ARMS & BALANCERS

For Tool Holding and Material Handling Applications

Assembly Technologies offers vertical balancers, torque tubes and articulating arm systems that balance loads to 277 kg (610 lb) and absorb torque reaction to 1,350 Nm (1000 ft lb). Optional tool holders, end effectors and interfaces enhance movement and orientation for specific applications.

Custom engineered solutions can have higher capacities (to 5,000 Nm) and the capability to integrate arms and balancers with tooling such as multiple-spindle nutrunners. With more than 40 years of experience, Stanley engineers are experts in evaluating customer needs and converting them into solutions that improve the productivity, ergonomics and quality of your manufacturing operations.

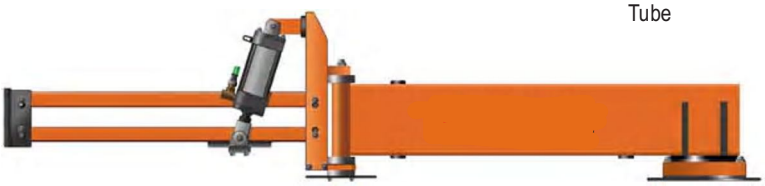
Ergonomic, Quality and Productivity Benefits

- Arms and balancers can increase operator efficiency reduce fatigue and help to reduce the potential for injury.
  - Absorbs torque reaction and eliminates the time for positioning and repositioning reaction bars for multiple fasteners
  - Fixtured tool orientation reduces tool placement time
  - Enables multiple fastener orientations (up, down, angled) typically not practical with a standard reaction bar
  - Reduces fatigue by eliminating tool/product weight handled by operators
- Tool orientation stability can prevent cross-threads and improve fastening precision.
- Dual bridge mounting of torque tubes offers higher dimensional stability.
- Dual and triple balance air logic can improve quality and productivity.
  - Upward or downward pressure bias follows the fastener during rundown
  - Positive hold on the job can ensure a complete fastening cycle
  - Can improve material handling processes

Table Mounted Arm

Torque Tube

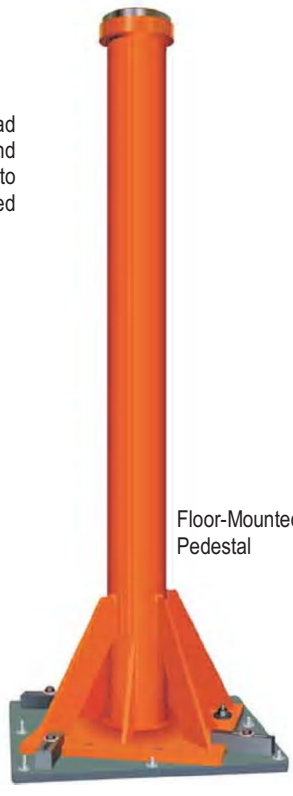
Vertical Balancer



Articulating Arm

Floor mounted arms apply where overhead rails or space are not available. Clevis and swivel mounted arms can interface to Stanley overhead bridges or floor mounted pedestals for each duty level.

Overhead Bridge



Floor-Mounted Pedestal

Arms and Balancer Selector

Model	Type	Max Torque (ft lb)	Max Wt (lbs)	x,y,z Planes	Mounting Rotation	Floor Pedestal
SVB	Vertical Balancer	None	610	z	None	
STT	Torque Tube	500	350	z	~360°	
TLA/THA	Table Mounted Arm	150	40	x,y,z	~220°	Yes
LAC	Articulating Arm	200	155	x,y,z		Yes
MAC	Articulating Arm	500	190	x,y,z		Yes
MAS	Articulating Arm				~360°	Yes
HAS	Articulating Arm	1000	345	x,y,z		Yes

Vertical Balancers

Vertical Balancers maintain vertical position for tools without torque reaction impulse such as multiple spindle nutrunners or material handling end effectors. Standard configurations range in vertical travel from 15 to 91 cm (6 to 36 in) and balancing capacity from 34 to 277 kg (75 to 610 lb). Custom travel distances and balancing capacities are available.

Model	Vertical Travel		Balancing Capacity		Page
	cm	in	kg	lb	
SVB	15 - 91	6 - 36	34 - 277	75 - 610	4

Torque Tubes

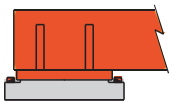
Torque Tubes offer zero-gravity balancing and absorb the torque reaction for nutrunner applications from 135 to 677 Nm (100 to 500 ft lb). The torque tube protects the operator from nutrunner torque reaction impulse. Fixtured tool orientation increases fastening accuracy and consistency. Standard configurations range in vertical travel from 15 to 91 cm (6 to 36 in) and balancing capacity from 24 to 150 kg (55 to 350 lb). Custom travel distances and balancing capacities are available.

Duty Level	Model	Max. Torque		Balancing Capacity		Page
		Nm	ft lb	kg	lb	
Light	STT075	135	100	24	55	5
Medium	STT100	270	200	56 or 90	125 or 200	6
Heavy	STT125	677	500	75 or 150	175 or 350	7

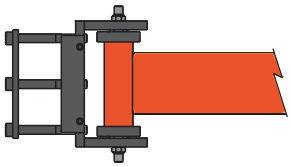
Table Mounted Articulating Arms

Table mounted arms enable vertical and horizontal movement with either fixed or variable tool orientation. Air pressure adjusts tool and fixture weights to 12 kg (25 lb) for the TLA-30 model or 17 kg (40 lb) for the THA-48 model at 65 psi. Torque reaction capacity is 68 Nm (50 ft lb) or 205 Nm (150 ft lb) respectively. Applications with torque reaction require less than full arm extension.

Model	Reach @ Torque Zero	Reach @ Torque Max	Vertical Travel	Max Torque	Balancing Capacity	Mount Type	Page
	in	in	in	ft lb	lb		
TLA 30	36	29	7	50	25	Clevis	10
THA 48	51	41	16	150	40		
	mm	mm	mm	Nm	kg		
TLA 30	914	731	177	68	12	Clevis	10
THA 48	1295	1036	406	205	17		

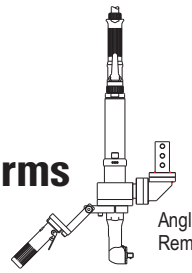


Swivel Mount
- Heavy-duty applications
- Enables approximately 360° of non-continuous rotation.

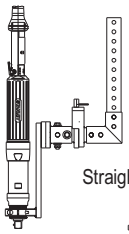


Clevis Mount
- For light- to medium-duty applications.
- Enables up to 220° of rotation.

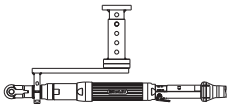
Optional Tool Holders



Angle Tool with Remote Start Handle



Straight Tool



Angle Tool

Pedestal & Bridge Mounted Articulating Arms

Articulated arms enable vertical and horizontal travel with either fixed or variable tool orientation. Arms can reach beyond other types of balancers on existing bridge rails. Applications with torque reaction have less reach to enable geometry that effectively absorbs the torque. Air pressure balances tool and fixture weights with standard models ranging in capacity from 13 to 157 kg (30 to 345 lb). Torque reaction capacity of standard models range from 275 to 1356 Nm (200 to 1000 ft lb). Custom travel distances, torque reaction and balancing capacities are available.

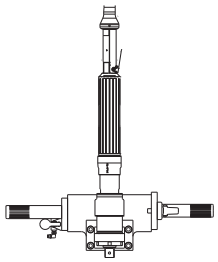
Duty Level	Mount Type	Model	Reach @ Torque Zero	Reach @ Torque Max	Vertical Travel	Max Torque	Balancing Capacity	Page
			in	in	in	ft lb	lb	
Light	Clevis	LAC	36 - 96	29 - 77	12 - 30	200	155 - 35	11
Medium	Clevis	MAC	36 - 132	29 - 106	14 - 36	500	190 - 30	12
	Swivel	MAS						
Heavy	Swivel	HAS	36 - 156	29 - 125	14 - 36	1000	345 - 30	14
			cm	cm	cm	Nm	kg	
Light	Clevis	LAC	92 - 243	74 - 194	31 - 76	275	71 - 16	11
Medium	Clevis	MAC	92 - 335	74 - 269	37 - 92	675	87 - 13	12
	Swivel	MAS						
Heavy	Swivel	HAS	92 - 396	74 - 318	36 - 91	1356	157 - 13	14

Bridges

Model	Page
LBC	16
MBC	17
MBS	
HBS	18
LBC	16
MBC	17
MBS	
HBS	18

Pedestals

Model	Page
LP	19
MPC	
MPS	
HD	
LP	19
MPC	
MPS	
HD	



Straight Tool with Remote Start Handle

VERTICAL BALANCERS

SVB VERTICAL BALANCERS

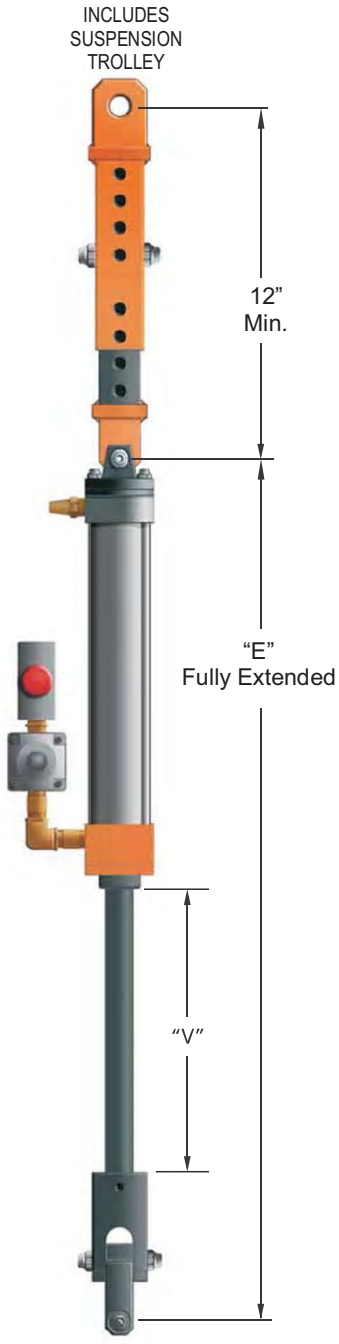
CLEVIS INTERFACE

BALANCING CAPACITY MAX @ 65 psi: 34 kg (75 lb) to 277 kg (610 lb)

SVB Vertical Balancers maintain vertical position with horizontal movement for multiple spindle tools
Specify vertical travel "V" from 15 to 91 cm (6 in to 36 in)

- Zero-gravity tool balancing reduces operator fatigue
- All critical fasteners are either safety wired or pinned to ensure reliable operation
- Rugged and simple construction
- Single trolley interfaces with common overhead rails

Note: Not suitable for tools that give a torque reaction impulse.



