

2024

HYDRAULIC  
PARTS



since 1991

**PENTAGON**

**Întotdeauna Soluția Potrivită**

[www.pentagonromania.ro](http://www.pentagonromania.ro)

Pentagon Ltd. is a company with wholly private capital, established in 1991, which promotes and sells high-performance products, as a representative and distributor of companies with a long history and tradition at national and international level.

We are a forward-thinking, flexible company with prudent development and a capable team of specialists to always offer complete technical solutions at a very good price / quality ratio.

Having a range of products with a wide range of uses in all branches of industry and construction, we had the possibility to collaborate with many companies in the country.

In order to keep you informed on the evolution and strategy of our company, we regularly participate in fairs and local and national exhibitions, we distribute catalogs and leaflets, we support an online promotion campaign and we support directly through area representatives.

We have the following trademarks:

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Our company has implemented and applies the Quality Management System: ISO 9001-2015



Certified as an Authorised Economic Operator in the European Union





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### HYDRAULIC CYLINDERS & JACKS

- ▶ Single acting cylinder
- ▶ Double acting cylinder
- ▶ Aluminum cylinder
- ▶ Low profile & Compact cylinder
- ▶ Center hole cylinder
- ▶ Lock nut cylinder
- ▶ Pulling jack
- ▶ Toe jack

### HYDRAULIC PUMPS

- ▶ Hand pump
- ▶ Foot pump
- ▶ Motor pump



## HYD TOOLS & ACCESSORIES

- ▶ Hydraulic punch
- ▶ Pipe bender & Puller
- ▶ Angle cutter & Wire cutter
- ▶ Nut splitter & Flange spreader
- ▶ Accessory

## HYDRAULIC EQUIPMENTS

- ▶ Shop press
- ▶ Block lifter
- ▶ Power pack
- ▶ Jack up System
- ▶ Plunger pump unit
- ▶ Rocky washer
- ▶ Flushing unit

## >> SINGLE ACTING CYLINDER **ESR-SERIES**



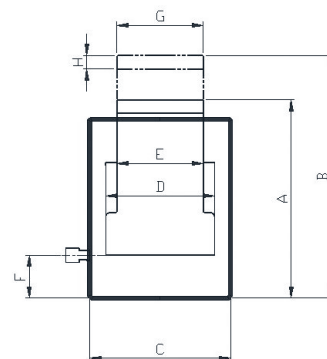
### Applicable Products



- >**CAPACITY: 5-100 ton**
- >**STROKE: 50-250 mm**
- >**Max Pressure: 700 bar**
- Single acting & Spring return
- Coupler port PT 3/8

| Model      | Tonnage (ton) | Stroke (mm) | Oil capacity (cc) | Effective area (cm <sup>2</sup> ) | Collapsed Height A (mm) | Extended Height B (mm) | Outside Diameter C (mm) |
|------------|---------------|-------------|-------------------|-----------------------------------|-------------------------|------------------------|-------------------------|
| ESR-550    | 5             | 50          | 36                | 7.1                               | 144                     | 194                    | 50                      |
| ESR-5100   | 5             | 100         | 71                | 7.1                               | 194                     | 294                    | 50                      |
| ESR-5150   | 5             | 150         | 107               | 7.1                               | 244                     | 394                    | 50                      |
| ESR-1050   | 10            | 50          | 80                | 15.9                              | 147                     | 197                    | 63                      |
| ESR-10100  | 10            | 100         | 159               | 15.9                              | 197                     | 297                    | 63                      |
| ESR-10150  | 10            | 150         | 239               | 15.9                              | 247                     | 397                    | 63                      |
| ESR-10200  | 10            | 200         | 318               | 15.9                              | 297                     | 497                    | 63                      |
| ESR-2050   | 20            | 50          | 166               | 33.2                              | 150                     | 200                    | 88                      |
| ESR-20100  | 20            | 100         | 332               | 33.2                              | 222                     | 322                    | 88                      |
| ESR-20150  | 20            | 150         | 498               | 33.2                              | 272                     | 422                    | 88                      |
| ESR-20200  | 20            | 200         | 664               | 33.2                              | 322                     | 522                    | 88                      |
| ESR-3050   | 30            | 50          | 221               | 44.2                              | 172                     | 222                    | 106                     |
| ESR-30100  | 30            | 100         | 442               | 44.2                              | 222                     | 322                    | 106                     |
| ESR-30150  | 30            | 150         | 663               | 44.2                              | 272                     | 422                    | 106                     |
| ESR-30200  | 30            | 200         | 884               | 44.2                              | 322                     | 522                    | 106                     |
| ESR-5050   | 50            | 50          | 354               | 70.8                              | 190                     | 240                    | 128                     |
| ESR-50100  | 50            | 100         | 708               | 70.8                              | 240                     | 340                    | 128                     |
| ESR-50150  | 50            | 150         | 1062              | 70.8                              | 290                     | 440                    | 128                     |
| ESR-50200  | 50            | 200         | 1416              | 70.8                              | 340                     | 540                    | 128                     |
| ESR-50250  | 50            | 250         | 1770              | 70.8                              | 390                     | 640                    | 128                     |
| ESR-10050  | 100           | 50          | 716               | 143.1                             | 222                     | 272                    | 185                     |
| ESR-100100 | 100           | 100         | 1431              | 143.1                             | 272                     | 372                    | 185                     |
| ESR-100150 | 100           | 150         | 2147              | 143.1                             | 322                     | 472                    | 185                     |
| ESR-100200 | 100           | 200         | 2862              | 143.1                             | 372                     | 572                    | 185                     |
| ESR-100250 | 100           | 250         | 3578              | 143.1                             | 422                     | 672                    | 185                     |

## >> SINGLE ACTING CYLINDER **ESR-SERIES**



- Mounting collar designed to hold full force
- Smooth piston resist friction & corrosion
- Solid plunger with hardened saddle
- Tilting saddle is available(optional)
- Handle is available(optional)
- Special size is available(optional)

| Cylinder Bore dia D (mm) | Load Diameter E (mm) | Bottom to Advance Port F (mm) | Saddle Diameter G (mm) | Saddle Height H (mm) | Weight (kg) | Model      |
|--------------------------|----------------------|-------------------------------|------------------------|----------------------|-------------|------------|
| 30                       | 23                   | 20                            | 34                     | 15                   | 1.4         | ESR-550    |
| 30                       | 23                   | 20                            | 34                     | 15                   | 2.1         | ESR-5100   |
| 30                       | 23                   | 20                            | 34                     | 15                   | 2.7         | ESR-5150   |
| 45                       | 38                   | 20                            | 49                     | 15                   | 3.2         | ESR-1050   |
| 45                       | 38                   | 20                            | 49                     | 15                   | 3.8         | ESR-10100  |
| 45                       | 38                   | 20                            | 49                     | 15                   | 4.5         | ESR-10150  |
| 45                       | 38                   | 20                            | 49                     | 15                   | 5.1         | ESR-10200  |
| 65                       | 58                   | 20                            | 68                     | 15                   | 5.7         | ESR-2050   |
| 65                       | 58                   | 30                            | 68                     | 15                   | 8.4         | ESR-20100  |
| 65                       | 58                   | 30                            | 68                     | 15                   | 11.3        | ESR-20150  |
| 65                       | 58                   | 30                            | 68                     | 15                   | 14.2        | ESR-20200  |
| 75                       | 68                   | 30                            | 78                     | 15                   | 8           | ESR-3050   |
| 75                       | 68                   | 30                            | 78                     | 15                   | 11.8        | ESR-30100  |
| 75                       | 68                   | 30                            | 78                     | 15                   | 15.6        | ESR-30150  |
| 75                       | 68                   | 30                            | 78                     | 15                   | 19.4        | ESR-30200  |
| 95                       | 85                   | 30                            | 98                     | 22                   | 19          | ESR-5050   |
| 95                       | 85                   | 30                            | 98                     | 22                   | 22.7        | ESR-50100  |
| 95                       | 85                   | 30                            | 98                     | 22                   | 26.4        | ESR-50150  |
| 95                       | 85                   | 30                            | 98                     | 22                   | 30.1        | ESR-50200  |
| 95                       | 85                   | 30                            | 98                     | 22                   | 33.8        | ESR-50250  |
| 135                      | 105                  | 42                            | 118                    | 25                   | 45          | ESR-10050  |
| 135                      | 105                  | 42                            | 118                    | 25                   | 54          | ESR-100100 |
| 135                      | 105                  | 42                            | 118                    | 25                   | 63          | ESR-100150 |
| 135                      | 105                  | 42                            | 118                    | 25                   | 72          | ESR-100200 |
| 135                      | 105                  | 42                            | 118                    | 25                   | 81          | ESR-100250 |

## >> DOUBLE ACTING CYLINDER **EDR-SERIES**



- >**CAPACITY: 10 -300 ton**
- >**STROKE: 150-300 mm**
- >**Max Pressure: 700 bar**
- Double acting & Hyd return
- Coupler port PT 3/8
- Mounting collar designed to hold full force
- Smooth piston resist friction & corrosion
- Solid plunger with hardened saddle
- Tilting saddle is available (optional)
- Handle is available (optional)
- Special size is available (optional)

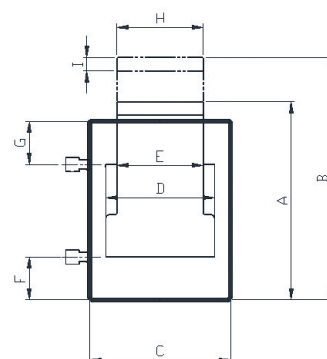
| Model      | Tonnage (ton) | Stroke (mm) | Oil capacity (cc) | Effective area (cm <sup>2</sup> ) | Collapsed Height A (mm) | Extended Height B (mm) | Outside Diameter C (mm) | Cylinder Bore diaD (mm) |
|------------|---------------|-------------|-------------------|-----------------------------------|-------------------------|------------------------|-------------------------|-------------------------|
| EDR-10150  | 10            | 150         | 239               | 15.9                              | 272                     | 422                    | 64                      | 45                      |
| EDR-10200  | 10            | 200         | 318               | 15.9                              | 322                     | 522                    | 64                      | 45                      |
| EDR-10250  | 10            | 250         | 398               | 15.9                              | 372                     | 622                    | 64                      | 45                      |
| EDR-10300  | 10            | 300         | 477               | 15.9                              | 422                     | 722                    | 64                      | 45                      |
| EDR-20150  | 20            | 150         | 498               | 33.2                              | 282                     | 432                    | 98                      | 65                      |
| EDR-20200  | 20            | 200         | 664               | 33.2                              | 332                     | 532                    | 98                      | 65                      |
| EDR-20250  | 20            | 250         | 830               | 33.2                              | 382                     | 632                    | 98                      | 65                      |
| EDR-20300  | 20            | 300         | 996               | 33.2                              | 432                     | 732                    | 98                      | 65                      |
| EDR-30150  | 30            | 150         | 662               | 44.1                              | 282                     | 432                    | 108                     | 75                      |
| EDR-30200  | 30            | 200         | 882               | 44.1                              | 332                     | 532                    | 108                     | 75                      |
| EDR-30250  | 30            | 250         | 1103              | 44.1                              | 382                     | 632                    | 108                     | 75                      |
| EDR-30300  | 30            | 300         | 1323              | 44.1                              | 432                     | 732                    | 108                     | 75                      |
| EDR-50150  | 50            | 150         | 1062              | 70.8                              | 315                     | 465                    | 128                     | 95                      |
| EDR-50200  | 50            | 200         | 1416              | 70.8                              | 365                     | 565                    | 128                     | 95                      |
| EDR-50250  | 50            | 250         | 1770              | 70.8                              | 415                     | 665                    | 128                     | 95                      |
| EDR-50300  | 50            | 300         | 2124              | 70.8                              | 465                     | 765                    | 128                     | 95                      |
| EDR-100150 | 100           | 150         | 2147              | 143.1                             | 335                     | 485                    | 178                     | 135                     |
| EDR-100200 | 100           | 200         | 2862              | 143.1                             | 385                     | 585                    | 178                     | 135                     |
| EDR-100250 | 100           | 250         | 3578              | 143.1                             | 458                     | 708                    | 178                     | 135                     |
| EDR-100300 | 100           | 300         | 4293              | 143.1                             | 508                     | 808                    | 178                     | 135                     |
| EDR-150150 | 150           | 150         | 3207              | 213.8                             | 375                     | 525                    | 217                     | 165                     |
| EDR-150200 | 150           | 200         | 4276              | 213.8                             | 455                     | 655                    | 217                     | 165                     |
| EDR-150250 | 150           | 250         | 5345              | 213.8                             | 505                     | 755                    | 217                     | 165                     |
| EDR-150300 | 150           | 300         | 6414              | 213.8                             | 555                     | 855                    | 217                     | 165                     |
| EDR-200150 | 200           | 150         | 4253              | 283.5                             | 447                     | 597                    | 247                     | 190                     |
| EDR-200200 | 200           | 200         | 5670              | 283.5                             | 497                     | 697                    | 247                     | 190                     |
| EDR-200250 | 200           | 250         | 7088              | 283.5                             | 547                     | 797                    | 247                     | 190                     |
| EDR-200300 | 200           | 300         | 8505              | 283.5                             | 597                     | 897                    | 247                     | 190                     |
| EDR-300150 | 300           | 150         | 6506              | 433.7                             | 505                     | 655                    | 317                     | 235                     |
| EDR-300200 | 300           | 200         | 8674              | 433.7                             | 555                     | 755                    | 317                     | 235                     |
| EDR-300250 | 300           | 250         | 10843             | 433.7                             | 605                     | 855                    | 317                     | 235                     |
| EDR-300300 | 300           | 300         | 13011             | 433.7                             | 655                     | 955                    | 317                     | 235                     |



