

SMART
MACHINE TOOL

NL 150

**Installation
Packet**

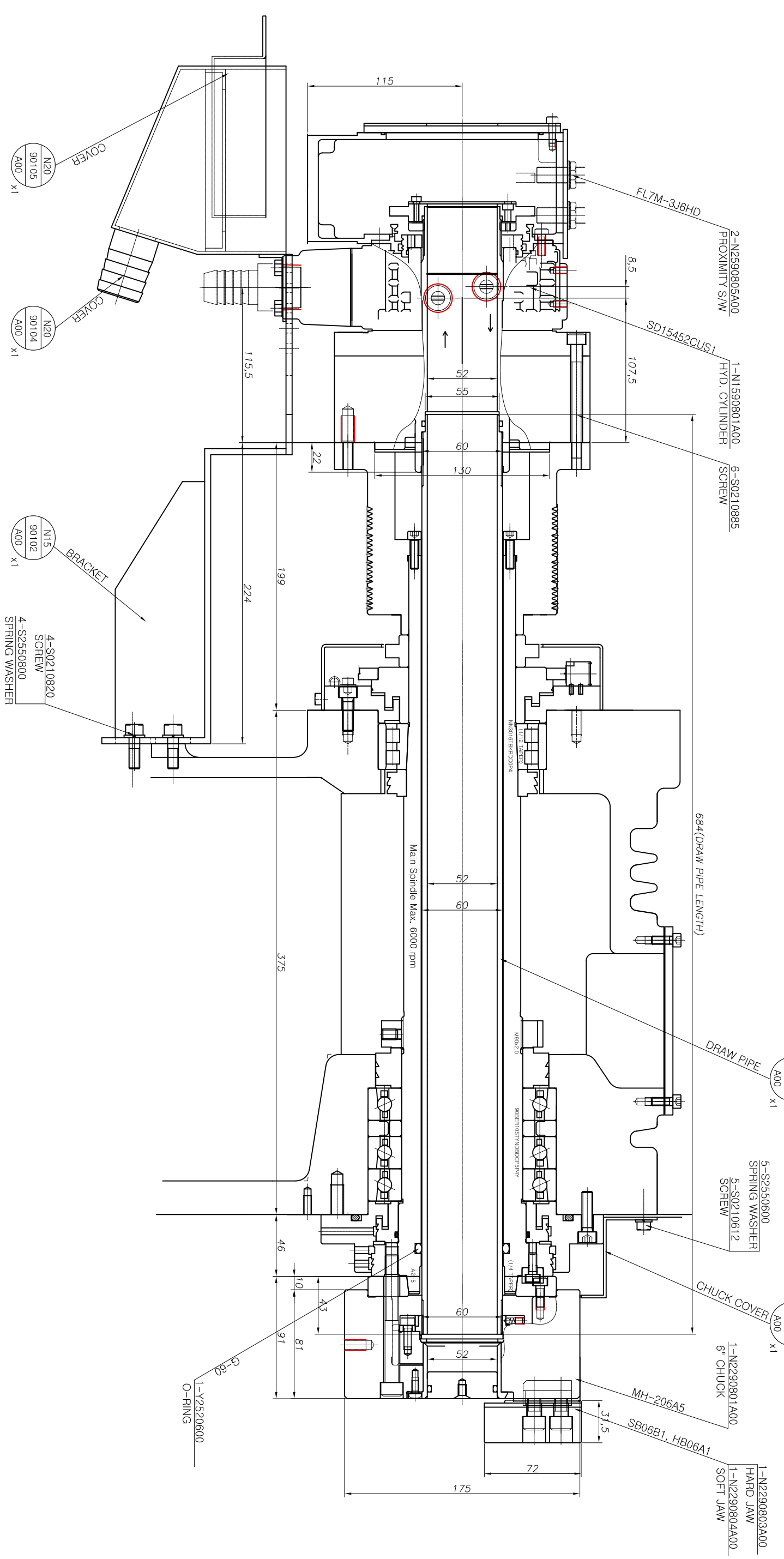
| MACHINE MODEL | KVA | AMPS @ 220 | Coolant | Slideways | Hyd. Unit | Transmission | Chuck | Oil for Air |
|---------------|-----|---------------|---------|---------------|-------------|-----------------|--------------|-------------|
| NL150/200/250 | 31 | 82 | 48 | .79 gal | 5.3 gal | n/a | .2 oz daily | N/A |
| NL2000(M) | 31 | 82 | 48 | .79 gal | 5.3 gal | n/a | .2 oz daily | .6 oz |
| NL2500(M) | 40 | 105 | 53 | .79 gal | 5.3 gal | 0.75 | .2 oz daily | .6 oz |
| NL3000(M) | 40 | 105 | 63 | .79 gal | 5.3 gal | 0.75 | .2 oz daily | N/A |
| NL4000(M) | 55 | 144 | 63 | .79 gal | 6.4 gal | 0.75 | .2 oz daily | N/A |
| NL5000(M) | 55 | 144 | 63 | .79 gal | 6.4 gal | 0.75 | .2 oz daily | N/A |
| NL5000L(M) | 65 | 170 | 130 | .79 gal | 6.4 gal | 0.75 | .2 oz daily | N/A |
| NL6000(M) | 65 | 170 | 105 | .79 gal | 15 gal | 0.75 | .2 oz daily | N/A |
| NL6000L(M) | 65 | 170 | 150 | .79 gal | 15 gal | 0.75 | .2 oz daily | N/A |
| NL6000XL(M) | 65 | 170 | 180 | .79 gal | 15 gal | 0.75 | .2 oz daily | |
| NL7000L(M) | 65 | 170 | 150 | .79 gal | 15 gal | 2 gal | .2 oz daily | N/A |
| NL7000XL(M) | 65 | 170 | 180 | .79 gal | 15 gal | 2 gal | .2 oz daily | N/A |
| | | | | | | | | |
| | | | | Shell Oil T68 | Mobil DTE | Mobil Oil Light | | DTE Light |
| | | | | Mobil Vactra# | 24 | ISO VG 32 | grease daily | check daily |
| | | | | check daily | check daily | check daily | | |

