

# HCN16

**ISO 6020/1  
STANDARD**

HNC-16 is a high-quality cylinder series for exacting industrial applications. HCN-16 was designed in co-operation with leading machine construction companies and process industry to full-fill and exceed all the new requirements of 1990's. Thus it has as standard most of the features that are only options in conventional cylinders. HCN-16 has end position cushions and lowfriction seals as standard. Because of modular design, HCN-16 is extremely versatile in mounting and covers a large range of different applications. To guarantee a worldwide succes, HCN-16 conforms to ISO 6020/1 standard.

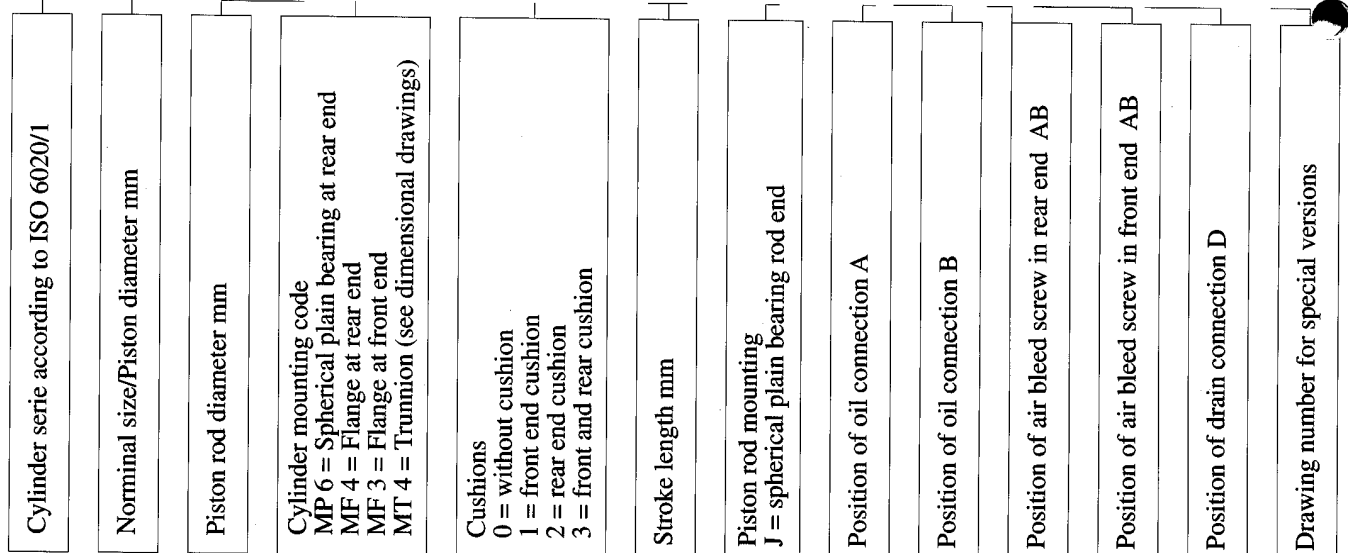
### NOMINAL WORKING PARAMETERS AND MEDIUMS:

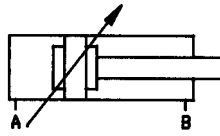
- Working pressure: nominal 16 MPa/max 25 MPa
- Temperature: range -30°C...+90°C
- Pressure medium: mineral oils

### MATERIAL SPECIFICATION:

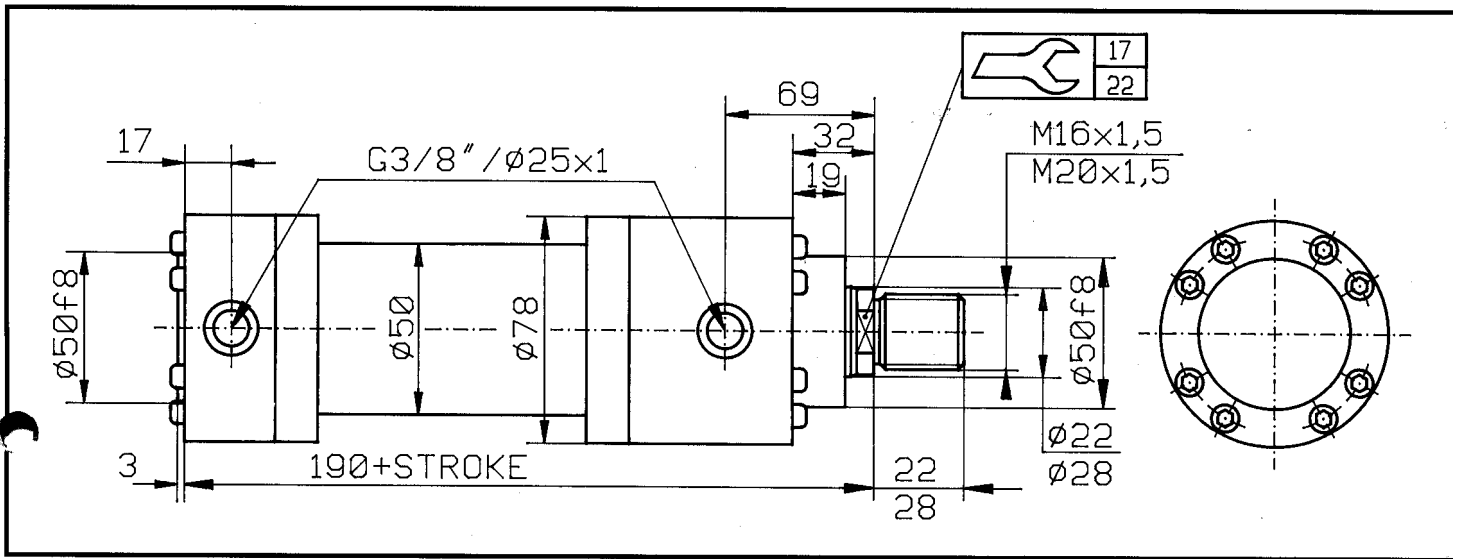
• Cylinder barrel	Steel tube, internally honed to Ra 0,4
• Piston rods	Hard chromium plated steel
• Seals	Low friction sealing (PTFE/NBR/PU)
• End covers	Steel
• Mounting parts	Steel
• Piston rod end	C45N/GGG40 bearings with grease nipples
• Surface treatment	SFS 4962 E120/2-FeSa 21/2

HCN-16 100 - 56 -MP6 - 3 - 400 - J - 11 - AA - 2 - P no...



