

Authorization

Authorization: By signing below, you authorize: (a) backgroundchecks.com ("BGC") to request information about you from any public or private information source; (b) anyone to provide information about you to BGC; (c) BGC to provide Employer Solutions Staffing Group, LLC one or more reports based on that information; and (d) us to share those reports with others for legitimate business purposes related to your employment. BGC may investigate your education, work history, professional licenses and credentials, references, address history, social security number validity, right to work, criminal record, lawsuits, driving record, credit history, and any other information with public or private information sources. You acknowledge that a fax, image, or copy of this authorization is as valid as the original. You make this authorization to be valid for as long as you are an applicant or employee with us.

The Consumer Financial Protection Bureau's "Summary of Your Rights under the Fair Credit Reporting Act" is attached to this authorization. If you are a New York applicant, a copy of New York's law on the use of criminal records is attached. By signing below, you acknowledge receipt of these documents.

Personal Information: Please print the information requested below to identify yourself for BGC.

Printed name: Rebecca Jean Hoklas
First Middle (☐ none) Last

Other names used: _____

Current and former addresses:

03/28/995 current 6203 Raintree Drive Crystal lake IL 60012
from Mo/Yr to Mo/Yr Street City, State & Zip

from Mo/Yr to Mo/Yr Street City, State & Zip

from Mo/Yr to Mo/Yr Street City, State & Zip

Some government agencies and other information sources require the following information when checking for records. BGC will not use it for any other purposes.

90-
03/28/1995 355004505
Date of birth Social security number

Driver's license number & state Name as it appears on license

Report Copy: If you are applying for a job or live in California, Minnesota, or Oklahoma, you may request a copy of the report by checking this box: ☐.

Rebecca Hoklas
Rebecca Hoklas (Dec 16, 2016)

Signature

Dec 16, 2016

Date

Para información en español, visite www.consumerfinance.gov/learnmore o escribe a la Consumer Financial Protection Bureau, 1700 G Street N.W., Washington, DC 20552.

A SUMMARY OF YOUR RIGHTS UNDER THE FAIR CREDIT REPORTING ACT

The federal Fair Credit Reporting Act (FCRA) promotes the accuracy, fairness, and privacy of information in the files of consumer reporting agencies. There are many types of consumer reporting agencies, including credit bureaus and specialty agencies (such as agencies that sell information about check writing histories, medical records, and rental history records). Here is a summary of your major rights under the FCRA. For more information, including information about additional rights, go to www.consumerfinance.gov/learnmore or write to: Consumer Financial Protection Bureau, 1700 G Street N.W., Washington, DC 20552.

- **You must be told if information in your file has been used against you.** Anyone who uses a credit report or another type of consumer report to deny your application for credit, insurance, or employment – or to take another adverse action against you – must tell you, and must give you the name, address, and phone number of the agency that provided the information.
- **You have the right to know what is in your file.** You may request and obtain all the information about you in the files of a consumer reporting agency (your “file disclosure”). You will be required to provide proper identification, which may include your Social Security number. In many cases, the disclosure will be free. You are entitled to a free file disclosure if:
 - a person has taken adverse action against you because of information in your credit report;
 - you are the victim of identity theft and place a fraud alert in your file;
 - your file contains inaccurate information as a result of fraud;
 - you are on public assistance;
 - you are unemployed but expect to apply for employment within 60 days.

In addition, all consumers are entitled to one free disclosure every 12 months upon request from each nationwide credit bureau and from nationwide specialty consumer reporting agencies. See www.consumerfinance.gov/learnmore for additional information.

