

390 Series Multi-Stage Vertical In-Line Centrifugal Pumps

- Capacities to 400 G.P.M. (91 M³/HR)
- Heads to 800 Feet (243 Meters)
- Temperatures to 250°F (120°C)



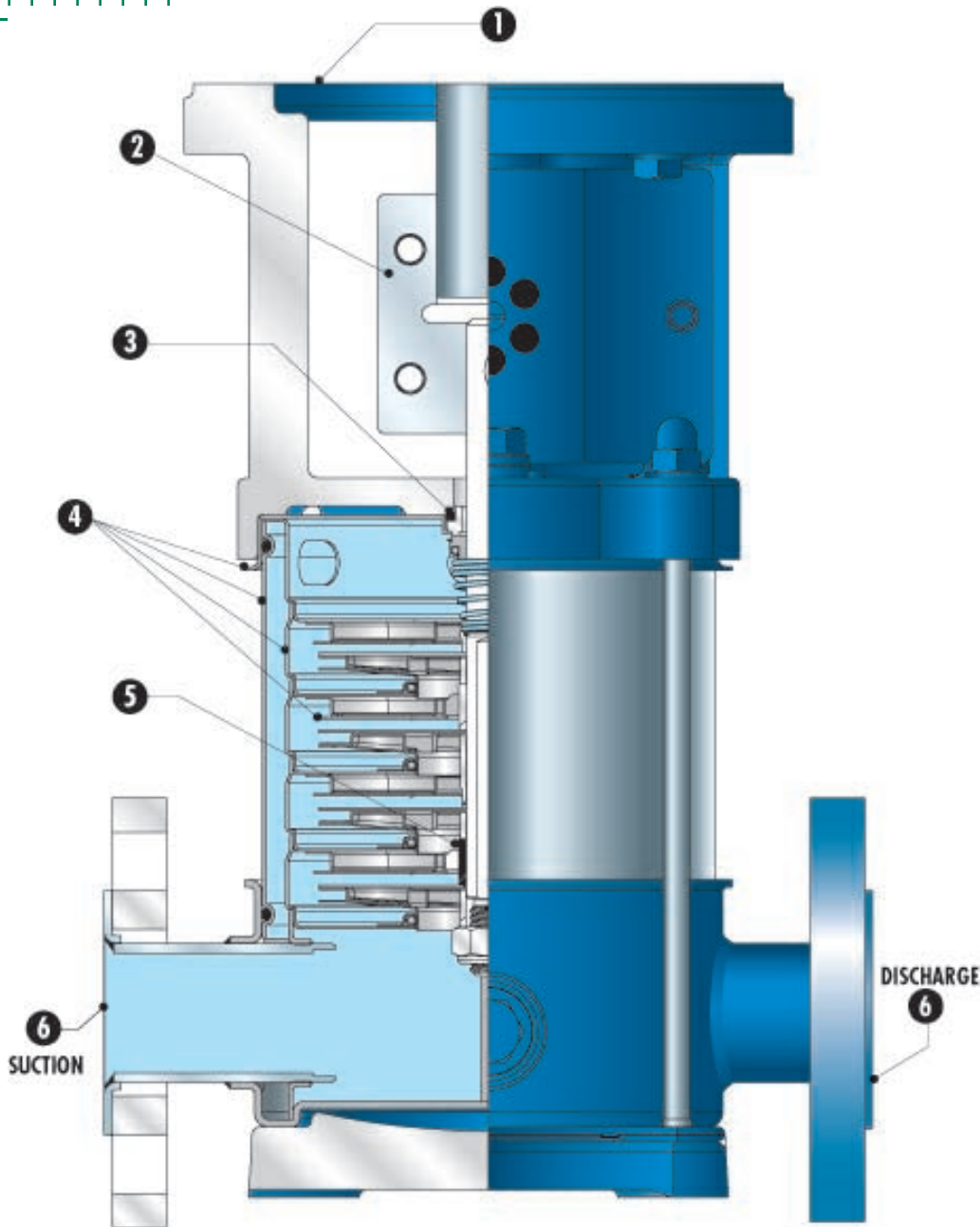
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ap AURORA®
Pentair Pump Group

Aurora 390 Pump

Aurora's line of stainless steel stackable pumps are ideal for high pressure applications which require a minimum amount of floor space. The vertical design is ideal for both new and existing applications. All of the pumps' hydraulic components are of 304 stainless steel. All casings are made of 304 stainless steel. The Nema C motor face and rigid coupling design allows the pump to operate at low noise levels, high efficiency, and long working life with minimal maintenance. Mechanical seals of carbon against silicon carbide, interstage pump bushings of tungsten carbide vs. ceramic, and O-rings of EPDM allow pumps to operate at temperatures to 250°F.



