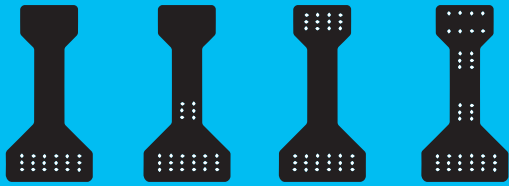


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Amsterdam PT and Hydraulic Systems B.V.

PRE-TENSIONING
SYSTEMS AND
EQUIPMENT



Voorgespannen Concreet Technologie

Prestressed Concrete
Technology



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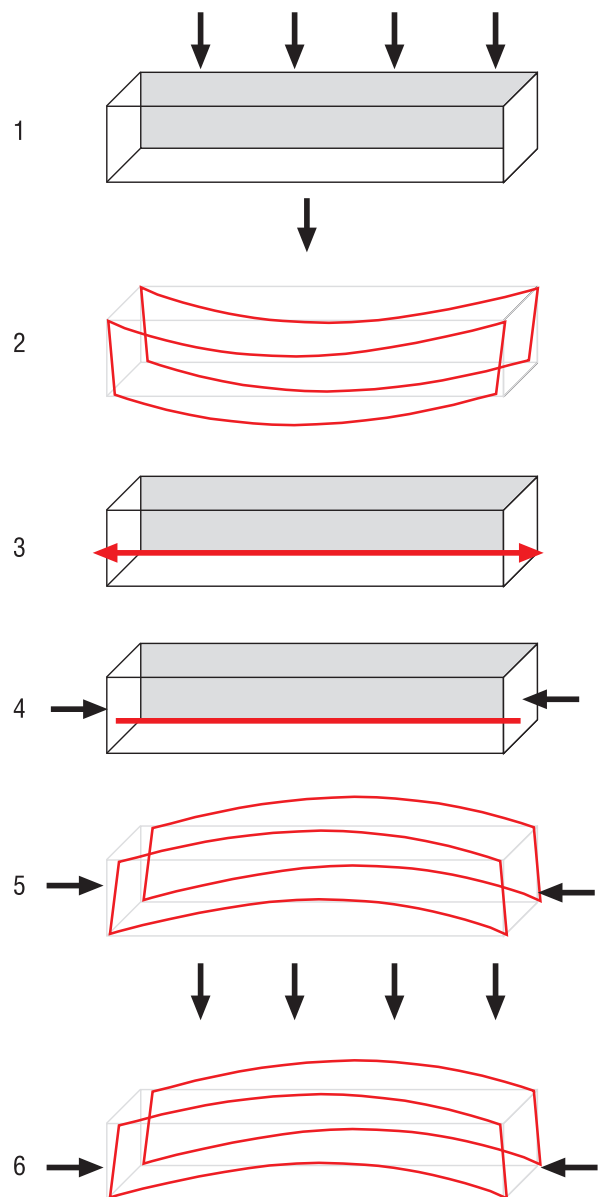
What is Pre-Stressed Concrete?

