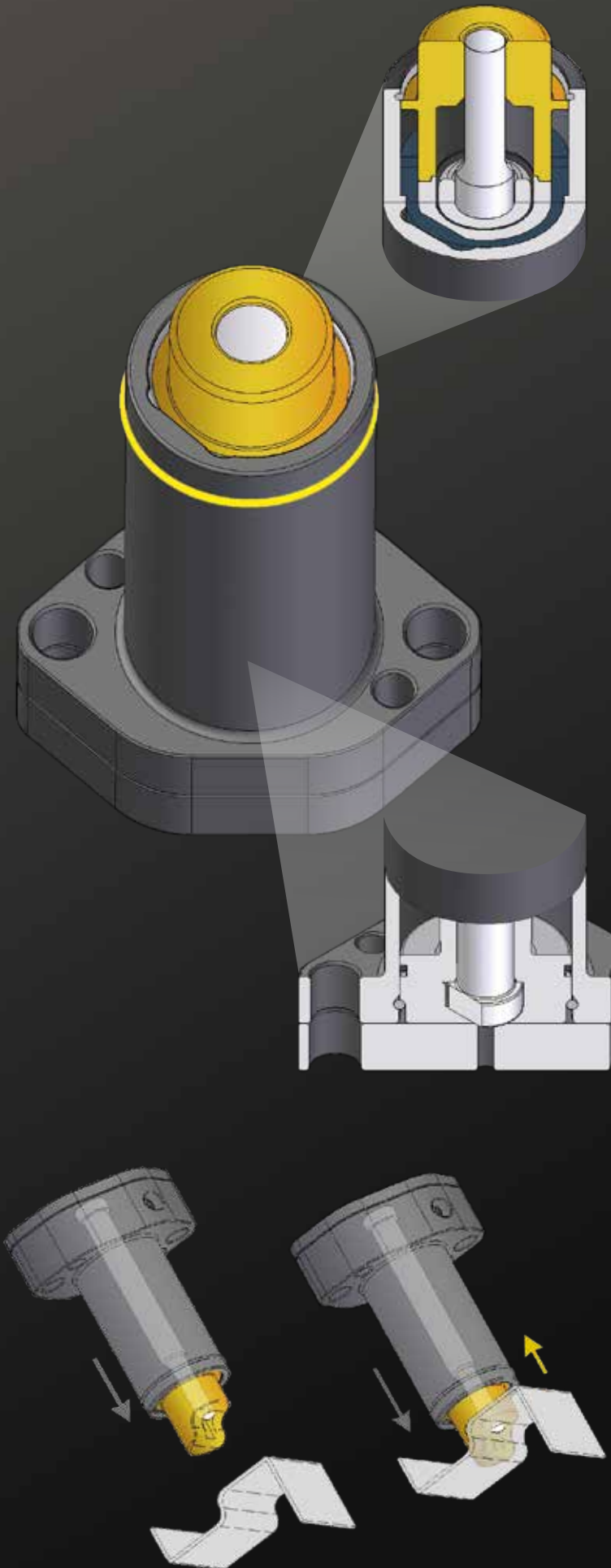


**INNOVATING
SAFETY**

nitro
P U N C H

**Nitrogen Punching Unit:
Removable & Mouldable Stripper**



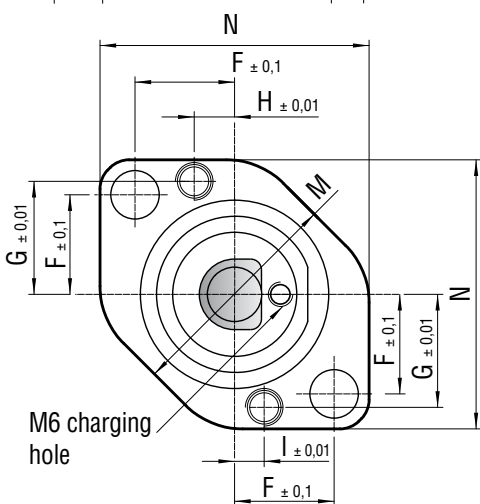
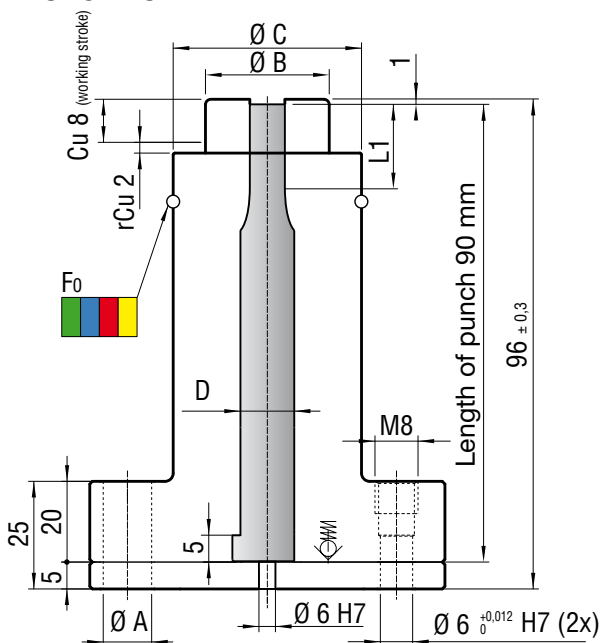
Patent Pending



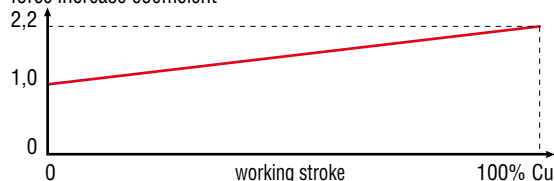
NITROGEN PUNCHING UNIT: REMOVABLE & MOULDABLE STRIPPER

90 MM SHOULDER STYLE PUNCH LENGTH

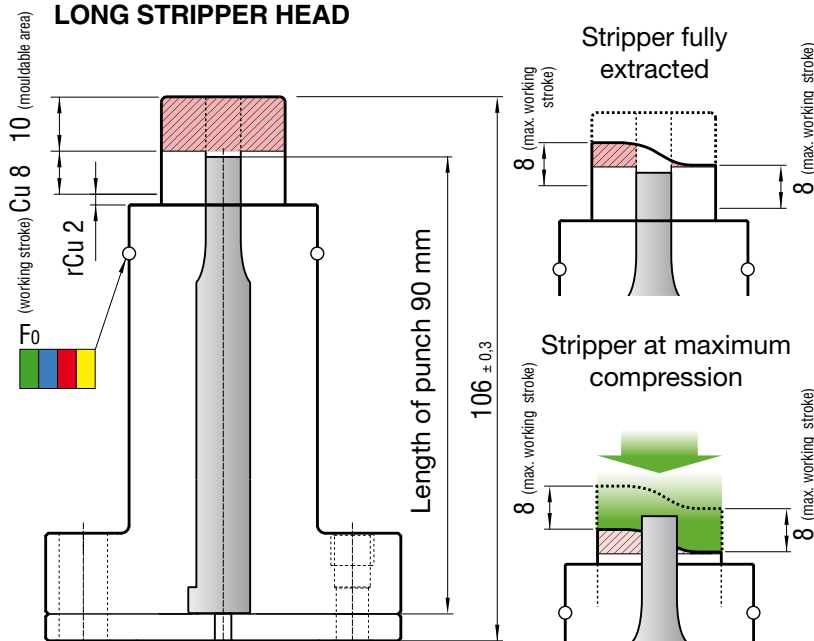
SHORT STRIPPER HEAD



force increase coefficient



LONG STRIPPER HEAD



The short stripper head is recommended for flat piercing.
Any moulded contour of the stripper head will cause a loss of working stroke.



The long stripper head is recommended for piercing where it is required a moulded contour of the stripper. The mouldable area of the stripper is 10 mm long and shall be machined by the user.



IMPORTANT

The maximum working stroke of the stripper head is always 8 mm. The maximum working stroke of the stripper head shall be always calculated from the first point of contact of the stripper with the working area of the sheet.



Special Springs' nitrogen punching unit with removable and mouldable stripper head is designed to fit ISO 8020 shoulder style punch standard.



