

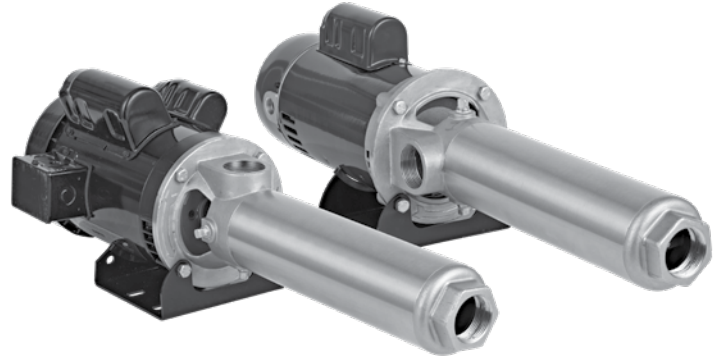
# MULTI-STAGE PUMPS

BT4 HORIZONTAL SERIES, 35-45 GPM



## FEATURES

- Designed for boosting water pressure from a variety of sources including municipal and private water systems.
- Enhanced hydraulics for 35 & 45 GPM nominal ratings to deliver more efficient pressure boosting
- Robust stainless steel bracket, shell & discharge provide optimum corrosion protection
- Equipped with 1.5" NPT connections at inlet and outlet minimize system friction loss
- Versatile bracket can be rotated in 90° increments for simplified, compact plumbing arrangements
- Multiple bracket drain & pressure tapplings enable draining in any position and provide for bypass and accessory plumbing
- Back pull-out design enables motor removal for servicing without disturbing either the pump or plumbing.
- NEMA standard 56C keyed shaft motors are readily available in ODP, TEFC enclosures; 1 & 3-phase for common voltages
- Pump ends (less motors) available to fit an existing 56C motor
- Carbon-ceramic-FKM mechanical seal is capable of handling a variety of fluids
- Maximum inlet pressure: 75 PSI
- Maximum discharge pressure: 400 PSI
- Maximum fluid handling temperature: 120 °F (49 °C)

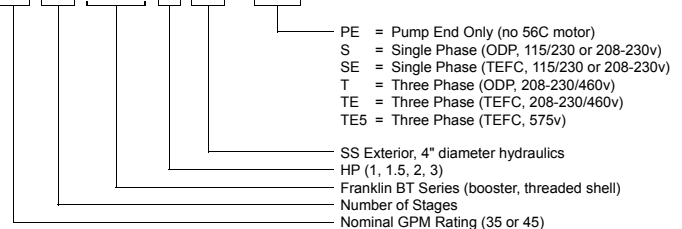


## APPLICATIONS

- Boosting water pressure from city mains or private water systems
- Pressure washing buildings and floors
- Poultry houses
- Spray cooling equipment
- Lawn and crop irrigation
- Evaporative cooling system misters
- Water circulation
- General purpose plumbing
- Reverse osmosis
- Filtration

