

A 03 T I E

**POMPE A INGRANAGGI**

**SERIE APL**

**GEAR PUMPS**

**APL SERIES**



 **CASAPPA**<sup>®</sup>  
FLUID POWER DESIGN

<b>QUESTO CATALOGO</b> <i>This catalogue</i>		<b>SOSTITUISCE</b> <i>Replace</i>		<b>AGGIORNAMENTI</b> <i>Revisions</i>	
Codice <i>Code</i>	Edizione <i>Edition</i>	Codice <i>Code</i>	Edizione <i>Edition</i>	Novità pagina <i>News page</i>	Modifiche pagina <i>Review page</i>
<b>A 03 T IE</b>	<b>07.1995</b>	<b>A 02 T IE</b>	<b>10.1992</b>	1.6-1.7-1.8-1.9-1.10-1.11- 1.12-1.13-1.14	

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## DESCRIZIONE DEL PRODOTTO

### *Description of the product*

Le pompe della **SERIE APL**, con corpo in ghisa e rasamenti compensati idraulicamente, sono state progettate per ottenere un' elevata cilindrata in relazione alle ridotte dimensioni di ingombro e un buon funzionamento anche alle basse velocità. Per queste loro caratteristiche sono particolarmente impiegate per applicazioni su macchine agricole e veicoli industriali.

The gear pumps **APL SERIES** presented in this catalogue are in cast iron construction with balanced thrust plates and have a particularly high flow capacity in relation to physical size and weight. They have been successfully developed to attain high performance characteristics at both normal and low speed. For these reasons they have wide application in agricultural and mobile machinery.

## CARATTERISTICHE GENERALI

### Features

Costruzione	Pompe ad ingranaggi esterni
Tipo di fissaggio	A flangia: triangolare (Italiana)
Collegamentotubi	Raccordi filettati
Senso di rotazione (definito guardando l'albero conduttore)	Reversibile (B) con drenaggio interno
Campopressione di alimentazione per pompe	0,7 ÷ 3 bar (ass.)
Temperatura fluido	Da -15 a +80 °C
Fluido idraulico	Fluidi idraulici a base di oli minerali, secondo le norme ISO/DIN. Per altri fluidiconsultare il nostro servizio tecnico commerciale.
Campodiviscosità	Da 12 a 100 mm <sup>2</sup> /s. (cSt) consigliato
	Fino a 750 mm <sup>2</sup> /s (cSt)consentito
Filtrazione consigliata	20÷ 25 mm

Construction	External gear type pumps
Mounting	Triangular (Italian) flange
Line connections	Screw
Direction of rotation (looking on drive shaft)	Reversible (B) internal drain
Inlet pressure range for pumps	0,7 ÷ 3 bar (abs.)
Fluid temperature range	From -15 to +80 °C
Fluid	Mineral oil based hydraulic fluids to ISO/DIN. For other fluids please consult our sales department.
Viscosity range	12 up to 100 mm <sup>2</sup> /s (cSt) recommended
	Up to 750 mm <sup>2</sup> /s (cSt) permitted
Filtering requirement	20 ÷ 25 mm

## PARAMETRI DI FUNZIONAMENTO

### General data

Pompa tipo Pump type	Cilindrata Displacement	Pressione max. Max pressure			Velocità max. intermittente Intermittent max. speed		Velocità min. Min. speed
		p <sub>1</sub>	p <sub>2</sub>	p <sub>3</sub>	A press. p <sub>2</sub> At p <sub>2</sub> pressure	A vuoto Without load	A press. p <sub>2</sub> At p <sub>2</sub> pressure
	cm <sup>3</sup> /giro cu in/rev	bar psi			min <sup>-1</sup>		
<b>APL 61</b>	60,97 3.72	180 2610	200 2900	230 3300	1750	2000	350
<b>APL 82</b>	81,29 4.96	160 2320	180 2610	220 3190	1500	1750	
<b>APL 100</b>	99,43 6.06	160 2320	180 2610	210 3040			
<b>APL 125</b>	124,81 1.99	140 2030	160 2320	200 2900			

p<sub>1</sub>= Pressione max. continua  
Max. continuous pressure

p<sub>2</sub>= Pressione max. intermittente  
Max. intermittent pressure

p<sub>3</sub>= Pressione max. di punta  
Max. peak pressure

## DETERMINAZIONE DI UNA POMPA

### Design calculations for pumps

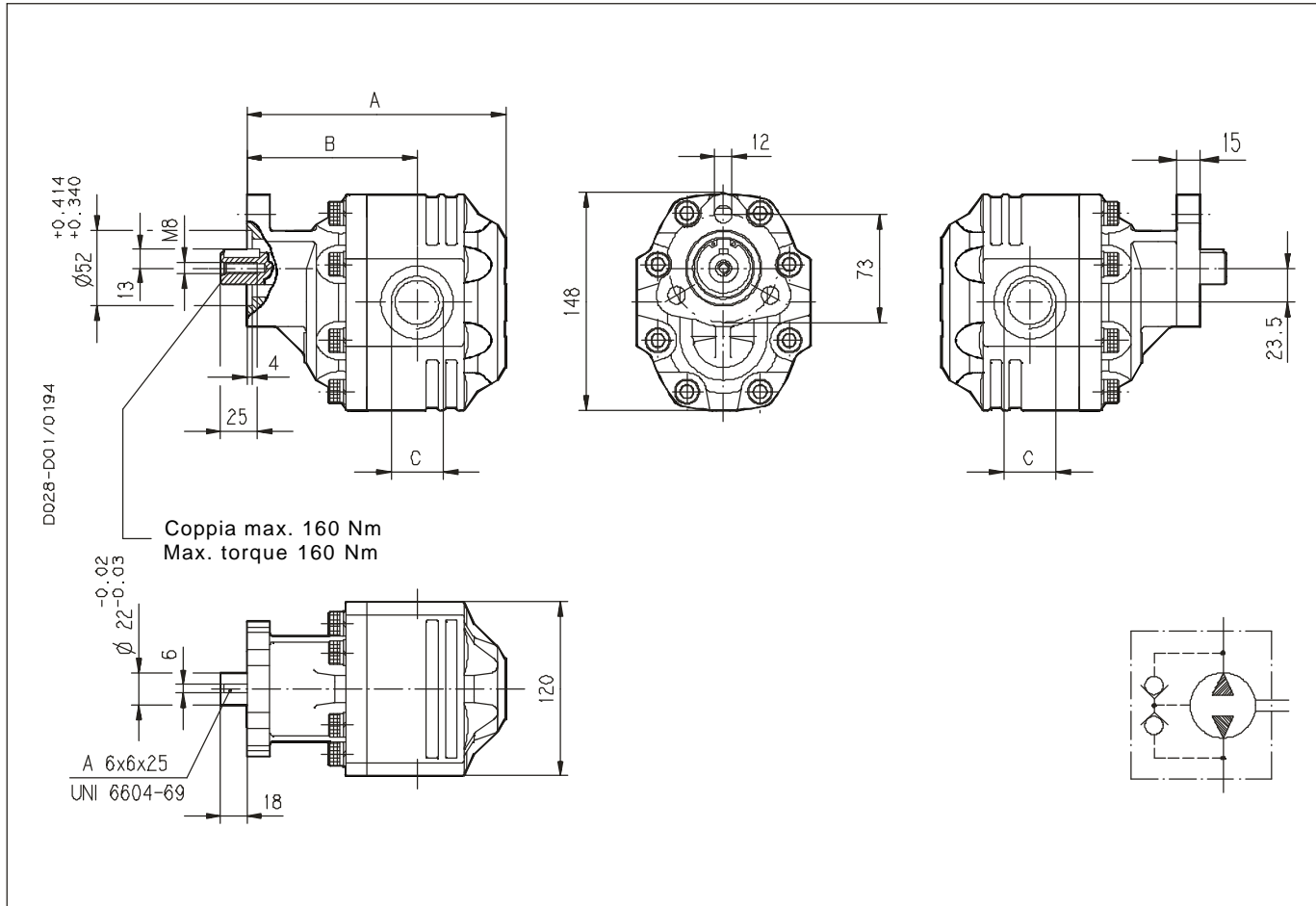
<b>Q</b>	[l/min]	Portata	Delivery
<b>M</b>	[Nm]	Coppia	Torque
<b>P</b>	[kW]	Potenza	Power
<b>V</b>	[cm <sup>3</sup> /giro] - [cm <sup>3</sup> /rev]	Cilindrata	Displacement
<b>n</b>	[min <sup>-1</sup> ]	Velocità	Speed
<b>Dp</b>	[bar]	Pressione	Pressure
h <sub>v</sub> = η <sub>v</sub> (V, Dp, n) (' 0,98)		Rendimento volumetrico	Volumetric efficiency
h <sub>m</sub> = η <sub>m</sub> (V, Dp, n) (' 0,90)		Rendimento meccanico	Mechanical efficiency
h <sub>t</sub> (' 0,88)		Rendimento totale	Overall efficiency

