

DRY

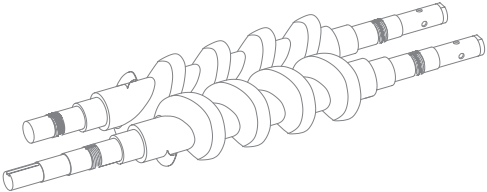
www.dbvacuum.co.kr

Vacuum Pump

DBVP
DBPW
DBHP



Dry Screw Vacuum Pump



Screw Type **DRY VACUUM PUMP**

Vacuum pump made by DONGBANG is creating special

We developed technology for dry vacuum pump on our own in 1998 and achieved patents regarding water cooling system of screw vacuum pump, cooling system of screw vacuum pump and multi stage screw. Not only we have patents regarding inside cooling type of vacuum pump screw but also acquired CE & TUV certifications by stable quality and technology. We have been favorably received by overseas markets and domestic market such as Semiconductor, Electricity & Electronics, Fine chemistry, Pharmaceutical industry and Plastic extrusion. We will continue our efforts to improve our technology with our 39 years extensive experiences. We will also supply the best products on the best condition to our clients and be the reliable company.



Head Office/
#1 Factory

www.dbvacuum.co.kr



#2 Factory



DBVP Series

DBVP 150
DBVP 300
DBVP 450
DBVP 800
DBVP 1500
DBVP 2700

We have the performance that has been made by superfine machining technique.

DBVP Series upgraded with new design and practical performance,

and it's the Dry Vacuum Pump we all have been looking forward to.

DBVP Series

DBVP 150
DBVP 300
DBVP 450
DBVP 800
DBVP 1500
DBVP 2700



What is DBVP

DBVP series that has been upgraded in 2017 is NEW model with variable pitch type. New appearance design, removed air filter, and one-body variable screw are applied. DBVP is customized Dry Vacuum Pump specialized in reducing power consumption and improving durability.

Features

1 NEW DESIGN

- The compact design that emphasized curve line of casing and Plate(REF2) was removed
- Improving the part connected with Motor by IEC Flange Type

2 REMOVED AIR FILTER

- The strong anti corrosion by blocking the inflow of air into pump / it is safe even explosive circumstance
- Minimized contamination in application circumstance due to no process material back-flowed

3 MECHANICAL SEAL

- Protection from water or oil contamination by using the seal which has outstanding sealing effect
- Enlarged sealing effect as compared to Lip Seal of other companies

4 SIMPLE INTERNAL STRUCTURE

- Increasing life time of pump by non contacting between casing and screw
- Easy overhaul/maintenance and minimized minor faults by simplifying the internal structure

5 LINE-UP

- Consisted of various line from small to large capacity

6 DRY VARIABLE PITCH SCREW

- Eco-friendly pump which is no need oil or water that is to form oil film inside pump also no additional cost come from waste water
- Keeping constant vacuum degree even for long time operation without influence of internal/external circumstance
- Reducing utility cost as applying variable pitch screw that helps reduce power consumption and discharge temperature

7 COATING

- Applying Special TEFLON Coating which is the most superior for the corrosion
- Easy to treat toxic, corrosive gas and condensable gas

8 The RANGE of Using PRESSURE of PUMP

- It is possible of continuous operation in the all pressure range by forming vacuum with mechanical rotation of screw
- No change of using power in accordance with vacuum degree (low to high)

9 IEC FLANGE

- Increasing customer convenience by applying IEC Flange
- Simple installation due to no need to adjust Shaft Alignment when pump is to moved

Application

► AUTOMOBILE, AIRCRAFT, MECHANICAL Ind.

—Vacuum casting, Sintering, Deposition, Impregnation, Ion, Nitrification, Evacuation, etc.

► STEEL INDUSTRY

—Steel degassing, Vacuum casting

► HEAT TREATMENT PROCESS, CENTRALIZED PROCESS VACUUM

► CHEMICAL & FOOD Ind. POLYMER, MEDICINE Field

—Evaporating Condensation, Drying, Freeze Drying, Distillation, Molecular Distillation, Deodorization, Defoamation, Dehydration, Degassing, Packing, Forming, Absorption, Impregnation, Conditioning, Esterification, Polymerization & Esterification, Pneumatic Conveying, Liquid Transfer by vacuum, Food Additive, Plasticizer, Surfactant, etc.

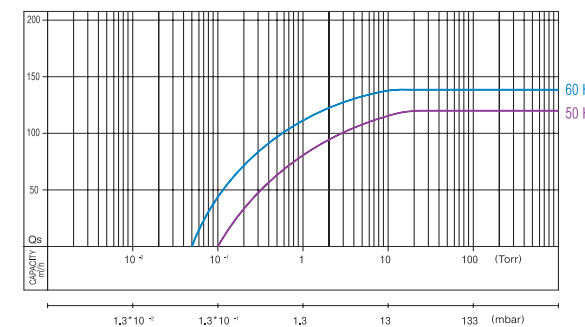
Specification

SPECIFICATION	DBVP 150		DBVP 300		DBVP 450		DBVP 800	
	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Free Air Displacement(m ³ /hr)	135	165	260	320	390	480	700	840
Nominal Capacity(m ³ /hr)	120	140	230	280	340	410	560	720
Ultimate pressure(Torr,abs)	0.1	0.05	0.05	0.03	0.03	0.01	0.03	0.01
Motor Size(kw)	3.7	5.5	7.5	7.5	11	11	15	18.5
Motor Speed(RPM)	2900	3550	2900	3550	2900	3550	2900	3550
Port size	Suction	40A	50A		65A		100A	
	Discharge	40A	40A		50A		65A	
Cooling Water(ℓ /min)@20℃	12		14		16		20	
Gear Oil	Front(oil/ℓ)	1.1 (Oil)	1.3 (Oil)		1.4 (Oil)		2.8 (Oil)	
	Rear(oil/ℓ)	0.6 (Oil)	0.6 (Oil)		0.8 (Oil)		1.4 (Oil)	
Weight (Pump Only)(kg)	245		315		380		600	

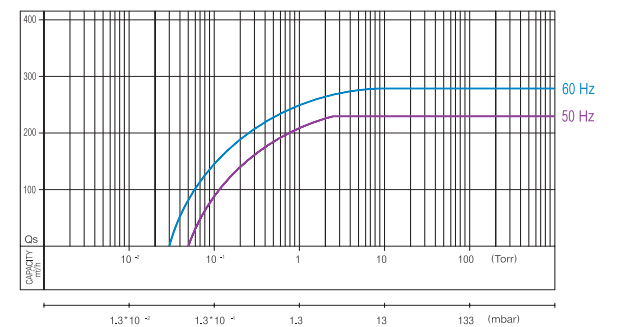
STANDARD COMPONENTS : SILENCER, COUPLING OR PULLEY, SAFETY COVER, BASE FRAME, SEPARATOR
SPECIAL COMPONENT : RECIRCULATION COOLER

