



Vertical Turbine Pumps Price Pages

Effective January 1, 2020
Supersedes February 18, 2019

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Bowl Assembly Material Specifications 6" - 21"

It is the responsibility of others to provide compliant components to compliant bowl assembly.
For potable water applications, see separate adders in these price pages.

Part	Standard Construction
Discharge Adapter/Nozzle(1)/Suction Case	Cast Iron A48, Class 30, Epoxy Coated Interior
Immediate Bowl (1)	Cast Iron A48, Class 30, Epoxy Coated Interior
Bowl Bearing (2)	Bronze B505 Alloy C93200 or Bismuth Bronze Alloy C89835
Capscrews	SAE J429 Grade 5 or ASTM A193 Grade B7
Nuts	SAE J995 Grade 2
Impeller (mfg option)	Bronze B584 Alloy C83600 or Stainless Steel A743 CF 8M
Impeller Collet	Stainless Steel A582 S416
Bowl Wear Ring (NA on 6"/7" pumps)	Bronze B505 Alloy C93200
Imp Wear Ring (mfg option, NA on 6"/7" pumps)	Bronze B584 Alloy C83600 or Stainless Steel A743 CF 8M
Sand Collar	Bronze B505 Alloy C93200
Suction Case Plug	Cast Iron
Pump Shaft	Stainless Steel A582 Type 416
Shaft Coupling	Stainless Steel A582 Type 416

All material specifications are typical for chemical composition only.

- (1)Bowl interior coating suitable for use with potable water. Use of this coating does not qualify the pump as NSF standard.
- (2)For potable water applications, bearings will be bismuth bronze. Refer to adder.

**PRICING SUBJECT TO CHANGE WITHOUT NOTICE.
REFER TO ENCOMPASS FOR MOST ACCURATE PRICING AND SELECTION TABLES**

Size & Type	First Stage(1)	Each Add'l	Flanged Column Connect(2)*	Bowl to Bowl Connect.	Std Connecting Dimensions								Weight	
					Shaft Size (3)	Tube Size (4)	Column Size							
							Threaded		Flanged					
							Open Std	Opt (5)	Encl. Std	Encl. Std	First Stage	Each Add'l		
6DRELC/DRMC/RKLC/RKHC	\$2,142	\$482	201	Threaded	1	1½	4		4	4	4	4	100	25
6EM	\$2,089	\$482	201	Threaded	1	1½	4		4	4	4	4	50	15
6GM/6GH	\$2,142	\$536	201	Threaded	1	1½	4		4	4	4	4	60	16
7EM	\$2,357	\$643	201	Threaded	1	1½	4		4	4	4	4	78	22
7CL/CM/CEH	\$2,410	\$643	201	Flanged	1	1½	4,6		4,6	4,6	4,6	4,6	84	30
8URHC	\$2,732	\$911	253	Threaded	1 3/16	2	4,6		4,6	4,6	4,6	4,6	107	37
8RL/RM/RH	\$2,785	\$911	253	Flanged	1 3/16	2	4,6		6	6	6	6	140	45
8EM	\$2,839	\$911	253	Threaded	1 3/16	2	6		6	6	6	6	111	33
10RKLC/RKHC/RKEH	\$3,696	\$1,178	253	Threaded	1½	2½	6,8		6,8	6,8	6,8	6,8	185	67
10EM	\$3,696	\$1,232	253	Flanged	1 7/16	2½	6	4	6	6	6	6	164	62
10TLC/THC	\$3,696	\$1,446	253	Threaded	1½	2½	6,8		6,8	6,8	6,8	6,8	200	73
11EM	\$3,803	\$1,660	253	Flanged	1 7/16	2½	8	6	8	8	8	8	217	86
11EH	\$4,017	\$1,660	253	Flanged	1 7/16	2½	8	6	8	8	8	8	240	103
12RKBL/RKBM/RKBH/RKBEH	\$4,178	\$1,767	669	Flanged	1 11/16	2½	8,10		8,10	8,10	8,10	8,10	278	105
12TLC/THC	\$4,660	\$2,196	682	Threaded	1 11/16	2½	8,10		8,10	8,10	8,10	8,10	328	123
12EM	\$4,178	\$1,875	669	Flanged	1 11/16	2½	8	10	8	8	8	8	310	120
12RM/RL/RH	\$4,713	\$2,196	682	Flanged	1 15/16	3	8,10		8,10	8,10	8,10	8,10	410	145
12FHL/FHM/FHH/DEH	\$4,928	\$2,250	682	Flanged	1 15/16	3	8,10		8,10	8,10	8,10	8,10	240	130
13CL/CM	\$4,660	\$2,196	682	Flanged	1 11/16	2½	8,10		8,10	8,10	8,10	8,10	278	116
13EH	\$4,660	\$2,196	682	Flanged	1 11/16	2½	10	8	10	10	10	10	337	152
14RM/RL/RH	\$6,749	\$2,892	682	Flanged	2 3/16	3	10,12		10,12	10,12	10,12	10,12	700	265
14EM	\$6,159	\$2,785	682	Flanged	1 15/16	3	10	8	10	10	10	10	428	172
14FHM/FHH	\$7,231	\$3,053	NA	Flanged	2 3/16	3	12		12				675	245
15EH	\$7,445	\$3,160	945	Flanged	1 15/16	3	12	10	12	12	12	12	543	200
16GM	\$8,570	\$4,767	NC	Flanged	2 3/16	3	12		12	12	12	12	400	250
17EM	\$8,945	\$4,231	NC	Flanged	2 3/16	3	14	12	14	14	14	14	630	250
17EH	\$11,997	\$5,356	NC	Flanged	2 3/16	3	14	12	14	14	14	14	682	285
18GM	\$10,551	\$5,731	NC	Flanged	2 3/16	3	12			12,14	12,14	12,14	670	350
19GM/GH	\$12,694	\$6,427	NC	Flanged	2 3/16	3	12			12,14	12,14	12,14	610	350
21EH	\$16,336	\$8,891	NC	Flanged	2 7/16	3½				16	16	16	1000	475

O-ring bowls - dry pit or high pressure (@S/O greater than or equal to 238 psi) are RTF.

(1)First stage price-complete one stage bowl assembly w/ suction bell (NA on 6M/7M) or suction case and threaded discharge connection unless noted.

(2)Adder required when using flanged column.

(3)Line shaft diameter is selected by HP & RPM in catalog.

(4)Bowl tube size must be different with enclosed lineshaft. A step connector bearing can be used to adapt differing sizes.

(5)This option is only available on multi-stage units and requires a 5' maximum length bottom column.

