

# **ENGINEERING/SUPERVISION**

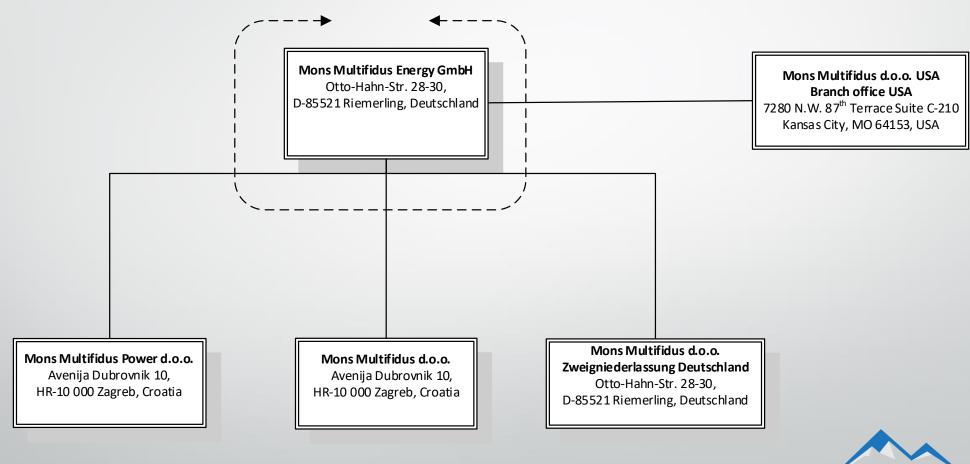
Mons Multifidus Energy GmbH

Otto-Hahn-Str. 28-30

D-85521 Riemerling

Germany

#### **COMPANY STRUCTURE**





#### **COMPANY CERTIFICATES**

- **EN ISO 9001:2015**
- SCC:2011 "Safety Certificate Contractors"
- DIN EN ISO 3834-2
- Production of pressure equipment acc. to PED 2014/68/EU, Annex I, pt. 3.1 and to AD 2000 HP0 sec. 3. and AD 2000 HP 100R sec. 4.2
- DIN EN 1090-1/2; EXC 3



### **ENGINEERING / SUPERVISING SCOPE**

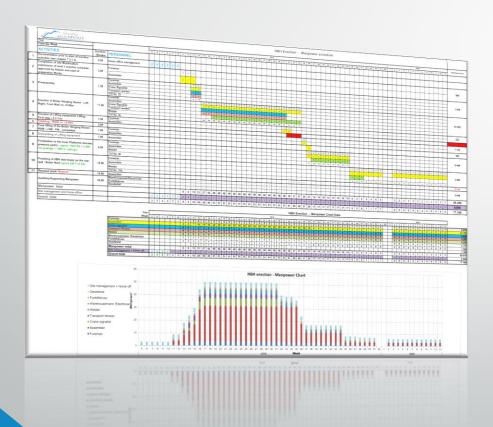
Mons Multifidus Group company is active for the last six years on the Croatian, EU and USA market working on the projects such as power plants (energy projects), petrochemical, wooden industry, various industrial plants, etc. Besides direct work force Mons Multifidus company provides project and site engineering services as well. We currently have a team of over 40 highly qualified experienced engineers consisting of project managers, site managers, welding engineers/inspectors, QA/QC engineers, planning engineers, construction designers, etc. which positions us among the most promising companies in the field of design and site management. The site engineering of Mons Multifidus is one of the strongest parts of the company itself, performing various activities, where some of the most prominent are:

- Project management
- Mechanical / piping design
- > Site management
- Welding management
- > QA/QC management
- Logistics

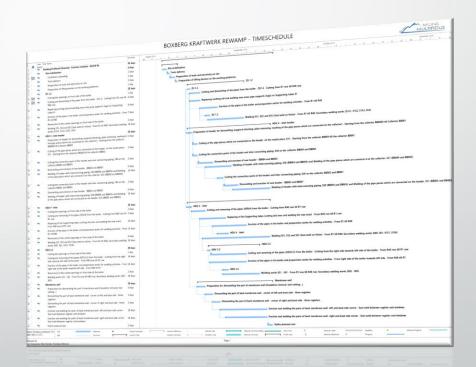


#### **PROJECT MANAGEMENT**

- **Procurement**
- Project scheduling



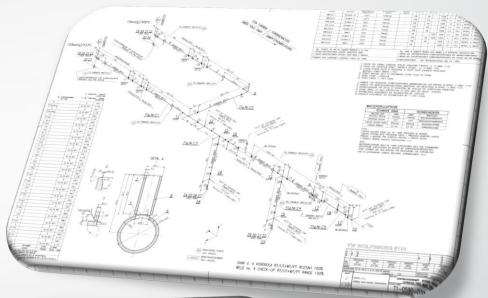
- > Manpower management
- Cost estimation and monitoring

