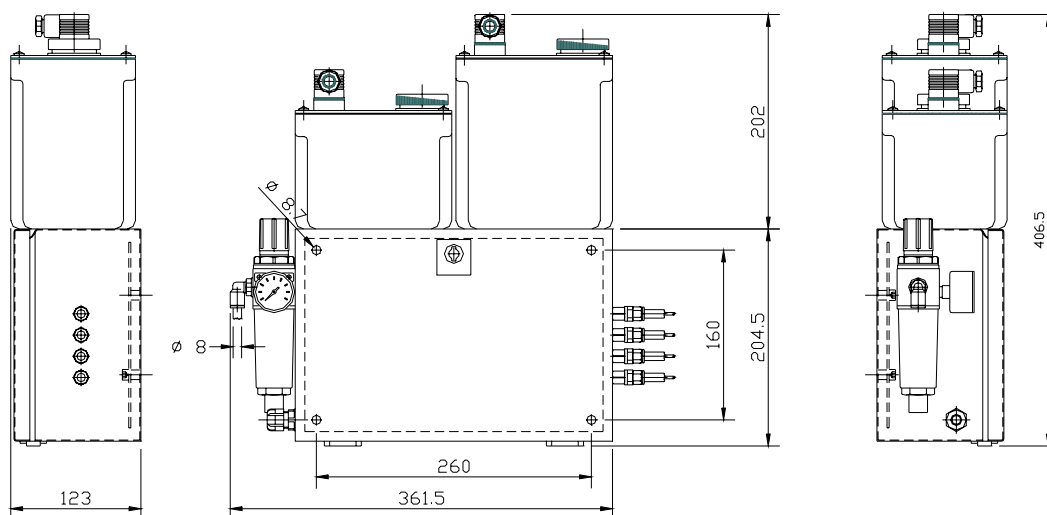




	THE UNIT IS SUPPLIED COMPLETE OF:
1-30	LOW LEVEL SWITCHES
19	FILLER CUPS + STRAINER
7	2.2 L EMULSION RESERVOIR
17	1.2 L OIL RESERVOIR
12	METALLIC BOX
9	PUMPS + BASES
29	SUCTION STRAINER
8	AIR REGULATOR
6	FREQUENCY GENERATOR
18	AIR INLET FITTINGS PUSH-IN 8 MM
10-11	PRESSURE REDUCER WITH GAUGE
20	SOLENOID VALVE 24 V DC – 24 V AC – 115 V AC OR 230 V AC THE VOLTAGE HAS TO BE ADD TO THE CODE. EXAMPLE 70.071.2.24VDC
	5 M COAXIAL HOSE FOR EACH OUTLET (6 MM – 2.5 MM)

OVERALL DIMENSION



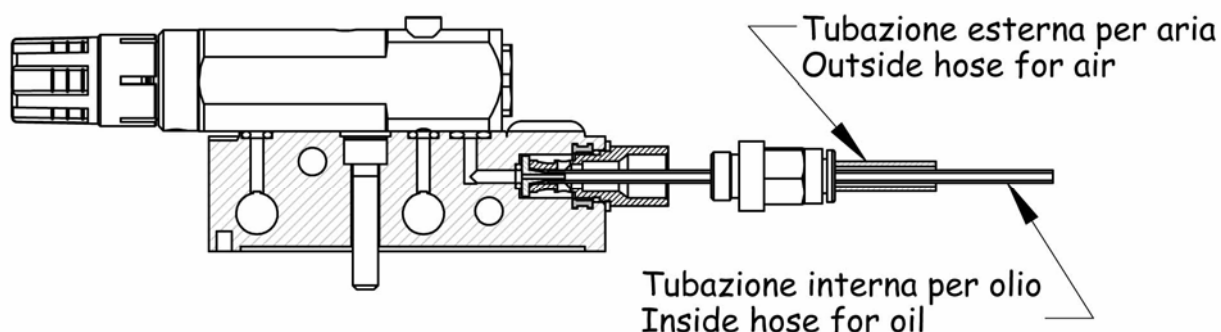
CODES TO ORDER SOLENOID VALVE COILS

14.660.1.R	14.660.2.R	14.660.3.R	14.660.4.R
24 V DC	115 V AC	230 V AC	24 V AC



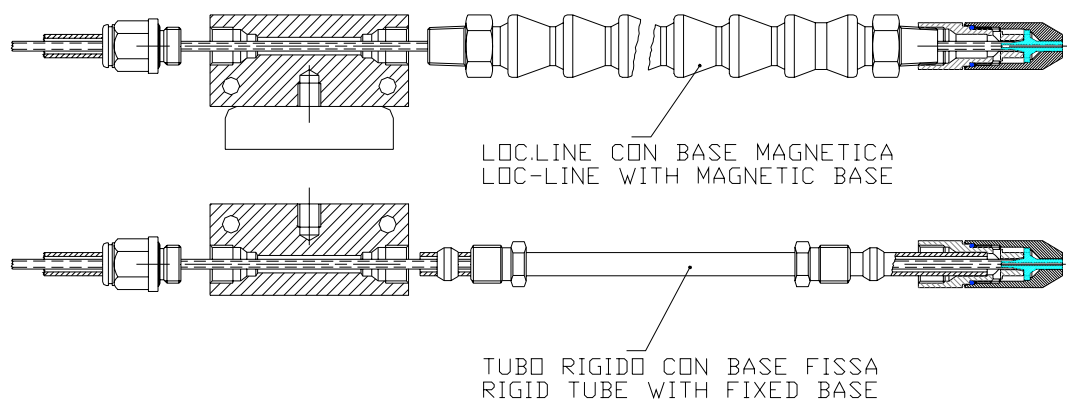
COAXIAL FEEDING LINES

ALL LUBETOOLS ARE SUPPLIED WITH 5 M OF COAXIAL HOSES ALREADY ASSEMBLED IN THE BASE OF THE PNEUMATIC PUMPS. THE OUTSIDE NYLON HOSES HAVE A DIAMETER OF 6 MM AND THE INSIDE NYLON HOSES HAVE A DIAMETER OF 2.5 MM. THE INSIDE HOSES ARE 500 MM MORE LONGER THAN THE OUTSIDE HOSES BECAUSE HAVE TO BE JOIN TO THE NOZZLE, WHILE THE OUTSIDE HOSES HAVE TO BE JOIN TO THE STRAIGHT ADAPTORS. ON REQUEST IS POSSIBLE TO SUPPLY MORE LONGER HOSES AND/OR SPECIAL COVERING.



END TUBES WITH NOZZLE

THE END TUBES WITH NOZZLE HAVE AN OVERALL LENGTH OF 300 MM THAT CAN BE REDUCED CUTTING THE STEEL TUBE OR REMOVING PARTS OF THE LOC-LINE



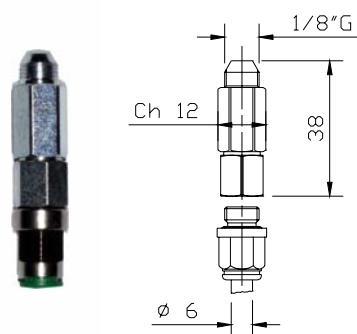


CODES FOR ORDER

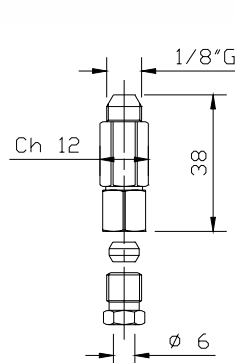
CODE	TYPE
70.100.0	LOC-LINE WITH FIXED BASE (6 MM)
70.100.2	LOC-LINE WITH MAGNETIC BASE (6 MM)
70.100.1	RIGID TUBE WITH FIXED BASE (6 MM)
70.100.3	RIGID TUBE WITH MAGNETIC BASE (6 MM)
70.101.0	POSITIONABLE TUBING WITH FIXED BASE (8 MM)
70.101.2	POSITIONABLE TUBING WI/MAG BASE (8 MM)
70.101.1	RIGID TUBE WITH FIXED BASE (8 MM)
70.101.3	RIGID TUBE WITH MAGNETIC BASE (8 MM)

THE CODE INCLUDES THE NOZZLE, THE STEEL
OR THE LOC-LINE TUBE AND THE MAGNETIC OR FI
XED BASE.

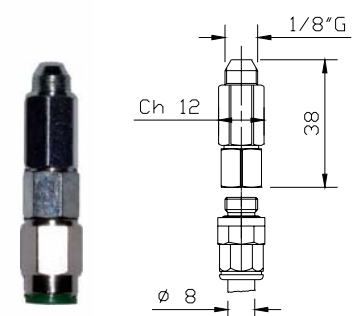
NOZZLE WITH HEAD THREAD 1/8" GAS



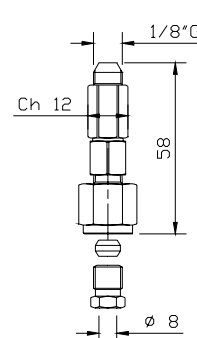
A70.093181



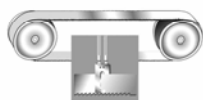
A70.093178



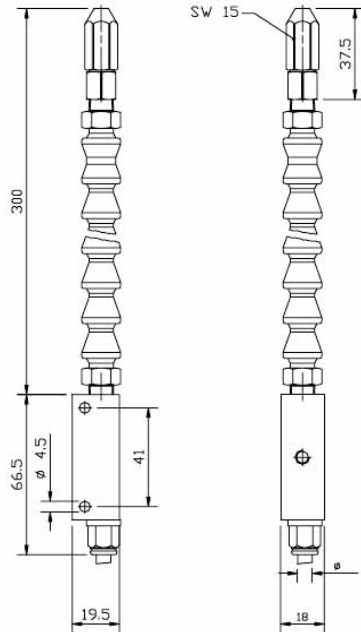
A70.093246



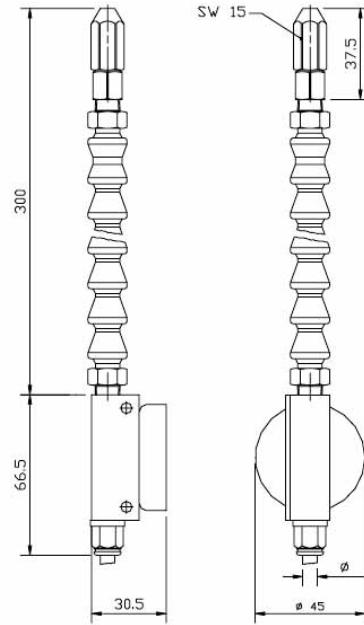
A70.093248



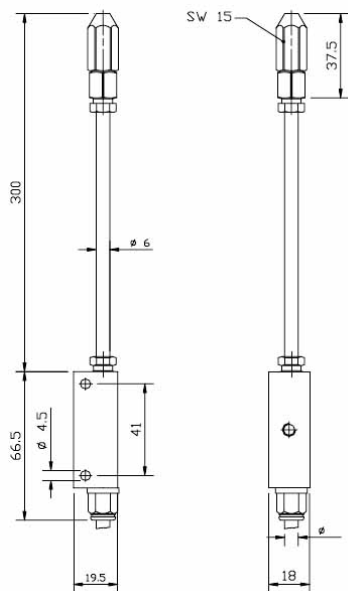
**END TUBES WITH NOZZLE
OVERALL DIMENSION**



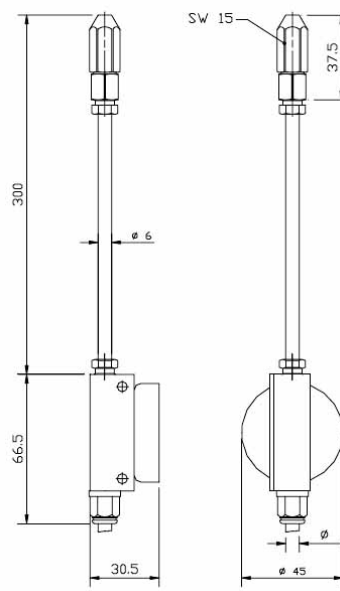
**70.100.0 (Ø6)
70.101.0 (Ø8)**



**70.100.2 (Ø6)
70.101.2 (Ø8)**



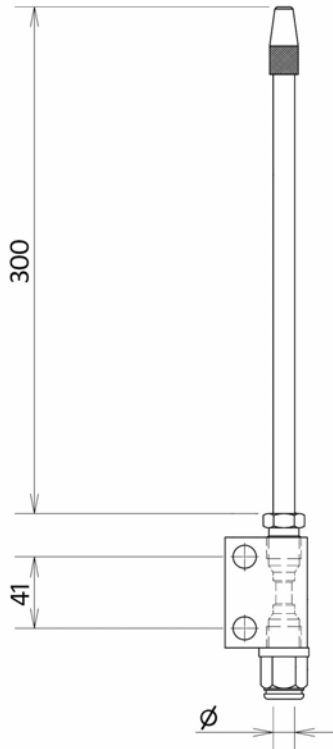
**70.100.1 (Ø6)
70.101.1 (Ø8)**



**70.100.3 (Ø6)
70.101.3 (Ø8)**



**END TUBES WITH DECABON NOZZLE
OVERALL DIMENSION**



CODE	DECABON NOZZLE	Ø
70.118.2	WITH BLOCK + PUSH-IN FITTING	6 MM
70.118.3	WITH MAGNETIC BLOCK + PUSH-IN FITTING	6 MM
70.118.4	WITH BLOCK + PUSH-IN FITTING	8 MM
70.118.5	WITH MAGNETIC BLOCK + PUSH-IN FITTING	8 MM



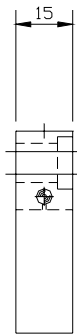
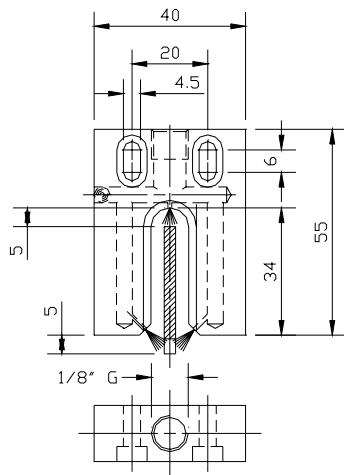
SADDLE NOZZLE FOR HORIZONTAL BAND SAW

BLADE HEIGHT: FROM 6 MM TO 34 MM

LUBRICANT: OIL

CODE	INLETS	OUTLETS
70.111.0	1	3

OVERALL DIMENSION

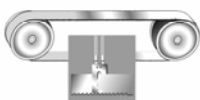
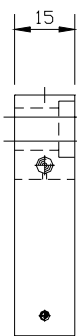
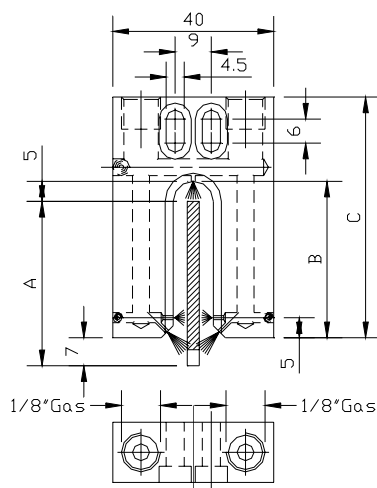


