

NRB Series

Roots Blower

Models: NRB3206, NRB3210, NRB4009,
NRB4012, NRB5507, NRB5511, NRB5514,
NRB5518, NRB7017, NRB7021, NRB7026,
NRB9027, NRB1230, NRB1248



Description: NRB Series Roots- Type Blowers

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NRB5511, NRB5514, NRB5518, NRB7017, NRB7021, NRB7026,
NRB9027, NRB1230, NRB1248

Power Range: **4 - 400 HP**

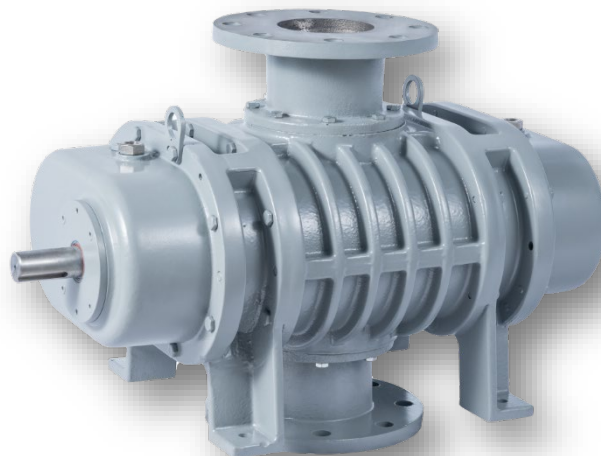
Capacity Range: **220-9300 CFM**

Max Vacuum: **17" HG**

Max Pressure: **15 PSIG**

OVERVIEW

NES Company Inc. is proud to present the NRB Series Roots-Type Blowers with increased stability and efficiency through a double oil tank and five-point bearing design. Standard construction of the NRB Series is cast iron, with an array of options to select between metallurgy, power rating, capacity, vacuum level, pressure level, internal coating, and sizing. The five-point bearing design improves the load on the bearing during operation, and the double oil tank provides both cooling and lubrication to the bearings, keeping operating temperatures low and pushing efficiency high. Lip seals, mechanical seals, and labyrinth seals are available for selection, and NES Company Inc. offers the optional NRB Series gas-tight design to keep the discharge gasses free of contamination and reduce total oil consumption. Synchronous gears are secured on the driving side of the blower to prevent torsional stresses from damaging the blower. In all, the NRB Series is built to last and to operate without issue.



DESCRIPTION

NES Company Inc. NRB Series Roots-type blowers are perfect for roughing and removal of condensable process gasses.

These two-lobe design single units can reach a pressure of 15 PSIG and vacuum of 17" Hg with the ability for both compressive and vacuum effects. NES NRB Series blowers boast a high rotation speed, lowering the temperature of the process gas and extending the life of the blower's components. The NRB Series is available from 220 to 9300 CFM and 4 to 400 HP.

NES Company Inc. 333 Route 46 West, Building A, Fairfield, NJ 07004

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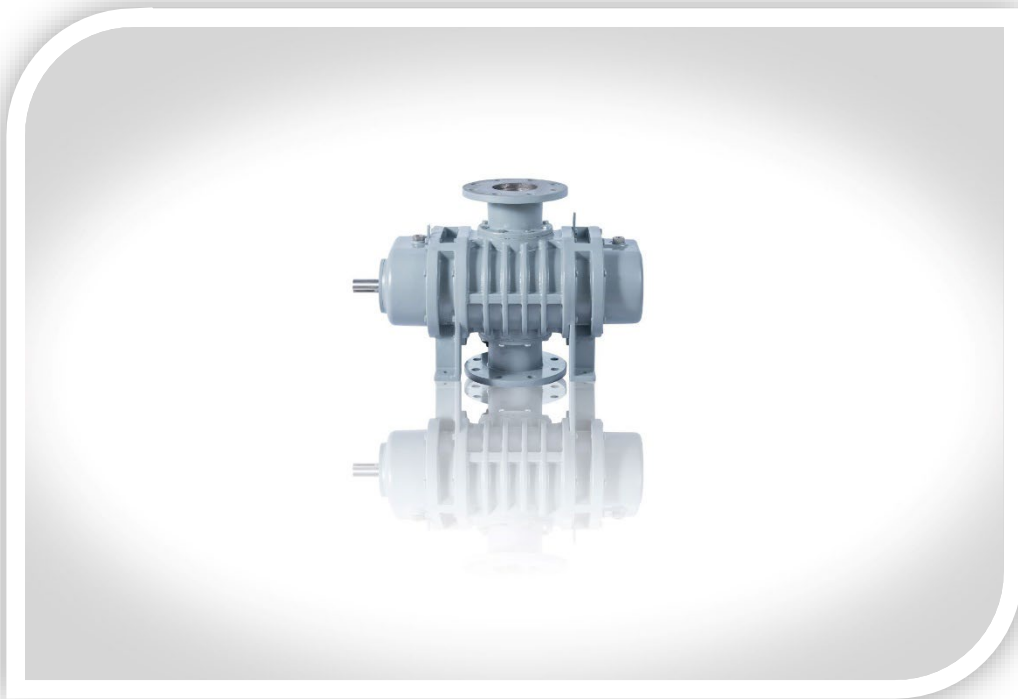


