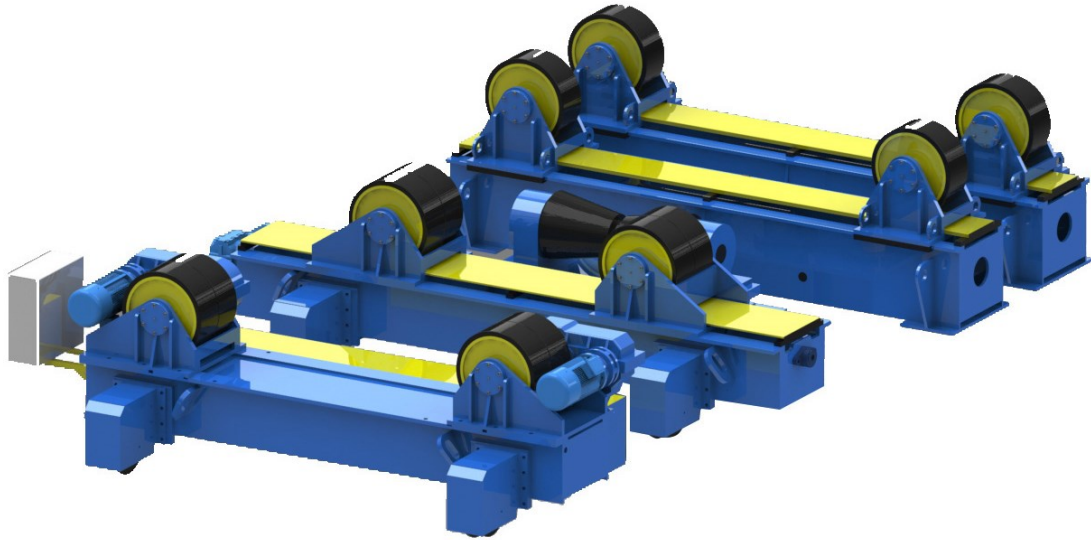


## Stable Speedy Shells Joining and Growing Process



FITZ series shell Growing Line is used for three or more pipes/ shells assembly and welding job. FITZ Growing Line is equipped with two fit-up roller beds, which have four independent hydraulic height adjustment rollers, to ensure the assembly and welding job speedy with a high performance.

### Features

- Designed and robustly built to withstand rugged work environments
- Fastest system to assemble 1+1 or 1+1+1+...+ sections
- Four independent hydraulic adjusting roller to align the two sections with each other
- Large range center distance to match different diameter of workpiece
- European hydraulic station, Parker oil tube and Schneider electrical control system
- Ideal for:
  - Wind tower fabrication
  - Pressure vessels
  - Pipe assembly

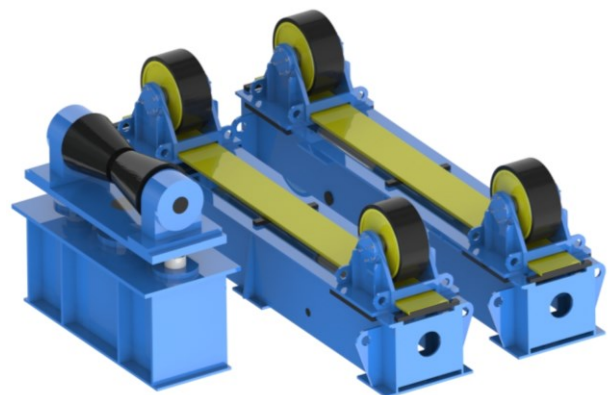
### Configuration details

FITZ Growing Line is complete with a group of 5 (five) rotators in two combinations:

- **Fit-up section** for fit-up job consist of:

**Rotator A & B:** Hydraulically adjusted idle rotator which fixed on ground and has two hydraulic cylinders to adjust center distance of rollers separately.

