

grippers

**PG** Series  
Low Profile Grippers



**NUMATICS**

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|--|-----|
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### Gripper summary of Operation

PG-Series Has true parallel motion that is generated by a pinion mechanism Powered by a double acting piston.

#### A. Body

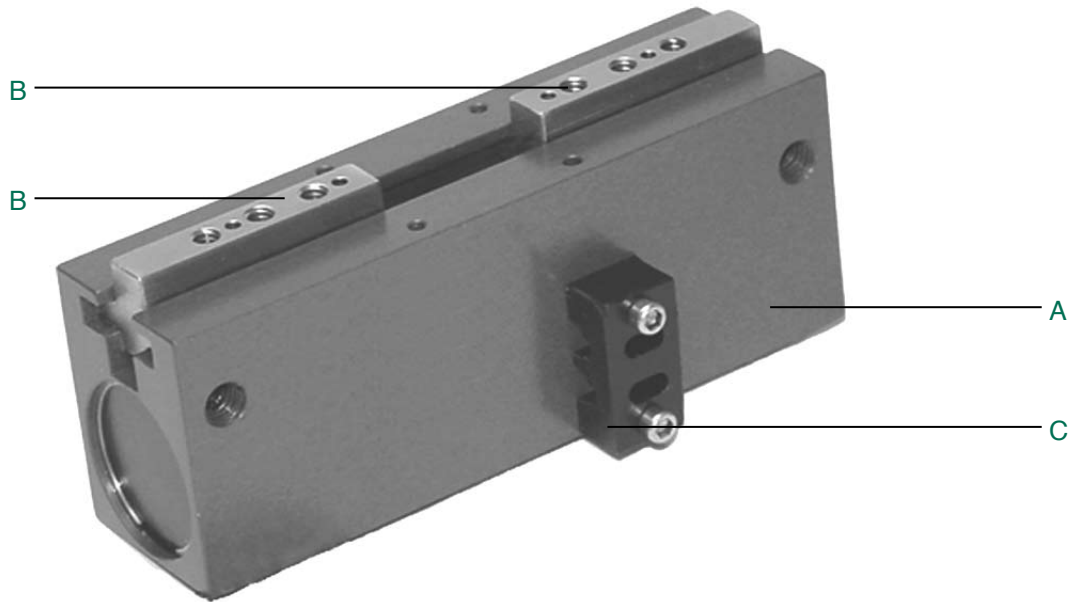
Hardcoat Anodized, Teflon impregnated inside & out.  
2 different strokes same size low profile body.

#### B. Jaws

Jaws are aluminum bronze alloy and T-Slot style to prevent Jaw breakage and offers superior load bearing capabilities.

#### C. Sensing

Reed & Hall effect sensing is available to sense open & closed position.



### How to Order

**PG S 35 1 1 C X**

**Gripper Stroke**  
S = Short Stroke  
L = Long Stroke

**Gripper Series**  
25  
35

**Seal Type**  
1 = Buna-n  
2 = Viton

**Special Options**  
X = No Options

**Sensing Position**  
A = Single Position Open  
B = Single Position Close  
C = Two Position Sensing  
D = No Sensing

**Sensing Type**  
Standard Cord Set  
1 = Hall Switch - PNP (sourcing)  
2 = Hall Switch - NPN (sinking)  
6 = No Sensing  
Quick Disconnect Cord Set  
Z = Hall Switch - PNP (sourcing)  
Y = Hall Switch - NPN (sinking)  
See Sensor section.