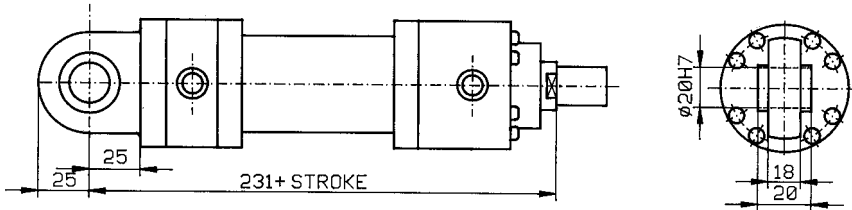


# HCN16-040

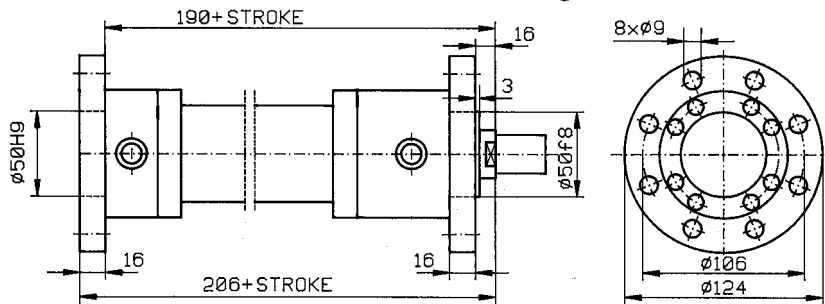


## MOUNTING CODES

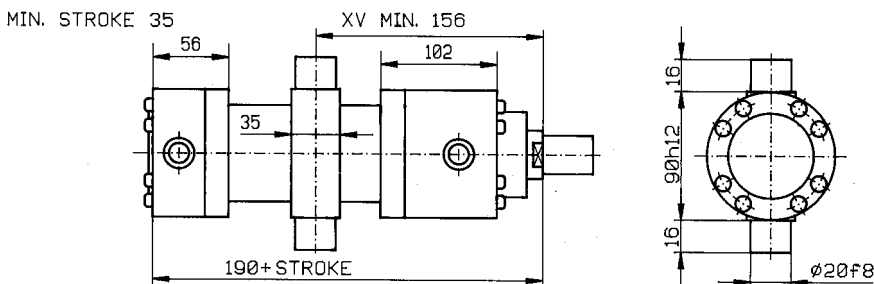
**MP6 - Spherical plain bearing at rear end**



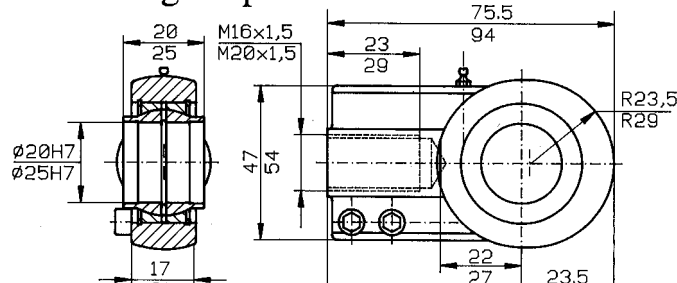
**MF4 - Flange at rear end. MF3 - Flange at front end**



**MT4 - Trunnion**



**J - Spherical plain bearing for piston rod**

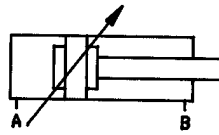


- Bore dia 40 mm
- Full bore area 12,6 cm<sup>2</sup>
- Piston rod dia 22 or 28 mm
- Rod area 3,8/6,2 cm<sup>2</sup>
- Annulus area 8,8/6,4 cm<sup>2</sup>

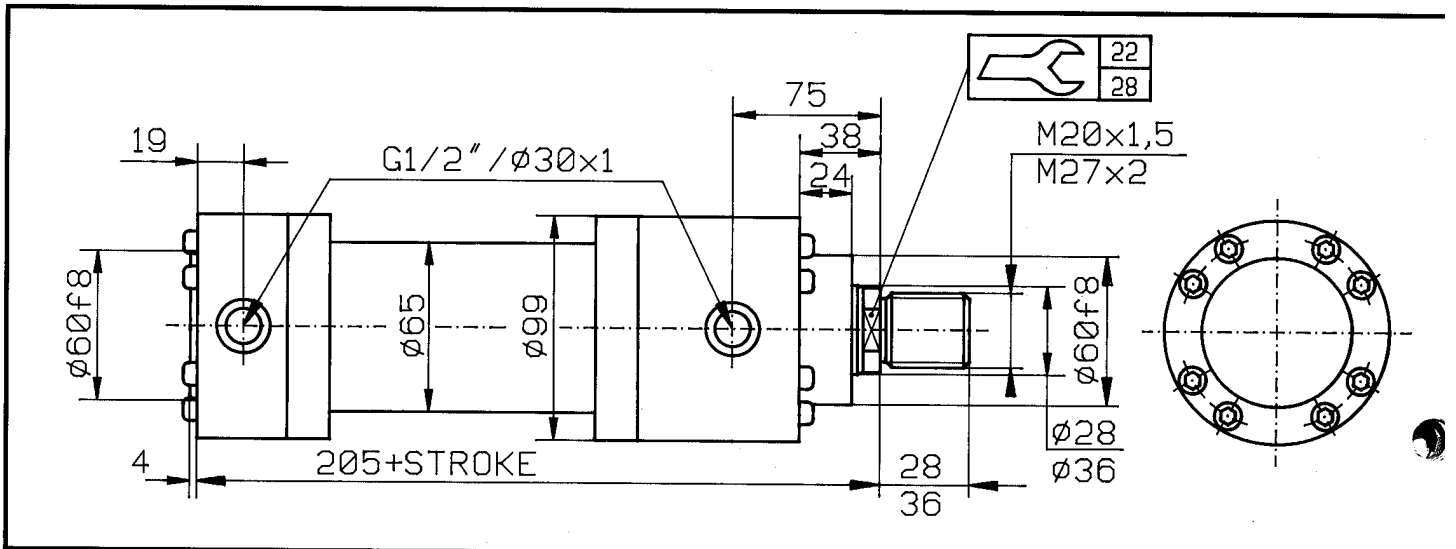
Double dimensions:

22 <- upper dimension for piston rod  $\phi 22$

28 <- lower dimension for piston rod  $\phi 28$



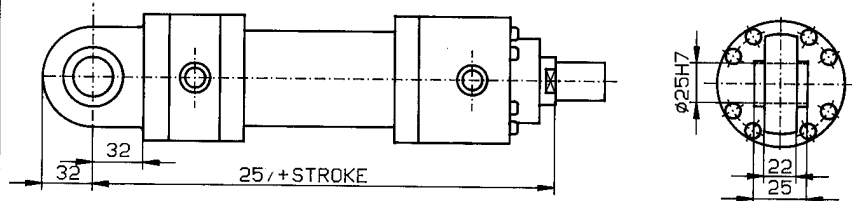
# HCN16-050



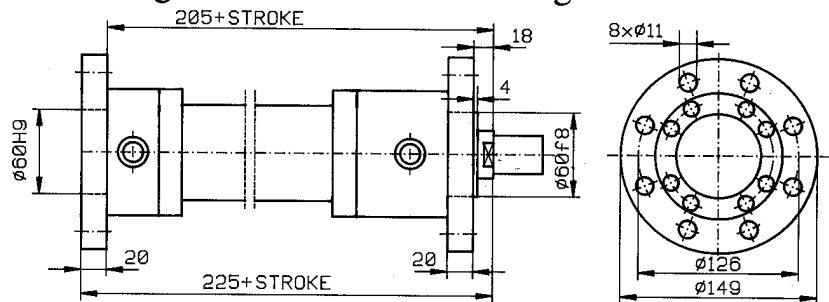
- Bore dia 50 mm
  - Full bore area 19,6 cm<sup>2</sup>
  - Piston rod dia 28 or 36 mm
  - Rod area 6,2/10,2 cm<sup>2</sup>
  - Annulus area 13,4/9,4 cm<sup>2</sup>
- In case of double dimensions:
- 28 <- upper dimension for piston rod  $\phi 28$
- 36 <- lower dimension for piston rod  $\phi 36$