- **You have the right to ask for a credit score.** Credit scores are numerical summaries of your credit-worthiness based on information from credit bureaus. You may request a credit score from consumer reporting agencies that create scores or distribute scores used in residential real property loans, but you will have to pay for it. In some mortgage transactions, you will receive credit score information for free from the mortgage lender.
- **You have the right to dispute incomplete or inaccurate information.** If you identify information in your file that is incomplete or inaccurate, and report it to the consumer reporting agency, the agency must investigate unless your dispute is frivolous. See www.consumerfinance.gov/learnmore for an explanation of dispute procedures.
- **Consumer reporting agencies must correct or delete inaccurate, incomplete, or unverifiable information.** Inaccurate, incomplete or unverifiable information must be removed or corrected, usually within 30 days. However, a consumer reporting agency may continue to report information it has verified as accurate.
- **Consumer reporting agencies may not report outdated negative information.** In most cases, a consumer reporting agency may not report negative information that is more than seven years old, or bankruptcies that are more than 10 years old.
- **Access to your file is limited.** A consumer reporting agency may provide information about you only to people with a valid need – usually to consider an application with a creditor, insurer, employer, landlord, or other business. The FCRA specifies those with a valid need for access.
- **You must give your consent for reports to be provided to employers.** A consumer reporting agency may not give out information about you to your employer, or a potential employer, without your written consent given to the employer. Written consent generally is not required in the trucking industry. For more information, go to www.consumerfinance.gov/learnmore.
- **You may limit “prescreened” offers of credit and insurance you get based on information in your credit report.** Unsolicited “prescreened” offers for credit and insurance must include a toll-free phone number you can call if you choose to remove your name and address from the lists these offers are based on. You may opt-out with the nationwide credit bureaus at 1-888-567-8688.
- **You may seek damages from violators.** If a consumer reporting agency, or, in some cases, a user of consumer reports or a furnisher of information to a consumer reporting agency violates the FCRA, you may be able to sue in state or federal court.
- **Identity theft victims and active duty military personnel have additional rights.** For more information, visit www.consumerfinance.gov/learnmore.

States may enforce the FCRA, and many states have their own consumer reporting laws. In some cases, you may have more rights under state law. For more information, contact your state or local consumer protection agency or your state Attorney General. For information about your federal rights, contact:

TYPE OF BUSINESS:	CONTACT:
1.a. Banks, savings associations, and credit unions with total assets of over \$10 billion and their affiliates.	a. Bureau of Consumer Financial Protection 1700 G Street NW Washington, DC 20552
b. Such affiliates that are not banks, savings associations, or credit unions also should list, in addition to the Bureau:	b. Federal Trade Commission: Consumer Response Center – FCRA Washington, DC 20580 (877) 382-4357
2. To the extent not included in item 1 above:	
a. National banks, federal savings associations, and federal branches and federal agencies of foreign banks	a. Office of the Comptroller of the Currency Customer Assistance Group 1301 McKinney Street, Suite 3450

b. State member banks, branches and agencies of foreign banks (other than federal branches, federal agencies, and insured state branches of foreign banks), commercial lending companies owned or controlled by foreign banks, and organizations operating under section 25 or 25A of the Federal Reserve Act c. Nonmember Insured Banks, Insured State Branches of Foreign Banks, and insured state savings associations d. Federal Credit Unions	Houston, TX 77010-9050 b. Federal Reserve Consumer Help Center P.O. Box 1200 Minneapolis, MN 55480 c. FDIC Consumer Response Center 1100 Walnut Street, Box #11 Kansas City, MO 64106 d. National Credit Union Administration Office of Consumer Protection (OCP) Division of Consumer Compliance and Outreach (DCCO) 1775 Duke Street Alexandria, VA 22314
3. Air carriers	Asst. General Counsel for Aviation Enforcement & Proceedings Department of Transportation 400 Seventh Street SW Washington, DC 20590
4. Creditors Subject to Surface Transportation Board	Office of Proceedings, Surface Transportation Board Department of Transportation 1925 K Street NW Washington, DC 20423
5. Creditors Subject to Packers and Stockyards Act	Nearest Packers and Stockyards Administration area supervisor
6. Small Business Investment Companies	Associate Deputy Administrator for Capital Access United States Small Business Administration 406 Third Street, SW, 8th Floor Washington, DC 20416
7. Brokers and Dealers	Securities and Exchange Commission 100 F St NE Washington, DC 20549
8. Federal Land Banks, Federal Land Bank Associations, Federal Intermediate Credit Banks, and Production Credit Associations	Farm Credit Administration 1501 Farm Credit Drive McLean, VA 22102-5090
9. Retailers, Finance Companies, and All Other Creditors Not Listed Above	FTC Regional Office for region in which the creditor operates or Federal Trade Commission: Consumer Response Center – FCRA Washington, DC 20580 (877) 382-4357

