



Supplier Quality Manual (SQM)

SPX-SQA-M01

SPX FLOW, Inc. Charlotte, NC

Revision 02

2016-09-01

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SPX FLOW Mission, Vision and Values

Mission:

SPX FLOW, Inc. provides innovative solutions that create value for our customers and help meet growing worldwide demand in the power and energy, food and beverage, and industrial end markets.

Vision:

We view the future as an opportunity to enhance the world through the introduction of new ideas, a future where our ingenuity is recognized as solving problems in the industries we serve. Together, we are working to meet the needs of a growing global community in a responsible manner.

Culture:

We embrace a culture of innovation and diversity at SPX FLOW where diverse ideas help to create the best solutions. We are responsive to the needs of our customers, employees, partners and shareholders. We value continuous improvement and developing employees to enable growth and change. We recognize and strive to meet our community and environmental responsibilities.

Values:

Lead with the highest standards of ethics and integrity

Always do the right thing and keep commitments

Engage others to build trust and encourage strong communication

Listen and share as a team

Question any perceived wrongdoing

Innovate with customers

Anticipate customer needs and work to exceed their expectations

Be enthusiastic and inquisitive: Ask "Why?" Ask "Why Not?"

Offer creative ideas and impactful solutions to our customers

Impact results through personal accountability to the team

Make a positive difference at SPX FLOW

Step up, meet challenges and adapt

Deliver results

Value and engage employees

Embrace the advantage of diversity

Challenge and collaborate with each other

Create enterprise-wide standards as a team

Learn, improve and celebrate

Encourage improvement by recognizing achievement

Develop your potential and the talent of others

Balance your life, family and work

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

Contents

1	Scope	1
2	Referenced Documents	1
3	Definitions and Acronyms	1
4	Confidentiality Agreement	2
5	General Expectations.....	2
6	Right of Access.....	2
7	Control of Sub-tier Suppliers	3
8	Requirements Review (PO Review) per ISO 9001:2015	3
9	Control of Documents per ISO 9001:2015	3
10	Control and Retention of Quality Records per ISO 9001:2015.....	3
11	Inspection, Measuring and Test Equipment (IMTE) Controls Per ISO 9001:2015.....	4
12	Inspection (Incoming, In-process and Final) Controls	4
13	SPX FLOW Tooling.....	4
14	Product Marking, Traceability, Preservation and Packaging.....	5
15	Control of SPX FLOW or Customer Supplied Materials per ISO 9001:2015	5
16	Supplier Assessment, and Evaluation.....	5
17	First Article Inspection.....	6
18	Quality Control Plans	6
19	Special Processes.....	6
20	Deviation / Concession Approval Request	7
21	Non Conformity Handling.....	7
22	Supplier Corrective Action Request.....	8
23	Material Certificates and Material Test Results	9
24	Monitoring Supplier Performance.....	9
25	Supply of Hazardous Materials and Substances.....	10
26	Environment, Health and Safety (EHS).....	10
27	Customer / Supplier Relationship Feedback	10
28	Attachments	11

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

1 Scope

This Supplier Quality Manual (SQM) defines the quality and compliance requirements of SPX FLOW, Inc. and is applicable to direct material and process Suppliers and contractors offering and providing goods and services to SPX FLOW. Please note that that we expect our existing and new Suppliers to hold their Suppliers to the same standard.

2 Referenced Documents

Document number	Description
ISO 9001: 2015	Quality Management Systems - Requirements
SPX-SQA-F01	Bilateral Confidentiality Agreement
SPX-SQA-F02	SPX FLOW Supplier Self-Assessment Questionnaire
SPX-SQA-F03	Supplier Corrective Action Request
SPX-SQA-F04	Supplier Deviation / Concession Approval Request Form
SPX-SQA-F05	FAI Report
SPX-SQA-F06	Quality Control Plan
SPX-SQA-F07	Tool Passport
SPX-SQA-F08	Supplier Balanced Scorecard
SPX-SQA-F09	SPX FLOW Audit