MODELS 391, 392, 393 & 394

BENEFITS

FLOOR SAVING DESIGN: Small base footprint and inline construction minimizes space requirements.

COST EFFECTIVE: Stamped Stainless Steel construction provides big pump performance at a small pump cost.

LOW OPERATING COST: High hydraulic efficiency as well as excellent NPSH requirements saves money.

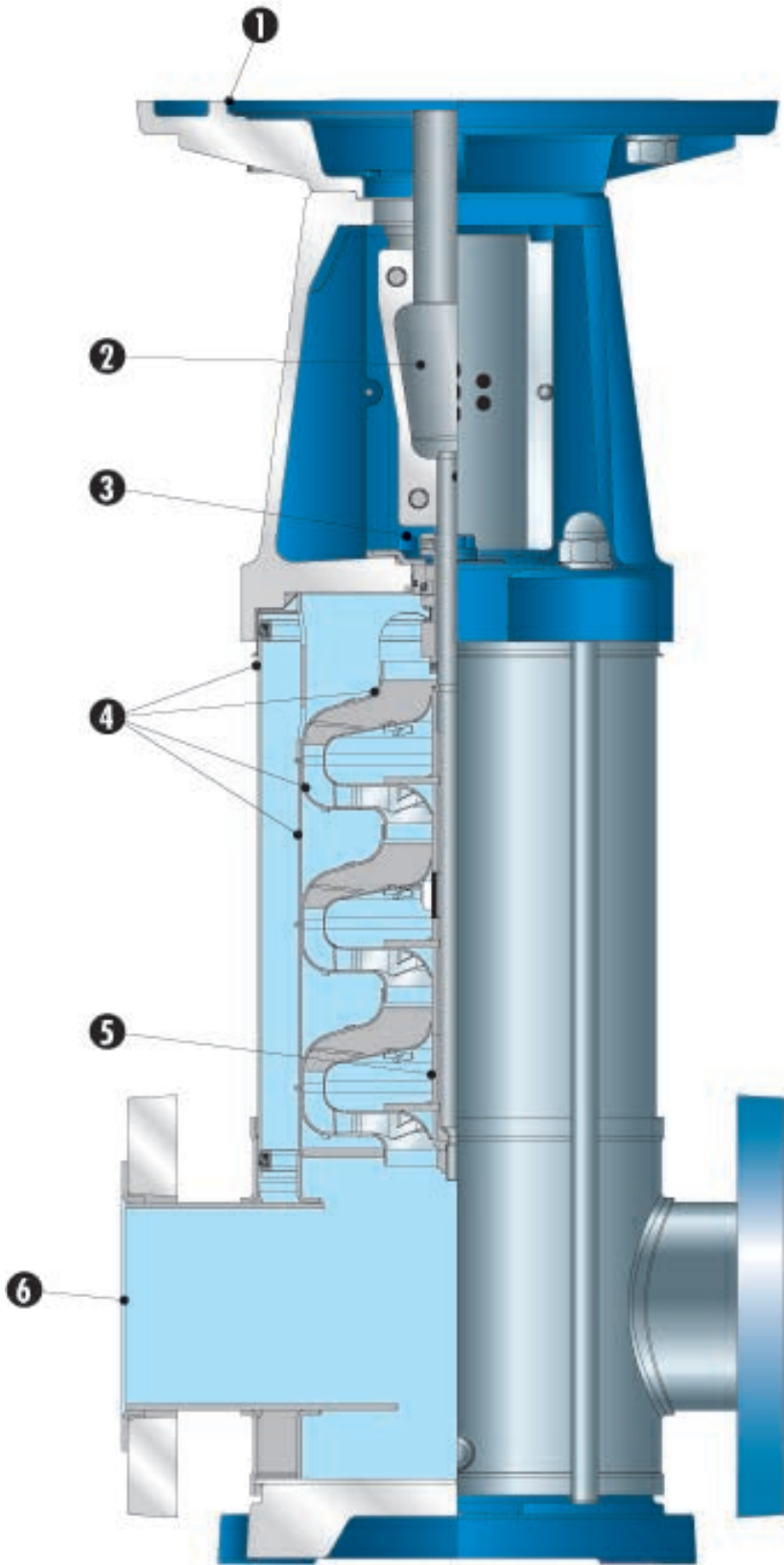
EASY TO MAINTAIN: Design facilitates quick repair time and in-stock kits for seals and hydraulic components minimize down time.

