

Performance Curves for the 610 Series (50 Hz)

MODEL/SIZE	R.P.M.	PDF PAGE
6x6x12	1440	3
6x6x12	960	4
6x6x12	720	5
6x6x12	575	6
6x6x12B	1440	7
6x6x12B	960	8
6x6x12B	720	9
6x6x12B	575	10
6x8x15	1475	11
6x8x15	960	12
6x8x15	720	13
6x8x15	575	14
6x8x15	480	15
6x8x18	980	16
6x8x18	720	17
6x8x18	575	18
6x8x18	480	19
8x8x15A	960	20
8x8x15A	720	21
8x8x15A	575	22
8x8x15A	480	23
8x10x18	980	24
8x10x18	720	25
8x10x18	575	26
8x10x18	480	27
8x10x22	720	28
8x10x22	575	29
8x10x22	480	30
10x10x15	980	31
10x10x15	720	32
10x10x15	575	33
10x10x15	480	34
10x10x22	980	35
10x12x22	735	36
10x12x22	575	37
10x12x22	480	38
12x14x22A	735	39
12x14x22A	575	40
12x14x22A	480	41
12x14x22B	735	42
12x14x22B	575	43
12x14x22B	480	44
14x14x22A	980	45

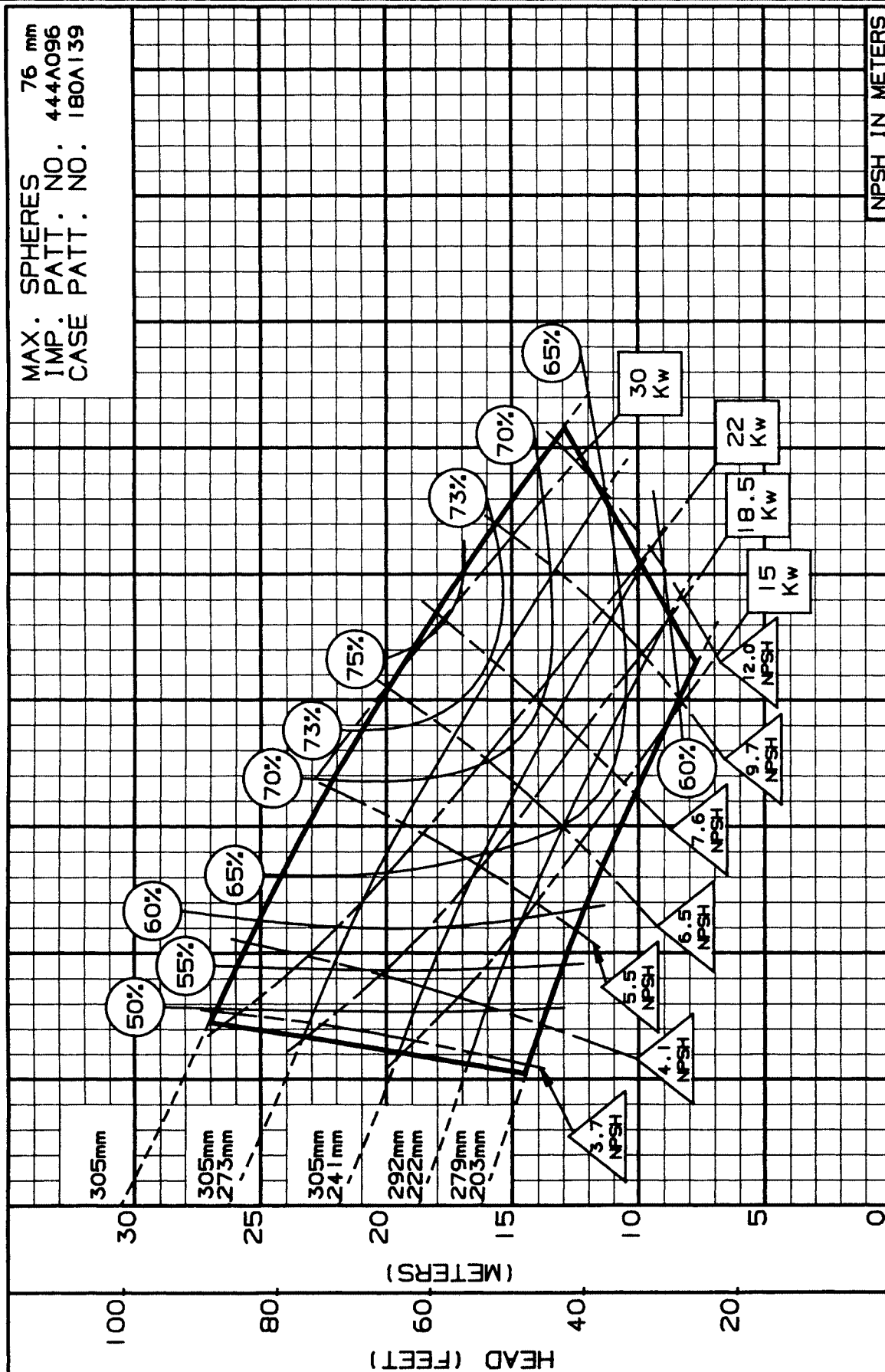
Continued next page

Performance Curves for the 610 Series (50 Hz) (cont.)

MODEL/SIZE	R.P.M.	PDF PAGE
16x16x28	735	46
16x16x28	575	47
16x16x28	480	48
18x18x28	575	49
18x18x28	480	50
18x18x28	410	51
20x20x28	575	52
20x20x28	480	53
20x20x28	410	54

SIZE: 6X6X12 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 1440

MAX. SPHERES 76 mm
PATT. NO. 444A096
CASE PATT. NO. 180A139

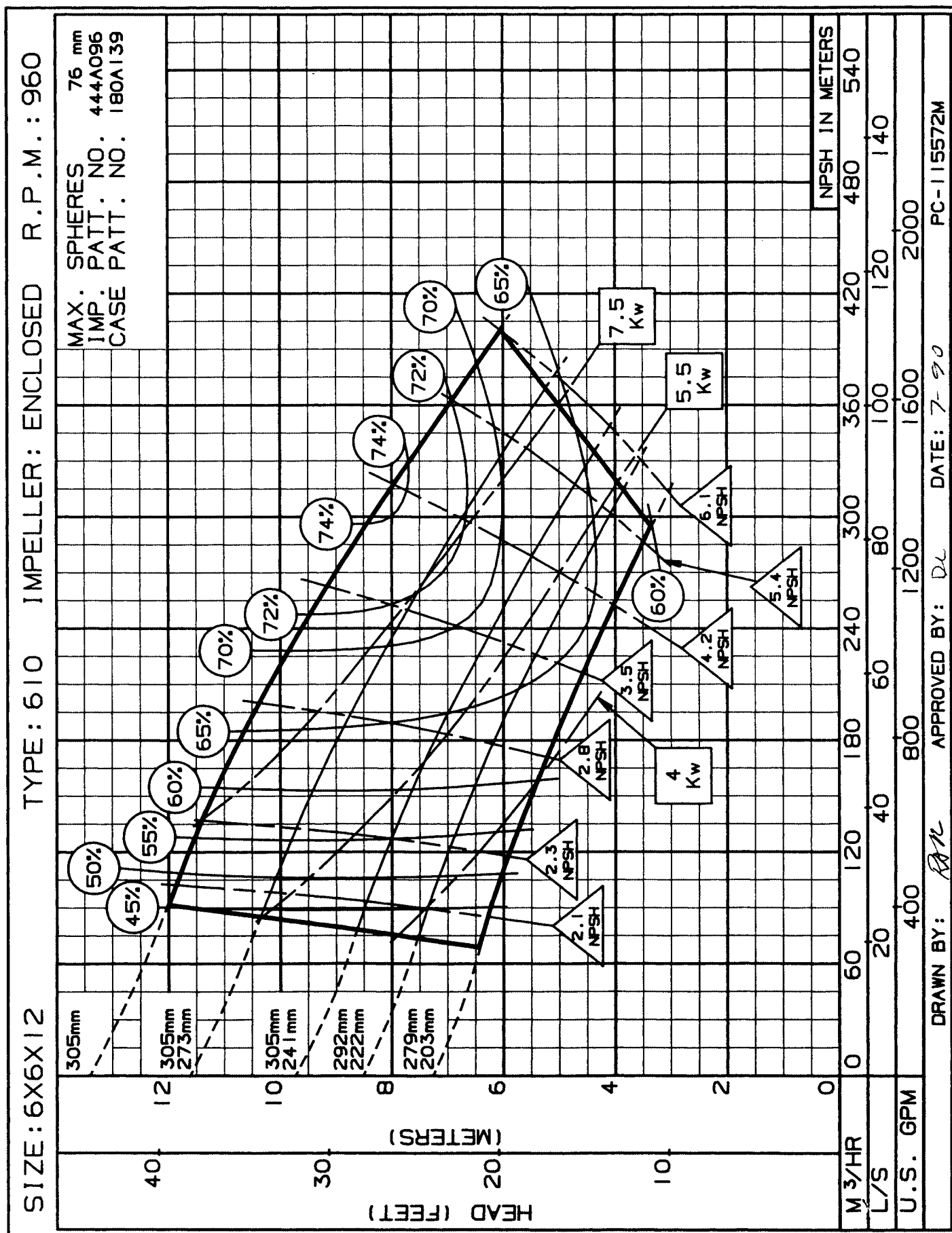


M ³ /HR	0	100	200	300	400	500	600	700	800	900
L/S		40		80	120	160	200		240	
U.S. GPM		500	1000	1500	2000	2500	3000	3500		

DRAWN BY: *AK* APPROVED BY: *DL* DATE: 7-90 PC-115571M

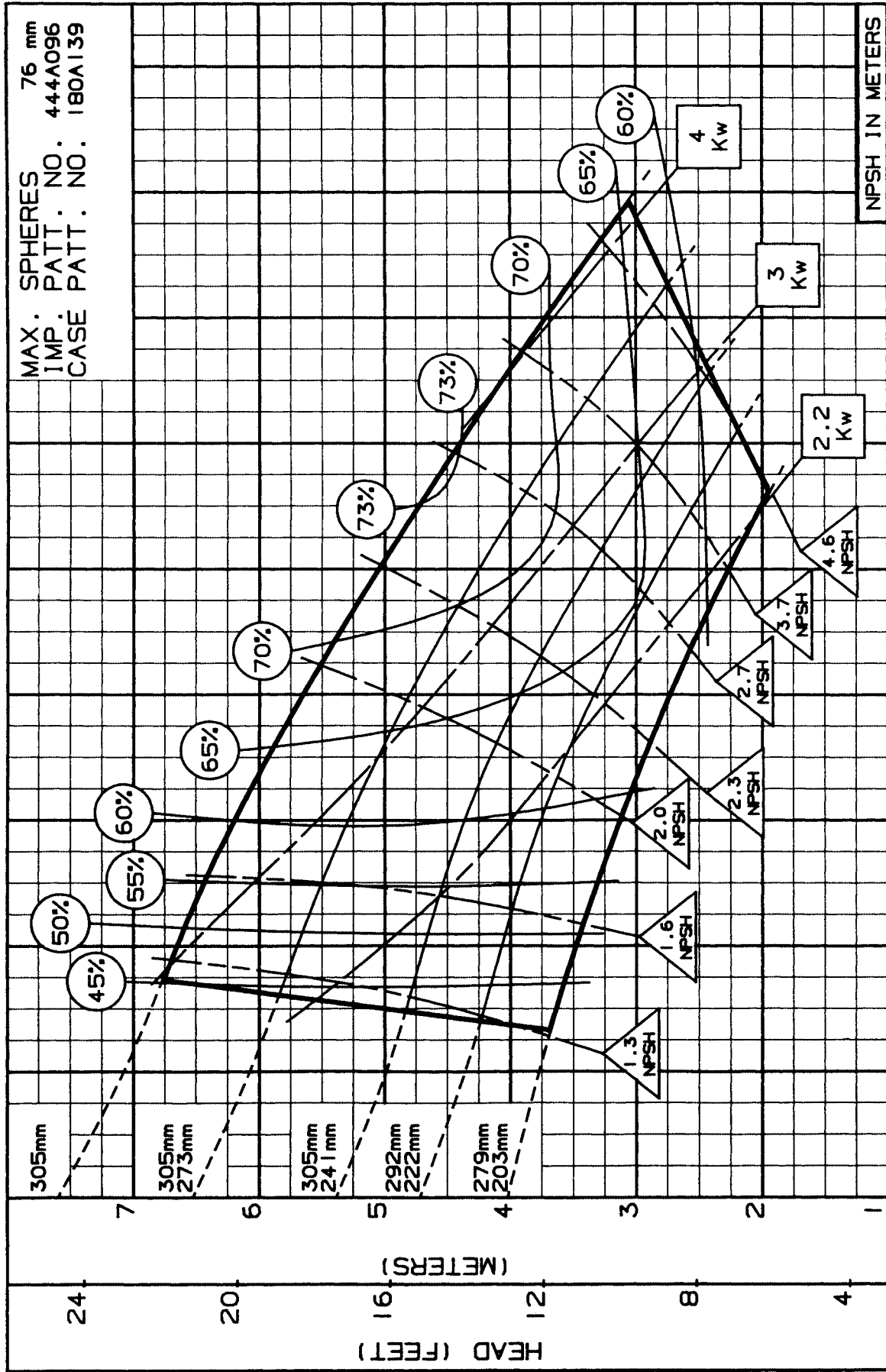
SUPERCEDES MARCH 1986

ap AURORA®
Pentair Pump Group



SIZE: 6X6X12 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 720

MAX. SPHERES 76 mm
IMP. PATT. NO. 444A096
CASE PATT. NO. 180A139



M ³ /HR	0	40	80	120	160	200	240	280	320	360
L/S	0	15	30	45	60	75	90	105	120	135
U.S. GPM	0	200	400	600	800	1000	1200	1400	1600	1800
NPSH IN METERS										

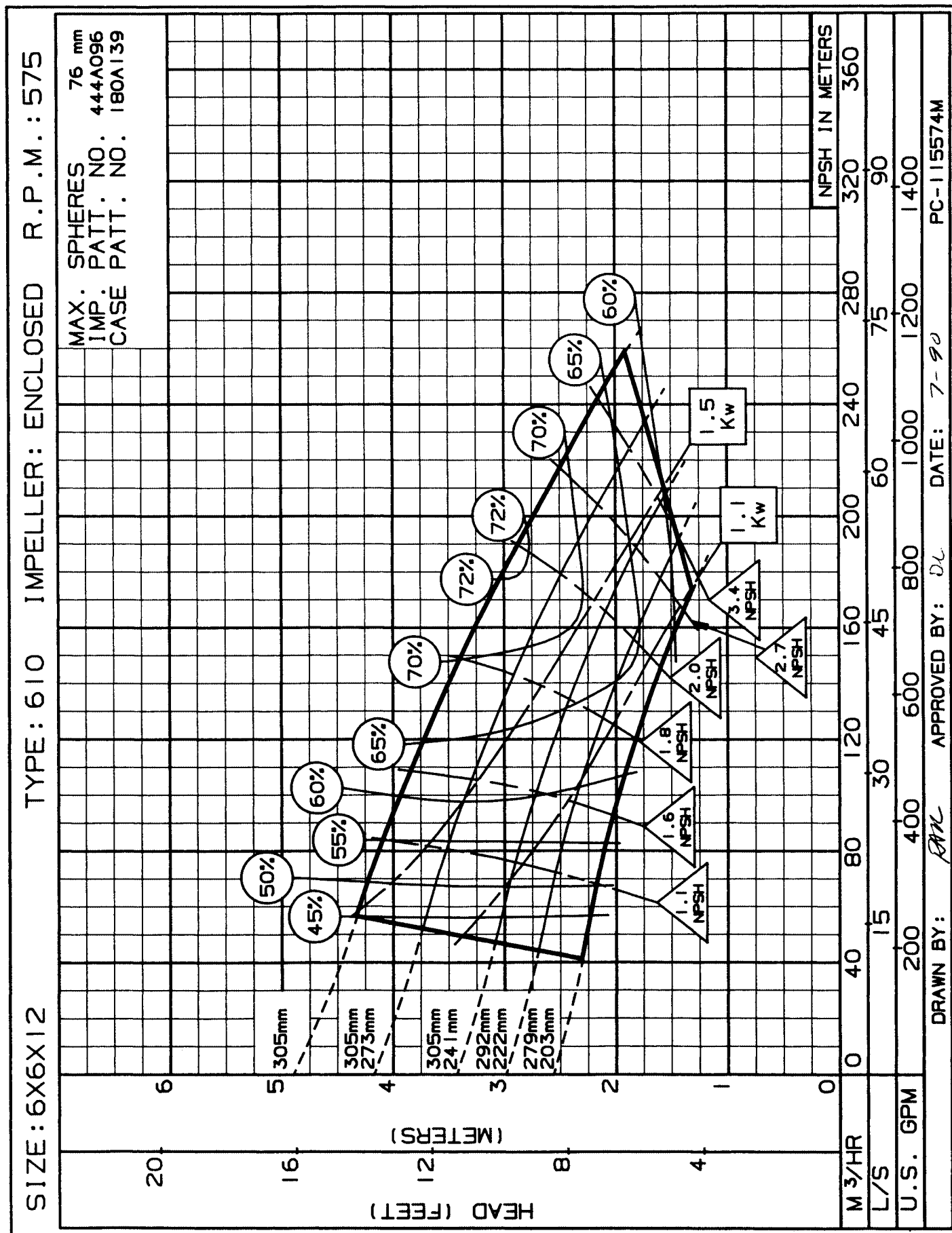
DRAWN BY: *RAK* APPROVED BY: *DL* DATE: 7-94 PC-115573M

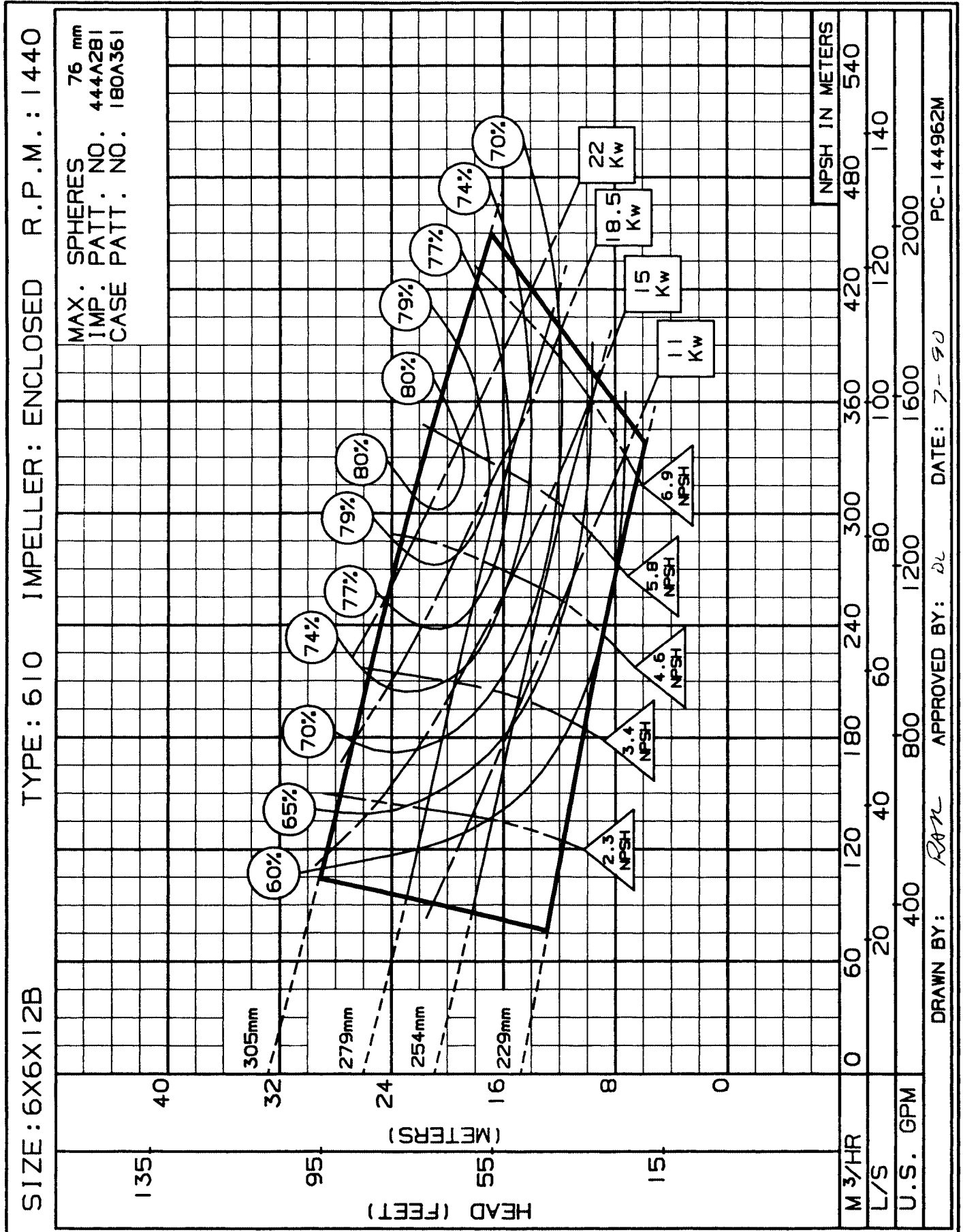
SUPERCEDES MARCH 1986

6x6x12 - 575 RPM

ENCLOSED IMPELLER

ap AURORA®
Pentair Pump Group





6x6x12B - 960 RPM
 ENCLOSED IMPELLER

SIZE: 6X6X12B TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES
 IMP. PATT: NO. 444A281
 CASE PATT: NO. 180A361

MIN. IMP. DIA. 229 mm

65
50
35
20
5

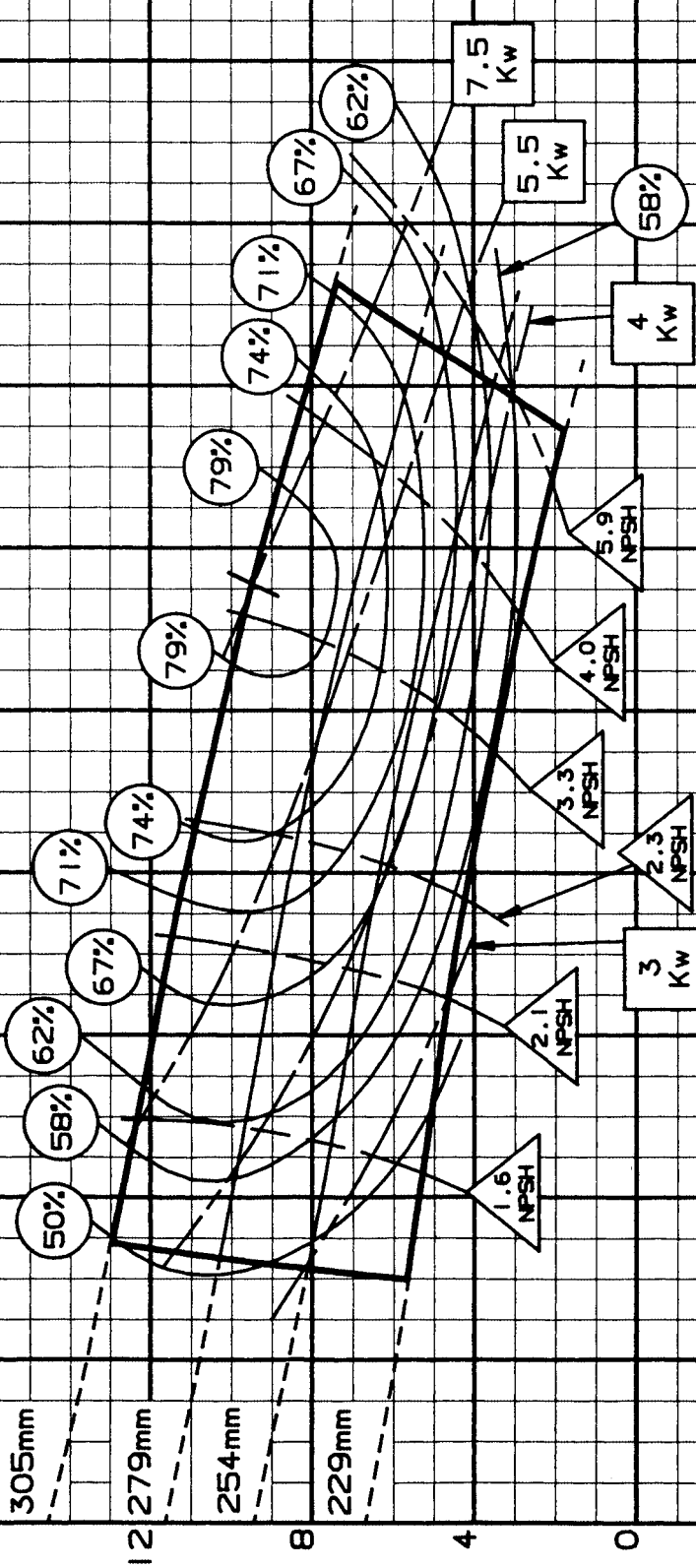
HEAD (FEET)
 (METERS)