3 Definitions and Acronyms

Term	Definition
AVL	Approved Vendor List sometimes referred to as Approved Supplier List (ASL)
Direct Material	Material contained in the product or services to be sold to a customer
FAI	First Article Inspection
Hazardous Material	Materials, which because of its chemical, biochemical, microbiological or radiological properties, temperature or state of compression could in sufficient concentrations cause: <ul style="list-style-type: none"> • Harm to human health and safety or personal injury • Property damage • Environmental harm or environmental nuisance Typical hazardous substances are toxic, corrosive, ignitable, explosive or chemically reactive.
Hold Points	Places in the manufacturing sequence where parts are to be held for SPX FLOW inspection since a feature would not be able to be inspected in operations continued.
IMTE	Inspection, Measuring and Test Equipment
MSDS	Material Safety Data Sheet may be referred to as SDS (Safety Data Sheet)
PO	Purchase Order or Contract including all associated specifications and drawings
QCP	Quality Control Plan
QMS	Quality Management System

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

RMA	Return Material Authorization
SCAR	Supplier Corrective Action Request
Special Process	Processes where you are unable to verify the characteristics of the product during manufacture without destroying the product as part of the evaluation
SQA	Supplier Quality Assurance
SQM	Supplier Quality Manual

4 Confidentiality Agreement

SPX FLOW and its Suppliers, within common business desires to exchange certain information including proprietary formulas, methods, processes, designs, software, samples, test and analyses data, product descriptions, specifications, manuals, plans, prices, customer information, Supplier information, financial information (Confidential Information).

In order to facilitate the interchange of such certain information now and in the future, SPX FLOW will provide Supplier with "Confidentiality Agreement" (SPX-SQA-F01) that sets the rules of data interchange for each sides.

5 General Expectations

This Supplier Quality Manual sets forth certain minimum terms which we expect of our Suppliers. These terms are additional to those set forth in applicable written agreements, Purchase Orders (PO) and the SPX FLOW standard terms and conditions of purchase (sent with or incorporated by PO). Note that - except where trumped by particularly applicable written agreement or terms and conditions of purchase - the sale of all products to SPX FLOW is subject to and governed by the applicable SPX FLOW standard terms and conditions of purchase associated with the PO received by the Supplier.

SPX FLOW expects its Suppliers to be committed to meeting SPX FLOW's and our customers' requirements for quality, performance, technical support and timely delivery. This shall be accomplished by working with SPX FLOW to meet its goals through implementation of continuous improvement and growth initiatives.

All delivered product and services must comply with SPX FLOW's quality requirements including those contained in the PO and this SQM.

6 Right of Access

With reasonable notice, SPX FLOW and their representatives shall have access to the Supplier's facilities and their sub-tier's facilities for the purpose of quality audits and for assessing manufacturing processes capability to meet PO requirements. This access shall be made available during the award, execution and warranty periods of the PO.

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

7 Control of Sub-tier Suppliers

Suppliers are responsible for ensuring compliance to this SQM including goods and services delivered by the Supplier's sub-tier Suppliers. SPX FLOW Suppliers must flow down all SPX FLOW PO/SQM requirements to their sub-tier Suppliers.

SPX FLOW Suppliers shall maintain effective control over their sub-tier Suppliers. Suppliers to SPX FLOW, on request, shall provide SPX FLOW the necessary QMS documentation to confirm that their sub-tier Suppliers have been adequately assessed and are approved to supply product.

Where specified by SPX FLOW in the PO, Suppliers must use SPX FLOW required sub-tier Supplier. Use of SPX FLOW required sub-tier Suppliers does not negate the Supplier from maintaining the appropriate controls over their sub-tier Suppliers.

8 Requirements Review (PO Review) per ISO 9001:2015

Suppliers shall have procedures and processes in accordance with ISO 9001 section 8.2 "Requirements for products and services" to ensure SPX FLOW requirements are reviewed, understood and incorporated into the Supplier's processes, products and services. If a Supplier is uncertain about any aspect of the SPX FLOW requirements, the Supplier shall immediately contact SPX FLOW and resolve the uncertainty prior to proceeding or incurring any cost or committing to supply. Suppliers are also expected to use the most current levels of technology available and appropriate for the design and production of quality goods and services. This may include equipment and resources which support bringing new products to market faster, including rapid prototyping capability.

