Isolation of Safety Critical Functions on our Machines and Equipment are **Engineered in Accordance with the Relevant Standards**



HAZARD ANALYSIS + SAFETY FUNCTION + RISK ASSESSMENT = SAFETY INTEGRITY.

THINK SAFE, WORK SAFE - BE SAFE YOU CAN DEPEND ON OUR RISK BASED APPROACH TO ACHIEVE HIGHER LEVELS OF SAFETY.

ABN: 81 113 707 092

Uncoiler Straightener Servo Feeder

*T*hin *D*uty 3 in 1

USF-TD series

The USF-TD unit combines the three functions of uncoiling, straightening and feeding of coil on a single platform. The key benefit is a drastic reduction in space used on your factory floor, but with no compromise in processing speed, reliability and overall performance, giving you a competitive edge.

The system is mounted on a single platform, which maximises rigidity during feeding. The combined straightener/feeder unit eliminates the need for an excessive slack loop area or loop pit. The "Spacer Saver" unit can save up to 3 metres for a similar conventional line.

The USF-TD series have been designed and built for precision coil feeding into metal stamping presses. An AC inverter drive and motor drives the mandrel. A closed loop digital servo drive and motor drives the straightener/feeder unit.



Series	USF-TD series		
Coil Width (mm)	200	300	400
Coil Thickness (mm)	0.15 ~ 2.2		
Coil I.D. (mm)	ø508		
Coil O.D. (mm)	ø1200		
Coil Weight (kg)	1000		
Coil Expansion Range	480-520		
Mandrel Expansion	Manual Operation		
Feeding roll (pcs)	2		
Straightening Roll (pcs)	Upper 3 / Lower 3		
Feed Speed (M/min)	16		
Feeding Motor	AC Servo		
Uncoiler Motor	AC Motor		
Motor Drive	Inverter		
Hold Down Arm	Air Operated		
Pilot Release	Yes		
Air Pressure (kg/cm²)	5		
Coil Keeper (pc)	4		
Loop control	Dancing arm		

All specifications, dimensions and design characteristics shown are subject to change without notice.

<u>U</u>ncoiler <u>S</u>traightener Servo <u>F</u>eeder

*T*hin *D*uty 3 in 1

USF-TD series

Feeder & Straightener Features:

- » AC Servo drive-digital control.
- Provides accurate and smooth feeding to the Press.
- » Dual roll entrance guides.
- » Single roll exit guides.
- » Heavy duty platform with ⁺/₋50mm of height adjustment.
- » Cluster gear driven straightening rollers.
- » 7 straightening rollers for optimum straightening performance.
- Full width upper and lower feed rollers.
- » The rollers are manufactured from high rigidity SUJ2 material, stress relieved, heat-treated for deep hardness.
- » All rollers are hard-chrome plated for maximum wear resistance.
- » Upper straightener roll height scales and indicators.
- » Over-rated specifications and generous roll diameters.
- » Remote jog handset for material feeding when setting up.

OPTIONS

» Coil Car 3 T

Uncoiler Features:

- » Remote handset for coil loading and feeding.
- » AC Variable speed drive-digital control.
- » Single four-segment mandrel with manual adjustment.
- » Mandrel pads designed to provide maximum surface contact to ensure minimal distortion and marking of sensitive and light gauge materials.
- » 4 mandrel finger supports.
- » Heavy duty back plate.
- » Air disc calliper mandrel brake provides proper tension on the coil strip.

Other features:

- » Centralised controls for Uncoiler and Feeder provide operators with a single point of control.
- » Mitsubishi PLC Controller Interface.
- » Compact design saves floor space.
- » Manufactured with heavy-duty structural steels to provide a rigid design and structure that enhances reliability.
- » Sensor beam loop control.
- » End of material run out device.
- » Feed line easily adjusted via synchronized worm gear mechanism
- » Quality Japanese bearings are used throughout.
- » All gears are quenched and precision assembled.
- » Manual feed height adjustment.