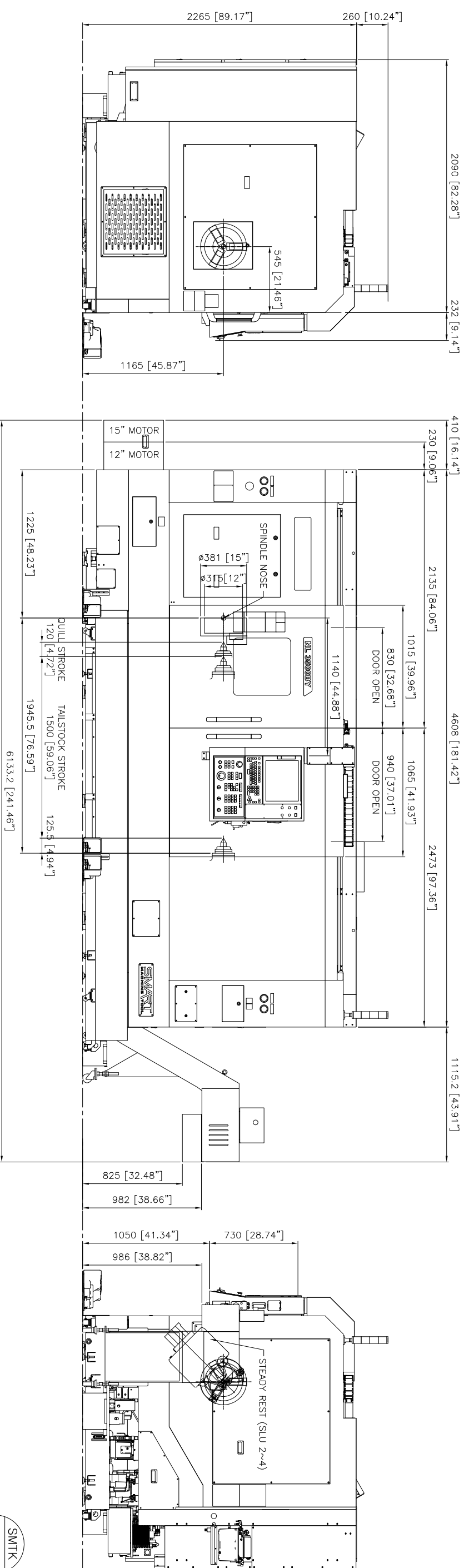
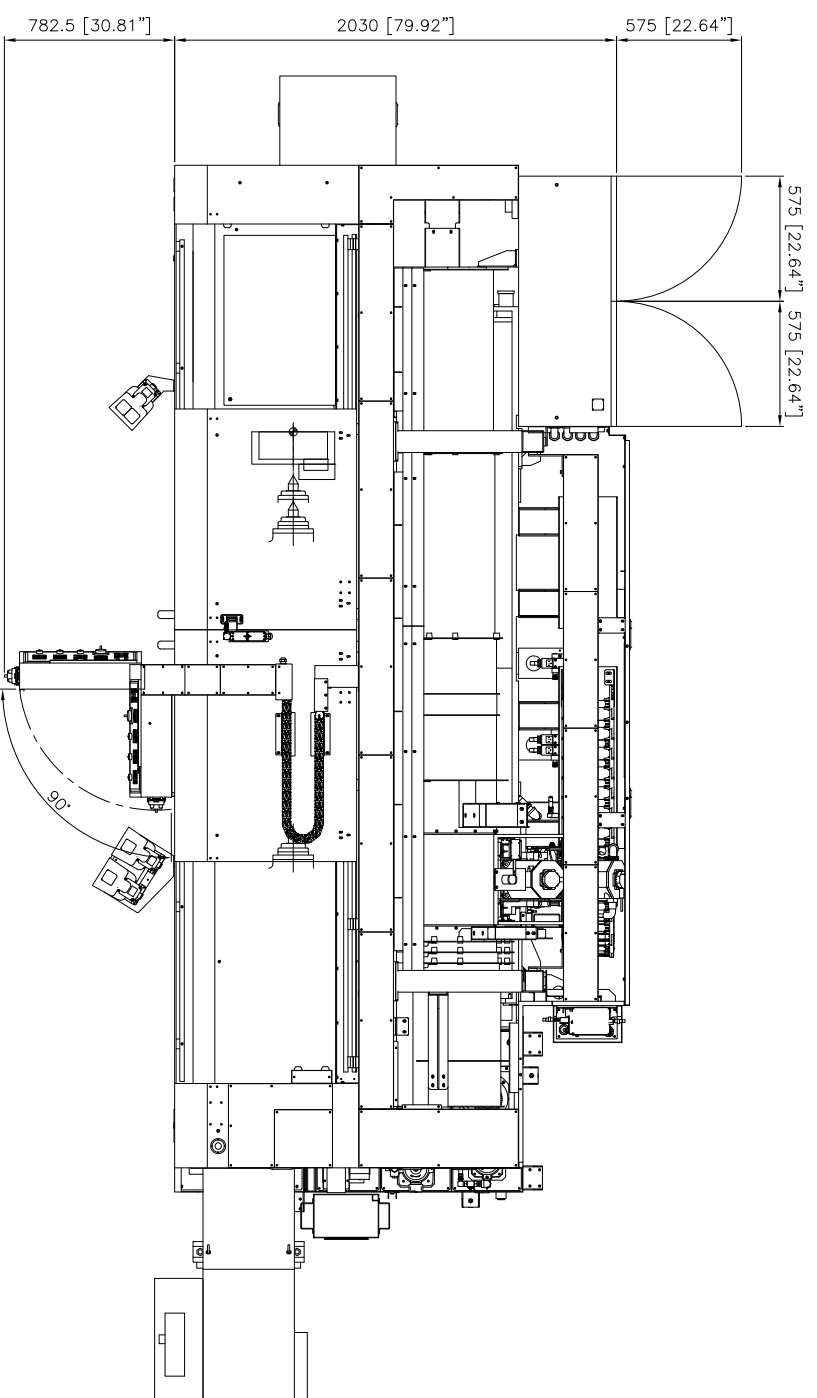


