Cooling Lubricant Hose System

# ARANA Cool-Line-System

This is where it belongs to !







Zertifizierungsstelle Dipl.-Ing. Stephan Eierund

23.08.2007 Ausgestellt am: Issued at:

Gültig bis: 22.08.2010 Valid to:

# Reg.-No. DE245992651 SE-Cert GmbH





# **Power-Vac-Pump**



The *ARIANA*-Power-Vac-Pump is a dual acting suctionforce pump operating with compressed air. It is mainly used for the filling and deflation of coolant and lubricant containers. The tool is designed for a fast and smooth installation on a barrel. It is screwed on the barrel's faucet hole (3/4 inch) and connected with compressed air. A conveyer tube is mounted on the other barrel's faucet hole (2 inch).

The Power-Vac-Pump requires app. 8 bar compressed air. Thus a filling or a deflation of app. 60 l/min is possible. An automatical closure valve is used as in-/ outlet-control and avoids an overrun.

The Power-Vac-Pump generates a low pressure within the barrel whereby used coolants, abrasive slurry, metal remains etc. out of coolant reservoires as well as waste liquids out of chemicals reservoires can be exhausted. Due to a simple switch the operator effects a reversion of the application, which generates an overpressure within the barrel whereby coolants and lubricants as well as liquid chemicals can be pumped in the machine. The Power-Vac-Pump can be also used in explosionproof areas.

Order-no.: 0321000

The Power-Vac-Pump contains the following accessories: plug nipple, conveyer tube as well as a hose connection.



Order-no.: 0389001





# Hot & Cold-Gun



The *ARIANA* Hot & Cold-Gun is driven by compressed air and is used for punctual heating or cooling of metal and plastic parts on machine tools. It features a dual function: producing both hot and cold air. The hot air is used for fast drying and heat treating. The cold air is especially used where the application of coolants and lubricants is not desired. The Hot & Cold-Gun is also used in laboratories for several applications.

The efficiency of the Hot & Cold Gun depends on the humidity of the available compressed air: at approximately 8 bar air pressure with a comparative low air humidity (for example at +  $10^{\circ}$ C) it is possible to reach -  $30^{\circ}$ C to +  $60^{\circ}$ C.

The accessory of the Hot & Cold-Gun mainly consists of ARIANA-Cool-Line-System parts.





# Refractometer



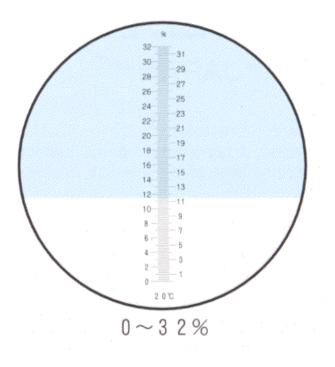
Order-no.: 0521000 (0 - 32°) Order-no.: 0521001 (0 - 15°)

The portable *ARIANA*-Refractometer is an essential instrument to control the concentrations of coolants and lubricants. It allows a quick and accurate measurement of the concentration. By means of this instrument fluids can always be used in the optimal concentration.

The Refractometer offers the following advantages:

- 1. better utilisation of machine tools
- 2. higher expectancy of life for the tools
- 3. avoiding of grid caused by low concentrated emulsions
- 4. possibility to vary the concentration of the emulsion according to the requirements
- 5. cost reduction

The chart of the Refractometer is well exposed and easy to read.







# **Mono-Mixing-Unit**



The Mono-Mixing-Unit is the basic version of the Mixing-Unit-Series. By means of the appertaining oil drum connecting set the Mixing-Unit can be installed on a barrel fast and easy. The tool is easy to handle and extremely compact.

#### Example: Adjustment of a mixing-ratio

rotations	mixing-ratio
5	app. 3,0%

A Mixing-Unit is an essential device for mixing of emulsions and lubricants. By means of a needle control valve the *ARIANA*-Mono-Mixing-Unit allows a fast and exact adjustment of the emulsionconcentration. For this reason liquids can be mixed in an optimal concentration.

The Mono-Mixing-Unit disposes one waterentrance and one concentrate entrance. The user can assume from a once acquired, optimal mixing ratio. Of course the mixing ratio can be changed easily at anytime. For safety reasons a non-returne valve is installed on the water entrance so that any pull to the potable water can be avoided.



Technical data:			
water entrance	inch	1/2	
mixed fluid outlet	inch	1/2	
concentrate entrance	inch	3/8	
mixing volume	l/h	540	





# **Duo-Mixing-Unit**



A Mixing-Unit is an essential device for mixing of emulsions and lubricants. By means of two needle control valves the *ARIANA*-Duo-Mixing-Unit allows a fast and exact adjustment of the emulsion concentration. For this reason emulsion can be mixed in an optimal concentration.