#### When ordering additional switches:

| SWITCH DESCRIPTION         | STANDARD PART NO. | QUICK DISCONNECT PART NO. |
|----------------------------|-------------------|---------------------------|
| Hall Effect-PNP (Sourcing) | CS-20TP           | CS-20TP-QD                |
| Hall Effect-NPN (Sinking)  | CS-20TN           | CS-20TN-QD                |

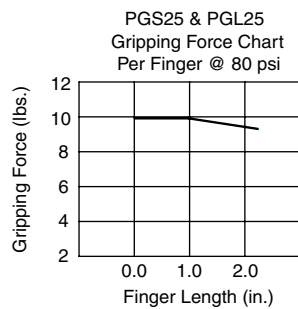


## PG Series Parallel Gripper

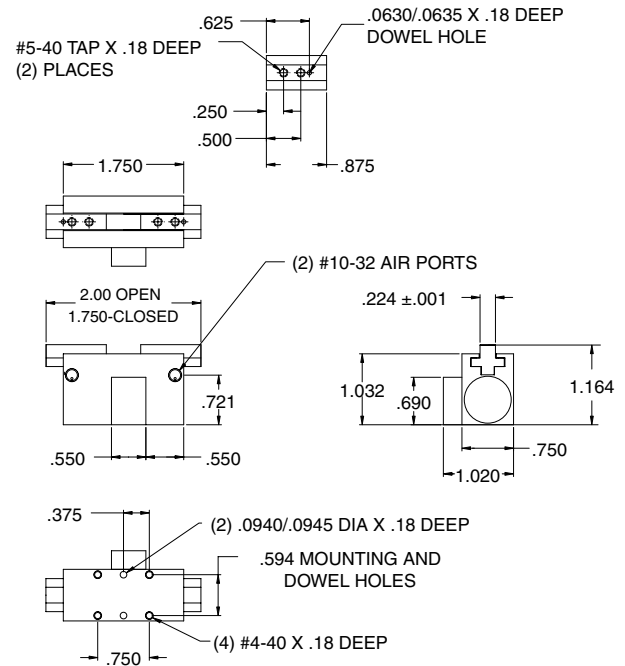
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### Specifications

|                       | PGS25         | PGL25         |
|-----------------------|---------------|---------------|
| Grip Force @ 100 psi  | 27 lbs        | 27 lbs        |
| Stroke                | 0.25          | 0.50          |
| Repeatability         | +/- .001      | +/- .001      |
| Bore Dia.             | 0.625         | 0.625         |
| Operating Temperature |               |               |
| Buna-N                | -30° to 180°F | -30° to 180°F |
| Viton                 | -20° to 300°F | -20° to 300°F |
| Max. Actuation Speed  | 0.12 sec      | 0.12 sec      |
| Displacement          | 0.3 cu in     | 0.3 cu in     |
| Maximum Pressure      | 120 psi       | 120 psi       |
| Unit Weight           | 2 oz          | 2 oz          |



### PGS25



### Grip Force vs. Finger Length

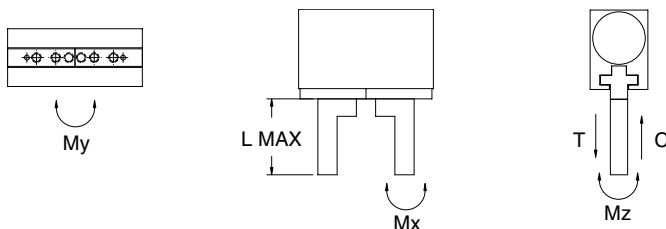
| L-FINGER LENGTH | PGS25   | PGL25   |
|-----------------|---------|---------|
| 1               | 25 lbs. | 25 lbs. |
| 2               | 20 lbs. | 20 lbs. |
| 3               | 15 lbs. | 15 lbs. |
| 4               | N/A     | N/A     |
| 5               | N/A     | N/A     |