FEATURES

- Five-point bearing design
- Double oil tank
- Synchronous gears
- Helical gear design
- Array of seals for selection
- Optional gas-tight design
- Robust construction
- Wide capacity range for various applications
- One (1) year warranty against manufacturing defects.

NOTES

NES Company is proud to offer our NRB Series Roots Blower. NES NRB Series Roots-Type Blowers are factory performance tested and include a 1-year warranty against manufacturer's defects. For more information, please contact an NES Representative or fill a form out at nescompany.com.



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GENERAL TECHNICAL DATA

Series Name	Shaft Power [HP]	CFM	Max Operating Vacuum [\"HgV]	Inlet [Inch]	Outlet [Inch]	Cooling Water Flow [GPM]	Seal Water Connection Size [Inch]
NRB3206	1.07 – 4.02	21 – 220	15	3 FL	3 FL	0.21	1/4 NPT
NRB3210	1.20 – 28.16	37 – 368	15	4 FL	4 FL	0.25	1/4 NPT
NRB4009	1.79 – 45.59	49 – 497	17	4 FL	4 FL	0.25	1/4 NPT
NRB4012	2.01 – 50.95	87 – 682	15	4 FL	4 FL	0.39	1/4 NPT
NRB5507	2.54 – 69.73	99 – 795	17	6 FL	6 FL	0.39	1/4 NPT
NRB5511	2.95 – 83.14	150 – 1172	17	6 FL	6 FL	0.5	1/4 NPT
NRB5514	3.48 – 95.21	490 - 1522	15	6 FL	6 FL	0.5	1/4 NPT
NRB5518	4 – 9.4	350 – 1963	15	8 FL	8 FL	0.5	1/4 NPT
NRB7017	7.2 – 226.6	602 – 2809	15	10 FL	10 FL	1	1/4 NPT
NRB7021	8.3 – 244	783 – 3480	15	12 FL	12 FL	1	1/4 NPT
NRB7026	1.74 – 241.4	105 – 24317	15	12 FL	12 FL	1	1/4 NPT
NRB9027	8 – 370.1	620 – 5318	15	14 FL	14 FL	1.5	3/8 NPT
NRB1230	12 – 385	772 – 9021	12	14 FL	14 FL	2	3/8 NPT
NRB1248	14.75 - 269	1305 - 9278	10	20 FL	20 FL	2.5	G 1/4

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Variation Table

Variation Table	Particulars
Metallurgy	Standard Cast Iron
	Stainless Steel 304
	Stainless Steel 316L
	Duplex Steel
Direction	Clockwise
	Counter- Clockwise Rotation
Purpose	Vacuum Pump
Sealing	Standard Available as Gland Packing
	Available with Single Seal
	Available with Single Cartridge Seal
	Available with Dual Cartridge Seal and Seal Pot
Configuration	Once Through
	Partial Recovery
	Full Sealant Recovery
Other System Configuration	Simplex
	Duplex
	Triplex
	Quadruplex

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Blower Length, Height, Width and Weight.