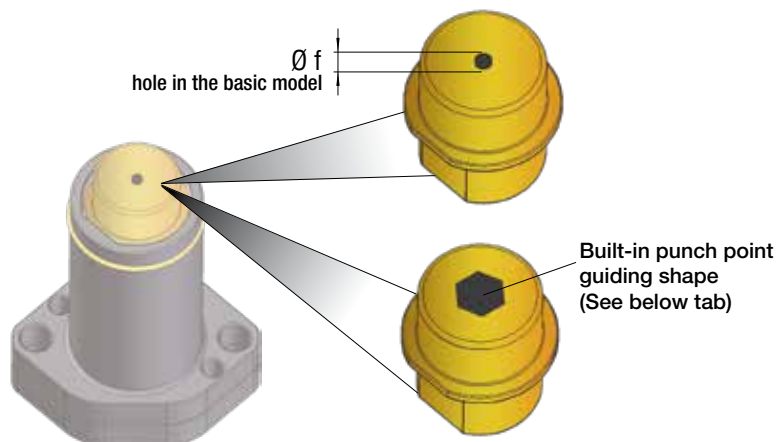
The supply of the nitrogen punching unit stripper head always includes the punch guiding shape built-in the stripper, if not otherwise required. A bottom hardened counter plate is included. See how to order examples.

Nitrogen Punching Unit Code	D ISO 8020	B	C	Cu	rCu*	A	F	G	H	I	M	N	L1	S**	F ₀ daN ±5% (25 bar at 20° C)	F ₀ daN ±5% (50 bar at 20° C)	F ₀ daN ±5% (75 bar at 20° C)	F ₀ daN ±5% (100 bar at 20° C)
short and long stripper	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	GR	BU	RD	YW
3L P01A (GR/BU ...)	10	23	35	8	2	9 (2x)	19	22	7	5	42	55	≥ 19	5,05	125	255	380	505
3L P02A (GR/BU ...)	13	29	43	8	2	9 (2x)	24	27	7	5	50	65	≥ 19	6,95	175	350	520	695
3L P03A (GR/BU ...)	16	29	43	8	2	9 (2x)	24	27	7	5	50	65	≥ 19	6,95	175	350	520	695
3L P04A (GR/BU ...)	20	40	58	8	2	11 (2x)	28	32,5	13	11	64	78	≥ 19	11,6	290	580	870	1160
3L P05A (GR/BU ...)	25	40	58	8	2	11 (2x)	28	32,5	13	11	64	78	≥ 25	11,6	290	580	870	1160
3L P06A (GR/BU ...)	32	48	67	8	2	13 (2x)	31	37	14	12	74	85	≥ 25	13,85	345	695	1040	1390
3L P07A (GR/BU ...)	40	60	81	8	2	13 (2x)	36	42,5	21	19	90	96	≥ 25	18,85	470	940	1410	1880

All sizes in mm.

*rCu reserve of stroke **S piston working size

NITROGEN PUNCHING UNIT: REMOVABLE & MOULDABLE STRIPPER



The stripper head can also be supplied separately from the nitrogen punching unit. It can be supplied with or without (basic model) punch point guiding shape built-in.

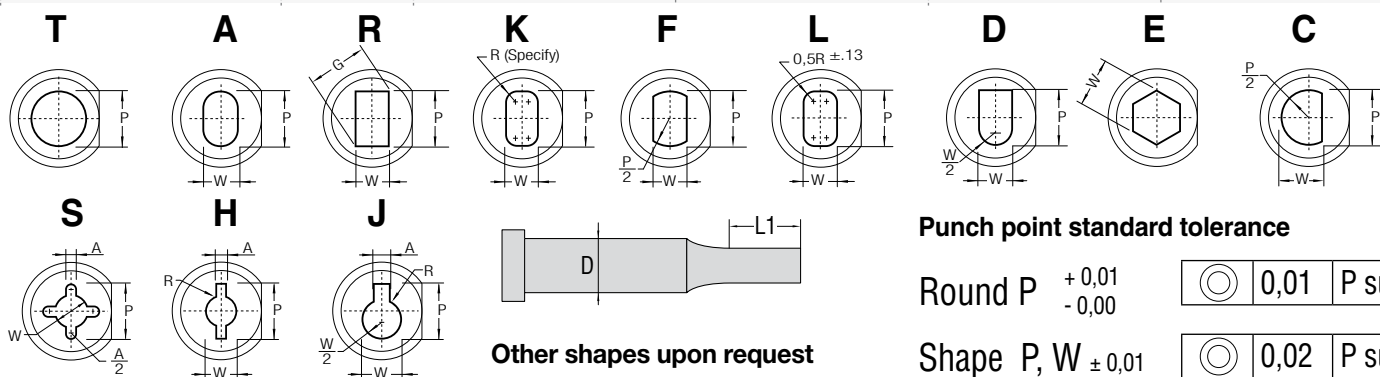


Geometry size and tolerance of the built-in punch guiding shape is always referred to the nominal punch size.



