



Todd I Hollingsworth, P.E.

1324 1st Street South, Nampa, Idaho 83651

Office: 208-467-3854

Mobile: 208-870-2820

tih@engconsys.com

SUMMARY

Mechanical engineering technical expert and department manager with over 20 years experience in international engineering. Extensive experience in mechanical design, engineering department management, training and mentoring of international engineering staff. Proficiency in field engineering, client interface and technical sales support.

- Mechanical engineering calculations and evaluations including mechanical dynamic analysis and Discrete Element Modeling
- International field engineering, product commissioning, and sales support
- International teaching and mentoring
- Mechanical engineering department management, project scheduling and workload leveling

REGISTRATION & CERTIFICATES

Licensed Professional Engineer in Idaho, and Washington

EDUCATION

Bachelor of Science Degree in Aerospace Engineering, University of Colorado, Boulder, 1993

PROFESSIONAL AFFILIATIONS

Registered Professional Engineer – Idaho and Washington

Society for Mining, Metallurgy and Exploration (SME) – Bulk Material Handling Chair 2009-2010

Member of Idaho Society of Professional Engineers (ISPE)

Member of National Society of Professional Engineers (NSPE)

Member of American Society of Mechanical Engineers (ASME)

FLSmidth Official Representative to CEMA (through 2013)

TECHNICAL PUBLICATIONS

Radomiro Tomic Tripper Drive and Local Control System, Bulk Material Handling by Conveyor Belt 5, 2004

Discrete Element modeling: A 5-year History of Practical Application, Bulk Material Handling by Conveyor Belt 6, 2006

Diseño de Chute por tecnología DEM, Minería Chilena, January 2009

Boddington Gold Mine's Expansion Project includes Overland Conveyor, Mining Engineering, November 2010

POSITIONS HELD

Principal, Engineered Conveyor Systems, 2014 to present
Mechanical Engineering Manager and Product Technical Specialist FLSmidth, Boise, Idaho, January to February 2014
Product Technical Specialist FLSmidth, Boise, Idaho, September 2013 to December 2013
Mechanical Technical Specialist FLSmidth, Boise, Idaho January 2013 to September, 2013
Mechanical Engineering Manager and Senior Mechanical Engineer FLSmidth, Boise, Idaho, 2009 to 2013
Mechanical Engineering Manager and Senior Mechanical Engineer Conveyor Engineering, Inc., 2004 to 2009
Senior Mechanical Engineer Conveyor Engineering, Inc., 2000 to 2004
Mechanical Engineer (EIT) Conveyor Engineering, Inc., 1994 to 2000

RELATED EXPERIENCE

Over twenty years experience in the mining and material handling sector with special expertise in the design of industrial material handling systems including overland and in-plant conveyors, large belt and apron feeders, mobile stackers and fixed & mobile trippers. Specialist in transfer design and flow enhancement techniques for above ground and underground applications using discrete element modeling technology.

Global experience on projects including; Crushing and screening systems, In-plant and overland conveying systems, heap leach stacking systems, belt feeders, apron feeders, fixed and mobile trippers, automated transfer chutes/gates and transfer chute modeling using DEM software.

PROJECT EXPERIENCE (ONLY MAJOR PROJECTS LISTED)

- 2011 to 2013 – Cerro Verde Shuttling Heads, Mechanical Engineering Manager and Mechanical Technical Specialist
- 2011 to 2013 – Cerro Verde Apron Feeders, Mechanical Engineering Manager and Mechanical Technical Specialist
- 2010 to 2013 – Newmont Conga Conveyors and Feeders, Mechanical Engineering Manager and Mechanical Technical Specialist
- 2010 to 2013 – Mina Marlin Conveyors and Tripper, Mechanical Engineering Manager and Mechanical Technical Specialist
- 2010 to 2014 – Penasquito Sizer Station, Mechanical Engineering Manager and Mechanical Technical Specialist – Mexico
- 2008 to 2014 – Toromocho Overland Conveyor System, Mechanical Engineering Lead, Field start-up and commissioning assistance – Peru
- 2009 – Caserones Belt Conveyors – Mechanical Engineering Manager and Mechanical Technical Specialist
- 2009 – Kisladag Gold Mine Tripper Conveyor Problems, Field Assistance – Turkey
- 2009 – Antamina Coarse Ore Conveyors , Mechanical Engineering Manager and Mechanical Technical Specialist – Peru