LOW NOISE LEVEL: Superior design limits noise and vibration.

KEY FEATURES

- 1 NEMA C-FACE MOTOR REGISTER.
- 2 ALL METAL RIGID COUPLING.
- 3 HIGH TEMP/HIGH PRESSURE MECHANICAL SEAL as standard for low maintenance.
- 4 ALL WETTED COMPONENTS OF AISI 303/304 STAINLESS STEEL for corrosion resistance.
- 5 TUNGSTEN CARBIDE VS CERAMIC BUSHINGS for long life at high temperatures.
- 6 DUCTILE IRON SLIP RING FLANGES for easy piping assembly.

Features



MODELS 395A, 396A & 397

BENEFITS

FLOOR SAVING DESIGN: Small base footprint and inline construction minimizes space requirements.

COST EFFECTIVE: Stamped Stainless Steel construction provides big pump performance at a small pump cost.

LOW OPERATING COST: High hydraulic efficiency as well as excellent NPSH requirements saves money.

EASY TO MAINTAIN: Design facilitates quick repair time and in-stock kits for seals minimize down time.

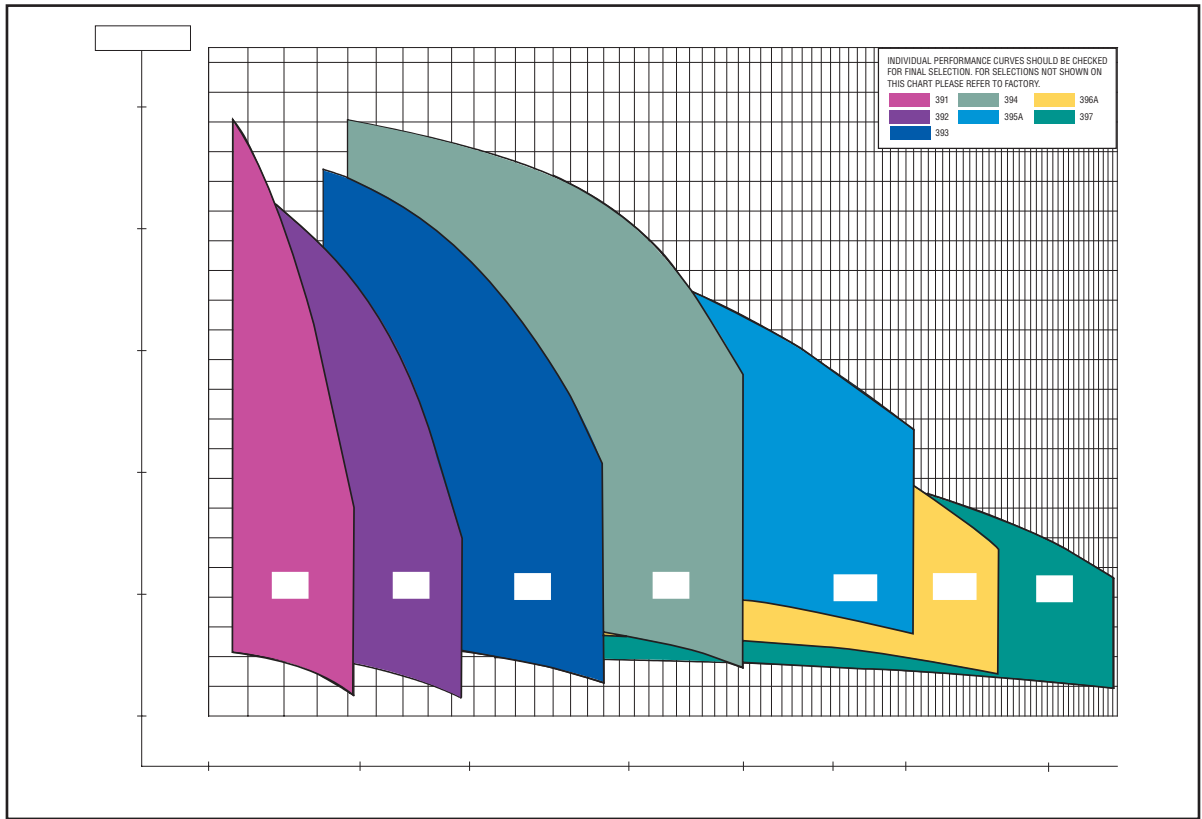
LOW NOISE LEVEL: Superior design limits noise and vibration.

