

TABLE OF CONTENTS

FOREWORD	iii
FIRE, SMOKE AND RADIATION DAMPER TASK FORCE	iv
NOTICE TO USERS OF THIS PUBLICATION	v
TABLE OF CONTENTS	vii
CHAPTER 1 PURPOSE AND SCOPE	
1.1 PURPOSE	1.1
1.2 SCOPE	1.1
CHAPTER 2 INTRODUCTION AND TERMINOLOGY	
2.1 BACKGROUND	2.1
2.2 TERMINOLOGY	2.1
CHAPTER 3 CODES AND REGULATIONS	
3.1 CODE AUTHORITIES	3.1
3.2 CODE REQUIREMENTS	3.1
3.3 BUILDING/CODE OFFICIALS	3.3
3.4 FIRE RESISTIVE REQUIREMENTS	3.3
3.5 FIGURES, DETAILS AND DESCRIPTIONS IN THIS GUIDE	3.3
3.6 FIRE AND SMOKE DAMPER TESTING	3.4
CHAPTER 4 PLANS AND SPECIFICATIONS RESPONSIBILITIES	
4.1 ARCHITECTS	4.1
4.2 ENGINEERS/SYSTEM DESIGNERS	4.1
4.3 MASTERSPEC AND SPECTEXT	4.1
4.4 BUILDING CODE OFFICIALS	4.1
4.5 HVAC CONTRACTORS	4.2
CHAPTER 5 FIRE DAMPER INSTALLATION	
BASIC FIRE DAMPER INSTALLATION DETAILS	5.3
CHAPTER 6 OPENINGS, PENETRATIONS, AND MULLIONS	
CHAPTER 7 DAMPER TYPES	
CHAPTER 8 ACCESS DOORS AND FIRE DOORS	
CHAPTER 9 CEILING ASSEMBLIES, RADIATION DAMPERS AND HEAT STOPS	
CHAPTER 10 SYMBOLS	



CHAPTER 11 APPLICATIONS

11.1	APPLICATION EXAMPLE NUMBER 1	11.2
11.2	APPLICATION EXAMPLE NUMBER 2	11.4

CHAPTER 12 SUBDUCTS

APPENDIX A NFPA 90A

APPENDIX B RANGE HOOD SYSTEMS

CHAPTER 1 GENERAL	B.1
CHAPTER 2 HOODS	B.2
CHAPTER 4 EXHAUST DUCT SYSTEMS	B.2
CHAPTER 6 AUXILIARY EQUIPMENT	B.3

APPENDIX C HEAT STOP PERFORMANCE

APPENDIX D ACCEPTANCE TESTS GUIDE

D.1	GENERAL	D.1
D.2	SYSTEM OBJECTIVES	D.1
D.3	INSPECTION	D.1
D.4	COMPONENT TESTING	D.1
D.5	FUNCTIONAL TESTING	D.1
D.6	PERFORMANCE TESTING	D.1
D.7	DOCUMENTATION	D.2
D.8	CAUTION	D.2

APPENDIX E SMOKE DETECTORS IN DUCT APPLICATIONS

E.1	PURPOSE	E.1
E.2	TERMINOLOGY	E.1
E.3	SMOKE DETECTORS	E.2
E.4	INSTALLATION	E.2



APPENDIX F SMOKE MANAGEMENT

F.1	PURPOSE	F.1
F.2	TERMINOLOGY	F.1
F.3	INTRODUCTION	F.1
F.4	SMOKE MANAGEMENT SYSTEMS	F.1
F.5	SMOKE CONTROL SYSTEMS	F.2
F.6	SYSTEM GUIDELINES	F.3

REFERENCES

INDEX



TABLES

5-1	Required Fire Damper Installation Instructions	5.1
5-2	Recommended Minimum Sleeve Thickness for Fire Dampers	5.4
7-1	Combination Fire/Smoke Damper Checklist	7.6



FIGURES

5-1	BASIC FIRE DAMPER INSTALLATIONS	5.2
5-2	UL DUCT-SLEEVE CONNECTIONS (BREAKAWAY CONNECTIONS)	5.5
5-3	IMPROPER FIRE DAMPER INSTALLATIONS	5.7
5-4	VERTICAL FIRE DAMPER INSTALLATIONS	5.8
5-5	FIRE DAMPER OUT OF WALL	5.9
5-6	COMBINATION FIRE/SMOKE DAMPER OUT OF WALL INSTALLATION ...	5.10
5-7	HORIZONTAL FIRE DAMPER INSTALLATIONS	5.11
5-8	DUCT LINER INTERRUPTION	5.12
5-9	FIBROUS GLASS DUCT INSTALLATION	5.13
6-1	FIRE DAMPER OPENING PROTECTION	6.1
6-2	MULLIONS	6.2
6-3	MULTIPLE PENETRATIONS	6.4
6-4	DIAGONAL PENETRATION (FIRE DAMPERS)	6.5
7-1	CURTAIN FIRE DAMPERS	7.1
7-2	FIRE DAMPER STYLES	7.2
7-3	SMOKE DAMPER	7.3
7-4	COMBINATION FIRE AND SMOKE DAMPERS	7.4
7-5	COMBINATION FIRE AND SMOKE DAMPERS	7.5
8-1	ACCESS DOORS AND PANELS	8.1
8-2	FIRE DOOR INSTALLATION	8.2
9-1	FIRE RATED CEILING ASSEMBLIES	9.1
9-2	RADIATION DAMPER - HINGED	9.2
9-3	CEILING HEAT STOP - UL SYSTEMS A& B	9.3
9-4	CEILING HEAT STOP - PROTECTION BOARD	9.4
10-1	SYMBOLS FOR HVAC SYSTEMS (I-P)	10.1
10-1M	SYMBOLS FOR HVAC SYSTEMS (SI)	10.2
10-2	SAMPLE APPLICATION OF SYMBOLS TO PLANS	10.3
11-1	APPLICATION EXAMPLE NO.1	11.3
11-2	APPLICATION EXAMPLE NO. 2	11.5
12-1	SUBDUCTS	12.2
C-1	HEAT STOP PERFORMANCE	C.2