BLADE HEIGHT: FROM 41 MM TO 80 MM

LUBRICANT: OIL

CODE	INLETS	OUTLETS	BLADE	A	B	C
70.111.1	2	5	41	41	39	60
70.111.2	2	5	54	54	52	73
70.111.3	2	5	67	67	65	86
70.111.4	2	5	80	80	78	99

OVERALL DIMENSION



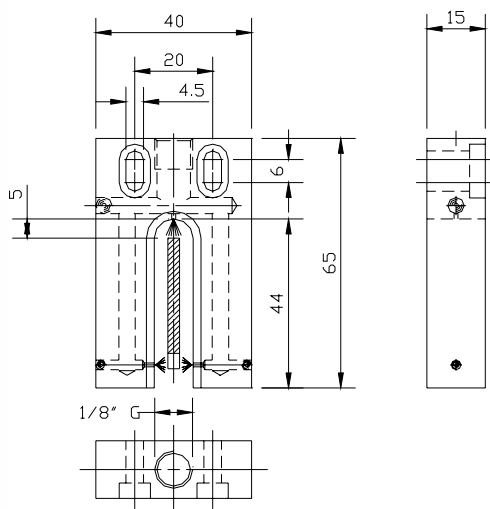
SADDLE NOZZLE FOR VERTICAL BAND SAW

BLADE HEIGHT: FROM 6 MM TO 34 MM

LUBRICANT: OIL

CODE	INLETS	OUTLETS
70.112.0	1	3

OVERALL DIMENSION

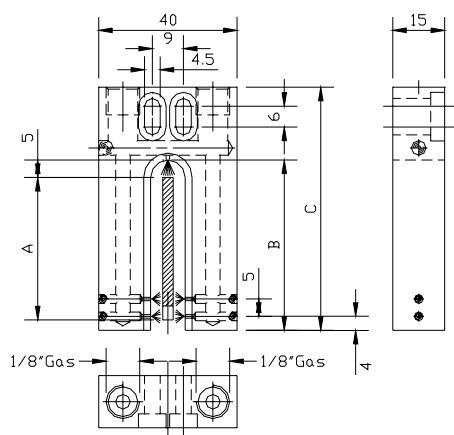


BLADE HEIGHT: FROM 41 MM TO 80 MM

LUBRICANT: OIL

CODE	INLETS	OUTLETS	BLADE	A	B	C
70.112.1	2	5	41	41	49	70
70.112.2	2	5	54	54	62	83
70.112.3	2	5	67	67	75	96
70.112.4	2	5	80	80	88	109

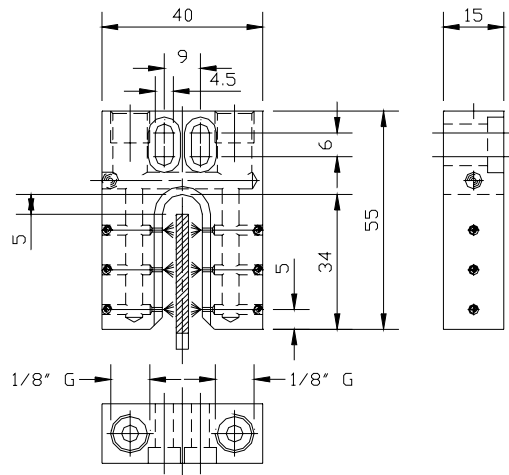
OVERALL DIMENSION



SADDLE NOZZLE FOR HORIZONTAL BAND SAW
BLADE HEIGHT: FROM 6 MM TO 34 MM
LUBRICANT: EMULSION

CODE	INLETS	OUTLETS
70.113.0	2	6

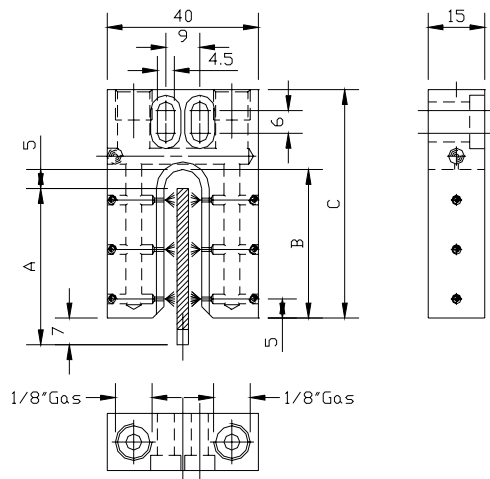
OVERALL DIMENSION



BLADE HEIGHT: FROM 41 MM TO 80 MM
LUBRICANT: EMULSION

CODE	INLETS	OUTLETS	BLADE	A	B	C
70.113.1	2	6	41	41	39	60
70.113.2	2	8	54	54	52	73
70.113.3	2	10	67	67	65	86
70.113.4	2	12	80	80	78	99

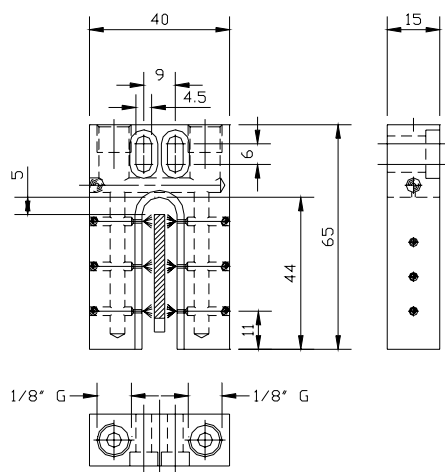
OVERALL DIMENSION



SADDLE NOZZLE FOR VERTICAL BAND SAW
BLADE HEIGHT: FROM 6 MM TO 34 MM
 LUBRICANT: EMULSION

CODE	INLETS	OUTLETS
70.114.0	2	6

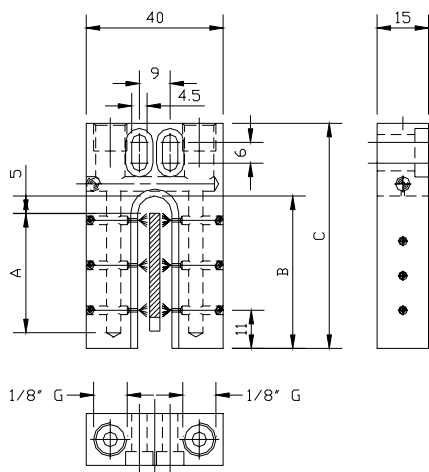
OVERALL DIMENSION



BLADE HEIGHT: FROM 41 MM TO 80 MM
 LUBRICANT: EMULSION

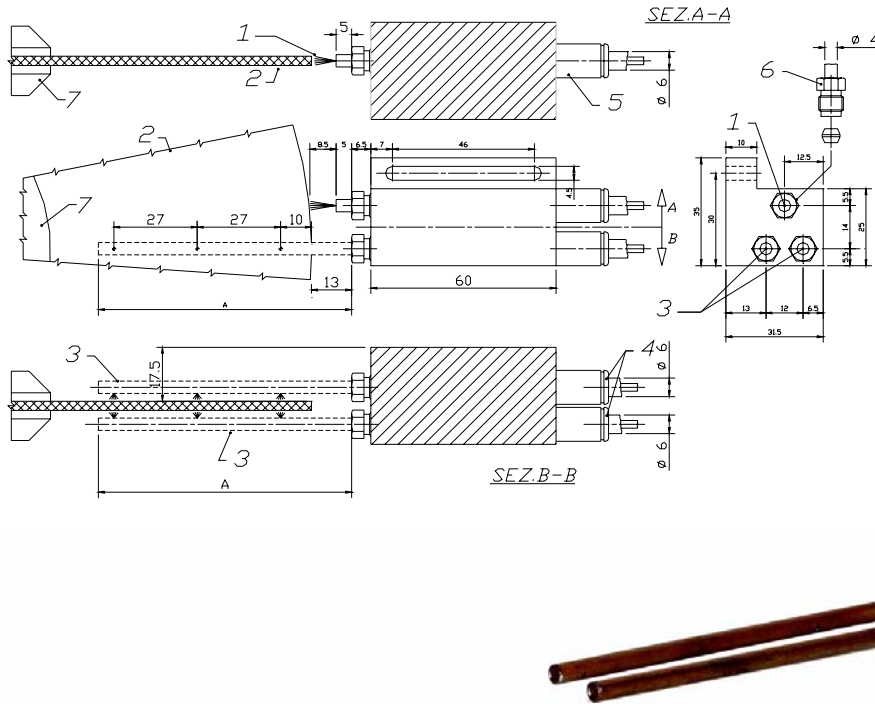
CODE	INLETS	OUTLETS	BLADE	A	B	C
70.114.1	2	6	41	41	49	70
70.114.2	2	8	54	54	62	83
70.114.3	2	10	67	67	75	96
70.114.4	2	12	80	80	88	109

OVERALL DIMENSION



NOZZLE FOR CIRCULAR SAW

LUBRICANT: OIL + EMULSION



1	TOOTH LUBRICATION WITH OIL
2	DISK
3	SIDES LUBRICATION WITH EMULSION
4	PUSH-IN FITTINGS TUBE 6 MM FOR EMULSION
5	PUSH-IN FITTING TUBE 6 MM FOR OIL
6	NUT AND OLIVE FOR 4 MM TUBE
7	METAL RING TO FIX THE DISK

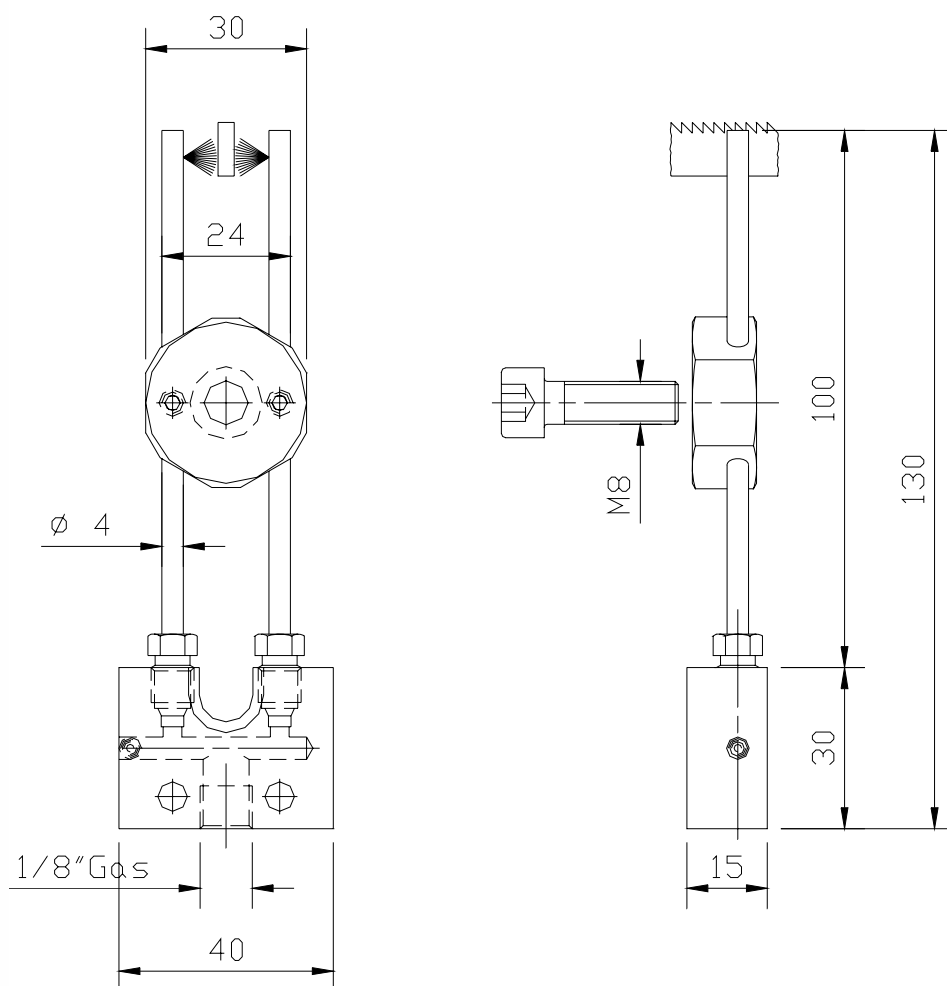
CODES FOR ORDER

CODE	EMULSION HOLES	DISK DIAMETER MM	A
70.103.4.55	2 + 2	175 – 200	55
70.103.4.82	3 + 3	225 – 250 – 275	82
70.103.4.109	4 + 4	300 – 315 – 350 – 370 - 400	109



