

# 3NINE RIX - THE NEW SCREW ACTION OIL SKIMMER BASED ON SCREW TECHNOLOGY THAT ONLY SEPARATES OUT YOUR TRAMP OIL

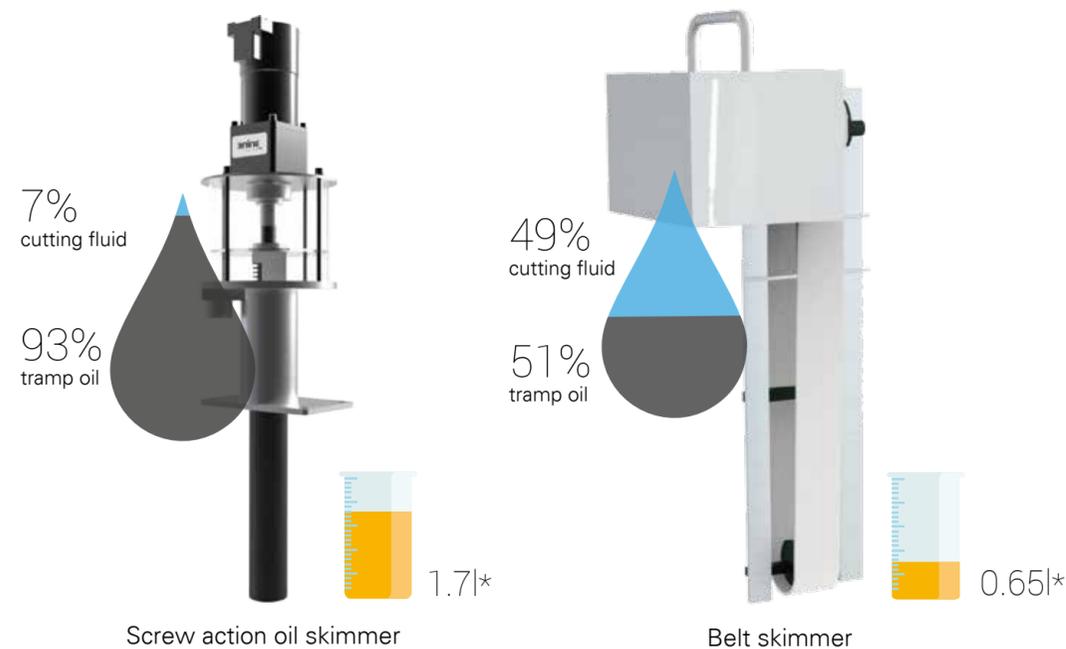
## SCREW ACTION OIL SKIMMER

Tramp oil is one of the most significant causes of quality deterioration in cutting fluids, as well as a contributing factor in wear and tear in tools, loss of surface finish quality, and in particular reduced machine tolerances. If the tramp oil is not constantly separated out the cutting fluid must be continuously replaced, which will involve significant long-term costs. The tramp oil also contributes to bacterial growth in the cutting fluid that are then spread by airborne fluid particles. This can result in allergic reactions and is also a source of foul odors in the workshop environment.

There are a number of techniques for dealing with tramp oil, including the use of belt, disk or tube skimmers for example. These techniques often do not provide adequate separation as they do not separate out enough 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 now marketed in Europe by 3nine. The technique exploits the viscosity differential between oil and cutting fluid, with the more viscous oil clinging to a rotating threaded device, from where it is separated out. The patented screw action oil skimmer has since become the standard solution in Japanese factories thanks to its low maintenance costs and great efficiency – and now it's coming to Europe.

