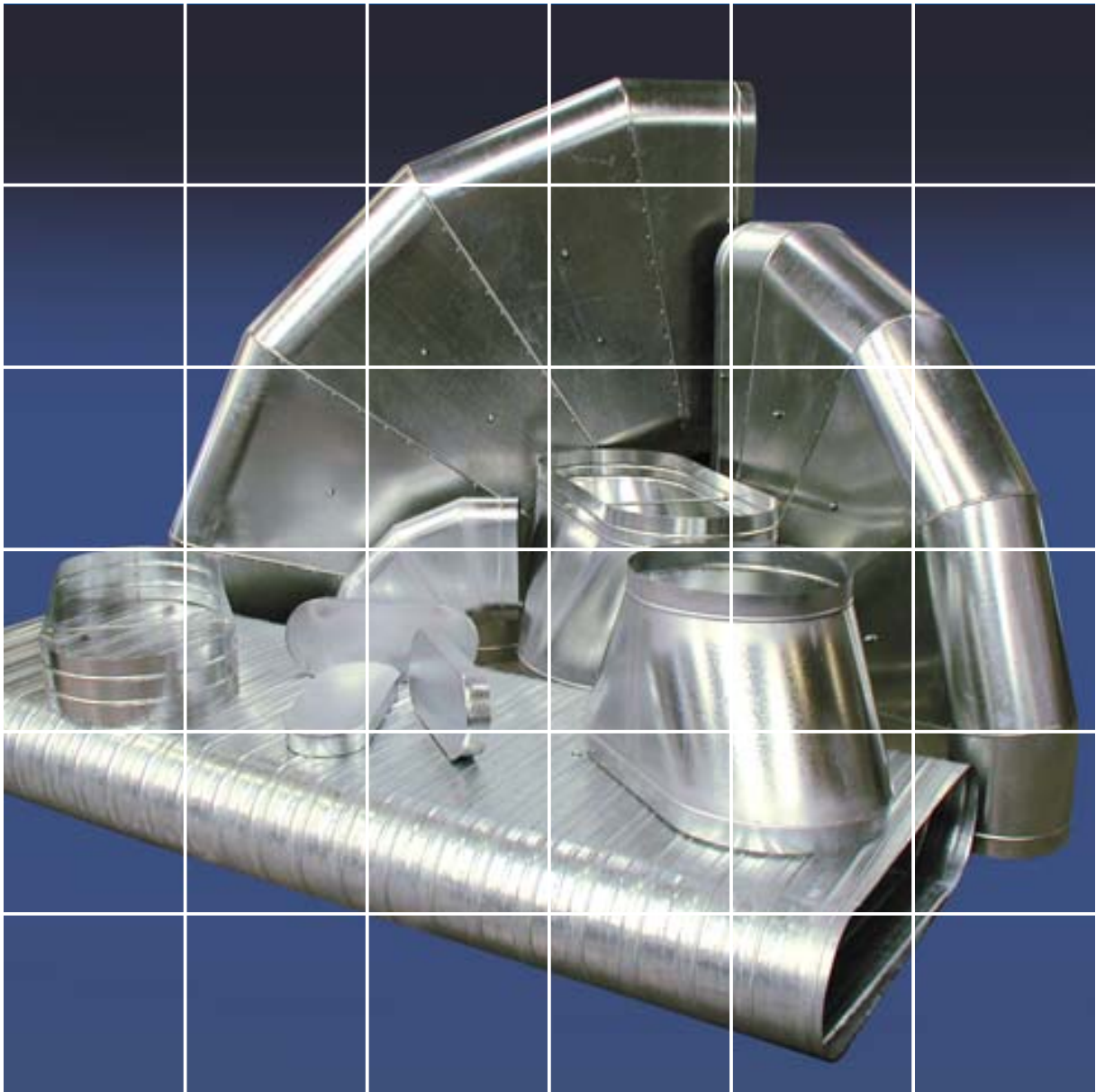




HOTCHKISS AIR SUPPLY

Heating, Ventilating & Air Movement Equipment



F l a t O v a l T u b e a n d F i t t i n g s

Introduction

Hotchkiss Flat Oval ductwork offers all the advantages of rectangular ducts with a standard of air tightness associated with spirally wound ducts.

