



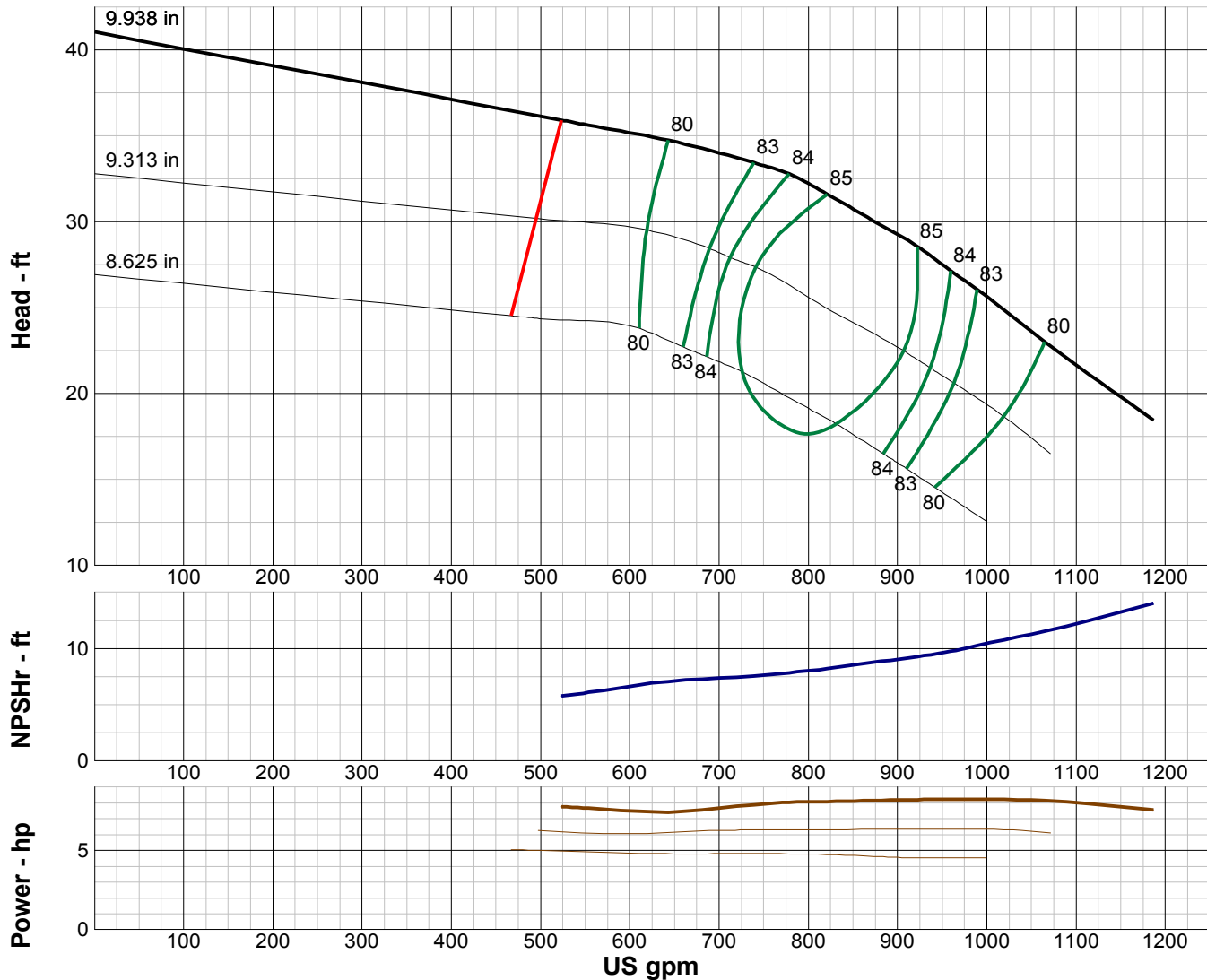
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 13MC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 2999         | Minimum submergence above eye of bottom impeller: 24 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=7.90       |  |
| EYE AREA        | 23.4 SQ. IN. |  |
| WEIGHT          | 14.70 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |    |    |   |
|---|----|----|----|----|---|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4  | 5 |
| CHANGE AS FOLLOWS:  | -4 | -3 | -2 | -1 | 0 |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |    |   |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -1   | -3        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 2998          |
| BOWL MAX. DIAMETER      | 12.500 IN.    |
| BOWL MIN. DIAMETER      | 12.125 IN.    |
| MAX. NO. STAGES         | 13            |
| ONE STAGE WEIGHT        | 240 LB.       |
| ADD STAGE WEIGHT        | 115 LB.       |
| STD. SHAFT DIA.         | 1.688 IN.     |
| STD. LATERAL            | 0.813 IN.     |
| DISCHARGE SIZE          | 8 - 10 IN.    |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 8 - 10 IN.    |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 0.750 IN.     |
| MAX. OPERATIONAL P.S.I. | 584 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



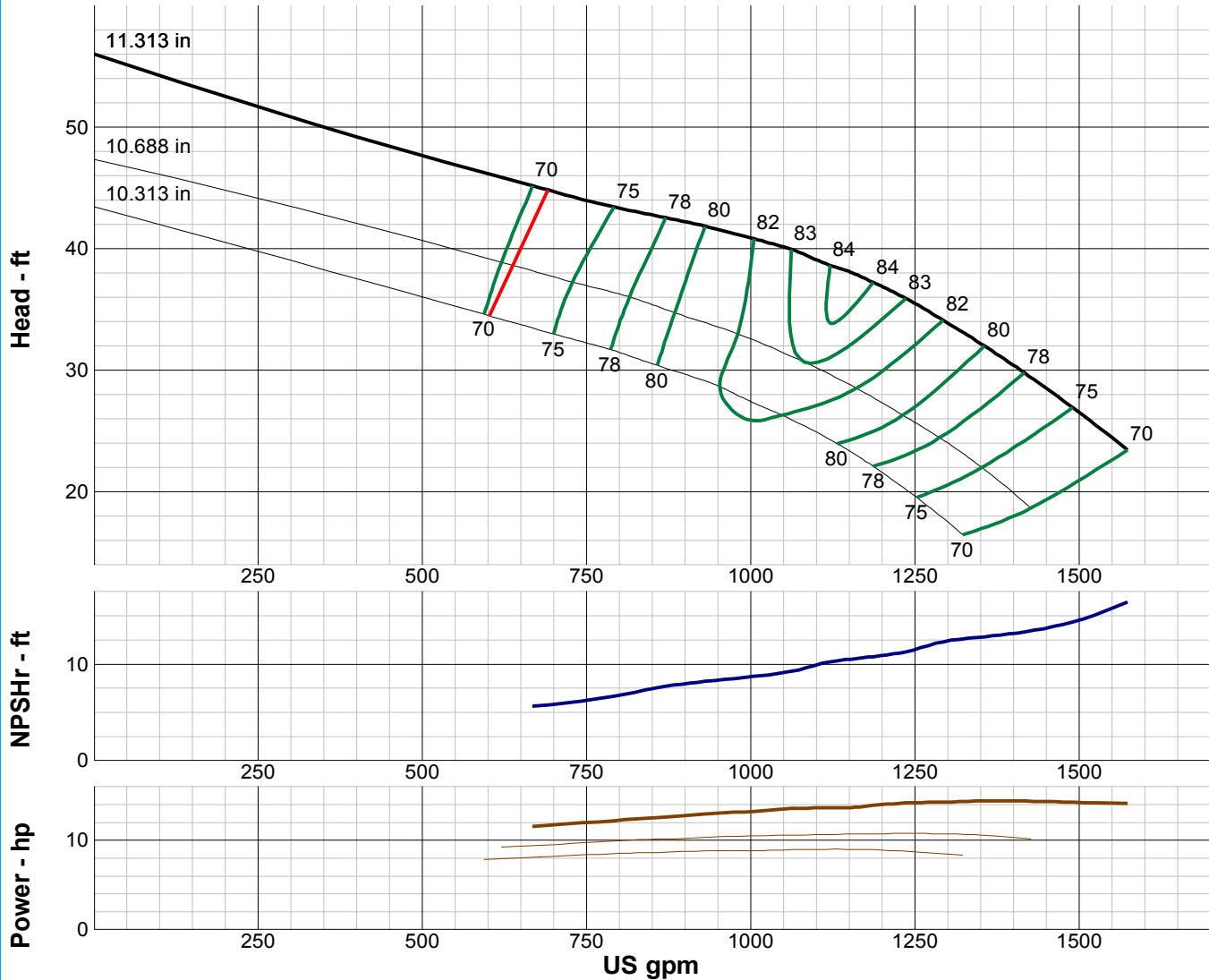
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14LC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 3105         | Minimum submergence above eye of bottom impeller: 30 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=17.20      |  |
| EYE AREA        | 31.5 SQ. IN. |  |
| WEIGHT          | 28.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |    |   |  |
|---|----|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4 |  |
| CHANGE AS FOLLOWS:  | -4 | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3106          |
| BOWL MAX. DIAMETER      | 13.500 IN.    |
| BOWL MIN. DIAMETER      | 13.250 IN.    |
| MAX. NO. STAGES         | 27            |
| ONE STAGE WEIGHT        | 490 LB.       |
| ADD STAGE WEIGHT        | 175 LB.       |
| STD. SHAFT DIA.         | 1.938 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 0.750 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



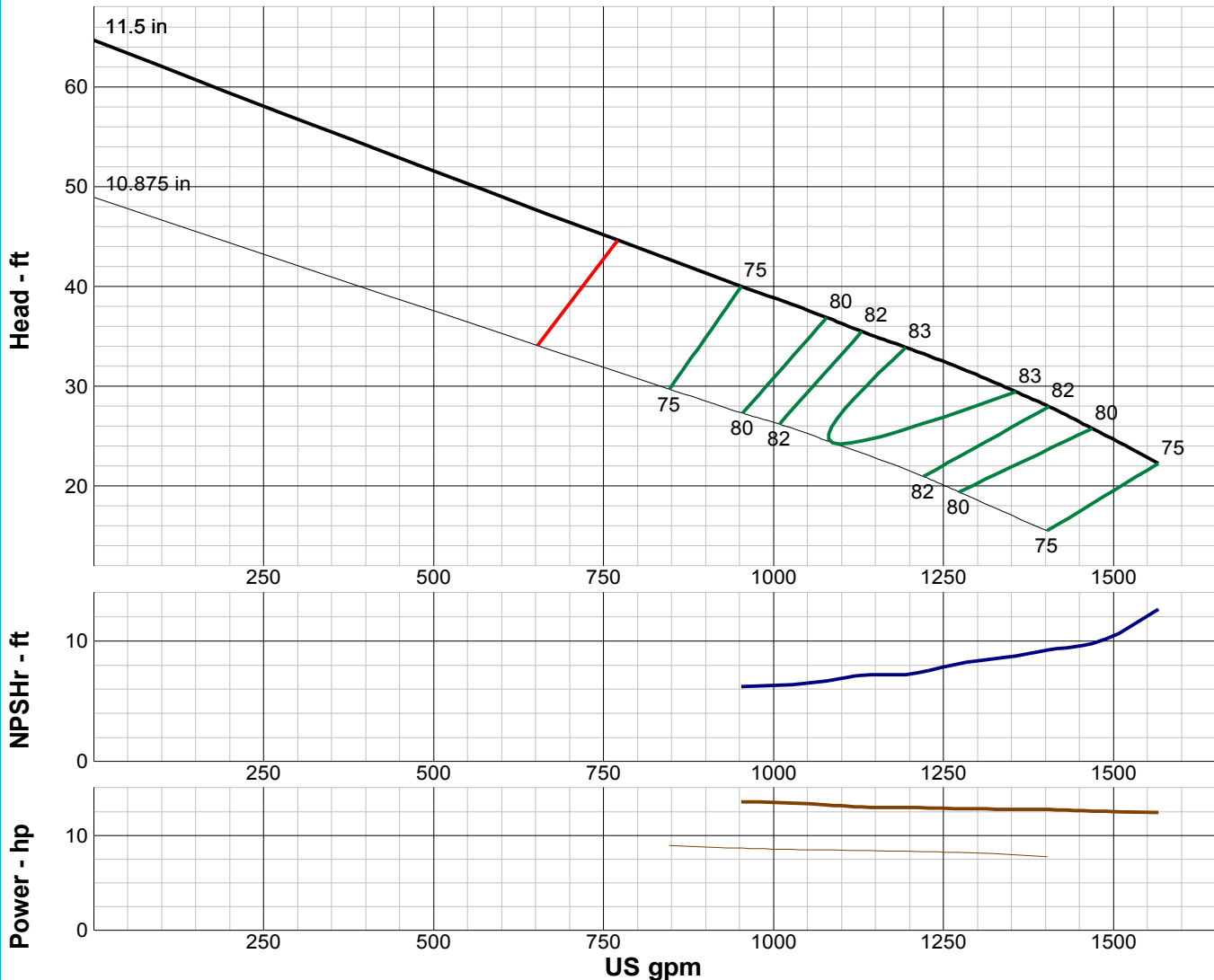
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14LCR 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0098         | Minimum submergence above eye of bottom impeller: 36 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=15.50      |  |
| EYE AREA        | 37.8 SQ. IN. |  |
| WEIGHT          | 26.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |
|---|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |
| CHANGE AS FOLLOWS:  | -4 | -2 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5447          |
| BOWL MAX. DIAMETER      | 14.250 IN.    |
| BOWL MIN. DIAMETER      | 14.125 IN.    |
| MAX. NO. STAGES         | 14            |
| ONE STAGE WEIGHT        | 700 LB.       |
| ADD STAGE WEIGHT        | 265 LB.       |
| STD. SHAFT DIA.         | 2.188 IN.     |
| STD. LATERAL            | 0.813 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



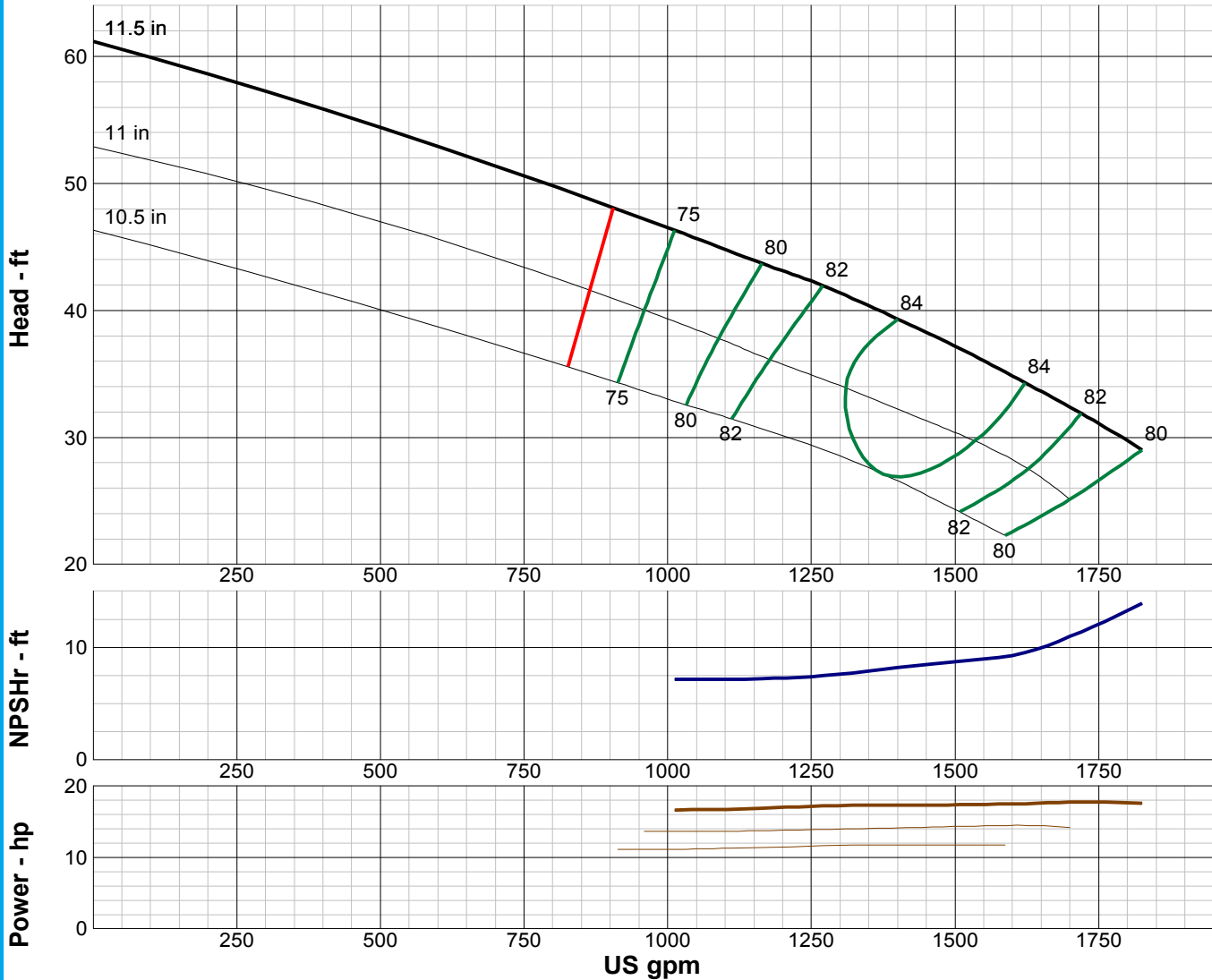
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14MCR 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0101         | Minimum submergence above eye of bottom impeller: 36 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=15.50      |  |
| EYE AREA        | 37.8 SQ. IN. |  |
| WEIGHT          | 26.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |
|---|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |
| CHANGE AS FOLLOWS:  | -4 | -2 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5447          |
| BOWL MAX. DIAMETER      | 14.250 IN.    |
| BOWL MIN. DIAMETER      | 14.125 IN.    |
| MAX. NO. STAGES         | 14            |
| ONE STAGE WEIGHT        | 700 LB.       |
| ADD STAGE WEIGHT        | 265 LB.       |
| STD. SHAFT DIA.         | 2.188 IN.     |
| STD. LATERAL            | 0.813 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

