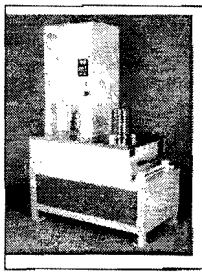


Pine AFGC125X Gyratory Compactor Service/Calibration Record

☐ Pine AFGC125XA (115 V 60 Hz)
☒ Pine AFGC125X (220 V 60Hz)
☐ Pine AFGC125XE (220 V 50 Hz)

015 — Serial Number

9-1-15 — Technician (sign and date)

UNIVERSITY OF ARKANSAS — SGC Owner (Company Name)

FAYETTEVILLE, AR — SGC Location (City and State)

Status of Compactor Prior to Calibration Change

113.9	4-3-12	4-3-12	PINE
Machine Hours	Previous SGC Calibration Date	Previous SGC Verification Date	Previous Service Provider (if known)

Speed of Gyration (30 ± 0.5 GPM)

Control Co. 1043 — Stop Watch Model

130239644 — Serial Number

04/28/2013 — Calibration Date

Gyrations	"As Found"	"As Left"
15	30.02 s	30.00 s

(15 gyrations in 30 ± 0.5 seconds is 30 ± 0.5 GPM)

Internal Angle of Gyration (AASHTO T344-12)

Pine AFLS1 (RAM) — Internal Angle Device

016 — Serial Number

09/17/2014 — Calibration Date

Mold Identification

Angle Parameter	" As Found"	"As Left"
Top Angle	1.17 °	1.16 °
Bottom Angle	1.16 °	1.16 °
Internal Angle	1.165 °	1.16 °

Consolidation Pressure (Force Measurement)

Pine AFGCLRO5C — Load Ring Model

1672 — Serial Number

09/18/2014 — Calibration Date

Force (N)	Dial (±1 % Range)	Dial "As Found"	Dial "As Left"
3500	**76.1 – 77.7**	77.1	77.1
14500	**317.8 – 324.2**	321.3	321.2

Unloaded External Mold Angle

Pine ACGCA001 — Angle Gage Model

Angle Parameter	"As Found"	"As Left"
Adjustable Link Gap (0.002" to 0.004")	.0035 "	.0035 "
Intermediate Link Gap (0.002" to 0.004")	.0025 "	.0025 "
Fixed Link Gap (0.0015" to 0.002")	.002 "	.0015 "
Fixed Ring Gap (0.002" to 0.004")	.004 "	.004 "
Zero Plane R-L (≤ 0.001")	0.0005 "	0.000 "
Zero Plane F-R (≤ 0.001")	0.0005 "	0.000 "
Dial Reading 1	.3097 "	.3097 "
Dial Reading 2	.1966 "	.1979 "
Dial Difference	.1131 "	.1118 "
Unloaded Angle	1.28 °	1.27 °

Specimen Height (Position Measurement)

Pine AFG123C — Gage Block Model

09/17/2014 — Block Calibration Date

5290,5291,5292,5293 — Serial Numbers

Height mm (inches)	"As Found"	"As Left"
152.4 mm (6")	152.40 mm	152.40 mm

Pine AFGC125X Gyratory Compactor Service/Calibration Record

- ☐ Pine AFGC125XA (115 V 60 Hz)
- ☒ Pine AFGC125X (220 V 60 Hz)
- ☐ Pine AFGC125XE (220 V 50 Hz)

015	70 °F	9-1-15
Serial Number	Temperature	Date

Machine Settings

Parameter	"As Found"	"As Left"
Spec. Diameter	150 mm	150 mm
Pressure	600 kPa	600 kPa
Compaction Mode	50 ☒ gyr ☐ mm	75 ☒ gyr ☐ mm
Angle of Gyration	° ☒ int 1.16 ☐ ext	° ☒ int 1.16 ☐ ext
Squaring Delay	0 s	0 s

