

### This is where it belongs to!

### Cooling Lubricant Hose System

Cool

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#### ARIANA Industrie GmbH

is market leader...

in the field of Cooling Lubricant Hose Systems with an extensive line accessories for the metal working industry.

ARIANA is accredited by DIN EN ISO 9001:2000.

#### **Research and Development**

Research and development are the first priorities for ARIANA.

A long lasting experience influences all our products. The development takes place in a practical, application-oriented way and is matched to the requirements of its customers.



Our technicians and application engineers are responsible for the optimal adaptability of the ARIANA-Cool-Line-Systems as well as for the implementation of special construction wishes.

#### Production

ARIANA disposes through participation in own workshops with latest machinery and production facilities. Flexibility offers short terms of delivery and a permanent control ensures our high norm of quality.



### Cool-Line-System 1/4"

IT = Insie thread ET = External thread ID = Inner diameter ED = External diameter NPT = Tapered screw thread NPS = Cylindric screw thread Our prices are quoted ex works Schallstadt, zero vated for VAT. See our general sales and payment conditions.

Order no. Description Image unit 0211000-1 Versatile Jointed Hose 1/4" length approx. 31 cm 2x10 Modules 0211010-1 Versatile Jointed Hose acid resitant 1/4" length approx. 31cm 2x10 Modules 0211025-1 Versatile Jointed Hoseoll 1/4" length approx. 25 m (no pic.) 1615 Modules 0211030-2 Fixing Clamp for 1/4" System 2 Pcs. Round Nozzle ID 1,6 mm, 1/4" 0211100-4 4 Pcs. 0211101-4 Round Nozzle ID 3.2 mm. 1/4" 4 Pcs. 0211102-4 Round Nozzle ID 6,4 mm, 1/4" 4 Pcs. 0211104-4 Angle Nozzle 90°, ID 1,6 mm, 1/4" 4 Pcs. 0211105-4 Angle Nozzle 90°, ID 3,2 mm, 1/4" 4 Pcs. 0211106-4 Angle Nozzle 90°, ID 6,4 mm, 1/4" 4 Pcs. 0211200-2 Flare Nozzle IB 27 mm wide, 1/4" 2 Pcs. 0211201-2 Flare Nozzle IB 32 mm wide, 1/4" 2 Pcs. 0211202-2 Flare Nozzle 16 hole, 1/4", ID 1 mm 2 Pcs. 0211206-2 Flare Nozzle 16 hole, 1/4", ID 1,5 mm 2 Pcs. 0211207-2 Flare Nozzle 16 hole, 1/4", ID 2,0 mm 2 Pcs. 0211203-2 Flare Nozzle 6 hole, 90°, 1/4" 2 Pcs. Y-Fitting 1/4" 2 Pcs. 0211300-2 0211310-2 Y-Fitting acid resistant 1/4" 0211414-1 Ring Jet System 1/4" 1 Pcs. (16 modules) incl. end piece Control Valve for Versatile Jointed Hose 1/4" 0211600-2 2 Pcs. Conrol Valve acid resistant for Versatile Jointed Hose 1/4" 2 Pcs. 0211610-2 0211601-2 Control Valve ET 1/4" 2 Pcs. 0211611-2 Conrol Valve acid resistant ET 1/4" 2 Pcs. 0211602-2 Control Valve IG 1/4" 2 Pcs. 0211612-2 Control Valve acid resistant IG 1/4" 2 Pcs. 0211603-2 Control Valve for Versatile Jointed Hose, NPS ET 1/4" 2 Pcs. 0211700-4 Connector NPT 1/8" 4 Pcs. Connector acid resistant NPT 1/8" 4 Pcs. 0211710-4 4 Pcs. 0211701-4 Connector 1/4" 0211705-4 Double nipple ET 1/4" . 1.8" 4 Pcs. 4 Pcs. 0211706-4 Sleeve 1/4 Sheathing IG 1/4" 0211713-4 4 Pcs. 0211702-2 Special Connector NPT 1/8" 2 Pcs. 0211703-2 Special Connector NPT 1/4" 2 Pcs. Adapter for Versatile Jointed Hose IG 1/8" 0211704-4 4 Pcs. 4 Pcs. 0211712-4 Adapter acid resistant for Versatile Jointed Hose IG 1/8" 0212200-2 Elbow Fitting 90°, 1/4" 2 Pcs. T-Fitting 1/4 0212300-2 2 Pcs.



### Cool-Line-System 1/4"

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Order no. Description unit Image 0212400-1 1 Pcs. Modular Manifold Brackets for T-Fitting 1/4" 0212500-1 Magnetic Base 1 Pcs. Metal Ball Valve and Hose Barb Connector 1/4" 0212501-1 Mono Block Distribution Device 1 Pcs. 4 outlets 1/4" and IG 3/8" 0212502-2 FConnection AG 1/4" und 2 IG 3/8" 2 Pcs. 0212503-2 Metal Ball Valve IG und AG 1/4" 2 Pcs. 0212504-2 Threaded Double Nipple 2 AG 1/4" 2 Pcs. 0212505-2 Hose Barb Connector 1/4" for 13mm hose 2 St 0212506-2 Metal Reducer AG 1/4", IG 1/8" 2 Pcs. 0212507-2 Hexagonal Closing Cap 1/8" 2 Pcs. 0212508-2 Hexagonal Closing Cap 1/4" 2 Pcs. 0212509-2 Magnetic Clamp round, OD 63 mm, ID 18 mm 2 Pcs. 0212510-2 Non-Return Valve 1/4" 2 Pcs. 0212605-2 Extension Pipe rigid-PVC, 95 mm lg., 1/4" 2 Pcs. 0218000-1 Hose Assembling Pliers 1/4" system 1 Pcs. 0219000-1 Versatile Jointed Hose Set 1/4" 1 Set with Versatile Jointed Hose [2x 10 modules], Round Nozzles ID 1,6 / 3,2 / 6,4 mm, Flare Nozzle 24 mm breit, Connectors NPT 1/8" / 1/4" Magnetic Base 1/4" 0219029-1 1 Set with Versatile Jointed Hose Set [16 modules], Round Nozzle ID 6,4 mm, Connector NPT 1/4", Metal Ball Valve IG-AG 1/4", Magnetic Base 2 IG 90°, Hose Barb Connector for 13 mm Magnetic Base 1/4" mit Gelenkschlauch-Set 0219031-1 1 Set Flare Nozzle (2 pcs., IB 24 mm wide), Y-Fitting, Connector NPT 1/4", Metal Ball Valve IG-AG 1/4", Magnetic Base 2 IG 90°, Hose Barb Connector for 13 mm hose



