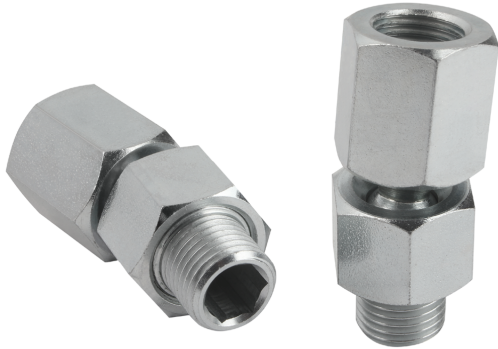
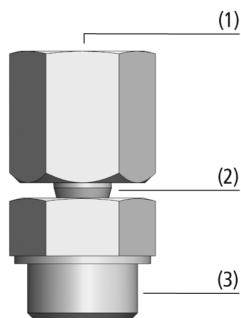


## Ball Joints KGL

Connection thread from G1/8" to G1/2"



Ball Joints KGL



System design Ball Joints KGL



Mounting example ball joints KGL

### Suitability for industry specific applications

#### Application

- Ball joint for handling of workpieces with sloping surfaces with the aid of large suction cups or suction plates
- Handling of large sheets of materials such as wood or sheet metal which may sag when lifted; flexible mounting with KGL prevents premature pulling-off of the sheet due to one-sided forces
- Can be used together with spring plungers to compensate for differing workpiece heights and uneven surfaces

#### Design

- Ball and socket made of galvanized steel (KGL...) or stainless steel (KGL...A2)
- Ball and socket (2) with O-ring seal to prevent vacuum leaks
- Connection thread above (1) and below (3) in various sizes
- Max. deflection: 15°

#### Product highlights

- All-round articulated mounting of suction cups and suction plates, ideal for inclined workpiece surfaces
- Safe handling due to heavy-duty, vacuum-tight ball joint
- Low swivel point of the suction cup minimizes wear when touching down on sloping surfaces

# Ball Joints KGL

Connection thread from G1/8" to G1/2"

## Designation code Ball Joints KGL

<b>KGL</b>	–	<b>G1/8-IG</b>	–	<b>G1/8-AG</b>	–	<b>A2</b>
<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>

### 1 – Abbreviated designation

Code	Version
KGL	KGL

### 4 – Material

Code	Material
–	Galvanized steel
A2	Stainless steel

### 2 – Connection 1

Code	Connection
G1/8-IG	G1/8-IG (IG = female (F))
G1/4-IG	G1/4-IG
G1/2-IG	G1/2-IG

### 3 – Connection 2

Code	Connection
G1/8-AG	G1/8-AG (AG = male (M))
G1/4-AG	G1/4-AG
G1/2-AG	G1/2-AG
M10x1.25-AG	M10x1.25-AG

Ball joint KGL is delivered as a ready-to-connect product.

## Ordering data Ball Joints KGL

Type	Part no.
KGL G1/8-IG G1/8-AG A2	10.01.03.00109
KGL G1/4-IG G1/4-AG	10.01.03.00110
KGL G1/4-IG M10x1.25-AG	10.01.03.00137
KGL G1/2-IG G1/2-AG	10.01.03.00111

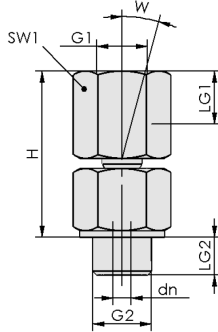
## Technical data Ball Joints KGL

Type	Vertical load [N]	Weight [g]
KGL G1/8-IG G1/8-AG A2	300	26
KGL G1/4-IG G1/4-AG	1,500	67
KGL G1/4-IG M10x1.25-AG	1,500	67
KGL G1/2-IG G1/2-AG	2,500	116

## Ball Joints KGL

Connection thread from G1/8" to G1/2"

### Design data Ball Joints KGL



KGL

## Ball Joints KGL

Connection thread from G1/8" to G1/2"

### Design data Ball Joints KGL

Type	dn [mm]	G1	G2	H [mm]	LG1 [mm]	LG2 [mm]	SW1 [mm]	W [°]
KGL G1/8-IG G1/8-AG A2	2.0	G1/8"-F	G1/8"-M	27	8.5	7	14	15
KGL G1/4-IG G1/4-AG	3.5	G1/4"-F	G1/4"-M	38	12.0	10	19	15
KGL G1/4-IG M10x1.25-AG	3.5	G1/4"-F	M10x1.25-M	38	12.0	10	19	15
KGL G1/2-IG G1/2-AG	4.0	G1/2"-F	G1/2"-M	40	14.0	12	24	15