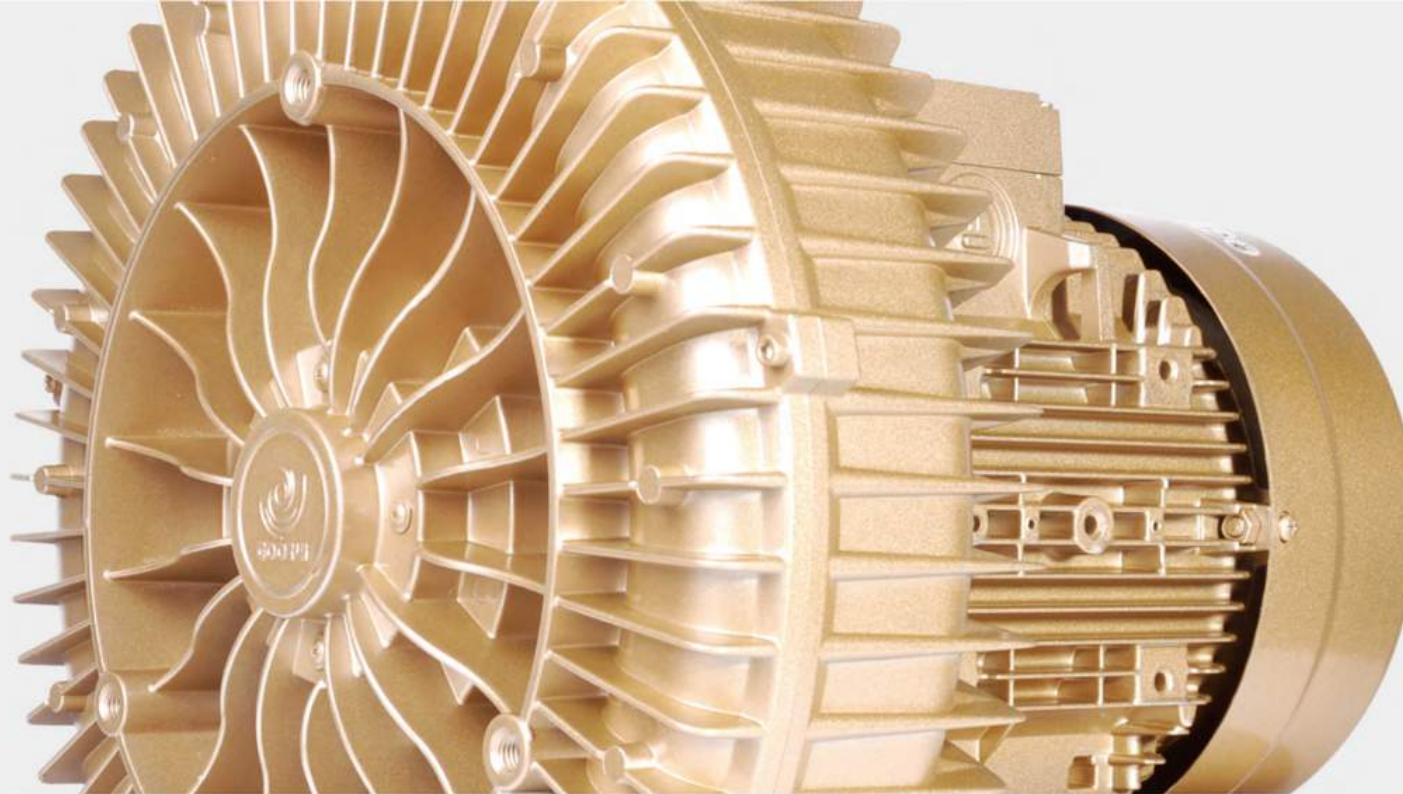




GOORUI

Side Channel Blower

Stock Code:836951

HongKong Fenglisheng Group Company Limited
DongGuan Foersheng Intelligent M&E Co., Ltd.
<http://www.goorui.com>



Company profile

Dongguan Foersheng Intelligent M&E Co.,ltd. is a global leading supplier providing tailor-made solutions in industrial intelligent transmission field. Adhere to the principles of steady development, continuously innovation, keep openness& cooperation, Foersheng focused on overcoming the technology difficulties in Vacuum pump industry and have provided many competitive tailor-made solutions, products and services in military equipment industry, paper manufacturing industry, environmental equipment industry etc... What's more, we are dedicated in providing more efficient and energetic industrial solutions to create the green industry, green earth. With nearly 100 employees, so far Foersheng has exported its products to more than 40 countries and the products are widely used in thousands of industrial equipments.

On April 28th, 2016, Foersheng became the first enterprise listed into Beijing stock market in vacuum pump industry.Owning trade mark in China and Germany, Dongguan Foersheng Intelligent M&E Co.,ltd has got the certificates of ISO9001, CE, RoHs and the honors of " National High-Tech Enterprise", " Dongguan Energy Saving Company", "Dongguan Patent Cultivating Enterprise", " Dongguan Private High-Tech Enterprise" , " Guangdong Private High-Tech Enterprise" etc...