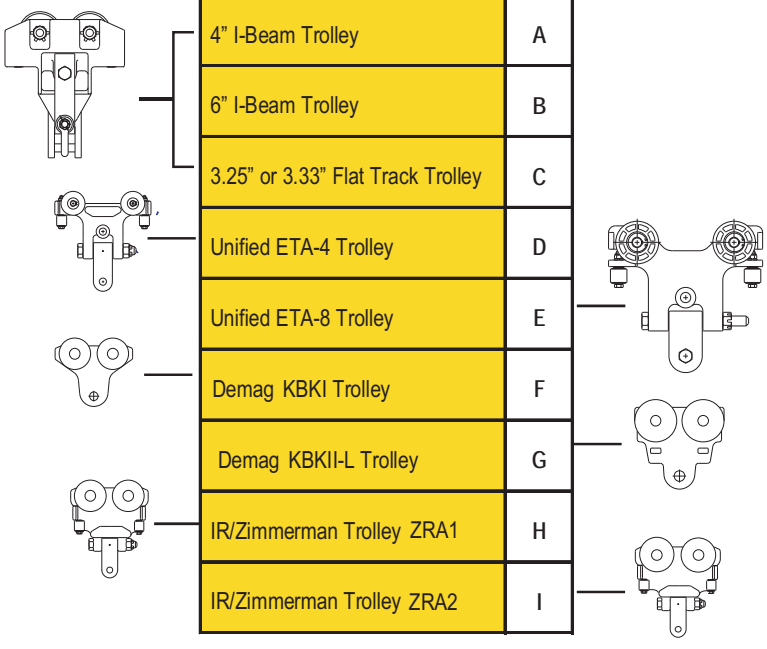
MODEL			
SVB	###	X	##

Cylinder Size		"E"
34 kg (75 lb) capacity	150	27.6 cm (10.9 in) + 2"V"
55 kg (120 lb) capacity	200	27.6 cm (10.9 in) + 2"V"
97 kg (215 lb) capacity	250	29 cm (11.4 in) + 2"V"
176 kg (390 lb) capacity	325	32 cm (12.6 in) + 2"V"
277 kg (610 lb) capacity	400	33 cm (12.6 in) + 2"V"

Note: Capacity @ 65 psi

"V" Vertical Travel	
06	15 cm (6 in)
12	30 cm (12 in)
18	46 cm (18 in)
24	60 cm (24 in)
30	76 cm (30 in)
36	91 cm (36 in)

Trolley Suspension	
4" I-Beam Trolley	A
6" I-Beam Trolley	B
3.25" or 3.33" Flat Track Trolley	C
Unified ETA-4 Trolley	D
Unified ETA-8 Trolley	E
Demag KBKI Trolley	F
Demag KBKII-L Trolley	G
IR/Zimmerman Trolley ZRA1	H
IR/Zimmerman Trolley ZRA2	I



OPTIONS

- Special Tool Holders and Interfaces
- Dual and Triple Balance Air Logic
- Dual Trolleys

TORQUE TUBES

STT075 LIGHT DUTY TORQUE TUBES

MAX TORQUE: 135 Nm (100 ft lb)
BALANCING CAPACITY MAX @ 65 psi: 24 kg (55 lb)

STT075 Light Duty Torque Tubes offer zero-gravity balancing and absorb the torque reaction for nutrunner applications to 135 Nm (100 ft lb). A rugged design has balancing capacity for single or multiple spindle nutrunners to 34 kg (75 lb). The torque tube protects the operator from nutrunner torque reaction impulse. Fixtured tool orientation increases fastening accuracy and consistency. Specify vertical travel "V" from 15 to 60 cm (6 to 24 in).

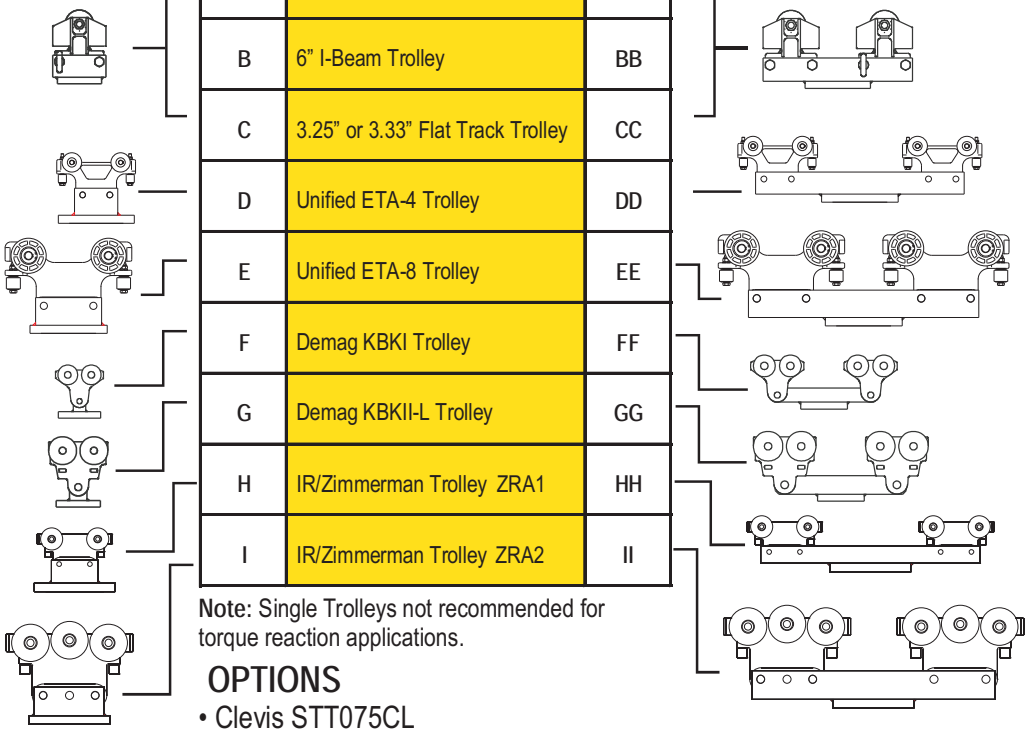
- Zero-gravity tool balancing and elimination of torque reaction exposure reduces operator fatigue
- Either swivel or fixed tool interface, clevis interface optional
- Single or dual trolley suspension with common overhead rails

MODEL					
STT	075	*XX*	150	*X or XX*	##

Tool Interface		
	Fixed	FX
	Swivel	SW

"V" Vertical Travel	
06	15 cm (6 in)
12	30 cm (12 in)
18	46 cm (18 in)
24	60 cm (24 in)

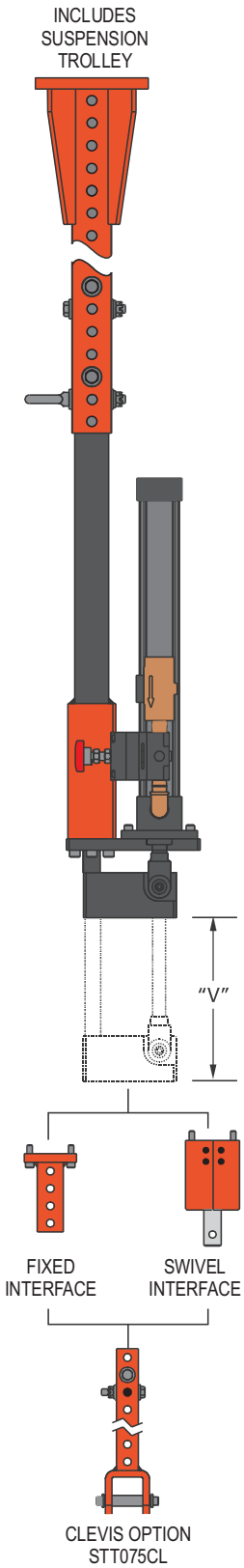
Single Trolley	Trolley Suspension	Dual Trolley
A	4" I-Beam Trolley	AA
B	6" I-Beam Trolley	BB
C	3.25" or 3.33" Flat Track Trolley	CC
D	Unified ETA-4 Trolley	DD
E	Unified ETA-8 Trolley	EE
F	Demag KBKI Trolley	FF
G	Demag KBKII-L Trolley	GG
H	IR/Zimmerman Trolley ZRA1	HH
I	IR/Zimmerman Trolley ZRA2	II



Note: Single Trolleys not recommended for torque reaction applications.

OPTIONS

- Clevis STT075CL
- Special Tool Holders and Interfaces
- Dual and Triple Balance Air Logic
- Other Trolleys including Anti-kickup
- Dual Bridges



TORQUE TUBES

STT100 MEDIUM DUTY TORQUE TUBES

MAX TORQUE: 270 Nm (200 ft lb)
BALANCING CAPACITY MAX @ 65 psi: 56 kg (125 lb) or 90 kg (200 lb)

STT100 Medium Duty Torque Tubes offer zero-gravity balancing and absorb the torque reaction for nutrunner applications to 270 Nm (200 ft lb). A rugged design suitable for line tracking has balancing capacity for single or multiple spindle nutrunners to either 56 or 90 kg (125 or 200 lb). Fixtured tool orientation increases fastening accuracy and consistency. Specify vertical travel "V" from 15 to 60 cm (6 to 24 in).