### Cool-Line-System 3/8

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Image	Order no.	Description	unit
	0221000-1 0221015-1	Versatile Jointed Hose 3/8" length approx. 30 cm Versatile Jointed Hoseroll 3/8" length approx. (without picture)	2x 8 Module 802 Module
	0221100-4 0221101-4 0221102-4	Round Nozzle ID 6,4 mm, 3/8" Round Nozzle ID 9,5 mm, 3/8" Round Nozzle ID 12,7 mm, 3/8"	4 Pcs. 4 Pcs. 4 Pcs.
	0221200-2	Flare Nozzle 32 mm wide, 3/8"	2 Pcs.
	0221601-2 0221602-2	Control Valve NPT AG 3/8" Control Valve IG 3/8"	2 Pcs. 2 Pcs.
	0221700-4 0221701-4	Connector NPS 3/8" Connector NPS 1/2"	4 Pcs. 4 Pcs.
	0222501-1	Mono Block Distribution Device 4 outlets 3/8" and IG 1/2"	1 Pcs.
	0222502-2	FConnection AG 3/8" and 2 IG 3/8"	2 St
	0222503-2	Metal Ball Valve IG and AG 3/8"	2 Pcs.
	0222504-2	Threaded Double Nipple 2 AG 3/8"	2 Pcs.
	0222505-2	Hose Barb Connector 3/8" for 13mm hose	2 Pcs.
	0222504-2	Hose Barb Connector 3/8"	2 Pcs.
	0222508-2	Hexagonal Closing Cap round AD 63 mm, ID 18 mm	2 Pcs.
	0222509-2	Non-Return Valve 3/8"	2 Pcs.
Co Aland	0228000-1	Hose Assembling Pliers 3/8" system	1 Pcs.
	0229000-1	Versatile Jointed Hose Set 3/8" Versatile Jointed Hose ( 2x 8 module ) Flare Nozzle 32 mm wide Connectors NPS 3/8" / 1/2"	1 Set
	0229030-1	Magnetic Base 3/8" with Versatile Jointed Hose-Set (16 modules) Round Nozzles ID 6,4 mm, Connector 3/8" Metal Ball Valve IG-AG 3/8", magnetic Base 2 IG 3/8" Hose Barb Connector 3/8" for 13 mm hose	1 Set





### Cool-Line-System 1/2"

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Image	Order no.	Description	unit
	0231000-1 0231001-1 0231010-1 0231015-1	Versatile Jointed Hose 1/2" length approx. 29 cm Versatile Jointed Hose extrem fest 1/2" c 28 cm Versatile Jointed Hose acid resistant 1/2" Versatile Jointed Hoseroll 1/2" length approx. 15 m	2 x 5 Module 2 x 6 Module 2 x 5 Module 518 Module
	0231030-2	Fixing Clamp for 1/2" system	2 Pcs.
	0231100-4 023111000-4 0231101-4 023111001-4 0231102-4 02311002-4	Round Nozzle ID 6,4 mm, 1/2" Round Nozzle acid resistant ID 6,4 mm, 1/2" Round Nozzle ID 9,5 mm, 1/2" Round Nozzle acid resistant ID 9,5 mm, 1/2" Round Nozzle ID 12,7 mm, 1/2" Round Nozzle acid resistant ID 12,7 mm, 1/2"	4 Pcs. 4 Pcs. 4 Pcs. 4 Pcs. 4 Pcs. 4 Pcs. 4 Pcs.
	0231104-4 0231105-4 0231106-4	Angle Nozzle 90° ID 6,4 mm Angle Nozzle 90° ID 9,5 mm Angle Nozzle 90° ID 12,7 mm	4 Pcs. 4 Pcs. 4 Pcs.
	0231200-2 0231201-2	Flare Nozzle IB 35 mm wide, 1/2" Flare Nozzle IB 50 mm wide, 1/2"	2 Pcs. 2 Pcs.
	0231202-2 0231203-2	Flare Nozzle IB 63 mm wiede 1/2" Flare Nozzle 8 holes 90°, 1/2"	2 Pcs. 2 Pcs.
<b>K</b>	0231300-2	Y-Fitting 1/2"	2 Pcs.
	0231414-1	Ring Jet System (16 modules ) incl. end piece 1/2"	1 Pcs.
	0231600-2 0231610-2	Control Valve for Versatile Jointed Hose 1/2" Control Valve acid resistant for Versatile Jointed Hose 1/2"	2 Pcs. 2 Pcs.
	0231601-2 0231611-2 0231602-2 0231612-2	Control Valve NPT AG 1/2" Control Valve acid resistant NPT AG 1/2" Control Valve acid resistant NPT AG 1/2" Control Valve acid resistant IG 1/2"	2 Pcs. 2 Pcs. 2 Pcs. 2 Pcs. 2 Pcs.
	0231700-4 023171000-4 0231701-4 023171001-4	Connector NPT 3/8" Connector acid resistant NPT 3/8" Connector NPT 1/2" Connector acid resistant NPT 1/2"	4 Pcs. 4 Pcs. 4 Pcs. 4 Pcs. 4 Pcs.
	0231702-2 0231703-2	Connector NPT 1/2" Connector acid resistant NPT 1/2"	2 Pcs. 2 Pcs.
	0231704-2	Sleeve1/2"	2 Pcs.
	0231707-4	Adapter Versatile Jointed Hose IG 1/2"	4 Pcs.
	0231713-4	Sheathing IG 1/2"	4 Pcs.
	0231900-2 0232000-2	Reducer 1/2" to 1/4" Y-Reducer1/2" to 2x 1/4"	2 Pcs. 2 Pcs.



