

# DLB SERIES - INTERNAL AIR CYLINDER

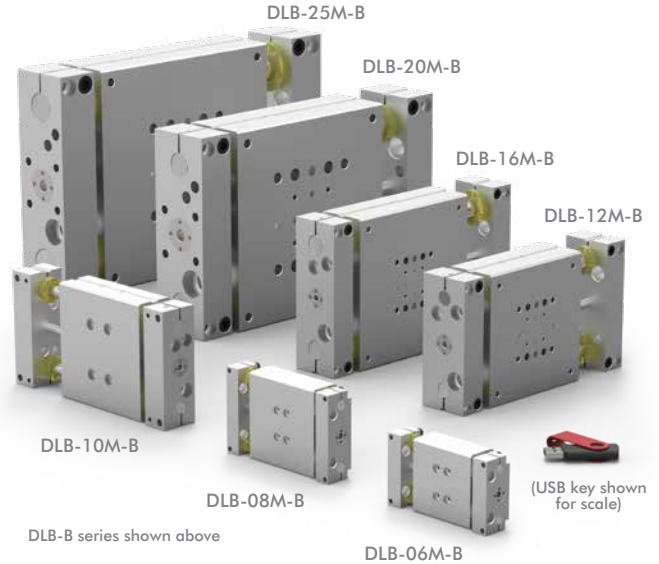
## Internal Air Cylinder Linear Base Slides | Features and Benefits | How To Order

### Features:

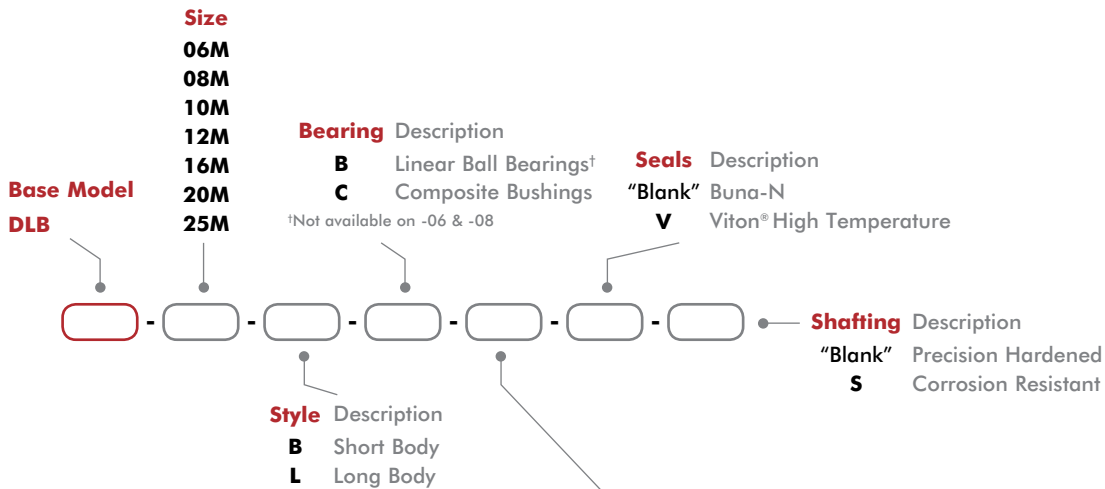
- Bearing system for smooth operation
- Rugged design produces very reliable long life operation
- Internal air cylinder for space-limited applications
- Telescopic airlines, shocks and hard stops available
- Viton® seals for high temp applications
- Corrosion resistant shafting for corrosive environments
- Inductive sensing for position detection
- Custom stroke lengths available.

### Applications:

- Machining and automation applications
- Harsh environment pick-and-place applications
- OEM machines



### How To Order



-B Style	Stroke* Metric (mm)	-L Style	Stroke* Metric (mm)
DLB-06M-B	6, 12, 25, 30	DLB-06M-L	12, 25, 40, 50, 65, 75
DLB-08M-B	6, 12, 25, 40, 44	DLB-08M-L	12, 25, 40, 50, 65, 75, 85
DLB-10M-B	25, 50	DLB-10M-L	25, 50, 80, 100
DLB-12M-B	25, 50	DLB-12M-L	25, 50, 80, 100, 125
DLB-16M-B	25, 50, 80	DLB-16M-L	25, 50, 80, 100, 125, 150
DLB-20M-B	25, 50, 80, 100	DLB-20M-L	25, 50, 80, 100, 125, 160
DLB-25M-B	25, 50, 80, 100, 125	DLB-25M-L	25, 50, 80, 100, 125, 160, 175

\*Custom strokes available. Consult factory.

