

Technical overview

E.2 Series high efficiency circulator

File No: 10.165

Date: DECEMBER 24, 2012

Supersedes: 10.165

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MOTOR DATA

MODEL	SPEED	FULL LOAD AMP DRAW (A)				NOMINAL POWER
		RPM	120 V	208 V	240 V	
E7.2	3400	2.0	1.0	1.0	—	1/8 (125)
E8.2	3250	2.0	1.0	1.0	—	1/8 (125)
E9.2	3250	2.0	1.0	1.0	—	1/8 (125)
E10.2	3300	2.0	—	1.0	—	1/8 (125)
E11.2	3300	2.0	—	1.0	—	1/8 (125)
E12.2	3300	4.8	2.4	2.4	2.4	3/8 (298)
E13.2	3400	2.0	—	1.0	—	1/8 (125)
E14.2	3300	4.8	2.4	2.4	2.4	3/8 (298)
E15.2	3500	2.5	1.8	1.8	1.8	3/8 (298)
E16.2	3400	2.0	—	1.0	—	1/8 (125)
E17.2	3500	3.0	1.6	1.6	1.6	3/8 (298)
E19.2	3450	3.4	1.8	1.8	1.8	3/8 (298)
E21.2	3450	3.8	2.0	2.0	2.0	3/8 (298)
E23.2	3350	5.7	3.0	3.0	3.0	3/8 (298)
E24.2	3400	5.0	2.6	2.6	2.6	3/8 (298)
E28.2	3400	5.0	2.6	2.6	2.6	3/8 (298)
E23.2	3450	3.3	1.7	1.7	1.7	3/8 (298)
E29.2	3400	3.9	2.0	2.0	2.0	3/8 (298)
E30.2	3350	4.7	2.4	2.4	2.4	3/8 (298)
E33.2	3300	5.7	3.1	3.1	3.1	3/8 (298)

NOTE:

- Speed in RPM, nominal power in hp (W) and full load amp draw in amps
- All motors are two pole, single phase.

MATERIALS OF CONSTRUCTION

Pump body: Cast iron or lead free bronze**

Impeller: 30% glass-filled Noryl

Face plate and shaft: Stainless steel

Seal: Silicon carbide enviroseal

Gasket: EPDM

Bearings: Permanently lubricated stainless steel

** Contains less than 0.25% lead, weighted average.

TECHNICAL DATA

MODEL	MAX. FLOW in USgpm (L/s)	MAX. HEAD in ft. (m)
E7.2	38.0 (2.4)	26.0 (7.9)
E8.2	38.0 (2.4)	34.0 (10.4)
E9.2	38.0 (2.4)	42.4 (12.9)
E10.2	43.0 (2.7)	28.0 (8.5)
E11.2	45.0 (2.8)	31.9 (9.7)
E12.2	50.0 (3.1)	56.0 (17.0)
E13.2	54.0 (3.4)	19.7 (6.0)
E14.2	52.0 (3.3)	61.0 (18.6)
E15.2	58.0 (3.7)	24.5 (7.5)
E16.2	68.0 (4.3)	16.8 (5.1)
E17.2	65.0 (4.1)	27.0 (8.2)
E19.2	90.0 (5.7)	23.0 (7.0)
E21.2	90.0 (5.7)	26.5 (8.1)
E23.2	88.0 (5.6)	39.5 (12.0)
E24.2	83.0 (5.2)	35.5 (10.8)
E28.2	105.0 (6.6)	30.0 (9.1)
E23.2	117.0 (7.4)	17.0 (5.2)
E29.2	128.0 (8.1)	19.0 (5.8)
E30.2	130.0 (8.2)	22.0 (6.7)
E33.2	143.0 (9.0)	26.0 (7.9)

Max. fluid temperature: 230°F (110°C)

Max. ambient temperature: 122°F (50°C)

