# NFPA 1901 RATING CHART

# QMAX/QMAX$^{XS}$ MIDSHIP PUMP WITH "LK, XK, RLK & RXK" GEARBOX

## RATED FROM 1000 GPM @ 150 PSI TO 2250 GPM @ 150 PSI

### SINGLE STAGE PUMP- 10.50" IMPELLER

E-1272D



MAXIMUM ELEVATION AT WHICH THE PUMP WILL PERFORM THE RATING WITH STANDARD TEST CONDITIONS OF 10 FT LIFT, 20 FT OF SUCTION HOSE & STRAINER. STANDARD TEST CONDITIONS AND MAXIMUM ELEVATION DO NOT INCLUDE TRUCK PIPING LOSSES.

| | | | |
|---|---|---|---|
| QMAX/QMAX$^{XS}$100 | 5 IN. HOSE, 7500 FEET (2285 M) | QMAX/QMAX$^{XS}$150 | 6 IN. HOSE, 3000 FEET (915 M) |
| QMAX/QMAX$^{XS}$100 | 6 IN. HOSE, 12500 FEET (3810 M) | QMAX/QMAX$^{XS}$150 | (2) 6 IN. HOSE, 9000 FEET (2740 M) |
| QMAX/QMAX$^{XS}$125 | 6 IN. HOSE, 7500 FEET (2285 M) | | |

MAXIMUM ELEVATION AT WHICH THE PUMP WILL PERFORM THE RATING WITH STANDARD TEST CONDITIONS OF 8 FT LIFT (QMAX175) - 6 FT LIFT (QMAX200 & QMAX225), 20 FT OF SUCTION HOSE & STRAINER. STANDARD TEST CONDITIONS AND MAXIMUM ELEVATION DO NOT INCLUDE TRUCK PIPING LOSSES.

| | | | |
|---|---|---|---|
| QMAX/QMAX$^{XS}$175 | (2) 6 IN. HOSE, 8000 FEET (2440 M) | QMAX/QMAX$^{XS}$225 | (3) 6 IN. HOSE, 7000 FEET (2130 M) |
| QMAX/QMAX$^{XS}$200 | (2) 6 IN. HOSE, 7000 FEET (2130 M) | | |

| RATED CAPACITY (US GPM) | CAPACITY (US GPM) | PRESSURE (PSIG) ** | HORSEPOWER REQUIRED | RATIO 2.30 | TORQUE (LBS-FT) | RATIO 2.04 | TORQUE (LBS-FT) | RATIO 1.89 | TORQUE (LBS-FT) | RATIO 1.71 | TORQUE (LBS-FT) | RATIO 1.60 | TORQUE (LBS-FT) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1000 | PUMP MODEL | | | QMAX100-23 | | QMAX100-21 | | QMAX100-19 | | QMAX100-17 | | QMAX100-16 | |
| | 1000 | 150 | 127 | 1420 | 470 | 1600 | 417 | 1730 | 386 | 1910 | 349 | 2040 | 327 |
| | 1000 | 165 | 141 | 1470 | 503 | 1660 | 445 | 1790 | 413 | 1980 | 373 | 2110 | 350 |
| | 700 | 200 | 142 | 1550 | 480 | 1750 | 426 | 1890 | 394 | 2090 | 356 | 2230 | 334 |
| | 500 | 250 | 164 | 1720 | 501 | 1940 | 445 | 2090 | 413 | 2310 | 373 | 2470 | 349 |
| 1250 | PUMP MODEL | | | QMAX125-23 | | QMAX125-21 | | QMAX125-19 | | QMAX125-17 | | QMAX125-16 | |
| | 1250 | 150 | 152 | 1420 | 562 | 1600 | 499 | 1730 | 461 | 1910 | 418 | 2040 | 391 |
| | 1250 | 165 | 166 | 1470 | 594 | 1660 | 526 | 1790 | 488 | 1980 | 441 | 2110 | 414 |
| | 875 | 200 | 159 | 1550 | 539 | 1750 | 478 | 1890 | 442 | 2090 | 400 | 2230 | 375 |
| | 625 | 250 | 180 | 1720 | 548 | 1940 | 486 | 2090 | 451 | 2310 | 408 | 2470 | 382 |
| 1500 | PUMP MODEL | | | QMAX150-23 | | QMAX150-21 | | QMAX150-19 | | QMAX150-17 | | QMAX150-16 | |
| | 1500 | 150 | 186 | 1480 | 659 | 1670 | 584 | 1800 | 542 | 1990 | 490 | 2130 | 458 |
| | 1500 | 165 | 203 | 1530 | 697 | 1730 | 616 | 1860 | 573 | 2060 | 518 | 2200 | 485 |
| | 1050 | 200 | 180 | 1580 | 597 | 1780 | 530 | 1930 | 489 | 2130 | 443 | 2270 | 415 |
| | 750 | 250 | 195 | 1720 | 595 | 1940 | 527 | 2090 | 490 | 2310 | 443 | 2470 | 414 |
| 1750 | PUMP MODEL | | | QMAX175-23 | | QMAX175-21 | | QMAX175-19 | | QMAX175-17 | | QMAX175-16 | |
| | 1750 | 150 | 205 | 1500 | 718 | 1690 | 637 | 1830 | 588 | 2020 | 533 | 2150 | 501 |
| | 1750 | 165 | 226 | 1560 | 761 | 1760 | 674 | 1900 | 625 | 2100 | 565 | 2240 | 530 |
| | 1225 | 200 | 196 | 1580 | 651 | 1780 | 578 | 1930 | 533 | 2130 | 483 | 2270 | 453 |
| | 875 | 250 | 203 | 1720 | 620 | 1940 | 550 | 2090 | 510 | 2310 | 461 | 2470 | 432 |
| 2000 | PUMP MODEL | | | QMAX200-23 | | QMAX200-21 | | QMAX200-19 | | QMAX200-17 | | QMAX200-16 | |
| | 2000 | 150 | 240 | 1550 | 812 | 1750 | 719 | 1890 | 666 | 2090 | 602 | 2230 | 565 |
| | 2000 | 165 | 262 | 1600 | 860 | 1800 | 765 | 1950 | 706 | 2150 | 640 | 2300 | 599 |
| | 1400 | 200 | 217 | 1600 | 713 | 1800 | 634 | 1950 | 585 | 2150 | 531 | 2300 | 496 |
| | 1000 | 250 | 220 | 1720 | 673 | 1940 | 596 | 2090 | 554 | 2310 | 501 | 2470 | 468 |
| 2250 | PUMP MODEL | | | QMAX225-23 | | QMAX225-21 | | QMAX225-19 | | QMAX225-17 | | QMAX225-16 | |
| | 2250 | 150 | 286 | 1630 | 920 | 1840 | 815 | 1980 | 758 | 2190 | 685 | 2340 | 641 |
| | 2250 | 165 | 298 | 1690 | 926 | 1910 | 819 | 2060 | 759 | 2270 | 689 | 2430 | 644 |
| | 1575 | 200 | 250 | 1660 | 791 | 1870 | 702 | 2020 | 650 | 2230 | 589 | 2390 | 549 |
| | 1125 | 250 | 250 | 1730 | 759 | 1950 | 673 | 2110 | 622 | 2330 | 563 | 2490 | 527 |
| HIGH PRESSURE *** | 200 | 350 | 210 | 1980 | 557 | 2240 | 493 | 2410 | 458 | 2670 | 413 | 2850 | 387 |
| | 60 | 400 | 250 | 2110 | 523 | 2380 | 464 | 2570 | 429 | 2840 | 389 | 3040 | 363 |