## NOMENCLATURE

**35 09 FBT 3 S4 - SE**



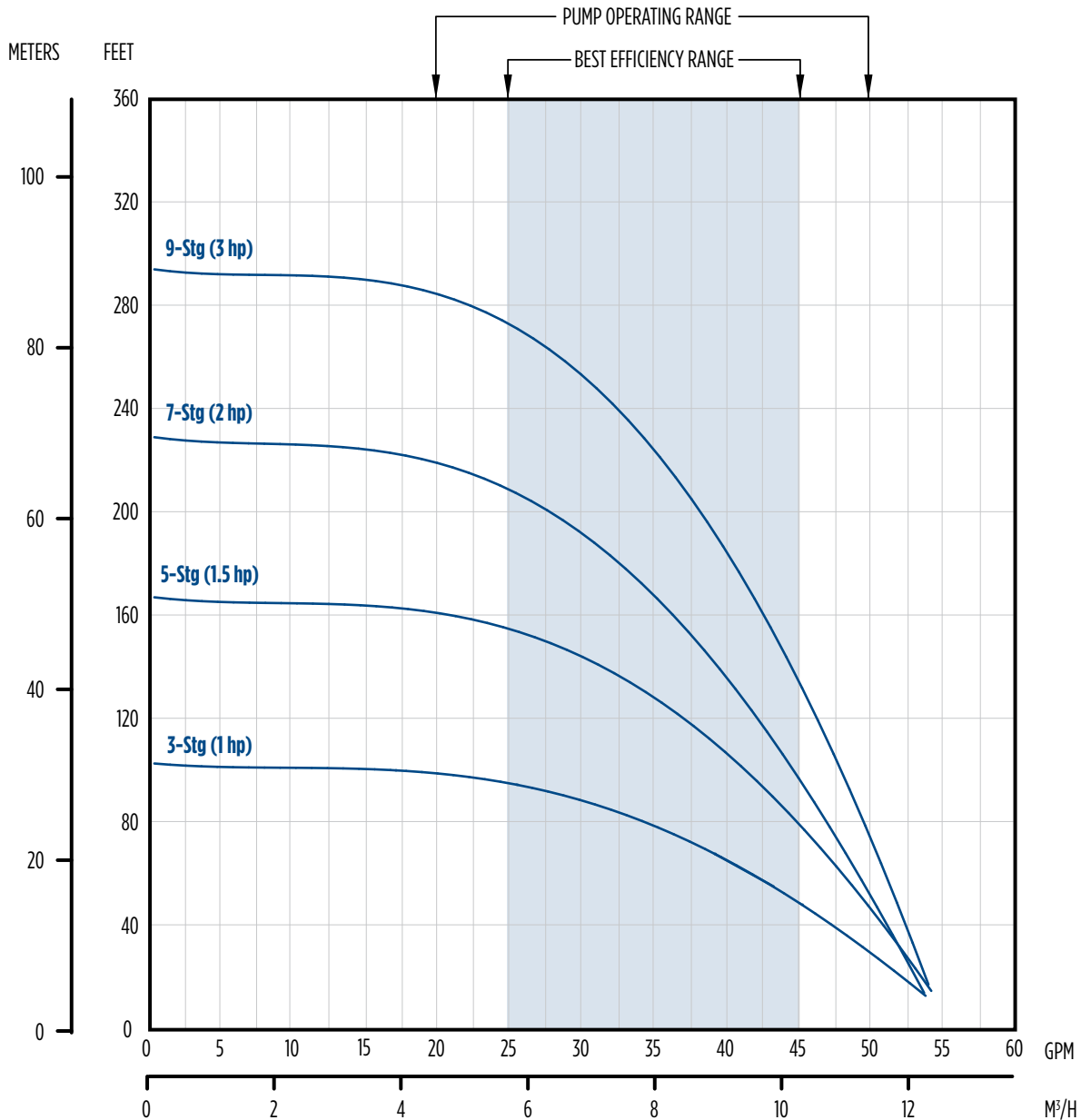
# MULTI-STAGE PUMPS

BT4 HORIZONTAL SERIES, 35-45 GPM



## PERFORMANCE

35 GPM



## PRESSURE BOOST

GPM	Pump Data			Head Output (ft.) at GPM Indicated					PSI Boost at GPM Indicated				
	Model	HP	STG	0	20	30	40	45	0	20	30	40	45
35	3503FBT1S4	1	3	100	96	87	62	47	43	42	38	27	20
	3505FBT15S4	1.5	5	166	157	147	102	76	72	68	64	44	33
	3507FBT2S4	2	7	230	217	195	132	96	100	94	84	57	42
	3509FBT3S4	3	9	296	282	260	175	135	128	122	113	76	58

