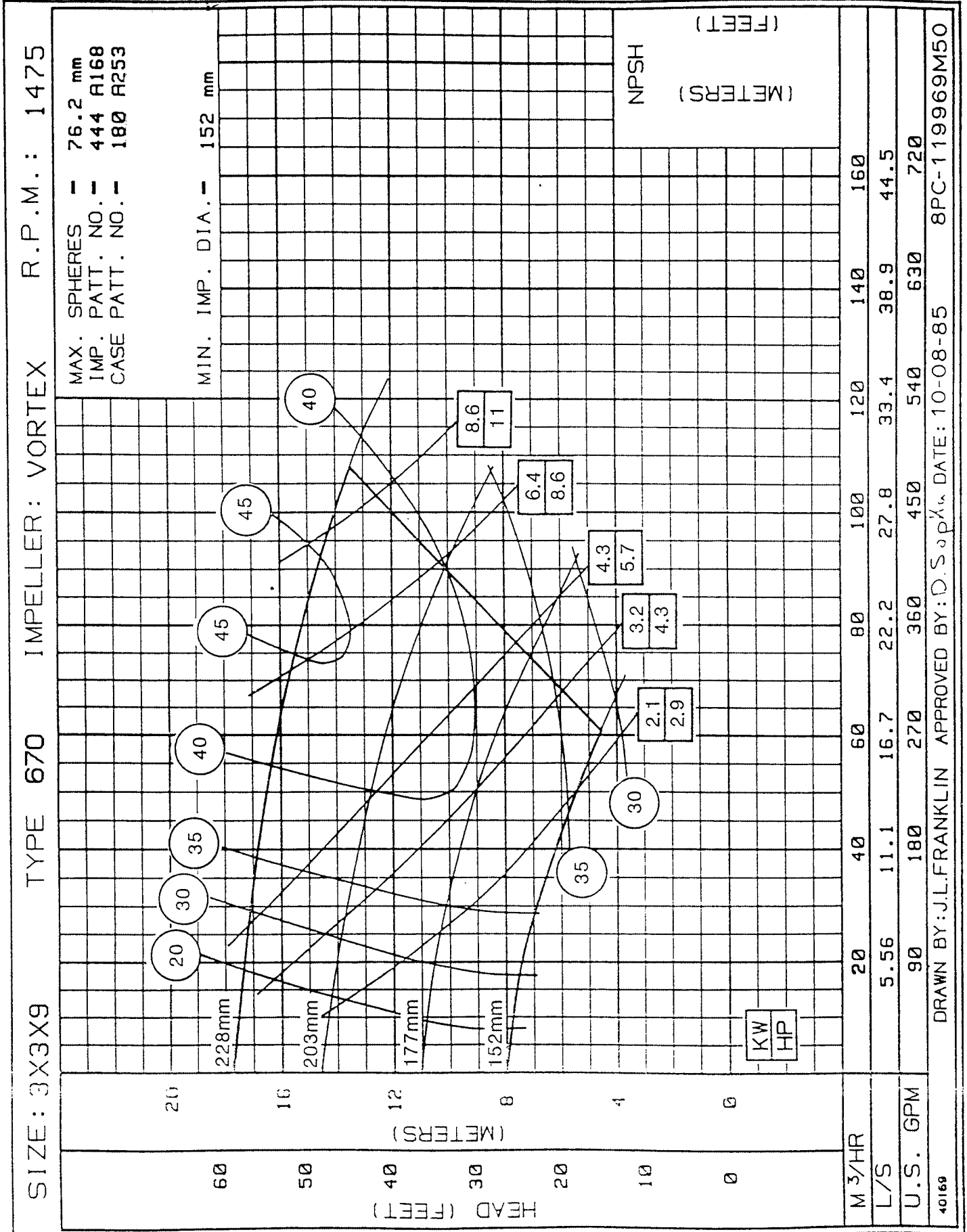


Performance Curves for the 670 Series (50 Hz)

MODEL/SIZE	R.P.M.	PDF PAGE
3x3x9	1475	2
3x3x9	980	3
3x3x9	735	4
3x3x12	1475	5
3x3x12	980	6
3x3x12	735	7
4x4x9	1475	8
4x4x9	980	9
4x4x9	735	10
4x4x12	980	11
4x4x12	735	12