- Zero-gravity tool balancing and elimination of torque reaction exposure reduces operator fatigue
- Either swivel or fixed tool interface, clevis interface optional
- Single or dual trolley suspension with common overhead rails

MODEL					
STT	100	*XX*	*###*	***X or XX***	*##*

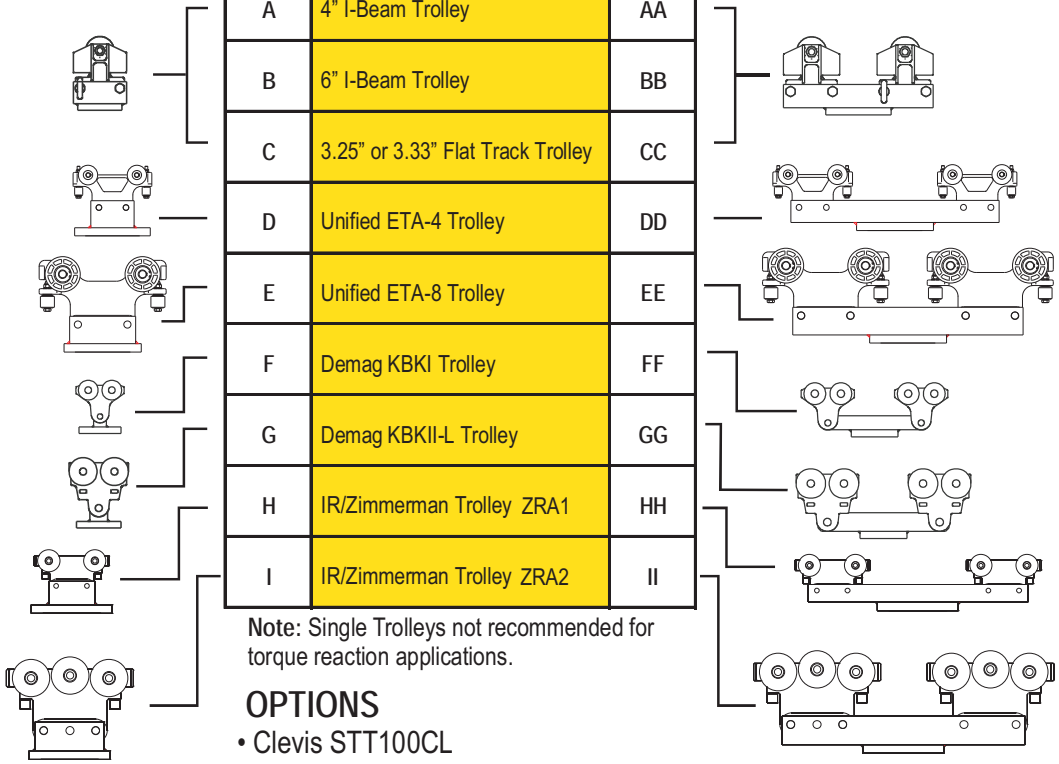
Tool Interface		
	Fixed	FX
	Swivel	SW

Cylinder Size	
200	56 kg (125 lb) cap.
250	90 kg (200 lb) cap.

Note: Capacity @ 65 psi

"V" Vertical Travel	
06	15 cm (6 in)
12	30 cm (12 in)
18	46 cm (18 in)
24	60 cm (24 in)

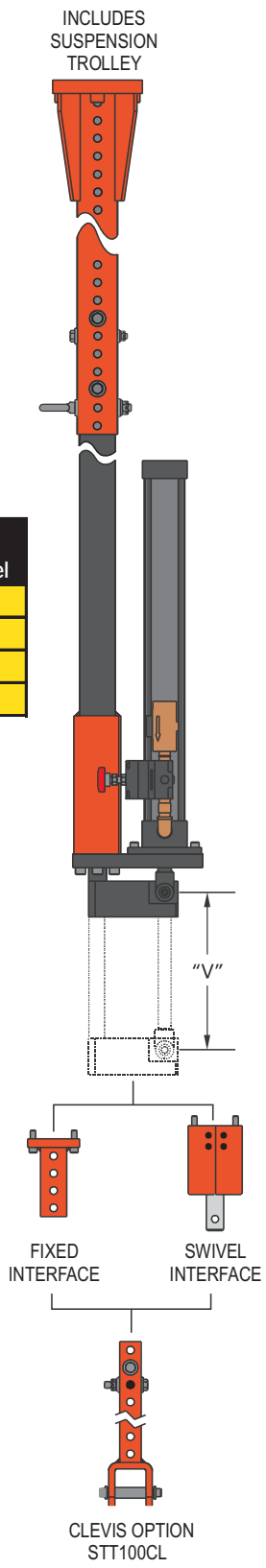
Single Trolley	Trolley Suspension	Dual Trolley
A	4" I-Beam Trolley	AA
B	6" I-Beam Trolley	BB
C	3.25" or 3.33" Flat Track Trolley	CC
D	Unified ETA-4 Trolley	DD
E	Unified ETA-8 Trolley	EE
F	Demag KBKI Trolley	FF
G	Demag KBKII-L Trolley	GG
H	IR/Zimmerman Trolley ZRA1	HH
I	IR/Zimmerman Trolley ZRA2	II



Note: Single Trolleys not recommended for torque reaction applications.

OPTIONS

- Clevis STT100CL
- Special Tool Holders and Interfaces
- Dual and Triple Balance Air Logic
- Other Trolleys including Anti-kickup
- Dual Bridges



STT125 HEAVY DUTY TORQUE TUBES

MAX TORQUE: 677 Nm (500 ft lb)
BALANCING CAPACITY MAX @ 65 psi: 75 kg (175 lb) or 150 kg (350 lb)

STT125 Heavy Duty Torque Tubes offer zero-gravity balancing and absorb the torque reaction for nutrunner applications to 677Nm (500 ft lb). A rugged design suitable for line tracking has balancing capacity for single or multiple spindle nutrunners to either 75 or 150 kg (175 or 350 lb). The torque tube protects the operator from nutrunner torque reaction impulse. Fixtured tool orientation increases fastening accuracy and consistency. Specify vertical travel "V" from 15 to 90 cm (6 to 36 in).

- Zero-gravity tool balancing and elimination of torque reaction exposure reduces operator fatigue
- Either swivel or fixed tool interface, clevis interface optional
- Single or dual trolley suspension with common overhead rails

MODEL					
STT	125	*XX*	*###*	***X or XX***	*##*

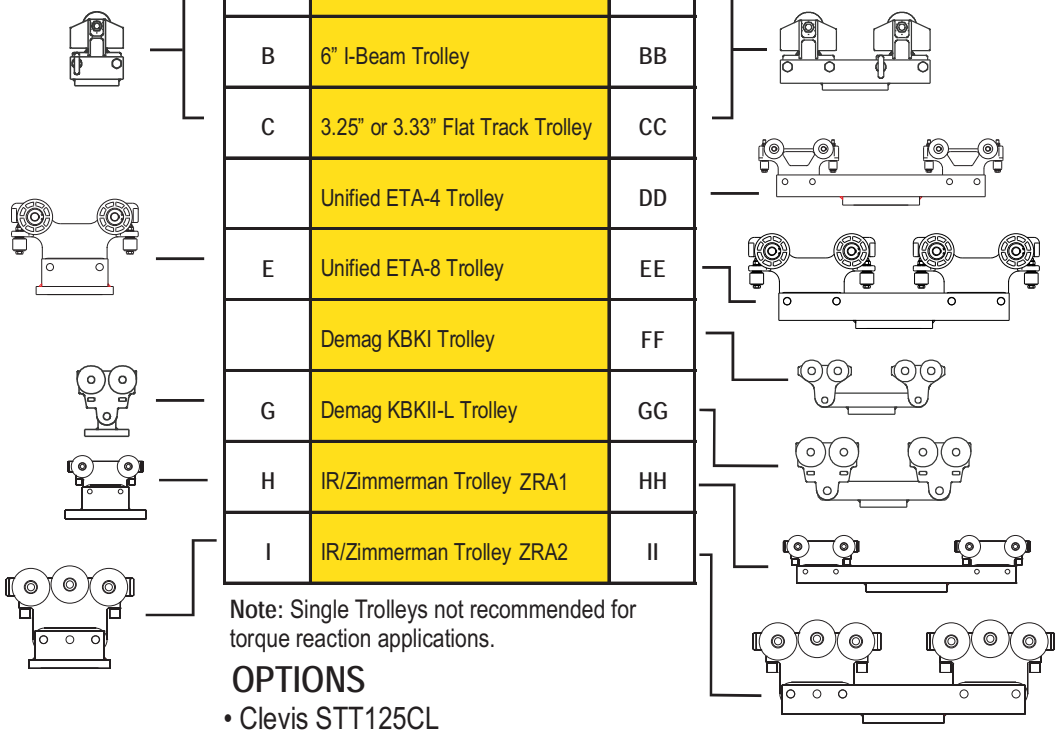
Tool Interface		
	Fixed	FX
	Swivel	SW

Cylinder Size	
250	75 kg (175 lb)
325	150 kg (350 lb)

Note: Capacity @ 65 psi

"V" Vertical Travel	
15 cm (6 in)	06
30 cm (12 in)	12
46 cm (18 in)	18
60 cm (24 in)	24
90 cm (36 in)	36

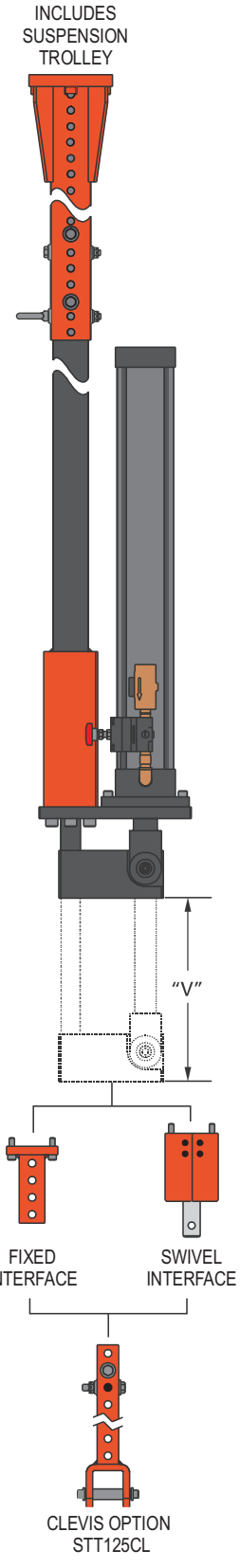
Single Trolley	Trolley Suspension	Dual Trolley
A	4" I-Beam Trolley	AA
B	6" I-Beam Trolley	BB
C	3.25" or 3.33" Flat Track Trolley	CC
	Unified ETA-4 Trolley	DD
E	Unified ETA-8 Trolley	EE
	Demag KBKI Trolley	FF
G	Demag KBKII-L Trolley	GG
H	IR/Zimmerman Trolley ZRA1	HH
I	IR/Zimmerman Trolley ZRA2	II



Note: Single Trolleys not recommended for torque reaction applications.

OPTIONS

- Clevis STT125CL
- Special Tool Holders and Interfaces
- Dual and Triple Balance Air Logic
- Other Trolleys including Anti-kickup
- Dual Bridges



ARTICULATING ARMS

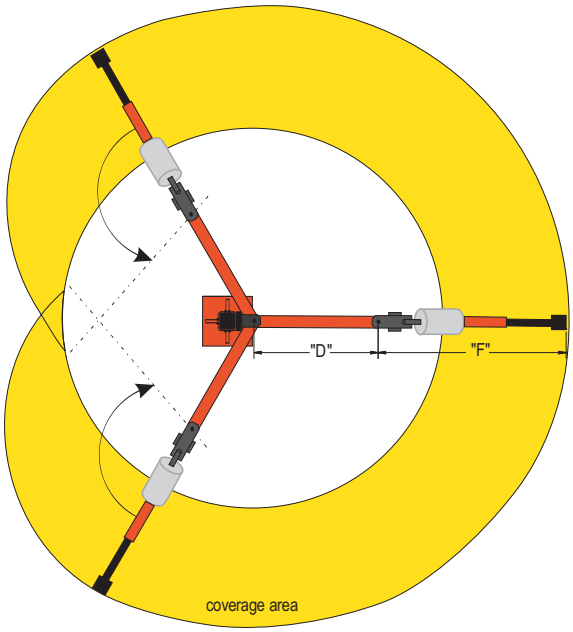
ARM SELECTION

1. Select an arm model with the required balancing capacity for the job. For single nutrunners, verify the torque capacity.
2. Check that the “Vertical Travel”, “Reach”, “D” and “F” dimensions meet the requirements of the job. Use the overhead diagram for the noted models and variables such as offset arms or mounting type.
3. Select any required options.

