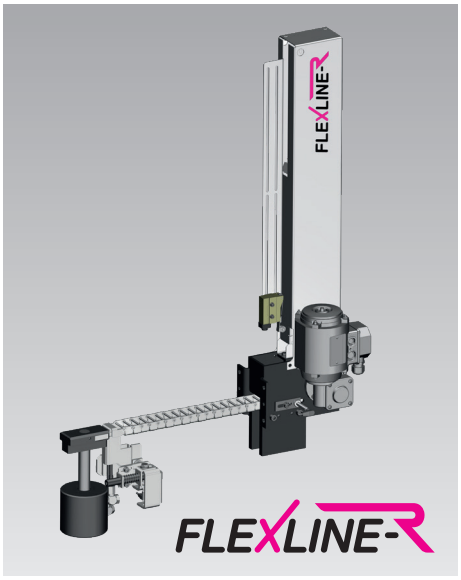
ROEMHELD

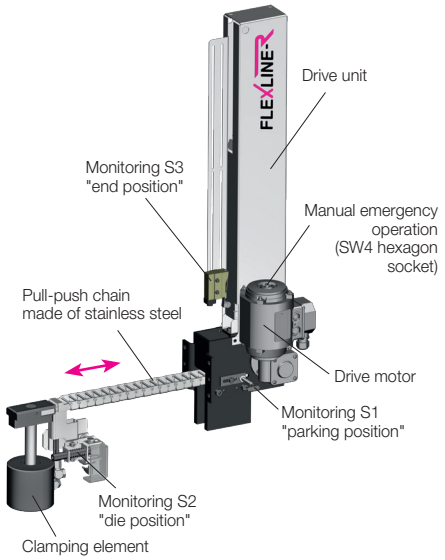
WZ 3.2260

Flexline-R Rapid-Clamping System, sturdy version
with pull-push chain made of stainless steel
Hollow-piston cylinder: 245 bar/100 kN or 400 bar/104 kN



Advantages

- Extremely robust, welded pull-push chain made of stainless steel
- Chain case, bracket and sheet metal parts made of reinforced material and stainless steel
- Drive motor with manual emergency stop
- Chain case with slot for additional position monitoring (end of chain or intermediate position)
- Harting connector code class IP65 (no open junction box)
- Compact drive unit and lightweight
- Four different clamping elements and two adjustment tracks freely selectable
- Easy to service, easily exchangeable assemblies
- Highly flexible, low-maintenance hydraulic hoses with high burst pressure
- Drive motor selectable on left or right side



Application

Rapid-clamping systems are used for the automatic clamping of dies of varying sizes on the press ram.

Description

The electro-mechanical driven push chain moves the clamping element attached to the Flexline-R rapid-clamping system automatically from the parking position to the clamping position at the clamping edge and then back to the parking position.
The T-slot of the machine serves as the guide for the push chain and clamping element. The push chain also serves as the energy chain for accommodating the hydraulic and electric lines of the clamping element.

Versions

Flexline-R rapid-clamping system can be supplied in the following variants:

- Clamping element: Hollow-piston cylinder, single or double acting
- T-slots: 28 or 36 mm or 1 1/16"
- Adjustment tracks (clamping element displacement path) 660 or 1100 mm
- Electrical drive motor
- Different Harting connectors for motor current and query signals selectable
- Option: monitoring S3 "end of chain", adjustable
- Option: design with UL-compliant components
- Option: socket housing for mounting on the machine
- Option: drive motor or monitoring S2 "die position" attached on the left or right side

Technical data

T-slot	28 mm and 36 mm (DIN 650) and 1 1/16"
Adjustment speed	~ 120 – 140 mm/s
Drive motor option	Technical characteristics see page 2
Motor connection	Harting connector with 500 mm cable length
Monitoring connection	Harting connector with 500 mm cable length
Monitoring S1 “parking position” Monitoring S2 “die position” Option: Monitoring S3 "end position"	Magnetic sensor 24 (10 – 30 V DC), NO Inductive sensor 24 (10 – 30 V DC), NC Micro switch CO (NO + NC)
Hydraulic port	8-mm pipe socket with union nut M 16 × 1.5 (500 mm hose length)
Operating temperature	Max. 70° C
Part no.	**8226** (basic version)

Special versions of the rapid-clamping system

Please contact us if your clamping task is not covered by the options available with Flexline-R. In many cases, we will be able to fulfil your requirements with a customised version that deviates only slightly from the standard design.

