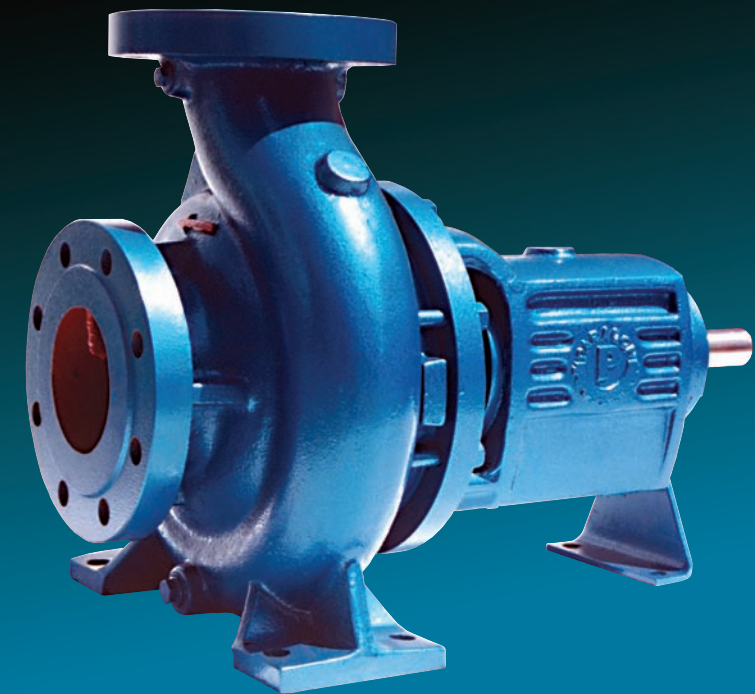




PA SERIES PUMP



Single Stage Back Pull-Out
End-Suction Centrifugal Pump



PARAGON PUMP COMPANY, LLC
18102 Courtney Breeze Drive
Tampa, Florida 33647, USA
Tel : (813) 994-3356
Fax : (813) 994-1237

Your Local Distributor:

INTRODUCTION



PARAGON PUMP company was founded by a dedicated pump professional with over thirty (30) years of worldwide experience. The company's goal is to provide high quality products at extremely competitive prices supported by the best customer service in the industry.

To assure high quality, performance and reliability, PARAGON PUMPS are manufactured to international standards in facilities with ISO 9001 certification. PARAGON PUMP backs up its commitment to quality with a full two-year (24 months) warranty.



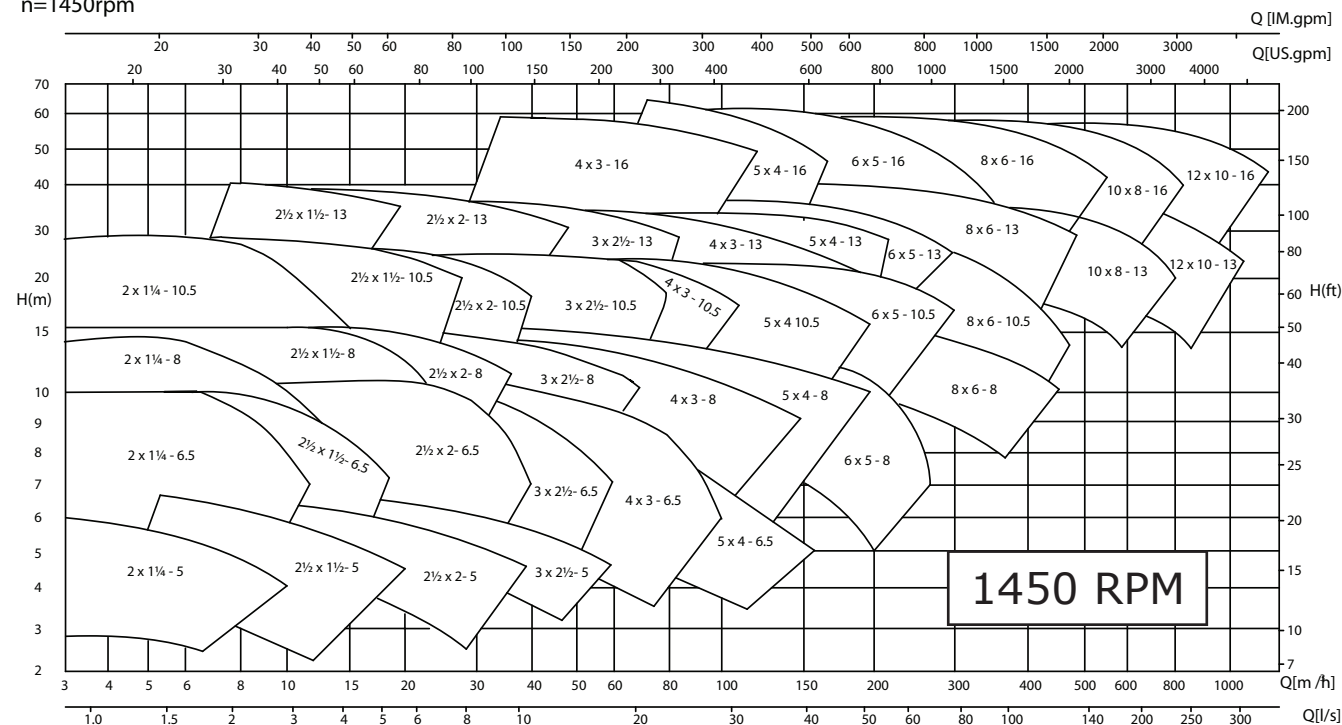
PA SERIES PUMP (FEATURES AND BENEFITS)

