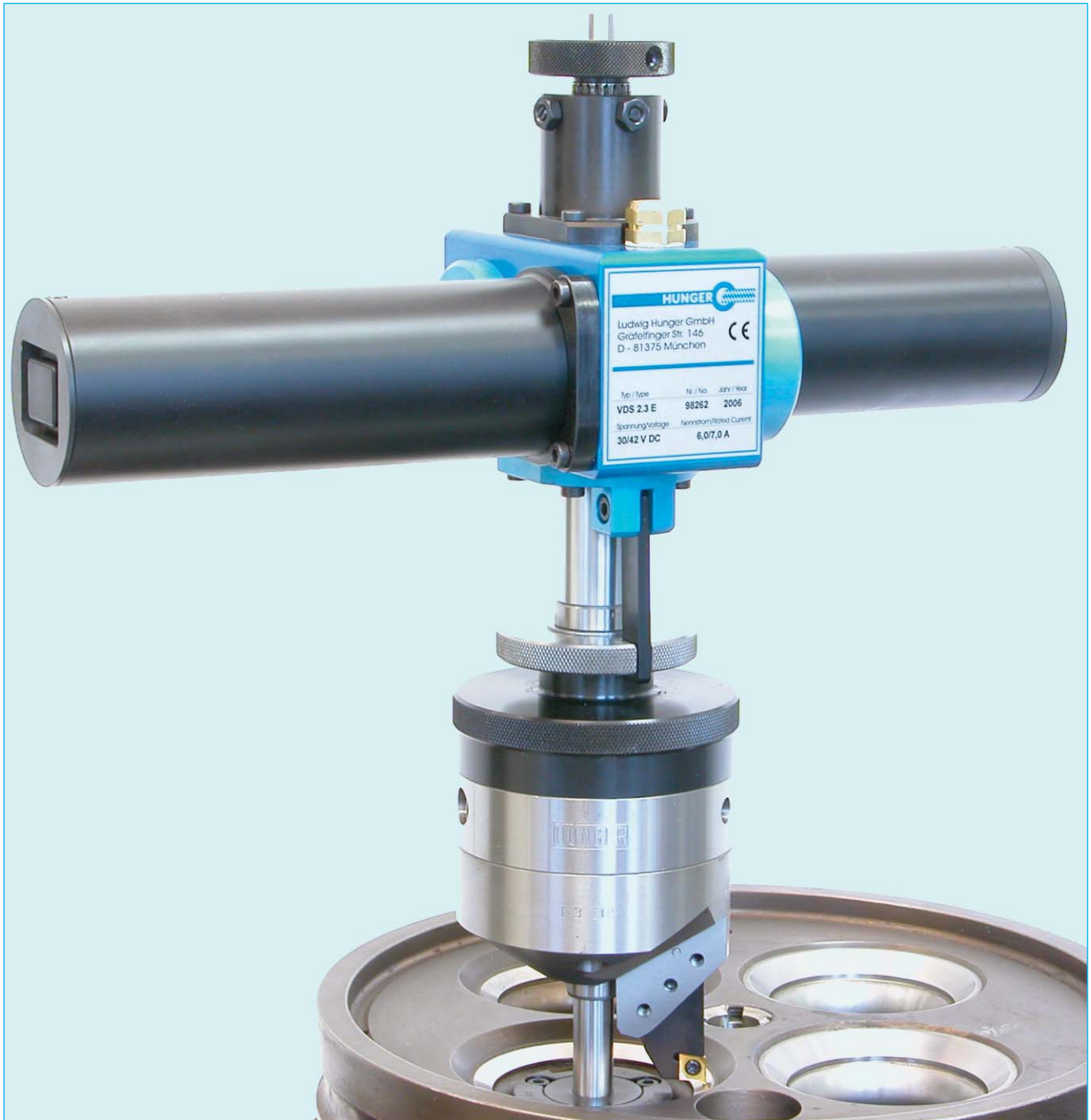
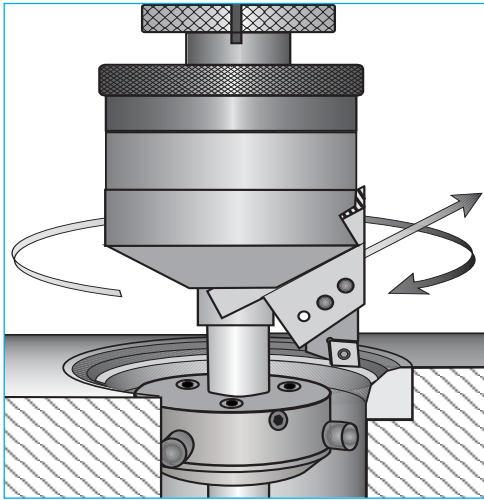
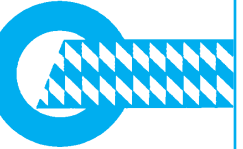


