



MACCHINE PER LAVAGGIO INDUSTRIALE DI INTERNI

L'Officina Meccanica Bolondi Ivano sviluppa negli anni '80 e '90, grazie ad un processo di ottimizzazione della produzione nato da un attento e puntiglioso feed-back con i loro maggiori clienti, una grande quantità di innovazioni tecnologiche nel settore della produzione di testine di lavaggio.

Una completa gamma di prodotti per bassa ed alta pressione in grado di soddisfare la richiesta di tutte le aziende che necessitano di un prodotto ideale alla sanificazione e alla pulizia, dal piccolo contenitore fino ad arrivare al grande ambiente.

Particolarmente curato è stato anche l'aspetto dell'integrazione con macchine e impianti industriali soprattutto nel settore **alimentare, farmaceutico, chimico, enologico, dei trasporti, della nettezza urbana ed edile**, con un impiego di materiali compatibili con i più svariati prodotti.

Non può essere tralasciata la particolare rifinitura di ogni singolo aspetto, che caratterizzati da un vero e proprio design innovativo sono veri e propri gioielli, tecnologicamente avanzati in tutti i singoli componenti.

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HEADS FOR INDUSTRIAL WASHING OF CONTAINERS

Thanks to a programme of product optimisation, resulting from a careful and meticulous client feedback process, the 1980s and 1990s witnessed the development, by the Officina Meccanica Bolondi Ivano, of a large number of technical innovations in the washing head production sector.

A comprehensive range of low and high-pressure products designed to meet the needs of firms looking for products that are perfectly suited for sanitising and cleaning, from the smallest of containers to the largest of spaces.

Particular care and attention has been devoted to the aspects of integration with industrial systems and machines, above all in the **food, pharmaceutical, chemical, wine producing, transportation sectors**, and in the **urban and building cleaning industry**, by using materials that are compatible with a large variety of products.

It is impossible to overlook the detailed finishing touches that are applied to each and every aspect, hallmarks of truly innovative designs, and that are veritable technological treasures in each of the individual components.

Bolondi

Cleaning Heads



Rotoflot[®]

MACCHINE PER LAVAGGIO INDUSTRIALE DI INTERNI
HEADS FOR INDUSTRIAL WASHING OF CONTAINERS

INDUSTRIA CHIMICA

AUTOLAVAGGI

LAVAGGIO TRASPORTI

INDUSTRIA FARMACEUTICA



CHEMICAL INDUSTRY

PHARMACEUTICAL INDUSTRY

CAR WASHES

TRANSPORT WASHES

LAVAGGIO CASSONETTI



INDUSTRIA ENOLOGICA E BEVANDE



WINE AND BEVERAGE INDUSTRY

LAVAGGIO MACCHINE EDILI



INDUSTRIA ALIMENTARE



FOOD INDUSTRY

SYSTEMS AND MACHINES FOR CONSTRUCTION

INDUSTRIA COSMETICA



COSMETIC INDUSTRY



PATENT PENDING



Multi-axis cleaning Head

Basic principles:

- full compatibility with existing installations
- flexibility
- ease installation even in difficult conditions
- improving Mechanical Action and Coverage:
 - ▶ *Reduce Cleaning Time*
 - ▶ *Reduce Water Consumption*
 - ▶ *Reduce Chemical consumption*
 - ▶ *Reduce utilities Consumption*
 - ▶ *Less waste water to dispose*

Result?

- More eco-compatibility
- Money saver



Standard pattern



Multi-axis pattern



TECHNICAL DATA

Motor: electric, pneumatic or water motor

Material: aisi 316L

Pressure: max 150 bar (water motor)
or 200 bar (electric and pneumatic)

Flow: max 60lt/min

Nozzles: 2 or 4

Seals: NBR-VITON-EPDM-KALREZ

Flange connection: on request

Stroke: 100mm

Option: angle driven motor for electric
and pneumatic version

WASHING HEADS CATALOGUE



TECNICHE PER IL LAVAGGIO DI SERBATOI

La necessità di garantire la qualità costante dei prodotti richiede che ogni fase della produzione, dello stoccaggio e del trasporto sia effettuata con i sistemi di produzione e i serbatoi perfettamente puliti. Alto stesso modo, gli elevati costi di smaltimento degli scarichi richiedono processi di lavaggio nei quali si possa utilizzare la minor quantità d'acqua possibile, mantenendo allo stesso tempo un eccellente livello di pulizia. Questi due fattori hanno ispirato la creazione di una vasta gamma di prodotti in grado di soddisfare ogni necessità.

1) FILTRAGGIO ADEGUATO DEL LIQUIDO DI LAVAGGIO

I dispositivi di lavaggio del serbatoio possono avere dei passaggi interni di piccole dimensioni e con un processo di lavaggio a circuito chiuso è necessario assicurarsi che nessuna particella solida presente nell'acqua ostruisca i passaggi interni sopra citati. Nel caso in cui non sia utilizzata acqua pulita, è necessario montare sul condotto filtri capaci di proteggere i passaggi interni delle teste di lavaggio. Il nostro catalogo dei filtri offre una vasta gamma di soluzioni per ogni necessità.

2) LA SCELTA GIUSTA PER LA TUA SOLUZIONE DI LAVAGGIO

È possibile ottenere il miglior risultato soltanto scegliendo pressione e temperatura dell'acqua e la durata del lavaggio.
Per la scelta delle teste di lavaggio idonee, verificare le portate, le pressioni, le coperture, le distanze di lavaggio e la compatibilità chimica con il liquido base acqua utilizzato per il processo di lavaggio.

3) DISTANZA DI LAVAGGIO E DI UMIDIFICAZIONE

Non è possibile definire la distanza a cui un determinato dispositivo può ottenere il miglior lavaggio del serbatoio senza prendere in con-

TANK WASHING TECHNIQUES

The necessity of ensuring the constant quality of the product requires that each phase of production, storing and transport is performed with production systems and tanks always in adequate cleaning conditions. Similarly, the high costs of effluent disposal require washing processes where it is possible to use the minimal water quantity, maintaining at the same time an excellent cleaning level. These two factors have inspired the creation of a wide range of products to satisfy all necessities.

1) ADEQUATE WASHING LIQUID FILTERING

The tank washing devices can have internal passages of small sizes, and with a closed circuit washing process it is necessary to make sure that no solid particle in the water obstructs the internal passages mentioned before. In the case no clean water is used, it is necessary to assemble adequate filters on the line able to protect the washing head internal passages. Our filters catalogue offers a wide range of solutions for any necessity.

2) THE RIGHT CHOICE FOR YOUR WASHING SOLUTION

Best results will be obtained by choosing the correct water pressure, accurate temperature, and wash duration.

When selecting suitable wash heads, check flow rates, pressures, coverage, wash distances, and chemical compatibility with the water base liquid used for the washing process.

3) WASHING AND WETTING DISTANCE

It is not possible to define the distance at which a certain device can obtain the best tank washing result without taking into consideration the following parameters: type of product

TÉCNICAS DE LAVADO DE TANQUES

La necesidad de asegurar una calidad constante del producto exige que cada fase de la producción, almacenaje y transporte sea realizado con sistemas de producción y tanques que estén siempre en perfectas condiciones de limpieza. Del mismo modo, la eliminación de efluentes precisa de un proceso de lavado en el cual es posible emplear una cantidad mínima de agua, y mantener a la vez un excelente nivel de limpieza. Estos dos factores han inspirado la creación de una amplia gama de productos para satisfacer todas las necesidades.

1) FILTRADO ADECUADO DE LÍQUIDOS DE LAVADO

DE LAVADO DE TANQUES
Los dispositivos de lavado de los tanques pueden tener pasajes internos de medidas pequeñas. Por consiguiente, con un proceso de lavado de circuito cerrado es necesario asegurarse de que ninguna partícula sólida que haya en el agua pueda obstruir dichos pasajes internos. En caso de que no se usara agua limpia, será necesario montar los filtros adecuados en el tubo con el fin de proteger los pasajes internos del cabezal de lavado. Nuestro catálogo de filtros ofrece una amplia gama de soluciones para cualquier necesidad.

2) LA CORRECTA ELECCIÓN PARA SU SOLUCIÓN DE LAVADO

Los mejores resultados sólo se consiguen eligiendo la presión y temperatura del agua y la duración del lavado adecuados.

Para la elección de los cabezales de lavado adecuados, verificar los caudales, las presiones, la cobertura, las distancias de lavado y la compatibilidad química con el líquido base agua utilizado para el proceso de lavado.

3) DISTANCIA DE LAVADO Y MOJADO

No es posible definir la distancia en la cual un dispositivo puede obtener el mejor resultado en el lavado de tanques sin tener en cuenta los siguientes parámetros: el tipo de producto

TESTE ROTANTI

La velocità di rotazione dipende dalla pressione del liquido del lavaggio una rotazione troppo rapida causa la rottura del getto in molte gocce e la perdita della forza d'impatto.

SENZA SFERE

La rotazione avviene anche a una pressione molto bassa (inferiore a 1 bar). Tali teste sono capaci di ruotare in qualsiasi posizione e orientamento in cui sono installate. Possono essere costruite in acciaio inox con trattamento antiusura e un basso coefficiente di attrito o in materia plastica di alta qualità (PTFE). Sono disponibili per serbatoi di ogni dimensione e con diversi tipi di connessioni e coperture.

SU UNA SINGOLA CORONA DI SFERE

La rotazione della testa è possibile anche a bassa pressione (anche intorno agli 0,5 bar). La rotazione è molto più facile e permette un lavaggio adeguato e una buona copertura anche per serbatoi di grandi dimensioni. Posizionamento unicamente verticale e connessione posta sulla parte superiore. Costruite completamente in acciaio inox AISI 316, sono disponibili in diverse dimensioni e connessioni per il lavaggio di serbatoi di dimensioni medio - grandi.

SU DOPPIA CORONA DI SFERE

Le teste rotanti dotate di due file di sfere sono capaci di ruotare in qualsiasi posizione e orientamento in cui sono installate. Questo può rappresentare un grande vantaggio poiché esse non devono necessariamente essere posizionate verticalmente con una connessione sulla parte superiore del serbatoio. Una bassa pressione (anche inferiore agli 0,5 bar) è sufficiente per permettere la rotazione. Costruite in acciaio inox lucidato AISI 316, sono disponibili in diverse dimensioni e connessioni per il lavaggio di serbatoi di piccole, medie e grandi dimensioni. La loro particolare struttura interna e il grado di rugosità della superficie di tutti i componenti riduce il rischio di formazione di batteri dovuto al ristagno idrico.

ROTATING HEADS

The rotational speed depends on the washing fluid pressure a too fast rotation causes the jet breakage in many drops and the loss of impact force.

WITHOUT SPHERES

The rotation takes place also a very low pressures (less than 1 bar). They are able to rotate in any position and orientation with which they are installed. They can be made of stainless steel with an special anti-wear treatment and a low coefficient of friction, or in plastic material of high quality standards (PTFE). They are available for tanks of any size and with different types of connections and covers.

ON ONE SPHERE TRACK

The head rotation is possible even at low pressure (also around 0,5 Bar). The rotation is much easier and allows an adequate washing and a good cover also for tanks of great size. Only vertical positioning and connection placed on the upper part. Made entirely in stainless steel AISI 316, they are available in different sizes and connections for the washing of medium-large sized tanks.

ON TWO SPHERE TRACKS

The washing heads equipped with two sphere rows are able to rotate in any position and orientation in which they are installed. This might be a great advantage since they do not necessarily have to be positioned vertically with a connection of the upper part of the tank. A low pressure (even less than 0,5 bar) is sufficient to impart the rotation. Made in polished stainless steel AISI 316, they are available in different sizes and connections for the washing of small, medium and large-sized tanks. Their particular internal conformation and the degree of superficial roughness of all components reduce the risk of bacterial formations due to the little water stagnations.

BOQUILLAS ROTATIVAS

La velocidad de giro depende de la presión del líquido de lavado un giro excesivamente rápido causa la rotura del jet en muchas gotas y la pérdida de fuerza.

SIN ESFERAS

La rotación también produce una presión muy baja (inferior a un bar). Pueden girar en cualquier posición y orientación en que sean instalados. Pueden estar hechos de acero inoxidable con un tratamiento especial anti desgaste y un coeficiente bajo de fricción, o en un material plástico de un estándar de calidad superior (PTFE). Están disponibles para tanques de cualquier medida y con diferentes tipos de conexiones y tapas.

CON UNA SOLA HILERAS DE ESFERAS

La rotación de la boquilla es posible incluso a presiones bajas (también alrededor de los 0,5 Bar). La rotación es mucho más fácil y permite un lavado más adecuado y una buena cobertura para tanques de grandes dimensiones. Posicionamiento únicamente vertical y una conexión situada en la parte superior. Hecho íntegramente de acero inoxidable AISI 316, están disponibles en diferentes tamaños y conexiones para el lavado de tanques de grandes y medianas dimensiones.

CON DOBLE HILERAS DE ESFERAS

Las boquillas rotativas equipadas con dos hileras esféricas permiten la rotación en cualquier posición y orientación en que estén instalados. Esto podría suponer ser una gran ventaja ya que no necesariamente tienen que ser posicionados de forma vertical con una conexión de la parte superior del tanque. Una presión baja (incluso inferior a los 0,5 bar) es suficiente para posibilitar la rotación. Fabricadas en acero inoxidable pulido AISI 316, están disponibles en diferentes tamaños y conexiones para el lavado de tanques de dimensiones pequeñas, medianas y grandes. Su particular configuración interna y el grado de robustez superficial de sus componentes reduce el riesgo de formación de bacterias debido al estancamiento de pequeñas cantidades de agua.

LSE thread/clip/weld

Caratteristiche

Le teste rotanti LSE sono costruite in acciaio inossidabile AISI 316L, e sono montate su doppia corona di sfere, per avere una corretta rotazione in qualsiasi posizione di montaggio.

Tutte le superfici interne ed esterne sono lavorate ad alta precisione garantendo una finitura perfettamente liscia e priva di zone in cui si possono accumulare residui di acqua.

La velocità di rotazione dipende dalla pressione del fluido di lavaggio, che deve essere limitata: una rotazione troppo veloce causa infatti rottura del getto in gocce e perdita di forza di impatto.

Applicazioni

- Lavaggio serbatoi

Materiali

- Aisi316L
- altri a richiesta

Characteristics

The LSE rotating heads are built in AISI 316L stainless steel, and are mounted on double ball bearing, to have a correct rotation in any mounting position. All the internal and external surfaces are machined with high precision, ensuring a perfectly smooth finish and free of areas where they can accumulate water residue. The speed of rotation depends on the pressure of the washing fluid, which must be limited: a rotation too fast in fact causes breakage of the jet into drops and loss of impact strength.

Application:

- Tank washing

Materials:

- Aisi316L
- other on request

Características

Las boquillas rotativas LSE están fabricadas en acero inoxidable AISI 316L y están montadas en una doble hilera de esferas para tener una correcta rotación en cualquier posición de montaje. Todas las superficies internas y externas se mecanizan con alta precisión asegurando un acabado perfectamente liso, sin áreas en las que se puedan acumular los residuos del agua.

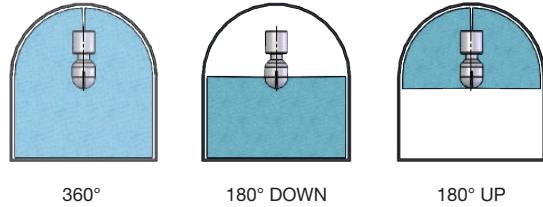
La velocidad de rotación depende de la presión del fluido de lavado, que debe limitarse: una rotación demasiado rápida hace que el chorro se rompa en gotas y pierda fuerza de impacto.

Aplicación:

- Lavado de tanques

Materiales:

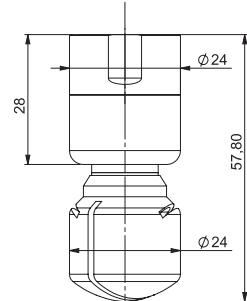
- Aisi316L
- otros bajo pedido



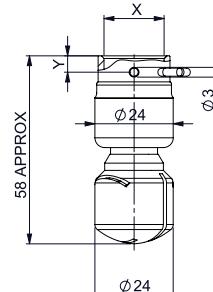
ATEX, FDA Compliance



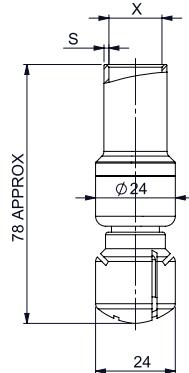
Thread Version:



Clip Version:



Weld Version:



CODE	Capacity (lpm) at different pressure (bar)				COVERAGE			CONNECTION	NORM	X (mm)	S (mm)	MAX. WET RADIUS (MT.)
	1	2	3	4	360°	180° UP	180° DOWN					
A2LSE29	17	24	29	33	T	U	D	3/8"	N.A.	N.A.	N.A.	1,5
A3LSE29	17	24	29	33	T	U	D	1/2"	N.A.	N.A.	N.A.	1,5
A2LSE48	28	39	48	55	T	U	D	3/8"	N.A.	N.A.	N.A.	2
A3LSE48	28	39	48	55	T	U	D	1/2"	N.A.	N.A.	N.A.	2
ADC15LSE29	17	24	29	33	T	U	D	CLIP D15	ISO 2037	17,4	1,50	1,5
AAC15LSE29	17	24	29	33	T	U	D	CLIP 3/4" DN15	BPE (US)	19,2	1,65	1,5
ADC15LSE48	27	39	48	55	T	U	D	CLIP D15	ISO 2037	17,4	1,50	2
AAC15LSE48	28	39	48	55	T	U	D	CLIP 3/4" DN15	BPE (US)	19,2	1,65	2
AWD15LSE29	17	24	29	33	T	U	D	WELD D15	ISO 2037	17,20	1,00	1,5
AWA15LSE29	17	24	29	33	T	U	D	WELD 3/4" DN15	BPE (US)	19,00	1,65	1,5
AWD15LSE48	17	24	48	55	T	U	D	WELD D15	ISO 2037	17,20	1,00	2
AWA15LSE48	28	39	48	55	T	U	D	WELD 3/4" DN15	BPE (US)	19,00	1,65	2

LSD clip/weld

Caratteristiche

Ha le stesse caratteristiche del modello filettato nella pagina precedente ma con possibili attacchi a clip e a saldare secondo le normative Europee (ISO2037) e Americane (BPE-US).