Conestoga Trailers arranged by Walsh Logistics required for all machine shipments

| Model | Description | ESTIMATED PACKING | |
|---------------|--------------------|-------------------|--------------|
| | | (Size - FEET) | (Size - LBS) |
| NL150/200/250 | MACHINE + CONVEYOR | 13x7.5x7.5 | 10,500 |
| NL2000(M)(B) | MACHINE + CONVEYOR | 13x7.5x7.5 | 10,500 |
| NL2000SY | MACHINE + CONVEYOR | 17.5 x 7.6 x 8.1 | 14,330 |
| NL2500(M) | MACHINE + CONVEYOR | 16.7x7.6x7.4 | 13,900 |
| NL3000(M) | MACHINE + CONVEYOR | 16.7x7.6x7.4 | 14,500 |
| NL3000L(M) | MACHINE + CONVEYOR | 19.5x7.6x7.4 | 16,800 |
| NL4000(M) | MACHINE | 16x7.5x8 | 25,000 |
| NL4000(M) | CHIP CONVEYOR | 14x3.1x5 | 1,925 |
| NL5000(M) | MACHINE | 16x7.5x8 | 25,500 |
| NL5000(M) | CHIP CONVEYOR | 14x3.1x5 | 1,925 |
| NL5000L(M) | MACHINE | 20x7.5x8 | 32,000 |
| NL5000L(M) | CHIP CONVEYOR | 18x3.1x5 | 2,500 |
| NL6000(M) | MACHINE | 18.7x7.5x8.4 | 35,250 |
| NL6000(M) | CHIP CONVEYOR | 15.9x7.5x5.75 | 2,350 |
| NL6000L(M) | MACHINE | 21x7.5x8.5 | 40,000 |
| NL6000L(M) | CHIP CONVEYOR | 18.2x7.5x5.75 | 4,000 |
| NL6000XL(M) | MACHINE | 26x7.5x8.5 | 50,000 |
| NL6000XL(M) | CHIP CONVEYOR | 22.5x7.5x5.75 | 5,500 |
| NL7000L(M) | MACHINE | | |
| NL7000XL(M) | MACHINE | | |

| SPECIFICATION | |
|-----------------------------------|-------------------------|
| CYLINDER INSIDE DIAMETER | 156 |
| PISTON STROKE | 25 mm |
| PISTON THRUST (PUSH) | 67 kN (6800 kgf) |
| PISTON THRUST (PULL) | 63kN (6400kgf) |
| Pressure 4.5MPa (45bar) | |
| Max. pressure | 4.5 MPa (45bar) |
| Max. speed | 6200 rpm |
| Weight | 14 kg |
| Moment of inertia | 0.045 kg·m ² |
| Oil leakage ISO VG:32, 50, 30 bar | 3.0 liter/min |