Radial clearance between punch and punch point guiding hole is max. 0,1 mm.

Reference to nitrogen punching unit code	Ø punch mm	Short model stripper head punch length = 90 mm code	Ø f mm	Long model stripper head punch length = 90 mm code	Ø f mm
3L P01A	10	42 S 01	1,5	42 S 02	1,5
3L P02A	13	42 S 03	3	42 S 04	3
3L P03A	16	42 S 03	3	42 S 04	3
3L P04A	20	42 S 07	3	42 S 08	3
3L P05A	25	42 S 07	3	42 S 08	3
3L P06A	32	42 S 11	3	42 S 12	3
3L P07A	40	42 S 13	3	42 S 14	3



**PUNCH NOT
INCLUDED!**

How to order only the nitrogen unit

Example: 5 3L P04 YW

5

Quantity

3L P04A

Nitrogen unit code

YW

Initial stripping force

How to order the nitrogen punching unit with punch point guiding shape built-in the stripper head

Example: 5 3L P04 YW 42 S 08 A P=... W=...

5

Quantity

3L P04A

Nitrogen Unit
Code

YW

Initial Stripping
Force

42 S 08

Stripper Head
Model

A

Form of Punch Point
Guiding Built-In

P=... W=...

Nominal Sizes of
Punch Point in mm

How to order only the stripper head with punch point guiding built-in

Example: 5 42 S 08 A P=... W=...

5

Quantity

42 S 08

Stripper head model

A

Form of punch point guiding built-in

P=... W=...

Nominal sizes of punch point in mm

How to order only the stripper head without punch point guiding shape built-in (basic model)

Example: 5 42 S 08

5

Quantity

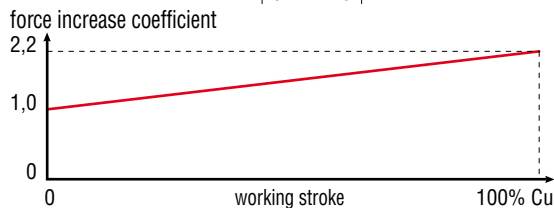
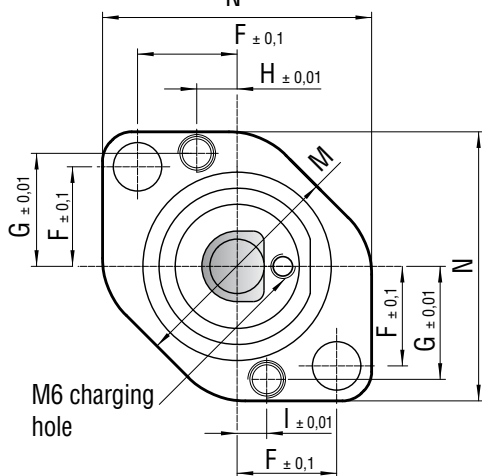
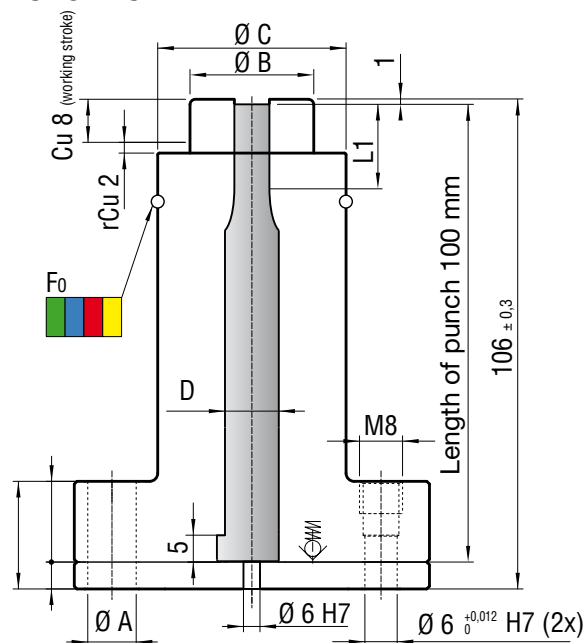
42 S 08