9 Control of Documents per ISO 9001:2015

SPX FLOW uses prints and other controlled documentation to communicate material requirements. SPX FLOW will provide the latest revisions of controlled documentation to the appropriate person identified by the Supplier. Suppliers must have a written procedure for controlling these documents according to ISO 9001 section 7.5 "Documented information" and use the latest revision for purchasing, supplying, and inspecting based on the purchase order requirements. All superseded documents will be marked "OBSOLETE." It is the Supplier's responsibility to assure they have all current documentation required.

10 Control and Retention of Quality Records per ISO 9001:2015

Suppliers shall have effective procedures, processes and controls of quality records in accordance with ISO 9001:2015 section 7.5.3. "Control of documented information". The procedures shall, amongst other things, define the controls for the identification, storage, protection, retrieval, retention and disposal of records.

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

11 Inspection, Measuring and Test Equipment (IMTE) Controls Per ISO 9001:2015

The Supplier’s calibration and control system for IMTE used to validate compliance to SPX FLOW requirements shall comply with ISO 9001:2015 Section 7.1.5 “Monitoring and measuring resources”. Examples of IMTE that must be controlled are devices used to measure acceptance criteria such as: pressure gauges, micrometers, vernier calipers, scales, jigs, fixtures, tools, dies, tape measure, etc.

IMTE calibration shall be performed by accredited laboratories meeting the requirements of ISO 9001:2015. The Supplier’s IMTE calibration system and procedures must ensure that an assessment, in accordance with ISO 9001 section 7.1.5, of the validity of previous measuring results is undertaken when and IMTE is found to be defective or out of calibration.

SPX FLOW shall be notified in the event of potential non-conforming products and services as a result of an out of calibration IMTE.

12 Inspection (Incoming, In-process and Final) Controls

Suppliers shall have procedures and processes to ensure conforming product and services are delivered to SPX FLOW. This may include visual inspections, traceability checks, dimensional inspection, etc. at various stages in the processes.

13 SPX FLOW Tooling

Suppliers are responsible for the care, maintenance, and proper use of SPX FLOW tooling and fixtures. When appropriate, Suppliers will be requested to submit a tooling details, prior to production approval based on form “SPX-SQA-F07 Tool Passport”. All tools should be clearly marked with the SPX FLOW name and a tool number.

All Suppliers are expected to maintain tool maintenance records and be able to provide them to SPX FLOW when requested. Supplier must use SPX FLOW’s Tool Passport or an approved equivalent. Pictures of all tooling are required. SPX FLOW requires that Suppliers immediately report any loss or damage to tooling. Unless otherwise agreed to in writing, storage and regular maintenance of SPX FLOW tooling is Supplier’s responsibility. Suppliers shall notify SPX FLOW when a tool is nearing the end of its useful life in time to repair or replace the tool without interruption to continuous production. Tools are expected to be adequately packaged and protected from damage if and when they are sent out for repair or rework. Suppliers are responsible for assuring that the tooling is capable of producing product within SPX FLOW specifications at all times.

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

14 Product Marking, Traceability, Preservation and Packaging

The Supplier shall identify and include the following information in the SPX FLOW delivery documentation.

- PO number
- PO line item number
- Item description
- SPX FLOW part number and revision number
- Quantity
- Manufacturer's part number and country of origin

Goods packaging methods and materials: If packing methods and / or materials are not specified by SPX FLOW, it is the Supplier's responsibility to ensure that items purchased by SPX FLOW are packed properly so that damage does not occur during transportation.

15 Control of SPX FLOW or Customer Supplied Materials per ISO 9001:2015

The Supplier shall ensure materials supplied by SPX FLOW or its customers are controlled and protected from damage while in the Supplier's control in accordance with ISO 9001 paragraph 8.5.3 "Property belonging to customers or external providers". This control shall include: incoming inspection to document the acceptability of material as received, traceability of the material up to and throughout the production processes.

Unused SPX FLOW or customer material, including cut-offs, scrap, remnants, etc., shall be marked and remain traceable throughout the time it is in the Suppliers control.

16 Supplier Assessment, and Evaluation

In order to supply direct material or process to SPX FLOW, a Supplier must be approved and on SPX FLOW's Approved Vendor List (AVL). This list identifies the Suppliers and the commodities it is approved to supply. Suppliers on the AVL have been assessed by SPX FLOW as having an acceptable QMS to fulfill SPX FLOW's requirements.