KEY FEATURES

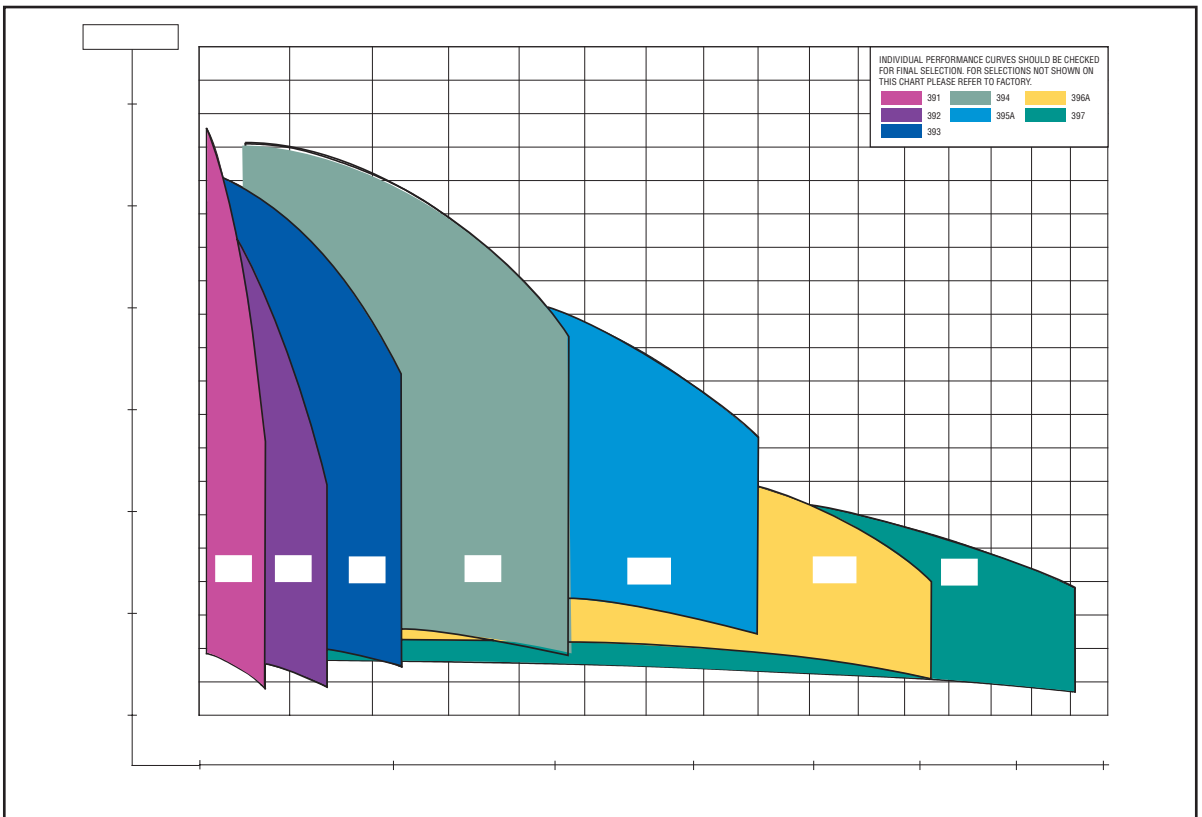
- 1 NEMA C-Face MOTOR REGISTER.
- 2 ALL METAL RIGID COUPLING.
- 3 HIGH TEMP/HIGH PRESSURE MECHANICAL SEAL. Cartridge Design allows replacing seal with out removing the motor.
- 4 ALL WETTED COMPONENTS OF AISI 303/304 STAINLESS STEEL for corrosion resistance.
- 5 TUNGSTEN CARBIDE VS CERAMIC BUSHINGS for long life at high temperatures.
- 6 CAST IRON SLIP RING FLANGES for easy piping assembly.