**SPECIAL NOZZLE FOR VERTICAL BLADE
OVERALL DIMENSION**

CODE
70.109.9

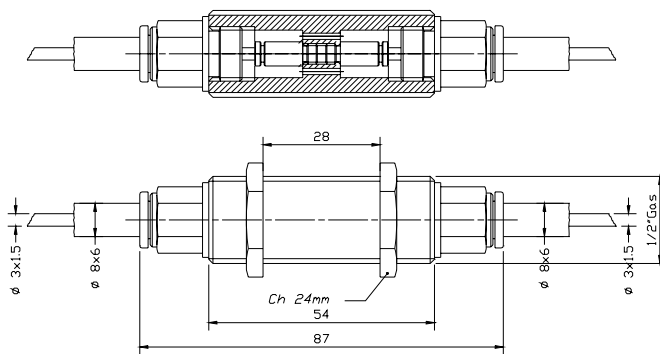


PUSH-IN FITTINGS AND PLUG FOR SADDLE NOZZLE

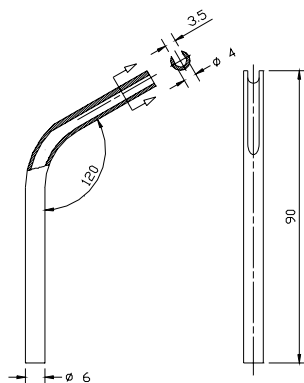


**BULKHEAD CONNECTION PUSH-IN FOR COAXIAL HOSES 8x4
MM – 3x1.5 MM**

A70.093230



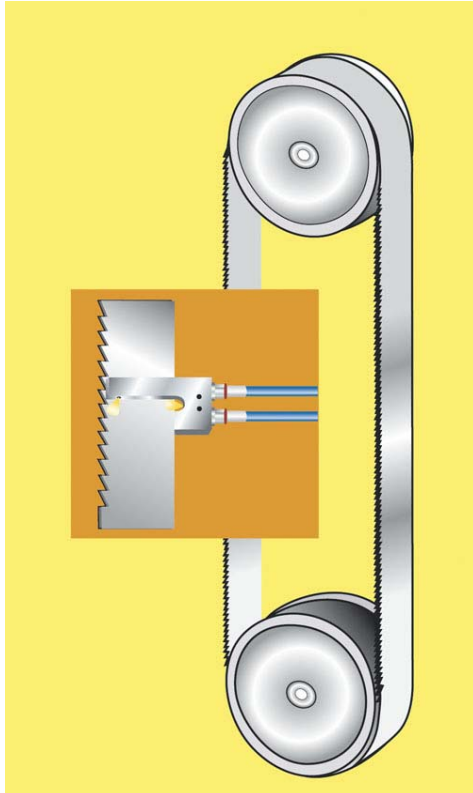
A70.093231



APPLICATIONS

REMEMBER MORE IS NOT BETTER AND USE DROPS NOT LITRES

SEGATRICI CIRCOLARI
CIRCULAR SAW MACHINES



THE NUMBER OF NOZZLE TO USE IS DEPENDING ON THE
MATERIALS AND THE ART OF PROCESSING

GUIDE TO SELECT THE NOZZLE
BAND SAW MACHINES

BLADE FROM 6 MM TO 34 MM	1 INLET – 3 OUTLETS
BLADE FROM 41 MM TO 80 MM	2 INLETS – 5 OUTLETS

GUIDE TO SELECT THE NOZZLE
CIRCULAR SAW MACHINES

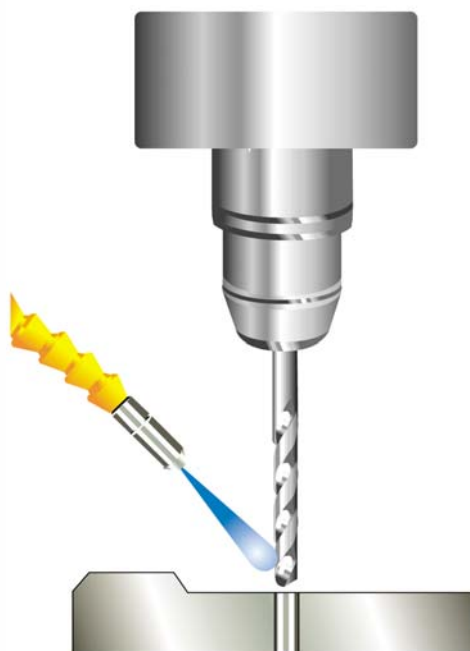
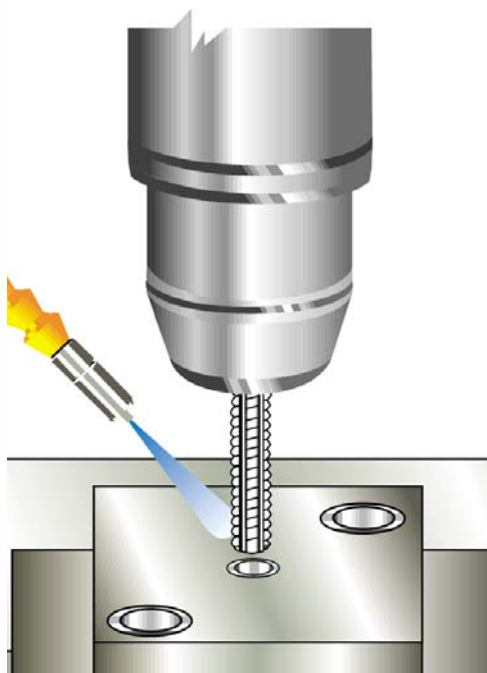
DISK FROM 175 MM TO 225 MM	1 INLET – 3 OUTLETS
DISK FROM 250 MM TO 400 MM	2 INLETS – 5 OUTLETS



APPLICATIONS

REMEMBER MORE IS NOT BETTER AND USE DROPS NOT LITRES

FORATURA - ALESATURA
DRILLING - BORING



THE NUMBER OF NOZZLE TO USE IS DEPENDING ON THE
MATERIALS AND THE ART OF PROCESSING

GUIDE TO SELECT THE NOZZLE
TAPPING

TOOL FROM 3 MM TO 10 MM	1 NOZZLE
TOOL FROM 11 MM TO 20 MM	2 NOZZLE
TOOL FROM 21 MM TO 40 MM	3 NOZZLE
TOOL FROM 41 MM TO 60 MM	4 NOZZLE

GUIDE TO SELECT THE NOZZLE
DRILLING - BORING

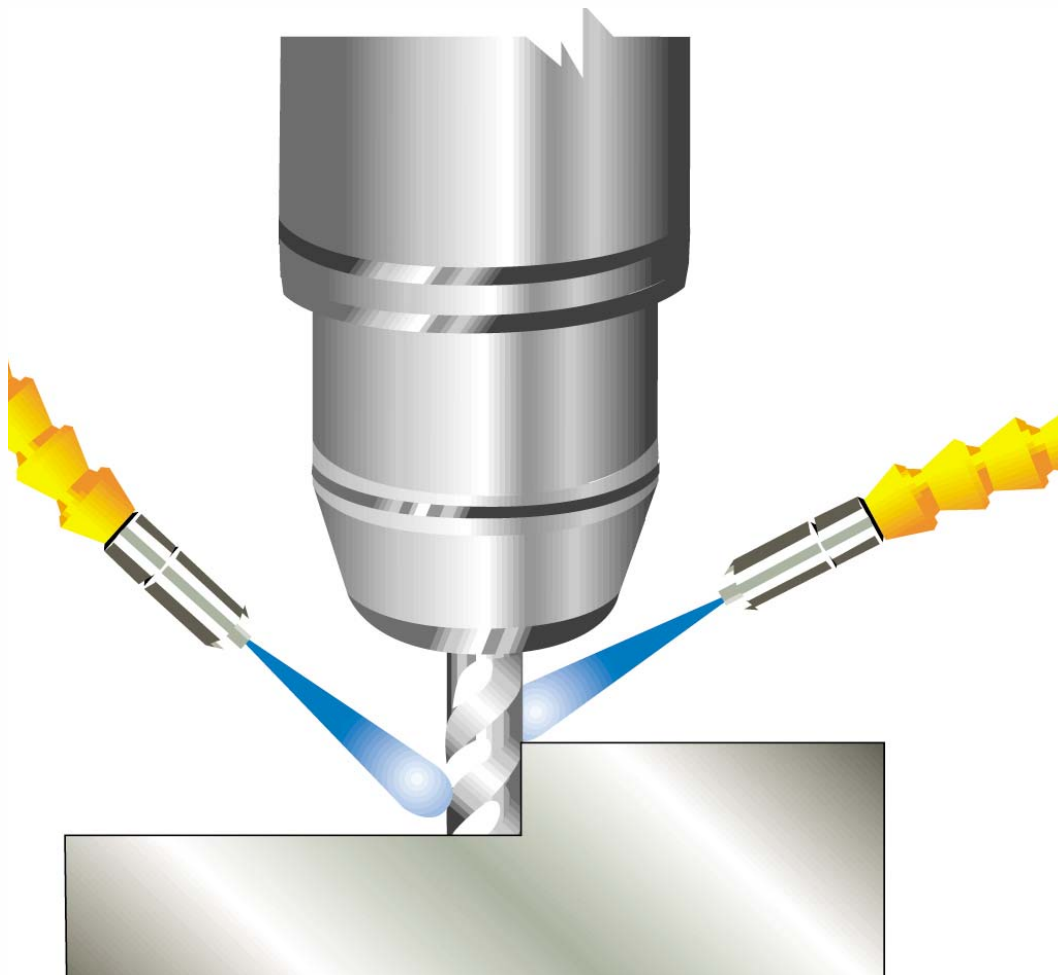
TOOL FROM 1 MM TO 12 MM	1 NOZZLE
TOOL FROM 13 MM TO 24 MM	2 NOZZLE
TOOL FROM 25 MM TO 48 MM	3 NOZZLE
TOOL FROM 49 MM TO 60 MM	4 NOZZLE



APPLICATIONS

REMEMBER MORE IS NOT BETTER AND USE DROPS NOT LITRES

MILLING - ENGRAVING

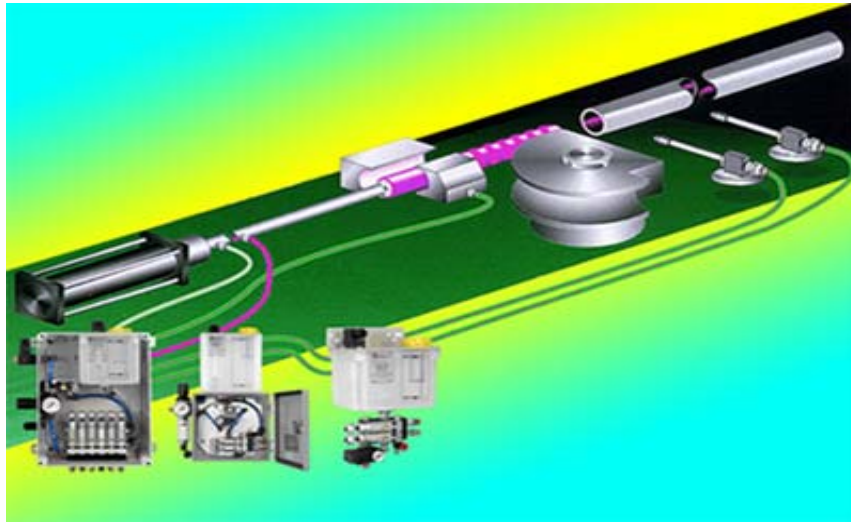


THE NUMBER OF NOZZLE TO USE IS DEPENDING ON THE MATERIALS AND THE ART OF PROCESSING

GUIDE TO SELECT THE NOZZLE

TOOL FROM 1 MM TO 12 MM	1 NOZZLE
TOOL FROM 13 MM TO 40 MM	2 NOZZLE
TOOL FROM 41 MM TO 100 MM	3 NOZZLE
TOOL FROM 101 MM TO 240 MM	4 NOZZLE





The **TUBE FORMING LUBRICATION SYSTEM** consists of many options, it depends on customer preferences.

Normally the mandrel is lubricated with higher oil volume and higher air pressure than the other points. The spray dispensed to each outlet is fully adjustable. The customer can have an air-oil combination or just oil.

We can set the system following customers need.

An exact adjustable amount of lubricant is sent to all points that have to be lubricate. The whole working environment remains clean.

BENEFITS:

Positive lubricant injection

Automatic repeat cycling of lubricant metering pumps

Automatic cycling with machine

Various combination of outlets

Custom systems to meet customer's needs

Full adjustment of air and oil output at each lubrication point

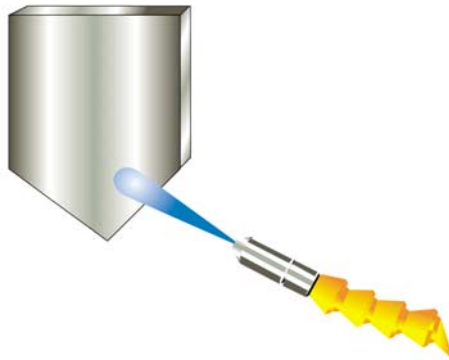


APPLICATIONS

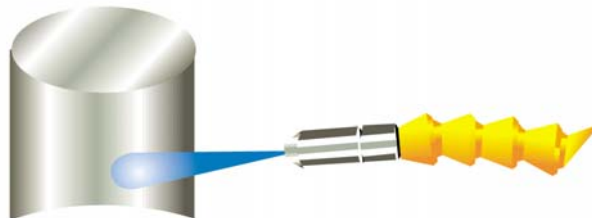
REMEMBER MORE IS NOT BETTER AND USE DROPS NOT LITRES

TUBE FABRICATION

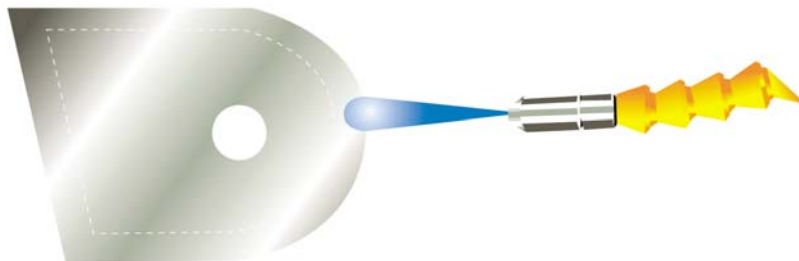
TRADITIONAL CUTTING
ORBITAL CUTTING
SHEARING
TAGGING



PUNCHING
DRILLING
FACING
FLARING



FORMING
BENDING
SHAPING



APPLICATIONS

REMEMBER MORE IS NOT BETTER AND USE DROPS NOT LITRES

CHAINS – MONO AND BI-RAIL CONVEYORS

THE LUBRICATION ASSURES MAXIMUM CHAIN LIFE AND OPTIMUM CONVEYOR OPERATION.

THE SYSTEM DOES NOT CONTAMINATE THE TRANSPORTED MATERIALS WITH OIL DROPS.

THE SYSTEM DO NOT PRODUCE FOG OR DANGEROUS VAPOUR.

LAST GENERATION OIL CAN BE USED WITHOUT PROBLEMS.

THE CORRECT UNIT DEPENDS ON THE NUMBER OF POINTS HAVE TO BE LUBRICATE.

THE UNIT WILL BEGIN TO OPERATE BY MEAN OF AN INDUCTIVE SENSOR OR A MECHANICAL FEELER PIN OPERATED FROM THE CHAIN.

A SOLENOID VALVE OR A VALVE WILL OPEN AND WILL SEND THE AIR TO THE SYSTEM.

DURING THE WORKING TIME WILL BE POSSIBLE TO HAVE ONE SHOT OR MORE SHOTS DEPENDING ON THE CHAIN HAVE TO BE LUBRICATED.

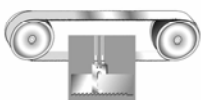
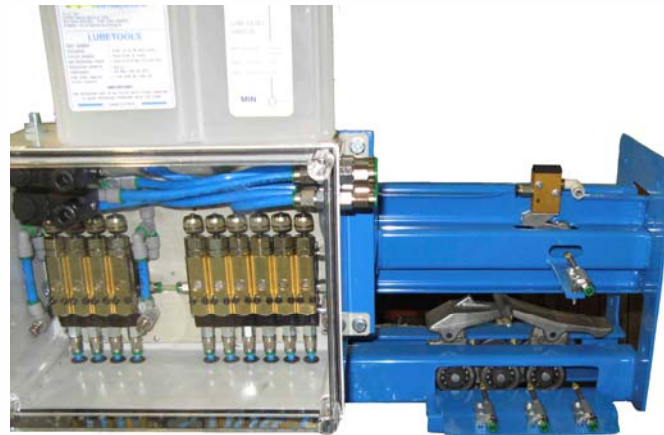
THE TIME THAT THE INDUCTIVE SENSOR OR THE MECHANICAL FEELER PIN IS ACTIVATED FROM THE CHAIN. WILL BE THE WORKING TIME.

THE MORE USED NOZZLE IS WITH STEEL UBE BECAUSE HAS THE POSSIBILITY TO BE ADJUSTED WITHOUT BRACKET.

SOME TIME ARE USED THE NOZZLE WITH A THREADED FINAL PART. IN THIS CASE HAS TO BE USED BRACKETS WITH THREAD HOLES.



