

**PERFECT  
SOLUTION**  
PERFECT RESULT



# Think HYDRAULIC

think with us

**Spool Hydraulics** is in the field of Hydraulic System since year 2018. We are manufacturing Various types of Products and Facilitated to Committed Service in Following areas like Hydraulic Cylinders for various applications such as Hydraulic Press Machines, SPM'S Material Handling Equipments and many more...

We have dedicated Engineers and Highly Skilled work force. We Committed & Maintain our self in International Quality Standard & Systems.

## Our Hydraulic Cylinders are now being used in various application & areas :-

- ▶ Automotive
- ▶ Agriculture
- ▶ Construction
- ▶ Steel mills
- ▶ Sugar Mills
- ▶ Machine tools
- ▶ Rubber Moulding
- ▶ Foundries hydraulic
- ▶ Material Handling equipment
- ▶ Ground supporting equipment
- ▶ Special Purpose machines & Hydraulics Presses
- ▶ Defence sector
- ▶ Earth movings Equipments
- ▶ Cotton Ginning & Pressing Industries
- ▶ Heavy Duty Requirements

## COMPANY PROFILE

### Owner and Capital:-

- 1) Year Of Establishment : Year 2018
- 2) Legal Status of Firm : Private Ltd
- 3) Directors : 4

### Trade And Market

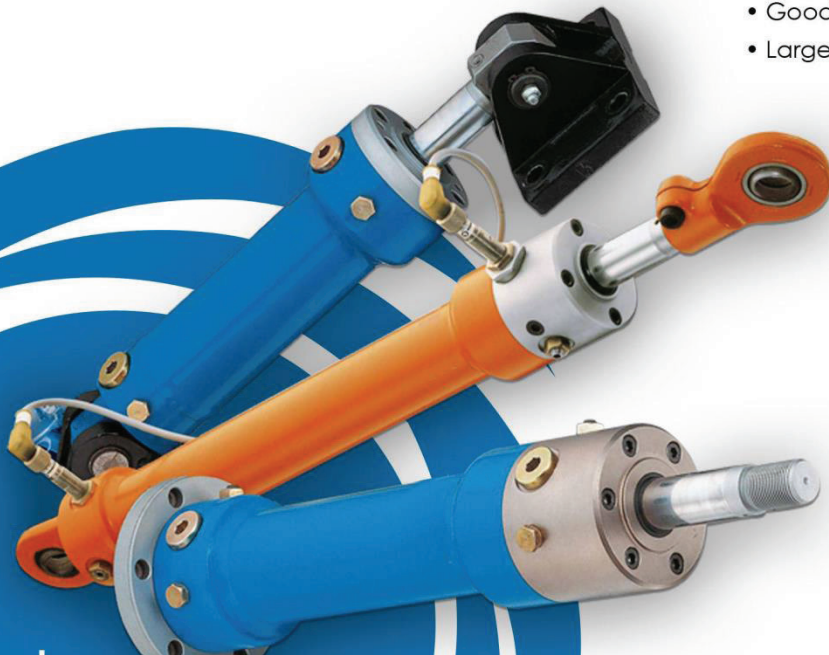
Major Markets : Indian Subcontinent

### Team & Staff

Total Number of Employees : Up to 30 People.  
Constructed Land : 800 sq m.  
Open Space : 1000 sq m.

### Primary Competitive Advantage:

- Experienced R & D Department.
- Large Product Line.
- Provide Customized Solutions.
- Good Financial Position & TQM.
- Large Production Capacity.



## Tie Rod Hydraulic Cylinders

We are offering technically advanced Tie-Rod Construction Cylinders and welded Construction Cylinders using advance machines. These Hydraulic Cylinders are known for high functionality and superior performance. Good quality & imported Domestic seals are used to prove the quality and these hydraulic cylinders are fulfill the requirements of machine tools, plastic and rubber moulding machines, heavy duty earth moving machines, general engineering and food processing.

### Technical specifications

|                             |                                                 |
|-----------------------------|-------------------------------------------------|
| Standard & Non-Standard     | Stroke: Up to 6000 mm                           |
| Single or Double acting     | Mounting: 6 standard mounting                   |
| Bore: 25 to 600 mm diameter | Working pressure: Up to 400kg / cm <sup>2</sup> |
|                             | Testing Facility : 700 bar                      |

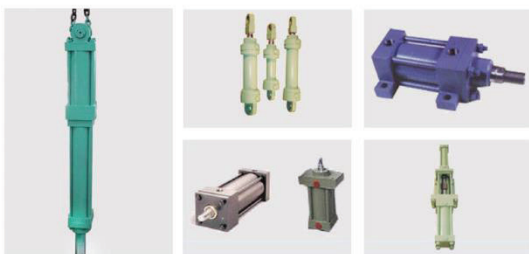
**Intertech engineers' tie-rod cylinders have set the standards for quality, reliability and long life for hydraulic service.**

#### Advance-design feature include:

- The unique Duralon rod bearing that lasts five times longer than traditional bearings, sustains much higher compression loads, and requires no lubrication to the bearing surface.
- Polyurethane U-cup piston rod seal for outstanding wear resistance and near zero-leakage performance.
- Glyd-Ring and wear strip piston sealing system that provides sealing capabilities of U-cup seals with wear performance approaching metal piston rings.
- Fatigue-resistant piston-to-rod connection for optimum strength.



### Our tie-rod cylinders include:

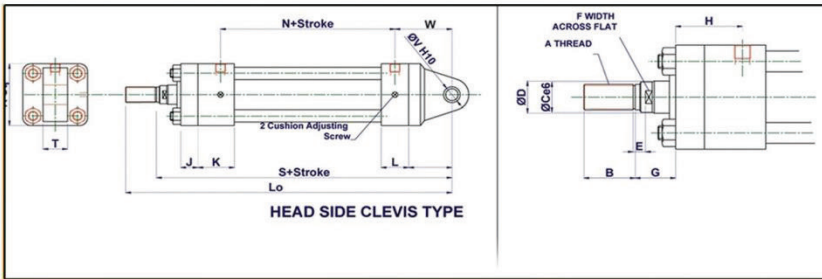


● Series IEMT Medium-Duty Hydraulic. Service to 150 BAR. 24 mounting styles, 40mm to 600mm bore sizes.

