Registration No. 333-___

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

MASTEC, INC.

(Exact name of registrant as specified in its charter)

Florida (State or other jurisdiction of incorporation or organization)

800 S. Douglas Road, 12th Floor Coral Gables, Florida (Address of Principal Executive Offices) 65-0829355 (I.R.S. Employer Identification No.)

> 33134 (Zip Code)

MasTec, Inc. 2011 Employee Stock Purchase Plan (Full title of the plan)

Alberto de Cardenas, Esq. Executive Vice President & General Counsel 800 S. Douglas Road, 12th Floor Coral Gables, Florida 33134 (Name and address of agent for service)

(305) 599-1800 (Telephone number, including area code, of agent for service)

> Copies to: Ira N. Rosner, Esq. Greenberg Traurig, P.A. 333 Avenue of the Americas (333 S.E. 2nd Ave.) Miami, Florida 33131 (305) 579-0500

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer \Box

Non-accelerated filer \Box (Do not check if a smaller reporting company)

Accelerated Filer

Smaller reporting company

company 🛛

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common Stock, par value \$0.10 per share	1,000,000 Shares	\$17.55	\$17,550,000	\$2,037.56

(1) Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "<u>Securities Act</u>"), this registration statement shall also cover any additional shares of common stock, \$0.10 par value per share ("<u>Common Stock</u>"), of MasTec, Inc. (the "<u>Registrant</u>") that become issuable under the MasTec, Inc. 2011 Employee Stock Purchase Plan by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration that results in an increase in the number of the Registrant's outstanding shares of Common Stock.

(2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) and Rule 457(h) under the Securities Act based on the average of the high and low prices per share of Common Stock reported by the New York Stock Exchange on June 13, 2011.

PART I. INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified by Items 1 and 2 of Part I of Form S-8 is omitted from this registration statement in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"), and the introductory Note to Part I of Form S-8.

The documents containing the information specified in Part I of Form S-8 will be sent or given to participating employees as specified by Rule 428(b) under the Securities Act. Such documents and the documents incorporated by reference herein pursuant to Item 3 of Part II hereof, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II. INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed with the United States Securities and Exchange Commission (the "<u>Commission</u>") by MasTec, Inc., a Florida corporation (the "<u>Company</u>," "we," "us" or "our"), are incorporated herein by reference:

- (a) Annual Report on Form 10-K for the year ended December 31, 2010, filed with the Commission on February 23, 2011;
- (b) Definitive Proxy Statement for our 2011 Annual Meeting of Shareholders, filed with the Commission on March 23, 2011;
- (c) Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, filed with the Commission on May 4, 2011;
- (d) Current Reports on Forms 8-K, filed with the Commission on January 7, 2011, January 14, 2011, February 17, 2011, April 26, 2011, May 9, 2011 and June 1, 2011 (not including any information furnished under Items 2.02, 7.01 or 9.01 of any such Form 8-K); and
- (e) The description of the Company's Common Stock contained in the Company's Registration Statement on Form 8-A (Commission File No. 001-08106) filed with the Commission on February 2, 1997 and any amendments to such Registration Statement filed subsequently thereto, including any amendment or report filed for the purpose of updating such description.

Additionally, all documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (not including any information furnished under Items 2.02, 7.01 or 9.01 of Form 8-K, which information is not incorporated by reference herein) prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated herein by reference and to be a part of this registration statement from the date of filing of such documents. Any statement contained in a document incorporated herein by reference will be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein, or in a subsequently filed document incorporated herein by reference, modifies or supersedes the statement. Any statement modified or superseded will not be deemed, except as modified or superseded, to constitute a part of this registration statement.

Item 4. Description of Securities.

Not Applicable.

Item 5. Interests of Named Experts and Counsel.

Not Applicable.

Item 6. Indemnification of Directors and Officers.