Stripper head model

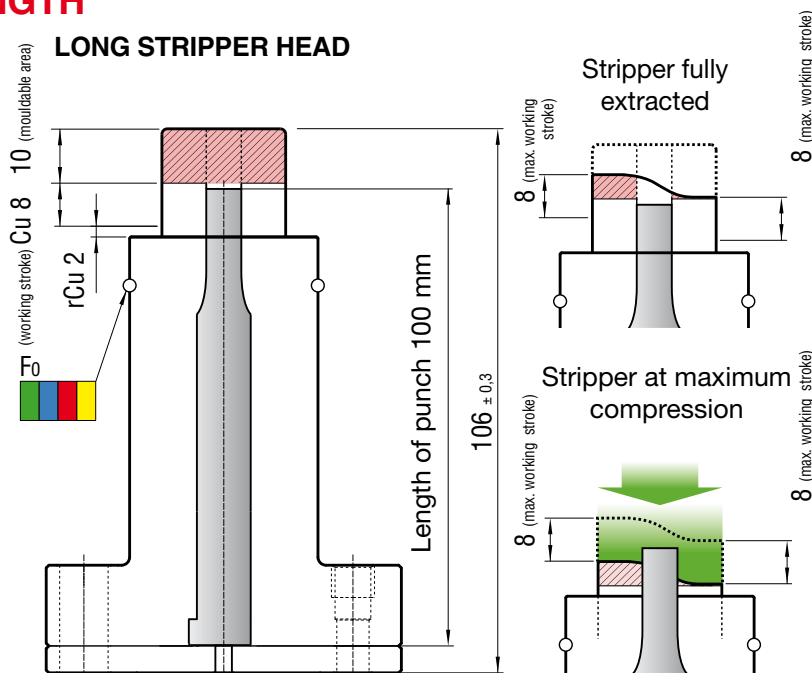
NITROGEN PUNCHING UNIT: REMOVABLE & MOULDABLE STRIPPER

100 MM SHOULDER STYLE PUNCH LENGTH

SHORT STRIPPER HEAD



LONG STRIPPER HEAD



The short stripper head is recommended for flat piercing. Any moulded contour of the stripper head will cause a loss of working stroke.



The long stripper head is recommended for piercing where it is required a moulded contour of the stripper. The mouldable area of the stripper is 10 mm long and shall be machined by the user.



IMPORTANT

The maximum working stroke of the stripper head is always 8 mm. The maximum working stroke of the stripper head shall be always calculated from the first point of contact of the stripper with the working area of the sheet.



Special Springs' nitrogen punching unit with removable and mouldable stripper head is designed to fit ISO 8020 shoulder style punch standard.



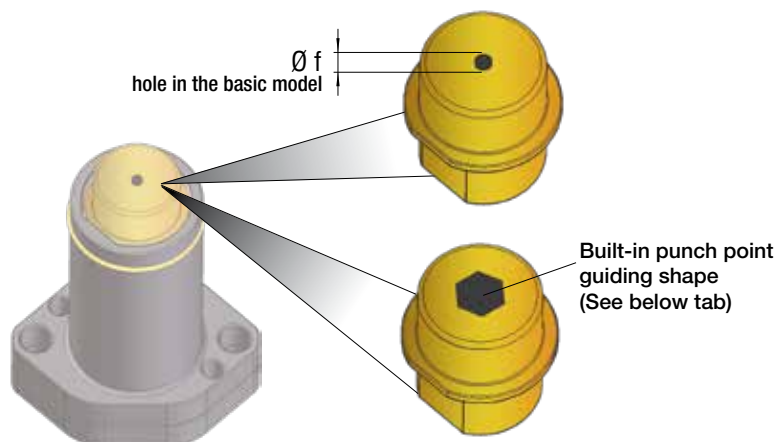
The supply of the nitrogen punching unit stripper head always includes the punch guiding shape built-in the stripper, if not otherwise required. A bottom hardened counter plate is included. See how to order examples.

