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Empirical Study on the Doctrine of Equivalents in Taiwan

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Abstract

The doctrine of equivalents is one of the most difficult and unpredictable doctrines in patent law to apply. By allowing patentees to gain exclusive right beyond the literal claims in their patents, this doctrine creates tension between the adequate protection of patent right and the public notice function in the patent system. Based on the Guideline for Patent Infringement Analysis proposed by Taiwan Intellectual Property Office, to determine patent infringement under the doctrine of equivalents, the Triple-Identity Test should be applied. Under this test, if an accused device performs substantially the same function in substantially the same way to obtain the same result as the asserted patent, the device infringes the patent. However, the information regarding the test is insufficient in the Guideline for Patent Infringement Analysis. It fails to explain how to apply the test, how to define the Way/Function/Result, and what the sequence of applying the three factors is. With-

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out these detailed information, it will be desirable for the public to know how the Taiwan Intellectual Property Court apply the test. This article attempts to review the practice of the test by empirical study. Especially, this article surveys the patent infringement litigations in the Intellectual Property Court and tries to analyze the test implanted in the Court. Besides, this article also provides some comments and suggestions on the test in Taiwan.

Keywords: Doctrine of Equivalent, Triple-Identity Test, Tri-Partite Test, Function-Way-Result Test, Empirical Study

1. 緒論

Doctrine of Equivalents

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¹ Sun Y. Pae, *Balancing the Public Interest Against That of a Patent Owner: The Doctrine of Equivalents*, 19 DCBA BRIEF 21, 26 (2006).

² Nicholas Pumfrey et al., *The Doctrine of Equivalents in Various Patent Regimes—Does Anybody Have It Right?*, 11 YALE J.L. & TECH. 261, 262 (2009).

³ John Mills, *Three “Non-Obvious” Modifications to Simplify and Rein in the Doctrine of Equivalents*, 14 FED. CIR. B.J. 649, 664 (2005).

⁴ S. Jay Plager, *Challenges for Intellectual Property Law in the Twenty-First Century: Indeterminacy and Other Problems*, 2001 U. ILL. L. REV. 69, 72 (2001).

⁵ Paul R. Michel, *The Role and Responsibility of Patent Attorneys in Improving the Doctrine of Equivalents*, 40 IDEA 123, 123 (2000).

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2002

Natalie Sturicz, *Phillips v. Awh, Corp., a Doctrine of Equivalents Case?*, 12 MARQ. INTELL. PROP. L. REV. 385, 403-06 (2008).

30 2008 2012 4
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2. 我國均等論判斷標準

2.1

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1996 1

2004 10 4

12 http://www.jirs.judicial.gov.tw/FJUD/FJUDQRY01_1.aspx

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as a whole ²⁷

substantial differ-

ence

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one-to-one correspondence

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2.2.4

2.2.4.1

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2.2.4.2

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28	40-41		
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30	36-44		
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32	40-41		

way	function
result	

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2.3.1

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2.3.2

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2.3.3

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2.4

2.4.1

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FWR function, way & result

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2.4.2

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1950 *Graver Tank &*

*Mfg. Co. v. Linde Air Prods. Co.*⁵⁷

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www.tipo.gov.tw/ch/AllInOne_Show.aspx?guid=fceae3e-c989-445c-8f37-ab942c83233d&lang=zh-tw&path=828

2013 3 4

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Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605 (U.S. 1950).

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3. 美國均等論相關之規範與研究

3.1

		<i>Winans v. Denmead</i> ⁶⁰
	1950	<i>Graver Tank & Mfg. Co. v. Linde Air Prods.</i>
<i>Co.</i> ⁶¹		62
		63
		64
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	1950	1870
		<i>Graver Tank</i>

58 43 44-45

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60 *Winans v. Denmead*, 56 U.S. 330 (1853).

61 *See Graver Tank & Mfg. Co.*, 339 U.S. 605.

62 Pumfrey et al., *supra* note 2, at 264.

63 *Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1425 (Fed. Cir. 1997).

