### Process: Production of stone blocks and gravel



Large hole-drilling machine



Block cutting unit

## The Task

The winning of stone blocks and the production of gravel various blast holes have to be drilled into the rock. This is done with rock drilling equipment such as vertical hammers, deep-hole hammers, rotary drilling machines, etc.

For the safety of both man and machine the highly abrasive and heavily quartz-laden dust emitted from the holes has to be intercepted and disposed. The abrasive characteristic of the dusts puts enormous impact on the filter media. If there also water veins are hit during the drilling process, textile filter media may be damaged irreparable. The resulting need to replace filter media at frequent intervals leads to unacceptable production downtimes and high costs of repair.

Trouble-free operations can therefore only be achieved with a rugged, low-wearing filter media with a constant extraction air rate - such as that offered by the Herding® sintered plate filter.

#### **■ The Solution**

# Herding<sup>®</sup> sintered plate filters for stone winning and processing

- Compact and rigid body with a life expectancy of 10 years or more allows for trouble-free operation
- ⇒ No wear on the filter elements from abrasive rock dust
- Constant extraction air rates due to online cleaning of the filter elements during extraction
- ⇒ Possibility of dust-free disposal of the extracted dust by sealable plastic sacks
- Comfortable operation due to automatic controls

# Production of stone blocks and gravel

## Tables of filter types for drilling machines

|                 |                                  | <u> </u> |          |             |                                  |          |          |        |  |
|-----------------|----------------------------------|----------|----------|-------------|----------------------------------|----------|----------|--------|--|
| HYDRAULIC MOTOR |                                  |          |          |             |                                  |          |          |        |  |
|                 | Compressor pressure up to 10 bar |          |          |             | Compressor pressure up to 25 bar |          |          |        |  |
| Purging         | Filter type                      | Oil      | Oil      | Filter area | Filter type                      | Oil      | Oil      | Filter |  |
| air rate        |                                  | quantity | pressure |             |                                  | quantity | pressure | area   |  |
| Nm³/min         |                                  | l/min    | bar      | m²          |                                  | l/min    | bar      | m²     |  |
| 4               | Hy-A-10/S                        | 25       | 180      | 7.1         | Hy-A-16/S                        | 25       | 205      | 7.1    |  |
| 8               | Hy-A-25/S                        | 25       | 190      | 15.5        | Hy-A-25/S                        | 25       | 205      | 15.5   |  |
| 11              | Hy-A-25/S                        | 25       | 205      | 15.5        | Hy-A-30/S                        | 85       | 85       | 16.6   |  |
| 14              | Hy-A-30/J                        | 85       | 70       | 16.6        | Hy-A-40/J                        | 85       | 90       | 36.0   |  |
| 18              | Hy-A-40/J                        | 85       | 85       | 36.0        | Hy-A-50/J                        | 85       | 95       | 36.0   |  |
| 25              | Hy-A-50/J                        | 85       | 90       | 36.0        | Hy-A-60/J                        | 85       | 105      | 46.4   |  |
| 30              | Hy-A-60/J                        | 85       | 90       | 46.4        | Hy-A-80/J                        | 85       | 110      | 46.4   |  |
| 35              | Hy-A-80/J                        | 77       | 105      | 61.0        | Hy-A-100/J                       | 77       | 115      | 61.0   |  |

| COMPRESSED AIR INJECTOR          |  |  |   |  |  |  |  |  |  |
|----------------------------------|--|--|---|--|--|--|--|--|--|
| Compressor pressure up to 10 bar |  |  | Compressed pressure up to 25 bar  |  |  |  |  |  |  |
| Filter type                      | Compressed<br>air<br>consumption<br>m³/min | Filter area<br>m²  | Filter type   | Compressed<br>air<br>consumption<br>m³/min   | Filter area<br>m²  |  |  |  |  |
| IN-A-10/S                        | 2.2  | 7.1  | IN-A-15/S   | 4.6  | 7.1  |  |  |  |  |
|                                  | Compresso<br>Filter type                   | Compressor pressure up  Filter type Compressed air consumption m³/min  IN-A-10/S 2.2 | Compressor pressure up to 10 bar  Filter type Compressed air consumption m³/min m²  IN-A-10/S 2.2 7.1 | Compressor pressure up to 10 bar  Filter type  Compressed air consumption m³/min m²  IN-A-10/S 2.2 7.1 IN-A-15/S | Compressor pressure up to 10 bar  Compressed pressure up to 10 bar  Filter type  Compressed air consumption m³/min  IN-A-10/S  Compressed Filter area Filter type  Compressed air consumption m³/min  IN-A-15/S  A.6 |  |  |  |  |

| ELECTRIC MOTOR  Also available as special versions on request |             |                      |                   |                                  |                      |                   |  |  |
|---|-------------|----------------------|-------------------|----------------------------------|----------------------|-------------------|--|--|
|   | Compres     | sor pressure u       |                   | Compressor pressure up to 25 bar |                      |                   |  |  |
| Purging<br>air rate<br>Nm³/min                                | Filter type | Power requirement KW | Filter area<br>m² | Filter type                      | Power requirement KW | Filter area<br>m² |  |  |
| 4   | EL-A-10/S   | 5.5                  | 7.1               | On request                       |                      |                   |  |  |
| 8   | EL-A-16/S   | 5.5                  | 7.1               | On request                       |                      |                   |  |  |
| 11  | EL-A-25/J   | 7.5                  | 15.5              | On request                       |                      |                   |  |  |
| 14  | EL-A-30/J   | 11.0                 | 16.6              | On request                       |                      |                   |  |  |

The values shown in these tables are for equipment fitted with standard components.

Other versions with special components are available on request.

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