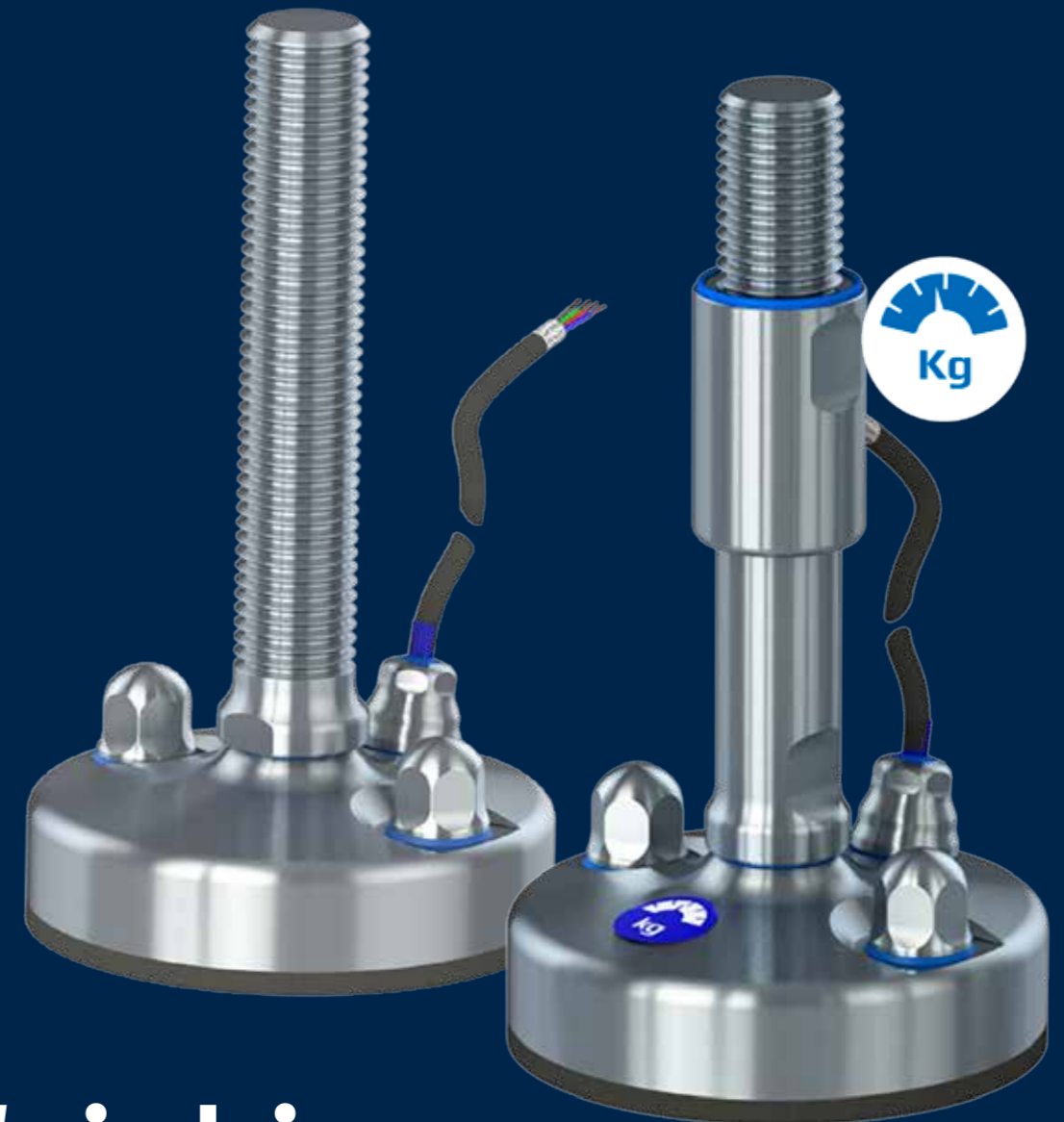




Thanks for your interest  
See more at [www.ngi-global.com](http://www.ngi-global.com)

All NGI hygienic components are  
design and patent protected



# Weighing leveling feet

**NGI A/S**  
Virkelyst 5  
DK-9400 Nørresundby  
T: +45 98 17 45 00  
E: [ngi@ngi-global.com](mailto:ngi@ngi-global.com)

**NGI Italy**  
Via Guglielmo Jervis 4  
IT-10015 IVREA TO  
T: +39 077 568 7010  
E: [ngi@ngi-global.com](mailto:ngi@ngi-global.com)

**NGI Inc. USA**  
805 Satellite Blvd  
Suwanee, GA 30024, USA  
T: +1 (646) 201 9410  
E: [sales@ngi-global.com](mailto:sales@ngi-global.com)

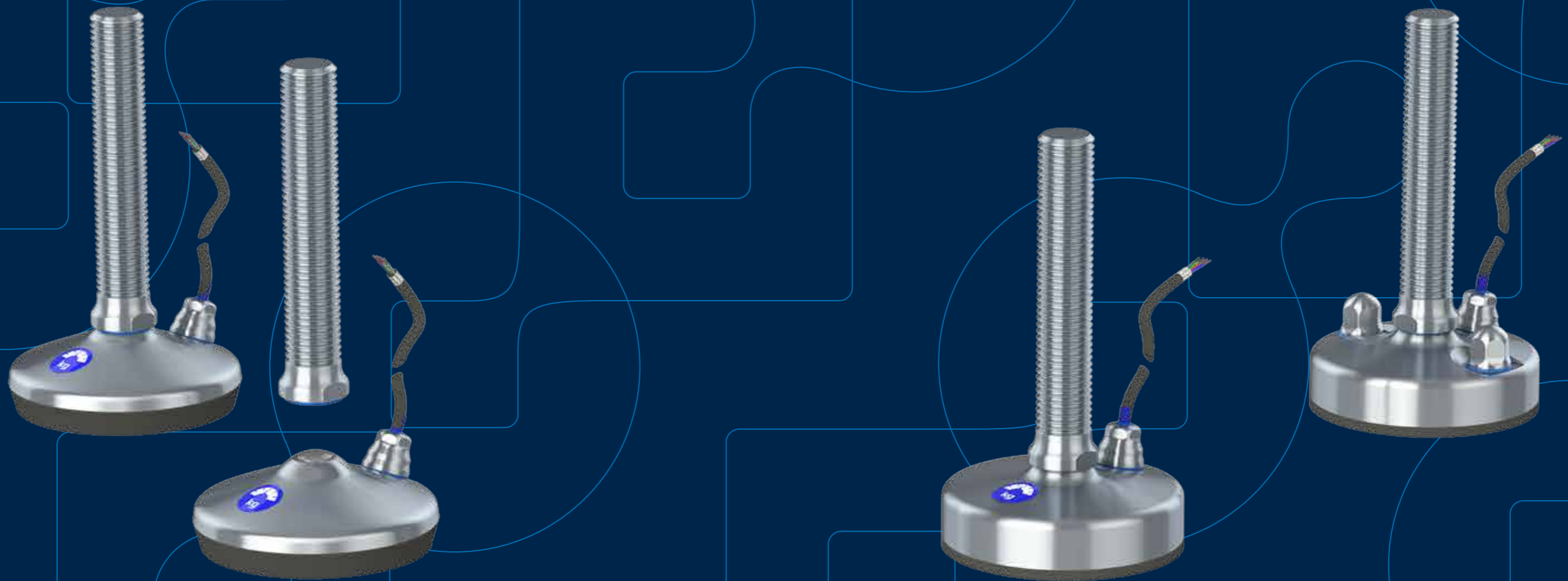
**NGI GmbH (drum motors only)**  
Ottostraße 15b  
DE-41836 Hückelhoven-Baal  
T: +49 (0) 2433 96 422 90  
E: [drivetech@ngi-global.com](mailto:drivetech@ngi-global.com)

[ngi-global.com](http://ngi-global.com)



The only weighing leveling feet in the world  
with built-in standard weighing cell  
secured, guided and protected inside the feet

The design and patent-protected NGI weighing leveling  
feet is the optimal choice for supporting and  
easy weighing of machinery, equipment, tanks and  
vessels



# Weighing Leveling feet







## Innovative and reliable

We provide the optimal  
solution for your application

The only hygienic weighing leveling feet in the world with build in standard weighing cell secured, guided and protected inside the feet.

The design and patent protected NGI Weighing leveling feet is the optimal choice for supporting and easy weighing of machinery, equipment, tanks and vessels in environments with strict hygienic requirements

NGI weighing leveling feet are optimized for the PR 6251 PanCake load cell family to guarantee best weighing performance and a very compact construction, unmatched reliability, robustness and stability, which enable trouble-free operation without adjustment, year after year. Other brands of load cells are also optional.

-  Enhanced food safety
-  A complete hygienic design minimizing risks of cross-contamination
-  Plug&Play installation
-  Minimize water usage and use of cleaning detergents



Go to [ngi-global.com/us/products/leveling-feet/weighing-leveling-feet/](https://ngi-global.com/us/products/leveling-feet/weighing-leveling-feet/) to read more and see our product range.

# Weighing Configurator online

## Make sure you choose the right weighing leveling foot

We highly recommend that you contact our specialists to make sure you choose the right weighing leveling feet for your project! At our website we have a configurator where you can fill in the requirements for your project. Afterwards the form will be sent to our weighing leveling feet specialist.

Find our configurator by scanning the below QR code and fill out the necessary information.

Based on your input, our weighing specialist will contact you regarding a non-binding solution for your weighing project.



[Find weighing configurator here](#)



### Customer information

Customer Name \*

City \*

Country \*

Email \*

Machine ref. name \*

### Machine Information

Load Cell \*

Weight equally distributed on all feet? \*

Weight unit, products \*

Total no. of leveling feet on machine \*

### Feet Information

Max. height \*

Min. height \*

### Mounting Holes

Yes  No

### Spindle version

Hygienic  Fully-threaded

### Version separated or integrated?

Separated spindle from weighing footplate (recommended for accuracy)  Integrated spindle with weighing footplate



# Weighing Leveling feet

The design and patent protected NGI Weighing leveling feet is the optimal choice for supporting and easy weighing of machinery, equipment, tanks and vessels. The 3-A, USDA and EHEDG certified leveling feet reduce the water consumption and cleaning resources in addition to minimizing the risk of contamination in the production.

Choosing NGI's certified leveling feet will hygienically enhance your machinery and your customer's Return-On-Investment (ROI). NGI weighing leveling feet are optimized for the PR 6251 PanCake load cell family to guarantee best weighing performance and a very compact construction, unmatched reliability, robustness and stability, which enable trouble-free operation without adjustment, year after year.

## Product Group Features

- Plug n' play height-adjustable compact design
- One-point impact between load cell and spindle ensures direct and friction free transfer of force
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401
- All movable parts are 100% hygienically sealed even if the load on the foot is removed
- All sealing are blue and therefore detectable by scanning systems



### XHFV

#### Special Features

- Height variation 3.90 in – 13.19 in
- Weight load up to 65.000 N
- 3-A logo on footplate for certified recognition
- Sealed low-friction thread (lubricated for life)
- Flexible mounting with optional flanges or thread adaptor
- No risk of over-adjusting the sleeve and thereby exposing thread
- Optional fixing to the floor including hygienic nuts



13



### XHW

#### Special Features

- Height variation 4.53 in – 8.58 in
- Weight load up to 5 ton
- Spindle sizes M16, M20, M24, M30 & M36
- Footplate sizes Ø 80, Ø105, Ø125 & Ø150 mm
- Admits up to 5° slope on floors and equipment
- Vulcanized FDA-approved, anti-vibration, anti-slip rubber
- Thread covered with hygienic sleeve functioning as counter nut



21



### XHFVG + XHFVJ

#### Special Features

- Height variation 3.78 in – 12.83 in
- Weight load up to 110.000 N due to solid footplate & vulcanized rubber
- 3-A logo on footplate for certified recognition
- USDA certified
- Sealed low-friction thread (lubricated for life)
- Flexible mounting with optional flanges or thread adaptor
- Optional fixing to the floor including hygienic nuts



15



### XHGW + XHJW

#### Special Features

- Height variation 4.53 in – 8.54 in
- Weight load up to 5 ton
- Spindle sizes M16, M20, M24, M30 & M36
- Footplate sizes Ø105, Ø125 & Ø150 mm
- Admits up to 10° slope on floors and equipment
- Thread covered with hygienic sleeve functioning as counter nut

23



### XHFVT

#### Special Features

- Height variation 4.09 in – 13.19 in
- Weight load up to 75.000 N
- The footplate and spindle are two separate parts
- Diametrically centered elevation on the footplate
- 3-A logo on footplate for certified recognition
- 3-A & USDA certified
- Sealed low-friction thread (lubricated for life)
- Flexible mounting with optional flanges or thread adaptor



19



### XHTW

#### Special Features

- Height variation 4.53 in – 8.58 in
- Weight load up to 5 ton
- Spindle sizes M16, M20, M24, M30 & M36
- Footplate sizes Ø105, Ø125 & Ø150 mm
- Admits up to 5° slope on floors and equipment
- Vulcanized FDA-approved, anti-vibration, anti-slip rubber
- Thread covered with hygienic sleeve functioning as counter nut
- Separated spindle from weighing footplate makes maintenance easier
- Spindle indirectly connected to the load cell through the footplate

25

# Weighing Leveling feet

The design and patent protected NGI Weighing leveling feet is the optimal choice for supporting and easy weighing of machinery, equipment, tanks and vessels. The 3-A, USDA and EHEDG certified leveling feet reduce the water consumption and cleaning resources in addition to minimizing the risk of contamination in the production.

Choosing NGI's certified leveling feet will hygienically enhance your machinery and your customer's Return-On-Investment (ROI). NGI weighing leveling feet are optimized for the PR 6251 PanCake load cell family to guarantee best weighing performance and a very compact construction, unmatched reliability, robustness and stability, which enable trouble-free operation without adjustment, year after year.

## Product Group Features

- Plug n' play height-adjustable compact design
- One-point impact between load cell and spindle ensures direct and friction free transfer of force
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401
- All movable parts are 100% hygienically sealed even if the load on the foot is removed
- All sealing are blue and therefore detectable by scanning systems

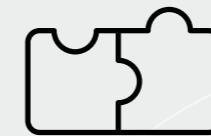


### XHGTW

#### Special Features

- Height variation 4.53 in – 8.54 in
- Weight load up to 5 ton
- Spindle sizes M16, M20, M24, M30, M36
- Footplate sizes Ø105, Ø125 & Ø150 mm
- Admits up to 10° slope on floors and equipment
- Separated spindle from weighing footplate makes maintenance easier
- Spindle indirectly connected to the load cell through the footplate.

29



## CLEANING & MAINTENANCE

This cleaning and maintenance manual describes how to clean and maintain the leveling foot once installed.

37

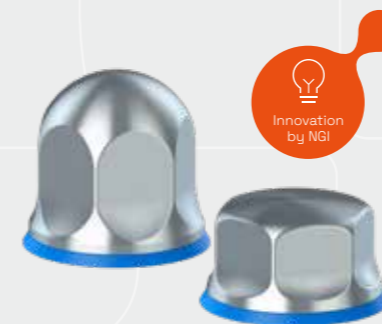


### XHJSE (S)

#### Special Features

- Height adjustment 6.22 in - 11.22 in
- Certified according to USDA hygienic standard
- Designed according to the 3-A and EHEDG hygienic standards
- Available in two standard lengths per diameter size
- Comes with a hygienic sleeve
- Circular arrangement of anchors for best seismic performance
- Spindle sizes M30, M36, M42, M48 & M56 mm

31



## INSTALLATION MANUAL

This installation manual describes how to install the leveling foot onto the machine or equipment for which it is intended to support.