Series IEHT Heavy-Duty Hydraulic. Service to 200BAR. and beyond, 22 mounting styles, 40mm through 600 mm bore sizes.

● Series IEHT Large Bore, Heavy-Duty Hydraulic. Pressure rated at 350 BAR., seven mounting

# Product Range

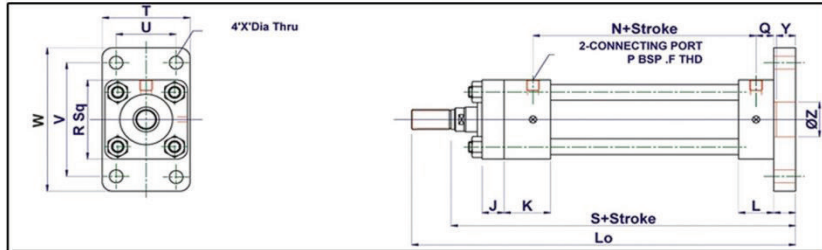


## HEAD SIDE CLEVIS TYPE

| Model    | K  | L   | M    | N   | P   | Q    | R   | S     | T    | U    | V    | W     |
|----------|----|-----|------|-----|-----|------|-----|-------|------|------|------|-------|
| IEHC 40  | 40 | 30  | 47.5 | 94  | 3/8 | 22.4 | 65  | 231.5 | 27.5 | 25   | 16   | 62.5  |
| IEHC 50  | 45 | 34  | 50   | 116 | 1/2 | 26.5 | 80  | 267.7 | 28   | 31.5 | 20   | 67    |
| IEHC 63  | 45 | 34  | 71   | 114 | 1/2 | 37.5 | 95  | 294   | 45   | 40   | 31.5 | 88    |
| IEHC 80  | 56 | 45  | 75   | 132 | 3/4 | 40   | 115 | 337.5 | 45   | 40   | 31.5 | 97.5  |
| IEHC 100 | 56 | 45  | 90   | 144 | 3/4 | 48   | 136 | 378.5 | 55   | 50   | 40   | 112.5 |
| IEHC 125 | 71 | 70  | 105  | 168 | 1   | 58   | 165 | 443   | 65   | 63   | 50   | 135   |
| IEHC 150 | 71 | 70  | 128  | 178 | 1   | 80   | 200 | 491.5 | 84   | 80   | 63   | 158   |
| IEHC 175 | 71 | 80  | 128  | 178 | 1   | 80   | 225 | 491.5 | 84   | 80   | 63   | 158   |
| IEHC 200 | 71 | 80  | 128  | 178 | 1   | 80   | 250 | 491.5 | 84   | 80   | 63   | 158   |
| IEHC 225 | 71 | 80  | 128  | 178 | 1   | 80   | 275 | 491.5 | 84   | 80   | 63   | 158   |
| IEHC 250 | 71 | 100 | 128  | 178 | 1   | 80   | 300 | 491.5 | 84   | 80   | 63   | 158   |

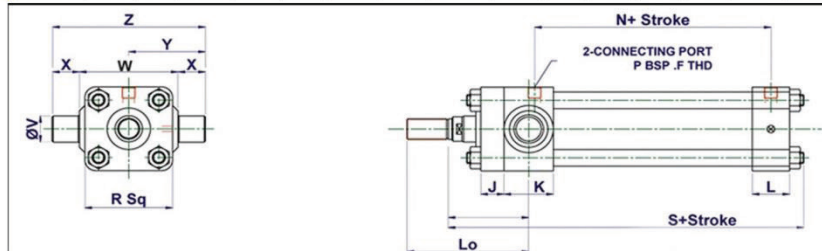
| Model    | K  | L   | M    | N   | P   | Q    | R   | S     | T   | U   | V   | W   | X  | Y    | Z    |
|----------|----|-----|------|-----|-----|------|-----|-------|-----|-----|-----|-----|----|------|------|
| IEHF 40  | 40 | 30  | 20   | 94  | 3/8 | 15   | 65  | 204   | 79  | 46  | 95  | 118 | 11 | 15   | 42.5 |
| IEHF 50  | 45 | 34  | 21.2 | 116 | 1/2 | 17   | 80  | 239.2 | 85  | 58  | 115 | 145 | 13 | 16.2 | 50   |
| IEHF 63  | 45 | 34  | 24   | 114 | 1/2 | 17   | 95  | 247   | 98  | 69  | 132 | 165 | 15 | 19   | 63   |
| IEHF 80  | 56 | 45  | 27   | 132 | 3/4 | 22.5 | 115 | 289.5 | 118 | 87  | 155 | 190 | 18 | 22   | 75   |
| IEHF 100 | 56 | 45  | 35.5 | 144 | 3/4 | 22.5 | 136 | 324   | 145 | 109 | 185 | 224 | 20 | 30   | 85   |
| IEHF 125 | 71 | 70  | 39   | 168 | 1   | 30   | 165 | 377   | 175 | 132 | 224 | 272 | 24 | 34   | 106  |
| IEHF 150 | 71 | 70  | 47.5 | 178 | 1   | 30   | 200 | 411   | 206 | 155 | 265 | 315 | 28 | 42.5 | 118  |
| IEHF 175 | 71 | 80  | 47.5 | 178 | 1   | 30   | 225 | 319.5 | 231 | 270 | 290 | 340 | 28 | 8    | 118  |
| IEHF 200 | 71 | 80  | 47.5 | 178 | 1   | 30   | 250 | 319.5 | 256 | 295 | 315 | 365 | 28 | 8    | 135  |
| IEHF 225 | 71 | 80  | 47.5 | 178 | 1   | 30   | 275 | 319.5 | 281 | 320 | 340 | 390 | 28 | 8    | 145  |
| IEHF 250 | 71 | 100 | 47.5 | 178 | 1   | 30   | 300 | 319.5 | 306 | 345 | 365 | 415 | 28 | 8    | 165  |