Goorui, as the main brand of FLS, is originated from Hannover University in Germany in 1933. With the core research&design technology in global vacuum pump industry, Goorui has got nearly 83 production technology patents. By importing the Three-Coordinate measuring machine from Germany, modernized finishing equipment from Germany and Japan, every Goorui blower is competed at one time in CAD assembly line. Goorui help clients to solve the problems in their application by concentrating on overcoming the technical difficulties and creating the R&D system of every specialized blower.

Depends on the professional technology in intelligent transmission industry, Foersheng and its clients make efforts to improve the equipments in filed such as environmental industry, New-energy car industry and electronic information filed to make them become more effective, energy-saving and innovative.

With the spirits of Innovation, Opening, Cooperation and Win-win result, Foersheng and its business partners continuously raise the quality standard and has build a strict quality supervisory system. They keep extend the application of blowers by overcoming the technical difficulties and continuously research &design the high-effective and energy-saving products.



Development History

In 2002,
HongKong Fenglisheng International Group Company Limited Founded.

In 2007,
Dongguan Foersheng M&E Technology Co.,Ltd. Established
GOORUI brand created, Goorui single stage products was launched.

In 2008,
Successfully design and produce the ultra high pressure blowers.

In 2009,
Got the ROHS Certificate.

In 2011,
Successfully design and produce the explosion-proof side channel blower.

In 2013,
Got the honor of "National High-Tech Enterprise".

In 2015,
Finished the stock share system reform and officially change the name
to "Dongguan Foersheng Intelligent M&E Co.,Ltd".

In 2016,
Listed into Beijing stock market Successfully .(Stock code: 836951)



MASTER CORE TECHNOLOGY

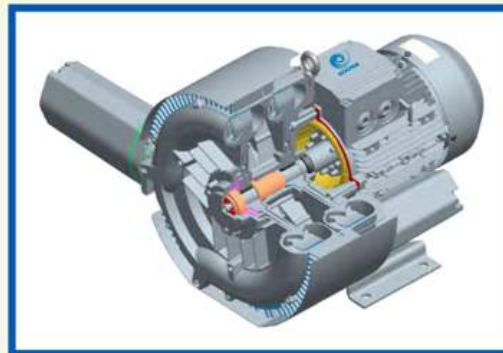
The high pressure blower, using for Qinghai-Tibet Railway Project

Goorui has combined the German technology with the essence of German culture in it's product, not only embodied in the inner precision structure, but also in the elegant appearance.

QUALITY DERIVEDS FROM INSIDE

World-Class brand bearings in use

Stable pressure & air flow Security & Durability





Goorui Blower
Since 1933 Germany

[TEMPERATURE]

CHALLENGE HIGH TEMPERATURE

High temperature is the biggest challenge of blower. Therefore, we always inspected the blower strictly, such as testing the ultimate pressure, continuous load situation and the temperature when working under these situations, to verify and ensure the stable Performance of our blowers.

Goorui blower are widely used by many famous enterprises like LG Chemical Group, China National Petroleum Corporation, China National Offshore Oil Corporation (CNOOC), Foxconn Technology Group ,Nine Dragons Paper Industries Co.,Ltd, Haneng Technology, Yake food, SANY Heavy Industry Co.ltd., Hengan Group , Nongfu Spring Inc., Unilever, Uni-President Enterprises, CocaCola, Pepsi, Yili Industrial Group Co., Ltd., Guangzhou Wanglaoji Pharmaceutical Co., Ltd, Guangdong BBK Electronic Industrial Co.,Ltd., Royal Dutch Shell and so on. We also serviced clients include some research institutes and universities such as Chinese Academy of Sciences, Chinese Ministry of Railways, State Oceanic Administration, China Shipbuilding Industry Corporation, Hebei Mechanical Engineering Research Institute, Zhongshan University, Shanghai Jiaotong University, The Air Force Aviation University, Southeastern University, Jilin University, Chongqing University etc...



Goorui qualification certification



China Trademark Certification of GOORUI



CE Certification



TUV Certification



ISO9001-2001 Certification



SGS Certification



ROHS Certification

Contents



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GOORUI blower Model select instruction