Flexline-R with 24 VDC motor

24 V GREEN EDITION

24 volt motor option

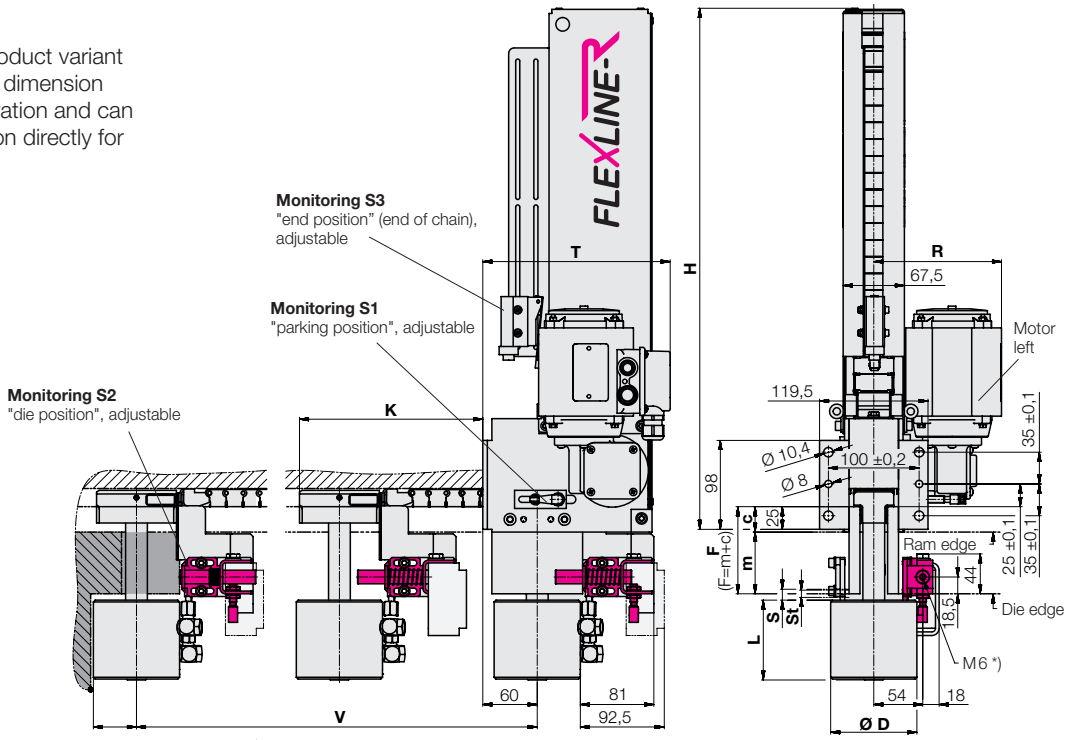
The drive motor for the Flexline-R rapid-clamping system can be selected in a low voltage version with 24 volts (Green Edition).

Advantages

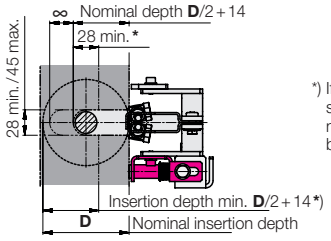
- 24 volts are available at every press worldwide
- Safe extra-low voltage instead of alternating current at the press ram
- Simple project planning and installation for press manufacturers
- ideally suited for new installations as well as retrofits

Selection scheme

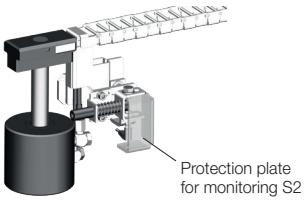
You can configure the desired product variant yourself. You are provided with a dimension drawing for the selected configuration and can send us your chosen configuration directly for an offer to be prepared.



Clamping slot in the die



*) If the clamping slot depth < nominal depth, the setting for monitoring S2 "die position" may need to be adjusted. If required, the actuating bolt can also be extended (M6).



Clamping element	Dimensions D x L	Clamping force	Operating pressure	Total stroke S	Clamping stroke St	Oil volume clamping/unclamping
○ Hollow-piston cylinder, double acting	Ø 95 x 88	104 kN	400 bar	12 mm	8 mm	2.6/2.6 cm³/mm
○ Hollow-piston cylinder, single acting	Ø 90 x 105	104 kN	400 bar	12 mm	8 mm	2.6/ – cm³/mm
○ Hollow-piston cylinder, double acting	Ø 105 x 88	100 kN	245 bar	12 mm	8 mm	4.1/4.1 cm³/mm
○ Hollow-piston cylinder, single acting	Ø 100 x 112	100 kN	245 bar	12 mm	8 mm	4.1/ – cm³/mm

Slot width a	Max. displacement path of clamping element V
○ 28 mm (DIN 650)	○ 660 mm (H = 574 mm)
○ 36 mm (DIN 650)	○ 1100 mm (H = 794 mm)
○ 1 1/16" (27 mm)	