## HEAD SIDE FLANGE TYPE (IEHF)

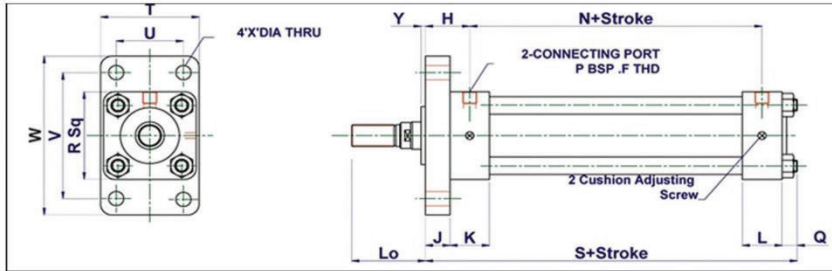


| Model    | K  | L  | M     | N   | P   | Q  | R   | S     | T     | U  | V    | W   | X    | Y     | Z   |
|----------|----|----|-------|-----|-----|----|-----|-------|-------|----|------|-----|------|-------|-----|
| IERT 40  | 40 | 30 | 70    | 94  | 3/8 | 10 | 65  | 195   | 32.5  | 11 | 20   | 75  | 20   | 57.5  | 115 |
| IERT 50  | 45 | 34 | 79.2  | 116 | 1/2 | 10 | 80  | 231   | 40    | 13 | 25   | 90  | 25   | 70    | 140 |
| IERT 63  | 45 | 34 | 86.5  | 114 | 1/2 | 10 | 95  | 237   | 47.5  | 14 | 31.5 | 105 | 31.5 | 84    | 168 |
| IERT 80  | 56 | 45 | 102.5 | 132 | 3/4 | 10 | 115 | 278.5 | 57.5  | 16 | 31.5 | 125 | 31.5 | 94    | 188 |
| IERT 100 | 56 | 45 | 116.5 | 144 | 3/4 | 10 | 136 | 307.5 | 68    | 19 | 40   | 146 | 40   | 113   | 226 |
| IERT 125 | 71 | 70 | 134.5 | 168 | 1   | 10 | 165 | 359   | 82.5  | 21 | 50   | 175 | 50   | 137.5 | 275 |
| IERT 150 | 71 | 60 | 150   | 178 | 1   | 10 | 200 | 386.5 | 100   | 23 | 63   | 210 | 63   | 168   | 336 |
| IERT 175 | 71 | 60 | 150   | 178 | 1   | 10 | 225 | 386.5 | 115.5 | 23 | 63   | 235 | 63   | 168   | 361 |
| IERT 200 | 71 | 60 | 150   | 178 | 1   | 10 | 250 | 386.5 | 125   | 23 | 63   | 260 | 63   | 168   | 386 |
| IERT 225 | 71 | 60 | 150   | 178 | 1   | 10 | 275 | 386.5 | 137.5 | 23 | 63   | 285 | 63   | 168   | 411 |
| IERT 250 | 71 | 60 | 150   | 178 | 1   | 10 | 300 | 386.5 | 150   | 23 | 63   | 310 | 63   | 168   | 436 |

## ROD SIDE TRUNNION TYPE (IEHF)

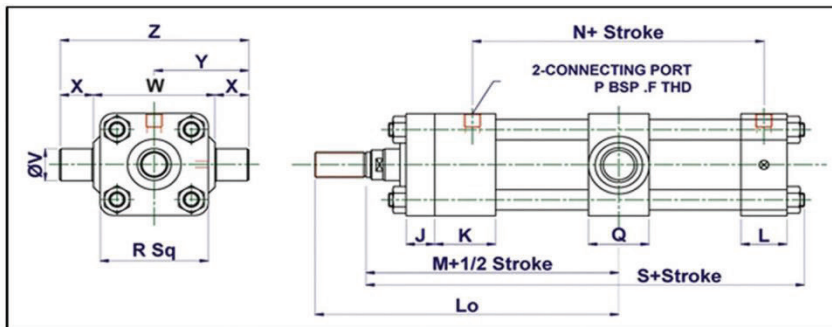


| Model    | K  | L  | N   | P   | Q  | R   | S     | T   | U   | V   | W   | X  | Y | Z    |
|----------|----|----|-----|-----|----|-----|-------|-----|-----|-----|-----|----|---|------|
| IERF 40  | 40 | 30 | 94  | 3/8 | 11 | 65  | 165   | 69  | 46  | 95  | 118 | 11 | 6 | 42.5 |
| IERF 50  | 45 | 34 | 116 | 1/2 | 13 | 80  | 195.2 | 85  | 58  | 115 | 145 | 13 | 6 | 50   |
| IERF 63  | 45 | 34 | 114 | 1/2 | 14 | 95  | 197   | 98  | 69  | 132 | 165 | 15 | 8 | 63   |
| IERF 80  | 56 | 45 | 132 | 3/4 | 16 | 115 | 231   | 118 | 87  | 155 | 190 | 18 | 8 | 75   |
| IERF 100 | 56 | 45 | 144 | 3/4 | 19 | 136 | 254.5 | 145 | 109 | 185 | 224 | 20 | 8 | 85   |
| IERF 125 | 71 | 70 | 168 | 1   | 21 | 165 | 299   | 175 | 132 | 224 | 272 | 24 | 8 | 106  |
| IERF 150 | 71 | 70 | 178 | 1   | 23 | 200 | 319.5 | 206 | 155 | 265 | 315 | 28 | 8 | 118  |
| IERF 175 | 71 | 80 | 178 | 1   | 23 | 225 | 319.5 | 231 | 270 | 290 | 340 | 28 | 8 | 118  |
| IERF 200 | 71 | 80 | 178 | 1   | 23 | 250 | 319.5 | 256 | 295 | 315 | 365 | 28 | 8 | 135  |
| IERF 225 | 71 | 80 | 178 | 1   | 23 | 275 | 319.5 | 281 | 320 | 340 | 390 | 28 | 8 | 145  |
| IERF 250 | 71 | 80 | 178 | 1   | 23 | 300 | 319.5 | 306 | 345 | 365 | 415 | 28 | 8 | 165  |