SECTION 670 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

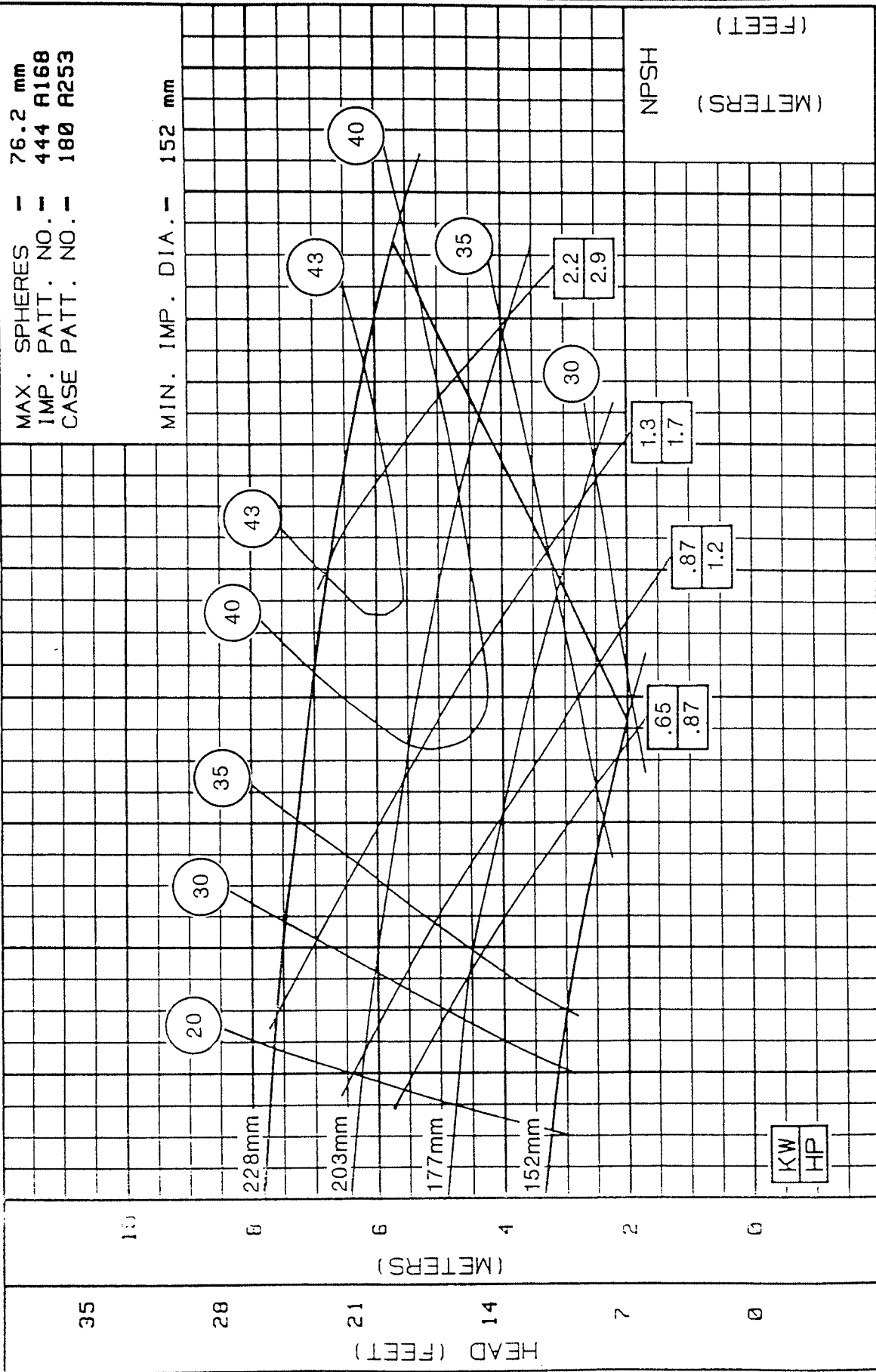
3x3x9 - 980 RPM
 VORTEX IMPELLER



SIZE: 3X3X9 TYPE 670 IMPELLER: VORTEX R.P.M.: 980

MAX. SPHERES - 76.2 mm
 IMP. PATT. NO. - 444 R168
 CASE PATT. NO. - 180 R253

MIN. IMP. DIA. - 152 mm



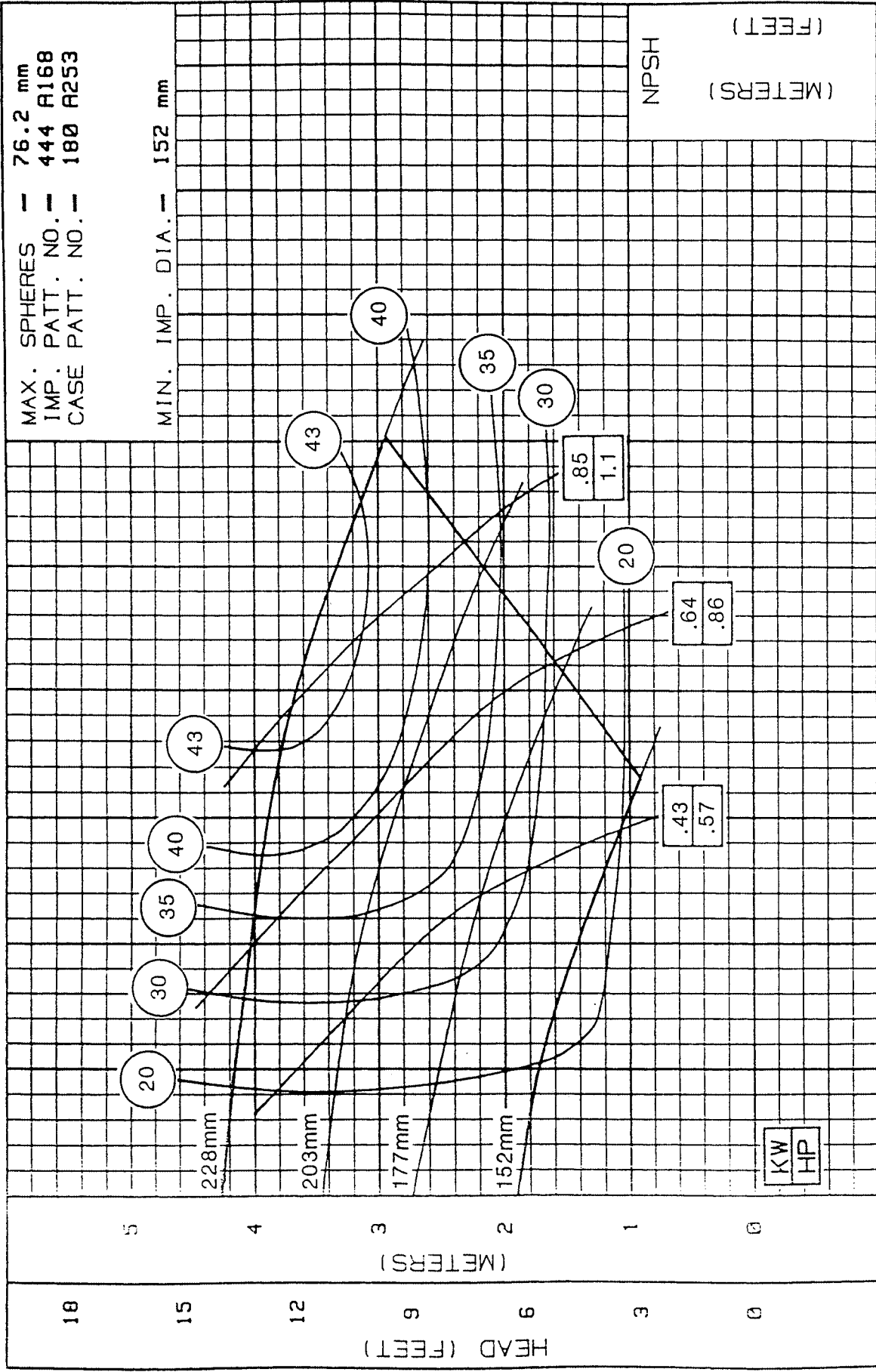
M ³ /HR	10	20	30	40	50	60	70	80
L/S	2.78	5.56	8.34	11.1	13.9	16.7	19.5	22.2
U.S. GPM	40	80	120	160	200	240	280	320