CONVEYORS LUBRICATION SYSTEMS





**CONVEYORS LUBRICATION
MONO AND BI RAIL SYSTEMS**

THIS SYSTEM IS DESIGNED TO LUBRICATE THE ROLLERS OF CONVEYORS WHILE THEY ARE IN OPERATION AND DELIVERS A METERED AMOUNT OF LUBRICANT INTO MOVING BEARING FITTINGS. THESE CUSTOM-ENGINEERED LUBRICATION SYSTEMS ARE PERFECT FOR APPLICATIONS EVEN IN HARSH OPERATING CONDITIONS. EACH CONVEYOR REQUIRES ONE UNIT FOR THE LEFT SIDE AND FOR THE RIGHT. THE SEQUENCE OF THE LUBRICATION EVENTS (EACH ROLLER OR EVERY OTHER ROLLER, ETC.) DEPENDS ON THE NUMBER OF ROLLERS, THE SPEED OF THE CONVEYOR OR ON THE DISTANCE BETWEEN THE ROLLERS.

BENEFITS

METERED APPLICATION OF LUBRICANT

WORKS ON MOVING PARTS WHICH CONSUMING TIME TO LUBRICATE MANUALLY

LUBRICATES WHILE THE CONVEYOR IS IN NORMAL OPERATION – NO LOST PRODUCTION TIME

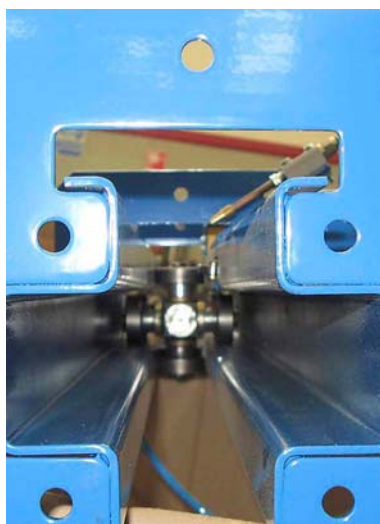
LUBRICATION EVEN UNDER HARSH OPERATION CONDITION

FUNCTIONING

SYSTEM IS FORMED BY A RESERVOIR WHICH SENDS OIL, BY GRAVITY, TO THE DISPENSING ROOMS OF THE PNEUMATIC MICROPUMPS. NECESSARY AIR FOR THE FUNCTIONING OF THE PUMPS AND THE OIL SPRAY IS SENT ON THE PASSAGE OF BEARINGS THAT POWER PNEUMATIC VALVES WITH MECHANICAL CONTROL OR INDUCTIVE SENSORS, SUITABLY POSITIONED ALONG RAILROAD.



**CONVEYORS LUBRICATION
MONORAIL SYSTEMS**



**TYPICAL MONORAIL
CONVEYOR SYSTEM**

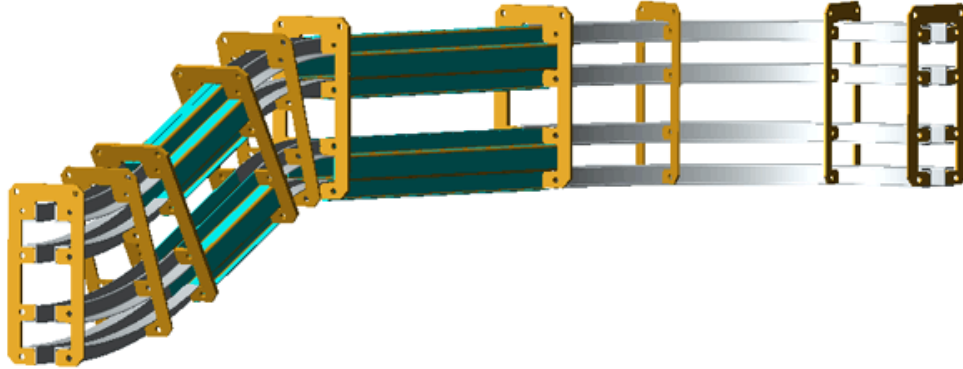
TYPICAL MONORAIL CONVEYOR SYSTEM IS COMPOSED BY:

- 1) 2 PNEUMATIC VALVES WITH MECHANICAL CONTROL
OR 2 INDUCTIVE SENSORS
- 2) 4 MICROPUMPS DIVIDED IN TWO GROUPS OF 2
- 3) ONE 2.2 L RESERVOIR COMPLETE OF LUBRICANT LOW
LEVEL SWITCH
- 4) 2 AIR REGULATORS
- 5) 4 NOZZLES

WE ARE STILL AVAILABLE FOR DESIGNING SYSTEMS ON
SPECIFIC REQUEST OF CUSTOMER.



**CONVEYORS LUBRICATION
BIRAIL SYSTEMS**



**TYPICAL BIRAIL
CONVEYOR SYSTEM**

TYPICAL BIRAIL CONVEYOR SYSTEM IS COMPOSED BY:

- 1) 3 OR 4 PNEUMATIC VALVES WITH MECHANICAL CONTROL OR INDUCTIVE SENSORS
- 2) 10 OR MORE MICROPUMPS DIVIDED INTO TWO GROUPS OF 2 AND ONE OF 6
- 3) ONE 3,6L RESERVOIR COMPLETE OF LOW LEVEL SWITCH
- 4) 3 OR MORE AIR REGULATOR
- 5) 10 OR MORE NOZZLES

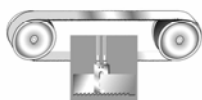
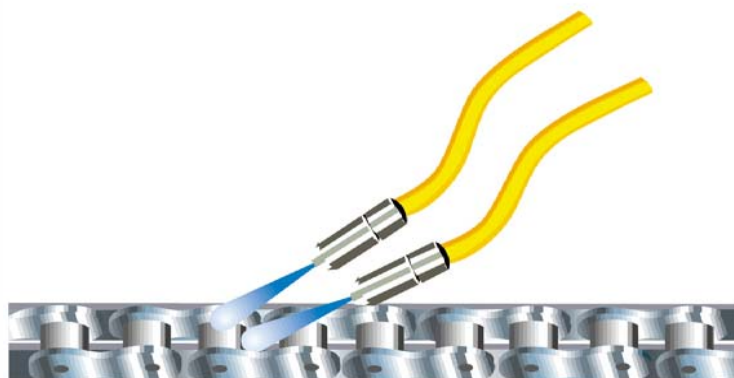
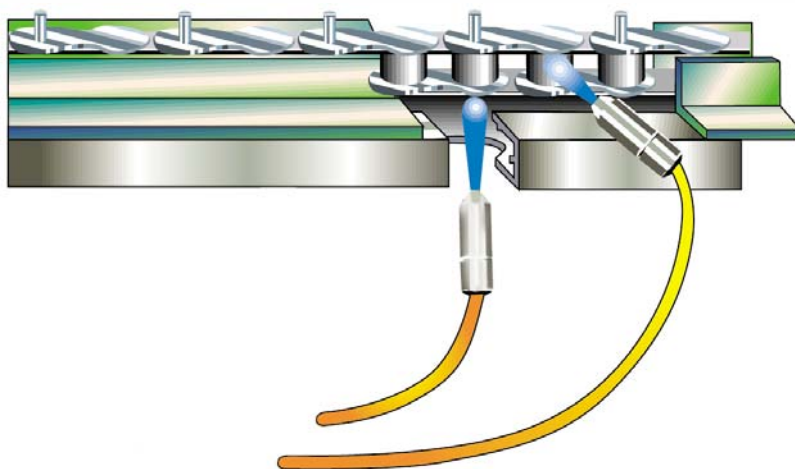
WE ARE STILL AVAILABLE FOR DESIGNING SYSTEMS ON SPECIFIC REQUEST OF CUSTOMER.



