

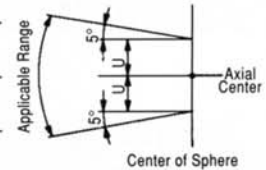
# HUMPHREY CYLINDER JOINTS

- Compensates for cylinder piston rod misalignment that is common when rod is fully extended.
- Eliminates complex matching and positioning.
- Fast, easy installation.
- Compact, simple and reliable design.
- Built-in dust seal provides protection from ambient contamination.
- A variety of sizes, from 10-32 UNF to 3/4-10 UNC.



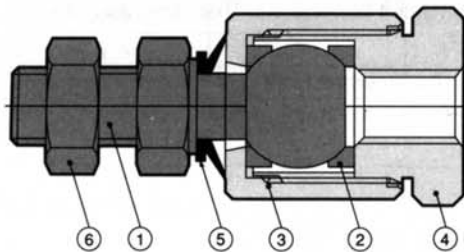
## SMALL SERIES SPECIFICATIONS

Type	Piston rod thread size	Max. allowable pull force (load) lbs. (kgf)	Max. eccentricity U in. (mm)	Swivel angle
HCJ 10-32	10-32 UNF	1320 (600)	0.020 (0.5)	±5°
HCJ 1/4-20	1/4-20 UNC	1320 (600)	0.020 (0.5)	
HCJ 1/4-28	1/4-28 UNF	1320 (600)	0.020 (0.5)	



NOTE: Figures for maximum allowable pull force represent static conditions.

## INNER CONSTRUCTION AND MAJOR PARTS



Number	Item	Material	Note
1	Stud	Hard steel	Nickel plated
2	Ring	Hard steel	-
3	Casing	Brass	Nickel plated
4	Socket	Brass	Nickel plated
5	Dust seal	Buna	-
6	Rod Nut	Steel	(Sold separately)

## HOW TO ORDER INFORMATION

HCJ — 10-32

Cylinder Joint

Thread size

10-32 — 10-32 UNF

1/4-20 — 1/4-20 UNC

1/4-28 — 1/4-28 UNF

## ROD NUTS

RN 8

Rod nut

Size

5 — 10-32 UNF

6 — 1/4-20 UNC

7 — 1/4-28 UNF

8 — 5/16-18 UNC

9 — 5/16-24 UNF

10 — 3/8-16 UNC

11 — 7/16-20 UNF

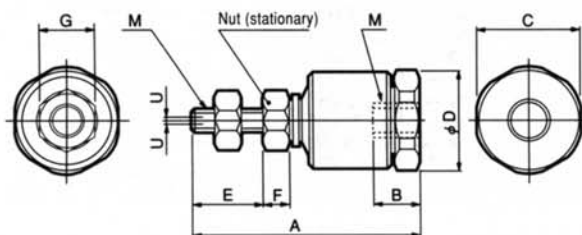
12 — 1/2-13 UNC

13 — 1/2-20 UNF

14 — 3/4-10 UNC

## DIMENSIONS

in. (mm)



Type	M	A	B	C	D
HCJ 10-32	10-32 UNF	1.299 (33)	0.276 (7)	0.551 (14)	0.591 (15)
HCJ 1/4-20	1/4-20 UNF	1.417 (36)	0.276 (7)	0.551 (14)	0.591 (15)
HCJ 1/4-28	1/4-28 UNF	1.417 (36)	0.276 (7)	0.551 (14)	0.591 (15)

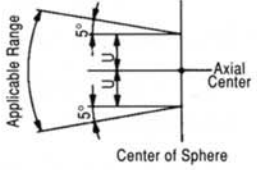
Type	E	F	G	Max. eccentricity U	Weight oz. (gf)
HCJ 10-32	0.413 (10.5)	0.157 (4)	0.315 (8)	0.020 (0.5)	0.906 (23)
HCJ 1/4-20	0.472 (12)	0.197 (5)	0.394 (10)	0.020 (0.5)	0.984 (25)
HCJ 1/4-28	0.472 (12)	0.197 (5)	0.394 (10)	0.020 (0.5)	0.984 (25)

