





## HFA-TOOLS TOOLS FOR THE SPECIALIST

**HYDRAULIC** 



**ATEX** 



## SYSTEM CONCEPT



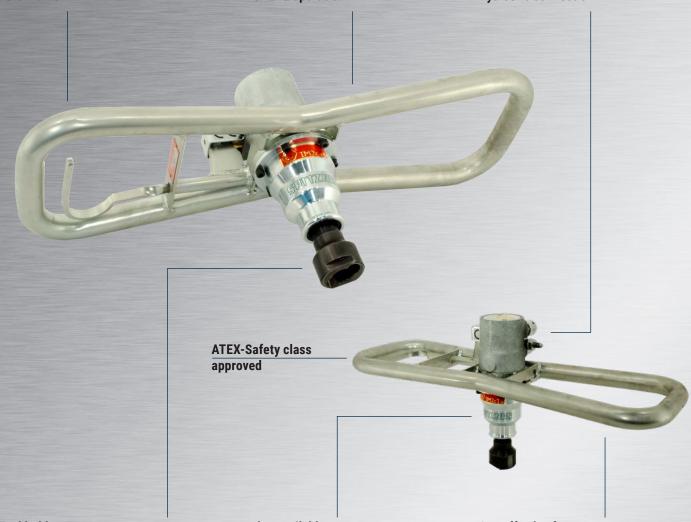
Lever valve



Two hand operation



**Hydraulic connection** 



**Tool holder** 



...also available with impact mechanism



Cut-off valve for limitation of the torque



### TWO HAND OPERATION DRILL

The hydraulic two hand operation **drill** powered by HFA-Emulsion (min. 0,3%) for **closed circuit**, usable for underground coal mining.

Other tool holders possible on request.



|                 |  |                | HFA-<br>EMULSION | 0,3%   | OPERAT<br>PRESSU |             | ATEX               | ( <u>x</u> 3)   |        |
|-----------------|--|----------------|------------------|--------|------------------|-------------|--------------------|---|--------|
| ORDER NO.       | Ex ATEX Specification  | Tool<br>holder | Speed<br>(free)  | Torque | Volume<br>flow   | Connection  | Noise<br>level LpA | Vibration level at<br>middle hard concrete/<br>calcium silicate brick | Weight |
|                 |  |                | rpm              | Nm     | l/min            |             | dB(A)              | m/s²  | kg     |
| 2 3053 0010     | IM2ExhIMbT6  | PN-93/G-57000  | 850              | 95     | 28.0             | STECKO-8/10 | 85.2               | 15.8 / 3.4  | 6.8    |
| Subject to tech | Subject to technical change. Performance data at an operating pressure of 250 bar. |                |                  |        |                  |             |                    | f 250 bar.  |        |

### TWO HAND OPERATION DRILL

The hydraulic two hand operation **impact drill** powered by HFA-Emulsion (min. 0,3%) for **closed circuit**, usable for underground coal mining.

Other tool holders possible on request.



|  |                       |                | HFA-<br>EMULSION | 0,3%              | OPERATIN<br>PRESSURE |                | ATEX        | <b>€x</b>          |                    |        |
|--|-----------------------|----------------|------------------|-------------------|----------------------|----------------|-------------|--------------------|--------------------|--------|
| ORDER NO.  | Ex ATEX Specification | Tool<br>holder | Speed<br>(free)  | Number of impacts | Torque               | Volume<br>flow | Connection  | Noise<br>level LpA | Vibration<br>level | Weight |
|  |                       |                | rpm              | rpm               | Nm                   | l/min          |             | dB(A)              | m/s²               | kg     |
| 2 3054 0010  | IM2ExhIMbT6           | PN-93/G-57000  | 850              | 8,500             | 95                   | 28.0           | STECKO-8/10 | 84.0               | 8.4                | 9.5    |
| Subject to technical change. Performance data at an operating pressure of 250 bar. |                       |                |                  |                   |                      |                |             |                    | 250 bar.           |        |