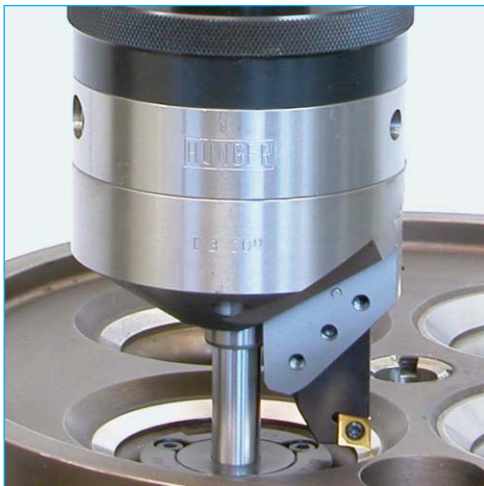
**Valve Seat Refacing Machine  
for Valve Seat Diameter Range 35 - 110 mm**



- Compact and handy design.
- Powered by protective extra low voltage to avoid risk of electrical hazard.
- Easy to use.
- Fast setup.
- No abrasive dust.
- A fast clean cut.
- A precise seat angle time and again.
- Successfully tested and specified by leading engine manufacturers.



**Working Principle**



**Exchangeable Refacing Head**

## HANDLING

### Setup is fast and easy.

First, insert the pilot fitted with the supporting spider into the valve guide.

Then, place the machine on the pilot and position the cutting tool in front of the inner edge of the valve seat .

Select the depth of cut by tuning micro-meter downfeed.

One graduation of the downfeed scale correspond to 0,025 mm downfeed.

Connect the the output cable of the separate power supply unit to the machine and the input cable to the mains.

### Refacing is automatic.

Pressing one button is enough to start the refacing pass.

Two or three passes will restore the valve seat to the original condition.

## WORKING PRINCIPLE

The valve seat is refaced to the preset depth by the simultaneous application of both a rotary and a transverse feed motion to the cutting tool fitted with an indexable cutting insert.

While the cutting insert rotates in a circle around the valve seat, a feed gear mechanism ensures a continuous outward transverse feed motion under the proper seat angle.

This angle is defined by an inclined slideway provided for the tool slide in the seat refacing head.

The seat refacing head with the built-in slideway for cutting tool travel is exchangeable mounted to the feed gear unit to ensure a precise seat angle eliminating faulty setting operations.

The VDS2.3E is aligned and guided by a pilot which is locked in the valve guide bore and stabilized by a supporting spider just below the valve seat.

The lathe-type refacing action provides a flawless concentric seating surface texture for a perfect valve seal.

Roundness, concentricity and surface finish of the refaced valve seat are within manufacturers' specifications or even better.

## SPECIAL FEATURES

The machine is fitted with two drive motors resulting in a smooth cutting action.

Powered by SELV (Safety Extra Low Voltage) to avoid risk of electrical hazard.

In addition to the valve seat refacing heads for the popular valve seat angles, a face turning head is available for machining the top surface of the valve seat ring.

