

# Kolmetz Handbook of Process Equipment Design (Engineering Design Guidelines)

## Citations (30) as of May 2018

### Engineering Design Guidelines for Instrumentation Control Valve Sizing and Selection

1. Estimation and Analysis of Energy Utilities Consumption in Batch Chemical Industry through Thermal Losses Modeling

C Rérat, S Papadokonstantakis... - Industrial & ..., 2012 - ACS Publications

A systematic approach for the estimation of energy utility consumption in chemical batch plants is presented and validated. This approach is based on bottom-up modeling of energy use and its conversion in usual energy carriers like steam, cooling water and brine ...

[PDF] [ethz.ch](http://ethz.ch)

2. [PDF] Energy analysis of chemical batch plant through advanced integration of energy conversion, production system and waste management

CA Rérat - 2014 - [research-collection.ethz.ch](http://research-collection.ethz.ch)

Abstract The growing awareness of the society for the environment increasing the pressure for stricter environmental regulations and the increasing energy prices have modified the way chemical industry designs new processes and optimizes existing ones. In response to ...

[PDF] [deu.edu.tr](http://deu.edu.tr)

3. [PDF] HYDRONIC BALANCE OF THE HEATING SYSTEM OF DEU HOSPITAL

B KURŞUN - 2008 - [fbe.deu.edu.tr](http://fbe.deu.edu.tr)

ABSTRACT In this thesis, hot water circulating pumps of energy consumptions are investigated for situations of constant and variable operation in Dokuz Eylül University Hospital. At the case of available with use three-way valve and constant speed pump ...

4. Swapan Basu, Ajay Debnath, Power Plant Instrumentation and Control Handbook: A Guide to Thermal Power, Academic Press

## **Engineering Design Guidelines for Compressor Sizing and Selection**

1. Modelling and Design of an Auto Street Light Generation Speed Breaker Mechanism

O.A. Olugboji<sup>1</sup>, M.S. Abolarin<sup>1</sup>, I.E. Ohiemi<sup>1</sup>, K.C. Ajani<sup>1</sup>,

<sup>1</sup>Department of Mechanical Engineering, School of Engineering and Engineering Technology, Federal University of Technology, Minna, Nigeria

American Journal of Mechanical Engineering. 2015, Vol. 3 No. 3, 84-92

DOI: 10.12691/ajme-3-3-3

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2. International Journal of Scientific Engineering and Technology Research

[www.semargroup.org](http://www.semargroup.org), [www.ijsetr.com](http://www.ijsetr.com) ISSN 2319-8885 Vol.03, Issue.07, May-2014, Pages:1210-1214

Copyright © 2014 SEMAR GROUPS TECHNICAL SOCIETY. All rights reserved. Design of a Rotary Compressor for Domestic Air Conditioner NWAY EI HLAING Dept of Mechanical Engineering, Mandalay Technological University, Mandalay, Myanmar, E-mail: [nweihlaing.mech@gmail.com](mailto:nweihlaing.mech@gmail.com).

<http://ijsetr.com/uploads/426531IJSETR1024-203.pdf>

## Engineering Design Guidelines for Flare Sizing and Selection

### 1. [PDF] SAFETY ASSESSMENT OF FLARE SYSTEMS BY FAULT TREE ANALYSIS

MT Berrouane, Z Lounis - Journal of Chemical Technology and ..., 2016 - researchgate.net

ABSTRACT Flaring is a combustion process of waste gases from the oil and gas industry. The escape of these gases from the flare stack without been burned is known as Flameout. These released gases can present human and environment toxicity as well as they can lead ...

### 2 The Gas Flare Stack Process

SB Ibrahim - 2017 - content.grin.com

Gas flaring is a combustion device to burn associated, unwanted or excess gases and liquids released during normal or unplanned over-pressuring operation in many industrial processes, such as oil-gas extraction, refineries, chemical plants, coal industry and landfills ...

[PDF] savap.org.pk

### 3 [PDF] OPTIMIZING VERTICAL GAS FLARE STACK'S SIZING PARAMETERS FOR FLARE EFFICIENCY IN NIGER DELTA

BA Orij, DE Moses - 2017 - savap.org.pk

ABSTRACT One of the performance indicators of a flare system is its ability to consume gases efficiently through combustion so as to produce a more desirable emission. However, this process is significantly affected by the flare operating conditions and sizing (design) ...