The Duo-Mixing-Unit disposes one water entrance and two concentrate entrances. The user can assume from a once acquired, optimal mixing ratio. Of course the mixing ratio can be changed easily at any time. For safety reasons a non-return valve is installed on the water entrance so that any pull to the portable water can be avoided.

The Duo-Mixing-Unit comes, in contrary to the Mono-Mixing-Unit, with two concentrate entrances. This allows the mixing of two different concentrates without a new installation of the tool.

Example: Adjustment of a mixing ratio

rotations	mixing ratio
5	app. 3,0%



Technical data:			
water entrance	inch	1/2	
mixed fluid outlet	inch	1/2	
concentrate entrances	inch	3/8	
mixing volume	l/h	540	





# Operation-Control for Mixing-Units



Order-no.: 0513500

One of the common reasons for overflowed emulsion reservoirs on machine tools is inattention during the filling process of those reservoirs. Often attention is payed to other acivities after the filling process is initialized.

Extensive and time-consuming cleaning procedures on the overflowed emulsion reservoirs and their surface are the argueing result.

Remedy to this problem is realized through the *ARIANA*-Operation-Control for Mixing-Units:

With the support of a timed relay on the Operation-Control the desired amout of litres of the required emulsion quantity can easily be programmed. The mixing procedure will be started through pushing the power button. Arriving the required emulsion quantity the Operation-Control automatically stops the supply of liquids.

The Operation-Control for Mixing-Units ensures a trouble-free working process during the mixing procedure.

The supervision of the emulsion reservoirs during the mixing procedure is not nessecary any longer.





# **Hose-Skimmer**

Leak oils favours bacteria cultivation, generates deposits waste on machine tools and work pieces, causes oil fog and reduces cooling capacity as well as the emulsion's oxygen absorption.

The consequences are: higher costs of waste disposal, corrosion, bacteria infestation, unpleasant odors, worse cooling effect, skin problems, etc.

The *ARIANA*-Hose-Skimmer offers the solution to remove the discharged oil on the emulsions surface. Due to the application of self-cleaning, oil-conveying special hoses, the leak oil is removed and stripped at the Hose-Skimmer. The application of filters and micro-porous membranes is not required. Thus the operating expenses as well as the consequential costs can be reduced. The Hose-Skimmer is equipped with an oil separating device and ensures a separation of external oils up to 90%.



#### **Assembling**

The Hose-Skimmer is assembled above the emulsion reservoir by means of a magnetic platebest place is the opposite point of the fluid inlet. The base plate of the power unit must be placed about 300 mm over the highest possible fluid level. On the fluid outlet a hose must be attached leading to the catchment tank.

#### **Operation**

The Hose-Skimmer can be used either for continuous or intermittent operation. Length and time can be controlled by use of a clock timer. It is recommended to use the Hose-Skimmer during the operation time of the machine tool.

The hose is moving through the floating oil film and separates it from the fluid. In the Hose-Skimmer the oil is separated and transported to the catchment tank beyond the machine tool.

Technical data			
power plug	V	230	
weight	Kg	4,5	
hose diameter	mm	5	
engine output	l/h	3	
engine output		0	





# Micro-System Minimal-Amount-Lubrication



The *ARIANA*-Micro-System is based on a coaxial spray nozzle, which generates a round stream. By means of turning the spray nozzle, several spray cones can be generated for many applications. The coaxial sprayer works pneumatic and is provided with a medium by a separate unpressurized container.

The small installation size requires only little space. For difficult accessible areas the nozzle can be adapted by means of the *ARIANA-Cool-Line-System*.

The special cone nozzle technique allows the application of different fluids ranging from water soluble coolants to viscous cutting oils.

By request a magnetic valve can be interposed for working with tact lubrication.

Technical data			
compressed air	bar	app. 8	
fluid	cSt.	28 – 500	
conveyance quantity	ml-mm	5 - 40	





# Maintenance-Station R-2000 for cooling lubricants

Contaminations of coolants and lubricants during the production process in consequence of external oil and particulate material are unavoidable.

By means of the *ARIANA*-Maintenance-Station R-2000 emulsions and fluids can be optimal cleaned and tended during the production process. The lifetime of emulsions will multiple increase and the disposal costs are reduced to a minimum.

### **Applications**

turning lathes milling machines grinding machines component cleaners quenching bath box



### **Advantages**

- removes simultaneously external oils and particulate material
- automatic operation via bypass principle without personnel placement
- avoids smell and danger of infections
- extension of lifetime with lubricants and tools
- reduces disposal costs up to 50%





#### **Application**

Cooling lubricant on wet-cutting machines subject to a strong contamination. External implemented oils (of the different application areas), fluids and greases deposit on the surface of the cooling lubricant, prevent in higher concentration the vital exchange of oxygen.

In consequence of the interaction of floated and sedimented particulate material, an ideality nutrient solution is established for bacteria and fungi, responsible for the corrosion of the cooling lubricant.

