### Lankhorst Engineered Products PIPE STORAGE

# KLP® FixFLEX pipe carriers



KLP® FixFLEX pipe carriers are engineered for safe and efficient storage and handling of Oil Country Tubular Goods (OCTG). KLP® FixFLEX carriers are made of resilient plastic and have circular recesses that keep the pipe from rolling. There is no hammering in place of stop chocks and no pipes are rolled in place.

Pipes are evenly spaced and fixed in position with KLP® FixFLEX. Thread protectors are easily accessible. Inspection and stock count are made easy this way.

Using KLP® FixFLEX pipe carriers, a single forklift driver, without assistance from extra rigger, can build stacks. A work method is used that eliminates the requirement to work on top of pipe stacks. This

contributes greatly to worker safety. Cost benefits are gained by a reduced requirement of workers and in reduction of waste.

KLP® FixFLEX pipe carriers are produced from high grade recycled polyethylene. KLP® FixFLEX carriers are UV resistant over a wide temperature range. The material does not crack or degrade under influence of sun light and is unaffected by moisture, oil or solvents. KLP® FixFLEX carriers are durable and re-useable, recycled and recyclable.

All Lankhorst storage solutions are produced from long lasting materials and are used over and over again.



Your partner in safe pipe storage

## Lankhorst Engineered Products PIPE STORAGE





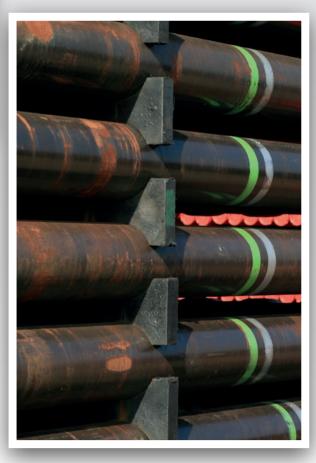
Lay up KLP® FixFLEX carriers and eliminate work at height

KLP® FixFLEX pipe carriers are ideally suited for storage of high Chrome alloy pipe. There is no metal to metal contact. Corrosion problems associated with pipes touching are eliminated in this way. High Chrome alloy pipes do not need to be specially wrapped while stored on KLP® FixFLEX pipe carriers.

The recycled polyethylene material of which our pipe carriers are made, is not conductive and somewhat elastic. Damage to any external pipe coating during handling and storage is avoided. In this way, KLP® FixFLEX contributes to maximum retention of the technical integrity and value of the pipe.

Safety hazards associated with rolling pipe on wooden dunnage are avoided using KLP® FixFLEX pipe carriers. A work method is employed with KLP® FixFLEX carriers layed up on the pipes, while still on the forklift. Only a single forklift driver is required for stacking pipe. The requirement to work on top of the stack is eliminated. Twisted ankles and injuries to hands are avoided.

Because no banksman or additional riggers are needed, there are fewer people exposed to hazards during pipe handling.





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### KLP® FixFLEX pipe carriers

### Why choose KLP® FixFLEX pipe carriers?

#### Safe

- Stacks are stable
- No need to work on top of stacks
- Engineered and fully tested system
- Accepted oilfield practice for 20 years

#### Pipe integrity

- Does not damage external coating
- No metal to metal contact
- FixFLEX does not absorb moisture

#### **Efficient**

- Fewer workers required for stacking
- Easy stock count and inspection
- Made from durable and long lasting materials

#### Recycled and recyclable

- Made of select grades of recycled PE
- Can be fully recycled after service life
- Unaffected by UV light
- Unaffected by moisture, oil or solvents

### **Lankhorst Engineered Products**

Since the production of the first plastic post from recycled synthetic rope wastes as of 1975, innovation has been the driving force of Lankhorst. Our research and development center is housed in Sneek, the Netherlands. Our grounds are at the same location

where Nicolaas Jurjen Lankhorst founded our company in the year 1803. Lankhorst Engineered Products is one of five divisions of Lankhorst Euronete. Visit our website to learn more about us, www.lankhorst-ep.com. Lankhorst Euronete is part of the WireCo WorldGroup.



## Lankhorst | Engineered Products | PIPE STORAGE

KLP® FixFLEX pipe carriers are suitable for all common casing-, tubing- and drill pipe sizes. FixFLEX pipe carriers are available in sizes of 1,5 meter and 1,9 meter, depending on the diameter of the pipe.

