

Welch®
Laboratory Vacuum Catalog
2005-2006

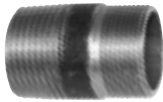
Vacuum System Connectors & Tubing
Catalog Pages 28-30

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Vacuum System Connectors & Tubing

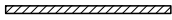
Male NPT Pipe Inlet And Exhaust Adapters



- Black Pipe
- Adapt inlet and exhaust to NPT Thread

| PUMP MODEL | MACHINE THREAD | NPT MALE THREAD | CAT. NO. |
|------------------------|----------------|-----------------|----------|
| 1400, 1399 | 3/4-20 | 1/2" | 1393N |
| 1380, 1402, 1376, 1405 | 1-20 | 3/4" | 1393P |

Red Vacuum Hose • Hose Clamps

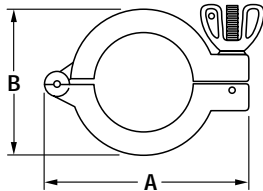


- Very thick walled hose for vacuum or pressure applications
- Quick-acting clamp tightened by a thumbscrew actuated worm screw
- Hose comes in 5 ft. lengths(1.5m)

| SPECIFICATIONS | | | HOSE KIT CAT. NO. | | | | | CLAMPS CAT. NO. |
|----------------|----------------|--------|-------------------|-----------|-----------|-----------|-----------|-----------------|
| I.D. | WALL THICKNESS | O.D. | 5ft only | 10ft only | 15ft only | 20ft only | 25ft only | 10/pkg. |
| 3/16 | 5/16 | 13/16 | 331020-5 | 331020-10 | - | - | - | 305320 |
| 1/4* | 1/4 | 3/4 | 331030-5 | - | - | - | - | 305320 |
| 7/16 | 5/16 | 1-1/16 | 331040-5 | 331040-10 | - | - | - | 305340 |
| 5/8 | 3/8 | 1-3/8 | 331050-5 | 331050-10 | - | - | 331050-25 | 305350 |
| 13/16 | 3/8 | 1-9/16 | 331060-5 | 331060-10 | 331060-15 | 305360-20 | - | 305360 |
| 1 5/8 | 11/16 | 3 | 331080-5 | 331080-10 | - | - | - | 305380 |

*Hose works with pumps that accept 3/8 in. I.D. hose.

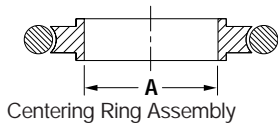
Hinged Clamps



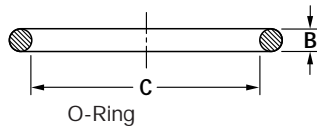
- Aluminum
- Closure by wing and nut bolt

| ISO | A | B | CLAMP WIDTH | CAT. NO. |
|-------|-------|-------|-------------|----------|
| NW 16 | 2.612 | 1.625 | 0.612 | 302201 |
| NW 25 | 2.965 | 1.950 | 0.612 | 302202 |
| NW 40 | 3.735 | 2.600 | 0.625 | 302203 |

Centering Assemblies • Replacement O-Rings



Centering Ring Assembly

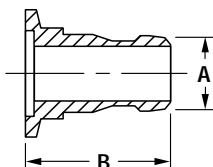


O-Ring

- Stainless steel centering ring with o-ring
- Replaceable Viton® o-ring seal

| ISO | CENTERING RING ASSEMBLY | | REPLACEMENT O-RING | | |
|-------|-------------------------|----------|--------------------|-------|----------|
| | A | CAT. NO. | B | C | CAT. NO. |
| NW 16 | 0.630 | 303101 | 0.210 | 0.725 | 304801 |
| NW 25 | 0.984 | 303102 | 0.210 | 1.100 | 304802 |
| NW 40 | 1.575 | 303103 | 0.210 | 1.600 | 304803 |

Rubber Hose Adapters



- ISO NW to rubber vacuum hose
- Aluminum

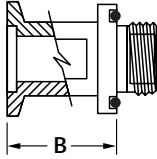
| ISO | HOSE I.D. | A | B | CAT. NO. |
|-------|-----------|-------|------|----------|
| NW 16 | 7/16 | 0.625 | 1.65 | 501241 |
| NW 16 | 5/8 | 0.750 | 1.65 | 501251 |
| NW 25 | 13/16 | 0.875 | 1.73 | 501262 |
| NW 40 | 1-5/8 | 1.63 | 2.17 | 501283 |

Dimensions are in inches

Vacuum System Connectors & Tubing

ISO NW Inlet Connectors for High Vacuum Pumps

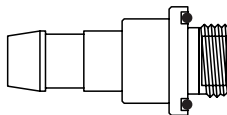
- Stainless steel with o-ring
- No sealant required for installation
- For pumps above listed serial number



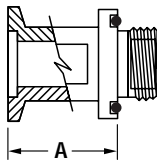
| ISO | THREAD SIZE | PUMP MODEL | SERIAL NO. | B | CAT. NO. |
|-------|-------------|------------------------------|------------|------|----------|
| NW 16 | 3/4-20 | 1399 | >26461 | 1.12 | 1393F |
| NW 16 | 3/4-20 | 1400, 1400N | >18069 | 1.12 | 1393F |
| NW 25 | 1-20 | 1405 | >77703 | 1.2 | 1393G |
| NW 25 | 1-20 | 1380 | >2114 | 1.2 | 1393G |
| NW 25 | 1-20 | 1402, 1402N | >133218 | 1.2 | 1393G |
| NW 25 | 1-20 | 1376, 1376N | >14594 | 1.2 | 1393G |
| NW 40 | 1-20 | 1374 | >73519 | 1.4 | 1393H |
| NW 40 | 1.75-20 | 1397 | >51217 | 1.4 | 1393H |
| NW 16 | 3/4-20 | 8905 | All | 1.12 | 8905K-05 |
| NW 25 | 1 1/8-20 | 8907, 8912, 8917, 8920, 8925 | All | 1.4 | 8907K-05 |

