

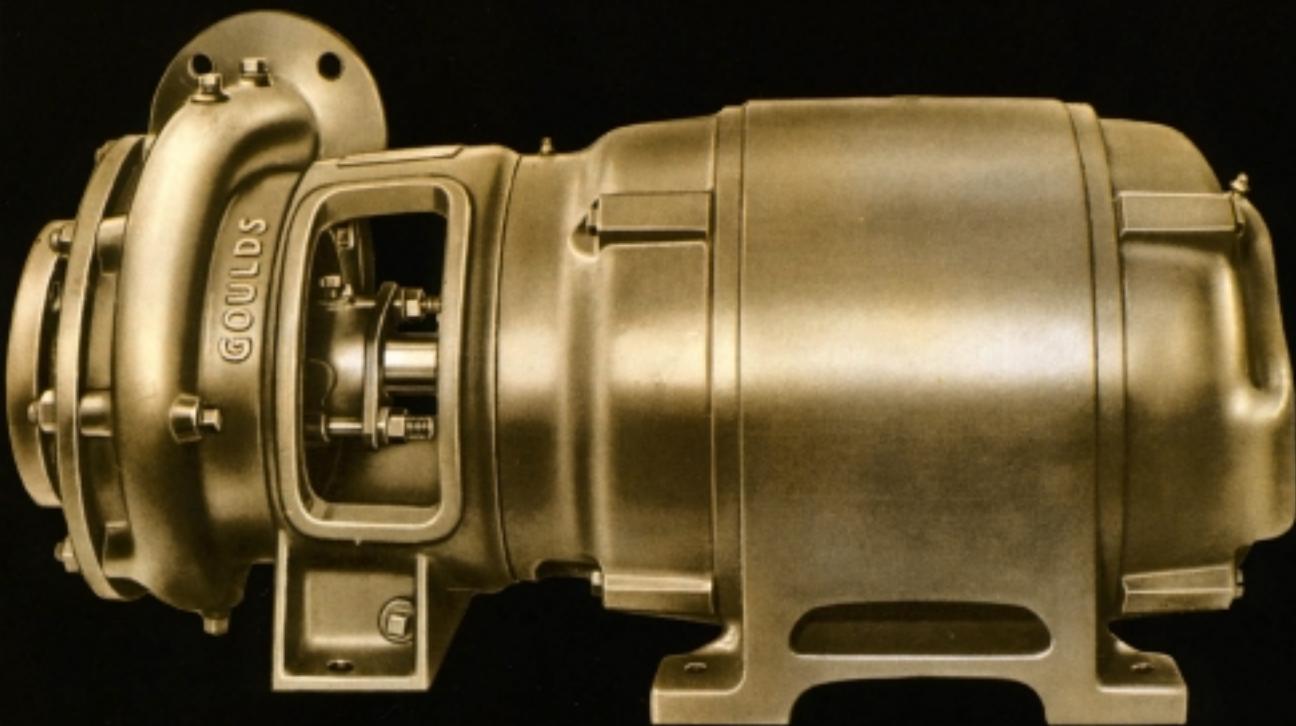


GOULDS PUMPS

Enclosed Impeller / Single Stage / Close Coupled / End Suction
CENTRIFUGAL PUMPS

MODEL 3655

Capacity	5 to 3800 GPM
Head	15 to 400 Feet TDH
Temperatures	To 250° F.
Working Pressure	To 150 PSIG

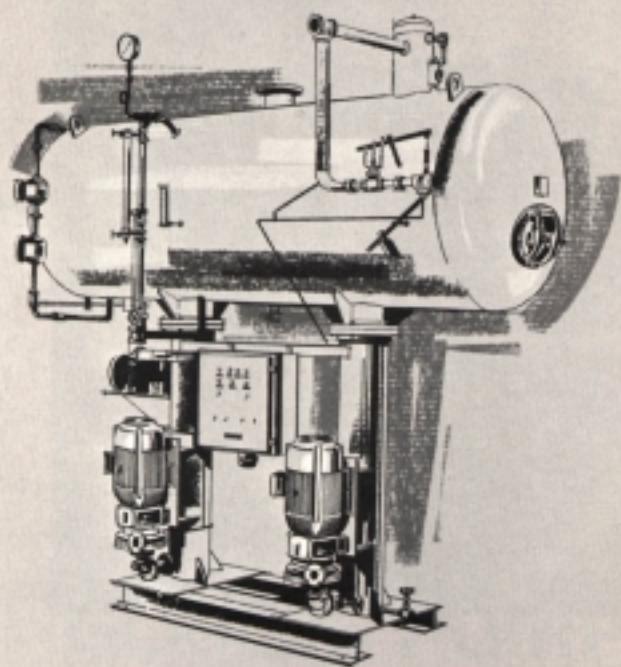


Model 3655

Pump and motor are combined in a single, complete, compact unit, easy to install and ready to run. Single shaft eliminates coupling and assures perfect and maintained alignment with freedom from vibration. Unit construction does away with bedplate to support pump and motor. Simplicity and strength of parts insure long life with minimum maintenance expense under most exacting and rigorous operating conditions.

