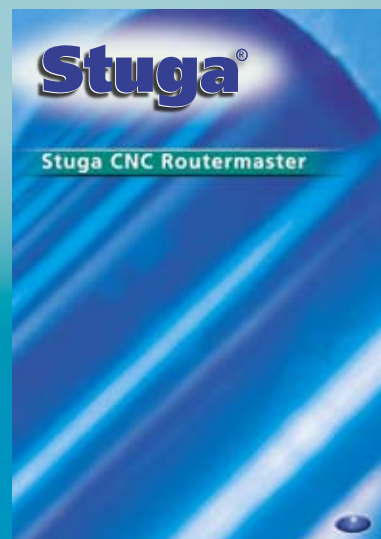


Stuga®

Stuga Sawing & Machining Centres



Stuga®

ESTABLISHED IN 1974 STUGA HAVE BEEN DESIGNING AND MANUFACTURING CNC MACHINE TOOLS SINCE 1986.

STUGA DESIGN PHILOSOPHY UTILISES INNOVATION TO SIMPLIFY PROBLEMS TOGETHER WITH THE LATEST TECHNOLOGY WHERE IT IS BENEFICIAL. THIS PHILOSOPHY INCLUDES MAKING POTENTIALLY COMPLEX MACHINERY INTUITIVELY EASY TO USE, THEREBY REDUCING OPERATOR SKILLS AND SUBSEQUENT POTENTIAL ERRORS.

THE COMPANY IS DEDICATED TO WORKING IN PARTNERSHIP WITH CUSTOMERS IN ORDER TO ACHIEVE ITS AIM OF ONE HUNDRED PERCENT CUSTOMER SATISFACTION.

AS A MANUFACTURER SELLING DIRECT TO THE MARKET STUGA ELIMINATES THE DEALER PROBLEMS ASSOCIATED WITH HI-TECH MACHINERY AS CUSTOMERS DEAL DIRECTLY WITH THE DESIGN AND BUILD TEAMS. THE COMPANY IS TOTALLY COMMITTED TO SERVICE AND USES A GEOGRAPHICALLY BASED NETWORK OF TRAINED ENGINEERS ON A FAST RESPONSE BASIS.



IN 2008 STUGA ENTERED INTO AN AGREEMENT WITH STÜRTZ MASCHINENBAU, THE LEADING GERMAN UPVC WINDOW FABRICATION MACHINERY COMPANY, TO SELL THEIR ENTIRE RANGE OF MACHINERY IN THE UK AND IRELAND.

WELL KNOWN FOR THEIR WELDING AND CLEANING MACHINERY STÜRTZ ALSO HAVE A RANGE OF SAWING AND MACHINING CENTRES.

CONTENTS:

2	ABOUT STUGA
3-7	STUGA ZX3 & ZX4 SAWING & MACHINING CENTRES
8	STUGA ZX4 & MICROLINE ROTARY TOOLING HEADS
9-13	STUGA MICROLINE SAWING & MACHINING CENTRE
14	FIXED HEAD TOOLING
15-18	STUGA ECOLINE PREPPING CENTRE
19-22	STUGA AUTOCUT SAW CENTRE
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25	STUGA MACHINE SPECIFICATION
26	STUGA UPGRADES
27	STÜRTZ WELDING AND CLEANING FROM STUGA

Stuga[®]



ZX3 & ZX4 Sawing

& Machining Centres



Stuga®

THREE HUNDRED AND SIXTY DEGREE ROTARY TOOLING SYSTEM
CREATES THREE HUNDRED AND SIXTY DEGREE POSITIONING
ALLOWING UNLIMITED MACHINING POSSIBILITIES AND TOTAL
PREPPING FLEXIBILITY, PRODUCING PERFORMANCE WELL
BEYOND THAT OF FIXED HEAD MACHINES. IF A
HEAD FAILS FOR ANY REASON ANOTHER
HEAD CAN EASILY TAKE OVER
ITS WORK.

SEPARATE SAWING AND PREPPING MODULES WORKING IN TANDEM
TOGETHER WITH BUFFER STATION/TRANSFER TABLE MINIMISES
DELAYS CAUSED BY SAW WAITING FOR PREPPING OR VICE VERSA.
TOTALLY FLEXIBLE INNOVATIVE CLAMPING SYSTEM DESIGNED
TO HOLD ANY PROFILE INCLUDING PRE-GASKETTED. FULLY
PROGRAMMABLE GRIPPER FOR BEST POSSIBLE POSITIONING.
RIGHT TO LEFT VERSION ILLUSTRATED, BUT ALSO AVAILABLE
FEEDING LEFT TO RIGHT. 'U' SHAPE CONFIGURATION CREATES
EASIER SINGLE OPERATOR WORKING BUT ALSO AVAILABLE IN
STRAIGHT LINE LAYOUT.



ROTARY TOOLING HEAD GUARDING REMOVED FOR PHOTOGRAPH.

Stuga ZX3 & ZX4 Cutting and Preppin

ALSO AVAILABLE AS
ULTRA SMALL MICROLINE VERSION

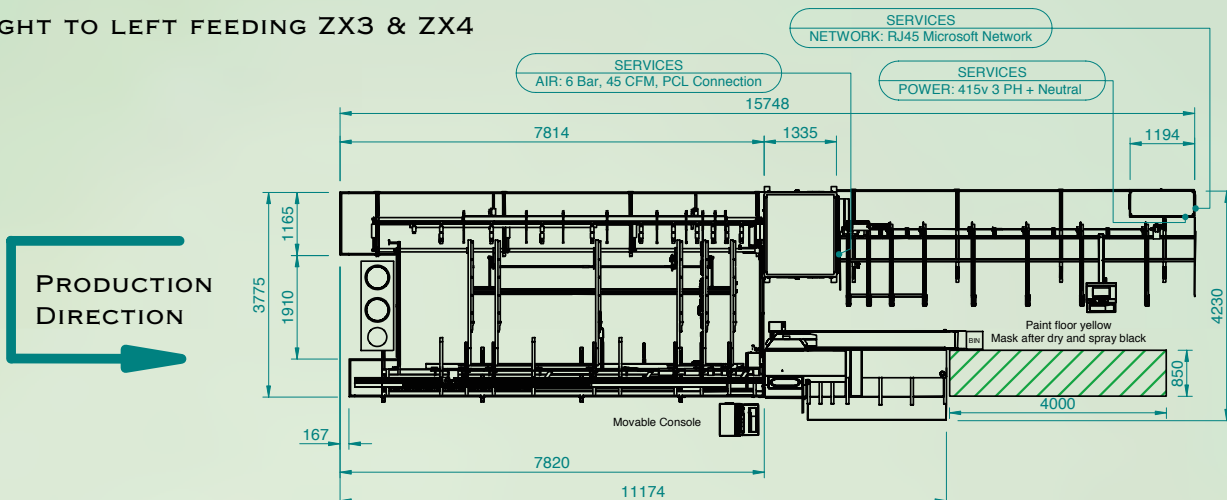
ROTARY TOOLING HEAD GUARDING
REMOVED FOR PHOTOGRAPH.



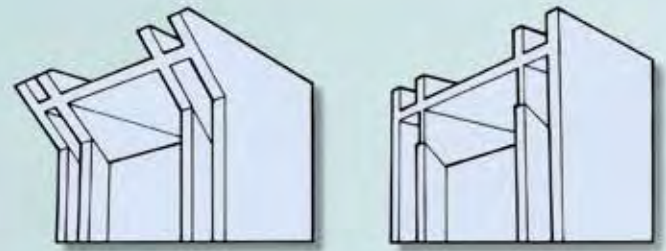
ZX Footprints



RIGHT TO LEFT FEEDING ZX3 & ZX4



g Centre for High Volume Production



Q-CUTS

TRIMMING HEAD OF UNEQUAL CASEMENT BEFORE WELDING.

MACHINING MODULE CAPABILITY

UNLIMITED NUMBER OF DIFFERENT PREPS CAN BE APPLIED FROM ANY SIDE AT ANY ANGLE 0-360 DEGREES.