305mm

279mm

254mm

229mm



NPSH IN METERS

M3/HR 0 40 80 120 160 200 240 280 320 360

L/S 0 15 30 45 60 75 90

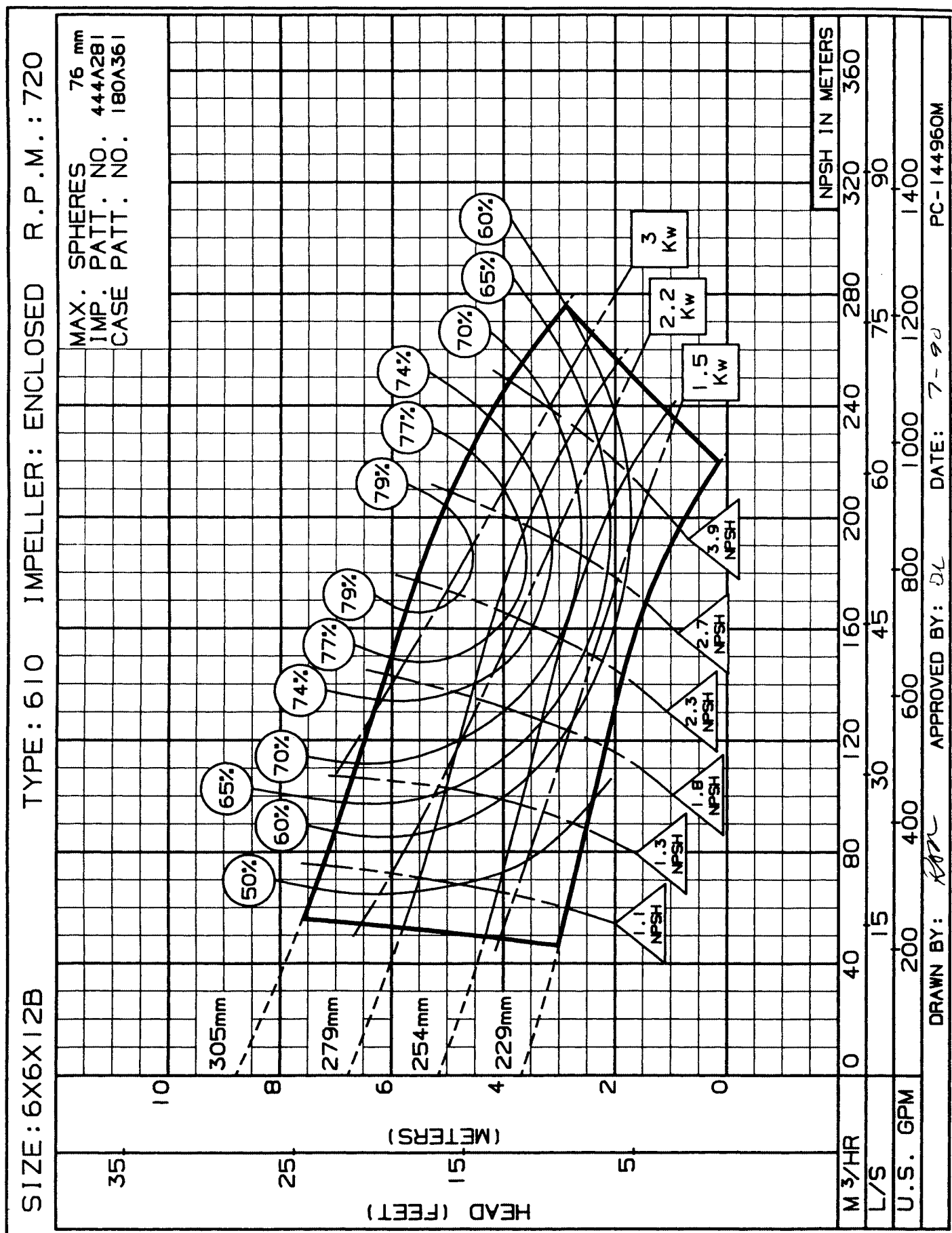
U.S. GPM 0 200 400 600 800 1000 1200 1400

DRAWN BY: *AK* APPROVED BY: *WH* DATE: 1-29-91 PC-151595M



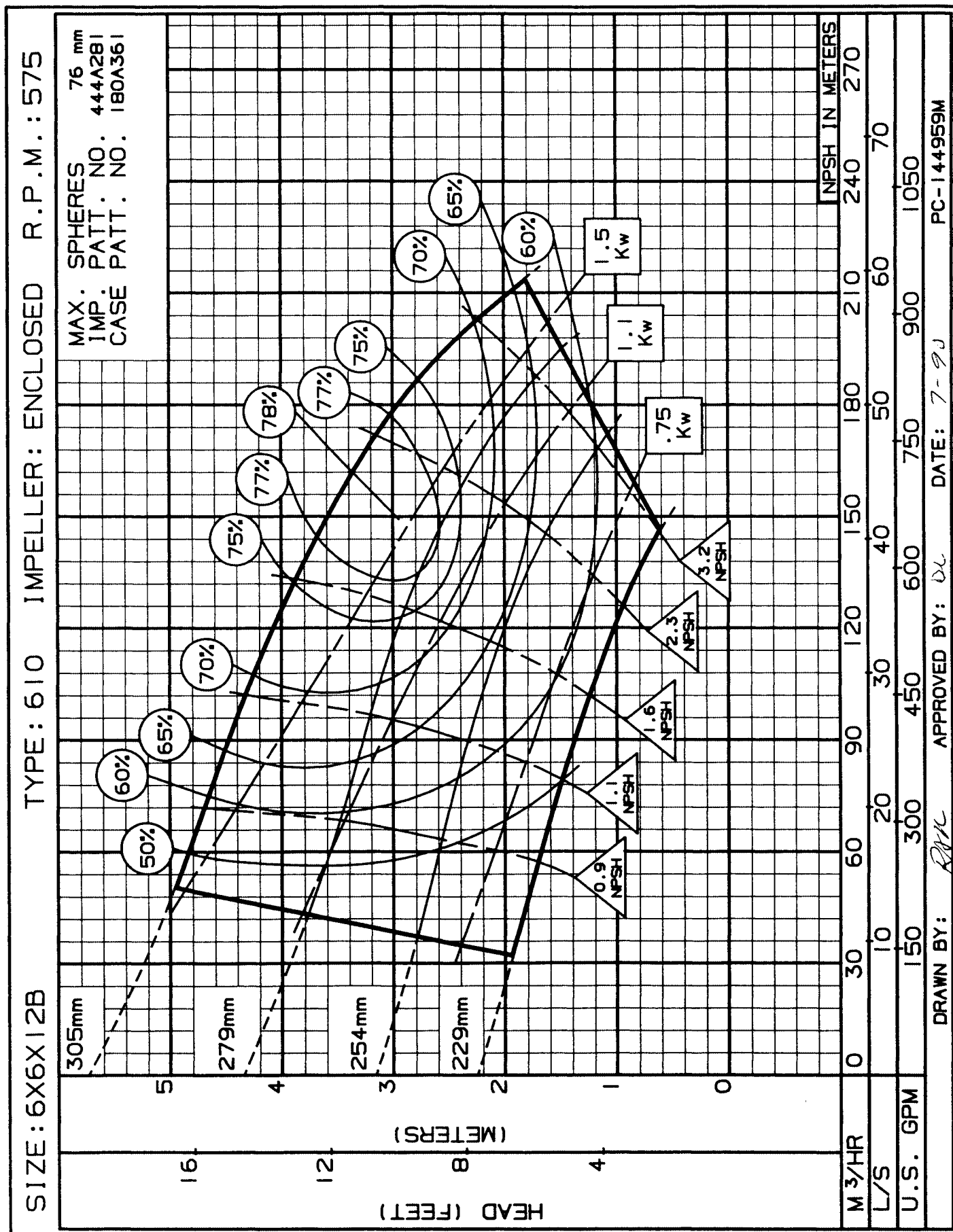
ENCLOSED IMPELLER

SUPERCEDES MARCH 1986



SUPERCEDES MARCH 1986

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Pentair Pump Group

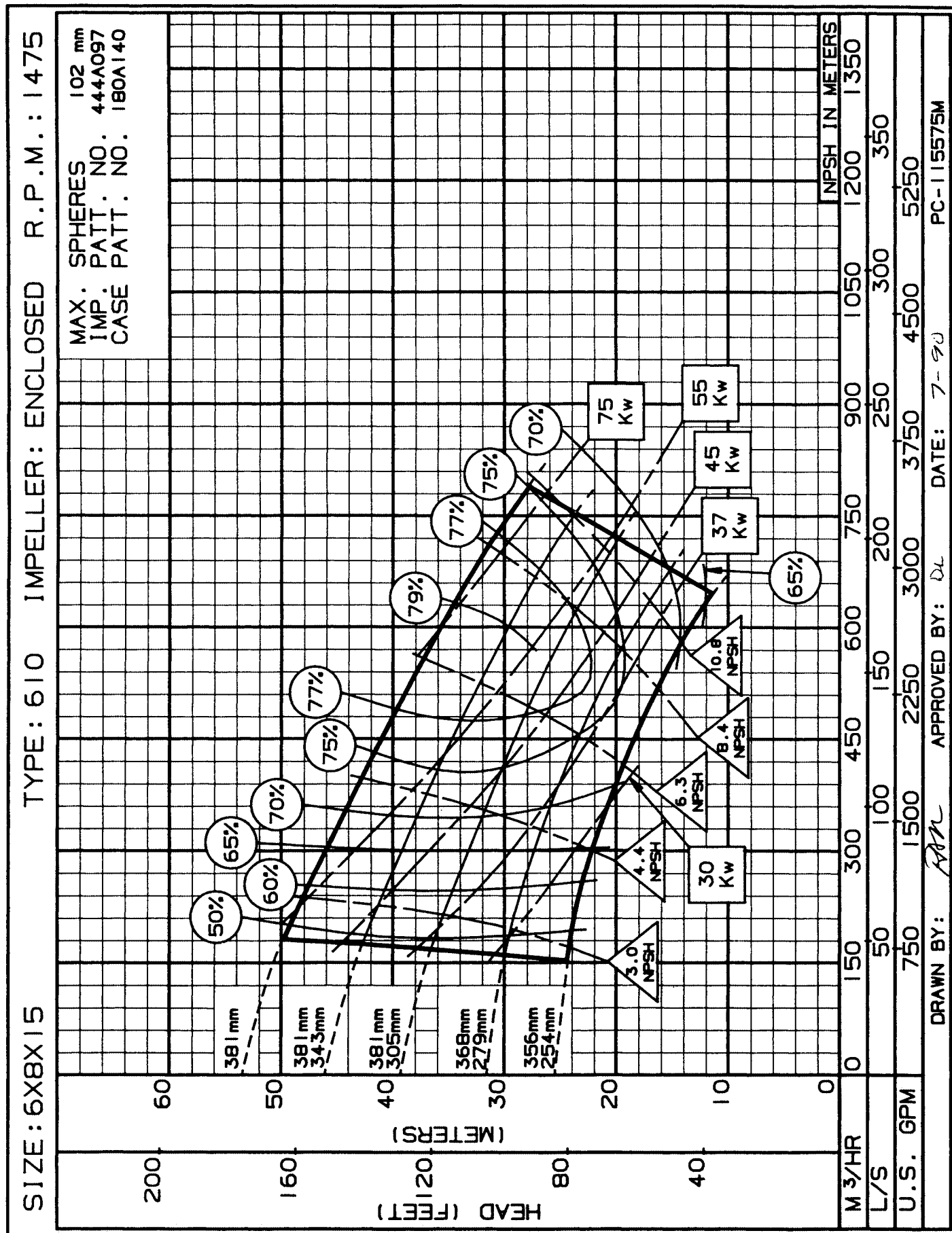




ENCLOSED IMPELLER

DATE **JULY 1994**

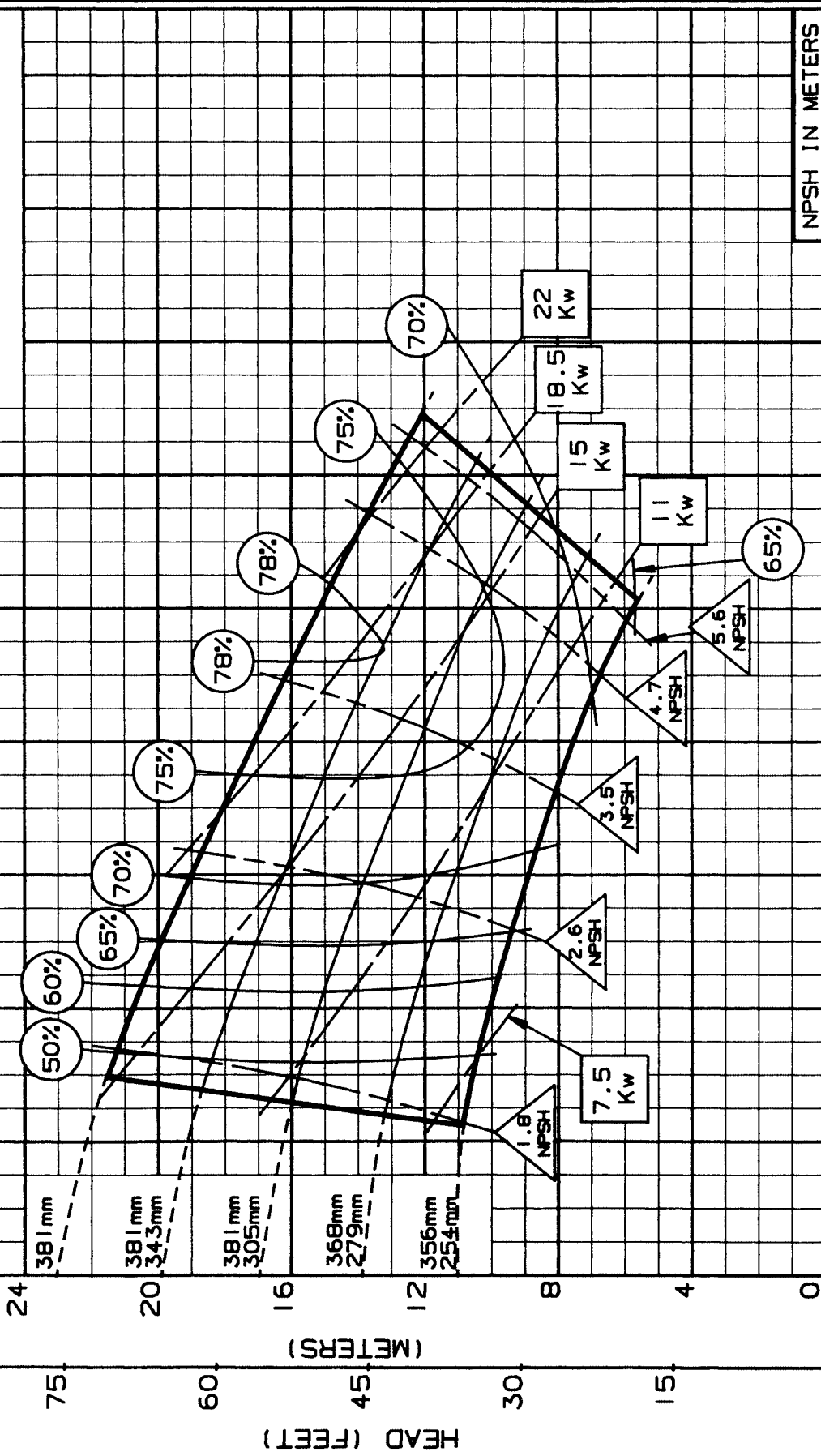
SUPERCEDES MARCH 1986



6x6x15 - 960 RPM
 ENCLOSED IMPELLER

SIZE: 6X8X15 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 960

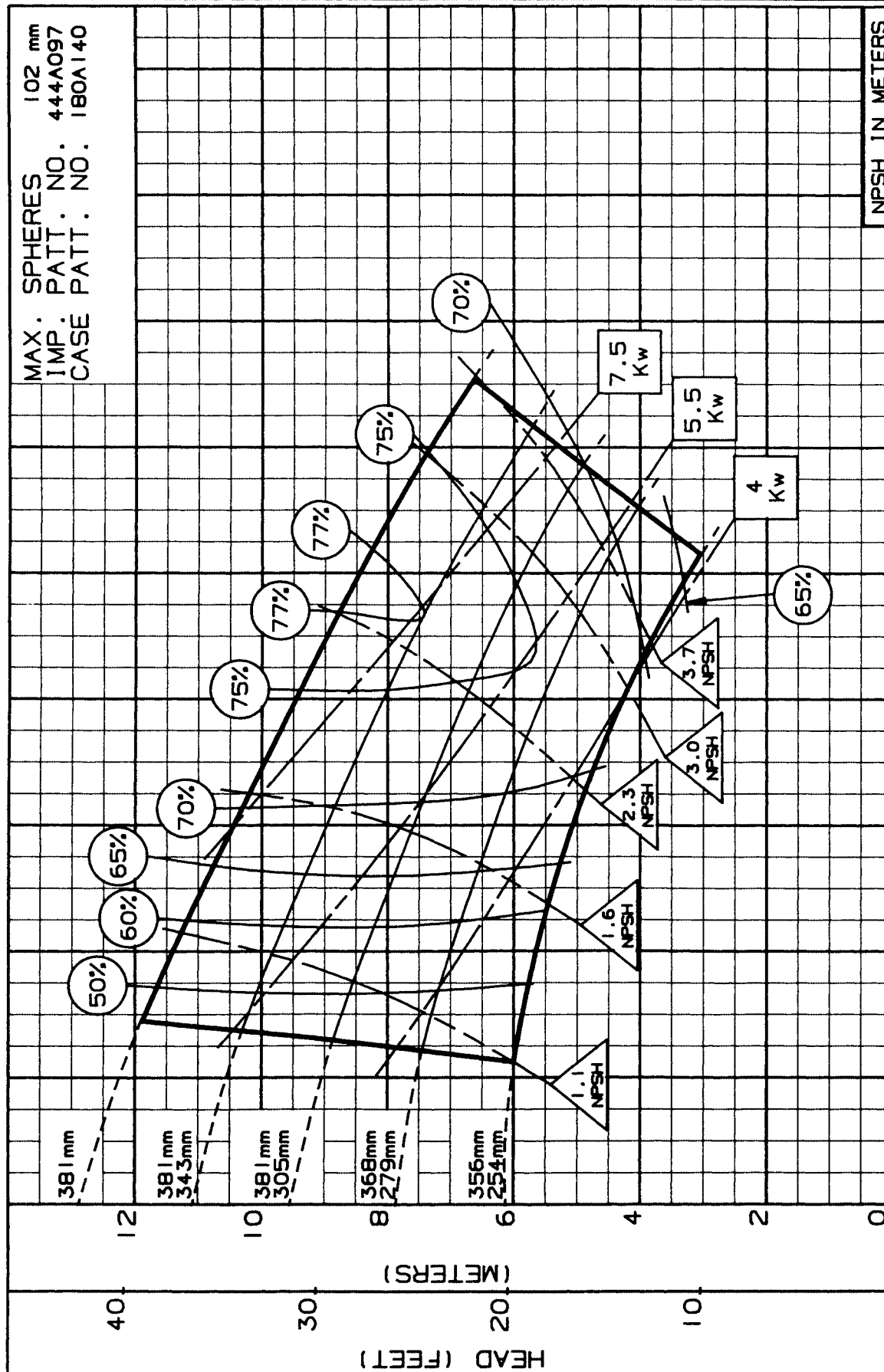
MAX. SPHERES 102 mm
 IMP. PATT: NO. 444A097
 CASE PATT: NO. 180A140



		NPSH IN METERS									
		0	80	160	240	320	400	480	560	640	720
M ³ /HR		0	80	160	240	320	400	480	560	640	720
L/S		25	50	75	100	125	150	175	200	225	250
U.S. GPM		400	800	1200	1600	2000	2400	2800	3200	3600	4000
DRAWN BY: <i>WZ</i>		APPROVED BY: <i>DL</i>		DATE: 7-94		PC-115576M					

SIZE: 6X8X15 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 720

MAX. SPHERES 102 mm
IMP. PATT. NO. 444A097
CASE PATT. NO. 180A140



NPSH IN METERS

[illegible]

L/S	20	40	60	80	100	120	140
-----	----	----	----	----	-----	-----	-----

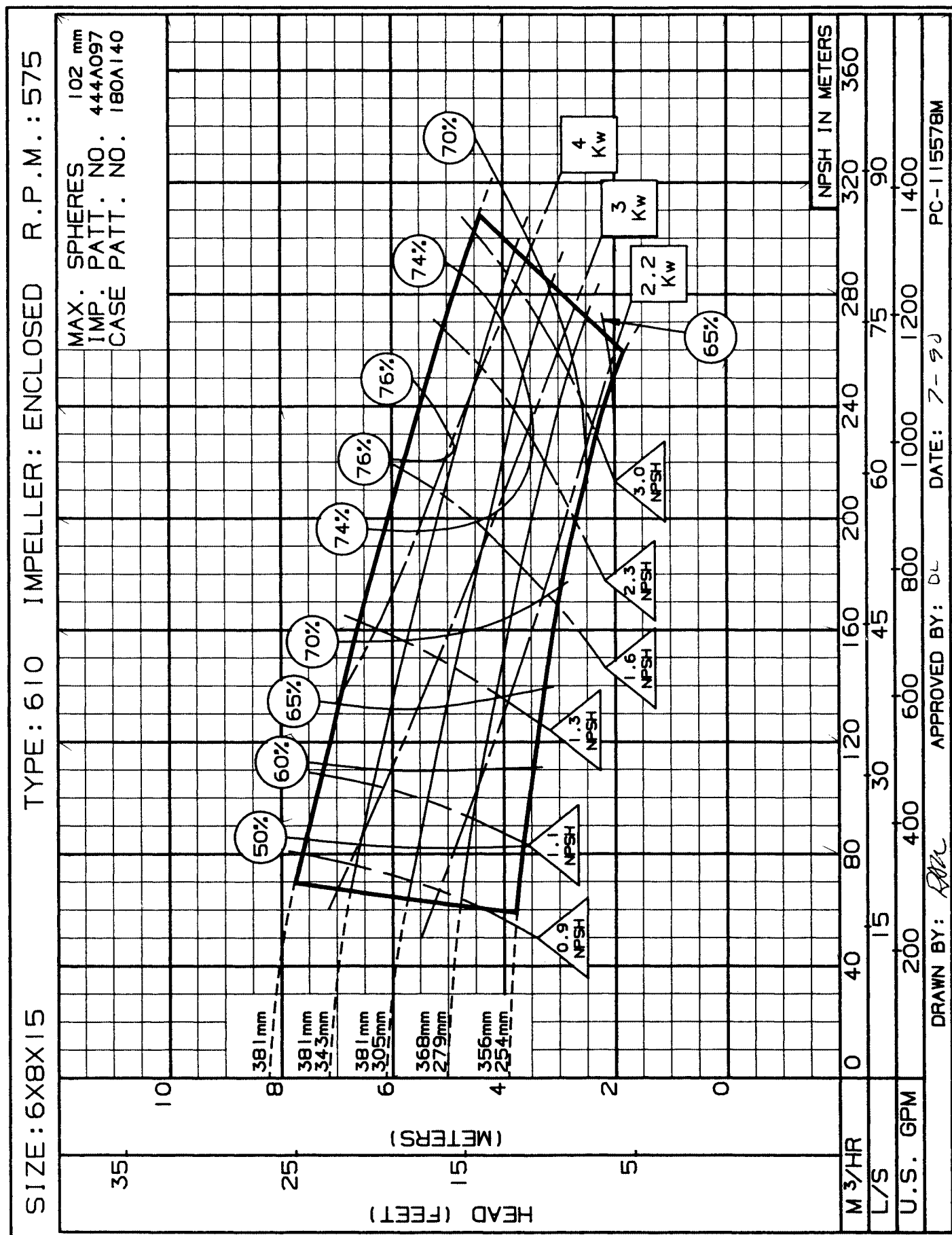
U.S. GPM	400	800	1200	1600	2000
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DRAWN BY:	APPROVED BY:	DATE:	PC-115577M