Model	Length (Inches)	Height (Inches)	Width (Inches)	Pump Weight (Lbs)
NRB3206	19.8	14.8	9.8	160
NRB3210	23.8	14.8	9.8	194
NRB4009	25	15	12.67	260
NRB4012	28	15	12.67	300
NRB5507	27.9	20	16.75	450
NRB5511	31.4	20	16.75	520
NRB5514	34.4	20	16.75	580
NRB5518	34.4	20	16.75	683
NRB7017	50	25.6	14.5	1274
NRB7021	54	25.6	14.5	1450
NRB7026	54	25.6	14.5	1600
NRB9027	61.4	30.7	18.1	2560
NRB1230	80.6	29.4	27.7	5400
NRB1248	98.6	29.4	27.7	6856.4

Application table

Applications
Tail Gas Conveying
Steam Recompression
Thermoforming
Vacuum Tables
Fogging Applications
Cement and Lime
Biodiesel Plants
Dust Collection
Aquaculture

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Material Construction Table

NO.	Parts Name	NRB3206 / 3210		NRB4009 / 4012		NRB5507 / 5511 / 5514 / 5518		NRB7017/ 7021 / 7026	
		Quantity		Quantity		Quantity		Quantity	
		Oil Seal	Mechanical Seal	Oil Seal	Mechanical Seal	Oil Seal	Mechanical Seal	Mechanical Seal	Mechanical Seal
1	Double row angular contact ball bearing	2	2	2	2	2	2		4
2	Single rib bearing	2	2	2	2	2	2		/
3	Roller bearing	1	1	1	1	1	1		1
4	Mechanical seal (inside)	/	4	/	4	/	4		4
5	Mechanical seal (outside)	1	1	1	1	1	1		1
6	Labyrinth seal	4	4	4	4	4	4		4
7	Skeleton oil seal (inside)	4	/	4	/	4	/		/
8	Skeleton oil seal (outside)	1	1	1	1	1	1		1
9	O-Ring (end cover)	4	4	4	4	4	4		4
10	O-Ring (sealing seat)	1	1	1	1	1	1		1
11	Gear key	2	2	2	2	2	2		2
12	Gear adjustment gasket	10	10	10	10	10	10		10
13	Mechanical seal adjustment gasket	10	10	10	10	10	10		10
14	Bearing washer	2	2	2	2	2	2		2
15	Hexagon socket countersunk head screw	4	4	2	2	2	2		4
16	Hexagon socket countersunk head screw	4	4	4	4	4	4		/
17	Hexagon socket bolt	2	2	/	/	/	/		/
18	Stop washer for round nut	/	/	2	2	2	2		/
19	Lock washer	/	/	4	4	6	6		/
20	Drive shaft lock washer	/	/	2	2	2	2		/

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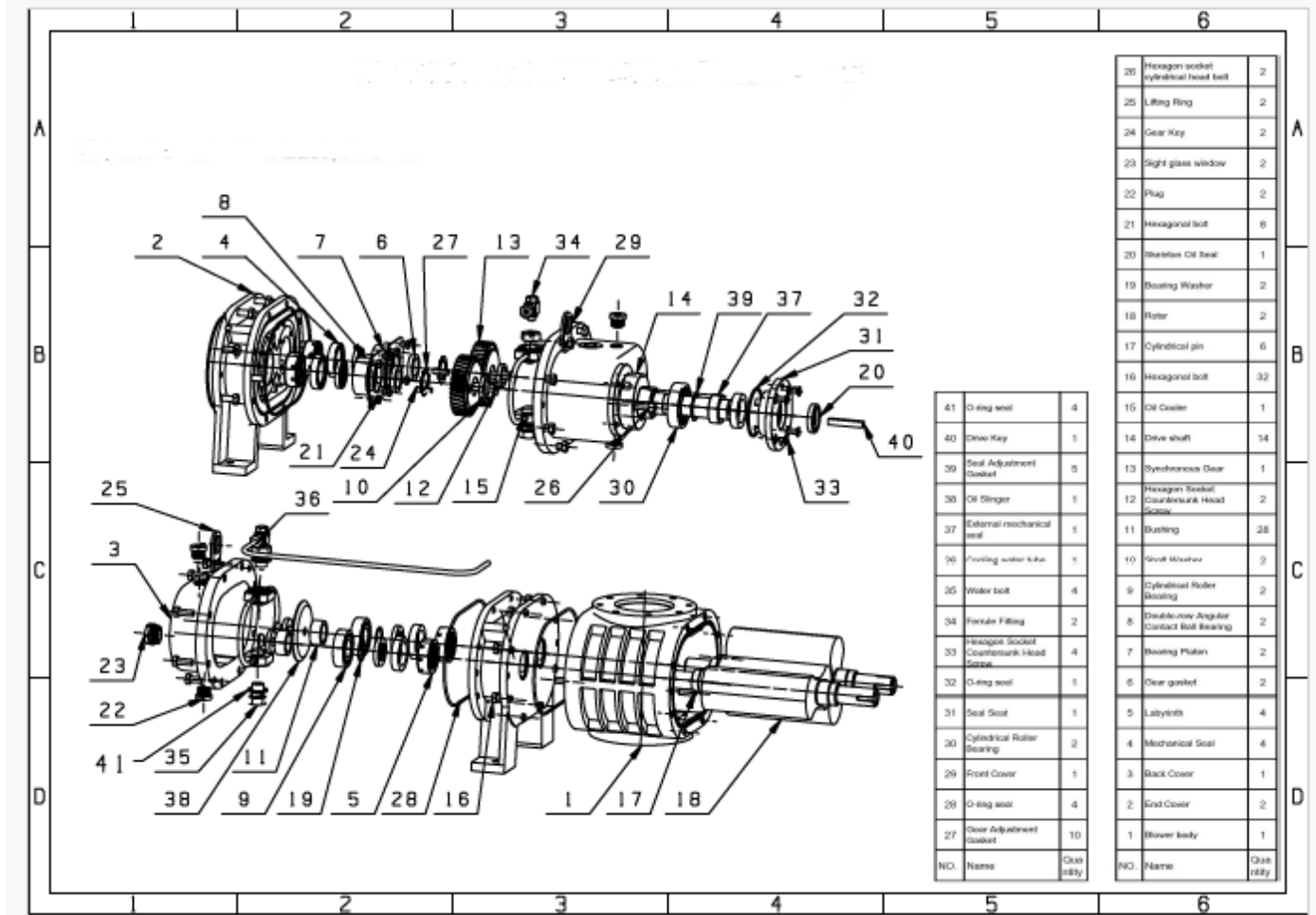
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Exploded View NRB3206 & NRB3210