APPLICATIONS

REMEMBER MORE IS NOT BETTER AND USE DROPS NOT LITRES

CHAINS – MONO AND BI-RAIL CONVEYORS



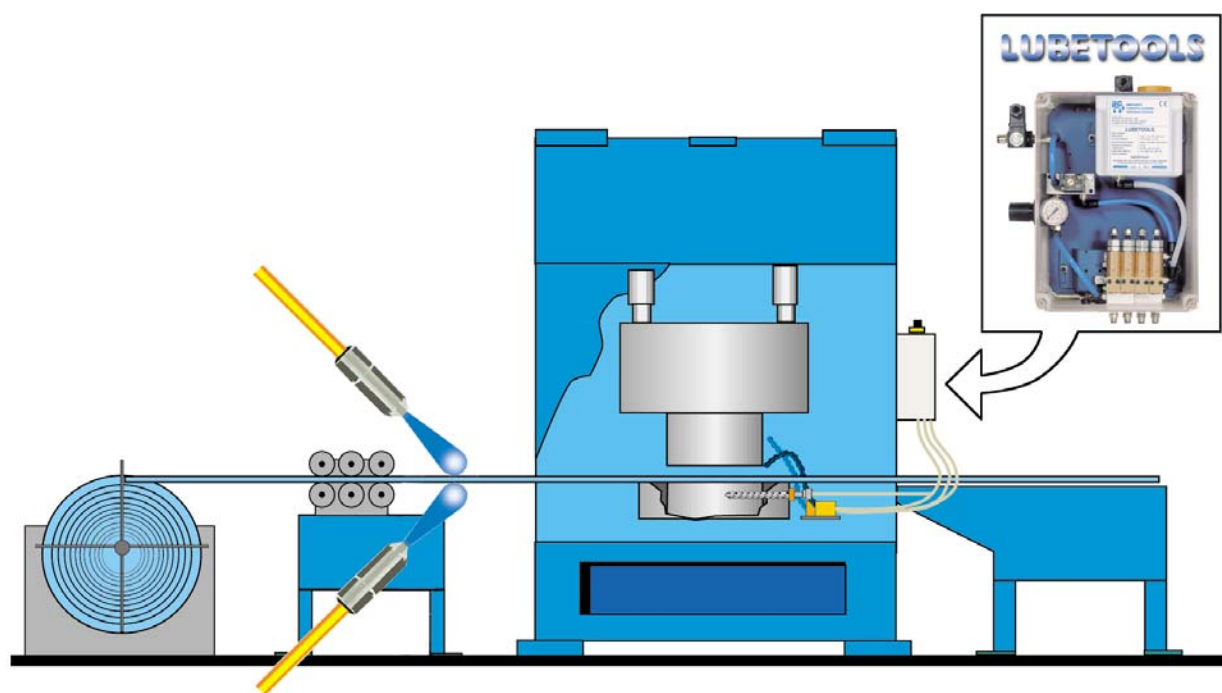
APPLICATIONS

REMEMBER MORE IS NOT BETTER AND USE DROPS NOT LITRES

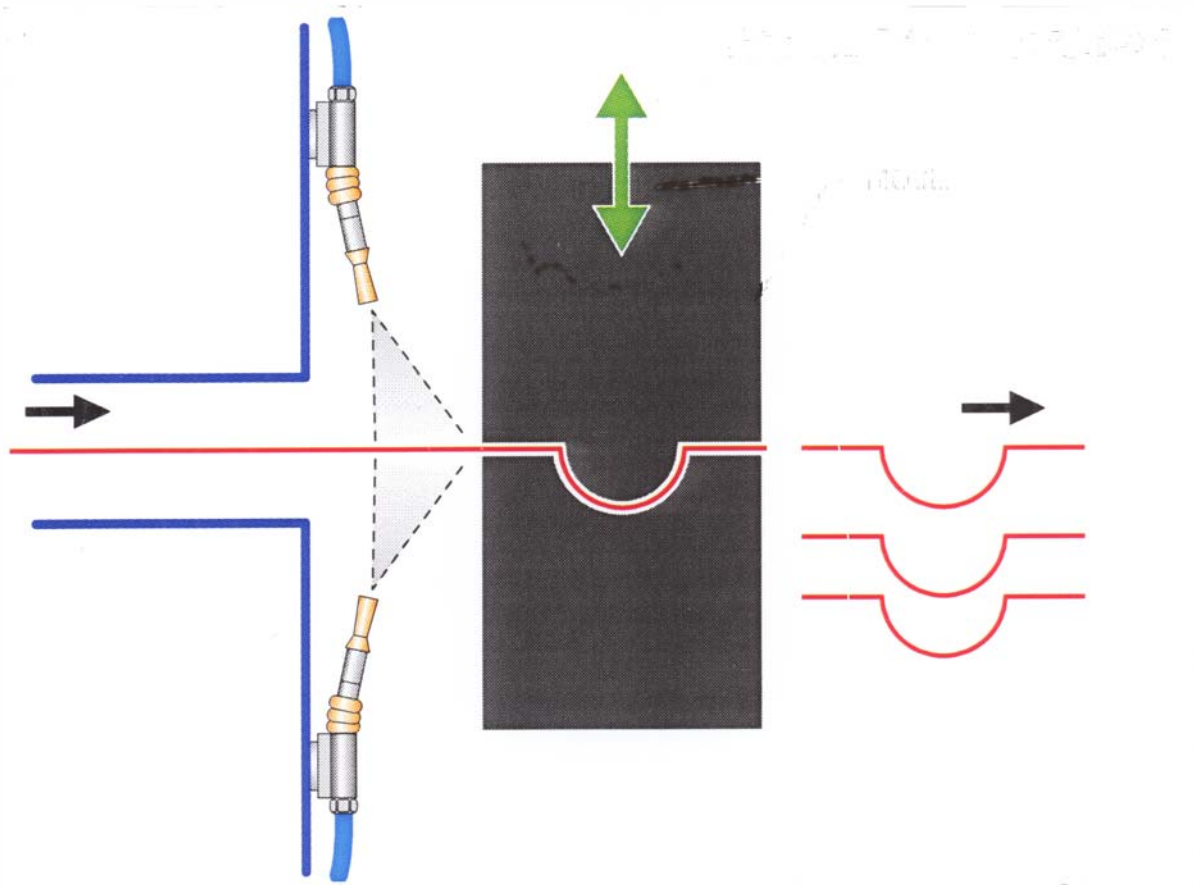
METAL

FORMING

LUBRICATION



POSITIONING NOZZLE



SHEET DISTANCE 100-150 MM

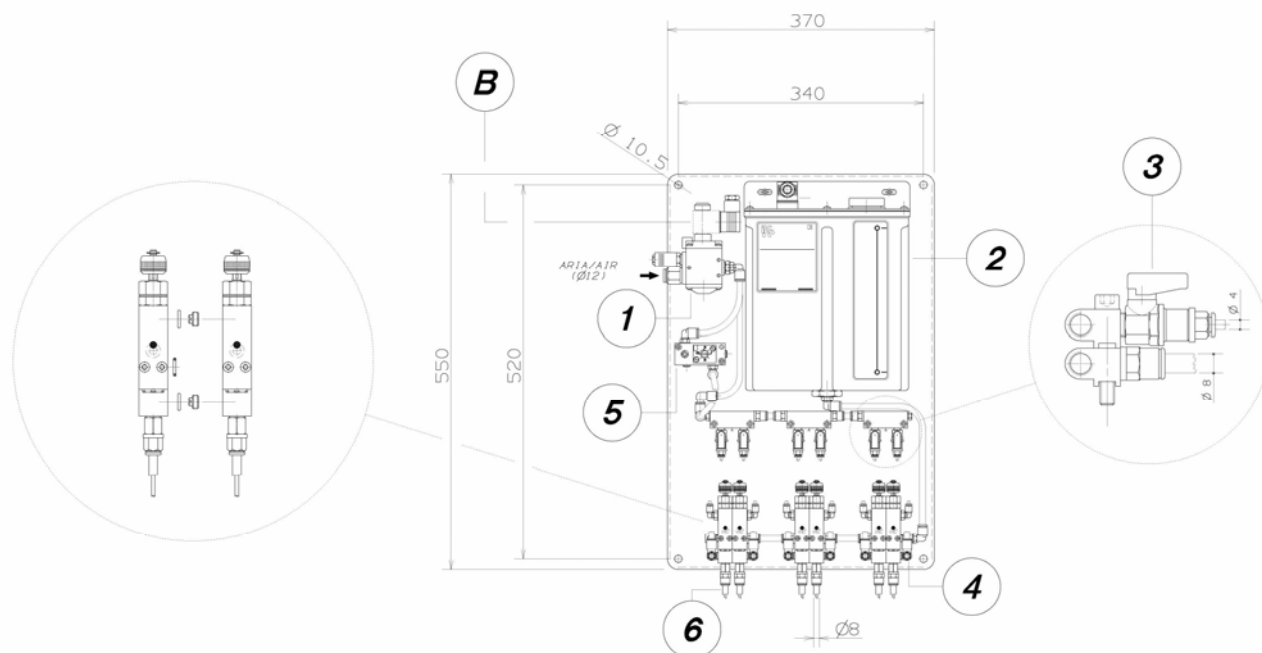
DISTANCE FROM ANOTHER NOZZLE 100 MM

45° ANGLE AS SHOW ON THE PICTURE

EACH NOZZLE COVER A SURFACE OF 100-120 MM



**STRIP TOP AND BOTTOM LUBRICATION WITH WIDTH FROM 50
MM TO 800 MM**



CODE	WAYS
70.722.4	2
70.067.9	4
70.099.5	6

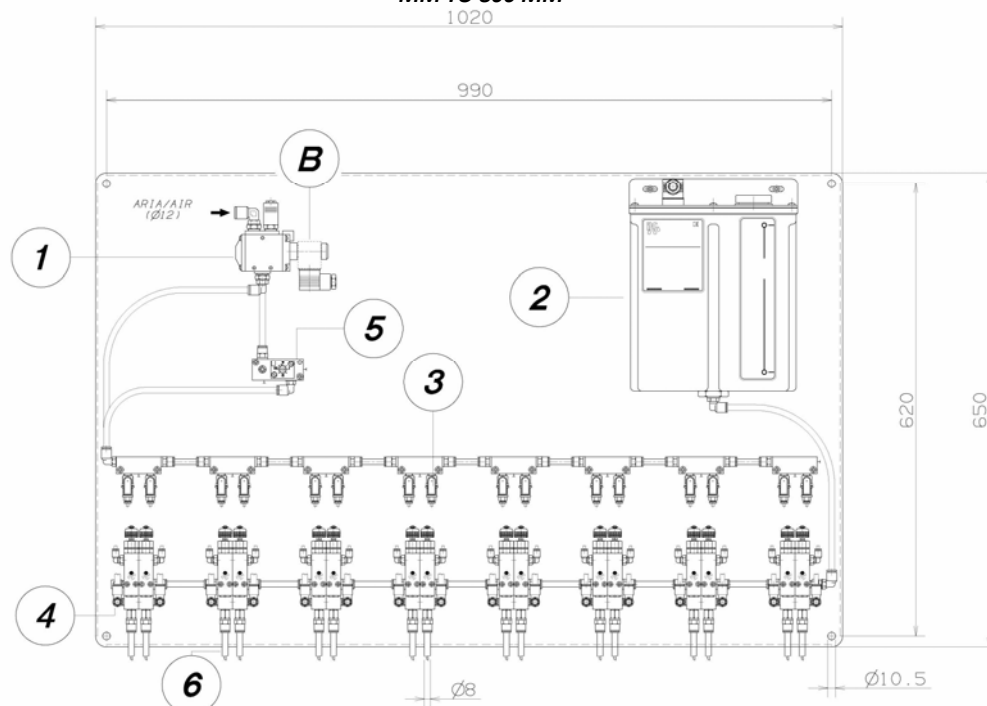
B	COIL
1	N. 2 SOLENOID VALVE 24 V DC - 24 V AC - 115 V AC OR 230 V AC FIRST TO DRIVE THE PUMPS/STROKES SECOND TO SEND AIR TO THE NOZZLE
2	6 L RESERVOIR COMPLETE OF LOW LEVEL SWITCH 1 A 250 V AC 200 V DC 50 W
3	AIR PUMP ON/OFF VALVE
4	NOZZLE AIR REGULATOR
5	FREQUENCY GENERATOR
6	5 M COAXIAL TUBE 8 MM
THE POINTS ARE INDEPENDENT AND CAN BE EXCLUDED CLOSING THE VALVE 3 AND THE CORRESPONDENT NOZZLE AIR REGULATOR.	
ON REQUEST IT IS POSSIBLE TO SUPPLY UNITS TO LUBRICATE STRIP WITH LOWER OR UPPER WIDTH.	

CODES TO ORDER SOLENOID VALVE 14.662.5 COILS

14.662.1.R	14.662.2.R	14.662.3.R	14.662.4.R
24 V DC	115 V AC	230 V AC	24 V AC



**STRIP TOP AND BOTTOM LUBRICATION WITH WIDTH FROM 50
MM TO 800 MM**



CODE	WAYS
70.712.1	8
70.071.4	10
70.722.1	12
70.723.8	14
70.073.4	16

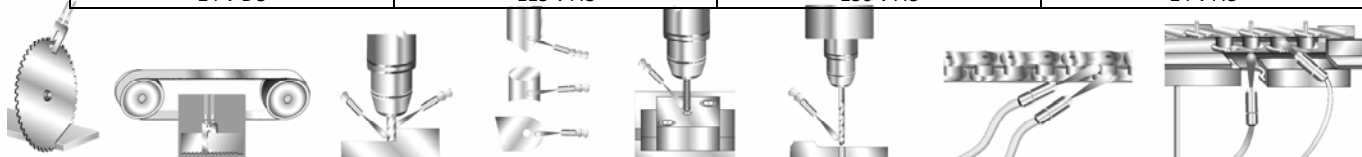
B	COIL
1	N. 2 SOLENOID VALVE 24 V DC – 24 V AC – 115 V AC OR 230 V AC FIRST TO DRIVE THE PUMPS/STROKES SECOND TO SEND AIR TO THE NOZZLE
2	6 L RESERVOIR COMPLETE OF LOW LEVEL SWITCH 1 A 250 V AC 200 V DC 50 W
3	AIR PUMP ON/OFF VALVE
4	NOZZLE AIR REGULATOR
5	FREQUENCY GENERATOR
6	5 M COAXIAL TUBE 8 MM

THE POINTS ARE INDEPENDENT AND CAN BE EXCLUDED CLOSING THE VALVE 3 AND THE CORRESPONDENT NOZZLE AIR REGULATOR.

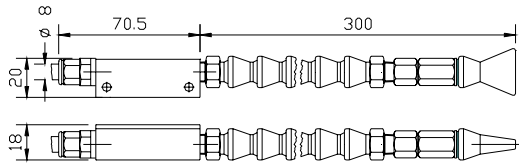
ON REQUEST IT IS POSSIBLE TO SUPPLY UNITS TO LUBRICATE STRIP WITH LOWER OR UPPER WIDTH.

CODES TO ORDER SOLENOID VALVE 14.662.5 COILS

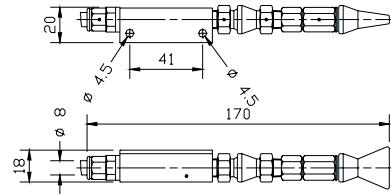
14.662.1.R	14.662.2.R	14.662.3.R	14.662.4.R
24 V DC	115 V AC	230 V AC	24 V AC



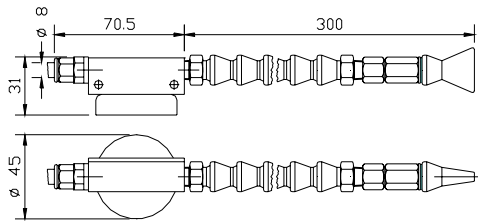
**FLAT NOZZLE
FOR SLOW FEED**



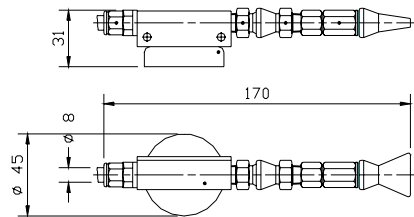
70.102.0



70.102.4

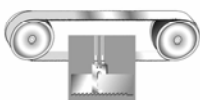


70.102.1

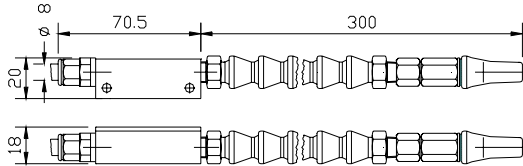


70.102.5

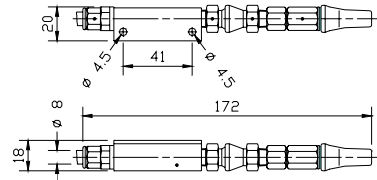
CODE	DESCRIPTION
70.102.0	POSITIONABLE TUBING WITH FIXED BASE
70.102.1	POSITIONABLE TUBING W/MAGNETIC BASE
70.102.4	FIXED BASE
70.102.5	MAGNETIC BASE



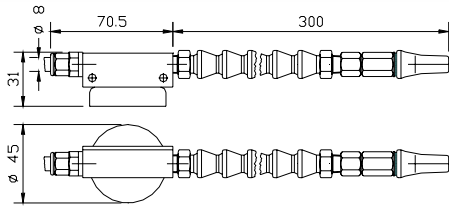
**CONE NOZZLE
FOR HIGH FEED**



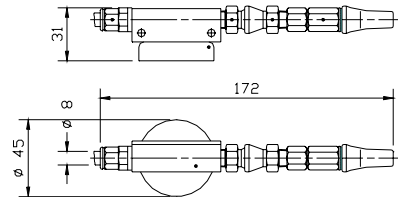
70.102.2



70.102.9



70.102.3



70.102.8

CODE	DESCRIPTION
70.102.2	POSITIONABLE TUBING WITH FIXED BASE
70.102.3	POSITIONABLE TUBING WITH MAGNETIC BASE
70.102.9	FIXED BASE
70.102.8	MAGNETIC BASE



VEGETABLE OIL NATURAL – 77

INTEGRAL LUBRICANT OF NATURAL ORIGINS

ILC TECHNICAL DEPARTMENT HAS SET A SERIES OF LUBRICANT/COOLANT OF NATURAL ORIGINS CALLED NATURAL 77 SERIES, WITH THE PRECISE AIM OF IMPROVING DRAMATICALLY THE WORKING ENVIRONMENT CONDITIONS AND IN THE MEANWHILE TO SUPPLY CUTTING TOOLS PERFORMANCES HIGHER TO THAT ACHIEVABLE WITH THE USE OF TRADITIONAL CUTTING NEAT MINERAL OILS. NATURAL 77 SERIES IS WHOLLY FREE FROM ANY LUBRICANT MINERAL OIL AND IT IS COMPOSED TOTALLY BY SYNTHETIC ESTERS DERIVED FROM RAW MATERIALS OF NATURAL ORIGINS. ODOURLESS, LIGHT-COLOURED, THESE PRODUCTS ARE WHOLLY BIODEGRADABLE AND ABSOLUTELY NON-TOXIC, THE USE OF NATURAL 77 SERIES AVOIDS TOTALLY THE RISK DUE TO THE USE OF MINERAL OILS AND CONSEQUENTLY THE PERIODICAL MEDICAL VISIT.

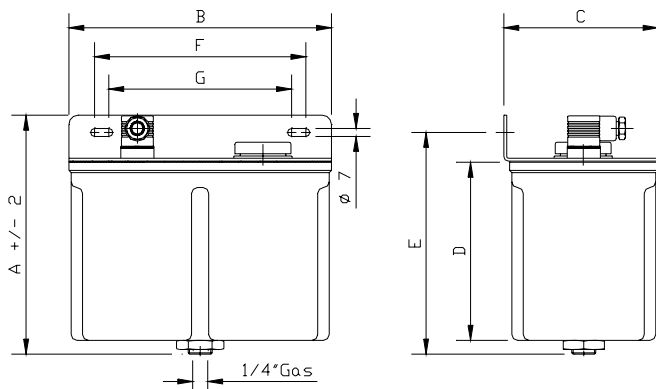
IN ADDITION, NATURAL 77 SERIES HAS AN EXCEPTIONAL LUBRICANT POWER COMBINED WITH EXTREME PRESSURE PREROGATIVES AND A GOOD COOLING ACTION WHICH KEEPS IT SUITABLE TO OBTAIN MAXIMAL RESULTS WITH STRONG FEEDS AND WITH THE TYPE OF WORKING TOOL, AVOIDING GASSINGS AND SEIZING-UP. NATURAL 77 SERIES HAS EVEN THE PREROGATIVE TO REDUCE SMOKES, HAS LOW VOLATILITY WHICH REDUCES NOTEWORTHY STEAM REDUCTION, SUCH AN EXCELLENT CHEMICAL STABILITY TO AVOID POLYMERISATION OR DEGRADATION OF THE USING PRODUCT; LAST, BUT NOT THE LEAST, NATURAL 77 HAS THE CHARACTERISTIC OF AUTO EXTINGUISHING IMMEDIATELY AT THE ARISING OF A FIRE TRIGGER.

NATURAL 77 IS A NEAT FLUID WITH COMPLEX ADDITIVATION, WITH VERY HIGH ANTI-WELDING POWER AND CONSPICUOUS EXTREME PRESSURE RESISTANCE, AND, USED WITH TOOLS OR CERAMIC METAL INSERTS, IT ALLOWS TO DOUBLE THE FEED SPEED IN COMPARISON WITH THE USUAL PARAMETERS OF USAGE. THE USE OF NATURAL 77 AVOIDS SMOKES THAT WOULD DEVELOP WITH TRADITIONAL OILS DURING THE INCREASING FEED SPEEDS MENTIONED ABOVE. FURTHERMORE, NATURAL 77 IS SUITABLE TO BE USED ON GEAR-CUTTING MACHINES USING BOTH CUTTING SYSTEMS SUCH AS "GLEASON" AND SLOTTING MACHINE SUCH AS "FELLOWS". NATURAL 77 IS ALSO WHOLLY FREE OF CHLORINE AND ITS DERIVATIVES.

