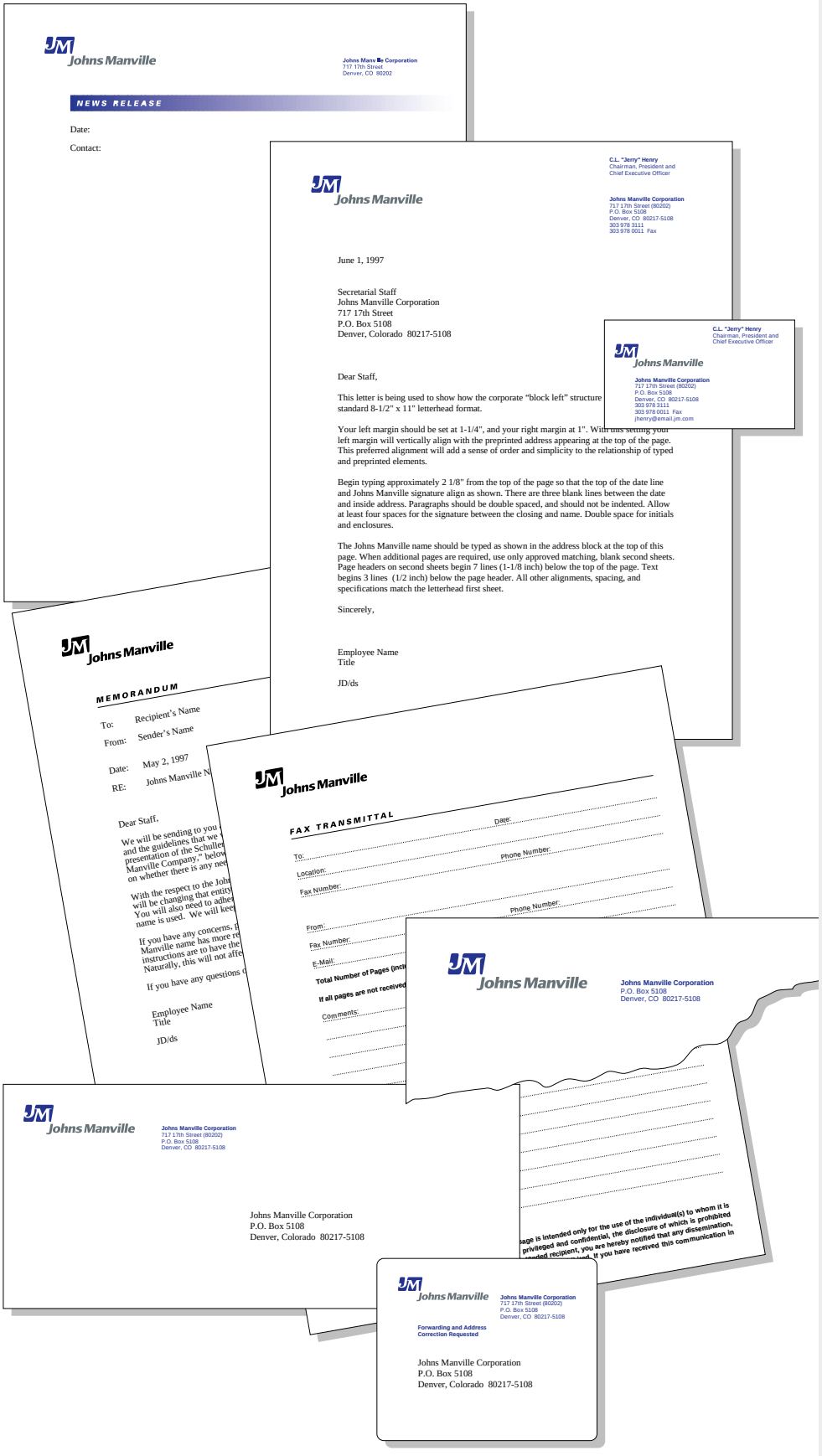
Stationery Overview

4.1



Signature Sizing

The Johns Manville corporate stationery system is one of the most visible items used to communicate to our customers and other audiences. The consistent application of all visual elements, such as the Johns Manville signature, typography, paper stock, color and layout, will create a cohesive and professional stationery system. This systematic approach will establish a very positive impression of the corporation.

Signature Size and Format The signature size used for the majority of the applications is a 5/16" (8 mm) height Format A. A smaller signature, 1/4" (6.3 mm) Format A, is used on business cards.

Signature Color The signature appears in the two-color rendering of Johns Manville Blue and Gray. Certain utilitarian items may use one-color blue or black.

Typography All address blocks on all stationery items are typeset in Univers regular and bold. Specifications such as size, alignments, font weight and leading are outlined for each item.

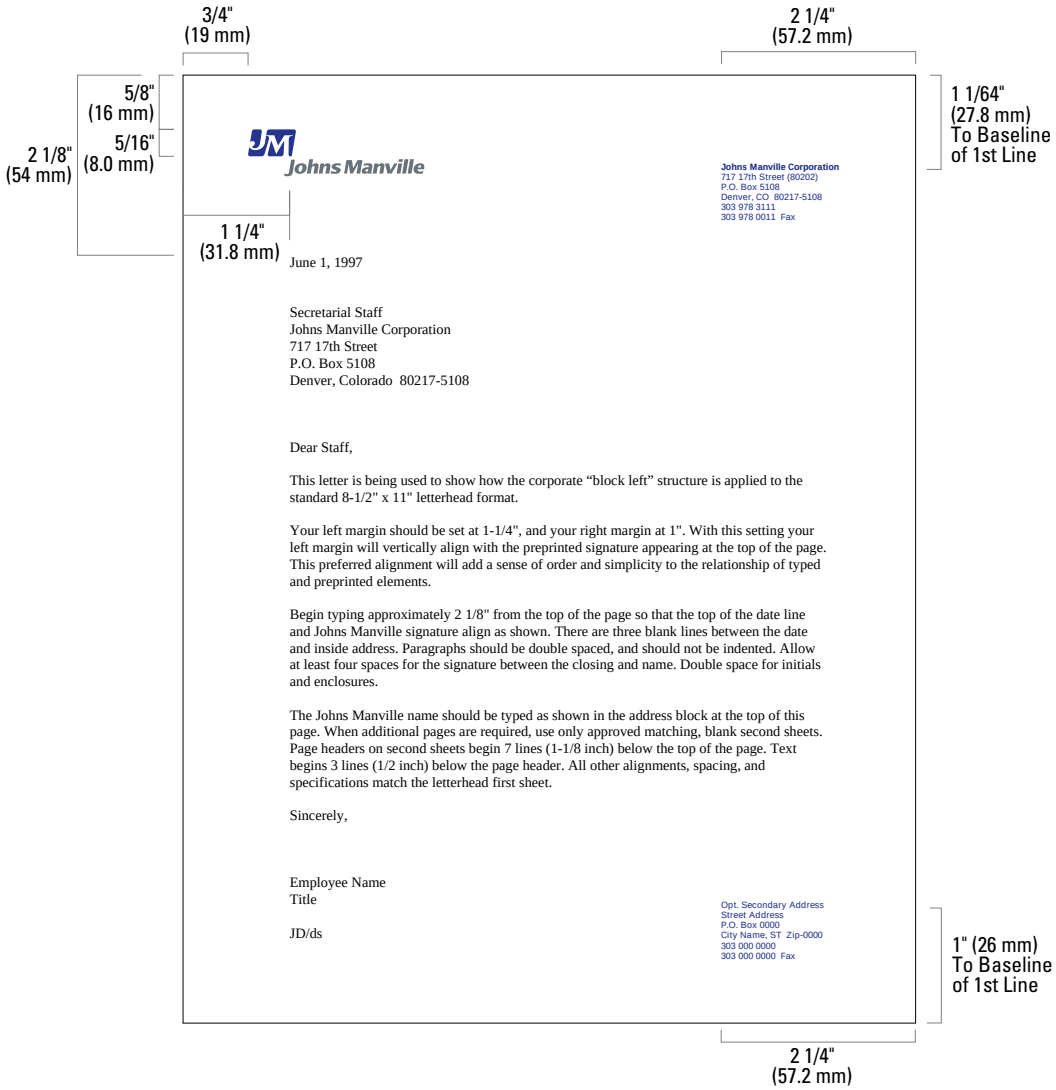
Paper Stock The paper stocks used for the majority of stationery application is Strathmore Writing Recycled and Strathmore Writing Pure Cotton, Bright White, wove finish. Specifications such as cotton content and paper weight, are outlined for each item. Less expensive, non-cotton content sheets may be substituted for mass or utilitarian uses only with prior approval.

Reproduction All executive stationery items are engraved. All standard stationery items are reproduced using offset reproduction. Other reproduction techniques, such as thermography, are not allowed.

Typing Guidelines Recommended typing/word processing margins, locations, weights and typestyles are indicated on individual examples. Most typing information blocks are programmed into electronic templates. By following them we will create a sense of order and professionalism for the reader.

8-1/2" x 11" Letterhead (Standard)

4.2



Standard Letterhead

Size: 8 1/2" x 11"

Color: **Symbol** prints JM Blue (PMS 293)
Logotype prints JM Gray (PMS 431)
Address/Phone Block print JM Blue

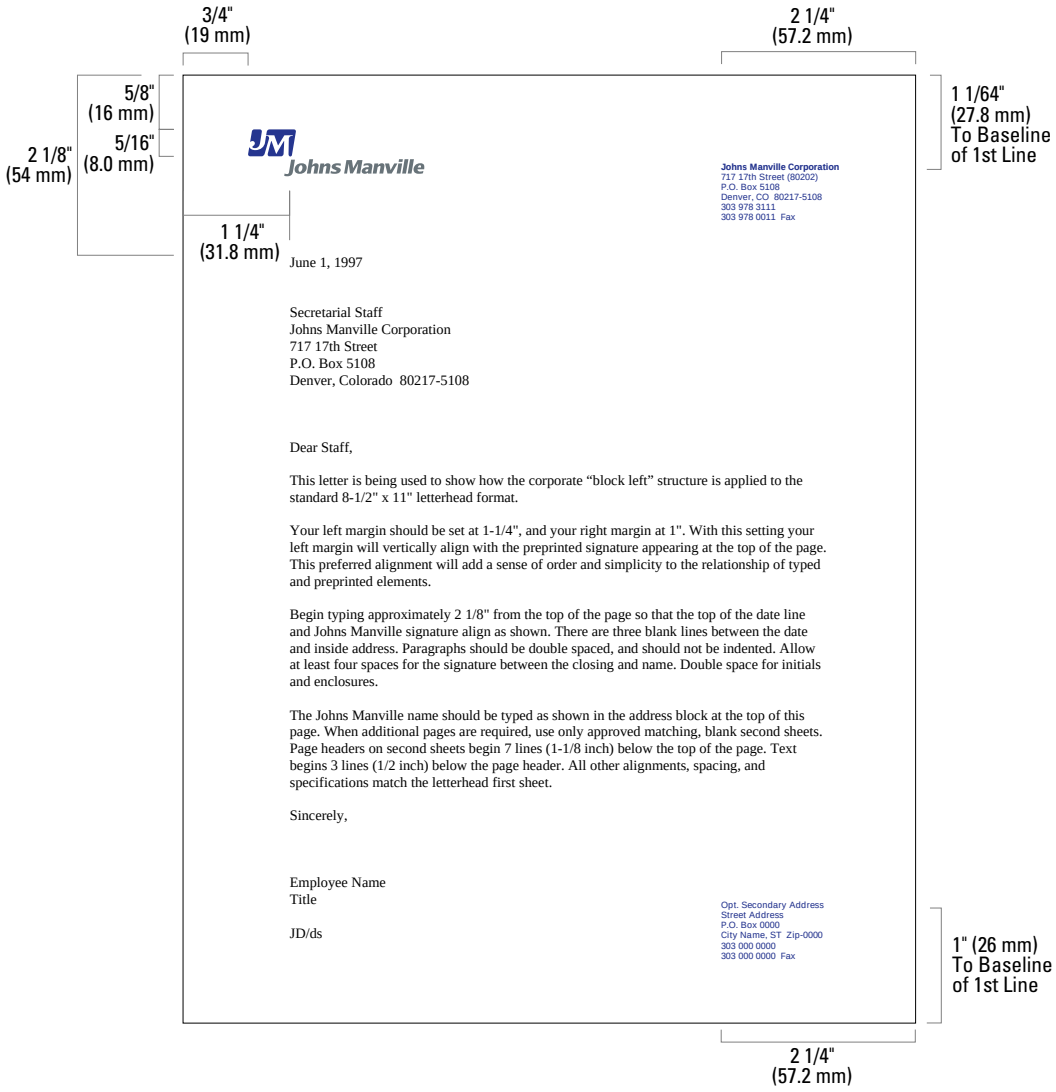
Printing: Offset Lithography

Typography: **Legal Business Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block.
Address is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.
Phone Numbers are 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase. One space is set between the area code and the prefix and between the prefix and the extension.
Phone Descriptors are 7.5/8.5 Univers Regular and follow two spaces after the phone number.

Paper Stock: Strathmore Writing Recycled, 24lb., Bright White, wove finish.

8-1/2" x 11" Letterhead (Executive)

4.3



Executive Letterhead

Size: 8 1/2" x 11"

Color: **Symbol** prints or engraves to match JM Blue (PMS 293)
Logotype prints or engraves to match JM Gray (PMS 431)
Personalization and Title/Dept. print or engrave to match JM Blue
Address/Phone Block prints or engraves to match JM Blue

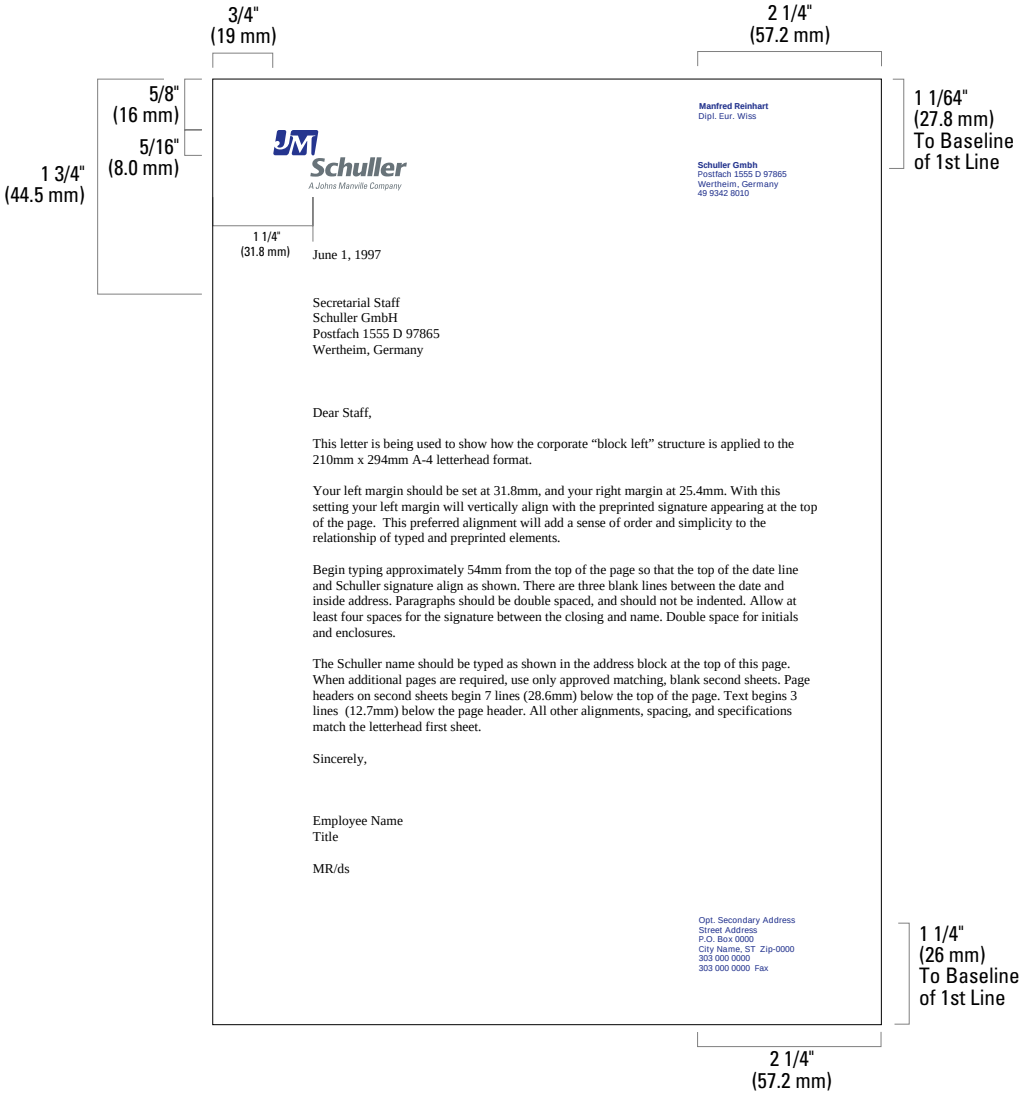
Printing: Engraved

Typography: **Executive Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase.
Title/Dept. is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.
Legal Business Name is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block.
Address is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.
Phone Numbers are 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase. One space is set between the area code and the prefix and between the prefix and the extension.
Phone Descriptors are 7.5/8.5 Univers Regular and follow two spaces after the phone number.

Paper Stock: Strathmore Writing Pure Cotton, 24 lb., 100% cotton, Bright White, wove finish.