Characteristics

It has the same characteristics as the threaded model on the previous page but with possible clip and solder connections according to European (ISO2037) and American (BPE-US) standards.

Características

Tiene las mismas características que el modelo con rosca en la página anterior, pero con posibles conexiones de clips y soldaduras de acuerdo con los estándares europeos (ISO2037) y estadounidenses (BPE-EE. UU.).

Applicazioni

- Lavaggio serbatoi

Application:

- Tank washing

Materiali

- Aisi316L
- altri a richiesta

Materials:

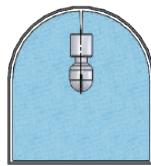
- Aisi316L
- other on request

Aplicación:

- Lavado de tanques

Materiales:

- Aisi316L
- otros bajo pedido



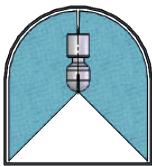
360°



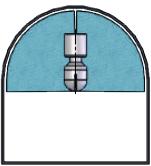
270° DOWN



180° DOWN



270° UP



180° UP

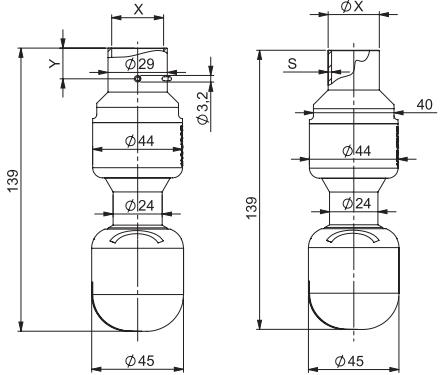


CLIP



WELD

Certifications: ATEX, MOCA, FDA



CLIP VERSIONS

Mod.	Capacity (lpm) at different pressure (bar)			COVERAGE					CONNECTION	NORM	X (mm)	Y (mm)	MAX. WET RADIUS (mt.)
	2	3	4	360°	180° UP	180° DOWN	270° UP	270° DOWN					
ADC25LSD63	51	63	73	T	U	D	UW	DW	(DN25)	ISO2037	25,3	15	2,9
AAC25LSD63	51	63	73	T	U	D	UW	DW	(DN25)	BPE (US)	25,7	15	2,9
ADC25LSD690	73	90	104	T	U	D	UW	DW	(DN25)	ISO2037	25,3	15	3,2
AAC25LSD690	73	90	104	T	U	D	UW	DW	(DN25)	BPE (US)	25,7	15	3,2
ADC25LSD135	110	135	156	T	U	D	UW	DW	(DN25)	ISO2037	25,3	15	3,5
AAC25LSD135	110	135	156	T	U	D	UW	DW	(DN25)	BPE (US)	25,7	15	3,5
ADC25LSD170	139	170	196	T	U	D	UW	DW	(DN25)	ISO2037	25,3	15	3,7
AAC25LSD170	139	170	196	T	U	D	UW	DW	(DN25)	BPE (US)	25,7	15	3,7

WELD VERSIONS

Mod.	Capacity (lpm) at different pressure (bar)			COVERAGE					CONNECTION	NORM	X (mm)	Thickness	MAX RAY WET (mt.)
	2	3	4	360°	180° UP	180° DOWN	270° UP	270° DOWN					
AWD25LSD63	51	63	73	T	U	D	UW	DW	(DN25)	ISO2037	25	1,2	2,9
AWA25LSD63	51	63	73	T	U	D	UW	DW	(DN25)	BPE (US)	25,4	1,65	2,9
AWD25LSD90	73	90	104	T	U	D	UW	DW	(DN25)	ISO2037	25	1,2	3,2
AWA25LSD90	73	90	104	T	U	D	UW	DW	(DN25)	BPE (US)	25,4	1,65	3,2
AWD25LSD135	110	135	156	T	U	D	UW	DW	(DN25)	ISO2037	25	1,2	3,5
AWA25LSD135	110	135	156	T	U	D	UW	DW	(DN25)	BPE (US)	25,4	1,65	3,5
AWD25LSD170	139	170	196	T	U	D	UW	DW	(DN25)	ISO2037	25	1,2	3,7
AWA25LSD170	139	170	196	T	U	D	UW	DW	(DN25)	BPE (US)	25,4	1,65	3,7

LSD thread

Caratteristiche

Le teste rotanti LSD sono montate su doppia corona di sfere, per avere una corretta rotazione in qualsiasi posizione di montaggio. La parte rotante ha la peculiarità di non avere linee di accoppiamento e saldature, non gradite soprattutto nel settore alimentare e o farmaceutico. La velocità di rotazione dipende dalla pressione del fluido di lavaggio, che deve essere limitata: una rotazione troppo veloce causa infatti rottura del getto in gocce e conseguente perdita di forza di impatto.

Applicazioni

- Lavaggio serbatoi

Materiali

- Aisi316L

Characteristics

The LSD rotating heads are mounted on double ball bearing, to have a correct rotation in any mounting position.

The rotating part has the peculiarity of not having coupling lines and welds, not especially appreciate in the food and pharmaceutical sector.

The speed of rotation depends on the pressure of the washing fluid, which must be limited: a rotation too fast in fact causes breakage of the jet into drops and loss of impact strength.

Application:

- Tank washing

Materials:

- Aisi316L

Características

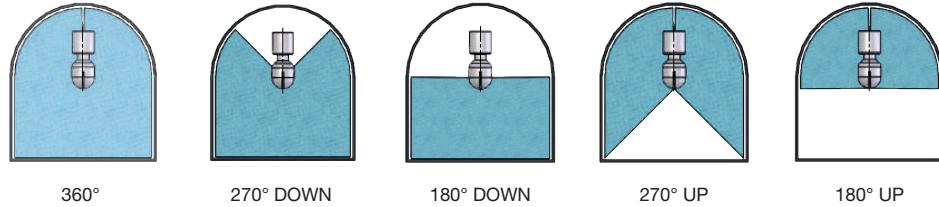
Las boquillas rotativas están montadas en doble rodamiento de bolas para tener una rotación correcta en cualquier posición de montaje. La parte giratoria tiene la peculiaridad de no tener líneas de acoplamiento y soldaduras, especialmente no apreciadas en el sector alimentario y farmacéutico. La velocidad de rotación depende de la presión del fluido de lavado, que debe ser limitada: una rotación demasiado rápida en realidad causa la rotura del chorro en gotas y la pérdida de resistencia al impacto.

Aplicación:

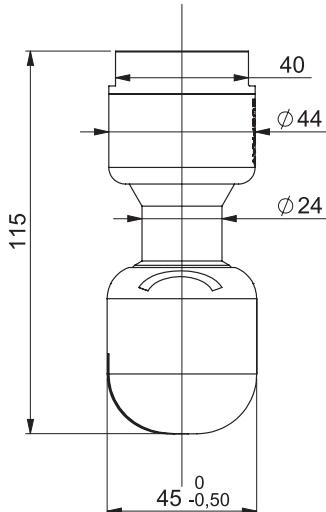
- Lavado de tanques

Materiales:

- Aisi316L



Certifications: ATEX, MOCA, FDA



CODE	CAPACITY (lpm) AT DIFFERENT PRESSURE (bar)			COVERAGE					CONNECTION	MAX RAY WET (meters)
	2	3	4	360°	180° UP	180° DOWN	270° UP	270° DOWN		
A3LSD63	51	63	73	T	U	D	UW	DW	1/2"	2,9
A4LSD63	51	63	73	T	U	D	UW	DW	3/4"	2,9
A3LSD90	73	90	104	T	U	D	UW	DW	1/2"	3,2
A4LSD90	73	90	104	T	U	D	UW	DW	3/4"	3,2
A5LSD90	73	90	104	T	U	D	UW	DW	1"	3,2
A4LSD135	110	135	156	T	U	D	UW	DW	3/4"	3,5
A5LSD135	110	135	156	T	U	D	UW	DW	1"	3,5
A5LSD170	139	170	196	T	U	D	UW	DW	1"	3,5

LSMOD7

Caratteristiche

Il sistema di lavaggio tramite diffusori è veloce, semplice ed efficace: permette di lavare con acqua calda e detergenti. Essi facilitano l'automazione dei programmi lavaggio e l'assenza di parti mobili evita il rischio di usura anche dopo lunghi periodi d'utilizzo.

Applicazioni

- Lavaggio serbatoi
- Pasteurizzatori

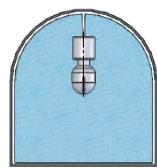
Materiali

- Aisi316L

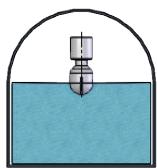
Connessioni

- Filettata femmina
- Clip

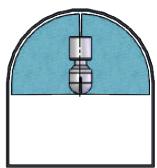
Copertura:



360°



180° DOWN



180° UP

Per informazioni tecniche contattare i nostri uffici.

For technical info please contact our offices.

Para información técnica contacte nuestras oficinas.

Characteristics

The cleaning system by means of diffusers is fast, simple and effective: it allows to wash with hot water and detergents. They facilitate the automation of washing programs and the absence of movable parts avoids the risk of wear even after long periods of use.

Application:

- Tank washing
- Pasteurizers

Materials:

- Aisi316L

Connection:

- Female Threaded
- Clip

Coverage:

Características

El sistema de lavado por medio de difusores es rápido, simple y efectivo: permite lavar con agua caliente y detergentes. Facilitan la automatización de programas de lavado y la ausencia de partes móviles evita el riesgo de rotura incluso después de largos períodos de uso.

Aplicación:

- Lavado de tanques
- Pasteurizadores

Materiales:

- Aisi316L

Conexiones:

- Rosca hembra
- Clip

Cobertura:



Type A

Type B

Type C

FLS

Caratteristiche

Il modello FLS è costruito da barra piena con spessori maggiori per garantire il funzionamento a pressioni elevate.

Applicazioni

- Lavaggio serbatoi
- Pasteurizzatori

Materiali

- Aisi316L, Aisi303
- Altri a richiesta

Characteristics

The FLS model is built from solid bar with greater thickness to guarantee high pressure operation.

Application:

- Tank washing
- Pasteurizers

Materials:

- Aisi316L, Aisi303
- Other on request

Características

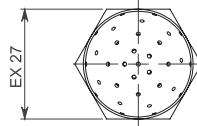
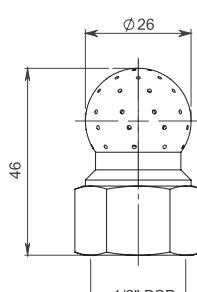
El modelo FLS está construido de una barra sólida con mayor grosor para garantizar el funcionamiento a alta presión.

Aplicación:

- Lavado de tanques
- Pasteurizadores

Materiales:

- Aisi316L, Aisi303
- Otros bajo pedido



Mod.	Free Passage (mm)	Capacity (lpm) at different pressure (bar)				Connection	Coverage	MAX. WET RADIUS (MT.)
		2	3	4	5			
A3FLS22	0,8	18	22	25	28	1/2" BSP	240°	3
A3FLS34	1,0	28	34	39	44	1/2" BSP	240°	3,2
A3FLS70	1,5	57	70	81	90	1/2" BSP	240°	3,5
A3FLS110	2,0	90	110	127	142	1/2" BSP	240°	4
A3FLS145	2,3	118	145	167	187	1/2" BSP	240°	4,5

SERIE XC

XC SERIES

TESTINE AUTOROTANTI O MOTORIZZATE PER LAVAGGIO VOLUMETRICO
SELFSPINNING OR MOTOR DRIVEN HEADS FOR VOLUMETRIC CLEANING

TESTINE DI LAVAGGIO VOLUMETRICHE

Disponibili con motore ad acqua, elettrico o pneumatico, per foro accesso minimo di 76mm

VOLUMETRIC CLEANING HEADS

Available with water motor, electric or pneumatic, for min pass through hole of 76mm

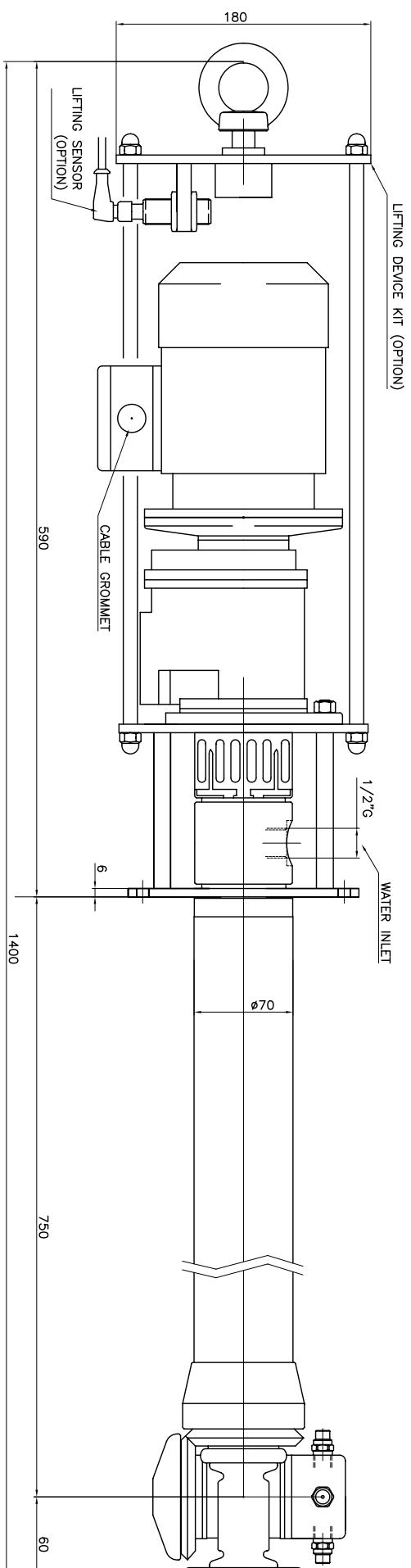


Disponibili in diverse lunghezze fino ad un max. di 6mt; disponibili anche versioni speciali per lavaggio settoriale

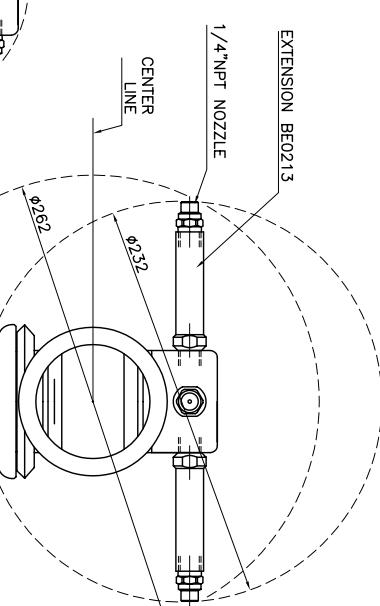
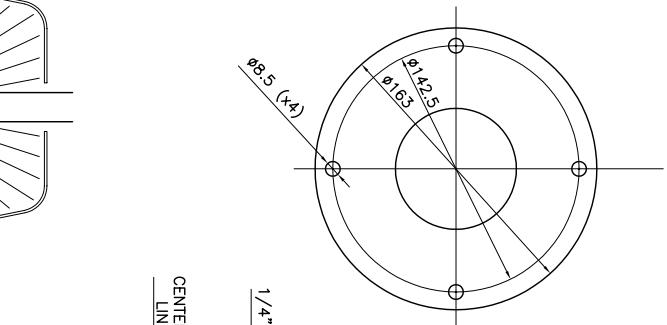
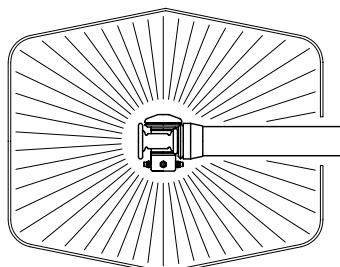
Available in different length till a max. of 6mt; available also special version for sector cleaning