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# DLB SERIES - INTERNAL AIR CYLINDER

## Internal Air Cylinder Linear Base Slides | Accessories and Technical Specifications

Shock/Stop Accessories	Model Numbers	Style	Part Number	Qty/Unit
Shock Absorber	06, 08	ALL	SHOK-030	1-2
	10		SHOK-028	
	12, 16,		SHOK-010	
	20, -25		SHOK-029	
Adjustable Hard Stop	06, 08	ALL	DLT-0623	1-2
	10, 12, 16, 20, 25		DLT-1023	
Sensor Accessories	Model Numbers	Style	Part Number	Qty/Unit
PNP Inductive Sensor with Quick Disconnect*	All Models	ALL	OISP-011	1-2
NPN Inductive Sensor with Quick Disconnect*			OISN-011	
Quick Disconnect 2 Meter Cable Length*			CABL-010	
Quick Disconnect 5 Meter Cable Length*			CABL-013	
Pneumatic Accessories	Model Numbers	Style	Part Number	Qty/Unit
G1/8 Telescopic Airlines (up to 50mm)	10, 12, 16	B	OTAL-043	1-4
G1/8 Telescopic Airlines (up to 80mm)	10, 12, 16		OTAL-044	
G1/8 Telescopic Airlines (up to 100mm)	10, 12, 16	L	OTAL-051	
G1/8 Telescopic Airlines (up to 125mm)	10, 12, 16		OTAL-052	
G1/8 Telescopic Airlines (up to 160mm)	10, 12, 16, 20, 25	L	OTAL-045	1-2
G1/8 Telescopic Airlines (up to 300mm)	20, 25		OTAL-046	
M5 Adjustable Flow Control	06, 08, 10, 12, 16	ALL	VLVF-008	
G 1/8 Adjustable Flow Control	20, 25		VLVF-005	
Cylinder Seal Kit (Buna-N)	06, 08		SLKT-109	1
	10		SLKT-101	
	12, 16	SLKT-103		
	20, 25	SLKT-105		
Cylinder Seal Kit (Viton®)	06, 08	SLKT-109V	1	
	10	SLKT-101V		
	12, 16	SLKT-103V		
	20, 25	SLKT-105V		

\*Sensor and cable sold separately.

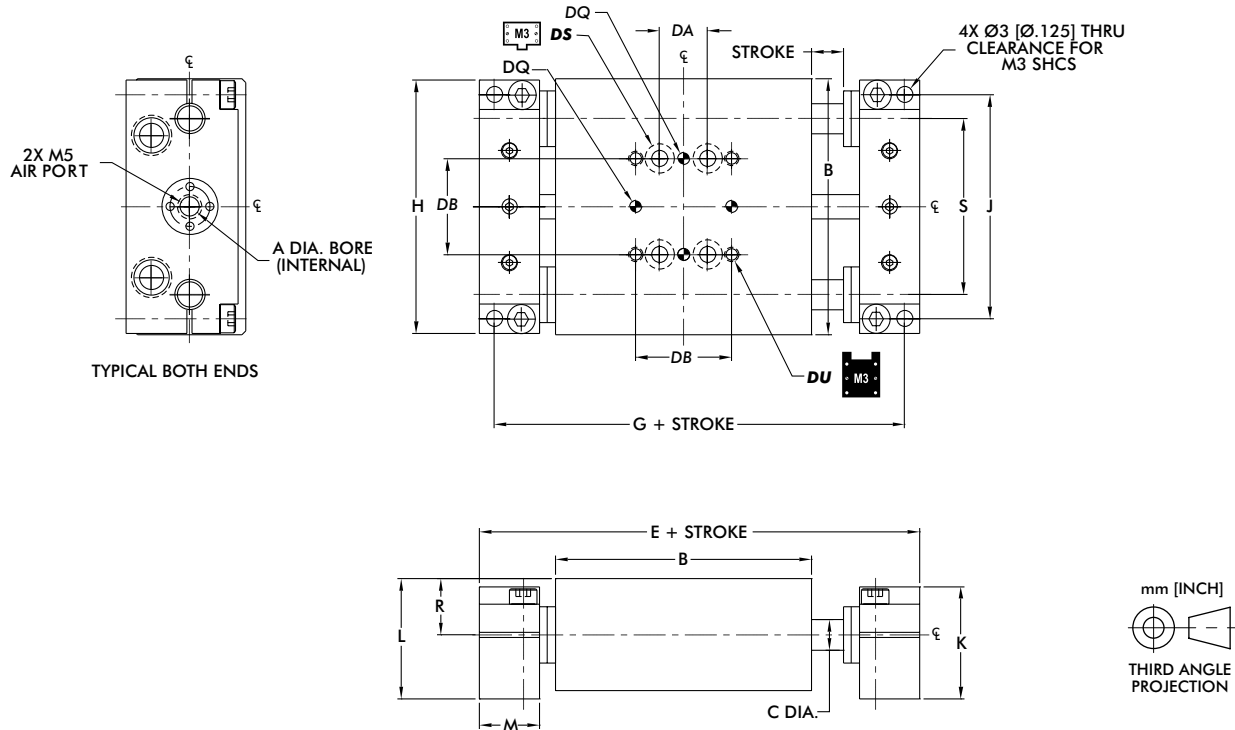
See page GR-LIN-35 for Accessory Mounting Technical Data.