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GOORUI



GHBH Single Stage



GHBH Double Stage



GHBG Single Stage

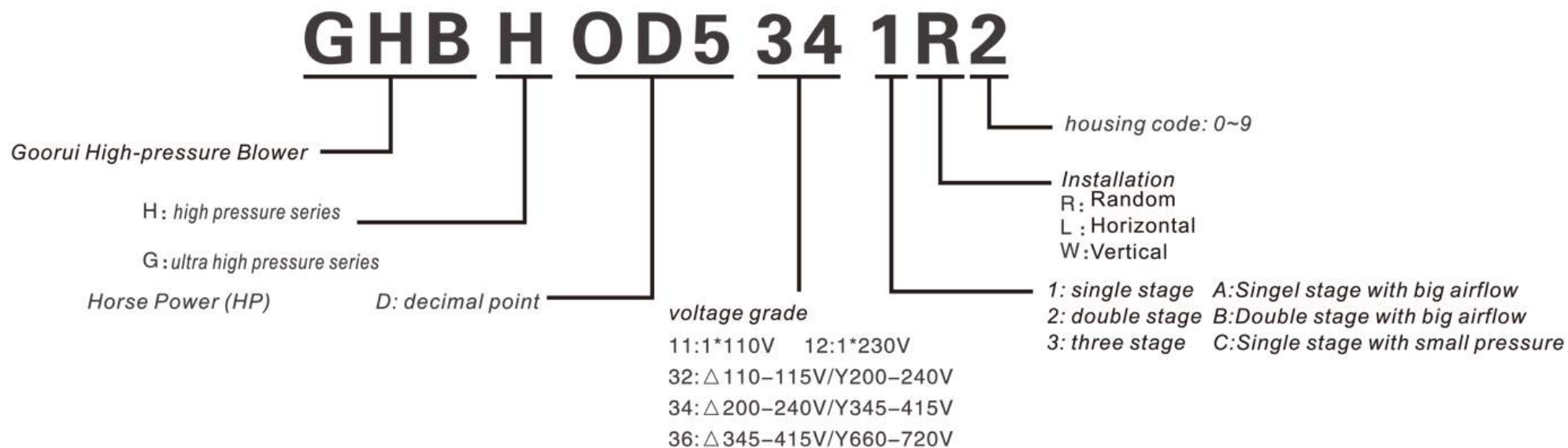


GHBG Double Stage

Applications

- Pneumatic conveying systems
- Vacuum lifting and clamping system
- Packaging and printing equipment
- Bag/bottle/hopper filling system
- Wastewater treatment system
- Air-knife drying
- Food processing system
- Plastic and rubber industry
- Beverage industry
- Timber industry
- Environmental engineering
- Electronics/semiconductor industry
- Pharmaceutical industry
- Hospital and laboratory equipment
- Textile Industry

Model Introduction



Remarks:
 Three Phase
 Voltage range +5%,
 In compliance with UL
 and CSA 10%/+6%.

Single Phase
 Fixed voltages: +5%,
 If during continuous operation only 90%
 of the maximum end pressure is used, the
 admissible tolerance of voltage increases to ± 10 ;
 In compliance with UL and CSA 10%/+6%.
 Frequency: $\pm 2\%$.

All the motors comply with the
 IEC, European norms quoted
 and many other national norms.

Unit Conversion

Power		
Beginning units	Multiply by	To Get
hp	0.746	Kw
Btu/h	293.1	Kw
Kw	1.341	hp
Kw	0.00341	Btu/h

Length		
Beginning units	Multiply by	To Get
in.	25.4	mm
in.	0.0254	m
ft	305	mm
ft	0.305	m
m	39.37	in.
m	3.28	ft

Pressure		
Beginning units	Multiply by	To Get
Pa	0.01	mbar
hPa	1.0	mbar
Kpa	10.0	mbar
mmH ₂ O	0.098	mbar
mH ₂ O	98.07	mbar
at	980.7	mbar
inchH ₂ O	2.491	mbar
PSI lpf/in ²	68.948	mbar
mbar	100	Pa
mbar	10.2	mmH ₂ O
mbar	0.0102	mH ₂ O
mbar	0.00102	at
mbar	0.4016	inchH ₂ O
mbar	0.014505	PSI lpf/in ²

Suction capacity		
Beginning units	Multiply by	To Get
l/min	0.06	m ³ /h
gal/min	0.227	m ³ /h
ft ³ /min	1.669	m ³ /h
m ³ /h	16.667	l/min
m ³ /h	4.403	gal/min
m ³ /h	0.588	ft ³ /min

Example
 250[inch H2O] * 2.491 = 622.5[mbar]

* **Absolute Pressure**
 The pressure measured from absolute zero, using ideal vacuum as the datum.
 The measured pressure is always greater than the reference pressure.

* **Gauge Pressure**
 The pressure measured above the prevailing atmospheric pressure. The datum
 is the prevailing atmospheric pressure and the measured pressure is always
 higher than datum.

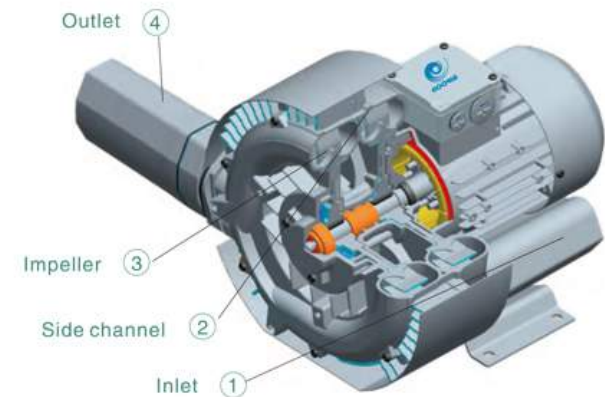
Wide voltage, dual-frequency available all the world

GOORUI high pressure side channel blower adopting wide voltage range dual frequency 50/60Hz, IP54/IP55 (Insulation class F/H), CE, RoHS certificates approved, making them the ideal solution for world wide use. They can be used without any modifications and tests in Europe, America and Asia, etc . They are available to meet your demands at any time .

