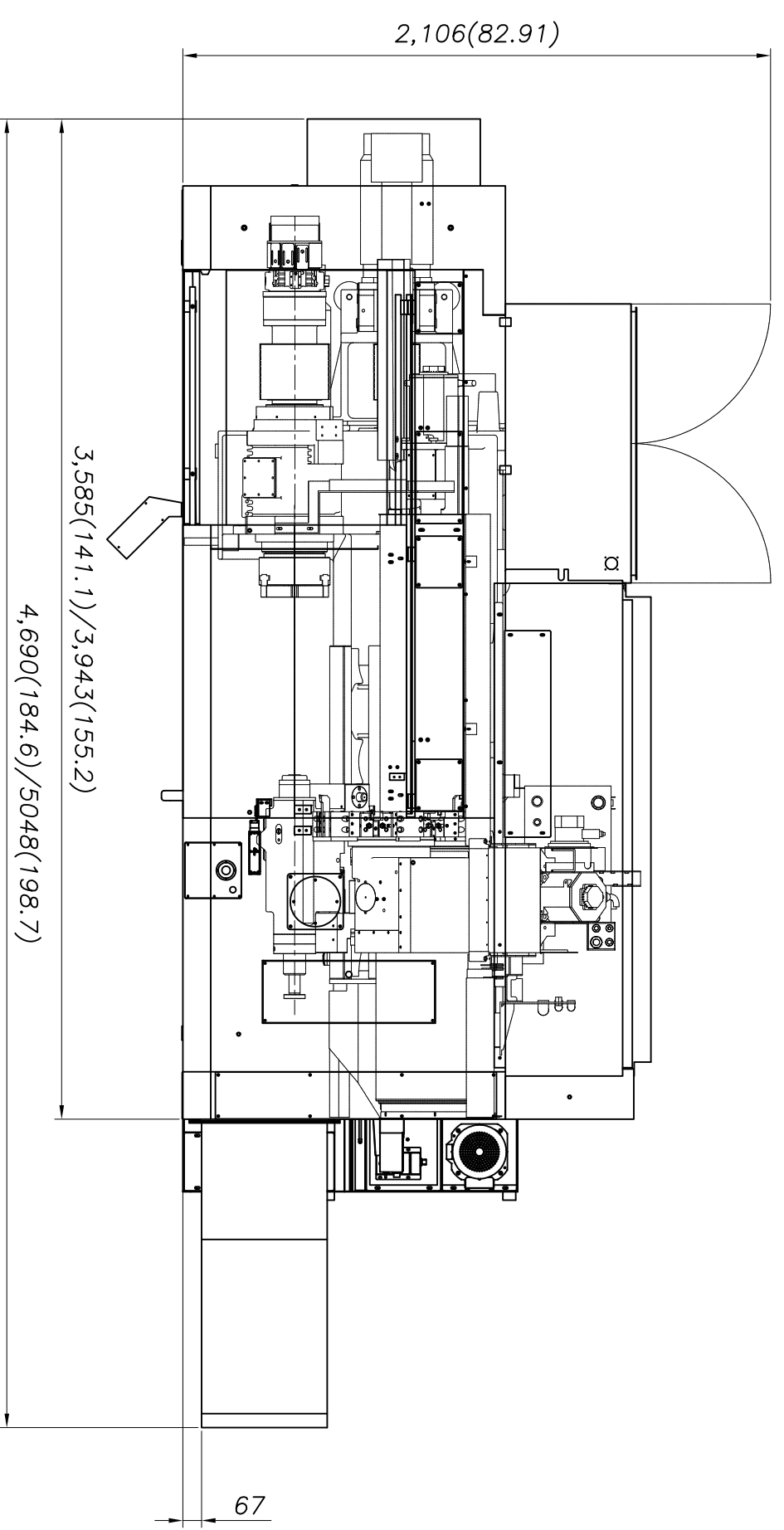
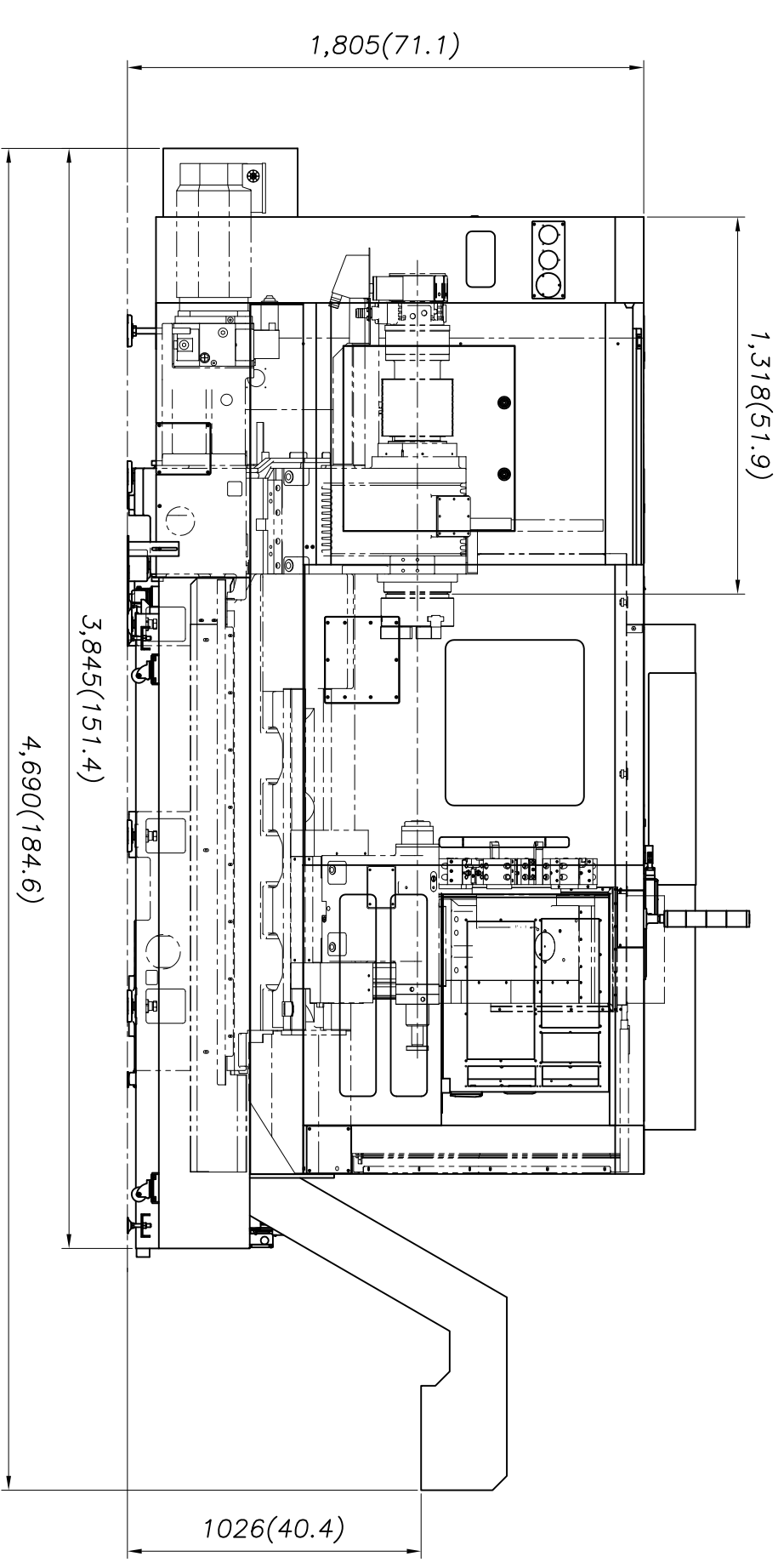
