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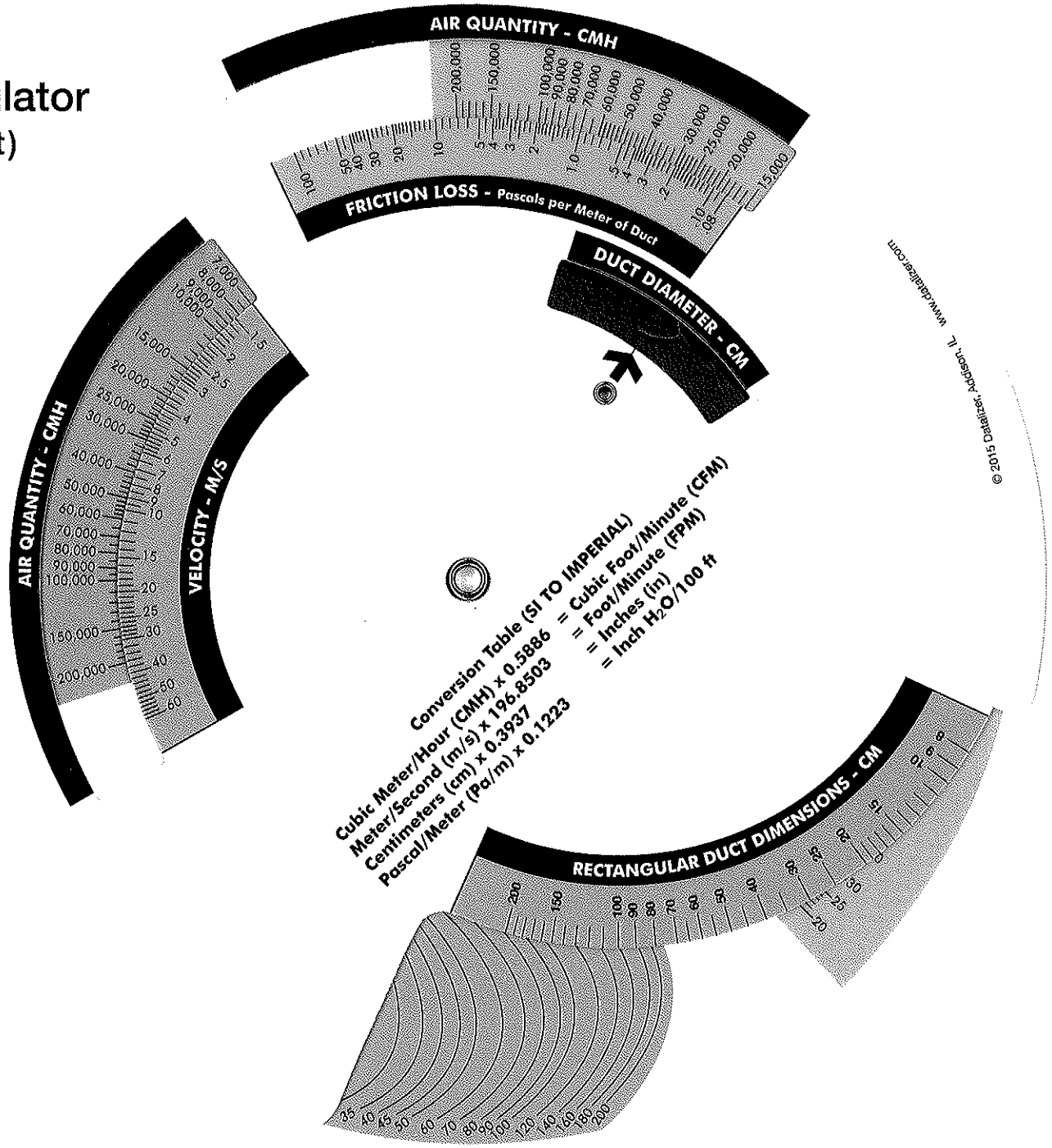
Duct Calculator
(SI Unit)