The range of Flat Oval sizes is particularly useful where designers have space limitations in ceiling voids or riser applications. It has the additional advantage of fewer site joints and supports compared with rectangular ductwork. Site joints may be sealed with conventional sealants, Hardcast or heat shrink products.

The Hotchkiss range of Flat Oval ducts comply fully with the HVCA DW/144 specifications for sheet metal ducts.

These ducts are suitable for Low, Medium and High pressure systems and the following tables illustrate:

1. Design Equivalents (ISO R20 Sizes)

This table gives the size(s) of Flat Oval duct that will provide the equivalent volume to an ISO R20 standard circular duct diameter.

2. Available Sizes and Sheet Thickness

This table illustrates the standard sizes in bold type together with the supplementary sizes in italics and indicates the duct surface area and metal thickness.

3. Flat Oval Ducts Low, Medium Pressure Stiffening Requirements

This table illustrates the stiffening provisions for Flat Oval ducts in these pressure ranges.

4. Flat Oval Ducts High Pressure Stiffening Requirements

This table illustrates the stiffening provisions for Flat Oval ducts in the high pressure range.

5. Flat Oval Fittings

A wide range of matching fittings is available for all sizes of Flat Oval ductwork in all pressure classes. The illustrations indicate the format of the fittings.

Important Notes

All dimensions given in the tables are nominal and must not be used for the production of matching fittings, supports etc.

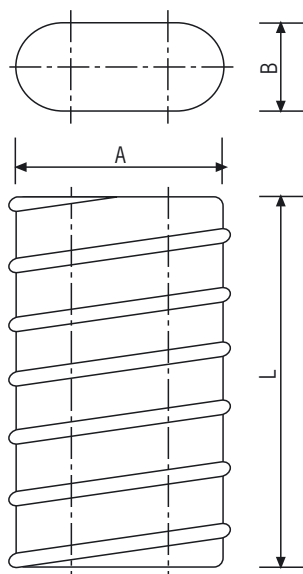
Design Equivalents (ISO R20 sizes)

Table 1

ISO R20 Series Standard Spiral Duct Size Range	Circular - Flat Oval Design Equivalents										
	Depth of Duct - Nominal B mm										
Diameter mm	76	102	127	152	203	254	305	356	406	457	508
160	320										
180	401										
200	521	386									
224		467	371								
250			452	399							
280				478							
315				638							
355				800	610						
400				1039	770	582					
450					932	742	632				
500					1171	902	792				
560						1143	955	846	737		
630						1626	1196	1006	897	787	
710						1950	1598	1326	1138	1029	919
800								1727	1539	1270	1161
900									1941	1671	1483
1000											1885

Width of Duct A mm

For intermediate design sizes consult our technical department



Max Lengths

3000mm up to 478 x 152

3500mm up to 1885 x 508

Sizes & Sheet Thicknesses

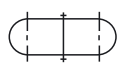
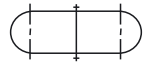
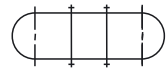
Table 2

Nominal Sheet Thickness	Surface Area per Metre Length	Depth of Duct - Nominal B mm											
		76	102	127	152	203	254	305	356	406	457	508	600
1	2	3											
mm	sq m	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
	0.718	320											
	0.798	361	345	333	318								
	0.878	401	386	371	358								
0.8	0.958	442	427	411	399								
	1.037	480	467	452	437								
	1.117	521	508	493	478								
	1.197		546	533	518								
	1.277				559	531							
	1.436				638	610	582						
	1.596				719	691	663	632					
	1.756				800	770	742	714	686	655			
	1.915				879	851	823	792	765	737	709	678	
	2.075				960	932	902	874	846	818	787	759	
	2.238				1039	1011	983	955	925	897	869	841	
	2.394				1120	1092	1064	1034	1006	978	950	919	900
	2.553				1201	1171	1143	1115	1087	1057	1029	1001	
	2.713							1224	1196	1166	1138	1110	1080
1.0	2.873						1335	1303	1275	1247	1219	1189	1161
	3.033							1384	1356	1326	1298	1270	1242
	3.192							1466	1435	1407	1379	1351	1321
	3.511							1626	1598	1567	1539	1511	1483
	3.671												1500
	3.830							1786	1758	1727	1699	1671	1643
	4.150							1950	1920				1800
	4.310									1969	1941	1913	1885