## TECHNICAL DATA

## SYSTEM CONCEPT



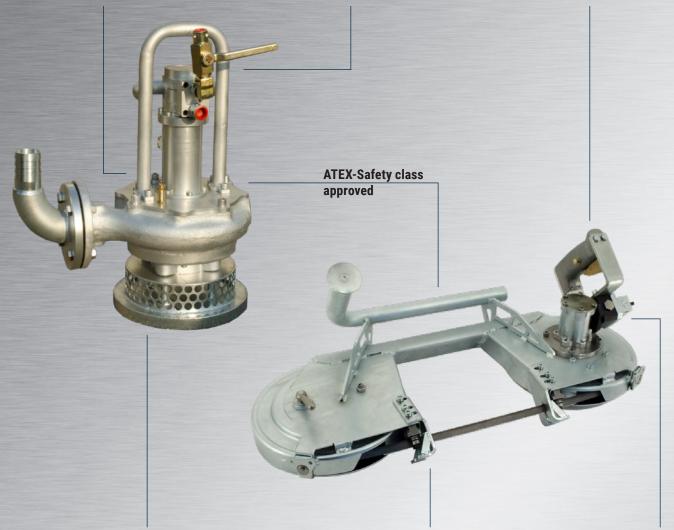
**Ventilation valve** 



Hydraulic connection and ball valve



Handle with operating valve



**Suction grid** 



Saw blade guidance



**Hydraulic connection** 



### **SUMP PUMP**

The hydraulic **sump pump** powered by HFA-Emulsion for **closed circuit** is characterized by its high pumping head.

The pump is designed for relatively clean fluids, e.g. water and cooling agents (no grinding liquids) up to a particle size of dia. 15 mm and a minimum immersion depth of 240 mm.

The pump can be immerged fully into the medium to be pumped and can be used as well in potentially explosive areas (underground coal mining).



|                 |   |  | HFA-<br>EMULSI          | ON 0,3%                      | OPERAT<br>PRESSI |        | 280<br>Bar | ATEX  | ⟨ <b>£</b> x⟩ | UNDERWAT<br>OPERATION | $\sim$ |
|-----------------|---|--|-------------------------|------------------------------|------------------|--------|------------|-------|---------------|-----------------------|--------|
| ORDER NO.       | Ex ATEX Specification   | Pumping<br>capacity at a<br>height of 10 m | Max.<br>pumping<br>head | Delivery outlet              | Volume<br>flow   | Height | Length     | Width | Connection    | Noise<br>level LpA    | Weight |
|                 |   | m³/h                                       | m                       | mm                           | l/min            | mm     | mm         | mm    |               | dB(A)                 | kg     |
| 7 1105 0010     | IM2ExhIMbT3   | 50   | 35                      | DN50-PN10/<br>nozzle dia. 52 | 26               | 565    | 290        | 495   | STECKO-10     | 101.0                 | 50.0   |
| Subject to tech | Subject to technical change. Performance data at an operating pressure of 280 bar |  |                         |                              |                  |        |            |       | 280 bar.      |                       |        |

### **BAND SAW**

The compact **band saw** powered by HFA-Emulsion for **closed circuit**, as well usable in potentially explosive areas (underground coal mining).



|  |                       |       | HF.            | A-<br>ULSION 0,3%       | OPERATING 2 PRESSURE  | 00-300<br>Bar ATE | x (Ex)             |                    |        |
|--|-----------------------|-------|----------------|-------------------------|-----------------------|-------------------|--------------------|--------------------|--------|
| ORDER NO.  | Ex ATEX Specification | Power | Volume<br>flow | Cutting capacity max. Ø | Cutting capacity max. | Connection        | Noise<br>level LpA | Vibration<br>level | Weight |
|  |                       | kW    | l/min          | mm                      | mm                    |                   | dB(A)              | m/s²               | kg     |
| 5 6085 0010  | IM2ExhIMbT6           | 1.0   | 13             | 160                     | 180x120<br>(200x50)   | STECKO-10         | 80.0               | <2.5               | 13.8   |
| Subject to technical change. Performance data at an operating pressure of 200 bar. |                       |       |                |                         |                       |                   |                    |                    |        |

### TECHNICAL DATA

# SYSTEM CONCEPT



**Square drive** 



**Hydraulic motor** 



Handle with operating valve



ATEX-Safety class approved





Torque adjustable



**Hydraulic connection** 



### **IMPACT WRENCH**

The hydraulic **impact wrench** with **3/4**" square drive powered by HFA-Emulsion (min. 0,3%) for **closed circuit**, usable as well for underground coal mining.



