Accessories

Large inventory, holding a complete line of accessories, among them: pressure switches, level switches, pressure gauges, controllers, timers, tubing (nylon, copper and carbon steel), fittings, grommets, hoses, plain end coupling, clamps, check valves, performance indicators, suction and line strainers, lubricating brushes, flow alarm sign and sprinklers that allow SONED® supplying complete kits for lubricating systems including all the necessary components ready to be installed in the machine.

Sprinkler For Oil or Grease
Model PS

Description

Pulverizing has a large variety of applications, being intensively used to lubricate parts or components in movement such as: open gears, steel cable, chains, guides, articulations, racks, etc. This process supersedes brush or spatula conventional application processes that, in addition of being primitive, are inefficient, costly and above all, dangerous.

When adequately specified, sprinkler SONED® Model PS may also be used with asphalt base products, intensively used in several applications due to being more adherent and providing lubricant preservation for long periods of time.

Specifications
Code: 2655
Reference: POG-100

Lubricant
Sprinkler model PS may be used to spray the following products:

- Oil - without restriction to the viscosity.
- Grease - non-fiber texture, consistency NLGI 0.1 or 2.
- Asphalt grease - cold application with at least 10 % solvent in its original formulation.
- Nozzle opening type: eliptical or circular.

Air pressure

- Ideal air pressure: 70 to 90 psi
- It is recommended to use a pressure regulator as well as use of a filter to retain air impurities

Operation
Sprinkler model PS may be fed either by any automatic or manual lubricating pump.
When lubricant is injected under pressure at sprinkler, an internal piston moves and opens air admission valve inlet, so lubricant is pulverized. When lubricant injection stops, piston returns to its original position so closing air admission valve and avoiding lubricant wastage.

Flow Alarm Signal
Model SF

Descrição

Flow alarm SONED® consists of an alarm device that safely indicates continuity of lubrication to a large range of equipment that require constant or permanent lubrication.

Constituted by a simple and safe electromechanical system, allows easy installation. That is coupled to pipe works between lubricator and equipment to be lubricated by means of common fittings and its function is to alert about lack of lubricant.

This alarm is explosion proof and its application has been intense to protect air compressors, rolling mills, cylinders, pumps, etc.

Notes

For installation, please observe the following formula:

$$W = V \times A$$

Legend:

W = Power

V = Voltage

A = Electrical current (0.5 A maximum)

For larger electrical current, use relays.

Operation

Flow Alarm may operate in two modes:

a) NO - Normally open

b) NC - Normally closed

Position NO

Circuit is open. As lubricant flows along alarm flow, electrical circuit closes and activates alarm. By interrupting flow, it automatically shuts down.

Position NC

Operation is the inverse as NO.

- For further information on applications and operation, please ask for our Technical Department.

Electrical diagram

Specifications

Minimum oil discharge	0.09 cm^3/minute
Maximum oil discharge	270 cm^3/minute
Maximum pressure	700 kg/cm^2
Minimum pressure	10 kg/cm^2
Voltage	220 volts (maximum)
Current	0.5 A (maximum)
Power	10 W (maximum)
Working temperature	60 ^oC (maximum)
Lubricant	Oil 15 to 500 cSt

Adjustable Pressure Switch
Model SP - 43 and Fixed

Description

Membrane pressure switches SP-43 are normally used to control minimum and maximum pressure. They are composed by oil-proof membrane, silver electrical contacts, housing with screwed clamp, balancing springs and pressure regulating springs to control pressure. NO electrical contact condition refers to a steady-state condition, i.e., absence of pressure. This pressure switch may be used in oil circulating system. Pressure may be regulated with the help of a small screwdriver. Be careful not to affect spring. It is recommended to protect electrical terminals and internal element against moisture and dust infiltration with the use of a protection coating CP-1.

Specifications

Maximum voltage	220 V AC
Maximum power	100 VA
Electrical current	0.5 A resistive 0.25 A inductive
Working temperature	From -5 ºC to +60 ºC
Protection	IP 54
Maximum number of strokes	200/minute
Insulation voltage	1500 V

Purchasing information

Code	Reference	NO type	Adjusting range
5359	49.061.0	PMN - 1a	0.1 - 1 kg/cm²
5360	49.061.1	PMN - 10a	1 - 10 kg/cm²
5361	49.061.3	PMN - 50a	20 - 50 kg/cm²
8730	ACE-31	PMN - 20	Fixed 20 ,kg/cm²

End-of-line Pressure Switch
Model PFL

Description

End-of-line pressure switches are used to control pre-established pressure at the main line of lubricating system with dividers.