$$Q = V \cdot \eta_v \cdot n \cdot 10^{-3} \quad [\text{l/min}]$$

$$M = \frac{\Delta p \cdot V}{62,8 \cdot \eta_m} \quad [\text{Nm}]$$

$$P = \frac{\Delta p \cdot V \cdot n}{612 \cdot 1000 \cdot \eta_t} \quad [\text{kW}]$$

<b>APL</b>	<b>43 T0</b>
<b>POMPE AD INGRANAGGI UNIFICAZIONE ITALIANA</b> <b>HYDRAULIC GEAR PUMPS ITALIAN STANDARD</b>	



**Rotazione reversibile con drenaggio interno.**  
**Reversible rotation with internal drain.**

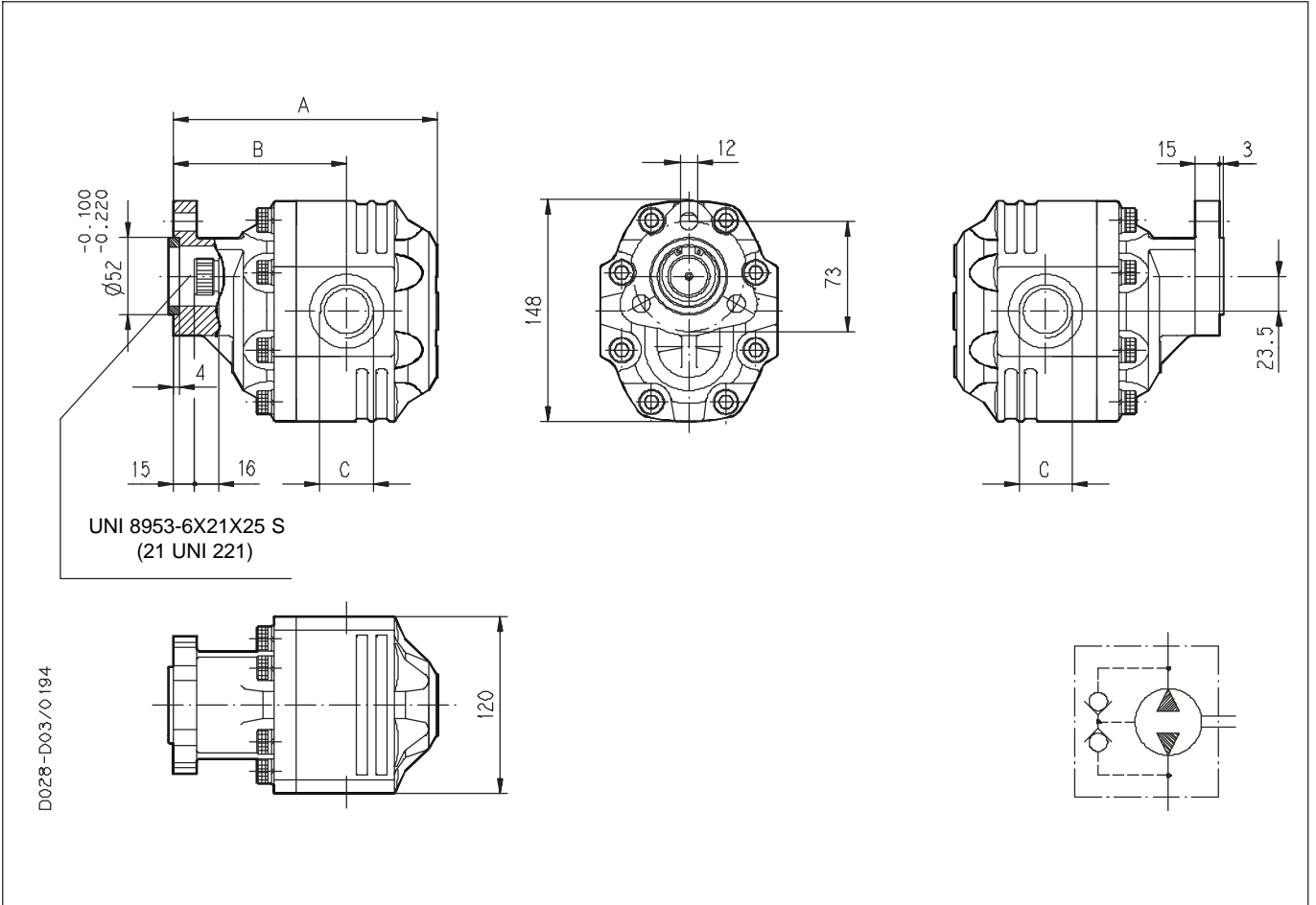
Pompa tipo Pump type	A	B	C	Massa Mass
	mm	mm		kg
<b>APL 61</b>	178,5	116,5	G 1	10,7
<b>APL 82</b> <b>B 0-43 T0-L GF/GF-N</b>	191,5	122,5	G 1	11
<b>APL 100</b>	218	136	G 1	11,5
<b>APL 125</b> <b>B 0-43 T0-L GG/GG-N</b>	234	152	G 1 1/4	12,3

Come ordinare (How to order)