## ROD SILDE FLANGE TYPE

| Model    | K  | L  | M     | N   | P   | Q  | R   | S     | T     | U  | V    | W   | X    | Y     | Z   |
|----------|----|----|-------|-----|-----|----|-----|-------|-------|----|------|-----|------|-------|-----|
| IEIT 40  | 40 | 30 | 122   | 94  | 3/8 | 40 | 65  | 195   | 32.5  | 11 | 20   | 75  | 20   | 57.5  | 115 |
| IEIT 50  | 45 | 34 | 142.7 | 116 | 1/2 | 45 | 80  | 231   | 40    | 13 | 25   | 90  | 25   | 70    | 140 |
| IEIT 63  | 45 | 34 | 149   | 114 | 1/2 | 45 | 95  | 237   | 47.5  | 14 | 31.5 | 105 | 31.5 | 84    | 168 |
| IEIT 80  | 56 | 45 | 174   | 132 | 3/4 | 56 | 115 | 278.5 | 57.5  | 16 | 31.5 | 125 | 31.5 | 94    | 188 |
| IEIT 100 | 56 | 45 | 194   | 144 | 3/4 | 56 | 136 | 307.5 | 68    | 19 | 40   | 146 | 40   | 113   | 226 |
| IEIT 125 | 71 | 60 | 224   | 168 | 1   | 71 | 165 | 359   | 82.5  | 21 | 50   | 175 | 50   | 137.5 | 275 |
| IEIT 150 | 71 | 60 | 244.5 | 178 | 1   | 71 | 200 | 386.5 | 100   | 23 | 63   | 168 | 63   | 168   | 336 |
| IEIT 175 | 71 | 60 | 244.5 | 178 | 1   | 71 | 225 | 386.5 | 115.5 | 23 | 63   | 235 | 63   | 168   | 361 |
| IEIT 200 | 71 | 60 | 244.5 | 178 | 1   | 71 | 250 | 386.5 | 125   | 23 | 63   | 260 | 63   | 168   | 386 |
| IEIT 225 | 71 | 60 | 244.5 | 178 | 1   | 71 | 275 | 386.5 | 137.5 | 23 | 63   | 285 | 63   | 168   | 411 |
| IEIT 250 | 71 | 60 | 244.5 | 178 | 1   | 71 | 300 | 386.5 | 150   | 23 | 63   | 310 | 63   | 168   | 436 |



## INTERMEDIATE TRUNNION TYPE (IEIT)

| Model Number | A          | B   | C   | D   | E  | F   | G    | H    | J    | LO (RSF) | Lo(HSF) +Stroke | Lo (RST) | Lo (ITT) +1/25tr. | Lo(HSC) + Str. |
|--------------|------------|-----|-----|-----|----|-----|------|------|------|----------|-----------------|----------|-------------------|----------------|
| 40C          | M16 X 1.5P | 22  | 18  | 22  | 6  | 17  | 30   | 45   | 20   | 58       | 232             | 98       | 150               | 259.5          |
| 40B          | M20 X 1.5P | 28  | 24  | 28  | 6  | 22  | 30   | 45   | 20   | 61.5     | 235.5           | 101.5    | 153.5             | 263            |
| 50C          | M20 X 1.5P | 28  | 24  | 28  | 6  | 22  | 35.5 | 49.2 | 21.2 | 67       | 270.7           | 110.7    | 174.2             | 299.2          |
| 50B          | M27 X 2P   | 36  | 32  | 36  | 8  | 28  | 35.5 | 49.2 | 21.2 | 71       | 274.7           | 114.7    | 178.2             | 303.2          |
| 63C          | M27 X 2P   | 36  | 32  | 36  | 8  | 28  | 40   | 52   | 24   | 75.6     | 282.5           | 122      | 184.5             | 329.5          |
| 63B          | M33 X 2P   | 45  | 36  | 45  | 8  | 36  | 40   | 52   | 24   | 80       | 287             | 126.5    | 189               | 334            |
| 80C          | M33 X 2P   | 45  | 36  | 45  | 8  | 36  | 47.5 | 60.5 | 27   | 87.5     | 329.5           | 142.5    | 214               | 377.5          |
| 80B          | M42 X 2P   | 56  | 48  | 56  | 10 | 46  | 47.5 | 60.5 | 27   | 95       | 337             | 150      | 221.5             | 385            |
| 100C         | M42 X 2P   | 56  | 52  | 56  | 10 | 46  | 53   | 69   | 35.5 | 100.5    | 371.5           | 164      | 241.5             | 426            |
| 100B         | M48 X 2P   | 63  | 52  | 70  | 10 | 60  | 53   | 69   | 35.5 | 109      | 380             | 172.5    | 250               | 434.5          |
| 125C         | M48 X 2P   | 63  | 52  | 70  | 10 | 60  | 60   | 80   | 39   | 116      | 433             | 190.5    | 280               | 499            |
| 125B         | M64 X 3P   | 85  | 80  | 90  | 12 | 75  | 60   | 80   | 39   | 127      | 444             | 201.5    | 291               | 510            |
| 150          | M64 X 3P   | 85  | 80  | 90  | 12 | 75  | 67   | 88.5 | 47.5 | 130      | 474             | 213      | 307.5             | 554.5          |
| 180          | M80 X 3P   | 95  | 100 | 110 | 12 | 90  | 67   | 88.5 | 47.5 | 147      | 491             | 230      | 324.5             | 571.5          |
| 200C         | M80 X 3P   | 95  | 100 | 110 | 12 | 90  | 67   | 88.5 | 47.5 | 147      | 491             | 230      | 324.5             | 571.5          |
| 200B         | M100 X 3P  | 112 | 130 | 140 | 14 | 120 | 37   | 88.5 | 47.5 | 162      | 506             | 245      | 339.5             | 586.5          |
| 225          | M100 X 3P  | 112 | 130 | 140 | 14 | 120 | 37   | 88.5 | 47.5 | 162      | 506             | 245      | 339.5             | 586.5          |
| 250          | M130 X 4P  | 150 | 145 | 160 | 14 | 140 | 67   | 88.5 | 47.5 | 177      | 526             | 465      | 359.5             | 606.5          |

## COMMON DIMENSIONS

# Product Range

## WELDED CONSTRUCTION

We are manufacturing Welded type Cylinders using quality raw material such as stainless steel and mild steel ensuring high functionality and durability. These are fulfill to the requirements of earth moving machine applications, tie rod and welded constructions.