Note: Standard sizes appear in bold type, supplementary sizes in italics

Low, Medium Pressure Stiffening Requirements

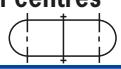

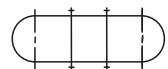
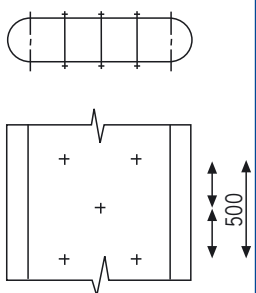
Table 3

Tie Rods	Depth of Duct - Nominal B mm												
	76	102	127	152	203	254	305	356	406	457	508	600	
1	2												
Not required	320												
	361	345	333	318									
	401	386	371	358									
	442	427	411	399									
	480	467	452	437									
	521	508	493	478									
		546	533	518									
				559	531								
				638	610	582							
1000mm centres				719	691	663	632						
				800	770	742	714	686	655				
				879	851	823	792	765	737	709	678		
750mm centres				960	932	902	874	846	818	787	759		
				1039	1011	983	955	925	897	869	841		
				1120	1092	1064	1034	1006	978	950	919	900	
500mm centres				1201	1171	1143	1115	1087	1057	1029	1001		
							1224	1196	1166	1138	1110	1080	1000
							1335	1303	1275	1247	1219	1189	1161
							1384	1356	1326	1298	1270	1242	
							1466	1435	1407	1379	1351	1321	
							1626	1598	1567	1539	1511	1483	
													1500
							1786	1758	1727	1699	1671	1643	
							1950	1920				1800	
									1969	1941	1913	1885	

Note: Standard sizes appear in bold type, supplementary sizes in italics

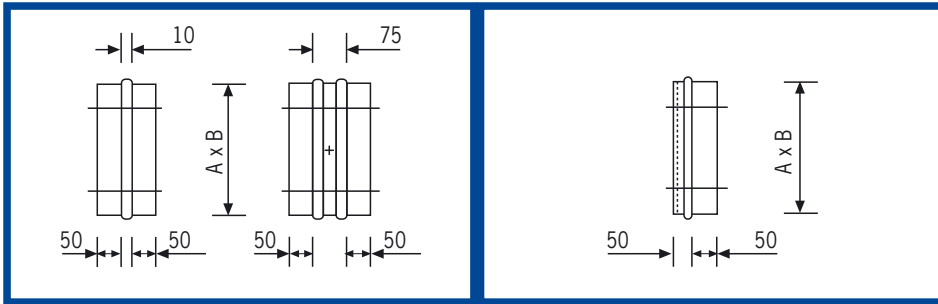
High Pressure Stiffening Requirements

Table 4

Tie Rods	Depth of Duct - Nominal B mm												
	76	102	127	152	203	254	305	356	406	457	508	600	
1	2												
Not required	320												
	361	345	333	318									
	401	386	371	358									
	442	427	411	399									
	480	467	452	437									
	521	508	493	478									
		546	533	518									
1000mm centres				559	531								
				638	610	582							
750mm centres				719	691	663	632						
				800	770	742	714	686	655				
				879	851	823	792	765	737	709	678		
500mm centres				960	932	902	874	846	818	787	759		
				1039	1011	983	955	925	897	869	841		
				1120	1092	1064	1034	1006	978	950	919	900	
				1201	1171	1143	1115	1087	1057	1029	1001		
							1224	1196	1166	1138	1110	1080	1000
				1335	1303	1275	1247	1219	1189	1161			
							1384	1356	1326	1298	1270	1242	
							1466	1435	1407	1379	1351	1321	
							1626	1598	1567	1539	1511	1483	
													1500
							1786	1758	1727	1699	1671	1643	
							1950	1920				1800	
													1969
													1941
													1913
													1885

