

**NEW**

**Hand pump 711E35004-1 and 711E35012-1:**

**Compact, powerfull and reliable.**

Two speed hydraulic hand-pump for directly easy and fast supply with hydraulic high pressure.



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**NEW**

**Pump 70130-HW1DP: Small but strong**

This air-hydraulic-pump is double and single acting, has an output of max. 2.2 l/min and a max. pressure of 360 bar.



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**NEW**

**Electric hydraulic pump 718D3500501:**

**Nearly for all-purpose**

This pump with its max. output of 4.5 l/min, 350 bar pressure and its optionally electronic control will perform nearly every supplying task.



Page **22.11**

**NEW**

**Retracting clamp 70622-DA:**

**Now with position control**

This hydraulic retracting clamp is designed for clamping, holding-down or latch moulds. Now with position control.



Page **24.5**

**NEW**

**Pressure swith 70-DG64-1/4: Electronical flexible.**

Electronic pressure switch with 2 switching points easy adjustment via rings with scales.

Reliability by lead-sealable.



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## Summary of contents

### Hydraulic screw-in cylinder



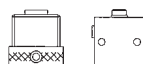
Clamping force at 100 bar [daN]	Model no.	Page
	<b>single action</b>	
42	721E08101-1	23.1-23.2
106	721E12101-1	23.1-23.2
193	721E16121-1	23.1-23.2
270	721E20401-1	23.1-23.2
280	721E20161-1	23.1-23.2
456	721E25401-1	23.1-23.2
456	721E25405-1	23.3-23.4
460	721E25255-1	23.3-23.4
465	721E25155-1	23.3-23.4
465	721E25161-1	23.1-23.2
780	721E32161-1	23.1-23.2
1080	721E38505-1	23.3-23.4
1085	721E38255-1	23.3-23.4
1091	721E38125-1	23.3-23.4
1204	721E40401-1	23.1-23.2
1224	721E40161-1	23.1-23.2
1906	721E50251-1	23.1-23.2
	<b>double action</b>	
480	721D25501-1	23.5-23.6
788	721D32501-1	23.5-23.6
962	725D35151-2	23.7-23.8
1232	721D40501-1	23.5-23.6
1925	721D50501-1	23.5-23.6
1963	725D50151-1	23.7-23.8
3117	725D63171-1	23.7-23.8
5026	725D80151-1	23.7-23.8

### Hydraulic block cylinder



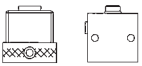
Clamping force at 100 bar [daN]	Model no.	Page
	<b>single action</b>	
193	722E16202-1	23.9-23.10
457	722E25202-1	23.9-23.10
767	722E32202-1	23.9-23.10
1195	722E40202-1	23.9-23.10
1889	722E50202-1	23.9-23.10
	<b>double action</b>	
197	722D16162-1	23.11-23.12
197	722D16502-1	23.11-23.12
480	722D25202-1	23.11-23.12
788	722D32252-1	23.11-23.12
788	722D32502-1	23.11-23.12
1232	722D40252-1	23.11-23.12
1232	722D40992-1	23.11-23.12
1925	722D50252-1	23.11-23.12
1925	722D50502-1	23.11-23.12
1925	722D50992-1	23.11-23.12

### Hydraulic hollow piston cylinder



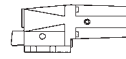
Clamping force at 100 bar [daN]	Model no.	Page
	<b>single action</b>	
800	70537-DX11	23.13-23.14
800	723E38092-1	23.17-23.18
840	70537-D1	23.13-23.14
840	70537-DG	23.13-23.14
1570	70550-D2	23.13-23.14
1570	70550-DG	23.13-23.14
1570	723E51122-1	23.17-23.18
2385	70562-D2	23.13-23.14
2385	723E63152-1	23.17-23.18

Hydraulic hollow piston cylinder/continuation



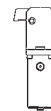
Clamping force at 100 bar [daN]	Model no.	Page
	<b>double action</b>	
860	723D38102-1	23.17-23.18
860	7411-1	23.15-23.16
1290	723D48152-1	23.17-23.18
1290	7412-1	23.15-23.16
1808	723E57242-1	23.17-23.18
1808	7413-1	23.15-23.16
2616	723E68242-1	23.17-23.18
2616	7414-1	23.15-23.16

Hydraulic retracting clamp



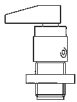
Clamping force at 100 bar [daN]	Model no.	Page
650	70622-D	24.5

Hydraulic power clamp



Clamping force at 100 bar [daN]	Model no.	Page
500	7011-5	24.6
500	7012-5	24.6

Hydraulic swivel clamping cylinder



Clamping force at 100 bar [daN]	Model no.	Page
190	726D25221-2	24.1-24.4
190	726D25222-2	24.1-24.4
340	726D32321-2	24.1-24.4
340	726D32322-2	24.1-24.4
500	726D40341-2	24.1-24.4
500	726D40342-2	24.1-24.4
190	727D25221-2	24.1-24.4
190	727D25222-2	24.1-24.4
340	727D32321-2	24.1-24.4
340	727D32322-2	24.1-24.4
500	727D40341-2	24.1-24.4
500	727D40342-2	24.1-24.4

Hydraulic hold down clamp



Clamping force at 100 bar [daN]	Model no.	Page
370	733E03701-1	24.7-24.8
370	733E03702-1	24.7-24.8

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## Description

### General information

Clamping of workpieces for machining purposes has a major effect on the product quality, the manufacturing times, the degree of machine utilisation, the operator's safety and on the production plant.

