

Vertical Multi-Stage Pump | Submittal Data

Submittal No: 301-276 | Model: T45VR | RPM: 3600–60 Hz | Effective: June 28, 2024 | Supersedes: June 4, 2024

JOB: _____

REPRESENTATIVE: _____

ENGINEER: _____

CONTRACTOR: _____

PRODUCT DATA

ITEM NO. _____ MODEL NO. _____

IMPELLER DIAMETER _____ HORSEPOWER _____

GPM _____ VOLTAGE _____

HEAD/FT _____ RPM _____

WEIGHT _____

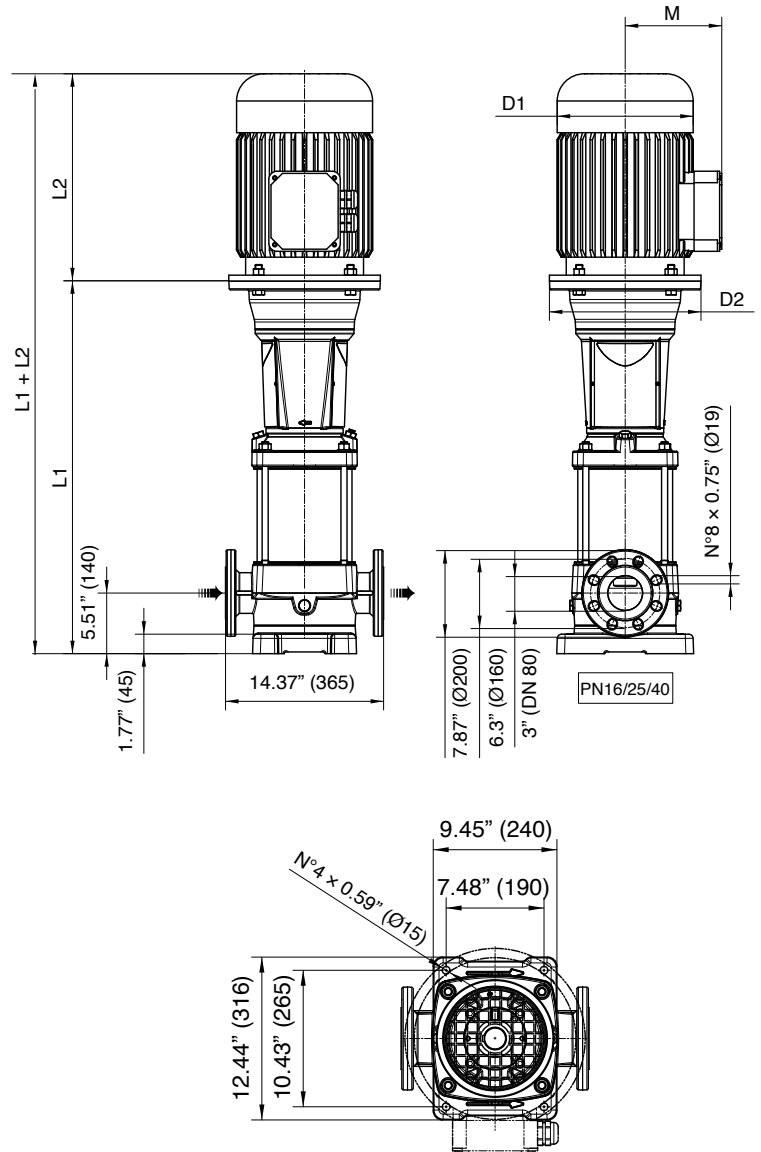
Configuration	DOE Basic Model Number	PEI Value		Energy Rating
Pump + Motor	45VR	PEI _d	0.95	5