## >> DOUBLE ACTING CYLINDER **EDR-SERIES**



Applicable Products



| Load Diameter E (mm) | Bottom to Port F (mm) | Top to Port G (mm) | Saddle Diameter H (mm) | Saddle Height I (mm) | Weight (kg) | Model      |
|----------------------|-----------------------|--------------------|------------------------|----------------------|-------------|------------|
| 32                   | 30                    | 45                 | 45                     | 15                   | 5.7         | EDR-10150  |
| 32                   | 30                    | 45                 | 45                     | 15                   | 6.8         | EDR-10200  |
| 32                   | 30                    | 45                 | 45                     | 15                   | 8           | EDR-10250  |
| 32                   | 30                    | 45                 | 45                     | 15                   | 9.1         | EDR-10300  |
| 40                   | 30                    | 50                 | 50                     | 15                   | 13.5        | EDR-20150  |
| 40                   | 30                    | 50                 | 50                     | 15                   | 15.7        | EDR-20200  |
| 40                   | 30                    | 50                 | 50                     | 15                   | 17.8        | EDR-20250  |
| 40                   | 30                    | 50                 | 50                     | 15                   | 20          | EDR-20300  |
| 50                   | 30                    | 50                 | 60                     | 15                   | 24          | EDR-30150  |
| 50                   | 30                    | 50                 | 60                     | 15                   | 27          | EDR-30200  |
| 50                   | 30                    | 50                 | 60                     | 15                   | 30          | EDR-30250  |
| 50                   | 30                    | 50                 | 60                     | 15                   | 33          | EDR-30300  |
| 65                   | 40                    | 60                 | 88                     | 23                   | 30          | EDR-50150  |
| 65                   | 40                    | 60                 | 88                     | 23                   | 37          | EDR-50200  |
| 65                   | 40                    | 60                 | 88                     | 23                   | 43          | EDR-50250  |
| 65                   | 40                    | 60                 | 88                     | 23                   | 50          | EDR-50300  |
| 95                   | 40                    | 63                 | 140                    | 25                   | 64          | EDR-100150 |
| 95                   | 40                    | 63                 | 140                    | 25                   | 70          | EDR-100200 |
| 95                   | 63                    | 63                 | 140                    | 25                   | 77          | EDR-100250 |
| 95                   | 63                    | 63                 | 140                    | 25                   | 83          | EDR-100300 |
| 120                  | 50                    | 80                 | 160                    | 28                   | 97          | EDR-150150 |
| 120                  | 80                    | 80                 | 160                    | 28                   | 106         | EDR-150200 |
| 120                  | 80                    | 80                 | 160                    | 28                   | 115         | EDR-150250 |
| 120                  | 80                    | 80                 | 160                    | 28                   | 124         | EDR-150300 |
| 135                  | 85                    | 85                 | 180                    | 40                   | 135         | EDR-200150 |
| 135                  | 85                    | 85                 | 180                    | 40                   | 153         | EDR-200200 |
| 135                  | 85                    | 85                 | 180                    | 40                   | 172         | EDR-200250 |
| 135                  | 85                    | 85                 | 180                    | 40                   | 190         | EDR-200300 |
| 175                  | 110                   | 110                | 200                    | 40                   | 261         | EDR-300150 |
| 175                  | 110                   | 110                | 200                    | 40                   | 284         | EDR-300200 |
| 175                  | 110                   | 110                | 200                    | 40                   | 307         | EDR-300250 |
| 175                  | 110                   | 110                | 200                    | 40                   | 330         | EDR-300300 |

## >> ALUMINUM CYLINDER **ESRA-SERIES**



- >**CAPACITY: 5-100 ton**
- >**STROKE: 50-250 mm**
- >**Max Pressure: 700 bar**
- Single acting & Spring return
- Coupler port PT 3/8
- Mounting collar designed to hold full force.
- Smooth piston resist friction & corrosion
- Solid plunger with hardened saddle



### Applicable Products



| Model       | Tonnage (ton) | Stroke (mm) | Oil capacity (cc) | Effective area (cm <sup>2</sup> ) | Collapsed Height A (mm) | Extended Height B (mm) | Outside Diameter C (mm) |
|-------------|---------------|-------------|-------------------|-----------------------------------|-------------------------|------------------------|-------------------------|
| ESRA-2050   | 20            | 50          | 156               | 31.2                              | 128                     | 178                    | 96                      |
| ESRA-20100  | 20            | 100         | 312               | 31.2                              | 178                     | 278                    | 96                      |
| ESRA-20150  | 20            | 150         | 468               | 31.2                              | 228                     | 378                    | 96                      |
| ESRA-3050   | 30            | 50          | 221               | 44.2                              | 137                     | 187                    | 108                     |
| ESRA-30100  | 30            | 100         | 442               | 44.2                              | 187                     | 287                    | 108                     |
| ESRA-30150  | 30            | 150         | 663               | 44.2                              | 237                     | 387                    | 108                     |
| ESRA-5050   | 50            | 50          | 354               | 70.8                              | 147                     | 197                    | 136                     |
| ESRA-50100  | 50            | 100         | 708               | 70.8                              | 197                     | 297                    | 136                     |
| ESRA-50150  | 50            | 150         | 1062              | 70.8                              | 247                     | 397                    | 136                     |
| ESRA-50200  | 50            | 200         | 1416              | 70.8                              | 297                     | 497                    | 136                     |
| ESRA-10050  | 100           | 50          | 716               | 143.1                             | 185                     | 235                    | 195                     |
| ESRA-100100 | 100           | 100         | 1431              | 143.1                             | 235                     | 335                    | 195                     |
| ESRA-100150 | 100           | 150         | 2147              | 143.1                             | 285                     | 435                    | 195                     |
| ESRA-100200 | 100           | 200         | 2862              | 143.1                             | 335                     | 535                    | 195                     |
| ESRA-150100 | 150           | 100         | 2138              | 213.8                             | 245                     | 345                    | 247                     |
| ESRA-150150 | 150           | 150         | 3207              | 213.8                             | 295                     | 445                    | 247                     |

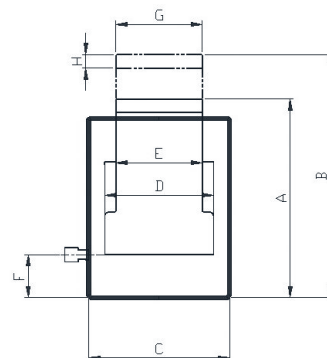
## >> ALUMINUM CYLINDER **ESRA-SERIES**

ESRA SERIES with EPA-702S is perfect choice for you!

Lightweight, easy to carry and positioning!

At half the weight of steel cylinders of comparable capacity!

Ultra light weight and compact design for easy portability!



| Cylinder Bore dia D (mm) | Load Diameter E (mm) | Bottom to Advance Port F (mm) | Saddle Diameter G (mm) | Saddle Height H (mm) | Weight (kg) | Model       |
|--------------------------|----------------------|-------------------------------|------------------------|----------------------|-------------|-------------|
| 65                       | 58                   | 20                            | 48                     | 12                   | 3           | ESRA-2050   |
| 65                       | 58                   | 20                            | 48                     | 12                   | 4           | ESRA-20100  |
| 65                       | 58                   | 20                            | 48                     | 12                   | 5           | ESRA-20150  |
| 75                       | 67                   | 22                            | 53                     | 12                   | 3.8         | ESRA-3050   |
| 75                       | 67                   | 22                            | 53                     | 12                   | 5.2         | ESRA-30100  |
| 75                       | 67                   | 22                            | 53                     | 12                   | 6.6         | ESRA-30150  |
| 95                       | 85                   | 25                            | 70                     | 14                   | 6.8         | ESRA-5050   |
| 95                       | 85                   | 25                            | 70                     | 14                   | 9.1         | ESRA-50100  |
| 95                       | 85                   | 25                            | 70                     | 14                   | 11.4        | ESRA-50150  |
| 95                       | 85                   | 25                            | 70                     | 14                   | 14.7        | ESRA-50200  |
| 135                      | 110                  | 33                            | 85                     | 20                   | 16          | ESRA-10050  |
| 135                      | 110                  | 33                            | 85                     | 20                   | 19.5        | ESRA-100100 |
| 135                      | 110                  | 33                            | 85                     | 20                   | 23          | ESRA-100150 |
| 135                      | 110                  | 33                            | 85                     | 20                   | 26.5        | ESRA-100200 |
| 165                      | 140                  | 50                            | 110                    | 25                   | 35          | ESRA-150100 |
| 165                      | 140                  | 50                            | 110                    | 25                   | 39          | ESRA-150150 |

>> **LOW PROFILE CYLINDER ELPR-SERIES**  
**COMPACT CYLINDER ECPR-SERIES**



**Applicable Products**



For low clearance lifting  
**ENPOS ELPR & ECPR SERIES**  
 are the perfect choice!

**LOW PROFILE CYLINDER ELPR-SERIES**

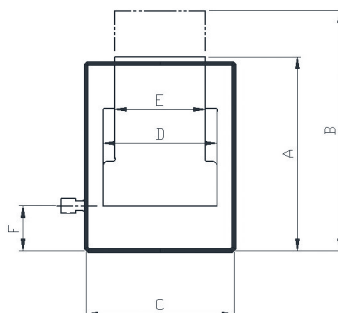
- >CAPACITY: 5 -150 ton
- >STROKE: 6 -30 mm
- >Max Pressure: 700 bar
- Single acting & Spring return
- Coupler port PT 3/8
- Mounting hole (optional)
- ELPR Series are used for narrow area.



| Model      | Tonnage (ton) | Stroke (mm) | Oil capacity (cc) |
|------------|---------------|-------------|-------------------|
| ELPR-506   | 5             | 6           | 4                 |
| ELPR-515   | 5             | 15          | 11                |
| ELPR-1012  | 10            | 12          | 18                |
| ELPR-1030  | 10            | 30          | 46                |
| ELPR-2012  | 20            | 12          | 34                |
| ELPR-3013  | 30            | 13          | 58                |
| ELPR-3030  | 30            | 30          | 133               |
| ELPR-5015  | 50            | 15          | 106               |
| ELPR-5030  | 50            | 30          | 213               |
| ELPR-10015 | 100           | 15          | 215               |
| ELPR-15015 | 150           | 15          | 321               |

**COMPACT CYLINDER ECPR-SERIES**

- >CAPACITY: 10 -100 ton
- >STROKE: 35 -50 mm
- >Max Pressure: 700 bar
- Single acting & Spring return
- Coupler port PT 3/8
- Tube: SCM440
- Special size is available(optional).

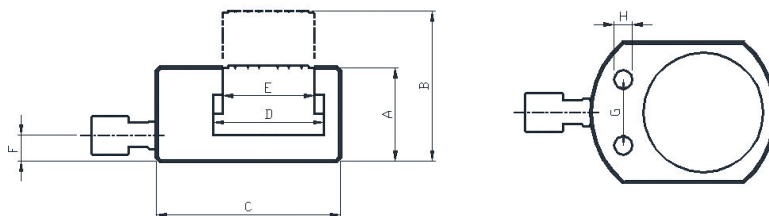


| Model      | Tonnage (ton) |
|------------|---------------|
| ECPR-1035  | 10            |
| ECPR-1050  | 10            |
| ECPR-2050  | 20            |
| ECPR-3050  | 30            |
| ECPR-5050  | 50            |
| ECPR-10050 | 100           |

>> **LOW PROFILE CYLINDER ELPR-SERIES**  
**COMPACT CYLINDER ECPR-SERIES**



-ECPR series are usually used in ship building companies.



| Effective area (cm <sup>2</sup> ) | Collapsed Height A (mm) | Extended Height B (mm) | Outside Diameter C (mm) | Cylinder Bore dia D (mm) | Load Diameter E (mm) | Bottom to Port F (mm) | Bolt circle G (mm) | Hole dia H (mm) | Weight (kg) | Model      |
|-----------------------------------|-------------------------|------------------------|-------------------------|--------------------------|----------------------|-----------------------|--------------------|-----------------|-------------|------------|
| 7.1                               | 48                      | 54                     | 59                      | 30                       | 25                   | 17                    | 28                 | 5               | 0.8         | ELPR-506   |
| 7.1                               | 57                      | 72                     | 59                      | 30                       | 25                   | 17                    | 28                 | 5               | 1           | ELPR-515   |
| 15.2                              | 53                      | 65                     | 85                      | 44                       | 36                   | 18                    | 37                 | 7               | 1.6         | ELPR-1012  |
| 15.2                              | 71                      | 101                    | 85                      | 44                       | 36                   | 18                    | 37                 | 7               | 2.1         | ELPR-1030  |
| 28.3                              | 58                      | 70                     | 98                      | 60                       | 50                   | 18                    | 49                 | 9               | 2.9         | ELPR-2012  |
| 44.2                              | 59                      | 72                     | 117                     | 75                       | 63                   | 18                    | 55                 | 14              | 4           | ELPR-3013  |
| 44.2                              | 76                      | 106                    | 117                     | 75                       | 63                   | 18                    | 55                 | 14              | 5           | ELPR-3030  |
| 70.9                              | 67                      | 82                     | 145                     | 95                       | 80                   | 18                    | 65                 | 14              | 6.5         | ELPR-5015  |
| 70.9                              | 82                      | 112                    | 145                     | 95                       | 80                   | 18                    | 65                 | 14              | 8           | ELPR-5030  |
| 143.1                             | 95                      | 110                    | 190                     | 135                      | 120                  | 20                    | 106                | 14              | 19          | ELPR-10015 |
| 213.7                             | 100                     | 115                    | 217                     | 165                      | 135                  | 28                    | 117                | 14              | 25          | ELPR-15015 |

| Stroke (mm) | Oil capacity (cc) | Effective area (cm <sup>2</sup> ) | Collapsed Height A (mm) | Extended Height B (mm) | Outside Diameter C (mm) | Cylinder Bore dia D (mm) | Load Diameter E (mm) | Bottom to Port F (mm) | Weight (kg) | Model      |
|-------------|-------------------|-----------------------------------|-------------------------|------------------------|-------------------------|--------------------------|----------------------|-----------------------|-------------|------------|
| 35          | 56                | 15.9                              | 113                     | 148                    | 63                      | 45                       | 38                   | 20                    | 2.4         | ECPR-1035  |
| 50          | 80                | 15.9                              | 128                     | 178                    | 63                      | 45                       | 38                   | 20                    | 2.7         | ECPR-1050  |
| 50          | 156               | 31.2                              | 128                     | 178                    | 88                      | 63                       | 50                   | 20                    | 5           | ECPR-2050  |
| 50          | 221               | 44.2                              | 140                     | 190                    | 98                      | 75                       | 65                   | 21                    | 7           | ECPR-3050  |
| 50          | 354               | 70.8                              | 150                     | 200                    | 125                     | 95                       | 80                   | 24                    | 12          | ECPR-5050  |
| 50          | 716               | 143.1                             | 185                     | 235                    | 178                     | 135                      | 110                  | 35                    | 39          | ECPR-10050 |

