



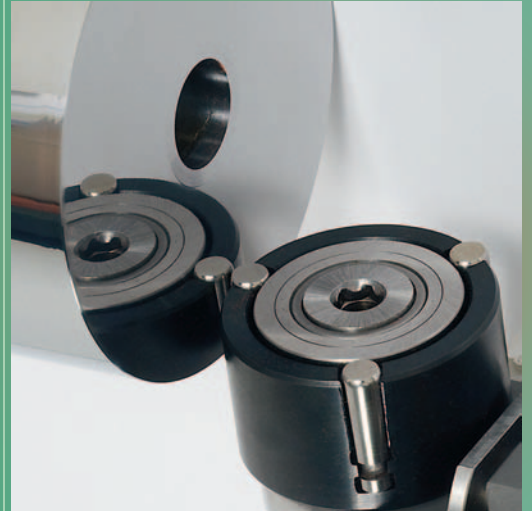
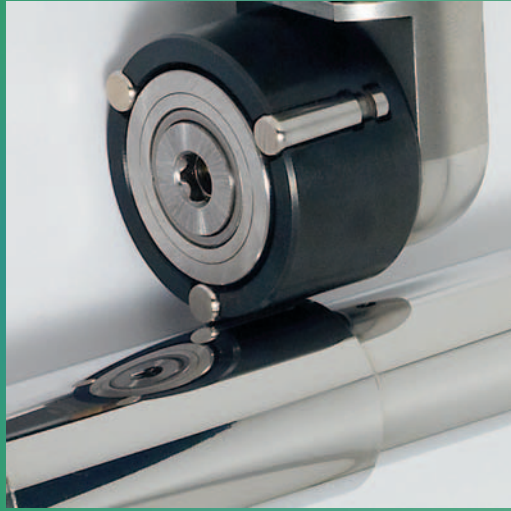
# YAMATO

MACHINE & TOOL ORGANIZATION

## SKUV<sup>®</sup>

MOST RIGID

Single Roll Burnishing Tools



### YAMATO

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### YAMATO ITALY

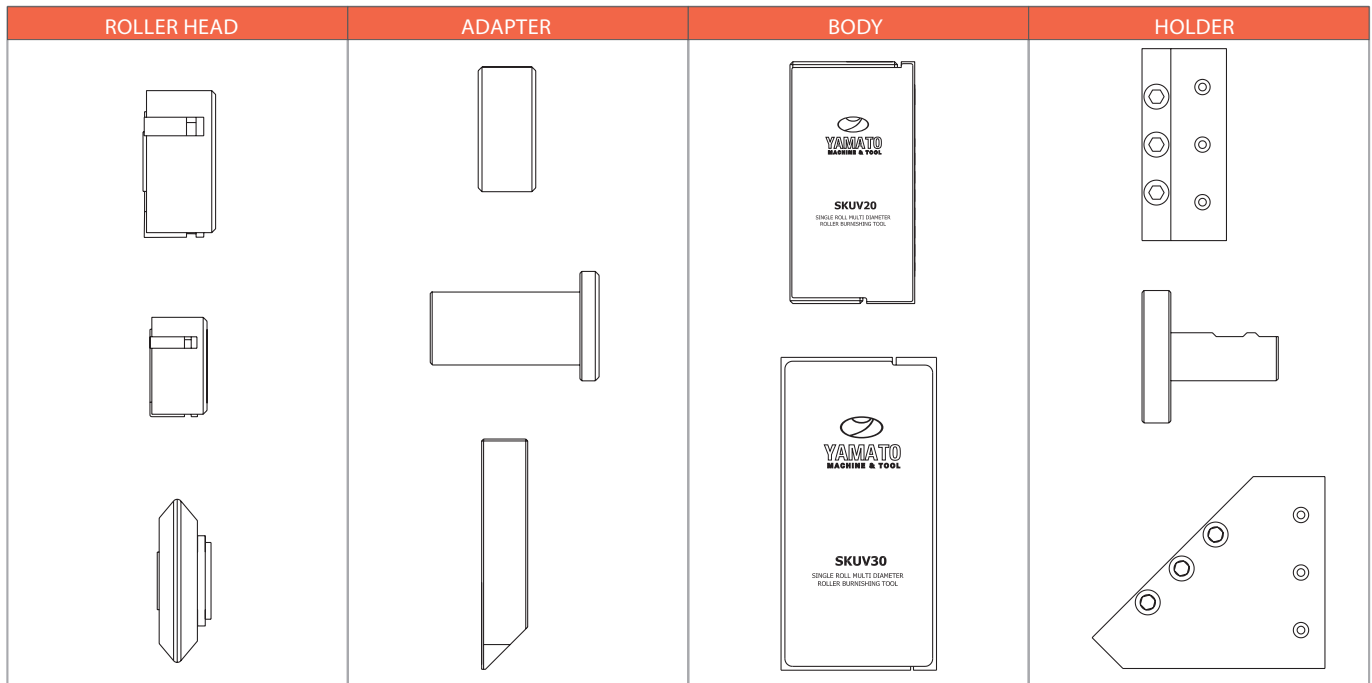
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Single Roll Burnishing Tools  
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## SINGLE ROLL BURNISHING TOOLS

