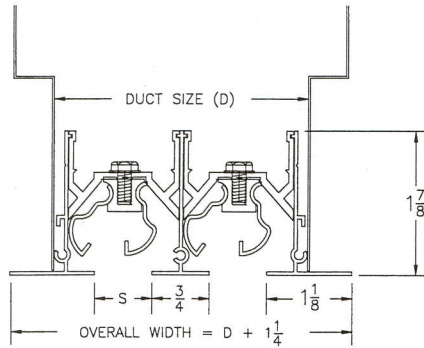


# AIR DISTRIBUTION SUBMITTAL

## TEE BAR LAY-IN APPLICATION STRAIGHT DUCT MOUNTING

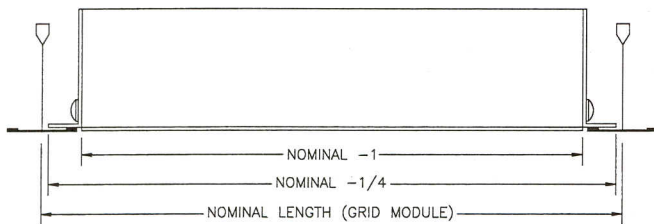
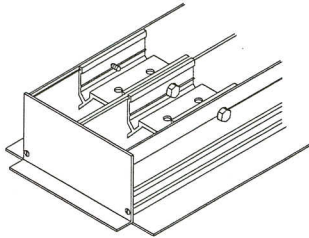


### DUCT SIZE D (WIDTH)

	NUMBER OF SLOTS							
	1	2	3	4	5	6	7	8
S=1/2	1 1/2	2 3/4	4	5 1/4	6 1/2	7 3/4	9	10 1/4
S=3/4	1 3/4	3 1/4	4 3/4	6 1/4	7 3/4	9 1/4	10 3/4	12 1/4
S=1	2	3 3/4	5 1/2	7 1/4	9	10 3/4	12 1/2	14 1/4

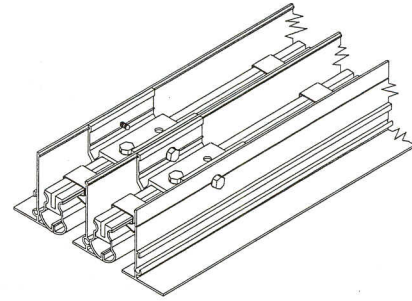
DONCO MODEL DP AND SDP DISTRIBUTION PLENUMS ARE AVAILABLE FOR ALL TYPES OF LINEAR SLOT APPLICATIONS.

### END BRACKET DETAIL



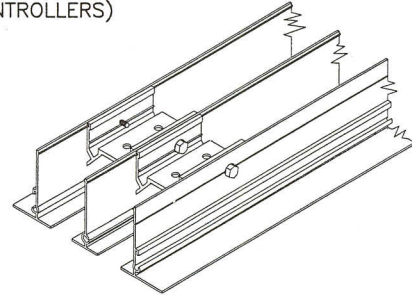
### SUPPLY

- HPL-50 1/2" SLOT
- HPL-75 3/4" SLOT
- HPL-10 1" SLOT



### RETURN (NO PATTERN CONTROLLERS)

- HPLR-50 1/2" SLOT
- HPLR-75 3/4" SLOT
- HPLR-10 1" SLOT



### FEATURES

- CONSTRUCTED OF EXTRUDED ALUMINUM WITH WHITE FINISH ON FACE AND BLACK PATTERN CONTROLLERS.
- STEEL PATTERN CONTROLLERS PROVIDE 180 DEGREE THROW ADJUSTMENT ALONG WITH VOLUME CONTROL.
- PATTERN CONTROLLERS ARE FURNISHED IN MULTIPLE SECTIONS FOR DIFFUSERS LONGER THAN 3 FT.
- STANDARD END BRACKETS PROVIDE A TRUE FLUSH LAY-IN INSTALLATION FOR 15/16 TEE BAR GRIDS.
- CONTACT FACTORY FOR OTHER GRID APPLICATIONS.
- STANDARD DESIGN CAN BE FIELD-CUT IF NEEDED WHERE GRID MODULES ARE STOPPED SHORT AT A WALL.

### OPTIONS (SPECIFY)

- HPL-50 SUPPLY
- HPL-75 SUPPLY
- HPL-10 SUPPLY
- HPLR-50 RETURN
- HPLR-75 RETURN
- HPLR-10 RETURN
- NOMINAL LENGTH (20,24,30,36,48,60)
- NUMBER OF SLOTS (1-8)

STANDARD INDUSTRY TOLERANCES APPLY. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

JOB NAME: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ARCHITECT: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_

## HPL SERIES LINEAR SLOT DIFFUSERS TEE BAR LAY-IN (TB)

DRAWN BY  
MDP

DATE  
6-5-2000

DWG. NO.  
HPL-TB

P.O. BOX 250  
 ALBION, IOWA 50005  
 PH. (641) 488-2211 FAX (641) 488-2796  
 www.raymon-hvac.com