* ENGINE SPEED MUST NOT EXCEED MFR'S MAXIMUM NO-LOAD GOVERNED SPEED.
** GAUGE PRESSURE DOES NOT INCLUDE LIFT OR SUCTION LOSSES.
*** THE PUMP IS CAPABLE OF THE HIGH PRESSURE PERFORMANCE SHOWN. ACTUAL OBTAINABLE PRESSURE SHOULD BE CHECKED IN ADVANCE, AND IS GOVERNED BY THE ENGINE SPEED, AVAILABLE HORSEPOWER, AND PUMP RATIO.

THIS CHART IS TO BE USED TO SELECT THE PROPER PUMP GEARBOX RATIO. THE INPUT SPEED AND HORSEPOWER REQUIREMENTS SHOWN ARE NOMINAL ±5% FIGURES. WHEN USING THIS CHART, IT IS IMPORTANT TO OBTAIN THE NET HORSEPOWER OUTPUT OF THE ENGINE. THE ENGINE MANUFACTURER'S PUBLISHED CURVE MAY NOT REPRESENT A TRUE NET HORSEPOWER WHEN TOTALING ALL THE POWER DEDUCTIONS THAT MAY BE ENCOUNTERED FOR THE RATING. THE DEDUCTIONS COULD BE ENGINE AND VEHICLE ACCESSORIES, ELEVATION, TEMPERATURE, BAROMETER, ETC. CHECK WITH THE ENGINE MANUFACTURER FOR THEIR RECOMMENDATION AND APPROVAL OF THE NET HORSEPOWER CURVE.

FOR ROAD OPERATION, ENGINE TORQUE ON PUMP DRIVE LINE SHOULD BE CHECKED PER HALE FORM F-72. THE PUMPING TORQUE REQUIREMENTS MIGHT EXCEED THE TRUCK'S TRANSMISSION CASE, POWER TAKE-OFF AND DRIVELINE COMPONENT LIMITS. CONTACT THE RESPECTIVE EQUIPMENT MANUFACTURER FOR THEIR APPROVAL OF THE PUMPING APPLICATION.

****PUMP IS CAPABLE OF MAXIMUM ELEVATION LISTED WITH SPECIFIC CONFIGURATION AND ACCESSORIES.

HALE PRODUCTS, INC.
A Unit of IDEX Corporation
Ocala, FL 34475 USA

SCALE NONE
SIZE A
DATE 03/26/2008
DRAWN MLJ
APRVD MAL

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| REV | ECN NO. | CHANGED FROM | BY | DATE | APVD |
|---|---|---|---|---|---|
| C | CFL3159 | REDRAWN; ADDED QMAX-XS | JRP | 10/23/2013 | JRP |
| D | 5102 | REMOVED 2.5 RATIO OPTION | DMB | 4/7/2020 | JS2 |

E-1272D