### Static Condition

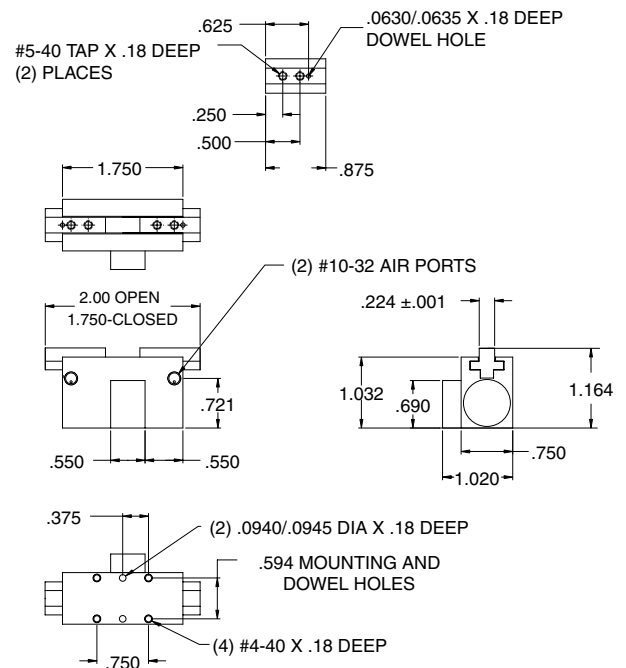
| LOAD CAPACITY | PGS25   | PGL25   |
|---------------|---------|---------|
| C-compression | 65 lbs. | 65 lbs. |
| T-tension     | 65 lbs. | 65 lbs. |
| Mx            | 45 lbs. | 45 lbs. |
| My            | 60      | 60      |
| Mz            | 40      | 45      |

### Dynamic Condition

| LOAD CAPACITY | PGS25       | PGL25       |
|---------------|-------------|-------------|
| C-compression | 25 lbs.     | 25 lbs.     |
| T-tension     | 25 lbs.     | 25 lbs.     |
| Mx            | 20 in.-lbs. | 20 in.-lbs. |
| My            | 25 in.-lbs. | 25 in.-lbs. |
| Mz            | 20 in.-lbs. | 20 in.-lbs. |



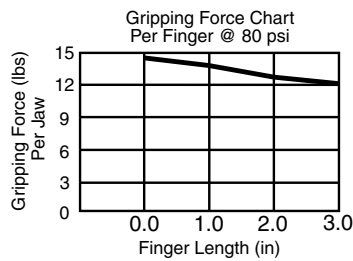
### PGL25



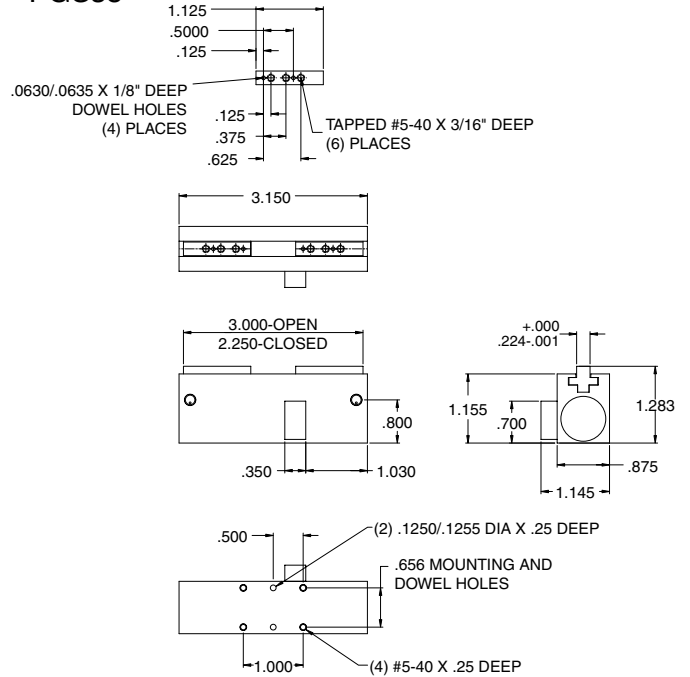


### Specifications

|                      | PGS35         | PGL35         |
|----------------------|---------------|---------------|
| Grip Force @ 100 psi | 35 lbs        | 35 lbs        |
| Stroke               | 0.75          | 1.00          |
| Repeatability        | +/- .001      | +/- .001      |
| Bore Dia.            | 0.70          | 0.70          |
| Operating Temp.      |               |               |
| Buna-N               | -30° to 180°F | -30° to 180°F |
| Viton                | -20° to 300°F | -20° to 300°F |
| Max. Actuation Speed | 0.12 sec      | 0.12 sec      |
| Displacement         | 0.38 cu in    | 0.38 cu in    |
| Maximum Pressure     | 120 psi       | 120 psi       |
| Unit Weight          | 5 oz          | 5 oz          |