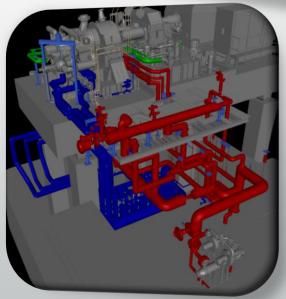




### **MECHANICAL / PIPING DESIGN**

- Process plant / equipment layouts
- Rendering
- ➤ Virtual walk-throughs
- Pressure piping design
  - > Aveva PDMS
- Detailed mechanical and piping design
  - Autodesk AutoCAD
- ≥ 3D modelling
  - Dassault systems Solidworks
  - Dassault systems CATIA
  - > Autodesk Inventor







#### SITE MANAGEMENT

#### Manpower:

- Mechanical engineers (15 persons)
- Site engineers (12 persons)
- ➤ Site supervisors (8 persons)



#### **Activities:**

- General site organization (prefababrication / erection)
- Following and updating of time schedules
- Tracking of progress (S curves)
- > Allocations of manpower
- Monitoring / supervision of executed works
- Communication and coordination with client and subcontractors
- Daily reporting and meetings
- Following / claiming of additional works



▶ Preparation of WPQR's and WPS's (EN / ASME)





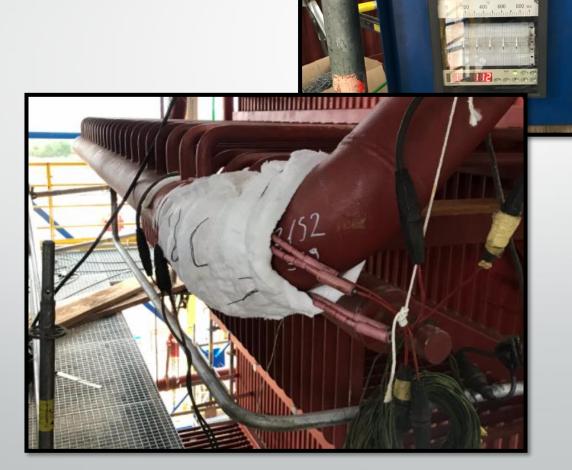
➤ Qualifications of welders (EN ISO 9606-1, ASME sec. IX)







PWHT (planning, coordination, chart reviews, etc.)