## >> CENTER HOLE CYLINDER *ESCH(EDCH)-SERIES*



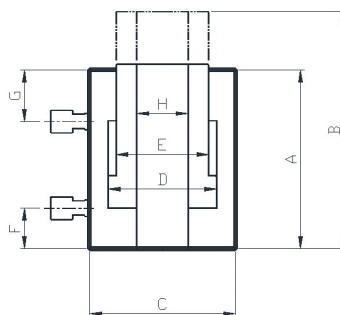
| Model       | Type          | Tonnage (ton) | Stroke (mm) | Oil capacity (cc) | Effective area (cm <sup>2</sup> ) | Collapsed Height A (mm) | Extended Height B (mm) | Outside Diameter C (mm) |
|-------------|---------------|---------------|-------------|-------------------|-----------------------------------|-------------------------|------------------------|-------------------------|
| ESCH-1050   | Single acting | 10            | 50          | 88                | 176                               | 130                     | 180                    | 75                      |
| ESCH-2015   |               | 20            | 15          | 49                | 32.8                              | 130                     | 145                    | 105                     |
| ESCH-2050   |               | 20            | 50          | 164               | 32.8                              | 165                     | 215                    | 105                     |
| ESCH-2075   |               | 20            | 75          | 246               | 32.8                              | 190                     | 265                    | 105                     |
| *ESCH-20150 |               | 20            | 150         | -                 | -                                 | -                       | -                      | -                       |
| ESCH-3060   |               | 30            | 60          | 286               | 47.7                              | 180                     | 240                    | 115                     |
| *ESCH-30150 |               | 30            | 150         | -                 | -                                 | -                       | -                      | -                       |
| ESCH-5075   |               | 50            | 75          | 530               | 70.7                              | 238                     | 313                    | 159                     |
| ESCH-6075   |               | 60            | 75          | 671               | 89.5                              | 238                     | 313                    | 169                     |
| *ESCH-60150 |               | 60            | 150         | -                 | -                                 | -                       | -                      | -                       |
| ESCH-10075  |               | 100           | 75          | 1155              | 154                               | 268                     | 343                    | 218                     |
| EDCH-2075   | Double acting | 20            | 75          | 246               | 32.8                              | 195                     | 270                    | 105                     |
| EDCH-3060   |               | 30            | 60          | 392               | 65.3                              | 223                     | 283                    | 158                     |
| EDCH-30150  |               | 30            | 150         | 980               | 65.3                              | 313                     | 463                    | 158                     |
| EDCH-30260  |               | 30            | 260         | 1698              | 65.3                              | 423                     | 683                    | 158                     |
| EDCH-6090   |               | 60            | 90          | 990               | 110                               | 329                     | 419                    | 165                     |
| EDCH-60130  |               | 60            | 130         | 1430              | 110                               | 369                     | 499                    | 165                     |
| EDCH-60260  |               | 60            | 260         | 2860              | 110                               | 499                     | 759                    | 165                     |
| EDCH-10040  |               | 100           | 40          | 582               | 145.5                             | 286                     | 326                    | 227                     |
| EDCH-100150 |               | 100           | 150         | 2183              | 145.5                             | 396                     | 546                    | 227                     |
| EDCH-100260 |               | 100           | 260         | 3783              | 145.5                             | 506                     | 766                    | 227                     |
| EDCH-150200 | 150           | 200           | 4206        | 210.3             | 475                               | 675                     | 270                    |                         |

\* Consult to factory

## >> CENTER HOLE CYLINDER **ESCH(EDCH)-SERIES**



- >CAPACITY: 5 -100 ton
- >STROKE: 50 -250 mm
- >Max Pressure: 700 bar
- ESCH: Single acting & Spring return
- EDCH: Double acting & Hyd return
- Coupler port PT 3/8
- Aluminum tube is available (optional).
- Special size is available(optional).



| Cylinder Bore dia D (mm) | Load Diameter E (mm) | Bottom to Port F (mm) | Top to Port G (mm) | Center hole Dia H (mm) | Weight (kg) | Model       |
|--------------------------|----------------------|-----------------------|--------------------|------------------------|-------------|-------------|
| 55                       | 38                   | 26                    | -                  | 20                     | 3.4         | ESCH-1050   |
| 75                       | 55                   | 33                    | -                  | 27                     | 3.2         | ESCH-2015   |
| 75                       | 55                   | 33                    | -                  | 27                     | 5           | ESCH-2050   |
| 75                       | 55                   | 33                    | -                  | 27                     | 7           | ESCH-2075   |
| 75                       | 55                   | 33                    | -                  | 27                     | -           | ESCH-20150  |
| 90                       | 63                   | 21                    | -                  | 37                     | 12          | ESCH-3060   |
| 90                       | 63                   | 21                    | -                  | 37                     | -           | ESCH-30150  |
| 115                      | 85                   | 30                    | -                  | 54                     | 28          | ESCH-5075   |
| 125                      | 85                   | 30                    | -                  | 54                     | 38          | ESCH-6075   |
| 125                      | 85                   | 30                    | -                  | 54                     | -           | ESCH-60150  |
| 175                      | 140                  | 45                    | -                  | 80                     | 59          | ESCH-10075  |
| 75                       | 55                   | 33                    | 50                 | 27                     | 11          | EDCH-2075   |
| 105                      | 80                   | 50                    | 60                 | 37                     | 32          | EDCH-3060   |
| 105                      | 80                   | 50                    | 60                 | 37                     | 42          | EDCH-30150  |
| 105                      | 80                   | 50                    | 60                 | 37                     | 55          | EDCH-30260  |
| 135                      | 95                   | 55                    | 75                 | 54                     | 38          | EDCH-6090   |
| 135                      | 95                   | 55                    | 75                 | 54                     | 42          | EDCH-60130  |
| 135                      | 95                   | 55                    | 75                 | 54                     | 54          | EDCH-60260  |
| 175                      | 150                  | 65                    | 86                 | 80                     | 77          | EDCH-10040  |
| 175                      | 150                  | 65                    | 86                 | 80                     | 107         | EDCH-100150 |
| 175                      | 150                  | 65                    | 86                 | 80                     | 138         | EDCH-100260 |
| 200                      | 160                  | 75                    | 90                 | 85                     | 162         | EDCH-150200 |

## >> LOCK NUT CYLINDER **ELNR-SERIES**

- > **CAPACITY: 50 -500 ton**
- > **STROKE: 50-300 mm**
- > **Max Pressure: 700 bar**
- Safety lock nut for mechanical load holding
- Single acting (Spring return is optional.)
- Coupler port PT 3/8
- Smooth piston resist friction & corrosion
- Tilting saddle is available(optional).



### Applicable Products



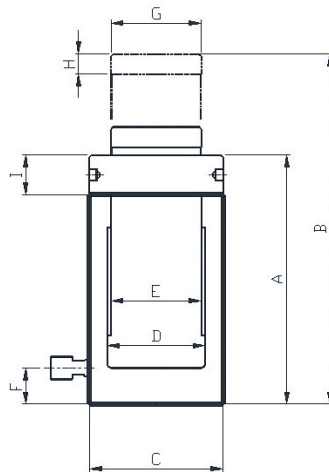
| Model       | Tonnage (ton) | Stroke (mm) | Oil capacity (cc) | Effective area (cm <sup>2</sup> ) | Collapsed Height A (mm) | Extended Height B (mm) | Outside Diameter C (mm) |
|-------------|---------------|-------------|-------------------|-----------------------------------|-------------------------|------------------------|-------------------------|
| ELNR-5050   | 50            | 50          | 121.5             | 24.3                              | 215                     | 265                    | 128                     |
| ELNR-50150  | 50            | 150         | 365               | 24.3                              | 315                     | 465                    | 128                     |
| ELNR-50300  | 50            | 300         | 729               | 24.3                              | 465                     | 765                    | 128                     |
| ELNR-10050  | 100           | 50          | 716               | 143.1                             | 262                     | 312                    | 185                     |
| ELNR-100150 | 100           | 150         | 2147              | 143.1                             | 362                     | 512                    | 185                     |
| ELNR-100300 | 100           | 300         | 4293              | 143.1                             | 512                     | 812                    | 185                     |
| ELNR-15050  | 150           | 50          | 1069              | 213.8                             | 345                     | 395                    | 225                     |
| ELNR-150150 | 150           | 150         | 3207              | 213.8                             | 445                     | 595                    | 225                     |
| ELNR-150300 | 150           | 300         | 6414              | 213.8                             | 595                     | 895                    | 225                     |
| ELNR-30050  | 300           | 50          | 2169              | 433.7                             | 535                     | 585                    | 317                     |
| ELNR-300150 | 300           | 150         | 6506              | 433.7                             | 635                     | 785                    | 317                     |
| ELNR-300300 | 300           | 300         | 13011             | 433.7                             | 785                     | 1085                   | 317                     |
| ELNR-50050  | 500           | 50          | 3653              | 730.6                             | 565                     | 615                    | 408                     |
| ELNR-500150 | 500           | 150         | 10959             | 730.6                             | 665                     | 815                    | 408                     |
| ELNR-500300 | 500           | 300         | 21918             | 730.6                             | 815                     | 1115                   | 408                     |



## >> LOCK NUT CYLINDER *ELNR-SERIES*



- Safety lock nut is used for mechanical load holding.
- ELNR series is used for variety industries.
- Special size is available (optional).

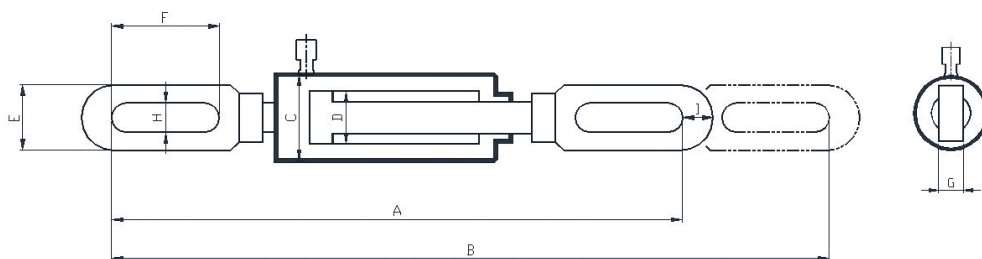


| Cylinder Bore dia D (mm) | Load Diameter E (mm) | Bottom to Advance Port F (mm) | Saddle Diameter G (mm) | Saddle Height H (mm) | Lock nut Thickness I (mm) | Weight (kg) | Model       |
|--------------------------|----------------------|-------------------------------|------------------------|----------------------|---------------------------|-------------|-------------|
| 95                       | 85                   | 32                            | 85                     | 25                   | 50                        | 24          | ELNR-5050   |
| 95                       | 85                   | 32                            | 85                     | 25                   | 50                        | 32          | ELNR-50150  |
| 95                       | 85                   | 32                            | 85                     | 25                   | 50                        | 43          | ELNR-50300  |
| 135                      | 120                  | 37                            | 120                    | 25                   | 55                        | 56          | ELNR-10050  |
| 135                      | 120                  | 37                            | 120                    | 25                   | 55                        | 74          | ELNR-100150 |
| 135                      | 120                  | 37                            | 120                    | 25                   | 55                        | 101         | ELNR-100300 |
| 165                      | 140                  | 50                            | 140                    | 35                   | 60                        | 97          | ELNR-15050  |
| 165                      | 140                  | 50                            | 140                    | 35                   | 60                        | 124         | ELNR-150150 |
| 165                      | 140                  | 50                            | 140                    | 35                   | 60                        | 164         | ELNR-150300 |
| 235                      | 175                  | 110                           | 175                    | 40                   | 140                       | 298         | ELNR-30050  |
| 235                      | 175                  | 110                           | 175                    | 40                   | 140                       | 345         | ELNR-300150 |
| 235                      | 175                  | 110                           | 175                    | 40                   | 140                       | 415         | ELNR-300300 |
| 305                      | 230                  | 95                            | 230                    | 45                   | 150                       | 531         | ELNR-50050  |
| 305                      | 230                  | 95                            | 230                    | 45                   | 150                       | 609         | ELNR-500150 |
| 305                      | 230                  | 95                            | 230                    | 45                   | 150                       | 726         | ELNR-500300 |

## >> PULLING JACK **ESPJ(ESPJA)-SERIES**



- > **CAPACITY: 10-30 ton**
- > **STROKE: 150 mm**
- > **Max Pressure: 700 bar**
- Coupler port PT 3/8
- Steel cover nut
- Single acting & Spring return
- Double acting & Bellows & Load return (optional)
- ESPJA Series are using aluminum tube
- Special size is available (optional)