Nitrogen Punching Unit Code	D ISO 8020	B	C	Cu	rCu*	A	F	G	H	I	M	N	L1	S**	F ₀ daN ±5% (25 bar at 20° C)	F ₀ daN ±5% (50 bar at 20° C)	F ₀ daN ±5% (75 bar at 20° C)	F ₀ daN ±5% (100 bar at 20° C)
short and long stripper	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	cm ²	GR	BU	RD	YW
3L P01A (GR/BU ...)	10	23	35	8	2	9 (2x)	19	22	7	5	42	55	≥ 25	5,05	125	255	380	505
3L P02A (GR/BU ...)	13	29	43	8	2	9 (2x)	24	27	7	5	50	65	≥ 25	6,95	175	350	520	695
3L P03A (GR/BU ...)	16	29	43	8	2	9 (2x)	24	27	7	5	50	65	≥ 25	6,95	175	350	520	695
3L P04A (GR/BU ...)	20	40	58	8	2	11 (2x)	28	32,5	13	11	64	78	≥ 25	11,6	290	580	870	1160
3L P05A (GR/BU ...)	25	40	58	8	2	11 (2x)	28	32,5	13	11	64	78	≥ 25	11,6	290	580	870	1160
3L P06A (GR/BU ...)	32	48	67	8	2	13 (2x)	31	37	14	12	74	85	≥ 30	13,85	345	695	1040	1390
3L P07A (GR/BU ...)	40	60	81	8	2	13 (2x)	36	42,5	21	19	90	96	≥ 30	18,85	470	940	1410	1880

All sizes in mm.

*rCu reserve of stroke **S piston working size

NITROGEN PUNCHING UNIT: REMOVABLE & MOULDABLE STRIPPER



The stripper head can also be supplied separately from the nitrogen punching unit. It can be supplied with or without (basic model) punch point guiding shape built-in.

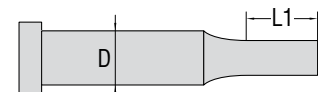
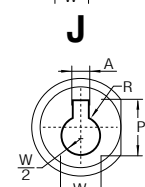
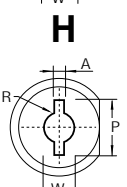
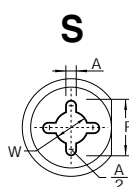
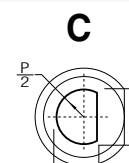
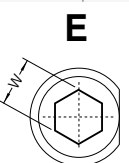
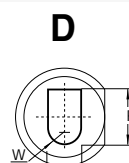
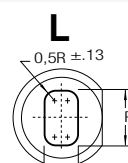
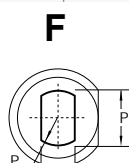
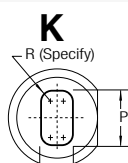
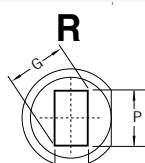
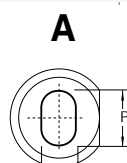
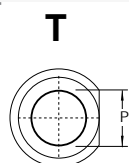


Geometry size and tolerance of the built-in punch guiding shape is always referred to the nominal punch size.



Radial clearance between punch and punch point guiding hole is max. 0,1 mm.

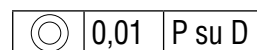
Reference to nitrogen punching unit code	Ø punch mm	Short model stripper head punch length = 100 mm code	Ø f mm	Long model stripper head punch length = 100 mm code	Ø f mm
3L P01A	10	42 S 01	1,5	42 S 02	1,5
3L P02A	13	42 S 03	3	42 S 04	3
3L P03A	16	42 S 03	3	42 S 04	3
3L P04A	20	42 S 07	3	42 S 08	3
3L P05A	25	42 S 07	3	42 S 08	3
3L P06A	32	42 S 11	3	42 S 12	3
3L P07A	40	42 S 13	3	42 S 14	3



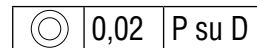
Other shapes upon request

Punch point standard tolerance

Round P $+0,01$
 $-0,00$



Shape P, W $\pm 0,01$



**PUNCH NOT
INCLUDED!**

How to order only the nitrogen unit

Example: 5 3L P04 YW

5

Quantity

3L P04A

Nitrogen unit code

YW

Initial stripping force

How to order the nitrogen punching unit with punch point guiding shape built-in the stripper head

Example: 5 3L P04 YW 42 S 08 A P=... W=...