Strainer and Bowl Connection Options

Size & Type	Basket Strainer*				Threaded Cone Strainer				316 SS Bowl Fasteners		Dynamic Balance Impeller Per Stage	
	Galv.	Bronze	316 SS	Wt	Galv.	Bronze	316 SS	Wt	First Stage	Each Add'l	Standard	Certified
6DRELC/DRMC	\$408	\$1,197	\$1,142	3	\$327	\$1,088	\$1,101	6			\$131	\$191
6EM/7EM	\$707	\$2,229	\$1,685	8	\$327	\$1,088	\$1,101	6			\$131	\$191
7CL/CM/CEH	\$435	\$1,360	\$1,685	7	\$380	\$1,414	\$1,486	14	49	26	\$131	\$191
8URHC	\$435	\$1,360	\$1,685	7	\$327	\$1,088	\$1,101	6			\$131	\$191
8RL/RM/RH	\$408	\$1,250	\$1,088	10	\$380	\$1,305	\$1,377	10	50	26	\$131	\$191
8EM	\$327	\$815	\$761	10	\$380	\$1,305	\$1,377	14			\$131	\$191
10RKLC/RKHC/RKE H	\$544	\$1,577	\$1,468	10	\$380	\$1,305	\$1,377	14			\$185	\$272
10EM	\$408	\$869	\$1,088	13	\$380	\$1,305	\$1,377	14	63	33	\$185	\$272
10TLC/THC	\$544	\$1,577	\$1,468	10	\$489	\$1,522	\$1,817	26			\$185	\$272
11EM	\$408	\$869	\$1,250	15	\$489	\$1,522	\$1,817	26	129	62	\$185	\$272
11EH	\$571	\$1,577	\$1,577	10	\$489	\$1,522	\$1,817	26	129	62	\$185	\$272
12RKBL/RKBM/RK BH/RKBEH	\$571	\$1,577	\$1,794	10	\$489	\$1,522	\$1,817	26	129	62	\$185	\$272
12TLC/THC	\$461	\$1,740	\$1,794	10	\$761	\$2,501	\$2,808	45			\$185	\$272
12EM	\$461	\$1,088	\$1,305	17	\$489	\$1,522	\$1,762	26	129	62	\$185	\$272
12RL/RM/RH	\$571	\$1,577	\$1,577	16	\$489	\$1,522	\$1,762	26	129	62	\$185	\$272
12FHL/FHM/FHH/ DEH	\$571	\$1,577	\$1,577	16	\$761	\$2,501	\$2,808	45	129	62	\$185	\$272
13CL/CM	\$597	\$1,902	\$1,794	10	\$761	\$2,501	\$2,808	45	129	62	\$262	\$380
13EH	\$489	\$1,250	\$1,360	20	\$761	\$2,501	\$2,808	45	129	62	\$262	\$380
14RL/RM/RH	\$597	\$2,554	\$1,794	20	\$761	\$2,501	\$2,808	45	279	140	\$262	\$380
14EM	\$544	\$1,305	\$1,468	44	\$761	\$2,501	\$2,808	45	279	140	\$262	\$380
14FHM/FHH	\$597	\$2,554	\$1,794	20	\$980	\$3,045	\$3,468	50	279	140	\$262	\$380
15EH	\$544	\$1,305	\$1,468	44	\$980	\$3,045	\$3,468	50	279	140	\$262	\$380
16GM	\$652	\$2,554	\$1,794	20	NA	NA	NA	NA	329	167	\$348	\$516
17EM,EH	\$652	\$2,066	\$1,685	50	\$1,360	\$5,328	\$6,796	60	329	167	\$348	\$516
18GM	\$733	\$2,554	\$2,174	20	NA	NA	NA	NA	329	167	\$348	\$516
19GM/GH	\$869	\$3,642	\$2,882	20	NA	NA	NA	NA	367	173	\$435	\$652
21EH	\$925	\$2,229	\$1,849	60	NA	NA	NA	NA	566	286	\$435	\$652

*Clip or bolt onto suction bell on all bowl sizes except 6M & 7M which use threaded strainers.

Bowl Construction Options

Shaft Size	Pump Shaft and Coupling						Bowl Bearings					
	316 SS		17-4 PH (1)		Shaft Coupling		Zinc Bronze		Carbon (2)		Brz Backed Rubber (2)	
	First Stage	Each Add'l	First Stage	Each Add'l	416 SS	316 SS	First Stage	Each Add'l	First Stage	Each Add'l	First Stage	Each Add'l
1"	\$268	\$43	RTF	RTF	Std	\$139	\$450	\$135	\$857	\$268	\$1,500	\$536
1 3/16"	\$321	\$43	RTF	RTF	Std	\$161	\$696	\$211	\$911	\$321	\$1,928	\$643
1 7/16"	\$428	\$64	RTF	RTF	Std	\$161	\$803	\$266	\$1,553	\$536	\$2,089	\$696
1 1/2"	\$428	\$64	RTF	RTF	Std	\$161	\$803	\$266	\$1,553	\$536	\$2,089	\$696
1 11/16"	\$643	\$107	RTF	RTF	Std	\$321	\$1,125	\$424	\$1,875	\$643	\$2,250	\$750
1 15/16"	\$1,071	\$241	RTF	RTF	Std	\$643	\$1,178	\$473	\$2,464	\$803	\$2,464	\$857
2 3/16"	\$1,553	\$375	RTF	RTF	Std	\$750	\$1,500	\$590	\$3,321	\$1,125	\$2,892	\$964
2 7/16"	\$1,928	\$482	RTF	RTF	Std	\$1,178	\$1,767	\$708	\$3,803	\$1,232	\$3,749	\$1,232

(1)Refer to factory for dry pit or high pressure (@S/O greater than or equal to 238 psi) applications.

(2)Discharge case bearing is bronze. Bearing options will extend delivery 6 weeks.

Bowl Adaptions (typically required when replacing a competitors bowl)

Non-standard shaft or tube threads = 20% of first stage	Non-standard column threads = 15% of first stage
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Special tube threads/column threads are required when existing tube or column is not compatible with Fairbanks threads.

Step Connector Bearing - Enclosed Lineshaft Only (1)

Step Conn. Bearing Size	Ln. Shaft Encl.		
	Size	Tube	List
2" x 1½" x 1" shaft	1"	1½"	\$489
2½" x 1½" x 1" shaft	1"	1½"	\$544
2½" x 2" x 1¼" shaft	1¼"	2"	\$597
3" x 1½" x 1" shaft	1"	1½"	\$652
3" x 2" x 1¼" shaft	1¼"	2"	\$815
3" x 2½" x 1½" shaft	1½"	2½"	\$925
3" x 2½" x 1 11/16" shaft	1 11/16"	2½"	\$980
3½" x 1½" x 1" shaft	1"	1½"	\$980
3½" x 2" x 1¼" shaft	1¼"	2"	\$1,197
3½" x 2½" x 1½" shaft	1½"	2½"	\$1,414
3½" x 2½" x 1 11/16" shaft	1 11/16"	2½"	\$1,632
3½" x 3" x 1 15/16" shaft	1 15/16"	3"	\$1,849
3½" x 3" x 2 3/16" shaft	2 3/16"	3"	\$2,120

Column Reducing Bushings (2)

Size	List	Wt
6" x 4"	\$1,446	16
8" x 6"	\$1,660	21
10" x 8"	\$2,357	30
12" x 10"	\$2,410	36
14" x 12"	\$2,410	56

Assembly Tools

Bowl Size	Collet Driver	Shaft Tool
6" - 8"	\$536	\$482
10" - 12"	\$857	\$536
13" - 15"	\$911	\$589
16" - 18"	\$1,125	\$643

10' Suction Pipe

Size	List
4"	\$402
5"	\$643
6"	\$857
8"	\$1,071
10"	\$1,714
12"	\$1,928
14"	\$3,374

(1)Required when enclosing tube size differs from bowl tube size.

(2)Use greatly increases head loss. Refer to AE for specific amounts. Do not use 6" x 4" reducing bushing with 10A/B/D.

Bowl Size & Type	316SS Collets/ Stage	Wear Rings Per Stage						Impeller Per Stage (2)					Potable Wtr (3)	
		Bronze		316 SS		416 SS		Std Matl.	Cast Iron	Zn-less Bronze	Ld. Cast Bronze	316SS	First Stage Adder	Each Add'l
		Bowl	Imp (1)	Bowl	Imp	Bowl	Imp							
6DRELC/DRMC/RKLC/RKHC/EM/GM/GH	\$92	NA	NA	NA	NA	NA	NA	SS	\$299	\$353	\$163		\$408	\$136
7EM/CL/CM	\$92	NA	NA	NA	NA	NA	NA	SS	\$299	\$380	\$244		\$652	\$353
7CEH	\$92	NA	NA	NA	NA	NA	NA	SS	\$299	\$380	\$244		\$652	\$353
8URHC	\$162	STD	STD	\$757	\$757	\$649	\$649	BRZ	\$408	\$435		\$232	\$408	\$136
8RM/RH/RL/EM	\$162	STD	\$379	\$757	STD	\$649	\$649	SS	\$408	\$435	\$353		\$652	\$191
10RKLC/RKHC/RKEH/EM/TLC/THC	\$379	STD	\$379	\$757	STD	\$649	\$649	SS	\$408	\$489	\$597		\$652	\$191
11EM/EH	\$379	STD	\$433	\$919	STD	\$649	\$649	SS	\$408	\$652	\$597		\$652	\$191
12RKBL/RKBM/RKBH/RKBEH/TLC/THC/EM	\$379	STD	\$433	\$919	STD	\$649	\$649	SS	\$408	\$869	\$707		\$652	\$191
12RL/RM/RH	\$389	STD	\$433	\$919	STD	\$649	\$649	SS	\$408	\$869	\$707		RTF	RTF
12FHL/FHH	\$389	STD	STD	\$919	\$919	\$649	\$649	BRZ	\$516	\$869		RTF	\$652	\$191
12FHM/DEH	\$389	STD	\$433	\$919	STD	\$649	\$649	SS	\$516	\$869	\$707		\$761	\$272
13CL/CM/EH	\$379	STD	\$433	\$919	STD	\$649	\$649	SS	\$516	\$1,033	\$707		RTF	RTF
14RL	\$411	STD	STD	\$1,082	\$1,082	\$811	\$811	BRZ	\$516	\$1,033		RTF	\$761	\$272
14RM/RH/FHM/FHH	\$411	STD	\$514	\$1,082	STD	\$811	\$811	SS	\$516	\$1,033	\$1,902		RTF	RTF
14EM	\$411	STD	\$514	\$1,082	\$1,082	\$811	\$811	BRZ	\$516	\$1,033		RTF	\$761	\$272
15EH	\$389	STD	\$514	\$1,082	STD	\$811	\$811	SS	\$625	\$1,305	\$1,902		\$761	\$272
16GM	\$389	STD	\$514	\$1,082	STD	\$811	\$811	SS	\$625	\$1,685	\$2,937		\$761	\$272
17EM/EH	\$411	STD	\$514	\$1,082	STD	\$811	\$811	SS	\$652	\$1,685	\$2,937		\$761	\$272
18GM	\$411	STD	\$514	\$1,082	STD	\$811	\$811	SS	\$652	\$1,685	\$5,980		\$761	\$272
19GM/GH		STD	\$514	\$2,325	STD	\$1,622	\$1,622	SS	\$707	\$2,066	\$5,980		RTF	RTF
21EH		STD	STD	\$2,325	\$2,325	\$1,622	\$1,622	BRZ	RTF	RTF	RTF	RTF	RTF	RTF