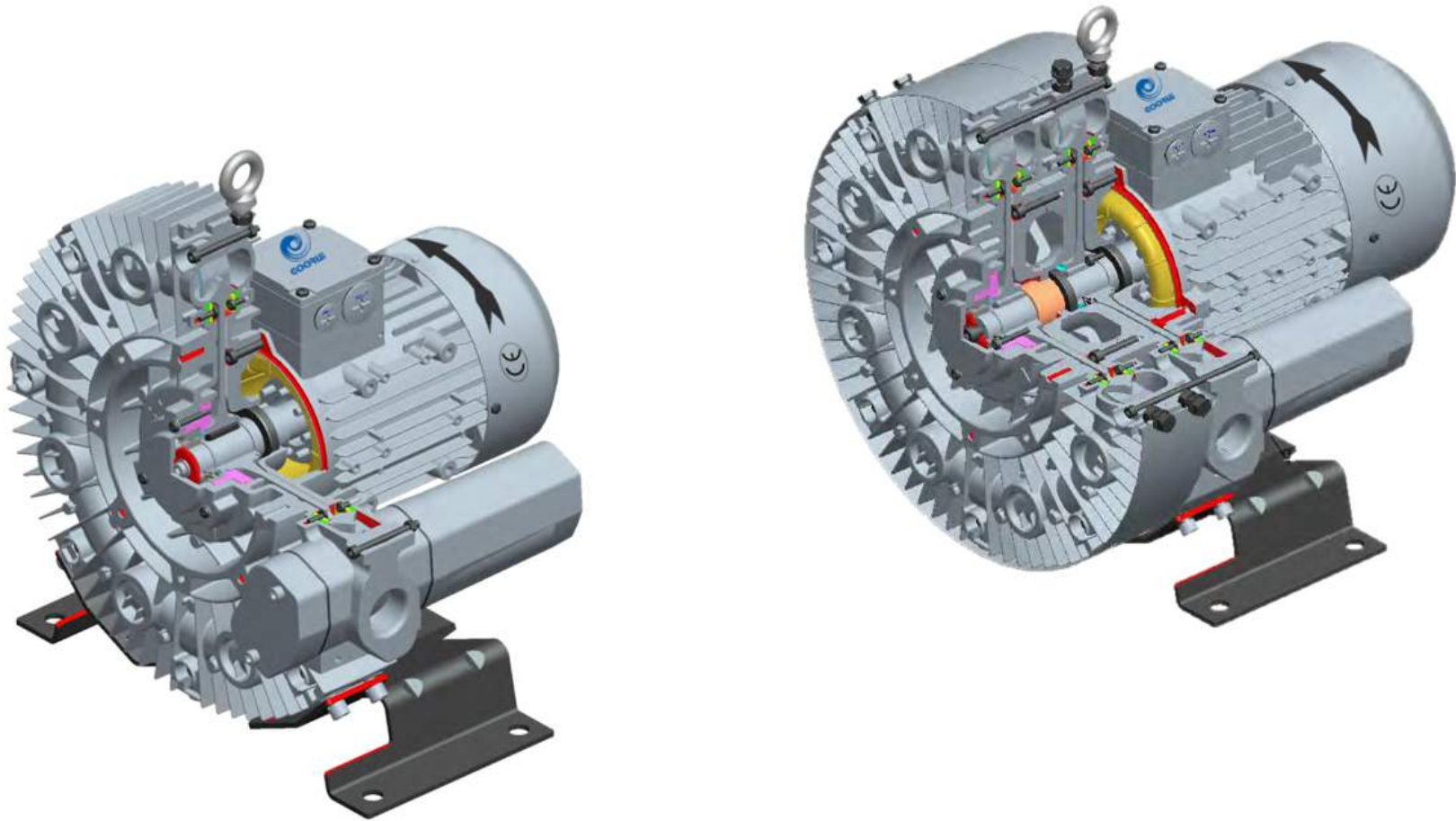
Working principle of Regenerative blower

The impeller of Goorui Regenerative Blower was directly installed to the rotor, compress without contact. The bearing was out of turbine to make sure the stability.

Air gets in through inlet 1, then enters side channel 2, impeller will push the air under high speed. Meanwhile, centrifugalization makes the air speed outward and pressure rises. Air power increase under rotating, and the pressure rises further. At last, air gets out from outlet 4.



GHBG Single and double stage



Unsurpassed at highest differential pressure

Our revolutionary GHBG regenerative blowers can produce more than 1000mbar differential pressure which is higher than other brand. Till now, most machines which can also produce such differential pressure usually have a bigger size, higher noise and easy to be abraded than ours. And now besides low noise, freely abrade, our GHBG series blowers are also suitable for more rigorous working situation.

GHBG regenerative blower can be used for about 20,000 hours constantly without any maintenance. This can be proved in any situation, even in the most rigorous operating conditions. Although their low noise will leave a deep impression for you, our engineers and designers is still hard work to make them more quite.

GHBG model selection chart, vacuum & compressor types, 50hz/60hz , please refer to page 25-28.

GHBG series

specification for pressure & vacuum operation.