27/8   16   17   272     31/2   14   15   210     4   13   13   169     4 <sup>(B)</sup> 11   13   143     4 <sup>1/2</sup> 10   13   130     5   10   12   120     5 <sup>1/2</sup> 9   11   99     5 <sup>1/2</sup> 9   11   88     6   8   10   80     6 <sup>5/8</sup> 7   10   70     7   7   10   70     7 <sup>5/8</sup> 6   9   54     8 <sup>(B)</sup> 5   8   40     8 <sup>3/4</sup> 6   8   40     9 <sup>7/8</sup> 5   7   35     10 <sup>3/4</sup> 5   7   35     12   4   6   24     13 <sup>3/8</sup> 4   6   24     13 <sup>5/8</sup> 3   6   18     16   3   5   15     18 <sup>7/8</sup> 3   4   12	Size (inch)	Pipe positions per FixFLEX	No. of layers <sup>(A)</sup>	Total no. of pipes per stack
4   13   13   169     4(B)   11   13   143     4V2   10   13   130     5   10   12   120     5V2   9   11   99     5V2(B)   8   11   88     6   8   10   80     6×B   7   10   70     7   7   10   70     75/B   6   9   54     8(B)   5   8   40     83/4   6   8   48     95/B   5   8   40     97/B   5   7   35     10 3/4   5   7   35     12 4   6   24     12 3/4   4   6   24     13 3/B   4   6   24     13 3/B   3   6   18     16   3   5   15     18 7/B   3   4   12	27/8	16	17	272
4(B)   11   13   143     41/2   10   13   130     5   10   12   120     51/2   9   11   99     51/2 (B)   8   11   88     6   8   10   80     6   8   10   70     7   7   10   70     7   7   10   70     7   7   10   70     7   7   10   70     7   7   10   70     7   8   6   9   54     8(B)   5   8   40     83/4   6   8   48     95/8   5   8   40     97/8   5   7   35     103/4   5   7   35     12   4   6   24     133/8   4   6   24     135/8   3   6   18     16   3   5   15     18	31/2	14	15	210
41/2   10   13   130     5   10   12   120     51/2   9   11   99     51/2 (E)   8   11   88     6   8   10   80     6 5/8   7   10   70     7   7   10   70     75/8   6   9   54     8(E)   5   8   40     83/4   6   8   48     95/8   5   8   40     97/8   5   7   35     103/4   5   7   35     12   4   6   24     123/4   4   6   24     133/8   4   6   24     135/8   3   6   18     16   3   5   15     187/8   3   4   12	4	13	13	169
5   10   12   120     51/2   9   11   99     51/2 (B)   8   11   88     6   8   10   80     6   8   10   70     7   7   10   70     7   7   10   70     7   5   8   40     8(B)   5   8   40     83/4   6   8   48     95/8   5   8   40     97/8   5   7   35     103/4   5   7   35     12   4   6   24     123/4   4   6   24     133/8   4   6   24     135/8   3   6   18     16   3   5   15     187/8   3   4   12	4 <sup>(B)</sup>	11	13	143
51/2 9 11 99   51/2 (B) 8 11 88   6 8 10 80   6 8/8 7 10 70   7 7 10 70   75/8 6 9 54   8(B) 5 8 40   8 3/4 6 8 48   9 5/8 5 8 40   9 7/8 5 7 35   10 3/4 5 7 35   12 4 6 24   12 3/4 4 6 24   13 3/8 4 6 24   13 5/8 3 6 18   16 3 5 15   18 7/8 3 4 12	41/2	10	13	130
51/2 (B) 8 11 88   6 8 10 80   65/8 7 10 70   7 7 10 70   75/8 6 9 54   8(B) 5 8 40   83/4 6 8 48   95/8 5 8 40   97/8 5 7 35   103/4 5 7 35   12 4 6 24   123/4 4 6 24   133/8 4 6 24   135/8 3 6 18   16 3 5 15   187/8 3 4 12	5	10	12	120
6   8   10   80     65/8   7   10   70     7   7   10   70     75/8   6   9   54     8(B)   5   8   40     83/4   6   8   48     95/8   5   8   40     97/8   5   7   35     103/4   5   7   35     12   4   6   24     123/4   4   6   24     133/8   4   6   24     135/8   3   6   18     16   3   5   15     187/8   3   4   12	5 1/2	9	11	99