The PARAGON PA Series end suction, back pull-out, centrifugal pump offers many features and benefits that improve performance, increase reliability and reduce maintenance time and cost.

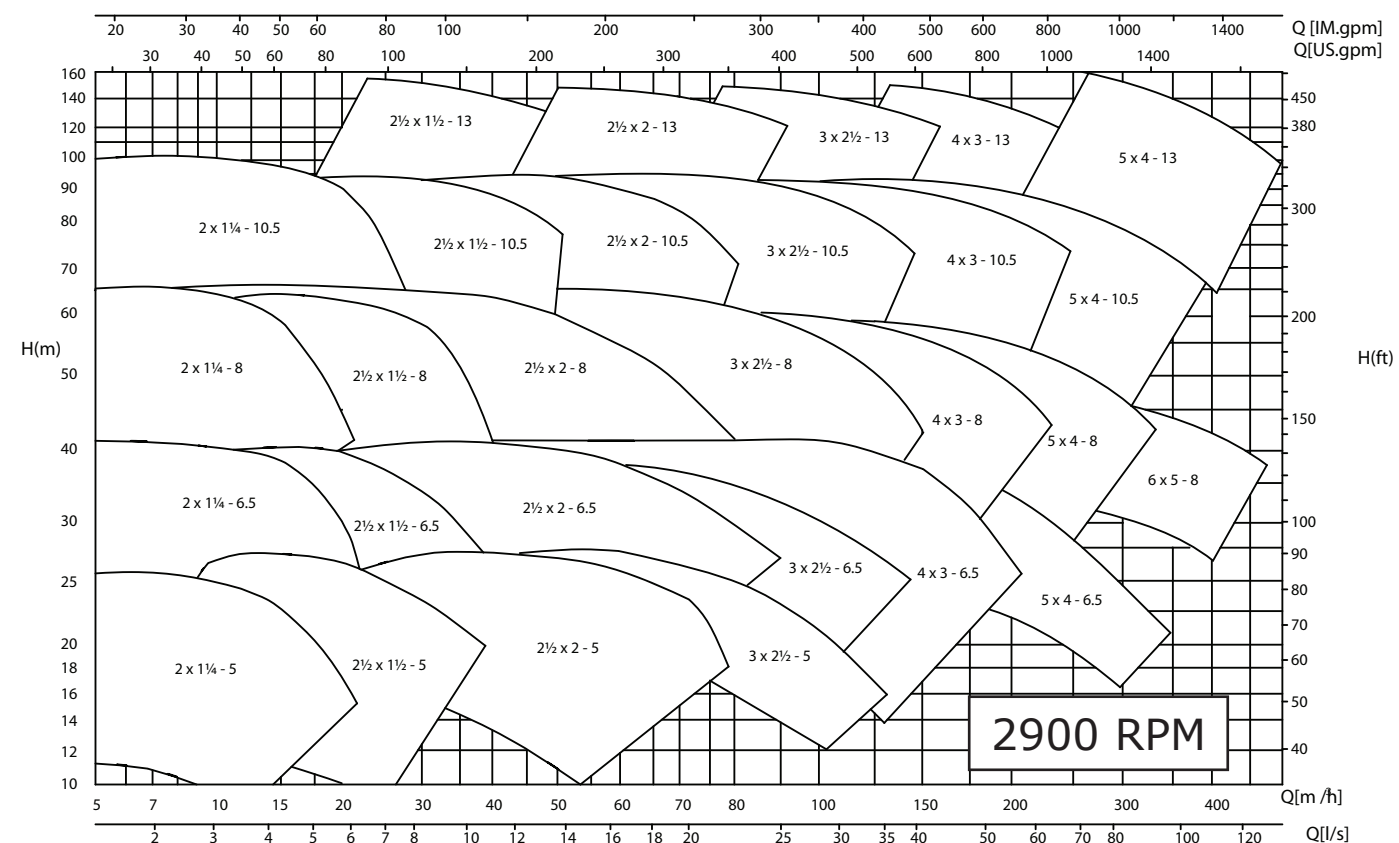
- Heavy-duty cast iron casing with intergral cast feet suitable for 145 psi (10 bar) working pressure. Also available for working pressures up to 232 psi (16 bar). Centreline discharge assures that the casing is self-venting.
- Flanges to ANSI 16.5 CL 125 as standard. Also available with ISO 2048 PN16 or JIS 10k drilling.
- Back pull out design for fast and easy maintenance when fitted with a spacer type coupling because suction and discharge piping and drive motor remain in place.
- Maximum interchangeability for low spare parts inventory with four bearing frames and four shaft sizes for forty-one (41) sizes of pumps.
- Replaceable wear rings to assure optimum efficiency and performance at all times.
- Shaft seal is available as packing or as mechanical seal to suit all types of applications.
- Double shrouded, hydraulically balanced impellers with back vanes to minimize gland pressure in cast iron or bronze as standard. Also available in stainless steel or zinc free bronze.
- Heavy-duty cast iron bearing housing with greased ball bearings as standard. Also available with oil lubricated bearings.
- Heavy-duty shaft in stainless steel for longer life and to assure product purity.
- Stainless steel shaft sleeve for product purity, longer mechanical seal life and to prevent damage to the shaft from packing or the mechanical seal.
- Operating temperature from 14° F (-5° C) to 221° F (105° C) as standard. Available for up to 320° F (160° C) with cooling and suitable mechanical seal selection.
- Suitable for both 50 cycle and 60 cycle speeds up to 3600rpm.