45



### XHJSE (L)

#### Special Features

- Height adjustment 8.70 in - 13.98 in
- Certified according to USDA hygienic standard
- Designed according to the 3-A and EHEDG hygienic standards
- Available in two standard lengths per diameter size
- Comes with a hygienic sleeve
- Circular arrangement of anchors for best seismic performance
- Spindle sizes M56, M64, M72, M80 & M90 mm

33



## DECLARATION OF CONFORMITY

This declaration of conformity lists all the directives and standards that NGI adheres to. This ensures that products from NGI are always in compliance with currently valid requirements.

49

# Certified hygienic Weighing leveling feet - XHW

- Certified hygienic
- Minimized cleaning time
- Minimized water usage

The design and patent protected XHW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels in environments with strict hygienic requirements. The load cell is secured, guided and protected inside the foot.

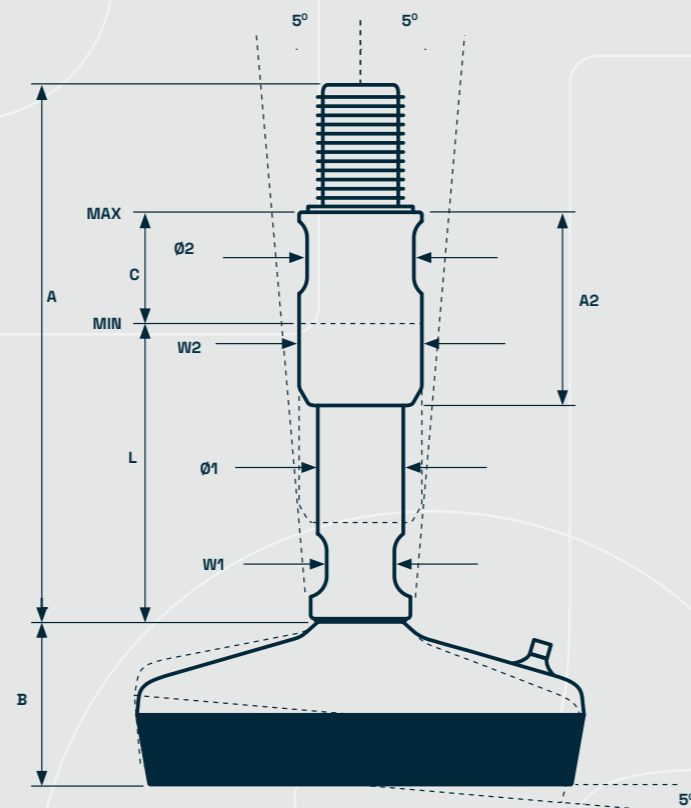
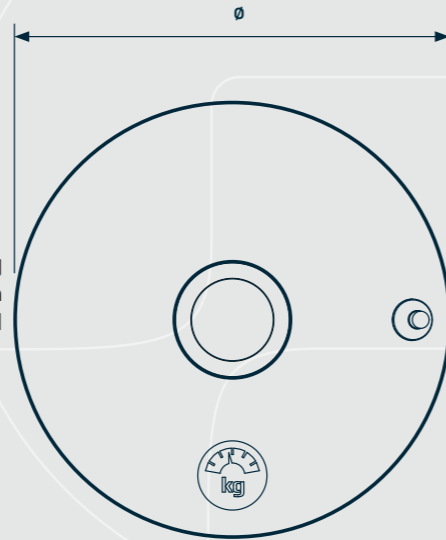
- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria

The XHW leveling foot is hygienically sealed to the floor by vulcanized FDA-approved, anti-vibration, anti-slip rubber, which blocks out bacteria underneath the footplate and protects the load cell.

- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30kg to 5000 kg
- Designed according to the 3-A and EHEDG hygienic standards
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401

#### Available upon request:

- Datasheet
- Installation instructions
- Cleaning & maintenance instructions



# Certified hygienic Weighing leveling feet - XHW



FOOT PLATE



SPINDLE



SLEEVE



PRODUCT CODE	FOOT	SPINDLE	SLEEVE	LOAD CELL
EXAMPLE	XHW105	XHM123459	RHOX3420	PR6211/32D1

TYPE	DIAMETER Ø [in]	HEIGHT B [in]	LOAD CELL NOM LOAD [KG]	ITEM CODE
80	3.15	1.54	30/50/100/200/300	XHW080
105	4.13	1.57	30/50/100/200/300	XHW105
125	4.93	1.77	500/1000/2000/3000/5000	XHW125
150	5.91	1.81	500/1000/2000/3000/5000	XHW150

THREAD [metric]	HEIGHT A [in]	HEIGHT L [in]	W1 [in]	DIAMETER Ø1 [in]	NOM LOAD [N]	ITEM CODE
3/4-10	5.91	2.99	9/16	0.94	69.200	XHM123459
3/4-10	8.82	4.17	9/16	0.94	69.200	XHM123483
1-8	5.91	2.99	3/4	1.18	110.200	XHM121059
1-8	8.82	4.17	3/4	1.18	110.200	XHM121083
1 1/4-7	5.91	2.99	1	1.26	160.200	XHM125459
1 1/4-7	8.82	4.17	1	1.26	160.200	XHM125483

THREAD [metric]	W2 [in]	DIAMETER Ø2 [in]	HEIGHT A2 [in]	ADJUSTMENT C [in]	ITEM CODE
5/8-11	7/8	1.17	1.97	1.42	RHOX5820
5/8-11	7/8	1.17	3.15	2.60	RHOX5832
3/4-10	1	1.36	1.97	1.42	RHOX3420
3/4-10	1	1.36	3.15	2.60	RHOX3432
1-8	5/4	1.55	1.97	1.42	RHOX1020
1-8	5/4	1.55	3.15	2.60	RHOX1032
1 1/4-7	1 1/2	1.95	1.97	1.42	RHOX5420
1 1/4-7	1 1/2	1.95	3.15	2.60	RHOX5432

LOAD CELL  
MIN. THREAD [OUTPUT]  
2mV/V  
4-20mA

30 KG	50 KG	100 KG	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
PR6211/31D1	PR6211/51D1	PR6211/12D1	PR6211/13D1	PR6211/32D1	PR6251/52L	PR6251/13L	PR6251/23L	PR6251/33L	PR6251/53L
-	-	-	-	-	PR6251/52LA	PR6251/13LA	PR6251/23LA	PR6251/33LA	PR6251/53LA

- Total height = A + B
- Minimum usable height = B + L
- Maximum usable height = B + L + C
- Maximum nominal load = Lowest value for load cell or spindle
- Tolerance of total height = +/-0,02 in



# Certified hygienic Weighing leveling feet - XHGW

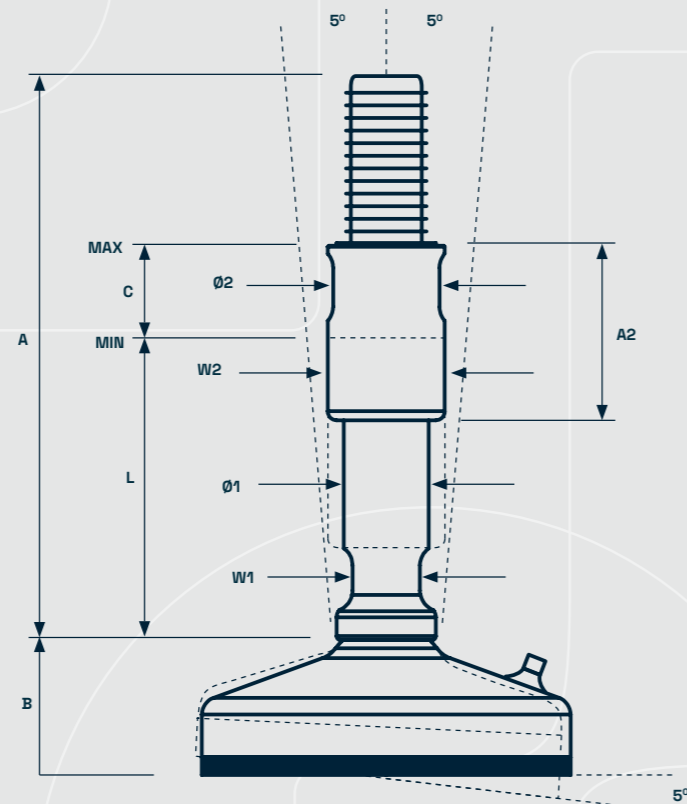
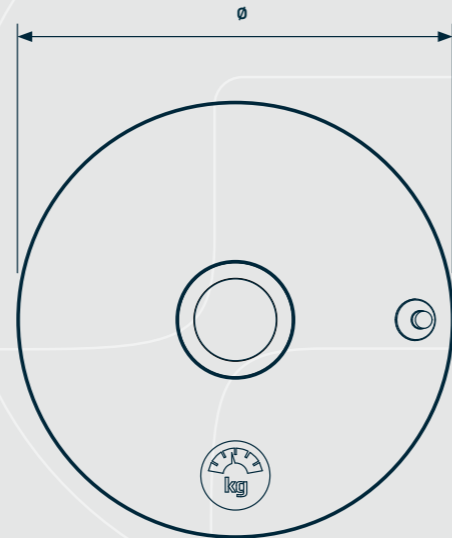
-  Certified hygienic
-  Minimized cleaning time
-  Minimized water usage

The design and patent protected XHGW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels in environments with strict hygienic requirements. The load cell is secured, guided and protected inside the foot.

- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria
- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30 kg to 5.000 kg
- Designed according to the 3-A and EHEDG hygienic standards
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401

#### Available upon request:

- Datasheet
- Installation instructions
- Cleaning & maintenance instructions



# Certified hygienic Weighing leveling feet - XHGW



FOOT PLATE



SPINDLE



SLEEVE



PRODUCT CODE      FOOT - SPINDLE - SLEEVE - LOAD CELL  
EXAMPLE      XHGW105 - XHM123459 - RHOX3420 - PR6211/32D1

TYPE	DIAMETER Ø [in]	HEIGHT B [in]	LOAD CELL NOM LOAD [KG]	ITEM CODE
105	4.09	1.54	30/50/100/200/300	XHGW105
150	5.87	1.77	500/1000/2000/3000/5000	XHGW150

THREAD [metric]	HEIGHT A [in]	HEIGHT L [in]	W1 [in]	DIAMETER Ø1 [in]	NOM LOAD [N]	ITEM CODE
3/4-10	5.91	2.99	9/16	0.94	69.200	XHM123459
3/4-10	8.82	4.17	9/16	0.94	69.200	XHM123483
1-8	5.91	2.99	3/4	1.18	110.200	XHM121059
1-8	8.82	4.17	3/4	1.18	110.200	XHM121083
1 1/4-7	5.91	2.99	1	1.26	160.200	XHM125459
1 1/4-7	8.82	4.17	1	1.26	160.200	XHM125483

THREAD [metric]	W2 [in]	DIAMETER Ø2 [in]	HEIGHT A2 [in]	ADJUSTMENT C [in]	ITEM CODE
5/8-11	7/8	1.17	1.97	1.42	RHOX5820
5/8-11	7/8	1.17	3.15	2.60	RHOX5832
3/4-10	1	1.36	1.97	1.42	RHOX3420
3/4-10	1	1.36	3.15	2.60	RHOX3432
1-8	5/4	1.55	1.97	1.42	RHOX1020
1-8	5/4	1.55	3.15	2.60	RHOX1032
1 1/4-7	1 1/2	1.95	1.97	1.42	RHOX5420
1 1/4-7	1 1/2	1.95	3.15	2.60	RHOX5432

LOAD CELL  
MIN. THREAD  
[OUTPUT]  
2mV/V  
4-20mA

30 KG	50 KG	100 KG M16	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
PR6211/31D1	PR6211/51D1	PR6211/12D1	PR6211/13D1	PR6211/32D1	PR6251/52L	PR6251/13L	PR6251/23L	PR6251/33L	PR6251/53L
-	-	-	-	-	PR6251/52LA	PR6251/13LA	PR6251/23LA	PR6251/33LA	PR6251/53LA



Total height = A + B  
Minimum usable height = B + L  
Maximum usable height = B + L + C  
Maximum nominal load = Lowest value for load cell or spindle  
Tolerance of total height = +/-0,02 in



# Certified hygienic Weighing leveling feet - XHJW

- Certified hygienic
- Minimized cleaning time
- Minimized water usage

The design and patent protected XHJW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels in environments with strict hygienic requirements. The load cell is secured, guided and protected inside the foot.

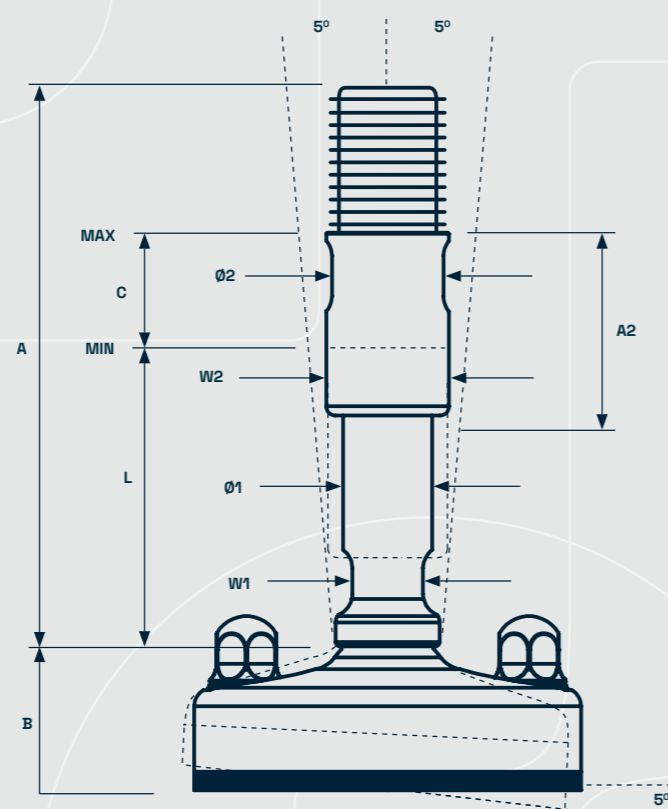
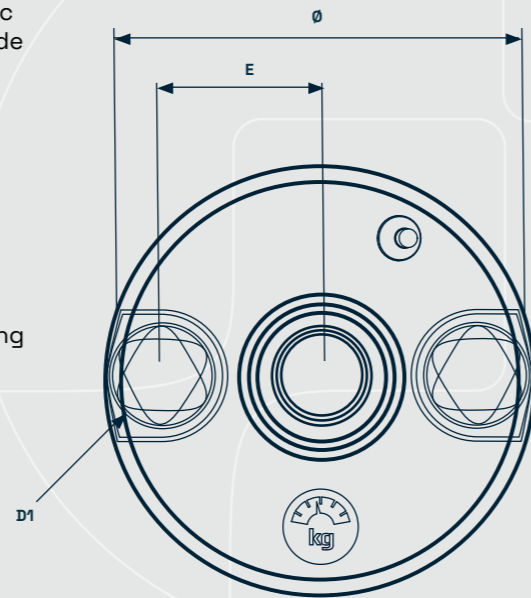
- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria

The XHJW is designed to be fastened to the floor by the two fixing holes in the footplate.

- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30 kg to 5.000 kg
- Designed according to the 3-A and EHEDG hygienic standards
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401

#### Available upon request:

- Datasheet
- Installation instructions
- Cleaning & maintenance instructions



# Certified hygienic Weighing leveling feet - XHJW



PRODUCT CODE: FOOT - SPINDLE - SLEEVE - LOAD CELL  
EXAMPLE: XHJW105 - XHM123459 - RHOX3420 - PR6211/32D1



#### FOOT PLATE



TYPE	DIAMETER Ø [in]	HEIGHT B [in]	HOLE POSITION E [in]	HOLE DIAMETER D1 [in]	LOAD CELL NOM LOAD [KG]	ITEM CODE
105	4.09	1.54	1.49	0.51	30/50/100/200/300	XHJW105
150	5.87	1.77	2.28	0.51	500/1000/2000/3000/5000	XHJW150

#### SPINDLE



THREAD [metric]	HEIGHT A [in]	HEIGHT L [in]	W1 [in]	DIAMETER Ø1 [in]	NOM LOAD [N]	ITEM CODE
3/4-10	5.91	2.99	9/16	0.94	69.200	XHM123459
3/4-10	8.82	4.17	9/16	0.94	69.200	XHM123483
1-8	5.91	2.99	3/4	1.18	110.200	XHM121059
1-8	8.82	4.17	3/4	1.18	110.200	XHM121083
1 1/4-7	5.91	2.99	1	1.26	160.200	XHM125459
1 1/4-7	8.82	4.17	1	1.26	160.200	XHM125483

#### SLEEVE



THREAD [metric]	W2 [in]	DIAMETER Ø2 [in]	HEIGHT A2 [in]	ADJUSTMENT C [in]	ITEM CODE
5/8-11	7/8	1.17	1.97	1.42	RHOX5820
5/8-11	7/8	1.17	3.15	2.60	RHOX5832
3/4-10	1	1.36	1.97	1.42	RHOX3420
3/4-10	1	1.36	3.15	2.60	RHOX3432
1-8	5/4	1.55	1.97	1.42	RHOX1020
1-8	5/4	1.55	3.15	2.60	RHOX1032
1 1/4-7	1 1/2	1.95	1.97	1.42	RHOX5420
1 1/4-7	1 1/2	1.95	3.15	2.60	RHOX5432

LOAD CELL MIN. THREAD [OUTPUT]  
2mV/V  
4-20mA

	30 KG	50 KG	100 KG M16	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
PR6211/31D1										
PR6211/51D1										
PR6211/12D1										
PR6211/13D1										
PR6211/32D1										
PR6251/52L										
PR6251/13L										
PR6251/23L										
PR6251/33L										
PR6251/53L										
PR6251/52LA										
PR6251/13LA										
PR6251/23LA										
PR6251/33LA										
PR6251/53LA										



Total height = A + B  
Minimum usable height = B + L  
Maximum usable height = B + L + C  
Maximum nominal load = Lowest value for load cell or spindle  
Tolerance of total height = +/-0,02 in

# Certified hygienic Weighing leveling feet - XHTW

- Certified hygienic
- Minimized cleaning time
- Minimized water usage

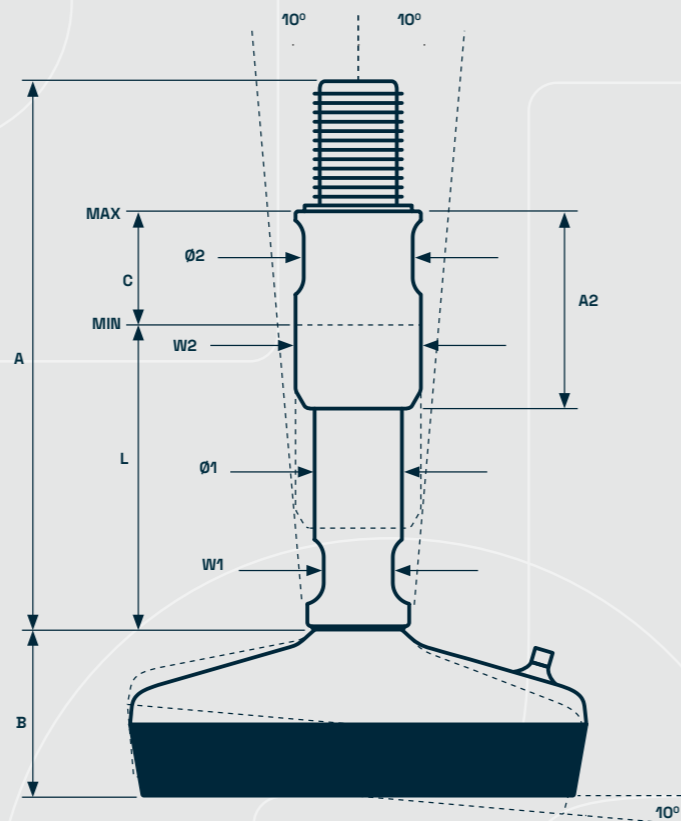
The design and patent protected XHTW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels in environments with strict hygienic requirements. The load cell is secured, guided and protected inside the foot.

- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria

The XHTW consists of a separated footplate and spindle connected by the diametrically centered elevation on the weighing footplate. Additionally, the leveling foot is hygienically sealed to the floor by vulcanized FDA-approved, anti-vibration, anti-slip rubber, which blocks out bacteria underneath the footplate and protects the load cell.

- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30 kg to 5000 kg
- Designed according to the 3-A and EHEDG hygienic standards
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401

- Available upon request:**
- Datasheet
  - Installation instructions
  - Cleaning & maintenance instructions



# Certified hygienic Weighing leveling feet - XHTW



FOOT PLATE



SPINDLE



SLEEVE



PRODUCT CODE	FOOT	SPINDLE	SLEEVE	LOAD CELL
EXAMPLE	XHTW105	XHT3459	RHOX3420	PR6211/32D1

TYPE	DIAMETER Ø [in]	HEIGHT B [in]	LOAD CELL NOM LOAD [KG]	ITEM CODE
80	3.15	1.54	30/50/100/200/300	XHW080
105	4.13	1.57	30/50/100/200/300	XHW105
125	4.93	1.77	500/1000/2000/3000/5000	XHW250
150	5.91	1.81	500/1000/2000/3000/5000	XHW250

THREAD [metric]	HEIGHT A [in]	HEIGHT L [in]	W1 [in]	DIAMETER Ø1 [in]	NOM LOAD [N]	ITEM CODE
5/8-11	5.91	2.99	1/2	0.79	48.200	XHT5859
5/8-11	8.82	4.17	1/2	0.79	48.200	XHT5883
3/4-10	5.91	2.99	9/16	0.94	69.200	XHT3459
3/4-10	8.82	4.17	9/16	0.94	69.200	XHT3483
1-8	5.91	2.99	3/4	1.18	110.200	XHT1059
1-8	8.82	4.17	3/4	1.18	110.200	XHT1085
1 1/4-7	5.91	2.99	1	1.26	160.200	XHT5459
1 1/4-7	8.82	4.17	1	1.26	160.200	XHT5483

THREAD [metric]	W2 [in]	DIAMETER Ø2 [in]	HEIGHT A2 [in]	ADJUSTMENT C [in]	ITEM CODE
5/8-11	7/8	1.17	1.97	1.42	RHOX5820
5/8-11	7/8	1.17	3.15	2.60	RHOX5832
3/4-10	1	1.36	1.97	1.42	RHOX3420
3/4-10	1	1.36	3.15	2.60	RHOX3432
1-8	5/4	1.55	1.97	1.42	RHOX1020
1-8	5/4	1.55	3.15	2.60	RHOX1032
1 1/4-7	1 1/2	1.95	1.97	1.42	RHOX5420
1 1/4-7	1 1/2	1.95	3.15	2.60	RHOX5432

LOAD CELL MIN. THREAD [OUTPUT] 2mV/V 4-20mA

	30 KG	50 KG	100 KG M16	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
PR6211/31D1	PR6211/51D1	PR6211/12D1	PR6211/13D1	PR6211/32D1	PR6251/52L	PR6251/13L	PR6251/23L	PR6251/33L	PR6251/53L	PR6251/53LA
-	-	-	-	-	PR6251/52LA	PR6251/13LA	PR6251/23LA	PR6251/33LA	PR6251/53LA	-



Total height = A + B  
 Minimum usable height = B + L  
 Maximum usable height = B + L + C  
 Maximum nominal load = Lowest value for load cell or spindle  
 Tolerance of total height = +/-0.02 in

# Certified hygienic Weighing leveling feet - XHGTW

- Certified hygienic
- Minimized cleaning time
- Minimized water usage

The design and patent protected XHGTW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels in environments with strict hygienic requirements. The load cell is secured, guided and protected inside the foot.

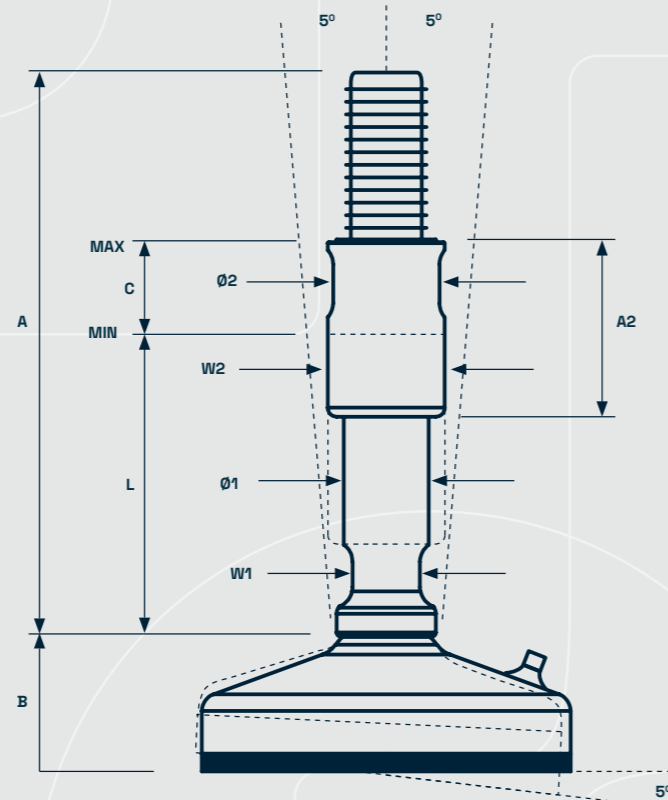
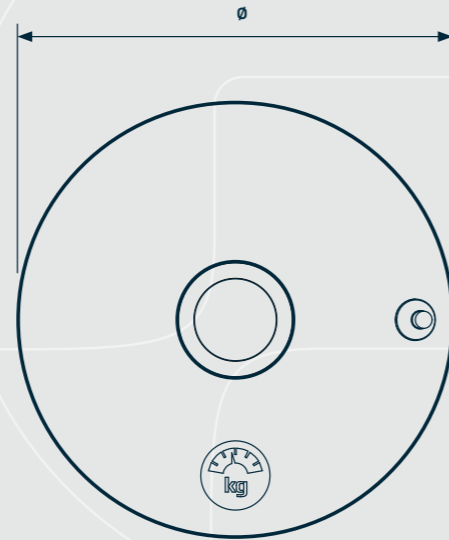
- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria

The XHGTW consists of a separated footplate and spindle connected by the diametrically centered elevation on the weighing footplate.

- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30 kg to 5.000 kg
- Designed according to the 3-A and EHEDG hygienic standards
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401

#### Available upon request:

- Datasheet
- Installation instructions
- Cleaning & maintenance instructions



# Certified hygienic Weighing leveling feet - XHGTW



FOOT PLATE



SPINDLE



SLEEVE



PRODUCT CODE	FOOT	SPINDLE	SLEEVE	LOAD CELL
EXAMPLE	XHGTW105	XHT4359	RHOX3420	PR6211/32D1

TYPE	DIAMETER Ø [in]	HEIGHT B [in]	LOAD CELL NOM LOAD [KG]	ITEM CODE
105	4.09	1.54	30/50/100/200/300	XHGTW105
150	5.87	1.77	500/1000/2000/3000/5000	XHGTW150

THREAD [metric]	HEIGHT A [in]	HEIGHT L [in]	W1 [in]	DIAMETER Ø1 [in]	NOM LOAD [N]	ITEM CODE
5/8-11	5.91	2.99	1/2	0.79	48.200	XHT5859
5/8-11	8.82	4.17	1/2	0.79	48.200	XHT5883
3/4-10	5.91	2.99	9/16	0.94	69.200	XHT3459
3/4-10	8.82	4.17	9/16	0.94	69.200	XHT3483
1-8	5.91	2.99	3/4	1.18	110.200	XHT1059
1-8	8.82	4.17	3/4	1.18	110.200	XHT1083
1 1/4-7	5.91	2.99	1	1.26	160.200	XHT5459
1 1/4-7	8.82	4.17	1	1.26	160.200	XHT5483

THREAD [metric]	W2 [in]	DIAMETER Ø2 [in]	HEIGHT A2 [in]	ADJUSTMENT C [in]	ITEM CODE
5/8-11	7/8	1.17	1.97	1.42	RHOX5820
5/8-11	7/8	1.17	3.15	2.60	RHOX5832
3/4-10	1	1.36	1.97	1.42	RHOX3420
3/4-10	1	1.36	3.15	2.60	RHOX3432
1-8	5/4	1.55	1.97	1.42	RHOX1020
1-8	5/4	1.55	3.15	2.60	RHOX1032
1 1/4-7	1 1/2	1.95	1.97	1.42	RHOX5420
1 1/4-7	1 1/2	1.95	3.15	2.60	RHOX5432

LOAD CELL  
MIN. THREAD  
[OUTPUT]  
2mV/V  
4-20mA

	30 KG	50 KG	100 KG M16	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
PR6211/31D1	PR6211/51D1	PR6211/12D1	PR6211/13D1	PR6211/32D1	PR6251/52L	PR6251/13L	PR6251/23L	PR6251/33L	PR6251/53L	
					PR6251/52LA	PR6251/13LA	PR6251/23LA	PR6251/33LA	PR6251/53LA	



Total height = A + B  
 Minimum usable height = B + L  
 Maximum usable height = B + L + C  
 Maximum nominal load = Lowest value for load cell or spindle  
 Tolerance of total height = +/-0,02 in





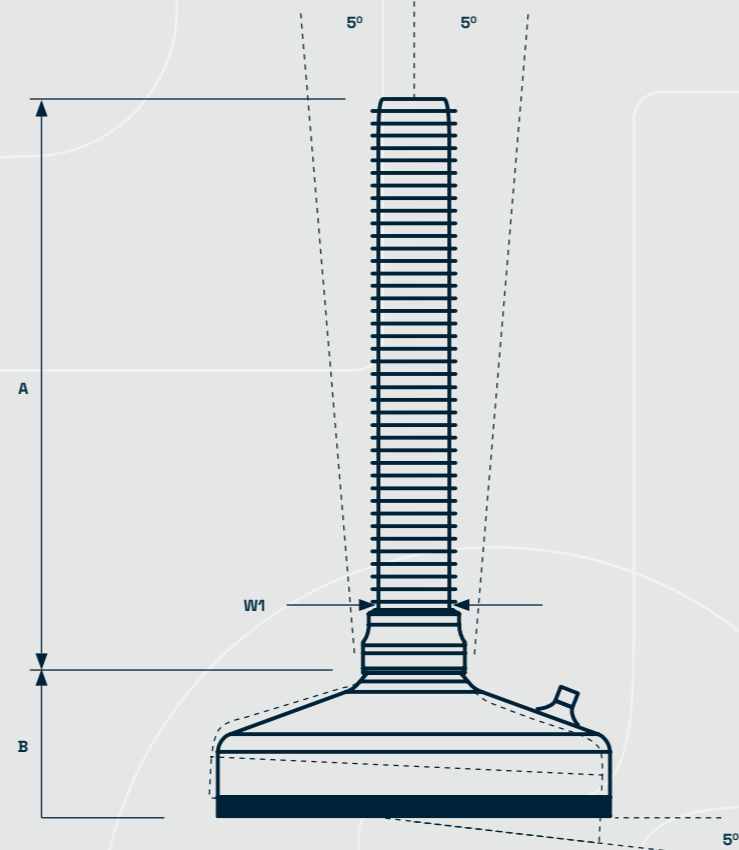
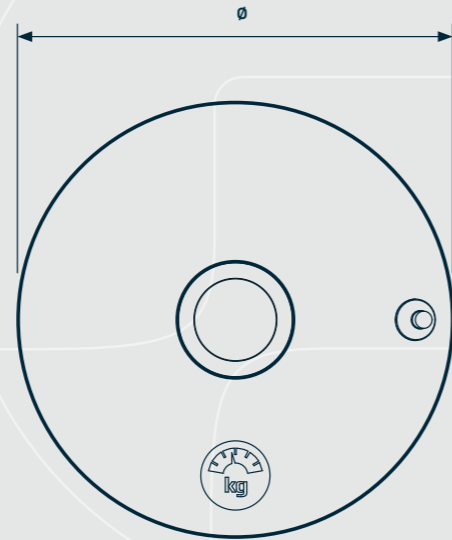
# Fully-threaded weighing leveling feet - HXGW

The design and patent protected HXGW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels. The load cell is secured, guided and protected inside the foot.

- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria

The HXGW leveling foot is hygienically sealed to the floor by rubber sealing which blocks out bacteria underneath the footplate and protects the load cell.

- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30 kg to 5,000 kg
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401



# Fully-threaded weighing leveling feet - HXGW



FOOT PLATE

PRODUCT CODE	FOOT	SPINDLE	LOAD CELL
EXAMPLE	HXGW105	HXLM12103	PR6211/32D1

TYPE	DIAMETER [in]	HEIGHT [in]	LOAD CELL NOM. LOAD [KG]	ITEM CODE
105	4.10	1.54	30/50/100/200/300	HXGW105
150	5.87	1.73	500/1000/2000/3000/5000	HXGW150



SPINDLE

TYPE	3	4	6	8	10	12	W1 [in]
THREAD [UNC]	[N]	[N]	[N]	[N]	[N]	[N]	[in]
3/4-10	44.700	44.700	44.700	31.000	19.000	13.500	1-1/16
1-8	-	79.400	79.400	78.000	62.000	42.000	1-1/16
* 1 1/4-7	-	126.000	126.000	126.000	122.000	115.000	1-1/16
HEIGHT A [in]	3	4	6	8	10	12	



LOAD CELL  
MIN. THREAD [OUTPUT]  
2mV/V  
4-20mA

	30 KG	50 KG	100 KG M16	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
PR6211/31D1	PR6211/51D1	PR6211/12D1	PR6211/13D1	PR6211/32D1	PR6251/52L	PR6251/13L	PR6251/23L	PR6251/33L	PR6251/53L	
					PR6251/52LA	PR6251/13LA	PR6251/23LA	PR6251/33LA	PR6251/53LA	



Maximum nominal load  
Tolerance of total height

= Lowest value for load cell or spindle  
= +/-0,02 in

# Fully-threaded weighing leveling feet - HXJW

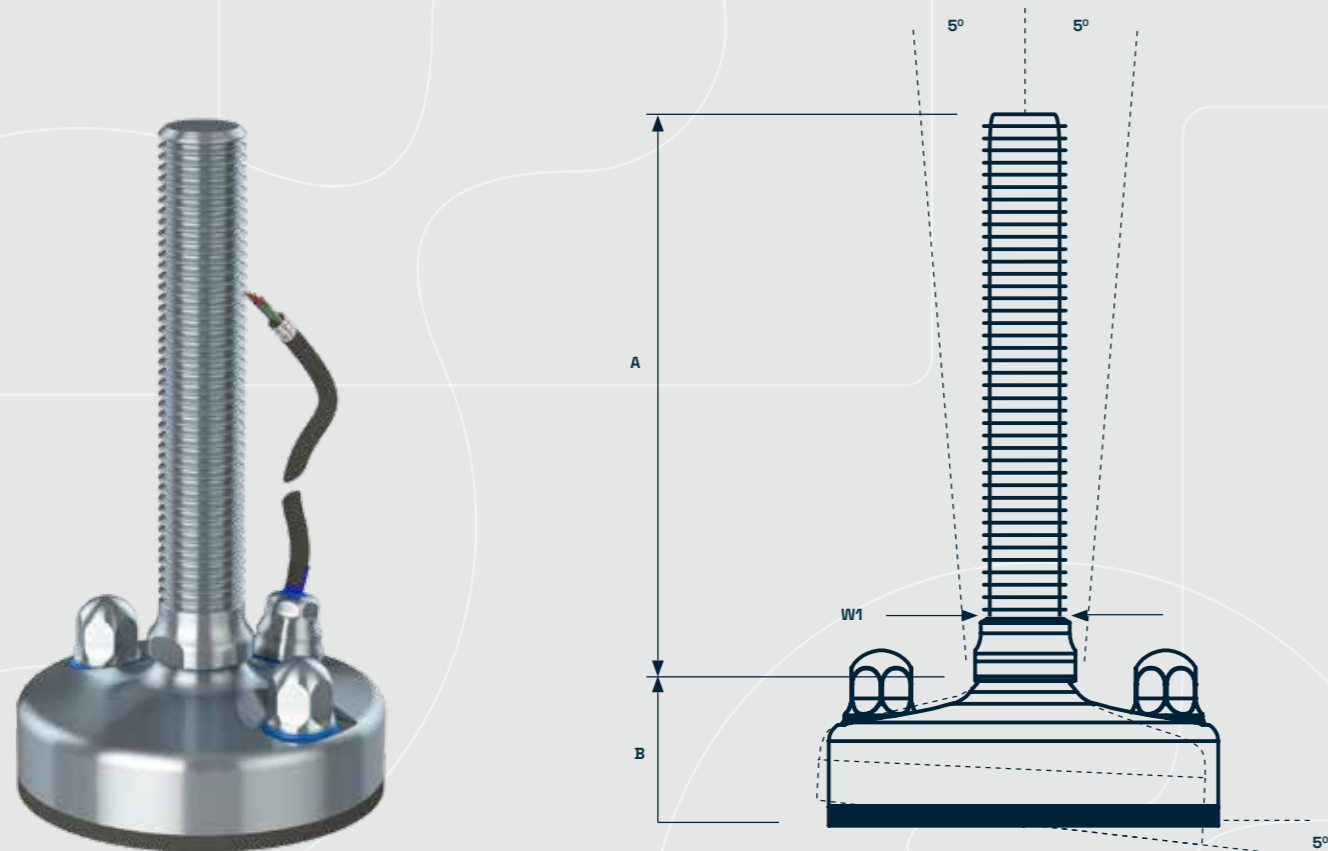
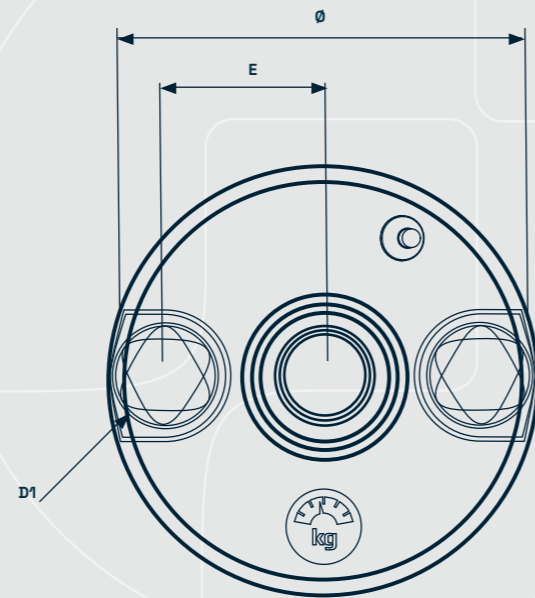
The design and patent protected HXJW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels. The load cell is secured, guided and protected inside the foot.

- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria

The HXJW is designed to be fastened to the floor by the two fixing holes in the footplate.

The HXJW leveling foot is hygienically sealed to the floor by rubber sealing which blocks out bacteria underneath the footplate and protects the load cell.

- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30 kg to 5.000 kg
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401



# Fully-threaded weighing leveling feet - HXJW



FOOT PLATE



SPINDLE



PRODUCT CODE	FOOT	-	SPINDLE	-	LOAD CELL
EXAMPLE	XHJW105	-	HXLM12103	-	PR6211/32D1

TYPE	DIAMETER Ø [in]	HEIGHT B [in]	HOLE POSITION E [in]	HOLE DIAMETER D1 [in]	LOAD CELL NOM LOAD [KG]	ITEM CODE
105	4.10	1.54	1.59	0.51	30/50/100/200/300	HXJW105
150	5.87	1.73	2.28	0.51	500/1000/2000/3000/5000	HXJW150

TYPE	3	4	6	8	10	12	W1 [in]
THREAD [UNC]	[N]	[N]	[N]	[N]	[N]	[N]	[in]
3/4-10	44.700	44.700	44.700	31.000	19.000	13.500	1-1/16
1-8	-	79.400	79.400	78.000	62.000	42.000	1-1/16
* 1 1/4-7	-	126.000	126.000	126.000	122.000	115.000	1-1/16
HEIGHT A [in]	3	4	6	8	10	12	

LOAD CELL MIN. THREAD [OUTPUT]  
2mV/V  
4-20mA

30 KG	50 KG	100 KG M16	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
PR6211/31D1	PR6211/51D1	PR6211/12D1	PR6211/13D1	PR6211/32D1	PR6251/52L	PR6251/13L	PR6251/23L	PR6251/33L	PR6251/53L
-	-	-	-	-	PR6251/52LA	PR6251/13LA	PR6251/23LA	PR6251/33LA	PR6251/53LA



Maximum nominal load  
Tolerance of total height

= Lowest value for load cell or spindle  
= +/-0,02 in

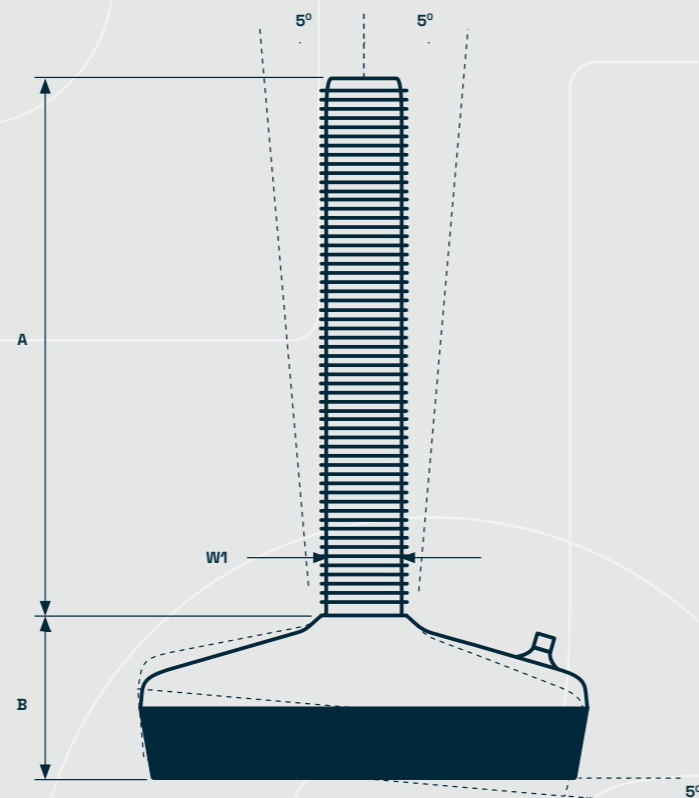
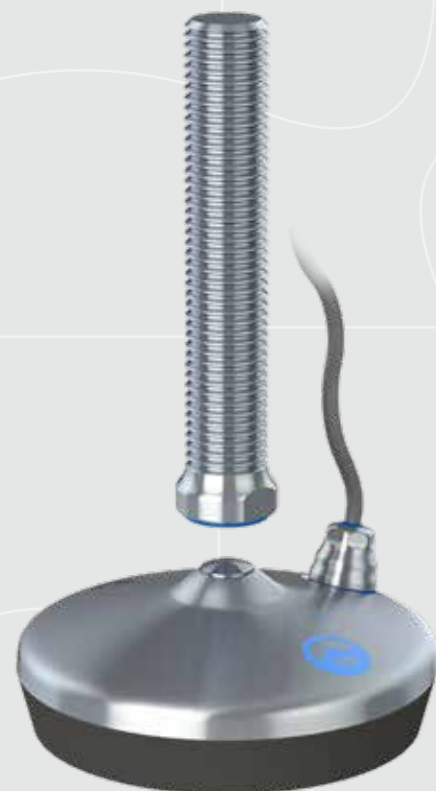
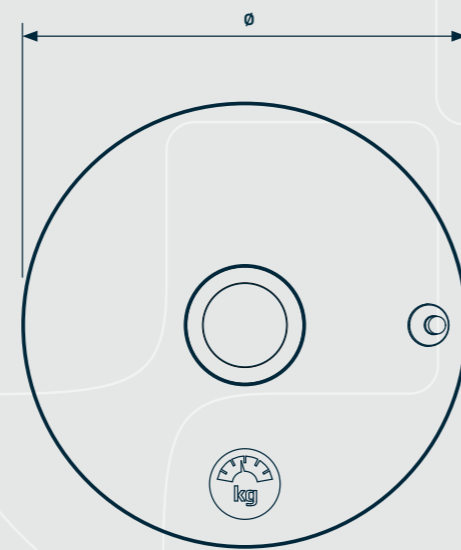
# Fully-threaded weighing leveling feet - HXTW

The design and patent protected HXTW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels. The load cell is secured, guided and protected inside the foot.

- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria

The HXTW consists of a separated footplate and spindle connected by the diametrically centered elevation on the weighing footplate. Additionally, the leveling foot is hygienically sealed to the floor by vulcanized FDA-approved, anti-vibration, anti-slip rubber, which blocks out bacteria underneath the footplate and protects the load cell.

- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30 kg to 5000 kg
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401



# Fully-threaded weighing leveling feet - HXTW



FOOT PLATE



SPINDLE



PRODUCT CODE	FOOT	SPINDLE	LOAD CELL
EXAMPLE	HXTW105	HXTL104	PR6211/32D1

TYPE	DIAMETER Ø [in]	HEIGHT B [in]	LOAD CELL NOM LOAD [KG]	ITEM CODE
80	3.15	1.55	30/50/100/200/300	HXTW080
105	4.13	1.57	30/50/100/200/300	HXTW105
125	4.92	1.77	500/1000/2000/3000/5000	HXTW250
150	5.91	1.81	500/1000/2000/3000/5000	HXTW250

TYPE ▶	3	4	6	8	10	12	W1 [in]
THREAD [UNC]	[N]	[N]	[N]	[N]	[N]	[N]	[in]
3/4-10	44.700	44.700	44.700	31.000	19.000	13.500	1-1/16
5/8-11	-	65.000	65.000	60.000	39.000	25.000	1-1/16
1-8	-	79.400	79.400	78.000	62.000	42.000	1-1/16
* 1 1/4-7	-	126.000	126.000	126.000	122.000	115.000	1-1/16
HEIGHT A [in]	3	4	6	8	10	12	

LOAD CELL  
MIN. THREAD [OUTPUT]  
2mV/V  
4-20mA

30 KG	50 KG	100 KG M16	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
PR6211/31D1	PR6211/51D1	PR6211/12D1	PR6211/13D1	PR6211/32D1	PR6251/52L	PR6251/13L	PR6251/23L	PR6251/33L	PR6251/53L
-	-	-	-	-	PR6251/52LA	PR6251/13LA	PR6251/23LA	PR6251/33LA	PR6251/53LA



Maximum nominal load = Lowest value for load cell or spindle  
Tolerance of total height = +/-0,02 in

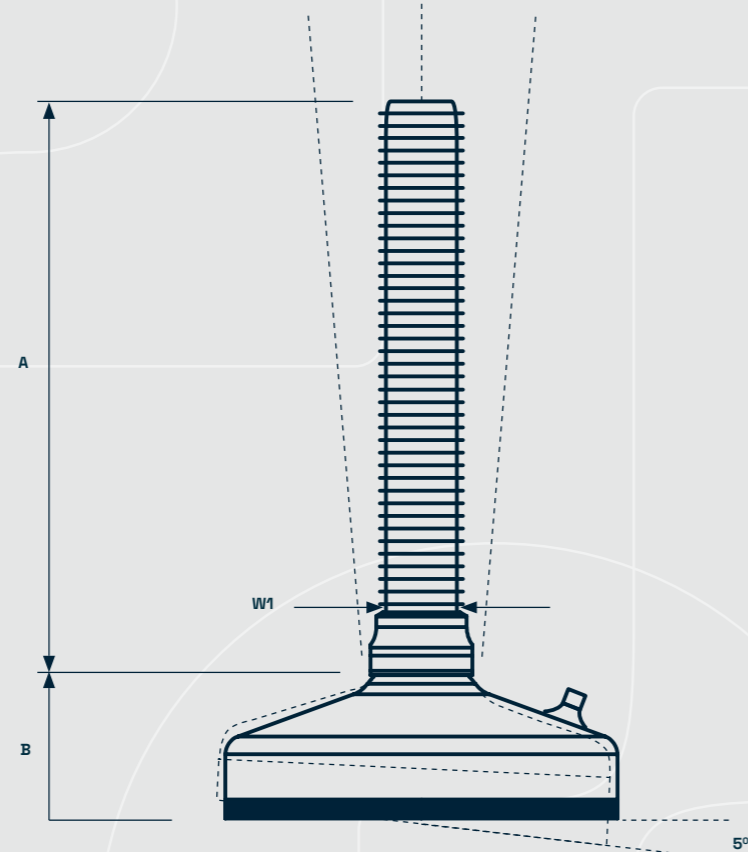
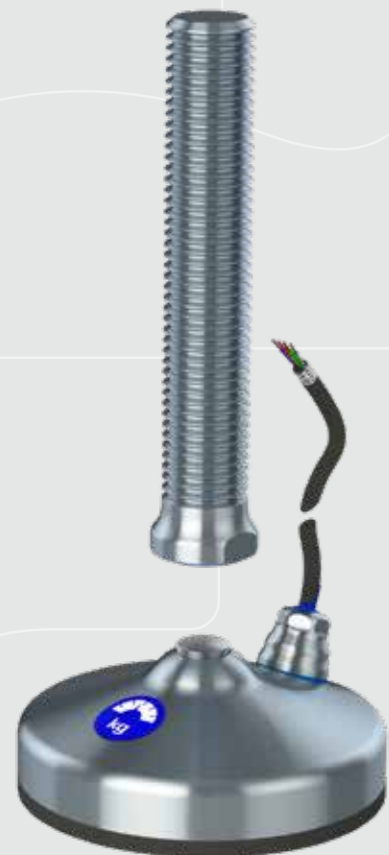
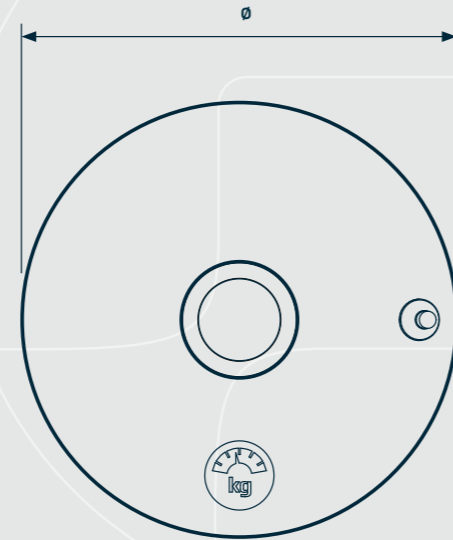
# Fully-threaded weighing leveling feet - HXGTW

The design and patent protected HXGTW weighing leveling foot is the optimal choice for supporting and weighing machinery, equipment, tanks and vessels. The load cell is secured, guided and protected inside the foot.

- Secured: Load cell is secured against hazardous mechanical external impacts
- Guided: Can obtain strong forces in all directions without affecting the load cell
- Protected: Against external influences like corrosion, temperatures and bacteria

The HXGTW consists of a separated footplate and spindle connected by the diametrically centered elevation on the weighing footplate. The HXGTW leveling foot is hygienically sealed to the floor by rubber sealing which blocks out bacteria underneath the footplate and protects the load cell.

- Maintenance free and height-adjustable compact design
- Simple and fast installation - no mounting kit needed
- The different load cells cover a span of 30 kg to 5.000 kg
- Stainless steel AISI 304/A2, 1.4301. Optional AISI 316/A4, 1.4401



# Fully-threaded weighing leveling feet - HXGTW



FOOT PLATE



SPINDLE



PRODUCT CODE	FOOT	SPINDLE	LOAD CELL
EXAMPLE	HXGTW105	HXTL104	PR6211/32D1

FOOT PLATE TYPE	DIAMETER Ø [in]	HEIGHT B [in]	LOAD CELL NOM LOAD [KG]	ITEM CODE
105	4.10	1.54	30/50/100/200/300	HXGTW105
150	5.87	1.73	500/1000/2000/3000/5000	HXGTW150

SPINDLE TYPE	3	4	6	8	10	12	W1 [in]
THREAD [UNC]	[N]	[N]	[N]	[N]	[N]	[N]	
3/4-10	44.700	44.700	44.700	31.000	19.000	13.500	1-1/16
5/8-11	-	65.000	65.000	60.000	39.000	25.000	1-1/16
1-8	-	79.400	79.400	78.000	62.000	42.000	1-1/16
* 1 1/4-7	-	126.000	126.000	126.000	122.000	115.000	1-1/16
HEIGHT A [in]	3	4	6	8	10	12	

LOAD CELL MIN. THREAD [OUTPUT]	30 KG	50 KG	100 KG M16	200 KG	300 KG	500 KG M24	1.000 KG M24	2.000 KG M30	3.000 KG M30	5.000 KG M30
2mV/V	PR6211/31D1	PR6211/51D1	PR6211/12D1	PR6211/13D1	PR6211/32D1	PR6251/52L	PR6251/13L	PR6251/23L	PR6251/33L	PR6251/53L
4-20mA	-	-	-	-	-	PR6251/52LA	PR6251/13LA	PR6251/23LA	PR6251/33LA	PR6251/53LA

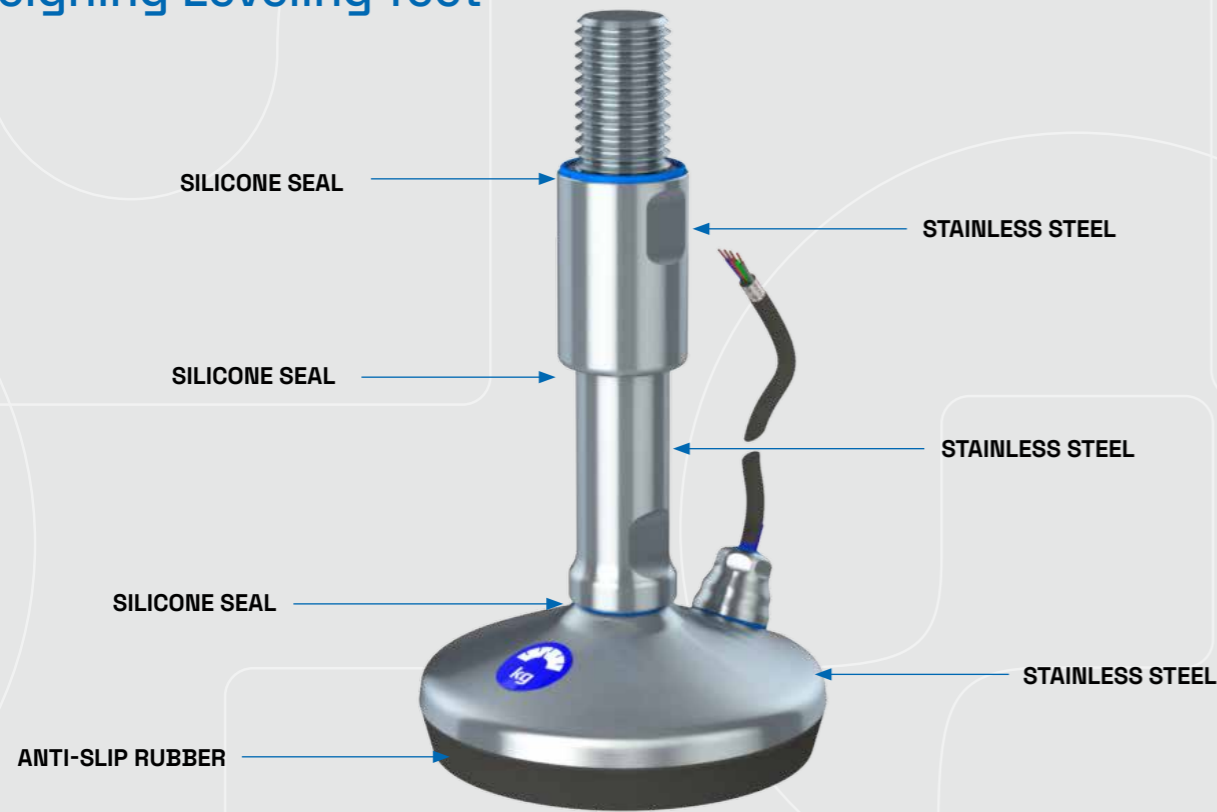


Maximum nominal load Tolerance of total height = Lowest value for load cell or spindle = +/-0,02 in



# Cleaning & Maintenance

## Weighing Leveling feet



### CLEANING

1. Rinse with water (maximum temperature ~40°C on proteins).
2. Distribute and cover all surfaces with foaming alkaline detergent for minimum 10 minutes. All standard products within the industry can be used. Follow supplier recommendations for temperature (maximum 100°C) and concentration depending on foaming detergent.
3. Rinse with hot water (maximum 100°C) with low-medium pressure (approximately 8-12 bar) until it is visibly clean. Cleaning of the leveling foot including sealings and dome-headed nuts can normally be done with a spraying nozzle pointing in a downwards direction approximately 45°. For heavy duty cleaning a more direct-oriented nozzle can be necessary. Be careful not to damage the sealings if high pressure cleaning is used. Keep nozzle at minimum 200-300 mm distance.
4. Mechanical cleaning may be necessary if the leveling foot is severely soiled. Cleaning must be executed with a soft brush or soft plastic scraper together with a more direct pointing nozzle spray. Steel scraper, steel brush or other sharp metallic tools are strictly prohibited, since the sealings can be severely damaged and the steel surfaces will be scratched.

### MAINTENANCE

1. If the sealings on the sleeve are damaged they must be replaced. Always use genuine spare parts from NGI.
2. If the sealing between the foot and the spindle is damaged, replace the whole leveling foot and install a new one. An assembled leveling foot cannot be separated.
3. Load on the leveling foot must be obtained in order for the footplate to be hygienically sealed to the floor.
4. For a leveling foot for floor fixing always make sure that the floor fixing nut or bolt is tightened as specified in the installation manual. Tighten if necessary. If replacement of nuts or washers is always use genuine spare parts from NGI.
5. If any readjustments are necessary the leveling foot and the nearest surroundings must be cleaned carefully to prevent any soil from entering the sleeve.



The design and patent protected NGI Weighing leveling feet is the optimal choice for supporting and easy weighing of machinery equipment, tanks and vessels in environments with strict hygienic requirements. Here are shown a reference case, where Boccard in France has used NGI weighing leveling feet for one of their production sites. Read the case at our website.



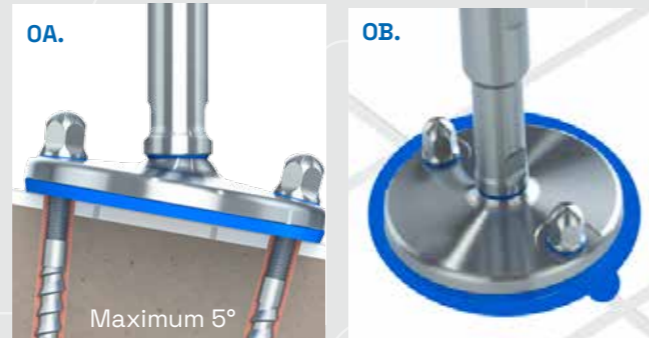
# Installation

## Weighing Leveling feet

It is important to follow these instructions in order to ensure the certified hygienic design and functionality.

This documentation is enclosed with the leveling feet and should always be hand over to the end-user.

**0A.** Prior to installation of the leveling foot ensure that the floor does not exceed maximum slope.



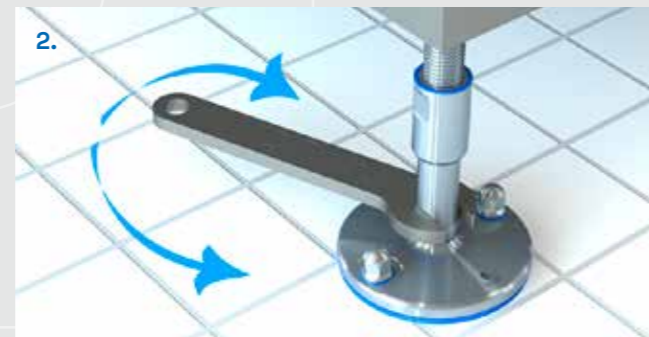
**0B.** When installing, make sure that the footplate does not span over cracks, grout lines or other floor imperfections. If unavoidable, seal the cavity with bonding material under and around the edge of the footplate.

**1A.** Lift or jack up the machinery or equipment to install the leveling foot.



**1B.** Make sure that the sealing is correctly fixed on top of the sleeve. Grease the exposed thread with FoodLube Universal Grease and make sure to remove any excess grease after installation.

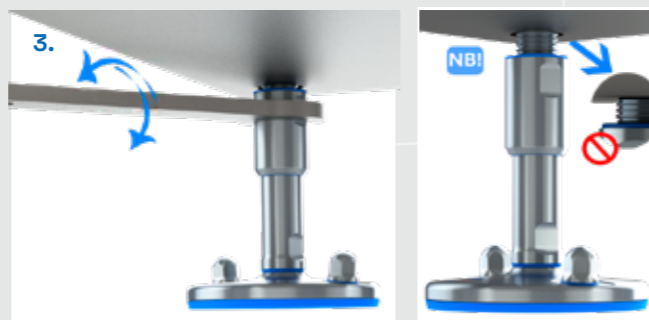
**2.** Install the leveling foot and use a wrench to adjust the vertical position and make sure that the engagement is no less than the diameter of the thread.



Repeat step 0A-2 for all feet supporting the machinery.

Lower the machinery so that the feet rest on the floor. Perform final height and leveling adjustments if needed and ensure that the load is uniformly distributed on all feet.

