

SERIES

BVI

LIQUID RING VACUUM PUMPS





INTRODUCTION

This catalog describes the pump models of the BVI line manufactured by IMBIL and includes technical information on construction techniques and characteristic curves of each model. IMBIL and its representatives are always at your service to provide you with any further information and technical assistance.

NOTES

We reserve the right to make any modifications that we deem necessary or required to our products at any time, without entailing any obligations of any nature.

The illustrations in the catalog are indicative only, if any doubts related to interpretation arise, please consult an authorized representative.

IMBIL VACUUM PUMPS ADVANTAGES

- ✓ With only one rotary set, without any friction between solids to produce abrasion and without internal lubrication, the gas suction and discharge process is continuous and with no pulsing.
- ✓ Greater capacity to work with saturated gases and vapors, as the compressing liquid tends to condensate vapors.
- ✓ The vacuum produced by IMBIL Vacuum Pumps has no fluctuation, so no seat and installation dampers are required and final product's uniformity is warranted.
- ✓ The IMBIL Vacuum Pump works without vibrations and requires no special foundations.
- ✓ It can work with considerable amounts of liquid mixed with air, without risking damaging the pump.
- ✓ Each IMBIL pump is designed, developed and built to ensure absolute reliable and long life cycle.
- ✓ Each pump's capacity can be adapted to demand requirements, suiting better to each process' requirements.
- ✓ A complete line of models enables you to select a specific pump for a specific application.
- ✓ The BVI Line vacuum pump are able to work with compressing liquid quantities that exceed specifically recommended quantities, without any change in performance and practically without more in power consumption.



IMBIL VACUUM PUMP

HOW THE IMBIL LIQUID RING VACUUM PUMP WORKS

A metal cylinder called **BODY** or **Housing (1)** has a metal mobile part inside called **Rotor (2)**, which may be static or dynamically balanced and is eccentrically positioned in relation to **Body's (1)** "virtual" axis.

The **Rotor (2)** is assembled on its shaft, making the assembly to rotate; it is the only moving part, which rotates freely without any solid-solid contact. It's a cast part, consisting of a bored cylindrical hub from which a series of side-closed fixed blades extrude two by two to form an assembly of chambers. Those chambers contain liquid, usually **water (5)**, allow "**water buds (6)**" to shift under centrifugal force when the **Rotor (2)** is moving, leaving chambers emptier and emptier as the **Body's (1)** surface moves away from the blades.

Going along the blades to their edges, we find that their "curvature" is towards the rotation direction "Rotating Assembly (**Rotor (2) (+) Shaft (14)**)".

The **Rotor (2)** pushes the **water (5)** which follows the **Housing's (1)** internal profile and forms a **Liquid Ring (6)** from where comes the name "Liquid Ring" that identifies the Vacuum Pump type. (**LIQUID RING VACUUM PUMP**).

The **Rotor's (2)** blades have a slanted lower end close to hub on which they're installed, forming two "tapers", one on each side.

The space formed by those "tapers" is filled by 02 (two) **Cones (3)**, one on each side, which are attached to **Side Caps (4)** called simply "**Heads**", which close the vacuum pump using **Body (1)** screws. The **Inlet of the pump (7)** on **Heads (4)** are flanged and serve as passage for suctioned gas and vapor when the Vacuum Pump comes into operation.

Each **Cone (3)** has two ports. The larger port – the **Inlet port (8)** – allows "gases (+) air" and occasional "vapors" in, by suction, and the smaller port – the **Outlet port (10)** – allows "gases (+) air and occasional "vapors" (+) seal liquid simultaneously out. The "Liquid Ring" is also called "**Compressor Liquid (6)**". The Compressor Liquid or Seal Liquid must be continuously supplied to Vacuum Pump while working.

NOTE: Never, in any way, a Liquid Ring Vacuum Pump may operate without Seal Liquid (Compressor Liquid) or the pump may be severely damaged, even destroyed.

The "Compressor Liquid" may be considered an integral "Part" of the "Liquid Ring Vacuum Pump". Gases (+) Air (+) occasional Vapors (+) **Compressor Liquid (5)** are alternately discharged through **Flanged Outlets (11), (12) or (13)** on Heads.

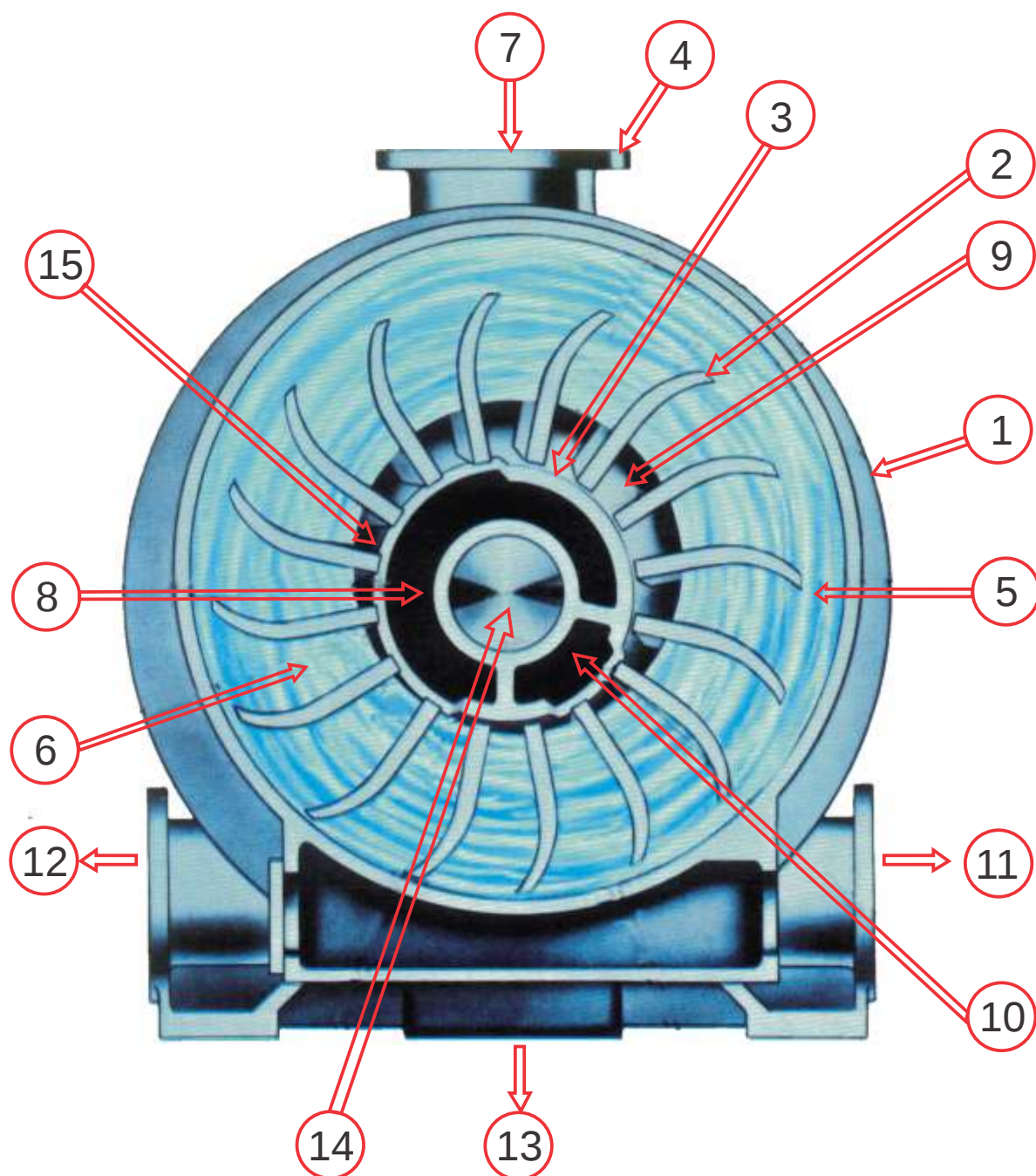
NOTE: The **Taper Inlet Ports (8)** and **Outlet Ports (10)** communicate respectively with **Inlets (Suction) (7)** and **Outlets (Discharges) (11), (12) or (13)**.

The **Suction and Discharge process** for gas mixtures **suctioned by Vacuum Pump** happens in two specific Zones called **Expansion Zone (15)** and **Compression Zone (9)**, respectively.



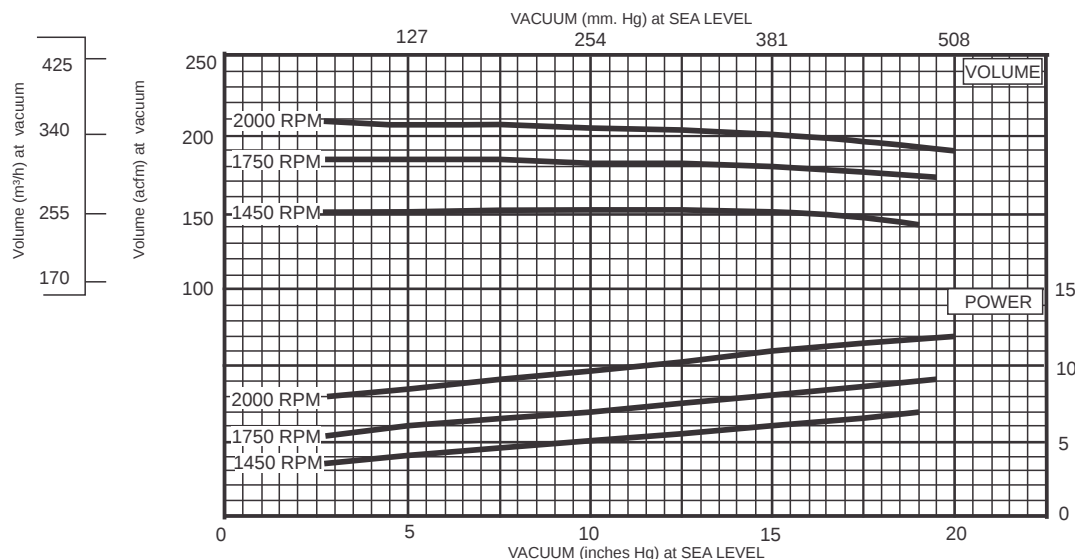
IMBIL VACUUM PUMP

HOW THE IMBIL LIQUID RING VACUUM PUMP WORKS

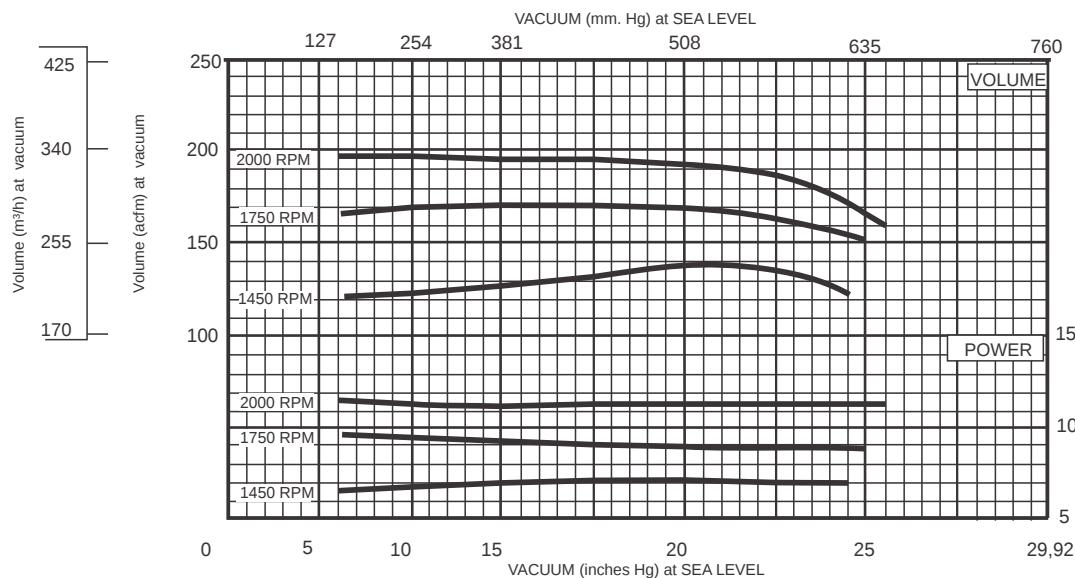




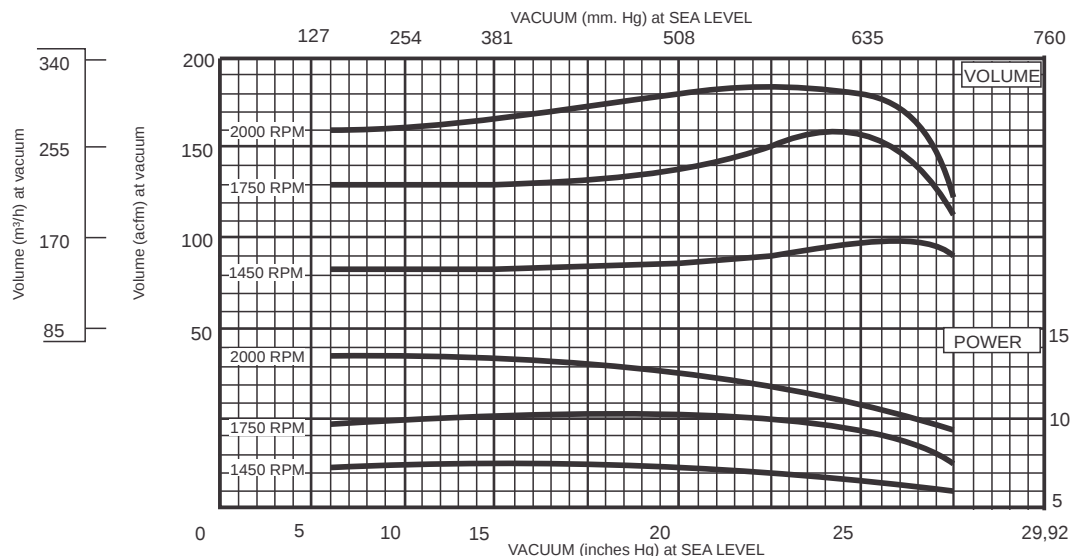
PERFORMANCE CURVE - VACUUM PUMP



TECHNICAL DATA	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	15 L/min
Seal Water Pressure:	5 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigth:	80 Kg



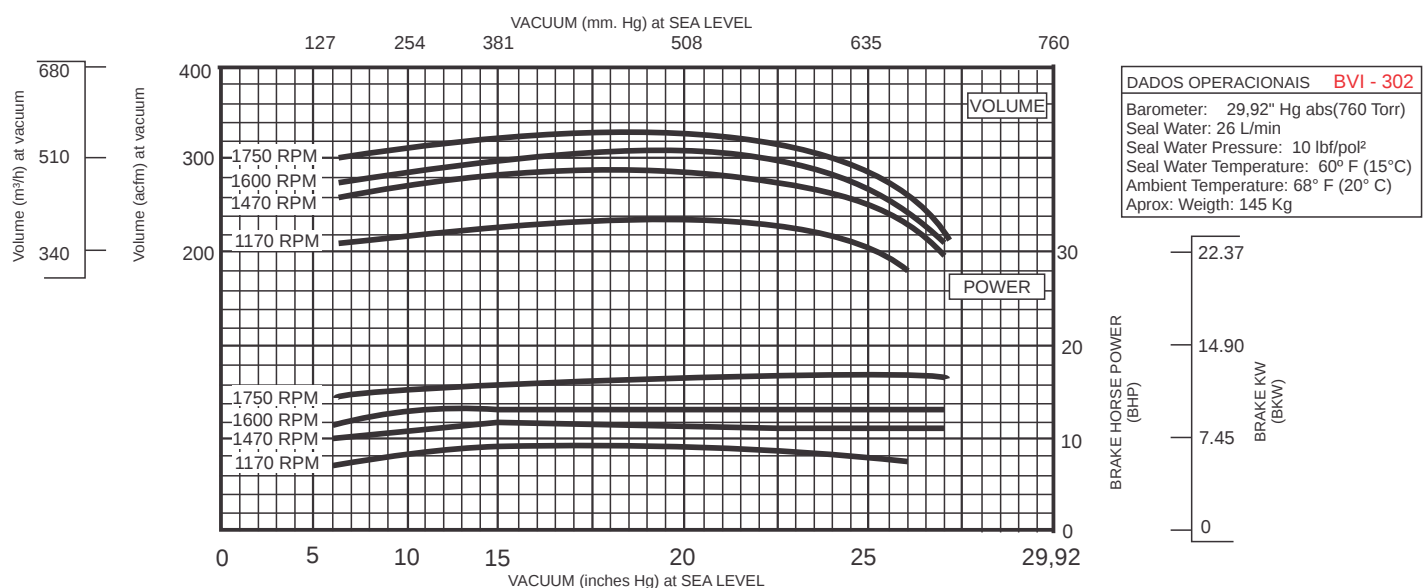
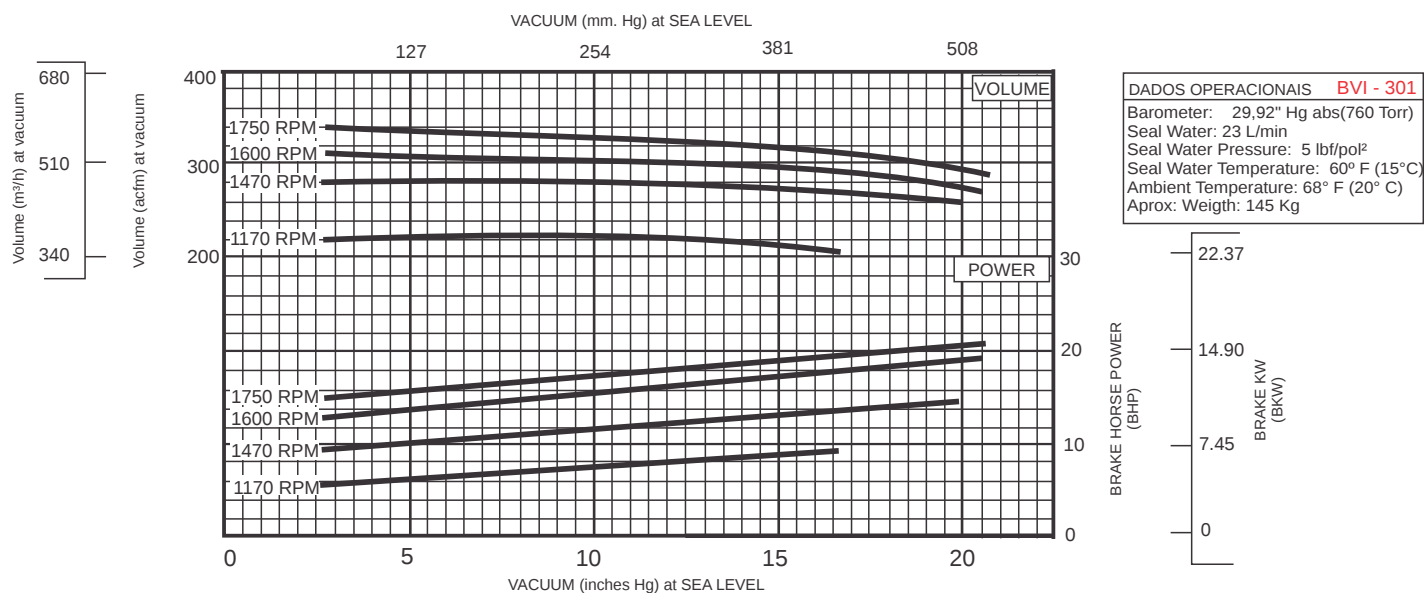
TECHNICAL DATA	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	23 L/min
Seal Water Pressure:	10 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigth:	80 Kg



TECHNICAL DATA	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	30 L/min
Seal Water Pressure:	15 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigth:	80 Kg

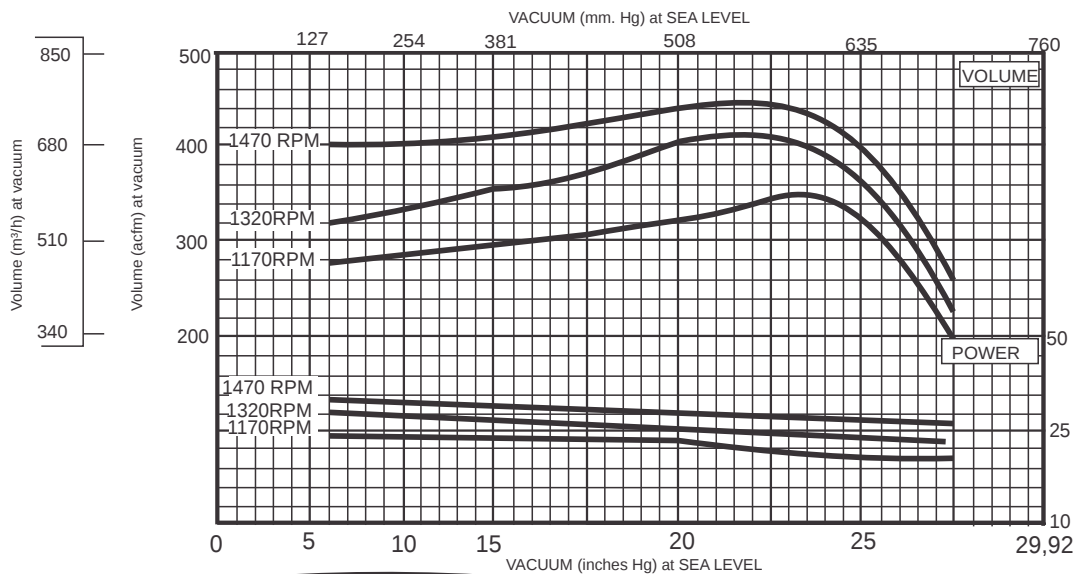
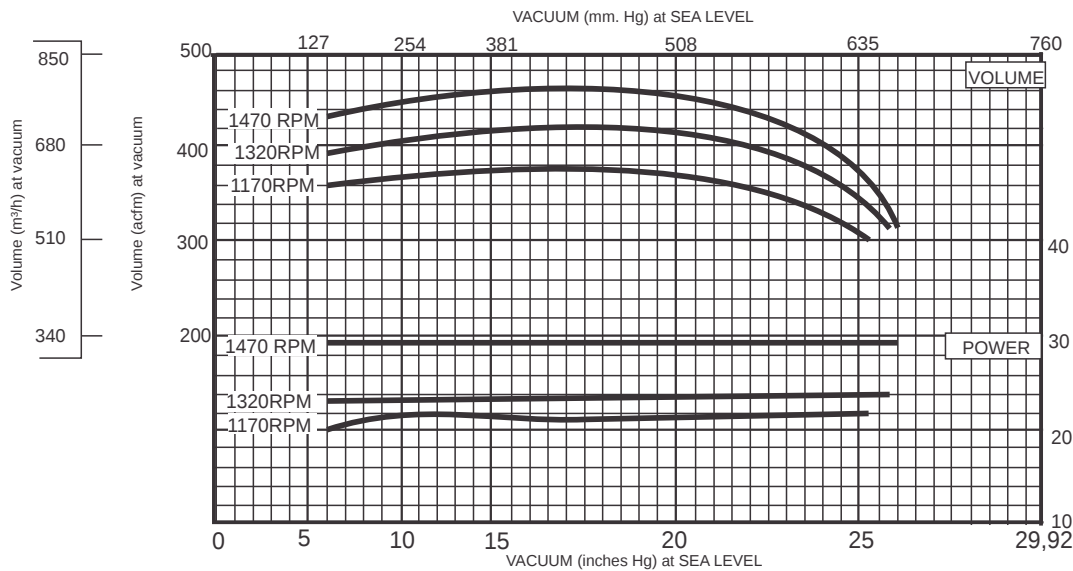
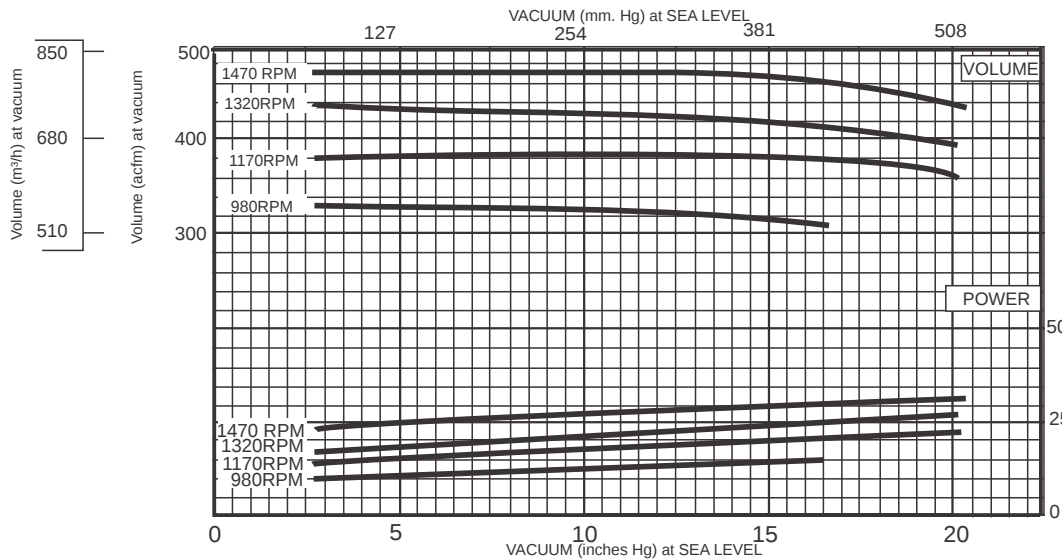


