

One Brand: A World of Resources.

Make a lasting investment with Nidec Press & Automation.

Thank you for allowing us the opportunity to offer the Nidec Press & Automation high-quality products and services outlined in this proposal. We are committed to finding the most cost- efficient and effective solution for your production needs.

Nidec Press & Automation is a unified brand combining the global expertise, experience and resources of the world's leading material forming solution providers. Our partners include:

MINSTER

Mechanical, lamination, servo, and packaging presses

ARISA

Large tonnage mechanical, servo, blanking and transfer presses

KYORI

High speed presses

VAMCO

High speed servo feeding and automation control systems

SYS

High speed servo feeding and integrated automation systems

CHS

High quality automation machinery

NIDEC-CHS Servo Roll Feed
MX-4500 Series



NIDEC-CHS
GENERAL EQUIPMENT SPECIFICATIONS

Machine Type:	Servo Roll Feed
Model Number	MX-4536
Feed Roll Diameter	4.5"
Maximum stock thickness at 36" wide	.125"
Maximum stock thickness at 30" wide	.140"
Maximum stock thickness at 24" wide	.187"
Maximum stock thickness at 18" wide	.210"
Maximum stock thickness at 12" wide	.250"
Minimum stock thickness	.020"
Fastener Units	US Standard
Pressure units	US 0-80 PSI
Supply voltage	480 (3)
Control voltage	24V
Control system platform	SIEMENS
HMI	SIEMENS
Field connections I/O Block	TURCK
Panel and operator's station interconnection (quick disconnect)	HARDING
Pneumatics system	PARKER and MAC

Electrical enclosures	RITTAL
Manuals and documentation	ENGLISH

STANDARD MACHINE FEATURES:

Feed Rolls: One set of solid feed rolls full width construction. Upper and lower rolls are precision ground and equipped with a # 3 matte chrome blast finish as standard.

Side Plates: The feed side plates are heavy duty Blanchard ground precision plates that house anti friction bearings for the feed rolls.

Servo motor: High Performance Siemens drive and controls.

Feed Drive Train: The feed is equipped with a precision Kevlar belt with low inertia sheave allowing for high performance.

Precision cluster gear train: A set of heavy-duty gears in a cluster type arrangement allows the gear train to stay in complete mesh through the entire pilot cylinder stroke.

Centrally mounted air cylinder: The main cylinder for raising the upper feed rolls for pilot function and material thread up is located and mounted to the center of the upper pivot shaft.

High Speed pilot release for upper feed roll: The feeder is equipment with an adjustable stroke, air cylinder which allows users to “limit” upper roll travel to optimize the upper roll lift distance over material thickness, increasing speed and accuracy.

Air regulator: Operator can adjust the roll pressure to be applied upon the material.

Manual Centralized Lubrication Block: Lubrication grease points for the feed head and gears are individual and plumbed to a common block.

Edge Guides: Adjustable slide and clamp. Quick release right-angle handles are mounted to the top of the guide rollers for manual width adjustment with a scale mount at the entrance.

Press Attachment Bracket with mounting slots. Manual adjustment travel +/- 6” of the feed pass line using 3/4-inch bolts to secure mounting position to press.

Catenary loop support section: A fabricated roll catenary section is supplied to support the strip material from the loop area into the roll feed.

Free Standing Operator Control Console with Color HMI Screen: A free standing, self-contained sloped front control console is supplied for operation of all roll feed functions.

Remote Pendant Control: A handheld 2 button remote pendant with curly cord is supplied for jog forward and reverse functions of the feed.

Paint Color: Standard Ral 7035 light grey with black covers.