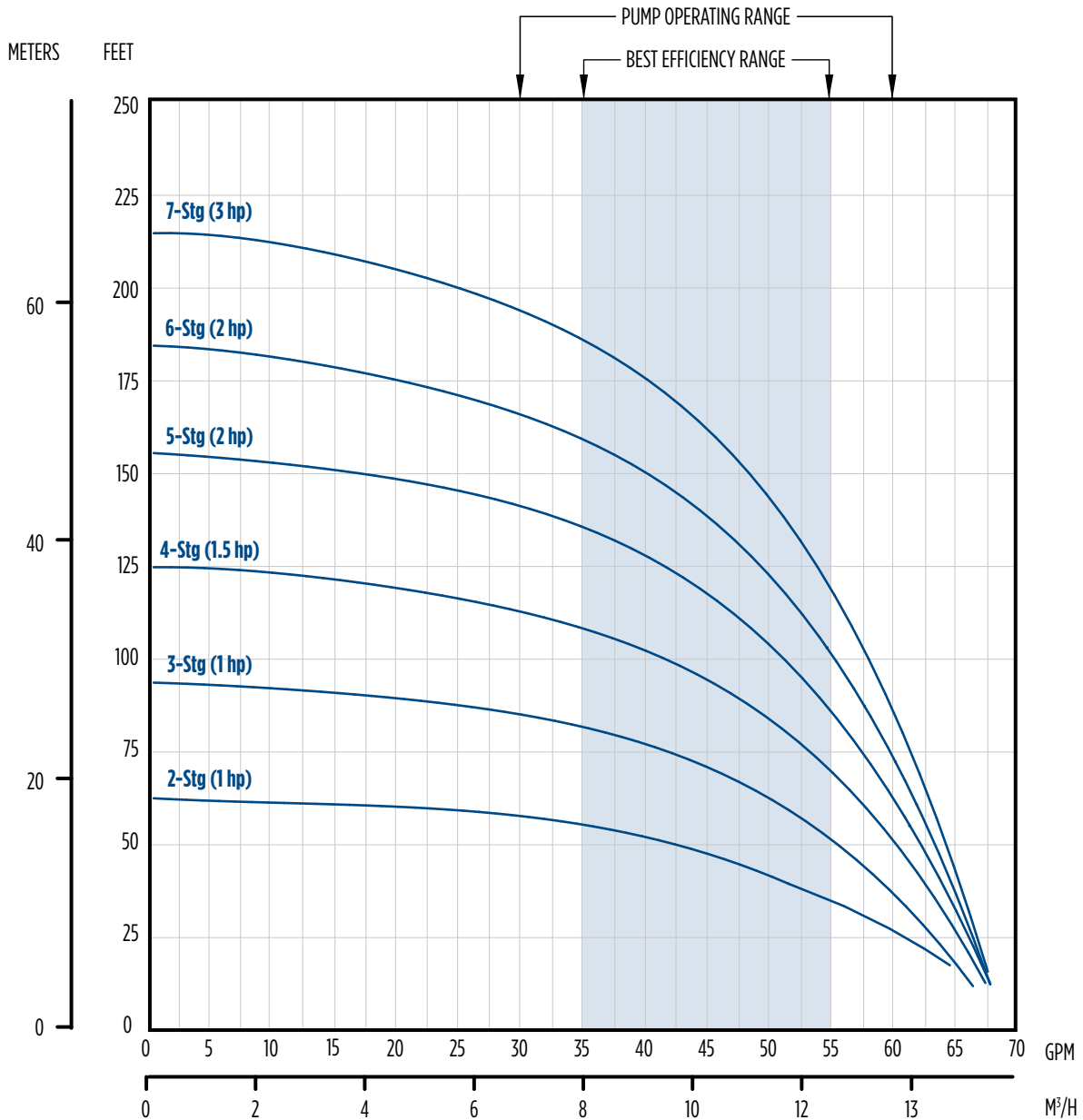
# MULTI-STAGE PUMPS

BT4 HORIZONTAL SERIES, 35-45 GPM



## PERFORMANCE

45 GPM



## PRESSURE BOOST

GPM	Pump Data			Head Output (ft.) at GPM Indicated					PSI Boost at GPM Indicated				
	Model	HP	STG	0	20	30	40	50	0	20	30	40	50
45	4502FBT1S4	1	2	61	60	56	51	39	26	26	24	22	17
	4503FBT1S4	1	3	92	89	82	77	60	40	39	35	33	26
	4504FBT1.5S4	1.5	4	125	118	109	102	81	54	51	47	44	35
	4505FBT2S4	2	5	154	148	137	115	101	67	64	59	50	44
	4506FBT2S4	2	6	184	166	163	150	118	80	72	71	65	51
	4507FBT3S4	3	7	214	204	191	177	139	93	88	83	77	60