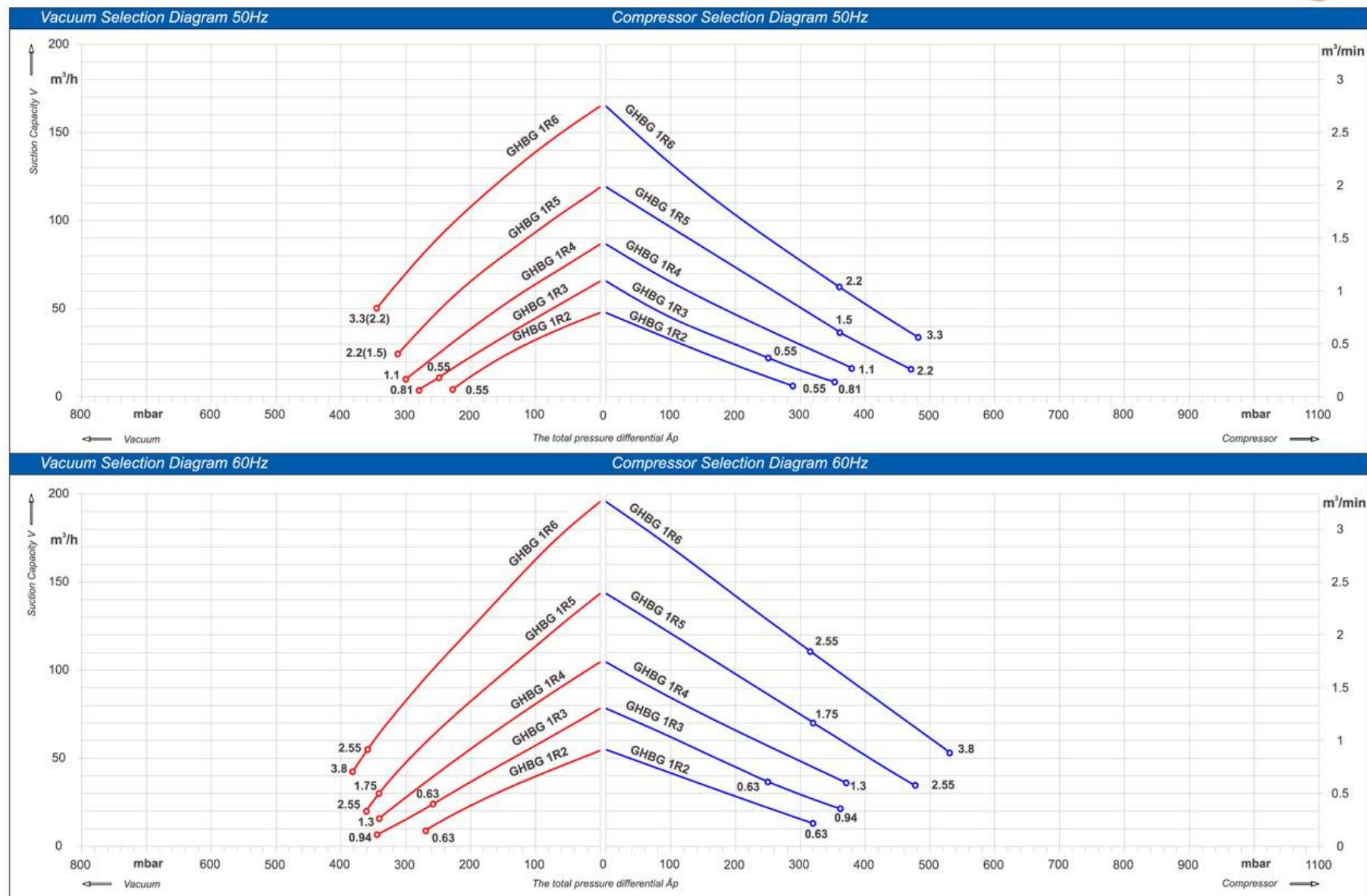
(Single) Three-phase motor, Single-stage

