

# NITRO STRIP

Heavy duty - adjustable force nitrogen gas stripper

Direct mounting to standard retainers  
for ball-lock and ISO headed punches

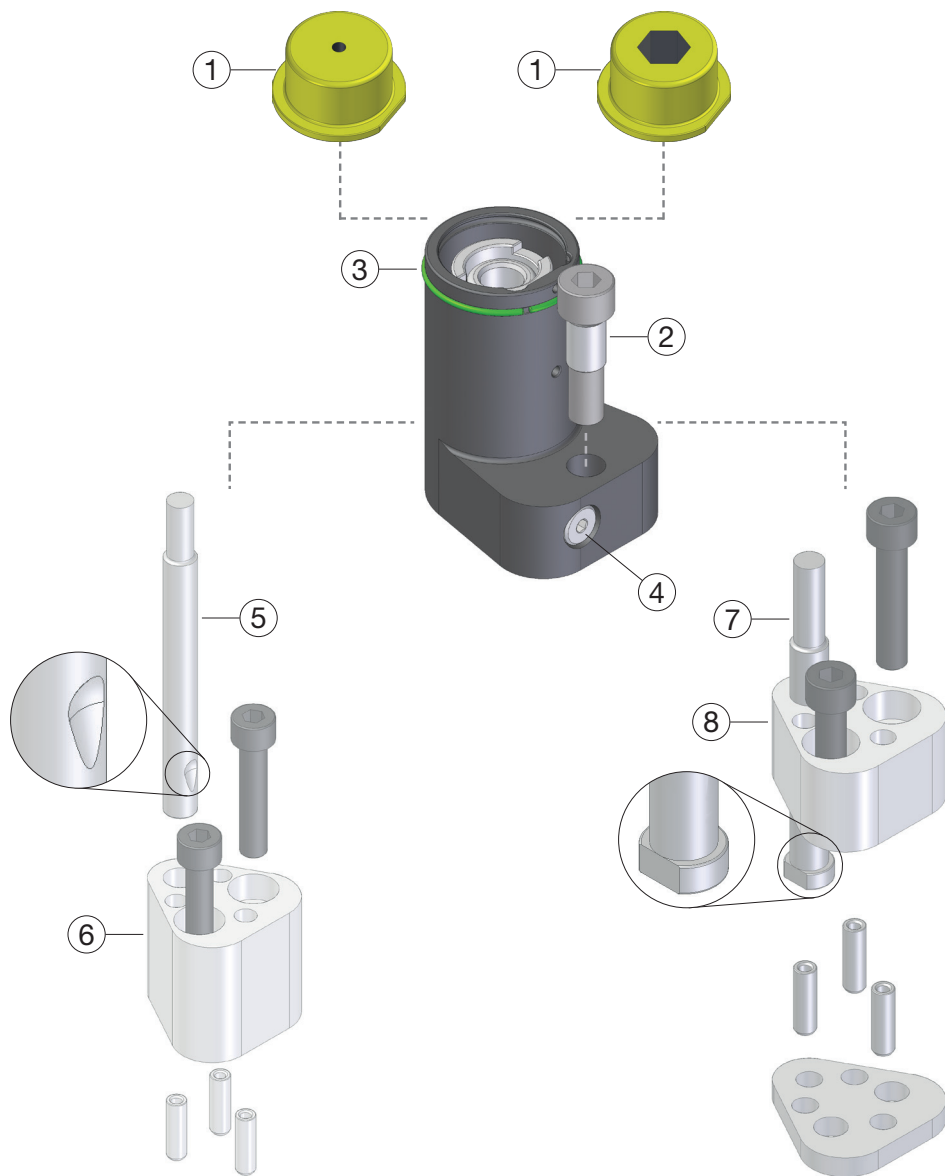


OPAS  
(Over Pressure Active Safety)



**INNOVATING  
SAFETY**  
since 1978

**SPECIAL SPRINGS**



**Ball-lock punch**

**ISO 8020 headed punch**

①	Bronze-aluminum blank holder and stripping head
②	Hexagon socket cylindrical head shoulder bolt

