



City of Arlington Guide to Grit and Sand/Oil Interceptors **Revised March 2014**

What is a grit or sand/oil interceptor?

A grit interceptor or sand/oil interceptor (sometimes referred to as a separator) is a wastewater pretreatment device that holds or traps solids and oils discharged from an establishment prior to entering the sanitary sewer.

Who must have a grit or sand/oil interceptor?

All establishments with processes that might result in the discharge of solids or oils down the sanitary sewer. This includes automotive repair shops with floor drains in their process areas and certain industrial processes.

Why are grit/sand/oil interceptors required?

The City of Arlington spends millions of dollars every year to maintain our wastewater collection system; requiring properly sized and designed interceptors for relevant processes is an important preventative measure that will protect the City's wastewater collection system and reduce repair, maintenance, and replacement costs.

Additionally, the City of Arlington is required to meet wastewater discharge standards by the Trinity River Authority (TRA), which treats our wastewater at the TRA Central Wastewater Treatment Plant. Grit/sand/oil interceptors play an important role in helping to meet wastewater discharge standards.

Can I use the existing grit/sand/oil interceptor on site?

If you are opening an establishment in an existing building, you may already have an interceptor that has been installed. Grit/sand/oil interceptors are just like any piece of equipment; over time, they begin to age and have issues. If the existing interceptor is not in good working condition, is grossly undersized by current standards, or plumbing fixtures are being added that would require an interceptor with a larger capacity to be installed, you may need to replace the existing interceptor. Contact Water Resource Services at 817-459-5902 to determine if you will be able to use the existing interceptor.

What is a sample well and securing device?

Establishments with a grit/sand/oil interceptor must install a sample well and securing device in addition to the interceptor.

The City of Arlington monitors wastewater samples from all food establishments, car washes, and certain permitted industrial users to make sure that the facility is not discharging abnormal wastewater that is harmful to the wastewater collection system or the wastewater treatment plant.

The sample well is a type of manhole which City of Arlington will use to collect wastewater samples from the facility. The securing device is an eyebolt set in concrete inside of a valve box top cover; City or Arlington employees will clip their sampling equipment to this securing device while taking a wastewater sample. In most cases, the sample well will be plumbed to capture all wastewater discharges from the facility, including both process and condensate waste.

What is the minimum size required for grit/sand/oil interceptors in Arlington?

In Arlington, grit/sand/oil interceptors are sized and designed in accordance with City of Arlington Ordinance #09-057 Industrial Waste and Water Pollution Control. They are sized based on total potential flow from all plumbing fixtures and drains located in any process area. To summarize, the grit/sand/oil interceptor size is determined by the number and pipe size from these plumbing fixtures and drains; the minimum size is determined based on these numbers.

Visit <http://arlingtontx.gov/water/wrs.html> to find City of Arlington's Interceptor Sizing Spreadsheet or contact Water Resource Services at 817-459-5902 and ask to get in touch with the Analyst who does plan reviews.

What if I want to use a type of interceptor that is different from the design specifications of City of Arlington?

Contact Water Resource Services at 817-459-5902 and ask to get in touch with the Analyst who does plan reviews. Variations from the design specifications are evaluated on a case-by-case basis per City of Arlington ordinance.

What if I have more questions?

Contact Water Resource Services at 817-459-5902 and ask to get in touch with the Analyst who does plan reviews. Variations from the design specifications are evaluated on a case-by-case basis per City of Arlington ordinance.