### PGS35



### Grip Force vs. Finger Length

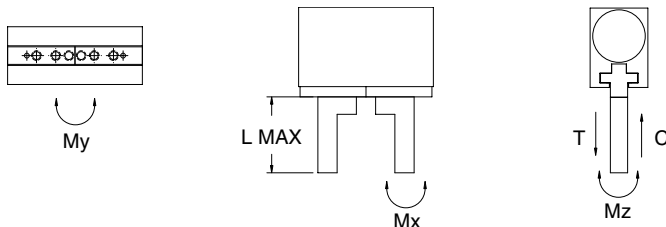
| L-FINGER LENGTH | PGS35   | PGL35   |
|-----------------|---------|---------|
| 1               | 28 lbs. | 28 lbs. |
| 2               | 26 lbs. | 26 lbs. |
| 3               | 24 lbs. | 24 lbs. |
| 4               | 19 lbs. | 19 lbs. |
| 5               | 8 lbs.  | 8 lbs.  |

### Static Condition

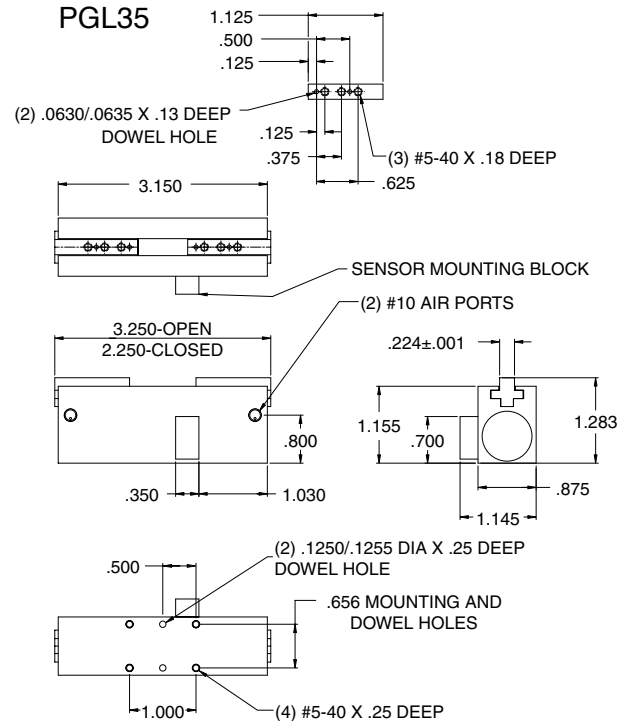
| LOAD CAPACITY | PGS35        | PGL35        |
|---------------|--------------|--------------|
| C-compression | 80 lbs.      | 80 lbs.      |
| T-tension     | 80 lbs.      | 80 lbs.      |
| Mx            | 80 in.-lbs.  | 80 in.-lbs.  |
| My            | 100 in.-lbs. | 100 in.-lbs. |
| Mz            | 80 in.-lbs.  | 80 in.-lbs.  |

### Dynamic Condition

| LOAD CAPACITY | PGS35       | PGL35       |
|---------------|-------------|-------------|
| C-compression | 45 lbs.     | 45 lbs.     |
| T-tension     | 45 lbs.     | 45 lbs.     |
| Mx            | 30 in.-lbs. | 30 in.-lbs. |
| My            | 40 in.-lbs. | 40 in.-lbs. |
| Mz            | 30 in.-lbs. | 30 in.-lbs. |