A4 Letterhead

4.4



A4 Letterhead

Size: 210 mm x 297 mm

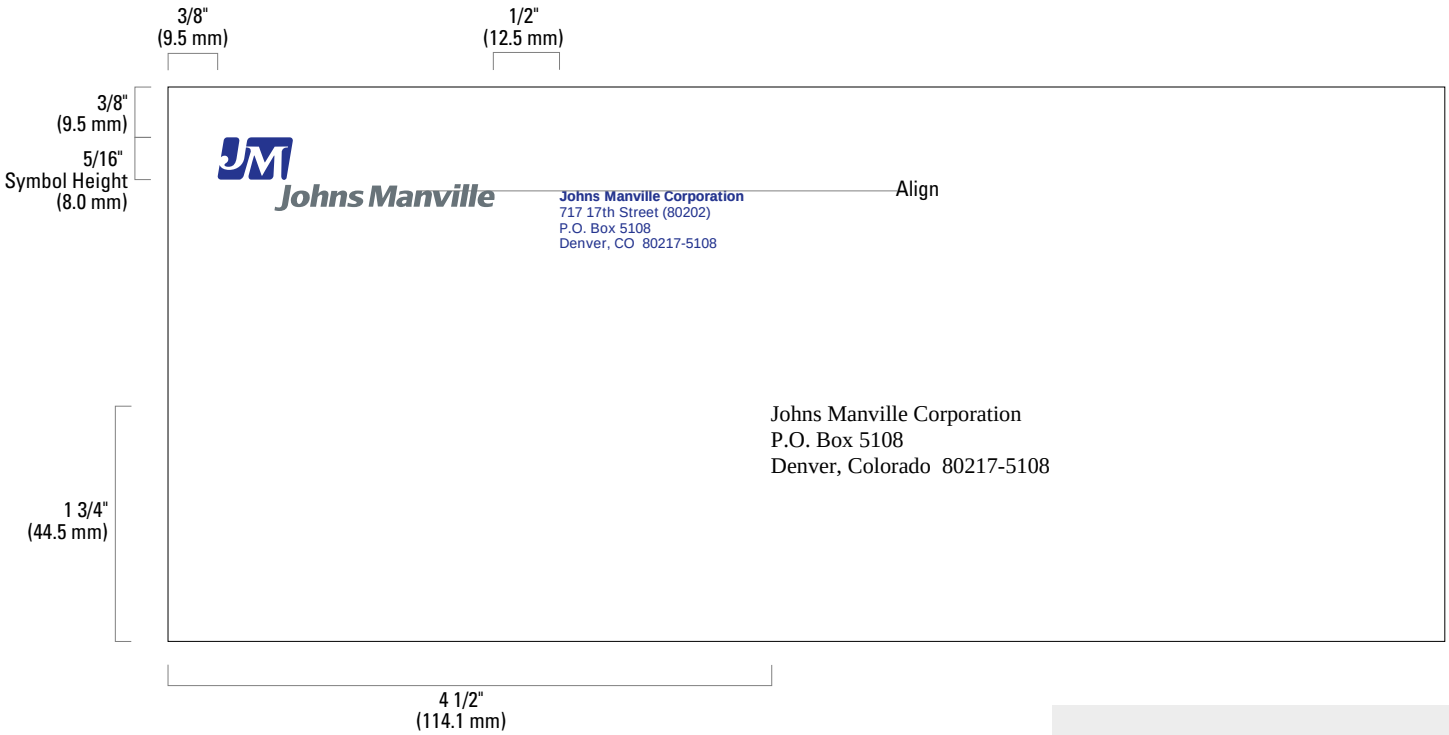
Color: **Symbol** prints JM Blue (PMS 293)
Logotype prints JM Gray (PMS 431)
Address/Phone Block prints JM Blue

Printing: Offset Lithography

Typography: **Legal Business Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block.
Address is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.
Phone Numbers are 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase. One space is set between the area code and the prefix and between the prefix and the extension.
Phone Descriptors are 7.5/8.5 Univers Regular and follow two spaces after the phone number.

Paper Stock: Strathmore Writing Recycled, 24lb., Bright White, wove finish.

#10 Envelope (Standard & Executive)



#10 Envelope

Size: 9 1/2" x 4 1/8"

Color: **Symbol** prints or engraves to match JM Blue (PMS 293)
Logotype prints or engraves to match JM Gray (PMS 431)
Address/Phone Block prints or engraves to match JM Blue

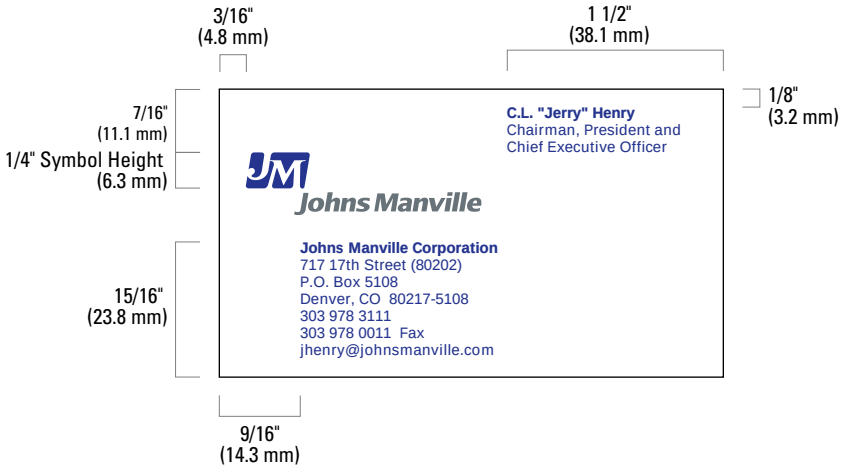
Printing: **Standard:** Offset Lithography
Executive: Engraved

Typography: **Legal Business Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block. **Address** is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.

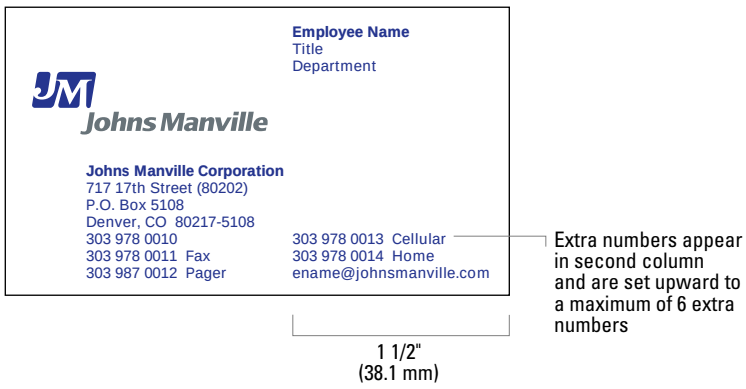
Paper Stock: Envelope stock to match corresponding letterhead stock

Business Cards (Standard & Executive)

Typical Business Card
Maximum of 7 address lines



Copy Heavy Business Card
Minimum of 8 address lines



Dual Language
Business Card Front



Business Cards

Size: 3 1/2" x 2"

Color: **Symbol** prints or engraves to match JM Blue (PMS 293)
Logotype prints or engraves to match JM Gray (PMS 431)
Personalization and Title/Dept. print or engrave to match JM Blue
Address/Phone Block prints or engraves to match JM Blue

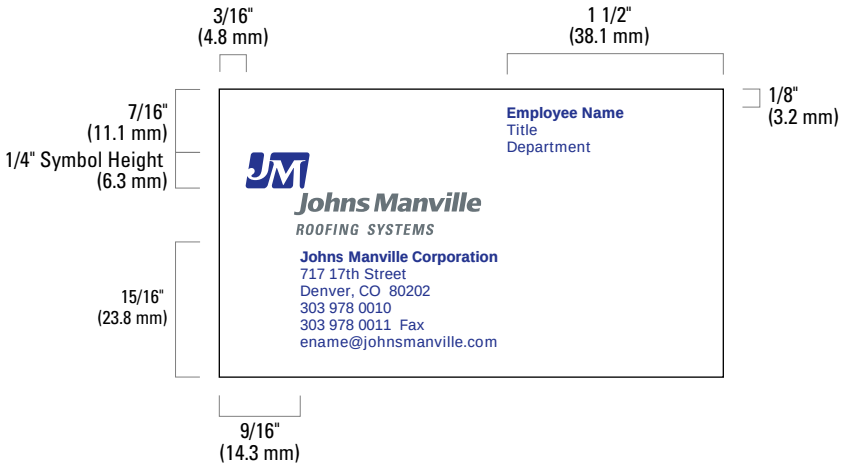
Printing: **Standard:** Offset Lithography
Executive: Engraved

Typography: **Employee Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase.
Title/Dept. is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase. Titles longer than 4 lines are typeset in 7/8 point.
Legal Business Name is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block.
Address is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.
Phone Numbers are 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase. One space is set between the area code and the prefix and between the prefix and the extension.
Phone Descriptors are 7.5/8.5 Univers Regular and follow two spaces after the phone number.

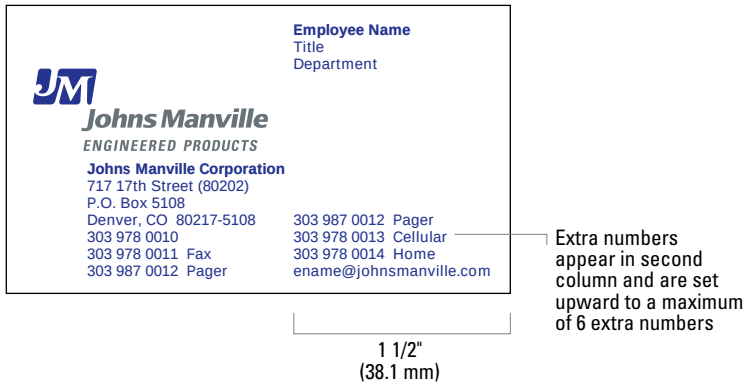
Paper Stock: Strathmore Writing Recycled Cover, 80lb., Bright White, wove finish.

Business Cards (Continued)

Typical Business Unit
Business Card
Maximum of 6 address lines



Copy Heavy Business Unit
Business Card
Minimum of 7 address lines



Dual Language
Business Card Back



Business Cards (Continued)

Size: 3 1/2" x 2"

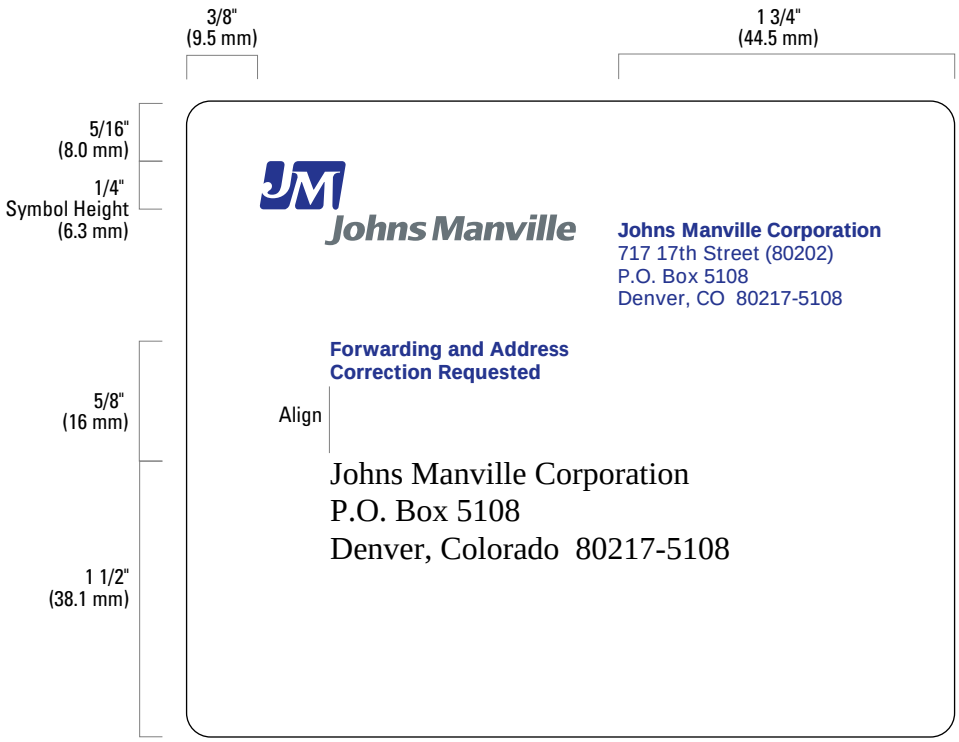
Color: **Symbol** prints or engraves to match JM Blue (PMS 293)
Logotype prints or engraves to match JM Gray (PMS 431)
Personalization and Title/Dept. print or engrave to match JM Blue
Address/Phone Block prints or engraves to match JM Blue

Printing: **Standard:** Offset Lithography
Executive: Engraved

Typography: **Employee Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase.
Title/Dept. is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase. Titles longer than 4 lines are typeset in 7/8 point.
Legal Business Name is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block.
Address is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.
Phone Numbers are 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase. One space is set between the area code and the prefix and between the prefix and the extension.
Phone Descriptors are 7.5/8.5 Univers Regular and follow two spaces after the phone number.

Paper Stock: Strathmore Writing Recycled Cover, 80lb., Bright White, wove finish.

Mailing Label



Mailing Label

Size: Variable, 4" x 3-5/16" shown

Color: **Symbol** prints JM Blue (PMS 293)
Logotype prints JM Gray (PMS 431)
Address/Address Correction prints JM Blue

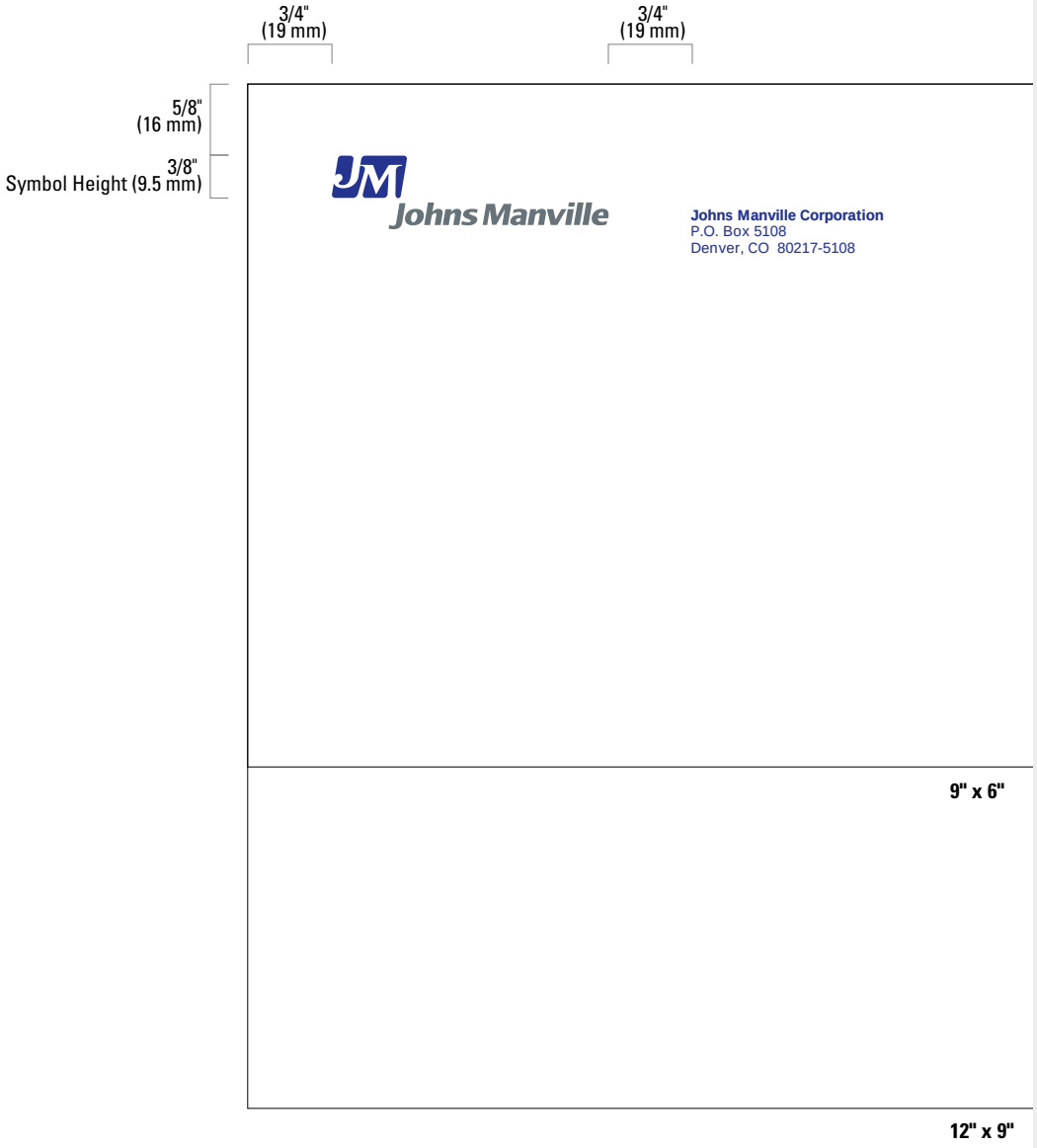
Printing: Offset Lithography

Typography: **Legal Business Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block. **Address and Address Correction** are 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.

Paper Stock: Bright white label stock.

