

PROSAW

Supplying the World's Finest Machines to UK industry since 1963

exactcut
high performance circular saws

Exactcut TAC 75

High Production,
Straight Cut, Automatic
Circular Saw



PROSAW LIMITED
15 Telford Way, Kettering,
Northants, NN16 8UN

Tel: +44 (0)1536 410999
sales@proshaw.co.uk
www.proshaw.co.uk

Company registration: 01115014

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CIRCULAR SAW

The PROSAW ExactCut TAC 75 is an automatic circular saw for cutting bars.

The machine is ideal for a production environment for cutting both solid and profiled materials. Bar materials of lengths 2000 - 6000mm and diameters 10 - 75mm may be automatically fed and cut at 90°.

The standard length of cut pieces is 10 - 200 mm (with optional output conveyor 10 - 600mm) with an accuracy of ± 0.15 mm. Oil Mist lubrication is installed as standard equipment for cooling and lubrication of the saw blade.

Base

- Robust, heavy-duty construction, filled with polymer concrete
- Efficient vibration damping
- Compact design
- Simple handling and fixing

Material clamping mechanism

- Safe clamping with four point hydraulic clamping in front and two-point clamping behind the blade
- Variable vice pressure clamping force
- Clamped material control with pressure switch
- Full stroke cylinders without mechanical readjusting



Material vice clamping mechanism

Gearbox

- Torsion rigidity thanks to a compact design and optimal design position of bearings
- Ground gears guarantee high efficiency and smooth running
- Smooth operation and strong design increase the blade life
- Large cutting range achievable because of heavy duty gearbox

Blade guidance

- Three-point guidance of the blade, close to the cutting area ensures blade rigidity
- Double-sided guide pads for the maximum stability of thin blades
- Easy precise setting with a single spanner

Blade cleaning

- Adjustable swarf brush for cleaning the blade
- Protective cover directs the swarf for efficient swarf management



Swarf Brush

Blade lubrication

- Oil Mist nozzle for applying the minimal quantity of oil mist to the blade surface
- Oil mist reservoir controlled by a float switch



Blade lubrication

Blade drive mechanism

- Efficient motor 7.5 kW (10.2 HP) providing ample cutting power
- Belt driven for transmission to the gearbox
- Optimal cutting conditions obtained via a frequency inverter
- Ergonomic design for belt tightening and replacement
- Fully safety interlocked and CE certification

Downfeeding mechanism

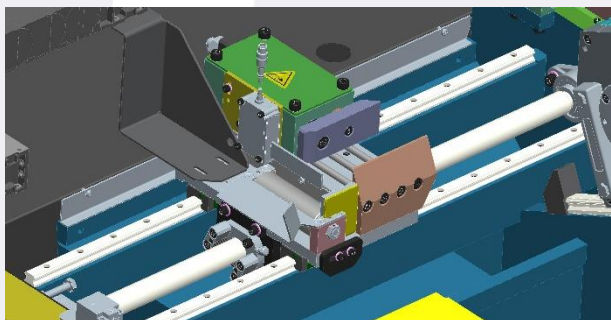
- Maximum rigidity of the cutting unit due to linear guides and ball screw
- Optional starting and finishing amps for optimal cutting process
- Precise positioning through a servomotor minimising secondary times
- Automatic adjustment of the process according to parameters entered on the panel
- Feeding speed up to 6,000mm/min



Downfeeding mechanism

Vice Feeding Mechanism

- Optimised for dynamic feeding and easy loading
- Hydraulic clamping unit with regulated clamping force allows movement with maximum acceleration
- Contactless reverse run of the feeder unit because both jaws open
- Precise positioning through an efficient servomotor with repeatable accuracy of 0.02mm
- 600mm stroke with multi feed and laser detection of the material at the beginning and end
- Feeding speed up to 1,000mm/s



Feeding vice mechanism

Hydraulics

- Robust and reliable with a long lifetime
- Simple, with good access for maintenance
- Working pressure up to 125 bars and flow 6 litres/min
- Tank volume 50 litres for cooling in all conditions
- Accumulator for balancing flows



Hydraulic unit

Control system

- Siemens S7 1500 designed for high performance and efficiency
- Integrated motion control for position and accurate control
- Ensured machine safety
- Trace system for fast and easy diagnosis of machines via remote control
- Frequency inverters- SINAMICS S120 and G120 with integrated SAFETY SYSTEM

Siemens Control panel

- Touch style, 7" industrial control panel TP700 with high resolution
- Intuitive graphic interface with the capacity for hundreds of procedures
- Possible export and import via USB
- Video instruction to assist the operator to set the machine



Control panel

Electrical cabinet

- High quality RITTAL panel mounted on the machine base
- Integrated RITTAL ventilation with efficient cooling technology for trouble-free operation
- Lighting ensures sufficient visibility at all conditions
- 16 A socket in the cabinet for maintenance purposes

Swarf conveyor

- Belt swarf conveyor included
- Continuous swarf removal from the working area

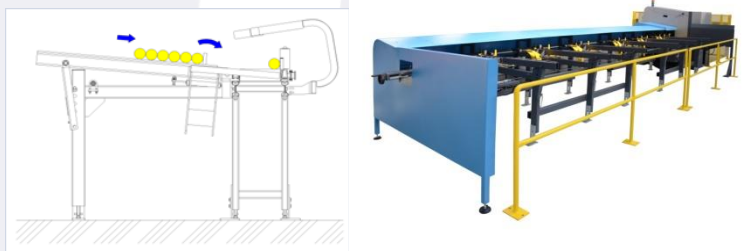
Oil mist extractor ARNO 0VF/A - optional