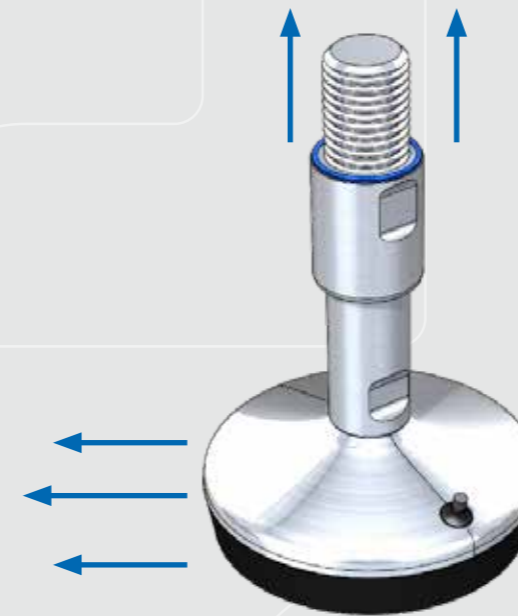
**3.** Use a wrench to rotate and tighten the sleeve against the machinery or equipment. Make sure that the sleeve is tightened to counter-lock the leveling foot and cover the thread.



If the leveling foot is not fully inserted into the machinery or equipment the thread will become partly exposed. In this case, it is not correctly installed and will neither meet 3A, USDA & EHEDG hygienic demands nor load specifications.

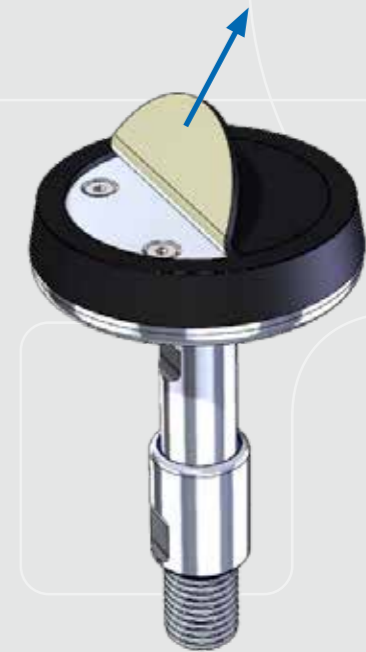
# Service & access to the load cell

## Weighing Leveling feet

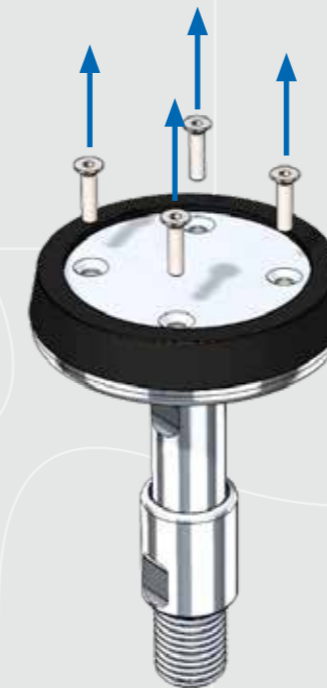


### 1. Lift the machine

When the machine is lifted, unscrew the leveling foot.



The center rubber is easy to remove by pulling it off the bottom plate.



### 3. Unscrew weighing fasteners

The fasteners are secured with Loctite so they may be a little difficult to unscrew.



### 4. Pull out load cell

It is now possible to pull out the load cell, but if it is stuck just screw 2 fasteners a bit in the load cell and use them as handles to pull it out.



### NB: When assembling

When assembling the weighing leveling foot again. Tighten the screws until the load cell presses against the pressure tap and then release them a bit. It is important to use Loctite secure the screws.



# FAQ

## Weighing Leveling feet

### WHY USE LOAD CELLS:

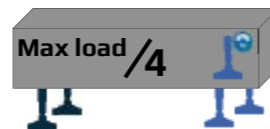
- A pressure sensor will not measure the weight of the tank correctly, if a tank is pressurized.
- A level sensor will not measure the weight of the tank correctly if there is foam in the tank.
- In order to measure the total weight of part of the machine or entire machinery
- In order to supplement and verify, a level sensor, a pressure sensor or a flow sensor.
- Because it is easy and seldom require changes in the existing design.
- Because it is the most hygienic solution that also ensures optimum measurements.



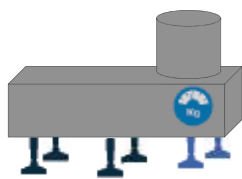
Machinery on 3 feet can measure total load with 1 foot if the load is evenly distributed on all the feet.



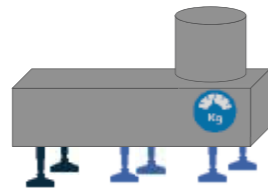
Machinery on 4 feet can measure total load with 2 feet if the load is evenly distributed on all the feet.



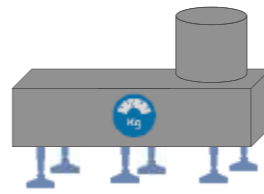
To find the maximum load on the foot take the total weight of the machinery filled with product and divide it by the number of feet if the load is evenly distributed on all the feet.



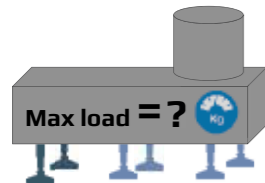
When load is not measured on all feet that supports the machinery use the ones with maximum load.



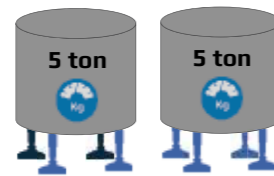
Total load of machinery with more than 4 feet can be measured if the feet that represent most of the load is chosen.



Optimal weighing is ensured by measuring the load on all feet regardless of how many that supports the machinery.



If the load is NOT evenly distributed on all the feet, calibrate the weight with known weight of material in your PLC.



Machinery and product = max 5 ton.  
 $5000/4 = 1250 \text{ kg} \Rightarrow 2000 \text{ kg load cell}$



For loads less than 300 kg NGI recommend the feet XHSW, XHTSW, HXW and HXTW size 80 and 105 to obtain maximum accuracy.



For loads less than 300 kg NGI recommend the feet XHSW, XHTSW, HXW and HXTW size 80 and 105 to obtain maximum accuracy.



If there is seismic activity use NGI Seismic leveling feet after advice from NGI.



All load cells may be connected in one box



Matching sizes and designs are available with or without build-in weighing cell

# Selecting the right load cell

## Weighing Leveling feet

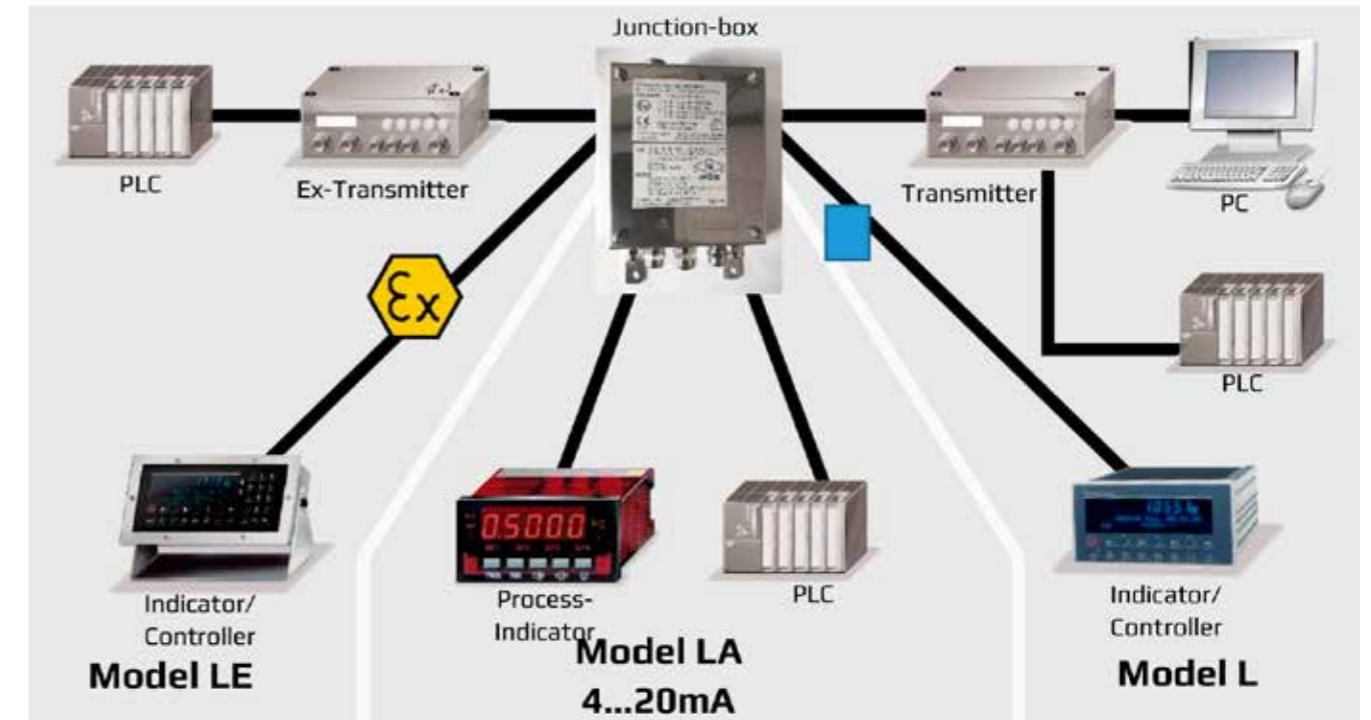
### LET MINEBEA CONFIGURE YOUR SYSTEM TO YOUR SPECIFIC NEEDS

The model LA provides 4...20 mA output for direct connection to process instrumentation or PLCs/DCS.

The model L and LE featuring mV/V output are connected via our vast range of transmitters and indicators



Usually only one PanCakes is required (three legs). If two PanCakes are used (4 legs) you still require only one input channel in your PLC or Process Indicator by simply switching the two outputs in parallel.



### COMMON LEVEL CONTROL SYSTEMS IN COMPARISON

The performance of conventional level control instrumentation is rarely better than a glimpse into the tank or a blow with the hammer. Ultrasonic, Radar and many other systems suffer from a wide range of application related problems: rotating mixer blades, varying shape of material cones and vessels are the stumbling stones of one-dimensional height measurement instead of real content determination.

Specific material properties like particle size, foam, reflection properties, vapor and dust or material sticking to the walls and the equipment add to the complications. In comparison, only PanCakelevel-by-weight technology provides reliable results.

# FAQ

## Weighing Leveling feet

### WHY USE LOAD CELLS?

This product is an Adjustable Hygienic Mounting kits with a built in load cell. It is the only weighing leveling feet in the world with built-in load cell for measuring of fluid level and weighing of products where the load cell is secured, guided and protected inside the foot. It has self-draining surfaces, sealed movable parts and the certified hygienic type has no exposed thread which secures absolute minimum cleaning and maximum product safety.



NGI's weighing leveling feet is a mounting kit adjustable in height and hygienic in design. That's the difference. All other features are the same as other mounting kits that also ads benefit to the weighing cell or sensor.

### IS THE CELL PROTECTION AGAINST HOT WATER DURING WASHING?

The load cell is IP68, IEC 529, equivalent to NEMA 6 and can be submerged in water to a depth of 1.5 m for 10,000 hours. It is a hermetically sealed, welded stainless steel 1.4542 (DIN 17440) construction, filled with polyurethane and inert gas.

The foot covers the censor and protects it against fast heat changes and mechanical impacts. The sealing between spindle and foot is IP Code IP69K: DIN (Deutsches Institut für Normung) 40050-9: Straßenfahrzeuge; IP-Schutzarten; Schutz gegen Fremdkörper, Wasser und Berühren; Elektrische Ausrüstung [Road vehicles; degrees of protection (IP-code); protection against foreign objects, water and impact; electrical equipment]. May 1993. (an English translation of the German original is available from DIN).

### WHAT IS THE VALUE FOR OVERLOADING OF SENSORS?

It is important first of all to select a load cell suitable for the loads. Use transport security lock if overload is a problem during transport. If the load cell has been exposed to a higher load than "Max. usable load" it is recommended to re-calibrate the equipment.

LOAD CELL		FOOT SIZE Ø80 AND Ø105 MM	FOOT SIZE Ø125 MM AND UP	FOOT SIZE Ø125 AND UP
SENSOR		PR 6211 D1	PR 625 LI LE	PR 625 LA LAC
WEIGHING RANGE		30 - 300 KG	500 KG - 16 TONS	500 KG - 16 TONS
MAX. USABLE LOAD	Upper limit for measurements	150%	150%	120%
MAX. LOAD WITHOUT DAMAGE	Highest limit without irreversible effects	500 kg	300%	300%

\* Source: Sartorius Data sheet.

### WHAT IF THE LOAD ON THE MACHINE FEET IS NOT EQUALLY DISTRIBUTED?

It is important that the load on the feet reflects the actual weight of the machine that stands on them, to get the most accurate measurement make sure that the load is uniformly distributed on all feet by adjusting the spindle (see installation). You can also measure the output between the green and gray wire to make sure they reflex the weight on top of them.

### WHAT IF THE WEIGHT OF THE MACHINE IS NOT EQUALLY DISTRIBUTED?

Weighing feet on all feet will ensure that everything is measured but if only some feet are with weighing you can use software in the Transmitter, PLC, PC, Indicator, Controller, etc. to handle the load so that it gives the total weight anyway.

### WHAT IF THERE IS HORIZONTAL LOAD INVOLVED?

The patented NGI design absorbs horizontal forces (No torque, side shear and temperature changes affect the measurement).

### ELECTRIC PROTECTION AGAINST DAMAGE DUE TO OVERLOADING, ELECTRICAL SPIKES ETC.?

Earth connection is not a problem since the cell is protected inside the feet, nevertheless avoid sending current through the foot. Electrical interference may occur from other components, due to loose connections, varying voltage, potential differences, poor shielding, cheap electrical components and so on.

# FAQ

## Weighing Leveling feet

### WHAT IS THE ACCEPTABLE ANGLE FOR LATERAL LOAD ON FOOT?

This is never a problem as it can be calibrated in the equipment the load cell is connected to, but follow recommended angles in the Catalog. When a force is transferred on to a surface at an angle it forms a force diagram, this may in theory lead to wrong measurements, but in praxis a 5-degree angle result in 0.38% less registered force (that still can be calibrated away).

### WHAT IS LIFETIME OF THE FOOT?

NGI's machine feet lifetime is minimum 20 years. Global Weighing in Denmark has never changed a load cell due to service life. Load cells do not break they get substituted when the wire is cut by accident. Broken wires is the most common failure.

### WHAT RECLAMATION PROCESS IN COMPANY NGI?

See TERMS OF SALE AND DELIVERY on website.

### REFERENCE WHERE THEY ARE USED AND WHERE WE CAN SEE THEM?

This is a new product and we are waiting for permission to use references from customers.

### WHAT IS WARRANTY TIME AND WHAT IS COVERED IN WARRANTY?

One year but see TERMS OF SALE AND DELIVERY on website.

### ADDITIONAL EQUIPMENT FOR SENSORS OR WHAT ELECTRICAL EQUIPMENT IS REQUESTED?

The load cell sends out 2mV/V or 4-20mA depending on the choice of the cell, this signal can be handled with everything from a simple volt/amp meter or an amplifier to an advanced industrial PC. The solution is up to the designer and the needs of the end-user.

### WHAT IS PROCESS FOR CALIBRATION OF SENSORS AFTER THEIR INSTALLATION ON MACHINE?

When we calibrate our test system consisting of 4 load cells connected to a display, we proceed as follows:

1. Install the machine feet so that the pressure is evenly distributed, which means about same torque on the spindle key for lifting. (Can be measured electrically on disconnected output wires)
2. Make sure that the spindle is correctly engaged and that the sleeve or counter nut is tightened.
3. Run Setup on the display as prescribed in the manual provided by the supplier and then you are ready to see the weight. This last point of the process is probably as diverse as the solutions are many.