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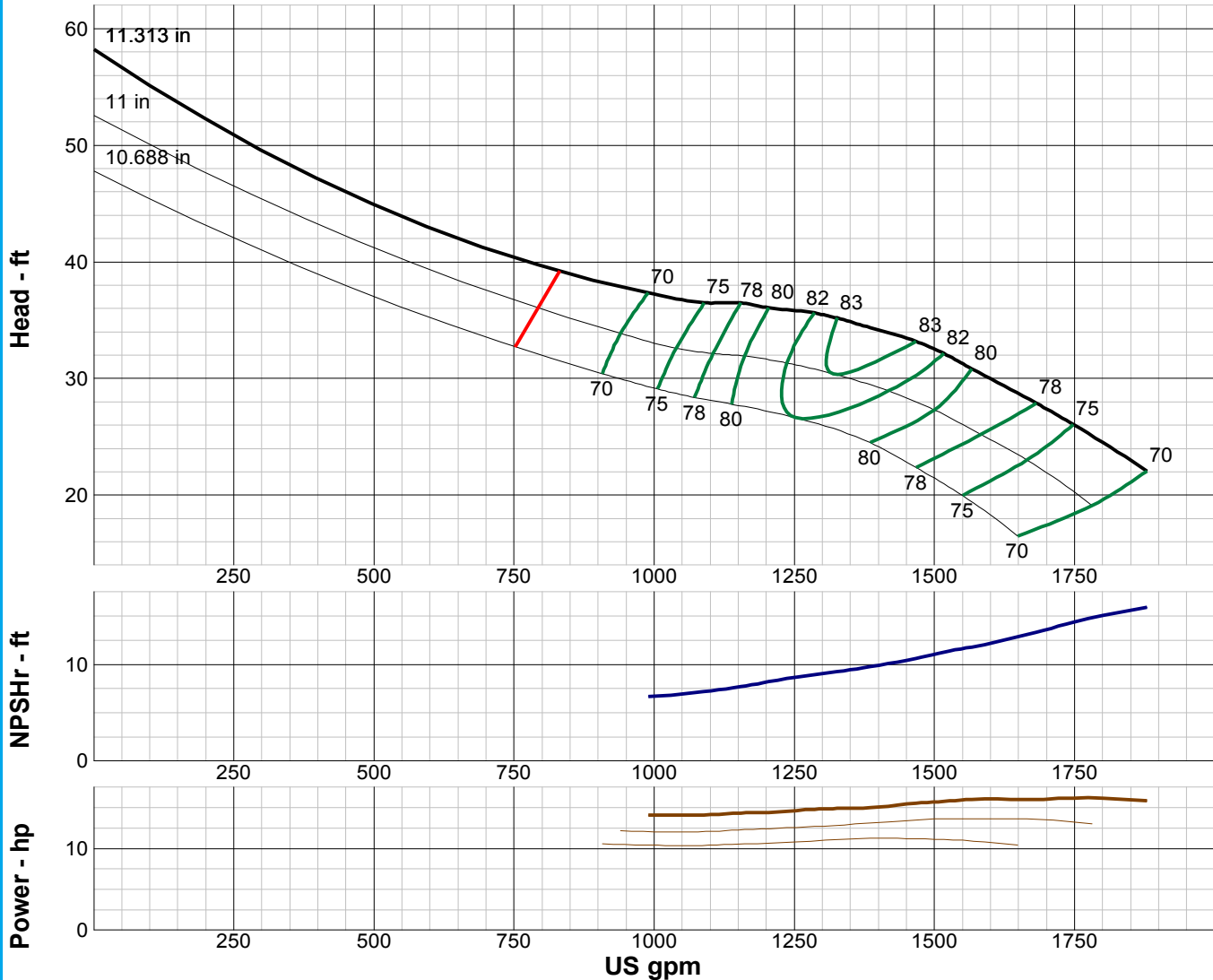
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14MC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 3065         | Minimum submergence above eye of bottom impeller: 30 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=21.80      |  |
| EYE AREA        | 40.9 SQ. IN. |  |
| WEIGHT          | 28.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |    |   |  |
|---|----|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4 |  |
| CHANGE AS FOLLOWS:  | -4 | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3042          |
| BOWL MAX. DIAMETER      | 13.500 IN.    |
| BOWL MIN. DIAMETER      | 13.250 IN.    |
| MAX. NO. STAGES         | 23            |
| ONE STAGE WEIGHT        | 490 LB.       |
| ADD STAGE WEIGHT        | 175 LB.       |
| STD. SHAFT DIA.         | 1.938 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

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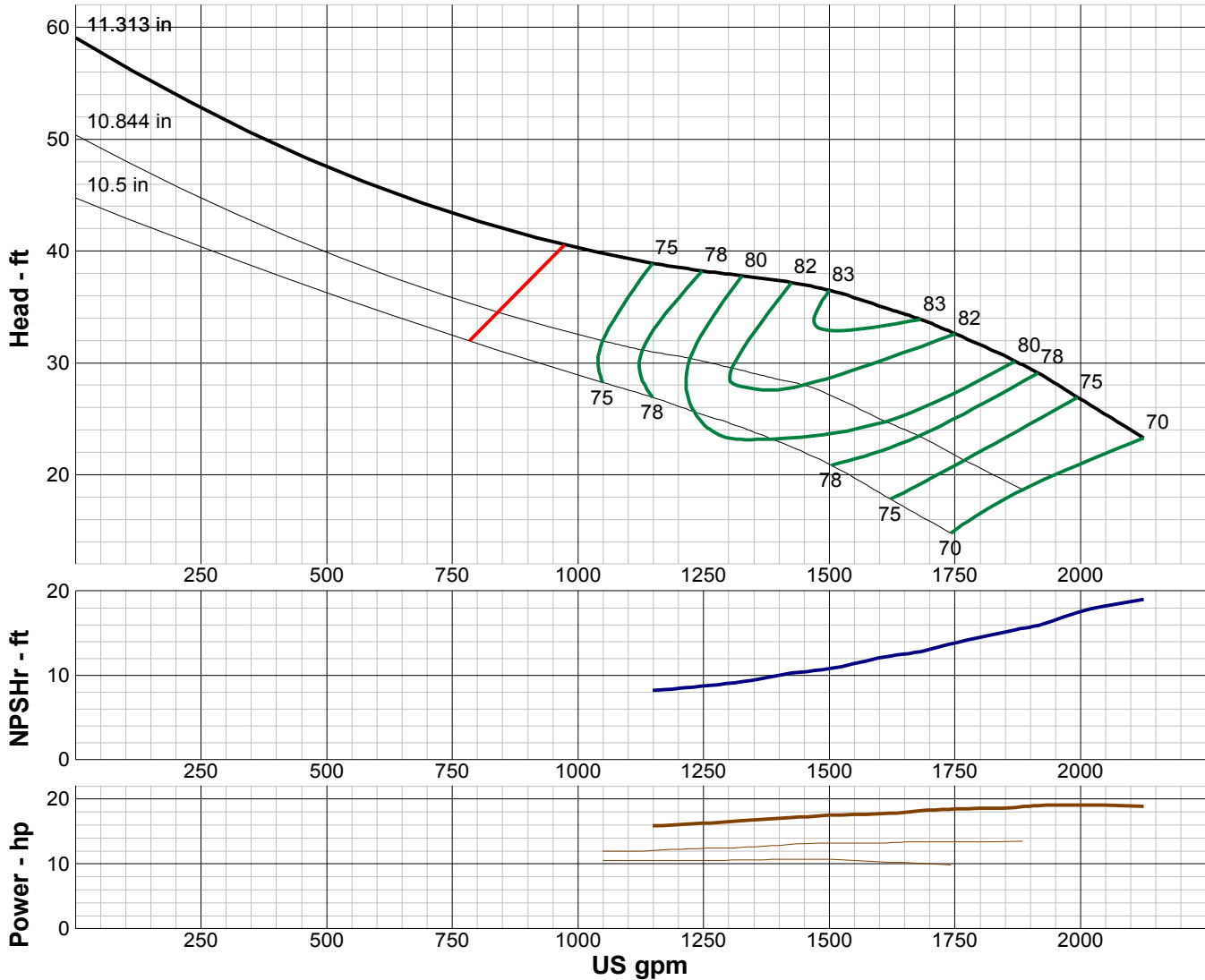
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14HC 1170 RPM



### IMPELLER DATA

|                 |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 3029         | Minimum submergence above eye of bottom impeller: 32 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=21.80      |  |
| EYE AREA        | 40.9 SQ. IN. |  |
| WEIGHT          | 30.25 LB.    |  |

### EFFICIENCY CORRECTION

|   |    |    |    |   |
|---|----|----|----|---|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4 |
| CHANGE AS FOLLOWS:  | -4 | -2 | -1 | 0 |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |   |

### PUMP MATERIAL EFFICIENCY CORRECTION

|                    | DUCTILE | BRONZE | NI-R | STAINLESS |
|--------------------|---------|--------|------|-----------|
| IMPELLER MATERIAL: | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:     | -2      | -1     | -2   | -2        |

### FLANGED BOWL DATA

|                         |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3042          |
| BOWL MAX. DIAMETER      | 13.500 IN.    |
| BOWL MIN. DIAMETER      | 13.250 IN.    |
| MAX. NO. STAGES         | 19            |
| ONE STAGE WEIGHT        | 490 LB.       |
| ADD STAGE WEIGHT        | 175 LB.       |
| STD. SHAFT DIA.         | 1.938 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

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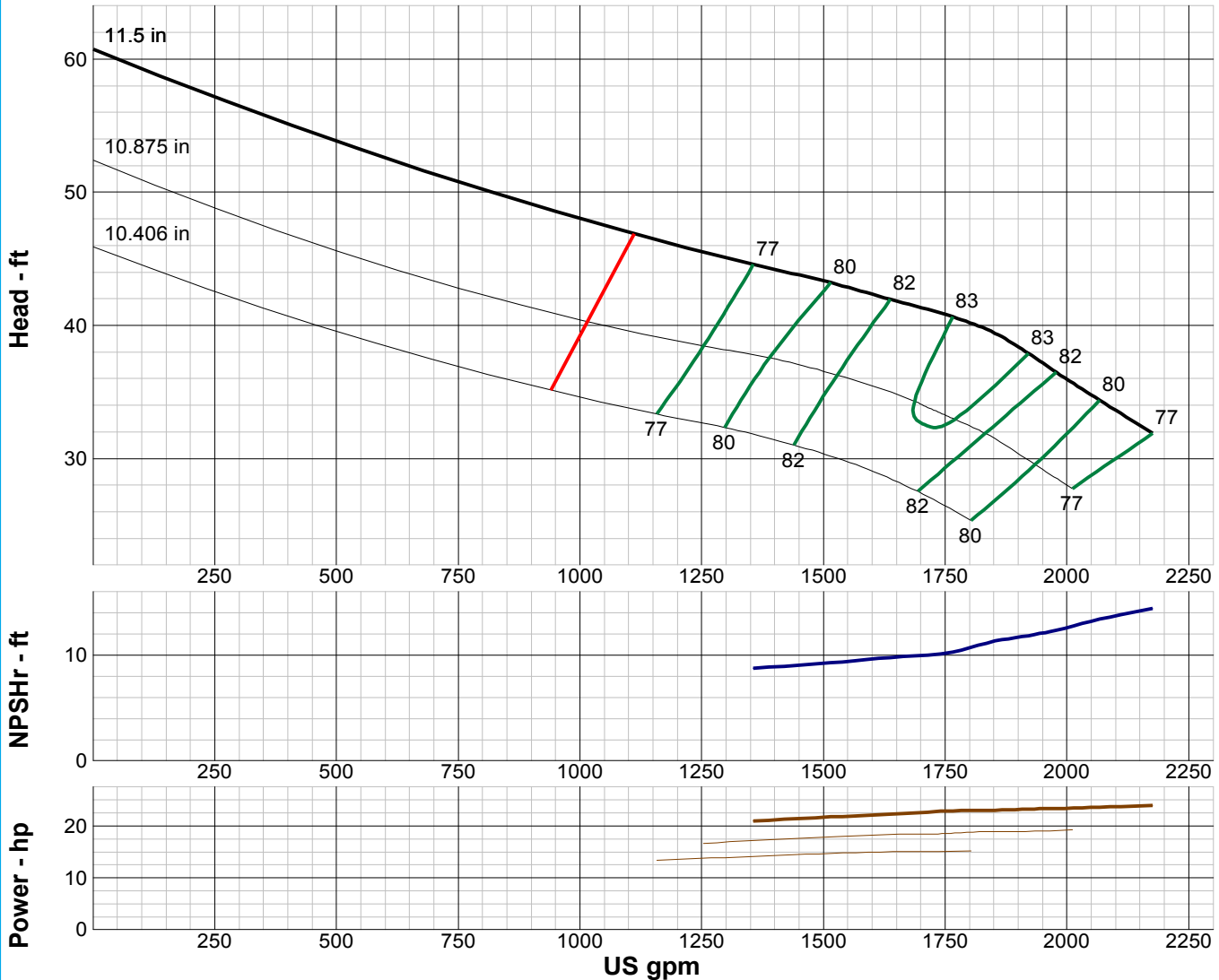
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14HCR 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0103         | Minimum submergence above eye of bottom impeller: 36 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=15.50      |  |
| EYE AREA        | 37.8 SQ. IN. |  |
| WEIGHT          | 26.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |
|---|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |
| CHANGE AS FOLLOWS:  | -4 | -2 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5447          |
| BOWL MAX. DIAMETER      | 14.250 IN.    |
| BOWL MIN. DIAMETER      | 14.125 IN.    |
| MAX. NO. STAGES         | 16            |
| ONE STAGE WEIGHT        | 700 LB.       |
| ADD STAGE WEIGHT        | 265 LB.       |
| STD. SHAFT DIA.         | 2.188 IN.     |
| STD. LATERAL            | 0.813 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



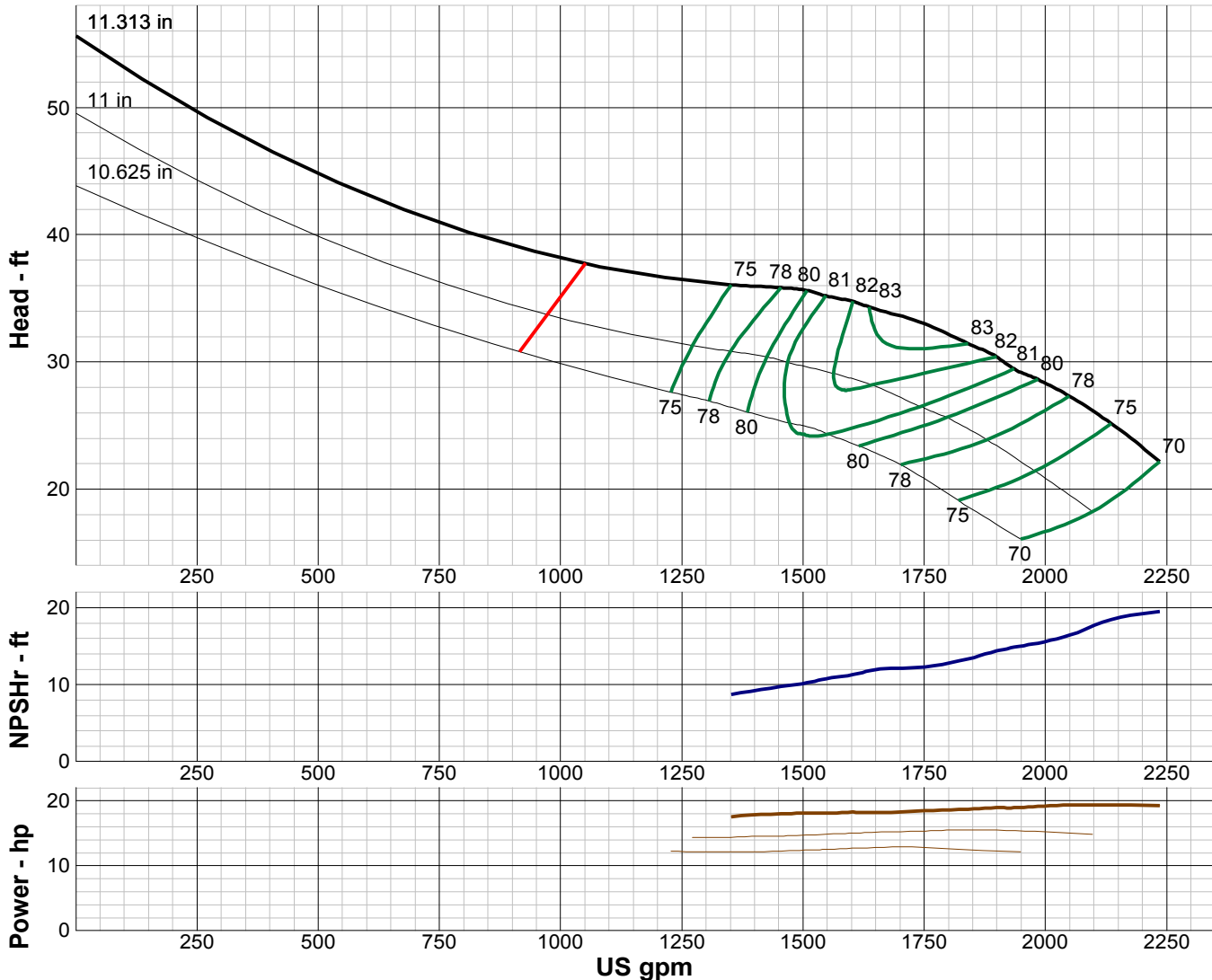
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14XC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 3086         | Minimum submergence above eye of bottom impeller: 32 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=21.80      |  |
| EYE AREA        | 40.9 SQ. IN. |  |
| WEIGHT          | 29.25 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |    |   |  |
|---|----|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4 |  |
| CHANGE AS FOLLOWS:  | -5 | -3 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3042          |
| BOWL MAX. DIAMETER      | 13.500 IN.    |
| BOWL MIN. DIAMETER      | 13.250 IN.    |
| MAX. NO. STAGES         | 20            |
| ONE STAGE WEIGHT        | 490 LB.       |
| ADD STAGE WEIGHT        | 175 LB.       |
| STD. SHAFT DIA.         | 1.938 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.