DRAWN BY: J.L. FRANKLIN APPROVED BY: D. Sopka DATE: 10-08-85 8PC-119970M50

SIZE: 3X3X9 TYPE: 670 IMPELLER: VORTEX R.P.M.: 735

MAX. SPHERES -- 76.2 mm
IMP. PATT. NO. -- 444 A168
CASE PATT. NO. -- 180 A253

MIN. IMP. DIA. -- 152 mm



Flow (GPM)	Head (Feet)	Head (Meters)	NPSH (Feet)	NPSH (Meters)
10	10	2.78	10	2.78
20	10	5.56	10	5.56
30	10	8.34	10	8.34
40	10	11.1	10	11.1
50	10	13.9	10	13.9
60	10	16.7	10	16.7
70	10	19.5	10	19.5
80	10	22.2	10	22.2

DRAWN BY: J.L. FRANKLIN APPROVED BY: O. Sopka DATE: 10-08-85 8PC-119971M50

3x3x12 - 1475 RPM

VORTEX IMPELLER



Pentair Pump Group

SIZE: 3X3X12

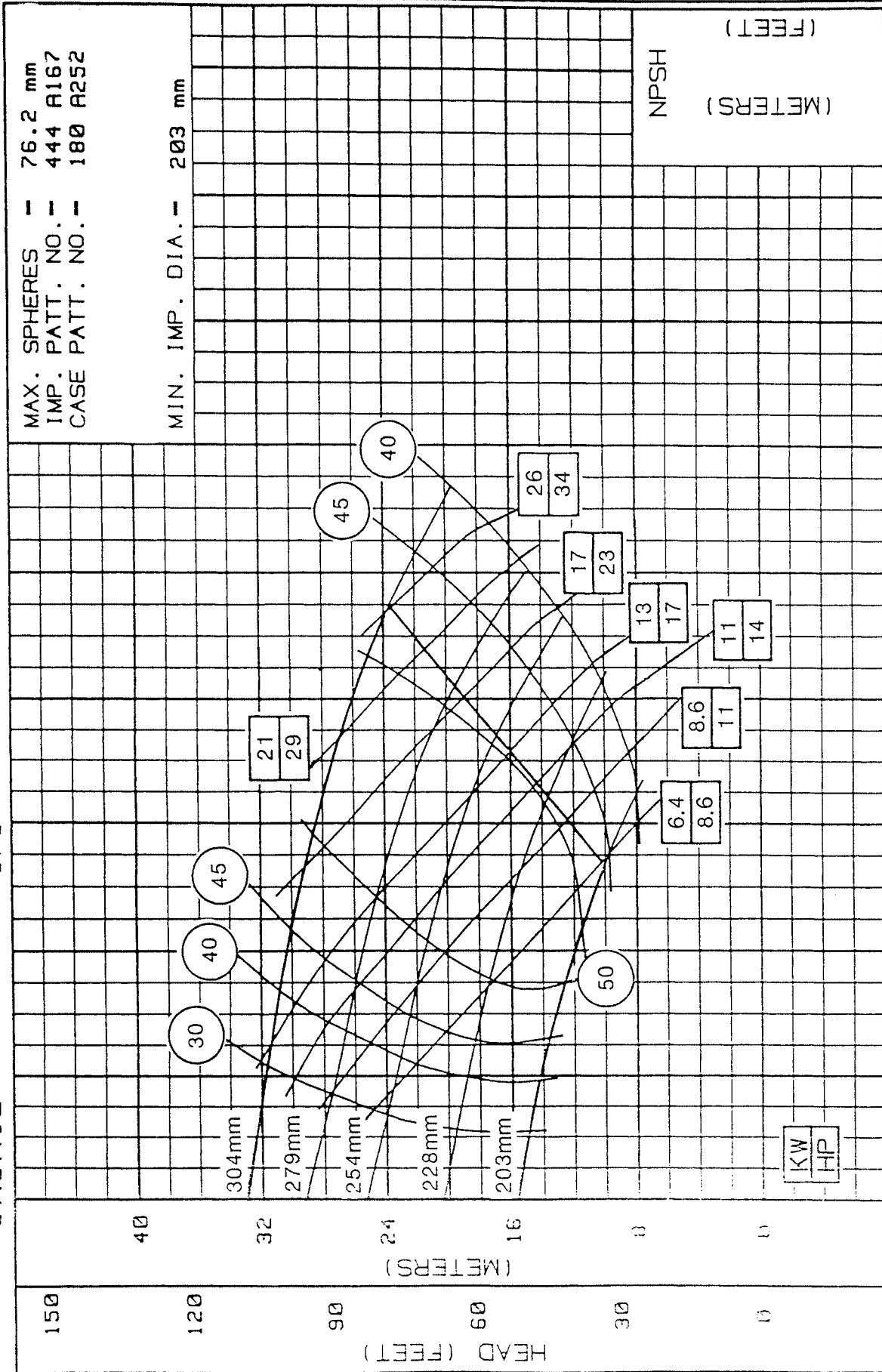
IMPELLER: VORTEX

TYPE: 670

R.P.M.: 1475

MAX. SPHERES -- 76.2 mm
 IMP. PATT. NO. -- 444 R167
 CASE PATT. NO. -- 180 R252

MIN. IMP. DIA. -- 203 mm



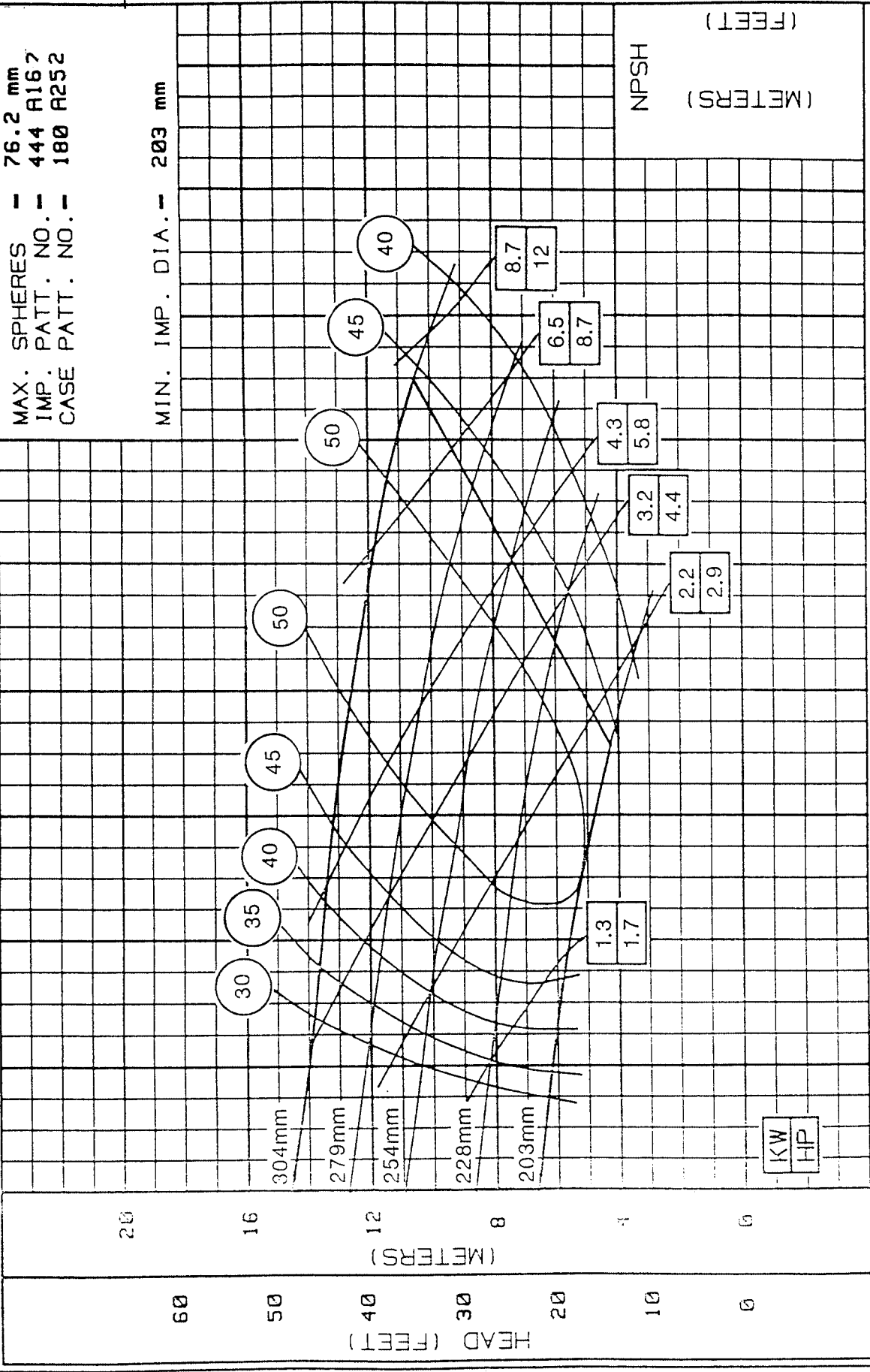
M3/HR	40	80	120	160	200	240	280	320
L/S	11.1	22.2	33.4	44.5	55.6	66.7	77.8	88.9
U.S. GPM	200	400	600	800	1000	1200	1400	1600