A continuous maintenance by removing these particulate material regularly prolongs the life time of the cooling lubricant and reduces the disposal costs.

#### **Function**

The *ARIANA*-Maintenance-Station R-2000 exhausts a mixture of oils and particulate material from the surface of the emulsion.

This mixture is separated within the Maintenance-Station and returns to the machine tool, whereas the filtered oil flows into the separate catchment tank. The Maintenance-Station is equipped with a  $100\mu$  filter.

The separating of oil and emulsion is effected in a physical sparing method so that the emulsion can not be negative affected by skidding or else. Floating and turbulenced external oils will be removed up to 97%.

The maintenance of the emulsion is an automatic operation via bypass principle without personnel placement and machine tool downtime.

#### **Technical details**

- ⑦ eccentric worm pump
- ⑦ electric motor
- ⑦ made of stainless steel
- ⑦ all hose connections with one hand couplings
- ① completely assembled, available for assignment, including accessories

Technical data			
motor	kWh	0,37	
power plug	V	230	
flow rate	l/h	350	
dimensions	mm	860 x 830 x 440 (H x L x D)	
weight	Kg	65	
temperature of liquids	°Č	40 (max.)	





# Maintenance-Station R-3000 for cooling lubricants

Contaminations of coolants and lubricants during the production process in consequence of external oil and particulate material are unavoidable.

By means of the *ARIANA*-Maintenance-Station R-3000 emulsions and fluids can be optimal cleaned and tended during the production process. The lifetime of emulsions will multiple increase and the disposal costs are reduced to a minimum.

### **Applications**

turning lathes milling machines grinding machines component cleaners quenching bath box



**Advantages** 

removes simultaneously external oils and particulate material

Order-no.: 0541000

- automatic operation via bypass principle without personnel placement
- avoids smell and danger of infections
- extension of lifetime with lubricants and tools
- reduces disposal costs up to 50%





#### **Application**

Cooling lubricant on wet-cutting machines subject to a strong contamination. External implemented oils (of the different application areas), fluids and greases deposit on the surface of the cooling lubricant prevent in higher concentration the vital exchange of oxygen.

In consequence of the interaction of floated and sedimented particulate material, an ideality nutrient solution is established for bacteria and fungi, responsible for the corrosion of the cooling lubricant.

A continuous maintenance by removing these particulate material regularly prolongs the life time of the cooling lubricant and reduces the disposal costs.

#### **Function**

The *ARIANA*-Maintenance-Station R-3000 exhausts a mixture of oils and particulate material from the surface of the emulsion.

This mixture is separated within the Maintenance-Station and returns to the machine tool, whereas the filtered oil flows into the separate catchment tank. The Maintenance-Station is equipped with a 100 $\mu$  filter by default (change-over with 50 $\mu$  or 25 $\mu$  filters possible).

The separating of oil and emulsion is effected in a physical sparing method so that the emulsion can not be negative affected by skidding or else. Floating and turbulenced external oils will be removed up to 97%.

The maintenance of the emulsion is an automatic operation via bypass principle without personnel placement and machine tool downtime.

#### Technical details

- eccentric worm pump
- electric motor
- I made of stainless steel
- I all hose connections with one hand couplings
- **I** completely assembled, available for assignment, including accessories

Technical data			
motor	kWh	0,37	
power plug	V	230	
flow rate	l/h	550	
dimensions	mm	860 x 1200 x 470 (H x L x D)	
weight	Kg	86	
temperature of liquids	°Č	40 (max.)	
temperature of liquids	°C	40 (max.)	





# Clean System Cutting oil filtration system



Order-no: 0541030

The *ARIANA*-Clean System allows to filter whichever present solid particles in suspension in the bathtubs of machine tools, guaranteeing always cleaned up systems. It works automatically via bypass principle without personnel placement.

#### **Applications**

Milling machines Lathes and Gear-cutters Rectifyinig machines Electrical discharge machining Hardening und Washing Bathtubs

#### Advantages

Reduces disposals costs Extension of lifetime of cutting oils Automatic operation via bypass principle without personnel placement

#### **Application**

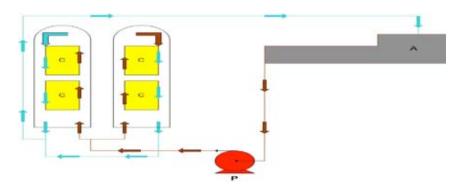
The evolution of machine tools in terms of job precision and speed execution has determined the necessity to filter cutting oils used during the production process. The filter must not be considered nowadays an accessory any more, but a fundamental part of the machine tool whose productivity, qualitatively and quantitevely, depends on the filtration quality.





#### Function

The Clean System satisfies the requirements of filtration of the most machine tools. The filtration process is effected in a mechanical method. The cutting oil in the bathtub of the machine tool (fig. A) is suctioned by means of a pump (fig. P) and is made to pass trough the filtration tower (fig. C).