## MOUNTING CODES

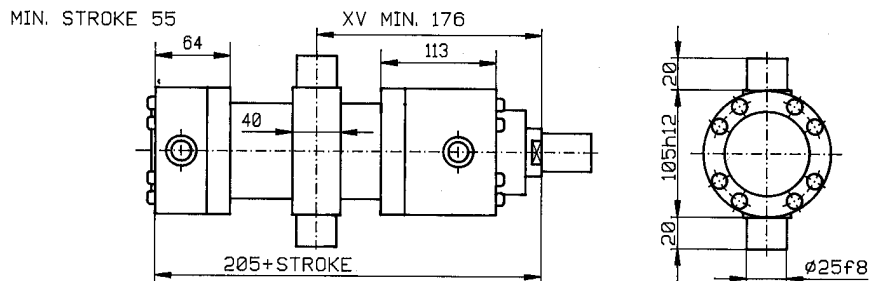
**MP6 - Spherical plain bearing at rear end**



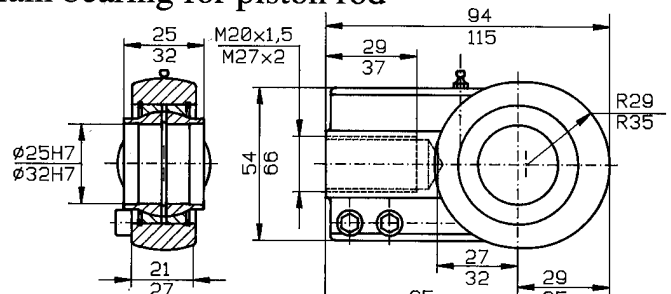
**MF4 - Flange at rear end. MF3 - Flange at front end**

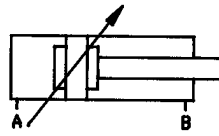


**MT4 - Trunnion**

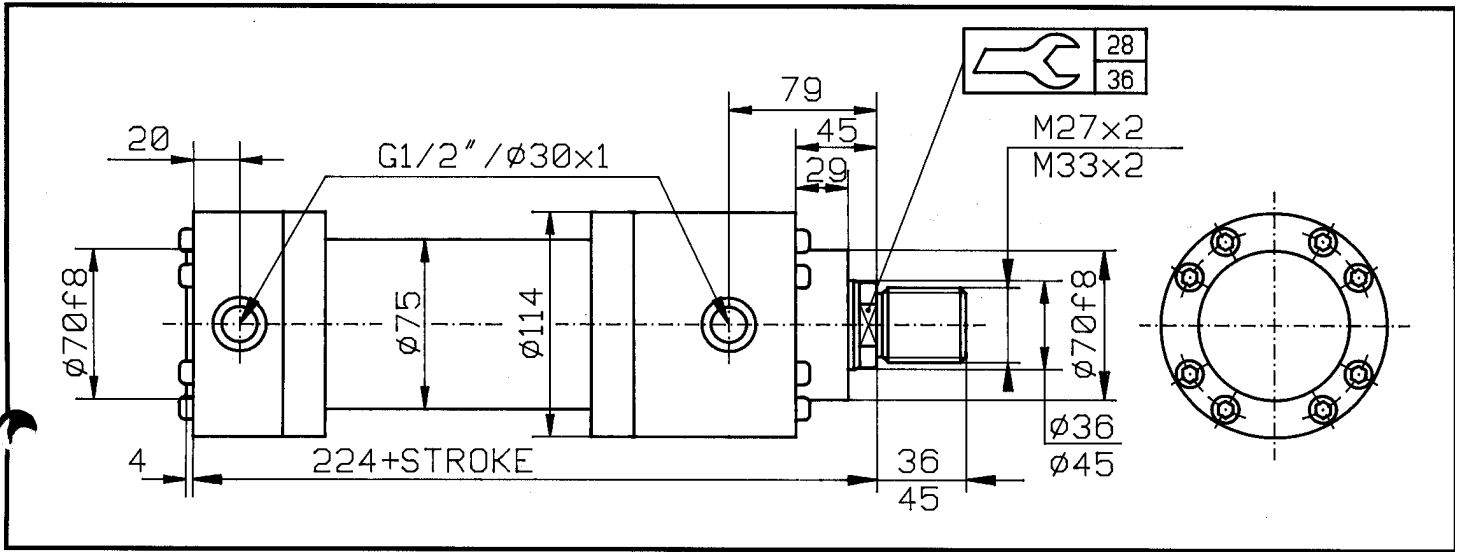


**J - Spherical plain bearing for piston rod**



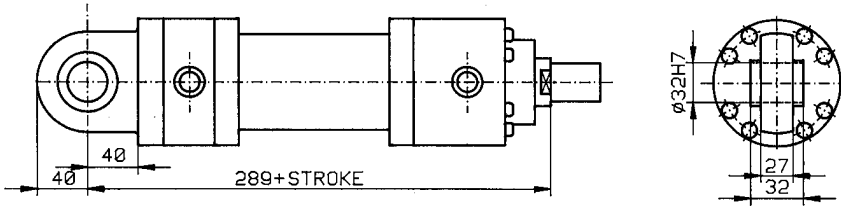


# HCN16-063

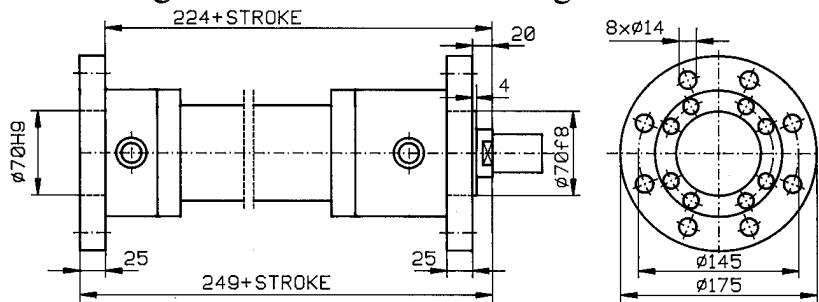


## MOUNTING CODES

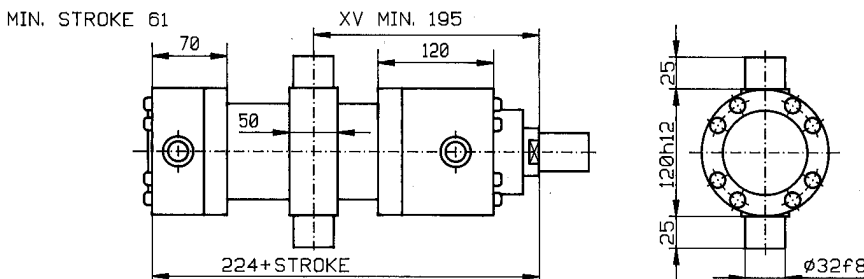
**MP6 - Spherical plain bearing at rear end**



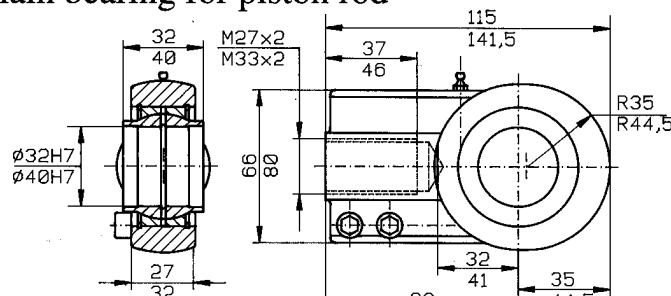
**MF4 - Flange at rear end. MF3 - Flange at front end**