390 Range Chart

3450 RPM



2880 RPM



390 Dimensions

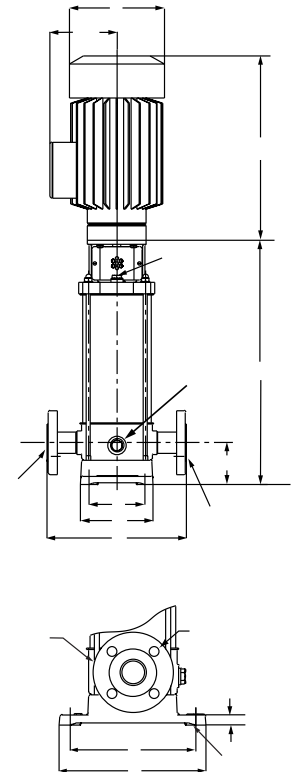
391

MODEL	# OF STAGES	HP 60HZ	HP 50HZ	FRAME	P	AB	AG	DH	WEIGHT [PUMP ONLY]
391-2	2	0.75	.33	56C	7.38 (187)	5.75 (146)	11.82 (300)	11.25 (286)	20 (9)
391-3	3	0.75	.33	56C	7.38 (187)	5.75 (146)	11.82 (300)	12 (305)	21 (9)
391-4	4	1	.5	56C	7.38 (187)	5.75 (146)	11.82 (300)	12.75 (324)	22 (10)
391-5	5	1.5	1	143TC	7.38 (187)	6.19 (157)	11.76 (299)	13.75 (349)	23 (10)
391-6	6	1.5	1	143TC	7.38 (187)	6.19 (157)	11.76 (299)	14.50 (368)	24 (10)
391-7	7	1.5	1	143TC	7.38 (187)	6.19 (157)	11.76 (299)	15.25 (387)	25 (11)
391-8	8	2	1	145TC	7.38 (187)	6.19 (157)	11.76 (299)	16 (406)	26 (11)
391-9	9	2	1	145TC	7.38 (187)	6.19 (157)	11.76 (299)	17 (432)	27 (12)
391-10	10	3	2	182TC	9.88 (251)	7.84 (199)	16.5 (419)	18.63 (473)	28 (12)
391-11	11	3	2	182TC	9.88 (251)	7.84 (199)	16.5 (419)	19.50 (495)	28 (12)
391-13	13	3	2	182TC	9.88 (251)	7.84 (199)	16.5 (419)	21.13 (537)	28 (12)
391-15	15	5	2	184TC	9.88 (251)	7.84 (199)	16.5 (419)	22.81 (579)	28 (12)
391-16	16	5	2	184TC	9.88 (251)	7.84 (199)	16.5 (419)	23.75 (603)	39 (17)
391-18	18	5	2	184TC	9.88 (251)	7.84 (199)	16.5 (419)	25.25 (641)	41 (18)

	MODEL	
	391	392
A	3.94 (100)	3.94 (100)
B	5.12 (130)	5.12 (130)
C	9.84 (250)	9.84 (250)
D	3.00 (75)	3.00 (75)
E	7.08 (180)	7.08 (180)
F	8.27 (210)	8.27 (210)
G	1.25 (31)	1.25 (31)