## SPECIFICATIONS

### Capacities

Seat diameter range	35 - 110 mm
Seat angle range	0° - 45°

### Cutting Motions

Rotation Speed	270 and 360 rpm
Cross Feed per Revolution	0,05 mm

### Electrics

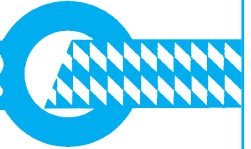
Operating voltage	max. 42 VDC
Power Supply	
Input voltage:	230±10% VAC
(1ph.50/60Hz)	or 120±10% VAC
	or 277±10% VAC
Power input	0,3 kW

### Dimensions of the Machine

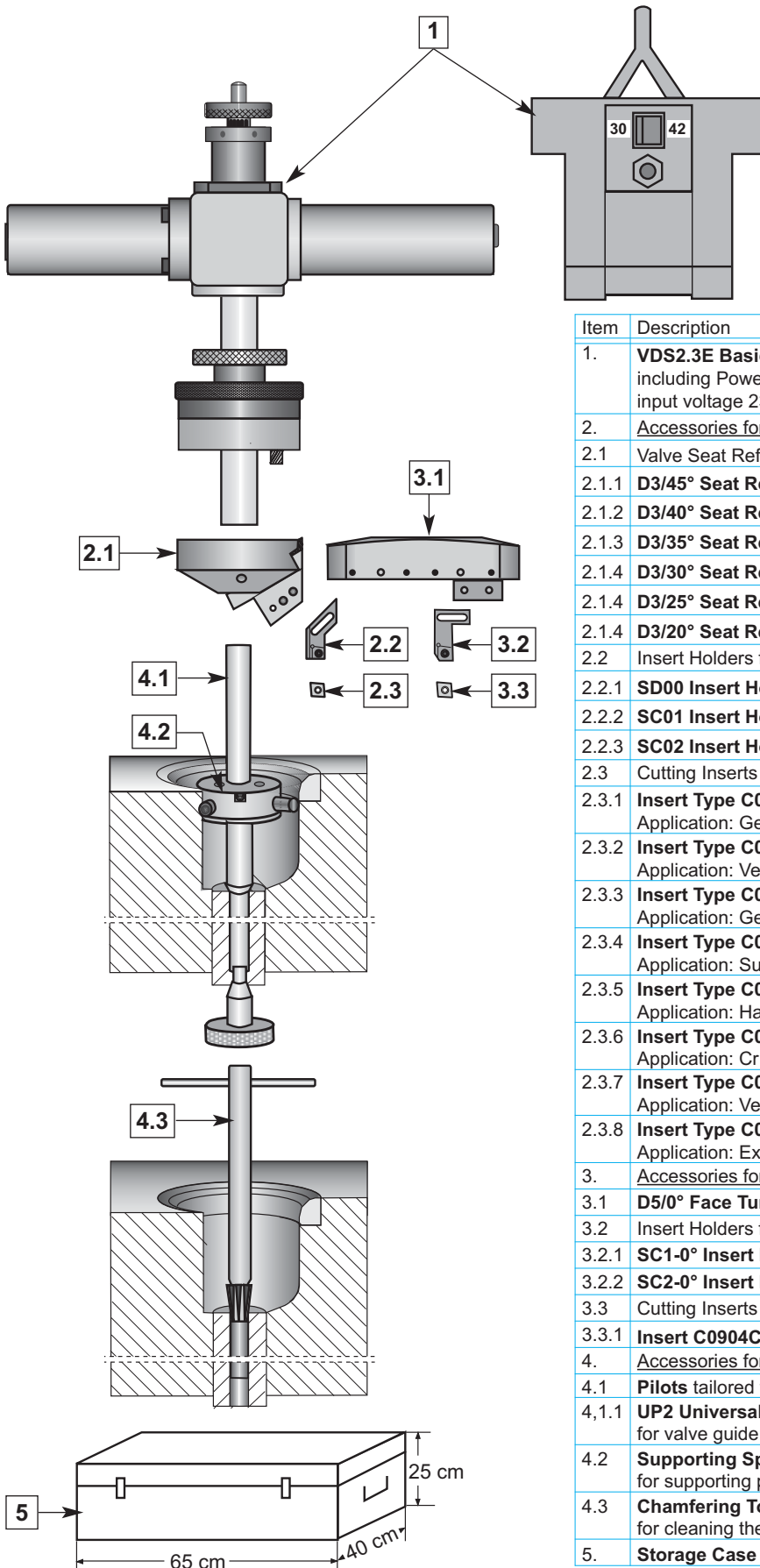
Length	410 mm
Width	125 mm
Height	360 mm