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Order no. Description Image unit Ebow Fitting 90°, 1/2" 2 Pcs. 0232200-2 T-Fitter 1/2" 0232300-2 0232400-1 Modular Manifold Brackets for T-Fitting 1/2" 1 Pcs. 0232501-1 Mono Block Distribution Device 1 Pcs. 4 outlets 1/2" und IG 3/4" FConnection AG 1/2" and 2 IG 1/2" 0232502-2 2 Pcs. Metal Ball Value IG and AG 1/2" 0232503-2 2 Pcs. 0232504-2 Threaded Double Nippel 2 AG 1/2" 2 Pcs. Horse Barb Connector for 19 mm hose 0232505-2 2 Pcs. 0232506-2 Metal Reducer AG 1/2", IG 3/8" 2 Pcs. Hexagonal Closing Cap 1/2" 0232507-2 2 Pcs. 0232508-2 Magnetic Base round ED 63 mm, ID 18 mm 2 Pcs. 0232509-2 Non Return Valve 1/2" 2 Pcs. Non Return Valve 1/2" 0232510-2 2 Pcs. 0232605-2 Check Valve 2 Pcs. 0238000-1 Hose Assembling Pliers 1/2" system 1 Pcs. 0239000-1 1 Set Versatile Jointed Hose Set 1/2" (2x 5 modules) Round Nozzles ID 6,4 / 9,5 / 12,7 mm Flare Nozzles 32 mm wide Connectors NPT 3/8" / 1/2"





#### Cool-Line-System 3/4"

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Image	Order no.	Description	unit
	0241000-1	Versatile Jointed Hose 3/4" length approx. 29,5 cm	2 x 5 Module
	0241015-1	Versatile Jointed Hoseroll 3/4"	509 Module
		length approx. 15 m ( without picture )	
* *	0241100-4	Round Nozzle ID 16 mm, 3/4"	4 Pcs.
	0241101-4	Round Nozzle ID 19 mm, 3/4"	4 St
	0241200-2	Flare Nozzle 75 mm wide, 3/4"	2 Pcs.
	0241200-2		2103.
- X			
	0241300-2	Y-Fitting 3/4"	2 Pcs.
	0241700-4	Connector NPS 3/4"	4 Pcs.
	0200		
	0044000.0	Reducer 3/4" to 1/2"	2 Pcs.
	0241900-2	Reducer 3/4 to 1/2	2 PCS.
	0242507-2	Threaded end cap 3/4"	2 Pcs.
	0242512-1	Metal ball valve 3/4"	1 Pcs.
	0242512-1		TPCS.
	0248000-1		1 Pcs.
ALAN	0240000-1	Hose Assembling Pliers 3/4" system	1 PCS.
	0249000-1	Versatile Jointed Hose Set 3/4"	2 Pcs.
	0249000-1	Versatile Jointed Hose Set 3/4 Versatile Jointed Hose (2x 5 modules)	2 F 03.
000000		Round Nozzles ID 16 / 19 mm	
		Flare Nozzles 75 mm wide Connector NPS 3/4"	
	0259000-1	Display	1 Pcs.
	0259000-1	Display	1 FCS.
RCD20			
	0271000-1	protective shield (complete), 300 x 220mm	1 Pcs.
<b></b>	0271001-1	protective shield (complete), 250 x 200mm	1 Pcs.
1	0271002-1	protective shield (complete), 200 x 150mm	1 Pcs.
1			
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SNAPLOC

ARIANA

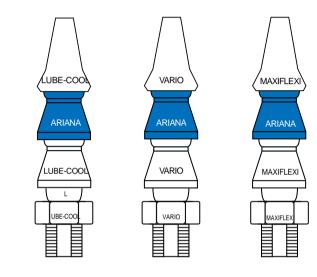
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## **Comparison of compatibility**





# The system with substanial advantages

ARIANA-Cool-Line is the only product on the market, which is compatible without adapter to 80% of all conventional available systems.

ARIANA-Cool-Line selling line is the most complete system on the market. ARIANA Cool-Line products are made of a high quality resin Hostaform<sup>®</sup> and are therefore more resistant than current products.

ARIANA-Cool-Line offers the advantage that its modules snap in closer. This effects a withstanding under higher pressure load and ensures a directional stability of the fluid jet.







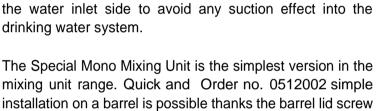
## **Special Mono Mixing Unit**

A mixing unit is essential for mixing emulsions and grinding solutions. By means of a needle valve, the ARIANA Special Mono Mixing Unit allows for fast and precise adjustment of the emulsion concentration of liquid coolants and lubricants. In this way, it is possible to mix liquids using optimum concentrations.



Order no. 0512002

Special Mono Mixing Unit with barrel lid screw connection



The Special Mono Mixing Unit has one water inlet and one concentrate inlet. Once the optimum mixing ratio has been determined, the user can always rely on this ratio being the case. Of course, it is possible to change the mixing ratio at any time. For safety reasons, a return valve is installed on

installation on a barrel is possible thanks the barrel lid screw connection set. The unit is compact and extremely easy to handle.