Refer to factory for keyed impeller per stage for all types except 19A/B and 21H where it is standard. Keyway in bowl shaft reduces shaft HP rating. Refer to AE for amounts. Pumps with SS impellers as STD include a SS imp ring.

(1)If bronze impeller is standard, bronze wear ring is standard. NA on potable water applications.

(2)Price includes imp wear ring (8" & larger bowl) of same material as imp. Options will extend delivery 6 weeks.

(3)Includes all component metallurgies req. to meet Safe Drinking Water Act for potable water.(316SS impeller & ring)

Open Lineshaft (4)

Column Shaft Size		Threaded Column								Flanged Column					
		5' Section (1)		10' Section (3)				5' Section (5)		10' Section (3)					
		List	Wt	List	Wt	List	Wt	List	Wt	List	Wt	List	Wt		
4	1	\$595	77	\$812	145	\$1,136	154	\$2,272	97	\$2,597	165	\$4,275	194		
4	1¼	\$649	83	\$973	152	\$1,190	166	\$2,327	103	\$2,651	177	\$4,328	206		
6	1	\$947	126	\$1,136	234	\$1,840	253	\$2,543	156	\$2,976	170	\$5,572	313		
6	1¼	\$973	133	\$1,244	247	\$1,894	266	\$2,543	163	\$3,084	183	\$5,680	326		
6	1½	\$1,000	142	\$1,298	265	\$1,894	284	\$2,597	172	\$3,137	201	\$5,789	344		
6	1 11/16	\$1,082	153	\$1,407	324	\$2,056	345	\$2,705	183	\$3,246	260	\$5,897	405		
8	1	\$1,190	166	\$1,462	304	\$2,327	335	\$2,868	196	\$3,625	334	\$5,680	395		
8	1¼	\$1,190	173	\$1,515	317	\$2,380	347	\$2,921	203	\$3,678	347	\$5,789	407		
8	1½	\$1,244	182	\$1,570	355	\$2,435	366	\$2,976	212	\$3,733	365	\$5,897	426		
8	1 11/16	\$1,353	193	\$1,678	394	\$2,597	426	\$3,084	223	\$3,841	424	\$6,005	486		
8	1 15/16	\$1,515	205	\$1,894	402	\$2,813	438	\$3,300	235	\$4,003	412	\$6,167	474		
10	1	\$1,623	211	\$1,894	381	\$3,300	424	\$3,570	365	\$4,491	435	\$7,087	732		
10	1¼	\$1,623	217	\$1,948	393	\$3,354	436	\$3,625	371	\$4,491	447	\$7,087	744		
10	1½	\$1,678	226	\$1,948	411	\$3,354	455	\$3,625	380	\$4,544	465	\$7,196	763		
10	1 11/16	\$1,786	238	\$2,110	471	\$3,516	517	\$3,625	392	\$4,707	525	\$7,304	825		
10	1 15/16	\$1,894	250	\$2,219	459	\$3,570	508	\$3,894	404	\$4,869	513	\$7,465	812		
10	2 3/16	\$2,435	265	\$2,976	491	\$4,869	539	\$4,436	419	\$5,626	542	\$8,061	843		
12	1	\$2,219	291	\$2,543	524	\$4,599	582	\$4,328	374	\$5,950	607	\$8,763	748		
12	1¼	\$2,219	297	\$2,651	536	\$4,599	594	\$4,383	380	\$5,950	619	\$8,763	760		
12	1½	\$2,272	306	\$2,705	554	\$4,653	612	\$4,383	392	\$6,005	637	\$8,871	778		
12	1 11/16	\$2,327	318	\$2,759	614	\$4,815	674	\$4,436	401	\$6,113	697	\$8,926	840		
12	1 15/16	\$2,543	330	\$2,868	602	\$4,815	662	\$4,544	413	\$6,221	685	\$9,088	828		
12	2 3/16	\$2,976	345	\$3,625	631	\$6,113	693	\$5,140	428	\$6,654	714	\$9,576	859		
14*	1	\$3,786	355	\$4,275	642	\$7,736	695	\$5,464	491	\$6,383	778	\$10,009	967		
14*	1¼	\$3,894	361	\$4,328	654	\$7,736	706	\$5,572	497	\$6,438	790	\$10,009	978		
14*	1½	\$3,949	370	\$4,383	672	\$7,844	733	\$5,626	506	\$6,546	808	\$10,333	1005		
14*	1 11/16	\$4,003	382	\$4,491	732	\$7,844	794	\$5,680	518	\$6,707	868	\$10,549	1066		
14*	1 15/16	\$4,112	394	\$4,599	720	\$8,169	782	\$5,842	530	\$6,763	856	\$10,766	1054		
14*	2 3/16	\$4,599	409	\$5,356	749	\$9,034	814	\$6,005	545	\$7,465	885	\$11,306	1086		
14*	2 7/16	\$6,546	425	\$8,169	774	\$11,414	846	\$7,953	561	\$10,278	917	\$13,687	1118		
16	1½	NA	NA	NA	NA	NA	NA	\$7,736	562	\$9,738	1004	\$14,985	1121		
16	1 11/16	NA	NA	NA	NA	NA	NA	\$7,844	570	\$9,900	1021	\$15,202	1138		
16	1 15/16	NA	NA	NA	NA	NA	NA	\$8,006	585	\$8,926	1048	\$15,255	1165		
16	2 3/16	NA	NA	NA	NA	NA	NA	\$8,602	600	\$10,819	1077	\$16,716	1193		
16	2 7/16	NA	NA	NA	NA	NA	NA	\$10,549	615	\$13,632	1108	\$19,150	1225		
16	2 11/16	NA	NA	NA	NA	NA	NA	\$10,819	640	\$14,011	1150	\$19,907	1267		

(1)Standard column assembly includes one section of AWWA A53 Grade B column pipe threaded both ends w/ coupling, AISI 1045 carbon steel lineshaft, A108 Grade 12L14 carbon steel coupling, AISI 304 SS shaft sleeve, bronze B584 Alloy C83600 or 316 SS bearing retainer (factory choice) and neoprene bearing.

(2)Same as above with two each of column pipe, shaft sleeves, bearing retainers and bearings.

(3)Speeds above 2200rpm must have 5' bearing spacing and column length.

(4)Speeds above 2200rpm requires a steady bushing when using a VHS driver.

(5)Standard column assembly includes one section of AWWA A53 Grade B column pipe flanged at both ends, minimum steel grade 2 bolting, AISI 1045 carbon steel lineshaft, A108 grade 12L14 carbon steel coupling, AISI 304 SS shaft sleeve, bronze B584 Alloy C83600 or 316 SS bearing retainer (factory choice) and neoprene bearing.

(6)Same as above with two each of column pipe, shaft sleeves, bearing retainers and bearings.

*14" Threaded column will not be factory assembled.