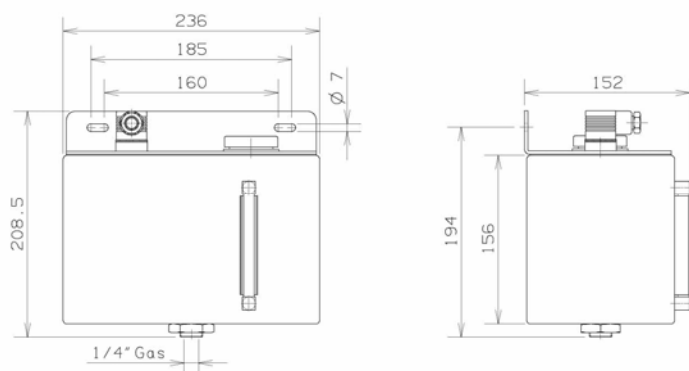
PRODUCT	SPECIFIC GRAVITY AT 15 °C KG/L	VISCOSITY cSt A 40 °C	FLASH POINT °C
NATURAL 77	0.928	68	290
CODE	DESCRIPTION	Q.TY	
30.600.6	5 L VEGETABLE OIL NATURAL 77	1	



**COMPONENTS
RESERVOIRS**

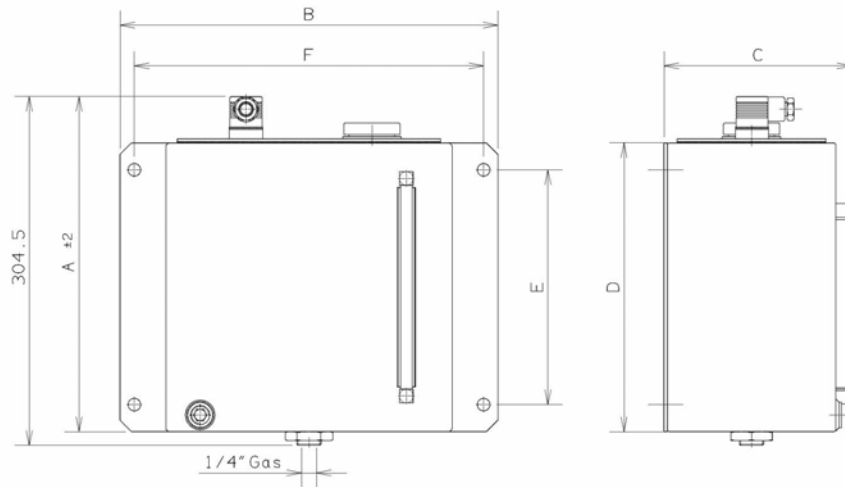


CODE	CAPACITY - L	LOW LEVEL SWITCH	A MM	B MM	C MM	D MM	E MM	F MM	G MM
A72.079263	1.2 Polyester		161	148	123	108	146	132	125
A72.079264	2.2 Polyester		213	148	123	160	198	132	125
A72.079265	3.6 Polyester		208	230	135	155	193	185	160
A72.079269	6.0 Nylon		303	230	135	250	288	185	160
A72.079260	1.2 Polyester	***	161	148	123	108	146	132	125
A72.079261	2.2 Polyester	***	213	148	123	160	198	132	125
A72.079262	3.6 Polyester	***	208	230	135	155	193	185	160
A72.079268	6.0 Nylon	***	303	230	135	250	288	185	160



CODE	CAPACITY - L	LOW LEVEL SWITCH
A72.079399	3.6 Metallic	***
A72.079399.SL	3.6 Metallic	

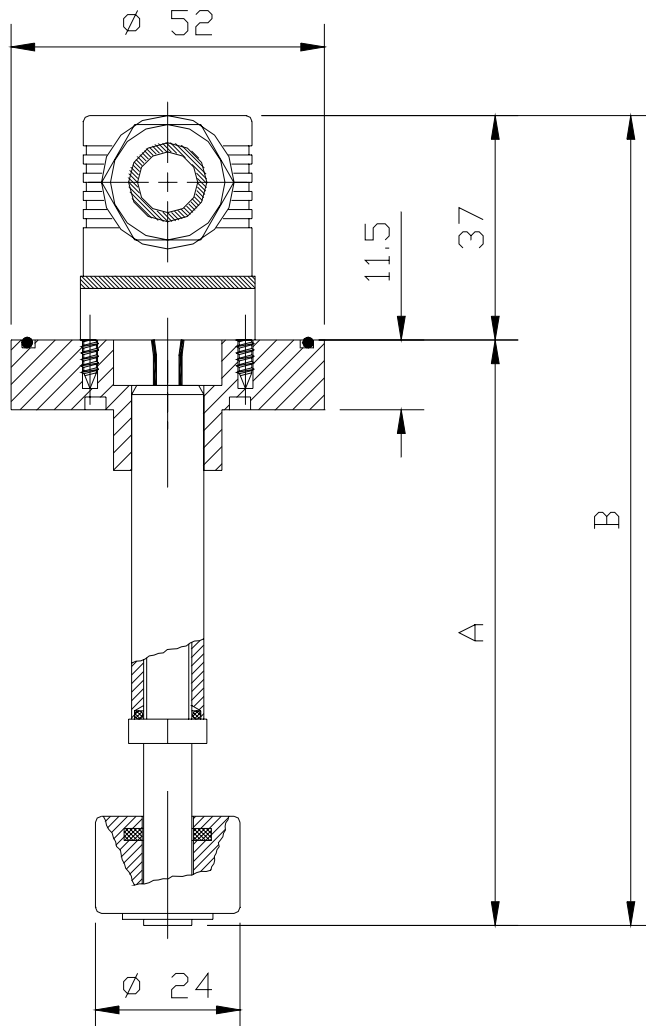




CODE	CAPACITY - L	LOW LEVEL SWITCH	A MM	B MM	C MM	D MM	E MM	F MM
A72.079415	8.0 <i>Metallic</i>	***	305	330	163	252	205	305
A72.079324	12.0 <i>Metallic</i>	***	305	355	196	252	205	330
A72.079420	50.0 <i>Metallic</i>	***	452	560	266	400	300	530
A72.079415.SL	8.0 <i>Metallic</i>		282	330	163	252	205	305
A72.079324.SL	12.0 <i>Metallic</i>		282	355	196	252	205	330
A72.079420.SL	50.0 <i>Metallic</i>		429	560	266	400	300	530



COMPONENTS
LOW LEVEL SWITCHES



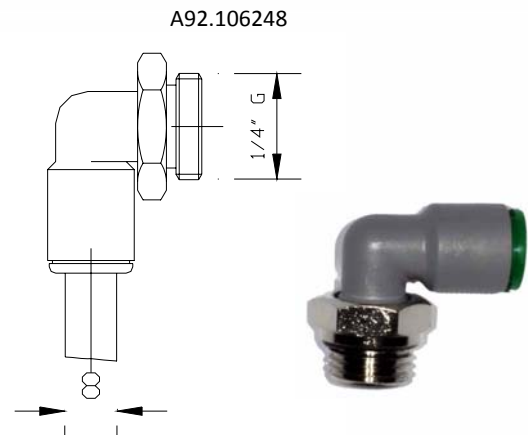
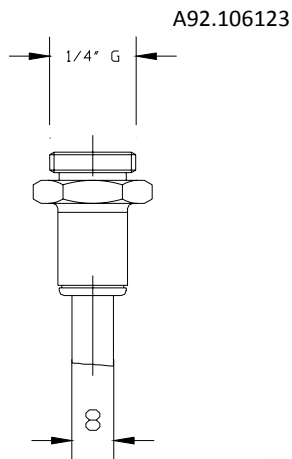
CODE	RESERVOIR L	A MM	B MM
A70.094040	1.20	97	133.5
A70.094029	2.20	144	181
A70.094029	3.60	144	181
A70.094037	6.00	240	277



COMPONENTS

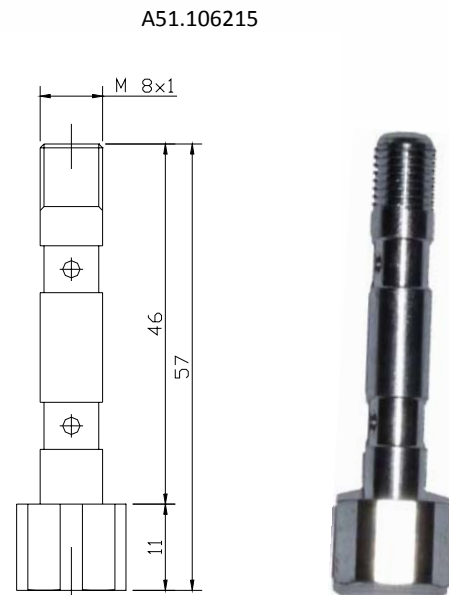
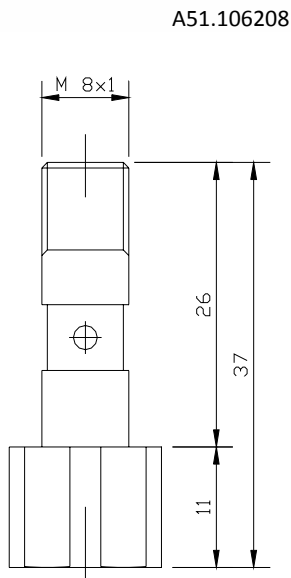
*PUSH-IN FITTINGS TO CONNECT RESERVOIR OUTLET TO AN 8
MM TUBE*

*RACCORDO A 90 GRADI
ELBOW FITTING*



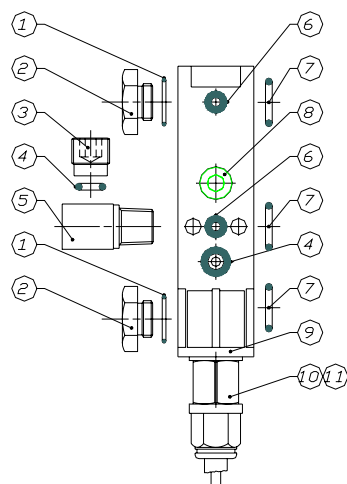
ADAPTORS FOR MINI LUBETOOLS WITH ONE PUMP

ADAPTORS FOR MINI LUBETOOLS WITH TWO PUMPS



PUMP BASE
**THE CODE A70.093165 IS COMPLETE OF ALL THE ITEMS
SHOWED IN THE BELOW DRAWING**

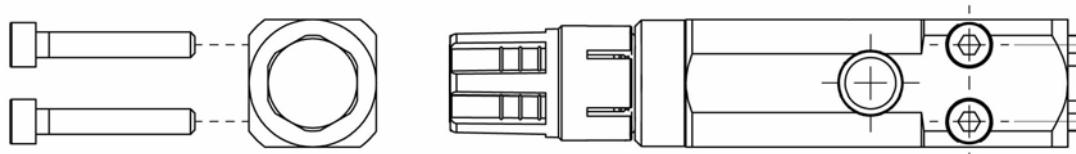
A70.093165



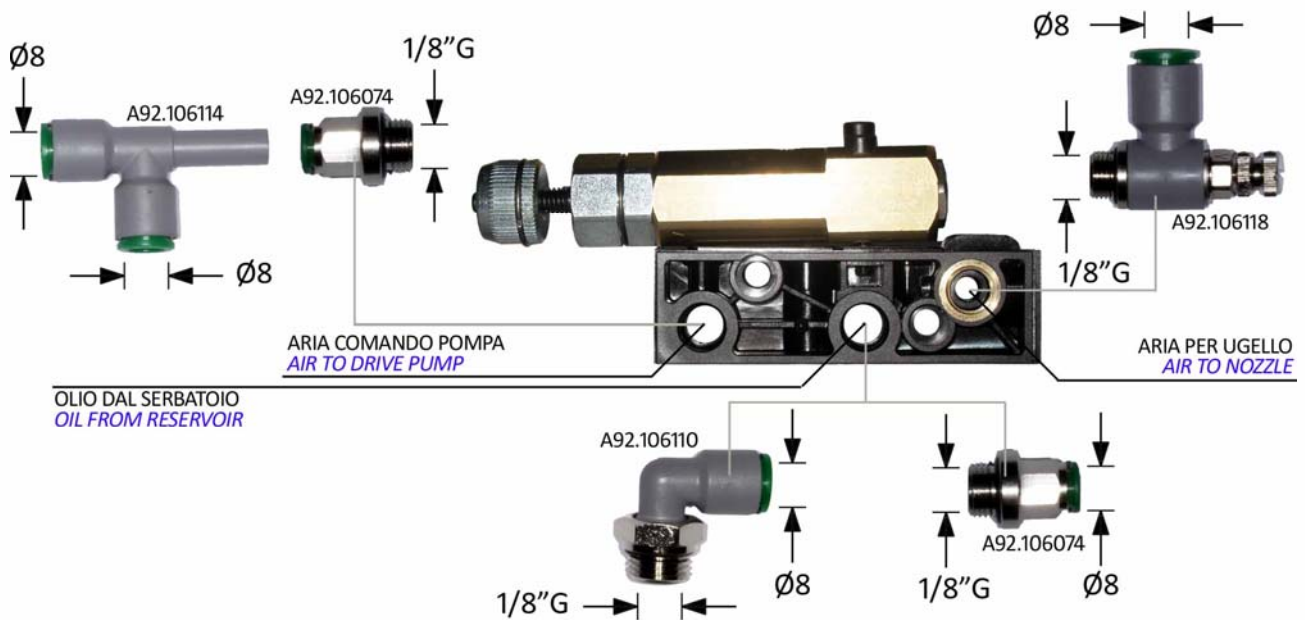
POS.	CODE	DESCRIPTION
1	A92.127109	"O"-RING 11x1
2	A51.096055	PLUG
3	A73.087010	PLUG
4	A92.127108	"O"-RING 2018
5	03.231.0	ELBOW ADAPTOR
6	A92.127106	"O"-RING 2010
7	A92.127109	"O"-RING 2037
8	UNI5931-M5X25	SCREW M5x25 UNI 5931
9	A83.082081	SINGLE BASE
10	A70.093219	DELIVERY FITTING + 5 M COAXIAL TUBE – 6 MM
11	A70.093228	DELIVERY FITTING + 5 M COAXIAL TUBE – 8 MM