392

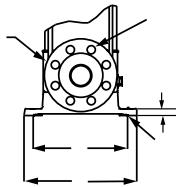
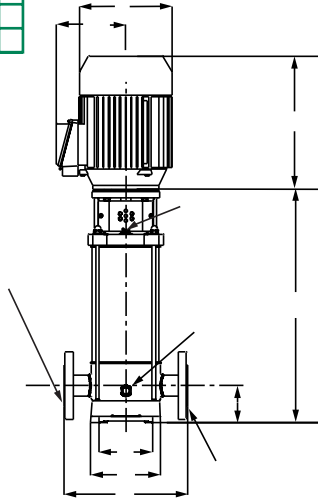
MODEL	# OF STAGES	HP 60HZ	HP 50HZ	FRAME	P	AB	AG	DH	WEIGHT [PUMP ONLY]
392-2	2	.75	.33	56C	7.38 (187)	5.75 (146)	11.82 (300)	11.25 (286)	22 (10)
392-3	3	1	.5	56C	7.38 (187)	5.75 (146)	11.82 (300)	12 (305)	23 (10)
392-4	4	1.5	1	143TC	7.38 (187)	6.19 (157)	11.76 (299)	12.75 (324)	24 (11)
392-5	5	1.5	1	143TC	7.38 (187)	6.19 (157)	11.76 (299)	13.63 (346)	25 (11)
392-6	6	2	1	145TC	7.38 (187)	6.19 (157)	11.76 (299)	14.5 (368)	26 (11)
392-7	7	3	2	182TC	9.88 (251)	7.84 (199)	16.5 (419)	16.25 (413)	35 (15)
392-8	8	3	2	182TC	9.88 (251)	7.84 (199)	16.5 (419)	17 (432)	35 (15)
392-9	9	3	2	182TC	9.88 (251)	7.84 (199)	16.5 (419)	17.88 (454)	35 (15)
392-10	10	5	2	184TC	9.88 (251)	7.84 (199)	16.5 (419)	18.63 (473)	35 (15)
392-11	11	5	2	184TC	9.88 (251)	7.84 (199)	16.5 (419)	19.5 (495)	36 (16)
392-13	13	5	3	184TC	9.88 (251)	7.84 (199)	16.5 (419)	21.13 (537)	38 (17)
392-15	15	5	3	184TC	9.88 (251)	7.84 (199)	16.5 (419)	22.75 (578)	40 (18)
392-16	16	7.5	3	184TC	9.88 (251)	7.84 (199)	16.5 (419)	23.63 (600)	41 (18)



NOTES:

1. All dimensions are in inches (mm) and may vary $\pm 1/4$ (6).
2. Not for construction purposes unless certified.
3. Motor dimensions are representative and will vary by enclosure and manufacturer.

Dimensions



	MODEL	
	393	394
A	5.12 (130)	5.12 (130)
B	6.69 (170)	6.69 (170)
C	11.81 (300)	11.81 (300)
D	3.50 (90)	3.50 (90)
E	8.46 (215)	8.46 (215)
F	10.04 (255)	10.04 (255)
G	2 (51)	2 (51)

393

MODEL	# OF STAGES	HP 60HZ	HP 50HZ	FRAME	P	AB	AG	DH	WEIGHT [PUMP ONLY]
393-2	2	1.5	1	143TC	7.38 (187)	6.19 (157)	11.76 (299)	13.63 (346)	35 (15.9)
393-3	3	3	2	182TC	9.88 (251)	7.84 (199)	16.5 (419)	15.5 (394)	37 (16.6)
393-4	4	3	2	182TC	9.88 (251)	7.84 (199)	16.5 (419)	16.63 (422)	38 (17.3)
393-5	5	5	2	184TC	9.88 (251)	7.84 (199)	16.5 (419)	17.63 (448)	45 (20.2)
393-6	6	5	3	184TC	9.88 (251)	7.84 (199)	16.5 (419)	18.5 (470)	46 (20.9)
393-7	7	7.5	3	184TC	9.88 (251)	7.84 (199)	16.5 (419)	19.75 (502)	48 (21.6)
393-8	8	7.5	3	184TC	9.88 (251)	7.84 (199)	16.5 (419)	20.88 (530)	49 (22.3)
393-10	10	10	7.5	215TC	11.5 (292)	9.31 (236)	19.5 (495)	23 (584)	56 (25.5)
393-12	12	10	7.5	215TC	11.5 (292)	9.31 (236)	19.5 (495)	25.5 (648)	56 (25.5)
393-14	14	15	7.5	215TC	11.5 (292)	9.31 (236)	19.5 (495)	27.5 (699)	59 (26.9)