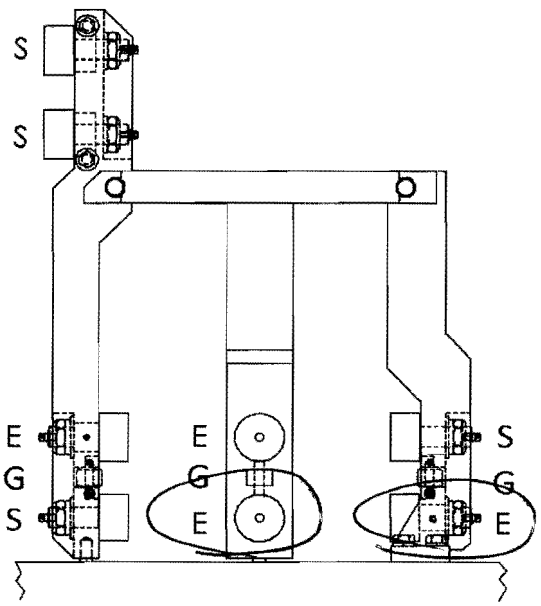
Service Inspection

✓	Overall Operation & Appearance
	Electrical Ground, VAC input
✓	E-Stop Interlock
✓	Door Switch Interlock
✓	Lift Link Tight
✓	Tilt Pump Operation / Fluid Level
✓	Tilt Limit Switches
✓	Ram Drive Belt Tension
✓	Ram Key
✓	Ball Nut Tight
REPLACED	Fan Filter Replaced
✓	Fixed Ring
✓	Fixed Ring Rollers
✓	Ram Foot
✓	Carriage Rollers
✓	Guide Rollers
✓	Carriage Base Cog
✓	Bearing Cap Condition
0.001	Base Bearing Clearance (< 0.008 ")
✓	Chain Tension
✓	Extruder Cylinder/Pump
—	Batteries Replaced
CORRECT	Date / Time Correct
	Printer Port
	Serial Port

Service Lubrication

✓	Ram Foot (daily, MoS_2 powder)
✓	Bearing Cap (daily, MoS_2 powder)
✓	Fixed Ring (annual, SAE 30 oil)
✓	Ball Screw Bearings (annual, MoS_2 grease)
✓	Ball Screw (annual, MoS_2 grease)
✓	Rollers (annual, MoS_2 grease)
✓	Extruder Handle (annual, MoS_2 grease)
✓	Base Bearing (annual, MoS_2 grease)
✓	Drive Chain (annual, SAE 30 oil)

Rollers Replaced (circled)



Loaded External Angle of Gyration*

A1	.2500 "	.2500 "	B1
A2	"	"	B2
A3	"	"	B3 °

*Applicable only when required

Notes REPLACED 2 ECCENTRIC ROLLERS

Gyratory Compactor Certificate of Calibration and Traceability to the United States National Institute of Standards and Technology

Gyratory Compactor Information

Pine AFGC125X	015	University of Arkansas Fayetteville, AR	70°F
Manufacturer and Model	Serial Number	SGC Owner (Company Name) and Location	Temperature

Rate of Gyration

☐ Calibration service for the rate of gyration **was not** performed.

☒ The rate of gyration was standardized to 30.0 ±0.5 gyrations per minute using a digital stopwatch.

Control Company Model 1043 SN **130239644** Calibration Date **04/28/2013**

NIST # **100333504**

Consolidation Pressure

☐ Calibration service for the consolidation pressure was not performed.

☒ The consolidation pressure measurement system was calibrated to within ± 1.0% by calibrating the applied force, using the following apparatus:

☒ Pine AFGCLR05C load ring (5000 lbf) SN **1672** Calibration Date **09/18/2014**

NIST # **822/255038-95**

☐ Interface 1210BDE-5K load cell (5000 lbf) SN **125402A** Calibration Date **09/25/2014**

with Newport INFCS-000 A/E meter SN **1245077** NIST # **822/255038-95**

Specimen Height Measurement

☐ Calibration service for the specimen height measurement system was not performed.

☒ The specimen height measurement system was calibrated to within ± 0.05 mm (± 0.002 in) using the following apparatus:

☒ Pine AFG123 Gage Block Set SN **5290, 5291** Calibration Date **09/17/2014**

5292, 5293 NIST # **LL010/0802**

☐ Pine AFGBA04 Calibration Tube SN **012403** Calibration Date **09/25/2014**

NIST # **LL010/0802**

Angle of Gyration

☐ Calibration service for the angle of gyration **was not** performed.

☐ The external angle of gyration was calibrated under simulated loading conditions to 1.25 ± 0.02° per equipment manufacturer instructions.

☒ The internal angle of gyration was calibrated to 1.16 ± 0.02° per AASHTO T344-12 Standard Test Method for Measurement of Superpave Gyratory Compactor (SGC) Internal Angle of Gyration Using Simulated Loading with a room temperature mold.

Pine AFLS1 Rapid Angle Measurement Device SN **016** Calibration Date **09/17/2014**

NIST # **LL010/0802**

Calibration Service Provider

I hereby certify the standardization services have been performed properly, and that I am an authorized representative of a service organization authorized by Pine Instrument Company.

[signature]	9-1-15	Pine Test Equipment, LLC., Grove City, PA, (724) 458-6393
Technician (sign here)	Date	Service Organization (name and location)