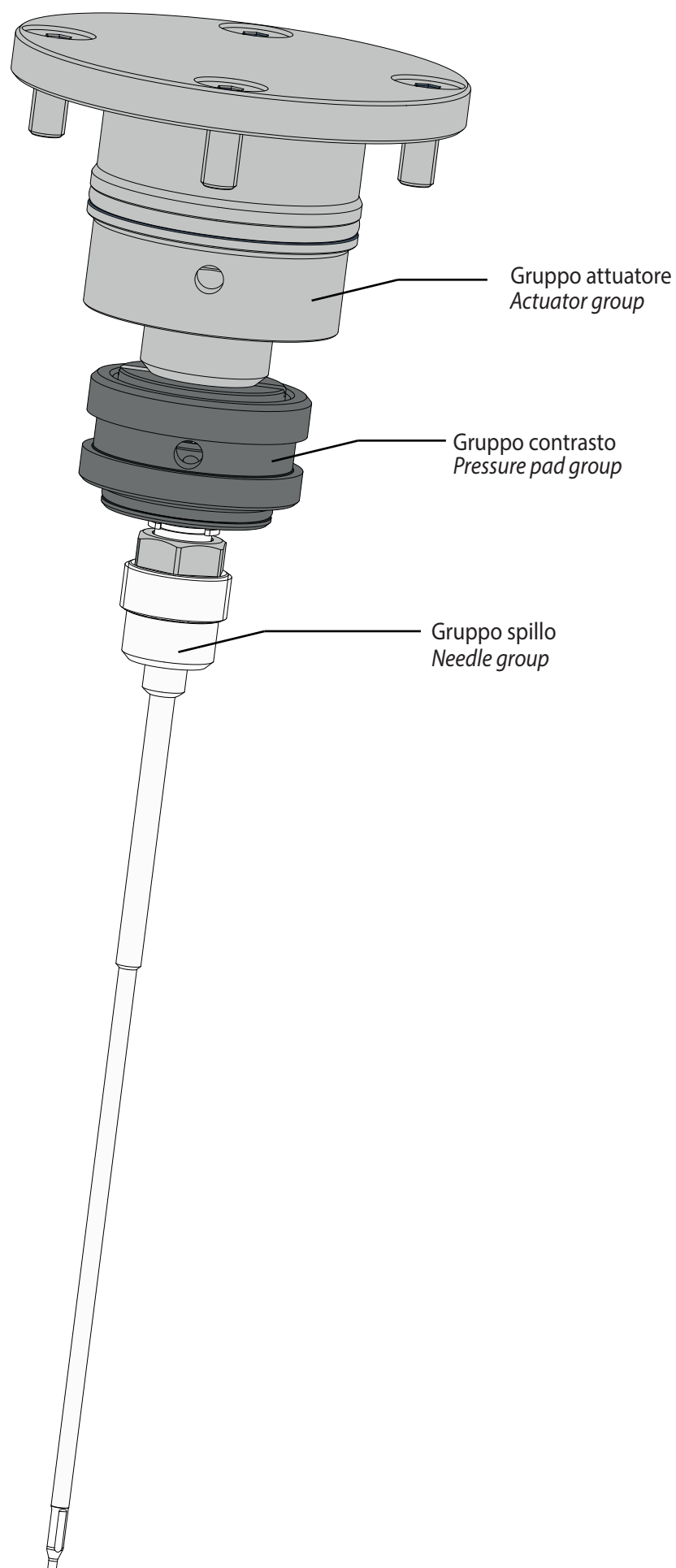
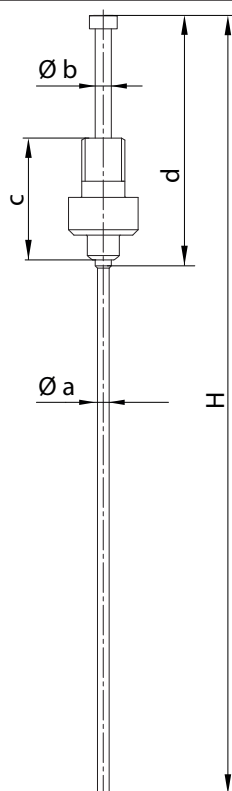


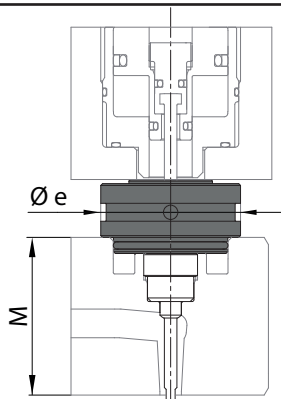



Gruppo spillo - Valve gate pin group


Valve Gate type / Tipo gr.ott.	S20 - S28 - S32				K32	
Nozzle type / Tipo ugello	TF12 - TF17 - TF23 - TD18 - TD22					
Pin group code / Codice gr.spillo	E18330	E20309	E18331	E20310	E18332	E18333
Ø a	Ø 2.5					
Ø b	Ø 3.5					
d	82				57	
c	22.5	37	22.5	37	22.5	
H	280		500		280	500

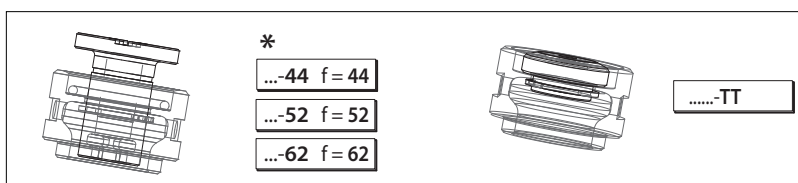
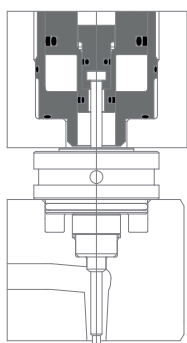
Valve Gate type / Tipo gr.ott.	S28 - S32				K32	
Nozzle type / Tipo ugello	FN32 - TD30					
Pin group code / Codice gr.spillo	E18334	E20313	E18335	E20314	E18334	E20313
Ø a	Ø 3.3					
Ø b	Ø 3.5					
d	98					
c	22.5		37		22.5	
H	280		500		280 500	