**APL 61 B0 - 43 T0 - L GF/GF - N**

D028-002/07.95

<b>APL</b>	<b>19 T1</b>
<b>POMPE AD INGRANAGGI UNIFICAZIONE ITALIANA</b> <b>HYDRAULIC GEAR PUMPS ITALIAN STANDARD</b>	



**Rotazione reversibile con drenaggio interno.**  
**Reversible rotation with internal drain.**

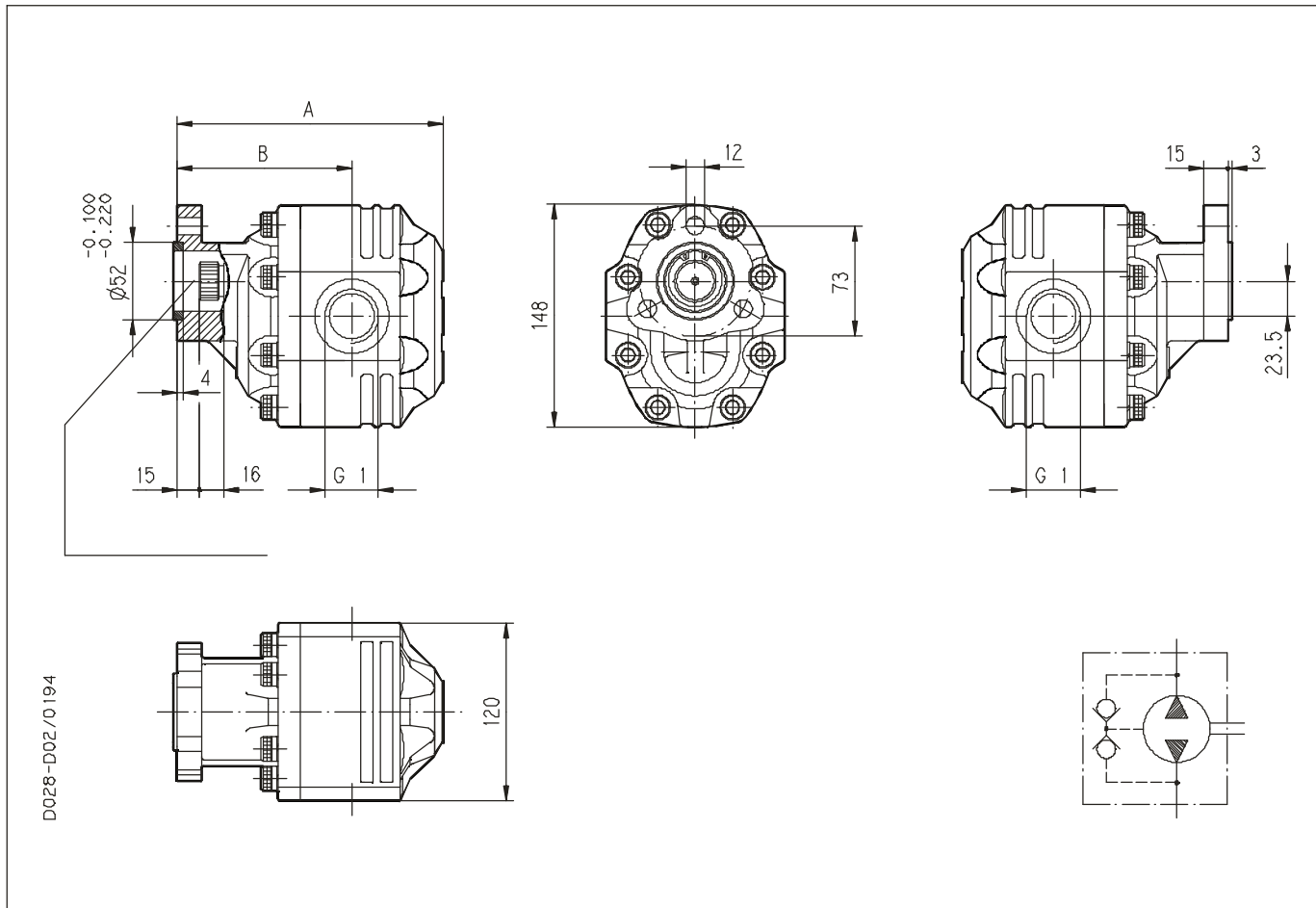
D028-002/07.95

Pompa tipo Pump type	A	B	C	Massa Mass
	mm	mm		kg
<b>APL 61</b>	178,5	116,5	G 1	10,7
<b>APL 82</b> <b>B 0-19 T1-L GF/GF-N</b>	191,5	122,5	G 1	11
<b>APL 100</b>	218	136	G 1	11,5
<b>APL 125</b> <b>B 0-19 T1-L GG/GG-N</b>	234	152	G 1 1/4	12,3

Come ordinare (How to order)

**APL 61 B0 - 19 T1 - L GF/GF - N**

<b>APL</b>	<b>13 T1</b>
<b>POMPE AD INGRANAGGI UNIFICAZIONE ITALIANA</b> <b>HYDRAULIC GEAR PUMPS ITALIAN STANDARD</b>	



Rotazione reversibile con drenaggio interno.

Reversible rotation with internal drain.

Pompa tipo Pump type	A	B	Massa Mass
	mm	mm	kg
<b>APL 61</b>	178,5	116,5	10,7
<b>APL 82</b>	191,5	122,5	11

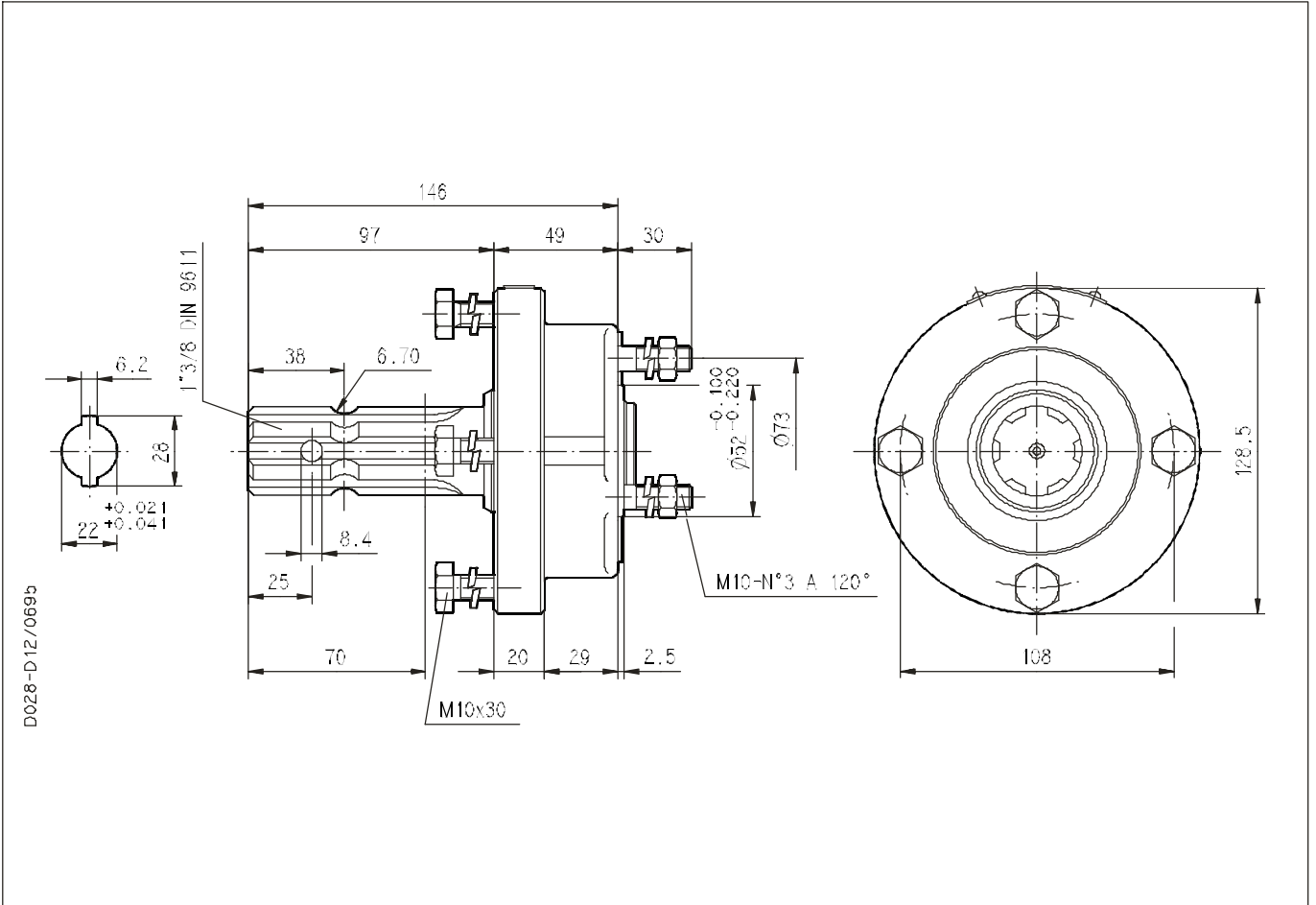
Come ordinare (How to order)