Performance Curve

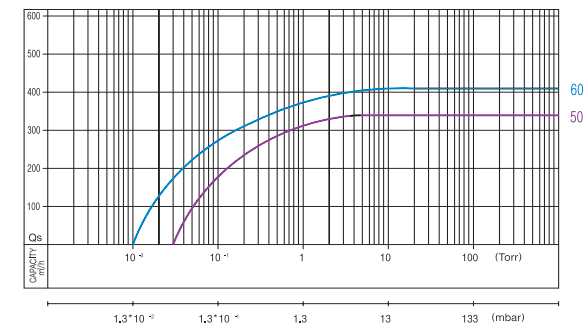
DBVP 150



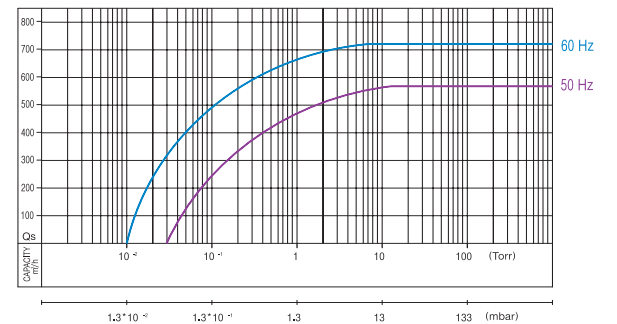
DBVP 300



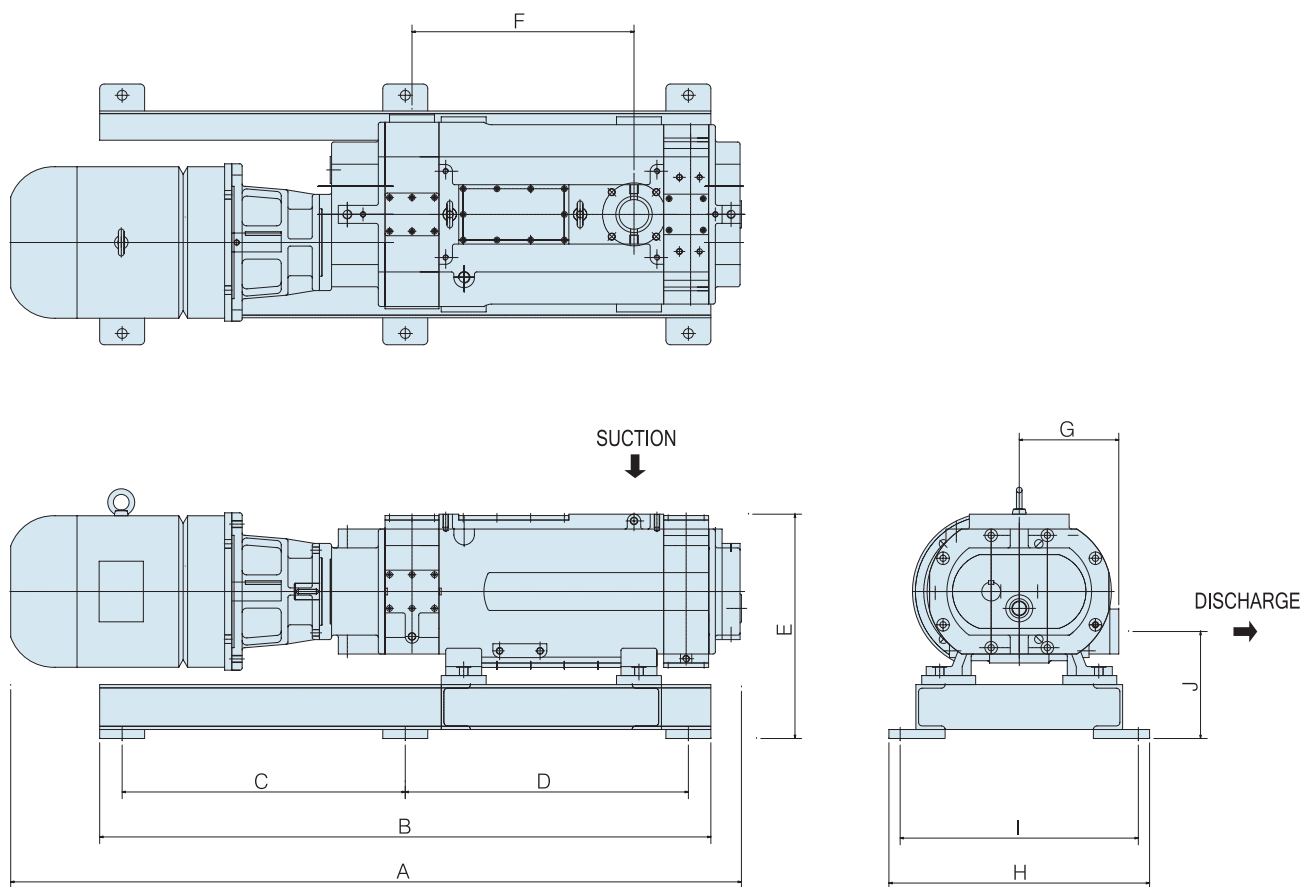
DBVP 450



DBVP 800



Dimension



Specification

SIZE PUMP MODEL	A	B	C	D	E	F	G	H	I	J	PORT SIZE	
											SUC.	DIS.
DBVP 150 - 2P	1358	1030	465	465	433	379	182	495	445	223	40	40
DBVP 300 - 2P	1566	1350	625	625	473	456	205	550	500	233	50	40
DBVP 450 - 2P	1628	1360	630	630	499	494	222	580	530	238	65	50
DBVP 800 - 2P	1735	1500	700	700	555	501	271	670	620	258	100	65

These dimensions are subject to change without notice.



