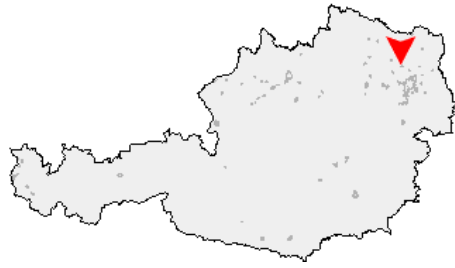


SBI PRODUKTION TECHN. ANLAGEN GMBH

Welcome!



Ing. Reinhard Indraczek



WHERE ARE WE LOCATED



WHAT EXPECTS YOU...

- **Company profile**
- **Mission**
- **Milestones**
- **Figures**
- **Plastic extrusion: Product range, common features**
 - **Film gauges, Sheet gauges, Thickness controls, Automatic die systems**
- **Plasma welding: Product range, common features**
 - **Spot welding, Seam welding, Brazing, System solutions**
- **Project innovation assistant**
- **Discussion**

COMPANY PROFILE

is a dynamic company,
offering innovative, client-specific and competent
solutions by
developing and producing technical equipment in
the business fields

PLASTIC EXTRUSION

PLASMA TECHNOLOGY

MISSION OF THE SBI-TEAM



- Research,
- Development,
- Production and
- Distribution

of High tech-Products

distinguishing
from the

“state of the art“ !!!

MILESTONES

1999:

✓ **foundation of the company**

2000:

✓ 1st SBI-project for serial production

2002:

✓ PSW-market launch in Germany

✓ SBI hires **first employees**

✓ Start of project **“innovation assistant”**

✓ Innovation-price at the Euroblech'02

2003:

✓ **Relocation to the new SBI plant**

✓ Innovation-price 2003 in Lower Austria

2004:

✓ Market launch in Spain, Portugal, Hungary and Switzerland

2005:

✓ Market launch in Russia

2006:

✓ Starting the cooperation with MEC Group

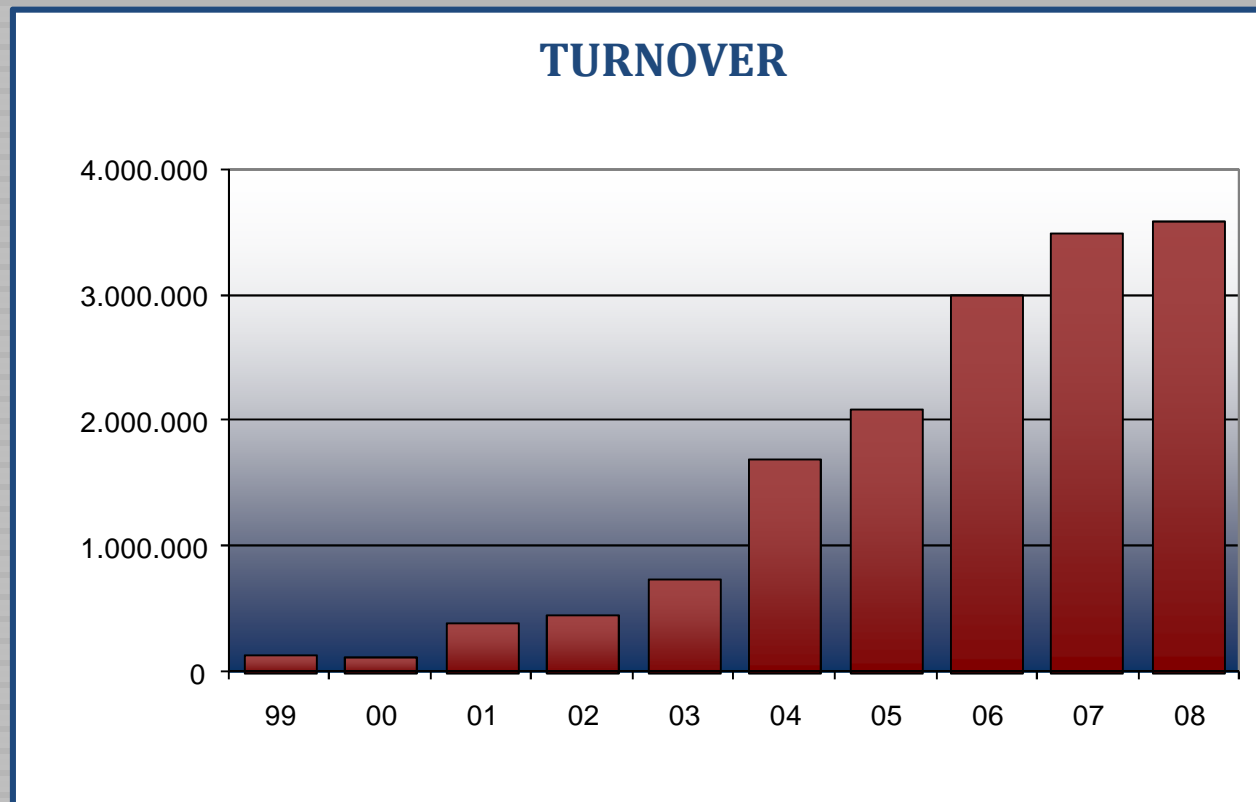
2007:

✓ Turnover 3.5 Million Euro

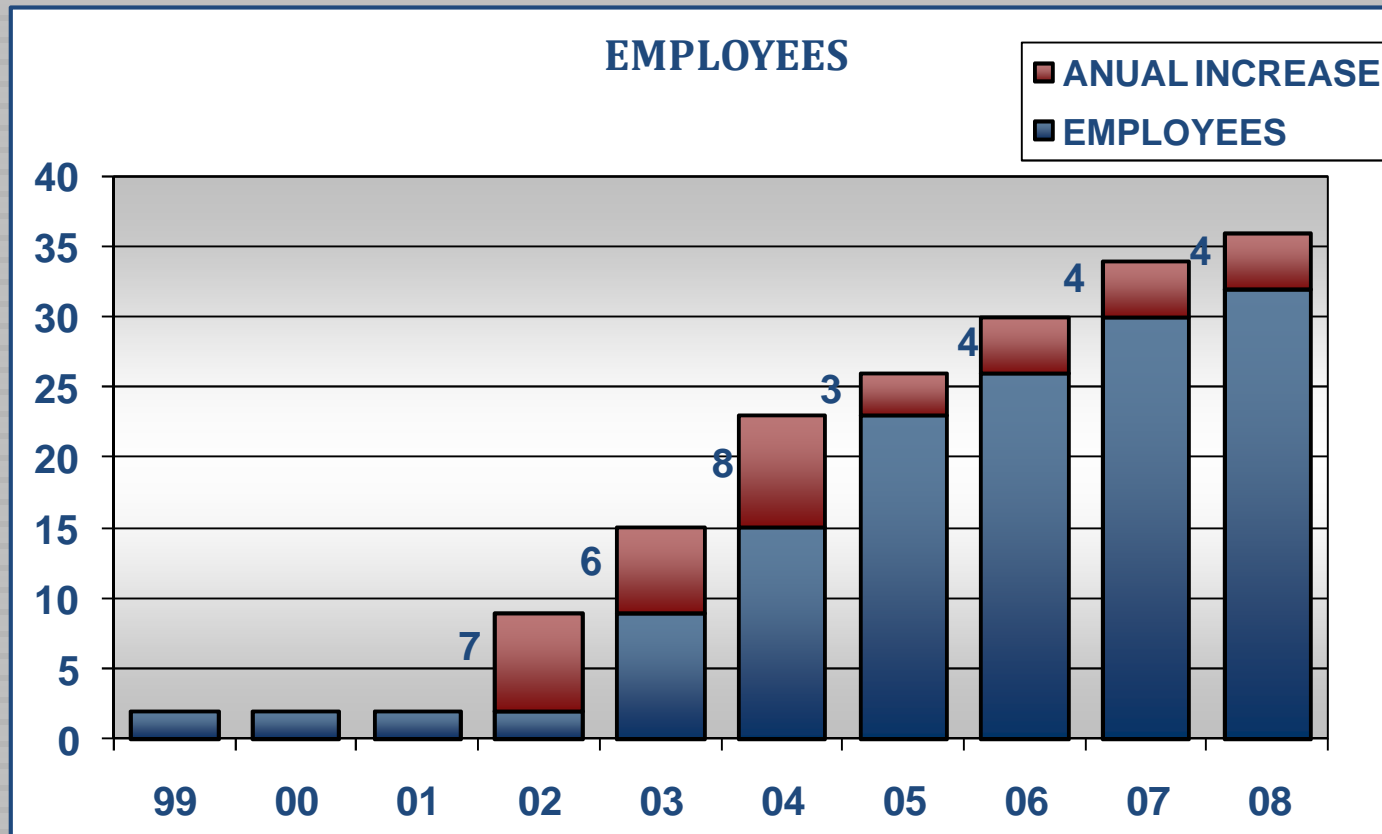
2008:

✓ 35 employees

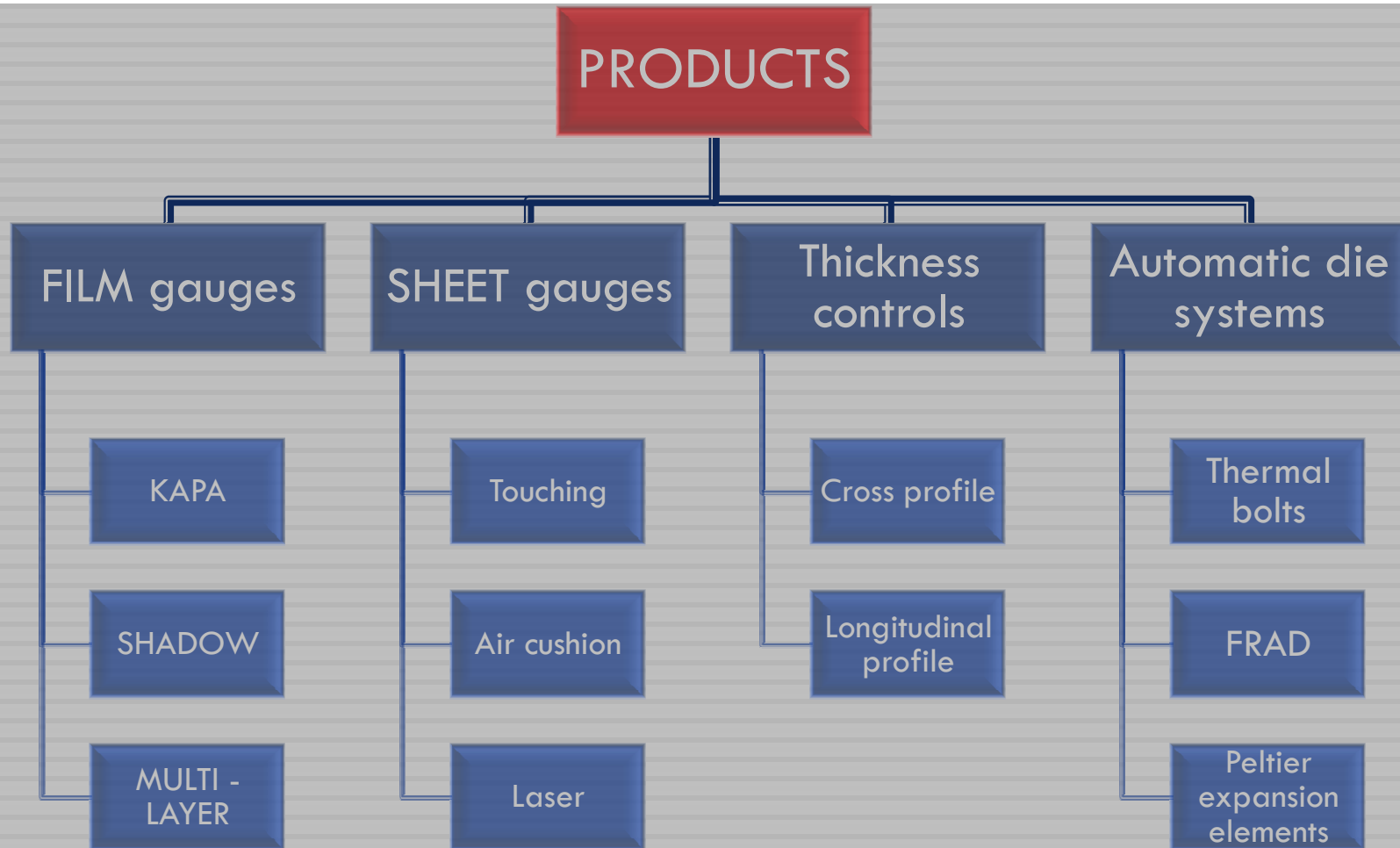
FIGURES



FIGURES



PLASTIC EXTRUSION

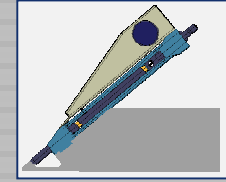


THICKNESS GAUGES AND AUTOMATIC SYSTEMS FOR EXTRUSION DIES

10



THICKNESS GAUGES AND AUTOMATIC SYSTEMS FOR EXTRUSION DIES



11

Automatic die systems – also for retrofit existing dies



working range: 2 mm