rOtojet

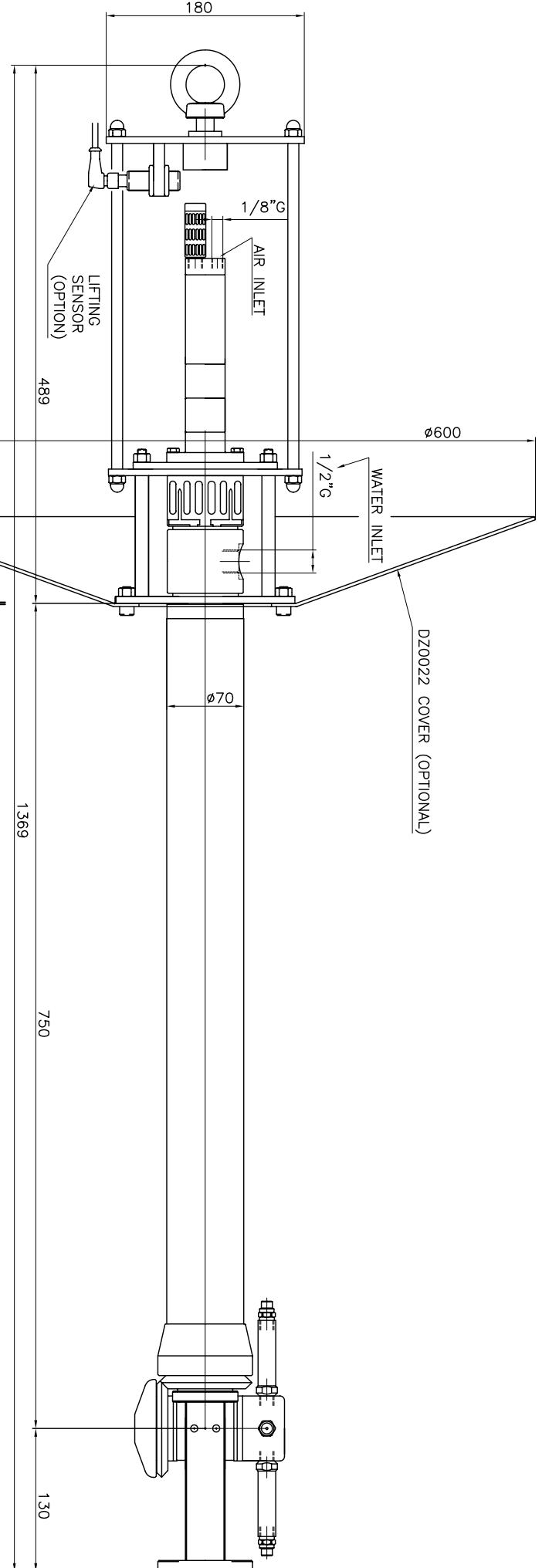


TECHNICAL DATA			
O.RING		NBR – EPDM – VITON	
SIPPER		PTFE+CARBON FIBRE	
BUSHING		AISI 316	
FILTER		NONE	
NOZZLES POSITIONS		2 – 4	
NOZZLES THREAD		1/4" NPT	
TESTING NOZZLES		0 x 0000	
OPERATING FLOW RANGE		0 – 200 L/min	
TESTING FLOW		000 L/min	
OPERATING PRESSURE RANGE		0 – 200 bar	
TESTING PRESSURE		000 bar	
CENTER LINE MIN PASS THROUGH HOLE	155 mm W/O EXTENSIONS	282 mm WITH EXTENSIONS	
MANUAL MIN PASS THROUGH HOLE	145 mm W/O EXTENSIONS	232 mm WITH EXTENSIONS	
PIPE LENGTH	750 mm (STANDARD)		
MAX OPERATING TEMPERATURE	90 °C		
MATERIAL	INOX AISI 316		
CONICAL GEARS	FIXED Z=41 ROTATING Z=43		
MODULE	2		
FULL CYCLE	4.3 ROTATIONS		
GEARBOX			
ELECTRIC MOTOR	BB0743 BB0015	BB0761 BA0102 BA0130 BA0127 EX	
ELECTRIC MOTOR VOLTS	24V AC/DC	2.30V 50Hz 1ph 400V 50Hz 3ph 400V 50Hz 3phase	
ELECTRIC MOTOR AMPS	0.30 A	0.23 A 0.70 A 0.70 A	
ROTATION SPEED	17 RPM	14 RPM 20 RPM 20 RPM	
FULL CYCLE TIME	2.5 min	3.1 min 2.2 min 2.2 min	
WEIGHT	14.2 KG		



RUGOSITÀ' (UNI 4600)	MODIFICA FOGLIO	1	2	3	4	5
GREZZO	DATA	XXXX.XX				
~ =	TOLLENZĘ GENERALE	classe m	UNI-EN 22768/1			
	0÷6	6÷30	30÷120	120÷400	400÷1000	1000÷2000
SGROSS.	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2
▽ =	3/	NOTE:				
FINITURA	DESCRIZIONE:	XC 200 E				
▽▽ = 1/	APPLICAZIONE	DRAWING	SCALA	1:3	A3	MOD.
RETIFICA			DATA:	06.10.08		
▽▽▽ = 0.8/			CODICE:		O	

Bolognini
CLEANING HEADS
MONTECCHIO E. (RE) - ITALY



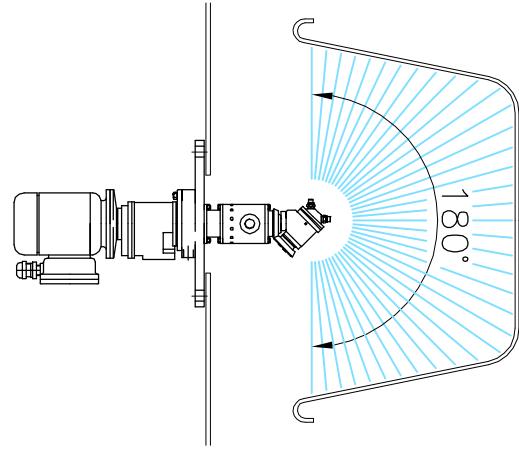
TECHNICAL DATA	
O.RING	EPDM
SLIPPER	PIFE+CARBON FIBER
BUSHING	NICKEL BRONZE 25%
NOZZLES POSITIONS	2 OR 4
NOZZLES SIZE	1/4"NPT
MAX OPERATING FLOW	200 L/min
MAX OPERATING PRESSURE	200 bar
MAX TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
GEARS	FIXED Z=41 ROTATING Z=43
MODULE	2
FULL CYCLE	43 ROTATIONS
FULL CYCLE TIME	1.00 MIN. AT 3 BAR AIR PRESSURE
AIR MOTOR	ATLAS COPCO ATEX BA 725 INOX
AIR EXAUST	FESTO SILENCER BP 415 ON MOTOR
WEIGHT	X.X KG

AIR PRESSURE AND CONSUMPTION	
ROTATION SPEED	29 RPM 1 bar 264 L/min. AIR
ROTATION SPEED	42 RPM 2 bar 288 L/min. AIR
ROTATION SPEED	51 RPM 3 bar 300 L/min. AIR
ROTATION SPEED	58 RPM 4 bar 306 L/min. AIR
ROTATION SPEED	62 RPM 5 bar 312 L/min. AIR
ROTATION SPEED	66 RPM 6 bar 324 L/min. AIR

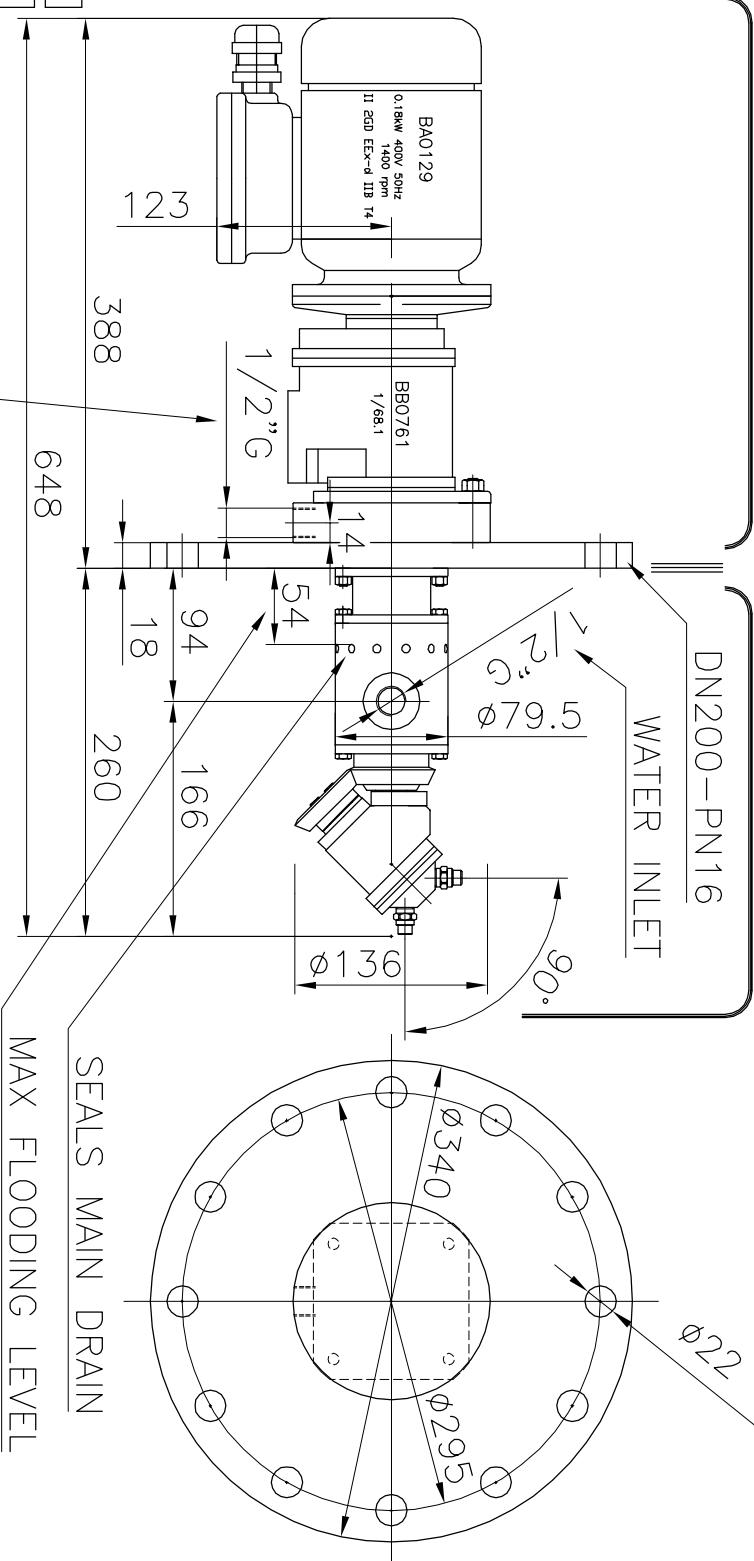
RUGOSITÀ' (UNI 4800)	MODIFICA FOGLIO XXXX	1	2	3	4	5
GREZZO	DATA XX.XX.XX					
~ =	TOLLENCE GENERALE classe m UNI-EN 22768/1					
~ =	0÷6 6÷30 30÷120 120÷400 400÷1000 1000÷2000					
SORROSS.	±0.1 ±0.2 ±0.3	±0.5	±0.8	±1.2		
▽ =	NOTE: MONTECCHIO E. (RE) - ITALY					
FINITURA	DISIGN: CR (CONTR.: DM DATA: 27.11.08 SCALA: 1:3 MOD: A3 O					
VVV = 1/8"	MATERIALE:					
RETTIFICA 0.8/	DESCRIZIONE: APPLICATION DRAWING					
VVV =	codice: XC 200 P cm					

II 2 GD
 EEx-d IIB T4-135°C
 T.AMB. -20°C+50°C

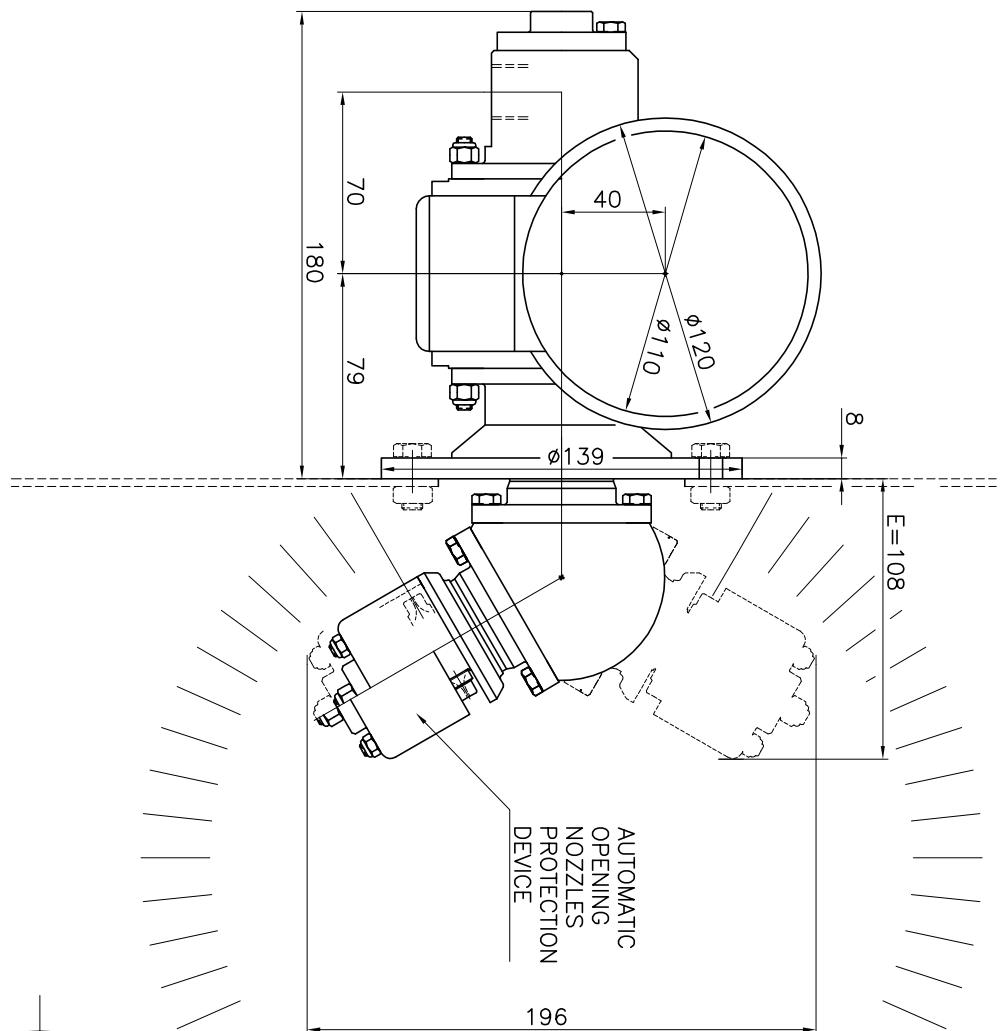
II 1 GD TX



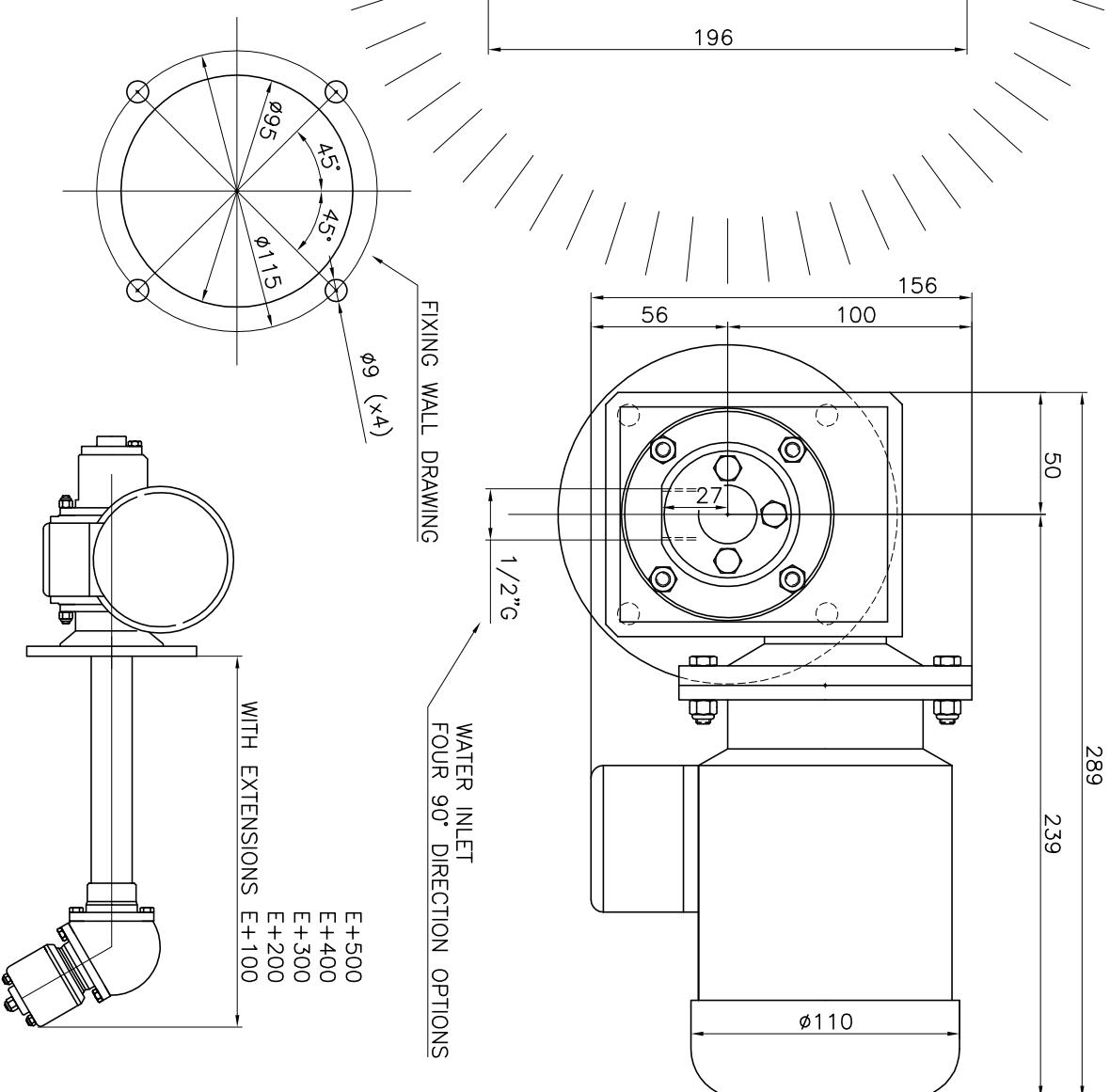
TECHNICAL DATA	
O.RING	EPDM
SLIPPER	PTFE+CARBON FIBER
BUSHING	NICKEL BRONZE 25%
NOZZLES POSITIONS	2 OR 4
NOZZLES SIZE	1/4" NPT
OPERATING FLOW	200 L/min
OPERATING PRESSURE	150 bar
MAX TEMPERATURE	90 °C
MATERIAL	INOX AISI 304
GEARS	FIXED Z=29 ROTATING Z=27
MODULE	2
FULL CYCLE	29 ROTATIONS
FULL CYCLE TIME	1.4 MIN.
ELECTRIC MOTOR EEX	400V 50HZ
ROTATION SPEED	21 RPM
WEIGHT	xx KG



