



## Introducing TEFRA Couplers

### Primary Locking System

The dual safety features of TEFRA are unique within the attachment industry.

The primary safety system consists of a uniquely designed set of hooks powered by a single cylinder and high specification hydraulic controls that lock the attachment securely into place.

The intrinsic feature of the hooks is their shape – they are individually designed to tightly hold their respective pins against the body of the Coupler. This secure and failsafe retention means the attachment stays in place in all orientations and operating conditions.

#### Primary Locking System



### Secondary Locking System

Our Active Protection System (the APS) consists of 2 separate powerful springs that apply pressure to the hooks to ensure attachment retention at all times.

A single leaf spring applies constant pressure to the front hook. This compact and durable spring ensures the hook stays in place at all times. A coil spring serves exactly the same role in relation to the rear hook. Both springs are individually rated far in excess of any strength and safety requirements, yet they remain as light as possible in order to satisfy constant drive to create 'strength without weight' across all product ranges.

#### Secondary Locking System



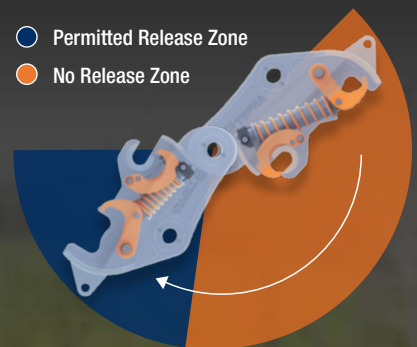
### Smart Valve

A unique, fully patented major safety feature of the TEFRA Coupler.

The Smart Valve is a simple, patented, totally effective solution ensuring that the attachment and release sequence cannot be started until the Coupler is orientated towards the operator and close to the ground. This eliminates the possibility of an unsafe situation occurring.

The Smart Valve's compact design means it can be totally enclosed within the hydraulic cylinder at the centre of the Coupler; this protected position means it cannot be contaminated.

It requires no routine maintenance and works in conjunction with other warning systems such as audible indicators to ensure a safe and easy operation.



## Tefra Coupler Range – Technical Information

Model	Approx. Carrier Range in Tons*	Pin Diameter Pick-Up	Bottom Frame Width	Pin Pick-Up Range
TAC70	8 – 9 ton	1.7" – 1.9" (45mm – 50mm)	6.4" – 7.2" (163mm – 183mm)	11" – 14" (279mm – 356mm)
TAC130	10 – 14 ton	2.3" – 2.5" (60mm – 65mm)	8.6" – 9.4" (218mm – 238mm)	13.6" – 17.12" (345mm – 435mm)
TAC160	15 – 18 ton	2.7" – 3.1" (70mm – 80mm)	11" – 11.7" (277mm – 298mm)	15" – 20" (386mm – 510mm)
TAC210	19 – 23 ton	3.1" (80mm)	10.9" – 11.7" (277mm – 298mm)	15" – 20" (386mm – 510mm)
TAC260	24 – 28 ton	3.1" (80mm)	11.7" (298mm)	15" – 20" (386mm – 510mm)
TAC325	29 – 33 ton	3.5" (90mm)	14.8" (378mm)	18" – 22.5" (455mm – 572mm)
TAC350	34 – 39 ton	3.5" – 3.9" (90mm – 100mm)	15.75" (400mm)	20.3" – 25.6" (517mm – 650mm)
TAC450	40 – 50 ton	3.9" – 4.3" (100mm – 110mm)	17.4" (442mm)	20.3" – 25.6" (517mm – 650mm)

\* **NOTE:** Confirm all carrier and coupler compatibility with FRD USA engineering.

- Tefra couplers in 50 ton/65 ton/75 ton and 100 ton can be made to special order.
- We can also manufacture Mix and Match Tefra couplers to fit any special attachment size.



[www.frdusa.com](http://www.frdusa.com)

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