64 DONALD S. CHISUM ET AL., *PRINCIPLES OF PATENT LAW* 905 (3d ed. 2004).

65 Lee Petherbridge, *On the Decline of the Doctrine of Equivalents*, 31 *CARDOZO L. REV.* 1371, 1374 (2010).

66 CHISUM ET AL., *supra* note 64, at 906.

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1997 *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*⁶⁸*Graver Tank*

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Claim

element

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Graver Tank

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⁶⁷ *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607-08 (1950).

⁶⁸ *Warner-Jenkinson Co. Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17 (1997).

⁶⁹ *Id.* at 21.

⁷⁰ *Id.* at 29.

⁷¹ *Id.* at 29-30.

⁷² *Id.* at 40.

⁷³ *Id.* at 29.

⁷⁴ Michael J. Meurer & Craig Allen Nard, *Invention, Refinement and Patent Claim Scope: A New Perspective on the Doctrine of Equivalents*, 93 GEO. L.J. 1947, 1948-49 (2005).

⁷⁵ See CHI-

*Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*⁷⁶

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SUM ET AL., *supra* note 64, at 926-27.

⁷⁶ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.* 535 U.S. 722 (2002).

⁷⁷ *Id.* at 731.

⁷⁸ *Id.* at 731-32.

⁷⁹ *Id.* at 732-33.

⁸⁰ *Id.* at 740-41.

⁸¹ Christopher A. Cotropia, “After-Arising” *Technologies and Tailoring Patent Scope*, 61 N.Y.U. ANN. SURV. AM. L. 151, 160-61 (2005).

3.2

3.2.1

*Graver Tank*⁸²

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*Sanitary Refrigerator Co. v. Winters*⁸⁴

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principle

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Graver Tank

As a whole

element by element

⁸² *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 605 (1950).

⁸³ *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997).

⁸⁴ *Sanitary Refrigerator Co. v. Winters*, 280 U.S. 30, 42 (1929).

⁸⁵ *Graver Tank & Mfg. Co.*, 339 U.S. at 608.

⁸⁶ *Id.* at 608.

⁸⁷ *Id.* at 608-09.

⁸⁸ *Id.* at 609.

1997 *Warner-Jenkinson Co., Inc. v. Hilton Davis*
*Chemical Co.*⁸⁹
Warner-Jenkinson element

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*Lemelson v. United**States*⁹³

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3.2.2

*Corning Glass Works v. Sumitomo Electric U.S.A., Inc.*⁹⁵

limitation

component

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⁸⁹ *Warner-Jenkinson Co. Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17 (1997).

⁹⁰ *Id.* at 29-30.

⁹¹ *Id.* at 40.

⁹² *Id.* at 29.

⁹³ *Lemelson v. United States*, 752 F.2d 1538, 1547 (Fed. Cir. 1985).

⁹⁴ *Id.* at 1547.

⁹⁵ *Corning Glass Works v. Sumitomo Electric U.S.A., Inc.*, 868 F.2d 1251 (Fed. Cir. 1989).

⁹⁶ *Id.* at 1259.

⁹⁷ *Dolly, Inc. v. Spalding & Evenflo Cos.*⁹⁸ *Corning Glass*

⁹⁹ *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*¹⁰⁰

¹⁰¹ *Crown Packaging Technology, Inc. v. Rexam Beverage Can Co.*¹⁰²

On a limitation by limitation basis

Warner-Jenkinson

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Festo

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*Ethicon Endo-Surgery, Inc. v. United States Surgical Corp.*¹⁰⁵

⁹⁷

Id.

⁹⁸ *Dolly, Inc. v. Spalding & Evenflo Cos.*, 16 F.3d 394 (Fed. Cir. 1994).

⁹⁹ *Id.* at 399.

¹⁰⁰ *Perkin-Elmer Corp. v. Westinghouse Electric Corp.*, 822 F.2d 1528 (Fed. Cir. 1987).

