|  |  |
| --- | --- |
| **VERIFICA PRINCIPIO DI CONSERVAZIONE DELL'ENERGIA MECCANICA** |  |
|  |  |  |  |  |  |  |  |
| **Materiale guida**: rame; **dimensioni guida**: 75,9cm, 10,5cm, 0,05cm |  |
| **Sferetta di gomma**: massa= (27±1)g, diametro= (2,13±0,05)cm |  |  |
| **h1 (m)** | **ε(h1) (m)** | **h2 (m)** | **ε(h2) (m)** | **ΔS (m)** | **ε(ΔS) (m)** | **ΔS (m) Teorico** | **ε(ΔS) (m)** |
| 0,146 | ±0,002 | 0,770 | ±0,002 | 0,556 | ±0,005 |   |  |
| 0,146 | ±0,002 | 0,770 | ±0,002 | 0,557 | ±0,005 |   |  |
| 0,146 | ±0,002 | 0,770 | ±0,002 | 0,554 | ±0,005 |   |  |
|   |   |   |   | **0,556** | ±**0,005** | **0,567** | ±**0,005** |
| 0,134 | ±0,002 | 0,770 | ±0,002 | 0,542 | ±0,005 |   |  |
| 0,134 | ±0,002 | 0,770 | ±0,002 | 0,540 | ±0,005 |   |  |
| 0,134 | ±0,002 | 0,770 | ±0,002 | 0,535 | ±0,005 |   |  |
|   |   |   |   | **0,539** | ±**0,005** | **0,543** | ±**0,005** |
| 0,110 | ±0,002 | 0,770 | ±0,002 | 0,506 | ±0,005 |   |  |
| 0,110 | ±0,002 | 0,770 | ±0,002 | 0,502 | ±0,005 |   |  |
| 0,110 | ±0,002 | 0,770 | ±0,002 | 0,501 | ±0,005 |   |  |
|   |   |   |   | **0,503** | ±**0,005** | **0,492** | ±**0,006** |
| **m (kg)** | **ε(m) (kg)** |  |  |  |  |  |  |
| 0,027 | ±0,001 |  |  |  |  |  |  |
| **U(J)** | **ε(U) (J)** | **VCM (m/s)** | **ε(VCM) (m/s)** | **K(J)** | **ε(K) (J)** | **U-K (J)** | **ε(U-K) (J)** |
| 0,039 | ±0,002 | 1,40 | ±0,01 | 0,037 | ±0,002 | 0,001 | ±0,004 |
| 0,035 | ±0,002 | 1,36 | ±0,01 | 0,035 | ±0,002 | 0,001 | ±0,004 |
| 0,029 | ±0,002 | 1,27 | ±0,01 | 0,030 | ±0,002 | 0,001 | ±0,003 |
|  |  |  |  |  |  |  |  |
| **Materiale guida**: alluminio; **dimensioni guida**: 68,2 cm, 3,0cm, 0,15cm |  |
| **Sferetta di gomma**: massa= (27±1)g, diametro= (2,13±0,05)cm |  |  |
| **h1 (m)** | **ε(h1) (m)** | **h2 (m)** | **ε(h2) (m)** | **ΔS (m)** | **ε(ΔS) (m)** | **ΔS (m) Teorico** | **ε(ΔS) (m)** |
| 0,140 | ±0,002 | 0,770 | ±0,002 | 0,558 | ±0,005 |   |   |
| 0,140 | ±0,002 | 0,770 | ±0,002 | 0,555 | ±0,005 |   |   |
| 0,140 | ±0,002 | 0,770 | ±0,002 | 0,540 | ±0,005 |   |   |
|   |   |   |   | **0,551** | ±**0,005** | **0,555** | ±**0,005** |
| 0,136 | ±0,002 | 0,770 | ±0,002 | 0,542 | ±0,005 |   |   |
| 0,136 | ±0,002 | 0,770 | ±0,002 | 0,541 | ±0,005 |   |   |