SUPERCEDES MARCH 1986

ENCLOSED IMPELLER

Pentair Pump Group

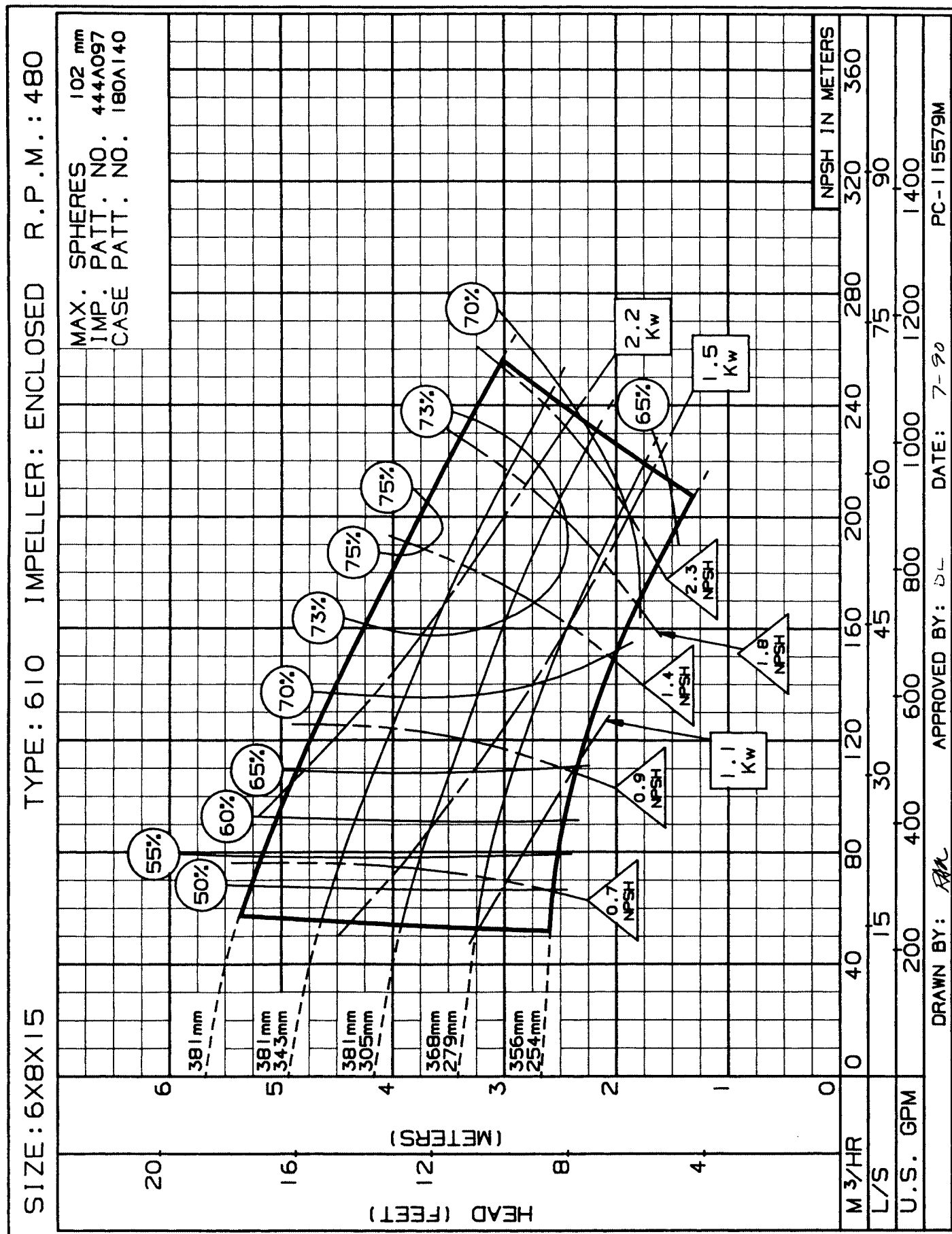




ENCLOSED IMPELLER

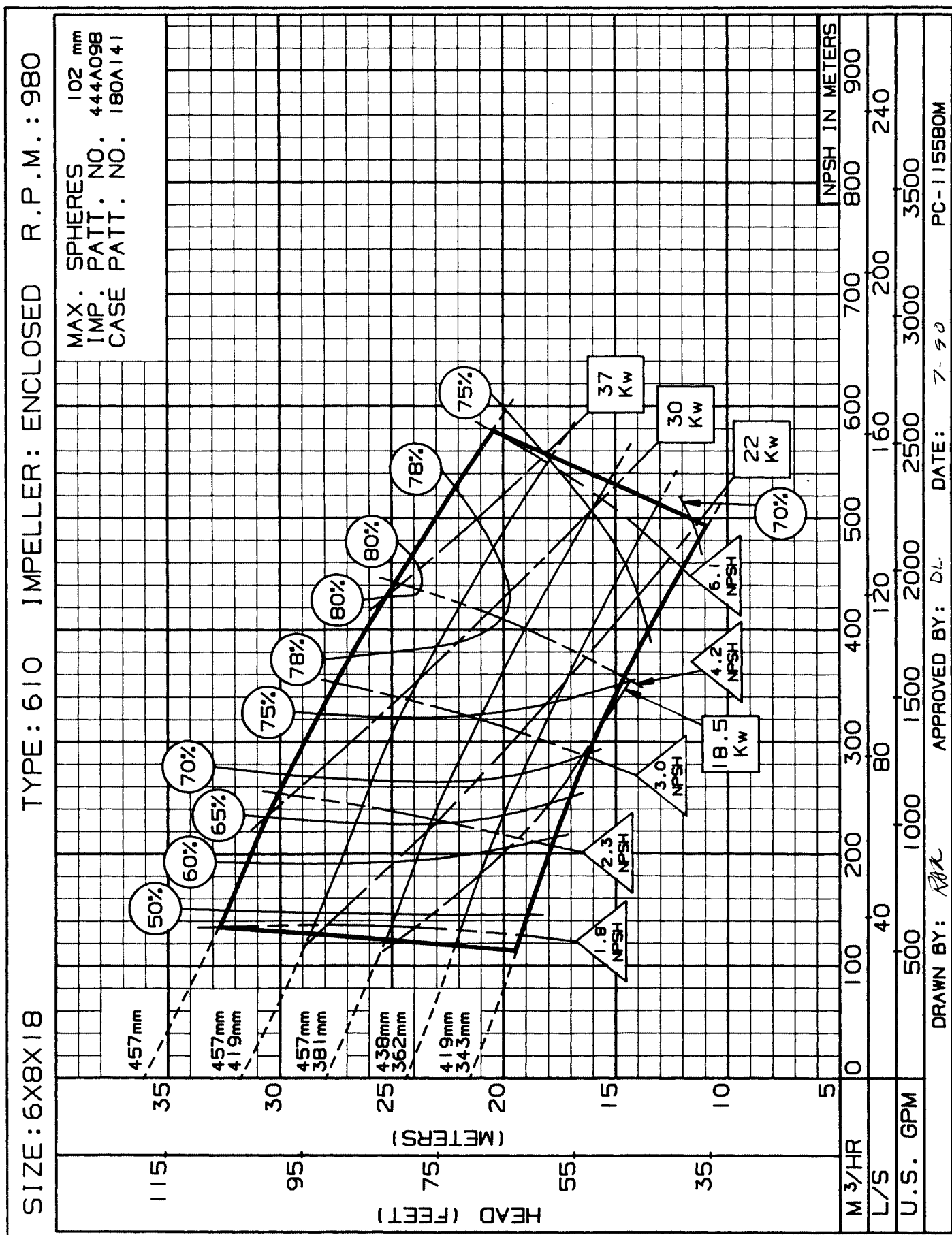
DATE **JULY 1994**

SUPERCEDES MARCH 1986



SUPERCEDES MARCH 1986

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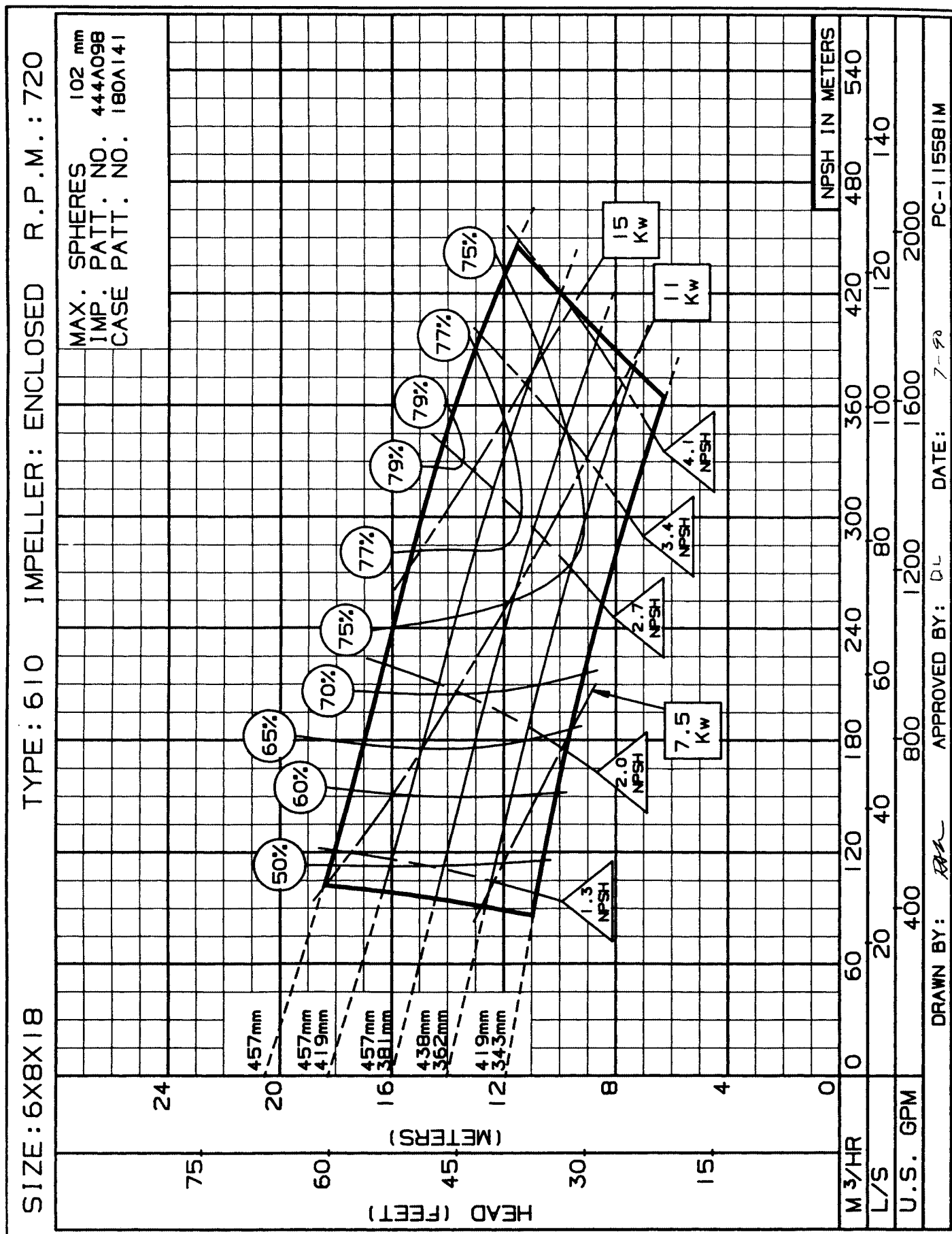




ENCLOSED IMPELLER

DATE **JULY 1994**

SUPERCEDES MARCH 1986



SECTION 610 (Metric 50Hz)

DATE JULY 1994

SUPERCEDES MARCH 1986

6x8x18 - 575 RPM

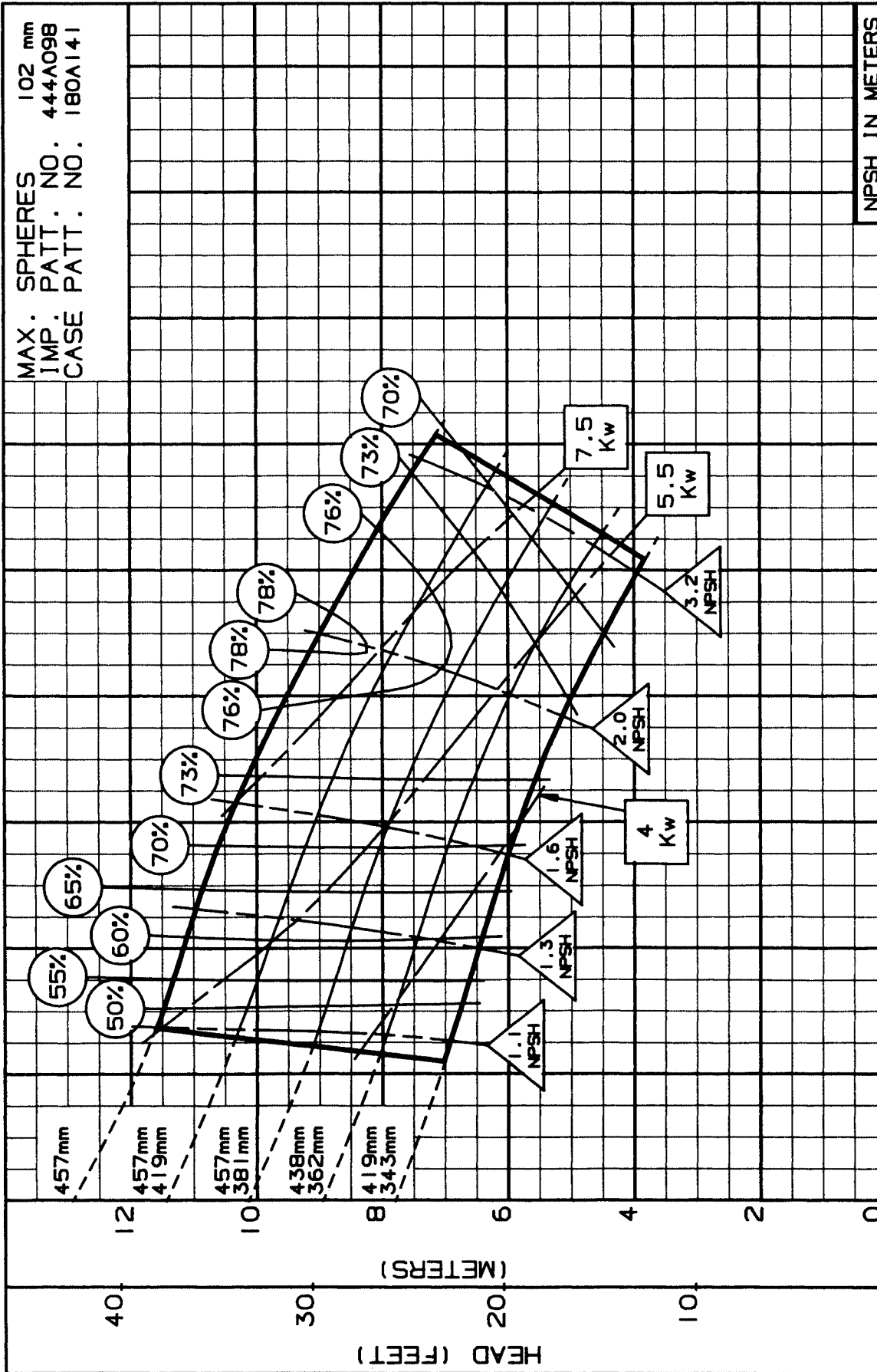
ENCLOSED IMPELLER

ap AURORA®

Pentair Pump Group

SIZE: 6X8X18 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

MAX. SPHERES 102 mm
IMP. PATT. NO. 444A098
CASE PATT. NO. 180A141



M ³ /HR	0	60	120	180	240	300	360	420	480	540
L/S	0	20	40	60	80	100	120	140		
U.S. GPM	0	400	800	1200	1600	2000				
NPSH IN METERS										

DRAWN BY: *RAY* APPROVED BY: *DL* DATE: 7-90 PC-115582M

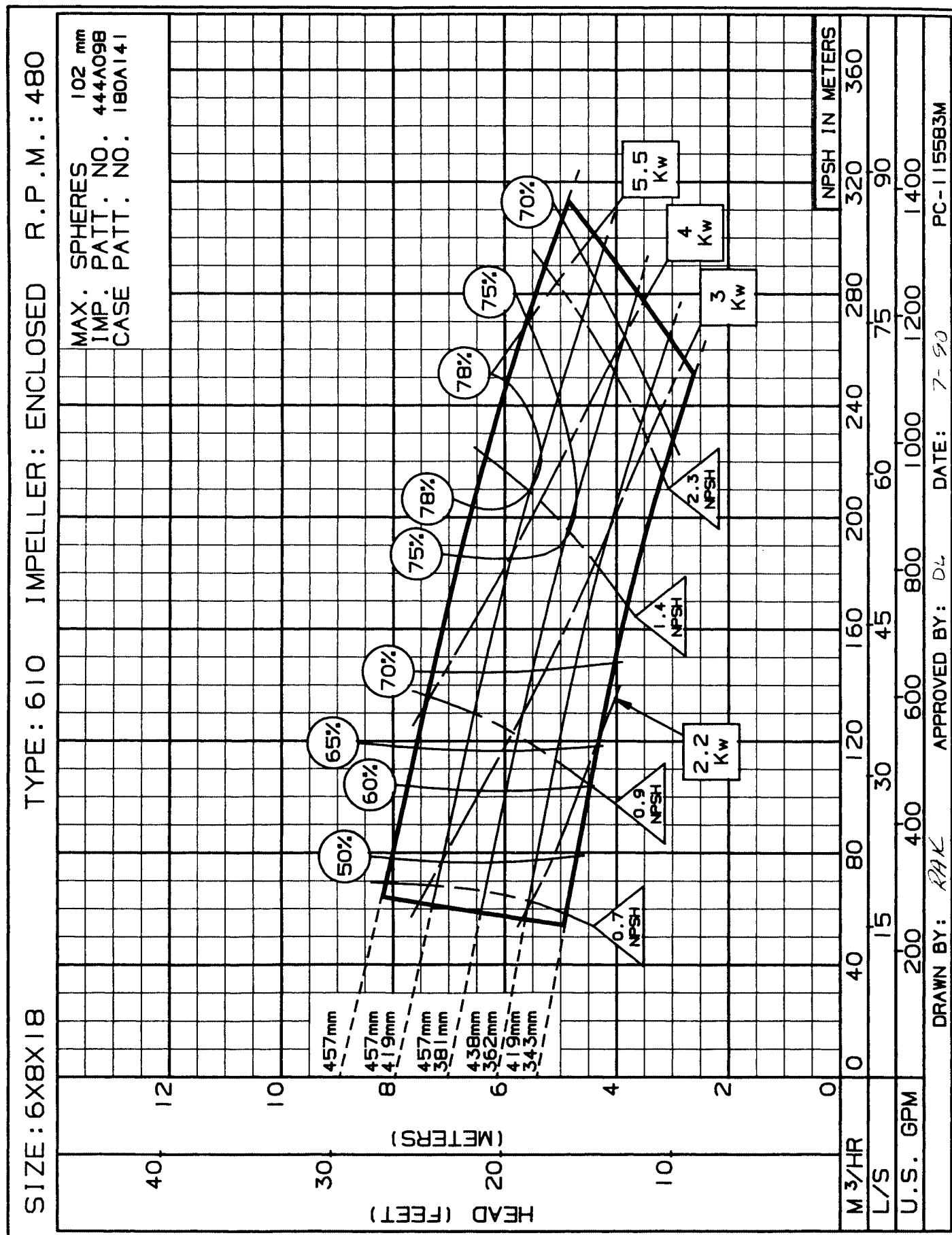


6x8x18 - 480 RPM ENCLOSED IMPELLER

SECTION 610 (Metric 50Hz)

DATE **JULY 1994**

SUPERCEDES MARCH 1986



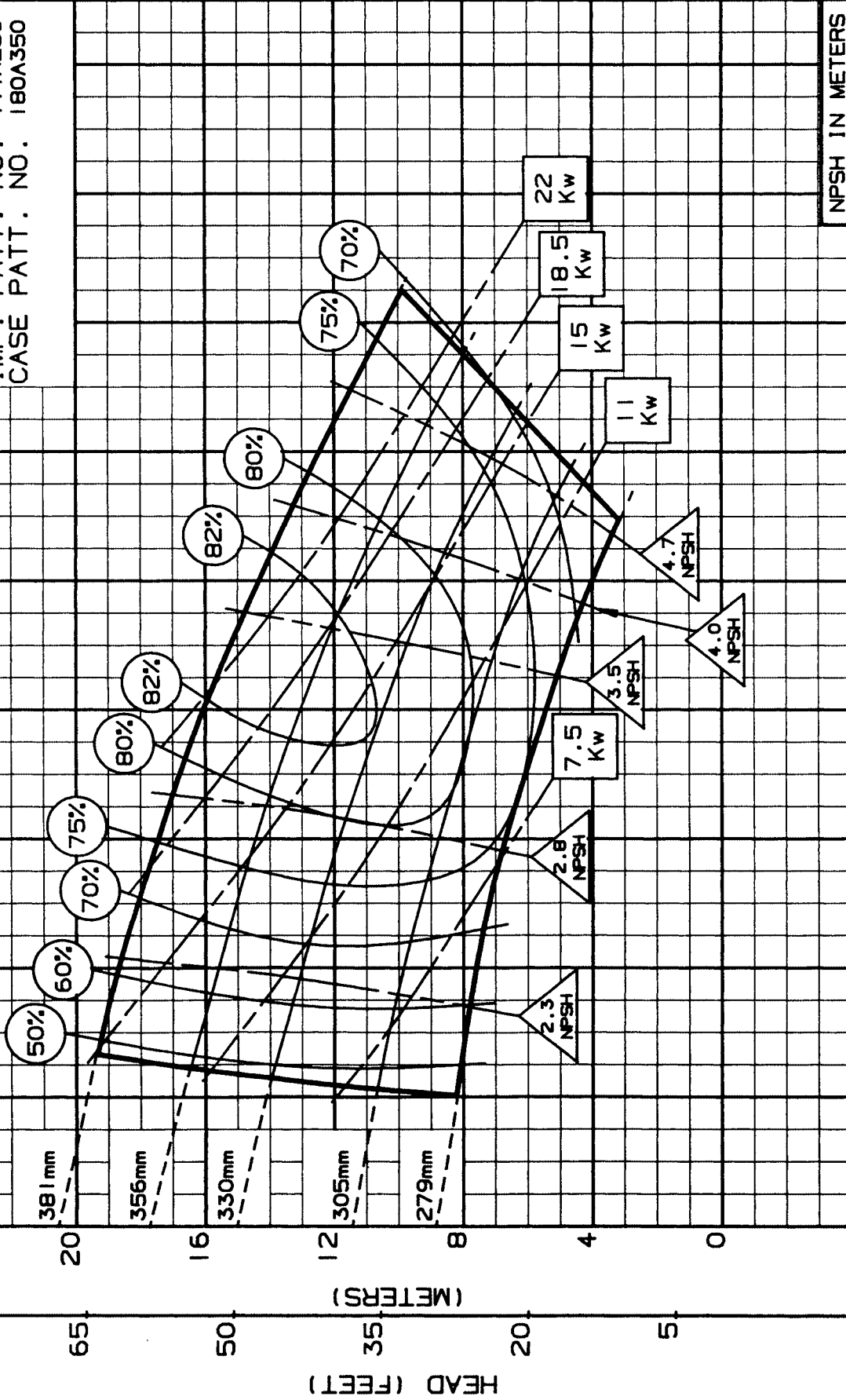
SECTION 610 (Metric 50Hz)
DATE JULY 1994
SUPERCEDES MARCH 1986

8x8x15A - 960 RPM ENCLOSED IMPELLER

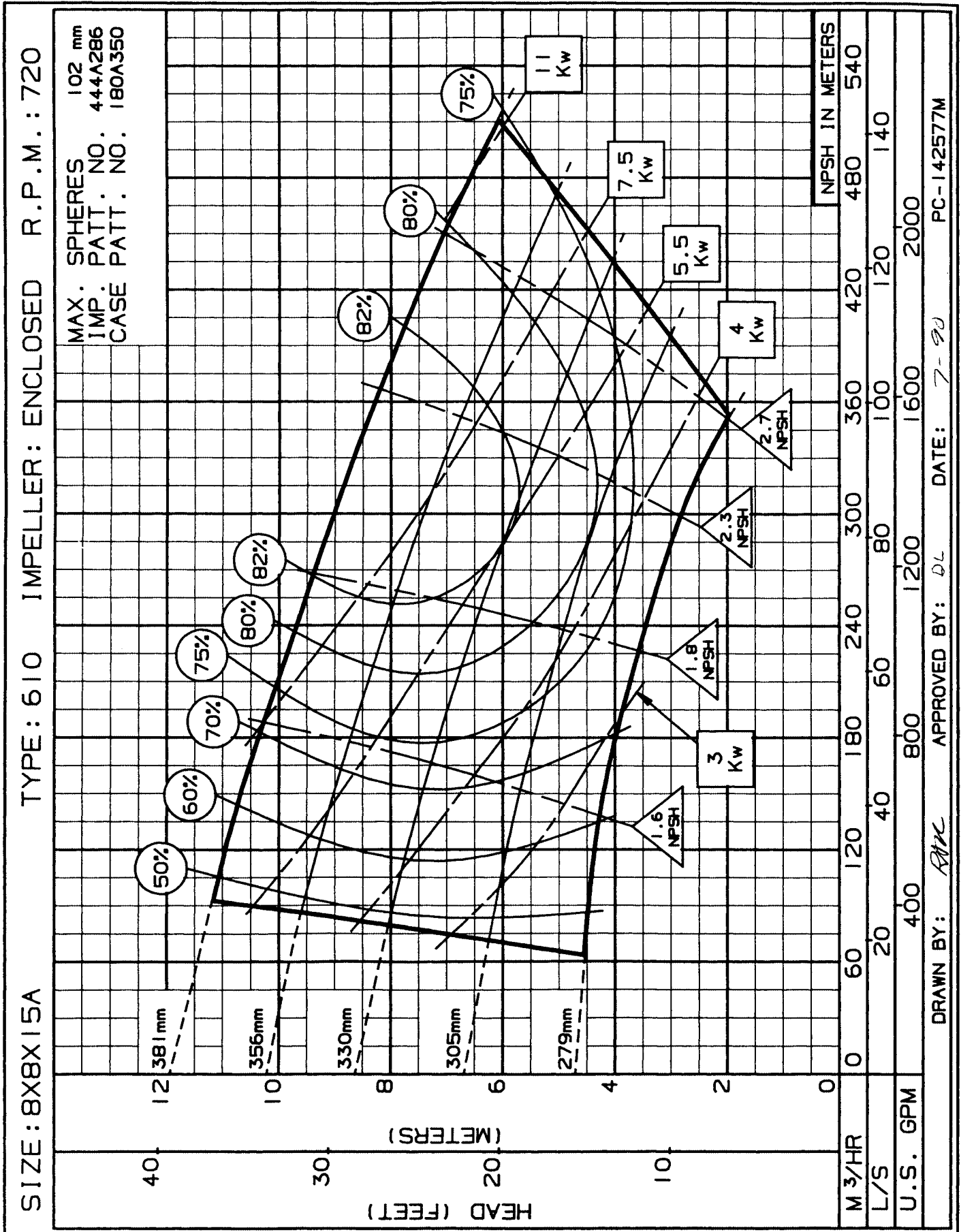
ap AURORA®
Pentair Pump Group

SIZE: 8X8X15A TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 960

MAX. SPHERES 102 mm
IMP. PATT. NO. 444A286
CASE PATT. NO. 180A350



		NPSH IN METERS	
M ³ /HR	0 100 200 300 400 500	0 100 200 300 400 500	0 100 200 300 400 500
L/S	0 40 80 120 160 200 240	0 100 200 300 400 500	0 100 200 300 400 500
U.S. GPM	0 500 1000 1500 2000 2500 3000 3500	0 100 200 300 400 500	0 100 200 300 400 500
DRAWN BY: <i>RAK</i>		APPROVED BY: <i>DL</i>	
		DATE: 7-94	
		PC-142576M	



