SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

Annual Report Pursuant to Section 15(d) of The Securities Exchange Act of 1934

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED, EFFECTIVE OCTOBER 7, 1996].

For the fiscal year ended December 30, 2003

□ TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED].

For the transition period from _____ to ____

Commission file number 1-6948

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

SPX Corporation Retirement Savings and Stock Ownership Plan

B. Name of the issuer of the securities held pursuant to the plan and the address of its principal executive office:

SPX Corporation 13515 Ballantyne Corporate Place Charlotte, North Carolina 28277 SPX Corporation Retirement Savings and Stock Ownership Plan

> Financial Report December 30, 2003

SPX Corporation Retirement Savings and Stock Ownership Plan

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Independent Auditor's Report

To the Administrative Committee SPX Corporation Retirement Savings and Stock Ownership Plan

We have audited the accompanying statement of net assets available for benefits of SPX Corporation Retirement Savings and Stock Ownership Plan as of December 30, 2003 and 2002 and the related statement of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 30, 2003 and 2002 and the changes in net assets available for benefits for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ Plante & Moran, PLLC

Southfield, Michigan June 11, 2004

SPX Corporation Retirement Savings and Stock Ownership Plan

Statement of Net Assets Available for Benefits

	Decem	December 30	
	2003	2002	
Assets - Participant-directed investments at fair value - Interest in SPX Corporation Savings Trust (Note 3)	\$ 780,609,520	\$ 602,253,774	

See Notes to Financial Statements.

SPX Corporation Retirement Savings and Stock Ownership Plan

Statement of Changes in Net Assets Available for Benefits

	Year Ended December 30	
	2003	2002
Additions		
Contributions:		
Employer	\$ 21,553,084	\$ 23,734,914
Participants	35,113,368	37,967,174
Rollovers	5,742,782	7,619,869
Income gain (loss) from interest in net assets of SPX Corporation Savings Trust (Note 3)	154,050,157	(130,811,588)
Net transfer from other plans (Note 6)	37,685,883	199,197,237
		·
Total additions	254,145,274	137,707,606
Deductions		
Distributions to participants	75,561,645	82,512,572
Administrative expenses	227,883	246,357
Total deductions	75,789,528	82,758,929
Net Increase in Net Assets Available for Benefits	178,355,746	54,948,677
Net Assets Available for Benefits		
Beginning of year	602,253,774	547,305,097
End of year	\$ 780,609,520	\$ 602,253,774

See Notes to Financial Statements.

SPX Corporation Retirement Savings and Stock Ownership Plan

Notes to Financial Statements December 30, 2003 and 2002

Note 1 - Description of the Plan

The following description of the SPX Corporation Retirement Savings and Stock Ownership Plan (the "Plan"), as amended and restated effective December 31, 1999, provides only general information. Participants should refer to the plan agreement for a complete description of the Plan's provisions. The Plan became effective January 1, 1952 and is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). The Plan operates as a leveraged employee stock ownership plan with a cash or deferred arrangement as described by Internal Revenue Code Section 401(k) and is designed to comply with Section 4975(e)(7) and the regulations thereunder of the Internal Revenue Code (the "Code") of 1986, as amended.

General – The Plan is a defined contribution plan that benefits primarily employees of SPX Corporation (the "Employer" or the "Company") who are not covered by collective bargaining agreements and who have met eligibility requirements.

Contributions – Participants can contribute a portion of their compensation as a pretax contribution to the Plan, up to the maximum allowed under the Plan and the Code.

As outlined in the plan document, Employer contributions are dependent upon the division of SPX Corporation where the participant is employed. In general, the Company makes matching contributions equal to 100 percent of the participant's pretax contributions up to the first 4 percent of compensation deferred, and 50 percent of the participant's pretax contributions in excess of 4 percent of compensation, up to a maximum of 6 percent of compensation. Company contributions are invested in SPX Corporation common stock and are immediately vested and can be transferred at anytime.

Participant Accounts – Each participant's account is credited with the participant's contribution, the Employer's matching and supplemental contributions, if any, and an allocation of plan earnings. Allocation of plan earnings to participant accounts is based on the participant's proportionate share of funds in each of the investment accounts. The benefit to which a participant is entitled is the benefit that can be provided from the participant's account.

Participants elect to invest their account balance and contributions among various investment options provided by the SPX Corporation Retirement and Welfare Plan Administrative Committee (the "Administrative Committee"), including an option to invest in SPX Corporation stock.

SPX Corporation Retirement Savings and Stock Ownership Plan

Notes to Financial Statements December 30, 2003 and 2002

Note 1 - Description of the Plan (Continued)

Vesting – Participants are 100 percent vested in both employee and employer contributions.

Payment of Benefits – Upon termination of service, a participant may elect to receive either a lump-sum distribution, or monthly or yearly payments equal to the value of his or her account. A participant who experiences a financial hardship is eligible to receive a distribution from his or her plan account. The Plan also allows participants to withdraw certain portions of their balances attributed to certain benefit plans that have been previously merged into the Plan.

Investment Options – Investment in SPX Corporation stock transferred to participants' accounts by reason of the merger of the SPX Corporation Stock Ownership Plan on January 1, 1994 and stock allocated to a participant's account by reason of matching contributions as discussed above can, at any time, be redirected.

Participant Loans – A participant can borrow from the Plan an amount that does not exceed the lesser of \$50,000 or 50 percent of the participant's vested account balance. Loans are collateralized by the balance in the participant's account and bear interest at market rates. Principal and interest are paid ratably through payroll deductions. Other regulations are outlined in the plan document.

