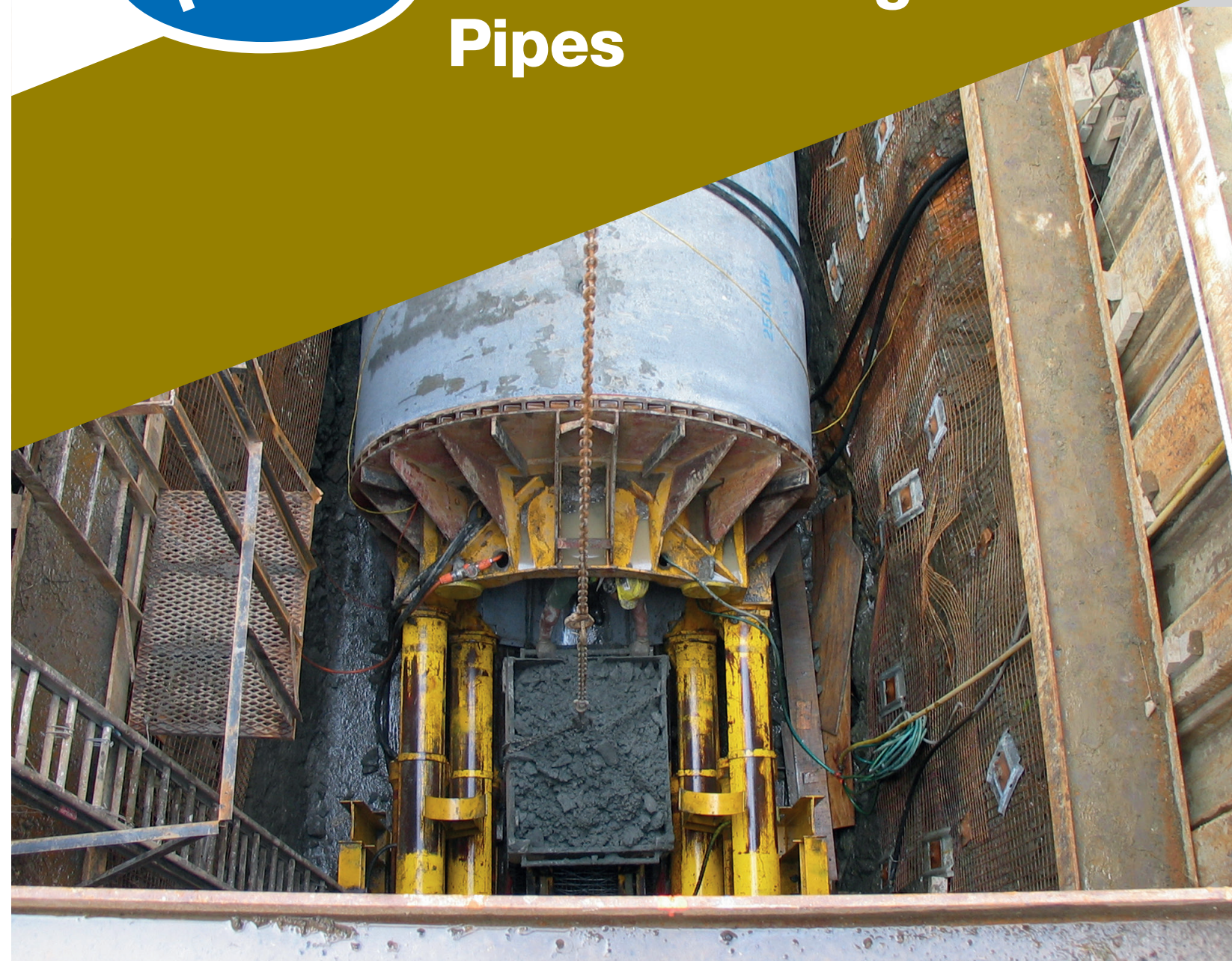




Titan[®] Jacking Pipes



Solutions for Trenchless Pipelines

Features

- Installation without disruption to existing surface-facilities or activities
- Capable of withstanding typical installation forces
- Strong and durable
- Proven performance

Benefits

- Low impact on existing services
- Adaptable to various ground conditions
- Cost effective compared to deep traditional methods
- Reduction of health and safety risk when installing in unstable soil conditions

Applications

- Stormwater drainage
- Sewerage systems
- Under roads, railways, waterways or developed areas.

Titan® Jacking Pipe

The Humes Titan® jacking pipes are industry benchmark pipes, made to NZS 4058:2007 under tightly controlled ISO 9000 certified quality management systems.