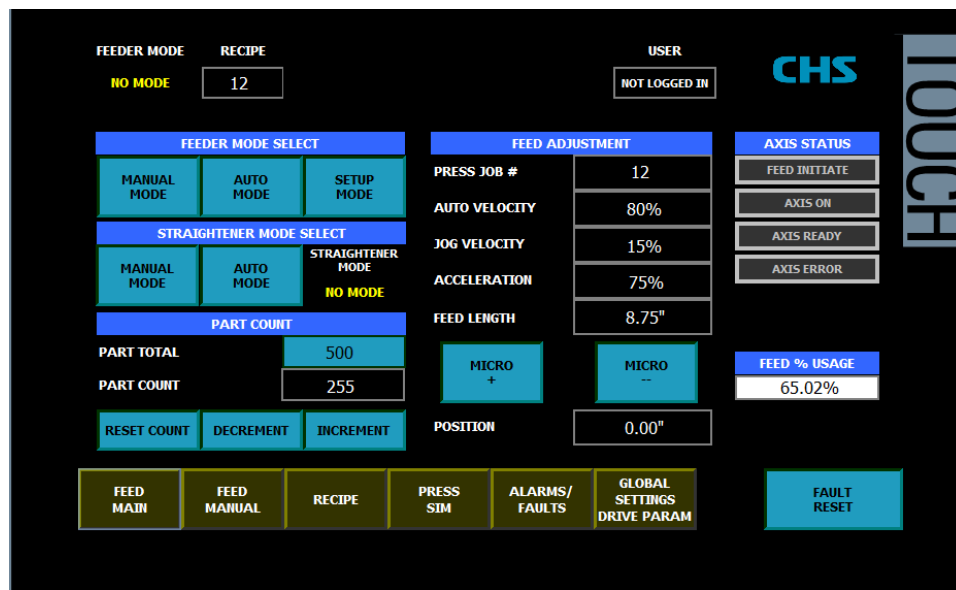
OPTIONAL ITEMS AND RECOMMENDED UPGRADES:

- 1) Cabinet base with adjustable pass line with hand crank (+/- 6”)

A Free-standing floor mounted cabinet base allows for increased adjustment range.

NIDEC-CHS - Servo Roll Feed Control Package

NIDEC-CHS Digital AC Brushless Servo Control Package Specifications	
Job Storage (Product/Recipe)	200
Accuracy at motor output shaft within	<0.001"
Material feed accuracy within	0.003"



Complete new servo drive and control package including the following components:

- Servo Drive, Motor and Color Touch Screen HMI – Single axis feed
- Press Feed Application Software
- Motor Power/Encoder Cable
- Remote jog pendant with 10' curly cord and mounting holster
- Free standing sloped front electrical enclosure with fused disconnect
- Operator's manuals and electrical schematics (Electronic)

The controls have the following functions as standard:

- Automatic, Manual and Setup Modes
- Feed to Length – programmable per part recipe
- Feed Velocity (speed) – programmable per part recipe
- Batch Count - programmable per part recipe
- Feed Length Micro Adjustment "On the Fly"
- Manual Mode:
 - Jog Feed Mode
 - Feed Roll Open/Close
 -
- Setup mode:
 - Jog to part feed length & stop – stroke press – Jog to part length & stop
- Pilot Pin Control
- Feed complete signal
- Fault History
- (2) – 24 VDC capable dry contacts from the press rotary cam switch will be required. One for automatic feed initiate, and for pilot pin release.

PRODUCTION CALCULATIONS FOR DIFFERENT PRESS FEED ANGLES										
Feed Length (ins)	PFA 90 (degs) SPM (spm)	PFA 100 (degs) SPM (spm)	PFA 110 (degs) SPM (spm)	PFA 120 (degs) SPM (spm)	PFA 130 (degs) SPM (spm)	PFA 140 (degs) SPM (spm)	PFA 150 (degs) SPM (spm)	PFA 160 (degs) SPM (spm)	PFA 170 (degs) SPM (spm)	PFA 180 (degs) SPM (spm)
1	232	250	250	250	250	250	250	250	250	250
2	143	159	175	191	207	223	239	250	250	250
3	113	126	139	151	164	177	189	202	214	227
4	97	108	119	129	140	151	162	173	183	194
5	86	96	105	115	125	134	144	153	163	173
6	78	87	96	105	113	122	131	139	148	157
7	72	81	89	97	105	113	121	129	137	145
8	68	75	83	90	98	105	113	120	128	135
9	63	70	77	84	91	99	106	113	120	127
10	60	66	73	79	86	93	99	106	113	119
11	56	62	69	75	81	87	94	100	106	112
12	53	59	65	71	77	83	89	95	101	107
13	51	56	62	67	73	79	84	90	96	101
14	48	54	59	64	70	75	80	86	91	96
15	46	51	56	61	66	71	77	82	87	92
16	44	49	54	59	63	68	73	78	83	88
17	42	47	51	56	61	65	70	75	80	84
18	40	45	49	54	58	63	67	72	76	81
19	39	43	47	52	56	60	65	69	73	78
20	37	42	46	50	54	58	62	66	71	75
21	36	40	44	48	52	56	60	64	68	72

