

4C16 2011 Answers

- 1 (a) -  
(b) 

	base circle	tip circle
$p_0$	95.7 MPa	586 MPa
$g_1$	0.77	66.9
$g_3$	0.16	2.28
$h^*$	3	30
$h_{\min}$	2.5 $\mu\text{m}$	1.18 $\mu\text{m}$
- 2 (a) -  
(b) 35.6  $\mu\text{m}$   
(c) 55.0  $\mu\text{m}$   
(d) 12.6 kW
- 3 (a) (i) -  
(ii) energy at start  $2MV^2/3$   
minimum energy  $MV^2/6$   
(b)  $\sigma_a/2\rho$