Valve Gate type / <i>Tipo gr.ott.</i>	S60 - K40	
Nozzle type / <i>Tipo ugello</i>	FN46 - DN44	
Pin group code / <i>Codice gr.spillo</i>	E18336	E18337
Ø a	Ø 5.8	
Ø b	Ø 6	
d	120	
c	30.5	
H	400	600

Gruppo contrasto - Pressure group


Manifold type / <i>Tipo piastra</i>	C - Conventional / <i>Tradizionale</i>		
Valve gate type / <i>Tipo gr.otturatore</i>	S20	S28 - S32	S60
Pressure gr. code / <i>Codice gr.contrasto</i>	E20327 - *	E20328 - *	E21474
Nozzle type / <i>Tipo ugello</i>	TFØ12/17/23 - TDØ18/22	TFØ12/17/23/32 TDØ18/22/30	FNØ46- DN44
Ø e	Ø 31	Ø 39	Ø 54
*M	44 - 52 - 62 -TT		

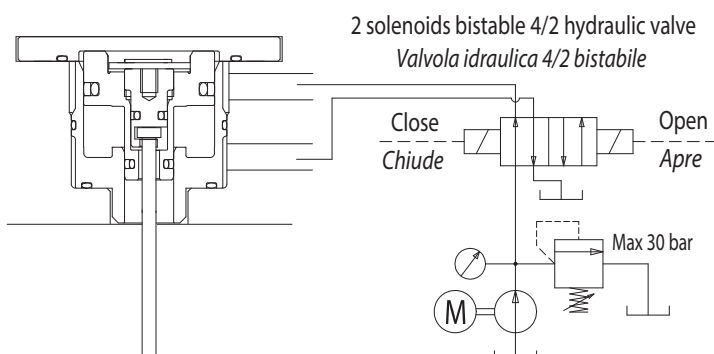
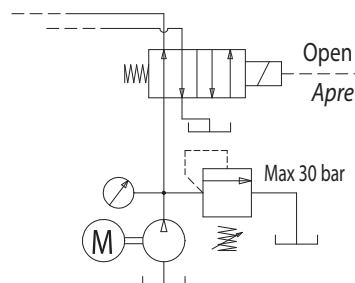
Manifold type / Tipo piastra	B - bolted down					
M	44		52		62	
Ø e	Ø 28	Ø 36	Ø 28	Ø 36	Ø 28	Ø 36
Pressure gr. code / Codice gr.contrasto	E21375	E21466	E21383	E21467	E21384	E21468
Valve gate type / Tipo gr.otturatore	S20 - S28 - S32					
Nozzle type / Tipo ugello	TFØ12/17/23/32 - TDØ18/22/30					


Gruppo otturatore - Valve gate group


Manifold type / Tipo piastra	C - Conventional / Tradizionale						
Valve gate type / Tipo gr.otturatore	S					K	
Valve gate type / Tipo gr.otturatore	S20 - HY	S28 - PN	S32 - PN	S32 - HY	S60 - PN	K32 - PN	K40 - PN
Valve gate gr.code / Codice gr.otturatore	E21105 - *	E21474 - *	E19399 - *	E21487 - *	E18327	E18326	E18329
Nozzle type / Tipo ugello	TFØ12/17/23 TDØ18/22	TFØ12/17/23/32 TDØ18/22/30			FNØ46 DNØ44	TFØ12/17/23/32 TDØ18/22/30	FNØ46 DNØ44
Manifold type / Tipo piastra	B - bolted down						
Valve gate type / Tipo gr.otturatore	S						
Valve gate type / Tipo gr.otturatore	S20 - HY	S28 - PN		S32 - PN		S32 - HY	
Valve gate gr.code / Codice gr.otturatore	E21360	E21492		E21361		E21362	
Nozzle type / Tipo ugello	TFØ12/17/23 TDØ18/22	TFØ12/17/23/32 TDØ18/22/30			TFØ12/17/23/32 TDØ18/22/30		



HYDRAULIC OPERATION / AZIONAMENTO IDRAULICO

Monostable 4/2 hydraulic valve with single solenoid
Valvola idraulica 4/2 monostabile

Continuous signal during the entire injection phase

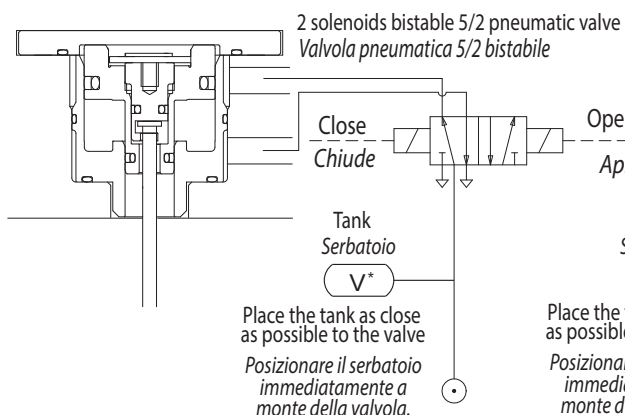
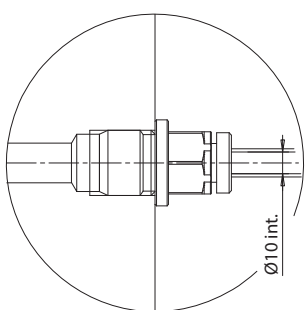
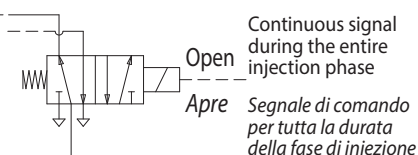
Segnale di comando per tutta la durata della fase di iniezione

HYDRAULIC OPERATION: 30 bar MAX - FUNZIONAMENTO IDRAULICO MAX 30 bar

WARNING! When the injection system is cold, do not activate the shut off group. When testing the injection system on the bench, use 5 bar maximum pressure.

ATTENZIONE! Si consiglia di non azionare il gruppo otturazione a sistema d'iniezione freddo/Nelle prove eseguite con stampo non fissato sulla pressa NON utilizzare pressioni oltre i 5 bar.