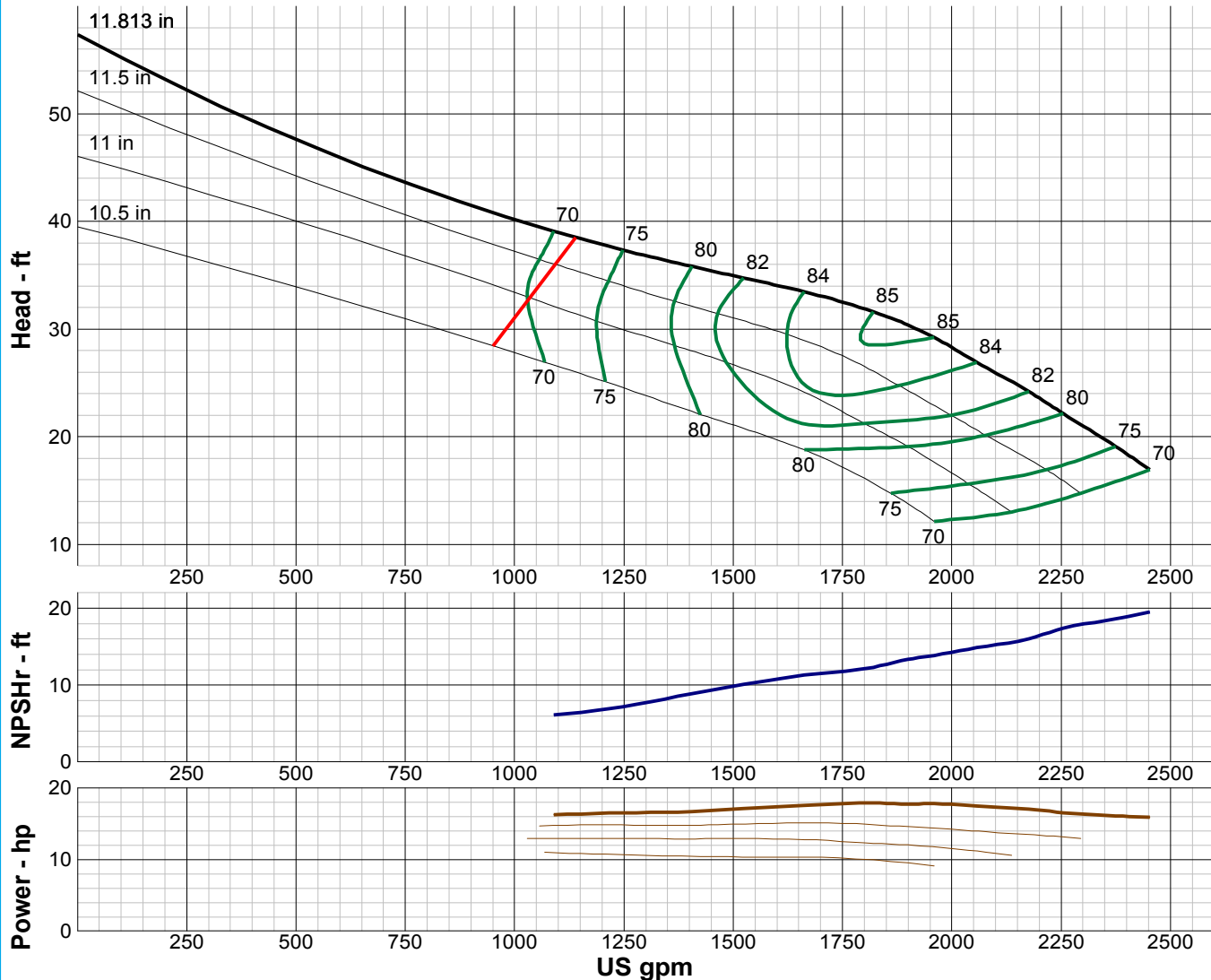
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14WC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 4151         | Minimum submergence above eye of bottom impeller: 34 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=24.80      |  |
| EYE AREA        | 47.4 SQ. IN. |  |
| WEIGHT          | 31.75 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |    |   |  |
|---|----|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4 |  |
| CHANGE AS FOLLOWS:  | -4 | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 4152          |
| BOWL MAX. DIAMETER      | 14.063 IN.    |
| BOWL MIN. DIAMETER      | 13.750 IN.    |
| MAX. NO. STAGES         | 21            |
| ONE STAGE WEIGHT        | 500 LB.       |
| ADD STAGE WEIGHT        | 185 LB.       |
| STD. SHAFT DIA.         | 1.938 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD -FLG      |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.500 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



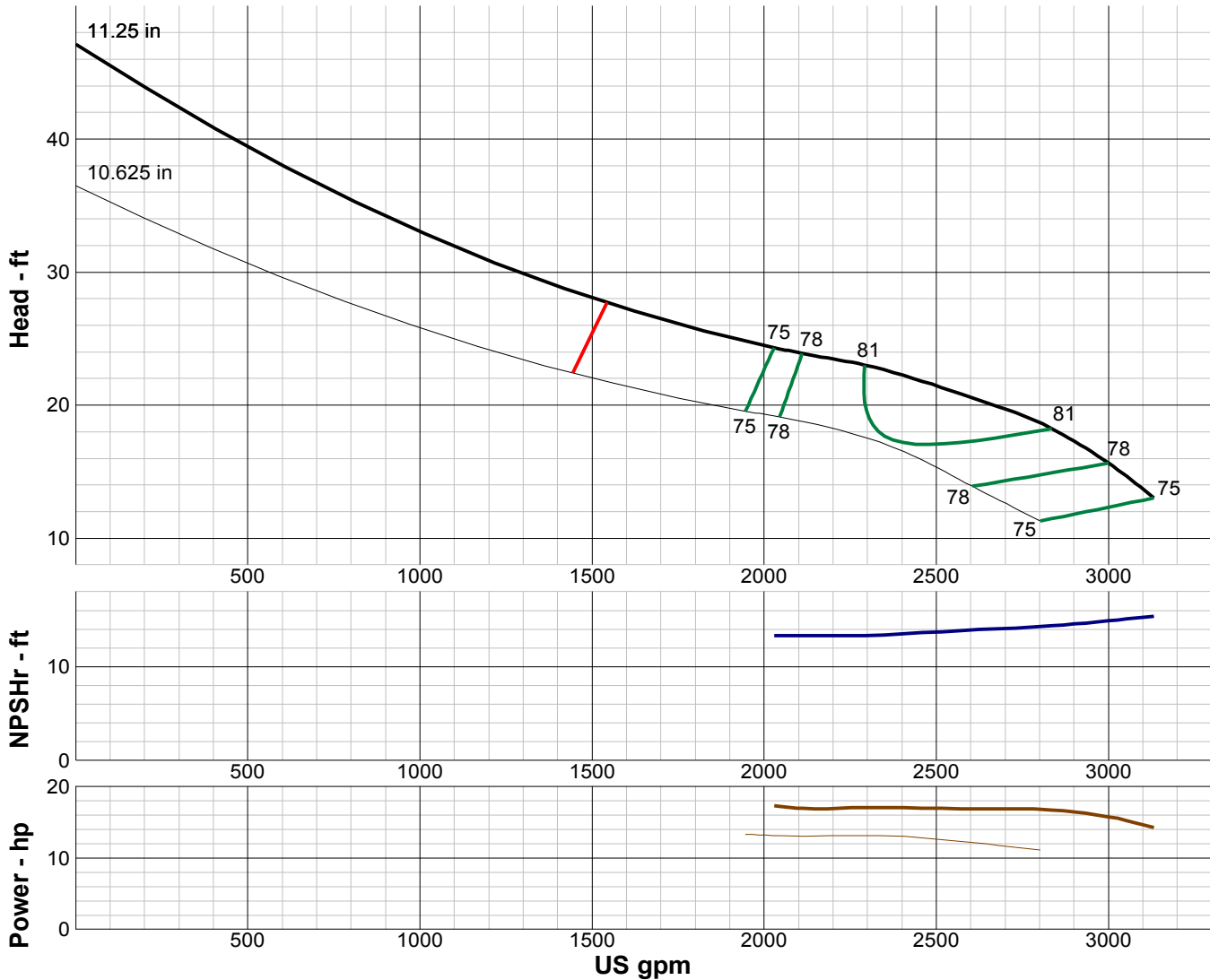
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 14YC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 3878         | Minimum submergence above eye of bottom impeller: 34 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=24.00      |  |
| EYE AREA        | 57.0 SQ. IN. |  |
| WEIGHT          | 28.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |    |   |  |
|---|----|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4 |  |
| CHANGE AS FOLLOWS:  | -3 | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3869          |
| BOWL MAX. DIAMETER      | 13.750 IN.    |
| BOWL MIN. DIAMETER      | 13.500 IN.    |
| MAX. NO. STAGES         | 15            |
| ONE STAGE WEIGHT        | 335 LB.       |
| ADD STAGE WEIGHT        | 188 LB.       |
| STD. SHAFT DIA.         | 1.938 IN.     |
| STD. LATERAL            | 0.635 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



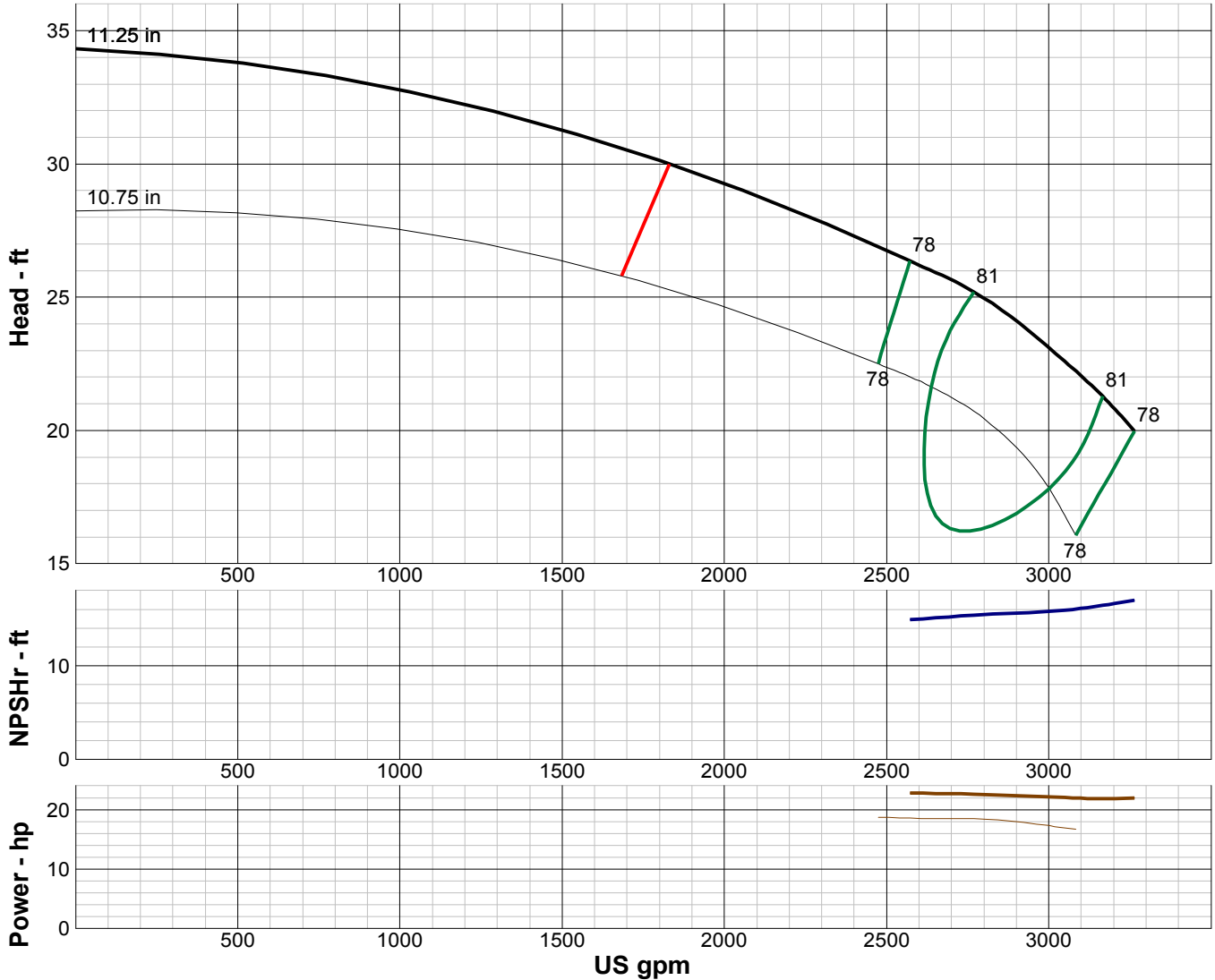
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

**480 SERIES**

**14ZC 1170 RPM**



**IMPELLER DATA**

|                 |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 3896         | Minimum submergence above eye of bottom impeller: 34 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=24.70      |  |
| EYE AREA        | 58.5 SQ. IN. |  |
| WEIGHT          | 28.00 LB.    |  |

**EFFICIENCY CORRECTION**

|                    |    |    |    |   |
|--------------------|----|----|----|---|
| NUMBER OF BOWLS:   | 1  | 2  | 3  | 4 |
| CHANGE AS FOLLOWS: | -3 | -2 | -1 | 0 |

CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.

**PUMP MATERIAL EFFICIENCY CORRECTION**

|                    | DUCTILE | BRONZE | NI-R | STAINLESS |
|--------------------|---------|--------|------|-----------|
| IMPELLER MATERIAL: | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:     | -2      | -1     | -2   | -2        |

**FLANGED BOWL DATA**

|                         |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3869          |
| BOWL MAX. DIAMETER      | 13.750 IN.    |
| BOWL MIN. DIAMETER      | 13.500 IN.    |
| MAX. NO. STAGES         | 12            |
| ONE STAGE WEIGHT        | 335 LB.       |
| ADD STAGE WEIGHT        | 188 LB.       |
| STD. SHAFT DIA.         | 1.938 IN.     |
| STD. LATERAL            | 0.625 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



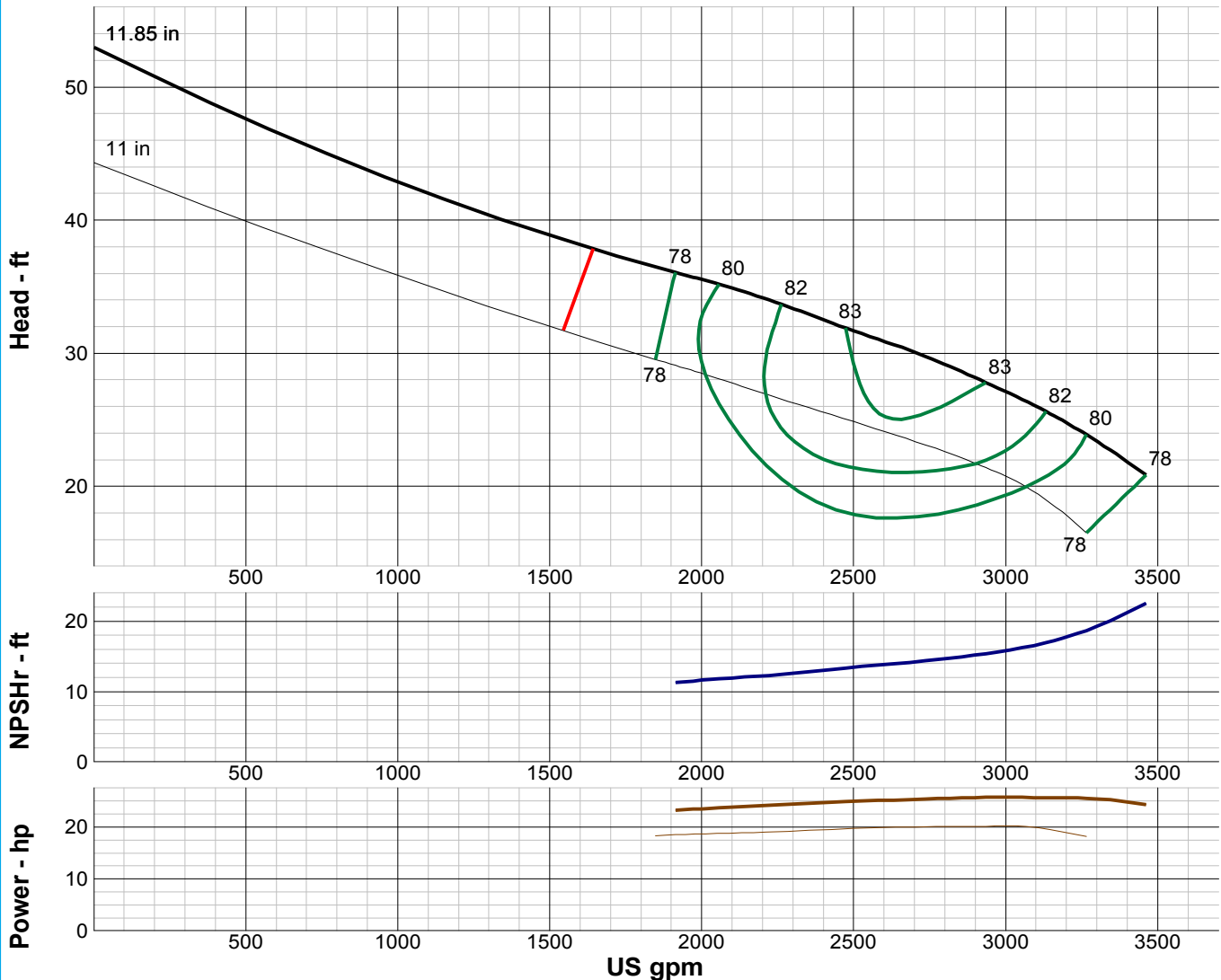
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 15KC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0004         | Minimum submergence above eye of bottom impeller: 36 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=28.00      |  |
| EYE AREA        | 63.6 SQ. IN. |  |
| WEIGHT          | 30.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |    |   |  |
|---|----|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4 |  |
| CHANGE AS FOLLOWS:  | -3 | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0001          |
| BOWL MAX. DIAMETER      | 15.250 IN.    |
| BOWL MIN. DIAMETER      | 14.750 IN.    |
| MAX. NO. STAGES         | 14            |
| ONE STAGE WEIGHT        | 510 LB.       |
| ADD STAGE WEIGHT        | 195 LB.       |
| STD. SHAFT DIA.         | 1.938 IN.     |
| STD. LATERAL            | 0.688 IN.     |
| DISCHARGE SIZE          | 10 - 12 IN.   |
| DISCHARGE CONNECTION    | THD - FLG     |
| SUCTION SIZE            | 10 - 12 IN.   |
| SUCTION CONNECTION      | THD           |
| MAX. SPHERE SIZE        | 2.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 540 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



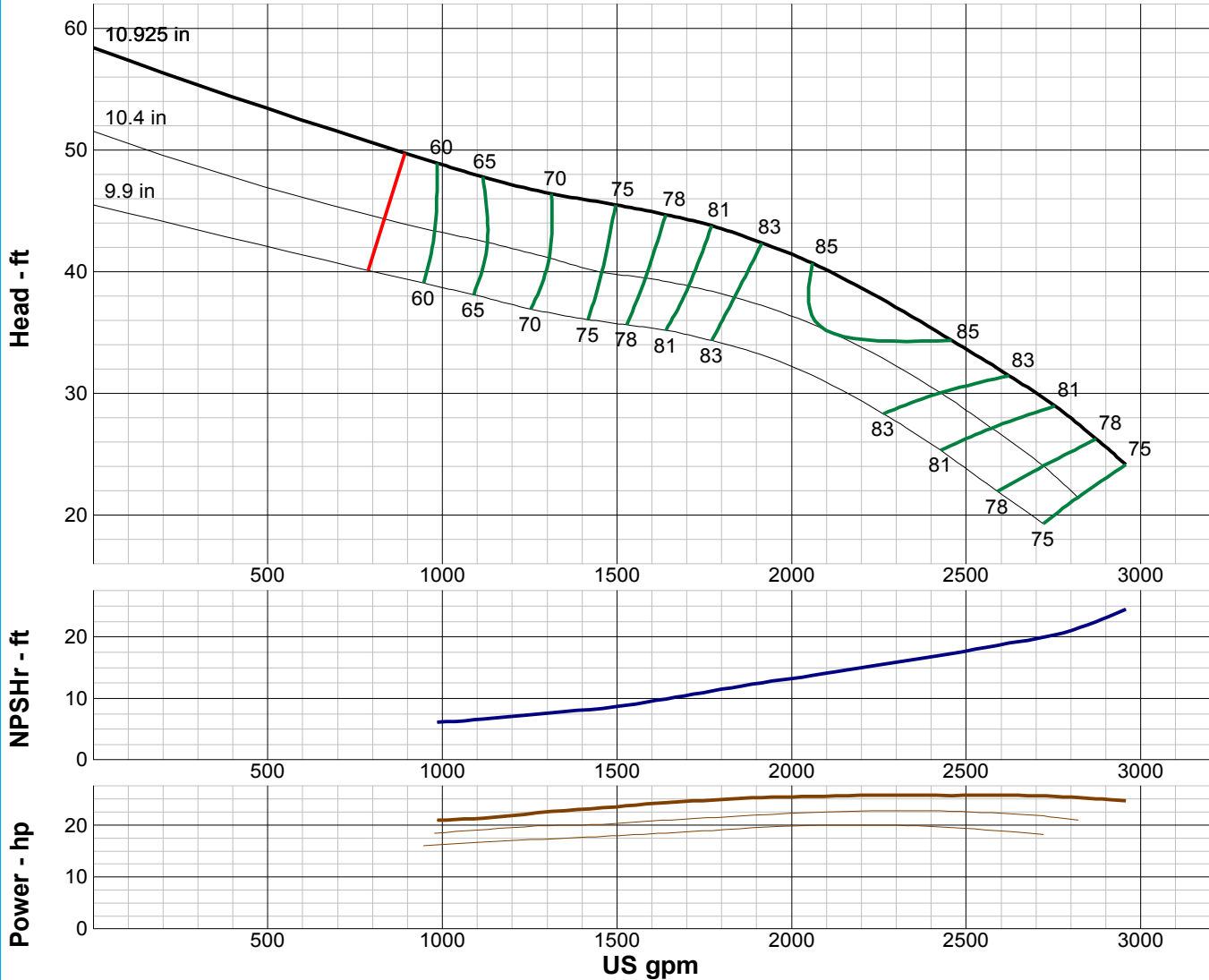
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 16LC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0312         | Minimum submergence above eye of bottom impeller: 32 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=20.00      |  |
| EYE AREA        | 51.3 SQ. IN. |  |
| WEIGHT          | 32.30 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |
|---|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |
| CHANGE AS FOLLOWS:  | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0310          |
| BOWL MAX. DIAMETER      | 15.375 IN.    |
| BOWL MIN. DIAMETER      | 15.375 IN.    |
| MAX. NO. STAGES         | 14            |
| ONE STAGE WEIGHT        | 630 LB.       |
| ADD STAGE WEIGHT        | 260 LB.       |
| STD. SHAFT DIA.         | 2.250 IN.     |
| STD. LATERAL            | 0.563 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 16.750 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.375 IN.     |
| MAX. OPERATIONAL P.S.I. | 300 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