- ▶ Suitable for metals (steel, aluminium, copper etc) with tensile strength up to 1400N/mm<sup>2</sup> and max. hardness of HRC45.
- ▶ Roller head is flexible, because the tool is equipped with a spring.
- ▶ For use with either CNC-controlled or conventional lathes.
- ▶ Can be used on interrupted surface. Thanks to preload system.
- ▶ Achievable surface quality min. Ra0.02 µm.
- ▶ Holes with min.Ø55 mm. and max. L100 mm. can be roller burnished.
- ▶ With special attachment, holes with min.Ø55 mm. and max. L300 mm. can be roller burnished. **FIRST AND ONLY ALL OVER THE WORLD**
- ▶ Unrestricted roller face for roller burnishing shoulders and other edges.
- ▶ Modular construction allows the SKUV body to be used in several configurations.
- ▶ SKUV® tools consist of 4 main parts.

1. Holder (Square or Weldon)
2. Body (SKUV20-SKUV30)
3. Adapter
4. Roller Head (roller-cage-support roller combination or roller disc assembly)



- ▶ Symmetrical construction allows either right or left hand operation
- ▶ Roller can rotate in either direction.
- ▶ Square shanks can be mounted for either right or left hand operation.

Workpiece Material	Speed (m./min.)	Feed (mm./rev.)	Burnishing Force (Nzz)
Carbon /Alloy Steel	50 - 150	0.05 - 1.00	500 - 2000
Stainless Steel			
Cast Iron			
Aluminium	100 - 200	0.05 - 1.00	100 - 500
Copper Alloy			