¹⁰¹ *Id.* at 1533.

¹⁰² *Crown Packaging Tech., Inc. v. Rexam Bev. Can Co.*, 559 F.3d 1308 (Fed. Cir. 2009).

¹⁰³ DONALD S. CHISUM, CHISUM ON PATENTS § 18.04[1][b][iii][F] (2011).

¹⁰⁴ *Id.* at § 18.04[1][b][iii][G].

¹⁰⁵ *Ethicon Endo-Surgery, Inc. v. United States Surgical Corp.*, 149 F.3d 1309 (Fed. Cir. 1998).

¹⁰⁶ *Eagle Comtronics, Inc. v. Arrow Communication Labora-*
*ories, Inc.*¹⁰⁷

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3.3

3.3.1

Warner-Jenkinson

function/way/result test, or Triple Identity Test
 insubstantial difference test ¹⁰⁹ *Warner-Jenkinson*

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¹⁰⁶ *Id.* at 1320.

¹⁰⁷ *Eagle Comtronics, Inc. v. Arrow Commc'n. Labs., Inc.*, 305 F.3d 1303 (Fed. Cir. 2002).

¹⁰⁸ *Id.* at 1317.

¹⁰⁹ Petherbridge, *supra* note 65, at 1374-75; R. CARL MOY, *MOY'S WALKER ON PATENTS* §13:65 (2011).

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¹¹¹ See D. Alan White, *The Doctrine of Equivalents: Fairness and Uncertainty in an Era of Biologic Pharmaceuticals*, 60 EMORY L.J. 751, 763-67 (2011).

Samson Vermont, *Taming the Doctrine of Equivalents in Light of Patent Failure*, 16 J. INTELL. PROP. L. 83, 107 (2008).

micro-managing
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3.3.2

Warner-Jenkinson

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Crown Packaging Technology

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*Engel Industries, Inc. v. Lockformer Co.*¹¹⁸

¹¹² Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 39-40 (1997).

¹¹³ *Id.* at 39.

¹¹⁴ *Id.* at 39-40.

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ Crown Packaging Tech., Inc. v. Rexam Bev. Can Co., 559 F.3d 1308, 1312 (Fed. Cir. 2009).

¹¹⁸ Engel Indus. v. Lockformer Co., 96 F.3d 1398 (Fed. Cir. 1996).

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3.3.3

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3.3.3.1

Specific Exclusion/Disclaimer/Disavowal

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*Gaus v. Conair Corp.*¹²⁴

disavowed

3.3.3.2

¹¹⁹ *Id.* at 1407.
¹²⁰

⁷ 189 detailed structure
 rule Blake B. Greene, Bicon, Inc. v. Straumann Co.: *The Federal Circuit Specifically Excluded Claim Vitiating to Illustrate a New Limiting Principle on the Doctrine of Equivalents*, 22 BERKELEY TECH. L.J. 155, 183-88 (2007)

¹²¹ CHISUM, *supra* note 103, at § 18.04[1][b][ii][C].

¹²² Petherbridge, *supra* note 65, at 1385-86.

¹²³ Greene, *supra* note 120, at 170-71.

¹²⁴ *Gaus v. Conair Corp.*, 363 F.3d 1284 (Fed. Cir. 2004).

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Warner-Jenkinson

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*Moore U.S.A., Inc. v. Standard Register Co.*¹²⁸

majority 47.8%

47.8%

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3.3.3.3 Disclosure-Dedication Rule for Nonclaimed

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*Johnson & Johnston Associates Inc. v. R.E. Service Co., Inc.*¹³²

en banc decision

¹²⁵ CHISUM, *supra* note 103, at § 18.04[1][b][ii][A].

¹²⁶ *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997).

¹²⁷ *Id.* at 29.

¹²⁸ *Moore U.S.A. v. Std. Register Co.*, 229 F.3d 1091, 1106 (Fed. Cir. 2000).

¹²⁹ *Id.* at 1235-36.

¹³⁰ *Id.* at 1236.