40169 DRAWN BY: J.L.FRANKLIN APPROVED BY: J. Sopka DATE: 10-08-85 8PC-119974M50

SIZE: 3X3X12 TYPE 670 IMPELLER: VORTEX R.P.M.: 980

MAX. SPHERES - 76.2 mm
IMP. PATT. NO. - 444 R167
CASE PATT. NO. - 180 R252

MIN. IMP. DIA. - 203 mm



M ³ /HR	20	40	60	80	100	120	140	160
L/S	5.56	11.1	16.7	22.2	27.8	33.4	38.9	44.5
U.S. GPM	90	180	270	360	450	540	630	720

40169 DRAWN BY: J.L. FRANKLIN APPROVED BY: D. Soper DATE: 10-08-85 8PC-119975M50

3x3x12 - 735 RPM

VORTEX IMPELLER



Pentair Pump Group

R.P.M.: 735

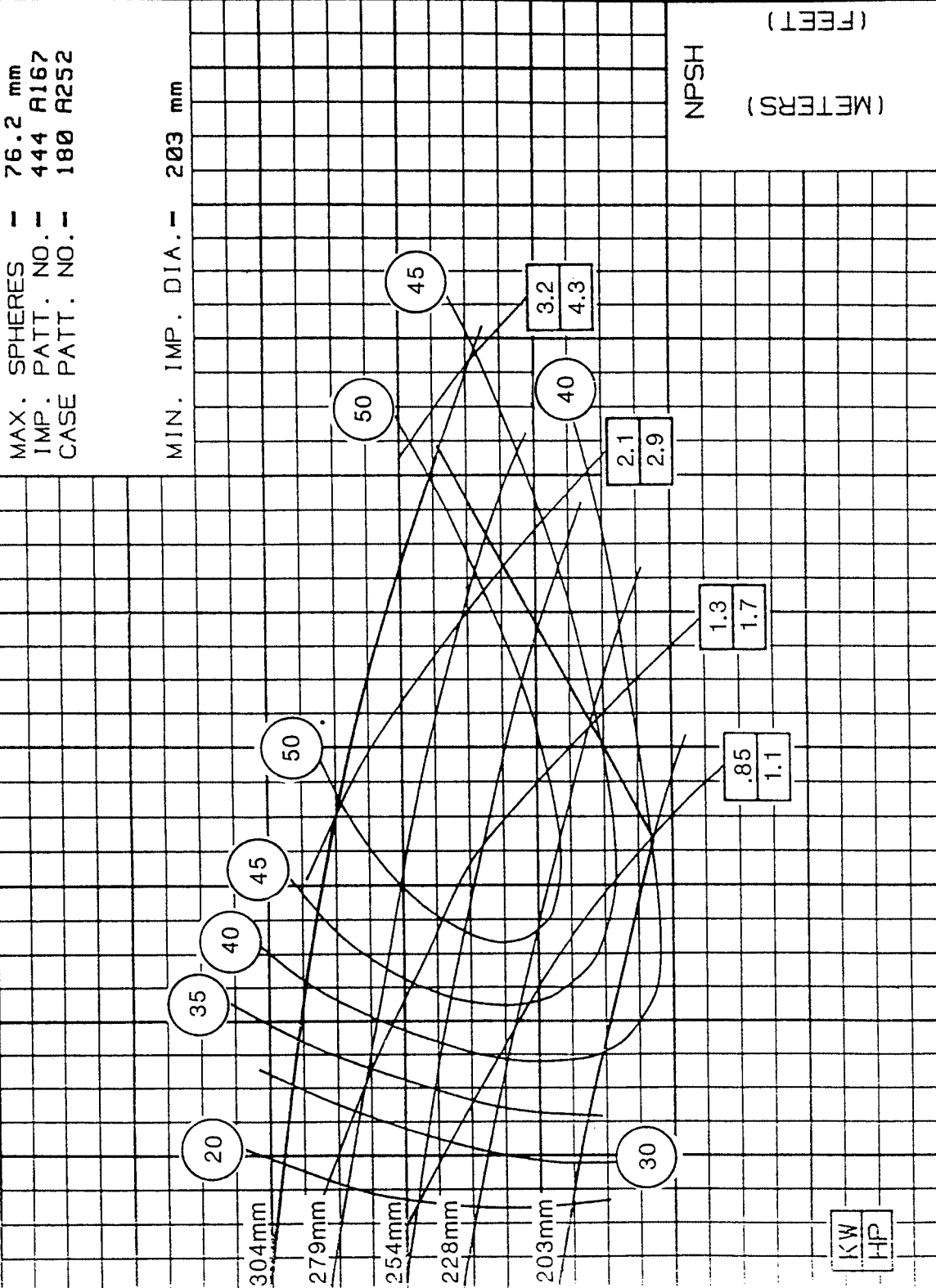
IMPELLER: VORTEX

TYPE: 670

SIZE: 3X3X12

MAX. SPHERES - 76.2 mm
 IMP. PATT. NO. - 444 R167
 CASE PATT. NO. - 180 R252

MIN. IMP. DIA. - 203 mm



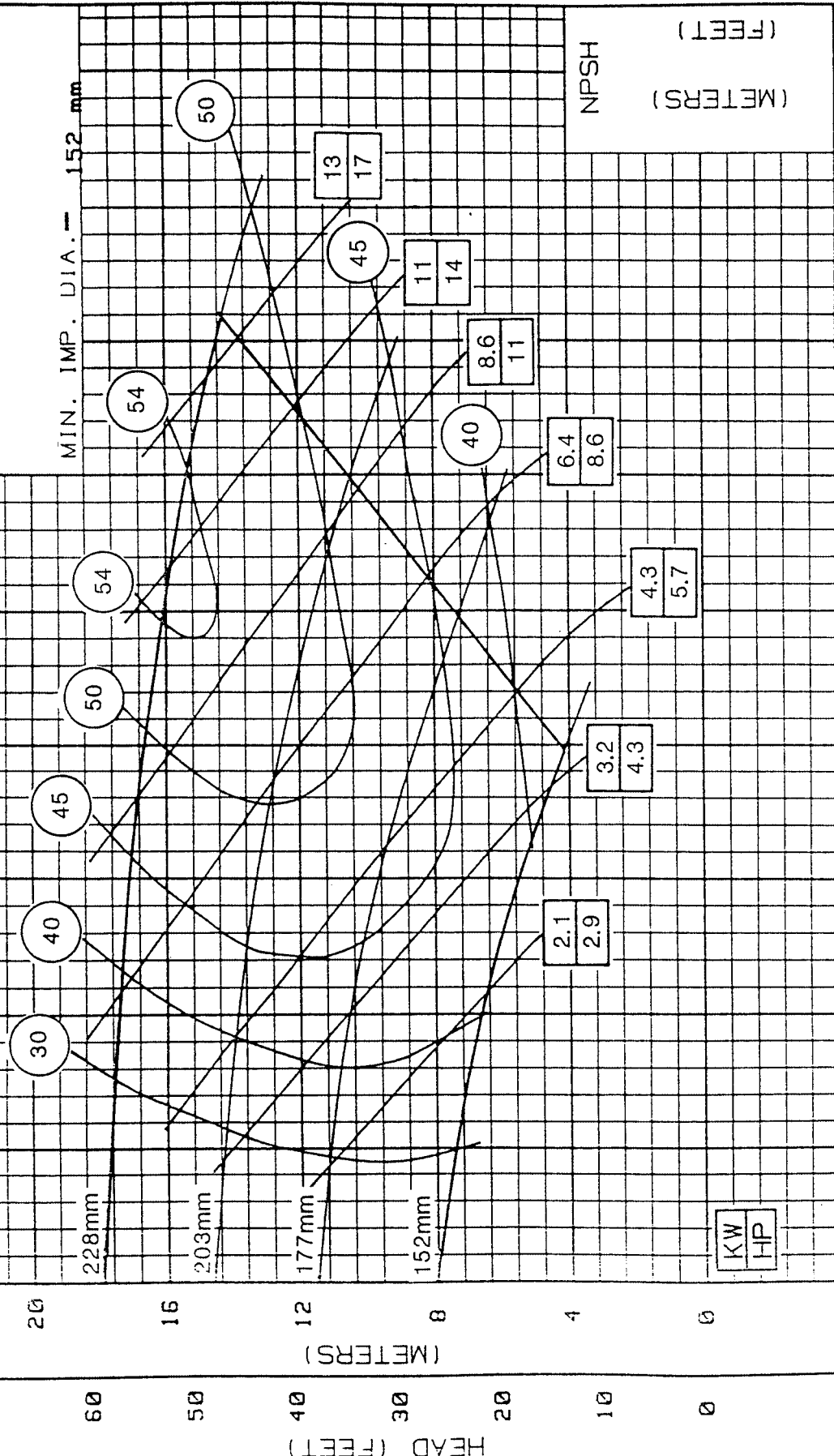
35	16	32	48	64	80	96	112	128
28	4.45	8.89	13.3	17.8	22.2	26.7	31.1	35.6
21	70	140	210	280	350	420	490	560
14								
7								
0								