PERFORMANCE CURVE - VACUUM PUMP



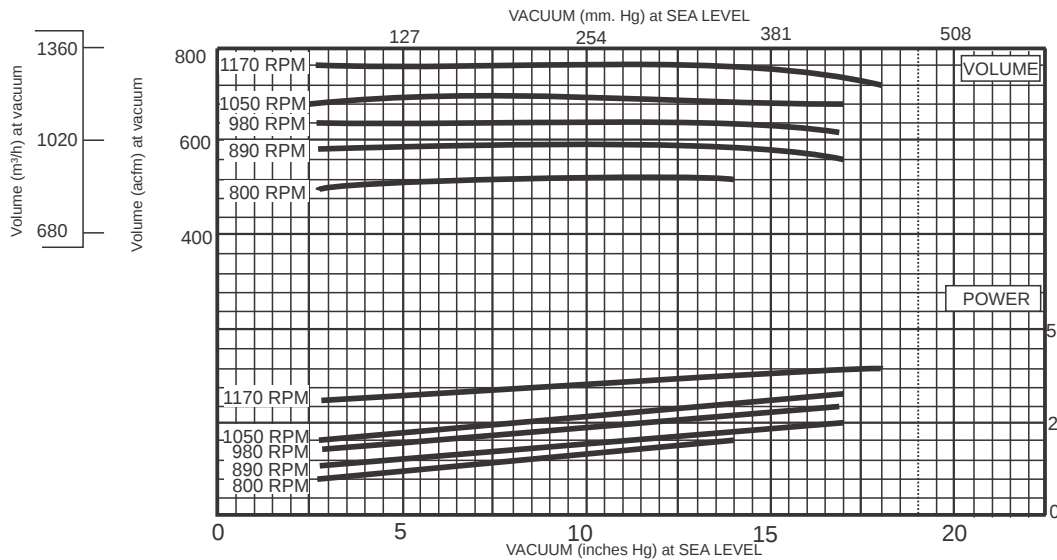


PERFORMANCE CURVE - VACUUM PUMP

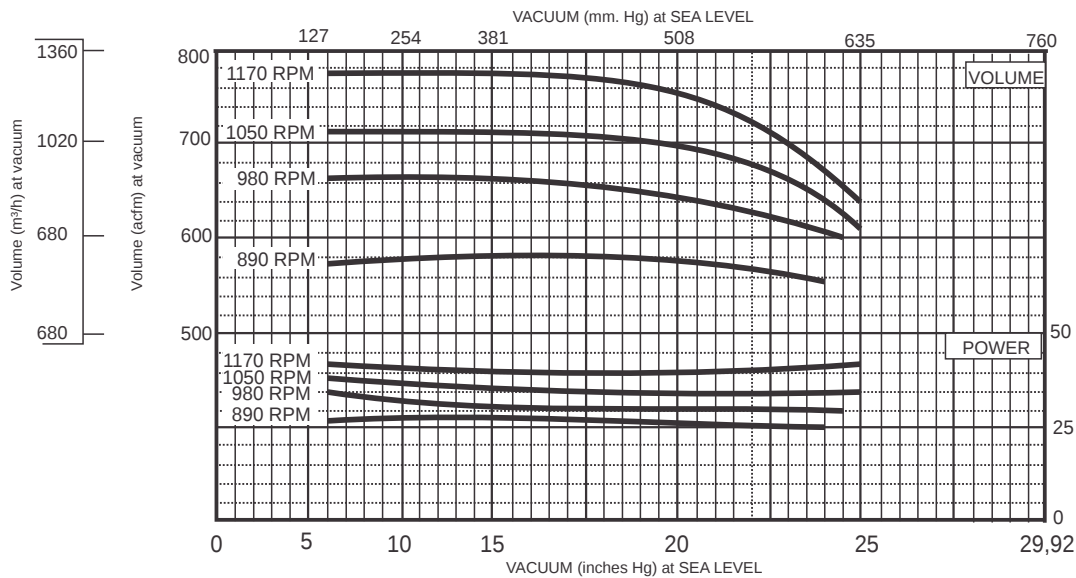




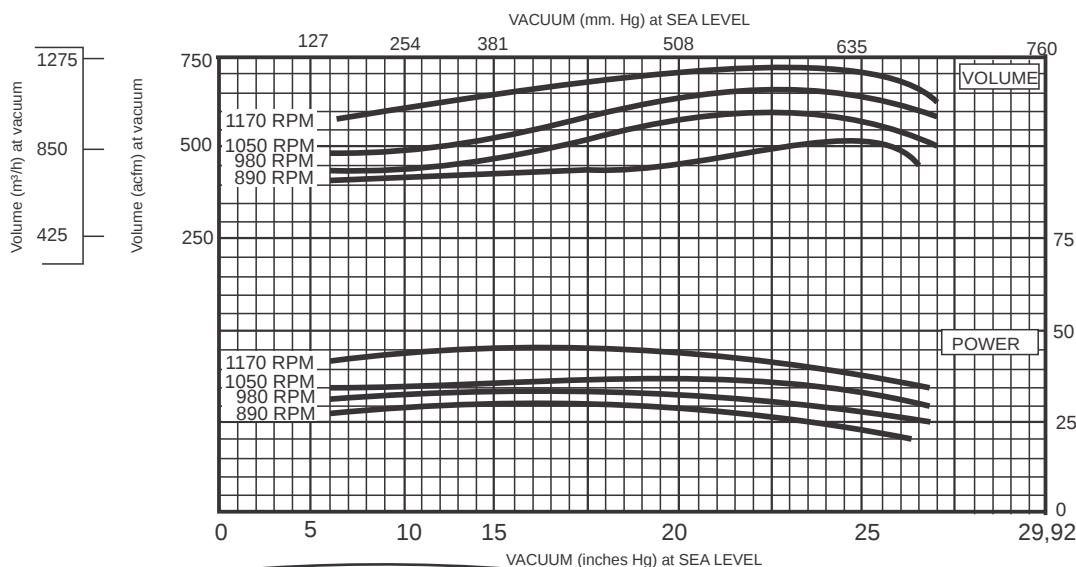
PERFORMANCE CURVE - VACUUM PUMP



TECHNICAL DATA	
Barometer:	29,92" Hg abs(760 Torr)
Seal Water:	38 L/min
Seal Water Pressure:	5 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigh:	348Kg



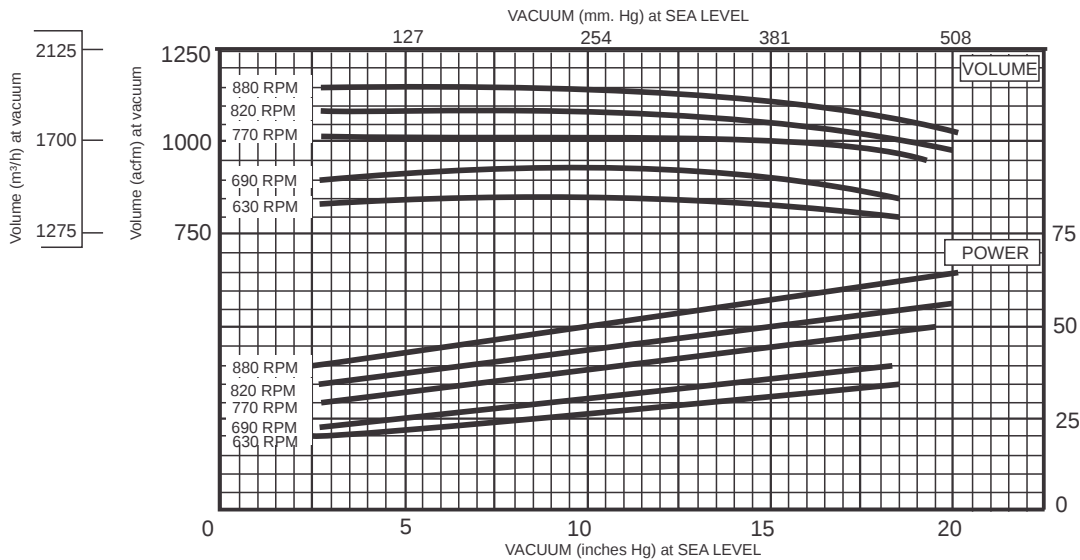
TECHNICAL DATA	
Barometer:	29,92" Hg abs(760 Torr)
Seal Water:	57 L/min
Seal Water Pressure:	10 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigh:	348Kg



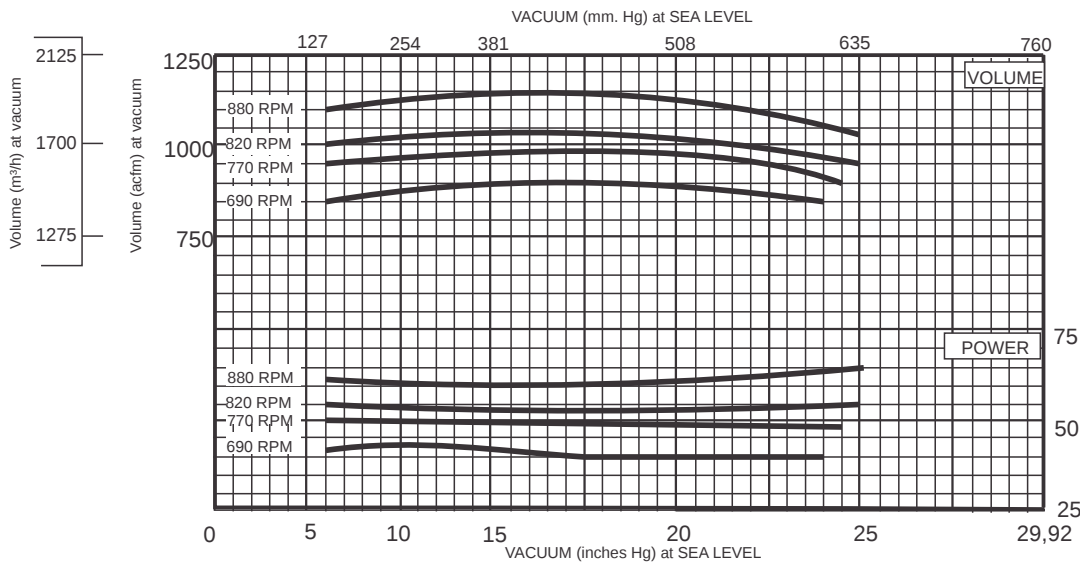
TECHNICAL DATA	
Barometer:	29,92" Hg abs(760 Torr)
Seal Water:	76 L/min
Seal Water Pressure:	15 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigh:	348 Kg



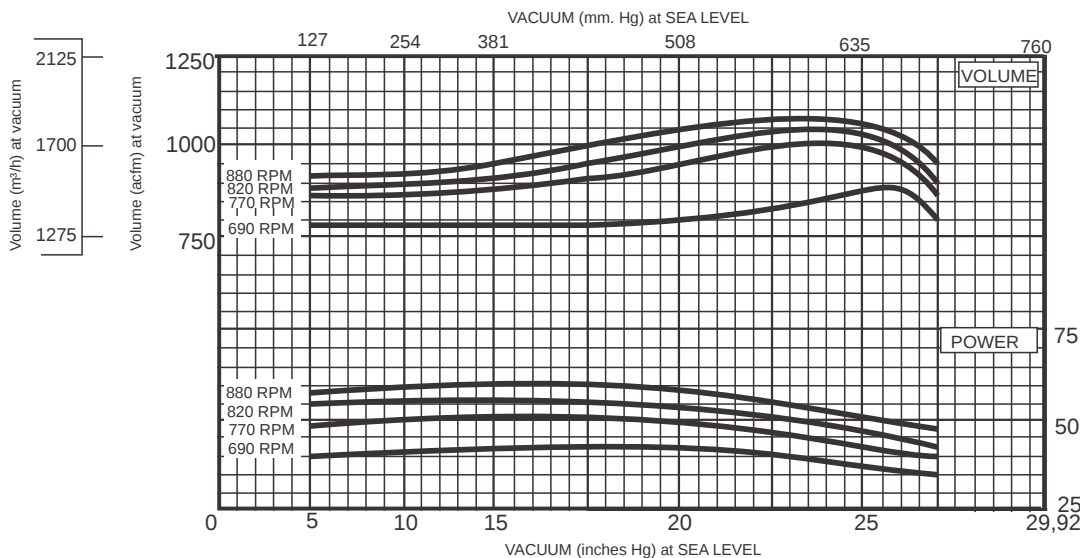
PERFORMANCE CURVE - VACUUM PUMP



TECHNICAL DATA	
BVI - 1001	
Barometer:	29,92" Hg abs(760 Torr)
Seal Water:	57 L/min
Seal Water Pressure:	5 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox. Weigh:	522 Kg



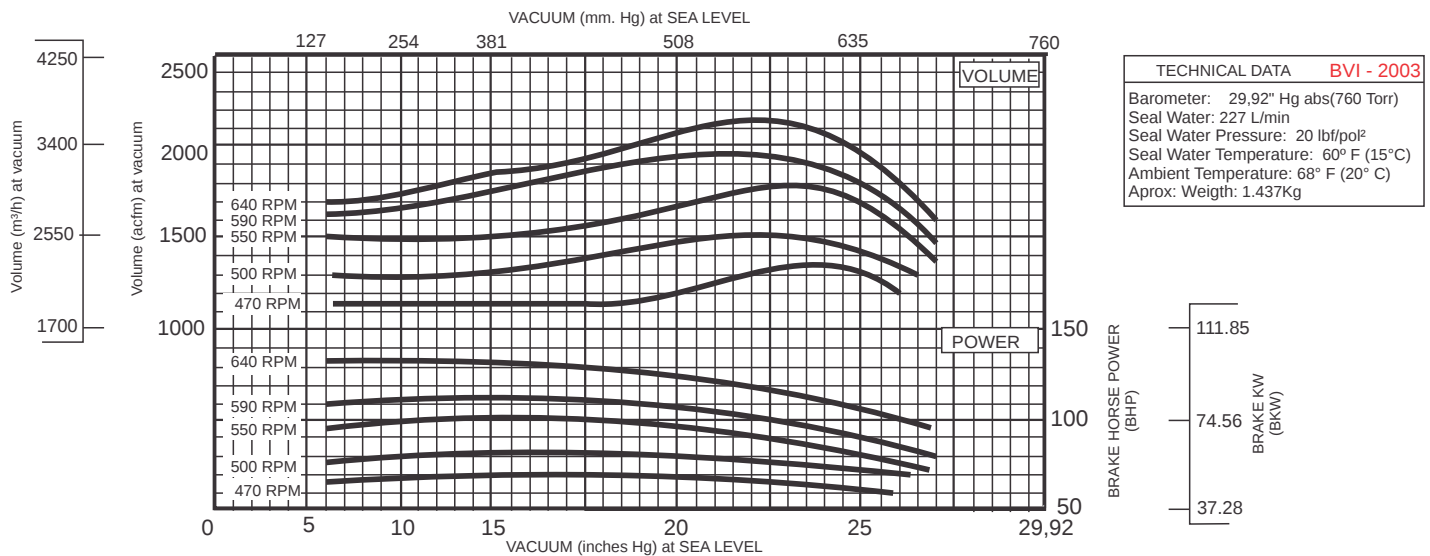
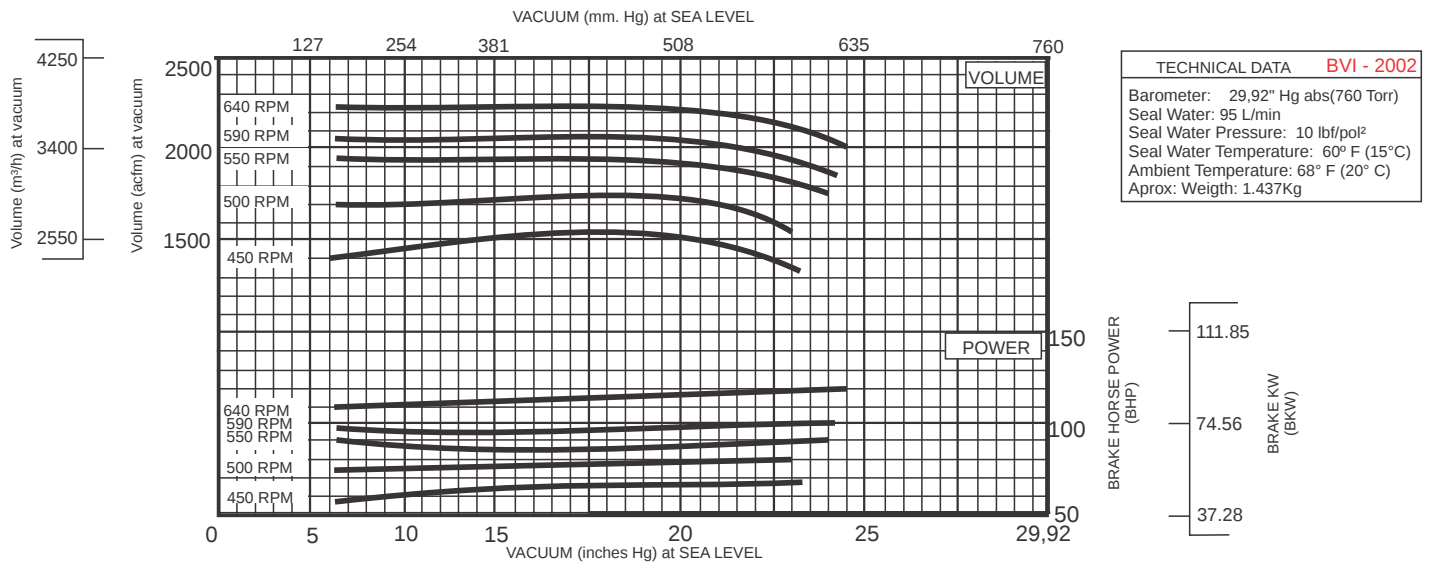
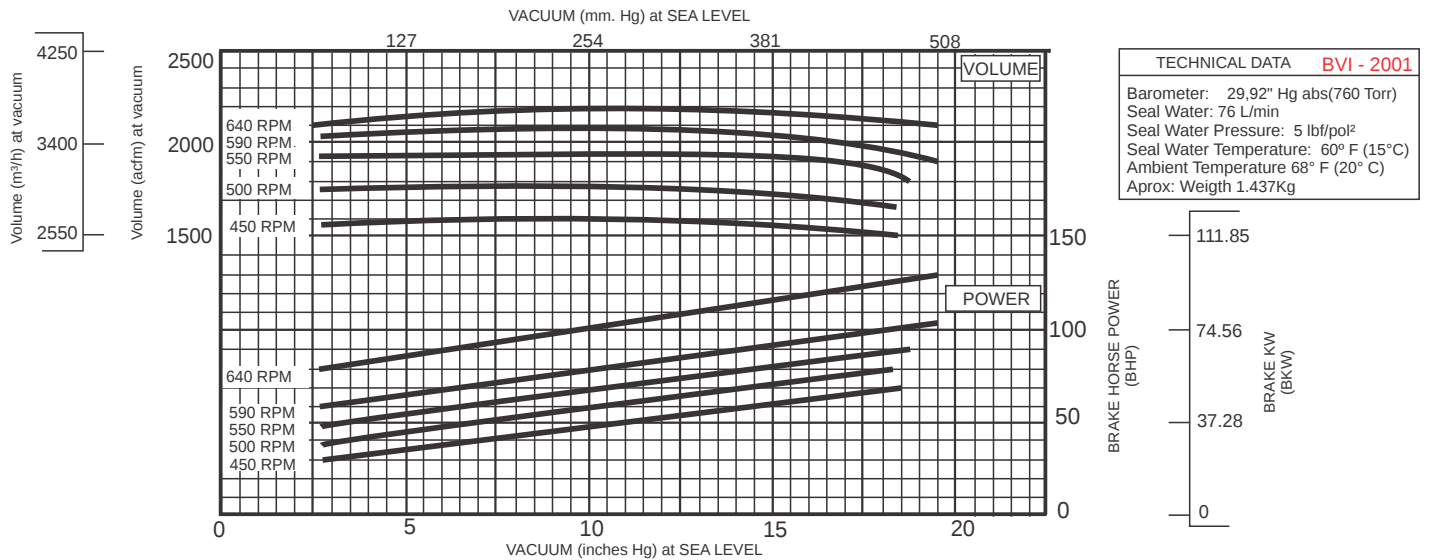
TECHNICAL DATA	
BVI - 1002	
Barometer:	29,92" Hg abs(760 Torr)
Seal Water:	76 L/min
Seal Water Pressure:	10 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox. Weigh:	522 Kg



TECHNICAL DATA	
BVI - 1003	
Barometer:	29,92" Hg abs(760 Torr)
Seal Water:	152 L/min
Seal Water Pressure:	15 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox. Weigh:	522 Kg

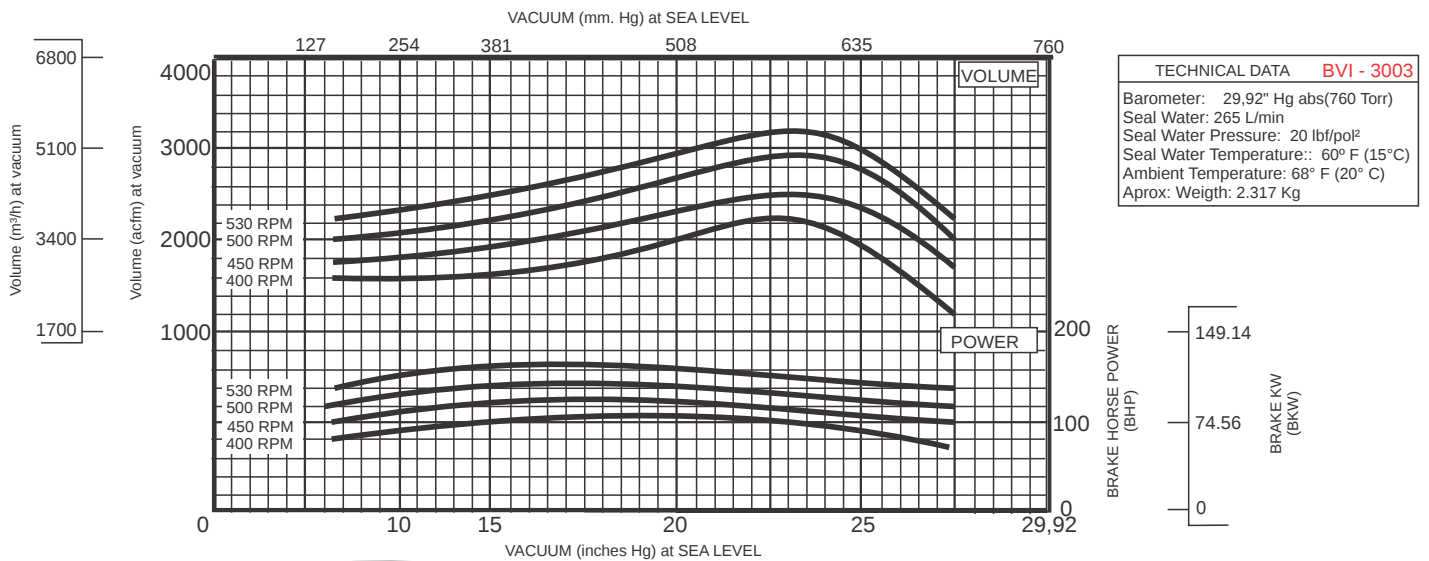
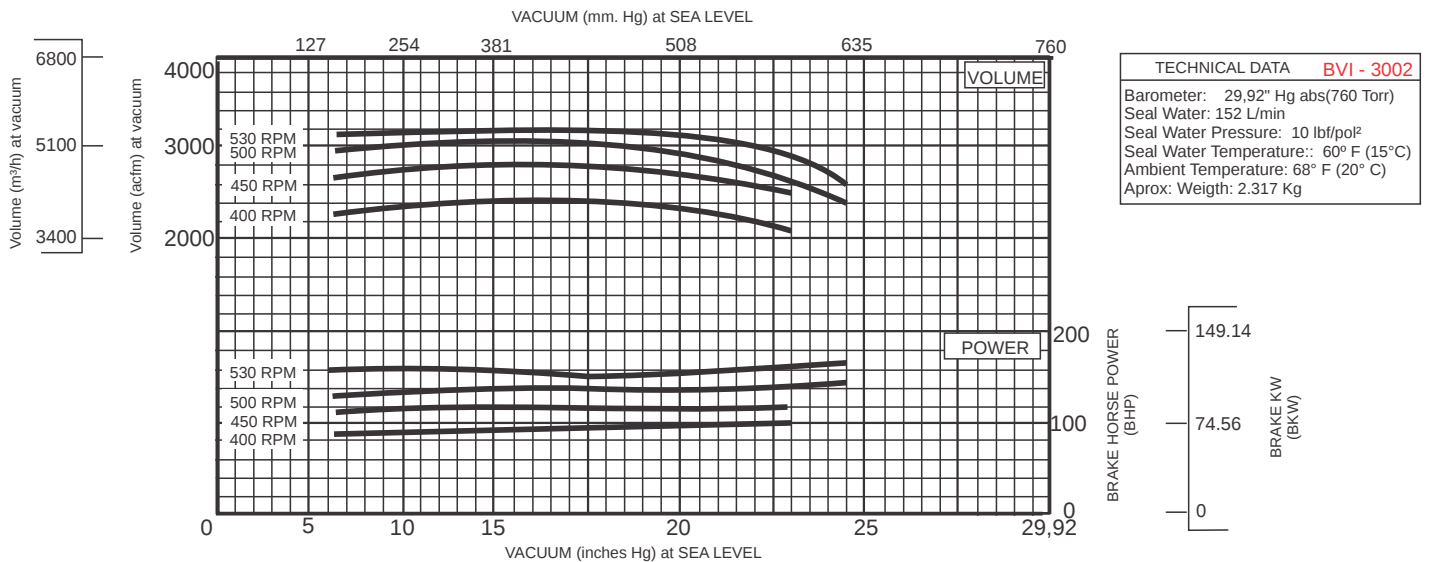
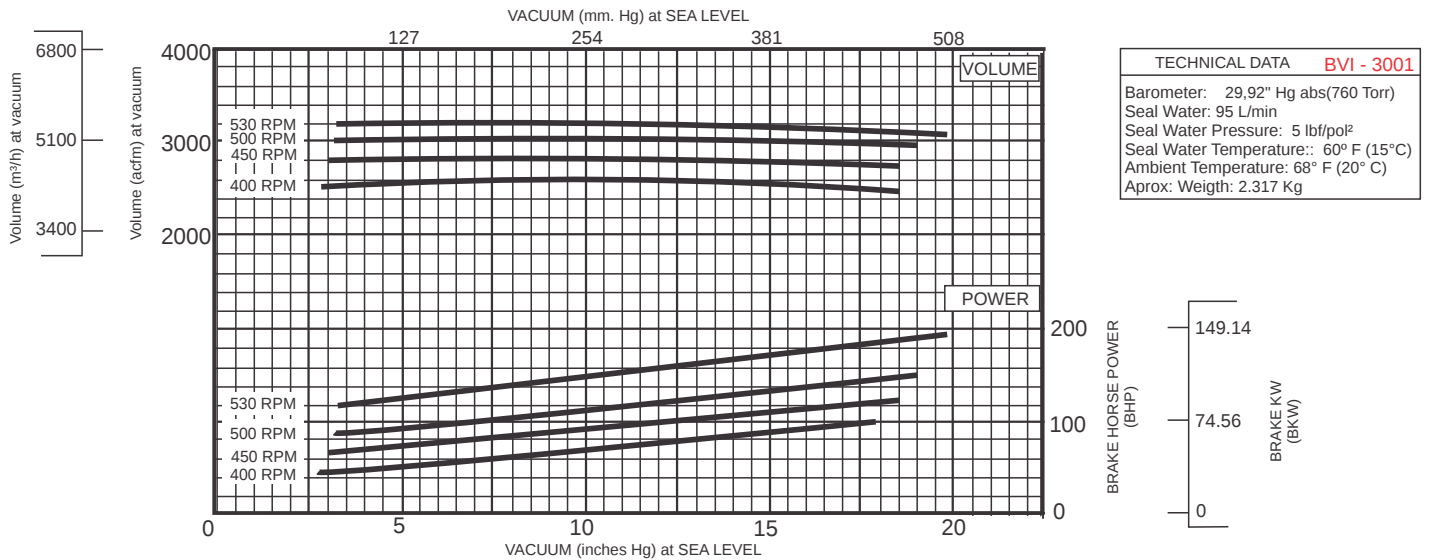