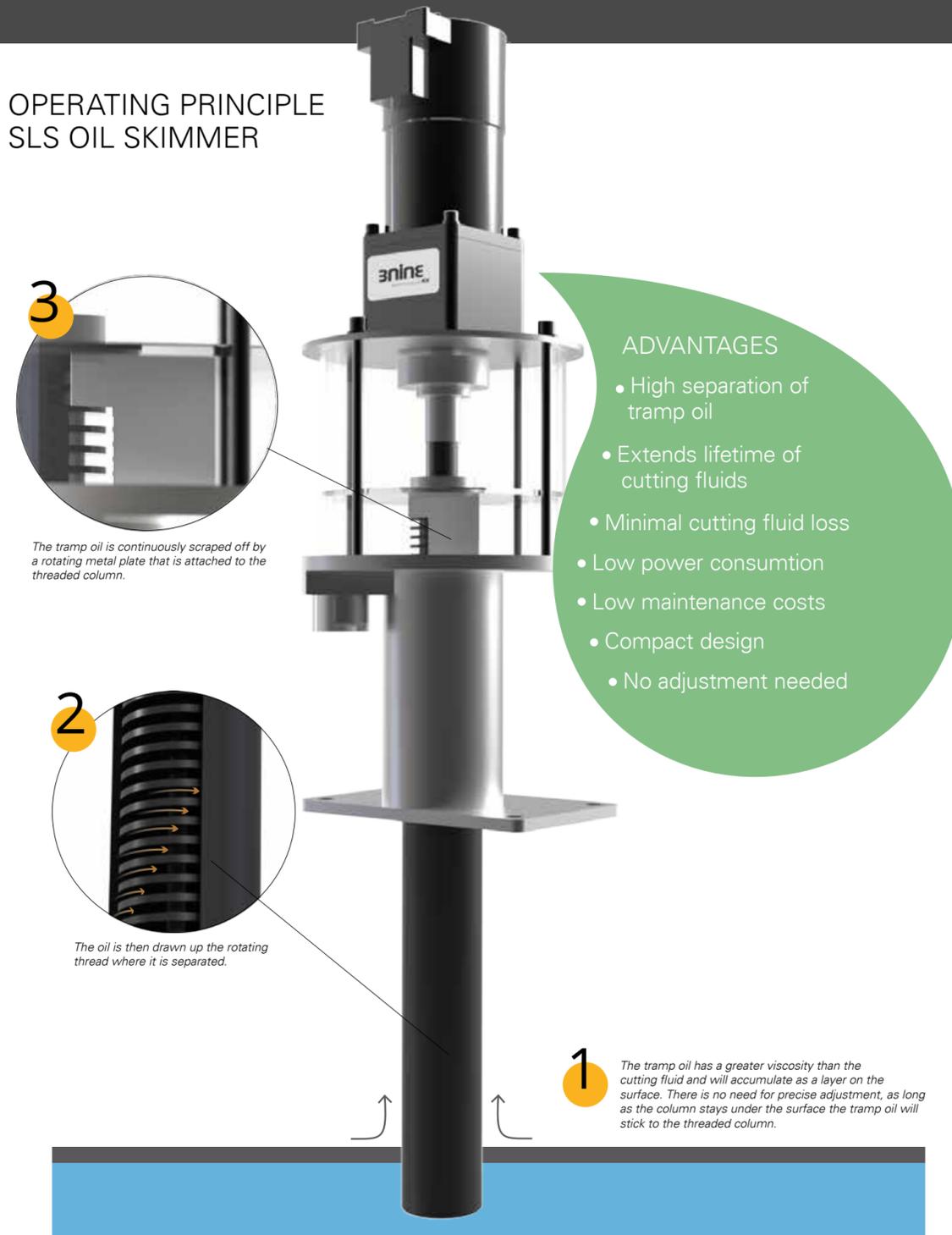
## HIGHLY EFFICIENT SEPARATION

Results from performance tests show that the screw action oil skimmer separates out more than twice as much oil than a traditional belt skimmer. While the screw action oil skimmer separated out 1.7 liters of tramp oil, the result for the belt skimmer is just 0.65 liters over the same time. Unlike other techniques such as the traditional belt skimmer, the screw action oil skimmer separates out practically all the tramp oil while removing scarcely any 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
- Extends lifetime of cutting fluids
- Minimal cutting fluid loss
- Low power consumption
- Low maintenance costs
- Compact design
- No adjustment needed

## LOW MAINTENANCE REQUIREMENT MEANS LOW OPERATING COSTS

The screw action oil skimmer has a very low maintenance requirement – just 0.5 to 1 hour/year (which includes emptying the tramp oil container). Compare this to a belt skimmer, with the sedimentation tanks having 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		0,5h/year

## SPACE-SAVING

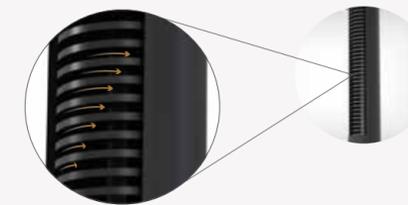
The screw action oil skimmer takes up very little space and is also very easy to install. Compared with a belt skimmer, it represents a saving of a little over 40% in floor space.