They are manufactured with steel. Their revolving housing lodges a spring and piston, and an adjustable ring through which pressure is controlled. Part is complete with adequate fitting. Micro switch is inside aluminum housing.

In order to properly control the pressure, pressure switch shall be installed at the end of main pressure line. Pressure switches PFL are very useful when installed in lubricating systems with dividers to control a casual breaking accident or shutdown.

Pressure signal response shall not be used to shut down the pump. It rather should be used to know that the line is properly in operation. Pressure switches are supplied complete with four-pole coupling with protection IP-65.

Specifications

Voltage	250 V AC
Current	5 A
Contacts	“NO”- C - “NC”
Temperature	From 0 ºC to +80 ºC
Protection	IP 65
Fitting	M10x1 tube ø 4 - 6 mm
Lubricant	Oil 50 cSt at 40 ºC minimum
	Soft grease NLGI 00 maximum

Purchasing information

Code	Reference	Adjustment range
5358	49.046-0	10 - 65 kg/cm^2

Rotating Coupling for Grease and Oil
Model UR1 and UR2

Description

To lubricate rotating parts. Internally equipped with bearings and retainers for safely meeting these kind of aplications .

There are two rotating coupling models:

Model UR-1

Model UR-2

Safety Device
Model DS

Description

For lubricating lines without pressure relief valves.

Simple operation. When there is excess pressure in the line, a seal (plate) breaks and allow passage of lubricant, so reliefing system pressure.

Note: Please inform rupture pressure.

SONED®

CENTRALIZED LUBRICATION

Level Indicator Electrical Switch
Model CN for Pumps

Description

Level controlling electrical switch for small size reservoir to signalize when maximum and/or minimum oil or other fluid level is reached.

Specifications

Maximum voltage	250 V AC - 200 V DC
Maximum current	1 A
Maximum power	10 W
Contact type	NO - Normally open NC - Normally closed
Temperature of operation	From 0 ºC to 70 ºC
Maximum controlling height	1000 mm
Minimum controlling height	80 mm
Minimum difference between controlling height	30 mm
Connection	Terminal 1 & 2 - min level / 1 & 3 - max level
Protection	IP 54

Model	NY Reservoir 1.2 liter	NY 3 Reservoir 3 liter BEO/DO	Reservoir 6 liter NY	Steel Reservoir 7, 15 and 30 liter BEO/DO	5 liter BEO/DO	LOS	30 Lliter LDS	100 liter LDS
L	100	148	243	218	358	131	370	263
Reference	CN-032	CN-020	CN-034	CN-033	CN-036	CN-023	CN-037	CN-035
Code	2538	2539	10159	10160	10111	4812	5084	11202

SONED®

CENTRALIZED LUBRICATION

Level Indicator Electrical Switch
Model CN

Description

Level controlling electrical switch for small size reservoir to alarm when maximum and/or minimum oil or other fluid level is reached.

Specifications

Maximum voltage	250 V AC - 200 V DC
Maximum current	1 A
Maximum power	10 W
Contact type	NO - Normally open NC - Normally closed
Temperature of operation	From 0 ºC to 70 ºC
Maximum controlling height	1000 mm
Minimum controlling height	80 mm
Minimum difference between controlling height	30 mm
Connection	Terminal 1 & 2 - min level / 1 & 3 - max level
Protection	IP 54

(May be supplied either with or without fastening flange.)

Purchasing information

	Reference	Code
Minimum/maximum level without flange	CN 180 104	11011
Minimum / maximum level with flange	CN 180 103	11012
Minimum level without flange	CN 180 102	11013
Minimum level with flange	CN 180 101	11014

Purchasing information

- Type - minimum or minimum/maximum
- Length L - (Minimum level)
- Length L1 - (Maximum level)
- Terminal - NO or NC

Simple Check Valve for Oil or Grease
Model SD

Description

For situations where there is back pressure in line and to avoid returning lubricant.

Retention is spring and ball type.

CHECK VALVE			
A	B	C	L
1/8"NPT	1/8"NPT	SEXT.9/16"	32,5
1/4"NPT	1/4"NPT	SEXT.11/16"	41,5

CHECK VALVE			
A	B	C	L
1/8"NPT	1/8"NPT	SEXT.9/16"	32,5
1/4"NPT	1/4"NPT	SEXT.11/16"	41,5

Purchasing information

	Code	Reference
Check valve 1/4 tongue inlet	2696	SD 009-0070
Check valve1/4 groove inlet	5114	SD 009-0069
Check valve 1/8 tongue inlet	2698	SD 009-0068
Check valve 1/8 groove inlet	2697	SD 009-0067
Check valve M10 tongue inlet	11377	SD-01
Check valve M10 groove inlet	11376	SD-02

SONED®

CENTRALIZED LUBRICATION

Automatic Micro Lubri-refrigeration System LubeTool® model

Description

LubeTool® system was designed to supersede the traditional lubrication with water soluble oil used in tooling metals. This new system mixes air and drops of pure oil (preferably vegetable base oil) and directs it to the contact point where the tool touches the part being tooled.