MOTOR					Weight	Sound	Max airflow	Max vacuum	Max pressure	Pressure relief valve / filter
Model	Frequency	Rated								
		Power	Voltage	Current						
	Hz	KW	V	A	Kg	db(A)	m³/h	mbar	mbar	
GHBG D73 12 1R2	50	0.55	200-240	3.1	18	57	47	-230	290	RVG1.2/MF-10
	60	0.63	220-275	7.1		62	57	-270	320	RVG1.2/MF-10
GHBG 1D2 12 1R3	50	0.94	200-240	9.0	18	57	66	-250	350	RVG1.2/MF-10
	60	1.1	220-275	9.0		62	80	-280	390	RVG1.2/MF-10
GHBG 1D7 12 1R4	50	1.1	200-240	10.1	23	55	87	-300	380	RVG1.2/MF-10
	60	1.3	220-275	10.3		62	105	-350	390	RVG1.2/MF-10
GHBG D73 34 1R2	50	0.55	200-240Δ/345-415	2.8Δ/1.6Y	16	57	47	-230	290	RVG1.2/MF-10
	60	0.63	220-275Δ/380-480	3.0Δ/1.7Y		62	57	-270	320	RVG1.2/MF-10
GHBG D73 34 1R3	50	0.55	200-240Δ/345-415	2.8Δ/1.6Y	16	57	66	-250	250	RVG1.2/MF-10
	60	0.63	220-275Δ/380-480	3.0Δ/1.7Y		62	80	-260	250	RVG1.2/MF-10
GHBG 1D2 34 1R3	50	0.81	200-240Δ/345-415	4.0Δ/2.3Y	17	59	66	-280	350	RVG1.2/MF-10
	60	0.94	220-275Δ/380-480	4.0Δ/2.3Y		62	80	-340	360	RVG1.2/MF-10
GHBG 1D7 34 1R4	50	1.1	200-240Δ/345-415	5.4Δ/3.1Y	23	55	87	-300	380	RVG1.2/MF-10
	60	1.3	220-275Δ/380-480	5.4Δ/3.1Y		62	105	-340	370	RVG1.2/MF-10
GHBG 002 34 1R5	50	1.5	200-240Δ/345-415	7.5Δ/4.3Y	26	64	120	-310	360	RVG1.2/MF-10
	60	1.75	220-275Δ/380-480	7.6Δ/4.4Y		68	145	-340	320	RVG1.2/MF-10
GHBG 003 34 1R5	50	2.2	200-240Δ/345-415	11.4Δ/6.6Y	29	64	120	-310	470	RVG1.2/MF-10
	60	2.55	220-275Δ/380-480	11.2Δ/6.5Y		68	145	-360	480	RVG1.2/MF-10
GHBG 003 34 1R6	50	2.2	200-240Δ/345-415	11.4Δ/6.6Y	32	65	165	-340	360	RVG1.2/MF-10
	60	2.55	220-275Δ/380-480	11.2Δ/6.5Y		71	195	-360	315	RVG1.2/MF-10
GHBG 4D4 34 1R6	50	3.3	200-240Δ/345-415	13.0Δ/7.5Y	35	65	165	-340	480	RVG1.2/MF-10
	60	3.8	220-275Δ/380-480	14.2Δ/8.2Y		71	195	-380	530	RVG1.2/MF-10

GHBG Series performance curves

The performance curves of Goorui blower is tested through below ways:

Under one atmospheric pressure, suck 15°C air and then you can calculate the data, of course allow 10% difference, and when the sucked air and surroundings temperature are not higher than 25°C, you still can get total pressure difference as the curves shows.



GHBG series

specification for pressure & vacuum operation.