|  |                       |                 | HFA<br>EMU       | -<br>ULSION 0,3%                | OPERAT<br>PRESSU | ING 220-330<br>RE Bar               | ATEX          | <b>€x</b>          |                    |            |
|--|-----------------------|-----------------|------------------|---------------------------------|------------------|-------------------------------------|---------------|--------------------|--------------------|------------|
| ORDER NO.                                    | Ex ATEX Specification | Square<br>drive | For screws up to | Max.<br>torque*<br>(adjustable) | Volume<br>flow   | Distance<br>center to<br>outer edge | Connection    | Noise<br>level LpA | Vibration<br>level | Weight     |
|  |                       |                 | mm               | Nm                              | l/min            | mm                                  |               | dB(A)              | m/s²               | kg         |
| 6 1516 0010                                  | IM2ExhIMbT5           | 3/4"            | M30              | 350-1,700                       | 12.0             | 52.5                                | STECKO-10     | 94.5               | 10.9               | 7.4        |
| Subject to technical change. *applying on se |                       |                 |                  | trength class 8.8               |                  | Performa                            | nce data at a | in operating       | pressure of        | f 220 bar. |

### **IMPACT WRENCH**

The hydraulic **impact wrench** with **1"** square drive powered by HFA-Emulsion (min. 0,3%) for **closed circuit**, usable as well for underground coal mining.



|  |                       |                 | HFA<br>EMU       | -<br>ILSION 0,3%                | OPERAT<br>PRESSU | ING 220-330<br>RE Bar         | ATEX           | ⟨£x⟩               |                    |            |
|--|-----------------------|-----------------|------------------|---------------------------------|------------------|-------------------------------|----------------|--------------------|--------------------|------------|
| ORDER NO.                                    | Ex ATEX Specification | Square<br>drive | For screws up to | Max.<br>torque*<br>(adjustable) | Volume<br>flow   | Distance center to outer edge | Connection     | Noise<br>level LpA | Vibration<br>level | Weight     |
|  |                       |                 | mm               | Nm                              | l/min            | mm                            |                | dB(A)              | m/s²               | kg         |
| 6 1517 0010                                  | IM2ExhIMbT5           | 1"              | M39              | 550-3,400                       | 12.0             | 52.5                          | STECKO-10      | 102.0              | 14.0               | 9.3        |
| Subject to technical change. *applying on so |                       |                 | g on screw st    | trength class 8.8               |                  | Performa                      | ance data at a | n operating        | pressure of        | f 220 bar. |

## TECHNICAL DATA

### SYSTEM ACCESSORIES

### **HFA-EMULSIONS**

HFA-fluids are safety hydraulic fluids from the group of oil-water emulsions with a water content of more than 80%. They can be used for temperatures from  $+5^{\circ}$ C to  $+55^{\circ}$ C.

HFA fluids are hydraulic fluids that combine the excellent fire protection properties of water with the lubrication and corrosion protection of an additive concentrate.

The hydraulic equipment that is operated with HFA must be suitable for low-viscosity liquids. Due to the very low viscosity, high leakage losses can occur.

HFA-concentrates increase seal life, prevent corrosion in components and piping, and control bacterial and fungal growth in equipment.

#### **SYSTEM-REQUIREMENTS**

| Hydraulic fluid      | : HFA-Emulsion with min 0.3 % oil content |
|----------------------|---|
| Filtration           | : Purity degree 100 µm                    |
| Fluid circulation    | : closed circuit                          |
| Retain line pressure | : max. 17 bar                             |
| Temperature of oil   | : 5°C to 50°C                             |
| Viscosity            | : approx. 1 centistokes                   |
| ISO-level of purity  | : 20/18/13                                |
|                      |   |

<sup>\*</sup> Closed circuit means that the operating pressure is connected to P-connection of the tool. By actuating the valve the medium will be guided to the T-connection of the tool (tank line). Other tools can be connected in parallel to the pressure supply (P-connection) of the system.

#### BEFORE CONNECTING THE TOOL

#### Please check:

- the type of circulation type (open or closed circuit) of the system/tool first
- that the max. operating pressure can not be exceeded
- that all hose connections are cleaned before connecting them to the tool
- that there is no indication of leakage
- that the tool is clean and dry
- that all assemblings and mountings are firmly fixed and tight