# SKUV<sup>®</sup> MOST RIGID SINGLE ROLL BURNISHING TOOLS

## SKUV20 - 03295 - 002

## With Bore Adapter

### Parts to be roller burnished

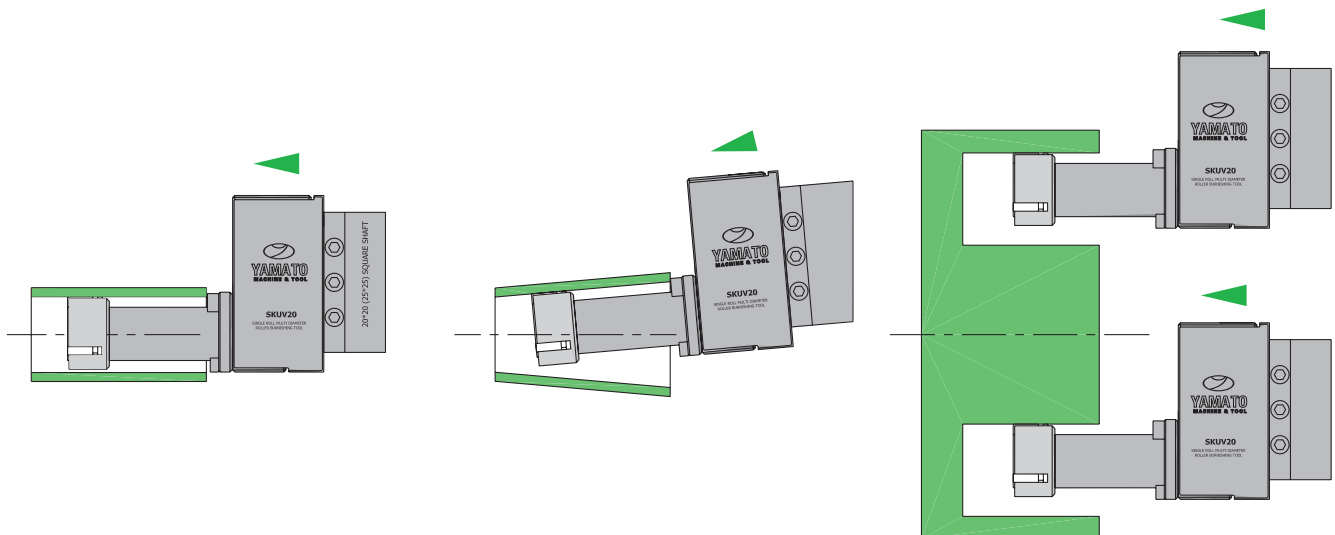
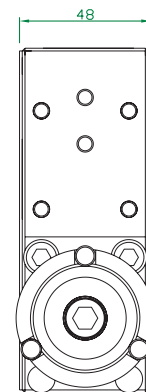
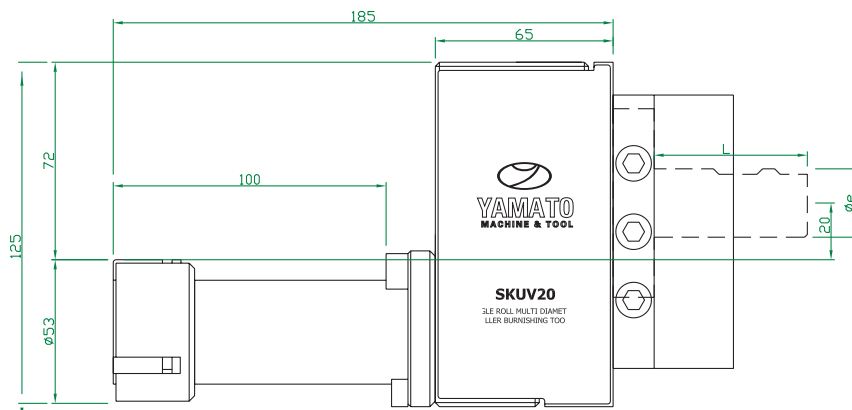
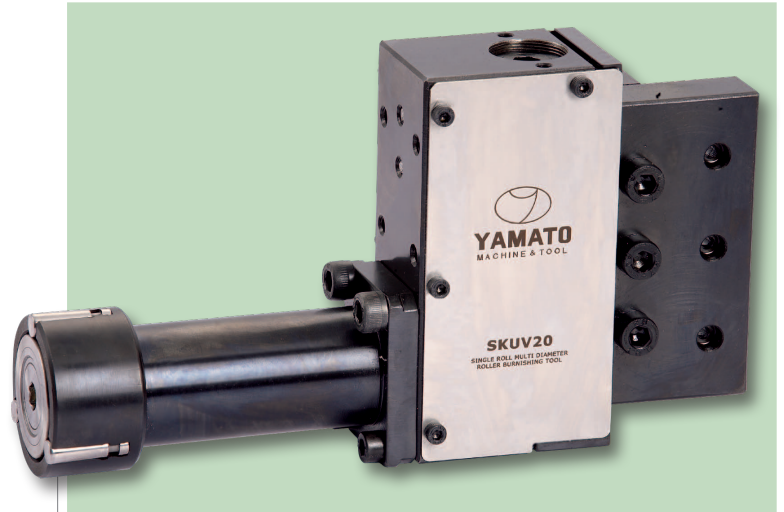
- ▶ Bore (min. Ø 55mm., L100mm.)
- ▶ Tapered Bore
- ▶ Groove Flank on the Face

### Holders available

- ▶ 20x20 – 25x25 Square
- ▶ Ø20 - Ø25 Weldon

### Features

- ▶ Compact and Rigid
- ▶ Small dimensions
- ▶ Cage contains two spare rolls.
- ▶ By only changing the adapter, applications shown on the other pages can be done.



## SKUV20 - 03295 - 003

With Long Adapter (From tailstock toward chuck)