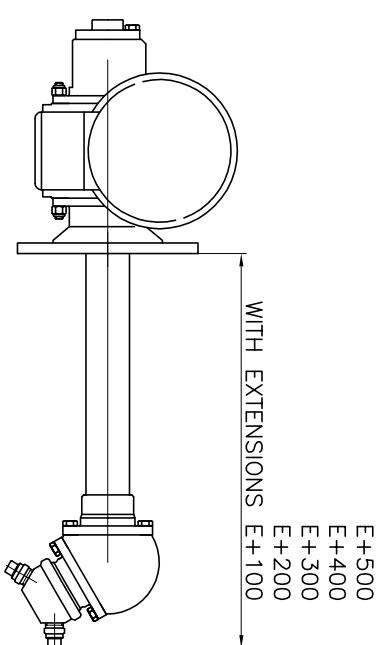
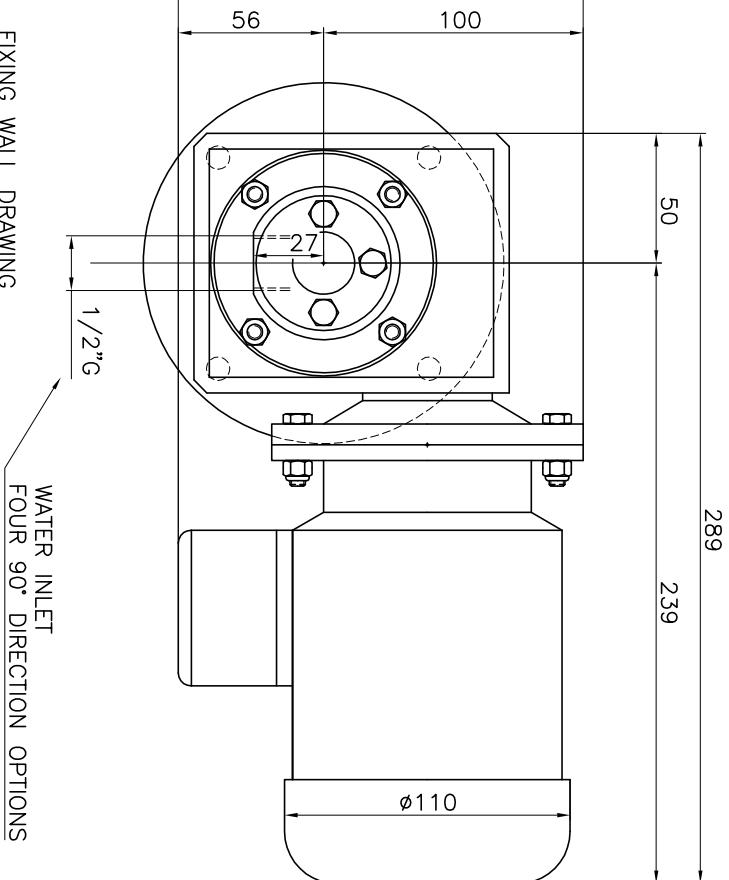
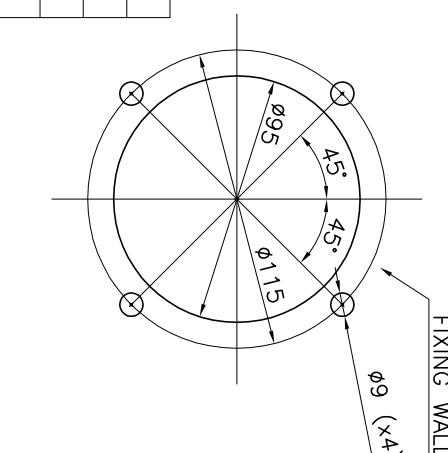
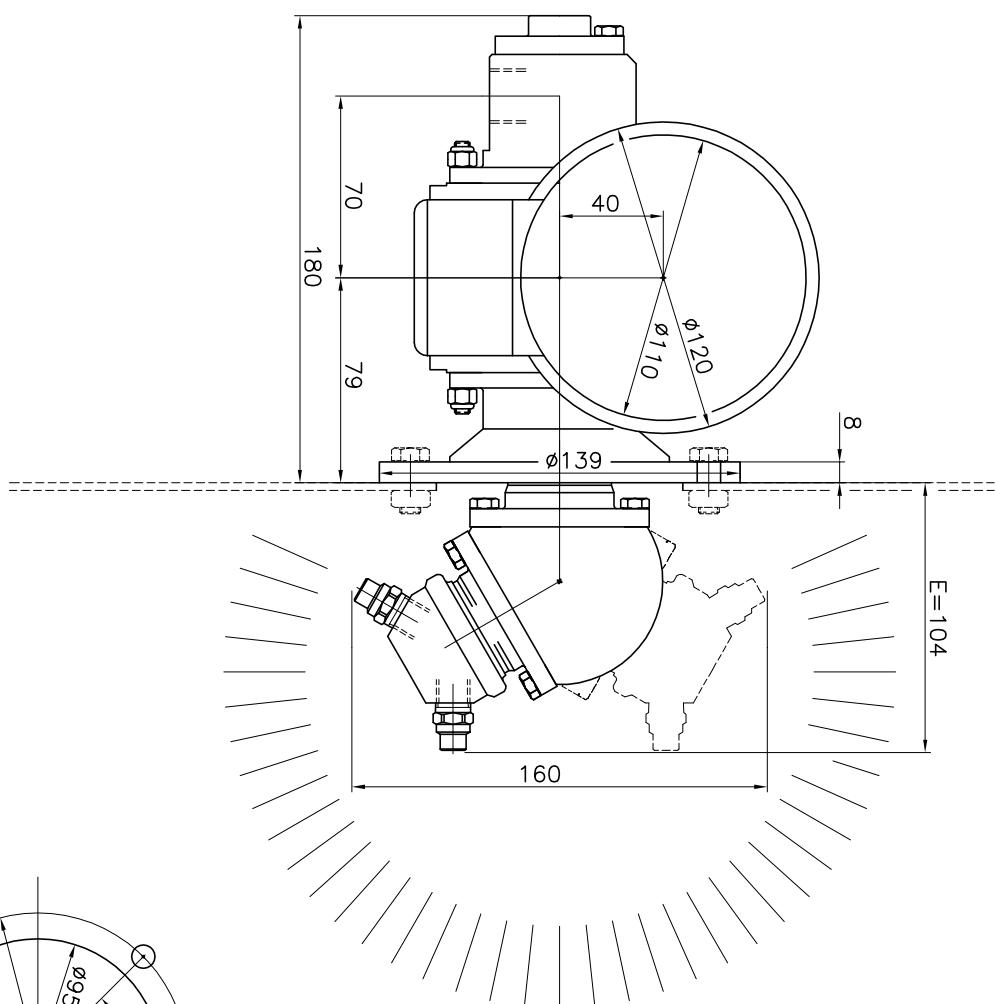
MAX FLOW	60 L/MIN.
MAX PRESSURE	200 BAR
NOZZLES POSITIONS	2 - 4
NOZZLE THREAD	1/8"G SPECIAL
ELECTRIC MOTOR	56B5-4P-1400RPM-0.09kW-400V-3PH
GEARBOX	CM040U-1:80 RATIO
ROTATION SPEED	18 RPM
WASHING FULL CYCLE TIME	2 MIN.
HEAD MATERIAL	INOX
WEIGHT	12.5 KG.



RUGOSITA' (UNI 4600)	MODIFICA FOGLIO DATA	1	2	3	4	5	
GREZZO		XXXX	XX.XX.XX				CLEANING HEADS
~ = Ø							MONTECCHIO E. (RE) - ITALY
S.GROSS.	Ø	±0.6	6÷30	30÷120	120÷400	400÷1000	1000÷2000
▽ = 3/2		±0.1	±0.2	±0.3	±0.5	±0.8	±1.2
FINITURA	MATERIALE:						DISEGN.: CR CONTR.: DM
▽▽ = ▽	MATERIALE:						DATA: 06.04.11
RETIFICA	DESCRIZIONE: CONCRETE MIXER WASHING HEAD						SCALA: 1:2
▽▽ = 0,8	VERSION						A.3
							0
							PT
							XC 070E



MAX FLOW	60 L/MIN.
MAX PRESSURE	200 BAR
NOZZLES POSITIONS	4
NOZZLE THREAD	1/4"G
ELECTRIC MOTOR	56B5-4P-1400RPM-0.09kW-400V-3PH
GEARBOX	CM040U-1:80 RATIO
ROTATION SPEED	18 RPM
WASHING FULL CYCLE TIME	2 MIN.
HEAD MATERIAL	INOX+BRASS
WEIGHT	12.5 KG.



RUGOSITÀ' (UNI 4600)	MODIFICA 1	MODIFICA 2	MODIFICA 3	MODIFICA 4	MODIFICA 5
FOGLIO XXXX					
DATA XX.XXX.XX					
GRÉZZO					
TOLLERANZE GENERALI classe m UNI-EN 22768/1					
~ = ∅ / 0÷6 6÷30 30÷120 120÷400 400÷1000 1000÷2000	±0.1	±0.2	±0.3	±0.5	±0.8
SGROSS. = 3/2	±0.1	±0.2	±0.3	±0.5	±0.8
NOTE:					
FINITURA: MATERIALE: VV = 1.6/ VV = 0.8/ RETTIFICA 0.8/ RETTIFICA 0.8/					
DESCRIZIONE: CONCRETE MIXER WASHING HEAD					
CONCE: XC 070E cm3					

Bokon
CLEANING HEADS
MONTECCHIO E. (RE) - ITALY

DISEGN.: ICR (CONTR.: DM)

DATA: 11.02.11 MOD.

SCALA 1:2

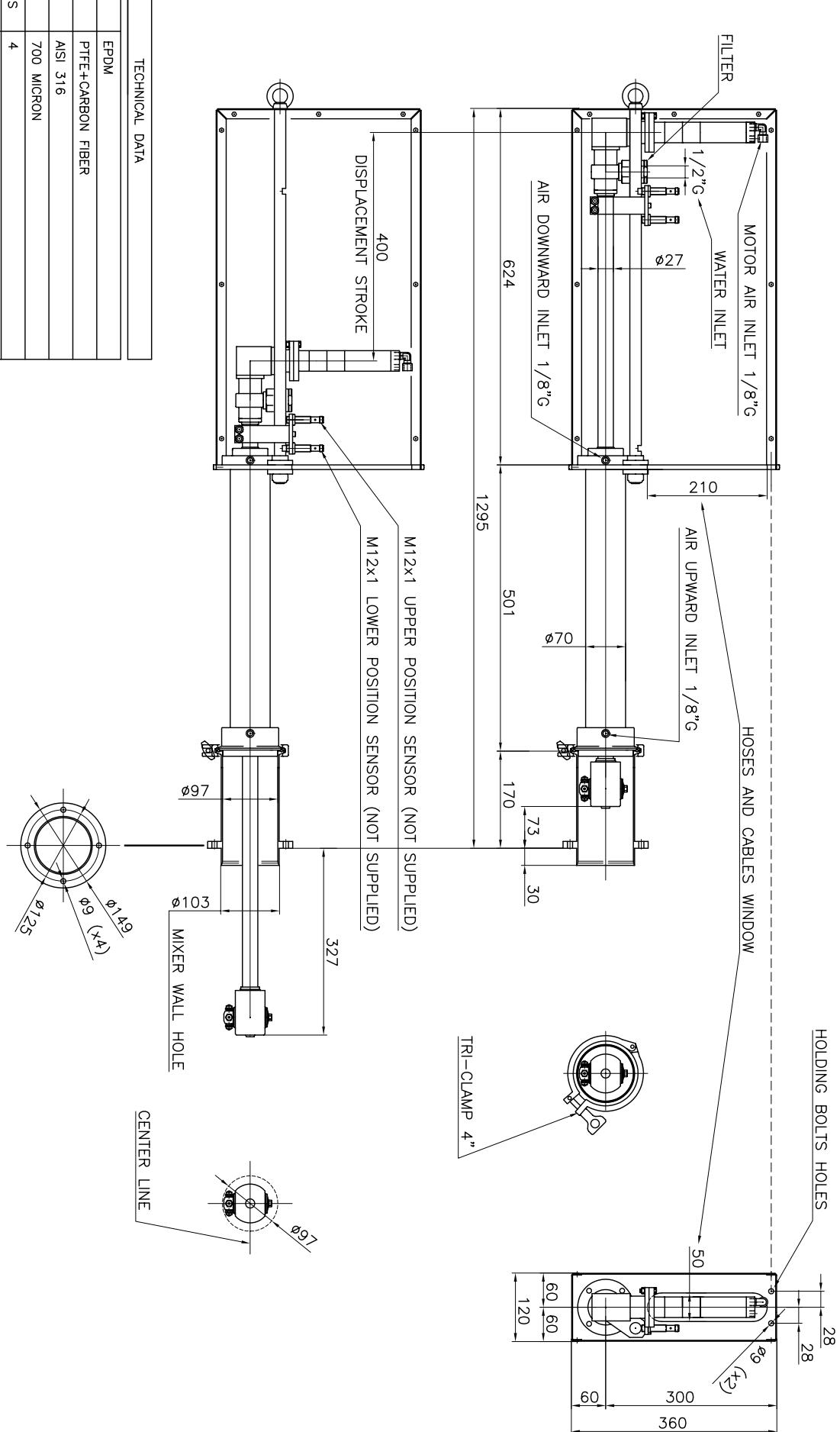
A.3

O

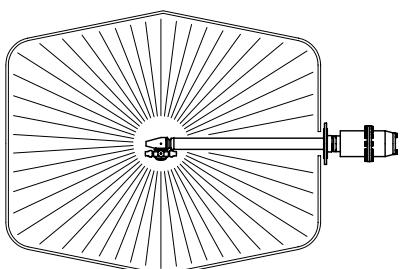
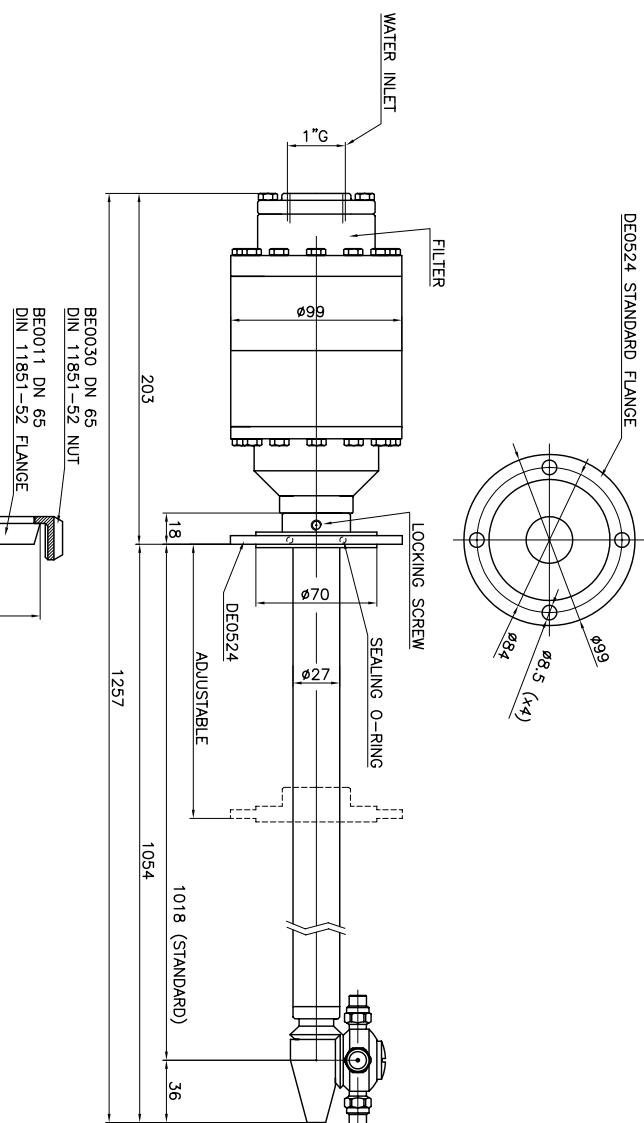
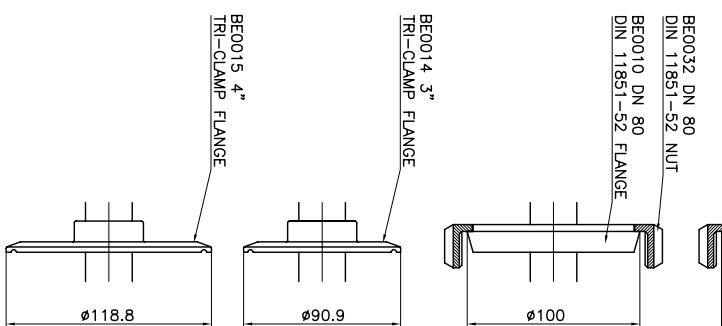
TECHNICAL DATA	
O.RING	EPDM
SLIPPER	PTFE+CARBON FIBER
BUSHING	AISI 316
FILTER	700 MICRON
NOZZLES POSITIONS	4
NOZZLES SIZE	1/8"NPT
OPERATING FLOW	60 L/min
OPERATING PRESSURE	150 bar
MAX TEMPERATURE	90 °C
MATERIAL	INOX AISI 316 + BRASS + GALVANIZED STEEL
GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
FULL CYCLE	31 ROTATIONS
FULL CYCLE TIME	1.00 MIN. AT 3 BAR AIR PRESSURE
AIR MOTOR	ATLAS COPCO BA 720 INOX
WEIGHT	6.5 KG