**APL 61 B0 - 13 T1 - L GF/GF - N**

D028-002/07.95



<b>SML</b>	<b>06892200</b>
<b>SUPPORTI PER POMPE VERSIONE 43 T0</b> <b>SUPPORTS FOR PUMPS VERSION 43 T0</b>	

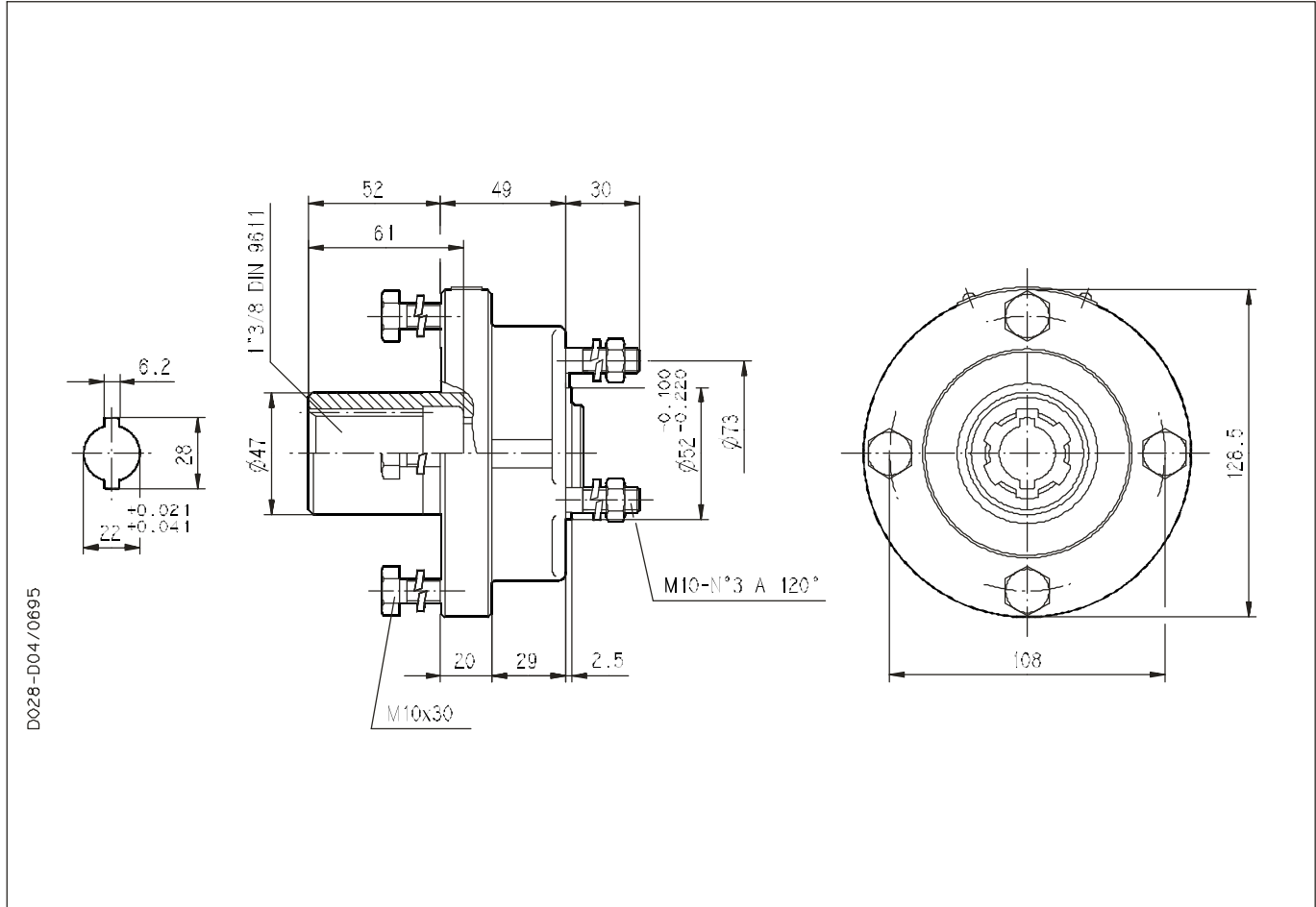


D028-006/07.95

**SFL**

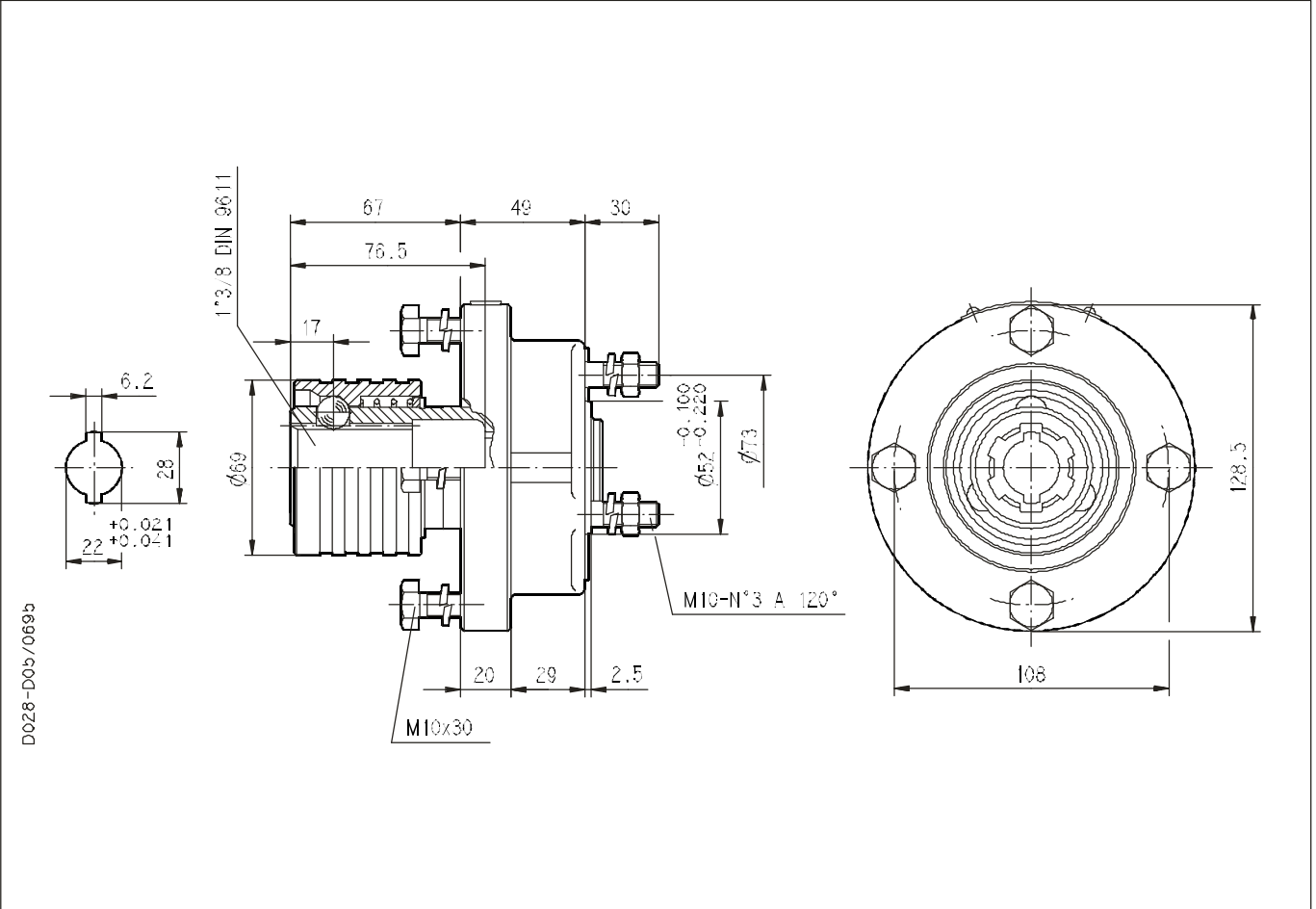
**06890200**

**SUPPORTI PER POMPE VERSIONE 43 T0  
SUPPORTS FOR PUMPS VERSION 43 T0**



D028-006/07.95

