

ROBUSCHI



Western Canada's Premier PD Blower Service & Repair Facility

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RB-DV 145 High Vacuum Blower

Call **1-780-962-1827** for technical, application and sales support.

RB-DV series of rotary three lobe PD blowers can operate at high vacuum levels thanks to a ROBUSCHI patented device that injects atmospheric air. The new patented device allows the blower to operate at maximum vacuum without overheating.

- Vacuum rate up to 93% (blank off) – 28" Hg and 90% Hg continuous
- Nominal capacity from 840 to 10.500 m³/h – from 494 CFM to 6200 CFM
- Gases and vapours can be handled
- Lack of sliding parts, reduces wear
- Safe operation environmentally friendly
- No oil mist
- Available RB-DV in ATEX version on request

RB-DV High Vacuum Blower key benefits:

- Helical Gears – provide near noiseless smooth and synchronized operation
- Heavy Duty Rotor – and shaft assemblies safely allows operation at higher rpms providing outstanding performance
- Labyrinth Piston Ring – provides low wear
- Heavy Duty Bearings – allow for greater flexibility setting up belt or close coupled transmission
- Patent Air Injection Nozzle – ensures cool operation under all vacuum conditions
- Double Ended Oil Bath Lubrication – ensures long bearing life

Specifications

Max Vacuum	28" Hg
CFM	6176
Free Air Delivery (MAX)	10500 m ³ /h
Maximum RPM	2000
Minimum RPM	500
Shaft Dia.	3.346" (85mm)
Gear Side Oil Quantity (Horiz*)	6.00 Liters
Gear Side Oil Quantity (Vert*)	10.50 Liters
Drive Side Oil Quantity (Horiz*)	3.50 Liters
Drive Side Oil Quantity (Vert*)	6.00 Liters
Bare Unit Weight	2423 lb
Shipping Weight on Skid	2473lb
Shipping Container	Wood Skid
Shipping Options	Ground Freight, Air or Sea

**Robuschi defines horizontal and vertical blower orientation following airflow direction*



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RB-DV 145 Approximate Oil Fill Amounts

Model No. / Drive Shaft Location	Gear Side	Drive Side	Total Liters
	Liters	Liters	
Horizontal Orientation*	6	3.5	9.5
Vertical Orientation*	10.5	6	16.5

These capacities are provided to assist stocking the correct amount of oil. Exact sump capacity may differ slightly. Review the proper filling instructions in OEM Manual.

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RB-DV 145 Lubrication Data

OIL TYPE	VISCOSITY	USE			
		T ambient	T2	T oil	Note
Mineral	100	< 0	< 90	< 50	Check the poor point
Mineral	150	< 35	< 110	< 80	
Mineral	220	< 50	< 130	< 110	
Synthetic	220	> 50	> 130	> 110	Installation in soundproof enclosure