# MULTI-STAGE PUMPS

BT4 HORIZONTAL SERIES, 35-45 GPM



## ORDER INFORMATION

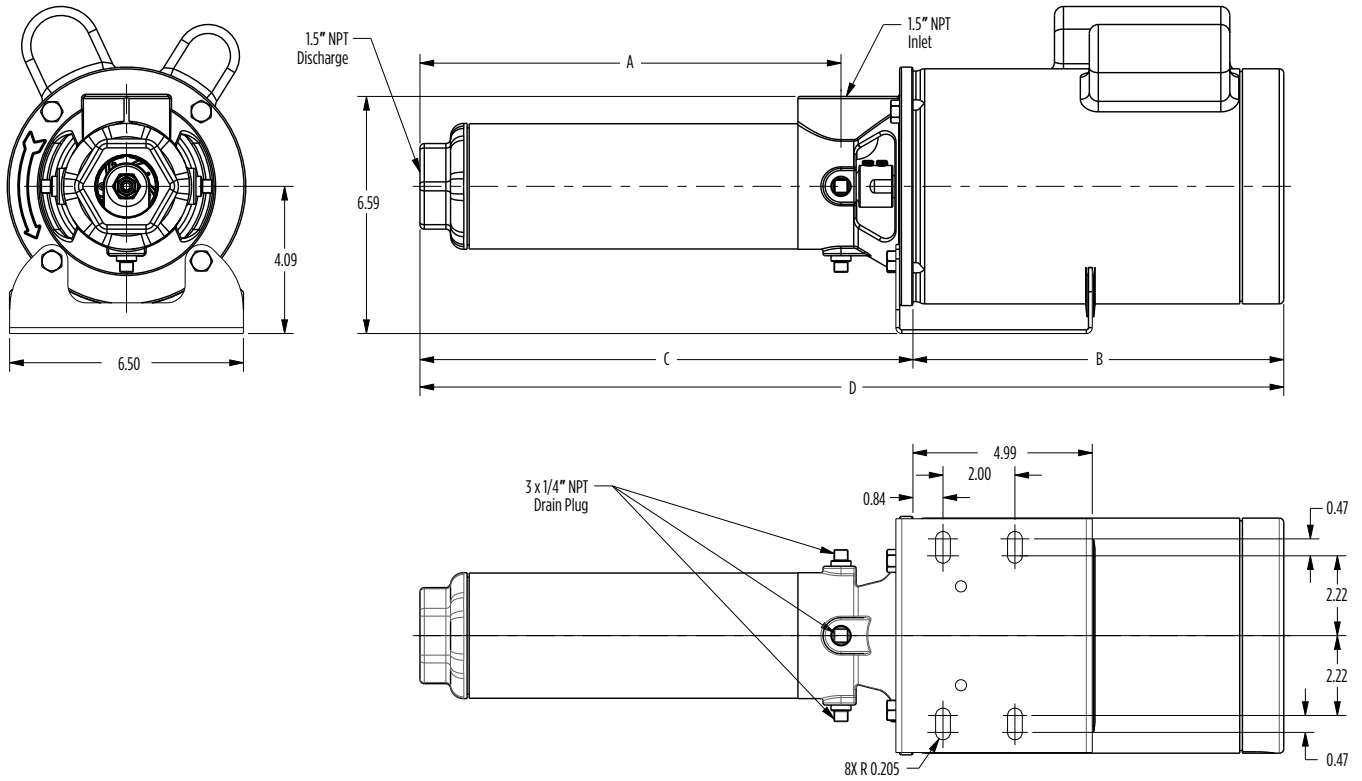
GPM	Phase	Enclosure	Volts	HP	S.F.A	Stages	Order No.	Model No.	Weight	
35	1	ODP	115/230	1	16.8/8.4	3	95933503	3503FBT1S4-S	44	
				1.5	18.4/9.2	5	95933505	3505FBT1S4-S	46	
				2	22.2/12.2-11.1	7	95933507	3507FBT2S4-S	50	
		TEFC	115/230	3	15.7-14.2	9	95933509	3509FBT3S4-S	56	
				1	13.8/7.2-6.9	3	95983503	3503FBT1S4-SE	44	
				1.5	18.4/10.3-9.2	5	95983505	3505FBT1S4-SE	46	
	3	ODP	208-230/460	2	11.0-10.0	7	95983507	3507FBT2S4-SE	50	
				3	15.8-14.6	9	95983509	3509FBT3S4-SE	86	
				1	4.6-4.6/2.3	3	95993503	3503FBT1S4-T	47	
		TEFC	208-230/460	1.5	5.8/2.9	5	95993505	3505FBT1S4-T	55	
				2	6.4/3.2	7	95993507	3507FBT2S4-T	61	
				3	9.4/4.7	9	95993509	3509FBT3S4-T	65	
	Pump End Only (no motor)				1	3.6-3.2/1.6	3	95583503	3503FBT1S4-TE	45
					1.5	4.9-5.2/2.6	5	95583505	3505FBT1S4-TE	48
					2	7.1-6.0/3.0	7	95583507	3507FBT2S4-TE	52
					3	NA-7.7/3.9	9	95583509	3509FBT3S4-TE	59
					1	N.A.	3	95923503	3503FBT1S4-PE	15
					1.5	N.A.	5	95923505	3505FBT1S4-PE	16
