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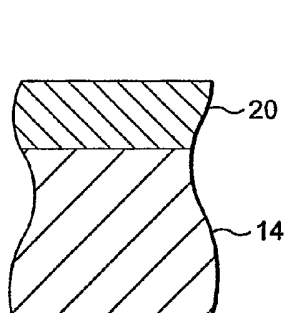
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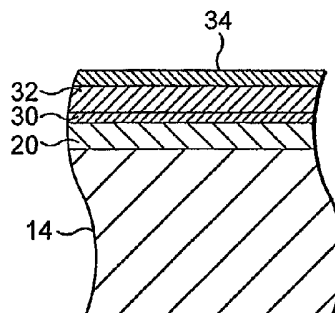
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(54) Title: COATING



(a)



(b)

(57) Abstract: A method of forming a coating on a plastics component (14) of a vacuum pump comprises the steps of applying a metallic layer (20) to the component and forming the coating (30, 32, 34) from the metallic layer by subjecting the metallic layer to electrolytic plasma oxidation.

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INTERNATIONAL SEARCH REPORT

Interr. Application No
PCT/GB2004/003010

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C25D11/02 F04D7/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C25D F04D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DD 151 331 A (KURZE, PETER, DD; MARX, GUENTER, DD; KRYSMANN, WALDEMAR, DD; BAHR, DIETER, DD;) 14 October 1981 (1981-10-14) the whole document	1-3, 5, 6, 10, 13-15, 18-21
Y	----- DE 101 63 864 A1 (LEYBOLD VAKUUM GMBH) 10 July 2003 (2003-07-10) paragraphs '0011!', '0014! claims 1-3, 8, 9	12, 18-20, 22, 23
Y	----- DE 101 63 864 A1 (LEYBOLD VAKUUM GMBH) 10 July 2003 (2003-07-10) paragraphs '0011!', '0014! claims 1-3, 8, 9	12, 18-20, 22, 23
A	----- -/--	15

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Patent family members are listed in annex.

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Inter

Application No

PCT/GB2004/003010

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 101 34 559 A1 (FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V) 6 February 2003 (2003-02-06) claims 1,11,19 paragraph '0022! -----	1-6, 12-14
A	DE 42 39 391 A1 (ELECTRO CHEMICAL ENGINEERING GMBH, ZUG, CH) 9 June 1993 (1993-06-09) column 2, lines 10-21 -----	23

INTERNATIONAL SEARCH REPORT

Information on patent family members

Intern	Application No
PCT/GB2004/003010	

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DD 151331	A	14-10-1981	DD 151331 A1	14-10-1981
DE 10163864	A1	10-07-2003	AU 2002360993 A1 WO 03056187 A1 EP 1485622 A1	15-07-2003 10-07-2003 15-12-2004
DE 10134559	A1	06-02-2003	NONE	
DE 4239391	A1	09-06-1993	CH 690174 A5 JP 5261852 A US 5487825 A	31-05-2000 12-10-1993 30-01-1996