Selection charts of PA single stage centrifugal pump

n=1450rpm



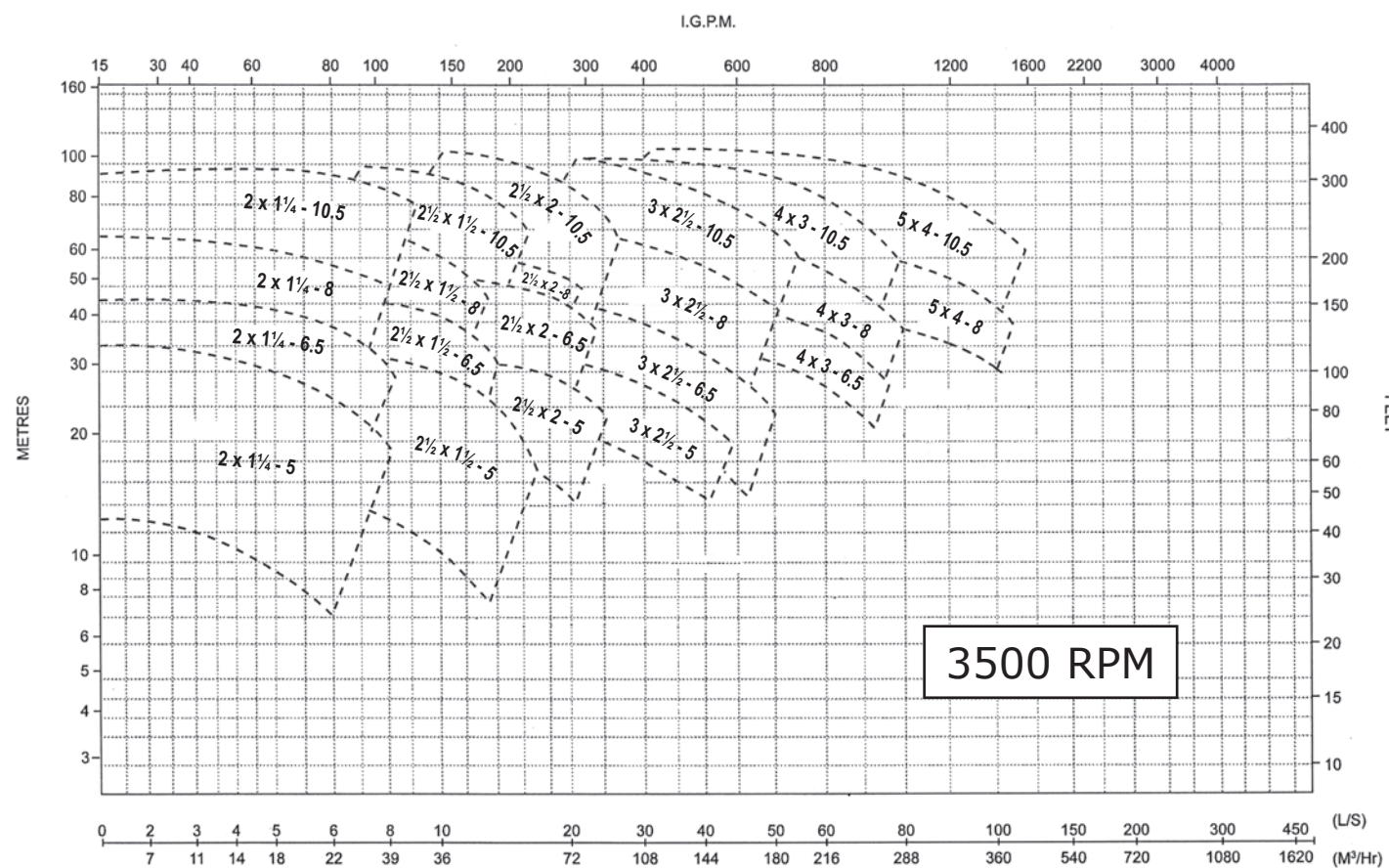