SECTION 610 (Metric 50Hz)
DATE JULY 1994
SUPERCEDES MARCH 1986

8x8x15A - 575 RPM
ENCLOSED IMPELLER

ap AURORA®
Pentair Pump Group

SIZE: 8X8X15A TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

MAX. SPHERES 102 mm
IMP. PATT. NO. 444A286
CASE PATT. NO. 180A350

35
25
15
5

HEAD (FEET)
(METERS)

381 mm
356 mm
330 mm
305 mm
279 mm

55%
65%
75%
80%
81%

80%
75%

5.5 Kw

4 Kw

3 Kw

2.2 Kw

2.3 NPSH

1.8 NPSH

1.3 NPSH

1.5 Kw

1.1 NPSH

NPSH IN METERS

540
480
420
360
300
240
180
120
60
0

540
480
420
360
300
240
180
120
60
0

540
480
420
360
300
240
180
120
60
0

540
480
420
360
300
240
180
120
60
0

540
480
420
360
300
240
180
120
60
0

540
480
420
360
300
240
180
120
60
0

540
480
420
360
300
240
180
120
60
0

140

2000

1600

1200

800

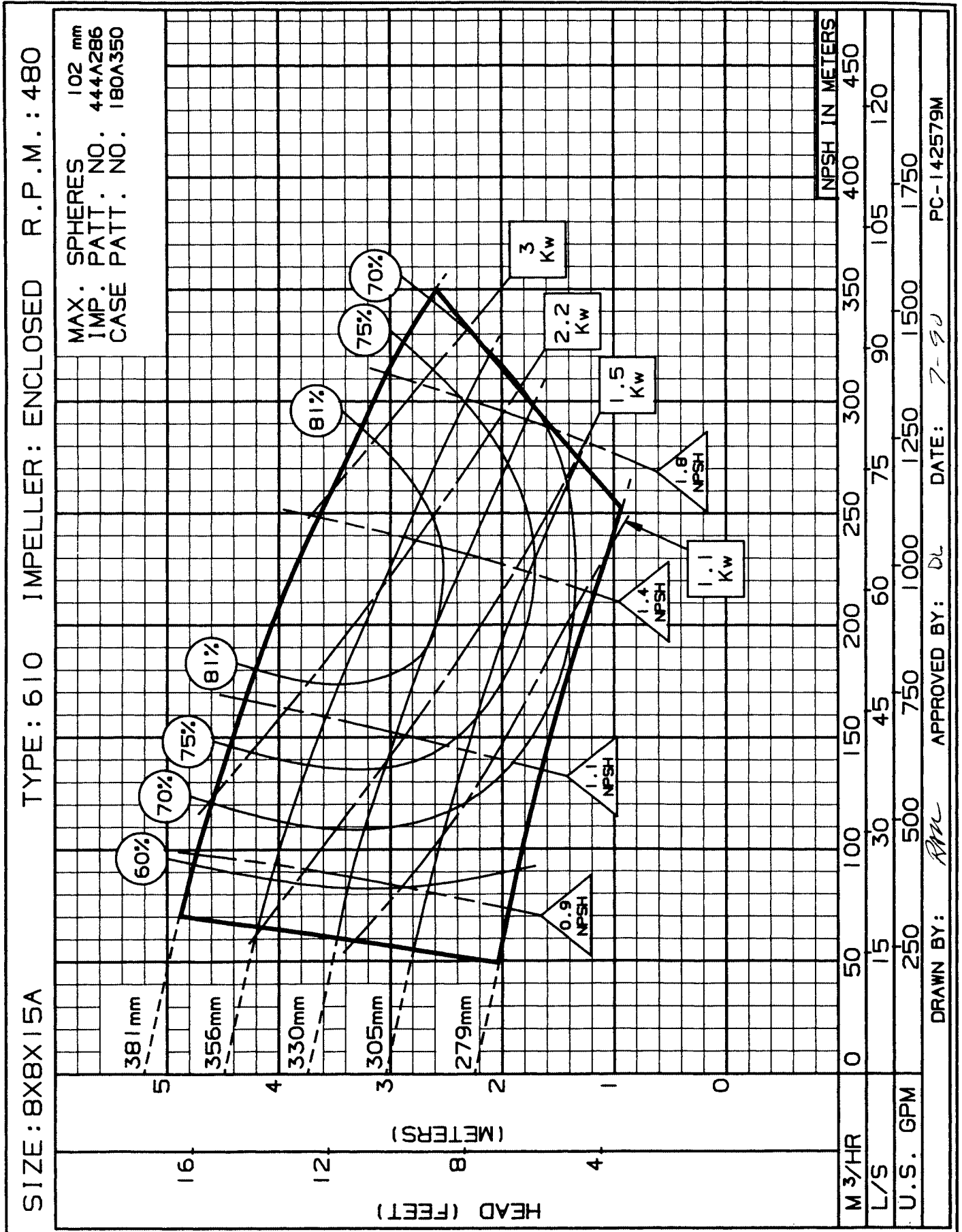
400

20

0

M 3/HR
L/S
U.S. GPM

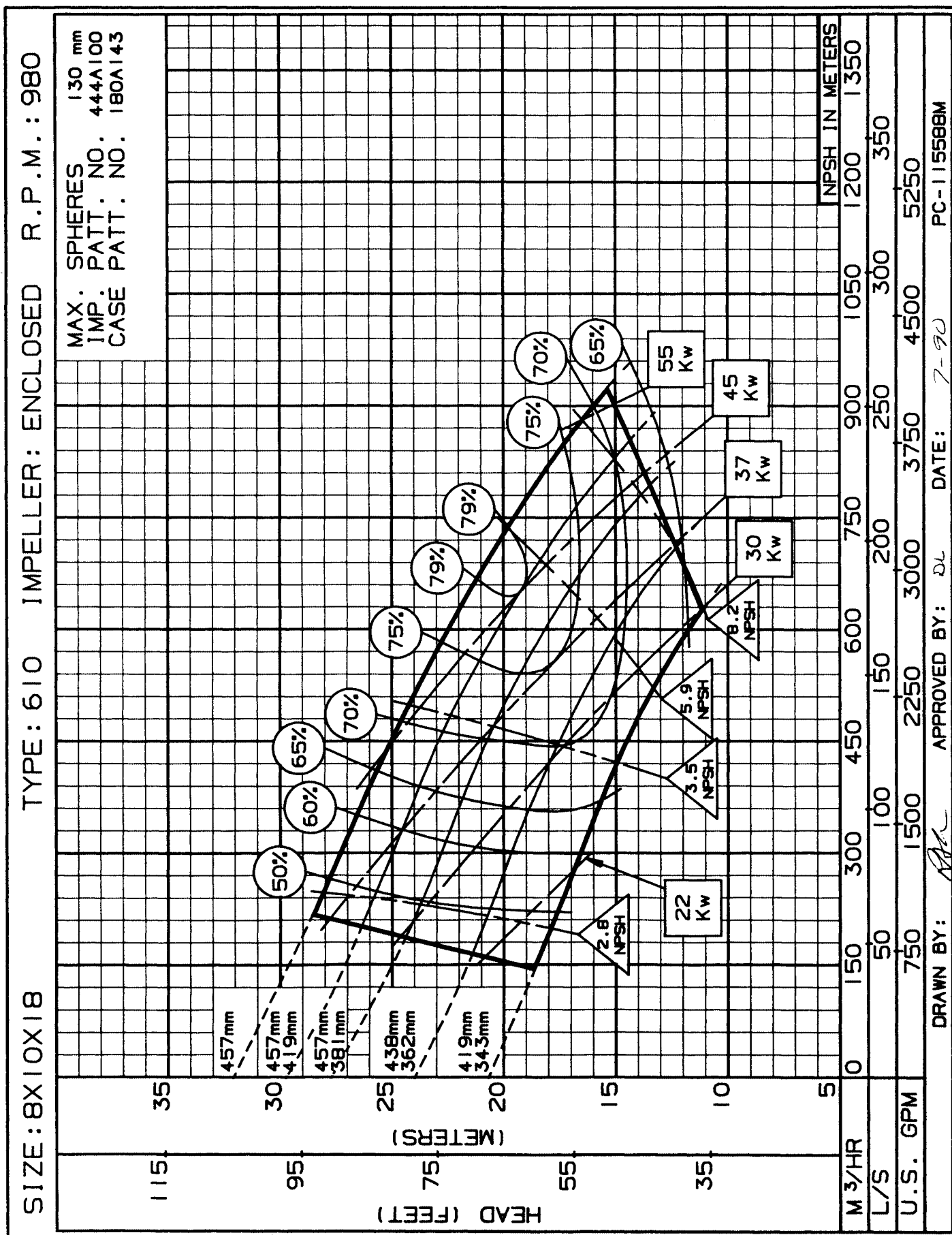
DRAWN BY: RAK APPROVED BY: DL DATE: 7-90 PC-142578M



SUPERCEDES MARCH 1986

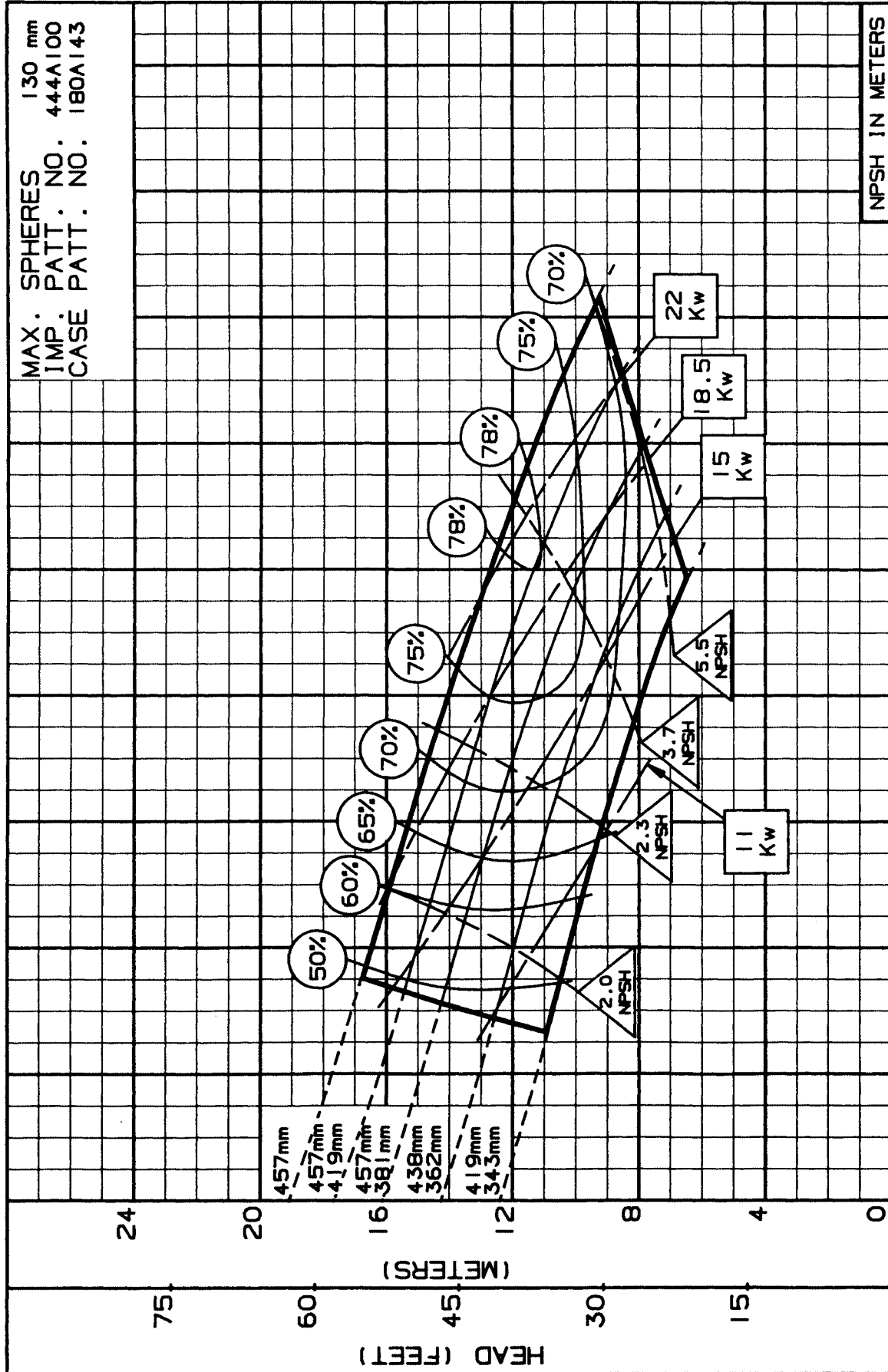
ENCLOSED IMPELLER

Pentair Pump Group



SIZE: 8X10X18 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 720

MAX. SPHERES 130 mm
IMP. PATT. NO. 444A100
CASE PATT. NO. 180A143



M³/HR		NPSH IN METERS	
0	100	0	800
40	200	0	900
500	1000	0	240
1500	2000	0	3500
2500	3000	0	
3500		0	
U.S. GPM		PC-115589M	
DRAWN BY: <i>RA</i>		DATE: 7-90	
APPROVED BY: <i>DL</i>			

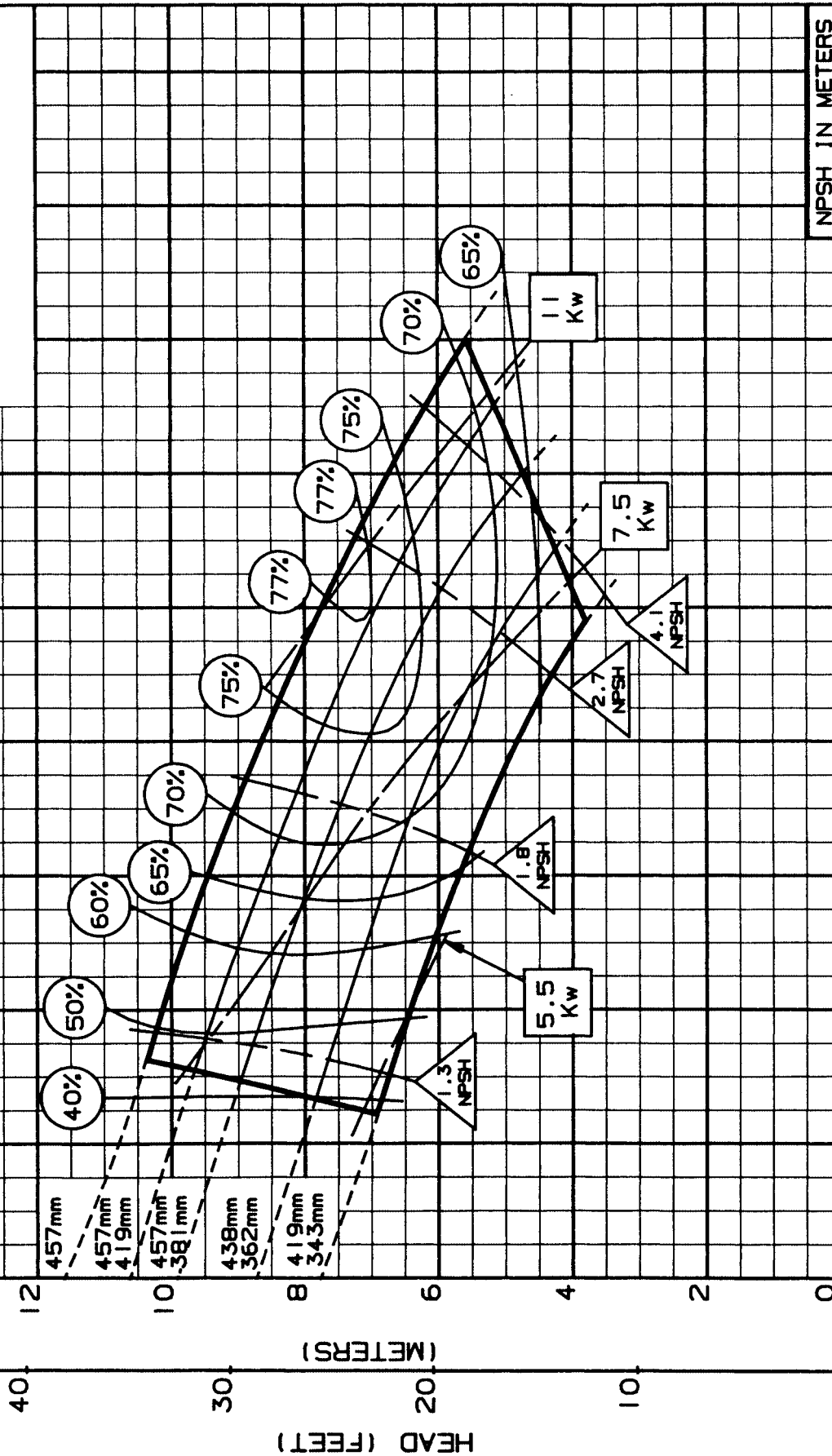
SECTION 610 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

8x10x18 - 575 RPM ENCLOSED IMPELLER

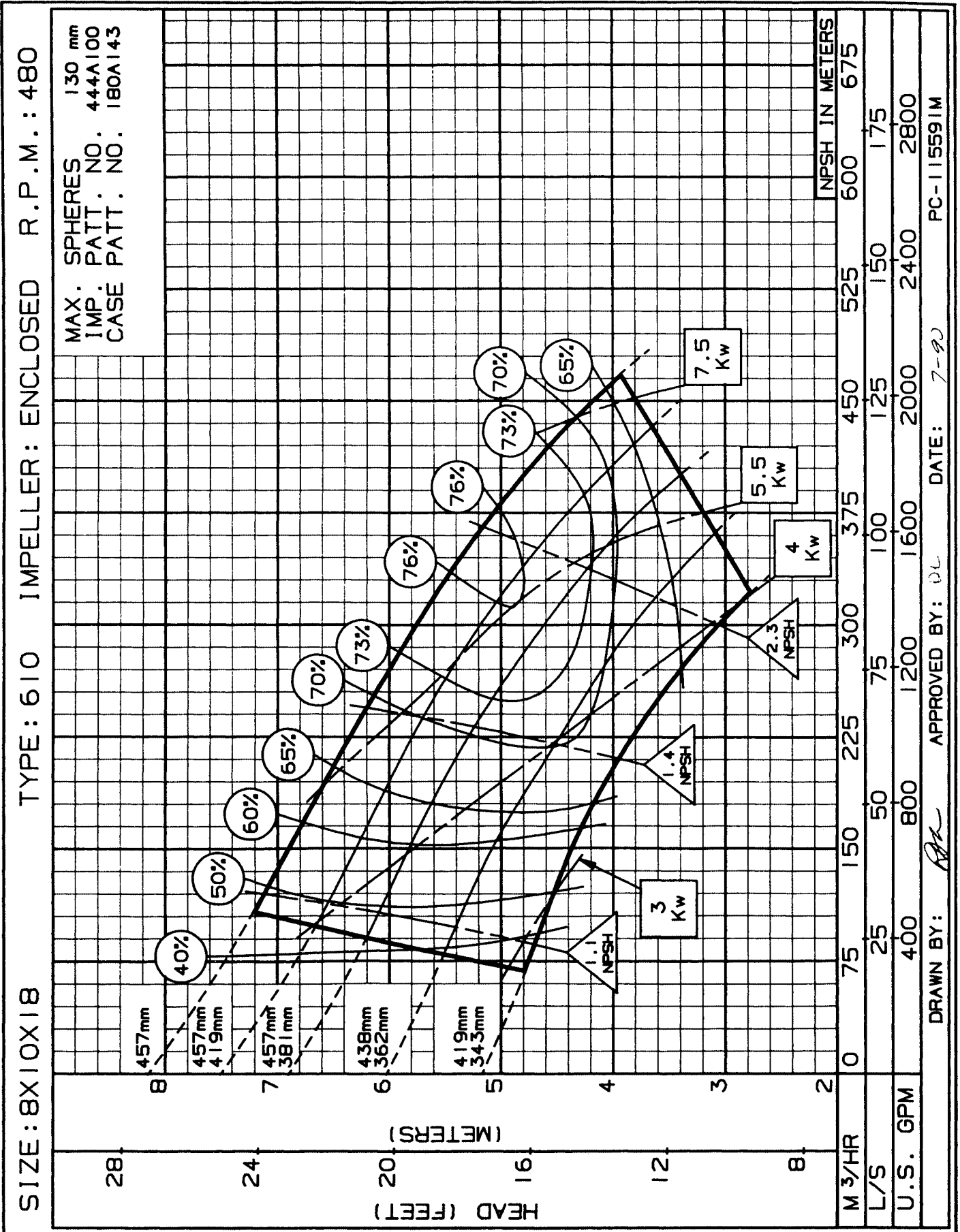
ap AURORA®
 Pentair Pump Group

SIZE: 8X10X18 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

MAX. SPHERES 130 mm
 IMP. PATT. NO. 444A100
 CASE PATT. NO. 180A143



NPSH IN METERS		0	80	160	240	320	400	480	560	640	720
M ³ /HR		0	80	160	240	320	400	480	560	640	720
L/S		25	50	75	100	125	150	175	200	225	250
U.S. GPM		400	800	1200	1600	2000	2400	2800	3200	3600	4000
DRAWN BY: <i>AK</i>		APPROVED BY: <i>DL</i>		DATE: 7-90		PC-115590M					



SECTION 610 (Metric 50Hz)