③	Stripping force identified with colored ring
④	M6 charging port

⑤	Ball-lock punch
⑥	Triangle precision retainer for ball-lock punch

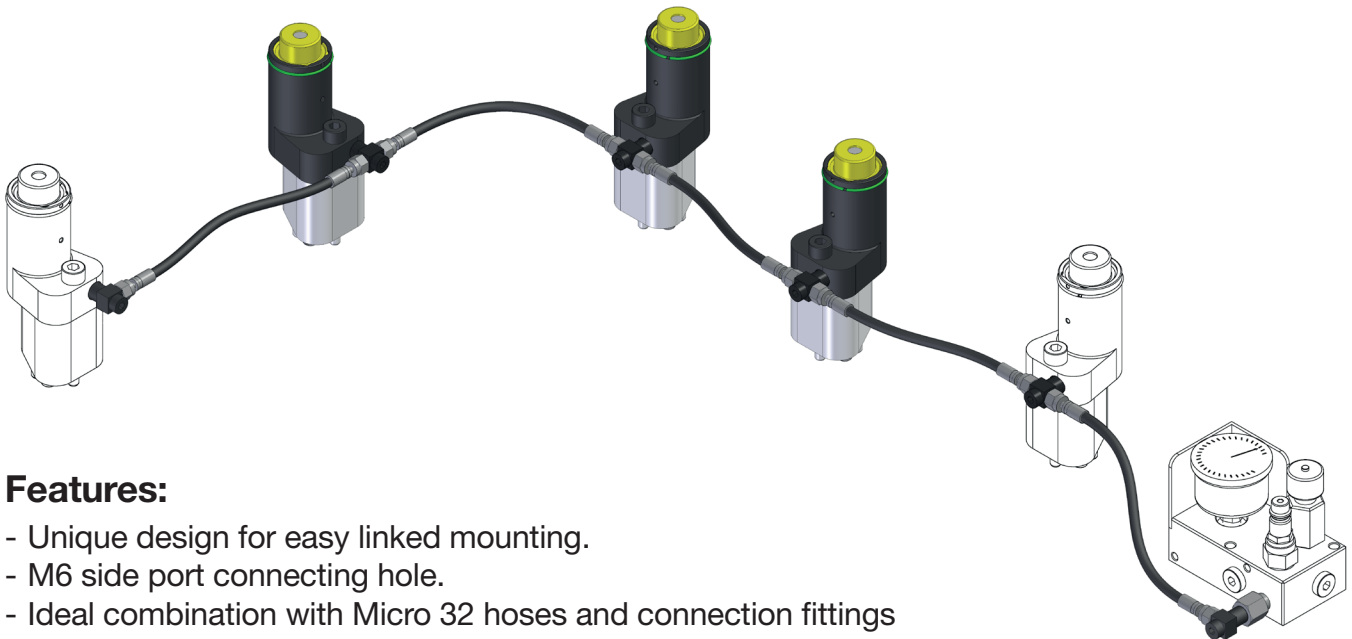
⑦	ISO 8020 punch
⑧	Triangle precision retainer for ISO 8020 punch

**Features:**

- Mounts directly to standard retainers.
- Short and long guided stripping head, removable and machinable.
- Anti-rotation head with 8 mm stroke.
- 8 models from 10 mm punch diameter to 40 mm.
- 4 standard color coded force loads.
- Contact force up to 1880 daN - 4200 lbf.

- Stripping force up to 3200 daN - 7200 lbf.
- Adjustable stripping force.
- Linkable to other NITRO STRIP units for versatility.
- OPAS (Over Pressure Active Safety) built-in as standard.
- Compact design.