Recommended Mineral Oils

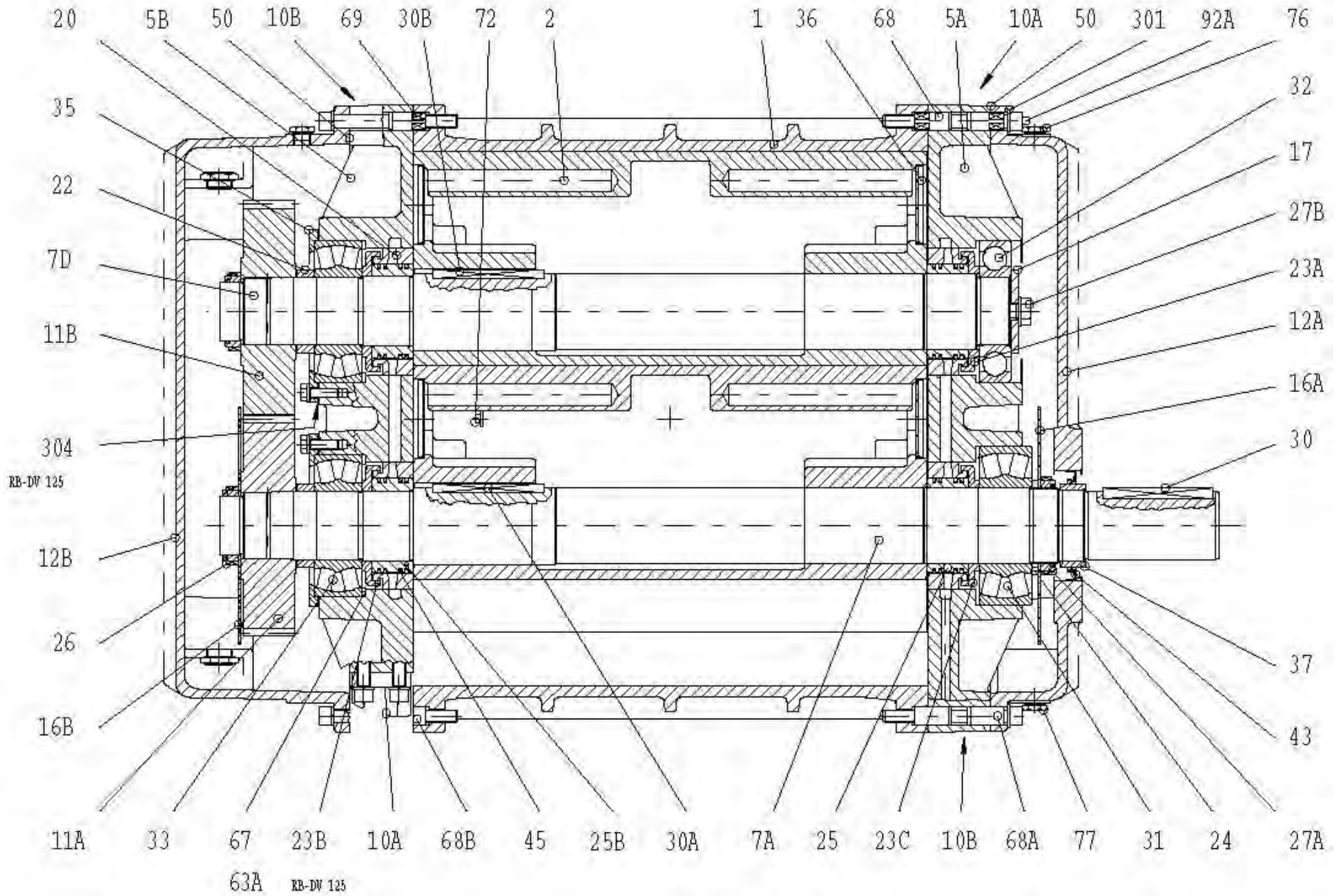
MAKE	AGIP	BP	ESSO	MOBIL	SHELL
TYPE	RADULA	ENERGOL	NUTO	D.T.E.	TELLUS
ISO VG - 150	150	CS 150	150	EXTRAHEAVY	C 150
Poor Point	-20	-12	-18	-9	-18
ISO VG - 220	220	CD 220	220	BB	C 220
Poor Point	-18	-12	-18	-7	-15

RB-DV 145 Components

Part No.	Part Description	Quantity
1	Casing	1
2	Rotor	2
5A – 5B	Cover	2
7A – 7D	Shaft	2
10A	Right Foot	2
10B	Left Foot	2

Part No.	Part Description	Quantity
11A	Driving Gear	1
11B	Driven Gear	1
12A – 12B	Sump	2
16A – 16B	Lubrication Disk	2
17	Bearing Lock Disk	1
20	Sealing Chamber	4
22	Gear Spacer	2
23A	Oil Splash Disk	1
23B	Oil Splash Disk	2
23C	Oil Splash Disk	1
24	Disc Spacer	1
25 – 25B	Sealing Spacer	4
26 – 27A	Gear Locking Nut	3
27B	Bearing Locking Screw	1
30	Key	1
30A – 30B	Key	2
31	Rolling Bearing	1
32	Rolling Bearing	1
33	Rolling Bearing	2
35	Bearing Cover	2
36	Rotor Cap (only RB-DV 125)	12
37	Shaft Sleeve	1
43	Seal Ring	1
45	Flexible Piston Ring	16
50	Gasket	2
63A	Compensating Ring (only RB-DV 125)	8
67	Adjusting Ring (only RB-DV 145)	2
68	Centering Pin	2
68A	Centering Pin	2
68B	Centering Pin	1
69	Centering Pin	1
72	Plug	2
76	Oil Filling Plug	2
77	Oil Draining Plug	4
78	Oil Level Plug	4
304	Adjustment Plate (only RB_DV 125)	6