4. Nicholas P Cheremisinoff, Industrial Gas Flaring Practices, John Wiley and Sons

5. Nicholas P Cheremisinoff, Pollution Control Handbook for Oil and Gas Engineering, John Wiley and Sons

## Engineering Design Guidelines for Heat Exchanger Sizing and Selection

1. International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056 Volume: 04 Issue: 04 | Apr -2017 www.irjet.net p-ISSN: 2395-0072 © 2017, IRJET | Impact Factor value: 5.181 | ISO 9001:2008 Certified Journal | Page 269 Experimental Investigation of Fixed Tube Sheet Shell and Tube Heat Exchanger Vishal Acharya1 1 ME Scholar, Mechanical Department, LDRP-ITR, Gandhinagar, INDIA -----\*\*\*-----

2. Boil off gas handling on LNG fuelled vessels with high pressure gas injected engines

A BATTISTELLI - 2015 - politesi.polimi.it

English abstract: The aim of this thesis is to design and optimize a heat pump process to handle Boil-Off-Gas from Liquefied Natural Gas (LNG) cryogenic fuel tanks onboard LNG fuelled ships. The process is designed for LNG fuelled ship different from LNG carriers ...

3. Investigation of a Concept for Simultaneous Reliquefaction of Boil-Off-Gas and Vaporization of LNG for Marine Atmospheric LNG Fuel Tanks

A Battistelli - 2014 - brage.bibsys.no

The aim of this thesis is to design and optimize a heat pump process to reliquefy Boil-Off- Gas from Liquefied Natural Gas (LNG) cryogenic tanks, and simulataneously vaporize LNG at high pressure. The process is meant for use onboard LNG fuelled ship different from LNG ...

## Engineering Design Guidelines for Cooling Towers Sizing and Selection

1. ENERGY PERFORMANCE ESTIMATION OF COOLING TOWERS by ZILAI ZHAO KEITH WOODBURY, COMMITTEE CHAIR ZHENG O'NEILL ROBERT BATSON

[http://acumen.lib.ua.edu/content/u0015/0000001/0002475/u0015\\_0000001\\_0002475.pdf](http://acumen.lib.ua.edu/content/u0015/0000001/0002475/u0015_0000001_0002475.pdf)

2. International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 Index Copernicus Value (2013): 6.14 | Impact Factor (2013): 4.438

Experimental Analysis on Performance of a Counter Flow Tray Type Cooling Tower

R. Sattanathan Department of Thermal Engineering, Christ the King Engineering College, Coimbatore, Tamil Nadu, India, [rsknathan8@yahoo.com](mailto:rsknathan8@yahoo.com).

<https://www.ijsr.net/archive/v4i4/SUB153384.pdf>

3. KINERJA INSTALASI PENDINGIN SIKLOTRON DECY-13 Edi Trijono Budisantoso, Suprpto, Sutadi Pusat Sains Teknologi Akselerator – BATAN, Jl.Babarsari Kotak Pos 6101 ykbb Jogjakarta 55281 [Edi-t@batan.go.id](mailto:Edi-t@batan.go.id)

[http://www.iaea.org/inis/collection/NCLCollectionStore/\\_Public/47/082/47082705.pdf](http://www.iaea.org/inis/collection/NCLCollectionStore/_Public/47/082/47082705.pdf)

4. Creating a New Model to Predict Cooling Tower Performance and Determining Energy Saving Opportunities through Economizer Operation

P Yedatore Venkatesh - 2015 - [scholarworks.umass.edu](http://scholarworks.umass.edu)

Abstract Cooling towers form an important part of chilled water systems and perform the function of rejecting the heat to the atmosphere. These systems are often not operated optimally, and cooling towers being an integral part of the system present a significant area ...

Related articles

[PDF] [umass.edu](http://umass.edu)

[PDF] [mobt3ath.com](http://mobt3ath.com)

5. KAJI EKSPERIMENTAL EFEKTIVITAS COOLING TOWER MINI PADA KOMPUTER

SI Martha, A Puspawan, A Kurniawan - 2014 - [repository.unib.ac.id](http://repository.unib.ac.id)

Cooling Tower merupakan suatu peralatan yang digunakan untuk menurunkan temperatur aliran air dengan cara menguapkan panas dari air ke atmosfer. Cooling Tower banyak digunakan di dunia industri karena kemampuannya untuk mendinginkan suatu sistem ...

Related articles All 2 versions

[PDF] [unib.ac.id](http://unib.ac.id)

## Engineering Design Guidelines for Amine Gas Dehydration Systems

1. [CITATION] Design of a TEG dehydration train model using the glycol property package in HYSYS

H Hansen, A Chiriac, N Incoom, A Olsen - 2013 - Master's thesis. Aalborg University

Cited by 2 Related articles

2. [CITATION] NATURAL GAS HYDRATES AND OPTIMIZATION OF COOLING LOAD FOR DEHYDRATION.

