



Bring palletless handling to your operation.

APPLICATIONS

Achieve all the benefits of palletless handling of unitized loads in your manufacturing and distribution operation. Cascade's D-Series Carton Clamps allow efficient handling of a wide range of low-, medium- and high-density products including consumer paper products, appliances, consumer electronics, wine, packaged foods (canned or boxed), chemicals and plastics.

FEATURES

- Proven arm and aluminum frame construction ensures long useful life of the clamp.
- Unique pivoting arm and stabilizer design allows superior clamping force distribution for secure and damage free handling of a wide range of product types.
- Thin arm profiles allow for stacking loads tightly in the warehouse.
- Superior arm-slide bearing material and design extends bearing life and maintains balanced clamp force distribution.
- Rubber faced aluminum contact pads are standard and provide a high coefficient of friction to securely hold loads.
- Regenerative hydraulic valving is standard for optimal arm speed.

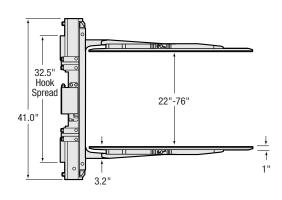
OPTIONS

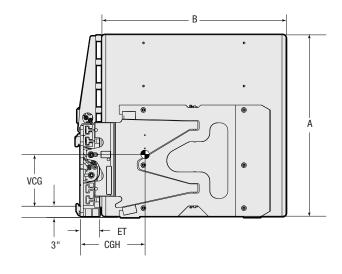
- Application specific contact pads (sizes & surfaces)
- Quick Disconnect mounting
- Custom opening ranges
- Tilt Control
- Load Cushion





Built for fast,
efficient and
productive clamp
handling.





Sideshifting

| | Capacity @ Load Center | Opening Range | Catalog Order No. | Mounting Class | Weight | | Effective Thickness | Horizontal Center of Gravity | Vertical Center of Gravity | Arm Height | Arm Length |
|--------------|---------------------------|---------------|----------------------|-------------------|--------|-----|------------------------|------------------------------------|----------------------------------|---------------|---------------|
| lbs @ inches | kg @ mm | | | | lbs. | kg | ET | HCG | VCG | Α | В |
| _1,500 @ 15" | 680 @ 380 | 22"-77" | 15D-CCS-01A | II | 1,110 | 503 | 5.0" | 12.8" | 12.9" | 48" | 30" |
| 1,500 @ 15" | 680 @ 405 | 22"-76" | 15D-CCS-28A | II | 1,295 | 588 | 5.0" | 13.6" | 13.7" | 48" | 32" |
| 1,500 @ 20" | 680 @ 510 | 22"-76" | 15D-CCS-32A | II | 1,400 | 636 | 5.0" | 17.0" | 12.8" | 48" | 40" |
| 1,500 @ 21" | 680 @ 535 | 22"-76" | 15D-CCS-33A | II | 1,415 | 642 | 5.0" | 17.1" | 12.8" | 48" | 42" |
| 1,500 @ 23" | 680 @ 585 | 22"-76" | 15D-CCS-34A | II | 1,515 | 688 | 5.0" | 17.2" | 12.6" | 48" | 46" |
| 1,500 @ 24" | 680 @ 600 | 22"-76" | 15D-CCS-35A | II | 1,535 | 697 | 5.0" | 17.3" | 12.6" | 48" | 48" |
| 2,500 @ 15" | 1,135 @ 380 | 22"-76" | 25D-CCS-01A | II | 1,255 | 570 | 5.0" | 15.3" | 13.6" | 48" | 30" |
| 2,500 @ 20" | 1,135 @ 510 | 22"-76" | 25D-CCS-32A | II | 1,400 | 636 | 5.0" | 17.0" | 12.8" | 48" | 40" |
| 2,500 @ 21" | 1,135 @ 535 | 22"-76" | 25D-CCS-33A | II | 1,415 | 642 | 5.0" | 17.1" | 12.8" | 48" | 42" |
| 2,500 @ 23" | 1,135 @ 585 | 22"-76" | 25D-CCS-34A | II | 1,515 | 688 | 5.0" | 17.2" | 12.6" | 48" | 46" |
| 2,500 @ 24" | 1,135 @ 600 | 22"-76" | 25D-CCS-35A | II | 1,535 | 697 | 5.0" | 17.3" | 12.6" | 48" | 48" |

- Class II Bolt-On mounting is standard, Quick Disconnect mounting available.
- ► Class III mounting available for 25D.
- ► Front lower leading edge pad wear can be addressed by periodic replacement of the factory installed wear tiles. Contact Cascade Parts Department at 888-CASCADE (227-2233) for service kits. Cascade recommends using tilt control with all carton clamps.
- ► Can easily be converted to non-sideshifting by plugging ports on the valve.
- Attachment capacity should be matched to truck rating for most efficient application.
- Additional contact pad sizes, arm opening ranges, and features are available. Contact Cascade.
- All Carton Clamps are sideshifting.