### Parts to be roller burnished

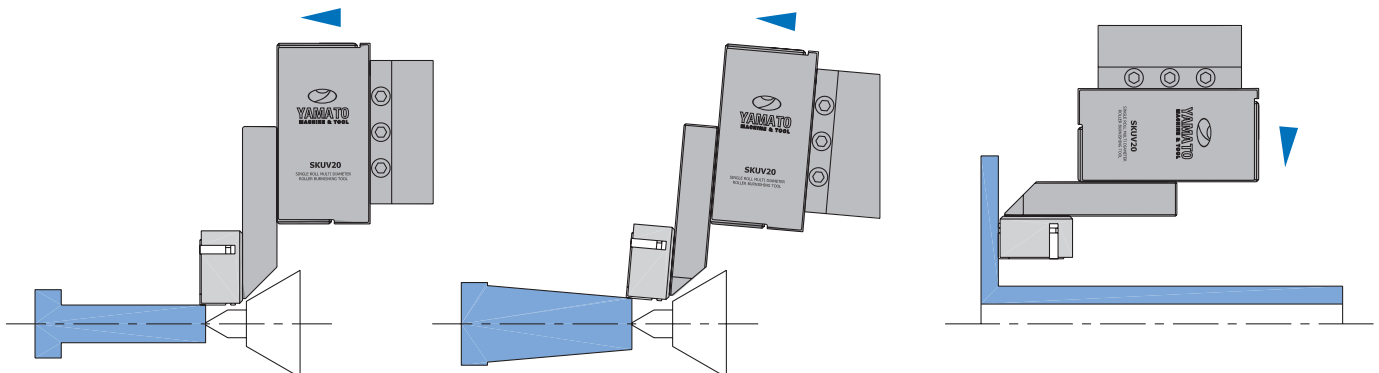
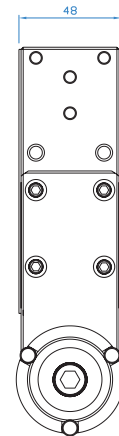
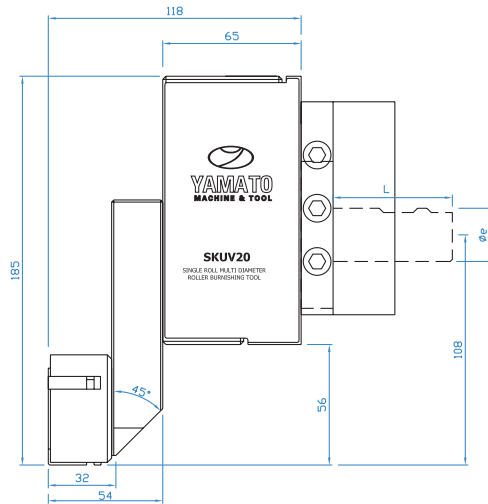
- ▶ Cylindrical external surface
- ▶ Tapered external surface
- ▶ Face

### Holders available

- ▶ 20x20 – 25x25 Square
- ▶ Ø20 - Ø25 Weldon

### Features

- ▶ Compact and Rigid
- ▶ Proper to roller burnish from tailstock toward chuck
- ▶ Cage contains two spare rolls.
- ▶ By only changing the adapter, applications shown on the other pages can be done.





**SKUV20 - 03295 - 003**

With Long Adapter (From chuck toward tailstock)

**Parts to be roller burnished**

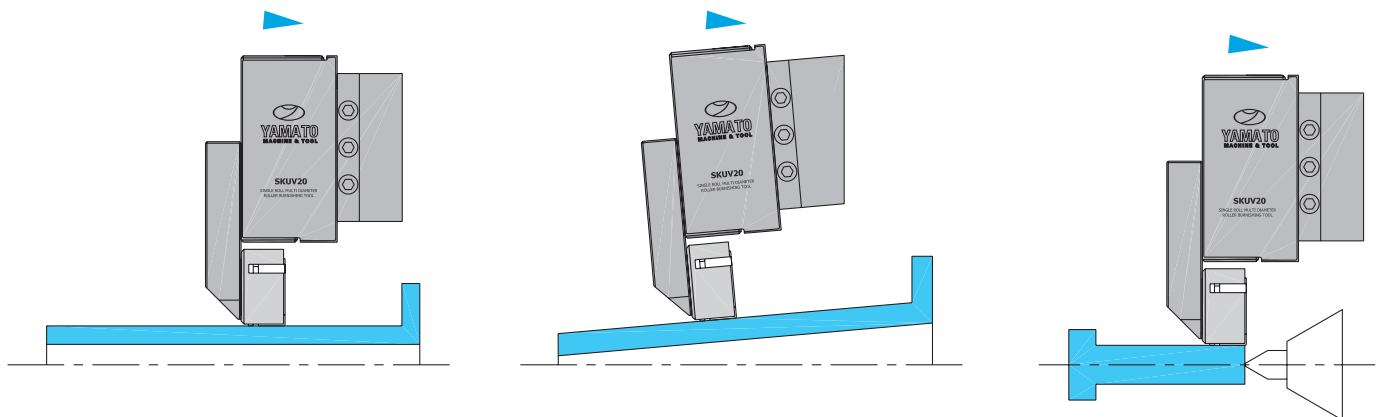
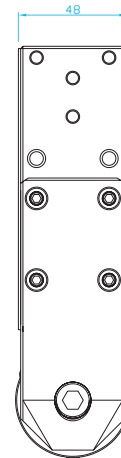
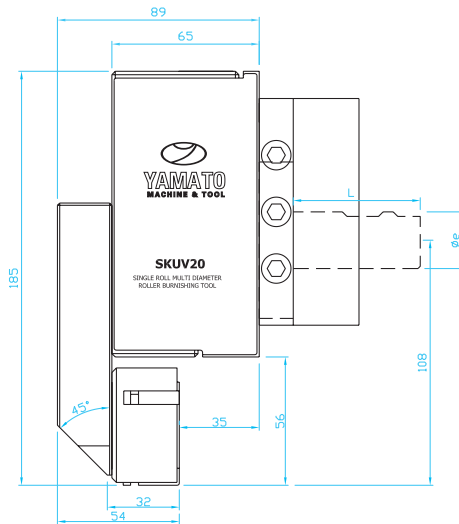
- ▶ Cylindrical external surface
- ▶ Tapered external surface
- ▶ Face