				2	N.A.	7	95923507	3507FBT2S4-PE	17	
				3	N.A.	9	95923509	3509FBT3S4-PE	18	
45	1	ODP	115/230	1	16.8/8.4	2	95934502	4502FBT1S4-S	43	
				1.5	18.4/9.2	4	95934504	4504FBT1S4-S	46	
				2	22.2/12.2-11.1	6	95934506	4506FBT2S4-S	55	
		TEFC	115/230	3	15.7-14.2	7	95934507	4507FBT3S4-S	55	
				1	13.8/7.2-6.9	2	95984502	4502FBT1S4-SE	47	
				1.5	18.4/10.3-9.2	4	95984504	4504FBT1S4-SE	55	
	3	ODP	208-230/460	2	11.0-10.0	5	95984505	4505FBT2S4-SE	60	
				3	15.8-14.6	7	95984507	4507FBT3S4-SE	65	
				1	4.6-4.6/2.3	2	95994502	4502FBT1S4-T	43	
		TEFC	208-230/460	1.5	5.8/2.9	4	95994504	4504FBT1S4-T	46	
				2	6.4/3.2	5	95994505	4505FBT2S4-T	49	
				3	9.4/4.7	7	95994507	4507FBT3S4-T	85	
	Pump End Only (no motor)				1	3.6-3.2/1.6	2	95584502	4502FBT1S4-TE	44
					1.5	4.9-5.2/2.6	4	95584504	4504FBT1S4-TE	48
					2	7.1-6.0/3.0	5	95584505	4505FBT2S4-TE	52
					3	NA-7.7/3.9	7	95584507	4507FBT3S4-TE	58
					1	N.A.	2	95924502	4502FBT1S4-PE	14
					1.5	N.A.	4	95924504	4504FBT1S4-PE	16
				2	N.A.	5	95924505	4505FBT2S4-PE	16	
				3	N.A.	7	95924507	4507FBT3S4-PE	17	