INSTALLATION KIT

| Model | Catalog Order No. |
|---------|-------------------|
| 15D/25D | 659249 |

HYDRAULIC FLOW AND PRESSURE

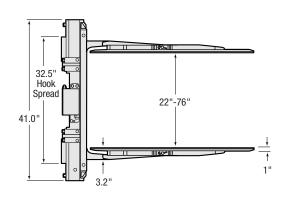
| Model | Minimum Flow | Recommended Flow | Maximum Flow | Maximum Pressure |
|-------|-----------------|------------------|-----------------|---------------------|
| 15D | 5 GPM | 5.5 GPM | 8 GPM | 2,300 PSI/160 bar |
| 25D | 5 GPM | 5.5 GPM | 8 GPM | 2,300 PSI/160 bar |

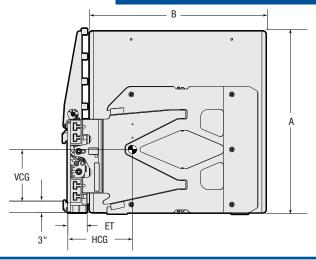
MOUNTING CLASS INFORMATION

| Mounting Class | Truck Capacity |
|----------------|------------------|
| II | 2,000-5,500 lbs. |
| III | 6,000-10,000 lbs |

HYDRAULIC FUNCTIONS

| Model | Hydraulic Functions | Truck Auxiliary Valves Required |
|---------|------------------------|------------------------------------|
| 15D/25D | 2 | 2 |





Sideshifting

| : | Capacity @ Load Center | Opening Range | Catalog Order No. | Mounting Class | Weight | | Effective Thickness | Horizontal Center of Gravity | Vertical Center of Gravity | Arm Height | Arm Length |
|--------------|---------------------------|---------------|----------------------|-------------------|--------|-----|------------------------|------------------------------------|----------------------------------|---------------|---------------|
| lbs @ inches | kg @ mm | | | | lbs. | kg | ET | HCG | VCG | Α | В |
| 3,500 @ 20" | 1,590 @ 510 | 22"-76" | 35D-CCS-32A | II | 1,400 | 635 | 5.0" | 16.0 | 14.2 | 48" | 40" |
| 3,500 @ 21" | 1,590 @ 535 | 22"-76" | 35D-CCS-33A | II | 1,410 | 640 | 5.0" | 16.3 | 14.2 | 48" | 42" |
| 3,500 @ 23" | 1,590 @ 585 | 22"-76" | 35D-CCS-34A | II | 1,530 | 694 | 5.0" | 18.5 | 14.3 | 48" | 46" |
| 3,500 @ 24" | 1,590 @ 600 | 22"-76" | 35D-CCS-35A | II | 1,540 | 699 | 5.0" | 18.8 | 14.3 | 48" | 48" |
| 3,300 @ 26" | 1,500 @ 660 | 22"-76" | 35D-CCS-36A | II | 1,650 | 748 | 5.0" | 21.0 | 14.4 | 48" | 52" |
| 3,200 @ 27" | 1,455 @ 685 | 22"-76" | 35D-CCS-37A | II | 1,660 | 753 | 5.0" | 21.3 | 14.4 | 48" | 54" |
| 3,500 @ 20" | 1,590 @ 510 | 22"-76" | 35D-CCS-42A | II | 1,440 | 653 | 5.0" | 16.1 | 15.2 | 54" | 40" |
| 3,500 @ 21" | 1,590 @ 535 | 22"-76" | 35D-CCS-43A | II | 1,450 | 658 | 5.0" | 16.4 | 15.2 | 54" | 42" |
| 3,500 @ 23" | 1,590 @ 585 | 22"-76" | 35D-CCS-44A | II | 1,580 | 717 | 5.0" | 18.6 | 15.3 | 54" | 46" |
| 3,500 @ 24" | 1,590 @ 600 | 22"-76" | 35D-CCS-45A | II | 1,590 | 721 | 5.0" | 18.9 | 15.3 | 54" | 48" |
| 3,300 @ 26" | 1,500 @ 660 | 22"-76" | 35D-CCS-46A | II | 1,700 | 771 | 5.0" | 21.1 | 15.4 | 54" | 52" |
| 3,200 @ 27" | 1,455 @ 685 | 22"-76" | 35D-CCS-47A | II | 1,710 | 776 | 5.0" | 21.4 | 15.4 | 54" | 54" |
| 3,500 @ 20" | 1,590 @ 510 | 22"-76" | 35D-CCS-92A | II | 1,480 | 671 | 5.0" | 16.2 | 16.3 | 60" | 40" |
| 3,500 @ 21" | 1,590 @ 535 | 22"-76" | 35D-CCS-93A | II | 1,490 | 676 | 5.0" | 16.5 | 16.3 | 60" | 42" |
| 3,500 @ 23" | 1,590 @ 585 | 22"-76" | 35D-CCS-94A | II | 1,620 | 735 | 5.0" | 18.7 | 16.4 | 60" | 46" |
| 3,500 @ 24" | 1,590 @ 600 | 22"-76" | 35D-CCS-95A | II | 1,630 | 739 | 5.0" | 19.0 | 16.4 | 60" | 48" |
| 3,300 @ 26" | 1,500 @ 660 | 22"-76" | 35D-CCS-96A | II | 1,740 | 789 | 5.0" | 21.2 | 16.5 | 60" | 52" |
| 3,200 @ 27" | 1,455 @ 685 | 22"-76" | 35D-CCS-97A | II | 1,750 | 794 | 5.0" | 21.5 | 16.5 | 60" | 54" |