**RAYMON**  
DONCO AIR DISTRIBUTION EQUIPMENT

# HPL PERFORMANCE DATA

## 1 SLOT SUPPLY

	CFM/Ft.	8	17	26	35	44	53
	1/2" SLOT	Ps	.008	.042	.112	.213	.338
	NC	(20)	20	31	39	46	50
	Throw	4	9	14	19	23	28
	CFM/Ft.	10	20	30	40	50	60
	3/4" SLOT	Ps	.004	.039	.075	.127	.190
	NC	(20)	(20)	25	32	37	45
	Throw	3	10	18	25	30	34
	CFM/Ft.	10	22	34	46	58	70
	1" SLOT	Ps	.002	.020	.048	.094	.147
	NC	(20)	(20)	20	28	34	40
	Throw	6	12	20	26	30	35

## 2 SLOT SUPPLY

	CFM/Ft.	12	30	48	66	84	102
	1/2" SLOT	Ps	.007	.036	.102	.205	.330
	NC	(20)	21	32	41	48	53
	Throw	6	14	21	25	28	31
	CFM/Ft.	20	40	60	80	100	120
	3/4" SLOT	Ps	.007	.037	.083	.147	.230
	NC	(20)	(20)	26	33	41	48
	Throw	10	23	31	38	43	47
	CFM/Ft.	20	44	68	92	116	140
	1" SLOT	Ps	.004	.029	.072	.127	.206
	NC	(20)	(20)	23	33	39	45
	Throw	10	23	33	41	46	51

## 3 SLOT SUPPLY

	CFM/Ft.	20	45	70	95	120	145
	1/2" SLOT	Ps	.007	.042	.107	.204	.320
	NC	(20)	22	34	42	48	54
	Throw	9	16	22	27	31	33
	CFM/Ft.	25	55	85	115	145	175
	3/4" SLOT	Ps	.007	.031	.080	.143	.232
	NC	(20)	(20)	25	34	43	49
	Throw	10	25	34	42	48	51
	CFM/Ft.	30	65	100	135	170	205
	1" SLOT	Ps	.006	.032	.077	.138	.216
	NC	(20)	(20)	24	35	43	48
	Throw	12	25	35	42	48	52

## 4 SLOT SUPPLY

	CFM/Ft.	25	59	93	127	161	195
	1/2" SLOT	Ps	.012	.056	.125	.231	.359
	NC	(20)	23	35	44	50	54
	Throw	10	18	24	29	33	36
	CFM/Ft.	30	65	100	135	170	205
	3/4" SLOT	Ps	.007	.032	.068	.127	.195
	NC	(20)	(20)	23	33	41	48
	Throw	13	28	39	47	53	56
	CFM/Ft.	40	80	120	160	200	240
	1" SLOT	Ps	.008	.032	.072	.126	.198
	NC	(20)	(20)	23	35	44	49
	Throw	14	23	31	40	48	55

## HPLR RETURN PERFORMANCE DATA

	1 SLOT					2 SLOT					3 SLOT					4 SLOT								
	CFM/Ft.	10	20	30	40	50	CFM/Ft.	20	40	60	80	100	CFM/Ft.	30	60	90	120	150	CFM/Ft.	40	80	120	160	200
1/2" SLOT	-Ps	.010	.051	.120	.205	.300	-Ps	.010	.051	.120	.205	.300	-Ps	.010	.051	.120	.205	.300	-Ps	.010	.051	.120	.205	.300
	NC	(20)	(20)	23	31	36	NC	(20)	(20)	25	33	38	NC	(20)	(20)	27	35	40	NC	(20)	20	28	36	41
3/4" SLOT	CFM/Ft.	10	25	40	55	70	CFM/Ft.	20	50	80	110	140	CFM/Ft.	30	75	120	165	210	CFM/Ft.	40	100	160	220	280
	Ps	.008	.045	.115	.222	.270	-Ps	.008	.045	.115	.222	.270	-Ps	.008	.045	.115	.222	.270	-Ps	.008	.045	.115	.222	.270
	NC	(20)	(20)	23	32	38	NC	(20)	(20)	25	34	40	NC	(20)	(20)	27	36	42	NC	(20)	(20)	28	37	43
1" SLOT	CFM/Ft.	20	35	50	65	80	CFM/Ft.	40	70	100	130	160	CFM/Ft.	60	105	150	195	240	CFM/Ft.	80	140	200	260	320
	-Ps	.020	.058	.116	.202	.302	-Ps	.020	.058	.116	.202	.302	-Ps	.020	.058	.116	.202	.302	-Ps	.020	.058	.116	.202	.302
	NC	(20)	(20)	23	29	35	NC	(20)	(20)	25	31	37	NC	(20)	(20)	27	33	39	NC	(20)	(20)	28	34	40

## LENGTH FACTORS

Diffuser Length	2	4	6	8	10
Throw Multiplier	.9	1.0	1.1	1.2	1.3
NC Adjustment	-3	0	+2	+3	+4

Ps - Static pressure in inches of water with horizontal throw.

Throw - Horizontal distances in feet to a terminal velocity of 50 FPM. Throw values are based on 1-way pattern. For divided air flow, refer to data from another model based on proportional CFM and number of slots throwing one direction.

NC - Noise criteria based on 10 db room absorption.

Throw and NC values are based on 4 ft. lengths. For other lengths, refer to length factors above.

Performance data is based on tests performed at DONCO AIR PRODUCTS and Intertek Testing Services (formerly ETL) in accordance with ASHRAE 70-1991. Copy of report J97028260 is available upon request.