Motor ○ left ○ right	R Motor left / right		T Motor left / right	
○ 380–400 V ±10 %, 50 Hz, 3~ AC [0.34–0.37 A, 45 W, ~120 mm/s] (UL-compliant) and 420 – 480 V ±10 %, 60 Hz, 3~ AC [0.3–0.37 A, 45 W, ~140 mm/s] (UL-compliant)	141 mm	141 mm	206.5 mm	223.5 mm
Option				
○ A.C. motor 120 V, 60 Hz, 1~ AC [0.89 A, 45 W, ~120 mm/s] (UL-compliant)	130 mm	130 mm	199.5 mm	217 mm
○ Direct current motor 24 V DC [5 A, 60 W] (*Green Edition*)	119 mm	119 mm	188 mm	206 mm

Position monitoring

- ○ Die position S2 - left, NC
- ○ Die position S2 - right, NC
- ○ End position S3 + spec. of dimension **K**, CO

Note: Proximity switch S2 is a normally closed (NC) contact → the signal must be inverted in the control system! This design ('wire break protection') protects the quick-clamping system from damage – e.g. caused by the clamping element colliding with the tool – in the event of faults in the S2 position sensor.

Harting connector for motor and position monitoring

- ○ Harting HAN modular 3×5 ES
- ○ Harting HAN 3 HvE / HAN 10 E
- ○ Harting HAN 6 ES / HAN 10 ES
- ○ Counterparts included in the delivery (selectable option: yes/no)

Option

- ○ Harting HAN 6 ES / HAN 10 ES (for single-phase A.C. motor 120 V AC, 60 Hz)
- ○ Harting HAN 10 ES for 24 V DC motor

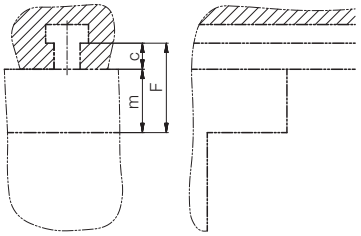
Clamping dimension Specification of clamping dimension F (±St/2) in [mm]

F = mm

F = c + m (m = die clamping edge, c = web height of T-slot)

F min. 70 mm, max. 128 mm for hollow piston cylinder

Clamping dimension F = c + m

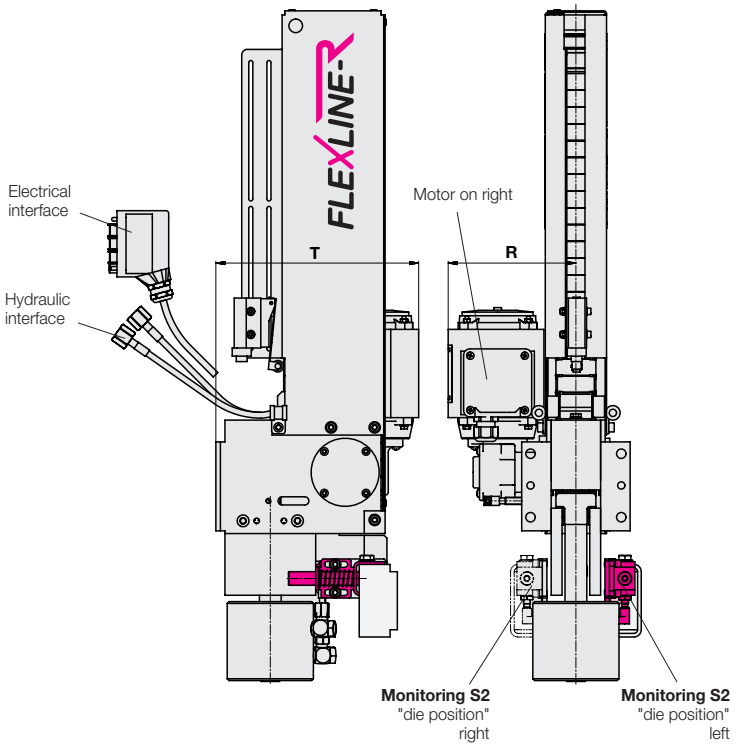


Electrical interface

Harting connector for motor + position monitoring
Connector pinout and connector version see circuit diagram

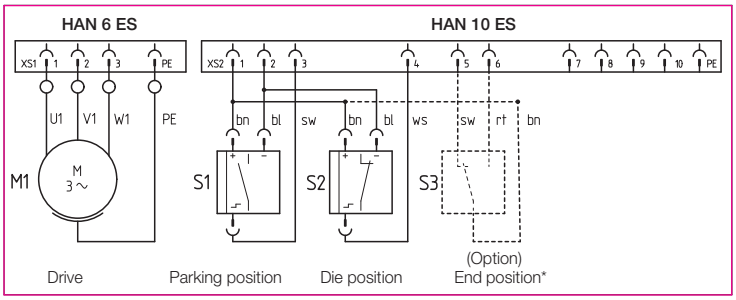
Hydraulic interface

Port A for clamping
Port B for unclamping
Standard: M 16 × 1.5 union nut
Pipe connection Ø 8 mm