NSF/ANSI/CAN 61-G & 372 CERTIFIED

DIMENSIONS

Model	No Stages	3600 RPM, 2-Pole Motor Rating			Pump End Only	
		Power		NEMA Frame Size	L1 (in.)	Weight (lbs.)
		HP	kW			
T45VR01-1A T45VR01-00	1	7.50	5.50	182-4TC/213-5TC	26.65	169/170
T45VR02-2A T45VR02-1A T45VR02-00	2	15.00	11.00	213-5TC/254-6TC	30.67	184/190
T45VR03-2A T45VR03-1A	3	20.00	15.00	254-6TC	33.90	193
T45VR03-00	3	25.00	18.50	254-6TC/ 284-6TSC	33.90	193/200
T45VR04-2A T45VR04-1A	4	30.00	22.00	284-6TSC	37.13	201
T45VR04-00	4	40.00	30.00	284-6TSC/324-6TSC	37.32	207/213
T45VR05-2A T45VR05-1A T45VR05-00	5	40.00	30.00	284-6TSC/324-6TSC	40.55	216/222
T45VR06-2A T45VR06-1A T45VR06-00	6	40.00	30.00	284-6TSC/324-6TSC	43.78	225/231
T45VR06-00	6	50.00	37.50	324-6TSC	43.78	225
T45VR07-2A T45VR07-1A T45VR07-00	7	50.00	37.50	324-6TSC	47.01	240
T45VR07-00	7	60.00	40.00	324-6TSC/364-5TSC	47.01	698

Model	No Stages	3600 RPM, 2-Pole Motor Dimensions (in.)					
		L2 Height		D1 Diameter		M (max)	
		1Ø TEFC	3Ø TEFC	1Ø TEFC	3Ø TEFC	1Ø TEFC	3Ø TEFC
T45VR01-1A T45VR01-00	1	14.01	15.18	10.28	8.60	8.05	6.87
T45VR02-2A T45VR02-1A T45VR02-00	2	N/A	17.89	N/A	10.28	N/A	8.05
T45VR03-2A T45VR03-1A	3	N/A	19.78	N/A	12.94	N/A	10.04
T45VR03-00	3	N/A	21.46	N/A	13.63	N/A	12.09
T45VR04-2A T45VR04-1A	4	N/A	23.14	N/A	15.30	N/A	13.12
T45VR04-00	4	N/A	25.03	N/A	17.85	N/A	14.63
T45VR05-2A T45VR05-1A T45VR05-00	5	N/A	25.03	N/A	17.85	N/A	14.63
T45VR06-2A T45VR06-1A T45VR06-00	6	N/A	25.03	N/A	17.85	N/A	14.63
T45VR06-00	6	N/A	25.03	N/A	17.85	N/A	14.63
T45VR07-2A T45VR07-1A T45VR07-00	7	N/A	25.03	N/A	17.85	N/A	14.63
T45VR07-00	7	N/A	27.56	N/A	19.50	N/A	18.10



NOTE: Companion flanges, nuts, bolts, and gaskets are not included with pump.