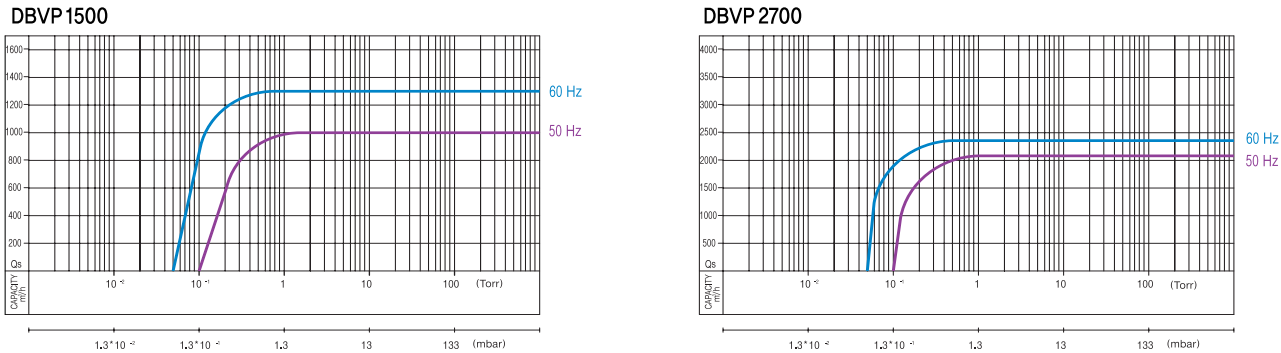
DBVP1500
DBVP2700

Specification

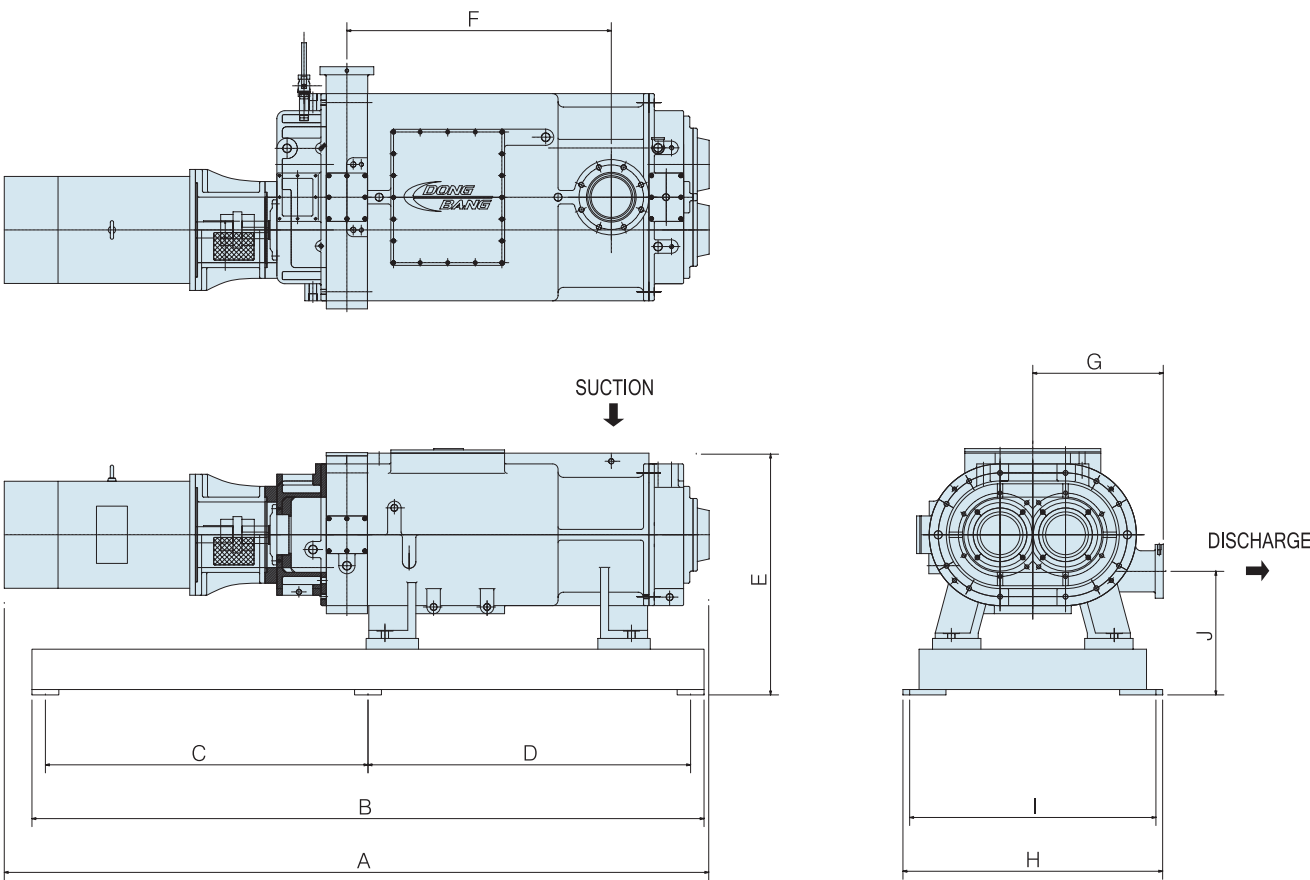
MODEL		DBVP 1500		DBVP 2700	
		50Hz	60Hz	50Hz	60Hz
SPECIFICATION					
Free Air Displacement(m ³ /hr)		1250	1500	2400	2700
Nominal Capacity(m ³ /hr)		1000	1300	2100	2300
Ultimate pressure(Torr,abs)		0.1	0.05	0.1	0.05
Motor Size(kw)		30	37	45	55
Motor Speed(RPM)		1500	1800	1500	1800
Port size	Suction	125A		150A	
	Discharge	100A		125A	
Cooling Water(ℓ /min)@20℃		40		55	
Gear Oil/ grease	Front(oil/ ℓ)	3.5(Oil)		4(Oil)	
	Rear(grease/g)	300g(Grease)		450g(Grease)	
Weight (Pump Only)(kg)		1400		2100	

STANDARD COMPONENTS : SILENCER, COUPLING OR PULLEY, SAFETY COVER, BASE FRAME, SEPARATOR
SPECIAL COMPONENT : RECIRCULATION COOLER

Performance Curve



Dimension



Specification

SIZE PUMP MODEL	A	B	C	D	E	F	G	H	I	J	PORT SIZE	
											SUC.	DIS.
DBVP 1500 - 4P	2307	2200	1050	1050	888	897	405	860	810	405	125	100
DBVP 2700 - 4P	2622	2500	1200	1200	1011	984	485	966	916	460	150	125

These dimensions are subject to change without notice.



DBPW Series

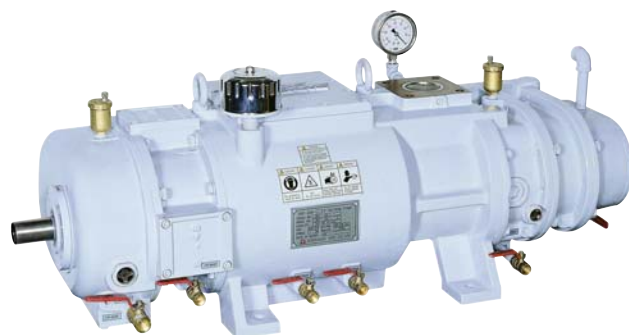
DBPW150
DBPW350
DBPW450
DBPW800

DBPW Series has been achieving trust of customers in vacuum pump market for more than 20years, and it is the customer's favorite in chemical and medicine fields especially.

This is the Dry Vacuum Pump that has the best practicality and cost-effectiveness with long life time as Screw Inner Cooling Type.

DBPW Series

DBPW 150
DBPW 350
DBPW 450
DBPW 800



What is DBPW

DBPW Series is Dry Vacuum Pump for general industry and it is improved durability through screw inner cooling type. Also it can contribute to stabilize process and improve productivity by keeping constant vacuum degree and capacity even for long operation time.

Features

1 SCREW DIRECT COOLING SYSTEM

- Cooling water cool the inside of screw directly
- No carbonization of gas as maintaining the surface temperature of screw less than 150°C
- The low temperature of screw lengthens coating durability and is suitable of chemical / corrosive gas process
- The time to reach vacuum is very short due to no thermal expansion of screw itself
- No fusion between screw and screw, screw and casing during process
- Discharge temperature is more than 20°C lower than the other companies

2 SIMPLE INTERNAL STRUCTURE

- Increasing life time of pump by non contacting between casing and screw
- Easy overhaul / maintenance and minimized minor faults by simplifying the internal structure

3 MECHANICAL SEAL

- Protection from water or oil contamination by using the seal which has outstanding sealing effect
- Enlarged sealing effect as compared to Lip Seal of other companies

4 DRY EQUAL PITCH SCREW

- Eco-friendly pump which is no need oil or water that is to form oil film inside pump also no additional cost come from waste water
- Keeping constant vacuum degree even for long time operation without influence of internal/external circumstance
- Easy discharge of reaction products and other solid materials by applying single pitch screw

5 COATING

- Applying Special TEFLON Coating which is the most superior for the corrosion
- Easy to treat toxic, corrosive gas and condensable gas

6 The RANGE of Using PRESSURE of PUMP

- It is possible of continuous operation in the all pressure range by forming vacuum with mechanical rotation of screw
- No change of using power in accordance with vacuum degree (low to high)

7 IEC FLANGE

- Increasing customer convenience by applying IEC Flange
- Simple installation due to no need to adjust Shaft Alignment when pump is to moved

Application

►CHEMICAL & FOOD Ind. POLYMER, MEDICINE Field

— Evaporating Condensation, Drying, Freeze Drying, Distillation, Molecular Distillation, Deodorization, Defoamation, Dehydration, Degassing, Packing, Forming, Absorption, Impregnation, Conditioning, Esterification, Polymerization & Esterification, Pneumatic Conveying, Liquid Transfer by vacuum, Food Additive, Plasticizer, Surfactant, Extrusion, etc.