Exhaust Connectors for High Vacuum Pumps

- For adding an exhaust line to a pump
- Connectors for vacuum hose and ISO NW



Hose Connector



ISO Connector

| PUMP MODELS | HOSE CONNECTOR | | ISO CONNECTOR | | | |
|--|----------------|----------|---------------|--------|------|----------|
| | HOSE I.D. | CAT. NO. | THREAD SIZE | ISO NW | A | CAT. NO. |
| 1399, 1400, 8905, 8890 | 7/16 | 1393J | 3/4-20 | NW 16 | 1.12 | 1393F |
| 1402, 1380, 1376, 8920, 8925, 8907, 8912, 8917, 1405 | 13/16 | 1393K | 1-20 | NW 25 | 1.2 | 1393G |
| 1374, 1397 | 1-5/8 | 1393L | 1 3/4-20 | NW 40 | 1.4 | 1393H |
| 1405, 1402 | 7/16 | 1393M | 1-20 | NW 25 | 1.2 | 1393G |

UNIBARB™ Inlet Connectors For High Vacuum Pumps

- Accepts two sets of tubing ID
- Aluminum
- With inlet screen



| THREAD SIZE | PUMP MODEL | Hose I.D. | CAT. NO. |
|-------------|------------------|----------------|----------|
| 3/4-20 | 1400, 1399, 8905 | 3/16" & 7/16" | 8905K-06 |
| 1 1/8-20 | 8907, 8912, 8917 | 7/16" & 13/16" | 8907K-06 |
| 1 1/8-20 | 8920, 8925, 8917 | 9/16" & 13/16" | 8920K-06 |

Brass Hose Barb

- Brass
- For use with ISO to female pipe adaptors



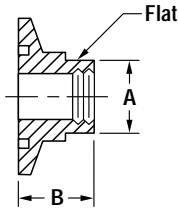
1393X

| HOSE BARB | THREAD | HOSE I.D. | CAT. NO. |
|-----------|---------|--------------|----------|
| 1/4 | 1/4 NPT | 3/16 and 3/8 | 1393X |

Dimensions are in inches

Vacuum System Connectors & Tubing

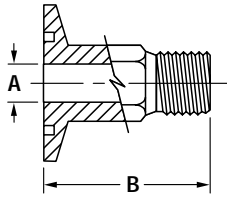
Female Pipe Adapters



- Female stubs have 1/8 in. to 3/4 in. NPT
- Stainless steel
- Can be used with many gauge probes including Welch No. 1515A and 1600B-01 (see pages 8 and 35)
- Can be used with brass hose barbs (see page 28)

| ISO | NPT | A | B | CAT. NO. |
|-------|-----|------|------|----------|
| NW 16 | 1/8 | 0.62 | 0.50 | 506111 |
| NW 16 | 1/4 | 0.62 | 0.50 | 506121 |
| NW 25 | 1/8 | 0.88 | 0.50 | 506112 |
| NW 25 | 1/4 | 0.88 | 0.50 | 506122 |
| NW 25 | 1/2 | 0.88 | 0.50 | 506142 |

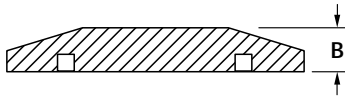
Male Pipe Adapters



- Male stubs have 1/8 in. to 3/4 in. NPT
- Hex shank
- Stainless steel

| ISO | NPT | A | B | CAT. NO. |
|-------|-----|-------|-----|----------|
| NW 16 | 1/4 | 0.281 | 1.6 | 505121 |
| NW 25 | 1/8 | 0.188 | 1.6 | 505112 |
| NW 25 | 1/4 | 0.281 | 1.6 | 505122 |
| NW 25 | 1/2 | 0.496 | 1.6 | 505142 |
| NW 25 | 3/4 | | | 505162 |

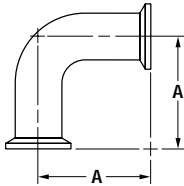
Blank-Off Flanges



- Stainless steel
- To close off unused parts

| ISO | B | CAT. NO. |
|-------|------|----------|
| NW 16 | 0.20 | 388101 |
| NW 25 | 0.20 | 388102 |

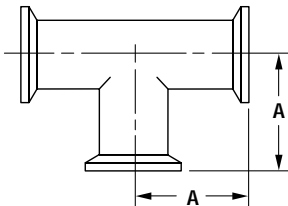
90° Elbows



- Stainless steel
- Same size flange on both ports

| ISO | A | CAT. NO. |
|-------|------|----------|
| NW 16 | 1.50 | 383101 |
| NW 25 | 2.04 | 383102 |

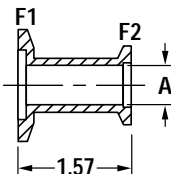
Tees



- Stainless steel
- Same size flanges on all ports

| ISO | A | CAT. NO. |
|-------|------|----------|
| NW 16 | 1.50 | 384101 |
| NW 25 | 2.04 | 384102 |

Reducers



- Makes differing sizes of ISO flanges
- Stainless steel

| ISO F1 | ISO F2 | A | CAT. NO. |
|--------|--------|-------|----------|
| NW 25 | NW 16 | 0.555 | 387121 |
| NW 40 | NW 16 | 0.555 | 387131 |
| NW 40 | NW 25 | 0.900 | 387132 |

Dimensions are in inches