Note: Standard sizes appear in bold type, supplementary sizes in italics

Connectors, Transitions, End Caps

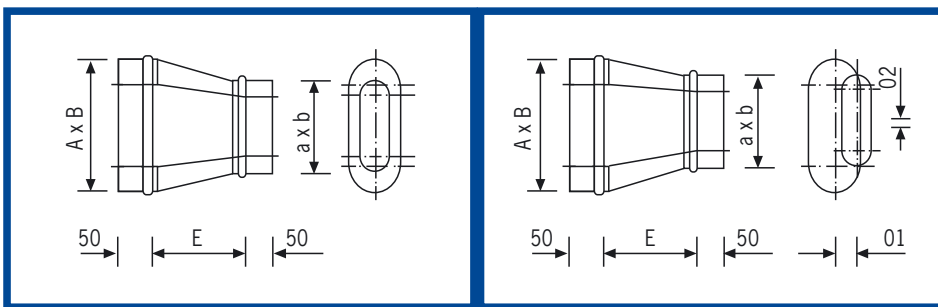


Tube Connector

Order Codes: **RC, DRC**

End Cap

Order Code: **CE**

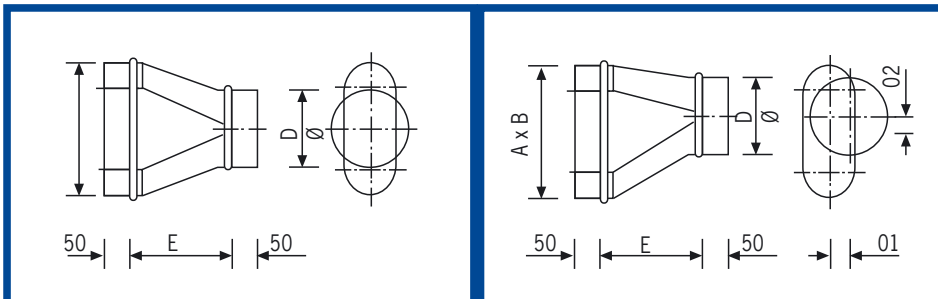


Oval-Oval Concentric Reducer

Order Code: **T**

Oval-Oval Offset Reducer

Order Code: **T**



Oval-Circular Concentric Transition

Order Code: **OR**

Oval-Circular Offset Transition

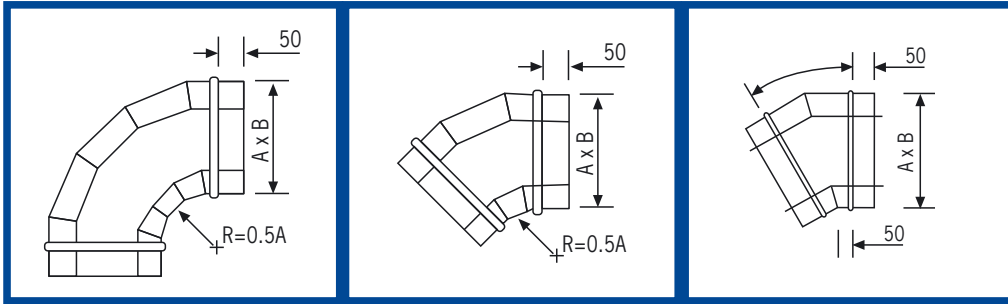
Order Code: **OR**

Note:

In the case of offset transition pieces, the purchaser should provide the following additional dimensions. From the point of the air flow entering the fitting:

1. The horizontal centre line offset left or right in millimetres.
2. The vertical centre line offset up or down in millimetres.
3. Tube connectors, single swaged connectors supplied with oval ducts with no tie bars, double swaged connectors supplied with oval ducts with tie bars.
4. E dimensions to suit clients requirements. Price list allows for max length of 900mm.