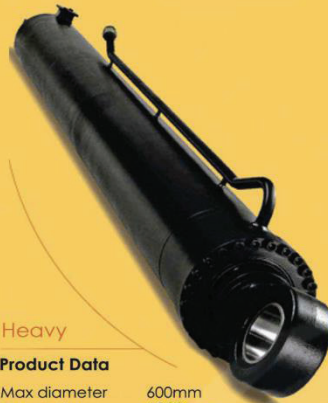
## TECHNICAL SPECIFICATIONS

|                  |                                                         |
|------------------|---------------------------------------------------------|
| Working Pressure | Up to 500kg/cm <sup>2</sup>                             |
| Bore             | 40 to 400 mm diameter                                   |
| Stroke           | Up to 6000mm                                            |
| Mounting         | 5 standard mounting                                     |
| Application      | industrial, Steel plant machine, Press Application etc. |



### Light

**Product Data**  
 Max diameter 200mm  
 Max stroke 6000mm  
 Max working pressure 250bar



### Heavy

**Product Data**  
 Max diameter 600mm  
 Max stroke 6000mm  
 Max working pressure 400bar

### Medium

**Product Data**  
 Max diameter 3500mm  
 Max stroke 6000mm  
 Max working pressure 250bar



## HEAVY DUTY

**Intertech Engineers are Speciality Designed Heavy Construction Hydraulic Cylinder for Press Machine application.**

Following are the Heavy Duty series Specification.

- Working Pressure - Up to 400 kg
- Bore - 600mm diameter
- Mounting - 3 Standard Series
- Application - Industrial, Steel, Press etc.



## MILL-TYPE CYLINDERS

### Series IE MT Mill-Type Cylinders

We Manufactured Specific Design & Built Extra Heavy Duty Hydraulic Cylinders applicable for 350 bar Service.

Intertech Series IE MT cylinders are offered in 7 mounting styles and 12 standard bore sizes ranging from 40.00mm through 600mm with 14 standard rod sizes. This wide range of rod and bore options means you can more accurately and economically size the cylinder to meet specific application requirements.



### Mill Duty Type various Type of cylinders

The cylinder heads are rugged in construction. The barrel flanges are welded for better strength. The piston rods have high tensile strength and have ground finish. The cylinder barrels are chrome plated. They are made of tough quality steel. They find application in a variety of industries. They are robust in construction and are highly precise. They are energy efficient and are low on maintenance.



## SPECIAL APPLICATION CYLINDER

Intertech Engineers has been Developed Hydraulic Cylinders to Suit Customers Specific requirement like bandsaw, large Saw blade clamp, buffer application.

Buffer Cylinders Specifically designed to hold Minimum 400 bar pressure for 15 Months. This Buffer Cylinders are Charged & Hold Under Specific Pressure.

- Capacity - 100 T Load
- Leakage - Max 0.05 ml.



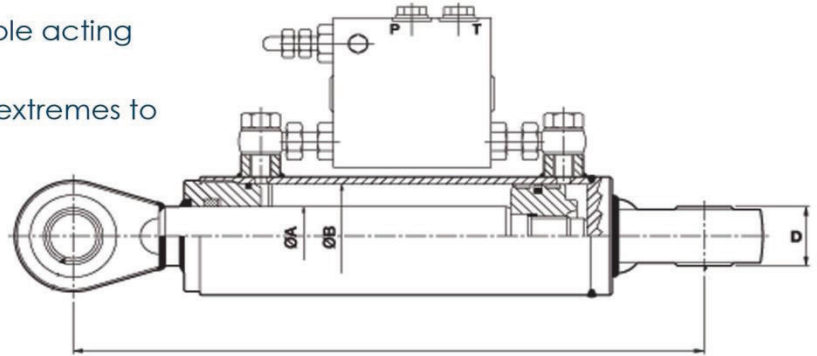
## SPECIAL APPLICATION CYLINDER

### Turn-over plough cylinder

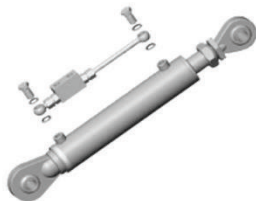
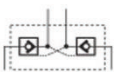
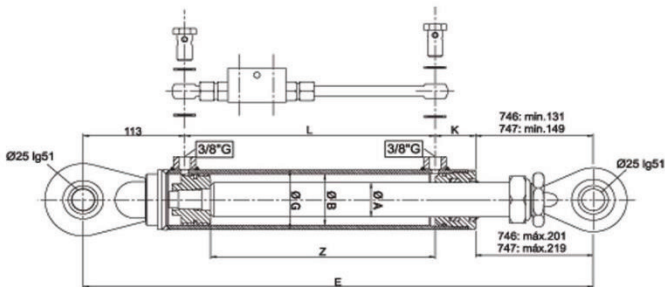
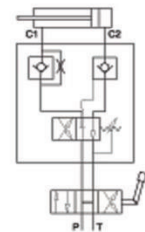
- They work both with Single and Double acting circuits.
- They feature ball-joint ends on both extremes to make mounting easier.

#### Our Manufacturing Capacity

|          |                 |
|----------|-----------------|
| Bore Dia | 40MM to 400MM   |
| Stroke   | 150MM to 6000MM |



Valve hydraulic diagram



### Hydraulic Top Link

- Option: dual pilot operated check valve set (Ref.ARDP).
- Sturdy construction, high shock resistance.
- Screw-adjustable closed length
- Valve Hydraulic diagram

#### Our Manufacturing Capacity

|          |                 |
|----------|-----------------|
| Bore Dia | 40MM to 400MM   |
| Stroke   | 150MM to 6000MM |



## Hydraulic cylinders with proximity sensors and built-in „crash safety“

Without proximity sensors none of this would be possible. They are specifically matched for Intertech hydraulic cylinders in each respective application and subject the cylinder to a permanent visual control and display at which end position the piston is located at any given time. Proximity sensors switch at each respective stroke end position and thus the user knows "exactly what's what".

### No more need for use-by date

The proximity sensor operates inductively and thus without making contact. This makes it free from wear-and-tear and enables it to operate flawlessly for an entire cylinder service life. And what's more, they can be fitted into any Intertech hydraulic cylinder.