Checklist for Submitting Permit Plans for Grit/Sand/Oil Interceptors

Page One

If you are....	Information Required on the Plans	Yes	No	NA
Submitting Plans (All)				
	Are the plans indicative of the actual conditions on site, accurately showing all plumbing fixtures and drains that exist in the building?			
Abandoning an Existing Interceptor				
	Have you included the following note: "Cap off, backfill, and abandon existing interceptor or demolish it to the satisfaction of the City of Arlington Plumbing Inspector."			
Using an Existing Interceptor				
	Have you contacted Water Resource Services at 817-459-5902 and received approval?			
	Have you submitted your evaluation report signed and certified by a Licensed Master Plumber and witnessed by Water Resource Services?			
Bringing Manhole Openings to Grade				
	Have you provided details on the plans for how the contractor will accomplish this?			
	Have you provided a note on the plans stating that the manhole openings will be sealed from inflow and infiltration?			
	Have you ensured that bricks, stones, or any other unapproved device are not being used to bring the manhole covers to grade?			
Installing a New Grit/Sand/Oil Interceptor				
	Are all plumbing fixtures and drains from the process area plumbed to the grit/sand/oil interceptor?			
	Is the grit/sand/oil interceptor located on the exterior of the building? If not, have you received approval from Water Resource Services to locate the interceptor inside?			
	Is the grit/sand/oil interceptor properly sized in accordance with City of Arlington ordinance? See http://arlingtontx.gov/water/wrs.html for a sizing spreadsheet.			
CONTINUED ON NEXT PAGE				

Checklist for Submitting Permit Plans for Grit/Sand/Oil Interceptors

Page Two

If you are....	Information Required on the Plans	Yes	No	NA
Installing a New Grease Interceptor (Continued)				
	Have you provided the top and side view details for the grit/sand/oil interceptor, supplied by the manufacturer? See Appendix A for examples.			
	Have you indicated that the interceptor shall be designed, constructed, and installed for adequate load bearing capacity?			
	Have you made the following note on the plans: "The interceptor manhole covers shall be sealed from inflow and infiltration, are at least 30 inches in diameter, meet or exceed AASHTO standard M-306 for load-bearing, and will be equivalent to an East Jordan Ironworks V-1432, a Sigma Foundry MH1675, or a Certainteed PAMREX 32"? (See Appendix B for examples of interceptor manhole details)			
Installing a New Sample Well				
	Is the sample well plumbed to receive all discharges from the building, or have you received approval from Water Resource Services to have the sample well plumbed to capture wastewater from the interceptor only?			
	Are you using or do you have a note that the sample well design is equivalent to a Park Equipment Company SWB-1? (Also acceptable: PW Eagle WAC-15 or CSC-15; Schier Foglifter; Oldcastle Standard Sample Well; Others as Requested)			
	Have you provided details for the sample well to be used for this project? (See Appendix C for examples of sample well details)			