Advantages

Clean working environment, larger productivity, increases tool usable life, better surface finishing, cost reduction, increases working tolerances, reduces lubricant consumption in 90 %, eliminates the need for discarding exhausted oil, eliminates washing parts and chips.

LubeTool® may be applied in several types of works such as: sawing, drilling, threading, milling, punching, stamping, chains and calibration, among others.

Operation

One (or more) pneumatic micro pump (pumping element) meters a small quantity of lubricant through a capillary tube internal to a coaxial piping up to a mixing nipple that mixes it with compressed air and sprays it in the contact point where the tool touches the part and forms an oil film that reduces the working friction. The micro pump may regulate oil metering by action, the frequency generator allows adjusting the number of actions of micro pump and air flow is regulated by an independent valve, so resulting total control of air/oil mix.

Specifications:

Pumping element flow	from 0 to 41 mm³
Number of pumping elements	from 1 to 6
Voltage	24 V DC - 115 V AC - 230 V AC
Number of cycles of micro pump	from 1 to 66 per minute
Oil reservoir	1.2 - 3.6 liters

Lubricant	oil max. 800 cSt 40º C
Minimum level switch (optional)	1 at 250 V AC - 220 V DC - 50 W
Air pressure	from 4 to 8 kg/cm²
Air consumption per pump	min.: 60 l/min - max.: 100 l/min

Purchasing information

Quantity, model, number of elements, volume of reservoir, reservoir minimum level electrical switch, air throttle valve with pressure gauge, frequency generator, solenoid valve, solenoid valve voltage, spraying nipple type (flexible or fixed).

SONED®

CENTRALIZED LUBRICATION

Automatic Micro Lubri-refrigeration System
Mini LubeTool® Model

Description

LubeTool® system was designed to supersede the traditional lubrication with water soluble oil used in tooling metals. This new system mixes air and drops of pure oil (preferably vegetable base oil) and directs it to the contact point where the tool touches the part being tooled.

Advantages

Clean working environment, larger productivity, increases tool usable life, better surface finishing, cost reduction, increases working tolerances, reduces lubricant consumption in 90 %, eliminates the need for discarding exhausted oil, eliminates washing parts and chips.

Mini LubeTool® may be applied in several types of works such as: sawing, drilling, threading, milling, punching, stamping, chains and calibration, among others.

Operation

One (or more) pneumatic micro pump (pumping element) meters a small quantity of lubricant through a capillary tube internal to a coaxial piping up to a mixing nipple that mixes it with compressed air and sprays it in the contact point where the tool touches the part and forms an oil film that reduces the working friction. The micro pump may regulate oil metering by action, the frequency generator allows adjusting the number of actions of micro pump and air flow is regulated by an independent valve, so resulting total control of air/oil mix.

Specifications:

Pumping element flow	from 0 to 41 mm^3
Number of pumping elements	from 1 to 2
Voltage	24 V DC - 115 V AC - 230 V AC
Number of cycles of micro pump	from 1 to 66 per minute
Oil reservoir	1.2 - 3.6 liters

Lubricant	oil max. 800 cSt 40° C
Minimum level switch (optional)	1 at 250 V AC - 220 V DC - 50 W
Air pressure	from 4 to 8 kg/cm^2
Air consumption per pump	min.: 60 l/min - max.: 100 l/min

Purchasing information

Quantity, model, number of elements, volume of reservoir, reservoir minimum level electrical switch, air throttle valve with pressure gauge, frequency generator, solenoid valve, solenoid valve voltage, spraying nipple type (flexible or fixed).

Oil and Grease Line Filter
Model FL

Description

Line filters model FL are used in lubricating systems with the objective to hold impurities contained in the lubricants, as such impurities may cause lock the dividers.

Of easy use and maintenance, filters model FL contain permanent filtering elements, i.e., in case they are obstructed by impure lubricant, cover shall be removed and, following to that, the filtering element should be removed as well. Filtering element should then be washed and replaced back into the line.

Filtering elements are supplied with 150-micron mesh.