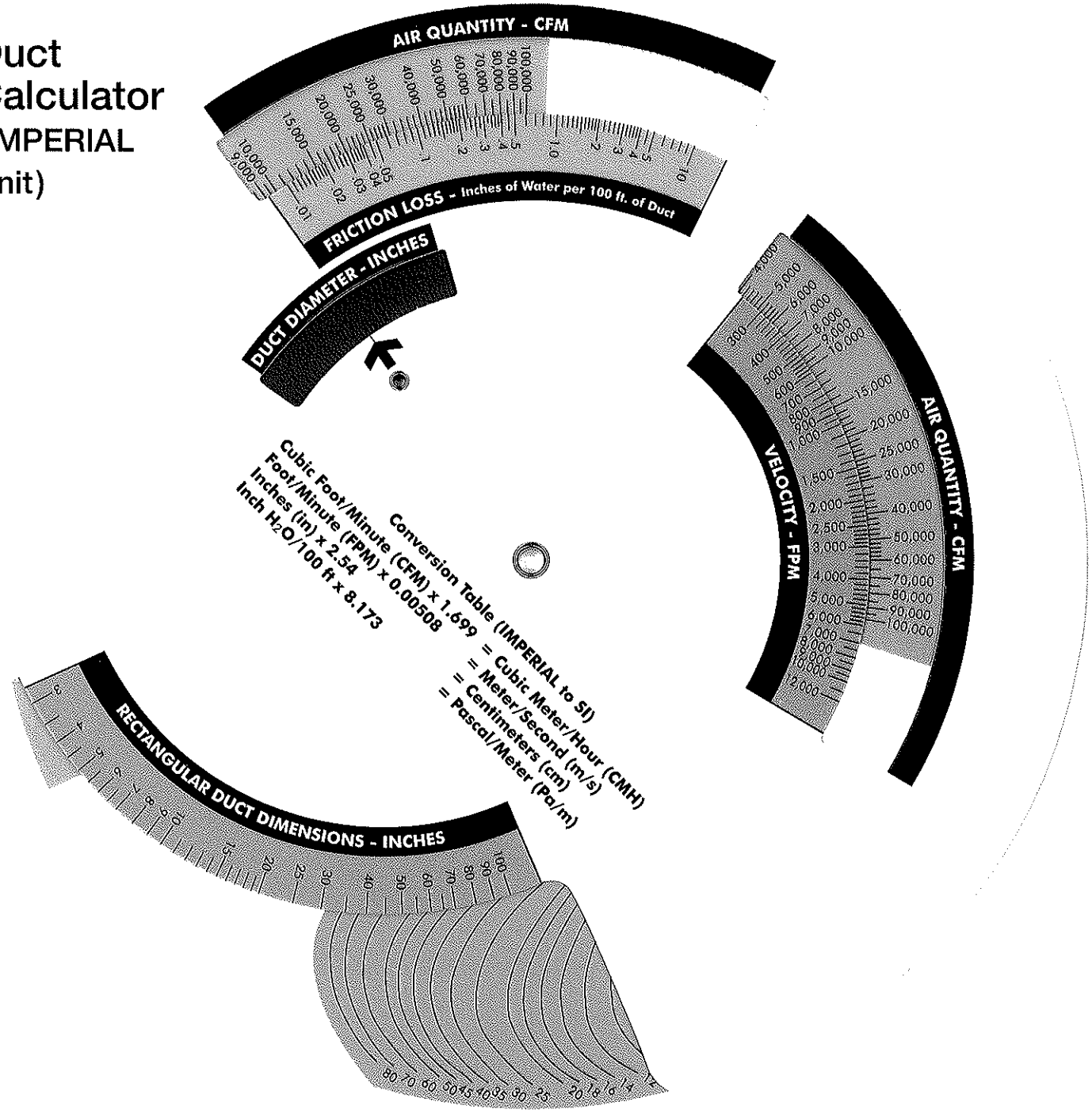
LOW VELOCITY DUCTING SYSTEM (m/s)

Duct Air Velcoity Accounted With Noise Controlling Factor		
Application	**Main Duct (m/s)**	**Branch Duct (m/s)**
Residences/ Apartment Hotel Guestrooms	3.0	2.5 - 3.0
Theatres Ballroom	4.0	2.5 - 3.8
Hospital Ward	5.0	2.5 - 3.8
Libraries Private Offices	6.0	3.5 - 4.5
Banks Restaurants Retail Stores	7.5	5.0 - 6.0
Canteens	9.0	5.0 - 7.5
Industrial	12.5	5.0 - 7.5

CONVERSION TABLE (SI UNIT)

Quantity	Imperial Unit	Multiplier (Imperial - SI)	SI Unit
Air Flow Rate Volumetric Flow	1cu ft/min	0.00047195	m^3/s
Area	1sq ft	0.0929	m^2
Heat Flow	1BTU/hr	0.293071	W
Length	1in	25.4	mm
	1ft	0.3048	m
Liquid Flow	1UK gpm	0.075768	l/s
	1US gpm	0.0631	
Temperature	°F	(t°F-32)/1.8	°C
Velocity	1fpm	0.00508	m/s
Volume	1cu in	0.000016387	m^3
	1cu ft	0.02832	
	1UK gal	4.54609	litre
	1US gal	3.785	

Duct Calculator (IMPERIAL Unit)



LOW VELOCITY DUCTING SYSTEM (FPM)

Duct Air Velcoity Accounted With Noise Controlling Factor		
Application	**Main Duct (FPM)**	**Branch Duct (FPM)**
Residences/ Apartment Hotel Guestrooms	600	500 - 600
Theatres Ballroom	800	500 - 750
Hospital Ward	1000	500 - 750
Libraries Private Offices	1200	700 - 900
Banks Restaurants Retail Stores	1475	1000 - 1200
Canteens	1775	1000 - 1475
Industrial	2460	1000 - 1475

CONVERSION TABLE (IMPERIAL UNIT)

Quantity	SI Unit	Multiplier (SI - Imperial)	Imperial Unit
Air Flow Rate Volumetric Flow	1m³/s	2118.86	cu ft/min
Area	1m²	10.76	sq ft
Heat Flow	1W	3.413	BTU/hr
Length	1mm	0.0394	in
	1m	3.281	ft
Liquid Flow	1l/s	13.198	UK gpm
		15.848	US gpm
Temperature	°C	(t°C x 1.8)+32	°F
Velocity	1m/s	196.85	fpm
Volume	1m³	61032.678	cu in
		35.311	cu ft
	1litre	0.22	UK gal
		0.264	US gal