The emphasis is on secure clamping and rapid changing of the workpieces.

The clamping forces must be high enough to clamp the workpieces safely even when being exposed to varying loads.

Requirements of modern clamping equipment:

- Simple, rapid and safe handling
- Wide variety of applications, re-usable
- Easily exchangeable
- Low costs per clamping point
- High output per time unit
- High quality of the machined workpieces

The profitability and rationalisation effect essentially depend on the choice of the correct clamping equipment.

The electrical and air hydraulic power clamping system of DE-STA-CO meets these requirements and helps to solve the various problems of clamping.

### The system

The power sources, clamping elements and accessories shown in this catalogue are products which meet all the demands of modern clamping systems.

The clamping system can be connected to any pneumatic, hydraulic and electrical network.

If none of the energy sources is available, the required clamping pressure can be produced by a hydraulic hand pump (e.g. in smaller workshops and building sites).

The benefits and effects of the system remain the same, regardless of the choice of the energy source.

The clamping system operates with high pressure hydraulics; it allows to transfer high clamping forces by the use of relatively small clamping elements. This offers the advantage to use small, mobile devices. A particular advantage of this electrical and air hydraulic power clamping system is its application both in large high capacity production plants and small series production.

Furthermore, it is used in fixed cycle operation on machine tools.

The clamping elements simultaneously clamp on various and remote clamping points with only one control valve.

The clamping system's flexibility and its wide range of accessories allow to clamp even complex and irregularly shaped parts.

The clamping pressures can be repeated as often as necessary.

All system elements are supplied ex works along with international standard pipe thread connectors or NPT-thread connectors. Adaptors (supplied free of charge along with the unit) allow to connect the NPT-threads to different types of threads or screw connections.

### Assembly and Connection

Alignment, assembly and connection can be carried out easily and quickly without special tools.

The power sources, such as pressure convertors, air hydraulic pumps or electrical hydraulic pumps, are first connected to the pneumatic or electrical networks. Thereafter, they are connected to the clamping units.

It is also possible to directly connect the clamping units to an already existing hydraulic network. However, the pressure produced by the hydraulic network must never exceed the maximum operating pressure of the clamping units.

Before actuating the clamping system, it must be ventilated at its highest point. This procedure is explained in detail in the assembly instructions delivered along with the power sources.

### Information on seals

All seals are made of BUNA N.

This material is suitable for gas, air, hydraulic oil and mineral oil based liquids (water-glycol-mixtures). The material BUNA N is not suitable for hardly combustible hydraulic liquids, brake fluids, cetones and acids.

BUNA N seals are designed for maximum operating temperatures of 110 °C. For operating temperatures exceeding 110 °C, VITON seals having a maximum operating temperature of 210 °C must be used.

The seals are designed for a maximum stroke speed of  $V_{max} = 0,5 \text{ m/sec}$ .

### Approved oil

**Hydraulic oil:** HLP according to the DIN 51524 Part 2

**Viscosity range:** min. 22 mm<sup>2</sup>/s, max. 68 mm<sup>2</sup>/s

**Recommended viscosity grade:** ISO VG 32 or VG 46 DIN 51519

**Operating temperature:** 40 °C–50 °C

**Filtering:** use only filtered hydraulic oil of 25 µm absolute.

## Information concerning technical units (SI units)

### Force

In accordance with the international unit system, force is denoted in Newtons (N).

One Newton is the force which accelerates a mass of 1 kg by 1 m/s<sup>2</sup>.

$$1 \text{ N} = 1 \text{ kg m/s}^2$$

In this catalogue, force is expressed in daN

$$1 \text{ daN} = 10 \text{ N} (= 1,02 \text{ kp})$$

$$1 \text{ kN} = 1000 \text{ N}$$

### Pressure

The unit of pressure in the SI system is the Pascal (Pa).

Pressure is still stated in this catalogue in bar.

$$1 \text{ bar} = 10^5 \text{ Pa}$$

$$1 \text{ bar} = 10 \text{ N/cm}^2 (= 1,02 \text{ kp/cm}^2)$$

### Connection example

Single action hydraulic clamp connected to an air-hydraulic pump

Accessories p. 25.6-25.14