Flat die with automatic system: FRAD

THICKNESS GAUGES AND AUTOMATIC SYSTEMS FOR EXTRUSION DIES

12



SBI workshop Hollabrunn, Austria

PRODUCT RANGE



Applications



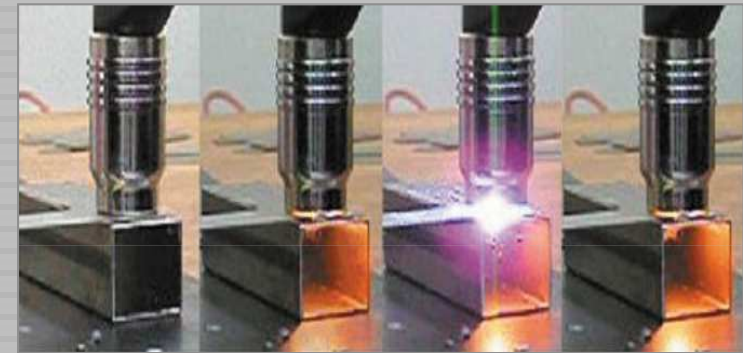
Applications PSW



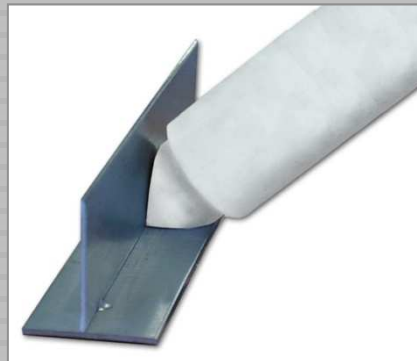
Exterior angle



manual



process



Interior angle