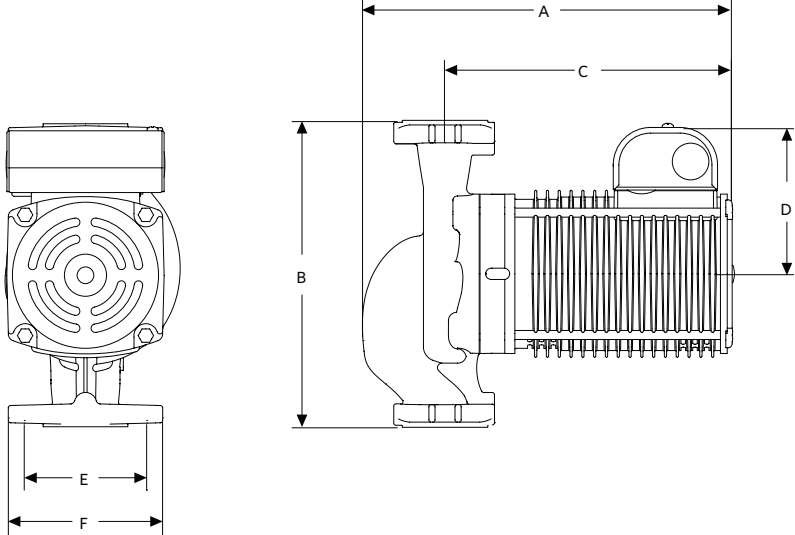
Max. working pressure: 150 PSI (1034 kPa)

ACCESSORIES

Spool pieces to retrofit existing three-piece circulator applications (see brochure # 10.161)