PNEUMATIC OPERATION / AZIONAMENTO PNEUMATICO

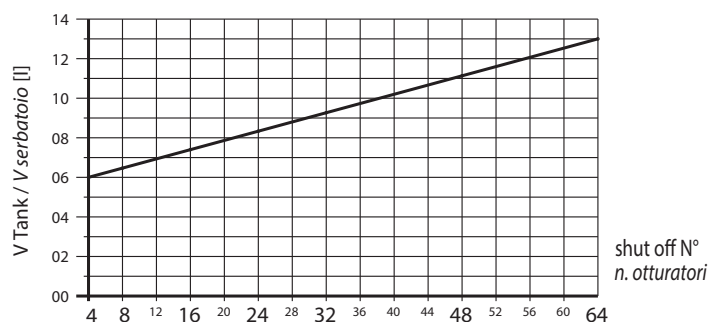
Monostable 5/2 pneumatic valve with single solenoid
Valvola pneumatica 5/2 monostabile

Continuous signal during the entire injection phase

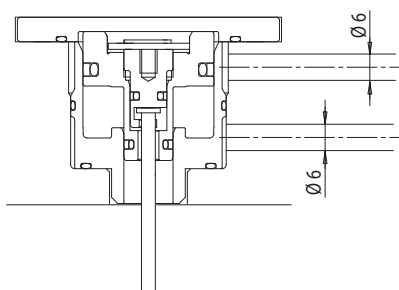
Segnale di comando per tutta la durata della fase di iniezione

* V = Tank
V = Volume serbatoio

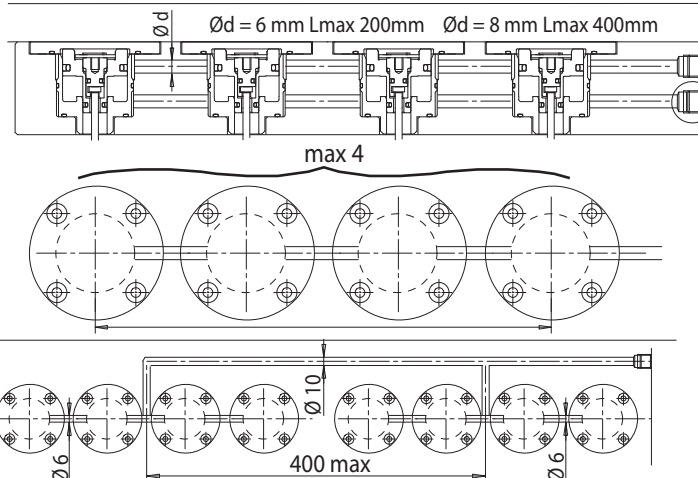
VALVE SIZE DIMENSIONE VALVOLA	SHUT OFF N° n. OTTURATORI	Valve flow rate Portata della valvola
1 → 8		≥ 550 NI/min
9 → 16		≥ 1100 NI/min
17 → 64		≥ 4600 NI/min