Model 3655 Close-Coupled Pumps are complete units. Pump and motor are bolted together. Impeller is mounted on extended motor shaft.

- Flexible couplings or bedplates not required
- Permanent alignment built in with machined male and female lock fits
- Compact
- Easily and quickly installed
- Mount vertically or horizontally
- Minimum attention
- Ideal for OEM Packages — deaerators, washers, etc.



Design Features

VOLUTE CASING (Part 100). Casing is bolted to the adapter. A recessed lock fit between casing and adapter insures permanent alignment. The discharge nozzle can be swivelled to any of three positions for greater flexibility of application. (See dimension print, page 8). The separate suction cover is bolted to the casing through a machined lock joint. No stud or bolt holes are tapped through the casing to the liquid ways. Tapped openings are provided for priming, venting, draining, and for suction and discharge gauge connections. ASA 125 lb. flat face flanges standard on all sizes.

ENCLOSED IMPELLER (Part 101). One piece, single suction impellers are statically balanced to insure smooth operation. All, except some small sizes where end thrust is a minor factor, are also hydraulically balanced. The impeller is mounted directly on the extended motor shaft and is keyed to it. A self locking cap nut holds a compression seal washer securely against the impeller hub to prevent leakage of liquid between shaft sleeve and shaft.

RENEWABLE WEARING RINGS (Parts 103 & 127). Rings maintain proper running clearances to minimize leakage between suction and discharge sides. They can be replaced inexpensively when worn.

SHOULDERED SHAFT SLEEVE (Part 126). The sleeve is shouldered on the shaft near the impeller and covers the full length of the shaft to the motor



end bracket, as illustrated. It is sealed by compression between the impeller hub and the shoulder on the shaft to protect the shaft from contact with the liquid. The shaft sleeve is free to expand or contract with temperature changes.

INTEGRAL STUFFING BOX. Cast as a part of the casing, the box provides for five rings of die-formed packing plus the lantern ring. It has tapped openings for introduction of sealing liquids under pressure — from the pump casing, from an outside clear water supply, or from a lubricator using a lubricant which is non-solvent for the liquid being pumped.

WATER DEFLECTOR (Part 123). The deflector prevents leakage of liquid into the motor bearing, and is securely mounted on the end of the shaft sleeve with a machined recess.

It is drilled and tapped so that in servicing the pump it can be used, with a spanner, to prevent shaft rotation while removing or tightening the impeller nut. Also, when puller studs are attached, it can be used to remove the shaft sleeve.

THE ADAPTER (Part 108). A machined lock between the adapter and the motor end bracket keeps the adapter and casing in permanent alignment with the motor and extended motor shaft. The sides of the adapter are fully open for ready access to stuffing box and gland. A foot (under the adapter on groups "S" and "M", and under casing on group "L") provides support for overhung weight.

MECHANICAL SEALS. In place of stuffing box packing, Model 3655 can be furnished, on order, with a mechanical seal as illustrated. Also, mechanical seals may be substituted in the field with-

out remachining the stuffing box. When seals are used, a shaft sleeve of AISI 303 stainless steel is furnished on all constructions.

SPLIT GLAND (Part 107). The illustration shows how gland halves are held together with hollow washers which slip over bosses on the gland. *It is unnecessary to unbolt gland halves when repacking the stuffing box.* The gland is located at a 45° angle so that leakage will not drip on the gland bolts. Model 3655 can be supplied with a water quenched gland when ordered.

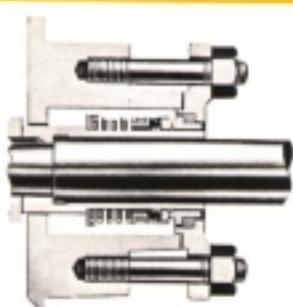


MOTOR. The motor is assembled as an integral part of the complete unit. Its end bracket is machined to match the recessed lock fit on the adapter to insure permanent alignment. Shaft carries impeller and sleeve. Motor ball bearings are designed to carry all radial and thrust loads, and are installed in sealed housings which retain lubricant and exclude dirt and moisture.