As a corporation incorporated in the State of Florida, we are subject to the Florida Business Corporation Act, or the Florida Act. Section 607.0831 of the Florida Act provides that a director is not personally liable for monetary damages to the corporation or any other person for any statement, vote, decision, or failure to act regarding corporate management or policy unless (1) the director breached or failed to perform his or her duties as a director and (2) the director's breach of, or failure to perform, those duties constitutes (a) a violation of the criminal law, unless the director had reasonable cause to believe his or her conduct was unlawful, (b) a transaction from which the director derived an improper personal benefit, either directly or indirectly, (c) a circumstance under which the liability provisions of Section 607.0834 are applicable, (d) in a proceeding by or in the right of the corporation to procure a judgment in its favor or by or in the right of a shareholder, conscious disregard for the best interest of the corporation, or willful misconduct, or (e) in a

proceeding by or in the right of someone other than the corporation or a shareholder, recklessness or an act or omission which was committed in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety, or property. A judgment or other final adjudication against a director in any criminal proceeding for a violation of the criminal law estops that director from contesting the fact that his or her breach, or failure to perform, constitutes a violation of the criminal law; but does not estop the director from establishing that he or she had reasonable cause to believe that his or her conduct was lawful or had no reasonable cause to believe that his or her conduct was unlawful.

Under Section 607.0850 of the Florida Act, a corporation has the power to indemnify any person who was or is a party to any proceeding (other than an action by, or in the right of the corporation), by reason of the fact that he or she is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against liability incurred in connection with such proceeding, including any appeal thereof, if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any proceeding by judgment, order, settlement or conviction or upon a plea of nolo contendere or its equivalent shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he or she reasonably believed to be in, or not opposed to, the best interests of the corporation or, with respect to any criminal action or proceeding, has reasonably believed to be in, or not opposed to, the best interests of the corporation or, with respect to any criminal action or proceeding, has reasonably believed to be in, or not opposed to, the best interests of the corporation or, with respect to any criminal action or proceeding, has reasonable cause to believe that his or her conduct was unlawful.

In addition, under Section 607.0850 of the Florida Act, a corporation has the power to indemnify any person, who was or is a party to any proceeding by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee, or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise, against expenses and amounts paid in settlement not exceeding, in the judgment of the board of directors, the estimated expense of litigating the proceeding to conclusion, actually and reasonably incurred in connection with the defense or settlement of such proceeding, including any appeal thereof. Such indemnification shall be authorized if such person acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification shall be made under this subsection in respect of any claim, issue, or matter as to which such person shall have been adjudged to be liable unless, and only to the extent that, the court in which such proceeding was brought, or any other court of competent jurisdiction, shall determine upon application that, despite the adjudication of liability but in view of all circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper.

Under Section 607.0850 of the Florida Act, the indemnification and advancement of expenses provided pursuant to Section 607.0850 of the Florida Act are not exclusive, and a corporation may make any other or further indemnification or advancement of expenses of any of its directors, officers, employees, or agents, under any bylaw, agreement, vote of shareholders or disinterested directors, or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding such office. However, indemnification or advancement of expenses shall not be made to or on behalf of any director, officer, employee or agent if a judgment or other final adjudication establishes that his or her actions, or omissions to act, were material to the cause of action so adjudicated and constitute: (a) a violation of the criminal law, unless the director, officer, employee or agent had reasonable cause to believe his or her conduct was unlawful; (b) a transaction from which the director, officer, employee or agent derived an improper personal benefit; (c) in the case of a director, a circumstance under which the above liability provisions of Section 607.0834 are applicable; or (d) willful misconduct or a conscious disregard for the best interests of the corporation in a proceeding by or in the right of the corporation to procure a judgment in its favor or in a proceeding by or in the right of a shareholder.

Section 607.0850 also provides that a corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation against any liability asserted against the person and incurred by him or her in any such capacity or arising out of his status as such, whether or not the corporation would have the power to indemnify him against such liability under the provisions of Section 607.0850.