►AUTOMOBILE, AIRCRAFT, MECHANICAL Ind.

— Vacuum casting, Sintering, Deposition, Impregnation, Ion, Nitrification, Evacuation, etc.

►OTHERS

— Absorption Transfer, Forming, Deposition, etc.

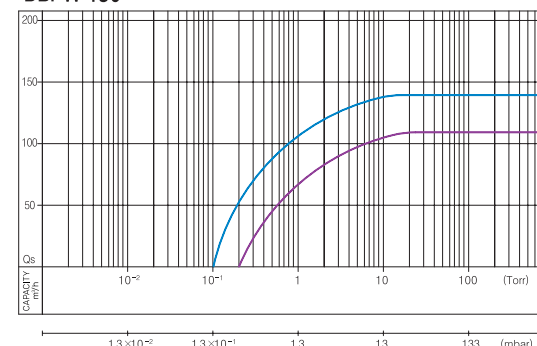
Specification

MODEL SPECIFICATION		DBPW150		DBPW350		DBPW450		DBPW800	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Free Air Displacement(m³/hr)		135	165	280	345	390	480	700	840
Nominal Capacity(m³/hr)		120	140	250	290	340	410	560	720
Ultimate pressure(Torr,abs)		0.2	0.1	0.2	0.05	0.03	0.02	0.03	0.01
Motor Size(kw)		5.5	7.5	11	11	11	15	22	30
Motor Speed(RPM)		2900	3550	2900	3550	2900	3550	2900	3550
Port size	Suction	40A		50A		65A		100A	
	Discharge	40A		40A		50A		65A	
Cooling Water(ℓ /min)@20℃		12		14		16		20	
Gear Oil(ℓ)	Front	1.1 (Oil)		1.3(Oil)		1.4 (Oil)		2.8(Oil)	
	Rear	0.6(Oil)		0.6(Oil)		0.8(Oil)		1.4(Oil)	
Weight (Pump Only)(kg)		245		315		380		600	

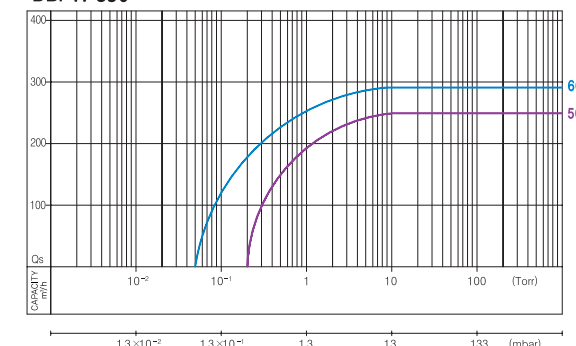
STANDARD COMPONENTS : SILENCER, COUPLING OR PULLEY, SAFETY COVER, BASE FRAME, SEPARATOR
SPECIAL COMPONENT : RECIRCULATION COOLER