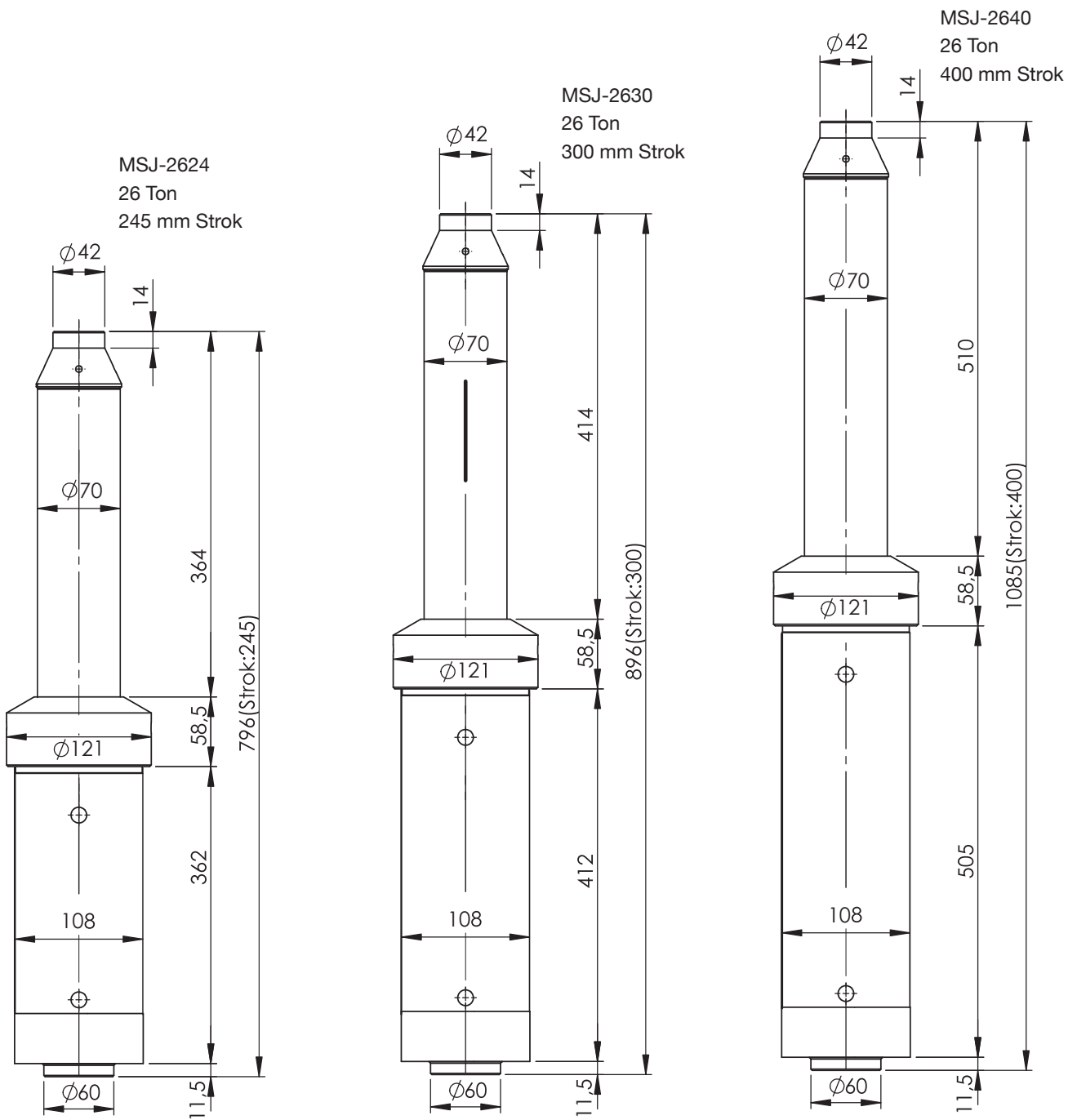
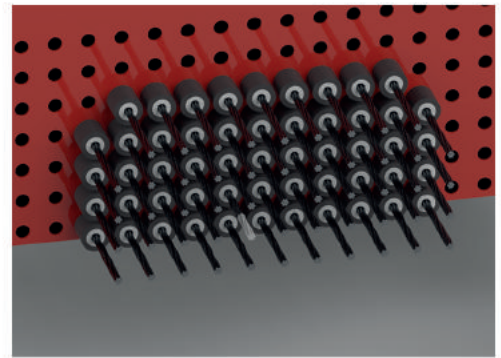
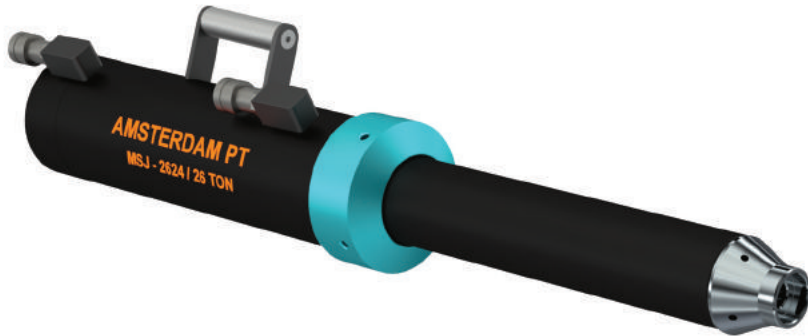
Pre-Stressed concrete is a type of construction technology which used in construction industry commonly. Main principle of this technology is depends on compressing the concrete by stressing the tendons with proper Stressing Jacks. As seen in the figure beside application of tendons are located at bottom part of the beam and stressed at that position. So, middle part of the span of beam behaved to react upper direction. This behaviour of the system allowed to the Pre-Stressed concrete to be resist against loads over beam. Amstrdam PT provide service for pre-tensioning technology by supplying all equipments and machines to carry out stressing process according to project requirements.

Working Principle, Advantages and Usage Areas of the Pre-Stressed Concrete?