ADDITIONAL INFORMATION ABOUT THE FAIR CREDIT REPORTING ACT

The Summary of Your Rights provided above does not reflect certain amendments contained in the Consumer Reporting Employment Clarification Act of 1998. The following additional information may be important for you:

- Records of convictions of crimes can be reported regardless of when they occurred.
- If you apply for a job that is covered by the Department of Transportation's authority to establish qualifications and the maximum hours for that job and you apply by mail, telephone, computer, or other similar means, your consent to a consumer report may validly be obtained orally, in writing, or electronically. If an adverse action is taken against you because of a consumer report for which you gave your consent over the telephone, computer, or similar means, you may be informed of the adverse action and the name, address and phone number of the consumer reporting agency, orally, in writing, or electronically.

ARTICLE 23-A

LICENSURE AND EMPLOYMENT OF PERSONS PREVIOUSLY
CONVICTED OF ONE OR MORE CRIMINAL OFFENSES

Section 750. Definitions.

Section 751. Applicability.

Section 752. Unfair discrimination against persons previously convicted of one or more criminal offenses prohibited.

Section 753. Factors to be considered concerning a previous criminal conviction; presumption.

Section 754. Written statement upon denial of license or employment.

Section 755. Enforcement.

§ 750. Definitions. For the purposes of this article, the following terms shall have the following meanings:

- (1) "Public agency" means the state or any local subdivision thereof, or any state or local department, agency, board or commission.
- (2) "Private employer" means any person, company, corporation, labor organization or association which employs ten or more persons.
- (3) "Direct relationship" means that the nature of criminal conduct for which the person was convicted has a direct bearing on his fitness or ability to perform one or more of the duties or responsibilities necessarily related to the license, opportunity, or job in question.
- (4) "License" means any certificate, license, permit or grant of permission required by the laws of this state, its political subdivisions or instrumentalities as a condition for the lawful practice of any occupation, employment, trade, vocation, business, or profession. Provided, however, that "license" shall not, for the purposes of this article, include any license or permit to own, possess, carry, or fire any explosive, pistol, handgun, rifle, shotgun, or other firearm.
- (5) "Employment" means any occupation, vocation or employment, or any form of vocational or educational training. Provided, however, that "employment" shall not, for the purposes of this article, include membership in any law enforcement agency.

§ 751. Applicability. The provisions of this article shall apply to any application by any person for a license or employment at any public or private employer, who has previously been convicted of one or more criminal offenses in this state or in any other jurisdiction, and to any license or employment held by any person whose conviction of one or more criminal offenses in this state or in any other jurisdiction preceded such employment or granting of a license, except where a mandatory forfeiture, disability or bar to employment is imposed by law, and has not been removed by an executive pardon, certificate of relief from disabilities or certificate of good conduct. Nothing in this article shall be construed to affect any right an employer may have with respect to an intentional misrepresentation in connection with an application for employment made by a prospective employee or previously made by a current employee.

§ 752. Unfair discrimination against persons previously convicted of one or more criminal offenses prohibited. No application for any license or employment, and no employment or license held by an individual, to which the provisions of this article are applicable, shall be denied or acted upon adversely by reason of the individual's having been previously convicted of one or more criminal offenses, or by reason of a finding of lack of "good moral character" when such finding is based upon the fact that the individual has previously been convicted of one or more criminal offenses, unless:

- (1) there is a direct relationship between one or more of the previous criminal offenses and the specific license or employment sought or held by the individual; or
- (2) the issuance or continuation of the license or the granting or continuation of the employment would involve an unreasonable risk to property or to the safety or welfare of specific individuals or the general public.

