

# INTRODUCING THE NEW SCREW ACTION OIL SKIMMER FROM 3NINE RIX THAT SEPARATES TRAMP OIL OUT OF YOUR CUTTING FLUID

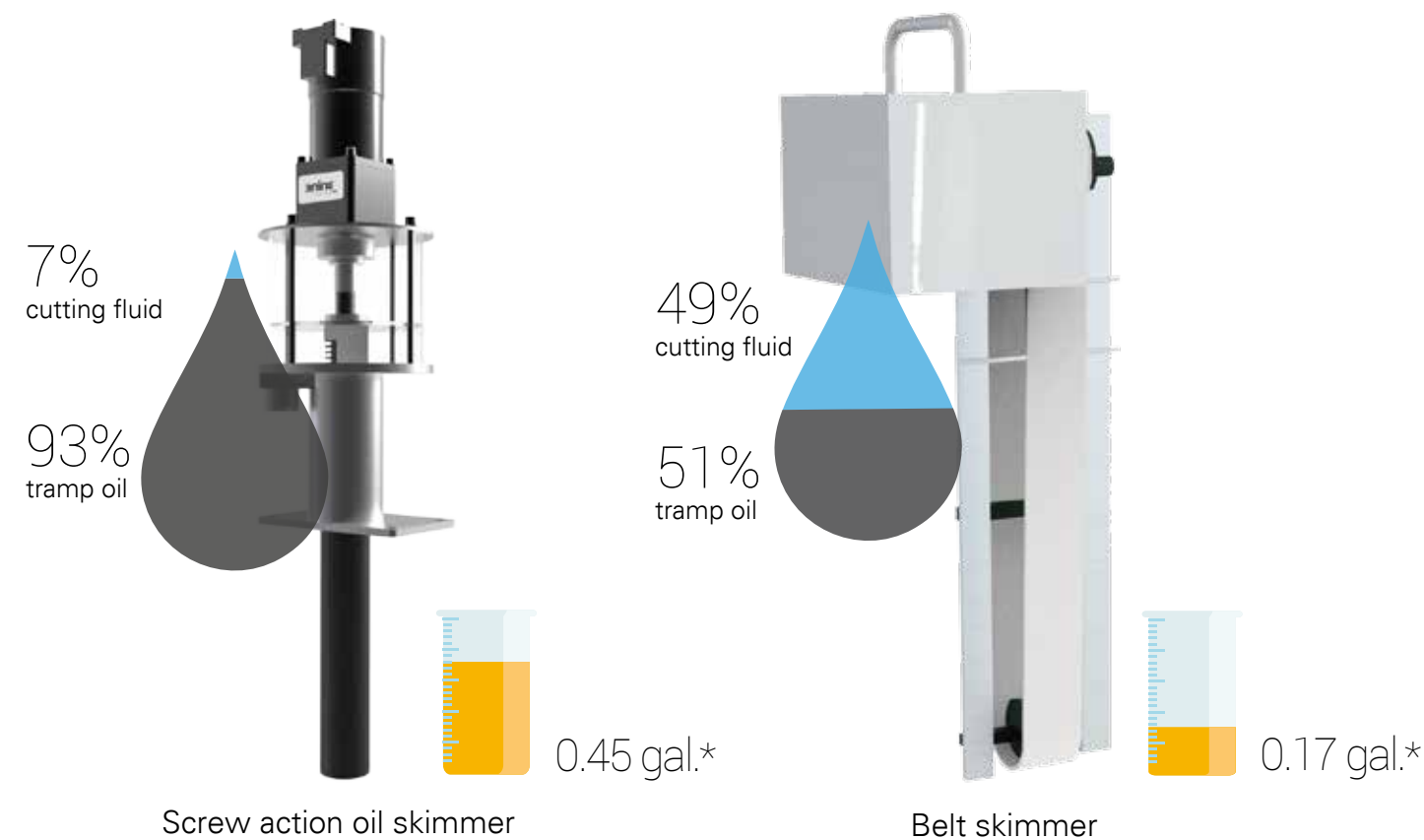
## SCREW ACTION OIL SKIMMER

Tramp oil is one of the more significant causes in the deterioration of your cutting fluid. As a result it lessens the life of your tools, can cause the loss of surface finish quality and in some situations it can reduce machining tolerances. Tramp oil also contributes to bacterial growth in the cutting fluid, that is then spread by airborne fluid particles (oil mist) throughout the shop environment, which can result in allergic reactions and is a source of foul odors. If tramp oil is not constantly removed from the cutting fluid, increased operational expenses are incurred.