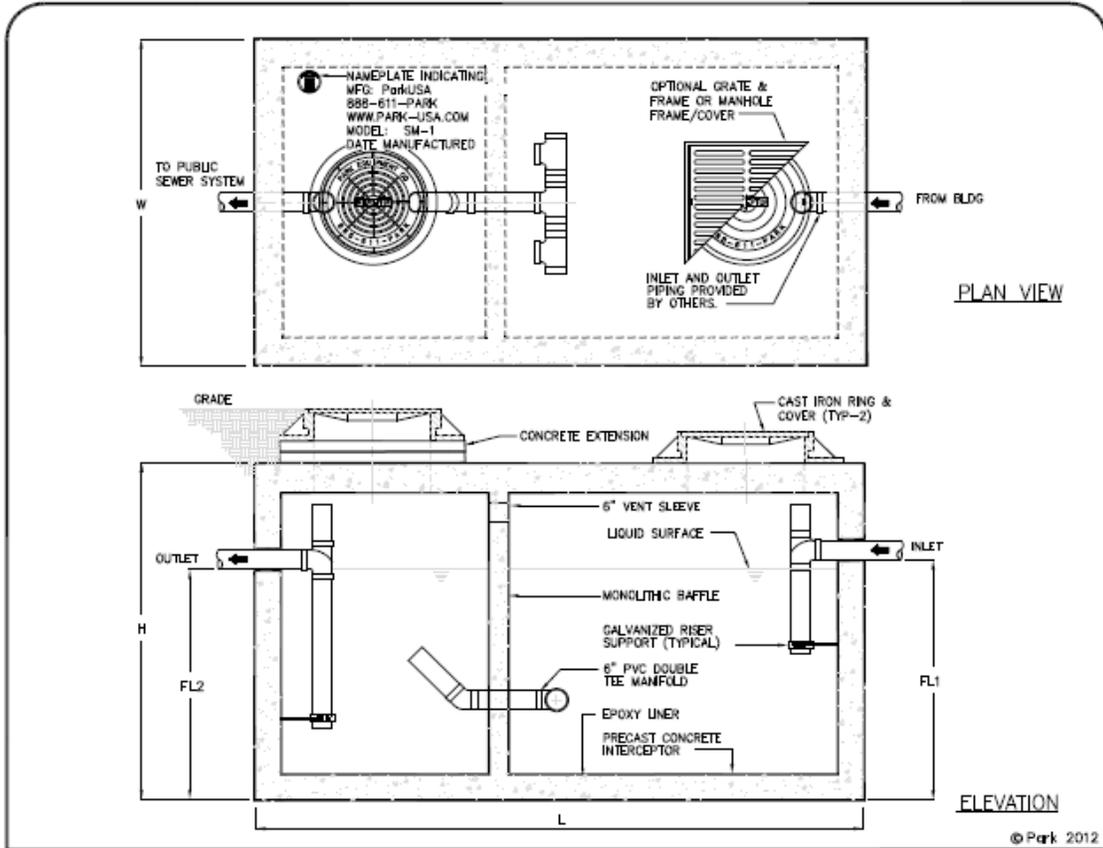
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Checklist for Submitting Permit Plans for Grit/Sand/Oil Interceptors

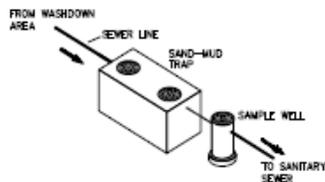
Page Three

If you are....	Information Required on the Plans	Yes	No	NA
Installing a New Sample Well (Continued)				
	Does the sample well have a minimum diameter of 15 inches?			
	Have you made the following note on the plans: "The sample well shall not be installed in a location where it will be obstructed by vehicles, dumpsters, or any other object at any time"?			
	If the sample well is located in an area that may accept vehicle traffic, have you made a note that "the sample well covers meet or exceed AASHTO standard M-306 for load bearing"?			
Installing a New Securing Device				
	Have you made the following note on the plans: "The securing device must consist of a valve box top section, with an eye bolt mounted in concrete"?			
	Have you indicated on the plans that the securing device construction must be equivalent to a Bass & Hays 340-1? (See Appendix D for securing device details)			
	Have you indicated on the plans that the securing device is located within two feet of the sample well?			
	Have you made the following note on the plans: "The securing device shall not be installed in a location where it will be obstructed by vehicles, dumpsters, or any other object at any time"?			
Installing a Sump Pump				
	If the sump pump is located on the grease waste line, is the sump pump located downstream of the grease interceptor?			
<p align="center"><i>*This checklist is to be used a general guide to help ensure the completeness of your plan submittal and is not inclusive of all information that may be required to receive approval for your permit from Water Resource Services.*</i></p>				

Appendix A: Typical Sand/Mud Interceptor—Top and Side View Cutaway Details



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Typical applications include commercial and industrial laundry facilities where excessive sand & mud may interfere with the proper drainage of the sewer system. The sand-mud interceptor is generally buried below grade for gravity flow sewer systems. A sample well is utilized on the outlet side for sampling by the local water authority.

Specifications

- CONCRETE :** Class II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor, first stage of wall and baffle with sectional riser to required depth. (Monolithic baffle required, slide-in type is not acceptable)
- REINFORCEMENT:** Grade 60 reinforcing with steel rebar conforming to ASTM A615 on required centers or equal.
- C.I. CASTINGS:** Manhole frames, covers or grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30. Manhole shall be nominal 24 inch diameter and be traffic duty.