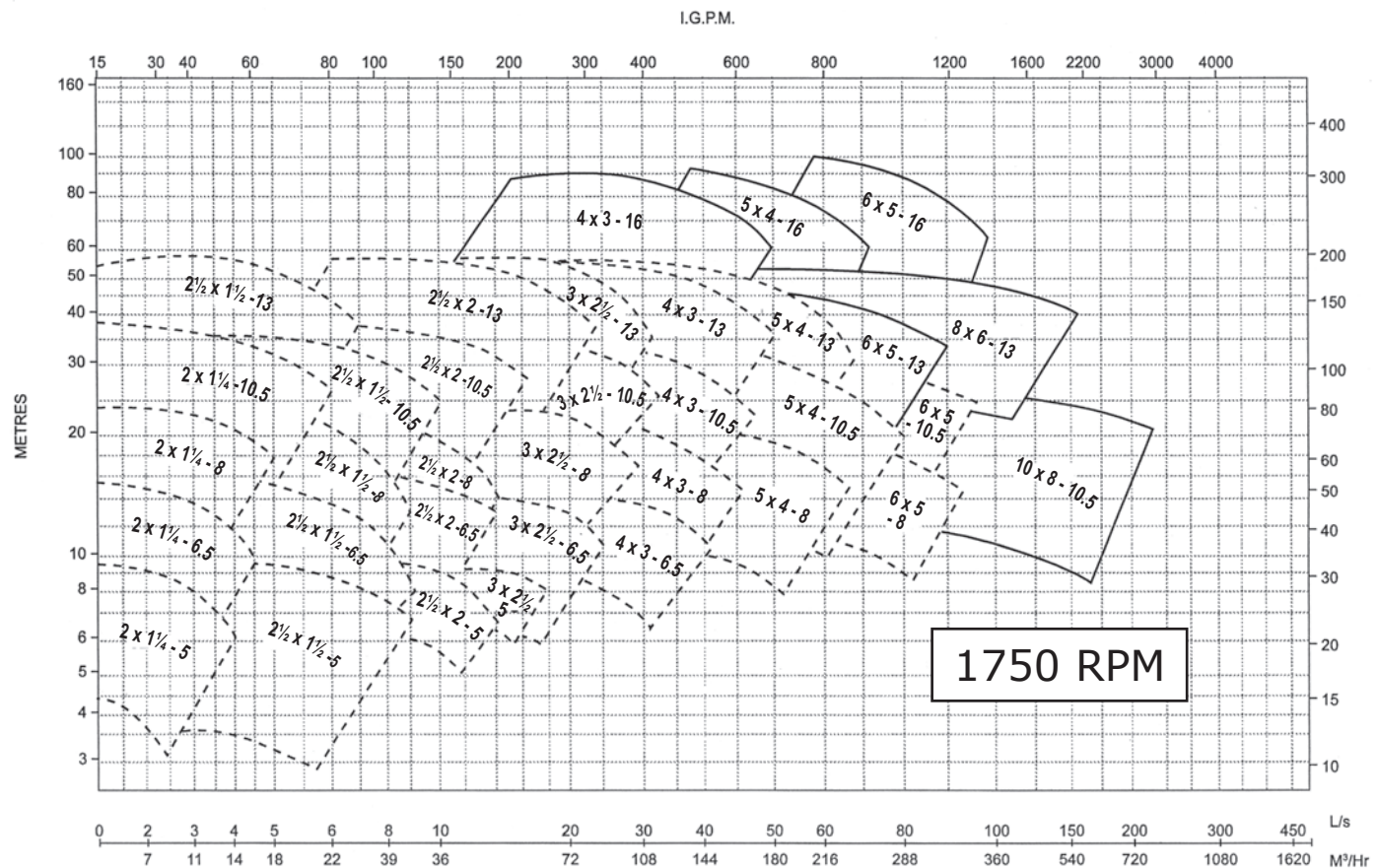
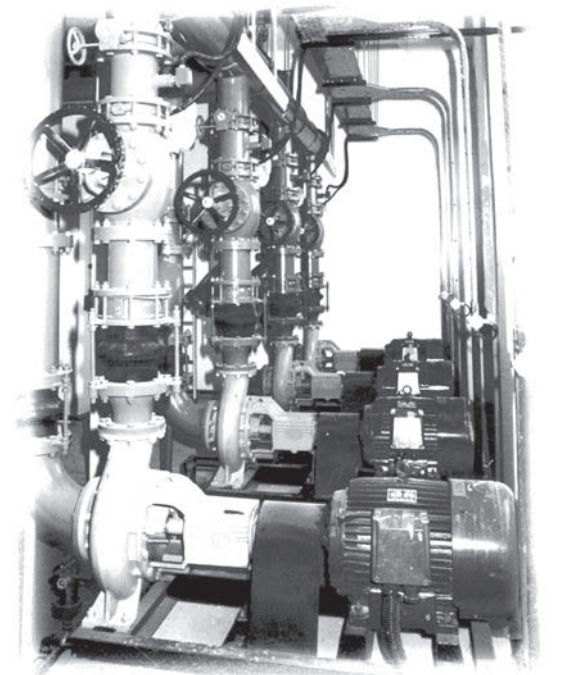
n=2900rpm