The Clean System is deliverd with  $5\mu$  standard filter cartridges.  $3\mu$  cartridges can be caught up for particular applications. Once threated the cutting oil returns to the bathtub. So it is possible to create a permanent circulation of cutting oil between bathtub of machine tool and Clean System which allows to avoid the sedimentation of solid particles and dirty on the bottom of the bathtub.

The Clean System can be used decentralised or installed on single machine tools.

Complementary it is possible to mount an operation-control device in order to control cutting oil's purity grade. This device includes an automatic cut-off function. Arriving the required purity grade the operation-control automatically stops the filtering process. Order-no: 0541031

#### **Thecnical details**

Centrifuge pump and chromium plated impeller Tower in AISI 304 stainless steel Pipages NBR Analogical control's manometer Wheels and handles for the transport Completely assembled, available for assigment, including accesories

Technical data			
motor	CV	0,75	
power plug	V	380	
flow rate	L/h	7.200	
leaking surface (with 10 cSt.)	m²	6	
dimensions	mm	400 x 400 x 1100	
weight empty	Kg	50	
temperature of fluid	°Č	100 – 150 (max.)	





# **Pneumatic grease pump**



Order-no: 0541090

#### Pneumatic grease pump

- > Pneumatic pump with high deflation flow rate
- > High flexibility by means of mobile trolley
- Measured and specific lubrication is guaranteed

#### Included accessories

- > Trolley for 180 / 220 kg drums
- > Drum cover and follower plate
- > High-pressure lubrication gun with nozzle tube
- > 3 m delivery hose

It can be used for greases from type NLGi-00 to NLGi-3

Technical data			
Compressed air	min. 2 bar	max. 8 bar	recommended: from 4 to 8 bar





# **Pneumatic oil pump**



Order-no: 0541091

#### Pneumatic oil pump

- > Pneumatic pump with high deflation flow rate
- > High flexibility by means of mobile trolley

#### **Included accessories**

- > Trolley for 180 / 220 kg drums
- > Flow amounts counter
- > High-pressure lubrication gun with nozzle tube
- > 3 m delivery hose

It can be used for oils from type VG-10 to VG-460

Technical data			
compressed air	min. 2 bar	max. 8 bar	recommended: from 4 to 8 bar





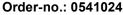
# **Magnetic-Separator**

The *ARIANA*-Magnetic-Separator is used to separate up to 98% of all ferromagnetic parts from cooling emulsions, before cleaning by the Maintenance-Stations. Grid, scales, gray cast iron, graphite as well as all magnetic parts are separated. The compound of the coolant is thereby irrelevant.



#### Assembling

The Magnetic-Separator has to be attached on the *ARIANA*-Maintenance-Stations and connected with an electrical plug of 230 V.



#### **Application**

The coolant reaches the input tank of the Magnetic-Separator. During the continuous operation the magnetic roll is turned by a gear motor in the reverse to the flow direction, whereas the ferromagnetics particles are separated. The adherent dirt on the magnetic roll is removed by a scraper and slides into a waste container.



#### **Advantages**

Through the separation and elimination of particulate

material no unrequested ferromagnetical particles reach the coolant reservoir, therefore the lifetime of coolants and lubricants increases and the pureness of the emulsions reservoir is positive affected.

Technical data		
power plug	V	230
weight	Kg	32

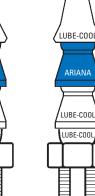




# **Comparison of compatibility**











# The system with substantial 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.







**Accessories** 

2007-03-01 / Page 1	Order-no.	Description	Unit	€

### **Compressed Air Products**

0321000	Power Vac Pump	pcs.	445,00
0331000	Hot & Cold Gun	pcs.	305,00
0389000	Accessories Set for Air Vac Cleaning Gun	set	40,00
0389001	Accessories Set for Power Vac Pump	set	185,00