1 SHUT OFF GROUPS / 1 OTTURATORE



IN SERIES SHUT OFF GROUPS / OTTURATORI IN SERIE

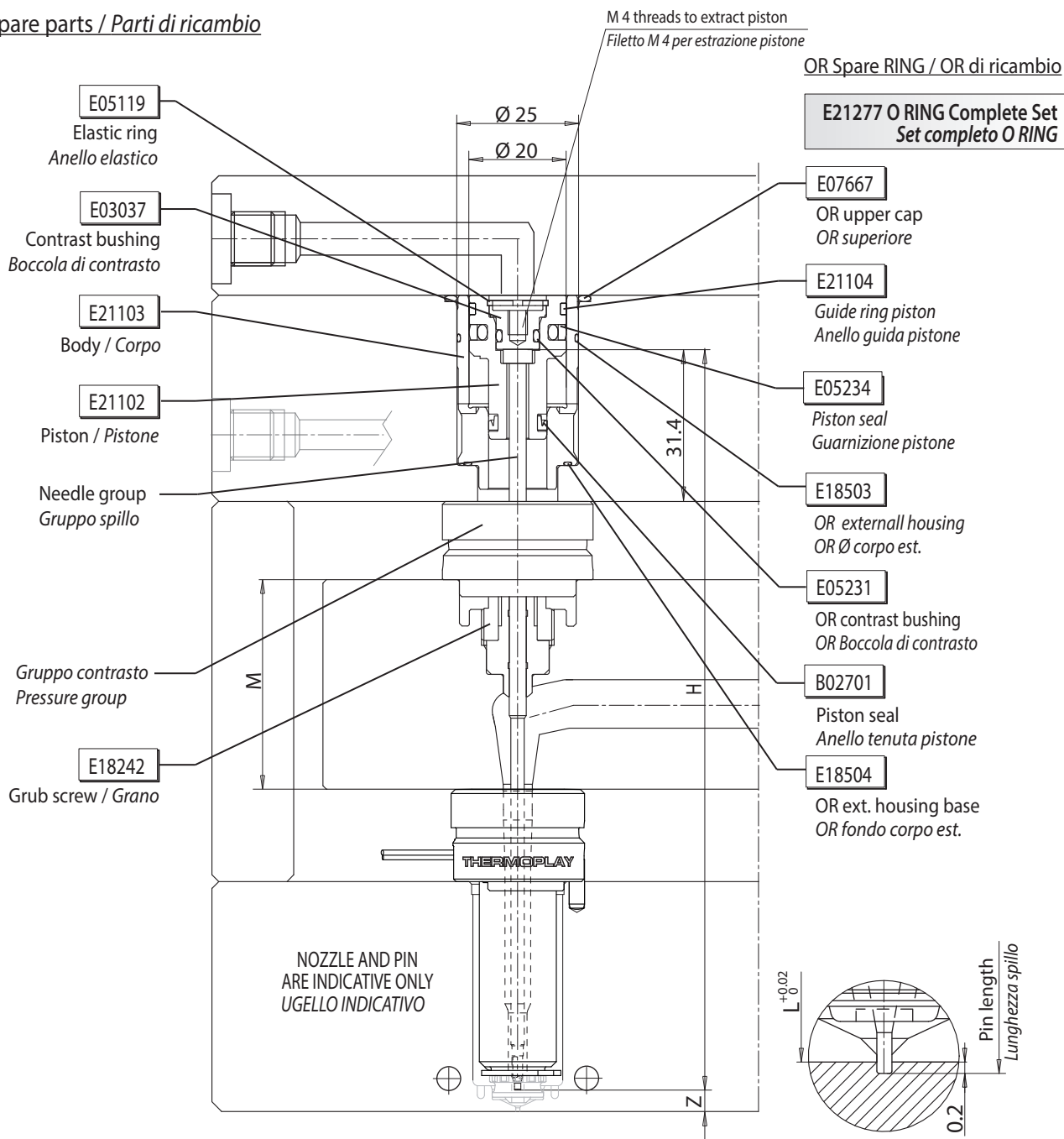


PNEUMATIC OPERATION: 10 bar ADVISED - FUNZIONAMENTO PNEUMATICO CONSIGLIATI 10 bar

**S20-HY**

"S" TYPE VALVE GATE GROUP - BORE PISTON 20 - HYDRAULIC
GRUPPO OTTURATORE TIPO "S" - ALESAGGIO PISTONE 20 - IDRAULICO

Spare parts / Parti di ricambio



Z = Pin stroke 10 mm (for TF3 $\varnothing$ 12 stroke 7 mm) Corsa spillo 10 mm (per TF3 $\varnothing$ 12 corsa 7 mm)

M = Manifold height / Altezza distributore

H = Pin length / Lunghezza spillo

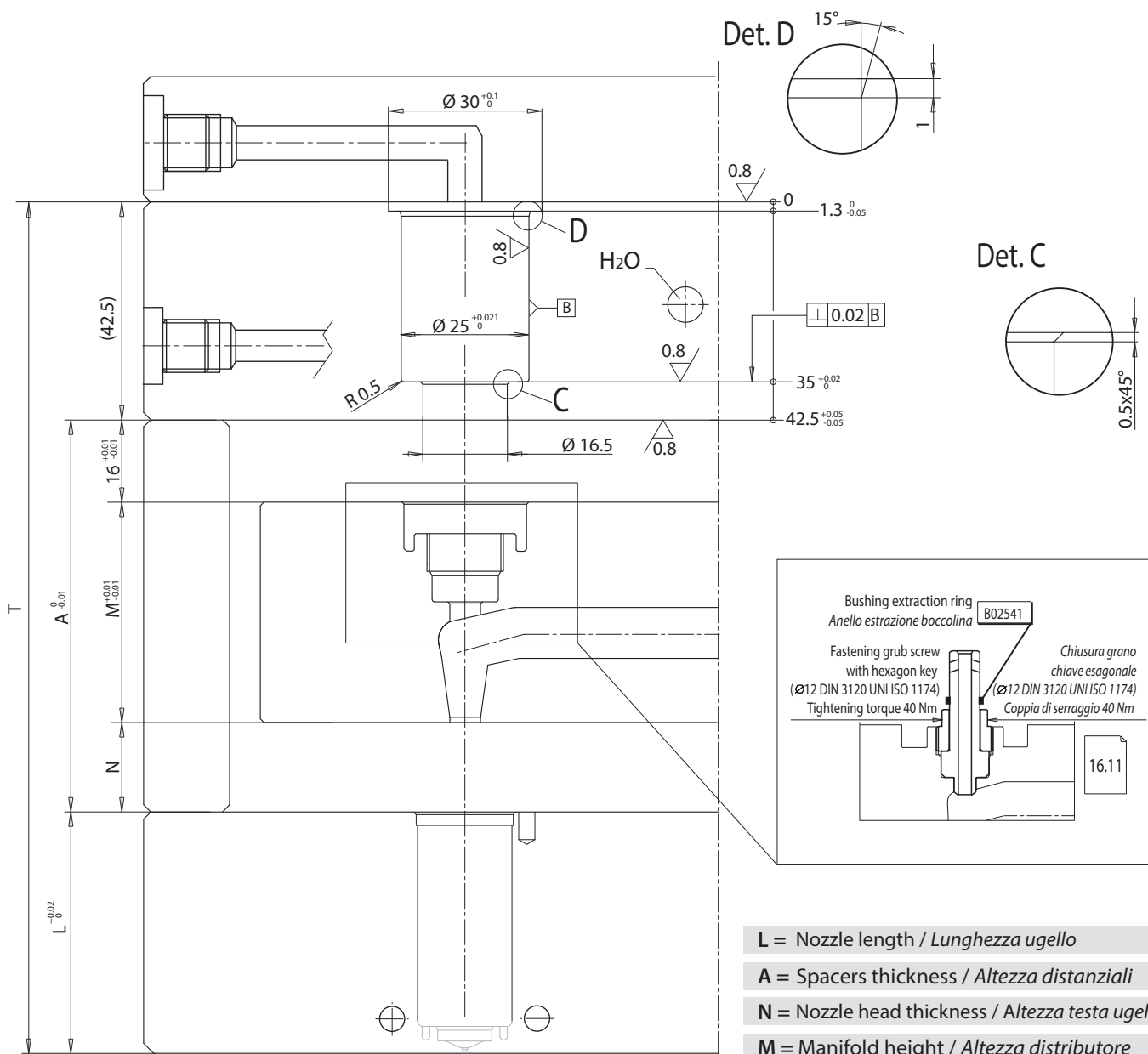
FOR NOZZLES / PER UGELLI

TF3 $\varnothing$ 12 - TF3-TF3B-TF3DSLA-TF3DSLUI $\varnothing$ 17-23 - TD3 $\varnothing$ 18-22



"S" TYPE VALVE GATE GROUP CUT OUT - BORE PISTON 20 - HYDRAULIC
SEDE GRUPPO OTTURATORE TIPO "S" - ALESAGGIO PISTONE 20 - IDRAULICO

S20-HY



ATTENZIONE!

Si consiglia di non azionare il gruppo otturazione
a sistema d'iniezione freddo.

FUNZIONAMENTO IDRAULICO MAX 30 bar.

Nelle prove eseguite con stampo non fissato
sulla pressa **NON** utilizzare pressioni oltre i 5 bar.

ATTENTION!

Do not activate the shut off group
when the injection system is cold

HYDRAULIC OPERATION: 30 bar MAX.