ALL DRAINAGE

CONCEALED / FACE, INTERNALLY OR EXTERNALLY GLAZED, UPSTAND REMOVAL, PRESSURE EQUALISATION

SPOT PREPS FOR EASIER ASSEMBLY

FRICTION STAY PILOT HOLES, DOOR HINGES, ANTI-BOW WEDGE, ANTI-JEMMY WEDGE, CASEMENT KEEPS, ALUMINIUM LOW THRESHOLD SPOT PREP

TRICKLE VENTS:

FRAME OR SASH, THROUGH CHAMBER OR LEG

DOOR LOCKS IN ANY COMBINATION (INCLUDING DOUBLE PLUNGE)

SINGLE, 3 OR 4 POINT, STABLE DOORS, FRENCH / SLAVE DOORS, PATIO DOOR LOCKS, HINGE DOOR LOCKS

DOOR LOCK JAMB & KEEPS

LETTER PLATES

INCLUDING FIXING HOLES

ESPAQ AND SHOOTBOLT LOCKS

TILT & TURN HINGES & LOCKS, FULLY REVERSIBLE HINGES & LOCKS

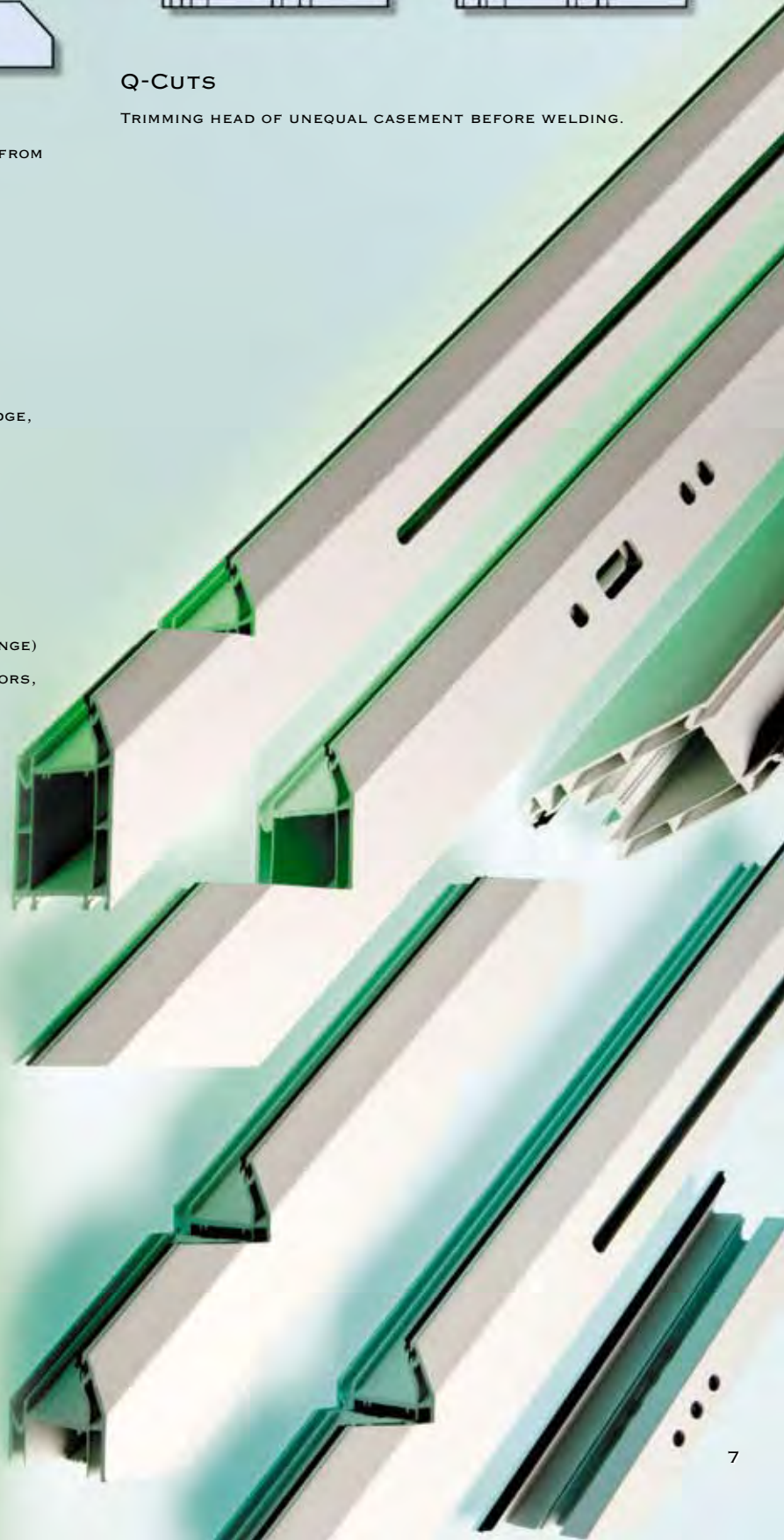
MECHANICAL TRANSOM

FRAME DRILLING, REINFORCING RELIEF PORT

V NOTCHING FROM BOTH SIDES

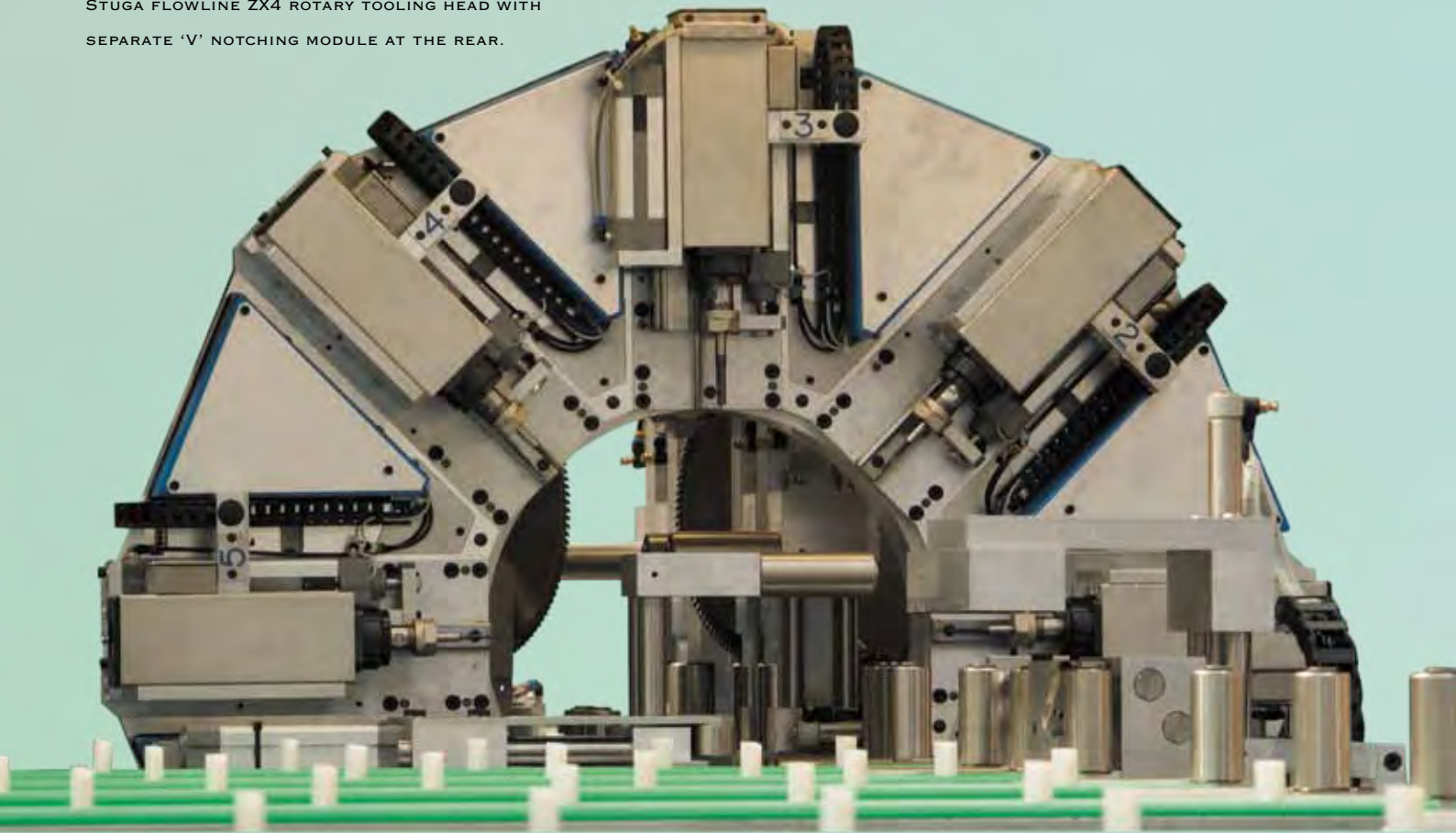
Y NOTCHING (HALF V NOTCH BEFORE REVERSE-BUTT PREP)

NOTE! ALL BRITISH AND IRISH WINDOW PROFILES CAN BE ACCOMMODATED AND NO CONTOUR BLOCKS OR OTHER TOOLING IS REQUIRED. THE ZX3 AND ZX4 CAN PROCESS MOST KNOWN PROFILES.