MOTOR SPECIFICATIONS

Enclosure: TEFC, 2-Pole, 3600 RPM

VR Pump - Motor Rating Information				Baldor Specific Data						
Phase	Voltz (60Hz)	HP	Mount Type	Baldor Motor	60 Hertz					Weight (lbs.)
					FLA	SFA	S.F	208v	Amps	
1	115/230	0.5	Footless	VL3503	7/3.5	8/4	1.25	Y	4.1	23
		0.75	Footless	VL3506	9.6/4.8	11.6/5.8	1.25	Y	6.1	29
		1	Footless	VL3509	11.8/5.9	14/7	1.25	Y	6.1	36
		1.5	Footless	PCL3513M	13.2/6.6	14.8/7.4	1.15	N	--	38
		2	Footless	PCL3515M	17.6/8.8	21/10.5	1.15	N	--	43
	230	3	Footless	PCL3519M	12.5	14.6	1.15	Y	13.7	52
		5	Footed	CL3608TM	19.5	21.6/19.5	1.00	Y	21.6	92
		7.5	Footed	L3709T-M13B	33	N/A	1.00	N	--	123
		10	Footed	CL3711T	40	43/40	1.00	Y	43	167
3	230/460	0.5	Footless	VM3537	1.6/0.8	2.4/1.2	1.25	Y	1.54	20
		0.75	Footless	VM3541	2.6/1.3	3/1.5	1.25	Y	3.1	21
		1	Footless	VEM3545	2.8/1.4	3.4/1.7	1.25	Y	3	32
		1.5	Footless	VEM3550	3.8/1.9	4.3/2.15	1.15	Y	4	35
		2	Footless	VEM3555	5/2.5	5.6/2.8	1.15	Y	5.3	43
		3	Footless	VEM3559	7.2/3.6	8.2/4.1	1.15	Y	7.9	50
		3	Footed	CEM3559T	7.2/3.6	8.2/4.1	1.15	Y	7.9	52
		3	Footed	CEM3610T	7.2/3.6	8.2/4.1	1.15	Y	7.9	50
		5	Footed	CEM3613T	11.6/5.8	13.4/6.7	1.15	Y	12.8	78
		7.5	Footed	CEM3616T	16.8/8.4	19.3/9.7	1.15	Y	18.5	101
		7.5	Footed	CEM3709T	18/9	20.4/10.2	1.15	Y	19	120
		10	Footed	CEM3711T	23.2/11.6	27/13.5	1.15	Y	24.9	121
		15	Footed	CEM3713T	34/17	39/19.5	1.15	Y	36.8	182
		15	Footed	CEM2394T	35/17.5	40/20	1.15	Y	38	250
		20	Footed	CEM4106T	46/23	52.6/26.3	1.15	Y	50	265
		25	Footed	CEM4107T	58/29	66.6/33.3	1.15	Y	62	346
		30	Footed	CEM4108T	68/34	79/39.5	1.15	N	--	389
		40	Footed	CEM4109T	90/45	103.6/51.8	1.15	Y	100	600
		50	Footed	CEM4114T	112/56	128/64	1.15	Y	122	591
		60	Footed	CEM4310T	131/65.4	151/75.5	1.15	Y	145	830
		75	Footed	CEM4313T	161/80.7	192.6/96.3	1.15	N	--	905
	575	0.5	Footless	VM3537-5	0.8	1	1.25	N	--	19
		0.75	Footless	VM3541-5	0.96	1.2	1.25	N	--	21
		1	Footless	VEM3545-5	1.1	1.3	1.25	N	--	27
		1.5	Footless	VEM3550-5	1.5	1.73	1.15	N	--	38
		2	Footless	VEM3555-5	2	2.22	1.15	N	--	41
		3	Footless	VEM3559-5	2.9	3.31	1.15	N	--	50
		3	Footed	CEM3559T-5	2.9	3.31	1.15	N	--	52
		3	Footed	CEM3610T-5	2.9	3.31	1.15	N	--	58
		5	Footed	CEM3613T-5	4.7	5.36	1.15	N	--	78
		7.5	Footed	EM3616T-5-M13B	6.8	7.74	1.15	N	--	75
		7.5	Footed	CEM3769T-5	7.4	8.38	1.15	N	--	179
		10	Footed	CEM3711T-5	9.5	10.8	1.15	N	--	123
		15	Footed	CEM3713T-5	13.6	15.6	1.15	N	--	169
		20	Footed	EM4106T-5-M13C	18	21.1	1.15	N	--	262
		25	Footed	EM4107T-5-M13C	23	25.2	1.15	N	--	327
		30	Footed	EM4108T-5-M13C	28	30.7	1.15	N	--	347
		40	Footed	EM4109T-5-M13C	37	42.3	1.15	N	--	551
		50	Footed	EM4114T-5-M13C	45	51.3	1.15	N	--	575