5

Quantity

3L P04A

Nitrogen Unit
Code

YW

Initial Stripping
Force

42 S 08

Stripper Head
Model

A

Form of Punch Point
Guiding Built-In

P=... W=...

Nominal Sizes of
Punch Point in mm

How to order only the stripper head with punch point guiding built-in

Example: 5 42 S 08 A P=... W=...

5

Quantity

42 S 08

Stripper head model

A

Form of punch point guiding built-in

P=... W=...

Nominal sizes of punch point in mm

How to order only the stripper head without punch point guiding shape built-in (basic model)

Example: 5 42 S 08

5

Quantity

42 S 08

Stripper head model

CLAMP JIG: FOR MOULDING THE STRIPPER HEAD

! To build-in the punch point guiding shape and/or contour the stripper head it is required to remove the stripper head from the nitrogen unit body. The clamp jig is always re-usable. Size, fixing and orientation of the anti-rotation correspond to the same of the nitrogen unit body.

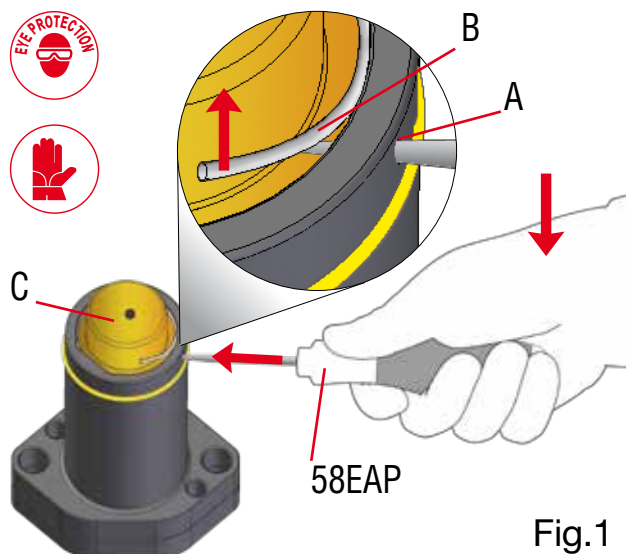


Fig.1

To remove the stripper head C, press and lift up the C-ring B through the hole A. Tool required 58EAP.

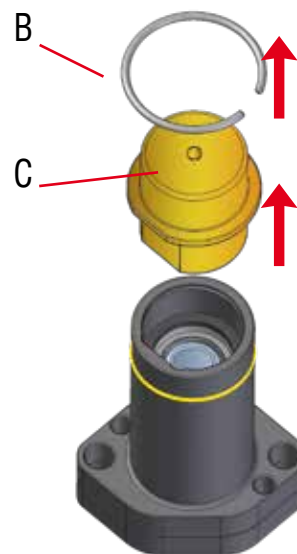


Fig.2

Remove the C-ring B from the groove and take the stripper head C out of the unit body.

