

DR. FRITSCH

SONDERMASCHINEN

Volumetric Cold Press

KPV 218

with DiaSet V2



Dr. Fritsch Sondermaschinen GmbH, 70736 Fellbach, Germany

Technical Specification

KPV 218 with DiaSet V2

Fully-automatic press for the production of

- one- / multi-layer segments with / without diamond-free backing
- one- / multi-layer segments with exactly positioned diamonds

TECHNICAL FEATURES

KPV 218

- high production output (e.g. 15 one-layer segments with diamond-free backing per minute or 7 sandwich segments with / without diamond-free backing per minute)
- optimized production of segments with diamond-free backing due to powder feeding by means of a divided filling shoe making a radius movement
- constant segment weight due to self optimizing positioning adjustment of the lower punch
- quick change-over times
- intuitive handling via "Touchscreen-Panel"
- eject function for segments out of set tolerances
- production of wire saw beads and segment rings possible - OPTIONAL
- magazinging device SMV 218 for the cold pressed segments - OPTIONAL
- integrated production control and documentation (connection to in-house network possible) - OPTIONAL

DiaSet V2

Productivity:

- 1 cavity horizontal pressing, 7/7 layers (diamond/powder) ► approx. 70 sec. / segment
- depending on segment and segment geometries multi cavity is possible (patterns of hole perforation plates dimensions x= 52mm; y= 48 mm)
- 2 different kinds of diamond setting (patterns of hole perforation plates)
- segments are built up fully automatic layer by layer

- number and thickness of each layer can be chosen individually
- diamond feeding for one type of diamond
(30/40 mesh up to 50/60 mesh)
- combination of layers with positioned diamonds and traditional powder-diamond-mixtures possible
- individual diamond positioning
 - Y – Axis adjustable via software; X – Axis manual adjustable
 - X – Axis: 2 positions to be driven pneumatically -OPTIONAL
- diamond feeding for 2 different types of diamond - OPTIONAL
- active suction - OPTIONAL
- conveyor belt for segments - 500 mm length (not in connection with SMV 218) - OPTIONAL

FUNCTIONING

KPV 218

The granulated powder is filled into the 4 powder containers. Two transport units place the granulates over the die and fill it volumetrically.

Afterwards the pressing procedure takes place. Depending on the selected program, one- or multi-layer segments are pressed. Then the segment is discharged by the lower pressing cylinder and is pushed out of the machine.

At that point, it is possible to stack the segments in a magazine (option).

DiaSet V2

A hole perforation plate sucks the diamonds and transport them to the cold press.

