Conveyor Manufacturers Association of South Africa NPC
Registration number 1973/07221/09

DIPLOMA COURSE IN THE DESIGN AND OPERATION OF BELT CONVEYORS

Registration Application Form

Complete one form per candidate and email to training@cmasa.co.za

ALL FIELDS TO BE COMPLETED

CANDIDATE DETAILS: *IMPORTANT this section is to be completed by Candidate personally*

Title……First Name……Surname……

Name to appear on Certificate ……

Business Email……ID Number……

Daytime Telephone…… Mobile ……

Designation / Position in Company …… PPE vest size ……

Tertiary qualifications: ……

Name of Tertiary education body ……

Secondary qualifications ……

Name of Secondary School(s) attended ……

Experience in the conveying industry ……

Experience other than the conveying industry ……

Aspirations for attending the course ……

By signing this form, I agree to be bound by the conditions as laid down by the CMA and the course lecturer(s) and am aware that the ***criteria for acceptance onto the course is a good working knowledge of Applied Mathematics (Matric Core Math level or higher), proficiency in the use of a scientific calculator and conveyor experience.***

I acknowledge that the decision of the selectors, lecturer(s) and examiner(s) is final.

Candidate Signature…… Date……

PAYMENT DETAILS: Company responsible for payment: (or SELF)

Company Name…… Company Division……

Purchase Order Number…… Person Responsible for Payment……

Postal Address for invoice …… Code ……

Telephone…… E-mail……

IF A COMPANY ORDER IS NEEDED, PLEASE EMAIL A COPY WITH YOUR REGISTRATION.

☐ 8 – 15 February 2027 ☐ 7 – 14 June 2027 ☐ 4 – 11 October 2027

Fees: **R27 560.00 NON-CMA Members** **R23 320.00 CMA Members**

CONDITIONS:

1. The prescribed fee is payable **in full 14 days prior to commencement of lectures unless special arrangements have been made with the CMA Financial Manager.** **The fee is not refundable** in the event that the candidate does not complete the course or fails the examination.
2. Cancellation, substitution, and late booking fees are applicable.
3. Payment of the prescribed fees within the time limit as above secures a place on the course. Until then, the booking is only provisional.

By signing this form, our company agrees to be bound by the conditions as laid down by the CMA.

*Authorised by (**name & signature**)* …… *Designation* ……

Email Address …… *Date*……

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DIPLOMA COURSE IN THE DESIGN AND OPERATION OF BELT CONVEYORS

Information accompanying Application for Registration form

Registration: Each candidate is required to complete a Registration Form, which is adjudicated by a panel of Selectors for acceptance on the course.

Eligibility: Ideal candidates include newly graduated mechanical engineers and technicians, draughtsmen wishing to advance to conveyor design, people already engaged in the industry requiring more knowledge of conveyor design, conveyor operators, project support staff requiring information in order to, for example, adjudicate equipment bids or purchase conveyor equipment.

Entrance criteria: Candidates must have a **minimum of matric core mathematics**. **Using a scientific calculator is vital**. At least two years practical experience on conveyors is required or **a firm commitment and dedication to obtaining a conveyor qualification is essential.**

Requirements: Candidates must possess or provide and be able to use a **scientific calculator** and bring writing materials (notepaper is included in the reference manual). **NB: Computers are not permitted on the course.**

CPD credits: The Diploma course has been registered with ECSA, and 6 credits may be claimed by professional engineers and technicians registered with ECSA who have attended the full course.

Programme: The Diploma course is run over five consecutive days (Monday to Friday). The examination is the next Monday.

Day 1	Registration and lectures	Day 2	Lectures
Day 3	Lectures	Day 4	Site visit & Lectures
Day 5	Lectures	Day 6	Examination

Accommodation is available at the Apollo Hotel, in Randburg where the training takes place. This is for your own cost.
https://apollohotel.co.za/

Tea and coffee and snacks will be served on arrival. Morning tea, Lunch and afternoon tea will also be provided. Special dietary requests should be advised on registration.

Examination: An open-book examination is scheduled for Day 6, allowing a weekend between for serious revision. The examination shall be completed by each individual candidate under the supervision of an invigilator. A maximum time limit is set for the examination, which shall be advised by the course leader on the day of the exam.

