FILE NAME: Westinghouse (WH)

DATE: 0000

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DOCUMENT DESCRIPTION: Product Specifications - Insulation

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CHANGED

7/5/59	4
12/26/61	5
11/16/64	6

INSULATION - CLASSES & APPLICATION

PH 920.1

(1) THE FOLLOWING DATA RELATIVE TO INSULATION FOR TURBINE PARTS SHOULD BE FOLLOWED UNLESS SPECIFIC CONTRACT REQUIREMENTS MAKE DEVIATION NECESSARY, IN WHICH CASE THE "D" SPEC. WILL SPECIFY IN DETAIL THE TYPE OF INSULATION AND PROCEDURE.

(2) THE METHOD FOR INSULATING TURBINE CYLINDERS, MAIN STEAM PIPING, STEAM CHESTS, VALVES AND IRREGULAR SURFACES IS DIVIDED INTO CLASSES AS LISTED IN TABLE BELOW. "D" SPEC. WILL CALL FOR CLASS TO FOLLOW.

(3) SEE PAGE PH-920.2 FOR NOTES AND FOR INSULATION OF STEAM DRAIN AND GLAND AND CROSS-OVER OR CROSS-UNDER PIPING.

(4) SEE TABLE ON PAGE PH-920.3 FOR THICKNESSES REQUIRED AND MATERIAL SPECS. SEE PAGE PH-920.4 AND 920.5 FOR ORDERING INFORMATION.

CLASS NO.	CLASS DESCRIPTION	PART TO BE INSULATED		INSULATION TYPE	APPLIED IN	ACCESS SPEC.	NOTES TO BE PLACED ON APPLICABLE DWGS. (SEE PH-920.2)
1	TURBINES SHIPPED ASSEMBLED - INCLUDING INSULATION. (THIS INCLUDES 166, 246 AND 286 FRAMES AND ALL INDUSTRIAL TURBINES COMING WITHIN THE LIMITS OF SHIPPING DIMENSIONS.)	CYLINDER	BODY	BLOCK	SHOP	600433	
			JOINTS	BLANKETS	SHOP	600359	
		PIPES *	TO 10"	MOLDED	SHOP	600433	
			OVER 10"	BLOCK	SHOP	600433	
		STEAM CHESTS, VALVES & IRREGULAR SURFACES		BLOCK AND BLANKET	SHOP	600433 600359	
		LAGGING **		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	
2	TURBINES SHIPPED ASSEMBLED BUT NOT INSULATED. & ERECTION SERVICE. INSULATION FURNISHED AND APPLIED BY SERVICE DEPT. (EXCEPT FOR EXPORT ORDERS) INCLUDES NON-COND. TURBS., HP TURBS. OF TANDEM UNITS AND ANY OTHER TURBS. WITH SEPARATE #2 PEDESTALS WHICH ARE LIFTED BY HORIZ. JT. BOLTS).	CYLINDER, STEAM CHEST, VALVES, ETC.		BLOCK - PLASTIC	FIELD	600729	NOTES "B" AND "C" (EXPORT ORDERS SUBSTITUTE NOTES "C" & "E")
		PIPES *	TO 10"	MOLDED	FIELD	600433	
			OVER 10"	BLOCK	FIELD	600433	
		LAGGING		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	
3	TURBINES SHIPPED ASSEMBLED BUT NOT INSULATED. & INSTALLATION SERVICE INSULATION FURNISHED BY WESTINGHOUSE AND APPLIED BY THE PURCHASER. (EXCEPT FOR EXPORT ORDERS) (INCLUDES NON-COND. TURBS., HP TURBS. OF TANDEM UNITS AND ANY OTHER TURBS. WITH SEPARATE #2 PEDESTALS WHICH ARE LIFTED BY HORIZ. JT. BOLTS).	CYLINDER, STEAM CHEST, VALVES, ETC.		BLOCK - PLASTIC	FIELD	600729	NOTES "A" AND "C" (EXPORT ORDERS SUBSTITUTE NOTES "C" & "D")
		PIPES *	TO 10"	MOLDED	FIELD	600433	
			OVER 10"	BLOCK	FIELD	600433	
		LAGGING		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	
4	TURBINES SHIPPED DISASSEMBLED. WESTINGHOUSE ERECTION SERVICE. INSULATION FURNISHED AND APPLIED BY SERVICE DEPT. (EXCEPT FOR EXPORT ORDERS)	CYLINDER, STEAM CHEST, VALVES, ETC.		BLOCK - PLASTIC	FIELD	600729	NOTES "B" AND "C" (EXPORT ORDERS SUBSTITUTE NOTES "C" & "E")
		PIPES *	TO 10"	MOLDED	FIELD	600433	
			OVER 10"	BLOCK	FIELD	600433	
		LAGGING		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	
	TURBINES SHIPPED DISASSEMBLED. WESTINGHOUSE INSTALLATION SERVICE. INSULATION FURNISHED BY WESTINGHOUSE AND APPLIED BY THE PURCHASER. (EXCEPT FOR EXPORT ORDERS)	CYLINDER, STEAM CHEST, VALVES, ETC.		BLOCK - PLASTIC	FIELD	600729	NOTES "A" AND "C" (EXPORT ORDERS SUBSTITUTE NOTES "C" & "D")
		PIPES *	TO 10"	MOLDED	FIELD	600433	
			OVER 10"	BLOCK	FIELD	600433	
		LAGGING		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	

* FOR STEAM DRAIN AND GLAND AND CROSS-OVER OR CROSS-UNDER PIPING INSULATION SEE PAGE PH-920.2.

** FOR TEMPERATURES UP THRU 750°F NO LAGGING INSULATION NECESSARY IN THIS CLASS.

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NO AUTOMATIC REPLACEMENT

REF.

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7/15/59 4
2/26/61 5

INSULATION - CLASSES & APPLICATION

PH 920.

(1) THE FOLLOWING DATA RELATIVE TO INSULATION FOR TURBINE PARTS SHOULD BE FOLLOWED UNLESS SPECIFIC CONTRACT REQUIREMENTS MAKE DEVIATION NECESSARY, IN WHICH CASE THE "D" SPEC. WILL SPECIFY IN DETAIL THE TYPE OF INSULATION AND PROCEDURE

(2) THE METHOD FOR INSULATING TURBINE CYLINDERS, MAIN STEAM PIPING, STEAM CHESTS, VALVES AND IRREGULAR SURFACES IS DIVIDED INTO CLASSES AS LISTED IN TABLE BELOW. "D" SPEC. WILL CALL FOR CLASS TO FOLLOW.

(3) SEE PAGE PH-920.2 FOR NOTES AND FOR INSULATION OF STEAM DRAIN AND GLAND PIPING AND CROSS-OVER OR CROSS-UNDER PIPING.

(4) SEE TABLE ON PAGE PH-920.3 FOR THICKNESSES REQUIRED AND MATERIAL SPECS. AND PAGE PH-920.4 AND 920.5 FOR ORDERING INFORMATION.

CLASS NO.	CLASS DESCRIPTION	PART TO BE INSULATED		INSULATION TYPE	APPLIED IN	PROCESS SPEC	NOTES TO BE PLACED ON APPLICABLE DWGS (SEE PH-920.2)
1	TURBINES SHIPPED ASSEMBLED - INCLUDING INSULATION. (THIS INCLUDES 166, 246 AND 286 FRAMES AND ALL INDUSTRIAL TURBINES COMING WITHIN THE LIMITS OF SHIPPING DIMENSIONS.)	CYLINDER	BODY	BLOCK	SHOP	600433	
			JOINTS	BLANKETS	SHOP	600359	
		PIPES *	TO 10"	MOLDED	SHOP	600433	
			OVER 10"	BLOCK	SHOP	600433	
		STEAM CHESTS, VALVES & IRREGULAR SURFACES		BLOCK AND BLANKET	SHOP	600433 600359	
		LAGGING **		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	
2	TURBINES SHIPPED ASSEMBLED BUT NOT INSULATED. INSULATION FURNISHED AND APPLIED BY SERVICE DEPT. (THIS INCLUDES NON. COND. TURBS., H.P. TURBS. OF TANDEM UNITS AND ANY OTHER TURBINES WITH SEPARATE #2 PEDESTALS WHICH ARE LIFTED BY HORIZ. JT. BOLTS).	CYLINDER, STEAM CHEST, VALVES, ETC.		BLOCK - PLASTIC	FIELD	600729	NOTES "B" AND "C"
		PIPES *	TO 10"	MOLDED	FIELD	600433	
			OVER 10"	BLOCK	FIELD	600433	
		LAGGING		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	
3	TURBINES SHIPPED ASSEMBLED BUT NOT INSULATED. INSULATION FURNISHED BY WESTINGHOUSE AND APPLIED BY THE PURCHASER. (THIS INCLUDES NON. COND. TURBS., H. P. TURBS. OF TANDEM UNITS AND ANY OTHER TURBINES WITH SEPARATE #2 PEDESTALS WHICH ARE LIFTED BY HORIZ. JT. BOLTS).	CYLINDER, STEAM CHEST, VALVES, ETC.		BLOCK - PLASTIC	FIELD	600729	NOTES "A" AND "C"
		PIPES *	TO 10"	MOLDED	FIELD	600433	
			OVER 10"	BLOCK	FIELD	600433	
		LAGGING		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	
4	TURBINES SHIPPED DISASSEMBLED. WESTINGHOUSE ERECTION SERVICE. INSULATION FURNISHED AND APPLIED BY SERVICE DEPT.	CYLINDER, STEAM CHEST, VALVES, ETC.		BLOCK - PLASTIC	FIELD	600729	NOTES "B" AND "C"
		PIPES *	TO 10"	MOLDED	FIELD	600433	
			OVER 10"	BLOCK	FIELD	600433	
		LAGGING		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	
5	TURBINES SHIPPED DISASSEMBLED. WESTINGHOUSE INSTALLATION SERVICE. INSULATION FURNISHED BY WESTINGHOUSE AND APPLIED BY THE PURCHASER.	CYLINDER, STEAM CHEST, VALVES, ETC.		BLOCK - PLASTIC	FIELD	600729	NOTES "A" AND "C"
		PIPES *	TO 10"	MOLDED	FIELD	600433	
			OVER 10"	BLOCK	FIELD	600433	
		LAGGING		SPRAYED ASBESTOS	SHOP	600111	
		GAUGE BOARD		ASBESTOS SHEET & FELT	SHOP	600360	

* FOR STEAM DRAIN AND GLAND AND CROSS OVER OR CROSS-UNDER PIPING INSULATION SEE PAGE PH-920.2.

** FOR TEMPERATURES UP THRU 750°F NO LAGGING INSULATION NECESSARY IN THIS CLASS.

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INSULATION - NOTES, GENERAL INFO., ETC.

NOTES

NOTE "A" - WESTINGHOUSE INSTALLATION SERVICE:-

THIS INSULATING MATERIAL, INCLUDING WIRE, CEMENT, ETC., IS PURCHASED BY OUR SERVICE DEPARTMENT IN THE FIELD, AND IS TO BE SHIPPED DIRECTLY TO THE CUSTOMER'S PLANT. IT IS TO BE SUPPLIED AND APPLIED IN ACCORDANCE WITH SPECIFIED MATERIAL AND PROCESS SPECS. MATERIAL TO BE APPLIED BY THE INSTALLATION CONTRACTOR.

NOTE "B" - WESTINGHOUSE ERECTION SERVICE -

THIS INSULATING MATERIAL, INCLUDING WIRE, CEMENT, ETC., IS TO BE FURNISHED AND APPLIED BY THE INSTALLATION CONTRACTOR IN THE FIELD. IT IS TO BE SUPPLIED AND APPLIED IN ACCORDANCE WITH SPECIFIED MATERIAL AND PROCESS SPECIFICATIONS.

NOTE "C" - EYE BOLT STUDS, STYLE NO. 270A091H01, REQUIRED FOR INSTALLATION OF INSULATION, ARE TO BE FURNISHED AND INSTALLED BY LESTER WORKS BEFORE SHIPPING TURBINE.

EXPANDED METAL MATERIAL FOR VALVE BONNETS AND FLANGES FURNISHED BY LESTER WORKS AND SHIPPED WITH THE UNIT IS TO BE FORMED IN THE FIELD BY THE INSTALLATION CONTRACTOR IN ACCORDANCE WITH PROCESS SPECIFICATION.

WHEN JOB IS BEING EXPORTED ADD:-

NOTE "D" - THIS INSULATING MATERIAL INCLUDING WIRE, CEMENT, ETC., IS TO BE SUPPLIED BY LESTER WORKS. IT IS TO BE BOXED FOR EXPORT SHIPMENT AND SHIPPED AS INSTRUCTED BY ORDER SERVICE DEPT. IT IS TO BE SUPPLIED AND APPLIED IN ACCORDANCE WITH SPECIFIED MATERIAL AND PROCESS SPECIFICATIONS. MATERIAL TO BE APPLIED BY THE INSTALLATION CONTRACTOR.