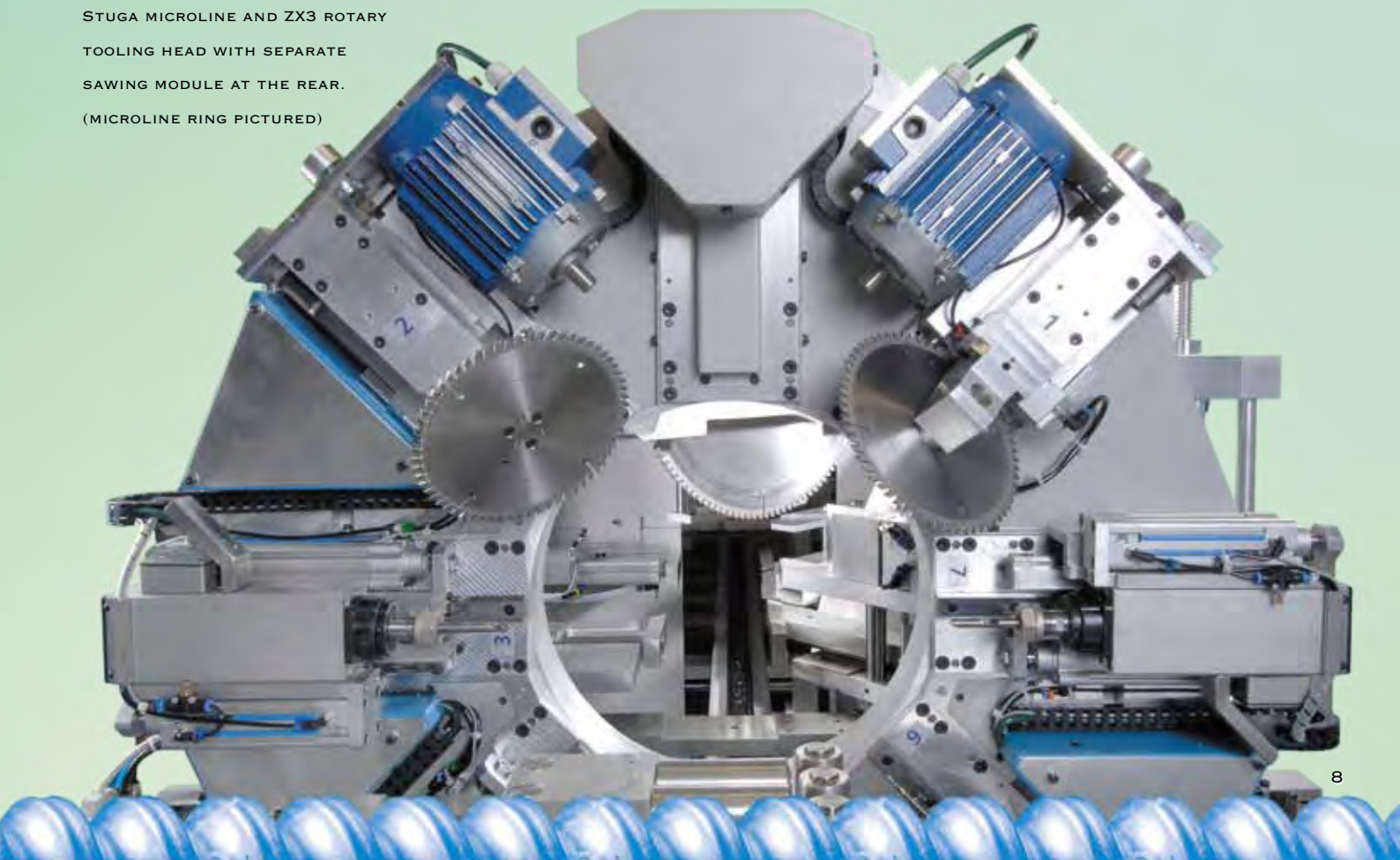


ROTARY TOOLING AT ITS BEST

STUGA FLOWLINE ZX4 ROTARY TOOLING HEAD WITH SEPARATE 'V' NOTCHING MODULE AT THE REAR.



STUGA MICROLINE AND ZX3 ROTARY TOOLING HEAD WITH SEPARATE SAWING MODULE AT THE REAR. (MICROLINE RING PICTURED)





Stuga[®]

Microline Sawing &
Machining Centre



SAWING MODULE



THREE HUNDRED AND SIXTY DEGREE ROTARY TOOLING SYSTEM CREATES THREE HUNDRED AND SIXTY DEGREE POSITIONING ALLOWING UNLIMITED MACHINING POSSIBILITIES AND TOTAL PREPPING FLEXIBILITY, PRODUCING PERFORMANCE WELL BEYOND THAT OF FIXED HEAD MACHINES. IF A HEAD FAILS FOR ANY REASON ANOTHER HEAD CAN EASILY TAKE OVER ITS WORK.

TOTALLY FLEXIBLE INNOVATIVE CLAMPING SYSTEM DESIGNED TO HOLD ANY PROFILE INCLUDING PRE-GASKETTED. FULLY PROGRAMMABLE GRIPPER FOR BEST POSSIBLE POSITIONING. RIGHT TO LEFT VERSION ILLUSTRATED, BUT ALSO AVAILABLE FEEDING LEFT TO RIGHT.

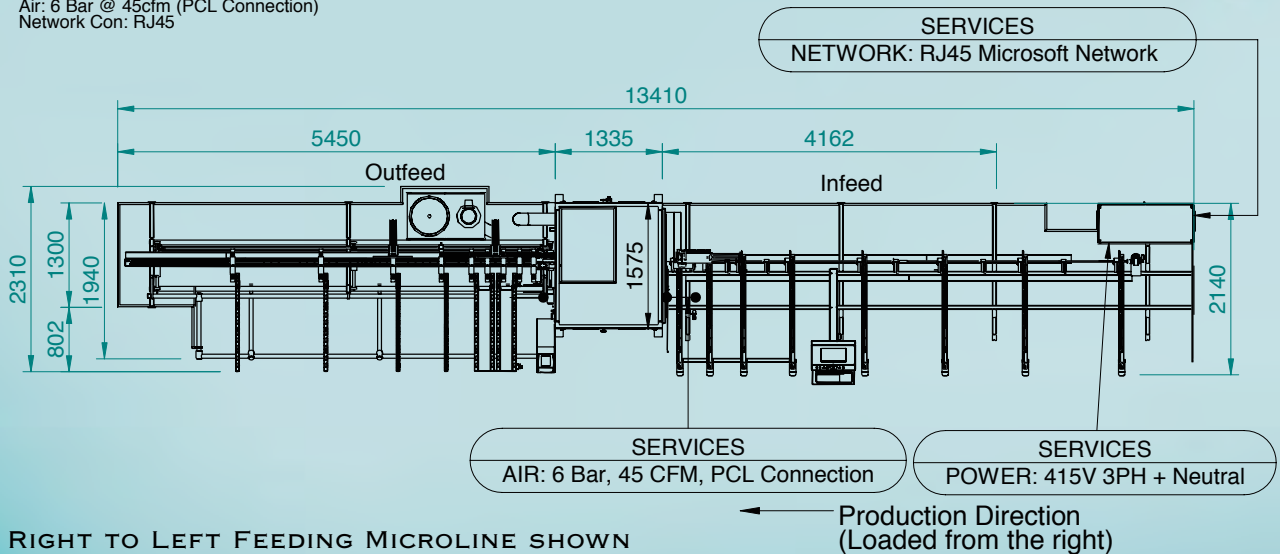
ONLY 13.5 METERS LONG
AND 2.3 METERS DEEP

Stuga Microline Cutting and Prepping



SERVICES

Power: 415v 3PH + Neutral 20Amp
 Air: 6 Bar @ 45cfm (PCL Connection)
 Network Con: RJ45



FOOTPRINT

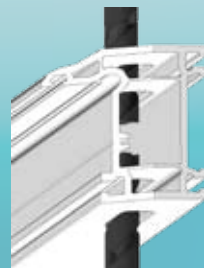
13.5 METERS X 2.3 METERS

AVAILABLE AS

RIGHT TO LEFT OR

LEFT TO RIGHT

FLOW DIRECTION



DOUBLE PLUNGE FACILITY PREPS BOTH SIDES OF TRICKLE VENT OR DOOR SIMULTANEOUSLY DRAMATICALLY INCREASING OUTPUT OF THESE PRODUCTS

Centre for Volume Production

SQUARE

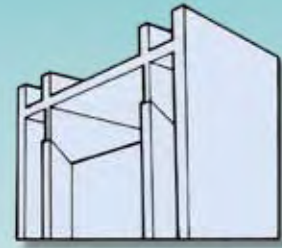
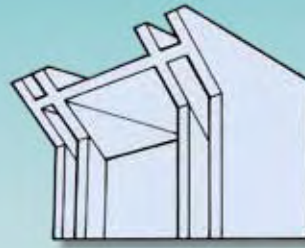
V - NOTCHES
BOTH SIDES

MITRE

Y - NOTCHES

ARROWHEAD

Y - NOTCHES



MACHINING MODULE CAPABILITY

UNLIMITED NUMBER OF DIFFERENT PREPS CAN BE APPLIED FROM ANY SIDE AT ANY ANGLE 0-360 DEGREES.