394

MODEL	# OF STAGES	HP 60HZ	HP 50HZ	FRAME	P	AB	AG	DH	WEIGHT [PUMP ONLY]
394-2	2	5	3	184TC	9.88 (251)	7.84 (199)	16.5 (419)	15.13 (384)	42 (19.2)
394-3	3	7.5	3	184TC	9.88 (251)	7.84 (199)	16.5 (419)	16.38 (416)	44 (20.1)
394-4	4	7.5	5	184TC	9.88 (251)	7.84 (199)	16.5 (419)	17.75 (451)	46 (21.0)
394-5	5	10	7.5	215TC	11.5 (292)	9.31 (236)	19.5 (495)	19.5 (495)	49 (22.3)
394-6	6	15	7.5	215TC	11.5 (292)	9.31 (236)	19.5 (495)	21 (533)	51 (23.2)
394-7	7	15	10	215TC	11.5 (292)	9.31 (236)	19.5 (495)	22.25 (565)	53 (24.1)
394-8	8	15	10	215TC	11.5 (292)	9.31 (236)	19.5 (495)	23.5 (597)	55 (25.0)
394-9	9	20	15	254TC	12.75 (324)	10.38 (264)	21.13 (537)	25.5 (648)	61 (27.5)
394-10	10	20	15	254TC	12.75 (324)	10.38 (264)	21.13 (537)	27 (686)	63 (28.4)
394-12	12	25	20	284TSC	15.50 (394)	13.69 (348)	23.37 (594)	28.88 (734)	71 (32.4)

NOTES:

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Dimensions

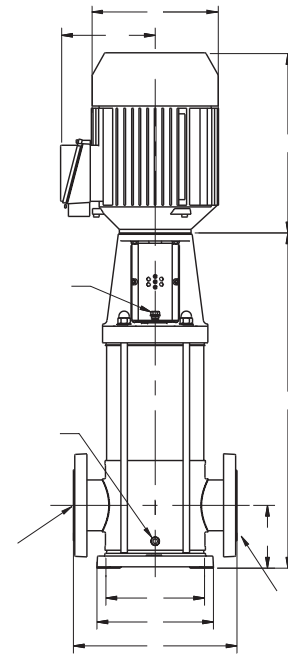
395A

MODEL	# OF STAGES	HP 60HZ	HP 50HZ	FRAME	P	AB	AG	DH	WEIGHT (PUMP ONLY)
395A-2	2	10	7.5	215TC	8.86 (225)	6.61 (168)	14.53 (369)	20.71 (526)	103 (46.7)
395A-3	3	15	7.5	215TC	12.28 (312)	9.06 (230)	17.20 (437)	26.77 (680)	117 (53.1)
395A-4	4	20	15	254TC	12.28 (312)	9.06 (230)	17.20 (437)	28.66 (728)	123 (55.8)
395A-5	5	20	15	254TC	12.28 (312)	9.06 (230)	17.20 (437)	30.59 (777)	130 (59)
395A-6	6	25	20	284TSC	12.28 (312)	9.06 (230)	18.78 (477)	32.48 (825)	139 (63)
395A-7	7	30	20	286TSC	12.28 (312)	9.06 (230)	20.35 (517)	34.41 (874)	143 (65)

	MODEL		
	395A	396A	397
A	7.60 (193)	7.60 (193)	8.66 (220)
B	10.24 (260)	10.24 (260)	10.24 (260)
C	12.60 (320)	12.60 (320)	14.37 (365)
D	4.13 (105)	4.13 (105)	5.51 (140)
E	7.60 (193)	7.60 (193)	8.66 (220)
F	10.24 (260)	10.24 (260)	10.24 (260)
G	2.50 (64)	3.00 (76)	4.00 (102)

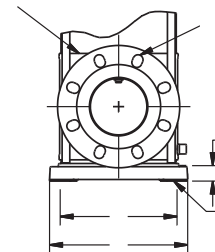
396A

MODEL	# OF STAGES	HP 60HZ	HP 50HZ	FRAME	P	AB	AG	DH	WEIGHT (PUMP ONLY)
396A-2	1	7.5	5	184TC	8.82 (224)	6.61 (168)	12.72 (323)	18.03 (458)	112 (50.8)
396A-3	2	15	7.5	215TC	8.86 (225)	6.61 (168)	13.46 (342)	20.71 (526)	116 (52.6)
396A-4	2	15	10	215TC	8.86 (225)	6.61 (168)	14.53 (369)	20.71 (526)	119 (54.0)
396A-5	3	20	15	254TC	12.28 (312)	9.06 (230)	17.20 (437)	26.77 (680)	123 (55.8)
396A-6	3	25	20	284TSC	12.28 (312)	9.06 (230)	17.20 (437)	26.77 (680)	128 (58.1)
396A-7	4	30	20	286TSC	12.28 (312)	9.06 (230)	17.20 (437)	28.66 (728)	132 (59.9)