There are a number of technologies for dealing with tramp oil that use a belt, disk or tube as an example. These technologies however often do not separate out a very high percentage of the tramp oil or they remove too much of the cutting fluid. The new screw action oil skimmer is a patented solution that is manufactured by the RIX company in Japan and is marketed by 3nine USA, Inc. throughout North America. The technology uses the viscosity differential between the tramp oil and cutting fluid, where the more viscous tramp oil clings to a rotating threaded column and is separated out. This patented screw action oil skimmer has quickly become a standard solution in Japanese factories thanks to its low maintenance costs and greater efficiency.

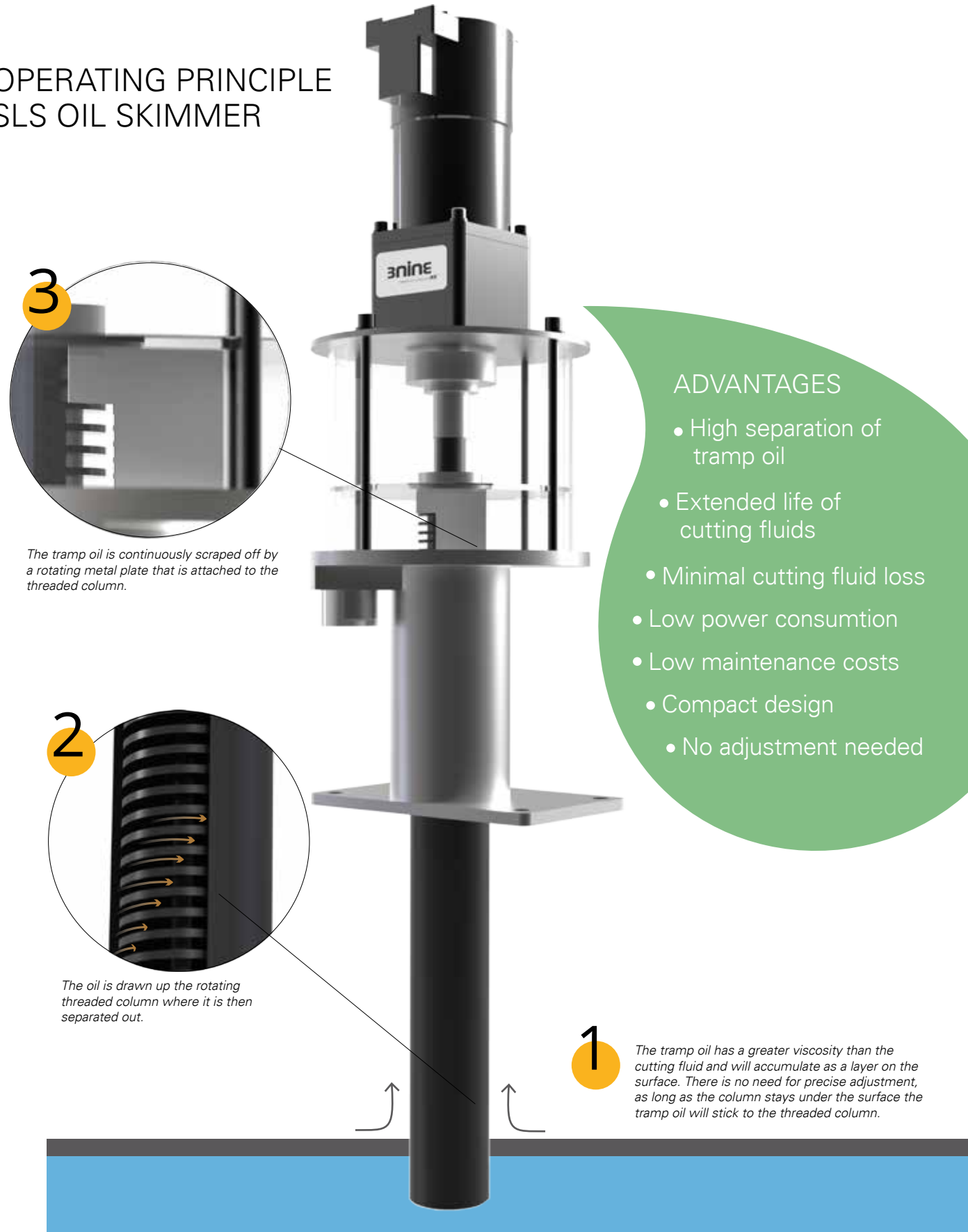
## HIGHLY EFFICIENT SEPARATION

Results from a performance test showed that the screw action oil skimmer separated 0.45 gal. of tramp oil from the cutting fluid, whereas a belt skimmer just 0.17 gal. over the same time period. That's over 2 times as much separated tramp oil resulting in a much cleaner cutting fluid. Unlike other technologies, the screw action oil skimmer separates out practically all the tramp oil while removing minimal cutting fluid.