¹³¹ CHISUM, *supra* note 103, at § 18.04[1][d].

¹³² *Johnson & Johnston Assocs. v. R.E. Serv. Co.*, 285 F.3d 1046 (Fed. Cir. 2002).

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3.3.3.4

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*Wilson Sporting Goods Co. v. David Geoffrey & Associates*¹³⁵

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¹³³ Timothy R. Holbrook, *Possession in Patent Law*, 59 SMU L. REV. 123, 165-66 (2006).

¹³⁴ CHISUM, *supra* note 103, at § 18.04[2][d].

¹³⁵ *Wilson Sporting Goods Co. v. David Geoffrey & Assocs.*, 904 F.2d 677 (Fed. Cir. 1990).

¹³⁶ *Id.* at 684.

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3.3.3.5

Estoppel

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Festo

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Warner-Jenkinson

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Festo

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137 CHISUM, *supra* note 103, at § 18.04[2][d][i][A].

138 “[a]n estoppel arises when one is concluded and forbidden by law to speak against his own act or deed.” *See* BLACK’S LAW DICTIONARY 494 (5th ed. 1979).

139 CHISUM, *supra* note 103, at § 18.05.

140 *Id.* § 18.05.

141 *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 733-34 (2002).

142 *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 33 (1997).

143 Matthew J. Conigliaro et al., *Foreseeability in Patent Law*, 16 BERKELEY TECH. L.J. 1045, 1064-73 (2001).

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3.3.4

Graver Tank

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*Graver Tank**Perkin-Elmer*

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*Hilton Davis Chemical Co. v. Warner-Jenkinson**Co.*¹⁴⁸*Graver Tank*

¹⁴⁴ *Festo*, 535 U.S. at 740-41.

¹⁴⁵ *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 609 (1950).

¹⁴⁶ *Id.* at 612.

¹⁴⁷ *Perkin-Elmer Corp. v. Westinghouse Electric Corp.*, 822 F.2d 1528, 1535 (Fed. Cir. 1987).

¹⁴⁸ *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512 (Fed. Cir. Aug. 8, 1995).

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1997

*Warner-Jenkinson**Graver Tank*

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151

*Toro Co. v. Deere & Co.*¹⁵²

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*Abraxis Bioscience, Inc. v. Mayne Pharma (USA) Inc.*¹⁵⁴

¹⁴⁹ *Id.* at 1519.

¹⁵⁰ *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 36 (1997).

¹⁵¹ *Id.* at 37.

¹⁵² *Toro Co. v. Deere & Co.*, 355 F.3d 1313 (Fed. Cir. 2004).

¹⁵³ *Id.* at 1324.

¹⁵⁴ *Abraxis Bioscience, Inc. v. Mayne Pharma Inc.*, 467 F.3d 1370, 1382 (Fed. Cir. 2006).

Warner-Jenkinson

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Festo

Festo

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Warner-Jenkinson

Festo

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Id.

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Brian J. Teague, *Festo and the Future of the Doctrine of Equivalents*, 3 CHI.-KENT J. INTEL. PROP. 1, 16-17 (2003).

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David L. Schwartz, *Explaining the Demise of the Doctrine of Equivalents*, 26 BERKELEY TECH. L.J. 1157, 1209-11 (2011); John R. Allison & Mark A. Lemley, *The (Unnoticed) Demise of the Doctrine of Equivalents*, 59 STAN. L. REV. 955, 966-72 (2007); Petherbridge, *supra* note 65.

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Petherbridge, *supra* note 65, at 1374-75.

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Id. at 1378-79.

Markman order	160			
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		165		Reissue
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			168	
				169

4. 我國均等論判決之實證研究

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2012	5	15			1.
2.		3.	2008	7	1
					2012 4

¹⁶⁰ Schwartz, *supra* note 157, at 1160-62.

¹⁶¹ Sturicz, *supra* note 10, at 403-05.