### DO NGI HELP AND TRAIN ENGINEERS AND TECHNICIANS IN USE OF WEIGHING CELLS?

NGI has over 25 years' experience in supporting machines and leveling them. We help our costumer to choose the right size, strength, adjustment and design whether it's a plastic foot or an extra strong seismic foot. We do the same with weighing, but we also know that when it comes to handling electrical signals we are no experts and that is why we teamed up with one of the world's leading companies Minebea. Minebea has local suppliers in all countries around the world and is always glad to help you chose the right equipment to handle the signals from the weighing cells.

### WHAT TO DO WHEN THE MACHINE IS VIBRATING?

When a machine is vibrating - the weight on the display will vary. You can easily make the fluctuations disappear by middling input from the load cells with amplifiers or software in the Indicator/ Controller PLC or PC and in some cases you can just use the signal when the machine is standing still.



# FAQ

## Weighing Leveling feet

### WHAT IS THE ACCURACY?

For the exact accuracy see the data sheet for the weighing cells. The most crucial factor for precise weighing is that the forces are transferred properly into the load cells. NGI's design combined with the special measuring element geometry in the load cell ensures that the transmission of forces into the load cell is always at the optimum level. This minimizes the disruptive effect on measurement accuracy whilst a high overload range, high repeatability and good linearity are maintained. That also means that the load cell is as accurate as stated in the data sheet (also below) and as external circumstances permit.

LOAD CELL		FOOT SIZE Ø80 AND Ø105 MM	FOOT SIZE Ø125 MM AND UP	FOOT SIZE Ø125 AND UP
SENSOR		PR 6211 D1	PR 625 LI LE	PR 625 LA LAC
WEIGHING RANGE		30 - 300 KG	500 KG - 16 TONS	500 KG - 16 TONS
ACCURACY CLASS	Deviation relative to temperature variations	0.05 %	0.5 %	0.5 %
RATED OUTPUT	Relative output at nominal load	2.0 mV/V	2.0 mV/V	16 mA
TOLERANCE ON RATED OUTPUT	Permissible deviation from rated output	< 0.25 % Cn	< 4 % Cn	< 4 % Cn
TOLERANCE ON ZERO SIGNAL	Load cell output signal under unloaded condition	< 0... 2 % Cn	< 4 % Cn	4 mA
REPEATABILITY ERROR	Max. change in load cell output for repeated loading	< 0.01 % Cn	< 0.1 % Cn	< 0.1 % Cn
CREEP, DURING 30 MIN	Max. change in load cell output under nominal load	< 0.03 % Cn	< 0.1 % Cn	< 0.1 % Cn
NON-LINEARITY	Max. deviation from best straight line through zero	< 0.05 % Cn	< 0.25 % Cn	< 0.25 % Cn
HYSTERESIS	Max. difference in load cell output when loading from zero to nominal load and unloading back to zero	< 0.05 % Cn	< 0.15 % Cn	< 0.15 % Cn
TEMPERATURE EFFECT (ON ZERO)	Max. change of S min/10 K D T over BT referred to Cn	< 0.042 % Cn/10 K	< 0.15 % Cn/10 K	< 0.15 % Cn/10 K
TEMPERATURE EFFECT (ON OUTPUT)	max. change of C/10 K D T over BT referred to Cn	< 0.03 % Cn/10 K	< 0.1 % Cn/10 K	< 0.1 % Cn/10 K

\* Source: Minebea Data sheet.

## L vs LA on Pancake® Load Cells

### Weighing Leveling feet

#### DESCRIPTION

The Pancake® loadcell by Minebea Intec offers 2 different versions.

The **L-Version**, outputting a mV-Signal and the **LA-Version**, outputting a mA-Signal.

When more than 1 Weighing feet are used below a tank, or under multiple tanks which are installed in close vicinity, NGI recommends the use of the L-Version in conjunction with a transmitter.

The transmitter converts the signal from mV to mA.

The LA-Version already has a transmitter installed in the loadcell, a transmitter is therefore not necessary. However, the LA-Version costs significantly more and it only recommend when a single tank needs to be fitted with these feet.



# Compact Compression Load Cell PR 6211



- Easy to install in limited space
- Full stainless steel construction
- Resistant against vibrations
- Hermetically welded sealed, IP68 (depth of 1.5m for 10,000 hrs.), IP 69K
- Ex-version not available
- Integrated overload protection for up to 300kg capacity
- Easy corner adjustment by matched D1 load cell outputs
- Wide temperature range
- Hermetically sealed, IP68 (depth of 1.5 m for 10,000 hrs.), IP69K
- W&M approval (acc. OIML R 60)

## COMPACT COMPRESSION LOAD CELL PR 6211... D1

Compression load cells from 30 kg to 300 kg. Specially designed for tank and hopper weighing as well as basic dosing systems. For use in EX zones 1, 2, 20, 21, 22 and FM DIV 1.

### DESCRIPTION

The PR 6211 range of load cells is specially designed for weighing silos, tanks and process vessels. The unique design principle facilitates a particularly compact construction and, as a result, the unit can be used even in restricted space conditions. The NGI installation counterbalance movements arising from mechanical or thermal expansion or contraction of the vessel or its supporting construction. In addition, the small construction has integrated overload protection of 500kg. At the same time, this range distinguishes itself above all for its unmatched reliability, robustness and stability, which enable trouble-free operation without adjustment, year after year. The hermetically sealed enclosure and special TPE cable allow the unit to be used even under extreme operating conditions in harsh production environments. The entire measurement chain can be calibrated without the use of a reference weight. Due to "matched output" technology, a damaged load cell can be exchanged without the need for re-calibration. This saves a tremendous amount of time during commissioning. An explosion-proof (Ex) version of this range of load cells is also available, as an option, for use in intrinsically safe environments.

### LOAD CELL CONSTRUCTION

Hermetically sealed, welded stainless steel construction, filled with Polyurethane.

### MATERIAL

1.4542 (DIN 17440) acc. to S604, S622 (B.S.)

### PROTECTION

IP 68, IEC 529 (equivalent to NEMA 6). The load cell can be submerged in water to a depth of 1.5m for 10,000 hours, IP 69K Rugged, flexible, screened; TPE thermoplastic Elastomere; Sheath: grey; Diameter: 3mm, 4 x 0,13mm<sup>2</sup>; Length : 3m.

# PanCake Level Sensor PR 6251



- Easy mounting
- Stainless steel construction
- Hermetically welded sealed, IP68 (depth of 1.5m for 10,000 hrs.), IP 69K
- Ex-version available (LE)
- Direct 4... 20 mA output (LA)
- Only 25/35 mm installation height

## PanCake® Level Sensor PR 6251

The PR 6251 fill-level sensor is specially designed for basic weighing of silos and horizontal tanks. It meets all requirements for years of trouble-free operation without adjustment. For use in EX zones 1, 2, 20, 21, 22 and DIV

### DESCRIPTION

The PR 6251 range of load cells is specially designed for weighing silos and horizontal tanks. The unique design principle ensures a very compact construction. As a result, existing applications can also be upgraded very easily. The range distinguishes itself above all for its unmatched reliability, robustness and stability, which enable trouble-free operation without adjustment, year after year.

### PRODUCT PROFILE

Special measuring element geometry ensures that the transmission of force into the sensor is always at the optimum level. This minimizes the effect on measurement accuracy whilst a high overload range, high repeatability and good linearity are maintained. There is a particularly wide working temperature range attributable to special resistance strain gauge technology. The hermetically sealed enclosure and special TPE cable allow the unit to be used even under extreme operating conditions in harsh production environments. The entire measurement chain can be calibrated without the use of a reference weight. A version is also available with a direct output of 4-20 mA. This facilitates easy and cost-effective integration into an existing application. An explosion-proof (Ex) version of this range of load cells is also available, as an option, for use in intrinsically safe environments.

### LOAD CELL CONSTRUCTION

Hermetically sealed, welded stainless steel construction, filled with Polyurethane.

### MATERIAL

500 kg... 10 t 1.4021 (DIN 17440), 420 S 37 (B.S.); 16 t 1.4542 (DIN 17440), S 604/S 622 (B.S.), 17-4 PH (Int.)

### PROTECTION

IP68, IEC 529, equivalent to NEMA 6. The load cell can be submerged in water to a depth of 1.5 m for 10,000 hours. Robust, flexible, screened  
Sheath: Thermopl. Elastomere  
Colour: grey (LE: blue, LA/LAC: green)  
Diameter: 5 mm, wires 4 x 0.35 mm<sup>2</sup>  
Length: 5 m

### BENDING RADIUS

Fixed installation: ≥ 50mm; Flexible installation: ≥ 150mm

### CERTIFICATE OF CONFORMITY

Approval: II 1G EEx ia IIC T6, II 1D IP65 85°C; Approval No.: PTB 02 ATEX 2059, TÜV 03 ATEX 2301x

# Certified hygienic nuts - NDXH



Certified hygienic



Minimized cleaning time



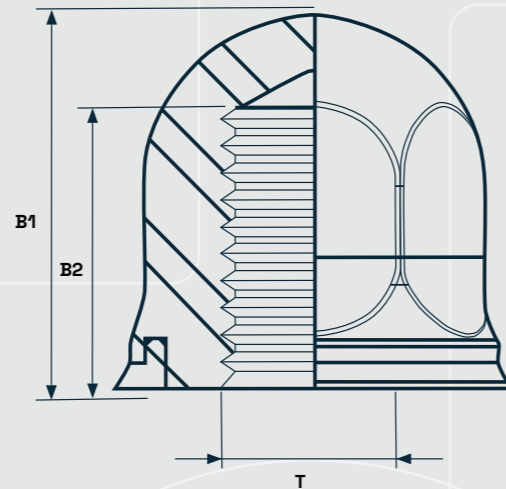
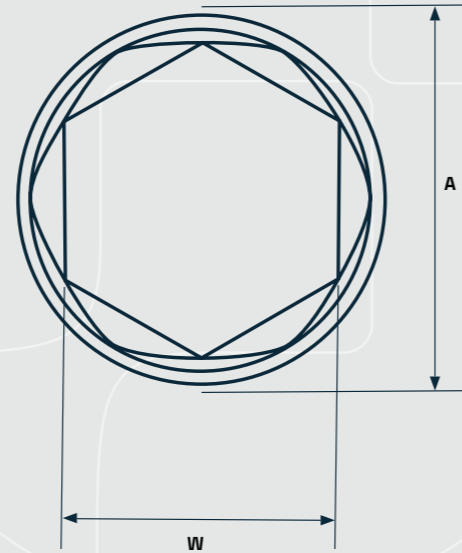
Minimized water usage

Certified hygienic nuts with blue NBR rubber seals is the right choice of nuts to be used on all machinery in all certified hygienic wash-down environments. The NBR rubber seal blocks out water and bacteria and also prevents a non-hygienic metal-to-metal assembly. Round-headed and self-draining surfaces with a maximal roughness of 0.8 µm Ra.

The design of the nuts does not deviate from the sizes of current standard nuts. Therefore, wrench sizes, thread heights etc. all remains the same making it very easy to upgrade and replace standard nuts. NGI's certified hygienic nuts are used for floor-mounting of certified hygienic leveling feet in order to ensure compliance with current legislation towards hygienic design.

The NDXH is used when the length of exposed bolt thread can vary.

- Certified in accordance with 3-A (RPSCQC)
- Certified in accordance with EHEDG hygienic standard TYPE EL - CLASS I AUX
- Minimizes cleaning time and water consumption
- Surfaces with a maximal roughness of 0,8 µm Ra
- Available in sizes M6-M24



# Certified hygienic nuts - NDXH



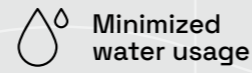
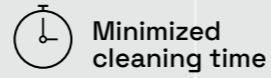
## CERTIFIED HYGIENIC NUTS



THREAD T	TIGHTENING TORQUE [Nm]	TOTAL HEIGHT B1 [in]	THREAD LENGTH B2 [in]	W [in]	OUTER DIAMETER A [in]	ITEM CODE
1/4	8.2	0.59	0.47	7/16	0.58	NDXH 1/4
5/16	17.0	0.67	0.55	1/2	0.68	NDXH 5/16
3/8	30.0	0.75	0.59	9/16	0.78	NDXH 3/8
7/16	47.0	0.85	0.69	11/16	0.92	NDXH 7/16
1/2	71.0	0.98	0.79	3/4	1.06	NDXH 1/2
9/16	102.0	1.10	0.87	13/16	1.18	NDXH 9/16
5/8	139.0	1.24	1.02	15/16	1.33	NDXH 5/8
3/4	245.0	1.46	1.18	11/8	1.57	NDXH 3/4
7/8	389.0	1.67	1.34	1 5/16	1.82	NDXH 7/8
1	572.0	1.89	1.54	1 1/2	2.08	NDXH 1



# Certified hygienic nuts - NLXH

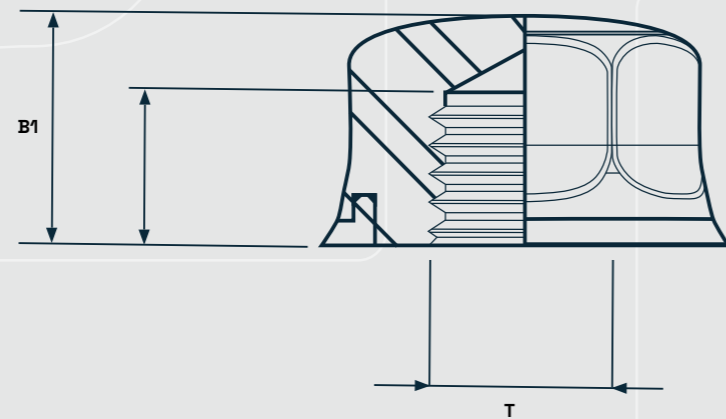
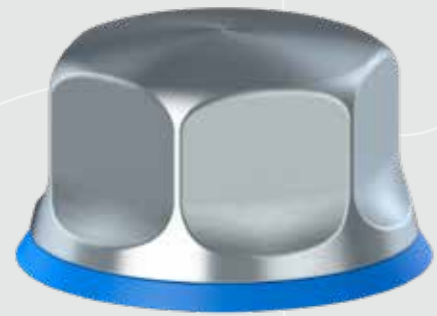
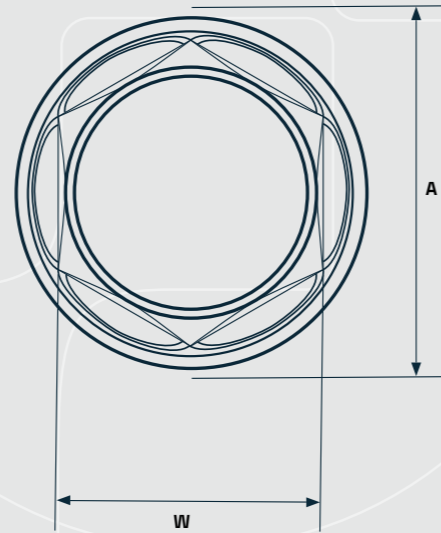


Certified hygienic nuts with blue NBR rubber seals is the right choice of nuts to be used on all machinery in all certified hygienic wash-down environments. The NBR rubber seal blocks out water and bacteria and also prevents a non-hygienic metal-to-metal assembly. Round-headed and self-draining surfaces with a maximal roughness of 0.8 µm Ra.

The design of the nuts does not deviate from the sizes of current standard nuts. Therefore, wrench sizes, thread heights etc. all remains the same making it very easy to upgrade and replace standard nuts. NGI's certified hygienic nuts are used for floor-mounting of certified hygienic leveling feet in order to ensure compliance with current legislation towards hygienic design.

The NLXH is used when the length of exposed bolt thread is adapted to the nut's B2 measurement.