**Holders available**

- ▶ 20x20 – 25x25 Square
- ▶ Ø20 - Ø25 Weldon

**Features**

- ▶ Compact and Rigid
- ▶ Proper to roller burnish from chuck toward tailstock
- ▶ Cage contains two spare rolls.
- ▶ By only changing the adapter, applications shown on the other pages can be done.



**SKUV20 - 03295 - 001**
**With Short Adapter**
**Parts to be roller burnished**

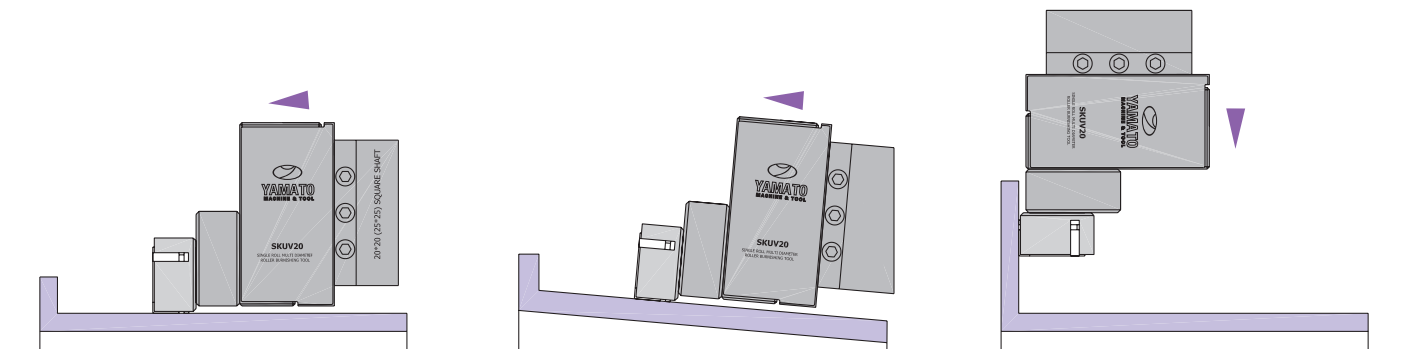
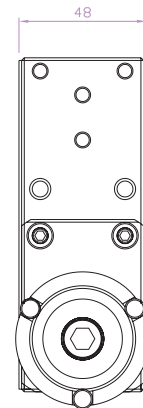
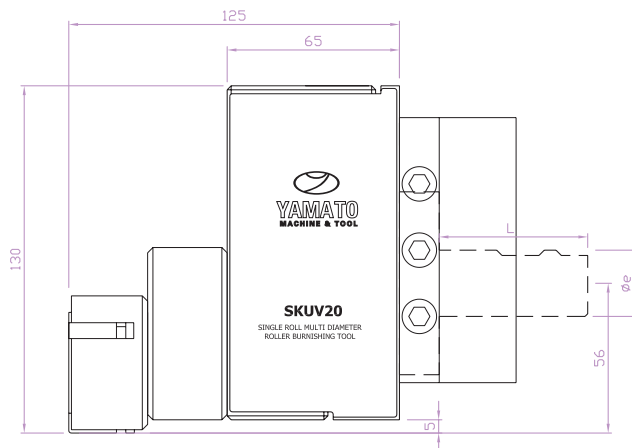
- ▶ Cylindrical external surface
- ▶ Tapered external surface
- ▶ Large Bore (min. Ø 140)
- ▶ Face