Given the variety of specialized requirements with each jacking pipe job, it is important to consult the Humes Technical Team – who will work with project designers to determine the most suitable solution.

Loads

Two loading situations must be considered, the traditional **earth load** and the generally more important **construction load**.

Earth loads (vertical) are minimized by installation type. Loads are less than those generated by the narrowest possible trench and in “strong” soils the pipe may not be subjected to any vertical load at all.

Construction loads (horizontal) result from jacking or pushing the pipe into its final position. Depending on the soil type these loads can vary from between 0.5 tonnes/m² to 2.0 tonnes/m² of the outside surface area of the pipeline.

Construction loads can be reduced significantly by lubricating the outside pipe surface (bentonite). When Jacking loads are still excessive, intermediate jacking stations can be used.

Design Specifications

For calculation of vertical working loads and pipe installation guidelines, refer to AS/NZS 3725 ‘Design for Installation of Buried Concrete Pipes’ and the Concrete Pipes Association of Australasia website – www.cpa.asn.au.

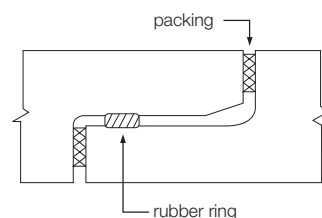
Joint Packers

Joint packers (usually made of ply or medium density particle board) are required to spread loads across the joint face and provide some deflection capability during installation. Joint packers are not supplied by Humes.

In-wall Skid Ring Joint – Jacking Pipe (IWSRJ-JP)

Nominal Diameter	OD (mm)	Effective Length (mm)	Wall (mm)	Mass (kg)	Jacking Capacity (t)*
1050	1310	2450	130	3,000	450
1540	1840	2457	150	5,608	725
1950*	2261	2438	140	5,880	815

*Manufactured in Christchurch only.



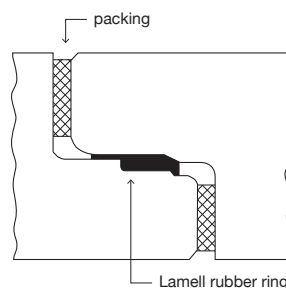
Notes:

Rubber ring joints must be lubricated with a non-petroleum based lubricant such as Easy Slip. Apply liberally to ring and collar jointing surface, particularly the lead in.

In-wall Lamell Sliding Seal – Jacking Pipe (IWLSS-JP) North Island only

Actual Internal diameter	Dimensions				Minimum Packer Thickness (mm)	Jacking Capacity (t)*
	Effective Length	OD (mm)	Wall Thickness (mm)	Mass (kg)		
Titan 1800	2,500	2,230	215	8,481	16	825
Titan 2100	2,500	2,560	230	10,492	16	970
Titan 2400	2,500	2,900	250	12,969	16	1,135

* Thickness can be adjusted to meet design requirements



Notes:

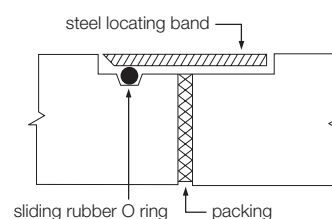
Humes recommend the use of the Lamell lubricated rubber ring, which is designed as a sliding seal that is placed on the spigot end of the pipe.

Rubber Ring Joint – Steel Band Jacking Pipe (RRJ-SBJP)

Nominal Diameter	OD (mm)	Length (mm)	Wall (mm)	Mass (kg)	Jacking Capacity (t)*	Band (mm)
450	533	2100	41	405	55	100x5
525	616	2100	45	547	68	100x5
600	698	2380	56	717	95	140x6
750	863	2380	67	1,061	144	150x6
825	946	2380	70	1,259	161	190x8
900	1028	2380	73	1,379	230	190x8
1050	1194	2380	84	1,831	289	190x8
1200	1359	2380	90	2,241	355	190x8
1350**	1524	2380	96	2,692	426	190x8

All masses and wall thicknesses based on Z class specification.

** Lamell Sliding Seal – Steel Band Jacking Pipe (LSS-SBJP)



*Jacking capacity typical max only. Uniform stress under packer.

• Mass calculation based on a nominal density of 2500 kg/m³.

The Humes Technical team can work with Project design consultants to design jacking pipe, to suit specific job requirements. All jacking pipe is made to order.

For further technical details or advice freephone 0800 502 112 or visit www.humes.co.nz

Buyers and users of the products described in this brochure must make their own assessment of the suitability and appropriateness of the products for their particular use and the conditions in which they will be used. All queries regarding product suitability, purpose or installation should be directed to the nearest Humes Sales Centre for service and assistance. Fletcher Concrete and Infrastructure Limited 2014. Printed 11/14.