ALL DRAINAGE
CONCEALED / FACE, INTERNALLY OR EXTERNALLY
GLAZED, UPSTAND REMOVAL, PRESSURE
EQUALISATION

SPOT PREPS FOR EASIER ASSEMBLY
FRICTION STAY PILOT HOLES, DOOR HINGES, ANTI-
BOW WEDGE, ANTI-JEMMY WEDGE, CASEMENT
KEEPS, ALUMINIUM LOW THRESHOLD SPOT PREP

TRICKLE VENTS:
FRAME OR SASH, THROUGH CHAMBER OR LEG

DOOR LOCKS IN ANY COMBINATION (INCLUDING
DOUBLE PLUNGE)
SINGLE, 3 OR 4 POINT, STABLE DOORS, FRENCH /
SLAVE DOORS, PATIO DOOR LOCKS, HINGE DOOR
LOCKS

DOOR LOCK JAMB

LETTER PLATES
INCLUDING FIXING HOLES

ESPAG AND SHOOTBOLT LOCKS
TILT & TURN HINGES & LOCKS, FULLY
REVERSIBLE HINGES & LOCKS

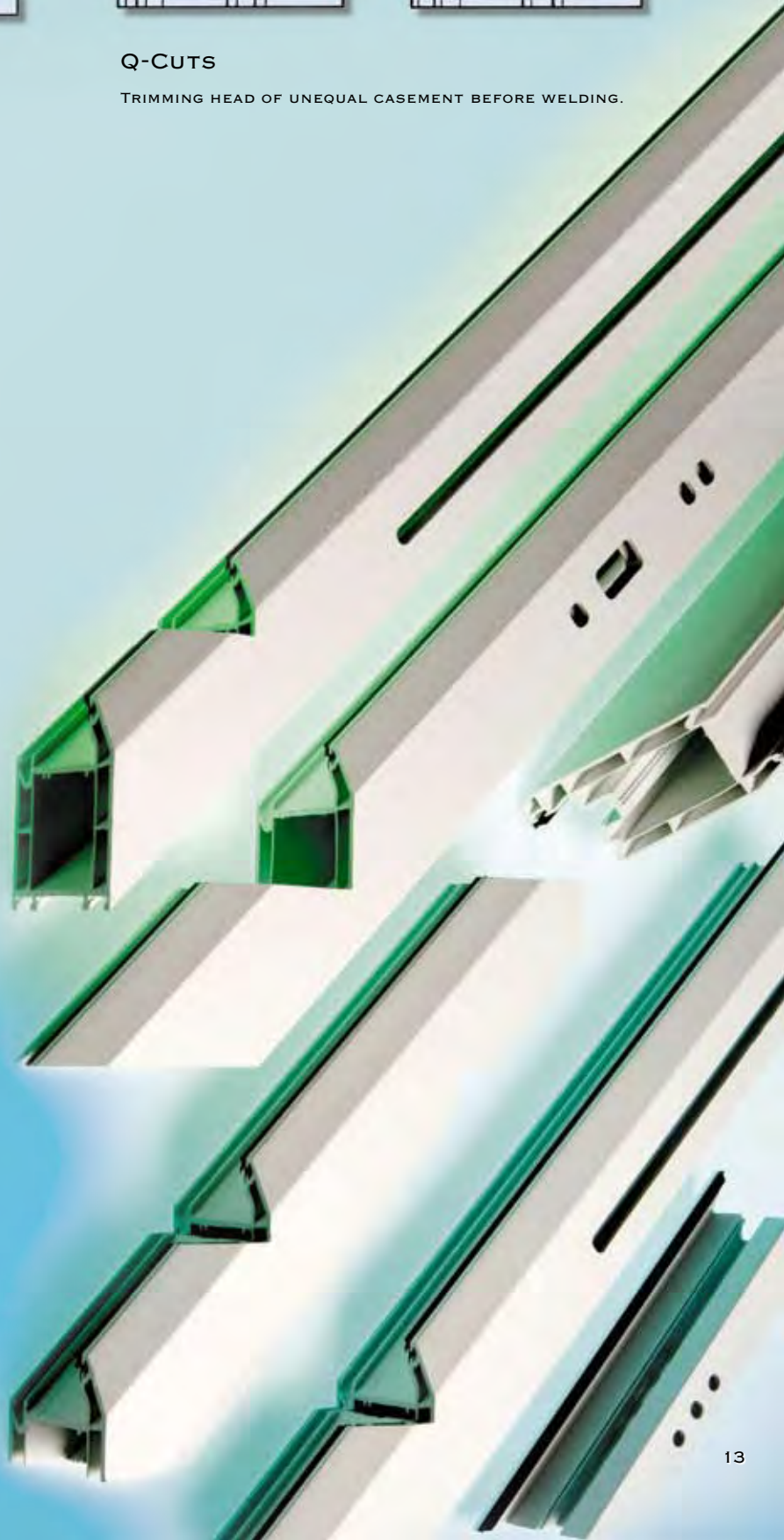
MECHANICAL TRANSOM
FRAME DRILLING, REINFORCING RELIEF PORT,
BEAD CHANNEL FORMING

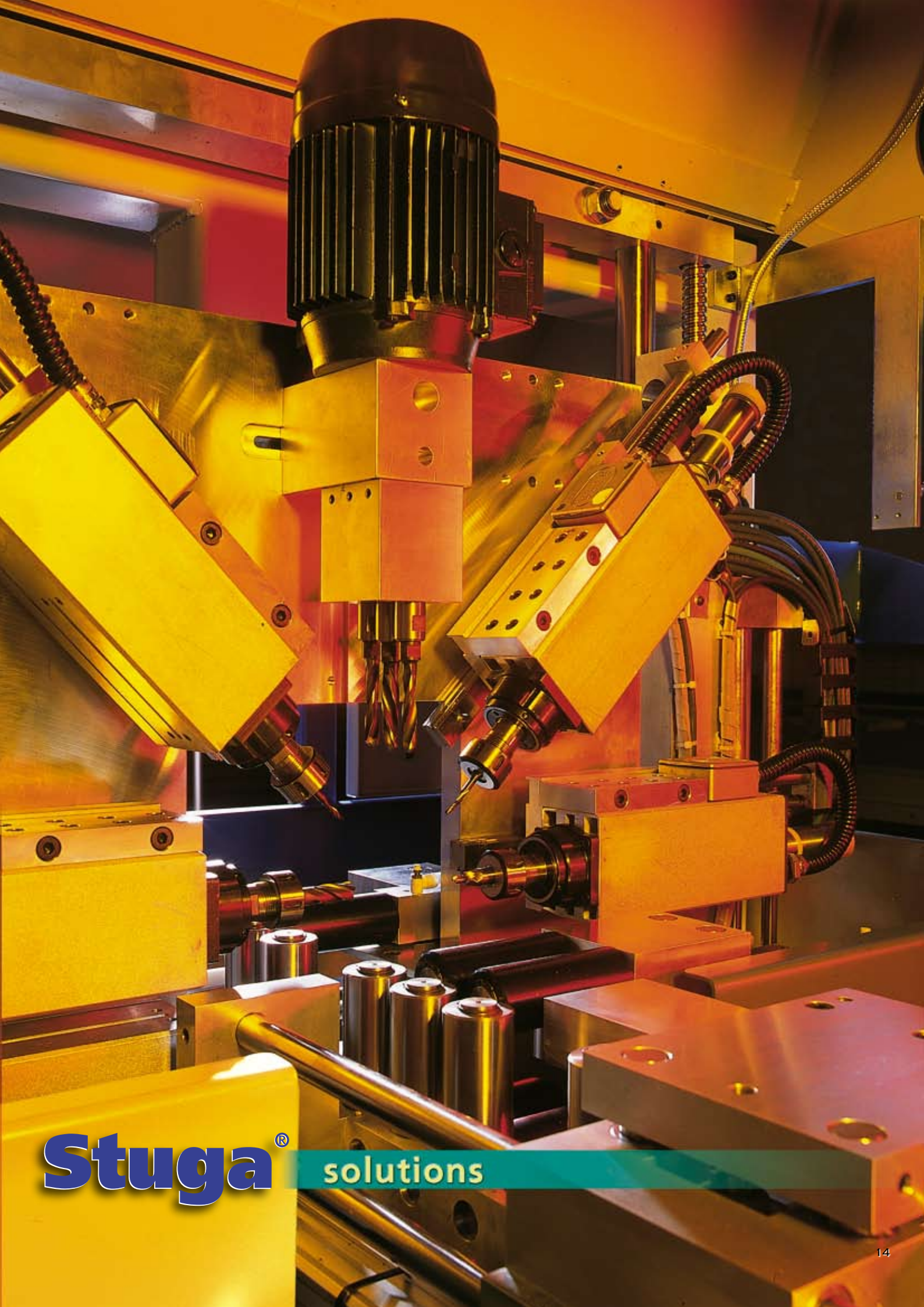
V NOTCHING FROM BOTH SIDES
Y NOTCHING (HALF V NOTCH BEFORE REVERSE-
BUTT PREP)

NOTE! ALL BRITISH AND IRISH WINDOW
PROFILES CAN BE ACCOMMODATED AND NO
CONTOUR BLOCKS OR OTHER TOOLING IS
REQUIRED. THE MICROLINE CAN PROCESS MOST
KNOWN PROFILES.

Q-CUTS

TRIMMING HEAD OF UNEQUAL CASEMENT BEFORE WELDING.