MICRO PNEUMATIC PUMP TO BE INSTALLED ON THE BASE

A70.093463



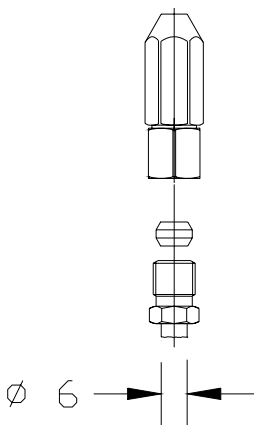
FITTINGS FOR PUMP BASE



NOZZLE COMPLETE OF FITTING FOR TUBE 6 MM

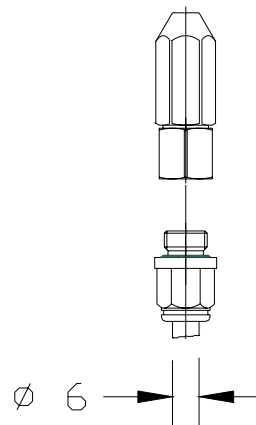
NUT AND OLIVE FITTING

A70.093172



PUSH-IN FITTING

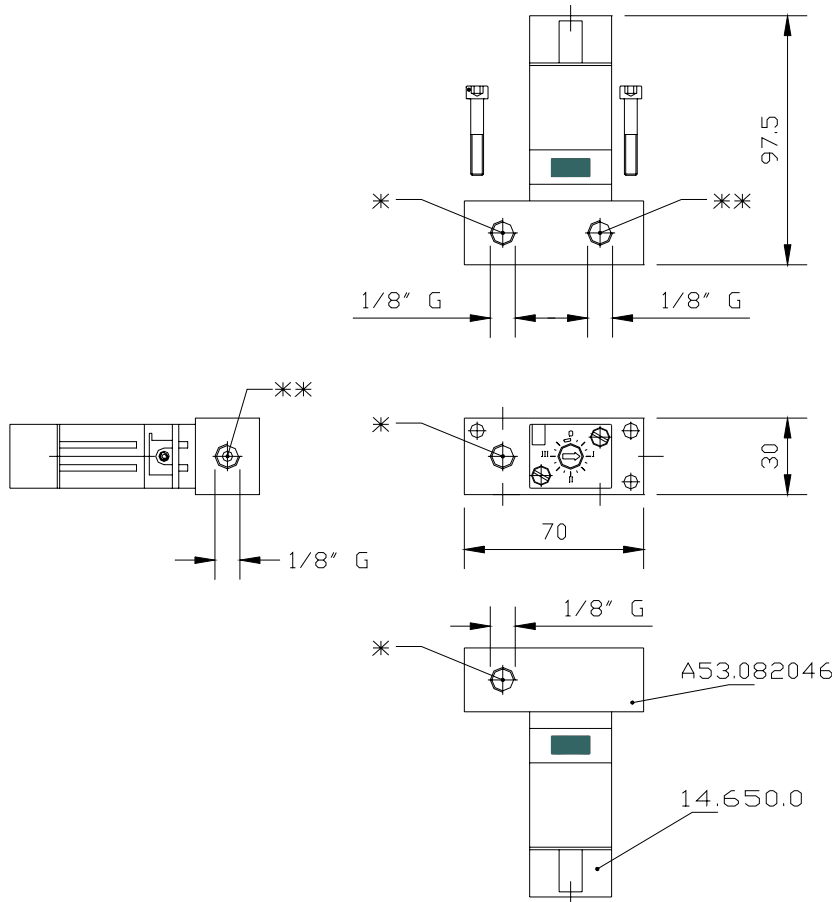
A70.093180



FREQUENCY GENERATOR COMPLETE OF BASE

A72.079243

**	AIR FOR PNEUMATIC PUMPS
*	AIR FOR NOZZLE



base A70.093491

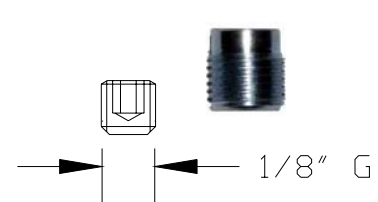
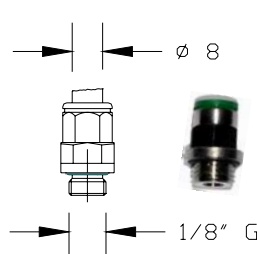
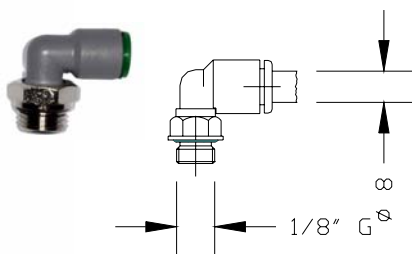
RACCORDI BASE E TAPPO

BASE FITTINGS AND PLUG

A92.106110

A92.106074

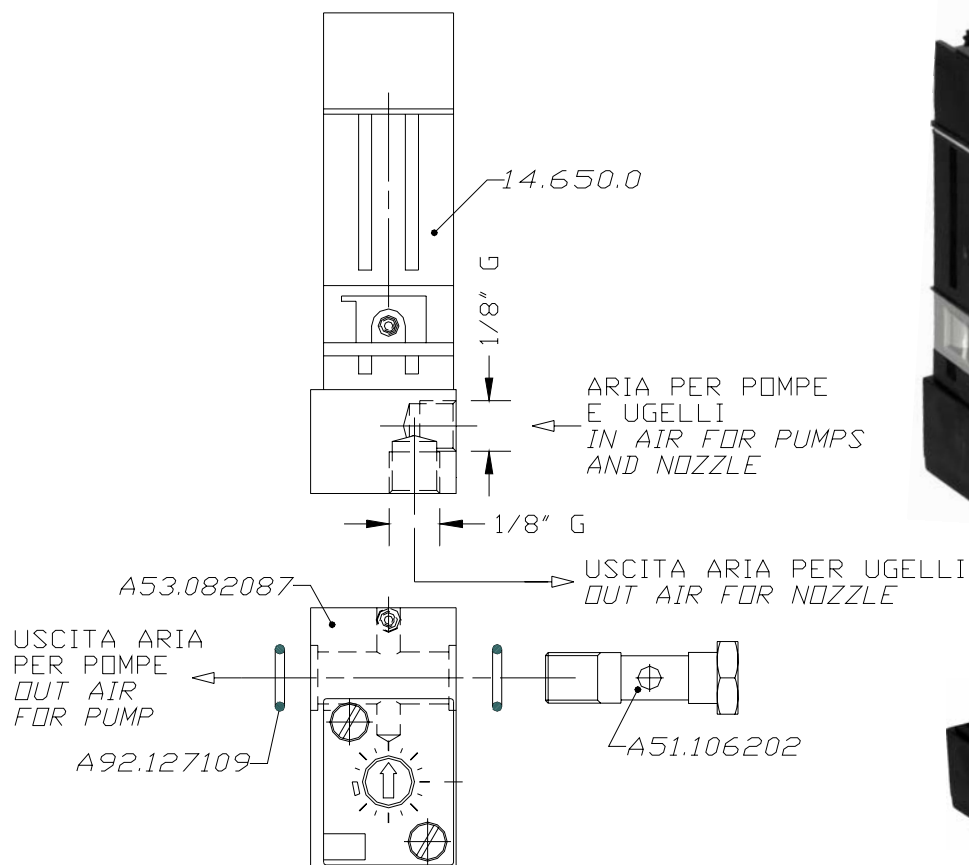
A92.087058



FREQUENCY GENERATOR COMPLETE OF BASE

THIS IS USED FOR THE MINI VERSION WITH ONE OR TWO PUMPS

A72.079321

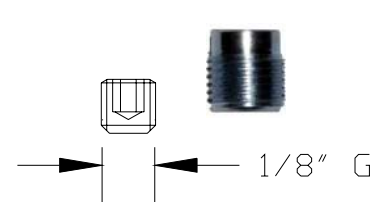
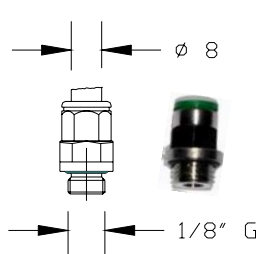
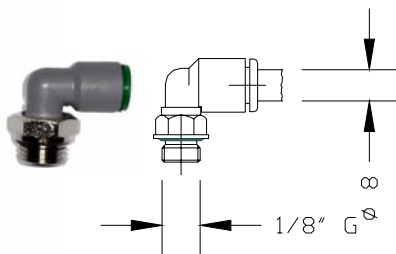


base **A70.093504**

BASE FITTINGS AND PLUG

A92.106074

A92.087058

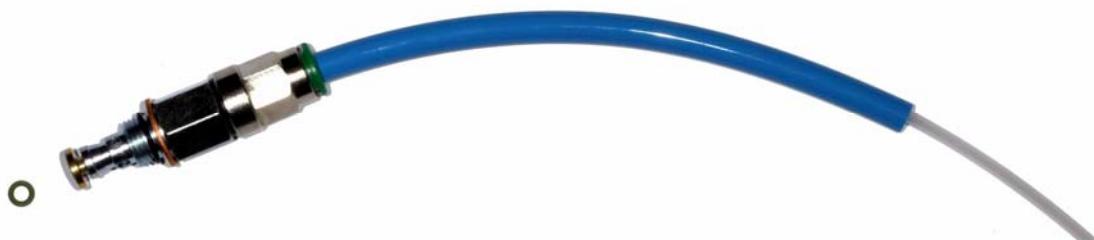
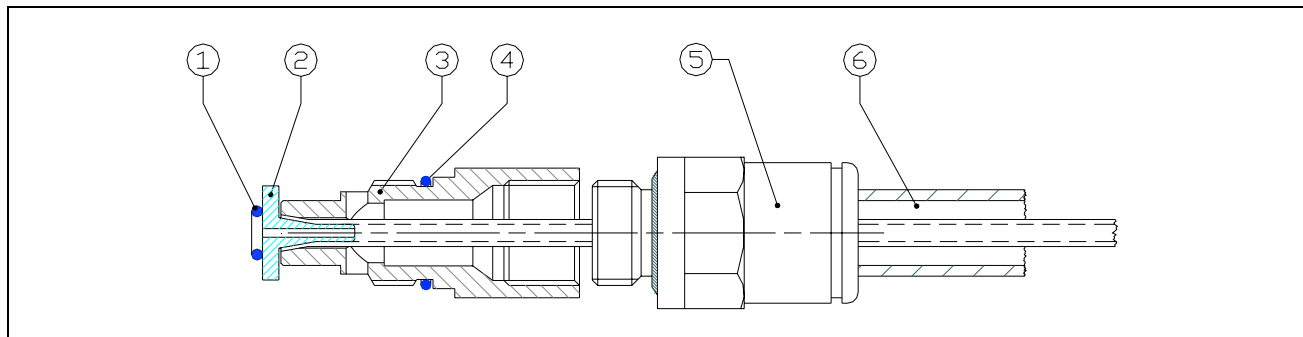


SOLENOID VALVES

<i>Code</i>	<i>Description</i>	<i>Image</i>
14.660.0 14.660.1 14.660.2 14.660.3 14.660.4	Solenoid valve Connection: 1/4" G Orifice size (mm): 6 Discharge (NI/min): 620 Max Pressure (BAR): 10 Coil 24 V DC Coil 115 V AC Coil 230 V AC Coil 24 V AC	
14.663.5 14.660.1 14.660.2 14.660.3 14.660.4	Solenoid valve Connection: 1/8" G Orifice size (mm): 1,5 Discharge (NI/min): 60 Max Pressure (BAR): 10 Coil 24 V DC Coil 115 V AC Coil 230 V AC Coil 24 V AC	
14.662.5 14.662.1 14.662.2 14.662.3 14.662.4	Solenoid valve Connection: 3/8" G Orifice size (mm): 10 Discharge (NI/min): 1500 Max Pressure (BAR): 10 Coil 24 V DC Coil 115 V AC Coil 230 V AC Coil 24 V AC	



**COAXIAL HOSES COMPLETE OF FITTING, ADAPTOR AND
NOZZLE FOR THE PUMP BASE**



CODES TO ORDER

Mt	Ø6	Ø8	Ø10
1,5	A70.093458	---	---
3	A70.093453	---	---
4	A70.093438	---	---
5	A70.093219	A70.093228	A70.093475
6	A70.093253	A70.093257	---
7	A70.093254	A70.093258	---
8	A70.093255	A70.093259	---
9	A70.093256	A70.093260	---
10	A70.093250	A70.093249	A70.093476
15	A70.093412	A70.093418	A70.093477
20	---	A70.093469	A70.093478
25	---	---	A70.093479
30	---	A70.093470	A70.093471





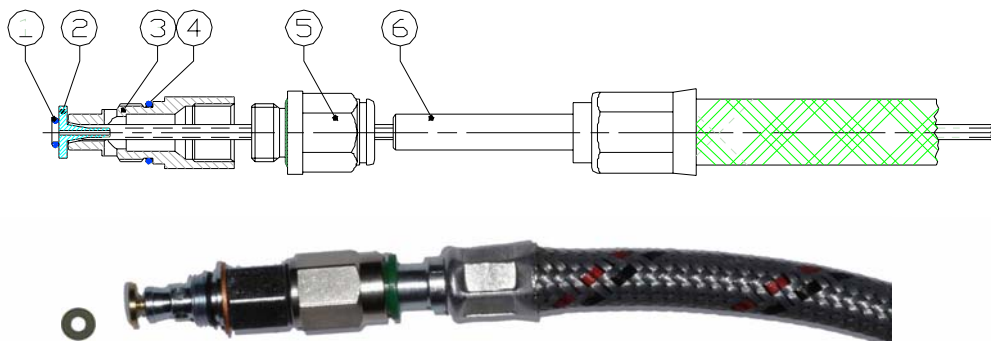
POS	DESCRIPTION	CODICE - CODE
1	O"-RING 3x1	A92.127034
2	NOZZE FOR PUMP BASE	A52.090051
3	ADAPTOR	A51.106104
4	"O"-RING 8x1	A73.127065
5	PUSH-IN FITTING	*
6	COAXIAL HOSE	**

	DESCRIPTION	CODE
*	PUSH-IN FITTING 1/8" HOSE 6 MM	A92.106113
*	PUSH-IN FITTING 1/8" HOSE 8 MM	A92.106074
*	PUSH-IN FITTING 1/4" HOSE 10 MM	03.214.0 + A92.106191

**			
Mt	Ø6	Ø8	Ø10
1	70.150.1	70.160.1	70.170.1
2	70.150.2	70.160.2	70.170.2
3	70.150.3	70.160.3	70.170.3
4	70.150.4	70.160.4	70.170.4
5	70.150.5	70.160.5	70.170.5
6	70.150.6	70.160.6	70.170.6
7	70.150.7	70.160.7	70.170.7
8	70.150.8	70.160.8	70.170.8
9	70.150.9	70.160.9	70.170.9
10	70.151.0	70.161.0	70.171.0
11	70.151.1	70.161.1	70.171.1
12	70.151.2	70.161.2	70.171.2
13	70.151.3	70.161.3	70.171.3
14	70.151.4	70.161.4	70.171.4
15	70.151.5	70.161.5	70.171.5
16	70.151.6	70.161.6	70.171.6
17	70.151.7	70.161.7	70.171.7
18	70.151.8	70.161.8	70.171.8
19	70.151.9	70.161.9	70.171.9
20	70.152.0	70.162.0	70.172.0
21	70.152.1	70.162.1	70.172.1
22	70.152.2	70.162.2	70.172.2
23	70.152.3	70.162.3	70.172.3
24	70.152.4	70.162.4	70.172.4
25	70.152.5	70.162.5	70.172.5
30	70.153.0	70.163.0	70.173.0



**METALLIC COAXIAL HOSES COMPLETE OF FITTING, ADAPTOR
AND NOZZLE FOR THE PUMP BASE**



<i>CODES TO ORDER</i>	<i>DESCRIPTION</i>
A70.093351	1 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093352	2 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093353	3 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093354	4 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093355	5 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093356	6 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093357	7 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093358	8 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093359	9 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093360	10 M COAXIAL HOSE TERMINAL 8 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE

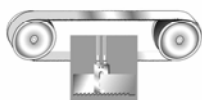




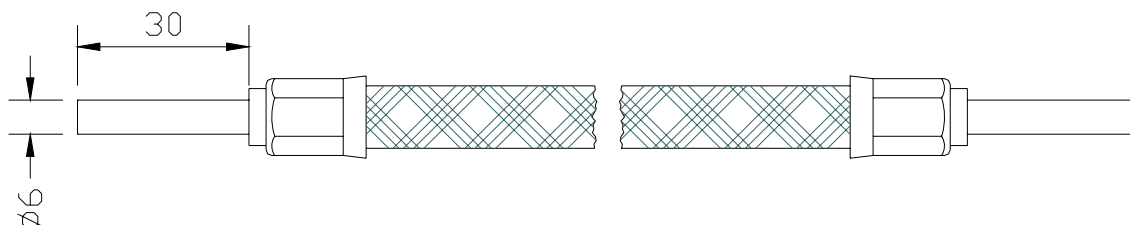
A70.093341	1 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093342	2 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093343	3 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093344	4 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093345	5 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093346	6 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093347	7 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093348	8 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093349	9 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE
A70.093350	10 M COAXIAL HOSE TERMINAL 6 MM COMPLETE OF FITTING, ADAPTOR AND NOZZLE FOR THE PUMP BASE