PERFORMANCE CURVE - VACUUM PUMP



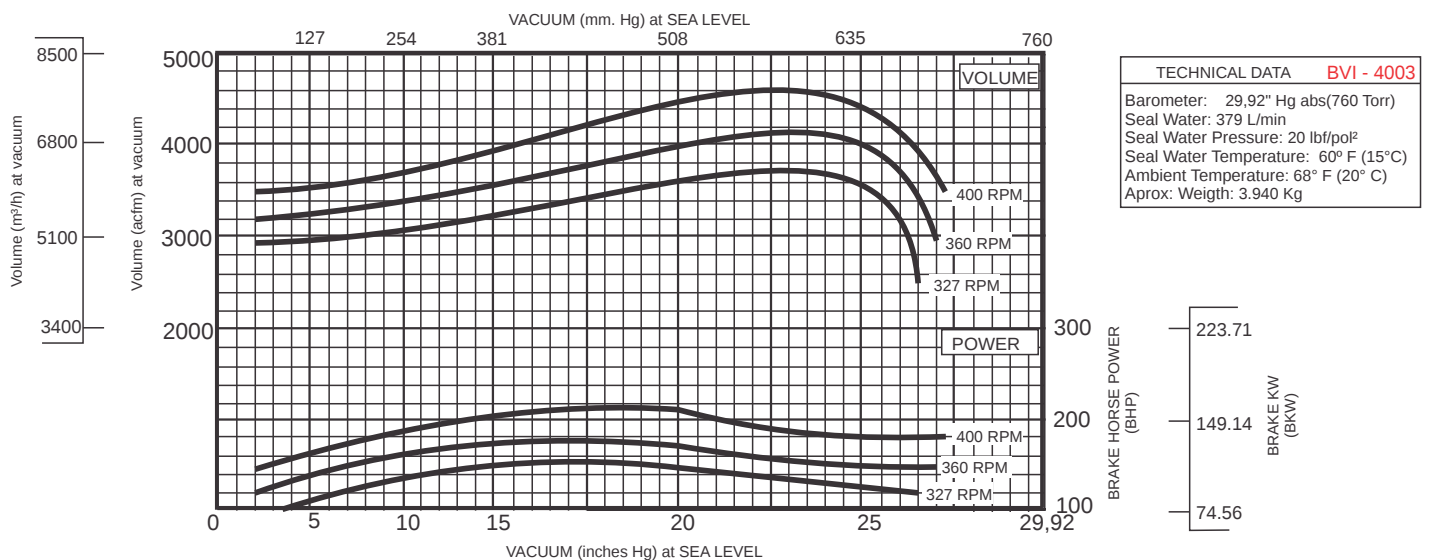
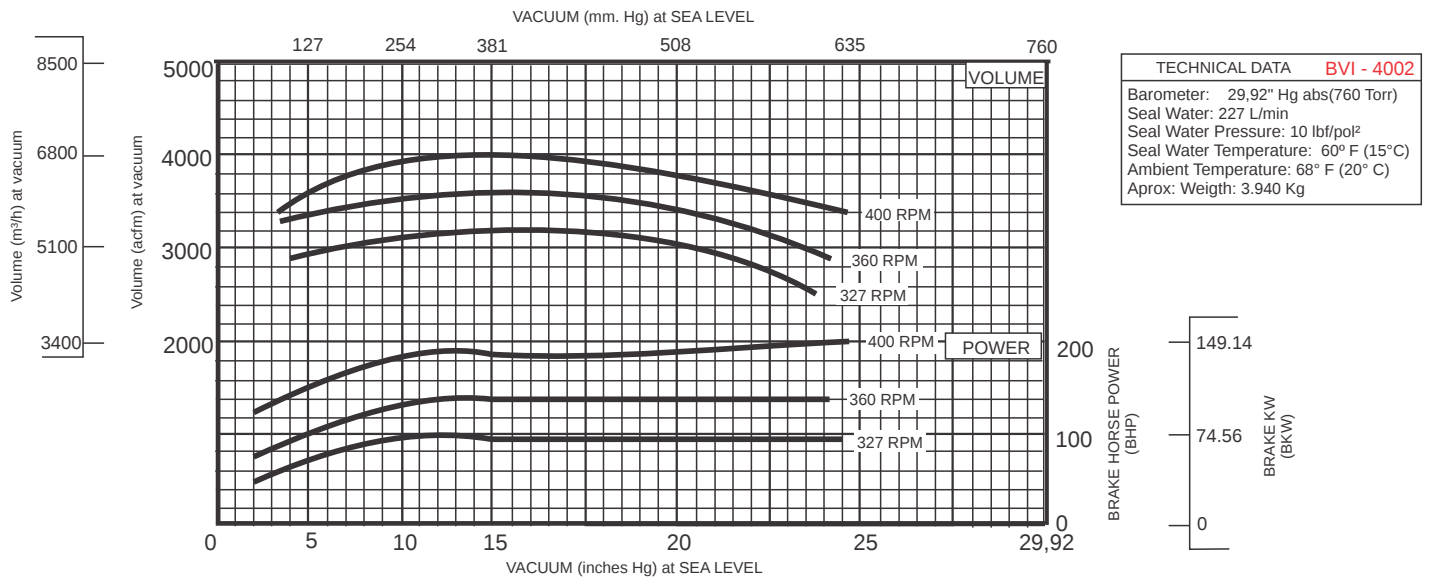
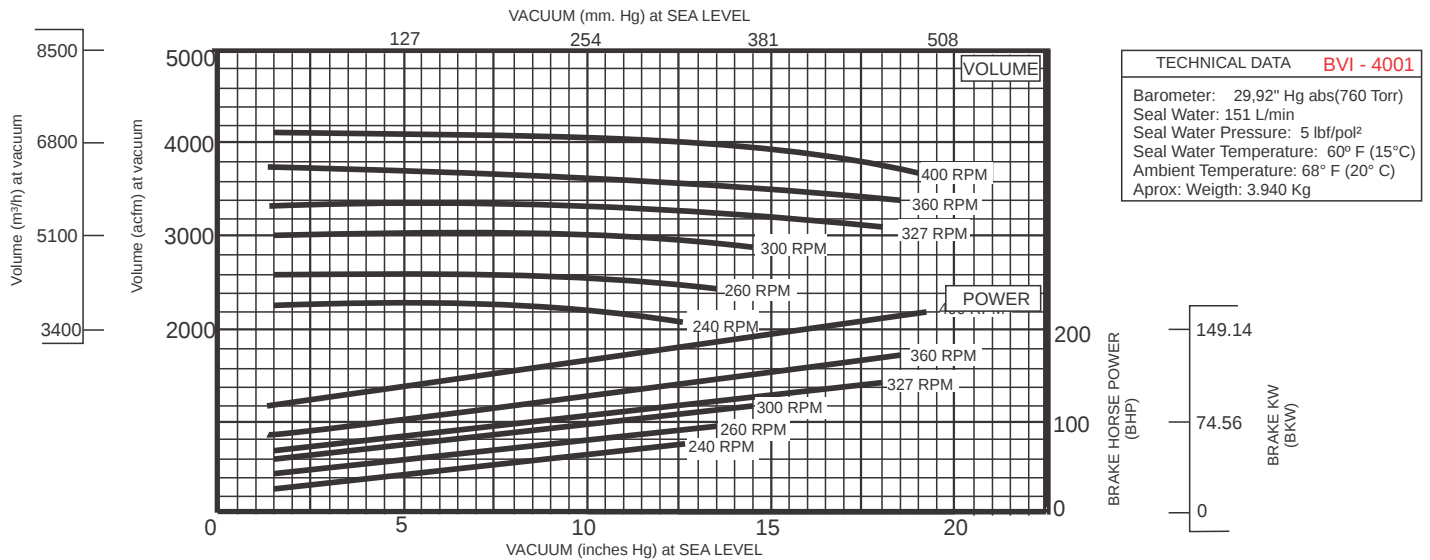


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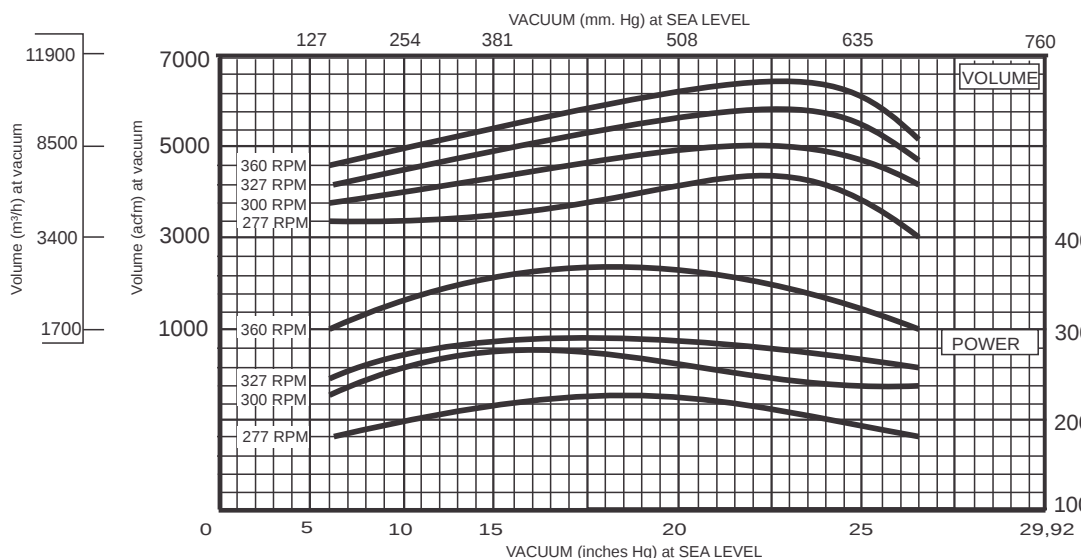
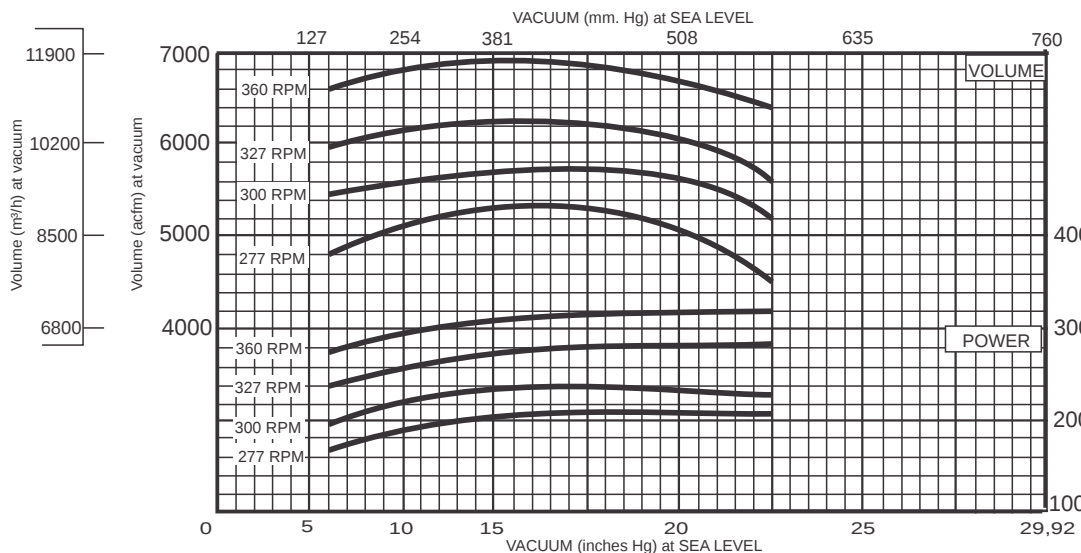
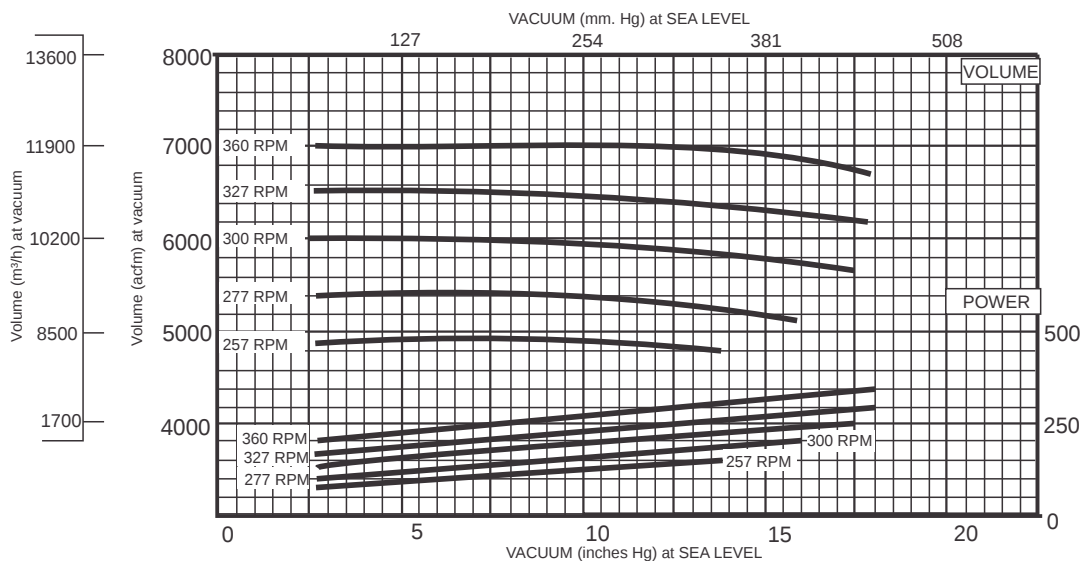


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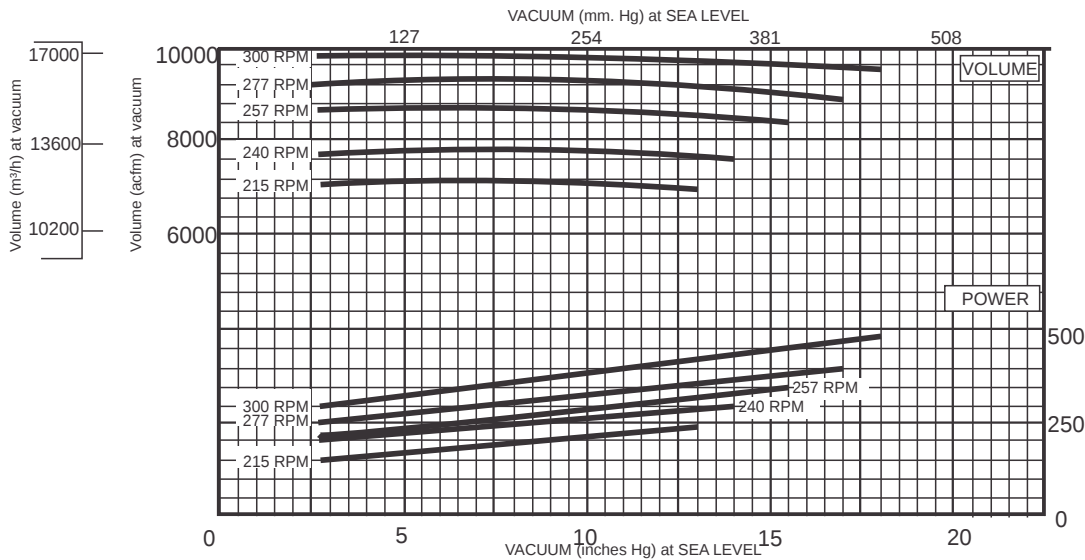


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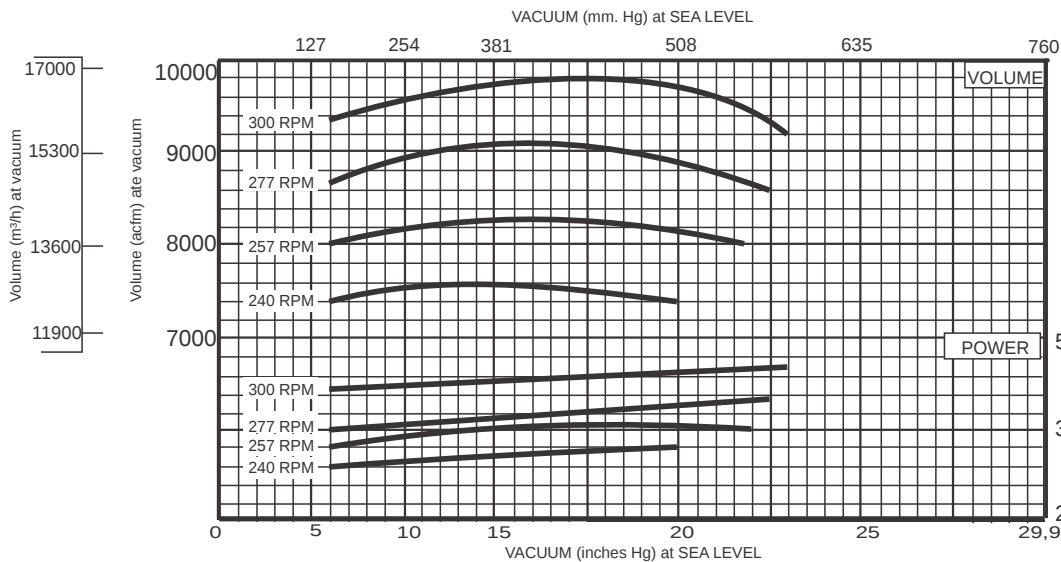




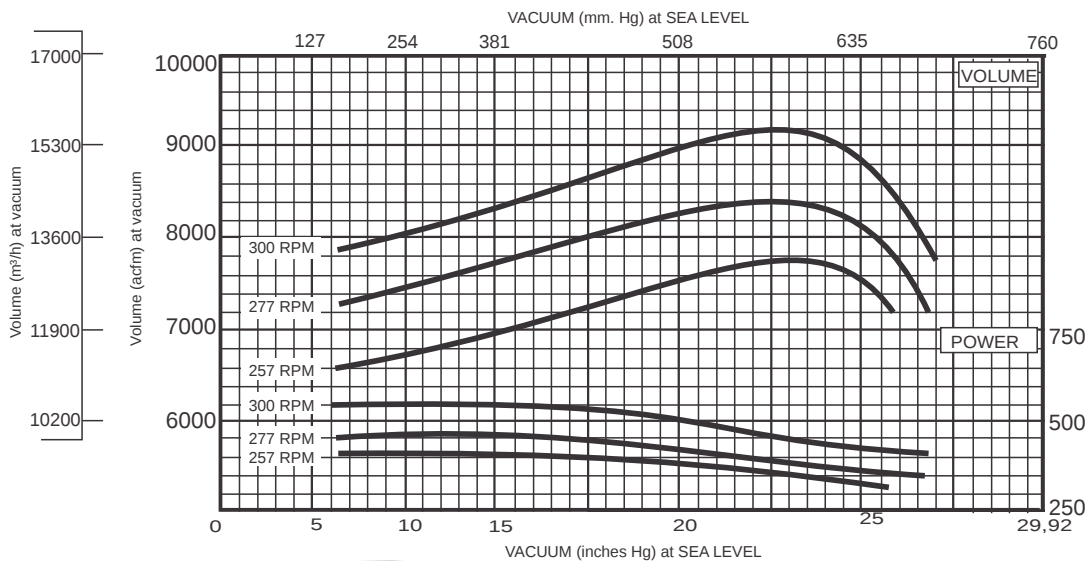
PERFORMANCE CURVE - VACUUM PUMP



TECHNICAL DATA	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	284 L/min
Seal Water Pressure:	5 lbf/pol ²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigth:	8.970 Kg

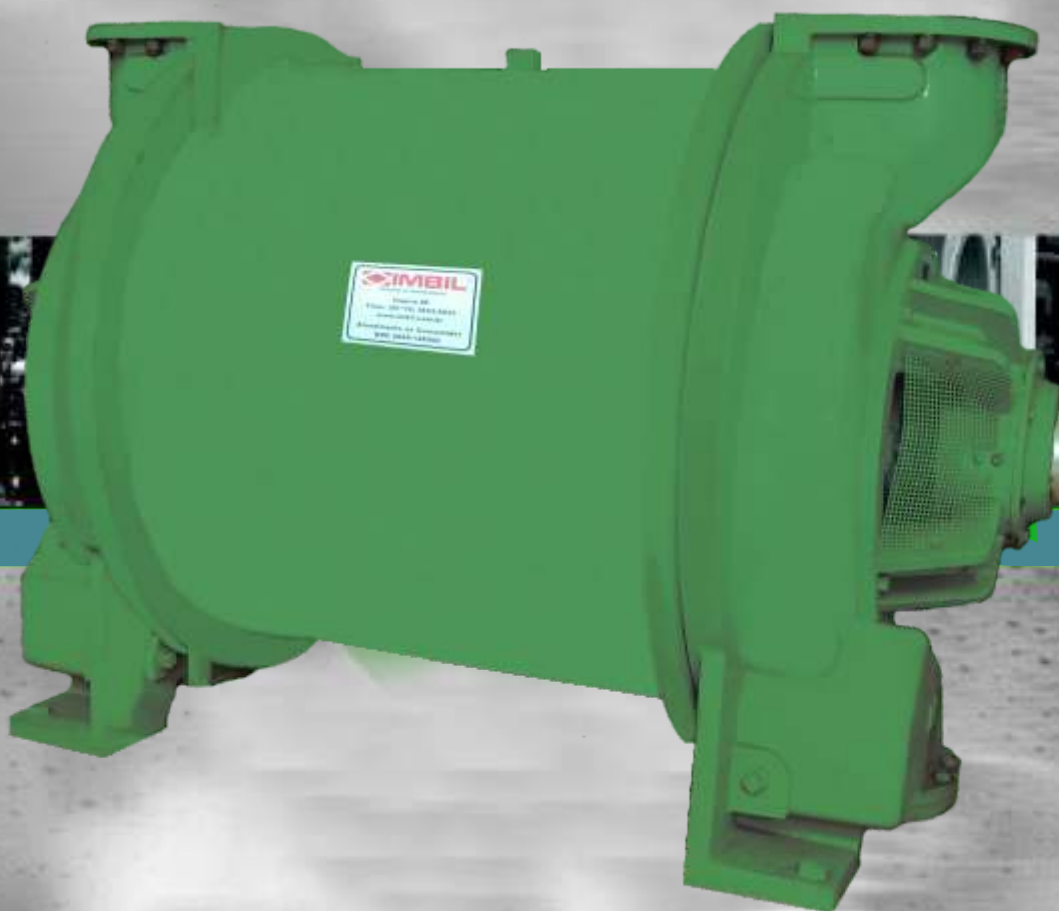


TECHNICAL DATA	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	530 L/min
Seal Water Pressure:	10 lbf/pol ²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigth:	8.970 Kg



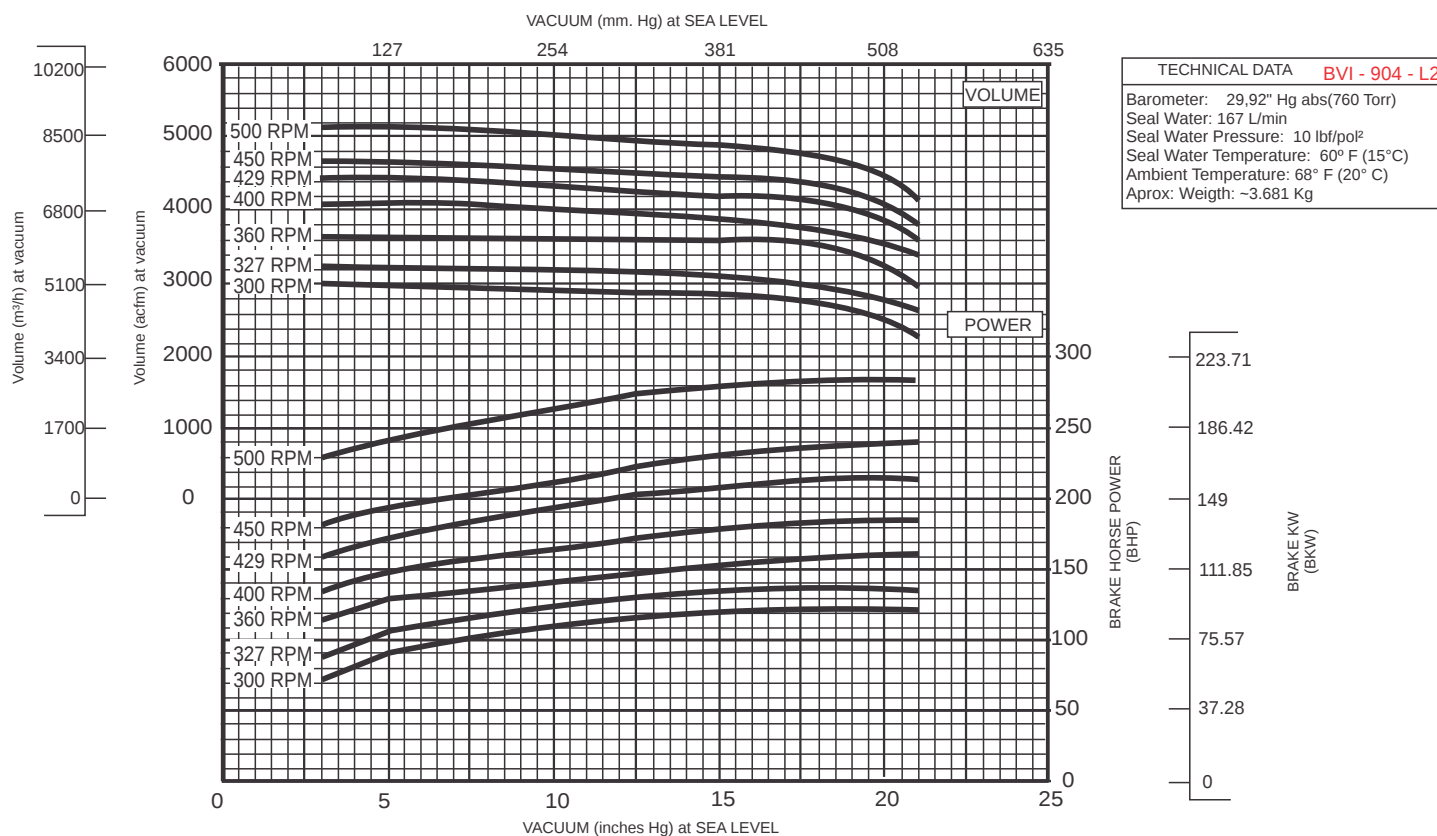
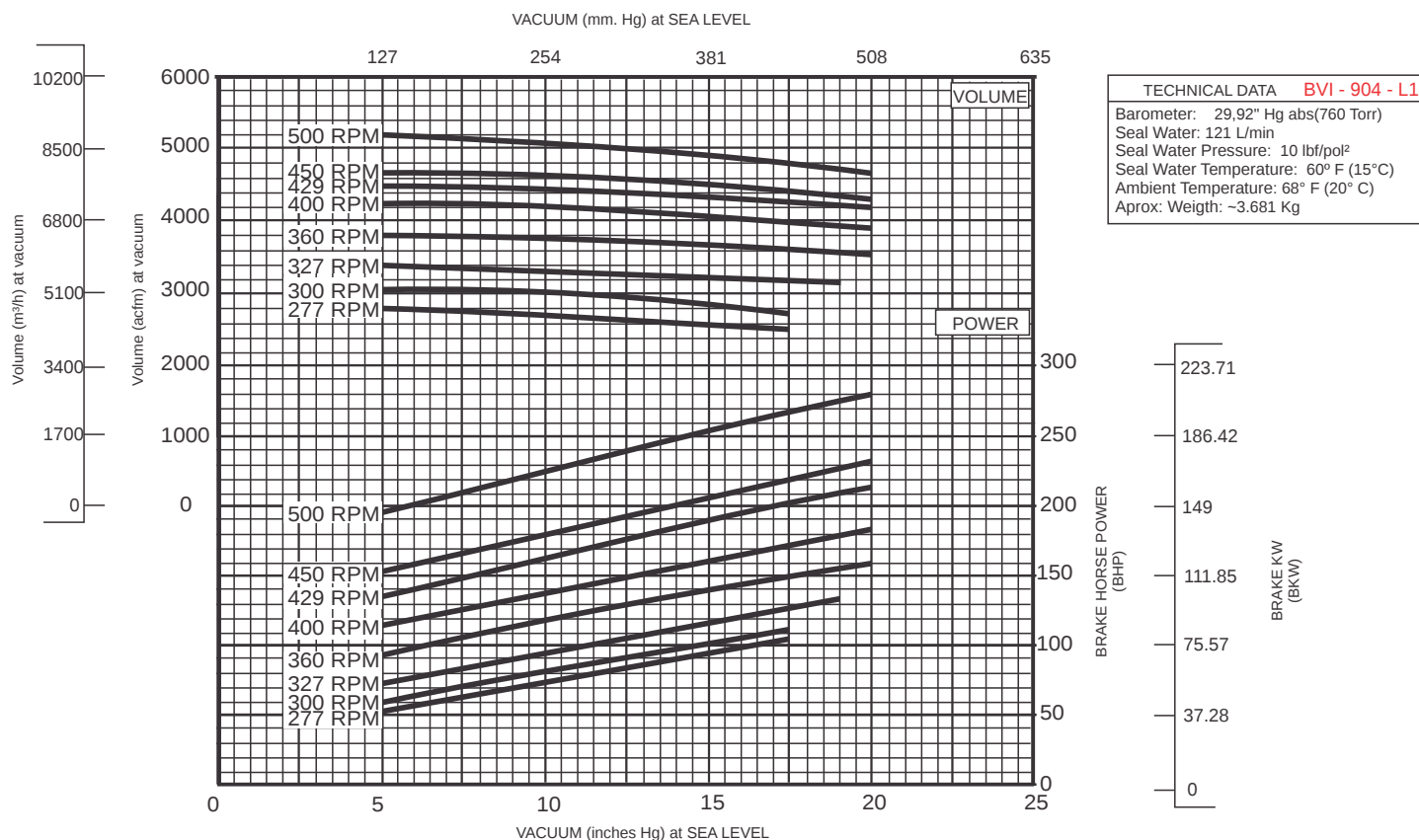
TECHNICAL DATA	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	757 L/min
Seal Water Pressure:	20 lbf/pol ²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weigth:	8.970 Kg