Supplier Self-Assessment Questionnaire: As part of the approval process, all new Suppliers must complete a Supplier Self-Assessment Questionnaire form (SPX-SQA-F02). The questionnaire must be submitted with supporting evidence of the implementation of the QMS.

Supplier Evaluation: After acceptable review of the Self-Assessment Questionnaire, SPX FLOW may perform an on-site audit. (SPX-SQA-F09 – SPX FLOW confidential document)

Non-conformities or observations: If non-conformities are found during either the Self-Assessment Questionnaire review or the on-site audit, the Supplier will develop a corrective action plan prior to approval. SPX FLOW SQA or Supply Chain may require additional evaluations prior to approval.

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

Additional Surveillance: Once Suppliers have been approved, they will be added to the AVL. Suppliers on the AVL may be audited, or have other reviews performed, by SPX FLOW's Supplier Quality and Supply Chain departments as needed to ensure the Supplier can consistently meet SPX FLOW's quality and delivery requirements.

17 First Article Inspection

The first delivery of a new part or after a change to the part, the Supplier shall provide SPX FLOW with a First Article Inspection (FAI) report (form SPX-SQA-F05 or similar). If requested by SPX FLOW this report shall contain a Quality Control Plan (form SPX-SQA-F06 or similar).

Examples of when FAI's may be required, are: new part numbers, change in design (by Supplier or SPX FLOW), change in a manufacturing process, change in sub-tier Supplier, change in location, change in material, change in non-consumable (i.e. patterns, dies, press tools) tooling, etc. If any of these changes occur, the Supplier should contact SPX FLOW Supplier Quality for guidance.

18 Quality Control Plans

If a QCP is required in the PO, it must contain sufficient information to define what inspections and testing will be accomplished to meet SPX FLOW PO requirements. At times, there may be a need for SPX FLOW to evaluate product in-process. These inspections should be identified as hold points on the QCP. Hold points are particularly relevant for special processes or features that will not be accessible on the final product. If hold points are identified by SPX FLOW or the Supplier:

- The Supplier must inform SPX FLOW of the timing of when the article will reach the hold point and the need to SPX FLOW to witness
- The Supplier must not continue past the hold point without an SPX FLOW representative present unless SPX FLOW Supplier Quality has formally waived the inspection in writing.

19 Special Processes

If special processes are performed, Suppliers shall submit copies of the process sheets which define how the process is to be performed and inspected including process parameters and operator qualifications.

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

20 Deviation / Concession Approval Request

Products and services shall not be delivered to SPX FLOW if they do not fully comply with the PO requirements without an approved concession or deviation request.

If the Supplier identifies a non-conformance in product or service before delivery and the condition may be acceptable by SPX FLOW, the Supplier may request SPX FLOW acceptance of the product by submitting a Deviation / Concession Request Approval (form SPX-SQA-F04) to SPX FLOW Supplier Quality Department. SPX FLOW will provide the Supplier with a disposition of the request. Under no circumstances shall a Supplier provide nonconforming material to SPX FLOW without formal written approval on a Deviation / Concession Approval Request Form.

The procuring SPX FLOW location shall provide any special packaging or marking requirements for parts accepted under a concession or deviation.

21 Non Conformity Handling

If non-conforming product is found at SPX FLOW or its customer, the Supplier shall:

- Provide containment of parts at Supplier's site, in transit, at SPX FLOW (if needed), and at customer's site (if requested by SPX FLOW).
- Supplier shall provide for parts at SPX FLOW to be returned to the Supplier.
- Perform a Root Cause Analysis of the issue to identify containment, corrective and preventive action, date when product impact will be eliminated and provide information to SPX FLOW – see next clause
- Identify the next 6 batches of part number delivered to SPX FLOW with a visual SCAR / Quality Conformation contained in SCAR (form SPX-SQA-F03) stating parts have been 100% inspected for the reported non-conformity and comply with SPX FLOW's requirements
- Follow any additional request made by SPX FLOW in relation to the nonconformance, containment and issue resolution.

Supplier Debit Note: SPX FLOW shall be entitled to recover all cost from the Supplier which was reasonably incurred from a non-conformance. Recovery cost would be determined prior to debit and may include items such as:

- Purchase price of the parts if returned to the Supplier or scrapped at SPX FLOW.
- Standard administrative cost
- Standard administrative cost for repeat concerns
- Rework cost incurred at SPX FLOW (minimum of 1 hour will be charged) Inspection and segregation cost
- Freight cost if nonconforming products are returned to the Supplier
- All additional claim related cost (services, special transportation, customer penalties, etc.)