§ 753. Factors to be considered concerning a previous criminal conviction; presumption.

1. In making a determination pursuant to section seven hundred fifty-two of this chapter, the public agency or private employer shall consider the following factors:
 - (a) The public policy of this state, as expressed in this act, to encourage the licensure and employment of persons previously convicted of one or more criminal offenses.
 - (b) The specific duties and responsibilities necessarily related to the license or employment sought or held by the person.
 - (c) The bearing, if any, the criminal offense or offenses for which the person was previously convicted will have on his fitness or ability to perform one or more such duties or responsibilities.
 - (d) The time which has elapsed since the occurrence of the criminal offense or offenses.
 - (e) The age of the person at the time of occurrence of the criminal offense or offenses.
 - (f) The seriousness of the offense or offenses.
 - (g) Any information produced by the person, or produced on his behalf, in regard to his rehabilitation and good conduct.
 - (h) The legitimate interest of the public agency or private employer in protecting property, and the safety and welfare of specific individuals or the general public.
2. In making a determination pursuant to section seven hundred fifty-two of this chapter, the public agency or private employer shall also give consideration to a certificate of relief from disabilities or a certificate of good conduct issued to the applicant, which certificate shall create a presumption of rehabilitation in regard to the offense or offenses specified therein.

§ 754. Written statement upon denial of license or employment. At the request of any person previously convicted of one or more criminal offenses who has been denied a license or employment, a public agency or private employer shall provide, within thirty days of a request, a written statement setting forth the reasons for such denial.

§ 755. Enforcement.

1. In relation to actions by public agencies, the provisions of this article shall be enforceable by a proceeding brought pursuant to article seventy-eight of the civil practice law and rules.
2. In relation to actions by private employers, the provisions of this article shall be enforceable by the division of human rights pursuant to the powers and procedures set forth in article fifteen of the executive law, and, concurrently, by the New York city commission on human rights.

DRUG AND ALCOHOL TESTING POLICY

I. PURPOSE

Alcohol and drug abuse adversely affects job performance, the kind of work an employee performs and an employee's opportunities for successful employment. It is the intent of this document to provide employees with ESSG's [hereafter "the Company"] policy regarding the use of drugs and alcohol while at work. The Company does not intend to intrude into the private lives of its employees, but strongly believes that a drug-free workplace is in the best interest of employees and non-employees alike.

II. SCOPE

This policy applies to all applicants for employment and to all employees including contract or temporary employees. The policy is applicable at Company facilities or whenever Company employees are performing company business.

III. DISCLAIMER

Employment at the Company is at-will. This policy is not a unilateral employment contract and should not be interpreted as creating a unilateral employment contract.

IV. PROHIBITIONS

A. No employee shall report to work under the influence of alcohol, any controlled substances, or any other drugs or medications that may affect the employee's alertness, coordination, reaction, response, judgment, decision-making, or safety.

B. No employee shall operate, use, or drive any equipment, machinery, or vehicle of the Company or any client of Company while under the influence of alcohol, any controlled substances, or any other drugs or medications that may adversely affect the employee's ability to operate such equipment, machinery, or vehicle. Employees are under an affirmative duty to immediately notify their supervisor if they are not in an appropriate mental or physical condition to operate, use, or drive any equipment machinery, or vehicle or otherwise safely perform their job duties.

C. No employee shall unlawfully manufacture, distribute, dispense, possess, transfer, or use a controlled substance in the workplace or wherever the Company's work is being performed.

D. Engaging in off-duty sale, purchase, transfer, use or possession of illegal drugs or controlled substances may have a negative effect on an employee's ability to perform his/her work for the Company. In such circumstances, the employee is subject to discipline.

E. When an employee is taking medically authorized drugs or other substances that may alter job performance, the employee is under an affirmative duty to notify their supervisor of the temporary inability to perform his or her job duties.

F. The Company shall notify the appropriate law enforcement agency, licensing boards, and other relevant authorities when it has reasonable suspicion to believe that an employee may have illegal drugs in his or her possession at work or on company premises.

