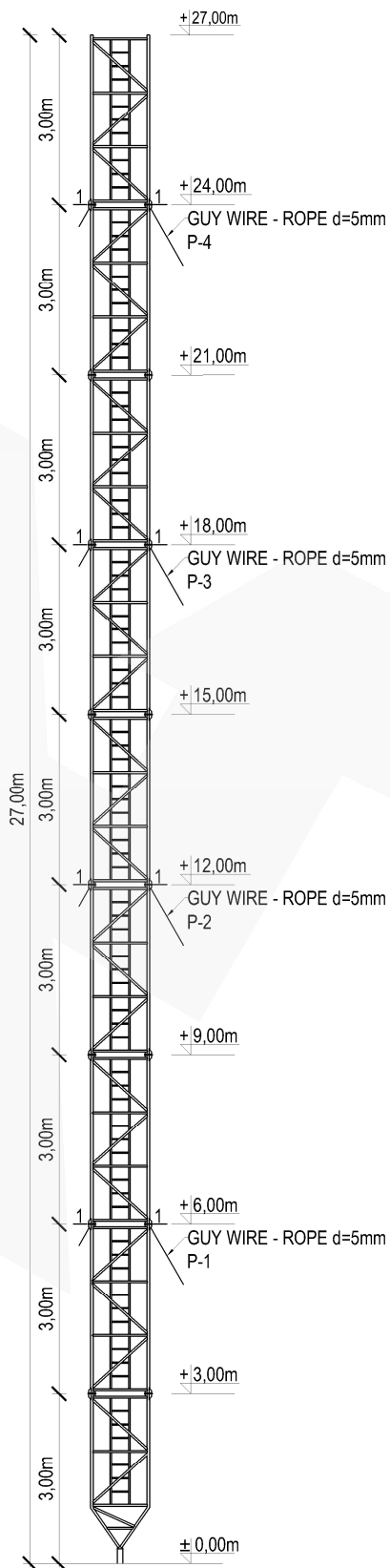




**RETIS**<sup>®</sup>  
CONSTRUCTION

# ASSEMBLY DRAWING

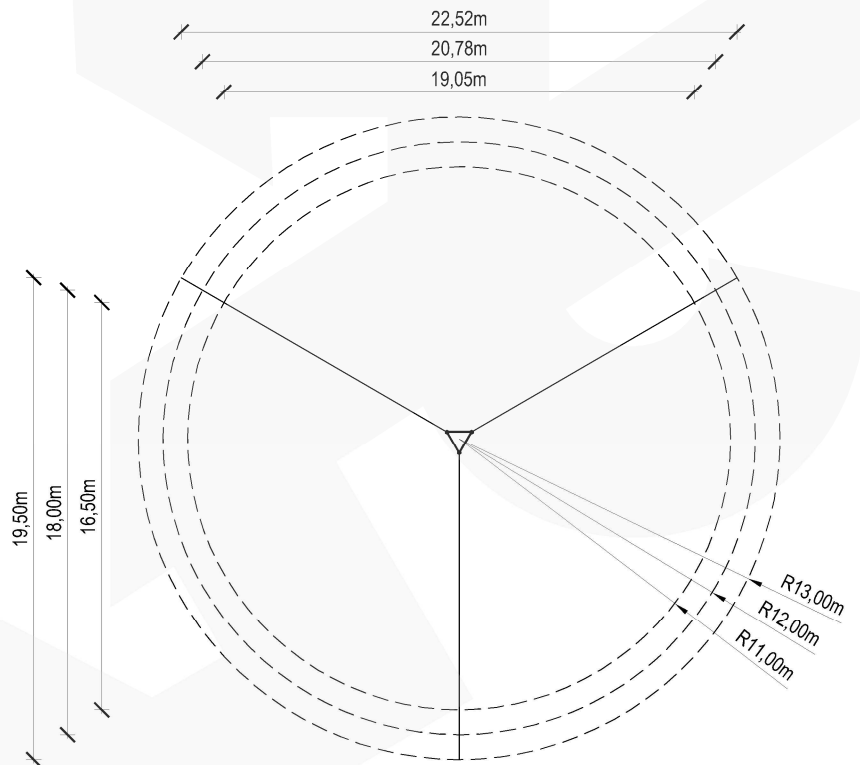
SCALE 1:125



# TYPICAL MAST M1000F/H27

## GUY WIRES RANGE

SCALE 1:300



### NOTES :

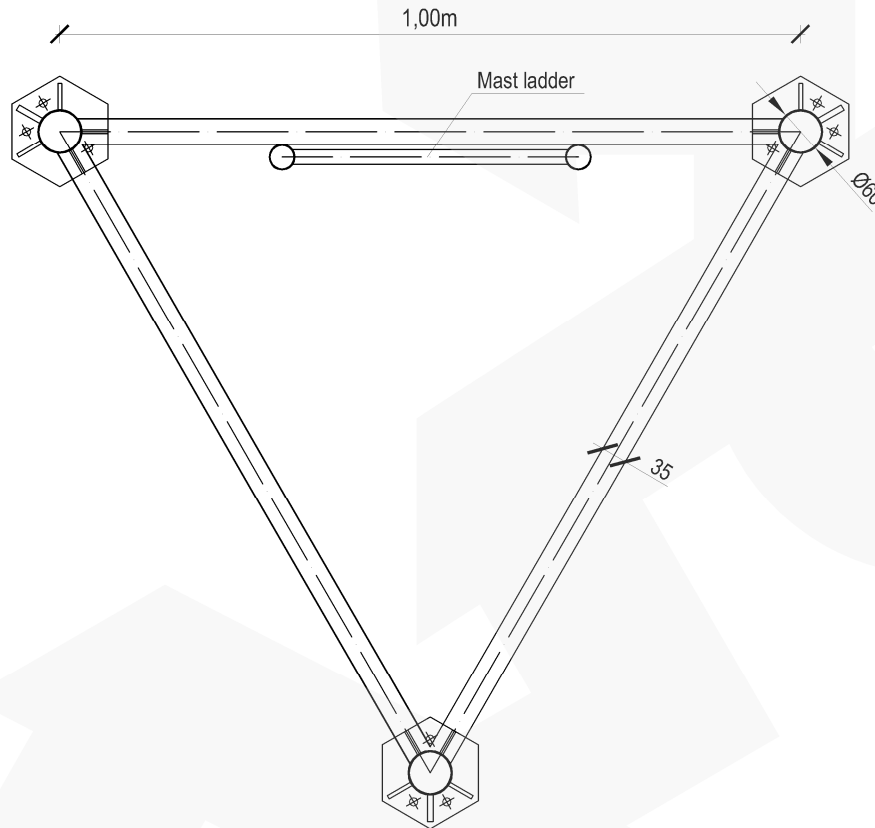
1. Typical mast construction M1000F/H27
2. Aluminum alloy: EN AW-6005A T6
3. Connections: fillet welded with TIG (GTAW) argon method by the requirements of ISO 3834-2
4. Results may vary depending on local geometry and mast foundation
5. Characteristic wind speed:  $V_k=22\text{m/s}$
6. Terrain category: II
7. Reliability class: II
8. Ice density:  $700\text{kg/m}^3$
9. Ice thickness: 2,0cm
10. Equipment total weight limit on the mast: 150kg
11. Equipment area on the mast:  
-  $S=2,5\text{m}^2$  at the top of the mast
12. Calculations made for anchorages in distances:  
 $L=11,0\text{m}$ ; 12,0m lub 13,0m
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  $R_m=1770\text{MPa}$  T6x7 by EN 12385
17. Initial tension of guy wires: from 8% to 15% of rated breaking strength of the guy

<b>Manufacturer:</b> RETIS WWW.RETIS.PL WWW.MASZTY-RETIS.PL			
<b>Investment:</b> SERIES OF ALUMINUM LATTICE MASTS - TYPE-1000F			
<b>Drawing title:</b> TYPICAL MAST M1000F/H27 - ASSEMBLY DRAWING + GUY WIRES RANGE			
<b>Date:</b> 02.2013	<b>Phase:</b> typical project	<b>Project No.:</b> RETIS M1000F	<b>Revision:</b> ...
<b>Industry:</b> construction		<b>Project No.:</b> RETIS_KK_M1000F_H27_01	



## SECTION 1-1

SCALE 1:10



Maximum reactions for the anchorages:

[m]	[kN]	Base	Guys