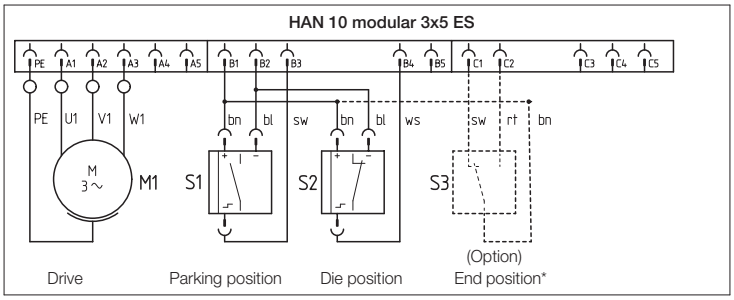
Connector pinout of the Harting connector versions

Standard version



*) not actuated in * position!

Monitoring S2 "die position":
The signal from the normally closed (NC) contact must be inverted in the control system!



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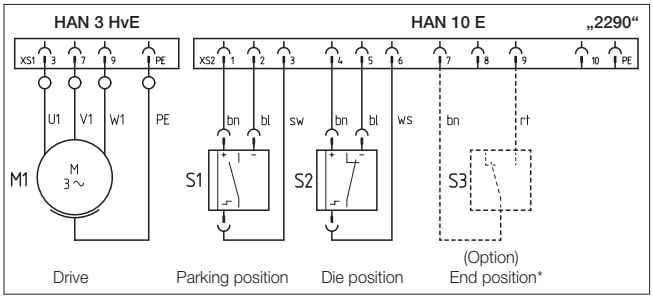

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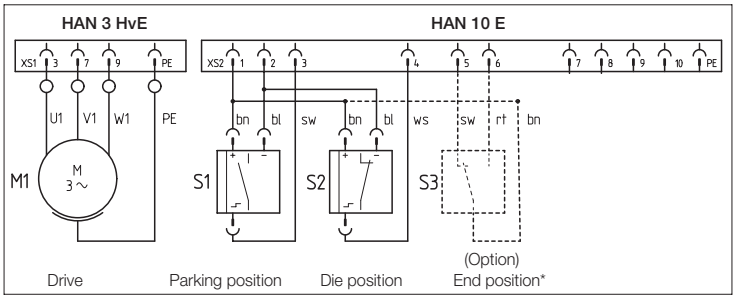

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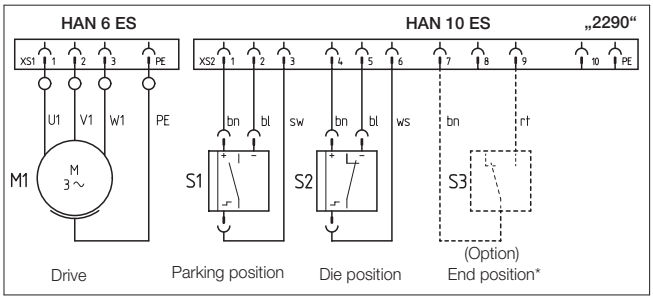

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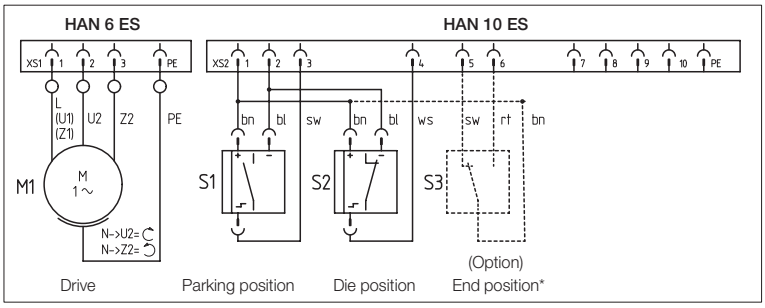
Single-phase A.C. motor 120 V AC, 60 Hz



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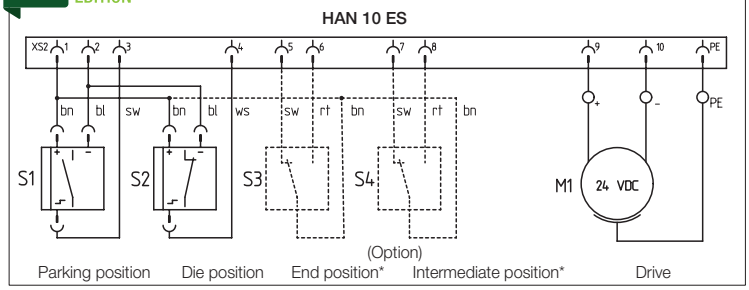
Direct current motor 24 V DC



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