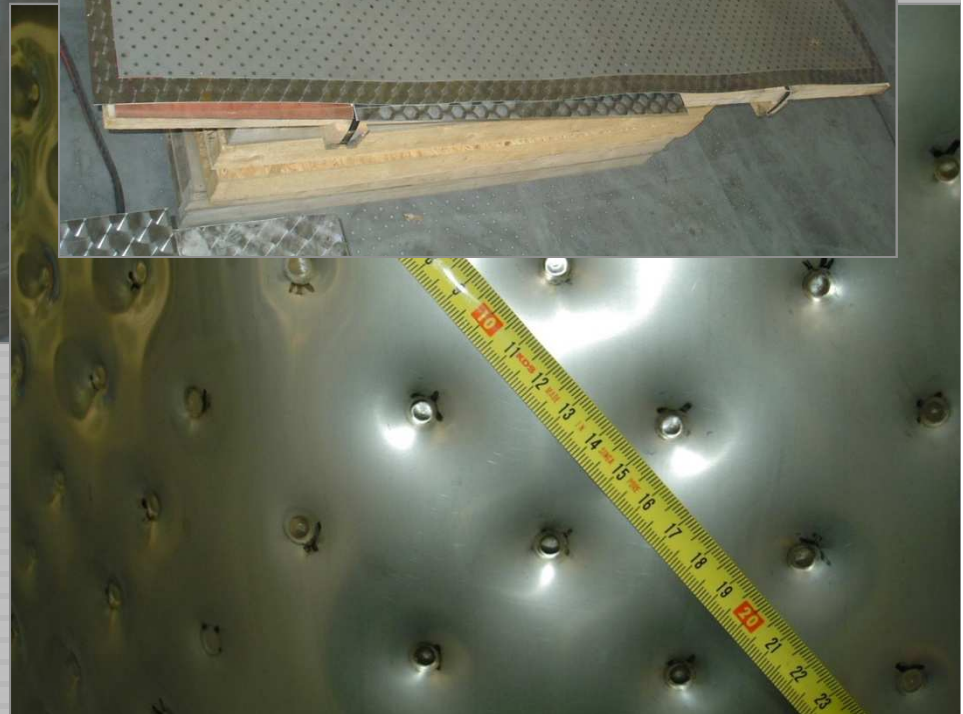
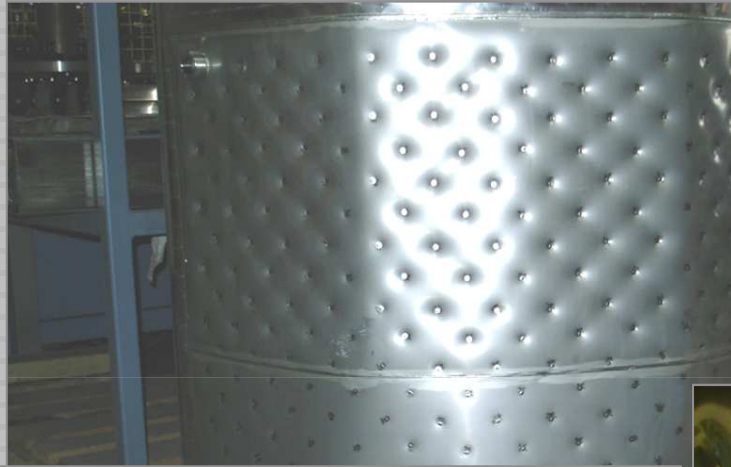
automated

Bus manufacturing



Profil frame construction
To cover with 1.4301
Thickness: 1 - 2,5 mm

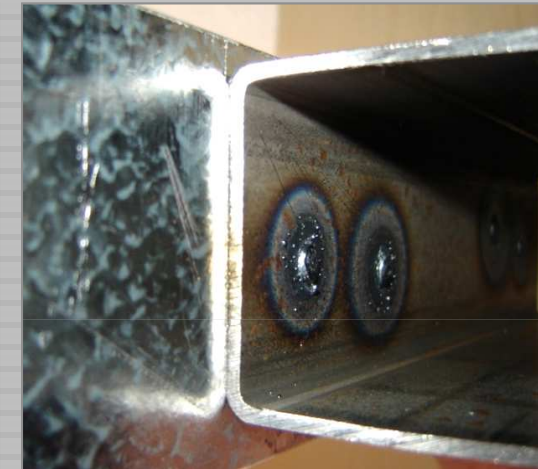
Manufacturing of wine tank



Zink coated sheets with filler



Upper side



Lower side

Zink coated sheets with filler



Three sheets join:

HX 220 YD + Z 100 MB $t=1,0$
DC 04 + ZE 75 $t=0,8$
ZStE 260 + Z 100 MB $t= 2,5$

PRODUCT RANGE



FEATURES

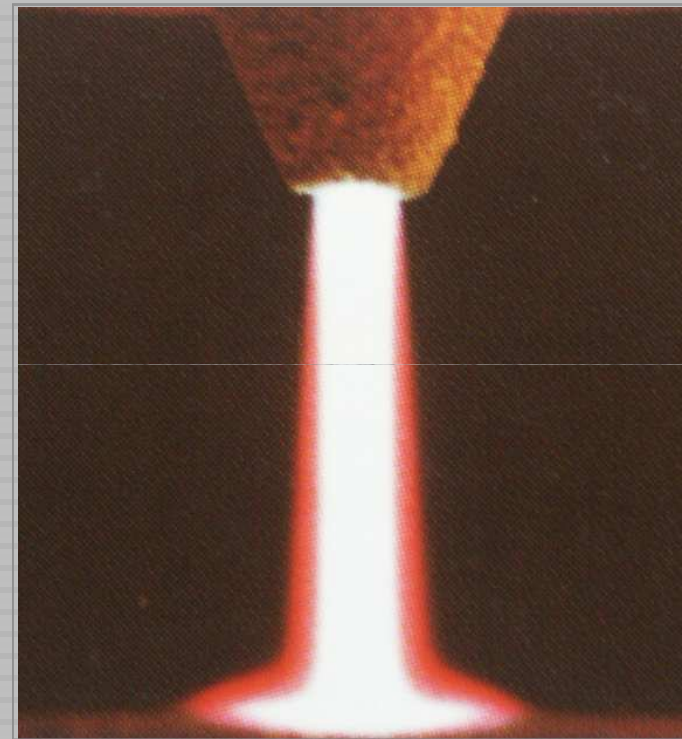
Common features of Plasma welding

- Range of applications: welding, brazing, tempering
- Seam properties: free of spatter, non-porous, plane
- Process properties: high speed, easy accessibility, low energy input
- Costs: low investment- and operating costs compared to laser welding process, low energy input, sound energy shielding

Arc comparison



TIG-arc



Plasma-arc

Applications

Plasma seam welding



- Barrels for dish washing machines 0,4/0,5 mm butt joint
- Wine tank manufacturing 0,8 on 2,5 overlap seam
- Rail wagon manufacturing
- Zeolith cooling tanks flanged seam 0,8mm
- Fuel tank Audi A8 flanged seam, nipples and service hole
- Seam weld on fire extinguisher
- Flanges on corrugated pipes

Pressure vessel



Material: St 37-2,
Thickness 1,25 and 1,5 mm
Pressure tight up to 70 bar

After burst test: Seam ok

Welding parameter:
Torch: ABIPLAS WELD 150 W with 165 A
Welding speed: 1,6 m/min
Plasma gas: Argon; Shielding gas: Ar/H₂
94/6

Exhausting pipe



Stainless steel 1.4301; $S = 0,2$ mm
Alternative to TIG and Laser welding



After burst test: Seam is ok



Welding parameter:

Torch: ABIPLAS WELD 100 W with 35 A

Welding speed: 7 m/min

Plasmagas: Ar; Shielding gas: Ar/H₂

94/6

System solutions



Serial production of rail wagons



Innovation Assistant

- **Start of the pilot project innovation assistant in October 2002 – 1st innovation assistant in lower austria**
- **Name:**
 - 1) Dipl. Ing. (FH) Hans Uher**
Mr. Uher leave SBI in March 2003 of personal reasons
 - 2) Dr.-Ing. Stefan Gießler (from 01.07.2003)**
- **Education: Technical university of Clausthal (Germany), mechanical engineering, scientist on the institute of welding (TU Clausthal)**

Innovation Assistant

- **Target of the project:**

- **research and development of economic plasma welding solutions for worldwide users**

- **Projects of the innovation assistant:**

- **Developing of plasma welding machines for longitudinal seam welding**
- **Internal quality management system for welding applications**
- **Data bank for welding parameter (internal & external)**
- **Studies for customer applications**
- **Cooperation with international research institutes**
- **SBI presentation at international welding congresses**

Innovation Assistant

- **Education Donau Uni Krems:**
 - Exercises from the companies
 - on the weekend
 - Team spirit and the colleagues
 - Organization and University
- **Cooperation with WST3:**
 - Cooperative, clear, friendly, committed
- **Summary:**
 - The response of the project was very positiv
 - We can recommend this project all companies



Summary

- **Company**
- **Project innovation assistant**
- **OPEN ISSUES???**