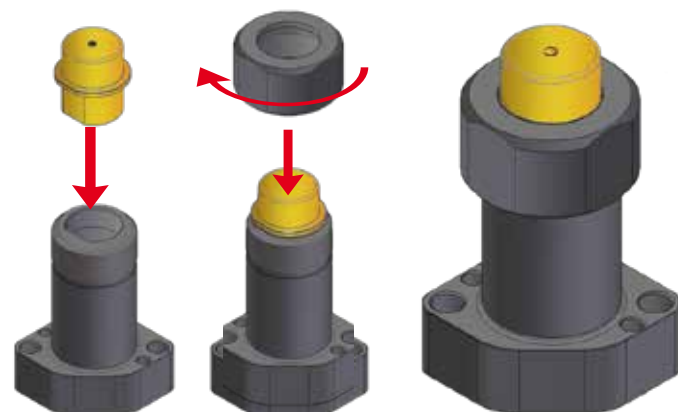


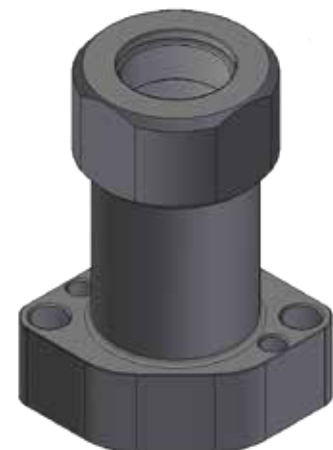
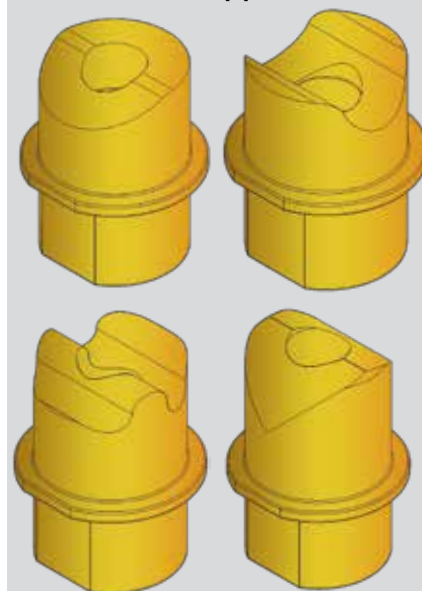
Fig.3

Select the appropriate model of clamp jig and position the stripper head into the lodging hole. Screw and lock the retaining nut.

Fig.4

Position and lock the clamp jig on the machine tool, wire EDM and/or tool plate and proceed with the required machining. After that re-assemble the stripper head on the nitrogen unit body following the reverse procedure.

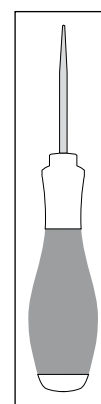
Examples of moulded contour stripper heads



Reference to
nitrogen unit
code

Stripper head
clamp jig
code

3L P01A (GR/BU ...)	3L MP01A
3L P02A (GR/BU ...)	3L MP02A
3L P03A (GR/BU ...)	3L MP02A
3L P04A (GR/BU ...)	3L MP04A
3L P05A (GR/BU ...)	3L MP04A
3L P06A (GR/BU ...)	3L MP06A
3L P07A (GR/BU ...)	3L MP07A



Cod. 58EAP

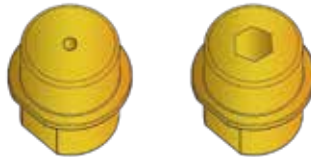
Retaining C-ring
removal tool

NITROGEN PUNCHING UNIT: REMOVABLE & MOULDABLE STRIPPER



Stripper head retaining C-ring

Removable and mouldable
stripper head. Basic model
with 3 mm hole



Removable and mouldable
stripper head with punch point
guiding shape built-in

Force identification color ring

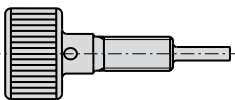


Nitrogen and shoulder style
punch retainer unit

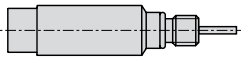


Hardened bottom counter plate

DISCHARGING AND CHARGING DEVICES



Discharging device Cod. DDS-M6/3



Charging adapter Cod. ADM08 (included in the Cod. 39DMA set)
To be used in combination with units Cod. 39DMCILA + Cod. 39DMCPVA.
For more details see: Nitrogen cylinders catalogue.



Cejin male quick fit adapter for direct charging Cod. QDFV02
To be used in combination with unit Cod. 39DMCPVA only.
For more details see: Nitrogen cylinders catalogue.



North America Subsidiary

Special Springs LLC North America
7707 Ronda Drive, Canton,
Michigan 48187 - USA
tel. +1 734.892.2324
email info@specialspringsna.com
www.specialspringsna.com

Headquarter

Special Springs s.r.l.
Via Nardi, 124/a
36060 Romano d'Ezzelino (VI) - ITALY
tel. +39 0424 539181
email info@specialsprings.com
www.specialsprings.com

South America Subsidiary

Special Springs do Brasil
Avenida Dom Pedro I, 2156 - Vila Pires
09130-012 Santo André / SP - BRASIL
Ph. +55 11 2324 3545
email comercial@specialsprings.com.br
www.specialsprings.com.br

India Subsidiary

Global Special Springs pvt. LTD.
Survay n°69/2 - Chandarada, Tq. Kadi
Ahmedabad- Mehsana Highway
382705 GJ - INDIA
tel. +91 2764 273065
email info@globalspecialsprings.com
www.specialsprings.com

Catalog code
9800G05002110