Stuga[®] solutions



Stuga[®]

**Ecoline
Prepping Centre**

Stuga®

ecoline p



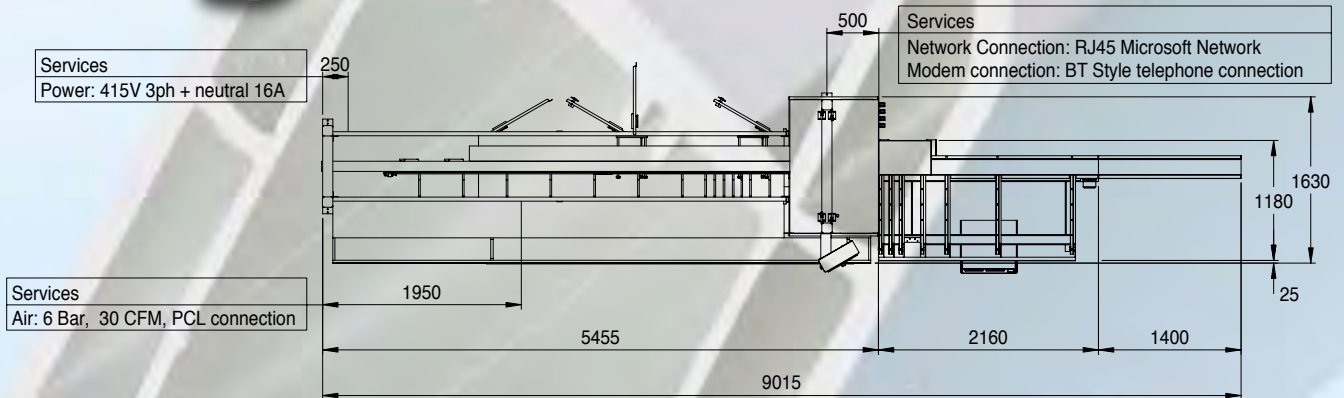
Prepping centre

THE ECOLINE PREPPING CENTRE WILL WORK IN CONJUNCTION WITH ANY UPVC SAW OR SAW CENTRE TO CARRY OUT ALL WINDOW AND DOOR PREPS INCLUDING DRAINAGE, TRICKLE VENTS, ESPAGS/ SHOOTBOLTS, 'V' & 'Y' NOTCHES AND ALL DOOR PREPS. THE ECOLINE SAVES SPACE AS WELL AS LABOUR.

WHY NOT TAKE THE SKILL OUT OF PREPPING?



Stuga[®] ecoline specification

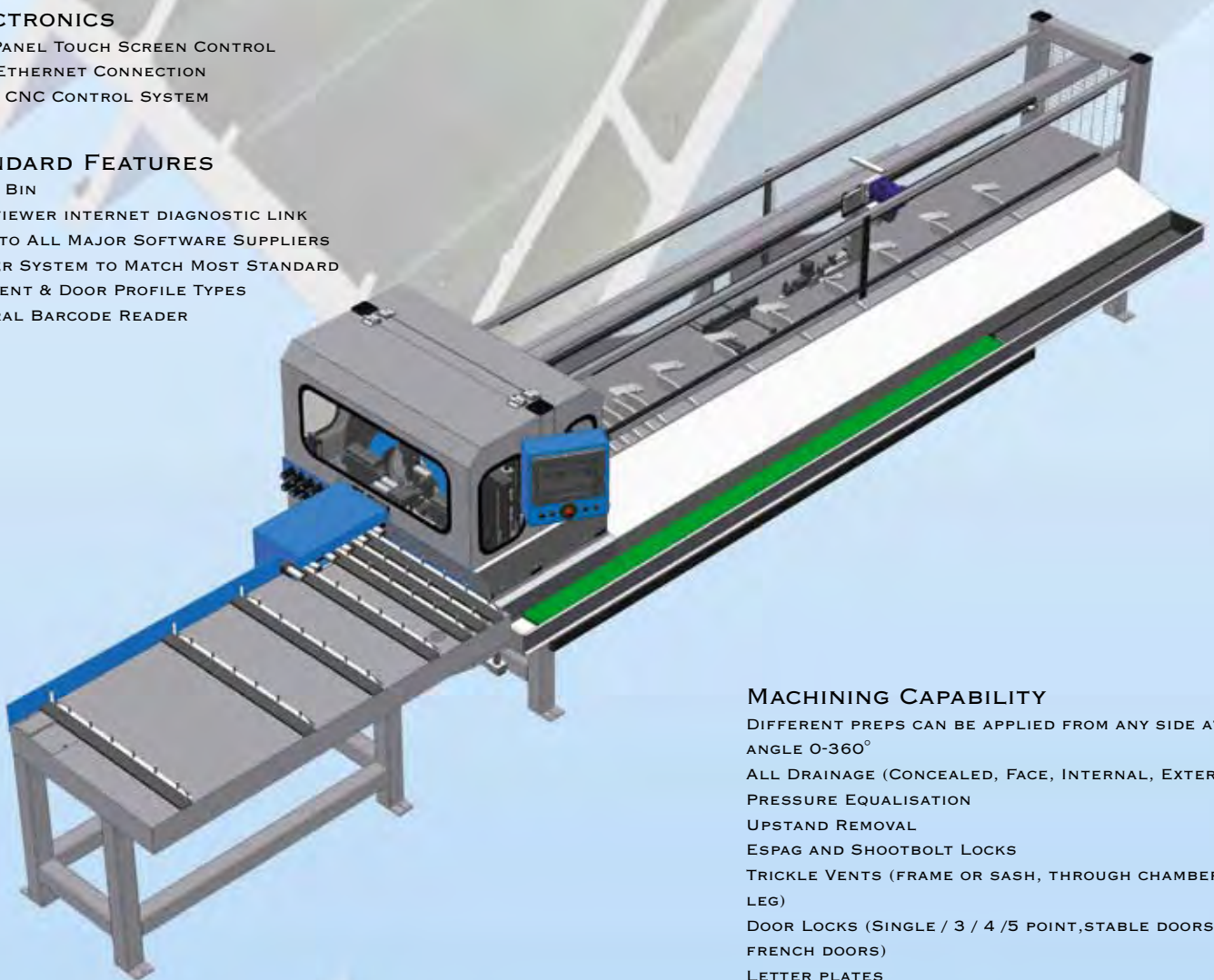


ELECTRONICS

FLAT PANEL TOUCH SCREEN CONTROL
RJ45 ETHERNET CONNECTION
6 AXIS CNC CONTROL SYSTEM

STANDARD FEATURES

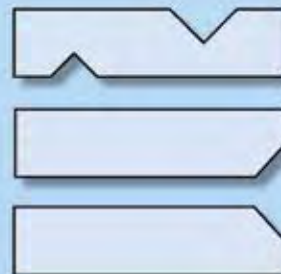
SWARF BIN
TEAM VIEWER INTERNET DIAGNOSTIC LINK
LINKS TO ALL MAJOR SOFTWARE SUPPLIERS
GRIPPER SYSTEM TO MATCH MOST STANDARD
CASEMENT & DOOR PROFILE TYPES
INTEGRAL BARCODE READER



MACHINING CAPABILITY

DIFFERENT PREPS CAN BE APPLIED FROM ANY SIDE AT ANY ANGLE 0-360°
ALL DRAINAGE (CONCEALED, FACE, INTERNAL, EXTERNAL)
PRESSURE EQUALISATION
UPSTAND REMOVAL
ESPAG AND SHOOTBOLT LOCKS
TRICKLE VENTS (FRAME OR SASH, THROUGH CHAMBER OR LEG)
DOOR LOCKS (SINGLE / 3 / 4 / 5 POINT, STABLE DOORS, FRENCH DOORS)
LETTER PLATES
DOOR HINGE SPOT PREPS
V NOTCHING
Y NOTCHING (HALF V NOTCH BEFORE REVERSE BUTT PREP)

THE FULLY PROGRAMMABLE AND FLEXIBLE GRIPPER SYSTEM BASED ON AN ADVANCED DESIGN TAKEN FROM THE HIGHLY SUCCESSFUL SAWING AND PREPPING CENTRES.





Stuga[®]