DATE JULY 1994

SUPERCEDES MARCH 1986

8x10x22 - 720 RPM

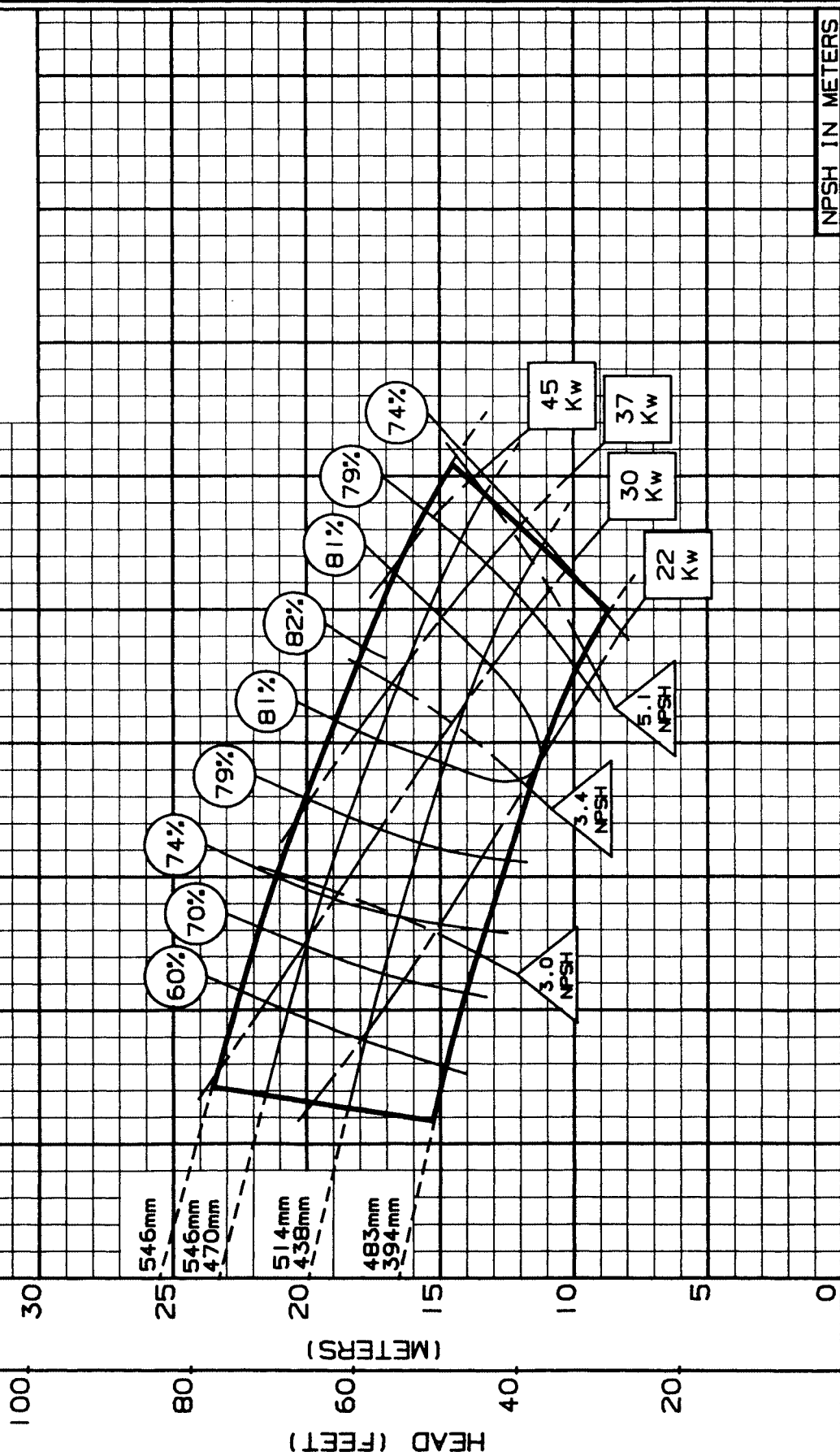
ENCLOSED IMPELLER

ap AURORA®

Pentair Pump Group

SIZE: 8X10X22 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 720

MAX. SPHERES 130 mm
IMP. PATT. NO. 444A101
CASE PATT. NO. 180A144



DRAWN BY: *DL* APPROVED BY: *DL* DATE: 7-90 PC-115592M

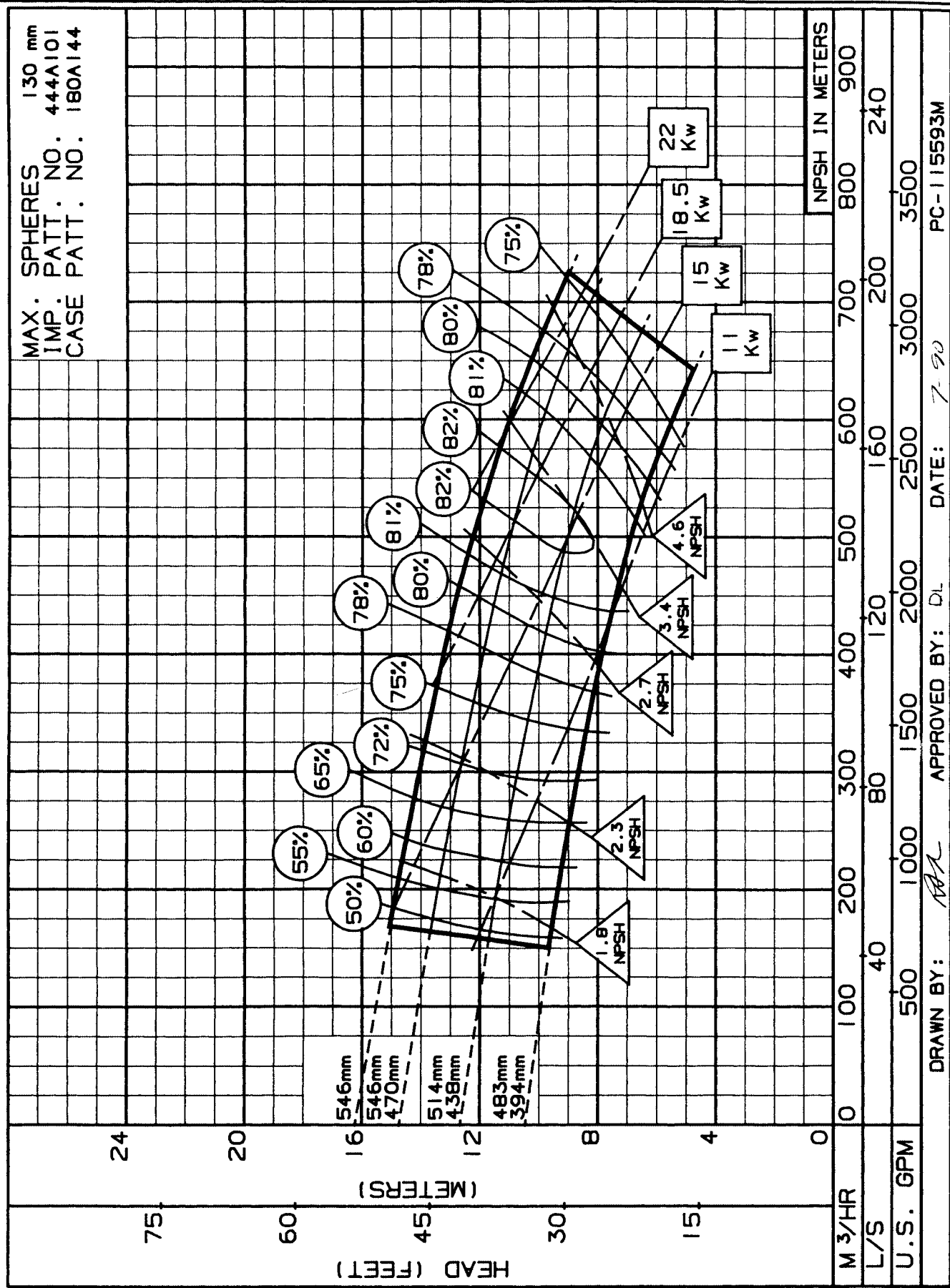


8x10x22 - 575 RPM ENCLOSED IMPELLER

SECTION **610 (Metric 50Hz)**
DATE **JULY 1994**
SUPERCEDES MARCH 1986

SIZE: 8X10X22 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

MAX. SPHERES 130 mm
IMP. PATT. NO. 44A101
CASE PATT. NO. 180A144



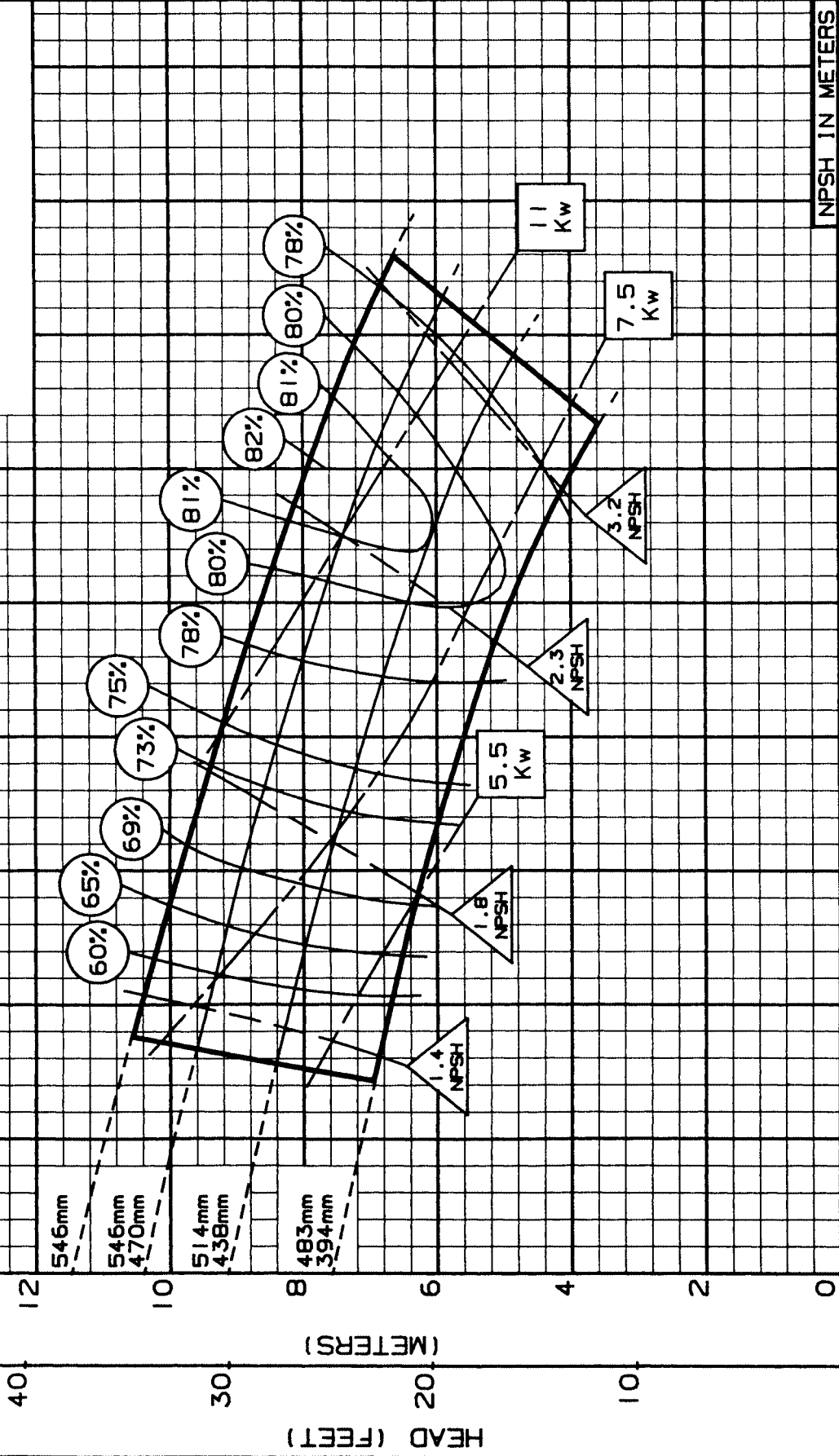
SECTION 610 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

8x10x22 - 480 RPM ENCLOSED IMPELLER

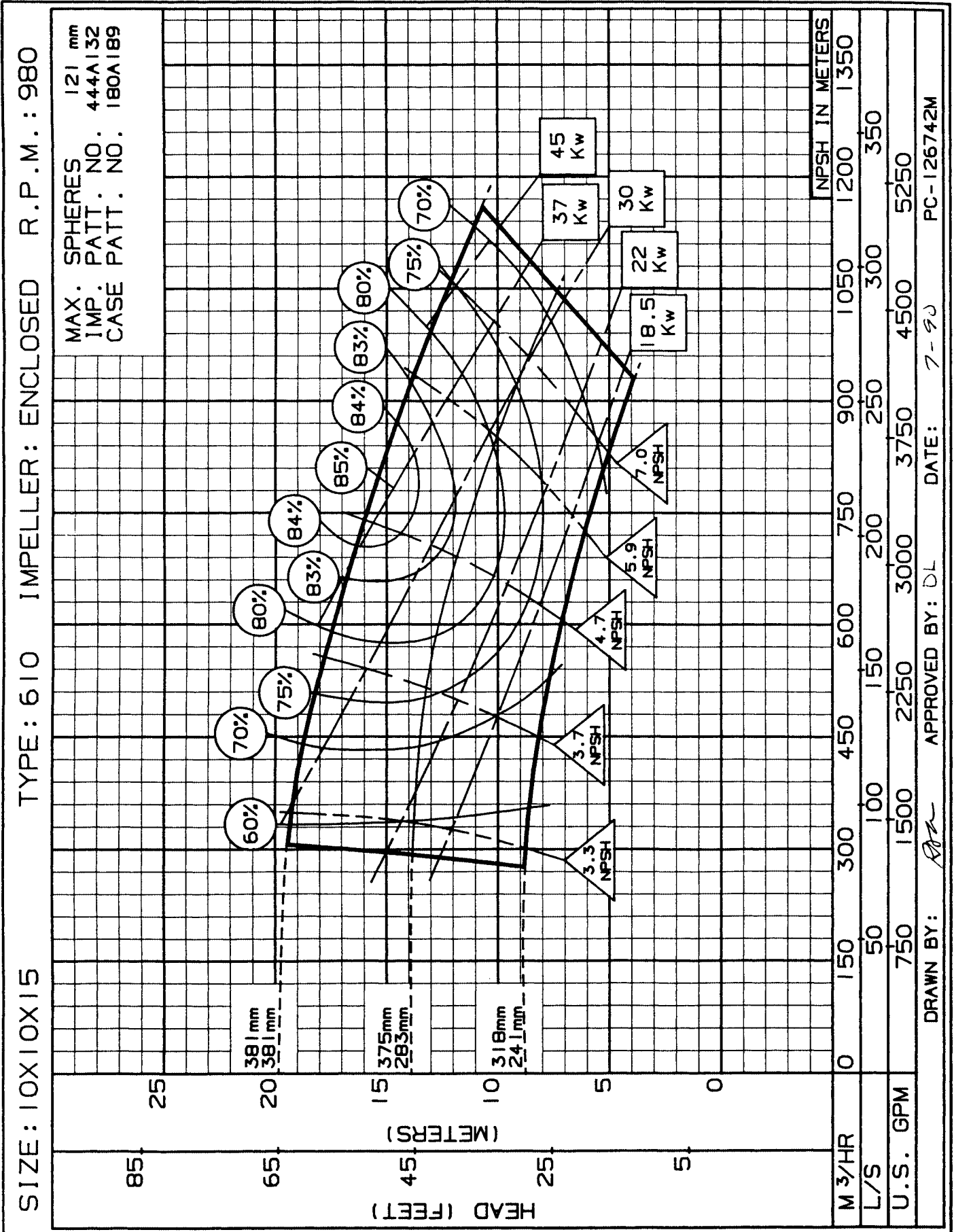
ap AURORA®
 Pentair Pump Group

SIZE: 8X10X22 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 480

MAX. SPHERES 130 mm
 IMP. PATT. NO. 444A101
 CASE PATT. NO. 180A144



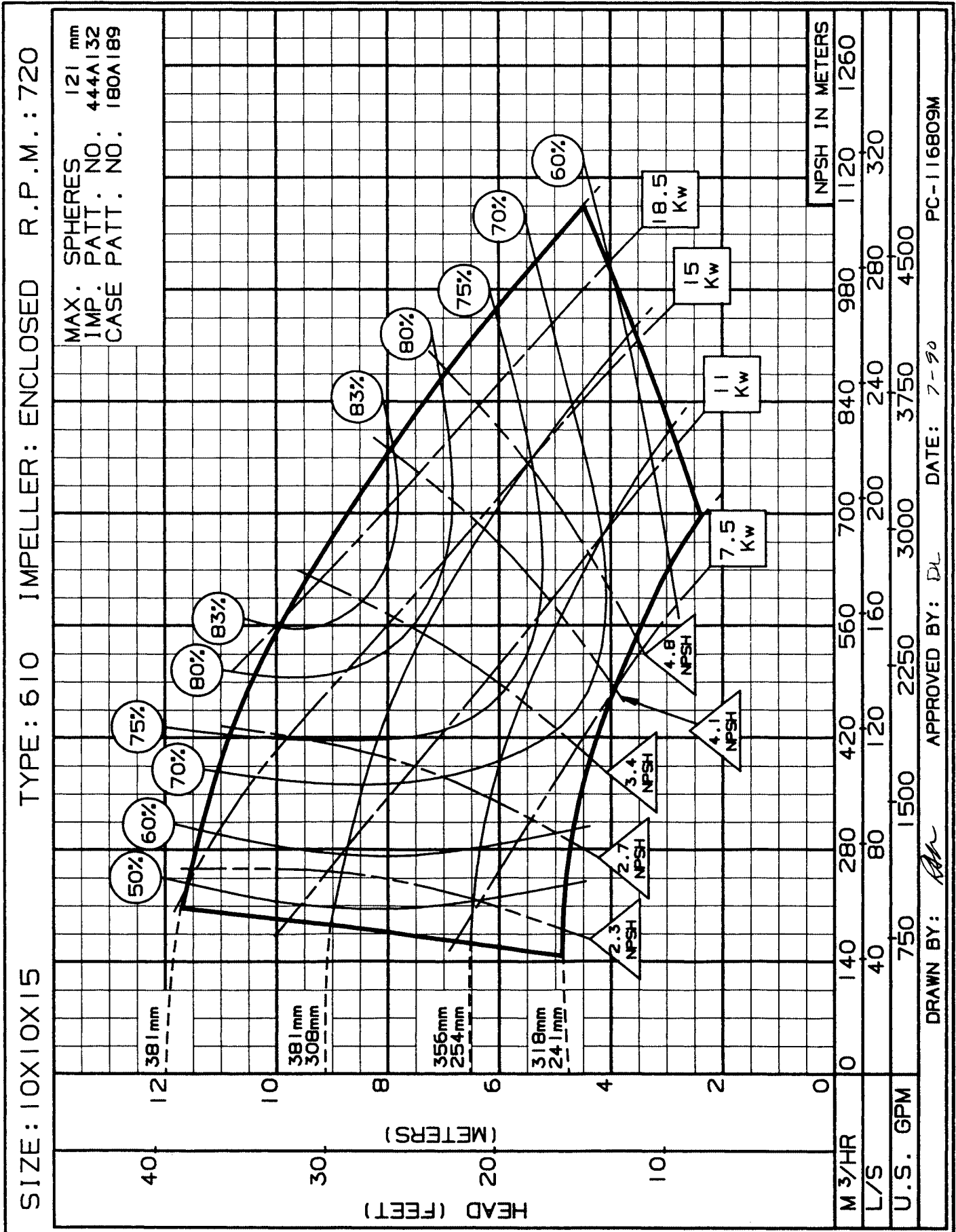
M ³ /HR	0	80	160	240	320	400	480	560	640	720	NPSH IN METERS
L/S	25	50	75	100	125	150	175	200	225	250	
U.S. GPM	400	800	1200	1600	2000	2400	2800	3200	3600	4000	
DRAWN BY: <i>DL</i>	APPROVED BY: <i>DL</i>										DATE: 7-90
										PC-115594M	