Duty Level	Arm Model	Max Torque	Balancing Capacity	Vertical Travel	Mount Type	Reach @ Torque Zero	Reach @ Torque Max	Reach Dim Range "D"	Reach Dim Range "F"	ADDITIONAL COST OPTIONS Offset Arm	End of Arm Swivel	Swivel with Brake	Tool Holders
		ft lb	lb	in		in	in	in	in				
Light	TLA 30	50	25	7	Clevis	36	29	12	15		Yes		Yes
Light	THA 48	150	40	16	Clevis	51	41	12	10 - 13.5		Yes	Yes	Yes
Light	LAC	200	155 - 35	12 - 30	Clevis	36 - 96	29 - 77	12 - 36	24 - 60	Yes	Yes	Yes	Yes
Medium	MAC	500	190 - 30	14 - 36	Clevis	36 - 132	29 - 106	12 - 36	24 - 60	Yes	Yes	Yes	Yes
	MAS				Swivel			12 - 72	24 - 60	Yes	Yes	Yes	Yes
Heavy	HAS	1000	345 - 30	14 - 36	Swivel	36 - 156	29 - 125	12 - 96	24 - 60	Yes	Yes	Yes	Yes
		Nm	kg	cm		cm	cm	cm	cm				
Light	TLA 30	68	12	177	Clevis	914	731	30.5	38		Yes		Yes
Light	THA 48	205	17	406	Clevis	1295	1036	30.5	25 - 34		Yes	Yes	Yes
Light	LAC	275	71 - 16	31 - 76	Clevis	92 - 243	74 - 194	31 - 91	74 - 194	Yes	Yes	Yes	Yes
Medium	MAC	675	87 - 13	37 - 92	Clevis	92 - 335	74 - 269	31 - 91	74 - 194	Yes	Yes	Yes	Yes
	MAS				Swivel			31 - 188	74 - 194	Yes	Yes	Yes	Yes
Heavy	HAS	1356	157 - 13	36 - 91	Swivel	92 - 396	74 - 318	31 - 244	74 - 194	Yes	Yes	Yes	Yes

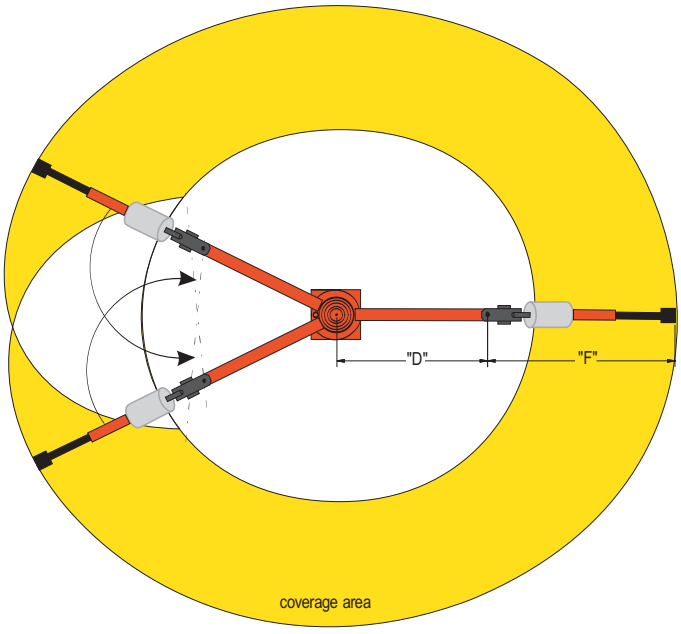
STANDARD ARM COVERAGE

Standard arm coverage symmetric about the outside radius.



Clevis Mount

Enables 220° rotation of the articulating arm assembly
Models: TLA, THA, LAC, MAC



Swivel Mount

Enables 360° rotation of the articulating arm assembly
Models: MAS, HAS

ARTICULATING ARMS

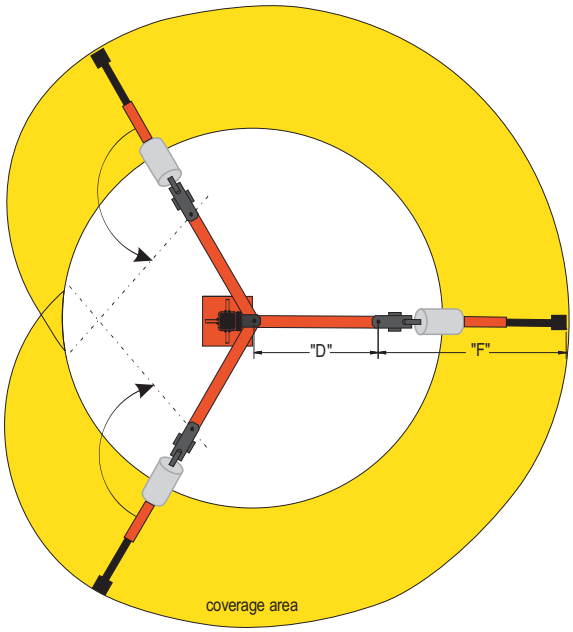
ARM SELECTION

1. Select an arm model with the required balancing capacity for the job. For single nutrunners, verify the torque capacity.
2. Check that the “Vertical Travel”, “Reach”, “D” and “F” dimensions meet the requirements of the job. Use the overhead diagram for the noted models and variables such as offset arms or mounting type.
3. Select any required options.

Duty Level	Arm Model	Max Torque	Balancing Capacity	Vertical Travel	Mount Type	Reach @ Torque Zero	Reach @ Torque Max	Reach Dim Range "D"	Reach Dim Range "F"	ADDITIONAL COST OPTIONS Offset Arm	End of Arm Swivel	Swivel with Brake	Tool Holders
		ft lb	lb	in		in	in	in	in				
Light	TLA 30	50	25	7	Clevis	36	29	12	15		Yes		Yes
Light	THA 48	150	40	16	Clevis	51	41	12	10 - 13.5		Yes	Yes	Yes
Light	LAC	200	155 - 35	12 - 30	Clevis	36 - 96	29 - 77	12 - 36	24 - 60	Yes	Yes	Yes	Yes
Medium	MAC	500	190 - 30	14 - 36	Clevis	36 - 132	29 - 106	12 - 36	24 - 60	Yes	Yes	Yes	Yes
	MAS				Swivel			12 - 72	24 - 60	Yes	Yes	Yes	Yes
Heavy	HAS	1000	345 - 30	14 - 36	Swivel	36 - 156	29 - 125	12 - 96	24 - 60	Yes	Yes	Yes	Yes
		Nm	kg	cm		cm	cm	cm	cm				
Light	TLA 30	68	12	177	Clevis	914	731	30.5	38		Yes		Yes
Light	THA 48	205	17	406	Clevis	1295	1036	30.5	25 - 34		Yes	Yes	Yes
Light	LAC	275	71 - 16	31 - 76	Clevis	92 - 243	74 - 194	31 - 91	74 - 194	Yes	Yes	Yes	Yes
Medium	MAC	675	87 - 13	37 - 92	Clevis	92 - 335	74 - 269	31 - 91	74 - 194	Yes	Yes	Yes	Yes
	MAS				Swivel			31 - 188	74 - 194	Yes	Yes	Yes	Yes
Heavy	HAS	1356	157 - 13	36 - 91	Swivel	92 - 396	74 - 318	31 - 244	74 - 194	Yes	Yes	Yes	Yes

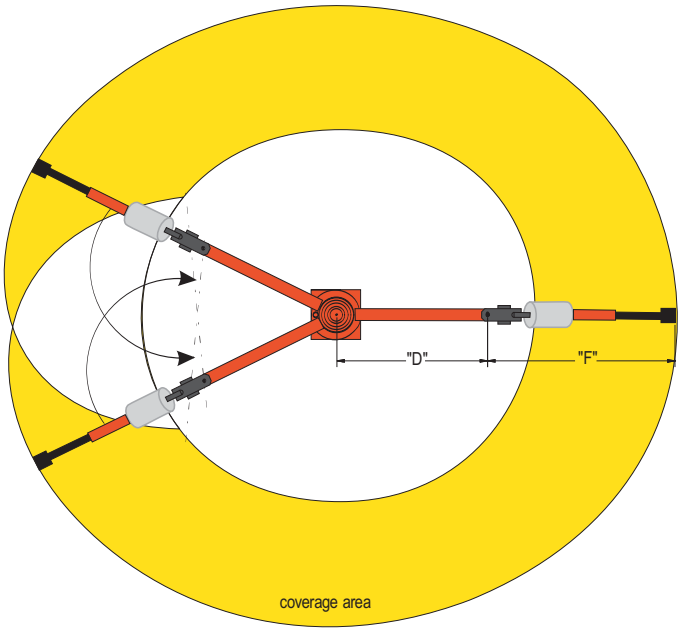
STANDARD ARM COVERAGE

Standard arm coverage symmetric about the outside radius.