APPLICATIONS

PARAGON PA Series pumps can be used for the following services in the Commercial, Residential, Agricultural, Industrial, Process, Petroleum and Food & Beverage industries.

- Air Conditioning
- Refrigeration
- Fire Protection
- Plumbing
- Circulating
- Transfer
- Irrigation
- Drainage
- Pressure Boosting
- Cooling Towers
- Water Treatment & Supply



TECHNICAL INFORMATION

Operating pressure: 145 psi (10 bar) standard, 232 (16 bar) optional.

Hydrostatic Test pressure: 218 psi (15 bar) standard, 348 psi (24 bar) optional.

Operation temperature: 14° F to 221° F (-10°c to 105°c) standard, 320° F (160°c) optional.

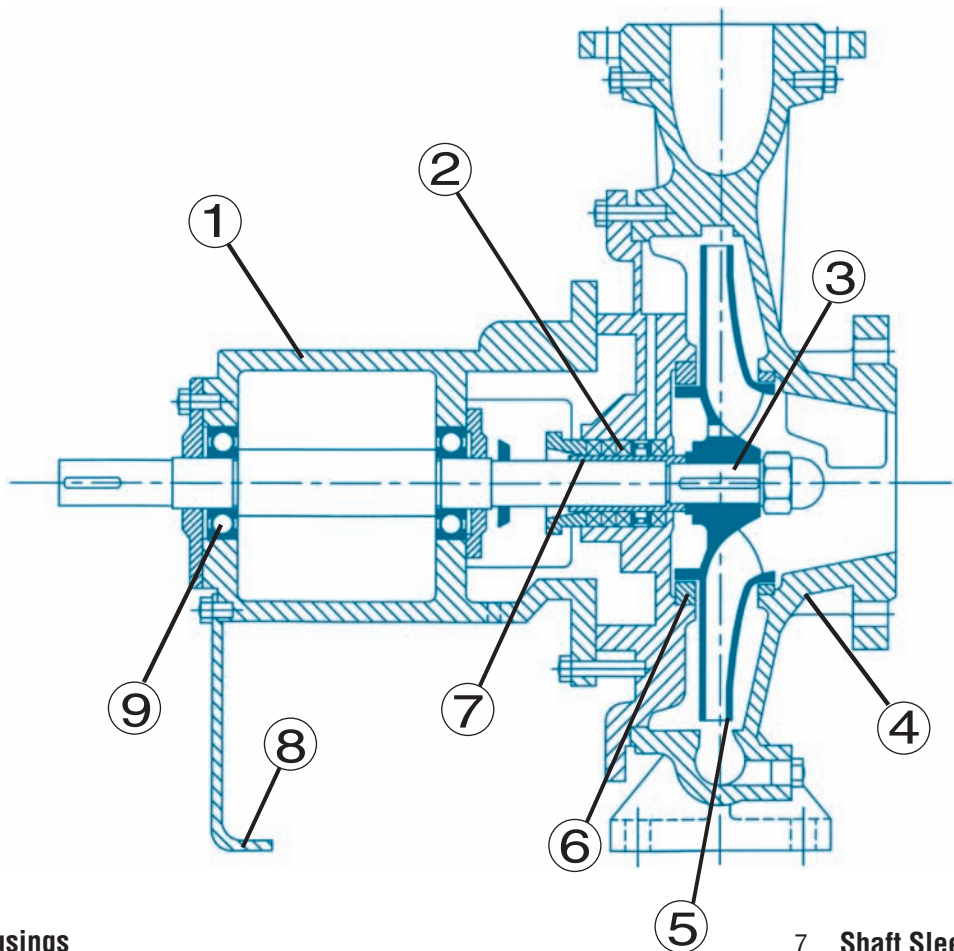
Operation speeds: 60 Hz, 1750 and 3500 rpm.
50 Hz, 1450 and 2900 rpm.