SECTION 610 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

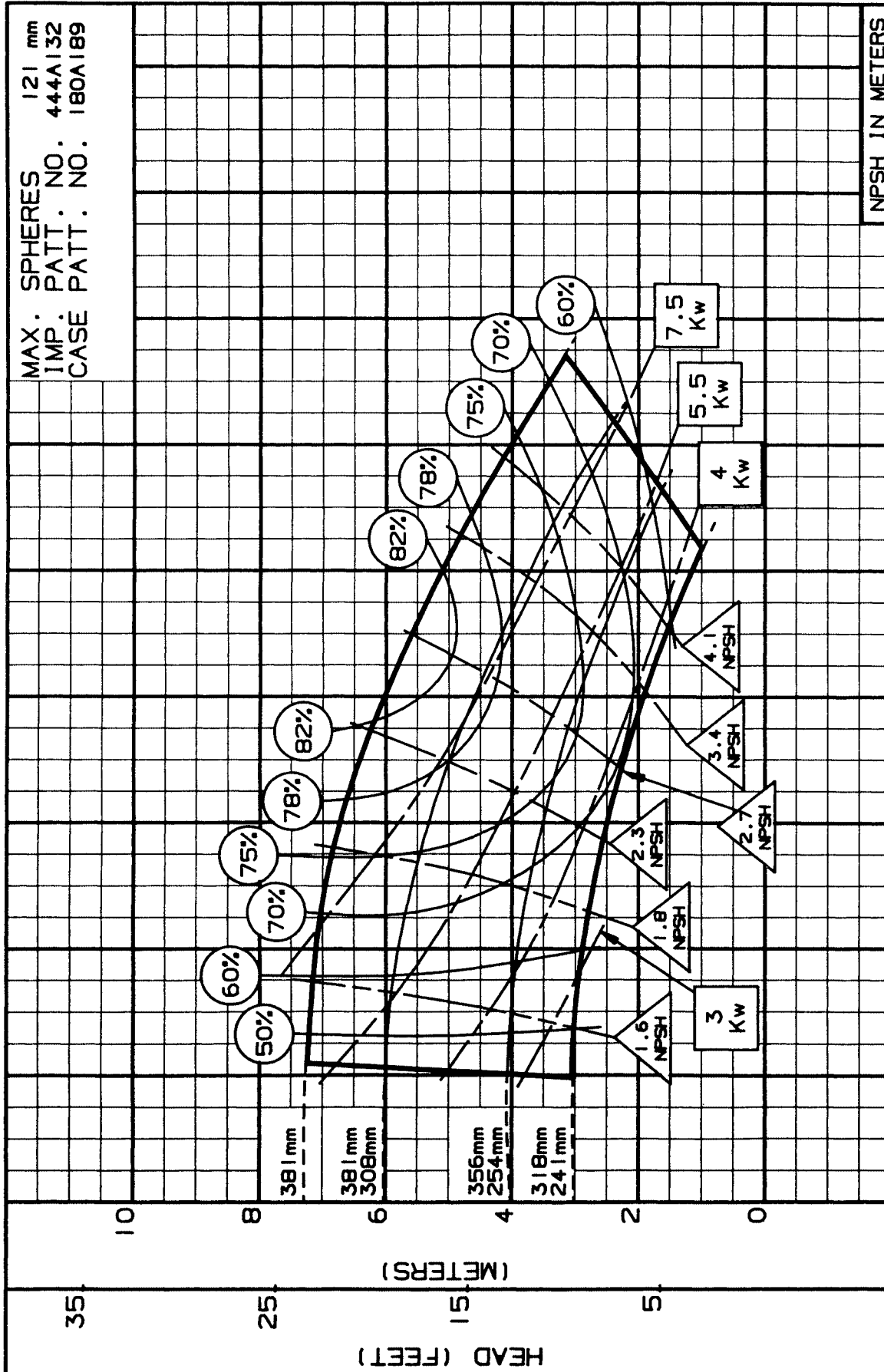
10x10x15 - 720 RPM ENCLOSED IMPELLER

ap AURORA®
 Pentair Pump Group



SIZE: 10X10X15 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

MAX. SPHERES 121 mm
IMP. PATT. NO. 444A132
CASE PATT. NO. 180A189

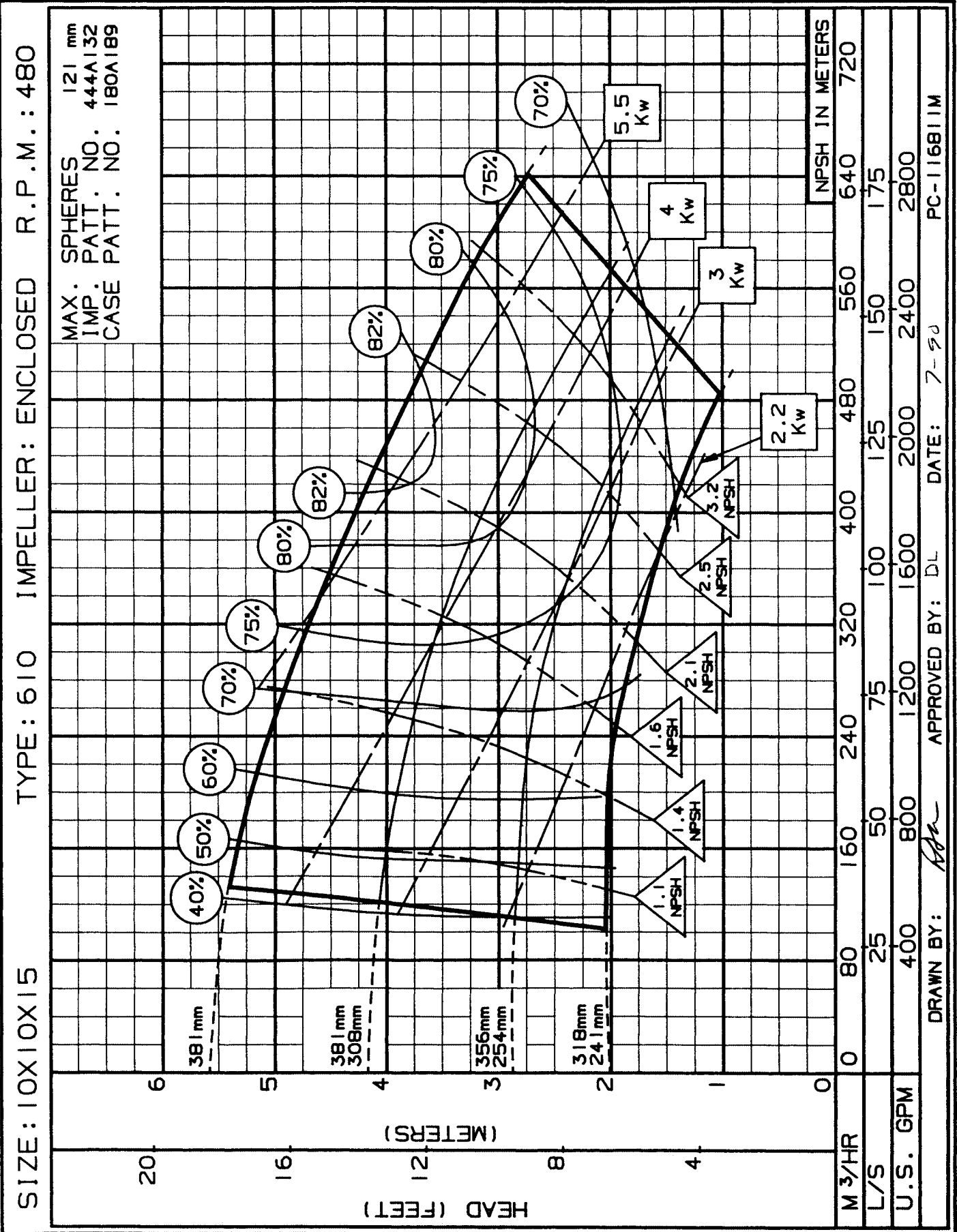


DRAWN BY: *AK* APPROVED BY: *DL* DATE: 7-94 PC-116810M

SECTION 610 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

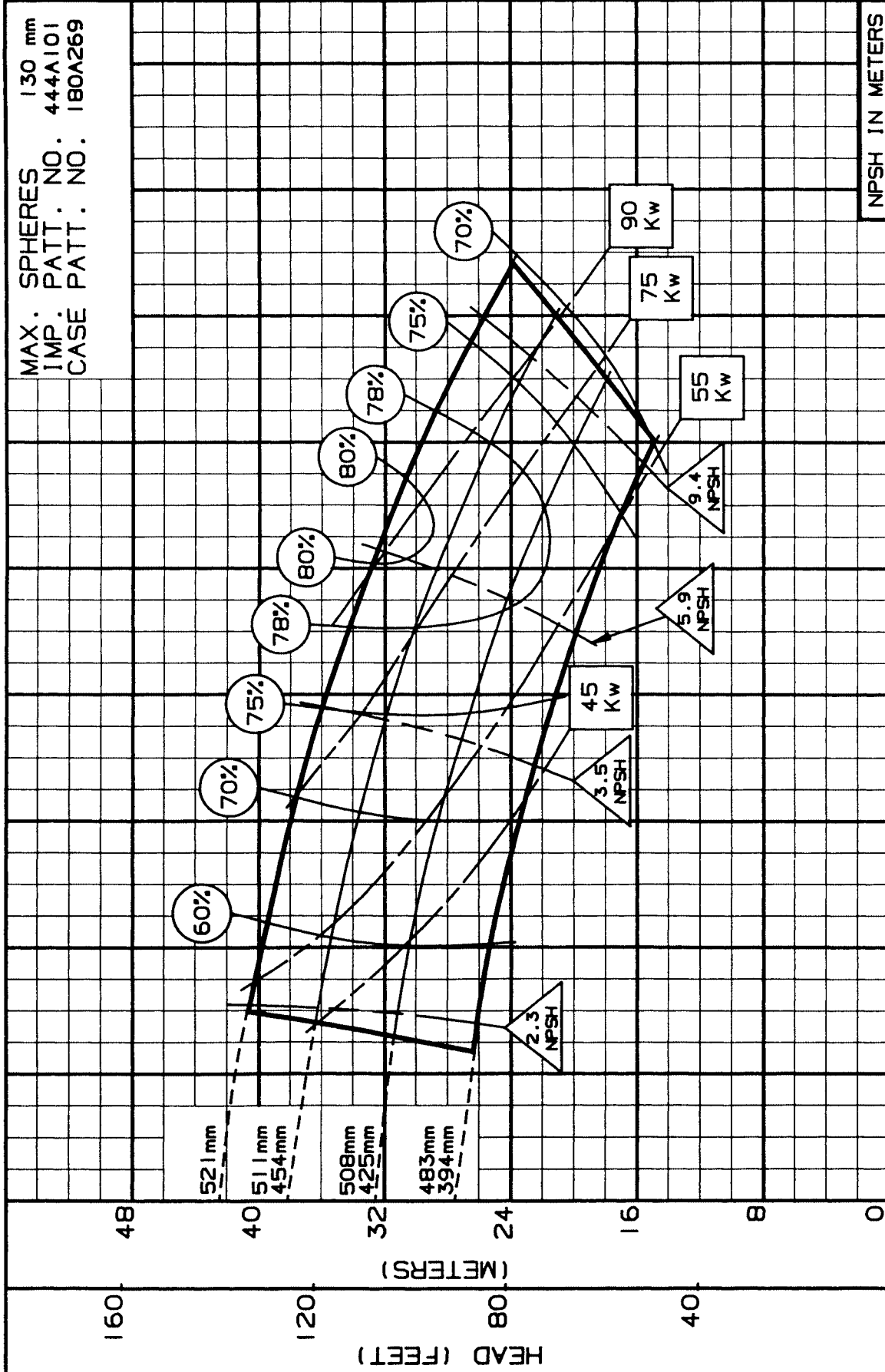
10x10x15 - 480 RPM ENCLOSED IMPELLER

ap AURORA®
 Pentair Pump Group



SIZE: 10X10X22 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 980

MAX. SPHERES 130 mm
IMP. PATT. NO. 444A101
CASE PATT. NO. 180A269



		NPSH IN METERS									
M³/HR	0	160	320	480	640	800	960	1120	1280	1440	
L/S		50	100	150	225	300	375	450	525	600	
U.S. GPM		750	1500	2250	3000	3750	4500	5250	6000	6750	
DRAWN BY: <i>AK</i>		APPROVED BY: <i>DL</i>		DATE: 7-90		PC-134351M					

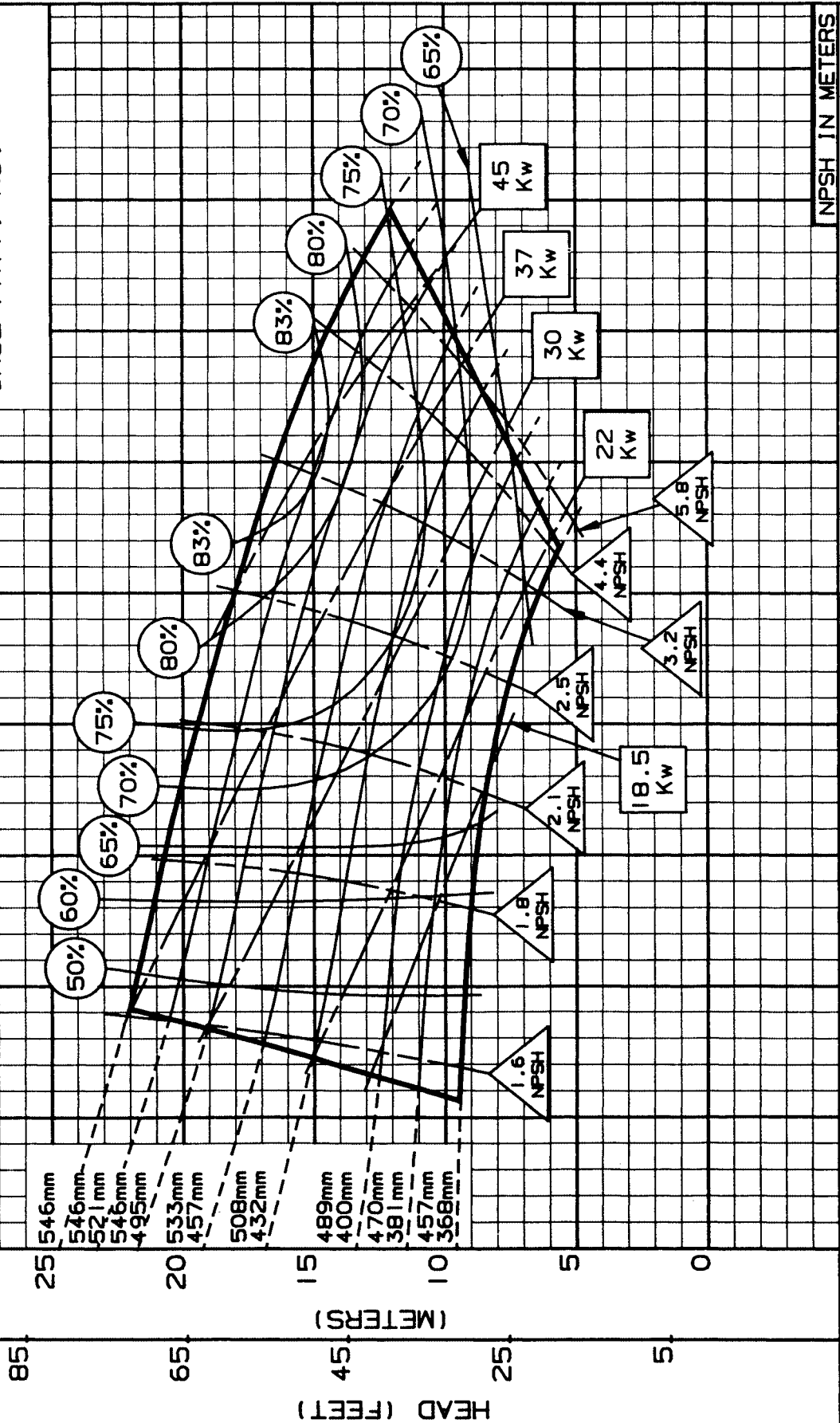
SUPERCEDES MARCH 1986

ENCLOSED IMPELLER

Pentair Pump Group

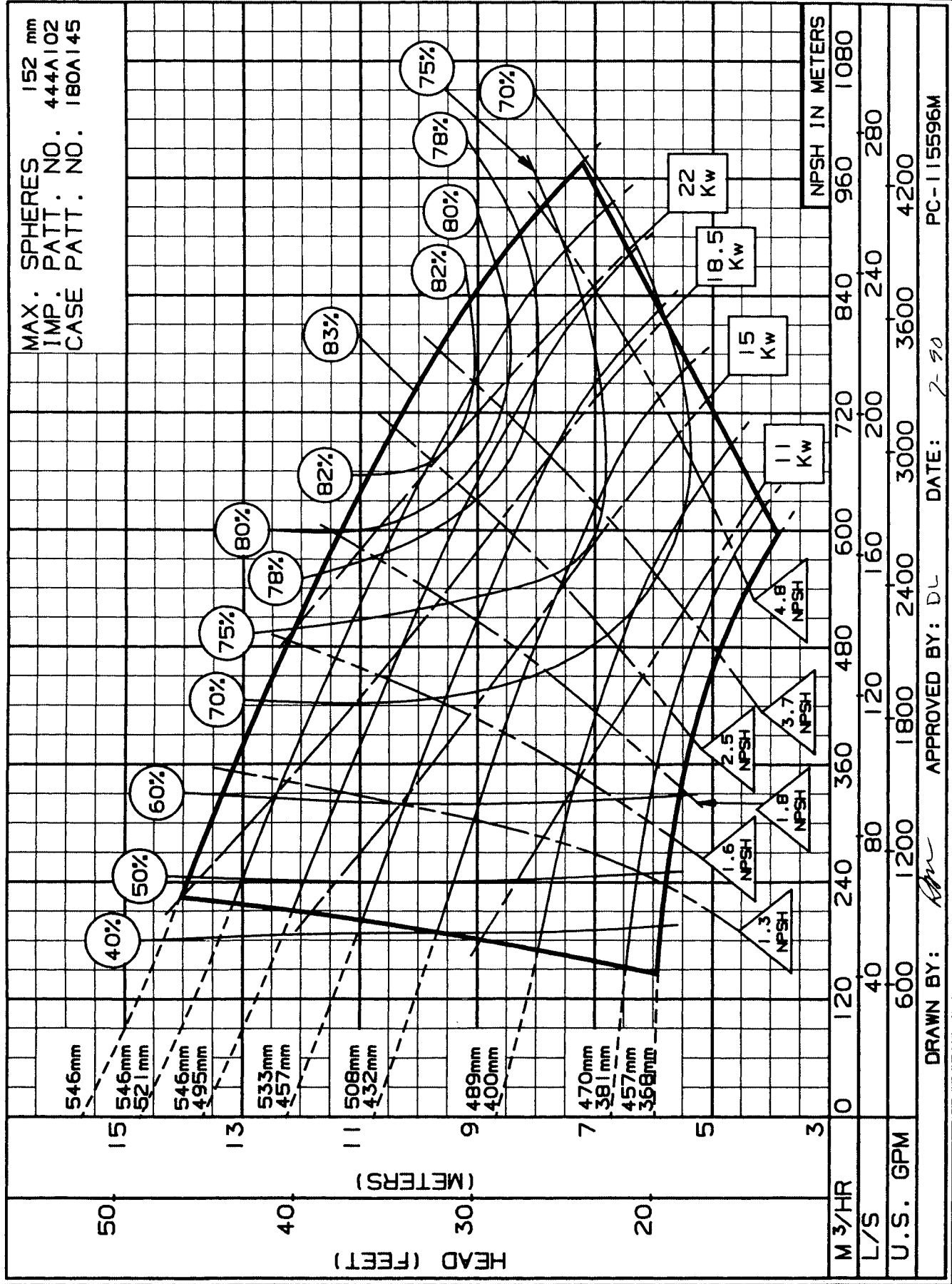
SIZE: 10X12X22 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 735

MAX. SPHERES 152 mm
IMP. PATT. NO. 444A102
CASE PATT. NO. 180A145



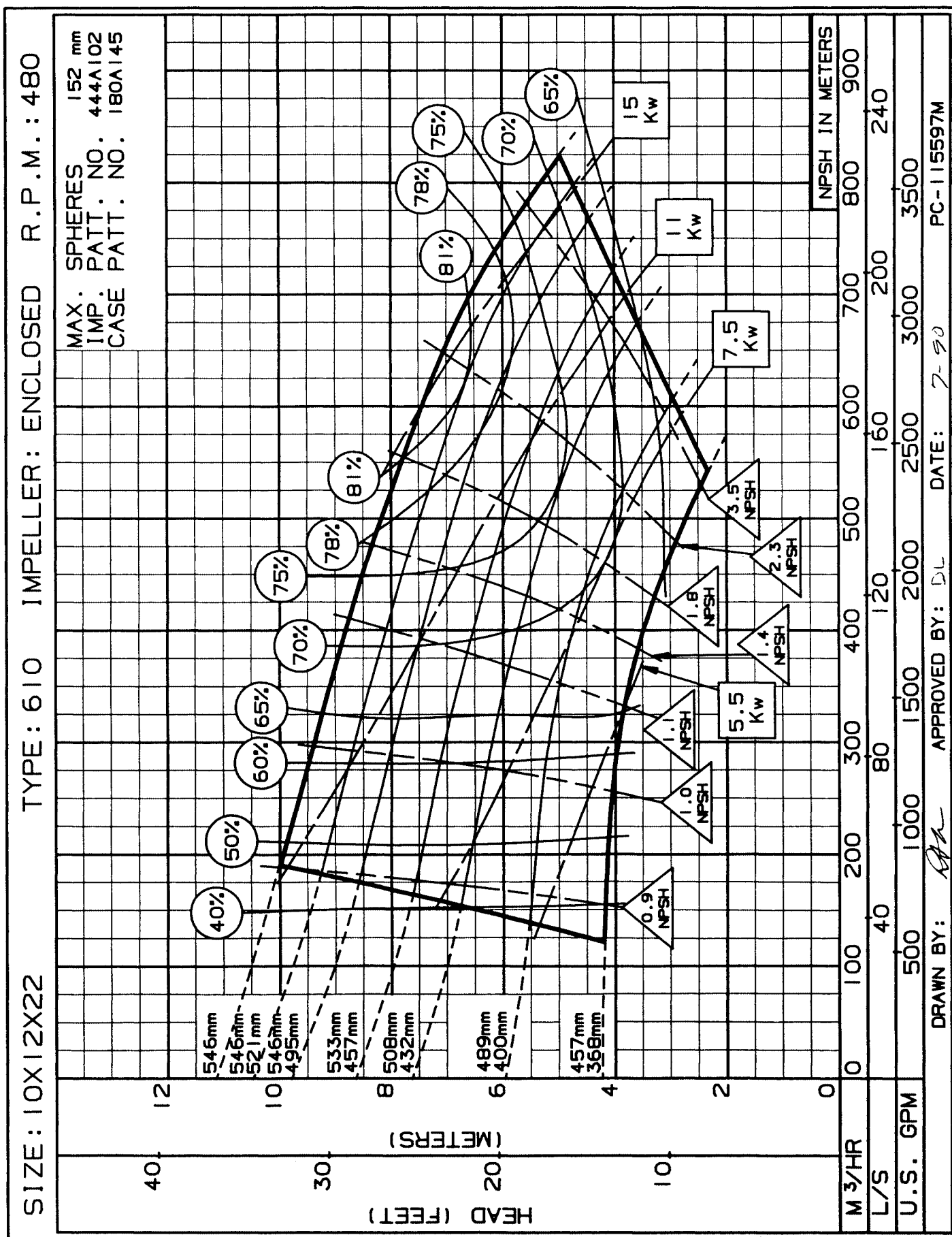
DRAWN BY: *SA* APPROVED BY: DL DATE: 7-90 PC-115595M

SIZE: 10X12X22 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575



SUPERCEDES MARCH 1986

ap AURORA®
Pentair Pump Group



SECTION 610 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

12x14x22A - 575 RPM

ENCLOSED IMPELLER

ap AURORA®
 Pentair Pump Group

SIZE: 12X14X22A TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

MAX. SPHERES 152 mm
 IMP. PATT. NO. 444A103
 CASE PATT. NO. 180A146

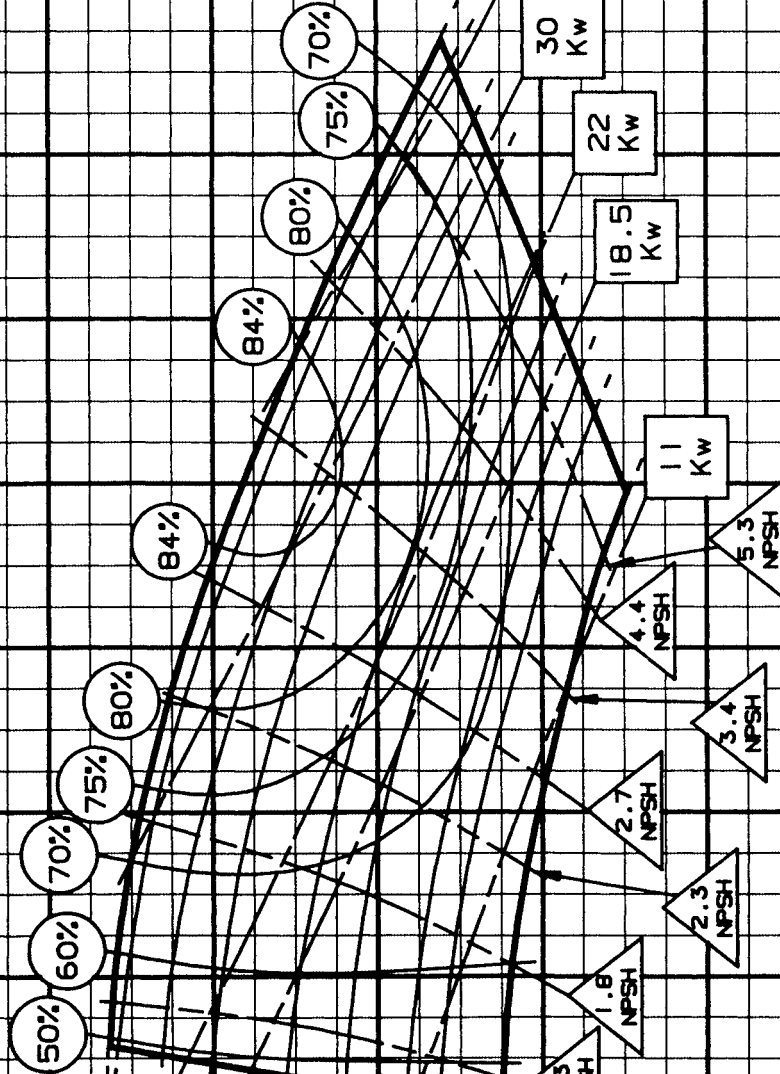
HEAD (FEET)
 65
 50
 35
 20
 5

20

16

(METERS)

546mm
 533mm
 546mm - 495mm
 533mm - 457mm
 508mm - 432mm
 483mm - 394mm
 457mm - 368mm
 444mm - 357mm
 406mm - 330mm



NPSH IN METERS

0 200 400 600 800 1000 1200 1400 1600 1800

60 120 180 240 300 360 420 480

1000 2000 3000 4000 5000 6000 7000

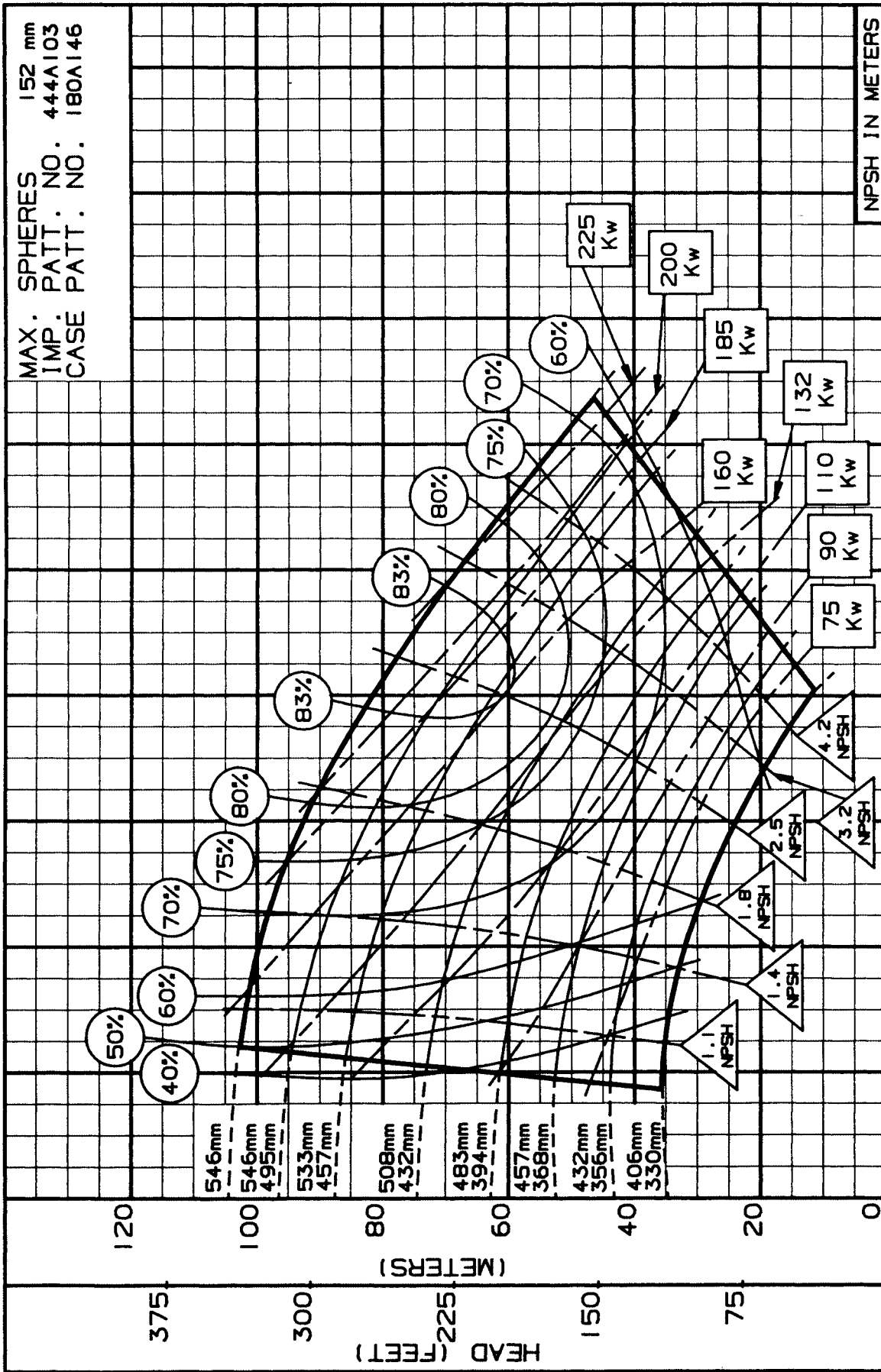
DRAWN BY: *APL* APPROVED BY: DL DATE: 7-90 PC-126831M

SIZE: 12X14X22A

TYPE: 610 IMPELLER: ENCLOSED

R.P.M.: 480

MAX. SPHERES 152 mm
IMP. PATT. NO. 444A103
CASE PATT. NO. 180A146



M³/HR	0	200	400	600	800	1000	1200	1400	1600	1800
L/S	0	60	120	180	240	300	360	420	480	540
U.S. GPM	0	1000	2000	3000	4000	5000	6000	7000	8000	9000
NPSH IN METERS										
DATE: 7-90										
PC-126832M										

