

1	Data / Date	
2	Nº de material / Material No. 1076809	
3	Blank M2 No / Blank M2 No	
4	O texto original está na língua inglesa. A tradução do texto é informativa e tem de ser revista antes da a do protocolo. Em caso de dúvidas ou em caso de contrariedades aplica-se o texto original em inglês. / 7 English text is the original text. The translation of the text is informative and must be checked before usin protocol. In case of doubt or contradiction, the original English text shall prevail.	he
5	Etapa de trabalho / Production step Assinatura / S	Signature
6	Maquinagem da ligação da pá exterior de acordo com o DC / Machining of the outer rotor blade connection in accordance with D02880756	
7	Pré-seleção da série (E175 EP5-RB-01) executada no painel de controlos / Pre-selection of the series (E175 EP5-RB-01) is made on the control panel	
8	Pá do rotor instalada, inspeção do posicionamento correto da pá no sentido longitudinal executada, ponto zero determinado / Rotor blade installed, inspection of correct positioning of the blade in the longitudinaldirection carried out the zero point determined	f, 
9	Maquinagem da superfície do flange (fresagem) efetuada executed / Machining of the surface of the flange (milling) executed	
10	Posicionamento da pa: ângulo de referência dos moldes antes da perfuração 22,32 - 22,92° / Positioning of blade: mould reference angle before drilling 22,32 - 22,92°	CQ/QA
11	Inspeção da superfície do flange (sem deformação no laminado, formação de resina líquida, colagem defeituosa etc.) / Inspection of the surface of the flange (no laminate wrinkles, build-up of liquid resin, defective gluing etc.  OK NOK	) CQ/QA
12	Planeza da superfície do flange verificada (insira dispositivo de medição) / Flatness of the flange surface checked (insert measuring device) ⊠	CQ/QA
13	Valores medidos / Measured values: ⊠ dentro/inner meio/middle fora/outer ⊠ planicidade calculada/calculated flatness	CQ/QA
14	Medição da centralização do flange / <i>Measuring of flange centering</i> ☑BA/ <i>LE</i> meio/ <i>middle</i> (LP/ <i>PF</i> ) (LS/ <i>SF</i> ) BF/ <i>TE</i>	_CQ/QA
15	Aprovação para perfuração  Approval for drilling  Data / Date: 🗵	CQ/QA
16	Preparação da superfície do flange (terminada a preparação do flange, limpeza da superfície) / Flange surface preparation (flange preparation finished, surface cleaning) OK \( \square \) NOK \( \square \)	CQ/QA
17	Furos radiais executados Ø96 mm (+0.2/-0.4) / Radial holes executed Ø96 mm (+0.2/-0.4)	
18	Furos longitudinais executados Ø45 mm (+/-0.3) / Longitudinal holes executed Ø45 mm (+/-0.3)	
19	Confirmação SAP enviada / SAP confirmation sent	
20	No caso do registo eletrónico de dados de controlo (lote de controlo SAP), este protocolo termin In the case of electronic inspection data recording (SAP inspection lot), this protocol ends here.	a aqui. /

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Controle de qualidade / Quality assurance	ok / nok
Planeza da superfície do flange (desvio máx. ≤0,3mm) / Flatness of the flange surface (max. excursion ≤0.3mm)	
Execução dos furos radiais e longitudinais (sem bolhas de ar, ranhuras, etc.) / Execution of the radial and longitudinal drill holes (without air bubbles, grooves, etc.)	