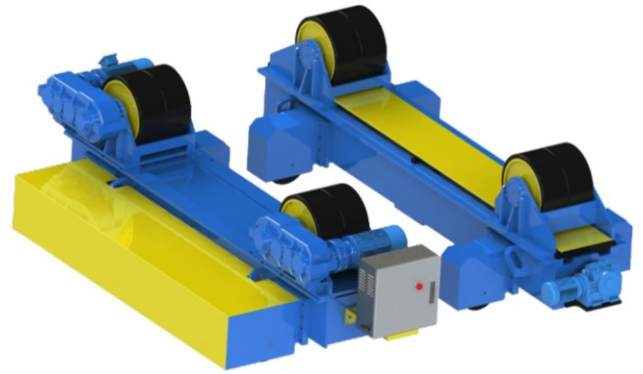
**Rotator C:** supporting roll which has two “v” shaped idle rollers to allow shells to be transported longitudinally when other rollers are retracted down and Rotator c support pipes.



- **Growing section** is for 'growing job' consist of two rotators.

**Rotator D:** Idler rotator- Rollers distance is adjustable by lead-screw positioning to handle different workpiece diameter and manual travel on rail.

**Rotator E:** Power rotator - Rollers distance is adjusted by bolts positioning and motorized travel on rail.



## Scope of Delivery

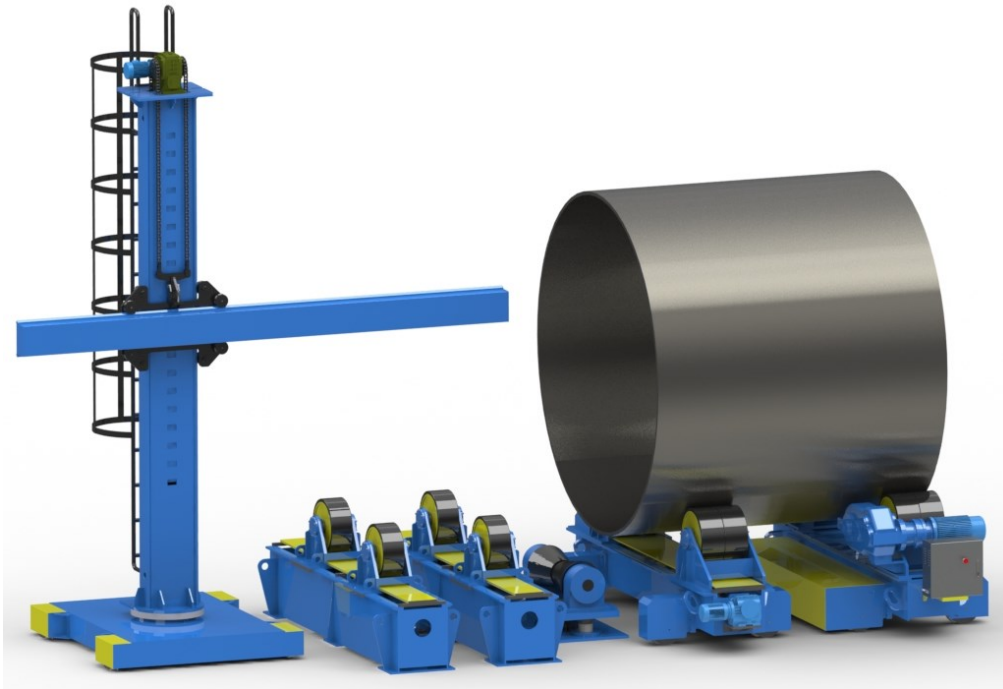
- 1 Main base frame
- 1 Power and 1 Idler roller beds
- 2 Fit up roller beds and hydraulic statio
- 1 Electric control system
  - 1 control panel
  - 2 remote pendant