## Example of nitrogen stripper units linked system:

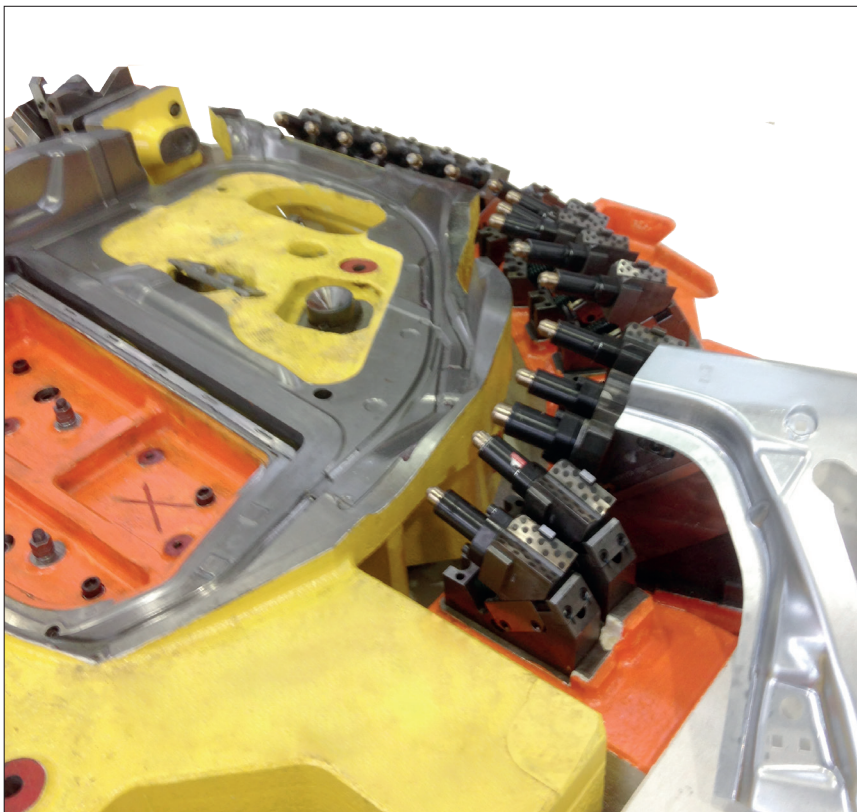


### Features:

- Unique design for easy linked mounting.
- M6 side port connecting hole.
- Ideal combination with Micro 32 hoses and connection fittings (see Gas Springs Catalogue).

### Benefits:

- Same pressure in all units.
- Adjustable forces.
- Easy control of stripping force through control panel.
- Higher safety through OPAS (Over Pressure Active Safety).
- Higher quality and less rejection of stamped parts with pressure switch on the control panel.

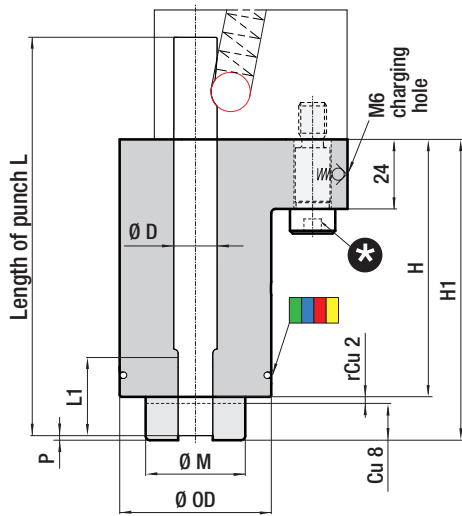


Example of 17 units mounted on aerial cams for a multi piercing of automotive door.

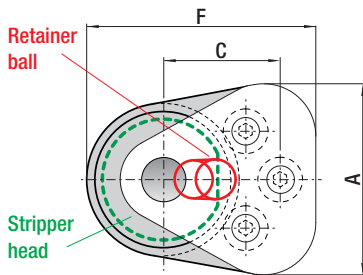
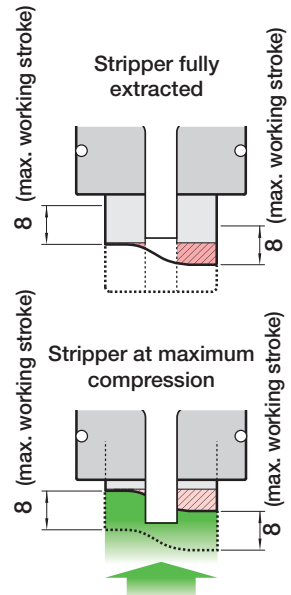
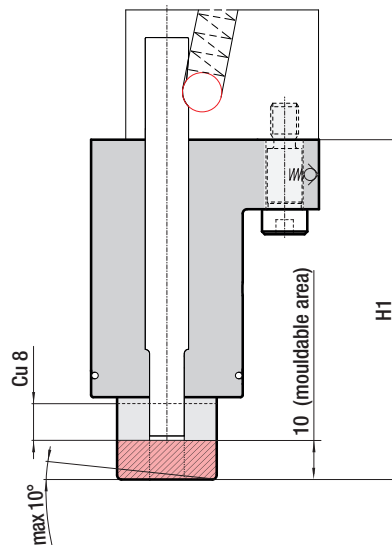
## Nitrogen stripper unit for LIGHT and HEAVY DUTY ball-lock punch retainers