Welding progress tracking

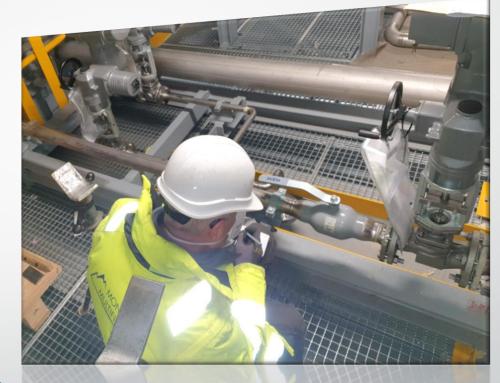
Part description 1		Outer	Wall															
	Material 1	Diame	thickn	Mat.1 Heat	1													
teel pipe, EN 10216-2, 219,1*6,3	-	ter	ess	No.	Mat.1 Cert.	Land Association of the Control of t												
teel pipe, EN 10216-2, 219,1*6,3 teel pipe, EN 10216-2, 21,3*2	P235GH		GSS T	-	No.	Part description 2		Outer	Wall									
teel pipe, EN 10216-2, 21,3*2	P235GH	219.10	6.30	27218K/1	Y		Material 2	Diamet	thick	Mat.2 Heat	The same of the sa		1	_				
	POOLE	21.30	2.00	301631	1000000	Steel nine EN 400		er 🌉	ness	No.	Mat.2 Cert.	Weld	1	luter	Wall	Wal		-
	P235GHTC1	219.10	6,3	2771631	1893669	Steel pipe, EN 10216-2, 21,3*2	P235GH			- Carrier -	No.	No_	DN di	amet	thicks			
	P235GHTC1	21.30	2.00	27716K/4	1904290		P235GHTC1	21.30		301631	1000	,	-	er 😛	CS:	TV E	WPS	
	P235GHTC1	219.10	6,3	301631	1893669	Steel pipe, EN 10216-2, 21,3*2,0	P235GHTC1	21.30	3.6	4206064N	1893669	1.1	15 ;	21.3	2.00	M.	*	v
	P235GHTC1	21.30	2,00	27217K/2	1000000		P235GHTC1	21,30		301631	DS18336047	1.2		21.3	2.00	BR	F 13500-BW	W-01
teel pipe, EN 10216-2, 21,3*2	P235GHTC1	219.10		301631	1893669		P235GHTC1	21.30		4206064N	1893669 DS18336047	1.1	15	21.3		DW	F   13500 pw	MOL
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	P235GHTC1	21.30	2.00	301631	1893669		P235GHTC1	21.30		4206064N	DS18336047	1.1	15 2	21.3	2.00	BD	F 13500-BW F 13500-BW	N-01
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cei pipe, EN 10216-2 210 194 a	P235GHTC1	21.30	2.00	301631	1893669		P235GHTC1	21.30	3.60	4206064N	DS18336047	1.1	15 2	21.3	2.00	BR	F 13500-BW	
teel pipe, EN 10216-2 21 282		219.10	6.30	27713K/3		Naval, Ball valve, 284 nns Np 40	P235GHTC1	21.30	2.00	301631	1893669	1.2		21.3	2.00	BW	F 13500-BW	
teel pipe, EN 10216-2, 219,1*6,3	P235GHTC1	21.30	2.00	301631	1891798	Steel pipe, EN 10216-2 21 282	P235GHTC1 P235GHTC1	21.30	2.00	4201946	DS18336047	1.1		21.3	2.00	BR	13500.RW	M.O.
teel pipe, EN 10216-2, 21,3*2		219.10	6.30	27218K/1	1893669	Naval, Ball valve, 284 nns, Np 40	P235GHTC1	21.30	2.00	301631	1893669	1.1		21.3	2.00	BW	F 13500, RW	V.O.
teel pipe EN 10216-2, 21,3-2	P235GH	21.30	2.00	301631	1000000	Steel pipe, EN 10216-2, 21 3*2	P235GH1C1	21.30	3.60	4201946	DS18336047	1.2		21.3	2.00	BR	F 13500.RW	V.01
teel pipe, EN 10216-2, 219,1*6,3	P235GHTC1	219.10	6,3		1893669	Naval, Ball Valve, 284 003/F, NP 40	P235GHTC1	21.30		301631	1893669	1.1		1.3	2.00	BW	13500.RW	V.01
teel pipe, EN 10216-2, 21 3*2 n	P235GHTC1	21.30	2.00	27716K/4	1904290	Steel pipe, EN 10216-2 21 3*2 0	P235GHTC1	21.30	3.6	4206064N	DS18336047	1.2	15 2		2.00	BR	13500-RW	V-01
teel pipe, EN 10216-2, 219 1*6 3	P235GHTC1	219.1		301631	1893669	Naval, Ball Valve, 284 003/E, NP 40	P235GHTC1	21.30		301631	1893669	1.1		1.3	2.00	BW	13500-BW	V-01
teel pipe, EN 10216-2, 21.3*2 n	P235CHTC1		6,3	27217K/2	1000000	Steel pipe, EN 10216-2, 21,3*2,0	P235GHTC1	21.30	3.60	4206064N	DS18336047	1.2			2.00	BR	13500-BW	V-01
teel pipe, EN 10216-2, 219,1*6,3		21.30	2.00	301631	1893669	Naval, Ball Valve, 284 003 E, NP 40	P235GHTC1	21.30	2.00	301631	1893669	1.1		1.3	2.00	BW	13500-BW	
teel pipe, EN 10216-2, 21,3*2		219.10		27714K/1	1000000	Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30		4206064N	DS18336047	1.2				DK	13500-BW	
teel pipe EN 10216 2, 21,3 2	P235GHTC1	21.30	2.00	301631	1893669	Naval, Ball valve, 284 003/E, NP 40	P235GHTC1	21.30	2.00	301631	1893669	1.1				BR	13500-BW-	
teel pipe, EN 10216-2, 219,1*6,3			6.30	27716K/2	1000001	Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30		4206064N	DS18336047	1.2		1.3			13500-BW-	
Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30	2.00	301631	1893669	Naval, Ball valve, 284 003, NP 40	P235GHTC1	21.30		301631	1893669	1.1				BR I	13500-BW-	V-01
steel pipe, EN 10216-2, 219,1*6,3	P235GHTC1	219.10	6.30	27713K/3	1891798	Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30		4201946	DS18336047	1.2				BW	13500-BW-	1-01
Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30		301631	1893669	Naval, Ball valve, 284 003, NP 40	P235GHTC1	21.30		301631	1893669	1.1	15 2	1.3	2.00	BR I	13500-BW-	/-01
Steel pipe, EN 10216-2, 219,1*6,:	P235GH	219.10		27218K/1	1000000	Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30		4201946	DS18336047	1.2			2.00	BW I	13500-BW-	/-01
Steel pipe, EN 10216-2, 21,3*2	P235GH	21.30		301631	1893669		P235GH	21.30	2.00	301631	1893669	1.1					13500-BW-	-01