### Specifications

Specifications	Units	06-B, L	08-B, L	10-B, L	12-B, L
Max. Air Pressure	bar [psi]	7 [100]			
Thrust Force @ 5.5 bar [80psi]	N [lbs]	89 [20]		129 [29]	254 [57]
Weight (basic unit) <b>-B</b>	kg [lb]	0.20 [0.44]	0.36 [0.79]	0.93 [2.08]	1.7 [3.83]
Weight (basic unit) <b>-L</b>	kg [lb]	0.32 [0.71]	0.56 [1.24]	1.50 [3.34]	2.30 [5.13]
Additional Weight per Stroke <b>-B</b>	g/mm [lbs/in]	0.53 [0.03]	0.88 [0.05]	1.4 [0.08]	2.1 [0.12]
Cylinder Bore Ø	mm [in]	14.29 [0.563]		19 [0.75]	25 [1.00]
Shaft Ø	mm [in]	6 [0.236]	8 [0.315]	9.5 [0.375]	12 [0.472]

Specifications	Units	16-B, L	20-B, L	25-B, L
Max. Air Pressure	bar [psi]	7 [100]		
Thrust Force @ 5.5 bar [80psi]	N [lbs]	254 [57]	560 [126]	560 [126]
Weight (basic unit) <b>-B</b>	kg [lb]	2.4 [5.19]	5.9 [13.0]	8.2 [18.2]
Weight (basic unit) <b>-L</b>	kg [lb]	3.30 [7.30]	7.1 [15.6]	9.7 [21.4]
Additional Weight per Stroke <b>-B</b>	g/mm [lbs/in]	3.3 [0.19]	5.54 [0.32]	8.4 [0.47]
Cylinder Bore Ø	mm [in]	25 [1.00]	38 [1.5]	38 [1.5]
Shaft Ø	mm [in]	16 [0.630]	20 [0.787]	25 [0.984]

## Internal Air Cylinder Linear Base Slides | Dimensions and Technical Specifications



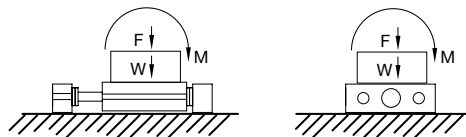
DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)				
DA	DB	DQ	DS	DU
9.5 [0.375]	19.1 [0.750]	3H7 X 2 DP	CLR & C'BORE FOR M3	M3 x 6 DP

Model	Bore Ø	Body Size	Shaft Ø	Basic Unit Dimensions								
	A	B	C	E	G	H	J	K	L	M	R	S
DLB-06M	14 [0.563]	50.8 [2.000]	6.0 [0.236]	81.0 [3.19]	75.1 [2.956]	50.3 [1.980]	44.4 [1.750]	22.2 [0.875]	23.7 [0.936]	11.9 [0.470]	11.13 [0.438]	34.93 [1.375]
DLB-08M		63.5 [2.500]	8.0 [0.315]	93.7 [3.69]	87.8 [3.456]	62.7 [2.470]	57.1 [2.250]					44.45 [1.750]

Dimensions in mm [in]

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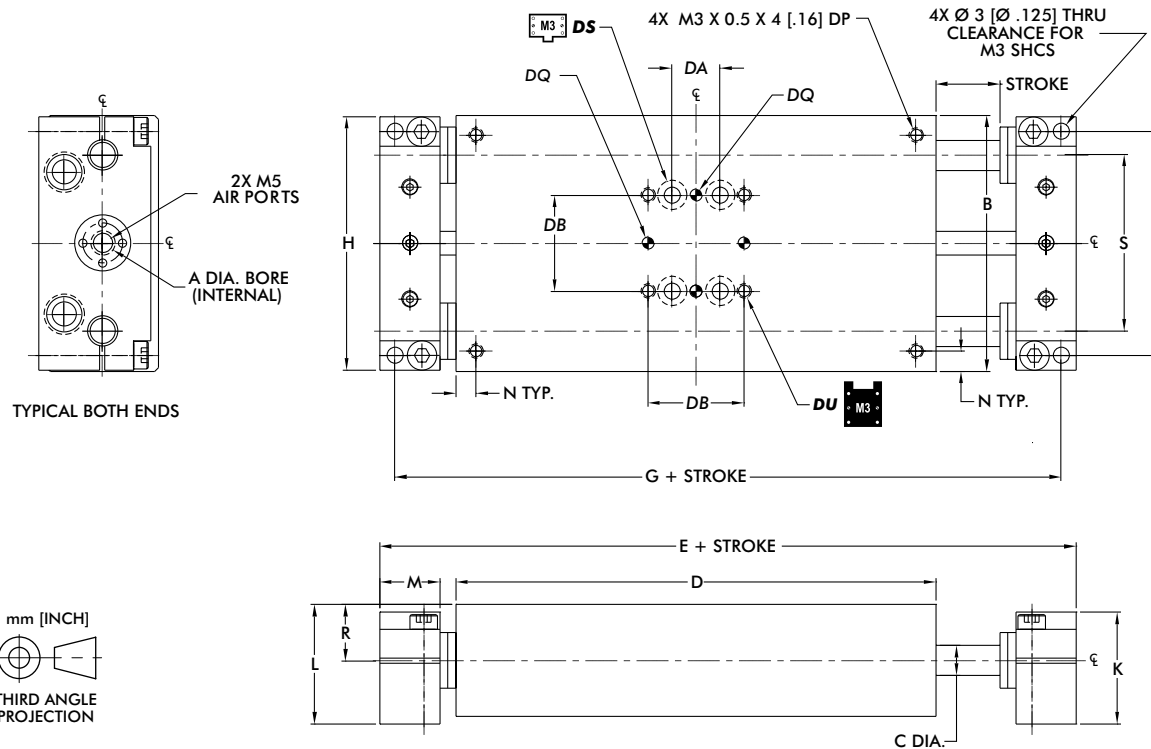
- F**=Externally applied force
- W**=Weight of payload
- F+W**=Total force
- M**=Maximum moment