### The little guardian

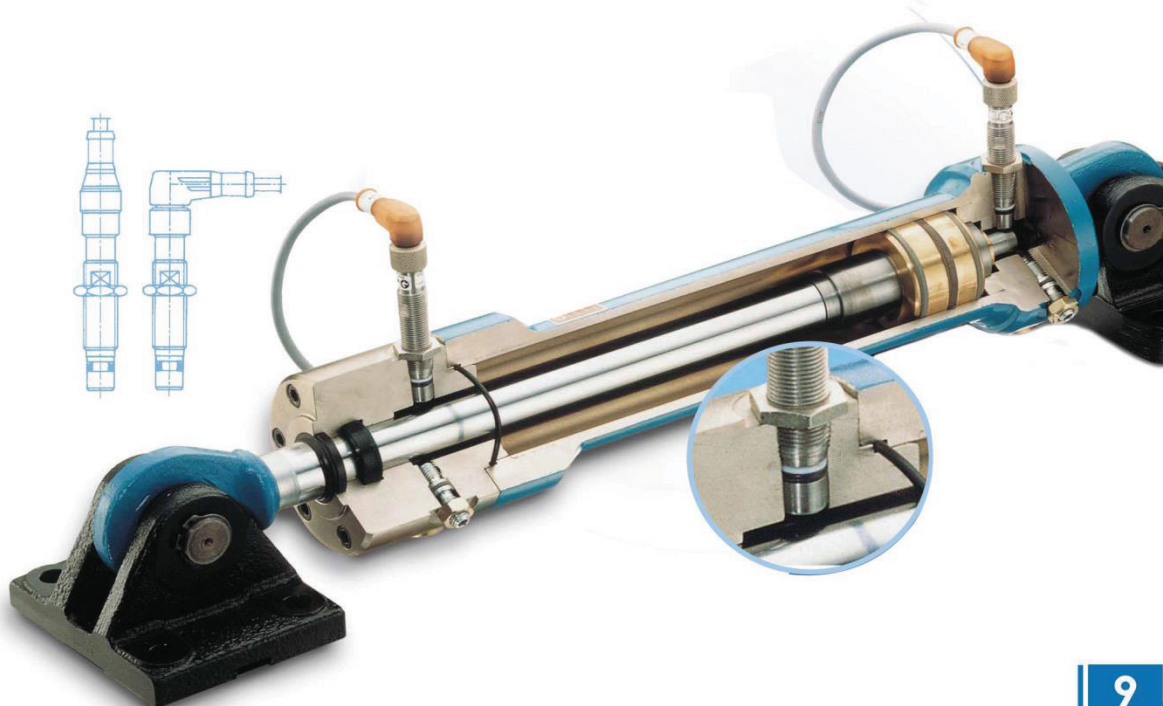
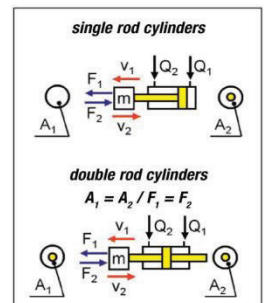
All cylinders for proximity sensors have integrated end position damping at both sides, which can be disabled by opening the adjusting screw. For specific products.

## Accessories

- Right-angle plug with cable
- Plug with straight terminal and cable

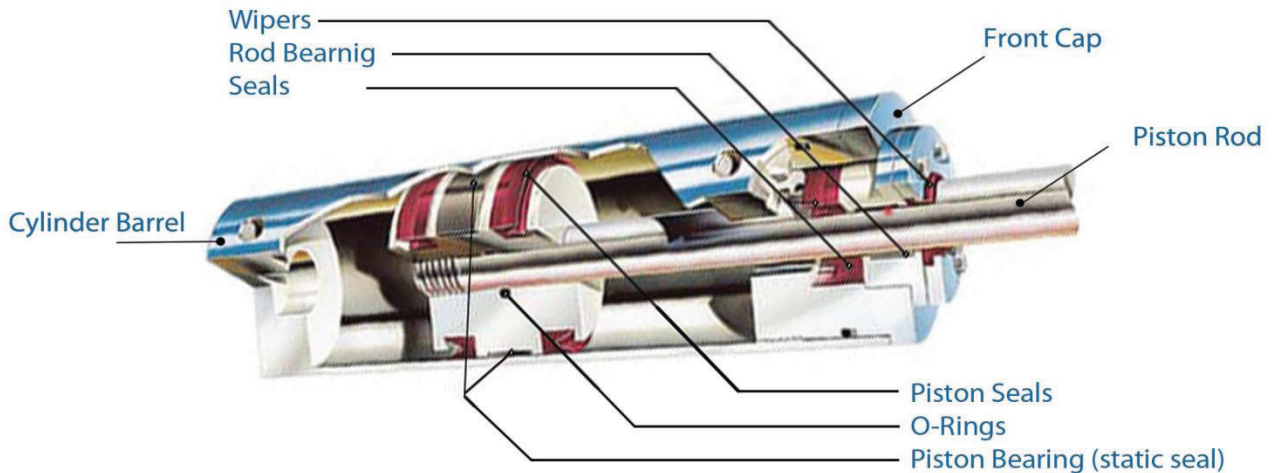
## Technical Data

- Inductive
- Pressure resistant up to 400 bar
- Operating voltage 10 - 30 VDC
- Protective system as under DIN 40050: IP 67
- Operating temp.



# Product Range

## Hydraulic Cylinders - Constructional Details.



### 1. Cylinder Barrel :

Strict quality control standards and precision manufacturing ensure that all tubes meet rigid standards of straightness, roundness and surface finish. The steel tubing is surface finished to minimize internal friction and prolong seal life.

### 2. Piston Rod :

Gland seal life is maximized by manufacturing piston rods from precision ground, high tensile carbon alloy steel, hard chrome plated and polished to 0.2um max. Piston rods are induction case hardened to Rockwell C54 minimum before chrome plating, resulting in a dent-resistant surface.