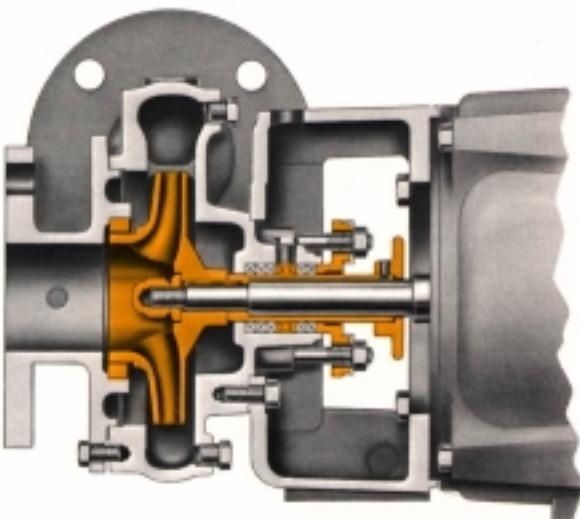
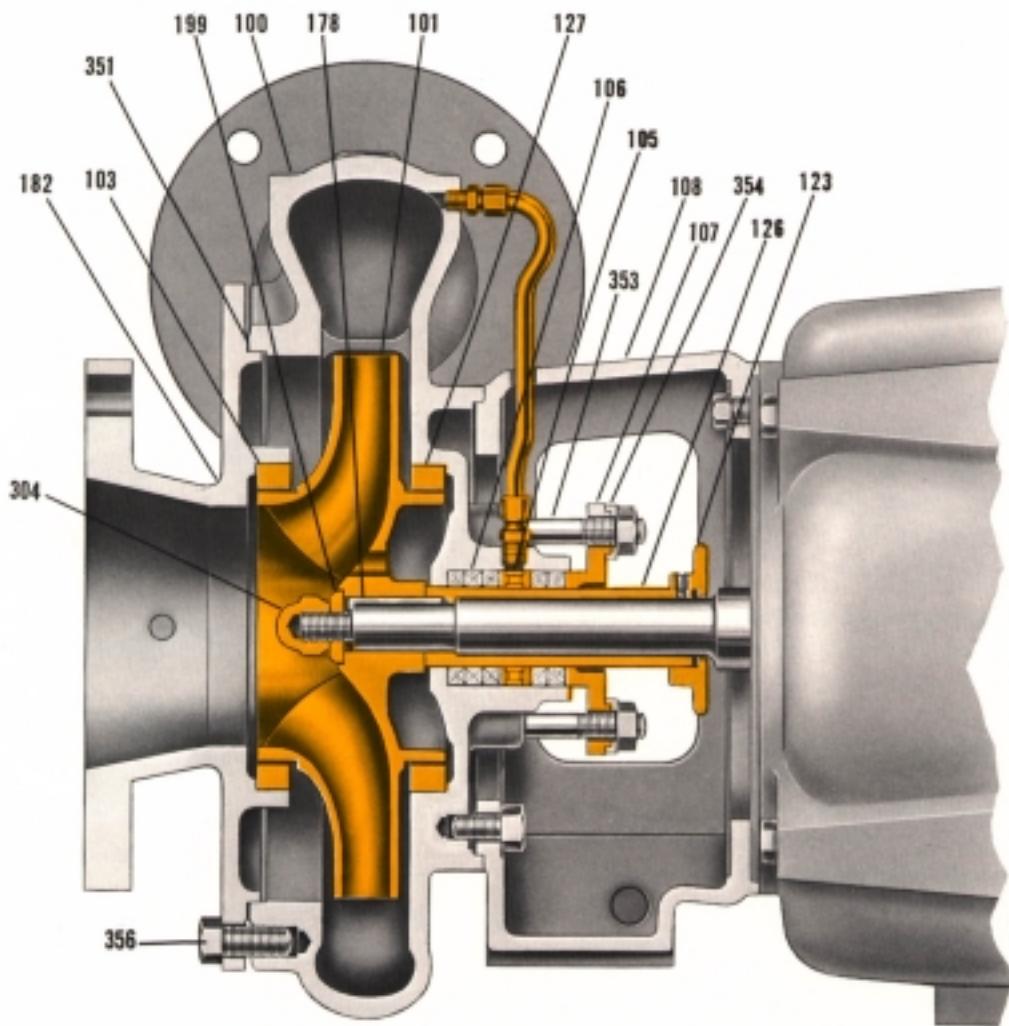
Motors regularly stocked are: (1) Drip protected type with splash proof bracket on pump end and drip proof bracket on outboard end. (2) Totally enclosed and polyphase explosion proof type built to meet Underwriters requirements for Class 1, Group D installations. Motors of special constructions are available on order.

ROTATION. All pumps are built for right hand rotation, i.e., clockwise when viewed from the motor end.

MATERIALS. Available in bronze fitted, bronze fitted with iron impeller, all iron, or all bronze. See page 5 for construction materials of all parts.



SECTIONAL VIEWS



SIZES—with suction wearing ring only

$1\frac{1}{4} \times 1\frac{1}{2}$ —5, $1\frac{1}{4} \times 1\frac{1}{2}$ —7, $1\frac{1}{4} \times 1\frac{1}{2}$ —8,
 $1\frac{1}{2} \times 2$ —5, $2\frac{1}{2} \times 2\frac{1}{2}$ —6 and 4×4 —7.