## 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.

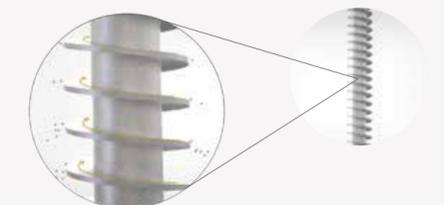
**SLS (Screw type skimmer ) for standard applications**

- High-viscosity oil is transported upwards by a rotating screw (850ml/h).
- Low-viscosity coolant flows downwards.



**MOS (Spiral type skimmer) for applications with many solid particles**

- The oil is transported by a spiral fixed to a rotating shaft (100ml/h).
- The solid particles fall down together with the low-viscosity cutting fluid.



# SPECIFICATIONS AND DIMENSIONS

Spiral type: MOS-  -   
 Screw type: SLS-  SB-   
 Depth (A):

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

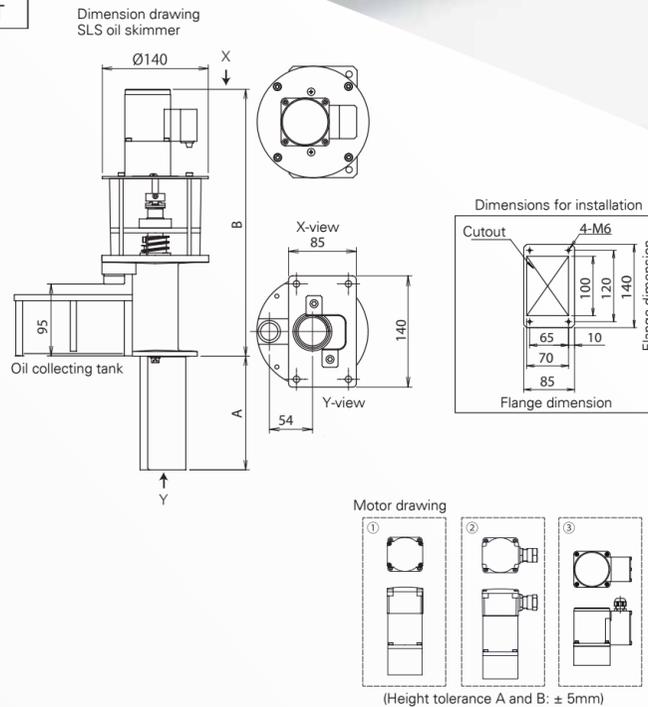
Motor:

Specification	Symbol
Induction motor, 3-phase, 200V with terminal box	BT
Induction motor, 3-phase, 380V/400V/415V with terminal box	HV
Induction motor, 1-phase, 220V/230V with terminal box	SP220V

Motor:

Specification	Symbol
Induction motor, 3-phase, 200V with terminal box	G3P-200V-BT
Induction motor, 3-phase, 380V/400V/415V with terminal box	G3P-380V
Induction motor, 1-phase, 220V/230V, with terminal box	G1P-220V

(All oil skimmers are delivered without a cable.)



Model	Dimension (mm)		Motor drawing	Weight (kg)	Capacity (ml/hr)
	A	B			
SLS-150SB-BT*	150	392	①	3.7	850**
SLS-150SB-SP220V*			②		
SLS-150SB-HV*			③		
SLS-200SB-BT	200	392	①	3.8	
SLS-200SB-SP220V			②		
SLS-200SB-HV			③		
SLS-300SB-BT	300	392	①	4.3	
SLS-300SB-SP220V			②		
SLS-300SB-HV			③		

Model	Dimension (mm)		Motor drawing	Weight (kg)	Capacity (ml/hr)
	A	B			
MOS-150-G3P-200V-BT*	150	390	①	4.0	100**
MOS-150-G1P-220V*			②		
MOS-150-G3P-380V*			③		
MOS-200-G3P-200V-BT	200	390	①	4.1	
MOS-200-G1P-220V			②		
MOS-200-G3P-380V			③		
MOS-300-G3P-200V-BT	300	390	①	4.2	
MOS-300-G1P-220V			②		
MOS-300-G3P-380V			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



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

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RIX, a Japanese corporation which has its head office in Fukuoka, is primarily active in the development of rotary joints and oil skimmers. In 2016, 3nine and RIX initiated a collaboration with the aim of selling oil skimmers in Europe under the joint name of 3nine RIX Oil Skimmer.