Enclosed Lineshaft (1)

Column Shaft Size	Shaft Size(in)	Enclosing Tube Sz(in)	Threaded Column (2)						Flanged Column (3)			
			5' Section		10' Section		20' Section		5' Section		10' Section	
			List	Wt	List	Wt	List	Wt	List	Wt	List	Wt
4	1	1½	\$573	95	\$874	201	\$1,367	355	\$2,076	114	\$2,513	268
4	1¼	2	\$601	110	\$983	213	\$1,694	418	\$2,131	130	\$2,622	331
6	1	1½	\$820	142	\$1,092	289	\$1,748	526	\$2,240	171	\$2,786	366
6	1¼	2	\$874	158	\$1,256	301	\$2,131	589	\$2,294	188	\$2,949	429
6	1½	2½	\$901	182	\$1,421	349	\$2,568	685	\$2,403	212	\$3,168	525
6	1 11/16	2½	\$929	189	\$1,530	363	\$2,622	714	\$2,459	219	\$3,223	554
8	1	1½	\$929	181	\$1,367	358	\$2,076	652	\$2,568	211	\$3,332	435
8	1¼	2	\$1,147	197	\$1,530	370	\$2,459	715	\$2,622	227	\$3,495	498
8	1½	2½	\$1,421	221	\$1,748	418	\$2,895	811	\$2,731	251	\$3,660	594
8	1 11/16	2½	\$1,476	228	\$1,803	432	\$3,005	840	\$2,786	258	\$3,769	623
8	1 15/16	3	\$1,530	258	\$2,185	493	\$3,769	962	\$2,949	288	\$4,152	745
10	1	1½	\$1,476	223	\$1,803	432	\$2,568	791	\$3,005	399	\$4,098	533
10	1¼	2	\$1,530	239	\$1,967	444	\$2,949	854	\$3,059	393	\$4,152	596
10	1½	2½	\$1,639	263	\$2,185	492	\$3,005	950	\$3,168	417	\$4,425	692
10	1 11/16	2½	\$1,694	270	\$2,240	506	\$3,114	979	\$3,223	424	\$4,479	721
10	1 15/16	3	\$1,913	300	\$2,622	567	\$4,261	1,001	\$3,441	454	\$4,971	843
10	2 3/16	3	\$2,185	319	\$3,223	600	\$5,134	1,072	\$3,823	473	\$5,571	914
12	1	1½	\$1,639	300	\$2,294	572	\$3,332	1,057	\$3,605	383	\$5,244	702
12	1¼	2	\$1,694	316	\$2,349	584	\$3,714	1,120	\$3,660	399	\$5,299	765
12	1½	2½	\$1,803	344	\$2,622	632	\$3,769	1,216	\$3,823	423	\$4,479	861
12	1 11/16	2½	\$1,803	351	\$2,677	646	\$3,878	1,245	\$3,878	430	\$5,626	890
12	1 15/16	3	\$2,076	381	\$3,005	707	\$4,971	1,367	\$4,041	460	\$6,063	1012
12	2 3/16	3	\$2,513	400	\$3,878	740	\$5,899	1,438	\$4,479	479	\$6,336	1083
14*	1	1½	\$3,605	355	\$4,098	681	RTF	1,225	\$4,479	491	\$5,462	864
14*	1¼	2	\$3,660	371	\$4,261	703	RTF	1,288	\$4,588	507	\$5,736	927
14*	1½	2½	\$3,714	395	\$4,479	751	RTF	1,384	\$4,916	531	\$5,954	1023
14*	1 11/16	2½	\$3,769	402	\$4,534	765	RTF	1,419	\$4,971	538	\$5,954	1051
14*	1 15/16	3	\$3,823	432	\$4,862	826	RTF	1,541	\$5,080	568	\$6,336	1173
14*	2 3/16	3	\$4,207	451	\$5,408	859	RTF	1,612	\$5,190	587	\$6,609	1244
14*	2 7/16	5	\$6,282	479	\$8,357	915	RTF	RTF	\$7,210	615	\$9,560	1300
16	1½	2½	NA	NA	NA	NA	NA	NA	\$6,063	631	\$6,992	1223
16	1 11/16	2½	NA	NA	NA	NA	NA	NA	\$6,172	638	\$7,265	1251
16	1 15/16	3	NA	NA	NA	NA	NA	NA	\$6,391	668	\$7,702	1373
16	2 3/16	3	NA	NA	NA	NA	NA	NA	\$6,445	687	\$8,030	1444
16	2 7/16	5	NA	NA	NA	NA	NA	NA	\$8,521	705	\$10,979	1515
16	2 11/16	5	NA	NA	NA	NA	NA	NA	\$8,739	730	\$12,454	1557

(1)Speeds above 2200rpm requires a steady bushing when using a VHS driver.

(2)Standard column assembly includes one section of AWWA A53 Grade B column pipe threaded both ends w/ coupling, AISI 1045 carbon steel lineshaft, A108 Grade 12L14 carbon steel coupling, 5' lengths of AWWA A53 grade B enclosing tubes, bronze B505 Alloy C93200 bearings and tube stabilizers as required. For water flush applications, add for 416 SS lineshaft and couplings.

(3)Standard column assembly includes one section of AWWA A53 Grade B column pipe flanged at both ends, minimum steel grade 2 bolting, AISI 1045 carbon steel lineshaft, A108 grade 12L14 carbon steel coupling, 5' lengths of AWWA A53 grade B enclosing tubes, bronze B505 Alloy C93200 bearings and tube stabilizers as required. For water flush applications, add for 416 SS lineshaft and couplings.

*14" Threaded column will not be factory assembled.

4" - 16" Column Assembly Options

Line Shaft Size (in)	Lineshaft & Coupling				Open Lineshaft Bearings			Coupling Only	
	416 SS (1)		316 SS (1)		Zincless				
	5' Sect	10' Sect	5' Sect	10' Sect	Bronze	Bronze	Carb.(2)	416SS	316SS
1	\$356	\$459	\$838	\$1,028	\$830	\$937	\$402	\$55	\$164
1¼	\$568	\$703	\$1,244	\$1,570	\$857	\$1,044	\$482	\$55	\$164
1½	\$784	\$973	\$1,731	\$2,164	\$937	\$1,178	\$509	\$82	\$192
1 11/16	\$1,028	\$1,244	\$2,164	\$2,705	\$1,018	\$1,393	\$589	\$137	\$437
1 15/16	\$1,353	\$1,623	\$2,759	\$3,408	\$1,125	\$1,607	\$616	\$218	\$491
2 3/16	\$1,678	\$1,894	\$3,516	\$4,275	\$1,232	\$1,767	\$750	\$218	\$600
2 7/16	\$1,786	\$2,380	\$3,786	\$4,653	\$1,393	\$2,089	RTF	\$546	\$820
2 11/16	\$1,840	\$2,868	\$4,275	\$6,491	\$1,446	\$2,250	RTF	\$929	\$2,076

Column Size	Heavy Wall Adder			Tapered Flange Adder(3)	316 SS Flange Bolts	Bearing Retainer		
	Price per Foot					Cast Iron	Zincless Bronze	Duct Iron
	Std	Opt	List					
4	Sch 40	NA	NA	NA	\$134	\$134	\$375	\$803
6	Sch 40	NA	NA	\$4,928	\$161	\$161	\$482	\$964
8	Sch 30	Sch 40	\$134	\$5,195	\$187	\$214	\$589	\$1,125
10	0.279	Sch 40	\$161	\$5,517	\$268	\$295	\$696	\$1,339
12	0.375	Sch 40	\$161	\$5,945	\$482	\$375	\$911	\$1,714
14	Sch 30	Sch 40	\$187	\$6,267	\$482	\$402	\$1,018	\$1,982
16	Sch 30	Sch 40	\$187	\$6,534	\$643	\$482	RTF	RTF

- (1)416 SS lineshaft and coupling required for enclosed lineshaft, water flushed arrangement.
- (2)Limit bearing spacing to every 5', options will extend delivery 6 weeks.
- (3)Price based upon larger end of tapered section and includes a 3' to 5' length of column.