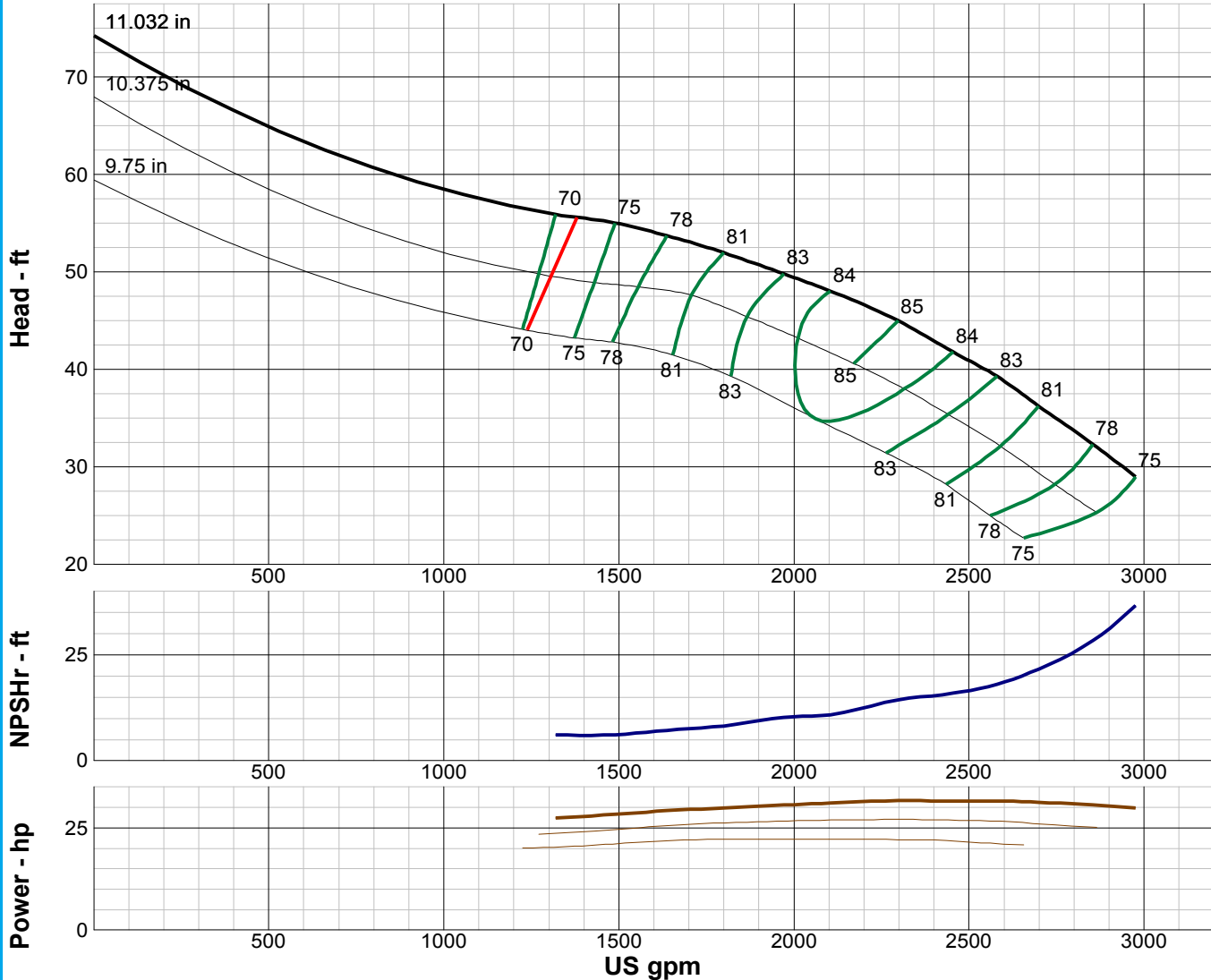
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 16MC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0308         | Minimum submergence above eye of bottom impeller: 36 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=23.00      |  |
| EYE AREA        | 58.4 SQ. IN. |  |
| WEIGHT          | 42.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |
|---|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |
| CHANGE AS FOLLOWS:  | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0306          |
| BOWL MAX. DIAMETER      | 16.000 IN.    |
| BOWL MIN. DIAMETER      | 16.000 IN.    |
| MAX. NO. STAGES         | 14            |
| ONE STAGE WEIGHT        | 630 LB.       |
| ADD STAGE WEIGHT        | 260 LB.       |
| STD. SHAFT DIA.         | 2.250 IN.     |
| STD. LATERAL            | 0.750 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 17.375 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.688 IN.     |
| MAX. OPERATIONAL P.S.I. | 300 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



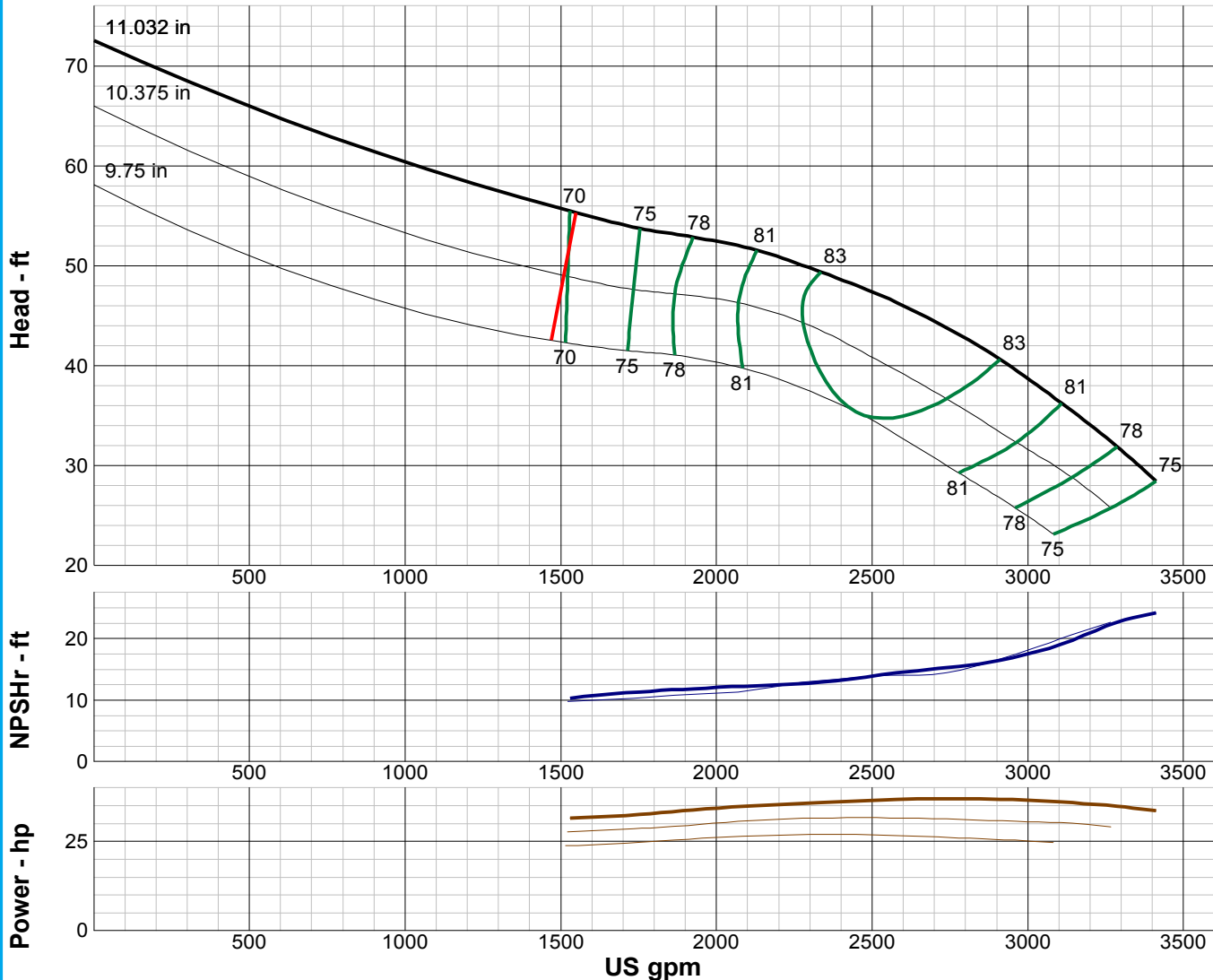
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 16HC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0309         | Minimum submergence above eye of bottom impeller: 36 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=23.00      |  |
| EYE AREA        | 58.4 SQ. IN. |  |
| WEIGHT          | 52.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |      |   |  |
|---|----|------|---|--|
| NUMBER OF BOWLS:  | 1  | 2    | 3 |  |
| CHANGE AS FOLLOWS:  | -2 | -0.5 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |      |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0306          |
| BOWL MAX. DIAMETER      | 16.000 IN.    |
| BOWL MIN. DIAMETER      | 16.000 IN.    |
| MAX. NO. STAGES         | 12            |
| ONE STAGE WEIGHT        | 630 LB.       |
| ADD STAGE WEIGHT        | 260 LB.       |
| STD. SHAFT DIA.         | 2.250 IN.     |
| STD. LATERAL            | 0.750 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 17.375 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.688 IN.     |
| MAX. OPERATIONAL P.S.I. | 300 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



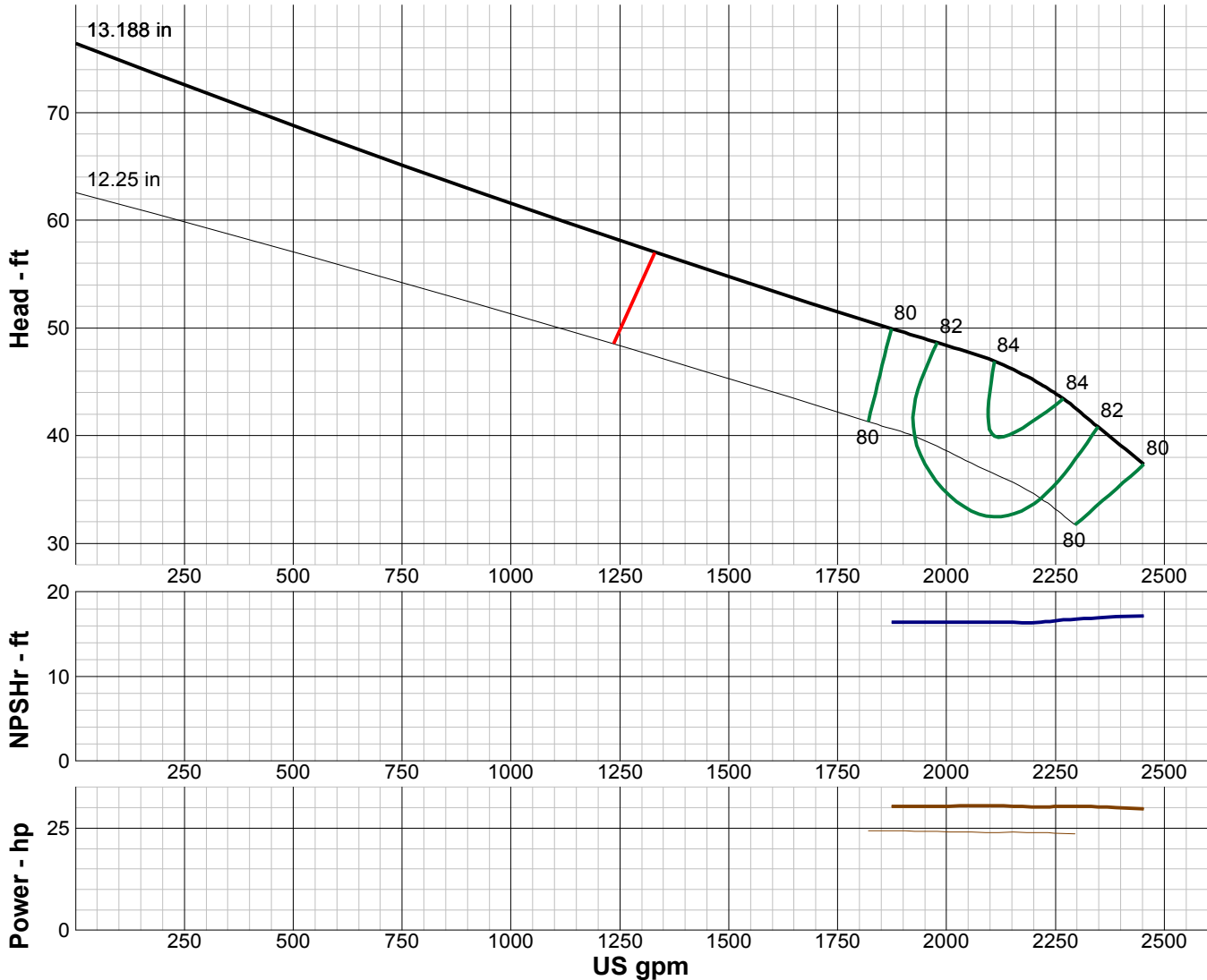
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

**480 SERIES**

**18LC 1170 RPM**



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 3914         | Minimum submergence above eye of bottom impeller: 48 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=21.75      |  |
| EYE AREA        | 46.0 SQ. IN. |  |
| WEIGHT          | 42.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |  |
|---|----|----|---|--|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |  |
| CHANGE AS FOLLOWS:  | -2 | -1 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3905          |
| BOWL MAX. DIAMETER      | 17.750 IN.    |
| BOWL MIN. DIAMETER      | 17.500 IN.    |
| MAX. NO. STAGES         | 12            |
| ONE STAGE WEIGHT        | 750 LB.       |
| ADD STAGE WEIGHT        | 325 LB.       |
| STD. SHAFT DIA.         | 2.188 IN.     |
| STD. LATERAL            | 0.500 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL SIZE       | 18.000 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 450 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.





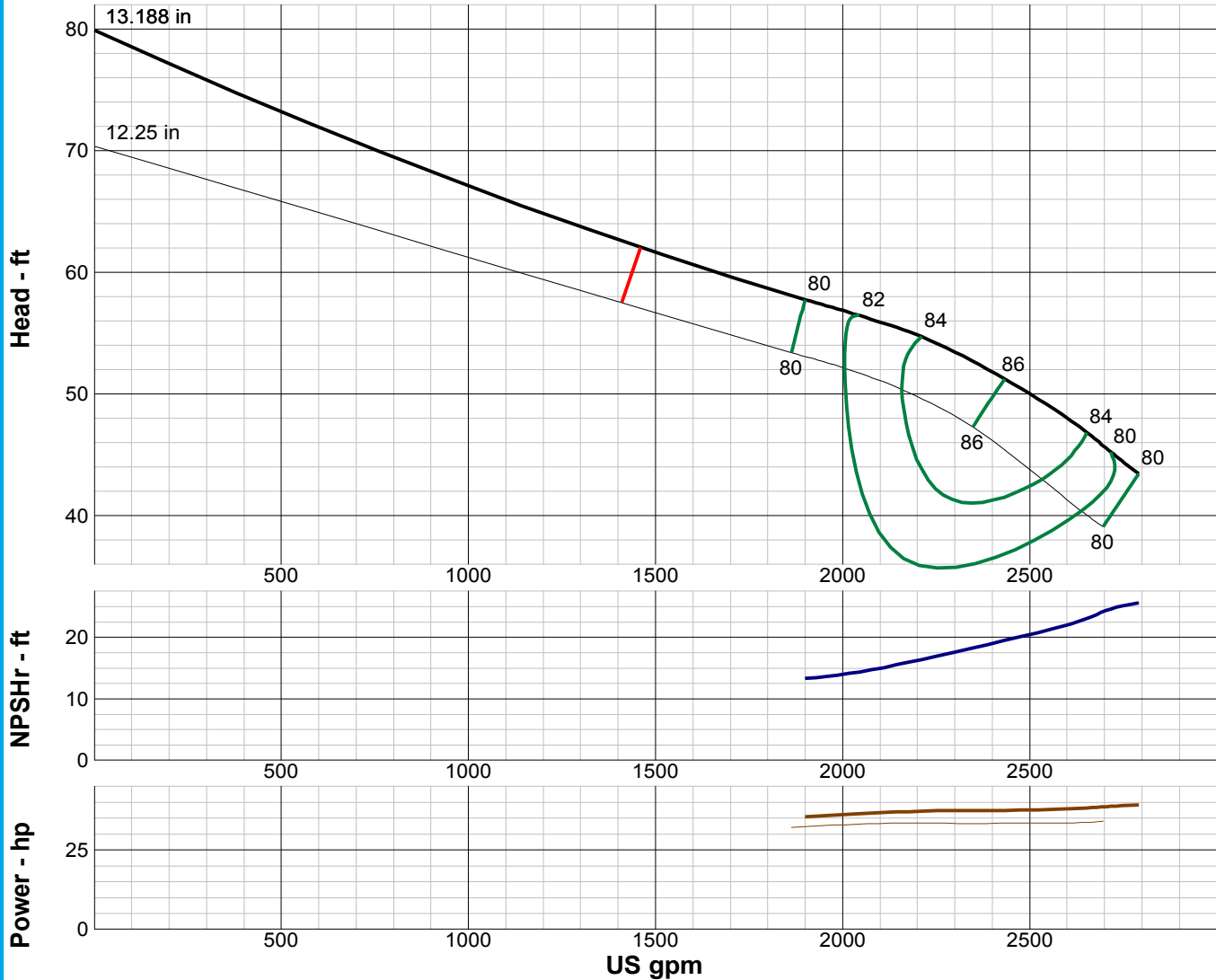
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 18MC 1170 RPM



### IMPELLER DATA

|                 |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 3923         | Minimum submergence above eye of bottom impeller: 48 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=21.75      |  |
| EYE AREA        | 50.3 SQ. IN. |  |
| WEIGHT          | 42.00 LB.    |  |

### EFFICIENCY CORRECTION

|   |    |    |   |  |  |
|---|----|----|---|--|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |  |
| CHANGE AS FOLLOWS:  | -2 | -1 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |  |

### PUMP MATERIAL EFFICIENCY CORRECTION

|                    | DUCTILE | BRONZE | NI-R | STAINLESS |
|--------------------|---------|--------|------|-----------|
| IMPELLER MATERIAL: | -2      | 0      | -1   | -1        |
| BOWL MATERIAL:     | -2      | -1     | -2   | -2        |