B01       B02       B03       B04       B05       B06       B07       B08       B09       B10       B11       B12       B13       B14         B15       B16       B17       B18       B19       B20       B21       B22       B23       B24       B25       B26       B27       B28         B29       B30       B31       B32       B33       B34       B35       B36       B37       B38       B39       B40       B41       B42         B43       B44       B45       B46       B47       B48       B49       B50       B51       B52       B53       B54       B55       B56         B57       B58       B59       B60       B61       B62       B63       B64       B65       B66       B67       B68       B69       B70         B71	
Diâmetro nominal dos furos radiais: 96 mm (+0.2/-0.4) / Nominal diameter of the radial drill holes: 96mm (+0.2/-0.4)	
B01       B02       B03       B04       B05       B06       B07       B08       B09       B10       B11       B12       B13       B14         B15       B16       B17       B18       B19       B20       B21       B22       B23       B24       B25       B26       B27       B28         B29       B30       B31       B32       B33       B34       B35       B36       B37       B38       B39       B40       B41       B42         B43       B44       B45       B46       B47       B48       B49       B50       B51       B52       B53       B54       B55       B56         B57       B58       B59       B60       B61       B62       B63       B64       B65       B66       B67       B68       B69       B70         B71	
Distância nominal entre o flange e o início dos furos radiais: 122mm (+0.3/-0.3) / Nominal distance between the flange and the start of the radial drill holes: 122mm (+0.3/-0.3): dentro/internal: B04, B16, B27, B39, B51, B63	
fora/external: B04, B16, B27, B39, B51, B63	
Diâmetro nominal dos furos longitudinais: Ø 45 mm (+/-0,3) / Nominal diameter of the longitudinal drill holes: Ø 45mm (+/-0.3)	
B01       B02       B03       B04       B05       B06       B07       B08       B09       B10       B11       B12       B13       B14         B15       B16       B17       B18       B19       B20       B21       B22       B23       B24       B25       B26       B27       B28         B29       B30       B31       B32       B33       B34       B35       B36       B37       B38       B39       B40       B41       B42         B43       B44       B45       B46       B47       B48       B49       B50       B51       B52       B53       B54       B55       B56         B57       B58       B59       B60       B61       B62       B63       B64       B65       B66       B67       B68       B69       B70         B71	
Espessura total do flange / Total flange thickness:	