Purchasing Code

Code: 10567
Reference: ACE-35

Brass Fittings

Sleeve

Code	Reference	Millimeter
2561	101001	4 mm
2562	101002	6 mm

Sleeve-flange

Code	Reference	Tube
2555	202001	4 mm
2556	202002	6 mm
9086	202003	8 mm
10705	202004	10 mm
10704	202005	12 mm

Flange

Code	Reference	Metric
2557	201001	4 mm
2558	201002	6 mm

Plain Tip

Code	Reference	Diameter
2564	501001	4
2565	501002	6

Tongue Junction

Code	Reference	Metric
2623	701001	4 x 1/8 NPT
2703	701002	4 x M6 x 1
2704	701003	4 x M8 x 1
11233	701013	4 x M10 x 1
2624	701004	6 x 1/4 NPT
2625	701005	6 x 1/8 NPT
3225	701006	6 x 1/8 NPT
2707	701007	6 x M6 X 1
4916	701011	6 x M10 X 1
11006	701008	8 X 1/8 NPT
11234	701012	8 X 1/4 NPT
11007	701009	10 X 1/8 NPT
11008	701010	10 X 1/4 NPT
11358	701014	12 X 1/8 NPT

Guidable Junction or Elbow

Code	Reference	Tube	Thread
10130	900001	4	M8x1
2626	900004	4	M6x1
10129	900005	4	M10x1
10128	900002	6	M10x1
2627	900003	6	1/8 NPT

Plug

Code	Reference	Thread
2661	600001	1/8 NPT
2660	600002	1/4 NPT
2662	600003	M10 x 1
2663	600004	M12 X 1
2664	600005	M8 x 1

Tongue Elbow

Code	Reference	Metric
2619	301001	4 x 1/8 NPT
2702	301002	4 x M6 X 1
3224	301003	4 x M8 x 1
11235	301010	4 x M10 x 1
2621	301004	6 x 1/8 NPT
2701	301005	6 x M8 X 1
2620	301006	6 x 1/4 NPT
4991	301007	6 x M6 x 1
11359	301011	6 x M1 x 1
9391	301008	10 x 1/8 NPT
11009	301009	10 x 1/4 NPT

Double Check Valve

Code	Reference	Tube	Therad
2643	VD-01 Nut and Ring	1/4	1/4 BSP
2692	VD-02 Nut and Terminal	1/4	1/4 BSP

Tee

Code	Reference	Tube
2666	800001	4 mm
2667	800002	6 mm

Tube x Tube Junction

Code	Reference	Tube
2690	401001	4 mm
2691	401002	6 mm
5029	401003	8 mm
10331	401004	10 mm
11360	401005	12 mm

Accessories

Tubes

Steel tube

Standard	NBR 8476
Compatible fittings	Brass and steel compressive type
Maximum working pressure	Up to 350 kg/cm² (4970 psi)
Length	3 to 6 meter joints

Code	Reference	Tube Metric	Wall
10123	131001	4 mm	1 mm
10122	131002	6 mm	1 mm
10120	131003	8 mm	1 mm
10121	131004	10 mm	1 mm
9099	131005	12 mm	1.5 mm
11015	131006	16 mm	2 mm
11016	131007	20 mm	2 mm
10360	131008	25 mm	2 mm

Code	Reference	Tube Inch	Wall
11017	130009	1/2	1.5 mm
11018	131010	5/8	2 mm

Copper Tube

Code	Reference	Tube Metric	Wall
3173	132001	4 mm	1 mm
3174	132002	6 mm	1 mm
3175	132003	8 mm	1 mm
3172	132004	10 mm	1,5 mm

Stainless Steel Tube

Code	Reference	Tube Metric	Wall
2674	133001	4 mm	1 mm
2675	133002	6 mm	1 mm
3171	133003	8 mm	1 mm
9404	133004	10 mm	1 mm
9895	133005	12 mm	1.5 mm

Code	Reference	Tube inch	Wall
11019	133006	1/4	1 mm
11020	133007	1/2	1.5 mm

Nylon tube

Standard	DIN 73378
Compatible fittings	Brass compressive type
Maximum working pressure	Up to 50 kg/cm² (710 psi)
Length	Up to 100 meters

Code	Reference	Tube Metric	Wall
2685	141001	4 mm	1 mm
2686	141002	6 mm	1 mm
3176	141003	6 mm	1.5 mm

Stainless Steel Lined Hose

Code	Reference	Internal Diameter
9048	15004	3/16”

Flexible hose

Compatible fittings	Brass and steel compressive type
Maximum working pressure	Up to 210.9 kg/cm² (3000 psi)
Length	Up to 100 meters

