

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



ABN: 81 113 707 092

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.

Uncoiler Straightener Servo Feeder

Medium Duty 3 in 1

USF-MD series

The USF-MD 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-MD 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-MD series						
Coil Width (mm)	75 ~ 300	75 ~ 400	75 ~ 500	75 ~ 600	100 ~ 800	100 ~ 1000	100 ~ 1300
Coil Thickness (mm)	0.3 ~ 4.5						
Coil I.D. (mm)	ø508						
Coil O.D. (mm)	ø1200						
Coil Weight (kg)	3000				5000		
Coil Expansion Range	480-520						
Mandrel Expansion	Hydraulic Operation						
Feeding roll (pcs)	2						
Straightening Roll (pcs)	Upper 5 / Lower 4						
Pinch Roll (pcs)	2						
Pinch Roll (pc)	18						
Feeding Motor	AC Servo						
Uncoiler Motor	AC Motor						
Motor Drive	Inverter						
Mandrel Brake	Air Disc Brake						
Hold Down Arm	Air Operated						
Hold Down Arm Wheel Drive	AC Motor						
Hold Up Arm	Air Operated						

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

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Series	USF-MD series						
Coil Width (mm)	75 ~ 300	75 ~ 400	75 ~ 500	75 ~ 600	100 ~ 800	100 ~ 1000	100 ~ 1300
Entrance Edge Guide	1 Set						
Exit Edge Guide	1 Set						
Pilot Release	Yes						
Air Pressure (kg/cm ²)	5						
Coil Keeper	4						
Loop Control	Photo-sensor						

STRAIGHTENING PERFORMANCE

Series	USF-MD series						
Coil Thickness (mm)	Maximum Coil Width (mm)						
0.3 ~ 2.5	300	400	500	600	800	1000	1300
3.2	300	330	320	290	320	290	240
4.0	270	270	270	250	260	240	220
4.5	200	200	200	200	220	210	200

The above figures are for the material having tensile strength 40 kgf/mm² max

PERFORMANCE SPECIFICATIONS

Feed Length (mm)	SPM at180°	SPM at 240°
100	61	92
200	45	67
300	37	60
400	32	49
500	28	44

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Uncoiler Straightener Servo Feeder

Medium Duty 3 in 1

USF-MD series

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.
- » 3 in 1 on this single platform provides a reliable and free flowing synchronized turn key system giving you a competitive edge.
- » Sensor beam loop control.
- » End of material run out device.
- » Feed line easily adjusted via synchronized worm gear mechanism.
- » Manual feed height adjustment.
- » Quality Japanese bearings are used throughout.
- » All gears are quenched and precision assembled.

Uncoiler Features:

- » Remote handset for coil loading and feeding.
- » AC Variable speed drive-digital control.
- » Single four-segment mandrel with hydraulic adjustment controlled by hand valve or pushbutton.
- » Mandrel pads designed to provide maximum surface contact to ensure minimal distortion and marking of sensitive and light gauge materials.
- » Single end reel configuration.
- » Heavy duty back plate.
- » 4 Heavy Duty Coil Keepers.
- » Air disc calliper mandrel brake provides proper tension on the coil strip. An air pressure regulator allows the operator to fine-tune the tension for various coil weights.
- » Air operated coil hold down snubber arm with motorised wheel.
- » Motorized end wheel for coil threading.

Feeder & Straightener Features:

- » AC Servo drive-digital control.
- » Provides accurate and smooth feeding to the press.
- » Dual roll material entrance guides.
- » Single roll exit guides.
- » Heavy duty platform with ± 1.50 mm of height adjustment.
- » Pivoting type feeder-straightener head for piloting operations.
- » Cluster gear driven straightening rollers.
- » 9 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.

OPTIONS

- » Coil Car 3 T
- » Coil Car 5 T

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