| SPECIFICATION | |
|----------------------|--------------------------|
| PLUNGER STROKE | 14 mm |
| JAW STROKE (안정) | 6.4 mm |
| PLUNGER 推올출력 | 2.551kNf (247N) |
| 안정 推올력 | 5.612kNf (57N) |
| 최고 推올속도 | 6,000.00rpm |
| WEIGHT (SOFT JAW 부착) | 13.5kgf |
| 최고 회전속도 (안정력) | 0.061 kgf/m ² |
| 가동 CYLINDER | 1.937 kg |
| 가동 CYLINDER | SD-15452 |
| 최대 推올 力인력 | 18.1 kg/cm ² |



| APP'D | GENERAL TOLERANCE | HEAT TREATMENT | UNIT ASS'Y |
|-------|---------------------------------------------------------------------------------------|----------------|--------------------|
| REV'D | 0.3 - 0.1 | | SMTK |
| CHE'D | 6 - 0.1 | | CHUCKING |
| DES'D | 30 - 120 ± 0.2 | | HOLLOW CHUCK ASS'Y |
| | 120 - 315 ± 0.3 | | |
| | 315 - 1000 ± 0.5 | | |
| | 1000 - 2000 ± 1.2 | | |
| | 2000 - 5000 ± 2.0 | | |
| | 5000 - 10000 ± 3.0 | | |
| | 10000 - 20000 ± 4.0 | | |
| | 20000 - 50000 ± 5.0 | | |
| | 50000 - 100000 ± 6.0 | | |
| | 100000 - 200000 ± 7.0 | | |
| | 200000 - 500000 ± 8.0 | | |
| | 500000 - 1000000 ± 9.0 | | |
| | 1000000 - 2000000 ± 10.0 | | |
| | 2000000 - 5000000 ± 11.0 | | |
| | 5000000 - 10000000 ± 12.0 | | |
| | 10000000 - 20000000 ± 13.0 | | |
| | 20000000 - 50000000 ± 14.0 | | |
| | 50000000 - 100000000 ± 15.0 | | |
| | 100000000 - 200000000 ± 16.0 | | |
| | 200000000 - 500000000 ± 17.0 | | |
| | 500000000 - 1000000000 ± 18.0 | | |
| | 1000000000 - 2000000000 ± 19.0 | | |
| | 2000000000 - 5000000000 ± 20.0 | | |
| | 5000000000 - 10000000000 ± 21.0 | | |
| | 10000000000 - 20000000000 ± 22.0 | | |
| | 20000000000 - 50000000000 ± 23.0 | | |
| | 50000000000 - 100000000000 ± 24.0 | | |
| | 100000000000 - 200000000000 ± 25.0 | | |
| | 200000000000 - 500000000000 ± 26.0 | | |
| | 500000000000 - 1000000000000 ± 27.0 | | |
| | 1000000000000 - 2000000000000 ± 28.0 | | |
| | 2000000000000 - 5000000000000 ± 29.0 | | |
| | 5000000000000 - 10000000000000 ± 30.0 | | |
| | 10000000000000 - 20000000000000 ± 31.0 | | |
| | 20000000000000 - 50000000000000 ± 32.0 | | |
| | 50000000000000 - 100000000000000 ± 33.0 | | |
| | 100000000000000 - 200000000000000 ± 34.0 | | |
| | 200000000000000 - 500000000000000 ± 35.0 | | |
| | 500000000000000 - 1000000000000000 ± 36.0 | | |
| | 1000000000000000 - 2000000000000000 ± 37.0 | | |
| | 2000000000000000 - 5000000000000000 ± 38.0 | | |
| | 5000000000000000 - 10000000000000000 ± 39.0 | | |
| | 10000000000000000 - 20000000000000000 ± 40.0 | | |
| | 20000000000000000 - 50000000000000000 ± 41.0 | | |
| | 50000000000000000 - 100000000000000000 ± 42.0 | | |
| | 100000000000000000 - 200000000000000000 ± 43.0 | | |
| | 200000000000000000 - 500000000000000000 ± 44.0 | | |
| | 500000000000000000 - 1000000000000000000 ± 45.0 | | |
| | 1000000000000000000 - 2000000000000000000 ± 46.0 | | |
| | 2000000000000000000 - 5000000000000000000 ± 47.0 | | |
| | 5000000000000000000 - 10000000000000000000 ± 48.0 | | |
| | 10000000000000000000 - 20000000000000000000 ± 49.0 | | |
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| | 50000000000000000000 - 100000000000000000000 ± 51.0 | | |
| | 100000000000000000000 - 200000000000000000000 ± 52.0 | | |
| | 200000000000000000000 - 500000000000000000000 ± 53.0 | | |
| | 500000000000000000000 - 1000000000000000000000 ± 54.0 | | |
| | 1000000000000000000000 - 2000000000000000000000 ± 55.0 | | |
| | 2000000000000000000000 - 5000000000000000000000 ± 56.0 | | |
| | 5000000000000000000000 - 10000000000000000000000 ± 57.0 | | |
