



## Perfect for mid- to large-size rolls.

### APPLICATIONS

Designed for mills, converters, corrugators, stevedoring, printers, warehousing and all applications requiring a rugged, heavy-duty paper roll clamp. Rated and field-proven for demanding operations handling kraft, linerboard and coated paper stocks. The 77F handles rolls to 8,800 lbs. at 51" diameter, with roll diameters ranging from 51" to 72".

### FEATURES

#### **Reduced Roll Damage**

- Proven contact pad shape and surface holds rolls securely
- Thin arm profile and smooth arm contour eases roll breakout and permits close stacking over a wide range of roll diameters

#### **Fast Roll Handling**

- Good visibility through and around clamp
- Continuous 360° rotation

#### **Proven Durability**

- Unitized construction provides structural integrity in arms and frame
- Heavy-duty rotator drive train
- Pivot bushings are lube-free and provide longer service life

### MODELS

#### **Fixed Frame/Fixed Short Arm**

- Good arm profile when handling rolls near maximum diameter

#### **Fixed Frame/Positioned Short Arm**

- Good long-arm profile over a wide range of roll diameters

#### **Swing Frame/Positioned Short Arm**

- Improves handling in tight stacking locations such as boxcar breakout, allows easy lateral positioning
- Arms can be positioned to equal length configuration

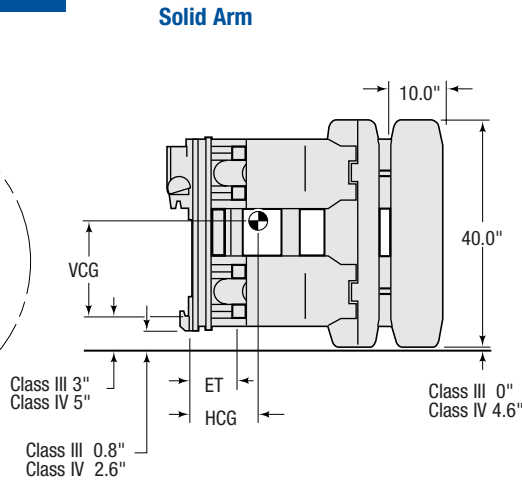
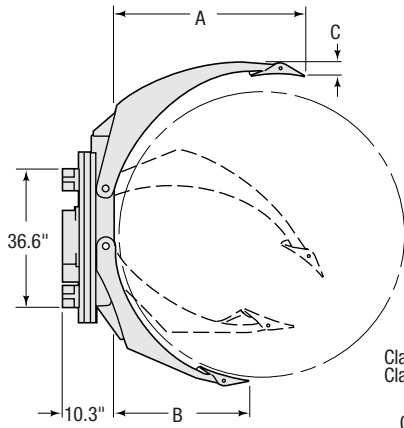
#### **Split arm option**

- The two long-arm sections move independently, allowing you to handle two different diameter rolls simultaneously



*A versatile, high-production roll clamp for kraft, linerboard and coated papers.*

