

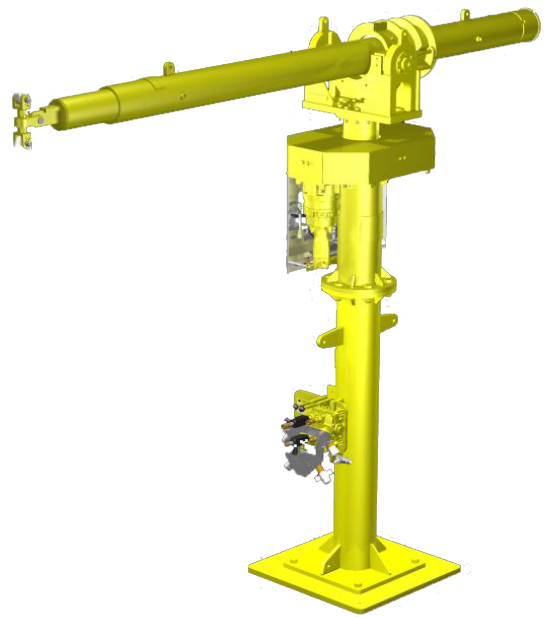
# Well Construction

## Frank's Tubular Running Services (TRS) - Casing Technologies

### Tong Pusher Arm (TPA)

#### Features and benefits

- Hydraulically positions the power tong to enhance safety by removing personnel from the red zone around the rotary, removing potential pinch and trip hazards and reducing crew fatigue in rough conditions
- Enables use of remote control power tongs to remove all personnel from the rig floor with wireless control or from the rotary area with console control
- Allows optimum orientation and flexibility when placing tongs through power slew and brake features
- Features safety devices to limit torque and push forces into derrick structure
- Compatible with Expro's power tongs for pipe up to 42 in
- Multiple size TPAs available to accommodate rig operation requirements



Specifications	TPA-1	TPA-2	TPA-3
Stroke	6 ft	8 ft	9 ft
Retracted Length	11 ft	13 ft	10 ft
Reach	6 ft - 22 ft	8 ft - 28 ft	5 ft - 19 ft
Line Weight	5,500 lbs	15,000 lbs	10,000 lbs
Max Assembly Weight	2,000 lbs	2,250 lbs	1,000 lbs
Slew Torque	3,300 ft-lbs	18,400 ft-lbs (9,200 ft-lbs per drive)	-
Slew Rotation	360°	360°	-
Slew Brake	pneumatic over hydraulic	hydraulic	-

Tested to operate in up to 3 degrees of rig pitch and roll in most cases.