<b>SFL P</b>	<b>06890900</b>
<b>SUPPORTI PER POMPE VERSIONE 43 T0</b> <b>SUPPORTS FOR PUMPS VERSION 43 T0</b>	

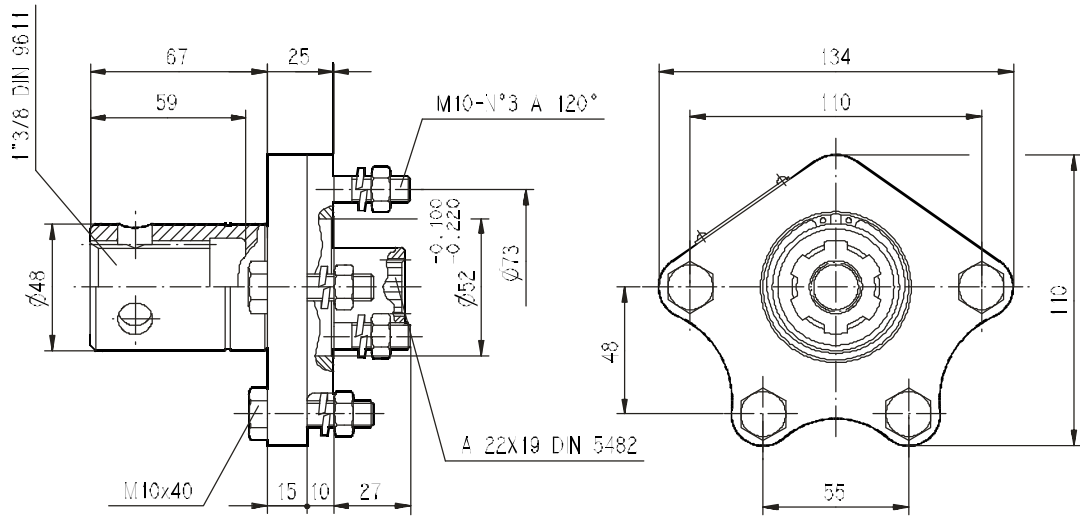


D028-006/07.95

**SFL 7/3**

**06891100**

**SUPPORTI PER POMPE VERSIONE 13 T1**  
**SUPPORTS FOR PUMPS VERSION 13 T1**



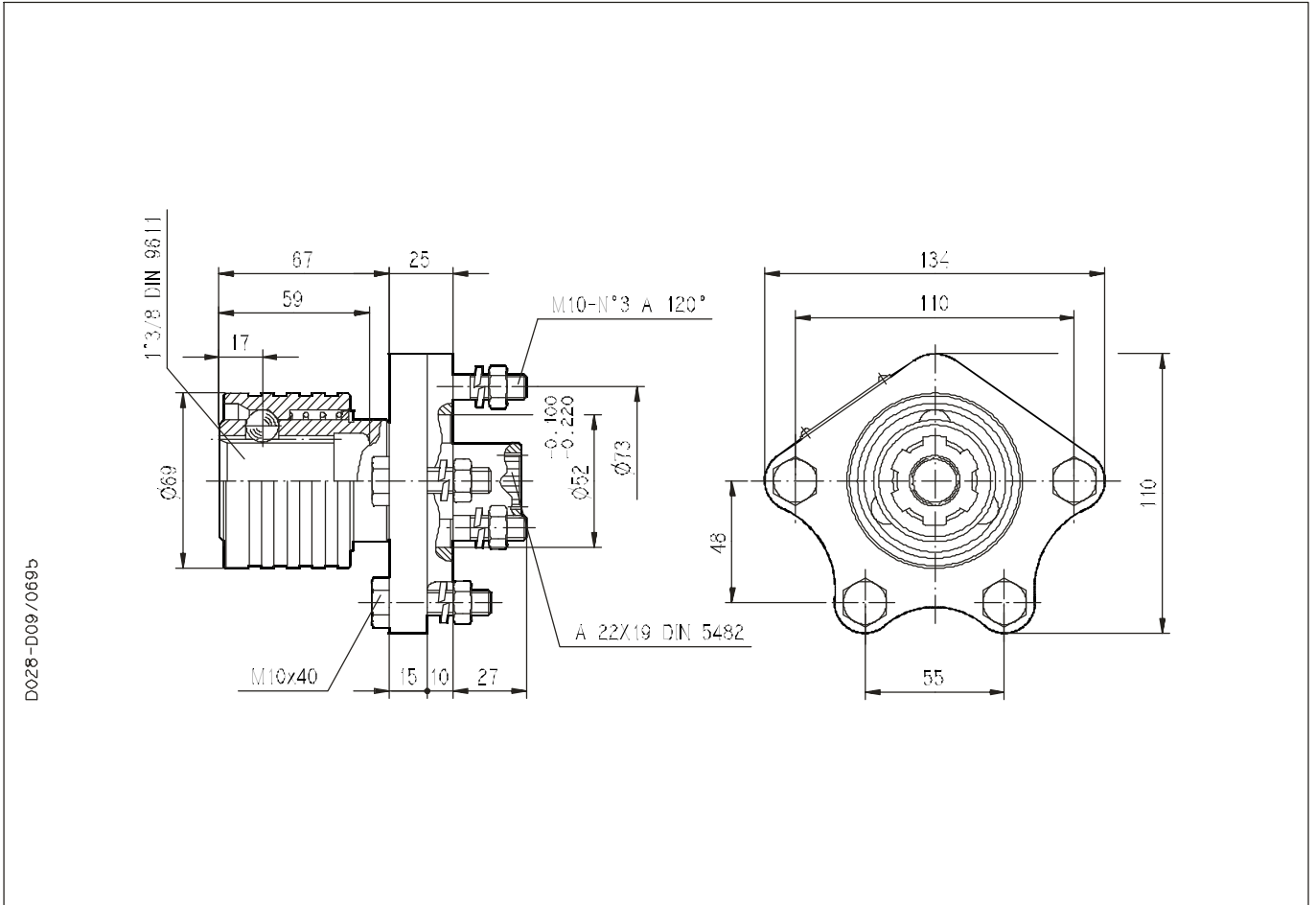
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D028-006/07.95