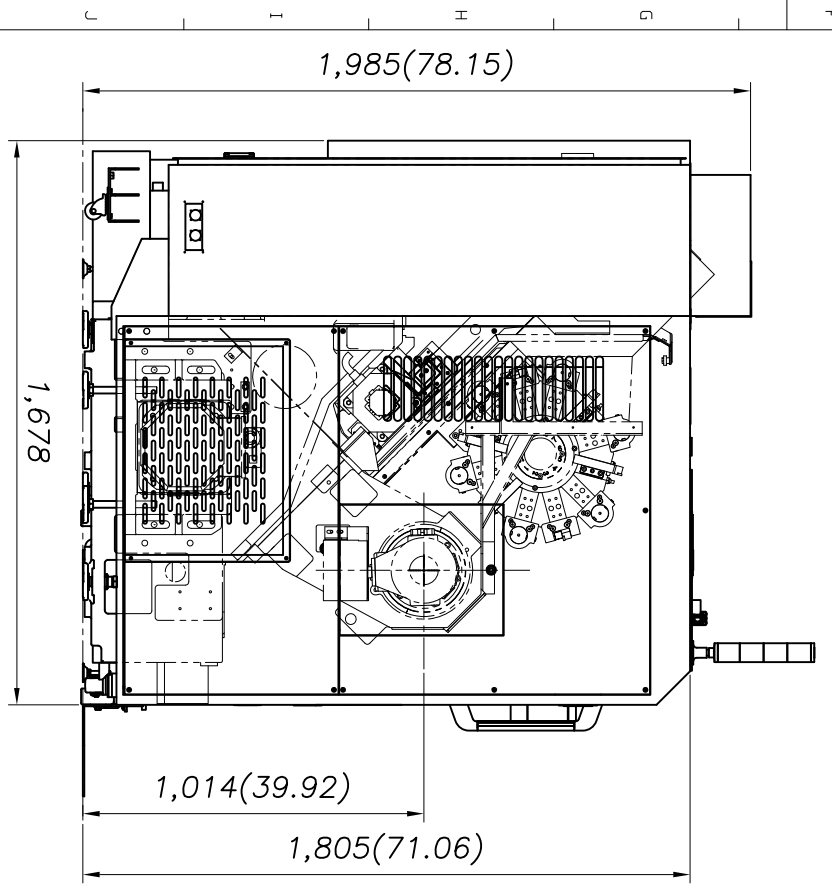