Pre-Tensioning concrete technology is prefabrication technique which needs a fabricate to manufacture. System is generated remote from the essential installation at site. According to required strength Tendons in Pre-Stressed concrete may consist of wires, multi-strand wires and threaded bars. It was necessity to have strong and stable end-anchorage equipments which the tendons are stretched. These anchorages form the ends of a casting bed. As a result,multiple elements can be manufactured end to end during a single pretensioning operation, this technique of production can realize tremendous productivity gains and economies of scale. Early-age concrete's higher bond strength facilitates faster production while also enabling more cost-effective manufacture.

Prestressed concrete is utilized in a variety of construction and civil structures where, in comparison to straightforward reinforced concrete, its better performance can enable longer spans, thinner structural walls, and material savings. High-rise structures, residential slabs, foundation systems, bridge and dam structures, silos and tanks, commercial pavements, and nuclear containment structures are only a few examples of typical applications.

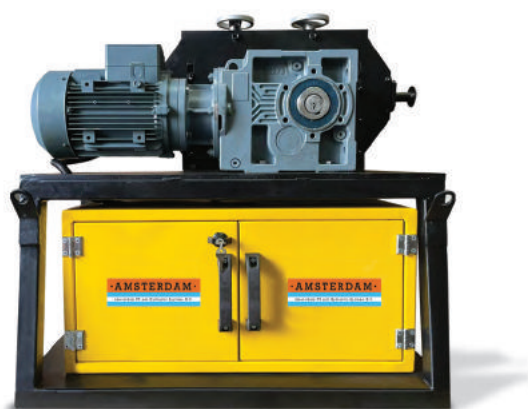






| Item | | Data |
|---------------------------------|--------|------------|
| Dimensions | cm | 300x90x165 |
| Gross Weight | kg | 580 |
| Rotor Type | P3 | P8 |
| Theoretical Pump Capacity | Lt/min | 70 |
| Maximum Output Pressure | bar | 40 |
| Out Hose Diameter | inch | 1 |
| Max. Send Mess. Vertical | m | 80 |
| Max. Send Mess. Horizontal Max. | m | 100 |
| Main Engine Power | kw | 7,5 |
| Mixer Motor Power | kw | 3x2 |
| Voltage / Frequency | v/hz | 380/50 |
| Total Consumption | kw | 13,5 |
| Rotor Rotation Speed | rpm | 407 |
| Mixer Rotation Speed | rpm | 55 |
| Boiler Volume | litre | 200x2 |

Strand Pushing Machine

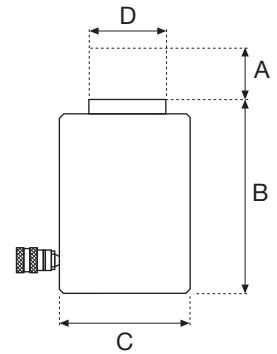


| Item | Data |
|---------------------|------------------------|
| Product | Strand Pushing Machine |
| Type | Type 2 |
| Model No | SR-HSR.22 |
| Strand Diameter | 12,7 mm - 15,75 mm |
| Motor Power | 5.5 kw |
| Control Type | Remote Control |
| Motor Specification | 380 V. |
| Reducer Type | 5,5 kw - Inverter |
| System Type | 4 x 4 Pulley System |
| Weight | 170 kg |

The system consist of 1 unit of electric powered pack, 2 units of hydraulic cylinder, 2 units of support rings, hoses, manifold and other fittings. There are totally 14 models far relaxation jacks having 100-600 tons of capacity.