- 2008 – Climax – New Sag Mill Conveyors, Mechanical Engineering Manager, Mechanical Technical Specialist, Field Start-up and Commissioning Assistance – Leadville, Colorado
- 2008 – El Sauzal New Tailings Handling System, Mechanical Engineering Manager and Mechanical Technical Specialist – Mexico
- 2008 – Collahuasi Phase 2 Belt Feeders, Mechanical Engineering Manager and Mechanical Technical Specialist – Chile
- 2007 – Codelco Andina PDA Phase 1 Conveyors and Feeders, Mechanical Engineering Manager and Mechanical Technical Specialist – Chile
- 2007 – Collahuasi Feeder and Inplant Conveyors, Mechanical Engineering Manager and Mechanical Technical Specialist – Chile
- 2006 – Escondida Norte Belt Feeder, Mechanical Engineering Manager and Mechanical Technical Specialist – Chile
- 2006 – Newmont Boddington Overland and Inplant Conveyors, Mechanical Engineering Lead, Field Start-up and Commissioning Assistance – Western Australia
- 2006 – Yanacocha Gold Mill Project – Conveyor addition, Mechanical Engineering Manager and Mechanical Technical Specialist – Perú
- 2005 – Apex San Cristobal Overland Conveyor/Inplant conveyors/Loadout system, Mechanical Engineering Lead, Field Start-up and Commissioning Assistance – Bolivia
- 2005 – KU SO2 Ghent Unit 3 Conveyor Project, Mechanical Engineering Manager and Mechanical Technical Specialist, Field Assistance – Ghent, Kentucky
- 2005 – Phelps Dodge Safford Tripper, Mechanical Engineering Manager and Mechanical Technical Specialist – Safford, Arizona
- 2005 – Fluor/Cerro Verde Concentrate Loading System, Mechanical Engineering Manager and Mechanical Technical Specialist – Arequipa, Perú
- 2005 – Ilo Smelter Conveyor Upgrade and Isasmelt furnace feed conveyor, Mechanical Engineering Manager and Mechanical Technical Specialist, Field Assistance – Ilo, Perú
- 2005 – TXI Oro Grande Conveyors, Mechanical Engineering Manager and Mechanical Technical Specialist – Riverside, CA
- 2005 – SPCC Belt Feeder, Mechanical Engineering Manager and Mechanical Technical Specialist – Ilo, Perú
- 2005 – SPCC Belt Feeder, Mechanical Engineering Manager and Mechanical Technical Specialist – Ilo, Perú
- 2005 – Cerro Verde Project Trippers, Mechanical Engineering Manager and Mechanical Technical Specialist – Arequipa, Perú
- 2004 – Cerro Verde Project Belt Feeders, Mechanical Engineering Manager and Mechanical Technical Specialist – Arequipa, Perú
- 2004 – Radial Stacker, Mechanical Engineering Manager and Mechanical Technical Specialist – Yellowknife, Canada

- 2004 – Cortez Mine Overland Conveyor Feasibility Study, Mechanical Engineering Design – Crescent Valley, Nevada
- 2004 – Leeville Conveyor Project – Engineering, Mechanical Engineering Manager and Mechanical Technical Specialist – Carlin, NV
- 2004 – SPCC Toquepala Leach Pad Grasshoppers, Mechanical Engineering Manager and Mechanical Technical Specialist – Toquepala, Perú
- 2003 – BHP Spence In-Plant Conveyors and Belt Feeders, Mechanical Engineering Manager and Mechanical Technical Specialist – Sierra Gorda, Chile
- 2003 – Escondida Norte Belt Feeders, Mechanical Engineering Manager and Mechanical Technical Specialist – Chile
- 2003 – El Sauzal Conveyor Project C-450, Mechanical Engineering Manager and Mechanical Technical Specialist – Mexico
- 2002 – PTFI-WRIM, Mechanical Calculations – Indonesia
- 2002 – Coeur Rochester Crushing System, Mechanical Engineering Manager and Mechanical Technical Specialist – Lovelock, Nevada
- 2000 – El Teniente In-Plant & Overland Conveyor System to New Stockpile, Mechanical Engineering Design – Rancagua, Chile

EIT

- 2000 – Cripple Creek Victor Gold Mine Conveyor System and Rolling Pan Gate, Mechanical Engineering Design, Field Start-up and Commissioning Assistance – Victor CO.
- 2000 – Newmont Gold La Quinoa Project 2000 Conveyor System, Mechanical Engineering Design – Yanacocha, Perú
- 2000 – Radomiro Tomic In-Plant Conveyors, Mechanical Engineering Design, Field Assistance – Chile
- 1998 – Equatorial Heap Leach Project, Mechanical Engineering Design, Field Start-up and Commissioning Assistance – Tonopah, NV
- 1998 – Ash Grove Scissor Conveyor, Mechanical Engineering Design, Field Start-up and Commissioning Assistance – Durkee, OR
- 1998 – Raytheon San Roque Overland Conveyors, Mechanical Engineering Design – Philippines
- 1996 – Coeur Rochester Dozer Trap and Reclaim Conveyor, Mechanical Engineering Design – Lovelock, NV
- 1995 – Fort Knox Gold Project Conveyors, Mechanical Engineering Design – Fairbanks, AK
- 1995 – Ash Grove 42" Overland Conveyor System, Mechanical Engineering Design, Field Start-up and Commissioning Assistance – Leamington, UT
- 1994 – Southern Peru Copper Ilo Smelter Additional Conveyors, Mechanical Engineering Design – Peru, S.A.