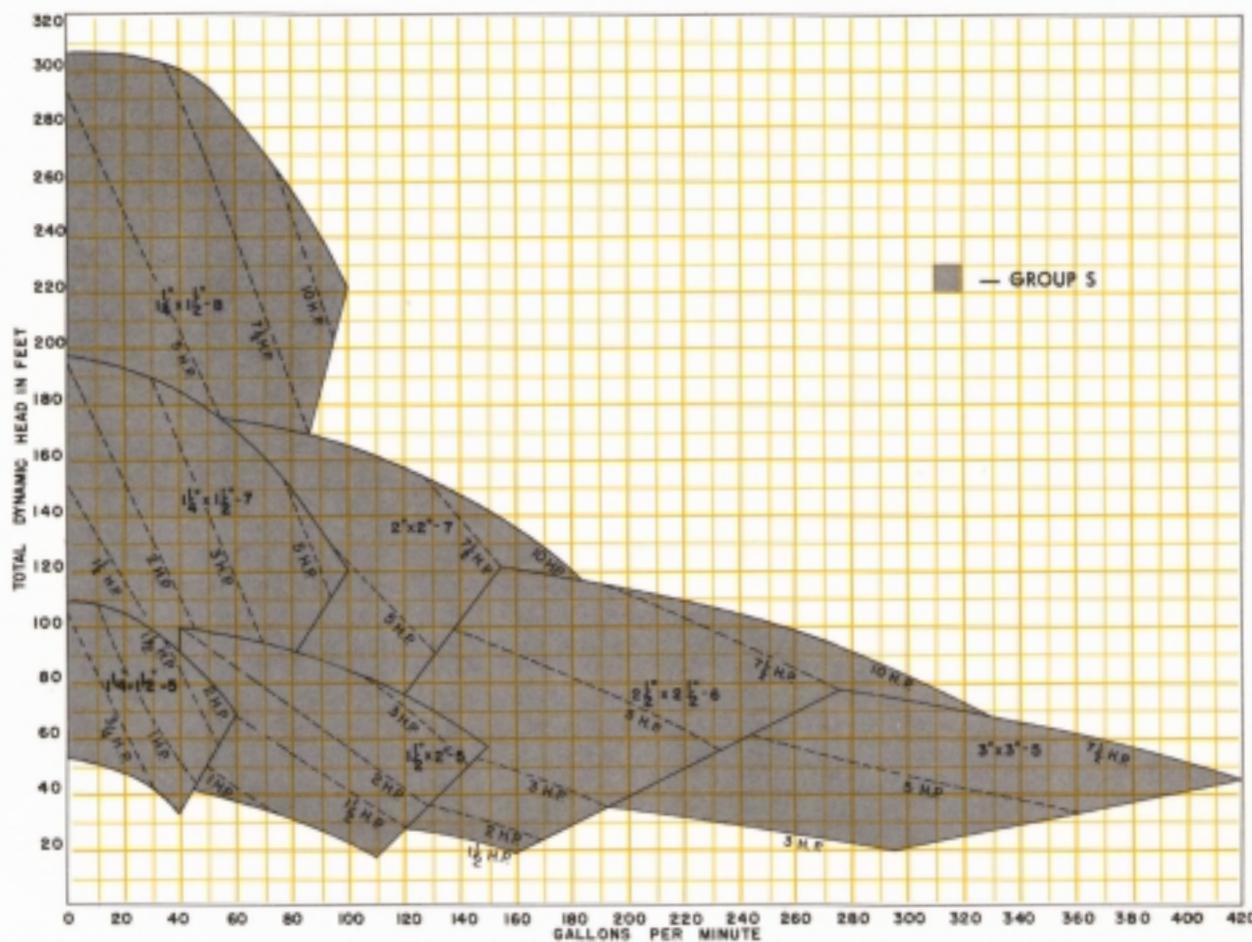
All other sizes have two casing wearing rings
as illustrated above.

PARTS LIST

ITEM No.	No. Seg'd. Per Pump	PART NAME	MATERIAL CONSTRUCTION				INTERCHANGEABILITY BY GROUP AND CASING CLASS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
P. Fitted	Ex- ecuted with Iron Cap	All Iron	All Bronze	GROUP "S"						GROUP "M"						GROUP "L"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	106