### PGL35



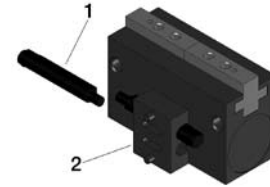


## PG Series Parallel Gripper

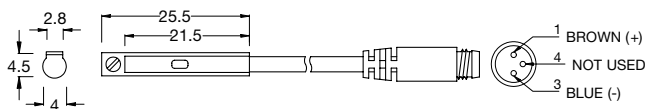
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### PG Series Switch Information

| SWITCH OR BRACKET DESCRIPTION    | STANDARD PART NO. | QUICK DISCONNECT PART NO. |
|----------------------------------|-------------------|---------------------------|
| 1 Hall Effect PNP (Sourcing) 4mm | CS-20TP           | CS-20TP-QD                |
| 1 Hall Effect NPN (Sinking) 4mm  | CS-20TN           | CS-20TN-QD                |
| 2 Switch Bracket                 | PGSB              | PGSB                      |

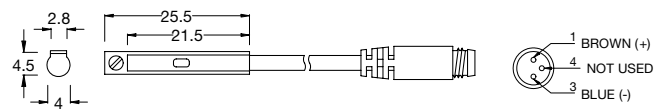


### Electro Switch (PNP NO) 8 mm Connector - CS-20TP-QD



|                          |                                     |
|--------------------------|-------------------------------------|
| Sensor Type              | Solid State Output                  |
| Switching Logic          | Normally Open                       |
| Output                   | PNP Current Spurcing                |
| Operating Voltage        | 5-30 VDC                            |
| Switching Current        | 50mA max.                           |
| Power Rating*            | 1.5 Watts                           |
| Voltage Drop             | 1.5 V @ 25 mA max.                  |
| Current Consumption      | 15 mA @ 24 VDC max.                 |
| Leakage Current          | 0.01 mA max.                        |
| LED Indicator            | Green                               |
| Cable                    | -                                   |
| Operating Frequency      | 1000 Hz                             |
| Magnetic Requirement     | 40 Gauss parallel                   |
| Temperature Range        | 14 to 158°F (-10 to 70°C)           |
| Shock / Vibration        | 50G/9G                              |
| Enclosure Classification | IEC 529 IP67 (NEMA 6)               |
| Protection Circuit       | Reverse Polarity, Surge Suppression |
| Set Screw Max. Torque    | 1.77 in-lbs (0.2 N-m)               |

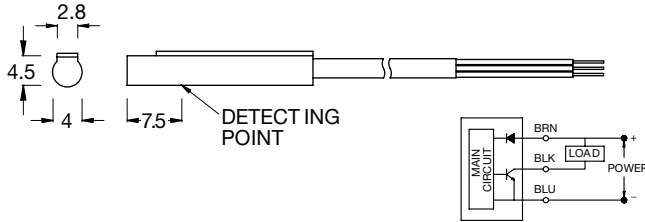
### Electro Switch (NPN NO) 8 mm Connector - CS-20TN-QD



|                          |                                     |
|--------------------------|-------------------------------------|
| Sensor Type              | Solid State Output                  |
| Switching Logic          | Normally Open                       |
| Output                   | NPN Current Spurcing                |
| Operating Voltage        | 5-30 VDC                            |
| Switching Current        | 50mA max.                           |
| Power Rating*            | 1.5 Watts                           |
| Voltage Drop             | 0.5 V @ 25 mA max.                  |
| Current Consumption      | 12 mA @ 24 VDC max.                 |
| Leakage Current          | 0.01 mA max.                        |
| LED Indicator            | Red                                 |
| Cable                    | -                                   |
| Operating Frequency      | 1000 Hz                             |
| Magnetic Requirement     | 40 Gauss parallel                   |
| Temperature Range        | 14 to 158°F (-10 to 70°C)           |
| Shock / Vibration        | 50G/9G                              |
| Enclosure Classification | IEC 529 IP67 (NEMA 6)               |
| Protection Circuit       | Reverse Polarity, Surge Suppression |
| Set Screw Max. Torque    | 1.77 in-lbs (0.2 N-m)               |