### **Accessories for Compressed Air Products**

Conveyer Tube(ID = 32 mm)	per meter	7,50
Extension Pipe(500 mm, ED =32 mm)	pcs.	7,50
Flare Nozzle ( ID = 33 mm )	pcs.	6,50
Round Brush(ID = 33 mm)	pcs.	6,50
Crevice Tool ( ID = 33 mm )	pcs.	6,50
Non-returnable Waste Bag(10 pcs.)	package	35,00
Rod f. non-returnable Waste Bag (length 250 mm)	pcs.	6,50
Adapter for Conveyer Tube ( ID = 32 mm )	pcs.	5,50
Conveyer Tube with Adapter	pcs.	20,00
( length 2,5 m, ID = 38 mm )		
Conveyer Tube(ID = 38 mm)	per meter	8,50
Extension Pipe	pcs.	11,50
( length 860 mm, ID = 32mm, ED = 39mm )	·	
Quick Opening Device for Conveyer Tube	pcs.	110,00
Adapter for Conveyer Tube ( ID = 38 mm )	pcs.	6,50
• • •	pcs.	47,50
	<ul> <li>Extension Pipe ( 500 mm, ED =32 mm )</li> <li>Flare Nozzle ( ID = 33 mm )</li> <li>Round Brush ( ID = 33 mm )</li> <li>Crevice Tool ( ID = 33 mm )</li> <li>Crevice Tool ( ID = 33 mm )</li> <li>Non-returnable Waste Bag ( 10 pcs. )</li> <li>Rod f. non-returnable Waste Bag (length 250 mm)</li> <li>Adapter for Conveyer Tube ( ID = 32 mm )</li> <li>Conveyer Tube with Adapter ( length 2,5 m, ID = 38 mm )</li> <li>Conveyer Tube ( ID = 38 mm )</li> <li>Extension Pipe ( length 860 mm, ID = 32mm, ED = 39mm )</li> <li>Quick Opening Device for Conveyer Tube ( ID = 38 mm )</li> </ul>	Extension Pipe ( 500 mm, ED =32 mm )pcs.Flare Nozzle ( ID = 33 mm )pcs.Round Brush ( ID = 33 mm )pcs.Crevice Tool ( ID = 33 mm )pcs.Non-returnable Waste Bag ( 10 pcs. )packageRod f. non-returnable Waste Bag (length 250 mm)pcs.Adapter for Conveyer Tube ( ID = 32 mm )pcs.Conveyer Tube with Adapterpcs.Conveyer Tube with Adapterpcs.Conveyer Tube ( ID = 38 mm )per meterExtension Pipepcs.( length 2,5 m, ID = 38 mm )per meterExtension Pipepcs.Ouck Opening Device for Conveyer Tube ( ID = 38 mm )pcs.Adapter for Conveyer Tube ( ID = 38 mm )pcs.





### **Accessories**

2007-03-01 / Page 2

Order-no. Description

### Unit

€

### Handling Accessories for Coolants and Lubricants

0512000 Mono	Mixing Unit	set	360,00
0511000 Duo M	lixing Unit	set	436,00
0512100 Barrel	Adapter for Mono Mixing Unit	pcs.	79,00
0512103 Barrel	Adapter for Duo Mixing Unit	pcs.	150,00
0513500 Opera	tion Control for Mixing Unit	pcs.	304,00
0521000 Refrac	tometer(0-32°)	pcs.	191,00
0521001 Refrac	tometer(0-15°)	pcs.	191,00

### **Maintenance Stations and Accessories**

0541000	Maintenance Station R-3000	pcs.	6.490,00
0541020	Maintenance Station R-2000	pcs.	4.430,00
0541021	Hose Skimmer	pcs.	690,00
0541024	Magnetic Separator	pcs.	4.099,00
0541030	Clean System	pcs.	3.640,00
0541090	Pneumatic grease pump	pcs.	795,00
0541091	Pneumatic oil pump	pcs.	795,00
0541100	Ballcock ( 150 x 150 mm )	pcs.	115,00
0541101	Ballcock ( 300 x 300 mm )	pcs.	222,00
0541200	Filter 25 µ ( 20 pcs./package ) for R-3000	package	212,00
0541201	<b>Filter 50 µ ( 20 pcs./package )</b> for R-3000	package	190,00
0541202	Filter 100 µ ( 20 pcs./package ) for R-3000	package	165,00
0541204	Filter Element 100 µ ( stainless steel ) for R-2000	pcs.	145,00
0541300	Chipping Hook ( length 325 mm )	pcs.	16,50
0541400	Chipping Hook ( length 500 mm )	pcs.	17,50
0541500	Chipping Hook ( length 175 mm )	pcs.	14,50
0551000	Micro System ( Minimal Amount Lubrication )	set	350,00
0551005	Attachment for Micro System	pcs.	42,50
0551006	Magnetic Control Valve for Micro System	pcs.	799,50
0551010	Air Adapter for Micro System	pcs.	22,50
0553580	Medium for Micro System 500 ml	bundle	11,00