## Main Technical Parameters

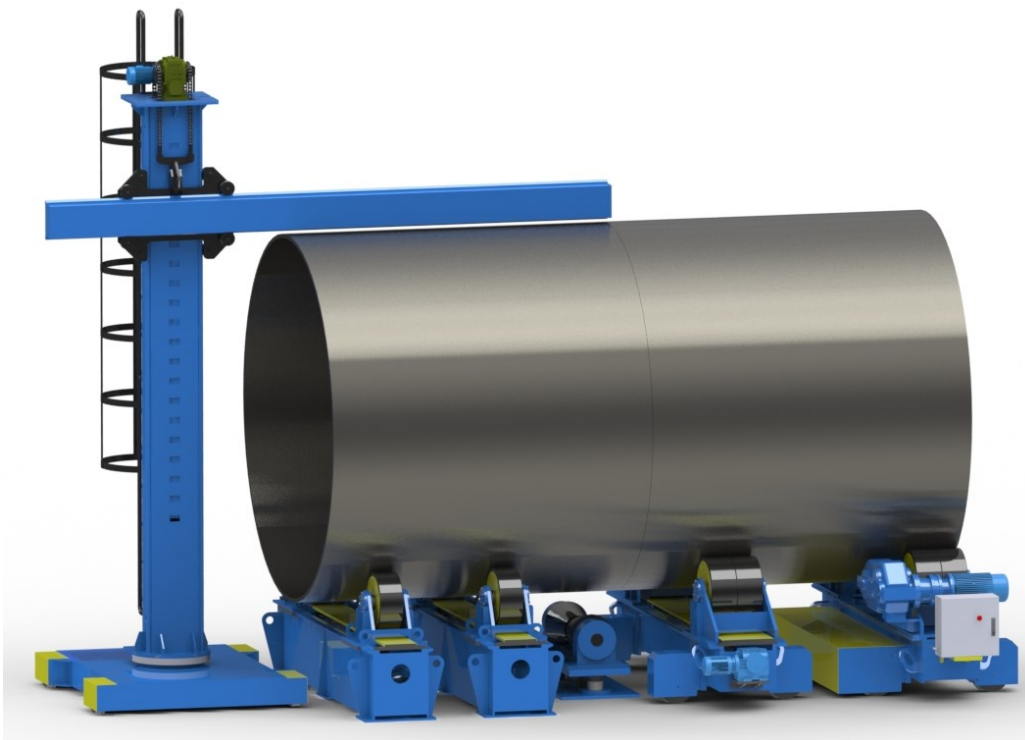
Model	FITZ-60	FITZ-100
Max loading capacity	60 tons	100 tons
Rotator A & B capacity	30 tons	30 tons
Rotator C (v-roll support) capacity	30 tons	50 tons
Rotator D and E capacity	60 tons	100 tons
Workpiece diameter	∅ 800- ∅ 4500 mm	∅ 850- ∅ 5500 mm
Rotator A & B roller center-distance adjusting	Hydraulic cylinder	Hydraulic cylinder
Rotartor C height adjusting	Hydraulic cylinder	Hydraulic cylinder
Rotator D roller center-distance adjusting	Motorized lead-screw	Motorized lead-screw
Rotator E roller center-distance adjusting	Bolts manual	Bolts manual
Rolling speed	100-1000 mm/min (VFD)	100-1000 mm/min (VFD)
Rolling motor power	2 X 2.2 kw	2 X 3 kw
Roller material	Polyurethane (PU)	Polyurethane (PU)
Hydraulic control mode	5 each separatly	5 each separatly
Rotator D horizontal moving speed	250-2500mm/min (VFD)	250-2500mm/min (VFD)
Rails inner gauge	2000mm	2000mm

## Growing line working follow

- **Step One:** Load the first shell on Rotator D and Rotator E by crane.



- **Step Two:**  
Load the second shell on Rotator A and Rotator B by crane;  
Join the two shells by moving Roator E on rails;  
Fit-up and align seam by adjusting rollers center distance hydraulic, then spot welding;  
Full circular welding



- **Step Three:**

Lifting Rotator C to support the 2 pcs of finished shells;  
Release rollers of Rotator A, B, D by extending the center distance;  
Move the 2 pcs of finished shells on by Rotator E on rails.



- **Step Four:**

Reduce the center-distance of Rotator A, B, E;  
Lower down the support V-roll of Rotator C;  
Load the third shell on Rotator A, B by crane;  
Repeat the same work from Step one to Step three till all shells are finished.