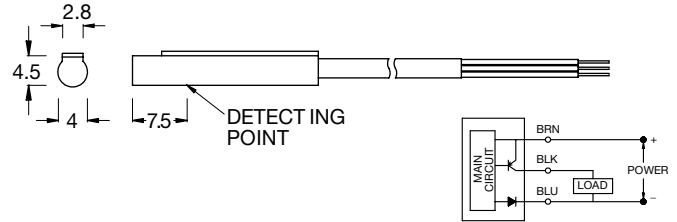


### Electro Switch (NPN NO) Flying Lead - CS-20TN



|                          |                                     |
|--------------------------|-------------------------------------|
| Sensor Type              | Solid State Output                  |
| Switching Logic          | Normally Open                       |
| Output                   | NPN Current Spourcing               |
| Operating Voltage        | 5-30 VDC                            |
| Switching Current        | 50mA max.                           |
| Power Rating*            | 1.5 Watts                           |
| Voltage Drop             | 0.5 V @ 25 mA max.                  |
| Current Consumption      | 12 mA @ 24 VDC max.                 |
| Leakage Current          | 0.01 mA max.                        |
| LED Indicator            | Red                                 |
| Cable                    | -                                   |
| Operating Frequency      | 1000 Hz                             |
| Magnetic Requirement     | 40 Gauss parallel                   |
| Temperature Range        | 14 to 158°F (-10 to 70°C)           |
| Shock / Vibration        | 50G/9G                              |
| Enclosure Classification | IEC 529 IP67 (NEMA 6)               |
| Protection Circuit       | Reverse Polarity, Surge Suppression |
| Set Screw Max. Torque    | 1.77 in-lbs (0.2 N-m)               |

### Electro Switch (PNP NO) Flying Lead - CS-20TP



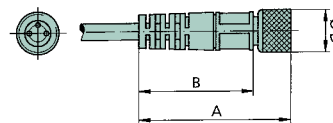
|                          |                                     |
|--------------------------|-------------------------------------|
| Sensor Type              | Solid State Output                  |
| Switching Logic          | Normally Open                       |
| Output                   | PNP Current Spourcing               |
| Operating Voltage        | 5-30 VDC                            |
| Switching Current        | 50mA max.                           |
| Power Rating*            | 1.5 Watts                           |
| Voltage Drop             | 1.5 V @ 25 mA max.                  |
| Current Consumption      | 12 mA @ 24 VDC max.                 |
| Leakage Current          | 0.01 mA max.                        |
| LED Indicator            | Green                               |
| Cable                    | Abrasion resistant polyurethane     |
|                          | (PUR) jacket, PVC insulation        |
| Operating Frequency      | 1000 Hz                             |
| Magnetic Requirement     | 40 Gauss parallel                   |
| Temperature Range        | 14 to 158°F (-10 to 70°C)           |
| Shock / Vibration        | 50G/9G                              |
| Enclosure Classification | IEC 529 IP67 (NEMA 6)               |
| Protection Circuit       | Reverse Polarity, Surge Suppression |
| Set Screw Max. Torque    | 1.77 in-lbs (0.2 N-m)               |

## Female Connectors for Reed Switches and Hall Effect Sensors

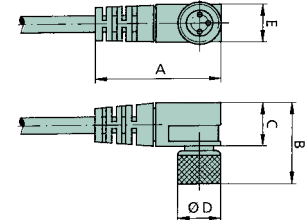
Dimensions (mm)

| TYPE                | ORDER CODE |
|---------------------|------------|
| Straight, 5 m Cable | PXCST      |
| Elbow, 5 m Calbe    | PXC90      |