SMART
MACHINE TOOL

NL2500(M)

**Installation
Packet**



| | | | | | | | | | | |
|------|----------|------|-------|-------|------|-------|------|-------|------|----------------|
| MARK | REVISION | DATE | REV'D | CHE'D | DATE | DES'D | DATE | APP'D | DATE | UNIT ASS'Y |
| | | | | | | | | | | NL2500 LAY-OUT |
| | | | | | | | | | | NL2500 LAY-OUT |
| | | | | | | | | | | N2500001A00 |

| | | | | | |
|-------|---------------|---|----------------|------------|-----|
| APP'D | J. W. SHIN | GENERAL TOLERANCE | HEAT TREATMENT | SCALE | 1/1 |
| REV'D | | 0.3 - 0.1 | | UNIT ASS'Y | |
| CHE'D | | 6 - 0.1 | | NL2500 | |
| DES'D | J. S. PARK | 30 - 120 ± 0.2 | | | |
| | CHANG & CHUNG | 120 - 315 ± 0.2 | | | |
| | | 315 - 1000 ± 0.5 | | | |
| | | 1000 - 2000 ± 1.2 | | | |
| | | 2000 - 5000 ± 3.0 | | | |
| | | 5000 - 10000 ± 6.0 | | | |
| | | 10000 - 20000 ± 12 | | | |
| | | 20000 - 50000 ± 25 | | | |
| | | 50000 - 100000 ± 50 | | | |
| | | 100000 - 200000 ± 100 | | | |
| | | 200000 - 500000 ± 200 | | | |
| | | 500000 - 1000000 ± 400 | | | |
| | | 1000000 - 2000000 ± 800 | | | |
| | | 2000000 - 5000000 ± 1600 | | | |
| | | 5000000 - 10000000 ± 3200 | | | |
| | | 10000000 - 20000000 ± 6400 | | | |
| | | 20000000 - 50000000 ± 12800 | | | |
| | | 50000000 - 100000000 ± 25600 | | | |
| | | 100000000 - 200000000 ± 51200 | | | |
| | | 200000000 - 500000000 ± 102400 | | | |
| | | 500000000 - 1000000000 ± 204800 | | | |
| | | 1000000000 - 2000000000 ± 409600 | | | |
| | | 2000000000 - 5000000000 ± 819200 | | | |
| | | 5000000000 - 10000000000 ± 1638400 | | | |
| | | 10000000000 - 20000000000 ± 3276800 | | | |
| | | 20000000000 - 50000000000 ± 6553600 | | | |
| | | 50000000000 - 100000000000 ± 13107200 | | | |
| | | 100000000000 - 200000000000 ± 26214400 | | | |
| | | 200000000000 - 500000000000 ± 52428800 | | | |
| | | 500000000000 - 1000000000000 ± 104857600 | | | |
| | | 1000000000000 - 2000000000000 ± 209715200 | | | |
| | | 2000000000000 - 5000000000000 ± 419430400 | | | |
| | | 5000000000000 - 10000000000000 ± 838860800 | | | |
| | | 10000000000000 - 20000000000000 ± 1677721600 | | | |
| | | 20000000000000 - 50000000000000 ± 3355443200 | | | |
| | | 50000000000000 - 100000000000000 ± 6710886400 | | | |
| | | 100000000000000 - 200000000000000 ± 13421772800 | | | |
| | | 200000000000000 - 500000000000000 ± 26843545600 | | | |
| | | 500000000000000 - 1000000000000000 ± 53687091200 | | | |
| | | 1000000000000000 - 2000000000000000 ± 107374182400 | | | |
| | | 2000000000000000 - 5000000000000000 ± 214748364800 | | | |
| | | 5000000000000000 - 10000000000000000 ± 429496729600 | | | |
| | | 10000000000000000 - 20000000000000000 ± 858993459200 | | | |
| | | 20000000000000000 - 50000000000000000 ± 1717986918400 | | | |
| | | 50000000000000000 - 100000000000000000 ± 3435973836800 | | | |
| | | 100000000000000000 - 200000000000000000 ± 6871947673600 | | | |
| | | 200000000000000000 - 500000000000000000 ± 13743895347200 | | | |
| | | 500000000000000000 - 1000000000000000000 ± 27487790694400 | | | |
| | | 1000000000000000000 - 2000000000000000000 ± 54975581388800 | | | |
| | | 2000000000000000000 - 5000000000000000000 ± 109951162777600 | | | |