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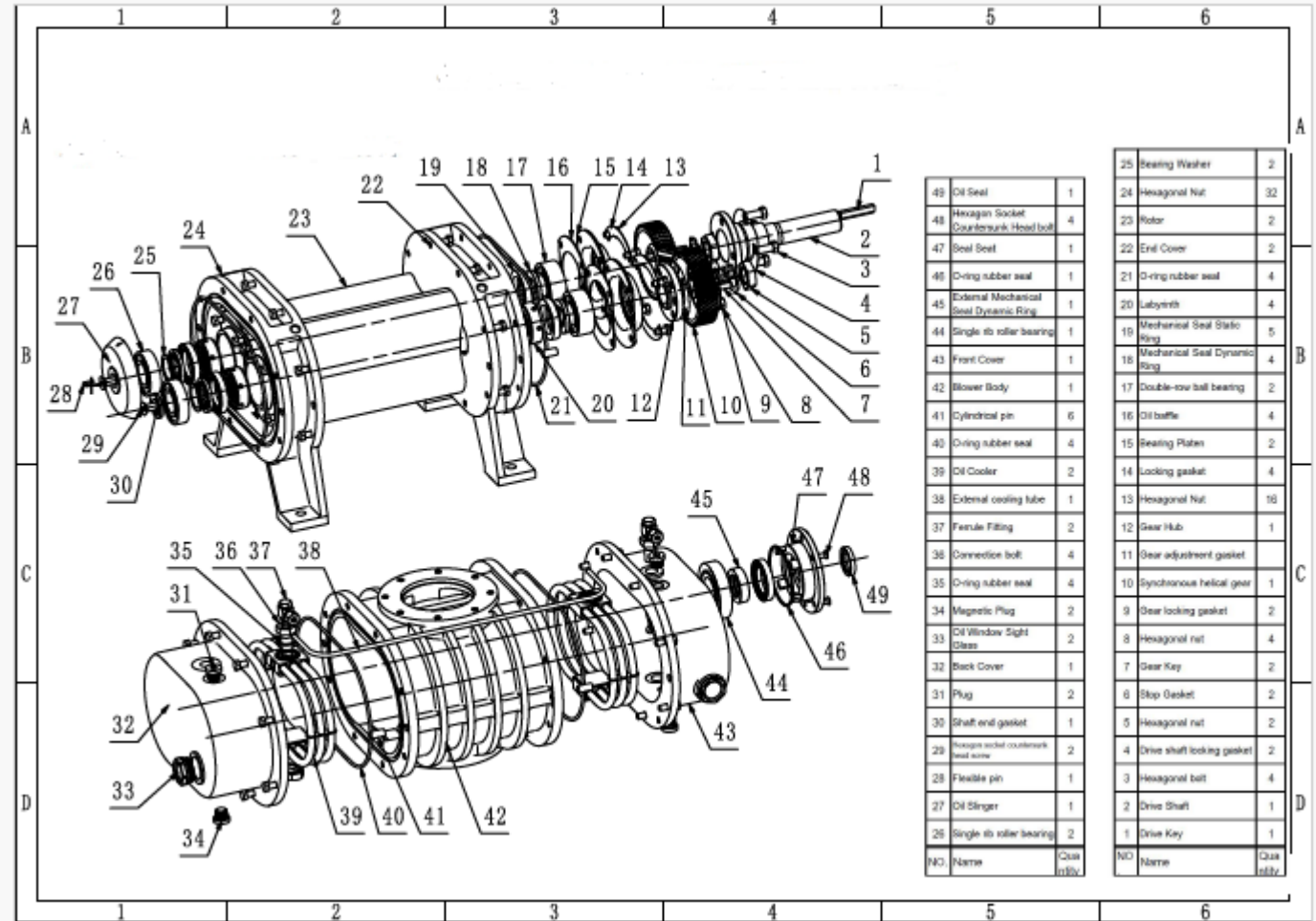
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Exploded View NRB4009 & NRB4012



