



NSP-L Series Compact Variable Pump Unit

Compact hydraulic units are widely used as a power source in such machine tool applications as NC lathe check opening and closing, tool rotation, machining center spindle raise and lower operations, etc.

During pressure holding, NSP-L unit enables machine efficiency that delivers energy savings of approximately 40% when compared with standard Nachi units, all in a compact, lightweight hydraulic unit.

Features

Space-saving, lightweight design

A smaller tank capacity makes the power unit more compact, and greatly reduces space requirements.

New structure increases efficiency

Based on years of experience, the structure includes an improved pump joint that provides more efficient operation.

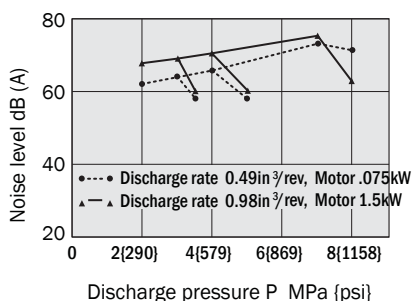
Greatly improved cooling capacity

A powerful, energy-efficient built-in cooling system eliminates the need for fan motor wiring and coolant pipes.

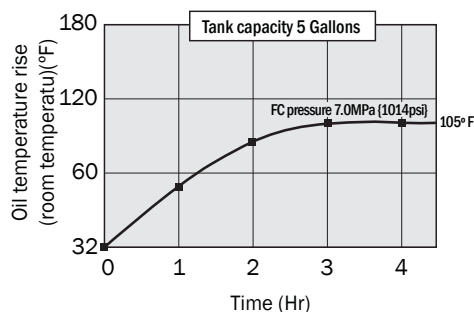
Specifications

Item	Model No.	NSP-*.VOA*	NSP-*.V1A*
Pump Capacity	cm ³ /rev	8.0	16.0
Maximum Pressure	MPa (psi)	8.0 (1160 psi) (Full Cutoff Pressure)	
Motor Output	kW (hp)	0.75, 1.5 (1, 2)	1.5, 2.2 (2, 3)
Tank Capacity	ℓ	20	
Installation Space	mm	300 × 400	
Approximate Weight	kg	39 (20 ℓ, 1.5kW, excluding options)	
Pump Volume 60 Hz		3.8 gpm	7.6 gpm

Noise Characteristics



Oil Temperature Characteristics



Conditions

The value on the left-hand drawing represents typical characteristics under the following conditions:
 Oil used: ISO VG32 or its equivalent
 Speed: 1800 min-1
 Room temperature: 65°F
 Motor: 0.75~1.5kW

Understanding Model Numbers

NSP - 20L - 07 V 0 A2 - F - 13

Design number

E13 220 Volt 60 Hz
 E13G 460 Volt 60 Hz
 E13M 230 Volt 60 Hz

Option (Indicate in alphabetic sequence.) F*: Built-in block*=1~2 Temp gauge standard

Pressure adjustment range (A: constant discharge type)
 A2: 2.0 to 4.0 MPa (507 psi)
 A3: 3.5 to 6.0 MPa (725 psi)
 A4: 5.5 to 7.0 MPa (1015 psi)

Note: 1. Figures in parentheses show factory default full cutoff set values.

Flow rate adjustment range (Maximum capacity) 0: 8 cm³ / rev (.49 cu in)
 1: 16 cm³ / rev (.98 cu in)