DIMENSIONS AND WEIGHTS

MODEL	A	B	C	D	E	F	CONNECTION	SHIPPING WEIGHT	
								CAST IRON	LEAD FREE BRONZE
E7.2/E7.2B	7.10 (180)	6.40 (164)	5.50 (140)	3.80 (97)	3.20 (81)	4.20 (107)	1.25" diameter 2-bolt flanges	13.1 (5.94)	13.3 (6.03)
E8.2/E8.2B	7.10 (180)	6.40 (164)	5.50 (140)	3.80 (97)	3.20 (81)	4.20 (107)	1.25" diameter 2-bolt flanges	13.1 (5.94)	13.3 (6.03)
E9.2/E9.2B	7.10 (180)	6.40 (164)	5.50 (140)	3.80 (97)	3.20 (81)	4.20 (107)	1.25" diameter 2-bolt flanges	13.1 (5.94)	13.3 (6.03)
E10.2/E10.2B	7.50 (191)	8.50 (215)	5.60 (142)	3.80 (97)	3.40 (86)	4.20 (107)	1.5" diameter 2-bolt flanges	15.1 (6.85)	15.1 (6.85)
E11.2/E11.2B	7.50 (191)	8.50 (215)	5.60 (142)	3.80 (97)	3.40 (86)	4.20 (107)	1.5" diameter 2-bolt flanges	15.1 (6.85)	15.1 (6.85)
E12.2/E12.2B	9.30 (235)	6.40 (164)	7.80 (197)	4.00 (101)	3.20 (81)	4.20 (107)	1.25" diameter 2-bolt flanges	17.8 (8.07)	18.4 (8.35)
E13.2/E13.2B	7.50 (191)	8.50 (215)	5.60 (142)	3.80 (97)	3.40 (86)	4.20 (107)	1.5" diameter 2-bolt flanges	15.1 (6.85)	14.8 (6.71)
E14.2/E14.2B	9.30 (235)	6.40 (164)	7.80 (197)	4.00 (101)	3.20 (81)	4.20 (107)	1.25" diameter 2-bolt flanges	17.8 (8.07)	18.4 (8.35)
E15.2/E15.2B	10.30 (261)	8.50 (215)	8.00 (202)	4.00 (101)	3.20 (81)	4.20 (107)	1.25" diameter 2-bolt flanges	20.9 (9.48)	21.2 (9.62)
E16.2/E16.2B	8.40 (212)	8.50 (215)	5.80 (147)	3.80 (97)	2.90 (73)	5.20 (131)	2" diameter 4-bolt flanges	18.8 (8.53)	20.9 (9.48)
E17.2/E17.2B	10.30 (261)	8.50 (215)	8.00 (202)	4.00 (101)	3.20 (81)	4.20 (107)	1.25" diameter 2-bolt flanges	20.9 (9.48)	21.2 (9.62)
E19.2/E19.2B	10.30 (261)	8.50 (215)	8.00 (202)	4.00 (101)	3.40 (81)	4.20 (107)	1.5" diameter 2-bolt flanges	20.7 (9.39)	20.9 (9.48)
E21.2/E21.2B	10.30 (261)	8.50 (215)	8.00 (202)	4.00 (101)	3.40 (81)	4.20 (107)	1.5" diameter 2-bolt flanges	20.7 (9.39)	20.9 (9.48)
E22.2/E22.2B	10.30 (261)	8.50 (215)	8.00 (202)	4.00 (101)	3.40 (81)	4.20 (107)	1.5" diameter 2-bolt flanges	20.7 (9.39)	20.9 (9.48)
E23.2/E23.2B	10.30 (261)	8.50 (215)	8.00 (202)	4.00 (101)	3.40 (81)	4.20 (107)	1.5" diameter 2-bolt flanges	20.7 (9.39)	20.9 (9.48)
E24.2/E24.2B	10.30 (261)	8.50 (215)	8.00 (202)	4.00 (101)	3.40 (81)	4.20 (107)	1.5" diameter 2-bolt flanges	20.7 (9.39)	20.9 (9.48)
E28.2/E28.2B	11.35 (286)	8.50 (215)	8.35 (210)	4.00 (101)	3.50 (89)	6.00 (152)	3" diameter 4-bolt flanges	26.8 (12.16)	29.2 (13.24)
E29.2/E29.2B	11.35 (286)	8.50 (215)	8.35 (210)	4.00 (101)	3.50 (89)	6.00 (152)	3" diameter 4-bolt flanges	26.8 (12.16)	29.2 (13.24)
E30.2/E30.2B	10.90 (276)	8.50 (215)	8.30 (210)	4.00 (101)	2.90 (73)	5.20 (131)	2" diameter 4-bolt flanges	17.2 (7.80)	25.7 (11.66)
	11.30 (286)	8.50 (215)	8.30 (210)	4.00 (101)	3.50 (89)	6.00 (152)	3" diameter 4-bolt flanges	26.8 (12.16)	29.2 (13.24)
E33.2/E33.2B	10.90 (276)	8.50 (215)	8.30 (210)	4.00 (101)	2.90 (73)	5.20 (131)	2" diameter 4-bolt flanges	17.2 (7.80)	25.7 (11.66)
	11.30 (286)	8.50 (215)	8.30 (210)	4.00 (101)	3.50 (89)	6.00 (152)	3" diameter 4-bolt flanges	26.8 (12.16)	29.2 (13.24)



