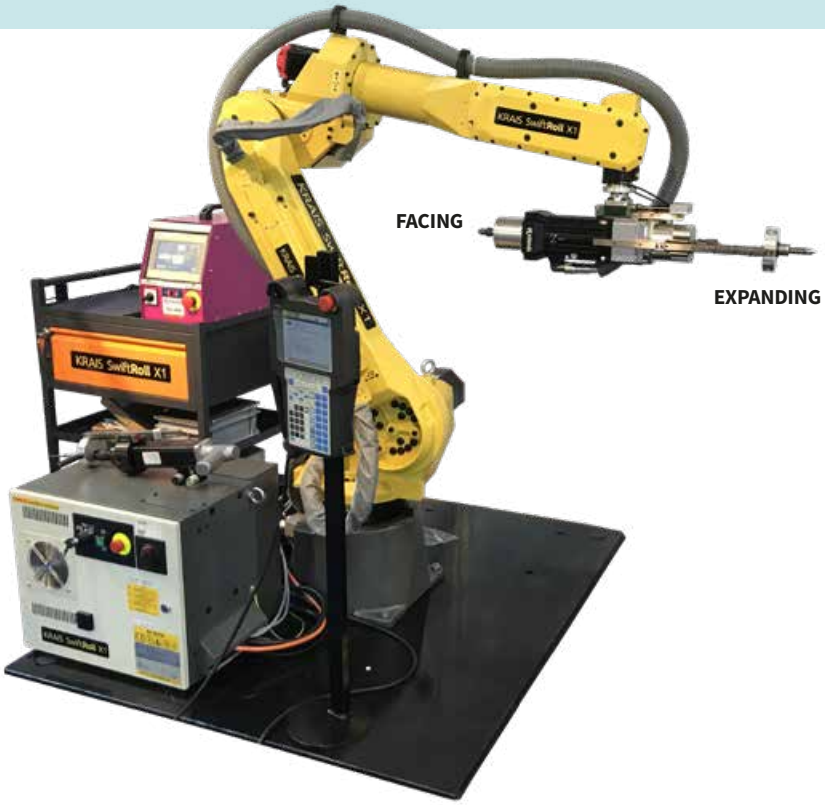
SwiftRoll Series

The Swiftroll robot is a cutting-edge solution designed for simultaneous tube expanding and facing. With three sizes available - XS, XM, and XL - Swiftroll offers versatile capabilities, while the Xm variant focuses specifically on tube expansion.

Based on 6 axis FANUC robot, a special version of TES3000 for CNC – digital controller for speed and expansion managing and KRAIS dual function, dual-geared, 3 KW servo drive. All works under Fanuc R30iB system. SwiftRoll has an overload system in the event of a collision to prevent damages.
SwiftRoll is delivered with built-in HMI software and PC laptop with custom CAM software for easy tube sheet programming. SwiftRoll is installed on the convenient steel platform.

As optional we can furnish the robot with: automatic referencing function, vision system and force sensors allow robots to detect force and torque. SwiftRoll can be built with a bigger robot that provides double capacity: bigger reach radius and lifting.

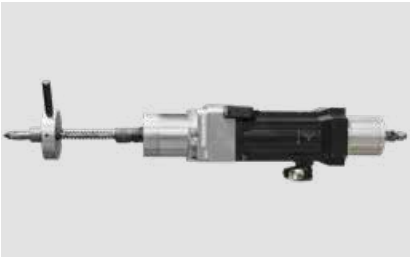


WORKING RANGE			STANDARD MOTOR PARAMETERS			
AXIS NUMBER	REACH RADIUS	LIFTING	ROLLING SPEED	ROLLING TORQUE	FACING SPEED	POWER
6	1200 mm	20 Kg	Up to 1000 Rpm	102 Nm	Up to 1000 Rpm	3 kW
	47,00"	44 Lbs		75 Ft.Lbs		

TES3000 - SEPARATE UNIT

The TES3000 for CNC can also be used as the independent rolling system. Can be used with FlexHolder, telescopic shaft or handheld. And, thanks to the wide range of motor drives, TES3000 for CNC can be used to process expansion of tubes in varies sizes and materials.

R3000 - NEW DRIVE



Newest range of motors for tube rolling and facing in one. Torque range from 0,5 Nm to 50 Nm and speed from 200 to 3000 Rpm (depends on application).

SWIFTROLL XS

SwiftRoll XS the smallest version of the SwiftRoll. Designed for small cooler manufacturers. With this version, the tube facing is not available. Available motors up to 6000 rpm.

SwiftRoll X1

CUSTOM HMI SOFTWARE

The robot is delivered with the pre-installed KRAIS HMI system dedicated exclusively to support of referencing, tube expanding, tube facing and welding tubes to tube sheet.
The system has been written to facilitate the operation of the robot and to hide functions that may be unnecessary in the working process or are too advanced at the very beginning of learning.

INCLUDED CAM SOFTWARE

Unique feature delivered as standard is full featured, customized CAM software. In a very short period of time allows creating programs for tube expanding, facing or welding to tube sheet.
Software functions allow measuring all tube sheet parameters based on sheet drawing. The precise definition of tube holes locations is determined in few clicks. Calibration, made by robot's header, joins information from drawing with the real sitting of the tube sheet. The whole process takes minutes.
One of the essential functions of software is a possibility to automatically programming the order of expanding tubes. It is very important to avoid tube sheet deformation while expanding from the top to the bottom or another way around.

SWIFTROLL IN ACTION

Simultaneous machining of two (!) tube sheets. Both of them were prepared earlier and now they need tube facing and expanding. After on hour setup, all work is done totally automatically.