M ³ /HR	16	32	48	64	80	96	112	128
L/S	4.45	8.89	13.3	17.8	22.2	26.7	31.1	35.6
U.S. GPM	70	140	210	280	350	420	490	560

40160 DRAWN BY: J.L.FRANKLIN APPROVED BY: D.Sophka DATE: 10-08-85 8PC-119976M50

SIZE: 4X4X9 IMPELLER: VORTEX R.P.M.: 1475

MAX. SPHERES — 102 mm
IMP. PATT. NO. — 444 R169
CASE PATT. NO. — 180 R255



M ³ /HR	25	50	75	100	125	150	175	200
L/S	6.95	13.9	20.8	27.8	34.7	41.7	48.6	55.6
U.S. GPM	100	200	300	400	500	600	700	800
40170	DRAWN BY: J.L.FRANKLIN APPROVED BY: <i>[Signature]</i> DATE: 10-08-85							
	8PC-119979M50							

SECTION 670 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

4x4x9 - 980 RPM
 VORTEX IMPELLER



SIZE: 4X4X9

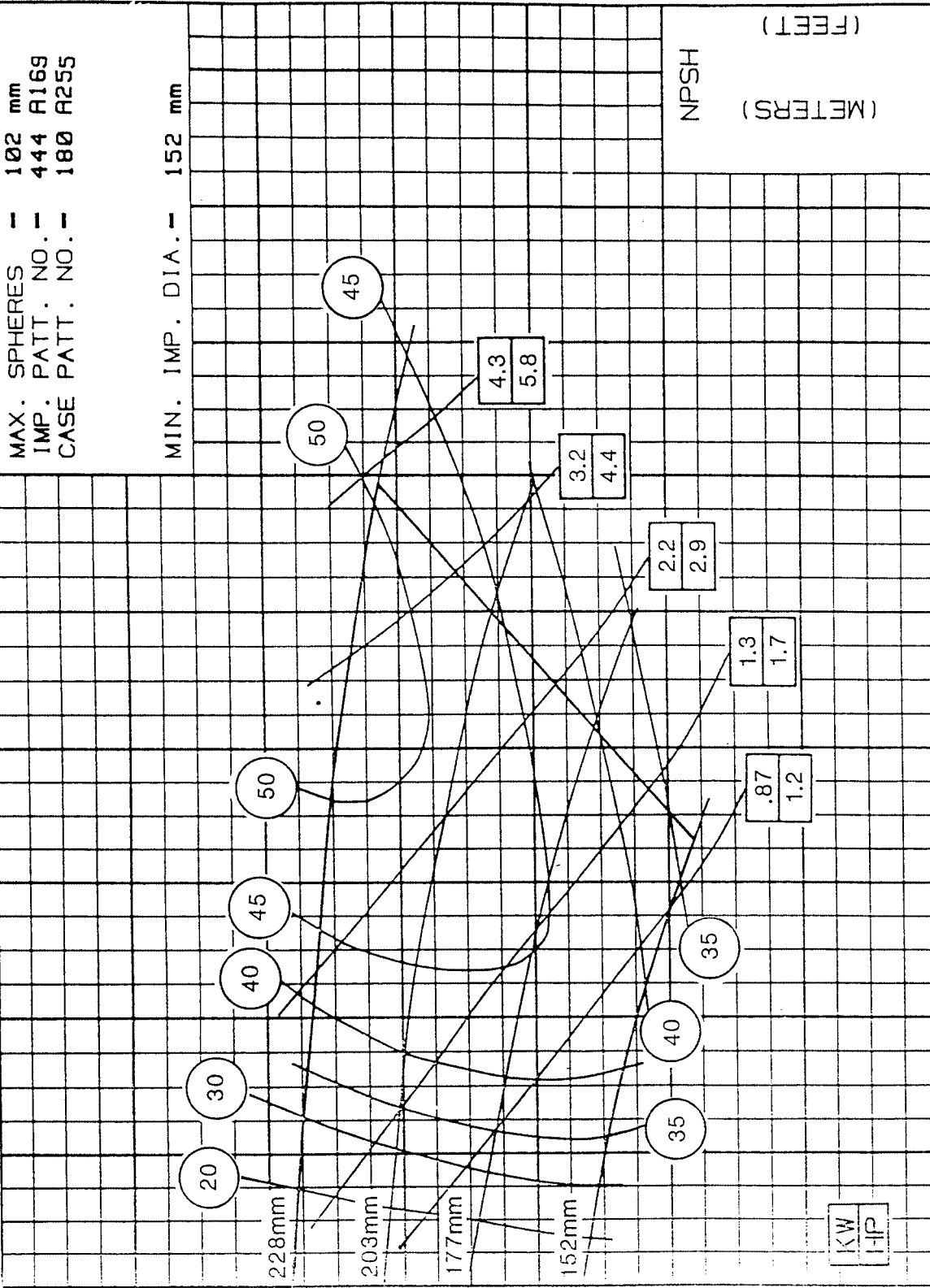
TYPE: 670

IMPELLER: VORTEX

R.P.M.: 980

MAX. SPHERES - 102 mm
 IMP. PATT. NO. - 444 A169
 CASE PATT. NO. - 180 A255

MIN. IMP. DIA. - 152 mm



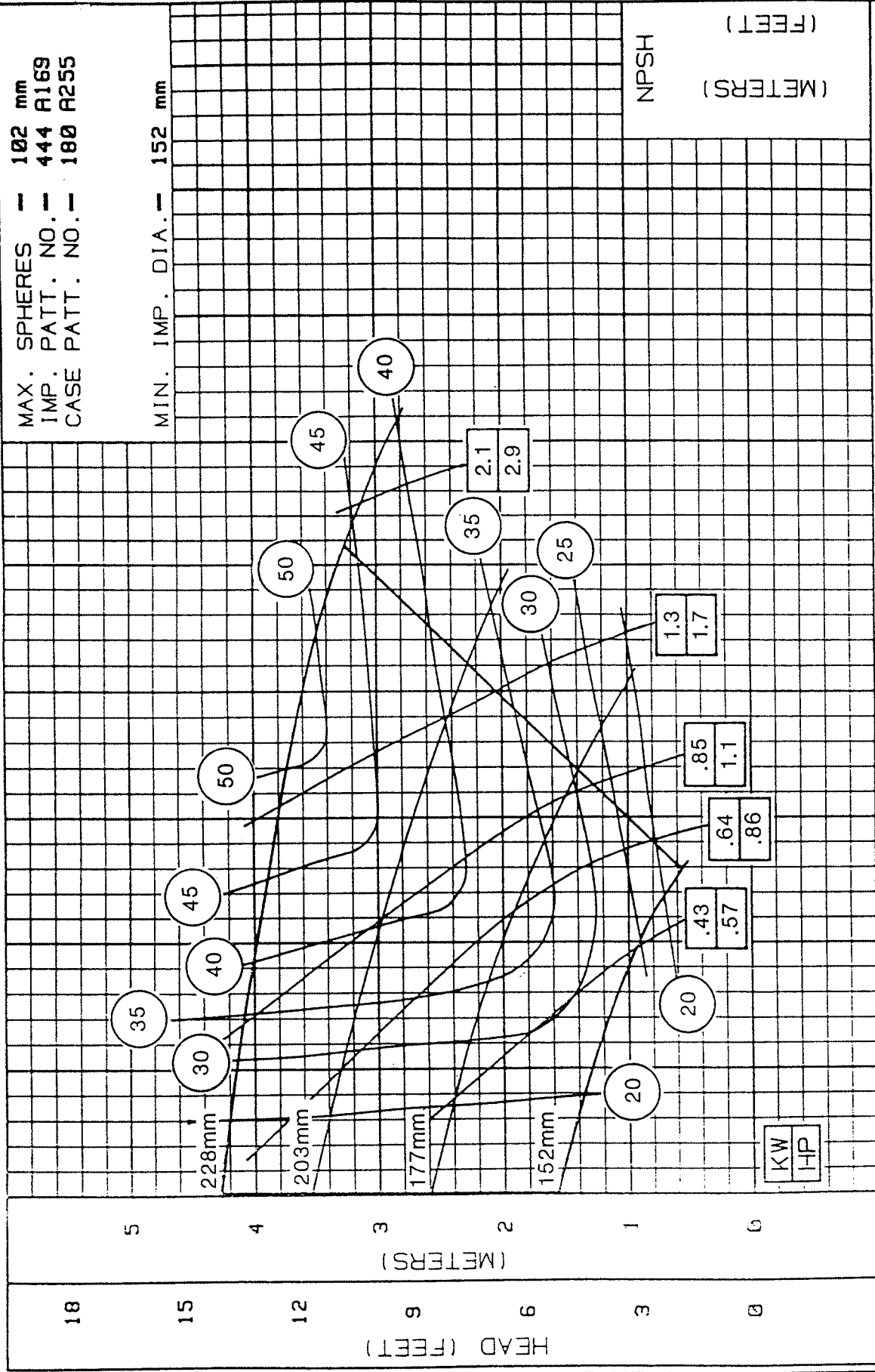
20	40	60	80	100	120	140	160
5.56	11.1	16.7	22.2	27.8	33.4	38.9	44.5