**MT4 - Trunnion**



**J - Spherical plain bearing for piston rod**

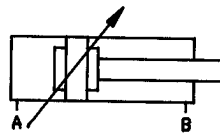


- Bore dia 63 mm
- Full bore area 31,2 cm<sup>2</sup>
- Piston rod dia 36 or 45 mm
- Rod area 10,2/15,9 cm<sup>2</sup>
- Annulus area 21,0/15,3 cm<sup>2</sup>

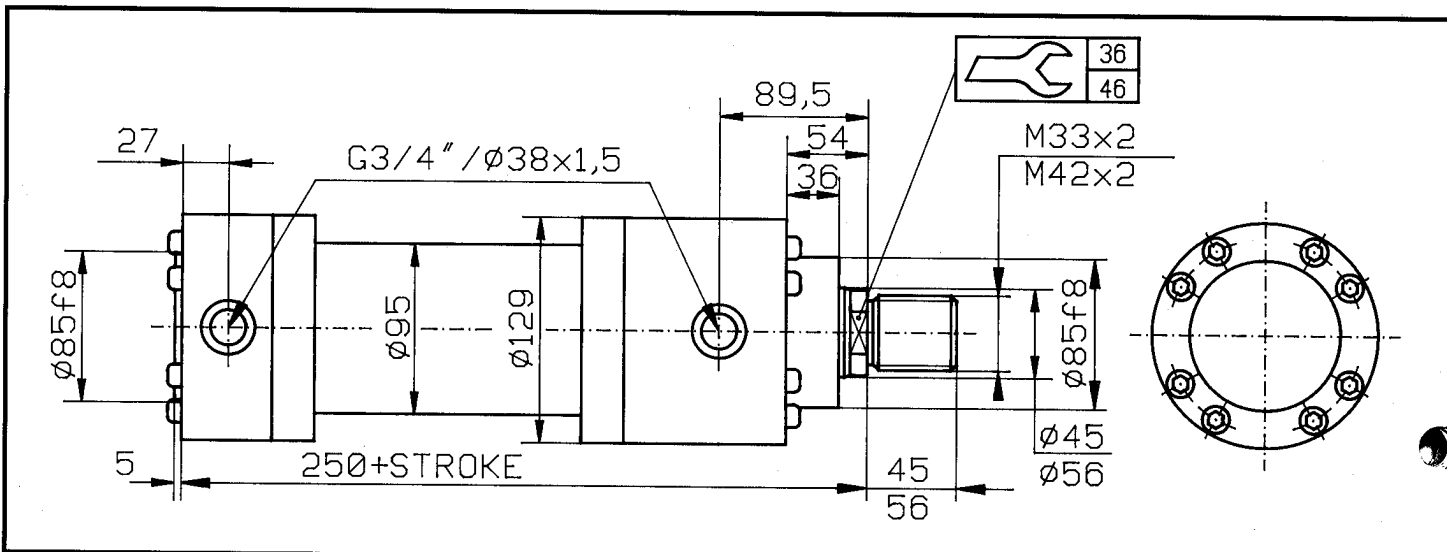
In case of double dimensions:

36 <- upper dimension  
for piston rod Ø 36

45 <- lower dimension  
for piston rod Ø 45



# HCN16-080



- Bore dia 80 mm
- Full bore area 50,2 cm<sup>2</sup>
- Piston rod dia 45 or 56 mm
- Rod area 15,9/25,6 cm<sup>2</sup>
- Annulus area 34,3/25,6 cm<sup>2</sup>

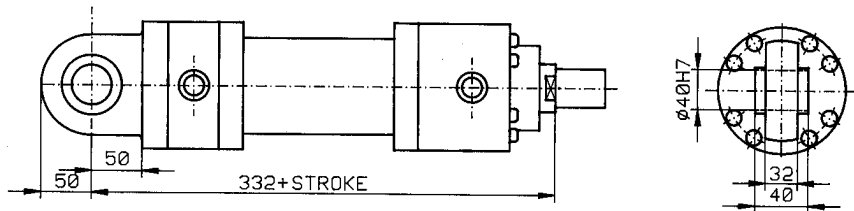
In case of double dimensions:

45 <- upper dimension  
for piston rod Ø 45

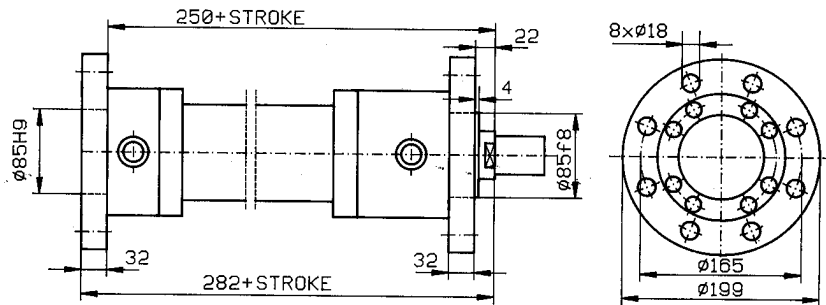
56 <- lower dimension  
for piston rod Ø 56

