

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL	
OMB Number:	3235-0287
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1. Name and Address of Reporting Person* BERLINGHIERI LEO			2. Issuer Name and Ticker or Trading Symbol MKS INSTRUMENTS INC [MKSI]			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) President and CEO		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 04/26/2010			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person		
2 TECH DRIVE			4. If Amendment, Date of Original Filed (Month/Day/Year)					
(Street) ANDOVER MA 01810								
(City) (State) (Zip)								

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	04/26/2010		M		880	A	\$20.02	35,893	D	
Common Stock	04/26/2010		M		466	A	\$18.44	36,359	D	
Common Stock	04/26/2010		M		14,700	A	\$16.88	51,059	D	
Common Stock	04/26/2010		M		482	A	\$12.97	51,541	D	
Common Stock	04/26/2010		M		375	A	\$17.6	51,916	D	
Common Stock	04/26/2010		M		30,000	A	\$17.25	81,916	D	
Common Stock	04/26/2010		S		45,800	D	\$23.5 ⁽¹⁾	36,116	D	
Common Stock	04/27/2010		M		500	A	\$16.88	36,616	D	
Common Stock	04/27/2010		M		200	A	\$17.6	36,816	D	
Common Stock	04/27/2010		S		700	D	\$24	36,116	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Option (Right to Buy)	\$20.02	04/26/2010		M		880		10/15/2002 ⁽²⁾	10/15/2011	Common Stock	880	\$0	0	D	
Stock Option (Right to Buy)	\$18.44	04/26/2010		M		466		06/24/2003 ⁽³⁾	06/24/2012	Common Stock	466	\$0	0	D	
Stock Option (Right to Buy)	\$16.88	04/26/2010		M		14,700		11/22/2003 ⁽⁴⁾	11/22/2012	Common Stock	14,700	\$0	15,300	D	
Stock Option (Right to Buy)	\$12.97	04/26/2010		M		482		02/07/2004 ⁽³⁾	02/07/2013	Common Stock	482	\$0	0	D	
Stock Option (Right to Buy)	\$17.6	04/26/2010		M		375		07/01/2004 ⁽³⁾	07/01/2013	Common Stock	375	\$0	0	D	
Stock Option (Right to Buy)	\$17.25	04/26/2010		M		30,000		03/21/2002 ⁽⁴⁾	03/21/2011	Common Stock	30,000	\$0	0	D	

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Option (Right to Buy)	\$16.88	04/27/2010		M			500	11/22/2003 ⁽⁴⁾	11/22/2012	Common Stock	500	\$0	14,800	D	
Stock Option (Right to Buy)	\$17.6	04/27/2010		M			200	07/01/2004 ⁽⁴⁾	07/01/2013	Common Stock	200	\$0	49,800	D	

Explanation of Responses:

- This transaction was executed in multiple trades at prices ranging from \$23.75 to 24.42. The price reported above reflects the weighted average sale price. The reporting person hereby undertakes to provide, upon request, the full information regarding the number of shares and prices at which the transaction was effected.
- Vests as follows: 33 1/3 after the first year and each successive 12 month period thereafter.
- Vests 100% one year after grant
- 25% after first year, 6.25% each quarter thereafter - total 4 years.

/s/Renee M. Donlan POA

04/28/2010

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.