Oversized Envelope

4.8



Oversized Envelope

Size: Variable, 9" x 6" and 12" x 9" shown

Color: **Symbol** prints JM Blue (PMS 293)
Logotype prints JM Gray (PMS 431)
Address/Phone Block prints JM Blue

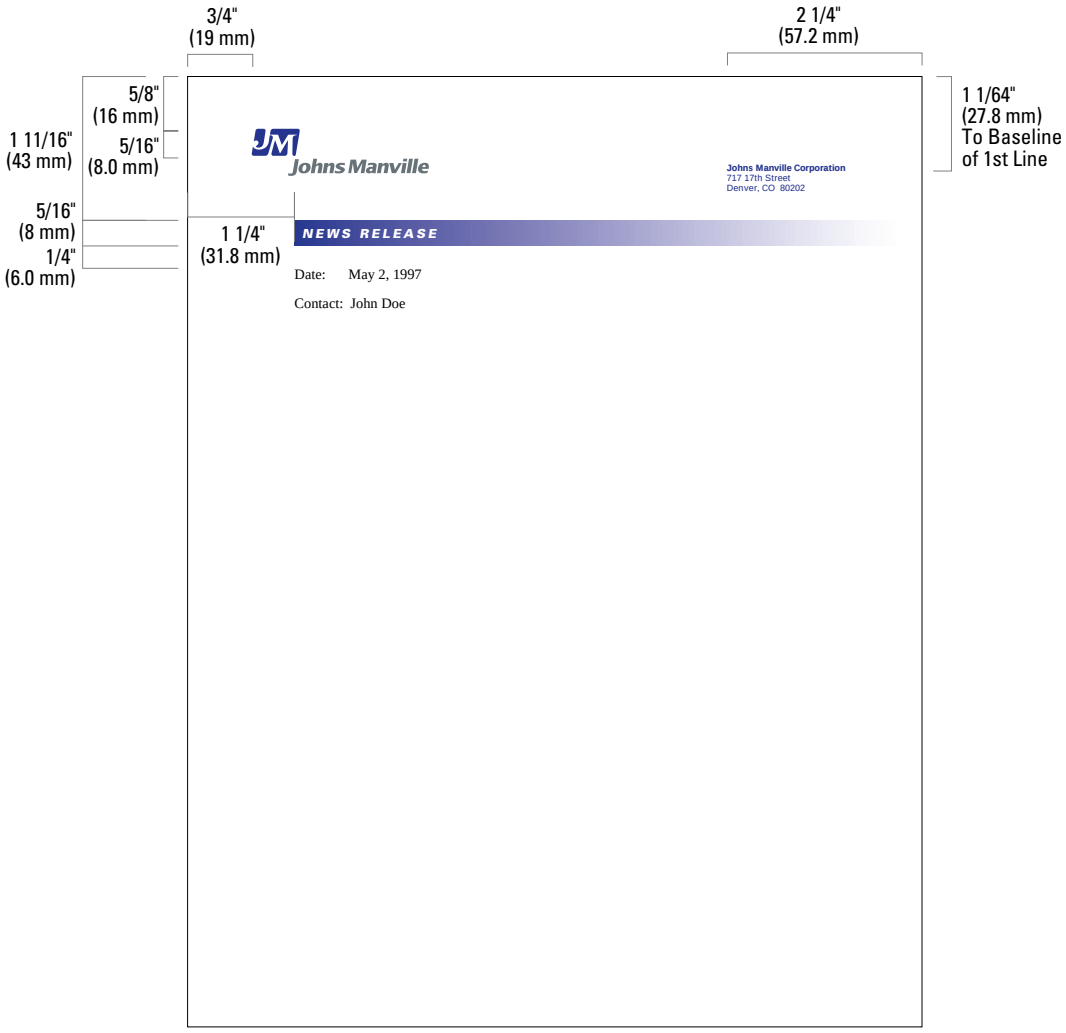
Printing: Offset Lithography

Typography: **Legal Business Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block.
Address is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.

Paper Stock: Bright white envelope stock.

News Release

4.9



News Release

Size: 8 1/2" x 11"

Color: **Symbol** prints JM Blue (PMS 293)
Logotype prints JM Gray (PMS 431)
Address/Phone Block prints JM Blue
Attention Bar prints JM Blue

Printing: Offset Lithography

Typography: **Legal Business Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block. **Address** is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.

Paper Stock: Strathmore Writing Recycled, 24lb., Bright White, wove finish.

Bulletins

4.10



Bulletins

Size: 8 1/2" x 11"

Color: **Symbol** prints JM Blue (PMS 293)
Logotype prints JM Gray (PMS 431)
Address/Phone Block prints JM Blue
Attention Bar prints JM Blue

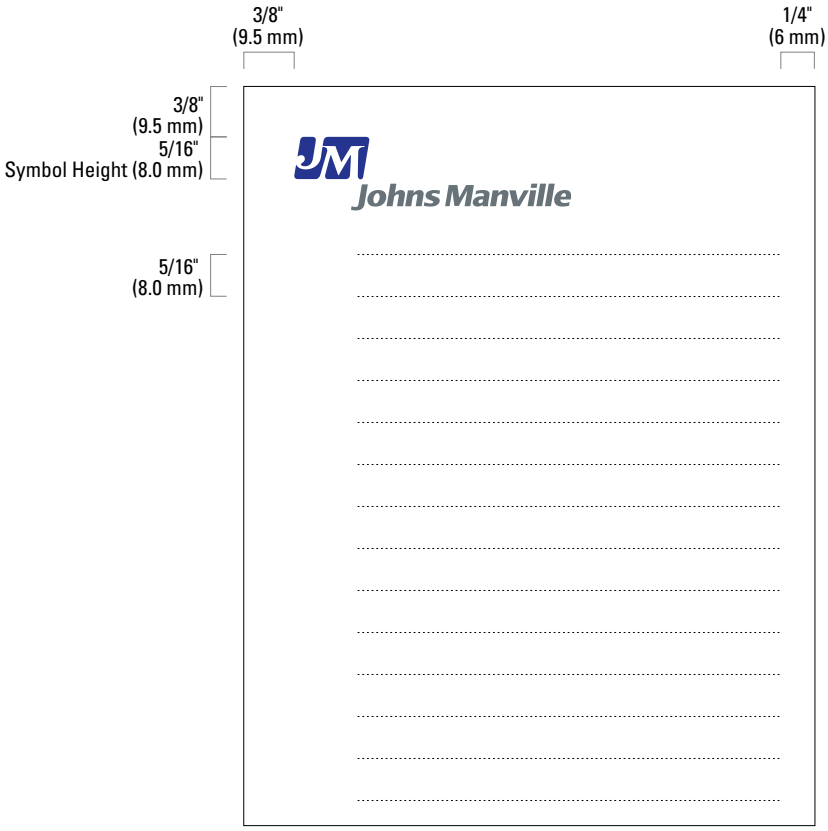
Printing: Offset Lithography

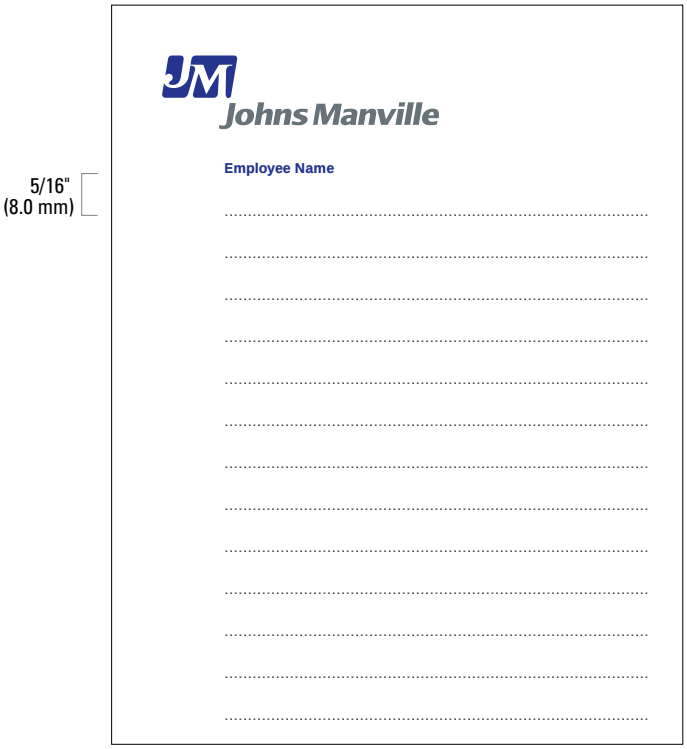
Typography: **Legal Business Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase and set as the first line of the address/phone block. **Address** is 7.5/8.5 Univers Regular, flush left, ragged right, uppercase and lowercase.

Paper Stock: Strathmore Writing Recycled, 24lb., Bright White, wove finish.

Note Paper

4.11





Note Paper

Size: Variable, 4 1/4" x 5 1/2" shown

Color: **Symbol** prints JM Blue (PMS 293)
Logotype prints JM Gray (PMS 431)
Rule lines print JM Gray
Employee Name (optional) prints JM Blue

Optional: All JM Blue or all black

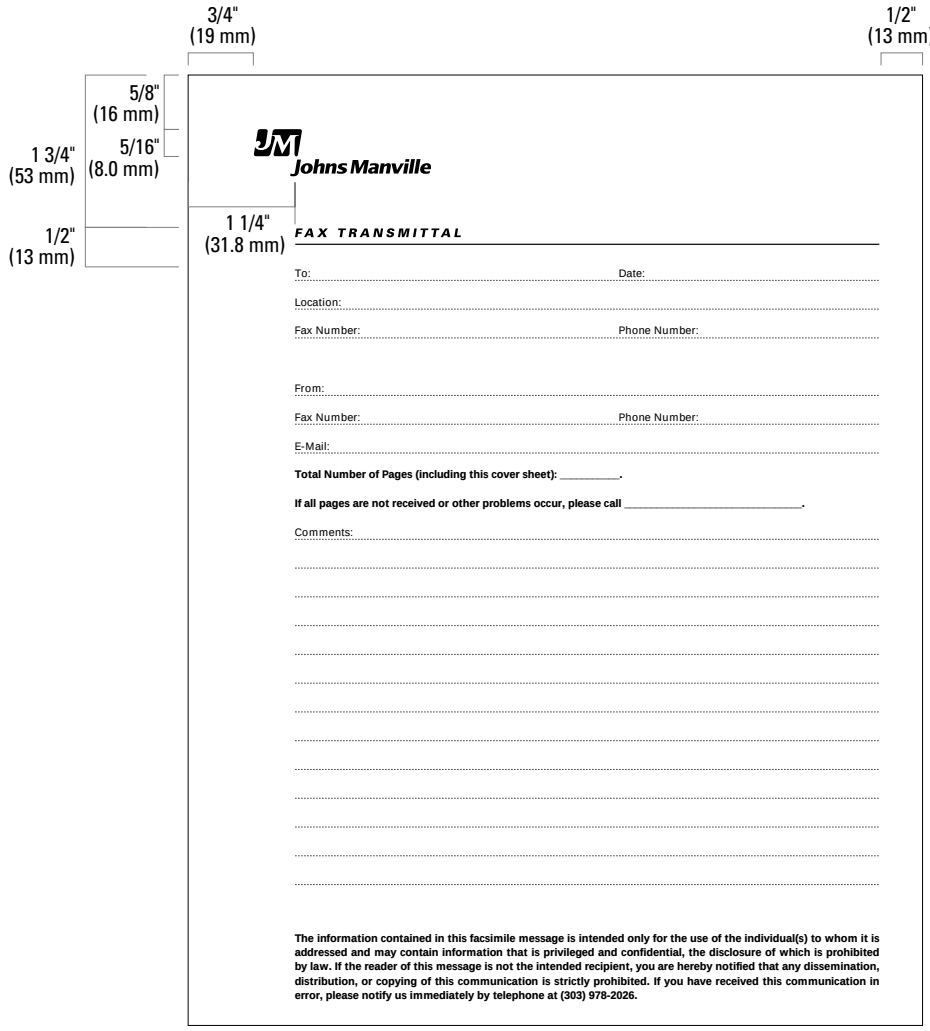
Printing: Offset Lithography

Typography: **Employee Name** is 7.5/8.5 Univers Bold, flush left, ragged right, uppercase and lowercase.

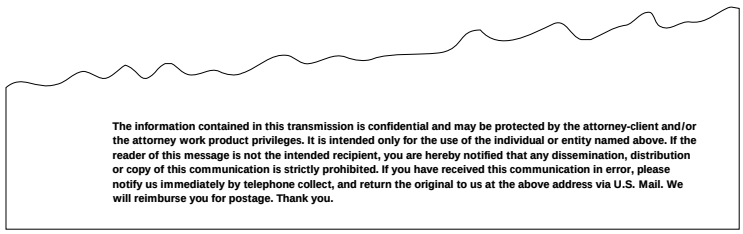
Paper Stock: Bright white paper stock.

Facsimile

4.12



General Use
Facsimile Sheet



Legal Use
Facsimile Sheet

Facsimile

Size: 8 1/2" x 11"

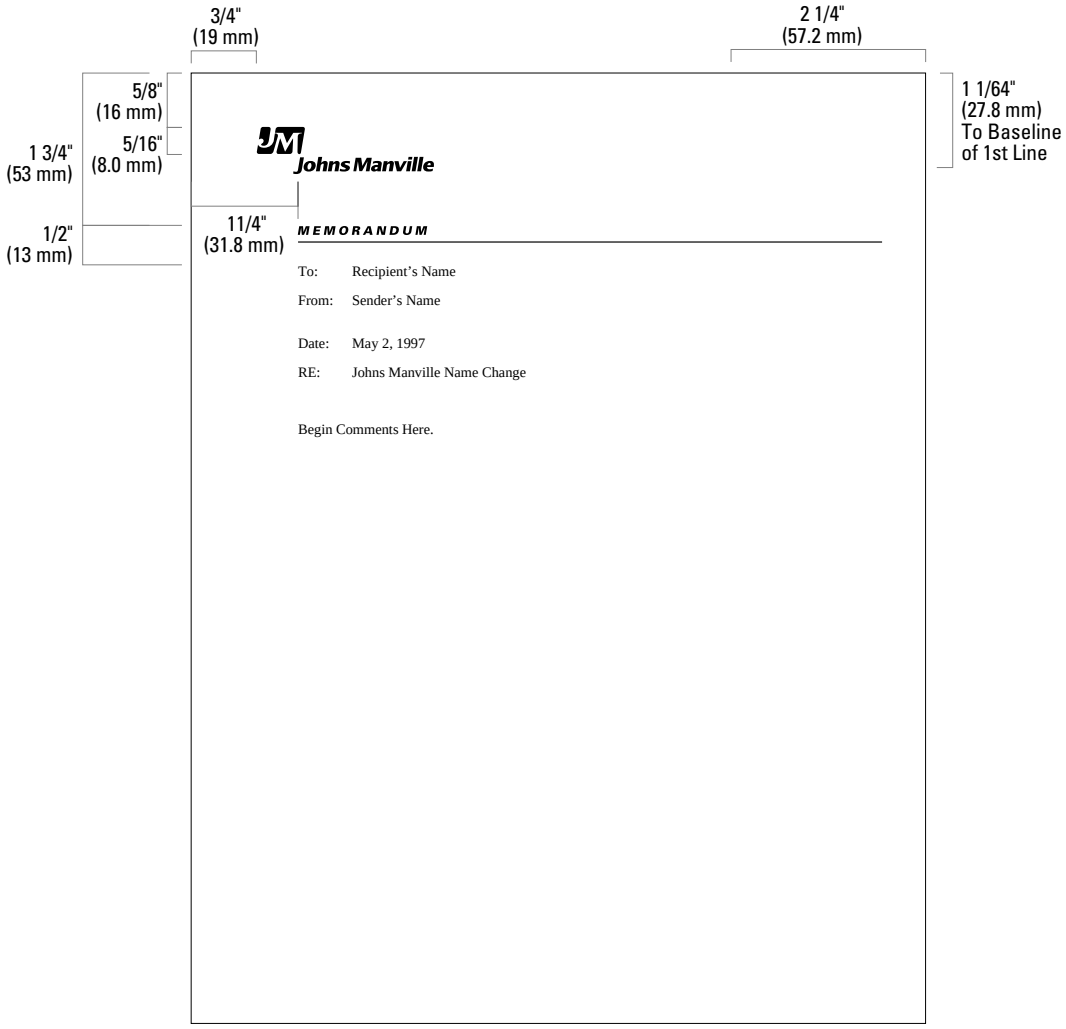
Color: **Symbol** prints black
Logotype prints black
Address/Phone Block print black
Headings and Rule Lines print black

Printing: Offset Lithography

Typography: **Headings** are 9/10 Univers Regular and Univers Bold, flush left, ragged right, uppercase and lowercase.
Confidential Disclaimer is 9/10 Univers Bold, flush left, ragged right, uppercase and lowercase.

Paper Stock: Bright white bond paper.