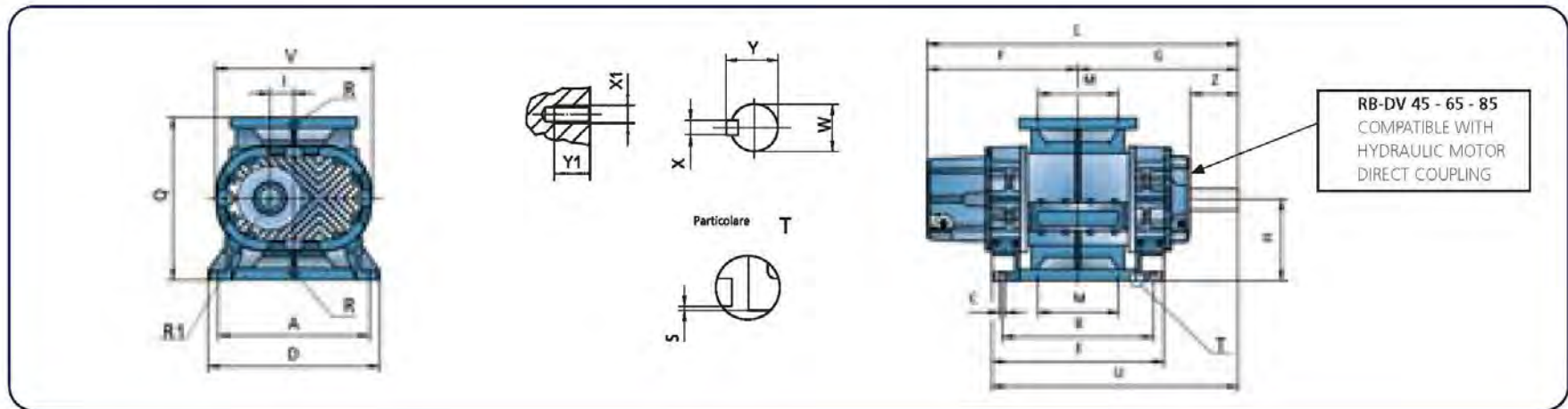
RB-DV 145 HIGH VACUUM BLOWER COMPONENTS



VACUUM PERFORMANCE

BLOWER	RPM	30% - 9" Hg			50% - 15" Hg			60% - 18" Hg			70% - 21" Hg			80% - 24" Hg			85% - 25.5" Hg			90% - 27" Hg			93% - 28" Hg		
		M ³ /h	CFM	BHP	M ³ /h	CFM	BHP	M ³ /h	CFM	BHP	M ³ /h	CFM	BHP	M ³ /h	CFM	BHP	M ³ /h	CFM	BHP	M ³ /h	CFM	BHP	M ³ /h	CFM	BHP
RB-DV 145	1070	4704	2767	66.1	4250	2500	107.7	3900	2294	128.6	3480	2047	149.5	2690	1582	170.3	1600	941	180.8	-	-	-	-	-	-
	1200	5385	3168	75.0	4900	2882	121.8	4600	2706	145.3	4160	2447	168.6	3370	1982	192.0	2300	1353	203.7	870	512	215.6	-	-	-
	1340	6119	3599	85.1	5600	3294	137.4	5300	3118	163.5	4900	2882	189.6	4100	2412	215.7	3050	1794	228.9	1600	941	242.3	-	-	-
	1500	6957	4092	97.3	6470	3806	155.4	6150	3618	184.9	5740	3376	214.3	4940	2906	243.5	3890	2288	258.1	2450	1441	273.4	-	-	-
	1680	7900	4647	111.6	7400	4353	176.9	7100	4176	209.8	6680	3929	242.5	5880	3459	274.7	4835	2844	291.7	3380	1988	308.9	-	-	-
	1800	8528	5016	121.7	8000	4706	191.6	7670	4512	227.0	7250	4265	262.1	6430	3782	297.2	5350	3147	314.8	3850	2265	333.7	-	-	-
	2000	9576	5633	139.5	9104	5355	217.1	8710	5124	255.9	8295	4879	294.8	7477	4398	339.0	6390	3759	359.0	4910	2888	380.2	BO	BO	392.6