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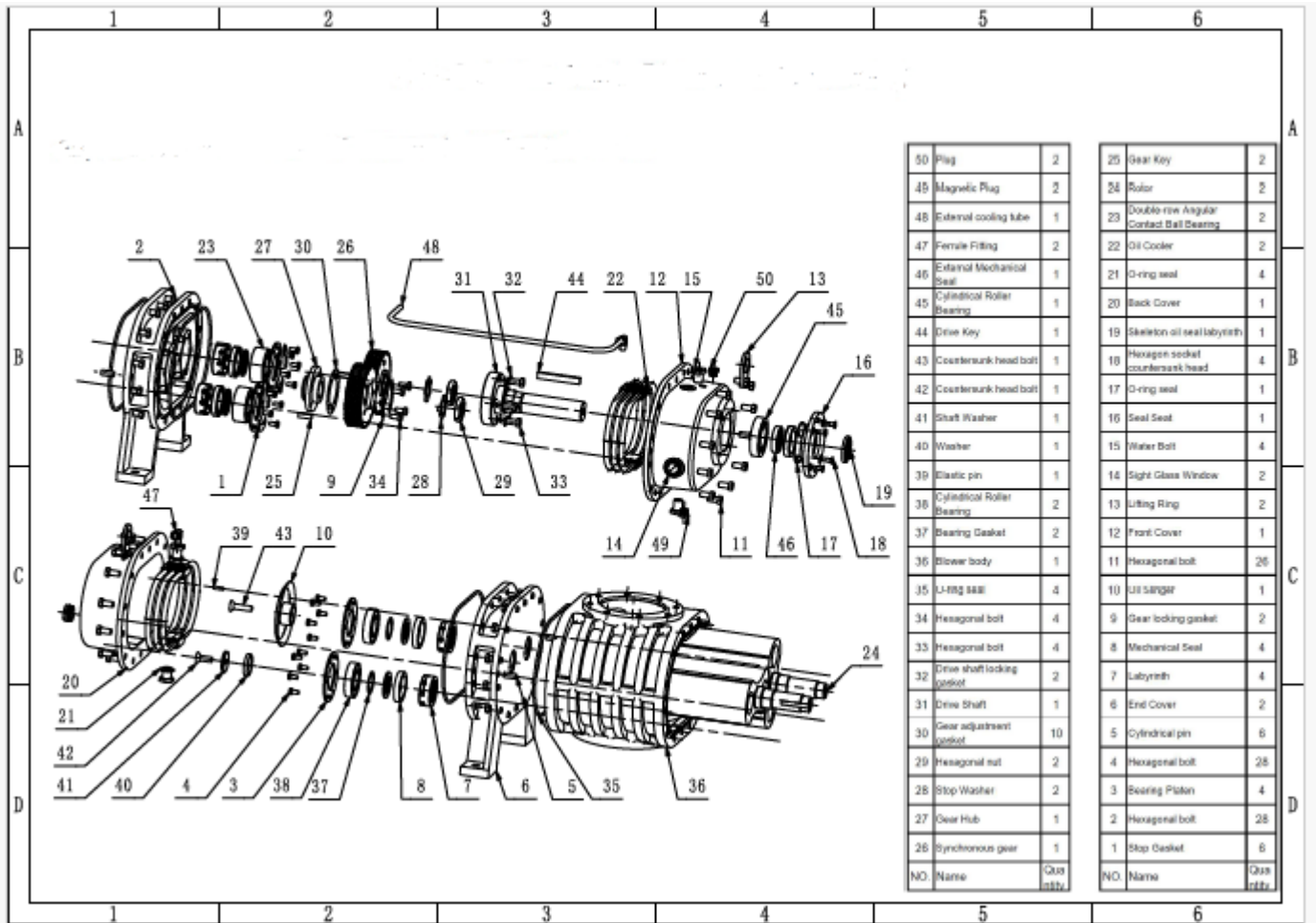
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Exploded View NRB5507, NRB5511, NRB5514 & NRB5518