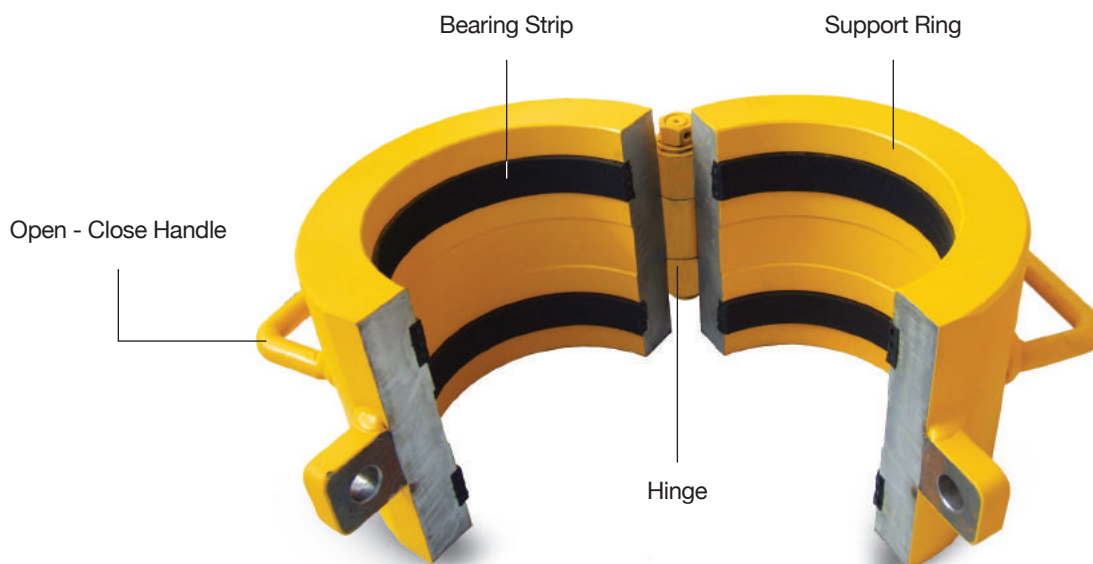
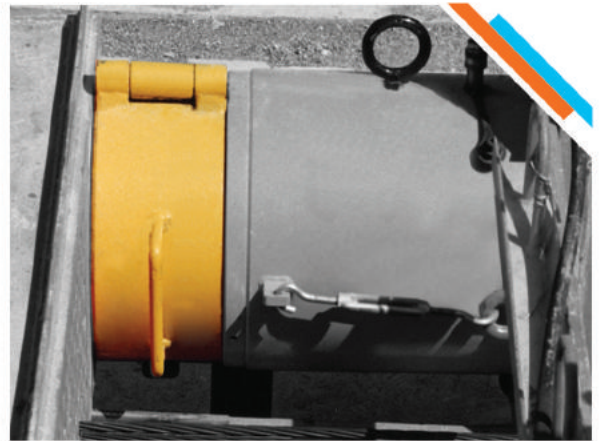


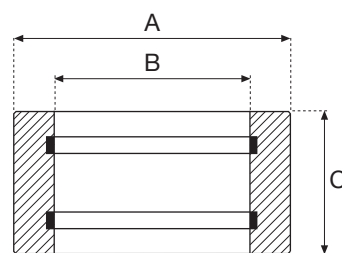
- Single acting
- Load return
- 100 - 600 ton capacity
- 225 - 300 mm stroke
- Totally 14 models