Memorandum



Memorandum

Size: 8 1/2" x 11"

Color:
Symbol prints black
Logotype prints black
Address/Phone Block print black
Headings and Rule Lines print black

Printing: Offset Lithography

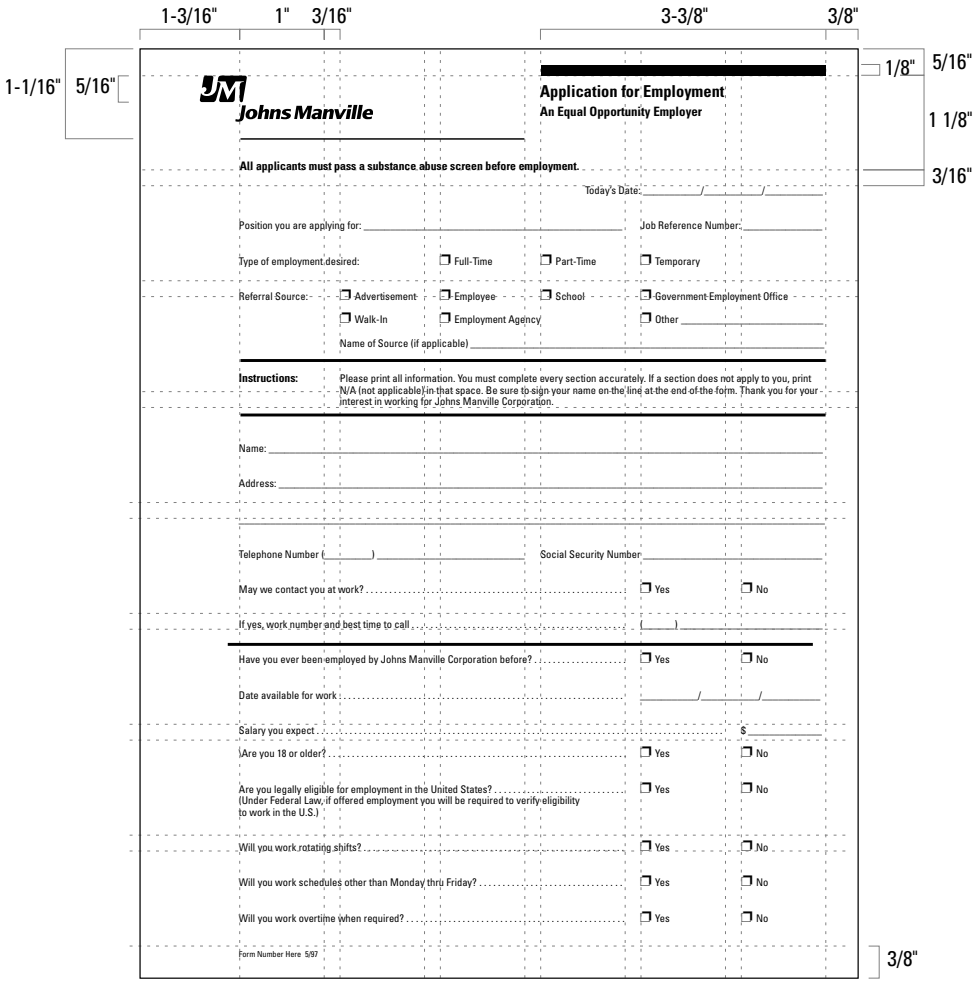
Typography: **Headings** are 9/10 Univers Regular and Univers Bold, flush left, ragged right, uppercase and lowercase.

Paper Stock: Bright white bond paper.

Form Design Overview

4.14

- Design Components
- Master Form Grid
- Purchase Order Example (Previous)
- Purchase Order Example (New)
- Guarantee Example (Previous)
- Guarantee Example (New)
- Invoice Example (Previous)
- Invoice Example (New)



Design Overview

This section addresses the creation of a family look for a large and diverse group of administrative forms existing within the company. The structure of this system performs two basic functions. One is to combine information in a clear and precise manner through consistent, organized application of various design elements (corporate signature, color, typography, standard mastheads, and grids).

The second function is to establish design harmony throughout the system that enables Johns Manville to further reinforce its corporate identity program.

Please review the guidelines and examples to guarantee correct implementation.

- **Position and size corporate signature per the masthead layout specifications.**
- **Typeset the primary form title in 16 pt. Condensed Bold and position per the masthead specifications.**
- **Always use bright white paper stock for the top sheet.**
- **Use only Univers Condensed Regular and Bold in caps and lower case for text.**
- **Standardize rule weights. Use 2 point rule for horizontal emphasis. 2 point rules may also be used for signature lines. 1/2 point rules are used for all other needs.**
- **Avoid violating the specified left and right margins of the approved grids. Avoid setting vertical rules at the margins of checks or administrative forms.**
- **Establish a standard positioning of similar information such as routing numbers, inventory control and crash imprinted numbers.**
- **Form control number and revision number should appear on stub portion, back or lower left-hand corner. Set form numbers in 6 point Univers Condensed Regular.**

Form Design Components

A Standard Size and Placement of the Signature. Consistent size and placement of the signature is one of the most important guidelines for creating visual consistency through the forms system. Administrative forms use Format A signature, 5/16" (8 mm), and Format B signature size of 5/16" (8 mm), for check mastheads.

B Consistent Masthead Construction. Two masthead formats have been developed for use: one for checks and another for administrative forms and contracts. Please utilize the correct masthead dimensions when designing checks or administrative forms.

C Standard Size & Placement of Form Title. When possible, the form title should always appear in 14 point Univers Condensed Bold, initial caps and lower case with 2 point line leading. The vertical placement of the form title should also be maintained and aligned within the established grid and accent bar. If a subtitle is required, it is set in 11 point Univers Condensed Regular.

D Standard Typefaces. The typeface used on all forms text is Univers Condensed Regular and Bold. A minimum number of sizes and weights of line rules have been established to create a clean and organized appearance. The majority of text is set in 9 point Univers Condensed Regular on 1 or 2 point leading. 8 or 7 point text is acceptable when available space is limited. Headings are set in 10 point Univers Condensed Bold for increased emphasis. Major informational heading type is 12 point Univers Condensed Bold.

E Conformance to Established Grid System. A grid is the invisible horizontal and vertical underlying structure used when designing forms. The established grid is measured in pica/points.

All administrative forms should use a 1-3/16" (7.125 picas) left and 3/8" (2.3 picas) right margin. These margins should remain clear of any copy or line rules. Aligning as many elements as possible on the grid creates a sense of organization and clarity of information.

F Standard Rule Line Weights. Standard rule line weights have been incorporated as an important part of this program to establish a strong horizontal and vertical system of order and alignments.

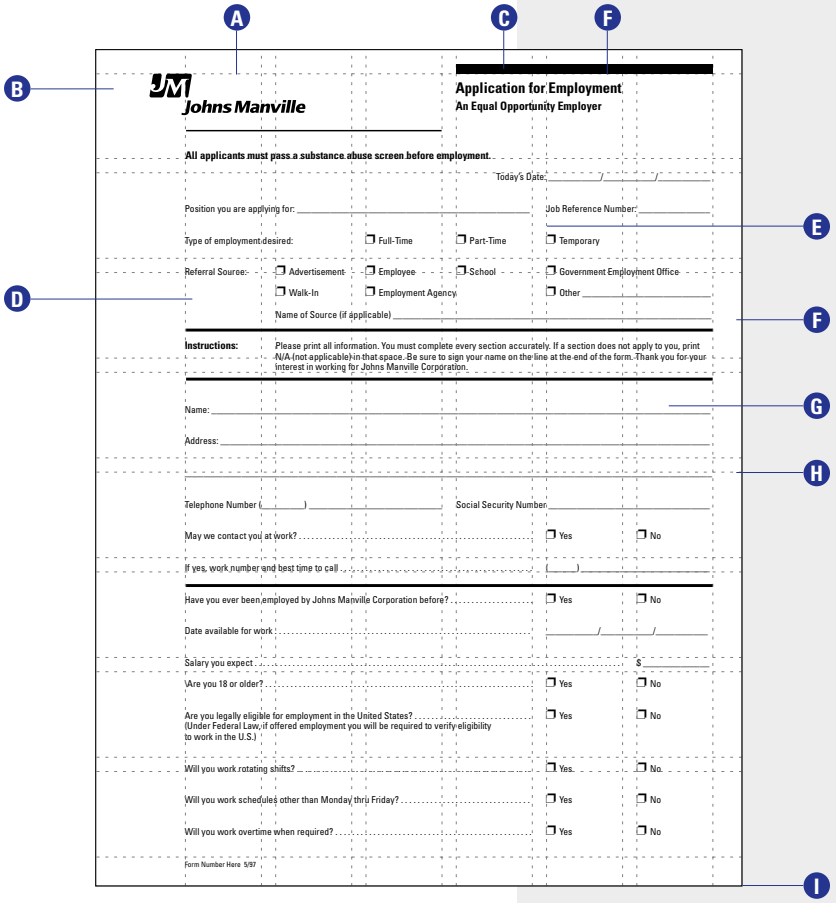
Only three weights of rule lines have been approved: 2 point, 1/2 point and 1/4 point. The 1/4 point rules may be used in combination with 1/2 point rules for horizontally organizing information for computer-generated copy. The 2 point rules are also used for all "Authorized Signature" lines. All other individual rules are 1/2 point, and do not violate the left and right margins of the grid.

To maintain a strong horizontal design style, the use of vertical rules, especially at the left and right margins, should be avoided.

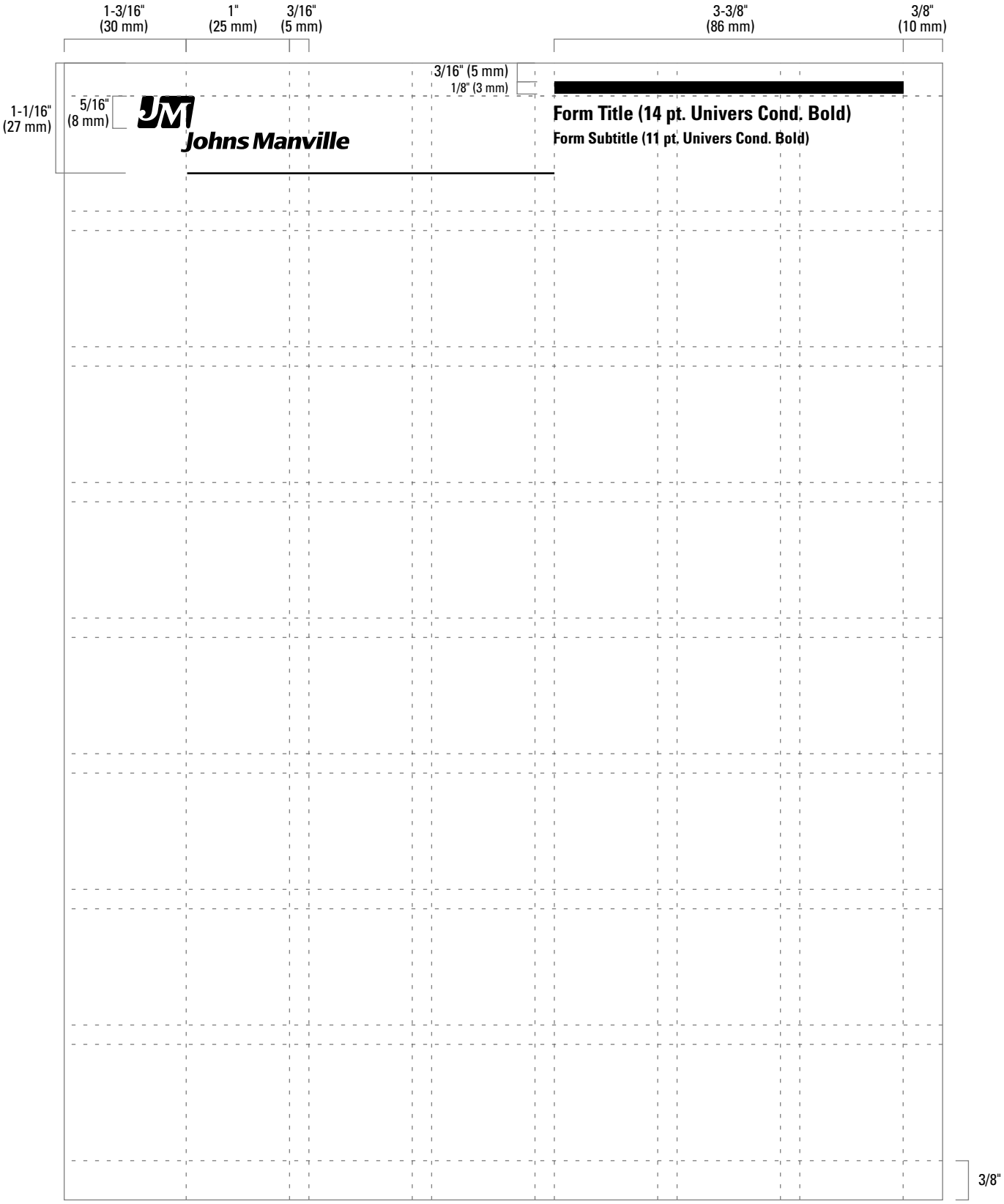
G Standard Colors. It is important to maintain a consistent use of color when producing new forms or checks. External forms that have a high degree of public visibility should be printed Johns Manville Blue and Black. Utilitarian forms are printed in one-color, black.

H Standard Paper Stock. All top sheets should be bright white, wove finish. The paper stock recommended for use on all multi-part forms is a series of NCR bond paper. The top sheet should always be bright white Basis 24 (86 brightness minimum), with underlying copy sheets in Basis 15 (canary, pink, green, blue, or as necessary).

I Standard Sizing for Related Forms. In keeping with an objective to simplify and streamline the forms system, an effort has been made to minimize various sizes of administrative forms and checks.



8-1/2" x 11" Master Form Grid



Purchase Order (Previous)

Design Components
Master Form Grid
Purchase Order Example (New)

SCHULLER

Schuller International, Inc.

PURCHASE ORDER

No.
Blanket No.

DATE:
PAGE OF

VENDOR NO:	REQUISITION
VENDOR CONTACT:	PHONE NUMBER:

VENDOR:

SHIP TO:

SHIP VIA	F.O.B.
DATE MATERIAL REQUIRED	FREIGHT
TERMS	ACCOUNT NUMBER

BILL TO:

LINE	QUANTITY	U/M	PART NUMBER	DESCRIPTION	UNIT PRICE	TAX

TOTAL

MARK ALL PACKAGES, INVOICES, B/L'S, PACKING LISTS AND CORRESPONDENCE WITH ORDER AND/OR RELEASE NO. AND DEPT. INDICATED.

ADDITIONAL INSTRUCTIONS:

A. MATERIAL SOLD AT THE DELIVERED PRICES OR FREIGHT ALLOWED MUST BE SHIPPED PREPAID. NO PARCEL POST OR INSURANCE CHARGES ALLOWED EXCEPT AS PROVIDED ABOVE.
B. WE PAY NO CHARGES NOT SHOWN ON THIS ORDER.
C. CONTAINERS WILL BE RETURNED FOR FULL CREDIT IN CONDITION RECEIVED.
D. PREPAID TRANSPORTATION CHARGES MUST BE SUPPORTED BY RECEIPTED TRANSPORTATION BILL.
E. SHIP FOR DELIVERY ON DATE REQUIRED AND TO ADDRESS AS SHOWN ABOVE.

THIS ORDER IS SUBJECT TO AND MAY ONLY BE ACCEPTED IN ACCORDANCE WITH THE TERMS, INSTRUCTIONS AND CONDITIONS ON THE FACE AND REVERSE SIDE HEREOF.

AUTHORIZED SIGNATURE

TITLE _____ DATE _____

SI-1500-3 (2/95)

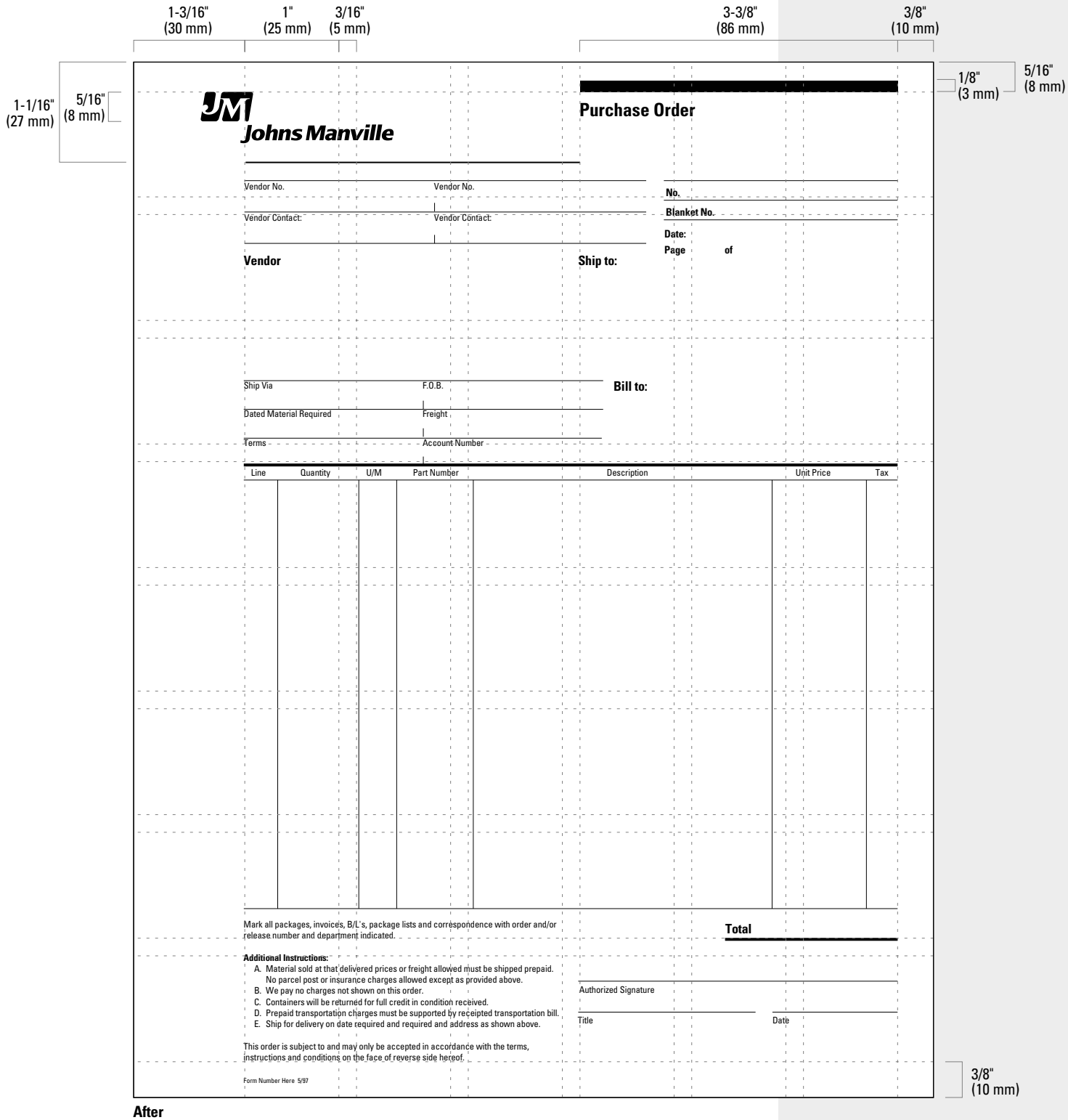
Before

Purchase Order (New)

Design Components

Master Form Grid

Purchase Order Example (Previous)



After

Guarantee (Previous)

Design Components
Master Form Grid
Guarantee Example (New)

GOLD SHIELD ROOFING SYSTEM GUARANTEE Over a Century

SCHULLER We Build Environments

Schuller Roofing Systems Gold Shield Guarantee Application Form and Notice of Completion

Please read all instructions carefully before completing this form.
Failure to supply all requested information may delay your guarantee.