GENERAL INFORMATION

FOR TURBINE CYLINDERS, MAIN STEAM PIPING, VALVES, AND IRREGULAR SURFACES, THE FOLLOWING INFORMATION SHOULD BE SHOWN ON THE DETAIL PORTION OF THE DRAWING.

(1) THICKNESS OF INSULATION FOR AREA INDICATED.

(2) LENGTH AND APPROXIMATE AREA TO BE INSULATED (INDICATE INSULATION TO BE APPLIED IN THIS REGION WITH APPROPRIATE BALLOONS, ETC.).

(3) EXPANDED METAL FOR TURBINE JOINT FLANGE, VALVE BONNETS, ETC. TO BE ORDERED IN B.M.

CHANGE	
11	11/14
12	5/19
13	9/27
14	6/13

CROSS-OVER PIPES, CROSS-UNDER PIPES AND STEAM DRAIN & GLAND PIPING

SMALL TURBINES

THESE TURBINES DO NOT REQUIRE INSULATION FOR ANY PART OF THE STEAM DRAIN AND GLAND PIPING.

MEDIUM TURBINES

ALL STEAM DRAIN AND GLAND PIPING WILL BE INSULATED WITH THICKNESSES AND NUMBER OF LAYERS IN ACCORDANCE WITH PAGE PH-920.3 AND ORDERED IN ACCORDANCE WITH PAGE PH-920.4, WITH THE INSULATION FURNISHED BY WESTINGHOUSE AND APPLIED IN THE FIELD BY THE INSTALLATION CONTRACTOR*.

GLAND WATER SUPPLY PIPING TO BE INSULATED WITH CORK AS LISTED ON PAGE PH-920.4.

LARGE TURBINES

ALL STEAM DRAIN AND GLAND PIPING WILL BE INSULATED WITH THICKNESSES AND NUMBER OF LAYERS IN ACCORDANCE WITH PAGE PH-920.3 AND ORDERED IN ACCORDANCE WITH PAGE PH-920.4, WITH THE INSULATION FURNISHED BY WESTINGHOUSE AND APPLIED IN THE FIELD BY THE INSTALLATION CONTRACTOR*.

GLAND WATER SUPPLY PIPING TO BE INSULATED WITH CORK AS LISTED ON PAGE PH-920.4.

CROSS-OVER PIPES WILL BE INSULATED IN THE FIELD WITH SPRAYED ASBESTOS OR BLOCK INSULATION EXCEPT FOR JOINT FLANGES WHICH WILL BE INSULATED WITH BLANKETS MADE AND FITTED AT WESTINGHOUSE. INSULATION WILL BE ORDERED AS SHOWN ON PAGES PH-920.3 AND PH-920.5 FOR BLOCK AND 920.3 AND 920.4 FOR BLANKET.

SHEATHING OF CROSS-UNDER PIPES OR OTHER PIPES INTERNAL TO TURBINE EXHAUST OR CONDENSER INLET ZONE FOR INSULATION PURPOSES SHALL BE DONE IN FIELD BY THE INSTALLATION CONTRACTOR TO PROCESS SPEC. 600790.

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* SHOW LENGTH IN DETAIL PORTION OF DWG.

REV.

WESTINGHOUSE ELECTRIC CORPORATION, LESTER, PA., U.S.A.
STEAM DIVISIONS STANDARDS ENGRG.

INSULATION - NOTES, GENERAL INFO., ETC.

NOTES

NOTE "A" - WESTINGHOUSE INSTALLATION SERVICE:-

THIS INSULATING MATERIAL, INCLUDING WIRE, CEMENT, ETC., IS PURCHASED BY OUR SERVICE DEPARTMENT IN THE FIELD, AND IS TO BE SHIPPED DIRECTLY TO THE CUSTOMER'S PLANT. IT IS TO BE SUPPLIED AND APPLIED IN ACCORDANCE WITH SPECIFIED MATERIAL AND PROCESS SPECS.

MATERIAL TO BE APPLIED BY CUSTOMER.

NOTE "B" - WESTINGHOUSE ERECTION SERVICE:-
INSULATION TO BE FURNISHED AND APPLIED BY OUR SERVICE DEPT. IN THE FIELD.

NOTE "C" - THE FOLLOWING NOTE SHOULD BE ADDED TO DWG.:-

EYE BOLT STUDS, STYLE NO. 270A091H01, REQUIRED FOR INSTALLATION OF INSULATION, ARE TO BE FURNISHED AND INSTALLED BY WESTINGHOUSE BEFORE SHIPPING TURBINE.

EXPANDED METAL SECTIONS FOR VALVE BONNETS AND SPECIAL FLANGES MADE BY WESTINGHOUSE AND SHIPPED WITH THE UNIT.

WHEN JOB IS BEING EXPORTED ADD:-

THIS IS AN EXPORT ORDER. INSULATION MATERIALS ARE TO BE BOXED FOR EXPORT SHIPMENT AND SHIPPED TO THE FIELD BY THE SUPPLIER.

GENERAL INFORMATION

FOR TURBINE CYLINDERS, MAIN STEAM PIPING, VALVES, AND IRREGULAR SURFACES, THE FOLLOWING INFORMATION SHOULD BE SHOWN ON THE DETAIL PORTION OF THE DRAWING.

(1) THICKNESS OF INSULATION FOR AREA INDICATED.

(2) LENGTH AND APPROXIMATE AREA TO BE INSULATED (INDICATE INSULATION TO BE APPLIED IN THIS REGION WITH APPROPRIATE BALLOONS, ETC.).

(3) EXPANDED METAL FOR TURBINE JOINT FLANGE, VALVE BONNETS, ETC. TO BE ORDERED IN B/M.

CROSS-OVER PIPES, CROSS-UNDER PIPES AND STEAM DRAIN & GLAND PIPING

SMALL TURBINES

THESE TURBINES DO NOT REQUIRE INSULATION FOR ANY PART OF THE STEAM DRAIN AND GLAND PIPING.

MEDIUM TURBINES

ALL STEAM DRAIN AND GLAND PIPING WILL BE INSULATED WITH THICKNESSES AND NUMBER OF LAYERS IN ACCORDANCE WITH PAGE PH-920.3 AND ORDERED IN ACCORDANCE WITH PAGE PH-920.4, WITH THE INSULATION FURNISHED BY WESTINGHOUSE AND APPLIED IN THE FIELD. *

GLAND WATER SUPPLY PIPING TO BE INSULATED WITH CORK AS LISTED ON PAGE PH-920.4.

LARGE TURBINES

ALL STEAM DRAIN AND GLAND PIPING WILL BE INSULATED WITH THICKNESSES AND NUMBER OF LAYERS IN ACCORDANCE WITH PAGE PH-920.3 AND ORDERED IN ACCORDANCE WITH PAGE PH-920.4, WITH THE INSULATION FURNISHED BY WESTINGHOUSE AND APPLIED IN THE FIELD. *

GLAND WATER SUPPLY PIPING TO BE INSULATED WITH CORK AS LISTED ON PAGE PH-920.4.

CROSS-OVER PIPES ARE COMPLETELY INSULATED AT WESTINGHOUSE WITH MATERIAL ORDERED AS SHOWN ON PAGES PH-920.3 AND PH-920.5. JOINT FLANGE BLANKETS ARE MADE AND FITTED AT WESTINGHOUSE AND INSTALLED AFTER PIPE IS ERECTED IN THE FIELD.

SHEATHING OF CROSS-UNDER PIPES OR OTHER PIPES INTERNAL TO TURBINE EXHAUST OR CONDENSER INLET ZONE FOR INSULATION PURPOSES SHALL BE DONE IN FIELD BY ERECTION OR INSTALLATION SERVICE TO PROCESS SPEC. 600790.

* SHOW LENGTH IN DETAIL PORTION OF DWG.

600051

INSULATION - NOTES, GENERAL INFO., ETC.

NOTES

NOTE "A" - WESTINGHOUSE INSTALLATION SERVICE:-

THIS INSULATING MATERIAL, INCLUDING WIRE, CEMENT, ETC., IS PURCHASED BY OUR SERVICE DEPARTMENT IN THE FIELD, AND IS TO BE SHIPPED DIRECTLY TO THE CUSTOMER'S PLANT. IT IS TO BE SUPPLIED IN ACCORDANCE WITH SPECIFIED PROCESS SPEC. AND MATERIAL SPEC.

MATERIAL TO BE APPLIED BY CUSTOMER.

NOTE "B" - WESTINGHOUSE ERECTION SERVICE:-
INSULATION TO BE FURNISHED AND APPLIED BY OUR SERVICE DEPT. IN THE FIELD.

NOTE "C" - THE FOLLOWING NOTE SHOULD BE ADDED TO DWG.:-

EYE BOLT STUDS, STYLE NO. 270A091H01, REQUIRED FOR INSTALLATION OF INSULATION, ARE TO BE FURNISHED AND INSTALLED BY SOUTH PHILA. BEFORE SHIPPING TURBINE.

EXPANDED METAL SECTIONS FOR VALVE BONNETS AND SPECIAL FLANGES MADE BY SOUTH PHILA. AND SHIPPED WITH THE UNIT.

WHEN JOB IS BEING EXPORTED ADD:-
THIS IS AN EXPORT ORDER. INSULATION MATERIALS ARE TO BE BOXED FOR EXPORT SHIPMENT, AND SHIPPED TO THE FIELD BY THE SUPPLIER.

GENERAL INFORMATION

FOR TURBINE CYLINDERS, MAIN STEAM PIPING, VALVES, AND IRREGULAR SURFACES, THE FOLLOWING INFORMATION SHOULD BE SHOWN ON THE DETAIL PORTION OF THE DRAWING.

(1) THICKNESS OF INSULATION FOR AREA INDICATED.

(2) LENGTH AND APPROXIMATE AREA TO BE INSULATED INDICATE INSULATION TO BE APPLIED IN THIS REGION WITH APPROPRIATE BALLOONS, ETC.).

(3) EXPANDED METAL FOR TURBINE JOINT FLANGE, VALVE BONNETS, ETC. TO BE ORDERED IN B.M.

CROSS-OVER PIPES, CROSS-UNDER PIPES AND STEAM DRAIN & GLAND PIPING

SMALL TURBINES

THESE TURBINES DO NOT REQUIRE INSULATION FOR ANY PART OF THE STEAM DRAIN AND GLAND PIPING.

MEDIUM TURBINES

ALL STEAM DRAIN AND GLAND PIPING WILL BE INSULATED WITH THICKNESSES IN ACCORDANCE WITH PAGE PH-920.3 AND ORDERED IN ACCORDANCE WITH PAGE PH-920.4, WITH THE INSULATION FURNISHED BY SOUTH PHILA. AND APPLIED IN THE FIELD.

GLAND WATER SUPPLY PIPING TO BE INSULATED WITH CORK AS LISTED ON PAGE PH-920.4.

LARGE TURBINES

ALL STEAM DRAIN AND GLAND PIPING WILL BE INSULATED WITH THICKNESSES IN ACCORDANCE WITH PAGE PH-920.3 AND ORDERED IN ACCORDANCE WITH PAGE PH-920.4, WITH THE INSULATION FURNISHED BY SOUTH PHILA. AND APPLIED IN THE FIELD.

GLAND WATER SUPPLY PIPING TO BE INSULATED WITH CORK AS LISTED ON PAGE PH-920.4.

CROSS-OVER PIPES ARE COMPLETELY INSULATED AT SOUTH PHILA. WITH MATERIAL ORDERED AS SHOWN ON PAGES PH-920.3 AND PH-920.5. JOINT FLANGE BLANKETS ARE MADE AND FITTED AT SOUTH PHILA. AND INSTALLED AFTER PIPE IS ERECTED IN THE FIELD.

SHEATHING OF CROSS-UNDER PIPES OR OTHER PIPES INTERNAL TO TURBINE EXHAUST OR CONDENSER INLET ZONE FOR INSULATION PURPOSES SHALL BE DONE IN FIELD BY ERECTION OR INSTALLATION SERVICE TO PROCESS SPEC. 600790.

600095

INSULATION — NOTES, ETC.

10/50 BY- B.S.

NOTE "A" SUPERVISION ONLY:- THIS INSULATING MATERIAL, INCLUDING WIRE, CEMENT, ETC. AND EXPANDED METAL WHEN ORDERED, IS PURCHASED BY SOUTH PHILA. AND IS TO BE SHIPPED DIRECTLY TO THE CUSTOMER'S PLANT.

IT IS TO BE SUPPLIED IN ACCORDANCE WITH SPECIFIED PROCESS SPEC. AND MATERIAL SPEC.

MATERIAL TO BE APPLIED BY CUSTOMER.

NOTE "B" INSULATION TO BE FURNISHED AND APPLIED BY OUR SERVICE DEPT. IN THE FIELD.

NOTE "C" THE FOLLOWING NOTE SHOULD BE ADDED TO DWG.

