## Eurotrans Gear Training 2012







# A complete Gear Training Programme on Master Level (English spoken)

Although the Power Transmission Engineering industry is an important industry branch, universities fail to develop appropriate courses. In Europe, a mechanical engineer gets on average 5 hours of gear training. This is far too less to be effective in industry. Moreover, gear trainers are becoming rare due to retirement and non replacement. Therefore, Eurotrans identified the remaining top gear trainers and developed an extensive training on geometry and design (in collaboration with FVA). Addressing a European audience, this residential training is organised in Munchen in close connection with the Laboratories of the Institute for Gears at the University of Munich (FZG).

## Geometry and design

Please find the detailed programme for this week below. If you wish to subscribe, please use the subscription form at the end of this folder. Room reservations should be made directly with the hotel using the separate reservation form to take advantage of the special Eurotrans rates.



15 – 19 October 2012



Munchen, Germany (in collaboration with FVA)

Accommodation? Rooms are available at **Hotel Hoyacker Hof and Hotel Coro**. Please confirm your room reservation directly to the hotel preferably one month before the start of the course. Hotel information is included at the end of this folder. Accommodation is not included in the price.

Social programme? The training package **includes** evening **dinners** and **social activities** such as a guided walk through the city centre of Munchen and a visit of the Laboratories of the Institute for Gears at the University of Munich (FZG). The social programme can be subject to change.

Monday AM	Travel			
Monday PM	INTRODUCTION	Introduction to Gears	Why gears, short history, applications, types. General kinematics and dynamics, basic gear law, survey of Standards (ISO etc).	Dr. Wirth
Monday PM	GEAR GEOMETRY	Geometry of involute gearing	Spur and helical gears, basic definitions of single gear, gear pairs, mesh	Dr. Wirth
Tuesday AM	GEAR GEOMETRY	Gear corrections	Profile and lead corrections, laod distribution, vibration excitation	Dr. Wikidal
Tuesday PM	GEAR GEOMETRY	Variant gear Systems	"Special gears": bevel gears, conical gears, worm gears, general kinematics, basic definitions Plenatary gears: kinematics, powerflow, efficiency	Dr. Wirth
Wednesday AM	MATERIAL AND HEAT TREATMENT	Gear materials	Selection of gear materials, heat treatment, SN-curve, damage line, strength values	Dr. Michaelis
Wednesday PM	GEAR RATING	Basic rating practice	Introduction fo gear rating, relevant stress parameters, rating of bending, pitting, scuffing, slow speed wear, micropitting and flank breakage	Dr. Michaelis
Thursday AM	GEAR RATING	Standard gear rating	Standardized gear methods in ISO, bending, pitting, scuffing, micropitting – examples	Dr. Wikidal
Thursday PM	TEST METHODS	Oil tests	Influence of lubricants on gear load capacity, test methods and test results, introduction of test results in gear rating practice	Dr. Michaelis
Friday AM	GEAR RATING	Program codes	Application of standard gear rating methods, examples	Dr. Wikidal
Friday PM	Travel			





### INSCRIPTION FORM

> Form to be returned at least 7 days before the start of the course (or 30 days for early bookings) to Marleen Poelmans, Diamant Building, bd A.Reyers In 80, 1030 Brussels, by fax 02/706 79 88 or by e-mail to marleen.poelmans@agoria.be

Mr./Mrs.	
Function	
Company	
Address	
E-mail	
Tel.	Fax.
VAT Nr	

Participation fee:

1900 EUR (vat excl.) per person for early bookings at least 30 days before the start of the training
2000 EUR (vat excl.) per person for late bookings at least 7 days before the start of the training
2500 EUR (vat excl.) per person for organisations non-member of EUROTRANS associations disregarding date of registration

From the 2<sup>nd</sup> and consequent inscription from the same company a 100€ reduction will automatically be granted.

An invoice will be sent to you upon receipt of your registration from **FVA**. Invoice address if different from the above:

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Cancellation conditions:

- > No charge if cancelled at least 30 days before the start of the course
- > For cancellations at least 7 days before the start of the course, 50% of the inscription fee will be refunded
- > No refund will be made for cancellations received after 7 days before the start of the course, however replacement of a registered person is possible
- > In case of insufficient inscriptions the course will be cancelled and refunded

Date and Signature:



#### HOTEL INFORMATION

Please confirm your room reservation <u>directly</u> to the hotel preferably one month before the start of the course. To make use of the Eurotrans negotiated rate, please mention the block booking code upon reservation. Accommodation is <u>not</u> included in the price!

We recommend the following hotels:

Hotel Hoyacker Hof
Freisinger Landstrasse 9A - D-85748 Garching bei München
Tel. 00 49 89 3269900 / Fax. 00 49 89 3207243
Mail <u>info@hoyackerhof.de</u>
www.hoyackerhof.de

Block booking code: meeting Eurotrans 2012

Price indication single room: € 80 breakfast included

Booking before 15/9/2012. After this date, no room can be guaranteed.

#### Hotel Coro

Heideweg 1 - D-85748 Garching bei München Tel. 00 49 89 32 68 16-0 / Fax. 00 49 89 32 68 16 - 40 Mail <u>info@hotelcoro.de</u> www.hotelcoro.de

Block booking code: meeting Eurotrans 2012

Price indication single room:  $\in$  69 breakfast included Price indication double room:  $\in$  90 breakfast included

Booking before 15/9/2012. After this date, no room can be guaranteed.