Water inlet	1/2"
Concentrate inlet	3/8"
Mixed liquid outlet	1/2"
Mixing volume (approx.) l/h	270





### **Mono Mixing Unit**



A mixing unit is essential for mixing emulsions and grinding solutions. By means of a needle valve, the ARIANA Mono Mixing Unit allows for fast and precise adjustment of the emulsion concentration of liquid coolants and lubricants. In this way, it is possible to mix liquids using optimum concentrations.

The Mono Mixing Unit has one water inlet and one concentrate inlet. Once the optimum mixing ratio has been determined, the user can always rely on this ratio being the case. Of course, it is possible to change the mixing ratio at any time. For safety reasons, a return valve is installed on the water inlet side to prevent any suctioning into the potable water system.

#### Order no. 0512000

The Mono Mixing Unit is the simplest version in the mixing unit range. Quick and simple installation at a barrel is possible thanks to the barrel lid screw connection set. The unit is compact and extremely easy to handle.



1/2'
1/2'
3/8'
350





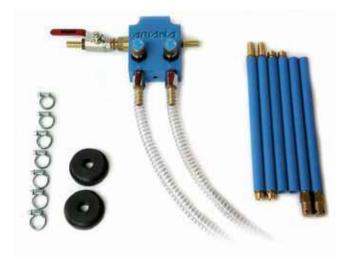
### **Duo Mixing Unit**



A mixing unit is essential for mixing emulsions and grinding solutions. By means of two needle valves, the ARIANA Duo Mixing Unit permits fast and precise adjustment of the emulsion concentration of liquid coolants and lubricants. In this way, it is possible to produce liquids using optimum concentrations.

The Duo Mixing Unit has one water inlet and two concentrate inlets. Once the optimum mixing ratio has been determined, the user can always rely on this ratio being the case. Of course, it is possible to change the mixing ratio at any time. For safety reasons, a return valve is installed on the water inlet side to prevent any suctioning into the potable water system.

Unlike the Mono Mixing Unit, the Duo Mixing Unit has two concentrate inlets. This makes it possible to mix two different concentrates without having to reposition the mixing unit.



Water inlet	1/2"
Mixed liquid outlet	1/2"
Concentrate inlet	3/8"
Mixing volume (approx.) I/h	350





### **Piston Mixer**

A mixing unit is essential for mixing emulsions and grinding solutions. The recently developed ARIANA Piston Mixer is powered by water pressure; which causes the concentrate to be suctioned.



It is possible to set the required emulsion concentration of the liquid coolant and lubricant by means of the dosing screw. These liquids can thus be mixed using optimum concentrations. Once the optimum mixing ratio has been determined, the user can always rely on this ratio being the case. Of course, it is possible to change the mixing ratio at any time.

The Piston Mixer has one water inlet, one concentrate inlet and an outlet hose for the mixed emulsion or grinding solution. This hose can be extended indefinitely without resulting in a vacuum in the system.

The mixer is mounted using a wall bracket. The mixer is extremely handy and compact.

Order no. 0514005	Mixing volume (approx.) l/h 600
Order no. 0514001	Mixing volume (approx.) l/h 2.000
Order no. 0514002	Mixing volume (approx.) l/h 10.000

Tec	hnical	data

Water inlet	1/2"
Concentrate inlet	3/8"
Mixed liquid outlet	1/2"



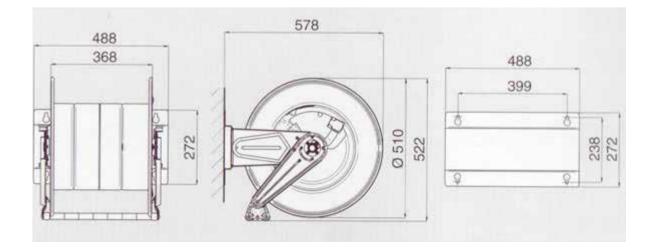


### **Hose Reel System with Hose Nozzle**



- Ideal accessory for the ARIANA piston mixer
- Rugged steel sheet design
- Holder for wall mounting, ceiling or floor
- High quality drive springs for long service life
- Automatic catch
- Rubber limit stop for individual adjustment of hose length off the reel
- Due to automatic hose nozzle it is quite easy to refuel vehicles or machines
- Hose nozzle features an automatic switch off system
- Pump performance from 90 l/min up to 20 bars possible
- A pivot joint with 1 inch female thread gives the nozzle more flexibility

#### Order no. 0555000







### **Band Skimmer**

Leak oils foster development of bacteria, contribute to deposits on machinery and work pieces, generate oil Mist and reduce cooling performance as well as oxygen intake of emulsions. The results are the following Consequences: increased disposal costs, corrosion, bacterial contamination, odor nuisance, lower cooling Effect, skin problems, etc.

ARIANA's- band skimmer is the solution to remove tramp oil floating at the surface of emulsions. Due to using a self-cleaning, oil-transporting special band leaking oils will be removed from the surface and skimmed. Neither filters nor micro porous membranes will be required. This fact contributes to cut down on operational expenses and follow-up costs. The band skimmer disposes of an oil separating device which guarantees to filter out tramp oils up to 90%.



ARIANA's band skimmer will be fixed above the liquid storage container by means of a magnetic disk preferably opposite to the entrance of the liquid. The base plate of the driving unit has to be fixed approximately 300 mm above the highest liquid level. The outflow hose will be connected to the outlet neck which guides tramp oils into a dirt oil container.

ARIANA's band skimmer may be operated continuously and controlled by means of a time switch. We recommend to use the band skimmer while tooling machines operate. The band will pass through floating tramp oil separating it from the emulsion. Within the band skimmer the tramp oil will be skimmed and directed into a dirt oil container standing close to the tooling machine.