Autocut

Sawing Centre

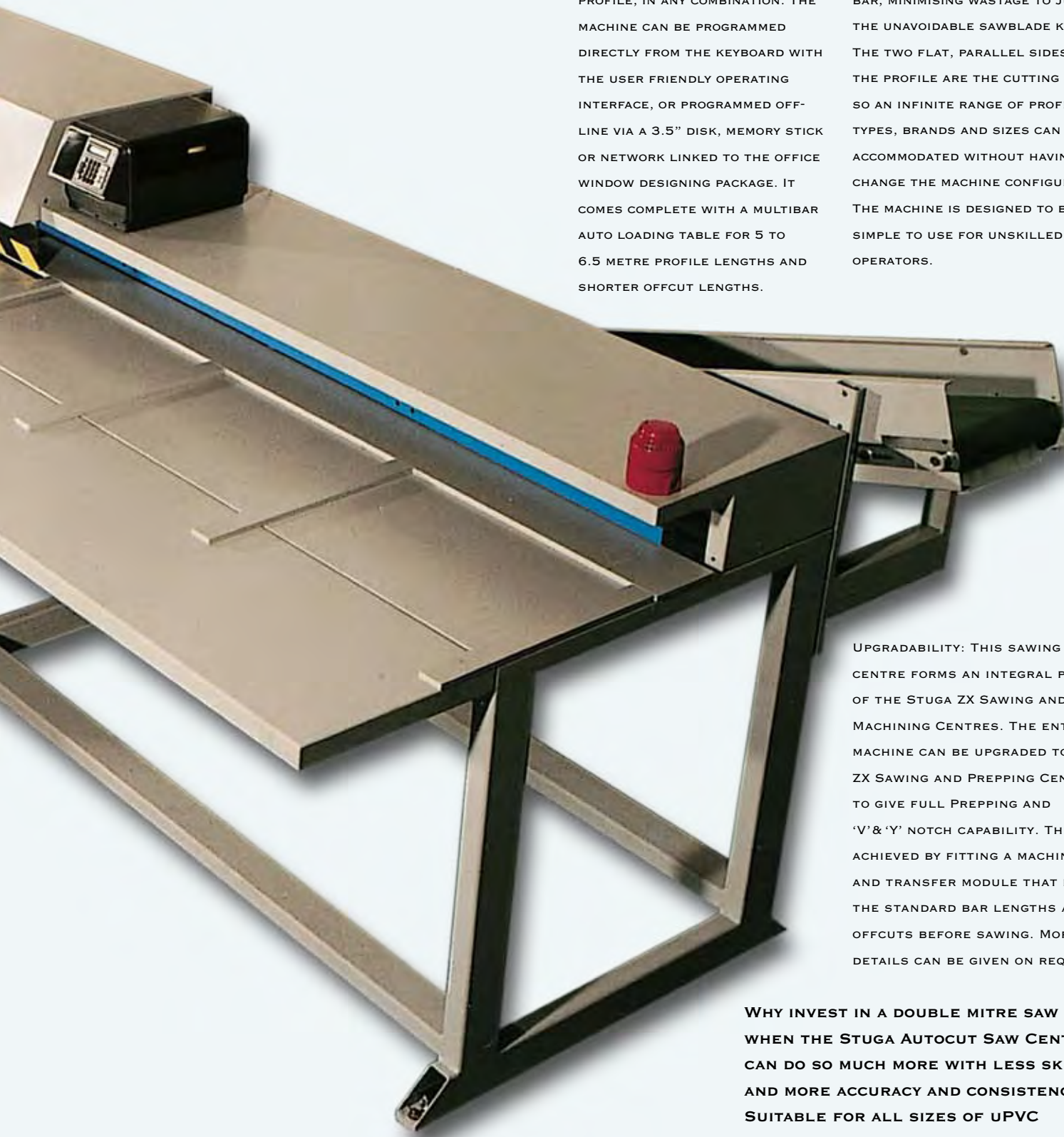


Stuga®

Sawing Centre

THE FULLY AUTOMATIC STUGA SAWING CENTRE IS CAPABLE OF CUTTING MITRES, SQUARES AND ARROW HEADS ON ANY PVCU DOOR AND WINDOW PROFILE, IN ANY COMBINATION. THE MACHINE CAN BE PROGRAMMED DIRECTLY FROM THE KEYBOARD WITH THE USER FRIENDLY OPERATING INTERFACE, OR PROGRAMMED OFF-LINE VIA A 3.5" DISK, MEMORY STICK OR NETWORK LINKED TO THE OFFICE WINDOW DESIGNING PACKAGE. IT COMES COMPLETE WITH A MULTIBAR AUTO LOADING TABLE FOR 5 TO 6.5 METRE PROFILE LENGTHS AND SHORTER OFFCUT LENGTHS.

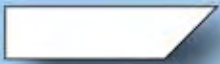
THE MATERIAL IS ADVANCED WITH A SIMPLE PUSHER ARM, COMMON FOR ALL PROFILES. THIS ALLOWS THE MACHINE TO CUT TO THE VERY ENDS OF THE BAR, MINIMISING WASTAGE TO JUST THE UNAVOIDABLE SAWBLADE KERF. THE TWO FLAT, PARALLEL SIDES OF THE PROFILE ARE THE CUTTING DATUM, SO AN INFINITE RANGE OF PROFILE TYPES, BRANDS AND SIZES CAN BE ACCOMMODATED WITHOUT HAVING TO CHANGE THE MACHINE CONFIGURATION. THE MACHINE IS DESIGNED TO BE SIMPLE TO USE FOR UNSKILLED OPERATORS.



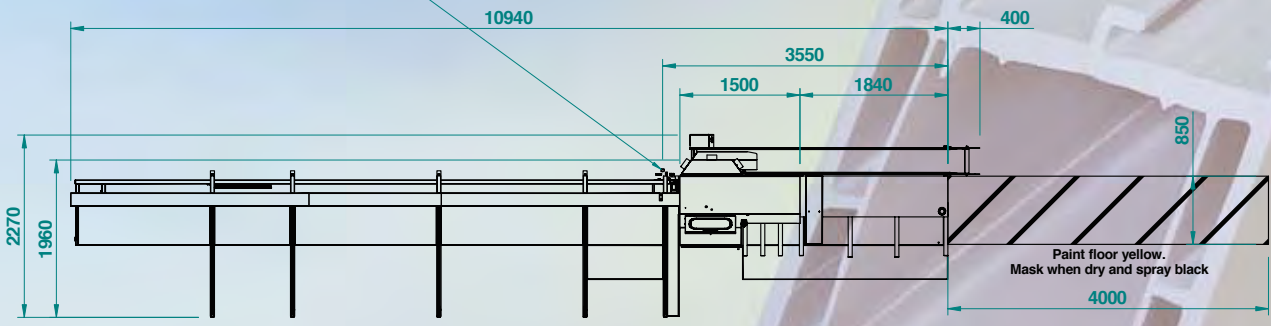
UPGRADABILITY: THIS SAWING CENTRE FORMS AN INTEGRAL PART OF THE STUGA ZX SAWING AND MACHINING CENTRES. THE ENTIRE MACHINE CAN BE UPGRADED TO A ZX SAWING AND PREPPING CENTRE TO GIVE FULL PREPPING AND 'V' & 'Y' NOTCH CAPABILITY. THIS IS ACHIEVED BY FITTING A MACHINING AND TRANSFER MODULE THAT PREPS THE STANDARD BAR LENGTHS AND OFFCUTS BEFORE SAWING. MORE DETAILS CAN BE GIVEN ON REQUEST.

WHY INVEST IN A DOUBLE MITRE SAW WHEN THE STUGA AUTOCUT SAW CENTRE CAN DO SO MUCH MORE WITH LESS SKILL AND MORE ACCURACY AND CONSISTENCY? SUITABLE FOR ALL SIZES OF UPVC WINDOW AND DOOR FABRICATOR.

End Preparations



SERVICES
 POWER: 415V 3Ph + neutral 15A AIR: 6-8 Bar @ 45cfm (PCL Connection) NETWORK: RJ45 Microsoft Network



PRODUCTION DIRECTION
 (LOADED FROM THE LEFT) →

SERVICES
 Power: 415V 3Ph + Neutral 15A
 Air: 6-8Bar @ 45 cfm (PCL Connection)
 Network Con: RJ45

MACHINING/PREPPING

THE STUGA SAW CENTRE IS FULLY COMPATIBLE WITH THE ENTIRE RANGE OF STUGA AUTOMATIC PREPPING CENTRES INCLUDING THE MULTI-HEAD, HIGHFLOW AND ECOLINE CENTRES FOR DRAINAGE, GEARBOX PREPS, TRICKLE VENTS, DOOR PREPS, 'V' NOTCHES AND MUCH MORE.

ALSO AVAILABLE IN RIGHT TO LEFT VERSION

Stuga[®]

Stuga CNC Routermaster



the Stuga CNC Router

FEATURES

THE STUGA COMPUTER CONTROLLED ROUTER REPRESENTS A TECHNICALLY ADVANCED SYSTEM OF ROUTER MACHINING FOR PREPARATION OF ALUMINIUM AND PVC-U EXTRUSIONS. THE CUTTING HEADS CAN BE PROGRAMMED TO MOVE THROUGHOUT THREE DIMENSIONS TO CUT OR DRILL ANY ARRANGEMENTS OF SLOTS OR HOLES.

FULLY AUTOMATIC MACHINING CYCLE

CAN BE USED BY UNSKILLED OPERATORS
 HIGH VOLUME PRODUCTION WITH
 CONSISTENT ACCURACY
 INSTANT CHANGE-OVER OF ROUTING ROUTINES
 USES STANDARD 8 MM CUTTERS



CARRIAGE & CUTTER HEAD

THE CARRIAGE UNIT FEATURES A MULTI-SPINDLE OVERARM HEADSTOCK OF THREE 90 DEGREE OPPOSED CUTTER SPINDLES. USING STANDARD 8 MM CUTTERS MACHINING CAN BE CARRIED OUT ON ANY OF THREE FACES ALONG THE ENTIRE LENGTH OF AN EXTRUDED SECTION.