Clevis Mount

Enables 220° rotation of the articulating arm assembly
Models: TLA, THA, LAC, MAC

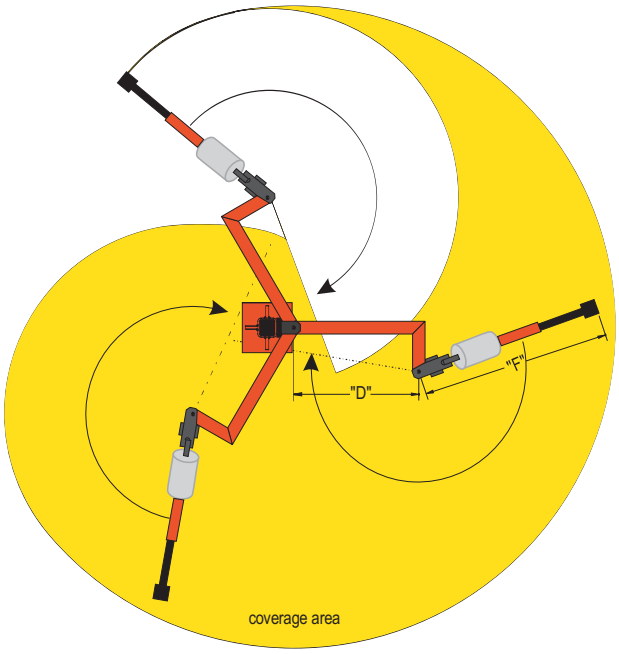


Swivel Mount

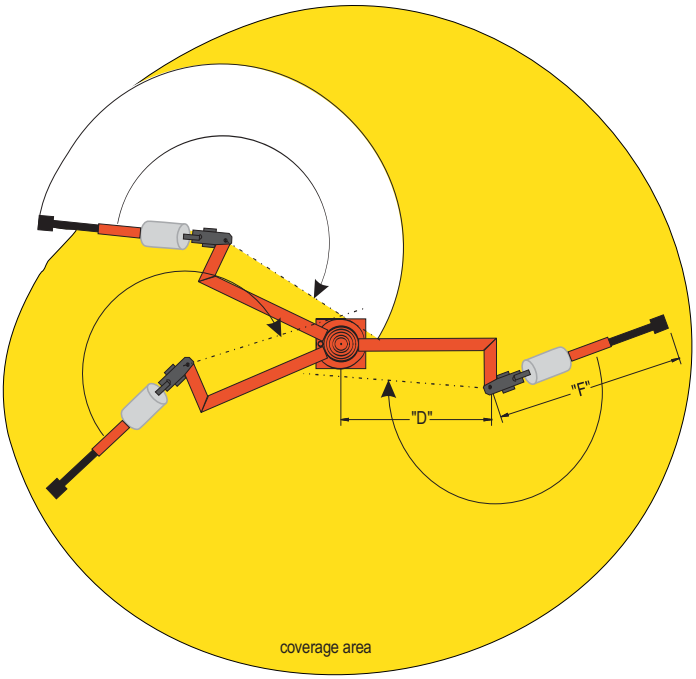
Enables 360° rotation of the articulating arm assembly
Models: MAS, HAS

OFFSET ARM COVERAGE

Offset arm enables coverage of the interior area by folding inward.

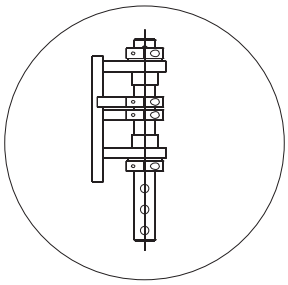


Clevis Mount
Enables 220° rotation of the articulating arm assembly.
Models: LAC, MAC

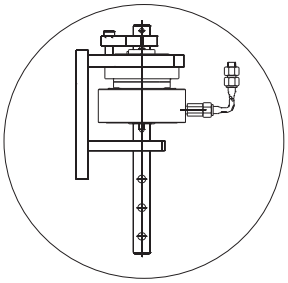


Swivel Mount
Enables 360° rotation of the articulating arm assembly
Models: MAS, HAS

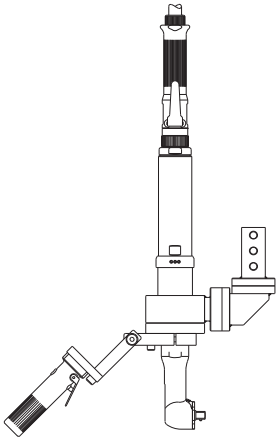
OPTIONS



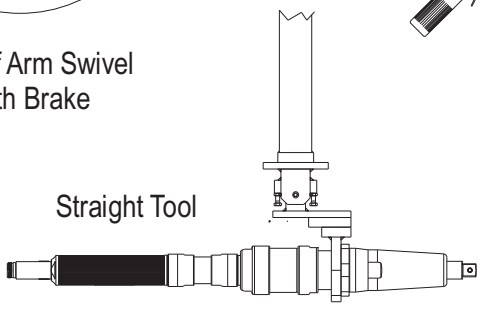
End of Arm Swivel



End of Arm Swivel with Brake



Angle Tool with Remote Start Handle

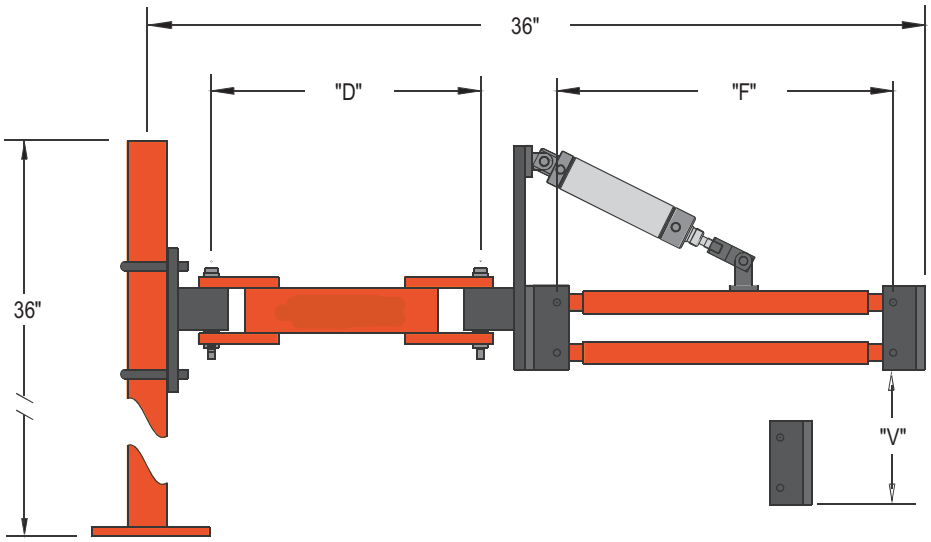


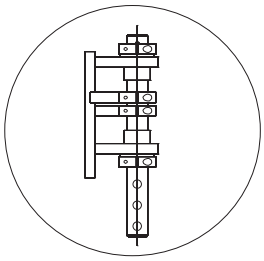
Straight Tool

ARTICULATING ARMS

TLA-30 LIGHT DUTY TABLE MOUNTED ARTICULATING ARM

MAX TORQUE: 68 Nm (50 ft lb)
BALANCING CAPACITY MAX @ 65 psi: 12 kg (25 lb)





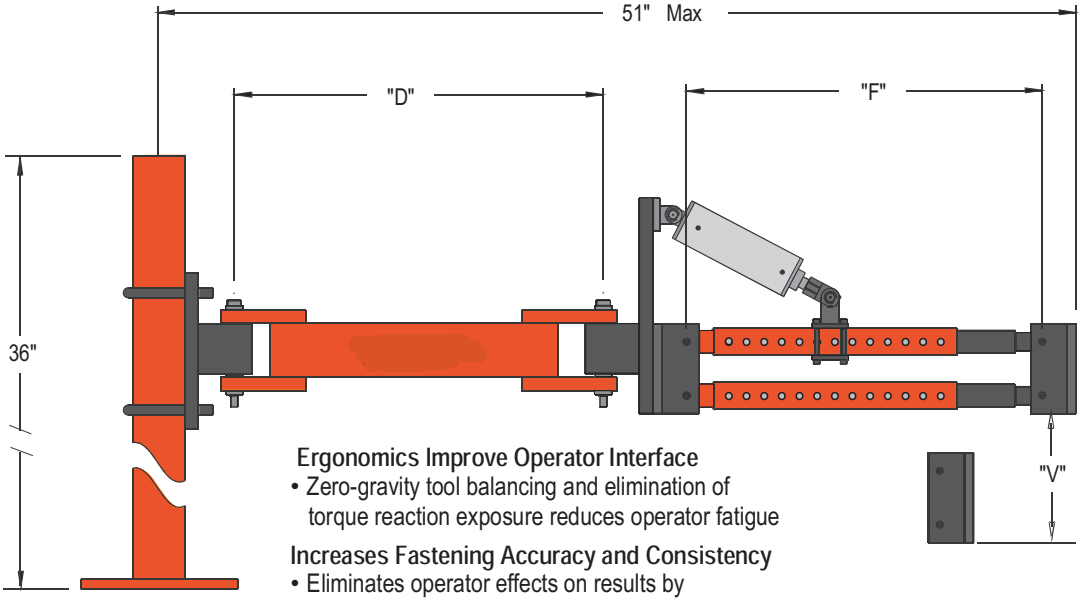
Optional End of Arm Swivel

OPTIONS:

- Special Toolholders and Interfaces
- End of Arm Swivel
- End of Arm Swivel with Brake (THA-48 only)
- Floor Mounted Pedestals
- Overhead Bridge

THA-48 HEAVY DUTY TABLE MOUNTED ARTICULATING ARM

MAX TORQUE: 205 Nm (150 ft lb)
BALANCING CAPACITY MAX @ 65 psi: 17 kg (40 lb)



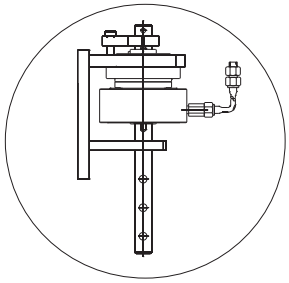
Ergonomics Improve Operator Interface

- Zero-gravity tool balancing and elimination of torque reaction exposure reduces operator fatigue

Increases Fastening Accuracy and Consistency

- Eliminates operator effects on results by absorbing the torque reaction impulse

	"D" Length		*"F" Length*		*"V" Travel*		*Max Torque*		*Balancing Capacity Max @ 65 psi*	
MODEL	mm	in	mm	in	mm	in	Nm	ft lb	Kg	lb
TLA-30	305	12	381	15	177	7	68	50	12	25
THA-48	305	12	229 - 342	9 - 13.5	406	16	205	150	17	40



Optional End of Arm Swivel with Brake

LAC LIGHT DUTY ARTICULATING ARM

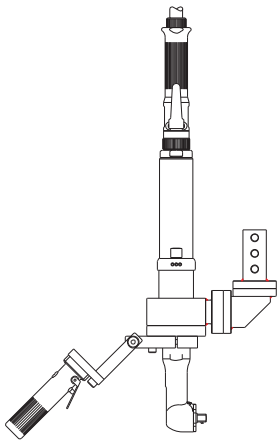
CLEVIS MOUNT
MAX TORQUE: 275 Nm (200 ft lb)
BALANCING CAPACITY MAX @ 65 psi: 41 kg (90 lb) or 71 kg (155 lb)

LAC Light Duty Articulating Arm offers interfaces for overhead bridge, floor pedestal or special mounting.