Cast Iron Discharge Heads - no can, includes shaft sealing assembly (4)

Head	Threaded Column Only				Threaded or Flanged Column					Sole Plate				
	Lineshaft		250#		Lineshaft		250#		Size	Cast Iron		Fab. Steel		
	Open	Encl.	Flg (5)	Wt	Open	Encl.	Flg (5)	Wt		List	Wt	List	Wt	
12x4 LADC	\$2,568	\$3,387	\$796	325						20x20	\$730	47	\$2,327	115
16½x6 SDC	\$3,442	\$4,316	NA	432	16½x6 LAD	\$3,988	\$4,863	\$1,059	487	24x24	\$812	83	\$2,976	164
16½x8 SDC	\$4,097	\$4,698	NA	456	16½x8 LAD	\$4,643	\$7,375	\$1,240	544	24x24	\$812	83	\$2,976	164
16½x10 SDC	\$4,425	\$5,299	NA	499	20x10 LAD*	\$6,174	\$7,102	\$1,700	682	24x24	\$812	83	\$2,976	164
20x12 SDC*	\$6,829	\$7,813	NA	657						29x29	\$1,190	129	\$3,625	205
					20x12 LV*	\$11,363	\$12,401	NA	1,015	29x29	\$1,190	129	\$3,625	205
					24½x14 LV*	\$12,838	\$13,221	NA	1,660	35x35	\$2,435	162	\$4,328	311
					2pc Head Shaft (6)									
					20x12 LV*	\$2,841								
					24½x14 LV*	\$3,606								

- (4)Open lineshaft price includes 175 psi stuffing box and 416 SS top shaft without sleeve. Enclosed lineshaft includes tube tension assemble for oil lubricated or water flush design. Oil lubricated construction in no recommended for short set or high pressure applications. One gallon solenoid oiler is included for oil lubricated applications. Top column flange gasket, oring and hardware are included. All heads employ two piece top shaft except the H heads when using a VHS driver. When using a VSS driver, add for a flanged adjustable coupling and a high ring base. Cast iron discharge heads are not suitable for variable speed operation when using a motor high ring base.
- (5)Adder includes a 400# stuffing box. Refer to factory for applications with working pressures above 400 psi.
- (6)Price includes driver stand with guard, threaded shaft coupling and hardware.

Cast Iron Discharge Heads - canned pumps (1)

Suction Can Assembly for Cast Iron Heads

Threaded Column Only

Threaded or Flanged Column

O-ring Can Connection

O-ring Can Connection (2)

Head	Min Flange				Min Flange				Can First 5' Sec (3)		Max-30'		Avail. Suction			
	Can	125#	250#	Wt	Can	125#	250#	Wt	Size	List	Wt	Ea Add'l Ft	Wt	Inlet Flange	Wt	
12x4 LADC	12	\$3,438	\$4,397	325					12"	\$8,861	489	\$788	50	6,8,10	45	
16½x6 SDC	12	\$4,792	NA	432	16½x6 LAD	18	\$5,180	\$6,319	422	14"	\$10,147	551	\$846	55	8,10	62
16½x8 SDC	12	\$5,412	NA	456	16½x8 LAD	18	\$5,977	\$7,342	476	16"	\$15,430	643	\$958	63	10,12,14	90
16½x10 SDC	14	\$5,862	NA	499	20x10 LAD*	18	\$7,570	\$8,936	532	18"	\$18,004	780	\$1,099	71	12,14,16	117
20x12 SDC*	24	\$8,400	NA	657						20"	\$20,351	837	\$1,297	79	14,16,18	130
										24"	\$22,301	966	\$1,482	95	16,18,20	150
										30"	\$27,791	1,803	\$1,771	158	16,18,20,24	185

* Add \$900 list for a motor adapter if 10" or 12" BD motor is used with these heads.

(1)Open lineshaft price includes 175 psi stuffing box and 416 SS top shaft without sleeve. Enclosed lineshaft includes tube tension assembly for oil lubricated or water flush design. Oil lubricated construction is not recommended for short set or high pressure applications. One gallon solenoid oiler is included for oil lubricated applications. Top column flange gasket, oring and hardware are included. All heads employ two piece top shaft except the H heads when using a VHS driver. When using a VSS driver, add for a flanged adjustable coupling and a high ring base. Cast iron discharge heads are not suitable for variable speed operation when using a motor high ring base.

(2)Standard D heads may be used on can sizes 18" and larger.

(3)Includes suction inlet flange, flow straightening vanes, non-witness hydrostatic test. Suction pot pressure rating 40 psi.

Fabricated Steel Discharge Heads - includes shaft seal assembly (10)

Size	Above Ground (5)					Below Ground (6)					300# Flg w/ 400psi st. box	Variable Speed (7) or Non -NEMA Motor	Encl. Shaft Adder (8)
	LS		FSC			BB		UF					
	SP	Wt	List	Wt	List	SP	Wt	List	Wt	List			
12x4	A	313	\$9,269	NA	NA	F	406	\$11,599	NA	NA	\$933	\$1,368	\$815
12x6	A	324	\$9,431	NA	NA	G	464	\$12,141	NA	NA	\$1,098	\$1,368	\$815
16½x6	A	341	\$10,733	NA	NA	G	574	\$13,009	NA	NA	\$1,098	\$1,477	\$815
12x8	B	342	\$9,756	370	\$11,166	G	550	\$14,309	576	\$15,703	\$1,318	\$1,368	\$815
16½x8	B	366	\$11,057	420	\$13,225	G	660	\$15,177	686	\$16,580	\$1,318	\$1,477	\$815
20x8	B	426	\$11,924	NA	NA	NA	NA	NA	NA	NA	\$1,318	\$1,916	\$815
12x10	B	448	\$11,383	486	\$11,924	H	754	\$16,694	780	\$19,106	\$1,757	\$1,368	\$870
16½x10	B	457	\$13,551	492	\$14,526	H	864	\$20,271	890	\$22,729	\$1,757	\$1,477	\$870
20x10	B	518	\$14,743	557	\$15,719	H	939	\$21,573	964	\$26,134	\$1,757	\$1,916	\$870
12x12	B	551	\$13,117	605	\$13,551	J	815	\$19,839	845	\$20,644	\$1,866	\$1,368	\$1,032
16½x12	B	617	\$14,201	671	\$14,526	J	925	\$21,139	955	\$21,852	\$1,866	\$1,477	\$1,032
20x12	B	678	\$15,827	732	\$16,261	J	1,000	\$22,331	1,030	\$23,169	\$1,866	\$1,916	\$1,032
12x14	C	706	\$14,201	786	\$14,526	K	980	\$22,007	1,015	\$23,059	\$2,251	\$1,368	\$1,032
16½x14	C	754	\$15,611	834	\$16,044	K	1,090	\$23,199	1,125	\$23,717	\$2,251	\$1,477	\$1,032
20x14	C	791	\$16,911	871	\$17,237	K	1,165	\$24,283	1,200	\$23,937	\$2,251	\$1,916	\$1,032
24½x14	C	855	\$18,212	934	\$19,839	K	1,370	\$27,101	1,405	\$28,769	\$2,251	\$2,134	\$1,032
12x16	D	895	\$14,418	992	\$14,743	L	1,128	\$21,247	1,181	\$23,498	\$2,745	\$1,368	\$1,142
16½x16	D	902	\$16,044	1000	\$16,369	L	1,238	\$23,742	1,291	\$26,023	\$2,745	\$1,477	\$1,142
20x16	D	1,006	\$18,645	1103	\$19,839	L	1,313	\$30,028	1,366	\$32,611	\$2,745	\$2,025	\$1,142
24½x16	D	1,088	\$20,163	1185	\$24,825	L	1,518	\$30,353	1,571	\$32,832	\$2,745	\$2,134	\$1,142

Fab Steel Sole Plate			
Above Ground Heads			
SP	Size	Price	Wgt
A	27 x 27	\$3,472	82
B	31 x 31	\$3,744	93
C	34 x 34	\$4,014	112
D	36 x 36	\$4,341	131
Below Ground Heads			
F	18 x 23	\$2,767	185
G	21 x 33	\$3,147	270
H	23 x 35	\$3,418	270
J	26 x 40	\$3,689	310
K	29 x 43	\$4,991	340
L	32 x 48	\$5,859	434

High Ring Base (Driver Stand)(9)		
Cast Iron		
Size	Price	Wgt
10 x 10 x 9	\$911	45
12 x 12 x 9	\$1,232	50
16 x 16 x 12	\$1,500	95
Fabricated Steel		
12 x 16 x 12	\$2,954	115
20 x 20 x 12	\$3,438	180
24 x 24 x 12	\$4,136	275

(5)Includes 175 psi stuffing box, 316 SS coupling guard, 416 SS top shaft without sleeve, top column flange, gasket, and hardware where applicable. Two piece top shaft is standard on all heads.

(6)Includes driver pedestal, 175 psi stuffing box, 316 SS coupling guard, 416 SS top shaft without sleeve and 5' discharge elbow and lineshaft. When discharge CL is more than 5' below pedestal, column between discharge elbow and pedestal must be flanged.

(7)Factory choice of quadraped or double barrel design. 8. Req. when Non-NEMA frame motors are used with these heads.