# HUMPHREY CYLINDER JOINTS

## LARGE SERIES

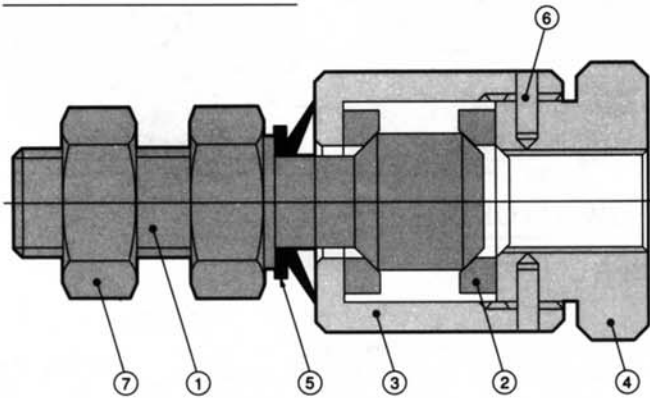
## SPECIFICATIONS



Type	Piston rod thread size	Max. allowable pull force (load) lbs. (kgf)	Max. eccentricity U in. (mm)	Swivel angle
HCJ □ 5/16-18	5/16-18 UNC	4620 (2100)	0.020 (0.5)	±5° 
HCJ □ 5/16-24	5/16-24 UNF	4620 (2100)	0.020 (0.5)	
HCJ □ 3/8-16	3/8-16 UNC	7040 (3200)	0.030 (0.75)	
HCJ □ 7/16-20	7/16-20 UNF	11,000 (5000)	0.040 (1.0)	
HCJ □ 1/2-13	1/2-13 UNC	11,000 (5000)	0.040 (1.0)	
HCJ □ 1/2-20	1/2-20 UNF	11,000 (5000)	0.040 (1.0)	
HCJ □ 3/4-10	3/4-10 UNC	14,080 (6400)	0.050 (1.25)	

NOTE: Figures for maximum allowable pull force represent static conditions.

## INNER CONSTRUCTION AND MAJOR PARTS



Number	Item	Material	Note
1	Stud	Hard steel	Nickel plated
2	Ring	Hard steel	-
3	Casing	Hard steel	Nickel plated
4	Socket	Hard steel	Nickel plated
5	Dust seal	Buna	-
6	Pin	Steel	-
7	Rod Nut	Steel	(Sold separately)

## HANDLING INSTRUCTIONS

- Humphrey Cylinder Joints are to be used with air cylinders. For applications other than air cylinders, consult factory.
- Cylinder Joints are not to be used as swiveling joint connections.
- Cylinder Joints are not to be disassembled since they are filled with a lubricant.
- The depth of the socket is within catalog specifications (Dim. B). In order to detect the actual depth, thread the cylinder rod into the female end of the joint until it bottoms out. Then "unthread" the rod to the desired position.
- Be sure to protect the female end of the joint from contaminants such as dust particles.

## HOW TO ORDER INFORMATION

HCJ L — 5/16 × 18

Type  
S — Short nose type  
L — Long nose type\*

Cylinder Joint

\*Order rod nut separately, shipped loose.

### Thread size

5/16 - 18 — 5/16 - 18 UNC  
5/16 - 24 — 5/16 - 24 UNF  
3/8 - 16 — 3/8 - 16 UNC  
7/16 - 20 — 7/16 - 20 UNF  
1/2 - 13 — 1/2 - 13 UNC  
1/2 - 20 — 1/2 - 20 UNF  
3/4 - 10 — 3/4 - 10 UNC

## ROD NUTS

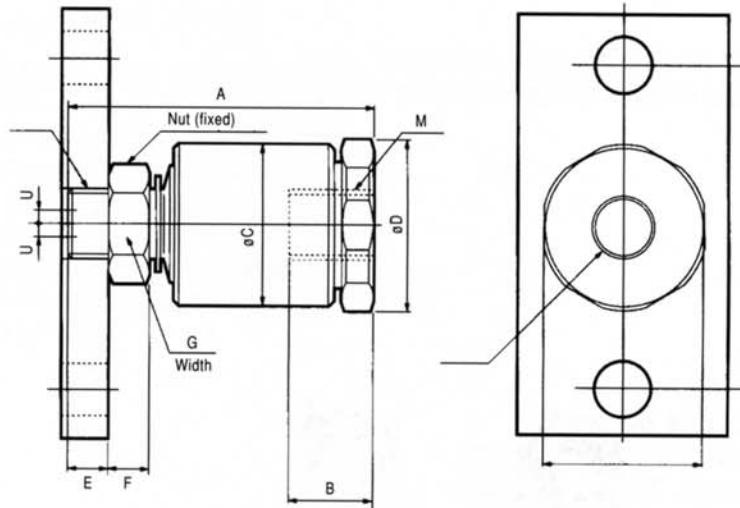
RN 8 — Rod nut

### Size

5 — 10 - 32 UNF  
6 — 1/4 - 20 UNC  
7 — 1/4 - 28 UNF  
8 — 5/16 - 18 UNC  
9 — 5/16 - 24 UNF  
10 — 3/8 - 16 UNC  
11 — 7/16 - 20 UNF  
12 — 1/2 - 13 UNC  
13 — 1/2 - 20 UNF  
14 — 3/4 - 10 UNC

Bores  $\frac{3}{4}$  (20) ~  $2\frac{1}{2}$  (63)

