TRUCK PROBES

CONSISTENT SAMPLING

InterSystems’ Truck Probes provide representative and repeatable samples of grain, pellets, chips, flakes, granules and powders from trucks, rail cars, ships, tubs and other vessels. The heavy carbon steel stand, mast and boom support the double-wall steel sample probe, powered by a rugged hydraulic unit.

Models include 3, 5, 7.5 and 10 horsepower units with available booms extendable up to 16 ft. and compartmentalized or core type tips used to obtain samples. Compartmentalized tip probes fill the chambers by gravity. The interior cylinder rotates, closing the ports in the first chamber and allowing material to flow by gravity into the second chamber. During retraction or while the probe is still in the load, material flows to the bottom of the second chamber and is pneumatically drawn through a third chamber for delivery to a collection cabinet in the probe station. A core type sample probe extracts a vertical cylinder of material from the vessel without pulling dust or fines from the surrounding mass. The sample is then pneumatically transported to the collection point. The sample probe is mounted on a swivel stand and boom which are hydraulically powered in three axes.

InterSystems’ complete Truck Probe system includes a vacuum system, collection cabinet, telescoping boom, hydraulic power unit, and controls. Probes for rail cars are available as well as mega probes which offer longer extendable booms, long-range sample delivery units and excess return systems.
FEATURES

Steel Elbow - 1.5” 90° steel (not used on core tip model)
Controls - joystick, with separate power and vacuum switch (optional handheld)
Telescoping Sample Line
Probe Tip - 7’ core or compartmentalized (shown), optional 9’ on 5 HP
Inner Boom - ASTM A500 structural tubing
Hydraulic Cylinder - for extending boom
Outer Boom - ASTM A500 structural tubing
Vacuum System - two-stage by-pass tangential vacuum motor with enclosure 104 CFM, 110” water, 120V, 1PH, 13A (other systems available based on conveying distance)
Cylinder Pivots - Ryertex bushings for extended life
Flange Bearings - for anti-friction movement
Pivot Tube Assembly - ASTM A513 DOM outer tube
Hydraulic Cylinder - up and down operation
CF 1045 Shaft
Sample Hose - 1.5” I.D. industrial tubing with smooth interior wall (some applications may require aluminum tubing)
Low Friction Ryertex bushing - for smooth rotation
Vacuum Line - connects collection cabinet to vacuum system
Hydraulic Motor - with flow controls and heavy duty chain and sprocket
Collection Cabinet - with filtration screen and heavy duty door. Allows fast, visual inspection of sample
Base Structure - ASTM A500 structural tubing
Hydraulic Hose - reinforced rubber with high pressure steel fittings
Hydraulic Power Unit - factory assembled, wired and tested complete with valves, 15 gallon reservoir, 5.6 GPM direct pump, motor and hinged access door. Shipped with oil rated for -40˚F.
Base Mounting Plate - reinforced steel plate with gussets
TRUCK PROBES

TRUCK PROBE: 3 HP

OPERATING RADIUS

SUPER TRUCK PROBE: 5 HP

OPERATING RADIUS
MEGA TRUCK PROBE: 7.5 HP

OPERATING RADIUS

10'8" (3248 mm) 18'2" Rotation

Cyclone Style Collection Cabinet Optional

RAIL

OPERATING RADIUS

12'2" (3662 mm) 30' Rotation

PLAN VIEW

www.grainsystems.com
# HYDRAULICS / STRUCTURE

## HYDRAULICS

<table>
<thead>
<tr>
<th>ELECTRICAL</th>
<th>3HP, TEFC, 230/460V, 9.6/4.8 amp, 3PH</th>
<th>5HP, TEFC, 230/460V, 15.2/7.6 amp, 3PH</th>
<th>7.5HP, 230/460V, 22/11 amp</th>
<th>10HP, 230/460V, 28/14 amp</th>
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<tbody>
<tr>
<td>OPTIONAL</td>
<td>3HP, TEFC, 115/230V, 34/17 amp, 1PH</td>
<td>5HP, TEFC, 115/230V, 56/28 amp, 1PH</td>
<td>10HP, 230V, 1PH</td>
<td>None</td>
</tr>
<tr>
<td>POWER UNIT</td>
<td>Gear pump, direct drive, 750 psi, 5.6 GPM, 15 gal reservoir in a 22&quot;x32&quot;x53&quot; Nema 1 enclosure</td>
<td>Gear pump, direct drive, 1250 psi, 5.6 GPM, 15 gal reservoir in a 22&quot;x32&quot;x53&quot; Nema 1 enclosure</td>
<td>Gear pump, direct drive, 1800 psi, 5.6 GPM, 15 gal reservoir in a 22&quot;x40&quot;x55&quot; Nema 1 enclosure</td>
<td>Gear pump, direct drive, 1300 psi, 11 GPM, 30 gal reservoir in a 22&quot;x40&quot;x52&quot; Nema 1 enclosure</td>
</tr>
<tr>
<td>VACUUM</td>
<td>Two-stage by-pass, 1PH, 104 CFM, 110° water, 13 amp</td>
<td>Two-stage by-pass, 1PH, 104 CFM, 110° water, 13 amp</td>
<td>Two-stage by-pass, 1PH, 104 CFM, 110° water, 13 amp</td>
<td>Two-stage by-pass, 1PH, 104 CFM, 110° water, 13 amp</td>
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</table>