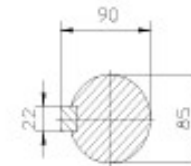
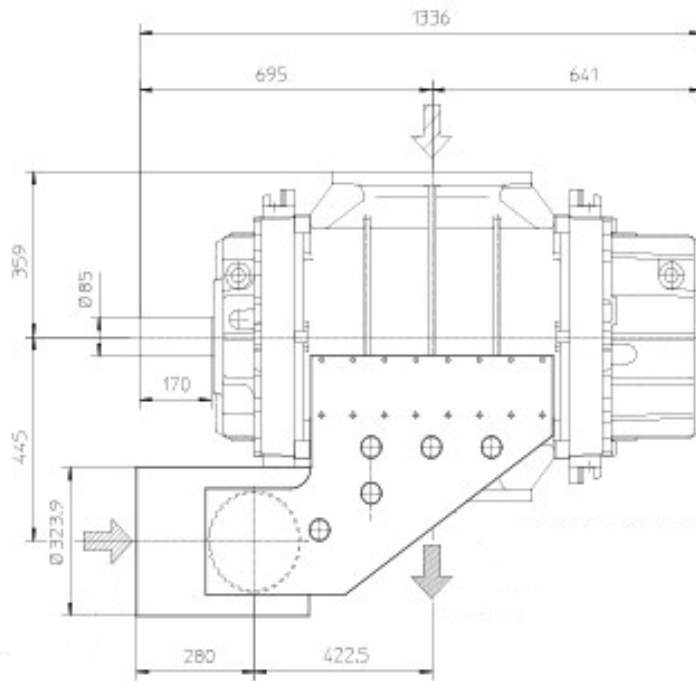
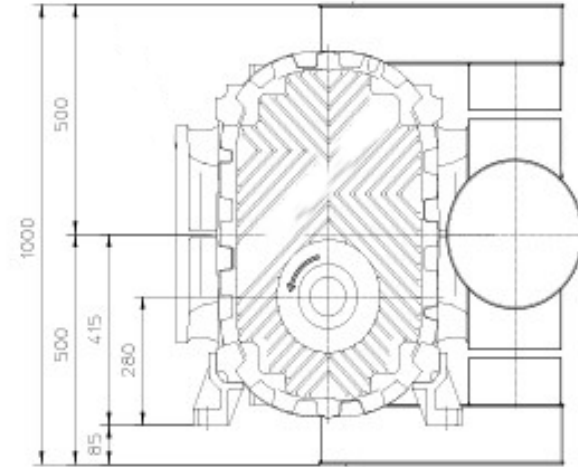
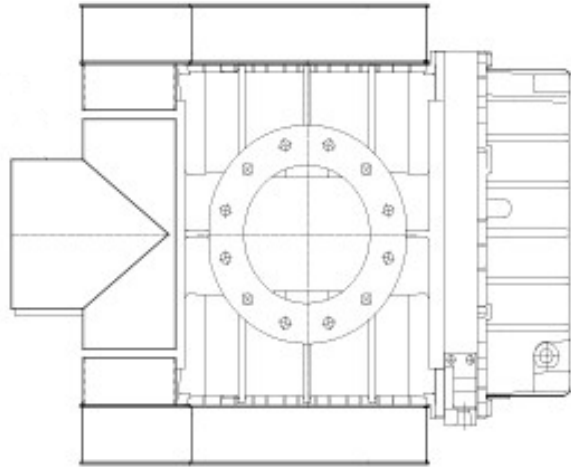
RB-DV 145 VERTICAL DIMENSIONS*