SERIES
BVI
904
LIQUID RING VACUUM PUMPS



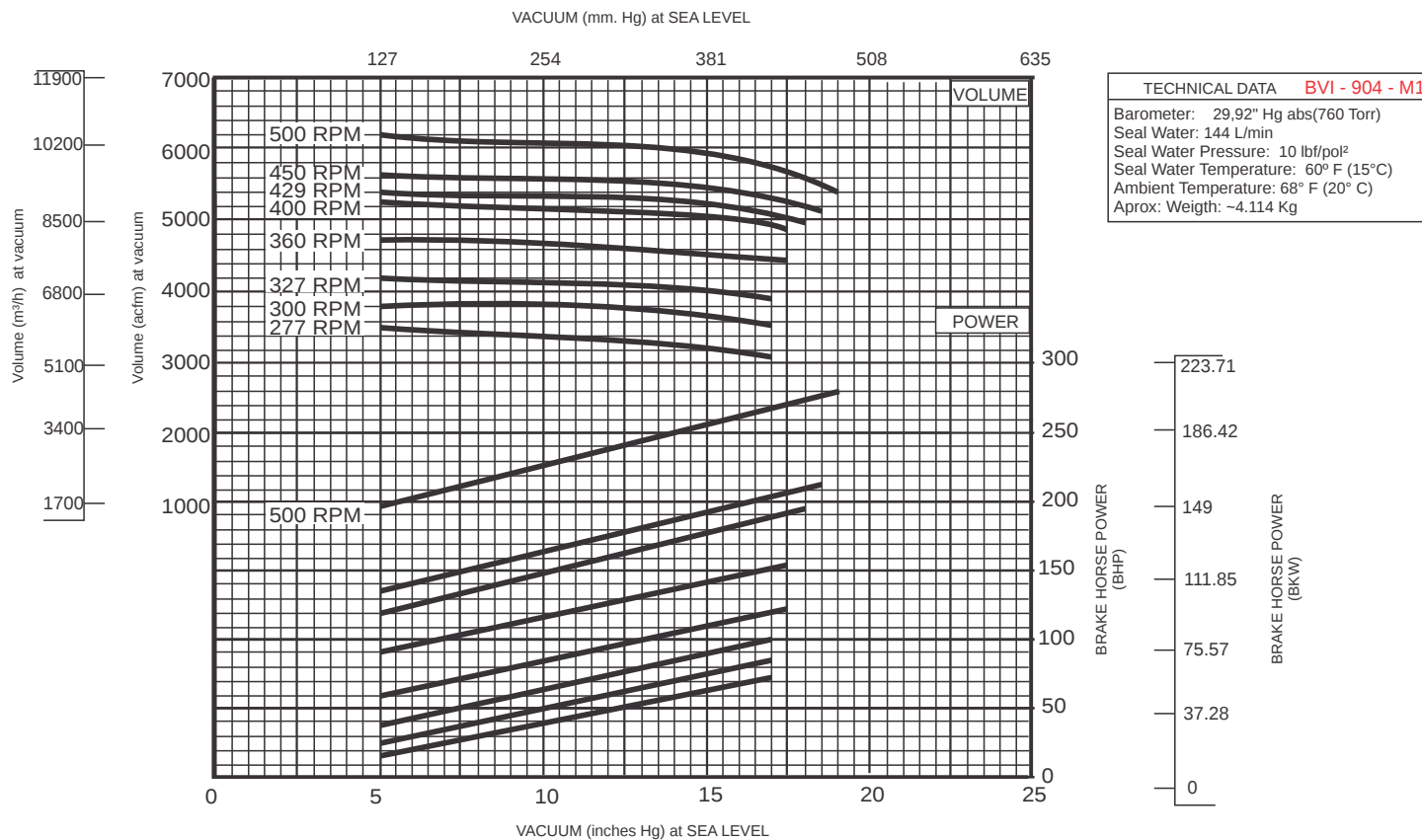


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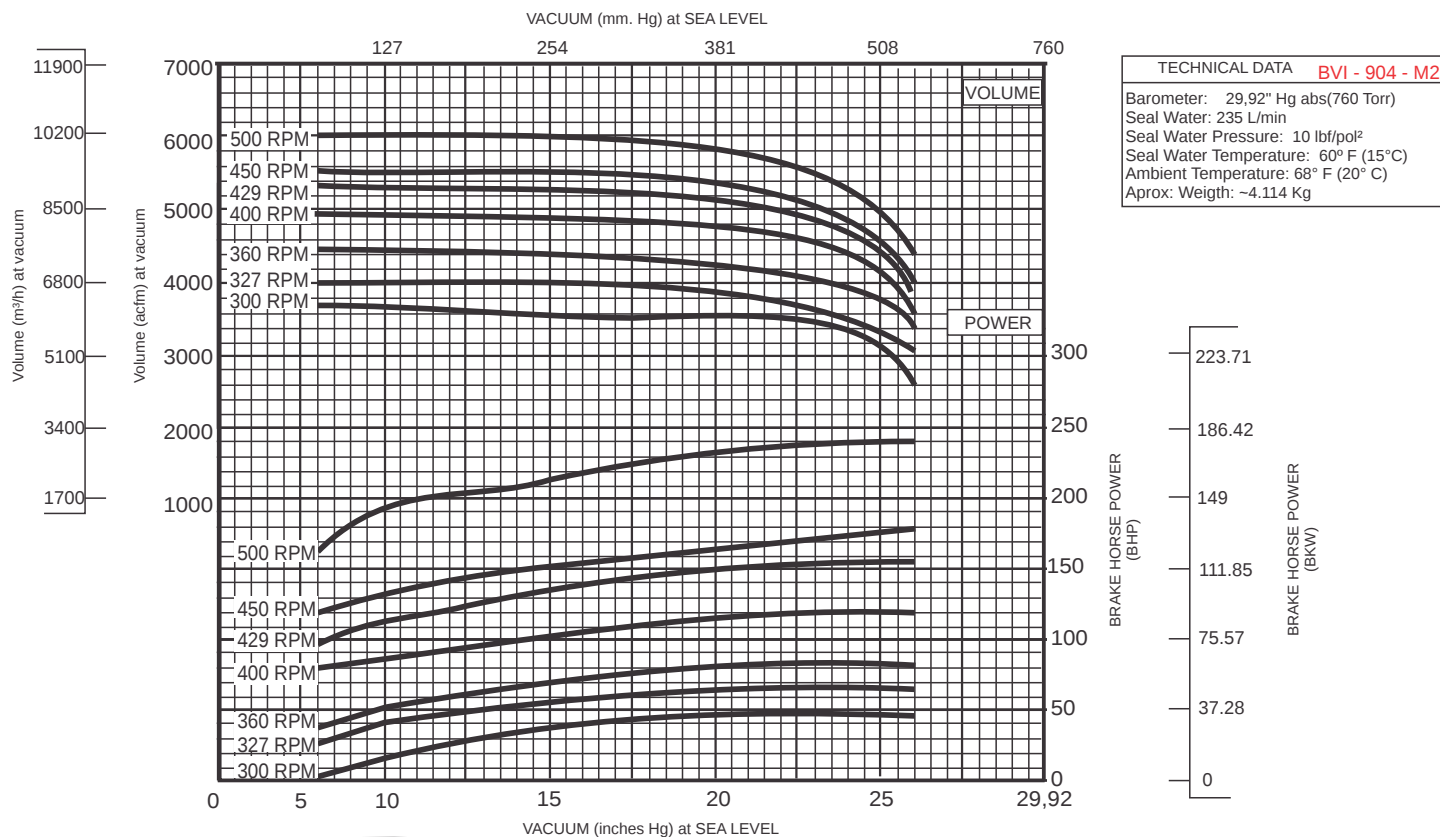




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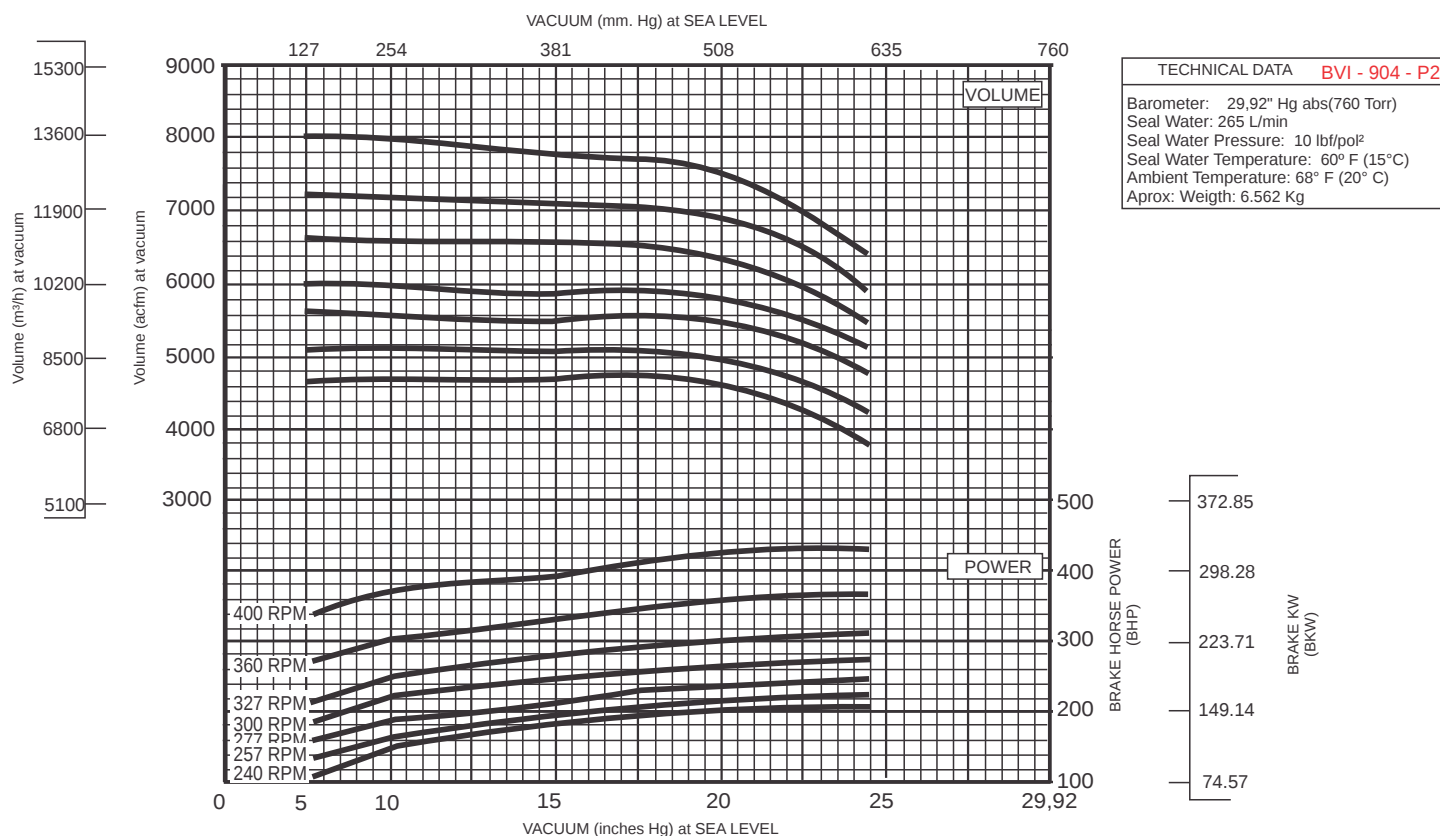
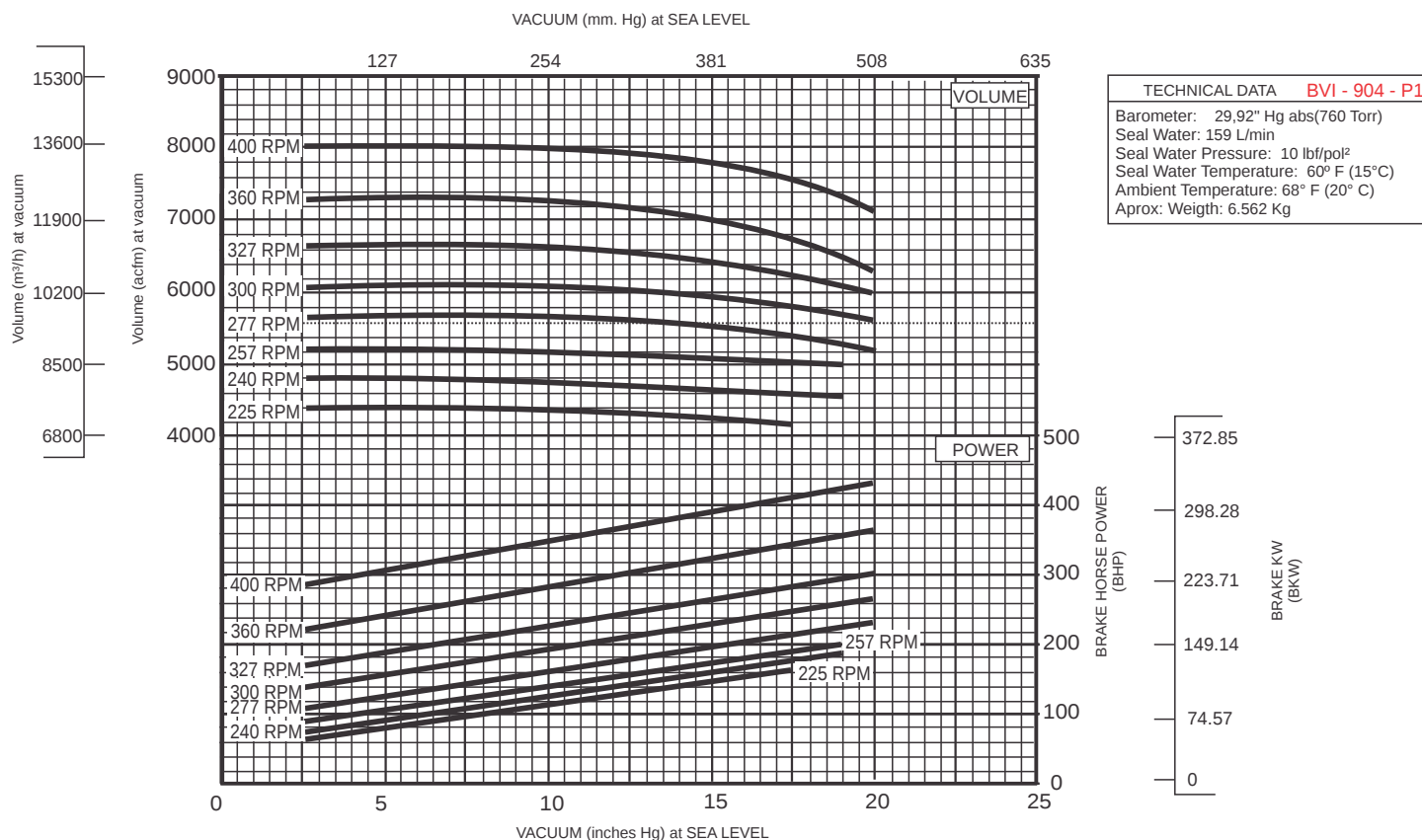
TECHNICAL DATA BVI - 904 - M1	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	144 L/min
Seal Water Pressure:	10 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox. Weight:	~4.114 Kg



TECHNICAL DATA BVI - 904 - M2	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	235 L/min
Seal Water Pressure:	10 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox. Weight:	~4.114 Kg

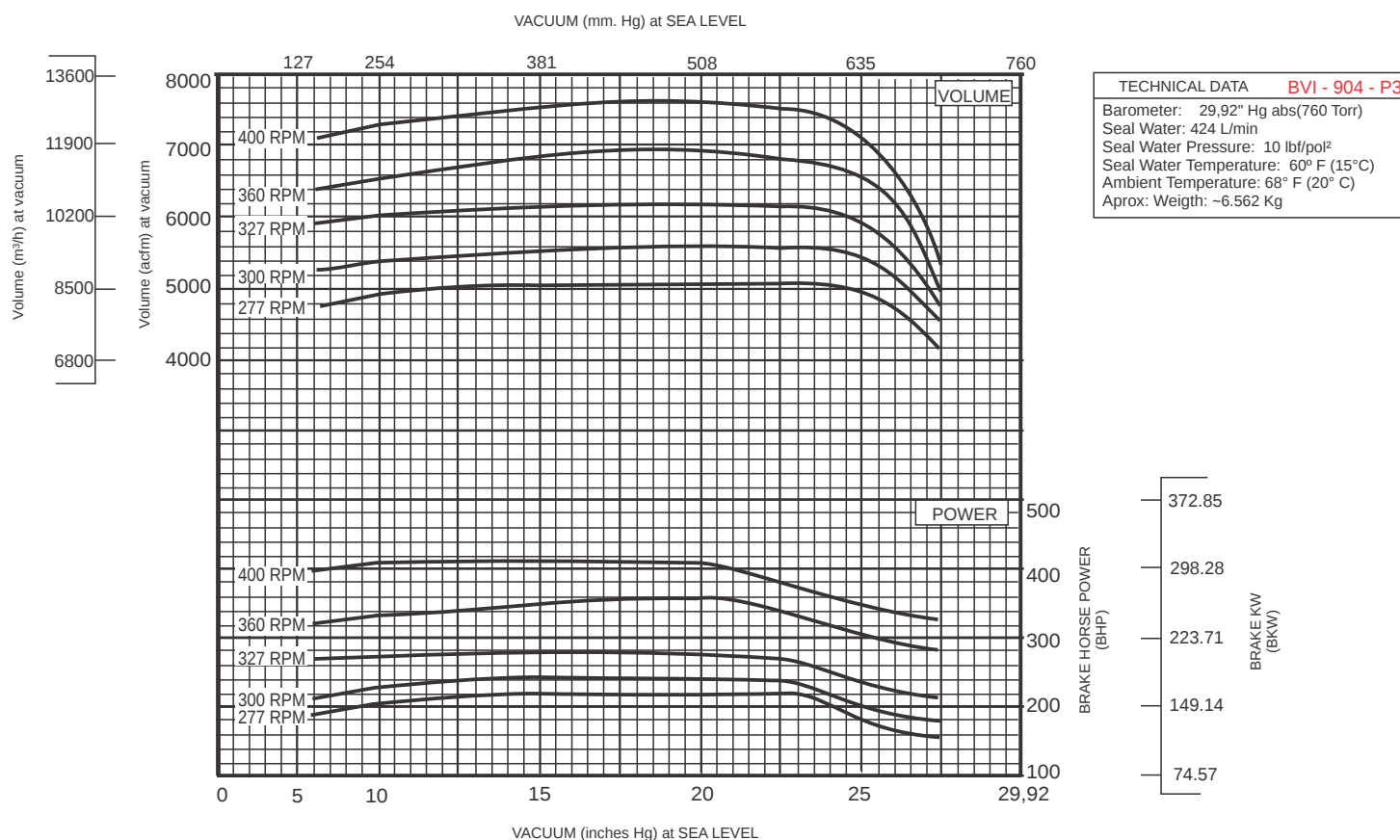


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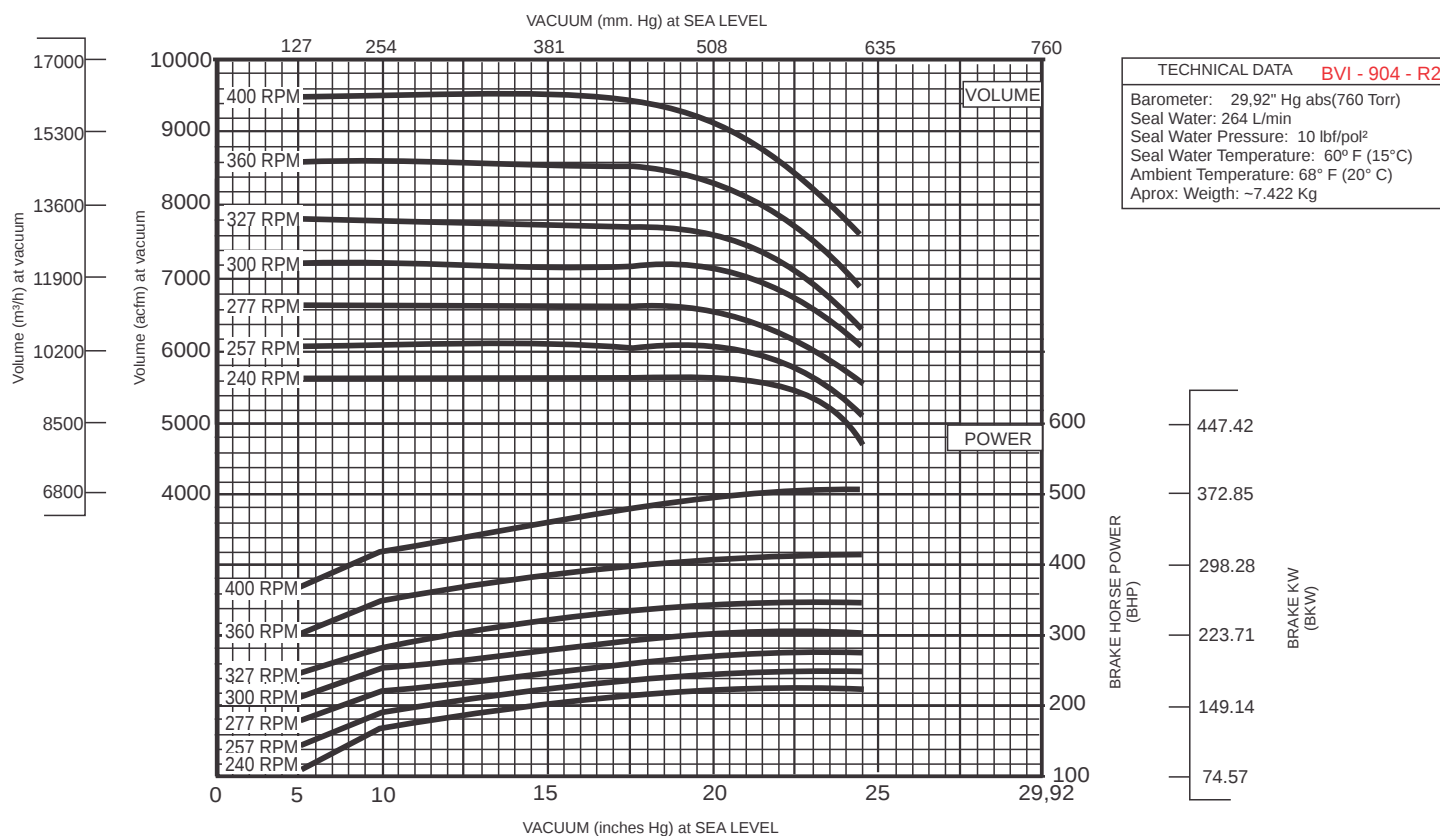
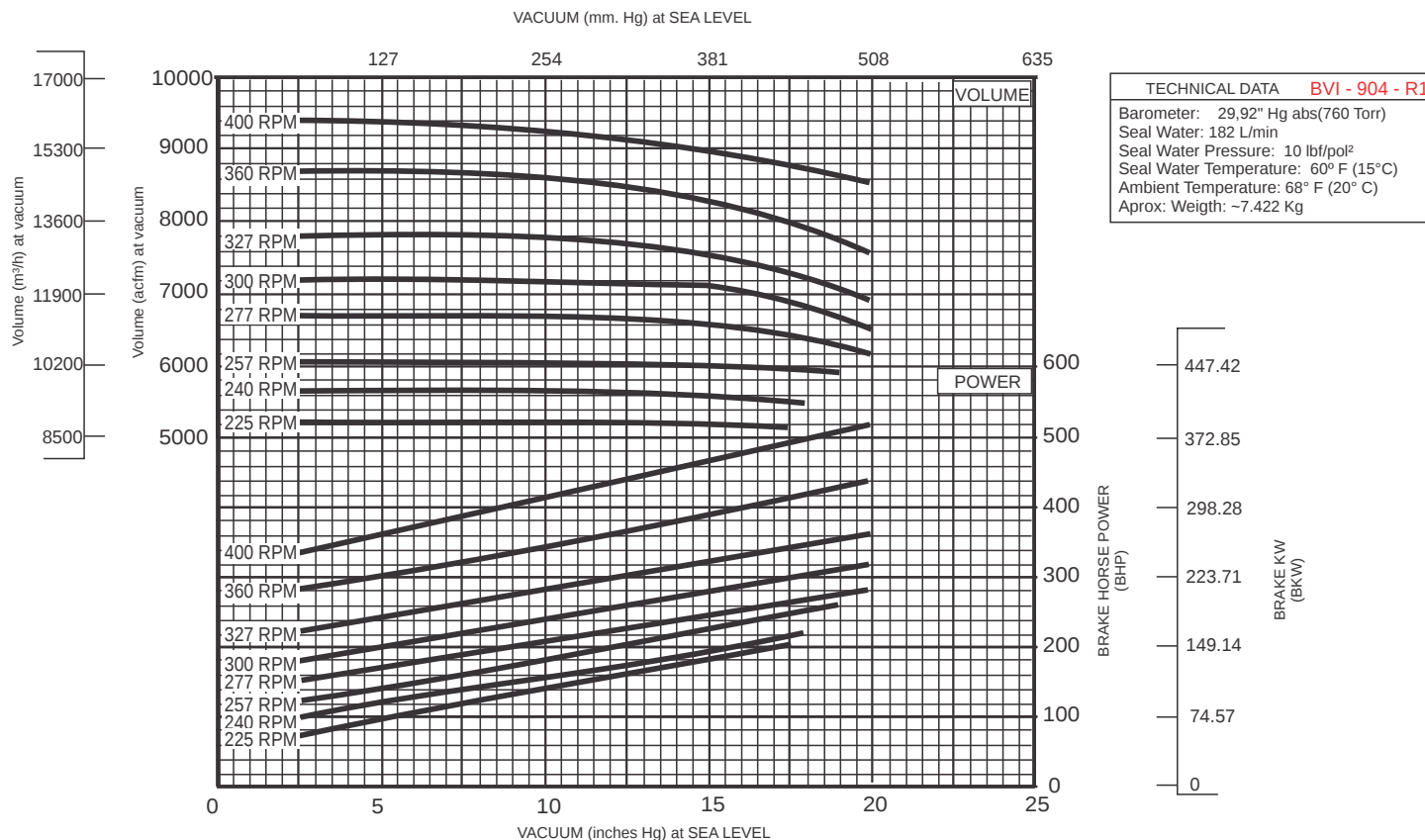