Pump type: Variable vane pump

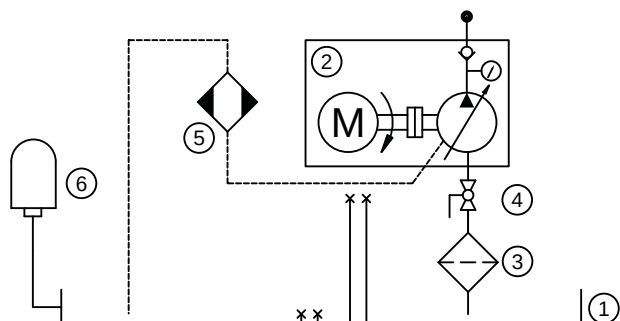
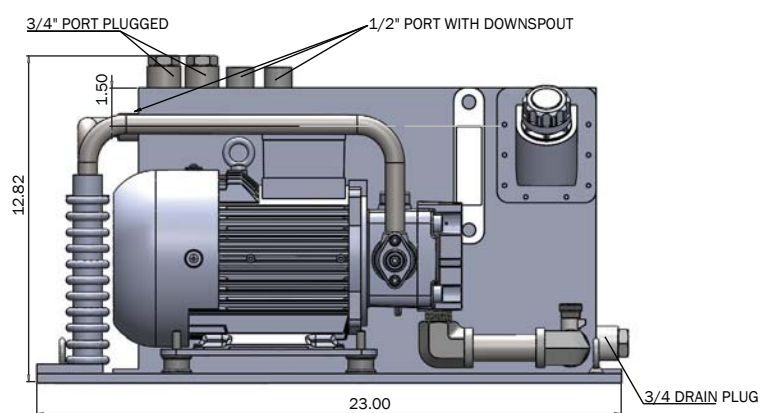
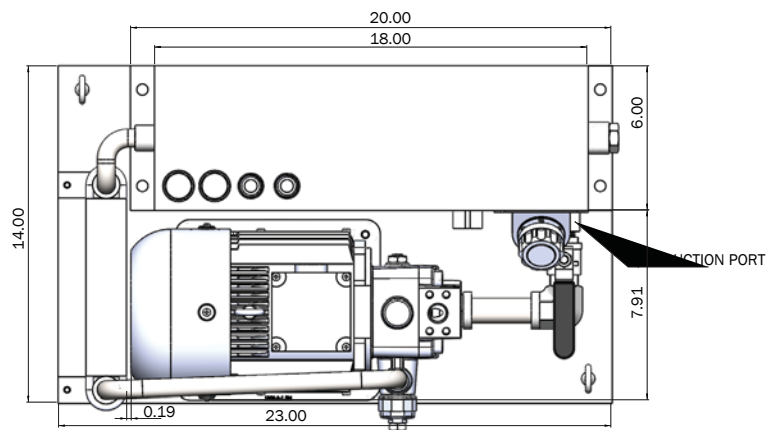
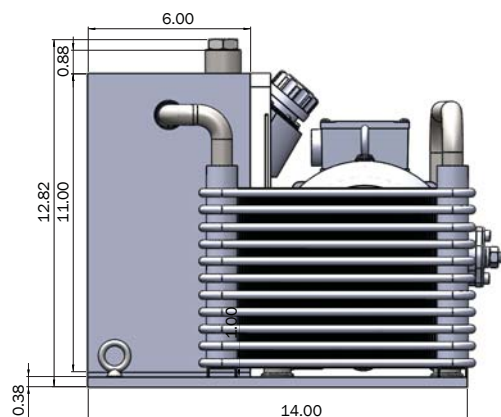
Motor capacity: 0.75 kW (1 HP)
 1.5 kW (2 HP)

Tank volume: 20 ℓ (5 gal)

NSP-20L Series compact variable pump unit

Design Drawings & Dimensions

8.0, 16.0 cm³ / rev Series
NSP-20L-**V*A*-13



NSP-20L-07V0A*-(*)-E13

NSP-20L-15V0A*-(*)-E13

NSP-20L-15V1A*-(*)-E13

() 220V 60 Hz

(G) 460V 60 Hz

(M) 230V 60 Hz

PART NO.	PART NAME
1	NL-4 L Shape Reservoir
2	UVN-1A-1A4-1.5-4-11 Pump Motor
3	SUS-A088-068-N16F Strainer
4	948-173 3/4' Ball Valve
5	3A92-001-1050 Cooler
6	SM57XL-10 Filler/Breather