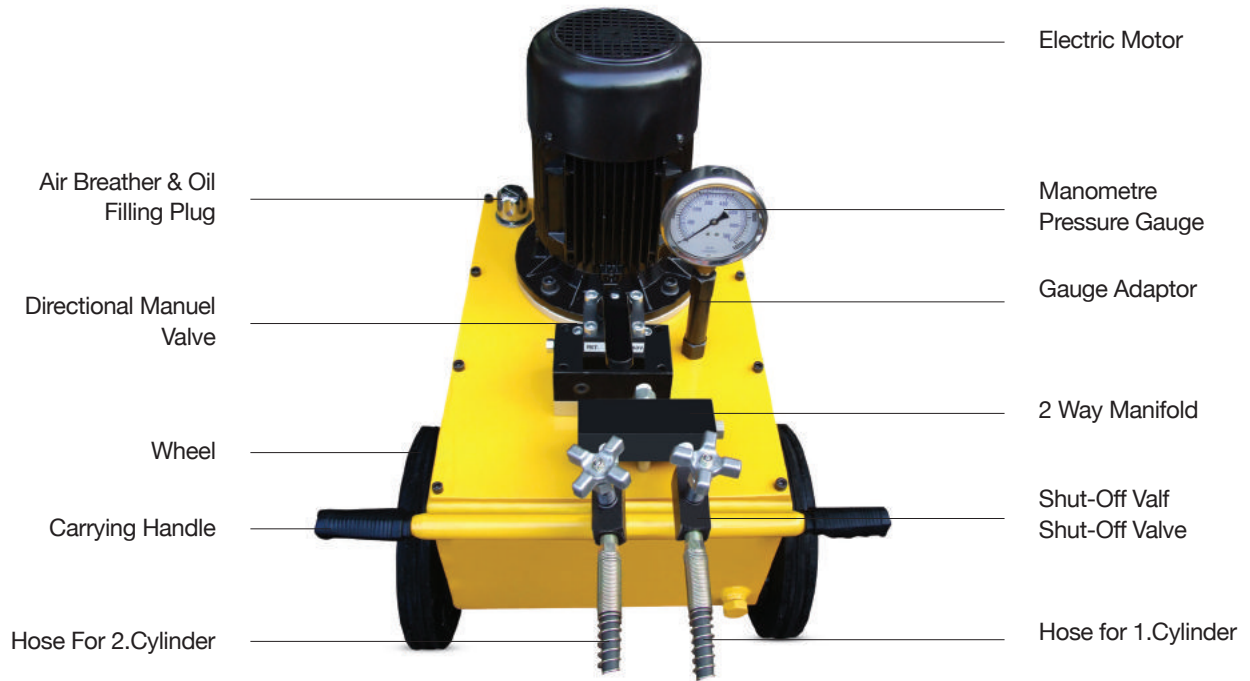
| Model No. | Capacity | A | B | C | D | Effective Area | Oil Capacity | Working Pressure | Weight |
|------------|----------|--------|---------------|------------------|--------------|-----------------|-----------------|------------------|--------|
| | | Stroke | Closed Height | Outside Diameter | Rod Diameter | | | | |
| | | mm | mm | mm | mm | cm ² | cm ³ | bar | kg |
| CRKG-10023 | 100 | 225 | 450 | 260 | 165 | 254,34 | 5723 | 394 | 178 |
| CRKG-10030 | | 300 | 525 | | | | 7630 | | 207 |
| CRKG-15023 | 150 | 225 | 460 | 305 | 195 | 362,87 | 8165 | 414 | 258 |
| CRKG-15030 | | 300 | 535 | | | | 10886 | | 297 |
| CRKG-20023 | 200 | 225 | 480 | 350 | 225 | 490,63 | 11039 | 408 | 342 |
| CRKG-20030 | | 300 | 555 | | | | 14719 | | 393 |
| CRKG-30023 | 300 | 225 | 500 | 410 | 275 | 706,50 | 15896 | 425 | 494 |
| CRKG-30030 | | 300 | 575 | | | | 21195 | | 565 |
| CRKG-40023 | 400 | 225 | 510 | 455 | 310 | 907,46 | 20418 | 441 | 618 |
| CRKG-40030 | | 300 | 585 | | | | 27224 | | 701 |
| CRKG-50023 | 500 | 225 | 545 | 515 | 350 | 1133,54 | 25505 | 441 | 853 |
| CRKG-50030 | | 300 | 620 | | | | 34006 | | 976 |
| CRKG-60023 | 600 | 225 | 560 | 595 | 400 | 1451,47 | 32658 | 414 | 1178 |
| CRKG-60030 | | 300 | 635 | | | | 43544 | | 1331 |

Support rings placed in the system, provides to keep the total stressing loaded on strands waiting in mechanical plane right after stressing. During the drying period of concrete, in order not to keep hydraulic cylinders waiting under the pressure, support rings are placed between the cylinders and moving front part of the mold. The support ring length is adjusted due to the measurement of stroke used in relaxation jacks. There are bearing strips to protect piston surface from support rings damage during application.





| Support Ring Model No. | Cylinder Model No. | A | B | C | Weight |
|------------------------|--------------------|------------------|-----------------|--------|--------|
| | | Outside Diameter | Inside Diameter | Height | |
| | | mm | mm | mm | |
| KSS-100/23 | CRKG-10023 | 250 | 170 | 200 | 44 |
| KSS-100/30 | CRKG-10030 | | | 275 | 60 |
| KSS-150/23 | CRKG-15023 | 285 | 200 | 200 | 51 |
| KSS-150/30 | CRKG-15030 | | | 275 | 69 |
| KSS-200/23 | CRKG-20023 | 315 | 230 | 200 | 56 |
| KSS-200/30 | CRKG-20030 | | | 275 | 77 |
| KSS-300/23 | CRKG-30023 | 375 | 280 | 200 | 75 |
| KSS-300/30 | CRKG-30030 | | | 275 | 103 |
| KSS-400/23 | CRKG-40023 | 420 | 315 | 200 | 91 |
| KSS-400/30 | CRKG-40030 | | | 275 | 126 |
| KSS-500/23 | CRKG-50023 | 480 | 355 | 200 | 127 |
| KSS-500/30 | CRKG-50030 | | | 275 | 175 |
| KSS-600/23 | CRKG-60023 | 530 | 405 | 200 | 135 |
| KSS-600/30 | CRKG-60030 | | | 275 | 186 |