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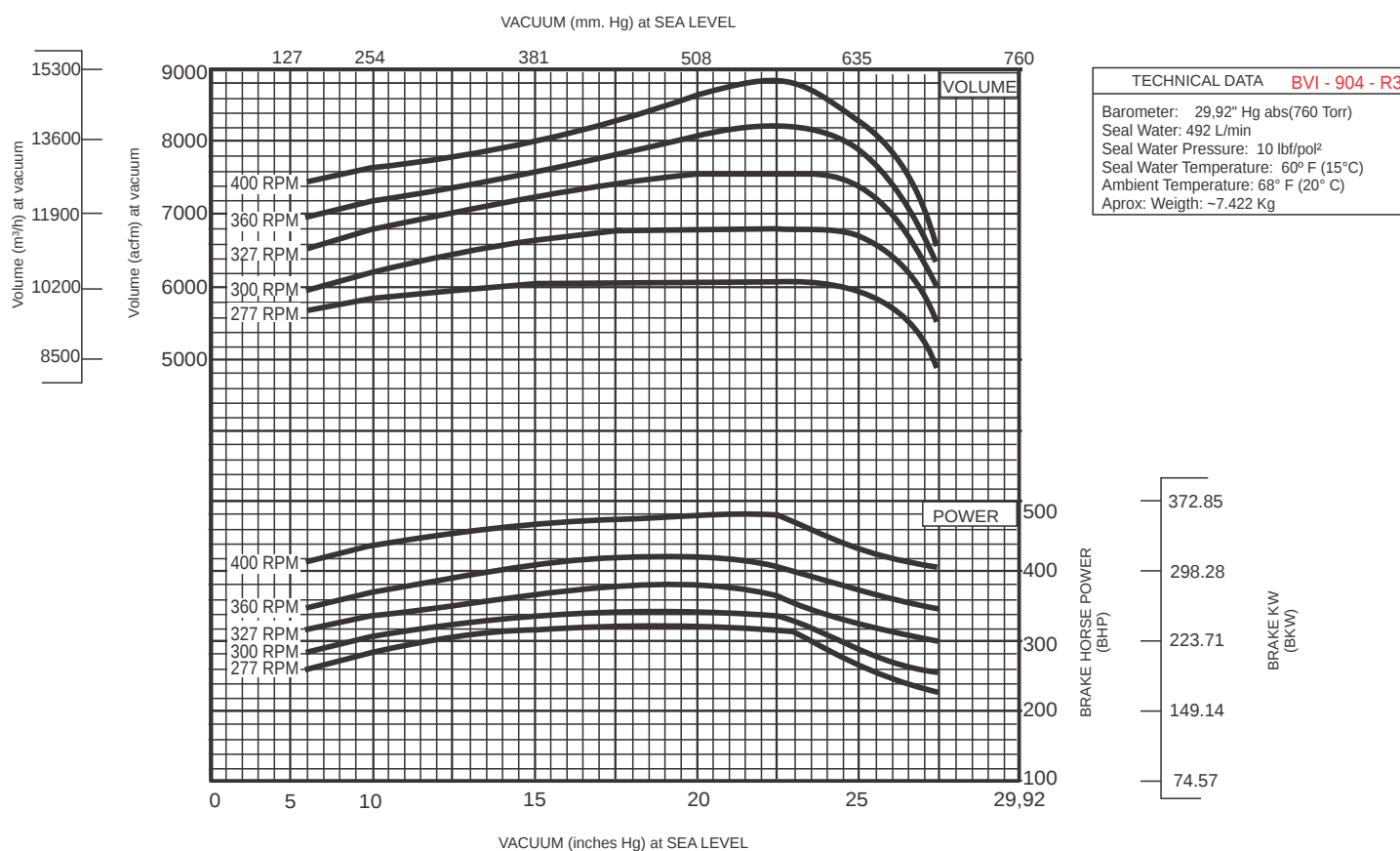


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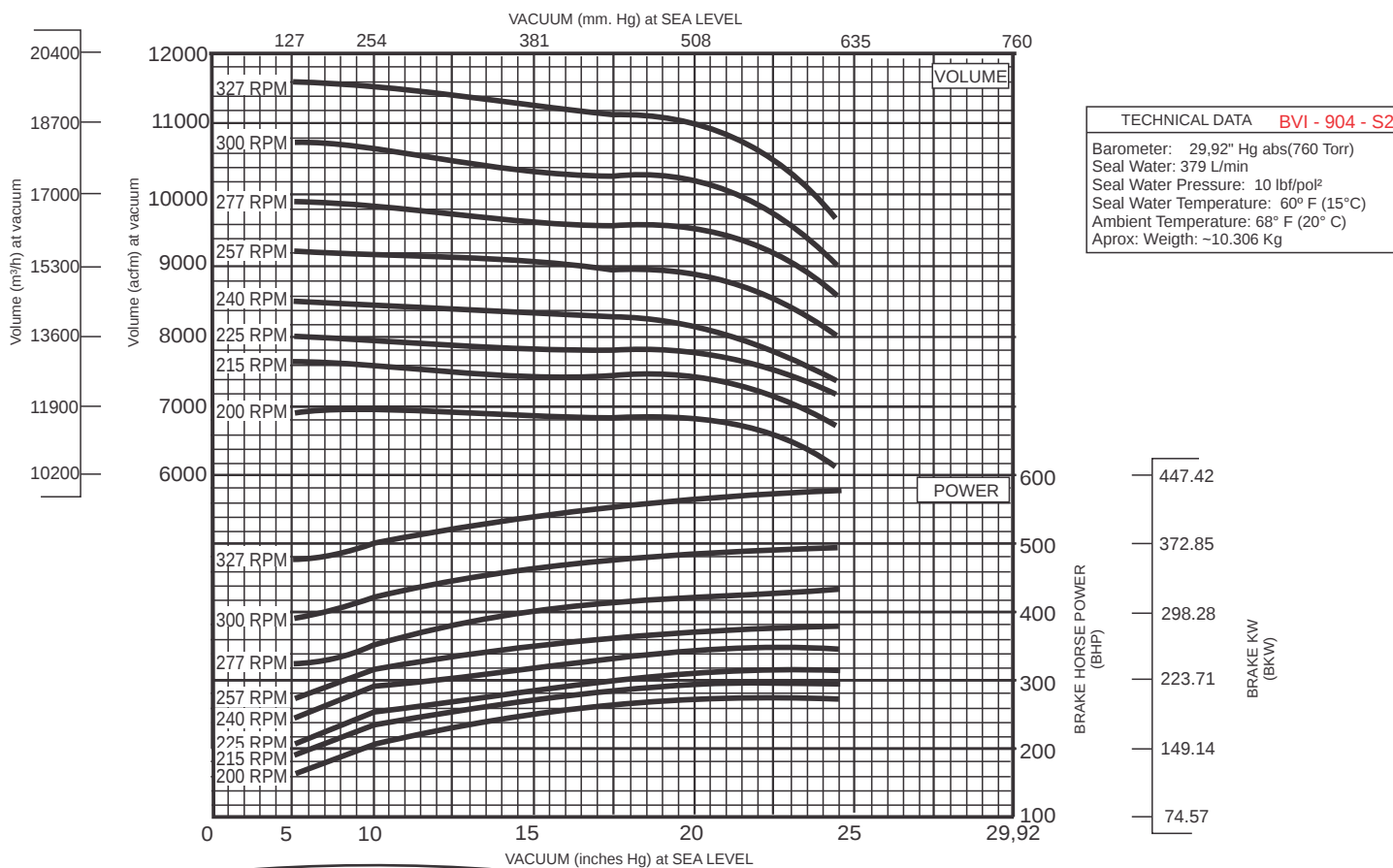
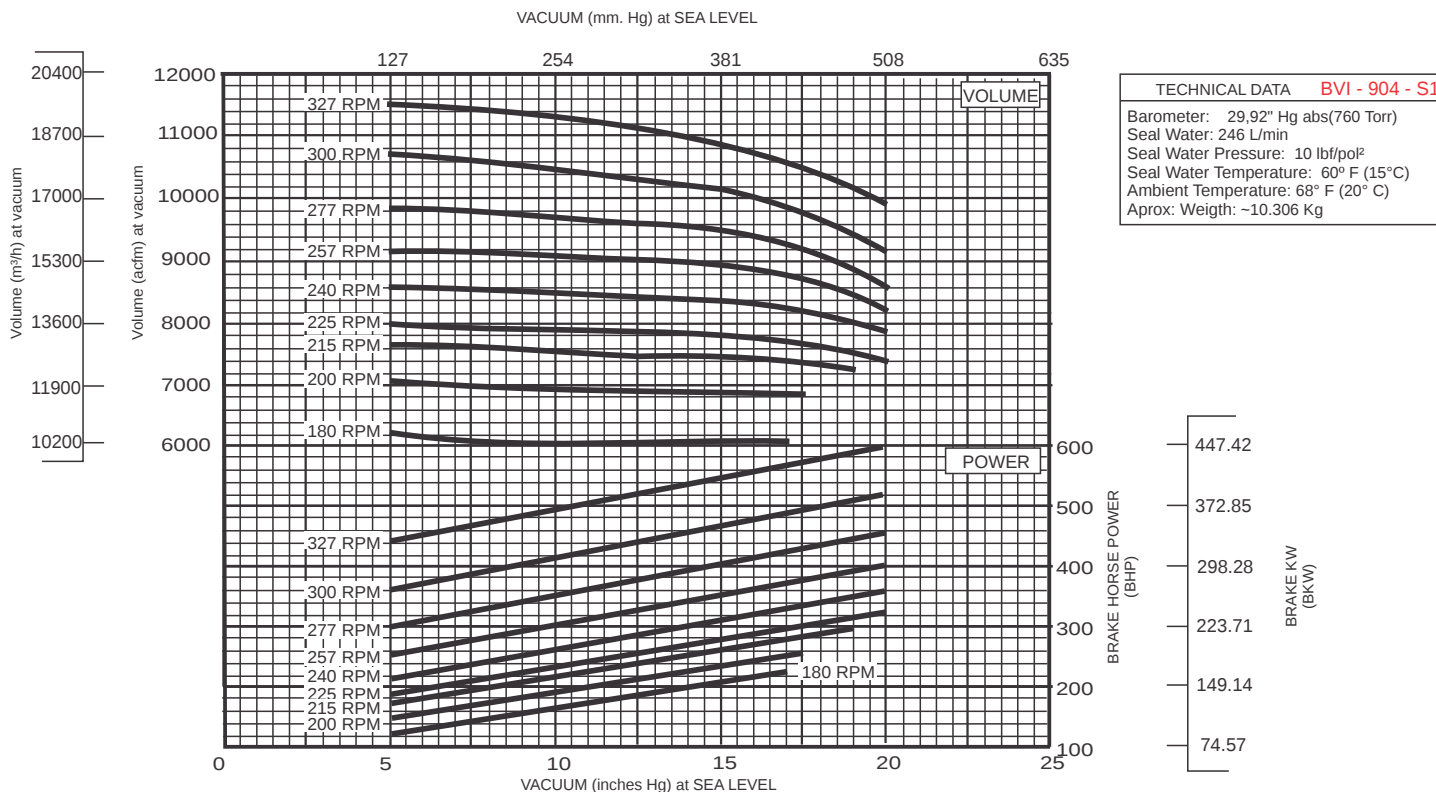


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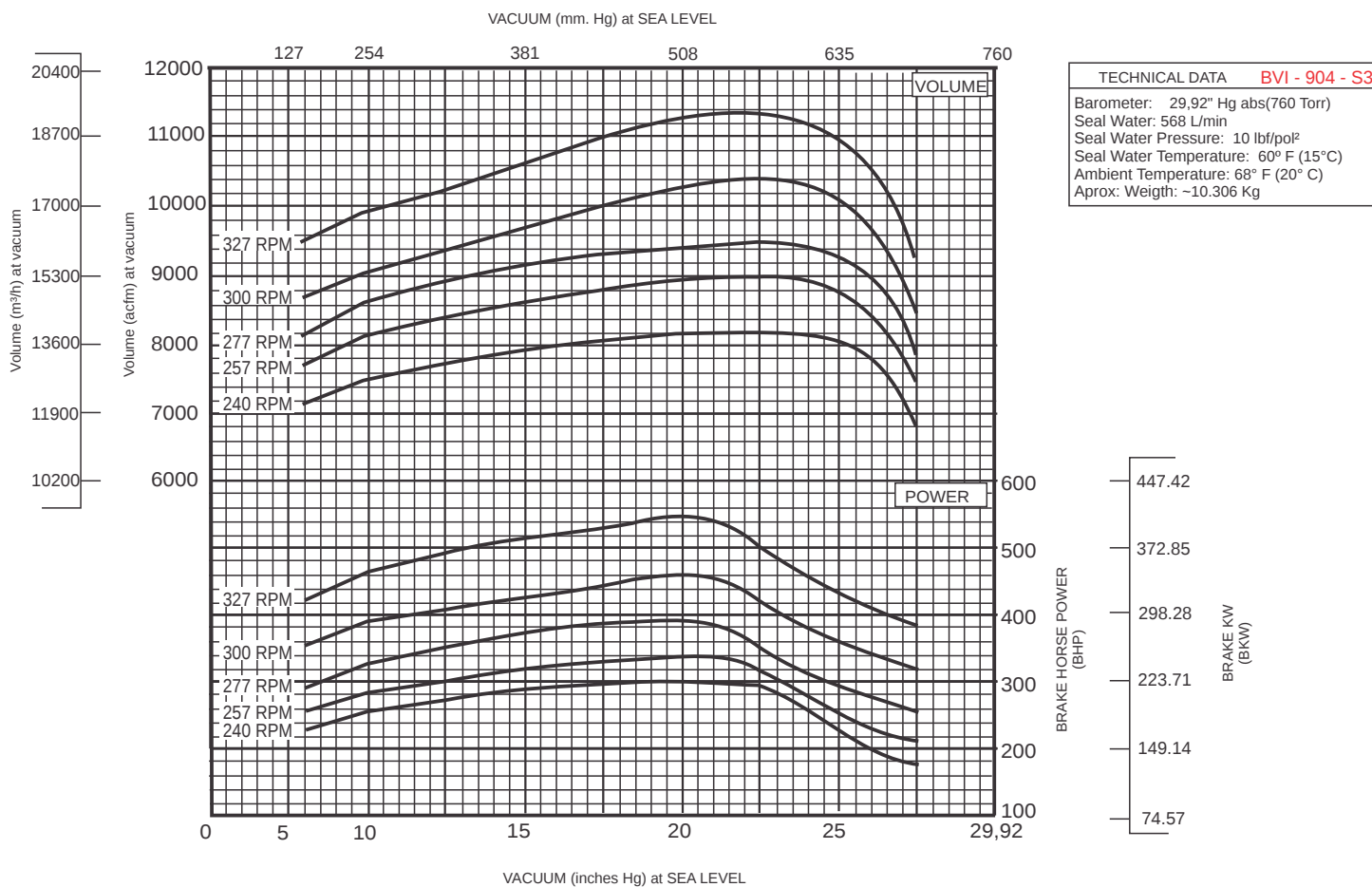


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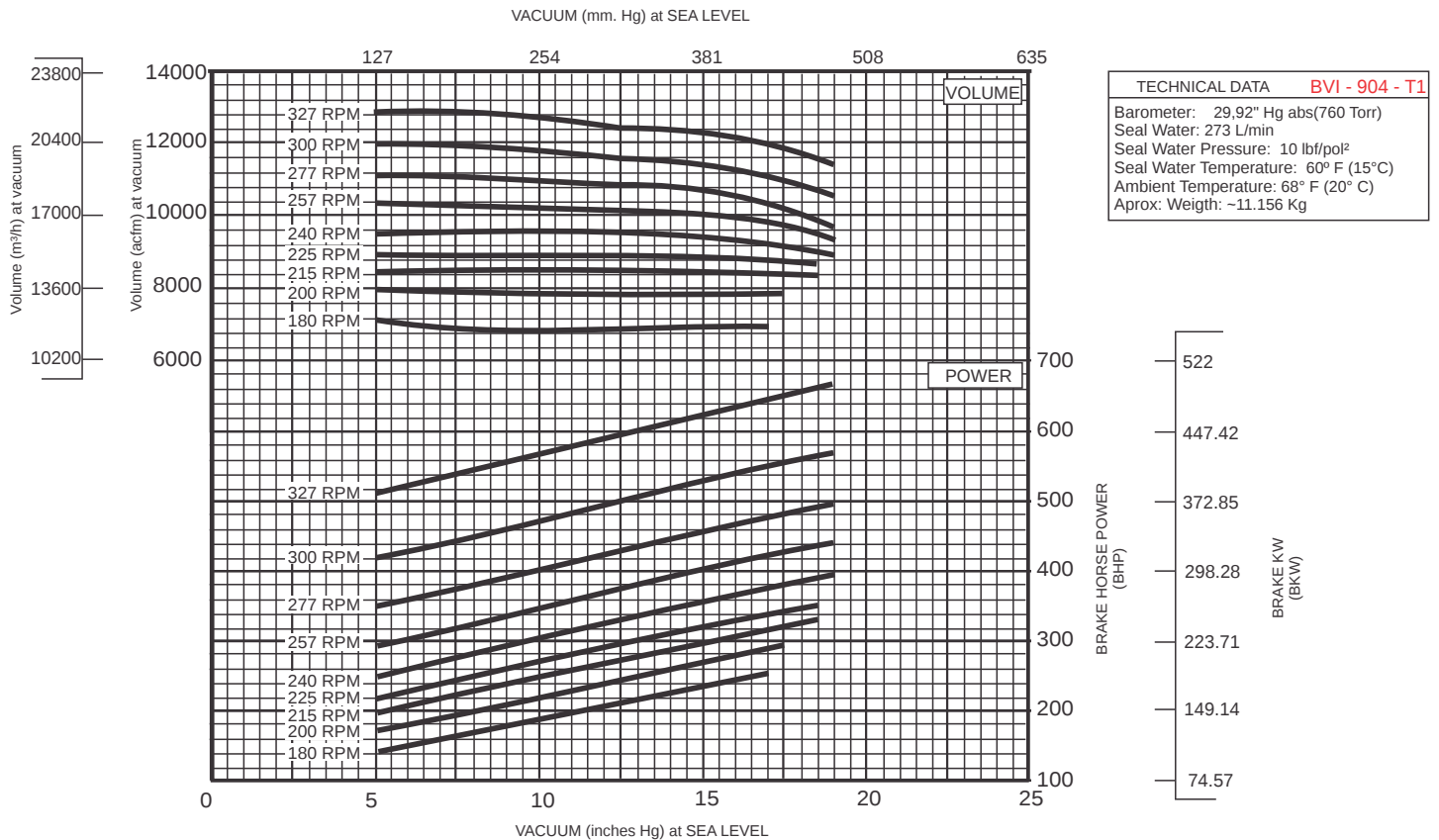


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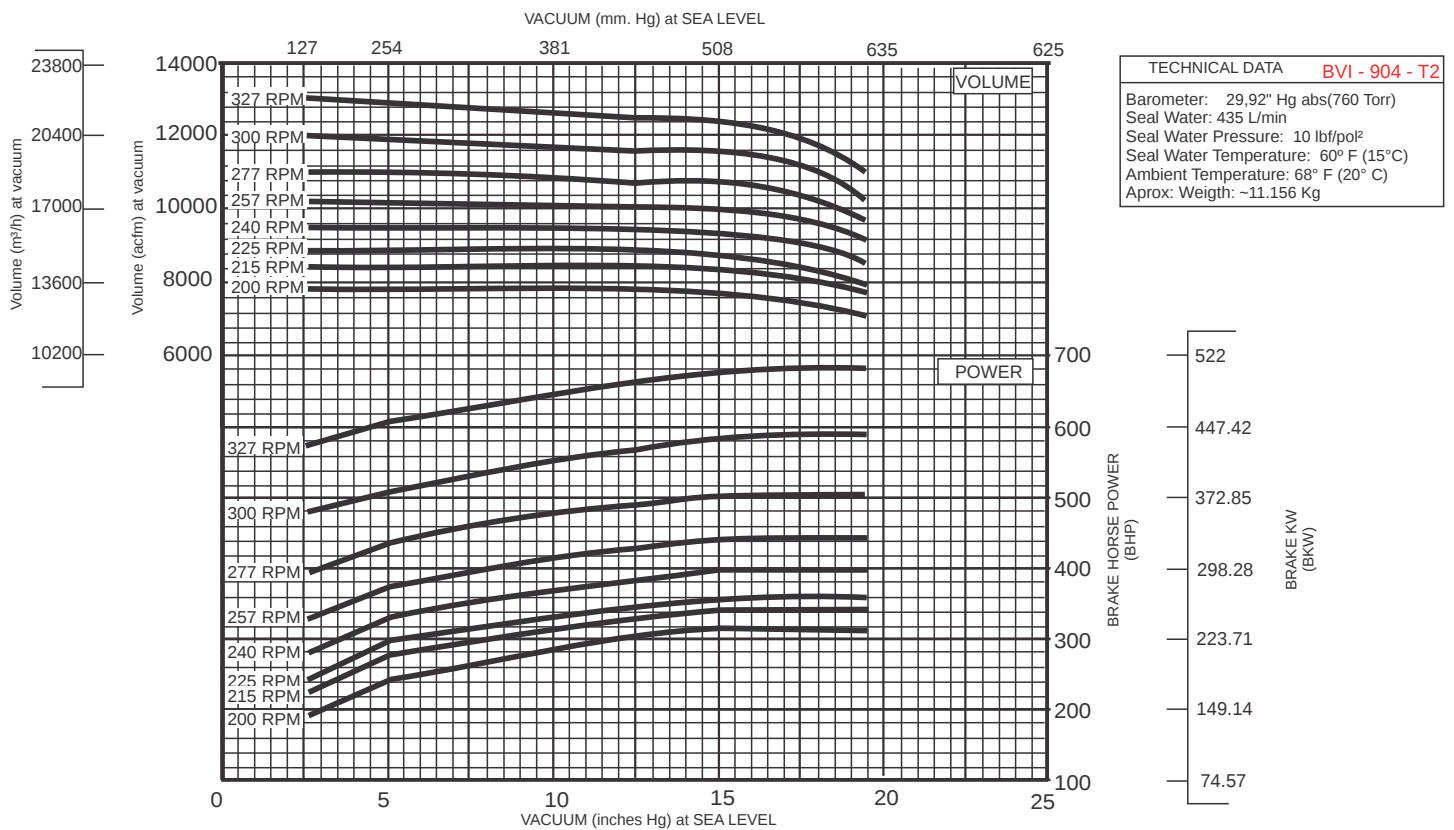




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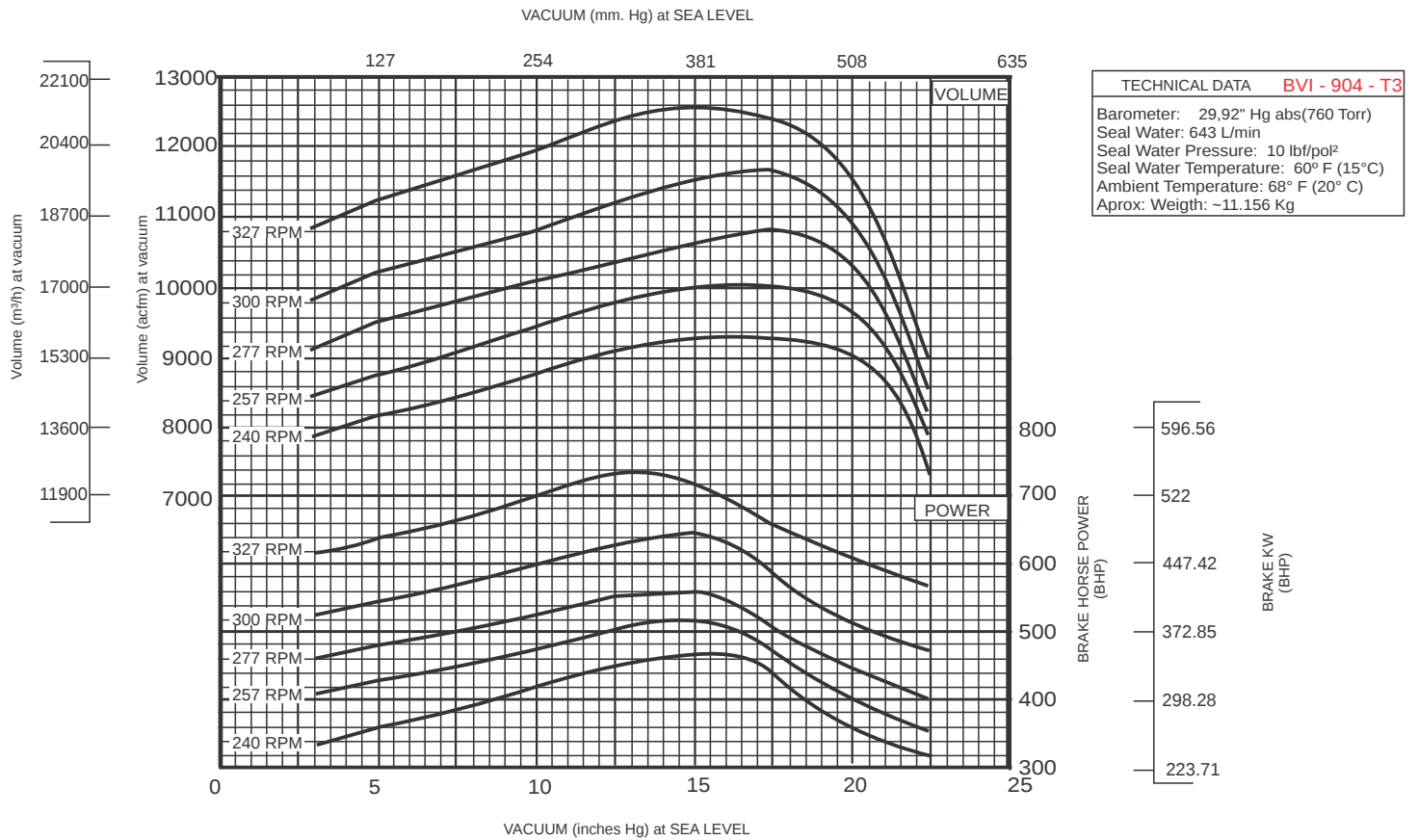
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Seal Water:	273 L/min
Seal Water Pressure:	10 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weight:	~11.156 Kg