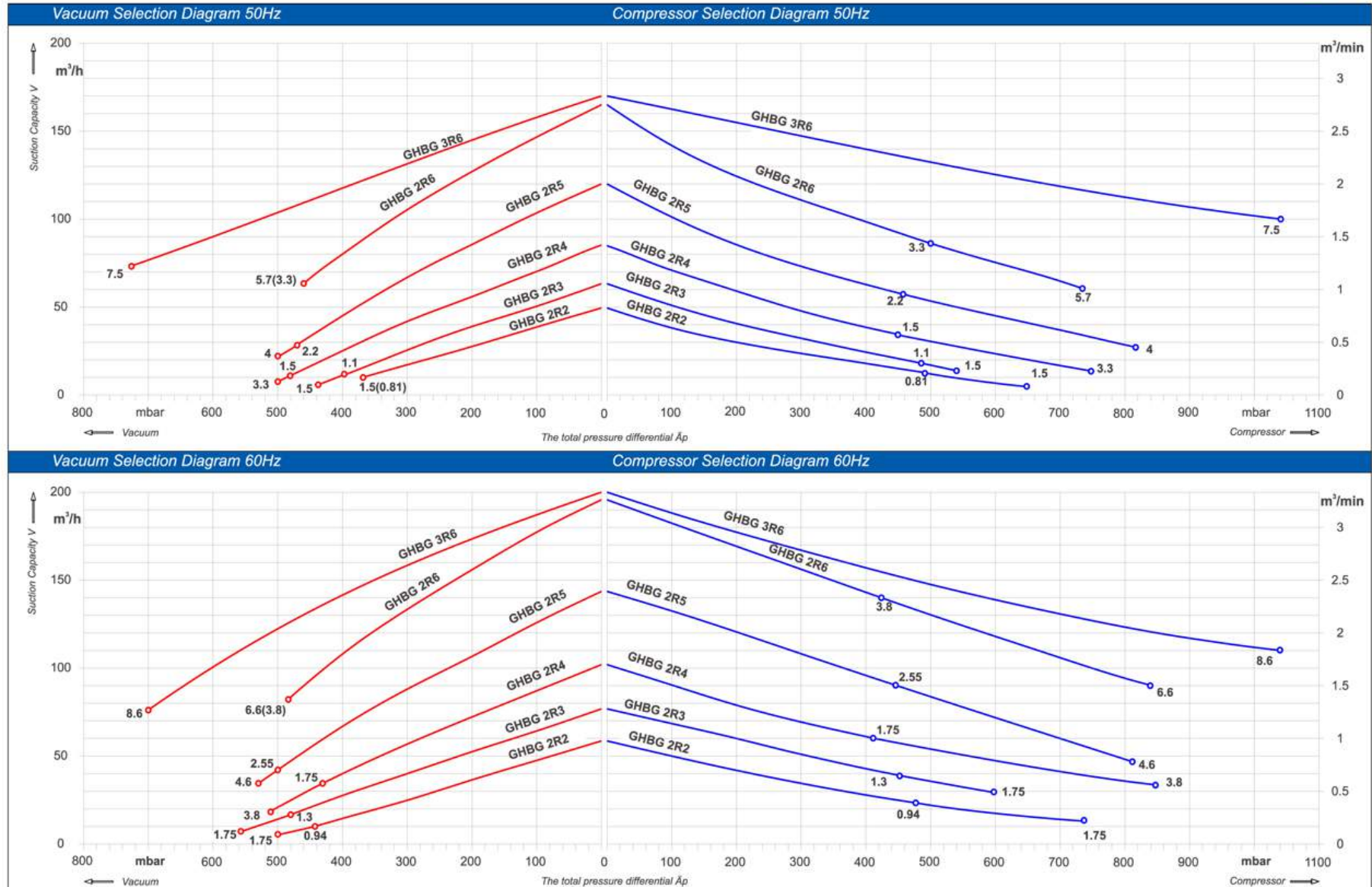
(Single) Three-phase motor, Multi-stage

MOTOR					Weight	Sound	Max airflow	Max vacuum	Max pressure	Pressure relief valve / filter
Model	Frequency	Rated								
		Power	Voltage	Current						
	Hz	KW	V	A	Kg	db(A)	m³/h	mbar	mbar	
GHBG 002 12 2R2	50	1.5	200-240	9.7	30	58	47	-370	600	RVG1.2/MF-10
	60	1.75	220-275	10.3		62	60	-420	660	RVG1.2/MF-10
GHBG 002 12 2R3	50	1.5	200-240	9.7	32	59	65	-400	550	RVG1.2/MF-10
	60	1.75	220-275	10.3		63	76	-390	540	RVG1.2/MF-10
GHBG 1D2 34 2R2	50	0.81	200-240Δ/345-415Y	4.0Δ/2.3Y	24	58	47	-370	490	RVG1.2/MF-10
	60	0.94	220-275Δ/380-480Y	4.0Δ/2.3Y		62	60	-440	480	RVG1.2/MF-10
GHBG 002 34 2R2	50	1.5	200-240Δ/345-415Y	7.5Δ/4.3Y	28	58	47	-370	650	RVG1.2/MF-10
	60	1.75	220-275Δ/380-480Y	7.5Δ/4.3Y		62	60	-500	740	RVG1.2/MF-10
GHBG 1D7 34 2R3	50	1.1	200-240Δ/345-415Y	5.4Δ/3.1Y	29	59	65	-400	480	RVG1.2/MF-10
	60	1.3	220-275Δ/380-480Y	5.4Δ/3.1Y		63	76	-480	460	RVG1.2/MF-10
GHBG 002 34 2R3	50	1.5	200-240Δ/345-415Y	7.5Δ/4.3Y	30	59	65	-440	540	RVG1.2/MF-10
	60	1.75	220-275Δ/380-480Y	7.6Δ/4.4Y		63	76	-560	600	RVG1.2/MF-10
GHBG 002 34 2R4	50	1.5	200-240Δ/345-415Y	7.5Δ/4.3Y	33	61	87	-480	450	RVG1.2/MF-10
	60	1.75	220-275Δ/380-480Y	7.6Δ/4.4Y		66	105	-430	410	RVG1.2/MF-10
GHBG 4D4 34 2R4	50	3.3	200-240Δ/345-415Y	13Δ/7.5Y	39	61	87	-500	750	RVG1.2/MF-10
	60	3.8	220-275Δ/380-480Y	13.8Δ/8Y		66	105	-510	850	RVG1.2/MF-10
GHBG 003 34 2R5	50	2.2	200-240Δ/345-415Y	11.4Δ/6.6Y	40	64	120	-470	460	RVG1.2/MF-10
	60	2.55	220-275Δ/380-480Y	11.2Δ/6.5Y		70	145	-500	450	RVG1.2/MF-10
GHBG 5D5 36 2R5	50	4	345-415Δ	9.0Δ	51	65	120	-500	820	RVG1.2/MF-10
	60	4.6	380-480Δ	9.5Δ		71	145	-530	810	RVG1.2/MF-10
GHBG 4D4 34 2R6	50	3.3	200-240Δ/345-415Y	13Δ/7.5Y	48	67	165	-460	500	RVG1.2/MF-10
	60	3.8	220-275Δ/380-480Y	14.2Δ/8.2Y		71	195	-480	420	RVG1.2/MF-10
GHBG 7D5 36 2R6	50	5.7	345-415Δ	12.5Δ	65	68	165	-460	740	RVG1.2/MF-10
	60	6.6	380-480Δ	12.0Δ		72	195	-480	840	RVG1.2/MF-10
GHBG 010 36 3R6	50	7.5	345-415Δ	16.0Δ	85	72	170	-730	1040	MF-10
	60	8.6	380-480Δ	16.0Δ		76	200	-700	1040	MF-10