T45VR – MATERIALS OF CONSTRUCTION

Ref. No.	Part Description	Material		
		Type	ASTM/AISI	DIN / EN
10.00	Pump casing	Cast Iron	A48 Class 35	GJL-250
–	Hydraulics	Stainless Steel	AISI 316	1.4401
10.02	Draining plug	Stainless Steel	AISI 316	1.4301
10.06	Upper Flange	Cast Iron	A48 Class 35	1.4308
20.00	Outer Case	Stainless Steel	AISI 316	1.4301
20.01	Mechanical seal housing	Stainless Steel	CF 8M / AISI 316	1.4308
20.05	Filling plugs	Stainless Steel	AISI 316	1.4301
30.00	Pump shaft	Stainless Steel	AISI 329	1.4057
30.01	Kit Mechanical seal	Graphite/ SiC EPDM	-	-
30.02	Mechanical seal fastening kit	Stainless Steel	AISI 316	1.4401
30.03	Kit O-rings	EPDM	-	-
40.00	Stage housing and diffuser	Stainless Steel/ Graphite	AISI 316	1.4301
40.01	Stage centering outlet	Stainless Steel	CF 8M / AISI 316	1.4308
40.02	Floating neck ring	PTFE	-	-
40.05	Stage centering inlet	Stainless Steel	AISI 316	1.4401
40.06	Stage housing and diffuser with bearing	Stainless Steel	AISI 316	1.4301
40.07	Flange clamping neck ring	Stainless Steel	AISI 316	1.4301
40.08	Spring ring	Stainless Steel	AISI 316	1.4401
50.00	Impeller	Stainless Steel	AISI 316	1.4301
51.01	Split cone	Stainless Steel	AISI 316	1.4301
51.02	Intermediary sleeve nut	Stainless Steel, Tungsten Carbide WC	AISI 316	1.4401
51.03	Journal sleeve	Stainless Steel, Tungsten Carbide WC	AISI 316	1.4401
51.04	Split cone nut	Stainless Steel	AISI 316	1.4301
51.05	Intermediate impeller with screw	Stainless Steel	AISI 316	1.4301