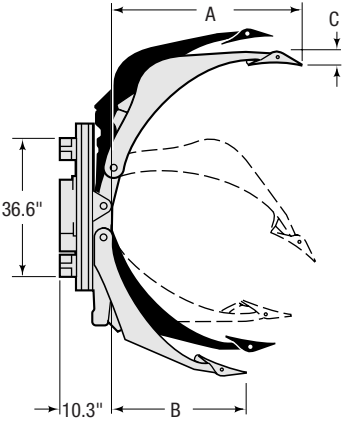
# 77F PAPER ROLL CLAMP



**Split Long Arm Option**



**Swing Frame**



Capacity @ Diameter		Roll Range	Type	Catalog Order No.	Mtg. Class	Mtg. Angle ①	Weight		Effective Thickness	Horizontal Ctr. of Gravity	Vertical Ctr. of Gravity	Long Arm Length	Short Arm Length	Long Arm Thickness
lbs @ inches	kg @ mm						lbs	kg						
<b>Solid Arm</b>														
8,800 @ 51"	3,995 @ 1,295	22"-51"	Fixed	<b>77F-RCF-08B</b>	III	0°	2,505	1,137	8.6"	11.2"	17.0"	34.4"	22.7"	2.6"
8,800 @ 51"	3,995 @ 1,295	22"-51"		<b>77F-RCF-08G</b>	III	4°	2,485	1,128	7.4"	11.0"	17.0"	34.4"	22.7"	2.6"
8,800 @ 51"	3,995 @ 1,295	22"-51"		<b>77F-RCF-08C</b>	IV	0°	2,525	1,146	8.6"	11.6"	19.6"	34.4"	22.7"	2.6"
8,800 @ 51"	3,995 @ 1,295	22"-51"		<b>77F-RCF-08H</b>	IV	4°	2,505	1,137	7.4"	11.0"	19.6"	34.4"	22.7"	2.6"
8,800 @ 51"	3,995 @ 1,295	10"-51"	Positioned	<b>77F-RCP-07B</b>	III	0°	2,525	1,146	8.6"	11.6"	17.0"	34.4"	22.7"	2.6"
8,800 @ 51"	3,995 @ 1,295	10"-51"		<b>77F-RCP-07G</b>	III	4°	2,505	1,137	7.4"	11.0"	17.0"	34.4"	22.7"	2.6"
8,800 @ 51"	3,995 @ 1,295	10"-51"		<b>77F-RCP-07C</b>	IV	0°	2,545	1,155	8.6"	11.6"	19.6"	34.4"	22.7"	2.6"
8,800 @ 51"	3,995 @ 1,295	10"-51"		<b>77F-RCP-07H</b>	IV	4°	2,525	1,146	7.4"	11.0"	19.6"	34.4"	22.7"	2.6"
7,700 @ 60"	3,500 @ 1,525	24"-60"	Fixed	<b>77F-RCF-02B</b>	III	0°	2,600	1,180	8.6"	12.6"	17.0"	39.3"	26.4"	2.6"
7,700 @ 60"	3,500 @ 1,525	24"-60"		<b>77F-RCF-02G</b>	III	4°	2,580	1,171	7.4"	12.0"	17.0"	39.3"	26.4"	2.6"
7,700 @ 60"	3,500 @ 1,525	24"-60"		<b>77F-RCF-02C</b>	IV	0°	2,620	1,190	8.6"	12.6"	19.6"	39.3"	26.4"	2.6"
7,700 @ 60"	3,500 @ 1,525	24"-60"		<b>77F-RCF-02H</b>	IV	4°	2,600	1,180	7.4"	12.0"	19.6"	39.3"	26.4"	2.6"
7,700 @ 60"	3,500 @ 1,525	10"-60"	Positioned	<b>77F-RCP-01B</b>	III	0°	2,620	1,190	8.6"	12.6"	17.0"	39.3"	26.4"	2.6"
7,700 @ 60"	3,500 @ 1,525	10"-60"		<b>77F-RCP-01G</b>	III	4°	2,600	1,180	7.4"	12.0"	17.0"	39.3"	26.4"	2.6"
7,700 @ 60"	3,500 @ 1,525	10"-60"		<b>77F-RCP-01C</b>	IV	0°	2,640	1,199	8.6"	12.6"	19.6"	39.3"	26.4"	2.6"
7,700 @ 60"	3,500 @ 1,525	10"-60"		<b>77F-RCP-01H</b>	IV	4°	2,620	1,190	7.4"	12.0"	19.6"	39.3"	26.4"	2.6"
7,700 @ 60"	3,500 @ 1,525	10"-60"③	Swing Frame	<b>77F-RCS-21B</b>	III	0°	2,830	1,285	8.7"	12.1"	17.0"	39.6"	26.2"	3.1"④
7,700 @ 60"	3,500 @ 1,525	10"-60"③		<b>77F-RCS-21G</b>	III	4°	2,820	1,280	7.5"	11.5"	17.0"	39.6"	26.2"	3.1"④
7,700 @ 60"	3,500 @ 1,525	10"-60"③		<b>77F-RCS-21C</b>	IV	0°	2,850	1,294	8.7"	12.1"	19.6"	39.6"	26.2"	3.1"④
7,700 @ 60"	3,500 @ 1,525	10"-60"③	Positioned	<b>77F-RCS-21H</b>	IV	4°	2,840	1,289	7.5"	11.5"	19.6"	39.6"	26.2"	3.1"④
7,700 @ 63"	3,500 @ 1,600	10"-63"	Positioned	<b>77F-RCP-09C</b>	IV	0°	2,650	1,205	8.6"	12.6"	19.6"	40.8"	27.5"	2.6"
7,700 @ 63"	3,500 @ 1,600	10"-63"		<b>77F-RCP-09B</b>	III	0°	2,630	1,195	8.6"	12.6"	19.6"	40.8"	27.5"	2.6"