## MOUNTING CODES

**MP6 - Spherical plain bearing at rear end**

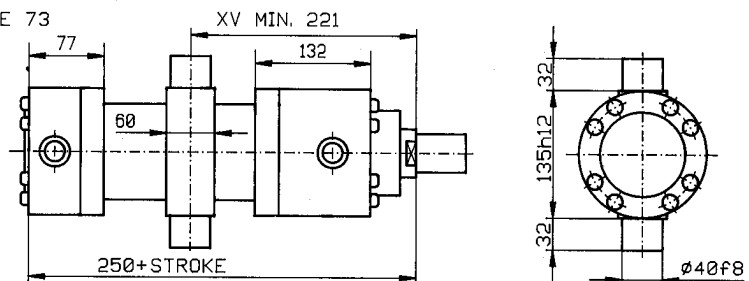


**MF4 - Flange at rear end. MF3 - Flange at front end**

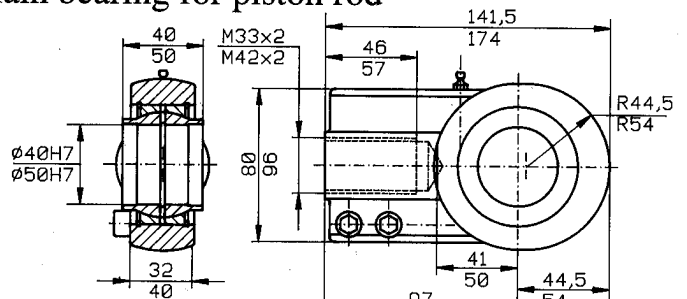


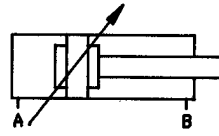
**MT4 - Trunnion**

MIN. STROKE 73

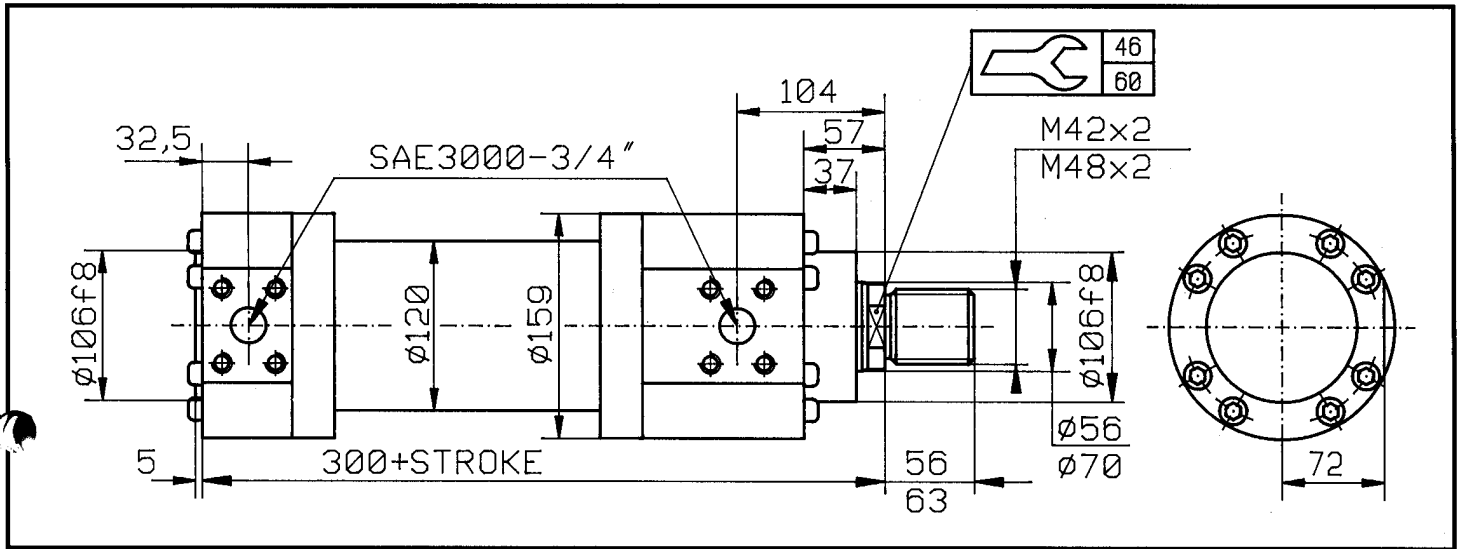


**J - Spherical plain bearing for piston rod**



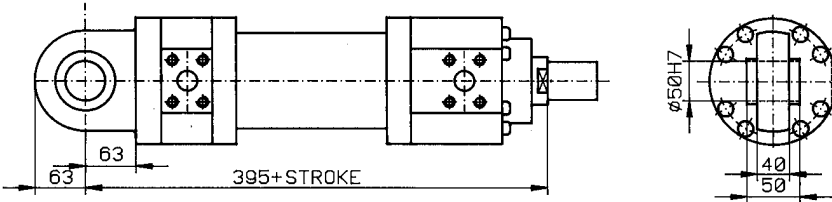


# HCN16-100

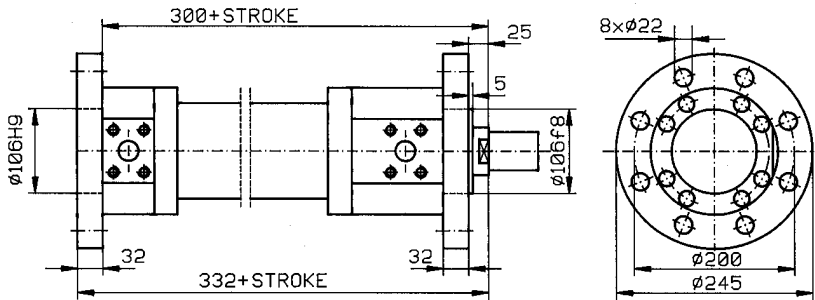


## MOUNTING CODES

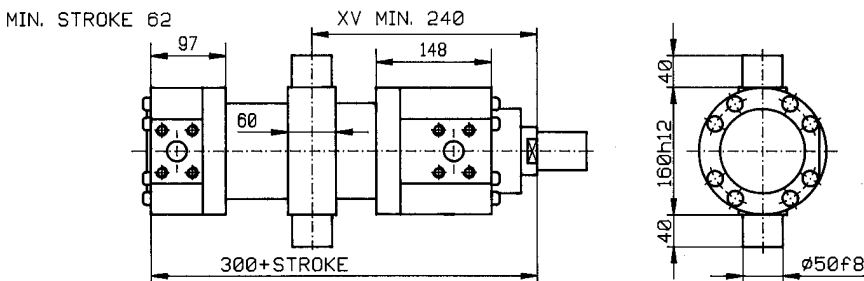
MP6 - Spherical plain bearing at rear end



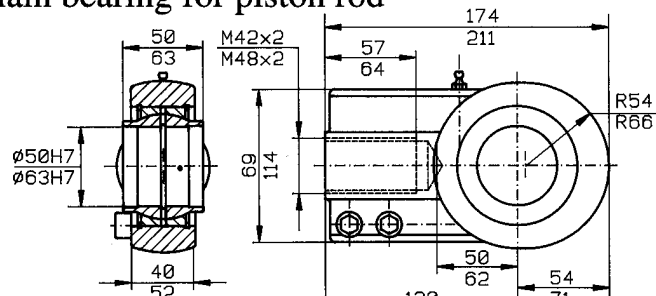
MF4 - Flange at rear end. MF3 - Flange at front end



MT4 - Trunnion



J - Spherical plain bearing for piston rod

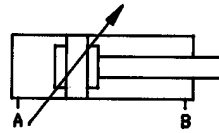


- Bore dia 100 mm
- Full bore area 78,5 cm<sup>2</sup>
- Piston rod dia 56 or 70 mm
- Rod area 24,6/38,5 cm<sup>2</sup>
- Annulus area 53,9/40 cm<sup>2</sup>

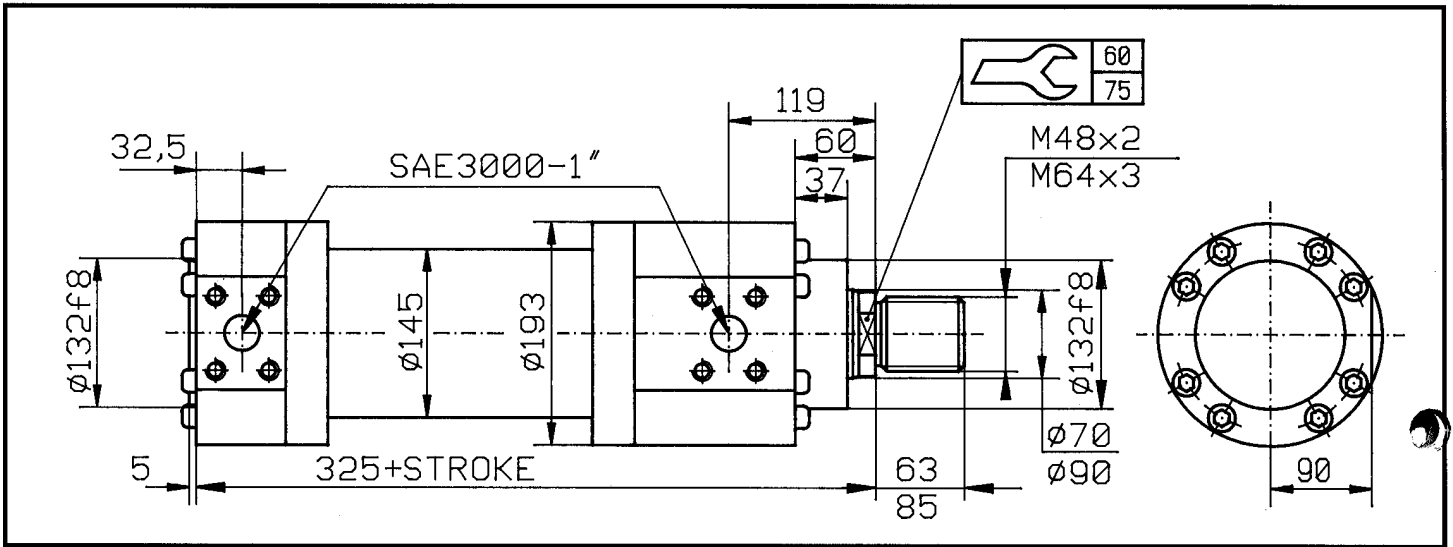
In case of double dimensions:

56 <- upper dimension  
for piston rod Ø 56

70 <- lower dimension  
for piston rod Ø 70



# HCN16-125



- Bore dia 125 mm
- Full bore area 122,7 cm<sup>2</sup>
- Piston rod dia 70 or 90 mm
- Rod area 38,5/63,6 cm<sup>2</sup>
- Annulus area 84,2/59,1 cm<sup>2</sup>

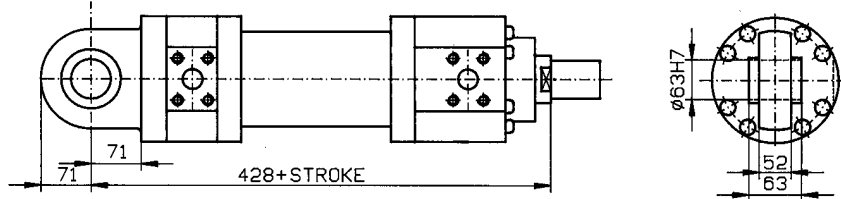
In case of double dimensions:

70 <- upper dimension  
for piston rod Ø 70

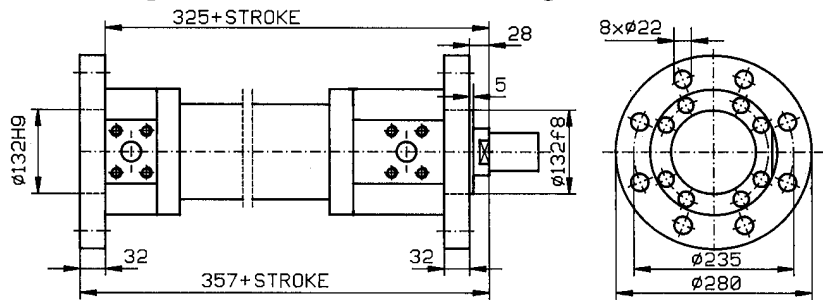
90 <- lower dimension  
for piston rod Ø 90

## MOUNTING CODES

**MP6 - Spherical plain bearing at rear end**

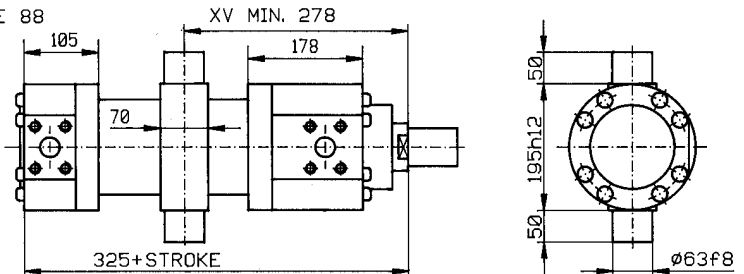


**MF4 - Flange at rear end. MF3 - Flange at front end**

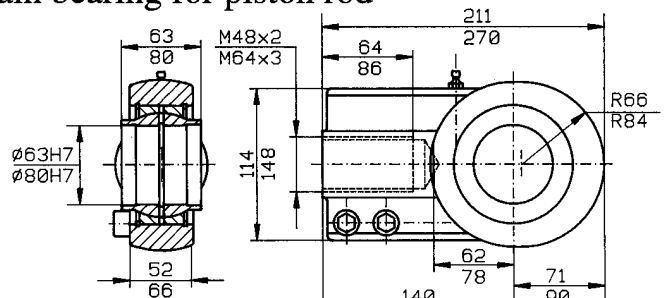


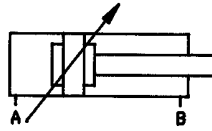
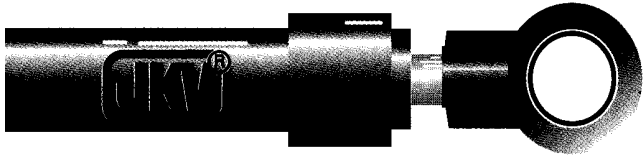
**MT4 - Trunnion**