Performance Curve

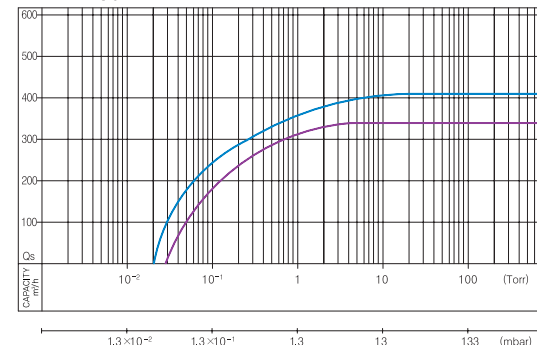
DBPW 150



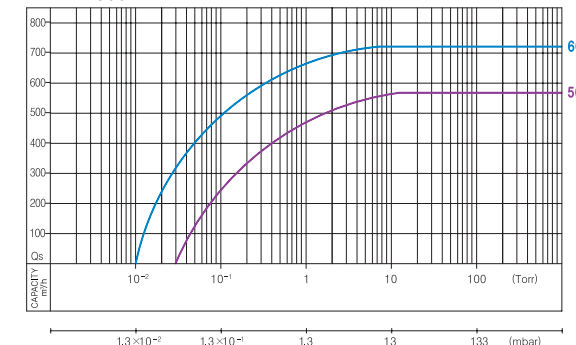
DBPW 350



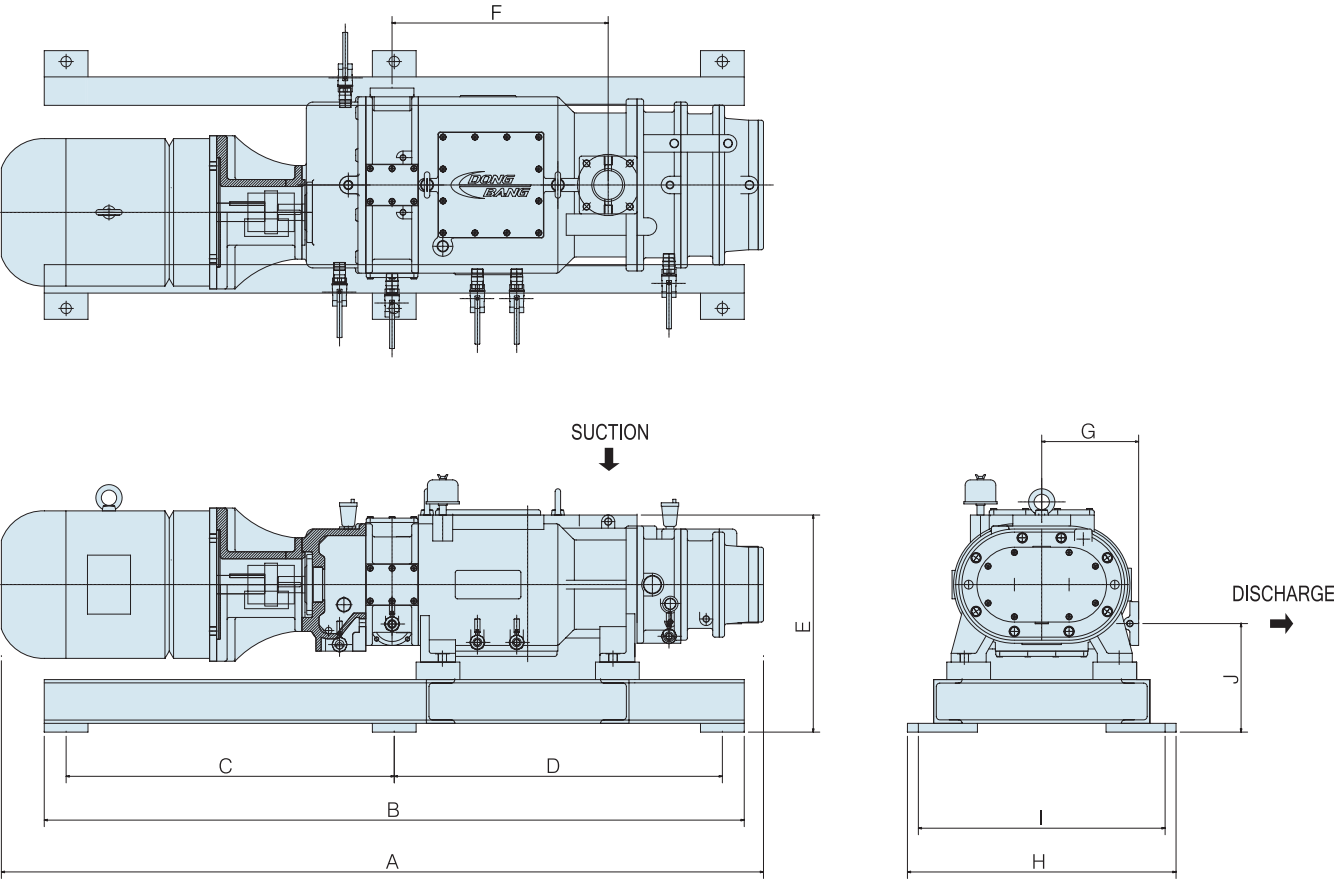
DBPW 450



DBPW 800



Dimension



Specification

SIZE PUMP MODEL	A	B	C	D	E	F	G	H	I	J	PORT SIZE	
											SUC.	DIS.
DBPW 150 - 2P	1509	1400	650	650	496	379	182	510	460	238	40	40
DBPW 350 - 2P	1687	1400	650	650	544	456	205	606	556	248	50	40
DBPW 450 - 2P	1742	1600	750	750	560	494	222	614	564	248	65	50
DBPW 800 - 2P	1978	1800	850	850	650	501	271	684	634	279	100	65

These dimensions are subject to change without notice.



DBHP Series

DBHP 100
DBHP 300
DBHP 600
DBHP 1200

We have customized & developed Dry Vacuum Pump in the high vacuum fields.

DBHP Series has economic efficiency & practicality as well as compact design in the field of Semiconductor, Electricity and Electronics, Secondary Battery and Display industry,

This Dry Vacuum Pump is required necessarily in the high vacuum fields.

DBHP Series

DBHP 100

DBHP 300

DBHP 600

DBHP 1200



What is DBHP

DBHP Series is the Dry Vacuum Pump to form high vacuum through screw design which is differentiated from others. It can be used exclusively and it was designed to be performed as back-up function of Turbo molecular pump, Cryo pump and other high vacuum system.

Features

1 COMPACT DESIGN

- Small size and cost-effectiveness
- It can be used indoor circumstance with enclosed box
- Optimized amount of exhaust and short exhaust path
- Easy moving, installation and disassemble as a portable type

2 SIMPLE INTERNAL STRUCTURE

- Increasing life time of pump by non contacting between casing and screw
- Easy overhaul/maintenance and minimized minor faults by simplifying the internal structure
- Low amount of cooling water and low power consumption

3 COATING

- Applying Special TEFLON Coating which is the most superior for the corrosion
- Easy to treat toxic, corrosive gas and condensable gas

4 DRY EQUAL PITCH SCREW

- Eco-friendly pump which is no need oil or water that is to form oil film inside pump also no additional cost come from waste water
- Keeping constant vacuum degree even for long time operation without influence of internal/external circumstance

5 The RANGE of Using PRESSURE of PUMP

- It is possible of continuous operation in the all pressure range by forming vacuum with mechanical rotation of screw
- No change of using power in accordance with vacuum degree (low to high)

6 IEC FLANGE

- Increasing customer convenience by applying IEC Flange
- Simple installation due to no need to adjust Shaft Alignment when pump is to moved

Application

► SEMICONDUCTOR Ind.

—CVD, Etching, Thin film deposition, Sputtering, etc.

► DISPLAY, AIRCRAFT, ELECTRICITY & ELECTRONICS

—LCD, PDP, OLED, AMOLED, ION, METAL LINE, 3D GLASS, IMPLANT, Material PLASMA, etc.

► SECONDARY BATTERY

—Solar photovoltaic industry, Lithium battery raw material, Laminating industry, etc.

► OTHERS

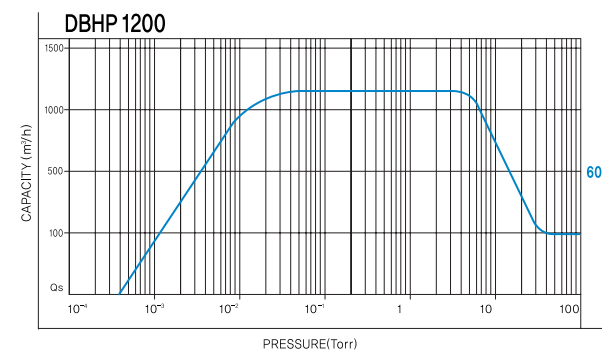
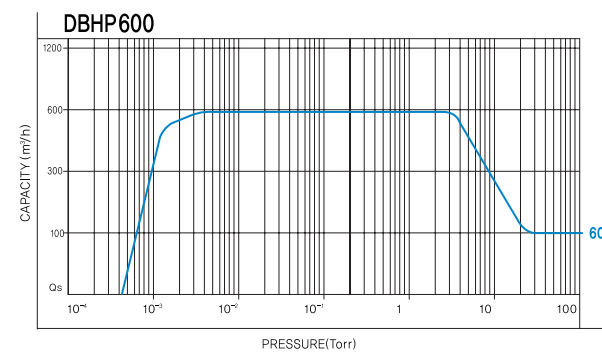
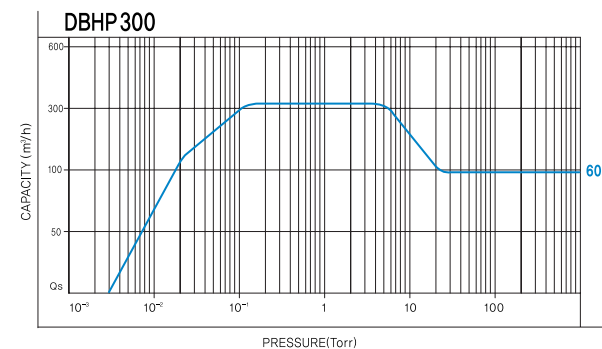
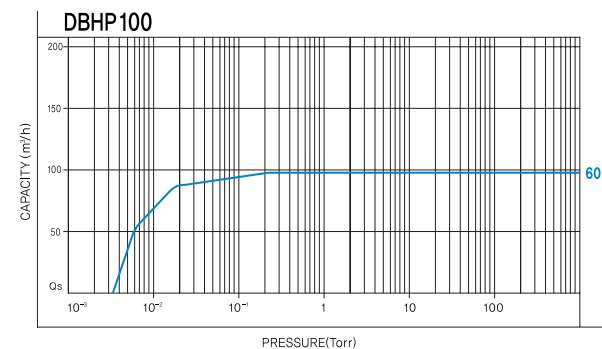
—Back-up pump for other assistant vacuum pumps such as turbo molecular pump