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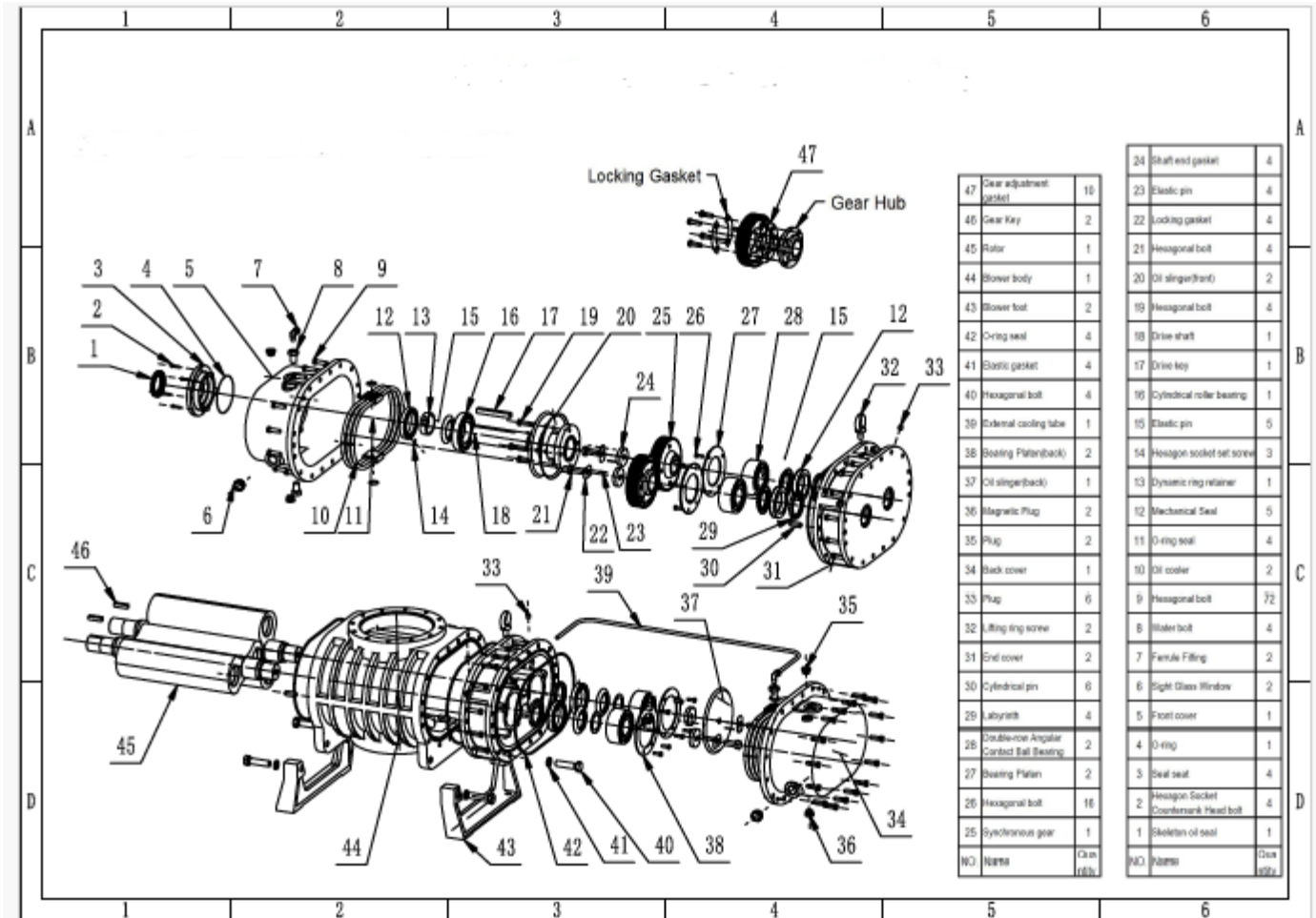
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Exploded View NRB7017, NRB7021, NRB7026