When testing the injection system on the bench,
use 5 bar maximum pressure.



S20-HY

S28-PN

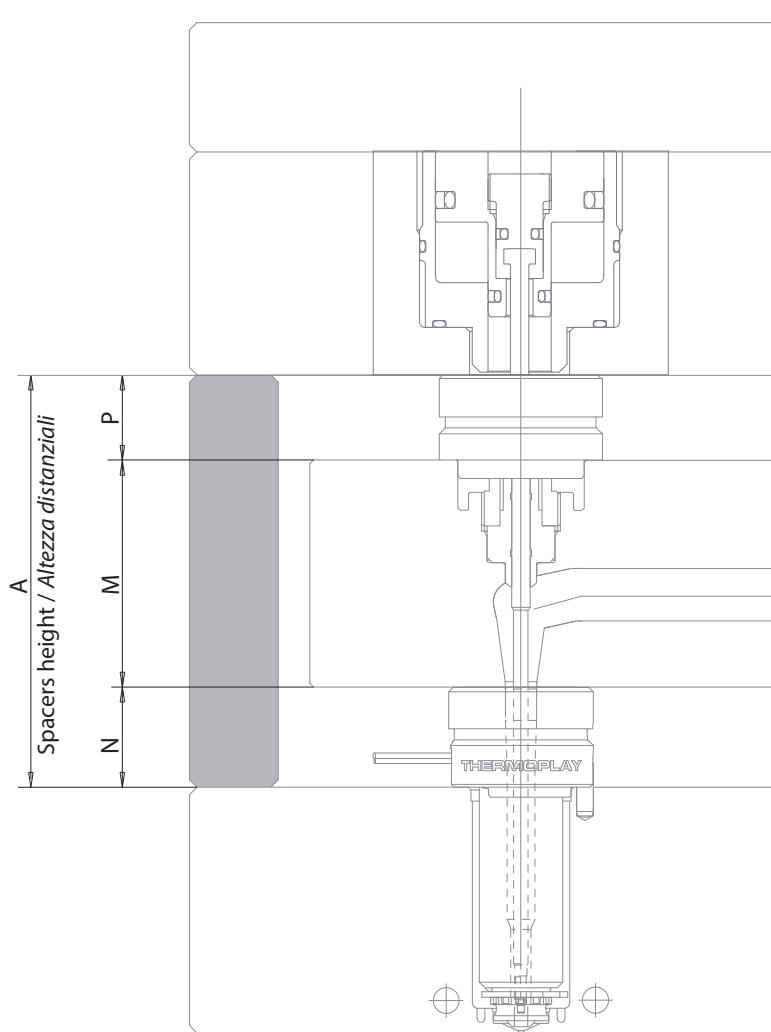
S32-PN

S32-HY

S60-PN

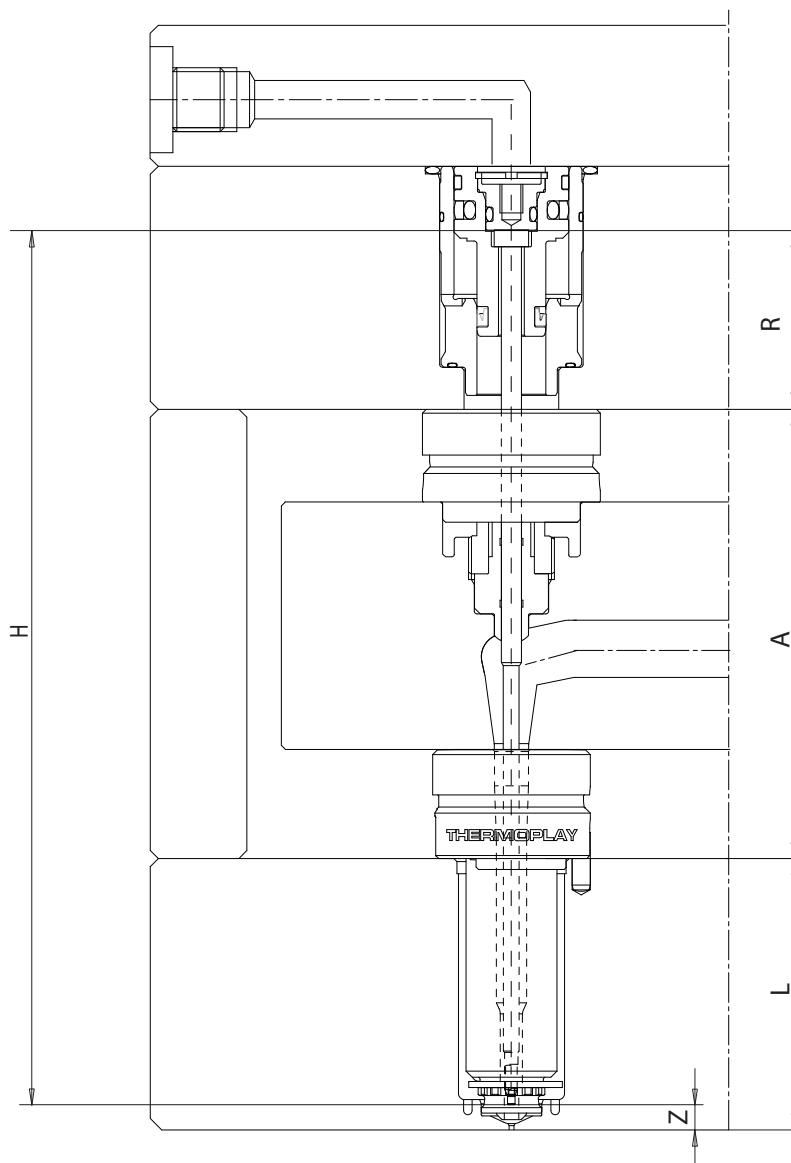
K32-PN

K40-PN



$$A = (N+M+P) + [(N+M+6) \times \Delta t \times K] - 0.05 = \text{mm}$$

A	Spacer height / Altezza distanziali								
	Nozzle type / Tipo ugelli								
	TF12	TF17	TF23	TF32	TF46	TD18	TD22	TD30	TD44
N	13	18	20	20	25	18	20	20	25
M	Manifold height / Altezza distributore								
	Actuator group / Gruppo otturatore								
	S20HY	S28PN	S32HY	S32PN	S60PN	K32PN	K40PN		
P	16					20	21.5	30.5	
ΔT	Temperature difference between manifold and mold / Differenza di temperatura tra canale caldo e stampo								
k	Coefficient of thermal expansion for steel / Coeficiente di dilatazione termica dell'acciaio 0.0000125								
0.05	Theoretical compression value / Valore teorico di chiusura								