**SMART**  
MACHINE TOOL

**NL 3500BY**

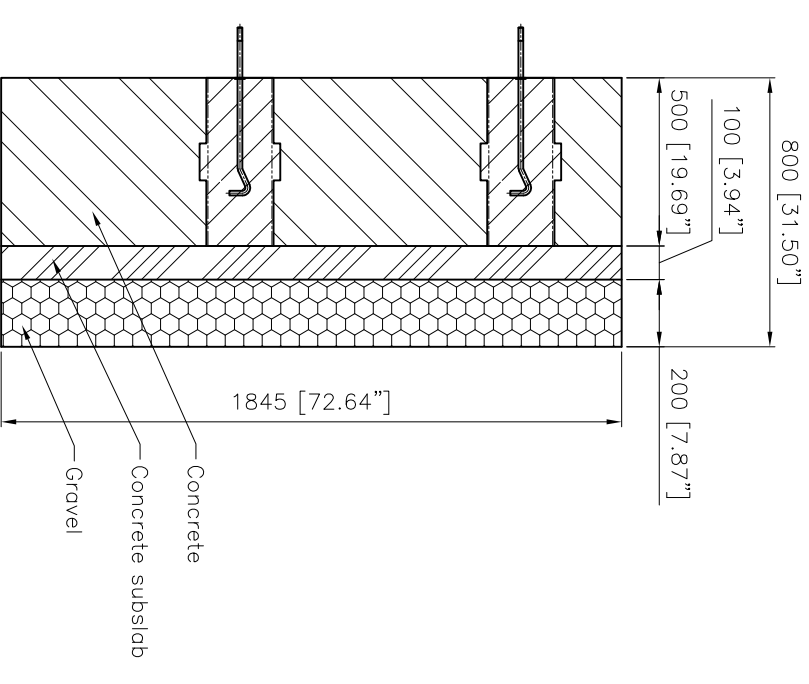
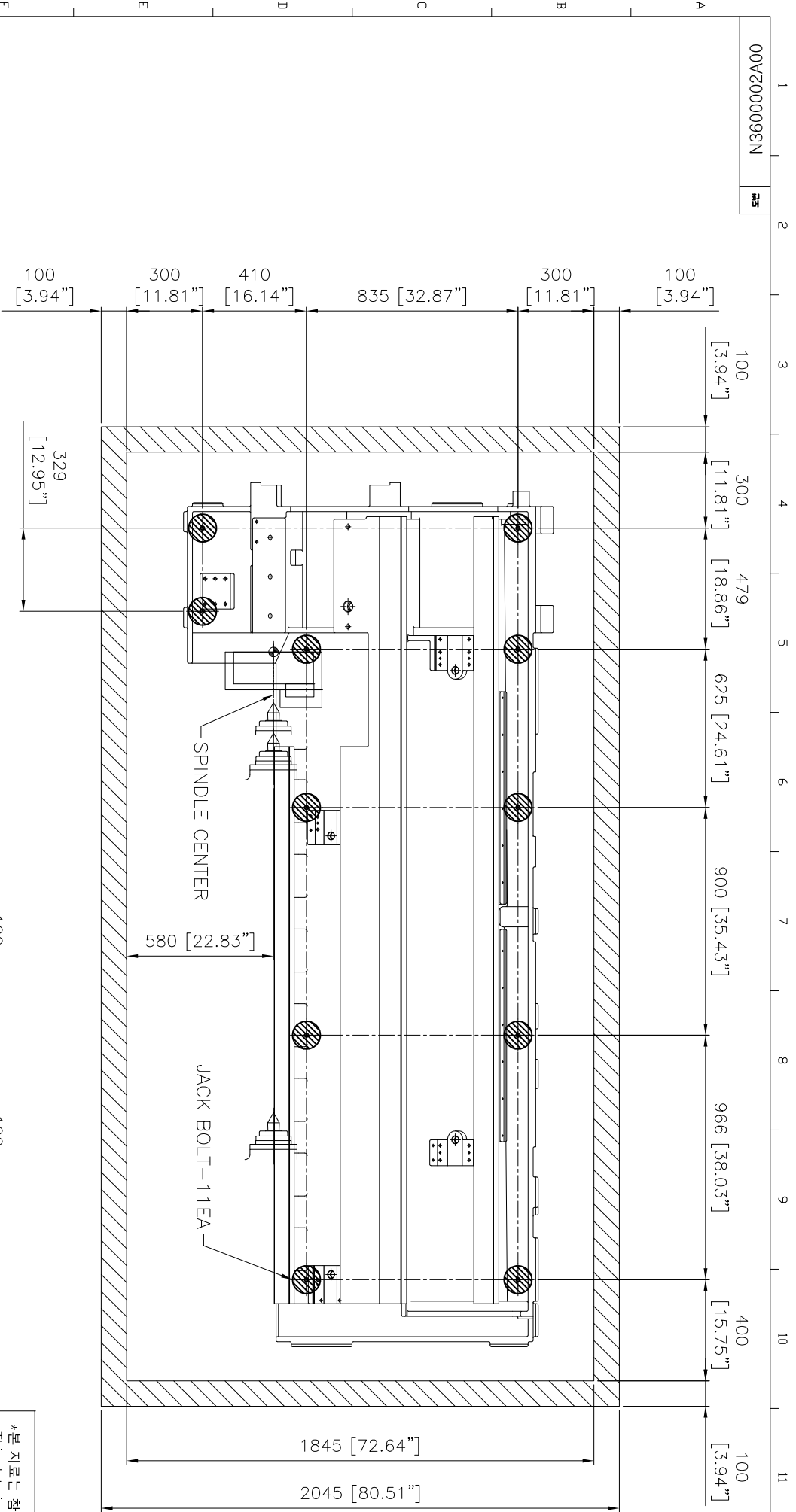
**Installation  
Packet**



- NOTE
1. UNIT - MM [INCH]
  2. 기계 사양은 개선을 위해 예고없이 변경될 수 있습니다.
  3. Machine specifications are subject to change without notice for improvement.



REV. NO.	REV. DATE	REV. BY	REV. CONTENT	APP'D	DATE	DES'N	DATE	DES'N	DATE	DES'N	DATE	DES'N	DATE	DES'N	DATE	DES'N	DATE	DES'N	DATE
01	24.02.21	J.H.LEE	GENERAL TOLERANCE HEAT TREATMENT	J.H.LEE	24.02.21	J.H.LEE	24.02.21	J.H.LEE	24.02.21	J.H.LEE	24.02.21	J.H.LEE	24.02.21	J.H.LEE	24.02.21	J.H.LEE	24.02.21	J.H.LEE	24.02.21
02	24.06.05	J.H.LEE	CHANGING DRAWING	J.H.LEE	24.06.05	J.H.LEE	24.06.05	J.H.LEE	24.06.05	J.H.LEE	24.06.05	J.H.LEE	24.06.05	J.H.LEE	24.06.05	J.H.LEE	24.06.05	J.H.LEE	24.06.05