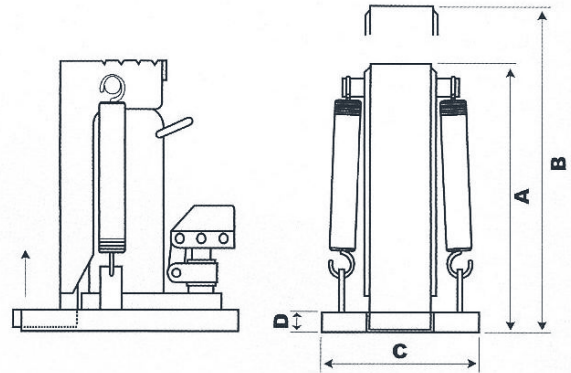
| Model       | Tonnage (ton) | Stroke (mm) | Oil capacity (cc) | Effective area (cm <sup>2</sup> ) | Collapsed Height A (mm) | Extended Height B (mm) | Outside Diameter C (mm) | Cylinder Bore dia D (mm) | Link Height E (mm) | Link Opening F (mm) | Link Thickness G (mm) | Link Width H (mm) | Slot to Link End I (mm) | Weight (kg) |
|-------------|---------------|-------------|-------------------|-----------------------------------|-------------------------|------------------------|-------------------------|--------------------------|--------------------|---------------------|-----------------------|-------------------|-------------------------|-------------|
| ESPJ-10150  | 10            | 150         | 243               | 16.2                              | 679                     | 829                    | 86                      | 60                       | 105                | 120                 | 30                    | 45                | 30                      | 19          |
| ESPJ-20150  | 20            | 150         | 450               | 30                                | 720                     | 870                    | 106                     | 80                       | 105                | 120                 | 30                    | 45                | 30                      | 32          |
| ESPJ-30150  | 30            | 150         | 639               | 42.6                              | 745                     | 895                    | 121                     | 95                       | 105                | 120                 | 30                    | 45                | 30                      | 35          |
| ESPJA-10150 | 10            | 150         | 243               | 16.2                              | 679                     | 829                    | 95                      | 60                       | 105                | 120                 | 30                    | 45                | 30                      | 15          |
| ESPJA-20150 | 20            | 150         | 450               | 30                                | 720                     | 870                    | 125                     | 80                       | 105                | 120                 | 30                    | 45                | 30                      | 21          |
| ESPJA-30150 | 30            | 150         | 639               | 42.6                              | 760                     | 910                    | 135                     | 95                       | 105                | 120                 | 30                    | 45                | 30                      | 25          |



>> **TOE JACK EOLJ-SERIES**



- >CAPACITY: 5-30 ton
- >STROKE: 120~160 mm
- >Max Pressure: 700 bar
- 4 Standard models
- Spring return



-ENPOS toe jacks are used for variety industries.

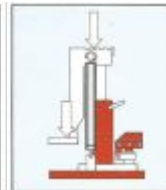
| Model     | Cyl. Capacity (ton) |      | Stroke (mm) | Dimension (mm) |     |         |    | Weight (kg) |
|-----------|---------------------|------|-------------|----------------|-----|---------|----|-------------|
|           | UP                  | DOWN |             | A              | B   | C       | D  |             |
| EOLJ-52.5 | 5                   | 2.5  | 120         | 243            | 363 | 170×230 | 19 | 11          |
| EOLJ-105  | 10                  | 5    | 150         | 290            | 440 | 188×260 | 22 | 19.1        |
| EOLJ-2010 | 20                  | 10   | 160         | 327            | 487 | 242×280 | 28 | 33.6        |
| EOLJ-3015 | 30                  | 15   | 160         | 347            | 507 | 273×308 | 32 | 51.2        |



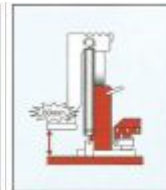
**HOW TO USE THE TOE JACK**



Never exceed the maximum capacity indicated.



Support the top in the center and press to inside edge of the bottom plate.



Keep the stroke less than 60mm when lifting an object from bottom.



Keep the jack on level ground in all times.

### HYDRAULIC CYLINDERS & JACKS

- ▶ Single acting cylinder
- ▶ Double acting cylinder
- ▶ Aluminum cylinder
- ▶ Low profile & Compact cylinder
- ▶ Center hole cylinder
- ▶ Lock nut cylinder
- ▶ Pulling jack
- ▶ Toe jack

### HYDRAULIC PUMPS

- ▶ Hand pump
- ▶ Foot pump
- ▶ Motor pump



## HYD TOOLS & ACCESSORIES

- ▶ Hydraulic punch
- ▶ Pipe bender & Puller
- ▶ Angle cutter & Wire cutter
- ▶ Nut splitter & Flange spreader
- ▶ Accessory

## HYDRAULIC EQUIPMENTS

- ▶ Shop press
- ▶ Block lifter
- ▶ Power pack
- ▶ Jack up System
- ▶ Plunger pump unit
- ▶ Rocky washer
- ▶ Flushing unit

>> 700bar HAND PUMP EJP(EPA)-SERIES



| Model     | Oil capacity (cc) | Operating pressure (bar) |      | Put Flow (cc) |      | Piston dia (mm) |      | Weight (kg) (except hose & fitting) |
|-----------|-------------------|--------------------------|------|---------------|------|-----------------|------|-------------------------------------|
|           |                   | Low                      | High | Low           | High | Low             | High |                                     |
| EJP-1B    | 800               | 20                       | 700  | 13            | 2.3  | 28.5            | 12   | 7                                   |
| EJP-2A    | 2000              | 20                       | 700  | 13            | 2.3  | 28.5            | 12   | 11.5                                |
| EJP-3A    | 3000              | 20                       | 700  | 13            | 2.3  | 28.5            | 12   | 12.5                                |
| EJP-3B    | 10000             | 30                       | 700  | 90            | 15   | 60              | 14   | 26                                  |
| *EPA-702S | 800               | 20                       | 700  | 17            | 3.1  | 30              | 12   | 4                                   |
| EHJP-1B   | 800               | 20                       | 1500 | 13            | 1    | 28              | 8    | 7                                   |
| EHJP-2A   | 2000              | 20                       | 1500 | 13            | 1    | 28              | 8    | 11.5                                |
| EHJP-2C   | 2000              | 130                      | 2800 | 0.5           | 11.7 | 28              | 5.5  | 6                                   |

\* EPA model is anodized aluminum pump reservoir and body.

## >> HIGH PRESSURE HAND PUMP **EHJP-SERIES**



ESRA SERIES with EPA-702S is perfect choice for you!

Lightweight, easy to carry and positioning!  
At half the weight of steel cylinders of comparable capacity!  
Ultra light weight and compact design for easy portability!

> **CAPACITY: 800-10000cc**

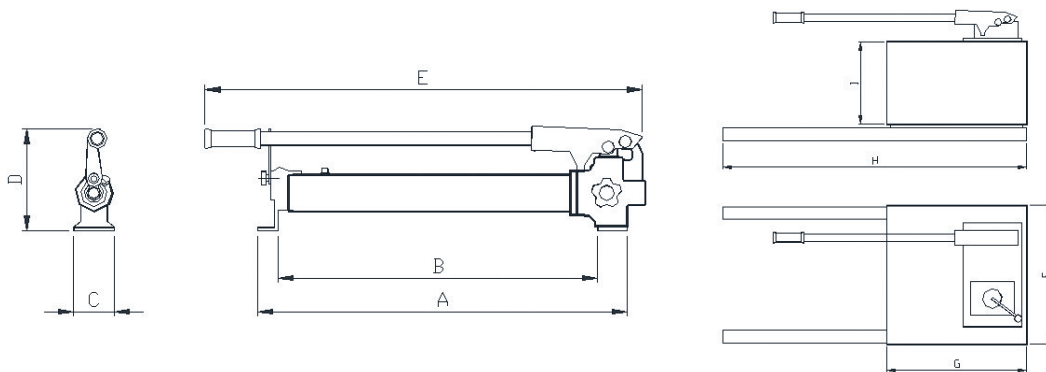
> **Max Operating Pressure: 700 bar**

> **1.8m Hydraulic hose with couplers**

-Can be used for double acting cylinder with manual valve.

-EHPA model is for high pressure up to 1500~2800bar.

-Large oil capacity to power a wide range of cylinders or tools.

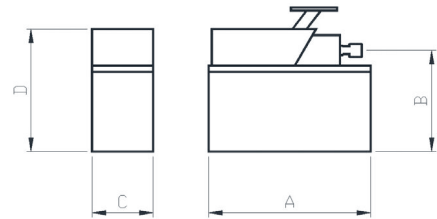


| Dimension (mm) |     |     |     |     |     |     |     |     | Model    |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| A              | B   | C   | D   | E   | F   | G   | H   | I   |          |
| 470            | 400 | 140 | 161 | 625 |     |     |     |     | EJP-1B   |
| 560            | 500 | 135 | 162 | 650 |     |     |     |     | EJP-2A   |
| 586            | 506 | 140 | 180 | 670 |     |     |     |     | EJP-3A   |
|                |     |     |     |     | 250 | 270 | 700 | 190 | EJP-3B   |
| 500            | 400 | 110 | 160 | 600 |     |     |     |     | EPA-702S |
| 530            | 440 | 110 | 170 | 650 |     |     |     |     | EHJP-1B  |
| 414            | 510 | 140 | 143 | 624 |     |     |     |     | EHJP-2A  |
| 570            | 454 | 100 | 142 | 653 |     |     |     |     | EHJP-2C  |

>> **FOOT EFP-SERIES**



-Can be used by oil pressure 700bar operating by air 7bar.  
 -Air oil pump is that can use conveniently by single acting or double acting ram.



>Specification

| Model  | Oil capacity (cc) | Operating Pressure (bar) |      | Put Flow (l/min) |      | Dimension (mm) |     |     |     | Weight (kg) |
|--------|-------------------|--------------------------|------|------------------|------|----------------|-----|-----|-----|-------------|
|        |                   | Low                      | High | Low              | High | A              | B   | C   | D   |             |
| EFP-15 | 1500              | 20                       | 700  | 2.2              | 0.9  | 265            | 125 | 130 | 110 | 7.3         |
| EFP-20 | 2000              | 20                       | 700  | 2.2              | 0.9  | 275            | 130 | 158 | 115 | 9.5         |
| EFP-25 | 2500              | 20                       | 700  | 2.2              | 0.9  | 275            | 120 | 167 | 110 | 12.5        |





## >> 1/3HP MOTOR PUMP **KUP-35-SERIES**



- > Motor Power: 1/3 HP
- > Max Operating Pressure: 700bar
- > Voltage: 220V 1ph 50/60Hz
- > Reservoir Capacity: 0.8-1.6 liters



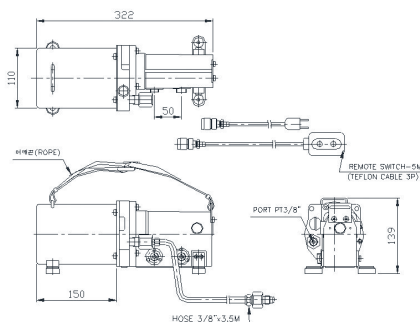
- Light weight, Compact design for easy portability.
- The most ideal product to prevent any injury which can be occurred by using hand pump.
- Enable to maximize the efficiency of work.
- Various models can be used with the most of hydraulic tools.
- Can be used anywhere and under any condition with oil-tight tank.
- Enable to be used for Hydraulic cylinder, Puncher, Puller, Bender, Cutter, and Hydraulic Press.
- 220V Single phase is standard.
- Can be used for every electric tools.

### >Specification

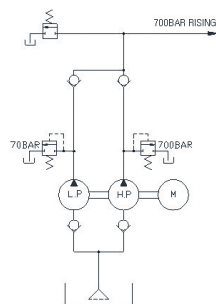
| Model    | Flow Rate (l/min) |      | Pressure Rating (bar) |      | Reservoir Capacity (liter) | Weight (kg) |
|----------|-------------------|------|-----------------------|------|----------------------------|-------------|
|          | Low               | High | Low                   | High |                            |             |
| KUP-35RH | 2                 | 0.2  | 10                    | 700  | 0.8                        | 7.5         |
|          |                   |      |                       |      | 1.6(L)                     | 8.5(L)      |

### >Features and function of each model

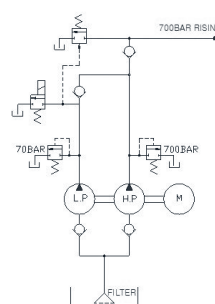
| Model          | Function   | Weight (kg) |
|----------------|--|-------------|
| KUP-35RH-NC(L) | Pressure hold type. Cylinder can be stopped on forward action. Cylinder cannot be stopped on retraction.   | 7.5         |
| KUP-35RH-NO(L) | While on switch is pressed, pump is running. With optionally incorporated pressure switch, cylinder can be stopped at set pressure and cylinder returns automatically. | 7.5         |
| KUP-35RH-IN(L) | Cylinder can be stopped both on forward action and retraction.   | 7.5         |



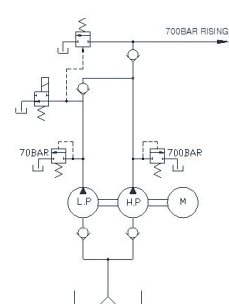
-Drawings-



-KUP-35RH-NC(L)-



-KUP-35RH-NO(L)-



-KUP-35RH-IN(L)-

## >> 1/2HP MOTOR PUMP **KUP-45-SERIES**

- > **Motor Power: 1/2 HP**
- > **Max Operating Pressure: 700bar**
- > **Voltage: 220V 1ph 50/60Hz**
- > **Reservoir Capacity: 2-4 liters**
- Light weight, easy to carry for maximum portability.
- Enable to maximize the efficiency of work.
- Can be applied to load of around 100ton.
- Enable to be used for Hydraulic tools.