MATERIALS OF CONSTRUCTION

	Bronze Fitted (BF)	All Iron (AI)	All Stainless Steel
(SS)Casing	Cast Iron	Cast Iron	Stainless Steel
Impeller	Bronze	Cast Iron	Stainless Steel
Wear Ring	Bronze	Cast Iron	Stainless Steel
Shaft	Stainless Steel	Carbon Steel	Stainless Steel
Shaft Sleeve	Stainless Steel	Stainless Steel	Stainless Steel
Gland	Cast Iron	Cast Iron	Stainless Steel

PARAGON PUMP

Range from 1.25" to 10" discharge



1. **Bearing Housings**

Rugged cast iron construction with four bearing housings covering the complete range of forty-one pumps for maximum interchangeability.

2. **Stuffing Box**

Standard stuffing box includes gland packing and lantern ring with internal flushing or single mechanical seal with internal or external flush.

3. **Shaft**

One piece stainless steel shaft in four sizes covering the complete range of forty-one pumps for maximum interchangeability.

4. **Casing**

The cast iron volute casing is heavy duty design with intergrally cast feet, vertical top centreline discharge and axial suction nozzle with cast inlet vane to improve flow into the impeller and reduce required NPSH.

5. **Impeller**

Double shrouded type, hydraulically balanced and positive drive shaft key and domed impeller lock nut.

6. **Wear Rings**

Replaceable wear rings are standard on all casings and on rear covers for larger pumps which assures hydraulic performance and reduces maintenance time and cost.

7. **Shaft Sleeve**

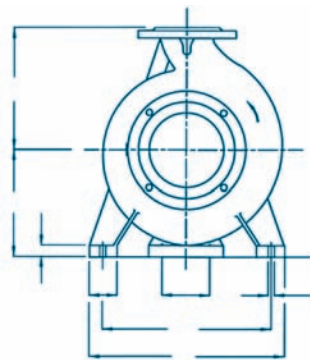
Replaceable fully machined, positively driven, hook type stainless steel shaft sleeve prevents damage to the shaft from gland packing or mechanical seal and reduces maintenance cost.

8. **Support Foot**

Removable and adjustable support foot provides added rigidity and ease of maintenance.

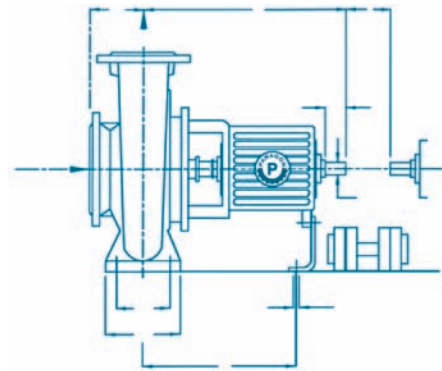
9. **Bearings**

All pumps come with grease lubricated ball bearings as standard. Permanently, sealed greased bearings or oil lubricated bearing also available.