- Single stage electrical hydraulic power pack
- For single acting cylinders
- 5 different models due to their flow
- 2 way manifold system.
- Maximum 450 bar working pressure




| Güç Ünitesi Model No. | | EPP-257 | EPP-427 | EPP-607 | EPP-757 | EPP-907 |
|---------------------------|---------|---|-----------------|----------------------|-----------------|----------------------|
| Power Pump Type | | Single Stage; Special Design for Relaxation Jacks | | | | |
| Pump Type | | Radial 3 Piston Pump | | Radial 5 Piston Pump | | Radial 7 Piston Pump |
| Working Pressure (max.) | bar | 450 | | | | |
| Displacement 1/min. | l / min | 2,5 | 4,2 | 6,0 | 7,5 | 9,0 |
| Motor Power | kw | 2,2 | 3 | 4 | 5,5 | 7,5 |
| Motor Rpm | rpm | 1400 | | | | |
| Reservoir Capacity | liter | 32 | 60 | 87 | 120 | 158 |
| Usable Oil Capacity | liter | 25 | 48 | 70 | 96 | 130 |
| Reservoir Sizes | mm | 330 x 450 x 230 | 410 x 560 x 260 | 480 x 660 x 280 | 550 x 750 x 300 | 600 x 820 x 330 |
| Pressure Gauge | | G-7: 100 mm x 0-700 bar (glycerine filled) | | | | |
| Manifold | | 2 Way Manifold System | | | | |
| Directional Control Valve | | 3 Way - 3 Position Manuel Type | | | | |
| Pressure Control Valve | | In-Line Pressure Relief Valve Fixed 450 bar | | | | |
| Motor Specifications | | 220/380 V., 50Hz., 3-Phaze | | | | |
| Motor Remote Control | | With 3 meter Cord | | | | |
| Wheel Diameter | mm | 250 | 300 | 300 | 350 | 350 |
| Weight | kg | 86 | 122 | 169 | 223 | 267 |

Hoses


|  | Model No. | Length | Internal Diameter | Weight |
|---|-----------|--------|-------------------|--------|
| | | m | | kg |
| | HS - 2206 | 6 | 9,70 | 3,15 |
| | HS - 2208 | 8 | | 4,15 |
| HS - 2210 | 10 | 5,15 | | |

Working Pressure : 700 bar
 Burst Pressure : 2170 bar

Pressure Gauges

|  <p>G7</p> | Model No. | Capacity | Scale Diameter | Oil Port | Gauge Type |
|---|-----------|----------|----------------|----------|------------------|
| | | bar | mm | | |
| | G7 | 0-700 | 100 | 1/4" NPT | Glycerine Filled |

Coupler

|  <p>C-209</p> <p>C-213 C-211</p> | Model No. | Description | Weight |
|--|------------------|--|--------|
| | | | kg |
| | C-213 | Coupler half, male with 3/8" NPT inner connection thread | 0,150 |
| | C-211 | Coupler half, female with 3/8" NPT outer connection thread | 0,225 |
| C-209 | Coupler complete | 0,375 | |

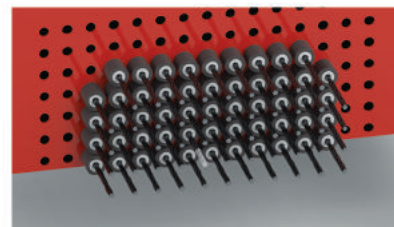


- Single stage electrical hydraulic power pack
- For single acting cylinders
- 5 different models due to their flow
- 2 way manifold system.
- Maximum 450 bar working pressure



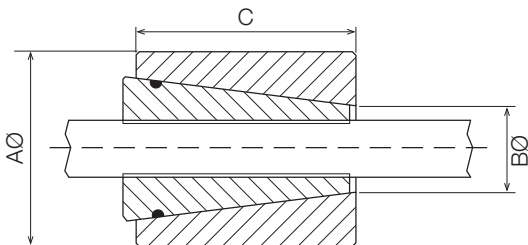
Package - Quantity 25 Adet / Pcs

Package - Dimensions 250 x 250 x 75 (mm)



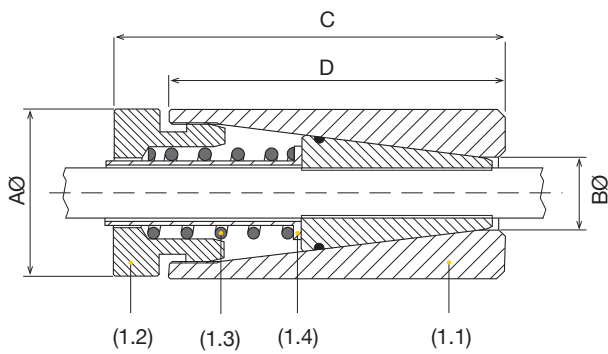
| Model No. | Order Number | Wedge Type | Diameter Range | Tested Breaking Load | Wedge Length | Tooth Pitch | Weight Per Set |
|------------|--------------|---------------|----------------|----------------------|--------------|-------------|----------------|
| | | | | | (mm) | (mm) | |
| Nu.D-05WPR | PRW.05.00 | Pretensioning | 12,2 - 12,7 | 172 kN | 47 | 1,0 | 178 g |
| Nu.D-06WPR | PRW.06.00 | | 14,7 - 15,3 | 257 kN | | | 166 g |
| Nu.D-62WPR | PRW.62.00 | | 15,2 - 15,8 | 276 kN | | | 162 g |