SAND-MUD INTERCEPTOR SCHEDULE

MODEL NO.	CAPACITY USGd	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
SM-500	500	9,500	7'-10"	4'-4"	4'-6"	3'-3"	3'-0"
SM-750	750	9,900	7'-10"	4'-4"	6'-0"	4'-5"	4'-2"
SM-1000	1,000	13,350	8'-8"	5'-0"	6'-0"	4'-9"	4'-6"
SM-1250	1,250	14,850	9'-2"	5'-8"	6'-0"	4'-9"	4'-6"
SM-1500	1,500	16,050	9'-2"	5'-8"	7'-0"	5'-9"	5'-6"
SM-2000	2,000	21,250	9'-0"	6'-0"	8'-0"	6'-9"	6'-6"
SM-2500	2,500	27,050	13'-0"	7'-0"	7'-0"	5'-9"	5'-6"
SM-3000	3,000	33,150	13'-0"	7'-0"	8'-0"	6'-9"	6'-6"
SM-3500	3,500	38,550	13'-0"	7'-0"	8'-6"	7'-3"	7'-0"
SM-4000	4,000	38,100	16'-0"	8'-8"	7'-0"	5'-9"	5'-6"

OTHER SIZES ARE AVAILABLE. CONTACT US FOR MORE INFORMATION

Engineering Data

The sand & mud interceptor is structurally & hydraulically engineered to conform to regional plumbing codes recommended in most cities. Consult with local authorities for specific application requirements.

Shop drawings shall include complete structural & buoyancy calculations certified by a licensed professional engineer.

Consult with Park Environmental for exact excavation dimensions & shipping information.



SAND-MUD INTERCEPTOR MODEL SM - 500 THRU 4000 GALLONS

SCALE	NONE	DWG. NO.	SM-1	REV.	A
DATE	2012				

Appendix C: Interceptor Manhole Cover Detail Examples

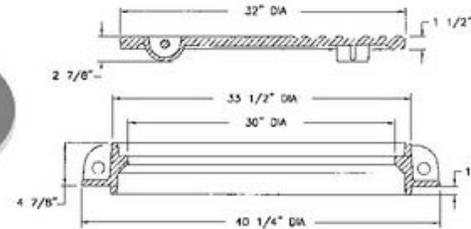
East Jordan Ironworks V-1432 Details:

V-1432 FRAME & COVER



Heavy duty
Machined bearing surfaces

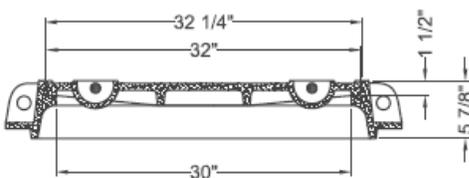
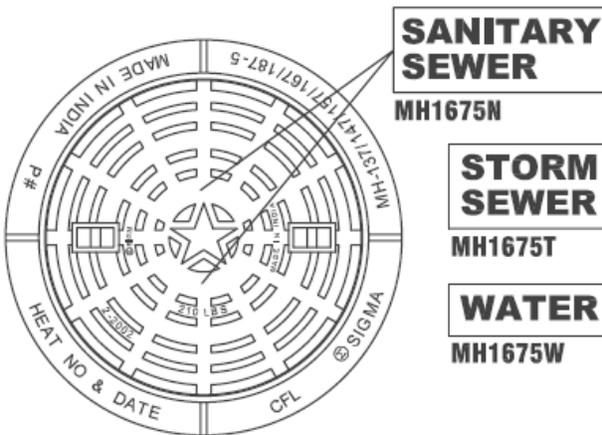
- Options:
 Custom logo covers
 Special lettered covers
 Watertite assembly
 Adjusting risers
 Grates
 Pick slots



V-3419
Approx. 346 sq. in open area

Sigma Foundry MH1675 Details:

MH1675



Weight: 430 lbs.