W Asif, S Zahid, M Rustam, S Jabeen, A Umer - Science International, 2015

Related articles

[PDF] [jmest.org](http://jmest.org)

3. [PDF] Optimization Of Natural Gas Dehydration Using Triethylene Glycol (Teg)

RO Felicia, BO Evbuomwan - Optimization, 2015 - [jmest.org](http://jmest.org)

Abstract—Natural gas from reservoirs usually contains water vapor, the presence of this vapor causes flow assurance issues hence the need to dehydrate the gas and optimize the process. Optimization of natural gas dehydration using Triethylene glycol was carried out ...

Related articles

## Engineering Design Guidelines for Pressure Relief Valve Sizing and Selection

1. An economic evaluation framework for membrane reactor modules in the presence of uncertainty: The case for process safety investment and risk reduction

R Koc, NK Kazantzis, WJ Nuttall, YH Ma - Journal of Loss Prevention in the ..., 2013 - Elsevier

Abstract A comprehensive Net Present Value (NPV) model has been developed to demonstrate the economic advantages of process safety and risk reduction investments on Pd/Au-based membrane reactors. In particular, the economic viability of Pd/Au-based ...

2. [PDF] EVALUACIÓN DEL SISTEMA DE ALIVIO DE LA PLANTA COMPRESORA C-1, OPERADA POR PETRODELTA, TEMBLADOR, EDO. MONAGAS

PV Pérez - 2010 - researchgate.net

RESUMEN Los sistemas de alivio de presión son mecanismos diseñados para liberar fluido cuando la presión interna de un recipiente supera un umbral preestablecido. Su misión es evitar fallas estructurales de equipos o tuberías por exceso de presión, que puedan resultar ...

## Engineering Design Guidelines for Separator Vessel Sizing and Selection

### 1. [PDF] Influence of Flow Characteristics on the Design of Two-Phase Horizontal Separators

ME Mohyaldinn, MG Ahmed - Editorial Board - sustech.edu

ABSTRACT-Fluid streams produced from petroleum reservoirs reach surface as complicated mixtures consisting of multi-phase gas, oil, and water. Depending on the quantity of each phase, separators should be designed and installed to handle the mixture and separate it ...

### 2. Selected Aspects of Dust Removal from Gas Stream for Chamber Separators

A Krupińska, M Ochowiak, S Włodarczyk - Practical Aspects of Chemical ..., 2018 - Springer

Abstract Dust occurring in the atmospheric air constitutes a difficult and important matter within environmental protection. Consequently, the relevant solutions aiming to eliminate or reduce the emissions of such pollutants are being sought for. It is implemented by the ...

### 3. KAJIAN ULANG DESAIN SEPARATOR UNTUK MENCAPAI TARGET PRODUKSI 1500 BFPD PADA OIL PLANT SG-09 PT. ENERGI MEGA PERSADA (EMP) GELAM ...

DDA Sukaryo, MT Toha, UA Prabu - Jurnal Pertambangan, 2017 - ejournal.unsri.ac.id

Abstract Separator yang berada di Oil Plant SG-09 lapangan Sungai Gelam PT. Energi

Mega Persada (Gelam) merupakan separator horizontal single barrel yang memiliki desain panjang sebesar 14 feet dan mempunyai diameter sebesar 47, 7609 inchi untuk ...

[PDF] unsri.ac.id



## Engineering Design Guidelines for Hydrotreater Units

1. Oxidation of Dibenzothiophene to Dibenzothiophene-Sufone Using a Molybdenum (VI) Oxide Catalyst: A Kinetic Study Testing Solvent Dependency and Mole Ratio ...

T Trevino Jr - 2017 - search.proquest.com

... Chem. Eng. News,. 39. Apr.21, 23. 15. Kolmetz, Karl. "Hydrotreating Engineering Design Guideline."

Kolmetz Handbook of. Process Equipment Design (2013): 1-70. Web. 16. Leal, JH (2013).

Oxidation of dibenzothiophene to dibenzothiophene sulfone using. TiO<sub>2</sub>. 17

2. [BOOK] Hydrodesulfurization of dibenzothiophene using CoMoS<sub>2</sub>

JS Sollner - 2016 - search.proquest.com

... Crude Oil." [Http://www.eia.gov/](http://www.eia.gov/). US Energy Information Administration, 28 Oct. 2014. Web.

5 Nov. 2015. 11. Kolmetz, Karl. "Hydrotreating Engineering Design Guideline." Kolmetz

Handbook of. Process Equipment Design (2013): 1-70. Web. 57. 12 ...

# **Engineering Design Guidelines for a Typical Distillation Column Sizing and Selection**

1. Development of a working method for the study of a distillation process

Distillation of a multicomponent system

By Åsa Afvander

Degree Project in Engineering Chemistry, 30 ECTS

Report passed: September 2015

Supervisors:

Erika Tönnerfors, SPPD

William Siljebo, Umeå University

<http://www.diva-portal.org/smash/get/diva2:855271/FULLTEXT01.pdf>