## STRUCTURE

<table>
<thead>
<tr>
<th>INNER BOOM</th>
<th>3.5&quot;x3.5&quot;x.25&quot; wall</th>
<th>4.5&quot;x4.5&quot;x.375&quot; wall</th>
<th>4.5&quot;x4.5&quot;x.25&quot; wall</th>
<th>9&quot;x7&quot;x.25&quot; wall</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTER BOOM</td>
<td>4&quot;x4&quot;x.1875&quot; wall</td>
<td>5&quot;x5&quot;x.1875&quot; wall</td>
<td>6&quot;x6&quot;x.375&quot; wall</td>
<td>10&quot;x8&quot;x.375&quot; wall</td>
</tr>
<tr>
<td>PIVOT TUBE</td>
<td>5&quot;O.D.x.25&quot; wall outer tube</td>
<td>7.75&quot;O.D.x.375&quot; wall outer tube</td>
<td>7.75&quot;O.D.x.375&quot; wall outer tube</td>
<td>10&quot;O.D.x.5&quot; wall outer tube</td>
</tr>
<tr>
<td></td>
<td>4&quot;O.D. CF 1045 shaft</td>
<td>5&quot;O.D. CF 1045 shaft</td>
<td>6&quot;O.D. CD 1045 shaft</td>
<td>8&quot;O.D. CD 1045 shaft</td>
</tr>
<tr>
<td>BASE</td>
<td>8&quot;x8&quot;x.375&quot; wall Ryertex tee bushing; 1&quot; pivot pin</td>
<td>10&quot;x10&quot;x.625&quot; wall Ryertex tee bushing; 1.25&quot; pivot pin</td>
<td>10&quot;x10&quot;x.625&quot; wall Pivot tube sealed lower bearing; 1.375&quot; pivot pin</td>
<td>16&quot; round Sch. 40 pipe Ryertex tee bushing; 2&quot; pivot pin</td>
</tr>
<tr>
<td>CONCRETE FOUNDATION</td>
<td>24&quot; sq. x 60&quot; deep</td>
<td>30&quot; sq. x 72&quot; deep</td>
<td>36&quot; sq. x 72&quot; deep</td>
<td>5' dia. x 120&quot; deep</td>
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### SPECIFICATIONS

#### INTERSYSTEMS TRUCK PROBES

#### RANGE OF MOTION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HP (FEET)</td>
<td>7’0”</td>
<td>4’0”</td>
<td>6’11”</td>
<td>11’6”</td>
<td>15’2”</td>
<td>24’2”</td>
<td>11’8”</td>
<td>2’4”</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>3 HP (METERS)</td>
<td>2.13</td>
<td>1.22</td>
<td>2.11</td>
<td>3.51</td>
<td>4.62</td>
<td>7.37</td>
<td>3.57</td>
<td>0.7</td>
<td>0.0</td>
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<tr>
<td>5 HP (FEET)</td>
<td>7’0”</td>
<td>4’0”</td>
<td>7’1”</td>
<td>13’2”</td>
<td>16’11”</td>
<td>26’0”</td>
<td>13’8”</td>
<td>2’4”</td>
<td>2’0”</td>
<td>6”</td>
</tr>
<tr>
<td>5 HP (METERS)</td>
<td>2.13</td>
<td>1.22</td>
<td>2.16</td>
<td>4.01</td>
<td>5.16</td>
<td>7.92</td>
<td>4.18</td>
<td>0.7</td>
<td>0.61</td>
<td>1.83</td>
</tr>
<tr>
<td>7.5 HP (FEET)</td>
<td>10’6”</td>
<td>6’0”</td>
<td>7’6”</td>
<td>14’6”</td>
<td>19’11”</td>
<td>29’2”</td>
<td>13’8”</td>
<td>2’4”</td>
<td>1’8”</td>
<td>0.0</td>
</tr>
<tr>
<td>7.5 HP (METERS)</td>
<td>3.2</td>
<td>1.83</td>
<td>2.29</td>
<td>4.42</td>
<td>6.07</td>
<td>8.89</td>
<td>4.18</td>
<td>0.7</td>
<td>0.52</td>
<td>0.0</td>
</tr>
<tr>
<td>RAIL (FEET)</td>
<td>11’2”</td>
<td>8’0”</td>
<td>10’8”</td>
<td>16’2”</td>
<td>23’9”</td>
<td>37’0”</td>
<td>16’6”</td>
<td>2’4”</td>
<td>3’4”</td>
<td>19”</td>
</tr>
<tr>
<td>RAIL (METERS)</td>
<td>3.4</td>
<td>2.44</td>
<td>3.26</td>
<td>4.93</td>
<td>7.24</td>
<td>11.28</td>
<td>5.03</td>
<td>0.7</td>
<td>1.0</td>
<td>0.53</td>
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</table>
**40-SERIES™ GRAIN BIN**
When determining the best system for your operation, we know that what’s protected inside the bin is what counts most. Each GSI bin is efficiently designed to handle maximum loads for unmatched strength. All GSI bins are constructed using the highest-strength steel available.

**TOWERS AND CATWALKS**
GSI offers a full line of structures to support material handling equipment. Built to perform for the long haul, GSI’s all new QuickBolt™ Towers and Catwalks are engineered to your facility’s layout, taking wind, seismic and snow loading into consideration. GSI structures feature bolt-up assembly and hot-dipped galvanized finish.

**ZIMMERMAN TOWER DRYERS**
Not all tower dryers are created equal. What sets Zimmerman dryers apart is over 50 years of innovative design expertise and industry proven drying principles. The result is an easy-to-operate, easy-to-maintain, durable, fuel-efficient grain dryer, supported by an expert dealer network.

**PREMIUM TRAINING, SERVICE AND SUPPORT**
InterSystems reaches a worldwide market and numerous industries with expertise in the manufacturing of material handling products and industrial sampling systems. Purchased by GSI in 2014, InterSystems is based in Omaha, Nebraska and operates out of a 200,000 square foot state-of-the-art manufacturing facility. InterSystems is ISO 9001 and 14001 certified.