# MULTI-STAGE PUMPS

BT4 HORIZONTAL SERIES, 35-45 GPM



## DIMENSIONS



# MULTI-STAGE PUMPS

BT4 HORIZONTAL SERIES, 35-45 GPM



## DIMENSIONS

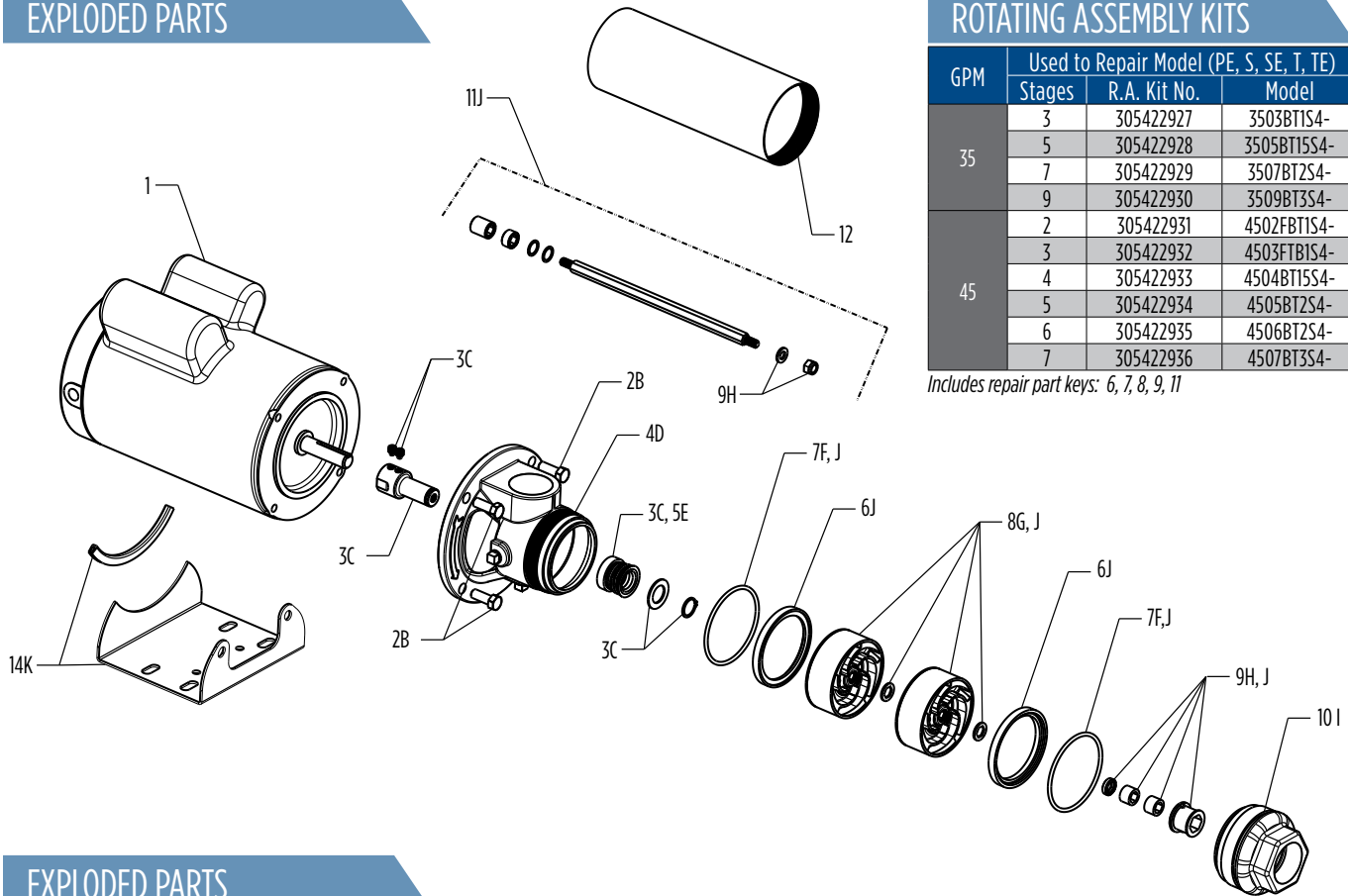
GPM	Phase	Enclosure	Volts	HP	Stage	A	B	C	D	
35	1	ODP	115/230	1	3	9.13	11.44	11.13	22.57	
				1.5	5	11.71	11.94	13.71	25.65	
				2	7	14.28	10.31	16.28	26.59	
		TEFC	115/230	1	3	9.17	9.52	11.13	20.65	
				1.5	5	11.71	9.31	13.71	23.02	
				2	7	14.28	9.81	16.28	26.09	
	3	ODP	208-230/460	1	3	9.13	10.04	11.13	21.16	
				1.5	5	11.71	10.54	13.71	24.24	
				2	7	14.28	10.79	16.28	27.06	
		TEFC	208-230/460	3	9	16.86	11.29	18.86	30.14	
				1	3	9.13	11.00	11.13	22.13	
				1.5	5	11.71	10.25	13.71	23.96	
	Pump End Only (no motor)				2	7	14.28	11.50	16.28	27.77
	Pump End Only (no motor)				3	9	16.86	12.00	18.86	30.86
	45	1	ODP	115/230	1	2	8.70	11.44	10.70	22.14
						3	10.44	11.44	12.44	23.88
					1.5	4	12.17	11.94	14.17	26.11
