



# Design in Steel

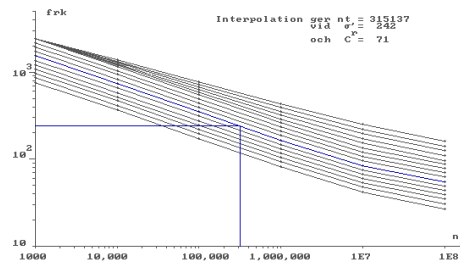
## Overview



### Buckling

Do you know the different instability effects? Modern design methods allow you to take instability into consideration. We will give you an overview of the subject and give hands-on tips how to handle design for best stability.

### Fatigue



Figur 4.6.24 Karakteristisk utmattningshållfasthet vid typiserade spänningskollektio. Kollektivparametern = 0,500

### Benefits

Based on our long experience in the engineering and steel industries, Toleap Consulting AB can now offer technology training, always with a focus on the customer and end-user benefits.

### Holistic

Material properties, design tips and practical advice for manufacturing are the main parts of this education. The holistic perspective means that we also reflect on other aspects, e.g. availability of materials, alternative materials, sustainability and end-user needs.

### How can you avoid fatigue issues?

What can you do if you have problems with fatigue? We are focusing a full day on fatigue loaded structures. We give the engineers a lot of examples how to design and how to estimate the fatigue life of a design.

### Scope

The training is three days long whereof the first part is on an intermediate level for designers, production engineers and other technically interested parties. The end part is an advanced design engineering training concerning fatigue.



## Welcome!

We are happy to invite you to *Design in Steel*. You find date and location for the coming educations on our website and in your confirmation e-mail.

## Program (reservation for changes)

### Day 1 /Material day

11.30	Welcome
12.00 – 13.00	Lunch
13.00	Seminars and workshop <ul style="list-style-type: none"><li>○ <i>Various types of steel and steel families</i></li><li>○ <i>Steel in comparison with other materials</i></li><li>○ <i>The properties of steel</i></li><li>○ <i>Mild steel compared with high strength steel</i></li><li>○ <i>Workshop, choice of materials</i></li></ul>
17.00	End of session
19.30 – 21.00	Dinner

### Day 2 / Manufacturing and Structural Design day

08.30	Reflections from yesterday
09.00	Seminars <ul style="list-style-type: none"><li>○ <i>Manufacturing methods</i></li><li>○ <i>Design for static load</i></li><li>○ <i>Instability</i></li></ul>
12.00-13.00	Lunch
13.00	Applications <ul style="list-style-type: none"><li>○ <i>Design recommendations, standard, practices</i></li><li>○ <i>Workshop, Case studies, good and bad examples</i></li></ul>
17.00	End of session
19.30 – 21.00	Dinner



---

## Day 3 / Fatigue Design day

08.30	Reflections from yesterday
09.00	Seminars <ul style="list-style-type: none"><li>○ <i>The phenomenon of fatigue and influencing factors</i></li><li>○ <i>Fatigue loads, load spectrum</i></li><li>○ <i>Fatigue design, methods and parameters</i></li></ul>
12.00-13.00	Lunch
13.00	Fatigue <ul style="list-style-type: none"><li>○ <i>Practical design recommendations</i></li><li>○ <i>Case studies and empirical values</i></li><li>○ FATcomp software</li></ul>
15.30	End of training



## How to register

You register to this education simply by sending the name of the education and your contact information in an e-mail to [register@toleap.se](mailto:register@toleap.se).

We will then send you a receipt and ask for the additional information we need (if you want to you can copy and paste this table into your e-mail):

Course: Design in Steel

Date:

First name:

Surname:

Company:

Telephone no:

Mobile no:

Address:

Passport no (for citizens outside European Union):

Need of hotel, dates:

Food restrictions (no gluten, vegetarian or other):

Other requests:

FOR CITIZENS OUTSIDE THE EUROPEAN UNION:

Passport no:

I need an invitation letter (yes/no):

## Course fee (Proposal)/ Please, contact us for a price specifically for your company.

The course fee (excl. VAT, exkl. moms) is 19.000 SEK (2.000 EUR / 2.200 USD) per participant for all three days. This includes the seminar itself, the refreshments served during the training, lunch every day and the dinners the first and second day. All other expenses for travelling, hotel or any other additional costs you might have are not included, you have to pay all additional costs yourself. The course fee need to be paid in advance, late cancellations (31 days before the start of the education) are not allowed.

## FATcomp software

You can order FATcomp for an additional cost (excl. VAT, exkl. moms) of 25.000 SEK (2.700 EUR / 2.900 USD) per licence. If you need a company licence, we offer that (excl. VAT, exkl. moms) for 75.000 SEK (7.900 EUR / 8.700 USD). If you are participating in this training on Oct. 10-12 you will get a 20% discount of the above prize.