Exploded View NRB9027

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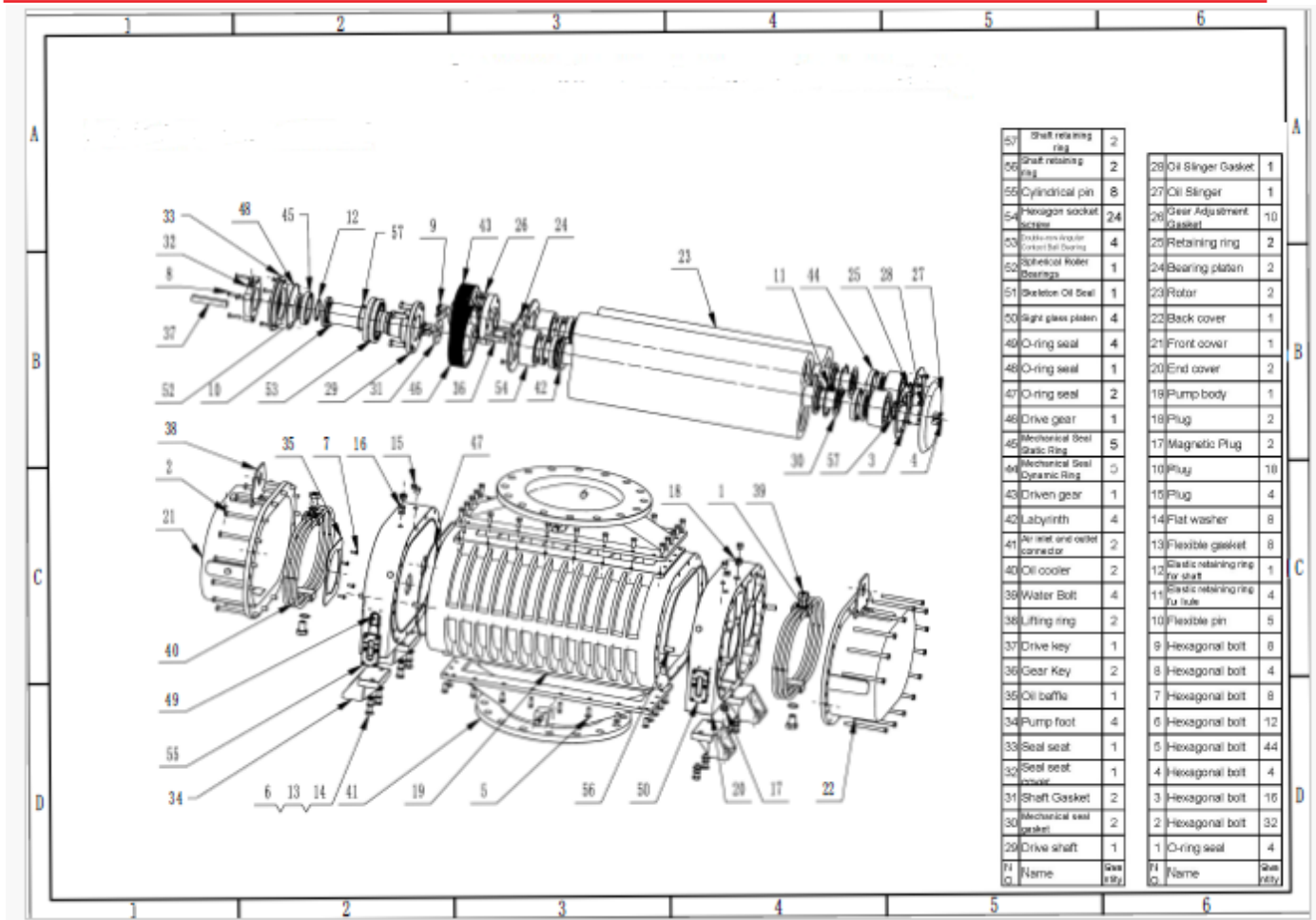
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Exploded View NRB1230 & NRB1248