DRAWN BY: *ARK* APPROVED BY: *DL* DATE: 7-90

SECTION 610 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

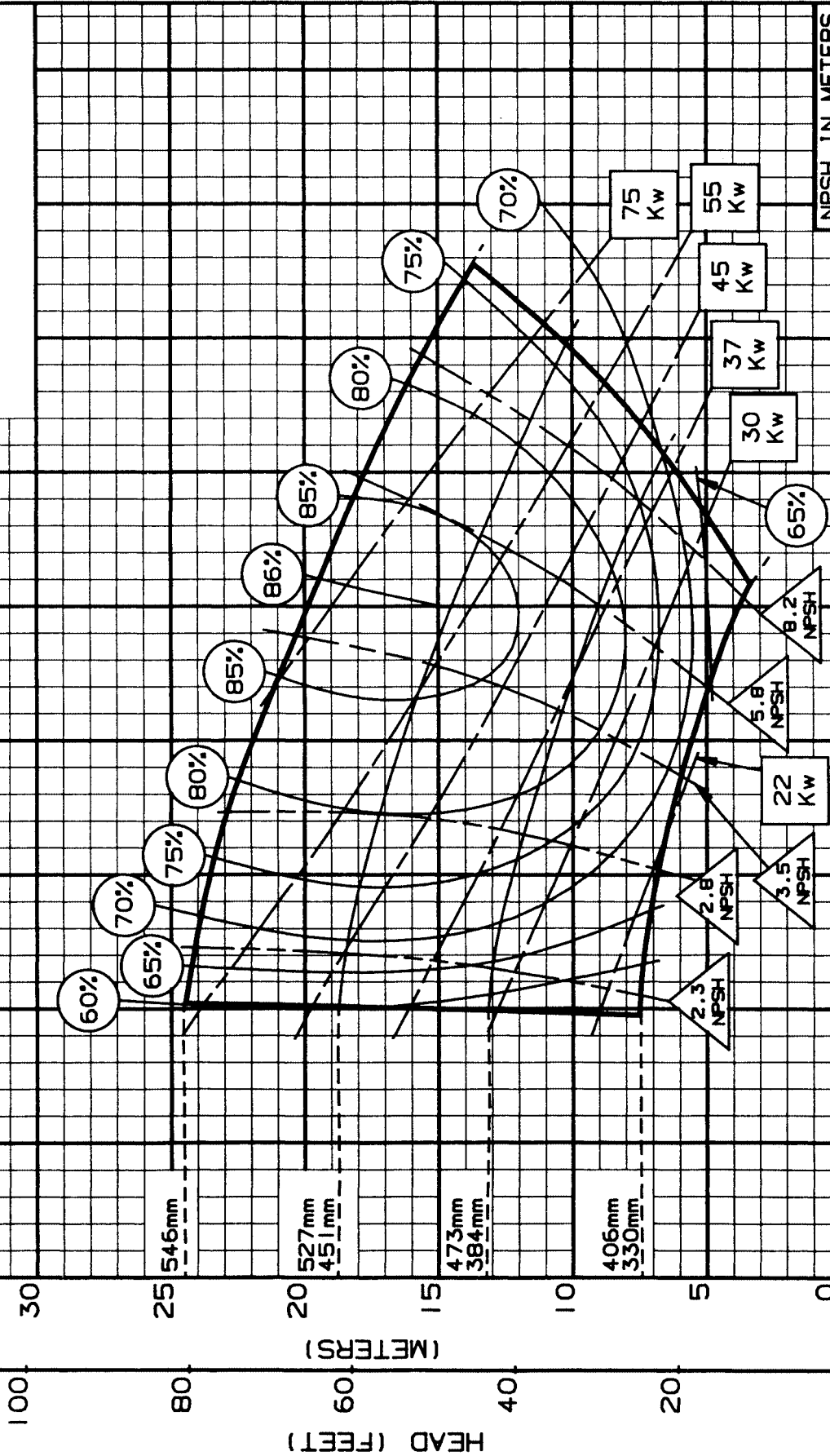
12x14x22B - 735 RPM

ENCLOSED IMPELLER

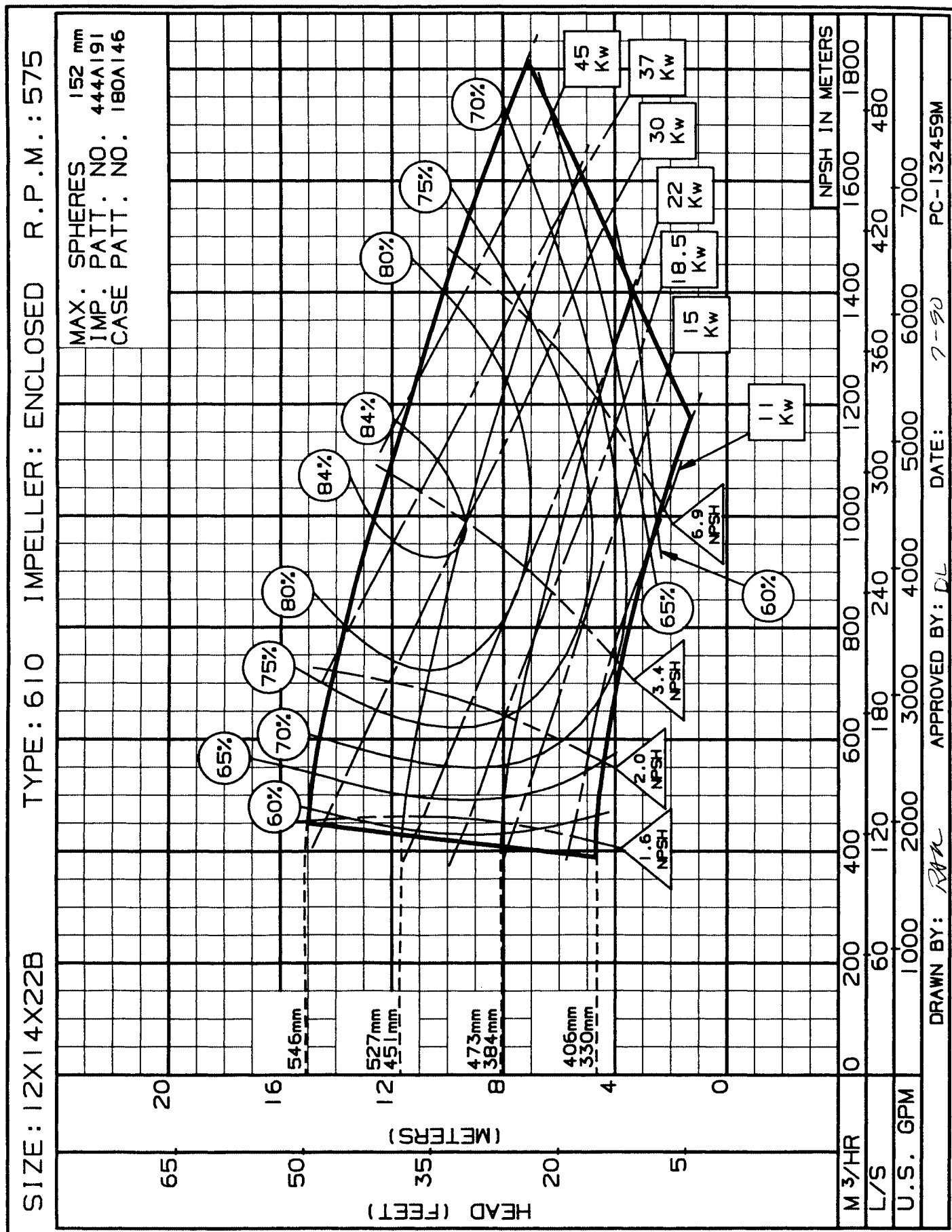
ap AURORA®
 Pentair Pump Group

SIZE: 12X14X22B TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 735

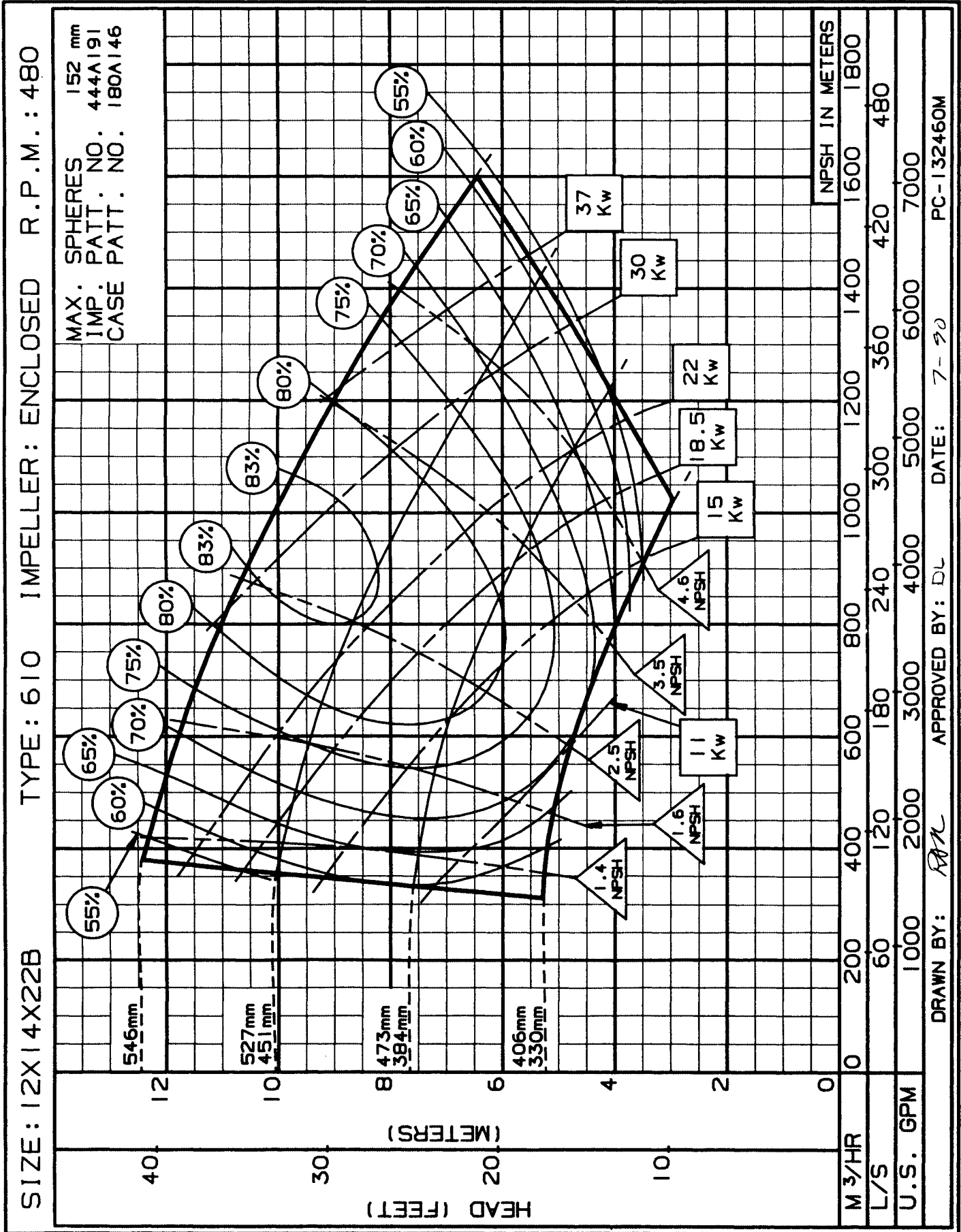
MAX. SPHERES 152 mm
 IMP. PATT. NO. 444A191
 CASE PATT. NO. 180A146



M ³ /HR	0	250	500	750	1000	1250	1500	1750	2000	2250
L/S	0	75	150	225	300	375	450	525	600	600
U.S. GPM	0	1500	3000	4500	6000	7500	9000	10500	12000	13500
DRAWN BY: <i>RAH</i> APPROVED BY: <i>DL</i> DATE: 7-90 PC-132458M										



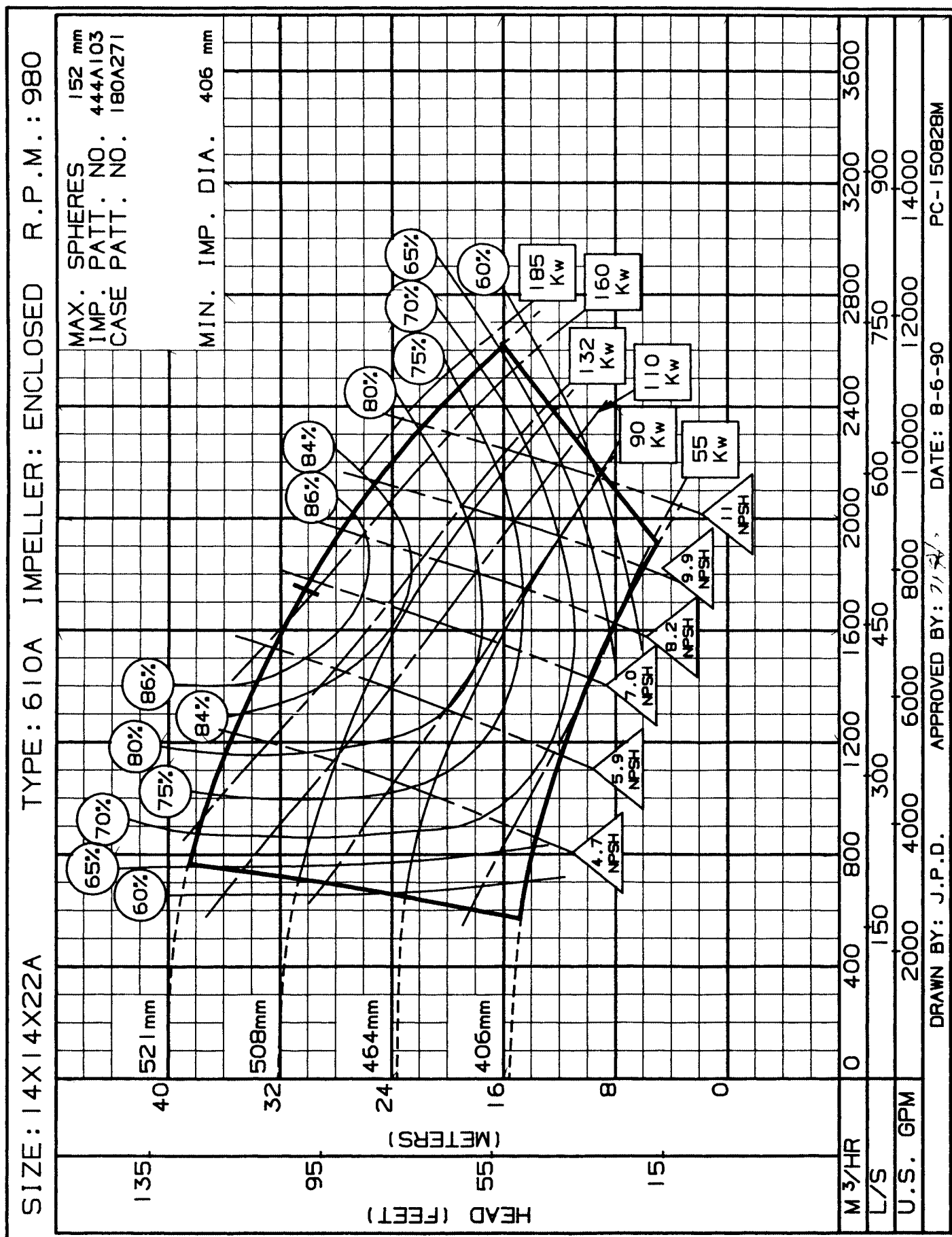
12x14x22B - 480 RPM
 ENCLOSED IMPELLER





ENCLOSED IMPELLER

SUPERCEDES MARCH 1986



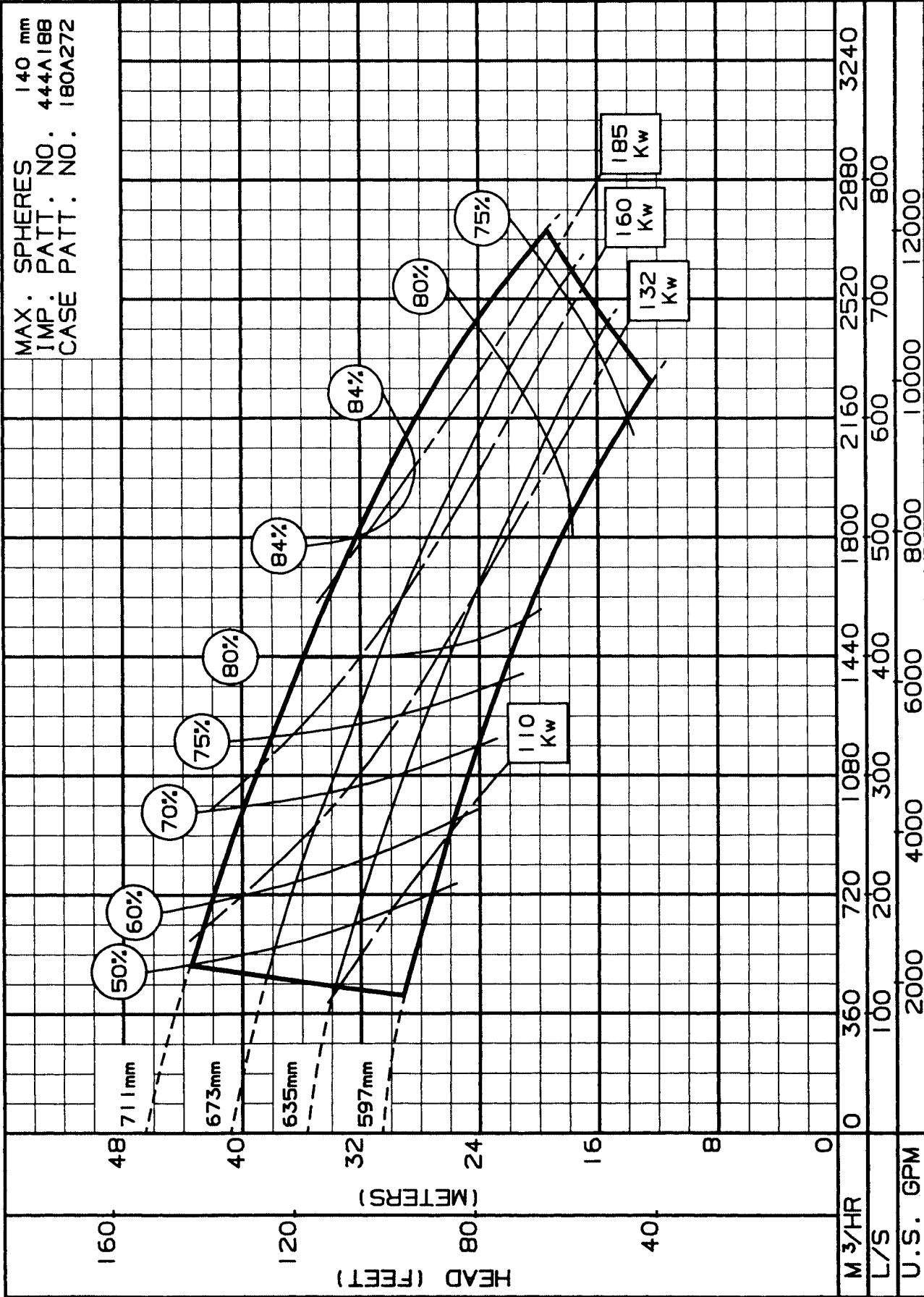
SECTION 610 (Metric 50Hz)
DATE JULY 1994
SUPERCEDES MARCH 1986

16x16x28 - 735 RPM
ENCLOSED IMPELLER

ap AURORA®
Pentair Pump Group

SIZE: 16X16X28 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 735

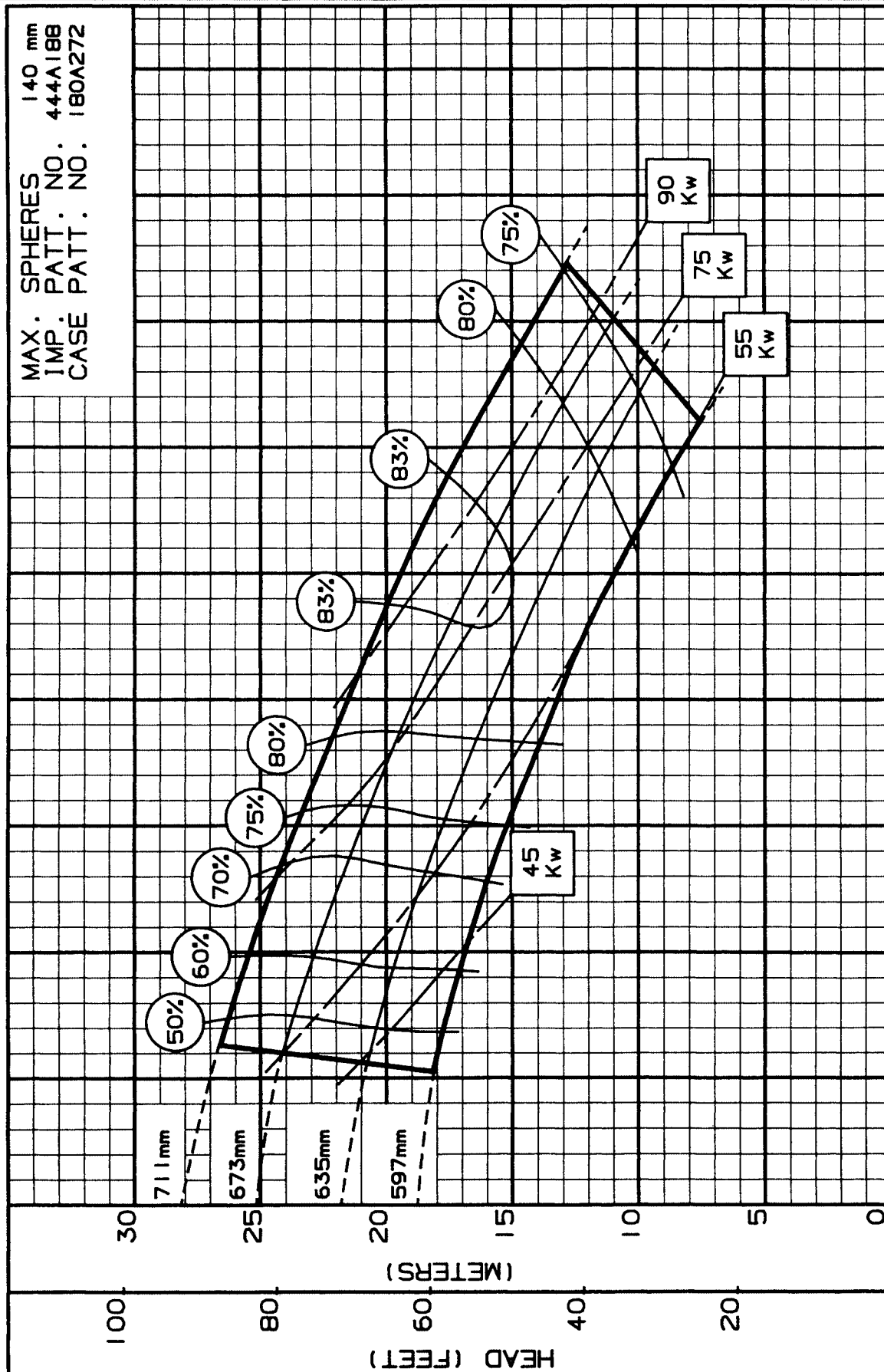
MAX. SPHERES 140 mm
IMP. PATT. NO. 444A188
CASE PATT. NO. 180A272



DRAWN BY: *RAK* APPROVED BY: *DL* DATE: 7-90 PC-127141M

SIZE: 16X16X28 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

MAX. SPHERES 140 mm
IMP. PATT. NO. 444A188
CASE PATT. NO. 180A272



M ³ /HR	0	300	600	900	1200	1500	1800	2100	2400	2700
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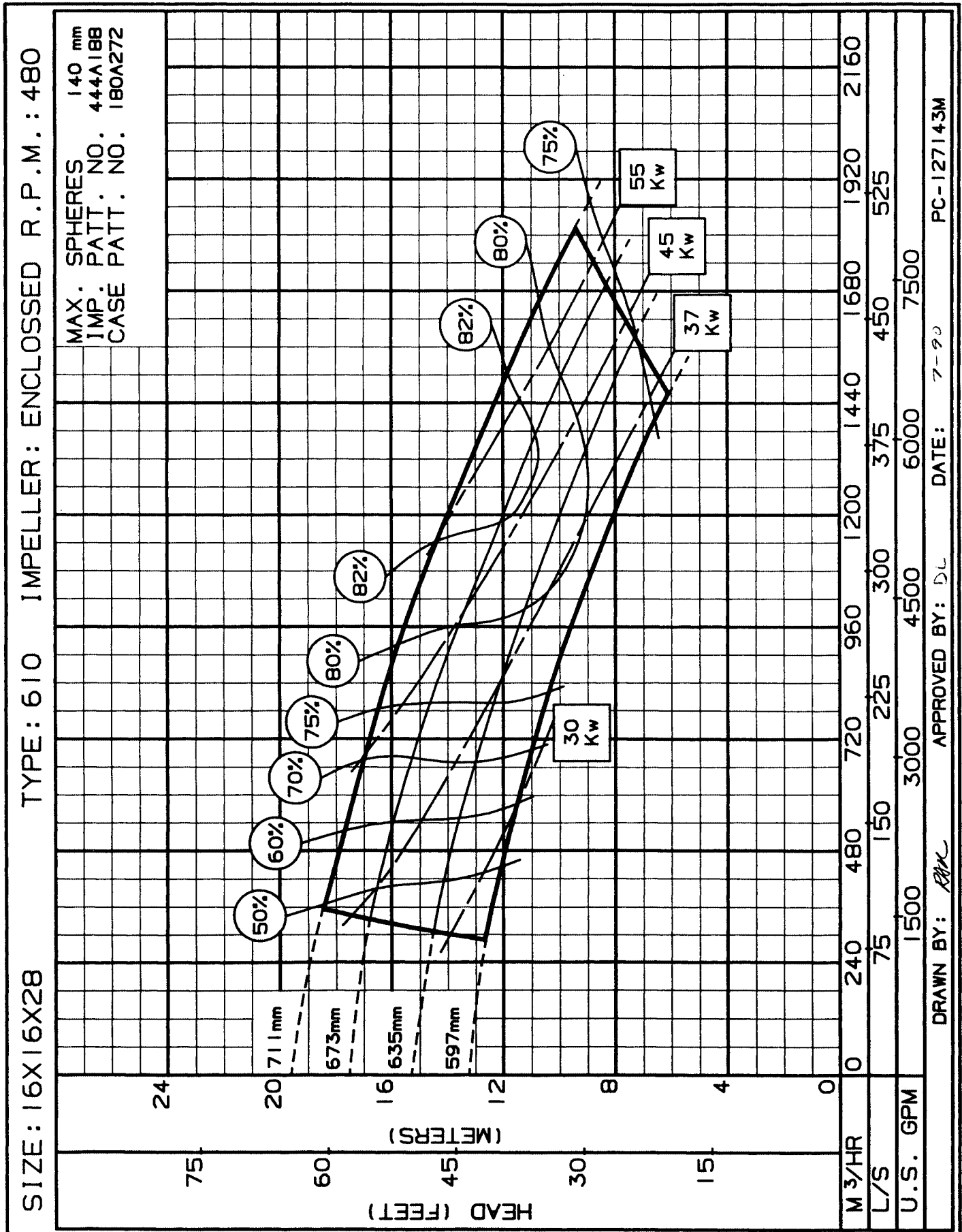
L/S	100	200	300	400	500	600	700
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U.S. GPM	1500	3000	4500	6000	7500	9000	10500
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DRAWN BY: *RAK* APPROVED BY: DL DATE: 7-90 PC-127142M