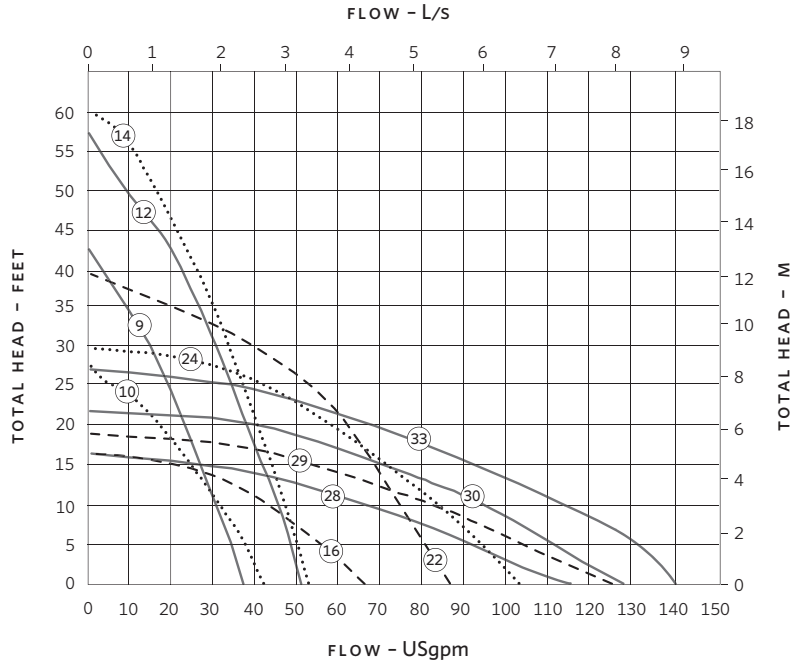
CROSS REFERENCE TABLE

MODELS	ARMSTRONG		B&G				GRUNDFOS	TACO		
	E.2 SERIES	CONNECTION	3-PIECE	OLD 60	NEW 60	PL	WET ROTOR	3-PIECE	WET ROTOR	1400 SERIES
OPEN SYSTEMS	E7.2B	FLANGED, 2 BOLT 1¼"	—	—	—	PL30B	UP 26-96B	—	0011	—
	E8.2B	FLANGED, 2 BOLT 1¼"	—	—	—	—	UP 26-99B	—	0013	—
	E9.2B	FLANGED, 2 BOLT 1¼"	—	—	—	PL36B	UP 26-116B	—	—	1400-20
	E10.2B	FLANGED, 2 BOLT 1½"	HV	—	—	—	UP 43-75B	—	—	—
	E11.2B	FLANGED, 2 BOLT 1½"	—	—	—	PL45B	—	—	—	1400-30
	E12.2B	FLANGED, 2 BOLT 1¼"	—	—	—	PL55B	—	—	—	1400-50
	E13.2B	FLANGED, 2 BOLT 1½"	—	—	—	PL50B	UP 43-44B	—	—	1400-40
	E14.2B	FLANGED, 2 BOLT 1¼"	—	—	—	—	—	—	—	—
	E15.2B	FLANGED, 2 BOLT 1¼"	—	—	601B	—	—	—	—	—
	E16.2B	FLANGED, 4 BOLT 2"	2	—	—	PL75B	UPS 40-40B	120	0012	1400-60
	E17.2B	FLANGED, 2 BOLT 1¼"	—	60-11B	602B	—	UPS 32-80B	—	—	—
	E19.2B	FLANGED, 2 BOLT 1½"	—	—	—	—	—	1600	—	—
	E21.2B	FLANGED, 2 BOLT 1½"	—	—	605B	—	—	1610	—	—
	E22.2B	FLANGED, 2 BOLT 1½"	—	—	622B	—	UPS 32-160B	1614	—	—
	E23.2B	FLANGED, 2 BOLT 1½"	—	60-11B	—	—	UPS 43-110B	1612	—	—
	E24.2B	FLANGED, 2 BOLT 1½"	—	60-15B	606B	—	UPS 40-80/2B	—	—	—
	E28.2B	FLANGED, 4 BOLT 3"	2½AB/LD3AB	60-13B	—	—	—	121, 122	—	—
	E29.2B	FLANGED, 4 BOLT 3"	HD3AB	—	—	—	—	131	—	—
E30.2B	FLANGED, 4 BOLT 2"	—	—	—	PL130B-2"	—	1630	—	—	
E30.2B	FLANGED, 4 BOLT 3"	PD-35AB	—	—	PL130B-3"	—	132	—	—	
E33.2B	FLANGED, 4 BOLT 2"	—	60-14B	615B	—	UPS 50-80/2B	1632	—	1400-70	