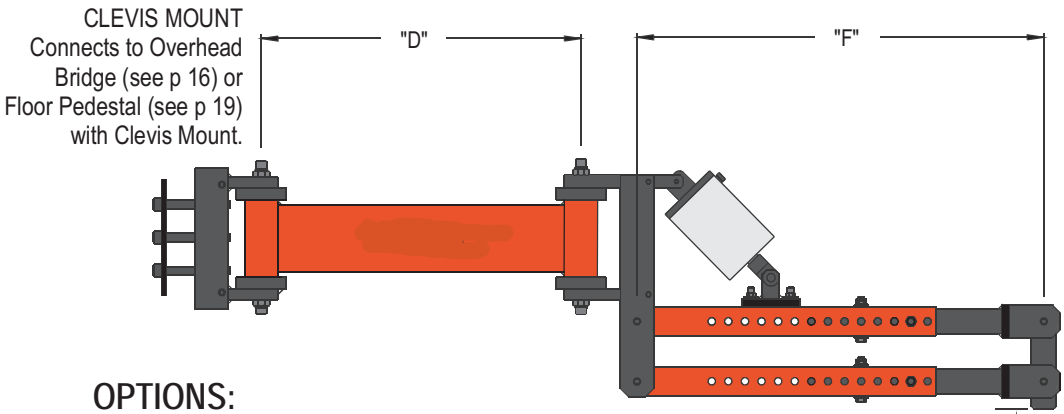
Ergonomics Improve Operator Interface
• Zero-gravity tool balancing and elimination of torque reaction exposure reduces operator fatigue

Increases Fastening Accuracy and Consistency
• Eliminates operator effects on results by absorbing the torque reaction impulse

Features Ensure Reliable Operation
• All critical fasteners are either safety wired or pinned

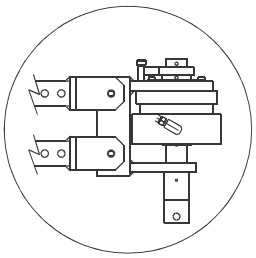


Typical Tool Holder

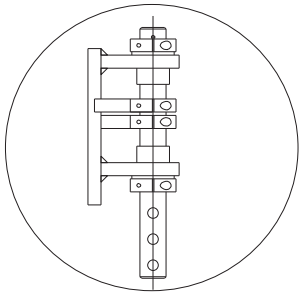


OPTIONS:

- Special Toolholders and Interfaces
- End of Arm Swivel or Swivel with Brake
- Offset Arm
- Inverted Forearm and Cylinder
- Dual and Triple Balance Air Logic



Optional End of Arm Brake/Clutch



Optional End of Arm Swivel

MODEL			
LAC	##	B, or C	##

"F" Forearm Length		*"V" Vertical Travel*		
cm	in	cm	in	
61	24	31	12	24
76	30	38	15	30
91	36	46	18	36
107	42	53	21	42
122	48	61	24	48
137	54	69	27	54
152	60	76	30	60

B (2-1/2")		C (3")	
CYLINDER SIZE			
Balancing Capacity Max			
kg	lb	kg	lb
41	90	71	155
33	70	57	125
27	60	47	105
23	50	40	90
20	45	35	75
18	40	31	70
16	35	22	50

Note: Capacity @ 65 psi

"D" Dumbell Length		
	cm	in
12	31	12
18	46	18
24	61	24
30	76	30
36	91	36

ARTICULATING ARMS

MA MEDIUM DUTY ARTICULATING ARM

SWIVEL MOUNT (MAS)
CLEVIS MOUNT (MAC)
MAX TORQUE: 675 Nm (500 ft lb)
BALANCING CAPACITY MAX @ 65 psi: 32 kg (70 lb), 53 kg (115 lb) or 87 kg (190 lb)

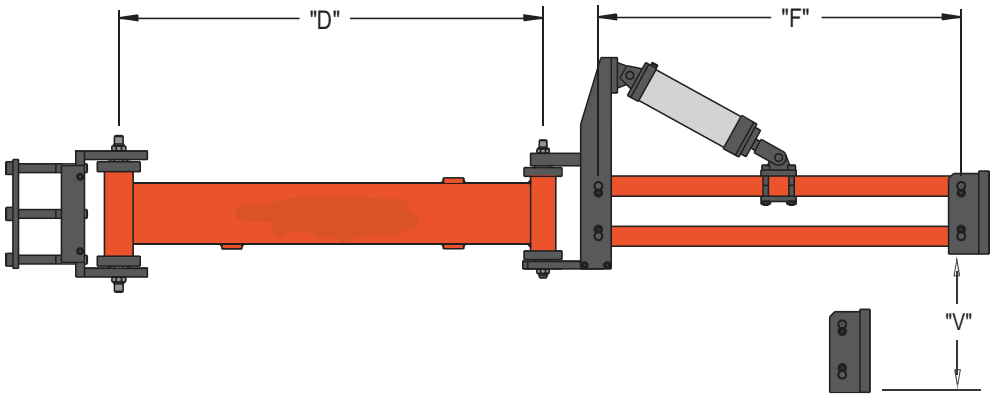
MA Medium Duty Articulating Arm offers interfaces for overhead bridge, floor pedestal or special mounting.

Ergonomics Improve Operator Interface
- Zero-gravity tool balancing and elimination of torque reaction exposure reduces operator fatigue

Increases Fastening Accuracy and Consistency
- Eliminates operator effects on results by absorbing the torque reaction impulse

Features Ensure Reliable Operation
- All critical fasteners are either safety wired or pinned
- Safety check valves maintain load position if a sudden loss of supply air pressure occurs

CLEVIS MOUNT
Connects to Overhead Bridge (see p 17) or Floor Pedestal (see p 19) with Clevis Mount.



MODEL				
MA	C or S	##	A, B, or C	##

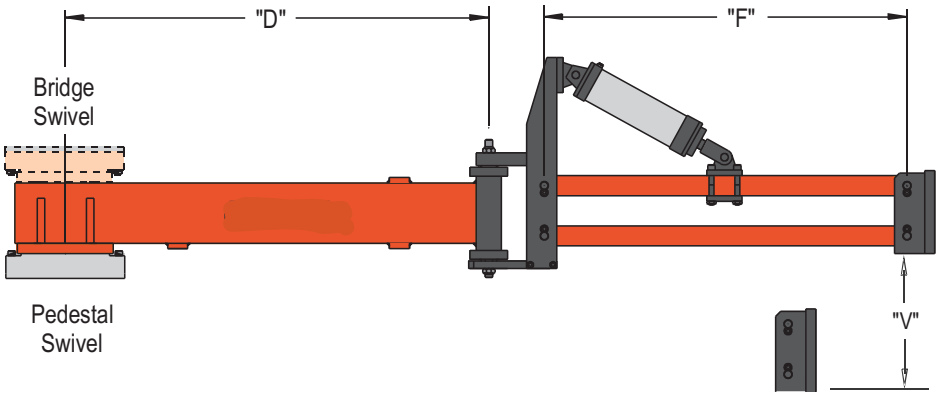
Mounting Type	
Clevis Mount	C
Swivel Mount	S

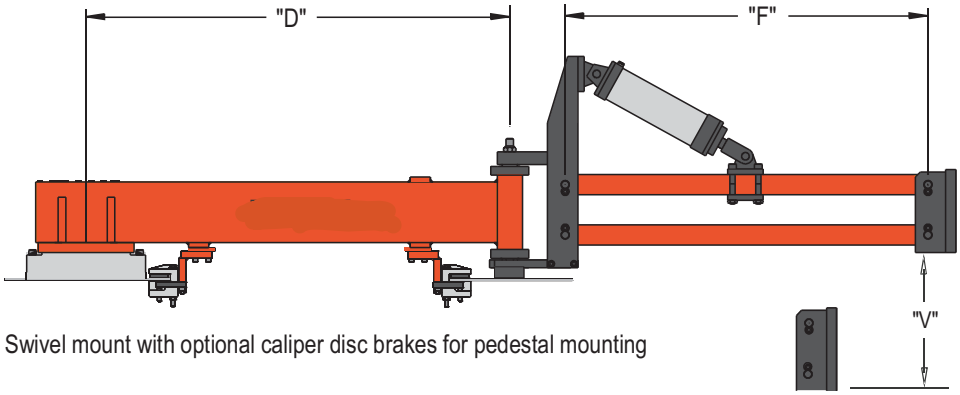
"F" Forearm Length		*"V" Vertical Travel*		
cm	in	cm	in	
61	24	37	14	24
76	30	46	18	30
91	36	55	22	36
107	42	64	25	42
122	48	73	29	48
137	54	83	33	54
152	60	92	36	60

A (2")		B (2-1/2")		C (3-1/4")	
CYLINDER SIZE Balancing Capacity Max @ 65 psi					
kg	lb	kg	lb	kg	lb
32	70	53	115	87	190
26	55	43	95	70	155
22	45	35	75	55	120
19	40	30	65	49	110
16	35	26	55	43	95
14	30	23	50	38	85
13	30	21	45	35	75

"D" Dumbell Length		*Mounting Type*
cm	in	
12	31	12	C or S
18	46	18	
24	61	24	
30	76	30	
36	91	36	
42	107	42	S
48	122	48	
54	137	54	
60	152	60	
66	168	66	
72	188	72	

SWIVEL MOUNT
Connects to Overhead
Bridge (see p 17)
or Floor Pedestal
(see p 19)
wth Swivel Mount.