GENERAL INFORMATION

PRECISION LINEAR BEARINGS ON ALL SLIDWAYS

PC COMPATIBLE COMPUTER CONTROL SYSTEM INCLUDING:
 MEMORY STICK (FOR BACKUP)

HARD DISK DRIVE (INTERNAL
 PROGRAM STORAGE)
 TOUCH SCREEN INTERFACE
 PULL-OUT KEYBOARD

STANDARD EQUIPMENT

LEFT HAND MATERIAL STOP
 FOUR OFF MATERIAL CLAMPS
 HIGH / LOW PRESSURE 2 STAGE
 CLAMP SYSTEM
 FULL ACOUSTIC HOOD GUARDING
 INTERNAL FLUORESCENT STRIP
 LIGHT
 TEAM VIEWER
 INTERNET DIAGNOSTICS
 RIGHT HAND STOP OR CENTRE
 STOP FOR WORKING EACH HAND
 OF DOOR SECTION
 ETHERNET CARD LINK TO OFFICE
 COMPUTER FOR CENTRALISED
 DATA STORAGE AND OFF-LINE
 PROGRAM EDITING

SERVO DRIVE ON
 MAIN AXIS 20 M/MIN
 TRAVERSE SPEED

OPTIONAL EXTRAS

BAR-CODE READER, SPRAY MIST
 COOLANT

CONTROL SYSTEM

USING THE LATEST PC COMPATIBLE COMPUTER SYSTEM, THE MACHINE RUNS A STORED PROGRAM OF MOVEMENT COMMANDS. THE PROGRAMS ARE SECURELY STORED ON A HARD DISK DRIVE INSIDE THE MACHINE. AN EDITOR FACILITY ALLOWS PROGRAMS TO BE CREATED, EDITED AND STORED.

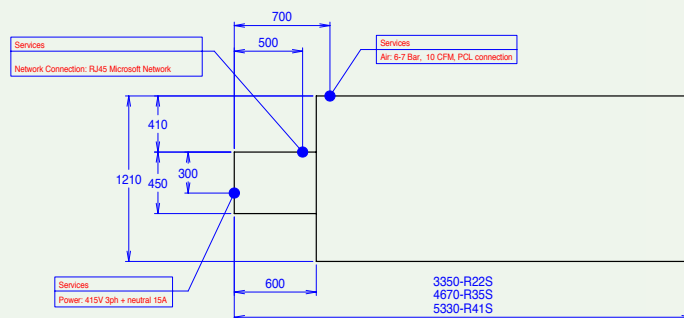
MATERIAL CLAMPING

SECURE CLAMPING IS PROVIDED BY A NUMBER OF CLAMP BLOCK ASSEMBLIES. THE UPWARD STROKE OF THE CLAMPS WILL ENSURE AN ACCURATE DATUM TO THE TOP PROFILE BLOCKS. THE CLAMPING ASSEMBLIES ARE PNEUMATIC POWERED AND ACTUATED BY A FOOT VALVE.

VARIANTS

THE STUGA ROUTER CAN BE SUPPLIED WITH THREE DIFFERENT LENGTH CAPACITIES AND TWO DIFFERENT HEIGHT CAPACITIES. (CAPACITIES SHOWN ARE MACHINING CAPACITIES).

MODEL	LENGTH CAPACITY	HEIGHT CAPACITY
STU-R22-S	2200 MM	80 MM
STU-R35-S	3500 MM	80 MM
STU-R41-S	4100 MM	80 MM
STU-R22-H	2200 MM	160 MM
STU-R35-H	3500 MM	160 MM
STU-R41-H	4100 MM	160 MM



NOW WITH WINDOWS^(TM) FRONT END SOFTWARE

Stuga Machinery Technical Specification

ALL MACHINES HAVE THE FOLLOWING FEATURES AS STANDARD

TEAMVIEWER INTERNET DIAGNOSTICS
 INDUSTRIAL GRADE PC
 MICROSOFT WINDOWS
 TOUCHSCREEN CONTROL
 ETHERNET NETWORK CONNECTION
 USB CONNECTION
 FULL OPERATOR AND MAINTENANCE TRAINING
 FULL PROJECT MANAGEMENT OF INSTALLATION PROCESS

TIMINGS (WINDOWS PER 40HR WEEK 100% EFFICIENCY)

TIMINGS INCLUDE THESE PREPS:- ALL DRAINAGE, V & Y NOTCHES, ESPAGS, 1 x 400MM TRICKLE VENT PER FRAME, DOOR LOCK, DOOR LOCK JAMB, LETTER PLATE, DOOR HINGES

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
TYPICAL MIX OUTPUT (WINDOWS ONLY)	N/A	997	450	423	774	997
TOP HUNG OVER FIXED	N/A	1450	550	440	1005	1450
SIDE HUNG / TOP OVER FIXED	N/A	900	400	325	650	900
STANDARD DOOR WITH MIDRAIL	400	650	250	380	510	600

CAPACITY

	MIN	MAX	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
PROFILE WIDTH (MM)	10	100	10	45	45	45	45	45
PROFILE HEIGHT (MM)	10	150	10	40	55	55	55	55
LOADED PROFILE LENGTH (MM)	100	UNLIMITED	100	500	300	700	700	700
FINISHED CUT LENGTH (MM)	N/A	N/A	N/A	285	N/A	285	285	285
INFED TABLE POSITIONS	N/A	N/A	N/A	8	6	8	8	8

SPINDLES FOR ROUTING

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
HEADS	3	N/A	2	5	5	8
POWER (KW)	0.1	N/A	0.75	0.75	0.75	0.75
TOOL SIZE (MM)	2.5MM – 10MM	N/A	5MM	2.5MM-16MM	2.5MM-16MM	2.5MM-16MM
SPEED (RPM)	11000	N/A	18000	18000	18000	18000
DOUBLE PLUNGE	No	N/A	No	Yes	Yes	Yes

NOTCHING HEADS

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
HEADS	N/A	N/A	2	2	2	4
POWER (KW)	N/A	N/A	0.75	0.75	0.75	0.75
SPEED (RPM)	N/A	N/A	3000	3000	3000	3000
BLADE DIAMETER	N/A	N/A	200	200	200	200

SAWING HEADS

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
POWER (KW)	N/A	1.5	N/A	1.5	1.5	1.5
SPEED (RPM)	N/A	3000	N/A	3000	3000	3000
BLADE DIAMETER	N/A	400	N/A	400	400	400
ROTATION (DEGREES)	N/A	-45 / 0 / +45	N/A	-45 / 0 / +45	-45 / 0 / +45	-45 / 0 / +45

POSITIONAL AXES

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
TRAVERSE SPEED (M/S)	1	6	1.5	2	2	2
NUMBER OF AXES	3	1	6	6	6	7

SERVICES

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
PHASE	3PH + NEUTRAL	3PH + NEUTRAL	3PH + NEUTRAL	3PH + NEUTRAL	3PH + NEUTRAL	3PH + NEUTRAL
CURRENT (A)	16	16	16	20	20	20
VOLTAGE (V)	415 +/-10%	415 +/-10%	415 +/-10%	415 +/-10%	415 +/-10%	415 +/-10%
FREQUENCY (HZ)	50	50	50	50	50	50
AIR PRESSURE (BAR)	6	6	6	6	6	6
MAX AIR CONSUMPTION (CFM)	5	35	30	45	45	45
NETWORK	CAT-5	CAT-5	CAT-5	CAT-5	CAT-5	CAT-5
DIAGNOSTIC CAMERAS	No	No	2	3	3	4

MACHINING CAPABILITY

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
ALL DRAINAGE	No	N/A	YES	YES	YES	YES
UPSTAND REMOVAL	No	N/A	YES	YES	YES	YES
ESPA G AND SHOOTBOLT LOCKS	YES	N/A	YES	YES	YES	YES
TRICKLE VENTS	YES	N/A	YES	YES	YES	YES
DOOR LOCKS	YES	N/A	YES	YES	YES	YES
DOOR LOCK JAMB	YES	N/A	YES	YES	YES	YES
LETTER PLATES	YES	N/A	YES	YES	YES	YES
SPOT PREPS	YES	N/A	NOT RECOMMENDED	YES	YES	YES
MECHANICAL TRANSOM	YES	N/A	YES	YES	YES	YES
V NOTCHING (BOTH SIDES)	No	N/A	YES	YES	YES	YES
Y NOTCHING (BOTH SIDES)	No	N/A	YES	YES	YES	YES
Q-CUTS	No	N/A	No	YES	YES	YES

SAWING CAPABILITY

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
SQUARE END	N/A	YES	N/A	YES	YES	YES
MITRED END	N/A	YES	N/A	YES	YES	YES
ARROW-HEAD END	N/A	YES	N/A	YES	YES	YES

STANDARD EQUIPMENT

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
FULL ACOUSTIC GUARDING						
BARCODE PRINTER		BARCODE PRINTER	SWARF BIN	BARCODE PRINTER	BARCODE PRINTER	BARCODE PRINTER
BAR OPTIMISING SOFTWARE		BAR OPTIMISING SOFTWARE	BARCODE READER	BAR OPTIMISING SOFTWARE	BAR OPTIMISING SOFTWARE	BAR OPTIMISING SOFTWARE
OFFCUT STORAGE		OFFCUT STORAGE		OFFCUT STORAGE	OFFCUT STORAGE	OFFCUT STORAGE
PROFILE WIDTH MEASURING		PROFILE WIDTH MEASURING		OFFCUT MEASURING	OFFCUT MEASURING	OFFCUT MEASURING
EXTRACTION		EXTRACTION		PROFILE WIDTH MEASURING	PROFILE WIDTH MEASURING	PROFILE WIDTH MEASURING
FULL SAFETY GUARDING		FULL SAFETY GUARDING		EXTRACTION	EXTRACTION	EXTRACTION
				FULL SAFETY GUARDING	FULL SAFETY GUARDING	FULL SAFETY GUARDING