Code	Reference	Internal Diameter	Standard
9841	150001	3/16”	103 TB
3116	150002	1/4”	SAE 100 RIAT
9209	150003	3/8”	SAE 100 RIAT

Anchorage Blocks

Elbow - Brass

Cód.	Ref.	Rosca
2614	110001	2x1/8 NPT
3226	110002	2x1/4 NPT
3227	110003	2xM10x1

Tee - Brass

Cód.	Ref.	Rosca
2615	111001	3x1/8 NPT
3228	111002	3x1/4 NPT
3229	111003	3xM10x1

Cross - Brass

Cód.	Ref.	Rosca
2616	112001	4x1/8 NPT
3230	112002	4x1/4 NPT
9303	112003	4xM10x1

Accessories

Clamps

Code	Reference	Tube Metric	Qty. Tubes
2641	121001	4 mm	1
2642	121002	6 mm	1
2643	121003	8 mm	1
2640	121004	10 mm	1

Code	Reference	Tube Metric	Qty. Tubes
2644	123001	4 mm	2
2647	123002	4 mm	3
2650	123003	4 mm	4
2653	123004	4 mm	5
2645	123005	6 mm	2
2648	123006	6 mm	3
2651	123007	6 mm	4

Steel Fittings

Tongue Joint

Code	Ref.	Metric
9406	910001	6x1/8” NPT
2687	910002	6x1/4” NPT
3958	910003	6xM10x1
9015	910004	8xM10x1
9784	910005	8x1/8” NPT
9783	910006	8x1/4” NPT
9405	910007	10x1/8” NPT
10456	910008	10x1/4” NPT
3978	910009	10xM10x1

Tube x Tube Joint

Code	Ref.	Metric
10599	940001	6 mm
9731	940002	8 mm
11086	940003	10 mm

Tube x Tube Joint Stainless Steel

Code	Ref.	Metric
7176	990001	6 mm
5542	990002	8 mm
3957	990003	10 mm

Tee

Code	Ref.	Tube
2665	930001	6 mm
11021	930002	8 mm
11010	930003	10 mm

Tee Stainless Steel

Code	Ref.	Tube
4843	980001	6 mm
5059	980002	8 mm
10357	980003	10 mm

Tongue Elbow

Code	Ref.	Metric
9453	920001	6x1/8” NPT
3970	920002	6x1/4” NPT
10092	920003	6xM10x1
9894	920004	8x1/8” NPT
9012	920005	8x1/4” NPT
9014	920006	8xM10x1
5116	920007	10x1/8” NPT
9454	920008	10x1/4” NPT
11087	920009	10xM10x1

Tongue Elbow Stainless Steel

Code	Ref.	Metric
9733	960001	6x1/8” NPT
11035	960002	6x1/4” NPT
2712	960003	6xM10x1
10329	960004	8x1/8” NPT
2710	960005	8x1/4” NPT
2713	960006	8xM10x1
2618	960007	10x1/8” NPT
10563	960008	10x1/4” NPT
2711	960009	10xM10x1

Tongue Joint Stainless Steel

Code	Ref.	Metric
2709	970001	6x1/8” NPT
10330	970002	6x1/4” NPT
9734	970003	6xM10x1
9456	970004	8xM10x1
9390	970005	8x1/8” NPT
10021	970006	8x1/4” NPT
2622	970007	10x1/8” NPT
4771	970008	10x1/4” NPT
9013	970009	10xM10x1

Reusable Plain Tip Terminal

Code	Ref.	Diameter
10125	950001	4 mm p/ mangueira 103TB / Revest. Inox
10126	950002	6 mm p/ mangueira 103TB / Revest. Inox
2670	950004	6 mm p/ mangueira SAE 100R 1AT
2669	950006	10 mm p/ mangueira SAE 100R 1AT

Crimped Plain Tip Terminal

Code	Ref.	Diameter
2672	950007	4 mm p/ mangueira 103TB / Revest. Inox
10127	950008	6 mm p/ mangueira 103TB / Revest. Inox

Hydraulic Symbols

Manual Pump for Oil

Manual Pump for Grease

Gear Pump for Oil
Simple Line

Multiple Outlet
Pump for Oil

Multiple Outlet Pump
for Grease

Resistivem Divider

Simple Line Divider

Progressive Divider

Double Line Divider

Pressure Gauge

Thermometer

Check Valve

Flow Regulation Valve

Reservoir

Eletrical Cycle Indicator

Pressure Regulator

1 and 2 Contact Pressure Switch

Eletrical Level Indicator

Timer Controller

Strainer

Flow Indicator

Eletrical Flow Sign