| | | | |
|---|------------------------------------|-------------|-------------|
| Especially Recommended for Prestressing Steel Diameter | 0,5" | 0,6" | 0,62" |
| | 12,70 mm | 15,24 mm | 15,75 mm |
| Suitable Wedge Type | Pretensioning Wedge; Nu.D / WPR | | |
| Possible Wedge Length | 47 mm | | |
| Maximum Service Load | 160 - 220 kN | | |
| Ultimate Load | 230 - 330 kN | | |
| Package - Quantity | 16 Adet / Pcs | | |
| Package - Dimensions | 250 x 250 x 75 (mm) | | |
| Order No. (Without Wedges) | AH.07.01.00 | | |



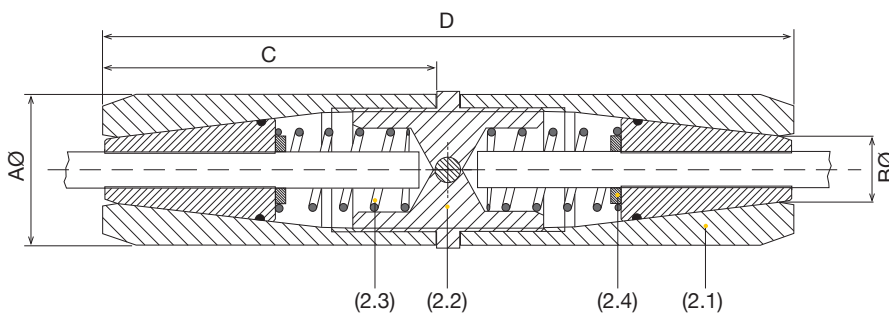
| Model No. | Barrel Type | Diameter Range | Tested Breaking Load | A | B | C | Weight |
|-----------|---------------|----------------|----------------------|--------|--------|------|--------|
| | | | | Ø (mm) | Ø (mm) | (mm) | |
| AH-1A | Pretensioning | 12,2 - 15,8 | 330 kN | 44,5 | 22,5 | 54 | 407 g |

| | | | |
|--|------------------------------------|-------------|-------------|
| Especially Recommended for Presstressing Steel Diameter | 0,5" | 0,6" | 0,62" |
| | 12,70 mm | 15,24 mm | 15,75 mm |
| Suitable Wedge Type | Pretensioning Wedge; Nu.D / WPR | | |
| Possible Wedge Length | 47 mm | | |
| Maximum Service Load | 160 - 220 kN | | |
| Ultimate Load | 230 - 330 kN | | |
| Package - Quantity | 8 Adet / Pcs | | |
| Package - Dimensions | 250 x 250 x 75 (mm) | | |
| Order No. (Without Wedges) | PG.07.01.00 | | |
| Order No. Barrel (1.1) | 07.1.01.00 | | |
| Order No. Coupling Piece (1.2) | 07.1.02.00 | | |
| Order No. Spring (1.3) | 07.1.03.00 | | |
| Order No. Back Plate (1.4) | 07.1.04.00 | | |

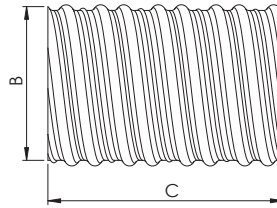
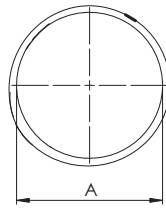
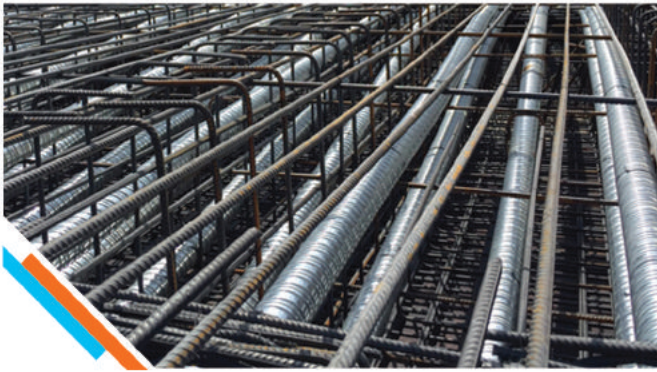