Pass mark: The pass mark for the course is 70%. Candidates who achieve percentages of 70% - 84% shall be awarded the certificate: Diploma in Design and Operation of Belt Conveyors. Achieving a pass mark of 85% and over will be rewarded with a Diploma with distinction.

Rewrite: In the event of failure only candidates who achieve a mark of 60-69% will be eligible to apply for a re-write. This re-write must take place at the next course. Candidates achieving less than 60% will not be allowed to rewrite the exam but are welcome to redo the course at a later date at the current cost. The decision taken by the examiner and moderator in this regard is final.

Number of candidates: A minimum of 10 candidates is required for each course. A maximum limit of 15 candidates per course has been set to ensure that the syllabus is adequately covered within the time constraints.

Course dates: **Dates will also be on website.**

Site visit: A site visit is considered an integral part of the learning experience and one is arranged for each course. Venues are generally such that a variety of conveyors are seen. The principal lecturer accompanies candidates on the site visit to make it a worthwhile experience. **PPE** (Personal Protective Equipment) pack for the site visit is included in the cost of the course (hard hat, reflective vest, goggles, mask and ear protection). Safety boots to be supplied by the candidate.

PPE (including safety boots) is mandatory on site.

Course Outcome: On successful completion of the course, participants will have a thorough understanding of all the components of a conveyor. The design content of the course will enable participants to undertake calculations to determine the belt tension and power requirements and the belt class for the application as well as the belt tensioning system criteria. Pulley and idler selection as well as the catalogue selection of motors, reducers, and couplings are also included in the course curriculum. A candidate's success in the final examination depends to a large extent on the amount of work that is put in during the week and over the weekend before the examination. It is crucial that this is taken seriously. They are urged to put in as much time over the course as possible, into homework and study, for a positive and self-satisfactory examination result.

Successful candidates will have their names recorded on the CMA website for posterity.

TRAVEL AND ACCOMMODATION INFORMATION

Please note that if you are travelling from far and need accommodation, the venue where we host our training has modest accommodation at reasonable prices. This also saves on having to travel to and from the venue at peak traffic times.

If you are flying in, we highly recommend that you arrive the day before as traffic into Randburg is generally quite heavy.

The diploma course runs over the week, Monday to Monday. The weekend is meant for studying as this is an intense course. On Monday students write an exam, and we suggest that if you are flying out that you book your flight after 8 pm to avoid stress during the exam. Students write for the whole day, and it would be unfair to put unnecessary pressure on the students to catch an earlier flight.

The venue is The Apollo Hotel

158 Bram Fischer Drive, Ferndale, Randburg

Phone: 011 787 5434

https://apollohotel.co.za/

Registrations are dealt with in the CMA Office

Email training@cmasa.co.za

(This page covers the introduction and content of the training manual and will give you and idea of what the course covers)

INTRODUCTION

The following short course on conveyors is intended to give some insight to engineers with little or no experience of conveyors, as to how conveyors operate and how their various components are designed. At the end of the course, the reader will by no means be an expert conveyor designer but will almost certainly be able to solve common problems associated with these machines. The course is intended to allow engineers to become aware of certain pitfalls regarding the operation of conveyors and how to avoid them.

The course papers are divided into 25 chapters as follows.

Chapter 1	Why use belt conveyors
Chapter 2	Minimising losses
Chapter 3	Cross-sectional Area determination
Chapter 4	Basic Tension Calculations
Chapter 5	The Design and Selection of Idlers
Chapter 6	Vertical Curves
Chapter 7	Holdback Sizing
Chapter 8	Vibrations and belt flap
Chapter 9	Take-up Determination
Chapter 10	Pulley shafts
Chapter 11	Transition distances
Chapter 12	Belt cover wear and life prediction
Chapter 13	Installation tolerances
Chapter 14	Installation, operation and maintenance
Chapter 15	Guarding of conveyors
Chapter 16	Storage of belting
Chapter 17	Commissioning procedure
Chapter 18	Alignment and the use of self-aligning idlers
Chapter 19	Conveyor belt protection devices
Chapter 20	Splicing the Belt
Chapter 21	Estimating Conveyor Operating costs
Chapter 22	The Trajectory of the Material
Chapter 23	The Design of Belt Conveyor Skirtboards
Chapter 24	The Design of Conveyor Stringers
Chapter 25	Conveyor starting and coasting