### FLANGED BOWL DATA

|                         |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3905          |
| BOWL MAX. DIAMETER      | 17.750 IN.    |
| BOWL MIN. DIAMETER      | 17.500 IN.    |
| MAX. NO. STAGES         | 10            |
| ONE STAGE WEIGHT        | 750 LB.       |
| ADD STAGE WEIGHT        | 325 LB.       |
| STD. SHAFT DIA.         | 2.188 IN.     |
| STD. LATERAL            | 0.500 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 18.000 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 450 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



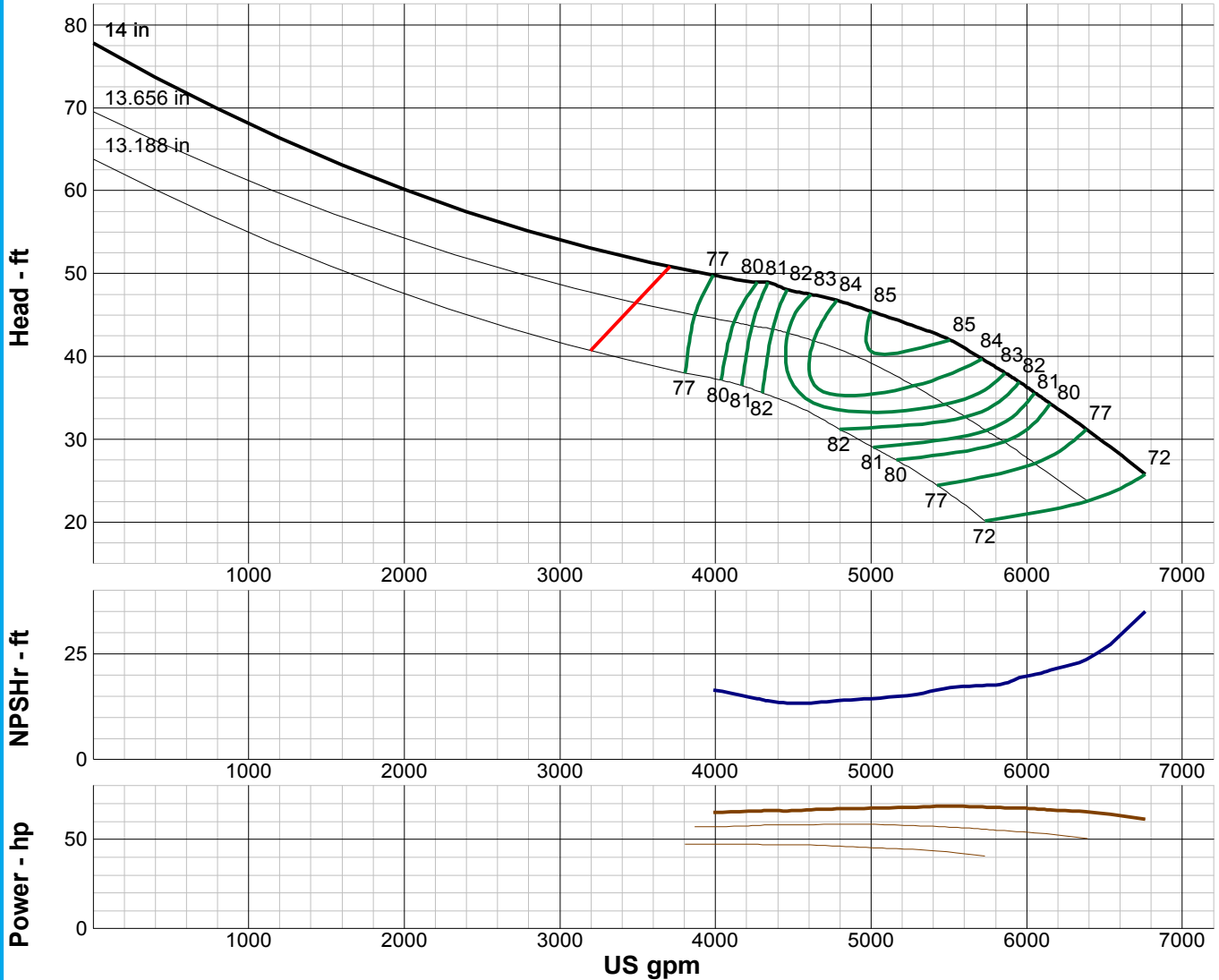
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 18HHC 1170 RPM



| IMPELLER DATA  |             |
|--|-------------|
| IMPELLER NUMBER  | 0777        |
| TYPE   | ENCLOSED    |
| THRUST FACTOR  | K=32.00     |
| EYE AREA   | 102 SQ. IN. |
| WEIGHT   | 49.00 LB.   |
| Minimum submergence above eye of bottom impeller: 48 IN. |             |

| EFFICIENCY CORRECTION                                     |      |   |  |  |
|---|------|---|--|--|
| NUMBER OF BOWLS:  | 1    | 2 |  |  |
| CHANGE AS FOLLOWS:  | -0.5 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |      |   |  |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -2   | -2        |
| BOWL MATERIAL:                      | -2      | -1     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0224          |
| BOWL MAX. DIAMETER      | 18.625 IN.    |
| BOWL MIN. DIAMETER      | 18.250 IN.    |
| MAX. NO. STAGES         | 10            |
| ONE STAGE WEIGHT        | LB.           |
| ADD STAGE WEIGHT        | LB.           |
| STD. SHAFT DIA.         | 2.188 IN.     |
| STD. LATERAL            | 0.750 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 18.813 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.250 IN.     |
| MAX. OPERATIONAL P.S.I. | 450 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



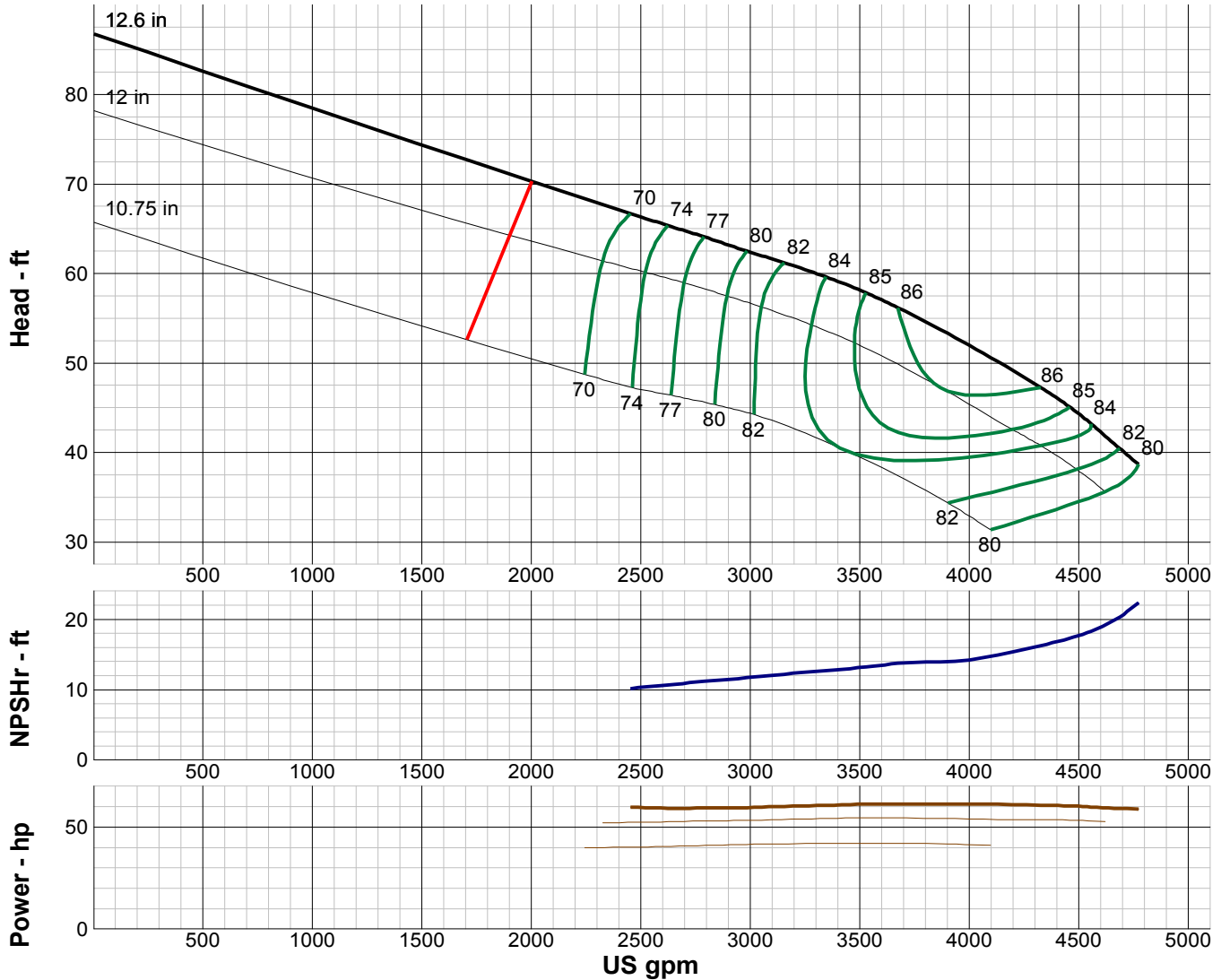
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 19MC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0353         | Minimum submergence above eye of bottom impeller: 42 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=32.00      |  |
| EYE AREA        | 74.5 SQ. IN. |  |
| WEIGHT          | 54.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |   |  |  |
|---|----|---|--|--|
| NUMBER OF BOWLS:  | 1  | 2 |  |  |
| CHANGE AS FOLLOWS:  | -1 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |  |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -2   | -2        |
| BOWL MATERIAL:                      | -2      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0358          |
| BOWL MAX. DIAMETER      | 18.625 IN.    |
| BOWL MIN. DIAMETER      | 18.625 IN.    |
| MAX. NO. STAGES         | 10            |
| ONE STAGE WEIGHT        | 770 LB.       |
| ADD STAGE WEIGHT        | 447 LB.       |
| STD. SHAFT DIA.         | 2.250 IN.     |
| STD. LATERAL            | 0.750 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 21.000 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 350 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



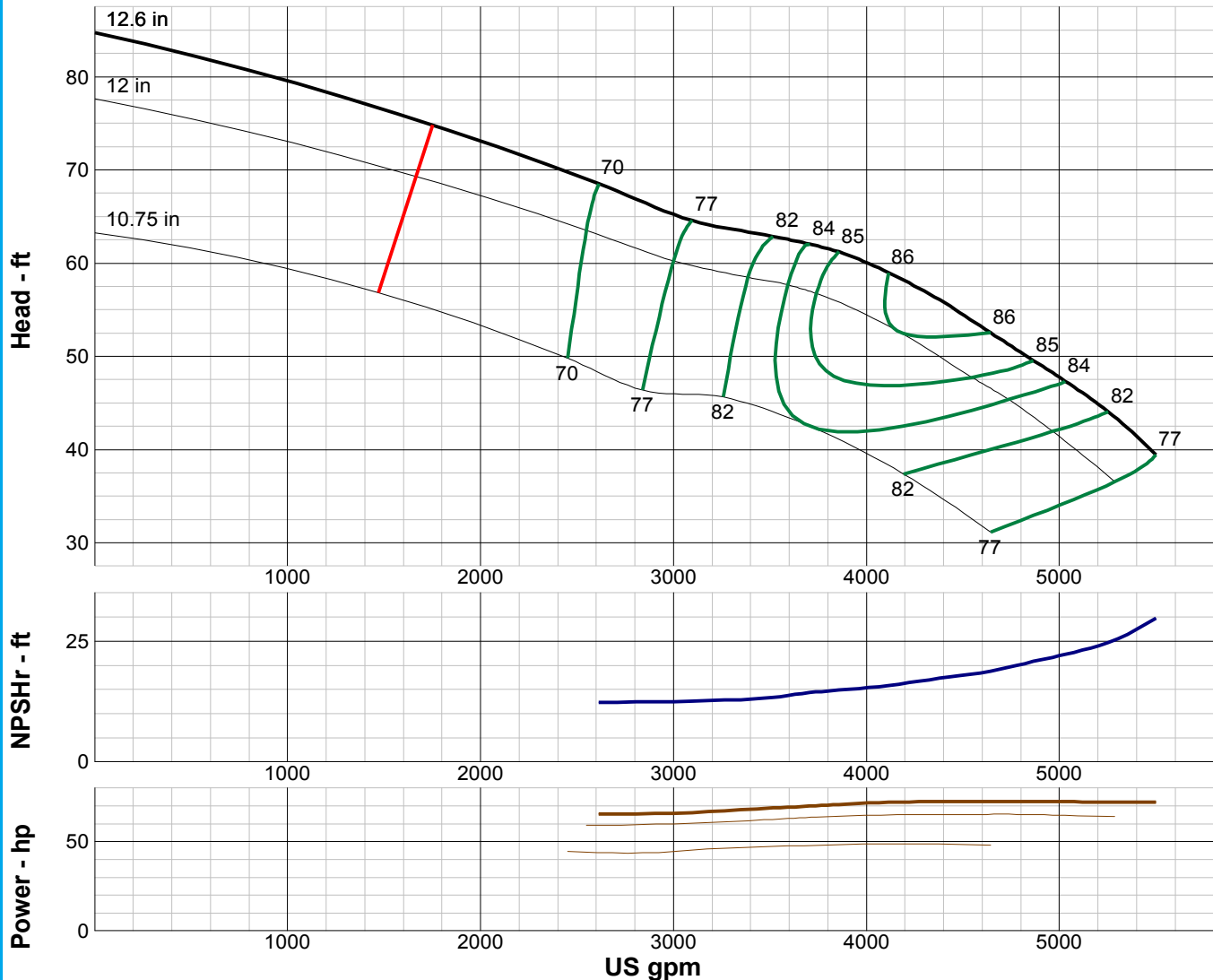
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 19HC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 0357         | Minimum submergence above eye of bottom impeller: 42 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=32.00      |  |
| EYE AREA        | 74.5 SQ. IN. |  |
| WEIGHT          | 54.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |   |  |  |
|---|----|---|--|--|
| NUMBER OF BOWLS:  | 1  | 2 |  |  |
| CHANGE AS FOLLOWS:  | -1 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |  |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -2      | 0      | -2   | -2        |
| BOWL MATERIAL:                      | -2      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0358          |
| BOWL MAX. DIAMETER      | 18.625 IN.    |
| BOWL MIN. DIAMETER      | 18.625 IN.    |
| MAX. NO. STAGES         | 10            |
| ONE STAGE WEIGHT        | 770 LB.       |
| ADD STAGE WEIGHT        | 447 LB.       |
| STD. SHAFT DIA.         | 2.250 IN.     |
| STD. LATERAL            | 0.750 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 21.000 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 350 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



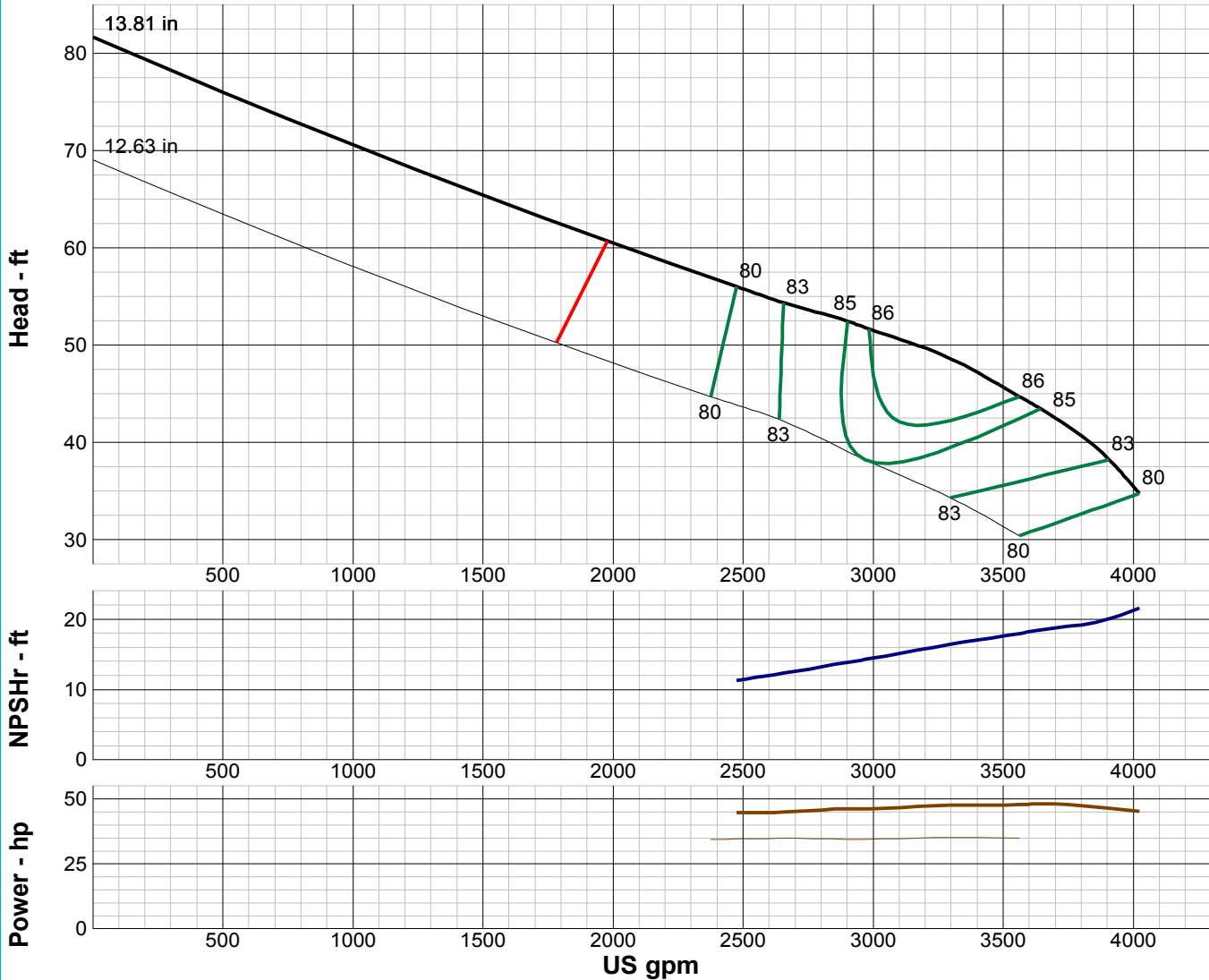
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 20LC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 4838         | Minimum submergence above eye of bottom impeller: 33 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=29.40      |  |
| EYE AREA        | 72.6 SQ. IN. |  |
| WEIGHT          | 69.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |   |  |  |
|---|----|---|--|--|
| NUMBER OF BOWLS:  | 1  | 2 |  |  |
| CHANGE AS FOLLOWS:  | -2 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |  |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3969          |
| BOWL MAX. DIAMETER      | 19.875 IN.    |
| BOWL MIN. DIAMETER      | 19.250 IN.    |
| MAX. NO. STAGES         | 13            |
| ONE STAGE WEIGHT        | 790 LB.       |
| ADD STAGE WEIGHT        | 569 LB.       |
| STD. SHAFT DIA.         | 2.438 IN.     |
| STD. LATERAL            | 0.750 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 20.875 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 2.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 350 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