"RAILS, STAPLES, RIVETS AND ANY OTHER NECESSARY ATTACHMENTS REQUIRED FOR INSTALLATION OF INSULATION ARE TO BE FURNISHED AND INSTALLED BY SOUTH PHILA. BEFORE SHIPPING TURBINE.

EXPANDED METAL SECTIONS FOR VALVE BONNETS AND SPECIAL FLANGES, MADE BY SOUTH PHILA. AND SHIPPED WITH THE UNIT.

GENERAL INFORMATION

FOR TURBINE CYLINDERS, MAIN STEAM PIPING, VALVES, AND IRREGULAR SURFACES THE FOLLOWING INFORMATION SHOULD BE SHOWN ON THE DETAIL PORTION OF THE DRAWING.

(1) THICKNESS OF INSULATION FOR AREA INDICATED.

(2) LENGTH AND APPROXIMATE AREA TO BE INSULATED (INDICATE INSULATION TO BE APPLIED IN THIS REGION WITH APPROPRIATE FAIRING ETC.).

(3) EXPANDED METAL FOR TURB. JOINT FLANGE, VLV. BONNETS, ETC. TO BE ORDERED IN S/M.

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CROSS UNDER-CROSS OVER PIPES AND STEAM, DRAIN AND GLAND PIPING

GENERAL PURPOSE AND "K" TURBINES

THESE TURBINES DO NOT REQUIRE INSULATION FOR ANY PORTION OF THE STEAM, DRAIN AND GLAND PIPING.

INDUSTRIAL TURBINES

ALL STEAM PIPING (EXCEPT THE SEALING STEAM PIPING TO THE STEAM GLANDS ON CONDENSING UNITS) WILL BE INSULATED, WITH THICKNESSES IN ACCORDANCE WITH PAGE PH-920.3 AND ORDERED IN ACCORDANCE WITH PAGE PH-920.4.

FOR CLASS #1 UNITS - ALL INSULATION FURNISHED BY SOUTH PHILA. AND APPLIED IN THE FIELD.
OTHER CLASSES AS LISTED ON PAGE PH-920.1.

GLAND WATER SUPPLY PIPING TO BE INSULATED WITH CORK AS LISTED ON PAGE PH-920.4.

CENTRAL STATION TURBINES

ALL STEAM PIPING WILL BE INSULATED, WITH THICKNESSES IN ACCORDANCE WITH PAGE PH-920.3 AND ORDERED IN ACCORDANCE WITH PAGE PH-920.4.

FOR CLASS #1 UNITS - ALL INSULATION FURNISHED BY SOUTH PHILA. AND APPLIED IN THE FIELD.
OTHER CLASSES AS LISTED ON PAGE PH-920.1.

GLAND WATER SUPPLY PIPING TO BE INSULATED WITH CORK AS LISTED ON PAGE PH-920.4.

CROSS OVER PIPES ARE COMPLETELY INSULATED AND SHIPPED WITH BLOCK INSULATION IN PLACE. JOINT FLANGE BLANKETS ARE MADE AND FITTED AT SOUTH PHILA., AND INSTALLED AFTER PIPE IS ERECTED IN THE FIELD.

CROSS OVER PIPES ON OUTDOOR UNITS ARE TO HAVE A FINAL COAT OF WATERPROOFING PAINT (CHEESMAN ELLIOT #3-2 OR EQUAL) APPLIED AS REQUIRED BY CLASS.

CROSS UNDER PIPES AS A RULE ARE INSULATED IN THE FIELD PER 600433 PART I ITEM 7.

ORDER S.S. SHEATHING AS FOLLOWS:

ITEM	DESCRIPTION	MATERIAL
1	S.S. SHEET 36 X REQ. LENGTH X 1/16 THICK	4562-2

THE WAREHOUSE SHEET SIZES AVAILABLE ARE 36 X 96 AND 36 X 120.

FOR DIAPHRAGMS AND IRREGULAR SURFACES ORDER SUFFICIENT WAREHOUSE STOCK SHEETS AS A SEPARATE ITEM.

600013

REF.

INSULATION – THICKNESS AND TEMP RANGE

BY REFERRING TO THE TABLES BELOW, THE PROPER THICKNESS AND TYPE OF INSULATION REQUIRED FOR A GIVEN TEMPERATURE CONDITION.

* FOR TEMPERATURES OVER 600°F., SPECIFY DOUBLE LAYER INSULATION, WITH INNER LAYER MATERIAL SUITABLE FOR HIGHER TEMPERATURE. OUTER LAYER SHALL BE SUCH THAT TOTAL THICKNESS.

WHEN SPRAYED ASBESTOS INSULATION SPEC. 600416 IS USED INSTEAD OF [illegible] SAME TOTAL THICKNESS OF INSULATION 542514Q AS THICKNESS SPECIFIED FOR 600433 OR 600729.

PIPE INSULATION (EXCEPT AS NOTED)

INSULATION TYPE	PROCESS SPEC.	PIPE SIZE	MATERIAL		TEMPERATURE °F UP TO 300	301 TO 450	451 TO 600	601 TO 750	751 TO 850	851 TO 950	951 TO 1050	1051 TO 1150	1151 TO 1200
MOLDED	600433 PART II	.500	* 542514H		1.000	1.000	[illegible]	[illegible]	2.500	[illegible]	2.500	-------	-------
			466018A		-------	-------	-------	-------	-------	-------	-------	1.000	1.000
		.750	* 542514H		1.000	1.000	1.500	2.000	2.500	2.500	3.000	-------	-------
			466018A		-------	-------	-------	-------	-------	-------	-------	1.000	1.000
		1.000	* 542514H		1.000	1.500	[illegible]	[illegible]	2.500	2.500	3.000	-------	-------
			466018A		-------	-------	-------	-------	-------	-------	-------	1.000	1.000
		1.250	* 542514H		1.000	1.500	2.000	2.500	2.500	3.000	3.000	-------	-------
			466018A		-------	-------	-------	-------	-------	-------	-------	1.000	1.000
		1.500	* 542514H		1.000	1.500	2.000	2.500	2.500	3.000	3.000	-------	-------
			466018A		-------	-------	-------	-------	-------	-------	-------	2.000	2.000
		2.000	* 542514H		1.000	1.500	2.000	2.500	3.000	3.000	3.500	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	1.500	1.500
				OUTER	-------	-------	-------	-------	-------	-------	-------	2.500	2.500
		2.500	* 542514H		1.000	1.500	2.000	2.500	3.000	3.500	3.500	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	1.500	1.500
				OUTER	-------	-------	-------	-------	-------	-------	-------	2.500	2.500
		3.000	* 542514H		1.000	1.500	2.000	2.500	3.000	3.500	4.000	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	1.500	2.000
				OUTER	-------	-------	-------	-------	-------	-------	-------	2.500	2.500
		3.500	* 542514H		1.000	1.500	2.000	2.500	3.000	3.500	4.000	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	1.500	2.000
				OUTER	-------	-------	-------	-------	-------	-------	-------	2.500	2.500
		4.000	* 542514H		1.000	2.000	[illegible]	3.000	3.500	3.500	4.000	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	2.000	2.000
				OUTER	-------	-------	-------	-------	-------	-------	-------	2.500	2.500
		5.000	* 542514H		1.500	2.000	[illegible]	3.000	3.500	4.000	4.000	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	2.000	2.000
				OUTER	-------	-------	-------	-------	-------	-------	-------	2.500	2.500
		6.000	* 542514H		1.500	2.000	2.500	3.000	3.500	4.000	4.500	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	2.000	2.000
				OUTER	-------	-------	-------	-------	-------	-------	-------	3.000	3.000
		8.000	* 542514H		1.500	2.000	2.500	3.500	4.000	4.500	5.000	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	2.500	2.500
				OUTER	-------	-------	-------	-------	-------	-------	-------	3.000	3.000
		10.000	* 542514H		1.500	2.500	3.000	3.500	4.000	4.500	5.000	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	2.500	2.500
				OUTER	-------	-------	-------	-------	-------	-------	-------	3.000	3.000
BLOCK	600433 PART I	PIPE OVER 10.000, INDUS. TURB. CYLS. ETC.	* 461028B		1.500	2.500	3.000	3.500	4.000	4.500	5.000	-------	-------
			466018A	INNER	-------	-------	-------	-------	-------	-------	-------	2.500	3.000
			461028B	OUTER	-------	-------	-------	-------	-------	-------	-------	3.000	3.000

INSULATION (OTHER THAN PIPE)

INSULATION TYPE	PROCESS SPEC.	MATERIAL	TEMPERATURE °F UP TO 300	301 TO 450	451 TO 600	601 TO 750	751 TO 850	851 TO 950	951 TO 1050	1051 TO 1150	1151 TO 1200
BLANKET	600359 PART I	AS REQ'D. BY PROCESS SPECIFICATION	2.000	2.500	3.000	-------	-------	-------	-------	-------	-------
	600359 PART IV		-------	-------	-------	3.500	2.000 (INNER) 2.000 (OUTER)	2.000 (INNER) 2.500 (OUTER)	2.500 (INNER) 2.500 (OUTER)	2.500 (INNER) 3.000 (OUTER)	3.000 (INNER) 3.000 (OUTER)
BLOCK AND PLASTIC	600729	466018B BLOCK	2.000	2.000	2.000	2.500	3.000	3.500	3.500	4.000	4.000
		461108J PLASTIC	.500	1.000	1.500	2.000	2.000	2.000	2.500	2.500	3.000
BLOCK	600360	461028B	1.000 THICK								
SPRAYED INSUL. COMPOUND	600111 PT. I	542514C	.250 FOR STRAIGHT SIDED OR CLOSE FITTING ENCLOSURES.								
	600111 PT. II		.060 FOR SLOPING WALL OR WIDE CLEARANCE ENCLOSURES.								

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9/5/62	8
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6/18/64	10

INSULATION — THICKNESS AND TEMP. RANGE

P H 920.3

BY REFERRING TO THE TABLES BELOW, THE PROPER THICKNESS AND TYPE OF INSULATION MAY BE ORDERED FOR A GIVEN TEMPERATURE CONDITION.

* FOR TEMPERATURES OVER 600°F., SPECIFY "DOUBLE LAYER" IN B/M WHEN ORDERING THESE MATERIALS. FIGURES SHOW TOTAL THICKNESS.

PIPE INSULATION (EXCEPT AS NOTED)

INSULATION TYPE	PROCESS SPEC.	PIPE SIZE	MATERIAL		TEMPERATURE °F UP TO 300	301 TO 450	451 TO 600	601 TO 750	751 TO 850	851 TO 950	951 TO 1050	1051 TO 1150	1151 TO 1200
MOLDED	600433 PART II	1/2	* 54251AH		1	1	1-1/2	2	2	2-1/2	2-1/2	-----	-----
			46601BA		----	----	-----	-----	-----	-----	-----	3	3
		3/4	* 54251AH		1	1	1-1/2	2	2-1/2	2-1/2	3	-----	-----
			46601BA		----	-----	-----	----	-----	-----	-----	3	3
		1	* 54251AH		1	1-1/2	2	2	2-1/2	2-1/2	3	-----	-----
			46601BA		----	----	-----	-----	-----	-----	-----	3	3
		1-1/4	* 54251AH		1	1-1/2	2	2-1/2	2-1/2	3	3	-----	-----
			46601BA		----	----	----	----	----	-----	-----	3	3
		1-1/2	* 54251AH		1	1-1/2	2	2-1/2	2-1/2	3	3	-----	-----
			46601BA		----	----	----	----	----	----	-----	3	3
		2	* 54251AH		1	1-1/2	2	2-1/2	3	3	3-1/2	-----	-----
			46601BA	INNER	----	----	----	-----	-----	-----	-----	1	1-1/2
				OUTER	----	----	----	----	----	----	-----	2-1/2	2-1/2
		2-1/2	* 54251AH		1	1-1/2	2	2-1/2	3	3-1/2	3-1/2	-----	-----
			46601BA	INNER	----	----	-----	----	----	----	-----	1	1-1/2
				OUTER	----	----	----	----	----	----	-----	2-1/2	2-1/2
		3	* 54251AH		1	1-1/2	2	2-1/2	3	3-1/2	4	-----	-----
			46601BA	INNER	----	----	----	----	----	----	-----	1-1/2	2
				OUTER	----	----	----	----	----	----	-----	2-1/2	2-1/2
		3-1/2	* 54251AH		1	1-1/2	2	2-1/2	3	3-1/2	4	-----	-----
			46601BA	INNER	----	----	----	----	----	----	----	1-1/2	2
				OUTER	----	----	----	----	----	----	-----	2-1/2	2-1/2
		4	* 54251AH		1	2	2-1/2	3	3-1/2	4	4	-----	-----
			46601BA	INNER	----	----	----	----	----	----	-----	2	2
				OUTER	----	----	----	----	----	----	-----	2-1/2	2-1/2
		5	* 54251AH		1-1/2	2	2-1/2	3	3-1/2	4	4	-----	-----
			46601BA	INNER	----	----	----	----	----	----	----	2	2
				OUTER	----	----	----	----	----	----	-----	2-1/2	2-1/2
		6	* 54251AH		1-1/2	2	2-1/2	3	3-1/2	4	4-1/2	-----	-----
			46601BA	INNER	----	----	----	----	----	----	----	2	2
				OUTER	----	----	----	----	----	----	-----	3	3
		8	* 54251AH		1-1/2	2	2-1/2	3-1/2	4	4	5	-----	-----
			46601BA	INNER	----	----	----	----	----	----	----	2-1/2	2-1/2
				OUTER	----	----	----	----	----	----	----	3	3
		10	* 54251AH		1-1/2	2-1/2	3	3-1/2	4	4-1/2	5	----	-----
			46601BA	INNER	----	----	----	----	----	----	----	2-1/2	2-1/2
				OUTER	----	----	----	----	----	----	----	3	3
BLOCK	600433 PART I	PIPE OVER 10 IN.; INDUS. TURB. CYLS., ETC.	* 4610288		1-1/2	2-1/2	3	3-1/2	4	4-1/2	5	-----	-----
			46601AA	INNER	----	----	----	----	----	----	----	2-1/2	3
			4610288	OUTER	----	----	----	----	----	----	----	3	3