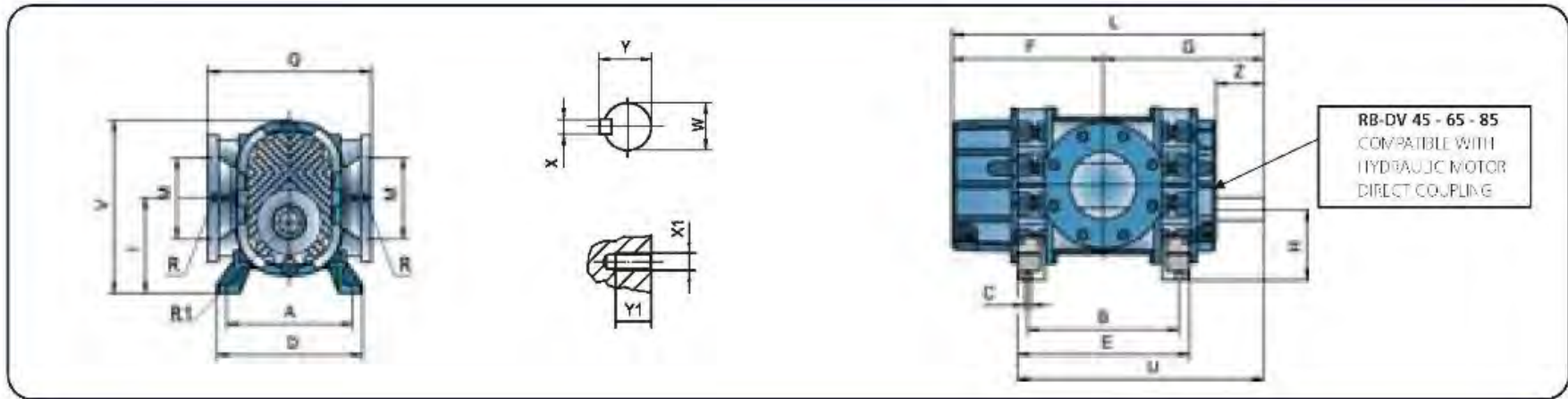
RB-DV 145 Vertical Dimensions *Robuschi defines horizontal and vertical blower orientation following airflow direction **Gear diameter

Ø**	A	B	C	D	E	F	G	H	I	L	M
10.62	26.77	29.41	1.02	30.31	31.69	25.24	27.36	14.17	5.31	52.60	12
Q	S	U	V	W	Z	X	Y	R1	X1	Y1	
28.31	0.04	43.23	31.10	3.346	6.693	0.866	3.543	-	-	-	

ROBUSCHI DRAWING REFLECTS HORIZONTAL BLOWER ORIENTATION BASED ON AIRFLOW DIRECTION



RB-DV 145 HORIZONTAL DIMENSIONS*



RB-DV 145 Horizontal Dimensions *Robuschi defines horizontal and vertical blower orientation following airflow direction **Gear diameter

\varnothing^{**}	A	B	C	D	E	F	G	H	I	L	M
32.68	22.44	29.41	1.02	25.20	31.69	25.24	27.36	11.02	16.34	52.60	12
Q	S	U	V	W	Z	X	Y	R1	X1	Y1	
28.27	-	43.23	32.09	3.346	6.693	0.866	3.543	-	-	-	