### 3. Piston :

Wear-resistant cast iron piston rings are fitted as standard to 3L cylinders. Lip seal pistons are available to suit different applications. See 'Piston Seal'. All pistons are of one piece type, and feature wide bearing surface to resist side loading. Long thread engagement secures the piston rod and for additional safety, the piston is secured by thread-locking adhesive and a locking pin.

### 4. Cover Plates :

Made from mild steel and constructed with sturdy design to withstand high pressure load.

### 5. Front Caps :

Made of mild steel, precision machined to assure perfect alignment of the piston rod and cylinder bore.

### 6. Tie Rods :

Made from special alloy steel and are prestressed at assembly to minimize possible elongation.

### 7. Gland Seals :

A variety of piston seal options are available to suit different applications. The seal option should be specified at the time of order.

### 8. Wiper Seals :

Made of polyurethane rubber to prevent any dust particles from entering inside.

### 9. Rod Seals :

The serrated lip seal has a series of sealing edges which take over successively as pressure increases, providing efficient sealing under all operating conditions. On the return stroke, the serrations act as a check valve, allowing the oil adhering to the rod to pass back into the cylinder. The double-lip wiper seal acts as a secondary seal, trapping excess lubricating film in the chamber between the wiper and lip seals. Its outer lip prevents the ingress of dirt into the cylinder, extending the life of gland and seal. Standard lip seals are manufactured from an enhanced polyurethane, giving efficient retention of pressurized fluid and service life of up to five times that of the traditional seal materials. Standard seals are suitable for speeds up to 0.5 m/s - special seal combinations including PTFE are available for higher speed applications.

### 10. Cushioning :

Deceleration of a load attached to the piston rod is achieved by using built-in cushions at either or both ends of the cylinder. At the head end, a cushion sleeve is fitted, while the polished cap end spear is an integral part of the piston rod.

### 11. Floating Cushion Bushes and Sleeves :

Closer tolerances - and therefore, more effective cushioning - are permitted by the use of a floating cushion sleeve at the head end of the cylinder and floating cushion bush at the cap end. A specially designed cushion sleeve on bore sizes, a conventional ball check valve is used. The use of a check valve in the head and lifting of the bronze cushion bush in the cap provides minimum fluid flow restriction at the start of the return stroke. This allows full pressure to be applied over the whole area of the piston to provide full power and fast cycle times.

## Check List :

The following check list indicates the principal factors which should be considered while selecting a hydraulic cylinder for a particular application. Further information is available on subsequent pages. If more information is required about any aspect of a cylinder specification, please contact our design engineers.

### Establish System Parameters :

- Weight to be moved and force required
- Normal operating pressure and temp. range
- Distance to be traveled
- Average and maximum piston speed
- Fluid medium and temperature

### Mounting Style :

- Select the appropriate style for the specific application.
- ME5 - Head Rectangular Flange
- MP3 - Cap Mounting Fixed Eye
- MT2 - Cap Trunnion mounting
- Tie Rod Extended Both Ends
- MX3 - Tie Rod Extended mounting
- ME - Cap Rectangular Flange
- MP1 - Head Trunnion Mounting
- MX2 - Tie Rod Extended Cap Mounting
- MS2 - Side Lugs Mounting

### Cylinder Bore and Operating Pressure :

Determine the bore and system pressure required to provide the necessary force.

### Piston Rod :

- Single or double rod
- Determine the minimum rod diameter required to withstand buckling forces.
- Is a stop tube required ?
- Select a suitable rod end and rod end thread ?
- Check pressure rating of selected cylinder and piston rod ?

### Piston :

- Does the seal type suit the application ?

### Cushioning :

- Select the cushioning requirement if applicable.

### Parts :

- Select suitable parts.
- Are they capable of the speed required ?
- Are the standard positions acceptable ?

### Seals :

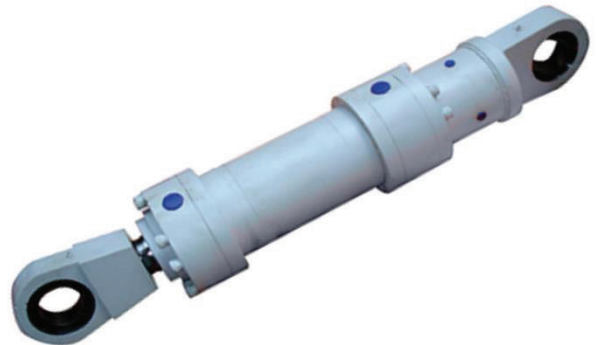
- Select seals to suit the chosen fluid medium and temperature range.

### Rod and cap End Accessories :

- Are rod end and/or cap end accessories required ?

### Operating Features :

- Air bleeds, rod end bellows, etc.



# Product Range

## Ordering details of IE Series Hydraulic Cylinders

| IE                 | M                                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| Series             | M - Mill Type<br>T - Tie Rod<br>W - Welded                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| Mountin Style      |                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |
|                    | MX - Without Mounting<br>HSC - Head Side Cleavis<br>HSF - Head Side Flange<br>RST - Rod Side Trunion<br>IT - Intermediate Trunion<br>RSF - Rod Side Flange<br>F - Foot Mounting |  |  |  |  |  |  |  |  |  |
| Piston .           | 32 to 400mm                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| Rod                |                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |
| Stroke Length (MM) |                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |
| Port size BSP      |                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |
|                    | B1 - 1/4    B5 - 1"<br>B2 - 3/8    B6 - 1 1/4<br>B3 - 1/2    B7 - 1 1/4<br>B4 - 3/4    B8 - 2"                                                                                  |  |  |  |  |  |  |  |  |  |

### Piston Rod Versions

- C - Hardchrome plating
- S - Stainless steel
  - X4ch Nimon 2752
  - EN 10088 Hardchrome plating