AIR PRESSURE AND CONSUMPTION	
ROTATION SPEED	29 RPM 1 bar 204 L/min. AIR
ROTATION SPEED	42 RPM 2 bar 288 L/min. AIR
ROTATION SPEED	51 RPM 3 bar 300 L/min. AIR
ROTATION SPEED	58 RPM 4 bar 306 L/min. AIR
ROTATION SPEED	62 RPM 5 bar 312 L/min. AIR
ROTATION SPEED	66 RPM 6 bar 324 L/min. AIR
DATA	XX.XX.XX

RUGOSITÀ' (UNI 4600)		MODIFICA	1	2	3	4	5		CLEANING HEADS
FOGLIO	XXXX								
DATA									
TOLLERANZE GENERALI classe m UNI-EN 22768/1									
GREZZO	∇								
SGROSSO.	∇								
∇	∇	∇	∇	∇	∇	∇	∇		
NOTE:									
FINITURA	∇								
DESCRIZIONE: APPLICATION DRAWING									
$\nabla\nabla$	∇								
DATA: XC 065 PPD-90°BA cm									
SCALA									
codice: A4									
XC 065 PPD-90°BA									



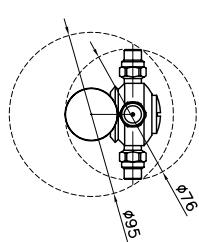
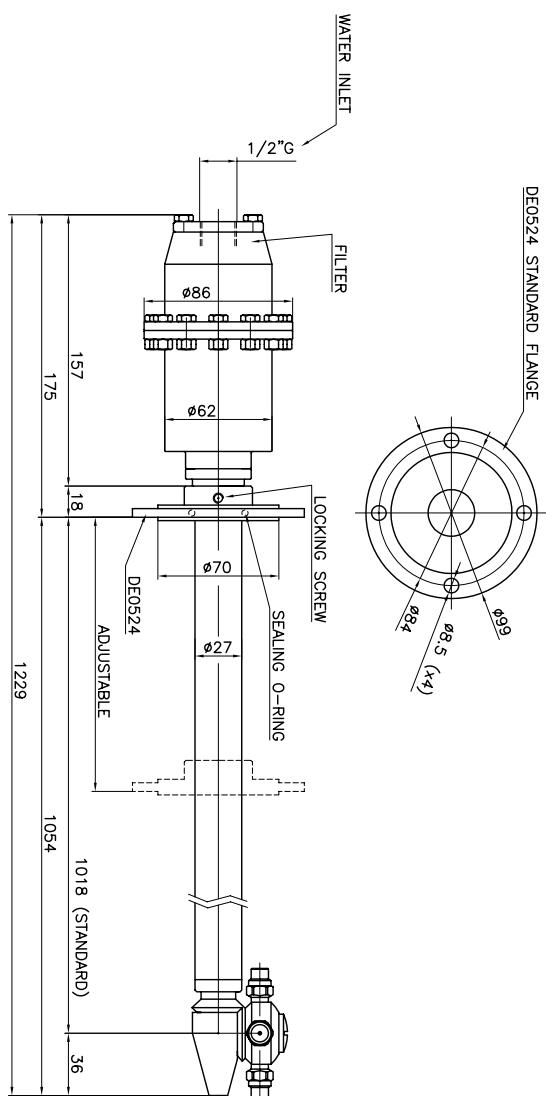
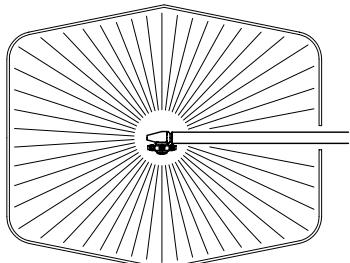
TECHNICAL DATA	
O.RING	NBR – EPDM – VITON
SLIPPER	PIF-E-CARBON FIBRE
BUSHING	AISI 316
FILTER	700 MICRON
NOZZLES POSITIONS	2 – 4
NOZZLES THREAD	1/8" NPT
TESTING NOZZLES	0 x 0000
OPERATING FLOW RANGE	10 – 60 L/min
TESTING FLOW	00 L/min
OPERATING PRESSURE RANGE	0 – 200 bar
TESTING PRESSURE	000 bar
CENTER LINE MIN PASS THROUGH HOLE	95 mm
MANUAL MIN PASS THROUGH HOLE	76 mm
PIPE LENGTH	1018 mm (STANDARD)
MAX OPERATING TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
CONICAL GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
ROTATION SPEED RANGE	15 TO 25 RPM
FULL CYCLE	31 ROTATIONS
FULL CYCLE TIME	1.5 min AT 20 RPM



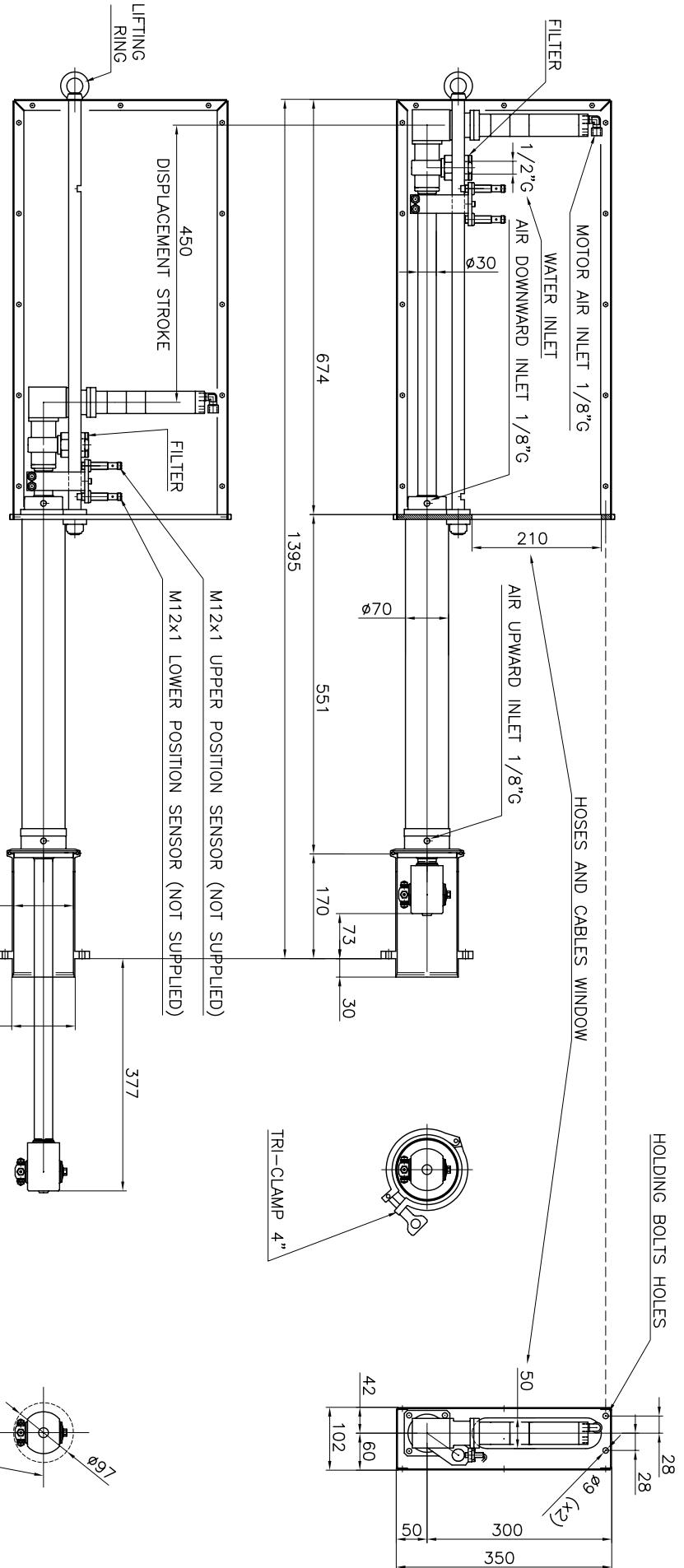
RUGOSITÀ' (UNI 4600)	MODIFICA FOGLIO	1	2	3	4	5
GREZZO	DATA	XXXX-XX				
$\sim = \sqrt{ }$	TOLLENZA GENERALE	classe m	UNI-EN 22768/1			
SGROSS.	0÷6	6÷30	30÷120	120÷400	400÷1000	1000÷2000
$\nabla = \frac{3}{\sqrt{ }}$	± 0.1	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2
NOTE:						
FINITURA	DESCRIZIONE:	XC 061 AAH				
$\nabla\nabla = \frac{1}{\sqrt{ }}$	APPLICAZIONE					
RETIFICA	DRAWING					
$\nabla\nabla\nabla = \frac{0.8}{\sqrt{ }}$	MOD.					
	SCALA	1:3	A	3	O	
	DATA:	02-10-08				
	DISIGN.: CR CONTR.: DM					
	MONTECCHIO E. (RE) - ITALY					
	CLEANING HEADS					
						
	codice:	XC 061 AAH				

TECHNICAL DATA	
O.RING	NBR – EPDM – VITON
SUPPLIER	PTFE+CARBON FIBRE
BUSHING	AISI 316
FILTER	700 MICRON
NOZZLES POSITIONS	2 – 4
NOZZLES THREAD	1/8" NPT
TESTING NOZZLES	0 x 0000
OPERATING FLOW RANGE	10 – 60 L/min
TESTING FLOW	00 L/min
OPERATING PRESSURE RANGE	0 – 150 bar
TESTING PRESSURE	000 bar
CENTER LINE MIN PASS THROUGH HOLE	95 mm
MANUAL MIN PASS THROUGH HOLE	76 mm
PIPE LENGTH	1018 mm (STANDARD)
MAX OPERATING TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
CONICAL GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
ROTATION SPEED RANGE	15 TO 25 RPM
TESTING DIFFUSER CODE	D10000 (SEE CHART)
FULL CYCLE	48 ROTATIONS
FULL CYCLE TIME	2.4 min AT 20 RPM
WEIGHT	3.2 KG

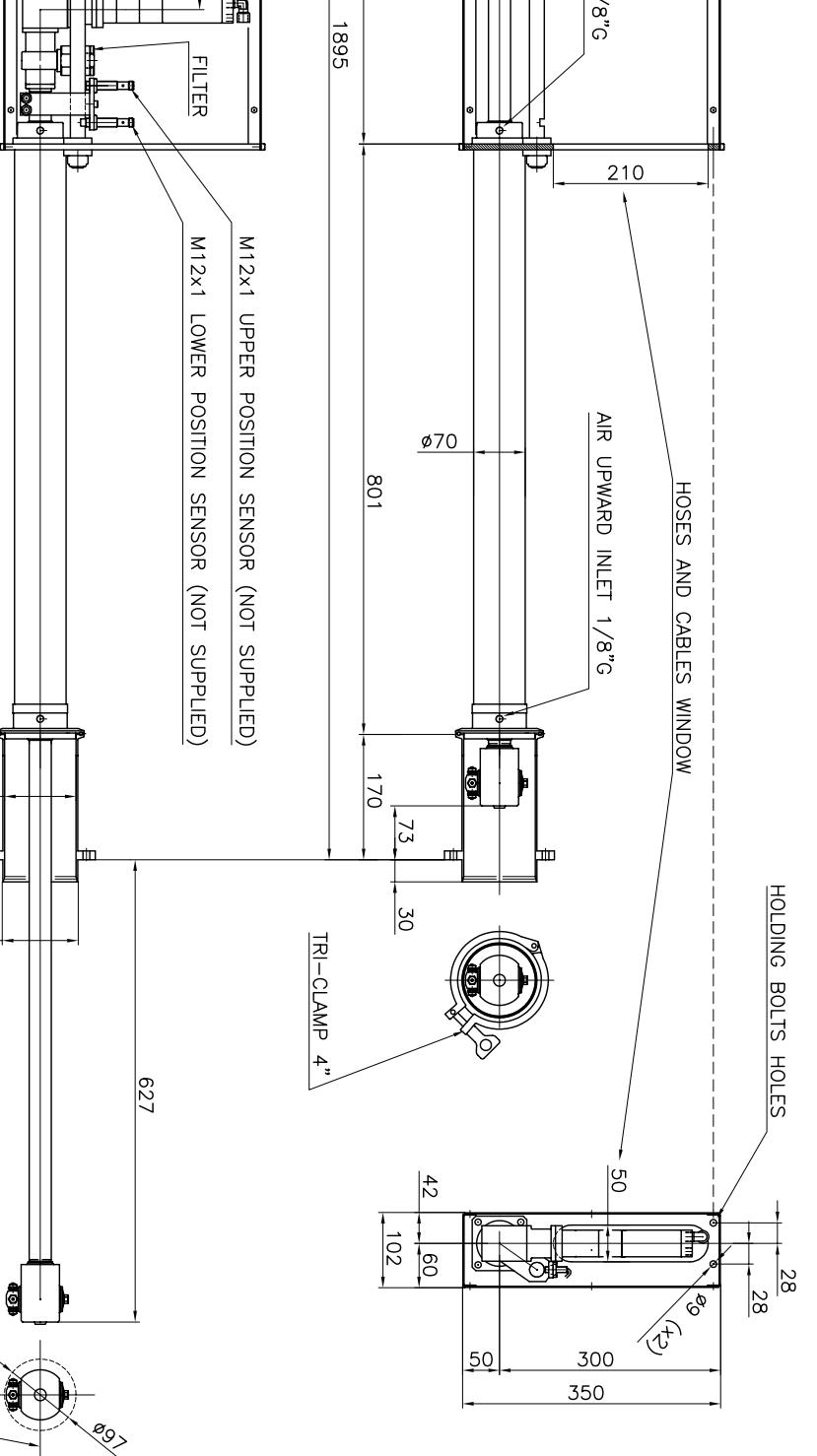
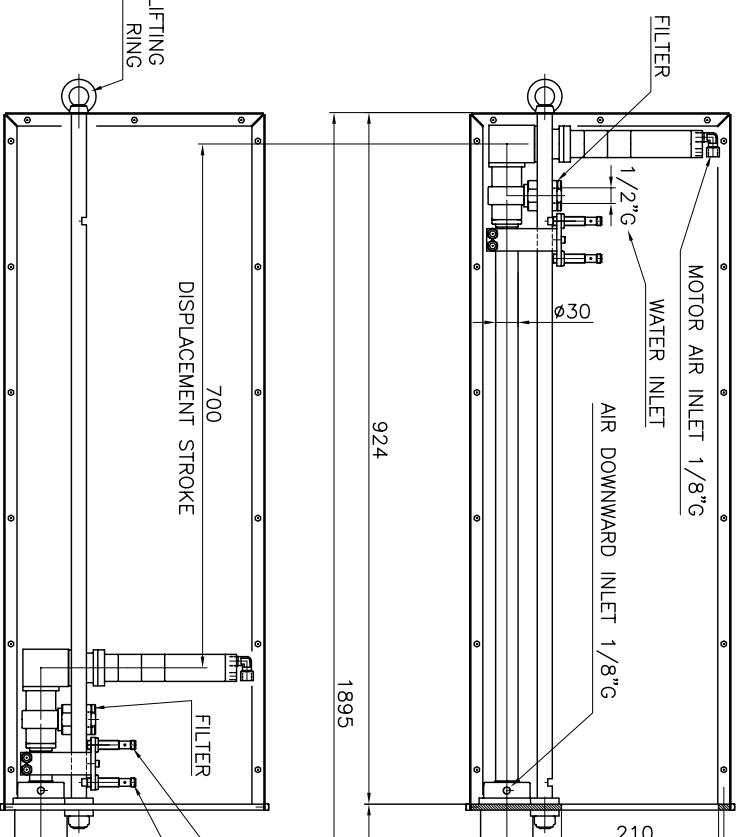
RUGOSITÀ' (UNI 4600)	MODIFICA FOGLIO	1	2	3	4	5
GREZZO	DATA	XXXX-XX				
$\sim =$	TOLLENZÈ GENERALE	classe m	UNI-EN 22768/1			
SGROSS.	± 0.1	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2
$\nabla =$	NOTE: $\frac{3}{\nabla}$					
FINITURA	DESCRIZIONE:	XC 061 A	MOD.	SCALA	1:3	A3
$\nabla\nabla =$	APPLICAZIONE	DRAWING	DISGEN: CR CONTR: DM	DATA: 02-10-08	MOD.	O
RETIFICA	CODICE: XC 061 A					
$\nabla\nabla\nabla =$						