| 0,136 | ±0,002 | 0,770 | ±0,002 | 0,540 | ±0,005 |   |   |
|   |   |   |   | **0,541** | ±**0,005** | **0,547** | ±**0,005** |
| 0,110 | ±0,002 | 0,770 | ±0,002 | 0,500 | ±0,005 |   |   |
| 0,110 | ±0,002 | 0,770 | ±0,002 | 0,502 | ±0,005 |   |   |
| 0,110 | ±0,002 | 0,770 | ±0,002 | 0,500 | ±0,005 |   |   |
|   |   |   |   | **0,501** | ±**0,005** | **0,492** | ±**0,006** |
| **m (kg)** | **ε(m) (kg)** |  |  |  |  |  |  |
| 0,027 | ±0,001 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **U(J)** | **ε(U) (J)** | **VCM (m/s)** | **ε(VCM) (m/s)** | **K(J)** | **ε(K) (J)** | **U-K (J)** | **ε(U-K) (J)** |
| 0,037 | ±0,002 | 1,39 | ±0,01 | 0,037 | ±0,002 | 0,001 | ±0,004 |
| 0,036 | ±0,002 | 1,36 | ±0,01 | 0,035 | ±0,002 | 0,001 | ±0,004 |
| 0,029 | ±0,002 | 1,26 | ±0,01 | 0,030 | ±0,002 | 0,001 | ±0,003 |
| **Materiale guida**: PVC; **dimensioni guida**: 60 cm, 2,1 cm, 0,05cm |  |
| **Sferetta di acciaio**: massa= (9±1)g, diametro=(1,27±0,05)cm |  |  |  |
| **h1 (m)** | **ε(h1) (m)** | **h2 (m)** | **ε(h2) (m)** | **ΔS (m)** | **ε(ΔS) (m)** | **ΔS (m) Teorico** | **ε(ΔS) (m)** |
| 0,155 | ±0,002 | 0,77 | ±0,002 | 0,567 | ±0,005 |   |   |
| 0,155 | ±0,002 | 0,77 | ±0,002 | 0,568 | ±0,005 |   |   |
| 0,155 | ±0,002 | 0,77 | ±0,002 | 0,569 | ±0,005 |   |   |
|   |   |   |   | **0,568** | ±**0,005** | **0,584** | ±**0,005** |
| 0,14 | ±0,002 | 0,77 | ±0,002 | 0,534 | ±0,005 |   |   |
| 0,14 | ±0,002 | 0,77 | ±0,002 | 0,536 | ±0,005 |   |   |
| 0,14 | ±0,002 | 0,77 | ±0,002 | 0,537 | ±0,005 |   |   |
|   |   |   |   | **0,536** | ±**0,005** | **0,555** | ±**0,005** |
| 0,122 | ±0,002 | 0,77 | ±0,002 | 0,496 | ±0,005 |   |   |
| 0,122 | ±0,002 | 0,77 | ±0,002 | 0,497 | ±0,005 |   |   |
| 0,122 | ±0,002 | 0,77 | ±0,002 | 0,500 | ±0,005 |   |   |
|   |   |   |   | **0,498** | ±**0,005** | **0,518** | ±**0,006** |
| **m (kg)** | **ε(m) (kg)** |  |  |  |  |  |  |
| 0,009 | 0,001 |  |  |  |  |  |  |
| **U(J)** | **ε(U) (J)** | **VCM (m/s)** | **ε(VCM) (m/s)** | **K(J)** | **ε(K) (J)** | **U-K (J)** | **ε(U-K) (J)** |
| 0,014 | ±0,002 | 1,43 | ±0,01 | 0,013 | ±0,002 | 0,001 | ±0,003 |
| 0,012 | ±0,002 | 1,35 | ±0,01 | 0,012 | ±0,002 | 0,001 | ±0,003 |
| 0,011 | ±0,002 | 1,26 | ±0,01 | 0,010 | ±0,001 | 0,0008 | ±0,003 |