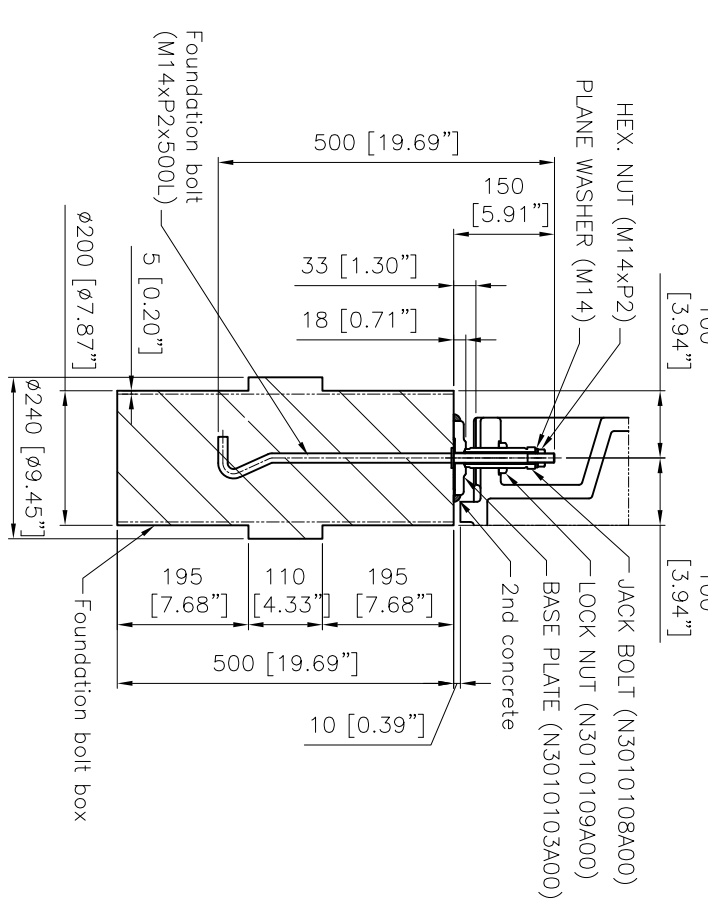
### <CHEMICAL ANCHOR INSTRUCTION>

\*본 자료는 참고용으로 실제 작업시 취급 설명서를 참조 하세요.  
 \*This data is the reference. Refer to instruction manual when actual work.

1. 콘크리트에 구멍을 뚫으세요.  
1. Drill a hole in the concrete material.
2. 공기로 구멍 청소를 하세요.  
2. Clean the hole by air.
3. 브러쉬로 구멍을 청소하세요.  
3. Clean the hole by the brush.
4. 화학 캡슐을 삽입하세요.  
4. Insert the chemical capsules. 앵커볼트를 구멍에 체결하세요. (회전+충격)
5. 아댑터를 드릴에 부착하고 5. Attach the adapter to the drill. (Rotation+Impact)
6. 경화 될 때까지 기다리세요.  
6. Hardening and curing.

Use bolt	Drilling	Drilling depth	Specification for material mtk. thickness
M14xP2x280L	Ø18 [Ø0.7"]	130mm [5.1"]	145mm [5.7"]

Concrete temperature	Dry time
-5°C [23°F) ~ 0°C [32°F)	5 hours
0°C [32°F) ~ 10°C [50°F)	1 hours
10°C [50°F) ~ 20°C [68°F)	20 min
More than 20°C [68°F)	10 min

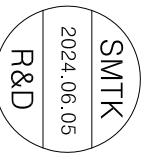


주1) 본 도면은 대체로 표준을 나타내고 있으므로, 설치장소의 지반에 따라 Concrete의 두께를 가감하여 주십시오.  
 발포 스티로폼은 폭 100mm를 사용하십시오.  
 Concrete가 반 건조상태에서 기계 외측에 닿는 부분을 100mm 정도 파서 2차 Concrete 주입구를 만듭니다.  
 주2) 하면 Concrete는 σ28(주입후 28일째 강도)=210kgf/cm<sup>2</sup> 정도의 것을 사용하여 주십시오.  
 기초 외형도보다 외측에 발포 스티로폼을 설치하기 위해 100mm 홈을 파 주십시오.