### Short head - type S



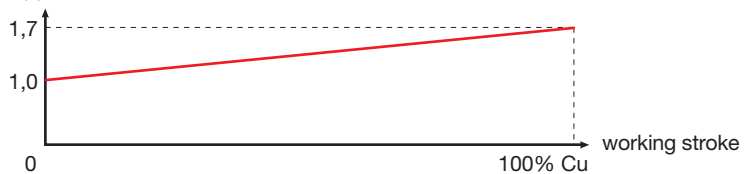
### Long head - type L



Retainer type	Head type	Length of punch L	H	H1	P
Light Duty	S	100	65,5	75,5	1,2
	L			85,5	
Heavy Duty	S	110	65,5	75,5	0,2
	L			85,5	

\* Ground body shoulder screw (included)  
Torque force 24 Nm + Loctite 243  
Spare code: 47VM8-8,5x14A

Approx. force increase coefficient



- The machining of the short stripper head always reduces the nominal stroke.
- The machining of the long stripper head, over 10 mm, always reduces the nominal stroke.
- If necessary the stripper head can be machined by the end user before installation.

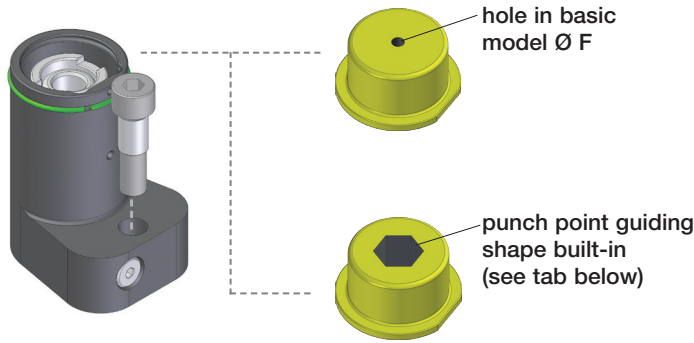
- Maximum stroke length must always be calculated from the first contact point of the piercing area.
- The NITRO STRIP unit is either available with basic stripper head (no built-in punch point guiding shape) or built-in with punch point (see how to order).
- Always secure the NITRO STRIP on the punch retainer using thread lock (Loctite 243) and 24 Nm tightening torque.

N <sub>2</sub>	°F 32 - 176	°C 0 - 80	ΔP ± 0,33 %/°C	P max 100 bar 1450 psi	P min 20 bar 290 psi	SPM ~ 10 - 40 (at 20°C)	Max Speed 1,6 m/s		Maintenance by Special Springs
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CODE	D	A	C	F	OD	M	L1	V <sub>0</sub>	S	F <sub>0</sub> (25 bar at 20° C) daN	F <sub>0</sub> (50 bar at 20° C) daN	F <sub>0</sub> (75 bar at 20° C) daN	F <sub>0</sub> (100 bar at 20° C) daN		
	mm	mm	mm	mm	mm	mm	mm	cm <sup>3</sup>	cm <sup>2</sup>	GR	BU	RD	YW	~Kg	
3L B01A (GR/BU ...)	10	43,7	26,92	52,5	35	23	≥ 19	10,3	5,06	125	255	380	505	0,48	
3L B02A (GR/BU ...)	13	50	29,97	59,6	43	29		14,0	6,95	175	350	520	695	0,69	
3L B03A (GR/BU ...)	16	53,2	31,75	61,2	58	40		21,2	11,59	290	580	870	1160	0,68	
3L B04A (GR/BU ...)	20	59,5	33,53	71,8	67	48		25,3	13,85	345	695	1040	1390	1,11	
3L B05A (GR/BU ...)	25	69,1	40,64	76,7	81	60		34,4	18,85	470	940	1410	1880	1,14	
3L B06A (GR/BU ...)	32			81,2											1,60
3L B07A (GR/BU ...)	38			91,9											1,55
3L B08A (GR/BU ...)	40														

SPM = Recommended min. amount for larger size and max amount for smaller size.

