



SEMI Automatic Core Builder

The CB2000 is a medium volume corebuilder that can produce a range of radiator and condenser cores. The machine uses servo-based controls to ensure precise core assembly dimensions. These machines exhibit a multi-station design, capable of executing four assembly operations simultaneously. As result, GEFIT Livernois' core builders are the most efficient and productive machines on the market. The rate of core production exceeds any machine of its kind. As a multi-axis servo driven core builder, the CB2000 is very flexible, allowing for quick tooling changes and eliminating high-wear mechanisms.



Representative image of a CB-2000

CB-2000 GENERAL CAPABILITY:

Operating Rate:	Operator Dependent
Tube Length (Header-To-Header):	300mm (11.8") to 1181mm (46.50")
Core Height (Stack-Up Dimension):	266mm (10.50") to 1016mm (40.0")
Core Depth:	12.7mm (.50") Min. to 50.8mm (2.0") Max.
Header Force:	5,443 Kg (12,000 lbs.)
Tube Rows:	Single
Fin Feed:	RH & LH Available

NOTE: Header Force may limit Number of tubes

PRODUCTION RATES

Core Output Rate:	60-80 Cores Per Hour (depending on core characteristics and operator)
Fin Input Feed Rate:	70 Fins Per Minute Max

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CHANGEOVER TIME

Core Width (header to header): 20 min.
 Core Length (side to side): 10 min.
 Fin Tube Pitch: 0 min.
 Header Only: 20 min.

GENERAL DESCRIPTION

The core assembly machine will consist of the following:

- Tube Dispensing System w/ J-Stack
- Matrix Build and Transfer System
- False Tube
- Servo Driven Core Transfer System
- Expandable Table
- Servo Driven Core Press
- Matrix Comb Assembly
- Tube Guide Feature to Align Tubes into Manifold
- Servo Driven Header Press
- Corebuilder Base
- Safety Guarding
- Control Techniques Motion Control System
- Color Operator Touchscreen
- (1) Set of Operator/Maintenance Manuals

MACHINE FOOTPRINT:

Length.....2,896mm (114") Estimated Weight.....4,536 Kg (10,000 lbs.)
 Width.....2,134mm (84")
 Height.....1,829mm (72")

ELECTRICAL PANEL:

Depth..... 470mm (18.5")
 Width.....1,981mm (78")
 Height.....2,134mm (84")

STANDARD UTILITY SPECIFICATIONS

Electrical Supply: 415 Volts, 3 Phase, 50 Hz (Others available)
 Air Supply:5.5 Bar (80 PSI)

MACHINE SEQUENCES

The following is the process steps of the corebuilder with indication of whether the function is automatic or manual:

<u>FUNCTION</u>	<u>MANUAL/AUTOMATIC</u>
Load Tubes into J-bars	Manual
Load Tubes into Matrix	Automatic
Load Fins into Matrix	Automatic
Build Core Matrix	Automatic
Place Side Supports	Manual
Place Headers onto Tooling Nest	Manual
Shuttle Core Matrix	Automatic
Side Support Assembly	Automatic
Fin/Tube Align	Automatic
Header Assembly	Automatic
Tube Flaring (if applicable)	Automatic
Braze Frame Installation	Manual
Core Removal	Manual

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