			TEFC	115/230	2	5	13.91	10.31	15.91	26.22
					6	15.64	10.81	17.64	28.45	
3					7	17.37	10.81	19.37	30.18	
3		ODP	208-230/460	1	2	8.70	9.52	10.70	20.22	
					3	10.44	9.52	12.44	21.96	
				1.5	4	12.17	9.31	14.17	23.48	
		TEFC	208-230/460	2	5	13.91	9.81	15.91	25.72	
					6	15.64	10.81	17.64	29.64	
				3	7	17.37	10.81	19.37	30.18	
Pump End Only (no motor)				1	2	8.70	11.00	10.70	21.70	
Pump End Only (no motor)				1.5	4	12.17	10.25	14.17	24.42	
Pump End Only (no motor)				2	5	13.91	11.50	15.91	27.40	
Pump End Only (no motor)				2	6	15.64	12.00	17.64	29.64	
Pump End Only (no motor)				3	7	17.37	12.00	19.37	31.37	
Pump End Only (no motor)				1	2	8.70	N.A.	10.70	N.A.	
Pump End Only (no motor)					3	10.44	N.A.	12.44	N.A.	
Pump End Only (no motor)				1.5	4	12.17	N.A.	14.17	N.A.	
Pump End Only (no motor)				2	5	13.91	N.A.	15.91	N.A.	
Pump End Only (no motor)				2	6	15.64	N.A.	17.64	N.A.	
Pump End Only (no motor)				3	7	17.37	N.A.	19.37	N.A.	