TECHNICAL DATA	
O.RING	EPDM
SLEIPER	PTFE+CARBON FIBER
BUSHING	NICKEL BRONZE 25%
FILTER	700 MICRON
NOZZLES POSITIONS	4
NOZZLES SIZE	1/8" NPT
OPERATING FLOW	60 L/min
OPERATING PRESSURE	150 bar
MAX TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
FULL CYCLE	31 ROTATIONS
FULL CYCLE TIME	1.00 MIN. AT 3 BAR AIR PRESSURE
AIR MOTOR	ATLAS COPCO BA 720 INOX
AIR EXAUST	FESTO SILENCER BP 415 ON MOTOR
WEIGHT	6.5 KG



AIR PRESSURE AND CONSUMPTION	
RUGOSITA' (UNI 4600)	MODIFICA 1 2 3 4 5
FOGLIO XXXX	
DATA XX.XX.XX	
GREZZO TOLLERANZE GENERALI classe m UNI-EN 22768/1	
~ = Ø / Ø ± 6 / 0 ÷ 6	Ø 149
SGROSS. 3,2 / 0 ÷ 0,1	Ø 9
▽ = ± 0,2 / ± 0,3	(x4)
NOTE: ± 0,5	Ø 103
FINITURA 5,8 / 1,6 /	Ø 72,5
DESCRIZIONE: APPLICATION DRAWING XC 061 PEBD S4A	Ø 97
VERN. = 1,9	Ø 97
RETIFICIA 0,8 /	Ø 97
codice: XC 061 PEBD S4A cm	file: XC 061 PEBD S4A

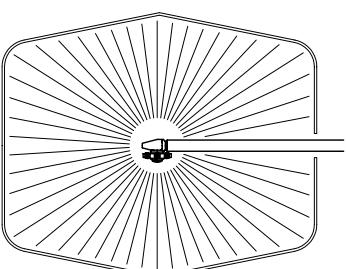
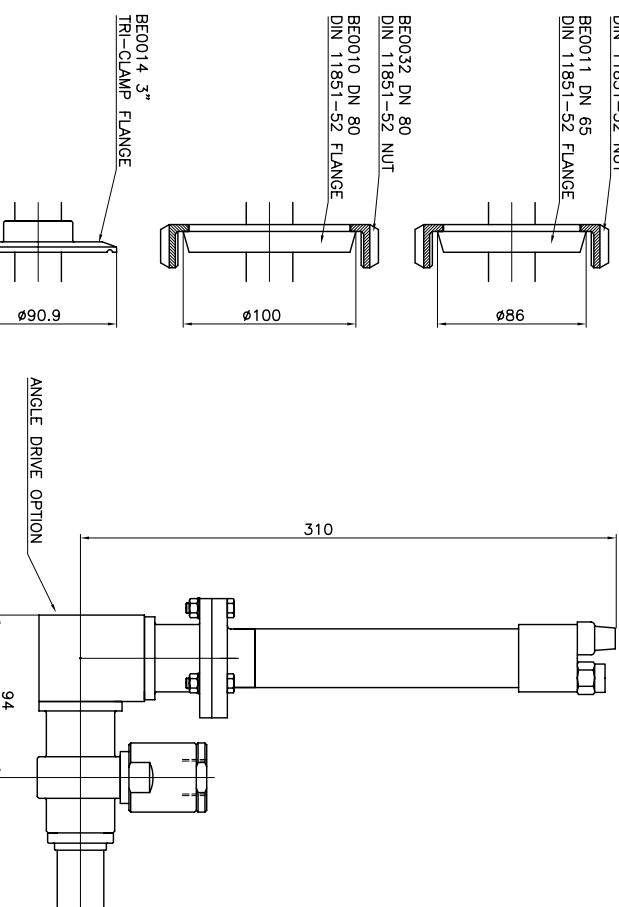
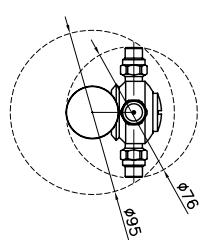
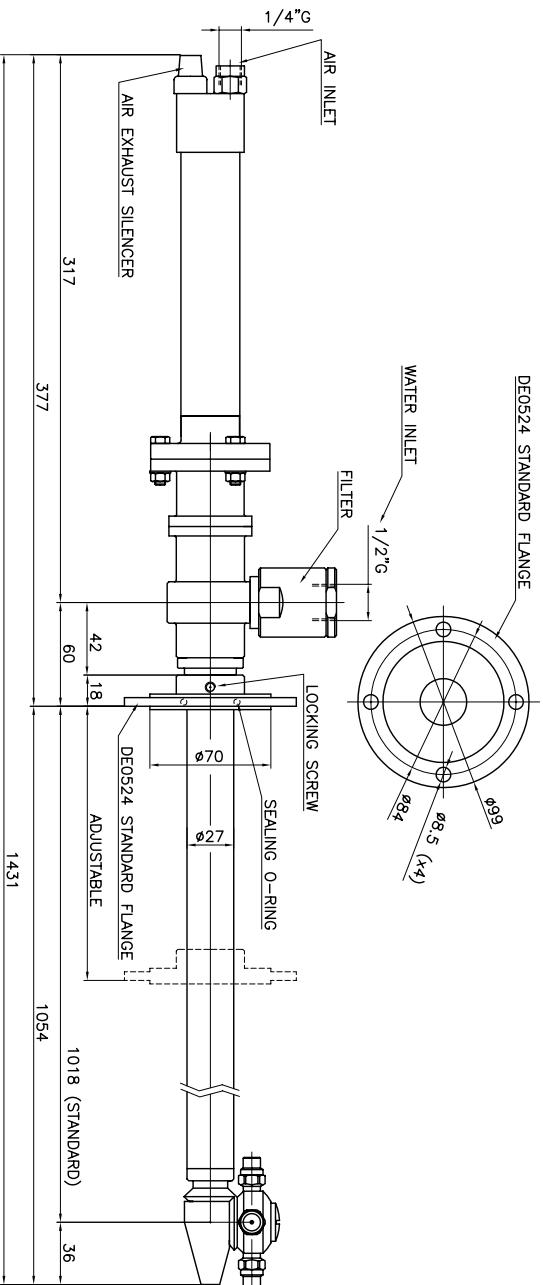


TECHNICAL DATA	
O.RING	EPDM
SLEIPER	PTFE+CARBON FIBER
BUSHING	NICKEL BRONZE 25%
FILTER	700 MICRON
NOZZLES POSITIONS	4
NOZZLES SIZE	1/8"NPT
OPERATING FLOW	60 L/min
OPERATING PRESSURE	150 bar
MAX TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
FULL CYCLE	31 ROTATIONS
FULL CYCLE TIME	1.00 MIN. AT 3 BAR AIR PRESSURE
AIR MOTOR	ATLAS COPCO BA 720 INOX
AIR EXAUST	FESTO SILENCER BP 415 ON MOTOR
WEIGHT	6.5 KG

AIR PRESSURE AND CONSUMPTION	
RUGOSITÀ' (UNI 4600)	MODIFICA 1 2 3 4 5
FOGLIO XXXX	
DATA XX.XX.XX	
GREZZO TOLLERANZE GENERALI classe m UNI-EN 22768/1	
~ = Ø / Ø ± 6 / 0 ± 6 / 0 ± 6 / 0 ± 6 / 0 ± 6 / 0	
SGROSSO 3,2 / 0,1 / 0,2 / 0,3 / 0,5 / 0,8 / 1,2	
▽ = 3,2 / NOTE:	
FINITURA 1,6 / 1,0 / 1,0 / 1,0 / 1,0 / 1,0	
DESCRIZIONE: APPLICATION DRAWING XC 061 PEBD S3A	
SCALA 1:9	A4
CODICE: XC 061PEBD S3A	0

RUGOSITÀ' (UNI 4600)	MODIFICA 1 2 3 4 5	
FOGLIO XXXX		CLEANING HEADS
DATA XX.XX.XX		MONTECCHIO E. (RE) - ITALY
GREZZO TOLLERANZE GENERALI classe m UNI-EN 22768/1		DISEGN.: CR CONTR.: DM
~ = Ø / Ø ± 6 / 0 ± 6 / 0 ± 6 / 0 ± 6 / 0 ± 6 / 0		DATA: 26.05.08
SGROSSO 3,2 / 0,1 / 0,2 / 0,3 / 0,5 / 0,8 / 1,2		MOD.
▽ = 3,2 / NOTE:		
FINITURA 1,6 / 1,0 / 1,0 / 1,0 / 1,0 / 1,0		
DESCRIZIONE: APPLICATION DRAWING XC 061 PEBD S3A		
SCALA 1:9	A4	0
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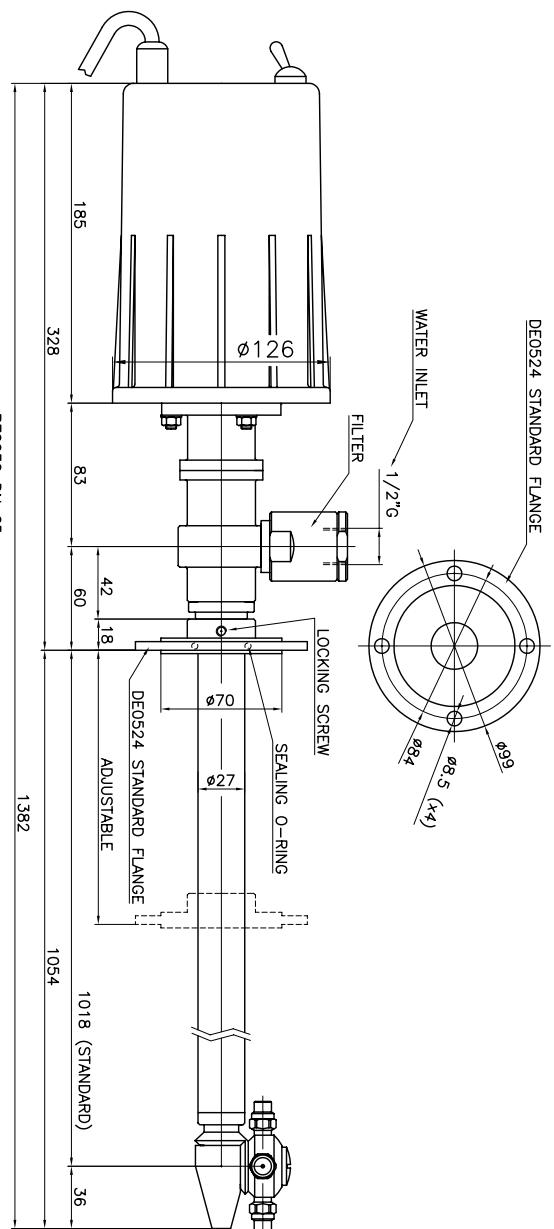
DE0524 STANDARD FLANGE



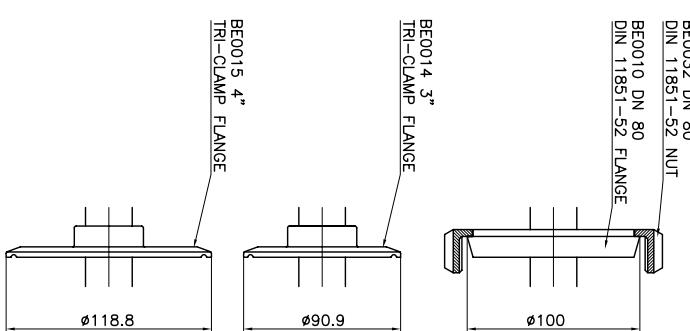
TECHNICAL DATA	
O-RING	NBR - EPDM - VITON
SLEIPER	PTFE-CARBON FIBRE
BUSHING	AISI 316
FILTER	700 MICRON
NOZZLES POSITIONS	2 - 4
NOZZLES THREAD	1/8" NPT
TESTING NOZZLES	0 x 0000
OPERATING FLOW RANGE	0 - 60 L/min
TESTING FLOW	00 L/min
OPERATING PRESSURE RANGE	0 - 200 bar
TESTING PRESSURE	000 bar
CENTER LINE MIN PASS THROUGH HOLE	95 mm
MANUAL MIN PASS THROUGH HOLE	76 mm
PIPE LENGTH	1018 mm (STANDARD)
MAX OPERATING TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
CONICAL GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
FULL CYCLE	31 ROTATIONS
FULL CYCLE TIME	1 min AT 3 BAR AIR PRESSURE
AIR MOTOR	BAO705 FIAM MLSZ
AIR EXHAUST	WITH SILENCER
ROTATION SPEED	SEE CHART
WEIGHT	7.5 KG

RUCOSITA' (UNI 4600)	MODIFICA	1	2	3	4	5	3
	FOGLIO	XXXX					
	DATA	XX.XX.XX					
GREZZO	TOLLERANZE GENERALI classe m UNI-EN 22768/1						
~ =	✓ /						
SGROSS.	± 0.1	6÷30	30÷120	120÷400	400÷1000	1000÷2000	CLEANING HEADS
▽ =	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2		MONTECCHIO E. (RE) - ITALY
NOTE:							DISEGN.: CR (CONTR.: DM)
FINTURA,	1.6/	DESCRIZIONE: XC 061 P					DATA: 06.10.08 MOD.
▽▽ =	RETIFICA 0.8/	APPLICATION DRAWING					SCALA 1:3
CODICE: XC 061 P							

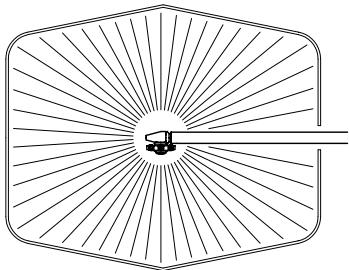
DE0524 STANDARD FLANGE



TECHNICAL DATA	
O.RING	NBR – EPDM – VITON
SLIPPER	PTFE+CARBON FIBRE
BUSHING	AISI 316
FILTER	700 MICRON
NOZZLES POSITIONS	2 – 4
NOZZLES THREAD	1/8" NPT
TESTING NOZZLES	0 x 0000
OPERATING FLOW RANGE	0 – 60 L/min
TESTING FLOW	00 L/min
OPERATING PRESSURE RANGE	0 – 200 bar
TESTING PRESSURE	
CENTER LINE MIN PASS THROUGH HOLE	95 mm
MANUAL MIN PASS THROUGH HOLE	76 mm
PIPE LENGTH	1018 mm (STANDARD)
MAX OPERATING TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
CONICAL GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
FULL CYCLE	31 ROTATIONS
GEARBOX	W/MOTOR BB0743 BB0743 BB0743
ELECTRIC MOTOR	BB0015 BA0105 BA0102 BA0108
ELECTRIC MOTOR VOLTS	24V AC/DC 48V 50Hz 1ph 230V 50Hz 1ph 400V 50Hz 3ph
ELECTRIC MOTOR AMPS	0.30 A 1.15 A 0.23 A 0.10 A
ROTATION SPEED	17 RPM 14 RPM 14 RPM
FULL CYCLE TIME	1.8 min 2.2 min 2.2 min
WEIGHT	7.5 KG

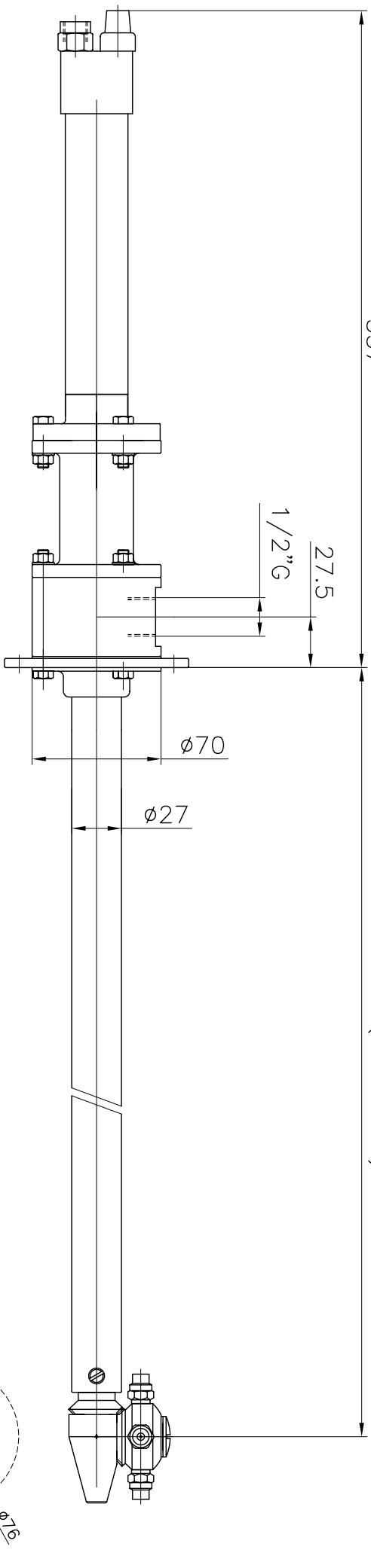


RUCOSITA' (UNI 4600)	MODIFICA	1	2	3	4	5	3
FOGLIO	XXXX						
DATA	XX.XX.XX						
GREZZO	TOLLERANZE GENERALI classe m UNI-EN 22768/1						
~ =	✓ /						
SGROSS. =	0÷6	6÷30	30÷120	120÷400	400÷1000	1000÷2000	
▽ =	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	
NOTE:							
FINTURA, ▽▽ =							
DESCRIZIONE: XC 061 E							
APPLICATION DRAWING							
RETIFICA							
▽▽▽ = 0.8							
CODICE: XC 061 E							