	06	08
Maximum Payload ( <b>W</b> ) horizontal motion using Shock Absorbers	1.4 kg [3 lbs]	2.3 kg [5 lbs]
Maximum Payload ( <b>W</b> ) vertical motion using Shock Absorbers	0.7 kg [1.5 lbs]	1.1 kg [2.5 lbs]
Maximum Payload ( <b>W</b> ) horizontal motion using Urethane Bumpers	0.5 kg [1 lbs]	0.5 kg [1 lbs]
Maximum Total Applied Load + Payload ( <b>F+W</b> )	45 N [10 lbs]	53.4 N [12 lbs]
Total Maximum Moment about any Axis ( <b>M</b> )	1.7 Nm [15 in-lbs]	3.4 Nm [30 in-lbs]

**Shock Absorbers and Flow Controls are recommended for all applications**

Internal Air Cylinder Linear Base Slides | Dimensions and Technical Specifications



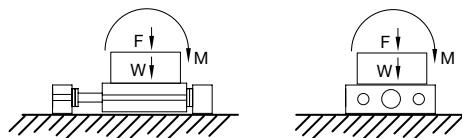
DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)				
DA	DB	DQ	DS	DU
9.5 [0.375]	19.1 [0.750]	3H7 X 2 DP	CLR & C'BORE FOR M3	M3 X 6 DP

Model	Bore Ø	Body Size	Shaft Ø	Basic Unit Dimensions										
				A	B	C	D	E	G	H	J	K	L	M
DLB-06M	14 [0.563]	50.8 [2.00]	6.0 [0.236]	95.2 [3.75]	125.5 [4.94]	119.6 [4.71]	50.3 [1.980]	44.4 [1.750]	22.2 [0.875]	23.7 [0.936]	11.9 [0.470]	3.96 [0.156]	11.13 [0.438]	34.93 [1.375]
DLB-08M		63.5 [2.50]	8.0 [0.315]	107.9 [4.25]	138.2 [5.44]	132.2 [5.206]	62.7 [2.470]	57.1 [2.250]						44.45 [1.750]

Dimensions in mm [in]

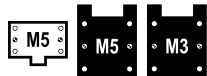
**Loading Information**

- F=Externally applied force
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- M=Maximum moment