INSULATION (OTHER THAN PIPE)

INSULATION TYPE	PROCESS SPEC.	MATERIAL	TEMPERATURE °F UP TO 300	301 TO 450	451 TO 600	601 TO 750	751 TO 850	851 TO 950	951 TO 1050	1051 TO 1150	1151 TO 1200
BLANKET	600359 PART I	AS REQ'D. BY PROCESS SPECIFICATION	2	2-1/2	3	----	----	----	----	----	----
	600359 PART IV		----	----	----	3-1/2	2 (INNER) 2 (OUTER)	2 (INNER) 2-1/2 (OUTER)	2-1/2 (INNER) 2-1/2 (OUTER)	2-1/2 (INNER) 3 (OUTER)	3 (INNER) 3 (OUTER)
BLOCK AND PLASTIC	600729	46601AB	2	2	2	2-1/2	3	3-1/2	3-1/2	4	4
		46110BJ	1/2	1	1-1/2	2	2	2	2-1/2	2-1/2	3
BLOCK	600360	4610288	1 IN. THICK								
SPRAYED ASBESTOS	600111	54251AC	1/4 IN. THICK								

600054

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REF.

ISSUED 10-30-63 | 1
BY— M. DORFMAN

CHANGED 9/5/62 | 8

INSULATION — THICKNESS AND TEMP. RANGE

PH 920.3

BY REFERRING TO THE TABLES BELOW, THE PROPER THICKNESS AND TYPE OF INSULATION MAY BE ORDERED FOR A GIVEN TEMPERATURE CONDITION.

FOR TEMPERATURES OVER 600°F., SPECIFY "DOUBLE LAYER" IN B. M WHEN ORDERING THESE MATERIALS.* FIGURES SHOW TOTAL THICKNESS.

PIPE INSULATION (EXCEPT AS NOTED)

INSULATION TYPE	PROCESS SPEC.	PIPE SIZE	MATERIAL		TEMPERATURE °F UP TO 300	301 TO 450	451 TO 600	601 TO 750	751 TO 850	851 TO 950	951 TO 1050	1051 TO 1150	115 120
MOLDED	600433 PART II	1/2	* 54251AH		1	1	1-1/2	2	2	2-1/2	2-1/2	-----	---
			466018A		-----	-----	-----	-----	-----	-----	-----	3	3
		3/4	* 54251AH		1	1	1-1/2	2	2-1/2	3-1/2	3	-----	---
			466018A		-----	-----	-----	-----	-----	-----	-----	3	3
		1	* 54251AH		1	1-1/2	2	2	2-1/2	3-1/2	3	-----	---
			466018A		-----	-----	-----	-----	-----	-----	-----	3	3
		1-1/4	* 54251AH		1	1-1/2	2	2-1/2	2-1/2	3	3	-----	---
			466018A		-----	-----	-----	-----	-----	-----	-----	3	3
		1-1/2	* 54251AH		1	1-1/2	2	2-1/2	2-1/2	3	3	-----	---
			466018A		-----	-----	-----	-----	-----	-----	-----	3	3
		2	* 54251AH		1	1-1/2	2	2-1/2	3	3	3-1/2	-----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	1	1-1
				OUTER	-----	-----	-----	-----	-----	-----	-----	2-1/2	2-1
		2-1/2	* 54251AH		1	1-1/2	2	2-1/2	3	3-1/2	3-1/2	-----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	1	1-1
				OUTER	-----	-----	-----	-----	-----	-----	-----	2-1/2	2-1
		3	* 54251AH		1	1-1/2	2	2-1/2	3	3-1/2	4	-----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	1-1/2	2
				OUTER	-----	-----	-----	-----	-----	-----	-----	2-1/2	2-1
		3-1/2	* 54251AH		1	1-1/2	2	2-1/2	3	3-1/2	4	-----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	1-1/2	2
				OUTER	-----	-----	-----	-----	-----	-----	-----	2-1/2	2-1
		4	* 54251AH		1	2	2-1/2	3	3-1/2	4	4	-----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	2	2
				OUTER	-----	-----	-----	-----	-----	-----	-----	2-1/2	2-1
		5	* 54251AH		1-1/2	2	2-1/2	3	3-1/2	4	4	-----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	2	2
				OUTER	-----	-----	-----	-----	-----	-----	-----	2-1/2	2-1
		6	* 54251AH		1-1/2	2	2-1/2	3	3-1/2	4	4-1/2	-----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	2	2
				OUTER	-----	-----	-----	-----	-----	-----	-----	3	3
		8	* 54251AH		1-1/2	2	2-1/2	3-1/2	4	4	5	-----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	2-1/2	2-1
				OUTER	-----	-----	-----	-----	-----	-----	-----	3	3
		10	* 54251AH		1-1/2	2-1/2	3	3-1/2	4	4-1/2	5	----	---
			466018A	INNER	-----	-----	-----	-----	-----	-----	-----	2-1/2	2-1
				OUTER	-----	-----	-----	-----	-----	-----	-----	3	3
BLOCK	600433 PART I	PIPE OVER 10 IN.; INDUS. TURB. CYLS., ETC.	* 4610288		1-1/2	2-1/2	3	3-1/2	4	4-1/2	5	-----	---
			46601AA	INNER	-----	-----	-----	-----	-----	-----	-----	2-1/2	3
			4601288	OUTER	-----	-----	-----	-----	-----	-----	-----	3	3

INSULATION (OTHER THAN PIPE)

INSULATION TYPE	PROCESS SPEC.	MATERIAL	TEMPERATURE °F UP TO 300	301 TO 450	451 TO 600	601 TO 750	751 TO 850	851 TO 950	951 TO 1050	1051 TO 1150	115 120
BLANKET	600359 PART I	AS REQ'D. BY PROCESS SPECIFICATION	2	2-1/2	3	------	------	------	------	------	---
	600359 PART IV		------	------	------	3-1/2	2 (INNER) 2 (OUTER)	2 (INNER) 2-1, 2 (OUTER)	2-1/2 (INNER) 2-1/2 (OUTER)	2-1/2 (INNER) 3 (OUTER)	3 (INN 3 (OU
BLOCK AND PLASTIC	600729	46601A8	2	2	2	2-1/2	3	3-1/2	3-1/2	4	4
		461108J	1/2	1	1-1/2	2	2	2	2-1/2	2-1/2	3
BLOCK	600360	4610288	1 IN. THICK								
SPRAYED ASBESTOS	600111	54251AC	1/4 IN. THICK								

REF.

INSULATION - THICKNESS AND TEMP. RANGE

P H 920.3

BY REFERRING TO THE TABLES BELOW, THE PROPER THICKNESS AND TYPE OF INSULATION MAY BE ORDERED FOR A GIVEN TEMPERATURE CONDITION.

PIPE INSULATION (EXCEPT AS NOTED)

INSULATION TYPE	PROCESS SPEC.	PIPE SIZE	MATERIAL		TEMPERATURE °F UP TO 300	301 TO 450	451 TO 600	601 TO 750	751 TO 850	851 TO 950	951 TO 1050	1051 TO 1150	1151 1200
MOLDED	600433 PART II	1/2	5779		1	1	1-1/2	-----	-----	-----	-----	-----	-----
			7310		-----	-----	-----	2	2	2-1/2	2-1/2	3	3
		3/4	5779		1	1	1-1/2	-----	-----	-----	-----	-----	-----
			7310		-----	-----	-----	2	2-1/2	2-1/2	3	3	3
		1	5779		1	1-1/2	2	-----	-----	-----	-----	-----	-----
			7310		-----	-----	-----	2	2-1/2	2-1/2	3	3	3
		1-1/4	5779		1	1-1/2	2	-----	-----	-----	-----	-----	-----
			7310		-----	-----	-----	2-1/2	2-1/2	2-1/2	3	3	3
		1-1/2	5779		1	1-1/2	2	-----	-----	-----	-----	-----	-----
			7310		-----	-----	-----	2-1/2	2-1/2	3	3	3	3
		2	5779		1	1-1/2	2	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1	1	1	1	1	1-1/2
				OUTER	-----	-----	-----	1-1/2	2	2	2-1/2	2-1/2	2-1/2
		2-1/2	5779		1	1-1/2	2	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1	1	1	1	1	1-1/2
				OUTER	-----	-----	-----	1-1/2	2	2-1/2	2-1/2	2-1/2	2-1/2
		3	5779		1	1-1/2	2	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1	1	1	1-1/2	1-1/2	2
				OUTER	-----	-----	-----	1-1/2	2	2-1/2	2-1/2	2-1/2	2-1/2
		3-1/2	5779		1	1-1/2	2	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1	1	1	1-1/2	1-1/2	2
				OUTER	-----	-----	-----	1-1/2	2	2-1/2	2-1/2	2-1/2	2-1/2
		4	5779		1	2	2-1/2	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1	1	1-1/2	1-1/2	2	2
				OUTER	-----	-----	-----	2	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2
		5	5779		1-1/2	2	2-1/2	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1	1	1-1/2	1-1/2	2	2
				OUTER	-----	-----	-----	2	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2
		6	5779		1-1/2	2	2-1/2	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1	1	1-1/2	2	2	2
				OUTER	-----	-----	-----	2	2-1/2	2-1/2	2-1/2	3	3
		8	5779		1-1/2	2	2-1/2	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1-1/2	1-1/2	1-1/2	2	2-1/2	2-1/2
				OUTER	-----	-----	-----	2	2-1/2	2-1/2	3	3	3
		10	5779		1-1/2	2-1/2	3	-----	-----	-----	-----	-----	-----
			7310	INNER	-----	-----	-----	1-1/2	1-1/2	1-1/2	2	2-1/2	2-1/2
				OUTER	-----	-----	-----	2	2-1/2	3	3	3	3
BLOCK	600433 PART I	PIPE OVER 10 IN.; INDUS. TURB. CYLS., ETC	7308		1-1/2	2-1/2	3	-----	-----	-----	-----	-----	-----
			7309-1	INNER	-----	-----	-----	1-1/2	1-1/2	1-1/2	2	2-1/2	3
			7308	OUTER	-----	-----	-----	2	2-1/2	3	3	3	3

INSULATION (OTHER THAN PIPE)

INSULATION TYPE	PROCESS SPEC.	MATERIAL	TEMPERATURE °F UP TO 300	301 TO 450	451 TO 600	601 TO 750	751 TO 850	851 TO 950	951 TO 1050	1051 TO 1150	1151 TO 1200
BLANKET	600359 PART I	AS REQ'D. BY PROCESS SPECIFICATION	2	2-1/2	3	-----	-----	-----	-----	-----	-----
	600359 PART II		-----	-----	-----	3-1/2	-----	-----	-----	-----	-----
	600359 PART III		-----	-----	-----	-----	4	-----	-----	-----	-----
	600359 PART IV		-----	-----	-----	-----	-----	4-1/2	2-1/2 (INNER) 2-1/2 (OUTER)	2-1/2 (INNER) 3 (OUTER)	3 (INNER) 3 (OUTER)
BLOCK AND PLASTIC	600729	7309-2	2	2	2	2-1/2	3	3-1/2	3-1/2	4	4
		8407	1/2	1	1-1/2	2	2	2	2-1/2	2-1/2	3
ASBESTOS FELT AND SHEET	600360	7784 7781	1 IN. THICK								
SPRAYED ASBESTOS	600111	4057-3	1/4 IN. THICK								

600092

INSULATION – THICKNESS & SPECS.

P H 920.