Voting Rights – Each participant is entitled to exercise voting rights attributable to the shares allocated to his or her account. Fidelity Management Trust Company (the "Trustee") is required to vote shares of common stock that have been allocated to participants but for which the Trustee received no voting instructions in the same manner and in the same proportion as the shares for which the Trustee received timely voting instructions.

Note 2 - Summary of Significant Accounting Policies

The accompanying financial statements have been prepared on the accrual basis.

Investments – Investments of the Plan are stated at market value as determined by quoted market prices. The fair value of the Plan's interest in the SPX Corporation Savings Trust (the "Master Trust") is based on the beginning of the year value of the Plan's interest in the Master Trust plus actual contributions and allocated income less actual distributions (see Note 3). Guaranteed investment contracts included in the Master Trust are valued at contract value (which represents contributions made under the contract, plus interest at the contract rate, less funds used to pay plan benefits), because the contracts are fully benefit responsive. The interest rates for 2003 and 2002 range from 4.22 percent to 8.01 percent and 4.74 percent to 8.12 percent, respectively. The value of participant loans is the face value, which approximates fair value. Dividend income is accrued on the ex-dividend date.

SPX Corporation Retirement Savings and Stock Ownership Plan

Notes to Financial Statements December 30, 2003 and 2002

Note 2 - Summary of Significant Accounting Policies (Continued)

Income Tax Status – The Plan obtained its determination letter on December 4, 2003, in which the Internal Revenue Service stated that the Plan, as then designed, was in compliance with the applicable requirements of the Internal Revenue Code. The Plan has been amended since receiving the determination letter. The Company has applied for a new determination letter and the plan administrator believes the Plan is currently designed and being operated in compliance with the applicable requirements of the Code. The plan administrator believes that the Plan was qualified and the related trust was tax-exempt as of the financial statement date.

Use of Estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

Note 3 - Master Trust Fund

The investments of three qualified plans, including the SPX Corporation Retirement Savings and Stock Ownership Plan and two other plans sponsored by SPX Corporation, are combined in the Master Trust. Under the terms of a trust agreement between Fidelity Management Trust Company (the "Bank") and the Company, the Bank manages the trust funds of the Master Trust on behalf of the Plan. The Plan's assets in the Master Trust represented 98 percent and 92 percent of the total assets in the Master Trust as of December 30, 2003 and 2002, respectively. Investment income and administrative expenses related to the Master Trust are allocated to the individual plans based on average monthly balances invested by each plan.

The total assets held in the Master Trust at December 30, 2003 and 2002 are as follows:

	2003	2002
Money market fund	\$ 37,489,914	\$ 37,355,795
Common/Collective trust	255	2,298,110
Mutual funds	436,609,303	344,327,989
Insurance company general account	147,335,669	148,489,369
Employer securities	160,835,105	104,479,185
Participant loans	18,228,721	19,939,397
Total Master Trust investments	\$ 800,498,967	\$ 656,889,845

SPX Corporation Retirement Savings and **Stock Ownership Plan**

Notes to Financial Statements December 30, 2003 and 2002

Note 3 - Master Trust Fund (Continued)

The investment income (loss) for the Master Trust for the years ended December 30, 2003 and 2002 is as follows:

	2003	2002
Net appreciation (depreciation) in fair value of investments:		
Mutual funds	\$ 83,146,915	\$ (80,774,858)
Employer securities	62,709,299	(83,640,319)
Net appreciation (depreciation)	145,856,214	(164,415,177)
Interest and dividends	16,031,944	16,582,960
Net investment income (loss)	\$ 161,888,158	\$ (147,832,217)

Note 4 - Plan Termination

Although it has not expressed any intent to do so, the Company has the right to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA.

Note 5 - Administration

The Company is the sponsor of the Plan. The Administrative Committee, as provided in the plan agreement, is the plan administrator and has responsibility for the administration of the Plan. Fidelity Management Trust Company functions as trustee and investment manager. Investment management fees and trustee fees are paid by the Plan in accordance with the plan agreement.

Note 6 - Transfers

In January 2002, the United Dominion Industries, Inc. Compass Plan, a plan sponsored by a division of SPX Corporation, was merged with the Plan. Accordingly, assets of approximately \$199 million were transferred into the Plan in 2002. During 2003, certain plans sponsored by SPX Corporation, including the Robinair Retirement Savings Plan and INRANGE Technologies Corporation Savings and Stock Ownership Plan merged with the Plan. Accordingly, assets of approximately \$37.7 million were transferred into the Plan in 2003.

Note 7 - Subsequent Event

Subsequent to year end, the Company changed the Plan's year end from December 30 to December 31.

SIGNATURES

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

SPX CORPORATION RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

By: The SPX Administrative Committee

By: /s/ Christopher J. Kearney

Christopher J. Kearney Vice President, Secretary, General Counsel and Member of the SPX Administrative Committee

Date: June 24, 2004

Exhibit Index

 Exhibit No.
 Description

 23.1
 Consent of Plante & Moran, PLLC

Independent Auditor's Consent

We consent to the incorporation by reference in the registration statement (Nos. 333-29843, 333-70245, and 333-69252) on Form S-8 of our report dated June 11, 2004 appearing in the Annual Report on Form 11-K of SPX Corporation Retirement Savings and Stock Ownership Plan for the year ended December 30, 2003.

/s/ Plante & Moran, PLLC

Southfield, Michigan June 21, 2004