S = Piston seal area      V<sub>0</sub> = Initial gas volume      F<sub>0</sub> = Initial force      All dimensions in mm unless otherwise specified



The stripper head can be supplied separately from NITRO STRIP unit.

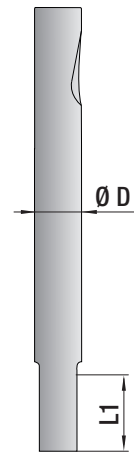
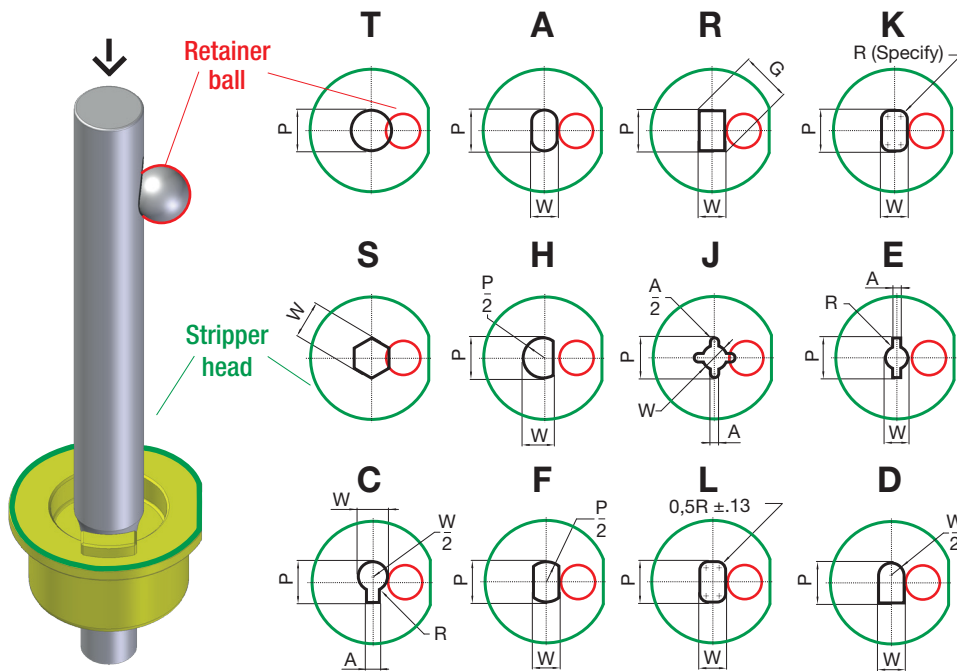
It can be supplied as basic model or with built-in punch point guiding shape.

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.

Punch not included !

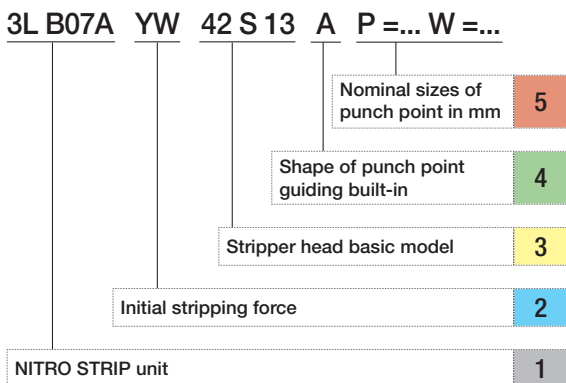
Nitrogen stripper unit code	Punch Ø	Short head - type S for light and heavy duty retainers		Ø F
		code		
3L B01A	10	42 S 01	42 S 02	1,5
3L B02A	13	42 S 03	42 S 04	
3L B03A	16			
3L B04A	20	42 S 07	42 S 08	
3L B05A	25			
3L B06A	32	42 S 11	42 S 12	
3L B07A	38	42 S 13	42 S 14	
3L B08A	40			