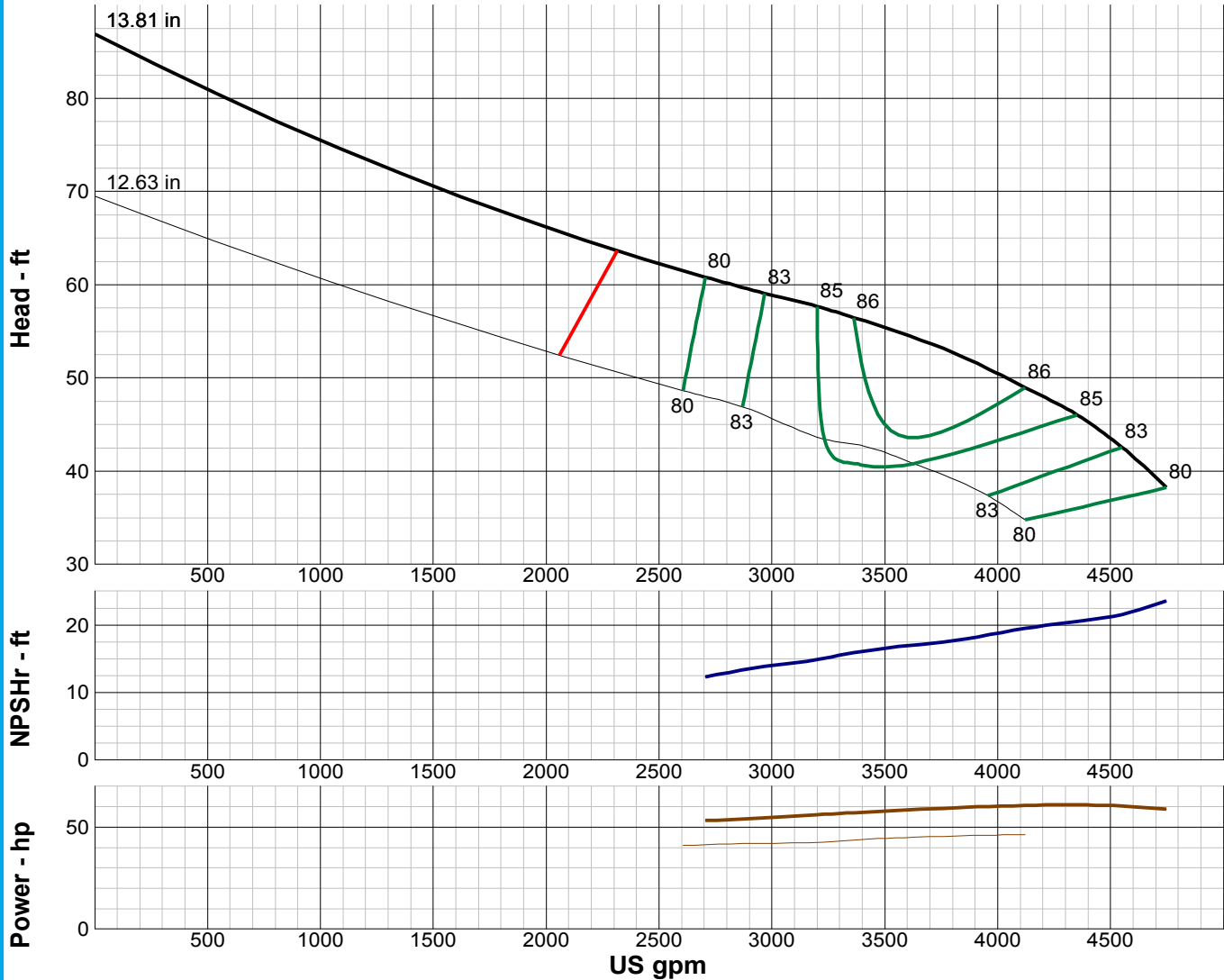
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 20MC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 4847         | Minimum submergence above eye of bottom impeller: 33 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=29.40      |  |
| EYE AREA        | 72.6 SQ. IN. |  |
| WEIGHT          | 69.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |   |  |  |
|---|----|---|--|--|
| NUMBER OF BOWLS:  | 1  | 2 |  |  |
| CHANGE AS FOLLOWS:  | -2 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |  |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3969          |
| BOWL MAX. DIAMETER      | 19.875 IN.    |
| BOWL MIN. DIAMETER      | 19.250 IN.    |
| MAX. NO. STAGES         | 10            |
| ONE STAGE WEIGHT        | 790 LB.       |
| ADD STAGE WEIGHT        | 569 LB.       |
| STD. SHAFT DIA.         | 2.438 IN.     |
| STD. LATERAL            | 0.750 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG           |
| SUCTION BELL DIA.       | 20.875 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 2.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 350 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



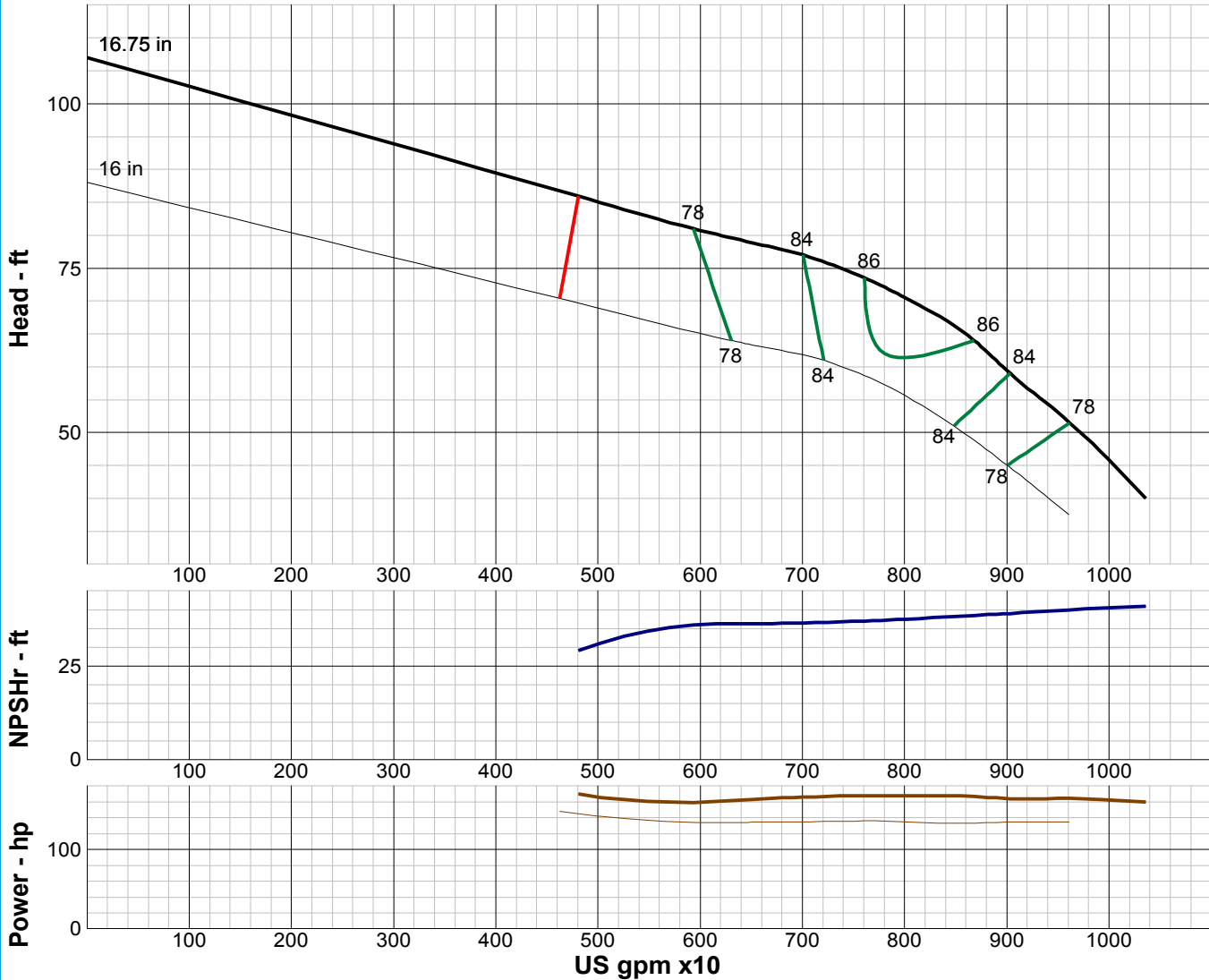
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 20HC 1170 RPM



| IMPELLER DATA   |             |  |
|-----------------|-------------|--|
| IMPELLER NUMBER | 3987        | Minimum submergence above eye of bottom impeller: 32 IN. |
| TYPE            | ENCLOSED    |  |
| THRUST FACTOR   | K=58.0      |  |
| EYE AREA        | 113 SQ. IN. |  |
| WEIGHT          | 94.00 LB.   |  |

| EFFICIENCY CORRECTION                                     |    |    |   |    |  |
|---|----|----|---|----|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 | 4  |  |
| CHANGE AS FOLLOWS:  | -2 | -1 | 0 | +1 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |    |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 3996          |
| BOWL MAX. DIAMETER      | 20.000 IN.    |
| BOWL MIN. DIAMETER      | 19.750 IN.    |
| MAX. NO. STAGES         | 4             |
| ONE STAGE WEIGHT        | 845 LB.       |
| ADD STAGE WEIGHT        | 560 LB.       |
| STD. SHAFT DIA.         | 2.438 IN.     |
| STD. LATERAL            | 0.625 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 23.313 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 2.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 350 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



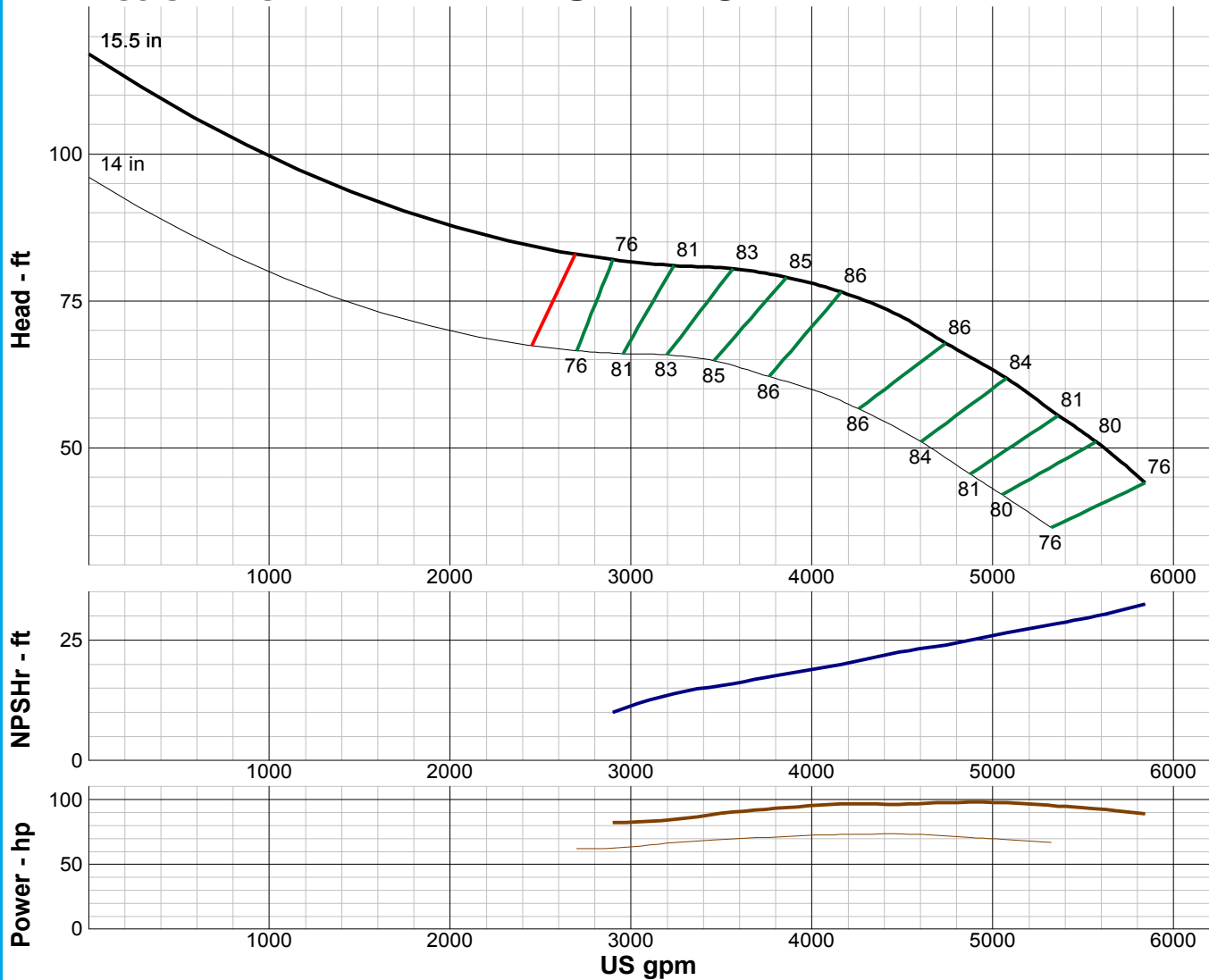
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 22EC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 4856         | Minimum submergence above eye of bottom impeller: 32 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=26.80      |  |
| EYE AREA        | 78.5 SQ. IN. |  |
| WEIGHT          | LB.          |  |

| EFFICIENCY CORRECTION                                     |    |    |    |   |  |
|---|----|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3  | 4 |  |
| CHANGE AS FOLLOWS:  | -3 | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5310          |
| BOWL MAX. DIAMETER      | 20.875 IN.    |
| BOWL MIN. DIAMETER      | 20.625 IN.    |
| MAX. NO. STAGES         | 6             |
| ONE STAGE WEIGHT        | LB.           |
| ADD STAGE WEIGHT        | LB.           |
| STD. SHAFT DIA.         | 2.438 IN.     |
| STD. LATERAL            | 0.688 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 20.625 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 300 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.





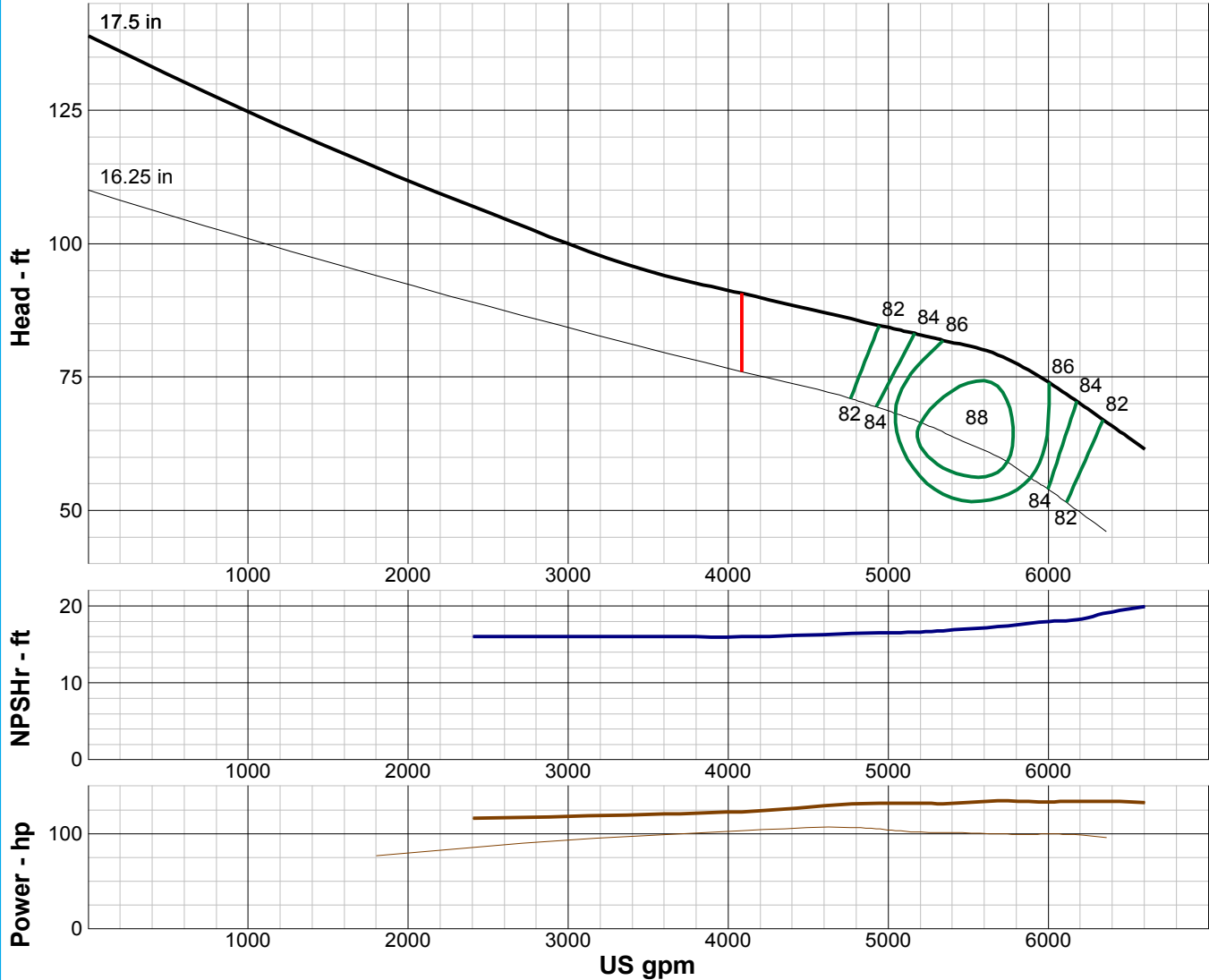
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 24LC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 4865         | Minimum submergence above eye of bottom impeller: 32 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=41.20      |  |
| EYE AREA        | 93.0 SQ. IN. |  |
| WEIGHT          | 82.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |
|---|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |
| CHANGE AS FOLLOWS:  | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5329          |
| BOWL MAX. DIAMETER      | 24.000 IN.    |
| BOWL MIN. DIAMETER      | 23.750 IN.    |
| MAX. NO. STAGES         | 6             |
| ONE STAGE WEIGHT        | 1150 LB.      |
| ADD STAGE WEIGHT        | 850 LB.       |
| STD. SHAFT DIA.         | 2.688 IN.     |
| STD. LATERAL            | 0.938 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 24.750 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 2.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