Specification

MODEL SPECIFICATION		Units	DBHP 100	DBHP 300	DBHP 600	DBHP 1200
Maximum Pumping Speed (at 60Hz)	m ³ /hr		95	360	550	1,050
	ℓ /min		1,580	6,000	9,150	17,500
Ultimate pressure(at 60Hz)	Torr		5×10 ⁻³	5×10 ⁻⁴	5×10 ⁻⁴	5×10 ⁻⁴
Componet	Booster Pump		—	GM 250 CM-N	GM 500 CM-N	GM 1000 CM-N
	Dry Pump		HP 100			
Motor	Booster Pump	kw	—	1.2	1.2	3
	Dry Pump	kw	3.7	3.7	3.7	3.7
Port size	Suction		NW40	DIN80	DN100	DN100
	Discharge		NW 40			
Cooling Water	Rate	LPM	4~6 LPM			
	Pressure	kg/cm ²	2~7			
	Connection		Rc 1/4 male			
N ₂ Purge Gas	Rate	LPM	4~6 LPM			
	Pressure	MpaG	0.1~0.7 MpaG (Regulator setting : 0.07 MpaG)			
	Connection		Rc 1/4 mate			
Oil Capacity :V/P+M/B		ℓ	0.4	0.4+0.9	0.4+1.1	0.4+1.5
Oil Type / Grease			Shell Turbo #68(Fomblin YL VAC 25/6)/Mobil #28			
Dimensions : L×W×H		mm	1,390×460×630	1,430×500×700	1,500×560×730	1,600×600×800
Noise Level		db(A)	<65	<65	<65	<72

STANDARD COMPONENTS : SILENCER, COUPLING OR PULLEY, SAFETY COVER, BASE FRAME, SEPARATOR
SPECIAL COMPONENT : RECIRCULATION COOLER

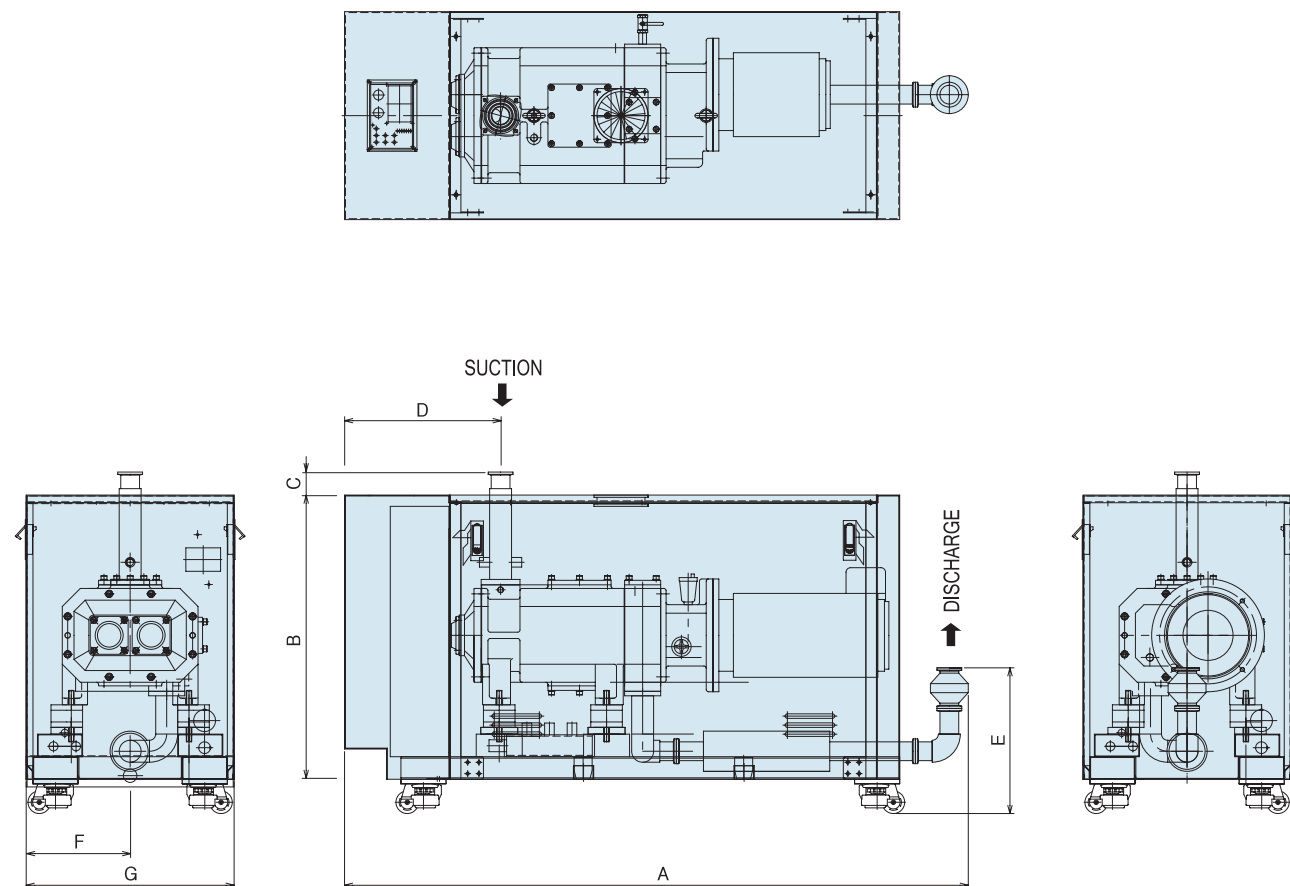
Performance Curve



Total Application System

DONGBANG offers the customized TOTAL APPLICATION SERVICE connected with BOOSTER for various applications where are required for vacuum pump

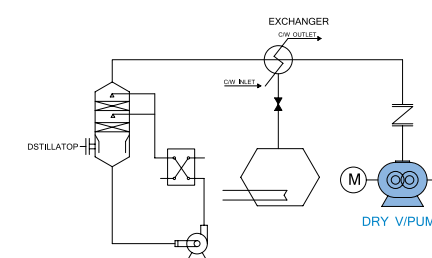
Dimension



Specification

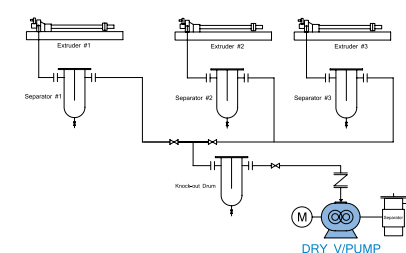
SIZE PUMP MODEL	A	B	C	D	E	F	G	PORT SIZE	
								SUC.	DIS.
DBHP 100	1390	630	50	346	320	230	460	NW 40	NW 40
DBHP 300	1430	700	50	400	350	250	500	DN 80 ISO-K	NW 40
DBHP 600	1500	730	50	450	350	280	560	DN 100 ISO-K	NW 40
DBHP 1200	1600	800	50	450	400	300	600	DN 100 ISO-K	NW 40

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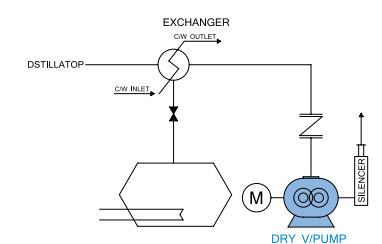
DISTILLATION

- Simple and stable vacuum system
- Reduced utility cost



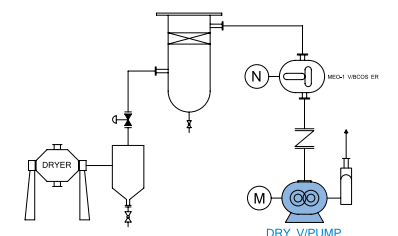
EXTRUDER

- Plastic resin compounding, Plastic Sheet
- Reduce carbonization phenomenon of Monomer
- Reduced operational cost
- No waste water



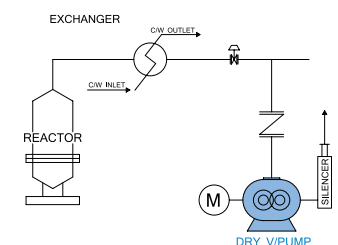
DEHYDRATION

- No waste water
- Improved operation efficiency for vacuum system owing to stability and simplicity.
- Sewage or waste water occurrence from oil mist and condensate has been inhibited due to restrain of utility usage.