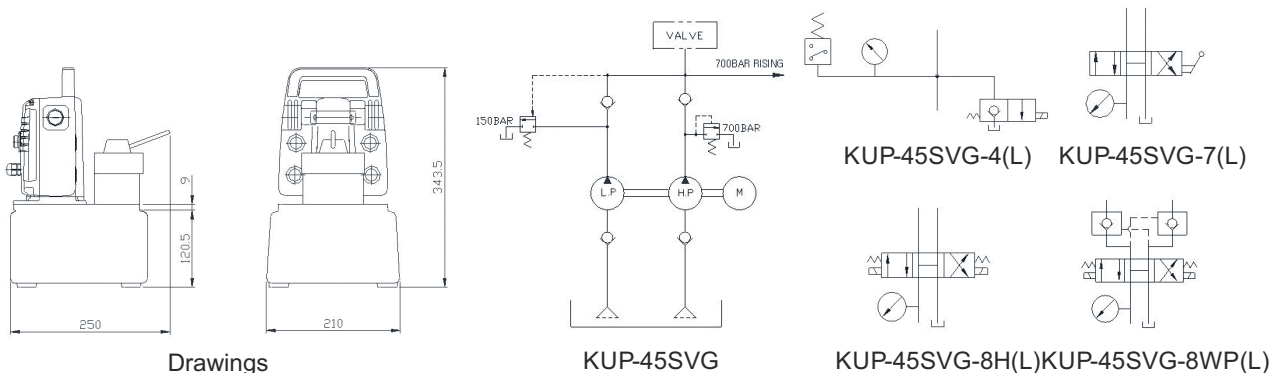


### > Specification

| Model        | Flow Rate (l/min) |      | Pressure Rating (bar) |      | Reservoir Capacity (liter) | Weight (kg) |
|--------------|-------------------|------|-----------------------|------|----------------------------|-------------|
|              | Low               | High | Low                   | High |                            |             |
| KUP-45SVG(L) | 2.5               | 0.35 | 70                    | 700  | 2                          | 18          |
|              |                   |      |                       |      | 4                          | 20          |

### > Features and function of each model

| Model                           | Function   | Weight (kg)  |      |
|---------------------------------|--|--|------|
| Single Acting<br>KUP-45SVG-4(L) | A singled-acting cylinder is actuated by solenoid valve. "Advance" with ON switch depressed and the motor running. "Retract" with the switch released and the motor stops. | 17.2   |      |
| Double Acting                   | KUP-45SVG-7(L)   | A double-acting cylinder is actuated by 4 way manual valve.  | 16.1 |
|                                 | KUP-45SVG-8H(L)  | A double-acting cylinder is actuated by solenoid valve. The cylinder can not be stopped, and pressure can not be hold.   | 18.5 |
|                                 | KUP-45SVG-8WP(L)   | A double-acting cylinder is actuated by solenoid valve. Advance/ "A" port Hold/Retract with stacking type pilot-operated check valve fitted on "A" port line. It allows pressure holding on both "A" and "B" port lines. | 19   |



## >> 1-5HP MOTOR PUMP **KUPS-SERIES**



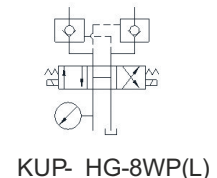
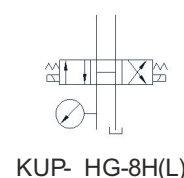
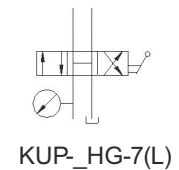
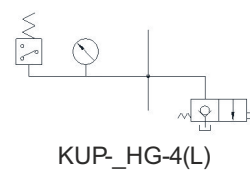
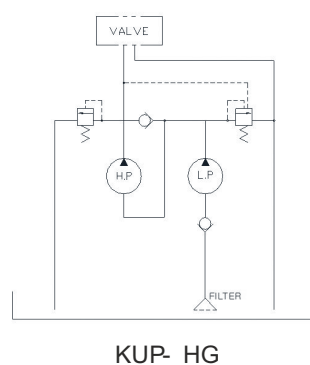
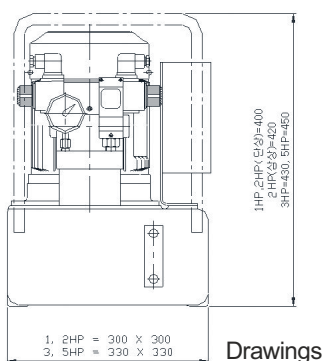
- > **Motor Power: 2, 3 HP**
- > **Max Operating Pressure: 700bar**
- > **Voltage: 220V 3ph 50/60Hz**
- > **Reservoir Capacity: 15 liters**
- Can be used for industrial purpose.
- Various models can be used with the most of hydraulic tools.
- Quite smooth operation (80dB)
- We guarantee the best quality.

### > Specification

| Model    | Power | Flow Rate (l/min) |      | Pressure Rating (bar) |      | Reservoir Capacity (liter) | Weight (kg) |
|----------|-------|-------------------|------|-----------------------|------|----------------------------|-------------|
|          |       | Low               | High | Low                   | High |                            |             |
| kup-1503 | 2HP   | 13                | 1.05 | 70                    | 700  | 15                         | 85          |
| kup-2203 | 3HP   | 13                | 1.7  | 70                    | 700  | 15                         | 85          |

### > Features and function of each model

| Model                        | Function   |   |
|------------------------------|--|---|
| Single Acting<br>KUP-HG-4(L) | A singled-acting cylinder is actuated by solenoid valve. "Advance" with ON switch depressed and the motor running. "Retract" with the switch released and the motor stops. |   |
| Double Acting                | KUP-HG-7(L)  | A double-acting cylinder is actuated by 4 way manual valve.   |
|                              | KUP-HG-8H(L)   | A double-acting cylinder is actuated by solenoid valve. The cylinder can not be stopped, and pressure can not be hold.  |
|                              | KUP-HG-8WP(L)  | A double-acting cylinder is actuated by solenoid valve. Advance/ "A" port Hold/ Retract with stacking type pilot-operated check valve fitted on "A" port line. It allows pressure holding on both "A" and "B" port lines. |



### HYDRAULIC CYLINDERS & JACKS

- ▶ Single acting cylinder
- ▶ Double acting cylinder
- ▶ Aluminum cylinder
- ▶ Low profile & Compact cylinder
- ▶ Center hole cylinder
- ▶ Lock nut cylinder
- ▶ Pulling jack
- ▶ Toe jack

### HYDRAULIC PUMPS

- ▶ Hand pump
- ▶ Foot pump
- ▶ Motor pump

## HYD TOOLS & ACCESSORIES

- ▶ Hydraulic punch
- ▶ Pipe bender & Puller
- ▶ Angle cutter & Wire cutter
- ▶ Nut splitter & Flange spreader
- ▶ Accessory

## HYDRAULIC EQUIPMENTS

- ▶ Shop press
- ▶ Block lifter
- ▶ Power pack
- ▶ Jack up System
- ▶ Plunger pump unit
- ▶ Rocky washer
- ▶ Flushing unit



## >> HYDRAULIC PUNCH **EHPU-SERIES**

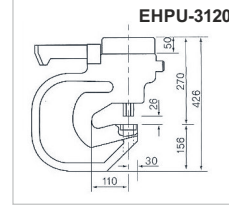
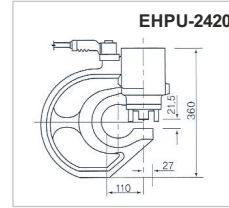
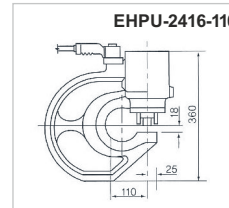
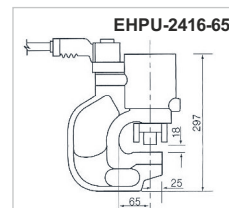
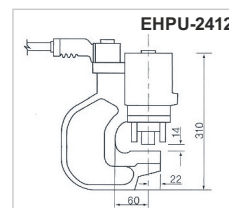
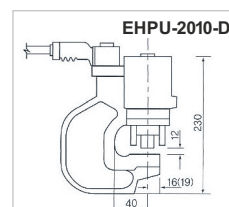
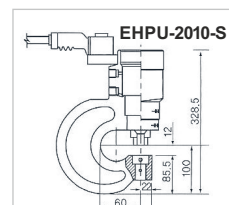


### Applicable Products



- >Capacity: 23-75ton
- >Hole Size: 8-31mm
- Max Operating Pressure: 700bar
- Max Punching Thickness: 20mm
- Max Punching Hole Size: 31Ø
- 7 standard models / Enable to maximize the efficiency of work
- Each punch includes 4set of puncher & die.
- All standard is double acting, but 'EHPU-2010-S' is single acting type.
- Most popular model is 'EHPU-3120 with KUP-2203HG-8H'.
- We guarantee the best capability for work.

| Model         | Cylinder Capacity | Max Punching Hole Size | Max Punching Thickness | Max Center Depth | Weight (kg) |
|---------------|-------------------|------------------------|------------------------|------------------|-------------|
| EHPU-2010-S   | 23 ton            | Ø 20.5 mm              | 10 mm                  | 60 mm            | 13 kg       |
| EHPU-2010-D   | 23 ton            | Ø 20 mm                | 10 mm                  | 60 mm            | 10 kg       |
| EHPU-2412     | 30 ton            | Ø 24 mm                | 12 mm                  | 60 mm            | 15 kg       |
| EHPU-2416-65  | 45 ton            | Ø 24 mm                | 16 mm                  | 65 mm            | 21 kg       |
| EHPU-2416-110 | 45 ton            | Ø 24 mm                | 16 mm                  | 110 mm           | 28 kg       |
| EHPU-2420     | 65 ton            | Ø 24 mm                | 20 mm                  | 110 mm           | 37 kg       |
| EHPU-3120     | 75 ton            | Ø 31 mm                | 20 mm                  | 110 mm           | 75 kg       |



An application for aluminium angle punching with 26 sets of EHPU-2416

## >> PIPE BENDER PULLER **EPB / EHP-SERIES**

- >Max Bending Size: 4" (100A)
- >Max Bending Thickness: 4.9mm
- >Max Pressure: 700bar
- Make Smooth Wrinkle free bends
- Coupler port G 3/8



### Applicable Products



P25



P22



"One Shot" and "Sweep" One shot shoes give up to 90° bend without resetting. Sweep shoes are used where increasing radii are required for multiple parallel pipe installations.

| Model | Cylinder Capacity | Max bending Thickness | Dimension        | Shoes   | Weight (kg) |
|-------|-------------------|-----------------------|------------------|---------|-------------|
| EPB-2 | 10 ton            | 3.8 mm                | 750×700×250 mm   | 15~50A  | 13 KG       |
| EPB-3 | 15 ton            | 4.5 mm                | 850×1050×300 mm  | 20~80A  | 27 KG       |
| EPB-4 | 20 ton            | 4.9 mm                | 1150×1300×300 mm | 32~100A | 35 KG       |



### Applicable Products



P25



P22

- > Capacity: 10-50 ton
- > Spread Range: 240-520mm
- > Max Pressure: 700bar

| Model  | Cylinder Capacity | Max Reach | Max Spread | Cylinder Stroke | Weight (kg) |
|--------|-------------------|-----------|------------|-----------------|-------------|
| EHP-10 | 10 ton            | 180 mm    | 240 mm     | 150 mm          | 13.5        |
| EHP-20 | 20 ton            | 280 mm    | 400 mm     | 150 mm          | 36.8        |
| EHP-30 | 30ton             | 280 mm    | 420 mm     | 150 mm          | 46.7        |
| EHP-50 | 50 ton            | 360 mm    | 520 mm     | 150 mm          | 85.3        |

## >> ANGLE & WIRE CUTTER **EAC & EWC-SERIES**



- >Max Angle Size: 150\*150\*13T
- >Max Working Power: 90 ton
- >Max Working Pressure: 700bar
- 3 Standard models / Coupler port PT 3/8
- For cutting steel angle
- Cutting side is very clean, so no need additional touches.
- Better performance & less noise and dust than manual cutter



- EAC-100 with KUP-1503HG-8H

| Model   | Cylinder Capacity | Max angle size | Suitable pump | Weight (kg) |
|---------|-------------------|----------------|---------------|-------------|
| EAC-75  | 30 ton            | 75 ×75 ×10T    | KUP-45SVG-8H  | 25 kg       |
| EAC-100 | 50 ton            | 100 ×100 ×13T  | KUP-1503HG-8H | 55 kg       |
| EAC-150 | 90 ton            | 150 ×150 ×13T  | KUP-1503HG-8H | 150 kg      |



### WIRE CUTTER for steel wire (max: Ø 32)

- >Max Cutting Size: Ø 32 mm
- Max Working Pressure: 700bar

| Model    | Cylinder Capacity | Stroke | Max angle size | Suitable pump      | Weight (kg) |
|----------|-------------------|--------|----------------|--------------------|-------------|
| EWC-32-N | 20 ton            | 40 mm  | Ø 32           | EJP-B1 or KUP-35RH | 8.8 kg      |



