



SPOOLMAN[®]



ERMAN[®]



ENSURES EFFICIENCY IN PLANT CONSTRUCTION

SPOOLMAN[®] / ERMAN[®] is a piping spool, material & construction management software at shop / site useful for effective matching front analysis, work allocation, material allocation, piping material control and tracking. It is valuable for efficient macro and micro level construction planning beginning from issuing materials, fabrication / erection of spools, inspection & testing, painting till generation of line history sheets & transportation of finished spools to laydown.

It is also ideal for activity based fabrication / erection, inspection, installation, testing, pre-commissioning, report checklist generation, along with monitoring of projects, status review, priority updating and revision management.



Project Management, Drawing, Material Control & Planning,
Production, Welding, NDT QA/QC

Spool Pressure Testing

Erection planning

Surface Preparation & Painting

Erection Construction

Laydown

Pipe Doubling (Direct to Erection)

Dispatch

Iso Erection Clearance

Loop Mechanical Clearance, Loop Pressure Testing, Loop Flushing, Loop Boxup

Review, Line History Sheet, Daily Progress Report, Material Reconciliation etc.

SPOOLMAN[®] / ERMAN[®] Features:

MATERIAL CONTROL & PLANNING

Construction release

Program aids in pre-defining various unique phases a specific spool / line has to undergo in the fabrication / erection cycle based on the requirement of project NDT plan, Material specification, Fluid Code / Service, Paint specification, AG / UG category etc.

Material Control

Program controls material in every stage by Checking the Material availability to fabricate / erect the spool / line, assigning spool / lines based on work load pending with the sub-contractor, allocating & issuing material to the sub-contractor based on the assigned spools / lines, handing over drawings for fabrication / erection after ensuring material is ready with sub-contractors for fabrication / erection.



NDT- QA/QC

NDT

Program takes care of Lot wise NDT clearance by grouping spools with same %NDT inspection. Welder wise representative welds from the lot are offered for inspection to meet the percentage coverage which are documented & managed efficiently as a justification for Quality acceptance. Line wise / welder wise NDT offering of representative field welds ensures the percentage coverage of the line.

LAYDOWN & DISPATCH

Laydown

Transportation to Laydown area, storage of fabricated spools are controlled by the program by managing information of Laydown location, storage Grid number, truck number, Gate pass number, transportation voucher, GRN (Goods Receipt Note) etc.

Dispatch

Program aids in timely dispatch of finished spools to erection site by instantly retrieving Grid location of stored spools as per the site request. Vehicle number & site / complex / unit location of dispatched spools are recorded through transmittals reference as document proof.

ERECTION

Iso Erection Clearance

Program interactively updates the erection status of the line by monitoring the various line erection sub-activities like spool erection, valve erection, support erection, NDT clearance of field welds, Flange Alignment checks etc.

Loop Mechanical Clearance / Pressure testing

Project moves on basis of priorities. Program enables one to plan / check before hand the availability & status of spools / line erection. Constraints list to complete the Loop mechanical clearance is generated by the program which can be used as ready reference for further follow up & necessary actions.

Loop Flushing / Boxup

Program guides the user in clearing flushing / boxup with user-defined check points & interactively monitoring the same. Program summarizes pending punch points & enables killing of punch points generated at different stages of erection by various disciplines like Construction / Operations / Quality / Maintenance / Painting etc.

Project Dossier / Closure

Program extracts all necessary reports for final dossier preparation & submission to client. Program's activity wise data storage in phase wise orderly manner helps in achieving the desired objective with documented proof.

Revision Management

SPOOLMAN® / ERMAN® Revision Management module takes care of every revision in line or spool, compares the same with the old revision progress stage wise (MIV, FU, WV, QA / QC) and acts depending on the comparison results of the old revision with the new revision, which would be Match, Modify, New, Delete. Multiple revisions can be effectively handled with respect to Materials, welds, fit up, welding, NDT, PWHT, Spool Pressure Test, Painting, Laydown, Dispatch etc.