Steel pipe, EN 10216-2, 219,1*6,3		219.10		27716K/4	1904290	Naval, Ball valve, 284 003, NP 40	P235GHTC1	21.30		4201946	DS18336047	1.2					13500-BW-	
						Steel pipe, EN 10216-2, 21,3*2,0	P235GHTC1	21.30	2.00	301631	1893669	1.1					13500-BW-	
Steel pipe, EN 10216-2, 21,3*2,0	P235GHTC1			301631	1893669	Naval, Ball Valve, 284 003/E, NP 40	P235GHTC1	21.30	3.60	4206064N	DS18336047	1.2					13500-BW-	
Steel pipe, EN 10216-2, 219,1*6,3				27217K/2	1000000	Steel pipe, EN 10216-2, 21,3*2,0	P235GHTC1	21.30	2.00	301631	1893669	1.1					13500-BW-	
Steel pipe, EN 10216-2, 21,3*2,0	P235GHTC1			301631	1893669	Naval, Ball Valve, 284 003 E, NP 40	P235GHTC1	21.30	3.60	4206064N	DS18336047	1.2					13500-BW-	
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Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30		301631	1893669	Naval, Ball valve, 284 003/E, NP 40	P235GHTC1	21.30	3.60	4206064N	1893669	1.1					13500-BW-	
Steel pipe, EN 10216-2, 219,1*6,	3 P235GHTC1	219.1	6.30	27716K/2	1000001	Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30		301631 4201946	DS18336047	1.2			2.00	BW F	13500-BW-	-01 8
Steel pipe, EN 10216-2, 21,3*2	P235GHTC1		2.00	301631	1893669	Naval, Ball valve, 284 003, NP 40	P235GHTC1	21.30	2.00	301631	1893669	1.1					13500-BW-0	
Steel pipe, EN 10216-2, 219,1*6,				27713K/3	1891798	Steel pipe, EN 10216-2, 21,3*2	P235GHTC1	21.30	3,60	4201946	DS18336047	1.2					13500-BW-0	-01 8
Steel pipe, EN 10216-2, 213,1 0,	P235GHTC1			301631	1893669	Naval, Ball valve, 284 003, NP 40	P235GHTC1	21.30	2.00	301631	1893669	1.1		1.3	2.00	BR F	13500-BW-0	-01 8
Steel pipe, EN 10216-2, 21,3*2				27218K/1	1880841	Steel pipe, EN 10216-2, 21,3*2	P235GH	21.30	3.60	4206064N	DS18336047	1.2		1.3			13500-BW-0	
Steel pipe, EN 10216-2, 219,1*6,		21.30		301631	1893669	Naval, Ball Valve, 284 003/E, NP 40	P235GHTC1	21.30	2.00	301631	1893669	1.1			2.00	BR F	13500-BW-0	-01 8
Steel pipe, EN 10216-2, 21,3*2	P235GH			27716K/4	1904290	Steel pipe, EN 10216-2, 21,3*2,0	P235GHTC1	21.30	3.60	4206064N	DS18336047	1.2				BW F	13500-BW-0	01 8
Steel pipe, EN 10216-2, 219,1*6,	3 P235GHTC1			301631	1893669	Naval, Ball Valve, 284 003/E, NP 40	P235GHTC1	21.30	2.00	301631	1893669	1.1			2.00	BR F	13500-BW-0	
Steel pipe, EN 10216-2, 21,3*2,0	P235GHTC			27217K/2	1000000	Steel nine, FN 10216-2, 21,3*2,0	P235GHTC1	21.30	3.60	4206064N	DS18336047	1.2				BR F	13500-BW-0	
Steel pipe, EN 10216-2, 219,1*6,	3 P235GHTC1			301631	1893669	Naval, Ball Valve, 284 003 E, NP 40	P235GHTC1	21.30	2.00	301631	1893669	1.1				BW F	13500-BW-0	
Steel pipe, EN 10216-2, 21,3*2,0	PZ35GHTC				1000000	Steel nine, FN 10216-2, 21,3*2	P235GHTC1	21.30		4206064N	DS18336047	1.2			2.00	BD F	13500-BW-0	01 8
Steel pipe, EN 10216-2, 219,1*6,	3 P235GHTC	219.1		27714K/1	1893669	Naval Ball valve, 284 003/E, NP 40	P235GHTC1	21.30	2.00	301631	1893669	1.1		1.3	2.00	BW F	13500-BW-0	01 8
Steel pipe, EN 10216-2, 213,1 0	P235GHTC			301631	1000001	Steel nine, FN 10216-2, 21,3-2	P235GHTC1	21.30	2.00	4201946	DS18336047	1.2		3 /	2.00	BR / F	13500-BW-0	21/8
Steel pipe, EN 10216-2, 21,3*2				27716K/2	1893669	Naval Ball valve, 284 003, NP 40	P235GHTC1 P235GHTC1	21.30	2.00	301631	1893669	1.1	49 1 44	1 1 3	80 F	8 3		
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	Tägliche Fortschritte Schweißer	_	_				
Date	Drawing No.:	à	WELD No.:	Material 1	Waterful 2	Welder No:	Diameter
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	30NDG1088016	H	1	Nip-EH	B-HF7	806	25
-11-	-/1-	L	2	B-HF7	2-27927K	806	25
-11-	-11 -		3	2-179274	B-HF7	806	25
-11-	-11_		4	8-HF7	2-23927K	806	25
-11-	-11-		5	2-279274		806	25
-11-	-11-		6		R-17927K		
-11-	-11-		7			806	25
				K LYSLIK	Nip- CH	806	25
03.09 2011	30HD620B2016	Ħ		1/200			
-11-	-//-	H	24	Nip- CH		806	25
-11-	-11-		23	B-HF7	2-279278	806	25
-11-	-11-		22	R-27927K	Tec-301065	806	25
-11-	-11-	H	19	Tez-30/065	Re-609963	806	
		H	18	Tee-301065	B- HES	-	25
04.09.2021	1000	Ц			11.7	806	25
-11-	31036018		16	P. 12012			
-11-	-11-		17	R-27917	F-2519	806	25
	-/1-		20	2.27917K	B-HF7	806	25
06 09 2021				50-603963	V-4806065H	849	15
-11-	30NDG20B2016		21	W 1200			
1-11-	~//-		15	V-4100000N	F-6579	849	15
-11-	7/1-	Ī	14	F-2519	2.27927K	80€	25
-11-	-11-		13	R-54454K	2-1150	806	
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411-	-//_	Ī	11	A TOUTH	2.11-2	806	25
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-11-	-11-		9	- C+3711	2	806	25
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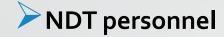