TECHNICAL DATA	
Barometer:	29.92" Hg abs(760 Torr)
Seal Water:	435 L/min
Seal Water Pressure:	10 lbf/pol²
Seal Water Temperature:	60° F (15°C)
Ambient Temperature:	68° F (20° C)
Aprox: Weight:	~11.156 Kg

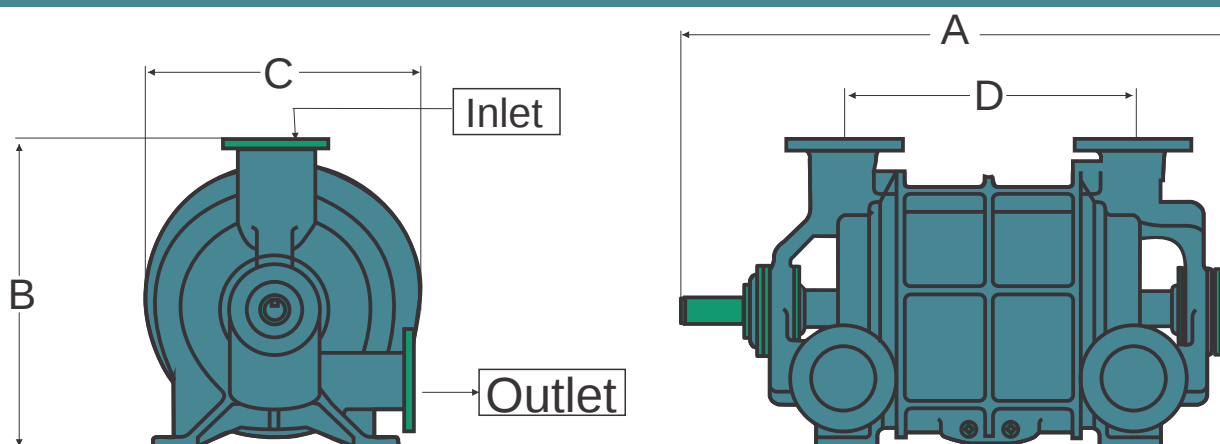


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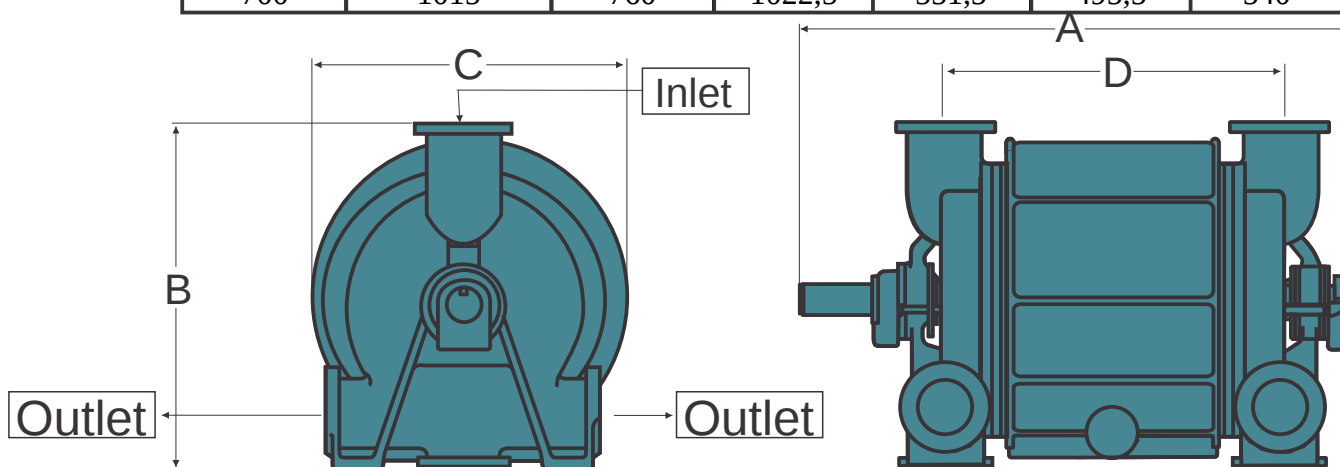


Dimension VACUUM PUMPS - IMBIL



Series BVI 200, 300, 400 e 700

PUMP	INLET mm	OUTLET mm	A mm	B mm	C mm	D mm
200	635	510	632	314	292	295
300	762	580	812,8	406,4	381	431
400	760	635	898,5	482,5	412,5	447
700	1015	760	1022,5	551,5	495,5	540



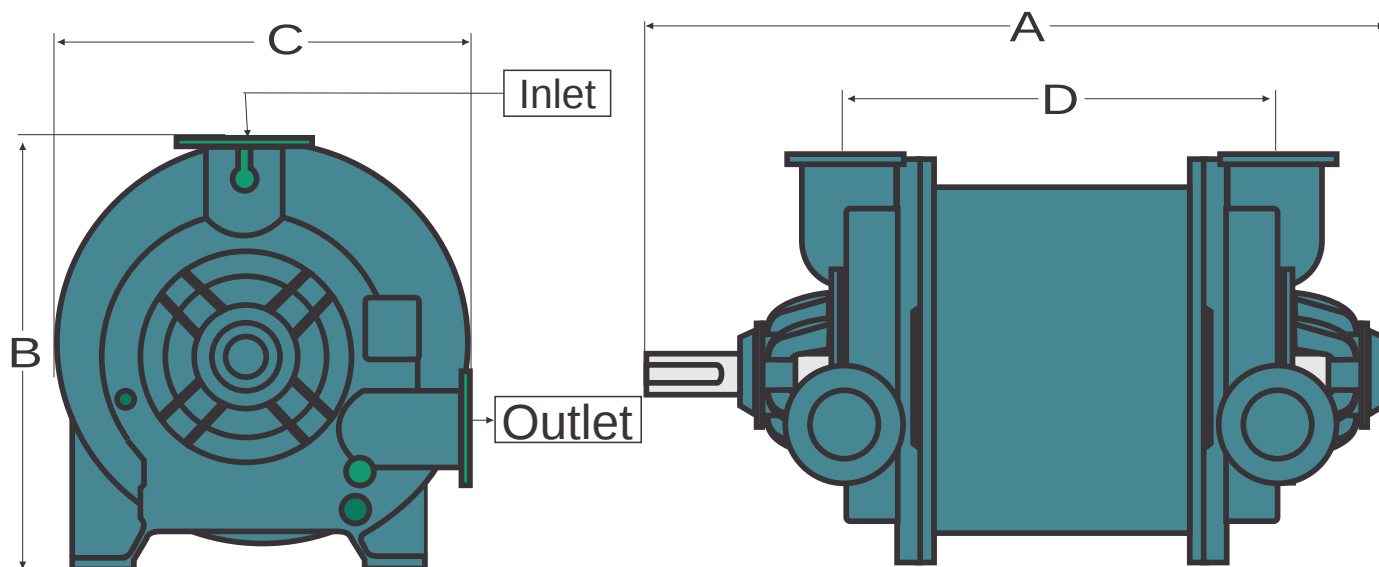
Series BVI 1000, 2000, 3000, 4000, 6000 e 9000

PUMP	INLET mm	OUTLET mm	A mm	B mm	C mm	D mm
1000	127	101,5	1187,5	660,5	669,5	679,5
2000	182,5	127	1508	914,5	825,5	908
3000	203	152,5	1727	1117,5	1003,5	1018,5
4000	254	203	1936,5	1244,5	1209,5	1314,5
6000	295	254	2260,5	1682,5	1467	1428,5
* 6000	295	254	2413	1682,5	1467	1428,5
9000	355	295	2394	2057,5	1675	1508

* Driven Pulley



Dimension VACUUM PUMPS - IMBIL

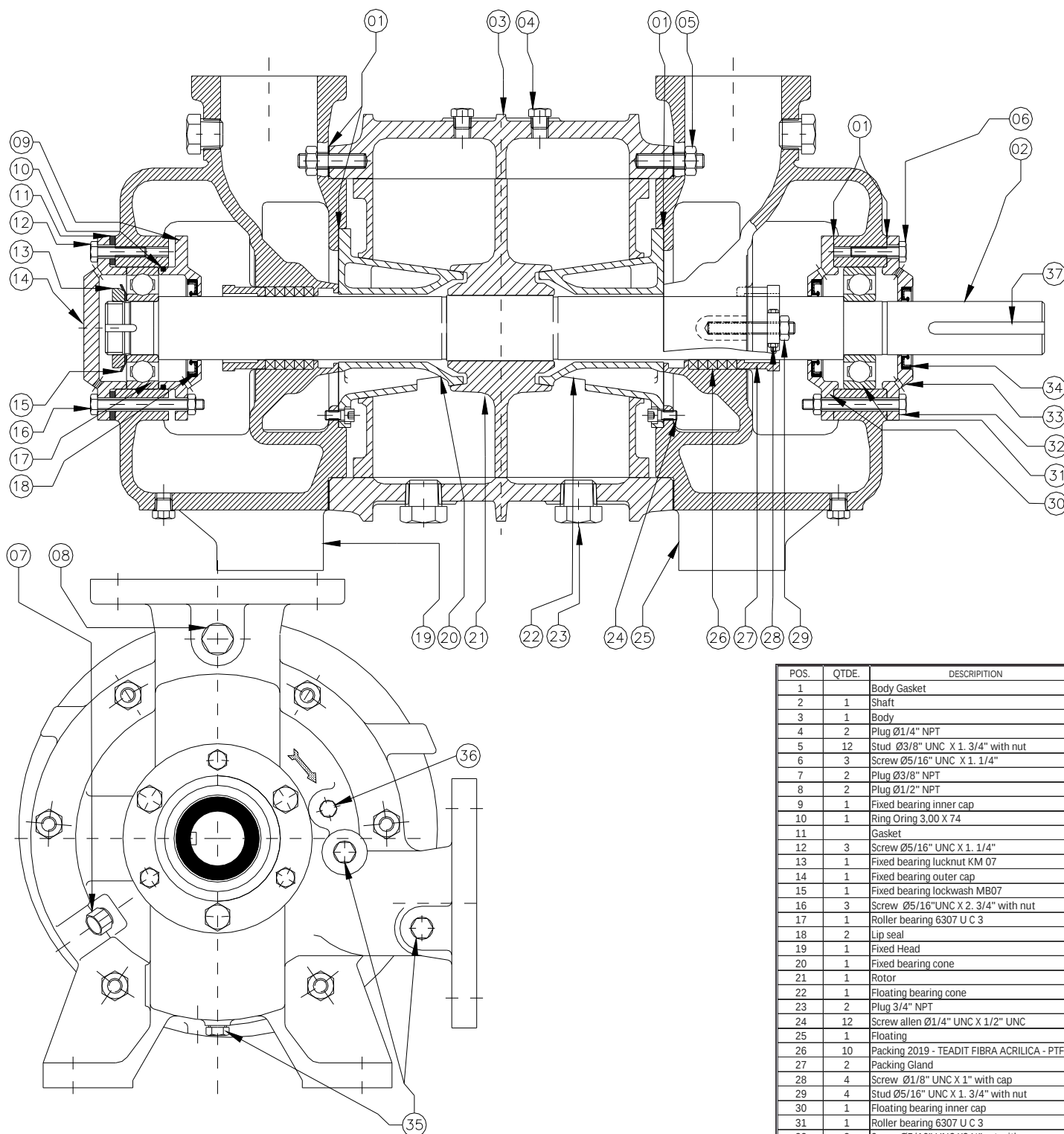


Series BVI 904-L, 904-M, 904-P, 904-R, 904-S e 904-T

PUMP	INLET mm	OUTLET mm	A mm	B mm	C mm	D mm
L	254	203,2	2188	1219,2	1328	1289
M	254	203,2	2385,6	1219,2	1328	1492
P	304,8	254	2565,4	1473,2	1549,4	1654
R	304,8	254	2794	1473,2	1549,4	1883
S	355,6	304,8	2997,2	1752,6	1854,2	1835
T	355,6	304,8	3175	1752,6	1854,2	2013

Part List Vacuum Pump - IMBIL

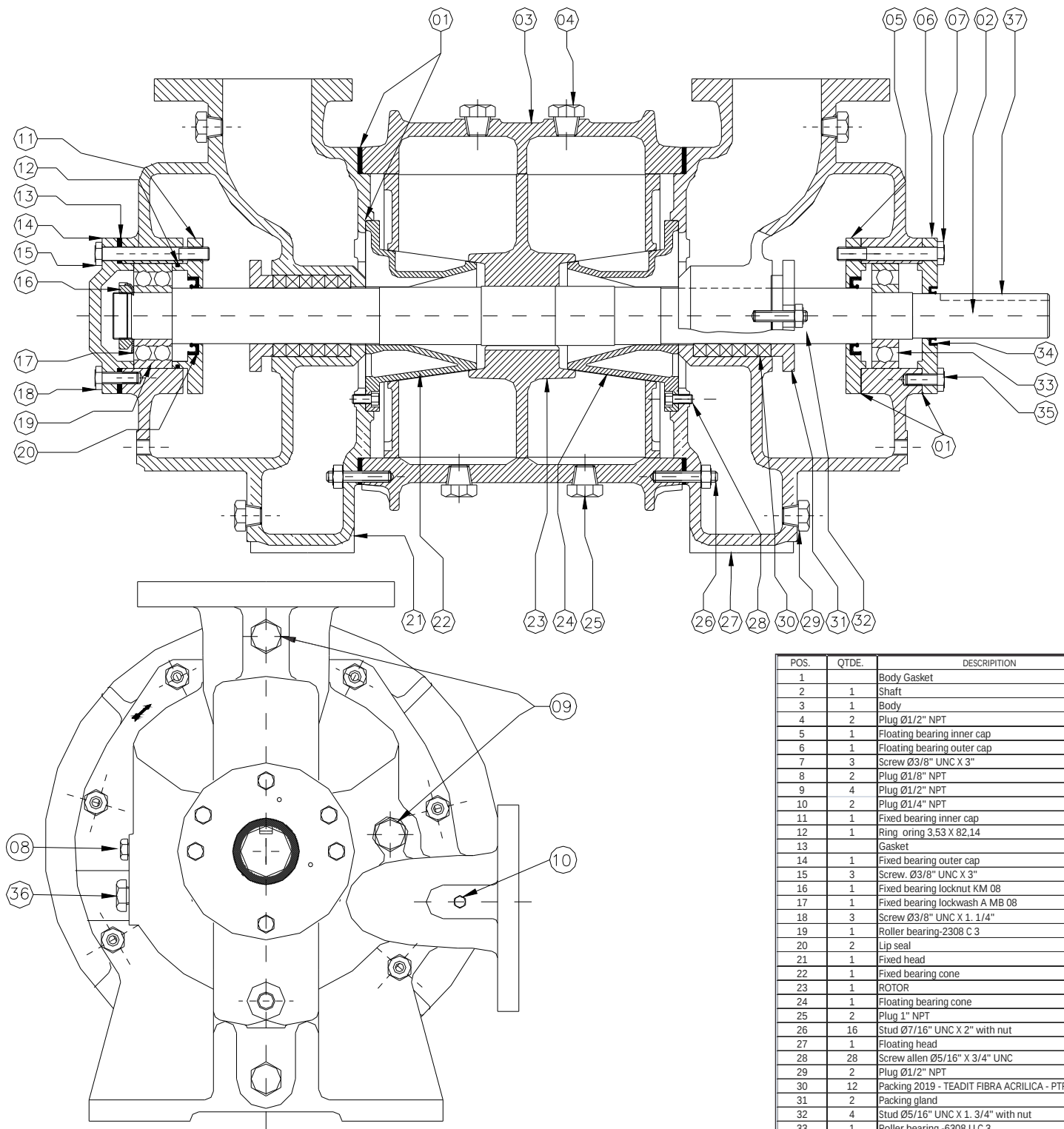
Serie BVI-200



POS.	QTDE.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø1/4" NPT
5	12	Stud Ø3/8" UNC X 1. 3/4" with nut
6	3	Screw Ø5/16" UNC X 1. 1/4"
7	2	Plug Ø3/8" NPT
8	2	Plug Ø1/2" NPT
9	1	Fixed bearing inner cap
10	1	Ring Oring 3,00 X 74
11		Gasket
12	3	Screw Ø5/16" UNC X 1. 1/4"
13	1	Fixed bearing locknut KM 07
14	1	Fixed bearing outer cap
15	1	Fixed bearing lockwash MB07
16	3	Screw Ø5/16" UNC X 2. 3/4" with nut
17	1	Roller bearing 6307 U C 3
18	2	Lip seal
19	1	Fixed Head
20	1	Fixed bearing cone
21	1	Rotor
22	1	Floating bearing cone
23	2	Plug 3/4" NPT
24	12	Screw allen Ø1/4" UNC X 1/2" UNC
25	1	Floating
26	10	Packing 2019 - TEADIT FIBRA ACRILICA - PTFE
27	2	Packing Gland
28	4	Screw Ø1/8" UNC X 1.1" with cap
29	4	Stud Ø5/16" UNC X 1. 3/4" with nut
30	1	Floating bearing inner cap
31	1	Roller bearing 6307 U C 3
32	3	Screw Ø5/16" UNC X 2 1/2" nut with
33	1	Floating bearing outer cap
34	1	Lip seal
35	6	Plug Ø 1/4"NPT
36	2	Plug Ø 1/8"NPT
37	2	Type key C 5/16" X 5/16" X 3"

Part List Vacuum Pump - IMBIL

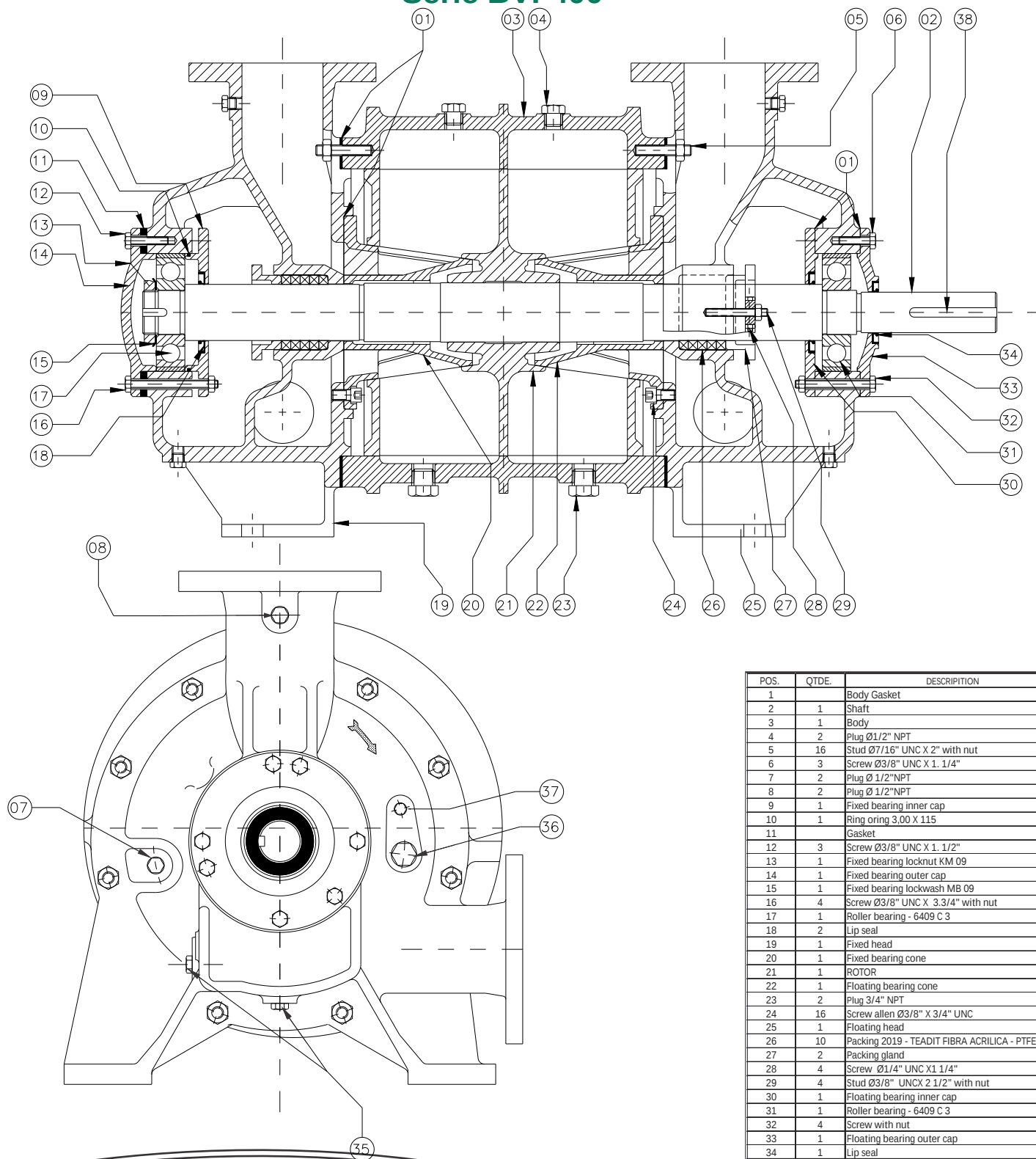
Serie BVI-300



POS.	QTDE.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø1/2" NPT
5	1	Floating bearing inner cap
6	1	Floating bearing outer cap
7	3	Screw Ø3/8" UNC X 3"
8	2	Plug Ø1/8" NPT
9	4	Plug Ø1/2" NPT
10	2	Plug Ø1/4" NPT
11	1	Fixed bearing inner cap
12	1	Ring oring 3,53 X 82,14
13		Gasket
14	1	Fixed bearing outer cap
15	3	Screw. Ø3/8" UNC X 3"
16	1	Fixed bearing locknut KM 08
17	1	Fixed bearing lockwash A MB 08
18	3	Screw Ø3/8" UNC X 1. 1/4"
19	1	Roller bearing-2308 C 3
20	2	Lip seal
21	1	Fixed head
22	1	Fixed bearing cone
23	1	ROTOR
24	1	Floating bearing cone
25	2	Plug 1" NPT
26	16	Stud Ø7/16" UNC X 2" with nut
27	1	Floating head
28	28	Screw allen Ø5/16" X 3/4" UNC
29	2	Plug Ø1/2" NPT
30	12	Packing 2019 - TEADIT FIBRA ACRILICA - PTFE
31	2	Packing gland
32	4	Stud Ø5/16" UNC X 1. 3/4" with nut
33	1	Roller bearing -6308 U C 3
34	1	Lip seal
35	3	Screw Ø3/8" UNC X 1" with nut
36	2	Plug Ø 1/2" NPT
37	1	Type key C 3/8" X 3/8" X 3. 3/4"

Part List Vacuum Pump - IMBIL

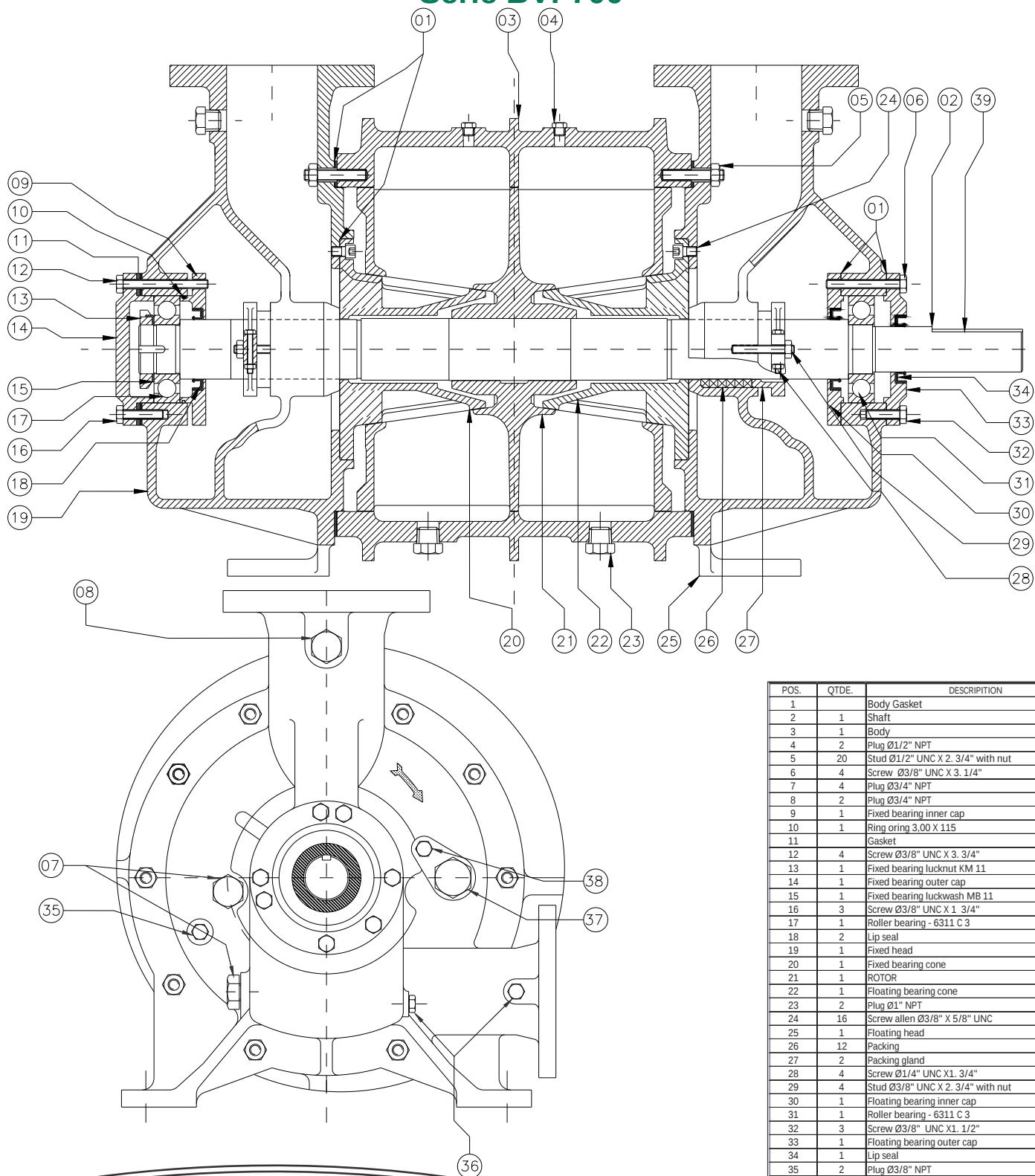
Serie BVI-400



POS.	QTDE.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø1/2" NPT
5	16	Stud Ø7/16" UNC X 2" with nut
6	3	Screw Ø3/8" UNC X 1. 1/4"
7	2	Plug Ø1/2" NPT
8	2	Plug Ø1/2" NPT
9	1	Fixed bearing inner cap
10	1	Ring oring 3,00 X 115
11		Gasket
12	3	Screw Ø3/8" UNC X 1. 1/2"
13	1	Fixed bearing locknut KM 09
14	1	Fixed bearing outer cap
15	1	Fixed bearing lockwash MB 09
16	4	Screw Ø3/8" UNC X 3.3/4" with nut
17	1	Roller bearing - 6409 C 3
18	2	Lip seal
19	1	Fixed head
20	1	Fixed bearing cone
21	1	ROTOR
22	1	Floating bearing cone
23	2	Plug 3/4" NPT
24	16	Screw allen Ø3/8" X 3/4" UNC
25	1	Floating head
26	10	Packing 2019 - TEADIT FIBRA ACRILICA - PTFE
27	2	Packing gland
28	4	Screw Ø1/4" UNC X 1 1/4"
29	4	Stud Ø3/8" UNC X 2 1/2" with nut
30	1	Floating bearing inner cap
31	1	Roller bearing - 6409 C 3
32	4	Screw with nut
33	1	Floating bearing outer cap
34	1	Lip seal
35	4	Plug Ø1/2" NPT
36	2	Plug Ø3/4" NPT
37	2	Plug Ø1/4" NPT
38	1	Type key C 3/8" X 3/8" X 3. 1/2"