① 4° mounting provides reduced effective thickness (Lost Load) and ease in handling horizontal (bilge) rolls. A 2° mounting is available as an option and offers improved effective thickness and ease in bilge handling compared to 0°. 2° mounting offers increased stacking height compared to 4°. 0° mounting must be used when stacking above 130".

② Swing frame clamps require a Control Valve Group and 3-function hosing over the mast. Refer to the Control Valve Group chart in the Installation Section on page 4-2 for additional details and order numbers.

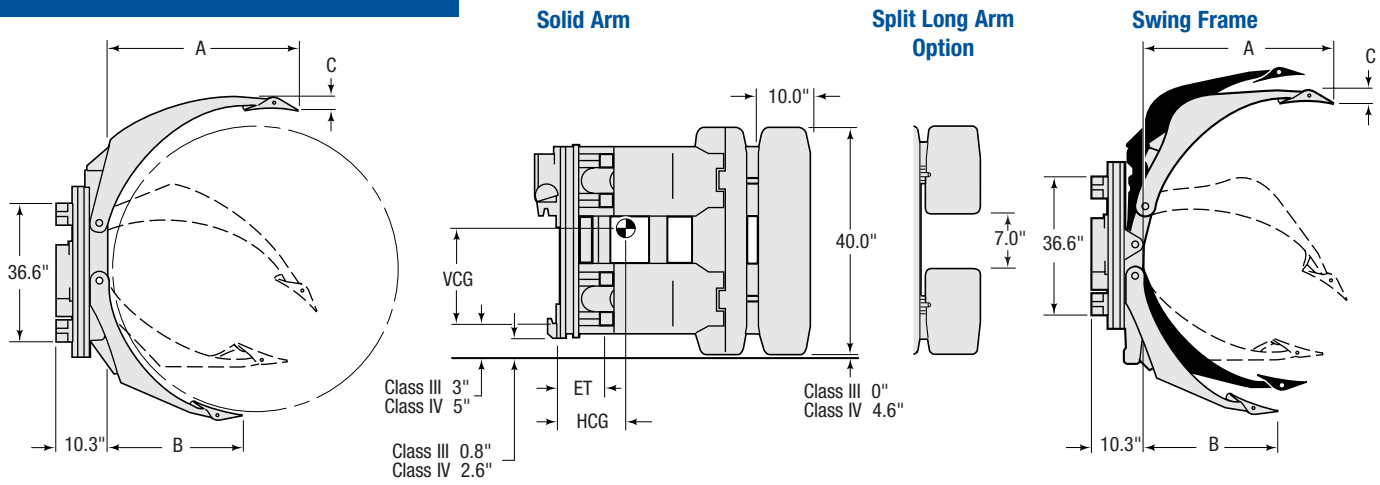
③ Maximum swing for 10" to 60" roll range is 7.5" and for 18" to 72" roll range is 8.9".