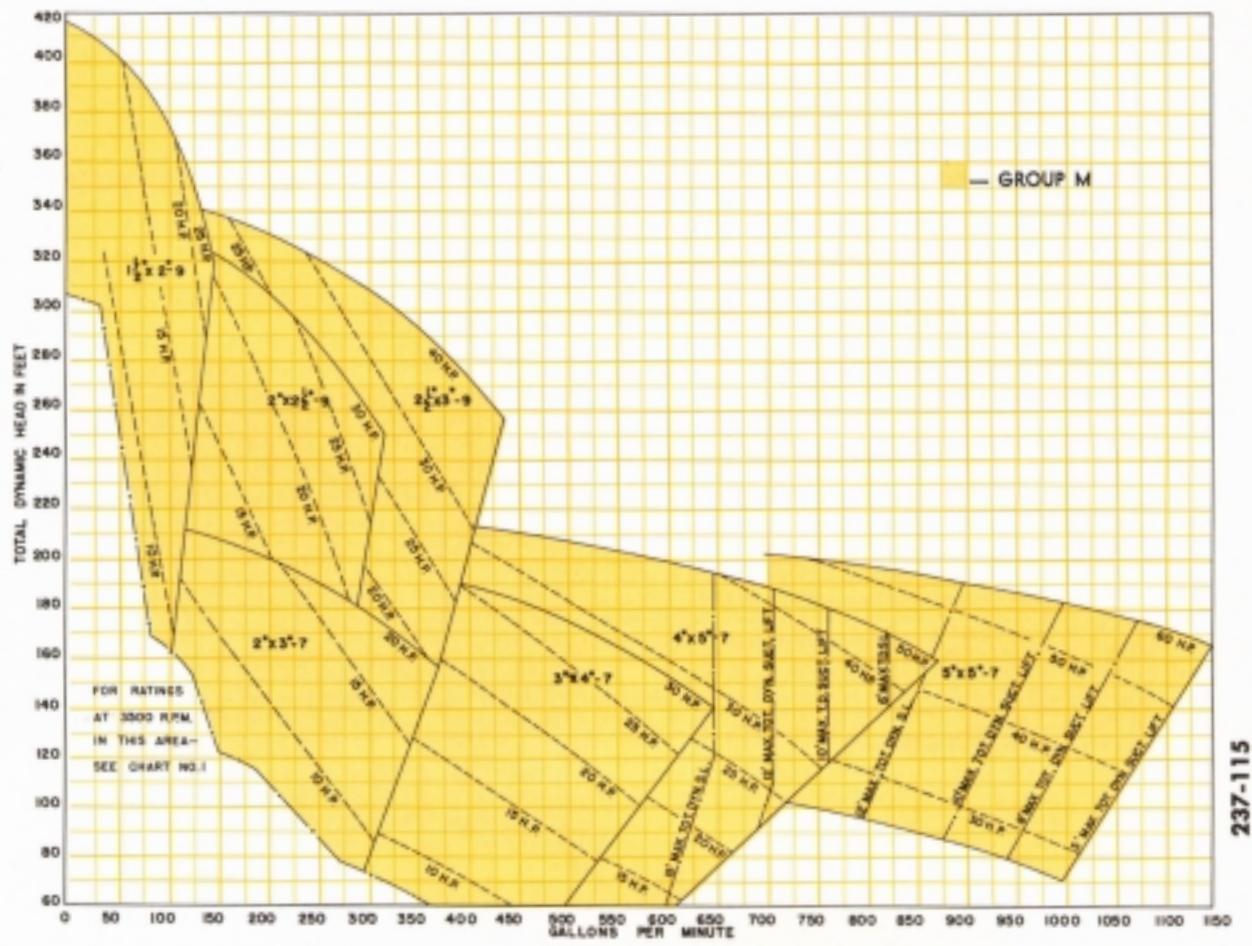
COMPOSITE PERFORMANCE CURVES

GROUP "S" • 3500 RPM



237-114

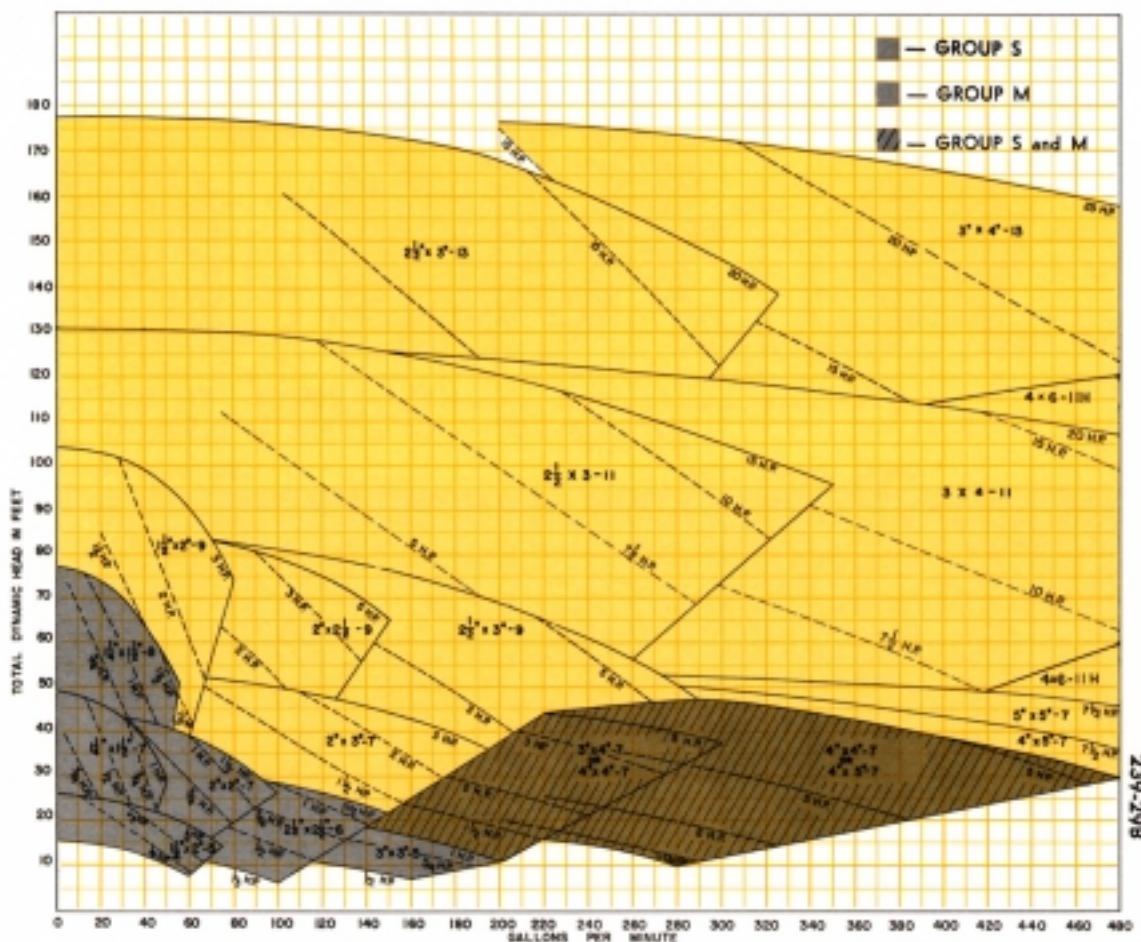
GROUP "M" • 3500 RPM



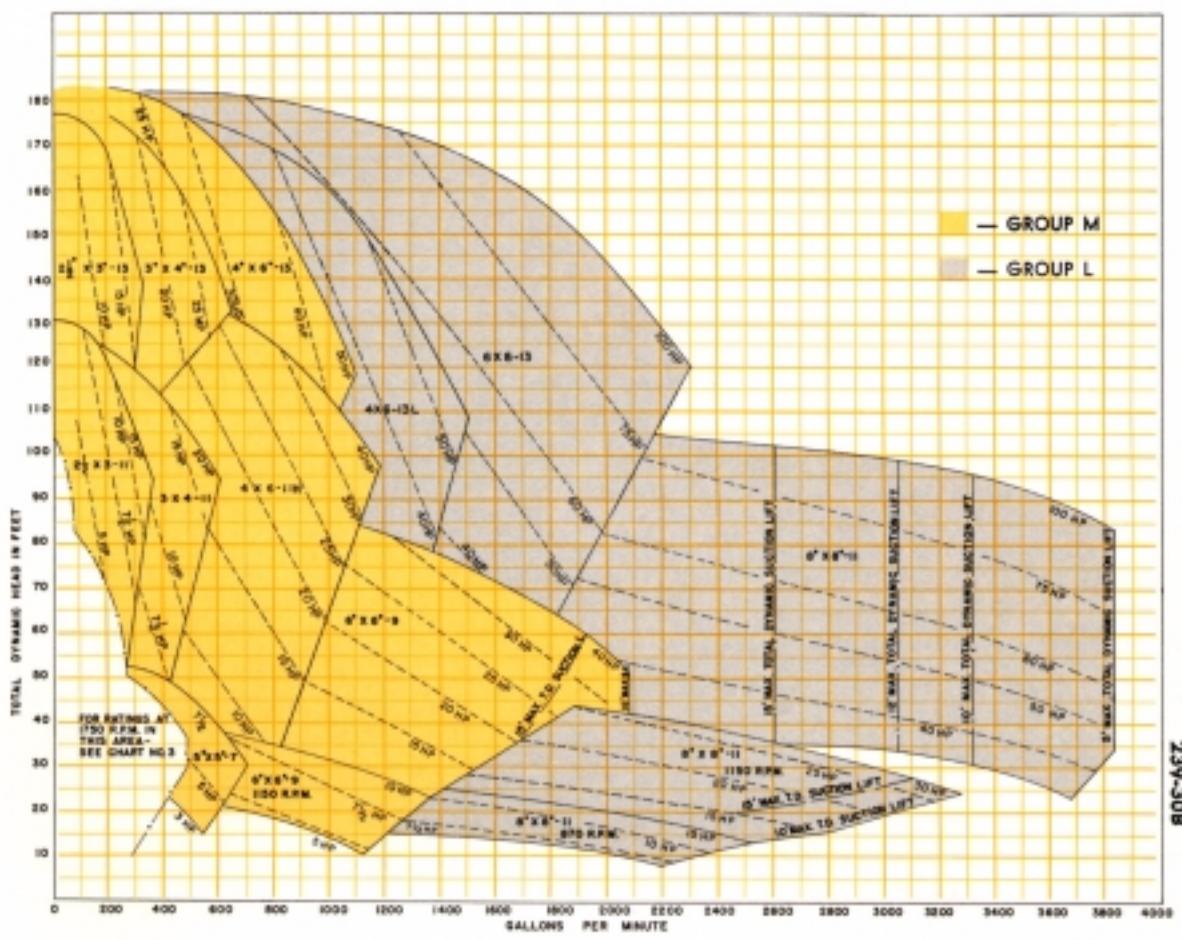
237-115

COMPOSITE PERFORMANCE CURVES

GROUP "S" & "M" • 1750 RPM



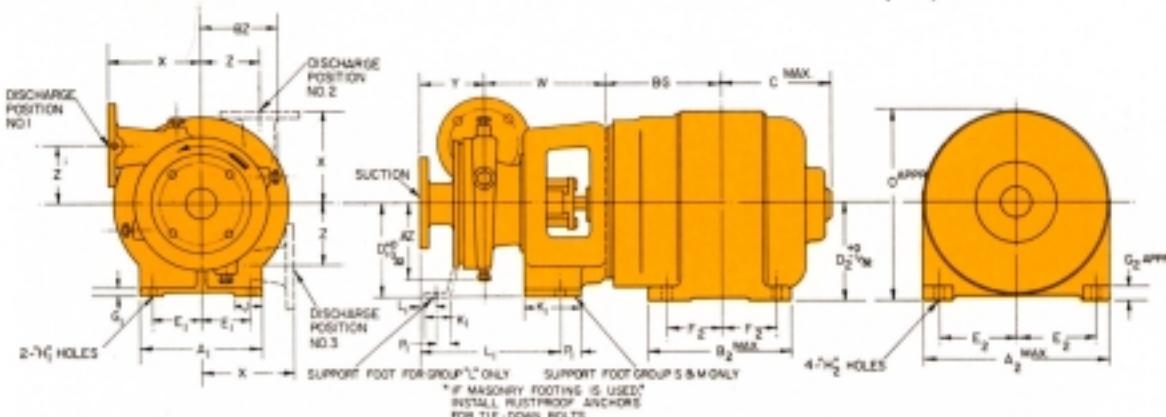
GROUP "M" & "L" • 1750 & 1150 RPM



Ratings shown are suitable for 15 ft. suction lift when handling clear, cold water at sea level, except where otherwise noted.

DIMENSIONS

All Dimensions are in inches.
Not to be used for construction purposes



DIMENSIONS DETERMINED BY PUMP																		
G.R.P.	DISCH. SIZE	SUCT. SIZE	CASING SIZE	A ₁	E ₁	G ₁	H ₁	A ₂	K ₁	L ₁	W	X	Y	Z	P ₁	AZ	BZ	WT.