#### Order no. 0541022.2

Technical data			
Weight	kg	4.5	
Capacity (approx.)	l/h	3	
Band width	mm	50	





### **Hose Skimmer**

Leak oils promote bacterial growth, form deposits on machine tools and work pieces, cause oil mist and reduce cooling capacity as well as the oxygen absorption of the emulsion. The consequences: higher costs for waste disposal, corrosion, bacterial contamination, unpleasant odours, poor cooling effect, skin problems, etc.

The ARIANA Hose Skimmer provides a solution by removing the oil that collects on the surface of the emulsion.

The leak oil is removed from the surface and sloughed off in the unit by means of special self-cleaning, oil-conveying hoses. There is no need for filters or microporous membranes. This results in lower operating and follow-up costs. The hose skimmer has an oil separating unit and ensures that up to 90% of tramp oil is removed.



The hose skimmer is attached above the basin by means of a magnetic plate, ideally on the side opposite the liquid inlet. The base plate of the drive unit must be positioned about 300 mm above the maximum level of the liquid. The hose

is positioned at the outlet support and fed into a sedimentation basin.

The hose skimmer can be used for continuous operation or controlled by means of a timer. Use of the unit during operation

of the tool machine is recommended.

The hose moves through the floating oil film and separates it from the liquid. The oil is sloughed off in the unit and flows into a collecting tank outside the machine.

Electric connection with level switch	V	230
Weight	kg	3
Hose diameter	mm	10
Capacity (approx.)	l/h	5





### **Bandskimmer**

Leaking oil fosters development of bacteria, allows sediment on machines and work pieces, leads to Oil mist development and reduces cooling performance and oxygen absorption of the emulsion. The Consequences are: increased disposal costs, corrosion, bacterial contamination, odor nuisance, poorer cooling effect, skin problems etc.

**The ARIANA- Bandskimmer** provides the solution to remove oil sediment on the surface of the Emulsion. Due to using a self cleaning, oil transporting special band the leaking oil will be removed from the surface and skimmed in the device. Neither filters nor micro porous membranes are required. Thus operating expenses and follow-up costs will be reduced. The Bandskimmer features oil separating facilities and guarantees a separation of foreign parts by up to 90%.



Order no 0541022

**The Bandskimmer** is fixed above the liquid tank by means of a magnetic disk, preferably on the opposite side of the liquid inlet. The base plate of the drive unit must be attached about 300 mm above the highest liquid level. The hose is connected to the outlet neck and guided to the sediment basin.

**The Bandskimmer** can be operated both permanently and also controlled by means of a time switch. It is recommended to use the device during operation of machine tools. The band moves through the floating oil film and separates it from the liquid. In the device the oil will be skimmed and flows into a collection tank outside the machine.

- Electrical connection with level switch 230V
- Weight 4,5kg
- Band width 25mm
- Power approx. 3l/h





## **Ariana Cooling lubricants aerator**

The lubricant aerator ensures a high quality coolant by the entry of atmospheric oxygen.

By the supply of oxygen and the rising air bubbles a circulation of the cooling lubricant emulsion is produced, and the impurities such as foreign oils and suspended particles can be removed from the surface, to reduce the risk of bacterial contamination.

A belt skimmer or a maintenance system R-2000 / R-3000 can here be used to separate and remove the impurities. Because of its easy installation and operation, and through a timer, the KSS emulsion aerator can be used quickly and appropriately. This way, you get a powerful coolant with a long life.

#### Ariana KSS-cooling lubricants aerators in 4 types:

#### Order no. 0541010.1 KSS aerator up to 150 liters Container



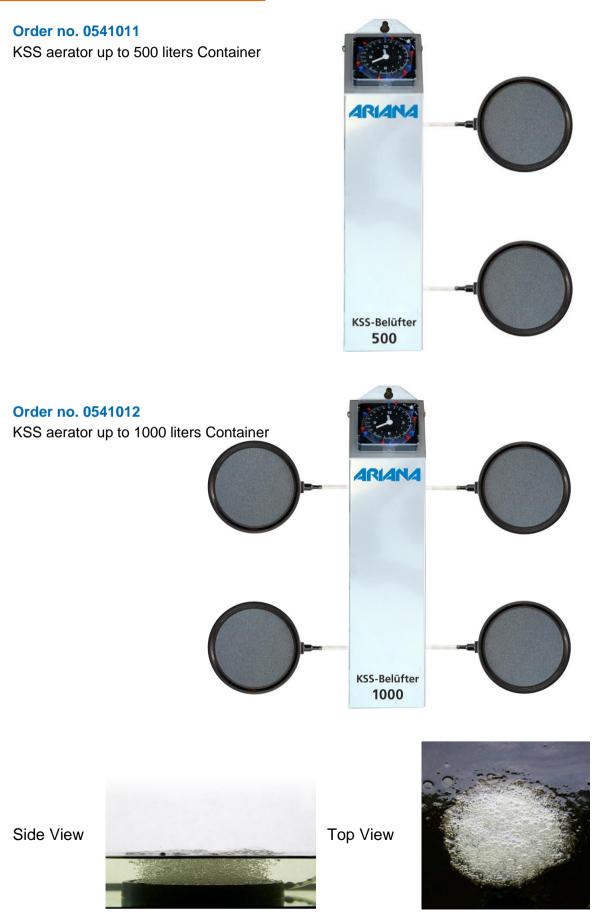
#### Order no. 0541010

KSS aerator up to 350 liters Container













### **Liquid level indicator**



Order no. 0513501

Liquid level indicator: usable for commercial 60 I and 210 I barrels. Suitable for non corrosive liquids, such as cooling/lubrication concentrates, emulsions, oils, anti freeze, heating oil etc. and liquid media.

Ideally usable for more transparency when handling the barrel. The float is located inside the barrel on the liquid and indicates the barrel content permanently on the volume scale.