\* Results from a performance test conducted at one of the largest automotive companies in the world during a test period of 6 hours.

## OPERATING PRINCIPLE SLS OIL SKIMMER



### ADVANTAGES

- High separation of tramp oil
- Extended life of cutting fluids
- Minimal cutting fluid loss
- Low power consumption
- Low maintenance costs
- Compact design
- No adjustment needed

## LOW MAINTENANCE REQUIREMENT EQUALS LOW OPERATING COSTS

The screw action oil skimmer has a very low maintenance requirement – just 30 minutes to 1 hour/year, which includes emptying the tramp oil container. Compare this to a belt skimmer where the sediment tanks have to be continuously emptied of accumulated sludge, resulting in an annual maintenance requirement in excess of 8 hours per machine.

Comparison	Traditional belt skimmer	3nine RIX oil skimmer
Monitoring & setting of the belt	1h/year	None!
Monitoring & control of nozzle	1h/year	None!
Cleaning of oil separation tanks	1h/year	None!
Cleaning of oil skimmer		30 min./year

## SPACE-SAVING

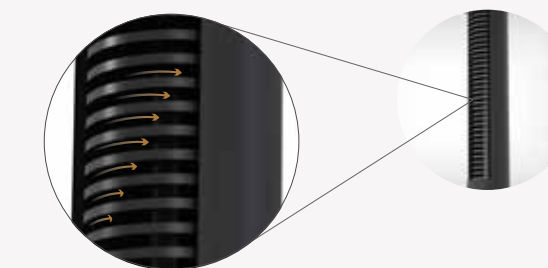
The screw action oil skimmer takes up very little space and is also easy to install. Compared with a belt skimmer, it represents a saving of a little over 40% in floor space.

## THE SYSTEMS SLS AND MOS

Both systems give you the benefits of extending the life of your cutting fluids, as well as separating only the tramp oil from the coolant.

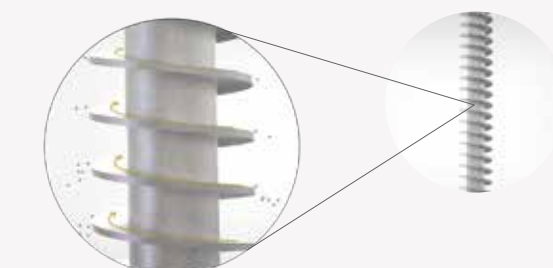
### SLS (Screw type skimmer) for standard applications

- The high-viscosity tramp oil is transported upwards by a rotating screw column at 0.225 gal./h.
- The lower-viscosity cutting fluids flow back down into the sump.



### MOS (Spiral type skimmer) for applications with a lot of solid particles

- The tramp oil is transported by a spiral rotating shaft at 0.026 gal./h.
- The solid particles along with the cutting fluid flow back down into the sump.