S20-HY

S28-PN

S32-PN

S32-HY

S60-PN

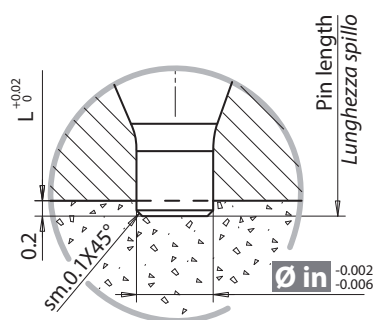
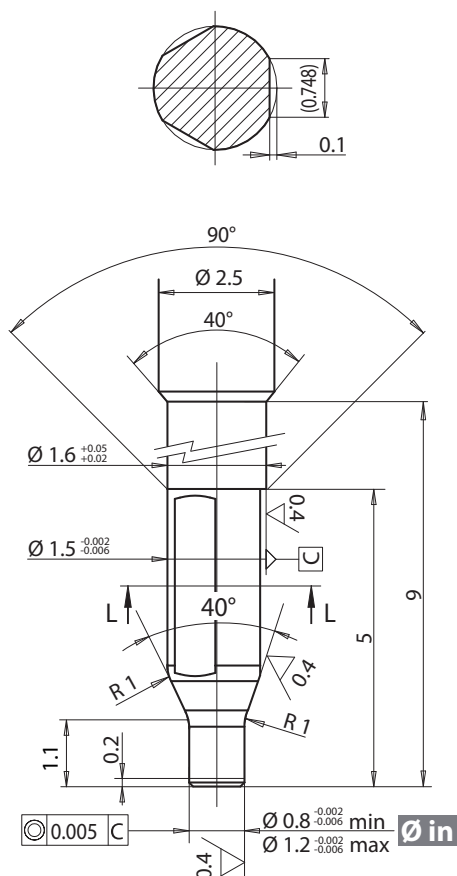
$$H = (L + A + R - Z) - [(L + A + R - Z) \times \Delta t \times k] + n = \text{mm}$$

H	Pin length (cold) / Lunghezza spillo a freddo				
L	Nozzle length / Lunghezza ugello				
A	Spacer height (including expansion) / Misura dei distanziali comprensiva della dilatazione per il serraggio				
	Valve gate group type / Tipo gruppo otturatore				
	S20HY	S28PN	S32HY	S32PN	S60PN
R	31.4	23.95		35.45	
Z	10			16	
	Nozzle TIP type / Tipo puntale ugello				
	TF3/3B-TF3D/3DSL all diameters		TD18/22/30/44-3	TF17/23-TF32 - 3DSL	TF46-3DSL
n	0.2		0.64		1.76
k	Coefficient of thermal expansion for steel / Coeficiente di dilatazione termica dell'acciaio 0.0000125				
ΔT	Temperature difference between manifold and mold / Differenza di temperatura tra canale caldo e stampo				

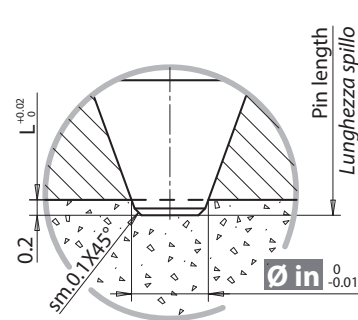
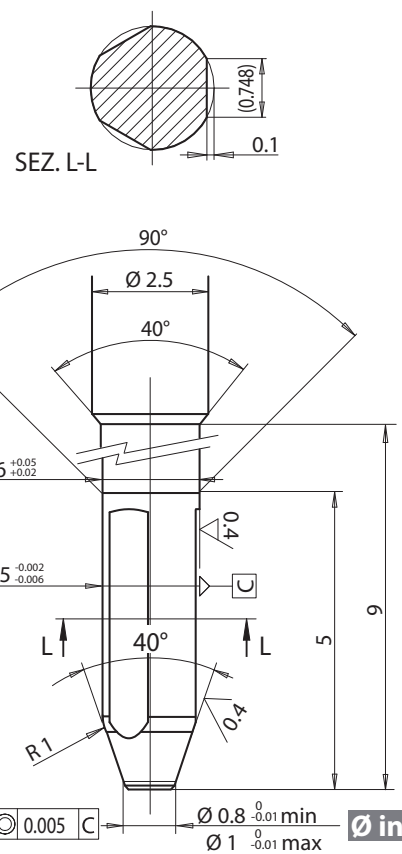


INDICATIONS FOR EXECUTION OF PIN PROFILE / INDICAZIONI PER L'ESECUZIONE DEL PROFILO PUNTA SPILLO
(execution customer care - a cura cliente)

CILINDRIC / CILINDRICO



CONICAL / CONICO



ATTENTION - ATTENZIONE!