Part List Vacuum Pump - IMBIL

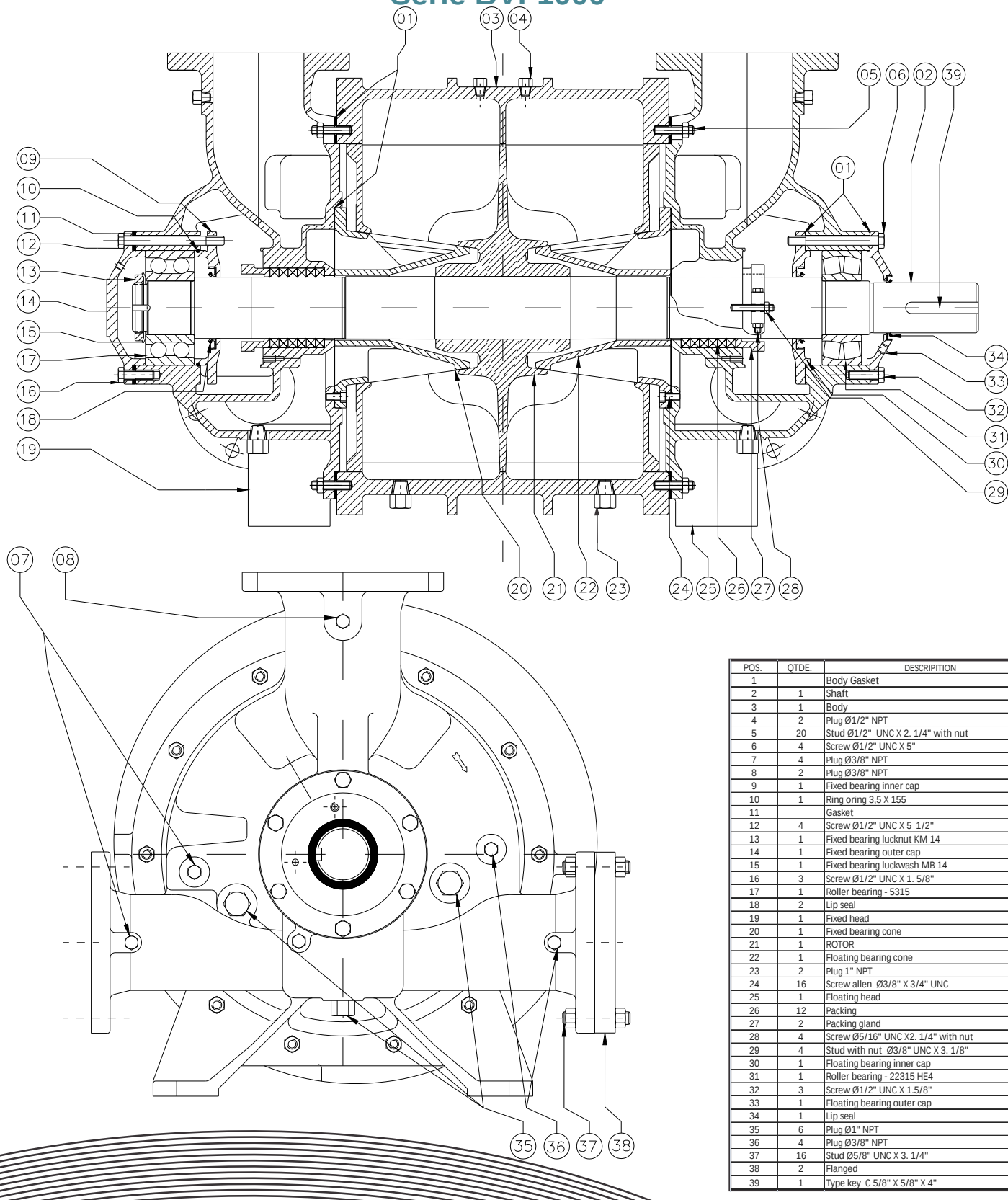
Serie BVI-700



POS.	QTDE.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø1/2" NPT
5	20	Stud Ø1/2" UNC X 2. 3/4" with nut
6	4	Screw Ø3/8" UNC X 3. 1/4"
7	4	Plug Ø3/4" NPT
8	2	Plug Ø3/4" NPT
9	1	Fixed bearing inner cap
10	1	Ring oring 3,00 X 115
11		Gasket
12	4	Screw Ø3/8" UNC X 3. 3/4"
13	1	Fixed bearing locknut KM 11
14	1	Fixed bearing outer cap
15	1	Fixed bearing lockwash MB 11
16	3	Screw Ø3/8" UNC X 1. 3/4"
17	1	Roller bearing - 6311 C 3
18	2	Lip seal
19	1	Fixed head
20	1	Fixed bearing cone
21	1	ROTOR
22	1	Floating bearing cone
23	2	Plug Ø1" NPT
24	16	Screw allen Ø3/8" X 5/8" UNC
25	1	Floating head
26	12	Packing
27	2	Packing gland
28	4	Screw Ø1/4" UNC X 1. 3/4"
29	4	Stud Ø3/8" UNC X 2. 3/4" with nut
30	1	Floating bearing inner cap
31	1	Roller bearing - 6311 C 3
32	3	Screw Ø3/8" UNC X 1. 1/2"
33	1	Floating bearing outer cap
34	1	Lip seal
35	2	Plug Ø3/8" NPT
36	4	Plug Ø3/8" NPT
37	2	Plug 1" NPT
38	2	Plug Ø3/8" NPT
39	1	Type key C 1/2" X 1/2" X 4"

Part List Vacuum Pump - IMBIL

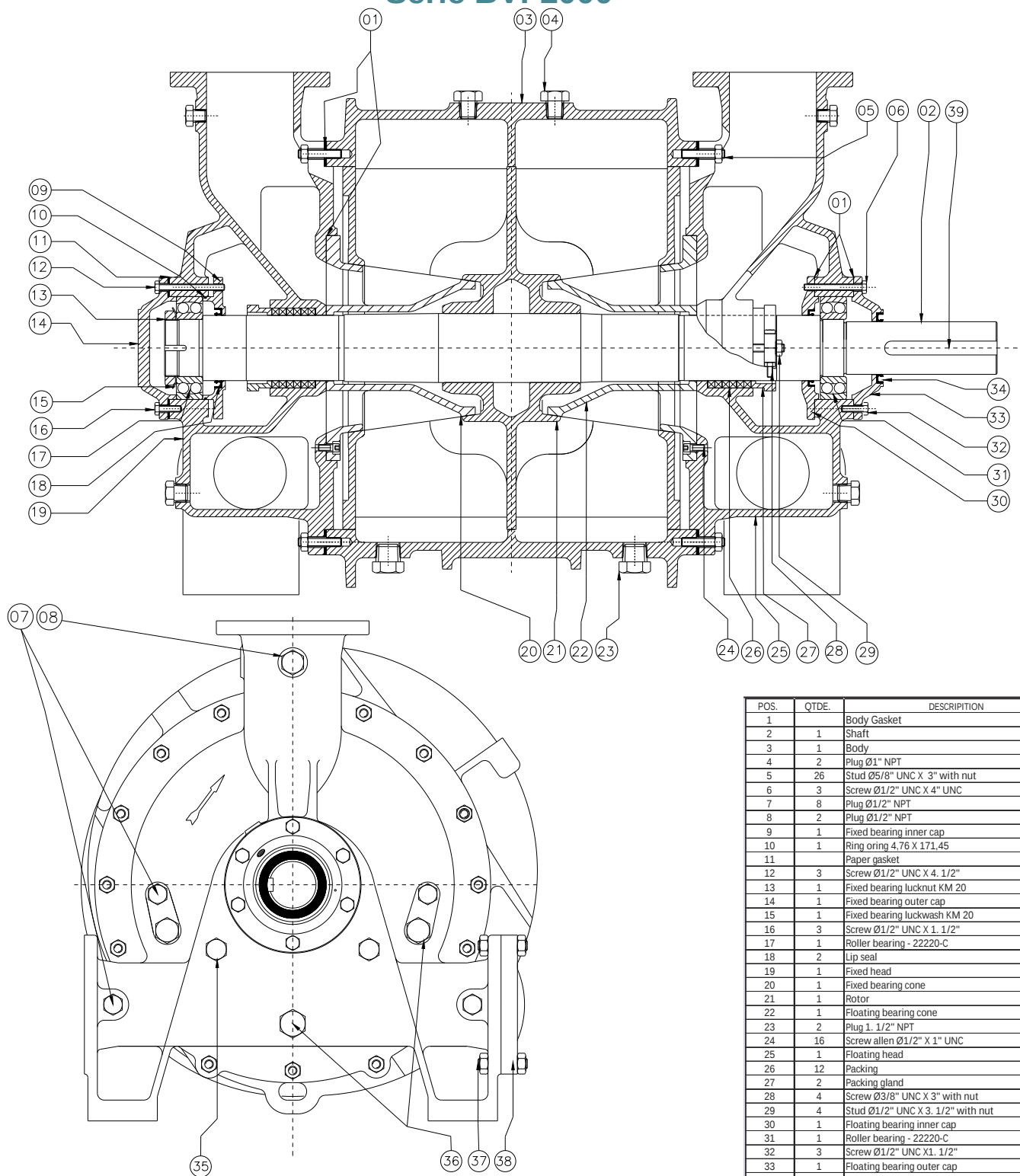
Serie BVI-1000



POS.	QTDE.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø1/2" NPT
5	20	Stud Ø1/2" UNC X 2. 1/4" with nut
6	4	Screw Ø1/2" UNC X 5"
7	4	Plug Ø3/8" NPT
8	2	Plug Ø3/8" NPT
9	1	Fixed bearing inner cap
10	1	Ring oring 3.5 X 155
11		Gasket
12	4	Screw Ø1/2" UNC X 5 1/2"
13	1	Fixed bearing lucknut KM 14
14	1	Fixed bearing outer cap
15	1	Fixed bearing luckwash MB 14
16	3	Screw Ø1/2" UNC X 1. 5/8"
17	1	Roller bearing - 5315
18	2	Lip seal
19	1	Fixed head
20	1	Fixed bearing cone
21	1	ROTOR
22	1	Floating bearing cone
23	2	Plug 1" NPT
24	16	Screw allen Ø3/8" X 3/4" UNC
25	1	Floating head
26	12	Packing
27	2	Packing gland
28	4	Screw Ø5/16" UNC X2. 1/4" with nut
29	4	Stud with nut Ø3/8" UNC X 3. 1/8"
30	1	Floating bearing inner cap
31	1	Roller bearing - 22315 HE4
32	3	Screw Ø1/2" UNC X 1.5/8"
33	1	Floating bearing outer cap
34	1	Lip seal
35	6	Plug Ø1" NPT
36	4	Plug Ø3/8" NPT
37	16	Stud Ø5/8" UNC X 3. 1/4"
38	2	Flanged
39	1	Type key C 5/8" X 5/8" X 4"

Part List Vacuum Pump - IMBIL

Serie BVI-2000

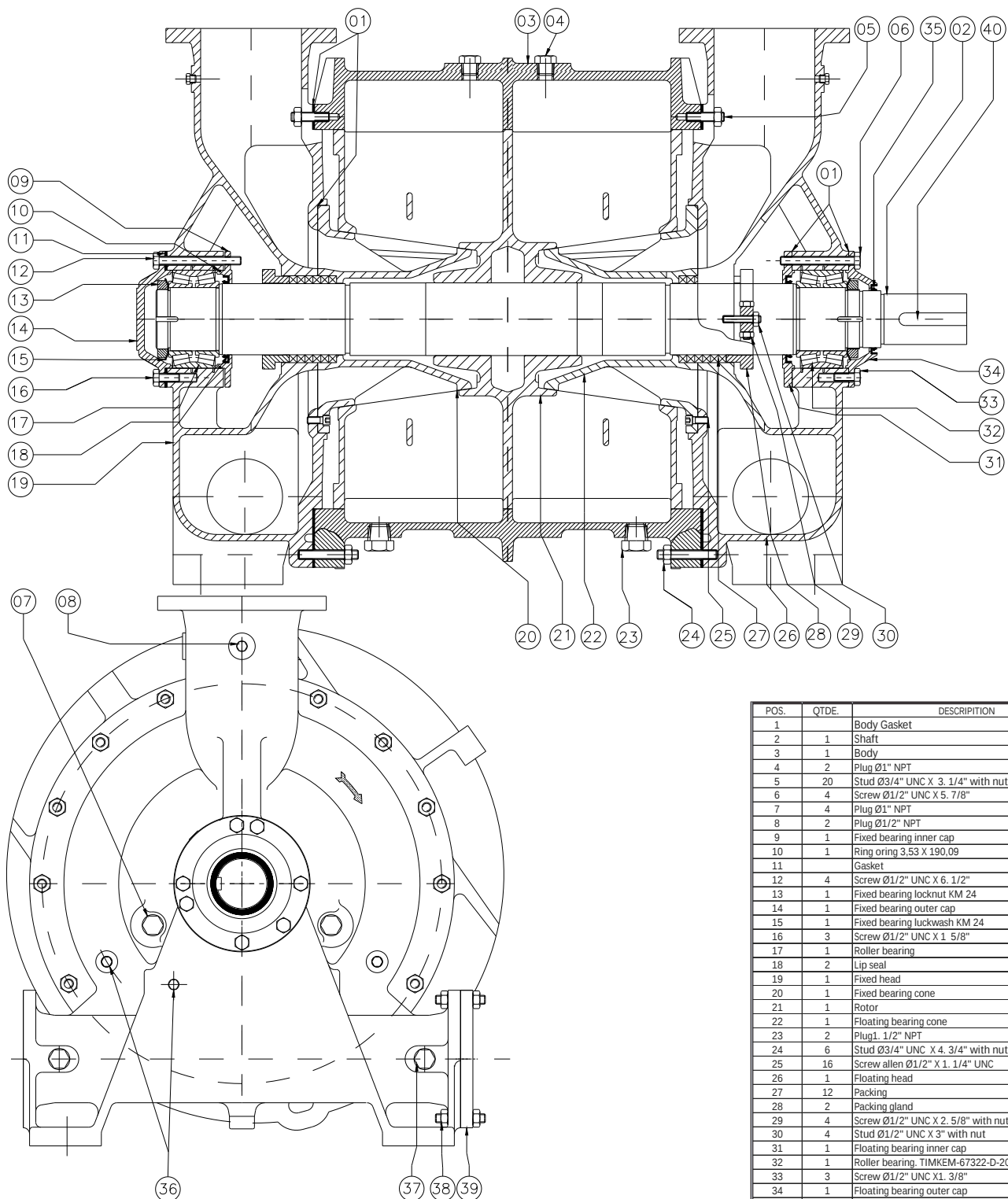


POS.	QTDE.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø1" NPT
5	26	Stud Ø5/8" UNC X 3" with nut
6	3	Screw Ø1/2" UNC X 4" UNC
7	8	Plug Ø1/2" NPT
8	2	Plug Ø1/2" NPT
9	1	Fixed bearing inner cap
10	1	Ring oring 4,76 X 171,45
11		Paper gasket
12	3	Screw Ø1/2" UNC X 4. 1/2"
13	1	Fixed bearing lucknut KM 20
14	1	Fixed bearing outer cap
15	1	Fixed bearing luckwash KM 20
16	3	Screw Ø1/2" UNC X 1. 1/2"
17	1	Roller bearing - 22220-C
18	2	Lip seal
19	1	Fixed head
20	1	Fixed bearing cone
21	1	Rotor
22	1	Floating bearing cone
23	2	Plug 1. 1/2" NPT
24	16	Screw allen Ø1/2" X 1" UNC
25	1	Floating head
26	12	Packing
27	2	Packing gland
28	4	Screw Ø3/8" UNC X 3" with nut
29	4	Stud Ø1/2" UNC X 3. 1/2" with nut
30	1	Floating bearing inner cap
31	1	Roller bearing - 22220-C
32	3	Screw Ø1/2" UNC X 1. 1/2"
33	1	Floating bearing outer cap
34	1	Lip seal
35	6	Plug Ø3/4" NPT
36	4	Plug Ø1" NPT
37	16	Stud Ø3/4" UNC X 3. 1/2" with nut
38	2	Flanged
39	1	Type key C 7/8" X 7/8" X 7. 3/4"



Part List Vacuum Pump - IMBIL

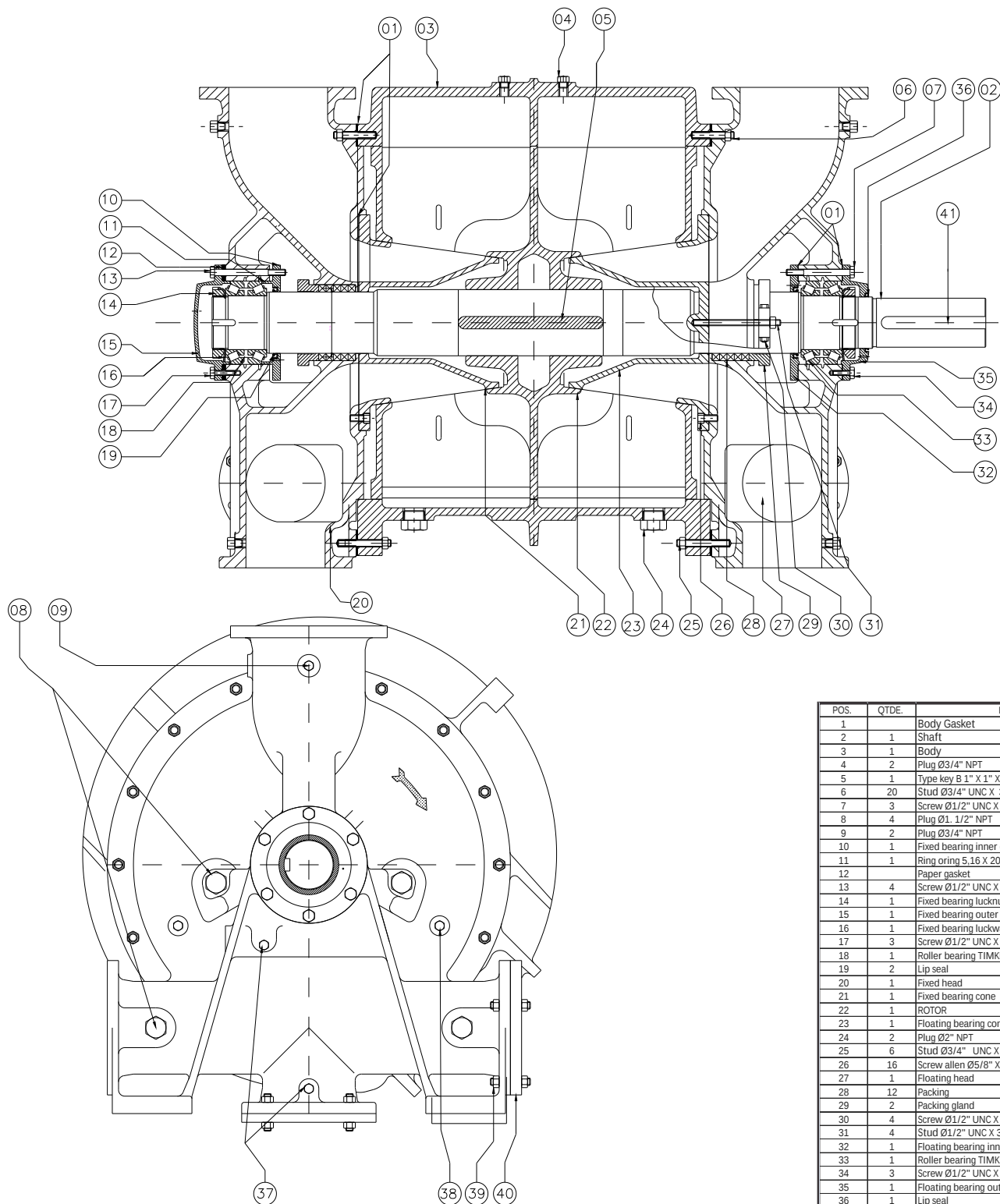
Serie BVI-3000



POS.	QTD.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø1" NPT
5	20	Stud Ø3/4" UNC X 3. 1/4" with nut
6	4	Screw Ø1/2" UNC X 5. 7/8"
7	4	Plug Ø1" NPT
8	2	Plug Ø1/2" NPT
9	1	Fixed bearing inner cap
10	1	Ring oring 3.53 X 190,09
11		Gasket
12	4	Screw Ø1/2" UNC X 6. 1/2"
13	1	Fixed bearing locknut KM 24
14	1	Fixed bearing outer cap
15	1	Fixed bearing luckwash KM 24
16	3	Screw Ø1/2" UNC X 1 5/8"
17	1	Roller bearing
18	2	Lip seal
19	1	Fixed head
20	1	Fixed bearing cone
21	1	Rotor
22	1	Floating bearing cone
23	2	Plug1. 1/2" NPT
24	6	Stud Ø3/4" UNC X 4. 3/4" with nut
25	16	Screw allen Ø1/2" X 1. 1/4" UNC
26	1	Floating head
27	12	Packing
28	2	Packing gland
29	4	Screw Ø1/2" UNC X 2. 5/8" with nut
30	4	Stud Ø1/2" UNC X 3" with nut
31	1	Floating bearing inner cap
32	1	Roller bearing. TIMKEM-67322-D-2CONES-67388
33	3	Screw Ø1/2" UNC X1. 3/8"
34	1	Floating bearing outer cap
35	1	Lip seal
36	6	Plug Ø1/2" NPT
37	4	Plug Ø1" NPT
38	16	Stud Ø3/4" UNC X 4" with nut
39	2	Flanged
40	1	Type key C 1" X 1" X 7. 3/8"

Part List Vacuum Pump - IMBIL

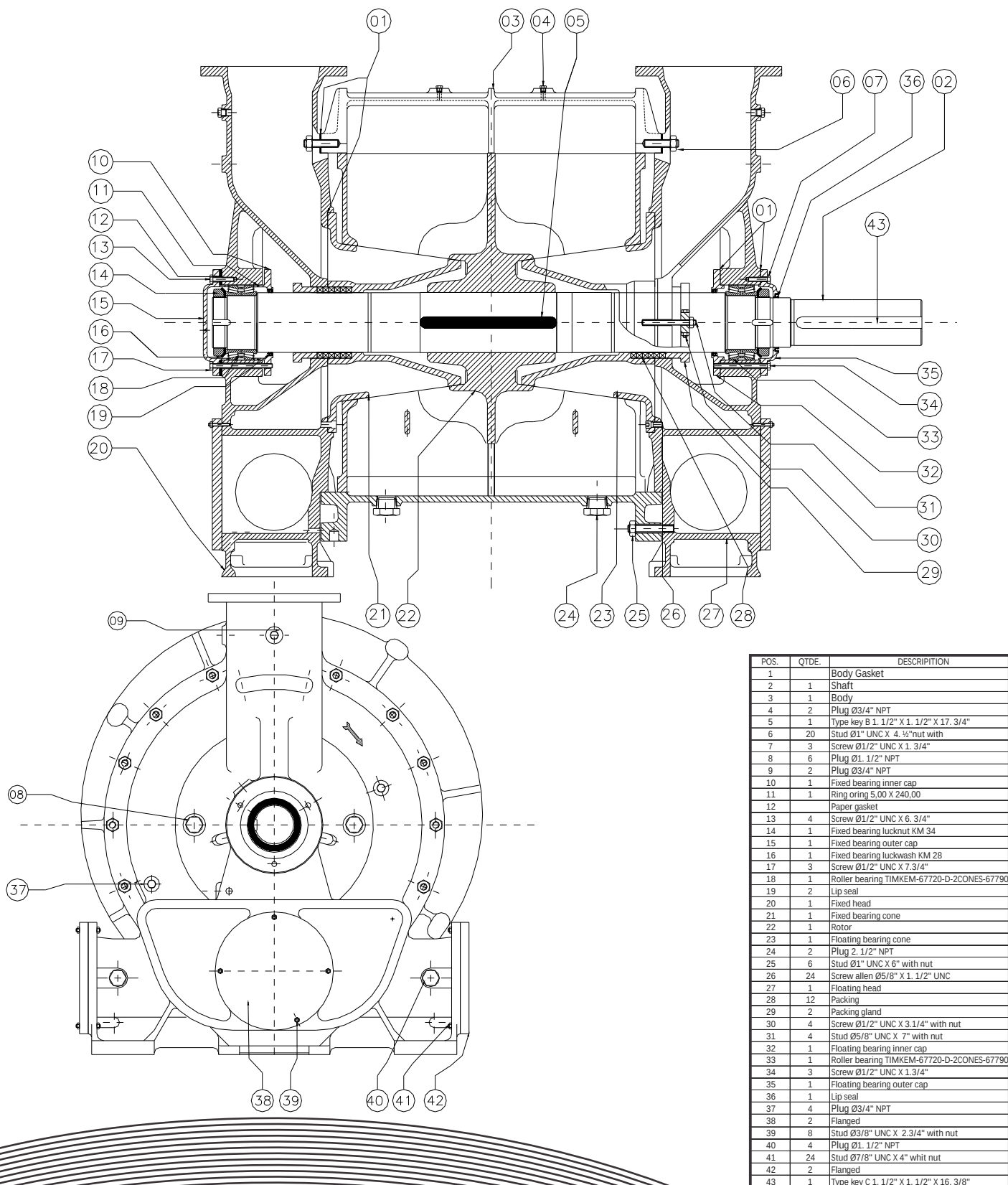
Serie BVI-4000



POS.	QTDE.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø3/4" NPT
5	1	Type key B 1" X 1" X 13. 7/8"
6	20	Stud Ø3/4" UNC X 3. 1/2" with nut
7	3	Screw Ø1/2" UNC X 6. 1/2"
8	4	Plug Ø1. 1/2" NPT
9	2	Plug Ø3/4" NPT
10	1	Fixed bearing inner cap
11	1	Ring oring 5.16 X 207.96
12		Paper gasket
13	4	Screw Ø1/2" UNC X 6. 3/4"
14	1	Fixed bearing locknut KM 28
15	1	Fixed bearing outer cap
16	1	Fixed bearing lockwash KM 28
17	3	Screw Ø1/2" UNC X 2. 1/8"
18	1	Roller bearing TIMKEM-74851-D-2CONES-74550
19	2	Lip seal
20	1	Fixed head
21	1	Fixed bearing cone
22	1	ROTOR
23	1	Floating bearing cone
24	2	Plug Ø2" NPT
25	6	Stud Ø3/4" UNC X 5. 7/16" with nut
26	16	Screw allen Ø5/8" X 1. 1/4" UNC
27	1	Floating head
28	12	Packing
29	2	Packing gland
30	4	Screw Ø1/2" UNC X 3. 1/2" with nut
31	4	Stud Ø1/2" UNC X 3. 1/2" with nut
32	1	Floating bearing inner cap
33	1	Roller bearing TIMKEM-74851-D-2CONES-74550
34	3	Screw Ø1/2" UNC X 1. 3/4"
35	1	Floating bearing outer cap
36	1	Lip seal
37	4	Plug Ø3/4" NPT
38	4	Plug Ø3/4" NPT
39	16	Stud Ø3/4" UNC X 4" with nut
40	2	Flanged
41	1	Type key C 1" X 1" X 7. 3/8"