Other shapes upon request  
Punch point standard tolerance

Round P  $\begin{matrix} +0,01 \\ -0,00 \end{matrix}$  0,01 P on D  
Shape P, W  $\pm 0,01$  0,02 P on D

## HOW TO ORDER: Nitrogen stripper unit for ball-lock retainer



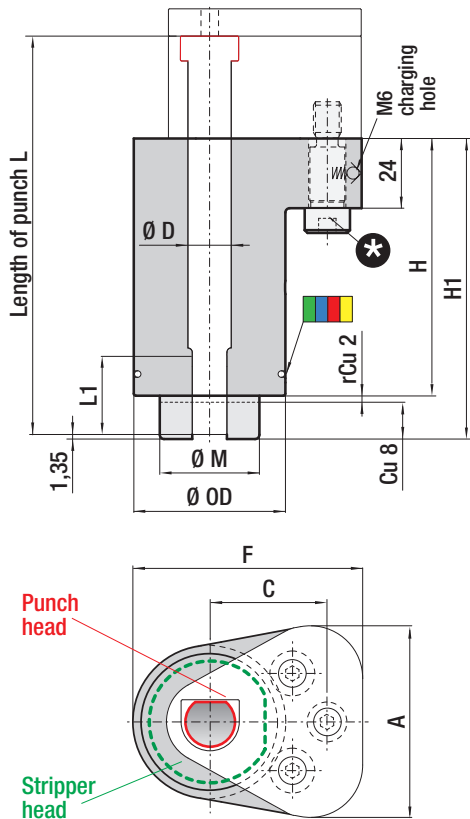
Ordering options	Code example
NITRO STRIP unit only	1+2 3L B07 YW
NITRO STRIP unit + STRIPPER HEAD basic model	1+2+3 3L B07 YW 42 S 13
NITRO STRIP unit + STRIPPER HEAD basic model + built-in punch point guiding shape	1+2+3+4+5 3L B07 YW 42 S 13 A P=.. W=..
STRIPPER HEAD basic model only	3 42 S 13
STRIPPER HEAD basic model + built-in punch point guiding shape	3+4+5 42 S 13 A P=... W=...

All dimensions in mm unless otherwise specified

## Nitrogen stripper unit for ISO 8020 headed punch retainers

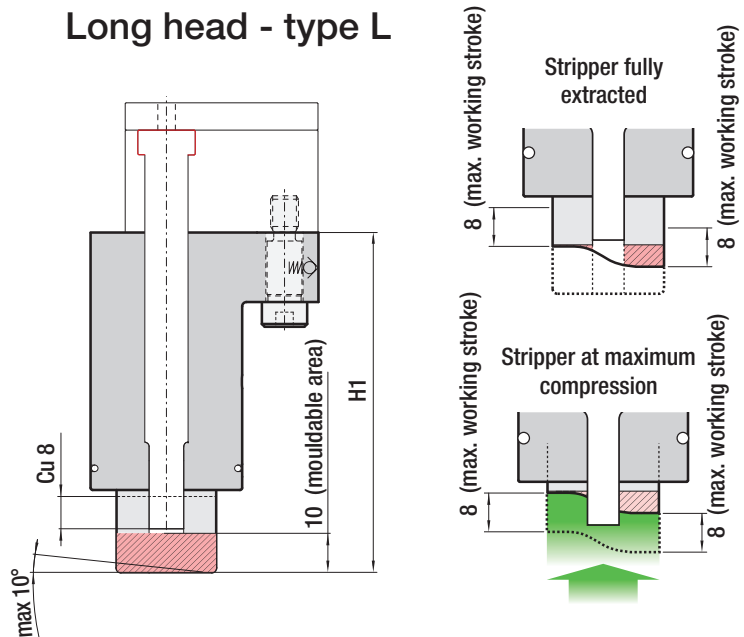


### Short head - type S



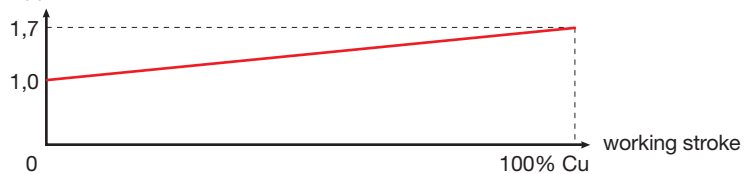
\* Ground body shoulder screw (included)  
Torque force 24 Nm + Loctite 243  
Spare code: 47VM8-8,5x14A