POS	DESCRIPTION	CODICE - CODE
1	O"-RING 3x1	A92.127034
2	NOZZE FOR PUMP BASE	A52.090051
3	ADAPTOR	A51.106104
4	"O"-RING 8x1	A73.127065
5	PUSH-IN FITTING	*
6	COAXIAL HOSE	*

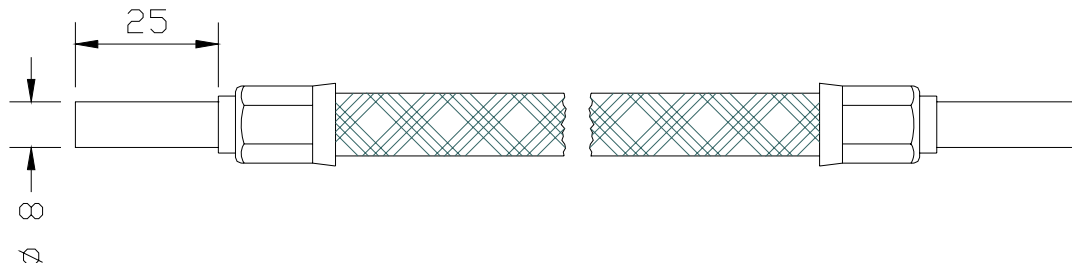
	DESCRIPTION	CODICE - CODE
*	PUSH-IN FITTING 1/8" HOSE 8 MM	A92.106074
*	PUSH-IN FITTING 1/8" HOSE 6 MM	A92.106113



METALLIC FLEXIBLE HOSES



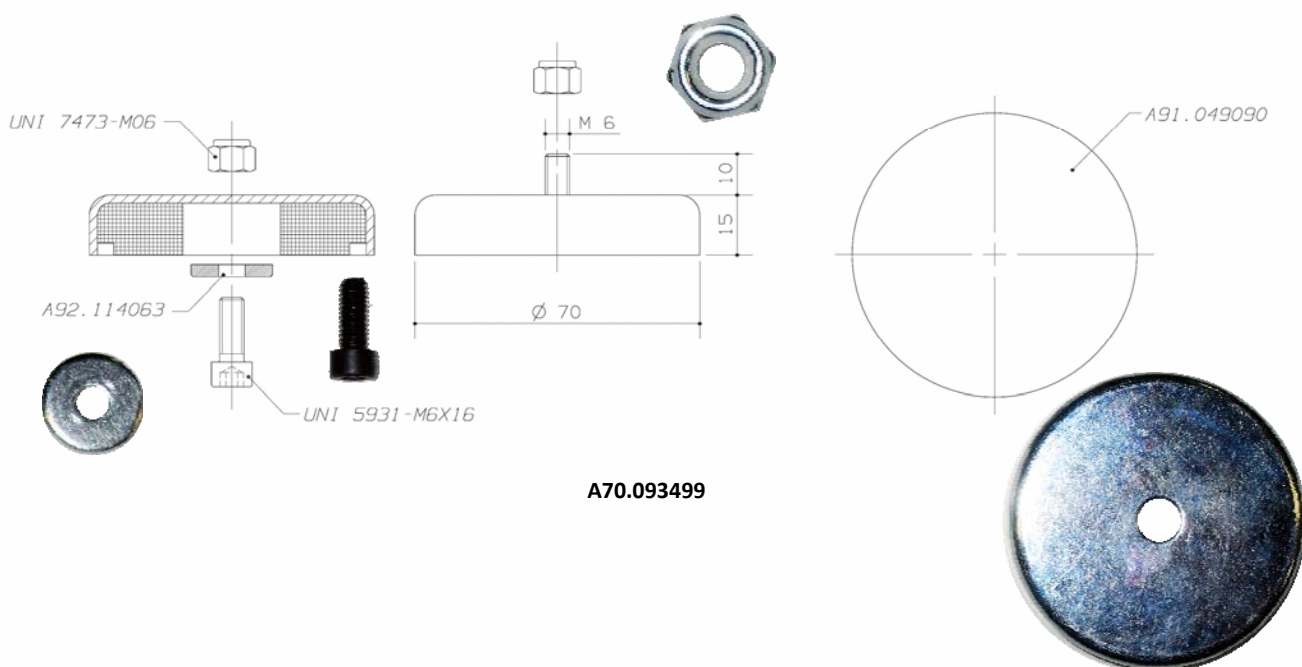
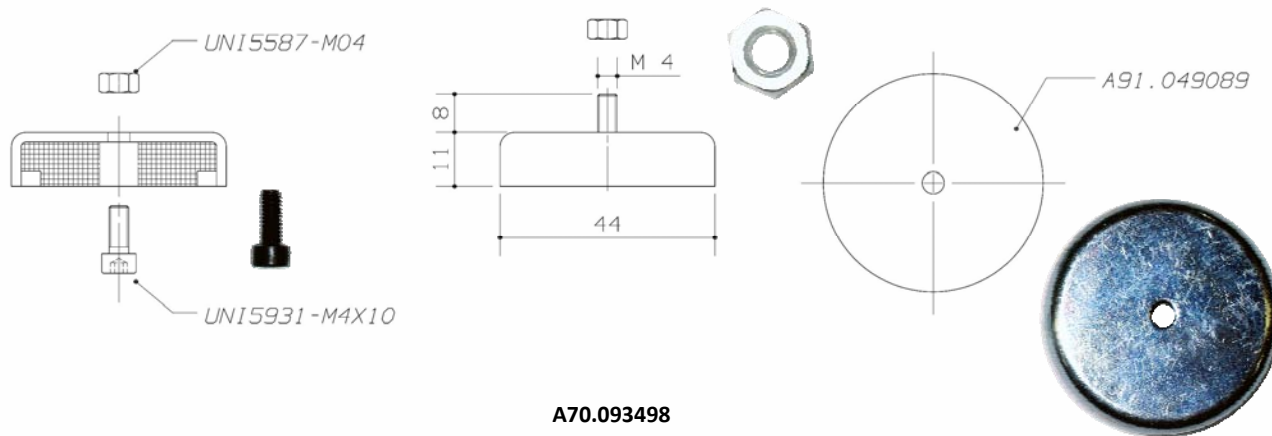
**	CODES TO ORDER METALLIC FLEXIBLE HOSES
30.616.0.01000	1 M METALLIC HOSE 6 MM
30.616.0.02000	2 M METALLIC HOSE 6 MM
30.616.0.03000	3 M METALLIC HOSE 6 MM
30.616.0.04000	4 M METALLIC HOSE 6 MM
30.616.0.05000	5 M METALLIC HOSE 6 MM
30.616.0.06000	6 M METALLIC HOSE 6 MM
30.616.0.07000	7 M METALLIC HOSE 6 MM
30.616.0.08000	8 M METALLIC HOSE 6 MM
30.616.0.09000	9 M METALLIC HOSE 6 MM
30.616.0.10000	10 M METALLIC HOSE 6 MM



**	CODES TO ORDER METALLIC FLEXIBLE HOSES
30.618.0.01000	1 M METALLIC HOSE 8 MM
30.618.0.02000	2 M METALLIC HOSE 8 MM
30.618.0.03000	3 M METALLIC HOSE 8 MM
30.618.0.04000	4 M METALLIC HOSE 8 MM
30.618.0.05000	5 M METALLIC HOSE 8 MM
30.618.0.06000	6 M METALLIC HOSE 8 MM
30.618.0.07000	7 M METALLIC HOSE 8 MM
30.618.0.08000	8 M METALLIC HOSE 8 MM
30.618.0.09000	9 M METALLIC HOSE 8 MM
30.618.0.10000	10 M METALLIC HOSE 8 MM



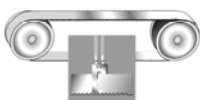
MAGNETS





FITTINGS

		HOSE	4 MM	HOSE	6 MM	HOSE	8 MM	HOSE	10 MM
	1/8" G	A92.106165		A92.106113		A92.106074			
	1/8" G	A92.106218		A92.106195		A92.106110			
	1 / 4" G			A92.106133		A92.106123		A92.106191	
	1 / 4" G			A92.106224		A92.106248		A92.106199	

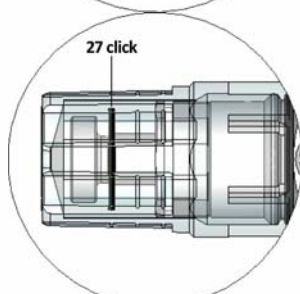
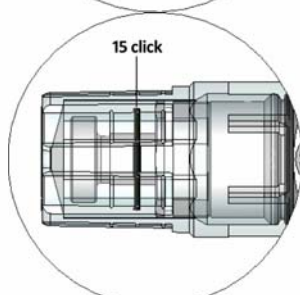
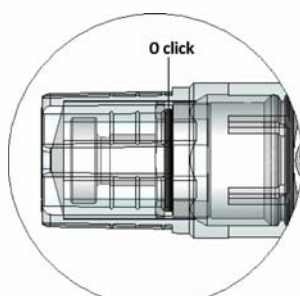
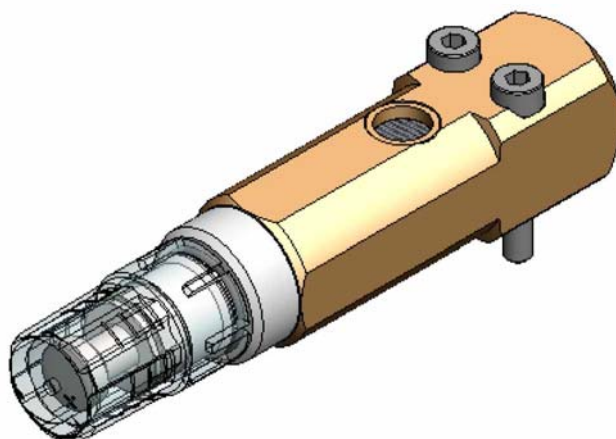


REGOLAZIONE DELLA PORTATA DEL CICLO

RUOTARE IL POMOLO IN SENSO ORARIO PER RIDURRE LA QUANTITA' DI OLIO ED IN SENSO ANTIORARIO PER INCREMENTARLA.

HOW TO ADJUST THE DISCHARGE PER STROKE

TURNING THE ADJUSTER CLOCKWISE WILL DECREASE THE PUMP DISCHARGE AND TURNING THE ADJUSTER ANTI-CLOCKWISE WILL INCREASE THE PUMP DISCHARGE.

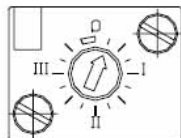


SCATTI <i>INCREMENTS</i>	PORTATA / CICLO <i>DISCHARGE / CYCLE</i>
CLICK 0	39,00 mm ³
CLICK 1	37,23 mm ³
CLICK 2	35,47 mm ³
CLICK 3	33,70 mm ³
CLICK 4	31,93 mm ³
CLICK 5	30,16 mm ³
CLICK 6	28,40 mm ³
CLICK 7	26,63 mm ³
CLICK 8	24,86 mm ³
CLICK 9	23,10 mm ³
CLICK 10	21,33 mm ³
CLICK 11	19,56 mm ³
CLICK 12	17,79 mm ³
CLICK 13	16,03 mm ³
CLICK 14	14,26 mm ³
CLICK 15	12,49 mm ³
CLICK 16	10,73 mm ³
CLICK 17	8,96 mm ³
CLICK 18	7,19 mm ³
CLICK 19	5,42 mm ³
CLICK 20	3,66 mm ³
CLICK 21	1,89 mm ³
CLICK 22	0,12 mm ³
CLICK 23	0,00 mm ³
CLICK 24	0,00 mm ³
CLICK 25	0,00 mm ³
CLICK 26	0,00 mm ³
CLICK 27	0,00 mm ³

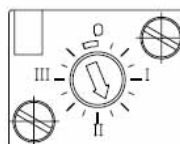


**IMPOSTAZIONE DEI CICLI DEL GENERATORE DI FREQUENZA
CON ARIA A 6 BAR (90 PSI)**

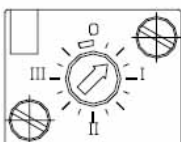
**HOW TO ADJUST THE FREQUENCY GENERATOR WITH AIR AT 6
BAR (90 PSI)**



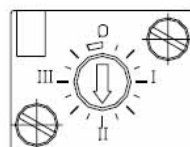
66 CICLI / MINUTO
66 STROKES / MINUTE



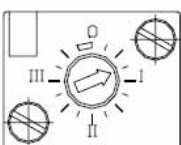
5 CICLI / MINUTO
5 STROKES / MINUTE



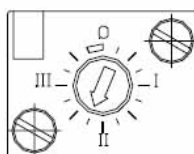
37 CICLI / MINUTO
37 STROKES / MINUTE



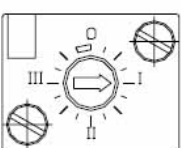
4 CICLI / MINUTO
4 STROKES / MINUTE



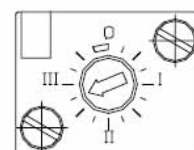
21 CICLI / MINUTO
21 STROKES / MINUTE



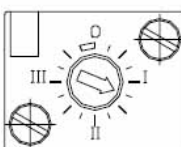
3 CICLI / MINUTO
3 STROKES / MINUTE



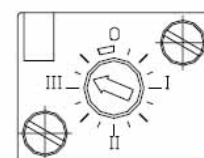
13 CICLI / MINUTO
13 STROKES / MINUTE



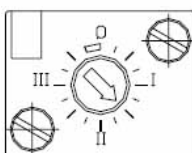
2 CICLI / MINUTO
2 STROKES / MINUTE



10 CICLI / MINUTO
10 STROKES / MINUTE



1 CICLO / MINUTO
1 STROKE / MINUTE



6 CICLI / MINUTO
6 STROKES / MINUTE

CON UNA PRESSIONE A 5 BAR (75 PSI) I VALORI DEVONO ESSERE INCREMENTATI DEL 7%

CON UNA PRESSIONE A 7 BAR (105 PSI) I VALORI DEVONO ESSERE RIDOTTI DEL 4%

CON UNA PRESSIONE A 8 BAR (120 PSI) I VALORI DEVONO ESSERE RIDOTTI DELL' 8%

WITH THE AIR PRESSURE 5 BAR (75 PSI) THE VALUES HAVE TO BE INCREASED OF ABOUT 7%

WITH THE AIR PRESSURE 7 BAR (105 PSI) THE VALUES HAVE TO BE DECREASED OF ABOUT 4%

WITH THE AIR PRESSURE 8 BAR (120 PSI) THE VALUES HAVE TO BE DECREASED OF ABOUT 8%

