# RETIS CONSTRUCTION

## **TYPICAL MAST M435/H16**

## ASSEMBLY DRAWING GUY WIRES RANGE

**SCALE 1:75 SCALE 1:150** + 16,00m 13,86m 12.14m 10,39m 2 + 14,00m 4,00m -GUY WIRE - ROPE d=3mm + 12,00m 9,00m 10,50m 2 + 10,00m 4,00m GUY WIRE - ROPE d=3mm 16,00m + 8,00m 1 NOTES: 1. Typical mast construction M435/H16 2 + 6,00m 2. Aluminum alloy: EN AW-6005A T6 4,00m 3. Connections: fillet welded with TIG (GTAW) argon methode by the requirements of GUY WIRE - ROPE d=3mm 4. Results may vary depending on local geometry and mast foundation 5. Characteristic wind speed:  $V_k$ =22m/s 6. Terrain category: II 7. Reliability class: II 8. Ice density: 700kg/m<sup>3</sup> 9. Ice thickness: 2,0cm 1 + 4,00m 1 10. Equipment total weight limit on the mast: 100kg 11. Equipment area on the mast: - S=0,5m<sup>2</sup> at the top of the mast - S=0,5m<sup>2</sup> halfway through the mast 12. Calculations made for anchorages in distances: L=6,0m or 7,0m or 8,0m 13. Mast must be set under construction law 14. Construction on which mast will be located must be able to transfer reactions 4,00m 15. Lead assembly with wind speed not more than 5m/s 16. Guy wires: steel ropes 3mm Rm=1770MPa T1x19 by EN 12385 17.Initial tension of guy wires: from 8% to 15% of rated breaking strength of the guy Manufacturer: RETIS ± 0,00m

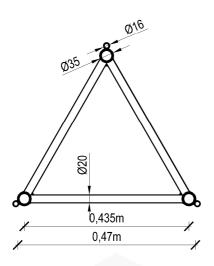
WWW.RETIS.PL WWW.MASZTY-RETIS.PL						
Investment:	SERIES OF ALUMINUM LA	ATTICE MASTS - TYPE-4	35			
Drawing title: TYPICAL N	MAST M435/H16 - ASSEMBI	_Y DRAWING + GUY WIF	ES RANGE			
Date: 02.2013	Phase: typical project	Project No.: RETIS M435	Revision:			
Industry: construction	Project No.: RETIS_KK_	Project No.: RETIS_KK_M435_H16_01				

# **XETIS**CONSTRUCTION

# **TYPICAL MAST M435/H16**

### **SECTION 1-1**

SCALE 1:10

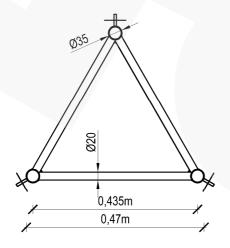


#### Maximum reactions for the anchorages:

[kN]	Base	Guys
L=6,0	$F_x$ =0,79 $F_y$ =0,00 $F_z$ =20,74	F <sub>x</sub> =4,21 F <sub>y</sub> =3,67 F <sub>z</sub> =6,28
L=7,0	F <sub>x</sub> =0,82 F <sub>y</sub> =0,00 F <sub>z</sub> =18,94	F <sub>x</sub> =4,20 F <sub>y</sub> =3,66 F <sub>z</sub> =5,34
L=8,0	F <sub>x</sub> =0,84 F <sub>y</sub> =0,00 F <sub>z</sub> =17,81	$F_x$ =3,98 $F_y$ =3,64 $F_z$ =4,61

### **SECTION 2-2**

**SCALE 1:10** 



Maximum forces in guy wire ropes for distances:

[kN]	P-1	P-2	P-3
L=6,0	2,94	2,84	2,73
L=7,0	2,58	2,59	2,53
L=8,0	2,33	2,41	2,37

#### NOTES:

- 1. Typical mast construction M435/H16
- 2. Aluminum alloy: EN AW-6005A T6
- Connections: fillet welded with TIG (GTAW) argon methode by the requirements of ISO 3834-2
- Results may vary depending on local geometry and mast foundation
   Characteristic wind speed: V k=22m/s
- Terrain category: II
- 7. 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=0,5m<sup>2</sup> at the top of the mast
  - S=0,5m<sup>2</sup> halfway through the mast
- 12. Calculations made for anchorages in distances:
- L=6,0m or 7,0m or 8,0m 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 3mm Rm=1770MPa T1x19 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:	SER	RIES OF ALUMINUM LA	TTICE MASTS - TYPE-43	5	
Drawing title:  TYPICAL MAST M435/H16 - SECTIONS + FORCES					
Date: 02.2013		Phase: typical project	Project No.: RETIS M435	Revision:	
Industry: constructio		Project No.: RETIS_KK_N	M435_H16_02		