**SFL 7/3P**

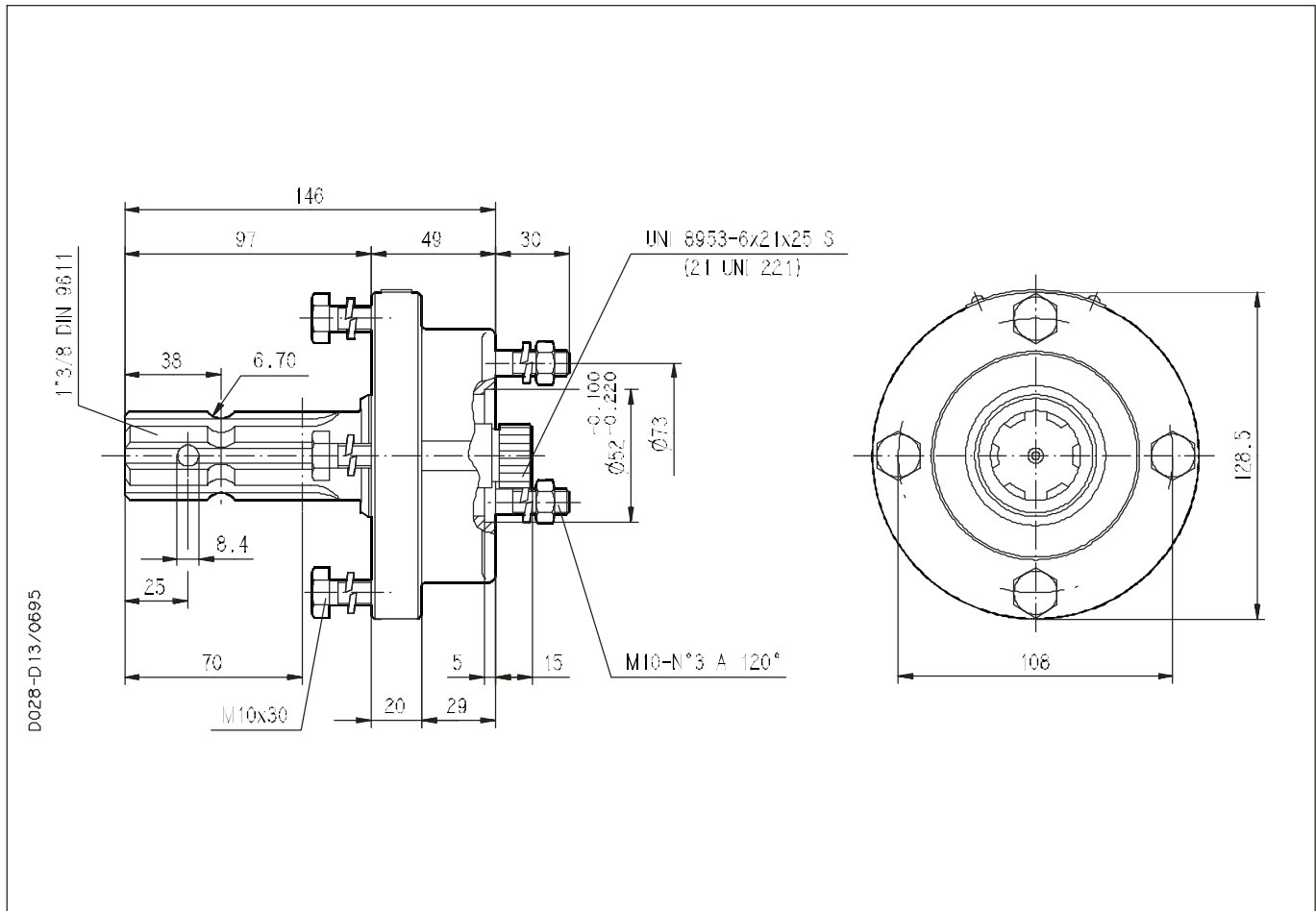
**06891050**

**SUPPORTI PER POMPE VERSIONE 13 T1**  
**SUPPORTS FOR PUMPS 13 T1**

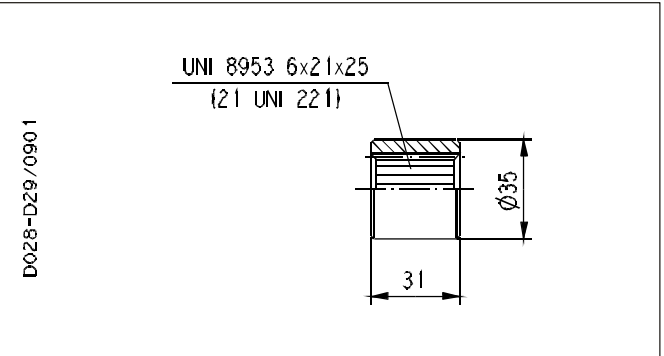


D028-006/07.95

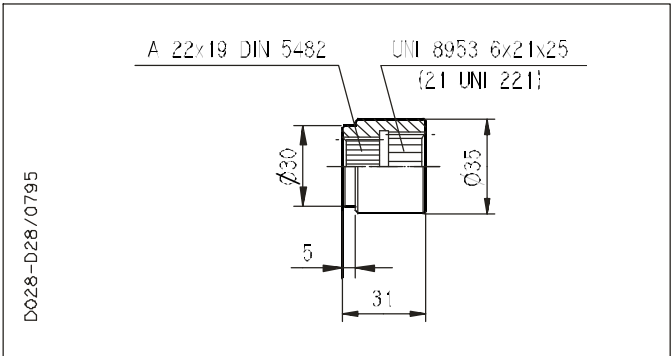
<b>SML 4</b>	<b>06892300</b>
<b>SUPPORTI PER POMPE VERSIONE 19 T1 - 13 T1</b> <b>SUPPORTS FOR PUMPS VERSION 19 T1 - 13 T1</b>	



<b>MA6x21x25 UNI 8953</b>	<b>06951400</b>
<b>MANICOTTO PER SUPPORTO SML 4 - 19 T1</b> <b>COUPLING FOR SUPPORT SML 4 - 19 T1</b>	

