

Cost-effective baskets

for Thune SP45 and SP70 screw presses



The challenge: high-quality, low-cost baskets to improve dewatering and save energy

The baskets inside a screw press are designed to be replaceable wear parts. The life of the basket is mostly dependent upon the pressure zone in the screw press. Depending upon the position inside the press and the process conditions, the baskets can last from months to years. Most Thune SP45 and SP70 screw presses

are equipped with tailor-made baskets with a special design and are costly.

To reduce costs, plants often operate these presses for as long as possible with worn baskets – consuming more energy, losing dewatering capacity and efficiency, and requiring more chemical input.

Now there is an alternative. ANDRITZ has developed a standardized basket design for Thune presses. These baskets are a direct replacement for a conventional basket, requiring no modifications to the press itself.



What is a standardized screw press basket?

We carried out a detailed analysis of the screw presses and basket designs available on the market. Our conclusions?

1. Dewatering hole geometries from 1.2mm to 1.5mm provides basically the same dewatering efficiency and filtrate load.
2. The condition of the basket has a major impact on product quality and production efficiency
3. Small details in the basket design, while having virtually no impact on production performance, can have a big impact on manufacturing cost

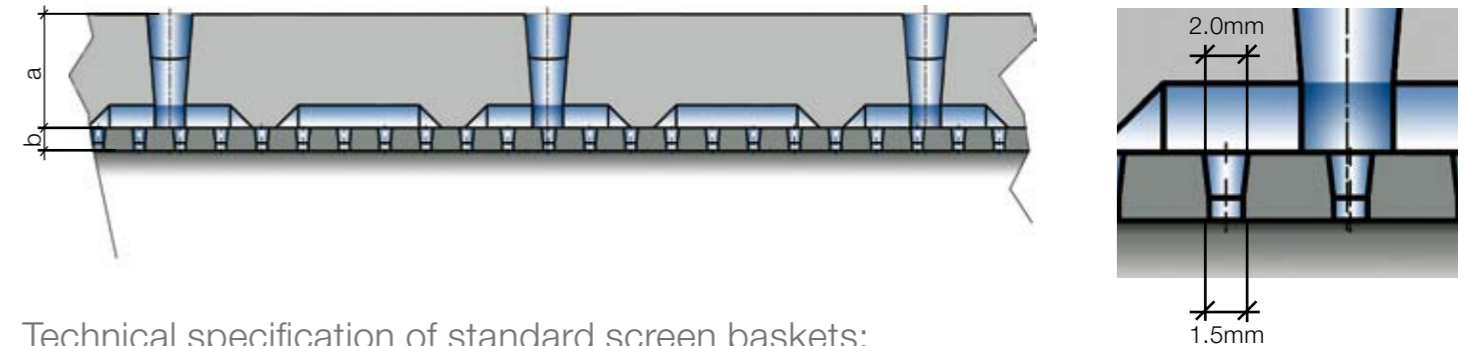
and maintenance requirements. Using these findings, we have designed a basket that meets quality and production requirements, yet has no frills to complicate manufacturing. For example, our basket shell has the spacer bars built in so that you can use plain screen plates as replacement liners. This standard basket design can be used in any screw press. We also developed a streamlined, standardized manufacturing method that allows us to supply high-quality baskets at a very attractive price!

Benefits:

- **Attractive low price**
- **Baskets can be replaced directly without modifications to the press**
- **All baskets delivered in split design**
- **Reduced stock-keeping costs because of uniform spare and wear parts.**
- **Standardized, precision manufacturing**
- **Excellent production and quality results**
- **Short delivery times**

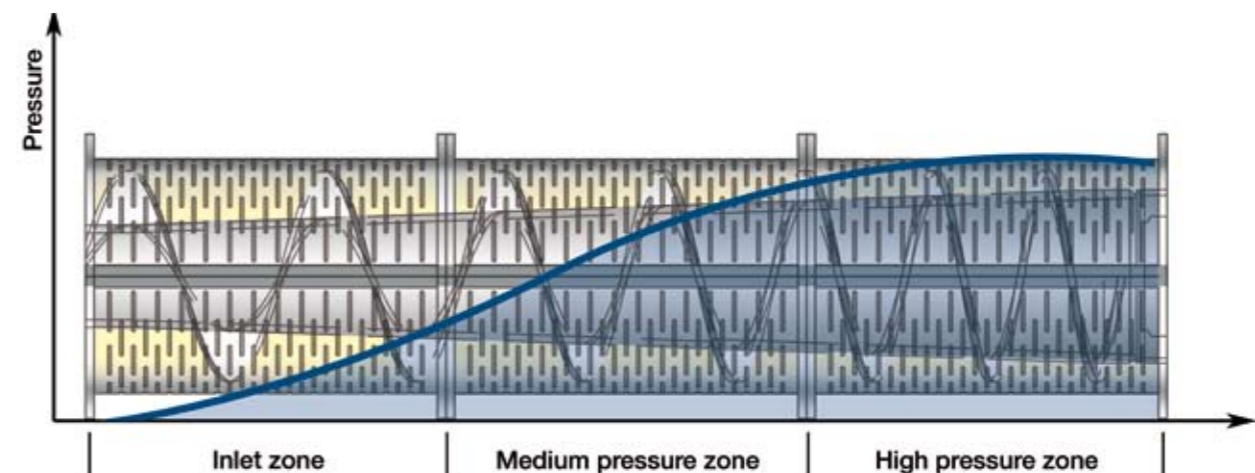
The solution:

standardized ANDRITZ baskets that are precision manufactured



Technical specification of standard screen baskets:

	Standard basket	Replaceable basket	Comments
Hole diameter:	1.5mm	1.2mm 1.4mm 1.5mm	Small holes increase manufacturing cost, but have very little impact on dewatering capacity.
Effective open area:	20%	17% - 27 %	Large open area increases dewatering capacity, but also requires small holes – which can easily plug (increasing energy consumption and reducing pulp consistency).
Support basket thickness (a) <i>high pressure zone</i>	15mm	15mm	Rigid design
Plate thickness (a) <i>medium & low pressure zone</i>	10mm	8mm	Rigid design
Screen plate thickness (b):	3mm	3 - 4mm	
Screen plate design:	half-shell	half-shell, quarter-shell	Half-shell is easier to maintain, improves material handling, and has additionally a larger effective open area.
Low and medium pressure basket design (SP 45 70):	split	solid solid	Split design for SP70 reduces maintenance effort.
High pressure basket design (SP 45 70)	split split / solid		Split design reduces maintenance effort.
Material	stainless steel		Standard for all process parts.



Engineered service for screw presses

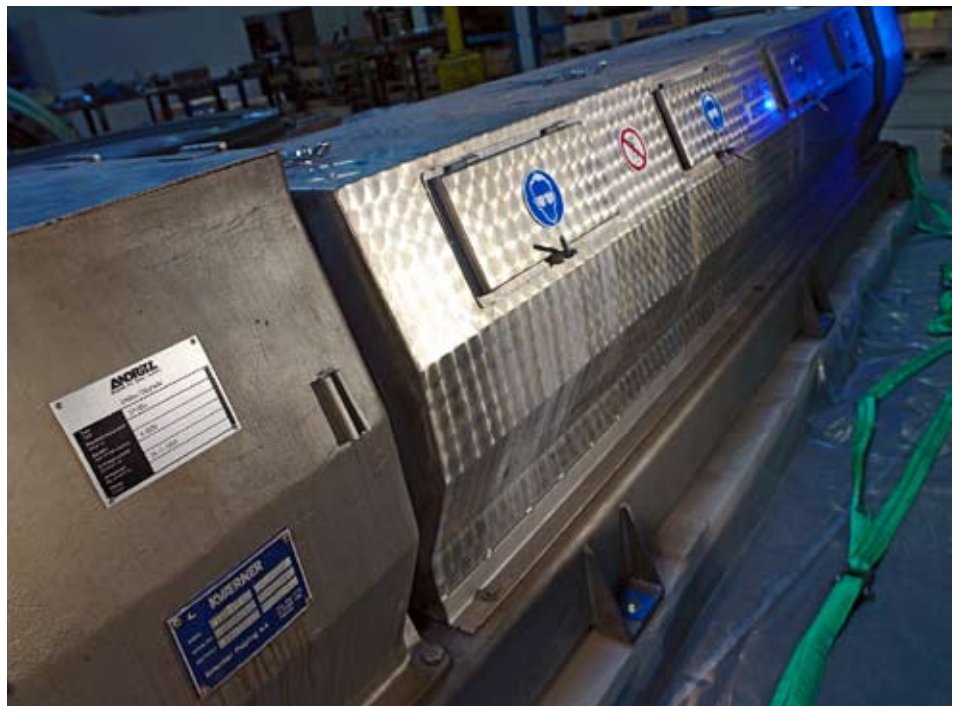
ANDRITZ is a full-line supplier to the pulp and paper industry. We apply this full range expertise to every project – even if we are assisting you with a simple retrofit or complete machine upgrades. This ensures you that everything will work together as promised and in the most efficient way.

ANDRITZ back-pressure unit with its solid ring design and pneumatic load system provides highest discharge dryness and trouble-free operation

ANDRITZ shaft coating solution extends the length of the service interval and ensures consistent production.

ANDRITZ wear shoes are optimized for the three pressure zones in the screw press. A special patented alloy for the high-pressure zone reduces wear and resists deformation. Less wear and reduced maintenance can be expected.

The ANDRITZ spare and wear parts program includes all parts for Thune SP45 and SP70 screw presses, such as screw shaft, shaft screen, inlet housing, bearing housing, etc.



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