Sl No	RevNo	ItemCode	Description	ItemType	Size	UOM	Total ReqQty	Issued ItemCode	Total IssuedQty	Self IssuedQty	Other IssuedQty	STORE 1 IssuedQty	Ledger Folio	Remarks
1	RD1	AI-55-1409-13_ZONE_K	AI-55-1409-13_ZONE_K	SP-3	ELB40045X	ELBOW.45, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 4.0 INCH, STD	ELBOW	4	EA	1	0	0	1	STORE 1
2	RD1	AI-55-1409-13_ZONE_K	AI-55-1409-13_ZONE_K	SP-3, SP-2, SP-3	PIPE4000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 4.0 INCH, HVY	PIPE	4	MTR	25.964	0	0	25.964	STORE 1
3	RD1	AI-55-1409-13_ZONE_K	AI-55-1409-13_ZONE_K	SP-3, SP-2	ELB40090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 4.0 INCH, STD	ELBOW	4	EA	2	0	0	2	STORE 1
4	RD1	AI-55-1410-01_ZONE_K	AI-55-1410-01_ZONE_K	SP-1, SP-2, SP-3, SP-4, SP-5, SP-6, SP-7	PIPE6000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 6.0 INCH, HVY	PIPE	6	MTR	52.504	0	0	52.504	STORE 1
5	RD1	AI-55-1410-01_ZONE_K	AI-55-1410-01_ZONE_K	SP-1, SP-2, SP-4, SP-5, SP-6, SP-7	ELB60090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 6.0 INCH, STD	ELBOW	6	EA	8	0	0	8	STORE 1
6	RD1	AI-55-1413-02_ZONE_D	AI-55-1413-02_ZONE_D	SP-1, SP-2, SP-3	PIPE6000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 6.0 INCH, HVY	PIPE	6	MTR	28.765	0	0	28.765	STORE 1
7	RD1	AI-55-1413-02_ZONE_D	AI-55-1413-02_ZONE_D	SP-3	ELB60090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 6.0 INCH, STD	FITTING	6	EA	2	0	0	2	STORE 1
8	RD1	AI-55-1438-11_ZONE_K	AI-55-1438-11_ZONE_K	SP-1, SP-2, SP-3, SP-4, SP-5, SP-6, SP-7	ELB30090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	ELBOW	3	EA	5	0	0	5	STORE 1
9	RD1	AI-55-1438-11_ZONE_K	AI-55-1438-11_ZONE_K	SP-1, SP-2, SP-3, SP-4, SP-5, SP-6, SP-7	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	63.321	0	0	63.321	STORE 1
10	RD1	AI-55-1438-15_ZONE_K	AI-55-1438-15_ZONE_K	SP-1, SP-2, SP-4, SP-5	ELB30090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	ELBOW	3	EA	4	0	0	4	STORE 1
11	RD1	AI-55-1438-15_ZONE_K	AI-55-1438-15_ZONE_K	SP-1, SP-2, SP-3, SP-4, SP-5	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	32.402	0	0	32.402	STORE 1
12	RD1	AI-55-1426-01_ZONE_B	AI-55-1426-01_ZONE_B	SP-1, SP-1	ELB30090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	ELBOW	3	EA	2	0	0	2	STORE 1
13	RD1	AI-55-1426-01_ZONE_B	AI-55-1426-01_ZONE_B	SP-2, SP-2	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	24.942	0	0	24.942	STORE 1
14	RD1	AI-55-1421-01_ZONE_A	AI-55-1421-01_ZONE_A	SP-2, SP-1	ELB30090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	FITTING	3	EA	2	0	0	2	STORE 1
15	RD1	AI-55-1421-01_ZONE_A	AI-55-1421-01_ZONE_A	SP-2, SP-1	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	14.767	0	0	14.767	STORE 1
16	RD1	AI-55-1425-01_ZONE_B	AI-55-1425-01_ZONE_B	SP-1, SP-3	ELB30090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	FITTING	3	EA	2	0	0	2	STORE 1
17	RD1	AI-55-1425-01_ZONE_B	AI-55-1425-01_ZONE_B	SP-1, SP-2, SP-3	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	26.267	0	0	26.267	STORE 1
18	RD1	AI-55-1427-01_ZONE_B	AI-55-1427-01_ZONE_B	SP-2, SP-2	ELB30090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	FITTING	3	EA	2	0	0	2	STORE 1
19	RD1	AI-55-1427-01_ZONE_B	AI-55-1427-01_ZONE_B	SP-1, SP-2	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	18.943	0	0	18.943	STORE 1
20	RD1	AI-55-1428-01_ZONE_B	AI-55-1428-01_ZONE_B	SP-1, SP-3	ELB30090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	FITTING	3	EA	2	0	0	2	STORE 1
21	RD1	AI-55-1428-01_ZONE_B	AI-55-1428-01_ZONE_B	SP-1, SP-2, SP-3	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	24.942	0	0	24.942	STORE 1
22	RD1	AI-55-1438-12_ZONE_K	AI-55-1438-12_ZONE_K	SP-1, SP-2, SP-3, SP-4, SP-5, SP-6, SP-7	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	80.962	0	0	80.962	STORE 1
23	RD1	AI-55-1438-13_ZONE_K	AI-55-1438-13_ZONE_K	SP-1, SP-2, SP-3, SP-4, SP-5, SP-6, SP-7	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	80.001	0	0	80.001	STORE 1
24	RD1	AI-55-1438-14_ZONE_K	AI-55-1438-14_ZONE_K	SP-1, SP-2, SP-3, SP-4, SP-5, SP-6, SP-7, SP-8	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	105.524	0	0	105.524	STORE 1
25	RD1	AI-55-1438-15_ZONE_K	AI-55-1438-15_ZONE_K	SP-1, SP-2, SP-3, SP-4, SP-5, SP-6, SP-7	PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	80.462	0	0	80.462	STORE 1
26	RD1	AI-55-1431-01_ZONE_I	AI-55-1431-01_ZONE_I	SP-1	PIPE2000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 2.0 INCH, HVY	PIPE	2	MTR	1.827	0	0	1.827	STORE 1
27	RD1	AI-55-1431-01_ZONE_I	AI-55-1431-01_ZONE_I	SP-1	ELB20090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 2.0 INCH, STD	ELBOW	2	EA	2	0	0	2	STORE 1