Note1)  
 This drawing shows the standard foundation.  
 Modify the concrete thickness according ground condition.  
 Before the first concrete is completely dry, chamfer the area facing the outside of the machine by approximately 100 mm.  
 Concrete strength (28 days after placing concrete) should be 20.6 MPa(2986.2 psi) or more.

Note2)  
 Because 100 mm(3.94 inch) of styrofoam must adhere to the inside surface of ditch, dig the foundation 100 mm(3.94 inch) outside of the outline of the foundation.

NOTE  
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 3. Machine specifications are subject to change without notice for improvement.



MARK	REVISION	DATE	REV'D	CHE'D	DATE	REV'D	CHE'D	DATE	REV'D	CHE'D	DATE	REV'D	CHE'D	DATE	REV'D	CHE'D

APP'D	J.H.LEE	GENERAL TOLERANCE	HEAT TREATMENT	WEIGHT	SMTK
24.06.05	0.5~ 6.0 I	-	-	-	-

REV'D	J.H.LEE	DRAWING NO.	UNIT ASS'Y	LAY OUT
1/1	313-315-03	1000-2000-312	NLS300Y	MACHINE FOUNDATION ASSY (Y)

DES'N	J.H.LEE	MESH PATTERN PLATING	SCALE	NAME
24.06.05	03.5.86.8	-	1/11	N360002A00

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

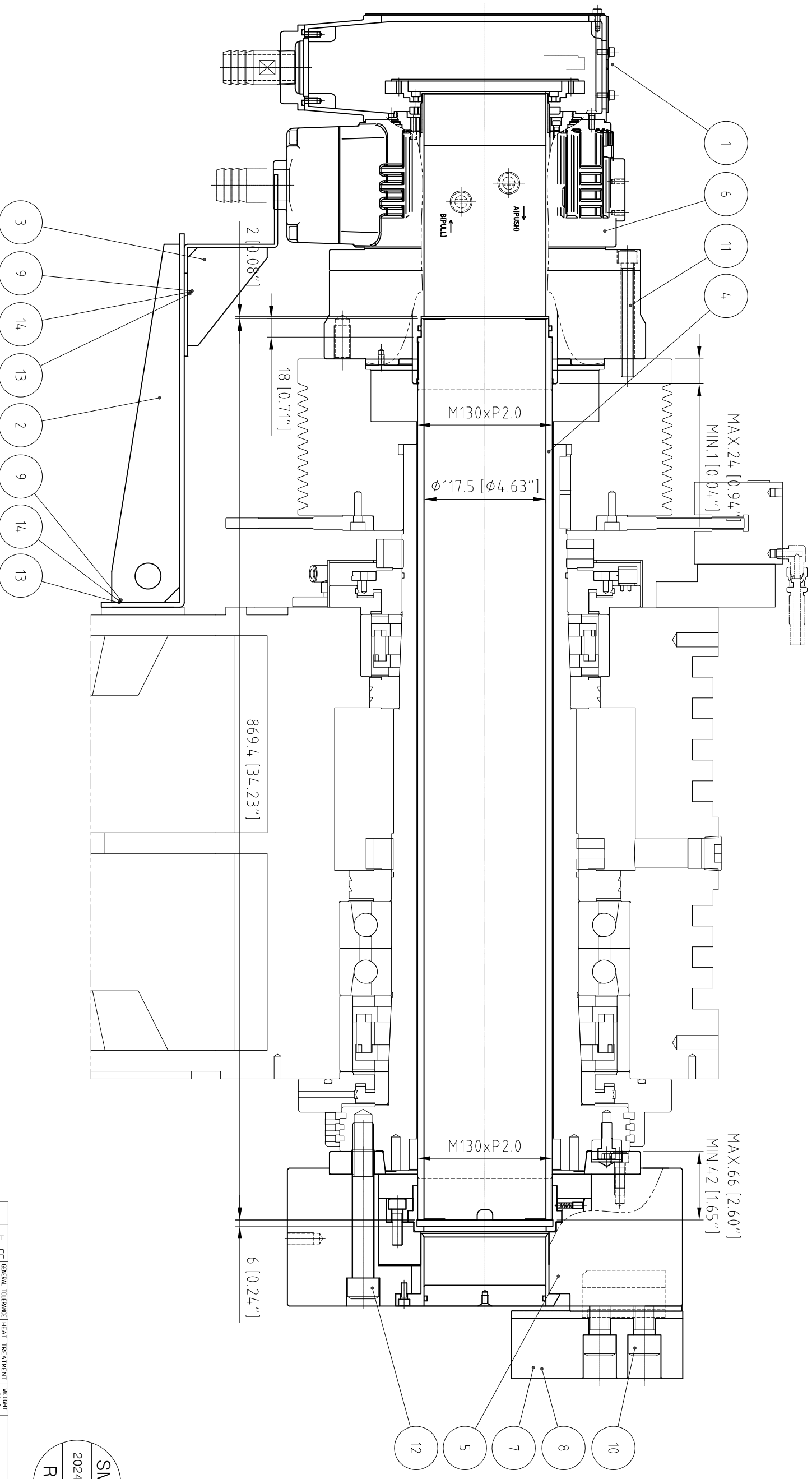
Coolant only fluid required at install

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

SPECIFICATION	
Cylinder inside diameter	250 mm
Piston stroke	23 mm
Piston thrust	138 kN (3560 <sup>lbf</sup> )
Pressure 4.0MPa (4.08 kgf/cm <sup>2</sup> )	14,100 kgf (12,900 kgf)
Max. pressure	4.0 MPa (4.08 kgf/cm <sup>2</sup> )
Max. speed	3,000 rpm
Weight	54kg
Moment of inertia	0.50 kg·m <sup>2</sup>
Oil leakage	7.0 liter/min ISO.V6.32, 50° 3.0MPa