④ When in equal-arm position, thickness is 1.9" in both long and short arms.

► Cascade Cast Pad is standard.

► Split Arm available. Consult Cascade for specifications.

# 77F PAPER ROLL CLAMP



Capacity @ Diameter		Roll Range	Type	Catalog Order No.	Mtg. Class	Mtg. Angle	Weight		Effective Thickness	Horizontal Ctr. of Gravity	Vertical Ctr. of Gravity	Long Arm Length	Short Arm Length	Long Arm Thickness
lbs @ inches	kg @ mm						lbs	kg						
6,250 @ 72"	2,840 @ 1,830	25"-72" <sup>⑤</sup>	Fixed	<b>77F-RCF-04B</b>	III	0°	2,820	1,280	8.6"	13.9"	17.0"	45.8"	31.9"	2.6"
6,250 @ 72"	2,840 @ 1,830	25"-72" <sup>⑤</sup>		<b>77F-RCF-04G</b>	III	4°	2,800	1,271	7.4"	13.3"	17.0"	45.8"	31.9"	2.6"
6,250 @ 72"	2,840 @ 1,830	25"-72" <sup>⑤</sup>		<b>77F-RCF-04C</b>	IV	0°	2,840	1,289	8.6"	13.9"	19.6"	45.8"	31.9"	2.6"
6,250 @ 72"	2,840 @ 1,830	25"-72" <sup>⑤</sup>		<b>77F-RCF-04H</b>	IV	4°	2,820	1,280	7.4"	13.3"	19.6"	45.8"	31.9"	2.6"
6,250 @ 72"	2,840 @ 1,830	14"-72" <sup>⑤</sup>	Positioned	<b>77F-RCP-03B</b>	III	0°	2,840	1,289	8.6"	13.9"	17.0"	45.8"	31.9"	2.6"
6,250 @ 72"	2,840 @ 1,830	14"-72" <sup>⑤</sup>		<b>77F-RCP-03G</b>	III	4°	2,820	1,280	7.4"	13.3"	17.0"	45.8"	31.9"	2.6"
6,250 @ 72"	2,840 @ 1,830	14"-72" <sup>⑤</sup>		<b>77F-RCP-03C</b>	IV	0°	2,860	1,298	8.6"	13.9"	19.6"	45.8"	31.9"	2.6"
6,250 @ 72"	2,840 @ 1,830	14"-72" <sup>⑤</sup>		<b>77F-RCP-03H</b>	IV	4°	2,840	1,289	7.4"	13.3"	19.6"	45.8"	31.9"	2.6"
6,000 @ 72"	2,725 @ 1,830	18"-72" <sup>③</sup>	Swing Frame <sup>②</sup> Positioned	<b>77F-RCS-23B</b>	III	0°	3,040	1,380	8.7"	13.3"	17.0"	47.7"	30.3"	3.1" <sup>④</sup>
6,000 @ 72"	2,725 @ 1,830	18"-72" <sup>③</sup>		<b>77F-RCS-23G</b>	III	4°	3,030	1,376	7.5"	12.8"	17.0"	47.7"	30.3"	3.1" <sup>④</sup>
6,000 @ 72"	2,725 @ 1,830	18"-72" <sup>③</sup>		<b>77F-RCS-23C</b>	IV	0°	3,060	1,389	8.7"	13.1"	19.6"	47.7"	30.3"	3.1" <sup>④</sup>
6,000 @ 72"	2,725 @ 1,830	18"-72" <sup>③</sup>		<b>77F-RCS-23H</b>	IV	4°	3,050	1,385	7.5"	12.8"	19.6"	47.7"	30.3"	3.1" <sup>④</sup>