#### Tel. +49 (0) 7664 / 50 99 00-0 · Fax +49 (0) 7664 / 50 99 00-99 info@ariana-industrie.de · www.ariana-industrie.de

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

2007-03-01 / Page A	Order-no.	Description	Unit	€
	0211000-1 0211010-1	Versatile Jointed Hose 1/4", length approx. 31 cm Versatile Jointed Hose acid resistant 1/4" lenoth approx. 31 cm	2x 10 modules 2x 10 modules	8,50 12,10
	0211025-1	Versatile Jointed Hoserolle 1/4" length approx. 25 m, without pic.	1615 modules	655,00
	0211030-2	Fixing Clamp for 1/4" system	2 pcs.	4,55
	0211100-4 0211101-4 0211102-4	Round Nozzle ID = 1,6 mm, 1/4" Round Nozzle ID = 3,2 mm, 1/4" Round Nozzle ID = 6,4 mm, 1/4"	4 pcs. 4 pcs. 4 pcs.	6,40 6,40 6,40
	0211200-2 0211201-2	Flare Nozzle 24 mm wide, 1/4" Flare Nozzle 30 mm wide, 1/4"	2 pcs. 2 pcs.	10,20 10,20
	0211202-2 0211203-2	Flare Nozzle 16 hole, 1/4" Flare Nozzle 6 hole, 90°, 1/4"	2 pcs. 2 pcs.	12,10 8,80
	0211300-2 0211310-2	Y-Fitting 1/4" Y-Fitting acid resistant 1/4"	2 pcs. 2 pcs.	10,20 11,20
<b>P</b>	0211414-1	Ring Jet System 1/4" 16 modules incl. end piece	1 pcs.	33,50
	0211600-2	Control Valve for Versatile Jointed Hose 1/4"	2 pcs.	15,40
	0211610-2	<b>Control Valve</b> acid resistant for Versatile Jointed Hose 1/4"	2 pcs.	16,50
	0211601-2 0211611-2	Control Valve NPT AG 1/4" Control Valve acid resistant NPT AG 1/4"	2 pcs. 2 pcs.	15,40 16,50
	0211602-2	Control Valve IG 1/4"	2 pcs.	15,40
	0211612-2 0211603-2	Control Valve acid resistant IG 1/4" Control Valve for Versatile Jointed Hose, NPS AG 1/4"	2 pcs. 2 pcs.	16,50 15,40
	0211700-4	Connector NPT 1/8"	4 pcs.	6,00
	0211710-4 0211701-4	Connector acid resistant NPT 1/8" Connector NPT 1/4"	4 pcs. 4 pcs.	8,10 <b>6,00</b>
	0211702-2 0211703-2	Special Connector NPT 1/8" Special Connector NPT 1/4"	2 pcs. 2 pcs.	6,90 6,90
	0211704-4 0211712-4	Adapter for Versatile Jointed Hose IG 1/8" Adapter acid resistant for Versatile Jointed Hose IG 1/8"	4 pcs. 4 pcs.	6,60 8,70
7	0212200-2 0212300-2	Elbow Fitting 90°, 1/4" T-Fitting 1/4"	2 pcs. 2 pcs.	6,40 6,40
	0212400-1	Modular Manifold Brackets for T-Fitting 1/4"	1 pcs.	8,50
	0212500-1	Magnetic Base Metal Ball Valve and Hose Barb Connector 1/4"	1 pcs.	25,00
	0212501-1	Mono Block Distribution Device 4 outlets 1/4" and IG 3/8"	1 pcs.	35,00





Tel. +49 (0) 7664 / 50 99 00-0 · Fax +49 (0) 7664 / 50 99 00-99 info@ariana-industrie.de · www.ariana-industrie.de

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

2007-03-01 / Page A	Order-no.	Description	Unit	€
	0212502-2	<b>T-Connection</b> AG 1/4" and 2 IG 3/8"	2 pcs.	26,00
	0212503-2	Metal Ball Valve IG and AG 1/4"	2 pcs.	21,50
	0212504-2	Threaded Double Nipple 2 AG 1/4"	2 pcs.	6,20
	0212505-2	Hose Barb Connector for 13 mm hose	2 pcs.	9,00
	0212506-2	Metal Reducer AG 1/4", IG 1/8"	2 pcs.	4,80
ja jan	0212507-2 0212508-2	Hexagonal Closing Cap 1/8″ Hexagonal Closing Cap 1/4″	2 pcs. 2 pcs.	4,90 4,90
$\bigcirc$	0212509-2	Magnetic Clamp round, AD 63 mm, ID 18 mm	2 pcs.	45,00
	0212510-2	Non-Return Valve 1/4"	2 pcs.	13,60
	0212605-2	Extension Pipe rigid PVC, 95 mm lg., 1/4"	2 pcs.	12,90
	0218000-1	Hose Assembling Pliers 1/4" system	1 pcs.	33,50
	0219000-1	Versatile Jointed Hose Set 1/4" Versatile Jointed Hose (2x 10 modules) Round Nozzles ID 1,6 / 3,2 / 6,4 mm Flare Nozzle 24 mm wide Connectors NPT 1/8" / 1/4"	1 Set	10,00
	0219029-1	Magnetic Base 1/4" 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 1/4" for	1 Set or 13 mm	42,00
	0219031-1	Magnetic Base 1/4" mit Versatile Jointed Hose-Set (2x 13 modules), Flare Nozzles (2 pcs., 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	1 Set	63,00





Tel. +49 (0) 7664 / 50 99 00-0 · Fax +49 (0) 7664 / 50 99 00-99 info@ariana-industrie.de · www.ariana-industrie.de