L=11,0	$F_x=1,34$	$F_x=16,14$	$F_x=16,14$
	$F_y=1,32$	$F_y=16,80$	$F_y=16,80$
	$F_z=52,12$	$F_z=26,55$	$F_z=26,55$
L=12,0	$F_x=1,42$	$F_x=16,35$	$F_x=16,35$
	$F_y=1,40$	$F_y=17,22$	$F_y=17,22$
	$F_z=49,15$	$F_z=24,57$	$F_z=24,57$
L=13,0	$F_x=1,49$	$F_x=16,41$	$F_x=16,41$
	$F_y=1,51$	$F_y=17,55$	$F_y=17,55$
	$F_z=47,02$	$F_z=23,02$	$F_z=23,02$

Maximum forces in guy wire ropes for distances:

[m]	[kN]	P-1	P-2	P-3	P-4
L=11,0	6,63	7,67	10,45	11,05	
L=12,0	6,36	7,16	9,91	10,63	
L=13,0	6,22	6,72	9,41	10,27	

### NOTES :

1. Typical mast construction M1000F/H27
2. Aluminum alloy: EN AW-6005A T6
3. Connections: fillet welded with TIG (GTAW) argon method by the requirements of ISO 3834-2
4. Results may vary depending on local geometry and mast foundation
5. Characteristic wind speed:  $V_k=22\text{m/s}$
6. Terrain category: II
7. Reliability class: II
8. Ice density:  $700\text{kg/m}^3$
9. Ice thickness: 2,0cm
10. Equipment total weight limit on the mast: 150kg
11. Equipment area on the mast:  
-  $S=2,5\text{m}^2$  at the top of the mast
12. Calculations made for anchorages in distances:  
L=11,0m; 12,0m lub 13,0m
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

<b>Manufacturer:</b> RETIS WWW.RETIS.PL WWW.MASZTY-RETIS.PL			
<b>Investment:</b> SERIES OF ALUMINUM LATTICE MASTS - TYPE- 1000F			
<b>Drawing title:</b> TYPICAL MAST M1000F/H27 - SECTION + FORCES			
<b>Date:</b> 02.2013	<b>Phase:</b> typical project	<b>Project No.:</b> RETIS M1000F	<b>Revision:</b> ...
<b>Industry:</b> construction		<b>Project No.:</b> RETIS_KK_M1000F_H27_02	