G. Employees shall not consume alcoholic beverages during lunch periods, dinner periods, or breaks when returning immediately thereafter to perform work on behalf of the Company. In situations where the employee conducts the Company's business after the intake of alcohol, the employee shall be subject to discipline up to and including discharge.

V. ALCOHOL AND DRUG TESTING

As part of the Company's commitment to an alcohol and drug-free workplace, the Company reserves the right to require that applicants and employees submit to drug or alcohol testing in accordance with the provisions of applicable law. This policy represents the notice required under applicable law and a copy will be provided to all applicants and employees who are requested to undergo testing. In the event of any conflict between this policy and applicable law in effect at the time of the test, the law will control.

A. Who May be Subject to Testing.

1. Job Applicants. The Company may require that all applicants for a particular position be tested for drugs or alcohol after receiving a conditional offer of employment. If the applicant tests positive for drugs or alcohol, the conditional offer may be withdrawn.

2. Routine Physical Examination Testing. The Company may require employees to undergo a drug or alcohol test once a year as part of a routine physical examination. Affected employees will be given two weeks written notice that they will be tested for drugs or alcohol as part of a routine physical.

3. Random Testing. The Company may require employees in safety-sensitive positions to undergo testing on a random selection basis. Once the random selection has been made, the Company will not waive the selection of any employees identified through the random process.

4. Reasonable Suspicion Testing. The Company may require an employee to undergo drug or alcohol testing if the Company reasonably suspects that the employee:

- a. is under the influence of drugs or alcohol;
- b. has violated the Company's written work rules prohibiting drug and alcohol use;
- c. has sustained or caused another employee to sustain personal injury; or
- d. has caused a work-related accident or was operating or helping to operate machinery, equipment or vehicles involved in a work-related accident.

5. Treatment Program Testing. The Company may require an employee who has been referred for chemical dependency treatment or evaluation or is participating in a treatment program under an employee benefit plan to undergo drug or alcohol testing on a random basis and without advance notice during the evaluation or treatment period and for up to two years following the completion of any treatment program.

B. Conducting the Testing.

1. Consent. All employees required to undergo testing will be required to complete and sign the employee consent form attached as Appendix A.

2. Refusal to Participate. An employee or job applicant has the right to refuse testing. However, a refusal of testing will be treated as a failure to comply with Company policy and may result in withdrawal of a job offer or disciplinary action up to and including termination of employment.

3. The Laboratory. The Company will use a laboratory certified by the National Institute on Drug Abuse (NIDA) or its successor, the College of American Pathologists (CAP), or the New York State Department of Health or other licensing body recognized by applicable law to perform all drug and alcohol tests.

4. Test Results.

The laboratory will conduct both an initial test and a confirmatory test if the initial test is positive. A negative result on either the initial or confirmatory test will be deemed a negative test result (i.e. the employee passed the test). A positive result on both the initial and confirmatory test will be deemed a positive test result (i.e. the employee failed the test.)

a. Negative Test Result. An employee or applicant who tests negative for drugs or alcohol will be given written notice that they passed the test within three working days of the Company receiving the test results from the testing laboratory.

b. Positive Test Result. An employee or applicant who tests positive for drugs or alcohol will be given written notice that they have failed the test within three working days of the Company receiving the test results from the testing laboratory. The employee or applicant will then be given the opportunity to provide any information to explain the positive result, including any over-the-counter or prescription medications the employee or applicant may have taken. An employee or applicant who wishes to submit any explanatory information must do so within three working days after being notified of the positive test result.

An employee or applicant who has a positive test result may also request a retest of the original sample by the same or different certified laboratory at his or her own expense. An employee or applicant who wishes to conduct a retest must notify the Company in writing of their intention to conduct such a retest within five working days after being notified of the positive test result. If the results of the retest are negative, the test will be considered a negative test result.

C. Right to Test Result. An employee or job applicant has the right to request and receive from the Company a copy of the test result report on any drug or alcohol test.