¹⁶² Joshua D. Sarnoff, *Abolishing the Doctrine of Equivalents and Claiming the Future After Festo*, 19(4) BERKELEY TECH. L.J. 1157, 1225 (2004).

¹⁶³ Cotropia, *supra* note 81, at 171-76.

¹⁶⁴ Vermont, *supra* note 111, at 90-93.

¹⁶⁵ Cotropia, *supra* note 81, at 171-76.

¹⁶⁶ Douglas Lichtman, *Substitutes for the Doctrine of Equivalents: A Response to Meurer and Nard*, 93 GEO. L.J. 2013, 2018-19 (2005).

¹⁶⁷ Vermont, *supra* note 111, at 93-96.

¹⁶⁸ John R. Thomas, *Claim Re-construction: The Doctrine of Equivalents in the Post-Markman Era*, 9 LEWIS & CLARK L. REV. 153, 169-75 (2005).

¹⁶⁹ White, *supra* note 110, at 777-93.

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 272 275 3 170
 272

35 272 35 66
 136

	35	35	136	66	272

4.2

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 170 97 33 97
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1 3 4 5

1 3 4 5

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2

2008 2012
 12.9% 23% 2011 10% 2012
 3%

2008	8	1	12.50
2009	56	13	23.21
2010	73	10	13.70
2011	102	10	9.80
2012	33	1	3.03
	272	35	12.87

4.3

136 122
 90% 4
 3% 10 7.5%
 2 10 3
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7 5.4%

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2.

3.

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2008	5	3	60	0	0	2	40
2009	30	29	97	0	0	1	3
2010	37	36	97	1	3	0	0
2011	48	41	85	2	4	5	10
2012	16	13	81	1	6	2	13
	136	122	90	4	3	10	7

4.4

175

122

92 75%

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25%

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表四 三步測試判決之年份與比率表

年份	三步測試	完整	百分比	不完整	百分比
2008	3	3	100	0	0
2009	29	20	69	8	28
2010	36	26	72	10	28
2011	41	33	80	8	20
2012	13	10	77	3	23
合計	122	92	75	30	25

請參表五，本研究對這 92 案完整使用三步測試法之判決，分析法院解析申請專利範圍要件，以及使用三步測試法手段、功能與結果之分析順序。在使用三步測試法時，法院都是先比對技術手段，其次比對功能，最後決定結果，無一判決例外。

表五 完整三步測試優先判斷

年份	完整判斷	Way 優先	Function 優先	Result 優先
2008	3	3	0	0
2009	20	20	0	0
2010	26	26	0	0
2011	33	33	0	0
2012	10	10	0	0
合計	92	92	0	0

4.5 判斷與專利範圍要件實質相同之比對方式

經人工閱讀判決，發現有二種方式：第一種是界定專利範圍要件技術之

136

36 26.5% 100

73.5%

18 50%

2008	5	1	4	2008	1	0	1
2009	30	11	19	2009	11	7	4
2010	37	7	30	2010	7	3	4
2011	48	13	35	2011	13	7	6
2012	16	4	12	2012	4	1	3
	136	36	100		36	18	18

4.6

- 1.
2. 136
- 3.
- 1.

Element by element

176

Corning Glass

Limitation
Component 177

All-Limitations rule

178

2.

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3.

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Corning Glass Works v. Sumitomo Electric U.S.A., Inc., 868 F.2d 1251, 1259 (Fed. Cir. 1989).

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19 47-48

179

41

180

22

1.

100

73.5%

2.

2009

2012

2

8%

3.