90	180	270	360	450	540	630	720

DRAWN BY: J.L. FRANKLIN APPROVED BY: D. Sopko DATE: 10-08-85 8PC-119980M50

SIZE: 4X4X9 TYPE: 670 IMPELLER: VORTEX R.P.M.: 735

MAX. SPHERES - 102 mm
IMP. PATT. NO. - 444 R169
CASE PATT. NO. - 180 R255

MIN. IMP. DIA. - 152 mm



Flow (GPM)	Flow (L/S)	Head (Feet)	Head (Meters)	NPSH (Feet)	NPSH (Meters)
20	5.56	11.1	16.7	22.2	27.8
40	11.1	16.7	22.2	33.4	38.9
60	16.7	22.2	33.4	44.5	50.0
80	22.2	27.8	38.9	55.6	61.1
100	27.8	33.4	44.5	66.7	72.2
120	33.4	38.9	50.0	77.8	83.3
140	38.9	44.5	55.6	88.9	94.4
160	44.5	50.0	61.1	100.0	105.6

DRAWN BY: J.L.FRANKLIN APPROVED BY: D. Soper DATE: 10-08-85 PC-119981M50

SECTION 670 (Metric 50Hz)
 DATE JULY 1994
 SUPERCEDES MARCH 1986

4x4x12 - 980 RPM VORTEX IMPELLER



SIZE: 4X4X12 TYPE: 670 IMPELLER: VORTEX R.P.M.: 980

MAX. SPHERES - 102 mm
 IMP. PATT. NO. - 444 A170
 CASE PATT. NO. - 180 A256

MIN. IMP. DIA. - 203 mm

26

16

12

8

4

0

HEAD (FEET)