SPECIFICATION	
Plunger stroke	23 mm
Jaw stroke (diameter)	10.6 mm
Plunger allowable thrust	7,240 kgf (71kN)
Max. grip force	18,355 kgf (180kN)
Max. speed	2,500 r.p.m.
Weight (with soft jaw)	120 kgf
-G·D <sup>2</sup> (with soft jaw)	9.09 kgf·m <sup>2</sup>
Max. grip force during rotation	6,118 kgf (60kN)
Allowable cylinder	SD-25411
Max. setting pressure	23.5 kgf/cm <sup>2</sup>

NO.	DWG NO.	NAME	Q'TY	MAT'L	REMARK
1	N2590805A00	PROXIMITY SWITCH	2		
2	N3690302A00	MAIN CYLINDER BRACKET (1)	1	SS400	FL7M-3J6HD-C, YAMATAKE
3	N3690303A00	MAIN CYLINDER BRACKET (2)	1	SS400	
4	N3690351A00	DRAW TUBE .15 INCH (BIG BORE)	1	STKM13C	
5	N4090801A00	HYD. CHUCK	1	HCH-15A11T22-M130, SAMCHULLY	
6	N4090802A00	HYD. CYLINDER	1	SD-25411CUC, SAMCHULLY	
7	N4090803A00	SOFT JAW	3	SB15C1, SAMCHULLY	
8	N4090804A00	HARD JAW	1	HB15A1, SAMCHULLY	
9	S0210816	SOCKET HEAD BOLT	8	M8x16L	
10	S0212060	SOCKET HEAD BOLT	6	M20x60L	
11	S0221211	SOCKET HEAD BOLT	6	M12x110L	
12	S0222015	SOCKET HEAD BOLT	6	M20x150L	
13	S2530800	PLANE WASHER	8	M8	
14	S2550800	SPRING WASHER	2	M8	



NOTE  
1. UNIT - MM [INCH]

SMTK  
2024.09.24  
R&D

APP'D	J.H.LEE	GENERAL	TOLERANCE	HEAT TREATMENT	WEIGHT
DATE	24.06.17	0.3~	0.1		SS400
REV'D		6~	30 ± 0.2		
CHE'D		120~	315 ± 0.2		
DES'D	J.H.LEE	1000~	2000 ± 1.2		
DATE	24.06.17	DESIGNER: J.H.LEE		SCALE	1/2
		CHECKER: J.H.LEE		UNIT ASS'Y	SMTK
		DRAWN: J.H.LEE		NAME	MAIN CHUCK ASSY (BY)
		MATERIAL: NLS3500BSV		SCALE	1/2
		PLATING: -		MARK	N3690051A00
		REVISION		DATE	24.06.17
		DATE		REV'D	CHE'D
		DATE		REV'D	CHE'D
		DATE		REV'D	CHE'D