APPLYING FOR A GUARANTEE

1. Type or Print all sections of PAGE 1, completely and accurately.
2. Mail the top two copies of this form to your local SALES REPRESENTATIVE. Keep the last two pages for your files. The GUARANTEE APPLICATION must be received by Schuller 14 business days prior to the start of the job.

   A check for the proper application fee MUST BE submitted with the application;
   100% required for minimum charge guarantee applications,
   50% required for applications above the minimum charge.
3. Please note that applications for which unacceptable, inaccurate or incomplete information is received may not be accepted. All concerns, issues, and deviations must be clarified/approved prior to the start of the job.
4. Upon receipt and review of the GUARANTEE APPLICATION FORM by a Guarantee Services Technical Services Specialist, a GUARANTEE CONFIRMATION NOTICE will be sent back to you. The guarantee information, exactly as it is to appear on all documents, will be provided. Any changes must be noted prior to issuance of the guarantee document, if not a reissuance fee may apply.

COMPLETION OF THE JOB

1. Complete all sections on the back of Page 4, Notice of Completion, SIGN and DATE.
2. Draw a sketch on the back of Page 4. The roof sketch must show all projections and penetrations. Blue Prints are NOT acceptable. Single-ply ballasted jobs require sheet layouts.
3. Mail Page 4, Notice of Completion, along with a check for the remaining guarantee charge to your local SALES REPRESENTATIVE.
4. A Schuller Representative will then make arrangements for a roof inspection.
5. Upon receipt and acceptance of all required documentation (including inspection reports), the requested guarantee will be sent directly to the Schuller Certified Roofing Contractor.

If you have any questions regarding completion of this form, or if you have questions concerning Schuller specifications or guarantee requirements, please call your local Schuller Sales Representative. If the local Schuller Sales Representative cannot be reached, call Guarantee Services for the specific region below.

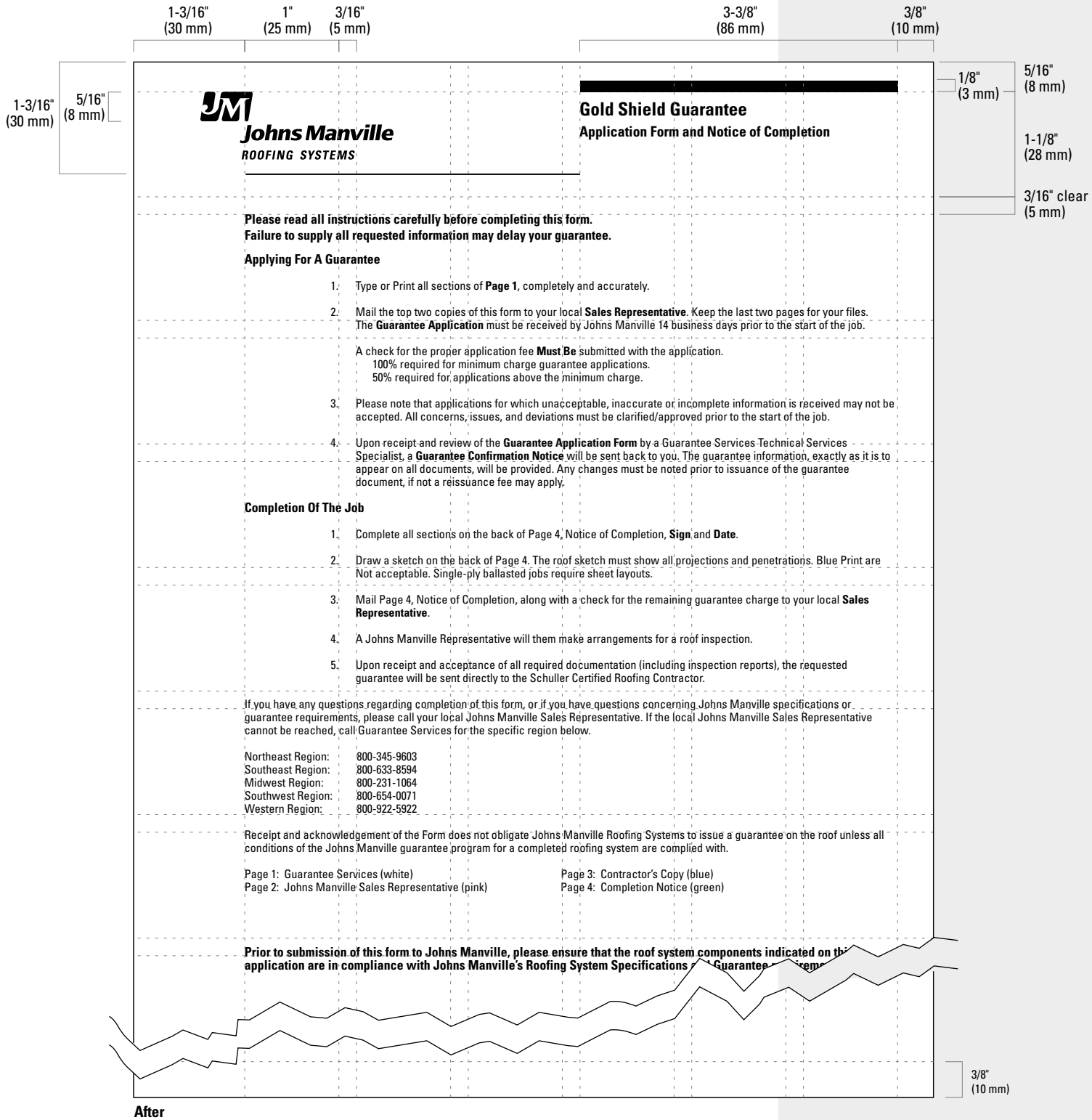
Northeast Region:	800-345-9603
Southeast Region:	800-633-8594
Midwest Region:	800-231-1064
Southwest Region:	800-654-0071
Western Region:	800-922-5922

Prior to submission of this form to Schuller, please ensure that the roof system components indicated on this application are in compliance with Schuller's Roofing System Specifications

Before

Guarantee (New)

Design Components
Master Form Grid
Guarantee Example (Previous)



Johns Manville
ROOFING SYSTEMS

Gold Shield Guarantee
Application Form and Notice of Completion

Please read all instructions carefully before completing this form.
Failure to supply all requested information may delay your guarantee.

Applying For A Guarantee

1. Type or Print all sections of **Page 1**, completely and accurately.
2. Mail the top two copies of this form to your local **Sales Representative**. Keep the last two pages for your files. The **Guarantee Application** must be received by Johns Manville 14 business days prior to the start of the job.

   A check for the proper application fee **Must Be** submitted with the application.
   100% required for minimum charge guarantee applications.
   50% required for applications above the minimum charge.
3. Please note that applications for which unacceptable, inaccurate or incomplete information is received may not be accepted. All concerns, issues, and deviations must be clarified/approved prior to the start of the job.
4. Upon receipt and review of the **Guarantee Application Form** by a Guarantee Services Technical Services Specialist, a **Guarantee Confirmation Notice** will be sent back to you. The guarantee information, exactly as it is to appear on all documents, will be provided. Any changes must be noted prior to issuance of the guarantee document, if not a reissuance fee may apply.

Completion Of The Job

1. Complete all sections on the back of Page 4, Notice of Completion, **Sign** and **Date**.
2. Draw a sketch on the back of Page 4. The roof sketch must show all projections and penetrations. Blue Print are Not acceptable. Single-ply ballasted jobs require sheet layouts.
3. Mail Page 4, Notice of Completion, along with a check for the remaining guarantee charge to your local **Sales Representative**.
4. A Johns Manville Representative will them make arrangements for a roof inspection.
5. Upon receipt and acceptance of all required documentation (including inspection reports), the requested guarantee will be sent directly to the Schuller Certified Roofing Contractor.

If you have any questions regarding completion of this form, or if you have questions concerning Johns Manville specifications or guarantee requirements, please call your local Johns Manville Sales Representative. If the local Johns Manville Sales Representative cannot be reached, call Guarantee Services for the specific region below.

Northeast Region:	800-345-9603
Southeast Region:	800-633-8594
Midwest Region:	800-231-1064
Southwest Region:	800-654-0071
Western Region:	800-922-5922

Receipt and acknowledgement of the Form does not obligate Johns Manville Roofing Systems to issue a guarantee on the roof unless all conditions of the Johns Manville guarantee program for a completed roofing system are complied with.

Page 1: Guarantee Services (white)
Page 2: Johns Manville Sales Representative (pink)
Page 3: Contractor's Copy (blue)
Page 4: Completion Notice (green)

Prior to submission of this form to Johns Manville, please ensure that the roof system components indicated on thi
application are in compliance with Johns Manville's Roofing System Specifications a Guarantee

After

Invoice (Previous)

Design Components
Master Form Grid
Invoice Example (New)

SCHULLER
We Build Environments

Schuller International, Inc

Invoice

Invoice Number | Sales Order Number | Trailer Number | Customer Reference

Date Shipped | FOB | Freight | Weight | Via | Frt Ref

Item	Description	Unit	Price	Quantity Ordered	Quantity Shipped	Amount

Remit to:

Identify payment with
Invoice Number.....and.....Customer Number

Terms

Tax Data

Shipped to:

Please direct any inquiries regarding this invoice to:

Sold to:

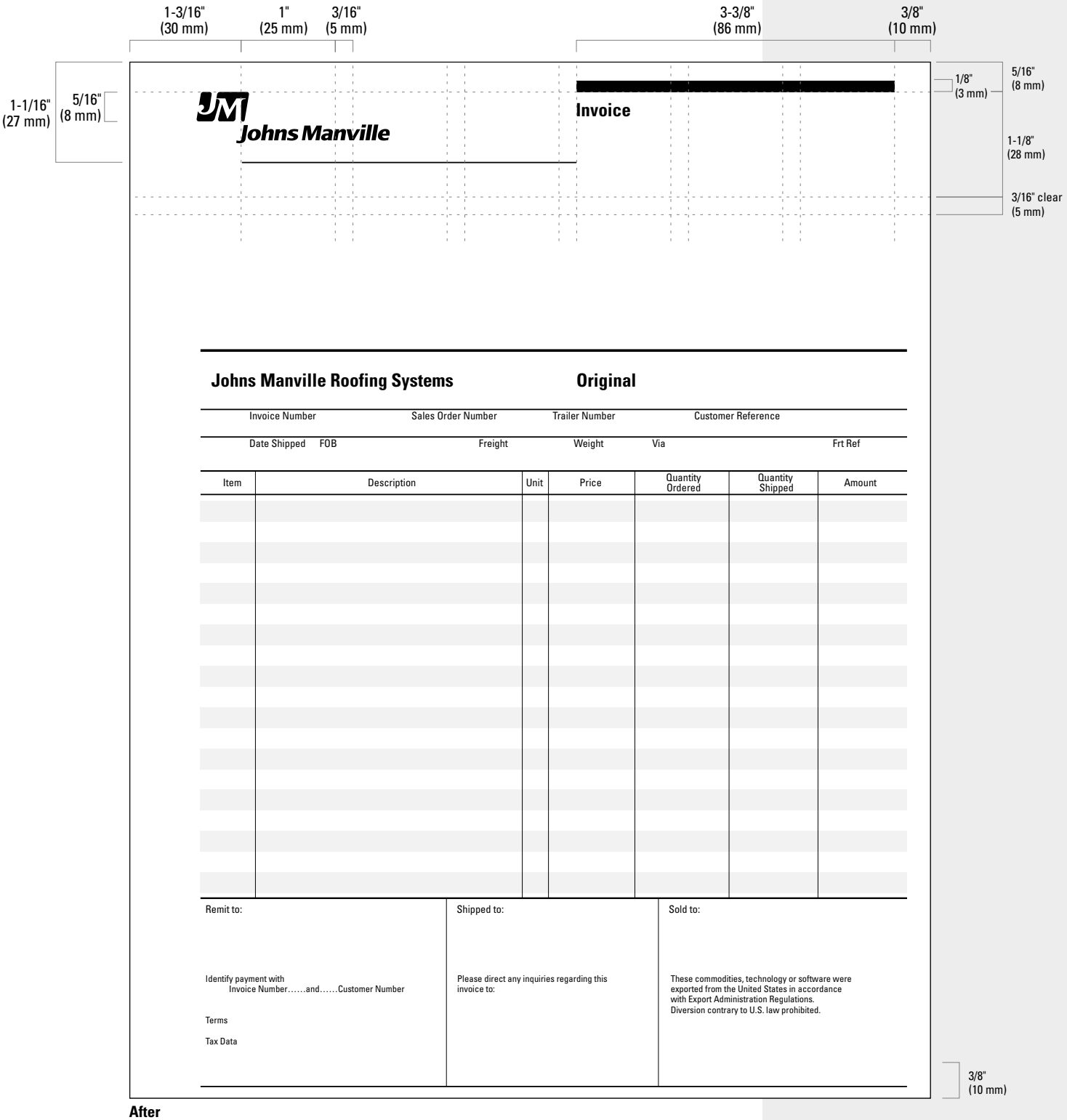
These commodities, technology or software were exported from the United States in accordance with Export Administration Regulations. Diversion contrary to U.S. law prohibited.

F671

Before

Invoice (New)

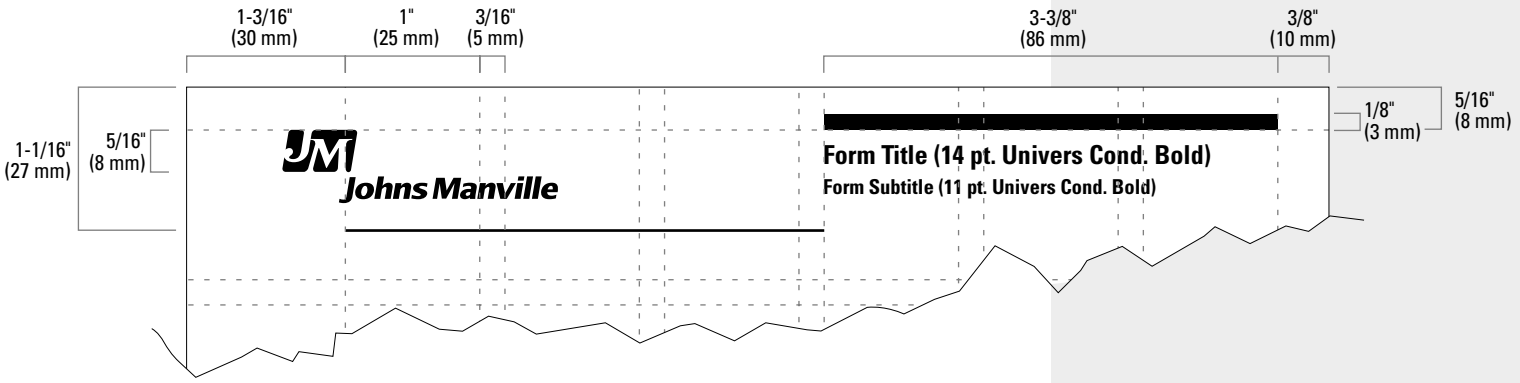
Design Components
Master Form Grid
Invoice Example (Previous)