E33.2B	FLANGED, 4 BOLT 3"	—	—	—	—	—	133	—	—	
CLOSED SYSTEMS	E7.2	FLANGED, 2 BOLT 1¼"	—	—	—	PL30	UP 26-96F	—	0011	—
	E8.2	FLANGED, 2 BOLT 1¼"	—	—	—	—	UP 26-96F	—	0013	—
	E9.2	FLANGED, 2 BOLT 1¼"	—	—	—	PL36	UP 26-116F	—	—	1400-20
	E10.2	FLANGED, 2 BOLT 1½"	HV	—	—	—	UP 43-75F	112	—	—
	E11.2	FLANGED, 2 BOLT 1½"	—	—	—	PL45	—	—	—	1400-30
	E12.2	FLANGED, 2 BOLT 1¼"	—	—	—	PL55	—	—	—	1400-50
	E13.2	FLANGED, 2 BOLT 1½"	—	—	—	PL50	UP 43-44F	—	0012	1400-40
	E14.2	FLANGED, 2 BOLT 1¼"	—	—	—	—	—	—	—	—
	E15.2	FLANGED, 2 BOLT 1¼"	—	—	—	—	—	—	—	—
	E16.2	FLANGED, 4 BOLT 2"	2	—	—	PL75	UPS 40-40	120	0012	1400-60
	E17.2	FLANGED, 2 BOLT 1¼"	—	—	—	—	UPS 32-80	—	—	—
	E19.2	FLANGED, 2 BOLT 1½"	—	—	—	—	UP 43-70	1600	—	—
	E21.2	FLANGED, 2 BOLT 1½"	—	—	—	—	—	1610	—	—
	E22.2	FLANGED, 2 BOLT 1½"	—	—	—	—	UPS 32-160	1614	—	—
	E23.2	FLANGED, 2 BOLT 1½"	—	—	—	—	UP 43-110	1612	—	—
	E24.2	FLANGED, 2 BOLT 1½"	—	—	—	—	UPS 40-80/2	—	—	—
	E24.2	FLANGED, 2 BOLT 1½"	—	—	—	—	UPS 40-80/2	—	—	—
	E28.2	FLANGED, 4 BOLT 3"	2½/LD3	—	—	—	—	121, 122	—	—
E29.2	FLANGED, 4 BOLT 3"	HD3	—	—	—	—	131	—	—	
E30.2	FLANGED, 4 BOLT 2"	—	—	—	PL130-2"	—	1630	—	—	
E30.2	FLANGED, 4 BOLT 3"	PD-35	—	—	PL130-2"	—	132	—	—	
E30.2	FLANGED, 4 BOLT 3"	PD-35	—	—	PL130-2"	—	132	—	—	
E33.2	FLANGED, 4 BOLT 2"	—	—	—	—	UPS 50-80/2	1632	—	1400-70	
E33.2	FLANGED, 4 BOLT 2"	—	—	—	—	UPS 50-80/2	1632	—	1400-70	
E33.2	FLANGED, 4 BOLT 3"	—	—	—	—	—	133	—	—	