□ B01: 151,1 (+20/0) □ B02: 151,1 (+20/0) □ B03: 151,1 (+15/0) □ B04: 151,1 (+15/0) □ B05: 151,1 □ B06: 151,1 (+15/0) □ B07: 151,1 (+15/0) □ B08: 151,1 (+15/0) □ B09: 151,1 (+15/0) □ B10: 151,1 □ B11: 151,1 (+15/0) □ B12: 151,1 (+15/0) □ B13: 151,1 (+15/0) □ B14: 151,1 (+15/0) □ B15: 151,1 □ B16: 151,1 (+15/0) □ B17: 151,1 (+15/0) □ B18: 151,1 (+15/0) □ B19: 151,1 (+15/0) □ B20: 151,1 □ B21: 151,1 (+15/0) □ B22: 151,1 (+15/0) □ B23: 151,1 (+15/0) □ B24: 151,1 (+15/0) □ B25: 151,1 □ B26: 151,1 (+15/0) □ B27: 151,1 (+15/0) □ B28: 151,1 (+15/0) □ B29: 151,1 (+15/0) □ B30: 151,1 □ B31: 151,1 (+15/0) □ B32: 151,1 (+20/0) □ B33: 151,1 (+20/0) □ B34: 151,1 (+20/0) □ B35: 151,1 □ B36: 151,1 (+20/0) □ B37: 151,1 (+20/0) □ B38: 151,1 (+15/0) □ B44: 151,1 (+15/0) □ B40: 151,1 □ B41: 151,1 (+15/0) □ B42: 151,1 (+15/0) □ B43: 151,1 (+15/0) □ B44: 151,1 (+15/0) □ B45: 151,1 □ B46: 151,1 (+15/0) □ B47: 151,1 (+15/0) □ B48: 151,1 (+15/0) □ B49: 151,1 (+15/0) □ B50: 151,1 □ B51: 151,1 (+15/0) □ B52: 151,1 (+15/0) □ B53: 151,1 (+15/0) □ B54: 151,1 (+15/0) □ B55: 151,1 □ B66: 151,1 (+15/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+15/0) □ B64: 151,1 (+15/0) □ B65: 151,1 □ B66: 151,1 (+15/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+20/0) □ B69: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+20/0) □ B69: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+20/0) □ B69: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+20/0) □ B69: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+20/0) □ B69: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+20/0) □ B69: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+20/0) □ B69: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B67: 151,1 (+15/0) □ B68: 151,1 (+20/0) □ B69: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B70: 151,1 □ B71: 151,1 (+20/0) □ B70: 151,1 □ B	(+15/0) (+15/0) (+15/0) (+15/0) (+15/0) (+15/0) (+20/0) (+15/0) (+15/0) (+15/0) (+15/0) (+15/0) (+15/0)
	Planeza da superficie do flange (desvio máx. ≤0,3mm) / Flatness of the flange surface (max. excursion ≤0,3mm)   Execução dos furos radiais e longitudinais (sem bolhas de ar, ranhuras, etc.) / Execution of the radial and longitudinaid drill holes: (without air bubbles, grooves, etc.)    B01

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28	Controle de qualidade / Quality assurance	ok / nok
29	Espessura do material entre o furo longitudinal e parede exterior da pá do rotor /  Material thickness between longitudinal hole and exterior wall of rotor blade	
	□ B01: 52,5 (+5/-2,5) □ B02: 52,5 (+5/-2,5) □ B03: 52,5 (+5/-2,5) □ B04: 52,5 (+5/-2,5) □ B05: 52,5 (+5/-2,5) □ B10: 52,5 (+5/-2,5) □ B10: 52,5 (+5/-2,5) □ B10: 52,5 (+5/-2,5) □ B11: 52,5 (+5/-2,5) □ B12: 52,5 (+5/-2,5) □ B13: 52,5 (+5/-2,5) □ B14: 52,5 (+5/-2,5) □ B15: 52,5 (+5/-2,5) □ B16: 52,5 (+5/-2,5) □ B17: 52,5 (+5/-2,5) □ B18: 52,5 (+5/-2,5) □ B19: 52,5 (+5/-2,5) □ B20: 52,5 (+5/-2,5) □ B21: 52,5 (+5/-2,5) □ B22: 52,5 (+5/-2,5) □ B23: 52,5 (+5/-2,5) □ B24: 52,5 (+5/-2,5) □ B25: 52,5 (+5/-2,5) □ B26: 52,5 (+5/-2,5) □ B27: 52,5 (+5/-2,5) □ B28: 52,5 (+5/-2,5) □ B29: 52,5 (+5/-2,5) □ B30: 52,5 (+5/-2,5) □ B31: 52,5 (+5/-2,5) □ B32: 52,5 (+5/-2,5) □ B33: 52,5 (+5/-2,5) □ B34: 52,5 (+5/-2,5) □ B35: 52,5 (+5/-2,5) □ B36: 52,5 (+5/-2,5) □ B37: 52,5 (+5/-2,5) □ B38: 52,5 (+5/-2,5) □ B39: 52,5 (+5/-2,5) □ B40: 52,5 (+5/-2,5) □ B41: 52,5 (+5/-2,5) □ B42: 52,5 (+5/-2,5) □ B43: 52,5 (+5/-2,5) □ B44: 52,5 (+5/-2,5) □ B45: 52,5 (+5/-2,5) □ B46: 52,5 (+5/-2,5) □ B47: 52,5 (+5/-2,5) □ B48: 52,5 (+5/-2,5) □ B49: 52,5 (+5/-2,5) □ B50: 52,5 (+5/-2,5) □ B51: 52,5 (+5/-2,5) □ B52: 52,5 (+5/-2,5) □ B53: 52,5 (+5/-2,5) □ B54: 52,5 (+5/-2,5) □ B55: 52,5 (+5/-2,5) □ B66: 52,5 (+5/-2,5) □ B67: 52,5 (+5/-2,5) □ B68: 52,5 (+5/-2,5) □ B69: 52,5 (+5/-2,5) □ B60: 52,5 (+5/-2,5) □ B67: 52,5 (+5/-2,5) □ B68: 52,5 (+5/-2,5) □ B69: 52,5 (+5/-2,5) □ B71: 52,5 (+5/-2,5) □ B67: 52,5 (+5/-2,5) □ B68: 52,5 (+5/-2,5) □ B69: 52,5 (+5/-2,5) □ B71: 52,5 (+5/-2,5) □ B67: 52,5 (+5/-2,5) □ B68: 52,5 (+5/-2,5) □ B69: 52,5 (+5/-2,5) □ B71: 52,5 (+5/-2,5) □ B67: 52,5 (+5/-2,5) □ B68: 52,5 (+5/-2,5) □ B69: 52,5 (+5/-2,5) □ B70: 52,5 (+5/-2,5) □ B71: 52,5 (+5/-2,5) □ B67: 52,5 (+5/-2,5) □ B68: 52,5 (+5/-2,5) □ B69: 52,5 (+5/-2,5) □ B71: 52,5 (+5/-2,5) □ B67: 52,5 (+5/-2,5) □ B68: 52,5 (+5/-2,5) □ B69: 52,5 (+5/-2,5) □ B71: 52,5 (+5/-2,5) □ B67: 52,5 (+5/-2,5) □ B68: 52,5 (+5/-2,5) □ B69: 52,5 (+5/-2,5) □ B71: 52,5 (+5/-2,5)	//-2,5) //-2,5) //-2,5) //-2,5) //-2,5) //-2,5) //-2,5) //-2,5) //-2,5) //-2,5)
30	Espessura do material entre o furo longitudinal e parede interior da pá do rotor /  Material thickness between longitudinal hole and interior wall of rotor blade	
	□ B01: 53,6 (+14,5/-4) □ B02: 53,6 (+14,5/-4) □ B03: 53,6 (+10/-3,5) □ B04: 53,6 (+10/-3,5) □ B05: 53,6 (+10/-3,5) □ B06: 53,6 (+10/-3,5) □ B07: 53,6 (+10/-3,5) □ B08: 53,6 (+10/-3,5) □ B09: 53,6 (+10/-3,5) □ B10: 53,6 (+10/-3,5) □ B11: 53,6 (+10/-3,5) □ B12: 53,6 (+10/-3,5) □ B13: 53,6 (+10/-3,5) □ B14: 53,6 (+10/-3,5) □ B15: 53,6 (+10/-3,5) □ B16: 53,6 (+10/-3,5) □ B17: 53,6 (+10/-3,5) □ B18: 53,6 (+10/-3,5) □ B19: 53,6 (+10/-3,5) □ B20: 53,6 (+10/-3,5) □ B21: 53,6 (+10/-3,5) □ B22: 53,6 (+10/-3,5) □ B22: 53,6 (+10/-3,5) □ B23: 53,6 (+10/-3,5) □ B24: 53,6 (+10/-3,5) □ B25: 53,6 (+10/-3,5) □ B26: 53,6 (+10/-3,5) □ B27: 53,6 (+10/-3,5) □ B28: 53,6 (+10/-3,5) □ B29: 53,6 (+10/-3,5) □ B30: 53,6 (+10/-3,5) □ B31: 53,6 (+10/-3,5) □ B32: 53,6 (+10/-3,5) □ B33: 53,6 (+14,5/-4) □ B34: 53,6 (+10/-3,5) □ B39: 53,6 (+10/-3,5) □ B40: 53,6 (+10/-3,5) □ B41: 53,6 (+10/-3,5) □ B42: 53,6 (+10/-3,5) □ B43: 53,6 (+10/-3,5) □ B44: 53,6 (+10/-3,5) □ B53: 53,6 (+10/-3,5) □ B51: 53,6 (+10/-3,5) □ B52: 53,6 (+10/-3,5) □ B53: 53,6 (+10/-3,5) □ B54: 53,6 (+10/-3,5) □ B55: 53,6 (+10/-3,5) □ B60: 53,6 (+10/-3,5) □ B61: 53,6 (+10/-3,5) □ B62: 53,6 (+10/-3,5) □ B63: 53,6 (+10/-3,5	
31	Superfície do flange selada com resina e temperada / Flange surface sealed with resin and cured	
32	Pá do rotor M2 sem danos / Rotor blade M2 undamaged	
33	Pá do rotor M2 rejeitada / Rotor blade M2 rejected	
34	Aprovada sob reserva / Provisionally approved	
35	Aprovada / Approved	
36	Inspetor (assinatura e data) / Inspector (signature and date)	

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