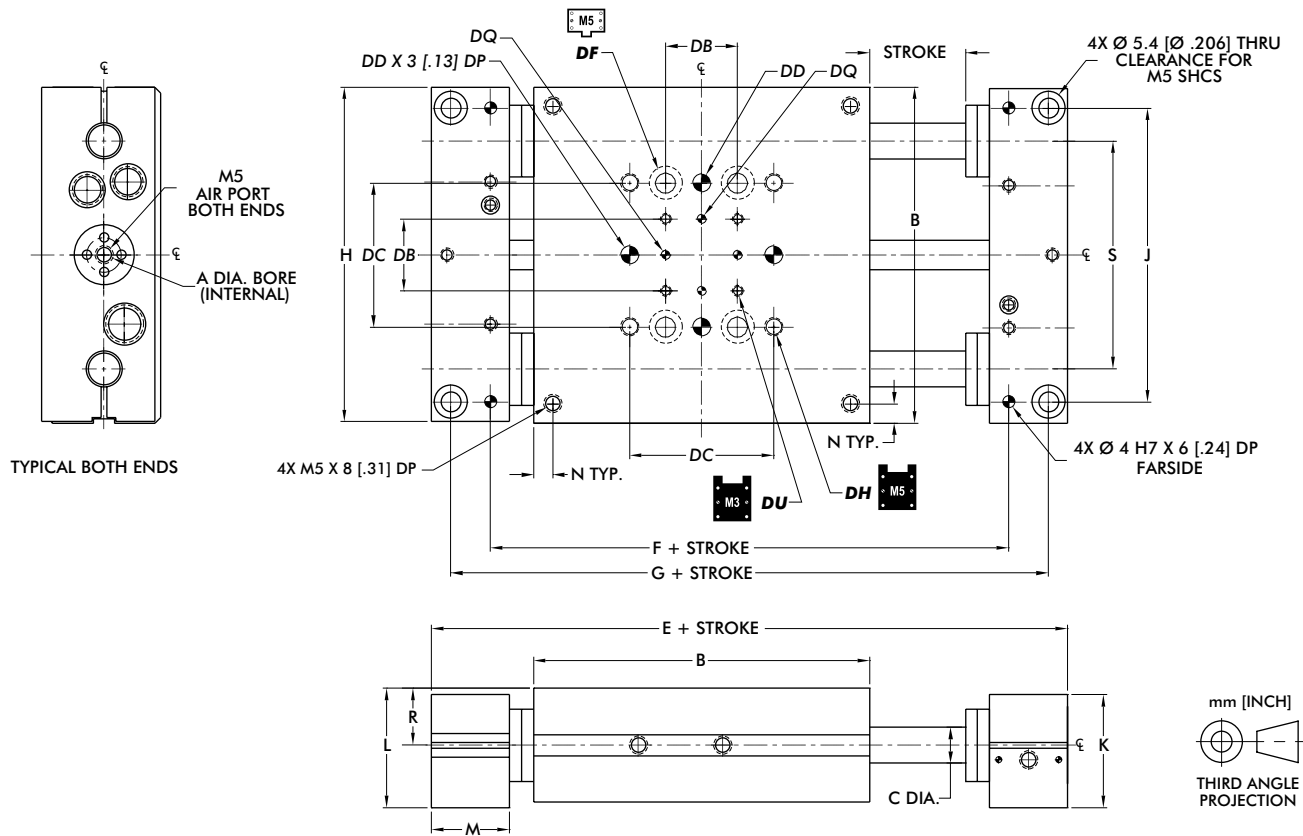


	06	08
Maximum Payload (W) horizontal motion using Shock Absorbers	1.4 kg [3 lbs]	2.3 kg [5 lbs]
Maximum Payload (W) vertical motion using Shock Absorbers	0.7 kg [1.5 lbs]	1.1 kg [2.5 lbs]
Maximum Payload (W) horizontal motion using Urethane Bumpers	0.5 kg [1 lbs]	0.5 kg [1 lbs]
Maximum Total Applied Load + Payload (F+W)	45 N [10 lbs]	53.4 N [12 lbs]
Total Maximum Moment about any Axis (M)	1.7 Nm [15 in-lbs]	3.4 Nm [30 in-lbs]

**Shock Absorbers and Flow Controls are recommended for all applications**



## Internal Air Cylinder Linear Base Slides | Dimensions and Technical Specifications



**DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)**

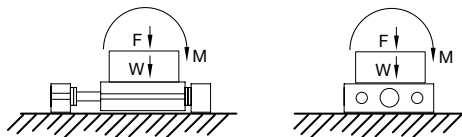
DB	DC	DD	DF	DH	DQ	DU
19.1 [0.750]	38.1 [1.500]	5mm H7 X 6 DP	CLEARANCE FOR M5	M5 X 8.5DP	3H7 X 2 DP	M3 X 6 DP

Model	Bore Ø Body Size Shaft Ø			Basic Unit Dimensions										
	A	B	C	E	F	G	H	J	K	L	M	N	R	S
DLB-10M	19 [0.75]	88.9 [3.50]	9.5 [0.375]	143.0 [5.63]	111.70 [4.3975]	132.8 [5.228]	88.5 [3.485]	77.72 [3.0600]	29.9 [1.178]	31.6 [1.245]		N/A	15.09 [0.594]	60.33 [2.375]
DLB-12M	25 [1.00]	101.6 [4.00]	12 [0.472]	155.7 [6.13]	124.40 [4.8975]	145.5 [5.728]	101.2 [3.985]	88.90 [3.5000]	41.0 [1.615]	42.1 [1.657]	20.7 [0.813]	9.5 [0.375]	20.65 [0.813]	69.85 [2.750]
DLB-16M		120.7 [4.75]	16 [0.630]	174.8 [6.88]	143.45 [5.6475]	164.5 [6.478]	120.3 [4.735]	107.95 [4.2500]						

Dimensions in mm [in]

### Loading Information

- F**=Externally applied force
- W**=Weight of payload
- F+W**=Total force
- M**=Maximum moment