(8) W/ tube tension ass'y for oil- lube(not shortset/high press apps) or water flush design, top column gasket and hardware.

(9) Required when a VSS driver is used with a Cast Iron Discharge Head.

(10) Discharge head designs/dimensions are based on the standard catalog dimensions for the fabricated discharge heads. Any discharge head that requires design/dimensions different from the published data will require Application Engineering review for cost and lead time.

Fabricated Steel Discharge Heads - canned pumps (F)

Head Type (A)

Size	Can Size (B)	L		F		T (C)			300# Flange (D)	Variable Speed (B)	Non-Nema Motor (E)
		Wt	List	Wt	List	Inlet Sizes	Wt	List			
12x4	12	475	\$8,727	NA	NA	6	538	\$14,634	\$894	\$1,355	\$1,355
12x4	14	497	\$8,781	NA	NA	6	560	\$14,743	\$894	\$1,355	\$1,355
16½x4	12	515	\$9,052	NA	NA	6	578	\$14,961	\$894	\$1,464	\$1,464
16½x4	14	537	\$9,160	NA	NA	6	600	\$15,069	\$894	\$1,464	\$1,464
12x6	12	490	\$9,160	NA	NA	8	546	\$15,393	\$1,084	\$1,355	\$1,355
12x6	14	507	\$9,214	NA	NA	8	568	\$15,503	\$1,084	\$1,355	\$1,355
12x6	16	535	\$9,377	NA	NA	8,10	599	\$15,719	\$1,084	\$1,355	\$1,355
16½x6	12	522	\$9,485	NA	NA	8	586	\$17,129	\$1,084	\$1,464	\$1,464
16½x6	14	547	\$9,593	NA	NA	8	608	\$18,754	\$1,084	\$1,464	\$1,464
16½x6	16	575	\$9,702	NA	NA	8,10	639	\$18,862	\$1,084	\$1,464	\$1,464
12x8	16	502	\$10,570	370	\$12,141	10	577	\$19,405	\$1,274	\$1,355	\$1,355
16½x8	16	532	\$10,949	420	\$14,418	10	737	\$19,730	\$1,274	\$1,464	\$1,464
16½x8	18	557	\$11,057	442	\$14,634	10,12	792	\$19,839	\$1,274	\$1,464	\$1,464
16½x8	20	605	\$11,166	465	\$14,961	10,12	840	\$20,055	\$1,274	\$1,464	\$1,464
20x8	16	542	\$11,274	NA	NA	10	752	\$20,055	\$1,274	\$1,897	\$1,897
20x8	18	567	\$11,274	NA	NA	10,12	807	\$21,031	\$1,274	\$1,897	\$1,897
20x8	20	615	\$11,274	NA	NA	10,12	855	\$21,139	\$1,274	\$1,897	\$1,897
12x10	16	NA	NA	486	\$13,009	NA	NA	NA	\$1,735	\$1,897	\$1,897
16½x10	18	563	\$11,816	492	\$15,827	12	837	\$20,813	\$1,735	\$1,464	\$1,464
16½x10	20	611	\$11,924	520	\$16,152	12,14	882	\$20,922	\$1,735	\$1,464	\$1,464
16½x10	24	696	\$12,141	547	\$16,477	12,14	967	\$22,115	\$1,735	\$1,464	\$1,464
20x10	18	595	\$12,032	557	\$17,129	12	842	\$21,573	\$1,735	\$1,897	\$1,897
20x10	20	643	\$12,087	586	\$17,453	12,14	887	\$21,790	\$1,735	\$1,897	\$1,897
20x10	24	728	\$12,250	617	\$17,779	12,14	972	\$22,873	\$1,735	\$1,897	\$1,897
24½x10	24	802	\$12,901	NA	NA	12,14	1082	\$22,873	\$1,735	\$2,114	\$2,114
16½x12	20	664	\$13,009	671	\$15,827	14	908	\$22,873	\$1,843	\$1,464	\$1,464
16½x12	24	749	\$13,117	706	\$16,152	14,16	993	\$23,091	\$1,843	\$1,464	\$1,464
16½x12	30	871	\$14,201	743	\$16,477	16,20	1115	\$24,066	\$1,843	\$1,464	\$1,464
20x12	20	696	\$13,009	732	\$17,671	14	923	\$24,066	\$1,843	\$1,897	\$1,897
20x12	24	791	\$13,334	771	\$17,995	14,16	1008	\$24,283	\$1,843	\$1,897	\$1,897
20x12	30	930	\$14,309	812	\$18,321	16,20	1130	\$25,259	\$1,843	\$1,897	\$1,897
24½x12	24	856	\$14,092	NA	NA	14,16	1036	\$26,234	\$1,843	\$2,114	\$2,114
24½x12	30	995	\$15,069	NA	NA	14,16,20	1240	\$27,751	\$1,843	\$2,114	\$2,114
16½x14	24	1271	\$14,526	834	\$17,345	16	2279	\$29,053	\$2,276	\$1,464	\$1,464
16½x14	30	1478	\$15,611	878	\$17,779	16,20,24	2483	\$30,028	\$2,276	\$1,464	\$1,464
16½x14	36	1718	\$17,453	924	\$18,103	16,20,24	2723	\$31,004	\$2,276	\$1,464	\$1,464
20x14	24	1303	\$14,634	871	\$18,754	16	2286	\$29,161	\$2,276	\$1,897	\$1,897
20x14	30	1510	\$15,719	917	\$19,079	16,20,24	2490	\$30,137	\$2,276	\$1,897	\$1,897
20x14	36	1750	\$17,562	965	\$19,513	16,20,24	2730	\$31,221	\$2,276	\$1,897	\$1,897
24½x14	30	1575	\$19,513	934	\$21,682	16,20,24	2600	\$30,137	\$2,276	\$2,114	\$2,114
24½x14	36	1815	\$21,139	983	\$22,765	16,20,24	2840	\$31,221	\$2,276	\$2,114	\$2,114
16½x16	30	1618	\$24,933	1000	\$17,779	20,24	2615	\$32,629	\$2,710	\$1,464	\$1,464
16½x16	36	1802	\$26,560	1053	\$18,212	20,24,30	2755	\$34,364	\$2,710	\$1,464	\$1,464
20x16	30	1650	\$25,041	1103	\$21,573	20,24	2622	\$33,822	\$2,710	\$1,897	\$1,897
20x16	36	1840	\$26,668	1161	\$22,007	20,24,30	2762	\$35,448	\$2,710	\$1,897	\$1,897
24½x16	30	1715	\$25,800	1185	\$26,993	20,24	2722	\$33,822	\$2,710	\$2,114	\$2,114
24½x16	36	1955	\$26,560	1247	\$27,535	20,24,30	2872	\$35,448	\$2,710	\$2,114	\$2,114

see notes next page

Fabricated Steel Discharge Heads - canned pumps

(A)Price includes: 175 psi stuffing box, 316 stainless steel coupling guard, 416 stainless steel top shaft without sleeve, top column flange gasket and hardware.

(B)Quadrapped or double barrel design. Manufacturer's option.

(C)T heads accept flanged column only.

(D)Price includes 400# stuffing box. RTF for applications with working pressures above 400 psi.

(E)Required when non-NEMA frame motors are used with these discharge heads.

(F) Discharge head designs/dimensions are based on the standard catalog dimensions for the fabricated discharge heads.

Any discharge head that requires design/dimensions different from the published data will require Application Engineering review for cost and lead time.

Suction Can Assembly (Suction can pressure rating is 150 psi for "L" head with inlet flange. RTF for higher pressure ratings.