### Long head - type L



Retainer type	Head type	Length of punch L	H	H1
ISO 8020 Headed punch	S	100	65,5	75,5
	L			85,5

Approx. force increase coefficient



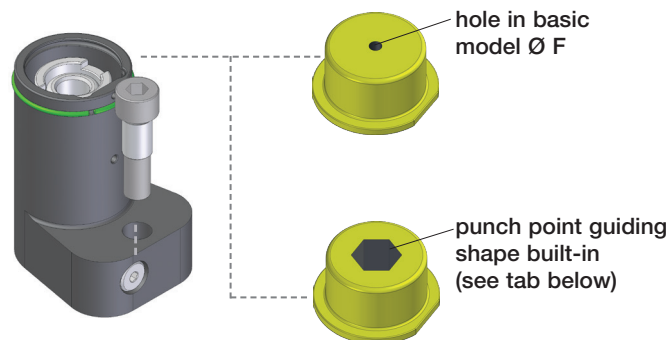
- The machining of the short stripper head always reduces the nominal stroke.
- The machining of the long stripper head, over 10 mm, always reduces the nominal stroke.
- If necessary the stripper head can be machined by the end user before installation.
- Maximum stroke length must always be calculated from the first contract point vive the piercing area.
- The NITRO STRIP unit is either available with basic stripper head (no built-in punch point guiding shape) or with built-in punch point. (See how to order).
- Always secure the NITRO STRIP on the punch retainer using thread lock (Loctite 243) and 24 Nm tightening torque

	°F 32 - 176	°C 0 - 80	ΔP ± 0,33 %/°C	P max 100 bar 1450 psi	P min 20 bar 290 psi	SPM ~ 10 - 40 (at 20°C)	Max Speed 1,6 m/s		Maintenance by Special Springs
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CODE	D	A	C	F	OD	M	L1	V0	S	F0	F0	F0	F0	Kg
										(25 bar at 20° C) daN	(50 bar at 20° C) daN	(75 bar at 20° C) daN	(100 bar at 20° C) daN	
3L B01A (GR/BU ...)	10	43,7	26,92	52,5	35	23	≥ 19	10,3	5,06	125	255	380	505	0,48
3L B02A (GR/BU ...)	13	50	29,97	59,6	43	29		14,0	6,95	175	350	520	695	0,69
3L B03A (GR/BU ...)	16	53,2	31,75	61,2	43	29		14,0	6,95	175	350	520	695	0,68
3L B04A (GR/BU ...)	20	59,5	33,53	71,8	58	40		21,2	11,59	290	580	870	1160	1,11
3L B05A (GR/BU ...)	25	69,1	40,64	76,7	58	40		21,2	11,59	290	580	870	1160	1,14
3L B06A (GR/BU ...)	32	69,1	40,64	81,2	67	48		25,3	13,85	345	695	1040	1390	1,14
3L B08A (GR/BU ...)	40	76,6	43,99	91,9	81	60		34,4	18,85	470	940	1410	1880	1,55

SPM = Recommended min. amount for larger size and max amount for smaller size

S = Piston seal area      V0 = Initial gas volume      F0 = Initial force      All dimensions in mm unless otherwise specified



The stripper head can be supplied separately from NITRO STRIP unit.