LISTED FOLLOWING ARE THICKNESS AND MATERIAL SPECS. REQUIRED FOR VARIOUS TEMPERATURE CONDITIONS AND SHOULD BE FOLLOWED UNLESS SPECIFIC CONTRACT REQUIREMENTS MAKE DEVIATION NECESSARY, IN WHICH CASE THE "O" SPEC. WILL SPECIFY REQUIREMENTS IN DETAIL.

TABLE "Y"

INSULATION TYPE	PROCESS SPEC.	PIPE SIZE	MTL.		TEMPERATURE CONDITION (°F) UP TO 350	351 TO 500	501 TO 650	651 TO 825	826 TO 950	951 TO 1000	1001 1200
MOLDED	600433 PART II	1/2	5779		1 IN.	1 1/2	—	—	—	—	—
			7310		—	—	2	2	2 1/2	2 1/2	2 1/2
		3/4	5779		1 IN.	1 1/2	—	—	—	—	—
			7310		—	—	2	2	2 1/2	2 1/2	2 1/2
		1	5779		1 IN.	1 1/2	—	—	—	—	—
			7310		—	—	2	2	2 1/2	2 1/2	2 1/2
		1 1/4	5779		1 IN.	1 1/2	—	—	—	—	—
			7310		—	—	2	2	2 1/2	2 1/2	2 1/2
		1 1/2	5779		1 IN.	1 1/2	—	—	—	—	—
			7310		—	—	2	2	2 1/2	2 1/2	2 1/2
		2	5779		1 IN.	2	—	—	—	—	—
			7310	INNER	—	—	1	1	1 1/2	1 1/2	2
				OUTER	—	—	2	2 1/2	2 1/2	2 1/2	2 1/2
		2 1/2	5779		1 IN.	2	—	—	—	—	—
			7310	INNER	—	—	1	1	1 1/2	1 1/2	2
				OUTER	—	—	2	2 1/2	2 1/2	2 1/2	2 1/2
		3	5779		1 IN.	2	—	—	—	—	—
			7310	INNER	—	—	1 1/2	1 1/2	2	2	2
				OUTER	—	—	2	2 1/2	2 1/2	2 1/2	2 1/2
		3 1/2	5779		1 IN.	2	—	—	—	—	—
			7310	INNER	—	—	1 1/2	1 1/2	2	2	2
				OUTER	—	—	2	2 1/2	2 1/2	2 1/2	2 1/2
		4	5779		1 1/2	2 1/2	—	—	—	—	—
			7310	INNER	—	—	1 1/2	1 1/2	2	2	2 1/2
				OUTER	—	—	2	2 1/2	2 1/2	2 1/2	2 1/2
		5	5779		1 1/2	2 1/2	—	—	—	—	—
			7310	INNER	—	—	1 1/2	2	2	2 1/2	3
				OUTER	—	—	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
		6	5779		1 1/2	2 1/2	—	—	—	—	—
			7310	INNER	—	—	1 1/2	2	2	2 1/2	3
				OUTER	—	—	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
		8	5779		2	3	—	—	—	—	—
			7310	INNER	—	—	1 1/2	2	2	2 1/2	3
				OUTER	—	—	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
		10	5779		2	3	—	—	—	—	—
			7310	INNER	—	—	1 1/2	2	2	2 1/2	3
				OUTER	—	—	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
BLOCK	600433 PART I	PIPES OVER 10 IN. AND IND. TURB. CYLS. ETC.	7308		2 1/2	3	—	—	—	—	—
			7309-1 INNER		—	—	1 1/2	2	2 1/2	3	3 1/2
			7308 OUTER		—	—	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
BLANKET	600359 PART I	INDUSTRIAL TURBINE HORIZONTAL JOINT FLANGES ETC.	AS REQUIRED BY PROCESS		2 1/2	3	—	—	—	—	—
	600359 PART II				—	—	4	4 1/2	—	—	—
	600359 PART III				—	—	—	—	5	—	—
PLASTIC	600362	STM. CHESTS & VLV. BODIES	8407		2	3	4	5 1/2	6	6 1/2	7
BLOCK AND PLASTIC	600729	CENT. STA. TURB. PARTS, VALVE BONNET AND PIPE FLANGES	7309-2		2	2	2	2	2	3	3
			8407		1/2	1	2	3 1/2	4	4 1/2	5
ASBESTOS FELT AND SHEET	600360	UNDER SIDE OF LAGGING	7789 7791		1 IN. THICK REQUIRED FOR UNDERSIDE OF LAGGING WHEN INITIAL TEMP. IS OVER 775° F						

INSULATION – ORDERING INFORMATION

EXAMPLES FOR ORDERING PIPE*, BLOCK AND BLANKET INSULATION

ITEM		MTL.	REQ.
1	MOLDED INSULATION 2.500 PIPE 2.00 THK. - PROC. 600433 PT. II	542514H	1 SET
2	MOLDED INSULATION (DOUBLE LAYER) 2.500 PIPE 3.00 THK. - PROC. 600433 PART II	542514H	1 SET
3	MOLDED INSULATION 2.500 PIPE INNER 1.50 THK. OUTER 1.50 THK. PROC. 600433 PART II	46601BA	1 SET
4	BLOCK INSULATION 2.50 THK. - INNER - PROC. 600433 PART I	46601AA	1 SET
5	BLOCK INSULATION 3.00 THK. - OUTER - PROC. 600433 PART I	46602BB	1 SET
6	BLANKET INSULATION 3.50 THK. PROC. 600357 PART IV	-------	1 SET
7 **	PIPE SHEATHING INSULATION PROC. 600790	-------	1 SET

* FOR CROSS-OVER PIPES AND PIPES OVER 20.000 SEE PAGE PH 920.5 .
** FOR CROSS-UNDER OR OTHER PIPING INTERNAL TO TURBINE EXHAUST OR CONDENSER INLET.

EXAMPLES FOR ORDERING BLOCK AND PLASTIC INSULATION

ITEM	DESCRIPTION —	MTL.	REQ.
1	BLOCK INSULATION 3.00 THK. PLASTIC INSULATION 2.00 THK. - PROC. 600729	———	1 SET
2	EXPANDED METAL 48.000 x 96.000 x .070 THK. - PROC. 600729	10144AB	4 SHEETS

EXAMPLE FOR ORDERING SPRAYED ASBESTOS INSULATION

ITEM	DESCRIPTION --	MTL.	REQ.
1	SPRAYED ASBESTOS INSULATION 3.00 THK. - PROC. 600916	542514Q	950 SQ. FT.

EXAMPLES FOR ORDERING ENCLOSURE, GAUGE BOARD AND GLAND WATER SUPPLY PIPING INSULATION

ITEM	DESCRIPTION --	MTL.	REQ.
1	SPRAYED INSULATION COMPOUND - PROC. 600111	542514C	110 GAL.
2	SPRAYED INSULATION COMPOUND PRIMER - PROC. 600111	322300T	2 GAL.
3	GAUGE BOARD INSULATION 1.00 THK. - PROC. 600340	-------	1 SET
4	INSUL. PAINT - PIPE 1.500 x 100 FT. LG. - FINISH SPEC. 315-F	53314TG	1 PINT
5	CORK INSUL. - PIPE 1.500 x 100 FT. LG. - FINISH SPEC. 315-F	22302ED	4-1 2#

GENERAL ORDERING INFORMATION:-

1. WHEN ORDERING BLOCK INSULATION FOR PIPE GIVE PIPE SIZE IN B/M.
2. MATERIAL 542514C SPRAYED INSULATION:-
   ONE GALLON COVERS 4.50 SQUARE FEET .25 THICK.
3. MATERIAL 322300T SPRAYED INSULATION PRIMER:-
   ONE GALLON COVERS 300 SQUARE FEET.
4. MATERIAL 53314TG BLACK ADHESIVE PAINT:-
   ONE QUART COVERS 100 SQUARE FEET.
5. MATERIAL 22302ED GRANULATED CORK:-
   ONE LB. COVERS 10 SQUARE FEET .12 THICK.
6. EVEN THOUGH AMOUNT OF INSULATION MATERIAL IS NOT SHOWN IN B/M FOR SOME ITEMS, THE LENGTH AND APPROXIMATE AREA TO BE COVERED SHOULD BE SHOWN ON DETAIL DRAWING AS NOTED ON PAGE PH 920.2 GENERAL INFORMATION.

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INSULATION — ORDERING INFORMATION

EXAMPLES FOR ORDERING PIPE *, BLOCK AND BLANKET INSULATION

ITEM	DESCRIPTION --	MTL.	REQ.
1	MOLDED INSULATION 2-1/2 PIPE 2 IN. THK. PROC. 600433 PT. II	54251AH	1 SET
2	MOLDED INSULATION (DOUBLE LAYER) 2-1/2 PIPE 3 IN. THK. PROC. 600433 PART II	54251AH	1 SET
3	MOLDED INSULATION 2-1/2 PIPE INNER 1-1/2 THK. OUTER 1-1/2 THK. PROC. 600433 PART II	46601BA	1 SET
4	BLOCK INSULATION 2-1/2 IN. THK. - INNER - PROC. 600433 PART I	46601AA	1 SET
5	BLOCK INSULATION 3 IN. THK. - OUTER - PROC. 600433 PART I	4610288	1 SET
6	BLANKET INSULATION 3-1/2 IN. THK. PROC. 600359 PART IV	——	1 SET
7 **	PIPE SHEATHING INSULATION PROC. 600790	——	1 SET

* FOR CROSS-OVER PIPES AND PIPES OVER 20 IN. SEE PAGE PH 920.5
** FOR CROSS-UNDER OR OTHER PIPING INTERNAL TO TURBINE EXHAUST OR CONDENSER INLET.

EXAMPLES FOR ORDERING BLOCK & PLASTIC INSULATION

ITEM	DESCRIPTION --	MTL.	REQ.
1	BLOCK INSULATION 3 IN. THK. PLASTIC INSULATION 2 IN. THK. PROC. 600729	———	1 SET
2	EXPANDED METAL 48 x 96 x .070 THK. PROC. 600729	2353-2	4 SHEETS

EXAMPLES FOR ORDERING LAGGING, GAUGE BOARD, AND GLAND WATER SUPPLY PIPING INSULATION

ITEM	DESCRIPTION --	MTL.	REQ.
1	SPRAYED INSULATION PROC. 600111	54251AC	110 GAL.
2	SPRAYED INSULATION PRIMER PROC. 600111	6449	2 GAL.
3	GAUGE BOARD INSULATION 1 IN. THK. PROC. 600360	——	1 SET
4	INSUL. PAINT - PIPE 1-1/2 X 100 FT. LG. FINISH SPEC. 315-F	53314TG	1 PINT
5	CORK INSUL. - PIPE 1-1/2 X 100 FT. LG. FINISH SPEC. 315-F	22302ED	4-1/2#

GENERAL ORDERING INFORMATION:-

1. WHEN ORDERING BLOCK INSULATION FOR PIPE GIVE PIPE SIZE IN B/M.
2. FOR SHEET METAL COVERS FOR STANDARD PIPE FLANGES SEE PAGE PH 777.1. FOR PRESSURES AND SIZES NOT COVERED BY STANDARD COVERS, USE COVERS AS SHOWN ON PROC. SPEC. 600729.
3. MATERIAL 54251AC SPRAYED INSULATION :- ONE GALLON COVERS 4.5 SQUARE FEET 1/4 THICK.
4. MATERIAL 6449 SPRAYED INSULATION PRIMER:- ONE GALLON COVERS 300 SQUARE FEET.
5. MATERIAL 53314TG BLACK ADHESIVE PAINT:- ONE QUART COVERS 100 SQUARE FEET.
6. MATERIAL 22302ED GRANULATED CORK:- ONE LB. COVERS 10 SQUARE FEET 1/8 THICK.
7. EVEN THOUGH AMOUNT OF INSULATION MATERIAL IS NOT SHOWN IN B/M FOR SOME ITEMS, THE LENGTH AND APPROXIMATE AREA TO BE COVERED SHOULD BE SHOWN ON DETAIL DRAWING AS NOTED ON PAGE PH 920.2 GENERAL INFORMATION.

