Machine Resourses

DEPARTMENTS OF LASER METALWORKING

alpha TECHNOLOGY

Kraków 22.10.2010

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

The Kraków Plant
Plant surface 3500 M2

The Mielec Plant
Plant surface 5000 M2

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

1. Laser cutting machines

- Structural steel up to 20mm thickness
- Stainless steel up to 15mm thickness
- Aluminium up to 10mm thickness

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

2. CNC bending

- Highest bending accuracy thanks to the precise system of the press ram movement measurement.
- Very high accuracy and repeatability of the bend angle.
- Automatic, stepless sag elimination system.
- Rich choice of universal and special tooling.
- A big dimensioned press throat enables carrying out so called “deep” bends

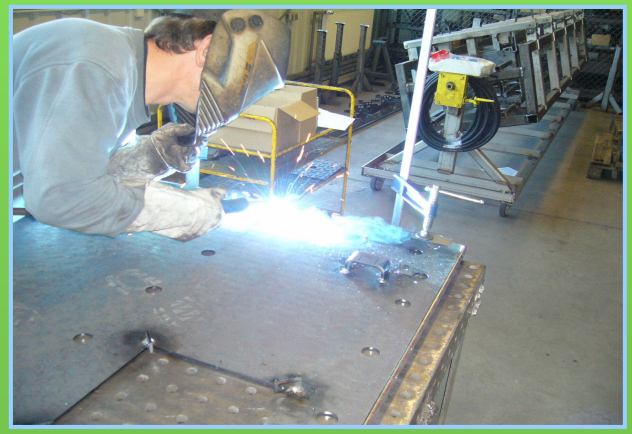
Machine Resourses

DEPARTMENTS OF LASER METALWORKING

3. Welding

Up to date MIG/MAG/TIG welding equipment and professional welding stands enable high quality welding of:

- Structural steel
- Stainless steel
- Aluminium



Machine Resourses

DEPARTMENTS OF LASER METALWORKING

4. Welding education and experience

- Our welders are certificated by INSTITUTE OF WELDING – POLAND
- All welding processes are projected and managed by experienced people
- The table shows the specification of our welding activity

Details of the Welder Approval Test Certificate

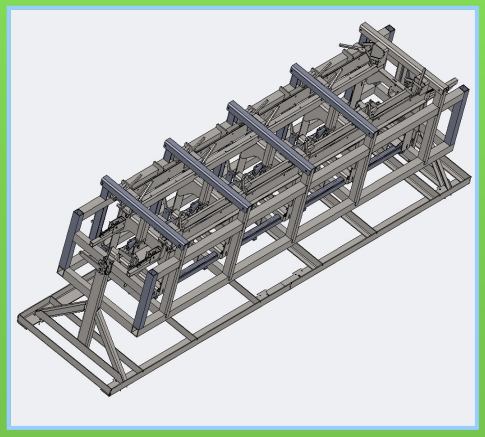
	Range of qualification
Welding process(es)	141,131
Plate of pipe	P, T:D=150mm
Type of weld	FW
Matefial group(s)	1.1, 1.2, 1.4, 8, 9.2, 9.3, 10, 21, 22
Welding consumables/Design	S
Material thickness (mm)	>=3
Welding position	FW: PA, PB
Weld details	sl, ml
Designation(s)	EN 287-1 141 P FW 1.1 S t10 PB ml
	EN 287-1 141 P FW 8.1 S t5 PB ml
	EN ISO 9606-2 141 P FW 22 S t10 PB ml
	EN 287-1 131 P FW 8.1 S t5 PB ml

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

5. Design and building welding fixture

- We design professional welding fixture which are used for serial production
- Our projects are supported by advanced 3D software like Solidworks so we are able to built very high quality equipment



Machine Resourses

DEPARTMENTS OF LASER METALWORKING

The Kraków Plant

6. Additional equipment

- Band saw machine
- Drilling machine
- Bevelling machine
- Air Driven Tapping Machine

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

7. Laser cutting machines - compilation

Machine location	Kraków	Kraków	Mielec	Mielec
Manufacturer	Trumpf	Trumpf	Trumpf	Trumpf
Type	Trumatic L3030	Trumatic L4030	Trumatic L3030	Trumatic L4030
Manufacturing year	2004	2005	2007	2007
Laser power [W]	4000	4000	4000	4000
Working area [mm]	3000x1500	4000x2000	3000x1500	4000x2000
Accuracy +/- [mm]	up to 0,1	up to 0,1	up to 0,1	up to 0,1
Max. structural steel thickness [mm]	20	20	20	20
Max. stainless steel thickness [mm]	15	15	15	15
Max. aluminiom thickness [mm]	10	10	10	10

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

8. CNC bending machines - compilation

Machine location	Kraków	Kraków	Mielec
Manufacturer	EHT	Trumpf	Trumpf
Type	TrumaBend S300-40	TruBend 5130	TruBend 5130
Manufacturing year	2005	2008	2007
Press force [kN]	3000	1300	1300
Bending length [mm]	4000	3230	3230
Throat [mm]	620	420	420
Max. Working speed [mm/s]	5	10	10
Accuracy +/- [mm]	up to 0,1	up to 0,1	up to 0,1

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

9. Welding machines - compilation

Machine location	Kraków	Kraków	Mielec	Mielec
Manufacturer	Selco	OZAS	Selco	OZAS
Type	Genesis 352 PSR	OPS-400	Genesis 352 PSR	OPS-400
Manufacturing year	2006	1992	2007	1992
Number of piece	1	1	2	1
Welding process	MIG/MAG manual/automat	MIG/MAG	MIG/MAG manual/automat	MIG/MAG
	TIG DC Lift start welding		TIG DC Lift start welding	
	Air Carbon Arc gouging		Air Carbon Arc gouging	
	MMA stick welding		MMA stick welding	

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

10. Additional equipment - compilation *The Kraków Plant*

Name	Bevelling machine
Manufacturer	Gerima
Type	PAM Typ 2
Manufacturing year	2006
Bevel width	1 - 15mm
Bevel angle	30-60
Spindle speed	1000-6000 rpm
Milling head	fi=100mm
Inserts	8

Name	Band saw machine
Manufacturer	Pegas&Gonda
Type	PEGAS 250X315 GH-LR
Manufacturing year	2010

Name	Air Driven Tapping Machine
Manufacturer	Gamor
Type	TA-N/20
Manufacturing year	2010
Capacity	M4 - M20
Work range	max: 1950 min: 200
Speed	150/400 RPM
Additional information	Vertical/Horizontal tapping
	Centring device magnet

Name	Drilling machine
Manufacturer	TOP
Type	MEX - 35
Manufacturing year	2008
Max diameter drilling holes (steel)	30 mm
Capacity	M14/M16
Spindle speed	50 - 2500 obr/min
Working area	550x500

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

11. General review

EQUIPMENT COMPILATION	Location	
	Kraków	Mielec
	Number of piece	Number of piece
Laser cutting machines	3	2
CNC bending machines	2	1
Welding maschines	2	3
Drilling machines	2	1
Bevelling machine	1	0
Band saw machine	1	1
Air Driven Tapping Machine	1	1

Machine Resourses

DEPARTMENTS OF LASER METALWORKING

12. Examples of Sheet Metal Products