- Certified in accordance with 3-A (RPSCQC)
- Certified in accordance with EHEDG hygienic standard TYPE EL - CLASS I AUX
- Minimizes cleaning time and water consumption
- Surfaces with a maximal roughness of 0,8 µm Ra
- Available in sizes M5-M24



# Certified hygienic nuts - NLXH



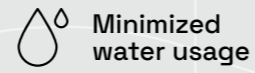
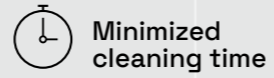
## CERTIFIED HYGIENIC NUTS



THREAD T	TIGHTENING TORQUE [Nm]	TOTAL HEIGHT B1 [in]	THREAD LENGTH B2 [in]	W [in]	OUTER DIAMETER A [in]	ITEM CODE
1/4	8.2	0.33	0.24	7/16	0.58	NLXH 1/4
5/16	17.0	0.39	0.28	1/2	0.68	NLXH 5/16
3/8	30.0	0.47	0.31	9/16	0.78	NLXH 3/8
7/16	47.0	0.51	0.33	11/16	0.92	NLXH 7/16
1/2	71.0	0.55	0.35	3/4	1.06	NLXH 1/2
9/16	102.0	0.61	0.39	13/16	1.18	NLXH 9/16
5/8	139.0	0.67	0.43	15/16	1.33	NLXH 5/8
3/4	245.0	0.75	0.47	11/8	1.57	NLXH 3/4
7/8	389.0	0.83	0.51	1 5/16	1.82	NLXH 7/8
1	572.0	0.91	0.55	1 1/2	2.08	NLXH 1



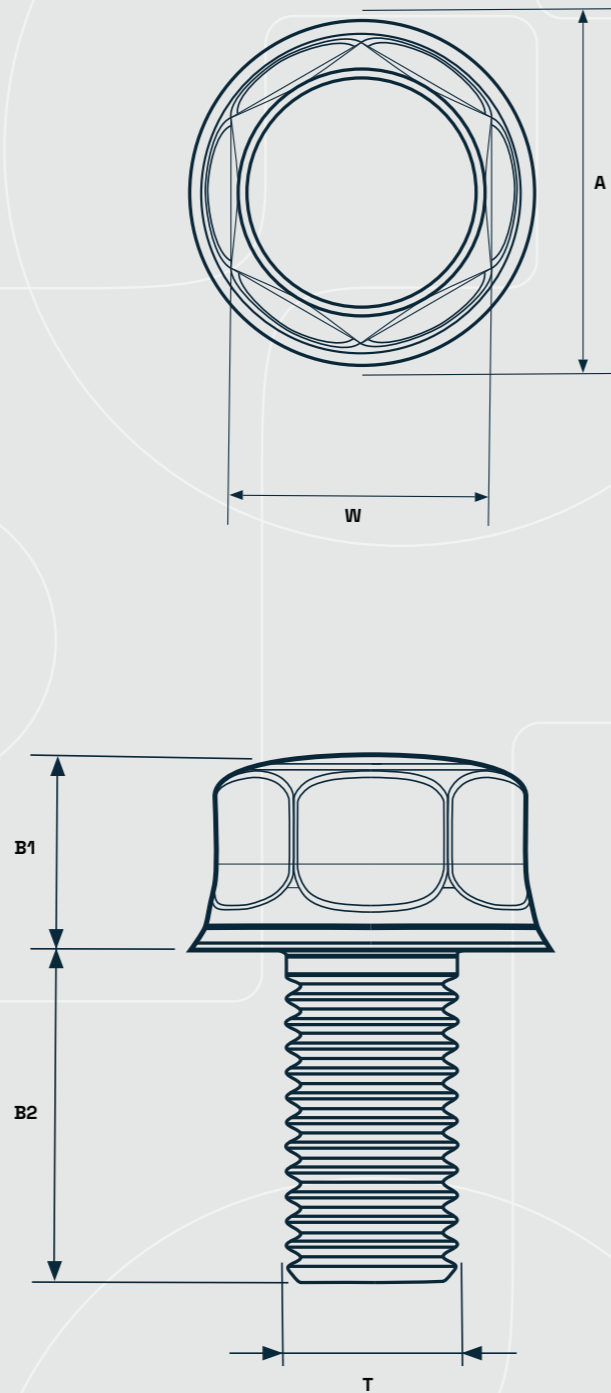
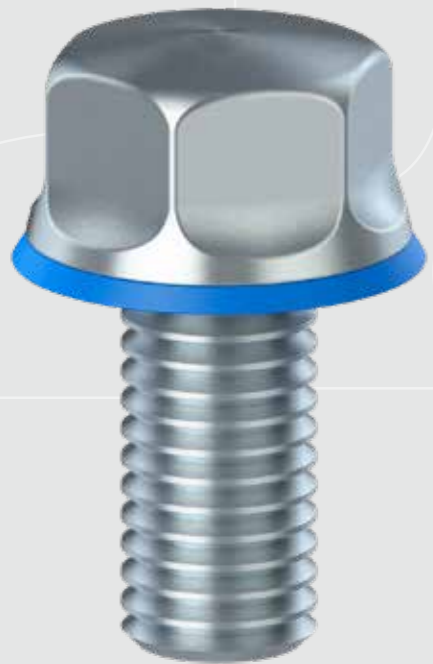
# Certified hygienic bolts - BXH



NGI is now able to offer certified hygienic bolts with blue NBR rubber seals. The NBR rubber seal blocks out water and bacteria and also prevents a non-hygienic metal-to-metal assembly.

The bolts have self-draining surfaces with a maximal roughness of 0.8 µm Ra. The design of the bolts does not deviate from the sizes of current standard bolts. Therefore, wrench sizes, thread heights etc. all remains the same making it very easy to upgrade and replace standard bolts. This is the right choice of bolts to be used on all machinery in all certified hygienic wash-down environments.

- Certified in accordance with 3-A (RPSCQC)
- Certified in accordance with EHEDG hygienic standard TYPE EL - CLASS I AUX
- Minimizes cleaning time and water consumption
- Surfaces with a maximal roughness of 0,8 µm Ra
- Available in sizes M5-M24



# Certified hygienic bolts - BXH



## CERTIFIED HYGIENIC BOLTS



THREAD T	TIGHTENING TORQUE [Nm]	HEAD HEIGHT B1 [in]	THREAD LENGTH B2 [in]	W [in]	OUTER DIAMETER A [in]	ITEM CODE
1/4	8.2	0.33	1/2, 3/4, 1.5/4, 3/2	7/16	0.58	BXH 1/4
5/16	17.0	0.39	3/4, 1.5/4, 3/2	1/2	0.68	BXH 5/16
3/8	30.0	0.47	3/4, 1.5/4, 3/2, 2	9/16	0.78	BXH 3/8
7/16	47.0	0.51	xx*)	11/16	0.92	BXH 7/16
1/2	71.0	0.55	1.5/4, 3/2, 7/4, 2, 5/2	3/4	1.06	BXH 1/2
9/16	102.0	0.61	xx*)	13/16	1.18	BXH 9/16
5/8	139.0	0.67	xx*)	15/16	1.33	BXH 5/8
3/4	245.0	0.75	xx*)	11/8	1.57	BXH 3/4
7/8	389.0	0.83	xx*)	1 5/16	1.82	BXH 7/8
1	572.0	0.91	xx*)	1 1/2	2.08	BXH 1



\*) M16-M24 available xx length upon request.

# UV lighting used to expose bacteria

- THE CERTIFIED HYGIENIC LEVELING FOOT IS CLEAN
- THE SPINDLE OR THE FULLY-THREADED LEVELING FOOT IS INFECTED WITH BACTERIA
- FULLY-THREADED VS HYGIENIC - IT TAKES 28% MORE RESSOURCES TO REACH THE SAME LEVEL OF CLEANABILITY ON A FULLY-THREADED FOOT
- RESSOURCES COULD BE TIME, WATER, MONEY, DETERGENTS, ETC.

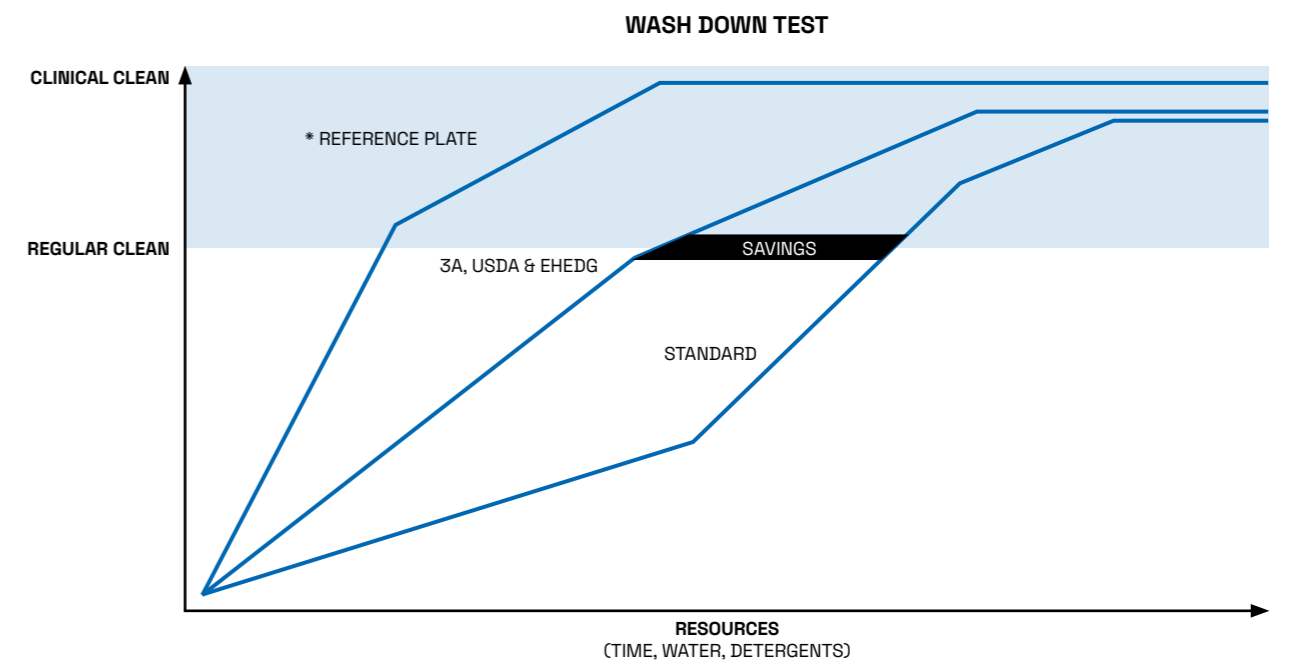
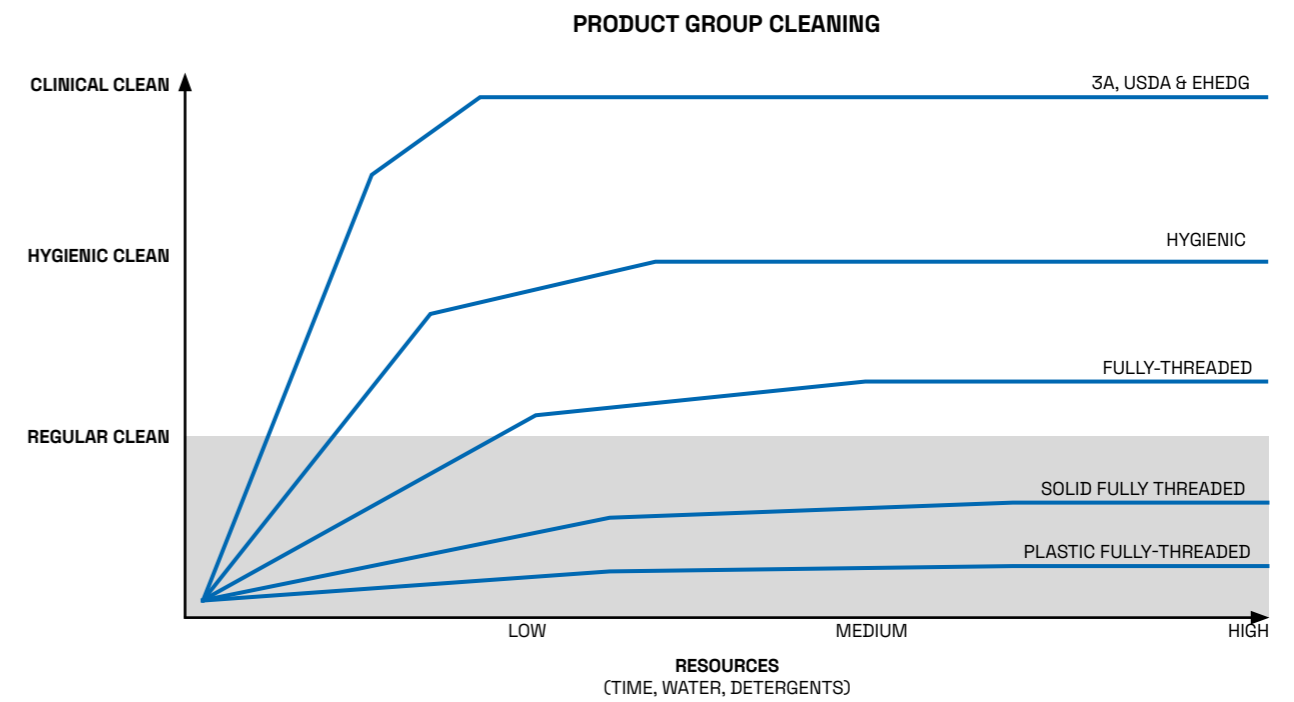
ESTIMATED SAVINGS  
**28%**



# Technical specifications Cleaning Instructions

The resources required to clean NGI's leveling feet depends largely on the design of the leveling foot and the environment in which the leveling foot is used.

It is possible to use all known detergents to clean the leveling feet as long as the instructions provided by the supplier is complied with.



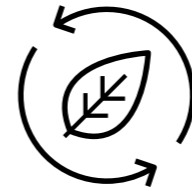
\* Reference plate = Stainless steel plate with surface less than Ra 0,8



# Product Innovation

Innovating for tomorrow  
Investing in research & development

## NGI Innovation - the Sustainable Way



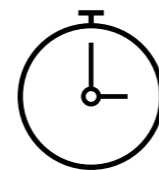
### Stainless steel - Recyclable materials

80% of our products can be recycled. We are working on initiatives to make this percentage even higher.



### Hygienic seals - Resource saving

Permit easy cleaning and reduce water consumption.



### High Quality - Longer lifetime

Our products are very high quality which means they have a longer lifetime than corresponding components.



### Hygienic design - Protecting consumers

We make sure that the components do not constitute a hygiene risk through innovative and uncompromising design.



Maximum **12-HOURS RESPONSE TIME** to customer enquiries  
**QUICK ORDER CONFIRMATION** (within 24 hours)  
 Incoming orders packed and **SHIPPED THE SAME DAY**

World-wide delivery **1-6 DAYS**  
 Optional **EXPRESS DELIVERY** (next day)  
**TRACK & TRACE** on all shipments

# WHY NGI?

1-4 DAYS  
DELIVERY IN  
SCANDINAVIA

---

4-6 DAYS  
DELIVERY IN REST  
OF WORLD

No leveling **PROJECT IS IMPOSSIBLE** for NGI  
**NO MINIMUM ORDER QUANTITIES**

NGI offers **ALL TYPES OF HIGH-QUALITY LEVELING FEET** at competitive prices  
 NGI is the **ONLY MANUFACTURER IN THE WORLD** of certified hygienic leveling feet  
 Country-specific key account consultants with **LOCAL LANGUAGE SKILLS**