16

11.8%

2008	5	4	0	1
2009	30	24	2	3
2010	37	29	2	4
2011	48	35	2	6
2012	16	8	2	2
	136	100	8	16
	100%	73.5%	8.0%	11.8%

4.7

	136	18		136		13%	18	8
44%			6	33%				2
11%								2
11%		181						
							136	26
19%								

2008	5	1	1	0	0	0	1	20
2009	30	4	2	2	0	0	8	27
2010	37	3	2	0	0	1	4	11
2011	48	7	3	3	1	0	12	25
2012	16	3	0	1	1	1	1	6
	136	18	8	6	2	2	26	19

4.8

				136				33
24%			33					
						17	13%	

13%

2008	5	0	0	0	0
2009	30	9	30	5	17
2010	37	6	16	4	11
2011	48	14	29	8	17
2012	16	4	25	0	0
	136	33	24	17	13

4.9

90% 3%

7%

75%

25%

73.5%

26.5%

8%	100	73.5%	8
		16	11.8%
		44%	33%
	11%		11%
19%			
		33	25%
	33		
		13%	

5. 均等論實證之檢討

5.1

		90%	122
			182
4	2		
		7	5.4%
			1

4

3

1

183

184

Warner-

Jenkinson

185

Festo

183 272-273 2005

184 272-273

185 *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997).

Warner-Jenkinson

5.2

Crown Packaging Technology

On a limitation by limitation

basis

186

100

73.5%

98

10

¹⁸⁶ *Crown Packaging Tech., Inc. v. Rexam Bev. Can Co.*, 559 F.3d 1308, 1312 (Fed. Cir. 2009).

187

187

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1

3

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Warner-Jenkinson

element by element

5.3

	122	75%
25%		
		25%

5.4

5.4.1

FWR Function, Way & Result

188

189

190

191

Function

Way
Result

192

5.4.2

99

204

188

42 118-119

42 110-112

189

43 41-42

190

45 103

191

46 258

192

19 41

Spine, Inc.

DePuy

5.4.3

	Function	Way	Result
	<i>Graver Tank</i>		
Way		193	
		<i>Graver Tank</i>	
	194		
		<i>Warner-Jenkinson</i>	
			195
	<i>Graver Tank</i>	<i>Graver Tank</i>	
		<i>Graver</i>	50

5.4.4

¹⁹³ *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950).

¹⁹⁴ *Id.* at 856-57.

¹⁹⁵ *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39 (1997).

26.5%

196

100

14

1

7

1C

1E

7

196

19

36-44

lc

le

lc le

1

lc

1C

function

result

1

1-C

197

1E

way

197

100

14

1

1C

355AF

function

result

1

C

1

1-C

.....

le

1

198

1C

1E

198

355AF

e

E

1

E

355AF

1

way

function

355AF

355AF

result

355AF

E(e)

1

1c

way

5.5

2004 10 5

10%

8%

Graver Tank

199

200

Graver Tank

1997

Warner-Jenkinson

Graver Tank

199	43	44-45
200	6	34

Elmer

Perkin-

Toro

Perkin-Elmer Toro

Graver Tank

See Charles W. Adams, *The Doctrine of Equivalents: Becoming a Derelict on the Waters of Patent Law*, 84 NEB. L. REV. 1113, 1150-52 (2006).

See Martin J. Adelman & Gary L. Francione, *The Doctrine of Equivalents in Patent Law: Questions That Pennwalt Did Not Answer*, 137 U. PA. L. REV. 673, 696-97 (1989).

Graver Tank

Festo

Festo

Toro

Festo

Graver Tank

Festo

5.6

8%

202

203

Graver Tank

Graver Tank

202

22

²⁰³ Michel, *supra* note 5, at 125.

Festo

Toro

Festo

Festo

204

5.7

	136
26.5%	73.5%

Hypothetic claim ²⁰⁵

²⁰⁴ Mills, *supra* note 3, at 672-73.

²⁰⁵ Wilson Sporting Goods Co. v. David Geoffrey & Assocs., 904 F.2d 677 (Fed. Cir. 1990).

5.8

44% 13% 33% 2

206

207

5.9



Festo

206

98

41

100

40

207

56

208

6

78

209

Allison & Lemley, *supra* note 157, at 963-66.

24%

5.10

16%²¹⁰

case law

5.11

210

136

16

2

2

2

22

16%

211

87

5.12

ner-Jenkinson

War-

6. 結論

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