**Sample order : IEM / HCC / 100 / 56 / 1000 / B3 / C**

# OUR ASSET

| Sr. No. | Machine                                                     | MAKE                           | QTY. |
|---------|-------------------------------------------------------------|--------------------------------|------|
| 01      | Lathe Machine (All Geared) 6'                               | PSG 02                         | 02   |
| 02      | CNC Machine (Turret Lathe)                                  | Jyoti                          | 01   |
| 03      | Lathe Machine 16' Feet                                      | Accumax                        | 01   |
| 04      | Lathe Machine 12' Feet                                      | Accumax                        | 01   |
| 05      | Vertical Milling Machine                                    | Adcock Shiplay                 | 01   |
| 06      | Radial Drill Machine                                        | Prabhat                        | 01   |
| 07      | Special Honing Machine Bore Max 400 mm with 6000 mm Strock  | Intertech                      | 01   |
| 08      | Vertical Honing Machine Max Bore 400 mm with 1000 mm Strock | Intertech                      | 01   |
| 09      | Rectifiers 600 A Advani 01                                  | Advani                         | 01   |
| 10      | Welding Transformer 400 A                                   | National Electrical Industries | 01   |
| 11      | MIG Welding 600 AS (ESSAB) make                             | ESSAB                          | 01   |
| 12      | Overhead Crane - 5 T Capacity                               | Intertech                      | 01   |
| 13      | Valve Test Branch                                           | Intertech                      | 01   |
| 14      | Cylinder Test Branch                                        | Intertech                      | 01   |
| 15      | Pipe Boring Machine                                         | Kisan                          | 01   |
| 16      | Coating and plating faceting                                |                                | 01   |
| 17      | Heavy Duty Lathe Machine                                    | Rajendra                       | 01   |
| 18      | Auto welding Fixture                                        |                                | 02   |

## Team & After Sales support:

We have qualified & trained service engineers, to give excellent & Skilled Service to customers with in time frame.

## Quality Policy

We M/s Intertech Engineers is Committed for Design, Development, Manufacturing & Supply of hydraulic system as per the customer requirement through Product Quality, Timely delivery, Contineous improvements in Quality.

## Business Specifics

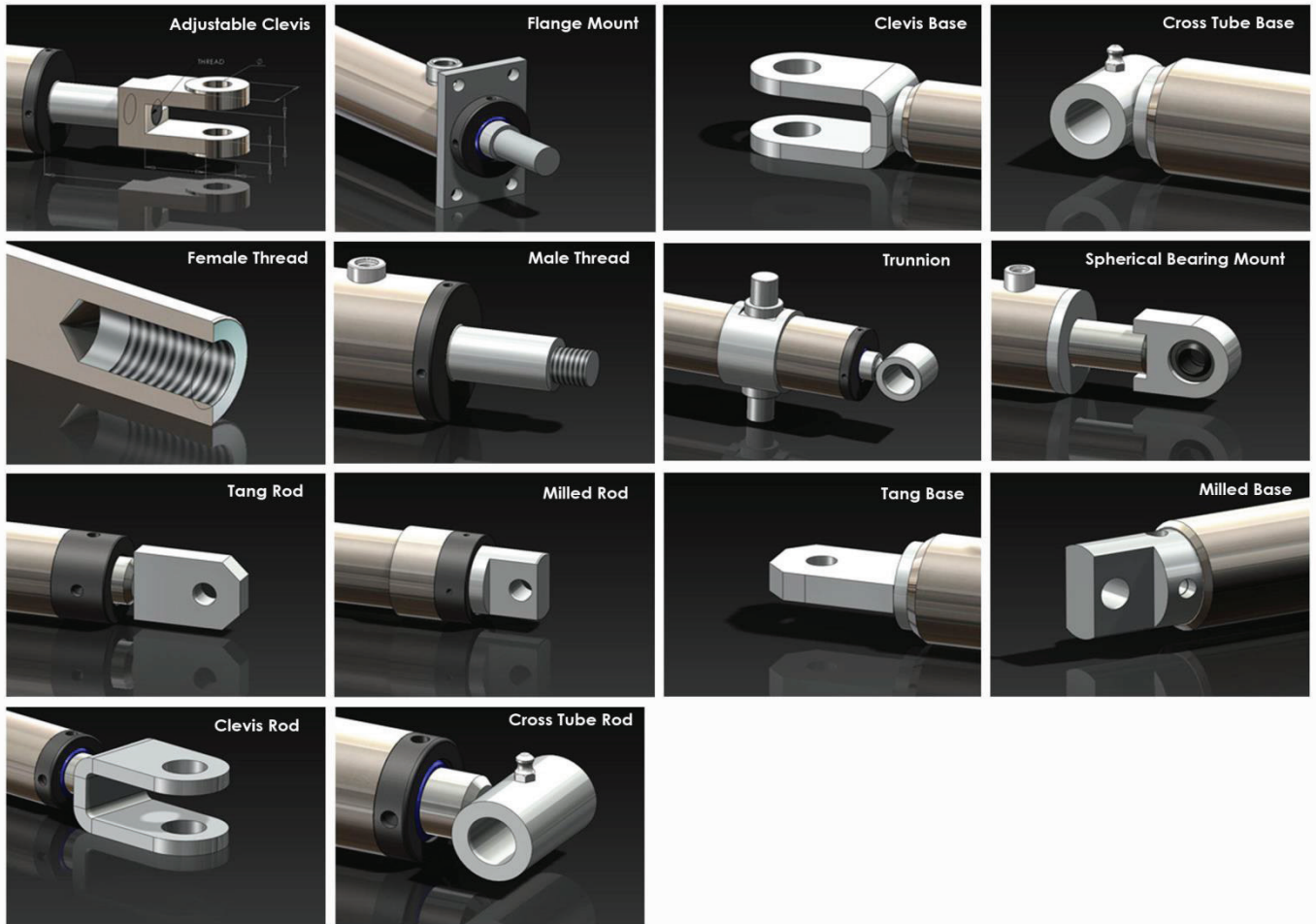
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## Application Segments



- Special Purpose Machine & Hydraulic Presses 40%
- Steel Industry 25%
- Cotain Bailing Presses & Cranes (Heavy Duty Cylinders) 15%
- Material Handling Equipments & Lift 10%
- Earth Moving Sectors 05%
- Others 05%

# MOUNTING STYLE



## ROBUST Design Process



Our Strong Experience Engineering Team having that will Vast Range of Application & Robust Design Process Knowledge, Proved our cylinders Performance and Durability.

**WE ARE WORKING ON PRO-E, CATIA, CAD INCLUDE 2D & 3D ANALYSES.**



# Quality Hydraulic Cylinder



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