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INSULATION – ORDERING INFORMATION

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EXAMPLES FOR ORDERING PIPE *, BLOCK AND BLANKET INSULATION

ITEM	NAME	MTL.	REQ.
1	MOLDED INSULATION 2-1/2 PIPE 2 IN. THK. PROC. 600433 PT. II	54251AH	1 SET
2	MOLDED INSULATION (DOUBLE LAYER) 2-1/2 PIPE 3 IN. THK. PROC. 600433 PART II	54251AH	1 SET
3	MOLDED INSULATION 2-1/2 PIPE INNER 1-1/2 THK. OUTER 1-1/2 THK. PROC. 600433 PART II	466018A	1 SET
4	BLOCK INSULATION 2-1/2 IN. THK. - INNER - PROC. 600433 PART I	466014A	1 SET
5	BLOCK INSULATION 3 IN. THK. - OUTER - PROC. 600433 PART I	4610288	1 SET
6	BLANKET INSULATION 3-1/2 IN. THK. PROC. 600359 PART IV	------	1 SET
7 **	PIPE SHEATHING INSULATION PROC. 600790	------	1 SET

* FOR CROSS-OVER PIPES AND PIPES OVER 20 IN. SEE PAGE PH 920.5

** FOR CROSS-UNDER OR OTHER PIPING INTERNAL TO TURBINE EXHAUST OR CONDENSER INLET.

EXAMPLES FOR ORDERING BLOCK & PLASTIC INSULATION

ITEM	NAME	MTL.	REQ.
1	BLOCK INSULATION 3 IN. THK. PLASTIC INSULATION 2 IN. THK. PROC. 600729	------	1 SET
2	EXPANDED METAL 48 x 96 x .070 THK. PROC. 600729	2353-2	4 SHEETS

EXAMPLES FOR ORDERING LAGGING, GAUGE BOARD, AND GLAND WATER SUPPLY PIPING INSULATION

ITEM	NAME	MTL.	REQ.
1	SPRAYED INSULATION PROC. 600111	54251AC	110 GAL.
2	SPRAYED INSULATION PRIMER PROC. 600111	6449	2 GAL.
3	GAUGE BOARD INSULATION 1 IN. THK. PROC. 600360	------	1 SET
4	INSUL. PAINT - PIPE 1-1/2 X 100 FT. LG. FINISH SPEC. 315-F	9327-1	1 PINT
5	CORK INSUL. - PIPE 1-1/2 X 100 FT. LG. FINISH SPEC. 315-F	6329-4	4-1/2#

GENERAL ORDERING INFORMATION:-

1. WHEN ORDERING BLOCK INSULATION FOR PIPE GIVE PIPE SIZE IN B/M.
2. FOR SHEET METAL COVERS FOR STANDARD PIPE FLANGES SEE PAGE PH 777.1. FOR PRESSURES AND SIZES NOT COVERED BY STANDARD COVERS, USE COVERS AS SHOWN ON PROC. SPEC. 600729.
3. MATERIAL 54251AC SPRAYED INSULATION :- ONE GALLON COVERS 4.5 SQUARE FEET 1/4 THICK.
4. MATERIAL 6449 SPRAYED INSULATION PRIMER:- ONE GALLON COVERS 300 SQUARE FEET.
5. MATERIAL 9327-1 BLACK ADHESIVE PAINT:- ONE QUART COVERS 100 SQUARE FEET.
6. MATERIAL 6329-4 GRANULATED CORK:- ONE LB. COVERS 10 SQUARE FEET 1/8 THICK.
7. EVEN THOUGH AMOUNT OF INSULATION MATERIAL IS NOT SHOWN IN B/M FOR SOME ITEMS, THE LENGTH AND APPROXIMATE AREA TO BE COVERED SHOULD BE SHOWN ON DETAIL DRAWING AS NOTED ON PAGE PH 920.2 GENERAL INFORMATION.

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INSULATION - ORDERING INFORMATION

EXAMPLES FOR ORDERING PI.. *, BLOCK AND BLANKET INSULATION

ITEM	NAME	MTL.	REQ.
1	MOLDED INSULATION 2-1/2 PIPE 2 IN. THK. PROC. 600433 PART II	5779	1 SET
2	MOLDED INSULATION 2-1/2 PIPE INNER 1-1/4 THK. OUTER 1-1/2 THK. PROC. 600433 PART II	7310	1 SET
3	BLOCK INSULATION 2 IN. THK. - INNER - PROC. 600433 PART I	7309-1	1 SET
4	BLOCK INSULATION 2-1/2 THK. - OUTER - PROC 600433 PART I	7308	1 SET
5	BLANKET INSULATION 4 IN. THK. PROC. 600359 PART II	------	1 SET
6**	PIPE SHEATHING INSULATION PROC. 600790	------	1 SET

* FOR CROSS-OVER PIPES AND PIPES OVER 20 IN. SEE PAGE PH 920.5
** FOR CROSS-UNDER OR OTHER PIPING INTERNAL TO TURBINE EXHAUST OR CONDENSER INLET.

EXAMPLES FOR ORDERING BLOCK & PLASTIC INSULATION

ITEM	NAME	MTL.	REQ.
1	BLOCK INSULATION 2 IN. THK. PLASTIC INSULATION 3 IN. THK. PROC. 600729	------	1 SET
2	EXPANDED METAL 48 x 96 x .070 THK. PROC. 600729	2353-2	4 SHEETS

EXAMPLES FOR ORDERING LAGGING, GAUGE BOARD, AND GLAND WATER SUPPLY PIPING INSULATION

ITEM	NAME	MTL.	REQ.
1	SPRAYED INSULATION PROC. 600111	4057-3	110 GAL.
2	SPRAYED INSULATION PRIMER PROC. 600111	6449	2 GAL.
3	GAUGE BOARD INSULATION 1 IN. THK. 600360	-----	1 SET
4	INSUL. PAINT - PIPE 1-1/2 X 100 FT. LG. FINISH SPEC. 315-F	9327-1	1 PINT
5	CORK INSUL. - PIPE 1-1/2 X 100 FT. LG. FINISH SPEC. 315-F	6329-4	4-1/2 e..

GENERAL ORDERING INFORMATION:-

1. WHEN ORDERING BLOCK INSULATION FOR PIPE GIVE PIPE SIZE IN B/M.
2. FOR SHEET METAL COVERS FOR STANDARD PIPE FLANGES SEE PAGE PH 777.1. FOR PRESSURES AND SIZES NOT COVERED BY STANDARD COVERS, USE COVERS AS SHOWN ON PROC. SPEC. 600729.
3. MATERIAL 4057-3 SPRAYED INSULATION CEMENT:- ONE GALLON COVERS 4 5 SQUARE FEET 1/4 THICK.
4. MATERIAL 6449 SPRAYED INSULATION PRIMER:- ONE GALLON COVERS 300 SQUARE FEET.
5. MATERIAL 9327-1 BLACK ADHESIVE PAINT:- ONE QUART COVERS 100 SQUARE FEET.
6. MATERIAL 6329-4 GRANULATED CORK:- ONE LB. COVERS 10 SQUARE FEET 1/8 THICK.
7. EVEN THOUGH AMOUNT OF INSULATION MATERIAL IS NOT SHOWN IN B/M FOR SOME ITEMS, THE LENGTH AND APPROXIMATE AREA TO BE COVERED SHOULD BE SHOWN ON DETAIL DRAWING AS NOTED ON PAGE PH 920.2 GENERAL INFORMATION.

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INSULATION ORDERING INFORMATION

MOLDED PIPE INSULATION [illegible]

ITEM	NAME	MTL.	REQ.
1	MOLDED INSULATION 2-1/2 PIPE (2 IN. THK.) S.P. [illegible] PART II	[illegible]	1 SET

MOLDED PIPE INSULATION [illegible]

ITEM	NAME	MTL.	REQ.
1	MOLDED INSULATION 2-1/2 PIPE [illegible] COVER 1-1/2 THK. [illegible] PART II	[illegible]	[illegible]

FOR CLASS 8X STEAM DRAIN AND GLAND PIPING REQUIRED QUANTITY OF INSULATION [illegible] IN DRAWING.
FOR SHEET METAL COVERS FOR STD. PIPE FLGS., REFER TO PH 777.1.
FOR HIGHER PRESS. AND LARGER SIZES, USE 600779 COVERS.

WHEN ORDERING BLOCK INSULATION FOR PIPES, GIVE PIPE SIZE IN B/M.

FOR SHEET METAL COVERS FOR STD. PIPE FLGS., REFER TO PH 777.1. FOR HIGHER PRESS. AND LARGER SIZES, USE 600779 COVERS.

BLOCK INSULATION [illegible]

ITEM	NAME	MTL.	REQ.
1	BLOCK INSULATION 2-1/2 IN. THK. S.P. [illegible] PART I	[illegible]	1 SET

BLOCK INSULATION [illegible]

ITEM	NAME	MTL.	REQ.
1	BLOCK INSULATION INNER 2 IN. THK. S.P. [illegible]	7309-1	1 SET
2	BLOCK INSULATION OUTER 2 IN. THK. S.P. [illegible]	7309	1 SET

FOR CROSSOVER PIPES AND PIPES OVER 10 IN. IF CANVAS OTHER THAN 6 OZ. IS REQUIRED. WHERE IS B/M OR COVER BY A NOTE ON DRAWING. 7311 ASBESTOS CEMENT IS USED TO SMOOTH OUT JOINTS AND PROVIDE FOR 1/2 IN. FINAL COAT. 100 LBS. OF 7311 COVERS 50 SQ FT 1/2 IN. THICK.

FOR SHEET METAL COVERS FOR STD. PIPE FLGS., REFER TO PH 777.1.

BLANKET INSULATION
FOR TEMPERATURE TO AND INCLUDING 500°F

ITEM	NAME	MTL.	REQ.
1	BLANKET INSULATION 2-1/2 THK. S.P. PROC. 600359 PART I	-	1 SET

FOR TEMPERATURE OVER 500°F TO 825°F INC.

ITEM	NAME	MTL.	REQ.
1	BLANKET INSULATION 4 THK. S.P. PROC. 600359 PART II	-	1 SET

FOR TEMPERATURE OVER 825°F TO 950°F INC.

ITEM	NAME	MTL.	REQ.
1	BLANKET INSULATION 5 THK. S.P. PROC. 600359 PART III	-	1 SET

WHEN METAL COVERS FOR STD. PIPE FLGS. ARE REQUIRED, REFER TO PH 777.1.
FOR HIGHER PRESS. AND LARGER SIZES, USE 600779 COVERS.

PLASTIC INSULATION

ITEM	NAME	MTL.	REQ.
1	PLASTIC INSULATION 5 THK. S.P. PROCESS 600360	-	1 SET

125# (INCLUDES 25% WASTAGE) OF 6407-1 WILL COVER 50 SQ FT 1 IN. THK.

BLOCK AND PLASTIC INSULATION

ITEM	NAME	MTL.	REQ.
1	BLOCK INSULATION 2" THICK) PLASTIC INSULATION 3" THICK) S.P. PROCESS 600729	-	1-SET
* 2	EXPANDED METAL 48 X 96 X .070 THK.	2353-2	SHEETS

* ORDER WHEN REQUIRED.

SHEETING INSULATION FOR TEMPERATURE OVER [illegible]°F

ITEM	NAME	MTL.	REQ.
1	JACKET INSULATION 1 INCH THK. S.P. PROC. 600360	-	1 SET

GLAND WATER SUPPLY PIPING INSULATION

ITEM	NAME	MTL.	REQ.
1	PIPE 1-1/2 X 100 FT. LG. FINISH SPEC. 315-P	9327-1 6329-4	1 PINT 6-1/2#

6329-4 GRANULATED CORK:- ONE LB. COVERS 10 SQ FT 1/8 THICK (REQ. TES.)

9327-1 BLACK ADHESIVE PAINT:- ONE QUART COVERS 100 SQ. FT.