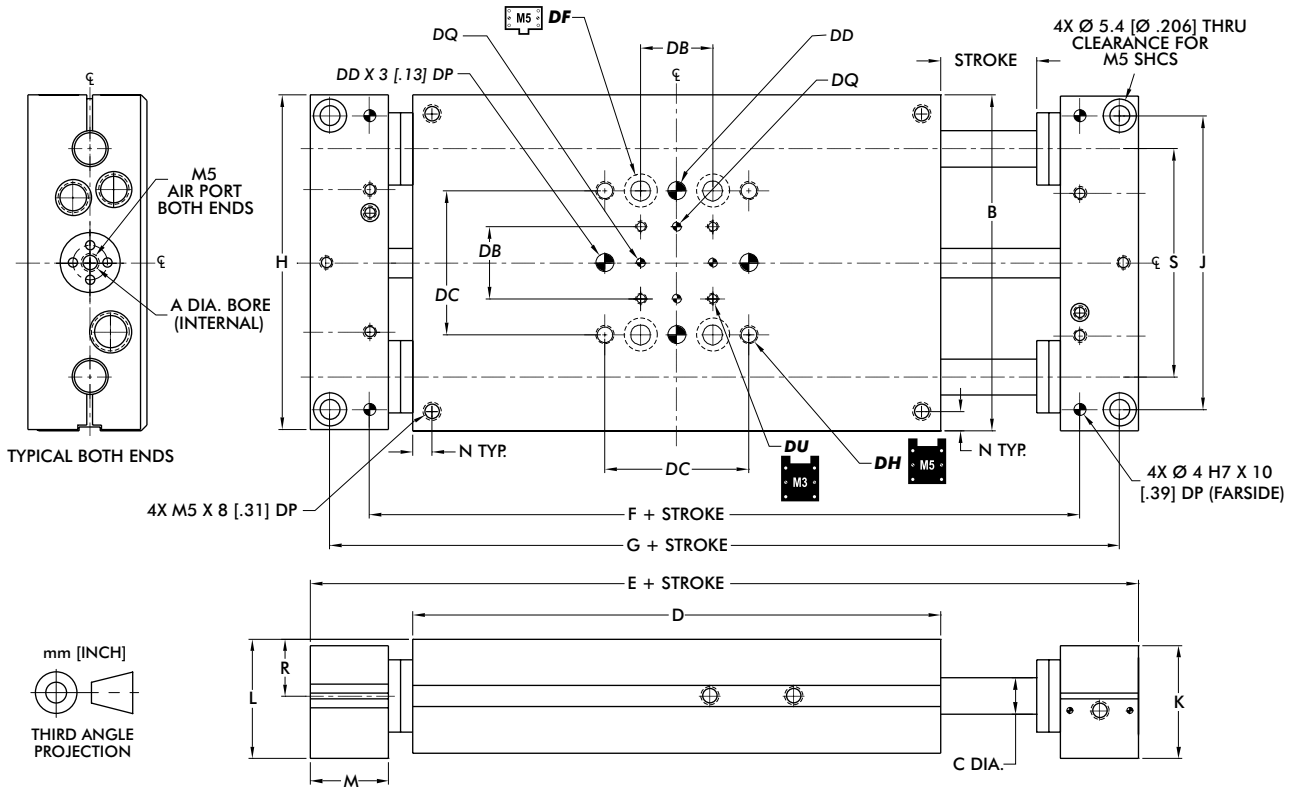


	10	12	16
Maximum Payload ( <b>W</b> ) horizontal motion using Shock Absorbers	6.8 kg [15 lbs]	13.6 kg [30 lbs]	20.4 kg [45 lbs]
Maximum Payload ( <b>W</b> ) vertical motion using Shock Absorbers	3.1 kg [7 lbs]	6.8 kg [15 lbs]	9.9 kg [22 lbs]
Maximum Payload ( <b>W</b> ) horizontal motion using Urethane Bumpers	2.2 kg [5 lbs]	4.5 kg [10 lbs]	6.8 kg [15 lbs]
Maximum Total Applied Load + Payload ( <b>F+W</b> )	111 N [25 lbs]	178 N [40 lbs]	311 N [70 lbs]
Total Maximum Moment about any Axis ( <b>M</b> )	8.4 Nm [75 in-lbs]	16.9 Nm [150 in-lbs]	33.9 Nm [300 in-lbs]

**Shock Absorbers and Flow Controls are recommended for all applications**



## Internal Air Cylinder Linear Base Slides | Dimensions and Technical Specifications



**DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)**

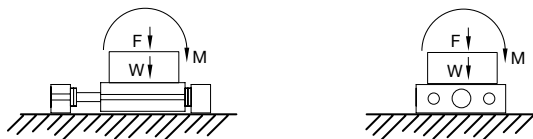
DB	DC	DD	DF	DH	DQ	DU
19.1 [0.750]	38.1 [1.500]	5mm H7 X 6 DP	CLEARANCE FOR M5	M5 X 8.5DP	3H7 X 2 DP	M3 X 6 DP

Model	Basic Unit Dimensions			Basic Unit Dimensions														
	Bore Ø	Body Size	Shaft Ø	A	B	C	D	E	F	G	H	J	K	L	M	N	R	S
DLB-10M	19 [0.75]	88.9 [3.50]	9.5 [0.375]	139.7 [5.50]	193.8 [7.63]	162.50 [6.3975]	183.6 [7.228]	88.5 [3.485]	77.72 [3.0600]	29.9 [1.178]	31.6 [1.245]					N/A	15.09 [0.594]	60.33 [2.375]
DLB-12M	25 [1.00]	101.6 [4.00]	12 [0.472]	165.1 [6.50]	219.2 [8.63]	187.90 [7.3975]	209.0 [8.228]	101.2 [3.985]	88.90 [3.5000]			41.0 [1.615]	42.1 [1.657]	20.7 [0.813]		9.5 [0.375]	20.65 [0.813]	69.85 [2.750]
DLB-16M		120.7 [4.75]	16 [0.630]	190.5 [7.50]	244.6 [9.63]	213.30 [8.3975]	234.4 [9.228]	120.3 [4.735]	107.95 [4.2500]									

Dimensions in mm [in]

### Loading Information

- F**=Externally applied force
- W**=Weight of payload
- F+W**=Total force
- M**=Maximum moment