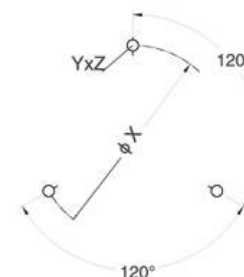
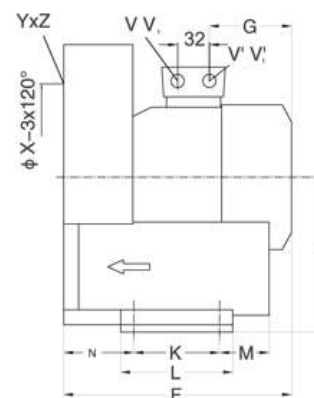
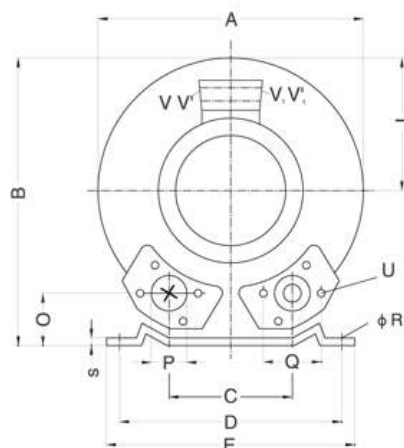
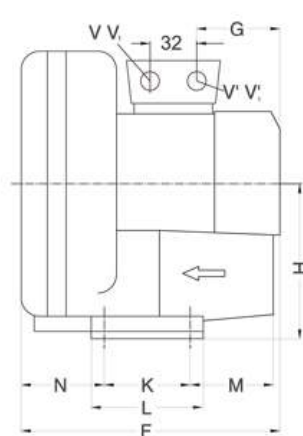
GHBG Series2 performance curves

The performance curves of Goorui blower is tested through below ways:

Under one atmospheric pressure, suck 15°C air and then you can calculate the data, of course allow 10% difference, and when the sucked air and surroundings temperature are not higher than 25°C, you still can get total pressure difference as the curves shows.



GHBH 1R2./GHBH AR2./GHBH 1R3./GHBH AR3.



Type	Phases	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
GHBH 0D3 34 1R2	3~	245	247	90	205	230	219	92	128	101	83	108	75	70	39	G _{1 1/4} (15tief-deep)	64
GHBH 0D5 34 1R2	3~	245	247	90	205	230	256	135	128	111	83	108	76	70	39	G _{1 1/4} (15tief-deep)	64
GHBH 0D5 12 1R2	1~	245	247	90	205	230	256	135	128	111	83	108	76	70	39	G _{1 1/4} (15tief-deep)	64
GHBH 0D3 34 AR2	3~	245	247	90	205	230	242	102	128	101	83	108	76	81	39	G _{1 1/4} (15tief-deep)	64
GHBH 0D5 34 AR2	3~	245	247	90	205	230	267	135	128	111	83	108	76	81	39	G _{1 1/4} (15tief-deep)	64
GHBH 001 34 AR2	3~	245	247	90	205	230	267	135	128	111	83	108	76	81	39	G _{1 1/4} (15tief-deep)	64
GHBH 0D5 12 AR2	1~	245	247	90	205	230	267	135	128	111	83	108	76	81	39	G _{1 1/4} (15tief-deep)	64
GHBH D73 34 1R3	3~	268	272	93	205	230	260	135	141	111	83	108	82	69	41	G _{1 1/4} (15tief-deep)	64
GHBH 001 34 1R3	3~	268	272	93	205	230	260	135	141	111	83	108	82	69	41	G _{1 1/4} (15tief-deep)	64
GHBH D73 12 1R3	1~	268	272	93	205	230	260	135	141	111	83	108	82	69	41	G _{1 1/4} (15tief-deep)	64
GHBH 001 12 1R3	1~	268	272	93	205	230	260	135	141	111	83	108	82	69	41	G _{1 1/4} (15tief-deep)	64
GHBH D73 34 AR3	3~	268	272	93	205	230	276	135	141	111	83	108	82	85	41	G _{1 1/4} (15tief-deep)	64
GHBH 001 34 AR3	3~	268	272	93	205	230	276	135	141	111	83	108	82	85	41	G _{1 1/4} (15tief-deep)	64

Type	Phases	φ R	S	U	V(1~)	V'(1~)	V ₁ (3~)	V' ₁ (3~)	YxZ	X-Holes	φ X
GHBH 0D3 34 1R2	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	140
GHBH 0D5 34 1R2	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	140
GHBH 0D5 12 1R2	1~	10	2.5	M6x17	M16x1.5	M25x1.5			M6x15	0°/120°/240°	140
GHBH 0D3 34 AR2	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	140
GHBH 0D5 34 AR2	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	140
GHBH 001 34 AR2	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	140
GHBH 0D5 12 AR2	1~	10	2.5	M6x17	M16x1.5	M25x1.5			M6x15	0°/120°/240°	140
GHBH D73 34 1R3	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	140
GHBH 001 34 1R3	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	160
GHBH D73 12 1R3	1~	10	2.5	M6x17	M25x1.5	M16x1.5			M6x15	0°/120°/240°	160
GHBH 001 12 1R3	1~	10	2.5	M6x17	M25x1.5	M16x1.5			M6x15	0°/120°/240°	160
GHBH D73 34 AR3	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	160
GHBH 001 34 AR3	3~	10	2.5	M6x17			M25x1.5	M16x1.5	M6x15	0°/120°/240°	160

Note: 1. The Catalogue only for reference, If there are differences, please confirm by the practicalities.
2. The specifications are subject to change by the manufacturer without prior notice.