#### **Cool-Line-System 3/8"** 2007-03-01 / Page 1 Order-no. Description Unit € 0221000-1 Versatile Jointed Hose 3/8" 2x 8 modules 12,00 length approx. 30 cm 0221015-1 Versatile Jointed Hoserolle 3/8" 802 modules 580,00 length approx. 15 m, without picture Round Nozzle ID = 6,4 mm, 3/8" 6,90 0221100-4 4 pcs. 0221101-4 Round Nozzle ID = 9,5 mm, 3/8" 4 pcs. 6,90 0221102-4 Round Nozzle ID = 12,7 mm, 3/8" 4 pcs. 6,90 0221200-2 Flare Nozzle 32 mm wide, 3/8" 11,00 2 pcs. 0221601-2 Control Valve NPT AG 3/8" 17,50 2 pcs. 0221602-2 Control Valve IG 3/8" 2 pcs. 17,50 0221700-4 Connector NPS 3/8" 6,90 4 pcs. 0221701-4 Connector NPS 1/2" 6.90 4 pcs. 0222501-1 **Mono Block Distribution Device** 1 pcs. 38,50 4 outlets 3/8" and IG 1/2 0222502-2 **T-Connection** 2 pcs. 30,00 AG 3/8" and 2 IG 3/8" 0222503-2 Metal Ball Valve 2 pcs. 24,50 IG and AG 3/8 0222504-2 Threaded Double Nipple 7,50 2 pcs. 2 AG 3/8" Hose Barb Connector 3/8" 0222505-2 12,90 2 pcs. for 13 mm hose 0222507-2 Hose Barb Connector 3/8" 6,20 2 pcs. 0222508-2 Hexagonal Closing Cap 44,50 2 pcs. round AD 63 mm, ID 18 mm 0222509-2 13,50 **Non-Return Valve** 2 pcs. 3/8' Non-Return Valve 0228000-1 33,50 1 pcs. 3/8" system 0229000-1 Versatile Jointed Hose-Set 3/8" 1 set 13,70 Versatile Jointed Hose (2x 8 Module) Round Nozzlen ID 6,4 / 9,5 / 12,7 mm Flare Nozzle 32 mm wide Connectors NPS 3/8" / 1/2" 43,50 0229030-1 Magnetic Base 3/8" 1 set 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"

Our prices are quoted ex works Schallstadt, zero vated for VAT. See our general sales and payment conditions.

Hose Barb Connector 3/8" for 13 mm hose





Tel. +49 (0) 7664 / 50 99 00-0 · Fax +49 (0) 7664 / 50 99 00-99 info@ariana-industrie.de · www.ariana-industrie.de

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

2007-03-01 / Page 1	Order-no.	Description	Unit	€
	0231000-1	Versatile Jointed Hose	2x 5 modules	13,20
	0231001-1	1/2" length approx. 29 cm Versatile Jointed Hose extrem fest 1/2"	2x 6 modules	14,30
	0231010-1	length approx. 28 cm, without pic. Versatile Jointed Hose acid resistant 1/2"	2x 5 modules	14,40
	0231015-1	lenght approx. 29 cm Versatile Jointed Hoserolle 1/2"	518 modules	450,00
	0231030-2	length approx. 15 m, without pic. Fixing Clamp 1/2" System	2 pcs.	5,30
	0231030-2	Thing Clamp 1/2 System	2 μυς.	5,50
	0231100-4	Round Nozzle ID = 6,4 mm, 1/2"	4 pcs.	7,50
International Distances in the local distances in	02311000-4	<b>Round Nozzle</b> acid resistant ID = 6,4 mm, 1/2" <b>Round Nozzle</b> ID = 9,5 mm, 1/2"	4 pcs.	9,50 7,50
	0231101-4 02311001-4	<b>Round Nozzle</b> acid resistant ID = 9,5 mm, 1/2"	4 pcs. 4 pcs.	7,50 9,50
	0231102-4	<b>Round Nozzle</b> ID = 12,7 mm, 1/2"	4 pcs.	7,50
	02311002-4	<b>Round Nozzle</b> acid resistant ID = 12,7 mm, 1/2"	4 pcs.	9,50
	0231200-2	Flare Nozzle 32 mm wide, 1/2"	2 pcs.	11,70
	0231201-2	Flare Nozzle 50 mm wide, 1/2"	2 pcs.	12,70
	0231202-2	Flare Nozzle 62 mm wide, 1/2"	2 pcs.	13,90
	0231203-2	Flare Nozzle 8 holes 90°, 1/2"	2 pcs.	20,00
	0231300-2	Y-Fitting 1/2"	2 pcs.	13,70
	0231414-1	Ring Jet System (16 modules) incl. end piece 1/2"	1 pcs.	37,90
	0231600-2 0231610-2	<b>Control Valve</b> for Versatile Jointed Hose 1/2" <b>Control Valve</b> acid resistant for Versatile Jointed Hose 1/2"	2 pcs. 2 pcs.	19,60 20,70
	0231601-2	Control Valve NPT AG 1/2"	2 pcs.	19,60
	0231611-2	Control Valve acid resistant NPT AG 1/2"	2 pcs.	20,70
	0231602-2 0231612-2	Control Valve IG 1/2" Control Valve acid resistant IG 1/2"	2 pcs. 2 pcs.	19,60 20,70
	0231700-4	Connector NPT 3/8"	4 pcs.	7,50
	023171000-4	Connector acid resistant NPT 3/8"	4 pcs.	9,50
	0231701-4	Connector NPT 1/2"	4 pcs.	7,50
	023171001-4	Connector acid resistant NPT 1/2"	4 pcs.	9,50
	0231702-2	Special Connector NPT 3/8"	2 pcs.	9,20
	0231703-2	Special Connector NPT 1/2"	2 pcs.	9,20
	0231707-4	Adaptor for Versatile Jointed Hose IG 1/2"	4 pcs.	15,80
	0231900-2	Reducer 1/2" to 1/4"	2 pcs.	8,50
	0232000-2	<b>Y-Reducer</b> 1/2" to 2x 1/4"	2 pcs.	11,70