| Model No. | Diameter Range | Tested Breaking Load | A | B | C | D | Weight |
|-----------|----------------|----------------------|--------|--------|------|------|--------|
| | | | Ø (mm) | Ø (mm) | (mm) | (mm) | |
| AH-1P | 12,2 - 15,8 | 330 kN | 44,5 | 22,5 | 97 | 88 | 688 g |

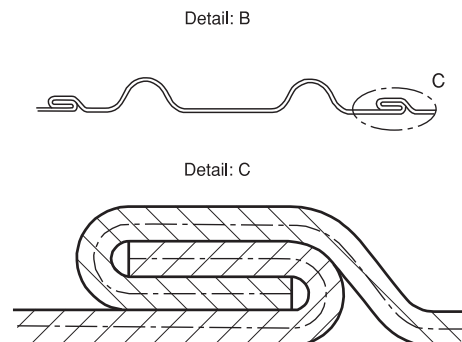
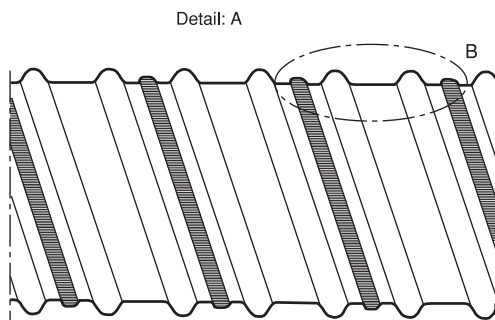
| | | | |
|--|------------------------------------|-------------|-------------|
| Especially Recommended for Presstressing Steel Diameter | 0,5" | 0,6" | 0,62" |
| | 12,70 mm | 15,24 mm | 15,75 mm |
| Suitable Wedge Type | Pretensioning Wedge; Nu.D / WPR | | |
| Possible Wedge Length | 47 mm | | |
| Maximum Service Load | 160 - 220 kN | | |
| Ultimate Load | 230 - 330 kN | | |
| Package - Quantity | 4 Adet / Pcs | | |
| Package - Dimensions | 250 x 250 x 75 (mm) | | |
| Order No. (Without Wedges) | CG.07.2.00 | | |
| Order No. Barrel (2.1) | 07.2.01.00 | | |
| Order No. Coupling Piece (2.2) | 07.2.02.00 | | |
| Order No. Spring (2.3) | 07.2.03.00 | | |
| Order No. Back Plate (2.4) | 07.2.04.00 | | |



| Model No. | Diameter Range | Tested Breaking Load | A | B | C | D | Weight |
|-----------|----------------|----------------------|--------|--------|------|------|--------|
| | | | Ø (mm) | Ø (mm) | (mm) | (mm) | |
| CG-1 | 12,2 - 15,8 | 330 kN | 44,5 | 22,5 | 88 | 188 | 1398 g |



| Number of Strands | | 4 | 7 | 9 | 12 | 15 | 19 | 22 | 27 | 31 |
|--|---------------------|------|------|------|------|-------|-------|-------|-------|-------|
| GALVANIZED CORRUGATED DUCT | | | | | | | | | | |
| A | Internal Dia. Ø(mm) | Ø 45 | Ø 55 | Ø 70 | Ø 80 | Ø 90 | Ø 95 | Ø 110 | Ø 115 | Ø 120 |
| B | External Dia. Ø(mm) | Ø 50 | Ø 60 | Ø 75 | Ø 85 | Ø 95 | Ø 100 | Ø 115 | Ø 120 | Ø 125 |
| C | mt | 5,70 | 5,70 | 5,70 | 5,70 | 5,70 | 5,70 | 5,70 | 5,70 | 5,70 |
| THICKNESS | mm | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 |
| GALVANIZED CORRUGATED CONNECTOR | | | | | | | | | | |
| A | Ø(mm) | Ø 50 | Ø 60 | Ø 75 | Ø 85 | Ø 95 | Ø 100 | Ø 115 | Ø 120 | Ø 125 |
| B | Ø(mm) | Ø 55 | Ø 65 | Ø 80 | Ø 90 | Ø 100 | Ø 105 | Ø 120 | Ø 125 | Ø 130 |
| C | mm | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| THICKNESS | mm | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 |



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