| | | 5000000000000000000 - 10000000000000000000 ± 219902325555200 | | | |
| | | 10000000000000000000 - 20000000000000000000 ± 439804651110400 | | | |
| | | 20000000000000000000 - 50000000000000000000 ± 879609302220800 | | | |
| | | 50000000000000000000 - 100000000000000000000 ± 1759218604441600 | | | |
| | | 100000000000000000000 - 200000000000000000000 ± 3518437208883200 | | | |
| | | 200000000000000000000 - 500000000000000000000 ± 7036874417766400 | | | |
| | | 500000000000000000000 - 1000000000000000000000 ± 14073748835532800 | | | |
| | | 1000000000000000000000 - 2000000000000000000000 ± 28147497671065600 | | | |
| | | 2000000000000000000000 - 5000000000000000000000 ± 56294995342131200 | | | |
| | | 5000000000000000000000 - 10000000000000000000000 ± 112589990684262400 | | | |
| | | 10000000000000000000000 - 20000000000000000000000 ± 225179981368524800 | | | |
| | | 20000000000000000000000 - 50000000000000000000000 ± 450359962737049600 | | | |
| | | 50000000000000000000000 - 100000000000000000000000 ± 900719925474099200 | | | |
| | | 100000000000000000000000 - 200000000000000000000000 ± 1801439850948198400 | | | |
| | | 200000000000000000000000 - 500000000000000000000000 ± 3602879701896396800 | | | |
| | | 500000000000000000000000 - 1000000000000000000000000 ± 7205759403792793600 | | | |
| | | 1000000000000000000000000 - 2000000000000000000000000 ± 14411518807585587200 | | | |
| | | 2000000000000000000000000 - 5000000000000000000000000 ± 28823037615171174400 | | | |
| | | 5000000000000000000000000 - 10000000000000000000000000 ± 57646075230342348800 | | | |
| | | 10000000000000000000000000 - 20000000000000000000000000 ± 115292150460684697600 | | | |
| | | 20000000000000000000000000 - 50000000000000000000000000 ± 230584300921369395200 | | | |
| | | 50000000000000000000000000 - 100000000000000000000000000 ± 461168601842738790400 | | | |
| | | 100000000000000000000000000 - 200000000000000000000000000 ± 922337203685477580800 | | | |
| | | 200000000000000000000000000 - 500000000000000000000000000 ± 1844674407370955161600 | | | |
| | | 500000000000000000000000000 - 1000000000000000000000000000 ± 3689348814741910323200 | | | |
| | | 1000000000000000000000000000 - 2000000000000000000000000000 ± 7378697629483820646400 | | | |
| | | 2000000000000000000000000000 - 5000000000000000000000000000 ± 14757395258967641292800 | | | |
| | | 5000000000000000000000000000 - 10000000000000000000000000000 ± 29514790517935282585600 | | | |
| | | 10000000000000000000000000000 - 20000000000000000000000000000 ± 59029581035870565171200 | | | |
| | | 20000000000000000000000000000 - 50000000000000000000000000000 ± 118059162071741130342400 | | | |
| | | 50000000000000000000000000000 - 100000000000000000000000000000 ± 236118324143482260684800 | | | |
| | | 100000000000000000000000000000 - 200000000000000000000000000000 ± 472236648286964521369600 | | | |
| | | 200000000000000000000000000000 - 500000000000000000000000000000 ± 944473296573929042739200 | | | |
| | | 500000000000000000000000000000 - 1000000000000000000000000000000 ± 1888946593147858085478400 | | | |