Since the Liquid level indicator is mounted on the  $3/4^{\circ}$  opening you can put a pump on the  $2^{\circ}$ - bunghole at the same time, in order to allow pumping out the defined quantity





### **R-1000 Maintenance Station for Cooling Lubricants**

#### Article no. 0541130

Contamination of cooling lubricants by tramp oils and solid particles during the production process is inevitable. The **ARIANA R-1000 Maintenance Station** provides optimum cleaning and maintenance of emulsions or solutions during production. This considerably prolongs the working life of lubricants and tools and reduces disposal costs to a minimum.

#### Areas of use

- Lathes
- Milling machines
   Parts washers
- Quenching tanks

#### **Advantages**

- Removes tramp oils
- Works automatically without an operator using the bypass principle
- Stops the formation of odors and the risk of infection
- Prolongs the working life of lubricants and tools

Grinding machines

Reduces disposal costs

#### Application

Cooling lubricants in wet-cutting machines are subject to serious contamination. Externally supplied

Hydraulic oils, bed way oils and grease collect on the surface of the emulsion and, in high concentrations, prevent the vital exchange of oxygen. Combined with floating and deposited solids, this then provides the ideal breeding ground for bacteria and fungi which cause the cooling lubricant to deteriorate. Constant maintenance with the regular removal of these contaminants considerably extends the working life of the cooling lubricant and reduces disposal costs.

#### How it works

The **ARIANA R-1000 maintenance stations** suctions off a mixture of oils and solid particles from the surface of the emulsion. This mixture is separated in the maintenance station, the cleaned emulsion is passed back into the machine tool and the separated oil is passed to a separate disposal container. The emulsion and oils are separated purely physically so gently that the emulsion is not damaged by spinning, etc. 97% of tramp oils which float up and swirl around are removed. The emulsion is cleaned without the need for an operator while the machine tool is working. There are no down times.

#### **Technical data**

Size: 270 mm wide, 440 mm high, 152 mm deep Weight: 15 kg Material: V2a quality 1.4301 Pump: Impeller pump Flow: 80 – 350 l/h, adjustable Voltage: 230V / 50 Hz







ARIANA Industrie GmbH

### Maintenance Station R-2000 for Cooling Lubricants

#### Order No. 0541020

Cooling lubricants inevitably become contaminated with tramp oils and particulate matter during the production process.

The ARIANA Maintenance Station R-2000 makes it possible to clean and maintain emulsions or solutions during the production process. This greatly prolongs the service life and minimizes disposal costs.

#### **Application areas**

- Lathes
- Milling machines
- Grinding machines
- Parts washers
- Quenching boxes





- · Removes tramp oils and particulate matter simultaneously
- Works automatically without an operator using the bypass principle
- Prevents unpleasant odors and risk of infection
- · Increases the service life of lubricants and tools
- Reduced disposal costs





#### Application

Cooling lubricants in wet-cutting machines are subject to high levels of contamination. Hydraulic oil, bed way oil and grease collect on the surface of the emulsion and, in high concentrations, prevent the necessary ex-change of oxygen.

In connection with floating and deposited particulate matter, this provides an ideal breeding ground for bacteria and fungi, which degrade the cooling lubricant.

Ongoing maintenance with removal of these contaminants at regular intervals considerably prolongs the service life of the cooling lubricant and lowers disposal costs.

#### How it works

The ARIANA Maintenance Station R-2000 suctions off a mixture of oils and particulate matter from the surface of the emulsion.

This mixture is separated in the maintenance station, the cleaned emulsion is conducted back into the machine tool and the separated oil is collected in a separate disposal container.

The process of separating the emulsion and oil is purely physical and is so gentle that the emulsion is not negatively affected, e.g. as it would be a result of spinning. 97% of floating trash oil and trash oil subjected to turbulence is removed.

The emulsion is cleaned without the presence of an operator and without interrupting operation of the machine tool. No down time occurs.

#### **Technical features**

Eccentric worm pump Electric motor Made of stainless steel material with powder coating All hose connections with fast-action single-hand connectors Station is completely assembled and ready for use, complete with accessories

Technical data			
Motor capacity	kWh	0.37	
Voltage	V	230	
Flow rate	l/h	350	
Dimensions	mm	860 x 830 x 440 (H x L x W)	
Weight empty	kg	65	
Temperature of liquid	°Č	40 (max.)	
Filter fineness	(standard)	100 µ	





### Maintenance Station R-3000 for Cooling Lubricants

#### Ordern no. 0541000

Cooling lubricants inevitably become contaminated with tramp oil and particulate material during the production process.

The ARIANA Maintenance Station R-3000 makes it possible to clean and maintain emulsions or solutions during the production process. This greatly prolongs the service life and minimizes disposal costs.

#### **Application areas**

- Lathes
- Milling machines
- · Grinding machines
- Parts washers
- Quenching boxes





#### **Advantages**

- · Removes tramp oil and particulate matter simultaneously
- · Works automatically without an operator using the bypass principle
- Prevents unpleasant odors and risk of infection
- · Increases the service life of lubricants and tools
- Reduced disposal costs





#### Application

Cooling lubricants in wet-cutting machines are subject to high levels of contamination. Hydraulic oil, bedway oil and grease collect on the surface of the emulsion and, in high concentrations, prevent the necessary exchange of oxygen.

In connection with floating and deposited particulate matter, this provides an ideal breeding ground for bacteria and fungi, which degrade the cooling lubricant.

Ongoing maintenance with removal of these contaminants at regular intervals considerably prolongs the service life of the cooling lubricant and lowers disposal costs.

#### How it works

The ARIANA Maintenance Station R-3000 suctions off a mixture of oils and particulate matter from the surface of the emulsion.

This mixture is separated in the maintenance station, the cleaned emulsion is conducted back into the machine tool and the separated oil is collected in a separate disposal container.

The process of separating the emulsion and oil is purely physical and is so gentle that the emulsion is not negatively affected, e.g. as it would be a result of spinning. 97% of floating trash oil and trash oil subjected to turbulence is removed.