- System for extracting oil mist during cutting
- Cleaning with a HEPA filter – highly-efficient filter (FAE)
- System warns of a contaminated filter

MATERIAL INPUT

Input gravity magazine

- Adjustable slope angle
- Central adjustment of single bar feeding
- One bar can be easily loaded directly onto the feeder area saving time
- Pneumatically controlled separation system
- Versions for bar length 2 ~ 3 metre or 2 ~ 6 metre



Input gravity magazine

INPUT CONVEYOR

Input conveyor maximum length 2000-6300 mm

Maximum loading 3000 kg

CLIMATIC DATA FOR INSTALLATION SITE

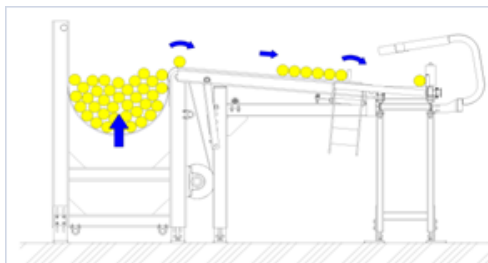
Air temperature +5 °C - +40 °C

Elevation up to 1000 m o. s.

Air humidity up to 80 %

Input bundle magazine - optional

- Strap type belt bundle magazine for automatic feeding
- Immediate notification if magazine empty
- Manual override via push button controls
- Bundle width 450 mm, max. bundle weight 3 tons



Input bundle magazine

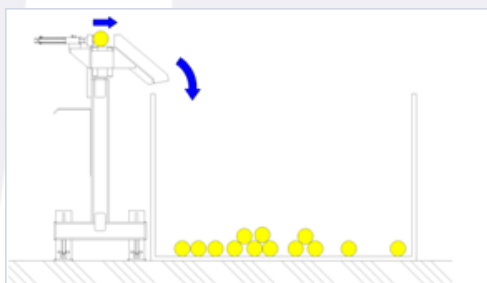
MATERIAL OUTPUT

Sorting chute

- Pneumatically controlled chute sorting automatically cut-offs and bar ends to a separate box
- Intelligent position scanning with magnetic sensors
- For work piece length 10 - 200 mm

Belt conveyor with sorting gate - optional

- Robust industrial belt conveyor for supporting material
- Gate for removal to the stillage box
- Simultaneous cutting and removal of pieces 10 - 600 mm long increasing the machine output
- Box sizes L x W x H 1200 x 800 x 700
- Possible cutting of longer lengths manual and automatic – ask for information



Belt conveyor with sorting gate

OIL AND BLADES

Cutting oil

Cutting oil is used for the lubrication of the cutting blade as standard. Oil is mixed with air to deliver an oil mist to the blade.

Oil consumption in standard cutting operation is approx. 0.7 litres / 8 hours (depending on material processed). Can be greater for more difficult-to-cut materials

Cutting blades

Blades used in this saw are two basic types:

Disposable Carbide - saw blades for highly productive cutting of steel, for solid material as well as tubes of various types according to the application, material quality, cross section, etc. These blades should only be used after suitable cutting trials.

HSS – saw blades for metal of various types according to the application, material quality, cross-section, etc. Blades may be sharpened several times, particularly suitable for cutting thin-wall tubes. Low efficiency in cutting solid materials.

TECHNICAL DATA

MACHINE TYPE	PROSAW TAC 75
For cutting	Steel and other materials
Machine dimensions - length x width x height	according to preview and design
BLADES	
Usable blades	HM - hardmetal/ HSS
Centre Bore HB	Ø 32 mm
Saw blade diameter	Ø 250/285 mm, tl. 1,2-2,5 mm
Pinholes NL	4x9x50
Blade diameter 250mm	up to Ø 55mm, square 45x45mm
Blade diameter 285mm	up to Ø 75mm, square 65x65mm
CUTTING RANGE	
Cutting at an angle	90°
☐	Ø 10-75 mm
☐	10x10 mm - 65x65 mm
Cutting speed	60-220 m.min-1
Remaining piece length	60 mm
Length precision (per feeder uplift)	±0,15 mm
Positioning precision	0,01 mm
Fed material length	3-6 m
Workpiece length (sorting chute)	10-200 mm
Workpiece length (output conveyor)	10-600 mm
FEEDER/DOWNFEEDING	
Downfeeding speed	0-100 mm/s
Exiting speed	300 mm/s
Feeder uplift	600 mm
Feeder speed	1000 mm/s
COMPRESSED AIR SUPPLY	
System pressure	5-7 Bar
Supply hose	10x1
MACHINE HYDRAULIC SYSTEM	
Flow	6 dm ³ .min-1
Working pressure	20-125 Bar
Output	1,5 kW
Current	3,5 A
MACHINE ELECTRICAL PARAMETERS	
Supply voltage	~3x 400 V, 50 Hz, 3+N+PE
Blade drive input	7,5 kW
Total input	9 kW
Maximal ballast protection	63 A
Protection grade	IP 54
Supply cable	5 core, wire, cross-section 10 mm ²