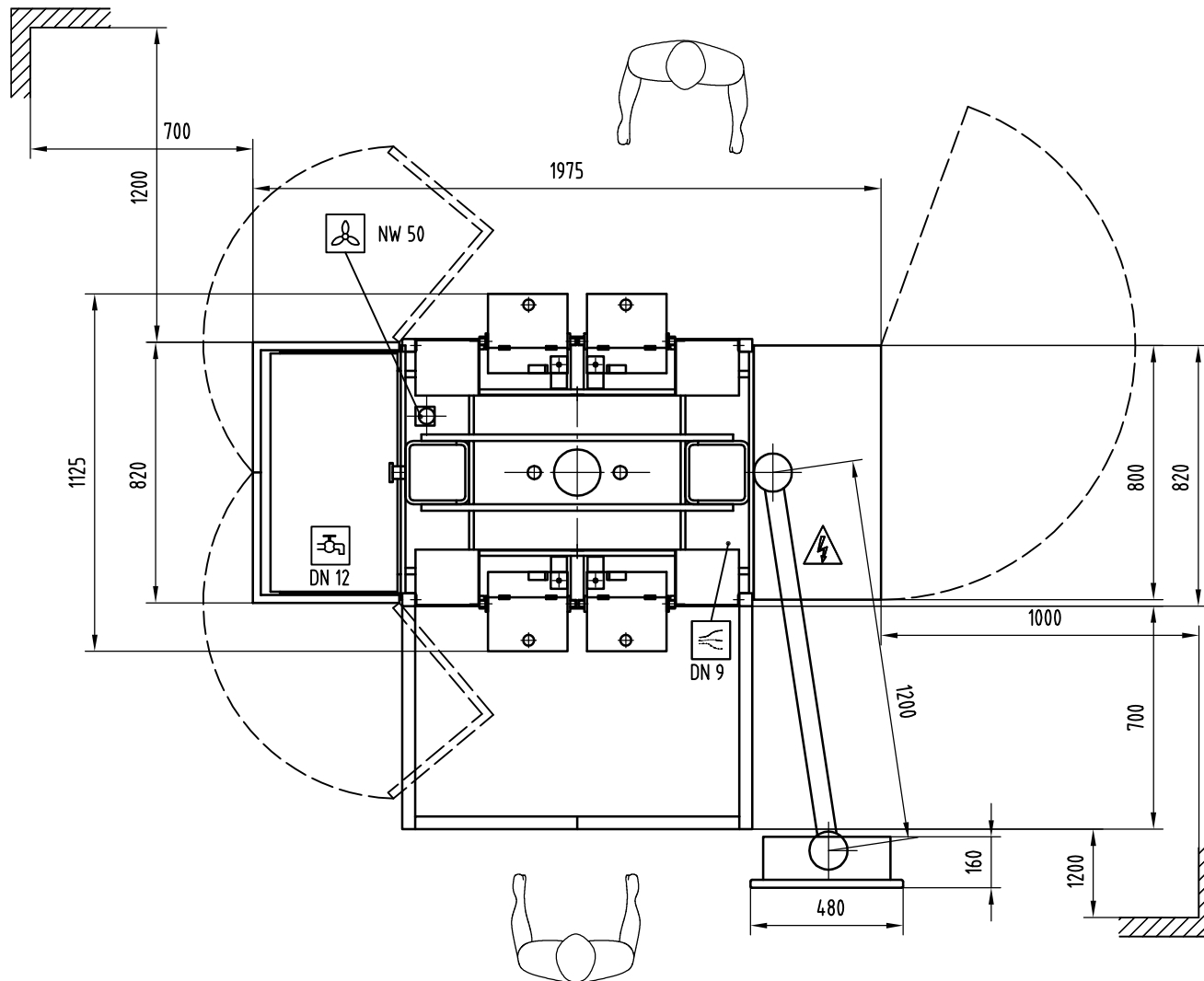
Diamond and powder are pressed in alternate layers (up to 27 layers).

Individual grit size of diamonds can be used. Based on a patented cleaning system the DiaSet Technology ensures that only one diamond is placed on exactly the position defined.

TECHNICAL DATA

Total electric power:	13 kVA
Supply voltage:	3 x 400V, 50/60 Hz Other voltages are possible upon request
Total connected load:	3 x 19 A
Fuse protection (provide by customer):	3 x 32 A
Cooling water:	
- pressure:	3 – 6 bar
- consumption:	approx. 20 l/min
- temperature:	15 – 25° C
- connection:	1/2" or nominal width 12
Compressed air:	
- consumption:	approx. 40 l/min
- pressure:	4 – 8 bar
- connection:	1/8" or nominal width 9
Suction:	optional
Force of pressure:	
- minimum:	approx. 18 kN
- maximum:	approx. 180 kN
Powder supply:	
- number of containers:	4 pieces
- powder capacity/container	15 l
Volumetric weighing:	
- filling height accuracy:	+ 0,01 mm
- filling height max:	55 mm
- numbers of fills:	27
- segments types:	single, sandwich, segments with / without diamond-free backing, segments with set diamonds
Control unit:	Industrial PC with touch display
Dimensions of machine (LxDxH): (with DiaSet V2)	approx. 2,550 mm x 1,900 mm x 2,430 mm
Weight:	approx. 2,500 kg

- Subject to modifications of technical data and design -



Bodenfreiheit (ground clearance) 120 mm
 max. Maschinenhöhe (max. machine height) 2430 mm
 erforderliche Raumhöhe (ground clearance) 2650 mm

Symbol	Bedeutung (meaning)	Symbol	Bedeutung (meaning)			AUFSTELLPLAN layout plan	
	Elektrik (electricity)		Gas (gas)	22.3 cm	0:VZA3\ Z17720 Datum Name 15.04.2010 FUNK		
	Pneumatik (pneumatic)		Wand (wall)		Bearb. 15.04.2010 FUNK Gepr. Norm		
	Kuehlwasser (cooling water)		Arbeiter (operator)			Maschinen Typ : KPV 218 - DIASET machine type :	
	Absaugung (suction)					Zeichnungs Nr.: 2L APL 003 01	

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