C. Costs. All costs related to alcohol and drug testing will be paid by the Company, with the exception of any retests requested by the employee or applicant following a positive test result.

D. Disciplinary Action in Response to a Positive Test Result.

1. Interim Discipline and Action: The Company reserves the right to temporarily suspend an employee or transfer the employee to another position at the same rate of pay pending the outcome of any drug or alcohol test. An employee who is suspended without pay will be reinstated with back pay if the test or any requested retest is negative.

2. Applicants. The Company reserves the right to withdraw the conditional job offer of any job applicant with a positive test result, without the opportunity to complete evaluation or treatment.

3. Employees - First Positive Test Result - Termination: The Company will not discharge an employee for the first positive test result. Instead the employee will be given the opportunity to participate in an appropriate drug or alcohol counseling or rehabilitation program as determined by a certified chemical use counselor or physician trained in the diagnosis and treatment of chemical dependency chosen by the Company. The employee will be responsible for paying all costs associated with any evaluation and subsequent treatment themselves or pursuant to coverage under an employee benefit plan. An employee who refuses or fails to participate in, cooperate with, or complete the evaluation or recommended treatment may be terminated. An employee who successfully completes treatment may be subject to random follow-up testing for a period of up to two years in accordance with section V.A.5. of this policy.

4. Employees - First Positive Test Result—Discipline: The Company reserves the right to take any other disciplinary action short of discharge it deems warranted following a first positive test result.

5. Employees-Subsequent Positive Test Result: An employee who has more than one positive test result may be terminated immediately following any second or subsequent positive test result without referral to or the opportunity to complete additional chemical dependency counseling or rehabilitation.

E. Privacy of Test Results.

1. Test results and other information acquired as a result of the testing program are private and confidential information and will not be disclosed by the Company or the testing laboratory to another employee or to third party individuals, government agencies, or private organizations without written consent of the employee or applicant being tested.

2. Evidence of a positive test result, however, may be used in an arbitration proceeding pursuant to a collective bargaining agreement, an administrative hearing, or a judicial proceeding, provided the information is relevant to the hearing or proceeding. Such evidence may also be disclosed to any federal agency or other unit of the United States government as required under federal law, regulation, or order. Evidence of a positive test result may also be disclosed to a substance abuse treatment facility for the purpose of evaluation or treatment.

3. The Company will provide an employee with access to information in the employee's file relating to positive test result reports and other information acquired in the testing process as well as conclusions drawn from or actions taken based upon such information.

**DRUG AND ALCOHOL
TESTING CONSENT FORM**

1. I have been allowed to read and inspect a written copy of ESSG policy on drugs and alcohol.

2. I have read the entire contents of this policy and I am aware and fully understand: (a) the policy and its contents; (b) what conduct the policy prohibits and the consequences of such conduct; (c) my rights under the policy and the consequences if I exercise certain rights; and (d) that certain events as described in the policy may result in adverse personnel action, including my termination from employment with ESSG. I understand that this policy in any form, and any employee handbook including this policy, are not a unilateral employment contract or offer thereof.

3. I hereby voluntarily consent to ESSG, or its health service providers, or other persons or entities acting for or with them, to collect a body component (blood, urine, breath, or any combination thereof) from me for testing for alcohol and/or drugs. I understand that the laboratory selected by ESSG may conduct testing and other analysis on the sample provided by me. I further voluntarily consent to the laboratory's disclosure to ESSG of the results of my drug and/or alcohol test and other information related to the test.


Rebecca Hoklas (Dec 16, 2016)

Rebecca Hoklas

Individual's Name

Dec 16, 2016

Date



employer solutions staffing group^{LLC}

Leveraging Resources in a Changing Market

Notification of Colorado Law Requirement –
Unemployment Acknowledgement

According to Colorado Statutes section 8-73-105.3. A temporary employee who is given a notice that the employee is required to contact or notify the employer upon completion of an assignment and to be available to work, as agreed upon at the time of hire, during a specified period of time, on specified dates, or upon call by the employer on an as-needed basis and who does not contact or notify the employer upon completion of an assignment in compliance with the notice and is not available to work at the agreed-upon times is deemed to have voluntarily terminated employment for the purpose of determining benefits pursuant to section 8-73-108 (5) (e). Also, a temporary employee who agrees to work on an as-needed basis and refuses all work within three separate pay periods when contacted by the employer is deemed to have voluntarily terminated employment for reasons that may or may not allow an award of benefits pursuant to section 8-73-108.