The emulsion is cleaned without the presence of an operator and without interrupting operation of the machine tool. No down time occurs.

#### **Technical features**

Eccentric worm pump Electric motor Made of stainless steel material with powder coating All hose connections with fast-action single-hand connectors Station is completely assembled and ready for use, complete with accessories

Technical data		
Motor capacity	kWh	0.37
Voltage	V	230
Flow rate	l/h	550
Dimensions	mm	860 x 1200 x 470 (H x L x W)
Weight empty	kg	86
Temperature of liquid	°C	40 (max.)
Filter fineness	(standard)	100µ





### **Magnetic Filter for Maintenance Machines**



#### Order No. 0541219

The ARIANA Magnetic Filter serves as add-on kit for our maintenance stations for cooling lubricants R-2000 und R-3000 as well as for other devices.

Contaminated fluid enters the inlet port where it is equally dispersed by the unique tapered radial flow channels. Fluid then passes down the outside of the centrally mounted magnetic core where contamination particles are attracted.

The geometry of the magnetic flux circuit ensures a controlled build up of the contamination. As a result the filter never blocks.

#### **Benefits:**

- Submicron filtration
- Suitable to retrofit ARIANA's R-2000 and R-3000 already in operation
- Easy and quick cleaning
- High intensity magnetic core
- Excellent filtration efficiency

#### **Cleaning:**

The magnetic filter can be cleaned within 30 seconds with the help of the included cleaning tool







### **Cleaning System - Oil Filter Unit**



Order no. 0541030

The ARIANA oil filter unit filters hydraulic oil (at operating viscosities of up to 250 mm<sup>2</sup>/s) and cleans up contamination resulting from particulate matter or silting.

#### Usage and application areas

Intermittent cleaning of hydraulic oils in order to meet target category purity levels. Prevention of dirt from entering when system is filled.

#### Advantages

- Prolongs oil service life
- Reduces disposal costs
- Protects machine components

#### Technical data

Electro motor with gerotor pump motor capacity Capacity Operating pressure Filter fineness Contamination indicator 230 V 50 Hz up to 16 l/min up to 4 bar 3, 5, 12  $\mu$  pressure gauge





### Hot & Cold Gun



Order no. 0331000

The ARIANA Hot & Cold Gun uses compressed air for point-specific heating or cooling of metal and plastic parts at tool machines and features dual functionality: it generates hot as well as cold air. Hot air is used for fast drying and heat treating. Cold air is mainly used in applications in which lubricants and coolants are not recommended. The Hot & Cold Gun is also widely used in laboratories.

The performance of the Hot & Cold Gun varies depending on the humidity of the supplied compressed air: at a pressure 8 bar with relatively dry air (e.g. at +10°C) it is possible to cool supplied air down to -30°C and heat it up to +60°C.

The accessories for the Hot & Cold Gun include the flexible ARIANA Cool Line System.





### **Cold Air Nozzle**



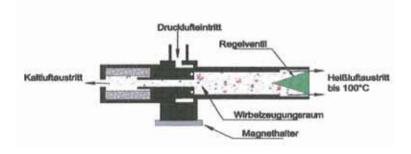
#### Order no. 0331001

The ARIANA-Cold Air Nozzle is used for cooling locations of metal and plastic parts on machine tools and features a double function: it generates both hot and also cold air. The cold air is primarily used at locations where no lubricants and cooling liquids are wanted. The Ariana cold air nozzle is also widely used in laboratories.

The ARIANA-Cold Air Nozzle is connected to compressed air supplies or operated with compressed air (3-8 bars), respectively. Mode of operation is based on the principle of a vortex tube, in which two opposite rotating air flows will be generated. At the blue component output of the internal flow as usable cold air (up to - 25°C) takes place; at the red component output of the hot air (up to 100°C) takes place. The needle valve allows adjustment of volume flow and portion of cold air.

Accessories for the Ariana cold air nozzle include the flexible ARIANA-Cool-Line-System and also a magnet plate, ball cock, grommet for quick coupling and also a sound absorber.

#### Functional diagram







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### **Power Vac Pump**



The ARIANA Power Vac Pump is a dual-acting suction and pressure pump that uses compressed air. It is mainly used for filling and emptying lubricant and coolant tanks. The pump was designed for fast and trouble-free installation at standard barrels. It is screwed into the bunghole of the barrel and connected to the compressed air supply. A feed hose is attached at the other barrel opening.

The Power Vac Pump requires compressed air at approx. 8 bar. This makes it possible to fill or empty at approx. 60 l/min. An automatic closing valve serves as an inlet/outlet control and thus prevents overflows.

The Power Vac Pump generates a vacuum in the tank, as a result of which it is possible to suction used coolants, mud, metal residues, etc. out of machine tanks as well as excess liquids out of chemical tanks.

By simply turning a knob, the operator can reverse the function and generate overpressure in the tank, as a result of which it is possible to pump lubricants and coolants as well as liquid chemicals into the machine. The Power Vac Pump can also be used in explosion-protected areas.

Ordner no. 0321000

The following accessories are included with the Power Vac Pump:

- Ascending pipe
- Threaded barrel connector 2"
- Fast-action connector
- Feed hose 3 m.
- Suction pipe





Order no. 0389001





### **Micro-System**



The ARIANA Micro System for minimum quantity lubrication uses a coaxial spray nozzle to produce a round spray with spraying angle. It is possible to produce different spray cones for many application areas by rotating the cap.

The coaxial spray nozzle is operated pneumatically and is supplied with the medium by means of a separate, unpressurized tank.

The spray nozzle has been adapted for hard to access applications with the ARIANA Cool Line System.

Many different liquid products can be sprayed thanks to the system's special jet technology, from water-miscible cooling lubricants to viscous cutting and drawing oils.