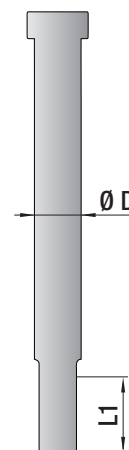
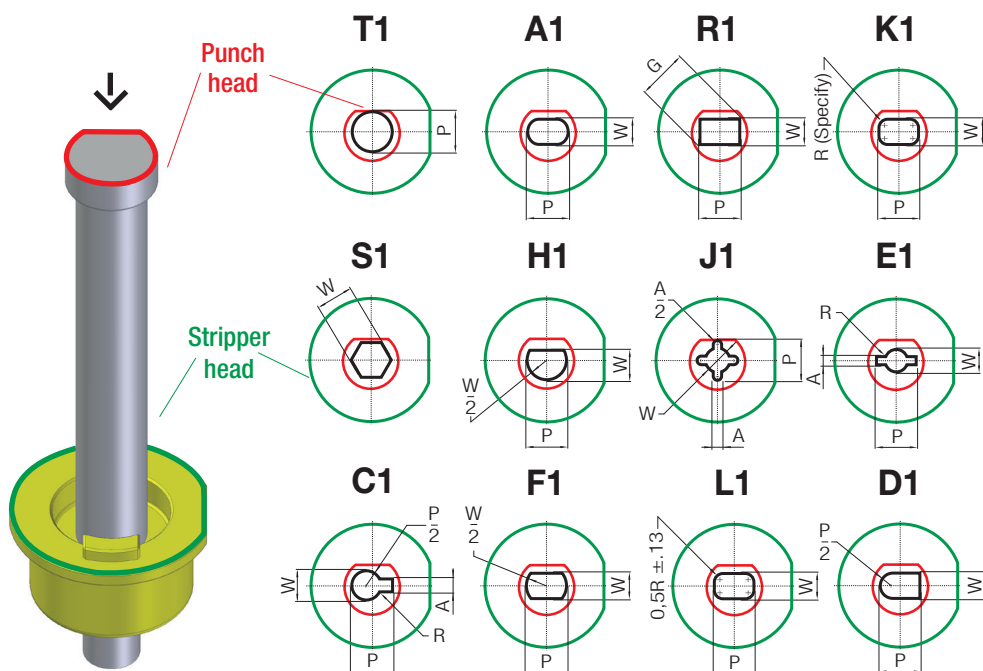
It can be supplied as basic model or with built-in punch point guiding shape.

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

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

Punch not included !

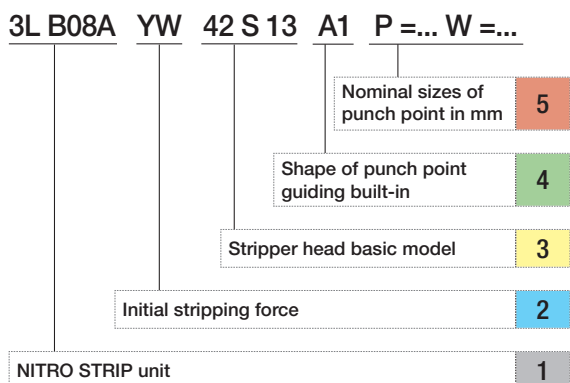
Nitrogen stripper unit code	Punch Ø	Short head - type S code	Long head - type L code	Ø F
3L B01A	10	42 S 01	42 S 02	1,5
3L B02A	13	42 S 03	42 S 04	3
3L B03A	16			
3L B04A	20	42 S 07	42 S 08	
3L B05A	25	42 S 11	42 S 12	
3L B06A	32			
3L B08A	40	42 S 13	42 S 14	



Other shapes upon request  
Punch point standard tolerance

Round P  $\begin{matrix} +0,01 \\ -0,00 \end{matrix}$  0,01 P on D  
Shape P, W  $\pm 0,01$  0,02 P on D

## HOW TO ORDER: Nitrogen stripper unit for ISO 8020 headed punch retainers



Ordering options	Code example
NITRO STRIP unit only	3L B08 YW
NITRO STRIP unit + STRIPPER HEAD basic model	3L B08 YW 42 S 13
NITRO STRIP unit + STRIPPER HEAD basic model + built-in punch point guiding shape	3L B08 YW 42 S 13 A1 P=.. W=..
STRIPPER HEAD basic model only	42 S 13
STRIPPER HEAD basic model + built-in punch point guiding shape	42 S 13 A1 P=... W=...

All dimensions in mm unless otherwise specified

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