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

22 Supplier Corrective Action Request

The identification of a nonconformance at SPX FLOW will result in the issue of a Supplier Corrective Action Request (form SPX-SQA-F03). The SCAR will include a description of the problem, the area where the problem was identified, the magnitude of the problem (estimated % defective), and the requested date that completed corrective action response is required.

Verification of containment and corrective action must take place in a timely manner as agreed with SPX FLOW procuring site (usually less than 1 -5 days for containment and 30 days for corrective action). If additional time is required the Supplier must request an extension, in writing, to SPX FLOW Supplier Quality.

All process and document changes made to correct the nonconformity and ensure no recurrence shall be submitted to SPX FLOW as part of the SCAR response.

Supplier shall appoint a qualified representative within its organization who has the responsibility and authority to resolve quality matters. This person(s) shall be of a level to effectively interact with Supplier management and also with SPX FLOW to resolve quality issues. The representative shall provide written corrective action in a timely manner on the SPX FLOW SCAR form as required.

Suppliers shall begin to resolve issues associated with discrepant parts immediately upon notification by SPX FLOW and shall provide a response to all SCAR's within the requested timeframe.

SPX FLOW determines whether or not a SCAR should be issued based on the seriousness or impact of the issue on the quality of SPX FLOW product. The SPX FLOW SCAR system facilitates the prompt investigation, correction, and prevention of non-conformances. Upon receipt of a SCAR, Suppliers shall respond with the following information:

- Containment Action:** Short-term and Long-term corrective and containment actions such as reprocessing, sorting, reworking. All potentially affected products must be addressed at this time, and notification and disposition of the material must be made with the intent to limit any possible exposure to Supplier, SPX FLOW and SPX FLOW's customers.
- Root Cause:** The Supplier must conduct in-depth analysis to determine the true cause(s) of the non-conformance. Problem solving tools such as 8D (detailed below), 5 Why's, A3 and DMAIC should be used to drive towards root cause.
- Corrective action:** Permanent action taken to eliminate the problem and the possibility of reoccurrence. Methods that may be used are mistake-proofing systems (Poka-yoke), training, process changes, or tool changes. Corrective actions should not be closed until validation has been completed and corrective action was deemed effective.

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

23 Material Certificates and Material Test Results

SPX FLOW requires Suppliers to submit the material certifications as stated in the SPX FLOW PO. Any material certifications / declarations shall be traceable to SPX FLOW PO and SPX FLOW item number and shall be provided to SPX FLOW prior to dispatch of items from the Suppliers facility.

Certifications shall be delivered as specified on the SPX FLOW PO.

(e.g. mailbox – material.certificate@spxflow.com or similar)

Items delivered without the appropriate certifications may be rejected and a SCAR may be issued. Some products may require additional testing and analysis to verify conformance. When applicable, the Supplier must provide all necessary material test results for products when performance or functional requirements are specified by SPX FLOW. Examples include electrical testing, corrosion testing, chemical analysis, mechanical testing, x-ray testing, etc. When an outside service is used, the name of the company must be included in the submission.

24 Monitoring Supplier Performance

SPX FLOW will maintain a scoring system on Suppliers, aimed at improving Supplier performance. Information will be shared with strategic Suppliers and when quality/on-time delivery concerns arise. Suppliers may request copies of their Balanced Scorecard (form SPX-SQA-F08) by contacting SPX FLOW Supplier Quality Department.

Key Metrics include:

- Delivered quality: DPPM
- Nonconformance events: Number of SCARs raised
- Effectiveness of corrective action: Number of repeat issues
- Responsiveness: Time to close SCARs
- Cost: Debit notices value
- On-time deliveries

Supplier ratings are calculated using key metrics points based on an overall percentage rating (summary) as detailed below. If there are three consecutive ratings with results below overall target than SPX FLOW will request Suppliers for an investigation and corrective action initiatives which is aimed at assisting the Suppliers in improving their performance.

	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

Key metrics: weighted areas and score criteria.