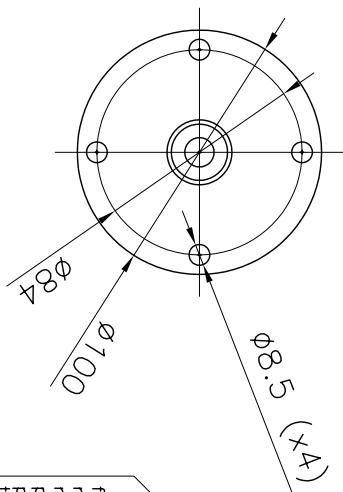
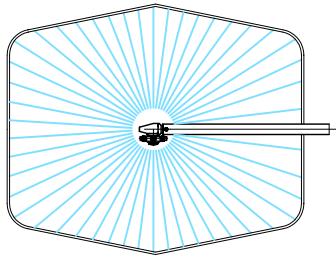
357

1018 (STANDARD)



ROTATION SPEED
AIR PRESSURE AND CONSUMPTION

19 RPM	1 bar	155 L/min
28 RPM	2 bar	230 L/min
33 RPM	3 bar	275 L/min
37 RPM	4 bar	320 L/min
40 RPM	5 bar	360 L/min
51 RPM	6 bar	395 L/min

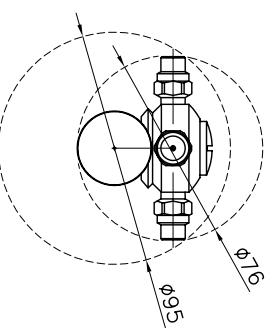


RUGOSITA'	MODIFICA	1	2	3	4	5
(UNI 4600)	FOGLIO	XXXXX				
GREZZO	DATA	XX.XX.XX				
TOLLERANZE GENERALI classe m UNI-EN 22768/1						
~ =	TOLLERANZE GENERALI classe m UNI-EN 22768/1	0÷6	6÷30	30÷120	120÷400	400÷1000
SGROSS.		±0.1	±0.2	±0.3	±0.5	±0.8
▽ =	NOTE:	VERSION	400	BAR		±1.2

flangatura: coassiale
materiale: inox 316
motore: pneumatico
portata max: 60 l/min
pressione max: 400 bar
temperatura max: 100°C
tenute: nbr, epdm, viton
ugelli: 1/8" G
portauelli: 2-4 vie

flanging: coaxial
materials: stainless steel 316
motor: pneumatic
flow max: 60 l/min
pressure max: 400 bar
temperature max: 100°C
seals: nbr, epdm, viton
nozzles: 1/8" G
nozzle holder: 2-4 holes

FINITURA	DESCRIZIONE: DISEGNO DI APPLICAZIONE
▽▽ =	XC 060 P
RETTOFICA	INSTALLATION DRAWING
▽▽▽ =	XC 060 P



RUGOSITA' (UNI 4600)	MODIFICA	1	2	3	4	5
FOGLIO	XXXXX					
GREZZO	DATA	XX.XX.XX				
TOLLERANZE GENERALI classe m UNI-EN 22768/1						
~ =	TOLLERANZE GENERALI classe m UNI-EN 22768/1	0÷6	6÷30	30÷120	120÷400	400÷1000
SGROSS.		±0.1	±0.2	±0.3	±0.5	±0.8
▽ =	NOTE:	VERSION	400	BAR		±1.2

BOKOM
CLEANING HEADS
MONTECCHIO E. (RE) - ITALY

DISEGN.: CR	CONTR.: DM
DATA: 01.01.05	MOD.
SCALA	1:3
A4	○
codice: XC 060 P	

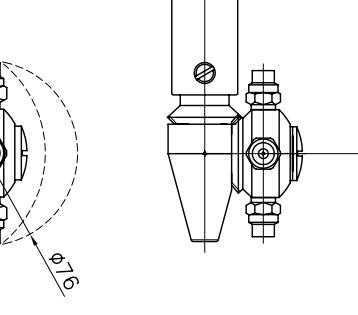
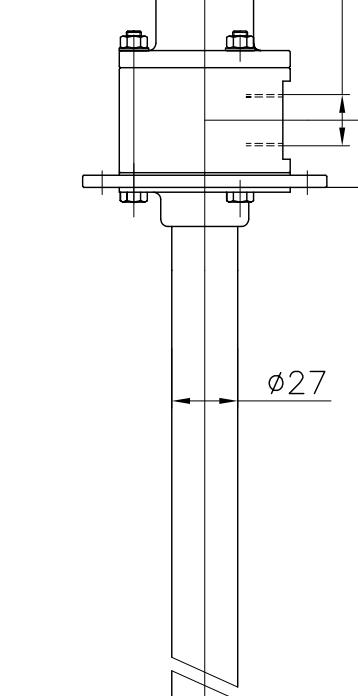
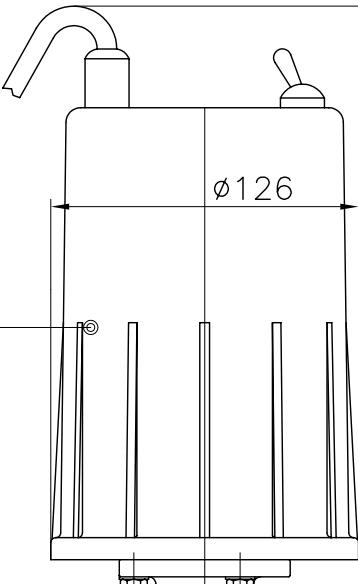
350

1018 (STANDARD)

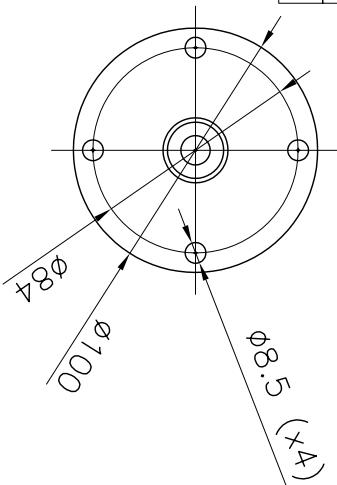
27.5

1/2" G

φ27



motore elettrico: 24V, 48V, 230V, 380V, antideflagrante
electric motor: 24V, 48V, 230V, 380V, explosion-proof

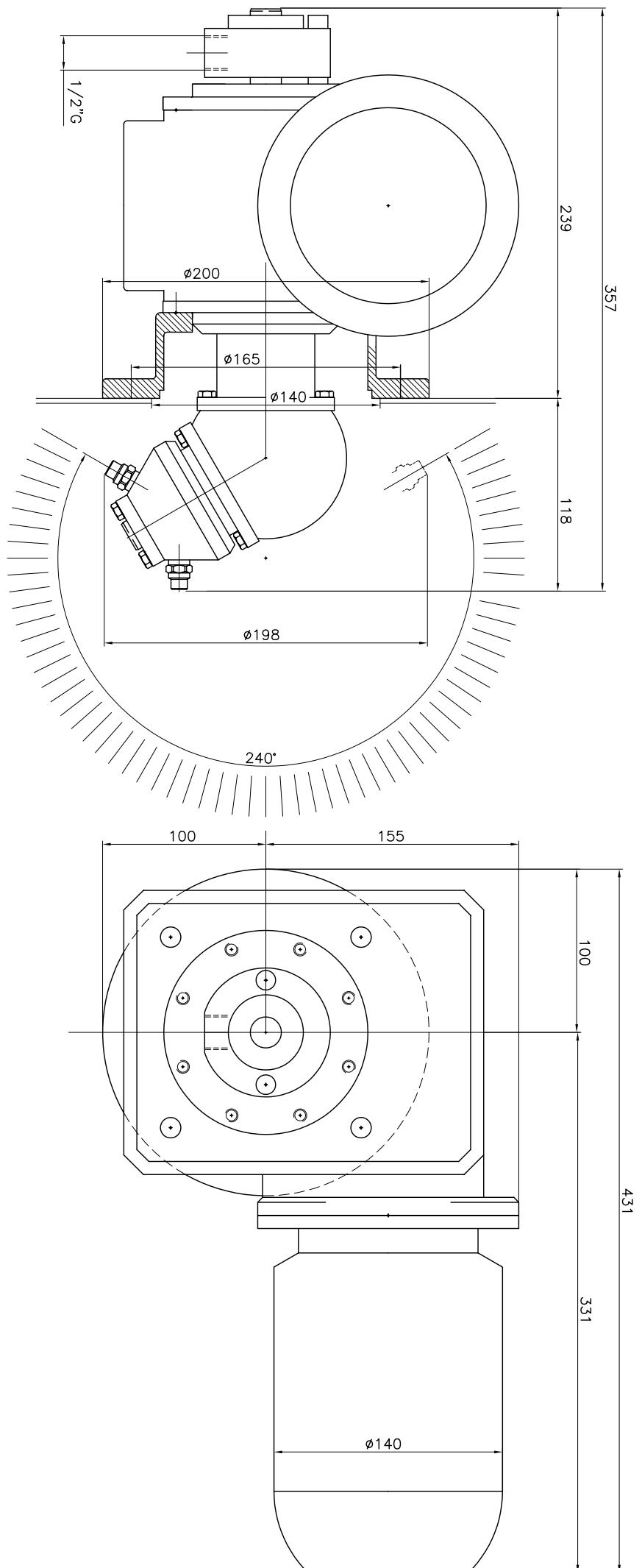


flangiatura: coassiale materiali: inox 316 motore: elettrico portata max: 60 l/min pressione max: 400 bar temperatura max: 90°C tenute: nbr, epdm, viton ugelli: 1/8" G 2-4 vie portugelli: 2-4 holes					
flanging: coaxial materials: stainless steel 316 motor: electric flow max: 60 l/min pressure max: 400 bar temperature max: 90°C seals: nbr, epdm, viton nozzles: 1/8" G 2-4 holes					

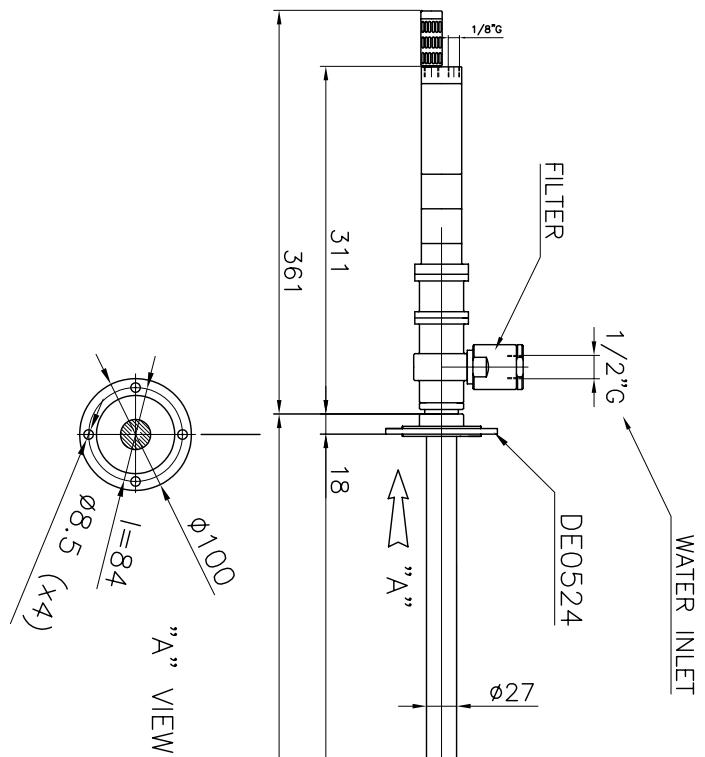
RUGOSITÀ (UNI 4600)	MODIFICA	1	2	3	4	5
FOGLIO	XXXXX					
DATA	XX.XX.XX					
GREZZO	TOLLERANZE GENERALI classe m UNI-EN 22768/1					
~ = ✓	0÷6	6÷30	30÷120	120÷400	400÷1000	1000÷2000
SGROSS.	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2
▽ = ▽	NOTE:	VERSION 400 bar				
FINTURA	DESCRIZIONE: DISEGNO DI APPLICAZIONE	DATA: 01.01.05	DISEGN.: CR	CONTR.: DM	SCALA: 1:3	A4
▽▽ = ▽	XC 060 E	MOD. 01	CODE: XC	060	E	
RETTOFICA	INSTALLATION DRAWING					
▽▽▽ = ▽	XC 060 E					

BOKOM
CLEANING HEADS
MONTECCHIO E. (RE) - ITALY

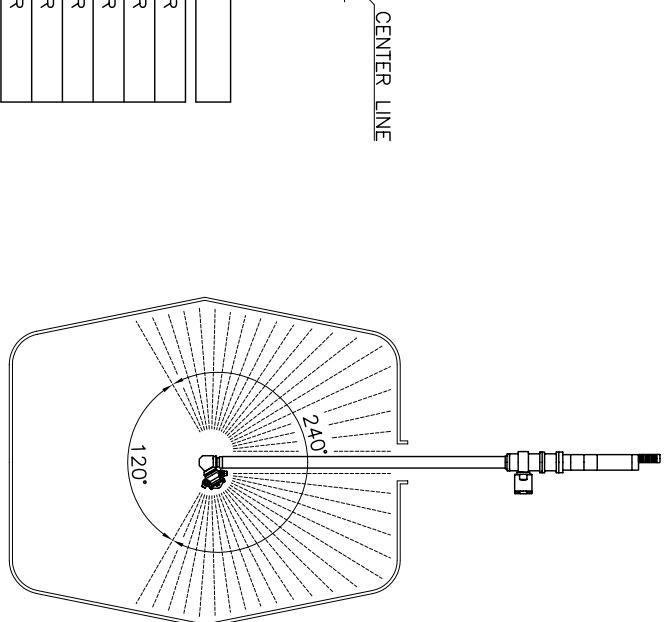
PORTATA MAX	MAX FLOW	100 litri/min.
PRESSIONE MAX	MAX PRESSURE	150 bar
N° UGELLI	NOZZLES POSITIONS	4
FILETTATURA UGELLI	NOZZLE THREAD	1/4"NPT
MOTORE ELETTRICO	GEARBOX	71B5-4POLI-1400RPM-0.37KW-3PH-400V-50HZ
RIDUTTORE	ROTATION SPEED RPM	W75 - RAPPORTO 1:80 RATIO
VELOCITA' ROTAZIONE	HEAD MATERIAL	INOX
MATERIALE TESTA	WEIGHT	19.5 Kg.
PESO		



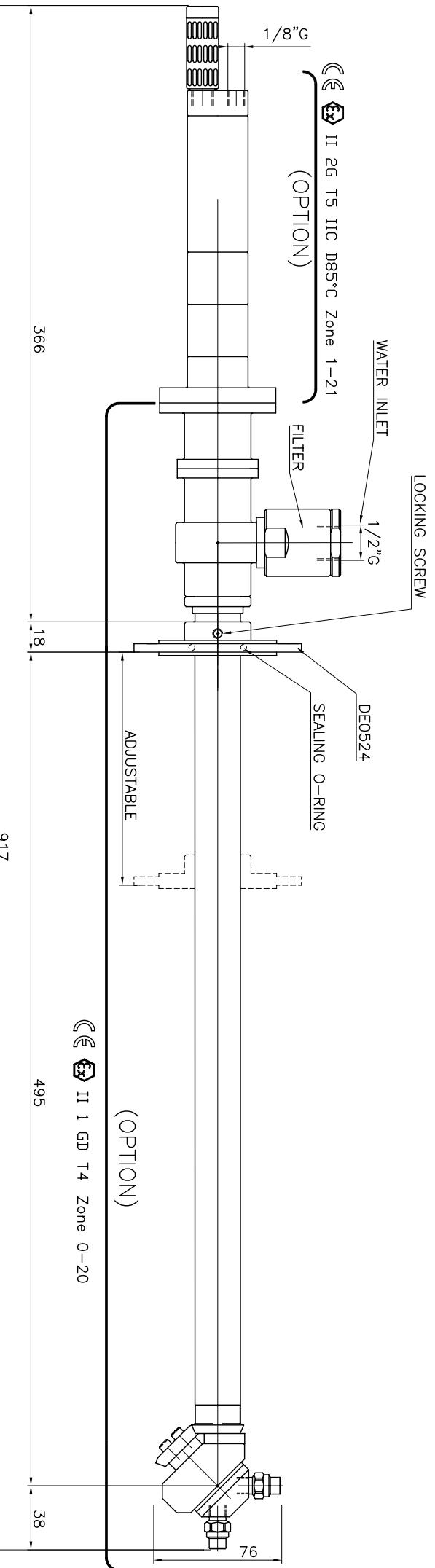
TECHNICAL DATA	
O.RING	EPDM
SLIPPER	PTFE+CARBON FIBER
BUSHING	NICKEL BRONZE 25%
FILTER	700 MICRON
NOZZLES POSITIONS	4
NOZZLES SIZE	1/8"NPT
OPERATING FLOW	60 L/min
OPERATING PRESSURE	150 bar
MAX TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
FULL CYCLE	31 ROTATIONS
FULL CYCLE TIME	1.00 MIN. AT 3 BAR AIR PRESSURE
AIR MOTOR	ATLAS COPCO BA 720 INOX
AIR EXAUST	FESTO SILENCER BP 415 ON MOTOR
WEIGHT	6.5 KG



