

Thin Arm Design for Loads in Tight Areas



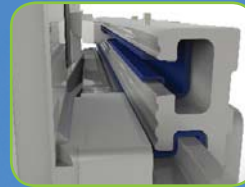
Industry leading visibility through frame



Thin arm profile with leading tapered edge



True centering key for precise and secure mounting



Lube-free, full-length lip over UHMW bearings provide superior durability



Easy access valve with built in clamp protection

APPLICATIONS

Designed for handling large case loads in a variety of industries. The Razorback features thin, non-articulating arms for knifing between loads in trailers and containers.

FEATURES

Industry-leading visibility.

 **Efficient hydraulic system which minimizes energy consumption and maximizes performance.**

- Layered “razorback” arm design provides flex with thin profile.
- Clamp and backhand protection.
- Flow divider for equal arm movement.
- Top-mounted hydraulic cartridges and test port for ease of access and adjustment.
- Sideshift circuit relief optimizes sideshift speed and performance.

Rugged design for optimal strength, durability and performance.

- High strength steel frame.
- Lubrication-free, full length UHMW bearings.
- High strength steel castings.
- Maximum clamp force for secure handling.

Efficient arm design.

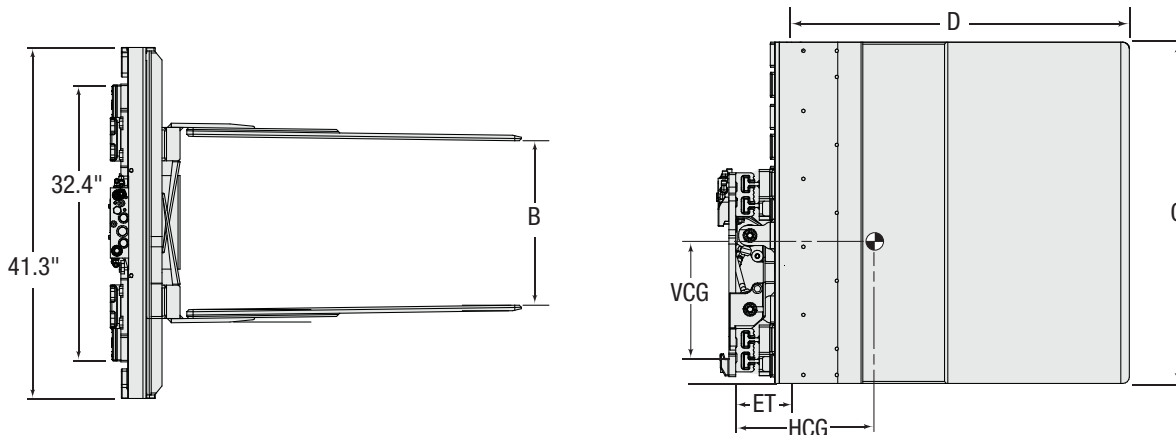
- Thin arm profile for manipulating tight loads between stacks.
- Rubber-faced aluminum contact pads for secure handling of loads.

Designed for convenience and performance.

- Integrated true centering key for precise and secure installation.
- Available in two pressure offerings to match attachment to truck hydraulic system.

OPTIONS

- Custom opening ranges and frame widths.
- Custom arm lengths, heights and pad surfaces. Application-specific contact pads (sizes & surfaces).
- Pallet strips on contact pads for pallet handling.
- Frame bumper for extra protection when handling loose loads.
- Various ISO mounting options including class III and quick-disconnect features.
- Independent arm control.
- Regenerative valve for increased arm speed on low flow electric trucks.
- External sideshift available.
- Alternate valve configurations for left hand or right hand third and fourth function hydraulic installation.
- Application-specific customization.



Catalog Order No.	Capacity@ Load Center		Opening Range at tips ①	Mtg. Class	Weight		Effective Thickness ET	Horizontal Ctr. of Gravity HCG	Vertical Ctr. of Gravity VCG	Overall Attachment/ Arm Height C	Useable Arm Length D
	lbs@in	kg@mm			lbs	kg					
Low Pressure - For trucks delivering up to 2,760 psi of operating pressure.											
9J-CRS-2A-0010	2,000@15	910@380	26.7"-82.5"②	II	805	366	6.9"	6.4"	10.9"	30.0"	30.0"
9J-CRS-2A-0020	2,000@15	910@380	27.0"-82.8"②	II	1,064	484	6.9"	7.9"	17.8"	54.0"	30.0"
9J-CRS-2A-0030	1,950@20	892@510	26.1"-81.9"②	II	836	380	6.9"	7.7"	10.9"	30.0"	40.0"
9J-CRS-2A-0040	1,950@20	892@510	26.7"-82.6"②	II	1,120	509	6.9"	9.5"	18.1"	54.0"	40.0"
9J-CRS-2A-0050	2,000@15	910@380	19.7"-68.9"②	II	778	354	6.9"	6.5"	10.9"	30.0"	30.0"
9J-CRS-2A-0060	2,000@15	910@380	20.0"-69.2"②	II	1,031	469	6.9"	8.0"	17.8"	54.0"	30.0"
9J-CRS-2A-0070	1,950@20	892@510	19.1"-68.3"②	II	808	368	6.9"	7.8"	11.0"	30.0"	40.0"
9J-CRS-2A-0080	1,950@20	892@510	19.8"-69.0"②	II	1,086	494	6.9"	9.7"	18.1"	54.0"	40.0"

High Pressure - For trucks delivering over 2,760 psi of operating pressure.

- ① Arms toe-in depending on length of pads. Consult Cascade if your load dimensions are close to minimum or maximum listed opening ranges.
- ② Published opening range limits are nominal clamp dimensions only and clamp may not accommodate loads with same or similar dimension. Consult Cascade for further assistance.

- ▶ External Sideshift Available: Consult Cascade
Class 2 External sideshift = ET + 25 mm (1.0")
Class 3 External sideshift = ET + 38 mm (1.5")

- ▶ All models include an integrated sideshift circuit.
- ▶ Standard valve configuration is with clamp ports on the right and sideshift on the left. Reverse valve configuration optional.
- ▶ Can easily be converted to non-sideshifting by plugging ports on the valve. Clamp requires only 1 auxiliary valve.
- ▶ Bolt-on top load backrest available (mounts behind arms).

Hydraulic Flow & Pressure – Hydraulic Functions

Model	Maximum Attachment Operating Pressure psi/bar	Maximum Deliverable Truck Pressure psi/bar	Attachment Pressure Protected Yes/No?	Min-Rec-Max Function 3 (sideshift) gpm	Min-Rec-Max Function 4 (clamp) gpm	Attachment Number of Functions	Truck Auxiliary Valves Required
9J CRS	2,250/155	2760/190	Yes	1-5-10	5-12-16	2	2

▶ If the maximum deliverable truck pressure exceeds maximum clamp or rotate operating pressure and the attachment is not pressure protected, then auxiliary pressure protection is required.