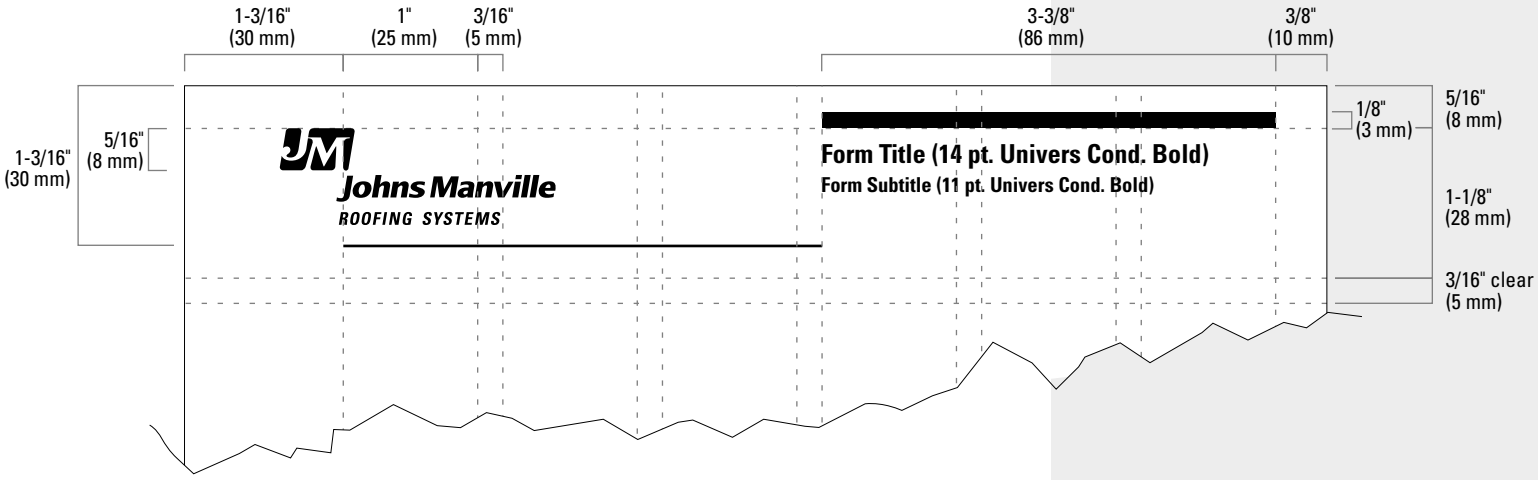
After

Masthead Construction

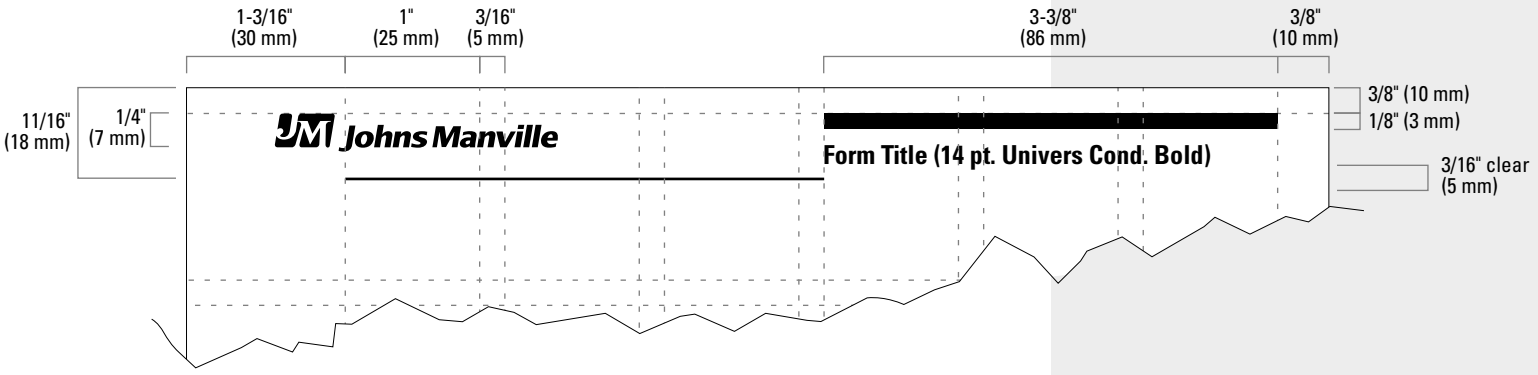
Standard Forms Header
5/16" Johns Manville Format A signature



Optional Forms Header
5/16" Johns Manville Competency Format A signature



Optional Forms Header for extremely limited vertical space
1/4" Johns Manville Format B signature

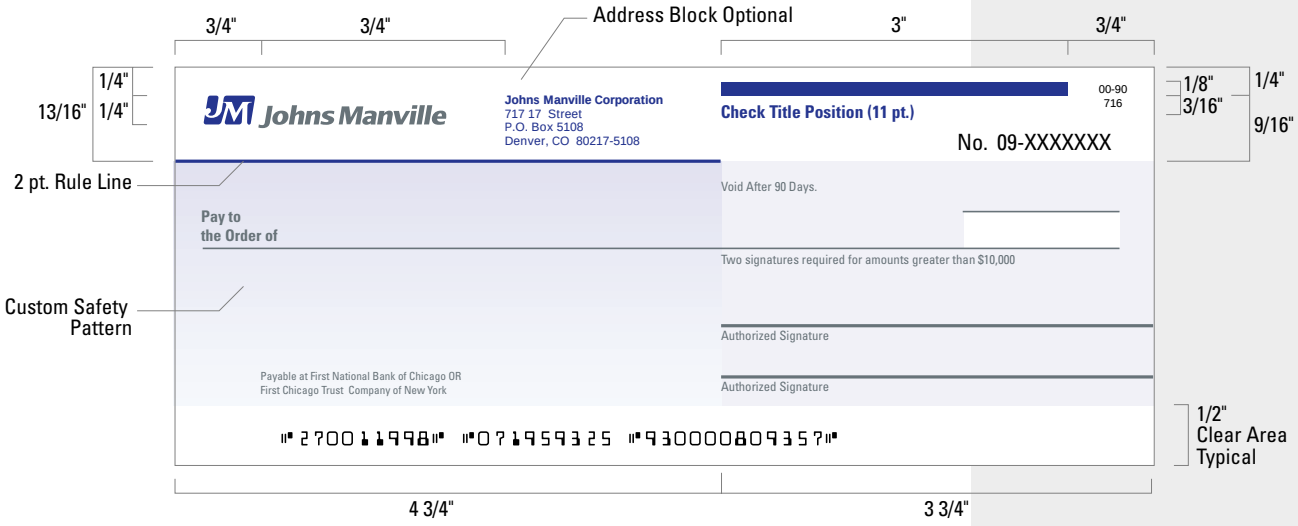


Check Masthead Construction

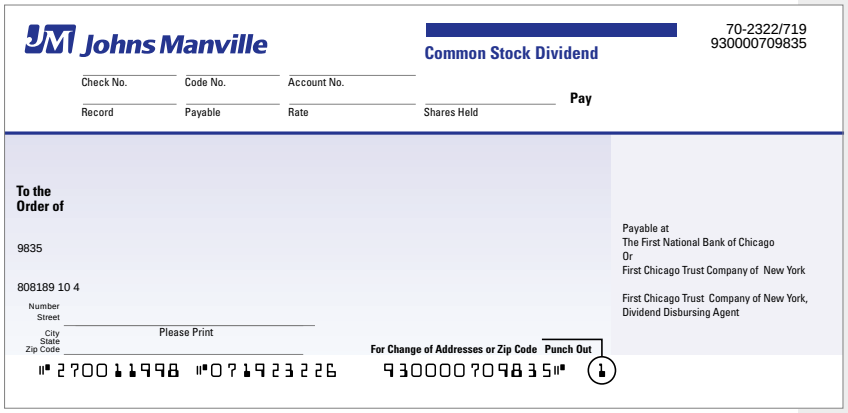
4.16

Check Masthead Construction

3.5" x 8.5" Typical

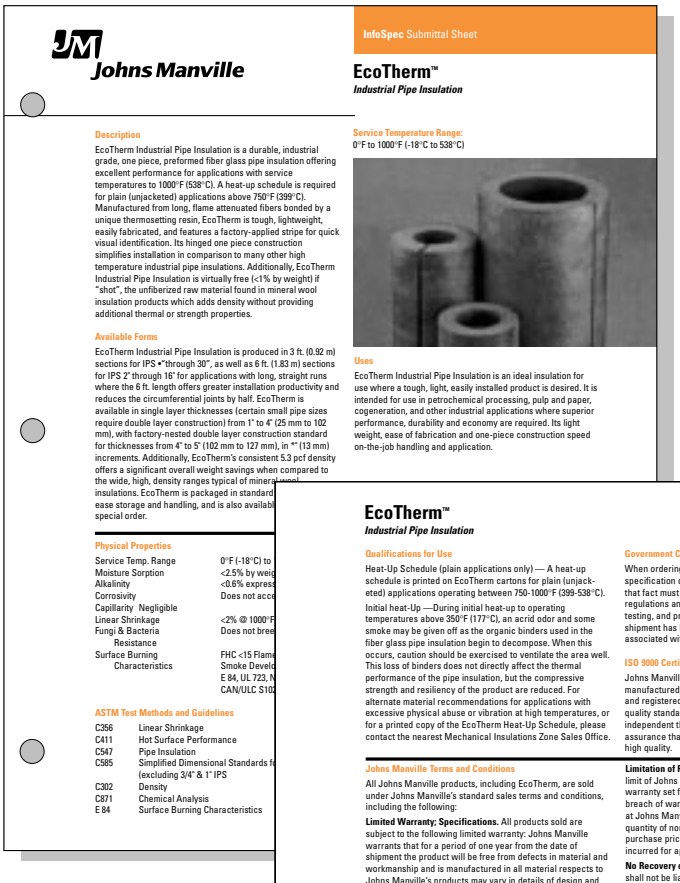


Check Retrofit



Production Specification Sheets

Master Grid
Two-Color Example.1 (Previous)
Two-Color Example.1 (New)
Two-Color Example.2 (Previous)
Two-Color Example.2 (New)
One-Color Example.1 (Previous)
One-Color Example.1 (New)
One-Color Example.2 (Previous)
One-Color Example.2 (New)



Johns Manville

InfoSpec Submittal Sheet

EcoTherm™

Industrial Pipe Insulation

Description

EcoTherm Industrial Pipe Insulation is a durable, industrial grade, one piece, preformed fiber glass pipe insulation offering excellent performance for applications with service temperatures to 1000°F (538°C). A heat-up schedule is required for plain (unjacketed) applications above 750°F (399°C). Manufactured from long, flame attenuated fibers bonded by a unique thermosetting resin, EcoTherm is tough, lightweight, easily fabricated, and features a factory-applied stripe for quick visual identification. Its hinged one piece construction simplifies installation in comparison to many other high temperature industrial pipe insulations. Additionally, EcoTherm Industrial Pipe Insulation is virtually free (<1% by weight) if "shot", the unfiberized raw material found in mineral wool insulation products which adds density without providing additional thermal or strength properties.

Available Forms

EcoTherm Industrial Pipe Insulation is produced in 3 ft. (0.92 m) sections for IPS ¼" through 30", as well as 6 ft. (1.83 m) sections for IPS 2" through 16" for applications with long, straight runs where the 6 ft. length offers greater installation productivity and reduces the circumferential joints by half. EcoTherm is available in single layer thicknesses (certain small pipe sizes require double layer construction) from 1" to 4" (25 mm to 102 mm), with factory-nested double layer construction standard for thicknesses from 4" to 5" (102 mm to 127 mm), in ½" (13 mm) increments. Additionally, EcoTherm's consistent 5.3 pcf density offers a significant overall weight savings when compared to the wide, high, density ranges typical of mineral wool insulations. EcoTherm is packaged in standard ease storage and handling, and is also availabl special order.

Physical Properties

Service Temp. Range	0°F (-18°C) to
Moisture Sorption	<2.5% by weig
Alkalinity	<0.6% expres
Corrosivity	Does not acc
Capillarity	Negligible
Linear Shrinkage	<2% @ 1000°F
Fungi & Bacteria Resistance	Does not bree
Surface Burning Characteristics	FHC <15 Flame Smoke Develo E 84, UL 723, N CAN/ULC S102

ASTM Test Methods and Guidelines

C356	Linear Shrinkage
C411	Hot Surface Performance
C547	Pipe Insulation
C585	Simplified Dimensional Standards fo (excluding 3/4" & 1" IPS
C302	Density
C871	Chemical Analysis
E 84	Surface Burning Characteristics

Service Temperature Range:
0°F to 1000°F (-18°C to 538°C)

Uses

EcoTherm Industrial Pipe Insulation is an ideal insulation for use where a tough, light, easily installed product is desired. It is intended for use in petrochemical processing, pulp and paper, cogeneration, and other industrial applications where superior performance, durability and economy are required. Its light weight, ease of fabrication and one-piece construction speed on-the-job handling and application.

EcoTherm™

Industrial Pipe Insulation

Qualifications for Use

Heat-Up Schedule (plain applications only) — A heat-up schedule is printed on EcoTherm cartons for plain (unjacketed) applications operating between 750-1000°F (399-538°C).

Initial heat-Up —During initial heat-up to operating temperatures above 350°F (177°C), an acrid odor and some smoke may be given off as the organic binders used in the fiber glass pipe insulation begin to decompose. When this occurs, caution should be exercised to ventilate the area well. This loss of binders does not directly affect the thermal performance of the pipe insulation, but the compressive strength and resiliency of the product are reduced. For alternate material recommendations for applications with excessive physical abuse or vibration at high temperatures, or for a printed copy of the EcoTherm Heat-Up Schedule, please contact the nearest Mechanical Insulations Zone Sales Office.

Government Certification

When ordering material to comply with any government specification or any other listed specification, a statement of that fact must appear on the purchase order. Government regulations and other listed specifications require specific lot testing, and prohibit the certification of compliance after shipment has been made. There may be additional charges associated with specification compliance testing.

ISO 9000 Certification

Johns Manville mechanical insulation products are designed, manufactured, and tested in our facilities, which are certified and registered to stringent ISO 9000 (ANSI/ASQC 90) series quality standards. This certification, along with regular, independent thrid-party auditing for compliance, is your assurance that Johns Manville products deliver consistent high quality.

Johns Manville Terms and Conditions

All Johns Manville products, including EcoTherm, are sold under Johns Manville's standard sales terms and conditions, including the following:

Limited Warranty; Specifications. All products sold are subject to the following limited warranty: Johns Manville warrants that for a period of one year from the date of shipment the product will be free from defects in material and workmanship and is manufactured in all material respects to Johns Manville's products may vary in details of design and construction form descriptions in any literature or from any sample, display or other model inspected by Purchaser.

Johns Manville disclaims all other representations and warranties of any kind, express or implied, in fact or in law, including, without limitation, the implied warranty of fitness for a particular purpose. Every claim under this limited warranty shall be deemed waived unless in writing and received by Johns Manville within 10 days of delivery if visibly damaged or defective, and, otherwise, within 30 days after the defect to which each claim relates is discovered, or should have been discover, but in no event longer than 1 year after the product shipment.

Limitation of Remedy. Purchasers exclusive remedy and the limit of Johns Manville's liability for breach of the limited time warranty set forth above, whether based on negligence, breach of warranty, strict liability, or any other theory, shall be at Johns Manville's option, repair, replacement with a like quantity of non defective product product or refund of the purchase price, plus reasonable commercial charges incurred for approved returns.

No Recovery of Consequential or Damages. Johns Manville shall not be liable for any consequential or special damages based on negligence, breach or warranty, strict liability, or any other theory, for failure to preform its obligations under this agreement. Additionally , consequential and special damages shall not be recoverable even of the repair, replacement or refund remedy for Johns Manville's breach of its limited warranty fails of its essential purpose or for any other reason.



Mechanical Insulations North American Sales Offices

Zone I	Zone II	International
P.O. Box 158	P.O. Box 625005	(303) 978-2802
Defiance, OH 43512	Littleton, CO 80162	Fax: (303) 978-2746
(419) 784-7000	(303) 978-2284	
(800) 334-2399	(800) 368-4431	
Fax: (419) 784-7866	Fax: (303) 978-4661	

Johns Manville

Johns Manville Insulations
P.O. Box 625005
Littleton, CO 80162-5005
Internet: www.johnsmanville.com

The physical and chemical properties of EcoTherm Industrial Pipe Insulation represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Check with your mechanical Insulations Zone Sales Office nearest you to assure current information.

For information on other Johns Manville thermal insulations and systems, write Mechanical and Speciality Insulations, Johns Manville International, Inc., product Information Center, P.O. Box 5108, Denver, Colorado 80217-5108, or call 1-800-654-3103.

Design Criteria

The Signature

The 3/8" signature always appears in the masthead. The one-line version of the signature should not be used.

Typography

Univers Condensed is the approved typestyle for all typesetting. Body copy and section headings are set in 10pt. Univers Condensed on 2pt. leading. Copy heavy layouts may be set in 9pt. Univers Condensed on 2pt. leading.