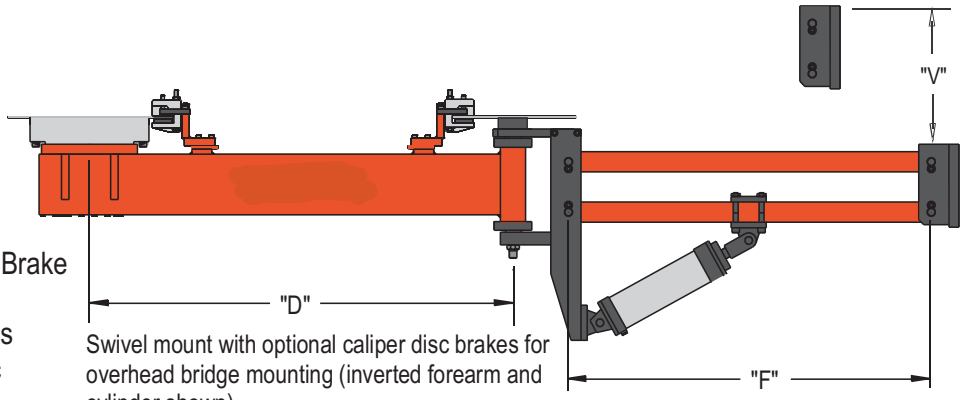




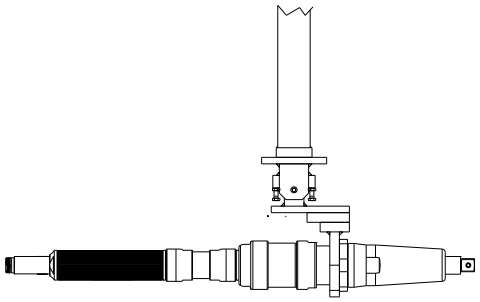
Swivel mount with optional caliper disc brakes for pedestal mounting

OPTIONS

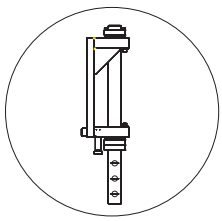
- Clevis or Swivel Mount
- Offset Arm
- Caliper Brakes
- End of Arm Swivel or Swivel with Brake
- Inverted Forearm and Cylinder
- Special Toolholders and Interfaces
- Dual And Triple Balance Air Logic



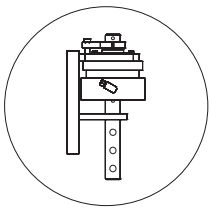
Swivel mount with optional caliper disc brakes for overhead bridge mounting (inverted forearm and cylinder shown)



Typical Tool Holder



Optional End of Arm
Swivel with Brake



Optional End of
Arm Brake/Clutch

ARTICULATING ARMS

HAS HEAVY DUTY ARTICULATING ARM

SWIVEL MOUNT
MAX TORQUE: 1356 Nm (1000 ft lb)
BALANCING CAPACITY MAX @ 65 psi: 49 kg (110 lb), 88 kg (195 lb) or 157 kg (345 lb)

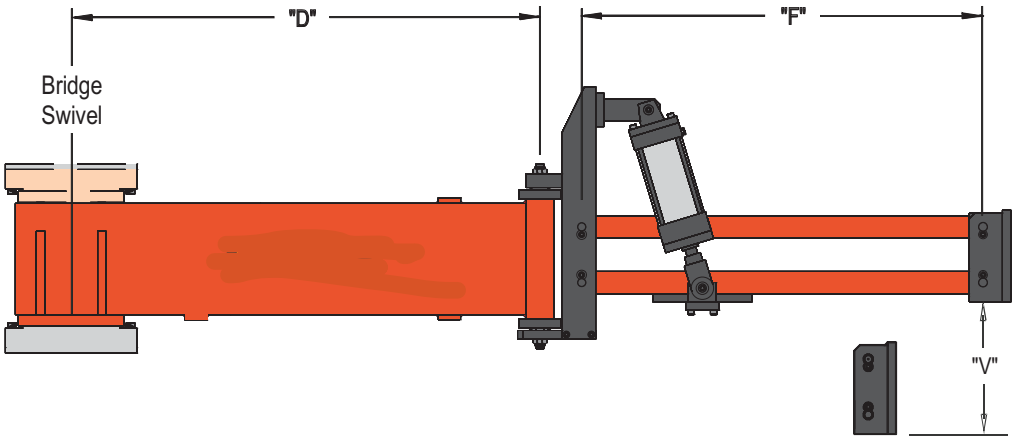
HAS Heavy Duty Articulating Arm offers interfaces for overhead bridge, floor pedestal or special mounting.

Ergonomics Improve Operator Interface
• Zero-gravity tool balancing and elimination of torque reaction exposure reduces operator fatigue

Increases Fastening Accuracy and Consistency
• Eliminates operator effects on results by absorbing the torque reaction impulse

Features Ensure Reliable Operation
• All critical fasteners are either safety wired or pinned
• Safety check valves maintain load position if a sudden loss of supply air pressure occurs

SWIVEL MOUNT
Connects to Overhead Bridge (see p 17) or Floor Pedestal (see p 19) with Swivel Mount.



MODEL			
HAS	##	A, B, or C	##

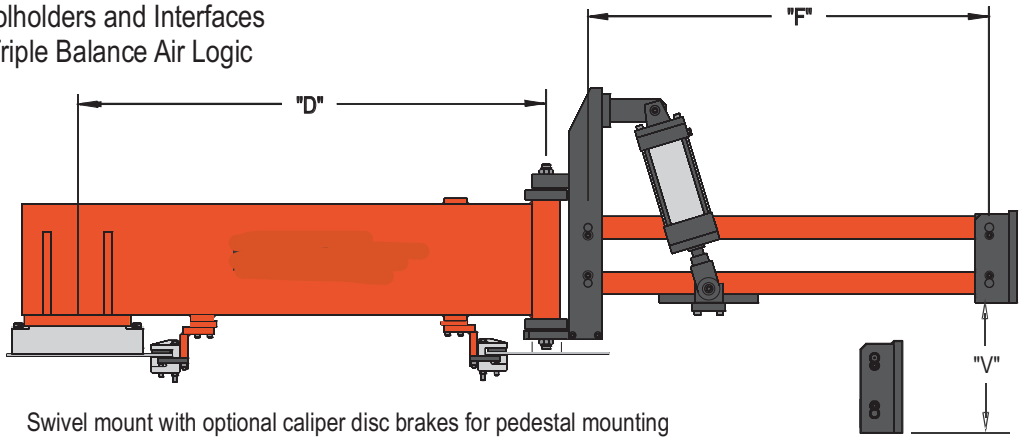
"F" Forearm Length		"V" Vertical Travel		
cm	in	cm	in	
61	24	36	14	24
76	30	46	18	30
91	36	56	22	36
107	42	66	26	42
122	48	76	30	48
137	54	81	32	54
152	60	91	36	60

A (2")		B (2-1/2")		C (3-1/4")	
CYLINDER SIZE					
Balancing Capacity Max @ 65 psi					
kg	lb	kg	lb	kg	lb
49	110	88	195	157	345
39	85	73	160	129	285
30	65	59	130	106	235
24	50	49	105	90	195
19	40	41	90	76	170
15	35	35	75	67	145
13	30	30	65	59	130

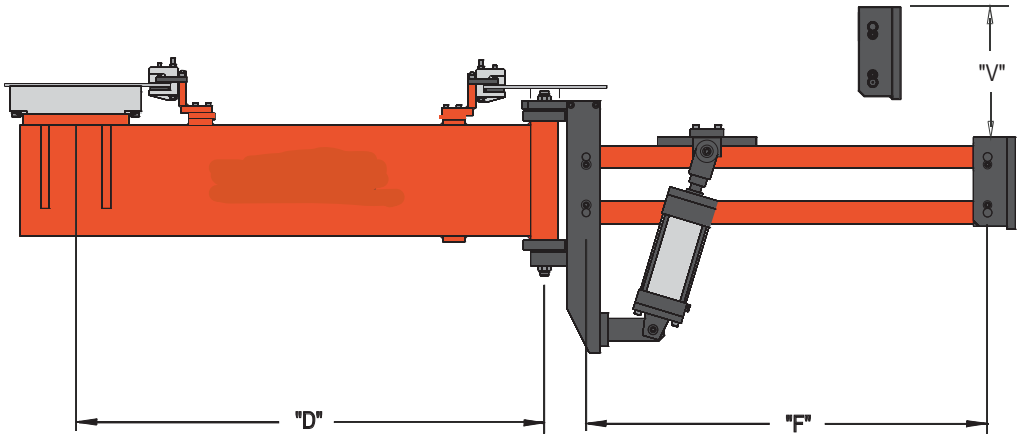
	"D" Dumbell Length	
	cm	in
12	31	12
18	46	18
24	61	24
30	76	30
36	91	36
42	107	42
48	122	48
54	137	54
60	152	60
72	188	72
84	213	84
96	244	96

OPTIONS

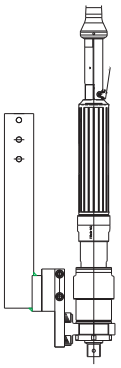
- Caliper Brakes
- Offset Arm
- End of Arm Swivel or Brake
- Inverted Forearm and Cylinder
- Special Toolholders and Interfaces
- Dual And Triple Balance Air Logic



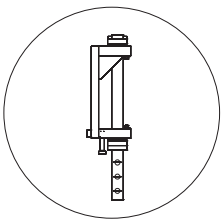
Swivel mount with optional caliper disc brakes for pedestal mounting



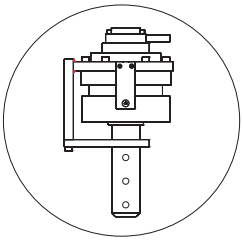
Swivel mount with optional caliper disc brakes for overhead bridge mounting
(inverted forearm and cylinder shown)



Typical Tool Holder



Optional End of
Arm Swivel



Optional End of
Arm Brake/Clutch

OVERHEAD BRIDGES

LBC LIGHT DUTY OVERHEAD BRIDGE

FOR CLEVIS ARM MOUNT
MAX LENGTH: 244 cm (96 in)

LBC Light Duty Overhead Bridges interface Stanley Articulating Arms to all common overhead rails. Bridge mast includes leveling jacks.

- All critical fasteners are either safety wired or pinned to ensure reliable operation
- Rugged and simple construction

NOTE: "Duty" level of Overhead Bridge must match "Duty" level of Articulating Arm. (ie: Medium Duty Bridge for Medium Duty Arm.)

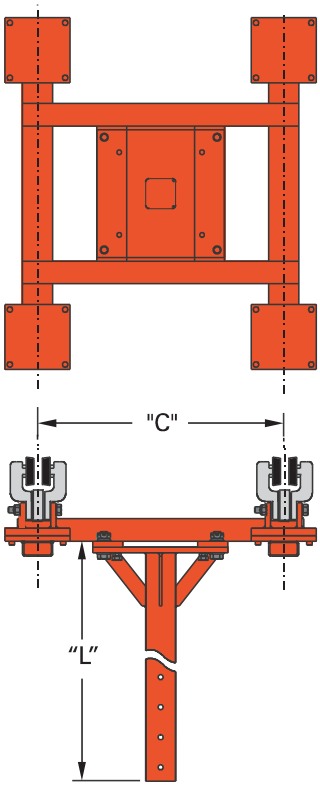
MODEL			
LBC	##	X	##

"C" Runway Rail Center Distance	
30.5 cm (12")	12
45.7 cm (18")	18
61.0 cm (24")	24
76.2 cm (30")	30
91.4 cm (36")	36
121.9 cm (48")	48
152.4 cm (60")	60

"L" Down Mast Length	
24	61.0 cm (24")
30	76.2 cm (30")
36	91.4 cm (36")
42	106.7 cm (42")
48	121.9 cm (48")
60	152.4 cm (60")
72	182.9 cm (72")
84	213.4 cm (84")
96	243.8 cm (96")

Trolley Suspension	
4" I-Beam Trolley	A
6" I-Beam Trolley	B
3.25" or 3.33" Flat Track Trolley	C
Unified ETA-4 Trolley	D
Unified ETA-8 Trolley	E
Demag KBKI Trolley	F
Demag KBKII-L Trolley	G
IR/Zimmerman Trolley ZRA1	H
IR/Zimmerman Trolley ZRA2	I

Other trolleys including anti-kickup available



LBC Light Duty Overhead Bridge with Clevis Mount

MB MEDIUM DUTY OVERHEAD BRIDGE

FOR SWIVEL OR CLEVIS ARM MOUNT
MAX LENGTH: 244 cm (96 in)

MB Medium Duty Overhead Bridges interface Stanley Articulating Arms to all common overhead rails. Bridge mast includes leveling jacks.