Can Size	"L" Head		Suction Inlet Size	"T" Head		"L" & "T" Head		Suction can includes flow straightening vanes and non-witness hydrostatic test.)
	First 5' Sec			First 5' Sec		Ea Add'l Ft (max 30')		
	List	Wt		List	Wt	List	Wt	
12"	\$8,419	455	8,10	\$8,784	348	\$750	50	
14"	\$9,641	532	8,10	\$8,950	484	\$803	55	
16"	\$14,661	650	10,12	\$9,989	587	\$911	63	
18"	\$17,107	812	12,14	\$11,591	731	\$1,044	71	
20"	\$19,335	1280	12,14,16	\$12,871	1152	\$1,232	79	
24"	\$21,188	1443	12,14,16	\$16,625	1299	\$1,409	95	
30"	\$26,405	1885	16,18,20,24	\$21,826	1697	\$1,682	158	
36"	RTF	2620	20,24,30	RTF	2358	RTF	190	

Optional Shaft Sealing Assembly

Shaft Size	Open Lineshaft Adders		Bronze Split Glands	Stuffing Box Bushing		Drive Shaft	
	Stuffing Box			Carbon	Zinless Bronze	416 SS	316 SS
	175# w/bypass	Top Shaft Sleeve (1)					
1"	\$435	\$275	\$32	\$439	\$439	\$246	\$384
1¼"	\$466	\$302	\$66	\$494	\$439	\$330	\$494
1½"	\$521	\$330	\$82	\$549	\$439	\$330	\$549
1 11/16"	\$603	\$384	\$110	\$603	\$439	\$384	\$934
1 15/16"	\$713	\$466	\$137	\$685	\$521	\$384	\$1,208
2 3/16"	\$713	\$549	\$164	\$823	\$603	\$713	\$2,031
2 7/16"	\$878	\$631	\$164	\$934	\$658	\$713	\$2,360
2 11/16"	\$1,098	\$713	\$192	\$989	\$713	\$878	\$2,746

Mechanical Seal (Flanged adjustable spacer coupling is recommended w/cartridge type mechanical seal and VSS motor.

Shaft Size	Chesterton		John Crane		Flowserve		Top Shaft Sleeve (3)
	155	442 (2)	5610	3740	ISC2	PSS III	
	Maximum Pressure Rating						
	400 psi	300 psi	300 psi	200 psi	300 psi	450 psi	
1"	\$5,270	RTF	\$4,776	NA	\$4,831	RTF	\$685
1¼"	\$5,325	\$6,532	\$4,831	NA	\$4,886	RTF	\$769
1½"	\$5,434	\$6,587	\$4,886	\$6,147	\$4,941	\$6,478	\$851
1 11/16"	\$5,489	\$6,642	\$4,941	\$6,203	\$4,995	\$6,532	\$961
1 15/16"	\$5,544	\$6,698	\$4,995	\$6,258	\$4,995	\$6,587	\$1,071
2 3/16"	\$5,653	\$6,752	\$5,050	\$6,312	\$5,050	\$6,642	\$1,153
2 7/16"	\$5,819	\$6,862	\$5,105	\$6,367	\$5,105	\$6,698	\$1,263
2 11/16"	RTF	RTF	RTF	RTF	RTF	RTF	RTF

A steady bushing is required on VHS motors. Top column length max is 5'. Driver stand recommended with VHS motor for ease of seal installation and removal.)

(1)Price includes a 304SS top shaft sleeve and larger stuffing box (175#, 175# w/bypass, 400# boxes).

(2)Maximum pressure rating is 100 psi with standard carbon vs. ceramic faces for > 1770 rpm motors.

(3)Price includes a 304SS top shaft sleeve, larger mechanical seal and seal box.

Flanged Adjustable Coupling
Max Horsepower

Maximum Shaft Dia	Thrust Capacity (lbs)	Wt	3500 RPM			Non-Spacer	Precision (API)*	4 7/16" Spacer	Precision (API)
			1770 RPM	1160 RPM					
1½	4500	15	95	47	31	\$1,607	\$2,250	\$2,089	\$2,946
1½	11000	25	284	140	92	\$1,875	\$2,624	\$2,517	\$3,481
2½	31000	40	635	316	207	\$2,357	\$3,321	\$3,160	\$4,445
2½	31000	65	NA	598	392	\$2,946	\$4,124	\$4,017	\$5,624
2½	31000	80	NA	785	515	\$3,535	\$4,928	\$4,981	\$7,016
3½	41000	110	NA	1008	661	\$7,713	\$10,712	\$9,427	\$13,176
3½	73000	150	NA	1929	1264	\$9,909	\$13,926	\$12,962	\$18,210

* Includes bored/keyed motor and pump hub with split ring, set screw and threaded nut. See adder for precision coupling (API tolerances). Precision couplings are required when using a mechanical seal or operating above 1800 rpm.

Factory Testing - Bowl Assembly (1)

Bowl Size	Performance Test			Hydrostatic Test		Curve Approval per pump	Certified Test Logs per pump
	Non-Witnessed	Witness by Mfg PE	Witness by Customer (2)	Non-Witnessed	Witnessed		
6,7,8	\$3,401	\$5,195	\$5,517	\$723	\$1,178	\$428	\$428
10,11,12	\$3,401	\$5,195	\$5,517	\$723	\$1,178	\$428	\$428
13,14,15	\$3,401	\$5,195	\$5,517	\$911	\$1,446	\$428	\$428
16,17,18	\$4,901	\$7,445	\$7,820	\$1,071	\$1,714	\$428	\$428
19,20,21	\$4,901	\$7,445	\$7,820	\$1,285	\$1,982	\$428	\$428

(1)RTF for complete pump testing (subject to OAL limitations), test with job driver and multi-speed tests with factory VFD or job VFD.

(2)Fairbanks Nijhuis not liable for costs with outside PE's (if used), witness travel expenses or living accommodations.

Factory Hydrostatic Testing-Column, Head and Suction Can

Column Size (3)	Certified		Discharge Head	Certified		Suction Can	Witnessed
	Non-Witness	Witness		Non-Witness	Witness		
4"	\$428	\$536	4"	\$402	\$509	12"	\$643
6"	\$428	\$536	6"	\$509	\$643	14"	\$643
8"	\$428	\$536	8"	\$643	\$830	16"	\$803
10"	\$428	\$536	10"	\$696	\$911	18"	\$857
12"	\$536	\$643	12"	\$696	\$911	20"	\$857
14"	\$536	\$643	14"	\$696	\$911	24"	\$911
16"	\$536	\$643	16"	\$750	\$964	30"	\$964
(3)Price per section						36"	\$1,071

Shipping Assembled Pumps (4)

Column Size (5)	Open Lineshaft				Enclosed Lineshaft			
	2 Sections	3 Sections	4 Sections	5 Sections	2 Sections	3 Sections	4 Sections	5 Sections
4" to 10"	\$455	\$911	\$1,339	\$1,821	\$803	\$1,553	\$2,303	\$3,106
12" to 16"	\$536	\$1,071	\$1,553	\$2,089	\$911	\$1,821	\$2,732	\$3,642

(4)Short set turbine pumps with one section of column will be shipped as an assembled unit, less the following components: Drivers (will not be mounted and will be shipped direct from vendor), external accessories such as oilers, air release valves, flanged adjustable couplings, mechanical seals, etc and strainers.

The above is in accordance with good shipping practice and is to prevent damage to the pump or components while in transit. For units under forty feet (includes discharge head) in overall length, the list price for assembling pumps can be determined from the above table.

(5)Pumps with 14" threaded column will not be shipped assembled.

Standard Pump Coating

Exterior of Discharge Head and Sole Plate - One coat of industrial air dry alkyd enamel, Pentair blue.

Exterior of Column/Bowl Assembly/Interior of Suction Pot - one coat of Tnemec N140 with a dry film thickness of 3 to 5 mils, black.

Optional Bowl Coatings (1)

Type	Area Coated	6" - 8"		10" - 12"		13"-15"		16" - 19"		20" - 21"	
		First Stage	Each Add'l								
Tnemec 20 N140 66 69 104	Exterior	\$321	\$54	\$375	\$134	\$455	\$161	\$482	\$161	\$589	\$214
Bitumastic 300M	Exterior	\$348	\$54	\$428	\$161	\$509	\$187	\$589	\$187	\$696	\$241
Plasite 7133	Exterior	\$321	\$54	\$402	\$134	\$445	\$161	\$536	\$187	\$643	\$214
Scotchkote 134 (2)	Interior	NA	NA	\$1,285	\$536	\$2,089	\$670	\$2,464	\$803	\$2,999	\$1,178
Scotchkote 134 (2)	Exterior	\$643	\$268	\$857	\$428	\$1,125	\$562	\$1,500	\$750	\$1,821	\$911
Scotchkote 134 (2)	Int/Ext	NA	NA	\$1,767	\$750	\$2,357	\$937	\$3,481	\$1,125	\$3,749	\$1,285

Optional Column and Suction Can Coatings (1)(3)

Interior OR Exterior

Pipe Coating - Price Per Foot

Coating	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"
Tnemec 20 N140 66 69 104	\$54	\$54	\$54	\$64	\$85	\$85	\$97	\$107	\$129	\$139	\$161	\$214
Bitumastic 300M	\$64	\$64	\$64	\$86	\$98	\$108	\$108	\$130	\$152	\$184	\$206	\$249
Plasite 7133	\$64	\$64	\$64	\$76	\$86	\$98	\$108	\$119	\$140	\$152	\$184	\$206
Scotchkote 134 (2)	\$241	\$243	\$297	\$352	\$406	\$460	\$514	\$568	\$676	\$865	\$973	\$973

Interior AND Exterior

Tnemec 20 N140 66 69 104	\$64	\$75	\$85	\$97	\$107	\$117	\$129	\$150	\$161	\$193	\$236	\$278
Bitumastic 300M	\$75	\$85	\$97	\$107	\$117	\$139	\$161	\$182	\$204	\$236	\$289	\$343
Plasite 7133	\$75	\$85	\$85	\$97	\$107	\$129	\$139	\$161	\$182	\$204	\$246	\$278
Scotchkote 134 (2)	\$348	\$428	\$509	\$589	\$696	\$750	\$857	\$1,018	\$1,285	\$1,500	\$1,232	\$1,500

(1)Price per coat. Determine number of coats required for the application in coating description section.