**Holders available**

- ▶ 20x20 – 25x25 Square
- ▶ Ø20 - Ø25 Weldon

**Features**

- ▶ Compact and Rigid
- ▶ Small dimensions
- ▶ Cage contains two spare rolls.
- ▶ By only changing the adapter, applications shown on the other pages can be done.



**SKUV20 - 01310 - 001**
**With Standard Adapter**
**Parts to be roller burnished**

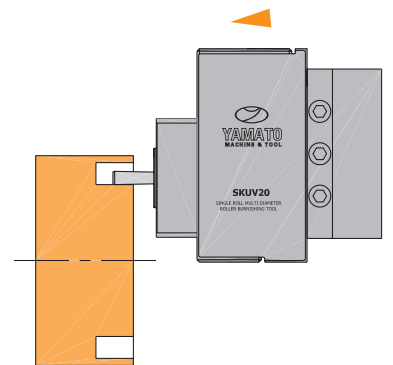
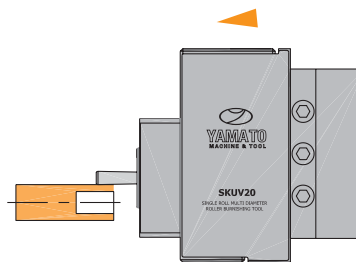
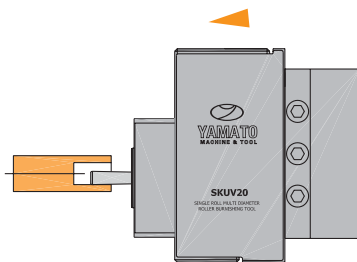
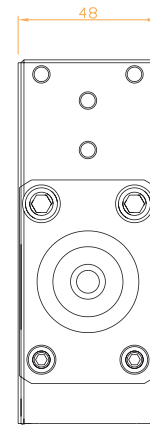
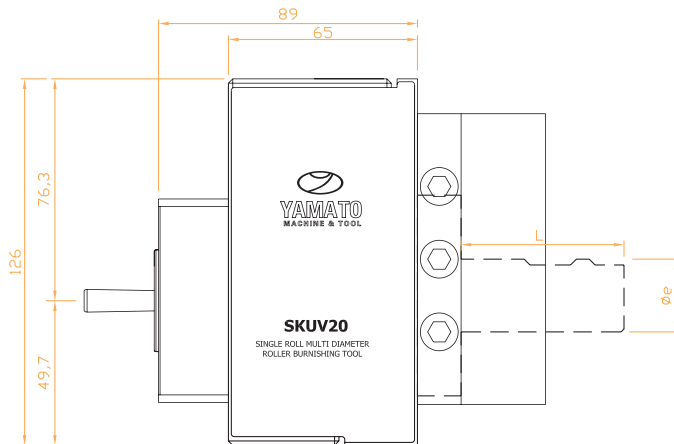
- ▶ Groove Flank on the Face
- ▶ Cylindrical external surface
- ▶ Bore

**Holders available**

- ▶ 20x20 – 25x25 Square
- ▶ Ø20 - Ø25 Weldon

**Features**

- ▶ Compact and Rigid
- ▶ Proper to roller burnish small holes and grooves
- ▶ Special roller diameters and lengths are available
- ▶ By only changing the adapter, applications shown on the other pages can be done.



**SKUV20 - 2.5R80 - 001**

With 30°-45°-90° Inclined Holders

Prevents fatigue cracks of the workpieces under dynamic loads

**Parts to be roller burnished**

- ▶ Radius
- ▶ Semi-Sphere

**Holders available**

- ▶ 20x20 – 25x25 Square
  - ▶ 30° inclined
  - ▶ 45° inclined
  - ▶ 90° vertical

**Features**

- ▶ Standard radius is R2.5 mm..
- ▶ Roller disc with special radius is available.
- ▶ Shank with different inclination is available.
- ▶ Diameter of roller disc is Ø85 mm.
- ▶ By only changing the adapter and roller head, applications shown on the other pages can be done.