- All critical fasteners are either safety wired or pinned to ensure reliable operation
- Rugged and simple construction

NOTE: "Duty" level of Overhead Bridge must match "Duty" level of Articulating Arm. (ie: Medium Duty Bridge for Medium Duty Arm.)

MODEL				
MB	C or S	##	x	##

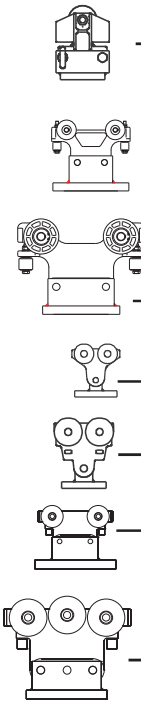
Mounting Type	
Clevis Mount	C
Swivel Mount	S

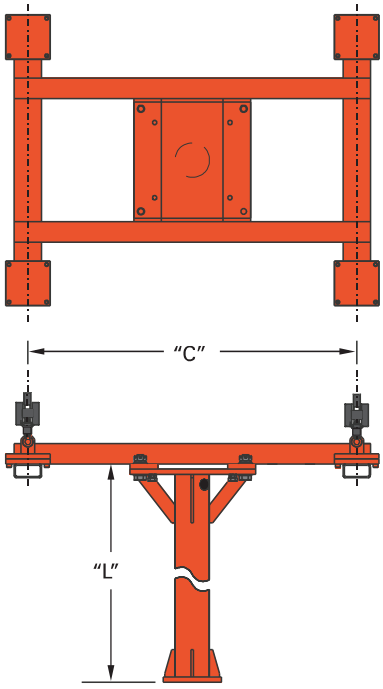
"C" Runway Rail Center Distance	
30.5 cm (12")	12
45.7 cm (18")	18
61.0 cm (24")	24
76.2 cm (30")	30
91.4 cm (36")	36
121.9 cm (48")	48
152.4 cm (60")	60

"L" Down Mast Length	
24	61.0 cm (24")
30	76.2 cm (30")
36	91.4 cm (36")
42	106.7 cm (42")
48	121.9 cm (48")
60	152.4 cm (60")
72	182.9 cm (72")
84	213.4 cm (84")
96	243.8 cm (96")

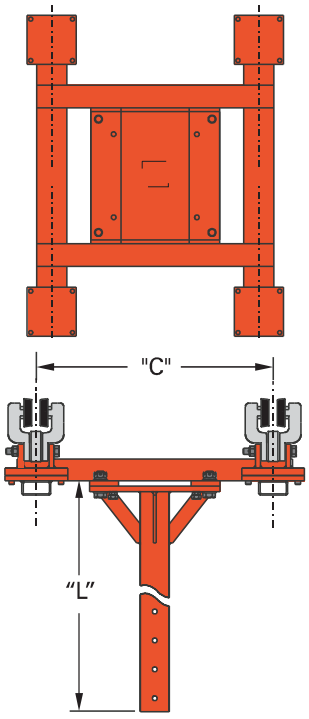
Trolley Suspension	
4" I-Beam Trolley	A
6" I-Beam Trolley	B
3.25" or 3.33" Flat Track Trolley	C
Unified ETA-4 Trolley	D
Unified ETA-8 Trolley	E
Demag KBKI Trolley	F
Demag KBKII-L Trolley	G
IR/Zimmerman Trolley ZRA1	H
IR/Zimmerman Trolley ZRA2	I

Other trolleys including anti-kickup available





MBS Medium Duty Overhead Bridge with Swivel Mount



MBC Medium Duty Overhead Bridge with Clevis Mount

OVERHEAD BRIDGES

HBS HEAVY DUTY OVERHEAD BRIDGE

FOR SWIVEL ARM MOUNT
MAX LENGTH: 244 cm (96 in)

HBS Heavy Duty Overhead Bridges interface Stanley Articulating Arms to all common overhead rails. Bridge mast includes leveling jacks.

- All critical fasteners are either safety wired or pinned to ensure reliable operation
- Rugged and simple construction

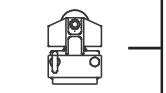
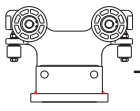
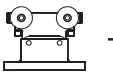
NOTE: "Duty" level of Overhead Bridge must match "Duty" level of Articulating Arm. (ie: Medium Duty Bridge for Medium Duty Arm.)

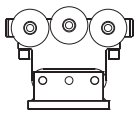
MODEL			
HBS	##	*X*	##

"C" Runway Rail Center Distance	
45.7 cm (18")	18
61.0 cm (24")	24
76.2 cm (30")	30
91.4 cm (36")	36
121.9 cm (48")	48
152.4 cm (60")	60

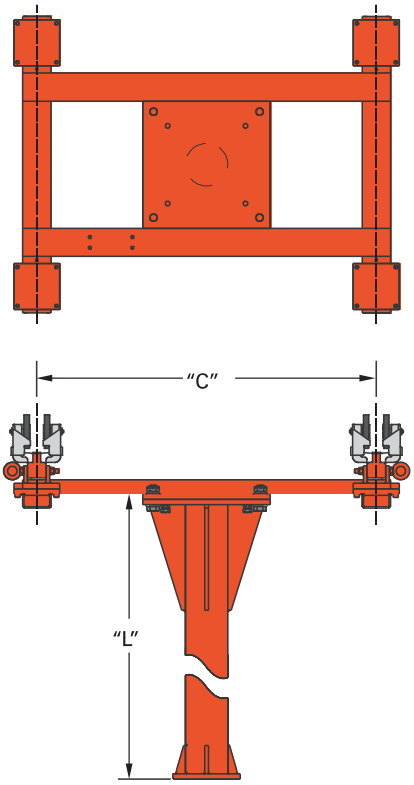
	"L" Down Mast Length
12	30.5 cm (12")
18	45.7 cm (18")
24	61.0 cm (24")
30	76.2 cm (30")
36	91.4 cm (36")
42	106.7 cm (42")
48	121.9 cm (48")
60	152.4 cm (60")
72	182.9 cm (72")
84	213.4 cm (84")
96	243.8 cm (96")

Trolley Suspension	
4" I-Beam Trolley	A
6" I-Beam Trolley	B
3.25" or 3.33" Flat Track Trolley	C
Unified ETA-8 Trolley	E
Demag KBKII-L Trolley	G
IR/Zimmerman Trolley ZRA1	H
IR/Zimmerman Trolley ZRA2	I



Other trolleys including anti-kickup available



HBS Heavy Duty Overhead Bridge with Swivel Mount

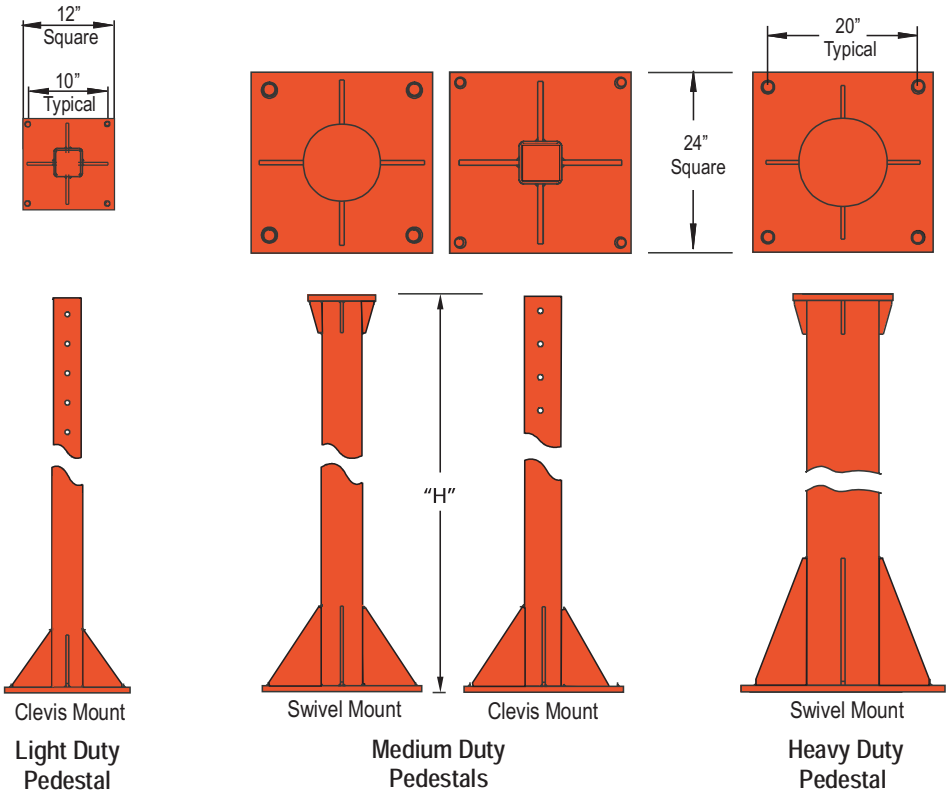
PEDESTALS

FOR CLEVIS OR SWIVEL ARM MOUNT
MAX LENGTH: 244 cm (96 in)

HP/MP/LP Pedestals offer a floor mounting for Stanley Articulating Arms. Pedestals include leveling jacks.

- All critical fasteners are either safety wired or pinned to ensure reliable operation
- Rugged and simple construction

NOTE: "Duty" level of Pedestal must match "Duty" level of Articulating Arm. (ie: Medium Duty Pedestal for Medium Duty Arm.)



Light Duty Pedestal | **Medium Duty Pedestals** | **Heavy Duty Pedestal**

MODEL		
XX	C or S	X

Mounting Type	
Clevis Mount*	C
Swivel Mount**	S

Duty Level	
LP	Light Duty Pedestal
MP	Medium Duty Pedestal
HP	Heavy Duty Pedestal

"L" Mast Height	
60	152.4 cm (60")
72	182.9 cm (72")
84	213.4 cm (84")
96	243.8 cm (96")
108	247.3 cm (108")

*Not available on HP (Heavy Duty) models
**Not available on LP (Light Duty) models