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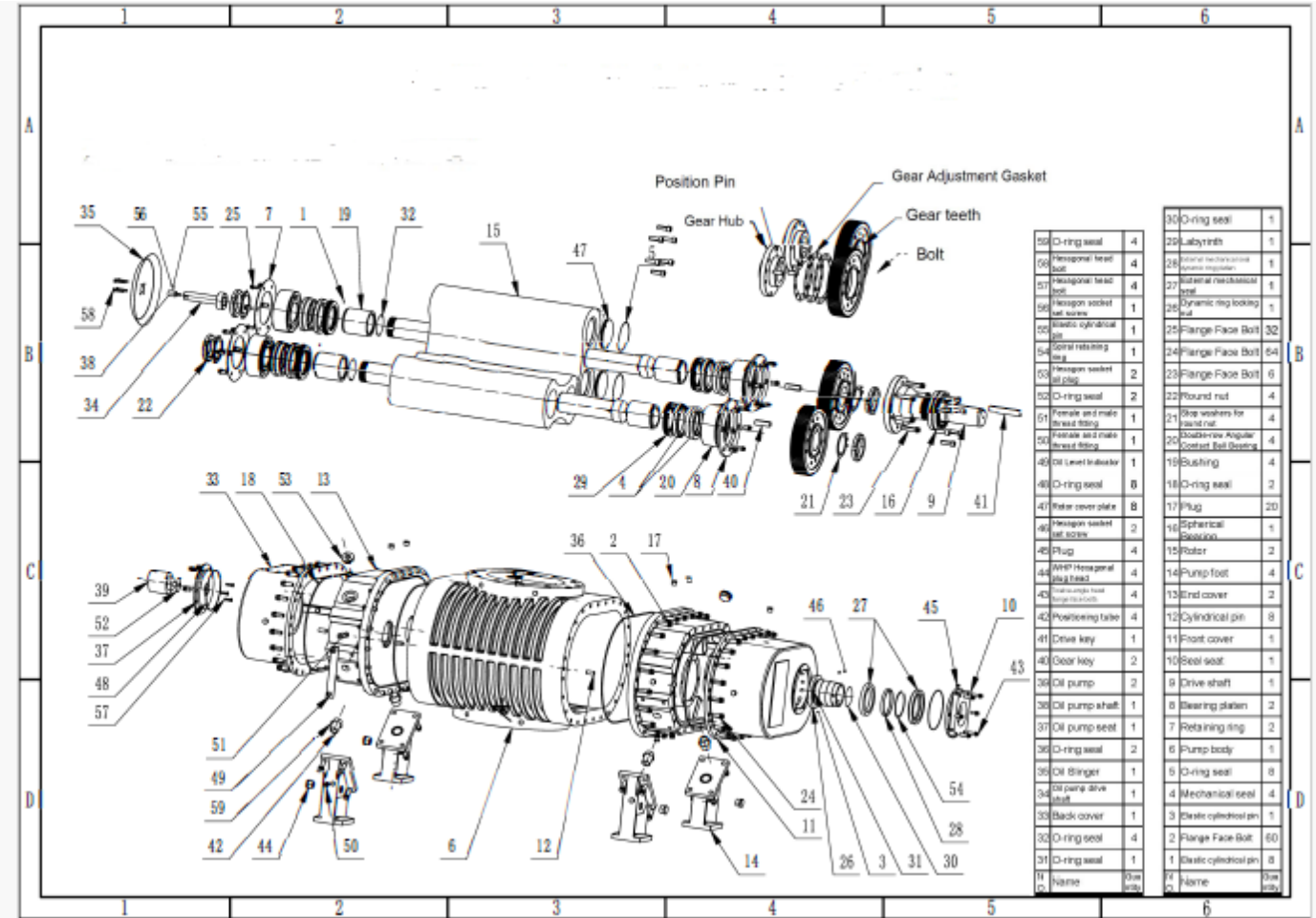
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