ItemCode	Description	ItemType	Size	UOM	Total Req Qty	Issued ItemCode	Total IssuedQty	Self IssuedQty	Other IssuedQty	STORE 1 IssuedQty	Ledger Folio	Remarks
ELB40045X	ELBOW.45, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 4.0 INCH, STD	ELBOW	4	EA	1	ELB40045X	1	0	0	1		STORE 1
PIPE4000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 4.0 INCH, HVY	PIPE	4	MTR	25.964	PIPE4000WX	25.964	0	0	25.964		STORE 1
ELB40090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 4.0 INCH, STD	ELBOW	4	EA	2	ELB40090X	2	0	0	2		STORE 1
PIPE6000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 6.0 INCH, HVY	PIPE	6	MTR	81.269	PIPE6000WX	81.269	0	0	81.269		STORE 1
ELB60090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 6.0 INCH, STD	ELBOW	6	EA	8	ELB60090X	8	0	0	8		STORE 1
ELB30090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 3.0 INCH, STD	ELBOW	3	EA	19	ELB30090X	19	0	0	19		STORE 1
PIPE3000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 3.0 INCH, HVY	PIPE	3	MTR	552.532	PIPE3000WX	552.532	0	0	552.532		STORE 1
PIPE2000WX	PIPE, IS-1239-I, IS-1239 (BLACK), BE, C.WELDED, 2.0 INCH, HVY	PIPE	2	MTR	1.827	PIPE2000WX	1.827	0	0	1.827		STORE 1
ELB20090X	ELBOW.90, B-16.9, ASTM A 234 GR.WPB, BW, 1.5D, 2.0 INCH, STD	ELBOW	2	EA	2	ELB20090X	2	0	0	2		STORE 1

ERECTION

Quality Management plays an integral part in the success of a project. SPOOLMAN® / ERMAN® aids in meticulous planning of dependent quality activities & stage-wise documentation of each step in the QA / QC activity. Tracking, tracing & retrieval of quality data like quality reports, report number / date, quality parameters & attributes, observation, results & approvals is managed efficiently as a justification for Quality acceptance.

SPOOLMAN® / ERMAN® is an important aid in generating QA / QC test reports like:

- Fit-up inspection
- Weld visual inspection
- Radiography offering
- Radiography inspection / interpretation
- Ultrasonic inspection
- Dye penetration inspection
- Magnetic particle inspection
- PWHT inspection
- Hardness inspection
- Spool Pressure test
- Surface Preparation & painting inspection
- Penalty joints offering
- Reinforcement pad pneumatic test inspection
- Positive material identification
- Line history sheet

Store

With this program, one can upload DMR (Daily Material Receipt) / MRN (Material Receipt Note) and Item codes according to material received at site. One can use this module for making the entry of all the material received at store, at site or at multiple sites. This can be linked and the material information can also be imported either from excel or any other in-house software.

BAR CODE / QR CODE / RFID Consideration / integration:

Program utilizes BAR CODE / QR CODE / RFID system for tracking / monitoring the production status of automatic piping spool fabrication line considering each stage of every weld joint namely (Cutting, beveling, Fit-up, welding, PWHT & NDE).





ADVANTAGES

Some of the numerous advantages of **SPOOLMAN**[®] / **ERMAN**[®] are:

- Optimum utilization of Piping material.
- Advance notification for the material requirements.
- Progress monitoring at every stage for planned scope vs. actual scope.
- Material traceability information in store with vendors etc.
- Acquiring information on each joint, line progress, erection status of each piping spool and component.
- Welder management including qualification, quality check and penalty clauses etc.
- Actual material allocation virtually and practical matching front availability analysis.
- Virtual planning of spool possibility and optimization of material allocation.
- Enables analysis of the Effectiveness / Non effectiveness of each joint.
- Creation of deliverables based on actual possibility.
- Automated & interactive issue and confirmation of material issue voucher.
- One point information for all the piping material and construction activities.

Training & customer support

We provide training & customer support on and off site for successful implementation of the software. This is to ensure seamless integration with clients work process.

Minimum recommended hardware & software

Machine I-3 / I-4 / I-5 or latest with 2 GB RAM. Operating System WIN XP PROFESSIONAL / VISTA / WIN 7 / WIN 8 or latest.

Marketed by:



E: info@parascadd.com | www.parascadd.com