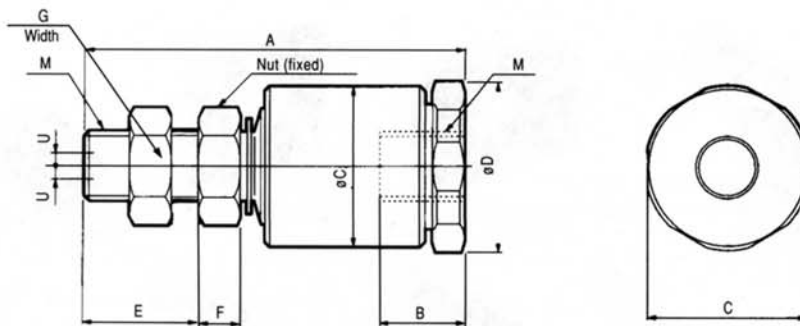
Short nose type



Type	M	A	B	C	D	E	F	G	Max. eccentricity	Weight
									U	oz. (gf)
HCJS $\frac{5}{16}$ -18	$\frac{5}{16}$ -18 UNC	1.496 (38)	0.394 (10)	0.748 (19)	0.787 (20)	0.197 (5)	0.197 (5)	0.472 (12)	0.020 (0.5)	1.76 (50)
HCJS $\frac{5}{16}$ -24	$\frac{5}{16}$ -24 UNF	1.496 (38)	0.394 (10)	0.748 (19)	0.787 (20)	0.197 (5)	0.197 (5)	0.472 (12)	0.020 (0.5)	1.76 (50)
HCJS $\frac{3}{8}$ -16	$\frac{3}{8}$ -16 UNC	1.890 (48)	0.472 (12)	0.945 (24)	1.004 (25.5)	0.315 (8)	0.236 (6)	0.551 (14)	0.030 (0.75)	3.53 (100)
HCJS $\frac{7}{16}$ -20	$\frac{7}{16}$ -20 UNF	2.343 (59.5)	0.630 (16)	1.181 (30)	1.260 (32)	0.315 (8)	0.276 (7)	0.669 (17)	0.040 (1.0)	7.23 (205)
HCJS $\frac{1}{2}$ -13	$\frac{1}{2}$ -13 UNC	2.500 (63.5)	0.630 (16)	1.181 (30)	1.260 (32)	0.433 (11)	0.315 (8)	0.748 (19)	0.040 (1.0)	7.58 (215)
HCJS $\frac{1}{2}$ -20	$\frac{1}{2}$ -20 UNF	2.500 (63.5)	0.630 (16)	1.181 (30)	1.260 (32)	0.433 (11)	0.315 (8)	0.748 (19)	0.040 (1.0)	7.58 (215)
HCJS $\frac{3}{4}$ -10	$\frac{3}{4}$ -10 UNC	3.031 (77)	0.827 (21)	1.496 (38)	NOTE	0.551 (14)	0.433 (11)	1.063 (27)	0.049 (1.25)	12.70 (360)

NOTE: HCJS  $\frac{3}{4}$ -10 has a wrench flat on female end. Length of the flat is 0.551 (14). Width of flat is 1.063 in. (27).

Long nose type



Type	M	A	B	C	D	E	F	G	Max. eccentricity	Weight
									U	oz. (gf)
HCJL $\frac{5}{16}$ -18	$\frac{5}{16}$ -18 UNC	1.850 (47)	0.394 (10)	0.748 (19)	0.787 (20)	0.551 (14)	0.197 (5)	0.472 (12)	0.020 (0.5)	1.9 (55)
HCJL $\frac{5}{16}$ -24	$\frac{5}{16}$ -24 UNF	1.850 (47)	0.394 (10)	0.748 (19)	0.787 (20)	0.551 (14)	0.197 (5)	0.472 (12)	0.020 (0.5)	1.9 (55)
HCJL $\frac{3}{8}$ -16	$\frac{3}{8}$ -16 UNC	2.244 (57)	0.472 (12)	0.945 (24)	1.004 (25.5)	0.669 (17)	0.236 (6)	0.551 (14)	0.030 (0.75)	3.7 (105)
HCJL $\frac{7}{16}$ -20	$\frac{7}{16}$ -20 UNF	2.776 (70.5)	0.630 (16)	1.181 (30)	1.260 (32)	0.748 (19)	0.276 (7)	0.669 (17)	0.040 (1.0)	7.6 (220)
HCJL $\frac{1}{2}$ -13	$\frac{1}{2}$ -13 UNC	2.854 (72.5)	0.630 (16)	1.181 (30)	1.260 (32)	0.787 (20)	0.315 (8)	0.748 (19)	0.040 (1.0)	8.3 (235)
HCJL $\frac{1}{2}$ -20	$\frac{1}{2}$ -20 UNF	2.854 (72.5)	0.630 (16)	1.181 (30)	1.260 (32)	0.787 (20)	0.315 (8)	0.748 (19)	0.040 (1.0)	8.3 (235)
HCJL $\frac{3}{4}$ -10	$\frac{3}{4}$ -10 UNC	3.465 (88)	0.827 (21)	1.496 (38)	NOTE	0.984 (25)	0.433 (11)	1.063 (27)	0.049 (1.25)	14.46 (410)

NOTE: HCJL  $\frac{3}{4}$ -10 has a wrench flat on female end. Length of the flat is 0.551 (14). Width of flat is 1.063 in. (27).