Sales Proposal Summary with available options

Price Each

Base Price Servo Feed.....\$ Included ☒

Cabinet base with adjustable pass line via hand crank (+/- 6" range).....\$ Included ☒

Total with selected options.....\$ 57,833.00

On site Nidec-CHS service support:

Installation support and final alignment. (8 hr / 2 day on site __)\$ 3,000.00 ☐

Installation materials: Lags. Level shims\$ 250.00 ☐

Start Up and Training support (day on site __)\$ 1,500.00 ☐

Plus Travel and Per diem:\$ **Actual Cost**

Customer is responsible:

Rigging equipment in place. Electrical, Air supply and connections to the Press.

Total with selected options.....\$ _____

☐ _____ (initial) - I decline Nidec CHS Corporation's offer in providing functional safety mode capabilities within the servo feed controls.

Delivery: **Stock 1 – 2 Weeks**

Terms: 50% Due deposit with order
 40% Due upon completion, prior to shipment
 10% Due thirty days from completion date

Warranty: NIDEC-CHS “4-2-2” Premium factory warranty
 https://www.minster.com/c/CHS_4-2_Warranty.pdf

Shipping: FCA, Macomb Twp. MI Incoterms 2020

The above quoted prices are firm for a period of 15 days.

Purchase orders should be addressed to:

Nidec - CHS
51223 Quadrate Dr.
Macomb Twp, MI 48042
sales@chsautomation.com

Ordering Information: Please provide with your purchase order.

Median Pass line: **46" + / - 6"** Feed direction **R to L _X_** or L to R _____ Voltage: 460 /3 /60

Paint Color: **Standard Ral 7035 light grey with black covers.** Optional Ral # _____

**TYPOGRAPHICAL OR CLERICAL ERRORS WITHIN THIS QUOTATION
ARE SUBJECT TO CORRECTION.**

STANDARD TERMS AND CONDITIONS OF SALE
(CHS Automation)

Buyer's agreement to purchase the goods described herein affirms Buyer's acceptance of Seller's Standard Terms and Conditions that are found at <https://chsautomation.com/terms-and-conditions/>

CHS Terms and Conditions, which may be modified from time to time. The STCs supersede any other agreements, whether oral or in writing, between Buyer and Seller and any purchase order, change order, acknowledgement, or any other document delivered by Seller or Buyer whether or not such document is signed by Buyer and/or Seller and/or delivered to Buyer and/or Seller before or after Buyer's delivery to Seller of this document.

Start-Up Assistance after Installation (Optional): The customer is responsible for the complete electrical and mechanical installation of this equipment in accordance with all applicable codes and laws. The services of a trained and qualified “mechanical-operational” service tech will be available to the customer for start-up, tune-up, and operator training after installation of this equipment. See rate sheet.

Electrical:

CHS provides interconnecting wiring harnesses from the main electrical control to the coil processing system as well as all necessary interconnecting between the equipment that makes up the system, where applicable. It is the customer’s responsibility to provide and install all main power supplies. It is the customer’s responsibility to provide and install conduit or wire ways as required and in accordance with state and local codes.

Interfacing:

Mounting and interconnection of any remote signal devices are the responsibility of the customer.