DRYER

- Reduced processing time
- Keeping constant degree of vacuum



RECOVERY

- Advantageous to process including Solvent

Quality Management System

DONGBANG PLANTECH CO., LTD considers the satisfaction of customers is the basic element in order to be a competitive company, and needs of customers in terms of quality are based on creating new service and innovation of enterprise management system

Quality & Environmental Management

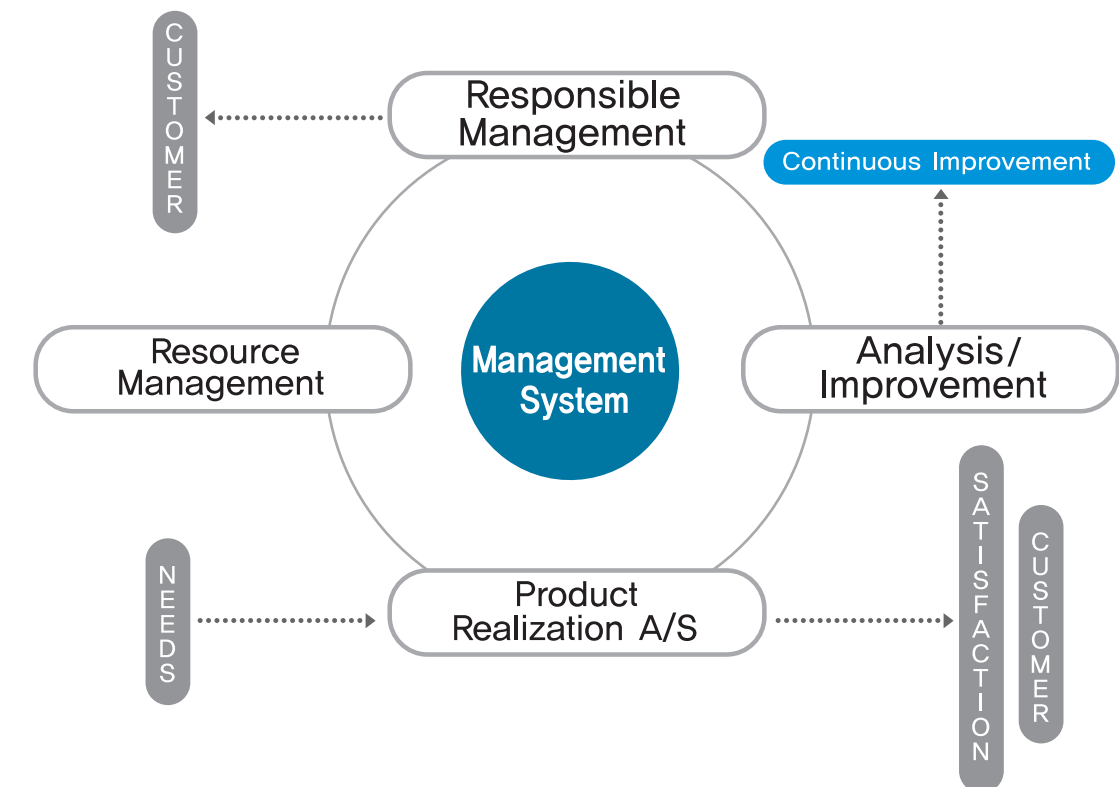
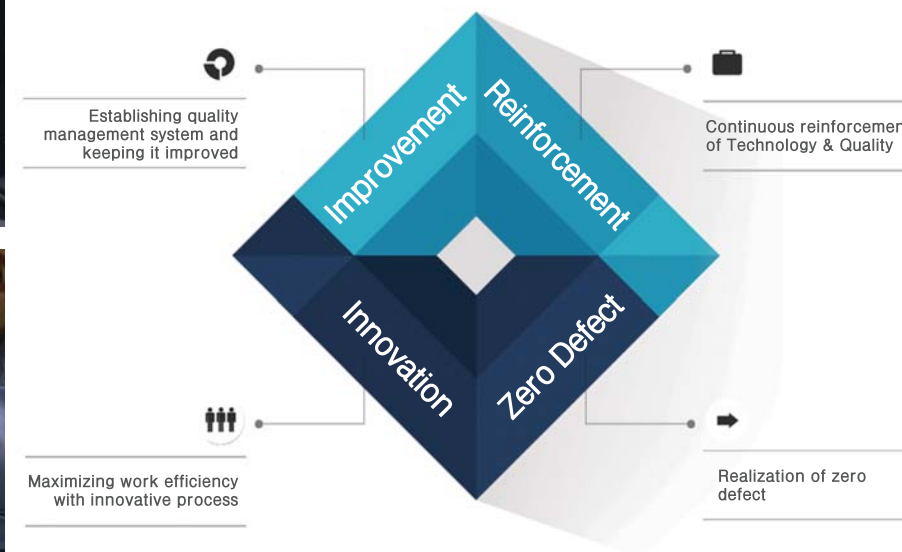
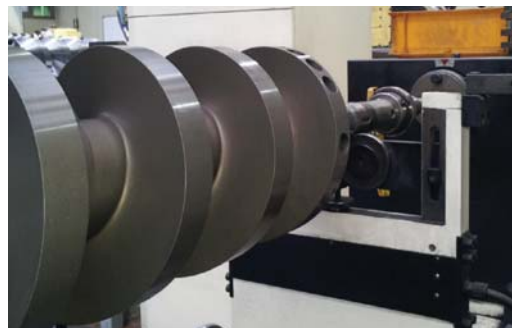
DONGBANG PLANTECH considers customer's needs for quality as foundation of innovative management system and new service creation through ISO9001. We pursue eco-friendly management and obtained ISO14001.



ISO 9001
Quality Management System



ISO 14001
Environmental Management System



History

- 1978 Establishment DONGBANG INDUSTRY
- 1989 Selected as excellent manufacturer of "Guide Roller" by POSCO
- 1995 Start to export "Iron & Steel Plant" to Japan, USA, Europe
- 1996 Acquisition of KS A/ISO 9001, 2000
- 1998 Acquired license regarding cooling water flow inside of screw.
- 2001 Start to export Dry Screw Vacuum Pump (USA, France, Italy, etc)
- 2002 Achieved the CE mark – Vacuum pump 150, 350, 450 and 800
- 2004 Acquired the patent regarding cooling water flow inside of screw
- 2005 Establishment technical research center
Selected as PCP (Posco Certified Partner) by POSCO
- 2006 Renamed as "DONGBANG PLANTECH CO., LTD."
Appointed as INNO-BIZ(Technical innovation company)
Acquisition ISO 14001
- 2007 Selected as World First-Class products by Ministry of Commerce, Industry and Energy of Korea
Winner of The Silver Tower Industrial Order by Republic of Kore
Constructed VIETNAM FACTORY
- 2008 Appointed as Star Company by Daegu City
Appointed as parts specialized company by Ministry of Knowledge Economy
- 2009 Awarded US \$ 30 Million Dollars Export Prize
- 2010 Constructed GYEONGSAN FACTORY
Appointed as Hidden Champion by Korea Exim bank
- 2012 Appointed as Great Work Place by Ministry of Knowledge Economy, Daegu City
Acquisition of KOSHA 18001
- 2013 Selected as PCP (POSCO Certified Partner) for 9 consecutive years
Registered multi stage screw patent
- 2014 Selected as PCP (POSCO Certified Partner) for 10 consecutive years
Selected as IP Star Company by The Chamber of Commerce & Industry, Daegu City
- 2015 Selected as PHP (POSCO Honored Partner) for 11 consecutive years
- 2016 Selected as PHP (POSCO Honored Partner) for 12 consecutive years
Appointed as Star Company 100 Rearing Enterprise by Daegu City
- 2017 Selected as PHP (POSCO Honored Partner) for 13 consecutive years