397

MODEL	# OF STAGES	HP 60HZ	HP 50HZ	FRAME	P	AB	AG	DH	WEIGHT (PUMP ONLY)
397-1	1	7.5	5	184TC	9.88 (251)	7.84 (199)	16.5 (419)	22.4 (570)	111 (50.4)
397-2	2	15	10	215TC	11.5 (292)	9.31 (236)	19.5 (495)	26.7 (679)	119 (53.8)
397-3	3	20	15	254TC	12.75 (324)	10.38 (264)	21.13 (537)	30.2 (768)	126 (57.2)
397-4	4	25	20	284TSC	15.5 (394)	13.69 (348)	23.37 (594)	34.9 (886)	134 (60.6)
397-5	5	30	20	286TSC	15.5 (394)	13.69 (348)	23.37 (594)	38.4 (975)	141 (64.0)



NOTES:

1. All dimensions are in inches (mm) and may vary $\pm 1/4$ (6).
2. Not for construction purposes unless certified.
3. Motor dimensions are representative and will vary by enclosure and manufacturer.

Engineering Specifications

The contractor shall furnish and install (in location as shown on the plans) an Aurora Pump Type 390, Vertical Multi-Stage In-Line Centrifugal Pump. The pump shall have a capacity of ___ GPM at ___ ft. total head and ___ specific gravity. Each pump shall be constructed with 304 Stainless Steel impellers and diffusers, a high temperature mechanical seal with Carbon vs Silicon Carbide, EPDM elastomers through out, Tungsten Carbide against Ceramic pump bushings and a Cast Iron motor bracket. Flanges will be Ductile or Cast Iron in Slip Ring (and isolated from liquid). The pump is to be coupled with a 3500 RPM NEMA motor of ___ Hp, ___ Phase, ___ Voltage and with (TEFC)(ODP) enclosure using a rigid split coupling. Motor bearings shall be sized to allow a 20,000 minimum hour B10 calculated life.

Engineering Tables

MODEL	391	392	393	394	395A	396A	397
H.P. Range	3/4 - 5	3/4 - 5	1-1/2 - 15	5 - 25	7-1/2 - 30	5 - 30	7-1/2-30
Suction & Discharge Flanges	Slip Ring 1-1/4 (250 lbs)	Slip Ring 1-1/4 (250 lbs)	Slip Ring 2 (250 lbs)	Slip Ring 2 (250 lbs)	Slip Ring 2-1/2 (250 lbs)	Slip Ring 3 (250 lbs)	Slip Ring 4 (125 lbs)
Flow Range GPM	3 - 20	4 - 42	6 - 80	16 - 130	20 - 200	25 - 290	50-400
Max Working Pressure	360	360	360	360	360	360	175
Max Temperature °F	250	250	250	250	250	250	250

Materials of Construction

PUMP PART	MODEL 391-394, 395A, 396A & 397
Impellers	AISI 304 Stn Stl
Diffusers	AISI 304 Stn Stl
Shaft	AISI 303 Stn Stl
Pump Sleeve	AISI 304 Stn Stl
Upper Casing	AISI 304 Stn Stl Wetted & ASTM 48 Class 35
Lower Casing	AISI 304 Stn Stl Wetted with Iron Flange Rings
Mechanical Seal	Carbon vs Silicon Carbide Faces with EPDM Elastomers & AISI 316 Stn Stl Parts
O-rings	EPDM
Coupling	Aluminum, Steel or Cast Iron Depending on HP Required
Pump Bushings	Tungsten Carbide vs Aluminum Oxide Ceramic
Plug	AISI 316



NOTE: Aurora Pump reserves the right to make revisions to its products and their specifications, and to this bulletin and related information, without notice.

— Your Authorized Local Distributor —

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