- ① 4° mounting provides reduced effective thickness (Lost Load) and ease in handling horizontal (bilge) rolls. A 2° mounting is available as an option and offers improved effective thickness and ease in bilge handling compared to 0°. 2° mounting offers increased stacking height compared to 4°. 0° mounting must be used when stacking above 130".
  - ② Swing frame clamps require a Control Valve Group and 3-function hosing over the mast. Refer to the Control Valve Group chart in the Installation Section on page 4-2 for additional details and order numbers.
  - ③ Maximum swing for 10" to 60" roll range is 7.5" and for 18" to 72" roll range is 8.9".
  - ④ When in equal-arm position, thickness is 1.9" in both long and short arms.
  - ⑤ Requires 2,300 PSI operating pressure at maximum capacity.
- Split Arm available. Consult Cascade for specifications.

## INSTALLATION KIT

Model	Catalog Order No.
Swing Frame Positioned	<b>675157</b>
Fixed, Positioned	<b>675158</b>

## HYDRAULIC FLOW AND PRESSURE

Minimum	Recommended	Maximum	Max. Pressure
10 GPM	15 GPM	20 GPM	2,300 PSI

## HYDRAULIC FUNCTIONS

Model	Hydraulic Functions	Truck Auxiliary Valves Required
Fixed Short Arm	2	2
Positioned Short Arm	2	2
Swing Frame	3	2

## ROTATOR SPECIFICATIONS

Rotator Speed	Rotator Torque
4.1 RPM @ 15 GPM	85,000 Inch-Lbs. @ 2,000 PSI

## MOUNTING CLASS INFORMATION

Mounting Class	Truck Capacity
III	6,000-10,00 lbs.
IV	10,001-17,500 lbs.

**Clamp Force Indicator**



Measuring device that shows the clamp force applied to the load. Used for clamp pressure calibration with systems using pressure relief valves.

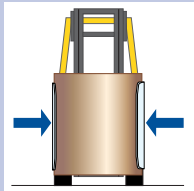
(Paper Roll Clamp version shown.)

**Swing Frame**



Swing Frame models offer you the optimum in roll handling speed and capability. The lateral 'swing' or sideshifting function adds an extra dimension of flexibility to the clamp's breakout and tight stacking capabilities.

**AFC**



AFC (Adaptive Force Control) is a computer-controlled clamping system that automatically controls the clamp force in proportion to the load weight.

**Adjustable Bumper**



Ensures that smaller rolls are correctly positioned between the pads – not trapped in the arms.

**Light Bar Kit and Multi-Setting Relief Valve**



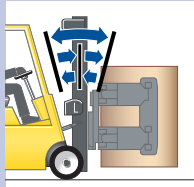
The light bar shows the pressure setting in use when installed with the Multi-Setting Pressure Relief Valve.

**Split-Arm**



Allows secure handling of two stacked rolls of different diameters. Patented hydraulic circuit allows clamping of one roll with minimum top arm movement.

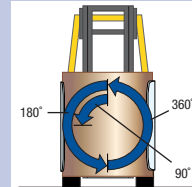
**Tilt Control**



Automatically controls the angle of the mast and attachment, aligning pad with the load.

Two-Way Tilt Control

**Electronic Rotational Control**



Provides 90° (bilge) and 180° stops during 360° clamp rotation, which automatically aligns pad to roll.

**Load Cushion™**



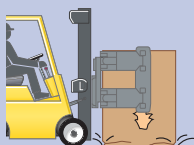
Hoist System Accumulator that absorbs shocks and reduces the clamp force required to handle the load. Available in one-pint and one-quart sizes.

**Application Specific Pads**



The correct pad is provided depending on the type of paper being handled. Use of the correct pad allows clamp pressure to be minimized. Rubber, urethane, tissue, and ribbed cast are examples of optional pads available.

**Clamp Open Guard**



The Clamp Open Guard system automatically prevents the roll from being unclamped while it is lifted.

**Pressure and Flow Control Valve**



Choose pressure and flow control when both the truck's pressure and flow do not match the attachment's requirements.