Our Amended and Restated Articles of Incorporation provide that we shall indemnify any director or former director to the fullest extent permitted by law. Our Amended and Restated Bylaws provide that a director or officer may be paid expenses incurred in defending any proceeding in advance of its final disposition upon our receipt of an undertaking, by or on behalf of the director or officer, to repay all amounts so advanced if it is ultimately determined that such director or officer is not entitled to indemnification. Our Amended and Restated Bylaws also permit us to purchase and maintain insurance on behalf of our directors, officers, employees and agents against liabilities that they may incur in those capacities, whether or not we would have the power to indemnify them against such liabilities.

We have obtained primary and excess insurance policies insuring our directors and officers and our subsidiaries against certain liabilities they may incur in their capacity as directors and officers. Under such policies, the insurer, on our behalf, may also pay amounts for which we have granted indemnification to the directors or officers. In addition, we have individual indemnification agreements with our directors.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, it is the position of the Commission that indemnification of directors and officers for liabilities arising under the Securities Act is against public policy and is unenforceable pursuant to Section 14 of the Securities Act.

Item 7. Exemption from Registration Claimed.

Not Applicable.

Item 8. Exhibits.

See "Exhibit Index" on page II-7 below.

Item 9. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Coral Gables, State of Florida, on June 15, 2011.

MASTEC, INC.

By: /s/ Alberto de Cárdenas

Name: Alberto de Cárdenas

Title: Executive Vice President, General Counsel and Secretary

POWER OF ATTORNEY

Each person whose signature appears below hereby appoints Jose R. Mas, C. Robert Campbell and Albert de Cardenas his or her true and lawful attorney-in-fact, each acting alone, with full powers of substitution and resubstitution, with authority to execute in the name of each such person, and to file with the Securities and Exchange Commission, together with any exhibits thereto and other documents therewith, any and all amendments (including without limitation post-effective amendments) to this registration statement necessary or advisable to enable the registrant to comply with the Securities Act and any rules, regulations and requirements of the Securities and Exchange Commission in respect thereof, which amendments may make such other changes in the registration statement as the aforesaid attorney-in-fact executing the same deems appropriate. Pursuant to the requirements of the Securities Act, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
Jorge Mas	Chairman of the Board of Directors	
/s/ José R. Mas José R. Mas	Chief Executive Officer and Vice Chairman of the Board of Directors (Principal Executive Officer)	June 15, 2011
/s/ C. Robert Campbell C. Robert Campbell	Chief Financial Officer (Principal Financial and Accounting Officer)	June 15, 2011
/s/ Emst N. Csiszar Emst N. Csiszar	Director	June 15, 2011
/s/ Robert J. Dwyer Robert J. Dwyer	Director	June 15, 2011
/s/ Frank E. Jaumot Frank E. Jaumot	Director	June 15, 2011
Julia L. Johnson	Director	
/s/ Jose S. Sorzano Jose S. Sorzano	Director	June 15, 2011
/s/ John Van Heuvelen John Van Heuvelen	Director	June 15, 2011

EXHIBIT INDEX

Exhibit No.	Description
4.1	Composite Articles of Incorporation filed as Exhibit 3.1 to our Annual Report on Form 10-K for the year ended December 31, 2009 and incorporated by reference herein (Commission File Number 001-08106).
4.2	Amended and Restated By-laws of MasTec, inc., filed as Exhibit 3.1 to our Current Report on Form 8-K filed with the Commission on January 28, 2010 and incorporated by reference herein (Commission File Number 001-08106).
5.1	Opinion of Greenberg Traurig, P.A.
10.1	MasTec, Inc., 2011 Employee Stock Purchase Plan, filed as Annex A to our Definitive Proxy Statement on Schedule 14A, filed with the Commission on March 23, 2011 and incorporated by reference herein (Commission File Number 001-08106).
23.1	Consent of BDO USA, LLP
23.2	Consent of Houlihan Capital Advisors, LLC
23.3	Consent of Greenberg Traurig, P.A. (included in Exhibit 5.1 to this Registration Statement).
24.1	Power of Attorney (included on signature pages hereto).