MIN. STROKE 88

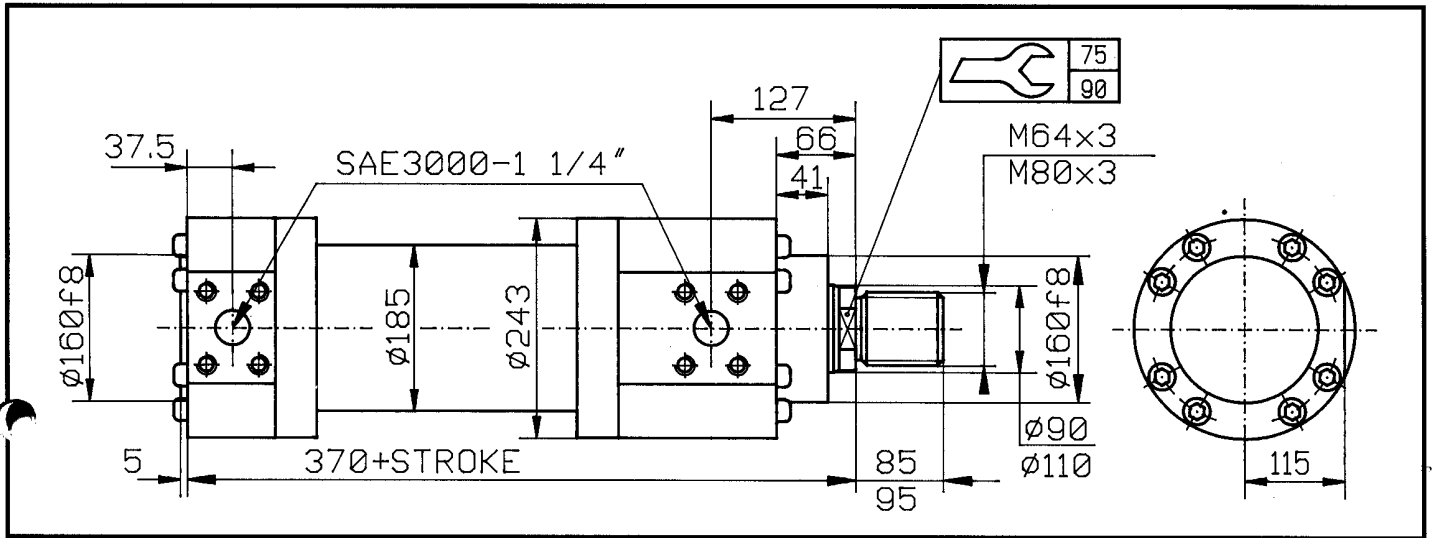


**J - Spherical plain bearing for piston rod**



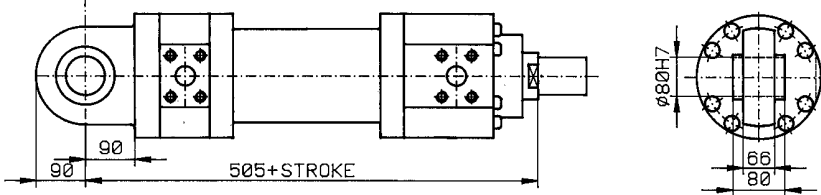


# HCN16-160

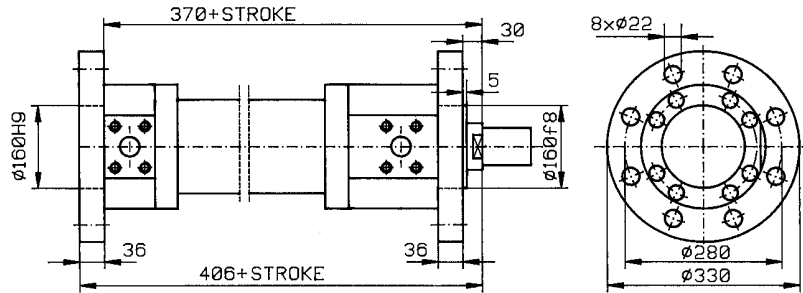


## MOUNTING CODES

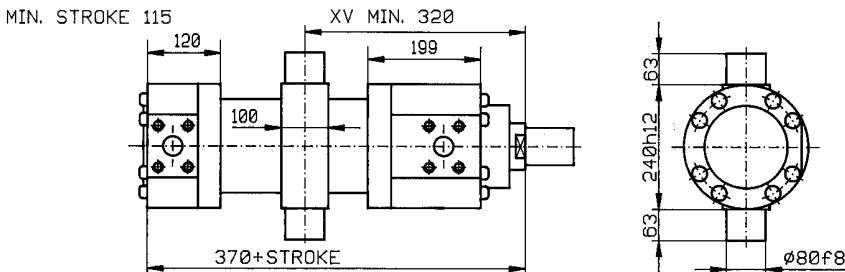
**MP6 - Spherical plain bearing at rear end**



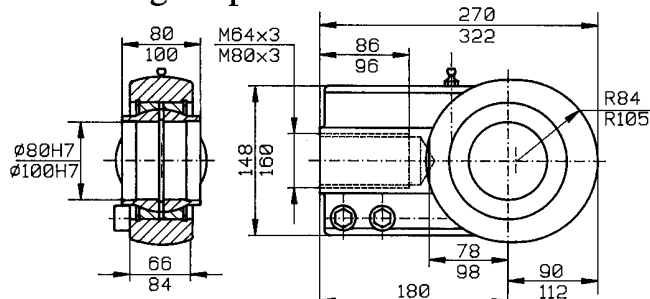
**MF4 - Flange at rear end. MF3 - Flange at front end**



**MT4 - Trunnion**



**J - Spherical plain bearing for piston rod**



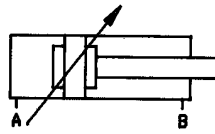
- Bore dia 160 mm
- Full bore area 201,0 cm<sup>2</sup>
- Piston rod dia 90 or 110 mm
- Rod area 63,6/95,0 cm<sup>2</sup>
- Annulus area 137,4/106 cm<sup>2</sup>

In case of double dimensions: •

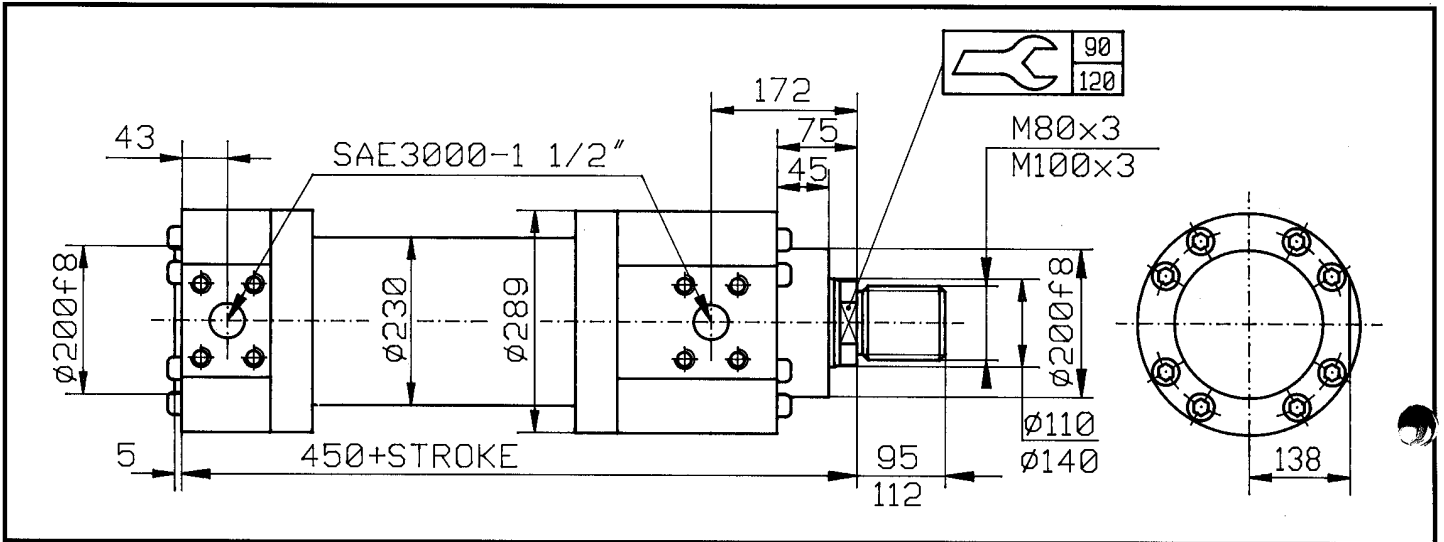
90 <- upper dimension  
for piston rod  $\phi 90$

110 <- lower dimension  
for piston rod  $\phi 110$





# HCN16-200



- Bore dia 200 mm
- Full bore area 314,1 cm<sup>2</sup>
- Piston rod dia 110 or 140 mm
- Rod area 95,0/153,9 cm<sup>2</sup>
- Annulus area 137,4/106 cm<sup>2</sup>

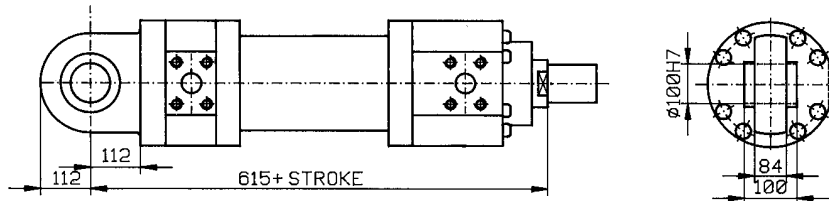
In case of double dimensions:

110 <- upper dimension  
for piston rod  $\phi 110$

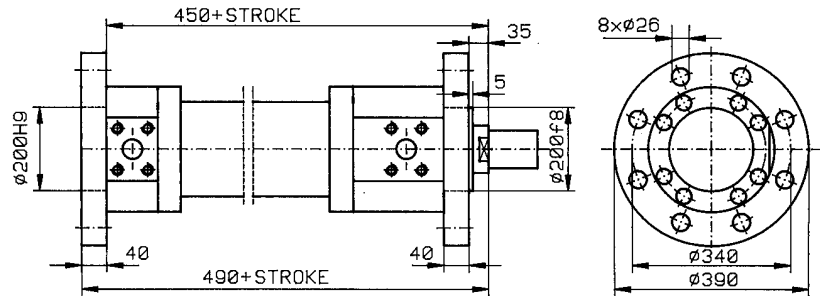
140 <- lower dimension  
for piston rod  $\phi 140$

## MOUNTING CODES

**MP6 - Spherical plain bearing at rear end**

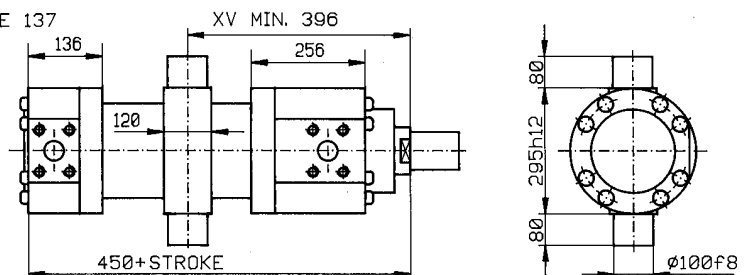


**MF4 - Flange at rear end. MF3 - Flange at front end**

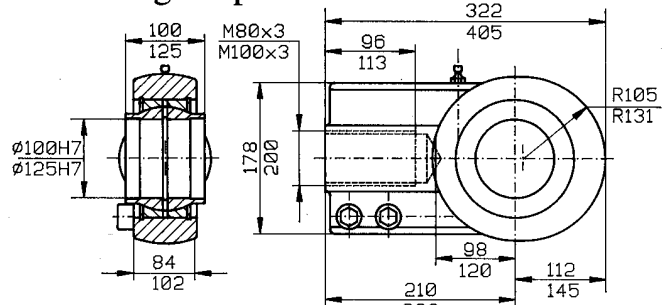


**MT4 - Trunnion**

MIN. STROKE 137



**J - Spherical plain bearing for piston rod**





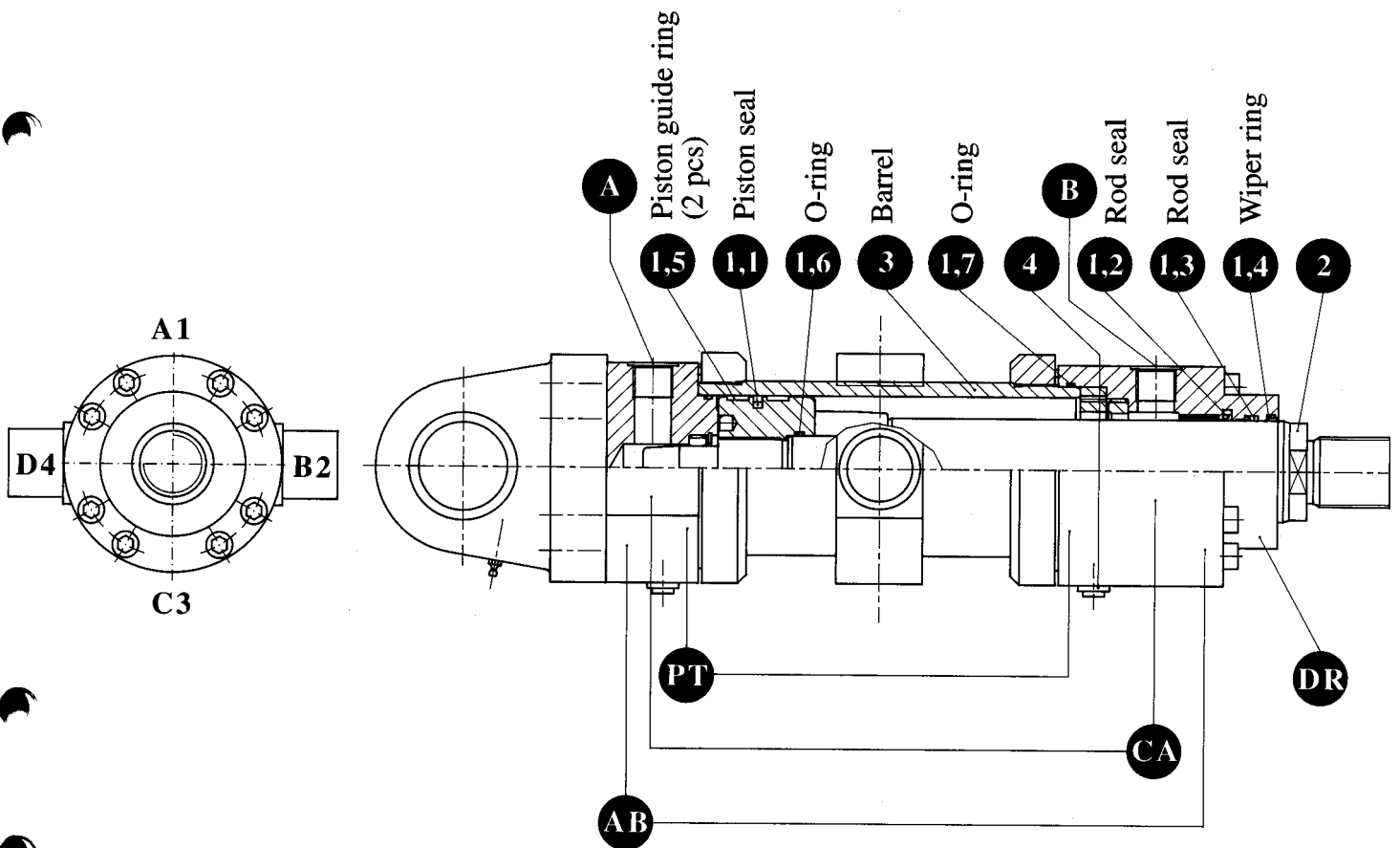
# HCN16

**ISO 6020/1  
STANDARD**

## HCN-16 SPARE PARTS

1. SEAL KIT
2. PISTON ROD
3. CYLINDER BARREL
4. CHECK VALVE

When ordering spare parts, please check the complete model code on the name plate of the cylinder.



## IDENTIFICATION AND POSITION CODES FOR HYDRAULIC PORTS AND CUSHION ADJUSTING.

The ports and cushion adjusting screws are marked on the cylinder with following symbols:

Symbol	Nomination	Position code (see drw abowe)
A	Rear end port	Numbers (1...4) in steps of 90
B	Front end port	Numbers (1...4) in steps of 90
AB	Air bleed	Letters (A...D) in steps of 90
CA	Cushion adjusting	-
DR	Drain port option NS 80 - NS 200	Numbers (1...4) in steps of 90
PT	Pressure test option (Ø 26 x 3/M 12 x 1,5)	-