Parts Specialized Company



Technology Innovation

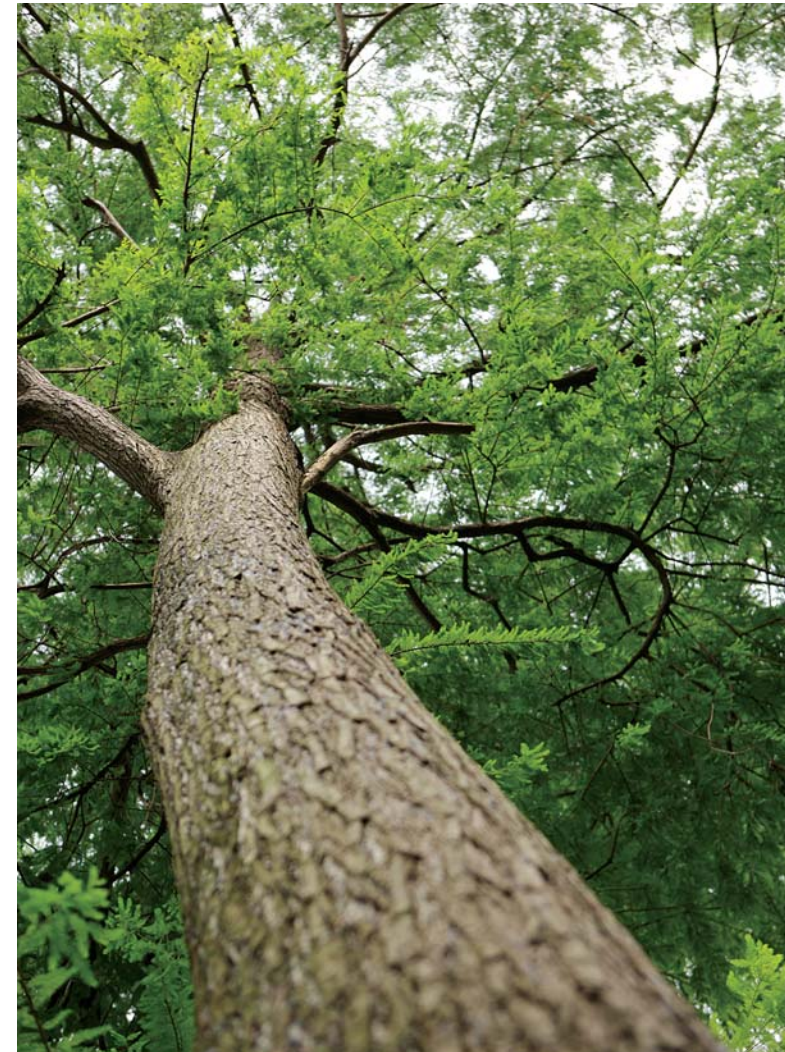


Patents Vacuum for Pump

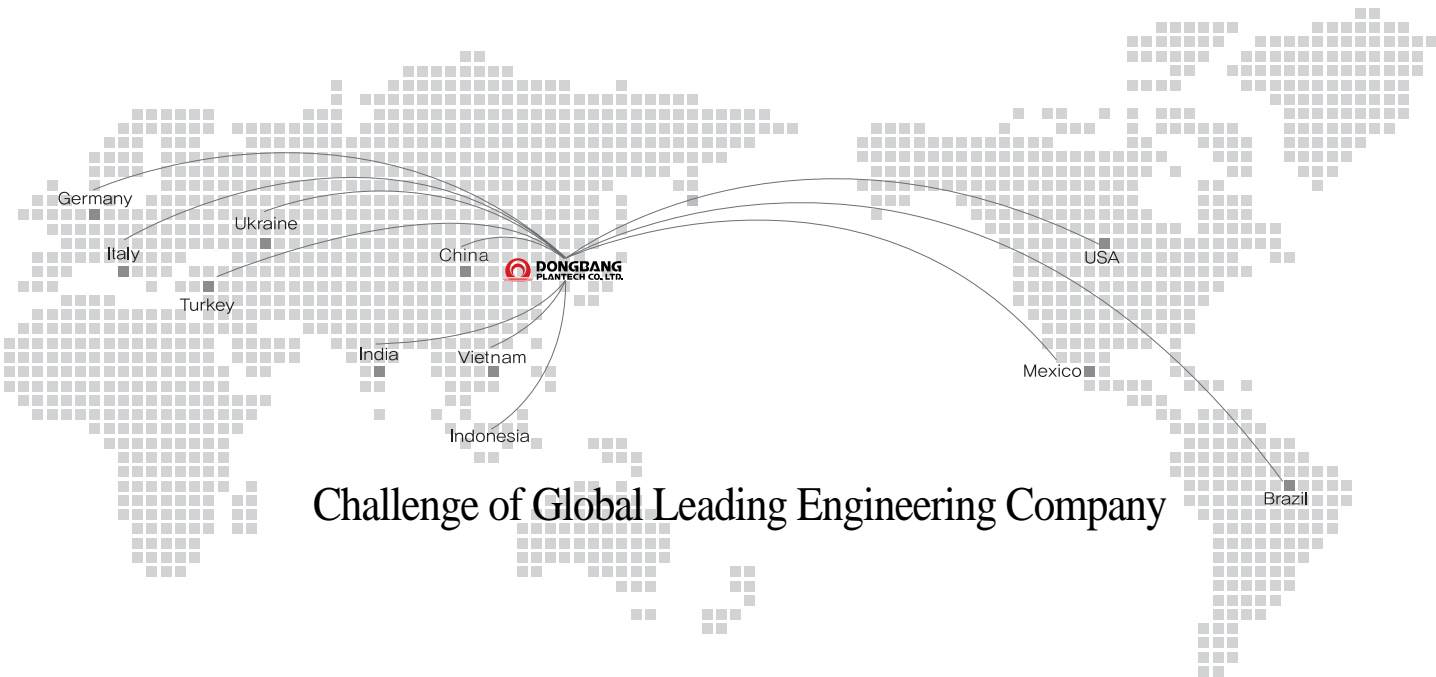


Make Tomorrow

A company
Planning for
Customer satisfaction



DONGBANG PLANTECH has created growth energy of metallurgical industry and added trust to that growth energy. Based on 39 years experience, DONGBANG will maximize customers' profit by establishing optimum process and endless technology development.



16 Gongdan 9-ro, Jillyang-eup, Gyeongsan-si,
Gyeongsangbuk-do, Korea
TEL : 82-53-589-5781
FAX: 82-53-589-5777
<http://www.dbvacuum.co.kr>
E-mail: pump@dbind.co.kr