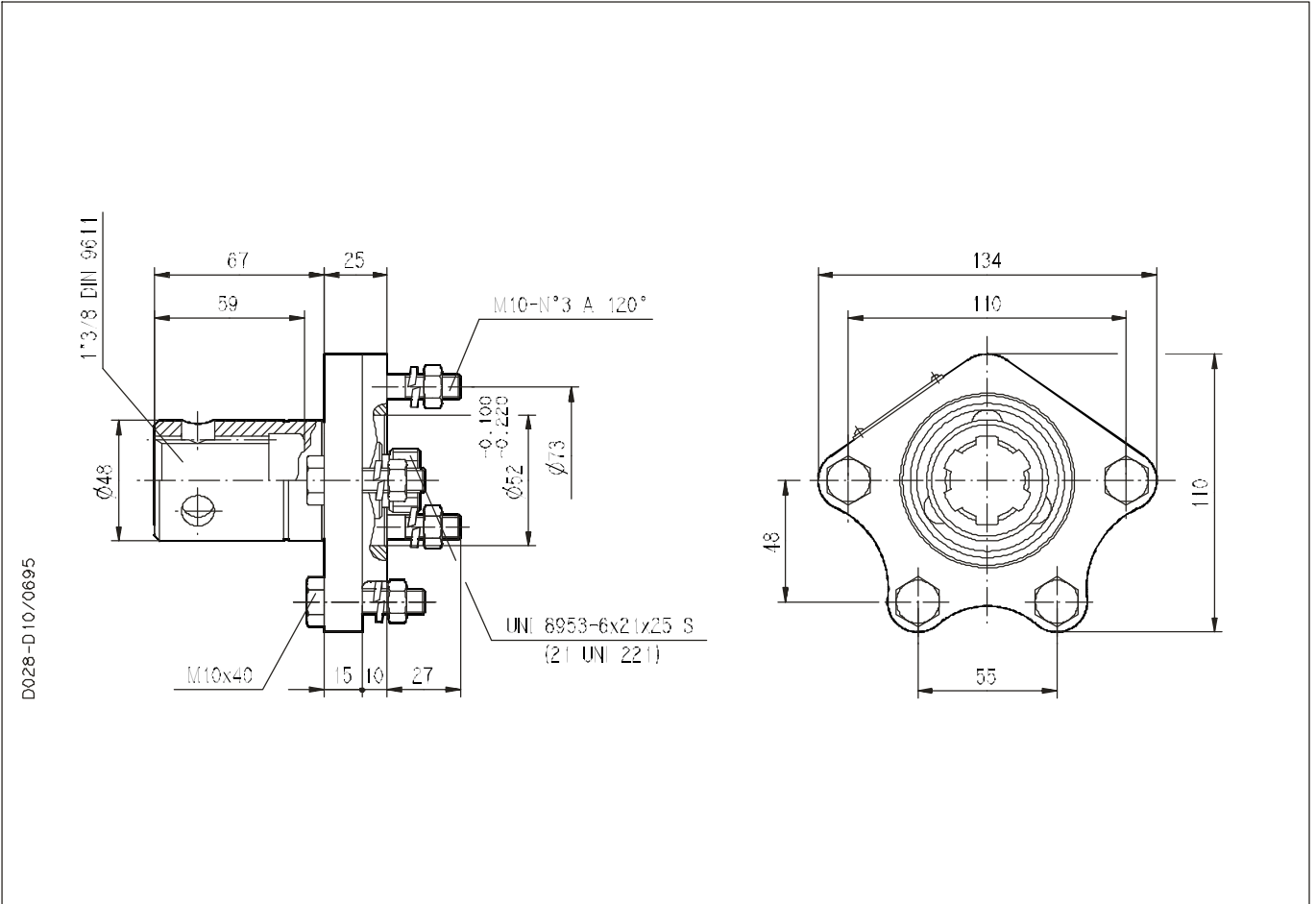


<b>MA6x21x25 UNI 8953/ A 22x19 DIN 5482</b>	<b>06950600</b>
<b>MANICOTTO PER SUPPORTO SML 4 - 13 T1</b> <b>COUPLING FOR SUPPORT SML 4 - 13 T1</b>	

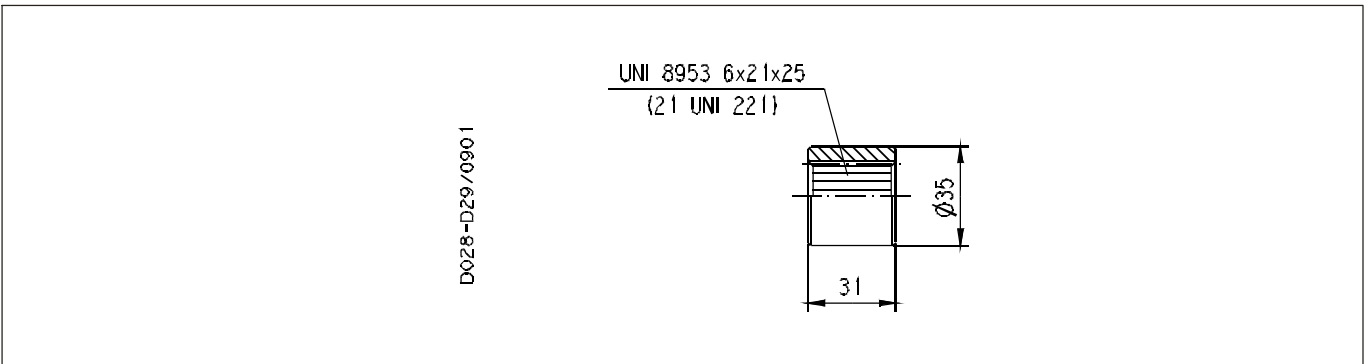


D028-006/07.95

<b>SFL 7/4</b>	<b>06891120</b>
<b>SUPPORTI PER POMPE VERSIONE 19 T1</b> <b>SUPPORTS FOR PUMPS VERSION 19 T1</b>	



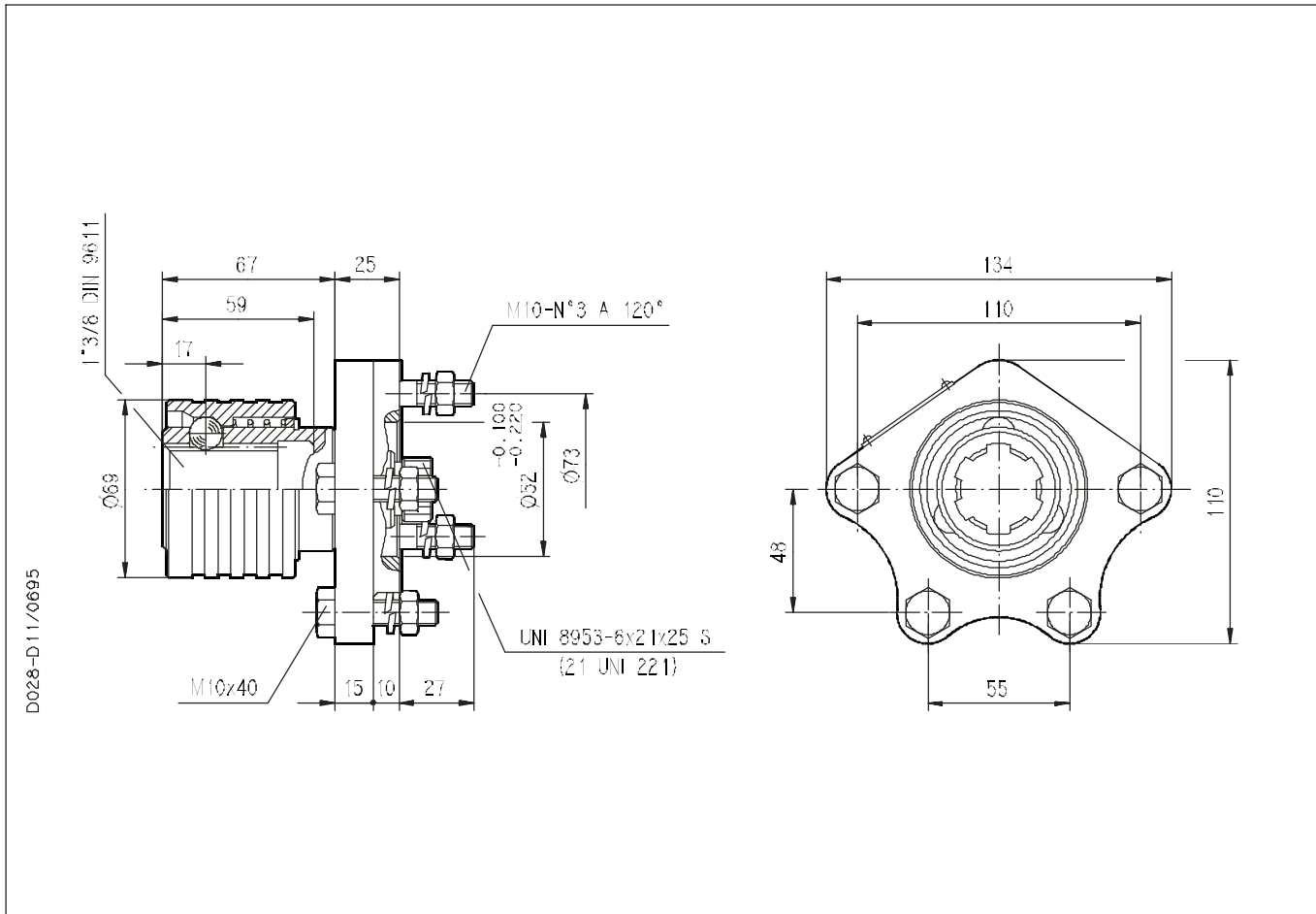
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**SFL 7/4P**