Hard Bends

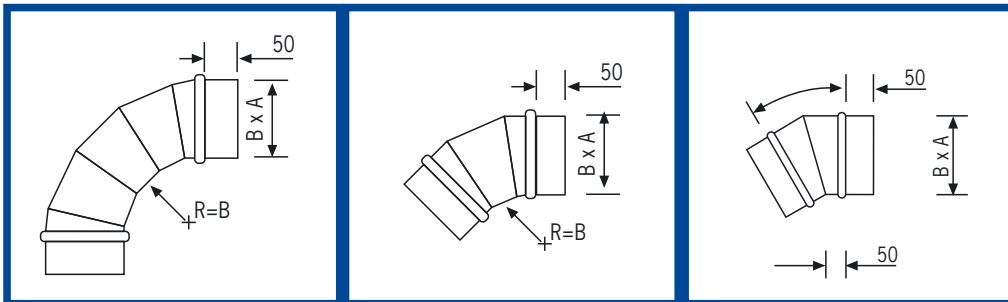


90° Five Section Bend
Order Code: **B90H**

**45° & 60°
Three Section Bend**
Order Codes: **B45H, B60H**

Mitred Elbows
Order Code: **MEH**
Minor angles less than 45°

Easy Bends

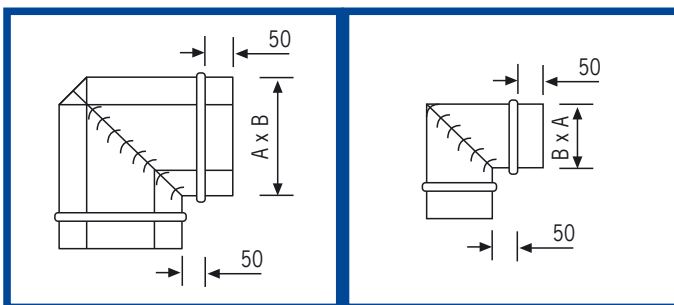


90° Five Section Bend
Order Code: **B90E**

**45° & 60°
Three Section Bend**
Order Codes: **B45E, B60E**

Mitred Elbows
Order Code: **MEE**
Minor angles less than 45°

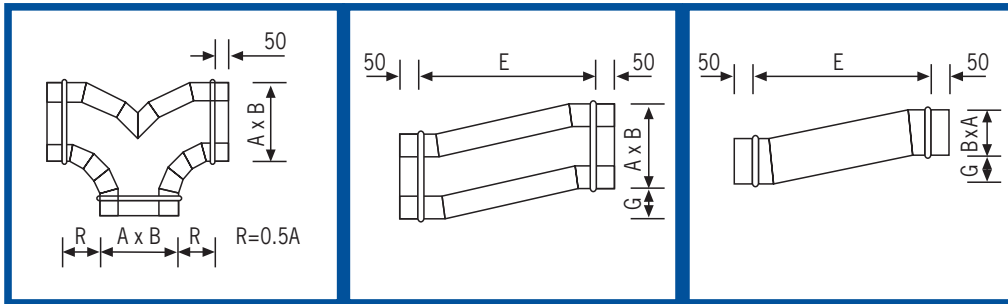
Mitred Bends (With Turning Vanes)



90° Mitred Bend Hard
Order Code: **90MBH**

90° Mitred Bend Easy
Order Code: **90MBE**

Breeches Pieces, Offsets



Breeches Piece

Offset-Hard

Offset-Easy

Note:

E dimensions to suit clients individual requirements. Price list allows for max length of 900mm. Prices for longer offsets available on request.

Head Office:
Heath Mill Road, Wombourne,
Wolverhampton,
West Midlands WV5 8AP
Tel: (01902) 895161
Fax: (01902) 892045

www.hotchkissairsupply.co.uk email: sales@hotchkissairsupply.co.uk