6 5/8   7   10   70     7   7   10   70     7 5/8   6   9   54     8 (B)   5   8   40     8 3/4   6   8   48     9 5/8   5   8   40     9 7/8   5   7   35     10 3/4   5   7   35     12   4   6   24     12 3/4   4   6   24     13 3/8   4   6   24     13 5/8   3   6   18     16   3   5   15     18 7/8   3   4   12	5 <sup>1/2 (B)</sup>	8	11	88
7   7   10   70     75/8   6   9   54     8(B)   5   8   40     83/4   6   8   48     95/8   5   8   40     97/8   5   7   35     103/4   5   7   35     12   4   6   24     123/4   4   6   24     135/8   4   6   24     135/8   3   6   18     16   3   5   15     187/8   3   4   12	6	8	10	80
75/8   6   9   54     8(E)   5   8   40     83/4   6   8   48     95/8   5   8   40     97/8   5   7   35     103/4   5   7   35     12   4   6   24     123/4   4   6   24     133/8   4   6   24     135/8   3   6   18     16   3   5   15     187/8   3   4   12	65/8	7	10	70
8(B)   5   8   40     83/4   6   8   48     95/8   5   8   40     97/8   5   7   35     103/4   5   7   35     12   4   6   24     123/4   4   6   24     133/8   4   6   24     135/8   3   6   18     16   3   5   15     187/8   3   4   12	7	7	10	70
8 3/4   6   8   48     9 5/8   5   8   40     9 7/8   5   7   35     10 3/4   5   7   35     12   4   6   24     12 3/4   4   6   24     13 3/8   4   6   24     13 5/8   3   6   18     16   3   5   15     18 7/8   3   4   12	75/8	6	9	54
95/8 5 8 40   97/8 5 7 35   103/4 5 7 35   12 4 6 24   123/4 4 6 24   133/8 4 6 24   135/8 3 6 18   16 3 5 15   187/8 3 4 12	8 <sup>(B)</sup>	5	8	40
97/8 5 7 35   10 3/4 5 7 35   12 4 6 24   12 3/4 4 6 24   13 3/8 4 6 24   135/8 3 6 18   16 3 5 15   187/8 3 4 12	8 3/4	6		48
10 3/4 5 7 35   12 4 6 24   12 3/4 4 6 24   13 3/8 4 6 24   13 5/8 3 6 18   16 3 5 15   18 7/8 3 4 12	95/8	5	8	40
12 4 6 24   12 3/4 4 6 24   13 3/8 4 6 24   13 5/8 3 6 18   16 3 5 15   18 7/8 3 4 12	97/8	5	7	35
123/4 4 6 24   133/8 4 6 24   135/8 3 6 18   16 3 5 15   187/8 3 4 12	10 3/4	5	7	35
133/8 4 6 24   135/8 3 6 18   16 3 5 15   187/8 3 4 12	12	4	6	24
135/8   3   6   18     16   3   5   15     187/8   3   4   12	12 3/4	4	6	24
16 3 5 15   187/8 3 4 12	13 3/8	4	6	24
187/8 3 4 12	13 5/8	3	6	18
	16	3	5	15
	187/8	3	4	12
20 2 4 8	20	2	4	8
22 2 3	22	2	3	
24 2 3 6	24	2	3	
28 2 3		2	3	6
30 <sup>(C)</sup> 2 2 4	30 <sup>(C)</sup>	2	2	4
36 <sup>(C)</sup> 2 2 4	36 <sup>(C)</sup>	2	2	4

Note<sup>(A)</sup>: denotes the number of layers of pipe when stacked according to API 5C1 Note<sup>(B)</sup>: fewer pipe positions to accommodate large O.D. box & pin

KLP® FixFLEX pipe carriers can be used in conjunction with API 5C1 recommended practice for storage of OCTG's. Our representatives can advice you on yard layout and other requirements, based on pipe weight and total quantity of pipes.

KLP® FixFLEX pipe carriers are available in standard nominal sizes.

For storage of line pipe with diameter between 16" and 100" KLP® PipeStop System is available. Please visit our website www.pipe-storage.com.

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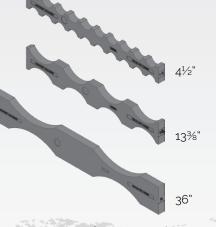
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Examples of recess spacing or different nominal sizes.