(2)Scotchkote pricing is per stage. Interior coating of 4" and 6" column is limited to 5' maximum lengths. Add for 316 stainless steel bowl bolting when coating the exterior.

(3)Prices apply to components 10' long or less. RTF when coating components exceeding 10' long.

Optional Enclosing Tube Coatings (price per coat)

Type	Coated 1½" - 3½"		Type	Coated 1½" - 3½"	
Tnemec 20 N140 66 N69 104	Exterior	\$75	Plasite 7133	Exterior	\$75
Bitumastic 300M	Exterior	\$54	Scotchkote 134W (2)	Exterior	\$107

Optional Discharge Head Coatings (price per coat, interior or exterior)

Type	4"	6"	8"	10"	12"	14"	16"	RTF for pricing on 18"- 36".
Tnemec 20 N140 66 N69 104	\$567	\$643	\$723	\$803	\$830	\$911	\$937	
Bitumastic 300M	\$618	\$696	\$750	\$830	\$911	\$937	\$1,018	
Plasite 7133	\$618	\$696	\$750	\$830	\$911	\$937	\$1,018	
Scotchkote 134W*	\$1,133	\$1,339	\$1,446	\$1,607	\$1,714	\$1,821	\$1,928	

Interior AND Exterior

Tnemec 20 N140 66 N69 104	\$644	\$750	\$830	\$911	\$964	\$1,018	\$1,071
Bitumastic 300M	\$695	\$803	\$884	\$964	\$1,018	\$1,071	\$1,178
Plasite 7133	\$695	\$803	\$884	\$964	\$1,018	\$1,071	\$1,178
Scotchkote 134W*	\$1,313	\$1,553	\$1,660	\$1,821	\$1,982	\$2,089	\$2,196

* Coating is NSF/ANSI Standard 61 certified.

Coating Descriptions

Tnemec 20 Pota-Pox White-Polymide Epoxy for submerged/non-submerged surfaces in contact w/ potable water. Certified by NSF International in accordance with ANSI/NSF Std 61 requires 2 coats resulting in 7-10 mils total DFT. Conforms to AWWA D 102 Inside Systems No 1 & 2 DFT: Primer 3-5 mils/Intermediate or Finish 4-6 mils.

Tnemec N140 Pota-Pox Plus Black-Polymidoamine Epoxy. Primer 3-5 mils/Intermediate or Finish 4-6 mils.

Tnemec 66 Hi-Build Epoxoline-1211 Red-Polymide Epoxy for submerged/non-submerged surfaces in industrial applications. Conforms to AWWA C 210 (not for potable water contact). DFT: Primer 3-5 mils/Intermediate or Finish 4-6 mils.

Tnemec N69 Hi-Build Epoxoline Black-Polyamidoamine Epoxy for submerged/non-submerged surfaces. Conforms to AWWA D 102 Inside Systems No 1 & 2 (not for potable water contact). DFT: Primer 3-5 mils/Intermediate or Finish 4-6 mils.

Tnemec 104 High Solids-1211 Red-Cycloaliphatic Amine Epoxy for submerged and non-submerged surfaces in contact w/salt spray and chemical exposures w/superior abrasion and stain-resistance. Conforms to AWWA C 210 (not potable water contact). DFT: 8 mils minimum per coat.

Kop-Coat Bitumastic 300-M Black-Polyamide Epoxy Coal Tar providing high build corrosion resistance for chemical, immersion and underground conditions. Conforms to AWWA C 210-84 (not for potable water contact). DFT (1 or 2 coat system) 8-10 mils first coat, 8-10 mils second coat for a max of 16-20 mils total.

Plasite 7133 White-Combination epoxy and polyamide resin designed as high chemical resistant, non-toxic, odorless coating for food and beverage industry. Meets requirements of the US Food and Drug Administration, 21 CFR 175.300, US Department of Agriculture and US Environmental Protection Agency. DFT: 4 mils per coat.

Scotchkote 134W Forest Green-One part heat curable, semi rigid, amine-cured, thermosetting powdered epoxy coating for maximum corrosion protection. Certified by NSF International in accordance with ANSI/NSF Std 61. Power Spray applied with a minimum of 10 mils prior to heat curing resulting in 8-10 mils DFT. RTF for more than 8-10 mils DFT.

Submittals/Operation & Maintenance Manuals/Engineering Calculations

Type	Qty	List	Each Add'l Copy
Level 1 Certified Curve, Setting Plan and Motor Data - Electronic (emailed pdf) (1)	1	N/C	
Level 2 Certified Complete Submittal - Electronic (emailed pdf) (2)	1	\$214	
Level 2 Certified Complete Submittal - Hard / Paper Copy (2)	6	\$375	\$107
Level 3 Certified Special submittals - Electronic (emailed pdf) (3)	1	\$375	
Level 3 Certified Special submittals - Hard / Paper Copy (3)	6	\$589	\$161
Adder As-Built - O&Ms - Electronic (emailed pdf) (4)	1	\$428	
Adder As-Built - O&Ms Hard / Paper Copy (4)	6	\$750	\$536
Adder for USB Copy (5)	1	\$161	\$161
Adder Check-the-Spec submittals (6)	1	\$857	\$107
Adder Certificate of Spec Compliance (7)	1	RTF	RTF
Adder Seismic Calculations (8)	1	\$1,393	
Adder Seismic Calculations Can Pump (8)	1	\$2,946	
Adder Seismic Calculations Pump with High Ring Base (8)	1	\$6,963	
Adder Lateral/Torsional Calculations (8)	1	\$1,018	
Adder Critical Speed Calculations (8)	1	\$1,018	
Adder Calculations - Specific States (9)	1	\$268	

Catalog Data is typical and must be certified by the factory.

- (1) Submittal Level 1 - Includes certified curve, setting plan & motor data (if purchased from Fairbanks Nijhuis). Does NOT include any pump technical data or submittal information. No hard copies available.
- (2) Submittal Level 2 - Complete certified submittal w/ certified curve, setting plan, pump technical data, parts list, assembly drawing, paint data and vendor buyout data (when applicable w/ purchased Fairbanks Nijhuis motor).
- (3) Submittal Level 3 - Certified Special Submittal to meet a specification requirement beyond a Level 2 submittal. Price does NOT include any special binders or formatting different from Fairbanks Nijhuis standard format.
- (4) Level 2 or 3 submittals must be purchased in order to get as-built O&M manuals. Standard O&M manuals are on the website. Price does NOT include special binders or formatting different from Fairbanks Nijhuis standard format.
- (5) Level 2 or 3 submittals AND as-built O&M manuals must be purchased in order to get a copy on a USB/Flash drive.
- (6) Fairbanks Nijhuis Engineering Spec Review for compliance. Level 2 or 3 submittals must be purchased.
- (7) Spec review and certificate of compliance to specification. Subject to Factory Approval. Level 2 or 3 submittals must be purchased to receive Certificate of Spec Compliance.
- (8) Calculations by a Mechanical PE. Level 2 or Level 3 submittals must be purchased. Customer must include a copy of the specifications for all calculations. For seismic calculations, a form MUST be provided. Any revised calculations due to field changes or specification omissions are subject to a change order and an additional charge.
- (9) Calculations by a Civil PE registered in all 50 States. Must include adder for EACH applicable set of calculations. See note 8 for calculation requirements.
- (10) Pentair Engineer Calculations. Level 2 or 3 submittals must be purchased.