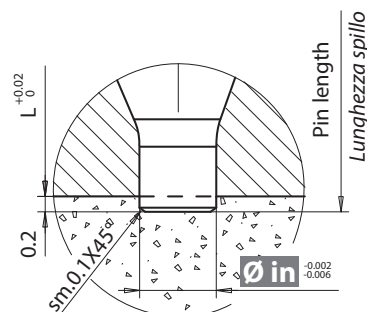
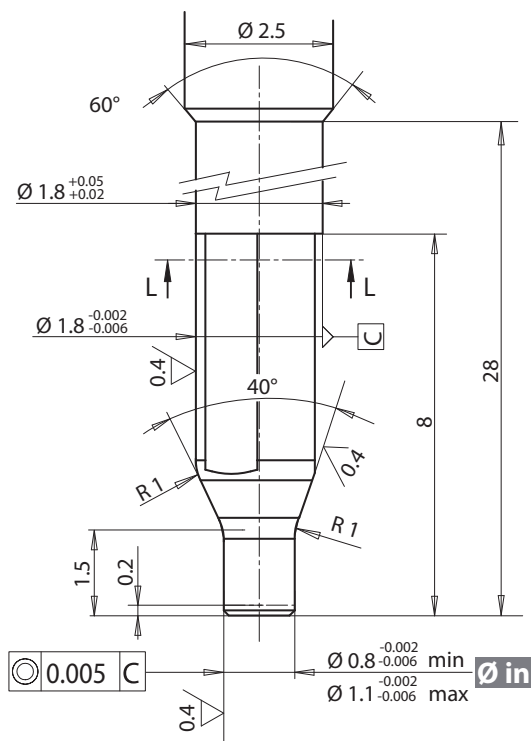
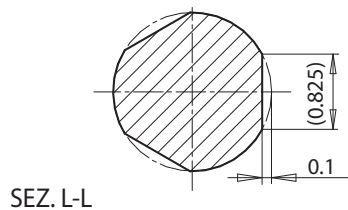
With conical shut off, if pin stroke adjustment or length are not correct, damage can occur to steel in the gate area.
Nella chiusura **conica** l'errata regolazione della corsa dello spillo o della sua lunghezza potrebbero causare danni alla matrice



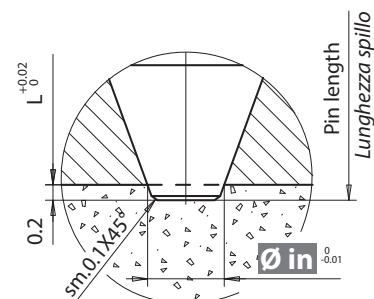
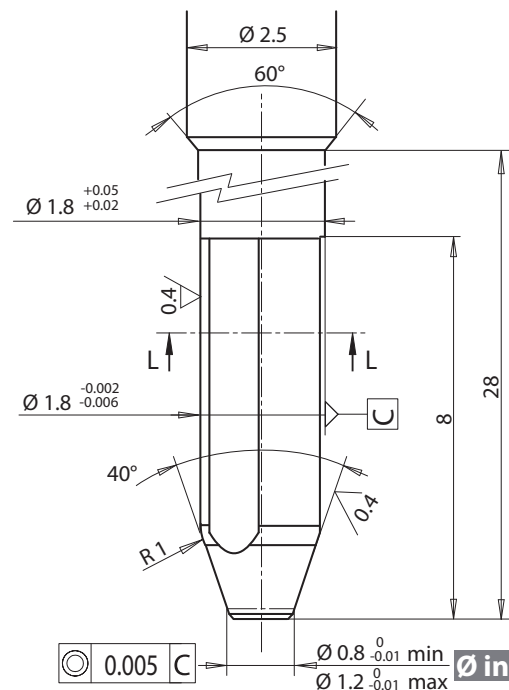
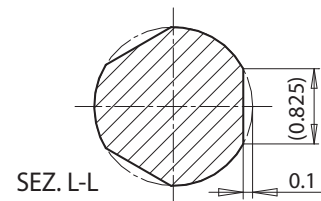
NOZZLE / UGELLO
TD3 Ø18

INDICATIONS FOR EXECUTION OF PIN PROFILE / INDICAZIONI PER L'ESECUZIONE DEL PROFILO PUNTA SPILLO
(execution customer care - a cura cliente)

CILINDRIC / CILINDRICO



CONICAL / CONICO



ATTENTION - ATTENZIONE!

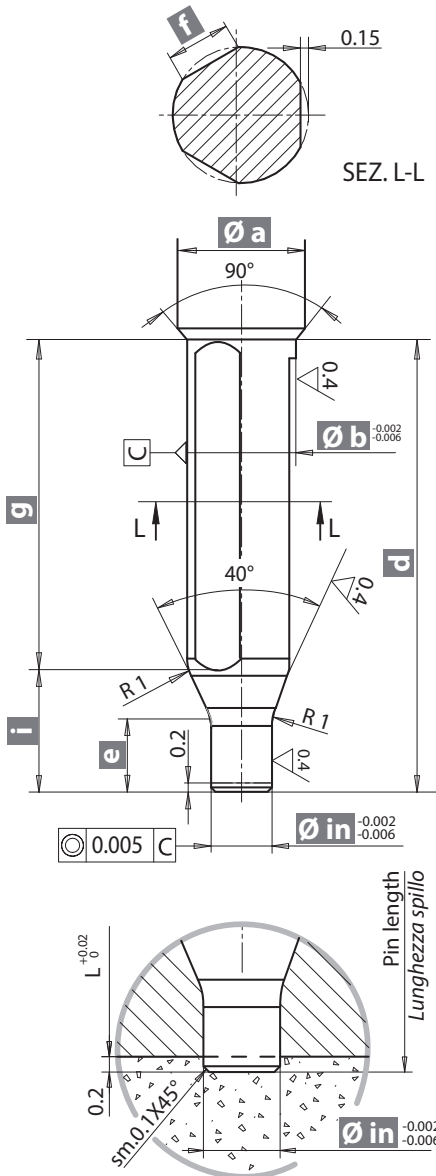
With conical shut off, if pin stroke adjustment or length are not correct, damage can occur to steel in the gate area.
*Nella chiusura **conica** l'errata regolazione della corsa dello spillo o della sua lunghezza potrebbero causare danni alla matrice*



NOZZLE / UGELLO
TF3-TF3B-TD3

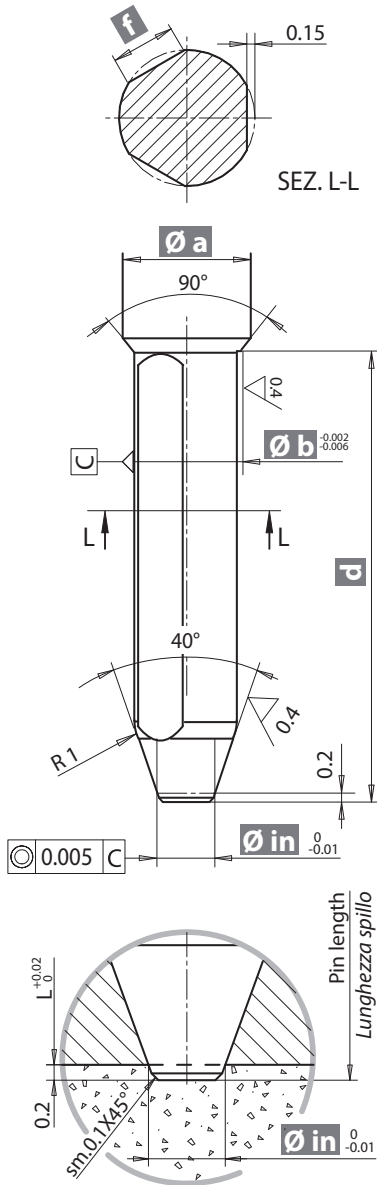
CILINDRIC / CILINDRICO

(execution customer care - a cura cliente)



CONICAL / CONICO

(execution customer care - a cura cliente)



ATTENTION - ATTENZIONE!