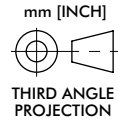
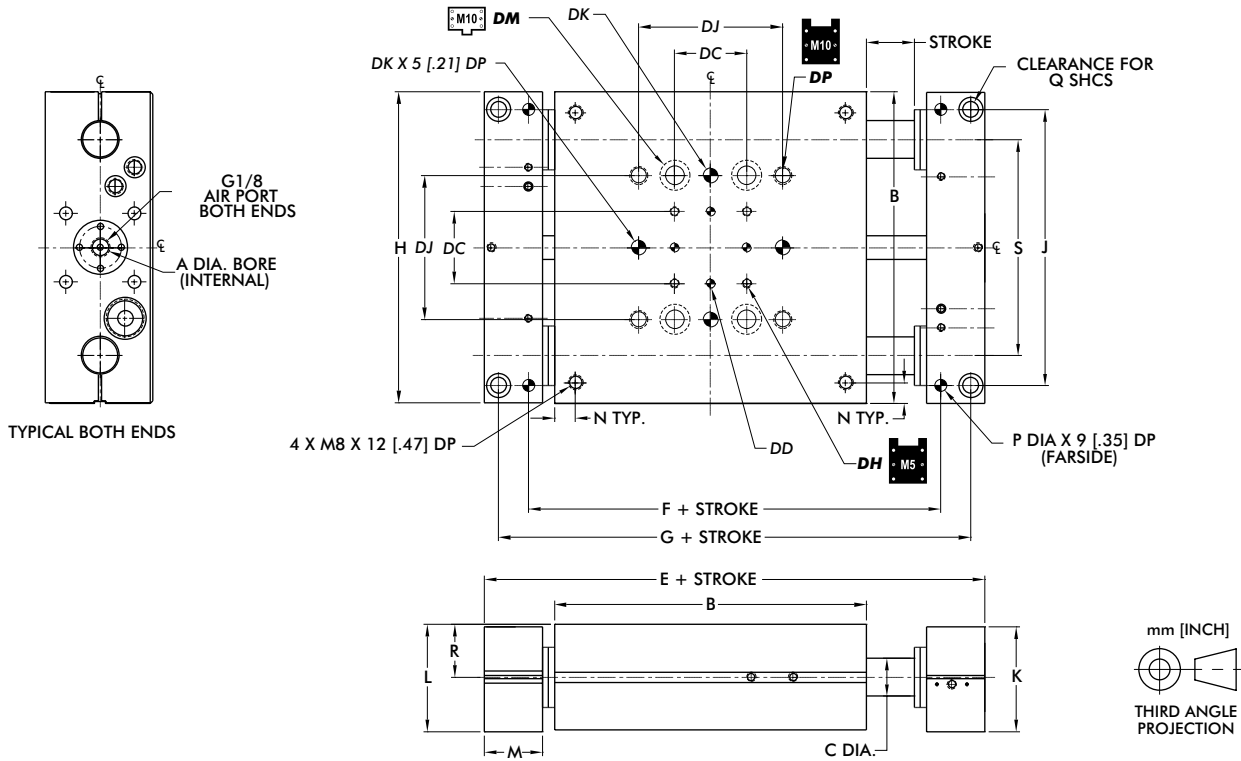


	10	12	16
Maximum Payload ( <b>W</b> ) horizontal motion using Shock Absorbers	6.8 kg [15 lbs]	13.6 kg [30 lbs]	20.4 kg [45 lbs]
Maximum Payload ( <b>W</b> ) vertical motion using Shock Absorbers	3.1 kg [7 lbs]	6.8 kg [15 lbs]	9.9 kg [22 lbs]
Maximum Payload ( <b>W</b> ) horizontal motion using Urethane Bumpers	2.2 kg [5 lbs]	4.5 kg [10 lbs]	6.8 kg [15 lbs]
Maximum Total Applied Load + Payload ( <b>F+W</b> )	111 N [25 lbs]	178 N [40 lbs]	311 N [70 lbs]
Total Maximum Moment about any Axis ( <b>M</b> )	8.4 Nm [75 in-lbs]	16.9 Nm [150 in-lbs]	33.9 Nm [300 in-lbs]

**Shock Absorbers and Flow Controls are recommended for all applications**



## Internal Air Cylinder Linear Base Slides | Dimensions and Technical Specifications



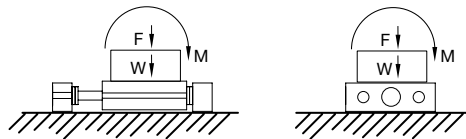
DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)						
DC	DD	DH	DJ	DK	DM	DP
38.1 [1.500]	5 mm H7 X 6 DP	M5 X 8.5 DP	76.2 [3.000]	8 mm H7 X 9.4 DP	CLR & C'BORE FOR M10	M10 X 12 DP

Model	Bore Ø	Body Size	Shaft Ø	Basic Unit Dimensions												
				A	B	C	E	F	G	H	J	K	L	M	N	P
DLB-20M	38 [1.50]	165.1 [6.50]	20 [0.787]	239.3 [9.42]	192.66 [7.5850]	224.4 [8.836]	164.6 [6.480]	146.05 [5.7500]	55.4 [2.180]	56.8 [2.236]	[1.210] 30.7	11.1 [0.438]	6.00 [0.2505]	M8	27.94 [1.100]	114.30 [4.500]
DLB-25M		190.5 [7.50]	25 [0.984]	275.3 [10.84]	221.79 [8.7320]	256.7 [10.108]	190.0 [7.480]	171.45 [6.7500]			[1.420] 36.1		8.00 [0.3130]			M10

Dimensions in mm [in]