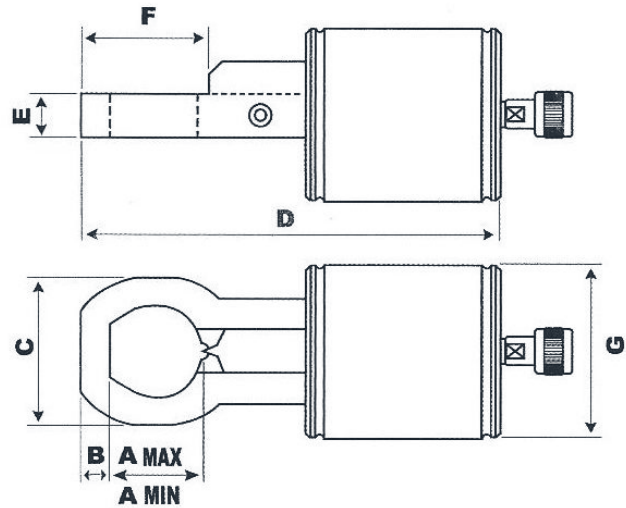
Battery operated cutter for steel wire, steel bar, reinforcing rod, Al/Cu ba

- > Max Cutting Size: Ø 16 mm

| Model   | Cylinder Capacity | Stroke | Max angle size | Including parts          | Weight (kg) |
|---------|-------------------|--------|----------------|--------------------------|-------------|
| EBCW-16 | 12.2 ton          | 16 mm  | Ø 16           | battery 1ea<br>blade 2ea | 7.3 kg      |

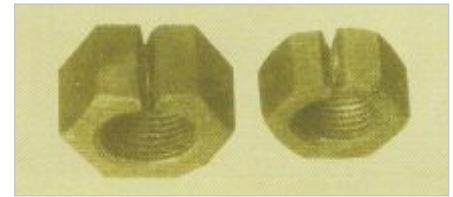


## >> NUT SPLITTER & FLANGE SPREADER **ENS & EFS-SERIES**



### HYDRAULIC SPLITTERS!

- > Capacity: 14 ton & 32.5 ton
- > Bolt range: 14 ton (M12-M24) / 32.5 ton (M20-M33)
- Max Working pressure: 700bar / Coupler port PT 3/8

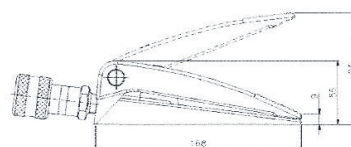
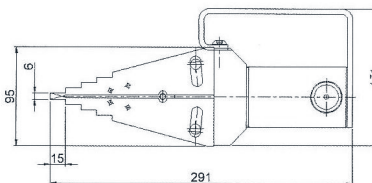


| Model      | Capacity | Stroke | OilCapacity | Dimension (mm) |      |    |     |    |      |     | Suitable pump      | Weight |
|------------|----------|--------|-------------|----------------|------|----|-----|----|------|-----|--------------------|--------|
|            |          |        |             | A              | B    | C  | D   | E  | F    | G   |                    |        |
| ENS-1415   | 14 ton   | 15 mm  | 31.8 cc     | 15-45          | 12.5 | 73 | 221 | 23 | 62.5 | 78  | EJP-1B or KUP-35RH | 5.2 kg |
| ENS-32.520 | 32.5 ton | 20 mm  | 93 cc       | 39-62          | 19   | 98 | 278 | 29 | 85   | 115 | KUP-35RH           | 12 kg  |

### HYDRAULIC FLANGE SPREADER!

For flange spreading & gasket exchange

- Max Working pressure: 700bar / Coupler port PT 3/8



|               |                    |
|---------------|--------------------|
| Model         | EFS-661            |
| Capacity      | 14 ton             |
| Max spread    | 61mm               |
| Tip clearance | 6mm                |
| Weight        | 7.1 kg             |
| pump          | EJP-1B or KUP-35RH |
| Model         | EFS-949            |
| Capacity      | 14 ton             |
| Max spread    | 94mm               |
| Tip clearance | 9mm                |
| Weight        | 2.0 kg             |
| pump          | EJP-1B or KUP-35RH |

>> **ACCESSORY**

| ITEM                        | MODEL NO.                         |   | DESCRIPTION  |
|-----------------------------|-----------------------------------|---|--|
| MANUAL VALVE (1/2HP)        | KSVM-3<br>KSVM-4                  |    | Hand pumps and electric pumps for use of both single and double acting                                 |
| MANUAL VALVE (1,2,3HP)      | KMVM-3<br>KMVM-4                  |    |  |
| SOLENOID VALVE (1/2HP)      | KSVS-2C KSVS-2H<br>KSVS-4 KSVS-4A |    | By operating the solenoid to an electrical signal to control the fluid direction.                      |
| SOLENOID VALVE (1,2,3HP)    | KSVM-2C KSVM-2H<br>KSVM-4 KSVM-4A |  |  |
| PILOT CHECK VALVE (1/2HP)   | KVPCS-10<br>KVPCW-10              |  | Check valve with the same function and in the reverse direction when the pilot fluid supplied to flow. |
| PILOT CHECK VALVE (1,2,3HP) | KVPCS-20<br>KVPCW-20              |  |  |
| NEEDLE VALVE                | KNV-13                            |  | Adjust cylinder acting speed by adjusting oil capacity.  |
| THROTTLE CHECK VALVE        | KTCV-13                           |  | Limit the main or pilot oil flow of one or two actuator ports.   |
| STOP VALVE                  | KTMV 2575                         |  | Adjust cylinder acting speed by adjusting oil capacity.  |
| MANIFOLD (2-PORT)           | KTMF 2522                         |  | For use of two cylinders with one pump.  |
| MANIFOLD (4-PORT)           | KTMF 2544                         |  | For use of several cylinders with one pump.  |

>> ACCESSORY

| ITEM                 | MODEL NO.                          |   | DESCRIPTION   |
|----------------------|------------------------------------|---|---|
| MANIFOLD<br>(6-PORT) | KTMFO 2529                         |    | For use of several cylinders with one pump.   |
| MANIFOLD<br>(3-PORT) | KTMFY 2529                         |    | For use of two cylinders with one pump.   |
| GAUGE                | KTPG 64<br>KTPG-100<br>KTPG 100-25 |    | Gauge face Dia 64 mm X 1000 bar<br>Gauge face Dia 100 mm X 1000 bar<br>Gauge face Dia 100 mm X 2500 bar |
| GAUGE<br>BLOCK       | KTGA 7001                          |  | Gauge block for easy mounting of a pressure gauge onto system   |
| GAUGE<br>ADAPTOR     | KTGA 7002                          |  | Gauge block for easy mounting of a pressure gauge onto system   |
| HOSE                 | KTHS 700                           |  | Max. pressure 700 bar   |
| COUPLER              | KTBC 381M                          |  | 3/8" PT Pin type (Male)   |
|                      | KTBC 381F                          |   | 3/8" PT Pin type (Female)   |
| PRESSURE<br>SWITCHES | KTpsc 7000                         |  | Pressure 700 bar  |

### HYDRAULIC CYLINDERS & JACKS

- ▶ Single acting cylinder
- ▶ Double acting cylinder
- ▶ Aluminum cylinder
- ▶ Low profile & Compact cylinder
- ▶ Center hole cylinder
- ▶ Lock nut cylinder
- ▶ Pulling jack
- ▶ Toe jack

### HYDRAULIC PUMPS

- ▶ Hand pump
- ▶ Foot pump
- ▶ Motor pump



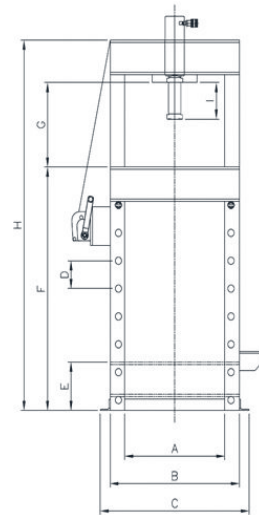
## HYD TOOLS & ACCESSORIES

- ▶ Hydraulic punch
- ▶ Pipe bender & Puller
- ▶ Angle cutter & Wire cutter
- ▶ Nut splitter & Flange spreader
- ▶ Accessory

## HYDRAULIC EQUIPMENTS

- ▶ Shop press
- ▶ Block lifter
- ▶ Power pack
- ▶ Jack up System
- ▶ Plunger pump unit
- ▶ Rocky washer
- ▶ Flushing unit

## >> SHOP PRESS



- >Capacity : 20 ~ 200 TON
- > Stroke : 50 ~ 300 mm
- > Maximum pressure : 700 bar
- > Coupler : KTBC 381F(PT 3/8)

### Ordering information

ESP ○ -XX □□□

SHOP PRESS

Tonnage

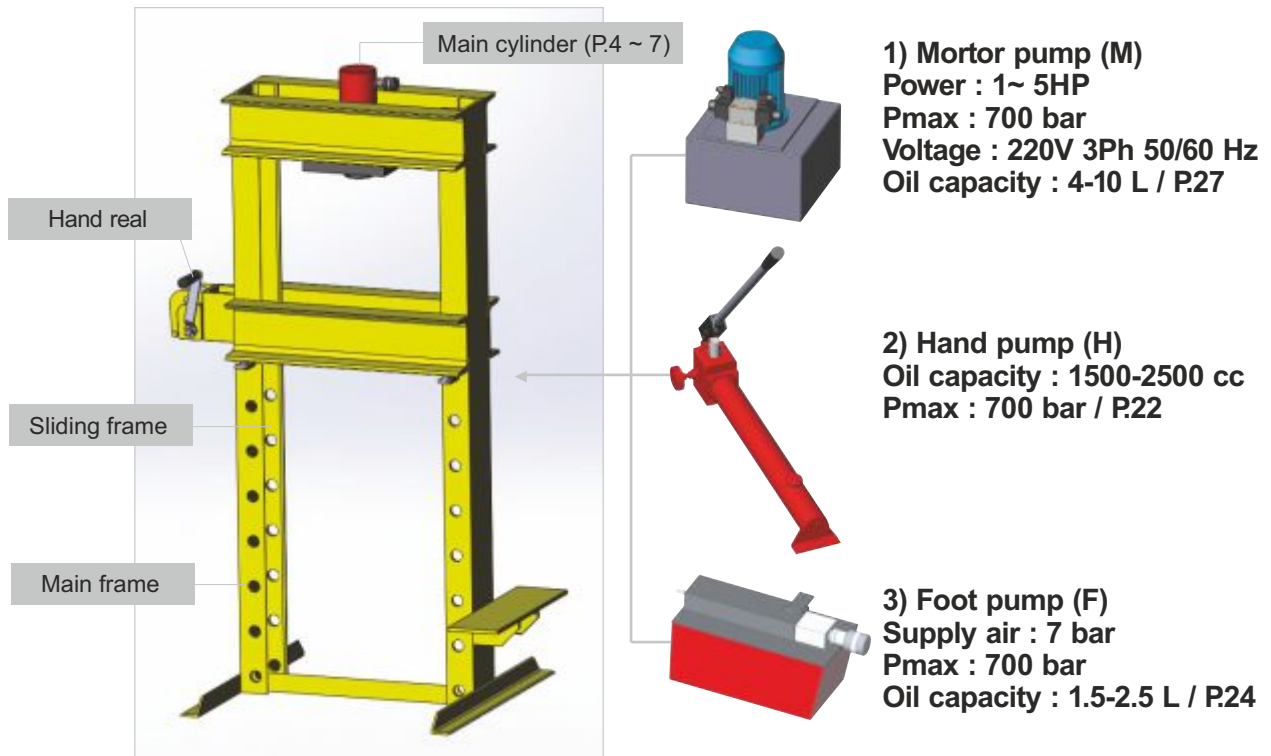
1. = S-> single acting cylinder, D-> double acting cylinder
2. ○ = H-> hand pump, F-> foot pump, M-> motor pump
3. □□□ = 50, 100, 150, 200, 250, 300-> choose the stroke
4. Special size is available(optional).

EX) ESPSH-20100 : Single acting by hand pump Tonnage is 20ton, and stroke is 100mm.

### >Specification

| Model         | Tonnage(ton) | Detail Specification        | Dimension (mm) |      |      |
|---------------|--------------|-----------------------------|----------------|------|------|
|               |              |                             | A              | B    | C    |
| ESP O-20 □□□  | 20           | : S or D<br>○ : H or F or M | 735            | 905  | 1105 |
| ESP O-30 □□□  | 30           | : S or D<br>○ : H or F or M | 735            | 905  | 1105 |
| ESP O-50 □□□  | 50           | : S or D<br>○ : H or F or M | 450            | 710  | 830  |
| ESP O-100 □□□ | 100          | : D<br>○ : M                | 450            | 710  | 830  |
| ESP O-150 □□□ | 150          | : D<br>○ : M                | 600            | 1040 | 1240 |
| ESP O-200 □□□ | 200          | : D<br>○ : M                | 600            | 1040 | 1240 |

>> SHOP PRESS



DESCRIPTION

Enpos shop press is including main frame, sliding frame, hand rill (to move frame), and main cylinder. In addition customer can add the hyd power pack, motor pump, hand pump, or foot pump optionally.

| Model          | Dimension (mm) |     |      |     |      | I               |
|----------------|----------------|-----|------|-----|------|-----------------|
|                | D              | E   | F    | G   | H    |                 |
| ESPM O-20 000  | 300            | 295 | 1322 | 172 | 1930 | Cylinder Stroke |
| ESPM O-30 000  | 300            | 295 | 1322 | 172 | 1930 |                 |
| ESPM O-50 000  | 250            | 325 | 1325 | 305 | 1960 |                 |
| ESPM O-100 000 | 130            | 325 | 1325 | 305 | 1960 |                 |
| ESPM O-150 000 | 150            | 530 | 980  | 315 | 1775 |                 |
| ESPM O-200 000 | 150            | 530 | 980  | 315 | 1775 |                 |

## >> BLOCK LIFTER



- > Capacity : 50 ~ 700 TON
- > Stroke : 50 ~ 400 mm
- > Maximum pressure : 700 bar

AS THIS EQUIPMENT OF ONE BODY TYPE FOR HYDRAULIC JACK AND HYDRAULIC PUMP, IS EASY TO MOVE. THIS EQUIPMENT, BLOCK LIFTER IS USED FOR LEVEL-CONTROL IN BLOCK WELDING AND JACK-UP WORK.