S	1/4	1/2	5								7 1/8	6 3/4	3 1/4	3	3 1/8	4	65	
	1/2	2	5								7 1/8	4 3/8	3 1/2	3 1/8	4 1/8	4 1/8	70	
	3	3	5								7 1/8	6	4 1/8	3 1/4	4	4 1/8	85	
	2 1/2	2 1/2	6								7 1/8	5 1/2	4	3 1/4	4 1/8	4 1/8	80	
	1/4	1 1/2	7								7 1/8	5 1/4	3 1/4	3 1/4	4 1/8	5 1/8	75	
	2	2	7								7 1/8	5 1/8	3 1/4	3 1/4	4 1/8	4 1/8	80	
	4	4	7								7 1/8	7	5	5	4	4 1/8	95	
	1 1/4	1 1/2	8								7 1/8	6	3 1/2	4 1/4	5 1/8	5 1/8	90	
M	2	3	7								8 1/8	6 1/2	4 1/2	4	5 1/8	5 1/8	105	
	3	4	7								8 1/8	7	5	4 1/4	6 1/8	6 1/8	120	
	4	5	7								8 1/8	7 1/2	5 1/2	4 1/2	6 1/8	6 1/8	140	
	5	5	7								8 1/8	8	5 1/2	5	6 1/8	6 1/8	160	
	1 1/2	2	9								8 1/8	6 1/2	4	5 1/4	6 1/8	6 1/8	110	