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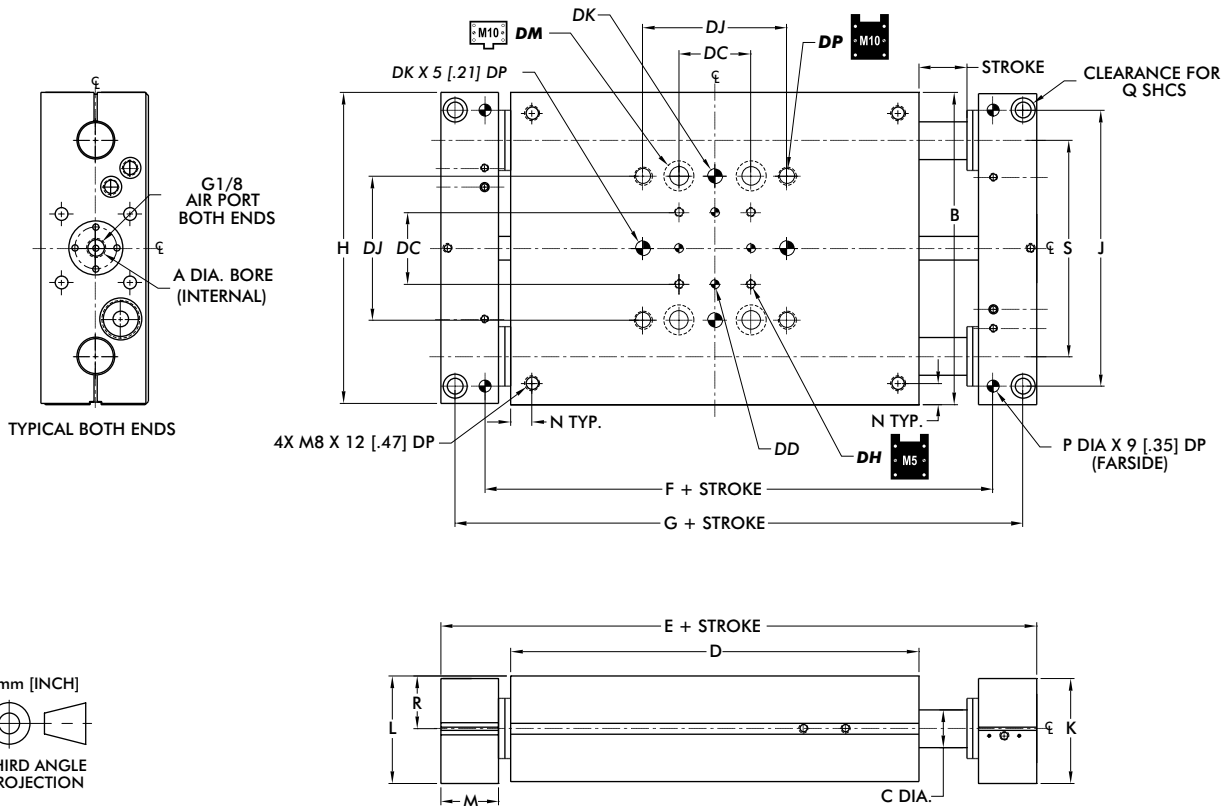
- F=Externally applied force
- W=Weight of payload
- F+W=Total force
- M=Maximum moment



	20	25
Maximum Payload (W) horizontal motion using Shock Absorbers	27.2 kg [60 lbs]	45.3 kg [100 lbs]
Maximum Payload (W) vertical motion using Shock Absorbers	13.6 kg [30 lbs]	22.0 kg [50 lbs]
Maximum Payload (W) horizontal motion using Urethane Bumpers	9.1 kg [20 lbs]	11.3 kg [25 lbs]
Maximum Total Applied Load + Payload (F+W)	444 N [100 lbs]	667 N [150 lbs]
Total Maximum Moment about any Axis (M)	67.7 Nm [600 in-lbs]	135.5 Nm [1200 in-lbs]

**Shock Absorbers and Flow Controls are recommended for all applications**

## Internal Air Cylinder Linear Base Slides | Dimensions and Technical Specifications



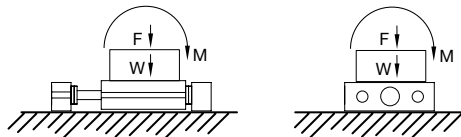
DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)						
DC	DD	DH	DJ	DK	DM	DP
38.1 [1.500]	5 mm H7 X 6 DP	M5 X 8.5 DP	76.2 [3.000]	8 mm H7 X 9.4 DP	CLR & C'BORE FOR M10	M10 X 12 DP

Model	Bore Ø	Body Size	Shaft Ø	Basic Unit Dimensions													
				A	B	C	D	E	F	G	H	J	K	L	M	N	P
DLB-20M	38 [1.5]	165.1 [6.50]	20 [0.787]	215.9 [8.50]	290.1 [11.42]	243.46 [9.5850]	275.2 [10.836]	164.6 [6.480]	146.05 [5.7500]	55.4 [2.180]	56.8 [2.236]	30.7 [1.210]	11.1 [0.438]	6.00 [0.2505]	M8	27.94 [1.100]	114.30 [4.500]
DLB-25M		190.5 [7.50]	25 [0.984]	241.3 [9.50]	326.1 [12.84]	272.59 [10.7320]	307.5 [12.108]	190.0 [7.480]	171.45 [6.7500]	55.4 [2.180]		36.1 [1.420]		8.00 [0.3130]			M10

Dimensions in mm [in]

### Loading Information

- F**=Externally applied force
- W**=Weight of payload
- F+W**=Total force
- M**=Maximum moment



	20	25
Maximum Payload ( <b>W</b> ) horizontal motion using Shock Absorbers	27.2 kg [60 lbs]	45.3 kg [100 lbs]
Maximum Payload ( <b>W</b> ) vertical motion using Shock Absorbers	13.6 kg [30 lbs]	22.0 kg [50 lbs]
Maximum Payload ( <b>W</b> ) horizontal motion using Urethane Bumpers	9.1 kg [20 lbs]	11.3 kg [25 lbs]
Maximum Total Applied Load + Payload ( <b>F+W</b> )	444 N [100 lbs]	667 N [150 lbs]
Total Maximum Moment about any Axis ( <b>M</b> )	67.7 Nm [600 in-lbs]	[1200 in-lbs]

**Shock Absorbers and Flow Controls are recommended for all applications**