### Ordering information

EBL ○ -XX □□

BLOCK LIFTER

Tonnage

1. = CART-A TYPE: CA, CART-B TYPE: CB, BLOCK TYPE: BL
2. □□□ = STROKE (\*check the below table)
3. Special size is available(optional).

### > Specification

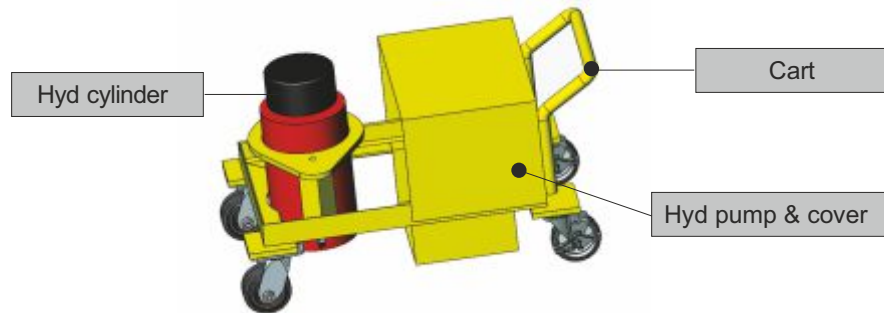
| Model        | Tonnage(ton) | Stroke (mm)                       | Type      |            |
|--------------|--------------|-----------------------------------|-----------|------------|
|              |              |                                   | Cart type | Block type |
| EBL -50 □□□  | 50           | 50, 100, 150, 200, 250            | 0         |            |
| EBL -100 □□□ | 100          | 100, 150, 200, 250, 300, 350, 400 | 0         |            |
| EBL -150 □□□ | 150          | 150, 200, 250, 300, 350, 400      | 0         |            |
| EBL -200 □□□ | 200          | 150, 200, 250, 300, 350, 400      | 0         | 0          |
| EBL -300 □□□ | 300          | 50, 200, 250, 300, 400            | 0         | 0          |
| EBL -500 □□□ | 500          | 200, 250, 300, 350, 400           | 0         | 0          |
| EBL -700 □□□ | 700          | 300, 400                          | 0         | 0          |



## >> BLOCK LIFTER

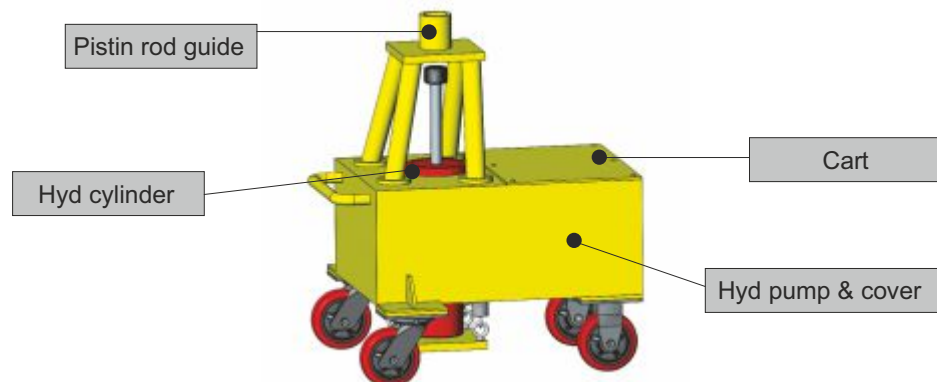
### BLOCK LIFTER TYPE

#### 1) CART-A TYPE (CA)



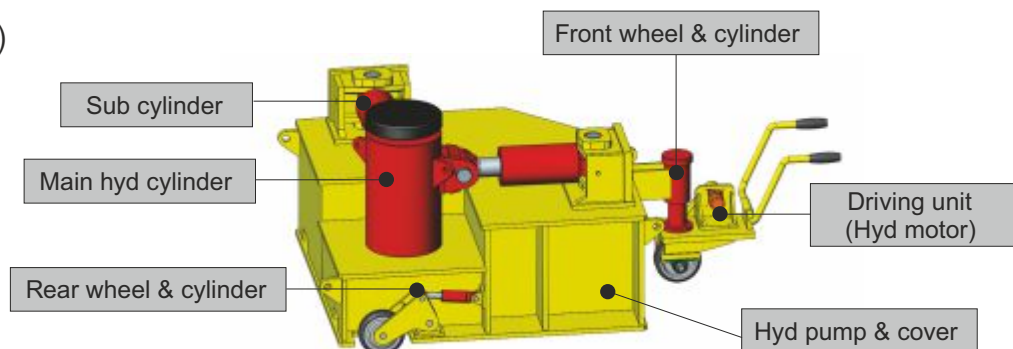
DESCRIPTION This equipment is made up cart, hyd pump, hyd cylinder, and control box.  
Hyd cylinder can be divided from cart.

#### 2) CART-B TYPE (CB)



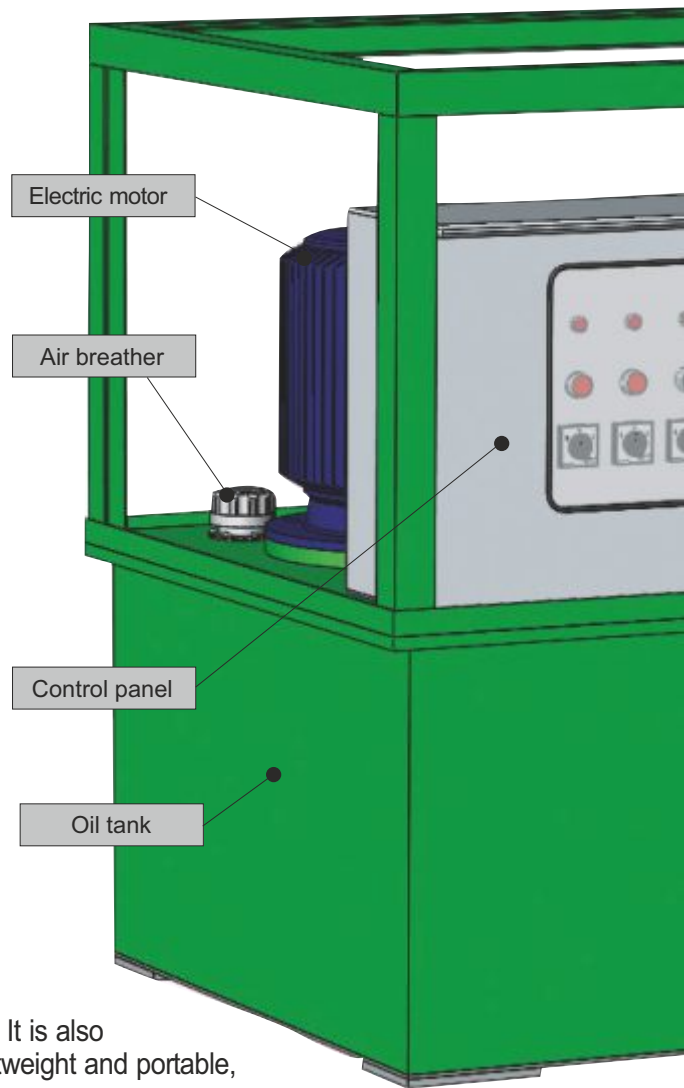
DESCRIPTION This equipment is made up cart, hyd pump, hyd cylinder, and control box.  
All in one type and having guide, so it is advantage for long stroke

#### 3) BLOCK TYPE (BL)



DESCRIPTION This system can be specially synchronized operation, some of LIFTERS can be operated by one wireless remote controller for block's minuteness level control (up, down, right, left, forward & backward).

>> **POWER PACK**



- > Flow rate : 10 ~ 150 L/m
- > Maximum pressure : 700 bar
- > Power : AC220/3Φ , AC380/3Φ , AC440/3Φ

DESCRIPTION

This unit is used for the operation of ramp, door and hatch cover. It is also used for hydraulic line pressure test. As this system is small, lightweight and portable, it can be moved freely in the car deck.

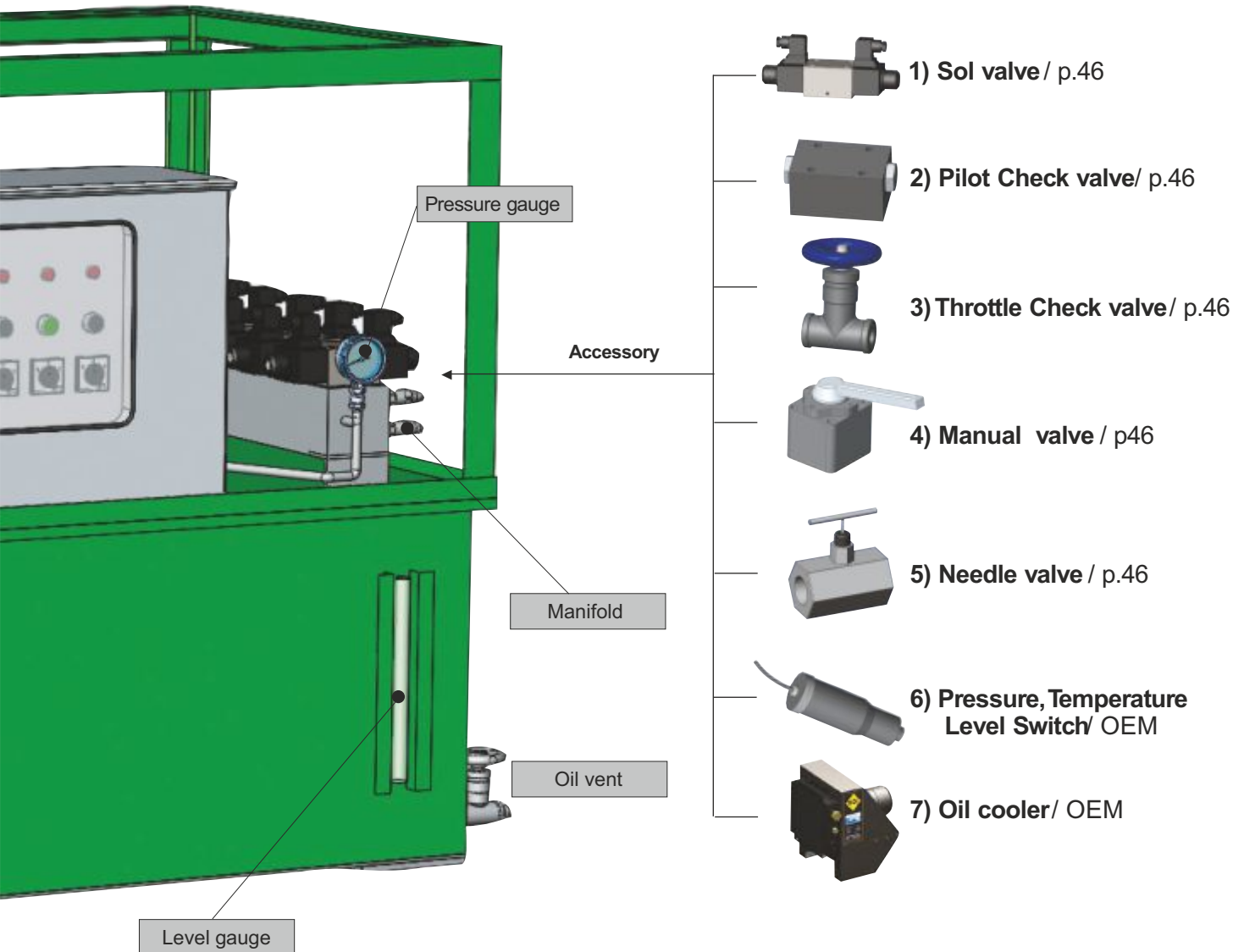
**EPP-60-O-     - Δ -XXXX-(OOOOO)+(Additional Option)**



Ordering information

1. O = Motor Capacity 2HP ~ 100HP (unit; HP, only numbers when writing)
2.     = Flow (unit; m3/Hr, only numbers when writing  
At high,low pressure multi pump, write as " / " ) (high/low)
3. Δ = PORT No.
4. XXXX = TANK Capacity (unit; L(LITTER), only numbers when writing)
5. Motor Power(OOOOO) = AC220/3 Φ , AC380/3 Φ , AC440/3 Φ
6. Control Power : AC220 X 60/50Hz X 1 Φ
7. Special size is available(optional).

## >> POWER PACK



### Power pack basic composition

- 1) Pump
- 2) Oil tank
- 3) Pressure, Temperature, Level Gauge
- 4) Filter (Inlet/Outlet)
- 5) Manifold (port)
- 6) Control Box
- 7) Air-Breather
- 8) Sol valve
- 9) Relief valve

### > Specification

| Model                             | Pressure (Flow late)   | Option                    |
|-----------------------------------|------------------------|---------------------------|
| EPP-50 or 60-O- - Δ-XXXX- (OOOOO) | 700 bar (10 ~ 150 L/m) | Other hydraulic accessory |

## >> JACK UP SYSTEM

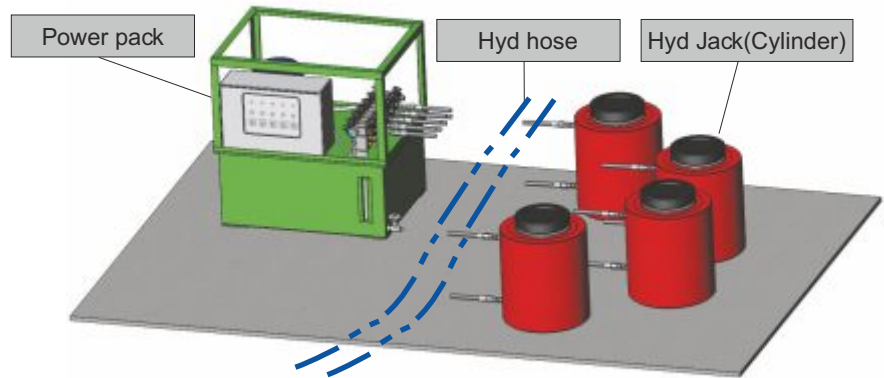


Jack up system diagram

### DESCRIPTION

This equipment is produced for Jacking of large block, and performs simultaneous and individual actions.