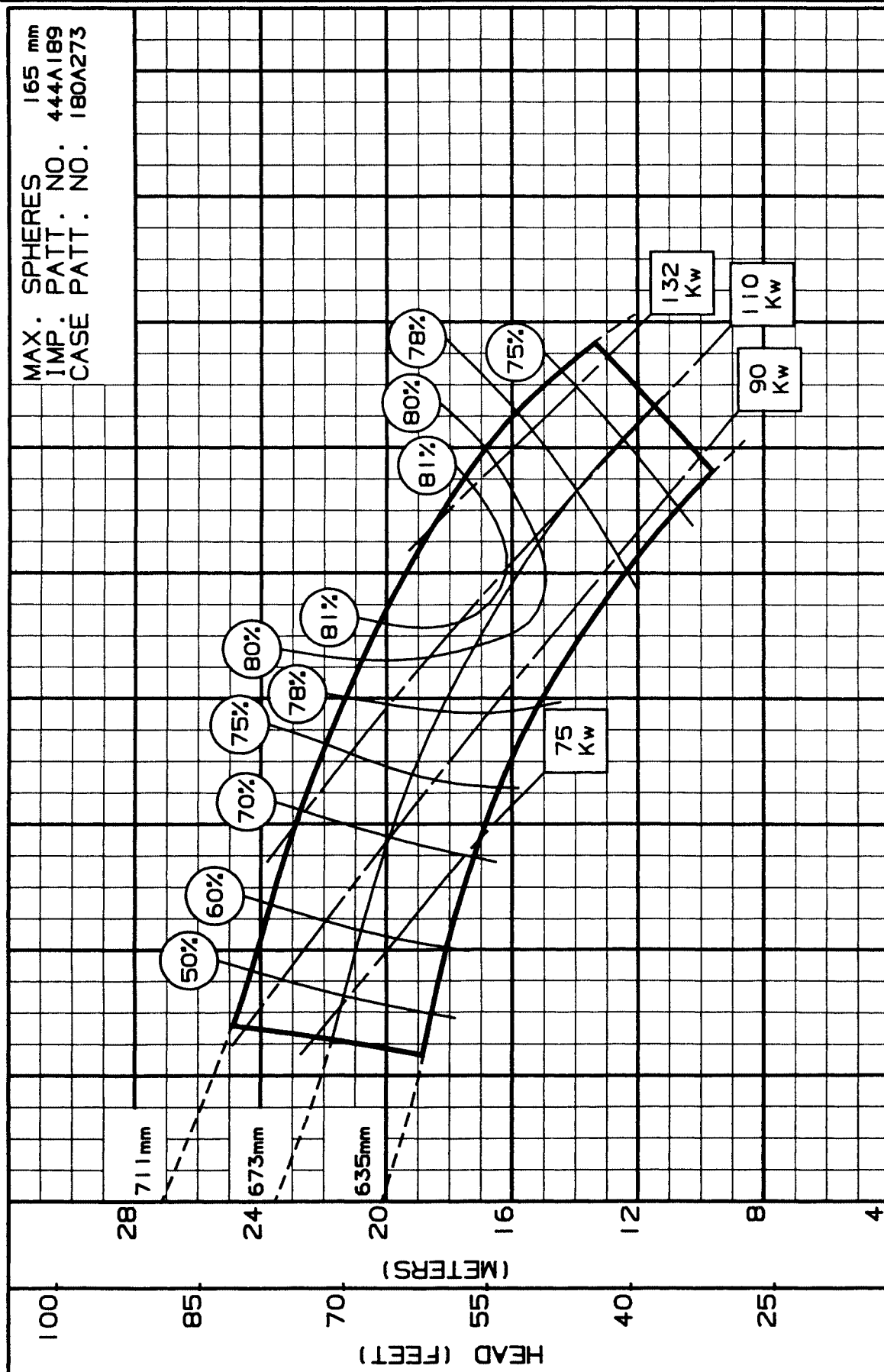
DATE **JULY 1994**
SUPERCEDES MARCH 1986

ap AURORA®
Pentair Pump Group



SIZE: 18X18X28 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

MAX. SPHERES 165 mm
IMP. PATT. NO. 444A189
CASE PATT. NO. 180A273



M ³ /HR	0	400	800	1200	1600	2000	2400	2800	3200	3600
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L/S	150	300	450	600	750	900
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U.S. GPM	2000	4000	6000	8000	10000	12000	14000
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DRAWN BY: *AK* APPROVED BY: *DL* DATE: 7-90 PC-127144M

SECTION 610 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

18x18x28 - 480 RPM

ENCLOSED IMPELLER

ap AURORA®
 Pentair Pump Group

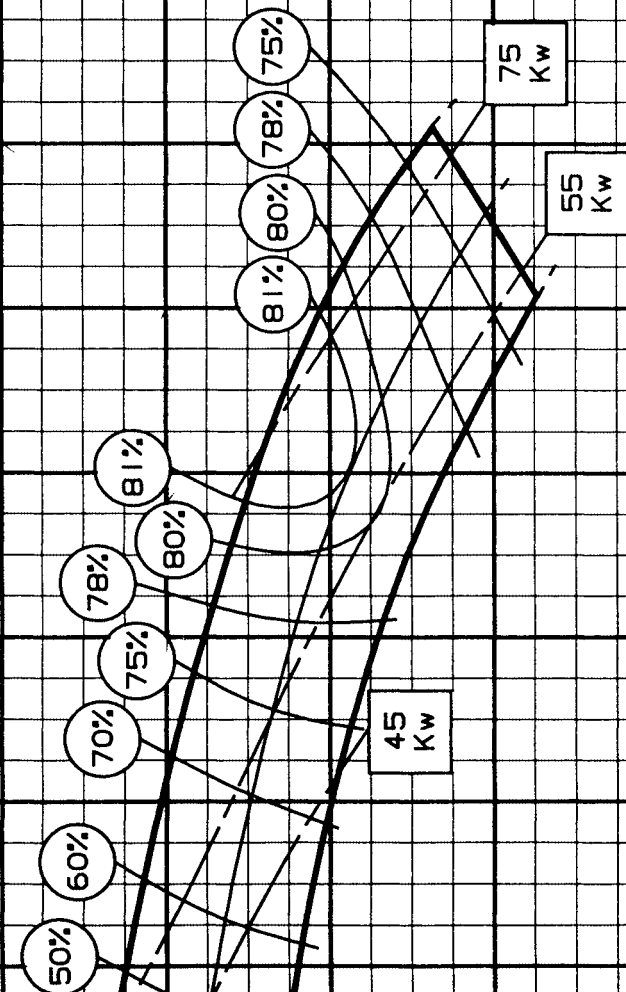
SIZE: 18X18X28 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 480

MAX. SPHERES 165 mm
 IMP. PATT. NO. 444A189
 CASE PATT. NO. 180A273

HEAD (FEET)
 65
 50
 35
 20
 5
 0

(METERS)

20
 16
 12
 8
 4
 0



M³/HR 0 320 640 960 1280 1600 1920 2240 2560 2880

L/S 100 200 300 400 500 600 700

U.S. GPM 1500 3000 4500 6000 7500 9000 10500

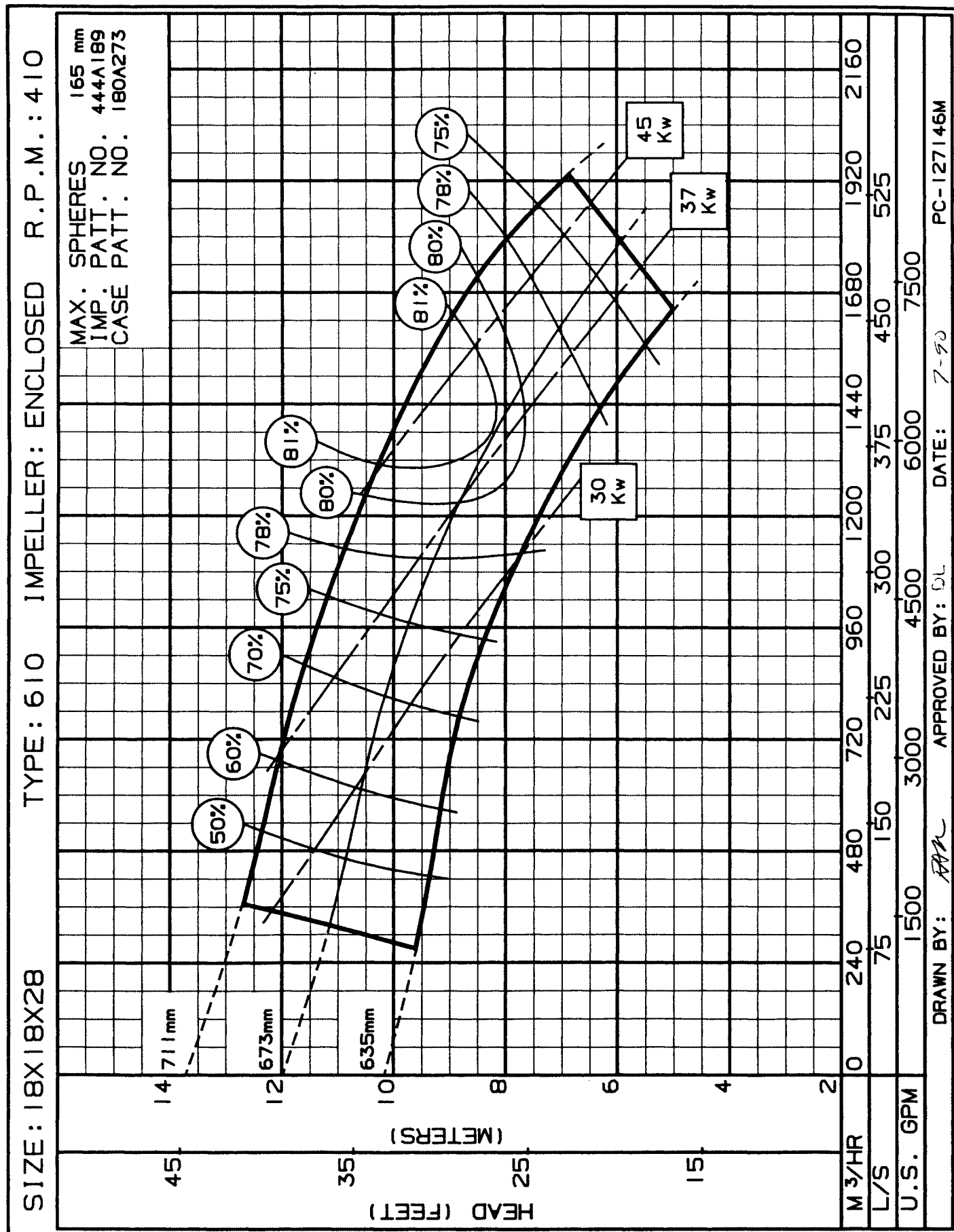
DRAWN BY: *RA* APPROVED BY: *DL* DATE: 7-98 PC-127145M



ENCLOSED IMPELLER

DATE **JULY 1994**

SUPERCEDES MARCH 1986



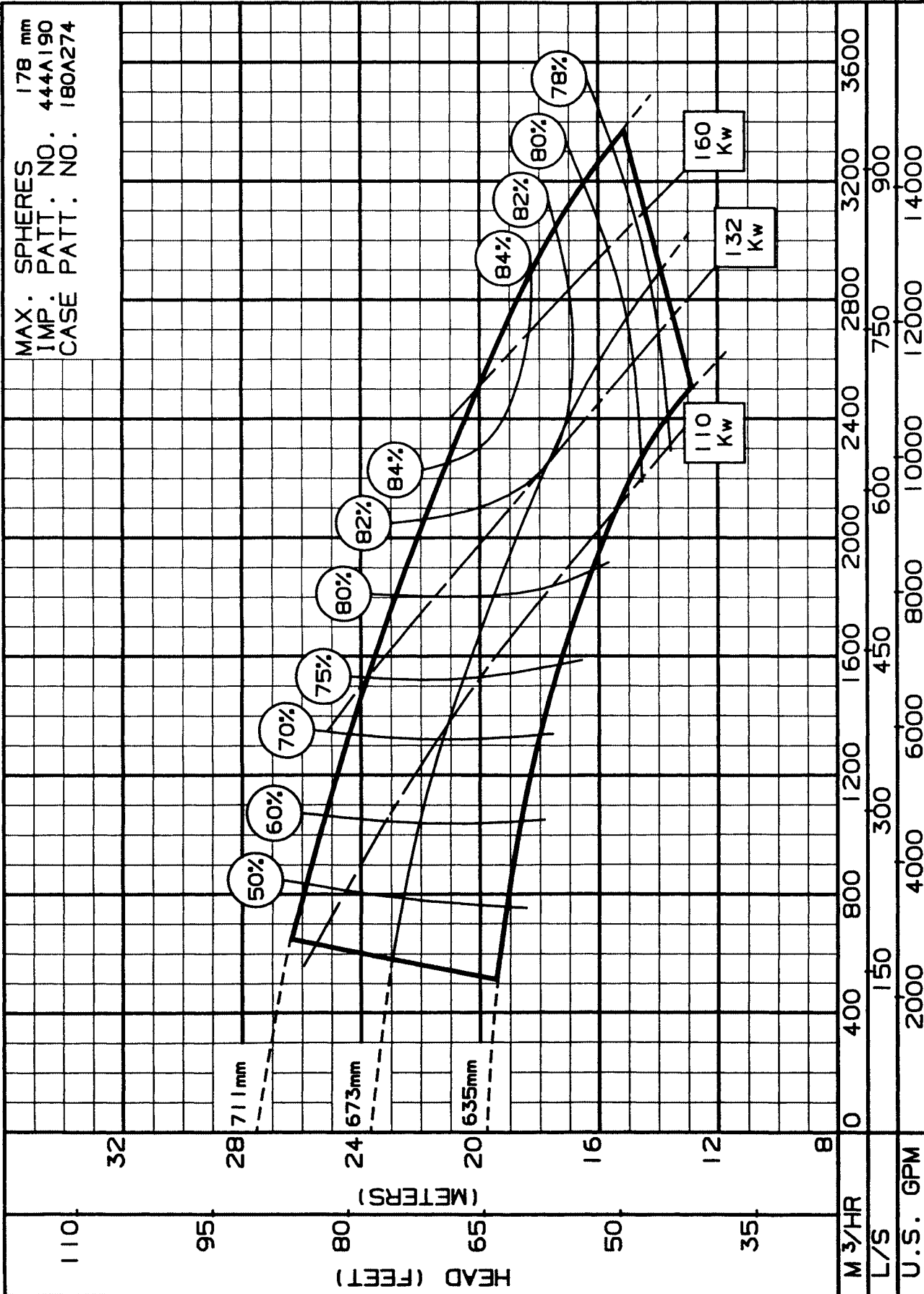
SECTION 610 (Metric 50Hz)
DATE JULY 1994
SUPERCEDES MARCH 1986

20x20x28 - 575 RPM
ENCLOSED IMPELLER

ap AURORA®
Pentair Pump Group

SIZE: 20X20X28 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 575

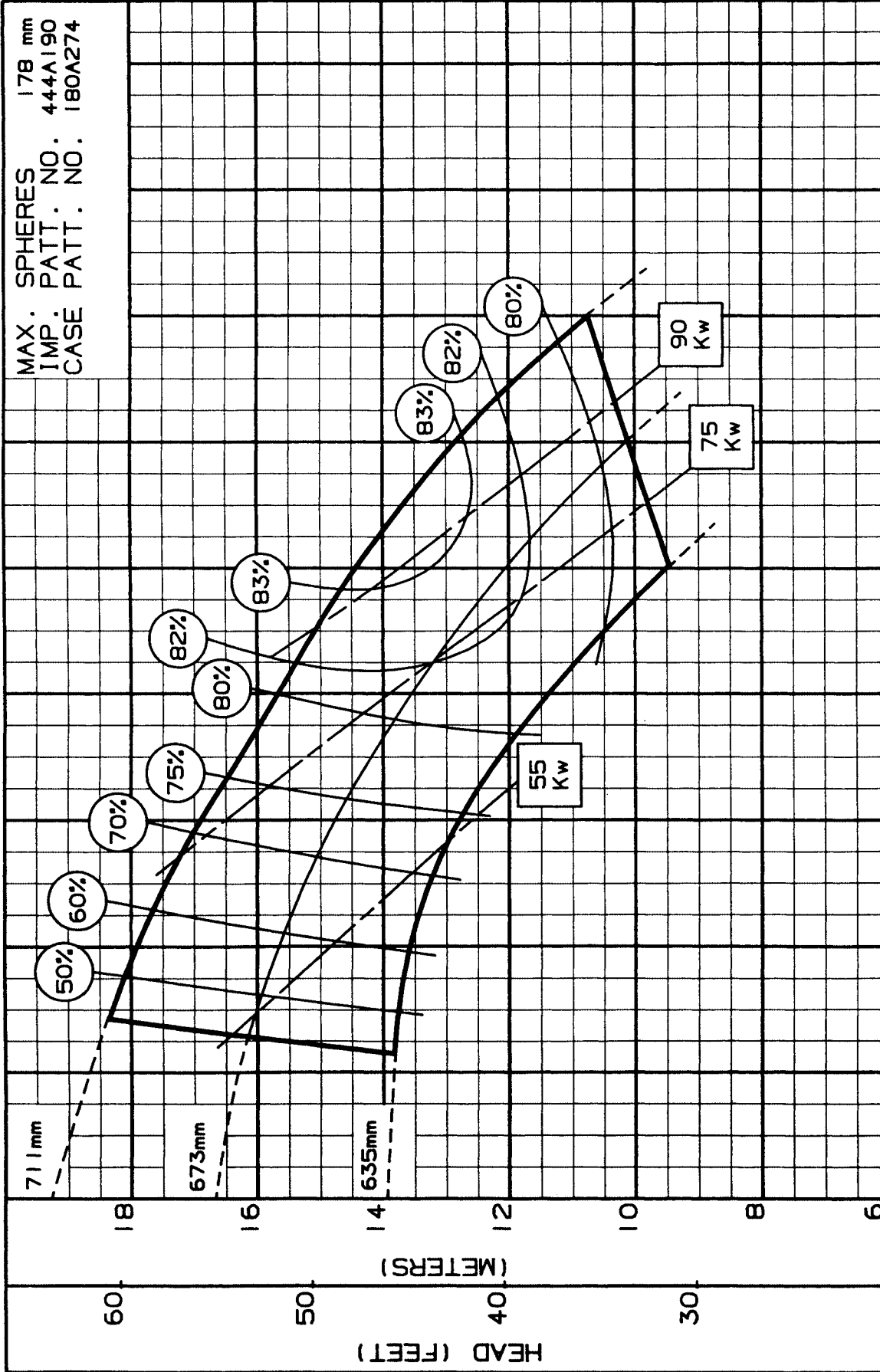
MAX. SPHERES 178 mm
IMP. PATT. NO. 444A190
CASE PATT. NO. 180A274



DRAWN BY: *AK* APPROVED BY: *DL* DATE: 7-90 PC-127147M

SIZE: 20X20X28 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 480

MAX. SPHERES 178 mm
IMP. PATT. NO. 444A190
CASE PATT. NO. 180A274



M ³ /HR	0	400	800	1200	1600	2000	2400	2800	3200	3600
L/S	150	300	450	600	750	900	1050	1200	1350	1500
U.S. GPM	2000	4000	6000	8000	10000	12000	14000	16000	18000	20000

DRAWN BY: *SK* APPROVED BY: *DL* DATE: 7-90 PC-127148M

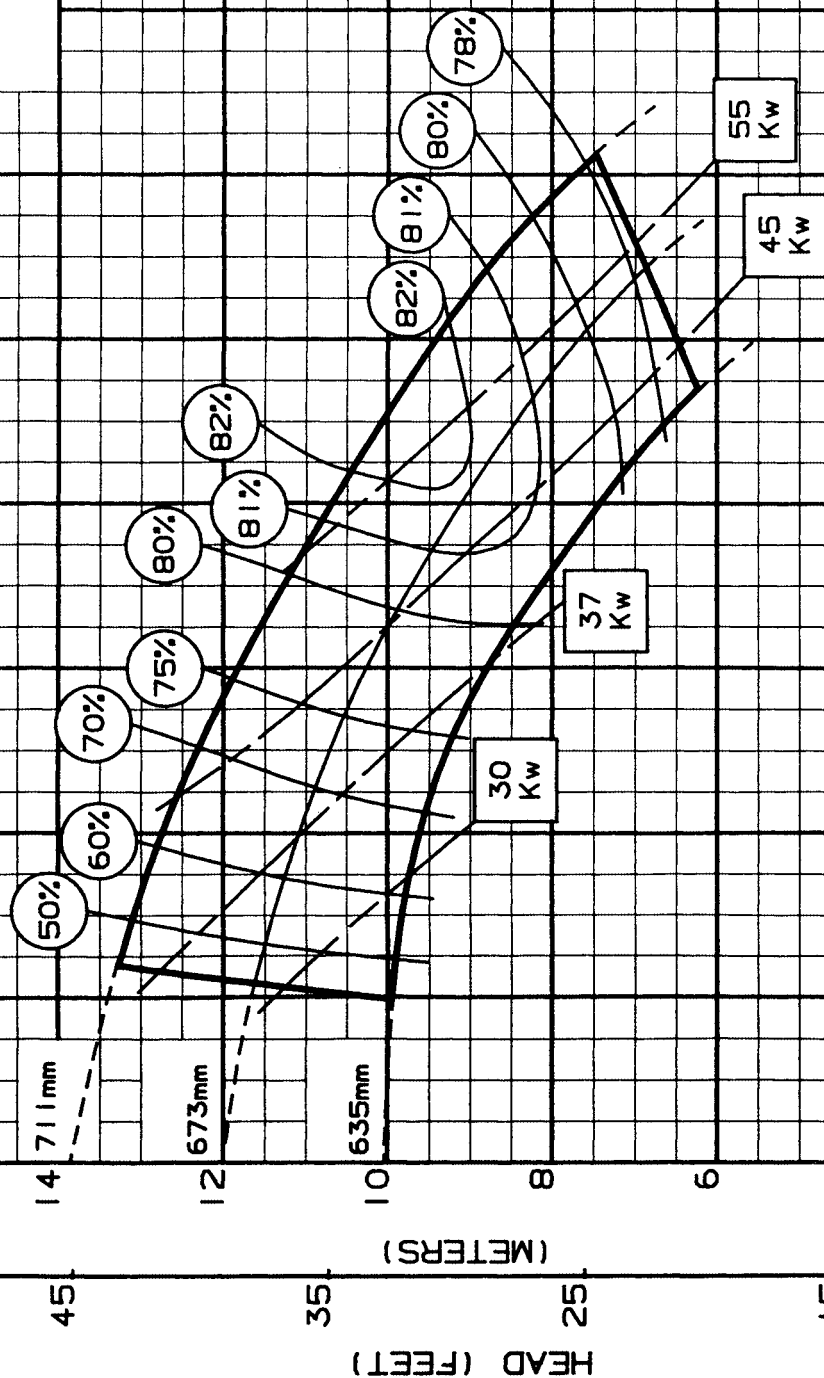
SUPERCEDES MARCH 1986

ENCLOSED IMPELLER

Pentair Pump Group

SIZE: 20X20X28 TYPE: 610 IMPELLER: ENCLOSED R.P.M.: 410

MAX. SPHERES 178 mm
PATT. NO. 444A190
CASE PATT. NO. 180A274



	0	400	800	1200	1600	2000	2400	2800	3200	3600
M ³ /HR										
L/S	150	300	450	600	750	900				
U.S. GPM	2000	4000	6000	8000	10000	12000	14000			

DRAWN BY: *AK* APPROVED BY: DL DATE: 7-90 PC-127149M