60

50

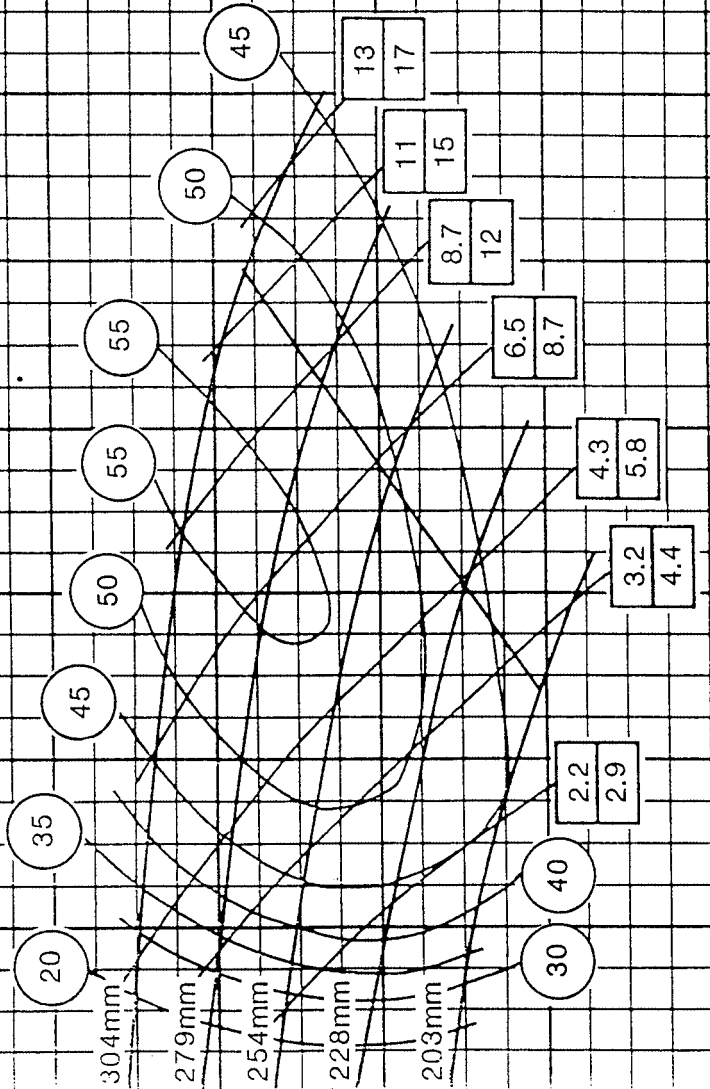
40

30

20

10

0



(FEET)
 (METERS)
 NPSH

M³/HR
 L/S
 U.S. GPM
 40169

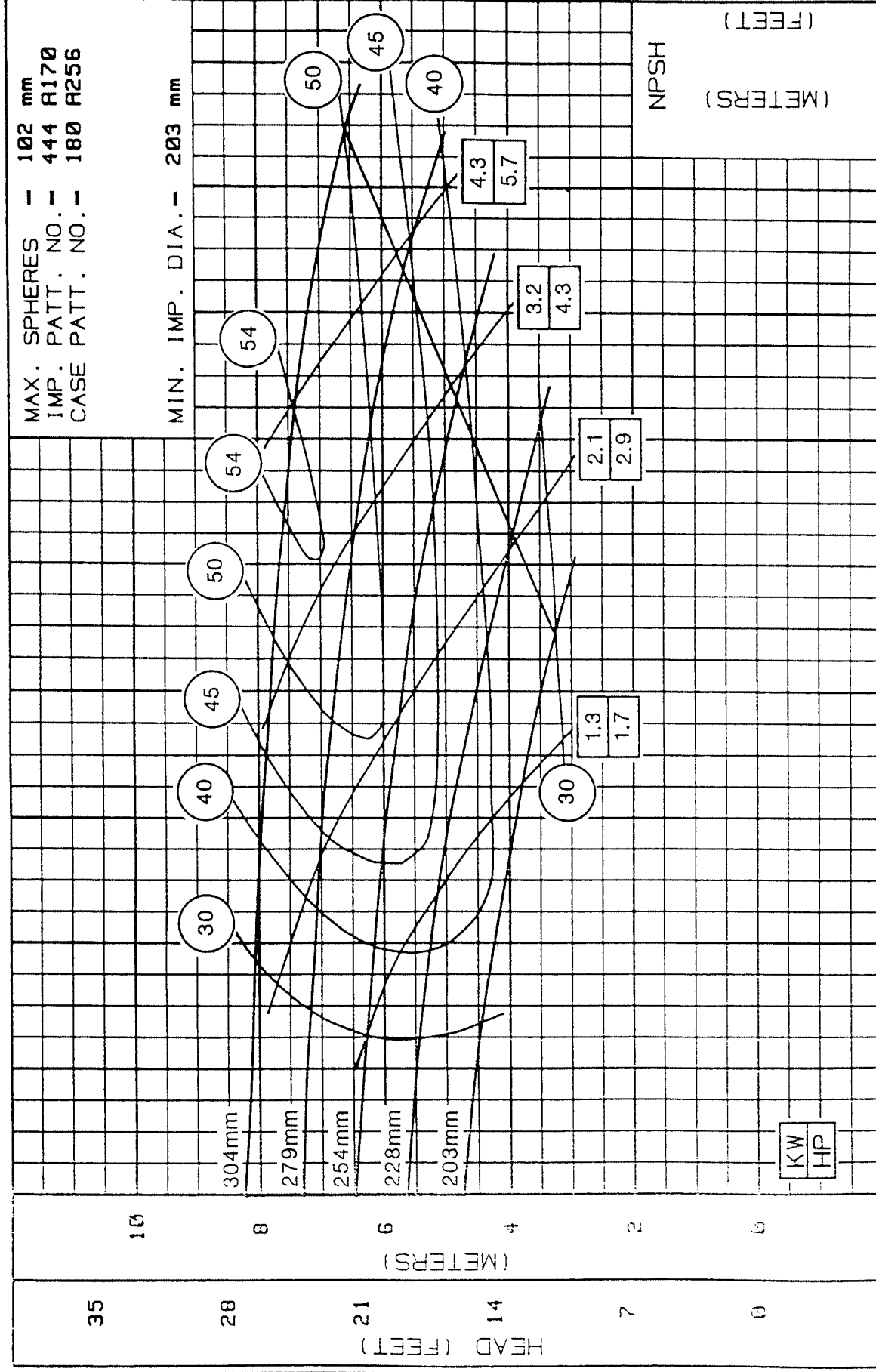
40	80	120	160	200	240	280	320
11.1	22.2	33.4	44.5	55.6	66.7	77.8	88.9
200	400	600	800	1000	1200	1400	1600

DRAWN BY: J.L. FRANKLIN APPROVED BY: D. Sople DATE: 10-08-85 8PC-119985M50

SIZE: 4X4X12 TYPE: 670 IMPELLER: VORTEX R.P.M.: 735

MAX. SPHERES - 102 mm
IMP. PATT. NO. - 444 R170
CASE PATT. NO. - 180 R256

MIN. IMP. DIA. - 203 mm



M ³ /HR	20	40	60	80	100	120	140	160
L/S	5.56	11.1	16.7	22.2	27.8	33.4	38.9	44.5
U.S. GPH	90	180	270	360	450	540	630	720

40165 DRAWN BY: J.L.FRANKLIN APPROVED BY: D.Sopka DATE: 10-08-85 8PC-119986M50