Design System

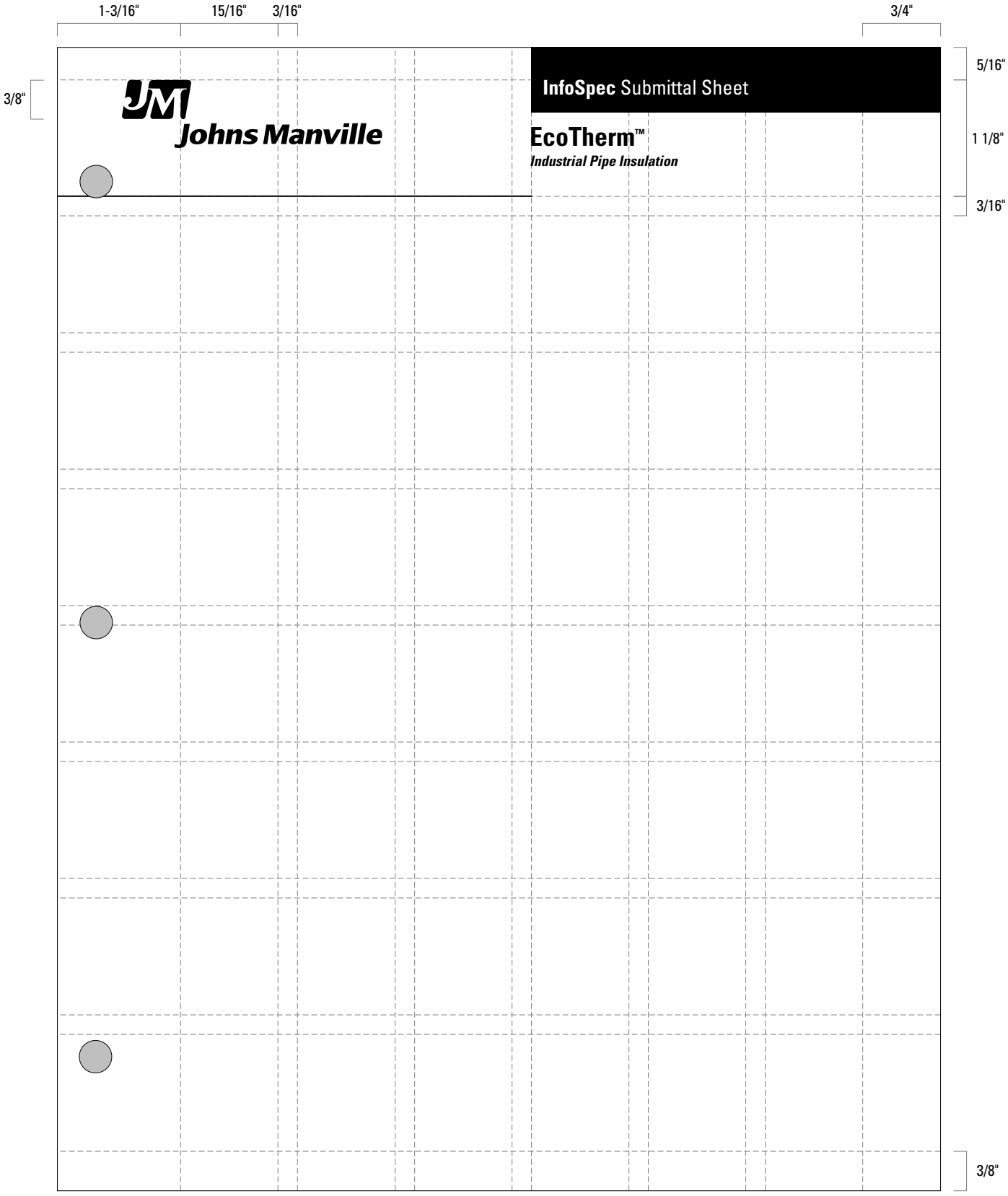
The design system utilizes a 6-column grid and a masthead that clearly displays the Johns Manville signature and Product information. The grid is divided into two large columns for general copy and photo layout. Areas of information may be separated by 3pt. line rules.

Color

Use the approved support color palette from the Publication Standards. The Johns Manville signature prints in two-color, Johns Manville Blue and Johns Manville Gray, or one-color, Johns Manville Blue or black. When printing two-colors, the masthead bar and section headings print in the highlight color. The signature and all other copy print solid black. For one-color printing, the signature, all copy and line rules print solid black.

8-1/2" x 11" Master Spec Sheet Grid

4.17a



8.5" x 11"

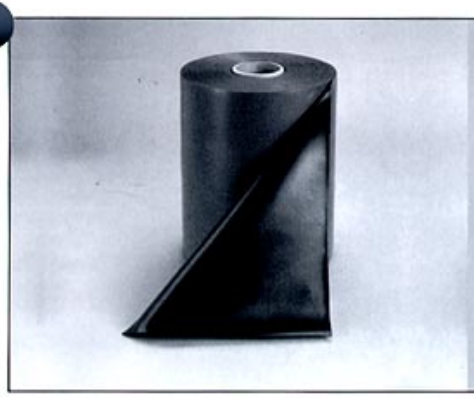
Two-Color (Previous)

Design Criteria

Master Grid

Two-Color Example (New)

SCHULLER **SPM® Flashing**



Physical Properties (after curing)

Thickness	0.060 in. (1.5 mm)
Tensile Strength (min.)	1305 psi (8998 kPa)
Elongation (min.)	350%
Tear Resistance (min.)	175 lbs./in. (30.6 kN/m)
Ozone Resistance	No Cracks
Brittle Point	-75°F (-59°C)

Description

SPM Flashing is a 60 mil (0.060" [1.5 mm]) thick, uncured EPDM (ethylene propylene diene monomer) sheet flashing for use in flashing at perimeters and walls, and around projections through Schuller SPM roofing systems. SPM Flashing can be easily formed around corners and projections. SPM Flashing is formulated to cure after it is in place.

Use

SPM Flashing is specifically designed for use in weather-sealing areas that cannot be properly handled with cured EPDM membrane. It should be used in outside and inside corner configurations where its uncured state allows it to be molded to the contour of the substrate. Over time, it will cure and achieve properties similar to cured EPDM membrane.

Advantages

- EPDM formulation
- Flexible, conformable, uncured state
- Excellent handleability
- Superior weathering characteristics

Sizes

Roll length	100 ft. (30.5 m)
Roll width	6" - 24" (152 mm-610 mm)

Refer to the Material Safety Data Sheet and Product Label prior to using this product. For an identical copy of this data sheet, ask for BU-1174.

3-61

Before

Two-Color (New)

Design Criteria
Master Grid
Two-Color Example (Previous)

Johns Manville

Roofing Systems 3-61

SPM® Flashing

Description

SPM Flashing is a 60 mil. (0.060" [1.5 mm]) thick, uncured EPDM (ethylene propylene diene monmer) sheet flashing for use in flashing at perimeters and walls, and around projections through Schuller SPM roofing systems. SPM Flashing can be easily formed around corners and projections. SPM Flashing is formulated to cure after it is in place.

Use

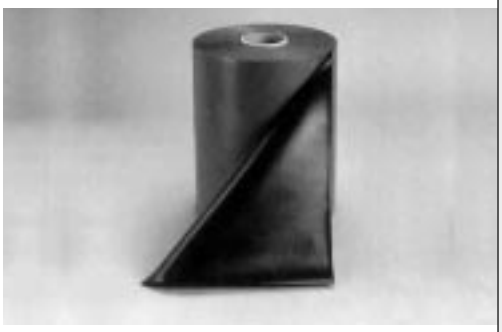
SPM Flashing is specifically designed for use in weather-sealing areas that cannot be properly handled with cured EPDM membrane. It should be used in outside and inside corner configurations where its uncured state allows it to be molded to the contour of the substrate. Over time, it will cure and achieve properties similar to cured EPDM membrane.

Advantages

EPDM formulation
Flexible, uncomfortable, uncured state
Excellent handleability
Superior weathering characteristics

Sizes

Roll length 100 ft. (30.5 m)
Roll width 6"-24" (152 mm-610 mm)



Physical Properties (after curing)

Thickness	0.060 in. (1.5 mm)
Tensile Strength (min.)	1305 psi (8998 kPa)
Elongation (min.)	350%
Tear Resistance (min.)	175 lbs./in. (30.6 kN/m)
Ozone Resistance	No Cracks
Brittle Point	-75°F (-59°C)

Refer to this material Safety Data Sheet and
Product Label prior to using this product.
For an identical copy of this sheet, ask for BU-1174.

After

Two-Color (Previous)

SCHULLER
We Build Environments

Air Handling Systems

Micro-Aire®

R8 Type 800 Residential Fiber Glass Duct Board

Description

Schuller Micro-Aire R8 Type 800 Residential Fiber Glass Duct Board is used to fabricate rectangular air handling ducts for use in residential or light commercial HVAC systems. R8 Type 800 boards can be used for any size duct up to 96" (2.44 m) span when properly reinforced.

Micro-Aire R8 Board is an ideal duct product for HVAC systems where a thermal resistance value of 8.0 or greater is required. The product meets R8 building code requirements for systems operating at less than 2,400 fpm (12.2 m/sec.) velocity and 1" (249 Pa) w.c. internal static pressure.



Benefits

Better Temperature Control
Helps deliver warmed or cooled air at desired temperatures for energy savings and improved comfort. Reduces or eliminates condensation concerns when properly installed.

Quiet Operation
Offers exceptional noise absorbing characteristics, noticeably decreasing the audibility of crosstalk, equipment noise, and sounds associated with the expansion and contraction of sheet metal systems.

Minimum of Fabrication
May be machine grooved, fabricated and installed using industry-developed Modular Duct Construction techniques. Due to the combination of thickness and density inherent in the R8 product, hand grooving is not recommended, except where field modification is necessary.

Available Forms

Micro-Aire R8 Residential Duct Board is available in cartons or on pallets, in butt-edge configuration only.

Size in.	mm	Packaging
48x120x2	1219x3048x51	Carton (3 bds.)
48x120x2	1219x3048x51	Pallet (24 bds.)

Closure Systems

Schuller recommends only those closure systems which comply fully with the requirements of UL 181 Class 1 when installed with Micro-Aire Duct Board. Closure systems meeting these requirements must be registered with Underwriters Laboratories, and be so imprinted. Closures meeting these requirements are as follows:

Thermally-Activated Closure Tapes
- Fortifiber® Therm-Lock® with Automatic Bond Indicator (ABI) dots, or other thermal closures meeting the requirements of UL 181A-H.

Pressure Sensitive Tapes
- Tapes meeting the requirements of UL 181A-P.

Glass Fabric and Mastic Closure
- Mastics and recommended fabric tapes meeting the requirements of UL 181A-M.

Limitation of Liability

If the closure system used is not one of the approved systems noted above, and if application is not in accordance with the tape manufacturers' stated procedures, the UL 181 Class 1 air duct rating, and all product warranties are void.

Specification Data

General Properties	I-P Units	SI Units
Thickness	2 inches	51 mm
Air Velocity (max.)	2,400 fpm	12.2m/sec.
Service Temperature (max.)	250°F	121°C
Internal Pressure (max.)	1" w.c.	249 Pa
Thermal Performance	(hr•ft²•°F)/BTU	m²•°C/W
• R-Value	8.7	1.53

Before

Two-Color (New)

Design Criteria
Master Grid
Two-Color Example (Previous)

Johns Manville

Air Handling Systems

Micro-Aire®

R8 Type 800 Residential Fiber Glass Duct Board

Description

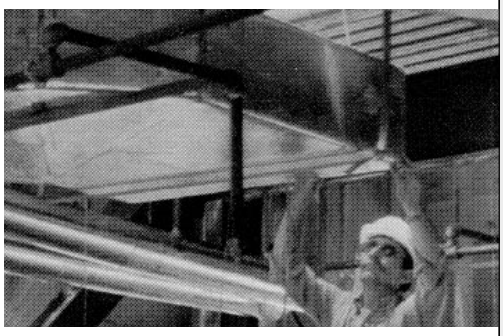
Schuller Micro-Aire R8 Type 800 Residential Fiber Glass Duct Board is used to fabricate rectangular air handling ducts for use in residential or light commercial HVAC systems. R8 Type 800 boards can be used for any size duct up to 96" (2.44 m) span when properly reinforced.
Micro-Aire R8 Board is an ideal duct product for HVAC systems where a thermal resistance value of 8.0 or greater is required. The product meets R8 building code requirements for systems operating at less than 2,400 fpm (12.2 m/sec.) velocity and 1" (249 PA) w.c. internal static pressure.

Benefits

Better Temperature Control. Helps deliver warmed or cooled air at desired temperatures for energy savings and improved comfort. Reduces or eliminates condensation concerns when properly installed.
Quiet Operation. Offers exceptional noise absorbing characteristics, noticeably decreasing the audibility of crosstalk, equipment noise, and sounds associated with the expansion and contraction of sheet metal systems.
Minimum of Fabrication. May be machine grooved, fabricated and installed using industry developed Modular Duct Construction techniques. Due to the combination of thickness and density inherent in the R8 product, hand grooving is not recommended, except where field modification is necessary.

Closure Systems

Schuller recommends only those closure systems which comply fully with the requirements of UL Class 1 when installed with Micro-Aire Duct Board. Closure systems meeting these requirements must be registered with Underwriters Laboratories, and be so imprinted. Closures meeting these requirements are as follows:
Thermally-Activated Closure Tapes. Fortifiber® Therm-Lock ® with Automatic Bond Indicator (ABI) dots, or other thermal closures meeting the requirements of UL 181A-H.
Pressure Sensitive Tapes. Tapes meeting the requirements of UL 181A-P
Glass Fabric and Mastic Closure. Mastics and recommended fabric tapes meting the requirements of UL 181A-M.



Available Forms

Micro-Aire R8 Residential Duct Board is available in cartons or on pallets, in buttedge configuration only.

Size

Inches	mm	Packaging
48x120x2	1219x3048x51	Carton (3 bds.)
48x120x2	1219x3048x51	Pallet (24 bds.)

Limitation of Liability

If the closure system used is not one of the approved systems noted above, and if application is not in accordance with the tape manufacturers' stated procedures, the UL 181 class 1 air duct rating, and all product warranties are void.

Specification Data

General Properties	I-P Units	SI Units
Thickness	2in.	51mm
Air Velocity	2,400 fpm	12.2m/sec.
Service Temperature	250°F	121°C
Internal Pressure (max)	1" w.c.	249 Pa
Thermal Performance	(hr•ft^2•F)/BTU	m^2•°C/W
•R Value	8.7	1.53

After

One-Color (Previous)

Design Criteria
Master Grid
One-Color Example (New)

SCHULLER **MBR® Flashing Cement**



Important
The activator must be stored indoors in an area maintained above 60°F (16°C) or crystallization will occur. To correct this situation, the product must be warmed. Refer to the package label for the precise procedures.

Warning: Avoid contact with skin: Use impervious clothing and rubber gloves to avoid prolonged or repeated contact with skin. If operating conditions create high airborne concentrations, the use of a NIOSH air-supplied respirator is required, or provide adequate ventilation. Use tight and well-sealed goggles or a face shield and safety glasses. Keep containers closed when not in use.

Description
MBR Flashing Cement is a unique, two component, elastomeric, cold application adhesive, consisting of an asphalt base material and an activator. It has been formulated for use with the Schuller SBS modified bitumen membrane products.

MBR Flashing Cement cures to form a durable elastomeric film and forms exceptional bonds between the modified bitumens and the underlying substrate.

The properties of this product complement those of Schuller DynaFlex, an elastomeric flashing material. The resulting system has superior flexibility, durability and resistance to virtually all of the factors affecting base flashings performance, compared to systems using traditional hot asphalt as the adhesive.

Use
Since it can be used as a direct substitute for hot asphalt, MBR Flashing Cement is ideal for those applications where hot bitumen is prohibited, not desirable or not practical.

The adhesive is mixed on site, applied by trowel to the substrate, and the DynaFlex is laid into the bed of adhesive.

The adhesive will set within 20 to 40 minutes, holding the modified bitumen in place, and will cure in 2 to 4 hours into a tough, durable and highly weatherable rubber film. All modified bitumen sheet laps should be treated with the adhesive.

Advantages
- Cures to a durable, elastomeric film and forms exceptional bonds between the modified bitumens and underlying substrate
- Resists virtually all factors affecting base flashings performance while providing superior flexibility and durability
- Can be used as a direct substitute for hot asphalt
- Ideal for areas where hot asphalt is prohibited, not desirable or not practical

Refer to the Material Safety Data Sheet and Product Label prior to using this product. For an identical copy of this data sheet, ask for BU-1154.

3-33

Before

One-Color (New)

Design Criteria
Master Grid
One-Color Example (Previous)

Johns Manville

Roofing Systems

MBR® Flashing Cement



Description

MBR Flashing Cement is a unique, two component, elastomeric, cold application adhesive, consisting of an asphalt base material and an activator. It has been formulated for use with the Schuller SBS modified bitumen membrane products.

MBR Flashing Cement cures to form a durable elastomeric film and forms exceptional bonds between the modified bitumens and the underlying substrate.

The properties of this product complement those of Schuller Dynaflex, an elastomeric flashing material. The resulting system has superior flexibility, durability and resistance to virtually all of the factors affecting base flashings performance, compared to systems using traditional hot asphalt as the adhesive.

Use

Since it can be used as a direct substitute for hot asphalt, MBR Flashing Cement is ideal for those applications where hot bitumen is prohibited, not desirable or not practical. The adhesive is mixed on site, applied by trowel to the substrate, and the Dynaflex is laid into the bed of adhesive. The adhesive will set within 20 to 40 minutes, holding the modified bitumen in place, and will cure in 2 to 4 hours into a tough, durable and highly weatherable rubber film. All modified bitumen sheet laps should be treated with the adhesive.

Advantages

Cures to a durable, elastomeric film and forms exceptional bonds between the modifies bitumens and underlying substrate.
Resists virtually all factors affecting base flashings performance while providing superior flexibility and durability.
Can be used as a direct substitute for hot asphalt.
Ideal for areas where hot asphalt is prohibited, not desirable or not practical.

Important

The activator must be stored indoors in an area maintained above 60° F (16°C) or crystallization will occur. To correct this situation, the product must be warmed. Refer to the package label for the precise procedures.

Warning: Avoid contact with skin: Use impervious clothing and rubber gloves to avoid prolonged or repeat contact with skin. If operating conditions create high airborne concentrations, the use of a NIOSH air supplies respirator is required, or provide adequate ventilation. Use tight and well sealed goggles or a face shield and safety glasses. Keep containers closed when not in use.

Refer to this material Safety Data Sheet and Product Label prior to using this product.
For an identical copy of this sheet, ask for BU-1174.