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1/5/62 4
1/9/64 5

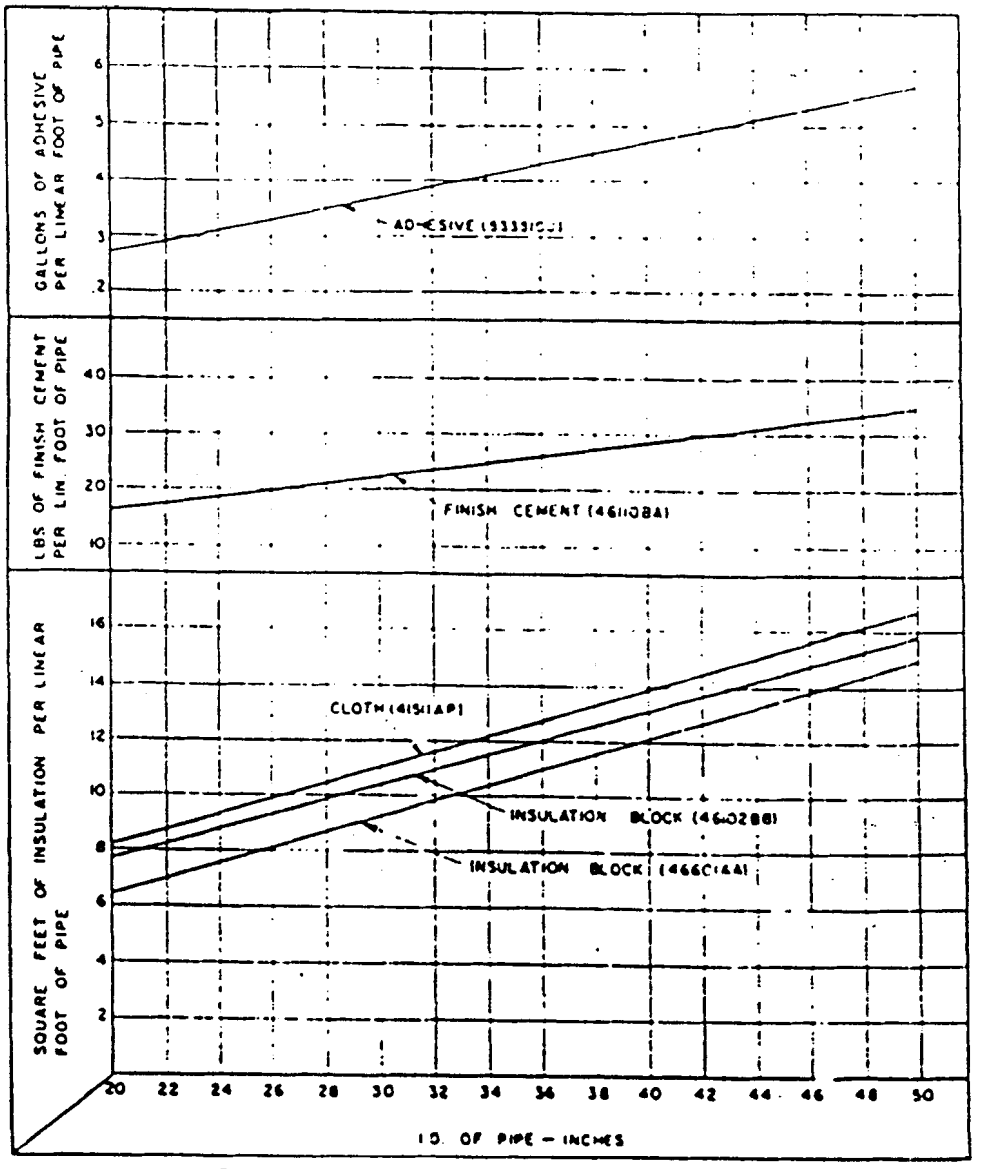
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INSULATION - ORDERING INFORMATION FOR LARGE PIPES

THE CURVES SHOWN BELOW SHOULD BE USED TO DETERMINE THE QUANTITY OF INSULATION MATERIALS TO BE ORDERED ON CROSS-OVER OR OTHER LARGE INSULATED PIPES.

THE AMOUNTS SHOWN INCLUDE AN ADDITIONAL 10 PER CENT FOR WASTAGE, IRREGULAR SHAPES AND FLANGES.

TO ORDER INSULATION MATERIALS DETERMINE TOTAL DEVELOPED LENGTH OF PIPE. FROM CHART BELOW, OVER PROPER PIPE DIAMETER, OBTAIN MATERIAL COVERAGE FIGURE FOR ONE LINEAR FOOT OF PIPE. MULTIPLY THIS FIGURE BY THE LENGTH OF PIPE PREVIOUSLY OBTAINED TO GET TOTAL AREA OF COVERAGE. (SEE EXAMPLE BELOW)



EXAMPLE OF INSULATION MATERIAL ORDERING FOR 20 IN I.D. PIPE BY 57 FT. DEVELOPED LENGTH AT 700°F. TEMP *

ITEM	NAME	MTL.	REQ.
1	BLOCK INSULATION (DOUBLE LAYER) 3-1.2 TOTAL THK. P.S. 600433 PT. 1	4610288	740 SQ. FT.
2	ASBESTOS CLOTH	41511AP	770 SQ. FT.
3	INSULATION CEMENT	461108A	1600 LBS.
4	ADHESIVE	533510U	26 GAL.

IF SPRAYED ASBESTOS INSULATION IS USED ON CROSS-OVER PIPE ORDER AS SHOWN BELOW.

1	SPRAYED ASBESTOS INSUL. 3-1/2 THK. P.S. 600936	542514A	740 SQ. FT.

* NOTE: FOR TEMPERATURE, MATERIALS, THICKNESSES AND NUMBER OF LAYERS SEE PH 920.3; FOR CLASSES, APPLICATION AND ADDITIONAL PIPE INSULATION ORDERING INFO. SEE PH 920.1, 920.2 AND 920.4.

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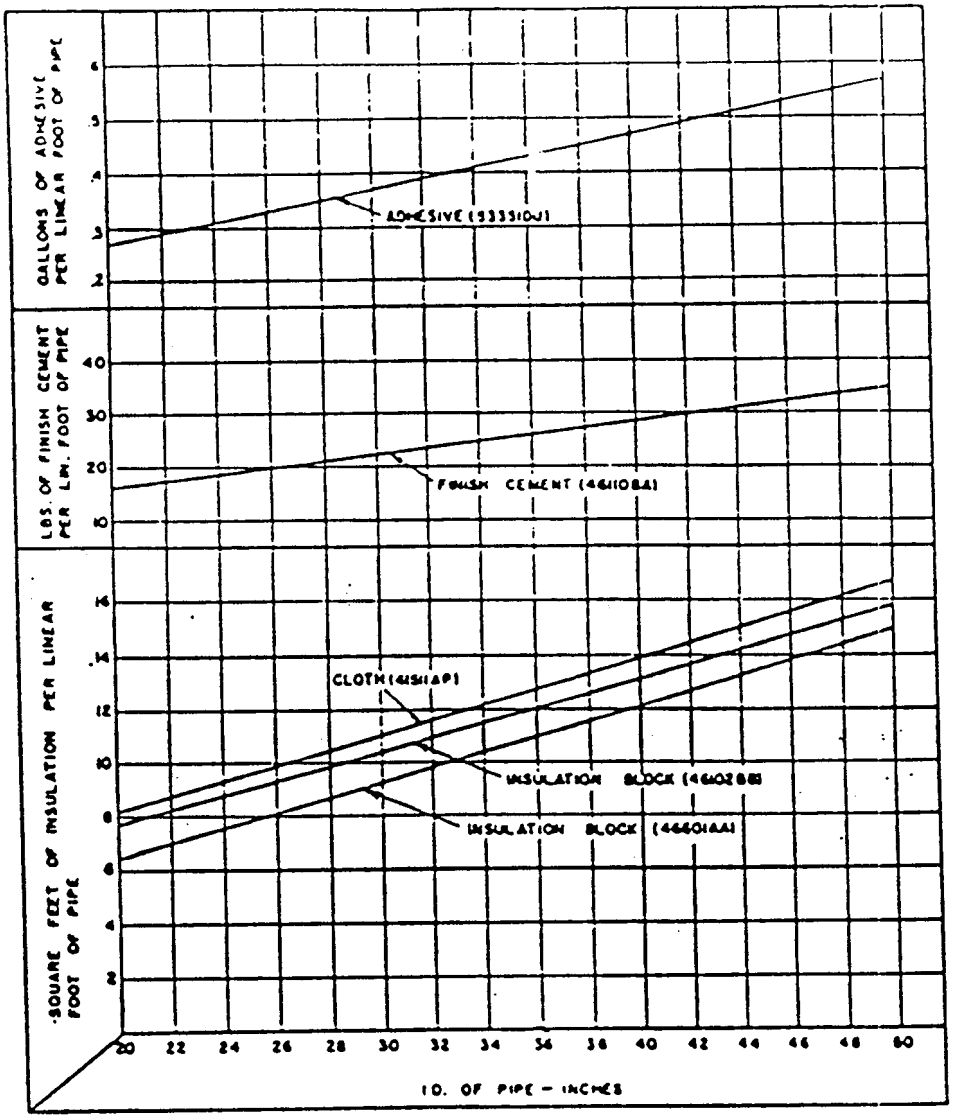
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INSULATION - ORDERING INFORMATION FOR LARGE PIPES PH 920.5

THE CURVES SHOWN BELOW SHOULD BE USED TO DETERMINE THE QUANTITY OF INSULATION MATERIALS TO BE ORDERED ON CROSS-OVER OR OTHER LARGE INSULATED PIPES.

THE AMOUNTS SHOWN INCLUDE AN ADDITIONAL 10 PER CENT FOR WASTAGE, IRREGULAR SHAPES AND FLANGES.

TO ORDER INSULATION MATERIALS DETERMINE TOTAL DEVELOPED LENGTH OF PIPE. FROM CHART BELOW, OVER PROPER PIPE DIAMETER, OBTAIN MATERIAL COVERAGE FIGURE FOR ONE LINEAR FOOT OF PIPE. MULTIPLY THIS FIGURE BY THE LENGTH OF PIPE PREVIOUSLY OBTAINED TO GET TOTAL AREA OF COVERAGE. (SEE EXAMPLE BELOW)



EXAMPLE OF INSULATION MATERIAL ORDERING FOR 39 IN. I.D. PIPE BY 57 FT. DEVELOPED LENGTH AT 700°F. TEMP. *

ITEM	NAME	MTL.	REQ.
1	BLOCK INSULATION (DOUBLE LAYER) 3-1/2 TOTAL THK. P. S. 600433 PT. 1	4610288	740 SQ. FT.
2	ASBESTOS CLOTH	415111AP	770 SQ. FT.
3	INSULATION CEMENT	4611088	1600 LBS.
4	ADHESIVE	933510U	26 GAL

* NOTE: FOR TEMPERATURE, MATERIALS AND THICKNESSES, AND NUMBER OF LAYERS SEE PAGE PH 920.3; FOR CLASSES, APPLICATION AND ADDITIONAL PIPE INSULATION ORDERING INFORMATION SEE PAGES PH 920.1, 920.2 AND 920.4.

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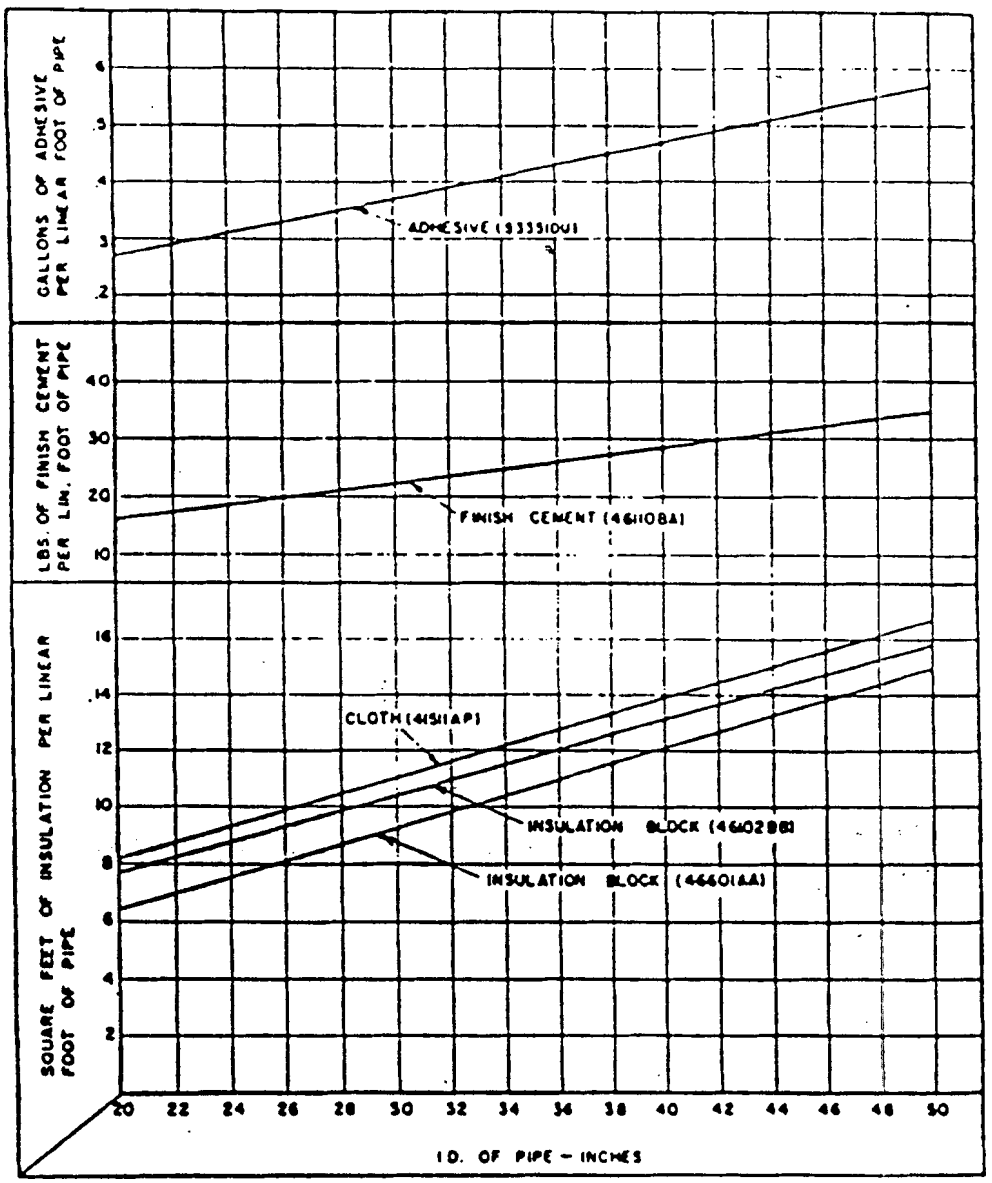
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INSULATION - ORDERING INFORMATION FOR LARGE PIPES

THE CURVES SHOWN BELOW SHOULD BE USED TO DETERMINE THE QUANTITY OF INSULATION MATERIALS TO BE ORDERED ON CROSS-OVER OR OTHER LARGE INSULATED PIPES.

