# RETIS CONSTRUCTION

### **ASSEMBLY DRAWING**

**SCALE 1:100** 

## **TYPICAL MAST M650F/H21**

#### **GUY WIRES RANGE**

**SCALE 1:200** 

TYPICAL MAST M650F/H21 - ASSEMBLY DRAWING + GUY WIRES RANGE

RETIS\_KK\_M650F\_H21\_01

typical project

Project No.:

02.2013

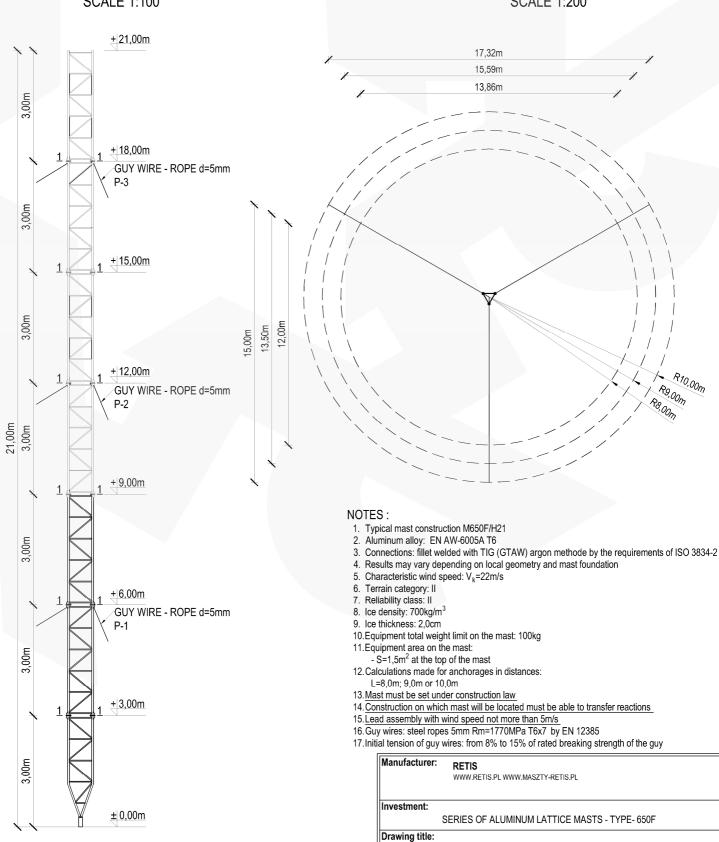
construction

Industry:

Project No.:

RETIS M650F

Revision:

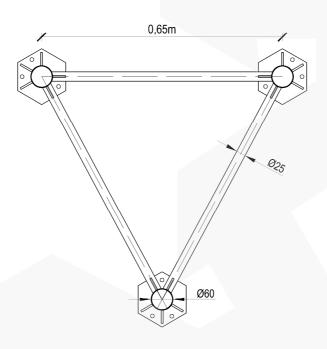


# **TYPICAL MAST M650F/H21**



### **SECTION 1-1**

**SCALE 1:10** 



#### Maximum reactions for the anchorages:

[kN]	Base	Guys
	F <sub>x</sub> =0,29	F <sub>x</sub> =10,09
L=8,0	F <sub>v</sub> =0,55	F <sub>v</sub> =11,03
	F <sub>z</sub> =33,42	F <sub>z</sub> =18,54
L=9,0	F <sub>x</sub> =0,41	F <sub>x</sub> =9,97
	$F_{v} = 0.65$	F <sub>v</sub> =11,31
	F <sub>z</sub> =29,86	F <sub>z</sub> =16,49
	F <sub>x</sub> =0,52	F <sub>x</sub> =10,07
L=10,0	F <sub>v</sub> =0,73	F <sub>v</sub> =11,56
	F <sub>z</sub> =27,00	F <sub>z</sub> =15,01

#### Maximum forces in guy wire ropes for distances:

[kN]	P-1	P-2	P-3
L=8,0	3,97	6,82	9,54
L=9,0	3,68	6,14	8,95
L=10,0	3,55	5,63	8,46

- 1. Typical mast construction M650F/H21
- 2. Aluminum alloy: EN AW-6005A T6
- 3. Connections: fillet welded with TIG (GTAW) argon methode by the requirements of ISO 3834-2
- 4. Results may vary depending on local geometry and mast foundation
- 5. Characteristic wind speed: V<sub>k</sub>=22m/s
- Terrain category: II
   Reliability class: II
- 8. Ice density: 700kg/m<sup>3</sup>
- 9. Ice thickness: 2,0cm
- 10. Equipment total weight limit on the mast: 100kg
- 11. Equipment area on the mast:
  - S=1,5m<sup>2</sup> at the top of the mast
- 12. Calculations made for anchorages in distances:
  - L=8,0m; 9,0m or 10,0m
- 13. Mast must be set under construction law
- 14. Construction on which mast will be located must be able to transfer reactions
- 15. Lead assembly with wind speed not more than 5m/s
- 16. Guy wires: steel ropes 5mm Rm=1770MPa T6x7 by EN 12385
- 17. Initial tension of guy wires: from 8% to 15% of rated breaking strength of the guy

Manufacturer:	RETIS WWW.RETIS.PL WWW.MASZTY-RETIS.PL					
Investment: SERIES OF ALUMINUM LATTICE MASTS - TYPE- 650F						
Drawing title: TYPICAL MAST M650F/H21 - SECTION + FORCES						
Date: 02.2013		Phase: typical project	Project No.: RETIS M650F	Revision:		
Industry: construction	ľ	Project No.: RETIS_KK_M650F_H21_02				