**06891060**

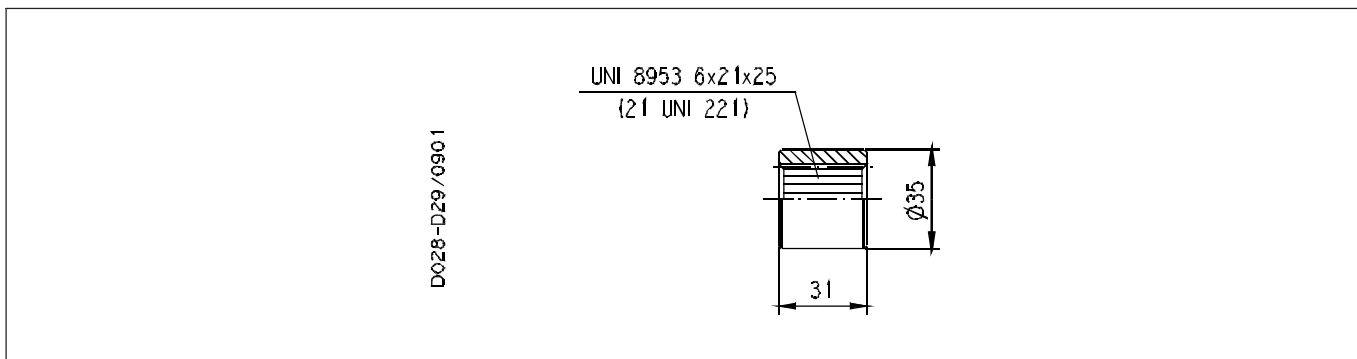
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SUPPORTS FOR PUMPS VERSION 19 T1**



**MA6x21x25 UNI 8953**

**06951400**

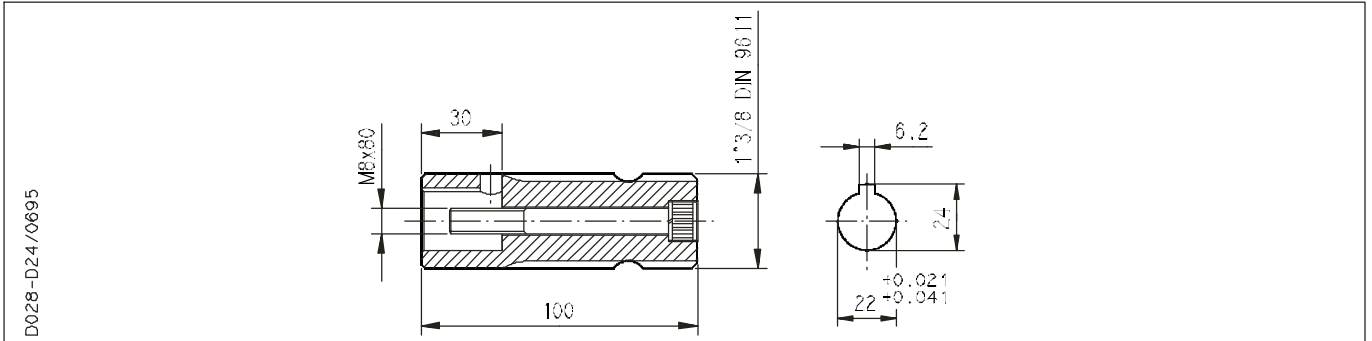
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COUPLING FOR SUPPORT SFL 7/4P**





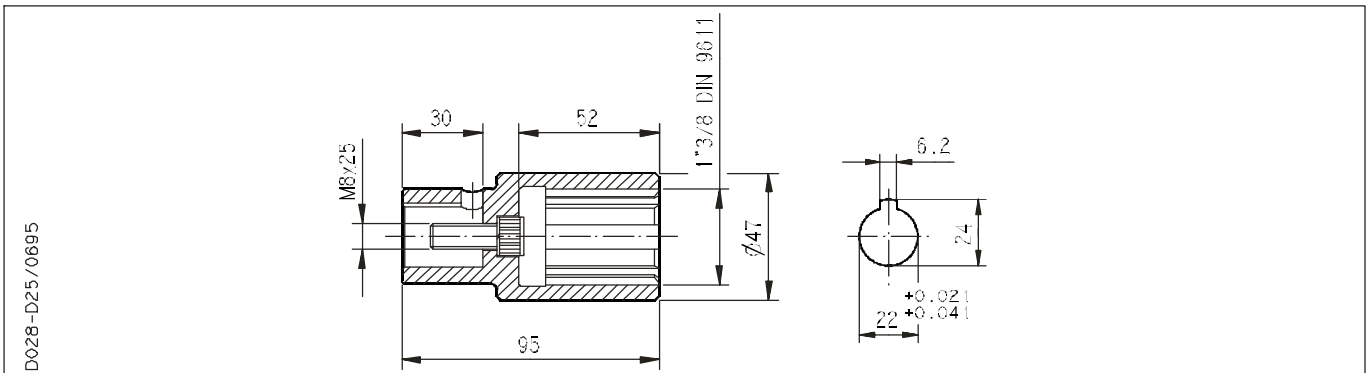
<b>MO22-1 DIN 9611</b>	<b>06900000</b>
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COUPLING FOR PUMPS VERSION 43 T0**



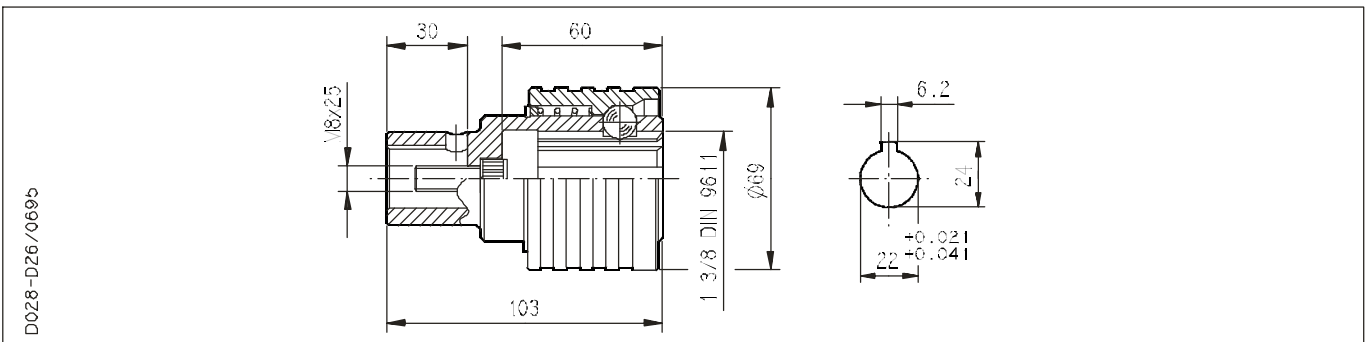
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**MANICOTTO PER POMPE VERSIONE 43 T0  
COUPLING FOR PUMPS VERSION 43 T0**



<b>MA22-1 DIN 9611 P</b>	<b>06900580</b>
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COUPLING FOR PUMPS VERSION 43 T0**



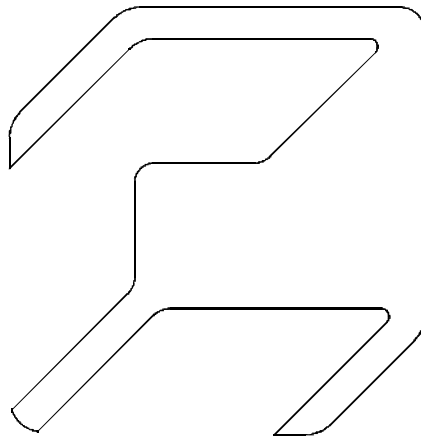
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**NOTE**  
*Notes*

La nostra politica è orientata verso il miglioramento continuo dei prodotti, pertanto le caratteristiche degli stessi possono cambiare senza preavviso.

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Our policy is one of continuous improvement in product. Specification of items may, therefore, be changed without notice.



**CASAPPA®**

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