June 15, 2011

MasTec, Inc. 800 S. Douglas Road 12th Floor Coral Gables, Florida 33134

Re: Registration Statement on Form S-8 for the MasTec, Inc. 2011 Employee Stock Purchase Plan.

Ladies and Gentlemen,

On or about the date hereof, MasTec, Inc., a Florida corporation (the "<u>Company</u>"), transmitted for filing with the Securities and Exchange Commission (the "<u>Commission</u>") a Registration Statement on Form S-8 (the "<u>Registration Statement</u>") under the Securities Act of 1933, as amended (the "<u>Act</u>"). The Registration Statement relates to the offering and sale by the Company of up to an aggregate of 1,000,000 shares of the Company's common stock, par value \$0.10 per share ("<u>Common Stock</u>"), under the MasTec, Inc. 2011 Employee Stock Purchase Plan (as amended to date, the "<u>Plan</u>"). We have acted as counsel to the Company in connection with the preparation and filing of the Registration Statement.

In connection therewith, we have examined and relied upon the original or a copy, certified to our satisfaction, of: (i) the Company's Amended and Restated Articles of Incorporation and Bylaws, each as amended to the date hereof; (ii) records of corporate proceedings of the Company related to the Plan; (iii) the Registration Statement and exhibits thereto; and (iv) such other documents and instruments as we have deemed necessary for the expression of the opinions contained herein. In making the foregoing examinations, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals, and the conformity to original documents of all documents submitted to us as certified or photocopies. As to various questions of fact material to this opinion, we have relied, to the extent we deemed reasonably appropriate, upon representations of officers or directors of the Company and upon documents, records and instruments furnished to us by the Company, without independently checking or verifying the accuracy of such documents, records and instruments.

Based upon the foregoing examination and assuming that (i) the Company reserves for issuance under the Plan an adequate number of authorized and unissued shares of Common Stock and (ii) the consideration required to be paid in connection with the issuance and sale of shares of Common Stock under the Plan is actually received by the Company as provided in the Plan, we are of the opinion that the shares of Common Stock issued under the Plan will be duly authorized, validly issued, fully paid and nonassessable.

June 15, 2011 MasTec, Inc. Page 2 of 2

This opinion is rendered only to you and is solely for your benefit in connection with the transactions covered hereby. This opinion may not be relied upon by you for any other purpose, or furnished to, quoted to or relied upon by any other person, firm or corporation for any purpose, without our prior written consent.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not admit that we come within the category of persons whose consent is required by Section 7 of the Act or the rules and regulations of the Commission promulgated thereunder.

The opinions expressed herein are specifically limited to the laws of the State of Florida and the federal laws of the United States of America and are as of the date hereof. We assume no obligation to update or supplement such opinions to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

Sincerely,

GREENBERG TRAURIG, P.A.

By: /s/ Ira N. Rosner, Esq.

Ira N. Rosner, Esq.

Consent of Independent Registered Public Accounting Firm

MasTec, Inc Coral Gables, FL

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our reports dated February 23, 2011, relating to the consolidated financial statements, the effectiveness of internal control over financial reporting of MasTec, Inc., and the financial statement schedule appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2010.

BDO USA, LLP Miami, FL

June 15, 2011



Investment Banking & Valuation Services

CONSENT OF HOULIHAN CAPITAL ADVISORS, LLC

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our valuation reports dated December 31, 2010 and March 31, 2011 relating to the estimation of fair value of certain auction rate securities held by MasTec, Inc. (the "Company") as of December 31, 2010 and March 31, 2011, which reports appear in the Company's Annual Report on Form 10-K for the year ended December 31, 2010 and the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, respectively.

Horlihan Japotal adirsons, LLC

Houlihan Capital Advisors, LLC

June 13, 2011