# MULTI-STAGE PUMPS

BT4 HORIZONTAL SERIES, 35-45 GPM



## EXPLODED PARTS



## ROTATING ASSEMBLY KITS

GPM	Used to Repair Model (PE, S, SE, T, TE)		
	Stages	R.A. Kit No.	Model
35	3	305422927	3503BT1S4-
	5	305422928	3505BT1S4-
	7	305422929	3507BT2S4-
	9	305422930	3509BT3S4-
45	2	305422931	4502FBT1S4-
	3	305422932	4503FBT1S4-
	4	305422933	4504BT1S4-
	5	305422934	4505BT2S4-
	6	305422935	4506BT2S4-
	7	305422936	4507BT3S4-

Includes repair part keys: 6, 7, 8, 9, 11

## EXPLODED PARTS

Fig. No.	Description	Kit Group No.	Repair Part Order Codes by Motor Size					
			1.0 HP	1.5 HP	2.0 HP	3.0 HP		
1	Single-phase Motor, ODP	A	305374963	305374964	305374965	305374966		
	Single-phase Motor, TEFC		305374971	305374972	305374969	305374974		
	Three-phase Motor, ODP		305374967	305374968	305374973	305374970		
	Three-phase Motor, TEFC		305374975	305374976	305374977	305374978		
2	Fastener Kit	B	305421971					
3	Coupling and Mechanical Seal Kit	C	305421001					
4	Pump/Motor Bracket	D	305421972					
5	Mechanical Seal	E	305421003					
6	Suction/Discharge Spacers	-	Not available as separate components. Included in the hydraulic overhaul kit only.					
7	O-ring Set	F	305421908					
8	Stage Assembly, 35 gpm, 1 Stage Only	G	305404928					
	Stage Assembly, 45 gpm, 1 Stage Only		305404929					
9	Top Bearing, 35 gpm	H	305421973					
	Top Bearing, 45 gpm		305421974					
10	Discharge Head	I	305421975					
11	Pump Shaft + Hardware	-	Not available as separate components. Included in the hydraulic overhaul kit only.					
12	Pump Shell	-	Not available.					
13	Hydraulic Overhaul Kit, 35 gpm	Stage Count	3-Stg	5-Stg	7-Stg	9-Stg		
		J	305422927	305422928	305422929	305422930		
13	Hydraulic Overhaul Kit, 45 gpm	Stage Count	2-Stg	3-Stg	4-Stg	5-Stg	6-Stg	7-Stg
		J	305422931	305422932	305422933	305422934	305422935	305422936
14	Base	K	305421976		305421977			

# MULTI-STAGE PUMPS

BT4 HORIZONTAL SERIES, 35-45 GPM



## MOTOR SPECIFICATIONS

Phase	Enclosure	Volts	HP	SF	S.F.A	Motor Kit	Weight
1	ODP	115/230	1	1.4	16.8/8.4	305374963	30
			1.5	1.3	18.4/9.2	305374964	31
		115/208-230 208-230	2	1.21	22.2/12.2-11.1	305374965	32
			3	1.15	15.7-14.2	305374966	37
	TEFC	115/208-230	1	1.15	13.8/7.2-6.9	305374971	28
			1.5	1.15	18.4/10.3-9.2	305374972	35
		208-230	2	1.15	11.0-10.0	305374973	37
			3	1.15	15.8-14.6	305374974	39
3	ODP	208-230/460	1	1.41	4.8-4.6/2.3	305374967	17
			1.5	1.3	5.8/2.9	305374968	28
		230/460	2	1.2	6.4/3.2	305374969	30
			3	1.15	9.4/4.7	305374970	35
			1	1.25	3.2/1.6	305374975	30
	TEFC	208-230/460	1.5	1.15	4.9-5.0/2.5	305374976	32
			2	1.15	6.0-5.6/2.8	305374977	35
			3	1.15	7.9-6.7/3.4	305374978	40

Note: Every attempt has been made to provide the most current and accurate information possible. It is essential for the installing contractor to confirm the motor nameplate data before installation.

## MATERIALS OF CONSTRUCTION

Component Description	Material
Bracket, 1.5" Intake	303 SS
Coupling	303 SS
Seal Washer	303 SS
Seal Retaining Ring	300 SS
Mechanical Seal	Carbon-Ceramic-FKM
Shim(s)	18-8 SS
O-ring (Brkt & Disch)	NBR
Shaft	304L SS
Shell	304 SS
Diffuser, Disc, Spacers	PPE & PE
Impeller	Acetal
Impeller Eye Washer	302/304 SS
Impeller Hub Washer	302/304 SS
Hex Sleeve	PPE & PE
Thrust Washer	Graphite Linen Phenolic
Hex Discharge Bearing	SBR
Bearing Journals	Ceramic
Washer	18-8 SS
Lock Nut	300 SS
Discharge, 1.5" Outlet	303 SS
Baseplate	Steel
Base Motor Cushion	Neoprene
Bolts, Nuts, Washers	Zinc Plated Steel



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**Franklin Electric**