	2	2 1/2	9								8 1/8	6 1/8	4 1/2	5	6 1/8	6 1/8	120	
	2 1/2	3	9	9 1/4	4	3 1/8	11 1/8	1 1/4	4	8 1/8	7 1/8	4 1/2	5 1/4	6 1/8	6 1/8	125		
	6	6	9								8 1/8	9 1/2	6 1/4	8	7 1/8	7 1/8	130	
	2 1/2	3	11								8 1/8	7 1/2	4 1/2	6 1/2	7 1/8	7 1/8	155	
	3	4	11								8 1/8	7 1/2	5 1/4	7 1/8	7 1/8	7 1/8	155	
	4	6	11H								8 1/8	8 1/2	6	7 1/4	8 1/8	8 1/8	180	
L	3 1/2	5	13								8 1/8	8 1/2	4 1/2	7	8 1/8	8 1/8	150	
	3	4	15								8 1/8	8 1/2	5 1/2	7 1/2	8 1/8	8 1/8	160	
	4	6	13								10 1/8	8 1/2	9	5 1/2	7 1/2	7 1/2	190	
	8	8	11								2 1/8	10 1/2	8 1/2	10	1 1/4	11 1/4	1274	365
	4	6	13L	8	3 1/4	5 1/8	11 1/16	2 1/4	2	10	9 1/2	9	5 1/2	7 1/2	1	8 1/2	9 1/2	305
	6	8	13								2	10	6 1/2	8 1/4	1 1/4	9 1/8	10 1/4	330