THE AMOUNTS SHOWN INCLUDE AN ADDITIONAL 10 PER CENT FOR WASTAGE, IRREGULAR SHAPES AND FLANGES.

TO ORDER INSULATION MATERIALS DETERMINE TOTAL DEVELOPED LENGTH OF PIPE. FROM CHART BELOW, OVER PROPER PIPE DIAMETER, OBTAIN MATERIAL COVERAGE FIGURE FOR ONE LINEAR FOOT OF PIPE. MULTIPLY THIS FIGURE BY THE LENGTH OF PIPE PREVIOUSLY OBTAINED TO GET TOTAL AREA OF COVERAGE. (SEE EXAMPLE BELOW)



EXAMPLE OF INSULATION MATERIAL ORDERING FOR 39 IN. I.D. PIPE BY 57 FT. DEVELOPED LENGTH AT 700°F. TEMP. ●

ITEM	NAME	MTL.	REQ.
1	BLOCK INSULATION (DOUBLE LAYER) 3-1/2 TOTAL THK. P. S. 600433 PT. 1	4610288	740 SQ. FT.
2	ASBESTOS CLOTH	41511AP	770 SQ. FT.
3	INSULATION CEMENT	461108A	1600 LBS.
4	ADHESIVE	533510U	26 GAL.

● NOTE: FOR TEMPERATURE, MATERIALS AND THICKNESSES, AND NUMBER OF LAYERS SEE PAGE PH 920.3; FOR CLASSES, APPLICATION AND ADDITIONAL PIPE INSULATION ORDERING INFORMATION SEE PAGES PH 920.1, 920.2 AND 920.4.

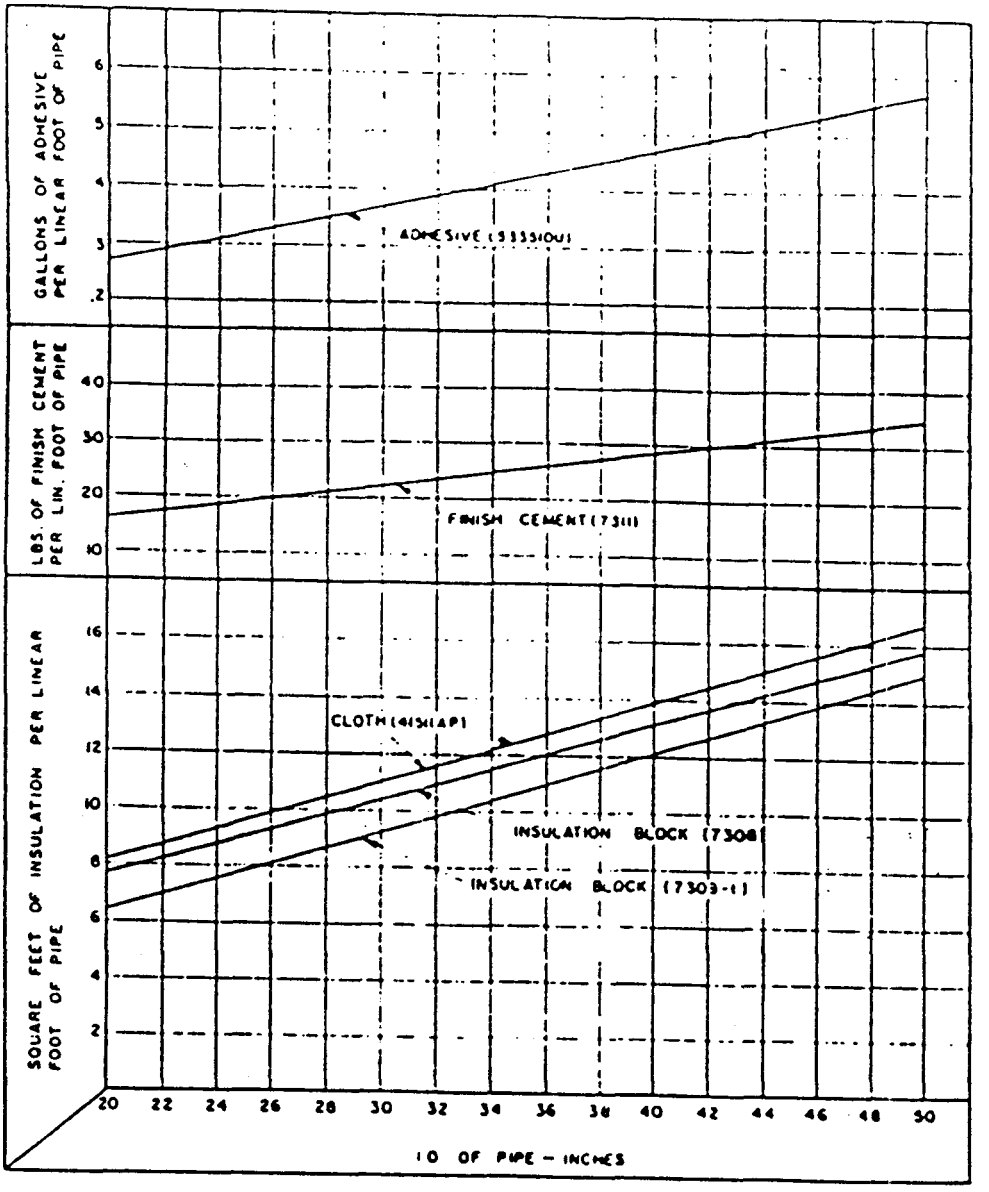
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INSULATION - ORDERING INFORMATION FOR LARGE PIPES

THE CURVES SHOWN BELOW SHOULD BE USED TO DETERMINE THE QUANTITY OF INSULATION MATERIALS TO BE ORDERED ON CROSS-OVER OR OTHER LARGE INSULATED PIPES.

THE AMOUNTS SHOWN INCLUDE AN ADDITIONAL 10 PER CENT FOR WASTAGE, IRREGULAR SHAPES AND FLANGES.

TO ORDER INSULATION MATERIALS DETERMINE TOTAL DEVELOPED LENGTH OF PIPE. FROM CHART BELOW, OVER PROPER PIPE DIAMETER, OBTAIN MATERIAL COVERAGE FIGURE FOR ONE LINEAR FOOT OF PIPE. MULTIPLY THIS FIGURE BY THE LENGTH OF PIPE PREVIOUSLY OBTAINED TO GET TOTAL AREA OF COVERAGE. (SEE EXAMPLE BELOW)



EXAMPLE OF INSULATION MATERIAL ORDERING FOR 39 IN. I.D. PIPE BY 57 FT. DEVELOPED LENGTH.

ITEM	NAME		MTL.	REQ.
1	INSULATION BLOCK - INNER (CURVED)	P.S. 600433 PT. 1	7309-1	690 SQ. FT.
2	INSULATION BLOCK - OUTER (CURVED)		7308	740 SQ. FT.
3	ASBESTOS CLOTH		41511AP	770 SQ. FT.
4	INSULATION CEMENT		7311	1600 LBS.
5	ADHESIVE		53351DU	26 GAL.

600016

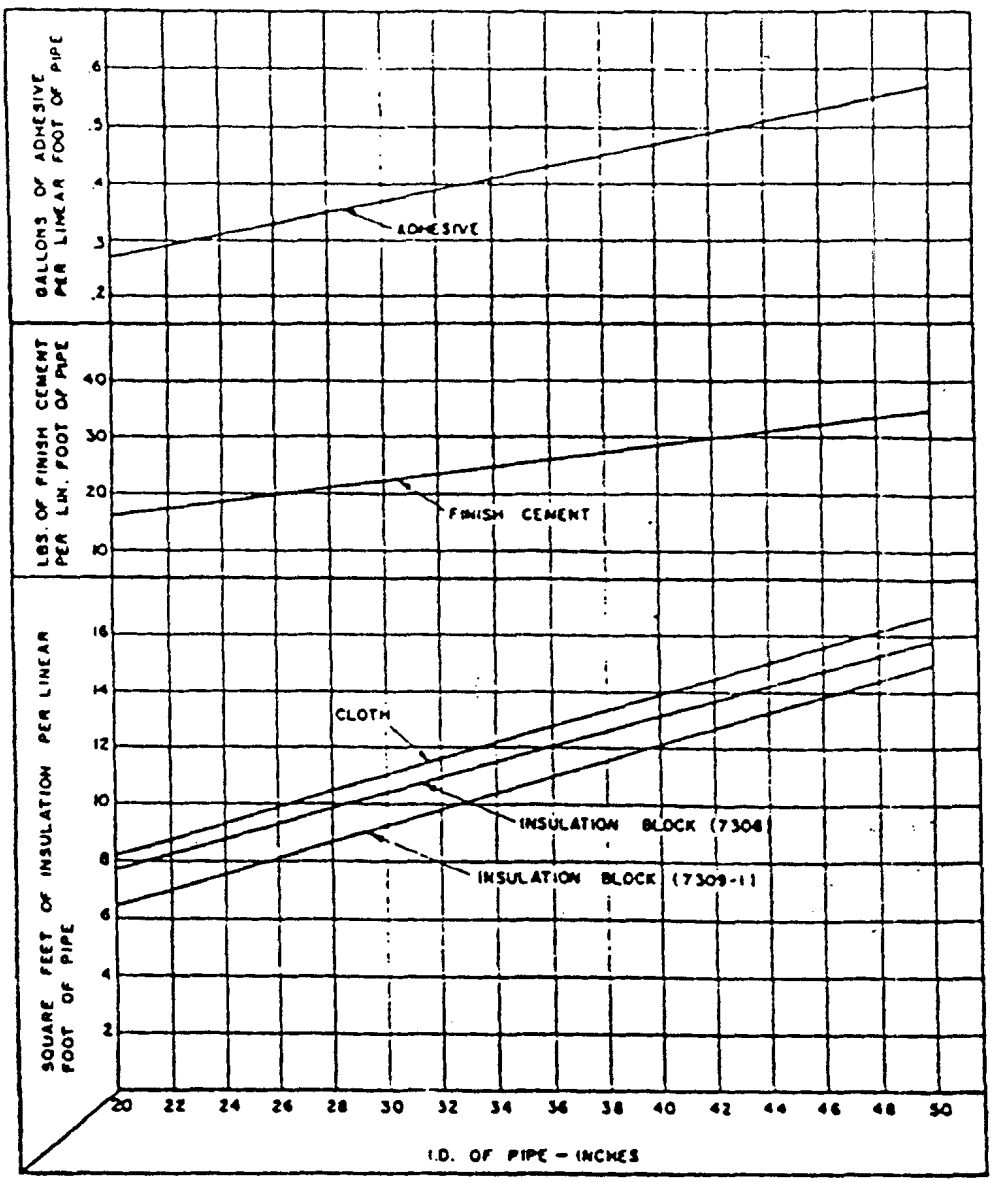
INSULATION - ORDERING INFORMATION FOR LARGE PIPES

PH 920.5

THE CURVES SHOWN BELOW SHOULD BE USED TO DETERMINE THE QUANTITY OF INSULATION MATERIALS TO BE ORDERED ON CROSS-OVER OR OTHER LARGE INSULATED PIPES.

THE AMOUNTS SHOWN INCLUDE AN ADDITIONAL 10 PER CENT FOR WASTAGE, IRREGULAR SHAPES AND FLANGES.

TO ORDER INSULATION MATERIALS DETERMINE TOTAL DEVELOPED LENGTH OF PIPE. FROM CHART BELOW, OVER PROPER PIPE DIAMETER, OBTAIN MATERIAL COVERAGE FIGURE FOR ONE LINEAR FOOT OF PIPE. MULTIPLY THIS FIGURE BY THE LENGTH OF PIPE PREVIOUSLY OBTAINED TO GET TOTAL AREA OF COVERAGE. (SEE EXAMPLE BELOW)



EXAMPLE OF INSULATION MATERIAL ORDERING FOR 39 IN. I.D. PIPE BY 57 FT. DEVELOPED LENGTH.

ITEM	NAME	MTL.	REQ.
1	INSULATION BLOCK (CURVED)	7309-1	690 SQ. FT.
2	INSULATION BLOCK (CURVED)	7308	740 SQ. FT.
3	ASBESTOS CLOTH (12 OZ. UNDERWRITERS GRADE)	41511AP	770 SQ. FT.
4	INSULATION CEMENT	7311	1600 LBS.
5	ADHESIVE	533510U	26 GAL.

600006