AIR PRESSURE AND CONSUMPTION	
ROTATION SPEED	29 RPM 1 bar 264 L/min. AIR
ROTATION SPEED	42 RPM 2 bar 288 L/min. AIR
ROTATION SPEED	51 RPM 3 bar 300 L/min. AIR
ROTATION SPEED	58 RPM 4 bar 306 L/min. AIR
ROTATION SPEED	62 RPM 5 bar 312 L/min. AIR
ROTATION SPEED	66 RPM 6 bar 324 L/min. AIR

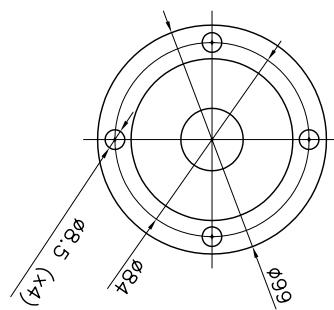


RUGOSITÀ' (UNI 4600)	MODIFICA	1	2	3	4	5		CLEANING HEADS MONTECCHIO E. (RE) - ITALY
DATA	XXXX							
GREZZO							DISEGN.: CR CONTR.: DM DATA: 14.09.07 MOD.	SCALA
TOLETTANZE GENERALI classe m UNI-EN 22768/1	±0.6	6÷30	30÷120	120÷400	400÷1000	1000÷2000		
SGROSS.	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	VERISON: 01	A4
▽	3/2	▽	▽	▽	▽	▽		
FINITURA	1.6/						NOTE:	
▽▽	▽▽							
RETIFICIA	0.8/						DESCRITION: APPLICATION DRAWING codice: ▽▽▽ = ▽	XCO31_240°BK-PPE.01



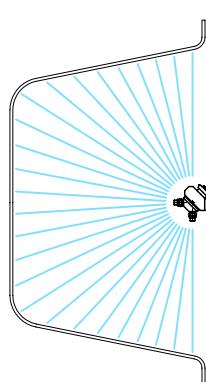
TECHNICAL DATA

O.RING	NBR-EPDM-WITON
SLIPPER	PTFE+CARBON FIBER
FILTER	700 MICRON
NOZZLES POSITIONS	2 – 4
NOZZLES SIZE	1/8" NPT
OPERATING FLOW	MAX 60 L/min
OPERATING PRESSURE	MAX 200 bar
MAX TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
FULL CYCLE	31 ROTATIONS
FULL CYCLE TIME	1.00 MIN. AT 3 BAR AIR PRESSURE
WEIGHT	4.9 KG

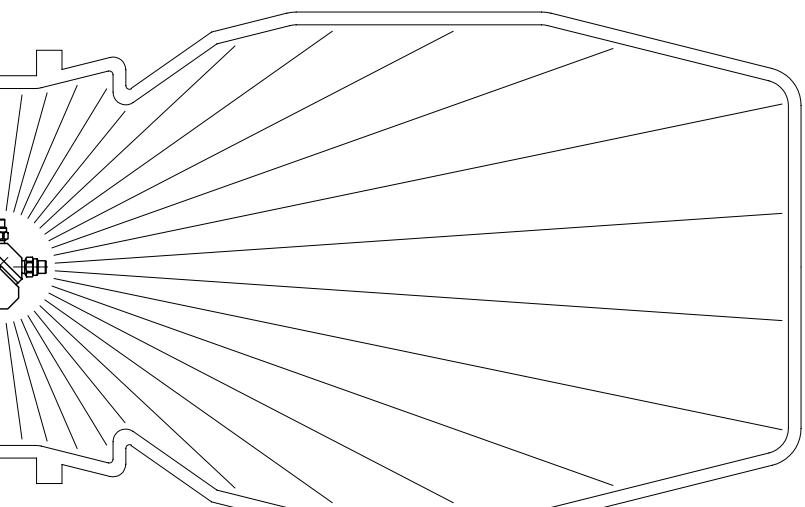
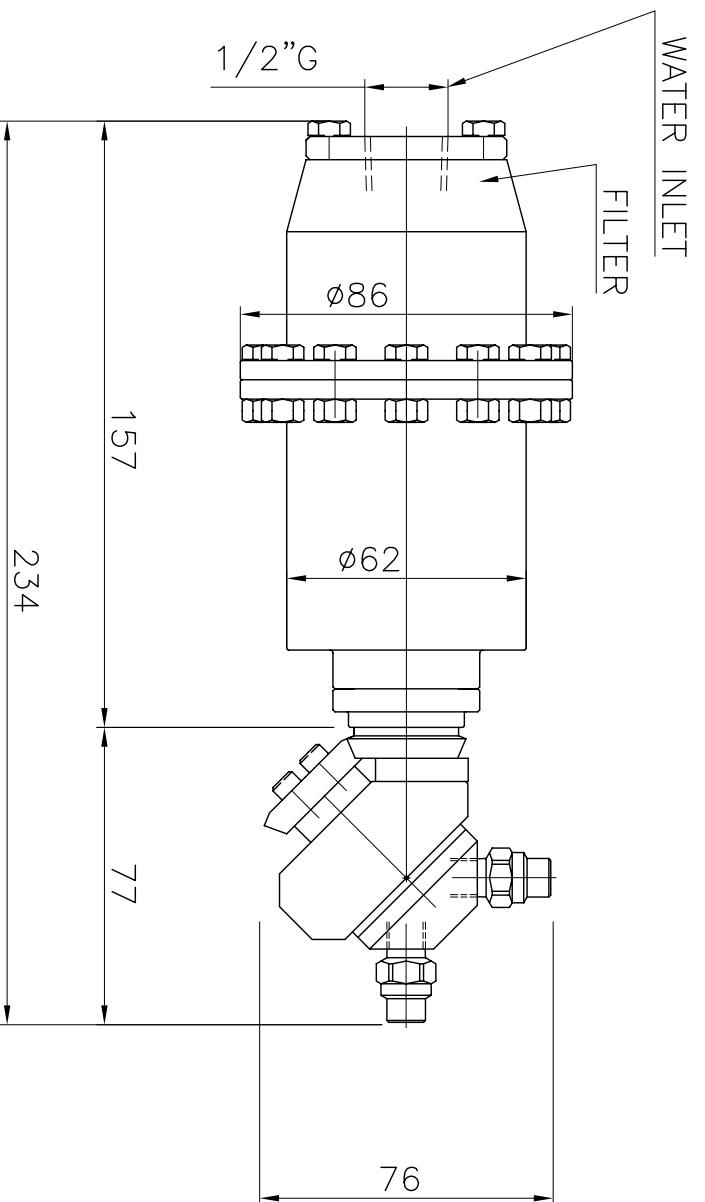


AIR PRESSURE AND CONSUMPTION

ROTATION SPEED	29 RPM	1 bar	264 L/min. AIR
ROTATION SPEED	42 RPM	2 bar	288 L/min. AIR
ROTATION SPEED	51 RPM	3 bar	300 L/min. AIR
ROTATION SPEED	58 RPM	4 bar	306 L/min. AIR
ROTATION SPEED	62 RPM	5 bar	312 L/min. AIR
ROTATION SPEED	66 RPM	6 bar	324 L/min. AIR



RUGOSITÀ (UNI 4680)	MODIFICA	1	2	3	4	5	
FOGLIO	xxxx						
DATA	xx.xx.xx						
GREZZO							
~ = ✓	TOLERANZE GENERALI classe m UNI-EN 22768/1						
SGROSS. 3/2	±0.6	6-30	30+120	400+1000	1000+2000		CLEANING HEADS
NOTE:	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	MONTECCHIO E. (RE) - ITALY
▼	DISEGN.: CR [CONTR.]: DM						
FINITURA	DATA: 27.10.09						
▼▼ = ✓	MATERIALE: INOX						
RETIFICATA	SCALA: 1:2						
▼▼ = 0/✓	DESCRIZIONE: APPLICATION DRAWING						
	codice: XC 031_180°FR-PPD.01						

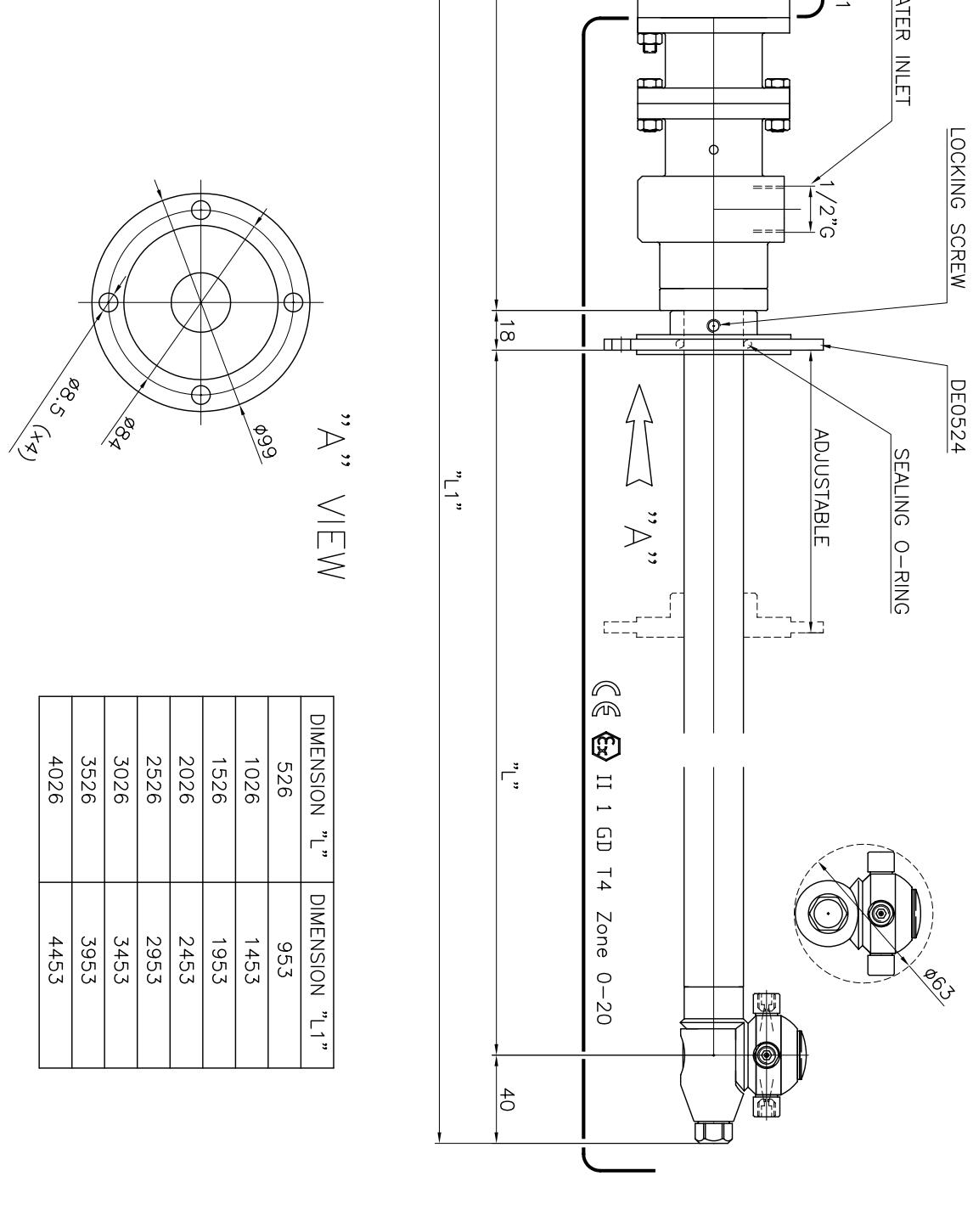


TECHNICAL DATA

O.RING	EPDM
SLIPPER	PTFE+CARBON FIBRE
FILTER	700 MICRON
NOZZLES POSITIONS	2-4
NOZZLES TYPE	1/8"NPT
MAX OPERATING FLOW	60 L/min
MAX OPERATING PRESSURE	150 bar
MAX OPERATING TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
CONICAL GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
COMPLETE CYCLE	31 ROTATIONS
COMPLETE CYCLE TIME	30 SEC
ROTATION SPEED	60 RPM
WEIGHT	7.5 KG

RUGOSITÀ' (UNI 4600)	MODIFICA	1	2	3	4	5
FOGLIO	XXXX					
DATA	XX.XX.XX					
GREZZO	TOLLERANZE GENERALI classe m UNI-EN 22768/1					
~ =	9/					
SGROSS.	0÷6 6÷30 30÷120 120÷400 400÷1000 1000÷2000					
▽ =	±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2					
NOTE: file: XC 061 AAH cm						
DESCRIZIONE: APPLICATION DRAWING XC031_180°FR-AAM.01	DISEGNI: CR CONTR.: DM					
FINITURA ▽ = 1.6/	DATA: 07.05.08					
RETIFICA ▽ = 0.8/	SCALA: 1:2	A4	○			
▽▽▽ = 0.8/	CODICE:					
	XC031_180°FR-AAM.01					

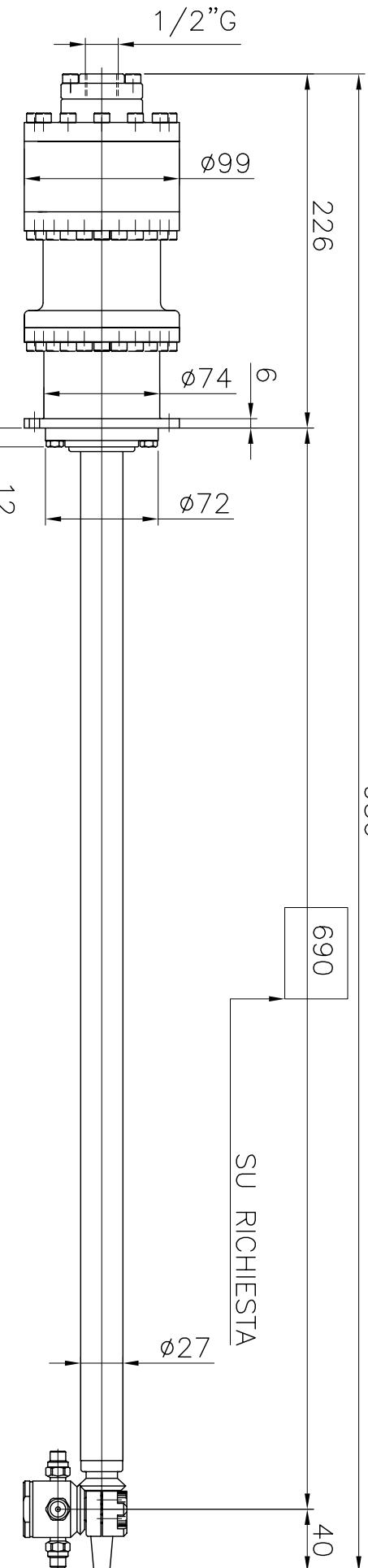
TECHNICAL DATA	
O.RNG	NBR-EPDM-VITON
SLIPPER	PTFE+CARBON FIBER
BUSHING	AS1 316
NOZZLES POSITIONS	2 - 4
NOZZLES SIZE	SPECIAL 1/8" G
OPERATING FLOW	MAX 60 L/min
OPERATING PRESSURE	MAX 500 bar
MAX TEMPERATURE	90 °C
MATERIAL	INOX AISI 316
GEARS	FIXED Z=29 ROTATING Z=31
MODULE	1
FULL CYCLE	31 ROTATIONS
FULL CYCLE TIME	100 MIN. AT 3 BAR AIR PRESSURE
AIR MOTOR	ATLAS COPCO ATEX BA 725 INOX
AIR EXAUST	FESTO SILENCER BP 415 ON MOTOR
WEIGHT	4.9 KG



956

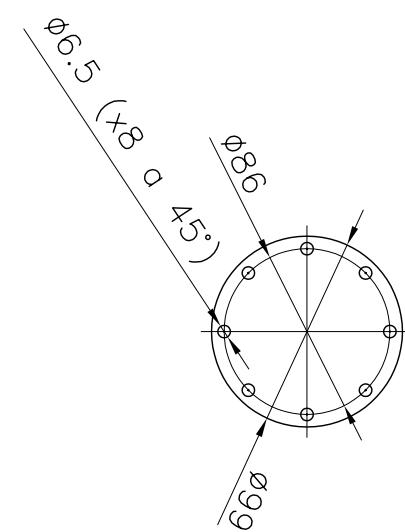
690

SU RICHIESTA



MIN. PASS THROUGH HOLE
MANUAL OFF CENTER LINE

MIN. PASS THROUGH HOLE
AUTOMATIC IN CENTER LINE



CENTER LINE

CENTER LINE

TECHNICAL DATA	
temperature max	90°C
pressure max	500 bar
flow	15 - 60 l/min
spinning speed	16 rpm
washing cycle time	2 min
water inlet	1/2"
inlet filter	700 micron
material	INOX
seals	NBR
nozzle size	1/8" NPT
nozzles positions	2 - 4
weight	9.5 Kg

RUGOSITÀ' (UNI 4600)	MODIFICA	1	2	3	4	5
FOGLIO	XXXX					
DATA	XX.XX.XX					
GREZZO						
$\sim = \varnothing$	TOLLERANZE GENERALI classe m UNI-EN 22768/1					
S.GROSS.	± 0.1	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2
$\nabla = \nabla$	NOTE: 21.07.08					
FINITURA						
$\nabla = \nabla$	MATERIALE:					
RETIFICA	1.6					
$\nabla\nabla = \nabla\nabla$	DESCRIZIONE: XC 563AAO					
	INSTALLATION DRAWING					
	CODICE: XC 563AAO					

CLEANING HEADS
MONTECCHIO E. (RE) - ITALY

DISEGN.: CR | CONTR.: DM
DATA: 19.11.07 MOD.
SCALA 1:1 A4 O

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fax +39 0522 865780
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