- Class II Bolt-On mounting is standard. Class III and Quick-Disconnect mounting also available.
- ► Front lower leading edge pad wear can be addressed by periodic replacement of the factory installed wear tiles. Contact Cascade Parts Department at 888-CASCADE (227-2233) for service kits. Cascade recommends using tilt control with all carton clamps. See page 6-3.
- ► Can easily be converted to non-sideshifting by plugging ports on the valve.
- Attachment capacity should be matched to truck rating for most efficient application.
- Additional contact pad sizes, arm opening ranges, and features are available. Contact Cascade.
- ► All Carton Clamps are sideshifting.

INSTALLATION KIT

| Model | Catalog Order No. |
|-------|-------------------|
| 35D | 659249 |

HYDRAULIC FLOW AND PRESSURE

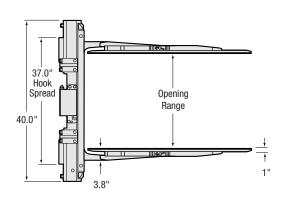
| Model | Minimum Flow | Recommended Flow | Maximum Flow | Maximum Pressure |
|-------|-----------------|---------------------|-----------------|---------------------|
| 35D | 5 GPM | 7 GPM | 10 GPM | 2,300 PSI/160 bar |

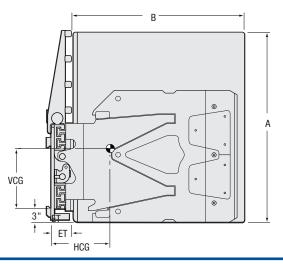
MOUNTING CLASS INFORMATION

| Mounting Class | Truck Capacity |
|----------------|------------------|
| II | 2,000-5,500 lbs. |
| III | 6,000-10,000 lbs |

HYDRAULIC FUNCTIONS

| Model | Hydraulic Functions | Truck Auxiliary Valves Required |
|-------|------------------------|------------------------------------|
| 35D | 2 | 2 |





Sideshifting

| | Capacity @ | Opening Range | Catalog Order No. | Mounting Class | Weight | | Effective Thickness | Horizontal Center of Gravity | Vertical Center of Gravity | Arm Height | Arm Length |
|--------------|-------------|---------------|----------------------|-------------------|--------|-----|------------------------|------------------------------------|----------------------------------|---------------|---------------|
| lbs @ inches | kg @ mm | | | | lbs. | kg | ET | HCG | VCG | Α | В |
| 5,000 @ 20" | 2,270 @ 510 | 21"-73" | 50D-CCS-21B | III | 1,980 | 899 | 6.0" | 19.1" | 17.8" | 60" | 40" |
| 5,000 @ 21" | 2,270 @ 535 | 21"-73" | 50D-CCS-22B | III | 1,995 | 906 | 6.0" | 19.2" | 17.8" | 60" | 42" |
| 5,000 @ 22" | 2,270 @ 560 | 21"-73" | 50D-CCS-23B | III | 2,005 | 910 | 6.0" | 19.3" | 17.8" | 60" | 44" |
| 5,000 @ 23" | 2,270 @ 585 | 21"-73" | 50D-CCS-24B | III | 2,095 | 951 | 6.0" | 20.2" | 16.8" | 60" | 46" |
| 5,000 @ 24" | 2,270 @ 600 | 21"-73" | 50D-CCS-25B | III | 2,110 | 958 | 6.0" | 20.3" | 16.9" | 60" | 48" |

- Class III Bolt-On mounting is standard. Class II and IV and Quick-Disconnect mounting also available.
- Front lower leading edge pad wear can be addressed by periodic replacement of the factory installed wear tiles. Contact Cascade Parts Department at 888-CASCADE (227-2233) for service kits. Cascade recommends using tilt control with all carton clamps. See page 6-3.
- Can easily be converted to non-sideshifting by plugging ports on the valve.
- Attachment capacity should be matched to truck rating for most efficient
- Additional contact pad sizes, arm opening ranges, and features are available. Contact Cascade.
- All Carton Clamps are sideshifting.

INSTALLATION KIT

| Model | Catalog Order No. |
|-------|-------------------|
| 50D | 659249 |

HYDRAULIC FLOW AND PRESSURE

| Model | Minimum Flow | Recommended Flow | Maximum Flow | Maximum Pressure |
|-------|-----------------|------------------|-----------------|---------------------|
| 50D | 5 GPM | 12 GPM | 15 GPM | 2,300 PSI/160 bar |

MOUNTING CLASS INFORMATION

| Mounting Class | Truck Capacity |
|----------------|--------------------|
| III | 6,000-10,000 lbs |
| IV | 10,001-17,500 lbs. |

HYDRAULIC FUNCTIONS

| Model | Hydraulic Functions | Truck Auxiliary Valves Required |
|-------|------------------------|------------------------------------|
| 50D | 2 | 2 |



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