OPTIONAL EQUIPMENT

	ROUTER	SAW	ECOLINE	MICROLINE	ZX3	ZX4
BARCODE READER						
ANGLED DRAINAGE HEAD		MOD FOR LARGER WIDTH		MOD FOR LARGER HEIGHT FOR VS OUTERFRAME		

NOTE! ANY OUTPUT FIGURES QUOTED ARE BASED ON CERTAIN ASSUMPTIONS AND ARE NOT GUARANTEED. IF YOU WOULD LIKE EXACT OUTPUT FIGURES FOR ANY MACHINE PLEASE FORWARD DETAILED INFORMATION ON VOLUMES, STYLES, OPERATIONS, PROFILES AND SIZES AND WE WILL OFFER A DETAILED REPORT WHICH CAN BE GUARANTEED. IN THE INTEREST OF CONSTANT IMPROVEMENT STUGA RESERVE THE RIGHT TO MAKE CHANGES TO THE ABOVE AT ANY TIME WITHOUT NOTICE.



STUGA FLOWLINE TOOLING RING

UPGRADES

STUGA OFFER MANY UPGRADES INCLUDING DOUBLE PLUNGE FOR ALL FLOWLINE - 1, 2 AND 3 MODELS. OUTPUTS CAN BE INCREASED BY UP TO 50% WITH THIS UPGRADE.

OTHER UPGRADES INCLUDE THE FOLLOWING:-

- BAR LENGTH MEASURING AND RANDOM OFFCUT USE-UP ON ALL FLOWLINES, ZX3 AND ZX4 THAT DO NOT HAVE THIS FEATURE.
- FLOWLINE 1, 2 AND 3 UPGRADE TO ZX3 OR ZX4
- ZX3 UPGRADE TO ZX4
- AUTOCUT UPGRADE TO ZX3 OR ZX4
- MICROSOFT WINDOWS UPGRADE ON ALL STUGA MACHINES
- SERIES 'A' OPERATOR CONTROL CABINET
- LASER ENHANCEMENT
- RING UPGRADE INCLUDING DOUBLE PLUNGE

NOTE!

NEW UPGRADES ARE ADDED REGULARLY, PLEASE CALL 0845 652 8685 FOR MORE INFORMATION

stuga autoflow 2 sawing and machining centre

a volume orientated yet compact
machine for fully automatic sawing
and machining of uvc windows and doors



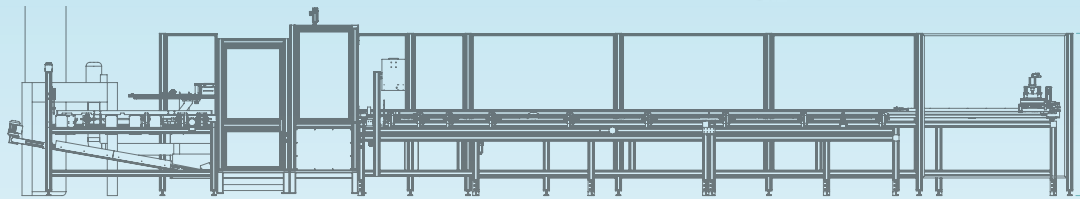
THE AUTOFLOW 2 IS DESIGNED FOR ALL CASEMENT WINDOWS, TILT AND TURN, VERTICAL SLIDERS, ALL DOORS INCLUDING BI FOLDS, RESIDENTIAL DOORS, FRENCH DOORS AND INLINE SLIDERS PRODUCING AN OUTPUT OF 400-450 WINDOWS PER WEEK.

EACH SECTION OF A 'VS' WINDOW CAN BE AUTOMATICALLY PRODUCED ON THE 'VS' VERSION OF THIS MACHINE INCLUDING FRAME TO CILL ANGLE AND MECHANICAL PREPS IN CILL FOR BOLTING TO FRAME. LEADING EDGE SOFTWARE ENSURES SPEEDY THROUGHPUT OF PRODUCT AND EXCELLENT PROFILE OPTIMISATION TO MINIMISE WASTAGE. RANDOM OFFCUTS CAN BE USED AT ANYTIME.

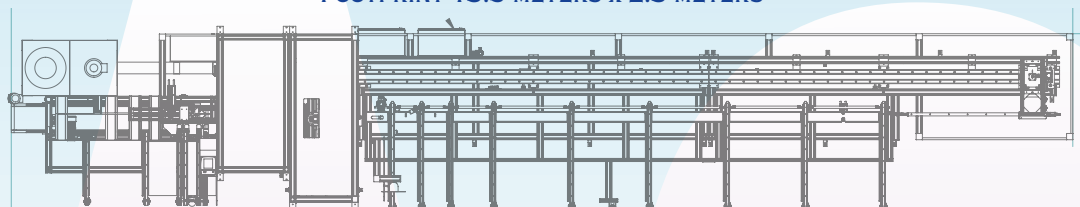
ANOTHER THOROUGHbred FROM THE STUGA STABLE.

Stuga[®]
Machinery

autoflow2 for volume production



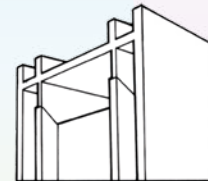
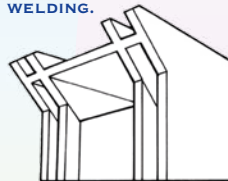
FOOTPRINT 13.5 METERS X 2.3 METERS



RIGHT TO LEFT FEEDING AUTOFLOW2 ALSO AVAILABLE LEFT TO RIGHT FLOW DIRECTION



Q-CUTS TRIMMING HEAD OF UNEQUAL CASEMENT BEFORE WELDING.



MACHINING MODULE CAPABILITY UNLIMITED NUMBER OF DIFFERENT PREPS CAN BE APPLIED FROM ANY SIDE AT ANY ANGLE 0-360 DEGREES.

ALL DRAINAGE CONCEALED / FACE, INTERNALLY OR EXTERNALLY GLAZED, UPSTAND REMOVAL, PRESSURE EQUALISATION

SPOT PREPS FOR EASIER ASSEMBLY FRICTION STAY PILOT HOLES, DOOR HINGES, ANTI-BOW WEDGE, ANTI-JEMMY WEDGE, CASEMENT KEEPS, ALUMINIUM LOW THRESHOLD SPOT PREP

TRICKLE VENTS: FRAME OR SASH, THROUGH CHAMBER OR LEG

DOOR LOCKS IN ANY COMBINATION (INCLUDING DOUBLE PLUNGE) SINGLE, 3 OR 4 POINT, STABLE DOORS, FRENCH / SLAVE DOORS, PATIO DOOR LOCKS, HINGE DOOR LOCKS

DOOR LOCK JAMB LETTER PLATES INCLUDING FIXING HOLES

ESPAG AND SHOOTBOLT LOCKS

TILT & TURN HINGES & LOCKS, FULLY REVERSIBLE HINGES & LOCKS

MECHANICAL TRANSOM

FRAME DRILLING, REINFORCING RELIEF PORT, BEAD CHANNEL FORMING

V NOTCHING FROM BOTH SIDES

Y NOTCHING (HALF V NOTCH BEFORE REVERSE-BUTT PREP)

'VS' VERSION AVAILABLE WITH THE FOLLOWING:-

'VS' FRAME TO CILL ANGLE ON 'VS' FRAME.

PREPS IN CILL FOR BOLTING TO FRAME.

'VS' CILLS UP TO 155MM CAN BE PROCESSED AT 90°.

VARIABLE ANGLES BETWEEN 45° AND 135° CAN BE CUT ON FRAME AND SASH (OPTIONAL EXTRA).

DOUBLE PLUNGE FACILITY PREPS BOTH SIDES OF TRICKLE VENT OR DOOR SIMULTANEOUSLY DRAMATICALLY INCREASING OUTPUT OF THESE PRODUCTS



FOR FURTHER INFORMATION ON ALL STUGA AND STÜRTZ PRODUCTS AND SERVICES CALL 01493 742 348
STUGA MACHINERY, BRINELL WAY, HARFREYS IND. EST., GREAT YARMOUTH, NORFOLK NR31 OLU.

STUGA MACHINERY IS A MEMBER OF THE STUGA MACHINERY GROUP OF COMPANIES

01493 742 348

Stuga[®]
Machinery

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EIGHT HEAD WELDER
FEEDING TWO HEAD CLEANER
SIX HEAD WELDER AND FOUR
HEAD CLEANER ALSO AVAILABLE

A RANGE OF 2 AND 4 AXIS CORNER AND
TRANSOM CLEANERS
INCLUDING AN OPTION FOR VERY FAST
AUTO FEEDING AND TURNING



SIX HEAD
VERTICAL
WELDING MACHINE



Stuga[®]

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