Certainteed PAMREX 32" Details:



PAMREX 32"

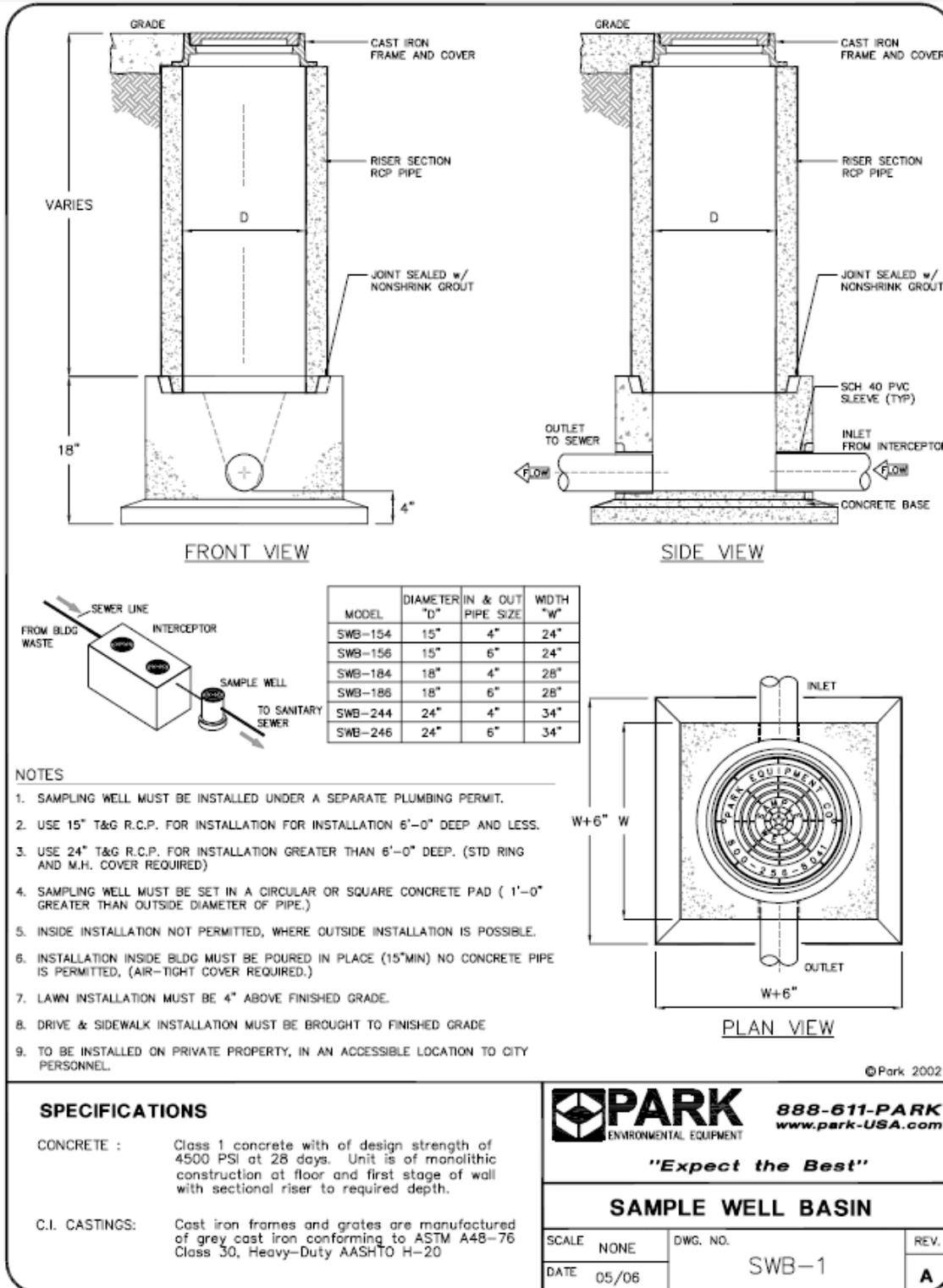
provides easy opening, while continuing to offer the high performance levels of the successful PAMREX 24" and 28" clear opening designs. The 32" clear opening enables maintenance personnel to enter the manhole with their safety equipment, or to lower bulky equipment into the below-ground network.