After

One-Color (Previous)

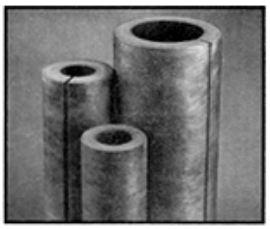
Design Criteria

Master Grid

One-Color Example (New)

SCHULLER
We Build Environments

EcoTherm™
Industrial
Pipe Insulation



INFOSPEC
Submittal Sheet

Service Temperature Range:
0°F to 1000°F (-18°C to 538°C)

Description
EcoTherm Industrial Pipe Insulation is a durable, industrial grade, one piece, preformed fiber glass pipe insulation offering excellent performance for applications with service temperatures to 1000°F (538°C). A heat-up schedule is required for plain (unjacketed) applications above 750°F (399°C). Manufactured from long, flame attenuated fibers bonded by a unique thermosetting resin, EcoTherm is tough, lightweight, easily fabricated, and features a factory-applied stripe for quick visual identification. Its hinged one piece construction simplifies installation in comparison to many other high temperature industrial pipe insulations. Additionally, EcoTherm Industrial Pipe Insulation is virtually free (< 1% by weight) of "shot", the unfiberized raw material found in mineral wool insulation products which adds density without providing additional thermal or strength properties.

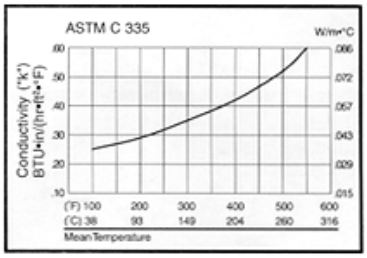
Available Forms
EcoTherm Industrial Pipe Insulation is produced in 3 ft. (0.92 m) sections for IPS ½" through 30", as well as 6 ft. (1.83 m) sections for IPS 2" through 16" for applications with long, straight runs where the 6 ft. length offers greater installation productivity and reduces the circumferential joints by half. EcoTherm is available in single layer thicknesses (certain small pipe sizes require double layer construction) from 1" to 4" (25 mm to 102 mm), with factory-nested double layer construction standard for thicknesses from 4" to 5" (102 mm to 127 mm), in ½" (13 mm) increments. Additionally, EcoTherm's consistent 5.3 pcf density offers a significant overall weight savings when compared to the wide, high, density ranges typical of mineral wool insulations. EcoTherm is packaged in standard carton sizes to ease storage and handling, and is also available in poly bags by special order.

Uses
EcoTherm Industrial Pipe Insulation is an ideal insulation for use where a tough, light, easily installed product is desired. It is intended for use in petrochemical processing, pulp and paper, cogeneration, and other industrial applications where superior performance, durability and economy are required. Its light weight, ease of fabrication and one-piece construction speed on-the-job handling and application.

Physical Properties

Service Temp. Range	0°F (-18°C) to 1000°F (538°C)
Moisture Sorption	< 2.5% by weight
Alkalinity	< 0.6% expressed as Na_2O
Corrosivity	Does not accelerate
Capillarity	Negligible
Linear Shrinkage	< 2% @ 1000°F (538°C)
Fungi & Bacteria Resistance	Does not breed or promote
Surface Burning Characteristics	FHC < 15 Flame Spread, < 5 Smoke Developed per ASTM E 84, UL 723, NFPA 255, CAN/ULC S102-M88

Thermal Conductivity



Available Specification Compliance

ASTM C 547, Type II; max. temp. 1000°F (538°C); 5.3 pcf density
ASTM C 795, For Use Over Austenitic Stainless Steel (Defiance only)
MIL-I-22344C
MIL-I-24244C (Defiance only; DOD orders only)
NRC Regulatory Guide 1.36 (Defiance only; by request)
Canada: CGSB 51-GP-9M
ISO 9000 (ANSI/ASQC 90) Certification
New York City MEA # 330-85-M [pending]
CAN/ULC S102-M88
UL 723
NFPA 255

ASTM Test Methods & Guidelines

C 356 ..... Linear Shrinkage
C 411 ..... Hot Surface Performance
C 547 ..... Pipe Insulation
C 585 ..... Simplified Dimensional Standards for Nesting (excluding ¾" & 1" IPS)
C 302 ..... Density
C 871 ..... Chemical Analysis
E 84 ..... Surface Burning Characteristics

Before

One-Color (New)

Design Criteria
Master Grid
One-Color Example (Previous)

Johns Manville

InfoSpec Submittal Sheet

EcoTherm™

Industrial Pipe Insulation

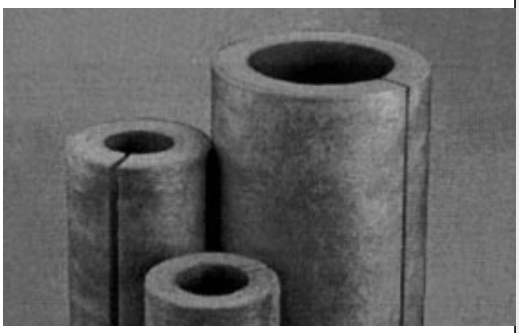
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Service Temperature Range:
0°F to 1000°F (-18°C to 538°C)



Uses

EcoTherm Industrial Pipe Insulation is an ideal insulation for use where a tough, light, easily installed product is desired. It is intended for use in petrochemical processing, pulp and paper, cogeneration, and other industrial applications where superior performance, durability and economy are required. Its light weight, ease of fabrication and one-piece construction speed on-the-job handling and application.

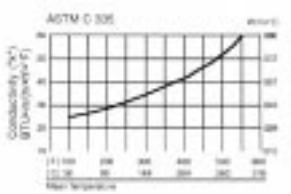
Physical Properties

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Fungi & Bacteria Resistance	Does not breed or promote
Surface Burning Characteristics	FHC <15 Flame Spread, <5 Smoke Developed per ASTM E 84, UL 723, NFPA 255, CAN/ULC S102-M88

ASTM Test Methods and Guidelines

C356	Linear Shrinkage
C411	Hot Surface Performance
C547	Pipe Insulation
C585	Simplified Dimensional Standards for Nesting (excluding 3/4" & 1" IPS)
C302	Density
C871	Chemical Analysis
E 84	Surface Burning Characteristics

Thermal Conductivity



Available Specification Compliance

ASTM C 547, Type II; max. temp. 1000°F (538°C); 5.3 pcf density
ASTM C 795, For Use Over Austenitic Stainless Steel (Defiance only)
MIL-I-22344C
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Canada: CAGSB 51-GP-9M
ISO 9000 (ANSI/ASC 90) Certification
New York City MEA # 330-85-M [pending]
CAN/ULC S102-M88
UL 723
NFPA 255

After

Production Specification Sheets 4.18

Mastheads

The Signature
The signature is always aligned on the top and left margins of the grid.

Use signature Format A only.

The one-line version of the signature should not be used.

The signature size is 3/8".

Typography
Univers Condensed is the approved typestyle for all typesetting.

The Product Line/Spec Sheet Heading (D) is set in 14pt. Univers Condensed Regular and is positioned to hang from the top margin. Copy reverses to white from the masthead bar. For non-bleed mastheads the Product Line/Spec Sheet Heading appears centered in the masthead bar.

The Product Name (E) is set in 16pt. Univers Condensed Bold.

The Product Description (F) is set in 10pt. Univers Condensed Bold Oblique, on 4pt. leading.

Design System
The Product Specification Sheet design system utilizes the 6-column grid to clearly display the Johns Manville signature and Product Identification. In addition to the signature, the masthead incorporates a masthead line rule (B) and masthead bar.

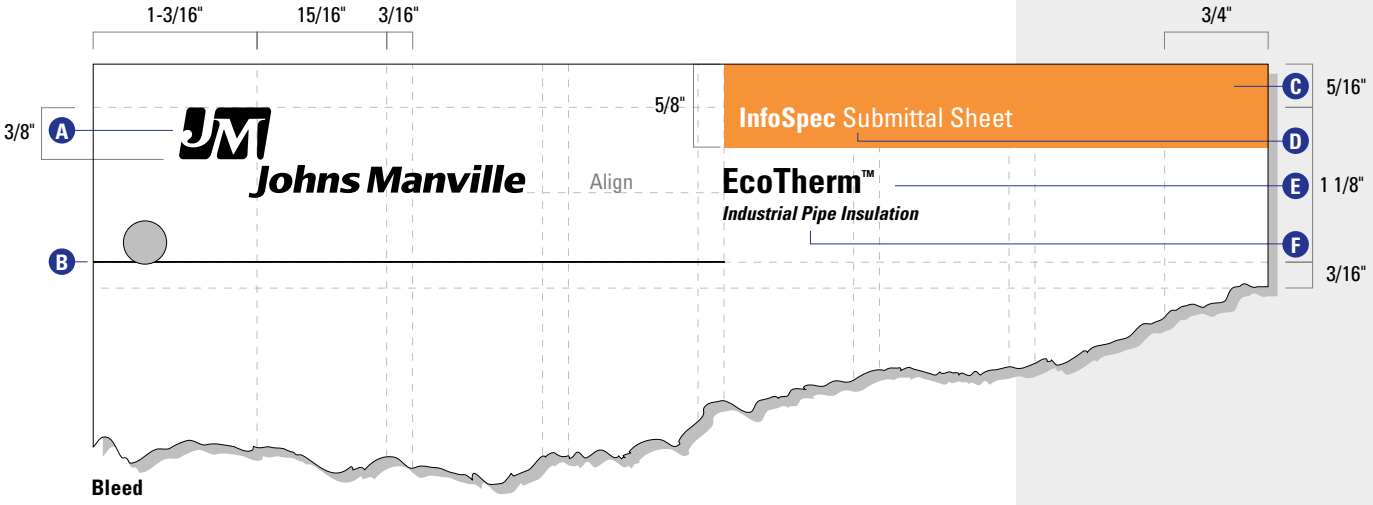
The masthead line rule is a 1pt. rule weight. It bleeds off the left edge of the page and aligns with the masthead bar on the right. For non-bleed layouts the masthead line rule is aligned with the signature and the left margin, as shown in the example.

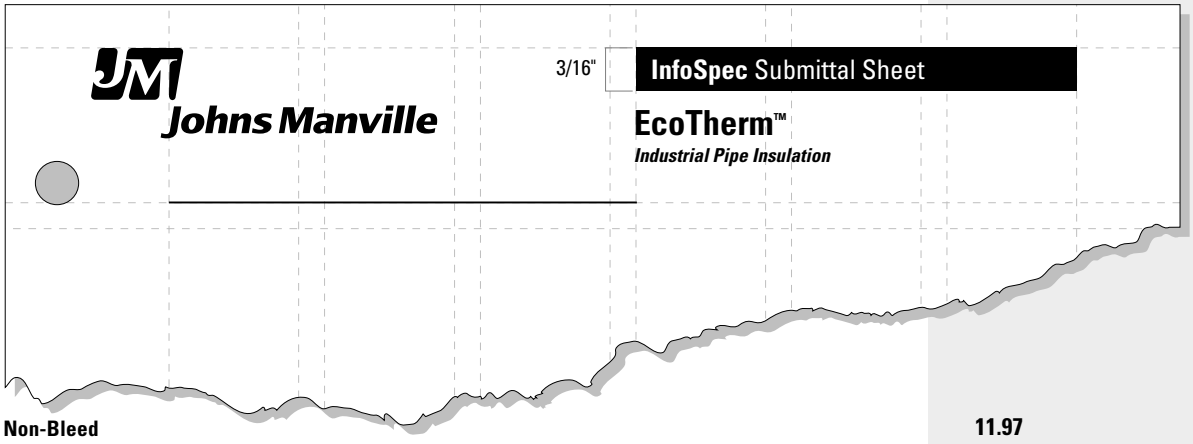
The masthead bar is a 5/8" thickness. The bar bleeds off the top and right edges and is aligned on the third column of the grid. For non-bleed layouts the masthead bar is 5/16" in thickness and is cropped to align with the top and right margins of the grid.

Color
The Johns Manville signature prints in two-color, Johns Manville Blue and Johns Manville Gray, or one-color, Johns Manville Blue or black.

When printing two-colors, a highlight color should be chosen from the support color palette. Black should be specified as the second color. The product masthead bar and Section Headings print in the highlight color. The signature and all other copy print solid black.

For one-color printing, the signature, all copy and line rules print solid black.





Production Specification Sheets

Closing Display

The Signature
The signature is always aligned with the grid at 1-1/8" from the bottom and 1-3/16" from the left edge.

Use Format A only.

The signature size is 3/8".

Typography
Univers Condensed is the approved typestyle for all typesetting.

The Legal Business Name (D) is set in 10pt. Univers Condensed Bold, on 2pt. leading.

The Address Block (E) is set in 10pt. Univers Condensed Regular, on 2pt. leading.

The Closing Statement (C), location information and "terms and conditions" are set in 9pt. Univers Condensed Regular, on 2pt. leading.
Copy heavy layouts may use 9pt. Univers Condensed Regular, on 2pt. leading for all body copy.

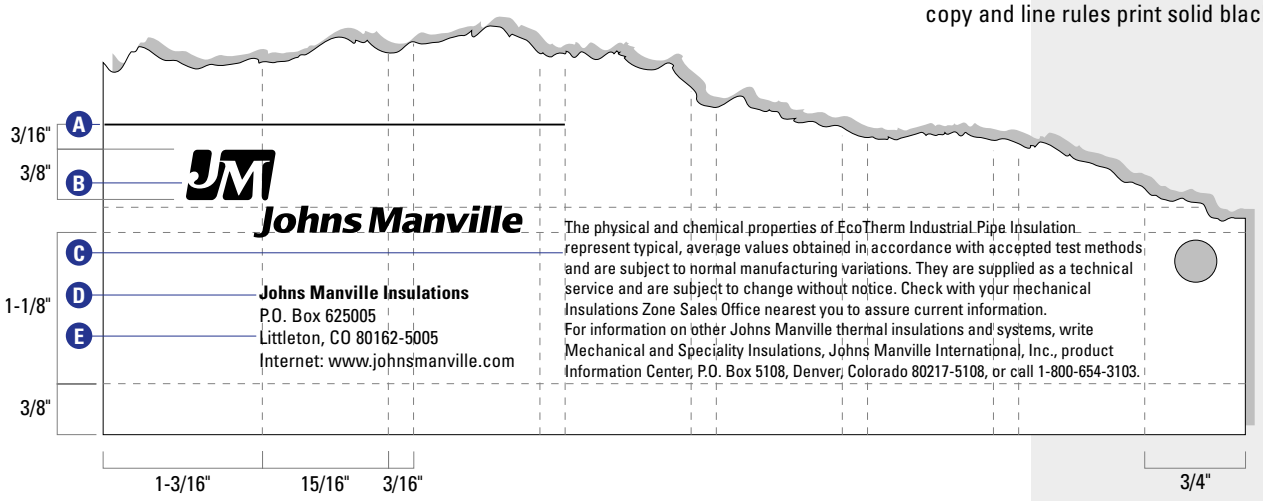
Design System
The back of the Product Specification Sheet design system utilizes the 6-column grid. The Johns Manville signature and closing information are displayed on the lower half of the page. A 1pt. line rule is used to separate the signature from other copy and is positioned 3/16" above the symbol.

The 1pt. line rule bleeds off the left edge and aligns with the closing statement on the right. For non-bleed versions the line rule is cropped 1/4" in from the left edge.

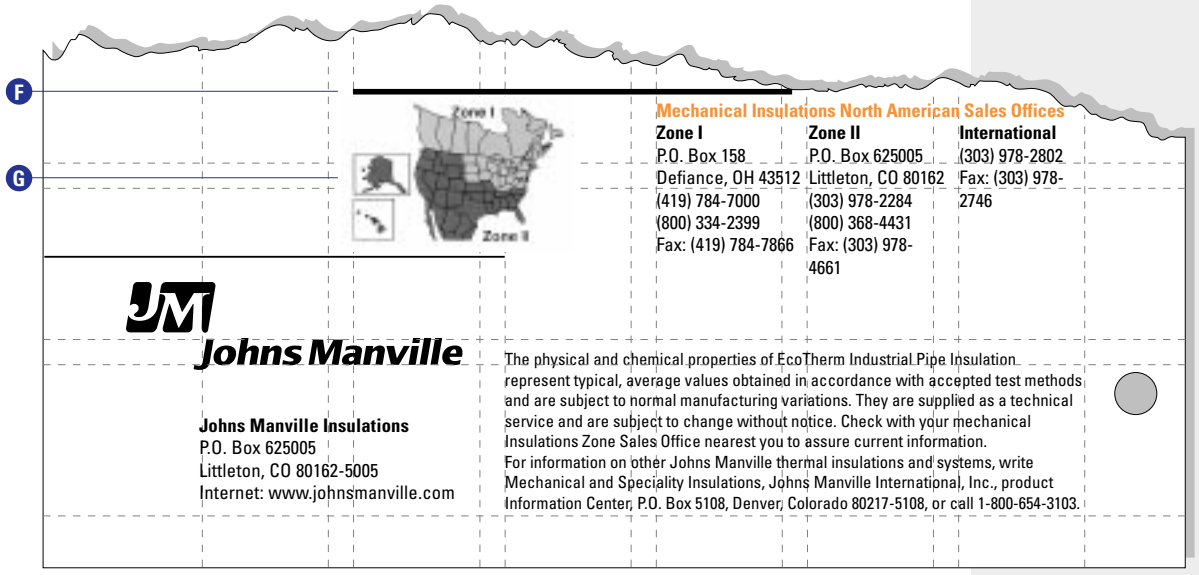
When using the Locator Map (G) a 3pt. line rule (F) should be used to separate it from the body text. The Locator Map information is set directly above the closing address information, as shown in the example.

Color
The Johns Manville signature prints in two-color, Johns Manville Blue and Johns Manville Gray, or one-color, Johns Manville Blue or black.

For one-color printing, the signature, all copy and line rules print solid black.



Closing Display



Closing Display with Locator Map