| | 10000000000000000000000 - 20000000000000000000000 ± 58.0 | | |
| | 20000000000000000000000 - 50000000000000000000000 ± 59.0 | | |
| | 50000000000000000000000 - 100000000000000000000000 ± 60.0 | | |
| | 100000000000000000000000 - 200000000000000000000000 ± 61.0 | | |
| | 200000000000000000000000 - 500000000000000000000000 ± 62.0 | | |
| | 500000000000000000000000 - 1000000000000000000000000 ± 63.0 | | |
| | 1000000000000000000000000 - 2000000000000000000000000 ± 64.0 | | |
| | 2000000000000000000000000 - 5000000000000000000000000 ± 65.0 | | |
| | 5000000000000000000000000 - 10000000000000000000000000 ± 66.0 | | |
| | 10000000000000000000000000 - 20000000000000000000000000 ± 67.0 | | |
| | 20000000000000000000000000 - 50000000000000000000000000 ± 68.0 | | |
| | 50000000000000000000000000 - 100000000000000000000000000 ± 69.0 | | |
| | 100000000000000000000000000 - 200000000000000000000000000 ± 70.0 | | |
| | 200000000000000000000000000 - 500000000000000000000000000 ± 71.0 | | |
| | 500000000000000000000000000 - 1000000000000000000000000000 ± 72.0 | | |
| | 1000000000000000000000000000 - 2000000000000000000000000000 ± 73.0 | | |
| | 2000000000000000000000000000 - 5000000000000000000000000000 ± 74.0 | | |
| | 5000000000000000000000000000 - 10000000000000000000000000000 ± 75.0 | | |
| | 10000000000000000000000000000 - 20000000000000000000000000000 ± 76.0 | | |
| | 20000000000000000000000000000 - 50000000000000000000000000000 ± 77.0 | | |
| | 50000000000000000000000000000 - 100000000000000000000000000000 ± 78.0 | | |
| | 100000000000000000000000000000 - 200000000000000000000000000000 ± 79.0 | | |
| | 200000000000000000000000000000 - 500000000000000000000000000000 ± 80.0 | | |
| | 500000000000000000000000000000 - 1000000000000000000000000000000 ± 81.0 | | |
| | 1000000000000000000000000000000 - 2000000000000000000000000000000 ± 82.0 | | |
| | 2000000000000000000000000000000 - 5000000000000000000000000000000 ± 83.0 | | |
| | 5000000000000000000000000000000 - 10000000000000000000000000000000 ± 84.0 | | |
| | 10000000000000000000000000000000 - 20000000000000000000000000000000 ± 85.0 | | |
| | 20000000000000000000000000000000 - 50000000000000000000000000000000 ± 86.0 | | |
| | 50000000000000000000000000000000 - 100000000000000000000000000000000 ± 87.0 | | |
| | 100000000000000000000000000000000 - 200000000000000000000000000000000 ± 88.0 | | |
| | 200000000000000000000000000000000 - 500000000000000000000000000000000 ± 89.0 | | |
| | 500000000000000000000000000000000 - 1000000000000000000000000000000000 ± 90.0 | | |
| | 1000000000000000000000000000000000 - 2000000000000000000000000000000000 ± 91.0 | | |
| | 2000000000000000000000000000000000 - 5000000000000000000000000000000000 ± 92.0 | | |
| | 5000000000000000000000000000000000 - 10000000000000000000000000000000000 ± 93.0 | | |
| | 10000000000000000000000000000000000 - 20000000000000000000000000000000000 ± 94.0 | | |
| | 20000000000000000000000000000000000 - 50000000000000000000000000000000000 ± 95.0 | | |
| | 50000000000000000000000000000000000 - 100000000000000000000000000000000000 ± 96.0 | | |
| | 100000000000000000000000000000000000 - 200000000000000000000000000000000000 ± 97.0 | | |
| | 200000000000000000000000000000000000 - 500000000000000000000000000000000000 ± 98.0 | | |
| | 500000000000000000000000000000000000 - 1000000000000000000000000000000000000 ± 99.0 | | |
| | 1000000000000000000000000000000000000 - 2000000000000000000000000000000000000 ± 100.0 | | |