Part List Vacuum Pump - IMBIL

Serie BVI-6000

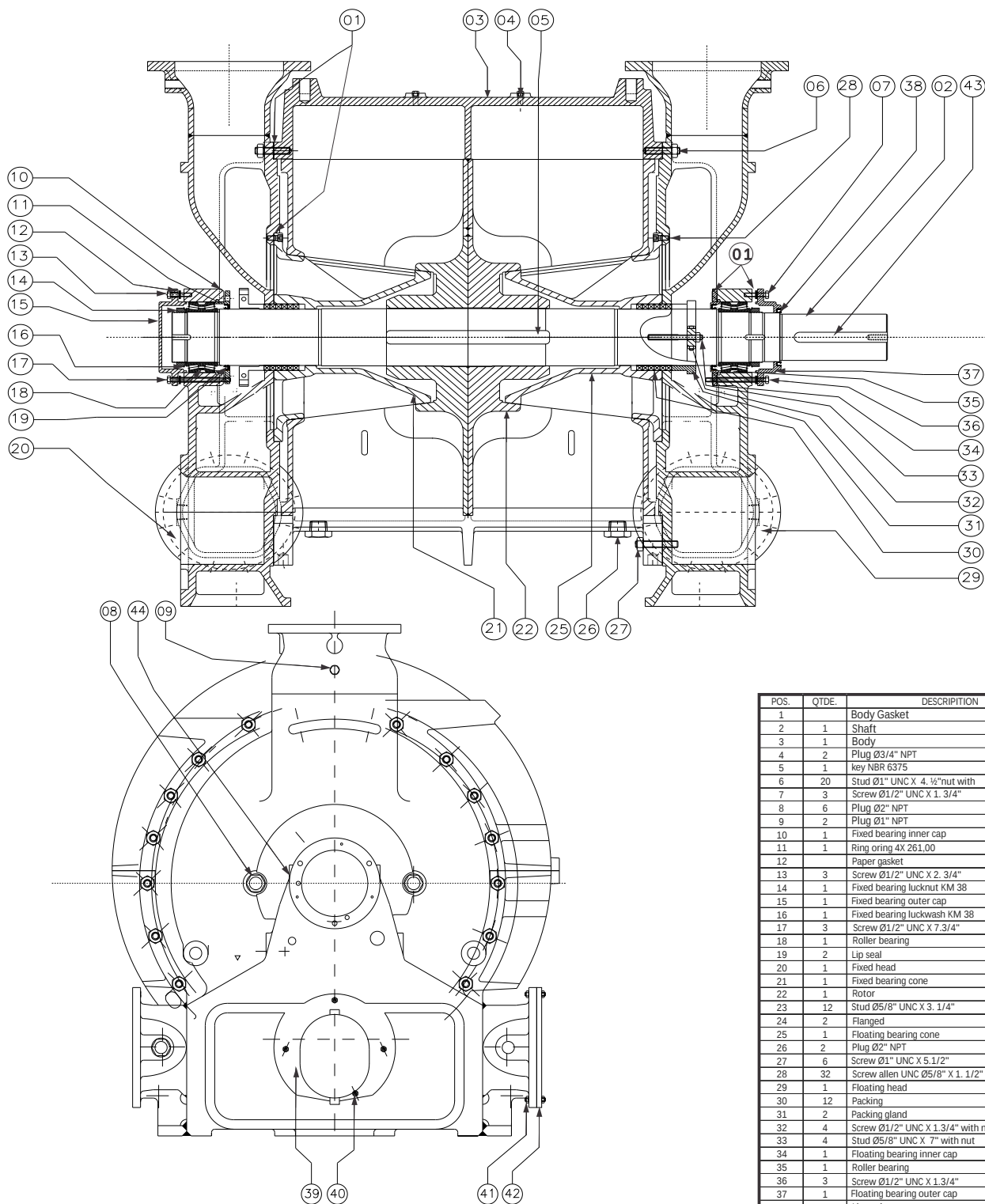


POS.	QTDE.	DESCRIPTION
1	1	Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø3/4" NPT
5	1	Type key B 1. 1/2" X 1. 1/2" X 17. 3/4"
6	20	Stud Ø1" UNC X 4. 1/2" nut with
7	3	Screw Ø1/2" UNC X 1. 3/4"
8	6	Plug Ø1. 1/2" NPT
9	2	Plug Ø3/4" NPT
10	1	Fixed bearing inner cap
11	1	Ring oring 5,00 X 240,00
12		Paper gasket
13	4	Screw Ø1/2" UNC X 6. 3/4"
14	1	Fixed bearing lucknut KM 34
15	1	Fixed bearing outer cap
16	1	Fixed bearing luckwash KM 28
17	3	Screw Ø1/2" UNC X 7. 3/4"
18	1	Roller bearing TIMKEM-67720-D-2CONES-67790
19	2	Lip seal
20	1	Fixed head
21	1	Fixed bearing cone
22	1	Rotor
23	1	Floating bearing cone
24	2	Plug 2. 1/2" NPT
25	6	Stud Ø1" UNC X 6" with nut
26	24	Screw allen Ø5/8" X 1. 1/2" UNC
27	1	Floating head
28	12	Packing
29	2	Packing gland
30	4	Screw Ø1/2" UNC X 3. 1/4" with nut
31	4	Stud Ø5/8" UNC X 7" with nut
32	1	Floating bearing inner cap
33	1	Roller bearing TIMKEM-67720-D-2CONES-67790
34	3	Screw Ø1/2" UNC X 1. 3/4"
35	1	Floating bearing outer cap
36	1	Lip seal
37	4	Plug Ø3/4" NPT
38	2	Flanged
39	8	Stud Ø3/8" UNC X 2. 3/4" with nut
40	4	Plug Ø1. 1/2" NPT
41	24	Stud Ø7/8" UNC X 4" whit nut
42	2	Flanged
43	1	Type key C 1. 1/2" X 1. 1/2" X 16. 3/8"



Part List Vacuum Pump - IMBIL

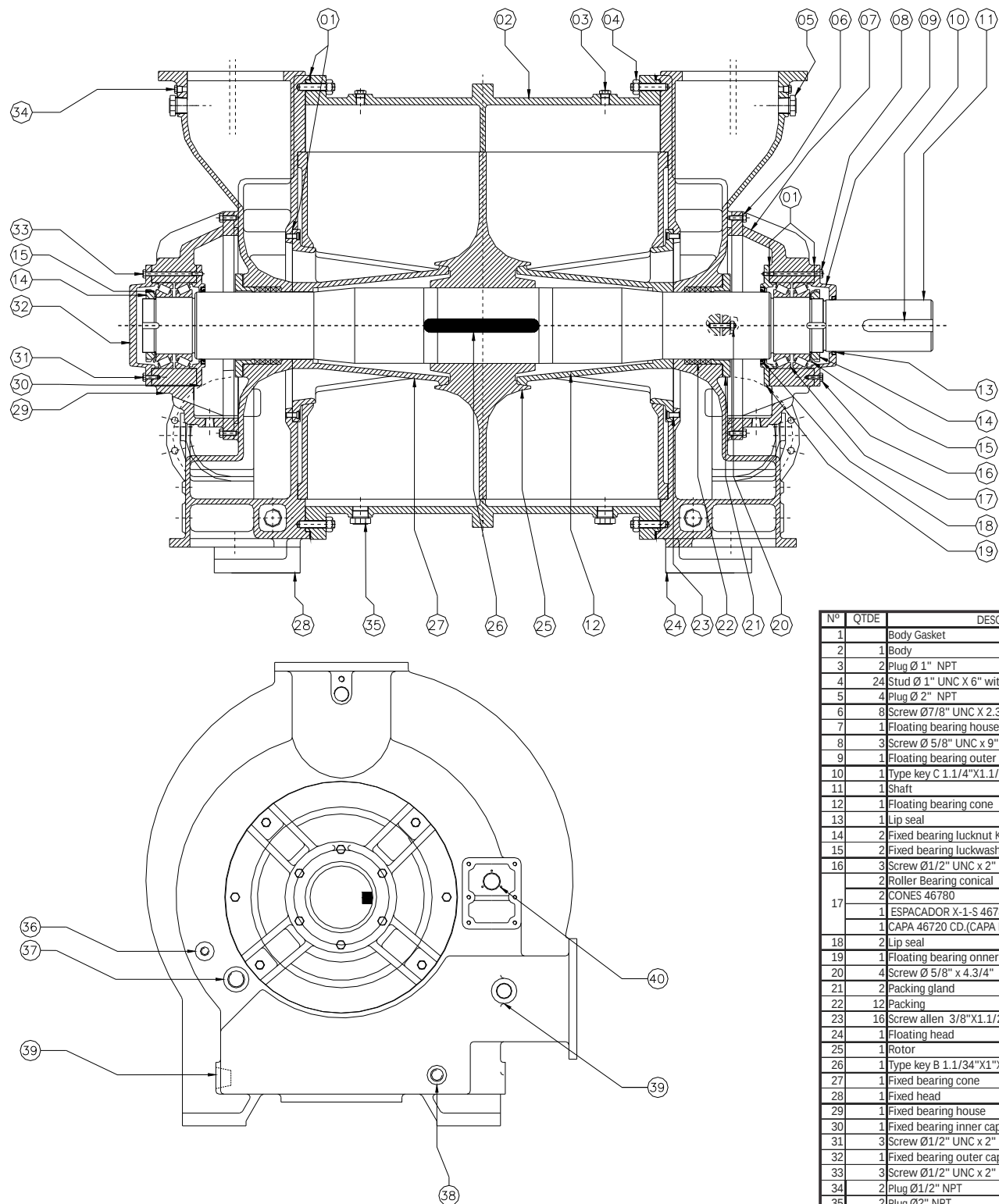
Serie BVI-9000



POS.	QTDE.	DESCRIPTION
1		Body Gasket
2	1	Shaft
3	1	Body
4	2	Plug Ø3/4" NPT
5	1	key NBR 6375
6	20	Stud Ø1" UNC X 4. 1/2" nut with
7	3	Screw Ø1/2" UNC X 1. 3/4"
8	6	Plug Ø2" NPT
9	2	Plug Ø1" NPT
10	1	Fixed bearing inner cap
11	1	Ring oring 4X 261,00
12		Paper gasket
13	3	Screw Ø1/2" UNC X 2. 3/4"
14	1	Fixed bearing lucknut KM 38
15	1	Fixed bearing outer cap
16	1	Fixed bearing luckwash KM 38
17	3	Screw Ø1/2" UNC X 7. 3/4"
18	1	Roller bearing
19	2	Lip seal
20	1	Fixed head
21	1	Fixed bearing cone
22	1	Rotor
23	12	Stud Ø5/8" UNC X 3. 1/4"
24	2	Flanged
25	1	Floating bearing cone
26	2	Plug Ø2" NPT
27	6	Screw Ø1" UNC X 5. 1/2"
28	32	Screw allen UNC Ø5/8" X 1. 1/2"
29	1	Floating head
30	12	Packing
31	2	Packing gland
32	4	Screw Ø1/2" UNC X 1. 3/4" with nut
33	4	Stud Ø5/8" UNC X 7" with nut
34	1	Floating bearing inner cap
35	1	Roller bearing
36	3	Screw Ø1/2" UNC X 1. 3/4"
37	1	Floating bearing outer cap
38	1	Lip seal
39	8	Flanged
40	4	Screw Ø3/8" UNC X 2. 3/4"
41	24	Stud Ø3/4" UNC X 3. 1/2" whit nut 2
42	4	Flanged
43	1	Special key 1. 1/2" X 1. 1/2" X 12"
44	4	Greasing

Part List Vacuum Pump - IMBIL

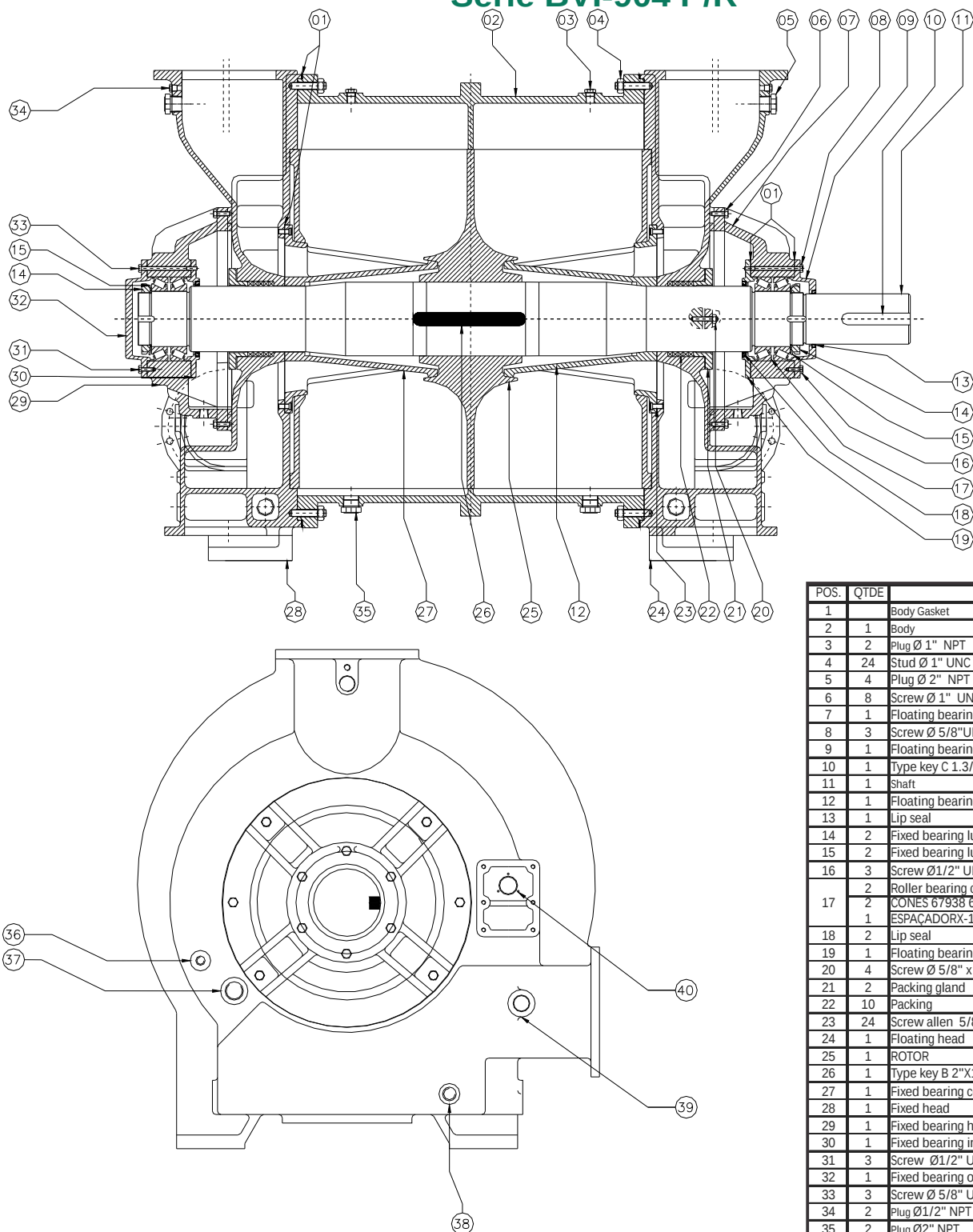
Serie BVI-904 L/M



Nº	QTDE	DESCRIPTION
1	1	Body Gasket
2	1	Body
3	2	Plug Ø 1" NPT
4	24	Stud Ø 1" UNC X 6" with nut
5	4	Plug Ø 2" NPT
6	8	Screw Ø7/8" UNC X 2.3/4"
7	1	Floating bearing house
8	3	Screw Ø 5/8" UNC x 9"
9	1	Floating bearing outer cap
10	1	Type key C 1.1/4"x1.1/4"x10"
11	1	Shaft
12	1	Floating bearing cone
13	1	Lip seal
14	2	Fixed bearing lucknut KM 30
15	2	Fixed bearing luckwash MB 30
16	3	Screw Ø1/2" UNC x 2"
17	2	Roller Bearing conical TIMKEN
17	2	CONES 46780
17	1	ESPACADOR X-1-S 46780
17	1	CAPA 46720 CD.(CAPA DUPLA).
18	2	Lip seal
19	1	Floating bearing onner cap
20	4	Screw Ø 5/8" x 4.3/4"
21	2	Packing gland
22	12	Packing
23	16	Screw allen 3/8"x1.1/2"
24	1	Floating head
25	1	Rotor
26	1	Type key B 1.1/34"x1.29/32"
27	1	Fixed bearing cone
28	1	Fixed head
29	1	Fixed bearing house
30	1	Fixed bearing inner cap
31	3	Screw Ø1/2" UNC x 2"
32	1	Fixed bearing outer cap
33	3	Screw Ø1/2" UNC x 2"
34	2	Plug Ø1/2" NPT
35	2	Plug Ø2" NPT
36	2	Plug Ø 1" NPT
37	2	Plug Ø 1.1/2" NPT
38	2	Plug Ø2" NPT
39	2	Plug Ø2" NPT
40	2	Plug Ø2"

Part List Vacuum Pump - IMBIL

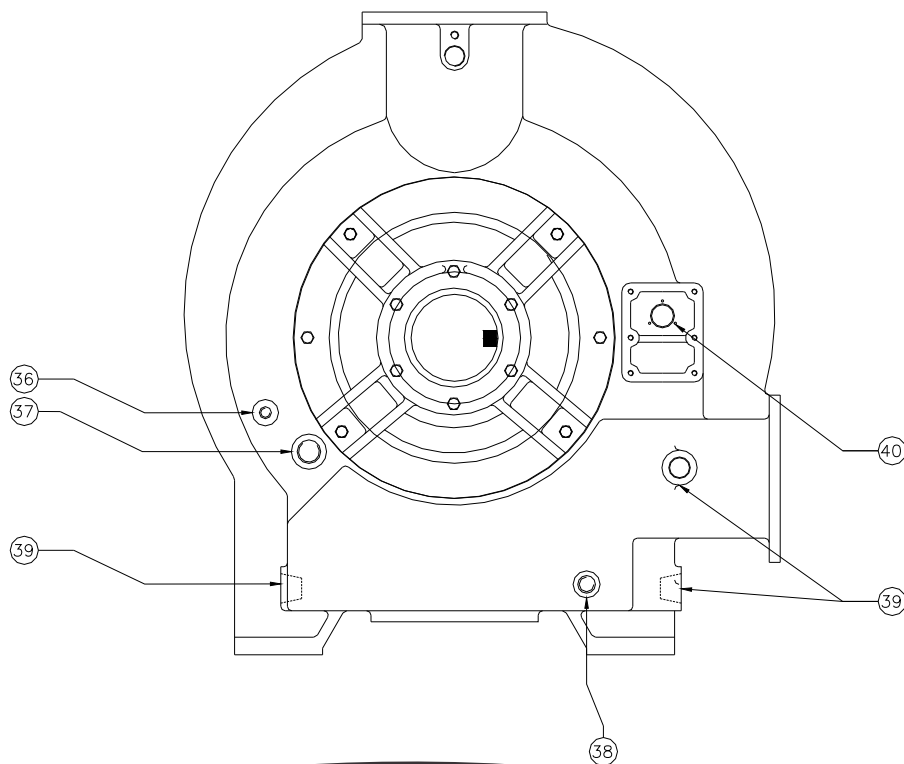
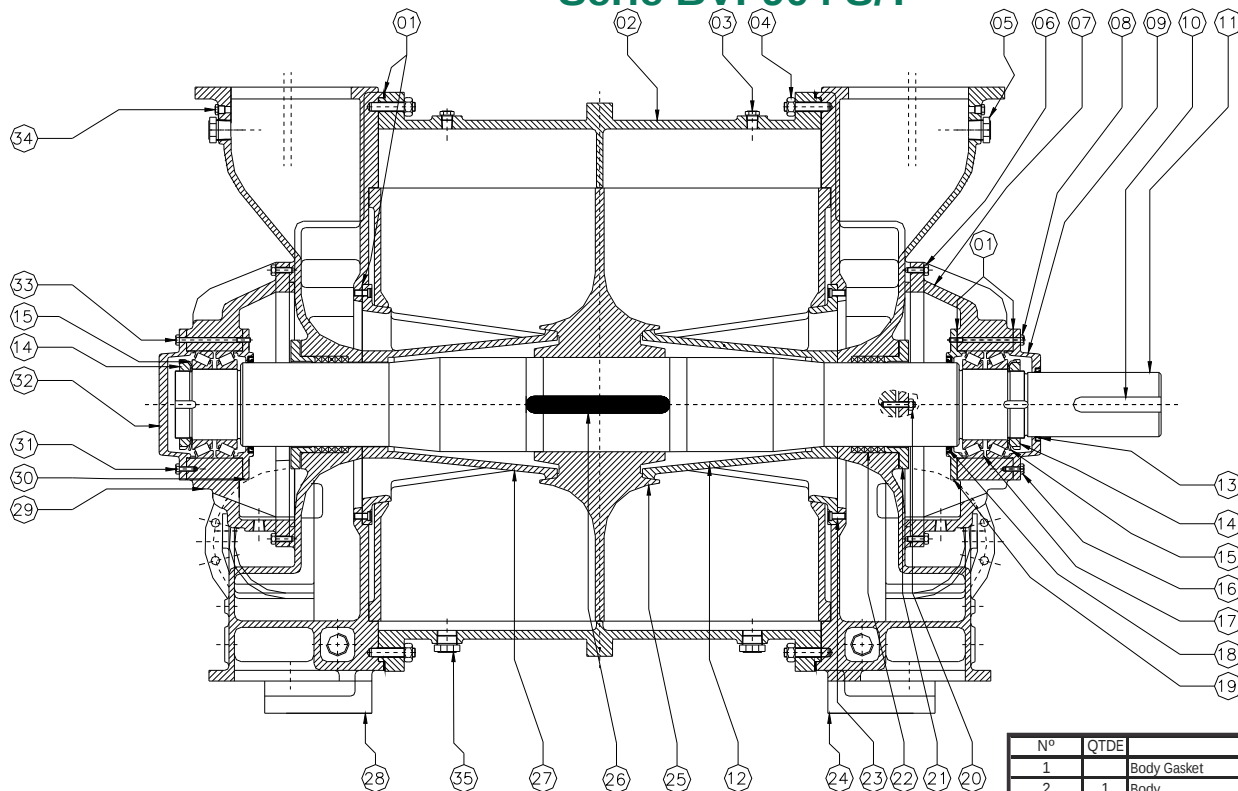
Serie BVI-904 P/R



POS.	QTDE	DESCRIPTION
1		Body Gasket
2	1	Body
3	2	Plug Ø 1" NPT
4	24	Stud Ø 1" UNC X 5.1/2" with nut
5	4	Plug Ø 2" NPT
6	8	Screw Ø 1" UNC x 2.1/4"
7	1	Floating bearing house
8	3	Screw Ø 5/8"UNC x 6" UNC
9	1	Floating bearing outer cap
10	1	Type key C 1.3/4"x1.1/2"x10.1/4"
11	1	Shaft
12	1	Floating bearing cone
13	1	Lip seal
14	2	Fixed bearing lucknut KM 40
15	2	Fixed bearing luckwash MB 40
16	3	Screw Ø1/2" UNC x 2"
17	2	Roller bearing conical TIMKEN 90130
18	2	CONES 67938 67920CD
19	1	ESPAÇADORX-1-S-67983
20	4	Screw Ø 5/8" x 4.3/4"
21	2	Packing gland
22	10	Packing
23	24	Screw allen 5/8"x2"
24	1	Floating head
25	1	ROTOR
26	1	Type key B 2"x1.9/16"x14.7/32"
27	1	Fixed bearing cone
28	1	Fixed head
29	1	Fixed bearing house
30	1	Fixed bearing inner cap
31	3	Screw Ø1/2" UNC x 2"
32	1	Fixed bearing outer cap
33	3	Screw Ø 5/8" UNC x 6.1/2"
34	2	Plug Ø1/2" NPT
35	2	Plug Ø2" NPT
36	2	Plug Ø1/2" NPT
37	2	Plug Ø2" NPT
38	2	Plug Ø1/2" NPT
39	2	Plug Ø2" NPT
40	2	Plug v2.1/2" NPT

Part List Vacuum Pump - IMBIL

Serie BVI-904 S/T



Nº	QTDE	DESCRIPTION
1	1	Body Gasket
2	1	Body
3	2	Plug Ø 1" NPT
4	24	Stud Ø 1" UNC X 6" with nut
5	4	Plug Ø 2" NPT
6	8	Screw Ø 1.1/4" UNC x 3"
7	1	Floating bearing house
8	3	Screw Ø 5/8" UNC x 9"
9	1	Floating bearing outer cap
10	1	Type key C 1.3/4"x1.11/16"x10.1/4"
11	1	Shaft
12	1	Floating bearing cone
13	1	Lip seal
14	2	Fixed bearing lucknut KM 40
15	2	Fixed bearing luckwash MB 40
16	3	Screw Ø9/16" UNC x 2 1/2"
17	2	Roller bearing conical TIMKEN 90205
	2	CONE Nº 93825
	1	CAPA Nº 93127 CD
	1	ESPAÇADOR Nº X-1-S-93825
18	2	Lip seal
19	1	Floating bearing inner cap
20	4	Screw Ø 5/8" x 4.3/4"
21	2	Packing gland
22	10	Packing
23	24	Screw allen 5/8"x1.1/2"
24	1	Floating head
25	1	Rotor
26	1	Type key B 2"x1.3/4"x14.11/32"
27	1	Fixed bearing cone
28	1	Fixed head
29	1	Fixed bearing house
30	1	Fixed bearing inner cap
31	3	Screw Ø 9/16" UNC x 2.1/2"
32	1	Fixed bearing outer cap
33	3	Screw Ø 5/8" UNC x 9.1/2"
34	2	Plug Ø1/2" NPT
35	2	Plug Ø2" NPT
36	2	Plug Ø1/2" NPT
37	2	Plug Ø2" NPT
38	2	Plug Ø1" NPT
39	2	Plug Ø2" NPT
40		

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