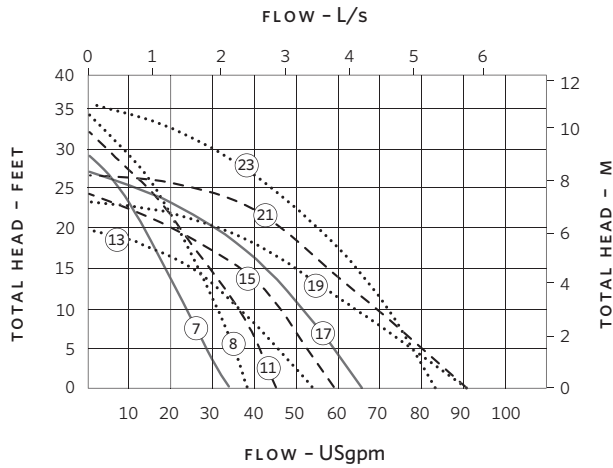
MODELS	PORT TO PORT LENGTH (INCHES)									
	E.2 SERIES	ARMSTRONG	B&G	ESP*	GRUNDFOS	ESP*	TACO	ESP*	S & H	ESP*
OPEN SYSTEMS	E7.2B	6 ³ / ₈ "	6 ³ / ₈ "	—	6 ¹ / ₂ "	—	6 ¹ / ₂ "	—	—	—
	E8.2B	6 ³ / ₈ "	—	—	6 ¹ / ₂ "	—	6 ¹ / ₂ "	—	—	—
	E9.2B	6 ³ / ₈ "	6 ³ / ₈ "	—	6 ¹ / ₂ "	—	6 ³ / ₈ "	—	—	—
	E10.2B	8 ¹ / ₂ "	8 ¹ / ₂ "	—	8 ¹ / ₂ "	—	—	—	8 ¹ / ₂ "	—
	E11.2B	8 ¹ / ₂ "	8 ¹ / ₂ "	—	—	—	6 ¹ / ₂ "	—	—	—
	E12.2B	6 ⁵ / ₈ "	6 ³ / ₈ "	—	—	—	6 ³ / ₈ "	—	—	—
	E13.2B	8 ¹ / ₂ "	8 ¹ / ₂ "	—	—	—	8 ¹ / ₂ "	—	—	—
	E14.2B	6 ⁵ / ₈ "	—	—	—	—	—	—	—	—
	E15.2B	8 ¹ / ₂ "	11"	—	—	—	—	—	11 ¹ / ₂ "	—
	E16.2B	8 ¹ / ₂ "	8 ¹ / ₂ "	—	13 ¹ / ₂ "	—	8 ¹ / ₂ "	—	8 ¹ / ₂ "	—
	E17.2B	8 ¹ / ₂ "	11"	—	11"	—	—	—	11 ¹ / ₂ "	—
	E19.2B	8 ¹ / ₂ "	—	—	—	—	—	—	13 ¹ / ₂ "	—
	E21.2B	8 ¹ / ₂ "	11"	—	—	—	10 ¹ / ₄ "	—	—	—
	E22.2B	8 ¹ / ₂ "	13 ¹ / ₂ "	—	11"	—	13 ¹ / ₂ "	—	—	—
	E23.2B	8 ¹ / ₂ "	13 ¹ / ₂ "	—	8 ¹ / ₂ "	—	13 ¹ / ₂ "	—	13 ¹ / ₂ "	—
	E24.2B	8 ¹ / ₂ "	11 ¹ / ₂ " / 11"	—	13 ¹ / ₂ "	—	—	—	11 ¹ / ₂ "	—
	E28.2B	8 ¹ / ₂ "	10"	—	—	—	11 ¹ / ₈ "	—	10"	—
	E29.2B	8 ¹ / ₂ "	10"	—	—	—	13 ⁵ / ₈ "	—	10"	—
	E30.2B	8 ¹ / ₂ "	8 ¹ / ₂ "	—	—	—	13 ¹ / ₂ "	—	—	—
	E30.2B	8 ¹ / ₂ "	12" / 8 ¹ / ₂ "	—	—	—	13 ⁵ / ₈ "	—	12"	—
E33.2B	8 ¹ / ₂ "	11 ¹ / ₂ " / 13 ¹ / ₂ "	—	14"	—	8 ¹ / ₂ "	—	11 ¹ / ₂ "	—	
E33.2B	8 ¹ / ₂ "	—	—	—	—	13 ⁵ / ₈ "	—	—	—	
CLOSED SYSTEMS	E7.2	6 ³ / ₈ "	6 ³ / ₈ "	—	6 ¹ / ₂ "	—	6 ¹ / ₂ "	—	—	—
	E8.2	6 ³ / ₈ "	—	—	6 ¹ / ₂ "	—	6 ¹ / ₂ "	—	—	—
	E9.2	6 ³ / ₈ "	6 ³ / ₈ "	—	6 ¹ / ₂ "	—	6 ³ / ₈ "	—	—	—
	E10.2	8 ¹ / ₂ "	8 ¹ / ₂ "	—	8 ¹ / ₂ "	—	—	—	8 ¹ / ₂ "	—
	E11.2	8 ¹ / ₂ "	8 ¹ / ₂ "	—	—	—	8 ¹ / ₂ "	—	—	—
	E12.2	6 ⁵ / ₈ "	6 ³ / ₈ "	—	—	—	6 ³ / ₈ "	—	—	—