| | | 1000000000000000000000000000000 - 2000000000000000000000000000000 ± 3777893186295716170956800 | | | |
| | | 2000000000000000000000000000000 - 5000000000000000000000000000000 ± 7555786372591432341913600 | | | |
| | | 5000000000000000000000000000000 - 10000000000000000000000000000000 ± 15111572745182864683827200 | | | |
| | | 10000000000000000000000000000000 - 20000000000000000000000000000000 ± 30223145490365729367654400 | | | |
| | | 20000000000000000000000000000000 - 50000000000000000000000000000000 ± 60446290980731458735308800 | | | |
| | | 50000000000000000000000000000000 - 100000000000000000000000000000000 ± 120892581961462917470617600 | | | |
| | | 100000000000000000000000000000000 - 200000000000000000000000000000000 ± 241785163922925834941235200 | | | |
| | | 200000000000000000000000000000000 - 500000000000000000000000000000000 ± 483570327845851669882470400 | | | |
| | | 500000000000000000000000000000000 - 1000000000000000000000000000000000 ± 967140655691703339764940800 | | | |
| | | 1000000000000000000000000000000000 - 2000000000000000000000000000000000 ± 1934281311383406679529881600 | | | |
| | | 2000000000000000000000000000000000 - 5000000000000000000000000000000000 ± 3868562622766813359059763200 | | | |
| | | 5000000000000000000000000000000000 - 10000000000000000000000000000000000 ± 7737125245533626718119526400 | | | |
| | | 10000000000000000000000000000000000 - 20000000000000000000000000000000000 ± 15474250491067253436239052800 | | | |
| | | 20000000000000000000000000000000000 - 50000000000000000000000000000000000 ± 30948500982134506872478105600 | | | |
| | | 50000000000000000000000000000000000 - 100000000000000000000000000000000000 ± 61897001964269013744956211200 | | | |
| | | 100000000000000000000000000000000000 - 200000000000000000000000000000000000 ± 123794003928538027489912422400 | | | |
| | | 200000000000000000000000000000000000 - 500000000000000000000000000000000000 ± 247588007857076054979824844800 | | | |
| | | 500000000000000000000000000000000000 - 1000000000000000000000000000000000000 ± 495176015714152109959649689600 | | | |
| | | 1000000000000000000000000000000000000 - 2000000000000000000000000000000000000 ± 990352031428304219919399379200 | | | |
| | | 2000000000000000000000000000000000000 - 5000000000000000000000000000000000000 ± 1980704062856608439838798758400 | | | |
| | | 5000000000000000000000000000000000000 - 10000000000000000000000000000000000000 ± 3961408125713216879677597516800 | | | |
| | | 10000000000000000000000000000000000000 - 20000000000000000000000000000000000000 ± 7922816251426433759355195033600 | | | |
| | | 20000000000000000000000000000000000000 - 50000000000000000000000000000000000000 ± 15845632502852867518710390067200 | | | |
| | | 50000000000000000000000000000000000000 - 100000000000000000000000000000000000000 ± 31691265005705735037420780134400 | | | |
| | | 100000000000000000000000000000000000000 - 200000000000000000000000000000000000000 ± 63382530011411470074841560268800 | | | |
| | | 200000000000000000000000000000000000000 - 500000000000000000000000000000000000000 ± 126765060022822940149683120537600 | | | |
| | | 50000000000000000 | | | |