DIMENSIONS DETERMINED BY MOTOR

MOTOR FRAME	A ₂	B ₂	B ₃	C	D ₂	D ₃	(PUMP FOOT)	F ₂	F	G ₂	H ₂	I	J	K	W	APPROX. WT.	OPEN END	
MAX.					5	M	L		4 1/4						OPEN END			
145TC	T	6	4 1/8	5 1/4	3 1/2	4 1/4	-	-	2 1/4	2	7 1/8	11 1/8	7 1/4	6 1/4	35	40		
145TC	T	6	5 1/8	5 1/4	3 1/2	4 1/4	-	-	2 1/4	2 1/2	7 1/8	11 1/8	7 1/4	6 1/4	45	50		
162TC	I	6 1/2	5 1/8	4 1/4	4 1/2	4 1/4	6 1/4	-	3 1/4	2 1/4	9 1/8	12 1/8	9 1/4	7 1/4	70	95		
184TC	I	7 1/2	6 1/8	7 1/4	4 1/2	4 1/4	6 1/4	-	3 1/4	2 1/4	10 1/8	12 1/8	9 1/4	6 1/4	85	110		
213TC	I	10 1/2	7 1/4	8 1/4	5 1/4	4 1/4	6 1/4	-	4 1/4	2 1/4	5 1/8	12 1/8	11 1/4	6 1/4	120	155		
215TC	I	10 1/2	9	8	5 1/8	5 1/4	4 1/4	6 1/4	-	4 1/4	3 1/2	5 1/8	12 1/8	11 1/4	6 1/4	140	180	
254TC	I	12 1/2	10 1/8	9 1/8	6 1/8	4 1/4	6 1/4	-	5	4 1/2	7 1/8	12 1/8	11 1/4	6 1/4	160	210		
256TC	I	12 1/2	12 1/2	10	14 1/8	6 1/8	4 1/4	6 1/4	-	5	5	7 1/8	12 1/8	11 1/4	6 1/4	230	305	
284TC	I	14	12 1/2	10 1/8	12 1/2	7	-	-	5 1/2	4 1/2	7 1/8	12 1/8	11 1/4	7	310	405		
286TC	I	14	14	10 1/2	13 1/4	7	-	-	5 1/2	5 1/2	7 1/8	12 1/8	14 1/8	7	340	465		
324TC	I	16	14	10 1/2	12 1/2	8	-	-	7	6 1/4	6 1/4	12 1/8	16 1/8	16 1/8	7	420	575	
326TC	I	16	15 1/2	11 1/2	12 1/2	8	-	-	7	6 1/2	6 1/4	8	12 1/8	16 1/8	7	470	680	
346TC	I	18	16 1/2	12 1/2	9	-	-	-	7	6 1/2	7	9 1/8	14 1/8	16 1/8	7	560	800	
368TC	I	20	16 1/2	13	10	-	-	-	7	6 1/2	7	9 1/8	14 1/8	16 1/8	7	650	900	
404TC	I	20	16 1/2	13	10 1/2	10	-	-	8 1/2	8	6 1/2	12	11 1/8	21	830	-		
408TC	I	20	17 1/2	13	10 1/2	10	-	-	8 1/2	8	6 1/2	12	12 1/8	21	925	1180		

* PUMP FOOT EXTENDS BELOW MOTOR FEET. ON SOME SIZES
PUMP CASING WILL EXTEND BELOW PUMP FOOT &/OR MOTOR FEET.
CHECK DIMENSIONS (A₂, B₂, I) CAREFULLY BEFORE MAKING FOUNDATION.



GOULDS PUMPS, INC.

Main Plant and Headquarters, Seneca Falls, N.Y. 13144