Order no. 0551000

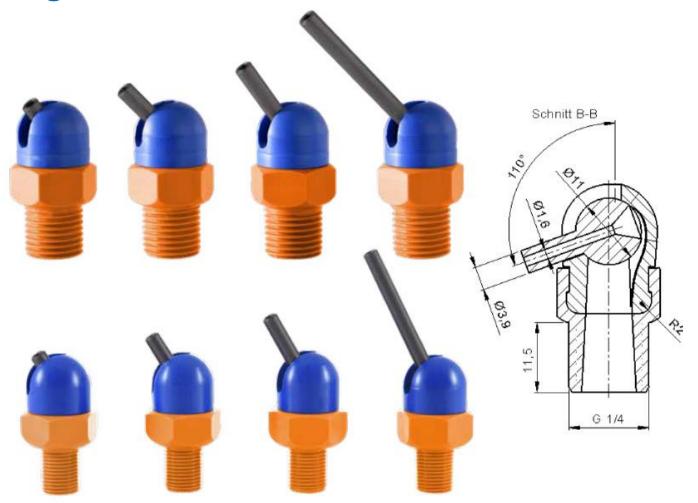
#### **Technical data**

Compressed air supply Medium Flow rate Air consumption at approx. 8 bar approx. 8 bar 28 – 500 cSt 5 – 40 ml/min. 100 l/min.





### **High Pressure Nozzles**



#### **Application Area and Functionality**

The compact Ariana high-pressure nozzles have been tested with 90 bar pressure and a setting angle of up to 110°.

The nozzles can be installed in any assembly to save space. Available with 1/8" and 1/4" connection.

Nozzle diameter ID 1.0, 2.0, 3.0 as well as pipe lengths of 1.0, 6.0, 12.5, 31.0 mm.

The nozzles have a hexagon with BSPT thread and can be easily adjusted with a mandrel in the nozzle core.

- High pressure cooling up to 90 bar
- Opening angle up to 110
- 360° rotatable nozzle
- Housing made of high-quality plastic granulate





### **Dimensions of the High Pressure Nozzles**

Item	Pipe diameter 1/8"	Pipe length	Setting angle
0211720	1,5 mm	1,0 mm	Till to 110°
0211724	1,5 mm	6,0 mm	Till to 110°
0211728	1,5 mm	12,5 mm	Till to 110°
0211732	1,5 mm	31,0 mm	Till to 110°
0211721	2,0 mm	1,0 mm	Till to 110°
0211725	2,0 mm	6,0 mm	Till to 110°
0211729	2,0 mm	12,5 mm	Till to 110°
0211733	2,0 mm	31,0 mm	Till to 110°
0211722	3,0 mm	1,0 mm	Till to 110°
0211726	3,0 mm	6,0 mm	Till to 110°
0211730	3,0 mm	12,5 mm	Till to 110°
0211734	3,0 mm	31,0 mm	Till to 110°

Item	Pipe diameter 1/4"	Pipe length	Setting angle
0211736	1,5 mm	1,0 mm	Till to 110°
0211740	1,5 mm	6,0 mm	Till to 110°
0211744	1,5 mm	12,5 mm	Till to 110°
0211748	1,5 mm	31,0 mm	Till to 110°
0211737	2,0 mm	1,0 mm	Till to 110°
0211741	2,0 mm	6,0 mm	Till to 110°
0211745	2,0 mm	12,5 mm	Till to 110°
0211749	2,0 mm	31,0 mm	Till to 110°
0211738	3,0 mm	1,0 mm	Till to 110°
0211742	3,0 mm	6,0 mm	Till to 110°
0211746	3,0 mm	12,5 mm	Till to 110°
0211750	3,0 mm	31,0 mm	Till to 110°





### **Magnetic Sweeper**

#### Order no 0541801



#### Magnetic Sweeper with protection shield

#### **Application and operation:**

To collect and remove chips and small parts from hardly accessible places. The integrated permanent magnet of the sweeper attracts all magnetic materials. By pulling out the handle of the permanent magnet, the chips fall off and can easily be stripped into the collecting box. The protective shield at the end of the handle avoids possible injury.

- universal and mobile use at hardly accessible places
- • safe and clean working environment
- • reduced risk of injury from sharp edged chips due to the protection shield
- • automatic separation of materials

#### **Specifications**

- • long durability due to stainless steel housing and powerful permanent magnets
- adjustable rod length
- • convenient dimensions: 360-675 mm length, 25 mm diameter
- · lightweight: 554 g
- Holding capacity: 19,3 kg





## **Chip Hook**



### Chip hook with protective shied

90° angled tip

 Order no. 0541500
 Length 175 mm

 Order no. 0541300
 Length 300 mm

 Order no. 0541400
 Length 500 mm

**Accessories:** 

Order No 0541309-2 Slider for Chip hook



#### **Application area:**

For removing chips that are hard to reach. The shield protects your hand from injury.





#### Order no. 0512115



#### **Barrel key**

- made of steel
- fits all saleable bung lids
- safe and easy opening with the right tool





### **Overflow Protection Siren**

Order no 0513512



**Our ARIANA overflow protection siren** is an important accessory for every CNC machine which is filled with emulsion or oil. The overflow protection siren is signaling overflowing by an audible and optical signal. The level in the fluid container can be changed by adjusting the modular hose. Flooding is signalized by the acoustic warning siren.

The double function can be activated by turning the liquid level switch. Once the filling volume of the basin is getting low the overflow protection siren is switching on. To prevent that the supply pump is running empty a signal indicates that the minimum liquid level is achieved.

#### Advantages:

- Acoustic liquid level control at your machine tool
- No unnecessary and time-consuming cleaning of your production hall
- Very good monitoring of the minimum or maximum filling level
- Easy fixing through magnetic base
- Operating with a 9V monoblock battery



#### ML Lubrication USA, Inc

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... A strong Team with our partners.

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