END ELEVATION

FLANGES DRILLED
TO ANSI 16.5 CLASS 125



SIDE ELEVATION

PUMP SIZE	Bearing Housing	Suction	Discharge	Pump Dimensions				Foot Dimensions												x	Shaft End		Coupling Key	Net Weight
				a	f	h ₁	h ₂	b	m ₁	m ₂	n ₁	n ₂	n ₃	h ₃	os ₁	os ₂	w	d	i					
2 x 1 1/4-5	1	2	1 1/4	3.15	14.17	4.41	5.51	1.97	3.94	2.76	7.48	5.51	3.94	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	62		
2 x 1 1/4-6.5	1	2	1 1/4	3.15	14.17	5.20	6.30	1.97	3.94	2.76	9.45	7.48	3.94	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	79		
2 x 1 1/4-8	1	2	1 1/4	3.15	14.17	6.30	7.09	1.97	3.94	2.76	9.45	7.48	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	95		
2 x 1 1/4-10.5	1	2	1 1/4	3.94	14.17	7.09	8.86	2.56	4.92	3.74	12.60	9.84	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	139		
2 1/2 x 1 1/2-5	1	2 1/2	1 1/2	3.15	14.17	4.41	5.51	1.97	3.94	2.76	8.27	6.30	3.94	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	68		
2 1/2 x 1 1/2-6.5	1	2 1/2	1 1/2	3.15	14.17	5.20	6.30	1.97	3.94	2.76	9.45	7.48	3.94	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	81		
2 1/2 x 1 1/2-8	1	2 1/2	1 1/2	3.94	14.17	6.30	7.09	1.97	3.94	2.76	10.43	8.35	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	101		
2 1/2 x 1 1/2-10.5	1	2 1/2	1 1/2	3.94	14.17	7.09	8.86	2.56	4.92	3.74	12.60	9.84	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	139		
2 1/2 x 1 1/2-13	2	2 1/2	1 1/2	4.92	18.50	7.87	9.84	2.64	4.92	3.74	13.78	11.02	4.33	0.55	0.55	0.55	13.46	5.51	1.26	3.15	.39 x .31	211		
2 1/2 x 1 1/2-13G	3	2 1/2	1 1/2	4.92	20.67	7.87	9.84	2.64	4.92	3.74	13.78	11.02	4.33	0.55	0.55	0.55	14.45	5.51	1.65	4.33	.47 x .31	211		
2 1/2 x 2-5	1	2 1/2	2	3.94	14.17	5.20	6.30	1.97	3.94	2.76	9.45	7.48	3.94	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	75		
2 1/2 x 2-6.5	1	2 1/2	2	3.94	14.17	6.30	7.09	1.97	3.94	2.76	10.43	8.35	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	84		
2 1/2 x 2-8	1	2 1/2	2	3.94	14.17	6.30	7.87	1.97	3.94	2.76	10.43	8.35	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	106		
2 1/2 x 2-10.5	1	2 1/2	2	3.94	14.17	7.09	8.86	2.56	4.92	3.74	12.60	9.84	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	143		
2 1/2 x 2-10.5G	2	2 1/2	2	3.94	18.50	7.09	8.86	2.56	4.92	3.74	12.60	9.84	4.33	0.55	0.55	0.55	13.46	5.51	1.26	3.15	.39 x .31	143		
2 1/2 x 2-13	2	2 1/2	2	5.04	18.50	8.86	11.02	2.56	4.92	3.74	13.78	11.02	4.33	0.63	0.55	0.55	13.46	5.51	1.26	3.15	.39 x .31	222		
2 1/2 x 2-13G	3	2 1/2	2	5.04	20.67	8.86	11.02	2.56	4.92	3.74	13.78	11.02	4.33	0.63	0.55	0.55	14.45	5.51	1.65	4.33	.47 x .31	222		
3 x 2 1/2-5	1	3	2 1/2	3.94	14.17	6.30	7.09	2.56	4.92	3.74	11.02	8.35	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	88		
3 x 2 1/2-6.5	1	3	2 1/2	3.94	14.17	6.30	7.09	2.56	4.92	3.74	11.02	8.35	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	97		
3 x 2 1/2-8	1	3	2 1/2	3.94	14.17	7.09	7.87	2.56	4.92	3.74	12.60	9.84	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	119		
3 x 2 1/2-8G	2	3	2 1/2	3.94	18.31	7.09	8.86	2.56	4.92	4.72	12.60	9.84	4.33	0.55	0.55	0.55	13.27	5.51	1.26	3.15	.39 x .31	119		
3 x 2 1/2-10.5	2	3	2 1/2	3.94	18.50	7.87	8.86	3.15	6.30	4.72	14.17	11.02	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	183		