It is your responsibility to contact or notify ESSG (For example, by calling 303-920-1425, or using another means of contact) once your assignment ends. If you fail to do so, it may affect your unemployment benefits.

I understand by signing this form that I am responsible to contact or notify ESSG once an assignment ends. I also acknowledge that I have received a separate copy of this form. RH (Initial)


Rebecca Hoklas (Dec 16, 2016)

Employee Signature:

Dec 16, 2016

Date:

Rebecca Hoklas

Employee (please print your name here)

Aerodynamik

Aufgabenstellung: Ein Flugzeug fliegt mit einer Geschwindigkeit von 100 km/h in einer Höhe von 1000 m . Die Luft hat eine Dichte von $1,225 \text{ kg/m}^3$. Die Flügelfläche beträgt 30 m^2 . Die Auftriebskraft soll 100 kN betragen. Berechne den Auftriebskoeffizienten C_L .

Lösung:

Die Auftriebskraft F_A ist gegeben durch:

$$F_A = C_L \cdot \frac{\rho}{2} \cdot v^2 \cdot S$$

Um C_L zu berechnen, umstellen wir die Formel:

$$C_L = \frac{F_A \cdot 2}{\rho \cdot v^2 \cdot S}$$

Einsetzen der Werte:

$$C_L = \frac{100000 \text{ N} \cdot 2}{1,225 \text{ kg/m}^3 \cdot (100 \text{ km/h})^2 \cdot 30 \text{ m}^2}$$

Umrechnung von 100 km/h in m/s :

$$100 \text{ km/h} = \frac{100 \cdot 1000}{3600} \text{ m/s} \approx 27,78 \text{ m/s}$$

Einsetzen in die Formel:

$$C_L = \frac{100000 \cdot 2}{1,225 \cdot (27,78)^2 \cdot 30} \approx 0,48$$

Der Auftriebskoeffizient C_L beträgt $0,48$.

Erklärung: Der Auftriebskoeffizient C_L ist ein dimensionsloser Wert, der das Verhältnis von Auftrieb zu dynamischem Druck und Flügelfläche angibt. Er hängt von der Form des Flügels und dem Anstellwinkel ab.

Formeln:

- Auftriebskraft: $F_A = C_L \cdot \frac{\rho}{2} \cdot v^2 \cdot S$
- Auftriebskoeffizient: $C_L = \frac{F_A \cdot 2}{\rho \cdot v^2 \cdot S}$
- Dynamischer Druck: $q = \frac{\rho}{2} \cdot v^2$

Einheiten:

- Kraft F : N (Newton)
- Dichte ρ : kg/m^3
- Geschwindigkeit v : m/s
- Flügelfläche S : m^2
- Auftriebskoeffizient C_L : dimensionslos

Ergebn: Der Auftriebskoeffizient C_L beträgt $0,48$.

12/16/2016

Created: 12/13/2016

By: Caitlin Scholl (Caitlin@corpmgmtgroup.com)

Status: Signed

Transaction ID: CBJCHBCAABAAQcyQ_bp3G4TZegFP3xyksrvN1SfMBN7

12/13/2016 - 10:38:36 AM MST- IP address: 96.93.208.65



12/13/2016 - 10:38:39 AM MST



12/16/2016 - 5:54:44 AM MST- IP address: 71.194.51.186



Signature Date: 12/16/2016 - 6:02:28 AM MST - Time Source: server- IP address: 71.194.51.186



12/16/2016 - 6:02:28 AM MST



Adobe Sign