| MACHINE MODEL | KVA | AMPS @ 220V | AMPS @480V | Coolant | Slideways | Hyd. Unit | Transmission | Chuck | Oil for Air | Chiller oil |
|---------------|-----|-------------|------------|---------|----------------|--------------|-----------------|--------------|-------------|-------------|
| NL150/200/250 | 31 | 82 | 37 | 48 | .79 gal | 5.3 gal | n/a | .2 oz daily | N/A | N/A |
| NL1500(M) | 31 | 82 | 37 | 48 | .79 gal | 5.3 gal | n/a | .2 oz daily | .6 oz | N/A |
| NL2000(M) | 31 | 82 | 37 | 48 | .79 gal | 5.3 gal | n/a | .2 oz daily | .6 oz | N/A |
| NL2000A/B/S/Y | 40 | 105 | 48 | 60 | .79 gal | 5.3 gal | n/a | .2 oz daily | .6 oz | 4 gal |
| NL2500SY | 50 | 131 | 60 | 60 | .79 gal | 5.3 gal | n/a | .2 oz daily | .6 oz | 4 gal |
| NL2500S | 40 | 105 | 48 | 48 | .79 gal | 5.3 gal | 0.75 | .2 oz daily | .6 oz | N/A |
| NL2500(M) | 40 | 105 | 48 | 53 | .79 gal | 5.3 gal | 0.75 | .2 oz daily | .6 oz | N/A |
| NL2500/1100 | 40 | 105 | 48 | 63 | .79 gal | 5.3 gal | 0.75 | .2 oz daily | N/A | N/A |
| NL3000(M) | 40 | 105 | 48 | 63 | .79 gal | 5.3 gal | 0.75 | .2 oz daily | N/A | N/A |
| NL3500BY | 55 | 144 | 66 | 101 | .79 gal | 6.6 | n/a | .2 oz daily | N/A | N/A |
| NL4000(M) | 55 | 144 | 66 | 63 | .79 gal | 6.4 gal | 0.75 | .2 oz daily | N/A | N/A |
| NL5000(M) | 55 | 144 | 66 | 63 | .79 gal | 6.4 gal | 0.75 | .2 oz daily | N/A | N/A |
| NL5000L(M) | 65 | 170 | 78 | 130 | .79 gal | 6.4 gal | 0.75 | .2 oz daily | N/A | N/A |
| NL6000(M) | 65 | 170 | 78 | 105 | .79 gal | 15 gal | 0.75 | .2 oz daily | N/A | N/A |
| NL6000L(M) | 65 | 170 | 78 | 150 | .79 gal | 15 gal | 0.75 | .2 oz daily | N/A | N/A |
| NL6000XL(M) | 65 | 170 | 78 | 180 | .79 gal | 15 gal | 0.75 | .2 oz daily | N/A | N/A |
| NL7000L(M) | 65 | 170 | 78 | 150 | .79 gal | 15 gal | 2 gal | .2 oz daily | N/A | N/A |
| NL7000XL(M) | 65 | 170 | 78 | 180 | .79 gal | 15 gal | 2 gal | .2 oz daily | N/A | N/A |
| | | | | | | | | | | |
| | | | | | Shell Oil T68 | | Mobil Oil Light | | | |
| | | | | | Mobil Vactra#2 | Mobil DTE 24 | ISO VG 32 | SW10 | DTE Ligh | Velocity 6 |
| | | | | | check daily | check daily | check daily | grease daily | check daily | Check Daily |

Air requirements: 80-100 psi, 5-10 CFM

Coolant only fluid required at install

Voltage : 220V +/- 10% (480V requires transformer)

MACHINE PACKING INFORMATION

| MODEL | DESCRIPTION | PACKING DIMENSION (FT) | CBM | LBS NET WEIGHT | LB GROSS WEIGHT |
|-------------|--------------|------------------------------|-------|----------------|-----------------|
| NL2500/750 | MACHINE + CC | 16.73(L) x 7.55(W) x 7.38(H) | 26.39 | 12,569 | 14,024 |
| NL2500M/750 | MACHINE + CC | 16.73(L) x 7.55(W) x 7.38(H) | 26.39 | 13,010 | 14,465 |