### Straight Type



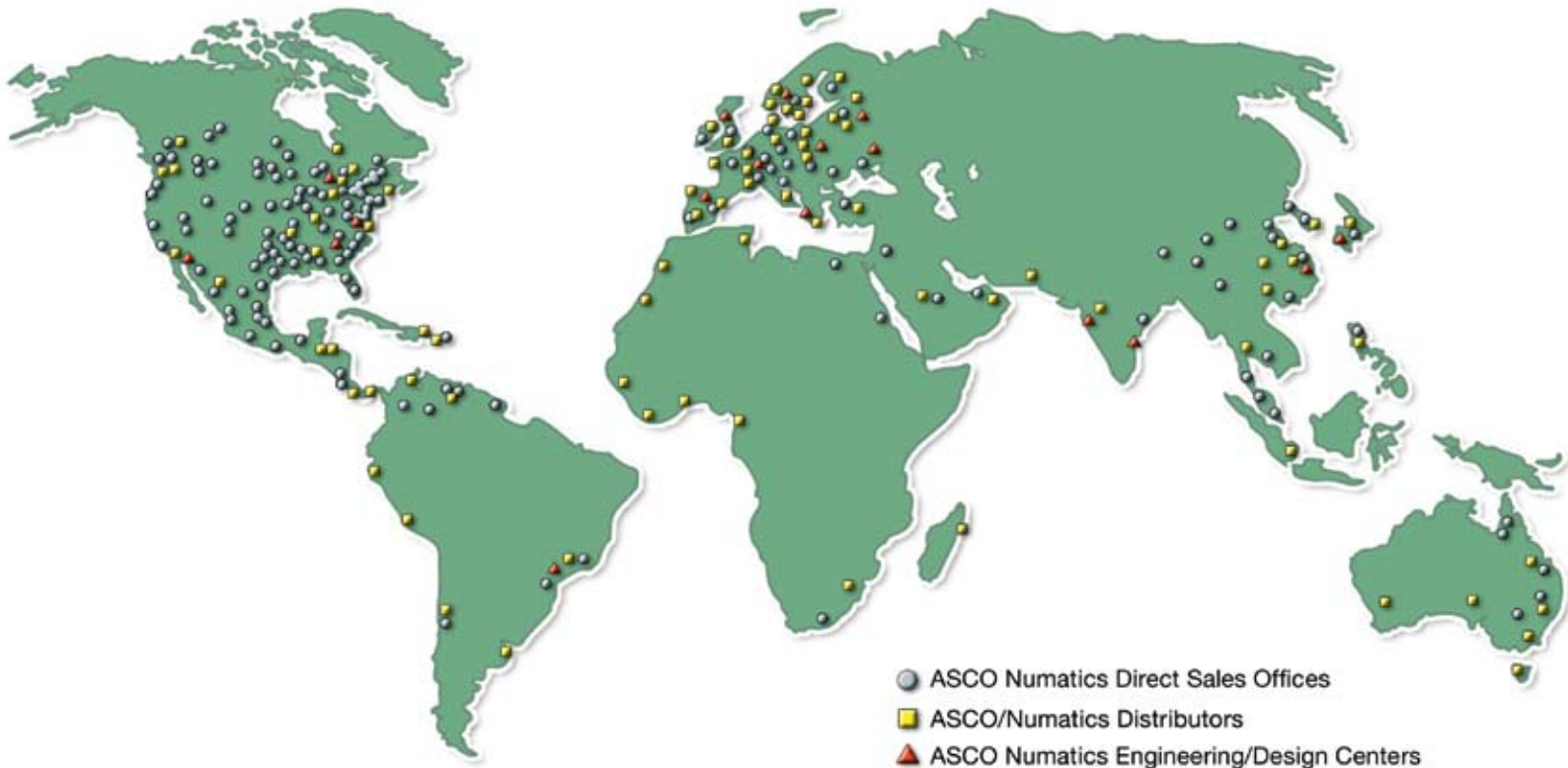
### Elbow Type





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