### Weight of the Machine

Net weight	approx. 9,5 kg
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The Modular Components



Item	Description	P/N
1.	<b>VDS2.3E Basic Machine</b> including Power Supply Unit wired for single-phase input voltage 230V, optional also 120V & 277V	247 05 300
2.	<u>Accessories for refacing valve seats</u>	
2.1	Valve Seat Refacing Heads	
2.1.1	<b>D3/45° Seat Refacing Head</b> for 45° seats	247 11 345
2.1.2	<b>D3/40° Seat Refacing Head</b> for 40° seats	247 16 340
2.1.3	<b>D3/35° Seat Refacing Head</b> for 35° seats	247 14 335
2.1.4	<b>D3/30° Seat Refacing Head</b> for 30° seats	247 12 330
2.1.4	<b>D3/25° Seat Refacing Head</b> for 25° seats	247 15 325
2.1.4	<b>D3/20° Seat Refacing Head</b> for 20° seats	247 17 320
2.2	Insert Holders for Refacing Valve Seats	
2.2.1	<b>SD00 Insert Holder</b> for seat diam. 60-60 mm	247 65 108
2.2.2	<b>SC01 Insert Holder</b> for seat diam. 46-120 mm	247 65 103
2.2.3	<b>SC02 Insert Holder</b> for seat diam. 65-120 mm	247 65 104
2.3	Cutting Inserts for Refacing Valve Seats	
2.3.1	<b>Insert Type C0604CB</b> for SD00 Holder Application: General purpose	862 20 021
2.3.2	<b>Insert Type C0602HB</b> for SD00 Holder Application: Very hard seats	862 20 016
2.3.3	<b>Insert Type C0908CU</b> for SC01/02 Holder Application: General purpose	862 20 007
2.3.4	<b>Insert Type C0908HU</b> for SC01/02 Holder Application: Super alloys	862 20 009
2.3.5	<b>Insert Type C0904CB</b> for SC01/02 Holder Application: Hard seats	862 20 010
2.3.6	<b>Insert Type C0904HB</b> for SC01/02 Holder Application: Cr & Ni alloys	862 20 013
2.3.7	<b>Insert Type C0904HU</b> for SC01/02 Holder Application: Very hard seats	862 20 015
2.3.8	<b>Insert Type C0904CBN</b> for SC01/02 Holder Application: Extremely hard seats	862 20 022
3.	<u>Accessories for face turning</u>	
3.1	<b>D5/0° Face Turning Head</b> for diam. 46-140mm	247 19 500
3.2	Insert Holders for face turning	
3.2.1	<b>SC1-0° Insert Holder</b> for diam. range 35-60 mm	247 65 111
3.2.2	<b>SC2-0° Insert Holder</b> for diam. range 46-120 mm	247 65 119
3.3	Cutting Inserts for Face Turning	
3.3.1	<b>Insert C0904CB</b> for cast iron	862 20 010
4.	<u>Accessories for aligning and guiding the VDS3.3E</u>	
4.1	<b>Pilots</b> tailored to the respective engine models	on request
4.1.1	<b>UP2 Universal Pilot Kit</b> for valve guide diameter range 16-27 mm	247 70 100
4.2	<b>Supporting Spiders</b> for supporting pilot shaft just below the valve seat	on request
4.3	<b>Chamfering Tools</b> for cleaning the valve guide bore	on request
5.	<b>Storage Case</b>	247 90 038