Drilling for flat flanges UNI 2236 NP10 or ANSI 125 FF

R Manometer connection G 3/8"
Dimension W with tolerance m6

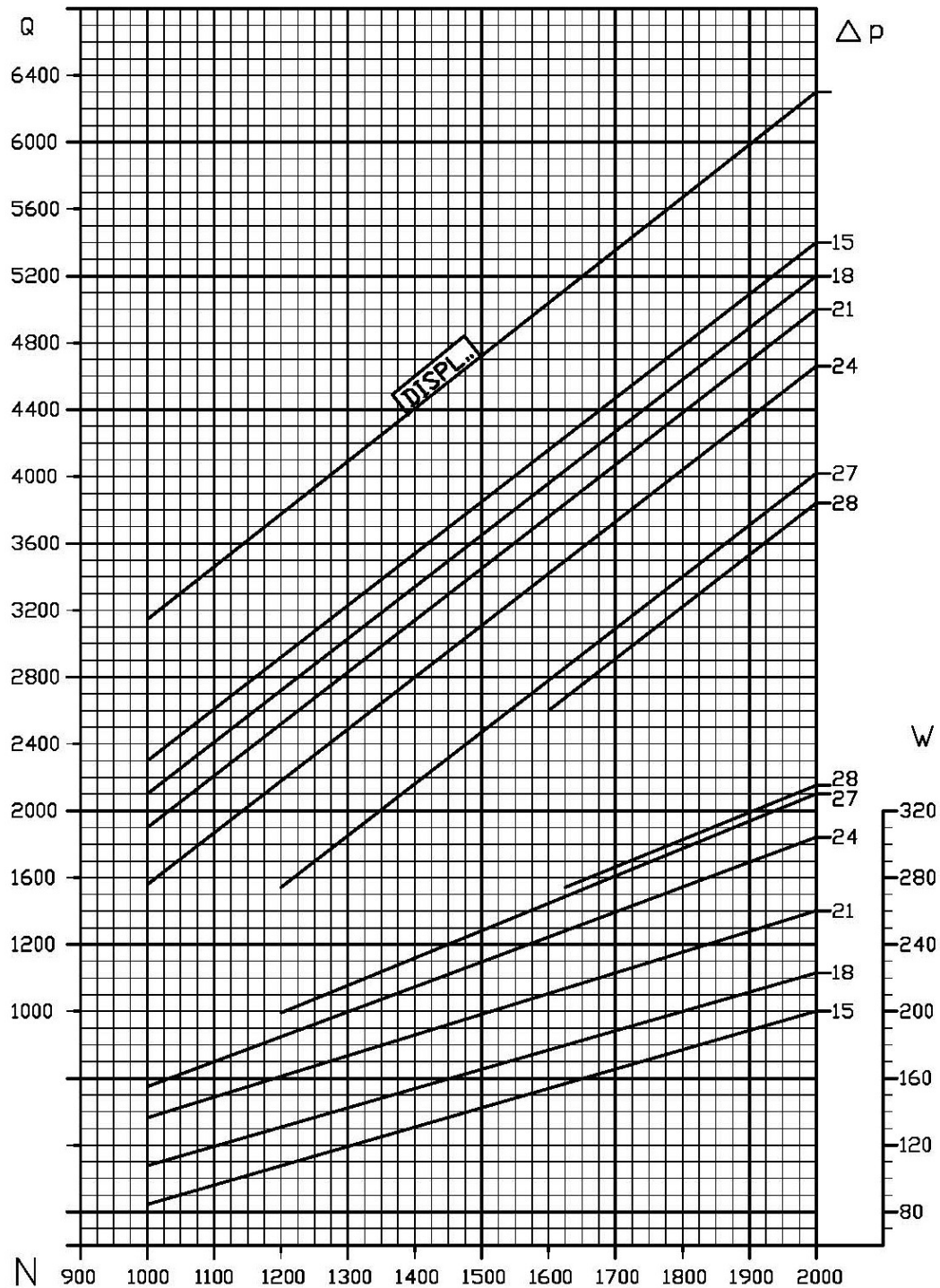
PN10 UNI 2236

M DN	N	O	P	HOLES	
80	mm inches	160 6,30	200 7,87	18 0,71	4
150	mm inches	240,2 9,46	285 11,22	23 0,91	8
200	mm inches	296 11,65	340 13,39	23 0,91	8
250	mm inches	350 13,78	405 15,94	24 0,94	12
300	mm inches	400 15,75	475 18,70	24 0,94	12

ANSI 125 FF

M DN	N	O	P	HOLES	
3	mm inches	152,4 6,00	200 7,87	18 0,71	4
6	mm inches	240,2 9,46	285 11,22	23 0,91	8
8	mm inches	296 11,65	340 13,39	23 0,91	8
10	mm inches	362 14,25	405 15,94	24 0,94	12
12	mm inches	431,8 17,00	475 18,70	24 0,94	12

ROBUSCHI RB-DV 145 VACUUM PERFORMANCE CURVES



INLET CONDITIONS - AIR

R.H. - 36%
 Density - .075 lbs/Ft³
 Maximum vacuum - 27"Hg
 Minimum speed - 500 RPM
 Maximum speed - 2000 RPM
 Barometric p. abs.- 29.92"Hg
 Temperature - 68°F

Q = Inlet volume CFM
 W = Absorbed power BHP
 DISPL = Volume displacement
 Δp = Differential pressure "Hg
 N = Blower speed RPM