	E13.2	8 ¹ / ₂ "	8 ¹ / ₂ "	—	—	—	8 ¹ / ₂ "	—	—	—
	E14.2	6 ⁵ / ₈ "	—	—	—	—	—	—	—	—
	E15.2	8 ¹ / ₂ "	11"	ESP-2	—	—	—	—	11 ¹ / ₂ "	ESP-1
	E16.2	8 ¹ / ₂ "	8 ¹ / ₂ "	—	13 ¹ / ₂ "	—	8 ¹ / ₂ "	—	8 ¹ / ₂ "	—
	E17.2	8 ¹ / ₂ "	11"	ESP-2	11"	ESP-2	—	—	11 ¹ / ₂ "	ESP-1
	E19.2	8 ¹ / ₂ "	11 ¹ / ₂ "	ESP-4	8 ¹ / ₂ "	—	10 ¹ / ₄ "	—	13 ¹ / ₂ "	—
	E21.2	8 ¹ / ₂ "	11"	ESP-2	—	—	10 ¹ / ₄ "	—	—	—
	E22.2	8 ¹ / ₂ "	13 ¹ / ₂ "	ESP-5	11"	ESP-11	13 ¹ / ₂ "	—	—	—
	E23.2	8 ¹ / ₂ "	13 ¹ / ₂ "	ESP-5	8 ¹ / ₂ "	—	13 ¹ / ₂ "	—	13 ¹ / ₂ "	ESP-5
	E24.2	8 ¹ / ₂ "	11 ¹ / ₂ "	ESP-4	13 ¹ / ₂ "	ESP-5	—	—	11 ¹ / ₂ "	ESP-4
	E24.2	8 ¹ / ₂ "	11"	ESP-11	13 ¹ / ₂ "	ESP-5	—	—	11 ¹ / ₂ "	ESP-4
	E28.2	8 ¹ / ₂ "	10"	ESP-6	—	—	11 ¹ / ₈ "	ESP-7	10"	ESP-6
	E29.2	8 ¹ / ₂ "	10"	ESP-6	—	—	13 ⁵ / ₈ "	ESP-9	10"	ESP-6
	E30.2	8 ¹ / ₂ "	8 ¹ / ₂ "	—	—	—	13 ¹ / ₂ "	—	—	—
E30.2	8 ¹ / ₂ "	12"	ESP-8	—	—	13 ⁵ / ₈ "	ESP-9	12"	ESP-8	
E30.2	8 ¹ / ₂ "	8 ¹ / ₂ "	ESP-8	—	—	13 ⁵ / ₈ "	ESP-9	12"	ESP-8	
E33.2	8 ¹ / ₂ "	11 ¹ / ₂ "	ESP-12	11 ¹ / ₂ "	ESP-12	8 ¹ / ₂ "	—	11 ¹ / ₂ "	ESP-12	
E33.2	8 ¹ / ₂ "	13 ¹ / ₂ "	ESP-10	11 ¹ / ₂ "	ESP-12	8 ¹ / ₂ "	—	11 ¹ / ₂ "	ESP-12	
E33.2	8 ¹ / ₂ "	—	—	—	—	13 ⁵ / ₈ "	ESP-9	—	—	

NOTE: * Use the listed pool piece models (ESP) to match E.2 series circulator port to port dimensions for a faster cleaner, pre-painted installation.

PERFORMANCE CURVES



Circled numbers denote E.2 series model number (performance guaranteed only at operating point indicated).



TORONTO
+1 416 755 2291

BUFFALO
+1 716 693 8813

BIRMINGHAM
+44 (0) 8444 145 145

MANCHESTER
+44 (0) 8444 145 145

BANGALORE
+91 (0) 80 4906 3555

SHANGHAI
+86 21 3756 6696