3 x 2 1/2-13	2	3	2 1/2	4.92	18.50	8.86	11.02	3.15	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	242		
3 x 2 1/2-13G	3	3	2 1/2	4.92	20.67	8.86	11.02	3.15	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	14.45	5.51	1.65	4.33	.47 x .31	242		
4 x 3-6.5	1	4	3	4.92	14.17	7.09	8.86	2.56	4.92	3.74	12.60	9.84	4.33	0.55	0.55	0.55	10.51	5.51	0.94	1.97	.31 x .28	121		
4 x 3-6.5G	2	4	3	4.92	17.99	7.09	8.86	2.56	4.92	3.74	12.60	9.84	4.33	0.55	0.55	0.55	12.99	5.51	1.26	3.15	.39 x .31	121		
4 x 3-8	2	4	3	4.92	18.50	7.09	9.84	2.56	4.92	3.74	13.58	11.02	4.33	0.55	0.55	0.55	13.46	5.51	1.26	3.15	.39 x .31	158		
4 x 3-10.5	2	4	3	4.92	18.50	7.87	11.02	3.15	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	202		
4 x 3-13	2	4	3	4.92	18.50	9.84	12.40	3.15	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	264		
4 x 3-13G	3	4	3	4.92	20.67	9.84	12.40	3.15	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	14.45	5.51	1.65	4.33	.47 x .31	264		
4 x 3-16	3	4	3	4.92	20.87	11.02	13.98	3.15	6.30	4.72	17.32	13.98	4.33	0.71	0.71	0.55	14.57	5.51	1.65	4.33	.47 x .31	356		
5 x 4-6.5	2	5	4	4.92	18.50	7.87	9.65	3.15	6.30	4.72	14.17	11.02	4.33	0.59	0.71	0.55	13.78	5.51	1.26	3.15	.39 x .31	156		
5 x 4-8	2	5	4	4.92	18.70	7.87	11.02	3.15	6.30	4.72	14.17	11.02	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	191		
5 x 4-10.5	2	5	4	5.51	18.50	8.86	11.02	3.15	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	242		
5 x 4-10.5G	3	5	4	5.51	20.67	8.86	11.02	3.15	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	14.45	5.51	1.65	4.33	.47 x .31	242		
5 x 4-13	2	5	4	5.51	18.50	9.84	12.40	3.94	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	295		
5 x 4-16	3	5	4	5.51	20.87	11.02	13.98	3.15	7.87	5.91	19.69	15.75	4.33	0.71	0.91	0.55	14.57	5.51	1.65	4.33	.47 x .31	389		
6 x 5-8	2	6	5	5.51	18.50	9.84	12.40	3.15	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	244		
6 x 5-10.5	2	6	5	5.51	18.50	9.84	13.98	3.94	6.30	4.72	15.75	12.40	4.33	0.63	0.71	0.55	13.46	5.51	1.26	3.15	.39 x .31	253		
6 x 5-13	3	6	5	5.51	20.87	11.02	13.98	3.94	7.87	5.91	19.69	15.75	4.33	0.71	0.91	0.55	14.57	5.51	1.65	4.33	.47 x .31	359		
6 x 5-16	3	6	5	5.51	20.87	12.40	15.75	3.94	7.87	5.91	19.69	15.75	4.33	0.71	0.91	0.55	14.57	5.51	1.65	4.33	.47 x .31	418		
8 x 6-8	2	8	6	6.30	19.49	11.02	15.75	3.94	7.87	5.91	21.65	17.72	4.33	0.71	0.91	0.55	14.45	5.51	1.26	3.15	.39 x .31	308		
8 x 6-10.5	3	8	6	6.30	20.87	11.02	15.75	3.94	7.87	5.91	21.65	13.78	4.33	0.71	0.91	0.55	14.57	5.51	1.65	4.33	.47 x .31	361		
8 x 6-13	3	8	6	6.30	20.87	11.02	15.75	3.94	7.87	5.91	21.65	17.72	4.33	0.71	0.91	0.55	14.57	5.51	1.65	4.33	.47 x .31	385		
8 x 6-16	3	8	6	6.30	20.87	12.40	17.72	3.94	7.87	5.91	21.65	17.72	4.33	0.71	0.91	0.55	14.57	5.51	1.65	4.33	.47 x .31	462		
10 x 8-13	4	10	8	8.86	26.38	12.40	17.13	3.94	7.87	5.91	21.65	17.72	4.33	1.18	0.91	0.55	19.84	5.51	1.89	4.33	.55 x .35	594		
10 x 8-16	4	10	8	8.86	26.38	12.40	18.11	3.94	7.87	5.91	21.65	17.72	4.33	1.18	0.91	0.55	19.84	5.51	1.89	4.33	.55 x .35	682		
12 x 10-13	4	12	10	9.84	26.38	15.75	19.69	3.94	10.63	7.09	19.69	15.75	4.33	1.18	1.10	0.55	19.84	5.51	1.89	4.33	.55 x .35	728		
12 x 10-16	4	12	10	9.84	26.38	17.72	19.88	4.92	10.63	8.27	23.62	19.69	4.33	1.18	1.10	0.55	19.84	5.51	1.89	4.33	.55 x .35	913		