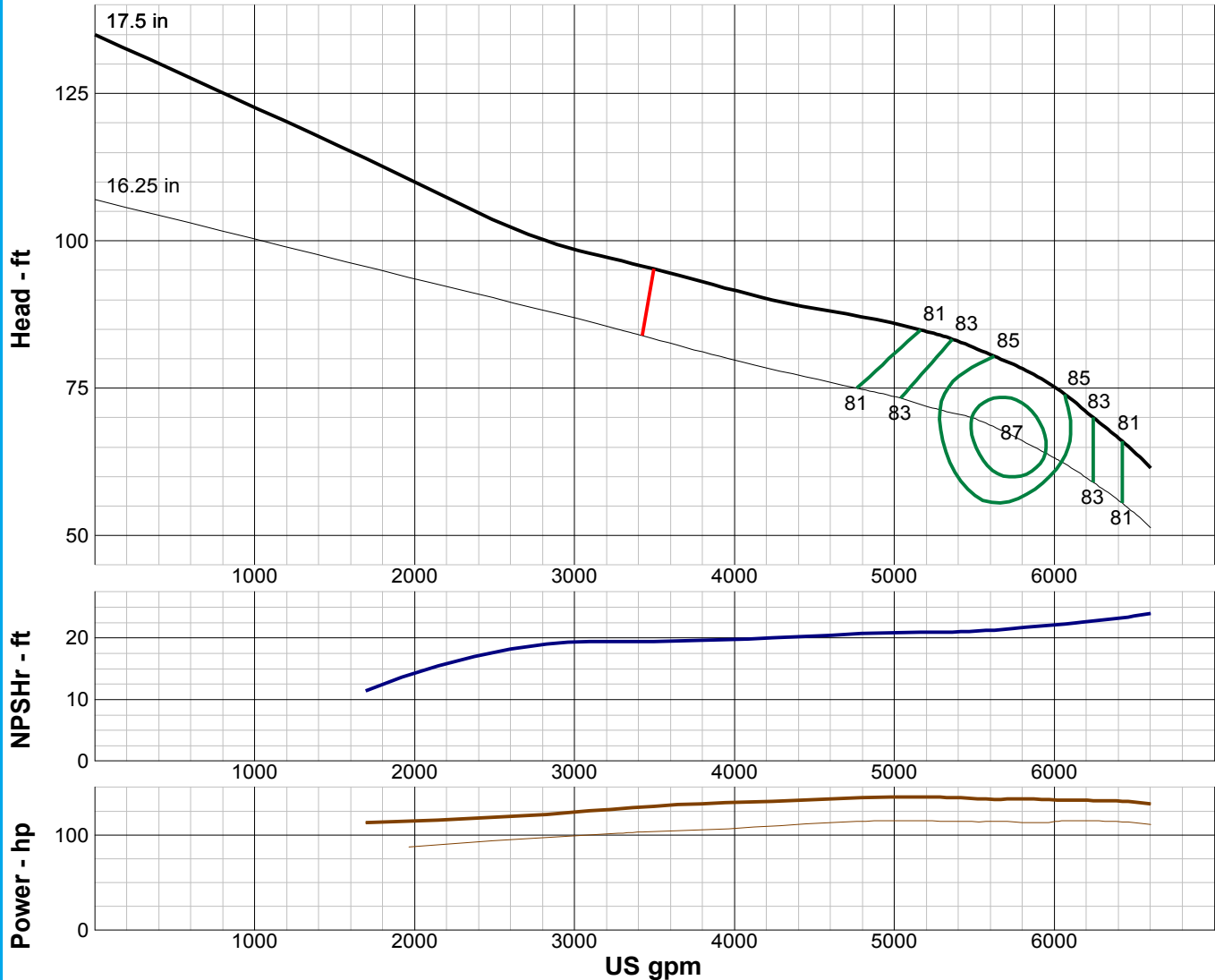
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 24MC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 4874         | Minimum submergence above eye of bottom impeller: 32 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=41.20      |  |
| EYE AREA        | 93.0 SQ. IN. |  |
| WEIGHT          | 82.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |
|---|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |
| CHANGE AS FOLLOWS:  | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5329          |
| BOWL MAX. DIAMETER      | 24.000 IN.    |
| BOWL MIN. DIAMETER      | 23.750 IN.    |
| MAX. NO. STAGES         | 6             |
| ONE STAGE WEIGHT        | 1150 LB.      |
| ADD STAGE WEIGHT        | 850 LB.       |
| STD. SHAFT DIA.         | 2.688 IN.     |
| STD. LATERAL            | 0.938 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 24.750 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 2.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



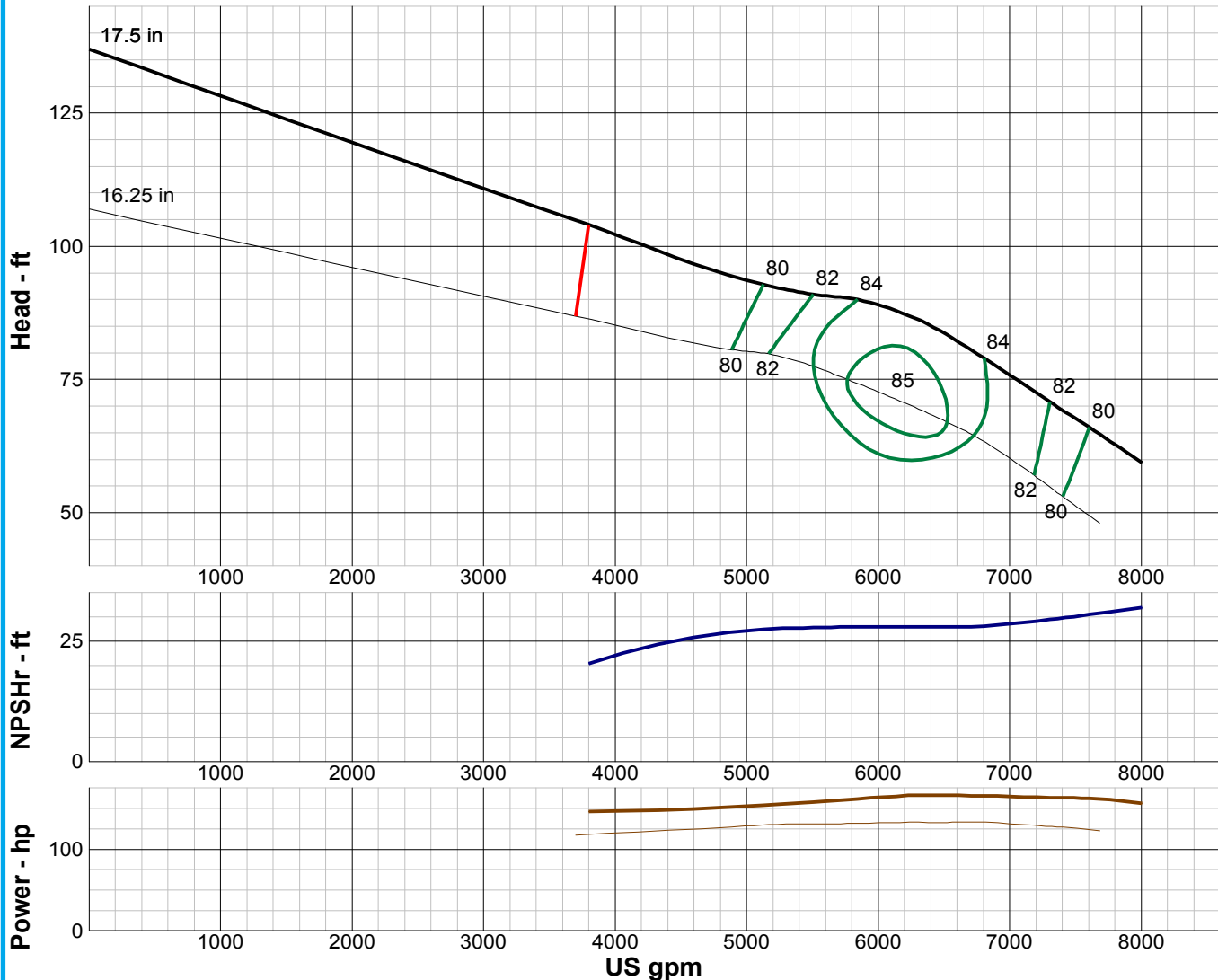
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 24HC 1170 RPM



| IMPELLER DATA   |              |  |
|-----------------|--------------|--|
| IMPELLER NUMBER | 4883         | Minimum submergence above eye of bottom impeller: 32 IN. |
| TYPE            | ENCLOSED     |  |
| THRUST FACTOR   | K=41.20      |  |
| EYE AREA        | 93.0 SQ. IN. |  |
| WEIGHT          | 82.00 LB.    |  |

| EFFICIENCY CORRECTION                                     |    |    |   |  |
|---|----|----|---|--|
| NUMBER OF BOWLS:  | 1  | 2  | 3 |  |
| CHANGE AS FOLLOWS:  | -2 | -1 | 0 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |    |   |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -2     | -2   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5329          |
| BOWL MAX. DIAMETER      | 24.000 IN.    |
| BOWL MIN. DIAMETER      | 23.750 IN.    |
| MAX. NO. STAGES         | 5             |
| ONE STAGE WEIGHT        | 1150 LB.      |
| ADD STAGE WEIGHT        | 850 LB.       |
| STD. SHAFT DIA.         | 2.688 IN.     |
| STD. LATERAL            | 0.938 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 24.750 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 2.000 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



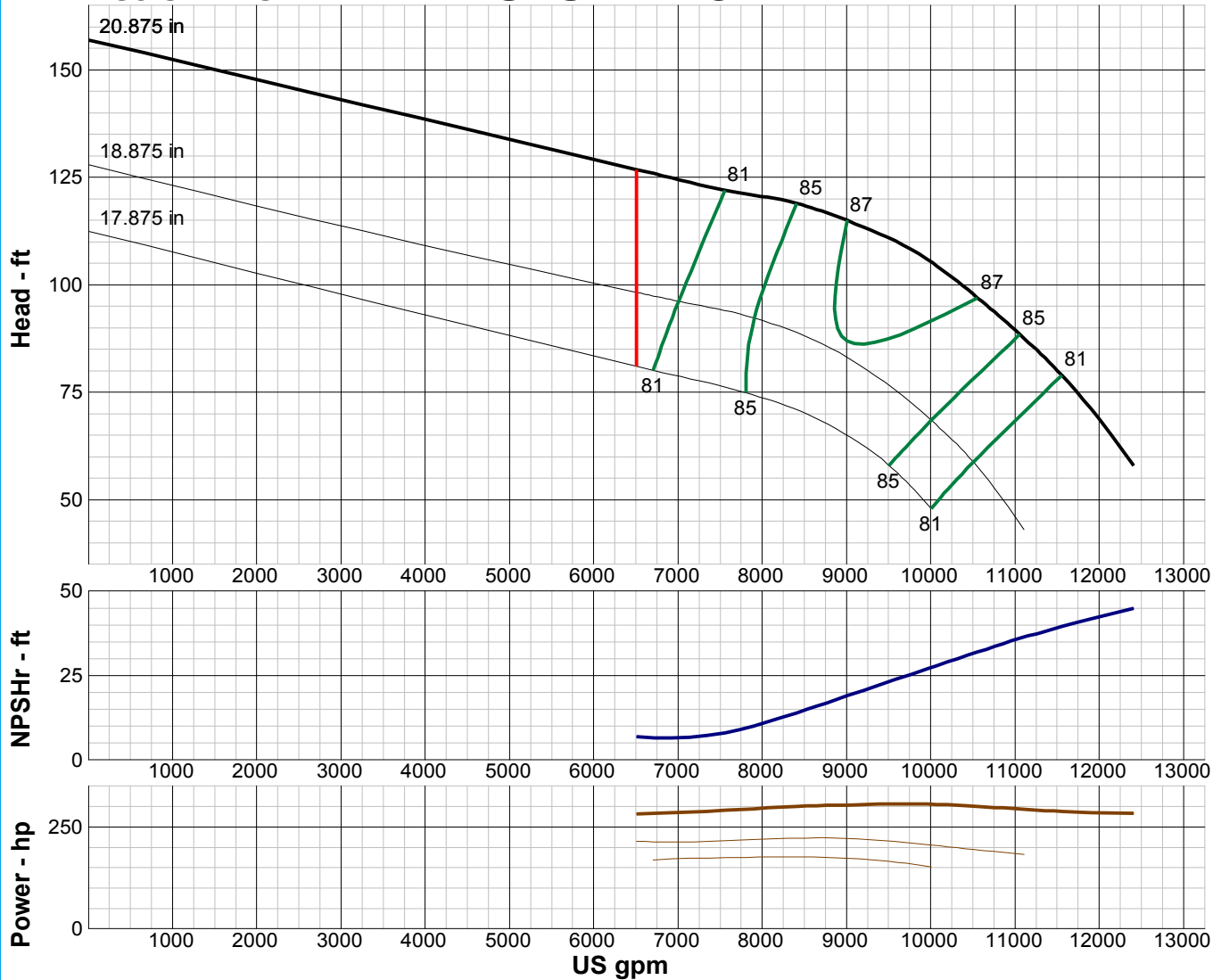
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 28LC 1170 RPM



### IMPELLER DATA

|                 |             |  |
|-----------------|-------------|--|
| IMPELLER NUMBER | 4892        | Minimum submergence above eye of bottom impeller: 56 IN. |
| TYPE            | ENCLOSED    |  |
| THRUST FACTOR   | K=61.00     |  |
| EYE AREA        | 133 SQ. IN. |  |
| WEIGHT          | 255 LB.     |  |

### EFFICIENCY CORRECTION

|   |    |   |    |  |  |
|---|----|---|----|--|--|
| NUMBER OF BOWLS:  | 1  | 2 | 3  |  |  |
| CHANGE AS FOLLOWS:  | -1 | 0 | +1 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |    |  |  |

### PUMP MATERIAL EFFICIENCY CORRECTION

|                    | DUCTILE | BRONZE | NI-R | STAINLESS |
|--------------------|---------|--------|------|-----------|
| IMPELLER MATERIAL: | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:     | -1      | -1     | -1   | -2        |

### FLANGED BOWL DATA

|                         |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5338          |
| BOWL MAX. DIAMETER      | 27.000 IN.    |
| BOWL MIN. DIAMETER      | 27.000 IN.    |
| MAX. NO. STAGES         | 3             |
| ONE STAGE WEIGHT        | 2300 LB.      |
| ADD STAGE WEIGHT        | 920 LB.       |
| STD. SHAFT DIA.         | 2.688 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 30.750 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.750 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



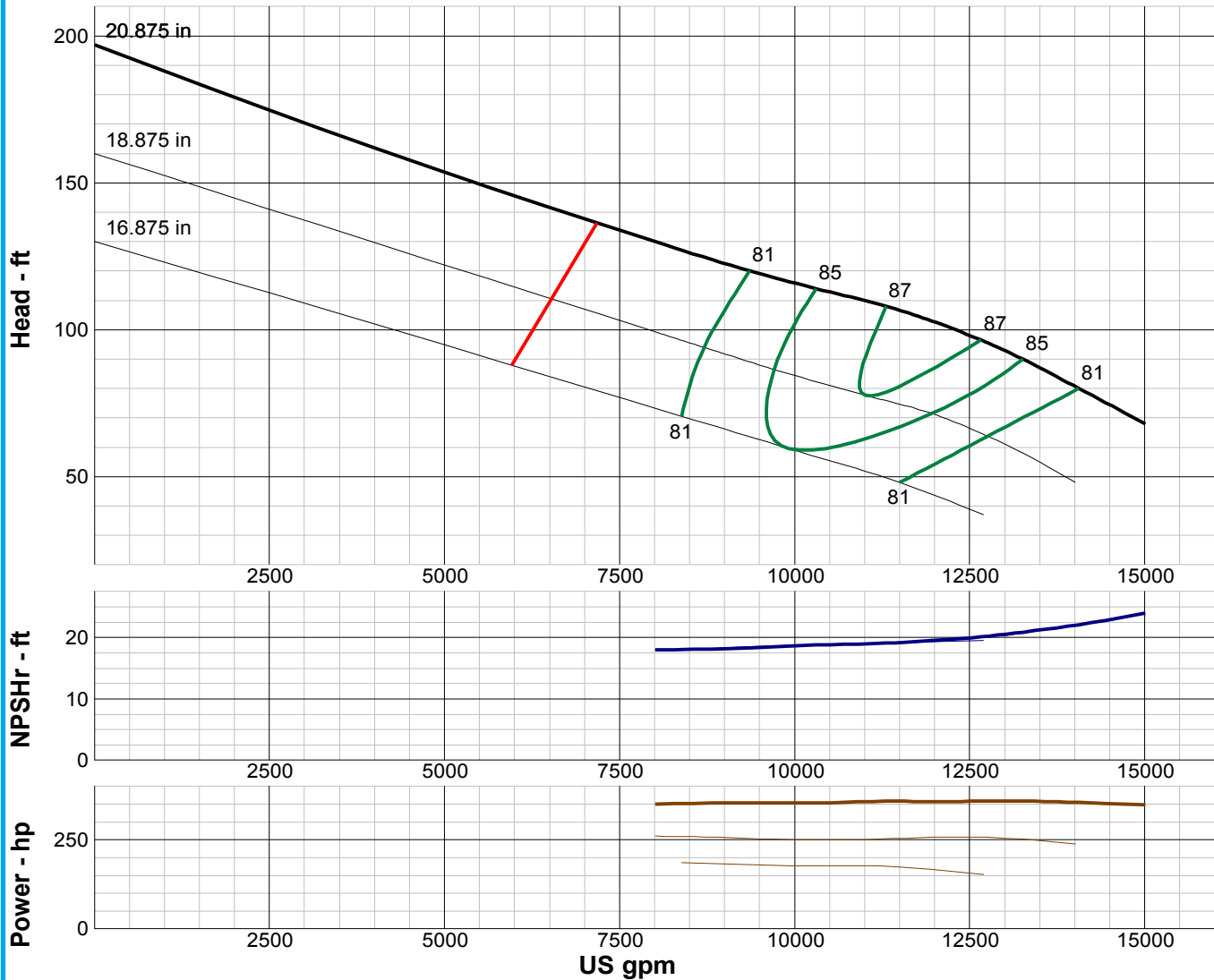
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 28MC 1170 RPM



### IMPELLER DATA

|                 |             |  |
|-----------------|-------------|--|
| IMPELLER NUMBER | 4901        | Minimum submergence above eye of bottom impeller: 60 IN. |
| TYPE            | ENCLOSED    |  |
| THRUST FACTOR   | K=61.00     |  |
| EYE AREA        | 133 SQ. IN. |  |
| WEIGHT          | 255 LB.     |  |

### EFFICIENCY CORRECTION

|   |    |   |    |  |  |
|---|----|---|----|--|--|
| NUMBER OF BOWLS:  | 1  | 2 | 3  |  |  |
| CHANGE AS FOLLOWS:  | -1 | 0 | +1 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |    |  |  |

### PUMP MATERIAL EFFICIENCY CORRECTION

|                    | DUCTILE | BRONZE | NI-R | STAINLESS |
|--------------------|---------|--------|------|-----------|
| IMPELLER MATERIAL: | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:     | -1      | -1     | -1   | -2        |

### FLANGED BOWL DATA

|                         |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5338          |
| BOWL MAX. DIAMETER      | 27.000 IN.    |
| BOWL MIN. DIAMETER      | 27.000 IN.    |
| MAX. NO. STAGES         | 2             |
| ONE STAGE WEIGHT        | 2300 LB.      |
| ADD STAGE WEIGHT        | 920 LB.       |
| STD. SHAFT DIA.         | 2.688 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 30.750 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.750 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