Tel. +49 (0) 7664 / 50 99 00-0 · Fax +49 (0) 7664 / 50 99 00-99 info@ariana-industrie.de · www.ariana-industrie.de

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

2007-03-01 / Page 2	Order-no.	Description	Unit	€
	0232200-2 0232300-2	Elbow Fitting 90°, 1/2″ T-Fitter 1/2″	2 pcs. 2 pcs.	10,70 12,70
2-2-2-3	0232400-1	Modular Manifold Brackets for T-Fitting 1/2"	1 pcs.	9,50
	0232501-1	Mono Block Distribution Device 4 outlets 1/2" and IG 3/4"	1 pcs.	40,80
	0232502-2	T-Connection AG 1/2" and 2 IG 1/2"	2 pcs.	31,70
	0232503-2	Metal Ball Value IG and AG 1/2"	2 pcs.	25,50
and the second	0232504-2	Threaded Double Nipple 2 AG 1/2"	2 pcs.	7,90
	0232505-2	Hose Barb Connector for 19 mm hose	2 pcs.	16,70
	0232506-2	Metal Reducer AG 1/2", IG 3/8"	2 pcs.	6,80
	0232507-2	Hexagonal Closing Cap 1/2"	2 pcs.	6,80
	0232508-2	Magnetic Base round ED 63 mm, ID 18 mm	2 pcs.	44,50
	0232509-2	Non-Return Valve 1/2"	2 pcs.	17,30
	0232605-2	<b>Extension Pipe</b> rigid PVC, length 95 mm, 1/2"	2 pcs.	14,70
	0238000-1	Hose Assembling Pliers 1/2" system	1 pcs.	33,50
	0239000-1	Versatile Jointed Hose Set 1/2" (2x 5 modules) Round Nozzles ID 6.4/9.5/12.7 mm Flare Nozzle 32 mm wide Connectors NPT 3/8" / 1/2"	1 set	14,90

IT = Inside 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.





Tel. +49 (0) 7664 / 50 99 00-0 · Fax +49 (0) 7664 / 50 99 00-99 info@ariana-industrie.de · www.ariana-industrie.de

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

2007-03-01 / page 1	Order-no.	Description	Unit	€
	0241000-1	Versatile Jointed Hose 3/4"	2x 5 modules	17,30
	0241015-1	ca. 29,5 cm long Versatile Jointed Hoserolle 3/4"	509 modules	530,00
		ca. 15 m long, without picture		
	0241100-4 0241101-4	<b>Round Nozzle</b> ID = 16 mm, 3/4" <b>Round Nozzle</b> ID = 19 mm, 3/4"	4 pcs. 4 pcs.	8,90 8,90
			·	·
	0241200-2	Flare Nozzle 75 mm wide, 3/4"	2 pcs.	12,70
	0241300-2	Y-Fitting 3/4"	2 pcs.	15,90
	0241700-4	Connector NPS 3/4"	4 pcs.	10,20
	0241900-2	Reducer 3/4" zu 1/2"	2 pcs.	8,50
	0249000-1	Versatile Jointed Hose-Set 3/4" Versatile Jointed Hose (2x 5 modules) Round Nozzles ID 16 / 19 mm Flare Nozzle 75 mm wide Connector NPS NPS 3/4"	1 Set	30,70





# ARIANA Industrie GmbH Marketing ...

**ARIANA** is market leader in the field of Cooling Lubricant Hose Systems with an extensive line of 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-System** 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** 



Maintenance Stations



Mixing Units and Refractometer



Accessories