Area	Weight %	Score					
Quality	50	No of SCAR's raised	0	1	2	3	>3
			15	8	4	2	0
		SCAR closure	<5 days	6 days	7 days	8 days	>8 days
			10	8	4	2	0
		Repeat issues	0	1	2	3	>3
			15	8	4	2	0
DPPM	<1000	1000-2500	2501-5000	5001-10000	>10001		
	10	8	4	2	0		
Cost	10	Value of cost recovery	0	<100 \$	101-500 \$	501-1000 \$	>1001 \$
			10	8	4	2	0
Delivery	40	On-time delivery	>92	91~ 84	83 ~ 74	73 ~ 64	<64
			40	30	20	10	0

25 Supply of Hazardous Materials and Substances

When a hazardous material is to be delivered to SPX FLOW, the Supplier shall provide the material's MSDS to SPX FLOW prior to dispatch of items from the Suppliers facility. For first time shipments of a material from a Supplier, SPX FLOW should be provide an MSDS in advance of product shipment to provide time for SPX FLOW to review the MSDS and ensure appropriate safety controls are in place.

26 Environment, Health and Safety (EHS)

Suppliers are responsible for all aspects of EHS connected with the goods and services supplied to SPX FLOW and must, at their own cost, comply with all EHS laws at their facilities and those of sub-tier Suppliers. Suppliers are responsible for ensuring they comply with all regulations and laws.

27 Customer / Supplier Relationship Feedback

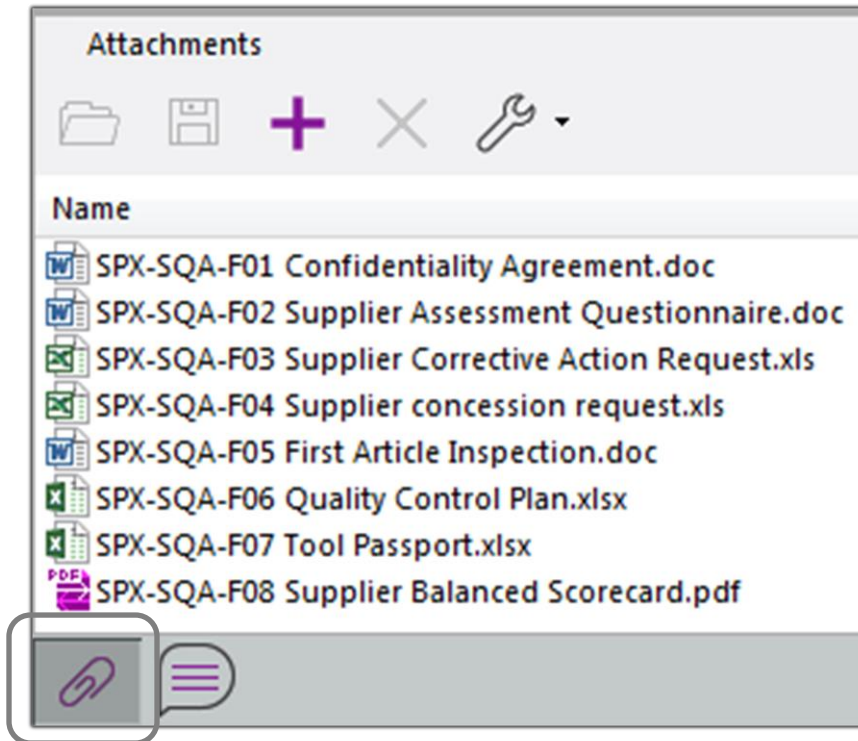
SPX FLOW is committed to maintaining a good relationship with all our Suppliers and subcontractors. SPX FLOW believes that without the assistance and commitment of our Suppliers the requirements specified in this manual cannot be adequately achieved. Suppliers should contact SPX FLOW Supply Chain personnel in the event that any requirement contained in the SPX FLOW PO or this manual is not fully understood.

Suppliers are responsible for ensuring they have the latest version of this document and any forms or documents needed to provide the required products to SPX FLOW. The Supplier shall contact SPX FLOW Supply Chain or Quality personnel to request any document needed.

SPXFLOW	Supplier Quality Manual (SQM)	EFFECTIVE DATE: 2016-09-01
SPX FLOW	SPX-SQA-M01	Revision: 02

28 Attachments

For attachments please click the paper clip icon at your PDF application.



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