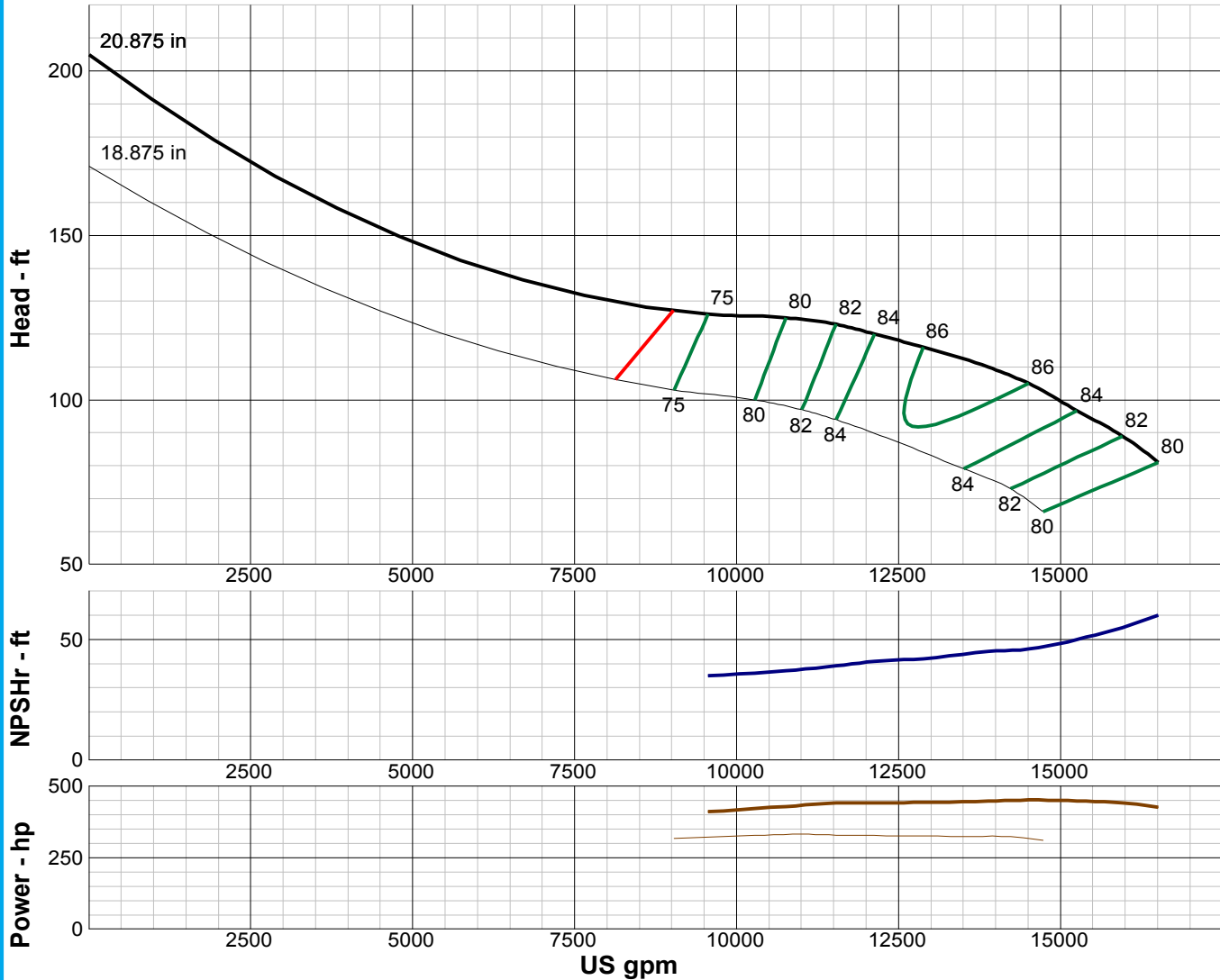
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 28HC 1170 RPM



| IMPELLER DATA   |             |  |
|-----------------|-------------|--|
| IMPELLER NUMBER | 0104        | Minimum submergence above eye of bottom impeller: 62 IN. |
| TYPE            | ENCLOSED    |  |
| THRUST FACTOR   | K=61.00     |  |
| EYE AREA        | 133 SQ. IN. |  |
| WEIGHT          | 255 LB.     |  |

| EFFICIENCY CORRECTION                                     |    |   |    |  |
|---|----|---|----|--|
| NUMBER OF BOWLS:  | 1  | 2 | 3  |  |
| CHANGE AS FOLLOWS:  | -1 | 0 | +1 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |    |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -1     | -1   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5338          |
| BOWL MAX. DIAMETER      | 27.000 IN.    |
| BOWL MIN. DIAMETER      | 27.000 IN.    |
| MAX. NO. STAGES         | 2             |
| ONE STAGE WEIGHT        | 2300 LB.      |
| ADD STAGE WEIGHT        | 920 LB.       |
| STD. SHAFT DIA.         | 2.688 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 30.750 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.750 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



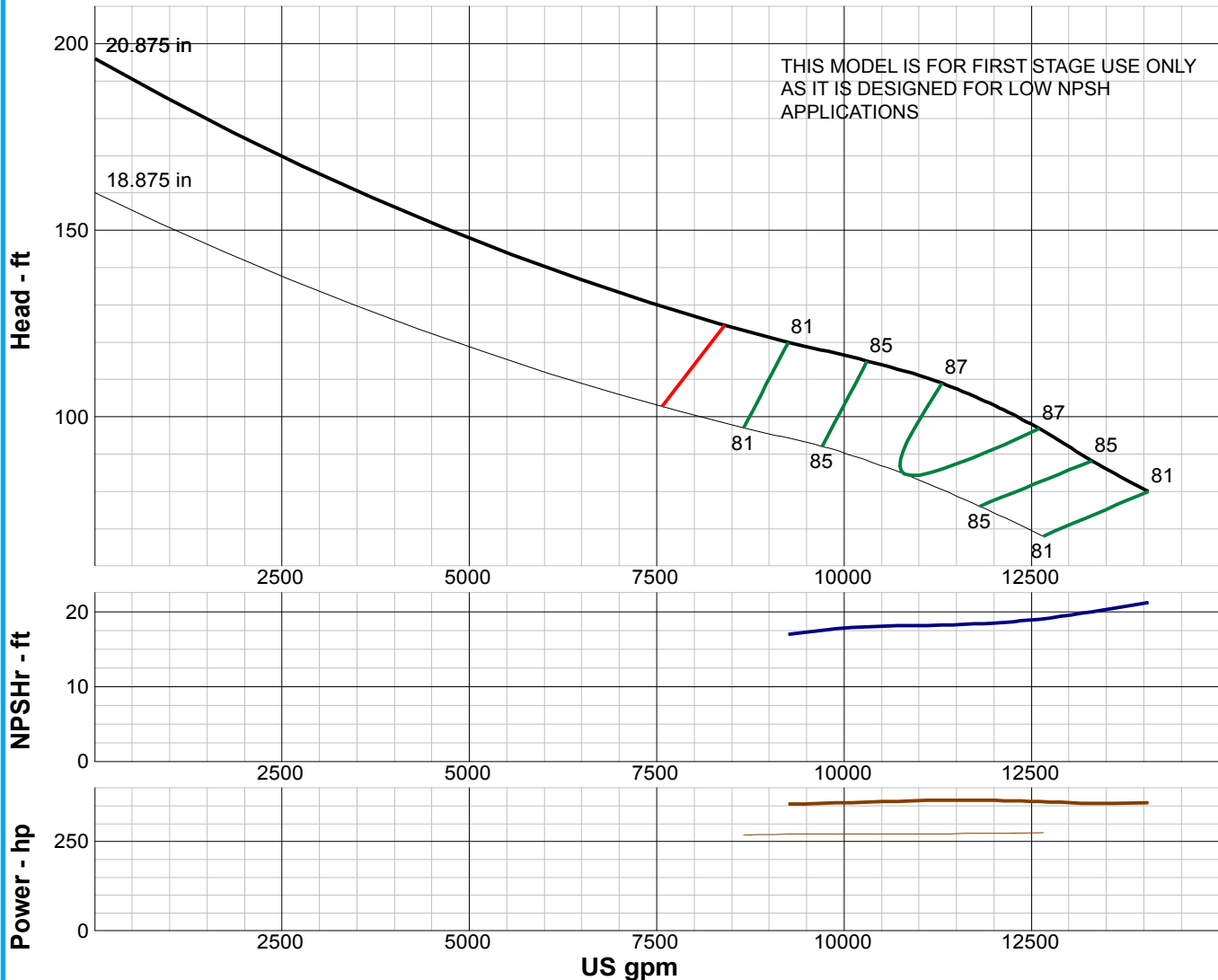
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 28SC 1170 RPM



| IMPELLER DATA   |             |  |
|-----------------|-------------|--|
| IMPELLER NUMBER | 4901        | Minimum submergence above eye of bottom impeller: 60 IN. |
| TYPE            | ENCLOSED    |  |
| THRUST FACTOR   | K=59.00     |  |
| EYE AREA        | 140 SQ. IN. |  |
| WEIGHT          | 255 LB.     |  |

| EFFICIENCY CORRECTION                                     |    |   |  |  |
|---|----|---|--|--|
| NUMBER OF BOWLS:  | 1  | 2 |  |  |
| CHANGE AS FOLLOWS:  | -2 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |  |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -1     | -1   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 5338          |
| BOWL MAX. DIAMETER      | 27.000 IN.    |
| BOWL MIN. DIAMETER      | 27.000 IN.    |
| MAX. NO. STAGES         | 1             |
| ONE STAGE WEIGHT        | 2300 LB.      |
| ADD STAGE WEIGHT        | 920 LB.       |
| STD. SHAFT DIA.         | 2.688 IN.     |
| STD. LATERAL            | 0.875 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 30.750 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 1.750 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.



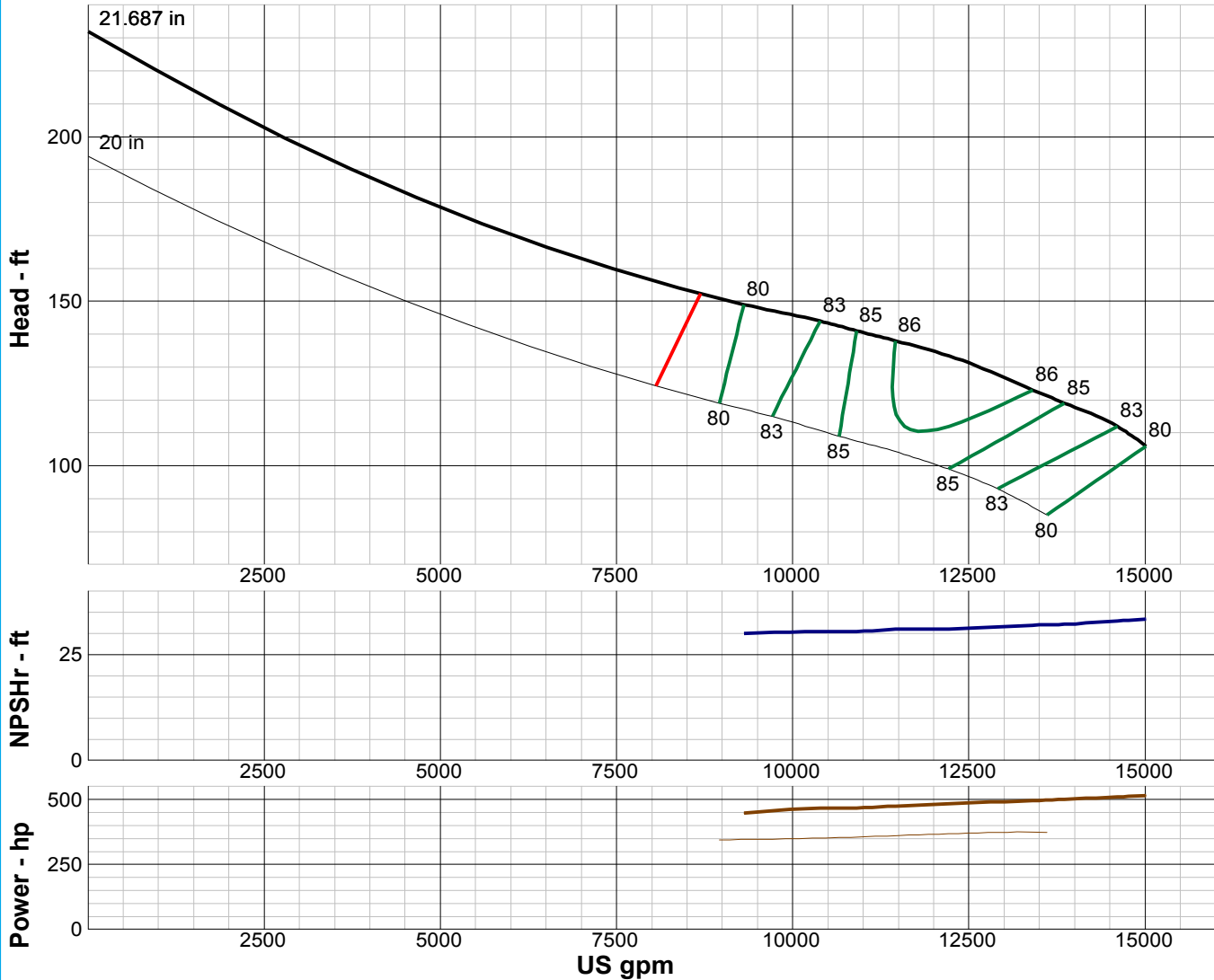
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 30LC 1170 RPM



| IMPELLER DATA   |             |  |
|-----------------|-------------|--|
| IMPELLER NUMBER | 0192        | Minimum submergence above eye of bottom impeller: 60 IN. |
| TYPE            | ENCLOSED    |  |
| THRUST FACTOR   | K=67.50     |  |
| EYE AREA        | 175 SQ. IN. |  |
| WEIGHT          | 440 LB.     |  |

| EFFICIENCY CORRECTION                                     |    |   |    |  |
|---|----|---|----|--|
| NUMBER OF BOWLS:  | 1  | 2 | 3  |  |
| CHANGE AS FOLLOWS:  | -2 | 0 | +1 |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |    |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -1     | -1   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0235          |
| BOWL MAX. DIAMETER      | 30.000 IN.    |
| BOWL MIN. DIAMETER      | 30.000 IN.    |
| MAX. NO. STAGES         | 5             |
| ONE STAGE WEIGHT        | 4500 LB.      |
| ADD STAGE WEIGHT        | 2000 LB.      |
| STD. SHAFT DIA.         | 3.250 IN.     |
| STD. LATERAL            | 1.375 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | FLG.          |
| SUCTION BELL DIA.       | 33.250 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 2.500 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.





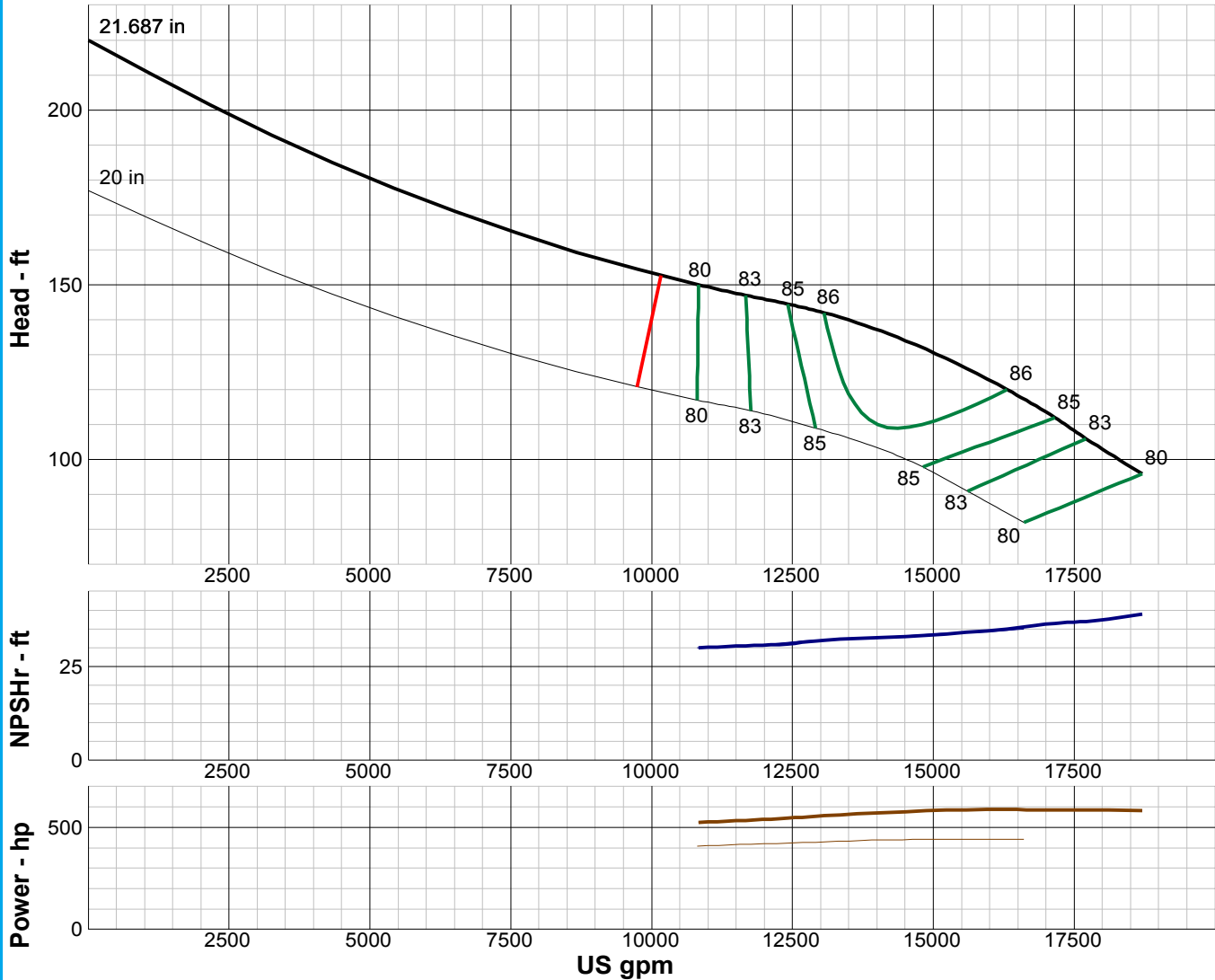
# TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

## 480 SERIES

## 30MC 1170 RPM



| IMPELLER DATA   |             |  |
|-----------------|-------------|--|
| IMPELLER NUMBER | 0193        | Minimum submergence above eye of bottom impeller: 50 IN. |
| TYPE            | ENCLOSED    |  |
| THRUST FACTOR   | K=67.50     |  |
| EYE AREA        | 175 SQ. IN. |  |
| WEIGHT          | 440 LB.     |  |

| EFFICIENCY CORRECTION                                     |    |   |  |  |
|---|----|---|--|--|
| NUMBER OF BOWLS:  | 1  | 2 |  |  |
| CHANGE AS FOLLOWS:  | -2 | 0 |  |  |
| CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER. |    |   |  |  |

| PUMP MATERIAL EFFICIENCY CORRECTION |         |        |      |           |
|-------------------------------------|---------|--------|------|-----------|
|                                     | DUCTILE | BRONZE | NI-R | STAINLESS |
| IMPELLER MATERIAL:                  | -1      | 0      | -1   | -1        |
| BOWL MATERIAL:                      | -1      | -1     | -1   | -2        |

| FLANGED BOWL DATA       |               |
|-------------------------|---------------|
| BOWL NUMBER             | 0235          |
| BOWL MAX. DIAMETER      | 30.000 IN.    |
| BOWL MIN. DIAMETER      | 30.000 IN.    |
| MAX. NO. STAGES         | 5             |
| ONE STAGE WEIGHT        | 4500 LB.      |
| ADD STAGE WEIGHT        | 2000 LB.      |
| STD. SHAFT DIA.         | 3.250 IN.     |
| STD. LATERAL            | 1.375 IN.     |
| DISCHARGE SIZE          | N/A           |
| DISCHARGE CONNECTION    | BELL          |
| SUCTION BELL DIA.       | 33.250 IN.    |
| SUCTION CONNECTION      | BELL          |
| MAX. SPHERE SIZE        | 2.500 IN.     |
| MAX. OPERATIONAL P.S.I. | 250 (SPECIAL) |

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.