SYNCHRONIZED OPERATION!!  
INDEPENDENT OPERATION!!



### Ordering information

**EJU-**                      **-XXXX-O**

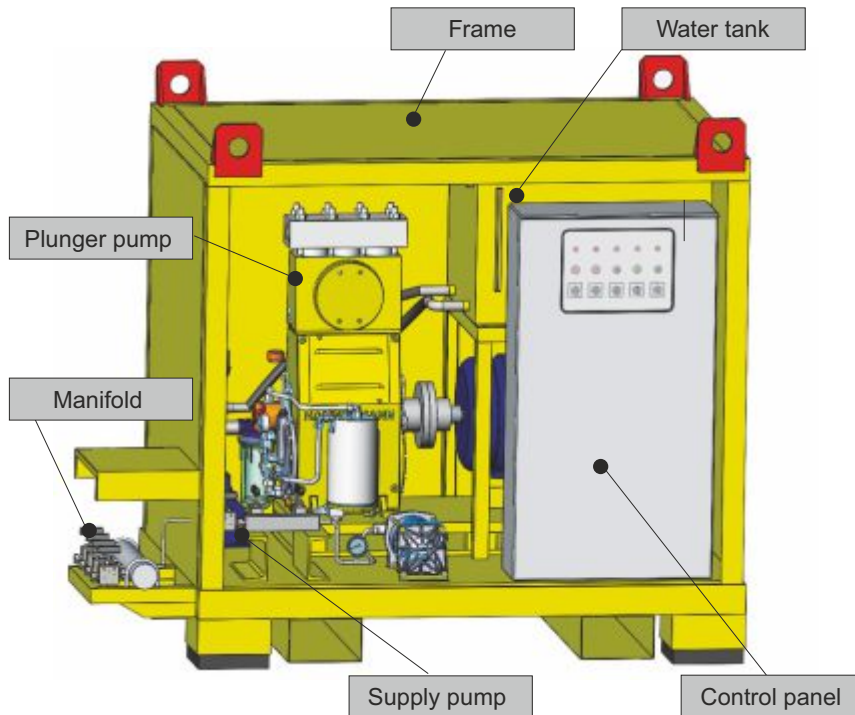
JACK UP SYSTEM

1.                      = POWER PACK MODEL NO.
2. OPTION (XXXX) = Model no for Double Acting Cylinder (EDR-series)
3. O = Cylinder qty'

### > Specification

| Model             | Specification Flow late(Pressure)                   |   | OPTION                 |
|-------------------|---|---|------------------------|
|                   | Power pack  | Jack(Cylinder)  |                        |
| EJU-      -XXXX-O | Flow late : 10 ~ 150 L/m<br>Max. pressure : 700 bar | Low load 200 TON below (P8)<br>High load 300 ~ 1000 TON | SYNCHRONIZED OPERATION |

## >> PLUNGER PUMP UNIT



- > Maximum pressure : 3500 bar
- > Flow rate : 103 ~ 2987 L/m

### DESCRIPTION

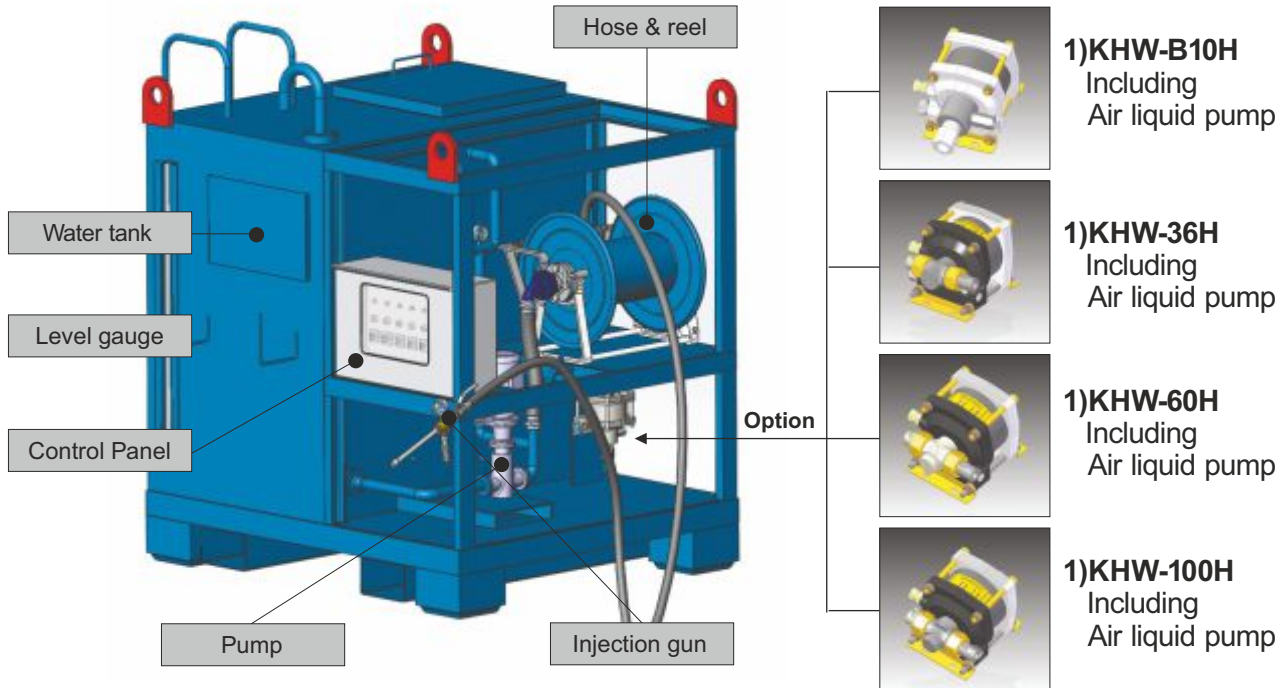
This equipment is for pressure test and cleaning with big flow and high pressure in plant, shipbuilding, and powerplant industries.



### > Specification

| Model        | Max flow (L/min) [Pressure (bar)] / Max pressure (bar) [Flow (L/min)] | Plunger Ø (mm) | Motor (Kw) | Pump weight (kg) |
|--------------|---|----------------|------------|------------------|
| EPU-HDP 10   | 103 [55] / 2200 [2.2]   | 8 - 45         | 5.5 - 11   | 94               |
| EPU-HDP 20   | 103 [95] / 3500 [2.2]   | 8 - 45         | 11 - 18.5  | 95               |
| EPU-HDP 40   | 155 [130] / 3000 [5.5]  | 12 - 55        | 15 - 37    | 200              |
| EPU-HDP 70   | 201 [180] / 3000 [10.4]   | 12 - 55        | 30 - 70    | 215              |
| EPU-HDP 120  | 326 [200] / 3000 [12]   | 17.5 - 70      | 45 - 120   | 380              |
| EPU-HDP 170  | 460 [200] / 3200 [26]   | 17.5 - 70      | 75 - 170   | 525              |
| EPU-HDP 250  | 766 [170] / 3200 [44]   | 17.5 - 70      | 110 - 250  | 1070             |
| EPU-HDP 250L | 766 [170] / 3000 [46]   | 17.5 - 70      | 111 - 250  | 1050             |
| EPU-HDP 380  | 1018 [200] / 3000 [61]  | 28 - 110       | 200 - 380  | 1700             |
| EPU-HDP 500  | 1280 [210] / 3000 [77]  | 28 - 110       | 300 - 500  | 1960             |
| EPU-HDP 800  | 2133 [200] / 3000 [129]   | 28 - 110       | 500 - 800  | 3700             |
| EPU-HDP 1100 | 2987 [200] / 3000 [178]   | 28 - 110       | 710 - 1100 | 5361             |

## >> ROCKY WASHER



- > Pressure : 16 bar (Option : 70 ~ 700 bar)
- > Flow late : 12 m3/Hr
- > Water gun nozzle : Ø12(I.D)
- > Power : AC220/3Φ , AC380/3Φ , AC440/3Φ

### > Specification

| Model                   | Hz | Flow late(Pressure)  | OPTION ( XXXX )                                   |
|-------------------------|----|----------------------|---|
| ERW60-1500-XXXX-(00000) | 60 | 12 m3/Hr<br>(16 bar) | Including AIR LIQUID PUMP<br>B10H, 35H, 60H, 100H |
| ERW60-2000-XXXX-(00000) |    |                      |   |
| ERW60-3000-XXXX-(00000) |    |                      |   |
| ERW60-4500-XXXX-(00000) |    |                      |   |

-If the Hz is changed to 50, the flow late and pressure should be 12m3/Hr (14.6 bar).

### DESCRIPTION

This equipment is water testing system of the cabin and the hull. And This is produced as with AIR LIQUID PUMP (option), so it can also do high pressure test at 700 bar.

1. Pump Standard by frequency (Pump : OEM)
  - 1) 60Hz = MXV40-811-60
  - 2) 50Hz = MXV50-1608/C
2. OPTION (XXXX)-(Just blank if there is no option)
  - 1) B10H : (1.5HP) X (ratio 10) X (output 16.7L/min)
  - 2) 35H : (6HP) X (ratio 35) X (output 19.6L/min)
  - 3) 60H : (6HP) X (ratio 60) X (output 11.4L/min)
  - 4) 100H : (6HP) X (ratio 100) X (output 6.5L/min)
3. POWER(00000) = AC220/3 Φ , AC380/3 Φ , AC440/3 Φ
4. Special size is available(optional).

### Ordering information

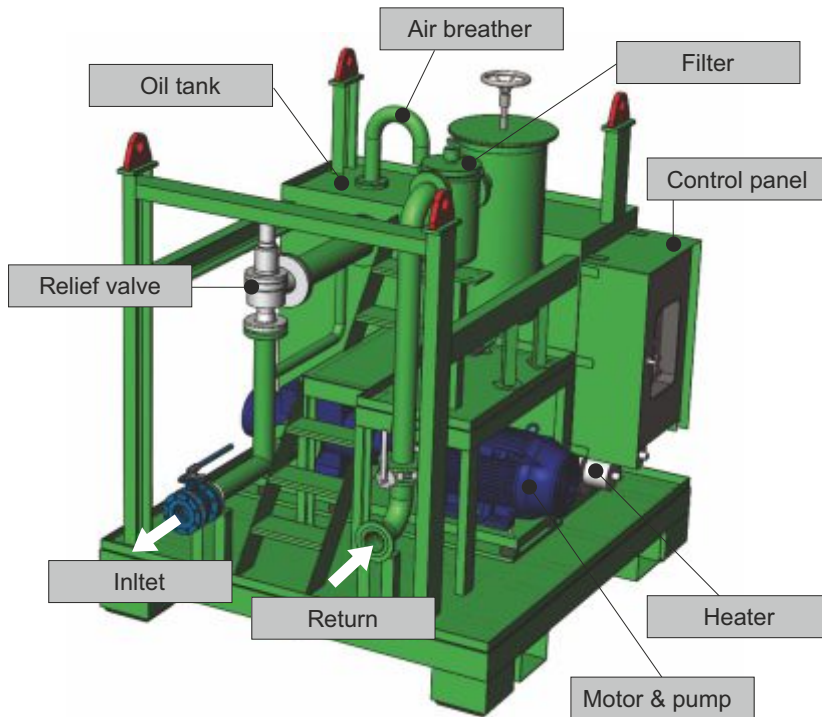
**ERW60-1500-XXXX-(00000)**

ROCKY WASHER

Hz( 50 or 60)

TANK CAPACITY

## >> FLUSHING UNIT



All in one type



Separated type

- > Pressure : 10 ~ 40 bar
- > Flow late : 10 ~ 145 m3/Hr
- > Power : AC220/3 $\phi$  , AC380/3 $\phi$  , AC440/3 $\phi$

### DESCRIPTION

This equipment is designed and built up for flushing & testing inside the piping line of the vessels. If leakage or any abnormal working are happened during test the system stops automatically.

### Ordering information

**EFU-B-60- -XXXX-(00000)**

FLUSHING UNIT

OIL: B, WATER: W

Hz( 50 or 60)

1. = FLOW
2. OPTION (XXXX) = Oil/water tank capacity ( Separated TANK type \_S ; ex) 1500S )
3. POWER(00000) = AC220/3  $\phi$  , AC380/3  $\phi$  , AC440/3  $\phi$
4. Special size is available(optional).

### > Specification

| Model                   | Flow late (Pressure)            | Liquid | OPTION (XXXX) (Oil/Water tank capacity)(L)                                   |
|-------------------------|---------------------------------|--------|--|
| EFU-B-60- -XXXX-(00000) | 10 ~ 145 m3/Hr<br>(10 ~ 40 bar) | Oil    | 1) All in one type : 500, 1000, 1500<br>2) Separated type : 2000, 2500, 3000 |
| EFU-B-50- -XXXX-(00000) | 8 ~ 120 m3/Hr<br>(10 ~ 40 bar)  | Oil    | 1) All in one type : 500, 1000, 1500<br>2) Separated type : 2000, 2500, 3000 |
| EFU-W-60- -XXXX-(00000) | 100 ~ 150 m3/Hr<br>14 bar       | Water  | 1) Separated type : 2000, 2500, 3000   |
| EFU-W-50- -XXXX-(00000) | 80 ~ 125 m3/Hr<br>14 bar        | Water  | 1) Separated type : 2000, 2500, 3000   |

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