# SPECIFICATIONS AND DIMENSIONS

Spiral type: MOS-  -

Screw type: SLS-  SB-   
 Depth (A): \_\_\_\_\_

Dimension A	Symbol
150mm	150
200mm	200
300mm	300

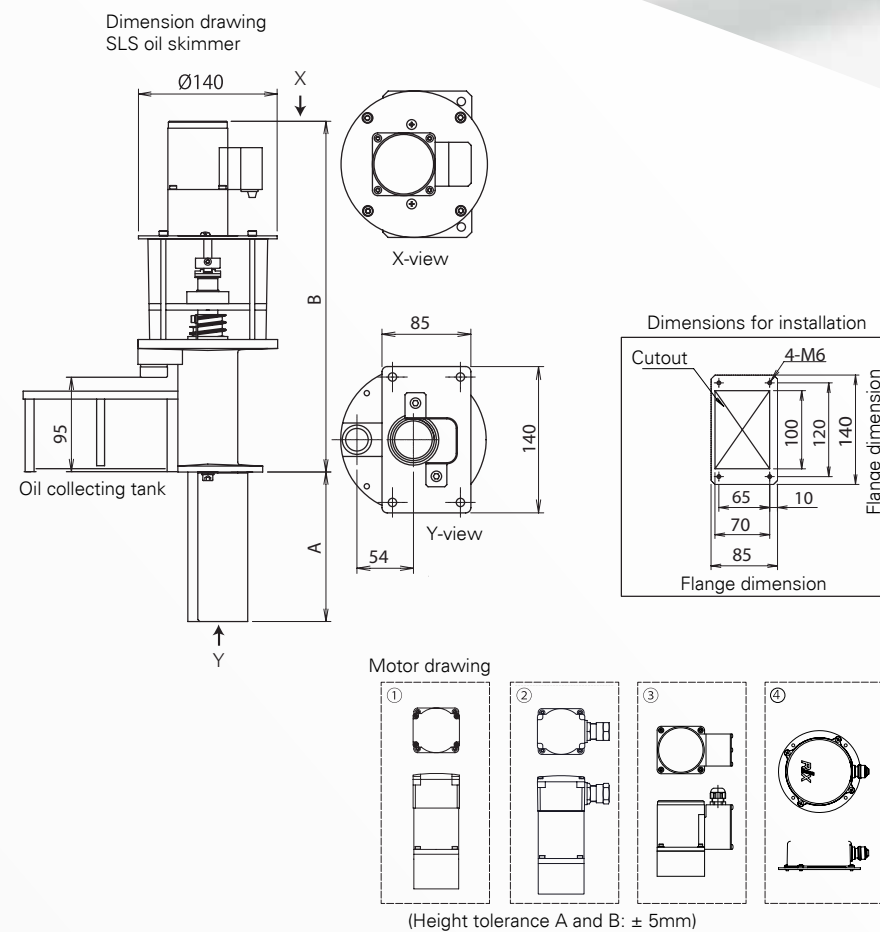
Motor: \_\_\_\_\_

Specification	Symbol
Induction motor, 1-phase, 110V	100
Induction motor, 3-phase, 200V	None
Induction motor, 3-phase, 200V with terminal cover	OP
Induction motor, 3-phase, 220V with terminal box	BT

Motor: \_\_\_\_\_

Specification	Symbol
Synchronous motor, 1-phase, 110V	S1P-110V
Induction motor, 3-phase, 200V	G3P-200V
Induction motor, 3-phase, 200V with terminal box	G3P-200V-BT

(All oil skimmers are delivered without a cable.)



Model	Dimension (mm)		Motor drawing	Weight (kg)	Capacity (gal./hr)
	A	B			
SLS-150SB*	150	352	①	3.7	0.225**
SLS-150SB-110*		354	②		
SLS-150SB-OB*		392	③		
SLS-200SB	200	352	①	3.8	
SLS-200SB-110		354	②		
SLS-200SB-OP		392	③		
SLS-300SB	300	352	①	4.3	
SLS-300SB-110		354	②		
SLS-300SB-OP		392	③		

Model	Dimension (mm)		Motor drawing	Weight (kg)	Capacity (gal./hr)
	A	B			
MOS-150-S1P-110V*	150	280	④	3.1	0.026**
MOS-150-G3P-200V*		350	①	4.0	
MOS-150-G3P-200V-BT*		390	③		
MOS-200-S1P-110V	200	280	④	3.2	
MOS-200-G3P-200V		350	①	4.1	
MOS-200-G3P-200V-BT		390	③		
MOS-300-S1P-110V	300	280	④	3.3	
MOS-300-G3P-200V		350	①	4.2	
MOS-300-G3P-200V-BT		390	③		

\* Note that the 150 mm models only are available in Japan. It is possible to order from Japan at demand.  
 \*\* Depending on the amount of oil and its viscosity.

# 3nine RIX SCREW ACTION OIL SKIMMER

EXTENDS THE LIFE OF CUTTING FLUID  
AND MACHINERY



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RIX is a Japanese Corporation headquartered in Fukuoka, Japan that primarily concentrate on the development of rotary joints and oil skimmers. In 2016, 3nine and RIX initiated a collaboration to sell oil skimmers in Europe and North America under the joint name of 3nine RIX Oil Skimmer.

- MINIMAL MAINTENANCE
- MINIMAL CUTTING FLUID LOSS
- LOW OPERATING COSTS
- COMPACT DESIGN

**3nine**  
 MANUFACTURED BY RIX