- Gas-arm for assisted opening and closing can be installed in plant only. Please consult your sales representative.

- Opens to 130°, blocks at 90° when closing
- Elastomer gasket
- H₂O load rated
- Infiltration plug
- Double hinge
- Lifting loops integral to frame
- Locking devices

BADGINGS	REFERENCES	DIMENSIONS (IN)			MASS (LBS)	
		A	O	H	COVER	TOTAL
Standard (none)	CDPA80EH					
Sewer	CDPA80EHSEW	39-1/2	31-1/2	5	162	269
Sanitary sewer	CDPA80EHSSE					
Drain	CDPA80EHDRA					

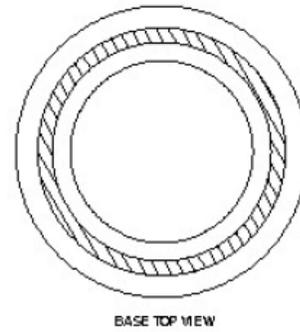
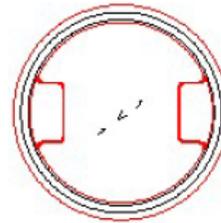
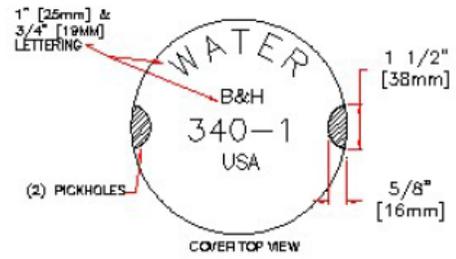
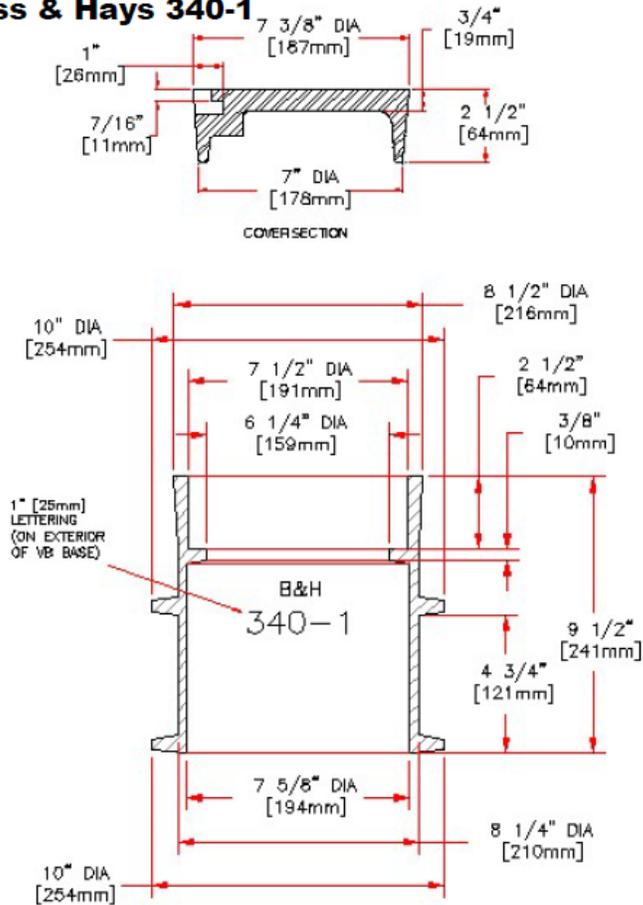
Appendix C: Example of Sample Well Details



Appendix D: Example of Securing Device Top Cover Details

SECURING DEVICE

Bass & Hays 340-1



<p>B&H 340-1 BASE: 29 LBS 13kg COVER: 12 LBS 5kg SET 41 LBS 18kg</p>