➤ Welding supervision on construction sites (IWIP-C / IWE / IWT / IWS)

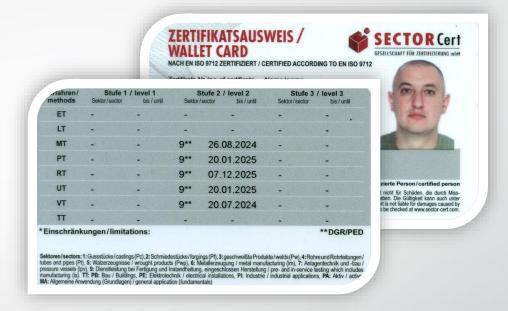




- International welding engineers 12 persons
- International welding technicians 5 persons
- International welding specialists 5 persons







VT1+2 – 12 persons

PT1+2 – 12 persons

 $MT_{1+2} - 5$  persons

 $RT_{1+2} - 5$  persons

UT1+2 – 2 persons





Creation / Implementation of quality management systems













- **→** Quality audits
- Inspection and test plans







Quality control supervision







- Production records
- Document management (as builts, pipe book / welding map, heat numbers traceability)



## **LOGISTICS**



#### **LOGISTICS**

- > Scaffolding management (coordination and supervision)
- Transports and lifting activities (lifting plans, special transport planning, method statement etc.)





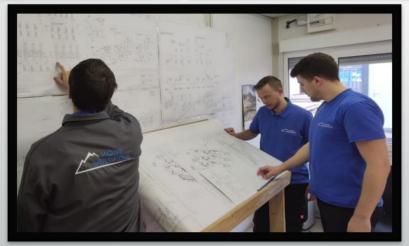


### **GALLERY**













# Thank you for your attention!

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