With conical shut off, if pin stroke adjustment or length are not correct, damage can occur to steel in the gate area.
Nella chiusura **conica** l'errata regolazione della corsa dello spillo o della sua lunghezza potrebbero causare danni alla matrice

CILINDRIC / CILINDRICO

Nozzle type / Tipo ugello

TF17	TF23	TF32	TF46	TD22	TD30	TD44
0.8	0.8	1.6	3.5	0.8	0.8	1.6
1.8	2	3	5.5	1.8	2	3
2.5	2.5	3.3	5.8	2.5	3.3	5.8
2.4	2.4	3.2	5.7	2.4	3.2	5.7
9	9	9	13	9	9	13
1.5	1.5	1.8	2.2	1.5	1.8	2.2
1.16	1.16	1.35	1.82	1.16	1.35	1.82
-	-	7.7	11.2	-	7.7	11.2
-	-	1.3	1.8	-	1.3	1.8

Ø in min
Ø in max
Ø a
Ø b
d
e
f
g
i

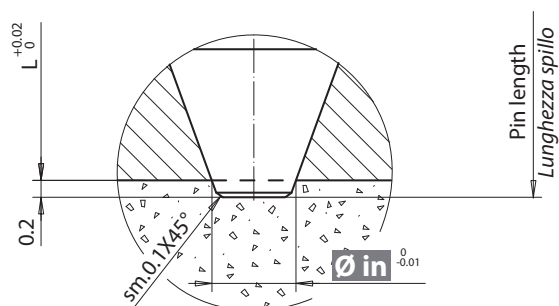
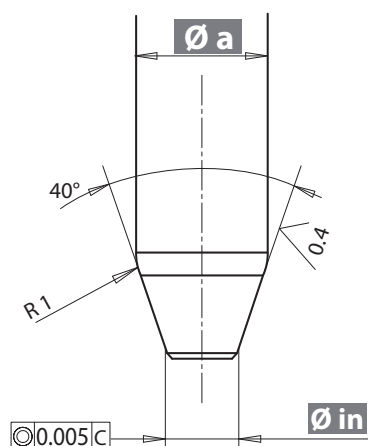
CONICAL / CONICO

Nozzle type / Tipo ugello

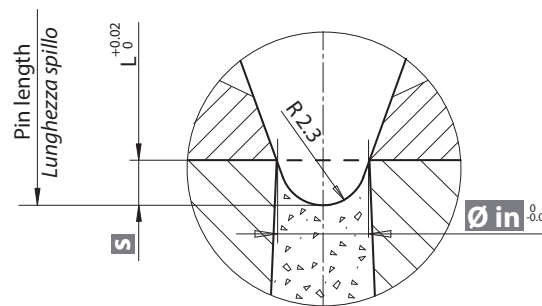
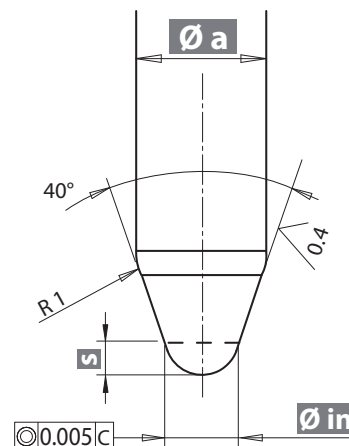
TF17	TF23	TF32	TF46	TD22	TD30	TD44
0.8	0.8	1.6	3.5	0.8	0.8	1.6
1.3	1.3	2.5	4.5	1.3	1.3	2.5
2.5	2.5	3.3	5.8	2.5	3.3	5.8
2.4	2.4	3.2	5.7	2.4	3.2	5.7
9	9	9	13	9	9	13
-	-	-	-	-	-	-
1.16	1.16	1.35	1.82	1.16	1.35	1.82
-	-	7.7	11.2	-	7.7	11.2
-	-	1.3	1.8	-	1.3	1.8



NOZZLE / UGELLO

TF3D-TF3DSLA**CILINDRIC / CILINDRICO**(execution customer care - *a cura cliente*)

NOZZLE / UGELLO

TF3DSL_U**CONICAL / CONICO**(execution customer care - *a cura cliente*)**ATTENTION - ATTENZIONE!**

With conical shut off, if pin stroke adjustment or length are not correct, damage can occur to steel in the gate area.

Nella chiusura **conica** l'errata regolazione della corsa dello spillo o della sua lunghezza potrebbero causare danni alla matrice

Nozzle type / Tipo ugello							
3D				3DSLA			
TF17	TF23	TF32	TF46	TF17	TF23	TF32	TF46
0.8	1.6	3.5		0.9	1.7	3.5	
	1.7	3.6					
0.9	1.8	3.7		1.1	1.9	3.7	
	1.9	3.8					
1.0	2.0	3.9		1.3	2.1	3.9	
	2.1	4.0					
1.1	2.2	4.1		2.3	2.3	4.1	
	2.3	4.2					
1.2	2.4	4.3		2.5	2.5	4.3	
	2.5	4.4					
1.3		4.5					
2.5	3.3	5.8		2.5	3.3	5.8	Ø in
--	--	--		--	--	--	s

Nozzle type / Tipo ugello			
3DSL _U			
TF17	TF23	TF32	TF46
1.3	2.5	4.5	
2.5	3.3	5.8	
0.63	1.02	1.76	