Flange Data

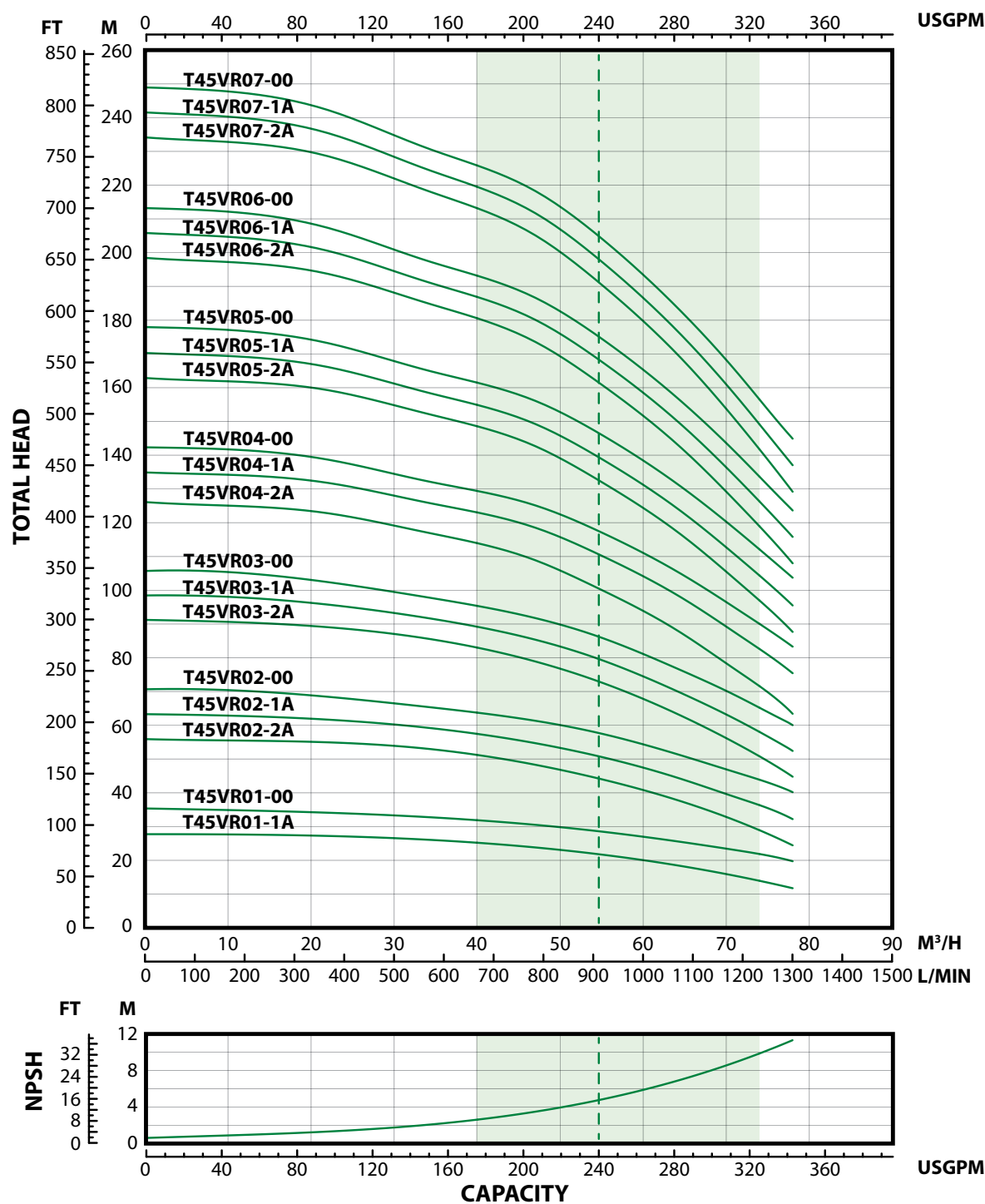
Series	Flange Pipe Size (in.)	Pump Max Rating (PSI)	Select the Companion Flange Based on the Maximum Potential System Pressure (Incoming + Max PSI from the Pump)		
T01VR (all stage counts)	1.25"	375	ANSI 150 steel flange	1.25"	260
			ANSI 300 steel flange	1.25"	750
T03-T06VR (all stage counts)	1.25"	375	ANSI 150 steel flange	1.25"	260
			ANSI 150 steel flange	1.50"	260
			ANSI 300 steel flange	1.25"	750
			ANSI 300 steel flange	1.50"	750
T10-T20VR (all stage counts)	2.00"	375	ANSI 150 steel flange	2.00"	260
			ANSI 300 steel flange	2.00"	750
T30VR, -1-2-3 stages	2.50"	230	ANSI 150 steel flange	2.50"	260
T30VR, -4-5-6-7-8 stages	2.50"	460	ANSI 300 steel flange	2.50"	750
T45VR, -1-2 stages	3.00"	230	ANSI 150 steel flange	3.00"	260
T45VR, -3-4-5-6-7 stages	3.00"	460	ANSI 300 steel flange	3.00"	750
T65-95VR, -1-2 stages	4.00"	230	ANSI 150 steel flange	4.00"	260
T65-95VR, -3-4-5 stages	4.00"	360	ANSI 300 steel flange	4.00"	750

NOTE: Class 125 and Class 250 flanges and flanged fittings are made from cast iron while Class 150 and Class 300 are ductile iron, steel, or stainless steel. However, the bolting pattern is the same for both Class 125 and 150 so, regardless of material they will bolt together, as is also the case for Class 250 and 300.

NOTE: T30-T45-T65-T95VR series pumps come equipped with two rotatable steel flanges with oval-shaped bolt holes that enable them to fit both DIN and ANSI flanges.

NOTE: Companion flanges, nuts bolts, and gaskets are not included with pump

T45VR – PERFORMANCE CURVES



NOTE: Specifications subject to change without prior notice. Hydraulic characteristics are according to ISO standard 9906, Annex A.

COMMENTS